D-4 Fourth Quarter 2004 Laboratory Analytical Data

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 5, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: Quarterly Groundwater PO# 002337
Work Order: 127207
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 10, 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Purchase Order: 002337
Enclosures

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

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GENERAL NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 127207

January 5, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 10, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001
127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
127207011	MW100S-0404-001
127207012	MW100D-0404-001
127207013	MW508D-0404-001

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:
Eight groundwater samples were analyzed for MIX.
One groundwater sample was analyzed for ALL.
Three groundwater samples were analyzed for STND.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Laboratory Certifications, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2004-00283

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127207

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
001	EOF2-0404-001	12-6-04	14:31	WG	G		X						2 x 4L HNO3, 1 x 1L	
010	CMS-0404-001	12-7-04	14:30	WG	G				X				3 x 4L HNO3, 1 x 1L	
5				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18.0 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-8-04 1200	2) Received By [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00284

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 12707%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
002	MW110D-0404-001	12-8-04	15:35	WG	G		X						2 x 4L HNO3	
003	MW1-0404-001	12-8-04	11:30	WG	G		X						2 x 4L HNO3, 1 x 1L	
004	MW117S-0404-001	12-8-04	09:15	WG	G		X						2 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18.0 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-9-04 1100	2) Received By [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

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

No. 2004-00285

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127207 %

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
205 MW2-0404-001	12-7-04	11:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
206 MW3-0404-001	12-7-04	15:45	WG	G		X						2 x 4L HNO3	
207 MW4-0404-001	12-7-04	09:50	WG	G		X						2 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 8.0 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature]	Date/Time 12-9-04 1100	2) Received By [signature]	Date/Time 12-10-04 950
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

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

No. 2004-00286

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127207%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
008	MW3-0404-001	12-7-04	15:45	WG	G		X						1 x 1 L	
011	MW100S-0404-001	12-8-04	10:51	WG	G			X					1 x 4L HNO3	
012	MW100D-0404-001	12-8-04	09:06	WG	G			X					1 x 4L HNO3	
013	MW508D-0404-001	12-8-04	14:11	WG	G			X					1 x 4L HNO3	
009	SWB-0404-001	12-8-04	10:30	WG	G		X						2 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 180 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-9-04 1100	2) Received By [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12·10·04 / 950

SDG#: MSR # 04- 3933

Work Order Number: ~~A cay~~ 127207 1.

Shipping Container ID: 7927 9548 9461; 7921 5519 2621; 7921 5519 2610; 7921 5519 2600 Chain of Custody # 2004-00285; 2004-00284; 2004-00286; 2004-00283

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 18.0° for each cooler
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 30 samples were shipped
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

✓ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: A Miles Date: 12·10·04 950

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

	PM use only
Client: Connecticut Yankee	SDG/ARCOC/Work Order:
Date Received: 12·10·04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: DM	12/10/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	30cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: _____ Initials 12/10/04 Date

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
SDG MSR#04-3933

Method/Analysis Information

Analytical Batch:	388079
Prep Batch:	388078
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001
127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
127207011	MW100S-0404-001
127207012	MW100D-0404-001
127207013	MW508D-0404-001
120075684	Method Blank (MB)
1200756885	Laboratory Control Sample (LCS)
1200756888	(EOF2-0404-001L) Serial Dilution (SDILT)
1200756887	(EOF2-0404-001S) Matrix Spike (MS)
1200756886	(EOF2-0404-001D) Duplicate (DUP)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the QC sample for this batch: EOF2-0404-001L (127207001).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Allison M. [illegible] **Date:** 11/6/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: EOF2-0404-001
Sample ID: 127207001
Matrix: Ground Water
Collect Date: 06-DEC-04 14:31
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		85.6	0.540	16.0	ug/L	1	BAJ	01/03/05	1117	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. C. 1/6/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Client Sample ID: MW110D-0404-001
Sample ID: 127207002
Matrix: Ground Water
Collect Date: 08-DEC-04 15:35
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		102	0.540	16.0	ug/L	1	BAJ	01/03/05	1133	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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Allison M. 1/6/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Client Sample ID: MW1-0404-001
Sample ID: 127207003
Matrix: Ground Water
Collect Date: 08-DEC-04 11:30
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	8.85	0.540	16.0	ug/L	1	BAJ	01/03/05	1135	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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Allison M. C. 1/6/05
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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: MW117S-0404-001
Sample ID: 127207004
Matrix: Ground Water
Collect Date: 08-DEC-04 09:15
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		78.7	0.540	16.0	ug/L	1	BAJ	01/03/05	1138	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Allison M. C 1/6/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Client Sample ID: MW2-0404-001
Sample ID: 127207005
Matrix: Ground Water
Collect Date: 07-DEC-04 11:55
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		19.5	0.540	16.0	ug/L	1	BAJ	01/03/05	1141	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: MW3-0404-001
Sample ID: 127207006
Matrix: Ground Water
Collect Date: 07-DEC-04 15:45
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	6.90	0.540	16.0	ug/L	1	BAJ	01/03/05	1144	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 6, 2005

Client Sample ID: MW4-0404-001
Sample ID: 127207007
Matrix: Ground Water
Collect Date: 07-DEC-04 09:50
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	14.0	0.540	16.0	ug/L	1	BAJ	01/03/05	1146	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Allison M. C. 1/6/05
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: MW3-0404-001
Sample ID: 127207008
Matrix: Ground Water
Collect Date: 07-DEC-04 15:45
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Metals Analysis-ICP-MS										
3005/6020 Boron-ALL,STND,MIX										
Boron	J	6.36	0.540	16.0	ug/L	1	BAJ 01/03/05	1154	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Allison M. S. 1/6/05
Reviewed by

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Client Sample ID: SWB-0404-001
Sample ID: 127207009
Matrix: Ground Water
Collect Date: 08-DEC-04 10:30
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		20.3	0.540	16.0	ug/L	1	BAJ	01/03/05	1156	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Reviewed by

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: CMS-0404-001
Sample ID: 127207010
Matrix: Ground Water
Collect Date: 07-DEC-04 14:30
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		111	0.540	16.0	ug/L	1	BAJ	01/03/05	1159	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: MW100S-0404-001
Sample ID: 127207011
Matrix: Ground Water
Collect Date: 08-DEC-04 10:51
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		143	0.540	16.0	ug/L	1	BAJ	01/03/05	1202	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPLI	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Page 1 of 1

Client Sample ID: MW100D-0404-001
Sample ID: 127207012
Matrix: Ground Water
Collect Date: 08-DEC-04 09:06
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	13.7	0.540	16.0	ug/L	1	BAJ	01/03/05	1204	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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Allison McC 1/6/05
Reviewed by

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 6, 2005

Client Sample ID: MW508D-0404-001
Sample ID: 127207013
Matrix: Ground Water
Collect Date: 08-DEC-04 14:11
Receive Date: 10-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		58.9	0.540	16.0	ug/L	1	BAJ	01/03/05	1207	388079	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Allison Mc 1/6/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 6, 2005
Page 1 of 1

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 388079										
QC1200756886 127207001 DUP										
Boron		85.6		88.6	ug/L	3		(0%-20%)	BAJ	01/03/05 11:20
QC1200756885 LCS										
Boron	100			110	ug/L		110	(80%-120%)		01/03/05 11:14
QC1200756884 MB										
Boron			J	12.6	ug/L					01/03/05 11:12
QC1200756887 127207001 MS										
Boron	100	85.6		187	ug/L		101	(75%-125%)		01/03/05 11:22
QC1200756888 127207001 SDILT										
Boron		85.6		23.3	ug/L	36.1				01/03/05 11:25

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	388013

Sample ID	**Client ID**
127207010	CMS-0404-001
1200756734	Method Blank (MB)
1200756735	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200756736	127207010(CMS-0404-001) Matrix Spike (MS)
1200756737	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# 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: 127207010 (CMS-0404-001).

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 1200756736 (CMS-0404-001) was 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. An 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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	388014

Sample ID	Client ID
127207010	CMS-0404-001
1200756738	Method Blank (MB)
1200756739	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200756740	127207010(CMS-0404-001) Matrix Spike (MS)
1200756741	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# 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: 127207010 (CMS-0404-001).

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. An 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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	388015

Sample ID	Client ID
127207010	CMS-0404-001
1200756742	Method Blank (MB)
1200756743	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200756744	127207010(CMS-0404-001) Matrix Spike (MS)
1200756745	Laboratory Control Sample (LCS)
1200756746	KNOWN

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# 5.

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: 127207010 (CMS-0404-001).

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. An 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:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	387628

Sample ID	Client ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001
127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
127207011	MW100S-0404-001
127207012	MW100D-0404-001
127207013	MW508D-0404-001
1200755744	Method Blank (MB)
1200755745	127207001(EOF2-0404-001) Sample Duplicate (DUP)
1200755746	127207001(EOF2-0404-001) Matrix Spike (MS)
1200755747	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# 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: 127207001 (EOF2-0404-001).

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

Technical Information:

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

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

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

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR ID 166701: Non-Rad samples analyzed with Rad Samples. No cross contamination occurred. 127165001 is a "Non Rad" sample.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Americium-241	127207008

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	388828

Sample ID	Client ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001

127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
127207011	MW100S-0404-001
127207012	MW100D-0404-001
127207013	MW508D-0404-001
1200758650	Method Blank (MB)
1200758651	127207003(MW1-0404-001) Sample Duplicate (DUP)
1200758652	127207003(MW1-0404-001) Matrix Spike (MS)
1200758653	127207003(MW1-0404-001) Matrix Spike Duplicate (MSD)
1200758654	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-001 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: 127207003 (MW1-0404-001).

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.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	392266

Sample ID	Client ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001
127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
1200766927	Method Blank (MB)
1200766928	127207006(MW3-0404-001) Sample Duplicate (DUP)
1200766929	127207006(MW3-0404-001) Matrix Spike (MS)
1200766930	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# 9.

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: 127207006 (MW3-0404-001).

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.

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

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 171666 was generated due to RDL less than MDA. 1. Sample 127207008 did not meet the client detection limit due to limited sample volume. The batch was reprepped and all remaining sample was used for the reprep. Sample was counted for 500 minutes. 1. Reporting results.

Additional Comments
Sample 127207010 (CMS-0404-001) was verified by recounting the first prep at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	389457

Sample ID	Client ID
127207010	CMS-0404-001
1200760131	Method Blank (MB)
1200760132	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760133	127207010(CMS-0404-001) Matrix Spike (MS)
1200760134	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# 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: 127207010 (CMS-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	389765

Sample ID	Client ID
127207010	CMS-0404-001
1200760892	Method Blank (MB)
1200760893	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760894	127207010(CMS-0404-001) Matrix Spike (MS)
1200760895	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# 2.

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: 127207010 (CMS-0404-001).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	389766

Sample ID	**Client ID**
127207010	CMS-0404-001

1200760896	Method Blank (MB)
1200760897	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760898	127207010(CMS-0404-001) Matrix Spike (MS)
1200760899	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# 6.

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: 127207010 (CMS-0404-001).

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 1200760896 (MB) and 1200760897 (CMS-0404-001) were recounted due to a negative result greater than three times the error.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information
Product: **LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**

Analytical Method: EPA 906.0 Modified
Analytical Batch Number: 388140

Sample ID	Client ID
127207001	EOF2-0404-001
127207002	MW110D-0404-001
127207003	MW1-0404-001
127207004	MW117S-0404-001
127207005	MW2-0404-001
127207006	MW3-0404-001
127207007	MW4-0404-001
127207008	MW3-0404-001
127207009	SWB-0404-001
127207010	CMS-0404-001
127207011	MW100S-0404-001
127207012	MW100D-0404-001
127207013	MW508D-0404-001
1200756993	Method Blank (MB)
1200756994	127207003(MW1-0404-001) Sample Duplicate (DUP)
1200756995	127207003(MW1-0404-001) Matrix Spike (MS)
1200756996	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# 9.

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: 127207003 (MW1-0404-001).

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 1200756996 (LCS) was 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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	389461

Sample ID	Client ID
127207010	CMS-0404-001
1200760151	Method Blank (MB)
1200760152	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760153	127207010(CMS-0404-001) Matrix Spike (MS)
1200760154	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# 7.

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: 127207010 (CMS-0404-001).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather G Chicow 11/7/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 166701
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
16-DEC-04	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GAMMA SPECTROMETER	EPA 901.1	Liquid	YANK
Batch ID:	**Sample Numbers:**		
387628	See Below		

Potentially affected work order(s)(SDG): 127165(MSR#04-2870),127207(MSR#04-3933)

Application Issues:

Non-Rad samples analyzed with Rad Samples

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Non-Rad samples analyzed with Rad Samples. No cross contamination occured.: 127165 001 Above samples are "Non RAD"	Reporting results.

Originator's Name:
Sarah Konersmann 16-DEC-04

Data Validator/Group Leader:
Scott Baskett 17-DEC-04

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 171666
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
07-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
392266	See Below		

Potentially affected work order(s)(SDG): 127207(MSR#04-3933)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample 127207008 did not meet the client detection limit due to limited sample volume. The batch was reprepped and all remaining sample was used for the reprep. Sample was counted for 500 minutes.	1. Reporting results.

Originator's Name:
Melanie Aycock 07-JAN-05

Data Validator/Group Leader:
Heather Anderson 07-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 127207

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	EOF2-0404-001	Project:	YANK01704
Sample ID:	127207001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	06-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	14.5	+/-22.5	17.0	+/-22.0	35.9	pCi/L		AKB	12/14/04	1745	387628	1
Cesium-134	U	1.41	+/-2.93	2.57	+/-2.87	5.82	pCi/L						
Cesium-137	U	-2.14	+/-3.61	2.28	+/-3.54	5.15	pCi/L						
Cobalt-60	U	0.251	+/-2.65	2.23	+/-2.60	5.35	pCi/L						
Europium-152	U	0.407	+/-9.28	7.41	+/-9.09	16.0	pCi/L						
Europium-154	U	-4.56	+/-8.27	6.00	+/-8.11	14.4	pCi/L						
Europium-155	U	7.81	+/-11.5	10.1	+/-11.3	21.3	pCi/L						
Manganese-54	U	-2.67	+/-2.49	1.54	+/-2.44	3.69	pCi/L						
Niobium-94	U	-1.21	+/-2.48	1.86	+/-2.43	4.24	pCi/L						
Silver-108m	U	0.138	+/-2.64	2.24	+/-2.59	4.92	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.225	+/-0.685	0.657	+/-0.687	1.34	pCi/L		JMB1	01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.44	+/-0.851	0.518	+/-0.871	1.15	pCi/L		DRS1	12/28/04	0558	388828	4
Beta		5.92	+/-1.10	0.765	+/-1.12	1.57	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-7.6	+/-204	172	+/-204	344	pCi/L		ATH1	12/27/04	0741	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: EOF2-0404-001
Sample ID: 127207001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	93	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW110D-0404-001	Project:	YANK01704
Sample ID:	127207002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	7.69	+/-18.8	16.1	+/-18.4	34.0	pCi/L		AKB 12/14/04	1746	387628	1
Cesium-134	U	0.948	+/-2.78	2.43	+/-2.72	5.51	pCi/L					
Cesium-137	U	0.277	+/-2.58	2.20	+/-2.53	4.97	pCi/L					
Cobalt-60	U	0.702	+/-2.99	2.60	+/-2.93	6.02	pCi/L					
Europium-152	U	-5.34	+/-8.39	6.46	+/-8.22	14.1	pCi/L					
Europium-154	U	2.53	+/-7.90	7.00	+/-7.74	16.2	pCi/L					
Europium-155	U	5.80	+/-11.0	9.28	+/-10.7	19.6	pCi/L					
Manganese-54	U	-1.49	+/-2.31	1.66	+/-2.27	3.91	pCi/L					
Niobium-94	U	-2.35	+/-2.34	1.63	+/-2.30	3.77	pCi/L					
Silver-108m	U	1.35	+/-2.74	2.37	+/-2.69	5.19	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.103	+/-0.571	0.558	+/-0.572	1.15	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		3.46	+/-0.797	0.363	+/-0.846	0.802	pCi/L		DRS1 12/28/04	0558	388828	4
Beta		6.34	+/-1.00	0.663	+/-1.02	1.37	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3900	+/-421	180	+/-425	360	pCi/L		ATH1 12/27/04	0814	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW110D-0404-001
Sample ID: 127207002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	92	

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW1-0404-001	Project:	YANK01704
Sample ID:	127207003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	7.14	+/-18.8	14.3	+/-18.4	30.1	pCi/L		AKB 12/14/04	1746	387628	1
Cesium-134	U	-0.498	+/-3.24	2.53	+/-3.18	5.66	pCi/L					
Cesium-137	U	2.80	+/-2.73	2.53	+/-2.68	5.57	pCi/L					
Cobalt-60	U	-0.239	+/-2.61	2.09	+/-2.55	4.97	pCi/L					
Europium-152	U	-12	+/-8.07	5.74	+/-7.91	12.5	pCi/L					
Europium-154	U	1.69	+/-8.17	6.98	+/-8.01	16.1	pCi/L					
Europium-155	U	-8.14	+/-11.0	8.43	+/-10.7	17.8	pCi/L					
Manganese-54	U	-0.491	+/-2.40	1.95	+/-2.35	4.45	pCi/L					
Niobium-94	U	0.0457	+/-2.38	1.92	+/-2.33	4.31	pCi/L					
Silver-108m	U	1.47	+/-2.72	2.38	+/-2.67	5.15	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.0776	+/-0.652	0.629	+/-0.652	1.29	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.15	+/-0.584	0.612	+/-0.584	1.42	pCi/L		DRS1 12/28/04	1129	388828	4
Beta	U	0.917	+/-1.14	1.09	+/-1.14	2.29	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-61.1	+/-211	181	+/-211	363	pCi/L		ATH1 12/27/04	0846	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW1-0404-001
Sample ID: 127207003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

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

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- ** Indicates the analyte is a surrogate compound.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW117S-0404-001	Project:	YANK01704
Sample ID:	127207004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.22	+/-3.08	4.21	+/-3.02	8.91	pCi/L		AKB 12/14/04	1746	387628	1
Cesium-134	U	0.857	+/-3.00	2.64	+/-2.94	5.97	pCi/L					
Cesium-137	U	-0.496	+/-3.41	2.40	+/-3.34	5.39	pCi/L					
Cobalt-60	U	0.683	+/-2.61	2.29	+/-2.55	5.46	pCi/L					
Europium-152	U	2.10	+/-7.21	6.17	+/-7.07	13.4	pCi/L					
Europium-154	U	10.6	+/-10.5	9.32	+/-10.3	21.0	pCi/L					
Europium-155	U	1.54	+/-8.04	6.75	+/-7.88	14.3	pCi/L					
Manganese-54	U	0.0705	+/-2.85	2.35	+/-2.79	5.31	pCi/L					
Niobium-94	U	2.11	+/-1.87	2.06	+/-1.83	4.63	pCi/L					
Silver-108m	U	-0.522	+/-2.80	2.24	+/-2.75	4.90	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.798	+/-0.811	0.756	+/-0.863	1.55	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.407	+/-0.805	0.719	+/-0.805	1.65	pCi/L		DRS1 12/28/04	1129	388828	4
Beta		4.91	+/-1.46	1.18	+/-1.47	2.46	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	36.7	+/-216	179	+/-216	359	pCi/L		ATH1 12/27/04	0919	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW117S-0404-001
Sample ID: 127207004

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	62	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW2-0404-001	Project:	YANK01704
Sample ID:	127207005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	3.83	+/-6.40	5.41	+/-6.27	11.4	pCi/L		AKB 12/14/04	1747	387628	1
Cesium-134	U	0.838	+/-2.85	2.52	+/-2.80	5.86	pCi/L					
Cesium-137	U	0.216	+/-4.13	3.50	+/-4.04	7.71	pCi/L					
Cobalt-60	U	2.88	+/-3.54	3.45	+/-3.47	7.99	pCi/L					
Europium-152	U	3.92	+/-9.87	8.43	+/-9.67	18.1	pCi/L					
Europium-154	U	-3.57	+/-11.0	8.13	+/-10.8	19.2	pCi/L					
Europium-155	U	0.685	+/-9.55	7.63	+/-9.36	16.1	pCi/L					
Manganese-54	U	-0.413	+/-3.62	2.95	+/-3.55	6.65	pCi/L					
Niobium-94	U	1.01	+/-3.20	2.80	+/-3.13	6.23	pCi/L					
Silver-108m	U	-0.711	+/-3.29	2.60	+/-3.23	5.70	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.186	+/-0.448	0.442	+/-0.450	0.910	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.622	+/-0.868	0.972	+/-0.869	2.14	pCi/L		DRS1 12/28/04	1129	388828	4
Beta		7.61	+/-1.62	1.23	+/-1.65	2.57	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	70.5	+/-218	179	+/-218	357	pCi/L		ATH1 12/27/04	0951	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW2-0404-001
Sample ID: 127207005

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	99	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW3-0404-001	Project:	YANK01704
Sample ID:	127207006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	15.7	+/-26.3	20.3	+/-25.8	43.2	pCi/L		AKB 12/14/04	1747	387628	1
Cesium-134	U	-1.58	+/-2.77	1.98	+/-2.71	4.68	pCi/L					
Cesium-137	U	-1.97	+/-2.99	1.80	+/-2.93	4.21	pCi/L					
Cobalt-60	U	0.754	+/-2.91	2.55	+/-2.86	6.04	pCi/L					
Europium-152	U	-8.2	+/-9.79	7.13	+/-9.60	15.5	pCi/L					
Europium-154	U	-5.03	+/-8.26	5.87	+/-8.10	14.3	pCi/L					
Europium-155	U	-4.58	+/-11.9	9.88	+/-11.6	20.9	pCi/L					
Manganese-54	U	1.96	+/-3.01	2.69	+/-2.95	6.02	pCi/L					
Niobium-94	U	-2.44	+/-2.73	1.92	+/-2.67	4.39	pCi/L					
Silver-108m	U	-0.00153	+/-2.62	2.23	+/-2.57	4.93	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.221	+/-0.511	0.486	+/-0.514	1.00	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.187	+/-0.695	0.723	+/-0.695	1.62	pCi/L		DRS1 12/28/04	1538	388828	4
Beta	U	0.057	+/-1.17	1.17	+/-1.17	2.45	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-59	+/-204	175	+/-204	351	pCi/L		ATH1 12/27/04	1024	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW3-0404-001
Sample ID: 127207006

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW4-0404-001	Project:	YANK01704
Sample ID:	127207007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-4.37	+/-30.5	21.9	+/-29.9	46.3	pCi/L		AKB 12/15/04	0939	387628	1
Cesium-134	U	-0.101	+/-2.82	2.23	+/-2.76	5.25	pCi/L					
Cesium-137	U	2.66	+/-3.31	2.77	+/-3.24	6.22	pCi/L					
Cobalt-60	U	6.27	+/-4.32	3.07	+/-4.23	7.16	pCi/L					
Europium-152	U	9.18	+/-10.4	9.28	+/-10.2	19.9	pCi/L					
Europium-154	U	3.51	+/-9.08	8.09	+/-8.89	19.0	pCi/L					
Europium-155	U	8.14	+/-14.8	12.3	+/-14.5	25.9	pCi/L					
Manganese-54	U	-1.52	+/-3.05	2.36	+/-2.99	5.43	pCi/L					
Niobium-94	U	0.992	+/-2.78	2.37	+/-2.72	5.34	pCi/L					
Silver-108m	U	0.973	+/-3.30	2.81	+/-3.24	6.13	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.0134	+/-0.632	0.612	+/-0.632	1.26	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.138	+/-0.578	0.587	+/-0.578	1.35	pCi/L		DRS1 12/28/04	1538	388828	4
Beta	U	1.64	+/-1.21	1.11	+/-1.22	2.33	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-68.7	+/-202	174	+/-202	348	pCi/L		ATH1 12/27/04	1056	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW4-0404-001
Sample ID: 127207007

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	72	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW3-0404-001	Project:	YANK01704
Sample ID:	127207008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U UI	0.00	+/-26.8	12.5	+/-26.3	26.6	pCi/L		AKB 12/15/04	0940	387628	1
Cesium-134	U	1.97	+/-6.57	3.29	+/-6.44	7.24	pCi/L					
Cesium-137	U	1.02	+/-3.66	3.10	+/-3.58	6.76	pCi/L					
Cobalt-60	U	1.34	+/-3.62	3.18	+/-3.55	7.26	pCi/L					
Europium-152	U	-6.06	+/-11.4	7.50	+/-11.2	16.1	pCi/L					
Europium-154	U	0.147	+/-10.0	8.33	+/-9.84	19.1	pCi/L					
Europium-155	U	4.43	+/-10.9	9.40	+/-10.7	19.7	pCi/L					
Manganese-54	U	2.25	+/-3.16	2.82	+/-3.10	6.23	pCi/L					
Niobium-94	U	0.202	+/-3.32	2.73	+/-3.25	5.97	pCi/L					
Silver-108m	U	-0.736	+/-3.15	2.60	+/-3.09	5.62	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.691	+/-1.23	1.22	+/-1.26	2.52	pCi/L		JMB1 01/07/05	0435	392266	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.314	+/-0.364	0.435	+/-0.364	1.01	pCi/L		DRS1 12/28/04	1450	388828	4
Beta	U	0.852	+/-0.855	0.806	+/-0.856	1.69	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	22.8	+/-188	156	+/-188	312	pCi/L		ATH1 12/27/04	1129	388140	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW3-0404-001
Sample ID: 127207008

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	60	

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	SWB-0404-001	Project:	YANK01704
Sample ID:	127207009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Gamma Spec Analysis											
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF											
Americium-241	U	-19.7	+/-28.0	20.8	+/-27.4	44.2	pCi/L		AKB 12/15/04	1607	387628 1
Cesium-134	U	-1.31	+/-3.30	2.50	+/-3.23	5.71	pCi/L				
Cesium-137	U	0.263	+/-2.79	2.34	+/-2.74	5.29	pCi/L				
Cobalt-60	U	1.05	+/-2.98	2.66	+/-2.92	6.25	pCi/L				
Europium-152	U	6.16	+/-9.40	8.07	+/-9.21	17.4	pCi/L				
Europium-154	U	-4.06	+/-10.2	6.40	+/-9.96	15.3	pCi/L				
Europium-155	U	-5.77	+/-12.6	10.4	+/-12.3	22.0	pCi/L				
Manganese-54	U	-0.504	+/-2.69	2.10	+/-2.63	4.84	pCi/L				
Niobium-94	U	0.642	+/-3.10	2.62	+/-3.04	5.77	pCi/L				
Silver-108m	U	-0.916	+/-2.94	2.42	+/-2.89	5.31	pCi/L				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, liquid-ALL,MIX											
Strontium-90	U	-1.01	+/-0.901	0.914	+/-1.02	1.88	pCi/L		JMB1 01/07/05	0435	392266 2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF											
Alpha	U	-0.168	+/-0.543	0.580	+/-0.543	1.33	pCi/L		DRS1 12/28/04	1450	388828 4
Beta	U	0.957	+/-1.13	1.07	+/-1.13	2.25	pCi/L				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN											
Tritium	U	-73.3	+/-193	167	+/-193	334	pCi/L		ATH1 12/27/04	1201	388140 5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 905.0 Modified
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: SWB-0404-001
Sample ID: 127207009

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	52	

Notes:
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- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	CMS-0404-001	Project:	YANK01704
Sample ID:	127207010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Alphaspec Pu, Liquid-ALL											
Plutonium-238	U	-0.0354	+/-0.031	0.0751	+/-0.0312	0.230	pCi/L		SCP 12/21/04	1035	388014 1
Plutonium-239/240	U	0.0236	+/-0.0873	0.0751	+/-0.0874	0.230	pCi/L				
Am241,Cm, Liquid-ALL											
Americium-241	U	0.102	+/-0.126	0.0419	+/-0.127	0.184	pCi/L		SCP 12/21/04	1035	388013 2
Curium-242	U	0.0782	+/-0.108	0.00	+/-0.109	0.106	pCi/L				
Curium-243/244	U	0.0471	+/-0.106	0.0727	+/-0.107	0.245	pCi/L				
Liquid Scint Pu241, Liquid-ALL											
Plutonium-241	U	-1.36	+/-5.58	4.72	+/-5.58	9.73	pCi/L		SCP 12/24/04	0937	388015 3
Rad Gamma Spec Analysis											
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF											
Americium-241	U	-12.3	+/-28.9	20.3	+/-28.4	42.6	pCi/L		AKB 12/15/04	1607	387628 4
Cesium-134	U	-2.7	+/-3.92	2.87	+/-3.84	6.48	pCi/L				
Cesium-137	U	2.01	+/-3.84	3.37	+/-3.76	7.37	pCi/L				
Cobalt-60	U	-0.956	+/-3.99	3.17	+/-3.91	7.31	pCi/L				
Europium-152	U	-12.1	+/-11.2	8.03	+/-10.9	17.3	pCi/L				
Europium-154	U	8.59	+/-9.41	9.13	+/-9.22	20.9	pCi/L				
Europium-155	U	-1.33	+/-13.8	11.8	+/-13.5	24.6	pCi/L				
Manganese-54	U	0.196	+/-3.28	2.70	+/-3.22	6.05	pCi/L				
Niobium-94	U	3.76	+/-4.19	2.53	+/-4.11	5.62	pCi/L				
Silver-108m	U	-0.0625	+/-3.60	2.85	+/-3.53	6.17	pCi/L				
Rad Gas Flow Proportional Counting											
GFPC, Sr90, liquid-ALL,MIX											
Strontium-90		2.43	+/-0.665	0.557	+/-1.01	1.15	pCi/L		JMB1 01/07/05	0435	392266 5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF											
Alpha	U	0.527	+/-0.991	0.924	+/-0.991	2.04	pCi/L		DRS1 12/28/04	1450	388828 7
Beta		8.14	+/-1.62	1.21	+/-1.66	2.52	pCi/L				
Rad Liquid Scintillation Analysis											
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN											
Tritium		3260	+/-385	173	+/-388	347	pCi/L		ATH1 12/27/04	1234	388140 8
Liquid Scint C14, Liquid-ALL											
Carbon-14	U	-0.497	+/-8.20	6.90	+/-8.20	14.2	pCi/L		LAG1 01/03/05	2038	389461 9
Liquid Scint Fe55, Liquid-ALL											
Iron-55	U	16.5	+/-14.9	10.1	+/-14.9	20.5	pCi/L		DAJ1 01/05/05	0848	389765 10
Liquid Scint Ni63, Liquid-ALL											

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: CMS-0404-001
Sample ID: 127207010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-6.04	+/-5.89	5.03	+/-5.90	10.2	pCi/L		DAJ1	12/27/04	2029	389766	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.58	+/-5.25	4.46	+/-5.25	9.10	pCi/L		EGD1	12/26/04	0549	389457	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 905.0 Modified
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	90	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	87	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	101	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	85	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	73	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: CMS-0404-001
Sample ID: 127207010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW100S-0404-001	Project:	YANK01704
Sample ID:	127207011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-6.23	+/-16.6	13.7	+/-16.3	29.2	pCi/L		AKB 12/15/04	1608	387628	1
Cesium-134	U	2.37	+/-3.06	2.78	+/-3.00	6.25	pCi/L					
Cesium-137	U	-0.895	+/-3.16	2.08	+/-3.10	4.75	pCi/L					
Cobalt-60	U	-0.118	+/-2.45	1.96	+/-2.40	4.86	pCi/L					
Europium-152	U	3.98	+/-8.43	7.43	+/-8.26	16.1	pCi/L					
Europium-154	U	-1.95	+/-8.58	6.63	+/-8.41	15.8	pCi/L					
Europium-155	U	7.31	+/-10.5	9.17	+/-10.3	19.4	pCi/L					
Manganese-54	U	-0.48	+/-2.43	1.97	+/-2.38	4.57	pCi/L					
Niobium-94	U	-2.67	+/-3.22	1.83	+/-3.16	4.19	pCi/L					
Silver-108m	U	4.44	+/-4.40	2.42	+/-4.31	5.31	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.354	+/-0.700	0.759	+/-0.700	1.73	pCi/L		DRS1 12/28/04	1450	388828	2
Beta	U	1.37	+/-1.24	1.17	+/-1.24	2.44	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	36.3	+/-214	177	+/-214	354	pCi/L		ATH1 12/27/04	1306	388140	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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

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Certificate of Analysis

Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW100S-0404-001
Sample ID: 127207011

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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B Target analyte was detected in the sample as well as the associated blank.
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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

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Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW100D-0404-001	Project:	YANK01704
Sample ID:	127207012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-0.207	+/-30.1	23.4	+/-29.5	48.6	pCi/L		AKB 12/15/04	1608	387628	1
Cesium-134	U	1.12	+/-3.93	3.30	+/-3.85	7.28	pCi/L					
Cesium-137	U	-4.19	+/-3.70	2.60	+/-3.63	5.79	pCi/L					
Cobalt-60	U	-1.63	+/-3.82	2.92	+/-3.75	6.71	pCi/L					
Europium-152	U	-7.58	+/-12.5	9.44	+/-12.2	20.0	pCi/L					
Europium-154	U	0.484	+/-10.8	8.99	+/-10.6	20.4	pCi/L					
Europium-155	U	4.08	+/-15.4	13.1	+/-15.1	27.3	pCi/L					
Manganese-54	U	-1.36	+/-4.54	3.03	+/-4.45	6.67	pCi/L					
Niobium-94	U	0.459	+/-3.88	2.83	+/-3.81	6.19	pCi/L					
Silver-108m	U	0.501	+/-3.50	2.99	+/-3.43	6.41	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.135	+/-0.542	0.569	+/-0.542	1.32	pCi/L		DRS1 12/28/04	1450	388828	2
Beta		2.70	+/-1.16	0.989	+/-1.16	2.08	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	10.5	+/-215	180	+/-215	360	pCi/L		ATH1 12/27/04	1339	388140	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW100D-0404-001
Sample ID: 127207012

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID:	MW508D-0404-001	Project:	YANK01704
Sample ID:	127207013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-55.4	+/-108	77.4	+/-106	157	pCi/L		AKB	12/15/04	1721	387628	1
Cesium-134	U	-2.15	+/-10.1	7.96	+/-9.91	16.7	pCi/L						
Cesium-137	U	-5.42	+/-10.7	7.24	+/-10.5	15.1	pCi/L						
Cobalt-60	U	8.16	+/-18.0	7.85	+/-17.7	16.7	pCi/L						
Europium-152	U	-25.9	+/-32.5	26.3	+/-31.9	54.0	pCi/L						
Europium-154	U	2.25	+/-25.7	21.3	+/-25.2	45.4	pCi/L						
Europium-155	U	-15.8	+/-47.9	38.3	+/-46.9	77.7	pCi/L						
Manganese-54	U	-3.15	+/-9.96	7.12	+/-9.76	14.9	pCi/L						
Niobium-94	U	7.79	+/-8.95	7.52	+/-8.77	15.6	pCi/L						
Silver-108m	U	-6.59	+/-10.1	8.12	+/-9.93	16.8	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		15.7	+/-1.97	0.492	+/-2.44	1.13	pCi/L		DRS1	12/29/04	1454	388828	2
Beta		21.4	+/-1.87	0.956	+/-2.00	1.99	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-98.4	+/-209	182	+/-209	364	pCi/L		ATH1	12/27/04	1412	388140	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	JPL1	12/27/04	0957	388078

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 7, 2005

Client Sample ID: MW508D-0404-001
Sample ID: 127207013

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 7, 2005

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 388013										
QC1200756735 127207010 DUP										
Americium-241	U	0.102	U	0.0568	pCi/L	57		(0% - 100%)	SCP	12/21/04 10:35
	Uncert:	+/-0.126		+/-0.106						
	TPU:	+/-0.127		+/-0.107						
Curium-242	U	0.0782	U	-0.00953	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.108		+/-0.0187						
	TPU:	+/-0.109		+/-0.0187						
Curium-243/244	U	0.0471	U	0.0284	pCi/L	50		(0% - 100%)		
	Uncert:	+/-0.106		+/-0.0753						
	TPU:	+/-0.107		+/-0.0754						
QC1200756737 LCS										
Americium-241	13.6			15.3	pCi/L		113	(75%-125%)		
	Uncert:			+/-1.46						
	TPU:			+/-2.58						
Curium-242			U	0.0566	pCi/L					
	Uncert:			+/-0.106						
	TPU:			+/-0.106						
Curium-243/244	16.9			19.5	pCi/L		115			
	Uncert:			+/-1.65						
	TPU:			+/-3.17						
QC1200756734 MB										
Americium-241			U	-0.0165	pCi/L					
	Uncert:			+/-0.0229						
	TPU:			+/-0.023						
Curium-242			U	0.00	pCi/L					
	Uncert:			+/-0.0689						
	TPU:			+/-0.0689						
Curium-243/244			U	0.00962	pCi/L					
	Uncert:			+/-0.073						
	TPU:			+/-0.073						
QC1200756736 127207010 MS										
Americium-241	13.6 U	0.102		15.9	pCi/L		116	(75%-125%)		12/23/04 15:16
	Uncert:	+/-0.126		+/-1.25						
	TPU:	+/-0.127		+/-2.40						
Curium-242	U	0.0782	U	-0.0142	pCi/L					
	Uncert:	+/-0.108		+/-0.0958						
	TPU:	+/-0.109		+/-0.0959						
Curium-243/244	17.0 U	0.0471		17.9	pCi/L		105			
	Uncert:	+/-0.106		+/-1.34						
	TPU:	+/-0.107		+/-2.66						
Batch 388014										
QC1200756739 127207010 DUP										
Plutonium-238	U	-0.0354	U	-0.0486	pCi/L	N/A		(0% - 100%)	SCP	12/21/04 10:35

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 388014										
	Uncert:	+/-0.031		+/-0.0742						
	TPU:	+/-0.0312		+/-0.0743						
Plutonium-239/240	U	0.0236	U	-0.0142	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0873		+/-0.0613						
	TPU:	+/-0.0874		+/-0.0613						
QC1200756741 LCS										
Plutonium-238			U	0.0829	pCi/L			(75%-125%)		
	Uncert:			+/-0.103						
	TPU:			+/-0.103						
Plutonium-239/240	12.0			12.6	pCi/L		105	(75%-125%)		
	Uncert:			+/-1.21						
	TPU:			+/-1.71						
QC1200756738 MB										
Plutonium-238			U	0.00114	pCi/L					
	Uncert:			+/-0.0617						
	TPU:			+/-0.0617						
Plutonium-239/240			U	-0.0204	pCi/L					
	Uncert:			+/-0.0231						
	TPU:			+/-0.0232						
QC1200756740 127207010 MS										
Plutonium-238	U	-0.0354	U	0.0482	pCi/L			(75%-125%)		
	Uncert:	+/-0.031		+/-0.077						
	TPU:	+/-0.0312		+/-0.0771						
Plutonium-239/240	12.0 U	0.0236		11.3	pCi/L		94	(75%-125%)		
	Uncert:	+/-0.0873		+/-1.09						
	TPU:	+/-0.0874		+/-1.52						
Batch 388015										
QC1200756743 127207010 DUP										
Plutonium-241	U	-1.36	U	2.67	pCi/L	N/A		(0% - 100%)	SCP	12/24/04 10:41
	Uncert:	+/-5.58		+/-5.75						
	TPU:	+/-5.58		+/-5.75						
QC1200756746 KNOWN										
Plutonium-241	139			121	pCi/L		87			12/24/04 12:16
	Uncert:			+/-9.38						
	TPU:			+/-13.5						
QC1200756745 LCS										
Plutonium-241	139			118	pCi/L		85	(75%-125%)		12/24/04 11:44
	Uncert:			+/-9.15						
	TPU:			+/-13.2						
QC1200756742 MB										
Plutonium-241			U	-0.215	pCi/L					12/24/04 10:09
	Uncert:			+/-6.35						
	TPU:			+/-6.35						
QC1200756744 127207010 MS										
Plutonium-241	139 U	-1.36		114	pCi/L		82			12/24/04 11:12
	Uncert:	+/-5.58		+/-17.8						
	TPU:	+/-5.58		+/-22.8						
Rad Gamma Spec										
Batch 387628										

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 387628										
QC1200755745 127207001 DUP										
Americium-241	U	14.5	U	-15.8	pCi/L	N/A			SRB	12/15/04 10:42
	Uncert:	+/-22.5		+/-15.9						
	TPU:	+/-22.0		+/-15.6						
Cesium-134	U	1.41	U	0.447	pCi/L	104		(0% - 100%)		
	Uncert:	+/-2.93		+/-2.05						
	TPU:	+/-2.87		+/-2.01						
Cesium-137	U	-2.14	U	1.28	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.61		+/-2.27						
	TPU:	+/-3.54		+/-2.22						
Cobalt-60	U	0.251	U	-1.21	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.65		+/-2.14						
	TPU:	+/-2.60		+/-2.10						
Europium-152	U	0.407	U	-1.39	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-9.28		+/-6.32						
	TPU:	+/-9.09		+/-6.19						
Europium-154	U	-4.56	U	-1.58	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-8.27		+/-6.73						
	TPU:	+/-8.11		+/-6.60						
Europium-155	U	7.81	U	-3.1	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-11.5		+/-8.68						
	TPU:	+/-11.3		+/-8.50						
Manganese-54	U	-2.67	U	-1.5	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.49		+/-2.15						
	TPU:	+/-2.44		+/-2.11						
Niobium-94	U	-1.21	U	0.301	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.48		+/-2.08						
	TPU:	+/-2.43		+/-2.03						
Silver-108m	U	0.138	U	-0.639	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.64		+/-2.14						
	TPU:	+/-2.59		+/-2.10						
QC1200755747 LCS										
Americium-241	1170			1160	pCi/L		99	(75%-125%)	AKB	12/15/04 17:56
	Uncert:			+/-103						
	TPU:			+/-101						
Cesium-134			U	1.01	pCi/L					
	Uncert:			+/-11.1						
	TPU:			+/-10.8						
Cesium-137	457			477	pCi/L		105	(75%-125%)		
	Uncert:			+/-45.1						
	TPU:			+/-44.2						
Cobalt-60	671			710	pCi/L		106	(75%-125%)		
	Uncert:			+/-59.9						
	TPU:			+/-58.7						
Europium-152			U	1.96	pCi/L					
	Uncert:			+/-23.1						
	TPU:			+/-22.7						
Europium-154			U	3.22	pCi/L					
	Uncert:			+/-20.9						

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 387628										
	TPU:			+/-20.5						
Europium-155			U	-20.5	pCi/L					
	Uncert:			+/-27.0						
	TPU:			+/-26.5						
Manganese-54			U	-4.37	pCi/L					
	Uncert:			+/-10.8						
	TPU:			+/-10.6						
Niobium-94			U	6.19	pCi/L					
	Uncert:			+/-8.73						
	TPU:			+/-8.56						
Silver-108m			U	-5.08	pCi/L					
	Uncert:			+/-8.95						
	TPU:			+/-8.77						
QC1200755744 MB										
Americium-241			U	-1.12	pCi/L					12/15/04 13:07
	Uncert:			+/-16.4						
	TPU:			+/-16.1						
Cesium-134			U	-1.82	pCi/L					
	Uncert:			+/-2.18						
	TPU:			+/-2.13						
Cesium-137			U	0.262	pCi/L					
	Uncert:			+/-1.76						
	TPU:			+/-1.72						
Cobalt-60			U	0.189	pCi/L					
	Uncert:			+/-1.75						
	TPU:			+/-1.71						
Europium-152			U	-2.9	pCi/L					
	Uncert:			+/-5.69						
	TPU:			+/-5.58						
Europium-154			U	-0.876	pCi/L					
	Uncert:			+/-5.07						
	TPU:			+/-4.97						
Europium-155			U	-7.69	pCi/L					
	Uncert:			+/-7.58						
	TPU:			+/-7.43						
Manganese-54			U	-0.292	pCi/L					
	Uncert:			+/-1.91						
	TPU:			+/-1.87						
Niobium-94			U	1.23	pCi/L					
	Uncert:			+/-1.88						
	TPU:			+/-1.84						
Silver-108m			U	1.21	pCi/L					
	Uncert:			+/-2.02						
	TPU:			+/-1.98						
QC1200755746 127207001 MS										
Americium-241	9360 U	14.5		10900	pCi/L		116			12/15/04 17:52
	Uncert:	+/-22.5		+/-2040						
	TPU:	+/-22.0		+/-4710						
Cesium-134	U	1.41	U	90.8	pCi/L					

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 387628										
	Uncert:	+/-2.93		+/-151						
	TPU:	+/-2.87		+/-152						
Cesium-137	3660 U	-2.14		3740	pCi/L		102			
	Uncert:	+/-3.61		+/-558						
	TPU:	+/-3.54		+/-1560						
Cobalt-60	5380 U	0.251		5940	pCi/L		110			
	Uncert:	+/-2.65		+/-704						
	TPU:	+/-2.60		+/-2430						
Europium-152	U	0.407	U	-136	pCi/L					
	Uncert:	+/-9.28		+/-291						
	TPU:	+/-9.09		+/-290						
Europium-154	U	-4.56	U	-117	pCi/L					
	Uncert:	+/-8.27		+/-315						
	TPU:	+/-8.11		+/-312						
Europium-155	U	7.81	U	2.59	pCi/L					
	Uncert:	+/-11.5		+/-400						
	TPU:	+/-11.3		+/-392						
Manganese-54	U	-2.67	U	-39.7	pCi/L					
	Uncert:	+/-2.49		+/-154						
	TPU:	+/-2.44		+/-152						
Niobium-94	U	-1.21	U	92.8	pCi/L					
	Uncert:	+/-2.48		+/-128						
	TPU:	+/-2.43		+/-130						
Silver-108m	U	0.138	U	10.4	pCi/L					
	Uncert:	+/-2.64		+/-113						
	TPU:	+/-2.59		+/-111						
Rad Gas Flow										
Batch 388828										
QC1200758651 127207003 DUP										
Alpha	U	-0.15	U	-0.457	pCi/L	N/A		(0% - 100%)	DRS1	12/29/04 15:07
	Uncert:	+/-0.584		+/-0.719						
	TPU:	+/-0.584		+/-0.720						
Beta	U	0.917	U	1.43	pCi/L	44		(0% - 100%)		
	Uncert:	+/-1.14		+/-1.26						
	TPU:	+/-1.14		+/-1.26						
QC1200758654 LCS										
Alpha	71.9			71.5	pCi/L		99	(75%-125%)		12/28/04 11:29
	Uncert:			+/-4.27						
	TPU:			+/-6.19						
Beta	242			246	pCi/L		102	(75%-125%)		
	Uncert:			+/-5.92						
	TPU:			+/-7.93						
QC1200758650 MB										
Alpha			U	-0.721	pCi/L					12/29/04 14:18
	Uncert:			+/-0.716						
	TPU:			+/-0.718						
Beta			U	-0.0633	pCi/L					
	Uncert:			+/-1.16						

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 388828										
	TPU:			+/-1.16						
QC1200758652 127207003 MS										
Alpha	71.9 U	-0.15		71.5	pCi/L		100	(75%-125%)		12/29/04 15:07
	Uncert:	+/-0.584		+/-4.58						
	TPU:	+/-0.584		+/-6.42						
Beta	242 U	0.917		266	pCi/L		110	(75%-125%)		
	Uncert:	+/-1.14		+/-6.30						
	TPU:	+/-1.14		+/-8.50						
QC1200758653 127207003 MSD										
Alpha	71.9 U	-0.15		79.1	pCi/L	10*	110	(75%-125%)		12/28/04 11:29
	Uncert:	+/-0.584		+/-5.24						
	TPU:	+/-0.584		+/-7.06						
Beta	242 U	0.917		249	pCi/L	7*	102	(75%-125%)		
	Uncert:	+/-1.14		+/-6.21						
	TPU:	+/-1.14		+/-8.42						
Batch 392266										
QC1200766928 127207006 DUP										
Strontium-90	U	0.221	U	-0.273	pCi/L	N/A		(0% - 100%)	JMB1	01/07/05 04:29
	Uncert:	+/-0.511		+/-0.767						
	TPU:	+/-0.514		+/-0.773						
QC1200766930 LCS										
Strontium-90	90.6			86.8	pCi/L		96	(75%-125%)		01/07/05 07:37
	Uncert:			+/-6.44						
	TPU:			+/-27.5						
QC1200766927 MB										
Strontium-90			U	-0.181	pCi/L					01/07/05 04:29
	Uncert:			+/-0.830						
	TPU:			+/-0.832						
QC1200766929 127207006 MS										
Strontium-90	182 U	0.221		164	pCi/L		90	(75%-125%)		01/06/05 21:13
	Uncert:	+/-0.511		+/-14.7						
	TPU:	+/-0.514		+/-60.2						
Rad Liquid Scintillation										
Batch 388140										
QC1200756994 127207003 DUP										
Tritium	U	-61.1	U	-7.9	pCi/L	N/A		(0% - 100%)	ATH1	12/27/04 15:17
	Uncert:	+/-211		+/-215						
	TPU:	+/-211		+/-215						
QC1200756996 LCS										
Tritium	3170			2820	pCi/L		89	(75%-125%)		12/28/04 06:17
	Uncert:			+/-359						
	TPU:			+/-362						
QC1200756993 MB										
Tritium			U	-122	pCi/L					12/27/04 14:44
	Uncert:			+/-201						
	TPU:			+/-201						
QC1200756995 127207003 MS										
Tritium	3170 U	-61.1		2970	pCi/L		94	(75%-125%)		12/27/04 15:50
	Uncert:	+/-211		+/-387						

QC Summary

Workorder: 127207

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 388140										
	TPU:	+/-211		+/-390						
Batch 389457										
QC1200760132 127207010 DUP										
Technetium-99	U	-2.58	U	-1.05	pCi/L	N/A		(0% - 100%)	EGD1	12/26/04 11:04
	Uncert:	+/-5.25		+/-5.35						
	TPU:	+/-5.25		+/-5.35						
QC1200760134 LCS										
Technetium-99	784			896	pCi/L		114	(75%-125%)		12/26/04 12:39
	Uncert:			+/-19.0						
	TPU:			+/-27.7						
QC1200760131 MB										
Technetium-99			U	-0.502	pCi/L					12/26/04 10:01
	Uncert:			+/-5.33						
	TPU:			+/-5.33						
QC1200760133 127207010 MS										
Technetium-99	784 U	-2.58		886	pCi/L		113	(75%-125%)		12/26/04 11:52
	Uncert:	+/-5.25		+/-18.8						
	TPU:	+/-5.25		+/-27.4						
Batch 389461										
QC1200760152 127207010 DUP										
Carbon-14	U	-0.497	U	1.00	pCi/L	N/A		(0% - 100%)	LAG1	01/04/05 06:44
	Uncert:	+/-8.20		+/-8.30						
	TPU:	+/-8.20		+/-8.30						
QC1200760154 LCS										
Carbon-14	329			328	pCi/L		100	(75%-125%)		01/04/05 07:47
	Uncert:			+/-13.9						
	TPU:			+/-20.9						
QC1200760151 MB										
Carbon-14			U	0.00	pCi/L					01/04/05 06:12
	Uncert:			+/-6.12						
	TPU:			+/-6.12						
QC1200760153 127207010 MS										
Carbon-14	657 U	-0.497		640	pCi/L		98	(75%-125%)		01/04/05 07:16
	Uncert:	+/-8.20		+/-27.7						
	TPU:	+/-8.20		+/-64.7						
Batch 389765										
QC1200760893 127207010 DUP										
Iron-55	U	16.5	U	16.0	pCi/L	0		(0% - 100%)	DAJ1	01/06/05 08:06
	Uncert:	+/-14.9		+/-14.8						
	TPU:	+/-14.9		+/-14.8						
QC1200760895 LCS										
Iron-55	464			471	pCi/L		102*	(0%-%)		01/06/05 12:13
	Uncert:			+/-19.8						
	TPU:			+/-27.3						
QC1200760892 MB										
Iron-55			U	8.08	pCi/L					01/06/05 05:24
	Uncert:			+/-14.6						
	TPU:			+/-14.6						
QC1200760894 127207010 MS										

QC Summary

Workorder: 127207

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation											
Batch 389765											
Iron-55	469	U	16.5		474	pCi/L		98*	(0%-%)		
	Uncert:		+/-14.9		+/-19.2						
	TPU:		+/-14.9		+/-26.9						
Batch 389766											
QC1200760897 127207010 DUP											
Nickel-63		U	-6.04	U	1.30	pCi/L	N/A		(0% - 100%)	DAJ1	01/05/05 16:00
	Uncert:		+/-5.89		+/-5.36						
	TPU:		+/-5.90		+/-5.36						
QC1200760899 LCS											
Nickel-63	364				355	pCi/L		98	(75%-125%)		12/28/04 17:14
	Uncert:				+/-11.7						
	TPU:				+/-16.7						
QC1200760896 MB											
Nickel-63				U	-6.16	pCi/L					01/04/05 13:39
	Uncert:				+/-5.94						
	TPU:				+/-5.94						
QC1200760898 127207010 MS											
Nickel-63	365	U	-6.04		309	pCi/L		85	(75%-125%)		12/28/04 15:41
	Uncert:		+/-5.89		+/-10.8						
	TPU:		+/-5.90		+/-15.0						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 127207

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 10, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: Quarterly Groundwater PO# 002337
Work Order: 127512
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 15, 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Purchase Order: 002337
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 127512

January 10, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 15, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512005	MW 110D-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001
127512013	MW 109S-0404-001
127512014	MW 507D-0404-001

127512015	MW 507S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:
Thirteen groundwater samples were analyzed for MIX.
Two groundwater samples were analyzed for STND.
Three groundwater samples were analyzed for ALL.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2004-00287

127512%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
001	MW110S-0404-001	12-9-04	08:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
002	MW112S-0404-001	12-9-04	14:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
003	MW113S-0404-001	12-9-04	11:20	WG	G		X						2 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14° Deg. C

Custody Sealed? Yes ☑ No ☐

Custody Seal Intact? Yes ☑ No ☐

1) Relinquished By: [signature] Date/Time 12-13-04 1100	2) Received By [signature] Date/Time 12-15-04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

4

Chain of Custody Form

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

No. 2004-00288

127512%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL	Anions	Cations		Lab Use Only: Comment, Preservation	Lab Sample ID
014	MW507D-0404-001	12-9-04	12:37	WG	G			X					1 x 4L HNO3, 1 x 1L	
015	MW507S-0404-001	12-9-04	14:32	WG	G			X					1 x 4L HNO3, 1 x 1L	
004	MW508S-0404-001	12-9-04	10:02	WG	G		X						2 x 4L HNO3, 1 x 1L	
005	MW110D-0404-001	12-8-04	15:35	WG	G		X						1 x 1L	
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 13 Deg. C
Custody Sealed? Y ✓ N ☐
Custody Seal Intact? Y ✓ N ☐

1) Relinquished By: [signature] Date/Time 12-13-04 1100	2) Received By [signature] Date/Time 12/15/04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00289

127512 %

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
006	MW107S-0404-001	12-13-04	12:10	WG	G		X						2 x 4L HNO3, 1 x 1L	
007	MW108S-0404-001	12-13-04	09:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
008	MW109S-0404-001	12-13-04	16:20	WG	G		X						2 x 4L HNO3	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 11 Deg. C
Custody Sealed? Y ✓ N ☐
Custody Seal Intact? ✓ Y ☐ N ☐

1) Relinquished By	Date/Time 12.14.04 1000	2) Received By	Date/Time 12/15/04 1000
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00290

127512%

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
009	MW101D-0404-001	12-9-04	11:36	WG	G		X						2 x 4L HNO3, 1 x 1L	
010	MW122D-0404-001	12-7-04	16:46	WG	G		X						2 x 4L HNO3	
011	MW122S-0404-001	12-7-04	09:41	WG	G		X						2 x 4L HNO3	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 2.8 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature] Date/Time 12-14-04 1000	2) Received By [signature] Date/Time 12/15/04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

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

No. 2004-00291

127512 %

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
016	MW103D-0404-001	12-9-04	08:38	WG	G				X				3 x 4L HNO3, 1 x 1L	
017	MW106D-0404-001	12-8-04	09:41	WG	G				X				3 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 12.9 Deg. C

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

1) Relinquished By:	Date/Time 12-14-04 1000	2) Received By	Date/Time 12/15/04 1200
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

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

Chain of Custody Form

No. 2004-00292

127512%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL	Anions	Cations		Lab Use Only: Comment, Preservation	Lab Sample ID
012	ATW1-0404-001	12-13-04	10:21	WG	G				X				3 x 4L HNO3, 1 x 1L	
012	MW124S-0404-001	12-13-04	14:06	WG	G		X						2 x 4L HNO3, 1 x 1L	
013	MW109S-0404-001	12-13-04	16:20	WG	G		X						1 x 1L	
010	MW122D-0404-001	12-7-04	16:46	WG	G		X						1 x 1L	
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 4 Deg. C
Custody Sealed? Y☑ N☐
Custody Seal Intact? Y☑ N☐

1) Relinquished By [signature] Date/Time 12.14.04 1000	2) Received By [signature] 10:00 Date/Time 12/15/04
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 127512 2004 - 00287

Shipping Container ID: Fed Ex 7908 565 4311 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: CGause Date: 12/15/04 10:00

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 127512 2604-00288

Shipping Container ID: Fed E 7914 146 7503 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C Gause Date: 12/15/04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12/15-04 10:00

SDG#: MSR#04-3933

Work Order Number: 127512 2004-00288

Shipping Container ID: Fed Ex 2914 1622 8355 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 11°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C Jones Date: 12/15/04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 1000

SDG#: MSR# 04-3933

Work Order Number: 127512 2004-00290

Shipping Container ID: Fed Ex 7908 5806 2080 Chain of Custody # ✓

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/16/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR#04-3933

Work Order Number: 127512 2004 -00291

Shipping Container ID: Fed Ex 7903 6572 9814 Chain of Custody # ✓

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: Cal Date: 12/13/04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 1000

SDG#: MSR#04-3933

Work Order Number: 127512 2004-005292

Shipping Container ID: FedEx 7915 0197 6849 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 11°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C Gause Date: 12/15/04

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

ient: Conn Yankee/RAD DATA	SDG/ARCOC/Work Order: 12752
ate Received: 12-15-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By: CG	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
	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)?				Sample ID's and containers affected:
	Samples received within holding time?				Id's and tests affected:
	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:
0	Number of containers received match number indicated on COC?				Sample ID's affected:
1	COC form is properly signed in relinquished/received sections?				
2	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	7 cpm 180			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [signature] Initials 12/15/04 Date

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
SDG MSR#04-3933

Method/Analysis Information

Analytical Batch:	389158
Prep Batch:	389157
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512005	MW 110D-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001
127512013	MW 109S-0404-001
127512014	MW 507D-0404-001
127512015	MW 507S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200759513	Method Blank (MB) ICP-MS

1200759514	Laboratory Control Sample (LCS)
1200759517	127512001(MW 110S-0404-001L) Serial Dilution (SD)
1200759515	127512001(MW 110S-0404-001D) Sample Duplicate (DUP)
1200759516	127512001(MW 110S-0404-001S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 127512001 (MW 110S-0404-001).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

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

Reviewer: Aeisa M. **Date:** 1/11/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Client Sample ID:	MW 110S-0404-001	Project:	YANK01704
Sample ID:	127512001	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	09-DEC-04 08:55		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		281	0.540	16.0	ug/L	1	BAJ	12/30/04	2258	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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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.

1/11/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 112S-0404-001
Sample ID: 127512002
Matrix: Ground Water
Collect Date: 09-DEC-04 14:55
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		74.5	0.540	16.0	ug/L	1	BAJ	12/30/04	2329	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 113S-0404-001
Sample ID: 127512003
Matrix: Ground Water
Collect Date: 09-DEC-04 11:20
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		106	0.540	16.0	ug/L	1	BAJ	12/30/04	2334	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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** Indicates the analyte is a surrogate compound.
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by 1/11/05

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Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 508S-0404-001
Sample ID: 127512004
Matrix: Ground Water
Collect Date: 09-DEC-04 10:02
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		61.5	0.540	16.0	ug/L	1	BAJ	12/30/04	2339	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Alison M. 1/11/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Client Sample ID: MW 110D-0404-001
Sample ID: 127512005
Matrix: Ground Water
Collect Date: 08-DEC-04 15:35
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		103	0.540	16.0	ug/L	1	BAJ	12/30/04	2344	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Reviewed by

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362 Injun Hollow Road
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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID:	MW 107S-0404-001	Project:	YANK01704
Sample ID:	127512006	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	13-DEC-04 12:10		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		189	0.540	16.0	ug/L	1	BAJ	12/30/04	2349	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Alison M. 1/11/05
Reviewed by

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 108S-0404-001
Sample ID: 127512007
Matrix: Ground Water
Collect Date: 13-DEC-04 09:55
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		180	0.540	16.0	ug/L	1	BAJ	12/30/04	2355	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Allison M. [illegible] 1/11/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 109S-0404-001
Sample ID: 127512008
Matrix: Ground Water
Collect Date: 13-DEC-04 16:20
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		98.6	0.540	16.0	ug/L	1	BAJ	12/31/04	0000	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXWI	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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1/11/05

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Client Sample ID: MW 101D-0404-001
Sample ID: 127512009
Matrix: Ground Water
Collect Date: 09-DEC-04 11:36
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		56.4	0.540	16.0	ug/L	1	BAJ	12/31/04	0005	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Client Sample ID: MW 122D-0404-001
Sample ID: 127512010
Matrix: Ground Water
Collect Date: 07-DEC-04 16:46
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		92.2	0.540	16.0	ug/L	1	BAJ	12/31/04	0010	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 122S-0404-001
Sample ID: 127512011
Matrix: Ground Water
Collect Date: 07-DEC-04 09:41
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		184	0.540	16.0	ug/L	1	BAJ	12/31/04	0026	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 124S-0404-001
Sample ID: 127512012
Matrix: Ground Water
Collect Date: 13-DEC-04 14:06
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		258	0.540	16.0	ug/L	1	BAJ	12/31/04	0031	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 109S-0404-001
Sample ID: 127512013
Matrix: Ground Water
Collect Date: 13-DEC-04 16:20
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		103	0.540	16.0	ug/L	1	BAJ	12/31/04	0036	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Client Sample ID: MW 507D-0404-001
Sample ID: 127512014
Matrix: Ground Water
Collect Date: 09-DEC-04 12:37
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		34.4	0.540	16.0	ug/L	1	BAJ	12/31/04	0041	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 507S-0404-001
Sample ID: 127512015
Matrix: Ground Water
Collect Date: 09-DEC-04 14:32
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		57.1	0.540	16.0	ug/L	1	BAJ	12/31/04	0047	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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1/11/05

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: MW 103D-0404-001
Sample ID: 127512016
Matrix: Ground Water
Collect Date: 09-DEC-04 08:38
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		57.4	0.540	16.0	ug/L	1	BAJ	12/31/04	0052	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Alison M. [illegible] 1/11/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID:	MW 106D-0404-001	Project:	YANK01704
Sample ID:	127512017	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	08-DEC-04 09:41		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		124	0.540	16.0	ug/L	1	BAJ	12/31/04	0057	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 11, 2005

Page 1 of 1

Client Sample ID: ATW1-0404-001
Sample ID: 127512018
Matrix: Ground Water
Collect Date: 13-DEC-04 10:21
Receive Date: 15-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		42.0	0.540	16.0	ug/L	1	BAJ	12/31/04	0102	389158	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 11, 2005
Page 1 of 1

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 389158										
QC1200759515 127512001 DUP										
Boron		281		292	ug/L	4		(0%-20%)	BAJ	12/30/04 23:03
QC1200759514 LCS										
Boron	100			103	ug/L		103	(80%-120%)		12/30/04 22:52
QC1200759513 MB										
Boron			J	1.34	ug/L					12/30/04 22:47
QC1200759516 127512001 MS										
Boron	100	281		397	ug/L		116	(75%-125%)		12/30/04 23:08
QC1200759517 127512001 SDILT										
Boron		281		73.6	ug/L	30.8				12/30/04 23:13

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	390952

Sample ID	**Client ID**
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200763667	Method Blank (MB)
1200763668	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763669	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763670	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# 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: 127512017 (MW 106D-0404-001).

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 127512017 (MW 106D-0404-001) was recounted due to a suspected false positive.

Sample 1200763667 (MB) was recounted due to high MDA.
Sample 127512017 (MW 106D-0404-001) was recounted due to poor resolution.

Miscellaneous Information:

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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390950

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200763659	Method Blank (MB)
1200763660	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763661	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763662	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# 5.

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: 127512017 (MW 106D-0404-001).

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 127512017 (MW 106D-0404-001) 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. An NCR was not generated for this SDG.

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

Additional Comments
The DPM was recalculated to the decay of the count time of the alpha spectroscopy count versus the sample date in order to get correct recoveries on spreadsheet.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390951

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200763663	Method Blank (MB)
1200763664	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763665	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763666	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# 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: 127512017 (MW 106D-0404-001).

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. An 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:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	389015

Sample ID	Client ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001
127512014	MW 507D-0404-001
127512015	MW 507S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001

1200759125	Method Blank (MB)
1200759126	127512001(MW 110S-0404-001) Sample Duplicate (DUP)
1200759127	127512001(MW 110S-0404-001) Matrix Spike (MS)
1200759128	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# 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: 127512001 (MW 110S-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-137	127512006
		Silver-108m	127512011
UI	The data is rejected due to no valid peak.	Cesium-137	127512001

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	392630

Sample ID	Client ID
127512005	MW 110D-0404-001
127512013	MW 109S-0404-001
1200767867	Method Blank (MB)
1200767868	127767011(MW508D-0404-001) Sample Duplicate (DUP)
1200767869	127767011(MW508D-0404-001) Matrix Spike (MS)
1200767870	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# 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: 127767011 (MW508D-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	390586

Sample ID	Client ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512005	MW 110D-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001
127512013	MW 109S-0404-001
127512014	MW 507D-0404-001
127512015	MW 507S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200762821	Method Blank (MB)
1200762822	127512003(MW 113S-0404-001) Sample Duplicate (DUP)
1200762823	127512003(MW 113S-0404-001) Matrix Spike (MS)
1200762824	127512003(MW 113S-0404-001) Matrix Spike Duplicate (MSD)
1200762825	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-001 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: 127512003 (MW 113S-0404-001).

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.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	389716

Sample ID	Client ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512005	MW 110D-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001

127512013	MW 109S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760747	Method Blank (MB)
1200760748	127512006(MW 107S-0404-001) Sample Duplicate (DUP)
1200760749	127512006(MW 107S-0404-001) Matrix Spike (MS)
1200760750	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# 9.

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: 127512006 (MW 107S-0404-001).

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 1200760747 (MB), 127512012 (MW 124S-0404-001), and 127512017 (MW 106D-0404-001) were recounted to verify sample results. Second counts being reported.

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. An NCR was not generated for this SDG.

Additional Comments
Samples 1200760748 (MW 107S-0404-001), 127512005 (MW 110D-0404-001), 127512006 (MW 107S-0404-001), 127512007 (MW 108S-0404-001), and 127512013 (MW 109S-0404-001) were verified by recounting at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	389457

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760131	Method Blank (MB)
1200760132	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760133	127207010(CMS-0404-001) Matrix Spike (MS)
1200760134	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# 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: 127207010 (CMS-0404-001).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	389765

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760892	Method Blank (MB)
1200760893	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760894	127207010(CMS-0404-001) Matrix Spike (MS)
1200760895	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# 2.

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: 127207010 (CMS-0404-001).

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

Technical Information:

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

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

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

Miscellaneous Information:

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

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	389766

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760896	Method Blank (MB)
1200760897	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760898	127207010(CMS-0404-001) Matrix Spike (MS)
1200760899	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# 6.

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: 127207010 (CMS-0404-001).

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 1200760896 (MB), 1200760897 (CMS-0404-001), and 127512018 (ATW1-0404-001) were recounted due to a negative result greater than three times the error.

Miscellaneous Information:

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

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	389793

Sample ID	Client ID
127512001	MW 110S-0404-001
127512002	MW 112S-0404-001
127512003	MW 113S-0404-001
127512004	MW 508S-0404-001
127512005	MW 110D-0404-001
127512006	MW 107S-0404-001
127512007	MW 108S-0404-001
127512008	MW 109S-0404-001
127512009	MW 101D-0404-001
127512010	MW 122D-0404-001
127512011	MW 122S-0404-001
127512012	MW 124S-0404-001
127512013	MW 109S-0404-001
127512014	MW 507D-0404-001
127512015	MW 507S-0404-001
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760994	Method Blank (MB)
1200760995	127512001(MW 110S-0404-001) Sample Duplicate (DUP)
1200760996	127512001(MW 110S-0404-001) Matrix Spike (MS)

1200760997 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# 9.

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: 127512001 (MW 110S-0404-001).

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

Technical Information:

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

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

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

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 170886 was generated due to Sample improperly preserved. 1. Samples 127512008 (MW 109S-0404-001) and 127512011 (MW 122S-0404-001) were preserved. Extra sodium hydroxide pellets were added to the samples. Sample 127512005 (MW 110D-0404-001) was preserved but was labeled as not preserved. 1. Reporting results.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified

Analytical Batch Number: 389461

Sample ID	Client ID
127512016	MW 103D-0404-001
127512017	MW 106D-0404-001
127512018	ATW1-0404-001
1200760151	Method Blank (MB)
1200760152	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760153	127207010(CMS-0404-001) Matrix Spike (MS)
1200760154	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# 7.

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: 127207010 (CMS-0404-001).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather G Chow 1/13/05

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
04-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	EPA 906.0 Modified	Liquid	YANK001
Batch ID:	**Sample Numbers:**		
389793	127512005, 127512008, 127512011		

Potentially affected work order(s)(SDG): 127512(MSR #04-3933)

Application Issues:

Sample improperly preserved

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 127512008 and 127512011 were preserved. Extra sodium hydroxide pellets were added to the samples. Sample 127512005 was preserved but was labeled as not preserved.	1. Reporting results.

Originator's Name:
John Parker 04-JAN-05

Data Validator/Group Leader:
Scott Moreland 05-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 127512

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 110S-0404-001	Project:	YANK01704
Sample ID:	127512001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-10.1	+/-24.9	18.1	+/-24.4	38.5	pCi/L		AKB 12/30/04	0825	389015	1
Cesium-134	U	3.22	+/-2.90	2.77	+/-2.84	6.22	pCi/L					
Cesium-137	U	0.00	+/-5.03	1.82	+/-4.93	4.21	pCi/L					
	UI											
Cobalt-60	U	-1.51	+/-2.42	1.61	+/-2.37	4.11	pCi/L					
Europium-152	U	4.67	+/-7.53	6.75	+/-7.38	14.7	pCi/L					
Europium-154	U	-0.779	+/-7.73	6.22	+/-7.57	14.8	pCi/L					
Europium-155	U	6.18	+/-10.1	8.76	+/-9.93	18.6	pCi/L					
Manganese-54	U	2.86	+/-3.00	2.76	+/-2.94	6.13	pCi/L					
Niobium-94	U	-1.95	+/-2.64	1.88	+/-2.59	4.27	pCi/L					
Silver-108m	U	0.354	+/-2.76	2.07	+/-2.70	4.59	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.00494	+/-0.354	0.407	+/-0.354	0.919	pCi/L		JMB1 01/05/05	0733	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.114	+/-0.565	0.579	+/-0.565	1.32	pCi/L		EXW1 01/04/05	1929	390586	3
Beta		3.24	+/-1.07	0.924	+/-1.08	1.94	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		1820	+/-354	181	+/-355	362	pCi/L		DAJ1 01/01/05	1227	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 110S-0404-001
Sample ID: 127512001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	92	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 112S-0404-001	Project:	YANK01704
Sample ID:	127512002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	1.90	+/-5.26	4.40	+/-5.15	9.34	pCi/L		AKB 12/29/04	1627	389015	1
Cesium-134	U	1.73	+/-3.51	3.16	+/-3.44	7.16	pCi/L					
Cesium-137	U	-0.183	+/-2.95	2.46	+/-2.89	5.63	pCi/L					
Cobalt-60	U	-1.55	+/-2.97	2.16	+/-2.91	5.42	pCi/L					
Europium-152	U	1.95	+/-8.18	6.92	+/-8.01	15.1	pCi/L					
Europium-154	U	-5.6	+/-8.18	5.01	+/-8.01	13.0	pCi/L					
Europium-155	U	-1.24	+/-7.98	6.25	+/-7.82	13.4	pCi/L					
Manganese-54	U	0.867	+/-3.22	2.79	+/-3.15	6.35	pCi/L					
Niobium-94	U	-0.233	+/-2.81	2.33	+/-2.75	5.30	pCi/L					
Silver-108m	U	-0.286	+/-3.05	2.44	+/-2.99	5.39	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.358	+/-0.473	0.469	+/-0.483	1.05	pCi/L		JMB1 01/05/05	0942	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.572	+/-0.481	0.638	+/-0.489	1.43	pCi/L		EXW1 01/04/05	1929	390586	3
Beta	U	0.704	+/-0.924	0.945	+/-0.929	1.98	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	101	+/-224	180	+/-224	361	pCi/L		DAJ1 01/01/05	1258	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 112S-0404-001
Sample ID: 127512002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			84						

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

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 113S-0404-001	Project:	YANK01704
Sample ID:	127512003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.359	+/-22.0	17.4	+/-21.6	37.4	pCi/L		AKB 12/29/04	2120	389015	1
Cesium-134	U	0.493	+/-2.66	2.25	+/-2.61	5.22	pCi/L					
Cesium-137	U	2.80	+/-2.78	2.64	+/-2.73	5.88	pCi/L					
Cobalt-60	U	0.412	+/-2.30	2.00	+/-2.25	4.94	pCi/L					
Europium-152	U	-1.05	+/-7.41	5.83	+/-7.26	12.9	pCi/L					
Europium-154	U	-3.0	+/-8.35	6.36	+/-8.18	15.3	pCi/L					
Europium-155	U	-1.43	+/-9.85	8.31	+/-9.65	17.8	pCi/L					
Manganese-54	U	1.09	+/-5.12	1.80	+/-5.01	4.25	pCi/L					
Niobium-94	U	0.889	+/-2.07	1.84	+/-2.03	4.22	pCi/L					
Silver-108m	U	-1.14	+/-2.30	1.82	+/-2.25	4.10	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.202	+/-0.438	0.459	+/-0.441	1.03	pCi/L		JMB1 01/05/05	0942	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		1.09	+/-0.628	0.361	+/-0.642	0.897	pCi/L		EXW1 01/04/05	1929	390586	3
Beta		16.2	+/-1.72	1.00	+/-2.48	2.10	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	234	+/-237	180	+/-237	360	pCi/L		DAJ1 01/01/05	1329	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 113S-0404-001
Sample ID: 127512003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			82						

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 508S-0404-001	Project:	YANK01704
Sample ID:	127512004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	8.34	+/-19.7	15.3	+/-19.3	32.4	pCi/L		AKB 12/30/04	0915	389015	1
Cesium-134	U	2.36	+/-2.56	2.45	+/-2.51	5.57	pCi/L					
Cesium-137	U	0.114	+/-3.17	2.67	+/-3.11	5.91	pCi/L					
Cobalt-60	U	0.135	+/-3.58	2.59	+/-3.50	6.00	pCi/L					
Europium-152	U	2.49	+/-8.51	7.24	+/-8.34	15.7	pCi/L					
Europium-154	U	-5.05	+/-9.87	7.55	+/-9.67	17.3	pCi/L					
Europium-155	U	-3.36	+/-10.9	8.68	+/-10.7	18.4	pCi/L					
Manganese-54	U	-1.6	+/-2.77	2.06	+/-2.71	4.72	pCi/L					
Niobium-94	U	-1.34	+/-2.45	1.87	+/-2.40	4.25	pCi/L					
Silver-108m	U	1.02	+/-2.99	2.53	+/-2.93	5.51	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.296	+/-0.416	0.411	+/-0.423	0.931	pCi/L		JMB1 01/05/05	0942	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.842	+/-1.13	1.10	+/-1.13	2.38	pCi/L		EXW1 01/05/05	0030	390586	3
Beta		7.60	+/-1.61	1.34	+/-1.64	2.77	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	100	+/-224	180	+/-224	360	pCi/L		DAJ1 01/01/05	1400	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 508S-0404-001
Sample ID: 127512004

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			87						

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 110D-0404-001	Project:	YANK01704
Sample ID:	127512005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-0.431	+/-30.0	17.8	+/-29.4	37.2	pCi/L		AKB 01/07/05	1127	392630	1
Cesium-134	U	1.34	+/-4.32	3.69	+/-4.23	8.14	pCi/L					
Cesium-137	U	-2.83	+/-4.07	3.13	+/-3.99	6.88	pCi/L					
Cobalt-60	U	0.493	+/-4.41	3.72	+/-4.32	8.44	pCi/L					
Europium-152	U	-9.12	+/-11.1	8.51	+/-10.9	18.2	pCi/L					
Europium-154	U	4.41	+/-11.4	10.1	+/-11.1	22.8	pCi/L					
Europium-155	U	-10.1	+/-14.1	11.0	+/-13.9	23.1	pCi/L					
Manganese-54	U	-1.48	+/-4.29	3.37	+/-4.20	7.44	pCi/L					
Niobium-94	U	0.934	+/-3.82	3.25	+/-3.74	7.06	pCi/L					
Silver-108m	U	0.341	+/-4.17	3.41	+/-4.08	7.27	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		1.56	+/-0.765	0.640	+/-0.874	1.40	pCi/L		JMB1 01/05/05	1042	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		2.88	+/-0.927	0.445	+/-0.971	1.06	pCi/L		EXW1 01/05/05	0030	390586	3
Beta		7.08	+/-1.50	1.22	+/-1.52	2.54	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3400	+/-439	181	+/-442	362	pCi/L		DAJ1 01/01/05	1431	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 110D-0404-001
Sample ID: 127512005

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			85						

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 107S-0404-001	Project:	YANK01704
Sample ID:	127512006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	8.39	+/-18.1	13.7	+/-17.7	28.8	pCi/L		AKB 12/29/04	2120	389015	1
Cesium-134	U	5.47	+/-4.46	3.33	+/-4.37	7.58	pCi/L					
Cesium-137	U	0.00	+/-5.97	5.78	+/-5.85	12.4	pCi/L					
	UI											
Cobalt-60	U	3.95	+/-3.83	3.79	+/-3.75	8.74	pCi/L					
Europium-152	U	1.68	+/-10.7	8.98	+/-10.5	19.4	pCi/L					
Europium-154	U	-9.63	+/-8.31	3.84	+/-8.14	10.8	pCi/L					
Europium-155	U	-1.53	+/-13.9	11.1	+/-13.6	23.2	pCi/L					
Manganese-54	U	2.78	+/-3.97	3.34	+/-3.89	7.53	pCi/L					
Niobium-94	U	-0.0994	+/-2.76	2.19	+/-2.70	5.09	pCi/L					
Silver-108m	U	-4.14	+/-3.48	2.39	+/-3.41	5.34	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.838	+/-0.533	0.436	+/-0.581	0.990	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	1.21	+/-0.872	0.693	+/-0.878	1.58	pCi/L		EXW1 01/05/05	0030	390586	3
Beta		5.62	+/-1.38	1.13	+/-1.40	2.36	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	167	+/-229	179	+/-229	359	pCi/L		DAJ1 01/01/05	1502	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 107S-0404-001
Sample ID: 127512006

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	82	

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 108S-0404-001	Project:	YANK01704
Sample ID:	127512007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.12	+/-27.5	21.1	+/-27.0	45.1	pCi/L		AKB 12/30/04	0925	389015	1
Cesium-134	U	0.134	+/-2.68	2.20	+/-2.62	5.04	pCi/L					
Cesium-137	U	6.61	+/-5.41	3.13	+/-5.30	6.80	pCi/L					
Cobalt-60	U	0.220	+/-2.81	2.37	+/-2.75	5.56	pCi/L					
Europium-152	U	6.38	+/-8.19	7.08	+/-8.03	15.3	pCi/L					
Europium-154	U	-7.51	+/-7.81	5.07	+/-7.65	12.4	pCi/L					
Europium-155	U	-4.8	+/-10.3	8.31	+/-10.1	17.7	pCi/L					
Manganese-54	U	-0.797	+/-2.54	1.94	+/-2.49	4.46	pCi/L					
Niobium-94	U	-0.744	+/-2.39	1.87	+/-2.34	4.22	pCi/L					
Silver-108m	U	1.72	+/-2.61	2.35	+/-2.56	5.13	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.371	+/-0.384	0.357	+/-0.394	0.812	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.475	+/-0.756	0.729	+/-0.757	1.62	pCi/L		EXW1 01/05/05	0030	390586	3
Beta		3.46	+/-1.27	1.16	+/-1.28	2.41	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		399	+/-249	179	+/-249	357	pCi/L		DAJ1 01/01/05	1533	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 108S-0404-001
Sample ID: 127512007

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			100						

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 109S-0404-001	Project:	YANK01704
Sample ID:	127512008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-15	+/-25.5	18.4	+/-25.0	39.6	pCi/L		AKB 12/29/04	1951	389015	1
Cesium-134	U	-0.822	+/-2.50	1.90	+/-2.45	4.44	pCi/L					
Cesium-137	U	4.03	+/-3.12	2.96	+/-3.06	6.47	pCi/L					
Cobalt-60	U	2.47	+/-2.68	2.63	+/-2.63	6.08	pCi/L					
Europium-152	U	3.84	+/-8.02	6.74	+/-7.86	14.6	pCi/L					
Europium-154	U	-0.434	+/-6.21	5.09	+/-6.09	12.4	pCi/L					
Europium-155	U	-3.34	+/-10.2	8.35	+/-9.98	17.8	pCi/L					
Manganese-54	U	0.932	+/-2.74	2.34	+/-2.68	5.26	pCi/L					
Niobium-94	U	-0.526	+/-2.01	1.57	+/-1.97	3.63	pCi/L					
Silver-108m	U	-0.687	+/-2.33	1.90	+/-2.29	4.22	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.0654	+/-0.504	0.592	+/-0.504	1.30	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.491	+/-0.418	0.577	+/-0.419	1.35	pCi/L		EXW1 01/05/05	0030	390586	3
Beta	U	0.594	+/-1.06	1.11	+/-1.06	2.31	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	200	+/-233	179	+/-233	359	pCi/L		DAJ1 01/01/05	1604	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 109S-0404-001
Sample ID: 127512008

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			86						

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 101D-0404-001	Project:	YANK01704
Sample ID:	127512009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.57	+/-22.0	16.2	+/-21.5	35.0	pCi/L		AKB 12/30/04	1036	389015	1
Cesium-134	U	-0.313	+/-2.90	2.00	+/-2.84	4.71	pCi/L					
Cesium-137	U	1.53	+/-2.40	2.20	+/-2.35	5.02	pCi/L					
Cobalt-60	U	0.919	+/-2.03	1.91	+/-1.99	4.77	pCi/L					
Europium-152	U	0.936	+/-7.52	6.14	+/-7.37	13.5	pCi/L					
Europium-154	U	3.06	+/-7.67	6.94	+/-7.52	16.4	pCi/L					
Europium-155	U	2.73	+/-10.3	8.99	+/-10.1	19.1	pCi/L					
Manganese-54	U	0.396	+/-2.35	1.97	+/-2.30	4.60	pCi/L					
Niobium-94	U	0.0415	+/-2.21	1.83	+/-2.17	4.20	pCi/L					
Silver-108m	U	-0.131	+/-2.18	1.84	+/-2.14	4.15	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.184	+/-0.319	0.415	+/-0.322	0.937	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		5.17	+/-1.41	0.973	+/-1.44	2.10	pCi/L		EXW1 01/05/05	0030	390586	3
Beta	U	0.436	+/-0.933	0.965	+/-0.933	2.02	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	0.00	+/-213	179	+/-213	359	pCi/L		DAJ1 01/01/05	1635	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 101D-0404-001
Sample ID: 127512009

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			89						

Notes:
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X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 122D-0404-001	Project:	YANK01704
Sample ID:	127512010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-7.39	+/-15.9	11.8	+/-15.6	25.3	pCi/L		AKB 12/30/04	1037	389015	1
Cesium-134	U	0.128	+/-2.41	1.97	+/-2.36	4.63	pCi/L					
Cesium-137	U	-0.118	+/-2.79	1.98	+/-2.73	4.55	pCi/L					
Cobalt-60	U	3.18	+/-2.43	2.60	+/-2.38	6.09	pCi/L					
Europium-152	U	-2.07	+/-7.99	6.15	+/-7.83	13.5	pCi/L					
Europium-154	U	4.62	+/-8.07	7.45	+/-7.91	17.3	pCi/L					
Europium-155	U	1.02	+/-10.3	8.72	+/-10.1	18.5	pCi/L					
Manganese-54	U	-1.8	+/-2.91	1.67	+/-2.86	3.96	pCi/L					
Niobium-94	U	0.124	+/-2.37	1.96	+/-2.32	4.43	pCi/L					
Silver-108m	U	-1.13	+/-2.24	1.47	+/-2.19	3.39	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.285	+/-0.373	0.366	+/-0.378	0.825	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		6.68	+/-1.27	0.388	+/-1.32	0.933	pCi/L		EXW1 01/05/05	0030	390586	3
Beta	U	1.96	+/-1.04	0.980	+/-1.05	2.05	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		610	+/-271	182	+/-271	365	pCi/L		DAJ1 01/01/05	1706	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 122D-0404-001
Sample ID: 127512010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			101						

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 122S-0404-001	Project:	YANK01704
Sample ID:	127512011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	11.2	+/-23.2	18.4	+/-22.8	39.1	pCi/L		AKB 12/30/04	1038	389015	1
Cesium-134	U	1.79	+/-2.95	2.62	+/-2.89	5.92	pCi/L					
Cesium-137	U	0.540	+/-2.79	2.34	+/-2.73	5.25	pCi/L					
Cobalt-60	U	-0.61	+/-2.81	2.19	+/-2.75	5.26	pCi/L					
Europium-152	U	1.12	+/-6.82	5.87	+/-6.69	12.9	pCi/L					
Europium-154	U	0.280	+/-7.57	6.29	+/-7.41	15.0	pCi/L					
Europium-155	U	-5.18	+/-10.9	8.69	+/-10.7	18.5	pCi/L					
Manganese-54	U	-2.61	+/-2.82	1.84	+/-2.77	4.30	pCi/L					
Niobium-94	U	3.05	+/-2.22	2.07	+/-2.17	4.66	pCi/L					
Silver-108m	U	0.00	+/-5.85	1.84	+/-5.73	4.13	pCi/L					
	UI											
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.045	+/-0.369	0.414	+/-0.369	0.936	pCi/L		JMB1 01/05/05	0943	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.379	+/-0.653	0.808	+/-0.654	1.87	pCi/L		EXW1 01/05/05	0030	390586	3
Beta	U	-1.08	+/-0.971	1.13	+/-0.972	2.37	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		570	+/-266	180	+/-266	361	pCi/L		DAJ1 01/01/05	1737	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 122S-0404-001
Sample ID: 127512011

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	88	

Notes:
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- B Target analyte was detected in the sample as well as the associated blank.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 124S-0404-001	Project:	YANK01704
Sample ID:	127512012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	9.01	+/-10.7	8.78	+/-10.5	18.5	pCi/L		AKB	12/30/04	1158	389015	1
Cesium-134	U	-0.379	+/-1.78	1.42	+/-1.75	3.21	pCi/L						
Cesium-137	U	1.03	+/-1.78	1.59	+/-1.75	3.48	pCi/L						
Cobalt-60	U	0.289	+/-2.69	1.77	+/-2.63	4.01	pCi/L						
Europium-152	U	2.94	+/-5.53	4.65	+/-5.42	9.92	pCi/L						
Europium-154	U	1.36	+/-5.61	4.68	+/-5.50	10.7	pCi/L						
Europium-155	U	-2.24	+/-6.70	5.55	+/-6.56	11.6	pCi/L						
Manganese-54	U	1.19	+/-1.83	1.63	+/-1.79	3.59	pCi/L						
Niobium-94	U	-0.69	+/-1.62	1.28	+/-1.59	2.83	pCi/L						
Silver-108m	U	2.95	+/-4.80	1.46	+/-4.70	3.15	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.136	+/-0.273	0.283	+/-0.275	0.639	pCi/L		JMB1	01/09/05	0940	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.0869	+/-0.773	0.664	+/-0.778	1.51	pCi/L		EXW1	01/05/05	0203	390586	3
Beta		5.54	+/-1.32	1.04	+/-1.34	2.18	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		968	+/-274	163	+/-274	326	pCi/L		DAJ1	01/01/05	1808	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 124S-0404-001
Sample ID: 127512012

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			84						

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 109S-0404-001	Project:	YANK01704
Sample ID:	127512013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	21.4	+/-17.1	20.5	+/-16.8	43.5	pCi/L		AKB 01/07/05	1127	392630	1
Cesium-134	U	-0.288	+/-3.96	3.19	+/-3.88	7.16	pCi/L					
Cesium-137	U	-1.2	+/-3.78	2.99	+/-3.70	6.64	pCi/L					
Cobalt-60	U	2.05	+/-3.24	3.05	+/-3.17	7.17	pCi/L					
Europium-152	U	-6.18	+/-10.8	8.18	+/-10.6	17.7	pCi/L					
Europium-154	U	6.39	+/-10.7	9.80	+/-10.4	22.5	pCi/L					
Europium-155	U	5.30	+/-13.3	11.6	+/-13.0	24.4	pCi/L					
Manganese-54	U	-0.22	+/-3.86	3.11	+/-3.79	6.95	pCi/L					
Niobium-94	U	-1.71	+/-3.62	2.80	+/-3.55	6.19	pCi/L					
Silver-108m	U	0.0918	+/-3.70	2.79	+/-3.63	6.07	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	1.15	+/-0.676	0.599	+/-0.739	1.30	pCi/L		JMB1 01/05/05	1150	389716	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.155	+/-1.02	0.866	+/-1.03	1.95	pCi/L		EXW1 01/05/05	0203	390586	3
Beta		8.48	+/-1.62	1.26	+/-1.64	2.63	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	162	+/-224	175	+/-224	349	pCi/L		DAJ1 01/01/05	1839	389793	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 109S-0404-001
Sample ID: 127512013

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			88						

Notes:
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- H Analytical holding time exceeded.
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 507D-0404-001	Project:	YANK01704
Sample ID:	127512014	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-8.86	+/-17.0	12.3	+/-16.7	25.5	pCi/L		AKB 12/30/04	1159	389015	1
Cesium-134	U	-0.722	+/-2.21	1.76	+/-2.17	3.86	pCi/L					
Cesium-137	U	-0.58	+/-2.10	1.72	+/-2.06	3.72	pCi/L					
Cobalt-60	U	-0.52	+/-1.86	1.48	+/-1.82	3.36	pCi/L					
Europium-152	U	0.543	+/-6.81	5.66	+/-6.68	11.9	pCi/L					
Europium-154	U	-4.26	+/-6.24	4.74	+/-6.12	10.6	pCi/L					
Europium-155	U	-5.62	+/-9.19	7.27	+/-9.01	15.1	pCi/L					
Manganese-54	U	-0.755	+/-2.50	1.70	+/-2.45	3.70	pCi/L					
Niobium-94	U	0.630	+/-2.08	1.78	+/-2.04	3.81	pCi/L					
Silver-108m	U	-1.56	+/-2.18	1.67	+/-2.13	3.56	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		11.6	+/-1.82	0.626	+/-2.01	1.42	pCi/L		EXW1 01/05/05	0203	390586	2
Beta		9.16	+/-1.45	0.991	+/-1.49	2.08	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	201	+/-233	180	+/-233	359	pCi/L		DAJ1 01/01/05	1910	389793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 507D-0404-001
Sample ID: 127512014

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 507S-0404-001	Project:	YANK01704
Sample ID:	127512015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.64	+/-14.7	11.7	+/-14.4	24.6	pCi/L		AKB	12/30/04	1257	389015	1
Cesium-134	U	0.880	+/-2.05	1.59	+/-2.01	3.54	pCi/L						
Cesium-137	U	-0.336	+/-1.66	1.33	+/-1.62	2.96	pCi/L						
Cobalt-60	U	0.684	+/-1.88	1.65	+/-1.84	3.78	pCi/L						
Europium-152	U	-0.998	+/-5.97	4.72	+/-5.85	10.1	pCi/L						
Europium-154	U	1.17	+/-5.08	4.39	+/-4.98	10.1	pCi/L						
Europium-155	U	1.19	+/-7.27	6.26	+/-7.13	13.1	pCi/L						
Manganese-54	U	-0.476	+/-1.83	1.43	+/-1.79	3.19	pCi/L						
Niobium-94	U	-0.124	+/-1.46	1.19	+/-1.43	2.65	pCi/L						
Silver-108m	U	-0.574	+/-1.77	1.46	+/-1.74	3.16	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.46	+/-0.779	0.529	+/-0.786	1.23	pCi/L		EXW1	01/05/05	1041	390586	2
Beta		5.64	+/-1.33	1.08	+/-1.34	2.25	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	66.0	+/-218	177	+/-218	355	pCi/L		DAJ1	01/01/05	1941	389793	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800.	389157

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 507S-0404-001
Sample ID: 127512015

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 103D-0404-001	Project:	YANK01704
Sample ID:	127512016	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0972	+/-0.131	0.0799	+/-0.132	0.235	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	-0.0704	+/-0.0617	0.103	+/-0.0621	0.282	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		1.31	+/-0.440	0.117	+/-0.460	0.330	pCi/L		HOB1 01/05/05	2344	390952	2
Curium-242	U	0.0992	+/-0.171	0.114	+/-0.171	0.337	pCi/L					
Curium-243/244		1.03	+/-0.454	0.249	+/-0.467	0.594	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241		11.3	+/-6.78	5.45	+/-6.87	11.1	pCi/L		HOB1 01/05/05	2125	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.919	+/-11.5	9.01	+/-11.3	18.9	pCi/L		AKB 12/30/04	1258	389015	4
Cesium-134	U	0.544	+/-1.88	1.58	+/-1.84	3.51	pCi/L					
Cesium-137	U	-1.39	+/-2.51	1.66	+/-2.46	3.60	pCi/L					
Cobalt-60		10.2	+/-4.11	1.37	+/-4.03	3.17	pCi/L					
Europium-152	U	0.657	+/-5.49	4.42	+/-5.38	9.41	pCi/L					
Europium-154	U	1.91	+/-4.81	4.25	+/-4.72	9.70	pCi/L					
Europium-155	U	-0.21	+/-6.43	5.42	+/-6.30	11.4	pCi/L					
Manganese-54	U	-0.836	+/-1.91	1.22	+/-1.87	2.75	pCi/L					
Niobium-94	U	0.879	+/-1.55	1.36	+/-1.52	2.97	pCi/L					
Silver-108m	U	-0.753	+/-1.57	1.26	+/-1.54	2.74	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.283	+/-0.441	0.442	+/-0.448	1.00	pCi/L		JMB1 01/05/05	1050	389716	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		5.97	+/-1.49	0.902	+/-1.54	1.98	pCi/L		EXW1 01/05/05	1041	390586	6
Beta		5.14	+/-1.38	1.18	+/-1.40	2.45	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		10800	+/-709	178	+/-730	356	pCi/L		DAJ1 01/01/05	2012	389793	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	0.377	+/-6.24	5.22	+/-6.24	10.8	pCi/L		LAG1 01/03/05	2110	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55		21.5	+/-15.0	10.2	+/-15.1	20.7	pCi/L		DAJ1 01/05/05	1051	389765	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 103D-0404-001
Sample ID: 127512016

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-6.31	+/-6.53	5.57	+/-6.53	11.3	pCi/L		DAJ1	12/27/04	2202	389766	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.18	+/-5.29	4.49	+/-5.29	9.16	pCi/L		EGD1	12/26/04	0652	389457	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	94	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	83	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	81	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	80	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	66	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 103D-0404-001
Sample ID: 127512016

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	MW 106D-0404-001	Project:	YANK01704
Sample ID:	127512017	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.15	+/-0.0928	0.155	+/-0.094	0.390	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	0.0293	+/-0.0921	0.0693	+/-0.0921	0.219	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		0.455	+/-0.364	0.00	+/-0.370	0.206	pCi/L		HOB1 01/10/05	1532	390952	2
Curium-242	U	0.00	+/-0.172	0.00	+/-0.172	0.237	pCi/L					
Curium-243/244		0.572	+/-0.425	0.123	+/-0.432	0.451	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-2.43	+/-5.89	4.99	+/-5.90	10.1	pCi/L		HOB1 01/10/05	1350	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-10.7	+/-16.9	13.7	+/-16.5	28.6	pCi/L		AKB 12/30/04	1258	389015	4
Cesium-134	U	-0.918	+/-2.07	1.56	+/-2.02	3.46	pCi/L					
Cesium-137	U	-0.197	+/-2.40	1.69	+/-2.35	3.66	pCi/L					
Cobalt-60	U	-1.07	+/-2.37	1.82	+/-2.32	4.08	pCi/L					
Europium-152	U	5.38	+/-5.72	5.12	+/-5.61	10.8	pCi/L					
Europium-154	U	0.598	+/-6.08	5.08	+/-5.96	11.4	pCi/L					
Europium-155	U	9.92	+/-8.35	7.26	+/-8.18	15.1	pCi/L					
Manganese-54	U	-0.508	+/-1.86	1.43	+/-1.82	3.17	pCi/L					
Niobium-94	U	-0.366	+/-2.00	1.59	+/-1.96	3.44	pCi/L					
Silver-108m	U	0.506	+/-1.91	1.63	+/-1.87	3.47	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.216	+/-0.243	0.231	+/-0.248	0.524	pCi/L		JMB1 01/09/05	1633	389716	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		14.0	+/-2.15	1.17	+/-2.38	2.51	pCi/L		EXW1 01/05/05	1041	390586	6
Beta		14.7	+/-1.85	1.28	+/-1.94	2.64	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3760	+/-453	179	+/-457	358	pCi/L		DAJ1 01/01/05	2043	389793	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	1.62	+/-6.29	5.22	+/-6.29	10.8	pCi/L		LAG1 01/03/05	2141	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	10.5	+/-14.1	9.63	+/-14.1	19.5	pCi/L		DAJ1 01/05/05	1255	389765	9
Liquid Scint Ni63, Liquid-ALL												

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: MW 106D-0404-001
Sample ID: 127512017

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-8.19	+/-6.10	5.24	+/-6.11	10.6	pCi/L		DAJ1 12/27/04	2335	389766	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	2.31	+/-5.43	4.51	+/-5.43	9.21	pCi/L		EGD1 12/26/04	0755	389457	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	93	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	57	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	99	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	85	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	70	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Report Date: January 13, 2005

Client Sample ID: MW 106D-0404-001
Sample ID: 127512017

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID:	ATW1-0404-001	Project:	YANK01704
Sample ID:	127512018	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.073	+/-0.103	0.0483	+/-0.104	0.176	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	-0.00117	+/-0.141	0.137	+/-0.141	0.352	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		0.533	+/-0.296	0.118	+/-0.301	0.331	pCi/L		HOB1 01/05/05	2344	390952	2
Curium-242	U	0.118	+/-0.164	0.0921	+/-0.164	0.291	pCi/L					
Curium-243/244	U	0.318	+/-0.297	0.204	+/-0.298	0.504	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	1.05	+/-7.52	6.29	+/-7.53	12.9	pCi/L		HOB1 01/05/05	2258	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-2.29	+/-15.4	13.1	+/-15.1	27.6	pCi/L		AKB 12/30/04	1259	389015	4
Cesium-134	U	0.641	+/-1.80	1.54	+/-1.76	3.39	pCi/L					
Cesium-137	U	2.15	+/-1.94	1.77	+/-1.91	3.82	pCi/L					
Cobalt-60	U	-0.562	+/-1.77	1.39	+/-1.73	3.19	pCi/L					
Europium-152	U	-0.748	+/-5.28	4.15	+/-5.17	8.87	pCi/L					
Europium-154	U	0.565	+/-3.49	3.01	+/-3.42	7.14	pCi/L					
Europium-155	U	3.49	+/-9.95	5.93	+/-9.75	12.4	pCi/L					
Manganese-54	U	-1.85	+/-1.73	1.19	+/-1.69	2.66	pCi/L					
Niobium-94	U	2.05	+/-2.29	1.52	+/-2.25	3.28	pCi/L					
Silver-108m	U	-0.0916	+/-1.69	1.42	+/-1.66	3.06	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.00285	+/-0.325	0.374	+/-0.325	0.852	pCi/L		JMB1 01/05/05	1050	389716	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.249	+/-1.14	1.12	+/-1.14	2.56	pCi/L		EXW1 01/05/05	1041	390586	6
Beta		4.12	+/-1.42	1.27	+/-1.42	2.64	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	231	+/-234	178	+/-234	356	pCi/L		DAJ1 01/01/05	2114	389793	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	3.36	+/-6.31	5.19	+/-6.31	10.7	pCi/L		LAG1 01/03/05	2213	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	5.92	+/-13.8	9.43	+/-13.8	19.1	pCi/L		DAJ1 01/05/05	1459	389765	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: ATW1-0404-001
Sample ID: 127512018

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-0.224	+/-5.40	4.54	+/-5.40	9.21	pCi/L		DAJ1	01/04/05	0557	389766	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	0.835	+/-5.36	4.48	+/-5.36	9.14	pCi/L		EGD1	12/26/04	0858	389457	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389157

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	88	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	69	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	91	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	75	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 13, 2005

Client Sample ID: ATW1-0404-001
Sample ID: 127512018

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 13, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390950										
QC1200763660 127512017 DUP										
Plutonium-241	U	-2.43	U	1.68	pCi/L	N/A		(0% - 100%)	HOB1	01/06/05 09:49
	Uncert:	+/-5.89		+/-6.04						
	TPU:	+/-5.90		+/-6.04						
QC1200763662 LCS										
Plutonium-241	138			130	pCi/L		94	(75%-125%)		01/06/05 11:22
	Uncert:			+/-9.09						
	TPU:			+/-15.5						
QC1200763659 MB										
Plutonium-241			U	-3.54	pCi/L					01/06/05 09:02
	Uncert:			+/-6.53						
	TPU:			+/-6.53						
QC1200763661 127512017 MS										
Plutonium-241	139 U	-2.43		130	pCi/L		94			01/06/05 10:35
	Uncert:	+/-5.89		+/-9.14						
	TPU:	+/-5.90		+/-15.6						
Batch 390951										
QC1200763664 127512017 DUP										
Plutonium-238	U	-0.15	U	0.0429	pCi/L	N/A		(0% - 100%)	HOB1	01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.122						
	TPU:	+/-0.094		+/-0.122						
Plutonium-239/240	U	0.0293	U	0.0143	pCi/L	69		(0% - 100%)		
	Uncert:	+/-0.0921		+/-0.0741						
	TPU:	+/-0.0921		+/-0.0741						
QC1200763666 LCS										
Plutonium-238			U	0.0703	pCi/L			(75%-125%)		
	Uncert:			+/-0.218						
	TPU:			+/-0.218						
Plutonium-239/240	23.9			23.1	pCi/L		97	(75%-125%)		
	Uncert:			+/-1.26						
	TPU:			+/-2.51						
QC1200763663 MB										
Plutonium-238			U	0.00	pCi/L					
	Uncert:			+/-0.114						
	TPU:			+/-0.114						
Plutonium-239/240			U	0.0922	pCi/L					
	Uncert:			+/-0.0956						
	TPU:			+/-0.096						
QC1200763665 127512017 MS										
Plutonium-238	U	-0.15	U	0.0971	pCi/L			(75%-125%)		01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.141						
	TPU:	+/-0.094		+/-0.142						
Plutonium-239/240	23.9 U	0.0293		26.2	pCi/L		110	(75%-125%)		
	Uncert:	+/-0.0921		+/-1.37						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390951										
	TPU:	+/-0.0921		+/-2.32						
Batch 390952										
QC1200763668 127512017 DUP										
Americium-241		0.455	U	0.0488	pCi/L	161		(0% - 100%)	HOB1	01/05/05 23:43
	Uncert:	+/-0.364		+/-0.207						
	TPU:	+/-0.370		+/-0.207						
Curium-242	U	0.00	U	0.0571	pCi/L	200		(0% - 100%)		
	Uncert:	+/-0.172		+/-0.112						
	TPU:	+/-0.172		+/-0.113						
Curium-243/244		0.572	U	0.150	pCi/L	117		(0% - 100%)		
	Uncert:	+/-0.425		+/-0.251						
	TPU:	+/-0.432		+/-0.251						
QC1200763670 LCS										
Americium-241	27.3			26.0	pCi/L		95	(75%-125%)		01/05/05 23:44
	Uncert:			+/-1.86						
	TPU:			+/-3.27						
Curium-242			U	0.0891	pCi/L					
	Uncert:			+/-0.126						
	TPU:			+/-0.127						
Curium-243/244	33.8			34.2	pCi/L		101			
	Uncert:			+/-2.14						
	TPU:			+/-4.13						
QC1200763667 MB										
Americium-241			U	0.197	pCi/L					01/09/05 02:59
	Uncert:			+/-0.246						
	TPU:			+/-0.247						
Curium-242			U	0.046	pCi/L					
	Uncert:			+/-0.143						
	TPU:			+/-0.143						
Curium-243/244			U	0.481	pCi/L					
	Uncert:			+/-0.348						
	TPU:			+/-0.352						
QC1200763669 127512017 MS										
Americium-241	27.3	0.455		29.3	pCi/L		106	(75%-125%)		01/05/05 23:43
	Uncert:	+/-0.364		+/-1.86						
	TPU:	+/-0.370		+/-3.49						
Curium-242	U	0.00	U	-0.0354	pCi/L					
	Uncert:	+/-0.172		+/-0.0967						
	TPU:	+/-0.172		+/-0.0968						
Curium-243/244	33.9	0.572		36.2	pCi/L		105			
	Uncert:	+/-0.425		+/-2.08						
	TPU:	+/-0.432		+/-4.20						
Rad Gamma Spec										
Batch 389015										
QC1200759126 127512001 DUP										
Americium-241	U	-10.1	U	3.86	pCi/L	N/A			AKB	12/30/04 17:52
	Uncert:	+/-24.9		+/-15.5						
	TPU:	+/-24.4		+/-15.2						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389015										
Cesium-134	U	3.22	U	1.05	pCi/L	102		(0% - 100%)		
	Uncert:	+/-2.90		+/-2.36						
	TPU:	+/-2.84		+/-2.32						
Cesium-137	UUI	0.00	U	0.515	pCi/L	187		(0% - 100%)		
	Uncert:	+/-5.03		+/-3.01						
	TPU:	+/-4.93		+/-2.95						
Cobalt-60	U	-1.51	U	0.014	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.42		+/-2.06						
	TPU:	+/-2.37		+/-2.02						
Europium-152	U	4.67	U	-2.74	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.53		+/-7.44						
	TPU:	+/-7.38		+/-7.30						
Europium-154	U	-0.779	U	3.51	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.73		+/-7.82						
	TPU:	+/-7.57		+/-7.66						
Europium-155	U	6.18	U	-2.44	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-10.1		+/-9.45						
	TPU:	+/-9.93		+/-9.26						
Manganese-54	U	2.86	U	0.560	pCi/L	134		(0% - 100%)		
	Uncert:	+/-3.00		+/-2.69						
	TPU:	+/-2.94		+/-2.64						
Niobium-94	U	-1.95	U	-0.447	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.64		+/-2.47						
	TPU:	+/-2.59		+/-2.42						
Silver-108m	U	0.354	U	0.690	pCi/L	64		(0% - 100%)		
	Uncert:	+/-2.76		+/-2.30						
	TPU:	+/-2.70		+/-2.26						
QC1200759128 LCS										
Americium-241	1170			1270	pCi/L		109	(75%-125%)		12/30/04 17:53
	Uncert:			+/-226						
	TPU:			+/-221						
Cesium-134			U	1.63	pCi/L					
	Uncert:			+/-11.0						
	TPU:			+/-10.7						
Cesium-137	456			472	pCi/L		103	(75%-125%)		
	Uncert:			+/-43.2						
	TPU:			+/-42.4						
Cobalt-60	667			711	pCi/L		107	(75%-125%)		
	Uncert:			+/-65.9						
	TPU:			+/-64.6						
Europium-152			U	7.99	pCi/L					
	Uncert:			+/-24.8						
	TPU:			+/-24.4						
Europium-154			U	15.1	pCi/L					
	Uncert:			+/-22.1						
	TPU:			+/-21.7						
Europium-155			U	17.3	pCi/L					
	Uncert:			+/-35.6						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389015										
	TPU:			+/-34.9						
Manganese-54			U	7.03	pCi/L					
	Uncert:			+/-10.5						
	TPU:			+/-10.3						
Niobium-94			U	0.912	pCi/L					
	Uncert:			+/-8.06						
	TPU:			+/-7.90						
Silver-108m			U	-0.787	pCi/L					
	Uncert:			+/-9.29						
	TPU:			+/-9.10						
QC1200759125 MB										
Americium-241			U	-5.26	pCi/L					12/30/04 17:51
	Uncert:			+/-19.6						
	TPU:			+/-19.2						
Cesium-134			U	-0.0209	pCi/L					
	Uncert:			+/-2.40						
	TPU:			+/-2.35						
Cesium-137			U	0.627	pCi/L					
	Uncert:			+/-2.63						
	TPU:			+/-2.58						
Cobalt-60			U	-1.59	pCi/L					
	Uncert:			+/-1.84						
	TPU:			+/-1.80						
Europium-152			U	-4.38	pCi/L					
	Uncert:			+/-7.52						
	TPU:			+/-7.37						
Europium-154			U	-3.56	pCi/L					
	Uncert:			+/-5.18						
	TPU:			+/-5.08						
Europium-155			U	3.28	pCi/L					
	Uncert:			+/-8.60						
	TPU:			+/-8.42						
Manganese-54			U	0.865	pCi/L					
	Uncert:			+/-2.44						
	TPU:			+/-2.40						
Niobium-94			U	-1.16	pCi/L					
	Uncert:			+/-2.43						
	TPU:			+/-2.38						
Silver-108m			U	0.637	pCi/L					
	Uncert:			+/-2.51						
	TPU:			+/-2.46						
QC1200759127 127512001 MS										
Americium-241	9360 U	-10.1		10800	pCi/L		116			12/30/04 07:19
	Uncert:	+/-24.9		+/-2510						
	TPU:	+/-24.4		+/-4900						
Cesium-134	U	3.22	U	70.0	pCi/L					
	Uncert:	+/-2.90		+/-138						
	TPU:	+/-2.84		+/-138						
Cesium-137	3650 UUI	0.00		3490	pCi/L		95			

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389015										
	Uncert:	+/-5.03		+/-482						
	TPU:	+/-4.93		+/-1450						
Cobalt-60	5340 U	-1.51		6100	pCi/L		114			
	Uncert:	+/-2.42		+/-705						
	TPU:	+/-2.37		+/-2490						
Europium-152	U	4.67	U	17.3	pCi/L					
	Uncert:	+/-7.53		+/-310						
	TPU:	+/-7.38		+/-304						
Europium-154	U	-0.779	U	166	pCi/L					
	Uncert:	+/-7.73		+/-338						
	TPU:	+/-7.57		+/-338						
Europium-155	U	6.18	U	-34.1	pCi/L					
	Uncert:	+/-10.1		+/-364						
	TPU:	+/-9.93		+/-357						
Manganese-54	U	2.86	U	101	pCi/L					
	Uncert:	+/-3.00		+/-149						
	TPU:	+/-2.94		+/-151						
Niobium-94	U	-1.95	U	73.5	pCi/L					
	Uncert:	+/-2.64		+/-109						
	TPU:	+/-2.59		+/-110						
Silver-108m	U	0.354	U	-27	pCi/L					
	Uncert:	+/-2.76		+/-115						
	TPU:	+/-2.70		+/-113						
Batch 392630										
QC1200767868 127767011 DUP										
Americium-241	U	2.53	U	-7.19	pCi/L	N/A			AKB	01/07/05 18:29
	Uncert:	+/-22.2		+/-26.1						
	TPU:	+/-21.8		+/-25.6						
Cesium-134	U	-1.38	U	-0.517	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.00		+/-4.73						
	TPU:	+/-3.92		+/-4.63						
Cesium-137	U	0.0648	U	6.09	pCi/L	196		(0% - 100%)		
	Uncert:	+/-3.92		+/-10.1						
	TPU:	+/-3.85		+/-9.91						
Cobalt-60	U	0.460	U	3.30	pCi/L	151		(0% - 100%)		
	Uncert:	+/-4.07		+/-5.04						
	TPU:	+/-3.99		+/-4.94						
Europium-152	U	-5.54	U	-0.785	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-10.9		+/-12.7						
	TPU:	+/-10.7		+/-12.4						
Europium-154	U	-6.18	U	-2.63	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-11.1		+/-13.9						
	TPU:	+/-10.9		+/-13.6						
Europium-155	U	8.39	U	2.08	pCi/L	120		(0% - 100%)		
	Uncert:	+/-13.5		+/-16.1						
	TPU:	+/-13.2		+/-15.7						
Manganese-54	U	-2.65	U	-1.38	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.58		+/-4.99						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
	TPU:	+/-4.49		+/-4.89						
Niobium-94	U	-0.222	U	-3.7	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.59		+/-5.25						
	TPU:	+/-3.52		+/-5.15						
Silver-108m	U	-0.625	U	-0.497	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.99		+/-4.71						
	TPU:	+/-3.91		+/-4.61						
QC1200767870 LCS										
Americium-241	936			734	pCi/L		78	(75%-125%)		01/07/05 11:33
	Uncert:			+/-132						
	TPU:			+/-133						
Cesium-134			U	-4.0	pCi/L					
	Uncert:			+/-11.8						
	TPU:			+/-11.6						
Cesium-137	365			340	pCi/L		93	(75%-125%)		
	Uncert:			+/-42.1						
	TPU:			+/-43.3						
Cobalt-60	532			507	pCi/L		95	(75%-125%)		
	Uncert:			+/-56.7						
	TPU:			+/-59.0						
Europium-152			U	-15.2	pCi/L					
	Uncert:			+/-29.4						
	TPU:			+/-28.9						
Europium-154			U	3.18	pCi/L					
	Uncert:			+/-19.3						
	TPU:			+/-18.9						
Europium-155			U	8.56	pCi/L					
	Uncert:			+/-32.7						
	TPU:			+/-32.0						
Manganese-54			U	-0.089	pCi/L					
	Uncert:			+/-10.1						
	TPU:			+/-9.85						
Niobium-94			U	0.906	pCi/L					
	Uncert:			+/-9.88						
	TPU:			+/-9.68						
Silver-108m			U	-8.41	pCi/L					
	Uncert:			+/-10.7						
	TPU:			+/-10.4						
QC1200767867 MB										
Americium-241			U	1.61	pCi/L					01/07/05 11:29
	Uncert:			+/-5.42						
	TPU:			+/-5.32						
Cesium-134			U	-4.67	pCi/L					
	Uncert:			+/-5.03						
	TPU:			+/-4.94						
Cesium-137			U	-0.36	pCi/L					
	Uncert:			+/-4.92						
	TPU:			+/-4.82						
Cobalt-60			U	2.60	pCi/L					

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
	Uncert:			+/-4.39						
	TPU:			+/-4.30						
Europium-152			U	-1.97	pCi/L					
	Uncert:			+/-9.25						
	TPU:			+/-9.06						
Europium-154			U	2.48	pCi/L					
	Uncert:			+/-14.4						
	TPU:			+/-14.1						
Europium-155			U	1.12	pCi/L					
	Uncert:			+/-8.53						
	TPU:			+/-8.36						
Manganese-54			U	-0.318	pCi/L					
	Uncert:			+/-4.19						
	TPU:			+/-4.11						
Niobium-94			U	-2.42	pCi/L					
	Uncert:			+/-4.70						
	TPU:			+/-4.61						
Silver-108m			U	-0.166	pCi/L					
	Uncert:			+/-4.06						
	TPU:			+/-3.98						
QC1200767869 127767011 MS										
Americium-241	9360 U	2.53		8730	pCi/L		93			01/07/05 11:30
	Uncert:	+/-22.2		+/-1940						
	TPU:	+/-21.8		+/-3910						
Cesium-134	U	-1.38	U	64.0	pCi/L					
	Uncert:	+/-4.00		+/-150						
	TPU:	+/-3.92		+/-149						
Cesium-137	3660 U	0.0648		3150	pCi/L		86			
	Uncert:	+/-3.92		+/-408						
	TPU:	+/-3.85		+/-1300						
Cobalt-60	5380 U	0.460		4880	pCi/L		91			
	Uncert:	+/-4.07		+/-652						
	TPU:	+/-3.99		+/-2020						
Europium-152	U	-5.54	U	-45.5	pCi/L					
	Uncert:	+/-10.9		+/-270						
	TPU:	+/-10.7		+/-266						
Europium-154	U	-6.18	U	27.5	pCi/L					
	Uncert:	+/-11.1		+/-254						
	TPU:	+/-10.9		+/-249						
Europium-155	U	8.39	U	457	pCi/L					
	Uncert:	+/-13.5		+/-368						
	TPU:	+/-13.2		+/-403						
Manganese-54	U	-2.65	U	26.3	pCi/L					
	Uncert:	+/-4.58		+/-201						
	TPU:	+/-4.49		+/-197						
Niobium-94	U	-0.222	U	20.2	pCi/L					
	Uncert:	+/-3.59		+/-96.5						
	TPU:	+/-3.52		+/-94.9						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
Silver-108m	U	-0.625	U	-7.83	pCi/L					
	Uncert:	+/-3.99		+/-108						
	TPU:	+/-3.91		+/-106						
Rad Gas Flow										
Batch 389716										
QC1200760748 127512006 DUP										
Strontium-90	U	0.838		0.897	pCi/L	7		(0% - 100%)	JMB1	01/05/05 10:50
	Uncert:	+/-0.533		+/-0.485						
	TPU:	+/-0.581		+/-0.530						
QC1200760750 LCS										
Strontium-90	45.3			49.3	pCi/L		109	(75%-125%)		
	Uncert:			+/-2.85						
	TPU:			+/-14.0						
QC1200760747 MB										
Strontium-90			U	0.286	pCi/L					01/09/05 16:33
	Uncert:			+/-0.301						
	TPU:			+/-0.310						
QC1200760749 127512006 MS										
Strontium-90	90.8 U	0.838		97.4	pCi/L		106	(75%-125%)		01/05/05 10:50
	Uncert:	+/-0.533		+/-5.83						
	TPU:	+/-0.581		+/-29.2						
Batch 390586										
QC1200762822 127512003 DUP										
Alpha		1.09	U	0.914	pCi/L	18		(0% - 100%)	EXW1	01/05/05 10:41
	Uncert:	+/-0.628		+/-0.788						
	TPU:	+/-0.642		+/-0.789						
Beta		16.2		15.4	pCi/L	5		(0% - 100%)		
	Uncert:	+/-1.72		+/-1.69						
	TPU:	+/-2.48		+/-1.73						
QC1200762825 LCS										
Alpha	71.9			79.8	pCi/L		111	(75%-125%)		01/04/05 20:55
	Uncert:			+/-7.83						
	TPU:			+/-10.6						
Beta	242			235	pCi/L		97	(75%-125%)		
	Uncert:			+/-10.2						
	TPU:			+/-13.9						
QC1200762821 MB										
Alpha			U	-0.158	pCi/L					01/05/05 10:41
	Uncert:			+/-0.428						
	TPU:			+/-0.428						
Beta			U	-0.134	pCi/L					
	Uncert:			+/-0.866						
	TPU:			+/-0.866						
QC1200762823 127512003 MS										
Alpha	71.9	1.09		67.3	pCi/L		92	(75%-125%)		01/04/05 20:55
	Uncert:	+/-0.628		+/-8.06						
	TPU:	+/-0.642		+/-8.88						
Beta	242	16.2		255	pCi/L		99	(75%-125%)		

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 390586										
	Uncert:	+/-1.72		+/-11.1						
	TPU:	+/-2.48		+/-12.7						
QC1200762824 127512003 MSD										
Alpha	71.9	1.09		67.1	pCi/L	0*	92	(75%-125%)		
	Uncert:	+/-0.628		+/-7.83						
	TPU:	+/-0.642		+/-8.51						
Beta	242	16.2		241	pCi/L	6*	93	(75%-125%)		
	Uncert:	+/-1.72		+/-10.7						
	TPU:	+/-2.48		+/-14.7						
Rad Liquid Scintillation										
Batch 389457										
QC1200760132 127207010 DUP										
Technetium-99	U	-2.58	U	-1.05	pCi/L	N/A		(0% - 100%)	EGD1	12/26/04 11:04
	Uncert:	+/-5.25		+/-5.35						
	TPU:	+/-5.25		+/-5.35						
QC1200760134 LCS										
Technetium-99	784			896	pCi/L		114	(75%-125%)		12/26/04 12:39
	Uncert:			+/-19.0						
	TPU:			+/-27.7						
QC1200760131 MB										
Technetium-99			U	-0.502	pCi/L					12/26/04 10:01
	Uncert:			+/-5.33						
	TPU:			+/-5.33						
QC1200760133 127207010 MS										
Technetium-99	784 U	-2.58		886	pCi/L		113	(75%-125%)		12/26/04 11:52
	Uncert:	+/-5.25		+/-18.8						
	TPU:	+/-5.25		+/-27.4						
Batch 389461										
QC1200760152 127207010 DUP										
Carbon-14	U	-0.497	U	1.00	pCi/L	N/A		(0% - 100%)	LAG1	01/04/05 06:44
	Uncert:	+/-8.20		+/-8.30						
	TPU:	+/-8.20		+/-8.30						
QC1200760154 LCS										
Carbon-14	329			328	pCi/L		100	(75%-125%)		01/04/05 07:47
	Uncert:			+/-13.9						
	TPU:			+/-20.9						
QC1200760151 MB										
Carbon-14			U	0.00	pCi/L					01/04/05 06:12
	Uncert:			+/-6.12						
	TPU:			+/-6.12						
QC1200760153 127207010 MS										
Carbon-14	657 U	-0.497		640	pCi/L		98	(75%-125%)		01/04/05 07:16
	Uncert:	+/-8.20		+/-27.7						
	TPU:	+/-8.20		+/-64.7						
Batch 389765										
QC1200760893 127207010 DUP										
Iron-55	U	16.5	U	16.0	pCi/L	0		(0% - 100%)	DAJ1	01/06/05 08:06
	Uncert:	+/-14.9		+/-14.8						

QC Summary

Workorder: 127512

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 389765										
	TPU:	+/-14.9		+/-14.8						
QC1200760895 LCS										
Iron-55	464			471	pCi/L		102*	(0%-%)		01/06/05 12:13
	Uncert:			+/-19.8						
	TPU:			+/-27.3						
QC1200760892 MB										
Iron-55			U	8.08	pCi/L					01/06/05 05:24
	Uncert:			+/-14.6						
	TPU:			+/-14.6						
QC1200760894 127207010 MS										
Iron-55	469 U	16.5		474	pCi/L		98*	(0%-%)		01/06/05 10:09
	Uncert:	+/-14.9		+/-19.2						
	TPU:	+/-14.9		+/-26.9						
Batch 389766										
QC1200760897 127207010 DUP										
Nickel-63	U	-6.04	U	1.30	pCi/L	N/A		(0% - 100%)	DAJ1	01/05/05 16:00
	Uncert:	+/-5.89		+/-5.36						
	TPU:	+/-5.90		+/-5.36						
QC1200760899 LCS										
Nickel-63	364			355	pCi/L		98	(75%-125%)		12/28/04 17:14
	Uncert:			+/-11.7						
	TPU:			+/-16.7						
QC1200760896 MB										
Nickel-63			U	-6.16	pCi/L					01/04/05 13:39
	Uncert:			+/-5.94						
	TPU:			+/-5.94						
QC1200760898 127207010 MS										
Nickel-63	365 U	-6.04		309	pCi/L		85	(75%-125%)		12/28/04 15:41
	Uncert:	+/-5.89		+/-10.8						
	TPU:	+/-5.90		+/-15.0						
Batch 389793										
QC1200760995 127512001 DUP										
Tritium		1820		2030	pCi/L	11		(0%-20%)	DAJ1	01/01/05 22:15
	Uncert:	+/-354		+/-363						
	TPU:	+/-355		+/-364						
QC1200760997 LCS										
Tritium	3160			3020	pCi/L		95	(75%-125%)		01/01/05 23:17
	Uncert:			+/-425						
	TPU:			+/-428						
QC1200760994 MB										
Tritium			U	32.5	pCi/L					01/01/05 21:44
	Uncert:			+/-211						
	TPU:			+/-211						
QC1200760996 127512001 MS										
Tritium	3170	1820		5210	pCi/L		107	(75%-125%)		01/01/05 22:46
	Uncert:	+/-354		+/-515						
	TPU:	+/-355		+/-521						

QC Summary

Workorder: 127512

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

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 10, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 127716
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 17, 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00293, 2004-00294, 2004-00295, 2004-00296
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 127716

January 10, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 17, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
127716001	MW102S-0404-001
127716002	MW600-0404-001
127716003	MW502-0404-001
127716004	MW100D-0404-001
127716005	MW100S-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
127716012	MW600-0404-001

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Six groundwater samples were analyzed for ALL.
Three groundwater samples were analyzed for STND.
One groundwater sample was analyzed for Boron.
Two ground water samples were analyzed for MIX.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

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

No. 2004-00293

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 %

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
006	MW203-0404-001	12-15-04	1211	WG	G				X				3 x 4L HNO3, 1 x 1L	
007	MW204-0404-001	12-15-04	1002	WG	G				X				3 x 4L HNO3, 1 x 1L	
003	MW502-0404-001	12-15-04	1515	WG	G			X					1 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14° Deg. C

Custody Sealed? Y☑ N☐

Custody Seal Intact? Y☑ N☐

1) Relinquished By [signature]	Date/Time 12.16.04 0900	2) Received By [signature]	Date/Time 12/17/04 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

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

No. 2004-00294

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 ✓

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
008	MW206-0404-001	12-14-04	1418	WG	G				X				3 x 4L HNO3, 1 x 1L	
009	MW207-0404-001	12-14-04	1421	WG	G				X				3 x 4L HNO3, 1 x 1L	
5				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature] Date/Time 12-14-04 1100	2) Received By Clause Date/Time 12/17/04 915
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

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

No. 2004-00295

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716-1.

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
010	MW200-0404-001	12-15-04	0953	WG	G				X				3 x 4L HNO3, 1 x 1L	
011	MW202-0404-001	12-15-04	1220	WG	G				X				3 x 4L HNO3, 1 x 1L	
6				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature]	Date/Time 12-16-04 1008	2) Received By [signature]	Date/Time 12/17/04 915
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

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

No. 2004-00296

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
001	MW102S-0404-001	12-13-04	1041	WG	G		X						2 x 4L HNO3, 1 x 1L	
002	MW600-0404-001	12-13-04	1041	WG	G		X						2 x 4L HNO3, 1 x 1L	
003	MW600DUP-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
004	MW600MS-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
	MW600MSD-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
004	MW100D-0404-001	12-8-04	0906	WG	G			X					1 x 1L	
005	MW100S-0404-001	12-8-04	1051	WG	G			X					1 x 1L	

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

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

1) Relinquished By [signature] Date/Time 12.16.04 1100	2) Received By [signature] Date/Time 12/17/04 9:15
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: Fed Ex 7903 6899 4490 Chain of Custody # 2004 - 00293

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 10
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C Gause Date: 12/17/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: 7914 19475877 Chain of Custody # 2004-00294

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: CGaus Date: 12/17/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#: _____

Work Order Number: _____

Shipping Container ID: Fed Ex 7915 0452 5570 Chain of Custody # 2004 - 00295

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/17/04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#: _____

Work Order Number: _____

Shipping Container ID: 7914 1953 4689 Chain of Custody # _____

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14.0
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/17/04

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

		PM use only
ient:	Connecticut Yankee	SDG/ARCOC/Work Order:
ate Received:	12/17/04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By:	CY	12/17/04

Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
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)?				Sample ID's and containers affected:
Samples received within holding time?				Id's and tests affected:
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?				Sample ID's affected:
COC form is properly signed in relinquished/received sections?				
Air Bill, Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	3DCPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: _____ Initials 12/17/04 Date

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
SDG 127716

Method/Analysis Information

Analytical Batch:	389537
Prep Batch:	389536
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
127716001	MW102S-0404-001
127716002	MW600-0404-001
127716003	MW502-0404-001
127716004	MW100D-0404-001
127716005	MW100S-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
127716012	MW600-0404-001
1200760365	Method Blank (MB) ICP-MS
1200760366	Laboratory Control Sample (LCS)
1200760369	127716012(MW600-0404-001L) Serial Dilution (SD)
1200760367	127716012(MW600-0404-001D) Sample Duplicate (DUP)
1200760368	127716012(MW600-0404-001S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 127716012 (MW600-0404-001).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

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

Reviewer: Alison [illegible] **Date:** 1/12/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 12, 2005

Client Sample ID: MW102S-0404-001
Sample ID: 127716001
Matrix: Ground Water
Collect Date: 13-DEC-04 10:41
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		47.0	0.540	16.0	ug/L	1	BAJ	12/31/04	0128	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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 1/12/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW600-0404-001
Sample ID: 127716002
Matrix: Ground Water
Collect Date: 13-DEC-04 10:41
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		48.4	0.540	16.0	ug/L	1	BAJ	12/31/04	0134	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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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.

1/12/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW502-0404-001
Sample ID: 127716003
Matrix: Ground Water
Collect Date: 15-DEC-04 15:15
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		73.1	0.540	16.0	ug/L	1	BAJ	12/31/04	0139	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

1/12/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW100D-0404-001
Sample ID: 127716004
Matrix: Ground Water
Collect Date: 08-DEC-04 09:06
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	11.2	0.540	16.0	ug/L	1	BAJ	12/31/04	0144	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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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.

1/12/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW100S-0404-001
Sample ID: 127716005
Matrix: Ground Water
Collect Date: 08-DEC-04 10:51
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		109	0.540	16.0	ug/L	1	BAJ	12/31/04	0149	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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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 1/12/05

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW203-0404-001
Sample ID: 127716006
Matrix: Ground Water
Collect Date: 15-DEC-04 12:11
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		19.1	0.540	16.0	ug/L	1	BAJ	12/31/04	0155	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Project: Quarterly Groundwater PO# 002337

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW204-0404-001
Sample ID: 127716007
Matrix: Ground Water
Collect Date: 15-DEC-04 10:02
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		25.0	0.540	16.0	ug/L	1	BAJ	01/03/05	1215	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Client Sample ID: MW206-0404-001
Sample ID: 127716008
Matrix: Ground Water
Collect Date: 14-DEC-04 14:18
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		21.3	0.540	16.0	ug/L	1	BAJ	01/03/05	1217	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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1/12/05

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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW207-0404-001
Sample ID: 127716009
Matrix: Ground Water
Collect Date: 14-DEC-04 14:21
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		26.8	0.540	16.0	ug/L	1	BAJ	01/03/05	1220	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW200-0404-001
Sample ID: 127716010
Matrix: Ground Water
Collect Date: 15-DEC-04 09:53
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	14.4	0.540	16.0	ug/L	1	BAJ	01/03/05	1222	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Client Sample ID: MW202-0404-001
Sample ID: 127716011
Matrix: Ground Water
Collect Date: 15-DEC-04 12:20
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	10.7	0.540	16.0	ug/L	1	BAJ	01/03/05	1225	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 12, 2005

Page 1 of 1

Client Sample ID: MW600-0404-001
Sample ID: 127716012
Matrix: Ground Water
Collect Date: 13-DEC-04 10:41
Receive Date: 17-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		43.2	0.540	16.0	ug/L	1	BAJ	01/03/05	1236	389537	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQHI	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	*SW846 3005/6020*	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 12, 2005
Page 1 of 1

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 389537										
QC1200760367 127716012 DUP										
Boron		43.2		46.2	ug/L	7 ^		(+/-16.0)	BAJ	01/03/05 12:39
QC1200760366 LCS										
Boron	100			105	ug/L		105	(80%-120%)		12/31/04 01:23
QC1200760365 MB										
Boron			J	1.75	ug/L					12/31/04 01:18
QC1200760368 127716012 MS										
Boron	100	43.2		150	ug/L		107	(75%-125%)		01/03/05 12:42
QC1200760369 127716012 SDILT										
Boron		43.2	J	14.0	ug/L	62				01/03/05 12:44

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	390952

Sample ID	**Client ID**
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200763667	Method Blank (MB)
1200763668	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763669	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763670	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# 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: 127512017 (MW 106D-0404-001).

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 127716011 (MW202-0404-001) was recounted due to a suspected false positive.
Samples 1200763667 (MB), 127716006 (MW203-0404-001), 127716008 (MW206-0404-001), and 127716010 (MW200-0404-001) 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. The following NCR was generated for this SDG:
NCR 172214 was generated due to Failed RPD for DUP. 1. Duplicate 1200763668 failed to meet the Relative Percent Difference for Cm-3/4. The Relative Error Ratio passes with a value of 0.618. 1. Reporting results.

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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390950

Sample ID	Client ID
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200763659	Method Blank (MB)
1200763660	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763661	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763662	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# 5.

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: 127512017 (MW 106D-0404-001).

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 127716007 (MW204-0404-001) 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. An NCR was not generated for this SDG.

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

Additional Comments
The DPM was recalculated to the decay of the count time of the alpha spectroscopy count versus the sample date in order to get correct recoveries on spreadsheet.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390951

Sample ID	Client ID
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200763663	Method Blank (MB)
1200763664	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763665	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763666	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# 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: 127512017 (MW 106D-0404-001).

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. An 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:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	389681

Sample ID	Client ID
127716001	MW102S-0404-001

127716002	MW600-0404-001
127716003	MW502-0404-001
127716004	MW100D-0404-001
127716005	MW100S-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760671	Method Blank (MB)
1200760672	127716001(MW102S-0404-001) Sample Duplicate (DUP)
1200760673	127716001(MW102S-0404-001) Matrix Spike (MS)
1200760674	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# 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: 127716001 (MW102S-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Cesium-137	127716001
UI	The data is rejected due to low abundance.		1200760671

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	393150

Sample ID	Client ID
127716001	MW102S-0404-001
127716002	MW600-0404-001
127716003	MW502-0404-001
127716004	MW100D-0404-001
127716005	MW100S-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200769100	Method Blank (MB)
1200769101	127716007(MW204-0404-001) Sample Duplicate (DUP)
1200769102	127716007(MW204-0404-001) Matrix Spike (MS)
1200769103	127716007(MW204-0404-001) Matrix Spike Duplicate (MSD)
1200769104	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-001 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: 127716007 (MW204-0404-001).

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 1200769101 (MW204-0404-001), 127716006 (MW203-0404-001), and 127716011 (MW202-0404-001) were recounted to verify sample results. Second counts being reported.

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

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Additional Comments
Samples 127716001 (MW102S-0404-001), 127716003 (MW502-0404-001), 127716004 (MW100D-0404-001), 127716007 (MW204-0404-001), 127716008 (MW206-0404-001), and 127716010 (MW200-0404-001) were verified by recounting.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	389718

Sample ID	Client ID
127716001	MW102S-0404-001
127716002	MW600-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760754	Method Blank (MB)

1200760755	127716006(MW203-0404-001) Sample Duplicate (DUP)
1200760756	127716006(MW203-0404-001) Matrix Spike (MS)
1200760757	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# 9.

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: 127716006 (MW203-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	389784

Sample ID	Client ID
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760958	Method Blank (MB)
1200760959	127716006(MW203-0404-001) Sample Duplicate (DUP)
1200760960	127716006(MW203-0404-001) Matrix Spike (MS)
1200760961	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# 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: 127716006 (MW203-0404-001).

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 1200760958 (MB), 1200760959 (MW203-0404-001), and 127716009 (MW207-0404-001) were recounted due to the activity of the samples being between the critical level and the detection limit.

Miscellaneous Information:

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

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	389765

Sample ID	Client ID
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760892	Method Blank (MB)
1200760893	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760894	127207010(CMS-0404-001) Matrix Spike (MS)
1200760895	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# 2.

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: 127207010 (CMS-0404-001).

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

Technical Information:

Holding Time

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

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

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

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	389766

Sample ID	Client ID
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760896	Method Blank (MB)
1200760897	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760898	127207010(CMS-0404-001) Matrix Spike (MS)
1200760899	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# 6.

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: 127207010 (CMS-0404-001).

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 127716009 (MW207-0404-001) was recounted due to the activity of the sample being between the critical level and the detection limit.
Samples 1200760896 (MB), 1200760897 (CMS-0404-001), 127716006 (MW203-0404-001), 127716007 (MW204-0404-001), 127716008 (MW206-0404-001), and 127716011 (MW202-0404-001) were recounted due to a negative result greater than three times the error.
Samples 127716009 (MW207-0404-001) and 127716010 (MW200-0404-001) 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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	389796

Sample ID	Client ID
127716001	MW102S-0404-001
127716002	MW600-0404-001
127716003	MW502-0404-001
127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200761006	Method Blank (MB)
1200761007	127236002(2004-11585 WNW0408) Sample Duplicate (DUP)
1200761008	127236002(2004-11585 WNW0408) Matrix Spike (MS)
1200761009	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# 9.

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: 127236002 (2004-11585 WNW0408).

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 1200761006 (MB) was recounted due to high MDA.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	390761

Sample ID	Client ID
127716004	MW100D-0404-001
127716005	MW100S-0404-001
1200763213	Method Blank (MB)
1200763214	127767001(MW101S-0404-001) Sample Duplicate (DUP)
1200763215	127767001(MW101S-0404-001) Matrix Spike (MS)
1200763216	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# 9.

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: 127767001 (MW101S-0404-001).

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 1200763214 (MW101S-0404-001), 127716004 (MW100D-0404-001), and 127716005 (MW100S-0404-001) were recounted due to the activity of the samples being between the critical level and the detection limit.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	389461

Sample ID **Client ID**

127716006	MW203-0404-001
127716007	MW204-0404-001
127716008	MW206-0404-001
127716009	MW207-0404-001
127716010	MW200-0404-001
127716011	MW202-0404-001
1200760151	Method Blank (MB)
1200760152	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760153	127207010(CMS-0404-001) Matrix Spike (MS)
1200760154	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# 7.

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: 127207010 (CMS-0404-001).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: [illegible] 11/14/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 172214
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
390952	See Below		

Potentially affected work order(s)(SDG): 127512(MSR#04-3933),127716(MSR#04-3933),127767(MSR#04-3933)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Duplicate 1200763668 failed to meet the Relative Percent Difference for Cm-3/4. The Relative Error Ratio passes with a value of 0.618.	1. Reporting results.

Originator's Name:
Jessica Downey 11-JAN-05

Data Validator/Group Leader:
Scott Moreland 11-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 127716

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW102S-0404-001	Project:	YANK01704
Sample ID:	127716001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	7.08	+/-12.0	10.4	+/-11.7	21.6	pCi/L		AKB 12/29/04	2157	389681	1
Cesium-134	U	0.434	+/-1.32	1.11	+/-1.30	2.38	pCi/L					
Cesium-137	U	0.00	+/-2.40	1.03	+/-2.35	2.19	pCi/L					
	UI											
Cobalt-60	U	0.375	+/-1.28	1.10	+/-1.25	2.40	pCi/L					
Europium-152	U	-2.39	+/-3.88	2.97	+/-3.81	6.23	pCi/L					
Europium-154	U	0.510	+/-3.23	2.74	+/-3.17	6.04	pCi/L					
Europium-155	U	1.31	+/-5.02	4.26	+/-4.91	8.79	pCi/L					
Manganese-54	U	-0.446	+/-1.26	0.989	+/-1.23	2.12	pCi/L					
Niobium-94	U	-0.291	+/-1.15	0.923	+/-1.12	1.97	pCi/L					
Silver-108m	U	-0.193	+/-1.19	0.996	+/-1.17	2.10	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.00665	+/-0.457	0.526	+/-0.457	1.13	pCi/L		JMB1 01/03/05	1645	389718	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.269	+/-0.943	0.731	+/-0.950	1.65	pCi/L		EXW1 01/11/05	0234	393150	4
Beta	U	2.43	+/-1.70	1.52	+/-1.70	3.16	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		8930	+/-554	159	+/-572	318	pCi/L		EGD1 01/08/05	1338	389796	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 900.0
5	EPA 906.0 Modified

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW102S-0404-001
Sample ID: 127716001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	88	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW600-0404-001	Project:	YANK01704
Sample ID:	127716002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	3.82	+/-5.07	3.04	+/-4.97	6.35	pCi/L		AKB 12/28/04	2000	389681	1
Cesium-134	U	-1.93	+/-2.67	2.03	+/-2.61	4.48	pCi/L					
Cesium-137	U	0.845	+/-2.31	2.02	+/-2.27	4.40	pCi/L					
Cobalt-60	U	-0.347	+/-2.38	1.96	+/-2.33	4.47	pCi/L					
Europium-152	U	2.96	+/-5.21	4.51	+/-5.11	9.65	pCi/L					
Europium-154	U	-1.48	+/-6.72	5.16	+/-6.58	11.8	pCi/L					
Europium-155	U	1.02	+/-5.98	4.80	+/-5.87	10.0	pCi/L					
Manganese-54	U	0.825	+/-2.65	2.27	+/-2.60	4.92	pCi/L					
Niobium-94	U	0.158	+/-2.17	1.84	+/-2.13	3.99	pCi/L					
Silver-108m	U	0.00883	+/-1.92	1.56	+/-1.88	3.37	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.378	+/-0.484	0.507	+/-0.493	1.09	pCi/L		JMB1 01/03/05	1645	389718	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.404	+/-0.943	0.914	+/-0.943	2.02	pCi/L		EXW1 01/11/05	0234	393150	4
Beta	U	1.42	+/-1.46	1.34	+/-1.47	2.79	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		9580	+/-574	160	+/-594	320	pCi/L		EGD1 01/08/05	1411	389796	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 900.0
5	EPA 906.0 Modified

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Certificate of Analysis

Company: CYAPCo
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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW600-0404-001
Sample ID: 127716002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW502-0404-001	Project:	YANK01704
Sample ID:	127716003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-4.14	+/-15.1	12.7	+/-14.8	26.9	pCi/L		AKB 12/28/04	2004	389681	1
Cesium-134	U	-0.0206	+/-1.84	1.49	+/-1.80	3.30	pCi/L					
Cesium-137	U	0.794	+/-3.53	1.45	+/-3.46	3.17	pCi/L					
Cobalt-60	U	1.71	+/-1.67	1.61	+/-1.63	3.63	pCi/L					
Europium-152	U	1.45	+/-5.72	4.65	+/-5.60	9.86	pCi/L					
Europium-154	U	0.584	+/-4.97	4.22	+/-4.87	9.55	pCi/L					
Europium-155	U	2.78	+/-6.78	5.83	+/-6.64	12.2	pCi/L					
Manganese-54	U	1.27	+/-1.51	1.20	+/-1.48	2.68	pCi/L					
Niobium-94	U	-1.15	+/-1.73	1.31	+/-1.69	2.87	pCi/L					
Silver-108m	U	-0.256	+/-1.73	1.44	+/-1.69	3.10	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.254	+/-1.05	0.830	+/-1.05	1.88	pCi/L		EXW1 01/11/05	0234	393150	3
Beta		5.37	+/-1.85	1.54	+/-1.86	3.19	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	44.2	+/-158	157	+/-158	315	pCi/L		EGD1 01/08/05	1443	389796	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 900.0
4	EPA 906.0 Modified

Notes:
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW502-0404-001
Sample ID: 127716003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW100D-0404-001	Project:	YANK01704
Sample ID:	127716004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.619	+/-22.7	14.1	+/-22.2	29.8	pCi/L		AKB 12/28/04	2249	389681	1
Cesium-134	U	3.43	+/-3.41	3.21	+/-3.35	7.15	pCi/L					
Cesium-137	U	-2.95	+/-3.31	2.42	+/-3.25	5.44	pCi/L					
Cobalt-60	U	4.83	+/-4.44	4.29	+/-4.36	9.55	pCi/L					
Europium-152	U	-0.736	+/-9.92	7.03	+/-9.73	15.2	pCi/L					
Europium-154	U	10.7	+/-9.39	9.24	+/-9.21	21.1	pCi/L					
Europium-155	U	-0.0398	+/-11.1	9.34	+/-10.9	19.6	pCi/L					
Manganese-54	U	-3.5	+/-3.56	2.48	+/-3.49	5.62	pCi/L					
Niobium-94	U	-1.9	+/-3.11	2.38	+/-3.05	5.29	pCi/L					
Silver-108m	U	2.49	+/-3.12	2.70	+/-3.05	5.83	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.697	+/-0.870	0.873	+/-0.870	1.95	pCi/L		EXW1 01/11/05	0234	393150	3
Beta	U	2.47	+/-1.54	1.35	+/-1.54	2.82	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	23.1	+/-181	151	+/-181	302	pCi/L		EGD1 01/06/05	1522	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 900.0
4	EPA 906.0 Modified

Notes:
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW100D-0404-001
Sample ID: 127716004

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW100S-0404-001	Project:	YANK01704
Sample ID:	127716005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	18.6	+/-17.7	15.7	+/-17.4	33.0	pCi/L		AKB 12/28/04	2250	389681	1
Cesium-134	U	0.874	+/-4.35	3.67	+/-4.27	7.98	pCi/L					
Cesium-137	U	-1.74	+/-3.92	3.13	+/-3.84	6.79	pCi/L					
Cobalt-60	U	1.14	+/-4.22	3.63	+/-4.13	8.13	pCi/L					
Europium-152	U	1.88	+/-9.41	7.88	+/-9.22	16.8	pCi/L					
Europium-154	U	-0.313	+/-11.3	8.04	+/-11.1	18.4	pCi/L					
Europium-155	U	0.149	+/-12.4	10.1	+/-12.2	21.2	pCi/L					
Manganese-54	U	0.419	+/-4.09	3.39	+/-4.00	7.38	pCi/L					
Niobium-94	U	-0.974	+/-3.37	2.72	+/-3.31	5.93	pCi/L					
Silver-108m	U	3.89	+/-2.36	2.85	+/-2.32	6.10	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.408	+/-0.731	0.619	+/-0.732	1.37	pCi/L		EXW1 01/11/05	1954	393150	3
Beta	U	0.330	+/-1.42	1.27	+/-1.42	2.63	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	128	+/-180	147	+/-180	295	pCi/L		EGD1 01/06/05	1624	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 900.0
4	EPA 906.0 Modified

Notes:
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW100S-0404-001
Sample ID: 127716005

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW203-0404-001	Project:	YANK01704
Sample ID:	127716006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0474	+/-0.138	0.152	+/-0.138	0.387	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	0.0758	+/-0.150	0.113	+/-0.151	0.309	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.223	+/-0.232	0.151	+/-0.234	0.396	pCi/L		HOB1 01/08/05	1604	390952	2
Curium-242	U	-0.0391	+/-0.107	0.127	+/-0.107	0.358	pCi/L					
Curium-243/244		0.466	+/-0.306	0.172	+/-0.309	0.437	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	1.86	+/-6.70	5.58	+/-6.70	11.4	pCi/L		HOB1 01/05/05	2345	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-9.61	+/-16.2	12.3	+/-15.9	25.8	pCi/L		AKB 12/28/04	2252	389681	4
Cesium-134	U	0.409	+/-1.86	1.56	+/-1.82	3.48	pCi/L					
Cesium-137	U	-0.675	+/-1.54	1.19	+/-1.51	2.69	pCi/L					
Cobalt-60	U	1.03	+/-2.11	1.88	+/-2.07	4.22	pCi/L					
Europium-152	U	-2.54	+/-6.10	4.71	+/-5.98	10.1	pCi/L					
Europium-154	U	-2.92	+/-5.31	3.96	+/-5.20	9.20	pCi/L					
Europium-155	U	-6.27	+/-7.70	6.30	+/-7.55	13.2	pCi/L					
Manganese-54	U	0.836	+/-1.62	1.42	+/-1.59	3.15	pCi/L					
Niobium-94	U	1.24	+/-2.00	1.57	+/-1.96	3.40	pCi/L					
Silver-108m	U	-0.147	+/-1.80	1.52	+/-1.76	3.27	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.0999	+/-0.468	0.555	+/-0.469	1.20	pCi/L		JMB1 01/03/05	1645	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.287	+/-0.785	0.860	+/-0.785	1.98	pCi/L		EXW1 01/12/05	2015	393150	7
Beta	U	1.16	+/-1.61	1.56	+/-1.62	3.27	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	9.90	+/-156	159	+/-156	318	pCi/L		EGD1 01/08/05	1516	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	4.94	+/-6.47	5.27	+/-6.47	10.9	pCi/L		LAG1 01/03/05	2244	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	4.08	+/-14.2	9.79	+/-14.2	19.8	pCi/L		DAJ1 01/05/05	1702	389765	10
Liquid Scint Ni63, Liquid-ALL												

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Report Date: January 14, 2005

Client Sample ID: MW203-0404-001
Sample ID: 127716006

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	2.89	+/-4.90	4.07	+/-4.90	8.26	pCi/L		DAJ1 01/04/05	0729	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	3.23	+/-6.08	5.05	+/-6.08	10.3	pCi/L		EGD1 12/27/04	0402	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	86	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	73	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	79	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	81	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	86	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	90	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW203-0404-001
Sample ID: 127716006

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW204-0404-001	Project:	YANK01704
Sample ID:	127716007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0487	+/-0.0551	0.0921	+/-0.0553	0.271	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	-0.000321	+/-0.0774	0.0751	+/-0.0774	0.237	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.089	+/-0.198	0.158	+/-0.198	0.414	pCi/L		HOB1 01/05/05	2344	390952	2
Curium-242	U	0.0593	+/-0.117	0.0656	+/-0.117	0.239	pCi/L					
Curium-243/244	U	0.251	+/-0.297	0.224	+/-0.298	0.545	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-1.99	+/-6.11	5.16	+/-6.12	10.5	pCi/L		HOB1 01/10/05	1522	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	1.94	+/-14.8	11.8	+/-14.5	24.6	pCi/L		AKB 12/28/04	2252	389681	4
Cesium-134	U	1.72	+/-2.86	2.25	+/-2.80	4.87	pCi/L					
Cesium-137	U	0.110	+/-2.20	1.83	+/-2.15	3.97	pCi/L					
Cobalt-60	U	-0.0276	+/-1.90	1.57	+/-1.86	3.62	pCi/L					
Europium-152	U	-3.21	+/-7.11	5.53	+/-6.97	11.7	pCi/L					
Europium-154	U	2.84	+/-5.92	5.28	+/-5.80	11.9	pCi/L					
Europium-155	U	1.35	+/-8.35	7.18	+/-8.18	14.9	pCi/L					
Manganese-54	U	-0.432	+/-2.11	1.67	+/-2.06	3.67	pCi/L					
Niobium-94	U	1.16	+/-1.90	1.67	+/-1.86	3.62	pCi/L					
Silver-108m	U	-1.48	+/-2.10	1.54	+/-2.05	3.32	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.356	+/-0.464	0.487	+/-0.473	1.05	pCi/L		JMB1 01/03/05	1640	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.491	+/-0.692	0.609	+/-0.692	1.35	pCi/L		EXW1 01/11/05	1954	393150	7
Beta	U	2.13	+/-1.44	1.22	+/-1.44	2.52	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	85.8	+/-162	157	+/-162	315	pCi/L		EGD1 01/08/05	1548	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	-0.646	+/-6.25	5.27	+/-6.25	10.9	pCi/L		LAG1 01/03/05	2316	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	18.6	+/-15.9	10.8	+/-15.9	21.8	pCi/L		DAJ1 01/05/05	1906	389765	10
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW204-0404-001
Sample ID: 127716007

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-7.95	+/-8.28	7.07	+/-8.28	14.3	pCi/L		DAJ1 01/04/05	0902	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	3.17	+/-6.13	5.09	+/-6.13	10.4	pCi/L		EGD1 12/27/04	0506	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	82	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	53	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	92	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	88	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	48	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Sample ID: 127716007

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW206-0404-001	Project:	YANK01704
Sample ID:	127716008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0304	+/-0.0422	0.0704	+/-0.0423	0.222	pCi/L		HOB1 01/03/05	1802	390951	1
Plutonium-239/240	U	0.0292	+/-0.139	0.122	+/-0.139	0.325	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.229	+/-0.263	0.176	+/-0.264	0.430	pCi/L		HOB1 01/09/05	0259	390952	2
Curium-242	U	7.630E-09	+/-0.177	0.149	+/-0.177	0.384	pCi/L					
Curium-243/244		0.545	+/-0.342	0.200	+/-0.346	0.478	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-1.94	+/-6.60	5.58	+/-6.60	11.4	pCi/L		HOB1 01/06/05	0118	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-2.39	+/-11.5	8.71	+/-11.3	18.3	pCi/L		AKB 12/28/04	2253	389681	4
Cesium-134	U	-0.939	+/-2.07	1.60	+/-2.03	3.56	pCi/L					
Cesium-137	U	-0.877	+/-2.17	1.74	+/-2.13	3.79	pCi/L					
Cobalt-60	U	0.0606	+/-2.20	1.82	+/-2.16	4.10	pCi/L					
Europium-152	U	-0.126	+/-5.27	4.37	+/-5.17	9.35	pCi/L					
Europium-154	U	4.34	+/-5.59	5.16	+/-5.48	11.6	pCi/L					
Europium-155	U	-4.01	+/-7.07	5.69	+/-6.93	11.9	pCi/L					
Manganese-54	U	0.268	+/-1.92	1.60	+/-1.88	3.52	pCi/L					
Niobium-94	U	-0.532	+/-1.93	1.56	+/-1.89	3.39	pCi/L					
Silver-108m	U	0.287	+/-1.74	1.44	+/-1.70	3.12	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.280	+/-0.429	0.453	+/-0.436	0.979	pCi/L		JMB1 01/03/05	1640	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.931	+/-0.745	0.726	+/-0.746	1.59	pCi/L		EXW1 01/11/05	1954	393150	7
Beta	U	2.27	+/-1.35	1.12	+/-1.35	2.33	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-45.9	+/-146	155	+/-146	310	pCi/L		EGD1 01/08/05	1621	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	1.87	+/-6.24	5.18	+/-6.24	10.7	pCi/L		LAG1 01/03/05	2348	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-0.172	+/-15.4	10.6	+/-15.4	21.5	pCi/L		DAJ1 01/05/05	2110	389765	10
Liquid Scint Ni63, Liquid-ALL												

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW206-0404-001
Sample ID: 127716008

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-4.29	+/-5.28	4.50	+/-5.28	9.14	pCi/L		DAJ1 01/05/05	1255	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	-0.703	+/-5.99	5.04	+/-5.99	10.3	pCi/L		EGD1 12/27/04	0609	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	85	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	44	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	77	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	93	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	73	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

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Sample ID: 127716008

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Report Date: January 14, 2005

Client Sample ID:	MW207-0404-001	Project:	YANK01704
Sample ID:	127716009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.058	+/-0.147	0.161	+/-0.147	0.399	pCi/L		HOB1 01/03/05	1801	390951	1
Plutonium-239/240	U	0.0137	+/-0.0918	0.0807	+/-0.0918	0.238	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.246	+/-0.250	0.165	+/-0.252	0.427	pCi/L		HOB1 01/05/05	2344	390952	2
Curium-242	U	-0.0394	+/-0.094	0.0912	+/-0.094	0.288	pCi/L					
Curium-243/244	U	0.211	+/-0.270	0.203	+/-0.270	0.502	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-1.73	+/-5.86	4.96	+/-5.86	10.1	pCi/L		HOB1 01/06/05	0205	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.93	+/-12.2	8.90	+/-12.0	18.7	pCi/L		AKB 12/28/04	2254	389681	4
Cesium-134	U	2.08	+/-2.00	1.70	+/-1.96	3.73	pCi/L					
Cesium-137	U	-0.314	+/-1.58	1.26	+/-1.55	2.82	pCi/L					
Cobalt-60	U	1.36	+/-1.73	1.62	+/-1.70	3.68	pCi/L					
Europium-152	U	0.463	+/-5.30	4.25	+/-5.20	9.09	pCi/L					
Europium-154	U	-1.49	+/-4.81	3.75	+/-4.71	8.69	pCi/L					
Europium-155	U	1.18	+/-6.97	5.93	+/-6.83	12.4	pCi/L					
Manganese-54	U	-1.27	+/-1.87	1.37	+/-1.84	3.05	pCi/L					
Niobium-94	U	0.933	+/-1.77	1.53	+/-1.73	3.31	pCi/L					
Silver-108m	U	0.231	+/-1.59	1.36	+/-1.56	2.95	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.163	+/-0.390	0.475	+/-0.393	1.03	pCi/L		JMB1 01/03/05	1640	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.378	+/-0.616	0.604	+/-0.616	1.34	pCi/L		EXW1 01/11/05	2004	393150	7
Beta	U	0.039	+/-1.22	1.10	+/-1.22	2.28	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	19.4	+/-153	156	+/-153	311	pCi/L		EGD1 01/08/05	1653	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	1.74	+/-6.31	5.24	+/-6.32	10.8	pCi/L		LAG1 01/04/05	0019	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	9.24	+/-14.4	9.88	+/-14.4	20.0	pCi/L		DAJ1 01/05/05	2313	389765	10
Liquid Scint Ni63, Liquid-ALL												

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Report Date: January 14, 2005

Client Sample ID: MW207-0404-001
Sample ID: 127716009

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-3.12	+/-7.86	6.63	+/-7.86	13.4	pCi/L		DAJ1 01/04/05	0209	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	6.80	+/-6.56	5.39	+/-6.56	11.0	pCi/L		EGD1 01/03/05	1932	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	94	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	75	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	89	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	88	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	81	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	45	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW207-0404-001
Sample ID: 127716009

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
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X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW200-0404-001	Project:	YANK01704
Sample ID:	127716010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0276	+/-0.0765	0.0556	+/-0.0765	0.148	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	0.00	+/-0.0764	0.0641	+/-0.0764	0.166	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0392	+/-0.144	0.129	+/-0.144	0.311	pCi/L		HOB1 01/09/05	0259	390952	2
Curium-242	U	-0.0654	+/-0.0956	0.101	+/-0.0959	0.262	pCi/L					
Curium-243/244	U	0.0589	+/-0.207	0.165	+/-0.207	0.382	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-8.26	+/-6.04	5.25	+/-6.09	10.7	pCi/L		HOB1 01/06/05	0252	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.56	+/-13.6	10.1	+/-13.4	21.1	pCi/L		AKB 12/28/04	2254	389681	4
Cesium-134	U	-0.0399	+/-2.11	1.74	+/-2.07	3.82	pCi/L					
Cesium-137	U	1.89	+/-2.80	1.47	+/-2.75	3.23	pCi/L					
Cobalt-60	U	0.826	+/-1.79	1.60	+/-1.76	3.61	pCi/L					
Europium-152	U	4.77	+/-6.00	5.23	+/-5.88	11.1	pCi/L					
Europium-154	U	2.37	+/-5.12	4.56	+/-5.01	10.2	pCi/L					
Europium-155	U	-0.0625	+/-8.02	6.54	+/-7.86	13.6	pCi/L					
Manganese-54	U	0.134	+/-2.11	1.75	+/-2.07	3.80	pCi/L					
Niobium-94	U	-1.84	+/-1.91	1.45	+/-1.88	3.14	pCi/L					
Silver-108m	U	0.394	+/-2.02	1.67	+/-1.98	3.57	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.452	+/-0.529	0.543	+/-0.546	1.18	pCi/L		JMB1 01/03/05	1640	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.246	+/-0.526	0.430	+/-0.526	0.988	pCi/L		EXW1 01/11/05	2004	393150	7
Beta		2.09	+/-1.20	1.00	+/-1.21	2.07	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	59.7	+/-161	159	+/-161	319	pCi/L		EGD1 01/08/05	1726	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	2.14	+/-6.41	5.31	+/-6.41	11.0	pCi/L		LAG1 01/04/05	0051	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	9.61	+/-14.3	9.82	+/-14.3	19.9	pCi/L		DAJ1 01/06/05	0117	389765	10
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW200-0404-001
Sample ID: 127716010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-1.25	+/-7.69	6.48	+/-7.70	13.1	pCi/L		DAJ1 12/30/04	0936	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	3.93	+/-6.03	4.99	+/-6.03	10.2	pCi/L		EGD1 12/27/04	0816	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	92	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	69	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	84	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	79	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	42	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	103	

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Sample ID: 127716010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW202-0404-001	Project:	YANK01704
Sample ID:	127716011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0869	+/-0.0803	0.0891	+/-0.0805	0.217	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	-0.0145	+/-0.0634	0.0583	+/-0.0634	0.156	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.156	+/-0.156	0.0574	+/-0.157	0.209	pCi/L		HOB1 01/08/05	1605	390952	2
Curium-242	U	-0.0195	+/-0.0846	0.0637	+/-0.0847	0.232	pCi/L					
Curium-243/244		0.312	+/-0.221	0.0813	+/-0.224	0.257	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-7.35	+/-7.22	6.22	+/-7.25	12.7	pCi/L		HOB1 01/06/05	0339	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.58	+/-20.9	12.5	+/-20.5	26.1	pCi/L		AKB 12/28/04	2255	389681	4
Cesium-134	U	1.01	+/-1.82	1.58	+/-1.79	3.50	pCi/L					
Cesium-137	U	1.27	+/-1.74	1.54	+/-1.71	3.37	pCi/L					
Cobalt-60	U	1.38	+/-2.09	1.88	+/-2.05	4.21	pCi/L					
Europium-152	U	-0.274	+/-5.70	4.79	+/-5.58	10.2	pCi/L					
Europium-154	U	5.51	+/-5.91	5.49	+/-5.79	12.2	pCi/L					
Europium-155	U	-4.12	+/-7.07	5.65	+/-6.93	11.8	pCi/L					
Manganese-54	U	-0.539	+/-1.71	1.31	+/-1.68	2.92	pCi/L					
Niobium-94	U	-0.898	+/-1.71	1.30	+/-1.68	2.86	pCi/L					
Silver-108m	U	0.610	+/-2.19	1.66	+/-2.15	3.54	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.156	+/-0.463	0.510	+/-0.465	1.10	pCi/L		JMB1 01/03/05	1640	389718	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.716	+/-1.12	0.841	+/-1.13	1.94	pCi/L		EXW1 01/12/05	2308	393150	7
Beta	U	1.62	+/-1.86	1.78	+/-1.86	3.72	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	44.1	+/-157	157	+/-157	314	pCi/L		EGD1 01/08/05	1758	389796	8
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	0.760	+/-6.31	5.27	+/-6.31	10.9	pCi/L		LAG1 01/04/05	0122	389461	9
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	13.9	+/-14.6	9.95	+/-14.6	20.1	pCi/L		DAJ1 01/06/05	0321	389765	10
Liquid Scint Ni63, Liquid-ALL												

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW202-0404-001
Sample ID: 127716011

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	2.74	+/-6.61	5.51	+/-6.61	11.2	pCi/L		DAJ1 01/05/05	1427	389766	11
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	3.77	+/-6.17	5.11	+/-6.17	10.4	pCi/L		EGD1 12/27/04	0919	389784	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	12/21/04	2218	389536

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 900.0
8	EPA 906.0 Modified
9	EPA EERF C-01 Modified
10	DOE RESL Fe-1, Modified
11	DOE RESL Ni-1, Modified
12	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	90	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	78	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	72	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	80	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	57	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

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Report Date: January 14, 2005

Client Sample ID: MW202-0404-001
Sample ID: 127716011

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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- h Sample preparation or preservation holding time exceeded.

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QUALITY CONTROL DATA

QC Summary

Report Date: January 14, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390950										
QC1200763660 127512017 DUP										
Plutonium-241	U	-2.43	U	1.68	pCi/L	N/A		(0% - 100%)	HOB1	01/06/05 09:49
	Uncert:	+/-5.89		+/-6.04						
	TPU:	+/-5.90		+/-6.04						
QC1200763662 LCS										
Plutonium-241	138			130	pCi/L		94	(75%-125%)		01/06/05 11:22
	Uncert:			+/-9.09						
	TPU:			+/-15.5						
QC1200763659 MB										
Plutonium-241			U	-3.54	pCi/L					01/06/05 09:02
	Uncert:			+/-6.53						
	TPU:			+/-6.53						
QC1200763661 127512017 MS										
Plutonium-241	139 U	-2.43		130	pCi/L		94			01/06/05 10:35
	Uncert:	+/-5.89		+/-9.14						
	TPU:	+/-5.90		+/-15.6						
Batch 390951										
QC1200763664 127512017 DUP										
Plutonium-238	U	-0.15	U	0.0429	pCi/L	N/A		(0% - 100%)	HOB1	01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.122						
	TPU:	+/-0.094		+/-0.122						
Plutonium-239/240	U	0.0293	U	0.0143	pCi/L	69		(0% - 100%)		
	Uncert:	+/-0.0921		+/-0.0741						
	TPU:	+/-0.0921		+/-0.0741						
QC1200763666 LCS										
Plutonium-238			U	0.0703	pCi/L			(75%-125%)		
	Uncert:			+/-0.218						
	TPU:			+/-0.218						
Plutonium-239/240	23.9			23.1	pCi/L		97	(75%-125%)		
	Uncert:			+/-1.26						
	TPU:			+/-2.51						
QC1200763663 MB										
Plutonium-238			U	0.00	pCi/L					
	Uncert:			+/-0.114						
	TPU:			+/-0.114						
Plutonium-239/240			U	0.0922	pCi/L					
	Uncert:			+/-0.0956						
	TPU:			+/-0.096						
QC1200763665 127512017 MS										
Plutonium-238	U	-0.15	U	0.0971	pCi/L			(75%-125%)		01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.141						
	TPU:	+/-0.094		+/-0.142						
Plutonium-239/240	23.9 U	0.0293		26.2	pCi/L		110	(75%-125%)		
	Uncert:	+/-0.0921		+/-1.37						

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390951										
	TPU:	+/-0.0921		+/-2.32						
Batch 390952										
QC1200763668 127512017 DUP										
Americium-241		0.455	U	0.0488	pCi/L	161		(0% - 100%)	HOB1	01/05/05 23:43
	Uncert:	+/-0.364		+/-0.207						
	TPU:	+/-0.370		+/-0.207						
Curium-242	U	0.00	U	0.0571	pCi/L	200		(0% - 100%)		
	Uncert:	+/-0.172		+/-0.112						
	TPU:	+/-0.172		+/-0.113						
Curium-243/244		0.572	U	0.150	pCi/L	117		(0% - 100%)		
	Uncert:	+/-0.425		+/-0.251						
	TPU:	+/-0.432		+/-0.251						
QC1200763670 LCS										
Americium-241	27.3			26.0	pCi/L		95	(75%-125%)		01/05/05 23:44
	Uncert:			+/-1.86						
	TPU:			+/-3.27						
Curium-242			U	0.0891	pCi/L					
	Uncert:			+/-0.126						
	TPU:			+/-0.127						
Curium-243/244	33.8			34.2	pCi/L		101			
	Uncert:			+/-2.14						
	TPU:			+/-4.13						
QC1200763667 MB										
Americium-241			U	0.197	pCi/L					01/09/05 02:59
	Uncert:			+/-0.246						
	TPU:			+/-0.247						
Curium-242			U	0.046	pCi/L					
	Uncert:			+/-0.143						
	TPU:			+/-0.143						
Curium-243/244			U	0.481	pCi/L					
	Uncert:			+/-0.348						
	TPU:			+/-0.352						
QC1200763669 127512017 MS										
Americium-241	27.3	0.455		29.3	pCi/L		106	(75%-125%)		01/05/05 23:43
	Uncert:	+/-0.364		+/-1.86						
	TPU:	+/-0.370		+/-3.49						
Curium-242	U	0.00	U	-0.0354	pCi/L					
	Uncert:	+/-0.172		+/-0.0967						
	TPU:	+/-0.172		+/-0.0968						
Curium-243/244	33.9	0.572		36.2	pCi/L		105			
	Uncert:	+/-0.425		+/-2.08						
	TPU:	+/-0.432		+/-4.20						
Rad Gamma Spec										
Batch 389681										
QC1200760672 127716001 DUP										
Americium-241	U	7.08	U	-5.12	pCi/L	N/A			AKB	12/29/04 06:35
	Uncert:	+/-12.0		+/-15.5						
	TPU:	+/-11.7		+/-15.2						

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389681										
Cesium-134	U	0.434	U	-1.05	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.32		+/-1.97						
	TPU:	+/-1.30		+/-1.93						
Cesium-137	UUI	0.00	U	-0.329	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.40		+/-1.98						
	TPU:	+/-2.35		+/-1.94						
Cobalt-60	U	0.375	U	-0.151	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.28		+/-1.72						
	TPU:	+/-1.25		+/-1.68						
Europium-152	U	-2.39	U	4.51	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.88		+/-5.72						
	TPU:	+/-3.81		+/-5.61						
Europium-154	U	0.510	U	-0.546	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.23		+/-6.27						
	TPU:	+/-3.17		+/-6.15						
Europium-155	U	1.31	U	5.74	pCi/L	126		(0% - 100%)		
	Uncert:	+/-5.02		+/-10.3						
	TPU:	+/-4.91		+/-10.1						
Manganese-54	U	-0.446	U	-0.70	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.26		+/-1.81						
	TPU:	+/-1.23		+/-1.78						
Niobium-94	U	-0.291	U	0.0542	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.15		+/-1.59						
	TPU:	+/-1.12		+/-1.56						
Silver-108m	U	-0.193	U	-0.0129	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.19		+/-1.67						
	TPU:	+/-1.17		+/-1.63						
QC1200760674 LCS										
Americium-241	1170			1250	pCi/L		107	(75%-125%)		12/29/04 06:35
	Uncert:			+/-211						
	TPU:			+/-207						
Cesium-134			U	5.05	pCi/L					
	Uncert:			+/-11.0						
	TPU:			+/-10.8						
Cesium-137	456			483	pCi/L		106	(75%-125%)		
	Uncert:			+/-46.6						
	TPU:			+/-45.7						
Cobalt-60	668			647	pCi/L		97	(75%-125%)		
	Uncert:			+/-63.3						
	TPU:			+/-62.0						
Europium-152			U	6.60	pCi/L					
	Uncert:			+/-24.9						
	TPU:			+/-24.4						
Europium-154			U	-5.34	pCi/L					
	Uncert:			+/-18.6						
	TPU:			+/-18.2						
Europium-155			U	5.47	pCi/L					
	Uncert:			+/-33.9						

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389681										
	TPU:			+/-33.3						
Manganese-54			U	1.72	pCi/L					
	Uncert:			+/-10.1						
	TPU:			+/-9.85						
Niobium-94			U	-0.451	pCi/L					
	Uncert:			+/-8.35						
	TPU:			+/-8.18						
Silver-108m			U	3.48	pCi/L					
	Uncert:			+/-10.1						
	TPU:			+/-9.87						
QC1200760671 MB										
Americium-241			U	1.20	pCi/L					12/28/04 22:55
	Uncert:			+/-9.97						
	TPU:			+/-9.77						
Cesium-134			U	-0.519	pCi/L					
	Uncert:			+/-2.47						
	TPU:			+/-2.42						
Cesium-137			UUI	0.00	pCi/L					
	Uncert:			+/-4.48						
	TPU:			+/-4.39						
Cobalt-60			U	0.514	pCi/L					
	Uncert:			+/-2.50						
	TPU:			+/-2.45						
Europium-152			U	4.07	pCi/L					
	Uncert:			+/-6.99						
	TPU:			+/-6.85						
Europium-154			U	2.58	pCi/L					
	Uncert:			+/-7.14						
	TPU:			+/-7.00						
Europium-155			U	-2.63	pCi/L					
	Uncert:			+/-7.43						
	TPU:			+/-7.29						
Manganese-54			U	-0.674	pCi/L					
	Uncert:			+/-2.19						
	TPU:			+/-2.14						
Niobium-94			U	0.359	pCi/L					
	Uncert:			+/-2.57						
	TPU:			+/-2.52						
Silver-108m			U	-0.139	pCi/L					
	Uncert:			+/-2.59						
	TPU:			+/-2.54						
QC1200760673 127716001 MS										
Americium-241	9360 U	7.08		9190	pCi/L		98			12/29/04 06:34
	Uncert:	+/-12.0		+/-1940						
	TPU:	+/-11.7		+/-4070						
Cesium-134	U	0.434	U	87.5	pCi/L					
	Uncert:	+/-1.32		+/-153						
	TPU:	+/-1.30		+/-154						
Cesium-137	3660 UUI	0.00		4210	pCi/L		115			

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 389681										
	Uncert:	+/-2.40		+/-546						
	TPU:	+/-2.35		+/-1740						
Cobalt-60	5370 U	0.375		5430	pCi/L		101			
	Uncert:	+/-1.28		+/-694						
	TPU:	+/-1.25		+/-2240						
Europium-152	U	-2.39	U	42.3	pCi/L					
	Uncert:	+/-3.88		+/-343						
	TPU:	+/-3.81		+/-337						
Europium-154	U	0.510	U	-46.3	pCi/L					
	Uncert:	+/-3.23		+/-339						
	TPU:	+/-3.17		+/-333						
Europium-155	U	1.31	U	-182	pCi/L					
	Uncert:	+/-5.02		+/-333						
	TPU:	+/-4.91		+/-335						
Manganese-54	U	-0.446	U	-17.7	pCi/L					
	Uncert:	+/-1.26		+/-132						
	TPU:	+/-1.23		+/-130						
Niobium-94	U	-0.291	U	-31.7	pCi/L					
	Uncert:	+/-1.15		+/-105						
	TPU:	+/-1.12		+/-104						
Silver-108m	U	-0.193	U	-42.2	pCi/L					
	Uncert:	+/-1.19		+/-130						
	TPU:	+/-1.17		+/-128						
Rad Gas Flow										
Batch 389718										
QC1200760755 127716006 DUP										
Strontium-90	U	-0.0999	U	0.0714	pCi/L	N/A		(0% - 100%)	JMB1	01/03/05 16:41
	Uncert:	+/-0.468		+/-0.514						
	TPU:	+/-0.469		+/-0.514						
QC1200760757 LCS										
Strontium-90	45.3			48.6	pCi/L		107	(75%-125%)		
	Uncert:			+/-2.63						
	TPU:			+/-16.8						
QC1200760754 MB										
Strontium-90			U	0.0877	pCi/L					01/03/05 16:40
	Uncert:			+/-0.470						
	TPU:			+/-0.471						
QC1200760756 127716006 MS										
Strontium-90	90.8 U	-0.0999		93.0	pCi/L		102	(75%-125%)		01/03/05 16:41
	Uncert:	+/-0.468		+/-4.63						
	TPU:	+/-0.469		+/-26.0						
Batch 393150										
QC1200769101 127716007 DUP										
Alpha	U	-0.491	U	-0.801	pCi/L	N/A		(0% - 100%)	EXW1	01/12/05 23:08
	Uncert:	+/-0.692		+/-0.977						
	TPU:	+/-0.692		+/-0.977						
Beta	U	2.13	U	2.56	pCi/L	0		(0% - 100%)		
	Uncert:	+/-1.44		+/-1.72						

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 393150										
	TPU:	+/-1.44		+/-1.72						
QC1200769104 LCS										
Alpha	108			103	pCi/L		96	(75%-125%)		01/11/05 16:44
	Uncert:			+/-11.1						
	TPU:			+/-12.7						
Beta	362			349	pCi/L		96	(75%-125%)		
	Uncert:			+/-15.5						
	TPU:			+/-21.6						
QC1200769100 MB										
Alpha			U	-0.768	pCi/L					01/11/05 20:04
	Uncert:			+/-0.545						
	TPU:			+/-0.553						
Beta			U	0.651	pCi/L					
	Uncert:			+/-1.25						
	TPU:			+/-1.25						
QC1200769102 127716007 MS										
Alpha	108 U	-0.491		113	pCi/L		105	(75%-125%)		01/11/05 16:44
	Uncert:	+/-0.692		+/-11.6						
	TPU:	+/-0.692		+/-14.4						
Beta	363 U	2.13		379	pCi/L		104	(75%-125%)		
	Uncert:	+/-1.44		+/-16.4						
	TPU:	+/-1.44		+/-20.5						
QC1200769103 127716007 MSD										
Alpha	108 U	-0.491		102	pCi/L	10*	95	(75%-125%)		
	Uncert:	+/-0.692		+/-10.8						
	TPU:	+/-0.692		+/-13.0						
Beta	363 U	2.13		359	pCi/L	5*	98	(75%-125%)		
	Uncert:	+/-1.44		+/-15.7						
	TPU:	+/-1.44		+/-19.2						
Rad Liquid Scintillation										
Batch 389461										
QC1200760152 127207010 DUP										
Carbon-14	U	-0.497	U	1.00	pCi/L	N/A		(0% - 100%)	LAG1	01/04/05 06:44
	Uncert:	+/-8.20		+/-8.30						
	TPU:	+/-8.20		+/-8.30						
QC1200760154 LCS										
Carbon-14	329			328	pCi/L		100	(75%-125%)		01/04/05 07:47
	Uncert:			+/-13.9						
	TPU:			+/-20.9						
QC1200760151 MB										
Carbon-14			U	0.00	pCi/L					01/04/05 06:12
	Uncert:			+/-6.12						
	TPU:			+/-6.12						
QC1200760153 127207010 MS										
Carbon-14	657 U	-0.497		640	pCi/L		98	(75%-125%)		01/04/05 07:16
	Uncert:	+/-8.20		+/-27.7						
	TPU:	+/-8.20		+/-64.7						
Batch 389765										
QC1200760893 127207010 DUP										

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 389765										
Iron-55	U	16.5	U	16.0	pCi/L	0		(0% - 100%)	DAJ1	01/06/05 08:06
	Uncert:	+/-14.9		+/-14.8						
	TPU:	+/-14.9		+/-14.8						
QC1200760895 LCS										
Iron-55	464			471	pCi/L		102*	(0%-%)		01/06/05 12:13
	Uncert:			+/-19.8						
	TPU:			+/-27.3						
QC1200760892 MB										
Iron-55			U	8.08	pCi/L					01/06/05 05:24
	Uncert:			+/-14.6						
	TPU:			+/-14.6						
QC1200760894 127207010 MS										
Iron-55	469 U	16.5		474	pCi/L		98*	(0%-%)		01/06/05 10:09
	Uncert:	+/-14.9		+/-19.2						
	TPU:	+/-14.9		+/-26.9						
Batch 389766										
QC1200760897 127207010 DUP										
Nickel-63	U	-6.04	U	1.30	pCi/L	N/A		(0% - 100%)	DAJ1	01/05/05 16:00
	Uncert:	+/-5.89		+/-5.36						
	TPU:	+/-5.90		+/-5.36						
QC1200760899 LCS										
Nickel-63	364			355	pCi/L		98	(75%-125%)		12/28/04 17:14
	Uncert:			+/-11.7						
	TPU:			+/-16.7						
QC1200760896 MB										
Nickel-63			U	-6.16	pCi/L					01/04/05 13:39
	Uncert:			+/-5.94						
	TPU:			+/-5.94						
QC1200760898 127207010 MS										
Nickel-63	365 U	-6.04		309	pCi/L		85	(75%-125%)		12/28/04 15:41
	Uncert:	+/-5.89		+/-10.8						
	TPU:	+/-5.90		+/-15.0						
Batch 389784										
QC1200760959 127716006 DUP										
Technetium-99	U	3.23	U	-3.0	pCi/L	N/A		(0% - 100%)	EGD1	01/03/05 21:38
	Uncert:	+/-6.08		+/-6.44						
	TPU:	+/-6.08		+/-6.44						
QC1200760961 LCS										
Technetium-99	784			828	pCi/L		106	(75%-125%)		12/27/04 13:07
	Uncert:			+/-18.1						
	TPU:			+/-27.3						
QC1200760958 MB										
Technetium-99			U	-0.909	pCi/L					01/03/05 20:35
	Uncert:			+/-6.41						
	TPU:			+/-6.41						
QC1200760960 127716006 MS										
Technetium-99	784 U	3.23		812	pCi/L		103	(75%-125%)		12/27/04 12:17
	Uncert:	+/-6.08		+/-17.8						
	TPU:	+/-6.08		+/-26.8						

QC Summary

Workorder: 127716

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 389796										
QC1200761007 127236002 DUP										
Tritium		193		237	pCi/L	21		(0% - 100%)	EGD1	01/08/05 20:03
	Uncert:	+/-120		+/-116						
	TPU:	+/-120		+/-116						
QC1200761009 LCS										
Tritium	3160			2900	pCi/L		92	(75%-125%)		01/08/05 21:09
	Uncert:			+/-339						
	TPU:			+/-342						
QC1200761006 MB										
Tritium			U	-40.1	pCi/L					01/13/05 12:55
	Uncert:			+/-104						
	TPU:			+/-104						
QC1200761008 127236002 MS										
Tritium	3180	193		3190	pCi/L		94	(75%-125%)		01/08/05 20:36
	Uncert:	+/-120		+/-356						
	TPU:	+/-120		+/-359						
Batch 390761										
QC1200763214 127767001 DUP										
Tritium	U	-9.6	U	147	pCi/L	N/A		(0% - 100%)	EGD1	01/07/05 00:44
	Uncert:	+/-180		+/-173						
	TPU:	+/-180		+/-173						
QC1200763216 LCS										
Tritium	3160			2930	pCi/L		93	(75%-125%)		12/30/04 16:30
	Uncert:			+/-244						
	TPU:			+/-248						
QC1200763213 MB										
Tritium			U	40.9	pCi/L					12/30/04 13:23
	Uncert:			+/-172						
	TPU:			+/-172						
QC1200763215 127767001 MS										
Tritium	3170 U	-9.6		3040	pCi/L		96	(75%-125%)		12/30/04 15:28
	Uncert:	+/-180		+/-253						
	TPU:	+/-180		+/-257						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

QC Summary

Workorder: 127716

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

h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 17, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 127767
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 20, 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00297 thru 2004-00303
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 127767

January 17, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 20, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
127767001	MW101S-0404-001
127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767004	MW122S-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767008	MW505-0404-001
127767009	MW503-0404-001
127767010	MW504-0404-001
127767011	MW508D-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001

127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
127767019	MW603DUP-0404-001
127767020	MW602DUP-0404-001

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Seven groundwater samples were analyzed for ALL.
Four groundwater samples were analyzed for STND.
Two groundwater samples were analyzed for Boron.
Seven ground water samples were analyzed for MIX.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

127767%

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

Chain of Custody Form

No. 2004-00297

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW205-0404-001	12-14-04	1231	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW208-0404-001	12-14-04	1225	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-16-04 1400	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

4

127767%

Chain of Custody Form

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

No. 2004-00298

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
MW101S-0404-001	12-13-04	1654	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW123S-0404-001	12-14-04	0931	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW505-0404-001	12-14-04	0922	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW603MSD-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 10 Deg. C
Custody Sealed? Y☑ N☐
Custody Seal Intact? Y☑ N☐

1) Relinquished By [signature]	Date/Time 12-16-04 1600	2) Received By [signature]	Date/Time 12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

5 of 9

127767%

Chain of Custody Form

No. 2004-00299

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
MW102D-0404-001	12-14-04	1306	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW503-0404-001	12-10-04	1046	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW504-0404-001	12-10-04	0906	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW122S-0404-001	12-7-04	0941	WG	G		X						1 x 1L	
MW508D-0404-001	12-8-04	1411	WG	G			X					1 x 1L	
MW603MS-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	
MW603DUP-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [illegible] Date/Time 12.16.04 1600	2) Received By [illegible] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

127767%

Chain of Custody Form

No. 2004-00300

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW107D-0404-001	12-14-04	0945	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW125S-0404-001	12-14-04	1300	WG	G		X						2 x 4L HNO3, 1 x 1L	
267 MW109D-0404-001	12-15-04	1015	WG	G		X						2 x 4L HNO3	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

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

Chain of Custody Form

No. 2004-00301

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW104S-0404-001	12-16-04	1031	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106S-0404-001	12-15-04	0840	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

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

No. 2004-00302

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
EP165-0404-001	12-16-04	1415	WG	G				X				3 x 4L HNO3, 1 x 1L	
EP171-0404-001	12-16-04	1402	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature]	Date/Time 12-16-04 1600	2) Received By [signature]	Date/Time 12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

1277677.

Chain of Custody Form

No. 2004-00303

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
EP166-0404-001	12-16-04	1352	WG	G				X				3 x 4L HNO3, 1 x 1L	
007 MW109D-0404-001	12-15-04	1015	WG	G		X						1 x 1L	
020 MW602DUP-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
020 MW602MS-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
020 MW602MSD-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 4 Deg. C
Custody Sealed? Y☒ N☐
Custody Seal Intact? Y☒ N☐

1) Relinquished By [signature]	Date/Time 12-16-04 1630
2) Received By [signature]	Date/Time 12/20/04 9100
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12.20.04 9:00

SDG#: MSR# 04-3933

Work Order Number: 127767

Shipping Container ID: FedEx 1903 6945 6951 Chain of Custody # 2004-00297

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR#04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex 7915 0487 7716 Chain of Custody # 2004 -00298

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 16°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:
   ✓ tape ____ hazard labels
   ____ custody seals ____ appropriate sample labels

9. Samples are:
   ✓ in good condition ____ leaking
   ____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [✓]
11. Description of anomalies (include sample numbers): MW1015-0404-001 has time of 1934 on sample should be 1954

Sample Custodian/Laboratory: CJ Bouse Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR#04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex 7908 6185 5190 Chain of Custody # 2004 00299

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: CGaus Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12·20·04 9:00

SDG#: MSR#04-3933

Work Order Number: 127767

Shipping Container ID: 7903 6955 9162 Chain of Custody # 2004-00300

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: _____ On _____ By _____

127767

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR#04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex Chain of Custody # 2004-00301

1. Custody Seals on shipping container intact? Yes [ ] No [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ]
3. Chain-of-Custody record present? Yes [ ] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%.

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR# 04-3933

Work Order Number: 127767.

Shipping Container ID: Fed Ex 7908 6226 8812 Chain of Custody # 2004-00302

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12-20-04

SDG#: MSL#04-3933

Work Order Number: 127767

Shipping Container ID: 1921 6201 1946 Chain of Custody # 2004-60303

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

127767%

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 127767
Date Received: 12/20/04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: 192	12/20/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill, Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	90 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CXB Initials 12/21/04 Date

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
Work Order 127767

Method/Analysis Information

Analytical Batch:	389954
Prep Batch:	389953
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
127767001	MW101S-0404-001
127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767004	MW122S-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767008	MW505-0404-001
127767009	MW503-0404-001
127767010	MW504-0404-001
127767011	MW508D-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
127767019	MW603DUP-0404-001

127767020	MW602DUP-0404-001
1200761365	Method Blank (MB)
1200761366	Laboratory Control Sample (LCS)
1200761369	(MW603DUP-0404-001L) Serial Dilution (SDILT)
1200761367	(MW603DUP-0404-001D) Duplicate (DUP)
1200761368	(MW603DUP-0404-001S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the QC sample for this batch: 127767019 (MW603DUP-0404-001).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Dee'Sandra C **Date:** 1/14/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW101S-0404-001
Sample ID: 127767001
Matrix: Ground Water
Collect Date: 13-DEC-04 16:54
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		24.9	0.540	16.0	ug/L	1	BAJ	12/30/04	1140	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

1/14/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW123S-0404-001
Sample ID: 127767002
Matrix: Ground Water
Collect Date: 14-DEC-04 09:31
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		113	0.540	16.0	ug/L	1	BAJ	12/30/04	1145	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. 1/14/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 14, 2005

Client Sample ID: MW102D-0404-001
Sample ID: 127767003
Matrix: Ground Water
Collect Date: 14-DEC-04 13:06
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		135	0.540	16.0	ug/L	1	BAJ	12/30/04	1150	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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1/14/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW122S-0404-001
Sample ID: 127767004
Matrix: Ground Water
Collect Date: 07-DEC-04 09:41
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		187	0.540	16.0	ug/L	1	BAJ	12/30/04	1155	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW107D-0404-001
Sample ID: 127767005
Matrix: Ground Water
Collect Date: 14-DEC-04 09:45
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		16.7	0.540	16.0	ug/L	1	BAJ	12/30/04	1201	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW125S-0404-001
Sample ID: 127767006
Matrix: Ground Water
Collect Date: 14-DEC-04 13:00
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		308	0.540	16.0	ug/L	1	BAJ	12/30/04	1206	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Report Date: January 14, 2005

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Client Sample ID: MW109D-0404-001
Sample ID: 127767007
Matrix: Ground Water
Collect Date: 15-DEC-04 10:15
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		176	0.540	16.0	ug/L	1	BAJ	12/30/04	1211	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW505-0404-001
Sample ID: 127767008
Matrix: Ground Water
Collect Date: 14-DEC-04 09:22
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		80.0	0.540	16.0	ug/L	1	BAJ	12/30/04	1216	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW503-0404-001
Sample ID: 127767009
Matrix: Ground Water
Collect Date: 10-DEC-04 10:46
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron	J	13.1	0.540	16.0	ug/L	1	BAJ	01/03/05	1014	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW504-0404-001
Sample ID: 127767010
Matrix: Ground Water
Collect Date: 10-DEC-04 09:06
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		50.6	0.540	16.0	ug/L	1	BAJ	01/03/05	1017	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW508D-0404-001
Sample ID: 127767011
Matrix: Ground Water
Collect Date: 08-DEC-04 14:11
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		60.4	0.540	16.0	ug/L	1	BAJ	01/03/05	1019	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: MW205-0404-001
Sample ID: 127767012
Matrix: Ground Water
Collect Date: 14-DEC-04 12:31
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		57.0	0.540	16.0	ug/L	1	BAJ	01/03/05	1022	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW208-0404-001
Sample ID: 127767013
Matrix: Ground Water
Collect Date: 14-DEC-04 12:25
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		52.7	0.540	16.0	ug/L	1	BAJ	01/03/05	1025	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Client Sample ID: MW104S-0404-001
Sample ID: 127767014
Matrix: Ground Water
Collect Date: 16-DEC-04 10:31
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		172	0.540	16.0	ug/L	1	BAJ	01/03/05	1032	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Project: Quarterly Groundwater PO# 002337

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Page 1 of 1

Client Sample ID: MW106S-0404-001
Sample ID: 127767015
Matrix: Ground Water
Collect Date: 15-DEC-04 08:40
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		802	0.540	16.0	ug/L	1	BAJ	01/03/05	1035	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: EP165-0404-001
Sample ID: 127767016
Matrix: Ground Water
Collect Date: 16-DEC-04 14:15
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		74.6	0.540	16.0	ug/L	1	BAJ	01/03/05	1037	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

1/14/05

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Project: **Quarterly Groundwater PO# 002337**

Report Date: January 14, 2005

Page 1 of 1

Client Sample ID: EP171-0404-001
Sample ID: 127767017
Matrix: Ground Water
Collect Date: 16-DEC-04 14:02
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		364	0.540	16.0	ug/L	1	BAJ	01/03/05	1040	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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Reviewed by 1/14/05

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: EP166-0404-001
Sample ID: 127767018
Matrix: Ground Water
Collect Date: 16-DEC-04 13:52
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		157	0.540	16.0	ug/L	1	BAJ	01/03/05	1043	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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1/14/05

Reviewed by

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW603DUP-0404-001
Sample ID: 127767019
Matrix: Ground Water
Collect Date: 14-DEC-04 13:00
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		335	0.540	16.0	ug/L	1	BAJ	01/03/05	1045	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Alison McCu 1/14/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 14, 2005

Client Sample ID: MW602DUP-0404-001
Sample ID: 127767020
Matrix: Ground Water
Collect Date: 15-DEC-04 08:40
Receive Date: 20-DEC-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		754	0.540	16.0	ug/L	1	BAJ	01/03/05	1106	389954	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 14, 2005
Page 1 of 1

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 389954											
QC1200761367 127767019 DUP											
Boron		335		316	ug/L	6		(0%-20%)	BAJ	01/03/05	10:53
QC1200761366 LCS											
Boron	100			103	ug/L		103	(80%-120%)		12/30/04	11:35
QC1200761365 MB											
Boron			J	2.92	ug/L					12/30/04	11:30
QC1200761368 127767019 MS											
Boron	100	335		430	ug/L		95	(75%-125%)		01/03/05	10:56
QC1200761369 127767019 SDILT											
Boron		335		80.0	ug/L	19.5				01/03/05	10:58

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	390952

Sample ID	**Client ID**
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763667	Method Blank (MB)
1200763668	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763669	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763670	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 127512017 (MW 106D-0404-001).

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 1200763667 (MB) was recounted due to high MDA.

Miscellaneous Information:
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 172214 was generated due to Failed RPD for DUP. 1. Duplicate 1200763668 failed to meet the Relative Percent Difference for Cm-3/4. The Relative Error Ratio passes with a value of 0.618. 1. Reporting results.

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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390950

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763659	Method Blank (MB)
1200763660	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763661	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763662	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 5.

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: 127512017 (MW 106D-0404-001).

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 127767014 (MW104S-0404-001) was recounted to verify hit.

Miscellaneous Information:

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

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

Additional Comments
The DPM was recalculated to the decay of the count time of the alpha spectroscopy count versus the sample date in order to get correct recoveries on spreadsheet.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	390951

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763663	Method Blank (MB)
1200763664	127512017(MW 106D-0404-001) Sample Duplicate (DUP)
1200763665	127512017(MW 106D-0404-001) Matrix Spike (MS)
1200763666	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 127512017 (MW 106D-0404-001).

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 127767018 (EP166-0404-001) was recounted due to poor resolution.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An 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:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	390786

Sample ID	Client ID
127767001	MW101S-0404-001

127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767008	MW505-0404-001
127767009	MW503-0404-001
127767010	MW504-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763267	Method Blank (MB)
1200763268	127767001(MW101S-0404-001) Sample Duplicate (DUP)
1200763269	127767001(MW101S-0404-001) Matrix Spike (MS)
1200763270	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 127767001 (MW101S-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Manganese-54	127767001

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	392630

Sample ID	Client ID
127767004	MW122S-0404-001
127767011	MW508D-0404-001
1200767867	Method Blank (MB)
1200767868	127767011(MW508D-0404-001) Sample Duplicate (DUP)
1200767869	127767011(MW508D-0404-001) Matrix Spike (MS)
1200767870	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 127767011 (MW508D-0404-001).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	390993

Sample ID	Client ID
127767001	MW101S-0404-001
127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767004	MW122S-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767008	MW505-0404-001
127767009	MW503-0404-001
127767010	MW504-0404-001
127767011	MW508D-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763759	Method Blank (MB)
1200763760	127767003(MW102D-0404-001) Sample Duplicate (DUP)
1200763761	127767003(MW102D-0404-001) Matrix Spike (MS)
1200763762	127767003(MW102D-0404-001) Matrix Spike Duplicate (MSD)
1200763763	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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-001 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: 127767003 (MW102D-0404-001).

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 127767003 (MW102D-0404-001) was recounted due to lockout on detector H3 for 1-8-05.
Sample 127767009 (MW503-0404-001) was recounted to verify sample results. The second count is being reported.

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

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Additional Comments
Sample 127767015 (MW106S-0404-001) did not meet the alpha required detection limit due to low sample volume. No more volume could be used due to not exceeding the maximum net weight limit. The sample counted for 500 minutes.
The following samples were recounted to verify results: 1200763760 (MW102D-0404-001), 127767001 (MW101S-0404-001), 127767002 (MW123S-0404-001), 127767003 (MW102D-0404-001), 127767004 (MW122S-0404-001), 127767006 (MW125S-0404-001), 127767007 (MW109D-0404-001), 127767008 (MW505-0404-001), 127767009 (MW503-0404-001), 127767010 (MW504-0404-001), 127767011 (MW508D-0404-001), 127767012 (MW205-

0404-001), 127767013 (MW208-0404-001), 127767014 (MW104S-0404-001), 127767015 (MW106S-0404-001), 127767016 (EP165-0404-001), 127767017 (EP171-0404-001) and 127767018 (EP166-0404-001).

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	391023

Sample ID	Client ID
127767001	MW101S-0404-001
127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767004	MW122S-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763854	Method Blank (MB)
1200763855	127767006(MW125S-0404-001) Sample Duplicate (DUP)
1200763856	127767006(MW125S-0404-001) Matrix Spike (MS)
1200763857	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 127767006 (MW125S-0404-001).

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 127767004 (MW122S-0404-001) was recounted to verify sample result. Second count being reported.

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. An NCR was not generated for this SDG.

Additional Comments
Samples 1200763855 (MW125S-0404-001), 127767006 (MW125S-0404-001) and 127767015 (MW106S-0404-001) were verified by recounting at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	389967

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200761402	Method Blank (MB)
1200761403	127767012(MW205-0404-001) Sample Duplicate (DUP)
1200761404	127767012(MW205-0404-001) Matrix Spike (MS)
1200761405	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 127767012 (MW205-0404-001).

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 127767015 (MW106S-0404-001) was recounted due to a suspected false positive.
The following samples were recounted due to the activity of the samples being between the critical level and the detection limit: 1200761402 (MB), 127767012 (MW205-0404-001), 127767013 (MW208-0404-001), 127767014 (MW104S-0404-001) and 127767018 (EP166-0404-001).

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	389968

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001

127767017	EP171-0404-001
127767018	EP166-0404-001
1200761406	Method Blank (MB)
1200761407	127767012(MW205-0404-001) Sample Duplicate (DUP)
1200761408	127767012(MW205-0404-001) Matrix Spike (MS)
1200761409	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 2.

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: 127767012 (MW205-0404-001).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	389969

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200761410	Method Blank (MB)
1200761411	127767012(MW205-0404-001) Sample Duplicate (DUP)
1200761412	127767012(MW205-0404-001) Matrix Spike (MS)
1200761413	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 6.

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: 127767012 (MW205-0404-001).

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 1200761410 (MB) was recounted due to the activity of the sample being between the critical level and the detection limit.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	390761

Sample ID	Client ID
127767001	MW101S-0404-001
127767002	MW123S-0404-001
127767003	MW102D-0404-001
127767004	MW122S-0404-001
127767005	MW107D-0404-001
127767006	MW125S-0404-001
127767007	MW109D-0404-001
127767008	MW505-0404-001
127767009	MW503-0404-001
127767010	MW504-0404-001
127767011	MW508D-0404-001
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200763213	Method Blank (MB)
1200763214	127767001(MW101S-0404-001) Sample Duplicate (DUP)
1200763215	127767001(MW101S-0404-001) Matrix Spike (MS)
1200763216	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 127767001 (MW101S-0404-001).

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 following samples were recounted due to the activity of the samples being between the critical level and the detection limit: 1200763214 (MW101S-0404-001), 127767001 (MW101S-0404-001), 127767002 (MW123S-0404-001), 127767004 (MW122S-0404-001), 127767008 (MW505-0404-001), 127767009 (MW503-0404-001), 127767014 (MW104S-0404-001) and 127767015 (MW106S-0404-001).

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	389461

Sample ID	Client ID
127767012	MW205-0404-001
127767013	MW208-0404-001
127767014	MW104S-0404-001
127767015	MW106S-0404-001
127767016	EP165-0404-001
127767017	EP171-0404-001
127767018	EP166-0404-001
1200760151	Method Blank (MB)
1200760152	127207010(CMS-0404-001) Sample Duplicate (DUP)
1200760153	127207010(CMS-0404-001) Matrix Spike (MS)
1200760154	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 7.

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: 127207010 (CMS-0404-001).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Alcalu G Cristan 1/17/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 172214
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
11-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
ALPHA SPECTROMETER	DOE EML HASL-300, Am-05-RC Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
390952	See Below		

Potentially affected work order(s)(SDG): 127512(MSR#04-3933),127716(MSR#04-3933),127767(MSR#04-3933)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Duplicate 1200763668 failed to meet the Relative Percent Difference for Cm-3/4. The Relative Error Ratio passes with a value of 0.618.	1. Reporting results.

Originator's Name:
Jessica Downey 11-JAN-05

Data Validator/Group Leader:
Scott Moreland 11-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 127767

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
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.

Heather G Chow

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: .Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW101S-0404-001	Project:	YANK01704
Sample ID:	127767001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-15.7	+/-18.0	12.6	+/-17.6	26.8	pCi/L		AKB	12/31/04	2133	390786	1
Cesium-134	U	-1.06	+/-2.38	1.75	+/-2.34	4.23	pCi/L						
Cesium-137	U	0.494	+/-2.77	2.37	+/-2.71	5.36	pCi/L						
Cobalt-60	U	1.74	+/-3.30	2.74	+/-3.24	6.39	pCi/L						
Europium-152	U	5.06	+/-8.03	7.10	+/-7.87	15.4	pCi/L						
Europium-154	U	-4.66	+/-7.00	4.67	+/-6.86	11.8	pCi/L						
Europium-155	U	-2.35	+/-9.59	7.80	+/-9.39	16.7	pCi/L						
Manganese-54	U	0.00	+/-7.24	1.80	+/-7.09	4.25	pCi/L						
	UI												
Niobium-94	U	-0.726	+/-2.95	2.37	+/-2.89	5.29	pCi/L						
Silver-108m	U	1.16	+/-2.38	2.08	+/-2.33	4.62	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.177	+/-0.442	0.470	+/-0.445	0.980	pCi/L		JMB1	01/08/05	2159	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.014	+/-0.651	0.577	+/-0.654	1.31	pCi/L		DRS1	01/08/05	2225	390993	3
Beta		3.05	+/-1.14	1.00	+/-1.14	2.10	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-9.6	+/-180	152	+/-180	303	pCi/L		EGD1	01/06/05	1727	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW101S-0404-001
Sample ID: 127767001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	79	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW123S-0404-001	Project:	YANK01704
Sample ID:	127767002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-5.98	+/-31.5	26.8	+/-30.9	55.5	pCi/L		AKB 01/01/05	1530	390786	1
Cesium-134	U	4.02	+/-4.46	4.05	+/-4.37	8.83	pCi/L					
Cesium-137	U	3.06	+/-4.40	3.57	+/-4.31	7.75	pCi/L					
Cobalt-60	U	11.1	+/-5.56	5.12	+/-5.45	11.2	pCi/L					
Europium-152	U	8.66	+/-14.5	11.3	+/-14.2	23.9	pCi/L					
Europium-154	U	4.95	+/-12.4	10.5	+/-12.1	23.6	pCi/L					
Europium-155	U	2.55	+/-18.5	15.7	+/-18.1	32.5	pCi/L					
Manganese-54	U	-0.643	+/-4.40	3.55	+/-4.31	7.78	pCi/L					
Niobium-94	U	2.78	+/-3.83	3.41	+/-3.75	7.38	pCi/L					
Silver-108m	U	-0.797	+/-4.66	3.65	+/-4.57	7.76	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.522	+/-0.331	0.321	+/-0.354	0.673	pCi/L		JMB1 01/09/05	0047	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		8.04	+/-1.77	0.615	+/-1.95	1.43	pCi/L		DRS1 01/08/05	2225	390993	3
Beta		28.6	+/-2.23	1.03	+/-2.42	2.15	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	124	+/-182	150	+/-182	299	pCi/L		EGD1 01/06/05	1829	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW123S-0404-001
Sample ID: 127767002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			97						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW102D-0404-001	Project:	YANK01704
Sample ID:	127767003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.66	+/-24.4	18.7	+/-23.9	39.7	pCi/L		AKB 01/01/05	1530	390786	1
Cesium-134	U	0.0955	+/-2.63	2.13	+/-2.58	4.93	pCi/L					
Cesium-137	U	2.06	+/-2.72	2.28	+/-2.66	5.14	pCi/L					
Cobalt-60	U	-1.03	+/-3.01	2.28	+/-2.95	5.44	pCi/L					
Europium-152	U	-1.94	+/-7.54	6.19	+/-7.39	13.6	pCi/L					
Europium-154	U	1.93	+/-6.66	5.89	+/-6.52	14.2	pCi/L					
Europium-155	U	-5.2	+/-10.6	8.41	+/-10.4	17.9	pCi/L					
Manganese-54	U	-2.31	+/-2.83	1.91	+/-2.78	4.43	pCi/L					
Niobium-94	U	-1.59	+/-2.45	1.76	+/-2.40	4.02	pCi/L					
Silver-108m	U	0.230	+/-2.47	2.09	+/-2.42	4.61	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.0466	+/-0.273	0.303	+/-0.274	0.636	pCi/L		JMB1 01/09/05	0047	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		10.4	+/-1.66	0.926	+/-1.77	1.99	pCi/L		DRS1 01/12/05	0017	390993	3
Beta		8.60	+/-1.34	1.00	+/-1.39	2.07	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		6480	+/-327	144	+/-343	288	pCi/L		EGD1 12/29/04	1550	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW102D-0404-001
Sample ID: 127767003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			94						

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

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B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW122S-0404-001	Project:	YANK01704
Sample ID:	127767004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	5.92	+/-22.0	15.9	+/-21.5	33.7	pCi/L		AKB 01/07/05	1128	392630	1
Cesium-134	U	-0.507	+/-4.41	3.57	+/-4.33	8.03	pCi/L					
Cesium-137	U	2.22	+/-4.85	4.25	+/-4.76	9.23	pCi/L					
Cobalt-60	U	-0.555	+/-4.52	3.64	+/-4.43	8.47	pCi/L					
Europium-152	U	1.34	+/-13.1	11.0	+/-12.8	23.3	pCi/L					
Europium-154	U	-3.48	+/-12.1	9.46	+/-11.9	22.1	pCi/L					
Europium-155	U	3.92	+/-12.9	10.9	+/-12.7	23.0	pCi/L					
Manganese-54	U	-0.691	+/-4.65	3.73	+/-4.56	8.30	pCi/L					
Niobium-94	U	0.0272	+/-4.44	3.69	+/-4.35	8.04	pCi/L					
Silver-108m	U	1.27	+/-3.92	3.30	+/-3.84	7.16	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.382	+/-0.242	0.236	+/-0.257	0.494	pCi/L		JMB1 01/12/05	0858	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.743	+/-1.27	1.04	+/-1.27	2.35	pCi/L		DRS1 01/08/05	2225	390993	3
Beta		7.26	+/-1.52	1.15	+/-1.54	2.41	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		609	+/-195	147	+/-195	294	pCi/L		EGD1 01/06/05	1932	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW122S-0404-001
Sample ID: 127767004

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			107						

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

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- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW107D-0404-001	Project:	YANK01704
Sample ID:	127767005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-7.07	+/-13.2	9.50	+/-12.9	19.8	pCi/L		AKB 01/04/05	0705	390786	1
Cesium-134	U	0.108	+/-1.88	1.56	+/-1.85	3.46	pCi/L					
Cesium-137	U	0.366	+/-1.79	1.53	+/-1.75	3.33	pCi/L					
Cobalt-60	U	1.92	+/-2.14	1.87	+/-2.10	4.17	pCi/L					
Europium-152	U	1.46	+/-5.63	4.73	+/-5.51	10.0	pCi/L					
Europium-154	U	-1.81	+/-5.29	3.43	+/-5.18	8.00	pCi/L					
Europium-155	U	5.89	+/-7.56	6.39	+/-7.41	13.3	pCi/L					
Manganese-54	U	0.102	+/-1.68	1.39	+/-1.65	3.09	pCi/L					
Niobium-94	U	-0.714	+/-1.82	1.45	+/-1.78	3.15	pCi/L					
Silver-108m	U	0.876	+/-1.87	1.58	+/-1.83	3.38	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.135	+/-0.268	0.305	+/-0.270	0.639	pCi/L		JMB1 01/09/05	0047	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.303	+/-0.660	0.627	+/-0.661	1.43	pCi/L		DRS1 01/09/05	0738	390993	3
Beta	U	0.769	+/-1.02	1.04	+/-1.02	2.18	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	0.00	+/-171	144	+/-171	287	pCi/L		EGD1 12/29/04	1755	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW107D-0404-001
Sample ID: 127767005

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			95						

Notes:
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X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW125S-0404-001	Project:	YANK01704
Sample ID:	127767006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	8.94	+/-16.3	12.8	+/-16.0	26.8	pCi/L		AKB	01/04/05	0700	390786	1
Cesium-134	U	0.0624	+/-1.97	1.59	+/-1.93	3.52	pCi/L						
Cesium-137	U	-1.26	+/-1.74	1.28	+/-1.70	2.84	pCi/L						
Cobalt-60	U	-0.112	+/-1.45	1.17	+/-1.42	2.78	pCi/L						
Europium-152	U	-1.53	+/-5.12	4.22	+/-5.01	9.02	pCi/L						
Europium-154	U	-3.5	+/-5.74	4.25	+/-5.62	9.70	pCi/L						
Europium-155	U	-2.75	+/-7.14	5.78	+/-7.00	12.1	pCi/L						
Manganese-54	U	-0.788	+/-1.68	1.24	+/-1.64	2.80	pCi/L						
Niobium-94	U	-0.327	+/-1.66	1.32	+/-1.63	2.89	pCi/L						
Silver-108m	U	-1.08	+/-1.65	1.29	+/-1.62	2.80	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		3.08	+/-0.530	0.366	+/-1.04	0.771	pCi/L		JMB1	01/09/05	0047	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.337	+/-0.786	0.735	+/-0.787	1.70	pCi/L		DRS1	01/09/05	0738	390993	3
Beta		12.7	+/-1.69	1.09	+/-1.71	2.28	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		861	+/-199	144	+/-199	287	pCi/L		EGD1	12/29/04	1858	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW125S-0404-001
Sample ID: 127767006

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			79						

Notes:
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E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW109D-0404-001	Project:	YANK01704
Sample ID:	127767007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-5.38	+/-11.1	9.28	+/-10.9	19.5	pCi/L		AKB 01/04/05	1127	390786	1
Cesium-134	U	-0.124	+/-1.91	1.56	+/-1.87	3.48	pCi/L					
Cesium-137	U	-0.574	+/-1.77	1.41	+/-1.73	3.14	pCi/L					
Cobalt-60	U	3.43	+/-2.31	2.31	+/-2.27	5.10	pCi/L					
Europium-152	U	-2.51	+/-5.98	4.63	+/-5.86	9.88	pCi/L					
Europium-154	U	-0.0754	+/-5.71	3.96	+/-5.60	9.21	pCi/L					
Europium-155	U	-2.94	+/-7.27	6.01	+/-7.13	12.6	pCi/L					
Manganese-54	U	0.427	+/-3.20	1.38	+/-3.14	3.10	pCi/L					
Niobium-94	U	3.11	+/-1.97	1.55	+/-1.93	3.38	pCi/L					
Silver-108m	U	0.617	+/-1.75	1.44	+/-1.71	3.12	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.158	+/-0.278	0.289	+/-0.280	0.609	pCi/L		JMB1 01/09/05	0047	391023	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		5.08	+/-1.32	0.656	+/-1.34	1.50	pCi/L		DRS1 01/09/05	0738	390993	3
Beta		6.38	+/-1.31	1.01	+/-1.32	2.11	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3390	+/-262	142	+/-267	284	pCi/L		EGD1 12/29/04	2000	390761	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 900.0
4	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW109D-0404-001
Sample ID: 127767007

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			97						

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW505-0404-001	Project:	YANK01704
Sample ID:	127767008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.325	+/-14.5	8.63	+/-14.2	18.1	pCi/L		AKB 01/04/05	1127	390786	1
Cesium-134	U	-0.582	+/-2.18	1.74	+/-2.13	3.81	pCi/L					
Cesium-137	U	1.42	+/-1.83	1.64	+/-1.79	3.57	pCi/L					
Cobalt-60	U	-2.03	+/-1.84	1.22	+/-1.81	2.86	pCi/L					
Europium-152	U	2.11	+/-5.52	4.68	+/-5.41	9.92	pCi/L					
Europium-154	U	-2.31	+/-6.03	3.92	+/-5.91	8.99	pCi/L					
Europium-155	U	1.02	+/-7.29	5.99	+/-7.14	12.5	pCi/L					
Manganese-54	U	0.0163	+/-1.87	1.54	+/-1.83	3.37	pCi/L					
Niobium-94	U	0.122	+/-1.81	1.32	+/-1.77	2.89	pCi/L					
Silver-108m	U	-0.911	+/-1.76	1.36	+/-1.72	2.93	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	1.08	+/-1.00	0.715	+/-1.03	1.62	pCi/L		DRS1 01/09/05	0738	390993	2
Beta		5.36	+/-1.33	1.06	+/-1.35	2.23	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	57.5	+/-182	151	+/-182	301	pCi/L		EGD1 01/06/05	2034	390761	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW505-0404-001
Sample ID: 127767008

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW503-0404-001	Project:	YANK01704
Sample ID:	127767009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	10-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-6.35	+/-16.1	11.2	+/-15.7	23.7	pCi/L		AKB 01/04/05	1128	390786	1
Cesium-134	U	0.871	+/-1.87	1.62	+/-1.83	3.60	pCi/L					
Cesium-137	U	-1.2	+/-2.06	1.33	+/-2.01	2.96	pCi/L					
Cobalt-60	U	-0.595	+/-1.70	1.30	+/-1.67	3.08	pCi/L					
Europium-152	U	1.73	+/-5.71	4.71	+/-5.60	10.0	pCi/L					
Europium-154	U	-2.41	+/-5.41	4.14	+/-5.30	9.55	pCi/L					
Europium-155	U	0.628	+/-7.02	6.02	+/-6.88	12.6	pCi/L					
Manganese-54	U	0.464	+/-1.83	1.54	+/-1.79	3.41	pCi/L					
Niobium-94	U	0.357	+/-1.53	1.29	+/-1.50	2.86	pCi/L					
Silver-108m	U	-1.23	+/-1.68	1.32	+/-1.64	2.88	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.241	+/-0.663	0.568	+/-0.666	1.30	pCi/L		DRS1 01/13/05	1016	390993	2
Beta	U	-0.656	+/-1.00	1.13	+/-1.00	2.35	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	9.30	+/-174	146	+/-174	291	pCi/L		EGD1 01/06/05	2137	390761	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW503-0404-001
Sample ID: 127767009

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW504-0404-001	Project:	YANK01704
Sample ID:	127767010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	10-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-7.74	+/-17.1	10.4	+/-16.8	21.7	pCi/L		AKB 01/04/05	1128	390786	1
Cesium-134	U	0.196	+/-2.16	1.79	+/-2.12	3.94	pCi/L					
Cesium-137	U	0.761	+/-2.20	1.88	+/-2.15	4.08	pCi/L					
Cobalt-60	U	0.183	+/-2.29	1.92	+/-2.24	4.33	pCi/L					
Europium-152	U	1.99	+/-6.43	5.30	+/-6.31	11.2	pCi/L					
Europium-154	U	2.01	+/-5.32	4.71	+/-5.21	10.7	pCi/L					
Europium-155	U	4.67	+/-8.46	7.39	+/-8.29	15.3	pCi/L					
Manganese-54	U	-0.866	+/-2.21	1.71	+/-2.16	3.76	pCi/L					
Niobium-94	U	0.830	+/-2.67	1.62	+/-2.62	3.51	pCi/L					
Silver-108m	U	0.863	+/-2.14	1.76	+/-2.10	3.76	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.0851	+/-0.809	0.713	+/-0.812	1.61	pCi/L		DRS1 01/09/05	0738	390993	2
Beta		5.28	+/-1.39	1.18	+/-1.40	2.46	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-13.3	+/-174	147	+/-174	293	pCi/L		EGD1 12/30/04	0400	390761	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW504-0404-001
Sample ID: 127767010

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW508D-0404-001	Project:	YANK01704
Sample ID:	127767011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.53	+/-22.2	18.6	+/-21.8	39.1	pCi/L		AKB 01/07/05	1129	392630	1
Cesium-134	U	-1.38	+/-4.00	3.16	+/-3.92	7.03	pCi/L					
Cesium-137	U	0.0648	+/-3.92	3.29	+/-3.85	7.18	pCi/L					
Cobalt-60	U	0.460	+/-4.07	3.45	+/-3.99	7.78	pCi/L					
Europium-152	U	-5.54	+/-10.9	8.61	+/-10.7	18.4	pCi/L					
Europium-154	U	-6.18	+/-11.1	8.42	+/-10.9	19.2	pCi/L					
Europium-155	U	8.39	+/-13.5	11.4	+/-13.2	23.8	pCi/L					
Manganese-54	U	-2.65	+/-4.58	3.54	+/-4.49	7.72	pCi/L					
Niobium-94	U	-0.222	+/-3.59	2.98	+/-3.52	6.48	pCi/L					
Silver-108m	U	-0.625	+/-3.99	3.20	+/-3.91	6.86	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		7.51	+/-1.62	0.671	+/-1.73	1.52	pCi/L		DRS1 01/09/05	0738	390993	2
Beta		16.5	+/-1.79	1.01	+/-1.88	2.13	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	33.2	+/-171	142	+/-171	284	pCi/L		EGD1 12/30/04	0503	390761	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 900.0
3	EPA 906.0 Modified

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW508D-0404-001
Sample ID: 127767011

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW205-0404-001	Project:	YANK01704
Sample ID:	127767012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.135	+/-0.088	0.105	+/-0.0885	0.249	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	-0.015	+/-0.0656	0.0603	+/-0.0656	0.161	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		3.51	+/-0.960	0.133	+/-1.07	0.447	pCi/L		HOB1 01/05/05	1725	390952	2
Curium-242	U	0.074	+/-0.145	0.00	+/-0.145	0.200	pCi/L					
Curium-243/244		5.44	+/-1.20	0.171	+/-1.41	0.525	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-8.43	+/-6.37	5.53	+/-6.43	11.3	pCi/L		HOB1 01/06/05	0425	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-4.84	+/-10.7	7.93	+/-10.5	16.7	pCi/L		AKB 01/04/05	1129	390786	4
Cesium-134	U	0.784	+/-2.72	2.03	+/-2.66	4.41	pCi/L					
Cesium-137	U	1.18	+/-1.94	1.73	+/-1.90	3.76	pCi/L					
Cobalt-60	U	0.168	+/-1.89	1.58	+/-1.85	3.62	pCi/L					
Europium-152	U	3.02	+/-5.58	4.82	+/-5.47	10.3	pCi/L					
Europium-154	U	-4.3	+/-11.4	4.04	+/-11.2	9.34	pCi/L					
Europium-155	U	1.72	+/-6.93	5.83	+/-6.80	12.2	pCi/L					
Manganese-54	U	0.324	+/-1.75	1.48	+/-1.72	3.28	pCi/L					
Niobium-94	U	-0.026	+/-1.84	1.53	+/-1.81	3.33	pCi/L					
Silver-108m	U	0.025	+/-1.75	1.43	+/-1.71	3.09	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.108	+/-0.344	0.367	+/-0.346	0.769	pCi/L		JMB1 01/09/05	0047	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.0777	+/-0.563	0.578	+/-0.563	1.32	pCi/L		DRS1 01/09/05	1858	390993	6
Beta		2.42	+/-1.19	1.13	+/-1.20	2.36	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	43.3	+/-174	145	+/-174	290	pCi/L		EGD1 12/30/04	0605	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	1.64	+/-6.35	5.28	+/-6.35	10.9	pCi/L		LAG1 01/04/05	0154	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-7.91	+/-12.5	8.62	+/-12.5	17.4	pCi/L		DAJ1 12/30/04	1434	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW205-0404-001
Sample ID: 127767012

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	0.504	+/-4.00	3.35	+/-4.00	6.80	pCi/L		DAJ1	12/31/04	1748	389969	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	1.38	+/-5.02	4.18	+/-5.02	8.55	pCi/L		EGD1	01/12/05	0505	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	91	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	82	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	78	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	84	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	70	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW205-0404-001
Sample ID: 127767012

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW208-0404-001	Project:	YANK01704
Sample ID:	127767013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.131	+/-0.124	0.0755	+/-0.125	0.190	pCi/L		HOB1 01/03/05	1801	390951	1
Plutonium-239/240	U	0.029	+/-0.0804	0.0584	+/-0.0805	0.156	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		2.86	+/-0.905	0.261	+/-0.987	0.710	pCi/L		HOB1 01/05/05	1725	390952	2
Curium-242	U	-0.0183	+/-0.0358	0.0868	+/-0.0359	0.380	pCi/L					
Curium-243/244		4.33	+/-1.08	0.112	+/-1.23	0.411	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-1.35	+/-6.91	5.83	+/-6.91	11.9	pCi/L		HOB1 01/06/05	0512	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	6.44	+/-11.9	8.91	+/-11.7	18.7	pCi/L		AKB 01/04/05	1129	390786	4
Cesium-134	U	0.598	+/-1.96	1.65	+/-1.92	3.64	pCi/L					
Cesium-137	U	0.978	+/-1.64	1.45	+/-1.61	3.19	pCi/L					
Cobalt-60	U	-0.747	+/-2.37	1.56	+/-2.32	3.57	pCi/L					
Europium-152	U	0.323	+/-5.43	4.34	+/-5.32	9.26	pCi/L					
Europium-154	U	0.212	+/-5.26	4.38	+/-5.16	9.96	pCi/L					
Europium-155	U	2.45	+/-7.04	6.04	+/-6.90	12.6	pCi/L					
Manganese-54	U	1.74	+/-1.69	1.56	+/-1.66	3.43	pCi/L					
Niobium-94	U	-0.0598	+/-1.68	1.37	+/-1.65	2.99	pCi/L					
Silver-108m	U	0.167	+/-1.71	1.46	+/-1.68	3.14	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.286	+/-0.344	0.353	+/-0.355	0.741	pCi/L		JMB1 01/09/05	0047	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.0278	+/-0.533	0.545	+/-0.534	1.25	pCi/L		DRS1 01/09/05	1858	390993	6
Beta		7.35	+/-1.42	1.10	+/-1.48	2.30	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	89.1	+/-174	143	+/-174	286	pCi/L		EGD1 12/30/04	0708	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	0.763	+/-6.33	5.29	+/-6.33	10.9	pCi/L		LAG1 01/04/05	0303	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-15.1	+/-12.9	8.98	+/-12.9	18.2	pCi/L		DAJ1 12/30/04	1638	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW208-0404-001
Sample ID: 127767013

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	0.849	+/-3.91	3.27	+/-3.91	6.63	pCi/L		DAJ1 12/31/04	1952	389969	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	2.56	+/-5.06	4.19	+/-5.06	8.57	pCi/L		EGD1 01/12/05	0607	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	89	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	83	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	76	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	86	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	80	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	71	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Client Sample ID: MW208-0404-001
Sample ID: 127767013

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW104S-0404-001	Project:	YANK01704
Sample ID:	127767014	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0277	+/-0.0768	0.0558	+/-0.0768	0.149	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	0.0138	+/-0.0718	0.0558	+/-0.0718	0.149	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		0.862	+/-0.478	0.0769	+/-0.492	0.337	pCi/L		HOB1 01/05/05	1725	390952	2
Curium-242	U	0.00	+/-0.144	0.00	+/-0.144	0.200	pCi/L					
Curium-243/244		1.36	+/-0.611	0.154	+/-0.638	0.491	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241		17.5	+/-7.00	5.58	+/-7.33	11.4	pCi/L		HOB1 01/10/05	1654	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-3.87	+/-17.5	13.0	+/-17.2	27.2	pCi/L		AKB 01/04/05	1130	390786	4
Cesium-134	U	-0.247	+/-1.69	1.33	+/-1.66	2.99	pCi/L					
Cesium-137	U	0.102	+/-1.90	1.55	+/-1.86	3.39	pCi/L					
Cobalt-60	U	-0.261	+/-1.99	1.60	+/-1.95	3.63	pCi/L					
Europium-152	U	0.373	+/-5.27	4.48	+/-5.17	9.54	pCi/L					
Europium-154	U	0.701	+/-6.27	4.59	+/-6.15	10.4	pCi/L					
Europium-155	U	-4.65	+/-7.49	5.98	+/-7.34	12.5	pCi/L					
Manganese-54	U	0.116	+/-1.82	1.47	+/-1.78	3.25	pCi/L					
Niobium-94	U	-1.48	+/-1.93	1.44	+/-1.89	3.13	pCi/L					
Silver-108m	U	0.291	+/-1.75	1.48	+/-1.72	3.19	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.166	+/-0.389	0.411	+/-0.391	0.862	pCi/L		JMB1 01/08/05	2155	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.450	+/-0.978	0.986	+/-0.979	2.14	pCi/L		DRS1 01/09/05	1859	390993	6
Beta		5.59	+/-1.47	1.28	+/-1.49	2.66	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	262	+/-180	144	+/-180	288	pCi/L		EGD1 01/06/05	2239	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	0.377	+/-6.25	5.23	+/-6.25	10.8	pCi/L		LAG1 01/04/05	0334	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-2.22	+/-12.3	8.41	+/-12.3	17.0	pCi/L		DAJ1 12/30/04	1841	389968	9
Liquid Scint Ni63, Liquid-ALL												

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW104S-0404-001
Sample ID: 127767014

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-0.833	+/-3.61	3.04	+/-3.61	6.18	pCi/L		DAJ1 12/31/04	2156	389969	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	2.31	+/-4.97	4.12	+/-4.97	8.41	pCi/L		EGD1 01/12/05	0710	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	96	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	50	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	85	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	83	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	77	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

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Client Sample ID: MW104S-0404-001
Sample ID: 127767014

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	MW106S-0404-001	Project:	YANK01704
Sample ID:	127767015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0193	+/-0.0854	0.0643	+/-0.0854	0.234	pCi/L		HOB1 01/03/05	1801	390951	1
Plutonium-239/240	U	-0.0397	+/-0.108	0.129	+/-0.108	0.362	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		1.70	+/-0.755	0.240	+/-0.792	0.695	pCi/L		HOB1 01/05/05	1725	390952	2
Curium-242	U	-0.0209	+/-0.0411	0.0995	+/-0.0412	0.435	pCi/L					
Curium-243/244		3.85	+/-1.10	0.157	+/-1.22	0.531	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-5.48	+/-6.89	5.91	+/-6.92	12.1	pCi/L		HOB1 01/06/05	0642	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	1.08	+/-4.32	3.56	+/-4.23	7.39	pCi/L		AKB 01/04/05	1130	390786	4
Cesium-134	U	-0.0785	+/-2.92	2.42	+/-2.86	5.26	pCi/L					
Cesium-137	U	-1.08	+/-2.32	1.87	+/-2.28	4.08	pCi/L					
Cobalt-60	U	0.229	+/-2.11	1.81	+/-2.07	4.17	pCi/L					
Europium-152	U	-1.2	+/-6.21	5.04	+/-6.09	10.7	pCi/L					
Europium-154	U	-2.12	+/-7.81	5.98	+/-7.65	13.4	pCi/L					
Europium-155	U	-0.793	+/-6.40	5.05	+/-6.27	10.5	pCi/L					
Manganese-54	U	-0.164	+/-2.35	1.93	+/-2.30	4.25	pCi/L					
Niobium-94	U	-0.523	+/-2.23	1.83	+/-2.19	3.98	pCi/L					
Silver-108m	U	-1.36	+/-2.19	1.67	+/-2.15	3.59	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		8.56	+/-0.733	0.369	+/-2.34	0.772	pCi/L		JMB1 01/08/05	2155	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.415	+/-1.84	1.69	+/-1.85	3.57	pCi/L		DRS1 01/09/05	1224	390993	6
Beta		39.3	+/-2.80	1.61	+/-4.75	3.31	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		415	+/-184	143	+/-184	286	pCi/L		EGD1 01/06/05	2342	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	7.79	+/-6.64	5.32	+/-6.65	11.0	pCi/L		LAG1 01/04/05	0406	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-9.0	+/-12.8	8.86	+/-12.8	17.9	pCi/L		DAJ1 12/30/04	2045	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW106S-0404-001
Sample ID: 127767015

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	1.98	+/-6.18	5.16	+/-6.18	10.5	pCi/L		DAJ1	01/01/05	0000	389969	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-1.12	+/-5.22	4.41	+/-5.22	9.00	pCi/L		EGD1	01/07/05	1504	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	79	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	70	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	72	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	83	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	42	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: MW106S-0404-001
Sample ID: 127767015

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	EP165-0404-001	Project:	YANK01704
Sample ID:	127767016	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0558	+/-0.0947	0.0649	+/-0.0948	0.168	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	-0.0418	+/-0.082	0.0795	+/-0.0821	0.197	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		2.16	+/-0.761	0.110	+/-0.816	0.406	pCi/L		HOB1 01/05/05	1725	390952	2
Curium-242	U	0.00	+/-0.147	0.00	+/-0.147	0.203	pCi/L					
Curium-243/244		3.98	+/-1.02	0.00	+/-1.16	0.186	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-7.74	+/-5.91	5.13	+/-5.96	10.5	pCi/L		HOB1 01/06/05	0729	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-2.08	+/-13.8	11.2	+/-13.5	23.0	pCi/L		AKB 01/04/05	1133	390786	4
Cesium-134	U	2.27	+/-3.02	2.72	+/-2.96	5.90	pCi/L					
Cesium-137	U	0.564	+/-5.70	2.55	+/-5.58	5.50	pCi/L					
Cobalt-60	U	2.35	+/-2.59	2.42	+/-2.54	5.41	pCi/L					
Europium-152	U	1.61	+/-7.72	6.49	+/-7.57	13.7	pCi/L					
Europium-154	U	5.72	+/-7.49	6.82	+/-7.34	15.2	pCi/L					
Europium-155	U	2.32	+/-10.4	8.47	+/-10.2	17.5	pCi/L					
Manganese-54	U	-1.03	+/-2.66	2.13	+/-2.61	4.68	pCi/L					
Niobium-94	U	-0.663	+/-2.63	2.04	+/-2.57	4.43	pCi/L					
Silver-108m	U	1.49	+/-3.12	2.19	+/-3.06	4.66	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.273	+/-0.318	0.368	+/-0.325	0.768	pCi/L		JMB1 01/08/05	2155	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		1.85	+/-0.954	0.742	+/-0.967	1.65	pCi/L		DRS1 01/09/05	1859	390993	6
Beta		6.57	+/-1.43	1.17	+/-1.46	2.43	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		988	+/-199	140	+/-199	281	pCi/L		EGD1 12/30/04	1015	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	-1.3	+/-6.28	5.31	+/-6.28	11.0	pCi/L		LAG1 01/04/05	0437	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-6.68	+/-12.5	8.65	+/-12.5	17.5	pCi/L		DAJ1 12/30/04	2249	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: EP165-0404-001
Sample ID: 127767016

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	1.37	+/-3.42	2.85	+/-3.42	5.79	pCi/L		DAJ1 01/01/05	0203	389969	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	1.15	+/-5.28	4.41	+/-5.28	9.00	pCi/L		EGD1 12/28/04	1155	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	98	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	84	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	98	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	80	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	98	

Notes:
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Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	EP171-0404-001	Project:	YANK01704
Sample ID:	127767017	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0273	+/-0.0756	0.0709	+/-0.0756	0.179	pCi/L		HOB1 01/03/05	2019	390951	1
Plutonium-239/240	U	0.0545	+/-0.0844	0.0549	+/-0.0845	0.147	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241		1.56	+/-0.457	0.0791	+/-0.493	0.250	pCi/L		HOB1 01/08/05	1605	390952	2
Curium-242	U	0.0374	+/-0.0733	0.00	+/-0.0735	0.101	pCi/L					
Curium-243/244		1.54	+/-0.452	0.056	+/-0.488	0.204	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241		8.96	+/-5.24	4.26	+/-5.31	8.65	pCi/L		HOB1 01/05/05	2038	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	2.19	+/-17.0	13.3	+/-16.7	28.5	pCi/L		AKB 01/04/05	1535	390786	4
Cesium-134	U	2.71	+/-2.78	2.69	+/-2.73	6.12	pCi/L					
Cesium-137	U	0.532	+/-2.21	1.93	+/-2.16	4.48	pCi/L					
Cobalt-60	U	7.24	+/-3.51	3.90	+/-3.44	8.76	pCi/L					
Europium-152	U	11.1	+/-7.23	6.93	+/-7.09	15.1	pCi/L					
Europium-154	U	-2.91	+/-7.74	5.48	+/-7.58	13.6	pCi/L					
Europium-155	U	-8.81	+/-9.73	7.62	+/-9.54	16.3	pCi/L					
Manganese-54	U	-0.894	+/-2.67	2.05	+/-2.62	4.78	pCi/L					
Niobium-94	U	0.566	+/-2.45	2.11	+/-2.40	4.77	pCi/L					
Silver-108m	U	1.27	+/-2.59	2.21	+/-2.54	4.89	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.501	+/-0.451	0.459	+/-0.471	0.955	pCi/L		JMB1 01/08/05	2155	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.0162	+/-0.524	0.562	+/-0.524	1.28	pCi/L		DRS1 01/09/05	1859	390993	6
Beta		6.90	+/-1.26	0.915	+/-1.27	1.92	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		9040	+/-365	140	+/-392	281	pCi/L		EGD1 12/30/04	1118	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	2.87	+/-6.34	5.23	+/-6.34	10.8	pCi/L		LAG1 01/04/05	0509	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-8.84	+/-12.8	8.87	+/-12.8	18.0	pCi/L		DAJ1 12/31/04	0052	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: EP171-0404-001
Sample ID: 127767017

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	3.95	+/-3.93	3.24	+/-3.94	6.58	pCi/L		DAJ1 01/01/05	0407	389969	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	2.59	+/-5.11	4.24	+/-5.11	8.65	pCi/L		EGD1 12/28/04	1258	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	96	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	75	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	86	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	70	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	102	

Notes:
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: EP171-0404-001
Sample ID: 127767017

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID:	EP166-0404-001	Project:	YANK01704
Sample ID:	127767018	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.145	+/-0.198	0.0924	+/-0.199	0.340	pCi/L		HOB1 01/06/05	1439	390951	1
Plutonium-239/240	U	-0.0275	+/-0.0381	0.0924	+/-0.0382	0.340	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.015	+/-0.175	0.164	+/-0.175	0.417	pCi/L		HOB1 01/05/05	2343	390952	2
Curium-242	U	0.00	+/-0.0708	0.00	+/-0.0708	0.0979	pCi/L					
Curium-243/244	U	0.0481	+/-0.187	0.164	+/-0.187	0.418	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-5.64	+/-5.61	4.83	+/-5.63	9.87	pCi/L		HOB1 01/06/05	0815	390950	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-6.15	+/-19.4	14.1	+/-19.0	29.7	pCi/L		AKB 01/04/05	1536	390786	4
Cesium-134	U	0.466	+/-3.41	2.86	+/-3.34	6.38	pCi/L					
Cesium-137	U	1.25	+/-3.23	2.82	+/-3.16	6.19	pCi/L					
Cobalt-60	U	1.92	+/-2.62	2.51	+/-2.57	5.86	pCi/L					
Europium-152	U	-4.25	+/-9.72	6.60	+/-9.53	14.3	pCi/L					
Europium-154	U	-9.05	+/-8.47	5.38	+/-8.30	13.1	pCi/L					
Europium-155	U	-1.87	+/-10.5	8.43	+/-10.3	17.9	pCi/L					
Manganese-54	U	1.12	+/-2.98	2.31	+/-2.92	5.22	pCi/L					
Niobium-94	U	-1.16	+/-2.55	1.99	+/-2.50	4.47	pCi/L					
Silver-108m	U	-2.0	+/-2.85	2.11	+/-2.79	4.66	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.546	+/-0.420	0.417	+/-0.443	0.873	pCi/L		JMB1 01/08/05	2154	391023	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		4.69	+/-1.13	0.455	+/-1.21	1.07	pCi/L		DRS1 01/09/05	1859	390993	6
Beta		8.22	+/-1.32	0.898	+/-1.41	1.88	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3610	+/-262	139	+/-268	277	pCi/L		EGD1 12/30/04	1220	390761	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	-1.78	+/-6.18	5.24	+/-6.18	10.8	pCi/L		LAG1 01/04/05	0541	389461	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	-11.5	+/-13.2	9.16	+/-13.3	18.5	pCi/L		DAJ1 12/31/04	0256	389968	9
Liquid Scint Ni63, Liquid-ALL												

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 14, 2005

Client Sample ID: EP166-0404-001
Sample ID: 127767018

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	3.53	+/-3.44	2.83	+/-3.44	5.76	pCi/L		DAJ1 01/01/05	0649	389969	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	1.37	+/-4.98	4.15	+/-4.98	8.49	pCi/L		EGD1 01/12/05	0813	389967	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	MXW1	12/27/04	0800	389953

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	93	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	76	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	89	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	85	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	81	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Sample ID: 127767018

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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h Sample preparation or preservation holding time exceeded.
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QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 17, 2005

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390950										
QC1200763660 127512017 DUP										
Plutonium-241	U	-2.43	U	1.68	pCi/L	N/A		(0% - 100%)	HOB1	01/06/05 09:49
	Uncert:	+/-5.89		+/-6.04						
	TPU:	+/-5.90		+/-6.04						
QC1200763662 LCS										
Plutonium-241	138			130	pCi/L		94	(75%-125%)		01/06/05 11:22
	Uncert:			+/-9.09						
	TPU:			+/-15.5						
QC1200763659 MB										
Plutonium-241			U	-3.54	pCi/L					01/06/05 09:02
	Uncert:			+/-6.53						
	TPU:			+/-6.53						
QC1200763661 127512017 MS										
Plutonium-241	139 U	-2.43		130	pCi/L		94			01/06/05 10:35
	Uncert:	+/-5.89		+/-9.14						
	TPU:	+/-5.90		+/-15.6						
Batch 390951										
QC1200763664 127512017 DUP										
Plutonium-238	U	-0.15	U	0.0429	pCi/L	N/A		(0% - 100%)	HOB1	01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.122						
	TPU:	+/-0.094		+/-0.122						
Plutonium-239/240	U	0.0293	U	0.0143	pCi/L	69		(0% - 100%)		
	Uncert:	+/-0.0921		+/-0.0741						
	TPU:	+/-0.0921		+/-0.0741						
QC1200763666 LCS										
Plutonium-238			U	0.0703	pCi/L			(75%-125%)		
	Uncert:			+/-0.218						
	TPU:			+/-0.218						
Plutonium-239/240	23.9			23.1	pCi/L		97	(75%-125%)		
	Uncert:			+/-1.26						
	TPU:			+/-2.51						
QC1200763663 MB										
Plutonium-238			U	0.00	pCi/L					
	Uncert:			+/-0.114						
	TPU:			+/-0.114						
Plutonium-239/240			U	0.0922	pCi/L					
	Uncert:			+/-0.0956						
	TPU:			+/-0.096						
QC1200763665 127512017 MS										
Plutonium-238	U	-0.15	U	0.0971	pCi/L			(75%-125%)		01/03/05 18:01
	Uncert:	+/-0.0928		+/-0.141						
	TPU:	+/-0.094		+/-0.142						
Plutonium-239/240	23.9 U	0.0293		26.2	pCi/L		110	(75%-125%)		
	Uncert:	+/-0.0921		+/-1.37						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 390951										
	TPU:	+/-0.0921		+/-2.32						
Batch 390952										
QC1200763668 127512017 DUP										
Americium-241		0.455	U	0.0488	pCi/L	161		(0% - 100%)	HOB1	01/05/05 23:43
	Uncert:	+/-0.364		+/-0.207						
	TPU:	+/-0.370		+/-0.207						
Curium-242	U	0.00	U	0.0571	pCi/L	200		(0% - 100%)		
	Uncert:	+/-0.172		+/-0.112						
	TPU:	+/-0.172		+/-0.113						
Curium-243/244		0.572	U	0.150	pCi/L	117		(0% - 100%)		
	Uncert:	+/-0.425		+/-0.251						
	TPU:	+/-0.432		+/-0.251						
QC1200763670 LCS										
Americium-241	27.3			26.0	pCi/L		95	(75%-125%)		01/05/05 23:44
	Uncert:			+/-1.86						
	TPU:			+/-3.27						
Curium-242			U	0.0891	pCi/L					
	Uncert:			+/-0.126						
	TPU:			+/-0.127						
Curium-243/244	33.8			34.2	pCi/L		101			
	Uncert:			+/-2.14						
	TPU:			+/-4.13						
QC1200763667 MB										
Americium-241			U	0.197	pCi/L					01/09/05 02:59
	Uncert:			+/-0.246						
	TPU:			+/-0.247						
Curium-242			U	0.046	pCi/L					
	Uncert:			+/-0.143						
	TPU:			+/-0.143						
Curium-243/244			U	0.481	pCi/L					
	Uncert:			+/-0.348						
	TPU:			+/-0.352						
QC1200763669 127512017 MS										
Americium-241	27.3	0.455		29.3	pCi/L		106	(75%-125%)		01/05/05 23:43
	Uncert:	+/-0.364		+/-1.86						
	TPU:	+/-0.370		+/-3.49						
Curium-242	U	0.00	U	-0.0354	pCi/L					
	Uncert:	+/-0.172		+/-0.0967						
	TPU:	+/-0.172		+/-0.0968						
Curium-243/244	33.9	0.572		36.2	pCi/L		105			
	Uncert:	+/-0.425		+/-2.08						
	TPU:	+/-0.432		+/-4.20						
Rad Gamma Spec										
Batch 390786										
QC1200763268 127767001 DUP										
Americium-241	U	-15.7	U	-3.92	pCi/L	N/A		(0% - 100%)	AKB	01/04/05 15:37
	Uncert:	+/-18.0		+/-22.5						
	TPU:	+/-17.6		+/-22.0						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 390786										
Cesium-134	U	-1.06	U	0.623	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.38		+/-2.86						
	TPU:	+/-2.34		+/-2.80						
Cesium-137	U	0.494	U	2.77	pCi/L	139		(0% - 100%)		
	Uncert:	+/-2.77		+/-2.90						
	TPU:	+/-2.71		+/-2.84						
Cobalt-60	U	1.74	U	-3.17	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.30		+/-3.01						
	TPU:	+/-3.24		+/-2.95						
Europium-152	U	5.06	U	-3.03	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-8.03		+/-10.8						
	TPU:	+/-7.87		+/-10.6						
Europium-154	U	-4.66	U	-1.34	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.00		+/-8.84						
	TPU:	+/-6.86		+/-8.67						
Europium-155	U	-2.35	U	-7.7	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-9.59		+/-11.6						
	TPU:	+/-9.39		+/-11.3						
Manganese-54	UUI	0.00	U	-2.69	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.24		+/-2.84						
	TPU:	+/-7.09		+/-2.78						
Niobium-94	U	-0.726	U	0.841	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.95		+/-2.73						
	TPU:	+/-2.89		+/-2.68						
Silver-108m	U	1.16	U	0.706	pCi/L	49		(0% - 100%)		
	Uncert:	+/-2.38		+/-3.06						
	TPU:	+/-2.33		+/-3.00						
QC1200763270 LCS										
Americium-241	1170			1340	pCi/L		114	(75%-125%)		01/04/05 08:10
	Uncert:			+/-179						
	TPU:			+/-176						
Cesium-134			U	5.22	pCi/L					
	Uncert:			+/-13.1						
	TPU:			+/-12.8						
Cesium-137	456			501	pCi/L		110	(75%-125%)		
	Uncert:			+/-72.1						
	TPU:			+/-70.7						
Cobalt-60	667			668	pCi/L		100	(75%-125%)		
	Uncert:			+/-66.5						
	TPU:			+/-65.1						
Europium-152			U	5.61	pCi/L					
	Uncert:			+/-30.5						
	TPU:			+/-29.9						
Europium-154			U	-9.87	pCi/L					
	Uncert:			+/-22.3						
	TPU:			+/-21.8						
Europium-155			U	-7.14	pCi/L					
	Uncert:			+/-40.4						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 390786										
	TPU:			+/-39.6						
Manganese-54			U	-2.71	pCi/L					
	Uncert:			+/-11.1						
	TPU:			+/-10.9						
Niobium-94			U	4.53	pCi/L					
	Uncert:			+/-10.6						
	TPU:			+/-10.4						
Silver-108m			U	-9.11	pCi/L					
	Uncert:			+/-11.2						
	TPU:			+/-11.0						
QC1200763267 MB										
Americium-241			U	18.7	pCi/L					01/04/05 15:37
	Uncert:			+/-26.7						
	TPU:			+/-26.2						
Cesium-134			U	-1.48	pCi/L					
	Uncert:			+/-2.33						
	TPU:			+/-2.29						
Cesium-137			U	-3.26	pCi/L					
	Uncert:			+/-3.34						
	TPU:			+/-3.27						
Cobalt-60			U	-1.78	pCi/L					
	Uncert:			+/-3.25						
	TPU:			+/-3.19						
Europium-152			U	2.62	pCi/L					
	Uncert:			+/-7.85						
	TPU:			+/-7.69						
Europium-154			U	-1.4	pCi/L					
	Uncert:			+/-7.42						
	TPU:			+/-7.27						
Europium-155			U	-0.93	pCi/L					
	Uncert:			+/-8.02						
	TPU:			+/-7.86						
Manganese-54			U	-0.451	pCi/L					
	Uncert:			+/-2.37						
	TPU:			+/-2.32						
Niobium-94			U	0.161	pCi/L					
	Uncert:			+/-2.16						
	TPU:			+/-2.12						
Silver-108m			U	-0.574	pCi/L					
	Uncert:			+/-2.38						
	TPU:			+/-2.33						
QC1200763269 127767001 MS										
Americium-241	9360 U	-15.7		10800	pCi/L		116			01/04/05 07:01
	Uncert:	+/-18.0		+/-1820						
	TPU:	+/-17.6		+/-4600						
Cesium-134	U	-1.06	U	-11.1	pCi/L					
	Uncert:	+/-2.38		+/-175						
	TPU:	+/-2.34		+/-171						
Cesium-137	3660 U	0.494		3790	pCi/L		104			

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 390786										
	Uncert:	+/-2.77		+/-607						
	TPU:	+/-2.71		+/-1600						
Cobalt-60	5370 U	1.74		5910	pCi/L		110			
	Uncert:	+/-3.30		+/-761						
	TPU:	+/-3.24		+/-2430						
Europium-152	U	5.06	U	156	pCi/L					
	Uncert:	+/-8.03		+/-396						
	TPU:	+/-7.87		+/-393						
Europium-154	U	-4.66	U	-238	pCi/L					
	Uncert:	+/-7.00		+/-355						
	TPU:	+/-6.86		+/-360						
Europium-155	U	-2.35	U	-47.2	pCi/L					
	Uncert:	+/-9.59		+/-452						
	TPU:	+/-9.39		+/-443						
Manganese-54	UUI	0.00	U	32.1	pCi/L					
	Uncert:	+/-7.24		+/-151						
	TPU:	+/-7.09		+/-149						
Niobium-94	U	-0.726	U	89.5	pCi/L					
	Uncert:	+/-2.95		+/-263						
	TPU:	+/-2.89		+/-260						
Silver-108m	U	1.16	U	25.0	pCi/L					
	Uncert:	+/-2.38		+/-145						
	TPU:	+/-2.33		+/-143						
Batch 392630										
QC1200767868 127767011 DUP										
Americium-241	U	2.53	U	-7.19	pCi/L	N/A			AKB	01/07/05 18:29
	Uncert:	+/-22.2		+/-26.1						
	TPU:	+/-21.8		+/-25.6						
Cesium-134	U	-1.38	U	-0.517	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.00		+/-4.73						
	TPU:	+/-3.92		+/-4.63						
Cesium-137	U	0.0648	U	6.09	pCi/L	196		(0% - 100%)		
	Uncert:	+/-3.92		+/-10.1						
	TPU:	+/-3.85		+/-9.91						
Cobalt-60	U	0.460	U	3.30	pCi/L	151		(0% - 100%)		
	Uncert:	+/-4.07		+/-5.04						
	TPU:	+/-3.99		+/-4.94						
Europium-152	U	-5.54	U	-0.785	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-10.9		+/-12.7						
	TPU:	+/-10.7		+/-12.4						
Europium-154	U	-6.18	U	-2.63	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-11.1		+/-13.9						
	TPU:	+/-10.9		+/-13.6						
Europium-155	U	8.39	U	2.08	pCi/L	120		(0% - 100%)		
	Uncert:	+/-13.5		+/-16.1						
	TPU:	+/-13.2		+/-15.7						
Manganese-54	U	-2.65	U	-1.38	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.58		+/-4.99						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
	TPU:	+/-4.49		+/-4.89						
Niobium-94	U	-0.222	U	-3.7	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.59		+/-5.25						
	TPU:	+/-3.52		+/-5.15						
Silver-108m	U	-0.625	U	-0.497	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.99		+/-4.71						
	TPU:	+/-3.91		+/-4.61						
QC1200767870 LCS										
Americium-241	936			734	pCi/L		78	(75%-125%)		01/07/05 11:33
	Uncert:			+/-132						
	TPU:			+/-133						
Cesium-134			U	-4.0	pCi/L					
	Uncert:			+/-11.8						
	TPU:			+/-11.6						
Cesium-137	365			340	pCi/L		93	(75%-125%)		
	Uncert:			+/-42.1						
	TPU:			+/-43.3						
Cobalt-60	532			507	pCi/L		95	(75%-125%)		
	Uncert:			+/-56.7						
	TPU:			+/-59.0						
Europium-152			U	-15.2	pCi/L					
	Uncert:			+/-29.4						
	TPU:			+/-28.9						
Europium-154			U	3.18	pCi/L					
	Uncert:			+/-19.3						
	TPU:			+/-18.9						
Europium-155			U	8.56	pCi/L					
	Uncert:			+/-32.7						
	TPU:			+/-32.0						
Manganese-54			U	-0.089	pCi/L					
	Uncert:			+/-10.1						
	TPU:			+/-9.85						
Niobium-94			U	0.906	pCi/L					
	Uncert:			+/-9.88						
	TPU:			+/-9.68						
Silver-108m			U	-8.41	pCi/L					
	Uncert:			+/-10.7						
	TPU:			+/-10.4						
QC1200767867 MB										
Americium-241			U	1.61	pCi/L					01/07/05 11:29
	Uncert:			+/-5.42						
	TPU:			+/-5.32						
Cesium-134			U	-4.67	pCi/L					
	Uncert:			+/-5.03						
	TPU:			+/-4.94						
Cesium-137			U	-0.36	pCi/L					
	Uncert:			+/-4.92						
	TPU:			+/-4.82						
Cobalt-60			U	2.60	pCi/L					

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
	Uncert:			+/-4.39						
	TPU:			+/-4.30						
Europium-152			U	-1.97	pCi/L					
	Uncert:			+/-9.25						
	TPU:			+/-9.06						
Europium-154			U	2.48	pCi/L					
	Uncert:			+/-14.4						
	TPU:			+/-14.1						
Europium-155			U	1.12	pCi/L					
	Uncert:			+/-8.53						
	TPU:			+/-8.36						
Manganese-54			U	-0.318	pCi/L					
	Uncert:			+/-4.19						
	TPU:			+/-4.11						
Niobium-94			U	-2.42	pCi/L					
	Uncert:			+/-4.70						
	TPU:			+/-4.61						
Silver-108m			U	-0.166	pCi/L					
	Uncert:			+/-4.06						
	TPU:			+/-3.98						
QC1200767869 127767011 MS										
Americium-241	9360 U	2.53		8730	pCi/L		93			01/07/05 11:30
	Uncert:	+/-22.2		+/-1940						
	TPU:	+/-21.8		+/-3910						
Cesium-134	U	-1.38	U	64.0	pCi/L					
	Uncert:	+/-4.00		+/-150						
	TPU:	+/-3.92		+/-149						
Cesium-137	3660 U	0.0648		3150	pCi/L		86			
	Uncert:	+/-3.92		+/-408						
	TPU:	+/-3.85		+/-1300						
Cobalt-60	5380 U	0.460		4880	pCi/L		91			
	Uncert:	+/-4.07		+/-652						
	TPU:	+/-3.99		+/-2020						
Europium-152	U	-5.54	U	-45.5	pCi/L					
	Uncert:	+/-10.9		+/-270						
	TPU:	+/-10.7		+/-266						
Europium-154	U	-6.18	U	27.5	pCi/L					
	Uncert:	+/-11.1		+/-254						
	TPU:	+/-10.9		+/-249						
Europium-155	U	8.39	U	457	pCi/L					
	Uncert:	+/-13.5		+/-368						
	TPU:	+/-13.2		+/-403						
Manganese-54	U	-2.65	U	26.3	pCi/L					
	Uncert:	+/-4.58		+/-201						
	TPU:	+/-4.49		+/-197						
Niobium-94	U	-0.222	U	20.2	pCi/L					
	Uncert:	+/-3.59		+/-96.5						
	TPU:	+/-3.52		+/-94.9						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 392630										
Silver-108m	U	-0.625	U	-7.83	pCi/L					
	Uncert:	+/-3.99		+/-108						
	TPU:	+/-3.91		+/-106						
Rad Gas Flow										
Batch 390993										
QC1200763760 127767003 DUP										
Alpha		10.4		10.4	pCi/L	1		(0% - 100%)	DRS1	01/09/05 18:59
	Uncert:	+/-1.66		+/-1.62						
	TPU:	+/-1.77		+/-2.03						
Beta		8.60		7.70	pCi/L	11		(0% - 100%)		
	Uncert:	+/-1.34		+/-1.35						
	TPU:	+/-1.39		+/-1.60						
QC1200763763 LCS										
Alpha	71.9			70.9	pCi/L		99	(75%-125%)		01/08/05 23:44
	Uncert:			+/-8.02						
	TPU:			+/-9.06						
Beta	242			226	pCi/L		93	(75%-125%)		
	Uncert:			+/-10.2						
	TPU:			+/-11.4						
QC1200763759 MB										
Alpha			U	-0.822	pCi/L					01/09/05 18:59
	Uncert:			+/-0.400						
	TPU:			+/-0.419						
Beta			U	-0.347	pCi/L					
	Uncert:			+/-0.841						
	TPU:			+/-0.843						
QC1200763761 127767003 MS										
Alpha	71.9	10.4		98.4	pCi/L		122	(75%-125%)		01/08/05 23:44
	Uncert:	+/-1.66		+/-9.50						
	TPU:	+/-1.77		+/-11.2						
Beta	242	8.60		271	pCi/L		109	(75%-125%)		
	Uncert:	+/-1.34		+/-11.5						
	TPU:	+/-1.39		+/-16.4						
QC1200763762 127767003 MSD										
Alpha	71.9	10.4		73.7	pCi/L	29*	88	(75%-125%)		
	Uncert:	+/-1.66		+/-8.18						
	TPU:	+/-1.77		+/-9.82						
Beta	242	8.60		268	pCi/L	1*	107	(75%-125%)		
	Uncert:	+/-1.34		+/-11.4						
	TPU:	+/-1.39		+/-15.6						
Batch 391023										
QC1200763855 127767006 DUP										
Strontium-90		3.08		2.86	pCi/L	7		(0% - 100%)	JMB1	01/08/05 21:54
	Uncert:	+/-0.530		+/-0.517						
	TPU:	+/-1.04		+/-0.961						
QC1200763857 LCS										
Strontium-90	45.3			45.2	pCi/L		100	(75%-125%)		01/08/05 23:44
	Uncert:			+/-2.67						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 391023										
	TPU:			+/-12.5						
QC1200763854 MB										
Strontium-90			U	-0.205	pCi/L					01/08/05 21:54
	Uncert:			+/-0.308						
	TPU:			+/-0.313						
QC1200763856 127767006 MS										
Strontium-90	90.8	3.08		98.0	pCi/L		105	(75%-125%)		01/08/05 23:44
	Uncert:	+/-0.530		+/-5.70						
	TPU:	+/-1.04		+/-26.4						
Rad Liquid Scintillation										
Batch 389461										
QC1200760152 127207010 DUP										
Carbon-14	U	-0.497	U	1.00	pCi/L	N/A		(0% - 100%)	LAG1	01/04/05 06:44
	Uncert:	+/-8.20		+/-8.30						
	TPU:	+/-8.20		+/-8.30						
QC1200760154 LCS										
Carbon-14	329			328	pCi/L		100	(75%-125%)		01/04/05 07:47
	Uncert:			+/-13.9						
	TPU:			+/-20.9						
QC1200760151 MB										
Carbon-14			U	0.00	pCi/L					01/04/05 06:12
	Uncert:			+/-6.12						
	TPU:			+/-6.12						
QC1200760153 127207010 MS										
Carbon-14	657 U	-0.497		640	pCi/L		98	(75%-125%)		01/04/05 07:16
	Uncert:	+/-8.20		+/-27.7						
	TPU:	+/-8.20		+/-64.7						
Batch 389967										
QC1200761403 127767012 DUP										
Technetium-99	U	1.38	U	3.10	pCi/L	0		(0% - 100%)	EGD1	12/28/04 16:07
	Uncert:	+/-5.02		+/-5.17						
	TPU:	+/-5.02		+/-5.17						
QC1200761405 LCS										
Technetium-99	784			832	pCi/L		106	(75%-125%)		12/28/04 17:48
	Uncert:			+/-17.6						
	TPU:			+/-27.1						
QC1200761402 MB										
Technetium-99			U	-2.06	pCi/L					12/31/04 13:40
	Uncert:			+/-5.72						
	TPU:			+/-5.72						
QC1200761404 127767012 MS										
Technetium-99	784 U	1.38		807	pCi/L		103	(75%-125%)		12/28/04 16:58
	Uncert:	+/-5.02		+/-17.1						
	TPU:	+/-5.02		+/-26.3						
Batch 389968										
QC1200761407 127767012 DUP										
Iron-55	U	-7.91	U	-3.79	pCi/L	N/A		(0% - 100%)	DAJ1	12/31/04 08:52
	Uncert:	+/-12.5		+/-13.5						
	TPU:	+/-12.5		+/-13.5						

QC Summary

Workorder: 127767

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 389968										
QC1200761409 LCS										
Iron-55	462			420	pCi/L		91*	(0%-%)		12/31/04 13:00
	Uncert:			+/-16.5						
	TPU:			+/-23.5						
QC1200761406 MB										
Iron-55			U	-10.5	pCi/L					12/31/04 06:49
	Uncert:			+/-13.4						
	TPU:			+/-13.4						
QC1200761408 127767012 MS										
Iron-55	466 U	-7.91		416	pCi/L		89*	(0%-%)		12/31/04 10:56
	Uncert:	+/-12.5		+/-18.9						
	TPU:	+/-12.5		+/-25.1						
Batch 389969										
QC1200761411 127767012 DUP										
Nickel-63	U	0.504	U	2.51	pCi/L	0		(0% - 100%)	DAJ1	01/01/05 10:56
	Uncert:	+/-4.00		+/-4.42						
	TPU:	+/-4.00		+/-4.42						
QC1200761413 LCS										
Nickel-63	364			324	pCi/L		89	(75%-125%)		01/01/05 14:31
	Uncert:			+/-7.65						
	TPU:			+/-13.3						
QC1200761410 MB										
Nickel-63			U	0.807	pCi/L					01/07/05 19:12
	Uncert:			+/-3.79						
	TPU:			+/-3.79						
QC1200761412 127767012 MS										
Nickel-63	364 U	0.504		301	pCi/L		82	(75%-125%)		01/01/05 12:43
	Uncert:	+/-4.00		+/-7.11						
	TPU:	+/-4.00		+/-12.4						
Batch 390761										
QC1200763214 127767001 DUP										
Tritium	U	-9.6	U	147	pCi/L	N/A		(0% - 100%)	EGD1	01/07/05 00:44
	Uncert:	+/-180		+/-173						
	TPU:	+/-180		+/-173						
QC1200763216 LCS										
Tritium	3160			2930	pCi/L		93	(75%-125%)		12/30/04 16:30
	Uncert:			+/-244						
	TPU:			+/-248						
QC1200763213 MB										
Tritium			U	40.9	pCi/L					12/30/04 13:23
	Uncert:			+/-172						
	TPU:			+/-172						
QC1200763215 127767001 MS										
Tritium	3170 U	-9.6		3040	pCi/L		96	(75%-125%)		12/30/04 15:28
	Uncert:	+/-180		+/-253						
	TPU:	+/-180		+/-257						

QC Summary

Workorder: 127767

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

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 31, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 129595
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 10, 15, 17, & 20, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00283 thru 2004-00303
Enclosures

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

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CONNECTICUT YANKEE
RE: PO# 002337
Work Order: 129595
SDG: MSR #04-3933

129595001	MW 102S-0404-001
129595002	MW 600-0404-001
129595003	MW 203-0404-001
129595004	MW 204-0404-001
129595005	MW 206-0404-001
129595006	MW 207-0404-001
129595007	MW 200-0404-001
129595008	MW 202-0404-001
129595009	MW 101S-0404-001
129595010	MW 102D-0404-001
129595011	MW 107D-0404-001
129595012	MW 109D-0404-001
129595013	MW 205-0404-001
129595014	MW 208-0404-001
129595015	MW 104S-0404-001
129595016	MW 106S-0404-001
129595017	EP 165-0404-001
129595018	EP 171-0404-001
129595019	EP 166-0404-001
129595020	MW 110D-0404-001
129595021	CMS-0404-001
129595022	MW 100S-0404-001
129595023	MW 100D-0404-001
129595024	MW 110S-0404-001
129595025	MW 107S-0404-001

129595026	MW 108S-0404-001
129595027	MW 109S-0404-001
129595028	MW 101D-0404-001
129595029	MW 122D-0404-001
129595030	MW 122S-0404-001
129595031	MW 103D-0404-001
129595032	MW 106D-0404-001
129595033	ATW1-0404-001

CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 129595

January 31, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 10, 15, 17, & 20, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. This sample delivery group is comprised of select samples from MSR#04-3933 analyzed for total Uranium at the request of David Keefer via email on 01/26/05.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
129595001	MW 102S-0404-001
129595002	MW 600-0404-001
129595003	MW 203-0404-001
129595004	MW 204-0404-001
129595005	MW 206-0404-001
129595006	MW 207-0404-001
129595007	MW 200-0404-001
129595008	MW 202-0404-001
129595009	MW 101S-0404-001
129595010	MW 102D-0404-001
129595011	MW 107D-0404-001
129595012	MW 109D-0404-001
129595013	MW 205-0404-001

129595016	MW 106S-0404-001
129595017	EP 165-0404-001
129595018	EP 171-0404-001
129595019	EP 166-0404-001
129595020	MW 110D-0404-001
129595021	CMS-0404-001
129595022	MW 100S-0404-001
129595023	MW 100D-0404-001
129595024	MW 110S-0404-001
129595025	MW 107S-0404-001
129595026	MW 108S-0404-001
129595027	MW 109S-0404-001
129595028	MW 101D-0404-001
129595029	MW 122D-0404-001
129595030	MW 122S-0404-001
129595031	MW 103D-0404-001
129595032	MW 106D-0404-001
129595033	ATW1-0404-001

Items of Note:
There are no items to note.

Case Narrative:
Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

All thirty-three groundwater samples were analyzed for total Uranium.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Subject: Total U Analysis Request
Date: Wed, 26 Jan 2005 10:28:20 -0500
From: "David Keefer" <Keefer@CYAPCO.com>
To: "Cheryl Jones" <cj@mail.gel.com>
CC: "Chuck Miller" <Miller@CYAPCO.com>

Cheryl,

The following analysis request was inadvertently left off the initial sample analysis request/COC for these 33 samples. Please provide a 14-day TAT and use PO# 002337 and MSR# 04-3933 for this work. Please analyze the following December 2004 groundwater samples for total uranium:

Landfill Series

MW200-0404-001

MW202-0404-001

MW203-0404-001

MW204-0404-001

MW205-0404-001

MW206-0404-001

MW207-0404-001

MW208-0404-001

Extraction Points

EP165-0404-001

EP166-0404-001

EP171-0404-001

Other Wells

AT1-0404-001

CMS-0404-001

MW100D & S-0404-001

MW101D & S-0404-001

MW102D & S-0404-001

MW103D-0404-001

MW600-0404-001

MW104S-0404-001

MW106D & S-0404-001

MW107D & S-0404-001

MW108S-0404-001

MW109D & S-0404-001

MW110D & S-0404-001

MW122D & S-0404-001

Thanks.....Dave

David Keefer

Connecticut Yankee Atomic Power Company (CYAPCo)

Haddam Neck Decommissioning Project

362 Injun Hollow Road

East Hampton, CT 06424-3099

Voice 860.267.2556 (x3085)

Fax 860.267.3941

Mobile 617.519.1730

keefer@CYAPCo.com

dkeefer@msn.com

Chain of Custody Form

No. 2004-00283

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127207

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
001	EOF2-0404-001	12-6-04	14:31	WG	G		X						2 x 4L HNO3, 1 x 1L	
010	CMS-0404-001	12-7-04	14:30	WG	G				X				3 x 4L HNO3, 1 x 1L	
8				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18.0 Deg. C
Custody Sealed? Y ☒ N ☐
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 12-8-04 1200	2) Received By [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00284

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 12707%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
002	MW110D-0404-001	12-8-04	15:35	WG	G		X						2 x 4L HNO3	
003	MW1-0404-001	12-8-04	11:30	WG	G		X						2 x 4L HNO3, 1 x 1L	
004	MW117S-0404-001	12-8-04	09:15	WG	G		X						2 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☑ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp: 18.0 Deg. C

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

1) Relinquished By: [signature] Date/Time 12-9-04 1100	2) Received By: [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00286

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

127207%

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
008	MW3-0404-001	12-7-04	15:45	WG	G		X						1 x 1 L	
011	MW100S-0404-001	12-8-04	10:51	WG	G			X					1 x 4L HNO3	
012	MW100D-0404-001	12-8-04	09:06	WG	G			X					1 x 4L HNO3	
013	MW508D-0404-001	12-8-04	14:11	WG	G			X					1 x 4L HNO3	
009	SWB-0404-001	12-8-04	10:30	WG	G		X						2 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 180 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-9-04 1100	2) Received By: [signature] Date/Time 12-10-04 950
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2004-00287

127512%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW110S-0404-001	12-9-04	08:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW112S-0404-001	12-9-04	14:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW113S-0404-001	12-9-04	11:20	WG	G		X						2 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Lab use only: 001, 002, 003

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Yes ☑ No ☐
Custody Seal Intact? Yes ☑ No ☐

1) Relinquished By [signature] Date/Time 12-13-04 1100	2) Received By [signature] Date/Time 12-15-04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00289

127512 %

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL	Anions	Cations		Lab Use Only: Comment, Preservation	Lab Sample ID
206	MW107S-0404-001	12-13-04	12:10	WG	G		X						2 x 4L HNO3, 1 x 1L	
207	MW108S-0404-001	12-13-04	09:55	WG	G		X						2 x 4L HNO3, 1 x 1L	
208	MW109S-0404-001	12-13-04	16:20	WG	G		X						2 x 4L HNO3	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 11 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time 12.14.04 1000	2) Received By	Date/Time 12/15/04 1000
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00290

127512%

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW101D-0404-001	12-9-04	11:36	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW122D-0404-001	12-7-04	16:46	WG	G		X						2 x 4L HNO3	
MW122S-0404-001	12-7-04	09:41	WG	G		X						2 x 4L HNO3	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: [illegible] Deg. C

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

1) Relinquished By [signature]	Date/Time 12-14-04 1000
2) Received By [signature]	Date/Time 12/15/04 1000
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

Chain of Custody Form

No. 2004-00291

127512 %

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW103D-0404-001	12-9-04	08:38	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106D-0404-001	12-8-04	09:41	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 12 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature]	Date/Time 12-14-04 1000
2) Received By [signature]	Date/Time 12/15/04 1000
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

Chain of Custody Form

No. 2004-00292

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

127512%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Analyses Requested

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
ATW1-0404-001	12-13-04	10:21	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW124S-0404-001	12-13-04	14:06	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW109S-0404-001	12-13-04	16:20	WG	G		X						1 x 1L	
MW122D-0404-001	12-7-04	16:46	WG	G		X						1 x 1L	
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 11 Deg. C

Custody Sealed? Y☑ N☐

Custody Seal Intact? Y☑ N☐

1) Relinquished By	Date/Time 12.14.04 1000	2) Received By	Date/Time 10:00 12/15/04
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00297

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Analyses Requested

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	SIND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW205-0404-001	12-14-04	1231	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW208-0404-001	12-14-04	1225	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C
Custody Sealed? Y ✓ N
Custody Seal Intact? Y ✓ N

1) Relinquished By: [signature]	Date/Time 12/16/04 1400	2) Received By [signature]	Date/Time 12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

127767%

Chain of Custody Form

No. 2004-00298

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
MW101S-0404-001	12-13-04	1654	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW123S-0404-001	12-14-04	0931	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW505-0404-001	12-14-04	0922	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW603MSD-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 10 Deg. C
Custody Sealed? Y ✓ N ☐
Custody Seal Intact? Y ✓ N ☐

1) Relinquished By	Date/Time	2) Received By	Date/Time
[illegible]	12-16-04 1600	[illegible]	12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

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Chain of Custody Form

No. 2004-00299

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
MW102D-0404-001	12-14-04	1306	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW503-0404-001	12-10-04	1046	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW504-0404-001	12-10-04	0906	WG	G			X					1 x 4L HNO3, 1 x 1L	
MW122S-0404-001	12-7-04	0941	WG	G		X						1 x 1L	
MW508D-0404-001	12-8-04	1411	WG	G			X					1 x 1L	
MW603MS-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	
MW603DUP-0404-001	12-14-04	1300	WG	G							X	1 x 500mL HNO3	

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other _____
Bill of Lading #

Internal Container Temp.: 15 Deg. C
Custody Sealed? Y: ✓ N:
Custody Seal Intact? Y: ✓ N:

1) Relinquished By [illegible] Date/Time 12.16.04 1600	2) Received By [illegible] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00300

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW107D-0404-001	12-14-04	0945	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW125S-0404-001	12-14-04	1300	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW109D-0404-001	12-15-04	1015	WG	G		X						2 x 4L HNO3	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C
Custody Sealed? Y ✓ N
Custody Seal Intact? Y ✓ N

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00301

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW104S-0404-001	12-16-04	1031	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106S-0404-001	12-15-04	0840	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C

Custody Sealed? Yes No
Custody Seal Intact? Yes No

1) Relinquished By: [signature] Date/Time 12-16-04 1630	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00302

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
EP165-0404-001	12-16-04	1415	WG	G				X				3 x 4L HNO3, 1 x 1L	
EP171-0404-001	12-16-04	1402	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C

Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: [signature]	Date/Time 12-16-04 1623	2) Received By [signature]	Date/Time 12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

1a 11677/

Chain of Custody Form

No. 2004-00303

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
EP166-0404-001	12-16-04	1352	WG	G				X				3 x 4L HNO3, 1 x 1L	
002 MW109D-0404-001	12-15-04	1015	WG	G		X						1 x 1L	
020 MW602DUP-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
030 MW602MS-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
040 MW602MSD-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By [illegible] Date/Time 12-16-04 1138	2) Received By [illegible] Date/Time 12/20/04 9100
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00293

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 %

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MDX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
06	MW203-0404-001	12-15-04	1211	WG	G				X				3 x 4L HNO3, 1 x 1L	
07	MW204-0404-001	12-15-04	1002	WG	G				X				3 x 4L HNO3, 1 x 1L	
08	MW502-0404-001	12-15-04	1515	WG	G			X					1 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Y☑ N☐
Custody Seal Intact? Y☑ N☐

1) Relinquished By: [signature] Date/Time 12.16.04 0900	2) Received By [signature] Date/Time 12/17/04 9:15
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00294

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 ✓

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW206-0404-001	12-14-04	1418	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW207-0404-001	12-14-04	1421	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [illegible] Date/Time 12-16-04 1100	2) Received By C Hause Date/Time 12/17/04 915
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00295

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716-1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW200-0404-001	12-15-04	0953	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW202-0404-001	12-15-04	1220	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By [signature]	Date/Time 12-16-04 1000	2) Received By [signature] 12/17/04	Date/Time 915
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

10 125

Chain of Custody Form

No. 2004-00296

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D..
Other:

Analyses Requested

Lab Use Only: 127716

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
1	MW102S-0404-001	12-13-04	1041	WG	G		X						2 x 4L HNO3, 1 x 1L	
13	MW600-0404-001	12-13-04	1041	WG	G		X						2 x 4L HNO3, 1 x 1L	
9	MW600DUP-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
2	MW600MS-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
	MW600MSD-0404-001	12-13-04	1041	WG	G							X	1 x 500mL HNO3	
4	MW100D-0404-001	12-8-04	0906	WG	G			X					1 x 1L	
5	MW100S-0404-001	12-8-04	1051	WG	G			X					1 x 1L	

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☒ N ☐

1) Relinquished By [signature]	Date/Time 12.16.04 1100
2) Received By [signature]	Date/Time 12/17/04 9:15
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12·10·04 / 950

SDG#: MSR#04-3933

Work Order Number: ~~4 cor~~ 127207%

Shipping Container ID: 7927 9548 9461; 7921 5519 2621; 7921 5519 2610; 7921 5519 2600 Chain of Custody # 2004-00285; 2004-00284; 2004-00286; 2004-00283

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 18.0° for each cooler
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 30 samples were shipped
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: A Miles Date: 12·10·04 950

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

	PM use only
Client: Connecticut Yankee	SDG/ARCOC/Work Order:
Date Received: 12.10.04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: [illegible]	[illegible] 12/10/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	20 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 12/10/04 Date

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 12752 2004-00287

Shipping Container ID: Fed Ex 7903 565 4311 Chain of Custody # ✓

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: CGause Date: 12/15/04 10:00

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15-04 10:00

SDG#: MSR#04-3933

Work Order Number: 127512 2004-00289

Shipping Container ID: Fed Ex 2914 1622 8355 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 11°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/15/04

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 1000

SDG#: MSR#04-3933

Work Order Number: 127512 2004-002290

Shipping Container ID: Fed Ex 7908 5806 2080 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: [signature] Date: 12/15/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 127512 2004 -00291

Shipping Container ID: Fed Ex 7903 6572 9814 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/13/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 1000

SDG#: MSR#04-3933

Work Order Number: 127512 2004-00292

Shipping Container ID: FedEx 7915 0197 6849 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 11°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C Hause Date: 12/15/04

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

t: Conn Yankee / LED DATA	SDG/ARCOC/Work Order: 127512
Received: 12-15-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
ived By: CC	

Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
hipping containers received ntact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
'amples requiring cold reservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
Chain of custody documents ncluded 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)?				Sample ID's and containers affected:
Samples received within holding time?				Id's and tests affected:
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?				Sample ID's affected:
COC form is properly signed in relinquished/received sections?				
Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	20			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad Classification: [signature] Initials 12/15/04 Date

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: Fed Ex 9036899 4490 Chain of Custody # 2004-00293

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 10
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: C. Gaule Date: 12/17/04

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: 7914 19475877 Chain of Custody # 2004-00297

1. Custody Seals on shipping container intact? Yes [ ] No [✓]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: CGraves Date: 12/17/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: Fed Ex 7915 0452 5710 Chain of Custody # 2004 - 00295

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/17/04

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: 7914 1953 4689 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14.0
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/17/04

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

ient: Cardinal Connect. cx Inc	SDG/ARCOC/Work Order:
ite Received: 12/7/01	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By:	12/7/01

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
	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)?				Sample ID's and containers affected:
	Samples received within holding time?				Id's and tests affected:
	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:
0	Number of containers received match number indicated on COC?				Sample ID's affected:
1	COC form is properly signed in relinquished/received sections?				
2	Air Bill, Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	300 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CM Initials 12/14/01 Date

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12.20.04 9:00

SDG#: MSR# 04-3933

Work Order Number: 127767

Shipping Container ID: FedEx 1903 6945 6951 Chain of Custody # 2004-00297

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR#04-3933

Work Order Number: 127767

Shipping Container ID: FedEx 7915 0487 7716 Chain of Custody # 2004 -00298

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 16°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

10. Were any anomalies identified in sample receipt? Yes [✓] No [✗]
11. Description of anomalies (include sample numbers): MW101S -04-04-001 has time of 1934 on sample should be 1954

Sample Custodian/Laboratory: C Jones Date: 12/20/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR-04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex 7998 6185 5190 Chain of Custody # 2004 00299

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 11
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: CGarcia Date: 12/20/04

Telephoned to: _____ On _____ By _____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12·20·04 9:00

SDG#: USR#04-3933

Work Order Number: 127767

Shipping Container ID: 7903 6955 9162 Chain of Custody # 2004-00300

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: _____ On _____ By _____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR-04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex Chain of Custody # 2004-00301

1. Custody Seals on shipping container intact? Yes [ ] No [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ]
3. Chain-of-Custody record present? Yes [ ] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: _____ On _____ By _____

127767%.

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSI# 04-3933

Work Order Number: 27767

Shipping Container ID: Fed Ex 7908 6226 8812 Chain of Custody # 2004-00302

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 12-20-04

SDG#: MSL#04-3933

Work Order Number: 127767

Shipping Container ID: 1921 6201 9946 Chain of Custody # 2004-60303

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

127767%

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

lient: Connecticut Yankee	SDG/ARCOC/Work Order: 127767
ate Received: 12/20/04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By:	12/20/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill /Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	9 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 12/20/04 Date

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**KPA, Total U, Liquid**
Analytical Method:	ASTM D 5174
Analytical Batch Number:	397635

Sample ID	**Client ID**
129595001	MW 102S-0404-001
129595002	MW 600-0404-001
129595003	MW 203-0404-001
129595004	MW 204-0404-001
129595005	MW 206-0404-001
129595006	MW 207-0404-001
129595007	MW 200-0404-001
129595008	MW 202-0404-001
129595009	MW 101S-0404-001
129595010	MW 102D-0404-001
129595011	MW 107D-0404-001
129595012	MW 109D-0404-001
129595013	MW 205-0404-001
129595014	MW 208-0404-001
129595015	MW 104S-0404-001
129595016	MW 106S-0404-001
129595017	EP 165-0404-001
1200779342	Method Blank (MB)
1200779343	129595001(MW 102S-0404-001) Sample Duplicate (DUP)
1200779344	129595001(MW 102S-0404-001) Matrix Spike (MS)
1200779345	Laboratory Control Sample (LCS)
1200779346	Laboratory Control Sample Duplicate (LCSD)

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-023 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.
The calibration for Total Uranium is performed prior to each analysis and is located in the raw data section.

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: 129595001 (MW 102S-0404-001).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**KPA, Total U, Liquid**
Analytical Method:	ASTM D 5174
Analytical Batch Number:	397639

Sample ID	Client ID
129595018	EP 171-0404-001
129595019	EP 166-0404-001
129595020	MW 110D-0404-001
129595021	CMS-0404-001
129595022	MW 100S-0404-001
129595023	MW 100D-0404-001
129595024	MW 110S-0404-001
129595025	MW 107S-0404-001
129595026	MW 108S-0404-001
129595027	MW 109S-0404-001
129595028	MW 101D-0404-001
129595029	MW 122D-0404-001
129595030	MW 122S-0404-001
129595031	MW 103D-0404-001
129595032	MW 106D-0404-001
129595033	ATW1-0404-001
1200779354	Method Blank (MB)
1200779355	129595018(EP 171-0404-001) Sample Duplicate (DUP)
1200779356	129595018(EP 171-0404-001) Matrix Spike (MS)
1200779357	Laboratory Control Sample (LCS)
1200779358	Laboratory Control Sample Duplicate (LCSD)

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-023 REV# 11.

Calibration Information:

Calibration Information
All initial and continuing calibration requirements have been met.
The calibration for Total Uranium is performed prior to each analysis and is located in the raw data section.

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: 129595018 (EP 171-0404-001).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather G Cudaw 2/8/05

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 129595

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 102S-0404-001	Project:	YANK01704
Sample ID:	129595001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.795	+/-0.0292	0.0708	+/-0.0353	0.200	ug/L		JMB1 02/01/05	1715	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 600-0404-001	Project:	YANK01704
Sample ID:	129595002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.687	+/-0.0259	0.0708	+/-0.031	0.200	ug/L		JMB1 02/01/05	1716	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 203-0404-001	Project:	YANK01704
Sample ID:	129595003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.124	+/-0.00805	0.0708	+/-0.00862	0.200	ug/L		JMB1 02/01/05	1718	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 204-0404-001	Project:	YANK01704
Sample ID:	129595004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.110	+/-0.00845	0.0708	+/-0.00888	0.200	ug/L		JMB1 02/01/05	1723	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 206-0404-001	Project:	YANK01704
Sample ID:	129595005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.149	+/-0.010	0.0708	+/-0.0107	0.200	ug/L		JMB1 02/01/05	1725	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 207-0404-001	Project:	YANK01704
Sample ID:	129595006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Total Uranium											
KPA, Total U, Liquid											
Total Uranium		0.211	+/-0.0166	0.0708	+/-0.0175	0.200	ug/L		JMB1 02/01/05	1727	397635 1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 200-0404-001	Project:	YANK01704
Sample ID:	129595007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.274	+/-0.0172	0.0708	+/-0.0185	0.200	ug/L		JMB1 02/01/05	1728	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 202-0404-001	Project:	YANK01704
Sample ID:	129595008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	-0.0317	+/-0.00376	0.0708	+/-0.00385	0.200	ug/L		JMB1 02/01/05	1737	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
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- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Report Date: February 9, 2005

Client Sample ID:	MW 101S-0404-001	Project:	YANK01704
Sample ID:	129595009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.131	+/-0.00596	0.0708	+/-0.00679	0.200	ug/L		JMB1 02/01/05	1740	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 102D-0404-001	Project:	YANK01704
Sample ID:	129595010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		10.5	+/-0.732	0.0708	+/-0.777	0.200	ug/L		JMB1 02/01/05	1744	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 107D-0404-001	Project:	YANK01704
Sample ID:	129595011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.0396	+/-0.00255	0.0708	+/-0.00274	0.200	ug/L		JMB1 02/01/05	1746	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

Notes:
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Report Date: February 9, 2005

Client Sample ID:	MW 109D-0404-001	Project:	YANK01704
Sample ID:	129595012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Total Uranium											
KPA, Total U, Liquid											
Total Uranium		9.51	+/-0.238	0.0708	+/-0.336	0.200	ug/L		JMB1 02/01/05	1748	397635 1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- ** Indicates the analyte is a surrogate compound.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 205-0404-001	Project:	YANK01704
Sample ID:	129595013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.0028	+/-0.00119	0.0708	+/-0.0012	0.200	ug/L		JMB1 02/01/05	1749	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 208-0404-001	Project:	YANK01704
Sample ID:	129595014	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.308	+/-0.0269	0.0708	+/-0.0279	0.200	ug/L		JMB1 02/01/05	1754	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 104S-0404-001	Project:	YANK01704
Sample ID:	129595015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.102	+/-0.00862	0.0708	+/-0.00899	0.200	ug/L		JMB1 02/01/05	1755	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

Notes:
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- ** Indicates the analyte is a surrogate compound.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 106S-0404-001	Project:	YANK01704
Sample ID:	129595016	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		3.49	+/-0.097	0.0708	+/-0.130	0.200	ug/L		JMB1 02/01/05	1757	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	EP 165-0404-001	Project:	YANK01704
Sample ID:	129595017	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		2.43	+/-0.0927	0.0708	+/-0.111	0.200	ug/L		JMB1 02/01/05	1759	397635	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	EP 171-0404-001	Project:	YANK01704
Sample ID:	129595018	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.672	+/-0.0271	0.0708	+/-0.0318	0.200	ug/L		JMB1 02/01/05	2036	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	EP 166-0404-001	Project:	YANK01704
Sample ID:	129595019	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		5.29	+/-0.136	0.0708	+/-0.189	0.200	ug/L		JMB1 02/01/05	2041	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 110D-0404-001	Project:	YANK01704
Sample ID:	129595020	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Total Uranium											
KPA, Total U, Liquid											
Total Uranium		5.95	+/-0.149	0.0708	+/-0.210	0.200	ug/L		JMB1 02/01/05	2043	397639 1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	CMS-0404-001	Project:	YANK01704
Sample ID:	129595021	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.804	+/-0.0295	0.0708	+/-0.0357	0.200	ug/L		JMB1 02/01/05	2045	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 100S-0404-001	Project:	YANK01704
Sample ID:	129595022	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.078	+/-0.00613	0.0708	+/-0.00643	0.200	ug/L		JMB1 02/01/05	2050	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 100D-0404-001	Project:	YANK01704
Sample ID:	129595023	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.275	+/-0.0276	0.0708	+/-0.0284	0.200	ug/L		JMB1 02/01/05	2051	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 110S-0404-001	Project:	YANK01704
Sample ID:	129595024	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	-0.0017	+/-0.000257	0.0708	+/- 0.000261	0.200	ug/L		JMB1 02/01/05	2053	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 107S-0404-001	Project:	YANK01704
Sample ID:	129595025	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.0415	+/-0.00584	0.0708	+/-0.00593	0.200	ug/L		JMB1 02/01/05	2054	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 108S-0404-001	Project:	YANK01704
Sample ID:	129595026	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.231	+/-0.0231	0.0708	+/-0.0239	0.200	ug/L		JMB1 02/01/05	2056	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 109S-0404-001	Project:	YANK01704
Sample ID:	129595027	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.208	+/-0.0198	0.0708	+/-0.0204	0.200	ug/L		JMB1 02/01/05	2058	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 101D-0404-001	Project:	YANK01704
Sample ID:	129595028	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		22.4	+/-1.43	0.0708	+/-1.53	0.200	ug/L		JMB1 02/01/05	2101	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 122D-0404-001	Project:	YANK01704
Sample ID:	129595029	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		7.78	+/-0.206	0.0708	+/-0.283	0.200	ug/L		JMB1 02/01/05	2135	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 122S-0404-001	Project:	YANK01704
Sample ID:	129595030	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		0.263	+/-0.0251	0.0708	+/-0.026	0.200	ug/L		JMB1 02/01/05	2150	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 103D-0404-001	Project:	YANK01704
Sample ID:	129595031	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		6.76	+/-0.172	0.0708	+/-0.241	0.200	ug/L		JMB1 02/01/05	2153	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	MW 106D-0404-001	Project:	YANK01704
Sample ID:	129595032	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium		22.1	+/-1.43	0.0708	+/-1.53	0.200	ug/L		JMB1 02/01/05	2155	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 9, 2005

Client Sample ID:	ATW1-0404-001	Project:	YANK01704
Sample ID:	129595033	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Total Uranium												
KPA, Total U, Liquid												
Total Uranium	U	0.106	+/-0.0119	0.0708	+/-0.0122	0.200	ug/L		JMB1 02/01/05	2159	397639	1

The following Analytical Methods were performed

Method	Description
1	ASTM D 5174

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 9, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 129595

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Total U										
Batch 397635										
QC1200779343 129595001 DUP										
Total Uranium		0.795		0.740	ug/L	7		(0% - 100%)	JMB1	02/01/05 18:09
	Uncert:	+/-0.0292		+/-0.0323						
	TPU:	+/-0.0353		+/-0.0372						
QC1200779345 LCS										
Total Uranium	50.0			47.6	ug/L		95	(75%-125%)		02/01/05 18:15
	Uncert:			+/-2.97						
	TPU:			+/-3.20						
QC1200779346 LCSD										
Total Uranium	50.0			57.2	ug/L		114			02/01/05 18:16
	Uncert:			+/-1.41						
	TPU:			+/-2.48						
QC1200779342 MB										
Total Uranium			U	0.00	ug/L					02/01/05 18:01
	Uncert:			+/-0.00						
	TPU:			+/-0.00						
QC1200779344 129595001 MS										
Total Uranium	50.0	0.795		49.4	ug/L		97	(75%-125%)		02/01/05 18:12
	Uncert:	+/-0.0292		+/-3.11						
	TPU:	+/-0.0353		+/-3.35						
Batch 397639										
QC1200779355 129595018 DUP										
Total Uranium		0.672		0.687	ug/L	2		(0% - 100%)	JMB1	02/01/05 22:06
	Uncert:	+/-0.0271		+/-0.0252						
	TPU:	+/-0.0318		+/-0.0305						
QC1200779357 LCS										
Total Uranium	50.0			47.4	ug/L		95	(75%-125%)		02/01/05 22:11
	Uncert:			+/-2.99						
	TPU:			+/-3.21						
QC1200779358 LCSD										
Total Uranium	50.0			57.6	ug/L		115			02/01/05 22:17
	Uncert:			+/-1.43						
	TPU:			+/-2.50						
QC1200779354 MB										
Total Uranium			U	0.108	ug/L					02/01/05 22:01
	Uncert:			+/-0.0126						
	TPU:			+/-0.0129						
QC1200779356 129595018 MS										
Total Uranium	50.0	0.672		49.4	ug/L		98	(75%-125%)		02/01/05 22:08
	Uncert:	+/-0.0271		+/-3.11						
	TPU:	+/-0.0318		+/-3.35						

QC Summary

Workorder: 129595

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

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 8, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: Quarterly Groundwater SDG: MSR#04-3933 (Am/Cm Reanalysis)

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 10th, 15th,17th, and 20th 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. These samples were relogged on 2/1/05 for Americium a and Curium reanalysis per the request of David Keefer.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00283, 2004-00291, 2004-00292, 2004-00293, 2004-00294, 2004-00295, 2004-00297, 2004-00301, 2004-00302, 2004-00303

Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
Quarterly Groundwater
SDG: MSR#04-3933

February 8, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina on December 10th, 15th,17th, and 20th 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample(s):

Sample ID	Client Sample ID
129930001	MW 203-0404-001
129930002	MW 204-0404-001
129930003	MW 206-0404-001
129930004	MW 207-0404-001
129930005	MW 200-0404-001
129930006	MW 202-0404-001
129930007	MW 205-0404-001
129930008	MW 208-0404-001
129930009	MW 104S-0404-001
129930010	MW 106S-0404-001
129930011	EP 165-0404-001
129930012	EP 171-0404-001
129930013	EP 166-0404-001
129930014	CMS-0404-001
129930015	MW 103D-0404-001

129930016	MW 106D-0404-001
129930017	ATW1-0404-001

Items of Note:
At the request of David Keefer, the seventeen groundwater samples listed above were relogged for reanalysis of Americium and Curium to confirm the original results. The reanalysis results do not confirm the original results. A technical explanation is provided in the radiological case narrative.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Seventeen groundwater samples were reanalyzed for Americium and Curium.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2004-00293

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 ✓

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW203-0404-001 001	12-15-04	1211	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW204-0404-001 002	12-15-04	1002	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW502-0404-001	12-15-04	1515	WG	G			X					1 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14° Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time 12.16.04 0900	2) Received By	Date/Time 12/17/04 9:15
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00294

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716 ✓

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW206-0404-001 003	12-14-04	1418	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW207-0404-001 004	12-14-04	1421	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 4 Deg. C
Custody Sealed? YO NO
Custody Seal Intact? YES NO

1) Relinquished By: [illegible] Date/Time: 12-16-04 1100	2) Received By: C Huse Date/Time: 12/17/04 915
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00295

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Lab Use Only: 127716-1.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW200-0404-001 005	12-15-04	0953	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW202-0404-001 006	12-15-04	1220	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Y ☐ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By	Date/Time 12-16-04 1000	2) Received By	Date/Time 12/17/04 915
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00297

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Analyses Requested: MIX, STND, ALL, Anions, Cations

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW205-0404-001 007	12-14-04	1231	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW208-0404-001 008	12-14-04	1225	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C
Custody Sealed? Y ✓ N
Custody Seal Intact? Y ✓ N

1) Relinquished By: [signature] Date/Time 12/20/04 1400	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

7

Chain of Custody Form

No. 2004-00301

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW104S-0404-001 009	12-16-04	1031	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106S-0404-001 010	12-15-04	0840	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00302

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
EP165-0404-001 011	12-16-04	1415	WG	G				X				3 x 4L HNO3, 1 x 1L	
EP171-0404-001 012	12-16-04	1402	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C

Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: [signature]	Date/Time 12-16-04 1630	2) Received By [signature]	Date/Time 12/20/04 9:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00303

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	SIND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
EP166-0404-001 013	12-16-04	1352	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW109D-0404-001	12-15-04	1015	WG	G		X						1 x 1L	
MW602DUP-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
MW602MS-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
MW602MSD-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									

Lab Use Only

cy 002
cy 020
ch 020
cy 020

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 4 Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: [illegible] Date/Time 12/16/04 1530	2) Received By [illegible] Date/Time 12/20/04 9100
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2004-00283

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
EOF2-0404-001	12-6-04	14:31	WG	G		X						2 x 4L HNO3, 1 x 1L	
CMS-0404-001 014	12-7-04	14:30	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Lab Use Only: 127207

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 18.0 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By:	Date/Time 12-8-04 1200	2) Received By	Date/Time 12-10-04 950
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00291

127512 %

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW103D-0404-001 015	12-9-04	08:38	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106D-0404-001 016	12-8-04	09:41	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Lab Use Only

NOTES: PO #: 002337. MSR #: 04-3933.
Requested analyses to typical groundwater MDC's.

☐ LTP QA ☐ Radwaste QA ☒ Non QA

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

Bill of Lading #

Internal Container Temp.: 12 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By:	Date/Time 12-14-04 1000	2) Received By	Date/Time 12/15/04 1000
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2004-00292

127512%

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
ATW1-0404-001 017	12-13-04	10:21	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW124S-0404-001	12-13-04	14:06	WG	G		X						2 x 4L HNO3, 1 x 1L	
MW109S-0404-001	12-13-04	16:20	WG	G		X						1 x 1L	
MW122D-0404-001	12-7-04	16:46	WG	G		X						1 x 1L	
			WG	G									
			WG	G									
			WG	G									

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☑ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 4 Deg. C
Custody Sealed? Y☑ N☐
Custody Seal Intact? Y☑ N☐

1) Relinquished By	Date/Time 12-14-04 1000	2) Received By	Date/Time 10:00 12/15/04
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: Fed Ex 903 6899 4490 Chain of Custody # 2004-00293

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 10
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/17/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: 7914 19475877 Chain of Custody # 2004-00294

1. Custody Seals on shipping container intact? Yes [ ] No [✓]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: Chaus Date: 12/17/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/17/04 9:15

SDG#:

Work Order Number:

Shipping Container ID: Fed Ex 7915 0452 570 Chain of Custody # 2004 - 00295

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/17/04

Telephoned to: On By

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

	PM use only
lent: Cardboard Connect. [illegible]	SDG/ARCOC/Work Order:
ıte Received: 12/17/0[illegible]	PM(A) Review (ensure non-conforming items are resolved prior to signing)
:ceived By: CJ	[illegible] 12/17/0[illegible]

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
	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)?				Sample ID's and containers affected:
	Samples received within holding time?				ID's and tests affected:
	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:
0	Number of containers received match number indicated on COC?				Sample ID's affected:
1	COC form is properly signed in relinquished/received sections?				
2	Air Bill, Tracking #'s, & Additional Comments				

Radiological Information	None RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	300 CPM			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CM Initials 12/17/01 Date

12/16/04

Figure 1. Sample Check-in List

Date/Time Received: 12.20.04 9:00

SDG#: MSR# 04-3933

Work Order Number: 127767

Shipping Container ID: FedEx 1903 6945 6951 Chain of Custody # 2004-00297

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature: 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR-04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex Chain of Custody # 2004-00301

1. Custody Seals on shipping container intact? Yes [ ] No [ ]
2. Custody Seals dated and signed? Yes [ ] No [ ]
3. Chain-of-Custody record present? Yes [ ] No [ ]
4. Cooler temperature 15°
5. Vermiculite/packing materials is: Wet [ ] Dry [ ]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/20/04

Telephoned to: ____ On ____ By ____

127767%.

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSI# 04-3933

Work Order Number: 127767

Shipping Container ID: Fed Ex 7908 6226 8812 Chain of Custody # 2004-00302

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12-20-04

SDG#: MSL#04-3933

Work Order Number: 127767

Shipping Container ID: 1921 6201 9946 Chain of Custody # 2004-60303

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

127767%

PM use only

ient: Connecticut Yankee	SDG/ARCOC/Work Order: 127767
ate Received: 12/20/04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By: 192	12/20/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill /Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	9 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad Classification: [illegible] Initials 12/20/04 Date

Figure 1. Sample Check-in List

Date/Time Received: 12·10·04 / 950

SDG#: MSE-04-3933

Work Order Number: 4 cy 127207 1.

Shipping Container ID: 7927 9548 9461; 7921 5519 2621; 7921 5519 2610; 7921 5519 2600 Chain of Custody # 2004-00285; 2004-00284; 2004-00286; 2004-00283

1. Custody Seals on shipping container intact? Yes [✓] No [ ]

2. Custody Seals dated and signed? Yes [✓] No [ ]

3. Chain-of-Custody record present? Yes [✓] No [ ]

4. Cooler temperature 18.0° for each cooler

5. Vermiculite/packing materials is: Wet [ ] Dry [✓]

6. Number of samples in shipping container: 30 samples were shipped

7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

✓ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]

11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: A Miles Date: 12·10·04 950

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

	PM use only
Client: Connecticut Yankee	SDG/ARCOC/Work Order:
Date Received: 12.10.04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: DM	12/10/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RAD II	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	30cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: _____ Initials 12/10/04 Date

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 127-2 2004 - 00291

Shipping Container ID: Fed Ex 7903 6572 9814 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/13/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 1000

SDG#: MSR#04-3933

Work Order Number: 127512 2004-00292

Shipping Container ID: FedEx 795 0197 6849 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 11°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 9
7. Sample holding times exceeded? Yes [ ] No [✓]

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

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

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

Sample Custodian/Laboratory: [signature] Date: 12/15/04

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

ENGINEERING LABORATORIES, LLC

		PM use only
	Conn Yankee / Cal Data	SDG/ARCOC/Work Order: 127512
:eived:	12-15-04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
i By:	CC	

Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
ping containers received :t and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
ples requiring cold ervation within (4 +/- 2 C)? ord preservation method.				Circle Temp device serial # ice bags blue ice dry ice none other(describe)
in of custody documents ıded with shipment?				
ıple containers intact and ed?				Circle Applicable: seals broken damaged container leaking container other (describe)
ıples requiring chemical servation at proper pH?				Sample ID's, containers affected and observed pH:
A vials free of headspace fined as < 6mm bubble)?				Sample ID's and containers affected:
ıples received within holding e?				Id's and tests affected:
nple ID's on COC match ID's bottles?				Sample ID's and containers affected:
te & time on COC match date ime on bottles?				Sample ID's affected:
mber of containers received ıtch number indicated on COC?				Sample ID's affected:
)C form is properly signed in inquished/received sections?				
r Bill ,Tracking #'s, & lditional Comments				

adiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #:
hat is the radiological assification of the samples?		✓		Comments:
adioactivity Screening Results (maximum observed CPM)		40		*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

M (or PMA) review of Receiving Rad Classification: CA Initials 12/15/04 Date

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	399007

Sample ID	**Client ID**
129930001	MW 203-0404-001
129930002	MW 204-0404-001
129930003	MW 206-0404-001
129930004	MW 207-0404-001
129930005	MW 200-0404-001
129930006	MW 202-0404-001
129930007	MW 205-0404-001
129930008	MW 208-0404-001
129930009	MW 104S-0404-001
129930010	MW 106S-0404-001
129930011	EP 165-0404-001
129930012	EP 171-0404-001
129930013	EP 166-0404-001
129930014	CMS-0404-001
129930015	MW 103D-0404-001
129930016	MW 106D-0404-001
129930017	ATW1-0404-001
1200782793	Method Blank (MB)
1200782794	129930001(MW 203-0404-001) Sample Duplicate (DUP)
1200782795	129930001(MW 203-0404-001) Matrix Spike (MS)
1200782796	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# 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: 129930001 (MW 203-0404-001).

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 129930015 (MW 103D-0404-001) was recounted due to a negative result greater than three times the error.
Sample 129930012 (EP 171-0404-001) was recounted due to a suspected false positive.
Samples were originally analyzed as batch 390952 during the first week of January. Client requested reanalysis of samples due to suspected false positives in the Am-241 and Cm-243/244 regions in some of the samples. This reanalyzed data indicates that all of the Am-241 and Cm-243/244 results are less than the detection limit. The cause of the initial high results is most likely short-lived recoil contamination on the Alpha spec detectors. This recoil is from some Polonium samples that counted in the detectors immediately preceeding the sample in question. To avoid this in the future, Polonium, Thorium, and Uranium (possible isotopes that cause recoil contamination) samples will be segregated from other alpha emitting isotopic samples.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An 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.

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:

Heather G Clicker 2/8/05

Reviewer:_____

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 129930

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 203-0404-001	Project:	YANK01704
Sample ID:	129930001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	0.0459	+/-0.105	0.0821	+/-0.106	0.244	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.038	+/-0.107	0.0834	+/-0.107	0.266	pCi/L					
Curium-243/244	U	-0.0626	+/-0.0766	0.121	+/-0.077	0.323	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	86	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 204-0404-001	Project:	YANK01704
Sample ID:	129930002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0245	+/-0.107	0.0998	+/-0.107	0.279	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	-0.0436	+/-0.0382	0.0926	+/-0.0386	0.283	pCi/L				
Curium-243/244	U	-0.0633	+/-0.162	0.195	+/-0.162	0.469	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	79	(25%-125%)

Notes:
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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 206-0404-001	Project:	YANK01704
Sample ID:	129930003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0471	+/-0.129	0.108	+/-0.129	0.312	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.0785	+/-0.125	0.0508	+/-0.126	0.222	pCi/L				
Curium-243/244	U	-0.066	+/-0.120	0.163	+/-0.120	0.424	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	74	(25%-125%)

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

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 207-0404-001	Project:	YANK01704
Sample ID:	129930004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	0.00896	+/-0.0679	0.0632	+/-0.068	0.213	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.0208	+/-0.0828	0.0645	+/-0.0828	0.237	pCi/L					
Curium-243/244	U	-0.131	+/-0.0887	0.151	+/-0.0896	0.389	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	87	(25%-125%)

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

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- ** Indicates the analyte is a surrogate compound.
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 200-0404-001	Project:	YANK01704
Sample ID:	129930005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0477	+/-0.108	0.0886	+/-0.108	0.247	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.00903	+/-0.0685	0.0637	+/-0.0685	0.215	pCi/L				
Curium-243/244	U	-0.0729	+/-0.0906	0.133	+/-0.0911	0.336	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	88	(25%-125%)

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 202-0404-001	Project:	YANK01704
Sample ID:	129930006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	17-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0124	+/-0.0978	0.112	+/-0.0978	0.308	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.0495	+/-0.112	0.0764	+/-0.112	0.258	pCi/L					
Curium-243/244	U	0.060	+/-0.162	0.147	+/-0.162	0.378	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	76	(25%-125%)

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 205-0404-001	Project:	YANK01704
Sample ID:	129930007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0148	+/-0.0912	0.0887	+/-0.0912	0.244	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	-0.0148	+/-0.0636	0.0496	+/-0.0637	0.182	pCi/L				
Curium-243/244	U	-0.0801	+/-0.103	0.144	+/-0.103	0.354	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	88	(25%-125%)

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 208-0404-001	Project:	YANK01704
Sample ID:	129930008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	14-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0431	+/-0.113	0.0972	+/-0.113	0.267	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.00135	+/-0.0732	0.0768	+/-0.0732	0.245	pCi/L				
Curium-243/244	U	0.0141	+/-0.155	0.160	+/-0.155	0.394	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	82	(25%-125%)

Notes:
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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 104S-0404-001	Project:	YANK01704
Sample ID:	129930009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0592	+/-0.0962	0.134	+/-0.0965	0.344	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.0183	+/-0.0729	0.0568	+/-0.073	0.209	pCi/L					
Curium-243/244	U	0.0286	+/-0.163	0.163	+/-0.163	0.403	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	94	(25%-125%)

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

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- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 106S-0404-001	Project:	YANK01704
Sample ID:	129930010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	0.0215	+/-0.145	0.143	+/-0.145	0.378	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.0536	+/-0.121	0.0826	+/-0.121	0.279	pCi/L					
Curium-243/244	U	0.0405	+/-0.177	0.172	+/-0.177	0.436	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	78	(25%-125%)

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

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- h Sample preparation or preservation holding time exceeded.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	EP 165-0404-001	Project:	YANK01704
Sample ID:	129930011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0195	+/-0.0664	0.0863	+/-0.0665	0.250	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.0454	+/-0.102	0.070	+/-0.103	0.236	pCi/L					
Curium-243/244	U	-0.0218	+/-0.142	0.160	+/-0.142	0.399	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	85	(25%-125%)

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

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- ** Indicates the analyte is a surrogate compound.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	EP 171-0404-001	Project:	YANK01704
Sample ID:	129930012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0761	+/-0.110	0.0692	+/-0.111	0.212	pCi/L		JAS1 02/07/05	1320	399007 1
Curium-242	U	0.00	+/-0.0668	0.00	+/-0.0668	0.0924	pCi/L				
Curium-243/244	U	0.0218	+/-0.0809	0.0696	+/-0.081	0.213	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	96	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	EP 166-0404-001	Project:	YANK01704
Sample ID:	129930013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.219	+/-0.175	0.0708	+/-0.177	0.226	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.00154	+/-0.0837	0.0877	+/-0.0837	0.280	pCi/L				
Curium-243/244	U	-0.0262	+/-0.121	0.142	+/-0.121	0.369	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	87	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	CMS-0404-001	Project:	YANK01704
Sample ID:	129930014	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	07-DEC-04		
Receive Date:	10-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0767	+/-0.169	0.155	+/-0.169	0.378	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.0169	+/-0.0672	0.0523	+/-0.0672	0.193	pCi/L				
Curium-243/244	U	0.0436	+/-0.143	0.136	+/-0.143	0.340	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	94	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 103D-0404-001	Project:	YANK01704
Sample ID:	129930015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0361	+/-0.0814	0.0556	+/-0.0815	0.188	pCi/L		JAS1 02/07/05	1320	399007 1
Curium-242	U	-0.00875	+/-0.0735	0.0415	+/-0.0735	0.182	pCi/L				
Curium-243/244	U	-0.0068	+/-0.0571	0.0323	+/-0.0572	0.141	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	90	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	MW 106D-0404-001	Project:	YANK01704
Sample ID:	129930016	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Am241,Cm, Liquid-ALL											
Americium-241	U	0.0308	+/-0.160	0.157	+/-0.160	0.405	pCi/L		JAS1 02/04/05	1012	399007 1
Curium-242	U	0.183	+/-0.191	0.0846	+/-0.193	0.285	pCi/L				
Curium-243/244	U	-0.0538	+/-0.112	0.148	+/-0.112	0.388	pCi/L				

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	71	(25%-125%)

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 8, 2005

Client Sample ID:	ATW1-0404-001	Project:	YANK01704
Sample ID:	129930017	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0361	+/-0.137	0.159	+/-0.137	0.386	pCi/L		JAS1 02/04/05	1012	399007	1
Curium-242	U	0.073	+/-0.129	0.0949	+/-0.130	0.275	pCi/L					
Curium-243/244	U	-0.0937	+/-0.106	0.152	+/-0.107	0.372	pCi/L					

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241,Cm, Liquid-ALL	88	(25%-125%)

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

QC Summary

Report Date: February 8, 2005

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 129930

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 399007										
QC1200782794 129930001 DUP										
Americium-241	U	0.0459	U	0.0434	pCi/L	6		(0% - 100%)	JAS1	02/04/05 10:12
	Uncert:	+/-0.105		+/-0.0979						
	TPU:	+/-0.106		+/-0.0981						
Curium-242	U	0.038	U	-0.0202	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.107		+/-0.0872						
	TPU:	+/-0.107		+/-0.0873						
Curium-243/244	U	-0.0626	U	-0.0408	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0766		+/-0.0358						
	TPU:	+/-0.077		+/-0.0363						
QC1200782796 LCS										
Americium-241	10.9			10.9	pCi/L		100	(75%-125%)		
	Uncert:			+/-1.16						
	TPU:			+/-1.93						
Curium-242			U	0.0795	pCi/L					
	Uncert:			+/-0.109						
	TPU:			+/-0.110						
Curium-243/244	13.5			13.3	pCi/L		99			
	Uncert:			+/-1.27						
	TPU:			+/-2.28						
QC1200782793 MB										
Americium-241			U	0.0724	pCi/L					02/04/05 10:12
	Uncert:			+/-0.117						
	TPU:			+/-0.118						
Curium-242			U	0.039	pCi/L					
	Uncert:			+/-0.0731						
	TPU:			+/-0.0732						
Curium-243/244			U	-0.00204	pCi/L					
	Uncert:			+/-0.111						
	TPU:			+/-0.111						
QC1200782795 129930001 MS										
Americium-241	10.9 U	0.0459		12.6	pCi/L		115	(75%-125%)		02/04/05 10:12
	Uncert:	+/-0.105		+/-1.29						
	TPU:	+/-0.106		+/-2.22						
Curium-242	U	0.038	U	0.0538	pCi/L					
	Uncert:	+/-0.107		+/-0.121						
	TPU:	+/-0.107		+/-0.122						
Curium-243/244	13.6 U	-0.0626		14.0	pCi/L		103			
	Uncert:	+/-0.0766		+/-1.36						
	TPU:	+/-0.077		+/-2.44						

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

QC Summary

Workorder: 129930

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

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 24, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130978
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 15 and 20, 2004: Three samples were requested for Pu-241 reanalysis on February 15, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00301, 2004-00302, 2004-00291
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130978

February 24, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 15 and 20, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. In accordance with the 2/15/05 request by David Keefer, the three samples listed below were reanalyzed for Pu-241.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130978001	MW104S-0404-001
130978002	EP171-0404-001
130978003	MW103D-0404-001

Items of Note:
The results provided in this data package are reanalysis results of samples previously reported. The request for reanalysis was received on 2/15/05 via email from David Keefer.

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:

Three groundwater samples were analyzed for Pu-241.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2004-00301

130978 – relog for Pu-241

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
MW104S-0404-001	12-16-04	1031	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW106S-0404-001	12-15-04	0840	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15° Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] Date/Time 12/20/04 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Chain of Custody Form

No. 2004-00302

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations		Comment, Preservation	Lab Sample ID
EP165-0404-001	12-16-04	1415	WG	G				X				3 x 4L HNO3, 1 x 1L	
EP171-0404-001	12-16-04	1402	WG	G				X				3 x 4L HNO3, 1 x 1L	
			WG	G									
			WG	G									
			WG	G									
			WG	G									
			WG	G									

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15 Deg. C
Custody Sealed? Y ☒ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-16-04 1600	2) Received By [signature] 12/20/04 Date/Time 9:00
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

.2
5

Chain of Custody Form

No. 2004-00291

127512%

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	Analyses Requested: MIX	STND	ALL	Anions	Cations		Lab Use Only: Comment, Preservation	Lab Sample ID
16	MW103D-0404-001	12-9-04	08:38	WG	G				X				3 x 4L HNO3, 1 x 1L	
17	MW106D-0404-001	12-8-04	09:41	WG	G				X				3 x 4L HNO3, 1 x 1L	
				WG	G									
				WG	G									
				WG	G									
				WG	G									
				WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 12 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 12-14-04 1000	2) Received By [signature] Date/Time 12/13/04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

127767%.

Figure 1. Sample Check-in List

Date/Time Received: 12/20/04 9:00

SDG#: MSR# 04-3933

Work Order Number: 127767, 130978 - reanalysis

Shipping Container ID: Fed Ex 7908 6226 8112 Chain of Custody # 2004-00302

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

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 12/15/04 10:00

SDG#: MSR# 04-3933

Work Order Number: 127512 2004 -00291 130978-reanalysis

Shipping Container ID: Fed Ex 7903 6572 9814 Chain of Custody #

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 12°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 12/13/04

Telephoned to: ____ On ____ By ____

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Liquid Scint Pu241, Liquid-ALL MDC of 8-For Relog**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	403542

Sample ID	**Client ID**
130978001	MW104S-0404-001
130978002	EP171-0404-001
130978003	MW103D-0404-001
1200793682	Method Blank (MB)
1200793683	130978002(EP171-0404-001) Sample Duplicate (DUP)
1200793684	130978002(EP171-0404-001) Matrix Spike (MS)
1200793685	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 6.

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: 130978002 (EP171-0404-001).

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. An 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.

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

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Heather D Chadwick 011105

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 130978

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: March 1, 2005

Client Sample ID:	MW104S-0404-001	Project:	YANK01704
Sample ID:	130978001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Liquid Scint Pu241, Liquid-ALL MDC of 8-For Relog												
Plutonium-241	U	1.30	+/-3.06	2.53	+/-3.06	5.19	pCi/L		JXG1 02/26/05	1631	403542	1

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL N	101	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: March 1, 2005

Client Sample ID:	EP171-0404-001	Project:	YANK01704
Sample ID:	130978002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Rad Alpha Spec Analysis											
Liquid Scint Pu241, Liquid-ALL MDC of 8-For Relog											
Plutonium-241	U	0.761	+/-3.36	2.80	+/-3.36	5.73	pCi/L		JXG1 02/26/05	1718	403542 1

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL N	92	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: March 1, 2005

Client Sample ID:	MW103D-0404-001	Project:	YANK01704
Sample ID:	130978003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	09-DEC-04		
Receive Date:	15-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Liquid Scint Pu241, Liquid-ALL MDC of 8-For Relog												
Plutonium-241	U	1.40	+/-3.39	2.81	+/-3.39	5.76	pCi/L		JXG1 02/26/05	1805	403542	1

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL M	92	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: March 1, 2005
Page 1 of 2

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130978

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 403542										
QC1200793683 130978002 DUP										
Plutonium-241	U	0.761	U	-0.582	pCi/L	N/A		(0% - 100%)	JXG1	02/26/05 19:39
	Uncert:	+/-3.36		+/-3.29						
	TPU:	+/-3.36		+/-3.29						
QC1200793685 LCS										
Plutonium-241	85.9			74.9	pCi/L		87	(75%-125%)		02/26/05 21:13
	Uncert:			+/-4.75						
	TPU:			+/-9.71						
QC1200793682 MB										
Plutonium-241			U	1.34	pCi/L					02/26/05 18:52
	Uncert:			+/-2.77						
	TPU:			+/-2.78						
QC1200793684 130978002 MS										
Plutonium-241	173 U	0.761		153	pCi/L		88			02/26/05 20:26
	Uncert:	+/-3.36		+/-10.6						
	TPU:	+/-3.36		+/-21.2						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

QC Summary

Workorder: 130978

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 24, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130974
SDG: MSR#04-3933

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on December 20, 2004. One sample was requested for Am-241 reanalysis on February 15, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00303
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130974

February 24, 2005

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 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina December 20, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. In accordance with the 2/15/05 request by David Keefer, the sample listed below was reanalyzed for Am-241.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130974001	EP166-0404-001

Items of Note:
The results provided in this data package are reanalysis results of a sample previously reported. The request for reanalysis was received on 2/15/05 via email from David Keefer.

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:

One groundwater sample was analyzed for Am-241.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2004-00303

130974 % relog for Am-241 recount

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☒ 30 D. ☐ 14 D. ☐ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	Boron	Comment, Preservation	Lab Sample ID
EP166-0404-001 013	12-16-04	1352	WG	G				X				3 x 4L HNO3, 1 x 1L	
MW109D-0404-001	12-15-04	1015	WG	G		X						1 x 1L	
MW602DUP-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
MW602MS-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
MW602MSD-0404-001	12-15-04	0840	WG	G							X	1 x 500mL HNO3	
			WG	G									
			WG	G									

NOTES: PO #: 002337 MSR #: 04-3933 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: [illegible] Date/Time 12-16-04 1638	2) Received By [illegible] Date/Time 12/20/04 9100
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 12-20-04

SDG#: MSL#04-3933

Work Order Number: 127767, 130974 - reanalysis

Shipping Container ID: 1921 6201 9946 Chain of Custody # 2004 -60303

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

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

Sample Custodian/Laboratory: [illegible] Date: 12/20/04

Telephoned to: ____ On ____ By ____

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3933

Method/Analysis Information

Product:	**Am241 Liquid-STND,MIX,PENN,LF-Recount**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	403300

Sample ID	**Client ID**
130974001	EP166-0404-001
1200793103	Method Blank (MB)
1200793104	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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
None of the samples were designated for QC analysis.

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. An NCR was not generated for this SDG.

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

Additional Comments
The sample was relogged at client request. See attached email. The sample was not reprepped. The original filters for the sample, blank and LCS in batch 399007 were recounted for twice as long as the original count. The recounted data agrees with the original results.

Qualifier information
Manual qualifiers were not required.

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

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: 4/Pallu G Ai ckou 2/24/05

Subject: YANK Request for Recount
From: Cheryl Jones <cj@mail.gel.com>
Date: Fri, 18 Feb 2005 11:21:33 -0500
To: Tim Winters <tcw@mail.gel.com>, Amanda Fehr <amanda.fehr@mail.gel.com>, Scott Moreland <scm@mail.gel.com>, Scott Baskett <srb@mail.gel.com>

YANK has requested a recount for Am-241 on sample 129930013. I have relogged this sample as 130974001 (in order to invoice them for the recount). Please make sure we recount the same prepped sample and count twice as long (if possible). This is their specific request.
Thanks,
Cheryl

--
Cheryl A. Jones
Project Manager - Federal Division
General Engineering Laboratories, LLC.
2040 Savage Road
Charleston, S.C. 29407
(843) 556-8171 x 4243

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#04-3933 GEL Work Order: 130974

The Qualifiers in this report are defined as follows:

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- P The response between the confirmation column and the primary column is >40%D.
- R Sample results are rejected due to sample preservation with HCl.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- Y QC Samples were not spiked with this compound.
- h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 21, 2005

Client Sample ID:	EP166-0404-001	Project:	YANK01704
Sample ID:	130974001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	16-DEC-04		
Receive Date:	20-DEC-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Am241 Liquid-STND,MIX,PENN,LF-Recount													
Americium-241	U	0.0993	+/-0.107	0.0747	+/-0.107	0.188	pCi/L		AF1	02/18/05	2313	403300	1

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Am-05-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Am241 Liquid-STND,MIX,PENN	88	(25%-125%)

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 21, 2005
Page 1 of 1

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130974

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 403300										
QC1200793104 LCS										
Americium-241	10.9			11.5	pCi/L		106	(75%-125%)	AF1	02/18/05 23:13
	Uncert:			+/-0.764						
	TPU:			+/-1.40						
QC1200793103 MB										
Americium-241			U	0.124	pCi/L					
	Uncert:			+/-0.130						
	TPU:			+/-0.130						

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

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- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time 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.

D-6 Seep Laboratory Analytical Data

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

December 6, 2004

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 126307
SDG: MSR#04-3932

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on November 26, 2004. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00277
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 126307

December 6, 2004

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina November 26, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
126307001	Pit#1
126307002	Pit#2
126307003	Pit#3
126307004	Pit#4
126307005	Pit#5

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Five groundwater samples were analyzed for Sr-90.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2004-00277

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only: 1260307.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code		Sr-90					Comment, Preservation	Lab Sample ID
Pit #1	11/23/04	13:47	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #2	11/23/04	13:53	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #3	11/23/04	14:04	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #4	11/23/04	14:26	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #5	11/23/04	14:38	WG	G	4-liter		X					Preserved 20-ml HNO_3	

NOTES: PO #: 002337 MSR #: 04-3932 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's. Please filter solids and analyze liquid only!

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 16 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Matt Durais — Date/Time 11/24/04 12:40	2) Received By: Pete Wicbe — Date/Time 11/24/04 10:0
3) Relinquished By — Date/Time	4) Received By — Date/Time
5) Relinquished By — Date/Time	6) Received By — Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 11/26/04 1000

SDG#: MSR#04-3932

Work Order Number: 126307

Shipping Container ID: 7919 8819 4930 Chain of Custody # 2004-00277

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 16.0C
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape ____hazard labels

____custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____leaking

____broken ____have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 11/26/04 10:00

Telephoned to: _____ On _____ By _____

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-3932

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	384342

Sample ID	**Client ID**
126307001	Pit#1
126307002	Pit#2
126307003	Pit#3
126307004	Pit#4
126307005	Pit#5
1200747640	Method Blank (MB)
1200747643	Laboratory Control Sample (LCS)
1200747641	126307002(Pit#2) Sample Duplicate (DUP)
1200747642	126307002(Pit#2) Matrix Spike (MS)

SOP Reference
Procedures 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# 9.

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: 126307002 (Pit#2).

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. An NCR was not generated for this SDG.

Additional Comments
Samples 126307001 (Pit#1) and 126307004 (Pit#4) were verified by recounting at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

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

Review Validation:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Alexander G Chekou 12/8/04

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: December 8, 2004

Client Sample ID:	Pit#1	Project:	YANK01604
Sample ID:	126307001	Client ID:	YANK001
Matrix:	Water	Vol. Recv.:	
Collect Date:	23-NOV-04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		4.81	+/-2.48	1.80	+/-2.78	4.12	pCi/L		JMB1 11/30/04	2021	384342	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	87	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Heather G. Cuccia

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: December 8, 2004

Client Sample ID:	Pit#2	Project:	YANK01604
Sample ID:	126307002	Client ID:	YANK001
Matrix:	Water	Vol. Recv.:	
Collect Date:	23-NOV-04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	2.79	+/-2.33	2.04	+/-2.43	4.61	pCi/L		JMB1 11/30/04	2021	384342	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	

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

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The above sample is reported on an "as received" basis.

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.

Heather O. Arnold

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: December 8, 2004

Client Sample ID:	Pit#3	Project:	YANK01604
Sample ID:	126307003	Client ID:	YANK001
Matrix:	Water	Vol. Recv.:	
Collect Date:	23-NOV-04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	-0.00549	+/-1.48	1.66	+/-1.48	3.77	pCi/L		JMB1 11/30/04	2058	384342	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	100	

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: December 8, 2004

Client Sample ID:	Pit#4	Project:	YANK01604
Sample ID:	126307004	Client ID:	YANK001
Matrix:	Water	Vol. Recv.:	
Collect Date:	23-NOV-04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		25.5	+/-4.23	1.84	+/-7.01	4.11	pCi/L		JMB1 11/30/04	2058	384342	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	105	

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

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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
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- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: December 8, 2004

Client Sample ID:	Pit#5	Project:	YANK01604
Sample ID:	126307005	Client ID:	YANK001
Matrix:	Water	Vol. Recv.:	
Collect Date:	23-NOV-04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.859	+/-1.36	1.73	+/-1.37	3.89	pCi/L		JMB1	11/30/04	2058	384342	1

The following Analytical Methods were performed

Method	Description
1	EPA 905.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	105	

Notes:
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- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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Reviewed by

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: December 8, 2004
Page 1 of 2

Client: CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 126307

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 384342										
QC1200747641 126307002 DUP										
Strontium-90	U	2.79	U	2.54	pCi/L	10		(0% - 100%)	JMB1	11/30/04 21:19
	Uncert:	+/-2.33		+/-2.29						
	TPU:	+/-2.43		+/-2.40						
QC1200747643 LCS										
Strontium-90	182			180	pCi/L		99	(75%-125%)		
	Uncert:			+/-11.6						
	TPU:			+/-49.4						
QC1200747640 MB										
Strontium-90			U	0.525	pCi/L					11/30/04 20:58
	Uncert:			+/-2.05						
	TPU:			+/-2.05						
QC1200747642 126307002 MS										
Strontium-90	364 U	2.79		377	pCi/L		103	(75%-125%)		11/30/04 21:19
	Uncert:	+/-2.33		+/-23.4						
	TPU:	+/-2.43		+/-97.1						

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

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- B Target analyte was detected in the sample as well as the associated blank.
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- E Concentration of the target analyte exceeds the instrument calibration range.
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- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 126307

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 31, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 128921
SDG: MSR#05-0136

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 14, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00007
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 128921

January 31, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 14, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
128921001	Seep #1
128921002	Seep #2
128921003	Seep #1 Weathered Rock

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One groundwater sample was analyzed for ALL.
Two groundwater samples were analyzed for ALL, Anions, Cations, & TDS.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2005-00007

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☒ 7 D.
Other: 128921 %

Lab Use Only: 128921 %

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	TDS	Comment, Preservation	Lab Sample ID
003	Seep #1 Weathered Rock	01/10/05	15:00	WG	G	500-ml			X				n.a.	
001	Seep #1	01/11/05	16:05	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	
002	Seep #2	01/11/05	16:05	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	

NOTES: PO #: 002337 MSR #: 05-0136 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Anions from unpreserved sample include Cl^-, CO_3^{-2}, HCO_3^-, SO_4^{-2}. Cations include Ca, Mg, Na, K. Requested TATs for H-3, Gamma & Sr-90 is 7-days, all others are 14-days. Weathered rock sample should be analyzed to FSS Soil MDCs.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14.0 Deg. C

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

1) Relinquished By: Matt Daros	Date/Time 1/13/05	2) Received By	Date/Time 1-14-05 940
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-14-05 940

SDG#: MSR#05-0136

Work Order Number: 128921

Shipping Container ID: 7908867 2 3910 Chain of Custody # 2005-00007

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14.0°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape ____hazard labels

✓ custody seals ____appropriate sample labels

9. Samples are:

✓ in good condition ____leaking

____broken ____have air bubbles

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

Sample Custodian/Laboratory: A. Fuller Date: 1-14-05

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

lient: CT Yankee	SDG/ARCOC/Work Order: 122921
ate Received:	PM(A) Review (ensure non-conforming items are resolved prior to signing):
eceived By:	1/14/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADI	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)				*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CAJ Initials 1/14/05 Date:

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
SDG MSR#05-0136

Method/Analysis Information

Analytical Batch:	394577
Prep Batch:	394574
Standard Operating Procedures:	GL-MA-E-013 REV# 10, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6010B
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200772491	Method Blank (MB) ICP
1200772492	Laboratory Control Sample (LCS)
1200772495	128921001(Seep #1L) Serial Dilution (SD)
1200772493	128921001(Seep #1D) Sample Duplicate (DUP)
1200772494	128921001(Seep #1S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Perkin Elmer 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectrometer. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the

nebulizer.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 128921001 (Seep #1).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes except magnesium met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation

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

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

upon completion of the data package.

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

Reviewer: Alison H. C **Date:** 1/21/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 21, 2005

Client Sample ID:	Seep #1	Project:	YANK01704
Sample ID:	128921001	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	11-JAN-05 16:05		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
6010/3005 ICP SCAN Metals-Ca,Mg,Na,K											
Calcium		68700	5.54	100	ug/L	1	RMJ	01/18/05	1806	394577	1
Magnesium		5980	5.18	100	ug/L	1					
Potassium		8370	16.5	100	ug/L	1					
Sodium		22400	14.4	100	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	MXW1	01/18/05	0800	394574

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6010B	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: *Quarterly Groundwater PO# 002337*

Report Date: January 21, 2005

Client Sample ID: Seep #1
Sample ID: 128921001

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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.

Allison M. C 1/21/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 21, 2005

Page 1 of 1

Client Sample ID: Seep #2
Sample ID: 128921002
Matrix: Ground Water
Collect Date: 11-JAN-05 16:05
Receive Date: 14-JAN-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
6010/3005 ICP SCAN Metals-Ca,Mg,Na,K											
Calcium		66400	5.54	100	ug/L	1	RMJ	01/18/05	1828	394577	1
Magnesium		5460	5.18	100	ug/L	1					
Potassium		7870	16.5	100	ug/L	1					
Sodium		21800	14.4	100	ug/L	1					

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-TRACE SW846 3005A	MXWI	01/18/05	0800	394574

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6010B	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 21, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 394577										
QC1200772493 128921001 DUP										
Calcium		68700		68100	ug/L	1		(0%-20%)	RMJ	01/18/05 18:12
Magnesium		5980		5960	ug/L	0		(0%-20%)		
Potassium		8370		8210	ug/L	2		(0%-20%)		
Sodium		22400		22200	ug/L	1		(0%-20%)		
QC1200772492 LCS										
Calcium	5000			5060	ug/L		101	(80%-120%)		01/18/05 18:01
Magnesium	5000			4990	ug/L		100	(80%-120%)		
Potassium	5000			5080	ug/L		102	(80%-120%)		
Sodium	5000			5090	ug/L		102	(80%-120%)		
QC1200772491 MB										
Calcium			J	7.90	ug/L					01/18/05 17:55
Magnesium			U	ND	ug/L					
Potassium			J	26.7	ug/L					
Sodium			J	64.3	ug/L					
QC1200772494 128921001 MS										
Calcium	5000	68700		72400	ug/L		N/A	(75%-125%)		01/18/05 18:17
Magnesium	5000	5980		10800	ug/L		97	(75%-125%)		
Potassium	5000	8370		13200	ug/L		96	(75%-125%)		
Sodium	5000	22400		26900	ug/L		N/A	(75%-125%)		
QC1200772495 128921001 SDILT										
Calcium		68700		13300	ug/L	3.42				01/18/05 18:22
Magnesium		5980		1070	ug/L	10.5				
Potassium		8370		1650	ug/L	1.62				
Sodium		22400		4330	ug/L	3.21				

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

QC Summary

Workorder: 128921

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

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

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

GENERAL CHEMISTRY ANALYSIS

General Chemistry Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0136

Method/Analysis Information

Product:	Ion Chromatography		
Analytical Batch:	394776	**Method:**	EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2

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-GC-E-086 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Metrohm IC Detector.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
QC samples were not designated for this SDG.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The spike recovery for sample was outside of the required acceptance limits for chloride and sulfate due to matrix interference. 128921001 (Seep #1).

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration for this analysis. See the Certificates of Analysis for the individual dilution factors for samples 128921001 (Seep #1) and 128921002 (Seep #2).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
NCR ID 174524 was submitted with this batch.

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Method/Analysis Information

Product: **Solids, Total Dissolved**

Analytical Batch: 396056 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
129223001	Seep #3
129223002	Seep #3
1200775798	Method Blank (MB)
1200775799	Laboratory Control Sample (LCS)
1200775801	129223001(Seep #3) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
Sample 129223001 (Seep #3) was designated for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received with insufficient time to prep and/or analyze the samples within the remaining method-specified holding time. The samples were analyzed as soon as possible by the analyst. 128921001 (Seep #1), 128921002 (Seep #2), 129223001 (Seep #3) and 129223002 (Seep #3).

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
NCR ID 175543 was submitted with this batch.

Additional Comments
Additional comments were not required for this SDG.

Method/Analysis Information

Product:	**Alkalinity**		
Analytical Batch:	394657	**Method:**	SM 2320B

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 2320B:

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2

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-GC-E-033 REV# 3.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

Initial Standardization
The titrant was properly standardized

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Designation
QC samples were not designated for this SDG.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Method/Analysis Information

Product:	Alkalinity		
Analytical Batch:	395610	**Method:**	SM 2320B

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 2320B:

Sample ID	Client ID
129223002	Seep #3
1200774723	Laboratory Control Sample (LCS)
1200775495	129248001(BSP-7) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-033 REV# 3.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

Initial Standardization
The titrant was properly standardized

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
Sample 129248001 (BSP-7) was designated for QC analysis.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Tom Lewis Jr **Date:** 27 JAN 05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 174524
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
20-JAN-05	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
IC	EPA 300.0	Liquid	YANK
Batch ID:	**Sample Numbers:**		
394776	See Below		

Potentially affected work order(s)(SDG): 128921(MSR#05-0136)

Application Issues:

Failed Recovery for LCS/MS/PS

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Failed Recovery for LCS/MS/PS: QC 1200772962PS	1.The spike recovery was outside of the required acceptance limits for chloride and sulfate due to matrix interference.

Originator's Name:
Mary Sherwood 20-JAN-05

Data Validator/Group Leader:
Julia Hamilton 24-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 175543
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
25-JAN-05	Industrial	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
BALANCE	EPA 160.1	Liquid	YANK
Batch ID:	**Sample Numbers:**		
396056	See Below		

Potentially affected work order(s)(SDG): 128921(MSR#05-0136),129223(MSR#05-0136),129260,129262

Application Issues:

Sample Analyzed out of Holding

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Sample Analyzed out of Holding: 128921 001,002 129223 001,002	1. The following samples were logged in with insufficient time for analysis within the remaining method-specified holding time. The samples were analyzed as soon as possible by the analyst.

Originator's Name:
Jennifer Dunagan 25-JAN-05

Data Validator/Group Leader:
Shannon Schalles 25-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: January 27, 2005

Client Sample ID: Seep #1
Sample ID: 128921001
Matrix: Ground Water
Collect Date: 11-JAN-05 16:05
Receive Date: 14-JAN-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA 300.0 Chloride in Liquid										
Sulfate		22.5	0.193	0.400	mg/L	1	MAR1 01/18/05	1145	394776	1
Chloride		115	0.322	2.00	mg/L	10	MAR1 01/19/05	1713	394776	2
Solids Analysis										
EPA 160.1 Solids, Dissolved										
Total Dissolved Solids	H	399	3.07	10.0	mg/L		JLD1 01/24/05	1101	396056	3
Titration Analysis										
EPA310.1/SM2320B Bicarbonates										
Bicarbonate alkalinity (CaCO3)		77.5	1.45	2.00	mg/L		BEP2 01/17/05	1215	394657	4
Carbonate alkalinity (CaCO3)	U	0.142	1.45	2.00	mg/L					

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 160.1	
4	SM 2320B	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 27, 2005

Client Sample ID: Seep #1 Project: YANK01704
Sample ID: 128921001 Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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 Tom Jennings

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 27, 2005

Client Sample ID:	Seep #2	Project:	YANK01704
Sample ID:	128921002	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	11-JAN-05 16:05		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Ion Chromatography										
EPA 300.0 Chloride in Liquid										
Sulfate		25.8	0.193	0.400	mg/L	1	MAR1 01/18/05	1241	394776	1
Chloride		107	0.322	2.00	mg/L	10	MAR1 01/19/05	1809	394776	2
Solids Analysis										
EPA 160.1 Solids, Dissolved										
Total Dissolved Solids	H	370	3.07	10.0	mg/L		JLD1 01/24/05	1101	396056	3
Titration Analysis										
EPA310.1/SM2320B Bicarbonates										
Bicarbonate alkalinity (CaCO3)		90.6	1.45	2.00	mg/L		BEP2 01/17/05	1249	394657	4
Carbonate alkalinity (CaCO3)	U	0.182	1.45	2.00	mg/L					

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 160.1	
4	SM 2320B	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 27, 2005

Client Sample ID: Seep #2
Sample ID: 128921002
Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 27, 2005
Page 1 of 2

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 128921

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 394776											
QC1200772964 128921001 DUP											
Chloride			115		115	mg/L	0		(0%-20%)	MAR1	01/19/05 17:32
Sulfate			22.5		22.6	mg/L	1		(0%-20%)		01/18/05 12:03
QC1200772963 LCS											
Chloride	10.0				10.2	mg/L		102	(90%-110%)		01/18/05 11:26
Sulfate	20.0				20.8	mg/L		104	(90%-110%)		
QC1200772961 MB											
Chloride				U	0.00	mg/L					01/18/05 11:07
Sulfate				U	0.00	mg/L					
QC1200772962 128921001 PS											
Chloride	10.0		11.5		23.6	mg/L		122*	(90%-110%)		01/19/05 17:50
Sulfate	20.0		22.5		45.4	mg/L		115*	(90%-110%)		01/18/05 12:22
Solids Analysis											
Batch 396056											
QC1200775801 129223001 DUP											
Total Dissolved Solids		H	354	H	347	mg/L	2		(0%-10%)	JLD1	01/24/05 11:01
QC1200775799 LCS											
Total Dissolved Solids	300				302	mg/L		101	(95%-105%)		
QC1200775798 MB											
Total Dissolved Solids				U	-4.0	mg/L					
Titration Analysis											
Batch 394657											
QC1200772645 128921001 DUP											
Bicarbonate alkalinity (CaCO3)			77.5		78.5	mg/L	1		(0%-20%)	BEP2	01/17/05 12:19
Carbonate alkalinity (CaCO3)		U	0.142	U	0.147	mg/L	N/A ^		(+/-2.00)		

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.

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

QC Summary

Workorder: 128921

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

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0136

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	396298

Sample ID	**Client ID**
128921001	Seep #1
128921002	Seep #2
1200776352	Method Blank (MB)
1200776353	128921002(Seep #2) Sample Duplicate (DUP)
1200776354	128921002(Seep #2) Matrix Spike (MS)
1200776355	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921002 (Seep #2).

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 128921001 (Seep #1) was recounted due to poor resolution.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An 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 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:	396301
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776364	Method Blank (MB)
1200776365	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776366	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776367	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921003 (Seep #1 Weathered Rock).

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. An 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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	396299

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776356	Method Blank (MB)
1200776357	128921002(Seep #2) Sample Duplicate (DUP)
1200776358	128921002(Seep #2) Matrix Spike (MS)
1200776359	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921002 (Seep #2).

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 1200776357 (Seep #2) and 128921001 (Seep #1) were recounted due to poor resolution.

Miscellaneous Information:

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

Manual Integration
Manual integrations of alpha spectroscopy spectra 1200776357 (Seep #2) and 128921002 (Seep #2) were performed to fully separate counts in Regions of Interest which would have been biased.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Pu241, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	396300

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776360	Method Blank (MB)
1200776361	128921002(Seep #2) Sample Duplicate (DUP)
1200776362	128921002(Seep #2) Matrix Spike (MS)
1200776363	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 5.

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: 128921002 (Seep #2).

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. An NCR was not generated for this SDG.

Manual Integration
Manual integration of alpha spectroscopy spectra 128921001 (Seep #1) was performed to fully separate counts in Regions of Interest which would have been biased.

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:	396302
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776368	Method Blank (MB)
1200776369	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776370	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)

1200776371 Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921003 (Seep #1 Weathered Rock).

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. An 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:	396303
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776372	Method Blank (MB)
1200776373	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776374	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776375	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 5.

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: 128921003 (Seep #1 Weathered Rock).

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 1200776372 (MB) was recounted due to a high MDA.
Sample 1200776374 (Seep #1 Weathered Rock) was recounted due to low/high recovery.
The batch was recounted due to a high background count.

Miscellaneous Information:

NCR Documentation

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

Manual Integration
Manual integration of alpha spectroscopy spectra 1200776374 (Seep #1 Weathered Rock) was performed to fully separate counts in Regions of Interest which would have been biased.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gamma,Solid-FSS GAM & ALL Ra-226 In-growth Waived**
Analytical Method:	EML HASL 300, 4.5.2.3
Prep Method:	Dry Soil Prep
Analytical Batch Number:	396377
Prep Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776535	Method Blank (MB)
1200776536	129311021(5000-0000-107-SI) Sample Duplicate (DUP)
1200776537	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 129311021 (5000-0000-107-SI).

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. An NCR was not generated for this SDG.

Qualifier information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to no valid peak.	Manganese-54	128921003
		Thallium-208	128921003

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	396169

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776061	Method Blank (MB)
1200776062	128921001(Seep #1) Sample Duplicate (DUP)
1200776063	128921001(Seep #1) Matrix Spike (MS)
1200776064	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	396158

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776039	Method Blank (MB)
1200776040	128921002(Seep #2) Sample Duplicate (DUP)
1200776041	128921002(Seep #2) Matrix Spike (MS)
1200776042	128921002(Seep #2) Matrix Spike Duplicate (MSD)
1200776043	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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-001 REV# 9.

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: 128921002 (Seep #2).

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 1200776040 (Seep #2) and 128921002 (Seep #2) were recounted due to high relative percent difference/relative error ratio.

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

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	396157

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776035	Method Blank (MB)
1200776036	128921001(Seep #1) Sample Duplicate (DUP)
1200776037	128921001(Seep #1) Matrix Spike (MS)
1200776038	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Additional Comments
Samples were verified by recounting at least five days from the separation date.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, solid Quick TAT**
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:	396424
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776621	Method Blank (MB)
1200776622	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776623	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776624	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 128921003 (Seep #1 Weathered Rock).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	396240

Sample ID	**Client ID**
128921001	Seep #1
128921002	Seep #2
1200776249	Method Blank (MB)
1200776250	128921001(Seep #1) Sample Duplicate (DUP)
1200776251	128921001(Seep #1) Matrix Spike (MS)
1200776252	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Additional Comments
The blank result for 1200776249 (MB) is greater than the MDA but less than the detection limit.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Solid-ALL FSS**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	396242

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776253	Method Blank (MB)
1200776254	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776255	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776256	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 128921003 (Seep #1 Weathered Rock).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	396237

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776241	Method Blank (MB)
1200776242	128921001(Seep #1) Sample Duplicate (DUP)
1200776243	128921001(Seep #1) Matrix Spike (MS)
1200776244	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 2.

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: 128921001 (Seep #1).

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 following samples were recounted due to high MDAs: 1200776241 (MB), 1200776242 (Seep #1), 128921001 (Seep #1) and 128921002 (Seep #2).

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 176063 was generated due to RDL less than MDA. 1. Samples 128921001, 128921002, 129223002 and 1200776241 failed the required detection limit. Samples were counted for 120 minutes. 2. 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:	396641
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200777100	Method Blank (MB)
1200777101	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200777102	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200777103	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 2.

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: 128921003 (Seep #1 Weathered Rock).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	396238

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776245	Method Blank (MB)
1200776246	128921001(Seep #1) Sample Duplicate (DUP)
1200776247	128921001(Seep #1) Matrix Spike (MS)
1200776248	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 6.

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: 128921001 (Seep #1).

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. An 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:	396642
Prep Batch Number:	396273
Dry Soil Prep GL-RAD-A-021 Batch Number:	396272

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200777104	Method Blank (MB)
1200777105	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200777106	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200777107	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 6.

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: 128921003 (Seep #1 Weathered Rock).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	396165

Sample ID	Client ID
128921001	Seep #1

128921002	Seep #2
1200776055	Method Blank (MB)
1200776056	128921001(Seep #1) Sample Duplicate (DUP)
1200776057	128921001(Seep #1) Matrix Spike (MS)
1200776058	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 128921001 (Seep #1).

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. An 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: 396247

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776265	Method Blank (MB)
1200776266	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776267	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776268	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 128921003 (Seep #1 Weathered Rock).

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 1200776268 (LCS) was 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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	396244

Sample ID	Client ID
128921001	Seep #1
128921002	Seep #2
1200776257	Method Blank (MB)
1200776258	128921001(Seep #1) Sample Duplicate (DUP)
1200776259	128921001(Seep #1) Matrix Spike (MS)
1200776260	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 7.

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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Solid FSS**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	396246

Sample ID	Client ID
128921003	Seep #1 Weathered Rock
1200776261	Method Blank (MB)
1200776262	128921003(Seep #1 Weathered Rock) Sample Duplicate (DUP)
1200776263	128921003(Seep #1 Weathered Rock) Matrix Spike (MS)
1200776264	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 7.

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: 128921003 (Seep #1 Weathered Rock).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: [illegible] 2/3/05

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 176063
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
27-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
396237	See Below		

Potentially affected work order(s)(SDG): 128921(MSR#05-0136),129223(MSR#05-0136)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 128921001, 128921002, 129223002 and 1200776241 failed the required detection limit. Samples were counted for 120 minutes.	2. Reporting results.

Originator's Name:
Wendy Hicks 27-JAN-05

Data Validator/Group Leader:
Melanie Aycock 28-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0136 GEL Work Order: 128921

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID:	Seep #1	Project:	YANK01704
Sample ID:	128921001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.0857	+/-0.112	0.110	+/-0.112	0.259	pCi/L		BJB1	01/27/05	2302	396299	1
Plutonium-239/240	U	0.0285	+/-0.0685	0.047	+/-0.0686	0.133	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0592	+/-0.128	0.0918	+/-0.128	0.237	pCi/L		BJB1	01/27/05	2302	396298	2
Curium-242	U	-1.010E-08	+/-0.102	0.0855	+/-0.102	0.228	pCi/L						
Curium-243/244	U	-0.178	+/-0.216	0.206	+/-0.216	0.464	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	1.76	+/-5.70	4.73	+/-5.70	9.75	pCi/L		BJB1	01/27/05	2259	396300	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-7.56	+/-10.5	8.58	+/-10.3	18.0	pCi/L		MJH1	01/23/05	1330	396169	4
Cesium-134	U	1.06	+/-2.12	1.85	+/-2.08	4.05	pCi/L						
Cesium-137	U	0.636	+/-2.07	1.78	+/-2.03	3.87	pCi/L						
Cobalt-60	U	-0.123	+/-1.95	1.59	+/-1.91	3.64	pCi/L						
Europium-152	U	1.51	+/-6.09	5.15	+/-5.97	10.9	pCi/L						
Europium-154	U	-1.82	+/-6.28	4.97	+/-6.15	11.2	pCi/L						
Europium-155	U	-0.533	+/-7.17	5.93	+/-7.03	12.4	pCi/L						
Manganese-54	U	2.67	+/-2.42	1.91	+/-2.38	4.15	pCi/L						
Niobium-94	U	1.12	+/-1.82	1.61	+/-1.79	3.49	pCi/L						
Silver-108m	U	-0.258	+/-1.84	1.48	+/-1.81	3.20	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		25.6	+/-1.41	0.516	+/-6.94	1.08	pCi/L		LCW1	01/24/05	1256	396157	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		7.34	+/-2.10	0.808	+/-2.40	1.84	pCi/L		EXW1	01/26/05	0214	396158	6
Beta		40.3	+/-3.06	1.36	+/-3.51	2.85	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		3250	+/-290	170	+/-294	340	pCi/L		DAJ1	01/24/05	1153	396165	7
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	0.345	+/-8.33	6.98	+/-8.33	14.4	pCi/L		LAG1	01/24/05	1854	396244	8
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	30.2	+/-26.4	17.6	+/-26.4	35.6	pCi/L		DAJ1	01/26/05	1604	396237	9
Liquid Scint Ni63, Liquid-ALL													

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID: Seep #1
Sample ID: 128921001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	0.645	+/-4.72	3.95	+/-4.72	8.07	pCi/L		DAJ1 01/27/05	1302	396238	10
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	1.77	+/-3.64	3.00	+/-3.64	6.18	pCi/L		EGD1 01/30/05	0339	396240	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	01/24/05	1000	396183
SW846 3005A	ICP-TRACE SW846 3005A	MXW1	01/18/05	0800	394574

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified
4	EPA 901.1
5	EPA 905.0 Modified
6	EPA 900.0
7	EPA 906.0 Modified
8	EPA EERF C-01 Modified
9	DOE RESL Fe-1, Modified
10	DOE RESL Ni-1, Modified
11	DOE EML HASL-300, Tc-02-RC Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	101	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	103	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	87	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	77	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	66	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	99	

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID: Seep #1
Sample ID: 128921001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Notes:
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- ** Indicates the analyte is a surrogate compound.
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- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID:	Seep #2	Project:	YANK01704
Sample ID:	128921002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	11-JAN-05		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	-0.0952	+/-0.208	0.188	+/-0.208	0.427	pCi/L		BJB1 01/26/05	1852	396299	1
Plutonium-239/240	U	-0.0571	+/-0.134	0.125	+/-0.135	0.302	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	0.142	+/-0.203	0.149	+/-0.203	0.346	pCi/L		BJB1 01/26/05	1852	396298	2
Curium-242	U	0.076	+/-0.0912	0.0442	+/-0.0914	0.140	pCi/L					
Curium-243/244	U	0.231	+/-0.234	0.165	+/-0.234	0.378	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	2.58	+/-6.23	5.16	+/-6.24	10.6	pCi/L		BJB1 01/27/05	2331	396300	3
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-5.21	+/-15.7	9.41	+/-15.4	19.7	pCi/L		MJH1 01/23/05	1330	396169	4
Cesium-134	U	0.587	+/-2.01	1.69	+/-1.97	3.72	pCi/L					
Cesium-137	U	0.247	+/-1.87	1.56	+/-1.83	3.41	pCi/L					
Cobalt-60	U	3.03	+/-1.95	1.74	+/-1.91	3.92	pCi/L					
Europium-152	U	-1.37	+/-5.41	4.20	+/-5.30	8.98	pCi/L					
Europium-154	U	-4.54	+/-5.04	3.45	+/-4.94	8.10	pCi/L					
Europium-155	U	1.51	+/-7.24	6.17	+/-7.10	12.9	pCi/L					
Manganese-54	U	1.57	+/-1.71	1.55	+/-1.67	3.40	pCi/L					
Niobium-94	U	-0.16	+/-1.69	1.37	+/-1.66	2.99	pCi/L					
Silver-108m	U	-0.156	+/-1.87	1.56	+/-1.83	3.35	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		24.8	+/-1.31	0.447	+/-6.50	0.937	pCi/L		LCW1 01/24/05	1256	396157	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		1.87	+/-1.17	0.831	+/-1.19	1.77	pCi/L		EXW1 01/28/05	0553	396158	6
Beta		55.4	+/-2.50	1.09	+/-3.45	2.24	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		3000	+/-293	177	+/-297	354	pCi/L		DAJ1 01/24/05	1256	396165	7
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	0.498	+/-8.42	7.05	+/-8.42	14.5	pCi/L		LAG1 01/24/05	1926	396244	8
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	3.33	+/-25.2	17.0	+/-25.2	34.4	pCi/L		DAJ1 01/26/05	1805	396237	9
Liquid Scint Ni63, Liquid-ALL												

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID: Seep #2
Sample ID: 128921002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Notes:
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- ** Indicates the analyte is a surrogate compound.
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID:	Seep #1 Weathered Rock	Project:	YANK01704
Sample ID:	128921003	Client ID:	YANK001
Matrix:	Misc Solid	Vol. Recv.:	
Collect Date:	10-JAN-05		
Receive Date:	14-JAN-05		
Collector:	Client		
Moisture:	16.1%		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	M
Rad Alpha Spec Analysis													
Alphaspec Am241, Cm, Solid ALL FSS													
Americium-241	U	0.00394	+/-0.0298	0.0277	+/-0.0298	0.0936	pCi/g		JAS1	01/31/05	1019	396301	1
Curium-242	U	0.0154	+/-0.0302	0.00	+/-0.0303	0.0417	pCi/g						
Curium-243/244	U	-0.00338	+/-0.00662	0.016	+/-0.00664	0.0702	pCi/g						
Alphaspec Pu, Solid-ALL FSS													
Plutonium-238	U	-0.0135	+/-0.0175	0.0178	+/-0.0176	0.0428	pCi/g		JAS1	01/29/05	2224	396302	2
Plutonium-239/240	U	0.0027	+/-0.0159	0.0126	+/-0.0159	0.0324	pCi/g						
Liquid Scint Pu241, Solid-ALL FSS													
Plutonium-241	U	-1.04	+/-3.81	3.22	+/-3.81	6.64	pCi/g		JAS1	02/01/05	1344	396303	3
Rad Gamma Spec Analysis													
Gamma,Solid-FSS GAM & ALL Ra-226 In-growth Waived													
Actinium-228	U	0.0867	+/-0.0719	0.0663	+/-0.0705	0.146	pCi/g		AKB	01/26/05	0940	396377	4
Americium-241	U	-0.0243	+/-0.0756	0.060	+/-0.0741	0.127	pCi/g						
Bismuth-212	U	0.130	+/-0.122	0.119	+/-0.119	0.264	pCi/g						
Bismuth-214	U	0.0285	+/-0.0742	0.0409	+/-0.0727	0.0874	pCi/g						
Cesium-134	U	-0.00653	+/-0.0194	0.0152	+/-0.0191	0.0345	pCi/g						
Cesium-137	U	-0.000807	+/-0.0164	0.0137	+/-0.0161	0.0308	pCi/g						
Cobalt-60	U	0.00979	+/-0.0291	0.0192	+/-0.0285	0.0437	pCi/g						
Europium-152	U	0.0152	+/-0.042	0.0386	+/-0.0412	0.0834	pCi/g						
Europium-154	U	0.0045	+/-0.054	0.0462	+/-0.053	0.107	pCi/g						
Europium-155	U	0.00943	+/-0.0491	0.0443	+/-0.0481	0.0934	pCi/g						
Lead-212	U	0.0155	+/-0.041	0.0293	+/-0.0402	0.0615	pCi/g						
Lead-214	U	0.0719	+/-0.0535	0.0392	+/-0.0525	0.0828	pCi/g						
Manganese-54	U	0.00	+/-0.0168	0.00	+/-0.0165	0.00365	pCi/g						
	UI												
Niobium-94	U	-0.00441	+/-0.0154	0.0123	+/-0.0151	0.0277	pCi/g						
Potassium-40		6.63	+/-0.926	0.135	+/-0.908	0.324	pCi/g						
Radium-226	U	0.0285	+/-0.0742	0.0271	+/-0.0727	0.060	pCi/g						
Silver-108m	U	-0.00806	+/-0.0136	0.011	+/-0.0133	0.0244	pCi/g						
Thallium-208	U	0.00	+/-0.0195	0.0128	+/-0.0191	0.0286	pCi/g						
	UI												
Rad Gas Flow Proportional Counting													
GFPC, Sr90, solid Quick TAT													
Strontium-90		0.567	+/-0.0826	0.0556	+/-0.191	0.116	pCi/g		LCW1	01/27/05	2128	396424	5
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Solid-HTD2,ALL FSS													

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID: Seep #1 Weathered Rock
Sample ID: 128921003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Solid-HTD2,ALL FSS												
Tritium	U	7.18	+/-6.66	5.30	+/-6.68	10.6	pCi/g		EGD1 01/24/05	2050	396247	6
Liquid Scint C14, Solid FSS												
Carbon-14	U	0.0343	+/-0.098	0.0807	+/-0.098	0.168	pCi/g		LAG1 01/25/05	0616	396246	7
Liquid Scint Fe55, Solid-ALL FSS												
Iron-55	U	22.4	+/-24.7	16.8	+/-24.7	33.8	pCi/g		DAJ1 01/28/05	1710	396641	8
Liquid Scint Ni63, Solid-ALL FSS												
Nickel-63	U	-4.74	+/-5.40	4.61	+/-5.40	9.38	pCi/g		DAJ1 01/28/05	2053	396642	9
Liquid Scint Tc99, Solid-ALL FSS												
Technetium-99	U	-0.12	+/-0.252	0.215	+/-0.252	0.442	pCi/g		EGD1 01/30/05	1631	396242	10

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Ash Soil Prep	Ash Soil Prep, GL-RAD-A-021B	TCI	01/25/05	1509	396273
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	TCI	01/24/05	1322	396272

The following Analytical Methods were performed

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Americium-243	Alphaspec Am241, Cm, Solid ALL	88	(25%-125%)
Plutonium-242	Alphaspec Pu, Solid-ALL FSS	89	(15%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Solid-ALL FS	77	
Carrier/Tracer Recovery	GFPC, Sr90, solid Quick TAT	77	(25%-125%)

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Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 2, 2005

Client Sample ID: Seep #1 Weathered Rock
Sample ID: 128921003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
Carrier/Tracer Recovery		Liquid Scint Fe55, Solid-ALL FS			83						
Carrier/Tracer Recovery		Liquid Scint Ni63, Solid-ALL FS			71						
Carrier/Tracer Recovery		Liquid Scint Tc99, Solid-ALL FS			75						

Notes:
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on a dry weight basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 3, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396298										
QC1200776353 128921002 DUP										
Americium-241	U	0.142	U	-3.320E-08	pCi/L	N/A		(0% - 100%)	BJB1	01/26/05 18:52
Uncert:		+/-0.203		+/-0.174						
TPU:		+/-0.203		+/-0.174						
Curium-242	U	0.076	U	0.0186	pCi/L	121		(0% - 100%)		
Uncert:		+/-0.0912		+/-0.0632						
TPU:		+/-0.0914		+/-0.0632						
Curium-243/244	U	0.231	U	0.0348	pCi/L	148		(0% - 100%)		
Uncert:		+/-0.234		+/-0.187						
TPU:		+/-0.234		+/-0.187						
QC1200776355 LCS										
Americium-241	27.3			27.3	pCi/L		100	(75%-125%)		
Uncert:				+/-1.25						
TPU:				+/-3.23						
Curium-242			U	-1.770E-09	pCi/L					
Uncert:				+/-0.041						
TPU:				+/-0.041						
Curium-243/244	33.8			34.7	pCi/L		103			
Uncert:				+/-1.40						
TPU:				+/-4.03						
QC1200776352 MB										
Americium-241			U	1.480E-08	pCi/L					01/26/05 18:52
Uncert:				+/-0.149						
TPU:				+/-0.149						
Curium-242			U	-0.0157	pCi/L					
Uncert:				+/-0.0534						
TPU:				+/-0.0535						
Curium-243/244			U	-0.155	pCi/L					
Uncert:				+/-0.143						
TPU:				+/-0.144						
QC1200776354 128921002 MS										
Americium-241	27.3 U	0.142		28.9	pCi/L		105	(75%-125%)		01/26/05 18:52
Uncert:		+/-0.203		+/-1.36						
TPU:		+/-0.203		+/-3.46						
Curium-242	U	0.076	U	0.0178	pCi/L					
Uncert:		+/-0.0912		+/-0.0349						
TPU:		+/-0.0914		+/-0.0349						
Curium-243/244	33.8 U	0.231		35.5	pCi/L		104			
Uncert:		+/-0.234		+/-1.52						
TPU:		+/-0.234		+/-4.20						
Batch 396299										
QC1200776357 128921002 DUP										
Plutonium-238	U	-0.0952	U	0.0951	pCi/L	N/A		(0% - 100%)	BJB1	01/27/05 23:02

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396299										
	Uncert:	+/-0.208		+/-0.122						
	TPU:	+/-0.208		+/-0.122						
Plutonium-239/240	U	-0.0571	U	-6.470E-09	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.134		+/-0.0753						
	TPU:	+/-0.135		+/-0.0753						
QC1200776359 LCS										
Plutonium-238			U	0.00	pCi/L			(75%-125%)		01/26/05 18:52
	Uncert:			+/-0.134						
	TPU:			+/-0.134						
Plutonium-239/240	23.9			26.2	pCi/L		110	(75%-125%)		
	Uncert:			+/-1.32						
	TPU:			+/-2.88						
QC1200776356 MB										
Plutonium-238			U	-0.0789	pCi/L					
	Uncert:			+/-0.128						
	TPU:			+/-0.128						
Plutonium-239/240			U	-0.0316	pCi/L					
	Uncert:			+/-0.0758						
	TPU:			+/-0.0758						
QC1200776358 128921002 MS										
Plutonium-238	U	-0.0952		0.269	pCi/L			(75%-125%)		
	Uncert:	+/-0.208		+/-0.144						
	TPU:	+/-0.208		+/-0.146						
Plutonium-239/240	23.9 U	-0.0571		25.2	pCi/L		105	(75%-125%)		
	Uncert:	+/-0.134		+/-1.14						
	TPU:	+/-0.135		+/-2.65						
Batch 396300										
QC1200776361 128921002 DUP										
Plutonium-241	U	2.58	U	0.0887	pCi/L	0		(0% - 100%)	BJB1	01/28/05 00:35
	Uncert:	+/-6.23		+/-5.42						
	TPU:	+/-6.24		+/-5.42						
QC1200776363 LCS										
Plutonium-241	138			128	pCi/L		93	(75%-125%)		01/28/05 01:38
	Uncert:			+/-9.25						
	TPU:			+/-16.5						
QC1200776360 MB										
Plutonium-241			U	-2.24	pCi/L					01/28/05 00:03
	Uncert:			+/-5.77						
	TPU:			+/-5.78						
QC1200776362 128921002 MS										
Plutonium-241	138 U	2.58		119	pCi/L		84			01/28/05 01:07
	Uncert:	+/-6.23		+/-9.88						
	TPU:	+/-6.24		+/-16.7						
Batch 396301										
QC1200776365 128921003 DUP										
Americium-241	U	0.00394	U	0.0374	pCi/g	162		(0% - 100%)	JAS1	01/31/05 10:19
	Uncert:	+/-0.0298		+/-0.0951						
	TPU:	+/-0.0298		+/-0.0953						
Curium-242	U	0.0154	U	0.0141	pCi/g	9		(0% - 100%)		

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396301										
	Uncert:	+/-0.0302		+/-0.0375						
	TPU:	+/-0.0303		+/-0.0376						
Curium-243/244	U	-0.00338	U	0.0238	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.00662		+/-0.0808						
	TPU:	+/-0.00664		+/-0.0809						
QC1200776367 LCS										
Americium-241	5.21			5.56	pCi/g		107	(75%-125%)		
	Uncert:			+/-0.582						
	TPU:			+/-0.989						
Curium-242			U	0.0121	pCi/g					
	Uncert:			+/-0.0322						
	TPU:			+/-0.0322						
Curium-243/244	6.44			7.32	pCi/g		114	(75%-125%)		
	Uncert:			+/-0.667						
	TPU:			+/-1.25						
QC1200776364 MB										
Americium-241			U	0.0586	pCi/g					01/31/05 10:19
	Uncert:			+/-0.0616						
	TPU:			+/-0.0622						
Curium-242			U	-0.0038	pCi/g					
	Uncert:			+/-0.00744						
	TPU:			+/-0.00746						
Curium-243/244			U	-0.00374	pCi/g					
	Uncert:			+/-0.00734						
	TPU:			+/-0.00736						
QC1200776366 128921003 MS										
Americium-241	5.33 U	0.00394		5.83	pCi/g		109	(75%-125%)		01/31/05 10:19
	Uncert:	+/-0.0298		+/-0.560						
	TPU:	+/-0.0298		+/-0.984						
Curium-242	U	0.0154	U	0.0116	pCi/g					
	Uncert:	+/-0.0302		+/-0.0307						
	TPU:	+/-0.0303		+/-0.0307						
Curium-243/244	6.60 U	-0.00338		7.38	pCi/g		112	(75%-125%)		
	Uncert:	+/-0.00662		+/-0.630						
	TPU:	+/-0.00664		+/-1.20						
Batch 396302										
QC1200776369 128921003 DUP										
Plutonium-238	U	-0.0135	U	0.00265	pCi/g	N/A		(0% - 100%)	JAS1	01/29/05 15:07
	Uncert:	+/-0.0175		+/-0.0268						
	TPU:	+/-0.0176		+/-0.0268						
Plutonium-239/240	U	0.0027	U	-5.690E-05	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0159		+/-0.0137						
	TPU:	+/-0.0159		+/-0.0137						
QC1200776371 LCS										
Plutonium-238			U	0.0189	pCi/g			(75%-125%)		
	Uncert:			+/-0.0255						
	TPU:			+/-0.0256						
Plutonium-239/240	4.56			4.76	pCi/g		104	(75%-125%)		
	Uncert:			+/-0.315						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 396302										
	TPU:			+/-0.599						
QC1200776368 MB										
Plutonium-238			U	-0.000276	pCi/g					
	Uncert:			+/-0.0298						
	TPU:			+/-0.0298						
Plutonium-239/240			U	0.0221	pCi/g					
	Uncert:			+/-0.0254						
	TPU:			+/-0.0256						
QC1200776370 128921003 MS										
Plutonium-238	U	-0.0135	U	0.0326	pCi/g			(75%-125%)		
	Uncert:	+/-0.0175		+/-0.0459						
	TPU:	+/-0.0176		+/-0.0461						
Plutonium-239/240	4.67 U	0.0027		5.19	pCi/g		111	(75%-125%)		
	Uncert:	+/-0.0159		+/-0.346						
	TPU:	+/-0.0159		+/-0.661						
Batch 396303										
QC1200776373 128921003 DUP										
Plutonium-241	U	-1.04	U	0.315	pCi/g	N/A		(0% - 100%)	JAS1	02/01/05 14:16
	Uncert:	+/-3.81		+/-3.44						
	TPU:	+/-3.81		+/-3.44						
QC1200776375 LCS										
Plutonium-241	66.3			54.5	pCi/g		82	(75%-125%)		02/01/05 15:19
	Uncert:			+/-4.93						
	TPU:			+/-7.53						
QC1200776372 MB										
Plutonium-241			U	1.21	pCi/g					02/02/05 11:56
	Uncert:			+/-2.90						
	TPU:			+/-2.90						
QC1200776374 128921003 MS										
Plutonium-241	67.6 U	-1.04		52.8	pCi/g		78	(75%-125%)		02/01/05 23:44
	Uncert:	+/-3.81		+/-5.19						
	TPU:	+/-3.81		+/-7.65						
Rad Gamma Spec										
Batch 396169										
QC1200776062 128921001 DUP										
Americium-241	U	-7.56	U	-2.94	pCi/L	N/A		(0% - 100%)	MJH1	01/23/05 18:59
	Uncert:	+/-10.5		+/-12.3						
	TPU:	+/-10.3		+/-12.0						
Cesium-134	U	1.06	U	-0.248	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.12		+/-1.87						
	TPU:	+/-2.08		+/-1.83						
Cesium-137	U	0.636	U	0.112	pCi/L	140		(0% - 100%)		
	Uncert:	+/-2.07		+/-1.86						
	TPU:	+/-2.03		+/-1.82						
Cobalt-60	U	-0.123	U	-0.537	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.95		+/-1.96						
	TPU:	+/-1.91		+/-1.92						
Europium-152	U	1.51	U	2.51	pCi/L	50		(0% - 100%)		

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
	Uncert:	+/-6.09		+/-5.47						
	TPU:	+/-5.97		+/-5.36						
Europium-154	U	-1.82	U	-1.65	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-6.28		+/-5.51						
	TPU:	+/-6.15		+/-5.40						
Europium-155	U	-0.533	U	7.06	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.17		+/-7.10						
	TPU:	+/-7.03		+/-6.96						
Manganese-54	U	2.67	U	-0.361	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.42		+/-1.75						
	TPU:	+/-2.38		+/-1.72						
Niobium-94	U	1.12	U	-0.712	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.82		+/-1.58						
	TPU:	+/-1.79		+/-1.55						
Silver-108m	U	-0.258	U	-0.861	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.84		+/-1.74						
	TPU:	+/-1.81		+/-1.70						
QC1200776064 LCS										
Americium-241	1170			1210	pCi/L		104	(75%-125%)		01/24/05 08:22
	Uncert:			+/-182						
	TPU:			+/-179						
Cesium-134			U	3.10	pCi/L					
	Uncert:			+/-11.2						
	TPU:			+/-11.0						
Cesium-137	456			492	pCi/L		108	(75%-125%)		
	Uncert:			+/-47.8						
	TPU:			+/-46.9						
Cobalt-60	664			697	pCi/L		105	(75%-125%)		
	Uncert:			+/-61.2						
	TPU:			+/-60.0						
Europium-152			U	9.79	pCi/L					
	Uncert:			+/-25.6						
	TPU:			+/-25.1						
Europium-154			U	-15.3	pCi/L					
	Uncert:			+/-19.7						
	TPU:			+/-19.3						
Europium-155			U	9.69	pCi/L					
	Uncert:			+/-33.6						
	TPU:			+/-32.9						
Manganese-54			U	5.10	pCi/L					
	Uncert:			+/-10.5						
	TPU:			+/-10.3						
Niobium-94			U	-4.47	pCi/L					
	Uncert:			+/-8.70						
	TPU:			+/-8.53						
Silver-108m			U	-2.64	pCi/L					
	Uncert:			+/-9.42						
	TPU:			+/-9.23						
QC1200776061 MB										

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
Americium-241			U	-5.86	pCi/L					
	Uncert:			+/-12.0						
	TPU:			+/-11.8						
Cesium-134			U	3.00	pCi/L					
	Uncert:			+/-1.51						
	TPU:			+/-1.48						
Cesium-137			U	0.680	pCi/L					
	Uncert:			+/-1.87						
	TPU:			+/-1.83						
Cobalt-60			U	1.42	pCi/L					
	Uncert:			+/-1.84						
	TPU:			+/-1.81						
Europium-152			U	-0.585	pCi/L					
	Uncert:			+/-5.90						
	TPU:			+/-5.78						
Europium-154			U	-2.36	pCi/L					
	Uncert:			+/-4.42						
	TPU:			+/-4.33						
Europium-155			U	7.82	pCi/L					
	Uncert:			+/-6.34						
	TPU:			+/-6.21						
Manganese-54			U	0.850	pCi/L					
	Uncert:			+/-1.97						
	TPU:			+/-1.93						
Niobium-94			U	-2.23	pCi/L					
	Uncert:			+/-1.75						
	TPU:			+/-1.72						
Silver-108m			U	-0.053	pCi/L					
	Uncert:			+/-1.76						
	TPU:			+/-1.73						
QC1200776063 128921001 MS										
Americium-241	9360 U	-7.56		10200	pCi/L		109			01/23/05 19:00
	Uncert:	+/-10.5		+/-1410						
	TPU:	+/-10.3		+/-4230						
Cesium-134	U	1.06	U	132	pCi/L					
	Uncert:	+/-2.12		+/-149						
	TPU:	+/-2.08		+/-155						
Cesium-137	3650 U	0.636		3750	pCi/L		103			
	Uncert:	+/-2.07		+/-470						
	TPU:	+/-2.03		+/-1540						
Cobalt-60	5310 U	-0.123		5570	pCi/L		105			
	Uncert:	+/-1.95		+/-624						
	TPU:	+/-1.91		+/-2270						
Europium-152	U	1.51	U	-97.6	pCi/L					
	Uncert:	+/-6.09		+/-262						
	TPU:	+/-5.97		+/-259						
Europium-154	U	-1.82	U	39.9	pCi/L					
	Uncert:	+/-6.28		+/-297						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
	TPU:	+/-6.15		+/-291						
Europium-155	U	-0.533	U	285	pCi/L					
	Uncert:	+/-7.17		+/-177						
	TPU:	+/-7.03		+/-206						
Manganese-54	U	2.67	U	-0.605	pCi/L					
	Uncert:	+/-2.42		+/-128						
	TPU:	+/-2.38		+/-125						
Niobium-94	U	1.12	U	69.6	pCi/L					
	Uncert:	+/-1.82		+/-109						
	TPU:	+/-1.79		+/-110						
Silver-108m	U	-0.258	U	50.0	pCi/L					
	Uncert:	+/-1.84		+/-105						
	TPU:	+/-1.81		+/-104						
Batch 396377										
QC1200776536 129311021 DUP										
Actinium-228		0.546		0.473	pCi/g	14		(0% - 100%)	AKB	01/26/05 11:58
	Uncert:	+/-0.189		+/-0.179						
	TPU:	+/-0.186		+/-0.176						
Americium-241	U	0.0101	U	0.043	pCi/g	124		(0% - 100%)		
	Uncert:	+/-0.246		+/-0.129						
	TPU:	+/-0.241		+/-0.127						
Bismuth-212		0.581	U	0.208	pCi/g	95		(0% - 100%)		
	Uncert:	+/-0.319		+/-0.163						
	TPU:	+/-0.312		+/-0.160						
Bismuth-214		0.425		0.496	pCi/g	16		(0% - 100%)		
	Uncert:	+/-0.124		+/-0.113						
	TPU:	+/-0.122		+/-0.110						
Cesium-134	U	0.0195	U	0.0124	pCi/g	45		(0% - 100%)		
	Uncert:	+/-0.0283		+/-0.0226						
	TPU:	+/-0.0277		+/-0.0221						
Cesium-137	U	-0.0103	U	0.0296	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0231		+/-0.0213						
	TPU:	+/-0.0226		+/-0.0208						
Cobalt-60	U	0.00294	U	-0.00314	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0222		+/-0.0217						
	TPU:	+/-0.0218		+/-0.0213						
Europium-152	U	0.0283	U	0.00723	pCi/g	119		(0% - 100%)		
	Uncert:	+/-0.0658		+/-0.0559						
	TPU:	+/-0.0645		+/-0.0547						
Europium-154	U	0.00502	U	-0.0474	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0653		+/-0.059						
	TPU:	+/-0.064		+/-0.0578						
Europium-155	U	-0.00566	U	0.0421	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0769		+/-0.0585						
	TPU:	+/-0.0753		+/-0.0573						
Lead-212		0.449		0.482	pCi/g	7		(0% - 100%)		
	Uncert:	+/-0.0801		+/-0.0729						
	TPU:	+/-0.0785		+/-0.0714						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396377										
Lead-214		0.560		0.535	pCi/g	5		(0% - 20%)		
	Uncert:	+/-0.118		+/-0.0971						
	TPU:	+/-0.116		+/-0.0951						
Manganese-54	U	-0.0126	U	0.0175	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0254		+/-0.0189						
	TPU:	+/-0.0249		+/-0.0185						
Niobium-94	U	-0.00569	U	0.0135	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0232		+/-0.0193						
	TPU:	+/-0.0228		+/-0.0189						
Potassium-40		13.0		12.8	pCi/g	2		(0% - 20%)		
	Uncert:	+/-1.36		+/-1.44						
	TPU:	+/-1.33		+/-1.41						
Radium-226		0.425		0.496	pCi/g	16		(0% - 100%)		
	Uncert:	+/-0.124		+/-0.113						
	TPU:	+/-0.122		+/-0.110						
Silver-108m	U	0.00781	U	-0.0029	pCi/g	N/A		(0% - 100%)		
	Uncert:	+/-0.0218		+/-0.0183						
	TPU:	+/-0.0214		+/-0.0179						
Thallium-208		0.190		0.163	pCi/g	15		(0% - 100%)		
	Uncert:	+/-0.0464		+/-0.0385						
	TPU:	+/-0.0455		+/-0.0377						
QC1200776537 LCS										
Actinium-228			U	0.918	pCi/g					01/26/05 09:44
	Uncert:			+/-1.29						
	TPU:			+/-1.26						
Americium-241	23.4			23.0	pCi/g		98	(75%-125%)		
	Uncert:			+/-1.92						
	TPU:			+/-1.88						
Bismuth-212			U	-0.606	pCi/g					
	Uncert:			+/-1.54						
	TPU:			+/-1.51						
Bismuth-214			U	0.372	pCi/g					
	Uncert:			+/-0.307						
	TPU:			+/-0.301						
Cesium-134			U	-0.135	pCi/g					
	Uncert:			+/-0.177						
	TPU:			+/-0.174						
Cesium-137	9.11			9.56	pCi/g		105	(75%-125%)		
	Uncert:			+/-0.979						
	TPU:			+/-0.960						
Cobalt-60	13.2			13.0	pCi/g		99	(75%-125%)		
	Uncert:			+/-1.12						
	TPU:			+/-1.10						
Europium-152			U	-0.0335	pCi/g					
	Uncert:			+/-0.343						
	TPU:			+/-0.336						
Europium-154			U	0.226	pCi/g					
	Uncert:			+/-0.345						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396377										
	TPU:			+/-0.338						
Europium-155			U	-0.0621	pCi/g					
	Uncert:			+/-0.344						
	TPU:			+/-0.337						
Lead-212			U	0.103	pCi/g					
	Uncert:			+/-0.179						
	TPU:			+/-0.176						
Lead-214			U	0.042	pCi/g					
	Uncert:			+/-0.252						
	TPU:			+/-0.247						
Manganese-54			U	0.102	pCi/g					
	Uncert:			+/-0.178						
	TPU:			+/-0.175						
Niobium-94			U	0.0413	pCi/g					
	Uncert:			+/-0.145						
	TPU:			+/-0.142						
Potassium-40			U	0.380	pCi/g					
	Uncert:			+/-1.16						
	TPU:			+/-1.13						
Radium-226			U	0.372	pCi/g			(75%-125%)		
	Uncert:			+/-0.307						
	TPU:			+/-0.301						
Silver-108m			U	0.00745	pCi/g					
	Uncert:			+/-0.140						
	TPU:			+/-0.137						
Thallium-208			U	-0.00224	pCi/g					
	Uncert:			+/-0.164						
	TPU:			+/-0.161						
QC1200776535 MB										
Actinium-228			U	0.0898	pCi/g					01/26/05 09:43
	Uncert:			+/-0.176						
	TPU:			+/-0.173						
Americium-241			U	-0.0868	pCi/g					
	Uncert:			+/-0.138						
	TPU:			+/-0.135						
Bismuth-212			U	0.178	pCi/g					
	Uncert:			+/-0.246						
	TPU:			+/-0.241						
Bismuth-214			U	0.00454	pCi/g					
	Uncert:			+/-0.0669						
	TPU:			+/-0.0656						
Cesium-134			U	-0.00296	pCi/g					
	Uncert:			+/-0.0339						
	TPU:			+/-0.0332						
Cesium-137			U	0.00562	pCi/g					
	Uncert:			+/-0.032						
	TPU:			+/-0.0313						
Cobalt-60			U	-0.0268	pCi/g					

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396377										
	Uncert:			+/-0.0432						
	TPU:			+/-0.0424						
Europium-152			U	-0.0354	pCi/g					
	Uncert:			+/-0.0908						
	TPU:			+/-0.089						
Europium-154			U	0.0157	pCi/g					
	Uncert:			+/-0.0824						
	TPU:			+/-0.0807						
Europium-155			U	-0.00784	pCi/g					
	Uncert:			+/-0.0738						
	TPU:			+/-0.0724						
Lead-212			U	0.0585	pCi/g					
	Uncert:			+/-0.0465						
	TPU:			+/-0.0456						
Lead-214			U	0.0249	pCi/g					
	Uncert:			+/-0.0551						
	TPU:			+/-0.054						
Manganese-54			U	-0.0253	pCi/g					
	Uncert:			+/-0.0284						
	TPU:			+/-0.0278						
Niobium-94			U	-0.0115	pCi/g					
	Uncert:			+/-0.0279						
	TPU:			+/-0.0273						
Potassium-40			U	0.426	pCi/g					
	Uncert:			+/-0.337						
	TPU:			+/-0.331						
Radium-226			U	0.00454	pCi/g					
	Uncert:			+/-0.0669						
	TPU:			+/-0.0656						
Silver-108m			U	0.00992	pCi/g					
	Uncert:			+/-0.0255						
	TPU:			+/-0.025						
Thallium-208			U	0.0186	pCi/g					
	Uncert:			+/-0.0376						
	TPU:			+/-0.0369						
Rad Gas Flow										
Batch 396157										
QC1200776036 128921001 DUP										
Strontium-90		25.6		24.4	pCi/L	5		(0% - 20%)	LCW1	01/24/05 12:56
	Uncert:	+/-1.41		+/-1.35						
	TPU:	+/-6.94		+/-7.30						
QC1200776038 LCS										
Strontium-90	60.4			49.4	pCi/L		82	(75%-125%)		01/24/05 09:48
	Uncert:			+/-3.73						
	TPU:			+/-14.4						
QC1200776035 MB										
Strontium-90			U	-0.0921	pCi/L					01/24/05 12:56
	Uncert:			+/-0.586						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 396157										
	TPU:			+/-0.587						
QC1200776037 128921001 MS										
Strontium-90	121	25.6		129	pCi/L		86	(75%-125%)		01/24/05 09:48
	Uncert:	+/-1.41		+/-8.21						
	TPU:	+/-6.94		+/-31.7						
Batch 396158										
QC1200776040 128921002 DUP										
Alpha		1.87		2.95	pCi/L	45		(0% - 100%)	EXW1	01/28/05 05:53
	Uncert:	+/-1.17		+/-1.01						
	TPU:	+/-1.19		+/-1.48						
Beta		55.4		50.0	pCi/L	10		(0% - 20%)		
	Uncert:	+/-2.50		+/-2.41						
	TPU:	+/-3.45		+/-5.51						
QC1200776043 LCS										
Alpha	108			114	pCi/L		106	(75%-125%)		01/26/05 12:36
	Uncert:			+/-12.0						
	TPU:			+/-16.2						
Beta	362			330	pCi/L		91	(75%-125%)		
	Uncert:			+/-15.0						
	TPU:			+/-18.5						
QC1200776039 MB										
Alpha			U	0.0578	pCi/L					01/26/05 02:14
	Uncert:			+/-0.844						
	TPU:			+/-0.846						
Beta			U	1.24	pCi/L					
	Uncert:			+/-1.58						
	TPU:			+/-1.58						
QC1200776041 128921002 MS										
Alpha	108	1.87		111	pCi/L		101	(75%-125%)		01/26/05 20:05
	Uncert:	+/-1.17		+/-13.8						
	TPU:	+/-1.19		+/-16.7						
Beta	362	55.4		412	pCi/L		99	(75%-125%)		
	Uncert:	+/-2.50		+/-17.7						
	TPU:	+/-3.45		+/-22.7						
QC1200776042 128921002 MSD										
Alpha	108	1.87		135	pCi/L	19*	123	(75%-125%)		01/26/05 12:36
	Uncert:	+/-1.17		+/-15.0						
	TPU:	+/-1.19		+/-22.8						
Beta	362	55.4		403	pCi/L	2*	96	(75%-125%)		
	Uncert:	+/-2.50		+/-17.6						
	TPU:	+/-3.45		+/-24.6						
Batch 396424										
QC1200776622 128921003 DUP										
Strontium-90		0.567		0.604	pCi/g	6		(0% - 20%)	LCW1	01/27/05 21:28
	Uncert:	+/-0.0826		+/-0.0773						
	TPU:	+/-0.191		+/-0.202						
QC1200776624 LCS										
Strontium-90	4.53			5.36	pCi/g		118	(75%-125%)		01/27/05 21:13
	Uncert:			+/-0.352						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 396424										
	TPU:			+/-1.55						
QC1200776621 MB										
Strontium-90			U	0.0127	pCi/g					01/27/05 21:28
	Uncert:			+/-0.0453						
	TPU:			+/-0.0454						
QC1200776623 128921003 MS										
Strontium-90	8.69	0.567		9.75	pCi/g		106	(75%-125%)		01/27/05 21:13
	Uncert:	+/-0.0826		+/-0.683						
	TPU:	+/-0.191		+/-2.89						
Rad Liquid Scintillation										
Batch 396165										
QC1200776056 128921001 DUP										
Tritium		3250		3360	pCi/L	3		(0% - 20%)	DAJ1	01/24/05 15:01
	Uncert:	+/-290		+/-307						
	TPU:	+/-294		+/-311						
QC1200776058 LCS										
Tritium	3150			3320	pCi/L		105	(75%-125%)		01/24/05 16:05
	Uncert:			+/-404						
	TPU:			+/-407						
QC1200776055 MB										
Tritium			U	-129	pCi/L					01/24/05 13:58
	Uncert:			+/-200						
	TPU:			+/-200						
QC1200776057 128921001 MS										
Tritium	3160	3250		6480	pCi/L		102	(75%-125%)		01/24/05 15:33
	Uncert:	+/-290		+/-482						
	TPU:	+/-294		+/-493						
Batch 396237										
QC1200776242 128921001 DUP										
Iron-55	U	30.2		38.3	pCi/L	24		(0% - 100%)	DAJ1	01/27/05 00:08
	Uncert:	+/-26.4		+/-26.0						
	TPU:	+/-26.4		+/-26.1						
QC1200776244 LCS										
Iron-55	452			439	pCi/L		97*	(0%-%)		01/27/05 04:08
	Uncert:			+/-29.7						
	TPU:			+/-34.3						
QC1200776241 MB										
Iron-55			U	-4.01	pCi/L					01/26/05 22:07
	Uncert:			+/-24.1						
	TPU:			+/-24.1						
QC1200776243 128921001 MS										
Iron-55	452 U	30.2		445	pCi/L		92*	(0%-%)		01/27/05 02:09
	Uncert:	+/-26.4		+/-28.3						
	TPU:	+/-26.4		+/-33.2						
Batch 396238										
QC1200776246 128921001 DUP										
Nickel-63	U	0.645	U	4.36	pCi/L	0		(0% - 100%)	DAJ1	01/27/05 17:12
	Uncert:	+/-4.72		+/-5.36						
	TPU:	+/-4.72		+/-5.37						

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396238										
QC1200776248 LCS										
Nickel-63	364			392	pCi/L		108	(75%-125%)		01/27/05 18:27
	Uncert:			+/-15.0						
	TPU:			+/-20.0						
QC1200776245 MB										
Nickel-63			U	3.71	pCi/L					01/27/05 16:09
	Uncert:			+/-4.78						
	TPU:			+/-4.79						
QC1200776247 128921001 MS										
Nickel-63	364 U	0.645		371	pCi/L		102	(75%-125%)		01/27/05 17:55
	Uncert:	+/-4.72		+/-12.7						
	TPU:	+/-4.72		+/-17.8						
Batch 396240										
QC1200776250 128921001 DUP										
Technetium-99	U	1.77	U	0.418	pCi/L	0		(0% - 100%)	EGD1	01/30/05 05:16
	Uncert:	+/-3.64		+/-3.69						
	TPU:	+/-3.64		+/-3.69						
QC1200776252 LCS										
Technetium-99	362			387	pCi/L		107	(75%-125%)		01/30/05 06:20
	Uncert:			+/-10.4						
	TPU:			+/-13.5						
QC1200776249 MB										
Technetium-99				7.20	pCi/L					01/30/05 04:44
	Uncert:			+/-3.75						
	TPU:			+/-3.75						
QC1200776251 128921001 MS										
Technetium-99	362 U	1.77		365	pCi/L		100	(75%-125%)		01/30/05 05:48
	Uncert:	+/-3.64		+/-10.3						
	TPU:	+/-3.64		+/-13.2						
Batch 396242										
QC1200776254 128921003 DUP										
Technetium-99	U	-0.12	U	-0.0714	pCi/g	N/A		(0% - 100%)	EGD1	01/30/05 17:36
	Uncert:	+/-0.252		+/-0.280						
	TPU:	+/-0.252		+/-0.280						
QC1200776256 LCS										
Technetium-99	19.0			19.9	pCi/g		105	(75%-125%)		01/30/05 18:40
	Uncert:			+/-0.604						
	TPU:			+/-0.775						
QC1200776253 MB										
Technetium-99			U	-0.0734	pCi/g					01/30/05 17:03
	Uncert:			+/-0.225						
	TPU:			+/-0.225						
QC1200776255 128921003 MS										
Technetium-99	19.2 U	-0.12		20.2	pCi/g		105	(75%-125%)		01/30/05 18:08
	Uncert:	+/-0.252		+/-0.689						
	TPU:	+/-0.252		+/-0.848						
Batch 396244										
QC1200776258 128921001 DUP										
Carbon-14	U	0.345	U	-2.47	pCi/L	N/A		(0% - 100%)	LAG1	01/24/05 20:29

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396244										
	Uncert:	+/-8.33		+/-8.22						
	TPU:	+/-8.33		+/-8.22						
QC1200776260 LCS										
Carbon-14	438			442	pCi/L		101	(75%-125%)		01/24/05 21:32
	Uncert:			+/-18.8						
	TPU:			+/-33.2						
QC1200776257 MB										
Carbon-14			U	0.00	pCi/L					01/24/05 19:57
	Uncert:			+/-8.45						
	TPU:			+/-8.45						
QC1200776259 128921001 MS										
Carbon-14	438 U	0.345		463	pCi/L		106	(75%-125%)		01/24/05 21:00
	Uncert:	+/-8.33		+/-19.2						
	TPU:	+/-8.33		+/-34.5						
Batch 396246										
QC1200776262 128921003 DUP										
Carbon-14	U	0.0343	U	0.0073	pCi/g	0		(0% - 100%)	LAG1	01/25/05 08:21
	Uncert:	+/-0.098		+/-0.0906						
	TPU:	+/-0.098		+/-0.0906						
QC1200776264 LCS										
Carbon-14	8.15			8.25	pCi/g		101	(75%-125%)		01/25/05 09:26
	Uncert:			+/-0.420						
	TPU:			+/-0.439						
QC1200776261 MB										
Carbon-14			U	-0.0609	pCi/g					01/25/05 07:19
	Uncert:			+/-0.0933						
	TPU:			+/-0.0933						
QC1200776263 128921003 MS										
Carbon-14	8.15 U	0.0343		8.30	pCi/g		101	(75%-125%)		01/25/05 08:54
	Uncert:	+/-0.098		+/-0.429						
	TPU:	+/-0.098		+/-0.448						
Batch 396247										
QC1200776266 128921003 DUP										
Tritium	U	7.18	U	4.05	pCi/g	0		(0% - 100%)	EGD1	01/24/05 21:53
	Uncert:	+/-6.66		+/-6.75						
	TPU:	+/-6.68		+/-6.76						
QC1200776268 LCS										
Tritium	70.4			80.0	pCi/g		114	(75%-125%)		01/25/05 14:04
	Uncert:			+/-9.64						
	TPU:			+/-11.4						
QC1200776265 MB										
Tritium			U	4.67	pCi/g					01/24/05 21:22
	Uncert:			+/-6.46						
	TPU:			+/-6.47						
QC1200776267 128921003 MS										
Tritium	70.4 U	7.18		81.9	pCi/g		106	(75%-125%)		01/24/05 22:25
	Uncert:	+/-6.66		+/-9.50						
	TPU:	+/-6.68		+/-11.3						
Batch 396641										

QC Summary

Workorder: 128921

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396641										
QC1200777101 128921003 DUP										
Iron-55	U	22.4		38.7	pCi/g	53		(0% - 100%)	DAJ1	01/28/05 18:14
	Uncert:	+/-24.7		+/-23.5						
	TPU:	+/-24.7		+/-23.6						
QC1200777103 LCS										
Iron-55	652			699	pCi/g		107	(75%-125%)		01/28/05 19:18
	Uncert:			+/-26.0						
	TPU:			+/-37.3						
QC1200777100 MB										
Iron-55			U	18.2	pCi/g					01/28/05 17:42
	Uncert:			+/-20.8						
	TPU:			+/-20.8						
QC1200777102 128921003 MS										
Iron-55	660 U	22.4		644	pCi/g		94	(75%-125%)		01/28/05 18:46
	Uncert:	+/-24.7		+/-29.2						
	TPU:	+/-24.7		+/-38.2						
Batch 396642										
QC1200777105 128921003 DUP										
Nickel-63	U	-4.74	U	-1.02	pCi/g	N/A		(0% - 100%)	DAJ1	01/28/05 23:56
	Uncert:	+/-5.40		+/-5.43						
	TPU:	+/-5.40		+/-5.43						
QC1200777107 LCS										
Nickel-63	532			469	pCi/g		88	(75%-125%)		01/29/05 03:00
	Uncert:			+/-11.3						
	TPU:			+/-19.4						
QC1200777104 MB										
Nickel-63			U	1.80	pCi/g					01/28/05 22:25
	Uncert:			+/-5.53						
	TPU:			+/-5.53						
QC1200777106 128921003 MS										
Nickel-63	532 U	-4.74		465	pCi/g		87	(75%-125%)		01/29/05 01:28
	Uncert:	+/-5.40		+/-12.3						
	TPU:	+/-5.40		+/-19.9						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.

QC Summary

Workorder: 128921

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

UI Uncertain identification for gamma spectroscopy.

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

January 31, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 129223
SDG: MSR#05-0136

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 20, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00021
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 129223

January 31, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 20, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following sample:

Sample ID	Client Sample ID
129223001	Seep #3
129223002	Seep #3

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

One groundwater sample was analyzed for ALL, Anions, Cations, & TDS.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2005-00021

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

129 2237

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☒ 7 D.
Other:

Lab Use Only: 1292237

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	TDS	Comment, Preservation	Lab Sample ID
001 Seep #3	01/13/05	14:00	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	
002													

NOTES: PO #: 002337 MSR #: 05-0136 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Anions from unpreserved sample include Cl^-, CO_3^{-2}, HCO_3^-, SO_4^{-2}. Cations include Ca, Mg, Na, K. Requested TATs for H-3, Gamma & Sr-90 is 7-days, all others are 14-days.

Matt Darors 1/19/05

1) Relinquished By: Matt Darors Date/Time 1/19/05 1257	2) Received By: D. Keefer Date/Time 1/19/05 1257
3) Relinquished By Date/Time	4) Received By: Timothy [illegible] Date/Time 1-20-05 1030
5) Relinquished By Date/Time	6) Received By Date/Time

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-20-05 1030

SDG#: MSR #05-0136

Work Order Number: 129223

Shipping Container ID: 7915 2861 2651 Chain of Custody # 2005-00021

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape	____hazard labels
✓ custody seals	____appropriate sample labels

9. Samples are:

✓ in good condition	____leaking
____broken	____have air bubbles

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

Sample Custodian/Laboratory: Faith Hom Date: 1-20-05 1030

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: Conn. Yankee	SDG/ARCOC/Work Order: 129273
Date Received: 1-20-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: TH	

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.		✓		Circle Coolant # ice bags blue ice dry ice (none) other(describe)
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	FedEx# 4915 2861 2651			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	CPM 120			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 1/20/05 Date:

INORGANIC ANALYSIS

Metals Fractional Narrative
(YANK)
SDG MSR#05-0136

Method/Analysis Information

Analytical Batch:	395914, 396184
Prep Batch:	395913, 396183
Standard Operating Procedures:	GL-MA-E-013 REV# 10, GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6010B, SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
129223002	Seep #3
1200776094	Method Blank (MB) ICP-MS
1200776095	Laboratory Control Sample (LCS)
1200776098	129283001(MW-2L) Serial Dilution (SD)
1200776096	129283001(MW-2D) Sample Duplicate (DUP)
1200776097	129283001(MW-2S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP analysis was performed on a Perkin Elmer 4300 Optima radial/axial-viewing inductively coupled plasma atomic emission spectromete. The instrument is equipped with a Burgener nebulizer, cyclonic spray chamber, and yttrium or scandium internal standard. Operating conditions for the ICP are set at a power level of 1500 watts. The instrument has a peristaltic pump flow rate of 1.4L/min, argon gas flows of 15 L/min and 0.2 L/min for the torch and auxiliary gases, and a flow setting of 0.65L/min for the nebulizer.

The ICP-MS analysis was performed on a Perkin Elmer Elan 6100E inductively coupled plasma mass spectrometer (ICP-MS). The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MBs analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 129283001 (MW-2) from another SDG.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes except potassium met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instruments. Samples in this SDG required dilution after repeated attempts to analyze undiluted resulted in instrument QC failures.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

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

Reviewer: Allison McC **Date:** 1/28/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 28, 2005

Client Sample ID: Seep #3
Sample ID: 129223002
Matrix: Ground Water
Collect Date: 13-JAN-05 14:00
Receive Date: 20-JAN-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP											
3005/6010 Boron-ALL,STND,MIX											
Calcium		46800	5.54	100	ug/L	1	RMJ	01/25/05	1240	395914	1
Magnesium		4400	5.18	100	ug/L	1					
Potassium		6040	16.5	100	ug/L	1					
Sodium		13200	14.4	100	ug/L	1					
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		261	0.540	16.0	ug/L	1	PRB	01/25/05	1914	396184	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	01/24/05	1000	396183
SW846 3005A	ICP-TRACE SW846 3005A	FGA	01/21/05	1000	395913

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6010B	
2	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: January 28, 2005

Client Sample ID: Seep #3
Sample ID: 129223002

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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.

1/28/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: January 28, 2005
Page 1 of 2

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 396184										
QC1200776096 129283001 DUP										
Boron		21.4	*J	14.8	ug/L	36 ^		(+/-15.0)	PRB	01/25/05 19:24
QC1200776095 LCS										
Boron	100			96.2	ug/L		96	(80%-120%)		01/25/05 18:58
QC1200776094 MB										
Boron			J	0.829	ug/L					01/25/05 18:53
QC1200776097 129283001 MS										
Boron	100	21.4		108	ug/L		86	(75%-125%)		01/25/05 19:30
QC1200776098 129283001 SDILT										
Boron		21.4	J	5.60	ug/L	30.9				01/25/05 19:35
Metals Analysis-ICP										
Batch 395914										
QC1200775430 129223002 DUP										
Calcium		46800		47200	ug/L	1		(0%-20%)	RMJ	01/25/05 12:45
Magnesium		4400		4500	ug/L	2		(0%-20%)		
Potassium		6040		6060	ug/L	0		(0%-20%)		
Sodium		13200		13300	ug/L	1		(0%-20%)		
QC1200775429 LCS										
Calcium	5000			4920	ug/L		98	(80%-120%)		01/25/05 12:35
Magnesium	5000			5060	ug/L		101	(80%-120%)		
Potassium	5000			4920	ug/L		98	(80%-120%)		
Sodium	5000			4890	ug/L		98	(80%-120%)		
QC1200775428 MB										
Calcium			J	13.0	ug/L					01/25/05 12:29
Magnesium			U	ND	ug/L					
Potassium			U	ND	ug/L					
Sodium			U	ND	ug/L					
QC1200775431 129223002 MS										
Calcium	5000	46800		52300	ug/L		N/A	(75%-125%)		01/25/05 12:51
Magnesium	5000	4400		9520	ug/L		102	(75%-125%)		
Potassium	5000	6040		11100	ug/L		102	(75%-125%)		
Sodium	5000	13200		18200	ug/L		101	(75%-125%)		
QC1200775432 129223002 SDILT										
Calcium		46800		8760	ug/L	6.39				01/25/05 12:56
Magnesium		4400		833	ug/L	5.34				
Potassium		6040		1060	ug/L	12.5				
Sodium		13200		2430	ug/L	7.5				

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.

** *Indicates the analyte is a surrogate compound.*

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

QC Summary

Workorder: 129223

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

<	Result is less than amount reported.
>	Result is greater than amount reported.
B	Target analyte was detected in the sample as well as the associated blank.
BD	Flag for results below the MDC or a flag for low tracer recovery.
E	Concentration of the target analyte exceeds the instrument calibration range.
H	Analytical holding time exceeded.
J	Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U	Indicates the target analyte was analyzed for but not detected above the detection limit.
UI	Uncertain identification for gamma spectroscopy.
X	Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h	Sample preparation or preservation holding time exceeded.

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

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

GENERAL CHEMISTRY ANALYSIS

General Chemistry Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0136

Method/Analysis Information

Product: **Ion Chromatography**
Analytical Batch: 397712 **Method:** EPA 300.0

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 300.0:

Sample ID	Client ID
129223002	Seep #3
1200779576	Method Blank (MB)
1200779578	129223002(Seep #3) Sample Duplicate (DUP)
1200779580	129223002(Seep #3) Post Spike (PS)
1200779581	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-GC-E-086 REV# 11.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Ion Chromatography analysis was performed on a Metrohm IC Detector.

The Ion Chromatography analysis was performed on a Dionex DX300 Ion Chromatograph equipped with a Dionex AS9-HC general purpose anion column.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Continuing Calibration Blanks
All continuing calibration blanks (CCBs) associated with reported data from this batch were within acceptance limits.

Calibration Verification Information (CCV)
All continuing calibration verification standards (CCVs) associated with reported data from this batch were within acceptance limits.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
Sample 129223002 (Seep #3) was designated for QC analysis.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recoveries for this sample set were within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
The following samples in this sample group were diluted due to high concentration for this analysis. See the Certificates of Analysis for the individual dilution factors for samples 1200779578 (Seep #3), 1200779580 (Seep #3) and 129223002 (Seep #3).

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
NCR ID 176846 was written for samples run on two different instruments. 1200779578 (Seep #3), 1200779580 (Seep #3) and 129223002 (Seep #3).

Manual Integrations
Manual integrations were not required for the samples in this SDG.

Additional Comments
Additional comments were not required for this SDG.

Method/Analysis Information

Product: **Solids, Total Dissolved**
Analytical Batch: 396056 **Method:** EPA 160.1

Sample Analysis

The following samples were analyzed using the analytical protocol as established in EPA 160.1:

Sample ID	Client ID
129223001	Seep #3
129223002	Seep #3
1200775798	Method Blank (MB)
1200775799	Laboratory Control Sample (LCS)
1200775801	129223001(Seep #3) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-GC-E-001 REV# 7.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Solids analysis was performed on a Sartorius Balance.

Initial Calibration
All initial calibration requirements have been met for this SDG.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
Sample 129223001 (Seep #3) was designated for QC analysis.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
The following samples from this sample group were received with insufficient time to prep and/or analyze the samples within the remaining method-specified holding time. The samples were analyzed as soon as possible by the analyst. 128921001 (Seep #1), 128921002 (Seep #2), 129223001 (Seep #3) and 129223002 (Seep #3).

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
NCR ID 175543 for samples 128921001 (Seep #1), 128921002 (Seep #2), 129223001 (Seep #3) and 129223002 (Seep #3).

Additional Comments
Additional comments were not required for this SDG.

Method/Analysis Information

Product: **Alkalinity**
Analytical Batch: 395610 **Method:** SM 2320B

Sample Analysis

The following samples were analyzed using the analytical protocol as established in SM 2320B:

Sample ID	Client ID
129223002	Seep #3
1200774723	Laboratory Control Sample (LCS)
1200775495	129248001(BSP-7) Sample Duplicate (DUP)
1200775496	129248001(BSP-7) Matrix Spike (MS)

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-GC-E-033 REV# 3.

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

Calibration Information

The Titration analysis was performed on a Titration.

Initial Standardization
The titrant was properly standardized

Quality Control (QC) Information

Laboratory Control Sample (LCS) Recovery
The LCS spike recovery met the acceptance limits.

Quality Control (QC) Designation
Sample 129248001 (BSP-7) was designated for QC analysis.

Matrix Spike (MS)/Post Spike (PS) Recovery Statement
The MS/PS recovery for this sample set was within the required acceptance limits.

Duplicate Relative Percent Difference (RPD) Statement
The RPD between the sample and its duplicate met the acceptance limits.

Technical Information

GEL assigns holding times based on the date and time of sample collection. Those holding times expressed in hours are calculated in the AlphaLims system by hours. Those holding times expressed as days expire at midnight on the day of expiration.

Holding Times
All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Re-analysis
The samples in this SDG did not require re-analysis.

Miscellaneous Information

Nonconformance (NCR) Documentation
A NCR was not required for this SDG.

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation:

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

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

Reviewer: Tom Lewis Jr **Date:** 1 Feb 05

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 1, 2005

Client Sample ID: Seep #3
Sample ID: 129223001
Matrix: Ground Water
Collect Date: 13-JAN-05 14:00
Receive Date: 20-JAN-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method
Solids Analysis										
EPA 160.1 Solids, Dissolved										
Total Dissolved Solids	H	354	3.07	10.0	mg/L		JLD1 01/24/05	1101	396056	1

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 160.1	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 1, 2005

Client Sample ID: Seep #3
Sample ID: 129223002
Matrix: Ground Water
Collect Date: 13-JAN-05 14:00
Receive Date: 20-JAN-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Ion Chromatography											
EPA 300.0 Chloride in Liquid											
Chloride		53.3	0.322	2.00	mg/L	10	VH1	01/31/05	0725	397712	1
Sulfate		14.5	0.193	0.400	mg/L	1	VH1	01/31/05	0820	397712	2
Solids Analysis											
EPA 160.1 Solids, Dissolved											
Total Dissolved Solids	H	344	3.07	10.0	mg/L		JLD1	01/24/05	1101	396056	3
Titration Analysis											
EPA310.1/SM2320B Bicarbonates											
Bicarbonate alkalinity (CaCO3)		78.2	1.45	2.00	mg/L		KXM 2	01/21/05	1340	395610	4
Carbonate alkalinity (CaCO3)	U	0.497	1.45	2.00	mg/L						

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	EPA 300.0	
2	EPA 300.0	
3	EPA 160.1	
4	SM 2320B	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
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- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
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- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 1, 2005

Client Sample ID: Seep #3
Sample ID: 129223002

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	AnalystDate	Time	Batch	Method

The above sample is reported on an "as received" basis.

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

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

Reviewed by

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

QC Summary

Report Date: February 1, 2005

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut
Contact: Mr. Dave Keefer

Workorder: 129223

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Ion Chromatography											
Batch 397712											
QC1200779578 129223002 DUP											
Chloride			53.3		52.8	mg/L	1		(0%-20%)	VH1	01/31/05 07:43
Sulfate			14.5		15.6	mg/L	7		(0%-20%)		01/31/05 08:39
QC1200779581 LCS											
Chloride	10.0				9.67	mg/L		97	(90%-110%)		01/29/05 00:52
Sulfate	20.0				19.9	mg/L		99	(90%-110%)		
QC1200779576 MB											
Chloride				J	0.099	mg/L					01/29/05 00:33
Sulfate				U	0.00	mg/L					
QC1200779580 129223002 PS											
Chloride	10.0		5.33		15.9	mg/L		106	(90%-110%)		01/31/05 08:02
Sulfate	20.0		14.5		35.3	mg/L		104	(90%-110%)		01/31/05 08:57
Solids Analysis											
Batch 396056											
QC1200775801 129223001 DUP											
Total Dissolved Solids		H	354	H	347	mg/L	2		(0%-10%)	JLD1	01/24/05 11:01
QC1200775799 LCS											
Total Dissolved Solids	300				302	mg/L		101	(95%-105%)		
QC1200775798 MB											
Total Dissolved Solids				U	-4.0	mg/L					
Titration Analysis											
Batch 395610											
QC1200775495 129248001 DUP											
Bicarbonate alkalinity (CaCO3)			61.5		61.5	mg/L	0		(0%-20%)	CXM2	01/21/05 13:50
Carbonate alkalinity (CaCO3)		U	0.00271	U	0.0029	mg/L	N/A ^		(+/-2.00)		

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.

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QC Summary

Workorder: 129223

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

X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.

h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0136

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	395973

Sample ID	**Client ID**
129223002	Seep #3
1200775588	Method Blank (MB)
1200775589	129223002(Seep #3) Sample Duplicate (DUP)
1200775590	129223002(Seep #3) Matrix Spike (MS)
1200775591	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# 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: 129223002 (Seep #3).

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. An 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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	395974

Sample ID	Client ID
129223002	Seep #3
1200775592	Method Blank (MB)
1200775593	129223002(Seep #3) Sample Duplicate (DUP)
1200775594	129223002(Seep #3) Matrix Spike (MS)
1200775595	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# 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: 129223002 (Seep #3).

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. An 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, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	395975

Sample ID	Client ID
129223002	Seep #3
1200775596	Method Blank (MB)
1200775597	129223002(Seep #3) Sample Duplicate (DUP)
1200775598	129223002(Seep #3) Matrix Spike (MS)
1200775599	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# 5.

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: 129223002 (Seep #3).

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. An NCR was not generated for this SDG.

Manual Integration
Manual integrations of alpha spectroscopy spectra 1200775598 (Seep #3) and 1200775599 (LCS) were performed to fully separate counts in Regions of Interest which would have been biased.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	396169

Sample ID	Client ID
129223001	Seep #3
1200776061	Method Blank (MB)
1200776062	128921001(Seep #1) Sample Duplicate (DUP)
1200776063	128921001(Seep #1) Matrix Spike (MS)
1200776064	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# 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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	395946

Sample ID	Client ID
129223002	Seep #3
1200775529	Method Blank (MB)
1200775530	129223002(Seep #3) Sample Duplicate (DUP)
1200775531	129223002(Seep #3) Matrix Spike (MS)
1200775532	129223002(Seep #3) Matrix Spike Duplicate (MSD)
1200775533	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-001 REV# 9.

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: 129223002 (Seep #3).

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.

Gross Alpha/Beta Preparation Information
High hygroscopic salt content in evaporated samples can cause the sample mass to fluctuate due to moisture absorption. To minimize this interference, the salts are converted to oxides by heating the sample under a flame until a dull red color is obtained. The conversion to oxides stabilizes the sample weight and ensures that proper alpha/beta efficiencies are assigned for each sample. Volatile radioisotopes of carbon, hydrogen, technetium, polonium and cesium may be lost during sample heating.

Miscellaneous Information:

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

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	395940

Sample ID	Client ID
129223001	Seep #3
1200775503	Method Blank (MB)
1200775504	129223001(Seep #3) Sample Duplicate (DUP)
1200775505	129223001(Seep #3) Matrix Spike (MS)

1200775506 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# 9.

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: 129223001 (Seep #3).

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. An NCR was not generated for this SDG.

Additional Comments
Samples 1200775504 (Seep #3) and 129223001 (Seep #3) were verified by recounting at least five days from the separation date.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Tc99, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Tc-02-RC Modified
Analytical Batch Number:	395987

Sample ID	Client ID
129223002	Seep #3
1200775644	Method Blank (MB)
1200775645	129223002(Seep #3) Sample Duplicate (DUP)
1200775646	129223002(Seep #3) Matrix Spike (MS)
1200775647	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# 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: 129223002 (Seep #3).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Fe55, Liquid-ALL**
Analytical Method:	DOE RESL Fe-1, Modified
Analytical Batch Number:	396237

Sample ID	**Client ID**
129223002	Seep #3
1200776241	Method Blank (MB)
1200776242	128921001(Seep #1) Sample Duplicate (DUP)
1200776243	128921001(Seep #1) Matrix Spike (MS)
1200776244	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# 2.

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: 128921001 (Seep #1).

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 1200776241 (MB), 1200776242 (Seep #1), and 129223002 (Seep #3) 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. The following NCR was generated for this SDG:
NCR 176063 was generated due to RDL less than MDA. 1. Samples 128921001, 128921002, 129223002, and 1200776241 failed the required detection limit. Samples were counted for 120 minutes. 2. Reporting results.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint Ni63, Liquid-ALL**
Analytical Method:	DOE RESL Ni-1, Modified
Analytical Batch Number:	396238

Sample ID	Client ID
129223002	Seep #3
1200776245	Method Blank (MB)
1200776246	128921001(Seep #1) Sample Duplicate (DUP)
1200776247	128921001(Seep #1) Matrix Spike (MS)
1200776248	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# 6.

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: 128921001 (Seep #1).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	395986

Sample ID	Client ID
129223001	Seep #3
1200775634	Method Blank (MB)
1200775635	129223001(Seep #3) Sample Duplicate (DUP)
1200775636	129223001(Seep #3) Matrix Spike (MS)
1200775637	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# 9.

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: 129223001 (Seep #3).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**Liquid Scint C14, Liquid-ALL**
Analytical Method:	EPA EERF C-01 Modified
Analytical Batch Number:	395982

Sample ID	Client ID
129223002	Seep #3
1200775620	Method Blank (MB)
1200775621	129223002(Seep #3) Sample Duplicate (DUP)
1200775622	129223002(Seep #3) Matrix Spike (MS)
1200775623	Laboratory Control Sample (LCS)
1200775624	KNOWN

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# 7.

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: 129223002 (Seep #3).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Alcalu G Cedar 2/1/05

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
27-JAN-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
LSC	DOE RESL Fe-1, Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
396237	See Below		

Potentially affected work order(s)(SDG): 128921(MSR#05-0136),129223(MSR#05-0136)

Application Issues:

RDL less than MDA

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. Samples 128921001, 128921002, 129223002 and 1200776241 failed the required detection limit. Samples were counted for 120 minutes.	2. Reporting results.

Originator's Name:
Wendy Hicks 27-JAN-05

Data Validator/Group Leader:
Melanie Aycock 28-JAN-05

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0136 GEL Work Order: 129223

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 1, 2005

Client Sample ID:	Seep #3	Project:	YANK01704
Sample ID:	129223001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-JAN-05		
Receive Date:	20-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-9.54	+/-17.9	12.7	+/-17.5	26.7	pCi/L		MJH1 01/23/05	1331	396169	1
Cesium-134	U	2.26	+/-3.77	3.24	+/-3.69	7.09	pCi/L					
Cesium-137	U	-0.653	+/-3.40	2.69	+/-3.33	5.88	pCi/L					
Cobalt-60	U	0.555	+/-3.78	3.17	+/-3.70	7.14	pCi/L					
Europium-152	U	2.32	+/-9.61	8.18	+/-9.41	17.4	pCi/L					
Europium-154	U	5.26	+/-9.73	8.68	+/-9.54	19.5	pCi/L					
Europium-155	U	0.122	+/-10.8	8.79	+/-10.5	18.4	pCi/L					
Manganese-54	U	-1.22	+/-3.33	2.52	+/-3.26	5.58	pCi/L					
Niobium-94	U	-0.613	+/-3.11	2.45	+/-3.05	5.36	pCi/L					
Silver-108m	U	1.02	+/-3.00	2.56	+/-2.94	5.51	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		9.86	+/-1.29	0.528	+/-2.60	1.16	pCi/L		LCW1 01/21/05	1724	395940	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		1510	+/-305	173	+/-306	346	pCi/L		ATH1 01/23/05	0001	395986	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	100	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 1, 2005

Client Sample ID: Seep #3
Sample ID: 129223001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 1, 2005

Client Sample ID:	Seep #3	Project:	YANK01704
Sample ID:	129223002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	13-JAN-05		
Receive Date:	20-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Alpha Spec Analysis												
Alphaspec Pu, Liquid-ALL												
Plutonium-238	U	0.0561	+/-0.150	0.118	+/-0.151	0.273	pCi/L		BJB1 01/26/05	1852	395974	1
Plutonium-239/240	U	0.0841	+/-0.0868	0.0461	+/-0.0872	0.130	pCi/L					
Am241,Cm, Liquid-ALL												
Americium-241	U	-0.0164	+/-0.0322	0.0779	+/-0.0323	0.341	pCi/L		BJB1 01/25/05	1212	395973	2
Curium-242	U	0.0721	+/-0.141	0.00	+/-0.142	0.195	pCi/L					
Curium-243/244	U	-0.0164	+/-0.0322	0.078	+/-0.0323	0.341	pCi/L					
Liquid Scint Pu241, Liquid-ALL												
Plutonium-241	U	-4.04	+/-7.26	6.21	+/-7.27	12.8	pCi/L		BJB1 01/26/05	1509	395975	3
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.700	+/-1.03	0.781	+/-1.03	1.70	pCi/L		EXW1 01/28/05	0539	395946	4
Beta		20.5	+/-2.27	1.41	+/-2.36	2.90	pCi/L					
Rad Liquid Scintillation Analysis												
Liquid Scint C14, Liquid-ALL												
Carbon-14	U	10.9	+/-21.8	17.7	+/-21.9	37.4	pCi/L		EGD1 01/22/05	2012	395982	5
Liquid Scint Fe55, Liquid-ALL												
Iron-55	U	8.87	+/-25.0	16.8	+/-25.0	33.9	pCi/L		DAJ1 01/26/05	2006	396237	6
Liquid Scint Ni63, Liquid-ALL												
Nickel-63	U	-2.66	+/-6.14	5.21	+/-6.14	10.7	pCi/L		DAJ1 01/27/05	1507	396238	7
Liquid Scint Tc99, Liquid-ALL												
Technetium-99	U	6.49	+/-5.66	4.55	+/-5.66	9.38	pCi/L		EGD1 01/25/05	0925	395987	8

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	01/24/05	1000	396183
SW846 3005A	ICP-TRACE SW846 3005A	FGA	01/21/05	1000	395913

The following Analytical Methods were performed

Method	Description
1	DOE EML HASL-300, Pu-11-RC Modified
2	DOE EML HASL-300, Am-05-RC Modified
3	DOE EML HASL-300, Pu-11-RC Modified

GENERAL ENGINEERING LABORATORIES, LLC

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Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 1, 2005

Client Sample ID: Seep #3
Sample ID: 129223002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M
4	EPA 900.0										
5	EPA EERF C-01 Modified										
6	DOE RESL Fe-1, Modified										
7	DOE RESL Ni-1, Modified										
8	DOE EML HASL-300, Tc-02-RC Modified										

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Plutonium-242	Alphaspec Pu, Liquid-ALL	95	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	88	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	79	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	49	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

Notes:
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- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

QC Summary

Report Date: February 1, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut
Contact: Mr. Dave Keefer

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 395973										
QC1200775589 129223002 DUP										
Americium-241	U	-0.0164	U	0.0846	pCi/L	N/A		(0% - 100%)	BJB1	01/25/05 08:28
	Uncert:	+/-0.0322		+/-0.191						
	TPU:	+/-0.0323		+/-0.191						
Curium-242	U	0.0721	U	0.00	pCi/L	0		(0% - 100%)		
	Uncert:	+/-0.141		+/-0.137						
	TPU:	+/-0.142		+/-0.137						
Curium-243/244	U	-0.0164	U	0.0503	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0322		+/-0.133						
	TPU:	+/-0.0323		+/-0.133						
QC1200775591 LCS										
Americium-241	27.3			27.2	pCi/L		100	(75%-125%)		
	Uncert:			+/-2.56						
	TPU:			+/-4.13						
Curium-242			U	0.0331	pCi/L					
	Uncert:			+/-0.132						
	TPU:			+/-0.132						
Curium-243/244	33.8			34.8	pCi/L		103			
	Uncert:			+/-2.89						
	TPU:			+/-5.06						
QC1200775588 MB										
Americium-241			U	-0.0357	pCi/L					
	Uncert:			+/-0.0495						
	TPU:			+/-0.0497						
Curium-242			U	0.00	pCi/L					
	Uncert:			+/-0.149						
	TPU:			+/-0.149						
Curium-243/244			U	-0.0179	pCi/L					
	Uncert:			+/-0.035						
	TPU:			+/-0.0351						
QC1200775590 129223002 MS										
Americium-241	54.6 U	-0.0164		54.9	pCi/L		101	(75%-125%)		
	Uncert:	+/-0.0322		+/-5.05						
	TPU:	+/-0.0323		+/-8.21						
Curium-242	U	0.0721	U	-0.0305	pCi/L					
	Uncert:	+/-0.141		+/-0.0598						
	TPU:	+/-0.142		+/-0.0599						
Curium-243/244	67.6 U	-0.0164		66.8	pCi/L		99			
	Uncert:	+/-0.0322		+/-5.57						
	TPU:	+/-0.0323		+/-9.64						
Batch 395974										
QC1200775593 129223002 DUP										
Plutonium-238	U	0.0561	U	-0.0531	pCi/L	N/A		(0% - 100%)	BJB1	01/26/05 18:52

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 395974										
	Uncert:	+/-0.150		+/-0.238						
	TPU:	+/-0.151		+/-0.238						
Plutonium-239/240	U	0.0841	U	0.0354	pCi/L	82		(0% - 100%)		
	Uncert:	+/-0.0868		+/-0.139						
	TPU:	+/-0.0872		+/-0.139						
QC1200775595 LCS										
Plutonium-238			U	-0.03	pCi/L			(75%-125%)		
	Uncert:			+/-0.195						
	TPU:			+/-0.195						
Plutonium-239/240	23.9			25.6	pCi/L		107	(75%-125%)		
	Uncert:			+/-1.22						
	TPU:			+/-2.75						
QC1200775592 MB										
Plutonium-238			U	0.0305	pCi/L					01/26/05 18:52
	Uncert:			+/-0.0846						
	TPU:			+/-0.0846						
Plutonium-239/240			U	-0.0458	pCi/L					
	Uncert:			+/-0.0669						
	TPU:			+/-0.067						
QC1200775594 129223002 MS										
Plutonium-238	U	0.0561	U	0.309	pCi/L			(75%-125%)		01/26/05 18:52
	Uncert:	+/-0.150		+/-0.408						
	TPU:	+/-0.151		+/-0.409						
Plutonium-239/240	47.8 U	0.0841		51.6	pCi/L		107	(75%-125%)		
	Uncert:	+/-0.0868		+/-2.36						
	TPU:	+/-0.0872		+/-5.46						
Batch 395975										
QC1200775597 129223002 DUP										
Plutonium-241	U	-4.04	U	3.10	pCi/L	N/A		(0% - 100%)	BJB1	01/26/05 16:12
	Uncert:	+/-7.26		+/-6.64						
	TPU:	+/-7.27		+/-6.65						
QC1200775599 LCS										
Plutonium-241	138			126	pCi/L		91	(75%-125%)		01/26/05 17:15
	Uncert:			+/-11.1						
	TPU:			+/-17.4						
QC1200775596 MB										
Plutonium-241			U	9.32	pCi/L					01/26/05 15:40
	Uncert:			+/-9.00						
	TPU:			+/-9.05						
QC1200775598 129223002 MS										
Plutonium-241	276 U	-4.04		285	pCi/L		103			01/26/05 16:43
	Uncert:	+/-7.26		+/-22.7						
	TPU:	+/-7.27		+/-37.2						
Rad Gamma Spec										
Batch 396169										
QC1200776062 128921001 DUP										
Americium-241	U	-7.56	U	-2.94	pCi/L	N/A		(0% - 100%)	MJH1	01/23/05 18:59
	Uncert:	+/-10.5		+/-12.3						
				+/-12.0						

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
	TPU:	+/-10.3								
Cesium-134	U	1.06	U	-0.248	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.12		+/-1.87						
	TPU:	+/-2.08		+/-1.83						
Cesium-137	U	0.636	U	0.112	pCi/L	140		(0% - 100%)		
	Uncert:	+/-2.07		+/-1.86						
	TPU:	+/-2.03		+/-1.82						
Cobalt-60	U	-0.123	U	-0.537	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.95		+/-1.96						
	TPU:	+/-1.91		+/-1.92						
Europium-152	U	1.51	U	2.51	pCi/L	50		(0% - 100%)		
	Uncert:	+/-6.09		+/-5.47						
	TPU:	+/-5.97		+/-5.36						
Europium-154	U	-1.82	U	-1.65	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-6.28		+/-5.51						
	TPU:	+/-6.15		+/-5.40						
Europium-155	U	-0.533	U	7.06	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.17		+/-7.10						
	TPU:	+/-7.03		+/-6.96						
Manganese-54	U	2.67	U	-0.361	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.42		+/-1.75						
	TPU:	+/-2.38		+/-1.72						
Niobium-94	U	1.12	U	-0.712	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.82		+/-1.58						
	TPU:	+/-1.79		+/-1.55						
Silver-108m	U	-0.258	U	-0.861	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.84		+/-1.74						
	TPU:	+/-1.81		+/-1.70						
QC1200776064 LCS										
Americium-241	1170			1210	pCi/L		104	(75%-125%)		01/24/05 08:22
	Uncert:			+/-182						
	TPU:			+/-179						
Cesium-134			U	3.10	pCi/L					
	Uncert:			+/-11.2						
	TPU:			+/-11.0						
Cesium-137	456			492	pCi/L		108	(75%-125%)		
	Uncert:			+/-47.8						
	TPU:			+/-46.9						
Cobalt-60	664			697	pCi/L		105	(75%-125%)		
	Uncert:			+/-61.2						
	TPU:			+/-60.0						
Europium-152			U	9.79	pCi/L					
	Uncert:			+/-25.6						
	TPU:			+/-25.1						
Europium-154			U	-15.3	pCi/L					
	Uncert:			+/-19.7						
	TPU:			+/-19.3						
Europium-155			U	9.69	pCi/L					

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
	Uncert:			+/-33.6						
	TPU:			+/-32.9						
Manganese-54			U	5.10	pCi/L					
	Uncert:			+/-10.5						
	TPU:			+/-10.3						
Niobium-94			U	-4.47	pCi/L					
	Uncert:			+/-8.70						
	TPU:			+/-8.53						
Silver-108m			U	-2.64	pCi/L					
	Uncert:			+/-9.42						
	TPU:			+/-9.23						
QC1200776061 MB										
Americium-241			U	-5.86	pCi/L					01/23/05 13:36
	Uncert:			+/-12.0						
	TPU:			+/-11.8						
Cesium-134			U	3.00	pCi/L					
	Uncert:			+/-1.51						
	TPU:			+/-1.48						
Cesium-137			U	0.680	pCi/L					
	Uncert:			+/-1.87						
	TPU:			+/-1.83						
Cobalt-60			U	1.42	pCi/L					
	Uncert:			+/-1.84						
	TPU:			+/-1.81						
Europium-152			U	-0.585	pCi/L					
	Uncert:			+/-5.90						
	TPU:			+/-5.78						
Europium-154			U	-2.36	pCi/L					
	Uncert:			+/-4.42						
	TPU:			+/-4.33						
Europium-155			U	7.82	pCi/L					
	Uncert:			+/-6.34						
	TPU:			+/-6.21						
Manganese-54			U	0.850	pCi/L					
	Uncert:			+/-1.97						
	TPU:			+/-1.93						
Niobium-94			U	-2.23	pCi/L					
	Uncert:			+/-1.75						
	TPU:			+/-1.72						
Silver-108m			U	-0.053	pCi/L					
	Uncert:			+/-1.76						
	TPU:			+/-1.73						
QC1200776063 128921001 MS										
Americium-241	9360 U	-7.56		10200	pCi/L		109			01/23/05 19:00
	Uncert:	+/-10.5		+/-1410						
	TPU:	+/-10.3		+/-4230						
Cesium-134	U	1.06	U	132	pCi/L					
	Uncert:	+/-2.12		+/-149						
	TPU:	+/-2.08		+/-155						

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 396169										
Cesium-137	3650 U	0.636		3750	pCi/L		103			
	Uncert:	+/-2.07		+/-470						
	TPU:	+/-2.03		+/-1540						
Cobalt-60	5310 U	-0.123		5570	pCi/L		105			
	Uncert:	+/-1.95		+/-624						
	TPU:	+/-1.91		+/-2270						
Europium-152	U	1.51	U	-97.6	pCi/L					
	Uncert:	+/-6.09		+/-262						
	TPU:	+/-5.97		+/-259						
Europium-154	U	-1.82	U	39.9	pCi/L					
	Uncert:	+/-6.28		+/-297						
	TPU:	+/-6.15		+/-291						
Europium-155	U	-0.533	U	285	pCi/L					
	Uncert:	+/-7.17		+/-177						
	TPU:	+/-7.03		+/-206						
Manganese-54	U	2.67	U	-0.605	pCi/L					
	Uncert:	+/-2.42		+/-128						
	TPU:	+/-2.38		+/-125						
Niobium-94	U	1.12	U	69.6	pCi/L					
	Uncert:	+/-1.82		+/-109						
	TPU:	+/-1.79		+/-110						
Silver-108m	U	-0.258	U	50.0	pCi/L					
	Uncert:	+/-1.84		+/-105						
	TPU:	+/-1.81		+/-104						
Rad Gas Flow										
Batch 395940										
QC1200775504 129223001 DUP										
Strontium-90		9.86		10.0	pCi/L	1		(0% - 100%)	LCW1	01/21/05 17:24
	Uncert:	+/-1.29		+/-1.28						
	TPU:	+/-2.60		+/-2.60						
QC1200775506 LCS										
Strontium-90	60.4			53.6	pCi/L		89	(75%-125%)		01/21/05 16:54
	Uncert:			+/-3.43						
	TPU:			+/-12.6						
QC1200775503 MB										
Strontium-90			U	0.655	pCi/L					01/21/05 17:24
	Uncert:			+/-0.608						
	TPU:			+/-0.635						
QC1200775505 129223001 MS										
Strontium-90	90.6	9.86		94.6	pCi/L		94	(75%-125%)		01/21/05 16:54
	Uncert:	+/-1.29		+/-5.55						
	TPU:	+/-2.60		+/-21.7						
Batch 395946										
QC1200775530 129223002 DUP										
Alpha	U	0.700		2.63	pCi/L	43		(0% - 100%)	EXW1	01/28/05 05:39
	Uncert:	+/-1.03		+/-1.44						
	TPU:	+/-1.03		+/-1.44						
Beta		20.5		22.2	pCi/L	8		(0% - 20%)		

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 395946										
	Uncert:	+/-2.27		+/-2.37						
	TPU:	+/-2.36		+/-2.56						
QC1200775533 LCS										
Alpha	144			174	pCi/L		121	(75%-125%)		01/27/05 21:14
	Uncert:			+/-16.5						
	TPU:			+/-19.4						
Beta	483			489	pCi/L		101	(75%-125%)		
	Uncert:			+/-21.3						
	TPU:			+/-30.0						
QC1200775529 MB										
Alpha			U	-0.0938	pCi/L					01/28/05 05:39
	Uncert:			+/-0.810						
	TPU:			+/-0.810						
Beta			U	0.926	pCi/L					
	Uncert:			+/-1.58						
	TPU:			+/-1.58						
QC1200775531 129223002 MS										
Alpha	144 U	0.700		163	pCi/L		113	(75%-125%)		01/27/05 21:14
	Uncert:	+/-1.03		+/-16.7						
	TPU:	+/-1.03		+/-20.8						
Beta	483	20.5		528	pCi/L		105	(75%-125%)		
	Uncert:	+/-2.27		+/-22.6						
	TPU:	+/-2.36		+/-28.3						
QC1200775532 129223002 MSD										
Alpha	144 U	0.700		136	pCi/L		94	(75%-125%)		
	Uncert:	+/-1.03		+/-14.9						
	TPU:	+/-1.03		+/-17.8						
Beta	483	20.5		504	pCi/L		100	(75%-125%)		
	Uncert:	+/-2.27		+/-21.8						
	TPU:	+/-2.36		+/-26.8						
Rad Liquid Scintillation										
Batch 395982										
QC1200775621 129223002 DUP										
Carbon-14	U	10.9	U	0.673	pCi/L	0		(0% - 100%)	EGD1	01/22/05 21:17
	Uncert:	+/-21.8		+/-20.3						
	TPU:	+/-21.9		+/-20.3						
QC1200775624 KNOWN										
Carbon-14	1310			1320	pCi/L		100			01/22/05 22:54
	Uncert:			+/-64.1						
	TPU:			+/-270						
QC1200775623 LCS										
Carbon-14	1310			1350	pCi/L		102	(75%-125%)		01/22/05 22:22
	Uncert:			+/-63.8						
	TPU:			+/-276						
QC1200775620 MB										
Carbon-14			U	-17.6	pCi/L					01/22/05 20:44
	Uncert:			+/-19.2						
	TPU:			+/-19.5						
QC1200775622 129223002 MS										

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 395982										
Carbon-14	1310 U	10.9		1380	pCi/L		104	(75%-125%)		
	Uncert:	+/-21.8		+/-66.8						
	TPU:	+/-21.9		+/-282						
Batch 395986										
QC1200775635 129223001 DUP										
Tritium		1510		1660	pCi/L	10		(0% - 100%)	ATH1	01/23/05 01:06
	Uncert:	+/-305		+/-311						
	TPU:	+/-306		+/-312						
QC1200775637 LCS										
Tritium	3150			3040	pCi/L		96	(75%-125%)		01/23/05 02:11
	Uncert:			+/-371						
	TPU:			+/-374						
QC1200775634 MB										
Tritium			U	-34.2	pCi/L					01/23/05 00:33
	Uncert:			+/-204						
	TPU:			+/-204						
QC1200775636 129223001 MS										
Tritium	3150	1510		4710	pCi/L		102	(75%-125%)		01/23/05 01:38
	Uncert:	+/-305		+/-443						
	TPU:	+/-306		+/-449						
Batch 395987										
QC1200775645 129223002 DUP										
Technetium-99	U	6.49	U	6.49	pCi/L	0		(0% - 100%)	EGD1	01/25/05 10:30
	Uncert:	+/-5.66		+/-5.56						
	TPU:	+/-5.66		+/-5.56						
QC1200775647 LCS										
Technetium-99	588			589	pCi/L		100	(75%-125%)		01/25/05 11:34
	Uncert:			+/-16.4						
	TPU:			+/-21.8						
QC1200775644 MB										
Technetium-99			U	5.01	pCi/L					01/25/05 09:57
	Uncert:			+/-5.48						
	TPU:			+/-5.48						
QC1200775646 129223002 MS										
Technetium-99	588 U	6.49		614	pCi/L		103	(75%-125%)		01/25/05 11:02
	Uncert:	+/-5.66		+/-16.4						
	TPU:	+/-5.66		+/-22.2						
Batch 396237										
QC1200776242 128921001 DUP										
Iron-55	U	30.2		38.3	pCi/L	24		(0% - 100%)	DAJ1	01/27/05 00:08
	Uncert:	+/-26.4		+/-26.0						
	TPU:	+/-26.4		+/-26.1						
QC1200776244 LCS										
Iron-55	452			439	pCi/L		97*	(0%-%)		01/27/05 04:08
	Uncert:			+/-29.7						
	TPU:			+/-34.3						
QC1200776241 MB										
Iron-55			U	-4.01	pCi/L					01/26/05 22:07

QC Summary

Workorder: 129223

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 396237										
	Uncert:			+/-24.1						
	TPU:			+/-24.1						
QC1200776243 128921001 MS										
Iron-55	452 U	30.2		445	pCi/L		92*	(0%-%)		01/27/05 02:09
	Uncert:	+/-26.4		+/-28.3						
	TPU:	+/-26.4		+/-33.2						
Batch 396238										
QC1200776246 128921001 DUP										
Nickel-63	U	0.645	U	4.36	pCi/L	0		(0% - 100%)	DAJ1	01/27/05 17:12
	Uncert:	+/-4.72		+/-5.36						
	TPU:	+/-4.72		+/-5.37						
QC1200776248 LCS										
Nickel-63	364			392	pCi/L		108	(75%-125%)		01/27/05 18:27
	Uncert:			+/-15.0						
	TPU:			+/-20.0						
QC1200776245 MB										
Nickel-63			U	3.71	pCi/L					01/27/05 16:09
	Uncert:			+/-4.78						
	TPU:			+/-4.79						
QC1200776247 128921001 MS										
Nickel-63	364 U	0.645		371	pCi/L		102	(75%-125%)		01/27/05 17:55
	Uncert:	+/-4.72		+/-12.7						
	TPU:	+/-4.72		+/-17.8						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- < Result is less than amount reported.
- > Result is greater than amount reported.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 129223

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 8, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 129966
SDG: MSR#05-0327

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 3, 2005. This data report has been prepared and reviewed in accordance with GEL's standard.operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00025
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 129966

February 8, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina February 3, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
129966001	Seep #1
129966002	Seep #2
129966003	Seep #3
129966004	Seep #4

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Four groundwater samples were analyzed for Gamma-Isotopic, Strontium-90, and Tritium.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

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

Chain of Custody Form

No. 2005-00025

129966%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	γ-Isotopic, Sr-90	H-3			Comment, Preservation	Lab Sample ID
Seep #1	01/31/05	15:55	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #2	01/31/05	15:40	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #3	01/31/05	15:34	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #4	01/31/05	15:50	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 05-0327 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Requested TATs for H-3, Gamma & Sr-90 is 7-days.

Fed Ex Tracking# 8434 6846 5478

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

Bill of Lading #

Internal Container Temp.: 13 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Matt Darois Date/Time 07:45, 2/02/05	2) Received By [signature] Date/Time 2/3/05 9:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 2/3/05 9:45

SDG#: MSR# 05-0327

Work Order Number: ~~2005-00025~~ 129961

Shipping Container ID: Fed Ex 8434 6846 5478 Chain of Custody # 200500028

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 13°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers): Scoop 2 wrong time 1607

Sample Custodian/Laboratory: [signature] Date: 2/3/05

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

GEN LABORATORIES, LLC

PM use only

Client: Connecticut	SDG/ARCOC/Work Order: 129966
Date Received: 2.3.05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: CJ	2/3/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other (describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				FedEx 8434 6846 5478

Radiological Information	Non-RAD	RAD	RADIO	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)				*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate

PM (or PMA) review of Receiving Rad classification: CJ Initials Date:

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0327

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	399172

Sample ID	**Client ID**
129966001	Seep #1
129966002	Seep #2
129966003	Seep #3
129966004	Seep #4
1200783243	Method Blank (MB)
1200783244	129966001(Seep #1) Sample Duplicate (DUP)
1200783245	129966001(Seep #1) Matrix Spike (MS)
1200783246	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 129966001 (Seep #1).

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 1200783245 (Seep #1) was 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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	399317

Sample ID	Client ID
129966001	Seep #1
129966002	Seep #2
129966003	Seep #3
129966004	Seep #4
1200783589	Method Blank (MB)
1200783590	129966001(Seep #1) Sample Duplicate (DUP)
1200783591	129966001(Seep #1) Matrix Spike (MS)
1200783592	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 129966001 (Seep #1).

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. An NCR was not generated for this SDG.

Qualifier Information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	399348

Sample ID	Client ID
129966001	Seep #1
129966002	Seep #2
129966003	Seep #3
129966004	Seep #4
1200783673	Method Blank (MB)
1200783674	129966001(Seep #1) Sample Duplicate (DUP)
1200783675	129966001(Seep #1) Matrix Spike (MS)
1200783676	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# 9.

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: 129966001 (Seep #1).

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. An 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:
GEL requires all analytical data to be verified by a qualified data validator. In addition, all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.
The following data validator verified the information presented in this case narrative:

Reviewer: Nicole G Clodou 2/9/05

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0327 GEL Work Order: 129966

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID:	Seep #1	Project:	YANK01604
Sample ID:	129966001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	31-JAN-05		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.40	+/-19.3	14.3	+/-18.9	29.9	pCi/L		AKB	02/04/05	1107	399172	1
Cesium-134	U	-0.434	+/-2.24	1.77	+/-2.20	3.89	pCi/L						
Cesium-137	U	-2.09	+/-2.12	1.53	+/-2.07	3.38	pCi/L						
Cobalt-60	U	-2.56	+/-2.15	1.37	+/-2.11	3.21	pCi/L						
Europium-152	U	-1.57	+/-7.17	5.63	+/-7.03	11.9	pCi/L						
Europium-154	U	-0.788	+/-5.67	4.56	+/-5.56	10.4	pCi/L						
Europium-155	U	1.19	+/-8.17	7.02	+/-8.01	14.6	pCi/L						
Manganese-54	U	2.79	+/-2.60	1.62	+/-2.54	3.56	pCi/L						
Niobium-94	U	0.937	+/-1.80	1.56	+/-1.77	3.39	pCi/L						
Silver-108m	U	-0.512	+/-2.10	1.74	+/-2.06	3.72	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		21.4	+/-3.63	2.57	+/-7.51	5.37	pCi/L		LCW1	02/05/05	1900	399317	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		2660	+/-248	145	+/-252	290	pCi/L		ATH1	02/05/05	0731	399348	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	75	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID: Seep #1
Sample ID: 129966001

Project: YANK01604
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch M

B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID:	Seep #2	Project:	YANK01604
Sample ID:	129966002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	31-JAN-05		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.18	+/-19.3	14.0	+/-19.0	29.0	pCi/L		AKB 02/04/05	1107	399172	1
Cesium-134	U	-0.173	+/-2.65	2.15	+/-2.59	4.66	pCi/L					
Cesium-137	U	0.620	+/-2.59	2.19	+/-2.54	4.70	pCi/L					
Cobalt-60	U	-1.66	+/-2.30	1.69	+/-2.25	3.86	pCi/L					
Europium-152	U	-0.34	+/-8.28	6.65	+/-8.12	13.9	pCi/L					
Europium-154	U	-3.91	+/-6.39	4.83	+/-6.26	11.0	pCi/L					
Europium-155	U	6.82	+/-9.95	8.70	+/-9.75	18.0	pCi/L					
Manganese-54	U	-2.2	+/-2.59	1.58	+/-2.54	3.48	pCi/L					
Niobium-94	U	1.15	+/-2.27	1.95	+/-2.22	4.19	pCi/L					
Silver-108m	U	-1.77	+/-2.69	2.02	+/-2.63	4.27	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		24.7	+/-3.52	2.32	+/-7.82	4.84	pCi/L		LCW1 02/05/05	1900	399317	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2800	+/-257	150	+/-261	299	pCi/L		ATH1 02/05/05	0834	399348	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	82	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID: Seep #2
Sample ID: 129966002

Project: YANK01604
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch M

BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID:	Seep #3	Project:	YANK01604
Sample ID:	129966003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	31-JAN-05		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	Analyst	Date	Time	Batch	M
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-29.7	+/-20.8	13.7	+/-20.4	28.7	pCi/L		AKB	02/04/05	1237	399172	1
Cesium-134	U	0.697	+/-2.04	1.78	+/-2.00	3.94	pCi/L						
Cesium-137	U	0.130	+/-2.18	1.83	+/-2.13	4.00	pCi/L						
Cobalt-60	U	0.348	+/-2.10	1.76	+/-2.06	4.03	pCi/L						
Europium-152	U	3.06	+/-6.73	5.65	+/-6.59	12.0	pCi/L						
Europium-154	U	2.42	+/-6.68	5.74	+/-6.55	12.9	pCi/L						
Europium-155	U	-5.75	+/-8.95	7.25	+/-8.77	15.1	pCi/L						
Manganese-54	U	0.158	+/-2.01	1.68	+/-1.97	3.71	pCi/L						
Niobium-94	U	-0.608	+/-1.87	1.51	+/-1.84	3.31	pCi/L						
Silver-108m	U	1.11	+/-2.20	1.85	+/-2.16	3.96	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		17.2	+/-2.86	1.94	+/-5.70	4.07	pCi/L		LCW1	02/05/05	1900	399317	2
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1020	+/-212	151	+/-213	302	pCi/L		ATH1	02/05/05	0937	399348	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	81	

Notes:
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** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID: Seep #3
Sample ID: 129966003

Project: YANK01604
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch M

BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID:	Seep #4	Project:	YANK01604
Sample ID:	129966004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	31-JAN-05		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-7.89	+/-14.3	11.6	+/-14.0	24.1	pCi/L		AKB 02/04/05	1237	399172	1
Cesium-134	U	1.28	+/-2.32	2.01	+/-2.27	4.35	pCi/L					
Cesium-137	U	-1.96	+/-2.43	1.56	+/-2.38	3.40	pCi/L					
Cobalt-60	U	-0.079	+/-2.17	1.79	+/-2.13	4.01	pCi/L					
Europium-152	U	-3.57	+/-6.94	5.54	+/-6.80	11.7	pCi/L					
Europium-154	U	3.03	+/-5.40	4.85	+/-5.29	10.8	pCi/L					
Europium-155	U	-8.79	+/-8.86	6.89	+/-8.68	14.3	pCi/L					
Manganese-54	U	-0.549	+/-2.07	1.65	+/-2.03	3.59	pCi/L					
Niobium-94	U	-0.144	+/-1.92	1.59	+/-1.88	3.43	pCi/L					
Silver-108m	U	0.939	+/-2.20	1.84	+/-2.15	3.90	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	3.14	+/-1.80	1.61	+/-1.98	3.39	pCi/L		LCW1 02/05/05	1900	399317	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2650	+/-254	150	+/-258	301	pCi/L		ATH1 02/05/05	1039	399348	3

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	88	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.

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Certificate of Analysis

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East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Groundwater for Soil Excavation PO# 002337

Report Date: February 9, 2005

Client Sample ID: Seep #4
Sample ID: 129966004

Project: YANK01604
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	DL	TPU	RL	Units	DF	AnalystDate	Time	Batch M

BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
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QUALITY CONTROL DATA

QC Summary

Report Date: February 9, 2005
Page 1 of 5

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut
Contact: Mr. Dave Keefer

Workorder: 129966

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 399172										
QC1200783244 129966001 DUP										
Americium-241	U	4.40	U	-5.81	pCi/L	N/A			AKB	02/04/05 16:11
	Uncert:	+/-19.3		+/-13.8						
	TPU:	+/-18.9		+/-13.6						
Cesium-134	U	-0.434	U	1.28	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.24		+/-2.27						
	TPU:	+/-2.20		+/-2.22						
Cesium-137	U	-2.09	U	-0.0725	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.12		+/-2.05						
	TPU:	+/-2.07		+/-2.01						
Cobalt-60	U	-2.56	U	2.08	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.15		+/-4.58						
	TPU:	+/-2.11		+/-4.49						
Europium-152	U	-1.57	U	2.40	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.17		+/-6.04						
	TPU:	+/-7.03		+/-5.92						
Europium-154	U	-0.788	U	1.43	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.67		+/-5.36						
	TPU:	+/-5.56		+/-5.25						
Europium-155	U	1.19	U	-5.12	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-8.17		+/-8.53						
	TPU:	+/-8.01		+/-8.36						
Manganese-54	U	2.79	U	-0.542	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.60		+/-2.14						
	TPU:	+/-2.54		+/-2.09						
Niobium-94	U	0.937	U	2.07	pCi/L	75		(0% - 100%)		
	Uncert:	+/-1.80		+/-1.89						
	TPU:	+/-1.77		+/-1.85						
Silver-108m	U	-0.512	U	0.0598	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.10		+/-1.99						
	TPU:	+/-2.06		+/-1.95						
QC1200783246 LCS										
Americium-241	1170			1260	pCi/L		108	(75%-125%)		02/04/05 11:08
	Uncert:			+/-181						
	TPU:			+/-178						
Cesium-134			U	8.18	pCi/L					
	Uncert:			+/-13.7						
	TPU:			+/-13.4						
Cesium-137	455			473	pCi/L		104	(75%-125%)		
	Uncert:			+/-70.1						
	TPU:			+/-68.7						
Cobalt-60	658			644	pCi/L		98	(75%-125%)		
	Uncert:			+/-64.3						

QC Summary

Workorder: 129966

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 399172										
	TPU:			+/-63.1						
Europium-152			U	26.1	pCi/L					
	Uncert:			+/-28.6						
	TPU:			+/-28.0						
Europium-154			U	-23.5	pCi/L					
	Uncert:			+/-23.5						
	TPU:			+/-23.0						
Europium-155			U	10.0	pCi/L					
	Uncert:			+/-40.0						
	TPU:			+/-39.2						
Manganese-54			U	-9.28	pCi/L					
	Uncert:			+/-11.1						
	TPU:			+/-10.9						
Niobium-94			U	-2.63	pCi/L					
	Uncert:			+/-11.9						
	TPU:			+/-11.6						
Silver-108m			U	3.80	pCi/L					
	Uncert:			+/-12.9						
	TPU:			+/-12.6						
QC1200783243 MB										
Americium-241			U	1.55	pCi/L					02/04/05 12:38
	Uncert:			+/-8.36						
	TPU:			+/-8.19						
Cesium-134			U	0.0641	pCi/L					
	Uncert:			+/-2.35						
	TPU:			+/-2.30						
Cesium-137			U	0.840	pCi/L					
	Uncert:			+/-1.95						
	TPU:			+/-1.91						
Cobalt-60			U	-1.53	pCi/L					
	Uncert:			+/-2.10						
	TPU:			+/-2.06						
Europium-152			U	-4.9	pCi/L					
	Uncert:			+/-5.73						
	TPU:			+/-5.62						
Europium-154			U	-1.17	pCi/L					
	Uncert:			+/-5.53						
	TPU:			+/-5.42						
Europium-155			U	6.03	pCi/L					
	Uncert:			+/-6.81						
	TPU:			+/-6.67						
Manganese-54			U	-2.18	pCi/L					
	Uncert:			+/-1.95						
	TPU:			+/-1.91						
Niobium-94			U	-0.432	pCi/L					
	Uncert:			+/-1.94						
	TPU:			+/-1.90						
Silver-108m			U	-1.28	pCi/L					

QC Summary

Workorder: 129966

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 399172										
	Uncert:			+/-1.89						
	TPU:			+/-1.85						
QC1200783245 129966001 MS										
Americium-241	9360 U	4.40		9130	pCi/L		98			02/07/05 08:55
	Uncert:	+/-19.3		+/-2330						
	TPU:	+/-18.9		+/-4250						
Cesium-134	U	-0.434	U	8.63	pCi/L					
	Uncert:	+/-2.24		+/-154						
	TPU:	+/-2.20		+/-151						
Cesium-137	3640 U	-2.09		3820	pCi/L		105			
	Uncert:	+/-2.12		+/-478						
	TPU:	+/-2.07		+/-1570						
Cobalt-60	5270 U	-2.56		5520	pCi/L		105			
	Uncert:	+/-2.15		+/-696						
	TPU:	+/-2.11		+/-2270						
Europium-152	U	-1.57	U	25.8	pCi/L					
	Uncert:	+/-7.17		+/-307						
	TPU:	+/-7.03		+/-301						
Europium-154	U	-0.788	U	-50.4	pCi/L					
	Uncert:	+/-5.67		+/-273						
	TPU:	+/-5.56		+/-268						
Europium-155	U	1.19	U	5.93	pCi/L					
	Uncert:	+/-8.17		+/-354						
	TPU:	+/-8.01		+/-347						
Manganese-54	U	2.79	U	9.42	pCi/L					
	Uncert:	+/-2.60		+/-129						
	TPU:	+/-2.54		+/-126						
Niobium-94	U	0.937	U	-10.3	pCi/L					
	Uncert:	+/-1.80		+/-117						
	TPU:	+/-1.77		+/-114						
Silver-108m	U	-0.512	U	6.05	pCi/L					
	Uncert:	+/-2.10		+/-114						
	TPU:	+/-2.06		+/-111						
Rad Gas Flow										
Batch 399317										
QC1200783590 129966001 DUP										
Strontium-90		21.4		15.6	pCi/L	31		(0% - 100%)	CW1	02/05/05 19:00
	Uncert:	+/-3.63		+/-2.51						
	TPU:	+/-7.51		+/-4.88						
QC1200783592 LCS										
Strontium-90	181			177	pCi/L		98	(75%-125%)		02/07/05 11:41
	Uncert:			+/-13.1						
	TPU:			+/-78.0						
QC1200783589 MB										
Strontium-90			U	0.177	pCi/L					02/05/05 19:00
	Uncert:			+/-2.24						
	TPU:			+/-2.24						
QC1200783591 129966001 MS										

QC Summary

Workorder: 129966

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 399317										
Strontium-90	362	21.4		378	pCi/L		99	(75%-125%)		
	Uncert:	+/-3.63		+/-21.7						
	TPU:	+/-7.51		+/-112						
Rad Liquid Scintillation										
Batch 399348										
QC1200783674 129966001 DUP										
Tritium		2660		2860	pCi/L	8		(0% - 20%)	ATH1	02/05/05 12:45
	Uncert:	+/-248		+/-260						
	TPU:	+/-252		+/-264						
QC1200783676 LCS										
Tritium	3140			2980	pCi/L		95	(75%-125%)		02/05/05 14:50
	Uncert:			+/-258						
	TPU:			+/-262						
QC1200783673 MB										
Tritium			U	-57.6	pCi/L					02/05/05 11:42
	Uncert:			+/-177						
	TPU:			+/-177						
QC1200783675 129966001 MS										
Tritium	3150	2660		5480	pCi/L		90	(75%-125%)		02/05/05 13:47
	Uncert:	+/-248		+/-314						
	TPU:	+/-252		+/-325						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 129966

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 17, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130638
SDG: MSR#04-3932

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on November 26, 2004. The samples were relogged upon your request on February 9, 2005 for boron analysis. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2004-00277
Enclosures

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

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CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130638

February 17, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina November 26, 2004. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. The samples were relogged upon an email request from Dave Keefer on February 9, 2005 for boron analysis.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130638001	Pit #1
130638002	Pit #2
130638003	Pit #3
130638004	Pit #4
130638005	Pit #5

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative

problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Five groundwater samples were analyzed for Boron.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Inorganics.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

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

No. 2004-00277

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☐ 7 D.
Other:

Lab Use Only: 1306381, relog 1260307

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code		Sr-90					Comment, Preservation	Lab Sample ID
Pit #1	11/23/04	13:47	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #2	11/23/04	13:53	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #3	11/23/04	14:04	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #4	11/23/04	14:26	WG	G	4-liter		X					Preserved 20-ml HNO_3	
Pit #5	11/23/04	14:38	WG	G	4-liter		X					Preserved 20-ml HNO_3	

NOTES: PO #: 002337 MSR #: 04-3932 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested analyses to typical groundwater MDC's. Please filter solids and analyze liquid only!

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 16 Deg. C
Custody Sealed? Y N
Custody Seal Intact? Y N

1) Relinquished By: Matt Durais	Date/Time 11/24/04 12:40	2) Received By Pete Wilbe	Date/Time 11/24/04 10:00
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 11/26/04 1000

SDG#: MSR#04-3932

Work Order Number: 126307, 130638 relog

Shipping Container ID: 7919 8819 4430 Chain of Custody # 2004-00277

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 16.0C
5. Vermiculite/packing materials is: Wet [ ] Dry [ ] N/A
6. Number of samples in shipping container: 5
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape ____hazard labels

____custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____leaking

____broken ____have air bubbles

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

Sample Custodian/Laboratory: [signature] Date: 11/26/04 10:00

Telephoned to:_____ On_____ By_____

SAMPLE RECEIPT & REVIEW FORM

GENERAL ENGINEERING LABORATORIES, LLC

PM use only

Client: VAN KEE ATOMIC POWER	SDG/ARCOC/Work Order: 126307 (130636 rel#9)
Date Received: 11/26/04	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: P. WILBER	11/26/04

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓	✓		Circle Temp device serial # ice bags blue ice dry ice (none) other(describe) RADIOCHEM ONLY 16.0
3	Chain of custody documents included with shipment?	✓			
4	Sample containers intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?	✓			Sample ID's, containers affected and observed pH: PH <2
6	VOA vials free of headspace (defined as < 6mm bubble)?		✓		Sample ID's and containers affected:
7	Samples received within holding time?	✓			Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?	✓			Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Sample ID's affected:
10	Number of containers received match number indicated on COC?	✓			Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?	✓			
12	Air Bill ,Tracking #'s, & Additional Comments	7919-8819-4930			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?	✓	✓		Comments: Per Pete
Radioactivity Screening Results (maximum observed CPM)	30			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: OAY Initials 11/26/04 Date

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR04-3932

Method/Analysis Information

Analytical Batch:	401838
Prep Batch:	401837
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
130638001	Pit#1
130638002	Pit#2
130638003	Pit#3
130638004	Pit#4
130638005	Pit#5
1200789626	Method Blank (MB) ICP-MS
1200789627	Laboratory Control Sample (LCS)
1200789630	130638001(Pit#1L) Serial Dilution (SD)
1200789628	130638001(Pit#1D) Sample Duplicate (DUP)
1200789629	130638001(Pit#1S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and

dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 130638001 (Pit#1).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control

of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the IDL for CVAA, 50X the IDL for ICP and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the established criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

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

Reviewer: Allison Scott **Date:** 2/16/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 16, 2005

Client Sample ID:	Pit#1	Project:	YANK01704
Sample ID:	130638001	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	23-NOV-04 13:47		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		215	0.540	16.0	ug/L	1	BAJ	02/16/05	0029	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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 2/16/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 16, 2005

Client Sample ID: Pit#2
Sample ID: 130638002
Matrix: Ground Water
Collect Date: 23-NOV-04 13:53
Receive Date: 26-NOV-04
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		351	0.540	16.0	ug/L	1	BAJ	02/16/05	0050	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Pit#3	Project:	YANK01704
Sample ID:	130638003	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	23-NOV-04 14:04		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		124	0.540	16.0	ug/L	1	BAJ	02/16/05	0055	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison S. 2/16/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Pit#4	Project:	YANK01704
Sample ID:	130638004	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	23-NOV-04 14:26		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		567	0.540	16.0	ug/L	1	BAJ	02/16/05	0111	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

2/16/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Pit#5	Project:	YANK01704
Sample ID:	130638005	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	23-NOV-04 14:38		
Receive Date:	26-NOV-04		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		312	0.540	16.0	ug/L	1	BAJ	02/16/05	0116	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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- ** Indicates the analyte is a surrogate compound.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

2/16/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 16, 2005
Page 1 of 1

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130638

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 401838										
QC1200789628 130638001 DUP										
Boron		215		217	ug/L	1		(0%-20%)	BAJ	02/16/05 00:34
QC1200789627 LCS										
Boron	100			110	ug/L		110	(80%-120%)		02/16/05 00:24
QC1200789626 MB										
Boron			J	1.10	ug/L					02/16/05 00:18
QC1200789629 130638001 MS										
Boron	100	215		337	ug/L		122	(75%-125%)		02/16/05 00:39
QC1200789630 130638001 SDILT										
Boron		215		49.6	ug/L	15.4				02/16/05 00:45

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 17, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130639
SDG: MSR#05-0136

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on January 14 and 20, 2005. The samples were relogged upon your request on February 9, 2005 for boron analysis. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00007, 2005-00021
Enclosures

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

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Inorganic Analysis **12**

CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130639

February 17, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina January 14 and 20, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. The samples were relogged upon an email request from Dave Keefer on February 9, 2005 for boron analysis.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130639001	Seep #1
130639002	Seep #2
130639003	Seep #3

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Three groundwater samples were analyzed for Boron.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Inorganics.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2005-00007

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☒ 7 D.
Other: 128921 %

Lab Use Only: 130639 % relog 128921 %

	Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	TDS	Comment, Preservation	Lab Sample ID
03	Seep #1 Weathered Rock	01/10/05	15:00	WG	G	500-ml			X				n.a.	
001	Seep #1	01/11/05	16:05	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	
002	Seep #2	01/11/05	16:05	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	
5														

NOTES: PO #: 002337 MSR #: 05-0136. ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Anions from unpreserved sample include Cl^-, CO_3^{-2}, HCO_3^-, SO_4^{-2}. Cations include Ca, Mg, Na, K. Requested TATs for H-3, Gamma & Sr-90 is 7-days, all others are 14-days. Weathered rock sample should be analyzed to FSS Soil MDCs.

Samples Shipped Via: ☒ Fed Ex ☐ UPS ☐ Hand ☐ Other ____
Bill of Lading #

Internal Container Temp.: 14.0 Deg. C

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

1) Relinquished By: Matt Daros	Date/Time 1/13/05	2) Received By	Date/Time 1-14-05 940
3) Relinquished By	Date/Time	4) Received By	Date/Time
5) Relinquished By	Date/Time	6) Received By	Date/Time

Chain of Custody Form

No. 2005-00021

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

129 2237.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☒ 14 D. ☒ 7 D.
Other:

Lab Use Only: 130639 % relog; 129 2237.

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	ALL	Anions	Cations	TDS	Comment, Preservation	Lab Sample ID
Seep #3	01/13/05	14:00	WG	G	4L,1L			X	X	X	X	2 x 4L w/HNO_3, 1L	

NOTES: PO #: 002337 MSR #: 05-0136 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Anions from unpreserved sample include Cl^-, CO_3^{-2}, HCO_3^-, SO_4^{-2}. Cations include Ca, Mg, Na, K. Requested TATs for H-3, Gamma & Sr-90 is 7-days, all others are 14-days.

Matt Darors 1/19/05

1) Relinquished By: Matt Darors 1/19/05 1257	2) Received By: D. Keefer 1/19/05 1257
3) Relinquished By Date/Time	4) Received By 1-20-05 1030 Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 14 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 1-14-05 940

SDG#: MSR#05-0136

Work Order Number: 128921, 130639 relog

Shipping Container ID: 79088672 3910 Chain of Custody # 2005-00007

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14.0°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 7
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape ____hazard labels

✓ custody seals ____appropriate sample labels

9. Samples are:

✓ in good condition ____leaking

____broken ____have air bubbles

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

Sample Custodian/Laboratory: A. Fuller Date: 1-14-05

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

PM use only

: CT Yankee	SDG/ARCOC/Work Order: 122931 (130639 rel 05)
Received:	PM(A) Review (ensure non-conforming items are resolved prior to signing):
ved By:	Cliff Jones 1/14/05

Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
ipping containers received tact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
mples requiring cold eservation within (4 +/- 2 C)? ecord preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
ain of custody documents cluded with shipment?				
mple containers intact and aled?				Circle Applicable: seals broken damaged container leaking container other (describe)
mples requiring chemical eservation at proper pH?				Sample ID's, containers affected and observed pH:
OA vials free of headspace efined as < 6mm bubble)?				Sample ID's and containers affected:
mples received within holding me?				Id's and tests affected:
mple ID's on COC match ID's bottles?				Sample ID's and containers affected:
ate & time on COC match date time on bottles?				Sample ID's affected:
umber of containers received atch number indicated on COC?				Sample ID's affected:
OC form is properly signed in linquished/received sections?				
ir Bill ,Tracking #'s, & dditional Comments				

adiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
hat is the radiological lassification of the samples?		✓		Comments
adioactivity Screening Results naximum observed CPM)				*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

M (or PMA) review of Receiving Rad classification: CJ Initials 1/14/05 Date:

Figure 1. Sample Check-in List

Date/Time Received: 1-20-05 1030

SDG#: MSR #05-0136

Work Order Number: 129223, 130639 relog

Shipping Container ID: 7915 2861 2651 Chain of Custody # 2005-00021

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 14°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 3
7. Sample holding times exceeded? Yes [ ] No [✓]

8. Samples have:

____tape ____hazard labels

✓ custody seals ____appropriate sample labels

9. Samples are:

✓ in good condition ____leaking

____broken ____have air bubbles

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

Sample Custodian/Laboratory: Faith Hass Date: 1-20-05 1030

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

PM use only

t: Conn. Yankee	SDG/ARCOC/Work Order: 124223 (130639 relog)
Received: 1-20-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
ived By: T.H	

Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
hipping containers received ntact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
amples requiring cold reservation within (4 +/- 2 C)? Record preservation method.		✓		Circle Coolant # ice bags blue ice dry ice none other(describe)
Chain of custody documents ncluded with shipment?	✓			
Sample containers intact and ealed?	✓			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)?		✓		Sample ID's and containers affected:
Samples received within holding ime?	✓			Id's and tests affected:
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?	✓			Sample ID's affected:
COC form is properly signed in relinquished/received sections?	✓			
Air Bill ,Tracking #'s, & Additional Comments	FedEx# 4915 2861 2651			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments
Radioactivity Screening Results (maximum observed CPM)	CPM 120			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: [illegible] Initials 1/20/05 Date:

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR05-0136

Method/Analysis Information

Analytical Batch:	401838
Prep Batch:	401837
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW8466020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
130639001	Seep#1
130639002	Seep#2
130639003	Seep#3
1200789626	Method Blank (MB) ICP-MS
1200789627	Laboratory Control Sample (LCS)
1200789630	130638001(Pit#1L) Serial Dilution (SD)
1200789628	130638001(Pit#1D) Sample Duplicate (DUP)
1200789629	130638001(Pit#1S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and

auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

The following sample was selected as the quality control (QC) sample for this batch: 130638001 (Pit#1) from YANK SDG MSR04-3932.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element

concentrations 25x the IDL for CVAA, 50X the IDL for ICP and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the established criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

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

Reviewer: Allison M. C **Date:** 2/16/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 16, 2005

Client Sample ID:	Seep#1	Project:	YANK01704
Sample ID:	130639001	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	10-JAN-05 15:00		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		505	0.540	16.0	ug/L	1	BAJ	02/16/05	0121	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Seep#2	Project:	YANK01704
Sample ID:	130639002	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	11-JAN-05 16:05		
Receive Date:	14-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		505	0.540	16.0	ug/L	1	BAJ	02/16/05	0126	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

2/16/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Seep#3	Project:	YANK01704
Sample ID:	130639003	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	13-JAN-05 14:00		
Receive Date:	20-JAN-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		277	0.540	16.0	ug/L	1	BAJ	02/16/05	0131	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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

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

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 16, 2005
Page 1 of 1

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130639

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 401838										
QC1200789628 130638001 DUP										
Boron		215		217	ug/L	1		(0%-20%)	BAJ	02/16/05 00:34
QC1200789627 LCS										
Boron	100			110	ug/L		110	(80%-120%)		02/16/05 00:24
QC1200789626 MB										
Boron			J	1.10	ug/L					02/16/05 00:18
QC1200789629 130638001 MS										
Boron	100	215		337	ug/L		122	(75%-125%)		02/16/05 00:39
QC1200789630 130638001 SDILT										
Boron		215		49.6	ug/L	15.4				02/16/05 00:45

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 17, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130640
SDG: MSR#05-0327

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 3, 2005. The samples were relogged upon your request on February 9, 2005 for boron analysis. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00025
Enclosures

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

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CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130640

February 17, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina February 3, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures. The samples were relogged upon an email request from Dave Keefer on February 9, 2005 for boron analysis.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130640001	Seep #1
130640002	Seep #2
130640003	Seep #3
130640004	Seep #4

Items of Note:
There are no items to note.

Case Narrative:

Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Four groundwater samples were analyzed for Boron.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, and Inorganics.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2005-00025

129966'.

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Lab Use Only: 130640 relog

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	γ-Isotopic, Sr-90	H-3			Comment, Preservation	Lab Sample ID
Seep #1	01/31/05	15:55	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #2	01/31/05	15:40	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #3	01/31/05	15:34	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #4	01/31/05	15:50	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	

NOTES: PO #: 002337 MSR #: 05-0327 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Requested TATs for H-3, Gamma & Sr-90 is 7-days.

Fed Ex Tracking# 5431 6846 5478

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 13 Deg. C

Custody Sealed? Y☑ N☐

Custody Seal Intact? Y☑ N☐

1) Relinquished By: Matt Dcirois 07:45, 2/02/05	2) Received By [signature] 2/3/05 9:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 2/3/05 9:45

SDG#: MSR# 05-0327

Work Order Number: ~~2005-00025~~ 129961 1., 130640 relog

Shipping Container ID: Fed Ex 8434 6846 5478 Chain of Custody # 200500028

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 13°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. Number of samples in shipping container: 8
7. Sample holding times exceeded? Yes [✓] No [ ]

8. Samples have:

✓ tape ____ hazard labels

____ custody seals ____ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [✓]
11. Description of anomalies (include sample numbers): Scoop 2 wrong time 1607

Sample Custodian/Laboratory: [signature] Date: 2/3/05

Telephoned to: ____ On ____ By ____

SAMPLE RECEIPT & REVIEW FORM

GEN. LABORATORIES, LLC

PM use only

Client: Connecticut	SDG/ARCOC/Work Order: 1299166 (130640 relog)
Date Received: 2.3.05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By:	2/3/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.	✓			Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments	Fedex 8434 6846 5478			

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)				*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: CAJ Initials _____ Date:

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR05-0327

Method/Analysis Information

Analytical Batch:	401838
Prep Batch:	401837
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
130640001	Seep#1
130640002	Seep#2
130640003	Seep#3
130640004	Seep#4
1200789626	Method Blank (MB) ICP-MS
1200789627	Laboratory Control Sample (LCS)
1200789630	130638001(Pit#1L) Serial Dilution (SD)
1200789628	130638001(Pit#1D) Sample Duplicate (DUP)
1200789629	130638001(Pit#1S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are

set at 1400W power and combined argon pressures of 3607 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 130638001 (Pit#1) from YANK SDG MSR04-3932.

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement
The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the IDL for CVAA, 50X the IDL for ICP and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the established criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification
All procedures were performed as stated in the SOP.

Sample Dilutions
Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information
The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

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

Additional Comments
Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

GEL requires all analytical data to be verified by a qualified data validator. In addition,

all data designated for CLP or CLP-like packaging will receive a third level validation upon completion of the data package.

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

Reviewer: _____ **Date:** 2/16/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Seep#1	Project:	YANK01704
Sample ID:	130640001	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	31-JAN-05 15:55		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		468	0.540	16.0	ug/L	1	BAJ	02/16/05	0137	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. [illegible] 2/16/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 16, 2005

Client Sample ID: Seep#2
Sample ID: 130640002
Matrix: Ground Water
Collect Date: 31-JAN-05 15:40
Receive Date: 03-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		478	0.540	16.0	ug/L	1	BAJ	02/16/05	0142	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

2/16/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Page 1 of 1

Client Sample ID:	Seep#3	Project:	YANK01704
Sample ID:	130640003	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	31-JAN-05 15:34		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		262	0.540	16.0	ug/L	1	BAJ	02/16/05	0147	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. [illegible] 2/16/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 16, 2005

Client Sample ID:	Seep#4	Project:	YANK01704
Sample ID:	130640004	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	31-JAN-05 15:50		
Receive Date:	03-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		378	0.540	16.0	ug/L	1	BAJ	02/16/05	0152	401838	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	SXL2	02/14/05	1600	401837

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

2/16/05

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 16, 2005
Page 1 of 1

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130640

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 401838										
QC1200789628 130638001 DUP										
Boron		215		217	ug/L	1		(0%-20%)	BAJ	02/16/05 00:34
QC1200789627 LCS										
Boron	100			110	ug/L		110	(80%-120%)		02/16/05 00:24
QC1200789626 MB										
Boron			J	1.10	ug/L					02/16/05 00:18
QC1200789629 130638001 MS										
Boron	100	215		337	ug/L		122	(75%-125%)		02/16/05 00:39
QC1200789630 130638001 SDILT										
Boron		215		49.6	ug/L	15.4				02/16/05 00:45

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 21, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130801
SDG: MSR#05-0551

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 16, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00030
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130801

February 21, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina February 16, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130801001	Seep #2
130801002	Seep #3
130801003	Seep #4

Items of Note:
There are no items to note.

Case Narrative:
Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Three groundwater samples were analyzed for Gamma, Sr-90, Boron and Tritium.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Inorganics and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Connecticut Yankee Atomic Power Company

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

Chain of Custody Form

No. 2005-00030

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	γ-Isotopic, Sr-90, Boron	H-3			Comment, Preservation	Lab Sample ID
Seep #2	02/08/05	0915	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	130801001
Seep #3	02/08/05	0920	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	130801002
Seep #4	02/08/05	0935	WG	G	4L,1L			X	X			4L w/HNO_3, 1L	130801003

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 05-0551 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Requested TATs for H-3, Boron, Gamma & Sr-90 is 7-days.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 17.0 Deg. C

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

1) Relinquished By: Matt Dubois	Date/Time 15:25 2/14/05
2) Received By: M. Mitchell	Date/Time 2-16-05 9:00
3) Relinquished By	Date/Time
4) Received By	Date/Time
5) Relinquished By	Date/Time
6) Received By	Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 2-16-05 9:00

SDG#: MSR# 05-0551

Work Order Number: 130801

Shipping Container ID: Fed Ex# 7922 0577 8276 Chain of Custody # 2005-00030

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 17.0°
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. 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

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

Sample Custodian/Laboratory: M. Mitchell Date: 2-16-05 9:00

Telephoned to: _____ On _____ By _____

SAMPLE RECEIPT & REVIEW FORM

GEN LABORATORIES, LLC

PM use only

Client: Connecticut Yankee Atomic	SDG/ARCOC/Work Order: 130801
Date Received: 2-16-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: MH	2/18/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				Id's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ,Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADII	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	20 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: ok Initials 2/18/05 Date:

2-22

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0551

Method/Analysis Information

Analytical Batch:	402648
Prep Batch:	402646
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
130801001	Seep #2
130801002	Seep #3
130801003	Seep #4
1200791532	Method Blank (MB) ICP-MS
1200791533	Laboratory Control Sample (LCS)
1200791536	130801001(Seep #2L) Serial Dilution (SD)
1200791534	130801001(Seep #2D) Sample Duplicate (DUP)
1200791535	130801001(Seep #2S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and

auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 130801001 (Seep #2).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations 25x the IDL for CVAA, 50X the IDL for ICP and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. Boron did not meet the established criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation

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

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

upon completion of the data package.

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

Reviewer: Allison M. C **Date:** 2/22/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: **Quarterly Groundwater PO# 002337**

Report Date: February 22, 2005

Client Sample ID: Seep #2
Sample ID: 130801001
Matrix: Ground Water
Collect Date: 08-FEB-05 09:15
Receive Date: 16-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		508	0.540	16.0	ug/L	1	BAJ	02/21/05	1025	402648	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. C 2/22/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Page 1 of 1

Client Sample ID: Seep #3
Sample ID: 130801002
Matrix: Ground Water
Collect Date: 08-FEB-05 09:20
Receive Date: 16-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		117	0.540	16.0	ug/L	1	BAJ	02/21/05	1035	402648	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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 2/22/05

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID: Seep #4
Sample ID: 130801003
Matrix: Ground Water
Collect Date: 08-FEB-05 09:35
Receive Date: 16-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		415	0.540	16.0	ug/L	1	BAJ	02/21/05	1038	402648	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison Ll-Cs 2/22/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 22, 2005
Page 1 of 1

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130801

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 402648										
QC1200791534 130801001 DUP										
Boron		508		521	ug/L	3		(0%-20%)	BAJ	02/21/05 10:27
QC1200791533 LCS										
Boron	100			105	ug/L		105	(80%-120%)		02/21/05 10:22
QC1200791532 MB										
Boron			J	1.51	ug/L					02/21/05 10:20
QC1200791535 130801001 MS										
Boron	100	508		620	ug/L		N/A	(75%-125%)		02/21/05 10:30
QC1200791536 130801001 SDILT										
Boron		508		125	ug/L	23				02/21/05 10:33

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0551

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	402748

Sample ID	**Client ID**
130801001	Seep #2
130801002	Seep #3
130801003	Seep #4
1200791748	Method Blank (MB)
1200791749	130801001(Seep #2) Sample Duplicate (DUP)
1200791750	130801001(Seep #2) Matrix Spike (MS)
1200791751	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 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: 130801001 (Seep #2).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	402709

Sample ID	**Client ID**
130801001	Seep #2
130801002	Seep #3
130801003	Seep #4
1200791666	Method Blank (MB)
1200791667	130801001(Seep #2) Sample Duplicate (DUP)
1200791668	130801001(Seep #2) Matrix Spike (MS)
1200791669	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 130801001 (Seep #2).

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. An NCR was not generated for this SDG.

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	402728

Sample ID	Client ID
130801001	Seep #2
130801002	Seep #3
130801003	Seep #4
1200791709	Method Blank (MB)
1200791710	130801001(Seep #2) Sample Duplicate (DUP)
1200791711	130801001(Seep #2) Matrix Spike (MS)
1200791712	Laboratory Control Sample (LCS)

SOP Reference
Procedures 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# 9.

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: 130801001 (Seep #2).

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. An 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:
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:

Heather G Clicow 2/22/05

Reviewer:_____

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0551 GEL Work Order: 130801

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID:	Seep #2	Project:	YANK01704
Sample ID:	130801001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-FEB-05		
Receive Date:	16-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-1.5	+/-19.0	13.8	+/-18.7	29.4	pCi/L		MJH1 02/17/05	2011	402748	1
Cesium-134	U	0.523	+/-2.68	2.24	+/-2.63	5.21	pCi/L					
Cesium-137	U	0.968	+/-2.71	2.33	+/-2.65	5.28	pCi/L					
Cobalt-60	U	0.384	+/-3.03	2.57	+/-2.97	6.08	pCi/L					
Europium-152	U	0.347	+/-8.15	6.83	+/-7.98	14.9	pCi/L					
Europium-154	U	-3.59	+/-7.49	5.40	+/-7.34	13.4	pCi/L					
Europium-155	U	-4.98	+/-11.1	8.59	+/-10.8	18.3	pCi/L					
Manganese-54	U	0.746	+/-2.77	2.08	+/-2.71	4.82	pCi/L					
Niobium-94	U	0.920	+/-2.59	2.22	+/-2.54	4.99	pCi/L					
Silver-108m	U	0.857	+/-2.75	2.36	+/-2.70	5.18	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		22.3	+/-1.36	0.372	+/-5.03	0.798	pCi/L		LCW1 02/18/05	1054	402709	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2970	+/-271	160	+/-275	328	pCi/L		ATH1 02/18/05	1424	402728	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	106	

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID: Seep #2
Sample ID: 130801001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID:	Seep #3	Project:	YANK01704
Sample ID:	130801002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-FEB-05		
Receive Date:	16-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	8.54	+/-16.6	14.3	+/-16.3	30.2	pCi/L		MJH1 02/17/05	2012	402748	1
Cesium-134	U	-2.82	+/-3.68	2.15	+/-3.61	4.94	pCi/L					
Cesium-137	U	-2.78	+/-2.83	2.02	+/-2.78	4.59	pCi/L					
Cobalt-60	U	0.732	+/-3.08	2.36	+/-3.01	5.57	pCi/L					
Europium-152	U	-5.29	+/-8.41	6.48	+/-8.24	14.1	pCi/L					
Europium-154	U	-2.08	+/-8.23	6.50	+/-8.06	15.3	pCi/L					
Europium-155	U	-7.8	+/-10.7	8.28	+/-10.5	17.6	pCi/L					
Manganese-54	U	-1.56	+/-2.64	1.95	+/-2.59	4.48	pCi/L					
Niobium-94	U	-1.38	+/-2.47	1.88	+/-2.42	4.26	pCi/L					
Silver-108m	U	3.07	+/-6.08	2.56	+/-5.96	5.55	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		4.63	+/-0.822	0.479	+/-1.48	1.02	pCi/L		LCW1 02/18/05	1054	402709	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	262	+/-199	160	+/-199	328	pCi/L		ATH1 02/18/05	1526	402728	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	86	

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

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID: Seep #3
Sample ID: 130801002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID:	Seep #4	Project:	YANK01704
Sample ID:	130801003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	08-FEB-05		
Receive Date:	16-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-5.04	+/-25.7	18.3	+/-25.2	39.1	pCi/L		MJH1 02/17/05	2012	402748	1
Cesium-134	U	-0.58	+/-2.85	2.21	+/-2.79	5.14	pCi/L					
Cesium-137	U	-0.908	+/-3.20	2.51	+/-3.13	5.64	pCi/L					
Cobalt-60	U	-0.0355	+/-2.97	2.43	+/-2.91	5.79	pCi/L					
Europium-152	U	-7.98	+/-9.55	6.87	+/-9.36	15.0	pCi/L					
Europium-154	U	0.948	+/-9.42	7.91	+/-9.23	18.4	pCi/L					
Europium-155	U	5.25	+/-11.4	10.0	+/-11.2	21.2	pCi/L					
Manganese-54	U	-0.628	+/-3.04	2.36	+/-2.98	5.37	pCi/L					
Niobium-94	U	1.27	+/-2.76	2.41	+/-2.71	5.36	pCi/L					
Silver-108m	U	-0.48	+/-2.83	2.34	+/-2.77	5.17	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		2.93	+/-0.652	0.429	+/-0.942	0.915	pCi/L		LCW1 02/18/05	1054	402709	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2370	+/-256	160	+/-259	328	pCi/L		ATH1 02/18/05	1629	402728	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/17/05	1000	402646

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	99	

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

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 22, 2005

Client Sample ID: Seep #4
Sample ID: 130801003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 22, 2005

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130801

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 402748										
QC1200791749 130801001 DUP										
Americium-241	U	-1.5	U	-1.42	pCi/L	N/A		(0% - 100%)	MJH1	02/17/05 22:54
	Uncert:	+/-19.0		+/-6.21						
	TPU:	+/-18.7		+/-6.08						
Cesium-134	U	0.523	U	0.0319	pCi/L	177		(0% - 100%)		
	Uncert:	+/-2.68		+/-3.65						
	TPU:	+/-2.63		+/-3.58						
Cesium-137	U	0.968	U	-1.09	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.71		+/-3.78						
	TPU:	+/-2.65		+/-3.70						
Cobalt-60	U	0.384	U	-0.692	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.03		+/-3.36						
	TPU:	+/-2.97		+/-3.29						
Europium-152	U	0.347	U	-1.5	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-8.15		+/-8.53						
	TPU:	+/-7.98		+/-8.36						
Europium-154	U	-3.59	U	3.86	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-7.49		+/-10.9						
	TPU:	+/-7.34		+/-10.7						
Europium-155	U	-4.98	U	-0.381	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-11.1		+/-7.96						
	TPU:	+/-10.8		+/-7.80						
Manganese-54	U	0.746	U	-2.16	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.77		+/-3.36						
	TPU:	+/-2.71		+/-3.29						
Niobium-94	U	0.920	U	-0.761	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.59		+/-2.99						
	TPU:	+/-2.54		+/-2.93						
Silver-108m	U	0.857	U	0.191	pCi/L	127		(0% - 100%)		
	Uncert:	+/-2.75		+/-3.16						
	TPU:	+/-2.70		+/-3.10						
QC1200791751 LCS										
Americium-241	1170			1260	pCi/L		108	(75%-125%)		02/18/05 07:14
	Uncert:			+/-237						
	TPU:			+/-233						
Cesium-134			U	2.62	pCi/L					
	Uncert:			+/-9.81						
	TPU:			+/-9.61						
Cesium-137	455			516	pCi/L		114	(75%-125%)		
	Uncert:			+/-48.4						
	TPU:			+/-47.4						
Cobalt-60	655			717	pCi/L		109	(75%-125%)		
	Uncert:			+/-62.6						

QC Summary

Workorder: 130801

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 402748										
	TPU:			+/-61.4						
Europium-152			U	2.73	pCi/L					
	Uncert:			+/-24.0						
	TPU:			+/-23.5						
Europium-154			U	7.04	pCi/L					
	Uncert:			+/-20.7						
	TPU:			+/-20.3						
Europium-155			U	2.48	pCi/L					
	Uncert:			+/-33.7						
	TPU:			+/-33.0						
Manganese-54			U	-4.05	pCi/L					
	Uncert:			+/-9.74						
	TPU:			+/-9.54						
Niobium-94			U	-2.09	pCi/L					
	Uncert:			+/-7.72						
	TPU:			+/-7.57						
Silver-108m			U	8.23	pCi/L					
	Uncert:			+/-8.85						
	TPU:			+/-8.67						
QC1200791748 MB										
Americium-241			U	-1.08	pCi/L					02/17/05 20:13
	Uncert:			+/-17.7						
	TPU:			+/-17.4						
Cesium-134			U	1.88	pCi/L					
	Uncert:			+/-4.06						
	TPU:			+/-3.98						
Cesium-137			U	4.16	pCi/L					
	Uncert:			+/-5.24						
	TPU:			+/-5.14						
Cobalt-60			U	6.74	pCi/L					
	Uncert:			+/-4.44						
	TPU:			+/-4.35						
Europium-152			U	0.177	pCi/L					
	Uncert:			+/-9.32						
	TPU:			+/-9.13						
Europium-154			U	0.934	pCi/L					
	Uncert:			+/-8.10						
	TPU:			+/-7.94						
Europium-155			U	2.64	pCi/L					
	Uncert:			+/-11.1						
	TPU:			+/-10.9						
Manganese-54			U	-2.73	pCi/L					
	Uncert:			+/-3.25						
	TPU:			+/-3.19						
Niobium-94			U	0.843	pCi/L					
	Uncert:			+/-2.80						
	TPU:			+/-2.74						
Silver-108m			U	0.776	pCi/L					

QC Summary

Workorder: 130801

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 402748										
	Uncert:			+/-2.74						
	TPU:			+/-2.69						
QC1200791750 130801001 MS										
Americium-241	4680 U	-1.5		3960	pCi/L		85			02/18/05 07:07
	Uncert:	+/-19.0		+/-770						
	TPU:	+/-18.7		+/-1080						
Cesium-134	U	0.523	U	0.335	pCi/L					
	Uncert:	+/-2.68		+/-58.7						
	TPU:	+/-2.63		+/-57.6						
Cesium-137	1820 U	0.968		1530	pCi/L		84			
	Uncert:	+/-2.71		+/-214						
	TPU:	+/-2.65		+/-365						
Cobalt-60	2630 U	0.384		2440	pCi/L		93			
	Uncert:	+/-3.03		+/-313						
	TPU:	+/-2.97		+/-568						
Europium-152	U	0.347	U	36.7	pCi/L					
	Uncert:	+/-8.15		+/-151						
	TPU:	+/-7.98		+/-148						
Europium-154	U	-3.59	U	-14.4	pCi/L					
	Uncert:	+/-7.49		+/-147						
	TPU:	+/-7.34		+/-144						
Europium-155	U	-4.98	U	15.5	pCi/L					
	Uncert:	+/-11.1		+/-157						
	TPU:	+/-10.8		+/-154						
Manganese-54	U	0.746	U	38.1	pCi/L					
	Uncert:	+/-2.77		+/-64.1						
	TPU:	+/-2.71		+/-63.2						
Niobium-94	U	0.920	U	-8.63	pCi/L					
	Uncert:	+/-2.59		+/-40.4						
	TPU:	+/-2.54		+/-39.7						
Silver-108m	U	0.857	U	-10.8	pCi/L					
	Uncert:	+/-2.75		+/-52.5						
	TPU:	+/-2.70		+/-51.5						
Rad Gas Flow										
Batch 402709										
QC1200791667 130801001 DUP										
Strontium-90		22.3		23.6	pCi/L	6		(0% - 20%)	LCW1	02/18/05 10:54
	Uncert:	+/-1.36		+/-1.41						
	TPU:	+/-5.03		+/-5.42						
QC1200791669 LCS										
Strontium-90	90.4			110	pCi/L		122	(75%-125%)		02/18/05 08:24
	Uncert:			+/-6.09						
	TPU:			+/-29.5						
QC1200791666 MB										
Strontium-90			U	0.285	pCi/L					02/18/05 10:54
	Uncert:			+/-0.395						
	TPU:			+/-0.399						
QC1200791668 130801001 MS										

QC Summary

Workorder: 130801

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 402709										
Strontium-90	181	22.3		172	pCi/L		83	(75%-125%)		
	Uncert:	+/-1.36		+/-9.21						
	TPU:	+/-5.03		+/-34.5						
Rad Liquid Scintillation										
Batch 402728										
QC1200791710 130801001 DUP										
Tritium		2970		3010	pCi/L	1		(0% - 20%)	ATH1	02/18/05 18:34
	Uncert:	+/-271		+/-271						
	TPU:	+/-275		+/-276						
QC1200791712 LCS										
Tritium	3.130E+06			3150	pCi/L		100	(75%-125%)		02/18/05 20:40
	Uncert:			+/-275						
	TPU:			+/-280						
QC1200791709 MB										
Tritium			U	-25.3	pCi/L					02/18/05 17:32
	Uncert:			+/-190						
	TPU:			+/-190						
QC1200791711 130801001 MS										
Tritium	3.140E+06	2970		5710	pCi/L		87	(75%-125%)		02/18/05 19:37
	Uncert:	+/-271		+/-327						
	TPU:	+/-275		+/-341						

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 130801

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

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

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

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
Meeting Today's Needs with a Vision for Tomorrow

February 23, 2005

Mr. Dave Keefer
CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424

Re: PO# 002337
Work Order: 130980
SDG: MSR#05-0632

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on February 18, 2005. This data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4243.

Sincerely,

Cheryl Jones
Project Manager

Chain of Custody: 2005-00036
Enclosures

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

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CASE NARRATIVE
For
CONNECTICUT YANKEE
PO# 002337
Work Order: 130980

February 23, 2005

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 samples arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina February 18, 2005. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory prepared the following samples:

Sample ID	Client Sample ID
130980001	Seep #2
130980002	Seep #3
130980003	Seep #4

Items of Note:
There are no items to note.

Case Narrative:
Sample analyses were conducted using methodology as outlined in General Engineering Laboratories (GEL) Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are listed below by analytical parameter.

Analytical Request:

Three groundwater samples were analyzed for Gamma, Sr-90, Boron and Tritium.

Internal Chain of Custody:

Custody was maintained for all of these samples.

Data Package:

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Inorganics and Radiochemistry.

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

Cheryl Jones
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2005-00036

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

1309801.

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
David Keefer 860-267-2556 (x3085)

Analytical Lab (Name, City, State):
General Engineering Lab (GEL), 2040 Savage Rd, Charleston, SC 29407, 843.556.8171 (Cheryl Jones)

Priority: ☐ 45 D. ☐ 30 D. ☐ 14 D. ☒ 7 D.
Other:

Lab Use Only

Sample Designation	Date	Time	Media Code	Sample Type Code	Container Size-&Type Code	MIX	STND	γ-Isotopic, Sr-90, Boron	H-3			Comment, Preservation	Lab Sample ID
Seep #2			WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #3			WG	G	4L,1L			X	X			4L w/HNO_3, 1L	
Seep #4			WG	G	4L,1L			X	X			4L w/HNO_3, 1L	

NOTES: PO #: 002337 MSR #: 05-0632 ☐ LTP QA ☐ Radwaste QA ☒ Non QA
Requested water analyses to typical groundwater MDC's. Requested TATs for H-3, Boron, Gamma & Sr-90 is 7-days.

Samples Shipped Via:
☒ Fed Ex
☐ UPS
☐ Hand
☐ Other ____
Bill of Lading #

Internal Container Temp.: 15.0 Deg. C

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

1) Relinquished By: Matt Davis Date/Time 2/17/05 1130 hrs.	2) Received By M. Mitchell Date/Time 2-18-05 9:15
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 2-18-05 9:15.

SDG#: MSR#05-0632

Work Order Number: 130980

Shipping Cohtainer ID: Fed Ex# 7915 5205 1589 Chain of Custody # N#2005-00036

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 15.0c
5. Vermiculite/packing materials is: Wet [ ] Dry [✓]
6. 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

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]
11. Description of anomalies (include sample numbers): Seep#2 2/15/05 1045, Seep#3 2/15/05 1100, Seep#4 2/15/05 1110.

Sample Custodian/Laboratory: M. Mitchell Date: 2-18-05 9:15

Telephoned to: ____ On ____ By ____

LABORATORIES, LLC

PM use only

Client: Connecticut Yankee	SDG/ARCOC/Work Order: 130980
Date Received: 2-18-05	PM(A) Review (ensure non-conforming items are resolved prior to signing):
Received By: LH	2/18/05

	Sample Receipt Criteria	Conforming	NA	Non-Conforming	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
2	Samples requiring cold preservation within (4 +/- 2 C)? Record preservation method.				Circle Coolant # ice bags blue ice dry ice none other(describe)
3	Chain of custody documents included with shipment?				
4	Sample containers intact and sealed?				Circle Applicable: seals broken damaged container leaking container other (describe)
5	Samples requiring chemical preservation at proper pH?				Sample ID's, containers affected and observed pH:
6	VOA vials free of headspace (defined as < 6mm bubble)?				Sample ID's and containers affected:
7	Samples received within holding time?				ID's and tests affected:
8	Sample ID's on COC match ID's on bottles?				Sample ID's and containers affected:
9	Date & time on COC match date & time on bottles?				Sample ID's affected:
10	Number of containers received match number indicated on COC?				Sample ID's affected:
11	COC form is properly signed in relinquished/received sections?				
12	Air Bill ;Tracking #'s, & Additional Comments				

Radiological Information	Non-RAD	RAD	RADIOACTIVE	RSO RAD Receipt #
What is the radiological classification of the samples?		✓		Comments:
Radioactivity Screening Results (maximum observed CPM)	80 cpm			*If > x2 area background is observed on a non-radioactive sample, contact the RSO to investigate.

PM (or PMA) review of Receiving Rad classification: OA Initials 2/18/05 Date:

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0632

Method/Analysis Information

Analytical Batch:	403348
Prep Batch:	403347
Standard Operating Procedures:	GL-MA-E-014 REV# 9, GL-MA-E-006 REV# 9
Analytical Method:	SW846 6020
Prep Method:	SW846 3005A

Sample Analysis

Sample ID	Client ID
130980001	Seep #2
130980002	Seep #3
130980003	Seep #4
1200793220	Method Blank (MB) ICP-MS
1200793221	Laboratory Control Sample (LCS)
1200793224	130980001(Seep #2L) Serial Dilution (SD)
1200793222	130980001(Seep #2D) Sample Duplicate (DUP)
1200793223	130980001(Seep #2S) Matrix Spike (MS)

Preparation/Analytical Method Verification

The SOP stated above has been prepared based on technical research and testing conducted by General Engineering Laboratories, LLC. and with guidance from the regulatory documents listed in this "Method/Analysis Information" section.

System Configuration

The ICP-MS analysis was performed on a Perkin Elmer ICP-MS ELAN 9000. The instrument is equipped with a cross-flow nebulizer, quadrupole mass spectrometer, and dual mode electron multiplier detector. Internal standards of scandium, germanium, indium, and tantalum were utilized to cover the mass spectrum. Operating conditions are set at 1400W power and combined argon pressures of 3607 kPa for the plasma and

auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

Calibration Information

Instrument Calibration
All initial calibration requirements have been met for this sample delivery group (SDG).

CRDL Requirements
All CRDL standard(s) met the referenced advisory control limits.

ICSA/ICSAB statement
All interference check samples (ICSA and ICSAB) associated with this SDG met the established acceptance criteria.

Continuing Calibration Blank (CCB) Requirements
All continuing calibration blanks (CCB) bracketing this batch met the established acceptance criteria.

Continuing Calibration Verification (CCV) Requirements
All continuing calibration verifications (CCV) bracketing this SDG met the acceptance criteria.

Quality Control (QC) Information

Method Blank (MB) Statement
The MB analyzed with this SDG met the acceptance criteria.

Laboratory Control Sample (LCS) Recovery
The LCS spike recoveries met the acceptance limits.

Quality Control (QC) Sample Statement
The following sample was selected as the quality control (QC) sample for this batch: 130980001 (Seep #2).

Matrix Spike (MS) Recovery Statement
The percent recoveries (%R) obtained from the MS analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. All applicable elements met the acceptance criteria.

Duplicate Relative Percent Difference (RPD) Statement
The RPD obtained from the designated sample duplicate (DUP) is evaluated based on acceptance criteria of 20% when the sample is >5X the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control of RL is used to evaluate the DUP results. All applicable analytes met these requirements.

Serial Dilution % Difference Statement

The serial dilution is used to assess matrix suppression or enhancement. Raw element concentrations that are 25X the IDL for CVAA, 50X the IDL for ICP, and 100X the IDL for ICP-MS analyses are applicable for serial dilution assessment. All applicable analytes met the acceptance criteria of less than 10% difference (%D).

Technical Information

Holding Time Specifications

GEL assigns holding times based on the associated methodology, which assigns the date and time from sample collection of sample receipt. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. All samples in this SDG met the specified holding time.

Preparation/Analytical Method Verification

All procedures were performed as stated in the SOP.

Sample Dilutions

Dilutions are performed to minimize matrix interferences resulting from elevated mineral element concentrations present in soil samples and/or to bring over range target analyte concentrations into the linear calibration range of the instrument. The samples in this SDG did not require dilutions.

Preparation Information

The samples in this SDG were prepared exactly according to the cited SOP.

Miscellaneous Information

Nonconformance Documentation

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

Additional Comments

Additional comments were not required for this SDG.

Certification Statement

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

Review Validation

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

upon completion of the data package.

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

Reviewer: Melissa H. E. **Date:** 2/24/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 24, 2005

Page 1 of 1

Client Sample ID: Seep #2
Sample ID: 130980001
Matrix: Ground Water
Collect Date: 15-FEB-05 10:45
Receive Date: 18-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		500	0.540	16.0	ug/L	1	BAJ	02/23/05	0954	403348	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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 2/24/05

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 24, 2005

Client Sample ID:	Seep #3	Project:	YANK01704
Sample ID:	130980002	Client ID:	YANK001
Matrix:	Ground Water		
Collect Date:	15-FEB-05 11:00		
Receive Date:	18-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		239	0.540	16.0	ug/L	1	BAJ	02/23/05	1005	403348	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. C 2/24/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 24, 2005

Client Sample ID: Seep #4
Sample ID: 130980003
Matrix: Ground Water
Collect Date: 15-FEB-05 11:10
Receive Date: 18-FEB-05
Collector: Client

Project: YANK01704
Client ID: YANK001

Parameter	Qualifier	Result	DL	RL	Units	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS											
3005/6020 Boron-ALL,STND,MIX											
Boron		49.7	0.540	16.0	ug/L	1	BAJ	02/23/05	1007	403348	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

The above sample is reported on an "as received" basis.

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.

Allison M. C 2/24/05
Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: February 24, 2005
Page 1 of 1

CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut

Contact: Mr. Dave Keefer

Workorder: 130980

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 403348										
QC1200793222 130980001 DUP										
Boron		500		484	ug/L	3		(0%-20%)	BAJ	02/23/05 09:56
QC1200793221 LCS										
Boron	100			115	ug/L		115	(80%-120%)		02/23/05 09:51
QC1200793220 MB										
Boron			J	1.77	ug/L					02/23/05 09:48
QC1200793223 130980001 MS										
Boron	100	500		644	ug/L		N/A	(75%-125%)		02/23/05 09:59
QC1200793224 130980001 SDILT										
Boron		500		109	ug/L	8.91				02/23/05 10:02

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

- * Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
- ** Indicates the analyte is a surrogate compound.
- B Target analyte was detected in the sample as well as the associated blank.
- BD Flag for results below the MDC or a flag for low tracer recovery.
- E Concentration of the target analyte exceeds the instrument calibration range.
- H Analytical holding time exceeded.
- J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the target analyte was analyzed for but not detected above the detection limit.
- UI Uncertain identification for gamma spectroscopy.
- X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
- h Sample preparation or preservation holding time exceeded.

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

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

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#05-0632

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	403506

Sample ID	**Client ID**
130980001	Seep #2
130980002	Seep #3
130980003	Seep #4
1200793590	Method Blank (MB)
1200793591	130980001(Seep #2) Sample Duplicate (DUP)
1200793592	130980001(Seep #2) Matrix Spike (MS)
1200793593	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# 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: 130980001 (Seep #2).

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 1200793592 (Seep #2) was 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. An NCR was not generated for this SDG.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Data rejected due to low abundance.	Cesium-134	130980003
UI	Data rejected due to no valid peak.	Americium-241	1200793590

Method/Analysis Information

Product:	**GFPC, Sr90, liquid-ALL,MIX**
Analytical Method:	EPA 905.0 Modified
Analytical Batch Number:	403535

Sample ID	Client ID
130980001	Seep #2
130980002	Seep #3
130980003	Seep #4
1200793665	Method Blank (MB)
1200793666	130980001(Seep #2) Sample Duplicate (DUP)
1200793667	130980001(Seep #2) Matrix Spike (MS)
1200793668	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# 9.

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: 130980001 (Seep #2).

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 1200793666 (Seep #2) and 130980001 (Seep #2) were recounted due to high relative percent difference/relative error ratio.

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

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. The following NCR was generated for this SDG:
NCR 182317 was generated due to Failed RPD for DUP. 1. The relative percent difference fails at 21 percent. A relative error ratio works with .973. Project manager was notified. 1. Reporting results

Additional Comments
Sample activity was verified with historical data for the following samples: 130980001 (Seep #2) and 130980002 (Seep #3).

Qualifier information
Manual qualifiers were not required.

Method/Analysis Information

Product:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	403554

Sample ID	Client ID
130980001	Seep #2
130980002	Seep #3
130980003	Seep #4
1200793693	Method Blank (MB)
1200793694	130980001(Seep #2) Sample Duplicate (DUP)
1200793695	130980001(Seep #2) Matrix Spike (MS)
1200793696	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# 9.

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: 130980001 (Seep #2).

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 1200793693 (MB) was recounted due to a negative result greater than three times the error.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. An 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:
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:

Heather G Chuou 9/25/05

Reviewer:_____

General Engineering Laboratories
Form GEL-XXX
Rev. 06/02

NCR Report No.: 182317
Revision No.: 1

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr.	Division:	Quality Criteria:	Type:
24-FEB-05	Radiochemistry	Specifications	Process
Instrument Type:	**Test / Method:**	**Matrix Type:**	**Client Code:**
GFPC	EPA 905.0 Modified	Liquid	YANK
Batch ID:	**Sample Numbers:**		
403535	See Below		

Potentially affected work order(s)(SDG): 130980(MSR#05-0632)

Application Issues:

Failed RPD for DUP

Specification and Requirements Nonconformance Description:	NRG Disposition:
1. The relative percent difference fails at 21 percent. A relative error ratio works with .973. Project manager was notified.	1. Reporting results

Originator's Name:
Wendy Hicks 24-FEB-05

Data Validator/Group Leader:
Heather Anderson 25-FEB-05

Quality Review:

Director:

SAMPLE DATA SUMMARY

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis Report
for

YANK001 Connecticut Yankee Atomic Power Co.

Client SDG: MSR#05-0632 GEL Work Order: 130980

The Qualifiers in this report are defined as follows:

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
< Result is less than amount reported.
> Result is greater than amount reported.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
P The response between the confirmation column and the primary column is >40%D.
R Sample results are rejected due to sample preservation with HCl.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
Y QC Samples were not spiked with this compound.
h Sample preparation or preservation holding time exceeded.

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.
** Indicates the analyte is a surrogate compound.
This data report has been prepared and reviewed in accordance with General Engineering Laboratories, LLC standard operating procedures. Please direct any questions to your Project Manager, Cheryl Jones.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID:	Seep #2	Project:	YANK01704
Sample ID:	130980001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-FEB-05		
Receive Date:	18-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	30.3	+/-23.2	14.7	+/-22.8	31.3	pCi/L		MJH1 02/22/05	1859	403506	1
Cesium-134	U	0.543	+/-2.79	2.39	+/-2.74	5.43	pCi/L					
Cesium-137	U	2.34	+/-3.01	2.54	+/-2.95	5.65	pCi/L					
Cobalt-60	U	3.08	+/-2.54	2.63	+/-2.49	6.07	pCi/L					
Europium-152	U	0.893	+/-8.50	7.10	+/-8.33	15.4	pCi/L					
Europium-154	U	-3.46	+/-8.79	6.82	+/-8.62	15.9	pCi/L					
Europium-155	U	5.60	+/-10.8	9.17	+/-10.6	19.4	pCi/L					
Manganese-54	U	-0.463	+/-2.79	2.24	+/-2.73	5.06	pCi/L					
Niobium-94	U	-1.3	+/-2.45	1.88	+/-2.41	4.28	pCi/L					
Silver-108m	U	-0.601	+/-2.76	2.19	+/-2.71	4.82	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		28.6	+/-2.13	0.619	+/-9.06	1.34	pCi/L		LCW1 02/22/05	1849	403535	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		1790	+/-339	204	+/-340	430	pCi/L		ATH1 02/21/05	1420	403554	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	74	

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

Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID: Seep #2
Sample ID: 130980001

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

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

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
** Indicates the analyte is a surrogate compound.
B Target analyte was detected in the sample as well as the associated blank.
BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

GENERAL ENGINEERING LABORATORIES, LLC

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID:	Seep #3	Project:	YANK01704
Sample ID:	130980002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-FEB-05		
Receive Date:	18-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.605	+/-16.5	13.5	+/-16.2	28.8	pCi/L		MJH1 02/22/05	1900	403506	1
Cesium-134	U	-2.03	+/-2.79	1.86	+/-2.73	4.44	pCi/L					
Cesium-137	U	-2.29	+/-3.28	2.37	+/-3.22	5.35	pCi/L					
Cobalt-60	U	2.79	+/-3.67	3.43	+/-3.60	7.80	pCi/L					
Europium-152	U	2.89	+/-8.86	7.61	+/-8.68	16.4	pCi/L					
Europium-154	U	1.13	+/-8.18	6.97	+/-8.01	16.5	pCi/L					
Europium-155	U	-7.04	+/-11.3	8.65	+/-11.1	18.4	pCi/L					
Manganese-54	U	-0.167	+/-2.63	2.07	+/-2.57	4.80	pCi/L					
Niobium-94	U	0.248	+/-2.77	2.27	+/-2.71	5.09	pCi/L					
Silver-108m	U	0.126	+/-2.83	2.35	+/-2.77	5.16	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90		11.4	+/-1.48	0.666	+/-4.04	1.44	pCi/L		LCW1 02/22/05	1849	403535	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	377	+/-252	192	+/-252	404	pCi/L		ATH1 02/21/05	1506	403554	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	69	

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

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

Certificate of Analysis

Company: CYAPCo
Address: Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID: Seep #3
Sample ID: 130980002

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

* Indicates that a quality control analyte recovery is outside of specified acceptance criteria.
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BD Flag for results below the MDC or a flag for low tracer recovery.
E Concentration of the target analyte exceeds the instrument calibration range.
H Analytical holding time exceeded.
J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
U Indicates the target analyte was analyzed for but not detected above the detection limit.
UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

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Certificate of Analysis

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362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID:	Seep #4	Project:	YANK01704
Sample ID:	130980003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	15-FEB-05		
Receive Date:	18-FEB-05		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	M
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-19.9	+/-28.7	19.9	+/-28.1	42.3	pCi/L		MJH1 02/22/05	1903	403506	1
Cesium-134	U	0.00	+/-7.56	2.79	+/-7.40	6.36	pCi/L					
	UI											
Cesium-137	U	2.28	+/-3.21	2.79	+/-3.15	6.25	pCi/L					
Cobalt-60	U	-1.84	+/-3.36	2.34	+/-3.29	5.71	pCi/L					
Europium-152	U	-1.36	+/-9.03	7.19	+/-8.85	15.8	pCi/L					
Europium-154	U	5.16	+/-8.27	7.73	+/-8.10	18.3	pCi/L					
Europium-155	U	-4.19	+/-13.4	11.0	+/-13.1	23.2	pCi/L					
Manganese-54	U	0.521	+/-2.60	2.24	+/-2.55	5.18	pCi/L					
Niobium-94	U	0.875	+/-2.76	2.41	+/-2.70	5.42	pCi/L					
Silver-108m	U	-1.09	+/-3.13	2.40	+/-3.07	5.32	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.487	+/-0.816	0.800	+/-0.831	1.71	pCi/L		LCW1 02/22/05	1849	403535	2
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		2120	+/-337	191	+/-339	403	pCi/L		ATH1 02/21/05	1552	403554	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	02/21/05	1200	403347

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	EPA 905.0 Modified
3	EPA 906.0 Modified

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	69	

GENERAL ENGINEERING LABORATORIES, LLC
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Certificate of Analysis

Company : CYAPCo
Address : Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut 06424
Contact: Mr. Dave Keefer
Project: Quarterly Groundwater PO# 002337

Report Date: February 25, 2005

Client Sample ID: Seep #4
Sample ID: 130980003

Project: YANK01704
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch M

Notes:
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H Analytical holding time exceeded.
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UI Uncertain identification for gamma spectroscopy.
X Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
h Sample preparation or preservation holding time exceeded.
The above sample is reported on an "as received" basis.

QUALITY CONTROL DATA

QC Summary

Report Date: February 25, 2005
Page 1 of 5

Client : CYAPCo
Haddam Neck Plant
362 Injun Hollow Road
East Hampton, Connecticut
Contact: Mr. Dave Keefer

Workorder: 130980

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 403506										
QC1200793591 130980001 DUP										
Americium-241	U	30.3	U	-8.53	pCi/L	N/A			MJH1	02/23/05 07:09
	Uncert:	+/-23.2		+/-12.6						
	TPU:	+/-22.8		+/-12.4						
Cesium-134	U	0.543	U	0.899	pCi/L	49		(0% - 100%)		
	Uncert:	+/-2.79		+/-2.02						
	TPU:	+/-2.74		+/-1.98						
Cesium-137	U	2.34	U	0.301	pCi/L	155		(0% - 100%)		
	Uncert:	+/-3.01		+/-1.74						
	TPU:	+/-2.95		+/-1.70						
Cobalt-60	U	3.08	U	0.0142	pCi/L	198		(0% - 100%)		
	Uncert:	+/-2.54		+/-2.11						
	TPU:	+/-2.49		+/-2.06						
Europium-152	U	0.893	U	2.86	pCi/L	105		(0% - 100%)		
	Uncert:	+/-8.50		+/-5.87						
	TPU:	+/-8.33		+/-5.76						
Europium-154	U	-3.46	U	3.73	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-8.79		+/-5.51						
	TPU:	+/-8.62		+/-5.40						
Europium-155	U	5.60	U	7.71	pCi/L	32		(0% - 100%)		
	Uncert:	+/-10.8		+/-9.46						
	TPU:	+/-10.6		+/-9.27						
Manganese-54	U	-0.463	U	0.210	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.79		+/-1.96						
	TPU:	+/-2.73		+/-1.92						
Niobium-94	U	-1.3	U	-0.887	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.45		+/-2.08						
	TPU:	+/-2.41		+/-2.04						
Silver-108m	U	-0.601	U	-0.631	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-2.76		+/-1.94						
	TPU:	+/-2.71		+/-1.90						
QC1200793593 LCS										
Americium-241	1170			1190	pCi/L		102	(75%-125%)		02/22/05 19:05
	Uncert:			+/-227						
	TPU:			+/-223						
Cesium-134			U	3.23	pCi/L					
	Uncert:			+/-13.9						
	TPU:			+/-13.6						
Cesium-137	455			456	pCi/L		100	(75%-125%)		
	Uncert:			+/-50.8						
	TPU:			+/-49.8						
Cobalt-60	654			703	pCi/L		108	(75%-125%)		
	Uncert:			+/-70.4						

QC Summary

Workorder: 130980

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 403506										
	TPU:			+/-69.0						
Europium-152			U	-9.54	pCi/L					
	Uncert:			+/-33.1						
	TPU:			+/-32.5						
Europium-154			U	0.601	pCi/L					
	Uncert:			+/-27.2						
	TPU:			+/-26.6						
Europium-155			U	-1.15	pCi/L					
	Uncert:			+/-41.9						
	TPU:			+/-41.0						
Manganese-54			U	-6.75	pCi/L					
	Uncert:			+/-14.0						
	TPU:			+/-13.7						
Niobium-94			U	-15.9	pCi/L					
	Uncert:			+/-10.8						
	TPU:			+/-10.5						
Silver-108m			U	-15	pCi/L					
	Uncert:			+/-11.9						
	TPU:			+/-11.7						
QC1200793590 MB										
Americium-241			UUI	0.00	pCi/L					02/22/05 19:03
	Uncert:			+/-27.9						
	TPU:			+/-27.3						
Cesium-134			U	-0.073	pCi/L					
	Uncert:			+/-2.70						
	TPU:			+/-2.65						
Cesium-137			U	1.84	pCi/L					
	Uncert:			+/-2.52						
	TPU:			+/-2.47						
Cobalt-60			U	-0.369	pCi/L					
	Uncert:			+/-2.46						
	TPU:			+/-2.41						
Europium-152			U	0.857	pCi/L					
	Uncert:			+/-7.38						
	TPU:			+/-7.23						
Europium-154			U	7.99	pCi/L					
	Uncert:			+/-6.58						
	TPU:			+/-6.45						
Europium-155			U	3.09	pCi/L					
	Uncert:			+/-8.04						
	TPU:			+/-7.88						
Manganese-54			U	-1.47	pCi/L					
	Uncert:			+/-2.47						
	TPU:			+/-2.42						
Niobium-94			U	-0.936	pCi/L					
	Uncert:			+/-2.34						
	TPU:			+/-2.29						
Silver-108m			U	-0.0358	pCi/L					

QC Summary

Workorder: 130980

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 403506										
	Uncert:			+/-2.31						
	TPU:			+/-2.26						
QC1200793592 130980001 MS										
Americium-241	8500 U	30.3		10400	pCi/L		121			02/24/05 10:19
	Uncert:	+/-23.2		+/-1350						
	TPU:	+/-22.8		+/-3930						
Cesium-134	U	0.543	U	-7.74	pCi/L					
	Uncert:	+/-2.79		+/-123						
	TPU:	+/-2.74		+/-121						
Cesium-137	3310 U	2.34		3380	pCi/L		102			
	Uncert:	+/-3.01		+/-441						
	TPU:	+/-2.95		+/-1280						
Cobalt-60	4770 U	3.08		4740	pCi/L		99			
	Uncert:	+/-2.54		+/-556						
	TPU:	+/-2.49		+/-1770						
Europium-152	U	0.893	U	71.3	pCi/L					
	Uncert:	+/-8.50		+/-263						
	TPU:	+/-8.33		+/-259						
Europium-154	U	-3.46	U	-146	pCi/L					
	Uncert:	+/-8.79		+/-281						
	TPU:	+/-8.62		+/-280						
Europium-155	U	5.60	U	310	pCi/L					
	Uncert:	+/-10.8		+/-316						
	TPU:	+/-10.6		+/-329						
Manganese-54	U	-0.463	U	-32.9	pCi/L					
	Uncert:	+/-2.79		+/-116						
	TPU:	+/-2.73		+/-114						
Niobium-94	U	-1.3	U	-68.6	pCi/L					
	Uncert:	+/-2.45		+/-119						
	TPU:	+/-2.41		+/-119						
Silver-108m	U	-0.601	U	-35.5	pCi/L					
	Uncert:	+/-2.76		+/-97.0						
	TPU:	+/-2.71		+/-95.9						
Rad Gas Flow										
Batch 403535										
QC1200793666 130980001 DUP										
Strontium-90		28.6		23.3	pCi/L	21*		(0% - 20%)	LCW1	02/22/05 18:49
	Uncert:	+/-2.13		+/-1.68						
	TPU:	+/-9.06		+/-5.78						
QC1200793668 LCS										
Strontium-90	90.4			81.5	pCi/L		90	(75%-125%)		02/22/05 17:19
	Uncert:			+/-4.89						
	TPU:			+/-19.8						
QC1200793665 MB										
Strontium-90			U	0.0562	pCi/L					02/22/05 18:49
	Uncert:			+/-0.503						
	TPU:			+/-0.504						
QC1200793667 130980001 MS										

QC Summary

Workorder: 130980

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 403535										
Strontium-90	181	28.6		224	pCi/L		108	(75%-125%)		
	Uncert:	+/-2.13		+/-12.3						
	TPU:	+/-9.06		+/-60.4						
Rad Liquid Scintillation										
Batch 403554										
QC1200793694 130980001 DUP										
Tritium		1790		1920	pCi/L	7		(0% - 100%)	ATH1	02/21/05 17:24
	Uncert:	+/-339		+/-334						
	TPU:	+/-340		+/-336						
QC1200793696 LCS										
Tritium	3.130E+06			2590	pCi/L		83	(75%-125%)		02/21/05 18:56
	Uncert:			+/-359						
	TPU:			+/-362						
QC1200793693 MB										
Tritium			U	64.2	pCi/L					02/22/05 16:14
	Uncert:			+/-183						
	TPU:			+/-183						
QC1200793695 130980001 MS										
Tritium	3.140E+06	1790		4930	pCi/L		100	(75%-125%)		02/21/05 18:10
	Uncert:	+/-339		+/-440						
	TPU:	+/-340		+/-448						

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- h Sample preparation or preservation holding time exceeded.

QC Summary

Workorder: 130980

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

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.