RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-1807

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	347826

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200660111	Method Blank (MB)
1200660114	Laboratory Control Sample (LCS)
1200660112	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200660113	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	347828

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200660120	Method Blank (MB)
1200660123	Laboratory Control Sample (LCS)
1200660121	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200660122	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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
Manual integration of alpha spectroscopy spectra 1200660120 (MB) 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:	**Liquid Scint Pu241, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	347829

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200660132	Method Blank (MB)
1200660135	Laboratory Control Sample (LCS)
1200660133	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200660134	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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:	346796

Sample ID	Client ID
115774001	MW-108S-0204-001
115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S
115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774010	MW100D-0204-001

115774011	MW507D-0204-001
115774012	MW507S-0204-001
115774013	MW503-0204-001
115774014	MW502-0204-001
115774015	MW505-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200657513	Method Blank (MB)
1200657516	Laboratory Control Sample (LCS)
1200657514	115774001(MW-108S-0204-001) Sample Duplicate (DUP)
1200657515	115774001(MW-108S-0204-001) 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-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: 115774001 (MW-108S-0204-001).

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	115774013

Method/Analysis Information

Product: **Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method: EPA 900.0
Analytical Batch Number: 350128

Sample ID	Client ID
115774001	MW-108S-0204-001
115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S
115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774010	MW100D-0204-001
115774011	MW507D-0204-001
115774012	MW507S-0204-001
115774013	MW503-0204-001
115774014	MW502-0204-001
115774015	MW505-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200665719	Method Blank (MB)
1200665723	Laboratory Control Sample (LCS)
1200665720	115774001(MW-108S-0204-001) Sample Duplicate (DUP)
1200665721	115774001(MW-108S-0204-001) Matrix Spike (MS)
1200665722	115774001(MW-108S-0204-001) Matrix Spike Duplicate (MSD)

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: 115774001 (MW-108S-0204-001).

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 115774001 (MW-108S-0204-001) and 1200665720 (MW-108S-0204-001) 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.

Additional Comments
Alpha duplicate rpd fails at 155%, however when the duplicate result is raised to the mda, the calculation passes at 81%.

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:	351394

Sample ID	Client ID
115774001	MW-108S-0204-001

115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S
115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200668742	Method Blank (MB)
1200668745	Laboratory Control Sample (LCS)
1200668743	115774005 (MW-124S) Sample Duplicate (DUP)
1200668744	115774005(MW-124S) 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-RAD-A-004 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: 115774005 (MW-124S).

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 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. An NCR was not generated for this SDG.

Additional Comments
Samples 115774004 (MW-125S), 115774016 (MW-103S-0204-001) and 115774018 (MW-106S-0204-001) were verified by the gross beta results.

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:	346017

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200655689	Method Blank (MB)
1200655692	Laboratory Control Sample (LCS)
1200655690	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200655691	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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:	345524

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200654552	Method Blank (MB)
1200654555	Laboratory Control Sample (LCS)
1200654553	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200654554	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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.

Additional Comments
The following samples have large negative results due to the Iron-59 cross-talk correction: 115774016 (MW-103S-0204-001), 115774017 (MW-104S-0204-001), 115774018 (MW-106S-0204-001), 115774019 (MW-106D-0204-001), 1200654552 (MB) and 1200654553 (MW-103S-0204-001).

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:	345523

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200654548	Method Blank (MB)
1200654551	Laboratory Control Sample (LCS)
1200654549	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200654550	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	345392

Sample ID	Client ID
115774001	MW-108S-0204-001
115774002	MW-122S-0204-001
115774003	MW-114S-0204-001
115774004	MW-125S

115774005	MW-124S
115774006	MW-101D-0204-001
115774007	EOF2-0204-001
115774008	MW-101S-0204-001
115774009	MW-123S-0204-001
115774010	MW100D-0204-001
115774011	MW507D-0204-001
115774012	MW507S-0204-001
115774013	MW503-0204-001
115774014	MW502-0204-001
115774015	MW505-0204-001
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200654328	Method Blank (MB)
1200654331	Laboratory Control Sample (LCS)
1200654329	115774001(MW-108S-0204-001) Sample Duplicate (DUP)
1200654330	115774001(MW-108S-0204-001) 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-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: 115774001 (MW-108S-0204-001).

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 115774003 (MW-114S-0204-001) and 115774005 (MW-124S) were recounted due to the quench number being outside the calibration range.

Miscellaneous Information:

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

Additional Comments
Samples 115774011 (MW507D-0204-001) and 115774012 (MW507S-0204-001) were received and ran preserved with client permission per e-mail from Dave Keefer dated 7/12/04.

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:	345987

Sample ID	Client ID
115774016	MW-103S-0204-001
115774017	MW-104S-0204-001
115774018	MW-106S-0204-001
115774019	MW-106D-0204-001
1200655617	Method Blank (MB)
1200655620	Laboratory Control Sample (LCS)
1200655618	115774016(MW-103S-0204-001) Sample Duplicate (DUP)
1200655619	115774016(MW-103S-0204-001) 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-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: 115774016 (MW-103S-0204-001).

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: [signature] 7/27/04

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: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID:	MW-108S-0204-001	Project:	YANK00304
Sample ID:	115774001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	3.74	+/-10.3	8.96	+/-10.0	18.9	pCi/L		SRB 07/21/04	1423	346796	1
Cesium-134	U	0.667	+/-1.84	1.59	+/-1.80	3.56	pCi/L					
Cesium-137	U	-0.215	+/-1.89	1.56	+/-1.86	3.43	pCi/L					
Cobalt-60	U	5.25	+/-2.64	2.70	+/-2.59	5.87	pCi/L					
Europium-152	U	-3.42	+/-5.71	4.33	+/-5.59	9.29	pCi/L					
Europium-154	U	0.457	+/-5.26	4.27	+/-5.15	9.84	pCi/L					
Europium-155	U	0.673	+/-6.73	5.71	+/-6.60	12.0	pCi/L					
Manganese-54	U	-0.585	+/-1.90	1.50	+/-1.86	3.33	pCi/L					
Niobium-94	U	1.71	+/-1.66	1.54	+/-1.63	3.35	pCi/L					
Silver-108m	U	1.50	+/-1.73	1.50	+/-1.69	3.24	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.0577	+/-0.567	0.623	+/-0.567	1.40	pCi/L		HOB1 07/27/04	0836	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		3.90	+/-1.64	1.16	+/-1.67	2.55	pCi/L		ATH1 07/27/04	1403	350128	4
Beta		5.72	+/-1.74	1.40	+/-1.76	2.92	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	136	+/-154	126	+/-154	251	pCi/L		JLB1 07/14/04	1135	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-108S-0204-001
Sample ID: 115774001

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

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

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, Sarah Kozlik.

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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: July 27, 2004

Client Sample ID:	MW-122S-0204-001	Project:	YANK00304
Sample ID:	115774002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	13.0	+/-18.0	13.8	+/-17.7	28.8	pCi/L		SRB	07/21/04	1424	346796	1
Cesium-134	U	2.44	+/-4.14	2.01	+/-4.06	4.41	pCi/L						
Cesium-137	U	0.551	+/-2.12	1.77	+/-2.08	3.87	pCi/L						
Cobalt-60	U	0.857	+/-2.32	2.02	+/-2.28	4.55	pCi/L						
Europium-152	U	0.606	+/-6.21	5.20	+/-6.08	11.1	pCi/L						
Europium-154	U	3.66	+/-5.61	4.72	+/-5.49	10.8	pCi/L						
Europium-155	U	-2.81	+/-9.19	7.27	+/-9.01	15.1	pCi/L						
Manganese-54	U	0.584	+/-1.81	1.59	+/-1.78	3.55	pCi/L						
Niobium-94	U	0.651	+/-1.77	1.49	+/-1.74	3.29	pCi/L						
Silver-108m	U	-1.58	+/-2.07	1.57	+/-2.03	3.41	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.568	+/-0.493	0.429	+/-0.510	0.977	pCi/L		HOB1	07/27/04	0836	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		4.88	+/-1.33	0.732	+/-1.36	1.60	pCi/L		ATH1	07/22/04	0451	350128	4
Beta		8.40	+/-1.54	1.07	+/-1.56	2.21	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		645	+/-158	116	+/-158	233	pCi/L		JLB1	07/14/04	1237	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-122S-0204-001
Sample ID: 115774002

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	96	

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

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, Sarah Kozlik.

Heather Curry
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: July 27, 2004

Client Sample ID:	MW-114S-0204-001	Project:	YANK00304
Sample ID:	115774003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	6.68	+/-13.1	10.1	+/-12.8	21.0	pCi/L		SRB	07/21/04	1426	346796	1
Cesium-134	U	-1.58	+/-2.16	1.63	+/-2.12	3.58	pCi/L						
Cesium-137	U	1.57	+/-1.89	1.70	+/-1.85	3.68	pCi/L						
Cobalt-60	U	1.17	+/-1.83	1.67	+/-1.79	3.76	pCi/L						
Europium-152	U	0.770	+/-5.79	4.82	+/-5.68	10.2	pCi/L						
Europium-154	U	1.31	+/-4.87	4.23	+/-4.78	9.61	pCi/L						
Europium-155	U	0.0514	+/-7.39	6.03	+/-7.25	12.6	pCi/L						
Manganese-54	U	-0.0794	+/-1.77	1.45	+/-1.74	3.20	pCi/L						
Niobium-94	U	-0.379	+/-1.61	1.31	+/-1.58	2.86	pCi/L						
Silver-108m	U	0.386	+/-2.01	1.66	+/-1.97	3.53	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.541	+/-0.571	0.528	+/-0.588	1.19	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		6.29	+/-1.19	0.495	+/-1.22	1.11	pCi/L		ATH1	07/22/04	0451	350128	4
Beta		8.11	+/-1.45	1.02	+/-1.46	2.08	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		6730	+/-420	214	+/-433	427	pCi/L		JLB1	07/21/04	2102	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-114S-0204-001
Sample ID: 115774003

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	84	

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

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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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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: July 27, 2004

Client Sample ID:	MW-125S	Project:	YANK00304
Sample ID:	115774004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.984	+/-15.3	11.0	+/-15.0	23.0	pCi/L		SRB	07/21/04	1426	346796	1
Cesium-134	U	0.500	+/-2.12	1.79	+/-2.08	3.93	pCi/L						
Cesium-137	U	1.26	+/-2.03	1.79	+/-1.99	3.88	pCi/L						
Cobalt-60	U	1.95	+/-1.78	1.64	+/-1.74	3.71	pCi/L						
Europium-152	U	-3.97	+/-6.42	4.99	+/-6.29	10.6	pCi/L						
Europium-154	U	3.35	+/-5.51	4.98	+/-5.40	11.1	pCi/L						
Europium-155	U	2.71	+/-8.59	6.97	+/-8.42	14.5	pCi/L						
Manganese-54	U	-0.535	+/-2.08	1.65	+/-2.04	3.62	pCi/L						
Niobium-94	U	1.15	+/-2.23	1.52	+/-2.18	3.30	pCi/L						
Silver-108m	U	0.854	+/-2.00	1.67	+/-1.96	3.57	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		1.78	+/-0.742	0.505	+/-0.881	1.15	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.36	+/-0.789	0.366	+/-0.795	0.860	pCi/L		ATH1	07/22/04	0451	350128	4
Beta		11.8	+/-1.52	0.982	+/-1.55	2.02	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		2170	+/-197	118	+/-200	236	pCi/L		JLB1	07/14/04	1442	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-125S
Sample ID: 115774004

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	83	

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

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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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Heather A Cox
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: July 27, 2004

Client Sample ID:	MW-124S	Project:	YANK00304
Sample ID:	115774005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	19.2	+/-24.3	11.5	+/-23.8	24.1	pCi/L		SRB	07/21/04	1427	346796	1
Cesium-134	U	0.340	+/-1.96	1.42	+/-1.92	3.19	pCi/L						
Cesium-137	U	-0.912	+/-1.91	1.47	+/-1.87	3.22	pCi/L						
Cobalt-60	U	-0.263	+/-2.05	1.65	+/-2.01	3.74	pCi/L						
Europium-152	U	1.35	+/-5.43	4.16	+/-5.32	8.91	pCi/L						
Europium-154	U	1.00	+/-4.36	3.76	+/-4.27	8.72	pCi/L						
Europium-155	U	4.87	+/-6.93	5.95	+/-6.79	12.4	pCi/L						
Manganese-54	U	0.268	+/-1.66	1.37	+/-1.63	3.05	pCi/L						
Niobium-94	U	1.12	+/-1.84	1.59	+/-1.80	3.43	pCi/L						
Silver-108m	U	2.19	+/-1.69	1.60	+/-1.66	3.42	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	1.33	+/-0.791	0.664	+/-0.872	1.47	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.09	+/-1.32	1.04	+/-1.32	2.20	pCi/L		ATH1	07/22/04	0412	350128	4
Beta		4.98	+/-1.66	1.28	+/-1.67	2.62	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1770	+/-296	205	+/-298	410	pCi/L		JLB1	07/21/04	2205	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-124S
Sample ID: 115774005

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	80	

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

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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Heather Ceraldi
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: July 27, 2004

Client Sample ID:	MW-101D-0204-001	Project:	YANK00304
Sample ID:	115774006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.665	+/-13.7	9.77	+/-13.4	20.4	pCi/L		SRB	07/21/04	1428	346796	1
Cesium-134	U	-0.136	+/-2.23	1.78	+/-2.19	3.92	pCi/L						
Cesium-137	U	1.38	+/-1.81	1.61	+/-1.77	3.52	pCi/L						
Cobalt-60	U	1.97	+/-1.73	1.71	+/-1.70	3.90	pCi/L						
Europium-152	U	-0.267	+/-6.05	4.77	+/-5.93	10.1	pCi/L						
Europium-154	U	2.68	+/-5.81	4.75	+/-5.70	10.8	pCi/L						
Europium-155	U	5.14	+/-7.58	6.03	+/-7.43	12.6	pCi/L						
Manganese-54	U	0.0144	+/-2.14	1.71	+/-2.10	3.76	pCi/L						
Niobium-94	U	-1.44	+/-2.03	1.25	+/-1.99	2.77	pCi/L						
Silver-108m	U	-0.828	+/-1.83	1.47	+/-1.79	3.17	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.0309	+/-0.490	0.542	+/-0.490	1.23	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		8.50	+/-1.34	0.575	+/-1.58	1.26	pCi/L		ATH1	07/22/04	0412	350128	4
Beta		6.18	+/-1.40	1.00	+/-1.42	2.06	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	15.5	+/-145	121	+/-145	242	pCi/L		JLB1	07/14/04	1647	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-101D-0204-001
Sample ID: 115774006

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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 :

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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

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: July 27, 2004

Client Sample ID:	EOF2-0204-001	Project:	YANK00304
Sample ID:	115774007	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-2.78	+/-10.6	8.61	+/-10.4	18.0	pCi/L		SRB	07/21/04	1428	346796	1
Cesium-134	U	0.192	+/-1.82	1.47	+/-1.78	3.26	pCi/L						
Cesium-137	U	0.605	+/-1.79	1.50	+/-1.76	3.27	pCi/L						
Cobalt-60	U	0.179	+/-2.03	1.47	+/-1.99	3.33	pCi/L						
Europium-152	U	4.12	+/-5.54	4.85	+/-5.43	10.2	pCi/L						
Europium-154	U	-0.808	+/-3.94	3.10	+/-3.86	7.27	pCi/L						
Europium-155	U	-5.68	+/-7.40	5.76	+/-7.25	12.0	pCi/L						
Manganese-54	U	0.174	+/-1.73	1.47	+/-1.69	3.23	pCi/L						
Niobium-94	U	0.293	+/-1.80	1.48	+/-1.77	3.18	pCi/L						
Silver-108m	U	1.32	+/-1.78	1.55	+/-1.74	3.30	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.131	+/-0.504	0.596	+/-0.506	1.34	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.58	+/-0.825	0.418	+/-0.855	0.949	pCi/L		ATH1	07/22/04	0412	350128	4
Beta		3.30	+/-1.40	1.09	+/-1.41	2.24	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	196	+/-176	143	+/-176	286	pCi/L		JLB1	07/14/04	1749	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: EOF2-0204-001
Sample ID: 115774007

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	75	

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: July 27, 2004

Client Sample ID:	MW-101S-0204-001	Project:	YANK00304
Sample ID:	115774008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.22	+/-3.40	2.93	+/-3.33	6.11	pCi/L		SRB	07/21/04	1429	346796	1
Cesium-134	U	-0.693	+/-2.11	1.67	+/-2.07	3.68	pCi/L						
Cesium-137	U	-0.254	+/-2.00	1.65	+/-1.96	3.59	pCi/L						
Cobalt-60	U	0.503	+/-1.94	1.67	+/-1.90	3.78	pCi/L						
Europium-152	U	2.10	+/-4.96	4.25	+/-4.86	9.04	pCi/L						
Europium-154	U	0.0777	+/-6.34	5.26	+/-6.21	11.7	pCi/L						
Europium-155	U	2.00	+/-5.53	4.66	+/-5.42	9.72	pCi/L						
Manganese-54	U	-1.17	+/-1.94	1.47	+/-1.90	3.26	pCi/L						
Niobium-94	U	-0.645	+/-1.81	1.45	+/-1.77	3.16	pCi/L						
Silver-108m	U	0.851	+/-1.78	1.51	+/-1.74	3.24	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.242	+/-0.414	0.527	+/-0.420	1.20	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.59	+/-0.939	0.665	+/-0.949	1.44	pCi/L		ATH1	07/22/04	0412	350128	4
Beta		3.27	+/-1.40	1.09	+/-1.41	2.25	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	252	+/-179	144	+/-179	288	pCi/L		JLB1	07/14/04	1852	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW-101S-0204-001
Sample ID: 115774008

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	79	

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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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: July 27, 2004

Client Sample ID:	MW-123S-0204-001	Project:	YANK00304
Sample ID:	115774009	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	12.9	+/-16.8	13.8	+/-16.5	29.0	pCi/L		SRB	07/21/04	1429	346796	1
Cesium-134	U	1.84	+/-2.80	1.58	+/-2.74	3.47	pCi/L						
Cesium-137	U	2.46	+/-1.98	1.83	+/-1.94	3.93	pCi/L						
Cobalt-60	U	0.781	+/-1.78	1.59	+/-1.75	3.59	pCi/L						
Europium-152	U	0.146	+/-5.52	4.42	+/-5.41	9.42	pCi/L						
Europium-154	U	0.979	+/-4.73	4.07	+/-4.63	9.27	pCi/L						
Europium-155	U	0.191	+/-7.12	6.02	+/-6.98	12.6	pCi/L						
Manganese-54	U	-0.696	+/-1.69	1.29	+/-1.66	2.88	pCi/L						
Niobium-94	U	-1.22	+/-2.08	1.37	+/-2.04	2.99	pCi/L						
Silver-108m	U	0.323	+/-1.84	1.58	+/-1.80	3.37	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.471	+/-0.617	0.605	+/-0.629	1.34	pCi/L		HOB1	07/27/04	0931	351394	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		4.63	+/-1.12	0.572	+/-1.21	1.25	pCi/L		ATH1	07/22/04	0419	350128	4
Beta		19.6	+/-1.84	1.12	+/-1.98	2.29	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	174	+/-187	153	+/-188	306	pCi/L		JLB1	07/14/04	1954	345392	5

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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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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: July 27, 2004

Client Sample ID: MW-123S-0204-001
Sample ID: 115774009

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	86	

Notes:
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Heather G Cicotti
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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: July 27, 2004

Client Sample ID:	MW100D-0204-001	Project:	YANK00304
Sample ID:	115774010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.61	+/-3.52	2.98	+/-3.45	6.22	pCi/L		SRB	07/21/04	1430	346796	1
Cesium-134	U	3.84	+/-4.84	2.43	+/-4.74	5.28	pCi/L						
Cesium-137	U	0.390	+/-2.32	1.99	+/-2.27	4.32	pCi/L						
Cobalt-60	U	5.20	+/-2.37	2.54	+/-2.32	5.63	pCi/L						
Europium-152	U	0.428	+/-6.06	5.03	+/-5.94	10.7	pCi/L						
Europium-154	U	-0.717	+/-5.85	4.83	+/-5.73	11.2	pCi/L						
Europium-155	U	-3.34	+/-5.90	4.56	+/-5.78	9.55	pCi/L						
Manganese-54	U	-0.415	+/-2.48	2.01	+/-2.43	4.42	pCi/L						
Niobium-94	U	-0.828	+/-2.35	1.91	+/-2.31	4.13	pCi/L						
Silver-108m	U	-2.46	+/-2.14	1.53	+/-2.10	3.32	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.38	+/-1.01	0.679	+/-1.03	1.46	pCi/L		ATH1	07/22/04	0419	350128	2
Beta	U	1.02	+/-1.37	1.12	+/-1.37	2.29	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	1.80	+/-183	153	+/-183	306	pCi/L		JLB1	07/14/04	2057	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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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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: July 27, 2004

Client Sample ID: MW100D-0204-001
Sample ID: 115774010

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 27, 2004

Client Sample ID:	MW507D-0204-001	Project:	YANK00304
Sample ID:	115774011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.462	+/-8.97	6.69	+/-8.79	13.8	pCi/L		SRB	07/21/04	1939	346796	1
Cesium-134	U	-0.0531	+/-1.42	1.17	+/-1.40	2.51	pCi/L						
Cesium-137	U	0.474	+/-1.31	1.13	+/-1.29	2.39	pCi/L						
Cobalt-60	U	-0.597	+/-1.59	1.27	+/-1.56	2.75	pCi/L						
Europium-152	U	-0.753	+/-3.96	3.24	+/-3.88	6.75	pCi/L						
Europium-154	U	2.96	+/-4.13	3.66	+/-4.05	7.90	pCi/L						
Europium-155	U	-1.98	+/-5.46	4.39	+/-5.35	9.03	pCi/L						
Manganese-54	U	-0.166	+/-1.26	1.02	+/-1.23	2.20	pCi/L						
Niobium-94	U	0.612	+/-1.18	1.02	+/-1.15	2.16	pCi/L						
Silver-108m	U	-0.437	+/-1.38	1.10	+/-1.35	2.31	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		28.8	+/-2.16	0.492	+/-3.04	1.09	pCi/L		ATH1	07/22/04	0419	350128	2
Beta		15.2	+/-1.71	1.08	+/-1.78	2.21	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	112	+/-186	153	+/-186	306	pCi/L		JLB1	07/14/04	2159	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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

Report Date: July 27, 2004

Client Sample ID: MW507D-0204-001
Sample ID: 115774011

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

Report Date: July 27, 2004

Client Sample ID:	MW507S-0204-001	Project:	YANK00304
Sample ID:	115774012	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	5.48	+/-7.99	5.99	+/-7.83	12.4	pCi/L		SRB	07/21/04	1955	346796	1
Cesium-134	U	0.397	+/-1.35	1.13	+/-1.32	2.43	pCi/L						
Cesium-137	U	-0.208	+/-1.29	1.05	+/-1.27	2.25	pCi/L						
Cobalt-60	U	1.00	+/-1.34	1.21	+/-1.32	2.64	pCi/L						
Europium-152	U	-0.657	+/-3.85	3.04	+/-3.77	6.37	pCi/L						
Europium-154	U	-0.325	+/-3.49	2.86	+/-3.42	6.33	pCi/L						
Europium-155	U	3.66	+/-4.68	4.08	+/-4.59	8.42	pCi/L						
Manganese-54	U	0.612	+/-1.22	1.04	+/-1.20	2.23	pCi/L						
Niobium-94	U	0.703	+/-1.36	1.03	+/-1.34	2.20	pCi/L						
Silver-108m	U	0.830	+/-1.92	0.988	+/-1.88	2.09	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.42	+/-0.962	0.700	+/-0.968	1.51	pCi/L		ATH1	07/22/04	0419	350128	2
Beta		3.95	+/-1.49	1.15	+/-1.49	2.36	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	47.7	+/-176	146	+/-176	292	pCi/L		JLB1	07/14/04	2302	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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:

B Target analyte was detected in the sample as well as the associated blank.

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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: July 27, 2004

Client Sample ID: MW507S-0204-001
Sample ID: 115774012

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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Heather D. Arcadel
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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: July 27, 2004

Client Sample ID:	MW503-0204-001	Project:	YANK00304
Sample ID:	115774013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	5.17	+/-9.57	6.53	+/-9.38	13.5	pCi/L		SRB	07/21/04	1957	346796	1
Cesium-134	U	-0.588	+/-1.52	1.17	+/-1.49	2.52	pCi/L						
Cesium-137	U	-0.615	+/-1.40	1.10	+/-1.38	2.35	pCi/L						
Cobalt-60	U	0.0962	+/-1.38	1.13	+/-1.35	2.50	pCi/L						
Europium-152	U	1.34	+/-4.08	3.29	+/-3.99	6.88	pCi/L						
Europium-154	U	-3.43	+/-4.10	2.98	+/-4.02	6.61	pCi/L						
Europium-155	U	1.60	+/-4.54	3.89	+/-4.45	8.04	pCi/L						
Manganese-54	U	0.00	+/-3.48	1.06	+/-3.41	2.28	pCi/L						
	UI												
Niobium-94	U	-0.278	+/-1.26	0.997	+/-1.23	2.13	pCi/L						
Silver-108m	U	0.132	+/-1.25	1.05	+/-1.22	2.22	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		3.23	+/-0.890	0.439	+/-1.29	0.985	pCi/L		ATH1	07/22/04	0421	350128	2
Beta	U	1.74	+/-1.30	1.04	+/-1.31	2.14	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	168	+/-186	151	+/-186	303	pCi/L		JLB1	07/15/04	0004	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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

Report Date: July 27, 2004

Client Sample ID: MW503-0204-001
Sample ID: 115774013

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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.
1 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: July 27, 2004

Client Sample ID:	MW502-0204-001	Project:	YANK00304
Sample ID:	115774014	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-2.99	+/-11.7	8.96	+/-11.5	18.6	pCi/L		SRB	07/21/04	2008	346796	1
Cesium-134	U	0.405	+/-1.35	1.13	+/-1.33	2.43	pCi/L						
Cesium-137	U	0.00859	+/-2.48	1.06	+/-2.43	2.26	pCi/L						
Cobalt-60	U	0.176	+/-1.43	1.05	+/-1.40	2.31	pCi/L						
Europium-152	U	1.64	+/-3.87	3.17	+/-3.79	6.62	pCi/L						
Europium-154	U	-0.694	+/-3.61	2.94	+/-3.54	6.45	pCi/L						
Europium-155	U	2.48	+/-4.92	4.23	+/-4.82	8.75	pCi/L						
Manganese-54	U	-0.638	+/-1.23	0.944	+/-1.20	2.04	pCi/L						
Niobium-94	U	0.341	+/-1.03	0.871	+/-1.01	1.86	pCi/L						
Silver-108m	U	0.562	+/-1.13	0.987	+/-1.11	2.08	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.65	+/-1.12	0.832	+/-1.18	1.77	pCi/L		ATH1	07/22/04	0421	350128	2
Beta		5.02	+/-1.39	1.03	+/-1.48	2.12	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	141	+/-184	151	+/-184	302	pCi/L		JLB1	07/15/04	0107	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW502-0204-001
Sample ID: 115774014

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

Report Date: July 27, 2004

Client Sample ID:	MW505-0204-001	Project:	YANK00304
Sample ID:	115774015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.95	+/-2.48	2.11	+/-2.43	4.34	pCi/L		SRB	07/21/04	2009	346796	1
Cesium-134	U	-0.123	+/-1.95	1.61	+/-1.91	3.43	pCi/L						
Cesium-137	U	1.42	+/-1.84	1.47	+/-1.81	3.12	pCi/L						
Cobalt-60	U	-0.459	+/-1.85	1.51	+/-1.81	3.30	pCi/L						
Europium-152	U	0.542	+/-3.97	3.30	+/-3.89	6.92	pCi/L						
Europium-154	U	-2.45	+/-4.65	3.69	+/-4.55	8.12	pCi/L						
Europium-155	U	-2.45	+/-4.15	3.24	+/-4.07	6.69	pCi/L						
Manganese-54	U	-1.86	+/-1.76	1.32	+/-1.72	2.84	pCi/L						
Niobium-94	U	0.898	+/-1.61	1.40	+/-1.58	2.96	pCi/L						
Silver-108m	U	0.0578	+/-1.40	1.14	+/-1.37	2.40	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.82	+/-0.738	0.411	+/-0.756	0.934	pCi/L		ATH1	07/23/04	0311	350128	2
Beta		4.88	+/-1.44	1.08	+/-1.45	2.22	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-11.6	+/-169	142	+/-169	284	pCi/L		JLB1	07/15/04	0209	345392	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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: July 27, 2004

Client Sample ID: MW505-0204-001
Sample ID: 115774015

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 27, 2004

Client Sample ID:	MW-103S-0204-001	Project:	YANK00304
Sample ID:	115774016	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0612	+/-0.108	0.0795	+/-0.109	0.230	pCi/L		JAS1	07/17/04	1640	347828	1
Plutonium-239/240	U	-0.0127	+/-0.0175	0.0425	+/-0.0176	0.156	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0029	+/-0.091	0.0954	+/-0.091	0.256	pCi/L		JAS1	07/17/04	1640	347826	2
Curium-242	U	-0.0128	+/-0.0553	0.043	+/-0.0553	0.158	pCi/L						
Curium-243/244	U	0.0329	+/-0.102	0.0915	+/-0.102	0.248	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-8.25	+/-8.25	7.11	+/-8.28	14.5	pCi/L		JAS1	07/21/04	0656	347829	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-3.5	+/-8.16	6.57	+/-8.00	13.5	pCi/L		SRB	07/21/04	2015	346796	4
Cesium-134	U	1.61	+/-2.18	1.72	+/-2.13	3.68	pCi/L						
Cesium-137		7.50	+/-5.54	1.57	+/-5.43	3.33	pCi/L						
Cobalt-60		11.4	+/-3.62	1.42	+/-3.55	3.13	pCi/L						
Europium-152	U	-0.506	+/-5.19	4.27	+/-5.08	8.90	pCi/L						
Europium-154	U	-1.84	+/-5.20	4.06	+/-5.09	8.90	pCi/L						
Europium-155	U	0.135	+/-6.76	5.44	+/-6.62	11.2	pCi/L						
Manganese-54	U	-0.731	+/-1.81	1.46	+/-1.77	3.13	pCi/L						
Niobium-94	U	1.03	+/-1.86	1.55	+/-1.83	3.27	pCi/L						
Silver-108m	U	0.802	+/-1.89	1.59	+/-1.86	3.31	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		1.34	+/-0.661	0.474	+/-0.751	1.08	pCi/L		HOB1	07/27/04	0930	351394	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.33	+/-1.00	0.666	+/-1.02	1.44	pCi/L		ATH1	07/23/04	0311	350128	7
Beta		23.5	+/-1.91	1.10	+/-2.14	2.25	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		5300	+/-304	151	+/-315	302	pCi/L		JLB1	07/15/04	0312	345392	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-2.65	+/-6.75	5.74	+/-6.75	11.8	pCi/L		MWX1	07/03/04	0837	345987	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-17.9	+/-11.5	5.26	+/-11.5	10.8	pCi/L		JLB1	07/11/04	0412	345524	10
Liquid Scint Ni63, Liquid-ALL													

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

Report Date: July 27, 2004

Client Sample ID: MW-103S-0204-001
Sample ID: 115774016

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	5.72	+/-8.17	6.70	+/-8.17	13.8	pCi/L		JLB1	07/09/04	1659	345523	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-0.421	+/-5.25	4.42	+/-5.25	9.00	pCi/L		DAJ1	07/17/04	2346	346017	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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	88	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	88	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	90	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	83	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

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Project: Quarterly Groundwater PO# 002337

Report Date: July 27, 2004

Client Sample ID: MW-103S-0204-001
Sample ID: 115774016

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

Report Date: July 27, 2004

Client Sample ID: MW-104S-0204-001
Sample ID: 115774017
Matrix: Ground Water
Collect Date: 23-JUN-04
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0504	+/-0.126	0.110	+/-0.126	0.293	pCi/L		JAS1	07/17/04	1640	347828	1
Plutonium-239/240	U	0.115	+/-0.120	0.0529	+/-0.120	0.178	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0588	+/-0.0938	0.0641	+/-0.0941	0.190	pCi/L		JAS1	07/17/04	1640	347826	2
Curium-242	U	0.0449	+/-0.0717	0.0291	+/-0.0719	0.127	pCi/L						
Curium-243/244	U	0.00184	+/-0.0707	0.0742	+/-0.0707	0.211	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	0.693	+/-8.41	7.04	+/-8.41	14.4	pCi/L		JAS1	07/21/04	0727	347829	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-1.39	+/-7.12	6.06	+/-6.98	12.6	pCi/L		SRB	07/21/04	2031	346796	4
Cesium-134	U	1.03	+/-1.45	1.27	+/-1.42	2.72	pCi/L						
Cesium-137	U	-0.227	+/-1.28	1.05	+/-1.26	2.26	pCi/L						
Cobalt-60		6.28	+/-2.06	2.08	+/-2.02	4.40	pCi/L						
Europium-152	U	3.01	+/-4.16	3.49	+/-4.08	7.28	pCi/L						
Europium-154	U	0.259	+/-3.69	2.98	+/-3.62	6.60	pCi/L						
Europium-155	U	-1.23	+/-4.84	4.05	+/-4.75	8.37	pCi/L						
Manganese-54	U	1.82	+/-1.94	1.08	+/-1.90	2.33	pCi/L						
Niobium-94	U	1.11	+/-1.19	1.06	+/-1.16	2.26	pCi/L						
Silver-108m	U	0.885	+/-1.25	1.04	+/-1.22	2.21	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0679	+/-0.528	0.605	+/-0.528	1.35	pCi/L		HOB1	07/27/04	0931	351394	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.49	+/-0.789	0.357	+/-0.796	0.838	pCi/L		ATH1	07/23/04	1622	350128	7
Beta		6.23	+/-1.35	0.966	+/-1.36	1.99	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	241	+/-190	153	+/-190	306	pCi/L		JLB1	07/15/04	0414	345392	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	1.35	+/-6.84	5.70	+/-6.84	11.7	pCi/L		MWX1	07/03/04	0908	345987	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-27.1	+/-12.3	5.66	+/-12.4	11.6	pCi/L		JLB1	07/11/04	0545	345524	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: July 27, 2004

Client Sample ID: MW-104S-0204-001
Sample ID: 115774017

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	6.13	+/-7.50	6.12	+/-7.50	12.6	pCi/L		JLB1	07/09/04	1731	345523	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	0.557	+/-5.24	4.39	+/-5.24	8.94	pCi/L		DAJ1	07/18/04	0034	346017	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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	98	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	91	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	92	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	82	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	88	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	91	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	101	

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Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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.

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, Sarah Kozlik.

Heather G. Cicala
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: July 27, 2004

Client Sample ID:	MW-106S-0204-001	Project:	YANK00304
Sample ID:	115774018	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0161	+/-0.114	0.115	+/-0.114	0.294	pCi/L		JAS1	07/17/04	1640	347828	1
Plutonium-239/240	U	-0.0228	+/-0.0223	0.0541	+/-0.0224	0.172	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.0265	+/-0.0683	0.093	+/-0.0684	0.264	pCi/L		JAS1	07/17/04	1640	347826	2
Curium-242	U	-0.0309	+/-0.0699	0.0733	+/-0.0699	0.234	pCi/L						
Curium-243/244	U	-0.0532	+/-0.0968	0.132	+/-0.0971	0.342	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-4.0	+/-8.70	7.39	+/-8.71	15.1	pCi/L		JAS1	07/21/04	0759	347829	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	9.75	+/-15.7	9.51	+/-15.4	19.6	pCi/L		SRB	07/21/04	2032	346796	4
Cesium-134	U	0.585	+/-1.59	1.32	+/-1.56	2.84	pCi/L						
Cesium-137	U	0.532	+/-1.46	1.22	+/-1.44	2.61	pCi/L						
Cobalt-60	U	0.809	+/-1.55	1.35	+/-1.52	2.95	pCi/L						
Europium-152	U	-1.18	+/-4.16	3.40	+/-4.08	7.14	pCi/L						
Europium-154	U	1.32	+/-3.63	3.13	+/-3.55	6.96	pCi/L						
Europium-155	U	-0.226	+/-6.46	5.19	+/-6.33	10.7	pCi/L						
Manganese-54	U	0.217	+/-1.43	1.22	+/-1.40	2.63	pCi/L						
Niobium-94	U	-0.426	+/-1.25	0.969	+/-1.22	2.09	pCi/L						
Silver-108m	U	-0.0648	+/-1.32	1.09	+/-1.30	2.30	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		3.17	+/-0.961	0.582	+/-1.33	1.31	pCi/L		HOB1	07/27/04	0947	351394	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.73	+/-1.09	0.600	+/-1.42	1.34	pCi/L		ATH1	07/24/04	0410	350128	7
Beta		19.5	+/-2.05	1.26	+/-2.82	2.58	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		850	+/-205	151	+/-205	302	pCi/L		JLB1	07/15/04	0517	345392	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-4.53	+/-6.67	5.74	+/-6.67	11.8	pCi/L		MWX1	07/03/04	0940	345987	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-21.3	+/-12.5	5.60	+/-12.5	11.5	pCi/L		JLB1	07/11/04	0718	345524	10
Liquid Scint Ni63, Liquid-ALL													

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: July 27, 2004

Client Sample ID: MW-106S-0204-001
Sample ID: 115774018

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-0.217	+/-6.74	5.66	+/-6.74	11.7	pCi/L		JLB1	07/09/04	1803	345523	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-7.78	+/-8.26	7.08	+/-8.26	14.4	pCi/L		DAJ1	07/18/04	0122	346017	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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	93	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	80	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	87	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	76	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	92	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	97	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	62	

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

Report Date: July 27, 2004

Client Sample ID: MW-106S-0204-001
Sample ID: 115774018

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 27, 2004

Client Sample ID: MW-106D-0204-001
Sample ID: 115774019
Matrix: Ground Water
Collect Date: 22-JUN-04
Receive Date: 28-JUN-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0251	+/-0.0706	0.055	+/-0.0707	0.175	pCi/L		JAS1	07/17/04	1640	347828	1
Plutonium-239/240	U	0.0125	+/-0.0499	0.0389	+/-0.0499	0.143	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0901	+/-0.135	0.101	+/-0.136	0.275	pCi/L		JAS1	07/17/04	1640	347826	2
Curium-242	U	0.061	+/-0.105	0.0681	+/-0.106	0.217	pCi/L						
Curium-243/244	U	-0.0881	+/-0.0952	0.144	+/-0.0958	0.360	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	-1.49	+/-8.36	7.05	+/-8.37	14.4	pCi/L		JAS1	07/21/04	0831	347829	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.40	+/-10.4	8.38	+/-10.2	17.4	pCi/L		SRB	07/21/04	2047	346796	4
Cesium-134	U	0.105	+/-1.33	1.09	+/-1.31	2.37	pCi/L						
Cesium-137	U	-0.302	+/-1.22	0.981	+/-1.19	2.11	pCi/L						
Cobalt-60	U	0.167	+/-1.26	1.06	+/-1.24	2.36	pCi/L						
Europium-152	U	1.23	+/-3.98	3.26	+/-3.90	6.83	pCi/L						
Europium-154	U	1.74	+/-3.31	2.94	+/-3.25	6.51	pCi/L						
Europium-155	U	0.386	+/-5.22	4.47	+/-5.12	9.23	pCi/L						
Manganese-54	U	0.0915	+/-1.38	0.988	+/-1.35	2.14	pCi/L						
Niobium-94	U	0.354	+/-1.13	0.951	+/-1.10	2.04	pCi/L						
Silver-108m	U	-0.215	+/-1.23	1.04	+/-1.21	2.19	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.549	+/-0.580	0.528	+/-0.601	1.20	pCi/L		HOB1	07/27/04	0947	351394	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		1.16	+/-0.687	0.434	+/-0.692	0.983	pCi/L		ATH1	07/24/04	0420	350128	7
Beta		3.23	+/-1.49	1.17	+/-1.49	2.40	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1520	+/-219	149	+/-221	297	pCi/L		JLB1	07/15/04	0619	345392	8
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	3.53	+/-6.99	5.77	+/-7.00	11.9	pCi/L		MWX1	07/03/04	1012	345987	9
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	-25.1	+/-12.4	5.67	+/-12.5	11.6	pCi/L		JLB1	07/11/04	0851	345524	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: July 27, 2004

Client Sample ID: MW-106D-0204-001
Sample ID: 115774019

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-3.19	+/-7.74	6.59	+/-7.74	13.6	pCi/L		JLB1	07/09/04	1835	345523	11
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-4.65	+/-5.15	4.41	+/-5.15	8.99	pCi/L		DAJ1	07/18/04	0210	346017	12

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/14/04	1721	345045

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	98	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	96	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	91	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	76	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	89	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	75	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

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Report Date: July 27, 2004

Client Sample ID: MW-106D-0204-001
Sample ID: 115774019

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 27, 2004

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

Contact: Mr. Dave Keefer

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 347826										
QC1200660112 115774016 DUP										
Americium-241	U	0.0029	U	0.0525	pCi/L	179		(0% - 100%)	JAS1	07/17/04 16:40
Uncert:		+/-0.091		+/-0.147						
TPU:		+/-0.091		+/-0.147						
Curium-242	U	-0.0128	U	-0.0428	pCi/L	N/A		(0% - 100%)		
Uncert:		+/-0.0553		+/-0.0317						
TPU:		+/-0.0553		+/-0.0321						
Curium-243/244	U	0.0329	U	-0.036	pCi/L	N/A		(0% - 100%)		
Uncert:		+/-0.102		+/-0.0914						
TPU:		+/-0.102		+/-0.0915						
QC1200660114 LCS										
Americium-241	10.7			10.3	pCi/L		96	(75%-125%)		
Uncert:				+/-1.00						
TPU:				+/-1.60						
ium-242			U	-0.00501	pCi/L					
Uncert:				+/-0.0558						
TPU:				+/-0.0558						
Curium-243/244	13.8			14.3	pCi/L		104			
Uncert:				+/-1.17						
TPU:				+/-2.08						
QC1200660111 MB										
Americium-241			U	-0.0053	pCi/L					07/17/04 16:40
Uncert:				+/-0.059						
TPU:				+/-0.059						
Curium-242			U	-0.0322	pCi/L					
Uncert:				+/-0.0282						
TPU:				+/-0.0285						
Curium-243/244			U	-0.0434	pCi/L					
Uncert:				+/-0.0664						
TPU:				+/-0.0666						
QC1200660113 115774016 MS										
Americium-241	10.7 U	0.0029		9.84	pCi/L		92	(75%-125%)		07/17/04 16:40
Uncert:		+/-0.091		+/-0.951						
TPU:		+/-0.091		+/-1.50						
Curium-242	U	-0.0128	U	-0.0115	pCi/L					
Uncert:		+/-0.0553		+/-0.0595						
TPU:		+/-0.0553		+/-0.0596						
Curium-243/244	13.8 U	0.0329		13.2	pCi/L		95			
Uncert:		+/-0.102		+/-1.10						
TPU:		+/-0.102		+/-1.91						
Batch 347828										
QC1200660121 115774016 DUP										
onium-238	U	0.0612	U	0.00102	pCi/L	193		(0% - 100%)	JAS1	07/17/04 16:40

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 347828										
	Uncert:	+/-0.108		+/-0.0554						
	TPU:	+/-0.109		+/-0.0554						
Plutonium-239/240	U	-0.0127	U	0.00713	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0175		+/-0.054						
	TPU:	+/-0.0176		+/-0.054						
QC1200660123 LCS										
Plutonium-238			U	0.000976	pCi/L			(75%-125%)		07/17/04 16:40
	Uncert:			+/-0.0531						
	TPU:			+/-0.0531						
Plutonium-239/240	9.56			9.78	pCi/L		102	(75%-125%)		
	Uncert:			+/-0.960						
	TPU:			+/-1.35						
QC1200660120 MB										
Plutonium-238			U	-0.0324	pCi/L					07/17/04 16:40
	Uncert:			+/-0.0259						
	TPU:			+/-0.0261						
Plutonium-239/240			U	-0.0162	pCi/L					
	Uncert:			+/-0.0183						
	TPU:			+/-0.0184						
QC1200660122 115774016 MS										
Plutonium-238	U	0.0612	U	-0.0181	pCi/L			(75%-125%)		07/17/04 16:40
	Uncert:	+/-0.108		+/-0.0617						
	TPU:	+/-0.109		+/-0.0617						
Plutonium-239/240	9.56 U	-0.0127		10.4	pCi/L		109	(75%-125%)		
	Uncert:	+/-0.0175		+/-1.03						
	TPU:	+/-0.0176		+/-1.46						
Batch 347829										
QC1200660133 115774016 DUP										
Plutonium-241	U	-8.25	U	-0.996	pCi/L	N/A		(0% - 100%)	JAS1	07/21/04 09:34
	Uncert:	+/-8.25		+/-8.02						
	TPU:	+/-8.28		+/-8.02						
QC1200660135 LCS										
Plutonium-241	142			116	pCi/L		82	(75%-125%)		07/21/04 10:38
	Uncert:			+/-10.6						
	TPU:			+/-14.5						
QC1200660132 MB										
Plutonium-241			U	-9.32	pCi/L					07/21/04 09:02
	Uncert:			+/-8.68						
	TPU:			+/-8.76						
QC1200660134 115774016 MS										
Plutonium-241	142 U	-8.25		110	pCi/L		78	(75%-125%)		07/21/04 10:06
	Uncert:	+/-8.25		+/-10.2						
	TPU:	+/-8.28		+/-16.0						
Rad Gamma Spec										
Batch 346796										
QC1200657514 115774001 DUP										
Americium-241	U	3.74	U	-1.61	pCi/L	N/A			SRB	07/21/04 19:50
	Uncert:	+/-10.3		+/-8.60						
				+/-8.42						

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346796										
	TPU:	+/-10.0								
Cesium-134	U	0.667	U	0.905	pCi/L	30		(0% - 100%)		
	Uncert:	+/-1.84		+/-1.37						
	TPU:	+/-1.80		+/-1.35						
Cesium-137	U	-0.215	U	0.376	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.89		+/-1.29						
	TPU:	+/-1.86		+/-1.27						
Cobalt-60	U	5.25	U	1.02	pCi/L	135		(0% - 100%)		
	Uncert:	+/-2.64		+/-1.32						
	TPU:	+/-2.59		+/-1.29						
Europium-152	U	-3.42	U	0.993	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.71		+/-3.86						
	TPU:	+/-5.59		+/-3.78						
Europium-154	U	0.457	U	0.700	pCi/L	42		(0% - 100%)		
	Uncert:	+/-5.26		+/-3.80						
	TPU:	+/-5.15		+/-3.73						
Europium-155	U	0.673	U	-1.69	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-6.73		+/-5.14						
	TPU:	+/-6.60		+/-5.04						
ganese-54	U	-0.585	U	-0.193	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.90		+/-1.24						
	TPU:	+/-1.86		+/-1.21						
Niobium-94	U	1.71	U	0.326	pCi/L	136		(0% - 100%)		
	Uncert:	+/-1.66		+/-1.12						
	TPU:	+/-1.63		+/-1.10						
Silver-108m	U	1.50	U	0.203	pCi/L	152		(0% - 100%)		
	Uncert:	+/-1.73		+/-1.20						
	TPU:	+/-1.69		+/-1.18						
QC1200657516 LCS										
Americium-241	1170			1210	pCi/L		104	(75%-125%)		07/21/04 19:14
	Uncert:			+/-231						
	TPU:			+/-226						
Cesium-134			U	-12.1	pCi/L					
	Uncert:			+/-13.9						
	TPU:			+/-13.6						
Cesium-137	461			469	pCi/L		102	(75%-125%)		
	Uncert:			+/-70.0						
	TPU:			+/-68.6						
Cobalt-60	709			705	pCi/L		99	(75%-125%)		
	Uncert:			+/-74.4						
	TPU:			+/-72.9						
Europium-152			U	-10.8	pCi/L					
	Uncert:			+/-33.0						
	TPU:			+/-32.3						
Europium-154			U	-9.1	pCi/L					
	Uncert:			+/-25.6						
	TPU:			+/-25.1						
Europium-155			U	18.1	pCi/L					

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346796										
	Uncert:			+/-48.6						
	TPU:			+/-47.7						
Manganese-54			U	4.75	pCi/L					
	Uncert:			+/-13.3						
	TPU:			+/-13.0						
Niobium-94			U	-1.37	pCi/L					
	Uncert:			+/-12.8						
	TPU:			+/-12.5						
Silver-108m			U	-1.91	pCi/L					
	Uncert:			+/-12.5						
	TPU:			+/-12.2						
QC1200657513 MB										
Americium-241			U	4.76	pCi/L					07/21/04 20:48
	Uncert:			+/-6.22						
	TPU:			+/-6.09						
Cesium-134			U	0.476	pCi/L					
	Uncert:			+/-1.46						
	TPU:			+/-1.43						
Cesium-137			U	0.0541	pCi/L					
	Uncert:			+/-1.26						
	TPU:			+/-1.24						
Cobalt-60			U	-1.21	pCi/L					
	Uncert:			+/-1.51						
	TPU:			+/-1.48						
Europium-152			U	-2.39	pCi/L					
	Uncert:			+/-4.07						
	TPU:			+/-3.99						
Europium-154			U	4.53	pCi/L					
	Uncert:			+/-4.04						
	TPU:			+/-3.96						
Europium-155			U	3.56	pCi/L					
	Uncert:			+/-4.11						
	TPU:			+/-4.02						
Manganese-54			U	-0.705	pCi/L					
	Uncert:			+/-1.26						
	TPU:			+/-1.24						
Niobium-94			U	-0.846	pCi/L					
	Uncert:			+/-1.37						
	TPU:			+/-1.35						
Silver-108m			U	-1.02	pCi/L					
	Uncert:			+/-1.37						
	TPU:			+/-1.34						
QC1200657515 115774001 MS										
Americium-241	9360 U	3.74		9620	pCi/L		103			07/21/04 18:59
	Uncert:	+/-10.3		+/-2780						
	TPU:	+/-10.0		+/-30300						
Cesium-134	U	0.667	U	-114	pCi/L					
	Uncert:	+/-1.84		+/-129						
	TPU:	+/-1.80		+/-380						

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346796										
Cesium-137	3690 U	-0.215		3710	pCi/L		101			
	Uncert:	+/-1.89		+/-499						
	TPU:	+/-1.86		+/-11700						
Cobalt-60	5650 U	5.25		6050	pCi/L		107			
	Uncert:	+/-2.64		+/-730						
	TPU:	+/-2.59		+/-19000						
Europium-152	U	-3.42	U	-76.9	pCi/L					
	Uncert:	+/-5.71		+/-342						
	TPU:	+/-5.59		+/-413						
Europium-154	U	0.457	U	-171	pCi/L					
	Uncert:	+/-5.26		+/-378						
	TPU:	+/-5.15		+/-651						
Europium-155	U	0.673	U	-458	pCi/L					
	Uncert:	+/-6.73		+/-408						
	TPU:	+/-6.60		+/-1490						
Manganese-54	U	-0.585	U	4.06	pCi/L					
	Uncert:	+/-1.90		+/-141						
	TPU:	+/-1.86		+/-138						
[illegible]bium-94	U	1.71	U	-49.2	pCi/L					
	Uncert:	+/-1.66		+/-123						
	TPU:	+/-1.63		+/-196						
Silver-108m	U	1.50	U	-77.5	pCi/L					
	Uncert:	+/-1.73		+/-115						
	TPU:	+/-1.69		+/-268						
Rad Gas Flow										
Batch 350128										
QC1200665720 115774001 DUP										
Alpha		3.90	U	0.499	pCi/L	155*		(0% - 100%)	ATH1	07/27/04 14:03
	Uncert:	+/-1.64		+/-0.849						
	TPU:	+/-1.67		+/-0.850						
Beta		5.72	U	2.03	pCi/L	95		(0% - 100%)		
	Uncert:	+/-1.74		+/-1.64						
	TPU:	+/-1.76		+/-1.64						
QC1200665723 LCS										
Alpha	108			116	pCi/L		108	(75%-125%)		07/23/04 09:40
	Uncert:			+/-12.1						
	TPU:			+/-14.8						
Beta	367			331	pCi/L		90	(75%-125%)		
	Uncert:			+/-15.2						
	TPU:			+/-20.1						
QC1200665719 MB										
Alpha			U	-0.111	pCi/L					07/24/04 04:20
	Uncert:			+/-0.593						
	TPU:			+/-0.593						
Beta			U	-0.435	pCi/L					
	Uncert:			+/-1.28						
	TPU:			+/-1.28						
QC1200665721 115774001 MS										

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 350128										
Alpha	108	3.90		126	pCi/L		113	(75%-125%)		
	Uncert:	+/-1.64		+/-13.1						
	TPU:	+/-1.67		+/-16.0						
Beta	367	5.72		336	pCi/L		90	(75%-125%)		
	Uncert:	+/-1.74		+/-15.5						
	TPU:	+/-1.76		+/-19.8						
QC1200665722 115774001 MSD										
Alpha	108	3.90		132	pCi/L	4*	119	(75%-125%)		07/23/04 09:40
	Uncert:	+/-1.64		+/-12.9						
	TPU:	+/-1.67		+/-15.1						
Beta	367	5.72		358	pCi/L	6*	96	(75%-125%)		
	Uncert:	+/-1.74		+/-15.9						
	TPU:	+/-1.76		+/-22.2						
Batch 351394										
QC1200668743 115774005 DUP										
Strontium-90	U	1.33	U	-0.275	pCi/L	N/A		(0% - 100%)	HOB1	07/27/04 12:22
	Uncert:	+/-0.791		+/-0.392						
	TPU:	+/-0.872		+/-0.398						
QC1200668745 LCS										
Strontium-90	61.1			52.1	pCi/L		85	(75%-125%)		
	Uncert:			+/-3.48						
	TPU:			+/-17.2						
QC1200668742 MB										
Strontium-90			U	-0.73	pCi/L					
	Uncert:			+/-0.347						
	TPU:			+/-0.410						
QC1200668744 115774005 MS										
Strontium-90	122 U	1.33		108	pCi/L		87	(75%-125%)		
	Uncert:	+/-0.791		+/-6.96						
	TPU:	+/-0.872		+/-34.1						
Rad Liquid Scintillation										
Batch 345392										
QC1200654329 115774001 DUP										
Tritium	U	136	U	10.0	pCi/L	0		(0% - 100%)	JLB1	07/15/04 08:24
	Uncert:	+/-154		+/-171						
	TPU:	+/-154		+/-171						
QC1200654331 LCS										
Tritium	3220			3000	pCi/L		93	(75%-125%)		07/15/04 10:29
	Uncert:			+/-249						
	TPU:			+/-253						
QC1200654328 MB										
Tritium			U	62.1	pCi/L					07/15/04 07:21
	Uncert:			+/-157						
	TPU:			+/-157						
QC1200654330 115774001 MS										
Tritium	3230 U	136		3030	pCi/L		90	(75%-125%)		07/15/04 09:26
	Uncert:	+/-154		+/-252						
	TPU:	+/-154		+/-257						
Batch 345523										

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 345523										
QC1200654549 115774016 DUP										
Nickel-63	U	5.72	U	10.6	pCi/L	0		(0% - 100%)	JLB1	07/09/04 19:39
Uncert:		+/-8.17		+/-8.94						
TPU:		+/-8.17		+/-8.95						
QC1200654551 LCS										
Nickel-63	366			320	pCi/L		88	(75%-125%)		07/09/04 21:49
Uncert:				+/-14.4						
TPU:				+/-15.4						
QC1200654548 MB										
Nickel-63			U	4.42	pCi/L					07/09/04 19:07
Uncert:				+/-7.87						
TPU:				+/-7.87						
QC1200654550 115774016 MS										
Nickel-63	366 U	5.72		314	pCi/L		84	(75%-125%)		07/09/04 20:11
Uncert:		+/-8.17		+/-14.8						
TPU:		+/-8.17		+/-15.9						
Batch 345524										
QC1200654553 115774016 DUP										
Iron-55	U	-17.9	U	-19.9	pCi/L	N/A		(0% - 100%)	JLB1	07/11/04 11:58
Uncert:		+/-11.5		+/-12.5						
TPU:		+/-11.5		+/-12.5						
QC1200654555 LCS										
Iron-55	399			353	pCi/L		88*	(0%-%)		07/11/04 15:04
Uncert:				+/-17.8						
TPU:				+/-22.7						
QC1200654552 MB										
Iron-55			U	-32.7	pCi/L					07/11/04 10:25
Uncert:				+/-13.0						
TPU:				+/-13.0						
QC1200654554 115774016 MS										
Iron-55	401 U	-17.9		363	pCi/L		90*	(0%-%)		07/11/04 13:31
Uncert:		+/-11.5		+/-17.5						
TPU:		+/-11.5		+/-22.8						
Batch 345987										
QC1200655618 115774016 DUP										
Carbon-14	U	-2.65	U	2.92	pCi/L	N/A		(0% - 100%)	MWX	07/03/04 11:16
Uncert:		+/-6.75		+/-7.04						
TPU:		+/-6.75		+/-7.05						
QC1200655620 LCS										
Carbon-14	329			339	pCi/L		103	(75%-125%)		07/03/04 12:20
Uncert:				+/-14.5						
TPU:				+/-21.7						
QC1200655617 MB										
Carbon-14			U	3.40	pCi/L					07/03/04 10:44
Uncert:				+/-6.94						
TPU:				+/-6.95						
QC1200655619 115774016 MS										
Carbon-14	329 U	-2.65		374	pCi/L		114	(75%-125%)		07/03/04 11:48
Uncert:		+/-6.75		+/-15.2						

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

QC Summary

Workorder: 115774

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 345987										
	TPU:	+/-6.75		+/-23.4						
Batch 346017										
QC1200655690 115774016 DUP										
Technetium-99	U	-0.421	U	-1.92	pCi/L	N/A		(0% - 100%)	DAJ1	07/18/04 03:45
	Uncert:	+/-5.25		+/-4.89						
	TPU:	+/-5.25		+/-4.89						
QC1200655692 LCS										
Technetium-99	523			528	pCi/L		101	(75%-125%)		07/18/04 05:21
	Uncert:			+/-12.4						
	TPU:			+/-17.2						
QC1200655689 MB										
Technetium-99			U	-5.76	pCi/L					07/18/04 02:57
	Uncert:			+/-5.17						
	TPU:			+/-5.17						
QC1200655691 115774016 MS										
Technetium-99	523 U	-0.421		543	pCi/L		104	(75%-125%)		07/18/04 04:33
	Uncert:	+/-5.25		+/-12.5						
	TPU:	+/-5.25		+/-17.5						

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

- 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

July 30, 2004

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

RE: Quarterly Groundwater PO# 002337
Work Order: 116165
SDG: MSR#04-1807

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on July 02, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. 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. 4475.

Sincerely,

Sarah Kozlik
Project Manager

Purchase Order: 002337
Chain of Custody: 2004-00103, 2004-00107, 2004-00113, 2004-00114, 2004-00115, 2004-00116, 2004-00118, 2004-00119, 2004-00120 and 2004-00121
Enclosures

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

CONNECTICUT YANKEE

RE: Quarterly Groundwater

PO# 002337

Work Order: 116165

SDG: MSR#04-1807

116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001
116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
116165018	MW508D-0204-001
116165019	MW-100S-0204-001
116165020	MW-504-0204-001
116165021	MW-508S-0204-001

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CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 116165
SDG: MSR#04-1807

July 30, 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 for the Quarterly Groundwater Project for work order 116165 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina July 2, 2004 for environmental analysis. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following groundwater samples:

MW 110S
MW 122D
MW 109D-0204-001
MW-107S-0204-001
MW107D-0204-001
MW110D-0204-001
MW113S-0204-001
MW112S-0204-001
MW102S-0204-001
MW-111S-0204-001
MW-109S-0204-001
MW-3-0204-001
MW1-0204-001
MW-105D-0204-001
MW103D-0204-001
MW105S-0204-001
MW600-0204-001
MW508D-0204-001
MW-100S-0204-001
MW-504-0204-001
MW-508S-0204-001

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:

Ten groundwater samples were analyzed for MIX, four were analyzed for STND, four were analyzed for ALL, and two groundwater samples were analyzed for STND and 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, 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.

Sarah Kozlik
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2004-00121

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	ALL				Comment, Preservation	Lab Sample ID
MW 110S	6/30/04	1007	WG	G	4L, 1L	X						HNO_3, none	
MW 122D	6/30/04	1651	WG	G	4L, 1L	X						HNO_3, none	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature]	Date/Time 7/1/04 11:00 am
2) Received By [signature]	Date/Time 7/2/04 10:30
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. 2004-00114

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-109D-0204-001	6/29/04	0955	WG	G	4L, 1L	X						HNO_3, None	
MW-107S-0204-001	6/29/04	1310	WG	G	4L, 1L	X							
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

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

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	7/1/04 11:00am	[signature]	10:30 AM 7/2/04
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. 2004-00119

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	ALL				Comment, Preservation	Lab Sample ID
MW-107D-0204-001	6/30/04	1030	WG	G	4L, 1L	X						HNO_3, None	
MW110D-0204-001	6/30/04	1312	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature]	Date/Time 7/1/04 11:00
2) Received By [signature]	Date/Time 7/2/04 10:30
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. 2004-00103

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW113S-0204-001	6/29/04	1030	WG	G	4L, 1L	X						2x4L HNO3; 1x1L None	
MW112S-0204-001	6/29/04	1235	WG	G	4L, 1L	X							
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	7/1/04 11:00 am	[signature]	7/2/04 10:30
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. 2004-00115

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	SR90			Lab Use Only: Comment, Preservation	Lab Sample ID
MW-111S-0204-001	6/29/04	1610	WG	G	4L, 1L	X						2x4L, HNO3; 1x1L, NONE	
MW-3-0204-001	6/29/04	1652	WG	G	4L, 1L		X		X 4L			1x1L, NONE; 1x4L, SR90 HNO3; 1x4L, HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	7/1/04 11:00 am	[signature]	7/2/04 10:30 am
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. 2004-00113

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	ALL	Sr 90			Comment, Preservation	Lab Sample ID
MW-1095-0204-001	6/28/04	1525	WG	G	4L, 1L	X						HNO_3, None	
MW1-0204-001	6/28/04	1458	WG	G	4L, 1L		X		X			HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

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

1) Relinquished By: [signature] Date/Time 7/1/04 11:00 AM	2) Received By [signature] Date/Time 7/2/04 10:38
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. 2004-00107

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW 102S-0204-001	6-28-04	1520	WG	G	4L, 1L	X						HNO_3	
MW 105D-0204-001	6-29-04	1105	WG	G	4L, 1L			X				HNO_3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

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

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	7/1/04 11:00 am	[signature]	7/2/04 10:30
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. 2004-00118

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW1055-0204-001	6-29.04	1440	WG	G	4L, 1L			X				HNO_3	
MW600-0204-001	6-29.04	1440	WG	G	4L, 1L			X				HNO_3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 . MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

7/1/04 11:00 AM

1) Relinquished By:	Date/Time 6/30/04	2) Received By:	Date/Time 7/2/04 1030
3) Relinquished By	Date/Time ~~7/3/04 0800~~	4) Received By	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.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

Chain of Custody Form

No. 2004-00120

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW103D-0204-001	6-30-04	0915	WG	G	4L, 1L			X				HNO3	
MW508D-0204-001	6-30-04	1545	WG	G	4L, 1L		X					HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp.: ____ Deg. C

Custody Sealed? Y ☐ N ☐

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	7/1/04 11:00 am	[signature]	7/2/04 10:30
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. 2004-00116

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-100S-0204-001	6/30/04	1000	WG	G	4L, 1L		X					1L, None; 4L HNO3	
MW-504-0204-001	6/30/04	1245	WG	G	4L, 1L		X					1L, None; 4L, HNO3	
MW-508S-0204-001	6/30/04	1550	WG	G	4L, 1L		X					1L None; 4L HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Analyses Requested

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

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

1) Relinquished By: [signature] Date/Time 7/1/04 11:00 am	2) Received By [signature] Date/Time 7/2/04 10:30
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: 7/2/04

SDG#: MSR#04-1807

Work Order Number: 116165

Shipping Container ID: 7912 8492 9565 Chain of Custody # 2004-00121

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 20°
5. Vermiculite/packing materials is: NA [✓] 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):

MW 1105 (1) 1 x 4L (2) x 4L

MW 122D (1) 1 x 4L (2) x 4L

Sample Custodian/Laboratory: _____ Date: _____

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR#04-1807

Work Order Number:

Shipping Container ID: 791284929500 Chain of Custody # 2004-0D114

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°
5. Vermiculite/packing materials is: NA [✓] 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): RECEIVED

MW-1090-0204-001 (1) X1L (2) X4L

MW-1075-0204-001 (1) X1L (2) X4L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR# 04-1807

Work Order Number:

Shipping Container ID: 7912 8492 9462 Chain of Custody # 2004-00119

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 20°
5. Vermiculite/packing materials is: N A ☑ 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): MW-107D-0204-001 (2) x 1/2L
MW-110D-0204-001 (1) x 1L
(2) x 1/2L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR#04-1807

Work Order Number:

Shipping Container ID: 7 9 12 8492 948 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 20°
5. Vermiculite/packing materials is: NA 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):

MW1135-0204-001 (1) X1L (2) X ML
MW1125-0204-001 (1) X1L (2) X ML

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR#04-1807

Work Order Number: 2004-00115

Shipping Container ID: 7942849 9484 Chain of Custody # 2004-00115

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 19°
5. Vermiculite/packing materials is: NA [✓] 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): N

MW-1115-0204001 - (1) x 1L (2) x 4L

MW-3-0204-001 (1) x 1L (2) x 4L

Sample Custodian/Laboratory: _____ Date: _____

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 7/2/01

SDG#: MSR#04-1807

Work Order Number:

Shipping Container ID: 7912849294 18 Chain of Custody # 2001-06113

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 19°
5. Vermiculite/packing materials is: [✓] NA 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):

MW1095-0204-001 (1) X 1L (2) X 4L

MW1-0204-001 (1) Y 1L (2) X 4L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR#04-1807

Work Order Number:

Shipping Container ID: 7912 8492 9440 Chain of Custody # 2004-00107

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 21°
5. Vermiculite/packing materials is: NA [✓] 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):

MW105D-0204-001 (1) X 1L (3) X 4L

MW 102S-0204-001 (1) X 1L (2) X 4L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR# 04-1807

Work Order Number:

Shipping Container ID: 7912 8492 9559 Chain of Custody # 2004-00118

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° no ice
5. Vermiculite/packing materials is: [✓] NA 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): Received

MW105S-0204-001 (3)X4L
MW600-0204-001 (3)X4L (1)X1L

Sample Custodian/Laboratory: _____ Date: _____

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR# 04-1807

Work Order Number:

Shipping Container ID: 7912 8419 2952 Chain of Custody # 2504-00120

1. Custody Seals on shipping container intact? Yes [✓] No [ ]
2. Custody Seals dated and signed? Yes [✓] No [ ]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 19°
5. Vermiculite/packing materials is: ☑ NA 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):

MW103D-0204-001 (1)X1L (2)X4L

MW508D-0204-001 (1)X1L (2)X4L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 7/2/04

SDG#: MSR# 04-1807

Work Order Number:

Shipping Container ID: 7912 8492 9532 Chain of Custody # 2004-00110

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

8. Samples have:

✓ tape ____ hazard labels

✓ custody seals ✓ appropriate sample labels

9. Samples are:

✓ in good condition ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [ ] No [✓]

11. Description of anomalies (include sample numbers):

MW508S-0204-001 (1) X 1L (1) X 4L MW501-0204-001 (1) X 4L

MW 100S-0204-001 (1) X 1L (1) X 4L

Sample Custodian/Laboratory: Date:

Telephoned to: On By

(gfv 7/32)

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04.1807

Method/Analysis Information

Analytical Batch:	346377, 346379
Prep Batch :	346376, 346378
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
116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001
116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001

116165018	MW508D-0204-001
116165019	MW-100S-0204-001
116165020	MW-504-0204-001
116165021	MW-508S-0204-001
1200656526	Method Blank (MB) in batch 346377
1200656531	Method Blank (MB) in batch 346379
1200656527	Laboratory Control Sample (LCS) in batch 346377
1200656532	Laboratory Control Sample (LCS) in batch 346379
1200656530	116165001(MW 110SL) Serial Dilution (SD) in batch 346377
1200656535	116165021(MW-508S-0204-001L) Serial Dilution (SD) in batch 346379
1200656528	116165001(MW 110SD) Sample Duplicate (DUP) in batch 346377
1200656533	116165021(MW-508S-0204-001D) Sample Duplicate (DUP) in batch 346379
1200656529	116165001(MW 110SS) Matrix Spike (MS) in batch 346377
1200656534	116165021(MW-508S-0204-001S) Matrix Spike (MS) in batch 346379

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 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 360+/-7 kPa for the plasma and auxiliary gases, and 0.85 L/min carrier gas flow, and an initial lens voltage of 5.2.

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 360+/-7 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
Samples 116165001 (MW 110S) and 116165021 (MW-508S-0204-001) were selected as the quality control (QC) samples for this 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 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: _____ **Date:** 7/3n

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: July 30, 2004

Client Sample ID: MW 110S
Sample ID: 116165001
Matrix: Ground Water
Collect Date: 30-JUN-04 10:07
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		291	0.540	16.0	ug/L	1	PRB	07/26/04	1910	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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, Sarah Kozlik.

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: July 30, 2004

Client Sample ID: MW 122D
Sample ID: 116165002
Matrix: Ground Water
Collect Date: 30-JUN-04 16:51
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		223	0.540	16.0	ug/L	1	PRB	07/26/04	1926	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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: July 30, 2004

Client Sample ID: MW 109D-0204-001
Sample ID: 116165003
Matrix: Ground Water
Collect Date: 29-JUN-04 09:55
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		191	0.540	16.0	ug/L	1	PRB	07/26/04	1928	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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: July 30, 2004

Client Sample ID: MW-107S-0204-001
Sample ID: 116165004
Matrix: Ground Water
Collect Date: 29-JUN-04 13:10
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		177	0.540	16.0	ug/L	1	PRB	07/26/04	1931	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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: July 30, 2004

Client Sample ID: MW107D-0204-001
Sample ID: 116165005
Matrix: Ground Water
Collect Date: 30-JUN-04 10:30
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		32.1	0.540	16.0	ug/L	1	PRB	07/26/04	1934	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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: July 30, 2004

Client Sample ID: MW110D-0204-001
Sample ID: 116165006
Matrix: Ground Water
Collect Date: 30-JUN-04 13:12
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		236	0.540	16.0	ug/L	1	PRB	07/26/04	1936	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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

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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: July 30, 2004

Client Sample ID: MW113S-0204-001
Sample ID: 116165007
Matrix: Ground Water
Collect Date: 29-JUN-04 10:30
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		110	0.540	16.0	ug/L	1	PRB	07/26/04	1939	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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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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: July 30, 2004

Client Sample ID: MW112S-0204-001
Sample ID: 116165008
Matrix: Ground Water
Collect Date: 29-JUN-04 12:35
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		47.8	0.540	16.0	ug/L	1	PRB	07/26/04	1942	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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

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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: July 30, 2004

Client Sample ID: MW102S-0204-001
Sample ID: 116165009
Matrix: Ground Water
Collect Date: 28-JUN-04 15:20
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		91.2	0.540	16.0	ug/L	1	PRB	07/26/04	1944	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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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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: July 30, 2004

Client Sample ID: MW-111S-0204-001
Sample ID: 116165010
Matrix: Ground Water
Collect Date: 29-JUN-04 16:10
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		55.5	0.540	16.0	ug/L	1	PRB	07/26/04	1947	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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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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: July 30, 2004

Client Sample ID: MW-109S-0204-001
Sample ID: 116165011
Matrix: Ground Water
Collect Date: 28-JUN-04 15:25
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		124	0.540	16.0	ug/L	1	PRB	07/26/04	1955	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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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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: July 30, 2004

Client Sample ID: MW-3-0204-001
Sample ID: 116165012
Matrix: Ground Water
Collect Date: 29-JUN-04 16:52
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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	5.67	0.540	16.0	ug/L	1	PRB	07/26/04	1957	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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.
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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: July 30, 2004

Page 1 of 1

Client Sample ID: MW1-0204-001
Sample ID: 116165013
Matrix: Ground Water
Collect Date: 28-JUN-04 14:58
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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	5.08	0.540	16.0	ug/L	1	PRB	07/26/04	2000	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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: July 30, 2004

Client Sample ID: MW-105D-0204-001
Sample ID: 116165014
Matrix: Ground Water
Collect Date: 29-JUN-04 11:05
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		60.8	0.540	16.0	ug/L	1	PRB	07/26/04	2003	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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.
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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: July 30, 2004

Client Sample ID: MW103D-0204-001
Sample ID: 116165015
Matrix: Ground Water
Collect Date: 30-JUN-04 09:15
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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	PRB	07/26/04	2005	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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.
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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: July 30, 2004

Client Sample ID: MW105S-0204-001
Sample ID: 116165016
Matrix: Ground Water
Collect Date: 29-JUN-04 14:40
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		484	0.540	16.0	ug/L	1	PRB	07/26/04	2008	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

Notes:
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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.
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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: July 30, 2004

Client Sample ID: MW600-0204-001
Sample ID: 116165017
Matrix: Ground Water
Collect Date: 29-JUN-04 14:40
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		518	0.540	16.0	ug/L	1	PRB	07/26/04	2011	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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.
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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: July 30, 2004

Client Sample ID: MW508D-0204-001
Sample ID: 116165018
Matrix: Ground Water
Collect Date: 30-JUN-04 15:45
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		66.1	0.540	16.0	ug/L	1	PRB	07/26/04	2013	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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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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: July 30, 2004

Client Sample ID: MW-100S-0204-001
Sample ID: 116165019
Matrix: Ground Water
Collect Date: 30-JUN-04 10:00
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		25.3	0.540	16.0	ug/L	1	PRB	07/26/04	2016	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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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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: July 30, 2004

Client Sample ID: MW-504-0204-001
Sample ID: 116165020
Matrix: Ground Water
Collect Date: 30-JUN-04 12:45
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		42.7	0.540	16.0	ug/L	1	PRB	07/26/04	2019	346377	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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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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: July 30, 2004

Client Sample ID: MW-508S-0204-001
Sample ID: 116165021
Matrix: Ground Water
Collect Date: 30-JUN-04 15:50
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
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		41.9	0.540	16.0	ug/L	1	BAJ	07/22/04	0932	346379	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	07/15/04	1000	346378

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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

QC Summary

Report Date: July 30, 2004

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

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 346377										
QC1200656528 116165001 DUP										
Boron		291		301	ug/L	3		(0%-20%)	PRB	07/26/04 19:13
QC1200656527 LCS										
Boron	100			114	ug/L		114	(80%-120%)		07/26/04 19:08
QC1200656526 MB										
Boron			J	2.51	ug/L					07/26/04 19:05
QC1200656529 116165001 MS										
Boron	100	291		404	ug/L		113	(75%-125%)		07/26/04 19:15
QC1200656530 116165001 SDILT										
Boron		291		18.9	ug/L	67.5				07/26/04 19:18
Batch 346379										
QC1200656533 116165021 DUP										
Boron		41.9		41.8	ug/L	0 ^		(+/-16.0)	BAJ	07/22/04 09:34
QC1200656532 LCS										
Boron	100			108	ug/L		108	(80%-120%)		07/22/04 09:29
QC1200656531 MB										
Boron			U	ND	ug/L					07/22/04 09:26
QC1200656534 116165021 MS										
Boron	100	41.9		153	ug/L		111	(75%-125%)		07/22/04 09:37
QC1200656535 116165021 SDILT										
Boron		41.9	J	8.34	ug/L	.356				07/22/04 09:39

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

- 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: 116165

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.

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-1807

Method/Analysis Information

Product:	**Am241,Cm, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Am-05-RC Modified
Analytical Batch Number:	350488

Sample ID	**Client ID**
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200666549	Method Blank (MB)
1200666552	Laboratory Control Sample (LCS)
1200666550	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200666551	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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:	**Alphaspec Pu, Liquid-ALL**
Analytical Method:	DOE EML HASL-300, Pu-11-RC Modified
Analytical Batch Number:	350489

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200666553	Method Blank (MB)
1200666556	Laboratory Control Sample (LCS)
1200666554	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200666555	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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 129765 was generated due to Failure to maintain Custody. 1. The analyst did not scan the samples into the batch prior to analysis, however the samples did remain in their custody at all times. The error has been corrected and the analyst has been instructed on proper scanning procedures. 1. Reporting results.

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

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:	350490

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200666557	Method Blank (MB)
1200666560	Laboratory Control Sample (LCS)
1200666558	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200666559	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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 131016 was generated due to Failure to maintain Custody. 1. Samples 116165014, 116165015, 116165016 and 116165017 were not scanned into the batch due problems with the Alpha Lims system. 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:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	346800

Sample ID	Client ID
116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001

116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
116165018	MW508D-0204-001
116165019	MW-100S-0204-001
116165020	MW-504-0204-001
1200657517	Method Blank (MB)
1200657520	Laboratory Control Sample (LCS)
1200657518	116165001(MW 110S) Sample Duplicate (DUP)
1200657519	116165001(MW 110S) 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-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: 116165001 (MW 110S).

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 1200657519 (MW 110S) 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-137	116165003
			116165008
			116165009
		Cobalt-60	116165003
UI	Data rejected due to no valid peak.	Manganese-54	116165009
			116165010

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	346820

Sample ID	Client ID
116165021	MW-508S-0204-001
1200657581	Method Blank (MB)
1200657584	Laboratory Control Sample (LCS)
1200657582	116165021(MW-508S-0204-001) Sample Duplicate (DUP)
1200657583	116165021(MW-508S-0204-001) 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-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: 116165021 (MW-508S-0204-001).

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:	350139

Sample ID	Client ID
116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001
116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
1200665742	Method Blank (MB)
1200665746	Laboratory Control Sample (LCS)
1200665743	116852001(C-0000000355) Sample Duplicate (DUP)
1200665744	116852001(C-0000000355) Matrix Spike (MS)
1200665745	116852001(C-0000000355) Matrix Spike Duplicate (MSD)

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: 116852001 (C-0000000355).

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:	**Gross A/B, liquid-ALL,STND,MIX,PENN,LF**
Analytical Method:	EPA 900.0
Analytical Batch Number:	350566

Sample ID	Client ID
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
116165018	MW508D-0204-001
116165019	MW-100S-0204-001
116165020	MW-504-0204-001
116165021	MW-508S-0204-001
1200666709	Method Blank (MB)
1200666713	Laboratory Control Sample (LCS)
1200666710	116165011(MW-109S-0204-001) Sample Duplicate (DUP)
1200666711	116165011(MW-109S-0204-001) Matrix Spike (MS)
1200666712	116165011(MW-109S-0204-001) Matrix Spike Duplicate (MSD)

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: 116165011 (MW-109S-0204-001).

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 1200666710 (MW-109S-0204-001) was recounted due to high relative percent difference/relative error ratio.

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: 116165001 (MW 110S).

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 116165002 (MW 122D), 116165004 (MW-107S-0204-001), 116165016 (MW105S-0204-001) and 116165017 (MW600-0204-001) 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:	348813

Sample 1200666711 (MW-109S-0204-001) was recounted due to low/high recovery.

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:	347780

Sample ID	Client ID
116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001
116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200659983	Method Blank (MB)
1200659986	Laboratory Control Sample (LCS)
1200659984	116165001(MW 110S) Sample Duplicate (DUP)
1200659985	116165001(MW 110S) 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-RAD-A-004 REV# 8.

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200662485	Method Blank (MB)
1200662488	Laboratory Control Sample (LCS)
1200662486	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200662487	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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:	349214

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200663486	Method Blank (MB)
1200663489	Laboratory Control Sample (LCS)
1200663487	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200663488	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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 1200663488 (MW-105D-0204-001) was recounted due to low/high recovery.
Samples 116165014 (MW-105D-0204-001) and 116165015 (MW103D-0204-001) were recounted due to verify activity. Second counts are being reported.

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:	349216

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200663494	Method Blank (MB)
1200663497	Laboratory Control Sample (LCS)
1200663495	116165014(MW-105D-0204-001) Sample Duplicate (DUP)
1200663496	116165014(MW-105D-0204-001) 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-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: 116165014 (MW-105D-0204-001).

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:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	348827

Sample ID	Client ID
116165001	MW 110S
116165002	MW 122D
116165003	MW 109D-0204-001
116165004	MW-107S-0204-001
116165005	MW107D-0204-001
116165006	MW110D-0204-001
116165007	MW113S-0204-001
116165008	MW112S-0204-001
116165009	MW102S-0204-001
116165010	MW-111S-0204-001
116165011	MW-109S-0204-001
116165012	MW-3-0204-001
116165013	MW1-0204-001
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
116165018	MW508D-0204-001
116165019	MW-100S-0204-001
116165020	MW-504-0204-001
116165021	MW-508S-0204-001
1200662538	Method Blank (MB)
1200662541	Laboratory Control Sample (LCS)
1200662539	116165001(MW 110S) Sample Duplicate (DUP)
1200662540	116165001(MW 110S) 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-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: 116165001 (MW 110S).

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 116165004 (MW-107S-0204-001) and 1200662538 (MB) were recounted due to spectral interference.

Miscellaneous Information:

NCR Documentation
Nonconformance reports are generated to document any procedural anomalies that may deviate from referenced SOP or contractual documents. 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:	347077

Sample ID	Client ID
116165014	MW-105D-0204-001
116165015	MW103D-0204-001
116165016	MW105S-0204-001
116165017	MW600-0204-001
1200658272	Method Blank (MB)
1200658275	Laboratory Control Sample (LCS)
1200658273	115840001(SW-6) Sample Duplicate (DUP)
1200658274	115840001(SW-6) 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-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: 115840001 (SW-6).

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
There was no daily check run on 7/10/04 for LSCBROWN. The daily for the instrument passed on both 7/9 and

7/11. All qc's pass requirements.

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: Alexandra G. Cerone 7/31/04

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

NCR Report No.: 129765
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 26-JUL-04	**Division:** Radiochemistry		**Type:** Process
Instrument Type: ALPHA SPECTROMETER	**Quality Criteria:** Specifications		**Client Code:** YANK
Test / Method: DOE EML HASL-300, Pu-11-RC Modified	**Matrix Type:** Liquid	**Batch ID:** 350489	**Sample Numbers:** See Below

Potentially affected work order(s)(SDG): 116165(MSR#04-1807)

Application Issues:

Failure to maintain Custody

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

Originator's Name:
Lesley Anderson 26-JUL-04

Data Validator/Group Leader:
Scott Moreland 27-JUL-04

Quality Review:

Corrective Action:

Director:

Corrective Action ID and Complete Date:

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

NCR Report No.: 131016
Revision No.:

COMPANY - WIDE NONCONFORMANCE REPORT

Mo.Day Yr. 30-JUL-04	**Division:** Radiochemistry		**Type:** Process
Instrument Type: LSC	**Quality Criteria:** Specifications		**Client Code:** YANK
Test / Method: DOE EML HASL-300, Pu-11-RC Modified	**Matrix Type:** Liquid	**Batch ID:** 350490	**Sample Numbers:** See Below

Potentially affected work order(s)(SDG): 116165(MSR#04-1807)

Application Issues:

Failure to maintain Custody

Specification and Requirements Nonconformance Description:	**NRG Disposition:**
1. Samples 116165014, 116165015, 116165016 and 116165017 were not scanned into the the batch due problems with the Alpha Lims system.	1. Reporting results.

Originator's Name:
Jimmy Hartley 30-JUL-04

Data Validator/Group Leader:
Joseph Jones 30-JUL-04

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

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: July 31, 2004

Client Sample ID:	MW 110S	Project:	YANK00304
Sample ID:	116165001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	30-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	0.753	+/-2.45	2.05	+/-2.40	4.22	pCi/L		SRB 07/19/04	2220	346800	1
Cesium-134	U	-0.753	+/-1.87	1.50	+/-1.83	3.21	pCi/L					
Cesium-137	U	1.45	+/-1.86	1.44	+/-1.82	3.05	pCi/L					
Cobalt-60	U	0.194	+/-1.86	1.58	+/-1.82	3.42	pCi/L					
Europium-152	U	0.288	+/-3.89	3.23	+/-3.81	6.77	pCi/L					
Europium-154	U	2.66	+/-4.74	4.22	+/-4.64	9.18	pCi/L					
Europium-155	U	-1.15	+/-4.20	3.32	+/-4.11	6.86	pCi/L					
Manganese-54	U	0.368	+/-1.70	1.44	+/-1.67	3.06	pCi/L					
Niobium-94	U	0.0195	+/-1.70	1.26	+/-1.67	2.68	pCi/L					
Silver-108m	U	-1.55	+/-1.40	1.04	+/-1.37	2.20	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.689	+/-0.637	0.612	+/-0.661	1.30	pCi/L		HOB1 07/13/04	1652	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	-0.0535	+/-0.988	1.04	+/-0.988	2.44	pCi/L		ATH1 07/22/04	1803	350139	3
Beta		4.35	+/-1.33	0.951	+/-1.33	2.05	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		1010	+/-220	155	+/-220	310	pCi/L		JLB1 07/19/04	1611	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW 110S
Sample ID: 116165001

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	90	

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

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, Sarah Kozlik.

Heather Cu 4004

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: July 31, 2004

Client Sample ID:	MW 122D	Project:	YANK00304
Sample ID:	116165002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	30-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.31	+/-14.4	8.64	+/-14.1	18.1	pCi/L		SRB	07/20/04	1110	346800	1
Cesium-134	U	1.47	+/-2.03	1.81	+/-1.99	3.94	pCi/L						
Cesium-137	U	-0.756	+/-1.88	1.50	+/-1.84	3.28	pCi/L						
Cobalt-60	U	-1.17	+/-2.07	1.57	+/-2.03	3.56	pCi/L						
Europium-152	U	3.75	+/-5.33	4.62	+/-5.22	9.81	pCi/L						
Europium-154	U	3.59	+/-5.51	4.99	+/-5.40	11.1	pCi/L						
Europium-155	U	-0.326	+/-7.49	6.09	+/-7.34	12.7	pCi/L						
Manganese-54	U	0.356	+/-1.85	1.56	+/-1.82	3.41	pCi/L						
Niobium-94	U	-0.283	+/-1.84	1.51	+/-1.81	3.27	pCi/L						
Silver-108m	U	2.23	+/-1.80	1.62	+/-1.76	3.45	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		3.29	+/-0.768	0.541	+/-1.13	1.15	pCi/L		HOB1	07/13/04	1652	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		7.14	+/-2.19	0.997	+/-2.25	2.37	pCi/L		ATH1	07/22/04	1803	350139	3
Beta		5.21	+/-1.58	1.19	+/-1.58	2.55	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	222	+/-165	132	+/-165	264	pCi/L		JLB1	07/19/04	1715	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW 122D
Sample ID: 116165002

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

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, Sarah Kozlik.

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: July 31, 2004

Client Sample ID:	MW 109D-0204-001	Project:	YANK00304
Sample ID:	116165003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	29-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-1.6	+/-11.4	9.24	+/-11.2	19.1	pCi/L		SRB	07/20/04	1008	346800	1
Cesium-134	U	0.364	+/-2.82	2.40	+/-2.76	5.26	pCi/L						
Cesium-137	U	0.00	+/-4.47	4.19	+/-4.38	8.77	pCi/L						
	UI												
Cobalt-60	U	0.00	+/-3.44	2.71	+/-3.37	6.01	pCi/L						
	UI												
Europium-152	U	-5.94	+/-7.28	5.66	+/-7.14	12.0	pCi/L						
Europium-154	U	2.24	+/-7.20	6.17	+/-7.05	13.9	pCi/L						
Europium-155	U	5.37	+/-9.33	7.70	+/-9.14	16.0	pCi/L						
Manganese-54	U	-1.28	+/-2.36	1.84	+/-2.31	4.09	pCi/L						
Niobium-94	U	-0.431	+/-2.42	1.89	+/-2.37	4.13	pCi/L						
Silver-108m	U	-0.462	+/-2.52	2.03	+/-2.47	4.35	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.473	+/-0.555	0.545	+/-0.567	1.16	pCi/L		HOB1	07/13/04	1652	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		7.78	+/-2.23	0.819	+/-2.25	2.03	pCi/L		ATH1	07/22/04	1803	350139	3
Beta		9.21	+/-1.70	0.912	+/-1.70	1.98	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		3140	+/-246	129	+/-251	258	pCi/L		JLB1	07/19/04	1818	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW 109D-0204-001
Sample ID: 116165003

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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 :

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.

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, Sarah Kozlik.

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: July 31, 2004

Client Sample ID:	MW-107S-0204-001	Project:	YANK00304
Sample ID:	116165004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	29-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.32	+/-10.6	8.88	+/-10.4	18.5	pCi/L		SRB	07/20/04	1009	346800	1
Cesium-134	U	0.453	+/-2.09	1.71	+/-2.05	3.73	pCi/L						
Cesium-137	U	1.07	+/-1.82	1.57	+/-1.79	3.39	pCi/L						
Cobalt-60	U	-0.142	+/-2.22	1.80	+/-2.17	4.00	pCi/L						
Europium-152	U	2.21	+/-5.13	4.41	+/-5.02	9.35	pCi/L						
Europium-154	U	-3.11	+/-5.47	4.09	+/-5.36	9.26	pCi/L						
Europium-155	U	2.74	+/-7.46	6.17	+/-7.31	12.8	pCi/L						
Manganese-54	U	-0.333	+/-1.57	1.29	+/-1.54	2.86	pCi/L						
Niobium-94	U	-0.559	+/-1.66	1.29	+/-1.63	2.80	pCi/L						
Silver-108m	U	0.395	+/-1.73	1.46	+/-1.70	3.12	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		2.69	+/-0.741	0.558	+/-0.992	1.19	pCi/L		HOB1	07/13/04	1652	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.317	+/-1.17	1.13	+/-1.17	2.66	pCi/L		ATH1	07/22/04	1803	350139	3
Beta	U	1.69	+/-1.08	0.940	+/-1.08	2.04	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-133	+/-205	176	+/-205	352	pCi/L		JLB1	07/28/04	2341	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW-107S-0204-001
Sample ID: 116165004

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			92						

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

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, Sarah Kozlik.

Heather V Crowl
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: July 31, 2004

Client Sample ID: MW107D-0204-001
Sample ID: 116165005
Matrix: Ground Water
Collect Date: 30-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.12	+/-3.64	3.17	+/-3.57	6.59	pCi/L		SRB	07/20/04	1009	346800	1
Cesium-134	U	-1.75	+/-2.30	1.73	+/-2.26	3.80	pCi/L						
Cesium-137	U	-1.42	+/-2.13	1.66	+/-2.08	3.61	pCi/L						
Cobalt-60	U	0.452	+/-2.18	1.86	+/-2.14	4.16	pCi/L						
Europium-152	U	-0.225	+/-5.32	4.40	+/-5.21	9.34	pCi/L						
uropium-154	U	1.05	+/-6.58	5.56	+/-6.45	12.3	pCi/L						
uropium-155	U	6.45	+/-5.97	5.18	+/-5.85	10.7	pCi/L						
Manganese-54	U	0.487	+/-2.24	1.65	+/-2.19	3.61	pCi/L						
Niobium-94	U	0.734	+/-1.88	1.62	+/-1.84	3.50	pCi/L						
Silver-108m	U	-0.297	+/-1.95	1.57	+/-1.91	3.35	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.262	+/-0.555	0.565	+/-0.558	1.20	pCi/L		HOB1	07/13/04	2041	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.548	+/-1.27	1.10	+/-1.28	2.53	pCi/L		ATH1	07/22/04	1803	350139	3
Beta		7.00	+/-1.58	1.02	+/-1.59	2.20	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		656	+/-172	125	+/-172	249	pCi/L		JLB1	07/19/04	2025	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW107D-0204-001
Sample ID: 116165005

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			95						

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

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: July 31, 2004

Client Sample ID: MW110D-0204-001
Sample ID: 116165006
Matrix: Ground Water
Collect Date: 30-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	1.46	+/-7.34	5.80	+/-7.19	12.0	pCi/L		SRB	07/19/04	2153	346800	1
Cesium-134	U	0.265	+/-1.42	1.17	+/-1.39	2.51	pCi/L						
Cesium-137	U	-0.836	+/-1.17	0.898	+/-1.15	1.94	pCi/L						
Cobalt-60	U	0.0068	+/-1.49	1.23	+/-1.46	2.69	pCi/L						
Europium-152	U	0.828	+/-3.79	3.07	+/-3.72	6.44	pCi/L						
Europium-154	U	2.09	+/-3.74	3.29	+/-3.67	7.19	pCi/L						
Europium-155	U	-2.17	+/-4.77	3.97	+/-4.67	8.20	pCi/L						
Manganese-54	U	1.18	+/-1.27	1.11	+/-1.24	2.38	pCi/L						
Niobium-94	U	0.664	+/-1.25	1.06	+/-1.22	2.25	pCi/L						
Silver-108m	U	-1.47	+/-1.11	0.845	+/-1.09	1.80	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.441	+/-0.547	0.538	+/-0.559	1.15	pCi/L		HOB1	07/13/04	2041	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		5.63	+/-1.94	0.988	+/-2.02	2.33	pCi/L		ATH1	07/22/04	2016	350139	3
Beta		8.50	+/-1.65	0.952	+/-1.65	2.06	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		8300	+/-363	139	+/-386	278	pCi/L		JLB1	07/19/04	2128	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW110D-0204-001
Sample ID: 116165006

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

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: July 31, 2004

Client Sample ID: MW113S-0204-001
Sample ID: 116165007
Matrix: Ground Water
Collect Date: 29-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.0669	+/-7.55	5.84	+/-7.40	12.2	pCi/L		SRB	07/19/04	2156	346800	1
Cesium-134	U	0.548	+/-1.36	1.17	+/-1.34	2.52	pCi/L						
Cesium-137	U	-0.106	+/-1.27	1.05	+/-1.25	2.26	pCi/L						
Cobalt-60	U	2.58	+/-2.80	2.16	+/-2.75	4.55	pCi/L						
Europium-152	U	3.33	+/-3.70	3.14	+/-3.62	6.60	pCi/L						
Europium-154	U	-1.33	+/-3.85	2.92	+/-3.78	6.49	pCi/L						
Europium-155	U	-0.381	+/-4.84	4.07	+/-4.74	8.41	pCi/L						
Manganese-54	U	-0.167	+/-1.33	1.08	+/-1.30	2.32	pCi/L						
Niobium-94	U	0.713	+/-1.24	1.07	+/-1.21	2.28	pCi/L						
Silver-108m	U	1.57	+/-1.42	0.990	+/-1.40	2.10	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.665	+/-0.602	0.577	+/-0.627	1.23	pCi/L		HOB1	07/13/04	2041	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.989	+/-1.26	1.00	+/-1.26	2.38	pCi/L		ATH1	07/22/04	2016	350139	3
Beta		8.30	+/-1.79	1.19	+/-1.79	2.54	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	180	+/-163	131	+/-163	263	pCi/L		JLB1	07/19/04	2231	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW113S-0204-001
Sample ID: 116165007

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Notes:
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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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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: July 31, 2004

Client Sample ID:	MW112S-0204-001	Project:	YANK00304
Sample ID:	116165008	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	29-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-18.8	+/-18.2	13.0	+/-17.9	27.3	pCi/L		SRB	07/20/04	1009	346800	1
Cesium-134	U	1.16	+/-2.38	1.47	+/-2.33	3.26	pCi/L						
Cesium-137	U	0.00	+/-2.15	2.08	+/-2.11	4.43	pCi/L						
	UI												
Cobalt-60	U	-0.456	+/-1.87	1.49	+/-1.83	3.39	pCi/L						
Europium-152	U	0.143	+/-5.48	4.39	+/-5.37	9.35	pCi/L						
Europium-154	U	0.712	+/-4.67	3.99	+/-4.58	9.11	pCi/L						
Europium-155	U	-5.38	+/-6.64	5.34	+/-6.51	11.2	pCi/L						
Manganese-54	U	1.69	+/-1.82	1.64	+/-1.78	3.57	pCi/L						
Niobium-94	U	0.816	+/-1.73	1.49	+/-1.69	3.22	pCi/L						
Silver-108m	U	0.723	+/-1.70	1.49	+/-1.66	3.19	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.697	+/-0.590	0.560	+/-0.616	1.19	pCi/L		HOB1	07/13/04	2041	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	1.56	+/-1.10	0.713	+/-1.10	1.77	pCi/L		ATH1	07/22/04	2016	350139	3
Beta	U	0.641	+/-0.944	0.908	+/-0.944	1.97	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	102	+/-169	139	+/-169	277	pCi/L		JLB1	07/19/04	2334	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW112S-0204-001
Sample ID: 116165008

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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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.
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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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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: July 31, 2004

Client Sample ID: MW102S-0204-001
Sample ID: 116165009
Matrix: Ground Water
Collect Date: 28-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-8.79	+/-7.68	5.31	+/-7.53	10.8	pCi/L		SRB 07/19/04	2006	346800	1
Cesium-134	U	0.721	+/-1.61	1.39	+/-1.58	2.93	pCi/L					
Cesium-137	U	0.00	+/-3.02	2.46	+/-2.96	5.06	pCi/L					
	UI											
Cobalt-60	U	0.869	+/-1.54	1.32	+/-1.51	2.83	pCi/L					
Europium-152	U	-1.28	+/-4.20	3.43	+/-4.12	7.10	pCi/L					
Europium-154	U	-0.714	+/-3.95	3.16	+/-3.87	6.84	pCi/L					
Europium-155	U	5.11	+/-6.89	4.36	+/-6.75	8.90	pCi/L					
Manganese-54	U	0.00	+/-3.00	1.09	+/-2.94	2.32	pCi/L					
	UI											
Niobium-94	U	0.829	+/-1.48	1.22	+/-1.45	2.55	pCi/L					
Silver-108m	U	0.958	+/-1.46	1.23	+/-1.43	2.55	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.289	+/-0.555	0.562	+/-0.559	1.20	pCi/L		HOB1 07/13/04	2244	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	1.66	+/-1.31	0.980	+/-1.31	2.30	pCi/L		ATH1 07/22/04	2016	350139	3
Beta	U	2.05	+/-1.13	0.951	+/-1.13	2.06	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium		5740	+/-332	150	+/-344	300	pCi/L		JLB1 07/20/04	0037	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW102S-0204-001
Sample ID: 116165009

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	

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: July 31, 2004

Client Sample ID:	MW-111S-0204-001	Project:	YANK00304
Sample ID:	116165010	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	29-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-5.14	+/-9.11	6.31	+/-8.93	13.1	pCi/L		SRB	07/19/04	2213	346800	1
Cesium-134	U	0.418	+/-1.47	1.21	+/-1.44	2.60	pCi/L						
Cesium-137	U	0.663	+/-1.33	1.13	+/-1.30	2.40	pCi/L						
Cobalt-60	U	0.0721	+/-1.44	1.18	+/-1.41	2.60	pCi/L						
Europium-152	U	-1.01	+/-4.03	3.14	+/-3.95	6.58	pCi/L						
uropium-154	U	-1.74	+/-4.11	3.18	+/-4.02	6.99	pCi/L						
uropium-155	U	-0.20	+/-4.60	3.88	+/-4.51	8.03	pCi/L						
Manganese-54	U	0.00	+/-1.85	1.06	+/-1.81	2.29	pCi/L						
	UI												
Niobium-94	U	-0.669	+/-1.33	1.03	+/-1.30	2.20	pCi/L						
Silver-108m	U	0.104	+/-1.30	1.09	+/-1.27	2.30	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.0552	+/-0.485	0.523	+/-0.485	1.11	pCi/L		HOB1	07/13/04	2244	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.239	+/-1.03	1.08	+/-1.03	2.49	pCi/L		ATH1	07/22/04	2016	350139	3
Beta	U	2.06	+/-1.18	1.02	+/-1.18	2.20	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	233	+/-180	144	+/-180	288	pCi/L		JLB1	07/20/04	0140	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW-111S-0204-001
Sample ID: 116165010

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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 :

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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

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: July 31, 2004

Client Sample ID:	MW-109S-0204-001	Project:	YANK00304
Sample ID:	116165011	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	28-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.95	+/-7.67	5.82	+/-7.51	12.0	pCi/L		SRB	07/19/04	2011	346800	1
Cesium-134	U	-0.0876	+/-1.25	1.02	+/-1.22	2.17	pCi/L						
Cesium-137	U	0.0362	+/-1.18	0.984	+/-1.15	2.08	pCi/L						
Cobalt-60	U	-0.337	+/-1.26	1.02	+/-1.23	2.20	pCi/L						
Europium-152	U	-0.975	+/-3.54	2.88	+/-3.47	5.99	pCi/L						
Europium-154	U	-1.94	+/-3.82	2.52	+/-3.74	5.50	pCi/L						
Europium-155	U	1.01	+/-4.72	3.88	+/-4.63	7.95	pCi/L						
Manganese-54	U	-0.593	+/-1.39	0.939	+/-1.36	2.00	pCi/L						
Niobium-94	U	-0.407	+/-1.20	0.839	+/-1.18	1.78	pCi/L						
Silver-108m	U	0.372	+/-1.19	0.984	+/-1.17	2.05	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.801	+/-0.537	0.496	+/-0.569	1.06	pCi/L		HOB1	07/13/04	2244	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.441	+/-1.12	1.02	+/-1.12	2.32	pCi/L		ATH1	07/26/04	1608	350566	3
Beta		6.53	+/-1.16	0.619	+/-1.17	1.34	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-9.7	+/-164	138	+/-164	275	pCi/L		JLB1	07/20/04	0243	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW-109S-0204-001
Sample ID: 116165011

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX				97						

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

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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: July 31, 2004

Client Sample ID: MW-3-0204-001
Sample ID: 116165012
Matrix: Ground Water
Collect Date: 29-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-12.4	+/-17.4	9.35	+/-17.1	19.3	pCi/L		SRB	07/19/04	2150	346800	1
Cesium-134	U	0.0365	+/-1.69	1.35	+/-1.65	2.90	pCi/L						
Cesium-137	U	-0.627	+/-1.48	1.15	+/-1.46	2.47	pCi/L						
Cobalt-60	U	0.383	+/-1.49	1.26	+/-1.46	2.78	pCi/L						
Europium-152	U	-0.884	+/-4.31	3.54	+/-4.23	7.42	pCi/L						
Europium-154	U	-2.25	+/-4.05	3.08	+/-3.97	6.85	pCi/L						
Europium-155	U	-1.4	+/-6.34	5.05	+/-6.21	10.4	pCi/L						
Manganese-54	U	0.202	+/-1.39	1.19	+/-1.36	2.55	pCi/L						
Niobium-94	U	-0.436	+/-1.40	1.09	+/-1.37	2.34	pCi/L						
Silver-108m	U	0.574	+/-1.45	1.23	+/-1.42	2.58	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.582	+/-0.599	0.581	+/-0.619	1.24	pCi/L		HOB1	07/13/04	2244	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	-0.168	+/-0.763	0.792	+/-0.763	1.81	pCi/L		ATH1	07/26/04	1608	350566	3
Beta	U	0.788	+/-0.765	0.690	+/-0.765	1.49	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	15.6	+/-147	123	+/-147	245	pCi/L		JLB1	07/20/04	0424	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW-3-0204-001
Sample ID: 116165012

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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

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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: July 31, 2004

Client Sample ID:	MW1-0204-001	Project:	YANK00304
Sample ID:	116165013	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	28-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-1.81	+/-2.35	1.94	+/-2.30	4.00	pCi/L		SRB	07/19/04	2214	346800	1
Cesium-134	U	1.02	+/-1.47	1.28	+/-1.44	2.73	pCi/L						
Cesium-137	U	-0.248	+/-1.38	1.13	+/-1.35	2.41	pCi/L						
Cobalt-60	U	0.750	+/-1.58	1.36	+/-1.55	2.95	pCi/L						
Europium-152	U	1.50	+/-3.57	3.03	+/-3.50	6.33	pCi/L						
Europium-154	U	-1.42	+/-4.10	3.26	+/-4.01	7.13	pCi/L						
Europium-155	U	3.94	+/-3.94	3.38	+/-3.86	6.94	pCi/L						
Manganese-54	U	1.41	+/-1.43	1.26	+/-1.40	2.69	pCi/L						
Niobium-94	U	-0.174	+/-1.29	1.07	+/-1.27	2.26	pCi/L						
Silver-108m	U	0.784	+/-1.20	1.02	+/-1.18	2.15	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.944	+/-0.726	0.677	+/-0.766	1.47	pCi/L		HOB1	07/15/04	1245	347780	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.302	+/-0.939	0.879	+/-0.939	2.00	pCi/L		ATH1	07/26/04	1608	350566	3
Beta	U	0.234	+/-0.875	0.866	+/-0.875	1.84	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	223	+/-172	137	+/-172	274	pCi/L		JLB1	07/20/04	0527	348827	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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: July 31, 2004

Client Sample ID: MW1-0204-001
Sample ID: 116165013

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			88						

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: July 31, 2004

Client Sample ID: MW-105D-0204-001
Sample ID: 116165014
Matrix: Ground Water
Collect Date: 29-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.0134	+/-0.0691	0.0849	+/-0.0691	0.252	pCi/L		BJB1	07/24/04	1532	350489	1
Plutonium-239/240	U	-0.0146	+/-0.0202	0.049	+/-0.0203	0.180	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	0.0272	+/-0.142	0.139	+/-0.142	0.358	pCi/L		BJB1	07/24/04	1532	350488	2
Curium-242	U	0.00132	+/-0.0717	0.0751	+/-0.0717	0.240	pCi/L						
Curium-243/244	U	0.064	+/-0.153	0.135	+/-0.153	0.350	pCi/L						
juid Scint Pu241, Liquid-ALL													
Plutonium-241	U	0.00	+/-6.53	5.48	+/-6.53	11.3	pCi/L		BJB1	07/28/04	1123	350490	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.62	+/-10.4	8.38	+/-10.2	17.4	pCi/L		SRB	07/19/04	2159	346800	4
Cesium-134	U	0.895	+/-1.32	1.15	+/-1.29	2.47	pCi/L						
Cesium-137	U	0.318	+/-1.29	1.09	+/-1.27	2.33	pCi/L						
Cobalt-60	U	0.017	+/-1.46	1.21	+/-1.43	2.65	pCi/L						
Europium-152	U	-0.699	+/-3.97	3.15	+/-3.90	6.62	pCi/L						
Europium-154	U	0.0175	+/-3.44	2.85	+/-3.37	6.34	pCi/L						
Europium-155	U	-0.388	+/-5.16	4.40	+/-5.06	9.08	pCi/L						
Manganese-54	U	0.180	+/-1.28	1.05	+/-1.26	2.27	pCi/L						
Niobium-94	U	-0.17	+/-1.29	0.911	+/-1.26	1.96	pCi/L						
Silver-108m	U	-1.01	+/-1.21	0.973	+/-1.19	2.06	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	1.11	+/-0.656	0.575	+/-0.711	1.26	pCi/L		HOB1	07/15/04	1245	347780	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		5.30	+/-1.86	1.30	+/-1.94	2.84	pCi/L		ATH1	07/26/04	1743	350566	6
Beta		5.67	+/-1.22	0.787	+/-1.22	1.68	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		1280	+/-208	138	+/-209	277	pCi/L		JLB1	07/20/04	0630	348827	7
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-3.61	+/-43.9	36.9	+/-43.9	74.5	pCi/L		PD	07/09/04	1215	347077	8
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	6.19	+/-12.9	5.72	+/-12.9	11.8	pCi/L		JLB1	07/29/04	0532	349214	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: July 31, 2004

Client Sample ID: MW-105D-0204-001
Sample ID: 116165014

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-4.97	+/-7.69	6.57	+/-7.69	13.4	pCi/L		JLB1	07/21/04	1141	349216	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-4.26	+/-4.70	4.07	+/-4.70	8.36	pCi/L		DAJ1	07/25/04	2046	348813	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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	98	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	93	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	91	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	93	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	79	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	99	

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

Report Date: July 31, 2004

Client Sample ID: MW-105D-0204-001
Sample ID: 116165014

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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.
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UI Uncertain identification for gamma spectroscopy.
Y Lab-specific qualifier-please see case narrative, data summary package or contact your project manager for details.
J Sample preparation or preservation holding time exceeded.

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Heather J Cusack

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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: July 31, 2004

Client Sample ID:	MW103D-0204-001	Project:	YANK00304
Sample ID:	116165015	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	30-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.0644	+/-0.117	0.160	+/-0.118	0.414	pCi/L		BJB1	07/24/04	1532	350489	1
Plutonium-239/240	U	0.123	+/-0.139	0.0564	+/-0.140	0.208	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.0447	+/-0.108	0.140	+/-0.108	0.369	pCi/L		BJB1	07/24/04	1532	350488	2
Curium-242	U	-0.0263	+/-0.0297	0.072	+/-0.0299	0.243	pCi/L						
Curium-243/244	U	-0.0619	+/-0.0839	0.130	+/-0.0843	0.349	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	4.81	+/-6.78	5.56	+/-6.79	11.4	pCi/L		BJB1	07/28/04	1210	350490	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	3.07	+/-10.3	8.77	+/-10.1	18.1	pCi/L		SRB	07/19/04	2159	346800	4
Cesium-134	U	0.601	+/-1.38	1.15	+/-1.35	2.48	pCi/L						
Cesium-137	U	1.44	+/-2.07	1.05	+/-2.03	2.23	pCi/L						
Cobalt-60	U	0.568	+/-1.43	1.22	+/-1.40	2.67	pCi/L						
Europium-152	U	0.424	+/-3.80	3.23	+/-3.72	6.74	pCi/L						
Europium-154	U	-0.468	+/-3.69	3.00	+/-3.62	6.59	pCi/L						
Europium-155	U	-1.44	+/-4.98	4.07	+/-4.88	8.41	pCi/L						
Manganese-54	U	0.0734	+/-1.33	1.07	+/-1.31	2.30	pCi/L						
Niobium-94	U	0.546	+/-1.20	1.01	+/-1.18	2.15	pCi/L						
Silver-108m	U	-0.589	+/-1.26	1.02	+/-1.23	2.14	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	1.26	+/-0.720	0.628	+/-0.788	1.37	pCi/L		HOB1	07/15/04	1245	347780	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		2.72	+/-1.31	0.892	+/-1.34	2.02	pCi/L		ATH1	07/26/04	1949	350566	6
Beta		3.36	+/-0.947	0.620	+/-0.948	1.34	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		6530	+/-313	127	+/-330	254	pCi/L		JLB1	07/20/04	0733	348827	7
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-4.07	+/-43.3	36.4	+/-43.3	73.5	pCi/L		PD	07/09/04	1348	347077	8
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	2.08	+/-12.6	5.97	+/-12.6	12.3	pCi/L		JLB1	07/29/04	0635	349214	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: July 31, 2004

Client Sample ID: MW103D-0204-001
Sample ID: 116165015

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-5.64	+/-6.72	5.77	+/-6.72	11.8	pCi/L		JLB1	07/21/04	1212	349216	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-3.4	+/-4.70	4.04	+/-4.70	8.31	pCi/L		DAJ1	07/25/04	2118	348813	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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	81	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	90	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	89	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	82	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

Notes:
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Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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, Sarah Kozlik.

Heather G Uncal
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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: July 31, 2004

Client Sample ID: MW105S-0204-001
Sample ID: 116165016
Matrix: Ground Water
Collect Date: 29-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	0.0669	+/-0.170	0.155	+/-0.170	0.392	pCi/L		BJB1	07/24/04	1532	350489	1
Plutonium-239/240	U	0.062	+/-0.107	0.0693	+/-0.107	0.221	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.0224	+/-0.0254	0.0615	+/-0.0255	0.207	pCi/L		BJB1	07/24/04	1532	350488	2
Curium-242	U	0.00	+/-0.0681	0.00	+/-0.0681	0.0941	pCi/L						
Curium-243/244	U	-0.00375	+/-0.118	0.128	+/-0.118	0.341	pCi/L						
quid Scint Pu241, Liquid-ALL													
lutonium-241	U	8.32	+/-7.85	6.37	+/-7.89	13.1	pCi/L		BJB1	07/28/04	1256	350490	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	2.96	+/-7.67	6.41	+/-7.52	13.2	pCi/L		SRB	07/19/04	2202	346800	4
Cesium-134	U	0.651	+/-1.31	1.09	+/-1.28	2.34	pCi/L						
Cesium-137	U	-0.409	+/-1.22	0.952	+/-1.19	2.03	pCi/L						
Cobalt-60	U	0.984	+/-1.30	1.15	+/-1.27	2.50	pCi/L						
Europium-152	U	2.86	+/-4.15	3.09	+/-4.07	6.44	pCi/L						
Europium-154	U	0.348	+/-3.15	2.63	+/-3.09	5.79	pCi/L						
Europium-155	U	-0.109	+/-5.33	4.33	+/-5.23	8.89	pCi/L						
Manganese-54	U	-0.828	+/-1.25	0.997	+/-1.23	2.13	pCi/L						
Niobium-94	U	0.968	+/-1.15	0.988	+/-1.13	2.09	pCi/L						
Silver-108m	U	0.352	+/-1.43	1.06	+/-1.40	2.21	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		16.2	+/-1.71	0.633	+/-4.32	1.38	pCi/L		HOB1	07/15/04	1408	347780	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.163	+/-1.18	0.876	+/-1.20	2.01	pCi/L		ATH1	07/26/04	1949	350566	6
Beta		44.3	+/-2.70	0.688	+/-2.74	1.48	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		3350	+/-263	138	+/-268	277	pCi/L		JLB1	07/20/04	0836	348827	7
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-14.7	+/-43.6	36.8	+/-44.0	74.3	pCi/L		PD	07/09/04	1521	347077	8
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	9.02	+/-13.4	6.11	+/-13.4	12.6	pCi/L		JLB1	07/21/04	2328	349214	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: July 31, 2004

Client Sample ID: MW105S-0204-001
Sample ID: 116165016

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-0.892	+/-7.62	6.41	+/-7.62	13.1	pCi/L		JLB1	07/21/04	1244	349216	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.65	+/-4.74	4.05	+/-4.74	8.33	pCi/L		DAJ1	07/25/04	2151	348813	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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	84	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	78	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	94	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	84	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	80	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	100	

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Report Date: July 31, 2004

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Sample ID: 116165016

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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.
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, Sarah Kozlik.

Reviewed by

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

Report Date: July 31, 2004

Client Sample ID:	MW600-0204-001	Project:	YANK00304
Sample ID:	116165017	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	29-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Alpha Spec Analysis													
Alphaspec Pu, Liquid-ALL													
Plutonium-238	U	-0.00849	+/-0.0166	0.0403	+/-0.0167	0.176	pCi/L		BJB1	07/24/04	1532	350489	1
Plutonium-239/240	U	0.0368	+/-0.103	0.0806	+/-0.104	0.257	pCi/L						
Am241,Cm, Liquid-ALL													
Americium-241	U	-0.014	+/-0.0724	0.0889	+/-0.0724	0.264	pCi/L		BJB1	07/24/04	1532	350488	2
Curium-242	U	-0.0256	+/-0.0289	0.0701	+/-0.0291	0.236	pCi/L						
Curium-243/244	U	0.0689	+/-0.164	0.145	+/-0.165	0.377	pCi/L						
Liquid Scint Pu241, Liquid-ALL													
Plutonium-241	U	6.14	+/-6.59	5.37	+/-6.61	11.0	pCi/L		BJB1	07/28/04	1343	350490	3
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-0.466	+/-3.55	2.90	+/-3.48	6.07	pCi/L		SRB	07/20/04	1010	346800	4
Cesium-134	U	1.80	+/-3.45	2.16	+/-3.38	4.73	pCi/L						
Cesium-137	U	-1.62	+/-2.51	1.98	+/-2.46	4.32	pCi/L						
Cobalt-60	U	1.78	+/-2.09	2.01	+/-2.05	4.56	pCi/L						
Europium-152	U	-2.89	+/-5.06	3.94	+/-4.96	8.52	pCi/L						
Europium-154	U	-2.95	+/-7.66	6.12	+/-7.51	13.7	pCi/L						
Europium-155	U	1.05	+/-5.77	4.67	+/-5.65	9.78	pCi/L						
Manganese-54	U	0.381	+/-2.34	1.97	+/-2.29	4.33	pCi/L						
Niobium-94	U	0.716	+/-2.15	1.86	+/-2.10	4.04	pCi/L						
Silver-108m	U	0.469	+/-1.75	1.46	+/-1.71	3.17	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90		16.8	+/-1.73	0.609	+/-4.73	1.33	pCi/L		HOB1	07/15/04	1408	347780	5
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.257	+/-1.19	0.942	+/-1.19	2.14	pCi/L		ATH1	07/26/04	1949	350566	6
Beta		43.2	+/-2.72	0.860	+/-2.75	1.83	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		3270	+/-260	138	+/-266	276	pCi/L		JLB1	07/20/04	0939	348827	7
Liquid Scint C14, Liquid-ALL													
Carbon-14	U	-13.2	+/-44.0	37.1	+/-44.3	74.9	pCi/L		PD	07/09/04	1655	347077	8
Liquid Scint Fe55, Liquid-ALL													
Iron-55	U	1.85	+/-11.3	5.28	+/-11.3	10.9	pCi/L		JLB1	07/22/04	0030	349214	9
Liquid Scint Ni63, Liquid-ALL													

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

Report Date: July 31, 2004

Client Sample ID: MW600-0204-001
Sample ID: 116165017

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Liquid Scintillation Analysis													
Liquid Scint Ni63, Liquid-ALL													
Nickel-63	U	-4.7	+/-7.26	6.21	+/-7.26	12.7	pCi/L		JLB1	07/21/04	1315	349216	10
Liquid Scint Tc99, Liquid-ALL													
Technetium-99	U	-2.31	+/-4.78	4.08	+/-4.78	8.39	pCi/L		DAJ1	07/25/04	2223	348813	11

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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	84	(15%-125%)
Americium-243	Am241,Cm, Liquid-ALL	91	(25%-125%)
Carrier/Tracer Recovery	Liquid Scint Pu241, Liquid-ALL	92	
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	86	
Carrier/Tracer Recovery	Liquid Scint Fe55, Liquid-ALL	87	
Carrier/Tracer Recovery	Liquid Scint Ni63, Liquid-ALL	81	
Carrier/Tracer Recovery	Liquid Scint Tc99, Liquid-ALL	99	

Notes:
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Report Date: July 31, 2004

Client Sample ID: MW600-0204-001
Sample ID: 116165017

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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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, Sarah Kozlik.

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: July 31, 2004

Client Sample ID:	MW508D-0204-001	Project:	YANK00304
Sample ID:	116165018	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	30-JUN-04		
Receive Date:	02-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-4.31	+/-9.85	7.87	+/-9.65	16.2	pCi/L		SRB 07/19/04	2230	346800	1
Cesium-134	U	0.616	+/-1.57	1.33	+/-1.54	2.83	pCi/L					
Cesium-137	U	0.557	+/-1.53	1.31	+/-1.50	2.76	pCi/L					
Cobalt-60	U	0.145	+/-1.59	1.33	+/-1.55	2.87	pCi/L					
Europium-152	U	0.207	+/-4.29	3.51	+/-4.21	7.33	pCi/L					
uropium-154	U	-2.0	+/-4.50	3.00	+/-4.41	6.57	pCi/L					
uropium-155	U	-0.886	+/-5.94	4.71	+/-5.82	9.69	pCi/L					
Manganese-54	U	-0.871	+/-1.36	1.05	+/-1.34	2.26	pCi/L					
Niobium-94	U	-0.55	+/-1.33	1.07	+/-1.30	2.26	pCi/L					
Silver-108m	U	0.137	+/-1.43	1.16	+/-1.40	2.44	pCi/L					
Rad Gas Flow Proportional Counting												
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha		7.58	+/-1.85	0.915	+/-1.96	2.07	pCi/L		ATH1 07/26/04	1949	350566	2
Beta		6.68	+/-1.22	0.677	+/-1.22	1.46	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	-11.5	+/-161	135	+/-161	270	pCi/L		JLB1 07/20/04	1042	348827	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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 :

B Target analyte was detected in the sample as well as the associated blank.

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: July 31, 2004

Client Sample ID: MW508D-0204-001
Sample ID: 116165018

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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: July 31, 2004

Client Sample ID: MW-100S-0204-001
Sample ID: 116165019
Matrix: Ground Water
Collect Date: 30-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	4.94	+/-12.2	9.64	+/-11.9	20.0	pCi/L		SRB	07/19/04	2216	346800	1
Cesium-134	U	0.331	+/-1.25	1.05	+/-1.23	2.26	pCi/L						
Cesium-137	U	0.612	+/-2.43	1.04	+/-2.38	2.21	pCi/L						
Cobalt-60	U	0.0636	+/-1.20	1.01	+/-1.18	2.22	pCi/L						
Europium-152	U	3.57	+/-4.29	3.15	+/-4.21	6.59	pCi/L						
Europium-154	U	2.53	+/-3.62	3.24	+/-3.55	7.03	pCi/L						
Europium-155	U	-3.37	+/-4.72	3.87	+/-4.62	8.01	pCi/L						
Manganese-54	U	0.200	+/-1.31	1.08	+/-1.28	2.30	pCi/L						
Niobium-94	U	0.136	+/-1.14	0.947	+/-1.12	2.02	pCi/L						
Silver-108m	U	0.410	+/-1.12	0.966	+/-1.09	2.04	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.253	+/-1.04	1.02	+/-1.04	2.27	pCi/L		ATH1	07/27/04	1029	350566	2
Beta		1.51	+/-0.849	0.700	+/-0.849	1.50	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	80.4	+/-172	142	+/-172	284	pCi/L		JLB1	07/20/04	1145	348827	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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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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: July 31, 2004

Client Sample ID: MW-100S-0204-001
Sample ID: 116165019

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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J Indicates an estimated value. The result was greater than the detection limit, but less than the reporting 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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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: July 31, 2004

Client Sample ID: MW-504-0204-001
Sample ID: 116165020
Matrix: Ground Water
Collect Date: 30-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	10.1	+/-7.82	6.25	+/-7.67	12.9	pCi/L		SRB	07/19/04	2308	346800	1
Cesium-134	U	-1.5	+/-1.34	0.927	+/-1.32	2.03	pCi/L						
Cesium-137	U	0.716	+/-1.29	1.10	+/-1.26	2.34	pCi/L						
Cobalt-60	U	0.186	+/-1.35	1.11	+/-1.32	2.46	pCi/L						
Europium-152	U	2.15	+/-3.97	3.44	+/-3.89	7.18	pCi/L						
Europium-154	U	3.40	+/-5.38	2.93	+/-5.28	6.50	pCi/L						
Europium-155	U	-0.575	+/-4.65	3.85	+/-4.56	7.96	pCi/L						
Manganese-54	U	-0.528	+/-1.33	1.08	+/-1.31	2.33	pCi/L						
Niobium-94	U	-0.449	+/-1.21	0.943	+/-1.19	2.02	pCi/L						
Silver-108m	U	0.255	+/-1.19	1.00	+/-1.17	2.12	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.767	+/-1.01	0.872	+/-1.01	1.97	pCi/L		ATH1	07/27/04	1029	350566	2
Beta		3.40	+/-0.945	0.621	+/-0.945	1.35	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		276	+/-174	138	+/-174	275	pCi/L		JLB1	07/20/04	1249	348827	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CJ	07/16/04	1844	346376

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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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: July 31, 2004

Client Sample ID: MW-504-0204-001
Sample ID: 116165020

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 31, 2004

Client Sample ID: MW-508S-0204-001
Sample ID: 116165021
Matrix: Ground Water
Collect Date: 30-JUN-04
Receive Date: 02-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	6.14	+/-9.72	8.63	+/-9.53	18.2	pCi/L		SRB	07/25/04	1611	346820	1
Cesium-134	U	-0.251	+/-1.86	1.50	+/-1.82	3.37	pCi/L						
Cesium-137	U	0.576	+/-1.63	1.42	+/-1.60	3.16	pCi/L						
Cobalt-60	U	5.24	+/-2.64	2.69	+/-2.58	5.87	pCi/L						
Europium-152	U	-1.32	+/-5.16	4.04	+/-5.06	8.71	pCi/L						
Europium-154	U	1.39	+/-4.77	4.05	+/-4.67	9.40	pCi/L						
Europium-155	U	5.24	+/-6.92	6.07	+/-6.79	12.7	pCi/L						
Manganese-54	U	-0.0592	+/-1.68	1.37	+/-1.64	3.08	pCi/L						
Niobium-94	U	-0.304	+/-1.55	1.25	+/-1.51	2.78	pCi/L						
Silver-108m	U	-0.0515	+/-1.76	1.40	+/-1.73	3.03	pCi/L						
Rad Gas Flow Proportional Counting													
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.356	+/-1.12	1.02	+/-1.12	2.28	pCi/L		ATH1	07/27/04	1430	350566	2
Beta		4.50	+/-1.09	0.719	+/-1.09	1.54	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	157	+/-174	141	+/-174	282	pCi/L		JLB1	07/20/04	1352	348827	3

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	FGA	07/15/04	1000	346378

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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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: July 31, 2004

Client Sample ID: MW-508S-0204-001
Sample ID: 116165021

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

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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: July 31, 2004

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

Contact: Mr. Dave Keefer

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 350488										
QC1200666550 116165014 DUP										
Americium-241	U	0.0272	U	0.0584	pCi/L	73		(0% - 100%)	BJB1	07/24/04 15:32
	Uncert:	+/-0.142		+/-0.101						
	TPU:	+/-0.142		+/-0.101						
Curium-242	U	0.00132	U	0.0319	pCi/L	184		(0% - 100%)		
	Uncert:	+/-0.0717		+/-0.0626						
	TPU:	+/-0.0717		+/-0.0627						
Curium-243/244	U	0.064	U	0.0103	pCi/L	145		(0% - 100%)		
	Uncert:	+/-0.153		+/-0.107						
	TPU:	+/-0.153		+/-0.107						
QC1200666552 LCS										
Americium-241	13.4			13.4	pCi/L		100	(75%-125%)		07/24/04 15:32
	Uncert:			+/-1.25						
	TPU:			+/-2.03						
Curium-242			U	-0.00739	pCi/L					
	Uncert:			+/-0.0621						
	TPU:			+/-0.0622						
Curium-243/244	17.2			17.1	pCi/L		99			
	Uncert:			+/-1.42						
	TPU:			+/-2.48						
QC1200666549 MB										
Americium-241			U	0.0784	pCi/L					07/24/04 15:32
	Uncert:			+/-0.155						
	TPU:			+/-0.155						
Curium-242			U	-0.0242	pCi/L					
	Uncert:			+/-0.0274						
	TPU:			+/-0.0275						
Curium-243/244			U	0.0465	pCi/L					
	Uncert:			+/-0.158						
	TPU:			+/-0.158						
QC1200666551 116165014 MS										
Americium-241	U	0.0272		12.5	pCi/L			(75%-125%)		07/24/04 15:32
	Uncert:	+/-0.142		+/-1.27						
	TPU:	+/-0.142		+/-1.99						
Curium-242	U	0.00132	U	-0.0074	pCi/L					
	Uncert:	+/-0.0717		+/-0.0823						
	TPU:	+/-0.0717		+/-0.0823						
Curium-243/244	U	0.064		18.5	pCi/L					
	Uncert:	+/-0.153		+/-1.55						
	TPU:	+/-0.153		+/-2.75						
Batch 350489										
QC1200666554 116165014 DUP										
Plutonium-238	U	-0.0134	U	-0.0193	pCi/L	N/A		(0% - 100%)	BJB1	07/24/04 15:32

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 350489										
	Uncert:	+/-0.0691		+/-0.0657						
	TPU:	+/-0.0691		+/-0.0658						
Plutonium-239/240	U	-0.0146	U	-0.0272	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-0.0202		+/-0.0266						
	TPU:	+/-0.0203		+/-0.0267						
QC1200666556 LCS										
Plutonium-238			U	0.290	pCi/L			(75%-125%)		07/24/04 15:32
	Uncert:			+/-0.225						
	TPU:			+/-0.228						
Plutonium-239/240	12.0			10.7	pCi/L		90	(75%-125%)		
	Uncert:			+/-1.13						
	TPU:			+/-1.67						
QC1200666553 MB										
Plutonium-238			U	0.0694	pCi/L					07/24/04 15:32
	Uncert:			+/-0.106						
	TPU:			+/-0.106						
Plutonium-239/240			U	0.214	pCi/L					
	Uncert:			+/-0.171						
	TPU:			+/-0.172						
QC1200666555 116165014 MS										
Plutonium-238	U	-0.0134	U	0.0349	pCi/L			(75%-125%)		07/24/04 15:32
	Uncert:	+/-0.0691		+/-0.0787						
	TPU:	+/-0.0691		+/-0.0788						
Plutonium-239/240	12.0 U	-0.0146		11.1	pCi/L		93	(75%-125%)		
	Uncert:	+/-0.0202		+/-1.08						
	TPU:	+/-0.0203		+/-1.64						
Batch 350490										
QC1200666558 116165014 DUP										
Plutonium-241	U	0.00	U	1.38	pCi/L	0		(0% - 100%)	BJB1	07/28/04 15:16
	Uncert:	+/-6.53		+/-6.33						
	TPU:	+/-6.53		+/-6.33						
QC1200666560 LCS										
Plutonium-241	70.7			67.8	pCi/L		96	(75%-125%)		07/28/04 16:49
	Uncert:			+/-4.58						
	TPU:			+/-7.35						
QC1200666557 MB										
Plutonium-241			U	1.21	pCi/L					07/28/04 14:29
	Uncert:			+/-2.81						
	TPU:			+/-2.81						
QC1200666559 116165014 MS										
Plutonium-241	177 U	0.00		161	pCi/L		91	(75%-125%)		07/28/04 16:02
	Uncert:	+/-6.53		+/-10.6						
	TPU:	+/-6.53		+/-17.2						
Rad Gamma Spec										
Batch 346800										
QC1200657518 116165001 DUP										
Americium-241	U	0.753	U	-7.51	pCi/L	N/A		(0% - 100%)	SRB	07/20/04 14:41
	Uncert:	+/-2.45		+/-13.3						
				+/-13.1						

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346800										
	TPU:	+/-2.40								
Cesium-134	U	-0.753	U	1.23	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.87		+/-3.33						
	TPU:	+/-1.83		+/-3.27						
Cesium-137	U	1.45	U	0.526	pCi/L	93		(0% - 100%)		
	Uncert:	+/-1.86		+/-2.31						
	TPU:	+/-1.82		+/-2.26						
Cobalt-60	U	0.194	U	-1.34	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.86		+/-2.01						
	TPU:	+/-1.82		+/-1.97						
Europium-152	U	0.288	U	-0.445	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.89		+/-7.36						
	TPU:	+/-3.81		+/-7.21						
Europium-154	U	2.66	U	-0.572	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.74		+/-5.09						
	TPU:	+/-4.64		+/-4.99						
Europium-155	U	-1.15	U	3.38	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-4.20		+/-8.34						
	TPU:	+/-4.11		+/-8.17						
Manganese-54	U	0.368	U	0.0673	pCi/L	138		(0% - 100%)		
	Uncert:	+/-1.70		+/-2.01						
	TPU:	+/-1.67		+/-1.97						
Niobium-94	U	0.0195	U	-1.81	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.70		+/-1.88						
	TPU:	+/-1.67		+/-1.85						
Silver-108m	U	-1.55	U	-1.84	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.40		+/-2.34						
	TPU:	+/-1.37		+/-2.29						
QC1200657520 LCS										
Americium-241	1170			1300	pCi/L		111	(75%-125%)		07/20/04 16:06
	Uncert:			+/-254						
	TPU:			+/-248						
Cesium-134			U	1.95	pCi/L					
	Uncert:			+/-13.8						
	TPU:			+/-13.5						
Cesium-137	461			523	pCi/L		114	(75%-125%)		
	Uncert:			+/-50.6						
	TPU:			+/-49.6						
Cobalt-60	708			738	pCi/L		104	(75%-125%)		
	Uncert:			+/-69.5						
	TPU:			+/-68.1						
Europium-152			U	20.5	pCi/L					
	Uncert:			+/-28.3						
	TPU:			+/-27.7						
Europium-154			U	4.16	pCi/L					
	Uncert:			+/-25.0						
	TPU:			+/-24.5						
Europium-155			U	38.2	pCi/L					

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346800										
	Uncert:			+/-43.4						
	TPU:			+/-42.5						
Manganese-54			U	-6.23	pCi/L					
	Uncert:			+/-10.8						
	TPU:			+/-10.6						
Niobium-94			U	-6.01	pCi/L					
	Uncert:			+/-10.2						
	TPU:			+/-10.0						
Silver-108m			U	-0.426	pCi/L					
	Uncert:			+/-9.57						
	TPU:			+/-9.37						
QC1200657517 MB										
Americium-241			U	1.21	pCi/L					07/20/04 10:10
	Uncert:			+/-10.9						
	TPU:			+/-10.7						
Cesium-134			U	0.173	pCi/L					
	Uncert:			+/-2.07						
	TPU:			+/-2.02						
Cesium-137			U	-0.48	pCi/L					
	Uncert:			+/-1.95						
	TPU:			+/-1.91						
Cobalt-60			U	-0.159	pCi/L					
	Uncert:			+/-2.02						
	TPU:			+/-1.98						
Europium-152			U	-0.246	pCi/L					
	Uncert:			+/-5.07						
	TPU:			+/-4.97						
Europium-154			U	0.0444	pCi/L					
	Uncert:			+/-5.49						
	TPU:			+/-5.38						
Europium-155			U	3.62	pCi/L					
	Uncert:			+/-5.23						
	TPU:			+/-5.12						
Manganese-54			U	1.17	pCi/L					
	Uncert:			+/-1.92						
	TPU:			+/-1.89						
Niobium-94			U	0.331	pCi/L					
	Uncert:			+/-1.65						
	TPU:			+/-1.62						
Silver-108m			U	0.257	pCi/L					
	Uncert:			+/-1.60						
	TPU:			+/-1.57						
QC1200657519 116165001 MS										
Americium-241	9360 U	0.753		8440	pCi/L		90			07/22/04 17:28
	Uncert:	+/-2.45		+/-1610						
	TPU:	+/-2.40		+/-26500						
Cesium-134	U	-0.753	U	-72.4	pCi/L					
	Uncert:	+/-1.87		+/-167						
	TPU:	+/-1.83		+/-280						

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346800										
Cesium-137	3690	1.45	U	4130	pCi/L		112			
	Uncert:	+/-1.86		+/-524						
	TPU:	+/-1.82		+/-13000						
Cobalt-60	5640	0.194	U	6770	pCi/L		120			
	Uncert:	+/-1.86		+/-633						
	TPU:	+/-1.82		+/-21200						
Europium-152	U	0.288	U	121	pCi/L					
	Uncert:	+/-3.89		+/-384						
	TPU:	+/-3.81		+/-535						
Europium-154	U	2.66	U	269	pCi/L					
	Uncert:	+/-4.74		+/-277						
	TPU:	+/-4.64		+/-886						
Europium-155	U	-1.15	U	420	pCi/L					
	Uncert:	+/-4.20		+/-446						
	TPU:	+/-4.11		+/-1390						
Manganese-54	U	0.368	U	89.6	pCi/L					
	Uncert:	+/-1.70		+/-148						
	TPU:	+/-1.67		+/-316						
Niobium-94	U	0.0195	U	115	pCi/L					
	Uncert:	+/-1.70		+/-131						
	TPU:	+/-1.67		+/-383						
Silver-108m	U	-1.55	U	-67.4	pCi/L					
	Uncert:	+/-1.40		+/-148						
	TPU:	+/-1.37		+/-257						
Batch 346820										
QC1200657582 116165021 DUP										
Americium-241	U	6.14	U	-3.43	pCi/L	N/A			SRB	07/26/04 09:35
	Uncert:	+/-9.72		+/-11.0						
	TPU:	+/-9.53		+/-10.7						
Cesium-134	U	-0.251	U	0.827	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.86		+/-2.01						
	TPU:	+/-1.82		+/-1.97						
Cesium-137	U	0.576	U	1.80	pCi/L	103		(0% - 100%)		
	Uncert:	+/-1.63		+/-1.95						
	TPU:	+/-1.60		+/-1.91						
Cobalt-60	U	5.24	U	0.703	pCi/L	153		(0% - 100%)		
	Uncert:	+/-2.64		+/-1.68						
	TPU:	+/-2.58		+/-1.65						
Europium-152	U	-1.32	U	-0.25	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.16		+/-4.83						
	TPU:	+/-5.06		+/-4.73						
Europium-154	U	1.39	U	2.34	pCi/L	51		(0% - 100%)		
	Uncert:	+/-4.77		+/-4.98						
	TPU:	+/-4.67		+/-4.88						
Europium-155	U	5.24	U	3.27	pCi/L	47		(0% - 100%)		
	Uncert:	+/-6.92		+/-6.74						
	TPU:	+/-6.79		+/-6.60						
Manganese-54	U	-0.0592	U	-0.761	pCi/L	N/A		(0% - 100%)		

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346820										
	Uncert:	+/-1.68		+/-1.60						
	TPU:	+/-1.64		+/-1.57						
Niobium-94	U	-0.304	U	-0.177	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.55		+/-1.60						
	TPU:	+/-1.51		+/-1.57						
Silver-108m	U	-0.0515	U	0.388	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.76		+/-1.62						
	TPU:	+/-1.73		+/-1.59						
QC1200657584 LCS										
Americium-241	1170			1230	pCi/L		105	(75%-125%)		07/28/04 12:19
	Uncert:			+/-163						
	TPU:			+/-159						
Cesium-134			U	-3.13	pCi/L					
	Uncert:			+/-7.92						
	TPU:			+/-7.77						
Cesium-137	461			480	pCi/L		104	(75%-125%)		
	Uncert:			+/-41.0						
	TPU:			+/-40.2						
Cobalt-60	709			762	pCi/L		108	(75%-125%)		
	Uncert:			+/-60.5						
	TPU:			+/-59.3						
Europium-152			U	-5.35	pCi/L					
	Uncert:			+/-19.3						
	TPU:			+/-18.9						
Europium-154			U	-6.69	pCi/L					
	Uncert:			+/-17.4						
	TPU:			+/-17.0						
Europium-155			U	-14.5	pCi/L					
	Uncert:			+/-27.6						
	TPU:			+/-27.0						
Manganese-54			U	-5.14	pCi/L					
	Uncert:			+/-8.21						
	TPU:			+/-8.05						
Niobium-94			U	3.62	pCi/L					
	Uncert:			+/-6.89						
	TPU:			+/-6.75						
Silver-108m			U	-1.26	pCi/L					
	Uncert:			+/-6.90						
	TPU:			+/-6.77						
QC1200657581 MB										
Americium-241			U	-5.76	pCi/L					07/25/04 16:12
	Uncert:			+/-15.4						
	TPU:			+/-15.1						
Cesium-134			U	-2.01	pCi/L					
	Uncert:			+/-3.16						
	TPU:			+/-3.09						
Cesium-137			U	1.01	pCi/L					
	Uncert:			+/-1.97						
	TPU:			+/-1.93						

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346820										
Cobalt-60			U	0.188	pCi/L					
	Uncert:			+/-1.83						
	TPU:			+/-1.80						
Europium-152			U	2.13	pCi/L					
	Uncert:			+/-5.65						
	TPU:			+/-5.53						
Europium-154			U	-0.515	pCi/L					
	Uncert:			+/-5.15						
	TPU:			+/-5.05						
Europium-155			U	-2.67	pCi/L					
	Uncert:			+/-7.64						
	TPU:			+/-7.48						
Manganese-54			U	-0.241	pCi/L					
	Uncert:			+/-2.05						
	TPU:			+/-2.01						
Niobium-94			U	0.258	pCi/L					
	Uncert:			+/-1.97						
	TPU:			+/-1.93						
Silver-108m			U	-0.831	pCi/L					
	Uncert:			+/-2.08						
	TPU:			+/-2.04						
QC1200657583 116165021 MS										
Americium-241	9360 U	6.14		10200	pCi/L		109			07/26/04 14:47
	Uncert:	+/-9.72		+/-1530						
	TPU:	+/-9.53		+/-32200						
Cesium-134	U	-0.251	U	-80.3	pCi/L					
	Uncert:	+/-1.86		+/-113						
	TPU:	+/-1.82		+/-275						
Cesium-137	3690 U	0.576		3870	pCi/L		105			
	Uncert:	+/-1.63		+/-440						
	TPU:	+/-1.60		+/-12100						
Cobalt-60	5700 U	5.24		6280	pCi/L		110			
	Uncert:	+/-2.64		+/-614						
	TPU:	+/-2.58		+/-19700						
Europium-152	U	-1.32	U	97.9	pCi/L					
	Uncert:	+/-5.16		+/-219						
	TPU:	+/-5.06		+/-375						
Europium-154	U	1.39	U	-13.6	pCi/L					
	Uncert:	+/-4.77		+/-246						
	TPU:	+/-4.67		+/-245						
Europium-155	U	5.24	U	98.6	pCi/L					
	Uncert:	+/-6.92		+/-275						
	TPU:	+/-6.79		+/-410						
Manganese-54	U	-0.0592	U	-50.9	pCi/L					
	Uncert:	+/-1.68		+/-98.7						
	TPU:	+/-1.64		+/-187						
Niobium-94	U	-0.304	U	-8.44	pCi/L					
	Uncert:	+/-1.55		+/-89.8						

QC Summary

Workorder: *116165*

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 346820										
	TPU:	+/-1.51		+/-91.9						
Silver-108m	U	-0.0515	U	-58.6	pCi/L					
	Uncert:	+/-1.76		+/-85.8						
	TPU:	+/-1.73		+/-202						
Rad Gas Flow										
Batch 347780										
QC1200659984 116165001 DUP										
Strontium-90	U	0.689	U	1.10	pCi/L	0		(0% - 100%)	HOB1	07/15/04 15:46
	Uncert:	+/-0.637		+/-0.729						
	TPU:	+/-0.661		+/-0.782						
QC1200659986 LCS										
Strontium-90	61.2			52.3	pCi/L		86	(75%-125%)		
	Uncert:			+/-2.81						
	TPU:			+/-12.4						
QC1200659983 MB										
Strontium-90			U	0.391	pCi/L					07/15/04 14:08
	Uncert:			+/-0.657						
	TPU:			+/-0.665						
QC1200659985 116165001 MS										
Strontium-90	122 U	0.689		115	pCi/L		93	(75%-125%)		07/15/04 15:46
	Uncert:	+/-0.637		+/-5.96						
	TPU:	+/-0.661		+/-29.0						
Batch 350139										
QC1200665743 116852001 DUP										
Alpha	U	1.65	U	0.638	pCi/L	0		(0% - 100%)	ATH1	07/23/04 10:17
	Uncert:	+/-1.09		+/-0.974						
	TPU:	+/-1.10		+/-0.977						
Beta	U	0.275	U	0.454	pCi/L	0		(0% - 100%)		
	Uncert:	+/-0.848		+/-0.908						
	TPU:	+/-0.848		+/-0.908						
QC1200665746 LCS										
Alpha	71.9			70.1	pCi/L		98	(75%-125%)		07/23/04 10:14
	Uncert:			+/-8.58						
	TPU:			+/-12.2						
Beta	244			243	pCi/L		100	(75%-125%)		
	Uncert:			+/-10.7						
	TPU:			+/-11.1						
QC1200665742 MB										
Alpha			U	2.72	pCi/L					07/23/04 10:17
	Uncert:			+/-1.59						
	TPU:			+/-1.61						
Beta			U	0.654	pCi/L					
	Uncert:			+/-1.00						
	TPU:			+/-1.00						
QC1200665744 116852001 MS										
Alpha	71.9 U	1.65		77.0	pCi/L		105	(75%-125%)		07/23/04 09:17
	Uncert:	+/-1.09		+/-8.44						
	TPU:	+/-1.10		+/-9.75						
Beta	245 U	0.275		251	pCi/L		102	(75%-125%)		

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 350139										
	Uncert:	+/-0.848		+/-10.7						
	TPU:	+/-0.848		+/-10.8						
QC1200665745 116852001 MSD										
Alpha	71.9 U	1.65		76.1	pCi/L	1*	104	(75%-125%)		
	Uncert:	+/-1.09		+/-8.47						
	TPU:	+/-1.10		+/-11.4						
Beta	245 U	0.275		249	pCi/L	1*	102	(75%-125%)		
	Uncert:	+/-0.848		+/-10.7						
	TPU:	+/-0.848		+/-11.1						
Batch 350566										
QC1200666710 116165011 DUP										
Alpha	U	0.441	U	-0.474	pCi/L	N/A		(0% - 100%)	ATH1	07/29/04 16:14
	Uncert:	+/-1.12		+/-0.975						
	TPU:	+/-1.12		+/-0.975						
Beta		6.53		3.64	pCi/L	57		(0% - 100%)		
	Uncert:	+/-1.16		+/-0.994						
	TPU:	+/-1.17		+/-0.994						
QC1200666713 LCS										
Alpha	71.9			60.9	pCi/L		85	(75%-125%)		07/26/04 18:52
	Uncert:			+/-7.61						
	TPU:			+/-8.54						
Beta	244			245	pCi/L		100	(75%-125%)		
	Uncert:			+/-10.5						
	TPU:			+/-10.7						
QC1200666709 MB										
Alpha			U	-0.774	pCi/L					07/27/04 14:30
	Uncert:			+/-0.560						
	TPU:			+/-0.566						
Beta			U	-0.0404	pCi/L					
	Uncert:			+/-0.676						
	TPU:			+/-0.676						
QC1200666711 116165011 MS										
Alpha	71.9 U	0.441		54.9	pCi/L		76	(75%-125%)		07/30/04 18:59
	Uncert:	+/-1.12		+/-8.41						
	TPU:	+/-1.12		+/-9.69						
Beta	245	6.53		253	pCi/L		101	(75%-125%)		
	Uncert:	+/-1.16		+/-10.6						
	TPU:	+/-1.17		+/-10.7						
QC1200666712 116165011 MSD										
Alpha	71.9 U	0.441		62.0	pCi/L	12*	86	(75%-125%)		07/26/04 18:52
	Uncert:	+/-1.12		+/-9.32						
	TPU:	+/-1.12		+/-11.4						
Beta	245	6.53		269	pCi/L	6*	107	(75%-125%)		
	Uncert:	+/-1.16		+/-11.0						
	TPU:	+/-1.17		+/-11.3						
Rad Liquid Scintillation										
Batch 347077										
QC1200658273 115840001 DUP										

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 347077										
Carbon-14	U	0.0761	U	0.461	pCi/L	0		(0% - 100%)	PD	07/10/04 00:45
Uncert:		+/-3.24		+/-3.42						
TPU:		+/-3.24		+/-3.42						
QC1200658275 LCS										
Carbon-14	202			201	pCi/L		100	(75%-125%)		07/10/04 03:15
Uncert:				+/-5.73						
TPU:				+/-8.58						
QC1200658272 MB										
Carbon-14			U	-2.14	pCi/L					07/09/04 23:12
Uncert:				+/-3.32						
TPU:				+/-3.32						
QC1200658274 115840001 MS										
Carbon-14	202 U	0.0761		212	pCi/L		105	(75%-125%)		07/10/04 01:59
Uncert:		+/-3.24		+/-5.96						
TPU:		+/-3.24		+/-8.99						
Batch 348813										
QC1200662486 116165014 DUP										
Technetium-99	U	-4.26	U	-2.09	pCi/L	N/A		(0% - 100%)	DAJ1	07/25/04 23:28
Uncert:		+/-4.70		+/-4.65						
TPU:		+/-4.70		+/-4.65						
QC1200662488 LCS										
echnetium-99	470			491	pCi/L		104	(75%-125%)		07/26/04 00:33
Uncert:				+/-13.7						
TPU:				+/-17.7						
QC1200662485 MB										
Technetium-99			U	-0.445	pCi/L					07/25/04 22:56
Uncert:				+/-4.95						
TPU:				+/-4.95						
QC1200662487 116165014 MS										
Technetium-99	470 U	-4.26		493	pCi/L		105	(75%-125%)		07/26/04 00:00
Uncert:		+/-4.70		+/-16.2						
TPU:		+/-4.70		+/-19.7						
Batch 348827										
QC1200662539 116165001 DUP										
Tritium		1010		789	pCi/L	24		(0% - 100%)	JLB1	07/20/04 15:58
Uncert:		+/-220		+/-171						
TPU:		+/-220		+/-172						
QC1200662541 LCS										
Tritium	3220			2820	pCi/L		88	(75%-125%)		07/20/04 18:05
Uncert:				+/-238						
TPU:				+/-242						
QC1200662538 MB										
Tritium			U	-97.5	pCi/L					07/29/04 02:50
Uncert:				+/-205						
TPU:				+/-205						
QC1200662540 116165001 MS										
Tritium	3230	1010		3500	pCi/L		77	(75%-125%)		07/20/04 17:02
Uncert:		+/-220		+/-261						
TPU:		+/-220		+/-267						

QC Summary

Workorder: 116165

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 349214										
QC1200663487 116165014 DUP										
Iron-55	U	6.19	U	2.27	pCi/L	0		(0% - 100%)	JLB1	07/22/04 02:35
	Uncert:	+/-12.9		+/-11.3						
	TPU:	+/-12.9		+/-11.3						
QC1200663489 LCS										
Iron-55	56.3			47.6	pCi/L		84*	(0%-%)		07/22/04 04:40
	Uncert:			+/-12.5						
	TPU:			+/-12.7						
QC1200663486 MB										
Iron-55			U	3.35	pCi/L					07/22/04 01:32
	Uncert:			+/-12.0						
	TPU:			+/-12.0						
QC1200663488 116165014 MS										
Iron-55	57.1 U	6.19		55.4	pCi/L		86*	(0%-%)		07/29/04 08:39
	Uncert:	+/-12.9		+/-12.7						
	TPU:	+/-12.9		+/-12.9						
Batch 349216										
QC1200663495 116165014 DUP										
Nickel-63	U	-4.97	U	-6.43	pCi/L	N/A		(0% - 100%)	JLB1	07/21/04 14:18
	Uncert:	+/-7.69		+/-7.78						
	TPU:	+/-7.69		+/-7.78						
QC1200663497 LCS										
Nickel-63	261			310	pCi/L		119	(75%-125%)		07/21/04 15:21
	Uncert:			+/-13.6						
	TPU:			+/-17.3						
QC1200663494 MB										
Nickel-63			U	0.213	pCi/L					07/21/04 13:47
	Uncert:			+/-7.06						
	TPU:			+/-7.06						
QC1200663496 116165014 MS										
Nickel-63	261 U	-4.97		288	pCi/L		110	(75%-125%)		07/21/04 14:50
	Uncert:	+/-7.69		+/-13.1						
	TPU:	+/-7.69		+/-16.5						

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

- 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: 116165

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

August 05, 2004

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

RE: Quarterly Groundwater PO# 002337
Work Order: 116418
SDG: MSR#04-2114

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on July 08, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. 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. 4475.

Sincerely,

Sarah Kozlik
Project Manager

Purchase Order: 002337
Chain of Custody: 2004-00126
Enclosures

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

CONNECTICUT YANKEE

RE: Quarterly Groundwater
PO# 002337
Work Order: 116418
SDG: MSR#04-2114

116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001

Table of Contents

CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 116418
SDG: MSR#04-2114

August 5, 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 for the Quarterly Groundwater Project for work order 116418 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina July 8, 2004 for environmental analysis. All sample containers arrived without any visible signs of tampering or breakage. The chain of custody contained the proper documentation and signatures.

The laboratory received the following groundwater samples:

MW2-0204-001
MW117S-0204-001
MW102D-0204-001.

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:

Two groundwater samples were analyzed for MIX and one was 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.

Sarah Kozlik
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. 2004-00126

116418%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW2-0204-001	7/1/04	1250	WG	G	4L, 1L		X					+ Strontium 90	
MW117S-0204-001	7/1/04	1256	WG	G	4L, 1L	X						HNO_3, none	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-~~1807~~ 2114 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

Internal Container Temp.: 22 Deg. C

Custody Sealed? Y ☐ N ☑

Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 7-7-04 1330	2) Received By [signature] Date/Time 7-8-04 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. 2004-00122

116418%

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW102D-0204-001	7-6-04	0920	WG	G	4L, 1L	X						HNO_3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-~~1807~~ 2114 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp.: 21 Deg. C
Custody Sealed? Y ☐ N ☑
Custody Seal Intact? Y ☐ N ☐

1) Relinquished By: [signature] Date/Time 7-7-04 1330	2) Received By: [signature] Date/Time 7-8-04 1000
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

Figure 1. Sample Check-in List

Date/Time Received: 7-8-04 1000

SDG#: MBR# 04-2114

Work Order Number: 916418

Shipping Container ID: FED EX 7916 7919 7885 + 7863 Chain of Custody # 2004-00122 + 00126

1. Custody Seals on shipping container intact? Yes [ ] No [ ] NA ✓
2. Custody Seals dated and signed? Yes [ ] No [✓]
3. Chain-of-Custody record present? Yes [✓] No [ ]
4. Cooler temperature 7885 21° 7863 22°
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: 7-8-04

Telephoned to: _____ On _____ By _____

INORGANIC ANALYSIS

Metals Fractional Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-2114

Method/Analysis Information

Analytical Batch:	348554
Prep Batch :	348553
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
116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001
1200661879	Method Blank (MB)
1200661880	Laboratory Control Sample (LCS)
1200661883	116418001(MW2-0204-001L) Serial Dilution (SD)
1200661881	116418001(MW2-0204-001D) Sample Duplicate (DUP)
1200661882	116418001(MW2-0204-001S) 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 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 360+/-7 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
Sample 116418001 (MW2-0204-001) was selected as the quality control (QC) sample for this 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 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: _____ **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: August 2, 2004

Client Sample ID: MW2-0204-001
Sample ID: 116418001
Matrix: Ground Water
Collect Date: 01-JUL-04 12:50
Receive Date: 08-JUL-04
Collector: Client

Project: YANK00304
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	15.5	0.540	16.0	ug/L	1	BAJ	07/22/04	0952	348554	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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, Sarah Kozlik.

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: August 2, 2004

Client Sample ID: MW117S-0204-001
Sample ID: 116418002
Matrix: Ground Water
Collect Date: 01-JUL-04 12:56
Receive Date: 08-JUL-04
Collector: Client

Project: YANK00304
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		68.5	0.540	16.0	ug/L	1	BAJ	07/22/04	1003	348554	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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, Sarah Kozlik.

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: August 2, 2004

Client Sample ID: MW102D-0204-001
Sample ID: 116418003
Matrix: Ground Water
Collect Date: 06-JUL-04 09:20
Receive Date: 08-JUL-04
Collector: Client

Project: YANK00304
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		97.1	0.540	16.0	ug/L	1	BAJ	07/22/04	1006	348554	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

The following Analytical Methods were performed

Method	Description	Analyst Comments
1	SW846 3005/6020	

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

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, Sarah Kozlik.

Reviewed by

GENERAL ENGINEERING LABORATORIES, LLC

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

QC Summary

Report Date: August 2, 2004
Page 1 of 1

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

Contact: Mr. Dave Keefer

Workorder: 116418

Parmname	NOM		Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 348554											
QC1200661881 116418001 DUP											
Boron		J	15.5	J	14.0	ug/L	10 ^		(+/-16.0)	BAJ	07/22/04 09:55
QC1200661880 LCS											
Boron	100				114	ug/L		114	(80%-120%)		07/22/04 09:50
QC1200661879 MB											
Boron				U	ND	ug/L					07/22/04 09:47
QC1200661882 116418001 MS											
Boron	100	J	15.5		131	ug/L		115	(75%-125%)		07/22/04 09:58
QC1200661883 116418001 SDILT											
Boron		J	15.5	J	2.21	ug/L	28.9				07/22/04 10:00

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

- 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#04-2114

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF**
Analytical Method:	EPA 901.1
Analytical Batch Number:	349017

Sample ID	**Client ID**
116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001
1200663002	Method Blank (MB)
1200663005	Laboratory Control Sample (LCS)
1200663003	116418001(MW2-0204-001) Sample Duplicate (DUP)
1200663004	116418001(MW2-0204-001) 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-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: 116418001 (MW2-0204-001).

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:	350569

Sample ID	Client ID
116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001
1200666718	Method Blank (MB)
1200666722	Laboratory Control Sample (LCS)
1200666719	116418002(MW117S-0204-001) Sample Duplicate (DUP)
1200666720	116418002(MW117S-0204-001) Matrix Spike (MS)
1200666721	116418002(MW117S-0204-001) Matrix Spike Duplicate (MSD)

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: 116418002 (MW117S-0204-001).

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:	348452

Sample ID	Client ID
116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001
1200661600	Method Blank (MB)
1200661603	Laboratory Control Sample (LCS)
1200661601	116418001(MW2-0204-001) Sample Duplicate (DUP)
1200661602	116418001(MW2-0204-001) 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-RAD-A-004 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: 116418001 (MW2-0204-001).

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:	**LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN**
Analytical Method:	EPA 906.0 Modified
Analytical Batch Number:	350326

Sample ID	Client ID
116418001	MW2-0204-001
116418002	MW117S-0204-001
116418003	MW102D-0204-001
1200666133	Method Blank (MB)
1200666136	Laboratory Control Sample (LCS)
1200666134	116418001(MW2-0204-001) Sample Duplicate (DUP)
1200666135	116418001(MW2-0204-001) 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-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: 116418001 (MW2-0204-001).

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 116418001 (MW2-0204-001) was recounted due to high relative percent difference/relative error ratio. Samples 116418001 (MW2-0204-001), 116418002 (MW117S-0204-001), 1200666133 (MB) and 1200666134 (MW2-0204-001) were recounted due to high lumex and low quench numbers.

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: Micelle G. Cicon 8/6/04

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: Quarterly Groundwater PO# 002337

Report Date: August 6, 2004

Client Sample ID:	MW2-0204-001	Project:	YANK00304
Sample ID:	116418001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	01-JUL-04		
Receive Date:	08-JUL-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	-2.02	+/-9.69	8.21	+/-9.50	17.3	pCi/L		MJH1	08/04/04	1006	349017	1
Cesium-134	U	0.129	+/-1.89	1.57	+/-1.85	3.52	pCi/L						
Cesium-137	U	0.322	+/-1.88	1.60	+/-1.85	3.51	pCi/L						
Cobalt-60	U	1.08	+/-3.74	1.62	+/-3.67	3.73	pCi/L						
Europium-152	U	3.88	+/-5.35	4.58	+/-5.24	9.78	pCi/L						
Europium-154	U	1.60	+/-4.82	4.13	+/-4.72	9.56	pCi/L						
Europium-155	U	-1.68	+/-6.80	5.66	+/-6.66	11.9	pCi/L						
Manganese-54	U	-0.154	+/-1.92	1.56	+/-1.88	3.47	pCi/L						
Niobium-94	U	1.33	+/-1.66	1.50	+/-1.62	3.28	pCi/L						
Silver-108m	U	0.666	+/-1.61	1.35	+/-1.58	2.93	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	-0.131	+/-0.374	0.450	+/-0.376	1.02	pCi/L		HOB1	07/17/04	1654	348452	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha	U	0.416	+/-0.660	0.544	+/-0.661	1.29	pCi/L		ATH1	07/28/04	1834	350569	3
Beta		4.43	+/-1.43	1.17	+/-1.43	2.46	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium	U	-251	+/-229	199	+/-229	397	pCi/L		JLB1	08/02/04	1940	350326	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

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: August 6, 2004

Client Sample ID: MW2-0204-001
Sample ID: 116418001

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

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

Surrogate/Tracer recovery	Test	Recovery%	Acceptable Limits
Carrier/Tracer Recovery	GFPC, Sr90, liquid-ALL,MIX	74	

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

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, Sarah Kozlik.

Heather G. Crowell
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: August 6, 2004

Client Sample ID: MW117S-0204-001
Sample ID: 116418002
Matrix: Ground Water
Collect Date: 01-JUL-04
Receive Date: 08-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF												
Americium-241	U	-2.76	+/-18.3	13.1	+/-17.9	27.5	pCi/L		MJH1 08/04/04	1007	349017	1
Cesium-134	U	0.0363	+/-1.96	1.57	+/-1.92	3.54	pCi/L					
Cesium-137	U	-0.372	+/-2.37	1.87	+/-2.32	4.08	pCi/L					
Cobalt-60	U	2.12	+/-2.22	2.10	+/-2.17	4.71	pCi/L					
Europium-152	U	-0.0575	+/-6.31	5.24	+/-6.18	11.2	pCi/L					
Europium-154	U	2.22	+/-5.70	5.01	+/-5.59	11.4	pCi/L					
Europium-155	U	-2.22	+/-9.14	7.25	+/-8.95	15.1	pCi/L					
Manganese-54	U	-1.04	+/-2.18	1.73	+/-2.14	3.83	pCi/L					
Niobium-94	U	1.22	+/-1.93	1.67	+/-1.90	3.64	pCi/L					
Silver-108m	U	-0.686	+/-2.03	1.39	+/-1.99	3.04	pCi/L					
Rad Gas Flow Proportional Counting												
GFPC, Sr90, liquid-ALL,MIX												
Strontium-90	U	0.791	+/-0.516	0.421	+/-0.563	0.952	pCi/L		HOB1 07/17/04	1654	348452	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF												
Alpha	U	0.410	+/-0.837	0.654	+/-0.838	1.44	pCi/L		ATH1 07/29/04	0448	350569	3
Beta		7.28	+/-1.55	1.12	+/-1.57	2.30	pCi/L					
Rad Liquid Scintillation Analysis												
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN												
Tritium	U	25.1	+/-194	162	+/-194	324	pCi/L		JLB1 07/30/04	2258	350326	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

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: August 6, 2004

Client Sample ID: MW117S-0204-001
Sample ID: 116418002

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch Mtd.
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			78						

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

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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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Heather J. Cuvo

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: August 6, 2004

Client Sample ID: MW102D-0204-001
Sample ID: 116418003
Matrix: Ground Water
Collect Date: 06-JUL-04
Receive Date: 08-JUL-04
Collector: Client

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-ALL,GAM2,STND,MIX,PENN,LF													
Americium-241	U	0.708	+/-12.1	9.09	+/-11.9	19.0	pCi/L		MJH1	08/04/04	1007	349017	1
Cesium-134	U	0.438	+/-1.68	1.44	+/-1.65	3.20	pCi/L						
Cesium-137	U	0.235	+/-1.86	1.57	+/-1.82	3.43	pCi/L						
Cobalt-60	U	1.52	+/-1.84	1.72	+/-1.81	3.87	pCi/L						
Europium-152	U	-7.03	+/-5.61	4.15	+/-5.50	8.87	pCi/L						
Europium-154	U	-1.41	+/-5.59	4.48	+/-5.48	10.1	pCi/L						
Europium-155	U	3.25	+/-7.77	6.46	+/-7.61	13.4	pCi/L						
Manganese-54	U	0.678	+/-1.93	1.65	+/-1.89	3.60	pCi/L						
Niobium-94	U	1.40	+/-1.64	1.48	+/-1.61	3.21	pCi/L						
Silver-108m	U	0.0407	+/-1.84	1.50	+/-1.80	3.21	pCi/L						
Rad Gas Flow Proportional Counting													
GFPC, Sr90, liquid-ALL,MIX													
Strontium-90	U	0.928	+/-0.580	0.484	+/-0.641	1.08	pCi/L		HOB1	07/17/04	1654	348452	2
Gross A/B, liquid-ALL,STND,MIX,PENN,LF													
Alpha		8.51	+/-1.77	0.720	+/-1.87	1.65	pCi/L		ATH1	07/28/04	1834	350569	3
Beta		9.95	+/-1.72	1.18	+/-1.75	2.48	pCi/L						
Rad Liquid Scintillation Analysis													
LSC, Tritium Dist, Liquid-ALL,STND,MIX,PENN													
Tritium		4690	+/-253	114	+/-264	229	pCi/L		JLB1	07/30/04	1440	350326	4

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3005A	ICP-MS 3005 PREP	CQH1	07/15/04	1717	348553

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: August 6, 2004

Client Sample ID: MW102D-0204-001
Sample ID: 116418003

Project: YANK00304
Client ID: YANK001
Vol. Recv.:

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch Mtd.
Carrier/Tracer Recovery		GFPC, Sr90, liquid-ALL,MIX			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.
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Heather D. Crude
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: August 6, 2004

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

Contact: Mr. Dave Keefer

Workorder: 116418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 349017										
QC1200663003 116418001 DUP										
Americium-241	U	-2.02	U	-11.9	pCi/L	N/A		(0% - 100%)	MJH1	08/04/04 23:01
	Uncert:	+/-9.69		+/-14.3						
	TPU:	+/-9.50		+/-14.0						
Cesium-134	U	0.129	U	-1.66	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.89		+/-1.89						
	TPU:	+/-1.85		+/-1.85						
Cesium-137	U	0.322	U	1.64	pCi/L	134		(0% - 100%)		
	Uncert:	+/-1.88		+/-1.65						
	TPU:	+/-1.85		+/-1.62						
Cobalt-60	U	1.08	U	-0.265	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-3.74		+/-1.57						
	TPU:	+/-3.67		+/-1.54						
Europium-152	U	3.88	U	-2.24	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-5.35		+/-5.32						
	TPU:	+/-5.24		+/-5.21						
Europium-154	U	1.60	U	6.80	pCi/L	124		(0% - 100%)		
	Uncert:	+/-4.82		+/-4.32						
	TPU:	+/-4.72		+/-4.24						
Europium-155	U	-1.68	U	7.66	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-6.80		+/-7.05						
	TPU:	+/-6.66		+/-6.91						
Manganese-54	U	-0.154	U	1.86	pCi/L	N/A		(0% - 100%)		
	Uncert:	+/-1.92		+/-1.83						
	TPU:	+/-1.88		+/-1.80						
Niobium-94	U	1.33	U	2.26	pCi/L	52		(0% - 100%)		
	Uncert:	+/-1.66		+/-1.66						
	TPU:	+/-1.62		+/-1.63						
Silver-108m	U	0.666	U	0.349	pCi/L	63		(0% - 100%)		
	Uncert:	+/-1.61		+/-1.84						
	TPU:	+/-1.58		+/-1.81						
QC1200663005 LCS										
Americium-241	1170			1390	pCi/L		119	(75%-125%)		08/04/04 12:49
	Uncert:			+/-229						
	TPU:			+/-224						
Cesium-134			U	-11.6	pCi/L					
	Uncert:			+/-12.8						
	TPU:			+/-12.6						
Cesium-137	461			475	pCi/L		103	(75%-125%)		
	Uncert:			+/-43.7						
	TPU:			+/-42.8						
Cobalt-60	704			819	pCi/L		116	(75%-125%)		
	Uncert:			+/-65.7						

QC Summary

Workorder: 116418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 349017										
	TPU:			+/-64.4						
Europium-152			U	-1.09	pCi/L					
	Uncert:			+/-28.6						
	TPU:			+/-28.0						
Europium-154			U	-9.84	pCi/L					
	Uncert:			+/-31.6						
	TPU:			+/-31.0						
Europium-155			U	-30.6	pCi/L					
	Uncert:			+/-37.8						
	TPU:			+/-37.0						
Manganese-54			U	1.28	pCi/L					
	Uncert:			+/-11.1						
	TPU:			+/-10.9						
Niobium-94			U	-1.97	pCi/L					
	Uncert:			+/-10.3						
	TPU:			+/-10.1						
Silver-108m			U	-5.64	pCi/L					
	Uncert:			+/-8.92						
	TPU:			+/-8.74						
QC1200663002 MB										
nericium-241			U	-1.42	pCi/L					08/04/04 11:32
	Uncert:			+/-13.1						
	TPU:			+/-12.8						
Cesium-134			U	0.0508	pCi/L					
	Uncert:			+/-2.02						
	TPU:			+/-1.98						
Cesium-137			U	-0.591	pCi/L					
	Uncert:			+/-1.62						
	TPU:			+/-1.59						
Cobalt-60			U	-0.388	pCi/L					
	Uncert:			+/-1.59						
	TPU:			+/-1.55						
Europium-152			U	0.521	pCi/L					
	Uncert:			+/-5.36						
	TPU:			+/-5.26						
Europium-154			U	-0.747	pCi/L					
	Uncert:			+/-5.04						
	TPU:			+/-4.93						
Europium-155			U	-4.05	pCi/L					
	Uncert:			+/-6.10						
	TPU:			+/-5.98						
Manganese-54			U	-1.94	pCi/L					
	Uncert:			+/-1.86						
	TPU:			+/-1.82						
Niobium-94			U	0.642	pCi/L					
	Uncert:			+/-1.69						
	TPU:			+/-1.66						
Silver-108m			U	0.846	pCi/L					

QC Summary

Workorder: 116418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 349017										
	Uncert:			+/-1.78						
	TPU:			+/-1.75						
QC1200663004 116418001 MS										
Americium-241	9360 U	-2.02		10500	pCi/L		112			08/04/04 10:08
	Uncert:	+/-9.69		+/-2360						
	TPU:	+/-9.50		+/-33000						
Cesium-134	U	0.129	U	-72.2	pCi/L					
	Uncert:	+/-1.89		+/-153						
	TPU:	+/-1.85		+/-272						
Cesium-137	3690 U	0.322		3960	pCi/L		107			
	Uncert:	+/-1.88		+/-546						
	TPU:	+/-1.85		+/-12400						
Cobalt-60	5700 U	1.08		5430	pCi/L		95			
	Uncert:	+/-3.74		+/-721						
	TPU:	+/-3.67		+/-17000						
Europium-152	U	3.88	U	-104	pCi/L					
	Uncert:	+/-5.35		+/-342						
	TPU:	+/-5.24		+/-467						
Europium-154	U	1.60	U	146	pCi/L					
	Uncert:	+/-4.82		+/-309						
	TPU:	+/-4.72		+/-549						
Europium-155	U	-1.68	U	-115	pCi/L					
	Uncert:	+/-6.80		+/-431						
	TPU:	+/-6.66		+/-556						
Manganese-54	U	-0.154	U	83.4	pCi/L					
	Uncert:	+/-1.92		+/-133						
	TPU:	+/-1.88		+/-292						
Niobium-94	U	1.33	U	-153	pCi/L					
	Uncert:	+/-1.66		+/-110						
	TPU:	+/-1.62		+/-492						
Silver-108m	U	0.666	U	-73.9	pCi/L					
	Uncert:	+/-1.61		+/-113						
	TPU:	+/-1.58		+/-257						
Rad Gas Flow										
Batch 348452										
QC1200661601 116418001 DUP										
Strontium-90	U	-0.131	U	0.642	pCi/L	N/A		(0% - 100%)	HOB1	07/17/04 21:08
	Uncert:	+/-0.374		+/-0.374						
	TPU:	+/-0.376		+/-0.423						
QC1200661603 LCS										
Strontium-90	61.1			73.1	pCi/L		120	(75%-125%)		
	Uncert:			+/-2.61						
	TPU:			+/-24.6						
QC1200661600 MB										
Strontium-90			U	0.129	pCi/L					07/17/04 21:09
	Uncert:			+/-0.363						
	TPU:			+/-0.366						
QC1200661602 116418001 MS										

QC Summary

Workorder: 116418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gas Flow										
Batch 348452										
Strontium-90	122 U	-0.131		148	pCi/L		121	(75%-125%)		
	Uncert:	+/-0.374		+/-4.99						
	TPU:	+/-0.376		+/-45.9						
Batch 350569										
QC1200666719 116418002 DUP										
Alpha	U	0.410	U	1.25	pCi/L	0		(0% - 100%)	ATH1	07/29/04 04:48
	Uncert:	+/-0.837		+/-0.834						
	TPU:	+/-0.838		+/-0.844						
Beta		7.28		8.65	pCi/L	17		(0% - 100%)		
	Uncert:	+/-1.55		+/-1.58						
	TPU:	+/-1.57		+/-1.65						
QC1200666722 LCS										
Alpha	71.9			88.2	pCi/L		123	(75%-125%)		07/28/04 20:01
	Uncert:			+/-8.67						
	TPU:			+/-12.1						
Beta	244			230	pCi/L		94	(75%-125%)		
	Uncert:			+/-10.4						
	TPU:			+/-16.3						
QC1200666718 MB										
Alpha			U	-0.384	pCi/L					07/29/04 14:18
	Uncert:			+/-0.351						
	TPU:			+/-0.352						
Beta			U	0.0197	pCi/L					
	Uncert:			+/-0.997						
	TPU:			+/-0.997						
QC1200666720 116418002 MS										
Alpha	108 U	0.410		104	pCi/L		96	(75%-125%)		07/28/04 20:01
	Uncert:	+/-0.837		+/-12.8						
	TPU:	+/-0.838		+/-14.9						
Beta	367	7.28		391	pCi/L		105	(75%-125%)		
	Uncert:	+/-1.55		+/-17.0						
	TPU:	+/-1.57		+/-22.3						
QC1200666721 116418002 MSD										
Alpha	108 U	0.410		117	pCi/L	12*	108	(75%-125%)		
	Uncert:	+/-0.837		+/-13.4						
	TPU:	+/-0.838		+/-16.1						
Beta	367	7.28		405	pCi/L	3*	108	(75%-125%)		
	Uncert:	+/-1.55		+/-17.4						
	TPU:	+/-1.57		+/-23.3						
Rad Liquid Scintillation										
Batch 350326										
QC1200666134 116418001 DUP										
Tritium	U	-251	U	48.7	pCi/L	N/A		(0% - 100%)	JLB1	07/31/04 01:04
	Uncert:	+/-229		+/-206						
	TPU:	+/-229		+/-206						
QC1200666136 LCS										
Tritium	3240			2650	pCi/L		82	(75%-125%)		07/30/04 18:54
	Uncert:			+/-208						

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

QC Summary

Workorder: 116418

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Liquid Scintillation										
Batch 350326										
	TPU:			+/-212						
QC1200666133 MB										
Tritium			U	82.6	pCi/L					07/31/04 00:01
	Uncert:			+/-209						
	TPU:			+/-209						
QC1200666135 116418001 MS										
Tritium	3250 U	-251		2790	pCi/L		86	(75%-125%)		07/30/04 17:50
	Uncert:	+/-229		+/-214						
	TPU:	+/-229		+/-218						

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

- 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

August 03, 2004

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

RE: Quarterly Groundwater PO# 002337
Work Order: 118053
SDG: MSR#04-1807

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on June 28, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. 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. 4475.

Sincerely,

Sarah Kozlik
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

CONNECTICUT YANKEE

RE: Quarterly Groundwater
PO# 002337
Work Order: 118053
SDG: MSR#04-1807

118053004	MW100D-0204-001
118053005	MW-103S-0204-001
118053006	MW-104S-0204-001
118053003	MW-101D-0204-001
118053001	MW-108S-0204-001
118053002	MW-125S

Table of Contents

CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 118053
SDG: MSR#04-1807

August 3, 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 soil samples for SDG# MSR#04-1807 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina June 28, 2004. The samples were originally assigned to GEL WO# 115774 and per the request of Dave Keefer on July 29, 2004, six groundwater samples were re-assigned to WO# 118053. 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::

118053004	MW100D-0204-001
118053005	MW-103S-0204-001
118053006	MW-104S-0204-001
118053003	MW-101D-0204-001
118053001	MW-108S-0204-001
118053002	MW-125S.

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 soil samples were analyzed for Gammaspec(Co-60).

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.

Sarah Kozlik
Project Manager

CHAIN OF CUSTODY

1180539 1157749

Chain of Custody Form

No. 2004-00108

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	ALL				Comment, Preservation	Lab Sample ID
01	MW-108S-0204-001	6/24/04	0930	WG	G	4L, 1L	X						HNO3/4°C.	
	MW-122S-0204-001	6/24/04	1210	WG	G	4L, 1L	X							
				WG	G	4L, 1L								
				WG	G	4L, 1L								
				WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp: 25.6 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] 8145 Date/Time 6/28/04
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. 2004-00102

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-125S	6-22-04	1530	WG	G	4L, 1L	X						2x4L-HNO3 /12 mp	
MW-124S	6-23-04	1605	WG	G	4L, 1L	X						2x4L-HNO3 /12 mp	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp. 2/.3 Deg. C.
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: Cyn Date/Time 6/25/04 0800	2) Received By: A. Miles Date/Time 6-28-04 8:45
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. 2004-00110

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-101D-0204-001	6/23/04	1155	WG	G	4L, 1L	X						HNO_3, None	
EQF2-0204-001	6/24/04	1540	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Bill of Lading #

Internal Container Temp. 25.5 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0910	2) Received By [signature] Date/Time 6/28/04 8145
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. 2004-00105

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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	ALL				Comment, Preservation	Lab Sample ID
MW100D-0204-001	6/23/04	1026	WG	G	4L, 1L		X					HNO3	
MW507D-0204-001	6/23/04	1427	WG	G	4L, 1L		X					HNO3	
MW507S-0204-001	6/24/04	0846	WG	G	4L, 1L		X					HNO3	
			WG	G	4L, 1L								
			WG	G	4L, 1L								

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp.: 24.8 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] Date/Time 6-28-04 / 8:45
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. 2004-00111

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-103S-0204-001	6/24/04	1415	WG	G	4L, 1L			X				HNO_3, None	
MW-101S-0204-001	6/23/04	1430	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

1) Relinquished By:	Date/Time	2) Received By	Date/Time
[signature]	6/25/04 0800	[signature]	6-28-04 8:45
3) Relinquished By	Date/Time	4) Received By	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.: 25.3 Deg. C

Custody Sealed? Y ☑ N ☐

Custody Seal Intact? Y ☑ N ☐

Chain of Custody Form

No. 2004-00109

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-1045-0204-001	6/23/04	1220	WG	G	4L, 1L			X				HNO_3, None	
MW-1235-0204-001	6/23/04	0920	WG	G	4L, 1L	X						HNO_3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp 24.8 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] Date/Time 6/28/04 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

COOLER RECEIPT CHECKLIST

GENERAL ENGINEERING LABORATORIES, LLC
a Member of THE GEL GROUP, INC.
P.O. Box 30712 • Charleston, SC 29417 • 2040 Savage Road (29407)
Phone (843) 556-8171 • Fax (843) 766-1178 • www.gel.com

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSB #04-1807

Work Order Number: 1157749

Shipping Container ID: Fed Ex 792671516620 Chain of Custody # 2004 -00108

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 25.6
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): extra 4L for each sample

Sample Custodian/Laboratory: Clause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSR # 04-18097 pic 6/29/04

Work Order Number: 1157749

Shipping Container ID: 7926 7151 6681 Chain of Custody # 2004-00102

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 24.3°
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: A. Miles / [illegible] Date: 6-28-04

Telephoned to: _____ On _____ By _____

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSB # 04-1807

Work Order Number: 9157749

Shipping Container ID: FedEx 7926 7151 6561 Chain of Custody # 2004-00110

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 25.5
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):

Extra 4 liter of each sample

Sample Custodian/Laboratory: Clause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSR#04-1807

Work Order Number: 1157746

Shipping Container ID: 7926 7151 6688 Chain of Custody # 2004-00105

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 24.8°
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 (Exception of 2) ____ leaking

____ broken ____ have air bubbles

10. Were any anomalies identified in sample receipt? Yes [✓] No [ ]
11. Description of anomalies (include sample numbers): Samples MW 507s(1L) MW 507D(1L) 2 Samples were not intact

Sample Custodian/Laboratory: O. Miles Date: 6-28-04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSB#04-1807

Work Order Number: 1157749

Shipping Container ID: 7926 7151 6675 Chain of Custody #: 2004-00104

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 26.4°C
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: A. Rules Date: 6-28-04

Telephoned to: On By

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSB #04-1807

Work Order Number: 1159749

Shipping Container ID: 7926 7151 6653 Chain of Custody # 2004-00111

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 25.3
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 MW103S has 2 additional 4L; Sample MW101S has 1 additional 4L sent

Sample Custodian/Laboratory: A. Mills Date: 6-28-04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6/28/04 8:45 AM

SDG#: MSB#04-1807

Work Order Number: 1157749

Shipping Container ID: FedEx 7926 7151 6583 Chain of Custody # 2004-00109

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 24.8
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):

1 extra 4L of 001-0920 (MW-1235)

2 extra 4L of 001-1220 (MW-1045)

Sample Custodian/Laboratory: C Gause Date: 6/28/04

Telephoned to: ____ On ____ By ____

Figure 1. Sample Check-in List

Date/Time Received: 6-28-04 / 8:45

SDG#: MSA # 04-1807

Work Order Number: 1457749.

Shipping Container ID: 7926 7151 6550 Chain of Custody # 2004 - 00106

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 24.4°
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): two additional 4L Samples were sent for samples MW 106 S + MW106D Not indicated on COC

Sample Custodian/Laboratory: A. Miles Date: 6-28-04

Telephoned to: ____ On ____ By ____

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
Work Order 118053

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-Co-60 Recount**
Analytical Method:	EPA 901.1
Analytical Batch Number:	354048

Sample ID	Client ID
118053001	MW-108S-0204-001
118053002	MW-125S
118053003	MW-101D-0204-001
118053004	MW100D-0204-001
118053005	MW-103S-0204-001
118053006	MW-104S-0204-001
1200675120	Method Blank (MB)
1200675123	Laboratory Control Sample (LCS)
1200675121	118053001(MW-108S-0204-001) Sample Duplicate (DUP)
1200675122	118053001(MW-108S-0204-001) 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-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: 118053001 (MW-108S-0204-001).

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: A Allen 8/3/04

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: Quarterly Groundwater PO# 002337

Report Date: August 3, 2004

Client Sample ID:	MW-108S-0204-001	Project:	YANK00304
Sample ID:	118053001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60	U	4.41	+/-3.05	2.25	+/-2.99	5.01	pCi/L		AKB	08/02/04	1236	354048	1

The following Analytical Methods were performed

Method	Description
1	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004

Client Sample ID:	MW-125S	Project:	YANK00304
Sample ID:	118053002	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	22-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60	U	0.291	+/-2.04	1.72	+/-2.00	3.87	pCi/L		AKB	08/02/04	1237	354048	1

The following Analytical Methods were performed

Method	Description
1	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004

Client Sample ID:	MW-101D-0204-001	Project:	YANK00304
Sample ID:	118053003	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60	U	0.634	+/-1.82	1.60	+/-1.78	3.67	pCi/L		AKB	08/02/04	1237	354048	1

The following Analytical Methods were performed

Method	Description
	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004

Client Sample ID:	MW100D-0204-001	Project:	YANK00304
Sample ID:	118053004	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60	U	-0.521	+/-2.74	1.89	+/-2.68	4.28	pCi/L		AKB	08/02/04	1238	354048	1

The following Analytical Methods were performed

Method	Description
1	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004

Client Sample ID:	MW-103S-0204-001	Project:	YANK00304
Sample ID:	118053005	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60		13.7	+/-4.93	1.78	+/-4.83	4.04	pCi/L		AKB	08/02/04	1238	354048	1

The following Analytical Methods were performed

Method	Description
	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004

Client Sample ID:	MW-104S-0204-001	Project:	YANK00304
Sample ID:	118053006	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	23-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis													
Gammaspec, Gamma,Liquid-Co-60 Recount													
Cobalt-60	U	-0.163	+/-2.17	1.77	+/-2.13	4.00	pCi/L		AKB	08/02/04	1239	354048	1

The following Analytical Methods were performed

Method	Description
1	EPA 901.1

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

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, Sarah Kozlik.

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: August 3, 2004
Page 1 of 1

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

Contact: Mr. Dave Keefer

Workorder: 118053

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 354048										
QC1200675121 118053001 DUP										
Cobalt-60	U	4.41	U	0.317	pCi/L	173		(0% - 100%)	AKB	08/02/04 18:04
	Uncert:	+/-3.05		+/-1.46						
	TPU:	+/-2.99		+/-1.43						
QC1200675123 LCS										
Cobalt-60	563			570	pCi/L		101	(75%-125%)		08/03/04 12:05
	Uncert:			+/-70.9						
	TPU:			+/-71.8						
QC1200675120 MB										
Cobalt-60			U	-0.456	pCi/L					08/02/04 12:39
	Uncert:			+/-2.12						
	TPU:			+/-2.08						
QC1200675122 118053001 MS										
Cobalt-60	5710 U	4.41		6410	pCi/L		112			08/03/04 12:04
	Uncert:	+/-3.05		+/-672						
	TPU:	+/-2.99		+/-20100						

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

- 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.

CONNECTICUT YANKEE

RE: Quarterly Groundwater

PO# 002337

Work Order: 118907

SDG: MSR#04-1807

118907001	MW-103S-0204-001
118907002	MW-103S-0204-001-filter

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

August 24, 2004

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

RE: Quarterly Groundwater PO# 002337
Work Order: 118907
SDG: MSR#04-1807

Dear Mr. Keefer:

General Engineering Laboratories, LLC (GEL) appreciates the opportunity to provide the following analytical results for the sample(s) we received on June 28, 2004. Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time.

This data report has been prepared and reviewed in accordance with GEL's standard operating procedures. 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. 4475.

Sincerely,

Sarah Kozlik
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

Table of Contents

CASE NARRATIVE

CASE NARRATIVE
For
CONNECTICUT YANKEE
RE: Quarterly Groundwater
PO# 002337
Work Order: 118907
SDG: MSR#04-1807

August 24, 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 groundwater samples for SDG# MSR#04-1807 arrived at General Engineering Laboratories, LLC, (GEL) in Charleston, South Carolina June 28, 2004. The samples were originally assigned to GEL WO# 115774 and per the request of Dave Keefer on August 4, 2004, one groundwater sample and it's filter counterpart were re-assigned to WO# 118907. 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:

MW-103S-0204-001
MW-103S-0204-001-filter.

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 and one filter sample were analyzed for Gammaspec(Co-60).

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.

Sarah Kozlik
Project Manager

CHAIN OF CUSTODY

Chain of Custody Form

No. 2004-00111

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

Project Name: Haddam Neck Decommissioning

Contact Name & Phone:
Rich McGrath 860-267-3573

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

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				Comment, Preservation	Lab Sample ID
MW-103S-0204-001	6/24/04	1415	WG	G	4L, 1L			X				HNO3, None	
MW-101S-0201-001	6/23/04	1430	WG	G	4L, 1L	X						HNO3, None	
			WG	G	4L, 1L								
			WG	G	4L, 1L								
			WG	G	4L, 1L								

Lab Use Only

NOTES: PO #: 002337 MSR #: 04-1807 ☐ LTP QA ☐ Radwaste QA ☒ Non QA

Requested analyses should be performed to typical groundwater program MDC's.

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

Internal Container Temp.: 25.3 Deg. C
Custody Sealed? Y ☑ N ☐
Custody Seal Intact? Y ☑ N ☐

1) Relinquished By: [signature] Date/Time 6/25/04 0800	2) Received By [signature] Date/Time 6-28-04 8:45
3) Relinquished By Date/Time	4) Received By Date/Time
5) Relinquished By Date/Time	6) Received By Date/Time

RADIOLOGICAL ANALYSIS

Radiochemistry Case Narrative
Connecticut Yankee Atomic Power Co. (YANK)
SDG MSR#04-1807

Method/Analysis Information

Product:	**Gammaspec, Gamma,Liquid-Co-60 Recount**
Analytical Method:	EPA 901.1
Analytical Batch Number:	358134

Sample ID	**Client ID**
118907001	MW-103S-0204-001
1200684760	Method Blank (MB)
1200684763	Laboratory Control Sample (LCS)
1200684761	118907001(MW-103S-0204-001) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-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: 118907001 (MW-103S-0204-001).

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:	**Gammaspec, Gamma, Filter**
Analytical Method:	EPA 901.1
Prep Method:	Filter Prep
Analytical Batch Number:	358269
Prep Batch Number:	357165

Sample ID	Client ID
118907002	MW-103S-0204-001-filter
1200685054	Method Blank (MB)
1200685056	Laboratory Control Sample (LCS)
1200685055	118907002(MW-103S-0204-001-filter) Sample Duplicate (DUP)

SOP Reference
Procedure for preparation, analysis and reporting of analytical data are controlled by General Engineering Laboratories, LLC as Standard Operating Procedure (SOP). The data discussed in this narrative has been analyzed in accordance with GL-RAD-A-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: 118907002 (MW-103S-0204-001-filter).

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:	**Laboratory Composite**
Analytical Method:	GL-RAD-A-026
Analytical Batch Number:	357177

Sample ID	Client ID
118907001	MW-103S-0204-001

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-026 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(s) 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.

Additional Comments
Per instructions sample 118907001 (MW-103S-0204-001) was filtered and prepared for analysis via gamma spec. The sample was filtered using a 47mm 1.5 micron borosilicate glass fiber filter.

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: Micaela Q Cicai 8/24/04

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: Quarterly Groundwater PO# 002337

Report Date: August 24, 2004

Client Sample ID:	MW-103S-0204-001	Project:	YANK00304
Sample ID:	118907001	Client ID:	YANK001
Matrix:	Ground Water	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma,Liquid-Co-60 Recount												
Cobalt-60		10.1	+/-2.56	0.967	+/-2.50	2.09	pCi/L		CAM1 08/21/04	1300	358134	1
Solid Preparation												
Laboratory Composite												

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
GL-RAD-A-026	Laboratory sample composite	MJM1	08/13/04	1600	357177

The following Analytical Methods were performed

Method	Description
1	EPA 901.1
2	GL-RAD-A-026

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

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, Sarah Kozlik.

Heather A. Carson
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: August 24, 2004

Client Sample ID:	MW-103S-0204-001-filter	Project:	YANK00304
Sample ID:	118907002	Client ID:	YANK001
Matrix:	Filter	Vol. Recv.:	
Collect Date:	24-JUN-04		
Receive Date:	28-JUN-04		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	LC	TPU	MDA	Units	DF	AnalystDate	Time	Batch	Mtd.
Rad Gamma Spec Analysis												
Gammaspec, Gamma, Filter												
Cobalt-60	U	0.680	+/-2.55	0.940	+/-2.50	2.04	pCi/Filter		MJH1 08/21/04	1259	358269	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Filter Prep	Filter Prep	AF1	08/13/04	1600	357165

The following Analytical Methods were performed

Method	Description
1	EPA 901.1

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

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, Sarah Kozlik.

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: August 24, 2004

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

Contact: Mr. Dave Keefer

Workorder: 118907

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 358134										
QC1200684761 118907001 DUP										
Cobalt-60		10.1		9.70	pCi/L	4		(0% - 100%)	CAM1	08/22/04 11:31
	Uncert:	+/-2.56		+/-6.18						
	TPU:	+/-2.50		+/-6.05						
QC1200684763 LCS										
Cobalt-60	700			762	pCi/L		109	(75%-125%)		08/22/04 11:32
	Uncert:			+/-70.6						
	TPU:			+/-69.2						
QC1200684760 MB										
Cobalt-60			U	0.519	pCi/L					08/21/04 13:01
	Uncert:			+/-1.17						
	TPU:			+/-1.15						
Batch 358269										
QC1200685055 118907002 DUP										
Cobalt-60	U	0.680	U	0.369	pCi/Filter	59		(0% - 100%)	MJH1	08/22/04 11:36
	Uncert:	+/-2.55		+/-1.99						
	TPU:	+/-2.50		+/-1.95						
QC1200685056 LCS										
Cobalt-60	280			283	pCi/Filter		101			08/22/04 11:48
	Uncert:			+/-30.0						
	TPU:			+/-29.5						
QC1200685054 MB										
Cobalt-60			U	-0.131	pCi/Filter					08/21/04 12:59
	Uncert:			+/-1.13						
	TPU:			+/-1.11						

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

- 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.

Appendix E

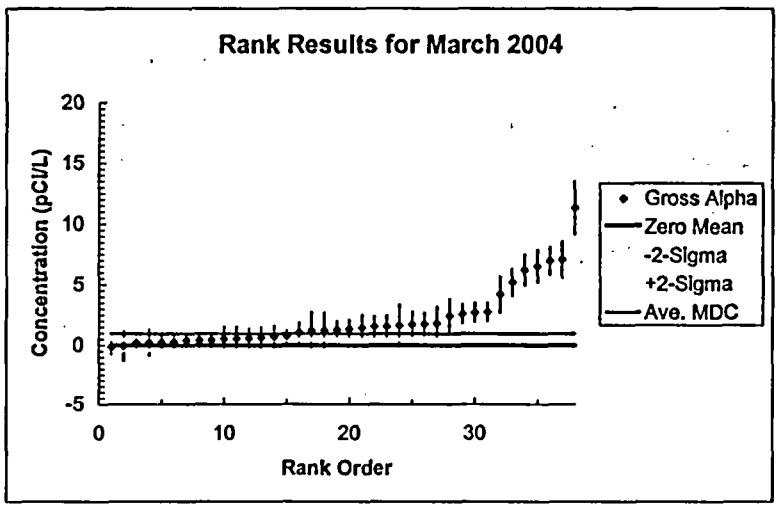
Rank Order Plots for the March and June 2004 Sample Events

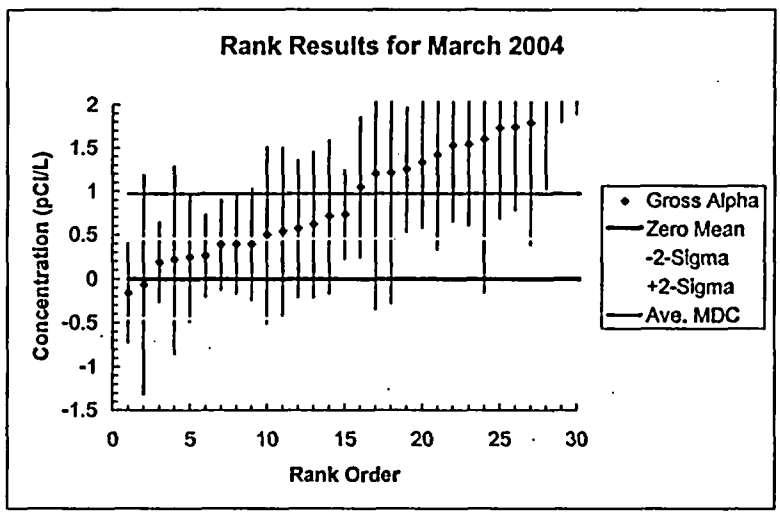
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW110S	Gross Alpha	-0.164	0.562	1.33	3	U	0.15	1
MW100S	Gross Alpha	-0.067	1.25	2.8	3	U	0.15	2
MW100D	Gross Alpha	0.187	0.453	0.952	3	U	0.15	3
MW114S	Gross Alpha	0.217	1.07	1.79	3	U	0.15	4
MW102S	Gross Alpha	0.245	0.731	1.5	3	U	0.15	5
MW112S	Gross Alpha	0.259	0.466	0.96	3	U	0.15	6
MW101S	Gross Alpha	0.389	0.515	0.977	3	U	0.15	7
MW108S	Gross Alpha	0.39	0.561	1.11	3	U	0.15	8
MW107S	Gross Alpha	0.392	0.637	1.28	3	U	0.15	9
MW106S (Sol.)	Gross Alpha	0.503	1.01	1.85	3	U	0.15	10
MW113S	Gross Alpha	0.542	0.963	1.93	3	U	0.15	11
MW109S	Gross Alpha	0.571	0.784	1.37	3	U	0.15	12
MW124S	Gross Alpha	0.62	0.833	1.61	3	U	0.15	13
MW122S	Gross Alpha	0.71	0.88	1.58	3	U	0.15	14
MW111S	Gross Alpha	0.731	0.509	0.678	3		0.15	15
MW125S	Gross Alpha	1.05	0.808	1.22	3	U	0.15	16
W114S Duplicate Replk	Gross Alpha	1.2	1.55	2.85	3	U	0.15	17
MW117S	Gross Alpha	1.21	1.49	2.97	3	U	0.15	18
MW104S	Gross Alpha	1.25	0.718	0.998	3		0.15	19
MW107D	Gross Alpha	1.33	0.752	1.09	3		0.15	20
MW115S	Gross Alpha	1.42	1.09	1.67	3	U	0.15	21
MW103S	Gross Alpha	1.53	0.879	1.14	3		0.15	22
MW106S	Gross Alpha	1.54	0.935	1.31	3		0.15	23
MW105S	Gross Alpha	1.6	1.76	1.2	3		0.15	24
MWEOF2	Gross Alpha	1.73	1.05	1.55	3		0.15	25
MW106D (Sol.)	Gross Alpha	1.74	0.964	1.55	3		0.15	26
MW114S Duplicate	Gross Alpha	1.79	1.41	1.91	3	U	0.15	27
MW105S (Sol.)	Gross Alpha	2.42	1.4	0.877	3		0.15	28
MW105D	Gross Alpha	2.59	0.795	0.949	3		0.15	29
MW105D (Sol.)	Gross Alpha	2.7	0.811	0.976	3		0.15	30
MW106D	Gross Alpha	2.75	0.77	0.869	3		0.15	31
MW123S	Gross Alpha	4.19	1.49	1.96	3		0.15	32
MW103D	Gross Alpha	5.19	1.1	1.04	3		0.15	33
MW122D	Gross Alpha	6.2	1.28	1.22	3		0.15	34
MW101D	Gross Alpha	6.52	1.36	1.25	3		0.15	35
MW109D	Gross Alpha	6.95	1.15	0.782	3		0.15	36
MW110D	Gross Alpha	7.07	1.51	1.5	3		0.15	37
MW102D	Gross Alpha	11.3	2.16	2.33	3		0.15	38
	n:	38	38	38				
	Average:	2.1262	1.0120	1.4455				
	Sdev:	2.5250	0.3917	0.5659				
	Sdev:	119%	39%	39%				
	Min:	-0.1640	0.4530	0.6780				
	Max:	11.3000	2.1600	2.9700				
	Median:	1.2900	0.9490	1.2950				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Gross Alpha	0.121	0.505	1.09	3	U	0.15
QC Blank	Gross Alpha	0.119	0.372	0.713	3	U	0.15
QC Blank	Gross Alpha	-0.0321	0.484	1.12	3	U	0.15
	n:	3	3	3			
	Average:	0.0693	0.4537	0.9743			
	Sdev:	0.0878	0.0715	0.2268			
	Sdev:	127%	16%	23%			
	Min:	-0.0321	0.3720	0.7130			
	Max:	0.1210	0.5050	1.1200			



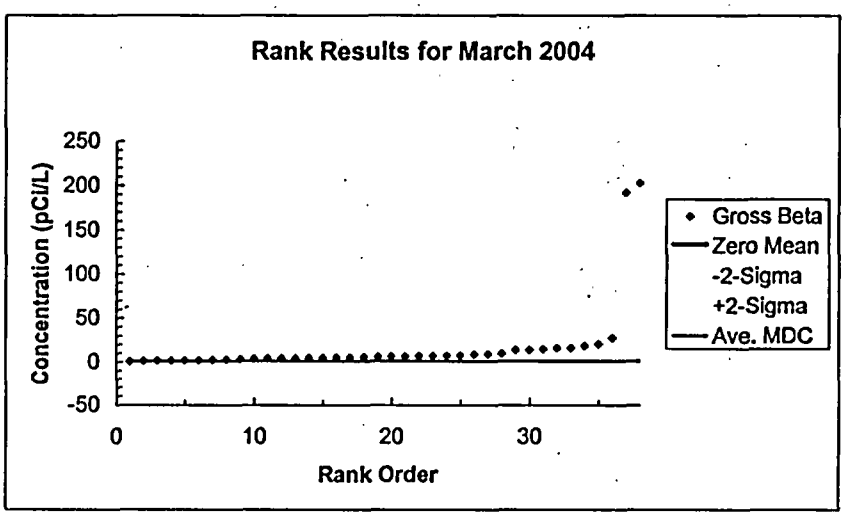


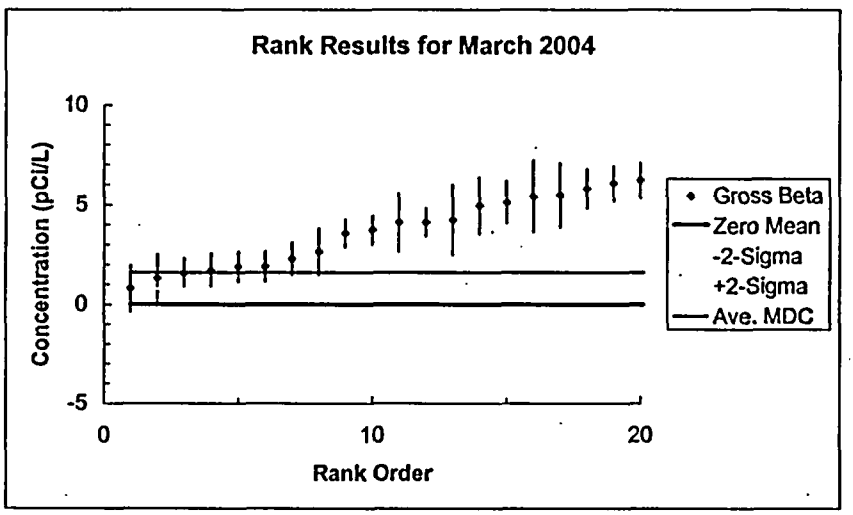
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW112S	Gross Beta	0.778	1.17	2.38	4	U	0.15	1
MW100D	Gross Beta	1.31	1.21	2.4	4	U	0.15	2
MW107S	Gross Beta	1.55	0.776	1.36	4		0.15	3
MW101D	Gross Beta	1.7	0.858	1.51	4		0.15	4
MW101S	Gross Beta	1.87	0.772	1.3	4		0.15	5
MW110S	Gross Beta	1.88	0.765	1.27	4		0.15	6
MW102S	Gross Beta	2.28	0.837	1.38	4		0.15	7
MW106S	Gross Beta	2.63	1.2	2.21	4		0.15	8
MW105D	Gross Beta	3.56	0.707	0.946	4		0.15	9
MW105D (Sol.)	Gross Beta	3.73	0.729	0.977	4		0.15	10
MW104S	Gross Beta	4.11	1.46	2.59	4		0.15	11
MW106D	Gross Beta	4.12	0.697	0.847	4		0.15	12
MW100S	Gross Beta	4.23	1.76	3.26	4		0.15	13
MW111S	Gross Beta	4.95	1.41	2.37	4		0.15	14
MW124S	Gross Beta	5.12	1.05	1.44	4		0.15	15
MW117S	Gross Beta	5.41	1.8	3.23	4		0.15	16
MWEOF2	Gross Beta	5.46	1.61	2.73	4		0.15	17
MW107D	Gross Beta	5.79	0.968	1.15	4		0.15	18
MW103D	Gross Beta	6.06	0.881	1.06	4		0.15	19
MW106D (Sol.)	Gross Beta	6.21	0.864	1.04	4		0.15	20
MW122S	Gross Beta	6.46	1.17	1.5	4		0.15	21
MW122D	Gross Beta	6.64	0.977	1.12	4		0.15	22
MW102D	Gross Beta	6.89	1.19	1.51	4		0.15	23
MW110D	Gross Beta	7.14	1.17	1.46	4		0.15	24
MW109D	Gross Beta	7.6	0.88	0.892	4		0.15	25
MW115S	Gross Beta	8.62	1.29	1.5	4		0.15	26
MW125S	Gross Beta	8.89	1.24	1.35	4		0.15	27
MW109S	Gross Beta	9.63	1.02	1.05	4		0.15	28
MW106S	Gross Beta	13.9	1.23	1.16	4		0.15	29
MW106S (Sol.)	Gross Beta	14.1	1.32	1.4	4		0.15	30
MW123S	Gross Beta	14.7	1.54	1.49	4		0.15	31
MW113S	Gross Beta	16.3	2.07	2.73	4		0.15	32
MW114S Duplicate	Gross Beta	16.3	1.66	1.51	4		0.15	33
MW114S	Gross Beta	18.5	1.55	1.4	4		0.15	34
MW114S Duplicate Replicate	Gross Beta	20.8	1.85	1.62	4		0.15	35
MW103S	Gross Beta	27.8	2.43	2.58	4		0.15	36
MW105S	Gross Beta	192	3.82	1.06	4		0.15	37
MW105S (Sol.)	Gross Beta	203	3.9	1.02	4		0.15	38
	n:	38	38	38				
	Average:	17.6847	1.3645	1.6269				
	Sdev:	43.3987	0.7210	0.6712				
	Sdev:	245%	53%	41%				
	Min:	0.7780	0.6970	0.8470				
	Max:	203.00	3.9000	3.2600				
	Median:	6.1350	1.1950	1.4200				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Gross Beta	-0.915	0.616	1.46	4	U	0.15
QC Blank	Gross Beta	0.237	0.514	0.946	4	U	0.15
QC Blank	Gross Beta	-0.0634	1.14	2.43	4	U	0.15
	n:	3	3	3			
	Average:	-0.2471	0.7567	1.6120			
	Sdev:	0.5978	0.3359	0.7536			
	Sdev:	-242%	44%	47%			
	Min:	-0.9150	0.5140	0.9460			
	Max:	0.2370	1.1400	2.4300			



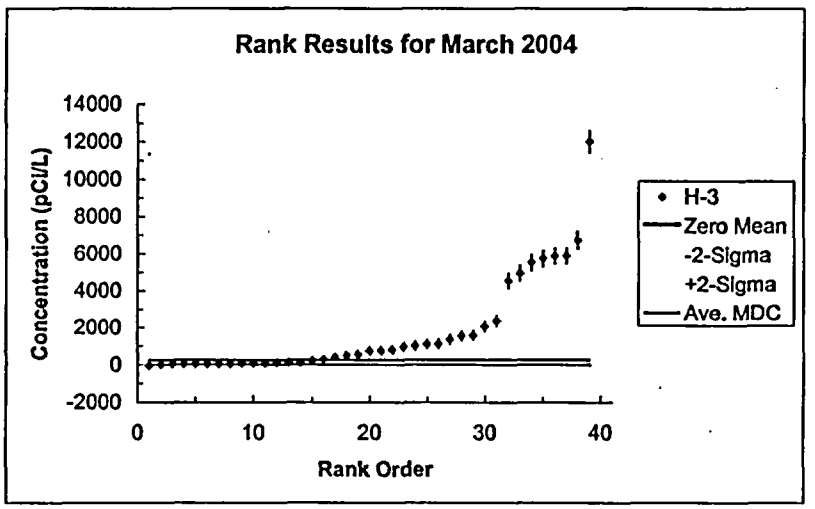


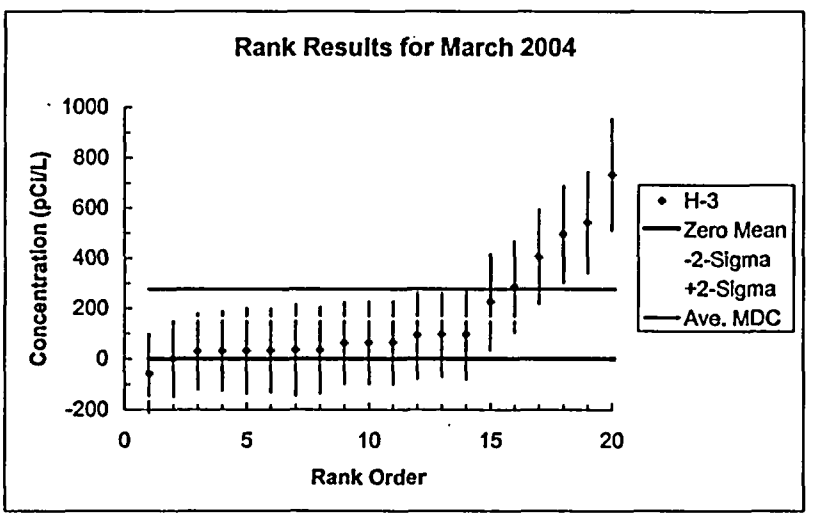
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW101S	H-3	-59.9	157	271	400	U		1
MW108S	H-3	0	160	268	400	U		2
MW123S	H-3	27.5	150	249	400	U		3
MW113S	H-3	30.6	157	260	400	U		4
MW109S	H-3	30.8	169	279	400	U		5
MW112S	H-3	32	165	272	400	U		6
MW122D	H-3	32.9	180	298	400	U		7
MW117S	H-3	33.3	171	283	400	U		8
MW100D	H-3	61.5	161	262	400	U		9
MWEOF2	H-3	62.3	163	265	400	U		10
MW111S	H-3	63.2	165	269	400	U		11
MW101D	H-3	91.3	171	276	400	U		12
MW100S	H-3	94.2	167	267	400	U		13
MW122D Replicate	H-3	94.5	177	285	400	U		14
MW107S	H-3	225	190	291	400	U		15
MW104S	H-3	285	183	269	400			16
MW106S (Sol.)	H-3	405	189	265	400			17
MW106S Replicate	H-3	494	194	263	400			18
MW106S	H-3	542	202	271	400			19
MW107D	H-3	732	222	288	400			20
MW122S	H-3	750	220	283	400			21
MW105D (Sol.)	H-3	802	213	262	400			22
MW105D	H-3	953	227	270	400			23
MW106D (Sol.)	H-3	1000	235	283	400			24
MW103S	H-3	1090	228	258	400			25
MW106D	H-3	1110	243	287	400			26
MW114S	H-3	1350	260	292	400			27
MW124S	H-3	1530	263	283	400			28
MW114S Duplicate	H-3	1570	266	284	400			29
MW110S	H-3	2050	287	282	400			30
MW125S	H-3	2350	311	296	400			31
MW109D	H-3	4550	393	290	400			32
MW102D	H-3	4940	411	296	400			33
MW105S	H-3	5520	422	273	400			34
MW115S	H-3	5740	432	290	400			35
MW105S (Sol.)	H-3	5880	434	275	400			36
MW110D	H-3	5890	424	275	400			37
MW102S	H-3	6740	469	296	400			38
MW103D	H-3	12000	580	259	400			39
	n:	39	39	39				
	Average:	1771.6	251.6	276.5				
	Sdev:	2656.27	109.87	12.52				
	Sdev:	150%	44%	5%				
	Min:	-60	150	249				
	Max:	12000	580	298				
	Median:	732	213	275				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	H-3	-129	163	292	400	U	
QC Blank	H-3	-31	154	264	400	U	
	n:	2	2	2			
	Average:	-80.0000	158.5000	278.0000			
	Sdev:	69.2965	6.3640	19.7990			
	Sdev:	-87%	4%	7%			
	Min:	-129.0	154.0	264.0			
	Max:	-31.0	163.0	292.0			

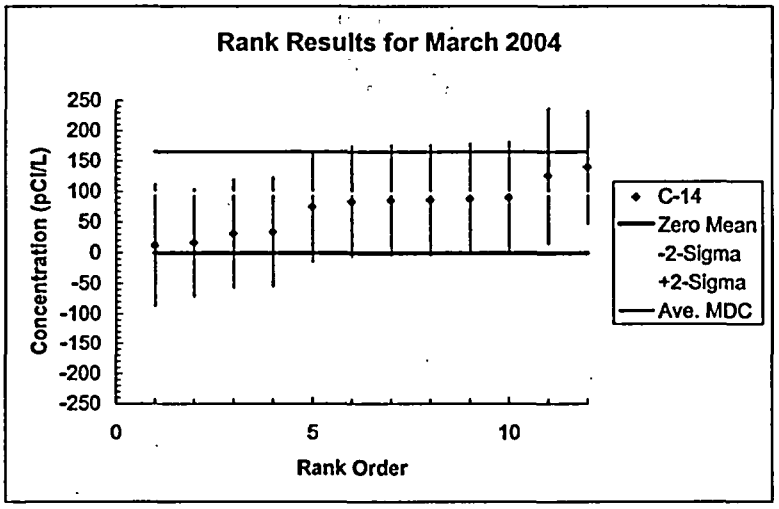




Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103S	C-14	11.9	99.4	170	200	U	0.01	1
MW105D (Sol.)	C-14	16.4	87.7	150	200	U	0.01	2
MW103D	C-14	31.3	88.1	150	200	U	0.01	3
MW105D	C-14	33.9	89	151	200	U	0.01	4
MW104S	C-14	75	89.7	151	200	U	0.01	5
MW105S	C-14	83.5	91	152	200	U	0.01	6
MW106S (Sol.)	C-14	85.6	90.1	151	200	U	0.01	7
MW106D	C-14	85.7	90.2	151	200	U	0.01	8
MW106S	C-14	88.1	90.5	151	200	U	0.01	9
MW106D (Sol.)	C-14	90.4	90.6	151	200	U	0.01	10
MW106D Replicate	C-14	126	111	184	200	U	0.01	11
MW105S (Sol.)	C-14	140	92.3	152	200	U	0.01	12
	n:	12	12	12				
	Average:	72.3167	92.4667	155.3333				
	Sdev:	40.9678	6.5594	10.5687				
	Sdev:	57%	7%	7%				
	Min:	11.9000	87.7000	150.0000				
	Max:	140.0000	111.0000	184.0000				
	Median:	84.5500	90.3500	151.0000				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	C-14	3.31	96.9	166	200	U	0.01
	n:	1	1	1			
	Average:	3.3100	96.9000	166.0000			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	3.3100	96.9000	166.0000			
	Max:	3.3100	96.9000	166.0000			

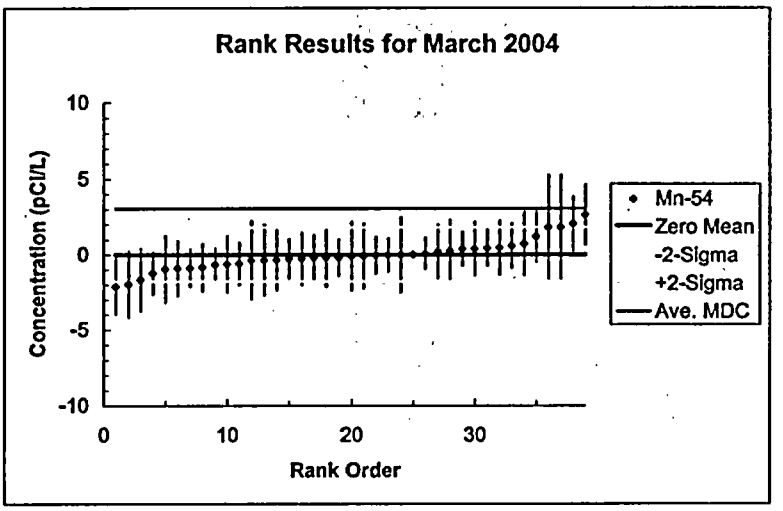


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW102D	Mn-54	-2.12	1.85	2.96	50	U	2	1
MW110D	Mn-54	-1.97	2.22	3.45	50	U	2	2
MW101D	Mn-54	-1.68	2.08	3.49	50	U	2	3
MW105D	Mn-54	-1.24	1.44	2.38	50	U	2	4
MWEOF2	Mn-54	-0.98	2.23	3.8	50	U	2	5
MW109S	Mn-54	-0.927	1.83	3.19	50	U	2	6
MW104S	Mn-54	-0.902	1.25	2.12	50	U	2	7
MW106S (Sol.)	Mn-54	-0.866	1.59	2.7	50	U	2	8
MW106S	Mn-54	-0.694	1.11	1.89	50	U	2	9
MW106S Replicate	Mn-54	-0.652	1.87	3.32	50	U	2	10
MW103S	Mn-54	-0.6	1.39	2.34	50	U	2	11
MW114S Duplicate	Mn-54	-0.381	2.61	4.71	50	U	2	12
MW114S	Mn-54	-0.377	2.35	4.19	50	U	2	13
MW102S	Mn-54	-0.35	2.04	3.52	50	U	2	14
MW103D	Mn-54	-0.298	1.3	2.22	50	U	2	15
MW115S	Mn-54	-0.278	1.72	3.05	50	U	2	16
MW125S	Mn-54	-0.228	1.51	2.62	50	U	2	17
MW124S	Mn-54	-0.218	1.92	3.41	50	U	2	18
MW105S (Sol.)	Mn-54	-0.211	1.22	2.11	50	U	2	19
MW107D	Mn-54	-0.117	2.28	4.03	50	U	2	20
MW107S	Mn-54	-0.108	2.15	3.93	50	U	2	21
MW122D Replicate	Mn-54	-0.0531	1.24	2.12	50	U	2	22
MW109D	Mn-54	-0.0433	1.12	1.98	50	U	2	23
MW117S	Mn-54	-0.03	2.5	3.89	50	U	2	24
MW112S	Mn-54	0	0	3.64	50	U	2	25
MW105S	Mn-54	0.072	1.05	1.86	50	U	2	26
MW100S	Mn-54	0.188	1.76	3.28	50	U	2	27
MW100D	Mn-54	0.263	2.02	3.7	50	U	2	28
MW105D (Sol.)	Mn-54	0.355	1.13	1.95	50	U	2	29
MW108S	Mn-54	0.379	1.78	3.3	50	U	2	30
MW106D	Mn-54	0.427	1.2	2.14	50	U	2	31
MW111S	Mn-54	0.442	1.82	3.35	50	U	2	32
MW106D (Sol.)	Mn-54	0.569	1.47	2.32	50	U	2	33
MW110S	Mn-54	0.726	2.11	3.87	50	U	2	34
MW122D	Mn-54	1.18	1.68	3.05	50	U	2	35
MW101S	Mn-54	1.78	3.49	4.44	50	U	2	36
MW123S	Mn-54	1.78	3.49	4.44	50	U	2	37
MW122S	Mn-54	2.03	1.81	2.2	50	U	2	38
MW113S	Mn-54	2.64	2	2.83	50	U	2	39
	n:	39	39	39				
	Average:	-0.0638	1.7854	3.0715				
	Sdev:	1.0053	0.6391	0.8138				
	Sdev:	-1576%	36%	26%				
	Min:	-2.12	0	1.86				
	Max:	2.64	3.49	4.71				
	Median:	-0.117	1.81	3.19				

Appendix E.1
March 2004 Rank Trend Results

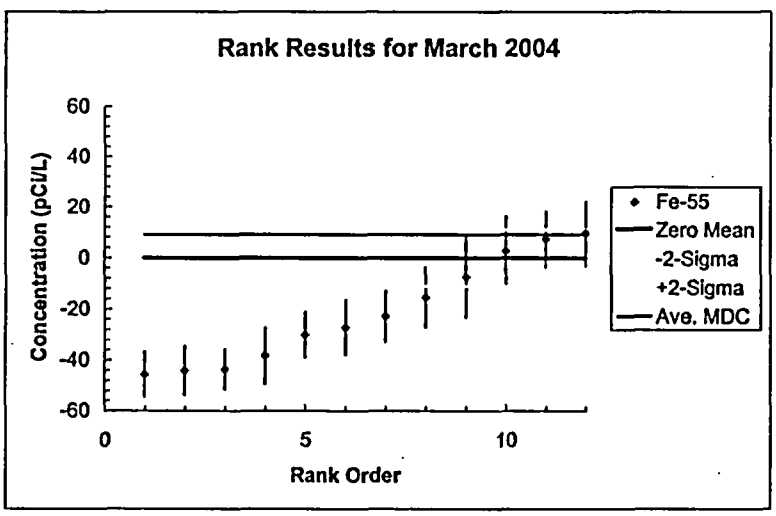
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Mn-54	-0.717	1.16	1.98	50	U	2
QC Blank	Mn-54	-0.885	1.85	3.05	50	U	2
	n:	2	2	2			
	Average:	-0.8010	1.5050	2.5150			
	Sdev:	0.1188	0.4879	0.7566			
	Sdev:	-15%	32%	30%			
	Min:	-0.8850	1.1600	1.9800			
	Max:	-0.7170	1.8500	3.0500			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105S (Sol.)	Fe-55	-45.7	8.91	7.25	25	U	0.55	1
MW106D	Fe-55	-44.2	9.78	8.78	25	U	0.55	2
MW105D	Fe-55	-43.7	7.97	6.85	25	U	0.55	3
MW104S	Fe-55	-38.4	11.2	10.3	25	U	0.55	4
MW105D (Sol.)	Fe-55	-30.1	9.07	6.99	25	U	0.55	5
MW106D (Sol.)	Fe-55	-27.2	10.9	8.57	25	U	0.55	6
MW105S	Fe-55	-22.9	10.1	7.77	25	U	0.55	7
MW106S (Sol.)	Fe-55	-15.5	11.8	9	25	U	0.55	8
MW106D Replicate	Fe-55	-7.54	15.9	14.6	25	U	0.55	9
MW103D	Fe-55	2.59	13.8	11.7	25	U	0.55	10
MW106S	Fe-55	7.32	11	8.42	25	U	0.55	11
MW103S	Fe-55	9.53	12.7	10.1	25	U	0.55	12
	n:	12	12	12				
	Average:	-21.3167	11.0942	9.1942				
	Sdev:	20.4318	2.2340	2.2341				
	Sdev:	-96%	20%	24%				
	Min:	-45.7	7.97	6.85				
	Max:	9.53	15.9	14.6				
	Median:	-25.05	10.95	8.675				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Fe-55	-17.7	14.6	12.4	25	U	0.55
	n:	1	1	1			
	Average:	-17.7000	14.6000	12.4000			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	-17.7000	14.6000	12.4000			
	Max:	-17.7000	14.6000	12.4000			

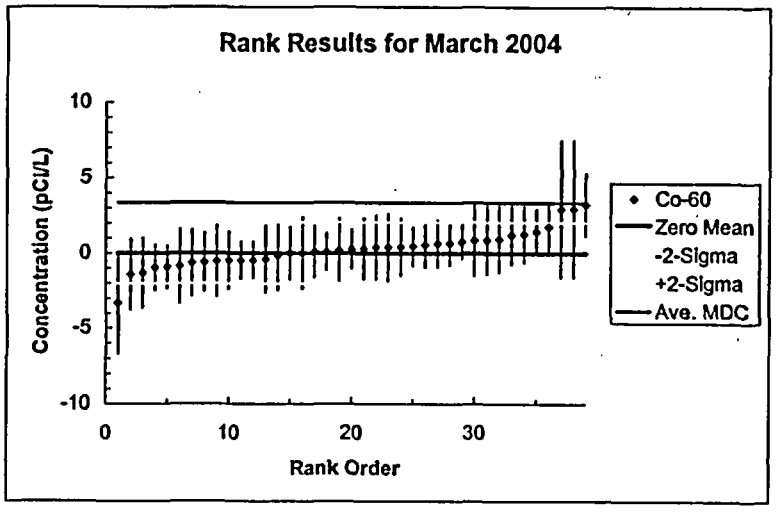


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW114S	Co-60	-3.31	3.38	4.49	25	U	2	1
MW117S	Co-60	-1.42	2.34	4.01	25	U	2	2
MW110D	Co-60	-1.34	2.32	3.89	25	U	2	3
MW125S	Co-60	-0.98	1.5	2.54	25	U	2	4
MW105D	Co-60	-0.939	1.42	2.42	25	U	2	5
MW114S Duplicate	Co-60	-0.885	2.46	4.31	25	U	2	6
MW124S	Co-60	-0.654	2.19	3.89	25	U	2	7
MW109S	Co-60	-0.592	1.94	3.41	25	U	2	8
MW112S	Co-60	-0.535	2.36	4.17	25	U	2	9
MW122S	Co-60	-0.493	1.89	3.4	25	U	2	10
MW106D	Co-60	-0.492	1.23	2.13	25	U	2	11
MW122D Replicate	Co-60	-0.465	1.2	2.07	25	U	2	12
MW113S	Co-60	-0.406	2.22	3.99	25	U	2	13
MW107S	Co-60	-0.18	2.3	4.16	25	U	2	14
MW106S Replicate	Co-60	-0.0143	1.74	3.24	25	U	2	15
MW105S (Sol.)	Co-60	0	2.4	2.27	25		2	16
MW100D	Co-60	0.0719	1.7	3.37	25	U	2	17
MW109D	Co-60	0.0743	1.22	2.27	25	U	2	18
MW102D	Co-60	0.158	2.13	4.06	25	U	2	19
MW104S	Co-60	0.247	1.29	2.32	25	U	2	20
MW110S	Co-60	0.291	2.02	3.86	25	U	2	21
MW102S	Co-60	0.367	2.12	4.02	25	U	2	22
MW111S	Co-60	0.367	2.24	3.78	25	U	2	23
MW100S	Co-60	0.389	1.9	3.61	25	U	2	24
MW106S	Co-60	0.423	1.28	2.3	25	U	2	25
MW103D	Co-60	0.541	1.48	2.74	25	U	2	26
MW106S (Sol.)	Co-60	0.619	1.55	2.81	25	U	2	27
MW106D (Sol.)	Co-60	0.644	1.45	2.71	25	U	2	28
MW105D (Sol.)	Co-60	0.728	1.13	2.11	25	U	2	29
MW107D	Co-60	0.831	2.35	4.49	25	U	2	30
MW101D	Co-60	0.858	2.27	4.26	25	U	2	31
MWEOF2	Co-60	0.925	2.2	4.27	25	U	2	32
MW122D	Co-60	1.19	1.94	3.93	25	U	2	33
MW115S	Co-60	1.26	1.88	3.83	25	U	2	34
MW103S	Co-60	1.43	1.55	2.92	25	U	2	35
MW108S	Co-60	1.74	1.69	3.79	25	U	2	36
MW101S	Co-60	2.94	4.56	4.15	25	U	2	37
MW123S	Co-60	2.94	4.56	4.15	25	U	2	38
MW105S	Co-60	3.23	2.06	1.93	25		2	39
	n:	39	39	39				
	Average:	0.2451	2.0374	3.3862				
	Sdev:	1.2300	0.7550	0.8171				
	Sdev:	502%	37%	24%				
	Min:	-3.31	1.13	1.93				
	Max:	3.23	4.56	4.49				
	Median:	0.247	1.94	3.78				

Appendix E.1
March 2004 Rank Trend Results

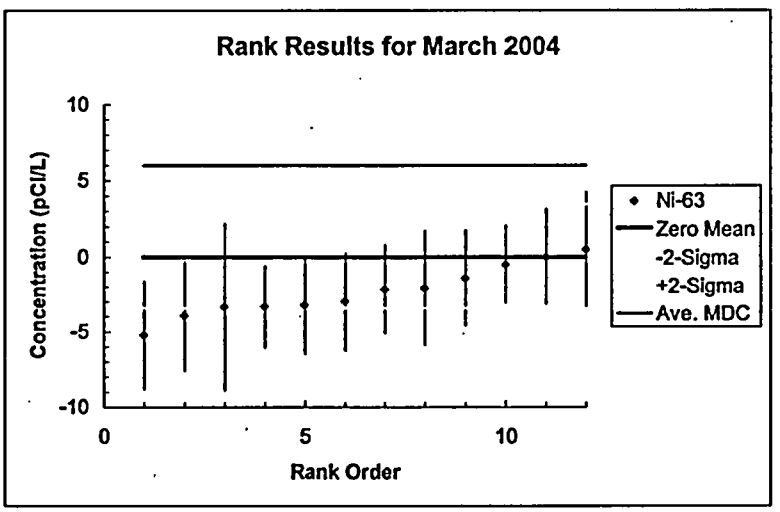
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Co-60	0.76	1.15	2.2	25	U	2
QC Blank	Co-60	0.485	2.06	3.96	25	U	2
	n:	2	2	2			
	Average:	0.6225	1.6050	3.0800			
	Sdev:	0.1945	0.6435	1.2445			
	Sdev:	31%	40%	40%			
	Min:	0.4850	1.1500	2.2000			
	Max:	0.7600	2.0600	3.9600			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103D	Ni-63	-5.23	3.59	6.41	15	U	0.55	1
MW106D Replicate	Ni-63	-3.95	3.64	6.43	15	U	0.55	2
MW105D	Ni-63	-3.36	5.54	9.67	15	U	0.55	3
MW105D (Sol.)	Ni-63	-3.33	2.72	4.83	15	U	0.55	4
MW104S	Ni-63	-3.23	3.24	5.71	15	U	0.55	5
MW106S	Ni-63	-2.99	3.25	5.72	15	U	0.55	6
MW106S (Sol.)	Ni-63	-2.16	2.92	5.11	15	U	0.55	7
MW106D	Ni-63	-2.08	3.79	6.61	15	U	0.55	8
MW105S	Ni-63	-1.42	3.17	5.51	15	U	0.55	9
MW106D (Sol.)	Ni-63	-0.512	2.56	4.42	15	U	0.55	10
MW105S (Sol.)	Ni-63	0	3.16	5.42	15	U	0.55	11
MW103S	Ni-63	0.483	3.77	6.46	15	U	0.55	12
	n:	12	12	12				
	Average:	-2.3149	3.4458	6.0250				
	Sdev:	1.7031	0.7684	1.3415				
	Sdev:	-74%	22%	22%				
	Min:	-5.23	2.56	4.42				
	Max:	0.483	5.54	9.67				
	Median:	-2.575	3.245	5.715				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Ni-63	-3.26	3.44	6.06	15	U	0.55
	n:	1	1	1			
	Average:	-3.2600	3.4400	6.0600			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	-3.2600	3.4400	6.0600			
	Max:	-3.2600	3.4400	6.0600			

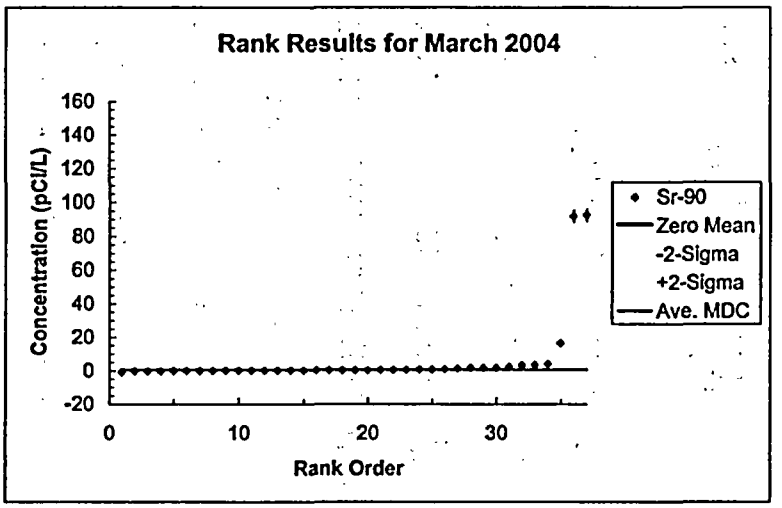


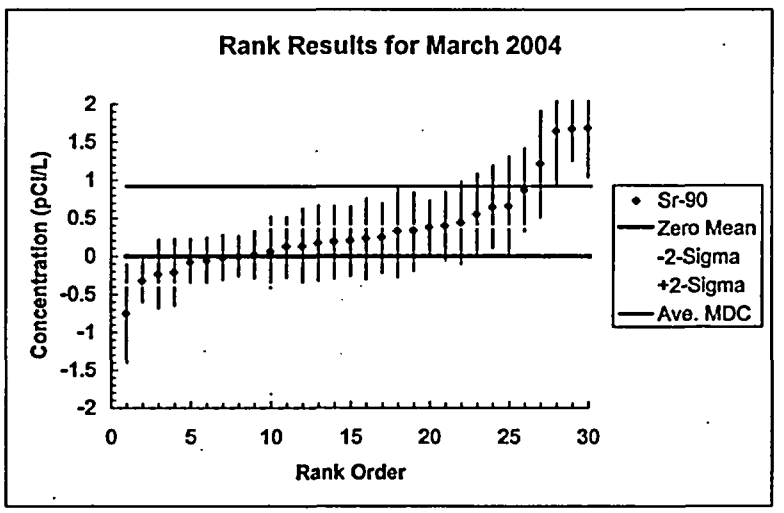
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW110S	Sr-90	-0.753	0.648	1.7	2	U	0.4	1
MW108S	Sr-90	-0.324	0.279	0.887	2	U	0.4	2
MW122D Replicate	Sr-90	-0.239	0.445	1.15	2	U	0.4	3
MW102D	Sr-90	-0.213	0.434	1.11	2	U	0.4	4
MW103D	Sr-90	-0.0756	0.296	0.815	2	U	0.4	5
MW105D	Sr-90	-0.0604	0.299	0.811	2	U	0.4	6
MW112S	Sr-90	-0.0217	0.291	0.765	2	U	0.4	7
MW104S	Sr-90	-0.0046	0.258	0.685	2	U	0.4	8
MW111S	Sr-90	0.0142	0.307	0.788	2	U	0.4	9
MW124S	Sr-90	0.0515	0.469	1.12	2	U	0.4	10
MW105D (Sol.)	Sr-90	0.118	0.401	0.973	2	U	0.4	11
MW102S	Sr-90	0.122	0.507	1.2	2	U	0.4	12
MW101D	Sr-90	0.166	0.497	1.16	2	U	0.4	13
MW109S	Sr-90	0.181	0.475	1.11	2	U	0.4	14
MW117S	Sr-90	0.196	0.457	1.09	2	U	0.4	15
MW107D	Sr-90	0.224	0.533	1.23	2	U	0.4	16
MW106D (Sol.)	Sr-90	0.237	0.457	1.05	2	U	0.4	17
MW107S	Sr-90	0.322	0.599	1.37	2	U	0.4	18
MW106D	Sr-90	0.325	0.515	1.17	2	U	0.4	19
MW113S	Sr-90	0.373	0.354	0.739	2	U	0.4	20
MW109D	Sr-90	0.391	0.457	1.01	2	U	0.4	21
MW101S	Sr-90	0.438	0.539	1.2	2	U	0.4	22
MW122D	Sr-90	0.552	0.527	1.14	2	U	0.4	23
MW122S	Sr-90	0.644	0.544	1.17	2	U	0.4	24
MW110D	Sr-90	0.657	0.65	1.42	2	U	0.4	25
MW123S	Sr-90	0.866	0.551	1.13	2	U	0.4	26
MW106S	Sr-90	1.21	0.7	1.29	2	U	0.4	27
MW115S	Sr-90	1.64	0.723	1.42	2		0.4	28
MW106S Replicate	Sr-90	1.67	0.422	0.554	2		0.4	29
MW106S (Sol.)	Sr-90	1.68	0.642	1	2		0.4	30
MW103S	Sr-90	2.27	0.62	0.786	2		0.4	31
MW125S	Sr-90	3.15	0.786	1.29	2		0.4	32
MW114S Duplicate	Sr-90	3.39	0.726	1.11	2		0.4	33
MW114S	Sr-90	3.92	0.793	1.21	2		0.4	34
MW106S (Sol.)	Sr-90	16.5	1.43	0.72	2	R	0.4	35
MW105S	Sr-90	91.8	3.45	0.815	2		0.4	36
MW105S (Sol.)	Sr-90	92.4	3.45	0.822	2		0.4	37
	n:	37	37	37				
	Average:	6.0491	0.6901	1.0543				
	Sdev:	21.0414	0.7004	0.2449				
	Sdev:	348%	101%	23%				
	Min:	-0.753	0.258	0.554				
	Max:	92.4	3.45	1.7				
	Median:	0.325	0.515	1.11				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Sr-90	0.165	0.499	1.17	2	U	0.4
QC Blank	Sr-90	-0.0411	0.262	0.669	2	U	0.4
	n:	2	2	2			
	Average:	0.0620	0.3805	0.9195			
	Sdev:	0.1457	0.1676	0.3543			
	Sdev:	235%	44%	39%			
	Min:	-0.0411	0.2620	0.6690			
	Max:	0.1650	0.4990	1.1700			



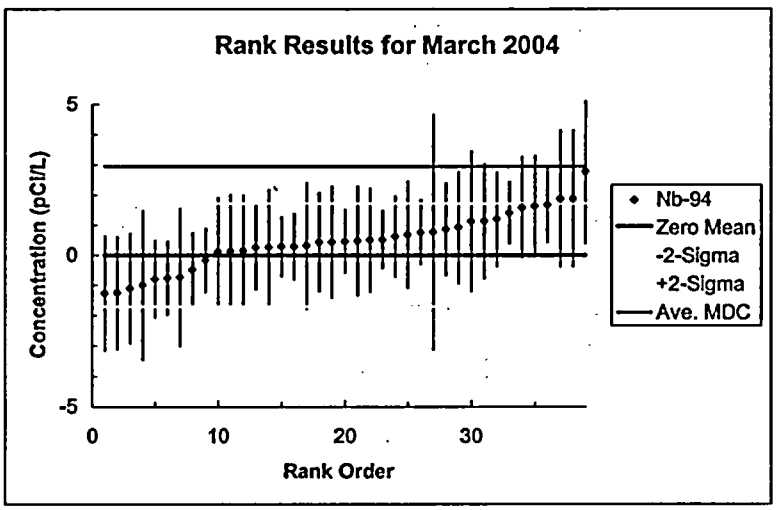


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW102S	Nb-94	-1.27	1.9	3.1	50	U	2	1
MW109S	Nb-94	-1.25	1.86	3.02	50	U	2	2
MW100D	Nb-94	-1.1	1.81	3.08	50	U	2	3
MW114S Duplicate	Nb-94	-0.999	2.46	4.08	50	U	2	4
MW105D	Nb-94	-0.799	1.27	2.15	50	U	2	5
MW125S	Nb-94	-0.763	1.21	2.02	50	U	2	6
MW114S	Nb-94	-0.732	2.28	4.02	50	U	2	7
MW104S	Nb-94	-0.494	1.23	2.03	50	U	2	8
MW106S	Nb-94	-0.178	1.06	1.78	50	U	2	9
MW106S Replicate	Nb-94	0.112	1.79	3.13	50	U	2	10
MW100S	Nb-94	0.129	1.88	3.28	50	U	2	11
MW107S	Nb-94	0.146	1.84	3.26	50	U	2	12
MW115S	Nb-94	0.252	1.4	2.59	50	U	2	13
MW117S	Nb-94	0.259	1.91	3.48	50	U	2	14
MW105D (Sol.)	Nb-94	0.274	0.985	1.71	50	U	2	15
MW105S (Sol.)	Nb-94	0.278	1.09	1.95	50	U	2	16
MW102D	Nb-94	0.308	2.09	3.71	50	U	2	17
MW110S	Nb-94	0.432	1.64	3.04	50	U	2	18
MW122S	Nb-94	0.433	1.85	3.34	50	U	2	19
MW109D	Nb-94	0.453	1.05	1.91	50	U	2	20
MW124S	Nb-94	0.471	1.81	3.34	50	U	2	21
MW108S	Nb-94	0.498	1.72	3.19	50	U	2	22
MW105S	Nb-94	0.518	0.95	1.66	50	U	2	23
MW103S	Nb-94	0.615	1.34	2.11	50	U	2	24
MW108D (Sol.)	Nb-94	0.681	1.77	2.31	50	U	2	25
MW122D Replicate	Nb-94	0.754	1.07	1.94	50	U	2	26
MW107D	Nb-94	0.763	3.89	4.31	50	U	2	27
MW108S (Sol.)	Nb-94	0.855	1.53	2.64	50	U	2	28
MWEOF2	Nb-94	0.918	1.86	3.48	50	U	2	29
MW101D	Nb-94	1.12	2.33	3.68	50	U	2	30
MW110D	Nb-94	1.13	1.92	3.57	50	U	2	31
MW111S	Nb-94	1.2	1.57	3.25	50	U	2	32
MW106D	Nb-94	1.4	1.03	1.97	50	U	2	33
MW122D	Nb-94	1.58	1.68	3.26	50	U	2	34
MW112S	Nb-94	1.63	1.66	3.26	50	U	2	35
MW103D	Nb-94	1.67	1.25	2.34	50	U	2	36
MW101S	Nb-94	1.87	2.27	4.41	50	U	2	37
MW123S	Nb-94	1.87	2.27	4.41	50	U	2	38
MW113S	Nb-94	2.78	2.4	3.39	50	U	2	39
	n:	39	39	39				
	Average:	0.4567	1.7160	2.9538				
	Sdev:	0.9345	0.5603	0.8016				
	Sdev:	205%	33%	27%				
	Min:	-1.27	0.95	1.66				
	Max:	2.78	3.89	4.41				
	Median:	0.453	1.77	3.13				

Appendix E.1
March 2004 Rank Trend Results

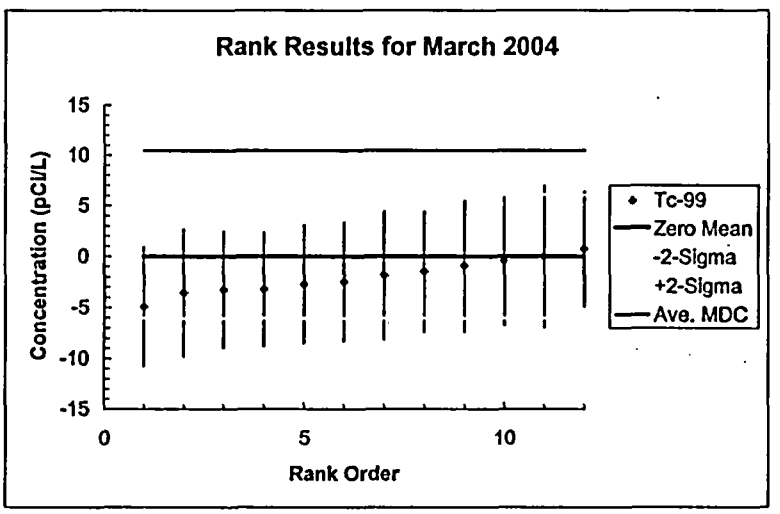
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Nb-94	-0.575	1.21	1.99	50	U	2
QC Blank	Nb-94	0.504	1.73	3.17	50	U	2
	n:	2	2	2			
	Average:	-0.0355	1.4700	2.5800			
	Sdev:	0.7630	0.3677	0.8344			
	Sdev:	-2149%	25%	32%			
	Min:	-0.5750	1.2100	1.9900			
	Max:	0.5040	1.7300	3.1700			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105D	Tc-99	-4.95	5.85	10.3	15	U	0.25	1
MW103S	Tc-99	-3.57	6.25	10.9	15	U	0.25	2
MW106D (Sol.)	Tc-99	-3.26	5.7	9.94	15	U	0.25	3
MW106S (Sol.)	Tc-99	-3.25	5.57	9.71	15	U	0.25	4
MW105D (Sol.)	Tc-99	-2.72	5.81	10.1	15	U	0.25	5
MW106D	Tc-99	-2.47	5.82	10.1	15	U	0.25	6
MW105S (Sol.)	Tc-99	-1.86	6.28	10.9	15	U	0.25	7
MW105S	Tc-99	-1.5	5.92	10.2	15	U	0.25	8
MW106S	Tc-99	-0.923	6.45	11.1	15	U	0.25	9
MW104S	Tc-99	-0.45	6.29	10.8	15	U	0.25	10
MW103D	Tc-99	0	6.96	11.9	15	U	0.25	11
MW106D Replicate	Tc-99	0.71	5.66	9.67	15	U	0.25	12
	n:	12	12	12				
	Average:	-2.0203	6.0467	10.4683				
	Sdev:	1.6577	0.4067	0.6602				
	Sdev:	-82%	7%	6%				
	Min:	-4.95	5.57	9.67				
	Max:	0.71	6.96	11.9				
	Median:	-2.165	5.885	10.25				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Tc-99	0.669	6.15	10.5	15	U	0.25
	n:	1	1	1			
	Average:	0.6690	6.1500	10.5000			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	0.6690	6.1500	10.5000			
	Max:	0.6690	6.1500	10.5000			

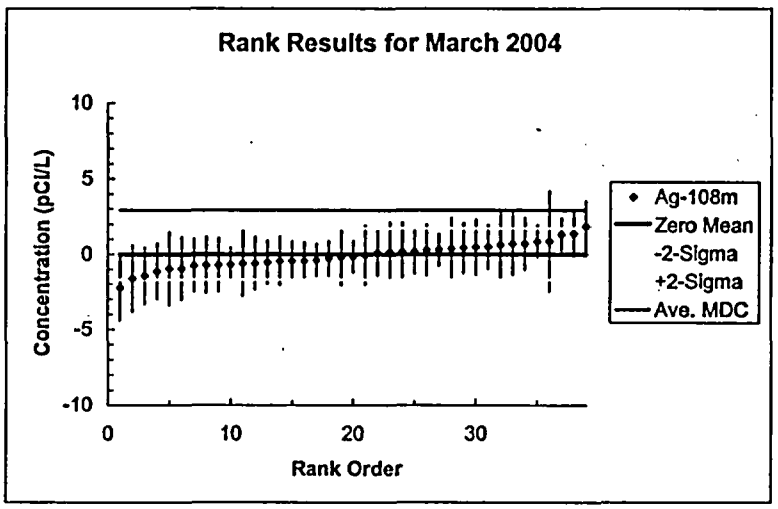


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MWEOF2	Ag-108m	-2.27	2.15	3.41	50	U	2	1
MW106S Replicate	Ag-108m	-1.64	2.21	3.14	50	U	2	2
MW102S	Ag-108m	-1.45	1.88	3.17	50	U	2	3
MW107S	Ag-108m	-1.15	1.85	3.13	50	U	2	4
MW107D	Ag-108m	-0.964	2.43	4.05	50	U	2	5
MW101D	Ag-108m	-0.95	2.1	3.53	50	U	2	6
MW124S	Ag-108m	-0.76	1.76	2.95	50	U	2	7
MW113S	Ag-108m	-0.727	1.87	3.23	50	U	2	8
MW122D	Ag-108m	-0.724	1.79	3.16	50	U	2	9
MW106S	Ag-108m	-0.689	1.11	1.86	50	U	2	10
MW114S	Ag-108m	-0.612	2.2	3.73	50	U	2	11
MW109S	Ag-108m	-0.605	1.76	3.02	50	U	2	12
MW103D	Ag-108m	-0.542	1.43	2.32	50	U	2	13
MW115S	Ag-108m	-0.445	1.6	2.66	50	U	2	14
MW104S	Ag-108m	-0.434	1.29	2.17	50	U	2	15
MW105D	Ag-108m	-0.429	1.21	2.01	50	U	2	16
MW106D	Ag-108m	-0.391	1.08	1.89	50	U	2	17
MW105S (Sol.)	Ag-108m	-0.291	1.16	1.9	50	U	2	18
MW110D	Ag-108m	-0.224	1.85	3.3	50	U	2	19
MW122D Replicate	Ag-108m	-0.18	1.05	1.84	50	U	2	20
MW122S	Ag-108m	-0.0733	1.95	3.28	50	U	2	21
MW106S (Sol.)	Ag-108m	0.106	1.55	2.63	50	U	2	22
MW101S	Ag-108m	0.162	1.96	3.46	50	U	2	23
MW123S	Ag-108m	0.162	1.96	3.46	50	U	2	24
MW125S	Ag-108m	0.174	1.5	2.72	50	U	2	25
MW110S	Ag-108m	0.273	1.69	3.12	50	U	2	26
MW105S	Ag-108m	0.291	1.05	1.82	50	U	2	27
MW102D	Ag-108m	0.343	2.08	3.74	50	U	2	28
MW112S	Ag-108m	0.403	1.67	3.08	50	U	2	29
MW100S	Ag-108m	0.455	1.85	3.31	50	U	2	30
MW103S	Ag-108m	0.469	1.45	2.47	50	U	2	31
MW117S	Ag-108m	0.603	2.27	3.92	50	U	2	32
MW100D	Ag-108m	0.693	2.07	3.63	50	U	2	33
MW108S	Ag-108m	0.693	1.74	3.29	50	U	2	34
MW105D (Sol.)	Ag-108m	0.839	1.09	1.95	50	U	2	35
MW114S Duplicate	Ag-108m	0.844	3.34	4.71	50	U	2	36
MW109D	Ag-108m	1.29	1.1	1.97	50	U	2	37
MW106D (Sol.)	Ag-108m	1.35	1.51	2.61	50	U	2	38
MW111S	Ag-108m	1.84	1.67	3.3	50	U	2	39
	n:	39	39	39				
	Average:	-0.1169	1.7251	2.9472				
	Sdev:	0.8456	0.4667	0.7119				
	Sdev:	-723%	27%	24%				
	Min:	-2.27	1.05	1.82				
	Max:	1.84	3.34	4.71				
	Median:	-0.18	1.76	3.13				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Ag-108m	0.656	1.08	1.95	50	U	2
QC Blank	Ag-108m	-0.556	1.64	2.89	50	U	2
	n:	2	2	2			
	Average:	0.0500	1.3600	2.4200			
	Sdev:	0.8570	0.3960	0.6647			
	Sdev:	1714%	29%	27%			
	Min:	-0.5560	1.0800	1.9500			
	Max:	0.6560	1.6400	2.8900			

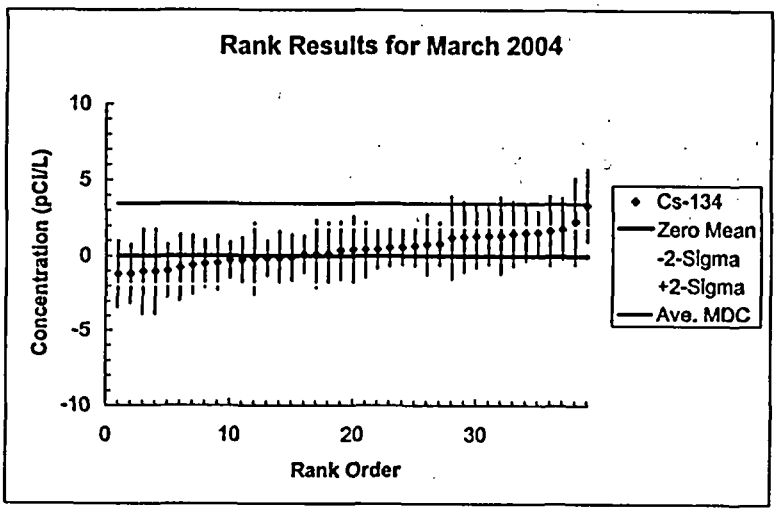


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW107S	Cs-134	-1.22	2.2	3.59	14	U	2	1
MW108S	Cs-134	-1.2	1.95	3.25	14	U	2	2
MW101S	Cs-134	-1.04	2.85	4.97	14	U	2	3
MW123S	Cs-134	-1.04	2.85	4.97	14	U	2	4
MW125S	Cs-134	-1.01	1.75	2.91	14	U	2	5
MW110D	Cs-134	-0.791	2.2	3.72	14	U	2	6
MW113S	Cs-134	-0.614	1.95	3.33	14	U	2	7
MW103D	Cs-134	-0.522	1.56	2.63	14	U	2	8
MW109S	Cs-134	-0.476	1.82	3.1	14	U	2	9
MW106S	Cs-134	-0.309	1.2	1.99	14	U	2	10
MW105D	Cs-134	-0.29	1.5	2.61	14	U	2	11
MW102D	Cs-134	-0.206	2.37	4.13	14	U	2	12
MW105S	Cs-134	-0.163	1.17	1.96	14	U	2	13
MW106S (Sol.)	Cs-134	-0.156	1.78	3.12	14	U	2	14
MW106D (Sol.)	Cs-134	-0.14	1.54	2.65	14	U	2	15
MW105D (Sol.)	Cs-134	0.103	1.22	2.09	14	U	2	16
MW100D	Cs-134	0.123	2.25	4.1	14	U	2	17
MWEOF2	Cs-134	0.129	2.08	3.78	14	U	2	18
MW122S	Cs-134	0.347	1.91	3.49	14	U	2	19
MW102S	Cs-134	0.383	2.24	4.02	14	U	2	20
MW122D	Cs-134	0.392	1.84	3.4	14	U	2	21
MW106D	Cs-134	0.415	1.27	2.26	14	U	2	22
MW109D	Cs-134	0.541	1.24	2.26	14	U	2	23
MW122D Replicate	Cs-134	0.561	1.16	2.11	14	U	2	24
MW105S (Sol.)	Cs-134	0.644	1.31	2.39	14	U	2	25
MW110S	Cs-134	0.739	2.01	3.75	14	U	2	26
MW103S	Cs-134	0.796	1.42	2.55	14	U	2	27
MW114S	Cs-134	1.2	2.74	4.72	14	U	2	28
MW101D	Cs-134	1.26	2.35	4.43	14	U	2	29
MW106S Replicate	Cs-134	1.29	2.08	3.87	14	U	2	30
MW115S	Cs-134	1.31	1.9	3.65	14	U	2	31
MW107D	Cs-134	1.32	2.54	4.71	14	U	2	32
MW124S	Cs-134	1.46	2.15	4.13	14	U	2	33
MW112S	Cs-134	1.51	1.88	3.7	14	U	2	34
MW104S	Cs-134	1.55	1.41	2.56	14	U	2	35
MW117S	Cs-134	1.65	2.3	4.45	14	U	2	36
MW100S	Cs-134	1.78	2.05	3.91	14	U	2	37
MW114S Duplicate	Cs-134	2.28	2.86	5.65	14	U	2	38
MW111S	Cs-134	3.33	2.4	4	14	U	2	39
	n:	39	39	39				
	Average:	0.4086	1.9308	3.4592				
	Sdev:	1.0435	0.4963	0.9393				
	Sdev:	255%	26%	27%				
	Min:	-1.22	1.16	1.96				
	Max:	3.33	2.86	5.65				
	Median:	0.383	1.95	3.59				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cs-134	-1.11	1.33	2.09	14	U	2
QC Blank	Cs-134	1	1.94	3.69	14	U	2
	n:	2	2	2			
	Average:	-0.0550	1.6350	2.8900			
	Sdev:	1.4920	0.4313	1.1314			
	Sdev:	-2713%	26%	39%			
	Min:	-1.1100	1.3300	2.0900			
	Max:	1.0000	1.9400	3.6900			

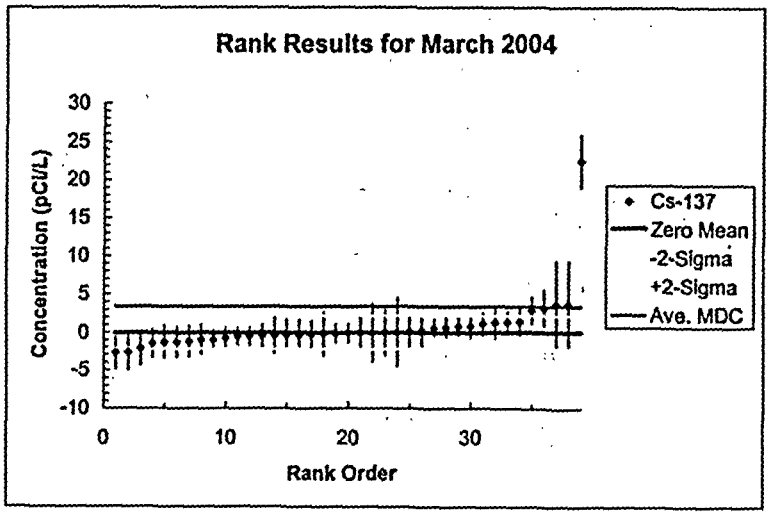


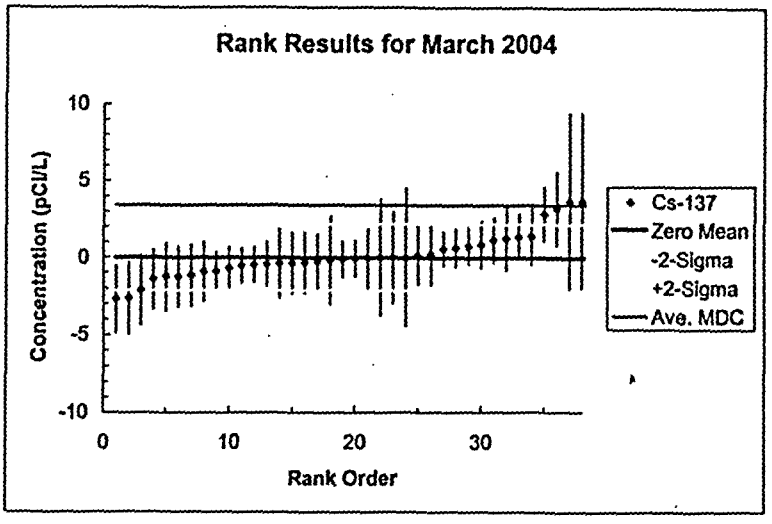
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MWEOF2	Cs-137	-2.72	2.18	3.48	15	U	2	1
MW117S	Cs-137	-2.67	2.36	3.76	15	U	2	2
MW111S	Cs-137	-2.13	2.27	3.06	15	U	2	3
MW100S	Cs-137	-1.44	1.94	3.13	15	U	2	4
MW102S	Cs-137	-1.27	2.21	3.67	15	U	2	5
MW122S	Cs-137	-1.27	1.97	3.31	15	U	2	6
MW110D	Cs-137	-1.19	2.01	3.34	15	U	2	7
MW124S	Cs-137	-0.926	1.92	3.32	15	U	2	8
MW104S	Cs-137	-0.923	1.3	2.09	15	U	2	9
MW106D (Sol.)	Cs-137	-0.727	1.39	2.35	15	U	2	10
MW105S	Cs-137	-0.505	1.13	1.86	15	U	2	11
MW109D	Cs-137	-0.486	1.17	2.02	15	U	2	12
MW105D	Cs-137	-0.42	1.43	2.48	15	U	2	13
MW114S	Cs-137	-0.396	2.28	4.12	15	U	2	14
MW106S Replicate	Cs-137	-0.362	1.98	3.39	15	U	2	15
MW112S	Cs-137	-0.335	1.96	3.44	15	U	2	16
MW113S	Cs-137	-0.281	1.8	3.16	15	U	2	17
MW107D	Cs-137	-0.194	2.86	4.4	15	U	2	18
MW106S	Cs-137	-0.118	1.17	1.98	15	U	2	19
MW122D Replicate	Cs-137	-0.0677	1.19	2.06	15	U	2	20
MW109S	Cs-137	-0.0667	1.92	3.36	15	U	2	21
MW101D	Cs-137	0	3.81	7.09	15		2	22
MW106S (Sol.)	Cs-137	0	2.96	5.01	15		2	23
MW114S Duplicate	Cs-137	0	4.48	8.75	15		2	24
MW110S	Cs-137	0.128	1.88	3.41	15	U	2	25
MW100D	Cs-137	0.194	1.94	3.59	15	U	2	26
MW105D (Sol.)	Cs-137	0.581	1.11	1.96	15	U	2	27
MW106D	Cs-137	0.616	1.24	2.24	15	U	2	28
MW105S (Sol.)	Cs-137	0.752	1.18	2.19	15	U	2	29
MW125S	Cs-137	0.849	1.53	2.86	15	U	2	30
MW108S	Cs-137	1.11	1.48	3.6	15	U	2	31
MW102D	Cs-137	1.24	2.07	3.92	15	U	2	32
MW103D	Cs-137	1.34	1.48	2.7	15	U	2	33
MW107S	Cs-137	1.4	1.82	3.52	15	U	2	34
MW115S	Cs-137	2.84	1.75	3.6	15	U	2	35
MW122D	Cs-137	3.19	2.4	4.65	15	U	2	36
MW101S	Cs-137	3.64	5.7	4.31	15	U	2	37
MW123S	Cs-137	3.64	5.7	4.31	15	U	2	38
MW103S	Cs-137	22.4	3.45	2.63	15		2	39
	n:	39	39	39				
	Average:	0.6518	2.1651	3.4390				
	Sdev:	3.8653	1.1119	1.3416				
	Sdev:	593%	51%	39%				
	Min:	-2.72	1.11	1.86				
	Max:	22.4	5.7	8.75				
	Median:	-0.0677	1.94	3.36				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cs-137	0.163	1.19	2.07	15	U	2
QC Blank	Cs-137	-0.708	1.98	3.39	15	U	2
	n:	2	2	2			
	Average:	-0.27	1.59	2.73			
	Sdev:	0.62	0.56	0.93			
	Sdev:	-226%	35%	34%			
	Min:	-0.71	1.19	2.07			
	Max:	0.16	1.98	3.39			



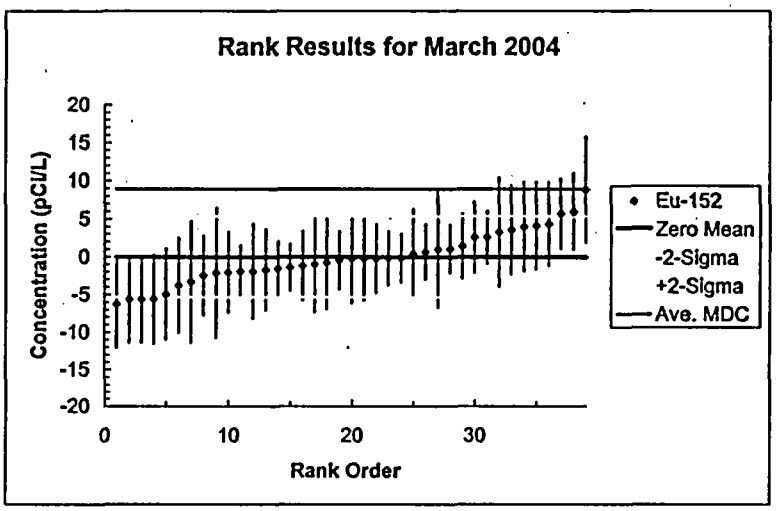


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW101D	Eu-152	-6.26	5.8	9.4	50	U	2	1
MW101S	Eu-152	-5.64	5.76	9.33	50	U	2	2
MW123S	Eu-152	-5.64	5.76	9.33	50	U	2	3
MW100S	Eu-152	-5.6	5.91	9.77	50	U	2	4
MW102S	Eu-152	-4.96	6.04	9.43	50	U	2	5
MWEOF2	Eu-152	-3.83	6.28	10.5	50	U	2	6
MW107D	Eu-152	-3.35	8.06	13.6	50	U	2	7
MW115S	Eu-152	-2.52	5.24	8.6	50	U	2	8
MW107S	Eu-152	-2.15	8.6	9.47	50	U	2	9
MW122D	Eu-152	-2.09	5.34	8.8	50	U	2	10
MW105D	Eu-152	-1.94	3.44	5.74	50	U	2	11
MW122S	Eu-152	-1.94	6.3	10.4	50	U	2	12
MW109S	Eu-152	-1.73	5.37	9.28	50	U	2	13
MW109D	Eu-152	-1.58	3.59	5.88	50	U	2	14
MW105D (Sol.)	Eu-152	-1.4	3.07	5.28	50	U	2	15
MW125S	Eu-152	-1.19	4.57	7.61	50	U	2	16
MW102D	Eu-152	-1.01	6.44	11.3	50	U	2	17
MW106S	Eu-152	-0.765	6.15	10.4	50	U	2	18
MW104S	Eu-152	-0.481	3.84	6.57	50	U	2	19
MW106S Replicate	Eu-152	-0.292	5.85	10.3	50	U	2	20
MW111S	Eu-152	-0.273	5.42	9.21	50	U	2	21
MW103D	Eu-152	-0.26	4.54	7.55	50	U	2	22
MW105S (Sol.)	Eu-152	-0.209	3.57	5.96	50	U	2	23
MW105S	Eu-152	-0.19	3.22	5.54	50	U	2	24
MW124S	Eu-152	0.383	5.9	10.4	50	U	2	25
MW106D	Eu-152	0.63	3.64	6.14	50	U	2	26
MW114S Duplicate	Eu-152	0.965	7.68	13.5	50	U	2	27
MW106S	Eu-152	1	3.23	5.71	50	U	2	28
MW103S	Eu-152	1.37	4.29	7.38	50	U	2	29
MW106D (Sol.)	Eu-152	2.53	4.7	7.68	50	U	2	30
MW122D Replicate	Eu-152	2.53	3.46	5.98	50	U	2	31
MW117S	Eu-152	3.21	7.2	12.6	50	U	2	32
MW112S	Eu-152	3.51	5.91	11	50	U	2	33
MW114S	Eu-152	3.95	5.89	10.9	50	U	2	34
MW100D	Eu-152	4.07	5.79	10.5	50	U	2	35
MW110S	Eu-152	4.28	5.5	9.96	50	U	2	36
MW106S (Sol.)	Eu-152	5.65	4.6	8.17	50	U	2	37
MW113S	Eu-152	5.93	5.03	9.81	50	U	2	38
MW110D	Eu-152	6.83	6.95	10.8	50	U	2	39
	n:	39	39	39				
	Average:	-0.1657	5.3315	8.9687				
	Sdev:	3.4519	1.3766	2.2026				
	Sdev:	-2083%	26%	25%				
	Min:	-6.26	3.07	5.28				
	Max:	6.83	8.6	13.6				
	Median:	-0.292	5.5	9.33				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-152	-0.498	3.47	6.06	50	U	2
QC Blank	Eu-152	1.86	5.35	9.35	50	U	2
	n:	2	2	2			
	Average:	0.68	4.41	7.71			
	Sdev:	1.67	1.33	2.33			
	Sdev:	245%	30%	30%			
	Min:	-0.50	3.47	6.06			
	Max:	1.86	5.35	9.35			

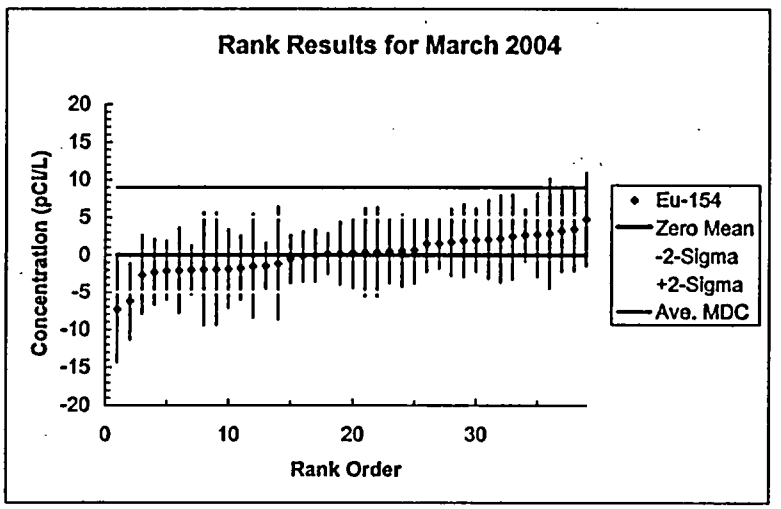


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW114S	Eu-154	-7.34	7.01	11.3	50	U	2	1
MW122D	Eu-154	-6.26	5.09	7.72	50	U	2	2
MW101D	Eu-154	-2.67	5.3	9	50	U	2	3
MW106S Replicate	Eu-154	-2.34	4.41	7.58	50	U	2	4
MW103S	Eu-154	-2.14	3.96	6.75	50	U	2	5
MW112S	Eu-154	-2.12	5.74	10	50	U	2	6
MW122D Replicate	Eu-154	-2.03	3.24	5.47	50	U	2	7
MW101S	Eu-154	-1.95	7.52	13.7	50	U	2	8
MW123S	Eu-154	-1.95	7.52	13.7	50	U	2	9
MW122S	Eu-154	-1.9	5.3	9.43	50	U	2	10
MW106S (Sol.)	Eu-154	-1.78	4.31	7.28	50	U	2	11
MW114S Duplicate	Eu-154	-1.54	6.97	12.5	50	U	2	12
MW105D (Sol.)	Eu-154	-1.49	3.06	5.19	50	U	2	13
MW107D	Eu-154	-1.18	7.54	13.5	50	U	2	14
MW106S	Eu-154	-0.564	3.21	5.57	50	U	2	15
MW106D	Eu-154	-0.202	3.34	6.01	50	U	2	16
MW104S	Eu-154	-0.122	3.49	6.19	50	U	2	17
MW105S	Eu-154	0.154	2.69	4.8	50	U	2	18
MW125S	Eu-154	0.205	4.18	7.83	50	U	2	19
MW117S	Eu-154	0.292	4.71	9.27	50	U	2	20
MW124S	Eu-154	0.344	5.88	9.68	50	U	2	21
MWEOF2	Eu-154	0.352	5.95	11.1	50	U	2	22
MW110S	Eu-154	0.463	4.23	8.39	50	U	2	23
MW113S	Eu-154	0.512	4.77	9.21	50	U	2	24
MW103D	Eu-154	0.622	4.42	7.06	50	U	2	25
MW106D (Sol.)	Eu-154	1.44	3.72	6.95	50	U	2	26
MW109D	Eu-154	1.49	3.28	6.06	50	U	2	27
MW109S	Eu-154	1.67	4.46	8.09	50	U	2	28
MW100D	Eu-154	1.87	4.85	9.68	50	U	2	29
MW105D	Eu-154	1.98	4.19	7.82	50	U	2	30
MW115S	Eu-154	2.03	5.22	9.9	50	U	2	31
MW102S	Eu-154	2.18	5.81	10.3	50	U	2	32
MW107S	Eu-154	2.42	5.68	11.2	50	U	2	33
MW105S (Sol.)	Eu-154	2.62	3.47	6.54	50	U	2	34
MW100S	Eu-154	2.71	5.6	10.9	50	U	2	35
MW110D	Eu-154	2.85	7.33	11.9	50	U	2	36
MW108S	Eu-154	3.24	5.45	11.2	50	U	2	37
MW111S	Eu-154	3.44	5.58	11.3	50	U	2	38
MW102D	Eu-154	4.74	6.19	11.9	50	U	2	39
	n:	39	39	39				
	Average:	0.0017	4.9915	9.0249				
	Sdev:	2.4983	1.3610	2.5026				
	Sdev:	147626%	27%	28%				
	Min:	-7.34	2.69	4.8				
	Max:	4.74	7.54	13.7				
	Median:	0.292	4.85	9.21				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-154	1.78	3.28	6.18	50	U	2
QC Blank	Eu-154	-1.47	4.66	8.36	50	U	2
	n:	2	2	2			
	Average:	0.16	3.97	7.27			
	Sdev:	2.30	0.98	1.54			
	Sdev:	1483%	25%	21%			
	Min:	-1.47	3.28	6.18			
	Max:	1.78	4.66	8.36			

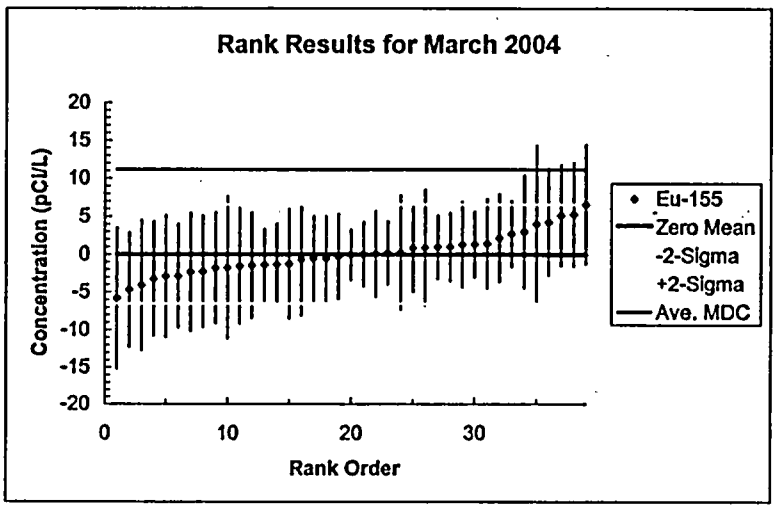


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW114S Duplicate	Eu-155	-5.85	9.33	15.1	50	U	2	1
MW106S Replicate	Eu-155	-4.71	7.59	12.4	50	U	2	2
MW117S	Eu-155	-4.09	8.64	15	50	U	2	3
MW101D	Eu-155	-3.25	7.55	12.3	50	U	2	4
MWEOF2	Eu-155	-2.94	8.1	13.5	50	U	2	5
MW122D	Eu-155	-2.88	6.86	11.9	50	U	2	6
MW100S	Eu-155	-2.38	7.84	13	50	U	2	7
MW109S	Eu-155	-2.31	7.39	12.3	50	U	2	8
MW112S	Eu-155	-1.82	7.35	12.6	50	U	2	9
MW102D	Eu-155	-1.79	9.38	15.5	50	U	2	10
MW100D	Eu-155	-1.56	7.63	13.3	50	U	2	11
MW113S	Eu-155	-1.5	6.98	11.9	50	U	2	12
MW106D	Eu-155	-1.42	4.74	8.25	50	U	2	13
MW103D	Eu-155	-1.36	5.4	9.39	50	U	2	14
MW107S	Eu-155	-1.28	7.24	12.5	50	U	2	15
MW110D	Eu-155	-0.703	7.47	13.1	50	U	2	16
MW101S	Eu-155	-0.577	5.6	9.35	50	U	2	17
MW123S	Eu-155	-0.577	5.6	9.35	50	U	2	18
MW106D (Sol.)	Eu-155	-0.296	5.61	9.8	50	U	2	19
MW105D	Eu-155	-0.0601	3.35	5.51	50	U	2	20
MW122D Replicate	Eu-155	-0.00359	4.29	7.48	50	U	2	21
MW104S	Eu-155	0.0548	5.67	9.32	50	U	2	22
MW106S	Eu-155	0.171	4.2	7.17	50	U	2	23
MW124S	Eu-155	0.216	7.54	12.8	50	U	2	24
MW106S (Sol.)	Eu-155	0.786	5.8	9.54	50	U	2	25
MW102S	Eu-155	0.836	7.64	12.2	50	U	2	26
MW105D (Sol.)	Eu-155	0.935	4.19	7.15	50	U	2	27
MW105S (Sol.)	Eu-155	0.946	4.52	7.9	50	U	2	28
MW103S	Eu-155	1.24	5.64	9.45	50	U	2	29
MW105S	Eu-155	1.29	4.34	7.27	50	U	2	30
MW125S	Eu-155	1.37	5.9	10.6	50	U	2	31
MW114S	Eu-155	2.14	5.77	9.9	50	U	2	32
MW109D	Eu-155	2.67	4.34	7.69	50	U	2	33
MW108S	Eu-155	2.96	7.51	13.7	50	U	2	34
MW107D	Eu-155	4	10.3	17.5	50	U	2	35
MW111S	Eu-155	4.25	7.07	12.8	50	U	2	36
MW115S	Eu-155	5.11	6.66	12	50	U	2	37
MW110S	Eu-155	5.24	6.81	12.5	50	U	2	38
MW122S	Eu-155	6.56	7.84	14.2	50	U	2	39
	n:	39	39	39				
	Average:	-0.0154	6.5559	11.2108				
	Sdev:	2.7576	1.6250	2.7447				
	Sdev:	-17868%	25%	24%				
	Min:	-5.85	3.35	5.51				
	Max:	6.56	10.3	17.5				
	Median:	-0.0601	6.86	12				

Appendix E.1
March 2004 Rank Trend Results

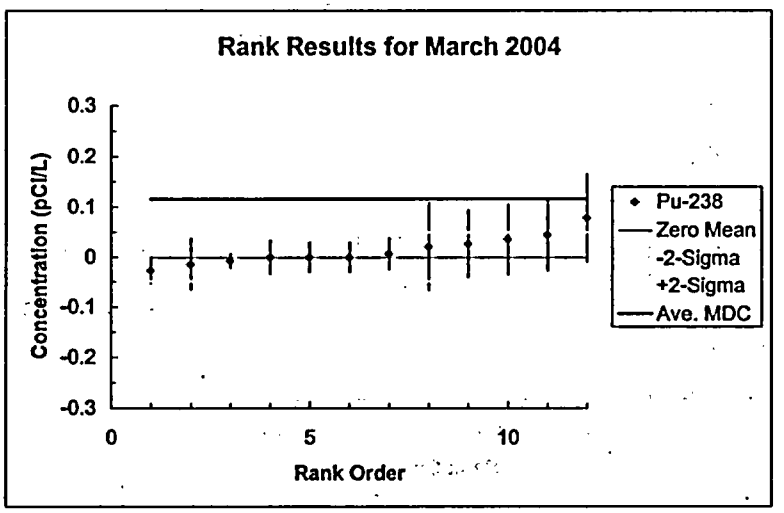
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-155	-0.667	3.62	6.18	50	U	2
QC Blank	Eu-155	-3.73	5.38	9.19	50	U	2
	n:	2	2	2			
	Average:	-2.1985	4.5000	7.6850			
	Sdev:	2.1659	1.2445	2.1284			
	Sdev:	-99%	28%	28%			
	Min:	-3.7300	3.6200	6.1800			
	Max:	-0.6670	5.3800	9.1900			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW104S	Pu-238	-0.0271	0.0266	0.125	0.5	U	0.2	1
MW105D (Sol.)	Pu-238	-0.0144	0.0516	0.151	0.5	U	0.2	2
MW105S	Pu-238	-0.00714	0.014	0.085	0.5	U	0.2	3
MW103D	Pu-238	-0.000139	0.0335	0.103	0.5	U	0.2	4
MW103S	Pu-238	0	0.0294	0.0407	0.5	U	0.2	5
MW106D Replicate	Pu-238	0	0.0295	0.0408	0.5	U	0.2	6
MW105S (Sol.)	Pu-238	0.00695	0.0308	0.0845	0.5	U	0.2	7
MW106S (Sol.)	Pu-238	0.0207	0.0879	0.196	0.5	U	0.2	8
MW105D	Pu-238	0.0263	0.0669	0.144	0.5	U	0.2	9
MW106S	Pu-238	0.0355	0.0704	0.145	0.5	U	0.2	10
MW106D	Pu-238	0.0439	0.0709	0.137	0.5	U	0.2	11
MW106D (Sol.)	Pu-238	0.0778	0.0867	0.146	0.5	U	0.2	12
	n:	12	12	12				
	Average:	0.0135	0.0499	0.1165				
	Sdev:	0.0289	0.0257	0.0468				
	Sdev:	214%	52%	40%				
	Min:	-0.0271	0.014	0.0407				
	Max:	0.0778	0.0879	0.196				
	Median:	0.003475	0.04255	0.131				

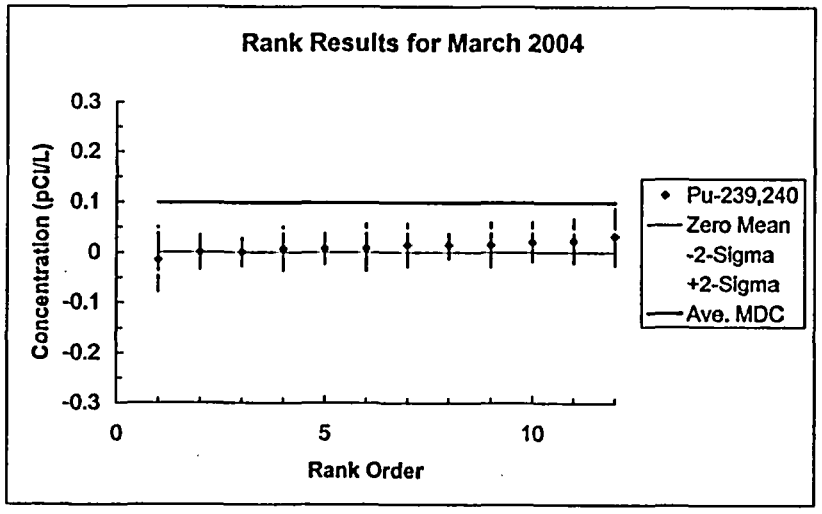
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-238	-0.0297	0.0456	0.158	0.5	U	0.2
	n:	1	1	1			
	Average:	-0.0297	0.0456	0.1580			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	-0.0297	0.0456	0.1580			
	Max:	-0.0297	0.0456	0.1580			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW106D	Pu-239,240	-0.0153	0.0649	0.178	0.5	U	0.2	1
MW105S (Sol.)	Pu-239,240	-0.00014	0.0338	0.104	0.5	U	0.2	2
MW106S	Pu-239,240	0	0.0281	0.0389	0.5	U	0.2	3
MW104S	Pu-239,240	0.0065	0.0437	0.113	0.5	U	0.2	4
MW105S	Pu-239,240	0.007	0.031	0.065	0.5	U	0.2	5
MW103S	Pu-239,240	0.00728	0.0489	0.127	0.5	U	0.2	6
MW103D	Pu-239,240	0.0138	0.0432	0.103	0.5	U	0.2	7
MW105D (Sol.)	Pu-239,240	0.014	0.0275	0.038	0.5	U	0.2	8
MW106S (Sol.)	Pu-239,240	0.0142	0.0444	0.106	0.5	U	0.2	9
MW105D	Pu-239,240	0.02	0.0393	0.0804	0.5	U	0.2	10
MW106D Replicate	Pu-239,240	0.0225	0.0443	0.0906	0.5	U	0.2	11
MW106D (Sol.)	Pu-239,240	0.0311	0.0574	0.115	0.5	U	0.2	12
	n:	12	12	12				
	Average:	0.0101	0.0422	0.0982				
	Sdev:	0.0121	0.0114	0.0375				
	Sdev:	120%	27%	38%				
	Min:	-0.0153	0.0275	0.038				
	Max:	0.0311	0.0649	0.178				
	Median:	0.01054	0.04345	0.1035				

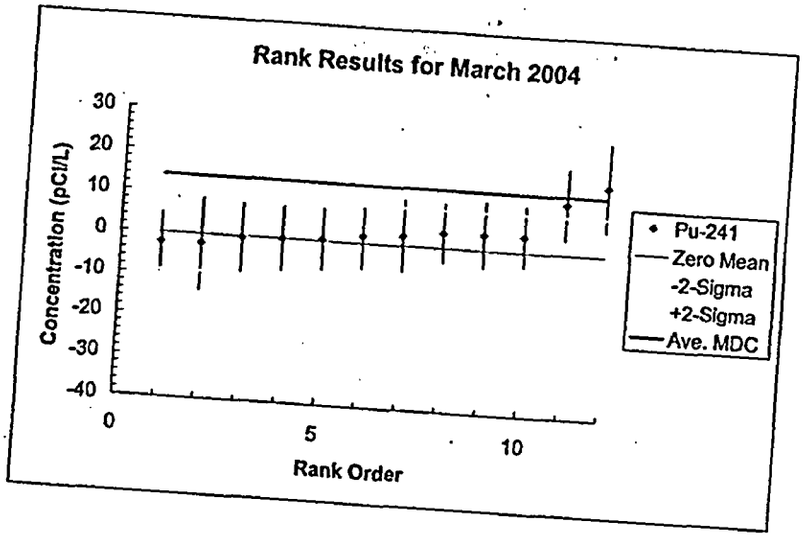
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-239,240	-0.0517	0.0383	0.167	0.5	U	0.2
	n:	1	1	1			
	Average:	-0.0517	0.0383	0.1670			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	-0.0517	0.0383	0.1670			
	Max:	-0.0517	0.0383	0.1670			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103D	Pu-241	-2.42	7.12	12.1	15	U	0.2	1
MW105S (Sol.)	Pu-241	-2.24	11.6	19.7	15	U	0.2	2
MW106D (Sol.)	Pu-241	-0.301	8.3	14.1	15	U	0.2	3
MW105D (Sol.)	Pu-241	-0.093	7.69	13.1	15	U	0.2	4
MW105S	Pu-241	0.357	7.39	12.5	15	U	0.2	5
MW106D Replicate	Pu-241	1.69	7.81	13.2	15	U	0.2	6
MW104S	Pu-241	2.29	8.64	14.6	15	U	0.2	7
MW106S	Pu-241	3.58	7.1	12	15	U	0.2	8
MW106S (Sol.)	Pu-241	3.72	7.93	13.4	15	U	0.2	9
MW105D	Pu-241	3.77	7.31	12.3	15	U	0.2	10
MW106D	Pu-241	12.1	8.5	14.2	15	U	0.2	11
MW103S	Pu-241	16.6	10.6	17.6	15	U	0.2	12
	n:	12	12	12				
	Average:	3.2544	8.3325	14.0667				
	Sdev:	5.6805	1.4049	2.3426				
	Sdev:	175%	17%	17%				
	Min:	-2.42	7.1	12				
	Max:	16.6	11.6	19.7				
	Median:	1.99	7.87	13.3				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-241	2.64	9.13	15.4	15	U	0.2
	n:	1	1	1			
	Average:	2.6400	9.1300	15.4000			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	2.6400	9.1300	15.4000			
	Max:	2.6400	9.1300	15.4000			

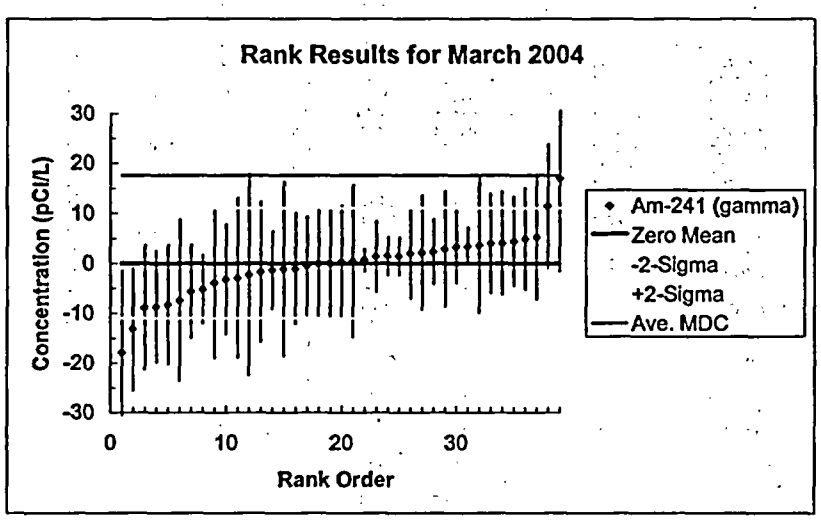


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW117S	Am-241 (gamma)	-17.9	16.5	22.8	0.5	U	2	1
MW107S	Am-241 (gamma)	-13.2	12.4	17.9	0.5	U	2	2
MW106D (Sol.)	Am-241 (gamma)	-8.88	12.5	15.6	0.5	U	2	3
MW115S	Am-241 (gamma)	-8.68	11.2	17.1	0.5	U	2	4
MW100D	Am-241 (gamma)	-8.26	12	20.7	0.5	U	2	5
MW110D	Am-241 (gamma)	-7.41	16.2	23.4	0.5	U	2	6
MW103S	Am-241 (gamma)	-5.66	9.35	14	0.5	U	2	7
MW109D	Am-241 (gamma)	-5.23	6.63	11.7	0.5	U	2	8
MW102S	Am-241 (gamma)	-3.91	15.1	22.2	0.5	U	2	9
MW114S Duplicate	Am-241 (gamma)	-3.22	11	18.4	0.5	U	2	10
MW108S	Am-241 (gamma)	-2.93	16	26.1	0.5	U	2	11
MW102D	Am-241 (gamma)	-2.32	20.2	30.5	0.5	U	2	12
MWEOF2	Am-241 (gamma)	-1.71	14	21.6	0.5	U	2	13
MW105S (Sol.)	Am-241 (gamma)	-1.31	7.8	12.4	0.5	U	2	14
MW122D	Am-241 (gamma)	-1.14	17.5	28.5	0.5	U	2	15
MW106S Replicate	Am-241 (gamma)	-1.07	11.1	19	0.5	U	2	16
MW106D	Am-241 (gamma)	-0.531	9.81	16	0.5	U	2	17
MW104S	Am-241 (gamma)	-0.0809	10.8	18	0.5	U	2	18
MW100S	Am-241 (gamma)	0	11	17.6	0.5		2	19
MW112S	Am-241 (gamma)	0.342	11.1	19.7	0.5	U	2	20
MW113S	Am-241 (gamma)	0.435	15.2	26.7	0.5	U	2	21
MW105D	Am-241 (gamma)	0.68	2.19	3.73	0.5	U	2	22
MW122D Replicate	Am-241 (gamma)	1.36	7.04	11.5	0.5	U	2	23
MW101S	Am-241 (gamma)	1.45	3.75	6.57	0.5	U	2	24
MW123S	Am-241 (gamma)	1.45	3.75	6.57	0.5	U	2	25
MW103D	Am-241 (gamma)	1.98	9.02	14.8	0.5	U	2	26
MW111S	Am-241 (gamma)	2.12	11.4	19	0.5	U	2	27
MW106S	Am-241 (gamma)	2.31	6.48	11.4	0.5	U	2	28
MW124S	Am-241 (gamma)	2.85	11.5	20.3	0.5	U	2	29
MW106S (Sol.)	Am-241 (gamma)	3.32	7.25	12.2	0.5	U	2	30
MW114S	Am-241 (gamma)	3.42	3.72	6.68	0.5	U	2	31
MW122S	Am-241 (gamma)	3.59	13.5	22.4	0.5	U	2	32
MW105D (Sol.)	Am-241 (gamma)	3.95	9.92	15.6	0.5	U	2	33
MW101D	Am-241 (gamma)	4	10.3	15.7	0.5	U	2	34
MW105S	Am-241 (gamma)	4.44	8.84	10.9	0.5	U	2	35
MW110S	Am-241 (gamma)	4.88	10.1	17.3	0.5	U	2	36
MW109S	Am-241 (gamma)	5.15	12.4	19.5	0.5	U	2	37
MW125S	Am-241 (gamma)	11.4	12.4	21.3	0.5	U	2	38
MW107D	Am-241 (gamma)	16.9	18.5	29.5	0.5	U	2	39
	n:	39	39	39				
	Average:	-0.4465	11.0167	17.5603				
	Sdev:	6.1817	4.1469	6.3824				
	Sdev:	-1384%	38%	36%				
	Min:	-17.9	2.19	3.73				
	Max:	16.9	20.2	30.5				
	Median:	0.342	11.1	17.9				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Am-241 (gamma)	2.95	7.81	10.2	0.5	U	2
QC Blank	Am-241 (gamma)	10.4	11.8	19	0.5	U	2
	n:	2	2	2			
	Average:	6.6750	9.8050	14.6000			
	Sdev:	5.2679	2.8214	6.2225			
	Sdev:	79%	29%	43%			
	Min:	2.9500	7.8100	10.2000			
	Max:	10.4000	11.8000	19.0000			

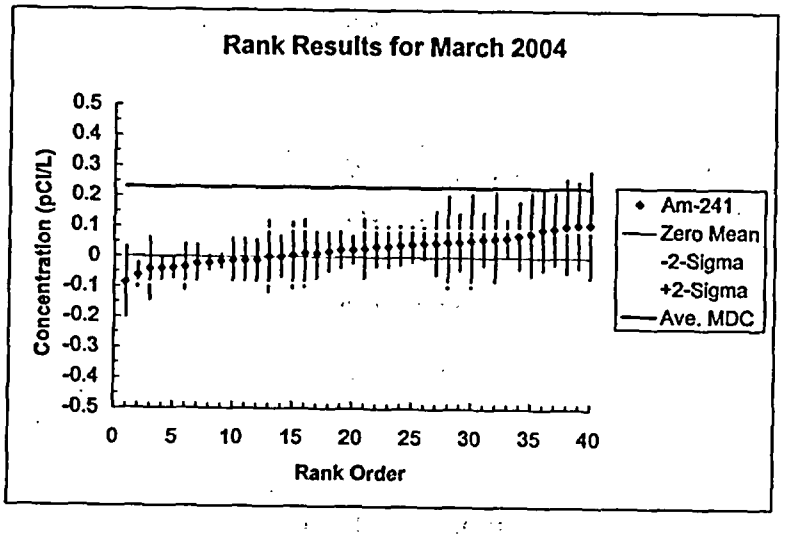


Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW124S	Am-241	-0.0863	0.117	0.486	0.5	U	0.2	1
MW123S	Am-241	-0.0642	0.042	0.284	0.5	U	0.2	2
MW110S	Am-241	-0.0429	0.104	0.354	0.5	U	0.2	3
MW117S	Am-241	-0.0415	0.0364	0.27	0.5	U	0.2	4
MW100D Replicate	Am-241	-0.0392	0.0344	0.255	0.5	U	0.2	5
MW107D	Am-241	-0.0366	0.0762	0.301	0.5	U	0.2	6
MW106S (Sol.)	Am-241	-0.0251	0.0625	0.188	0.5	U	0.2	7
MW115S	Am-241	-0.0214	0.0242	0.198	0.5	U	0.2	8
MW103D	Am-241	-0.0166	0.023	0.121	0.5	U	0.2	9
MW111S	Am-241	-0.014	0.0724	0.264	0.5	U	0.2	10
MW102D	Am-241	-0.0138	0.0711	0.259	0.5	U	0.2	11
MW113S	Am-241	-0.0131	0.0679	0.248	0.5	U	0.2	12
MW106D (Sol.)	Am-241	0	0.119	0.238	0.5	U	0.1	13
MW112S	Am-241	0	0.0677	0.0936	0.5	U	0.2	14
MW110D	Am-241	0.00352	0.11	0.311	0.5	U	0.2	15
MW125S	Am-241	0.0108	0.112	0.307	0.5	U	0.2	16
MW105D (Sol.)	Am-241	0.0109	0.0825	0.259	0.5	U	0.2	17
MW122D Replicate	Am-241	0.0158	0.0632	0.15	0.5	U	0.2	18
MW122D	Am-241	0.0226	0.06	0.148	0.5	U	0.2	19
MW104S	Am-241	0.0229	0.0451	0.0921	0.5	U	0.2	20
MW101D	Am-241	0.0267	0.0968	0.26	0.5	U	0.2	21
MW108S	Am-241	0.0339	0.0664	0.0919	0.5	U	0.2	22
MW106D Replicate	Am-241	0.034	0.0674	0.139	0.5	U	0.2	23
MW105S	Am-241	0.0379	0.0652	0.129	0.5	U	0.2	24
MW103S	Am-241	0.0413	0.0585	0.0995	0.5	U	0.2	25
MW105D	Am-241	0.0462	0.0522	0.0417	0.5		0.2	26
MW114S Duplicate	Am-241	0.0467	0.105	0.243	0.5	U	0.2	27
MW109D	Am-241	0.0494	0.153	0.373	0.5	U	0.2	28
MW100S	Am-241	0.0503	0.0943	0.196	0.5	U	0.2	29
MW109S	Am-241	0.0539	0.155	0.369	0.5	U	0.2	30
MW106S	Am-241	0.0609	0.0878	0.166	0.5	U	0.2	31
MW102S	Am-241	0.0619	0.155	0.36	0.5	U	0.2	32
MW105S (Sol.)	Am-241	0.0629	0.0616	0.0426	0.5		0.2	33
MW106D	Am-241	0.071	0.112	0.218	0.5	U	0.2	34
MW101S	Am-241	0.0783	0.139	0.296	0.5	U	0.2	35
MW114S	Am-241	0.0928	0.135	0.259	0.5	U	0.2	36
MW100D	Am-241	0.0956	0.119	0.173	0.5	U	0.2	37
MW122S	Am-241	0.104	0.156	0.317	0.5	U	0.2	38
MWEOF2	Am-241	0.108	0.143	0.257	0.5	U	0.2	39
MW107S	Am-241	0.11	0.178	0.373	0.5	U	0.2	40
	n:	40	40	40				
	Average:	0.0234	0.0898	0.2308				
	Sdev:	0.0488	0.0406	0.1010				
	Sdev:	208%	45%	44%				
	Min:	-0.0863	0.023	0.0417				
	Max:	0.11	0.178	0.486				
	Median:	0.0248	0.07935	0.2515				

Appendix E.1
March 2004 Rank Trend Results

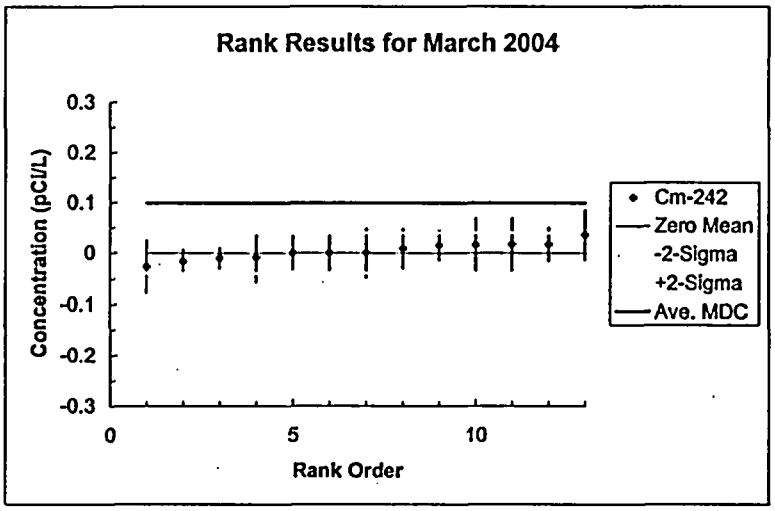
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Am-241	-0.0232	0.115	0.372	0.5	U	0.2
QC Blank	Am-241	0.00122	0.0663	0.221	0.5	U	0.2
QC Blank	Am-241	0.0235	0.0998	0.222	0.5	U	0.2
QC Blank	Am-241	-0.0541	0.112	0.245	0.5	U	0.1
QC Blank	Am-241	-0.0401	0.0834	0.33	0.5	U	0.2
	n:	5	5	5			
	Average:	-0.0185	0.0953	0.2780			
	Sdev:	0.0313	0.0204	0.0689			
	Sdev:	-169%	21%	25%			
	Min:	-0.0541	0.0663	0.2210			
	Max:	0.0235	0.1150	0.3720			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW106D	Cm-242	-0.0265	0.0514	0.175	0.5	U	0.2	1
MW104S	Cm-242	-0.0167	0.0232	0.122	0.5	U	0.2	2
MW105D (Sol.)	Cm-242	-0.0102	0.0199	0.212	0.5	U	0.2	3
MW103S	Cm-242	-0.0093	0.047	0.152	0.5	U	0.2	4
MW105S	Cm-242	0	0.0326	0.0451	0.5	U	0.2	5
MW105S (Sol.)	Cm-242	0	0.0336	0.0465	0.5	U	0.2	6
MW106D (Sol.) Replica	Cm-242	0	0.0477	0.066	0.5	U	0.1	7
MW106S (Sol.)	Cm-242	0.00882	0.0391	0.107	0.5	U	0.2	8
MW106D Replicate	Cm-242	0.0149	0.0293	0.0404	0.5	U	0.2	9
MW106D (Sol.)	Cm-242	0.0157	0.0532	0.115	0.5	U	0.1	10
MW106S	Cm-242	0.0165	0.0518	0.123	0.5	U	0.2	11
MW105D	Cm-242	0.0167	0.0328	0.0453	0.5	U	0.2	12
MW103D	Cm-242	0.0357	0.0495	0.0484	0.5	U	0.2	13
	n:	13	13	13				
	Average:	0.0035	0.0393	0.0996				
	Sdev:	0.0168	0.0115	0.0566				
	Sdev:	478%	29%	57%				
	Min:	-0.0265	0.0199	0.0404				
	Max:	0.0357	0.0532	0.212				
	Median:	0	0.0391	0.107				

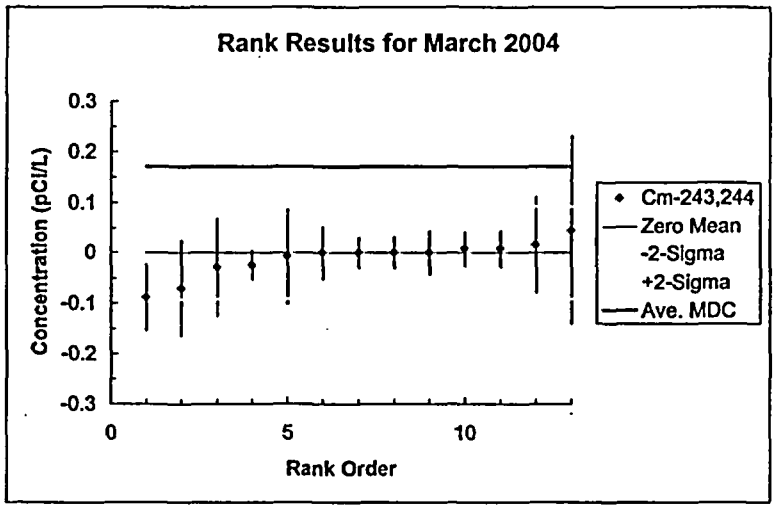
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cm-242	-0.0168	0.0232	0.122	0.5	U	0.2
QC Blank	Cm-242	0	0.0267	0.0369	0.5	U	0.1
	n:	2	2	2			
	Average:	-0.0084	0.0250	0.0795			
	Sdev:	0.0119	0.0025	0.0602			
	Sdev:	-141%	10%	76%			
	Min:	-0.0168	0.0232	0.0369			
	Max:	0.0000	0.0267	0.1220			



Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW106D	Cm-243,244	-0.089	0.0652	0.234	0.5	U	0.2	1
MW106S	Cm-243,244	-0.0706	0.0944	0.263	0.5	U	0.2	2
MW106D (Sol.)	Cm-243,244	-0.0286	0.0971	0.215	0.5	U	0.1	3
MW106S (Sol.)	Cm-243,244	-0.0249	0.0281	0.138	0.5	U	0.2	4
MW106D Replicate	Cm-243,244	-0.00804	0.0946	0.225	0.5	U	0.2	5
MW105S	Cm-243,244	-0.000305	0.052	0.142	0.5	U	0.2	6
MW105D	Cm-243,244	0	0.0302	0.0417	0.5	U	0.2	7
MW105S (Sol.)	Cm-243,244	0	0.0308	0.0426	0.5	U	0.2	8
MW106D (Sol.) Replica	Cm-243,244	0	0.0435	0.0602	0.5	U	0.1	9
MW104S	Cm-243,244	0.00759	0.0337	0.0923	0.5	U	0.2	10
MW103D	Cm-243,244	0.00815	0.0361	0.099	0.5	U	0.2	11
MW103S	Cm-243,244	0.0157	0.095	0.218	0.5	U	0.2	12
MW105D (Sol.)	Cm-243,244	0.0452	0.186	0.46	0.5	U	0.2	13
	n:	13	13	13				
	Average:	-0.0111	0.0682	0.1716				
	Sdev:	0.0356	0.0451	0.1161				
	Sdev:	-320%	66%	68%				
	Min:	-0.089	0.0281	0.0417				
	Max:	0.0452	0.186	0.46				
	Median:	0	0.052	0.142				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cm-243,244	-0.0338	0.101	0.259	0.5	U	0.2
QC Blank	Cm-243,244	0.027	0.0837	0.162	0.5	U	0.1
	n:	2	2	2			
	Average:	-0.0034	0.0924	0.2105			
	Sdev:	0.0430	0.0122	0.0686			
	Sdev:	-1264%	13%	33%			
	Min:	-0.0338	0.0837	0.1620			
	Max:	0.0270	0.1010	0.2590			

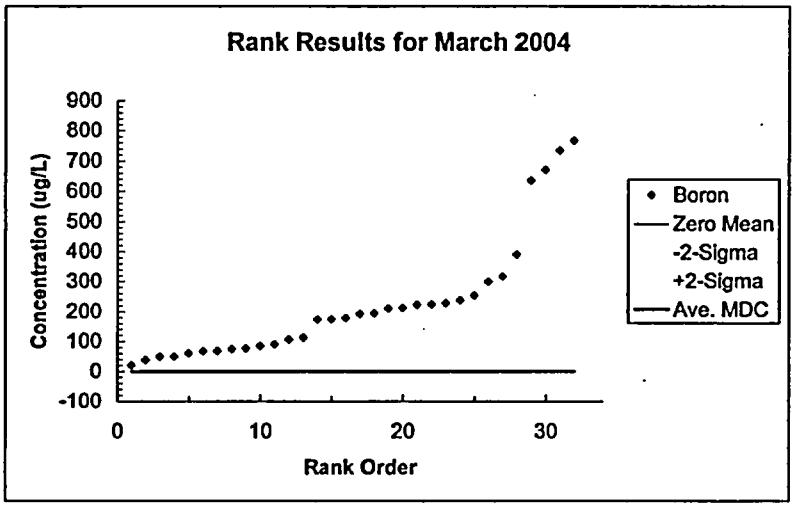


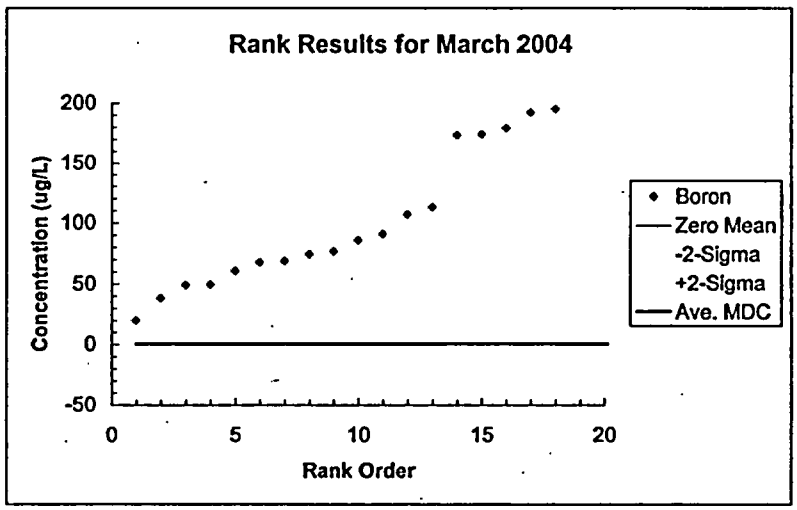
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW100D	Boron	19.9	-	0.54	15			1
MW107D	Boron	38	-	0.54	15			2
MW101S	Boron	49	-	0.54	15			3
MW101D	Boron	49.4	-	0.54	15			4
MW102S	Boron	60.8	-	0.54	15			5
MW105D	Boron	67.5	-	0.54	15			6
MW106D (Sol.)	Boron	68.7	-	0.54	15			7
MW106D	Boron	74.3	-	0.54	15			8
MW105D (Sol.)	Boron	76.5	-	0.54	15			9
MW103S	Boron	85.7	-	0.54	15			10
MW103D	Boron	90.9	-	0.54	15			11
MW123S	Boron	107	-	0.54	15			12
MW102D	Boron	113	-	0.54	15			13
MW114S	Boron	173	-	0.54	15			14
MW114S Duplicate	Boron	174	-	0.54	15			15
MW110D	Boron	179	-	0.54	15			16
MW107S	Boron	192	-	0.54	15			17
MW115S	Boron	195	-	0.54	15			18
MW109D	Boron	210	-	0.54	15			19
MW100S	Boron	212	-	0.54	15			20
MW122D Replicate	Boron	223	-	0.54	15			21
MW122D	Boron	224	-	0.54	15			22
MW124S	Boron	228	-	0.54	15			23
MW110S	Boron	238	-	0.54	15			24
MW109S	Boron	254	-	0.54	15			25
MW104S	Boron	299	-	0.54	15			26
MW122S	Boron	317	-	0.54	15			27
MW125S	Boron	390	-	0.54	15			28
MW106S (Sol.) Replicar	Boron	635	-	0.54	15			29
MW106S (Sol.)	Boron	670	-	0.54	15			30
MW105S	Boron	735	-	0.54	15			31
MW105S (Sol.)	Boron	767	-	0.54	15			32
	n:	32	0	32				
	Average:	225.4906	-	0.5400				
	Sdev:	204.4376	-	0.0000				
	Sdev:	91%	-	0%				
	Min:	19.9	0	0.54				
	Max:	767	0	0.54				
	Median:	185.5	-	0.54				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Boron	14.4	-	4.88	15	J	
QC Blank	Boron	1.84	-	0.54	15	J	
QC Blank	Boron	3.9	-	0.54	15	J	
	n:	3	0	3			
	Average:	6.7133	-	1.9867			
	Sdev:	6.7361	-	2.5057			
	Sdev:	100%	-	126%			
	Min:	1.8400	0.0000	0.5400			
	Max:	14.4000	0.0000	4.8800			



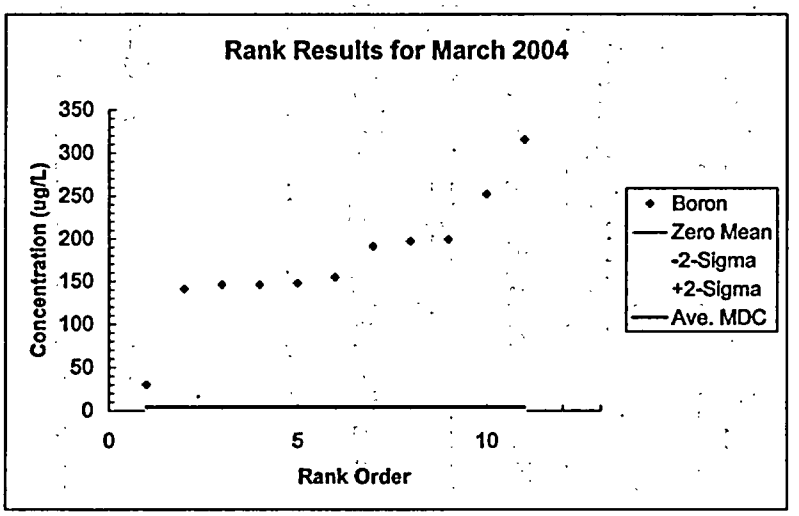


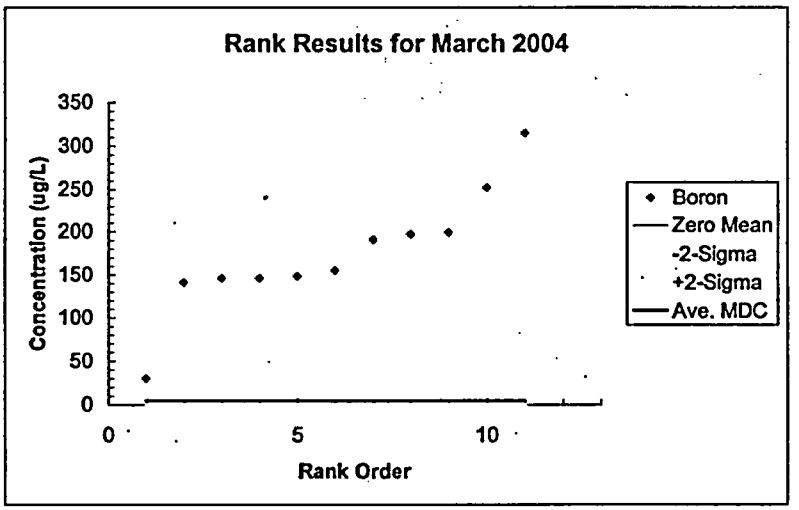
Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW107D	Boron	30	-	4.88	15	J		1
MW110D	Boron	141	-	4.88	15			2
MW107S	Boron	146	-	4.88	15			3
MW114S	Boron	146	-	4.88	15			4
MW114S Duplicate	Boron	148	-	4.88	15			5
MW115S	Boron	155	-	4.88	15			6
MW110S	Boron	191	-	4.88	15			7
MW122D	Boron	197	-	4.88	15			8
MW122D Replicate	Boron	199	-	4.88	15			9
MW122S	Boron	252	-	4.88	15			10
MW125S	Boron	315	-	4.88	15			11
	n:	11	0	11				
	Average:	174.5455	-	4.8800				
	Sdev:	71.9963	-	0.0000				
	Sdev:	41%	-	0%				
	Min:	30	0	4.88				
	Max:	315	0	4.88				
	Median:	155	-	4.88				

Appendix E.1
March 2004 Rank Trend Results

Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Boron	14.4	-	4.88	15	J	
	n:	1	0	1			
	Average:	14.4000	-	4.8800			
	Sdev:	-	-	-			
	Sdev:	-	-	-			
	Min:	14.4000	0.0000	4.8800			
	Max:	14.4000	0.0000	4.8800			



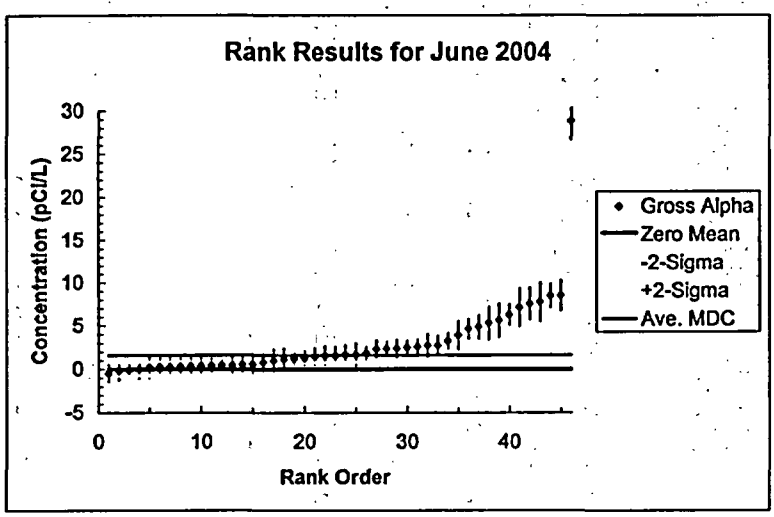


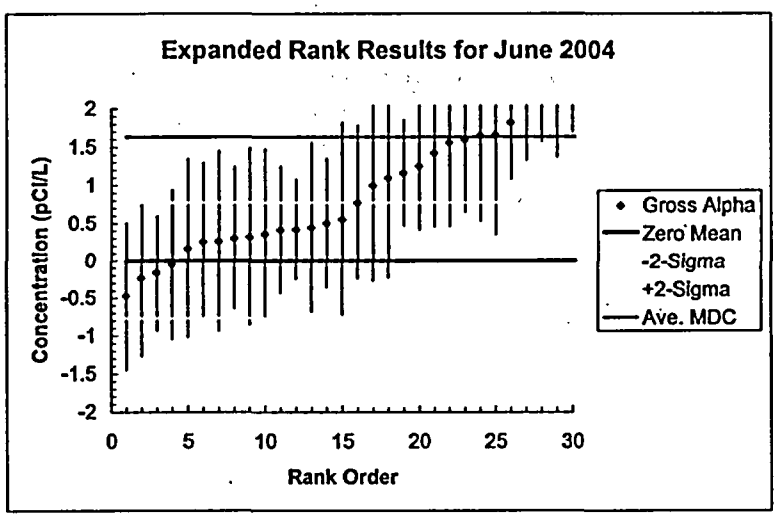
Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW109S Replicate	Gross Alpha	-0.474	0.975	2.38	3	U	0.15	1
MW111S	Gross Alpha	-0.239	1.03	2.49	3	U	0.15	2
MW3	Gross Alpha	-0.168	0.763	1.81	3	U	0.15	3
MW110S	Gross Alpha	-0.0535	0.968	2.44	3	U	0.15	4
MW105S	Gross Alpha	0.163	1.18	2.01	3	U	0.15	5
MW100S	Gross Alpha	0.253	1.04	2.27	3	U	0.15	6
MW105S Duplicate	Gross Alpha	0.257	1.19	2.14	3	U	0.15	7
MW1	Gross Alpha	0.302	0.939	2	3	U	0.15	8
MW107S	Gross Alpha	0.317	1.17	2.66	3	U	0.15	9
MW508S	Gross Alpha	0.356	1.12	2.28	3	U	0.15	10
MW117S	Gross Alpha	0.41	0.837	1.44	3	U	0.1	11
MW2	Gross Alpha	0.416	0.66	1.29	3	U	0.15	12
MW109S	Gross Alpha	0.441	1.12	2.32	3	U	0.15	13
MW108S Replicate	Gross Alpha	0.499	0.849	1.65	3	U	0.1	14
MW107D	Gross Alpha	0.548	1.27	2.53	3	U	0.15	15
MW504	Gross Alpha	0.767	1.01	1.97	3	U	0.15	16
MW113S	Gross Alpha	0.989	1.26	2.38	3	U	0.15	17
MW124S	Gross Alpha	1.09	1.32	2.2	3	U	0.1	18
MW106D	Gross Alpha	1.16	0.687	0.983	3		0.1	19
MW117S Replicate	Gross Alpha	1.25	0.834	1.25	3	U	0.1	20
MW507S	Gross Alpha	1.42	0.962	1.51	3	U	0.1	21
MW112S	Gross Alpha	1.56	1.1	1.77	3	U	0.15	22
MW101S	Gross Alpha	1.59	0.939	1.44	3		0.1	23
MW502	Gross Alpha	1.65	1.12	1.77	3	U	0.1	24
MW102S	Gross Alpha	1.66	1.31	2.3	3	U	0.15	25
MW505	Gross Alpha	1.82	0.738	0.934	3		0.1	26
MW103S	Gross Alpha	2.33	1	1.44	3		0.1	27
MW125S	Gross Alpha	2.36	0.789	0.86	3		0.1	28
MW100D	Gross Alpha	2.38	1.01	1.46	3		0.1	29
MW104S	Gross Alpha	2.49	0.789	0.838	3		0.1	30
EOF2	Gross Alpha	2.58	0.825	0.949	3		0.1	31
MW103D	Gross Alpha	2.72	1.31	2.02	3		0.15	32
MW106S	Gross Alpha	2.73	1.09	1.34	3		0.1	33
MW503	Gross Alpha	3.23	0.89	0.985	3		0.1	34
MW108S	Gross Alpha	3.9	1.64	2.55	3		0.1	35
MW123S	Gross Alpha	4.63	1.12	1.25	3		0.1	36
MW122S	Gross Alpha	4.88	1.33	1.6	3		0.1	37
MW105D	Gross Alpha	5.3	1.86	2.84	3		0.15	38
MW110D	Gross Alpha	5.63	1.94	2.33	3		0.15	39
MW114S	Gross Alpha	6.29	1.19	1.11	3		0.1	40
MW122D	Gross Alpha	7.14	2.19	2.37	3		0.15	41
MW508D	Gross Alpha	7.58	1.85	2.07	3		0.15	42
MW109D	Gross Alpha	7.78	2.23	2.03	3		0.15	43
MW101D	Gross Alpha	8.5	1.34	1.26	3		0.1	44
MW102D	Gross Alpha	8.51	1.77	1.65	3		0.15	45
MW507D	Gross Alpha	28.8	2.16	1.09	3		0.1	46
	n:	46	46	46				
	Average:	2.9944	1.1899	1.7882				
	Sdev:	4.6393	0.4053	0.5627				
	Sdev:	155%	34%	31%				
	Min:	-0.4740	0.6600	0.8380				
	Max:	28.8000	2.2300	2.8400				
	Median:	1.6200	1.1100	1.7900				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Gross Alpha	-0.774	0.56	1.7	3	U	0.15
QC Blank	Gross Alpha	-0.384	0.351	0.991	3	U	0.15
QC Blank	Gross Alpha	-0.111	0.593	1.11	3	U	0.1
QC Blank	Gross Alpha	[illegible]	1.59	2.75	3	U	0.15
	n:	4	4	4			
	Average:	0.3628	0.7735	1.6378			
	Sdev:	1.5949	0.5548	0.8037			
	Sdev:	440%	72%	49%			
	Min:	-0.7740	0.3510	0.9910			
	Max:	2.7200	1.5900	2.7500			



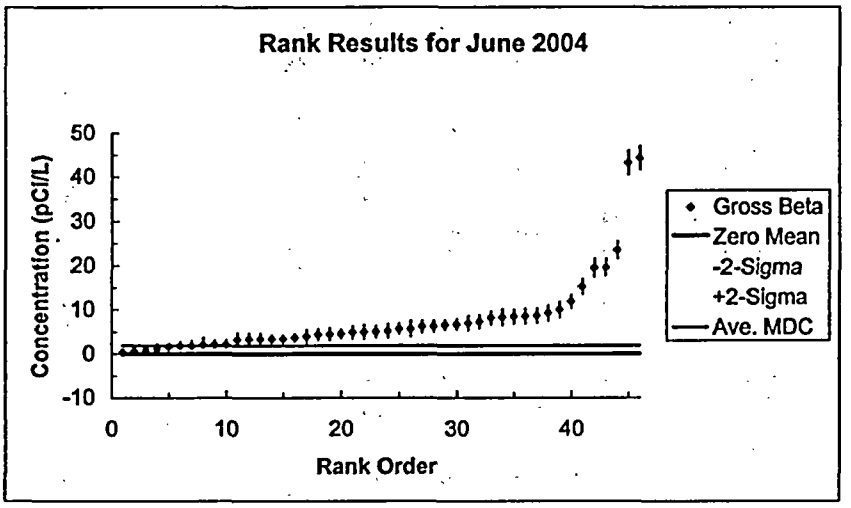


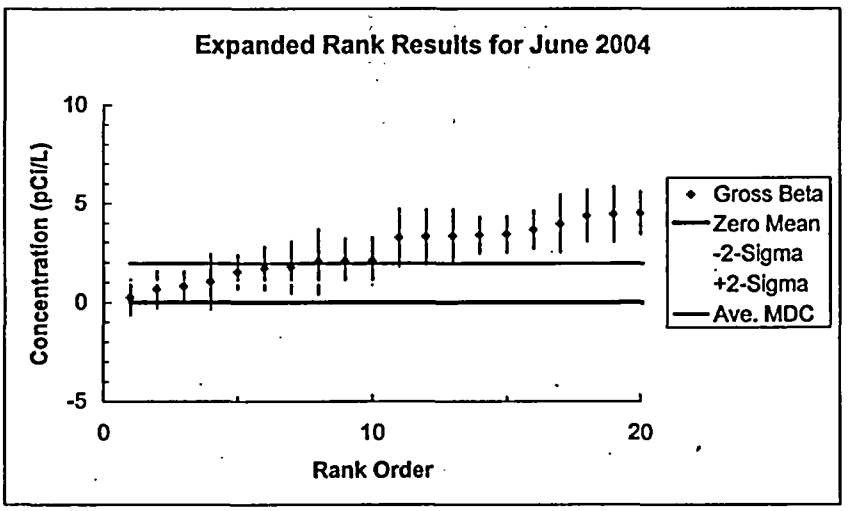
Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW1	Gross Beta	0.234	0.875	1.84	4	U	0.15	1
MW112S	Gross Beta	0.641	0.944	1.97	4	U	0.15	2
MW3	Gross Beta	0.788	0.765	1.49	4	U	0.15	3
MW100D	Gross Beta	1.02	1.37	2.29	4	U	0.1	4
MW100S	Gross Beta	1.51	0.849	1.5	4		0.15	5
MW107S	Gross Beta	1.69	1.06	2.04	4	U	0.15	6
MW503	Gross Beta	1.74	1.3	2.14	4	U	0.1	7
MW108S Replicate	Gross Beta	2.03	1.64	3.1	4	U	0.1	8
MW102S	Gross Beta	2.05	1.13	2.06	4	U	0.15	9
MW111S	Gross Beta	2.06	1.18	2.2	4	U	0.15	10
MW106D	Gross Beta	3.23	1.49	2.4	4		0.1	11
MW101S	Gross Beta	3.27	1.4	2.25	4		0.1	12
EOF2	Gross Beta	3.3	1.4	2.24	4		0.1	13
MW103D	Gross Beta	3.36	0.947	1.34	4		0.15	14
MW504	Gross Beta	3.4	0.945	1.35	4		0.15	15
MW109S Replicate	Gross Beta	3.64	0.994	1.45	4		0.15	16
MW507S	Gross Beta	3.95	1.49	2.36	4		0.1	17
MW110S	Gross Beta	4.35	1.33	2.05	4		0.15	18
MW2	Gross Beta	4.43	1.43	2.46	4		0.15	19
MW508S	Gross Beta	4.5	1.09	1.54	4		0.15	20
MW505	Gross Beta	4.88	1.44	2.22	4		0.1	21
MW124S	Gross Beta	4.98	1.66	2.62	4		0.1	22
MW502	Gross Beta	5.02	1.39	2.12	4		0.1	23
MW122D	Gross Beta	5.21	1.58	2.55	4		0.15	24
MW105D	Gross Beta	5.67	1.22	1.68	4		0.15	25
MW108S	Gross Beta	5.72	1.74	2.92	4		0.1	26
MW101D	Gross Beta	6.18	1.4	2.06	4		0.1	27
MW104S	Gross Beta	6.23	1.35	1.99	4		0.1	28
MW109S	Gross Beta	6.53	1.16	1.34	4		0.15	29
MW508D	Gross Beta	6.68	1.22	1.46	4		0.15	30
MW107D	Gross Beta	7	1.58	2.2	4		0.15	31
MW117S	Gross Beta	7.28	1.55	2.3	4		0.1	32
MW114S	Gross Beta	8.11	1.45	2.06	4		0.1	33
MW113S	Gross Beta	8.3	1.79	2.54	4		0.15	34
MW122S	Gross Beta	8.4	1.54	2.21	4		0.1	35
MW110D	Gross Beta	8.5	1.65	2.06	4		0.15	36
MW117S Replicate	Gross Beta	8.65	1.58	2.26	4		0.1	37
MW109D	Gross Beta	9.21	1.7	1.98	4		0.15	38
MW102D	Gross Beta	9.95	1.72	2.48	4		0.15	39
MW125S	Gross Beta	11.8	1.52	2.02	4		0.1	40
MW507D	Gross Beta	15.2	1.71	2.21	4		0.1	41
MW106S	Gross Beta	19.5	2.05	2.58	4		0.1	42
MW123S	Gross Beta	19.6	1.84	2.29	4		0.1	43
MW103S	Gross Beta	23.5	1.91	2.25	4		0.1	44
MW105S Duplicate	Gross Beta	43.2	2.72	1.83	4		0.15	45
MW105S	Gross Beta	44.3	2.7	1.48	4		0.15	46
	n:	46	46	46				
	Average:	7.8433	1.4526	2.0826				
	Sdev:	9.2128	0.4035	0.4112				
	Sdev:	117%	28%	20%				
	Min:	0.2340	0.7650	1.3400				
	Max:	44.30	2.7200	3.1000				
	Median:	5.1150	1.4350	2.1300				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Gross Beta	-0.435	1.28	2.23	4	U	0.1
QC Blank	Gross Beta	-0.0404	0.676	1.49	4	U	0.15
QC Blank	Gross Beta	0.0197	0.997	2.02	4	U	0.15
QC Blank	Gross Beta	0.654	1	2.07	4	U	0.15
	n:	4	4	4			
	Average:	0.0496	0.9683	1.9525			
	Sdev:	0.4506	0.2469	0.3211			
	Sdev:	909%	25%	16%			
	Min:	-0.4350	0.6760	1.4900			
	Max:	0.6540	1.2800	2.2300			



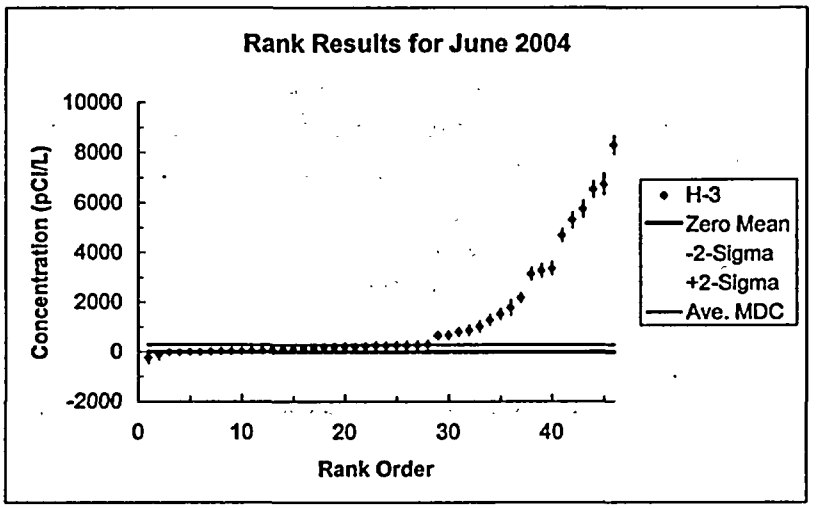


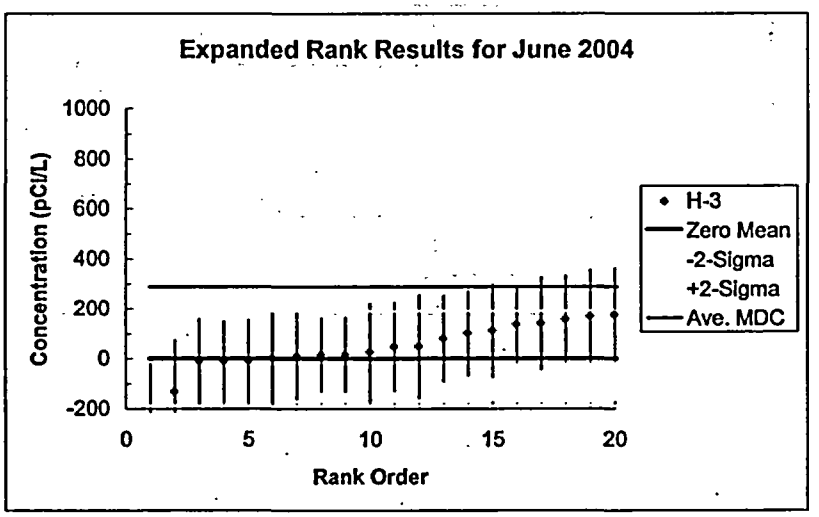
Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW2	H-3	-251	229	397	400	U		1
MW107S	H-3	-133	205	352	400	U		2
MW505	H-3	-11.6	169	284	400	U		3
MW508D	H-3	-11.5	161	270	400	U		4
MW109S	H-3	-9.7	164	275	400	U		5
MW100D	H-3	1.8	183	306	400	U		6
MW106S Replicate	H-3	10	171	286	400	U		7
MW101D	H-3	15.5	145	242	400	U		8
MW3	H-3	15.6	147	245	400	U		9
MW117S	H-3	25.1	194	324	400	U		10
MW507S	H-3	47.7	176	292	400	U		11
MW2 Replicate	H-3	48.7	206	342	400	U		12
MW100S	H-3	80.4	172	284	400	U		13
MW112S	H-3	102	169	277	400	U		14
MW507D	H-3	112	186	306	400	U		15
MW108S	H-3	136	154	251	400	U		16
MW502	H-3	141	184	302	400	U		17
MW506S	H-3	157	174	282	400	U		18
MW503	H-3	168	186	303	400	U		19
MW123S	H-3	174	187	306	400	U		20
MW113S	H-3	180	163	263	400	U		21
EOF2	H-3	196	176	286	400	U		22
MW122D	H-3	222	165	264	400	U		23
MW1	H-3	223	172	274	400	U		24
MW111S	H-3	233	180	288	400	U		25
MW104S	H-3	241	190	306	400	U		26
MW101S	H-3	252	179	288	400	U		27
MW504	H-3	276	174	275	400			28
MW122S	H-3	645	158	233	400			29
MW107D	H-3	656	172	249	400			30
MW110S Replicate	H-3	789	171	241	400			31
MW106S	H-3	850	205	302	400			32
MW110S	H-3	1010	220	310	400			33
MW105D	H-3	1280	208	277	400			34
MW106D	H-3	1520	219	297	400			35
MW124S	H-3	1770	296	410	400			36
MW125S	H-3	2170	197	236	400			37
MW109D	H-3	3140	246	258	400			38
MW105S Duplicate	H-3	3270	260	276	400			39
MW105S	H-3	3350	263	277	400			40
MW102D	H-3	4690	253	229	400			41
MW103S	H-3	5300	304	302	400			42
MW102S	H-3	5740	332	300	400			43
MW103D	H-3	6530	313	254	400			44
MW114S	H-3	6730	420	427	400			45
MW110D	H-3	8300	363	278	400			46
	n:	46	46	46				
	Average:	1312.6	207.8	269.7				
	Sdev:	2150.12	60.05	42.21				
	Sdev:	164%	29%	15%				
	Min:	-251	145	229				
	Max:	8300	420	427				
	Median:	223	185	284				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	H-3	-97.5	205	350	400	U	
QC Blank	H-3	62.1	157	260	400	U	
QC Blank	H-3	82.6	209	346	400	U	
	n:	3	3	3			
	Average:	15.7333	190.3333	318.6667			
	Sdev:	98.5972	28.9367	50.8462			
	Sdev:	627%	15%	16%			
	Min:	-97.5	157.0	260.0			
	Max:	82.6	209.0	350.0			

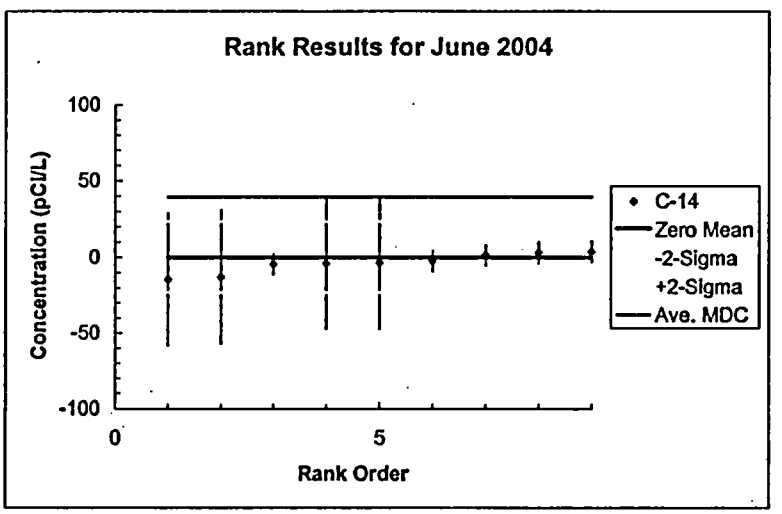




Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105S	C-14	-14.7	43.6	74.3	200	U	0.025	1
MW105S Duplicate	C-14	-13.2	44	74.9	200	U	0.025	2
MW106S	C-14	-4.53	6.67	11.8	200	U	0.2	3
MW103D	C-14	-4.07	43.3	73.5	200	U	0.025	4
MW105D	C-14	-3.61	43.9	74.5	200	U	0.025	5
MW103S	C-14	-2.65	6.75	11.8	200	U	0.2	6
MW104S	C-14	1.35	6.84	11.7	200	U	0.2	7
MW103S Replicate	C-14	2.92	7.04	12	200	U	0.2	8
MW106D	C-14	3.53	6.99	11.9	200	U	0.2	9
	n:	9	9	9				
	Average:	-3.8844	23.2322	39.6000				
	Sdev:	6.4661	19.4187	32.9214				
	Sdev:	-166%	84%	83%				
	Min:	-14.7000	6.6700	11.7000				
	Max:	3.5300	44.0000	74.9000				
	Median:	-3.6100	7.0400	12.0000				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	C-14	-2.14	3.32	5.67	200	U	0.325
QC Blank	C-14	3.4	6.94	11.8	200	U	0.2
	n:	2	2	2			
	Average:	0.6300	5.1300	8.7350			
	Sdev:	3.9174	2.5597	4.3346			
	Sdev:	622%	50%	50%			
	Min:	-2.1400	3.3200	5.6700			
	Max:	3.4000	6.9400	11.8000			

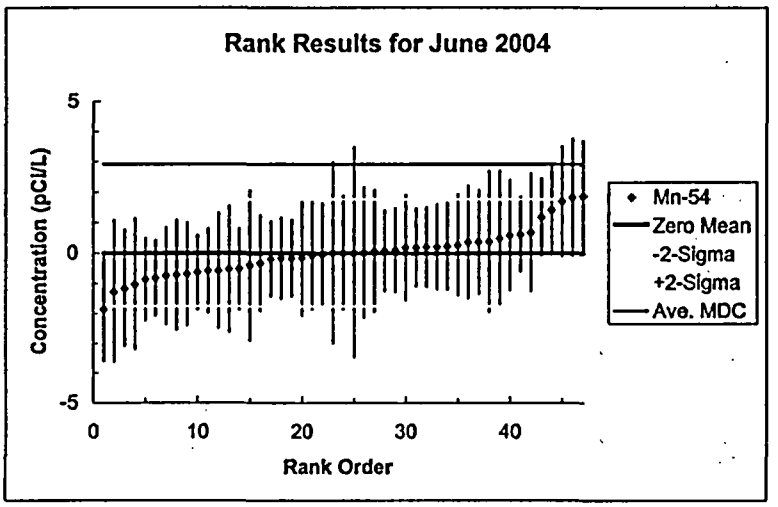


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW505	Mn-54	-1.86	1.78	2.84	50	U	2	1
MW109D	Mn-54	-1.28	2.36	4.09	50	U	2	2
MW101S	Mn-54	-1.17	1.94	3.26	50	U	2	3
MW117S	Mn-54	-1.04	2.18	3.83	50	U	2	4
MW506D	Mn-54	-0.871	1.38	2.26	50	U	2	5
MW105S	Mn-54	-0.828	1.25	2.13	50	U	2	6
MW508S Replicate	Mn-54	-0.761	1.6	2.85	50	U	2	7
MW103S	Mn-54	-0.731	1.81	3.13	50	U	2	8
MW123S	Mn-54	-0.696	1.69	2.88	50	U	2	9
MW502	Mn-54	-0.638	1.23	2.04	50	U	2	10
MW109S	Mn-54	-0.593	1.39	2	50	U	2	11
MW106S	Mn-54	-0.585	1.9	3.33	50	U	2	12
MW125S	Mn-54	-0.535	2.08	3.62	50	U	2	13
MW504	Mn-54	-0.528	1.33	2.33	50	U	2	14
MW100D	Mn-54	-0.415	2.48	4.42	50	U	2	15
MW107S	Mn-54	-0.333	1.57	2.86	50	U	2	16
MW108S Replicate	Mn-54	-0.193	1.24	2.2	50	U	2	17
MW113S	Mn-54	-0.167	1.33	2.32	50	U	2	18
MW507D	Mn-54	-0.166	1.26	2.2	50	U	2	19
MW2	Mn-54	-0.154	1.92	3.47	50	U	2	20
MW114S	Mn-54	-0.0794	1.77	3.2	50	U	2	21
MW508S	Mn-54	-0.0592	1.68	3.08	50	U	2	22
MW102S	Mn-54	0	3	2.32	50		2	23
MW111S	Mn-54	0	1.85	2.29	50		2	24
MW503	Mn-54	0	3.48	2.28	50		2	25
MW101D	Mn-54	0.0144	2.14	3.76	50	U	2	26
MW110S Replicate	Mn-54	0.0673	2.01	3.64	50	U	2	27
MW103D	Mn-54	0.0734	1.33	2.3	50	U	2	28
MW106D	Mn-54	0.0915	1.38	2.14	50	U	2	29
EOF2	Mn-54	0.174	1.73	3.23	50	U	2	30
MW105D	Mn-54	0.18	1.28	2.27	50	U	2	31
MW100S	Mn-54	0.2	1.31	2.3	50	U	2	32
MW3	Mn-54	0.202	1.39	2.55	50	U	2	33
MW106S	Mn-54	0.217	1.43	2.63	50	U	2	34
MW124S	Mn-54	0.268	1.66	3.05	50	U	2	35
MW122D	Mn-54	0.356	1.85	3.41	50	U	2	36
MW110S	Mn-54	0.368	1.7	3.06	50	U	2	37
MW105S Duplicate	Mn-54	0.381	2.34	4.33	50	U	2	38
MW107D	Mn-54	0.487	2.24	3.81	50	U	2	39
MW122S	Mn-54	0.584	1.81	3.55	50	U	2	40
MW507S	Mn-54	0.612	1.22	2.23	50	U	2	41
MW102D	Mn-54	0.678	1.93	3.6	50	U	2	42
MW110D	Mn-54	1.18	1.27	2.38	50	U	2	43
MW1	Mn-54	1.41	1.43	2.69	50	U	2	44
MW112S	Mn-54	1.69	1.82	3.57	50	U	2	45
MW104S	Mn-54	1.82	1.94	2.33	50	U	2	46
MW2 Replicate	Mn-54	1.86	1.83	3.65	50	U	2	47
	n:	47	47	47				
	Average:	-0.0164	1.7553	2.9257				
	Sdev:	0.7769	0.4676	0.6650				
	Sdev:	-4748%	27%	23%				
	Min:	-1.86	1.22	2				
	Max:	1.86	3.48	4.42				
	Median:	0	1.73	2.86				

Appendix E.2
June 2004 Rank Trend Results

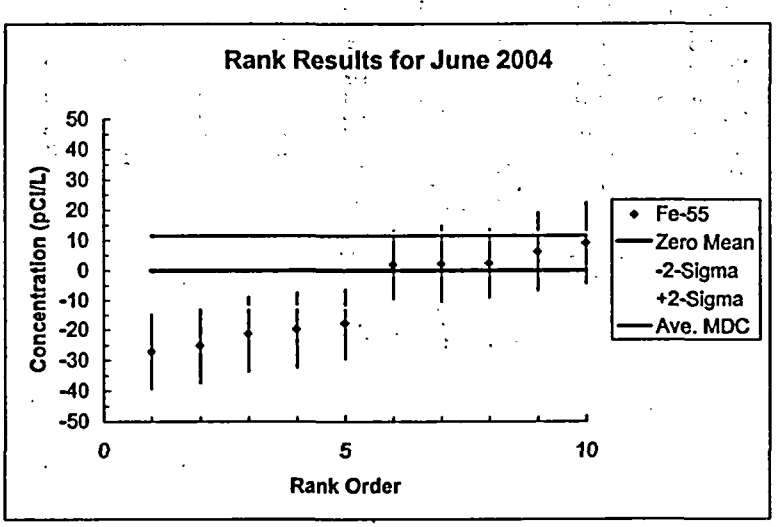
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Mn-54	-1.94	1.86	2.87	50	U	2
QC Blank	Mn-54	-0.705	1.26	2.18	50	U	2
QC Blank	Mn-54	-0.241	2.05	3.75	50	U	2
QC Blank	Mn-54	1.17	1.92	3.63	50	U	2
	n:	4	4	4			
	Average:	-0.4290	1.7725	3.1075			
	Sdev:	1.2847	0.3507	0.7309			
	Sdev:	-299%	20%	24%			
	Min:	-1.9400	1.2600	2.1800			
	Max:	1.1700	2.0500	3.7500			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW104S	Fe-55	-27.1	12.3	11.6	25	U	0.375	1
MW106D	Fe-55	-25.1	12.4	11.6	25	U	0.375	2
MW106S	Fe-55	-21.3	12.5	11.5	25	U	0.375	3
MW103S Replicate	Fe-55	-19.9	12.5	11.7	25	U	0.375	4
MW103S	Fe-55	-17.9	11.5	10.8	25	U	0.375	5
MW105S Duplicate	Fe-55	1.85	11.3	10.9	25	U	0.525	6
MW103D	Fe-55	2.08	12.6	12.3	25	U	0.525	7
MW105D Replicate	Fe-55	2.27	11.3	10.6	25	U	0.525	8
MW105D	Fe-55	6.19	12.9	11.8	25	U	0.525	9
MW105S	Fe-55	9.02	13.4	12.6	25	U	0.525	10
	n:	10	10	10				
	Average:	-8.9890	12.2700	11.5400				
	Sdev:	14.3724	0.6977	0.6363				
	Sdev:	-160%	6%	6%				
	Min:	-27.1	11.3	10.6				
	Max:	9.02	13.4	12.6				
	Median:	-8.025	12.45	11.6				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Fe-55	3.35	12	11.5	25	U	0.525
QC Blank	Fe-55	-32.7	13	12.1	25	U	0.375
	n:	2	2	2			
	Average:	-14.6750	12.5000	11.8000			
	Sdev:	25.4912	0.7071	0.4243			
	Sdev:	-174%	6%	4%			
	Min:	-32.7000	12.0000	11.5000			
	Max:	3.3500	13.0000	12.1000			

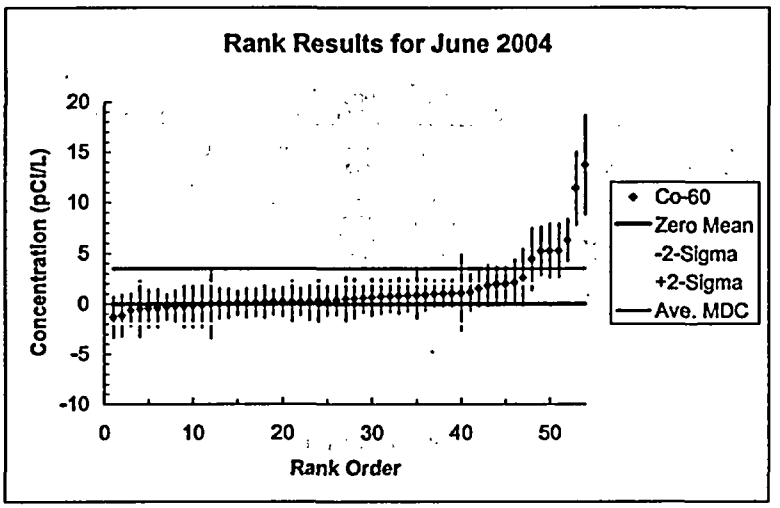


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW110S Replicate	Co-60	-1.34	2.01	3.42	25	U	2	1
MW122D	Co-60	-1.17	2.07	3.56	25	U	2	2
MW507D	Co-60	-0.597	1.59	2.75	25	U	2	3
MW100D Replicate	Co-60	-0.521	2.74	4.28	25	U	2	4
MW505	Co-60	-0.459	1.85	3.3	25	U	2	5
MW112S	Co-60	-0.456	1.87	3.39	25	U	2	6
MW109S	Co-60	-0.337	1.26	2.2	25	U	2	7
MW2 Replicate	Co-60	-0.265	1.57	2.93	25	U	2	8
MW124S	Co-60	-0.263	2.05	3.74	25	U	2	9
MW104S Replicate	Co-60	-0.163	2.17	4	25	U	2	10
MW107S	Co-60	-0.142	2.22	4	25	U	2	11
MW109D	Co-60	0	3.44	6.01	25		2	12
MW110D	Co-60	0.0068	1.49	2.69	25	U	2	13
MW105D	Co-60	0.017	1.46	2.65	25	U	2	14
MW100S	Co-60	0.0636	1.2	2.22	25	U	2	15
MW111S	Co-60	0.0721	1.44	2.6	25	U	2	16
MW503	Co-60	0.0962	1.38	2.5	25	U	2	17
MW508D	Co-60	0.145	1.59	2.87	25	U	2	18
MW106D	Co-60	0.167	1.26	2.36	25	U	2	19
MW502	Co-60	0.176	1.43	2.31	25	U	2	20
EOF2	Co-60	0.179	2.03	3.33	25	U	2	21
MW504	Co-60	0.186	1.35	2.46	25	U	2	22
MW110S	Co-60	0.194	1.86	3.42	25	U	2	23
MW125S Replicate	Co-60	0.291	2.04	3.87	25	U	2	24
MW108S Replicate	Co-60	0.317	1.46	2.62	25	U	2	25
MW3	Co-60	0.383	1.49	2.78	25	U	2	26
MW107D	Co-60	0.452	2.18	4.16	25	U	2	27
MW101S	Co-60	0.503	1.94	3.78	25	U	2	28
MW103D	Co-60	0.568	1.43	2.67	25	U	2	29
MW101D Replicate	Co-60	0.634	1.82	3.67	25	U	2	30
MW508S Replicate	Co-60	0.703	1.68	3.44	25	U	2	31
MW1	Co-60	0.75	1.58	2.95	25	U	2	32
MW123S	Co-60	0.781	1.78	3.59	25	U	2	33
MW106S	Co-60	0.809	1.55	2.95	25	U	2	34
MW122S	Co-60	0.857	2.32	4.55	25	U	2	35
MW102S	Co-60	0.869	1.54	2.83	25	U	2	36
MW105S	Co-60	0.984	1.3	2.5	25	U	2	37
MW507S	Co-60	1	1.34	2.64	25	U	2	38
MW108S Replicate	Co-60	1.02	1.32	2.54	25	U	2	39
MW2	Co-60	1.08	3.74	3.73	25	U	2	40
MW114S	Co-60	1.17	1.83	3.76	25	U	2	41
MW102D	Co-60	1.52	1.84	3.87	25	U	2	42
MW105S Duplicate	Co-60	1.78	2.09	4.56	25	U	2	43
MW125S	Co-60	1.95	1.78	3.71	25	U	2	44
MW101D	Co-60	1.97	1.73	3.9	25	U	2	45
MW117S	Co-60	2.12	2.22	4.71	25	U	2	46
MW113S	Co-60	2.58	2.8	4.55	25	U	2	47
MW108S Replicate	Co-60	4.41	3.05	5.01	25	U	2	48
MW100D	Co-60	5.2	2.37	5.63	25	U	2	49
MW508S	Co-60	5.24	2.64	5.87	25	U	2	50
MW108S	Co-60	5.25	2.64	5.87	25	U	2	51
MW104S	Co-60	6.28	2.06	4.4	25		2	52
MW103S	Co-60	11.4	3.62	3.13	25		2	53
MW103S Replicate	Co-60	13.7	4.93	4.04	25		2	54
	n:	54	54	54				
	Average:	1.3363	1.9896	3.5420				
	Sdev:	2.7543	0.7165	0.9713				
	Sdev:	206%	36%	27%				
	Min:	-1.34	1.2	2.2				
	Max:	13.7	4.93	6.01				
	Median:	0.4775	1.835	3.43				

Appendix E.2
June 2004 Rank Trend Results

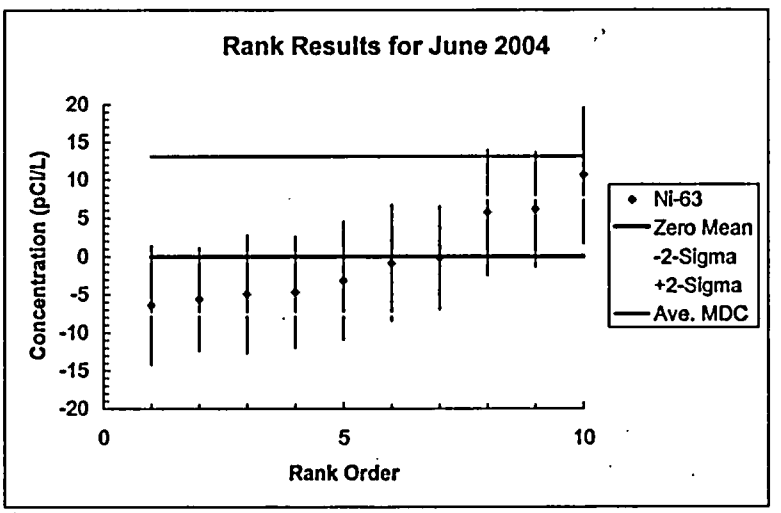
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Co-60	-1.21	1.51	2.43	25	U	2
QC Blank	Co-60	-0.456	2.12	3.83	25	U	2
QC Blank	Co-60	-0.388	1.59	2.95	25	U	2
QC Blank	Co-60	-0.159	2.02	3.7	25	U	2
QC Blank	Co-60	0.188	1.83	3.59	25	U	2
	n:	5	5	5			
	Average:	-0.4050	1.8140	3.3000			
	Sdev:	0.5155	0.2641	0.5925			
	Sdev:	-127%	15%	18%			
	Min:	-1.2100	1.5100	2.4300			
	Max:	0.1880	2.1200	3.8300			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105D Replicate	Ni-63	-6.43	7.78	13.7	15	U	0.525	1
MW103D	Ni-63	-5.64	6.72	11.8	15	U	0.525	2
MW105D	Ni-63	-4.97	7.69	13.4	15	U	0.525	3
MW105S Duplicate	Ni-63	-4.7	7.26	12.7	15	U	0.525	4
MW106D	Ni-63	-3.19	7.74	13.6	15	U	0.375	5
MW105S	Ni-63	-0.892	7.62	13.1	15	U	0.525	6
MW106S	Ni-63	-0.217	6.74	11.7	15	U	0.375	7
MW103S	Ni-63	5.72	8.17	13.8	15	U	0.375	8
MW104S	Ni-63	6.13	7.5	12.6	15	U	0.375	9
MW103S Replicate	Ni-63	10.6	8.94	14.8	15	U	0.375	10
	n:	10	10	10				
	Average:	-0.3589	7.6160	13.1200				
	Sdev:	5.8910	0.6513	0.9506				
	Sdev:	-1641%	9%	7%				
	Min:	-6.43	6.72	11.7				
	Max:	10.6	8.94	14.8				
	Median:	-2.041	7.655	13.25				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Ni-63	0.213	7.06	12.1	15	U	0.525
QC Blank	Ni-63	4.42	7.87	13.3	15	U	0.375
	n:	2	2	2			
	Average:	2.3165	7.4650	12.7000			
	Sdev:	2.9748	0.5728	0.8485			
	Sdev:	128%	8%	7%			
	Min:	0.2130	7.0600	12.1000			
	Max:	4.4200	7.8700	13.3000			

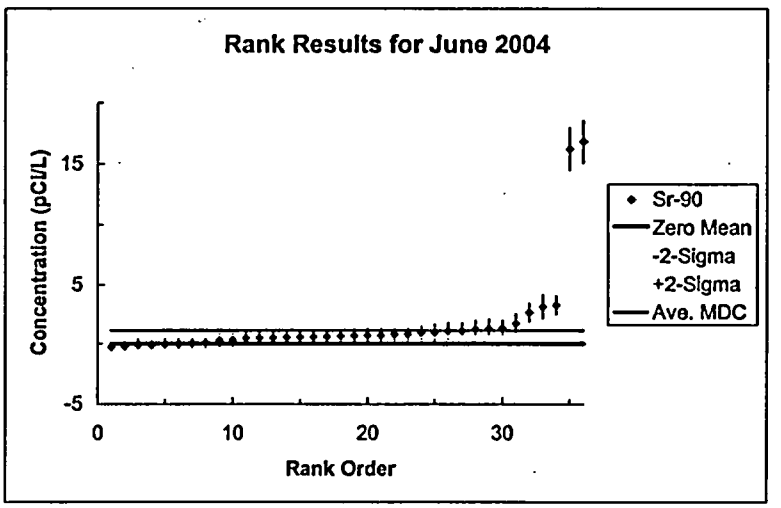


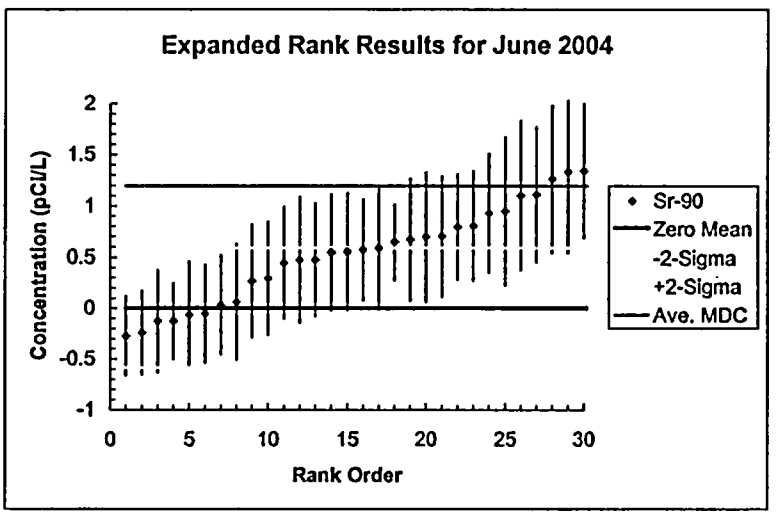
Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW124S Replicate	Sr-90	-0.275	0.392	1.14	2	U	0.3	1
MW101S	Sr-90	-0.242	0.414	1.2	2	U	0.3	2
EOF2	Sr-90	-0.131	0.504	1.34	2	U	0.3	3
MW2	Sr-90	-0.131	0.374	1.02	2	U	0.3	4
MW104S	Sr-90	-0.0679	0.526	1.35	2	U	0.3	5
MW111S	Sr-90	-0.0552	0.485	1.11	2	U	0.3	6
MW101D	Sr-90	0.0309	0.49	1.23	2	U	0.3	7
MW108S	Sr-90	0.0577	0.567	1.4	2	U	0.3	8
MW107D	Sr-90	0.262	0.555	1.2	2	U	0.3	9
MW102S	Sr-90	0.289	0.555	1.2	2	U	0.3	10
MW110D	Sr-90	0.441	0.547	1.15	2	U	0.3	11
MW123S	Sr-90	0.471	0.617	1.34	2	U	0.3	12
MW109D	Sr-90	0.473	0.555	1.16	2	U	0.3	13
MW114S	Sr-90	0.541	0.571	1.19	2	U	0.3	14
MW106D	Sr-90	0.549	0.58	1.2	2	U	0.3	15
MW122S	Sr-90	0.568	0.493	0.977	2	U	0.3	16
MW3	Sr-90	0.582	0.599	1.24	2	U	0.3	17
MW2 Replicate	Sr-90	0.642	0.374	0.684	2	U	0.3	18
MW113S	Sr-90	0.665	0.602	1.23	2	U	0.3	19
MW110S	Sr-90	0.689	0.637	1.3	2	U	0.3	20
MW112S	Sr-90	0.697	0.59	1.19	2	U	0.3	21
MW117S	Sr-90	0.791	0.516	0.952	2	U	0.3	22
MW109S	Sr-90	0.801	0.537	1.06	2	U	0.3	23
MW102D	Sr-90	0.928	0.58	1.06	2	U	0.3	24
MW1	Sr-90	0.944	0.726	1.47	2	U	0.3	25
MW110S Replicate	Sr-90	1.1	0.729	1.44	2	U	0.3	26
MW105D	Sr-90	1.11	0.656	1.26	2	U	0.3	27
MW103D	Sr-90	1.26	0.72	1.37	2	U	0.3	28
MW124S	Sr-90	1.33	0.791	1.47	2	U	0.3	29
MW103S	Sr-90	1.34	0.661	1.08	2		0.3	30
MW125S	Sr-90	1.78	0.742	1.15	2		0.3	31
MW107S	Sr-90	2.69	0.741	1.19	2		0.3	32
MW106S	Sr-90	3.17	0.961	1.31	2		0.3	33
MW122D	Sr-90	3.29	0.768	1.15	2		0.3	34
MW105S	Sr-90	16.2	1.71	1.38	2		0.3	35
MW105S Duplicate	Sr-90	16.8	1.73	1.33	2		0.3	36
	n:	36	36	36				
	Average:	1.6553	0.6555	1.2095				
	Sdev:	3.7492	0.2900	0.1593				
	Sdev:	227%	44%	13%				
	Min:	-0.275	0.374	0.684				
	Max:	16.8	1.73	1.47				
	Median:	0.6535	0.58	1.2				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Sr-90	-0.73	0.347	1.32	2	U	0.3
QC Blank	Sr-90	0.129	0.363	0.803	2	U	0.3
QC Blank	Sr-90	0.391	0.657	1.47	2	U	0.3
	n:	3	3	3			
	Average:	-0.0700	0.4557	1.1977			
	Sdev:	0.5864	0.1745	0.3499			
	Sdev:	-838%	38%	29%			
	Min:	-0.7300	0.3470	0.8030			
	Max:	0.3910	0.6570	1.4700			



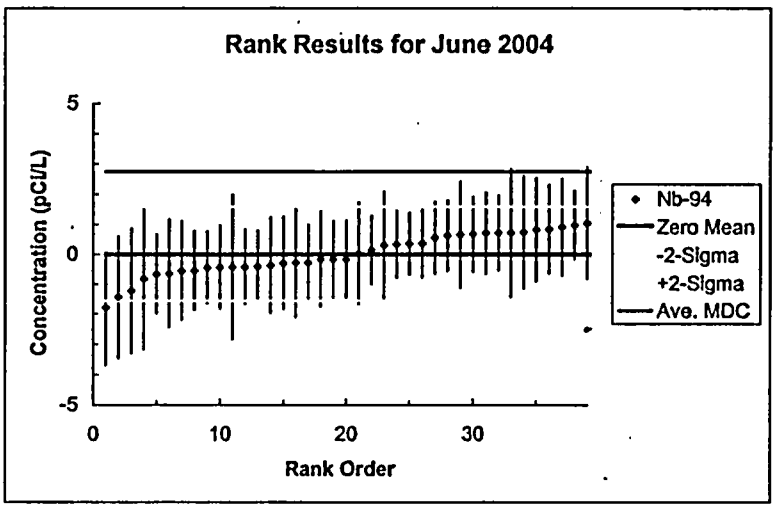


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW110S Replicate	Nb-94	-1.81	1.88	3.04	50	U	2	1
MW101D	Nb-94	-1.44	2.03	2.77	50	U	2	2
MW123S	Nb-94	-1.22	2.08	2.99	50	U	2	3
MW100D	Nb-94	-0.828	2.35	4.13	50	U	2	4
MW111S	Nb-94	-0.669	1.33	2.2	50	U	2	5
MW101S	Nb-94	-0.645	1.81	3.16	50	U	2	6
MW107S	Nb-94	-0.559	1.66	2.8	50	U	2	7
MW506D	Nb-94	-0.55	1.33	2.26	50	U	2	8
MW504	Nb-94	-0.449	1.21	2.02	50	U	2	9
MW3	Nb-94	-0.436	1.4	2.34	50	U	2	10
MW109D	Nb-94	-0.431	2.42	4.13	50	U	2	11
MW106S	Nb-94	-0.426	1.25	2.09	50	U	2	12
MW109S	Nb-94	-0.407	1.2	1.78	50	U	2	13
MW114S	Nb-94	-0.379	1.61	2.86	50	U	2	14
MW508S	Nb-94	-0.304	1.55	2.78	50	U	2	15
MW122D	Nb-94	-0.283	1.84	3.27	50	U	2	16
MW503	Nb-94	-0.278	1.26	2.13	50	U	2	17
MW508S Replicate	Nb-94	-0.177	1.6	2.8	50	U	2	18
MW1	Nb-94	-0.174	1.29	2.26	50	U	2	19
MW105D	Nb-94	-0.17	1.29	1.96	50	U	2	20
MW110S	Nb-94	0.0195	1.7	2.68	50	U	2	21
MW100S	Nb-94	0.136	1.14	2.02	50	U	2	22
EOF2	Nb-94	0.293	1.8	3.18	50	U	2	23
MW106S Replicate	Nb-94	0.326	1.12	1.96	50	U	2	24
MW502	Nb-94	0.341	1.03	1.86	50	U	2	25
MW106D	Nb-94	0.354	1.13	2.04	50	U	2	26
MW103D	Nb-94	0.546	1.2	2.15	50	U	2	27
MW507D	Nb-94	0.612	1.18	2.16	50	U	2	28
MW122S	Nb-94	0.651	1.77	3.29	50	U	2	29
MW110D	Nb-94	0.664	1.25	2.25	50	U	2	30
MW507S	Nb-94	0.703	1.36	2.2	50	U	2	31
MW113S	Nb-94	0.713	1.24	2.28	50	U	2	32
MW105S Duplicate	Nb-94	0.716	2.15	4.04	50	U	2	33
MW107D	Nb-94	0.734	1.88	3.5	50	U	2	34
MW112S	Nb-94	0.816	1.73	3.22	50	U	2	35
MW102S	Nb-94	0.829	1.48	2.55	50	U	2	36
MW505	Nb-94	0.898	1.61	2.96	50	U	2	37
MW105S	Nb-94	0.968	1.15	2.09	50	U	2	38
MW103S	Nb-94	1.03	1.86	3.27	50	U	2	39
MW104S	Nb-94	1.11	1.19	2.26	50	U	2	40
MW124S	Nb-94	1.12	1.84	3.43	50	U	2	41
MW125S	Nb-94	1.15	2.23	3.3	50	U	2	42
MW117S	Nb-94	1.22	1.93	3.64	50	U	2	43
MW2	Nb-94	1.33	1.66	3.28	50	U	2	44
MW102D	Nb-94	1.4	1.64	3.21	50	U	2	45
MW108S	Nb-94	1.71	1.66	3.35	50	U	2	46
MW2 Replicate	Nb-94	2.26	1.66	3.35	50	U	2	47
	n:	47	47	47				
	Average:	0.2344	1.5740	2.7509				
	Sdev:	0.8481	0.3573	0.6417				
	Sdev:	362%	23%	23%				
	Min:	-1.81	1.03	1.78				
	Max:	2.26	2.42	4.13				
	Median:	0.326	1.61	2.78				

Appendix E.2
June 2004 Rank Trend Results

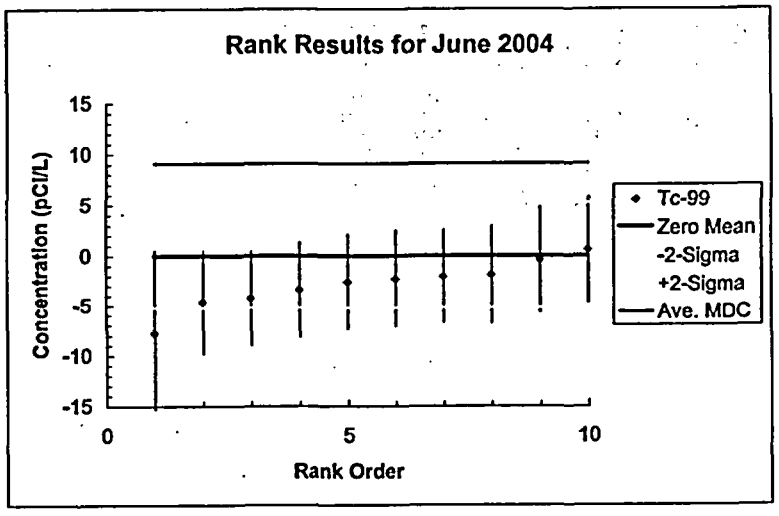
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Nb-94	-0.846	1.37	2.24	50	U	2
QC Blank	Nb-94	0.258	1.97	3.52	50	U	2
QC Blank	Nb-94	0.331	1.65	3.02	50	U	2
QC Blank	Nb-94	0.642	1.69	3.17	50	U	2
	n:	4	4	4			
	Average:	0.0963	1.6700	2.9875			
	Sdev:	0.6499	0.2455	0.5406			
	Sdev:	675%	15%	18%			
	Min:	-0.8460	1.3700	2.2400			
	Max:	0.6420	1.9700	3.5200			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW106S	Tc-99	-7.78	8.26	14.4	15	U	0.225	1
MW106D	Tc-99	-4.65	5.15	8.99	15	U	0.225	2
MW105D	Tc-99	-4.26	4.7	8.36	15	U	0.25	3
MW103D	Tc-99	-3.4	4.7	8.31	15	U	0.25	4
MW105S	Tc-99	-2.65	4.74	8.33	15	U	0.25	5
MW105S Duplicate	Tc-99	-2.31	4.78	8.39	15	U	0.25	6
MW105D Replicate	Tc-99	-2.09	4.65	8.14	15	U	0.25	7
MW103S Replicate	Tc-99	-1.92	4.89	8.43	15	U	0.225	8
MW103S	Tc-99	-0.421	5.25	9	15	U	0.225	9
MW104S	Tc-99	0.557	5.24	8.94	15	U	0.225	10
	n:	10	10	10				
	Average:	-2.8924	5.2360	9.1290				
	Sdev:	2.3357	1.0875	1.8788				
	Sdev:	-81%	21%	21%				
	Min:	-7.78	4.65	8.14				
	Max:	0.557	8.26	14.4				
	Median:	-2.48	4.835	8.41				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Tc-99	-0.445	4.95	8.56	15	U	0.25
QC Blank	Tc-99	-5.76	5.17	9.06	15	U	0.225
	n:	2	2	2			
	Average:	-3.1025	5.0600	8.8100			
	Sdev:	3.7583	0.1556	0.3536			
	Sdev:	-121%	3%	4%			
	Min:	-5.7600	4.9500	8.5600			
	Max:	-0.4450	5.1700	9.0600			

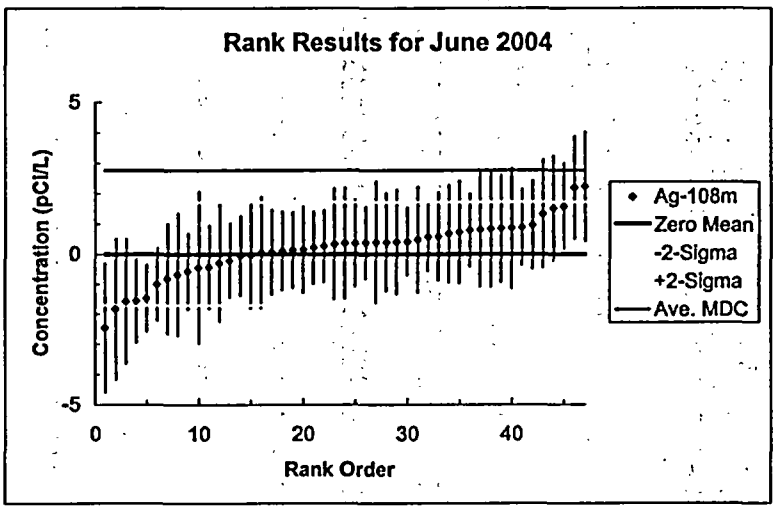


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW100D	Ag-108m	-2.46	2.14	3.32	50	U	2	1
MW110S Replicate	Ag-108m	-1.84	2.34	3.68	50	U	2	2
MW122S	Ag-108m	-1.58	2.07	3.41	50	U	2	3
MW110S	Ag-108m	-1.55	1.4	2.2	50	U	2	4
MW110D	Ag-108m	-1.47	1.11	1.8	50	U	2	5
MW105D	Ag-108m	-1.01	1.21	2.06	50	U	2	6
MW101D	Ag-108m	-0.828	1.83	3.17	50	U	2	7
MW117S	Ag-108m	-0.686	2.03	3.04	50	U	2	8
MW103D	Ag-108m	-0.589	1.26	2.14	50	U	2	9
MW109D	Ag-108m	-0.462	2.52	4.35	50	U	2	10
MW507D	Ag-108m	-0.437	1.38	2.31	50	U	2	11
MW107D	Ag-108m	-0.297	1.95	3.35	50	U	2	12
MW106D	Ag-108m	-0.215	1.23	2.19	50	U	2	13
MW106S	Ag-108m	-0.0648	1.32	2.3	50	U	2	14
MW508S	Ag-108m	-0.0515	1.76	3.03	50	U	2	15
MW102D	Ag-108m	0.0407	1.84	3.21	50	U	2	16
MW505	Ag-108m	0.0578	1.4	2.4	50	U	2	17
MW111S	Ag-108m	0.104	1.3	2.3	50	U	2	18
MW503	Ag-108m	0.132	1.25	2.22	50	U	2	19
MW506D	Ag-108m	0.137	1.43	2.44	50	U	2	20
MW108S Replicate	Ag-108m	0.203	1.2	2.1	50	U	2	21
MW504	Ag-108m	0.255	1.19	2.12	50	U	2	22
MW123S	Ag-108m	0.323	1.84	3.37	50	U	2	23
MW2 Replicate	Ag-108m	0.349	1.84	3.34	50	U	2	24
MW105S	Ag-108m	0.352	1.43	2.21	50	U	2	25
MW109S	Ag-108m	0.372	1.19	2.05	50	U	2	26
MW114S	Ag-108m	0.386	2.01	3.53	50	U	2	27
MW508S Replicate	Ag-108m	0.388	1.62	2.99	50	U	2	28
MW107S	Ag-108m	0.395	1.73	3.12	50	U	2	29
MW100S	Ag-108m	0.41	1.12	2.04	50	U	2	30
MW105S Duplicate	Ag-108m	0.469	1.75	3.17	50	U	2	31
MW502	Ag-108m	0.562	1.13	2.06	50	U	2	32
MW3	Ag-108m	0.574	1.45	2.58	50	U	2	33
MW2	Ag-108m	0.666	1.61	2.93	50	U	2	34
MW112S	Ag-108m	0.723	1.7	3.19	50	U	2	35
MW1	Ag-108m	0.784	1.2	2.15	50	U	2	36
MW103S	Ag-108m	0.802	1.89	3.31	50	U	2	37
MW507S	Ag-108m	0.83	1.92	2.09	50	U	2	38
MW101S	Ag-108m	0.851	1.78	3.24	50	U	2	39
MW125S	Ag-108m	0.854	2	3.57	50	U	2	40
MW104S	Ag-108m	0.885	1.25	2.21	50	U	2	41
MW102S	Ag-108m	0.958	1.46	2.55	50	U	2	42
EOF2	Ag-108m	1.32	1.78	3.3	50	U	2	43
MW108S	Ag-108m	1.5	1.73	3.24	50	U	2	44
MW113S	Ag-108m	1.57	1.42	2.1	50	U	2	45
MW124S	Ag-108m	2.19	1.69	3.42	50	U	2	46
MW122D	Ag-108m	2.23	1.8	3.45	50	U	2	47
	n:	47	47	47				
	Average:	0.1730	1.6064	2.7738				
	Sdev:	0.9622	0.3484	0.6135				
	Sdev:	556%	22%	22%				
	Min:	-2.46	1.11	1.8				
	Max:	2.23	2.52	4.35				
	Median:	0.349	1.62	2.93				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Ag-108m	-1.02	1.37	1.97	50	U	2
QC Blank	Ag-108m	-0.831	2.08	3.55	50	U	2
QC Blank	Ag-108m	0.257	1.6	2.95	50	U	2
QC Blank	Ag-108m	0.846	1.78	3.39	50	U	2
	n:	4	4	4			
	Average:	-0.1870	1.7075	2.9650			
	Sdev:	0.8894	0.2997	0.7102			
	Sdev:	-476%	18%	24%			
	Min:	-1.0200	1.3700	1.9700			
	Max:	0.8460	2.0800	3.5500			

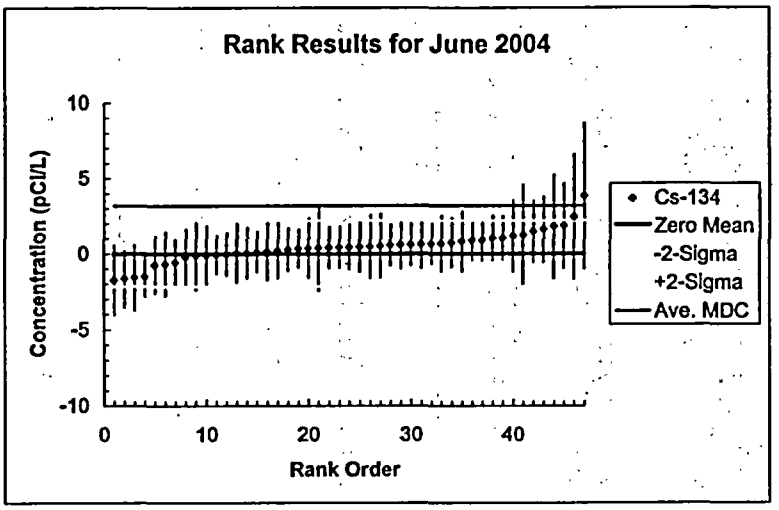


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW107D	Cs-134	-1.75	2.3	3.8	14	U	2	1
MW2 Replicate	Cs-134	-1.66	1.89	2.96	14	U	2	2
MW114S	Cs-134	-1.58	2.16	3.58	14	U	2	3
MW504	Cs-134	-1.5	1.34	2.03	14	U	2	4
MW110S	Cs-134	-0.753	1.87	3.21	14	U	2	5
MW101S	Cs-134	-0.693	2.11	3.68	14	U	2	6
MW503	Cs-134	-0.588	1.52	2.52	14	U	2	7
MW508S	Cs-134	-0.251	1.86	3.37	14	U	2	8
MW101D	Cs-134	-0.136	2.23	3.92	14	U	2	9
MW505	Cs-134	-0.123	1.95	3.43	14	U	2	10
MW109S	Cs-134	-0.0876	1.25	2.17	14	U	2	11
MW507D	Cs-134	-0.0531	1.42	2.51	14	U	2	12
MW117S	Cs-134	0.0363	1.96	3.54	14	U	2	13
MW3	Cs-134	0.0365	1.69	2.9	14	U	2	14
MW106D	Cs-134	0.105	1.33	2.37	14	U	2	15
MW2	Cs-134	0.129	1.89	3.52	14	U	2	16
EOF2	Cs-134	0.192	1.82	3.26	14	U	2	17
MW110D	Cs-134	0.265	1.42	2.51	14	U	2	18
MW100S	Cs-134	0.331	1.25	2.26	14	U	2	19
MW124S	Cs-134	0.34	1.96	3.19	14	U	2	20
MW109D	Cs-134	0.364	2.82	5.26	14	U	2	21
MW507S	Cs-134	0.397	1.35	2.43	14	U	2	22
MW502	Cs-134	0.405	1.35	2.43	14	U	2	23
MW111S	Cs-134	0.418	1.47	2.6	14	U	2	24
MW102D	Cs-134	0.438	1.68	3.2	14	U	2	25
MW107S	Cs-134	0.453	2.09	3.73	14	U	2	26
MW125S	Cs-134	0.5	2.12	3.93	14	U	2	27
MW113S	Cs-134	0.548	1.36	2.52	14	U	2	28
MW106S	Cs-134	0.585	1.59	2.84	14	U	2	29
MW103D	Cs-134	0.601	1.38	2.48	14	U	2	30
MW508D	Cs-134	0.616	1.57	2.83	14	U	2	31
MW105S	Cs-134	0.651	1.31	2.34	14	U	2	32
MW108S	Cs-134	0.667	1.84	3.56	14	U	2	33
MW102S	Cs-134	0.721	1.61	2.93	14	U	2	34
MW508S Replicate	Cs-134	0.827	2.01	3.75	14	U	2	35
MW105D	Cs-134	0.895	1.32	2.47	14	U	2	36
MW108S Replicate	Cs-134	0.905	1.37	2.47	14	U	2	37
MW1	Cs-134	1.02	1.47	2.73	14	U	2	38
MW104S	Cs-134	1.03	1.45	2.72	14	U	2	39
MW112S	Cs-134	1.16	2.38	3.26	14	U	2	40
MW110S Replicate	Cs-134	1.23	3.33	4.59	14	U	2	41
MW122D	Cs-134	1.47	2.03	3.94	14	U	2	42
MW103S	Cs-134	1.61	2.18	3.68	14	U	2	43
MW105S Duplicate	Cs-134	1.8	3.45	4.73	14	U	2	44
MW123S	Cs-134	1.84	2.8	3.47	14	U	2	45
MW122S	Cs-134	2.44	4.14	4.41	14	U	2	46
MW100D	Cs-134	3.84	4.84	5.28	14	U	2	47
	n:	47	47	47				
	Average:	0.4190	1.9474	3.2194				
	Sdev:	1.0169	0.7469	0.7890				
	Sdev:	243%	38%	25%				
	Min:	-1.75	1.25	2.03				
	Max:	3.84	4.84	5.28				
	Median:	0.418	1.84	3.2				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cs-134	-2.01	3.16	4.28	14	U	2
QC Blank	Cs-134	0.0508	2.02	3.65	14	U	2
QC Blank	Cs-134	0.173	2.07	3.7	14	U	2
QC Blank	Cs-134	0.476	1.46	2.58	14	U	2
	n:	4	4	4			
	Average:	-0.3276	2.1775	3.5525			
	Sdev:	1.1358	0.7110	0.7086			
	Sdev:	-347%	33%	20%			
	Min:	-2.0100	1.4600	2.5800			
	Max:	0.4760	3.1600	4.2800			

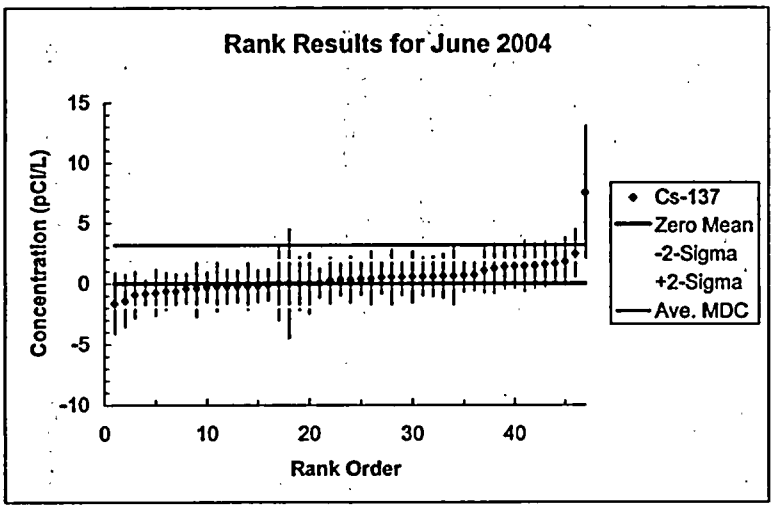


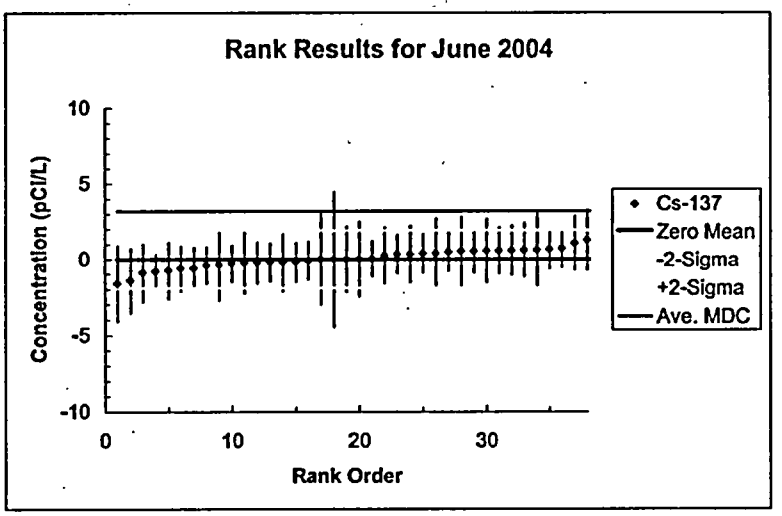
Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105S Duplicate	Cs-137	-1.62	2.51	4.32	15	U	2	1
MW107D	Cs-137	-1.42	2.13	3.61	15	U	2	2
MW124S	Cs-137	-0.912	1.91	3.22	15	U	2	3
MW110D	Cs-137	-0.836	1.17	1.94	15	U	2	4
MW122D	Cs-137	-0.756	1.88	3.28	15	U	2	5
MW3	Cs-137	-0.627	1.46	2.47	15	U	2	6
MW503	Cs-137	-0.615	1.4	2.35	15	U	2	7
MW105S	Cs-137	-0.409	1.22	2.03	15	U	2	8
MW117S	Cs-137	-0.372	2.37	4.08	15	U	2	9
MW106D	Cs-137	-0.302	1.22	2.11	15	U	2	10
MW101S	Cs-137	-0.254	2	3.59	15	U	2	11
MW1	Cs-137	-0.248	1.38	2.41	15	U	2	12
MW104S	Cs-137	-0.227	1.28	2.26	15	U	2	13
MW106S	Cs-137	-0.215	1.89	3.43	15	U	2	14
MW507S	Cs-137	-0.208	1.29	2.25	15	U	2	15
MW113S	Cs-137	-0.106	1.27	2.26	15	U	2	16
MW102S	Cs-137	0	3.02	5.06	15		2	17
MW109D	Cs-137	0	4.47	8.77	15		2	18
MW112S	Cs-137	0	2.15	4.43	15		2	19
MW502	Cs-137	0.00859	2.48	2.26	15	U	2	20
MW109S	Cs-137	0.0362	1.18	2.08	15	U	2	21
MW102D	Cs-137	0.235	1.86	3.43	15	U	2	22
MW105D	Cs-137	0.318	1.29	2.33	15	U	2	23
MW2	Cs-137	0.322	1.88	3.51	15	U	2	24
MW108S Replicate	Cs-137	0.376	1.29	2.26	15	U	2	25
MW100D	Cs-137	0.39	2.32	4.32	15	U	2	26
MW507D	Cs-137	0.474	1.31	2.39	15	U	2	27
MW110S Replicate	Cs-137	0.526	2.31	4.23	15	U	2	28
MW108S	Cs-137	0.532	1.46	2.61	15	U	2	29
MW122S	Cs-137	0.551	2.12	3.87	15	U	2	30
MW508D	Cs-137	0.557	1.53	2.76	15	U	2	31
MW508S	Cs-137	0.576	1.63	3.16	15	U	2	32
EOF2	Cs-137	0.605	1.79	3.27	15	U	2	33
MW100S	Cs-137	0.612	2.43	2.21	15	U	2	34
MW111S	Cs-137	0.663	1.33	2.4	15	U	2	35
MW504	Cs-137	0.716	1.29	2.34	15	U	2	36
MW107S	Cs-137	1.07	1.82	3.39	15	U	2	37
MW125S	Cs-137	1.26	2.03	3.88	15	U	2	38
MW101D	Cs-137	1.38	1.81	3.52	15	U	2	39
MW505	Cs-137	1.42	1.84	3.12	15	U	2	40
MW103D	Cs-137	1.44	2.07	2.23	15	U	2	41
MW110S	Cs-137	1.45	1.86	3.05	15	U	2	42
MW114S	Cs-137	1.57	1.89	3.68	15	U	2	43
MW2 Replicate	Cs-137	1.64	1.65	3.31	15	U	2	44
MW508S Replicate	Cs-137	1.8	1.95	3.79	15	U	2	45
MW123S	Cs-137	2.46	1.98	3.93	15	U	2	46
MW103S	Cs-137	7.5	5.54	3.33	15		2	47
	n:	47	47	47				
	Average:	0.4545	1.9145	3.2028				
	Sdev:	1.3512	0.7940	1.1427				
	Sdev:	297%	41%	36%				
	Min:	-1.62	1.17	1.94				
	Max:	7.5	5.54	8.77				
	Median:	0.322	1.86	3.22				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cs-137	-0.591	1.62	2.84	15	U	2
QC Blank	Cs-137	-0.48	1.95	3.39	15	U	2
QC Blank	Cs-137	0.0541	1.26	2.2	15	U	2
QC Blank	Cs-137	1.01	1.97	3.73	15	U	2
	n:	4	4	4			
	Average:	0.00	1.70	3.04			
	Sdev:	0.73	0.33	0.67			
	Sdev:	-42372%	20%	22%			
	Min:	-0.59	1.26	2.20			
	Max:	1.01	1.97	3.73			



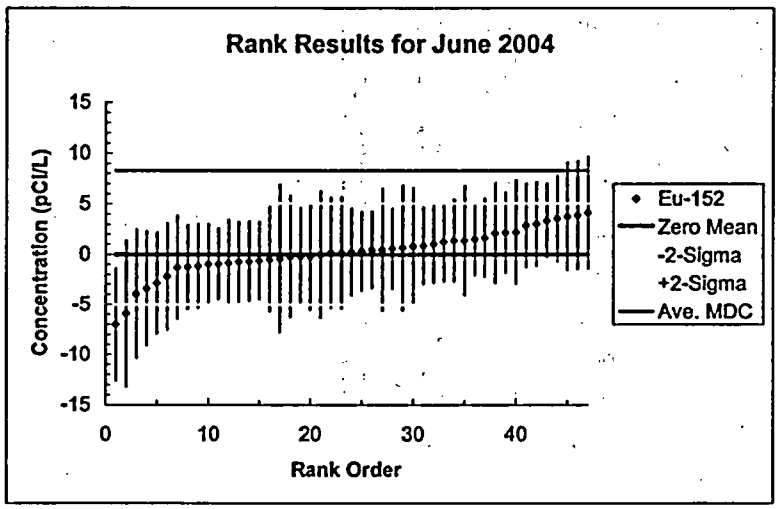


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW102D	Eu-152	-7.03	5.61	8.87	50	U	2	1
MW109D	Eu-152	-5.94	7.28	12	50	U	2	2
MW125S	Eu-152	-3.97	6.42	10.6	50	U	2	3
MW106S	Eu-152	-3.42	5.71	9.29	50	U	2	4
MW105S Duplicate	Eu-152	-2.89	5.06	8.52	50	U	2	5
MW2 Replicate	Eu-152	-2.24	5.32	9.28	50	U	2	6
MW506S	Eu-152	-1.32	5.16	8.71	50	U	2	7
MW102S	Eu-152	-1.28	4.2	7.1	50	U	2	8
MW106S	Eu-152	-1.18	4.16	7.14	50	U	2	9
MW111S	Eu-152	-1.01	4.03	6.58	50	U	2	10
MW109S	Eu-152	-0.975	3.54	5.99	50	U	2	11
MW3	Eu-152	-0.884	4.31	7.42	50	U	2	12
MW507D	Eu-152	-0.753	3.96	6.75	50	U	2	13
MW105D	Eu-152	-0.699	3.97	6.62	50	U	2	14
MW507S	Eu-152	-0.657	3.85	6.37	50	U	2	15
MW103S	Eu-152	-0.506	5.19	8.9	50	U	2	16
MW110S Replicate	Eu-152	-0.445	7.36	12.4	50	U	2	17
MW101D	Eu-152	-0.267	6.05	10.1	50	U	2	18
MW506S Replicate	Eu-152	-0.25	4.83	8.72	50	U	2	19
MW107D	Eu-152	-0.225	5.32	9.34	50	U	2	20
MW117S	Eu-152	-0.0575	6.31	11.2	50	U	2	21
MW112S	Eu-152	0.143	5.48	9.35	50	U	2	22
MW123S	Eu-152	0.146	5.52	9.42	50	U	2	23
MW506D	Eu-152	0.207	4.29	7.33	50	U	2	24
MW110S	Eu-152	0.288	3.89	6.77	50	U	2	25
MW103D	Eu-152	0.424	3.8	6.74	50	U	2	26
MW100D	Eu-152	0.428	6.06	10.7	50	U	2	27
MW505	Eu-152	0.542	3.97	6.92	50	U	2	28
MW122S	Eu-152	0.606	6.21	11.1	50	U	2	29
MW114S	Eu-152	0.77	5.79	10.2	50	U	2	30
MW110D	Eu-152	0.828	3.79	6.44	50	U	2	31
MW108S Replicate	Eu-152	0.993	3.86	6.78	50	U	2	32
MW108D	Eu-152	1.23	3.98	6.83	50	U	2	33
MW503	Eu-152	1.34	4.08	6.88	50	U	2	34
MW124S	Eu-152	1.35	5.43	8.91	50	U	2	35
MW1	Eu-152	1.5	3.57	6.33	50	U	2	36
MW502	Eu-152	1.64	3.87	6.62	50	U	2	37
MW101S	Eu-152	2.1	4.96	9.04	50	U	2	38
MW504	Eu-152	2.15	3.97	7.18	50	U	2	39
MW107S	Eu-152	2.21	5.13	9.35	50	U	2	40
MW105S	Eu-152	2.86	4.15	6.44	50	U	2	41
MW104S	Eu-152	3.01	4.16	7.28	50	U	2	42
MW113S	Eu-152	3.33	3.7	6.6	50	U	2	43
MW100S	Eu-152	3.57	4.29	6.59	50	U	2	44
MW122D	Eu-152	3.75	5.33	9.81	50	U	2	45
MW2	Eu-152	3.88	5.35	9.78	50	U	2	46
EOF2	Eu-152	4.12	5.54	10.2	50	U	2	47
	n:	47	47	47				
	Average:	0.1578	4.8470	8.3296				
	Sdev:	2.3248	0.9931	1.7309				
	Sdev:	1473%	20%	21%				
	Min:	-7.03	3.54	5.99				
	Max:	4.12	7.36	12.4				
	Median:	0.207	4.83	8.52				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-152	-2.39	4.07	6.07	50	U	2
QC Blank	Eu-152	-0.246	5.07	8.58	50	U	2
QC Blank	Eu-152	0.521	5.36	9.31	50	U	2
QC Blank	Eu-152	2.13	5.65	10.4	50	U	2
	n:	4	4	4			
	Average:	0.00	5.04	8.59			
	Sdev:	1.88	0.69	1.84			
	Sdev:	50081%	14%	21%			
	Min:	-2.39	4.07	6.07			
	Max:	2.13	5.65	10.40			

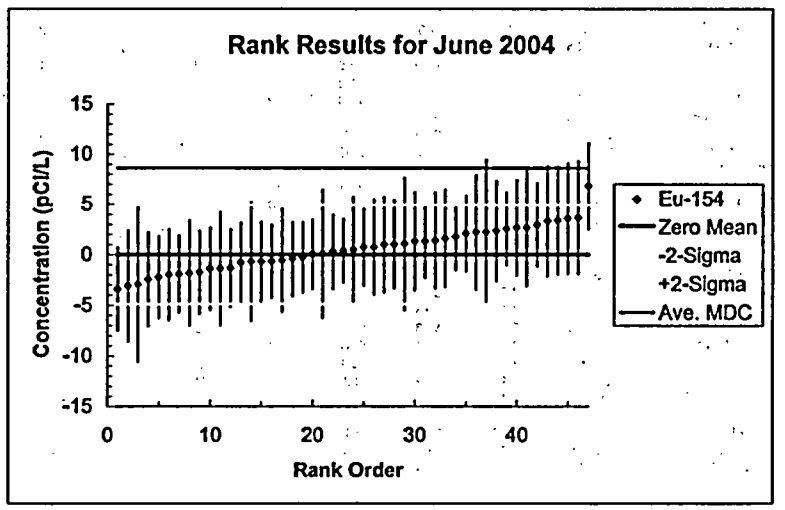


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW503	Eu-154	-3.43	4.1	6.61	50	U	2	1
MW107S	Eu-154	-3.11	5.47	9.26	50	U	2	2
MW105S Duplicate	Eu-154	-2.95	7.66	13.7	50	U	2	3
MW505	Eu-154	-2.45	4.65	8.12	50	U	2	4
MW3	Eu-154	-2.25	4.05	6.85	50	U	2	5
MW508D	Eu-154	-2	4.5	6.57	50	U	2	6
MW109S	Eu-154	-1.94	3.82	5.5	50	U	2	7
MW103S	Eu-154	-1.84	5.2	8.9	50	U	2	8
MW111S	Eu-154	-1.74	4.11	6.99	50	U	2	9
MW1	Eu-154	-1.42	4.1	7.13	50	U	2	10
MW102D	Eu-154	-1.41	5.59	10.1	50	U	2	11
MW113S	Eu-154	-1.33	3.85	6.49	50	U	2	12
EOF2	Eu-154	-0.808	3.94	7.27	50	U	2	13
MW100D	Eu-154	-0.717	5.85	11.2	50	U	2	14
MW102S	Eu-154	-0.714	3.95	6.84	50	U	2	15
MW502	Eu-154	-0.694	3.61	6.45	50	U	2	16
MW110S Replicate	Eu-154	-0.572	5.09	9.63	50	U	2	17
MW103D	Eu-154	-0.468	3.69	6.59	50	U	2	18
MW507S	Eu-154	-0.325	3.49	6.33	50	U	2	19
MW105D	Eu-154	0.0175	3.44	6.34	50	U	2	20
MW101S	Eu-154	0.0777	6.34	11.7	50	U	2	21
MW104S	Eu-154	0.259	3.69	6.6	50	U	2	22
MW105S	Eu-154	0.348	3.15	5.79	50	U	2	23
MW108S	Eu-154	0.457	5.28	9.84	50	U	2	24
MW108S Replicate	Eu-154	0.7	3.8	6.9	50	U	2	25
MW112S	Eu-154	0.712	4.67	9.11	50	U	2	26
MW123S	Eu-154	0.979	4.73	9.27	50	U	2	27
MW124S	Eu-154	1	4.36	8.72	50	U	2	28
MW107D	Eu-154	1.05	6.58	12.3	50	U	2	29
MW114S	Eu-154	1.31	4.87	9.61	50	U	2	30
MW106S	Eu-154	1.32	3.63	6.96	50	U	2	31
MW506S	Eu-154	1.39	4.77	9.4	50	U	2	32
MW2	Eu-154	1.6	4.82	9.56	50	U	2	33
MW106D	Eu-154	1.74	3.31	6.51	50	U	2	34
MW110D	Eu-154	2.09	3.74	7.19	50	U	2	35
MW117S	Eu-154	2.22	5.7	11.4	50	U	2	36
MW109D	Eu-154	2.24	7.2	13.9	50	U	2	37
MW506S Replicate	Eu-154	2.34	4.98	10.1	50	U	2	38
MW100S	Eu-154	2.53	3.62	7.03	50	U	2	39
MW110S	Eu-154	2.66	4.74	9.18	50	U	2	40
MW101D	Eu-154	2.68	5.81	10.8	50	U	2	41
MW507D	Eu-154	2.96	4.13	7.9	50	U	2	42
MW125S	Eu-154	3.35	5.51	11.1	50	U	2	43
MW504	Eu-154	3.4	5.38	6.5	50	U	2	44
MW122D	Eu-154	3.59	5.51	11.1	50	U	2	45
MW122S	Eu-154	3.66	5.61	10.8	50	U	2	46
MW2 Replicate	Eu-154	6.8	4.32	10.2	50	U	2	47
	n:	47	47	47				
	Average:	0.4960	4.6891	8.6455				
	Sdev:	2.1486	1.0324	2.1523				
	Sdev:	433%	22%	25%				
	Min:	-3.43	3.15	5.5				
	Max:	6.8	7.66	13.9				
	Median:	0.457	4.65	8.72				

Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-154	-0.747	5.04	9.4	50	U	2
QC Blank	Eu-154	-0.515	5.15	9.69	50	U	2
QC Blank	Eu-154	0.0444	5.49	10.3	50	U	2
QC Blank	Eu-154	4.53	4.04	7.54	50	U	2
	n:	4	4	4			
	Average:	0.83	4.93	9.23			
	Sdev:	2.49	0.62	1.19			
	Sdev:	301%	13%	13%			
	Min:	-0.75	4.04	7.54			
	Max:	4.53	5.49	10.30			

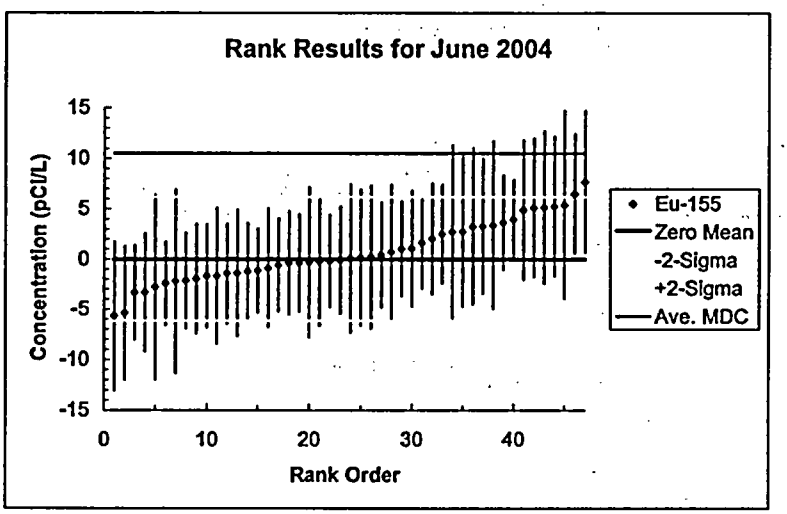


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
EOF2	Eu-155	-5.68	7.4	12	50	U	2	1
MW112S	Eu-155	-5.38	6.64	11.2	50	U	2	2
MW100S	Eu-155	-3.37	4.72	8.01	50	U	2	3
MW100D	Eu-155	-3.34	5.9	9.55	50	U	2	4
MW122S	Eu-155	-2.81	9.19	15.1	50	U	2	5
MW505	Eu-155	-2.45	4.15	6.69	50	U	2	6
MW117S	Eu-155	-2.22	9.14	15.1	50	U	2	7
MW110D	Eu-155	-2.17	4.77	8.2	50	U	2	8
MW507D	Eu-155	-1.98	5.46	9.03	50	U	2	9
MW108S Replicate	Eu-155	-1.69	5.14	8.48	50	U	2	10
MW2	Eu-155	-1.68	6.8	11.9	50	U	2	11
MW103D	Eu-155	-1.44	4.96	8.41	50	U	2	12
MW3	Eu-155	-1.4	6.34	10.4	50	U	2	13
MW104S	Eu-155	-1.23	4.84	8.37	50	U	2	14
MW110S	Eu-155	-1.15	4.2	6.86	50	U	2	15
MW508D	Eu-155	-0.886	5.94	9.69	50	U	2	16
MW504	Eu-155	-0.575	4.65	7.96	50	U	2	17
MW105D	Eu-155	-0.388	5.16	9.06	50	U	2	18
MW113S	Eu-155	-0.381	4.84	8.41	50	U	2	19
MW122D	Eu-155	-0.326	7.49	12.7	50	U	2	20
MW106S	Eu-155	-0.226	6.46	10.7	50	U	2	21
MW111S	Eu-155	-0.2	4.6	8.03	50	U	2	22
MW105S	Eu-155	-0.109	5.33	8.89	50	U	2	23
MW114S	Eu-155	0.0514	7.39	12.6	50	U	2	24
MW103S	Eu-155	0.135	6.76	11.2	50	U	2	25
MW123S	Eu-155	0.191	7.12	12.6	50	U	2	26
MW106D	Eu-155	0.386	5.22	9.23	50	U	2	27
MW108S	Eu-155	0.673	6.73	12	50	U	2	28
MW109S	Eu-155	1.01	4.72	7.95	50	U	2	29
MW105S Duplicate	Eu-155	1.05	5.77	9.78	50	U	2	30
MW503	Eu-155	1.6	4.54	8.04	50	U	2	31
MW101S	Eu-155	2	5.53	9.72	50	U	2	32
MW502	Eu-155	2.48	4.92	8.75	50	U	2	33
MW125S	Eu-155	2.71	8.59	14.5	50	U	2	34
MW107S	Eu-155	2.74	7.46	12.8	50	U	2	35
MW102D	Eu-155	3.25	7.77	13.4	50	U	2	36
MW508S Replicate	Eu-155	3.27	6.74	12	50	U	2	37
MW110S Replicate	Eu-155	3.38	8.34	15.1	50	U	2	38
MW507S	Eu-155	3.66	4.68	8.42	50	U	2	39
MW1	Eu-155	3.94	3.94	6.94	50	U	2	40
MW124S	Eu-155	4.87	6.93	12.4	50	U	2	41
MW102S	Eu-155	5.11	6.89	8.9	50	U	2	42
MW101D	Eu-155	5.14	7.58	12.6	50	U	2	43
MW508S	Eu-155	5.24	6.92	12.7	50	U	2	44
MW109D	Eu-155	5.37	9.33	16	50	U	2	45
MW107D	Eu-155	6.45	5.97	10.7	50	U	2	46
MW2 Replicate	Eu-155	7.66	7.05	12.9	50	U	2	47
	n:	47	47	47				
	Average:	0.6656	6.1921	10.5530				
	Sdev:	3.0549	1.4346	2.4705				
	Sdev:	459%	23%	23%				
	Min:	-5.68	3.94	6.69				
	Max:	7.66	9.33	16				
	Median:	0.0514	5.97	9.78				

Appendix E.2
June 2004 Rank Trend Results

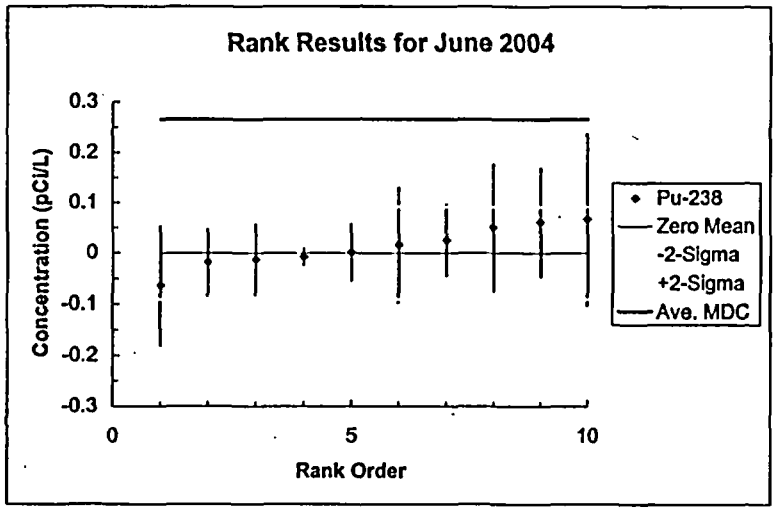
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Eu-155	-4.05	6.1	10.6	50	U	2
QC Blank	Eu-155	-2.67	7.64	12.6	50	U	2
QC Blank	Eu-155	3.56	4.11	7.35	50	U	2
QC Blank	Eu-155	3.62	5.23	9.76	50	U	2
	n:	4	4	4			
	Average:	0.1150	5.7700	10.0775			
	Sdev:	4.0520	1.4892	2.1738			
	Sdev:	3523%	26%	22%			
	Min:	-4.0500	4.1100	7.3500			
	Max:	3.6200	7.6400	12.6000			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103D	Pu-238	-0.0644	0.117	0.414	0.5	U	0.2	1
MW105D Replicate	Pu-238	-0.0193	0.0657	0.247	0.5	U	0.2	2
MW105D	Pu-238	-0.0134	0.0691	0.252	0.5	U	0.2	3
MW105S Duplicate	Pu-238	-0.00849	0.0166	0.176	0.5	U	0.2	4
MW103S Replicate	Pu-238	0.00102	0.0554	0.185	0.5	U	0.25	5
MW106S	Pu-238	0.0161	0.114	0.294	0.5	U	0.25	6
MW106D	Pu-238	0.0251	0.0706	0.175	0.5	U	0.25	7
MW104S	Pu-238	0.0504	0.126	0.293	0.5	U	0.25	8
MW103S	Pu-238	0.0612	0.108	0.23	0.5	U	0.25	9
MW105S	Pu-238	0.0669	0.17	0.392	0.5	U	0.2	10
	n:	10	10	10				
	Average:	0.0115	0.0912	0.2658				
	Sdev:	0.0410	0.0438	0.0844				
	Sdev:	356%	48%	32%				
	Min:	-0.0644	0.0166	0.175				
	Max:	0.0669	0.17	0.414				
	Median:	0.00856	0.0893	0.2495				

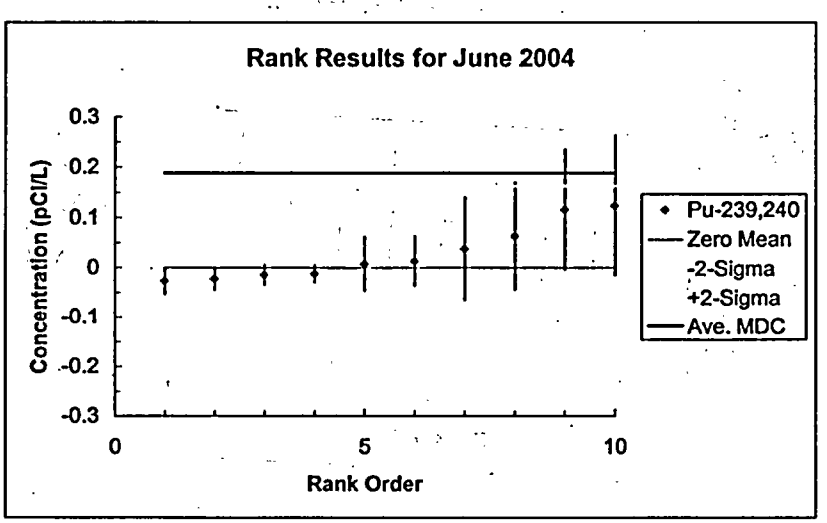
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-238	0.0694	0.108	0.202	0.5	U	0.2
QC Blank	Pu-238	-0.0324	0.0259	0.187	0.5	U	0.25
	n:	2	2	2			
	Average:	0.0185	0.0660	0.1945			
	Sdev:	0.0720	0.0566	0.0106			
	Sdev:	389%	86%	5%			
	Min:	-0.0324	0.0259	0.1870			
	Max:	0.0694	0.1060	0.2020			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW105D Replicate	Pu-239,240	-0.0272	0.0266	0.206	0.5	U	0.2	1
MW106S	Pu-239,240	-0.0228	0.0223	0.172	0.5	U	0.25	2
MW105D	Pu-239,240	-0.0146	0.0202	0.18	0.5	U	0.2	3
MW103S	Pu-239,240	-0.0127	0.0175	0.156	0.5	U	0.25	4
MW103S Replicate	Pu-239,240	0.00713	0.054	0.169	0.5	U	0.25	5
MW106D	Pu-239,240	0.0125	0.0499	0.143	0.5	U	0.25	6
MW105S Duplicate	Pu-239,240	0.0368	0.103	0.257	0.5	U	0.2	7
MW105S	Pu-239,240	0.062	0.107	0.221	0.5	U	0.2	8
MW104S	Pu-239,240	0.115	0.12	0.178	0.5	U	0.25	9
MW103D	Pu-239,240	0.123	0.139	0.208	0.5	U	0.2	10
	n:	10	10	10				
	Average:	0.0279	0.0660	0.1890				
	Sdev:	0.0554	0.0467	0.0340				
	Sdev:	198%	71%	18%				
	Min:	-0.0272	0.0175	0.143				
	Max:	0.123	0.139	0.257				
	Median:	0.009815	0.05195	0.179				

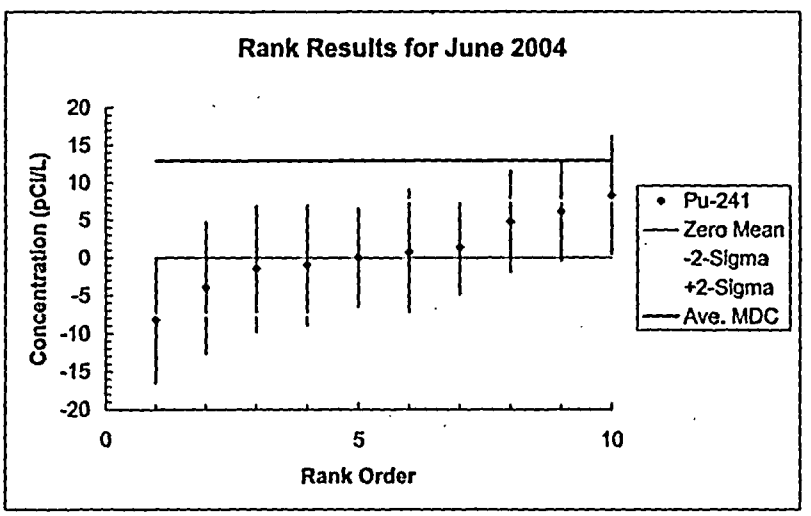
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-239,240	-0.0162	0.0183	0.15	0.5	U	0.25
QC Blank	Pu-239,240	0.214	0.171	0.221	0.5	U	0.2
	n:	2	2	2			
	Average:	0.0989	0.0947	0.1855			
	Sdev:	0.1628	0.1080	0.0502			
	Sdev:	165%	114%	27%			
	Min:	-0.0162	0.0183	0.1500			
	Max:	0.2140	0.1710	0.2210			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103S	Pu-241	-8.25	8.25	14.5	15	U	0.5	1
MW106S	Pu-241	-4	8.7	15.1	15	U	0.5	2
MW106D	Pu-241	-1.49	8.36	14.4	15	U	0.5	3
MW103S Replicate	Pu-241	-0.996	8.02	13.8	15	U	0.5	4
MW105D	Pu-241	0	6.53	11.3	15	U	0.4	5
MW104S	Pu-241	0.693	8.41	14.4	15	U	0.5	6
MW105D Replicate	Pu-241	1.38	6.33	10.8	15	U	0.4	7
MW103D	Pu-241	4.81	6.78	11.4	15	U	0.4	8
MW105S Duplicate	Pu-241	6.14	6.59	11	15	U	0.4	9
MW105S	Pu-241	8.32	7.85	13.1	15	U	0.4	10
	n:	10	10	10				
	Average:	0.6607	7.5820	12.9800				
	Sdev:	4.8918	0.9160	1.6838				
	Sdev:	740%	12%	13%				
	Min:	-8.25	6.33	10.8				
	Max:	8.32	8.7	15.1				
	Median:	0.3465	7.935	13.45				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Pu-241	-9.32	8.68	15.3	15	U	0.5
QC Blank	Pu-241	1.21	2.81	4.77	15	U	1
	n:	2	2	2			
	Average:	-4.0550	5.7450	10.0350			
	Sdev:	7.4458	4.1507	7.4458			
	Sdev:	-184%	72%	74%			
	Min:	-9.3200	2.6100	4.7700			
	Max:	1.2100	8.6800	15.3000			

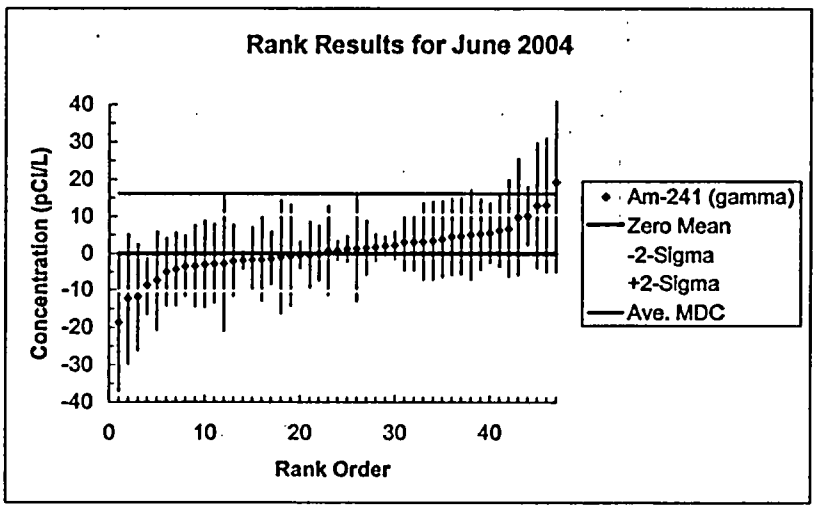


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW112S	Am-241 (gamma)	-18.8	18.2	27.3	0.5	U	2	1
MW3	Am-241 (gamma)	-12.4	17.4	19.3	0.5	U	2	2
MW2 Replicate	Am-241 (gamma)	-11.9	14.3	23.9	0.5	U	2	3
MW102S	Am-241 (gamma)	-8.79	7.68	10.8	0.5	U	2	4
MW110S Replicate	Am-241 (gamma)	-7.51	13.3	21.3	0.5	U	2	5
MW111S	Am-241 (gamma)	-5.14	9.11	13.1	0.5	U	2	6
MW508D	Am-241 (gamma)	-4.31	9.85	16.2	0.5	U	2	7
MW103S	Am-241 (gamma)	-3.5	8.16	13.5	0.5	U	2	8
MW508S Replicate	Am-241 (gamma)	-3.43	11	17.2	0.5	U	2	9
MW502	Am-241 (gamma)	-2.99	11.7	18.6	0.5	U	2	10
EOF2	Am-241 (gamma)	-2.78	10.6	18	0.5	U	2	11
MW117S	Am-241 (gamma)	-2.76	18.3	27.5	0.5	U	2	12
MW2	Am-241 (gamma)	-2.02	9.69	17.3	0.5	U	2	13
MW1	Am-241 (gamma)	-1.81	2.35	4	0.5	U	2	14
MW108S Replicate	Am-241 (gamma)	-1.61	8.6	12.9	0.5	U	2	15
MW109D	Am-241 (gamma)	-1.6	11.4	19.1	0.5	U	2	16
MW104S	Am-241 (gamma)	-1.39	7.12	12.6	0.5	U	2	17
MW125S	Am-241 (gamma)	-0.964	15.3	23	0.5	U	2	18
MW101D	Am-241 (gamma)	-0.665	13.7	20.4	0.5	U	2	19
MW105S Duplicate	Am-241 (gamma)	-0.466	3.55	6.07	0.5	U	2	20
MW507D	Am-241 (gamma)	-0.462	8.97	13.8	0.5	U	2	21
MW113S	Am-241 (gamma)	-0.0669	7.55	12.2	0.5	U	2	22
MW102D	Am-241 (gamma)	0.708	12.1	19	0.5	U	2	23
MW110S	Am-241 (gamma)	0.753	2.45	4.22	0.5	U	2	24
MW101S	Am-241 (gamma)	1.22	3.4	6.11	0.5	U	2	25
MW122D	Am-241 (gamma)	1.31	14.4	18.1	0.5	U	2	26
MW110D	Am-241 (gamma)	1.46	7.34	12	0.5	U	2	27
MW100D	Am-241 (gamma)	1.61	3.52	6.22	0.5	U	2	28
MW505	Am-241 (gamma)	1.95	2.48	4.34	0.5	U	2	29
MW107D	Am-241 (gamma)	2.12	3.64	6.59	0.5	U	2	30
MW109S	Am-241 (gamma)	2.95	7.67	12	0.5	U	2	31
MW105S	Am-241 (gamma)	2.96	7.67	13.2	0.5	U	2	32
MW103D	Am-241 (gamma)	3.07	10.3	18.1	0.5	U	2	33
MW107S	Am-241 (gamma)	3.32	10.6	18.5	0.5	U	2	34
MW108S	Am-241 (gamma)	3.74	10.3	18.9	0.5	U	2	35
MW106D	Am-241 (gamma)	4.4	10.4	17.4	0.5	U	2	36
MW105D	Am-241 (gamma)	4.62	10.4	17.4	0.5	U	2	37
MW100S	Am-241 (gamma)	4.94	12.2	20	0.5	U	2	38
MW503	Am-241 (gamma)	5.17	9.57	13.5	0.5	U	2	39
MW507S	Am-241 (gamma)	5.48	7.99	12.4	0.5	U	2	40
MW508S	Am-241 (gamma)	6.14	9.72	18.2	0.5	U	2	41
MW114S	Am-241 (gamma)	6.68	13.1	21	0.5	U	2	42
MW106S	Am-241 (gamma)	9.75	15.7	19.6	0.5	U	2	43
MW504	Am-241 (gamma)	10.1	7.82	12.9	0.5	U	2	44
MW123S	Am-241 (gamma)	12.9	16.8	29	0.5	U	2	45
MW122S	Am-241 (gamma)	13	18	28.8	0.5	U	2	46
MW124S	Am-241 (gamma)	19.2	24.3	24.1	0.5	U	2	47
	n:	47	47	47				
	Average:	0.7270	10.4191	16.1628				
	Sdev:	6.6622	4.7548	6.4197				
	Sdev:	916%	46%	40%				
	Min:	-18.8	2.35	4				
	Max:	19.2	24.3	29				
	Median:	0.753	10.3	17.4				

Appendix E.2
June 2004 Rank Trend Results

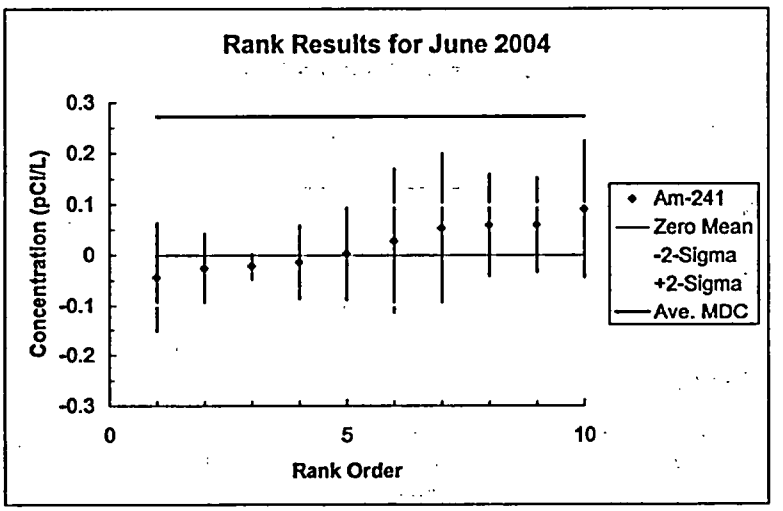
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Am-241 (gamma)	-5.76	15.4	22.8	0.5	U	2
QC Blank	Am-241 (gamma)	-1.42	13.1	21.7	0.5	U	2
QC Blank	Am-241 (gamma)	1.21	10.9	16.7	0.5	U	2
QC Blank	Am-241 (gamma)	4.76	6.22	11.4	0.5	U	2
	n:	4	4	4			
	Average:	-0.3025	11.4050	18.1500			
	Sdev:	4.4328	3.9146	5.2246			
	Sdev:	-1465%	34%	29%			
	Min:	-5.7600	6.2200	11.4000			
	Max:	4.7600	15.4000	22.8000			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103D	Am-241	-0.0447	0.108	0.369	0.5	U	0.2	1
MW106S	Am-241	-0.0265	0.0683	0.264	0.5	U	0.25	2
MW105S	Am-241	-0.0224	0.0254	0.207	0.5	U	0.2	3
MW105S Duplicate	Am-241	-0.014	0.0724	0.264	0.5	U	0.2	4
MW103S	Am-241	0.0029	0.091	0.256	0.5	U	0.25	5
MW105D	Am-241	0.0272	0.142	0.358	0.5	U	0.2	6
MW103S Replicate	Am-241	0.0525	0.147	0.34	0.5	U	0.25	7
MW105D Replicate	Am-241	0.0584	0.101	0.208	0.5	U	0.2	8
MW104S	Am-241	0.0588	0.0938	0.19	0.5	U	0.25	9
MW106D	Am-241	0.0901	0.135	0.275	0.5	U	0.25	10
	n:	10	10	10				
	Average:	0.0182	0.0984	0.2731				
	Sdev:	0.0454	0.0375	0.0840				
	Sdev:	249%	38%	23%				
	Min:	-0.0447	0.0254	0.19				
	Max:	0.0901	0.147	0.369				
	Median:	0.01505	0.0974	0.264				

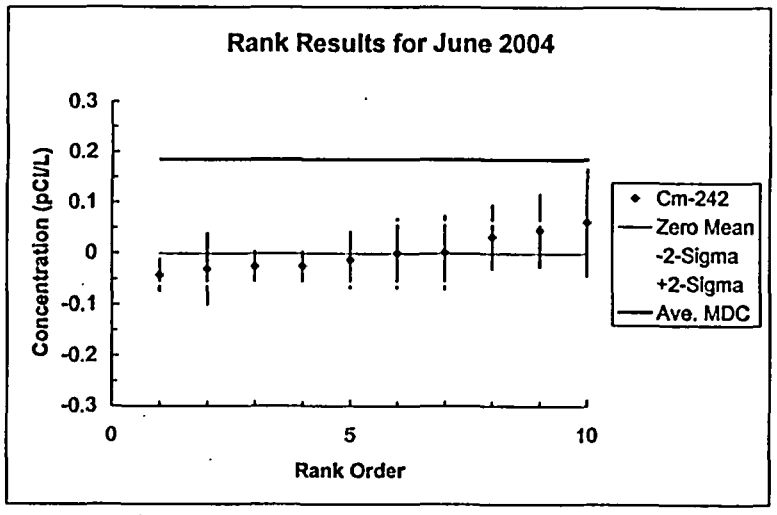
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Am-241	0.0784	0.155	0.341	0.5	U	0.2
QC Blank	Am-241	-0.0053	0.059	0.207	0.5	U	0.25
	n:	2	2	2			
	Average:	0.0366	0.1070	0.2740			
	Sdev:	0.0592	0.0679	0.0948			
	Sdev:	162%	63%	35%			
	Min:	-0.0053	0.0590	0.2070			
	Max:	0.0784	0.1550	0.3410			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW103S Replicate	Cm-242	-0.0428	0.0317	0.222	0.5	U	0.25	1
MW106S	Cm-242	-0.0309	0.0699	0.234	0.5	U	0.25	2
MW103D	Cm-242	-0.0263	0.0297	0.243	0.5	U	0.2	3
MW105S Duplicate	Cm-242	-0.0256	0.0289	0.236	0.5	U	0.2	4
MW103S	Cm-242	-0.0128	0.0553	0.158	0.5	U	0.25	5
MW105S	Cm-242	0	0.0681	0.0941	0.5	U	0.2	6
MW105D	Cm-242	0.00132	0.0717	0.24	0.5	U	0.2	7
MW105D Replicate	Cm-242	0.0319	0.0626	0.0866	0.5	U	0.2	8
MW104S	Cm-242	0.0449	0.0717	0.127	0.5	U	0.25	9
MW106D	Cm-242	0.061	0.105	0.217	0.5	U	0.25	10
	n:	10	10	10				
	Average:	0.0001	0.0595	0.1858				
	Sdev:	0.0350	0.0240	0.0631				
	Sdev:	48675%	40%	34%				
	Min:	-0.0428	0.0289	0.0866				
	Max:	0.061	0.105	0.243				
	Median:	-0.0064	0.06535	0.2195				

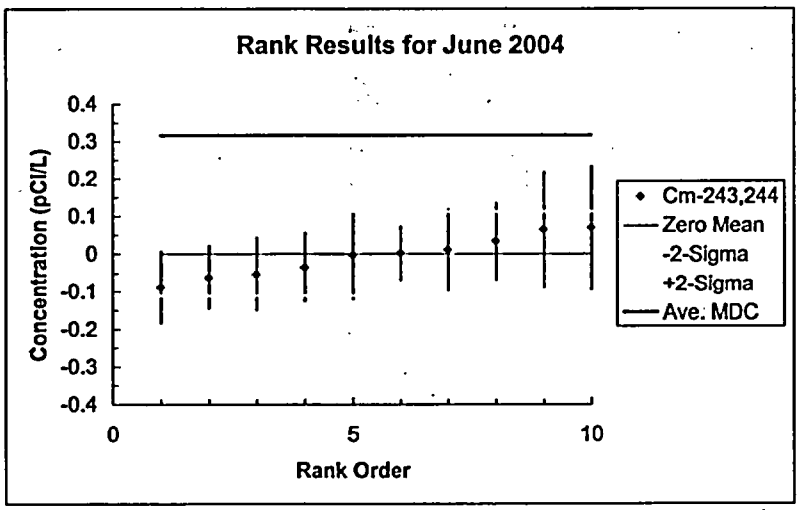
Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cm-242	-0.0322	0.0282	0.209	0.5	U	0.25
QC Blank	Cm-242	-0.0242	0.0274	0.224	0.5	U	0.2
	n:	2	2	2			
	Average:	-0.0282	0.0278	0.2165			
	Sdev:	0.0057	0.0006	0.0106			
	Sdev:	-20%	2%	5%			
	Min:	-0.0322	0.0274	0.2090			
	Max:	-0.0242	0.0282	0.2240			



Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW106D	Cm-243,244	-0.0681	0.0952	0.36	0.5	U	0.25	1
MW103D	Cm-243,244	-0.0619	0.0839	0.349	0.5	U	0.2	2
MW106S	Cm-243,244	-0.0532	0.0968	0.342	0.5	U	0.25	3
MW103S Replicate	Cm-243,244	-0.036	0.0914	0.291	0.5	U	0.25	4
MW105S	Cm-243,244	-0.00375	0.118	0.341	0.5	U	0.2	5
MW104S	Cm-243,244	0.00184	0.0707	0.211	0.5	U	0.25	6
MW105D Replicate	Cm-243,244	0.0103	0.107	0.295	0.5	U	0.2	7
MW103S	Cm-243,244	0.0329	0.102	0.248	0.5	U	0.25	8
MW105D	Cm-243,244	0.064	0.153	0.35	0.5	U	0.2	9
MW105S Duplicate	Cm-243,244	0.0689	0.164	0.377	0.5	U	0.2	10
	n:	10	10	10				
	Average:	-0.0065	0.1082	0.3164				
	Sdev:	0.0531	0.0296	0.0537				
	Sdev:	-816%	27%	17%				
	Min:	-0.0681	0.0707	0.211				
	Max:	0.0689	0.164	0.377				
	Median:	-0.000955	0.0994	0.3415				

Well ID	Nuclide	Conc. (pCi/L)	2-sigma TPU (pCi/L)	MDC (pCi/L)	Required MDC (pCi/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Cm-243,244	-0.0434	0.0664	0.272	0.5	U	0.25
QC Blank	Cm-243,244	0.0465	0.158	0.383	0.5	U	0.2
	n:	2	2	2			
	Average:	0.0016	0.1122	0.3275			
	Sdev:	0.0636	0.0648	0.0785			
	Sdev:	4101%	58%	24%			
	Min:	-0.0434	0.0664	0.2720			
	Max:	0.0465	0.1580	0.3830			

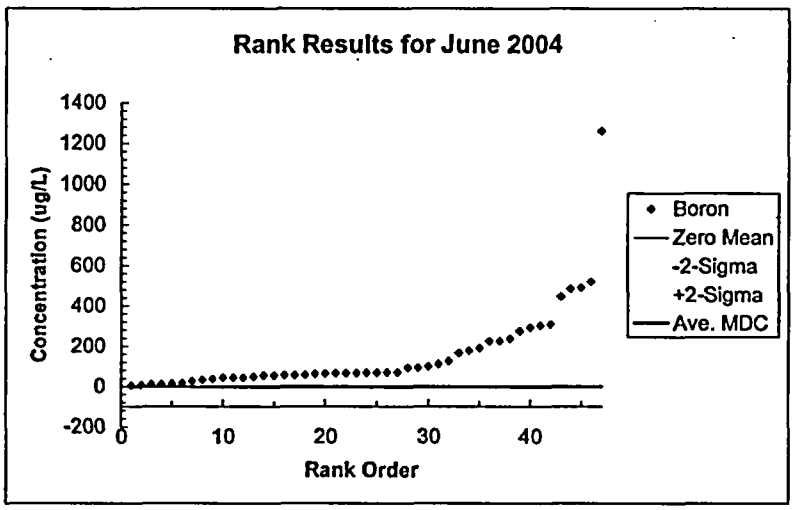


Appendix E.2
June 2004 Rank Trend Results

Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)	Rank Order
MW1	Boron	5.08	-	0.54	15	J		1
MW3	Boron	5.67	-	0.54	15	J		2
MW100D	Boron	10.4	-	0.54	15	J		3
MW503	Boron	10.7	-	0.54	15	J		4
MW2 Replicate	Boron	14	-	0.54	15	J		5
MW2	Boron	15.5	-	0.54	15	J		6
MW100S	Boron	25.3	-	0.54	15			7
MW107D	Boron	32.1	-	0.54	15			8
MW507D	Boron	36.7	-	0.54	15			9
MW508S Replicate	Boron	41.8	-	0.54	15			10
MW508S	Boron	41.9	-	0.54	15			11
MW504	Boron	42.7	-	0.54	15			12
MW112S	Boron	47.8	-	0.54	15			13
MW507S	Boron	52.8	-	0.54	15			14
MW101D	Boron	54	-	0.54	15			15
MW505	Boron	54.4	-	0.54	15			16
MW111S	Boron	55.5	-	0.54	15			17
MW103D	Boron	57.1	-	0.54	15			18
MW105D	Boron	60.8	-	0.54	15			19
EOF2	Boron	63.4	-	0.54	15			20
MW106D	Boron	64.7	-	0.54	15			21
MW502	Boron	65.2	-	0.54	15			22
MW508D	Boron	66.1	-	0.54	15			23
MW108S	Boron	68.3	-	0.54	15			24
MW117S	Boron	68.5	-	0.54	15			25
MW101S	Boron	68.6	-	0.54	15			26
MW108S Replicate	Boron	68.7	-	0.54	15			27
MW123S	Boron	90.8	-	0.54	15			28
MW102S	Boron	91.2	-	0.54	15			29
MW102D	Boron	97.1	-	0.54	15			30
MW113S	Boron	110	-	0.54	15			31
MW109S	Boron	124	-	0.54	15			32
MW103S	Boron	165	-	0.54	15			33
MW107S	Boron	177	-	0.54	15			34
MW109D	Boron	191	-	0.54	15			35
MW122D	Boron	223	-	0.54	15			36
MW124S	Boron	225	-	0.54	15			37
MW110D	Boron	236	-	0.54	15			38
MW104S	Boron	274	-	0.54	15			39
MW110S	Boron	291	-	0.54	15			40
MW110S Replicate	Boron	301	-	0.54	15			41
MW122S	Boron	307	-	0.54	15			42
MW125S	Boron	445	-	0.54	15			43
MW105S	Boron	484	-	0.54	15			44
MW106S	Boron	490	-	0.54	15			45
MW105S Duplicate	Boron	518	-	0.54	15			46
MW114S	Boron	1260	-	0.54	15			47
	n:	47	0	47				
	Average:	155.2734	-	0.5400				
	Sdev:	214.1698	-	0.0000				
	Sdev:	138%	-	0%				
	Min:	5.08	0	0.54				
	Max:	1260	0	0.54				
	Median:	68.3	-	0.54				

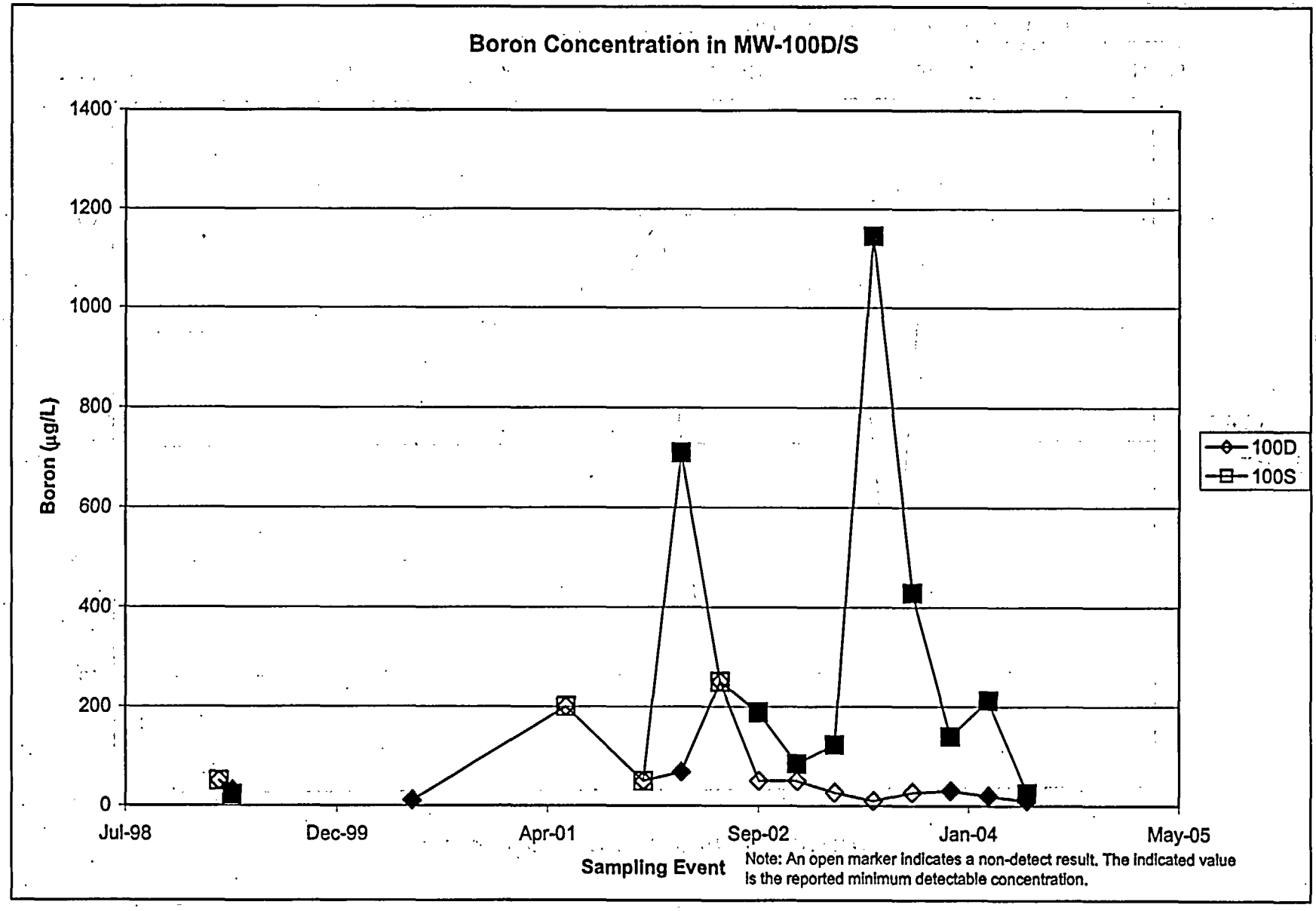
Appendix E.2
June 2004 Rank Trend Results

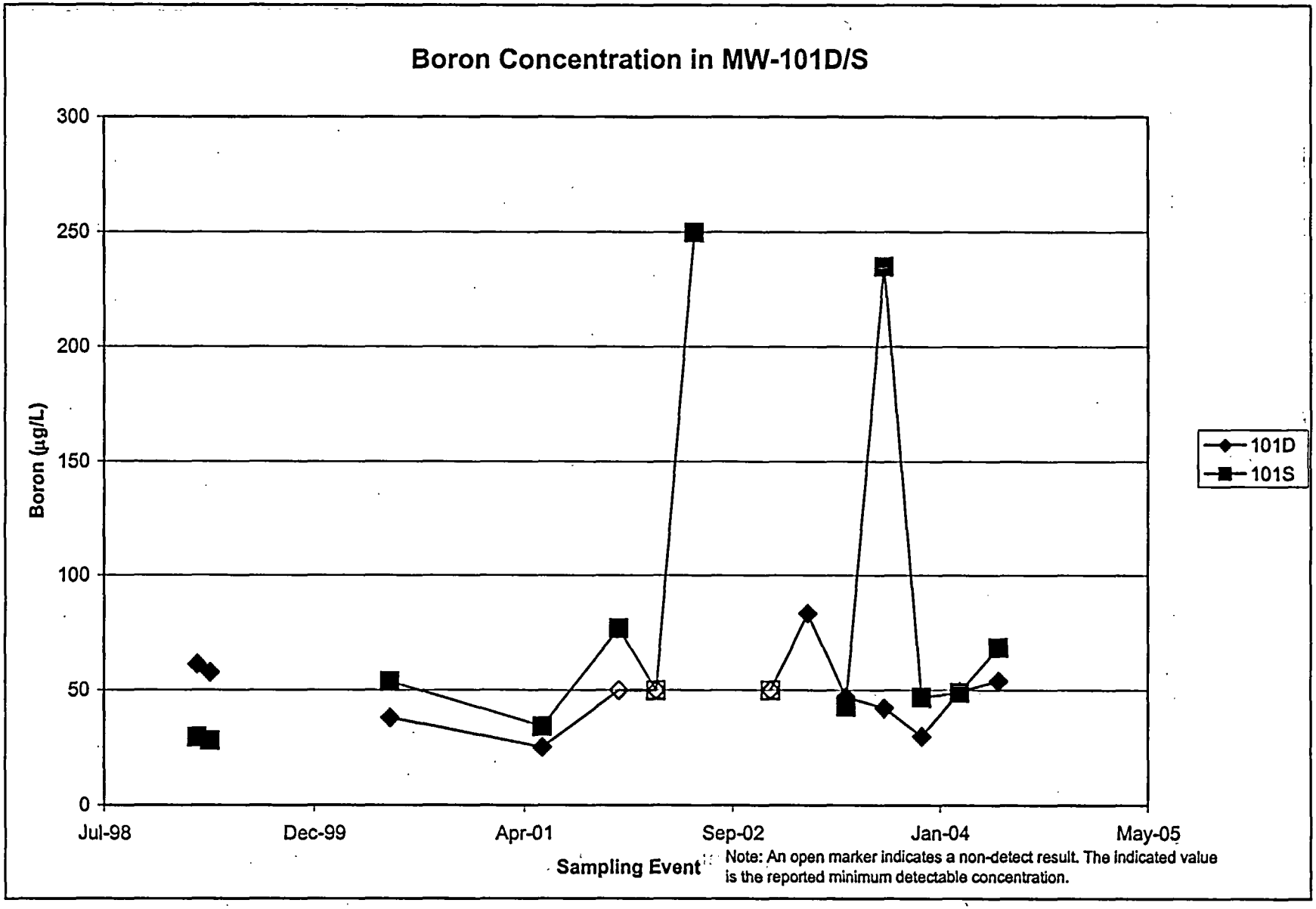
Well ID	Nuclide	Conc. (uG/L)	1-sigma TPU (uG/L)	MDC (uG/L)	Required MDC (uG/L)	Lab Flag	Aliquot Volume (L)
QC Blank	Boron	0.769	-	0.54	15	J	
QC Blank	Boron	2.51	-	0.54	15	J	
QC Blank	Boron	15	-	0.54	15	U	
QC Blank	Boron	15	-	0.54	15	U	
	n:	4	0	4			
	Average:	8.3198	-	0.5400			
	Sdev:	7.7464	-	0.0000			
	Sdev:	93%	-	0%			
	Min:	0.7690	0.0000	0.5400			
	Max:	15.0000	0.0000	0.5400			

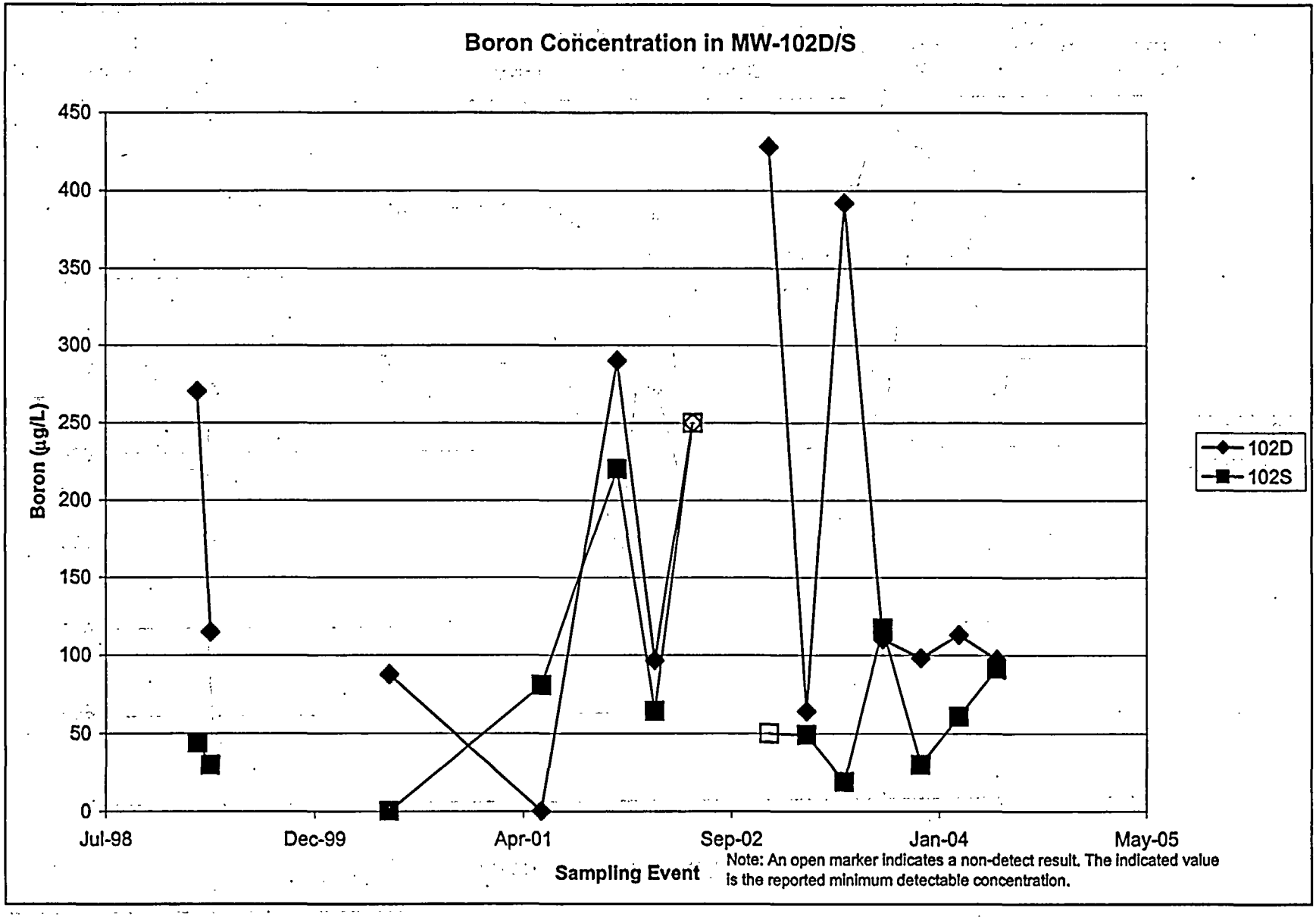


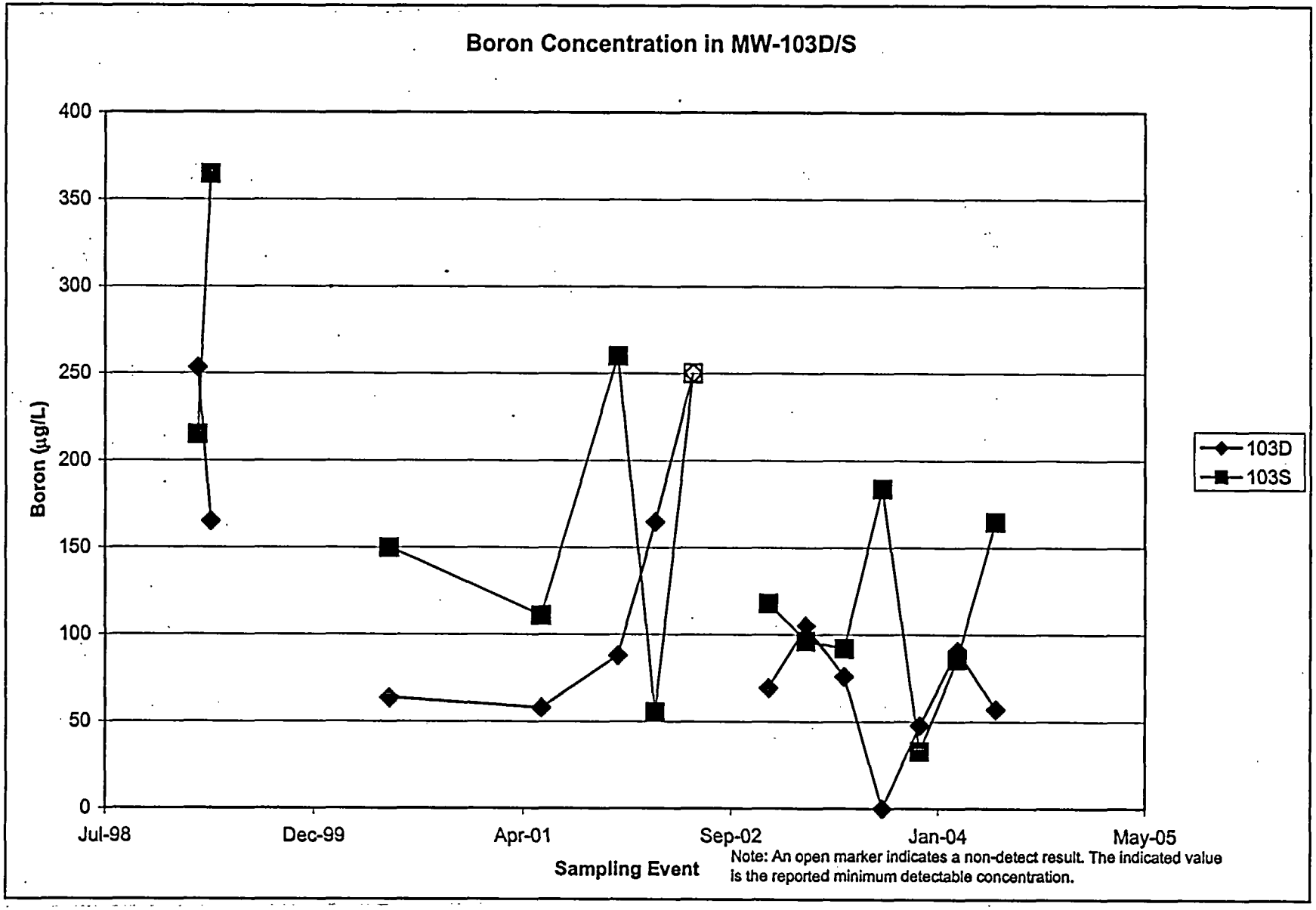
Appendix F

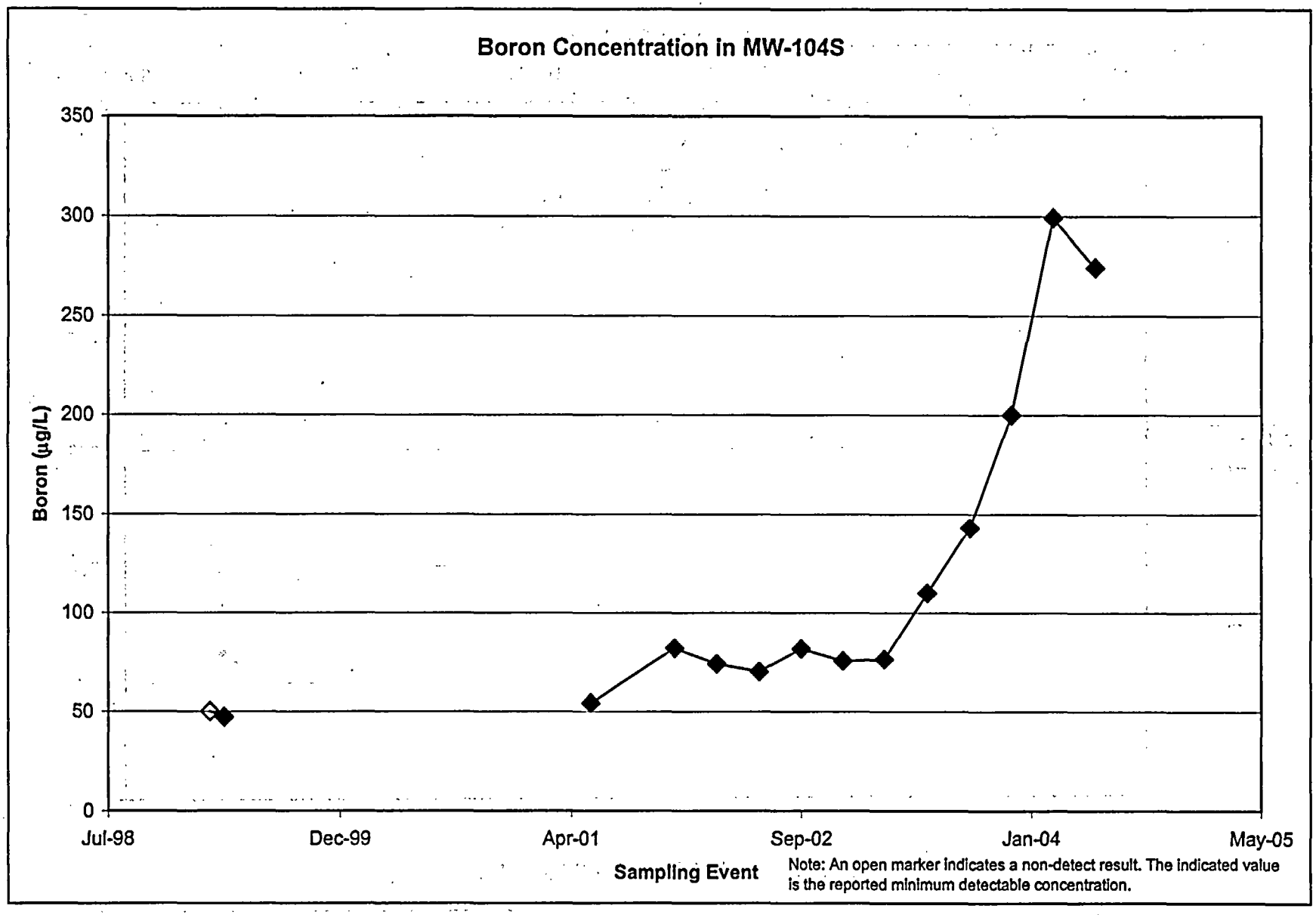
Boron Time Series Plots

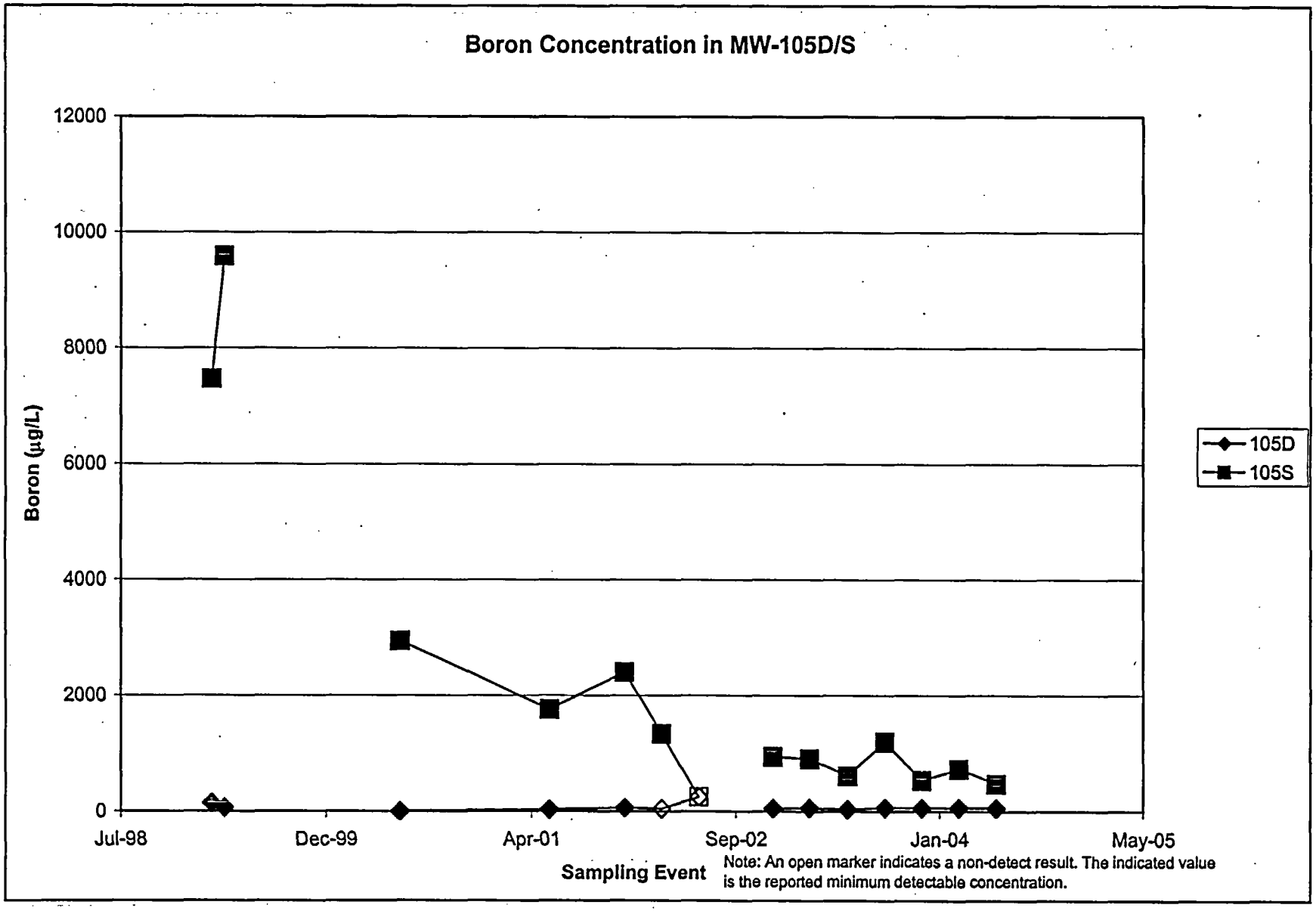

Boron Concentration in MW-100D/S
Boron (µg/L)
1400
1200
1000
800
600
400
200
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
100D
100S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

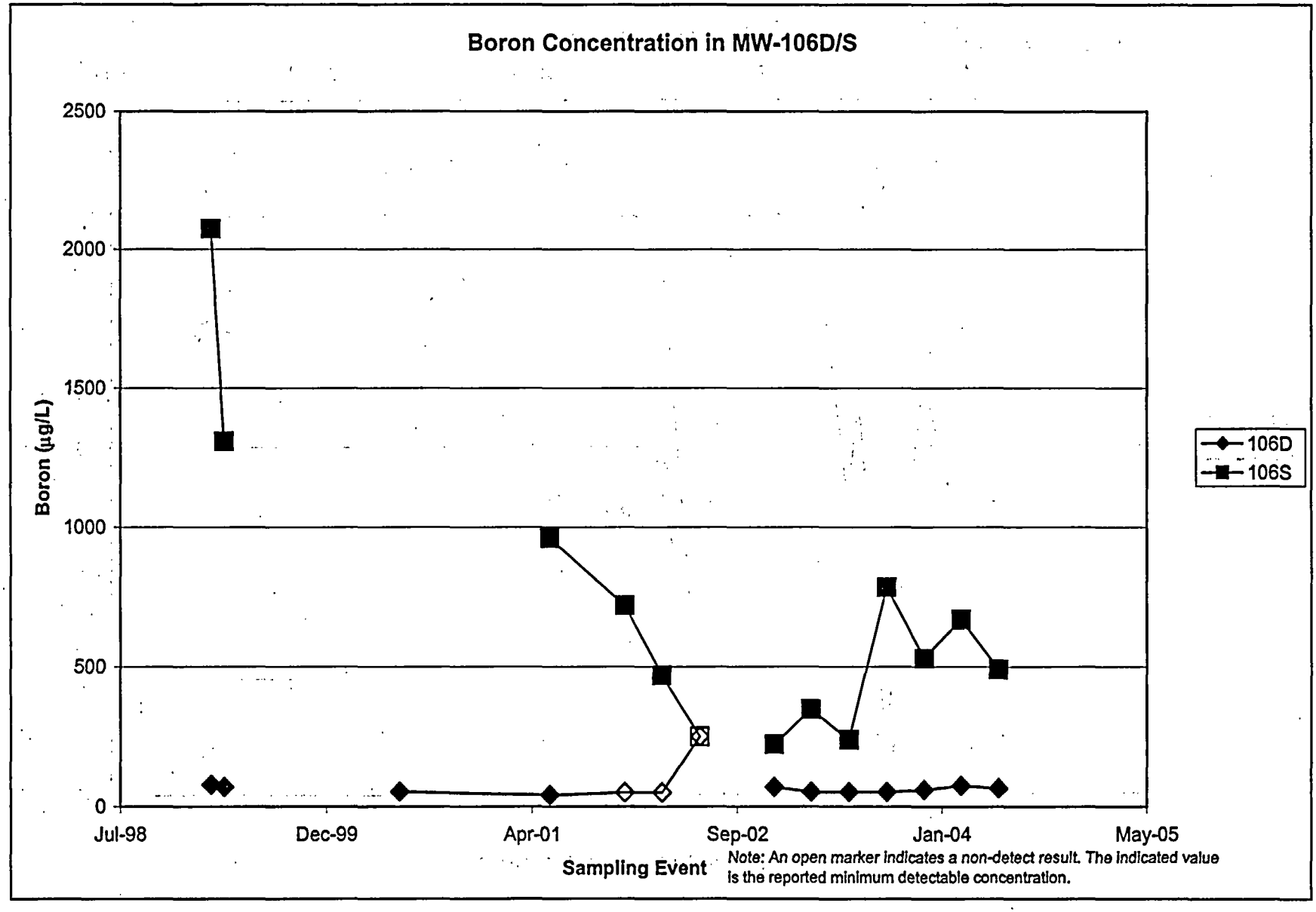

Boron Concentration in MW-101D/S
Boron (µg/L)
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
101D
101S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

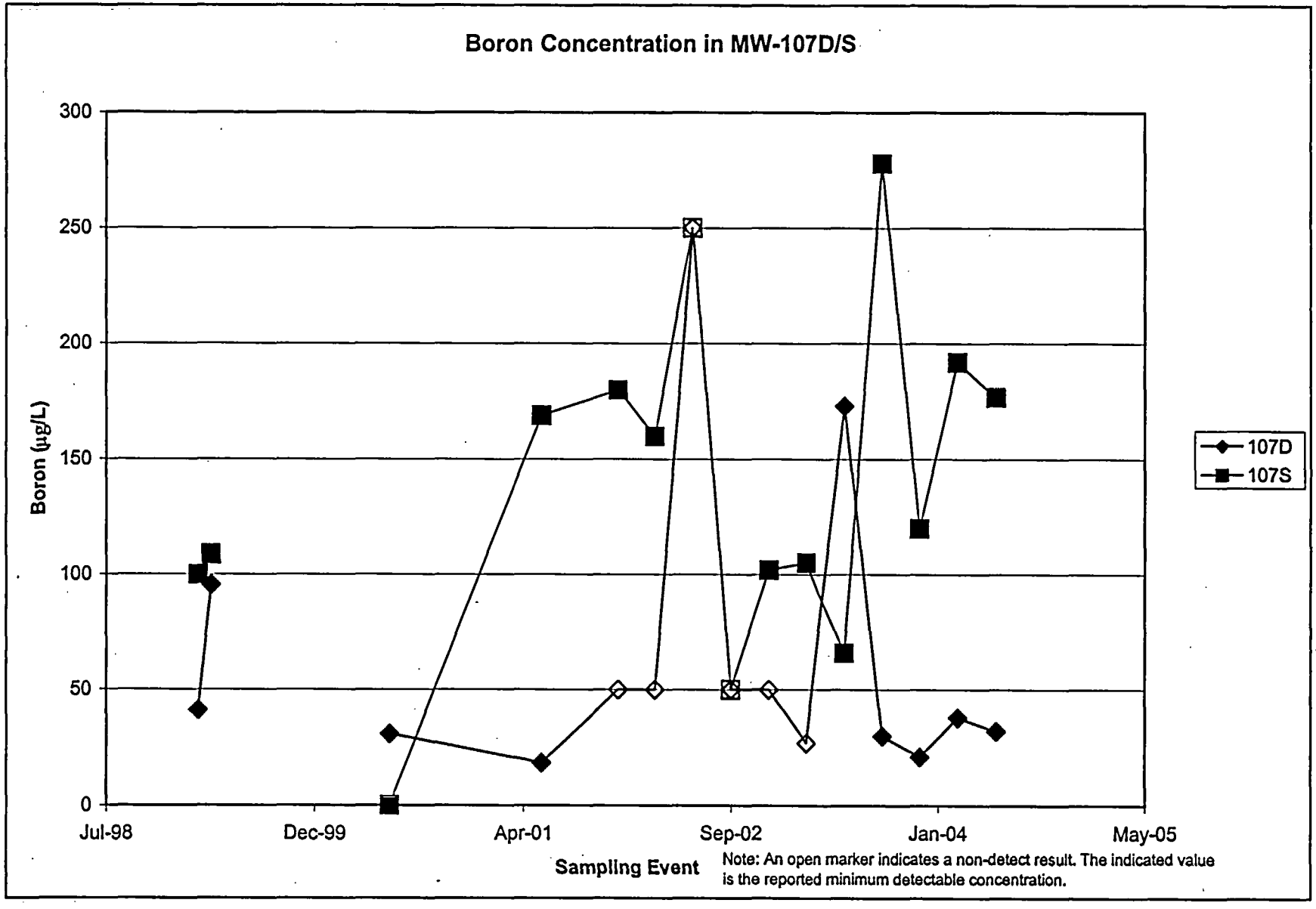

Boron Concentration in MW-102D/S
Boron (µg/L)
450
400
350
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
102D
102S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

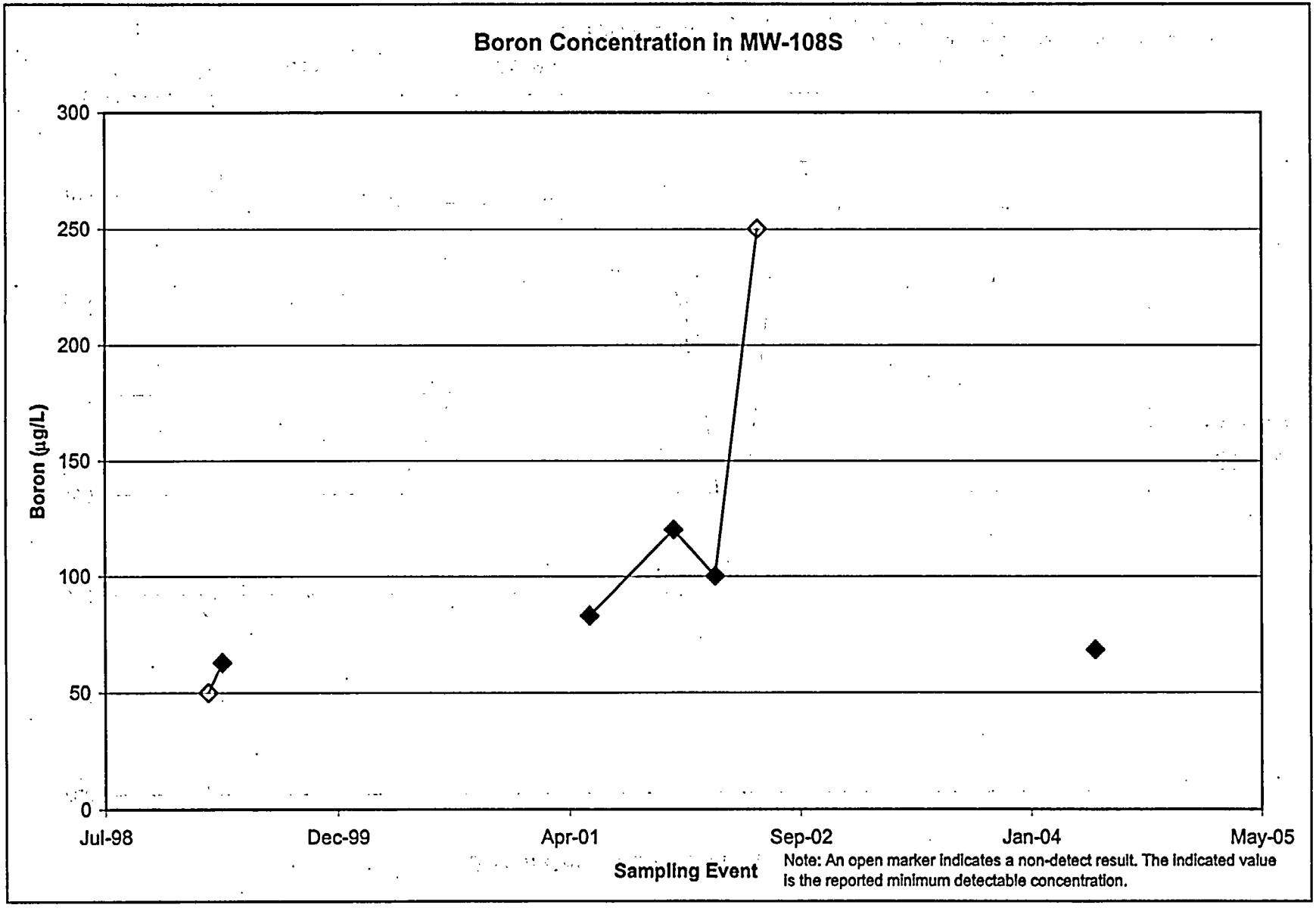

Boron Concentration in MW-103D/S
Boron (µg/L)
400
350
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
103D
103S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

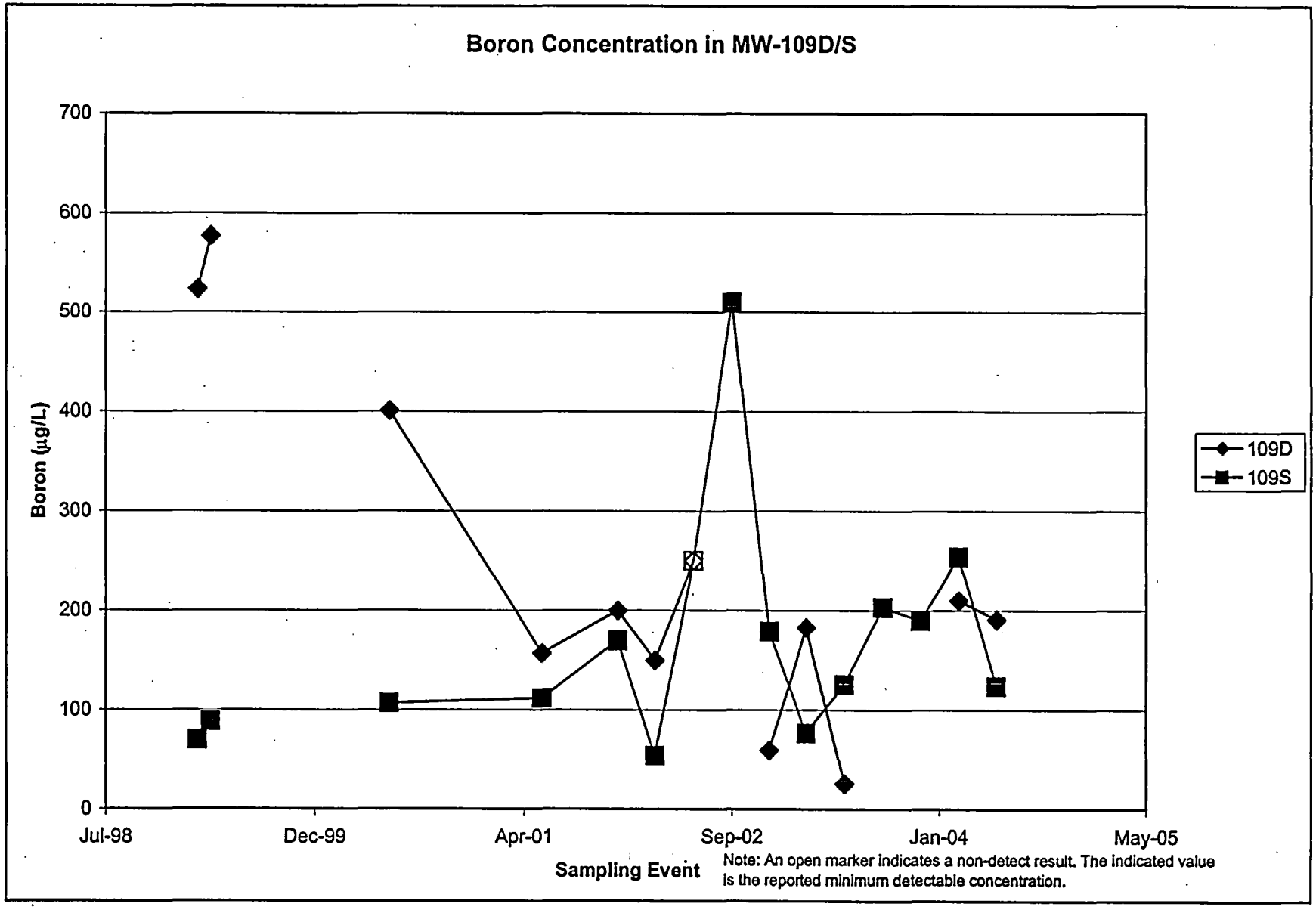

Boron Concentration in MW-104S
Boron (µg/L)
350
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

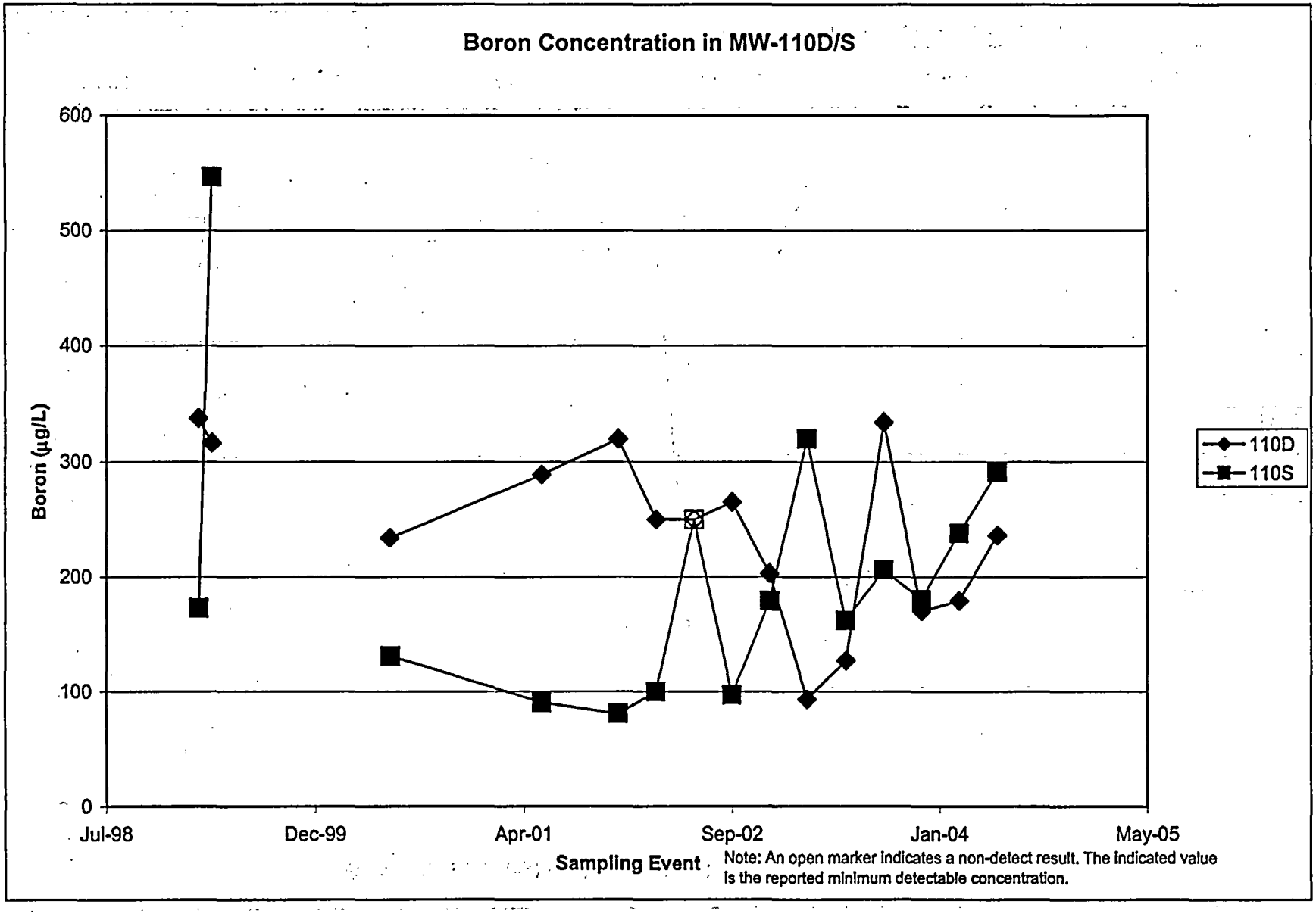

Boron Concentration in MW-105D/S
12000
10000
8000
6000
4000
2000
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
105D
105S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

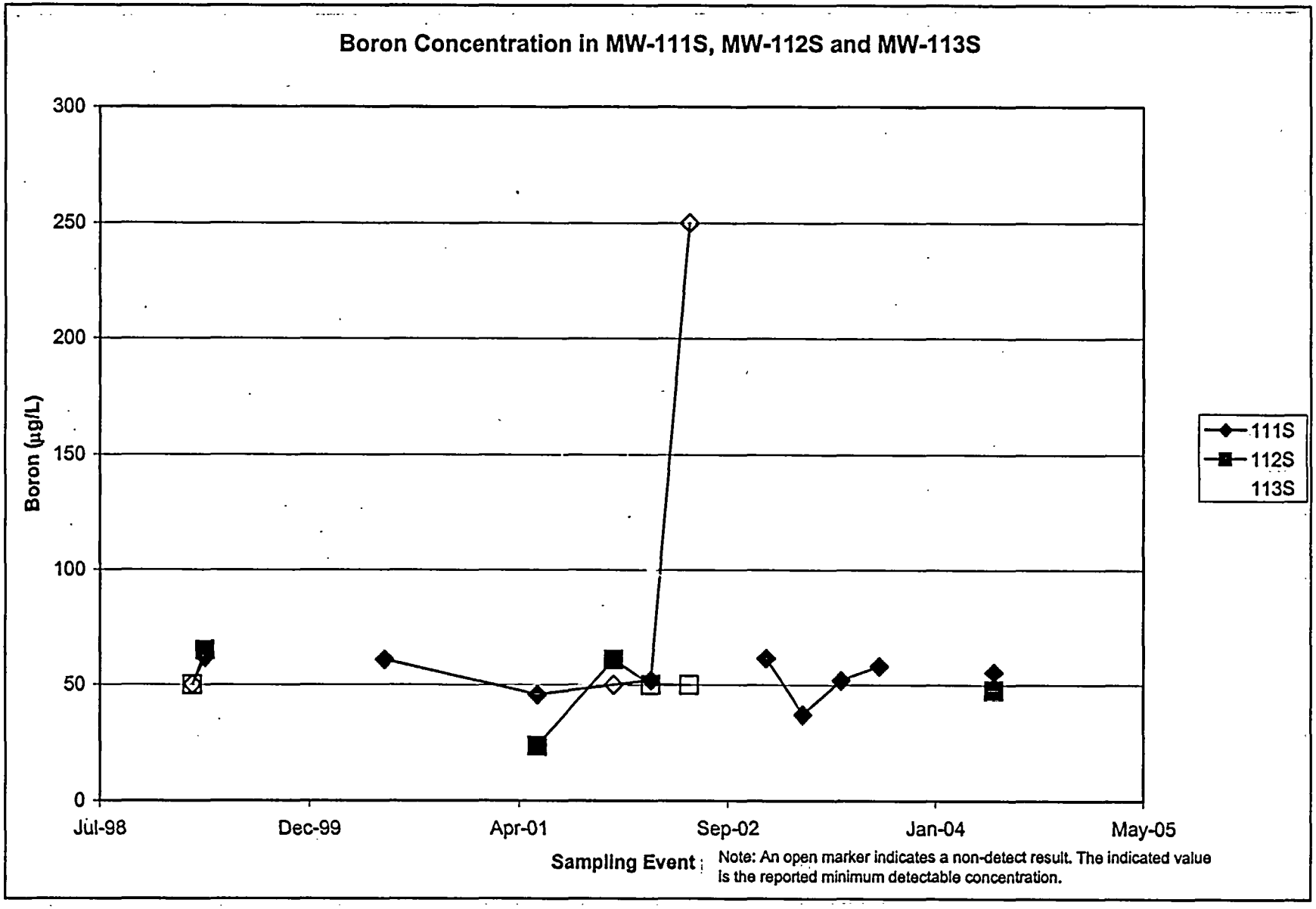

Boron Concentration in MW-106D/S
2500
2000
1500
1000
500
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
106D
106S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

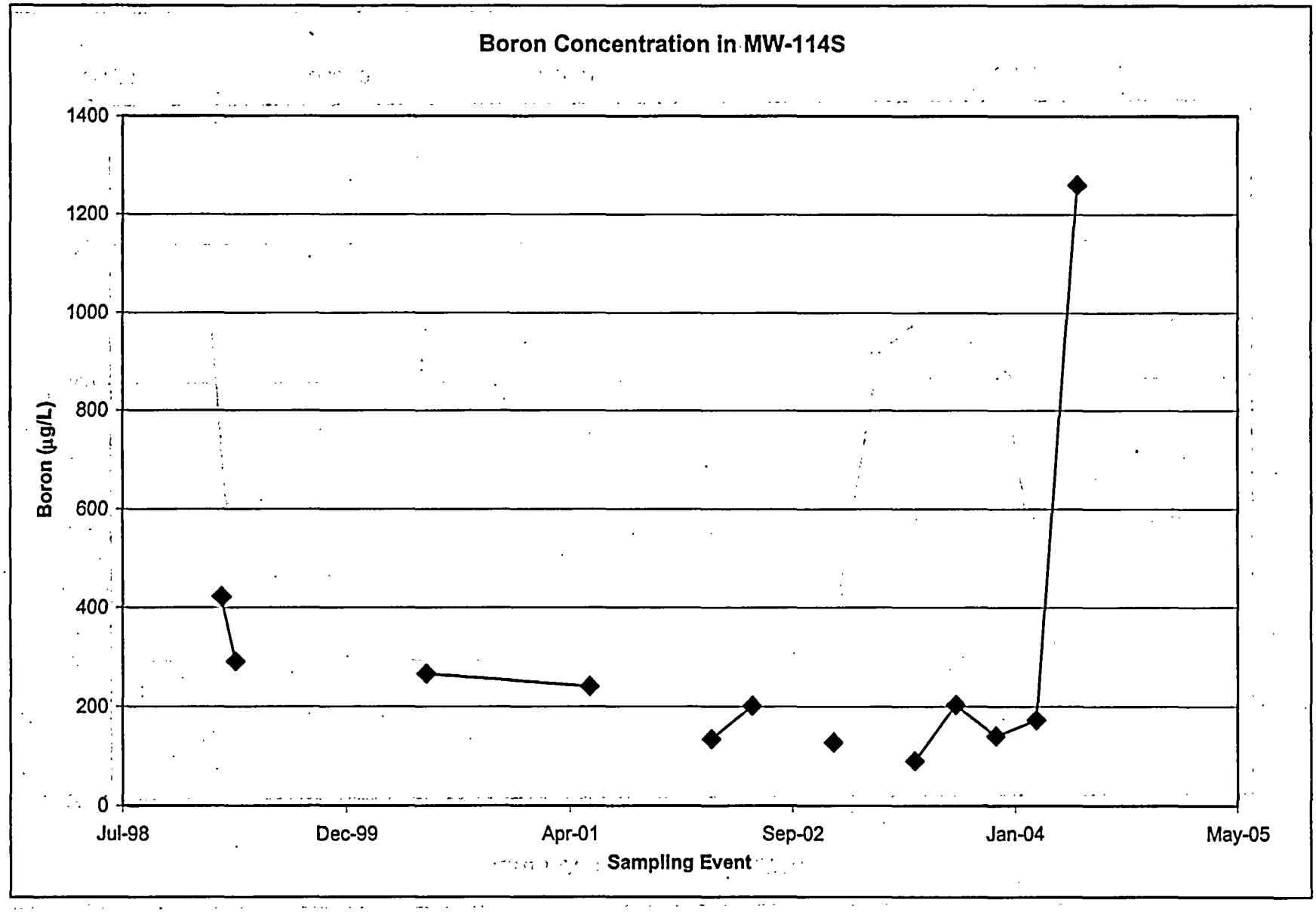

Boron Concentration in MW-107D/S
Boron (µg/L)
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
107D
107S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

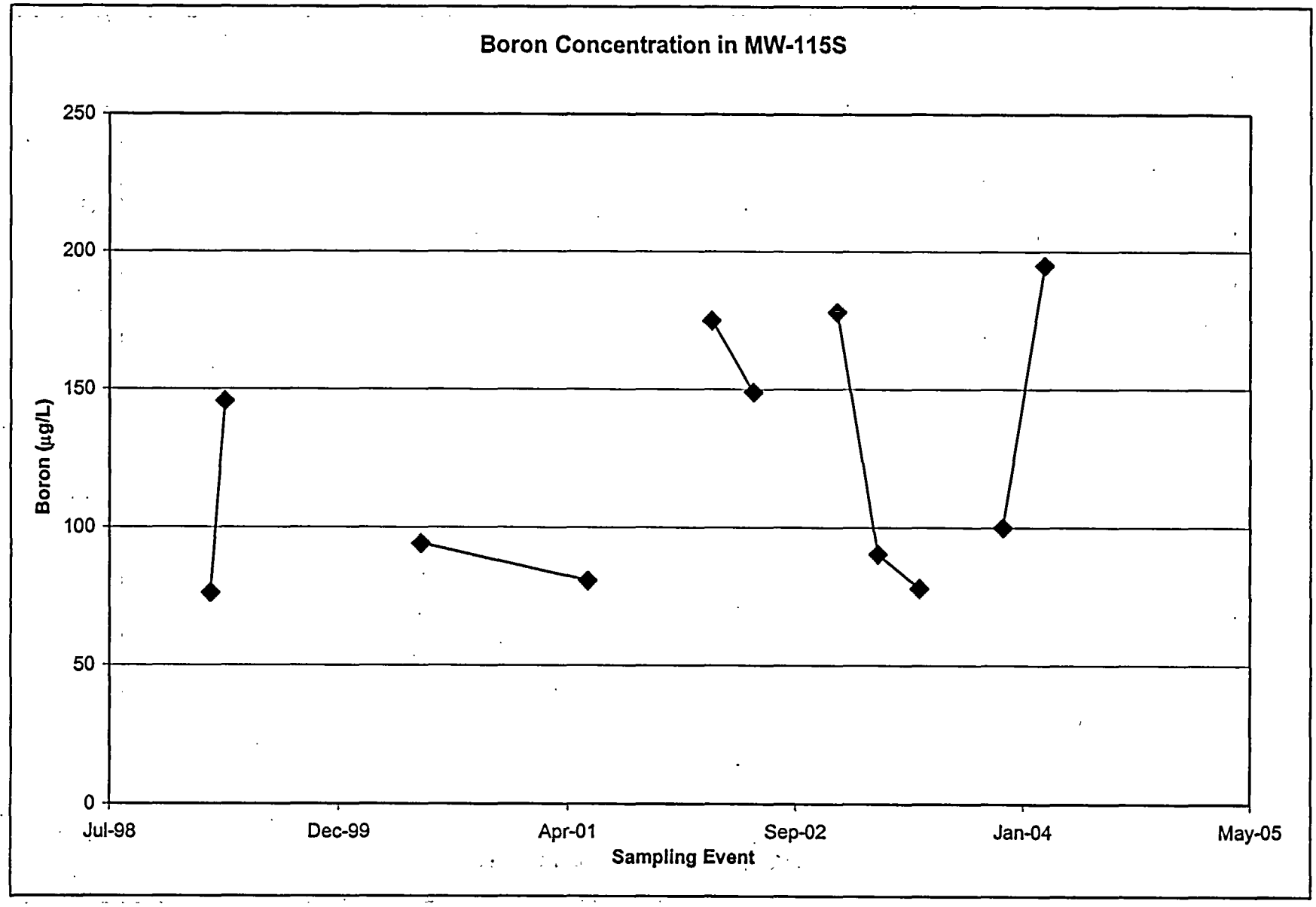

Boron Concentration in MW-108S
Boron (µg/L)
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

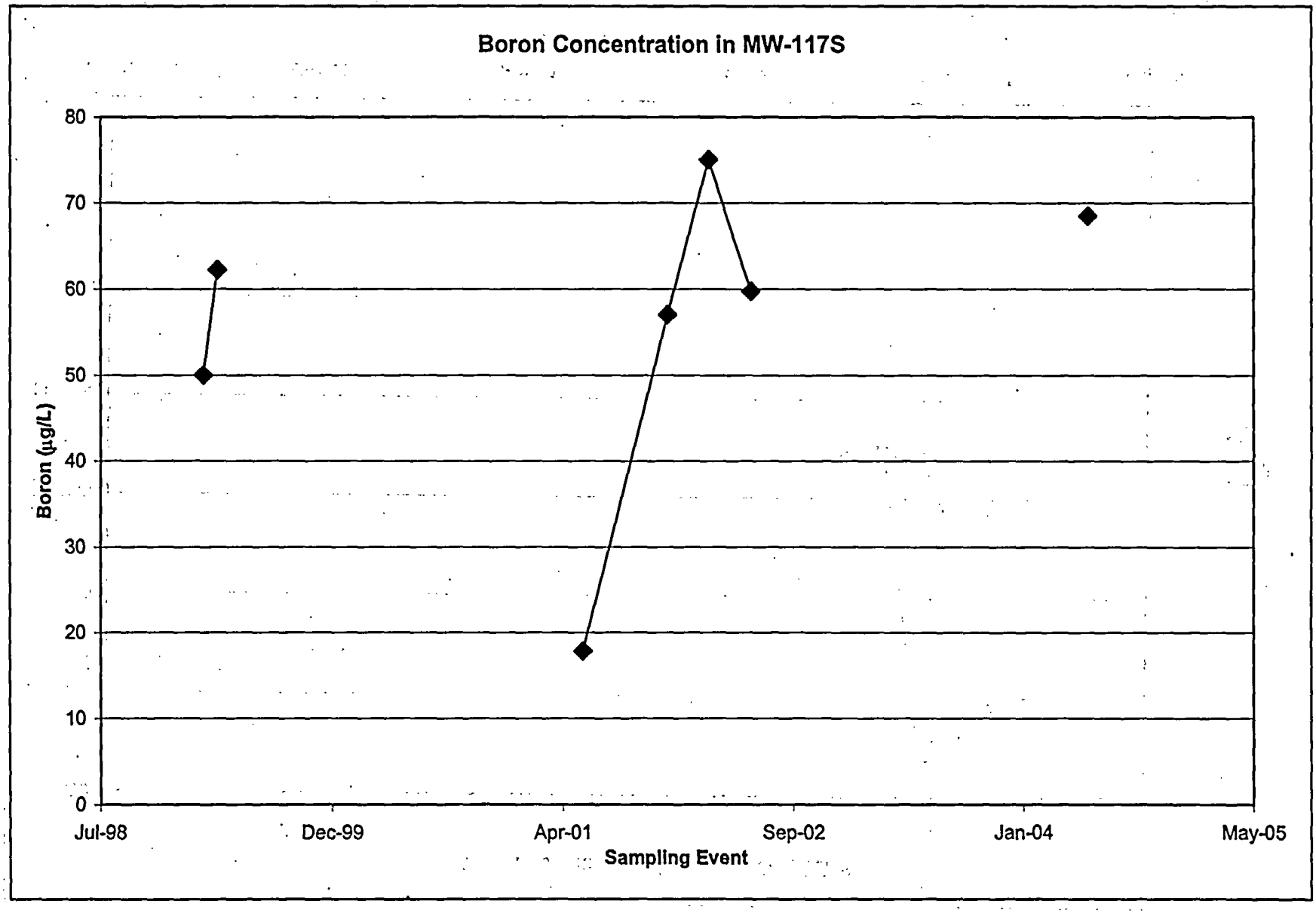

Boron Concentration in MW-109D/S
700
600
500
400
300
200
100
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
109D
109S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

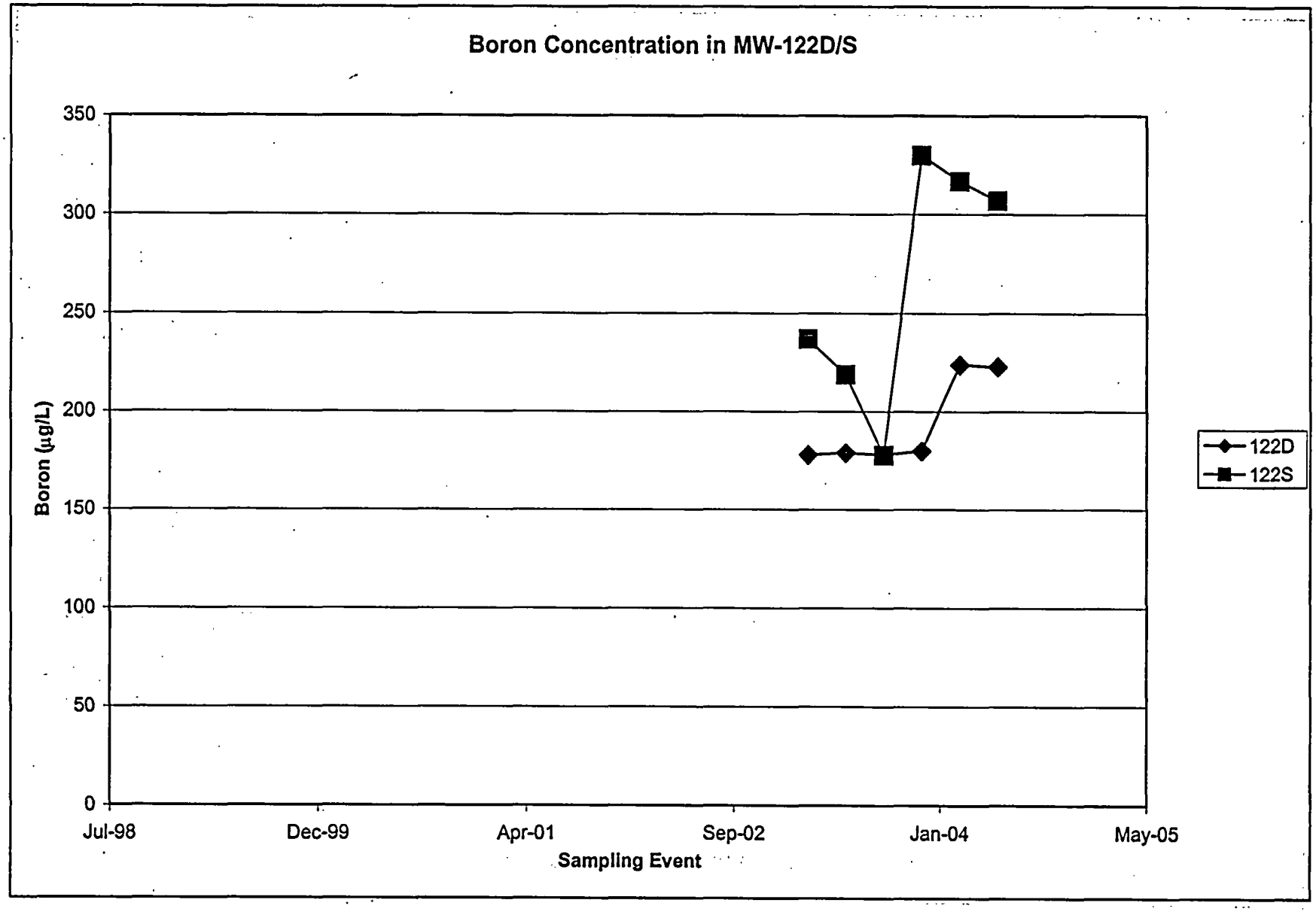

Boron Concentration in MW-110D/S
600
500
400
300
200
100
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
110D
110S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

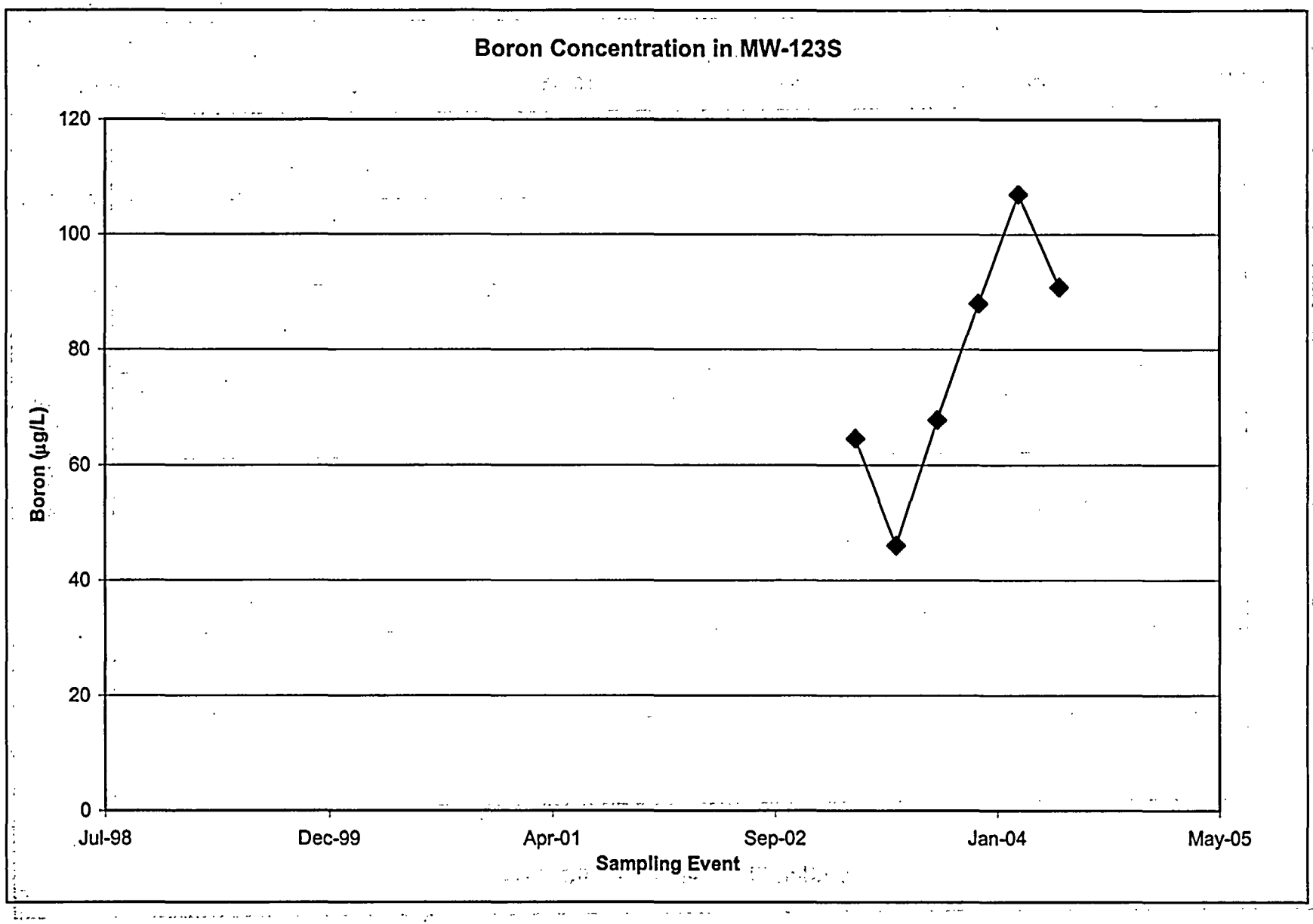

Boron Concentration in MW-111S, MW-112S and MW-113S
Boron (µg/L)
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
111S
112S
113S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

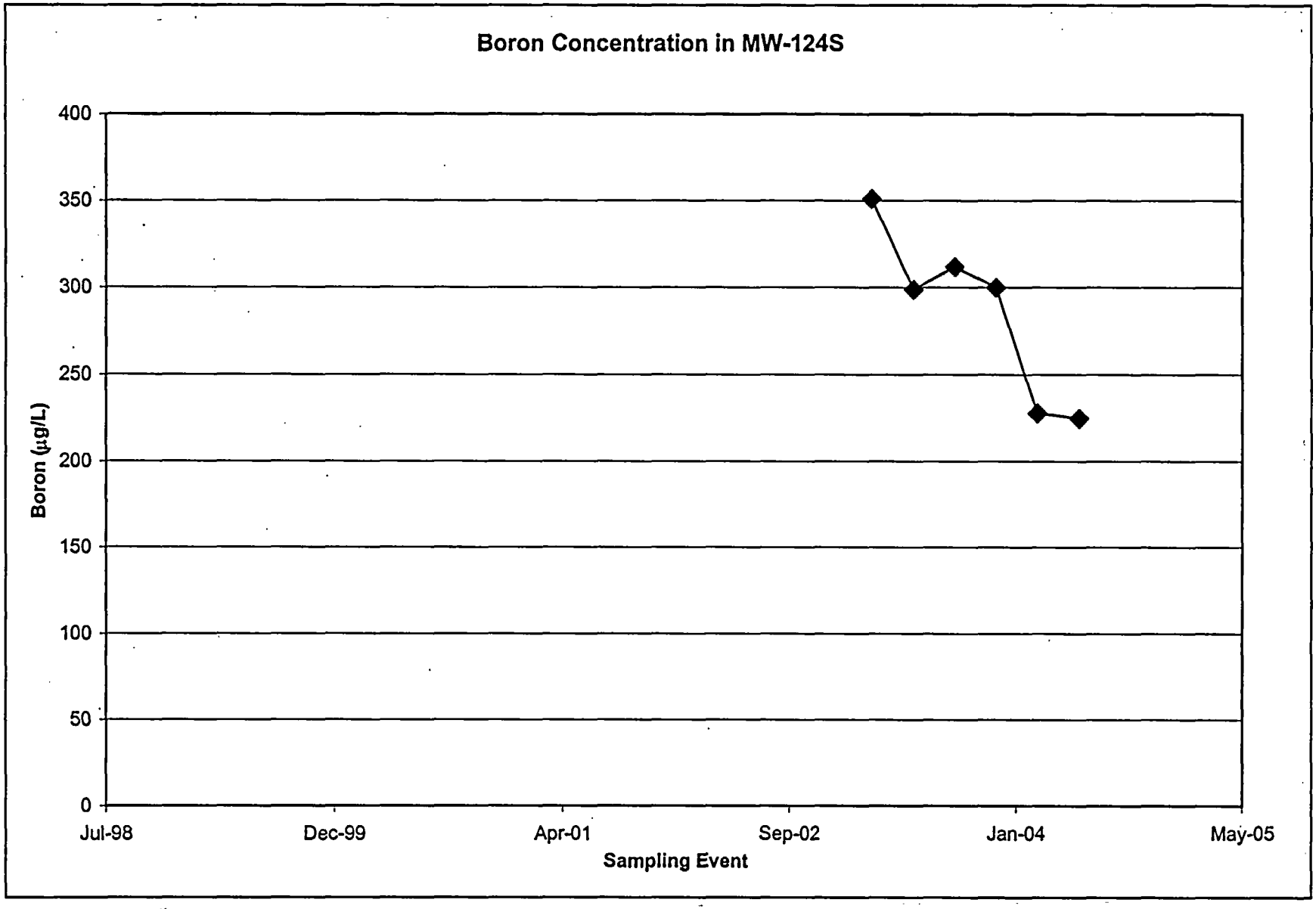

Boron Concentration in MW-114S
Boron (µg/L)
1400
1200
1000
800
600
400
200
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

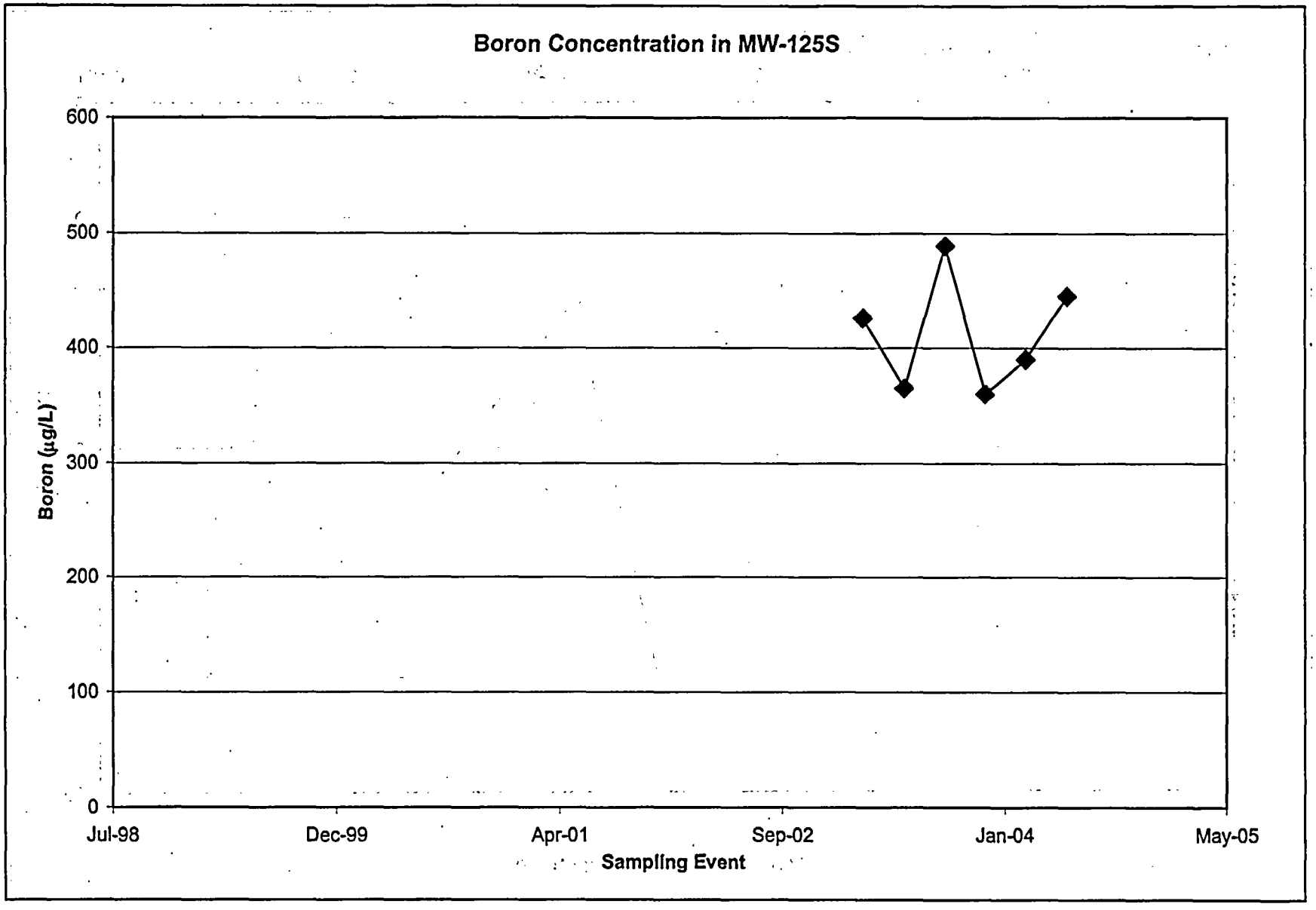

Boron Concentration in MW-115S
250
200
150
100
50
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

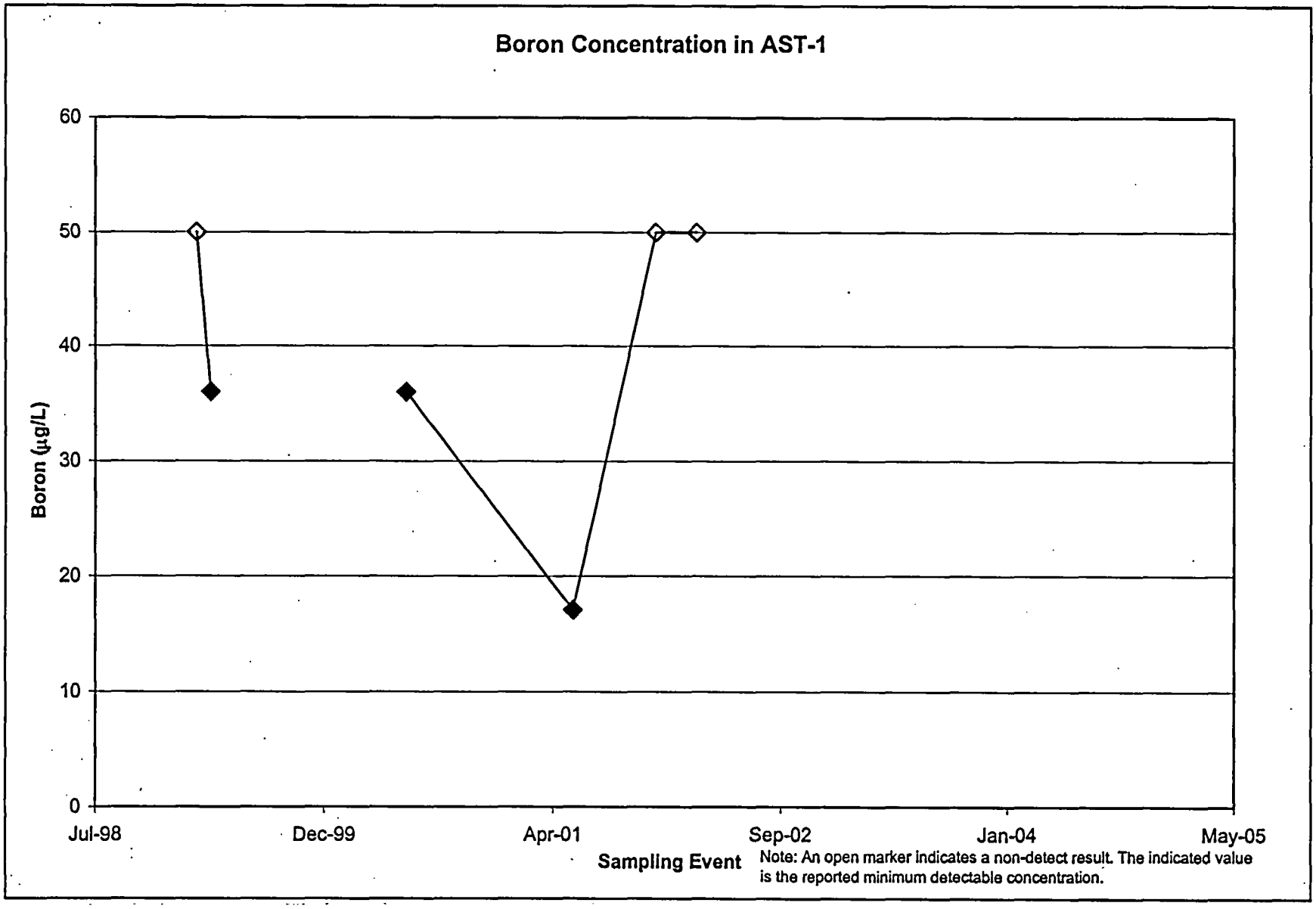

Boron Concentration in MW-117S
Boron (µg/L)
80
70
60
50
40
30
20
10
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

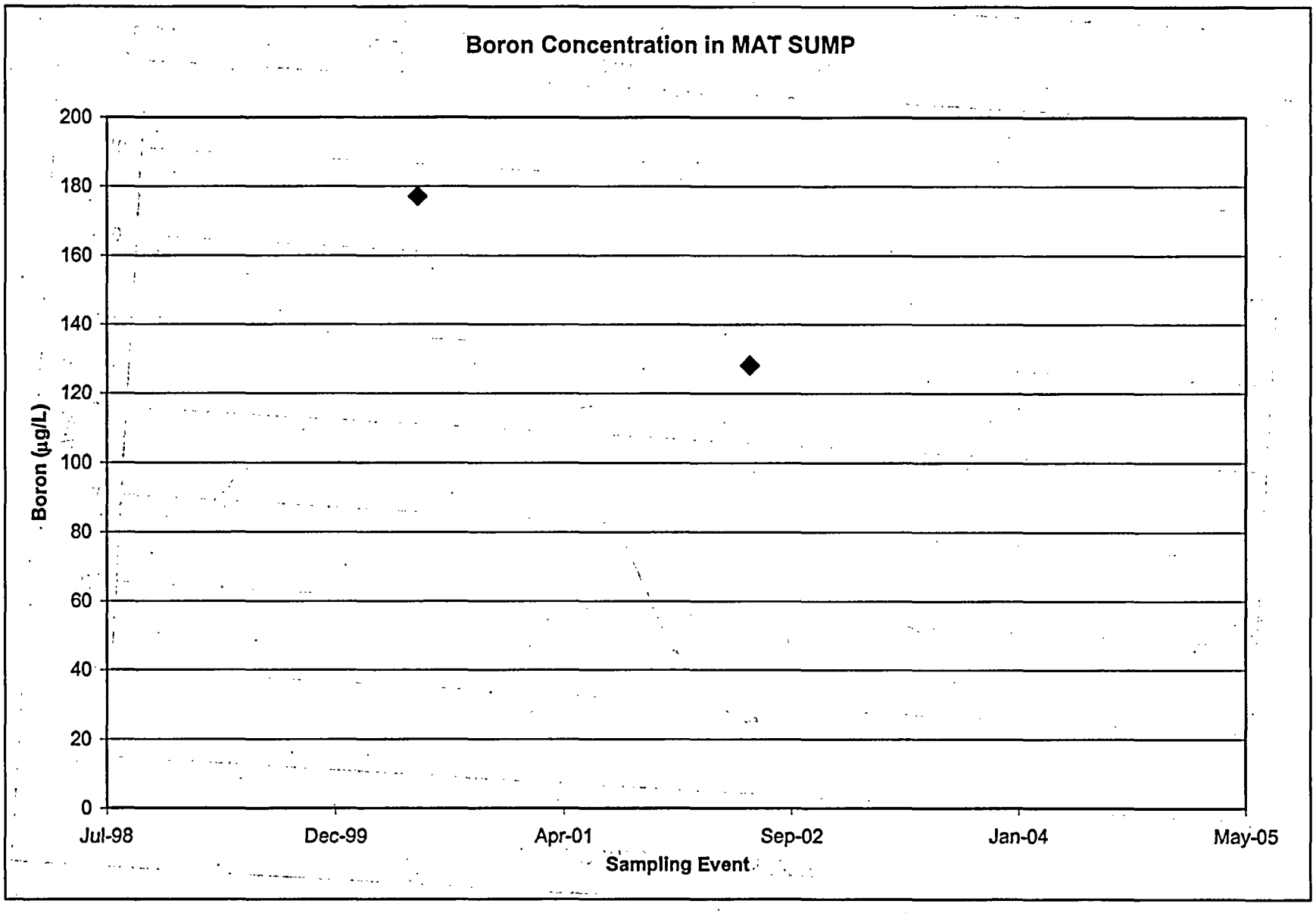

Boron Concentration in MW-122D/S
350
300
250
200
150
100
50
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
122D
122S

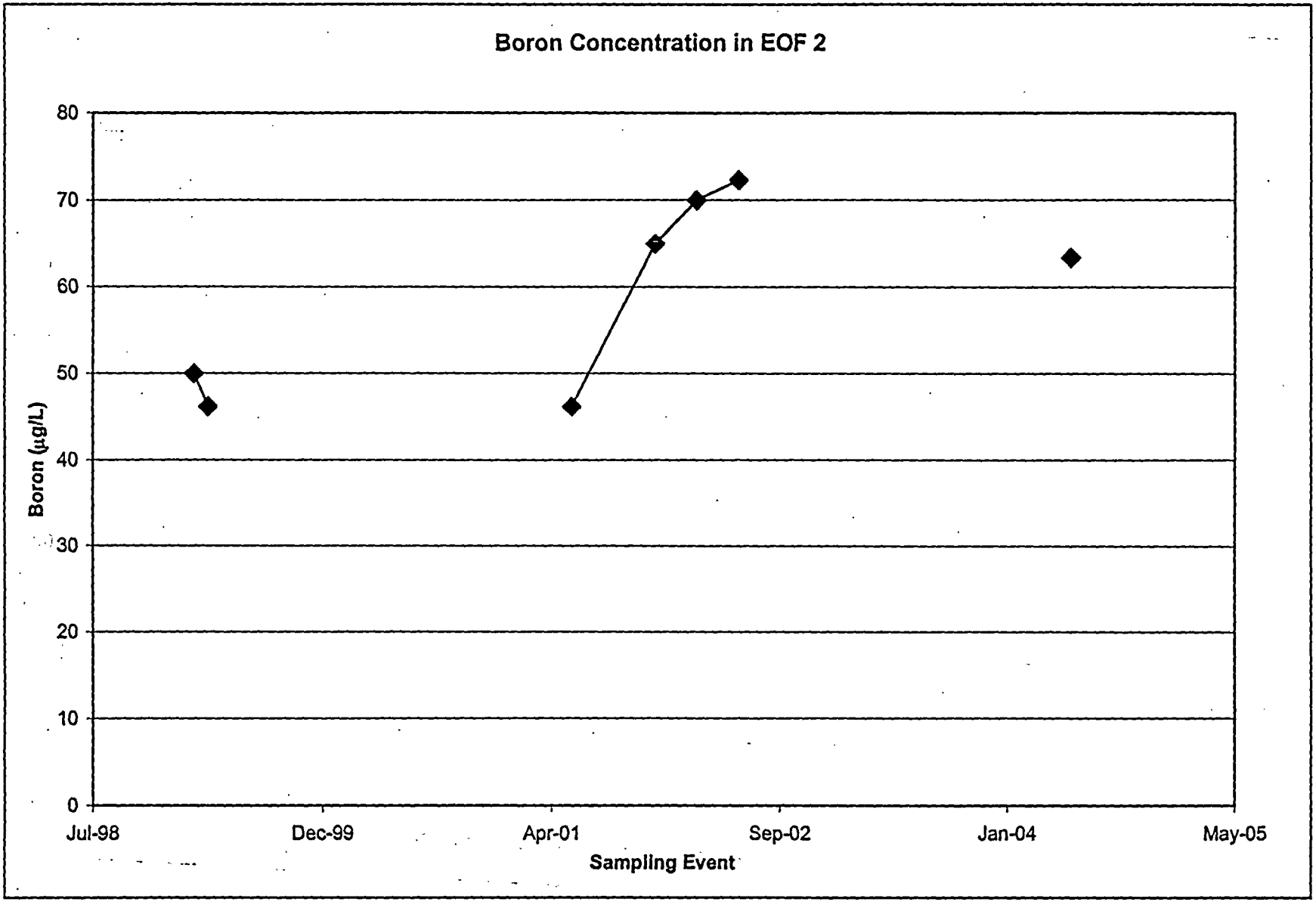

Boron Concentration in MW-123S
120
100
80
60
40
20
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

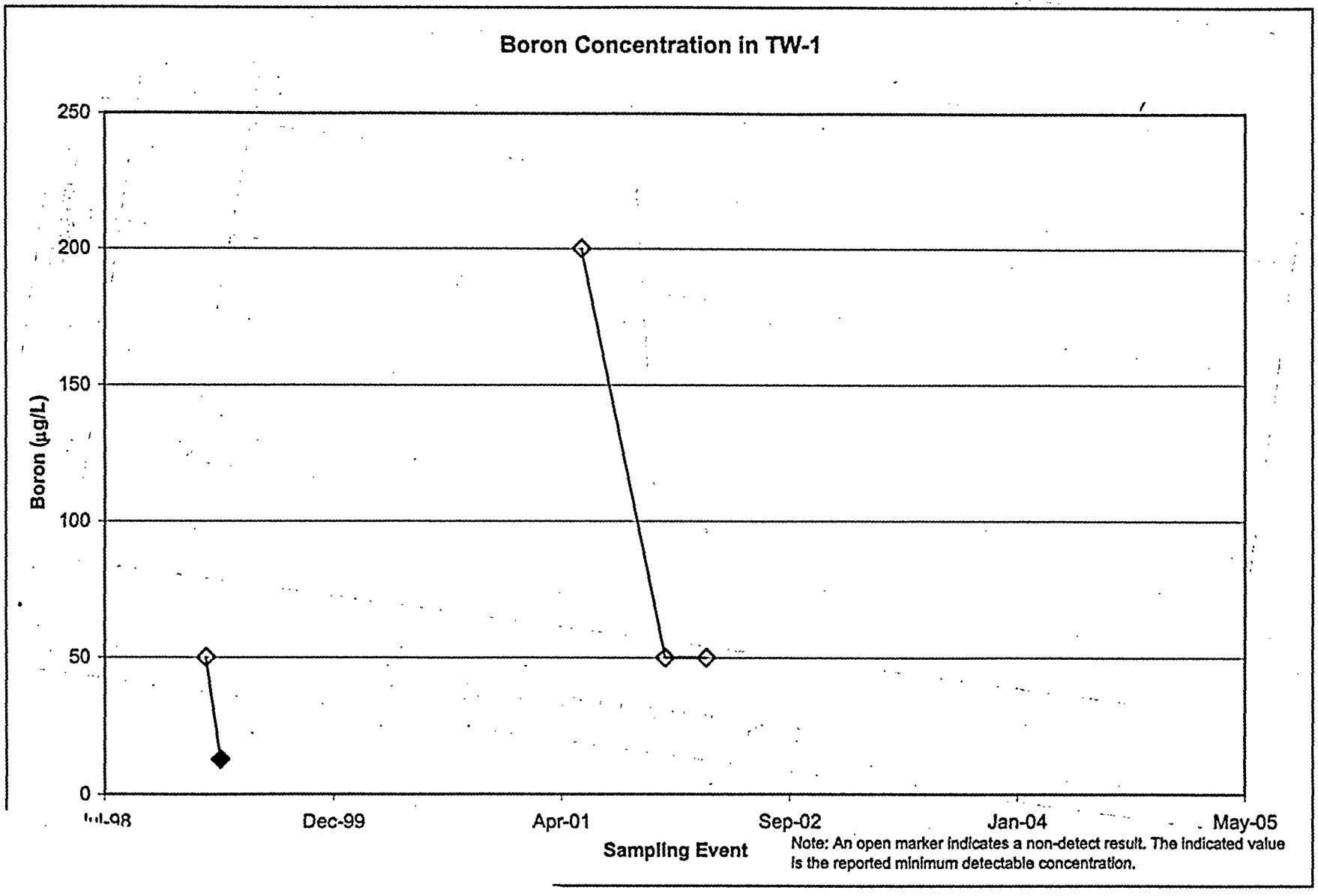

Boron Concentration in MW-124S
400
350
300
250
200
150
100
50
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

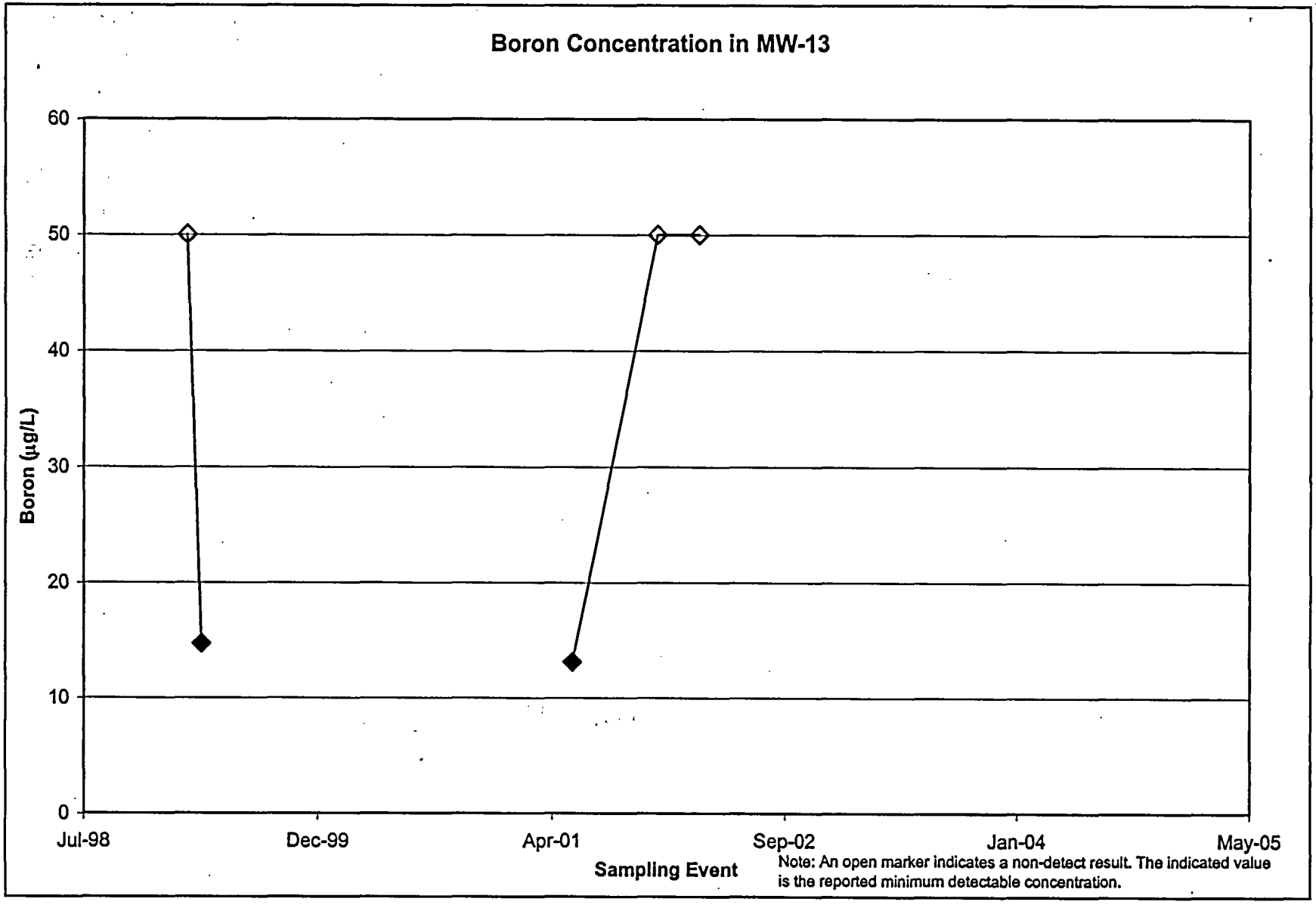

Boron Concentration in MW-125S
600
500
400
300
200
100
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event


Boron Concentration in AST-1
60
50
40
30
20
10
0
Boron (µg/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Boron Concentration in MAT SUMP
Boron (µg/L)
200
180
160
140
120
100
80
60
40
20
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

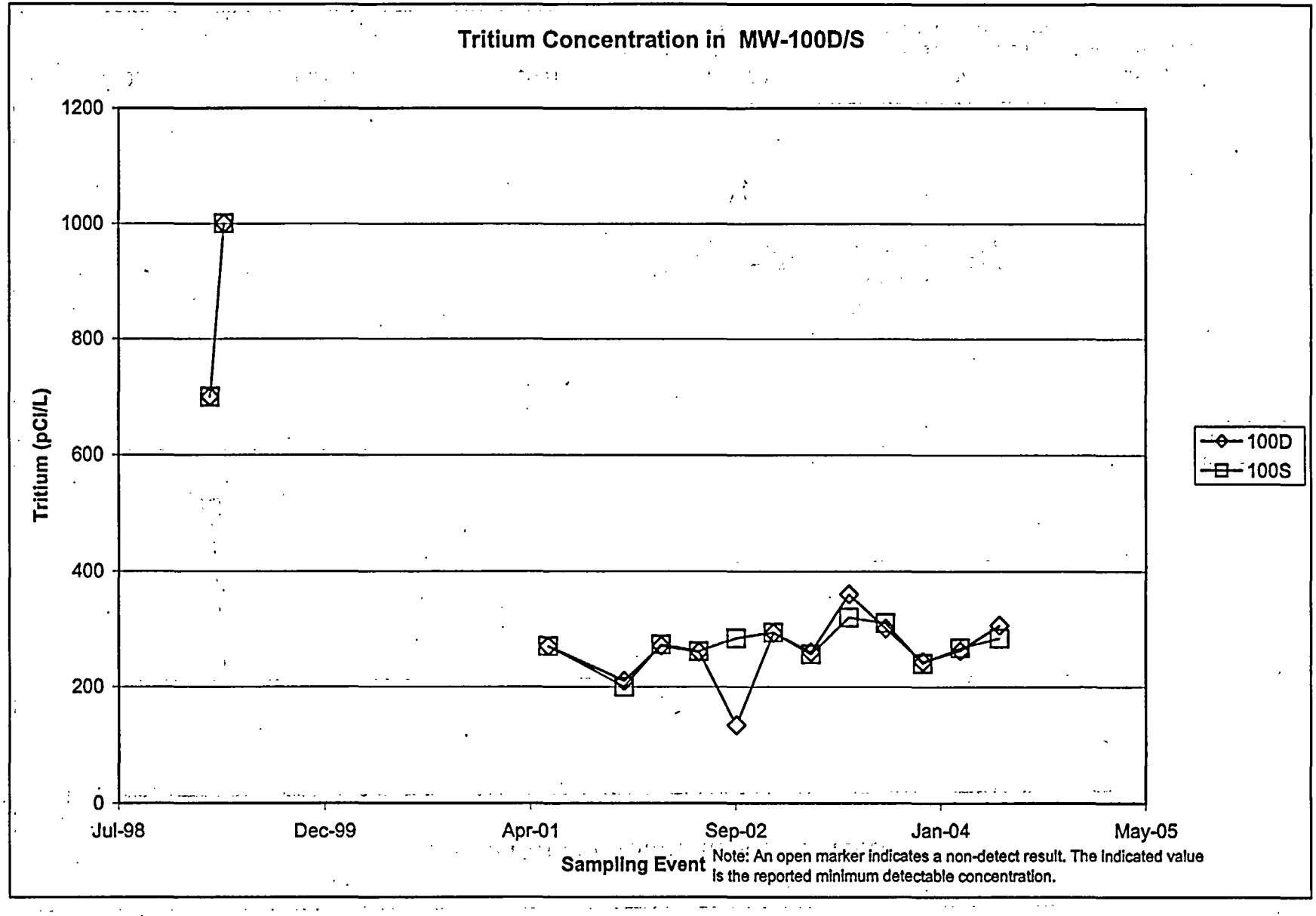

Boron Concentration in EOF 2
Boron (µg/L)
80
70
60
50
40
30
20
10
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

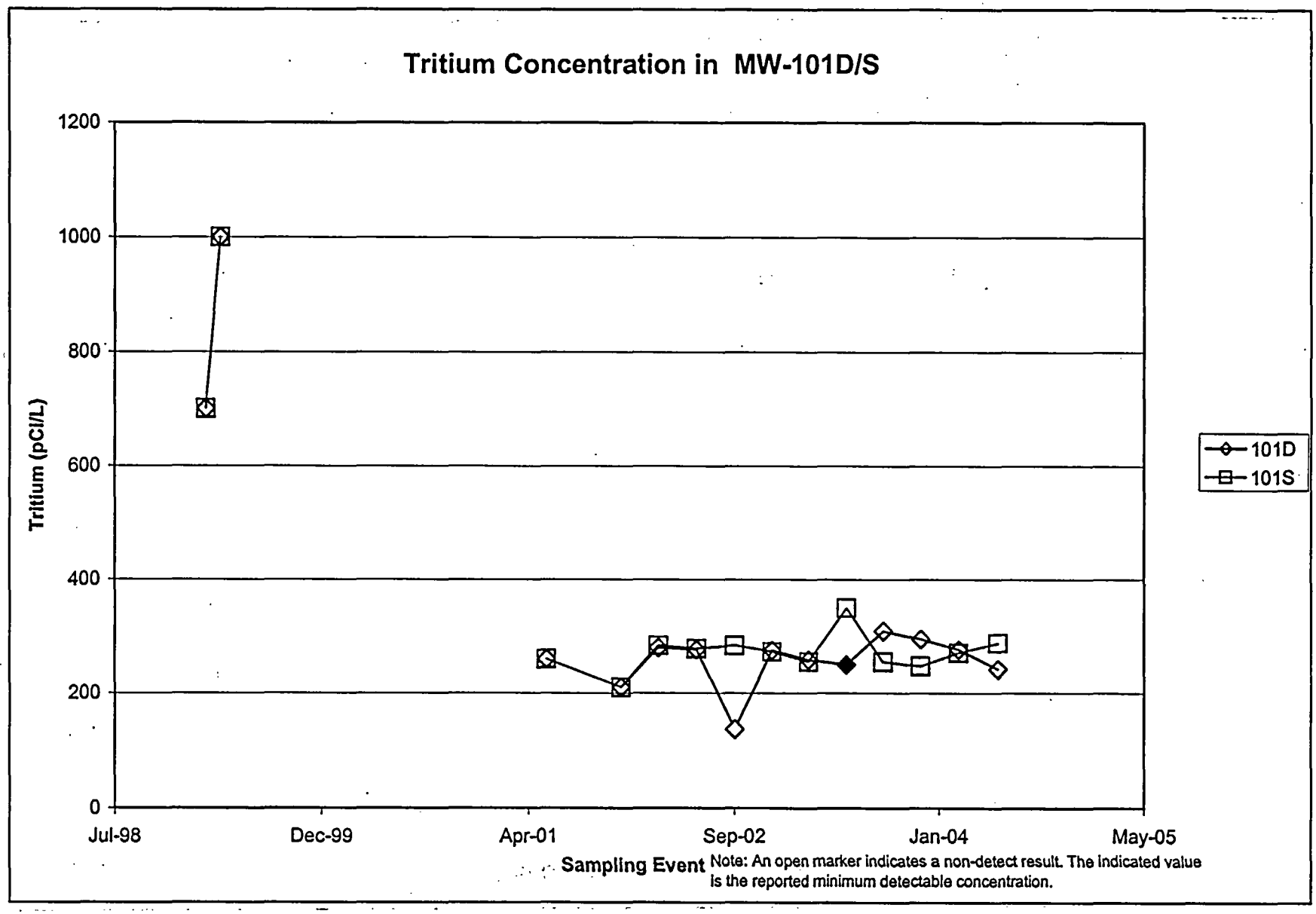

Boron Concentration in TW-1
Boron (µg/L)
250
200
150
100
50
0
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

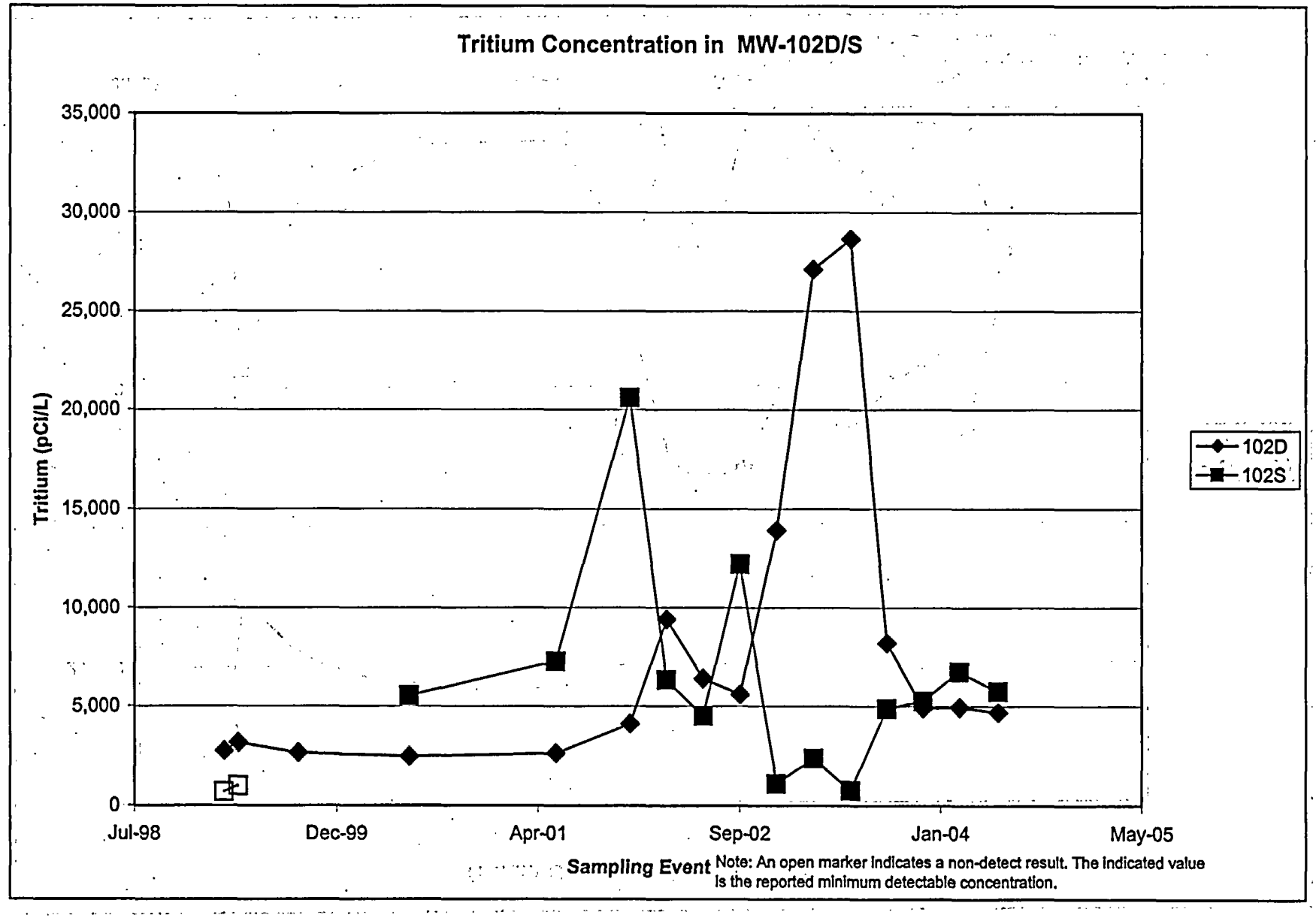

Boron Concentration in MW-13
Boron (µg/L)
60
50
40
30
20
10
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

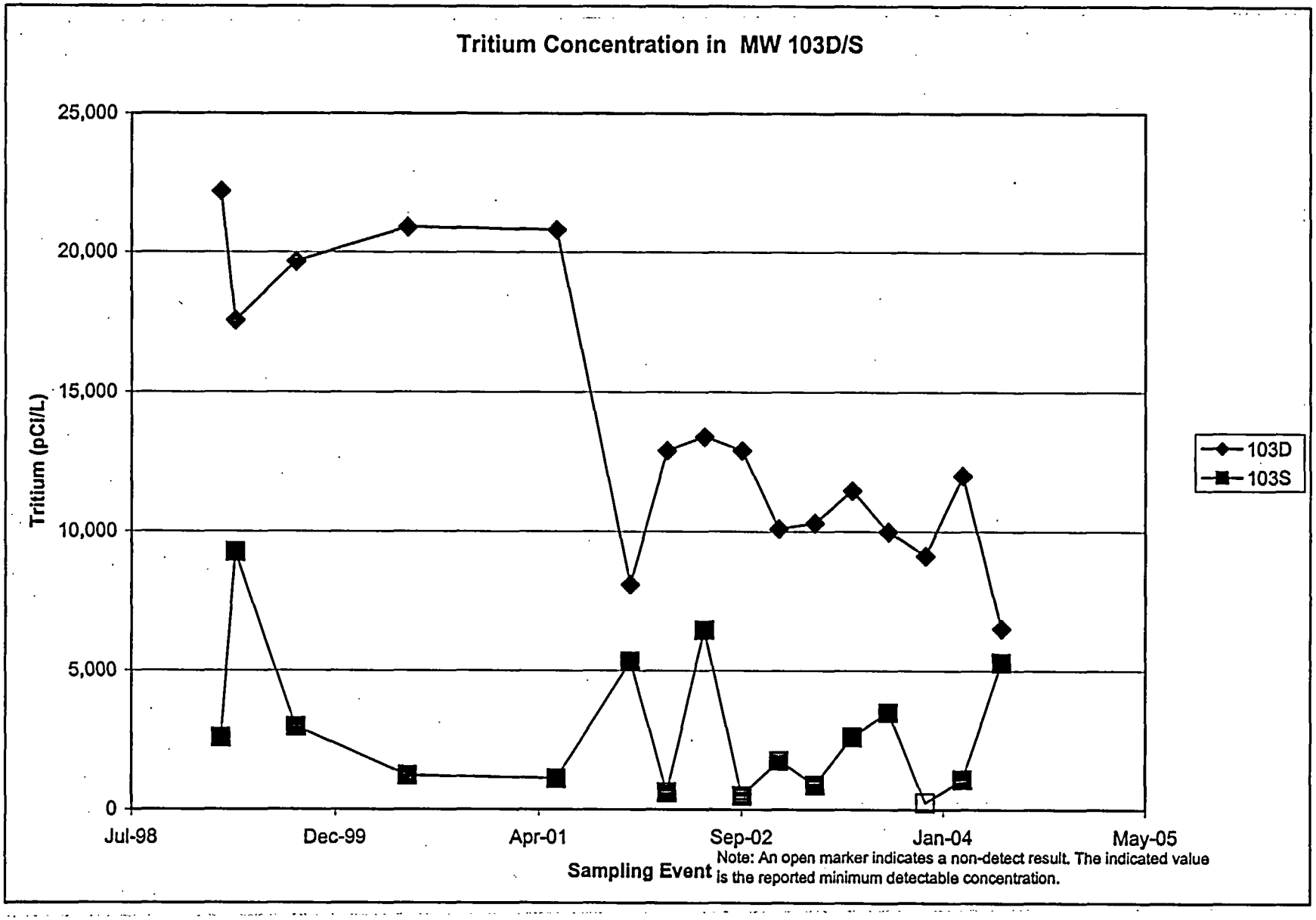
Appendix G

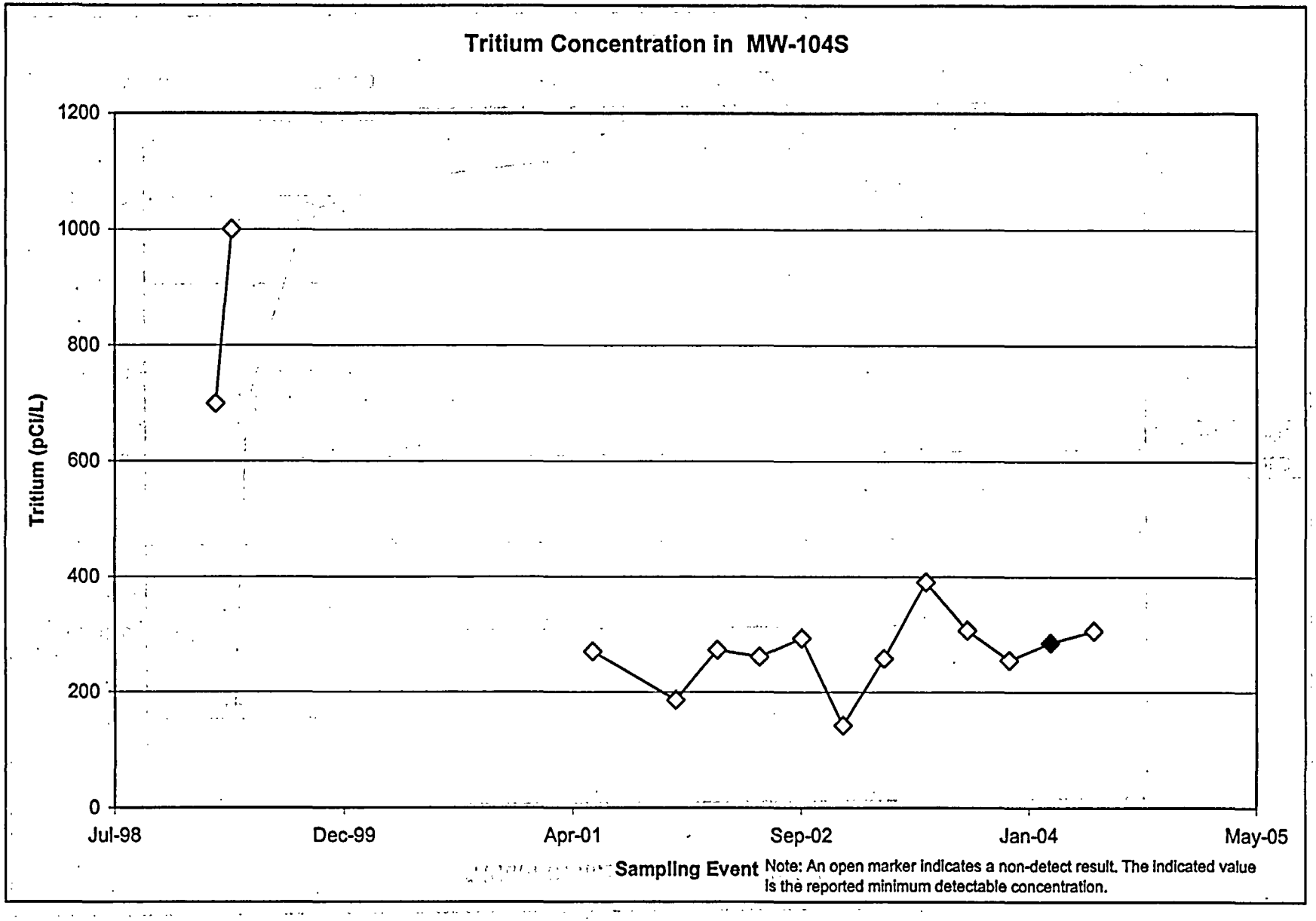
Tritium Time Series Plots

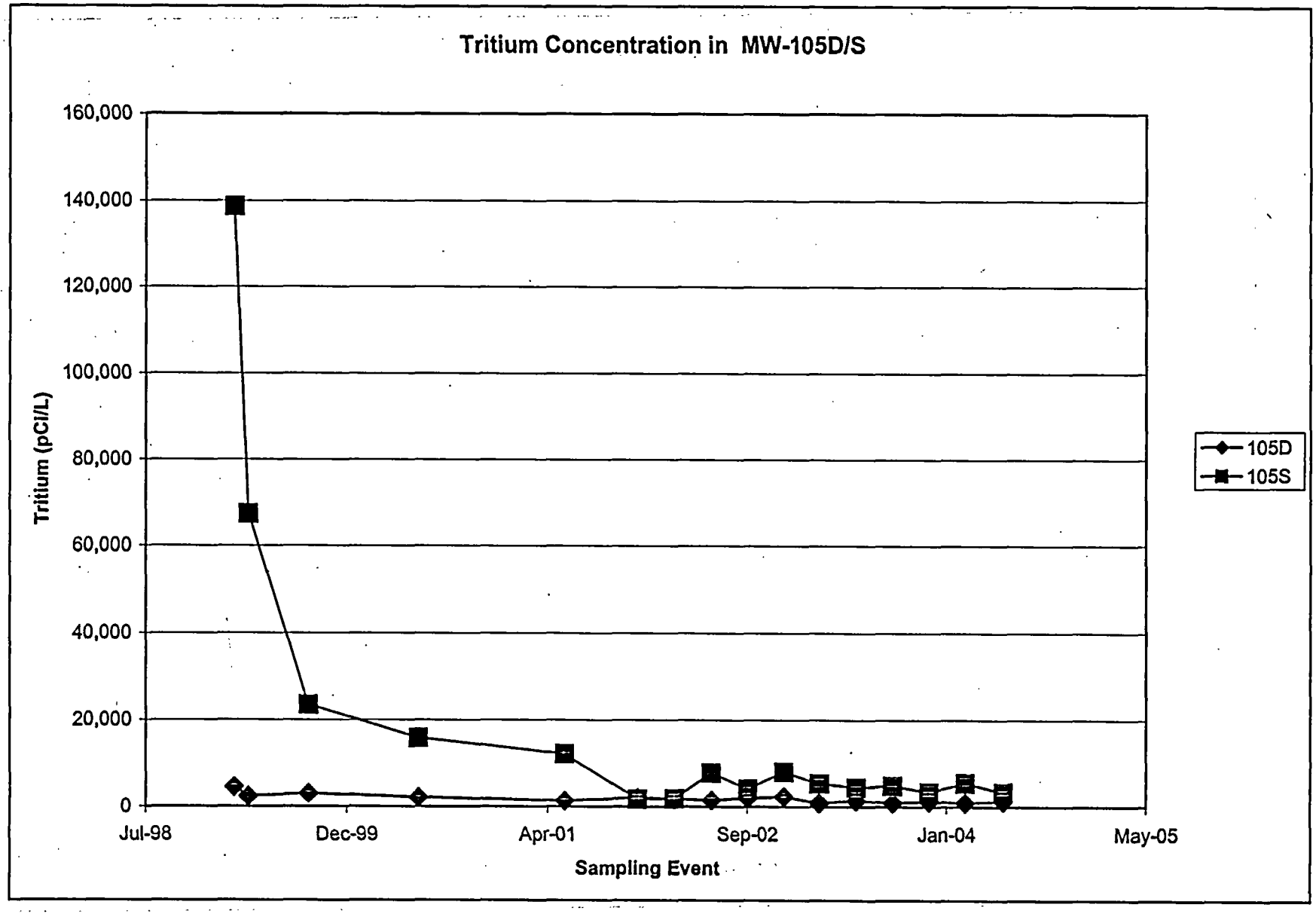

Tritium Concentration in MW-100D/S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
100D
100S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

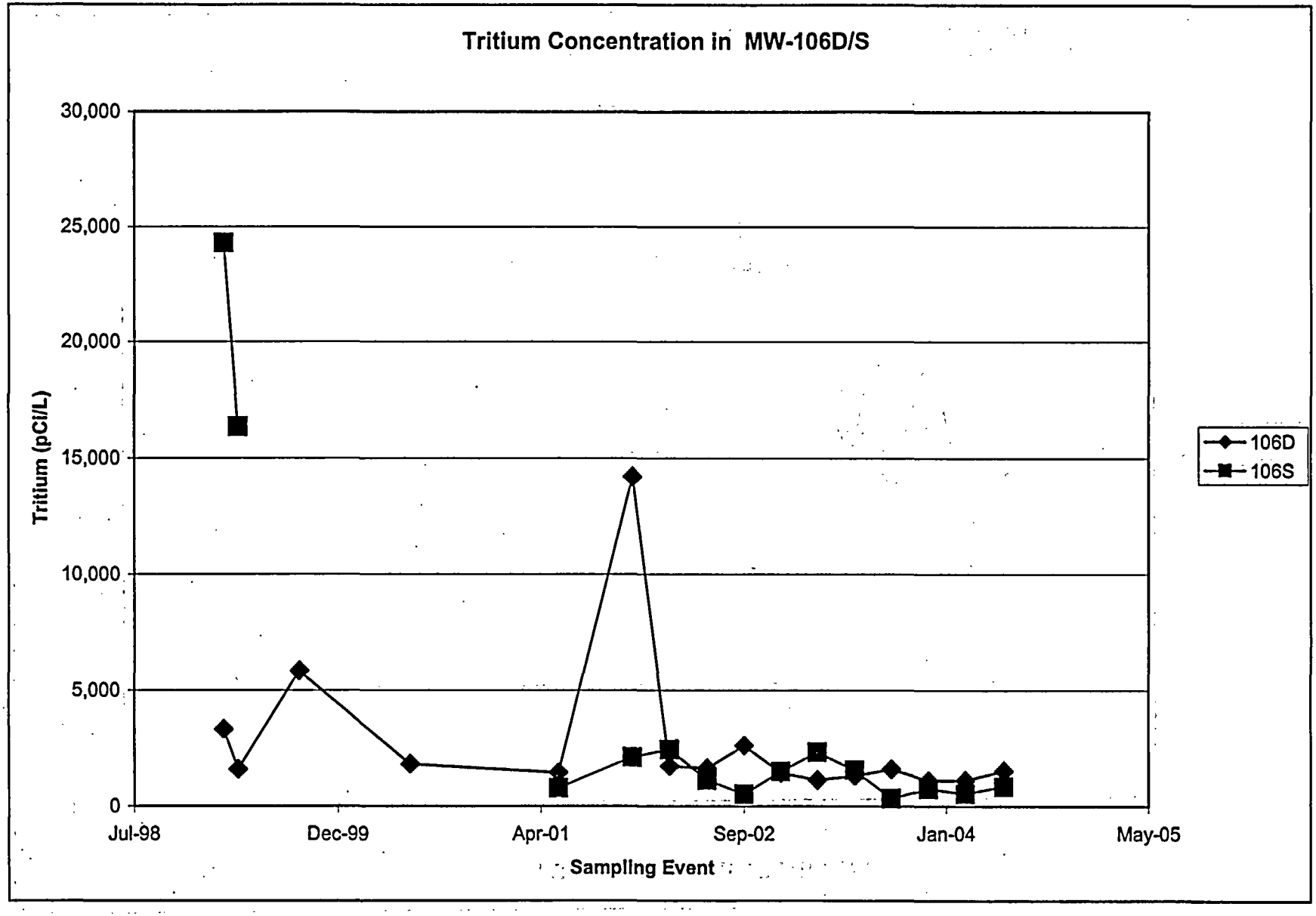

Tritium Concentration in MW-101D/S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
101D
101S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

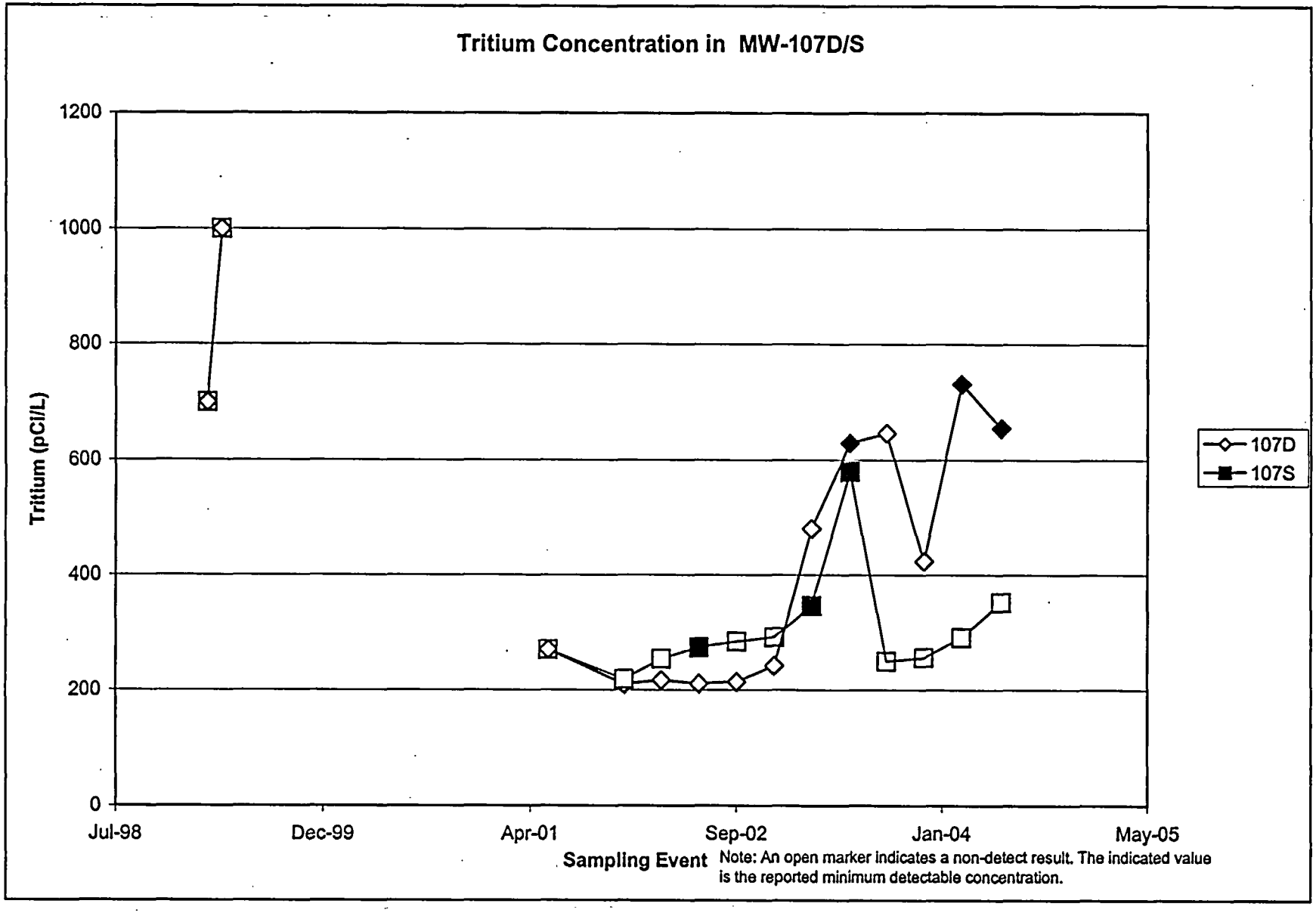

Tritium Concentration in MW-102D/S
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
102D
102S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

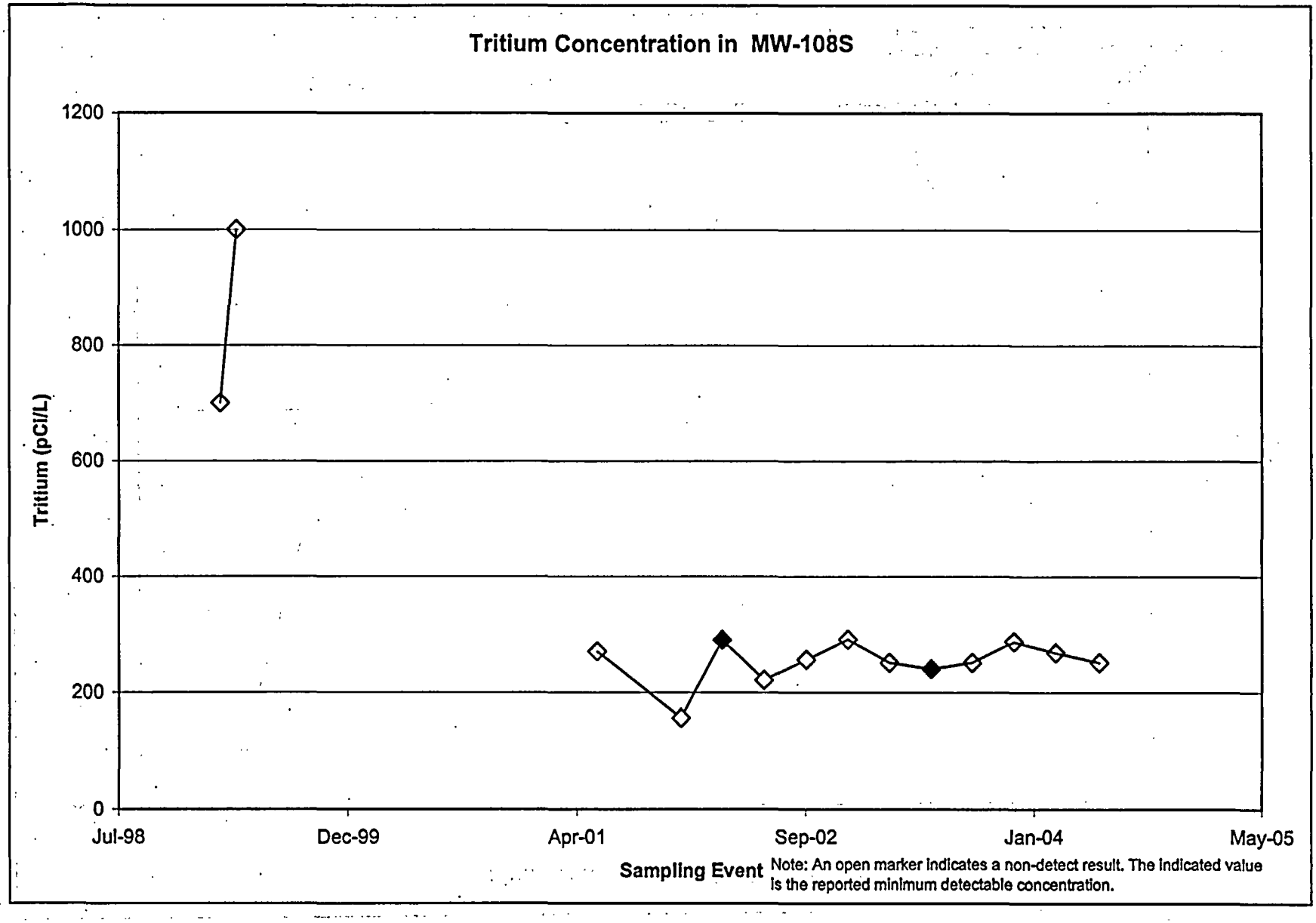

Tritium Concentration in MW 103D/S
25,000
20,000
15,000
10,000
5,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
103D
103S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

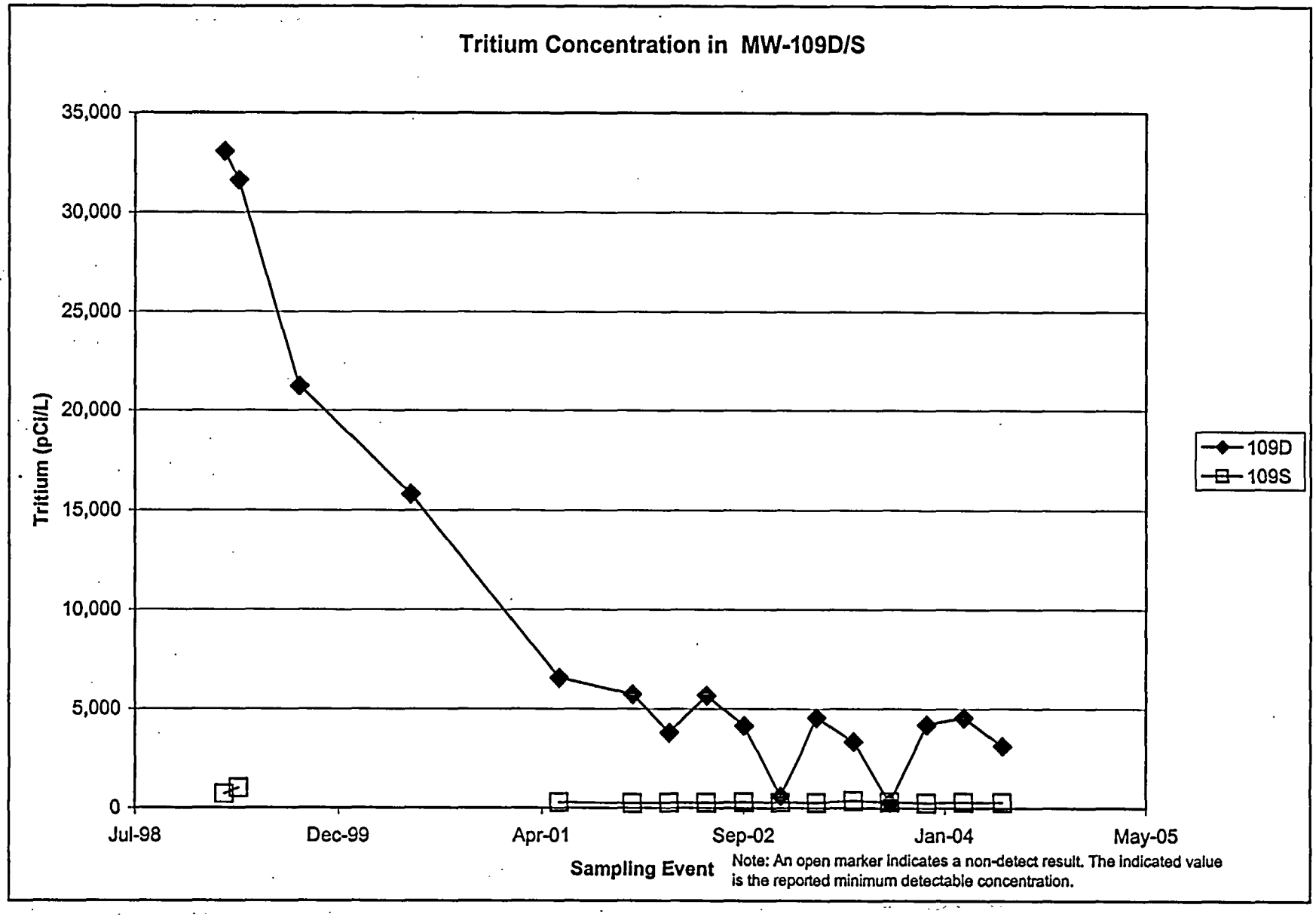

Tritium Concentration in MW-104S
Tritium (pCi/L)
1200
1000
800
600
400
200
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

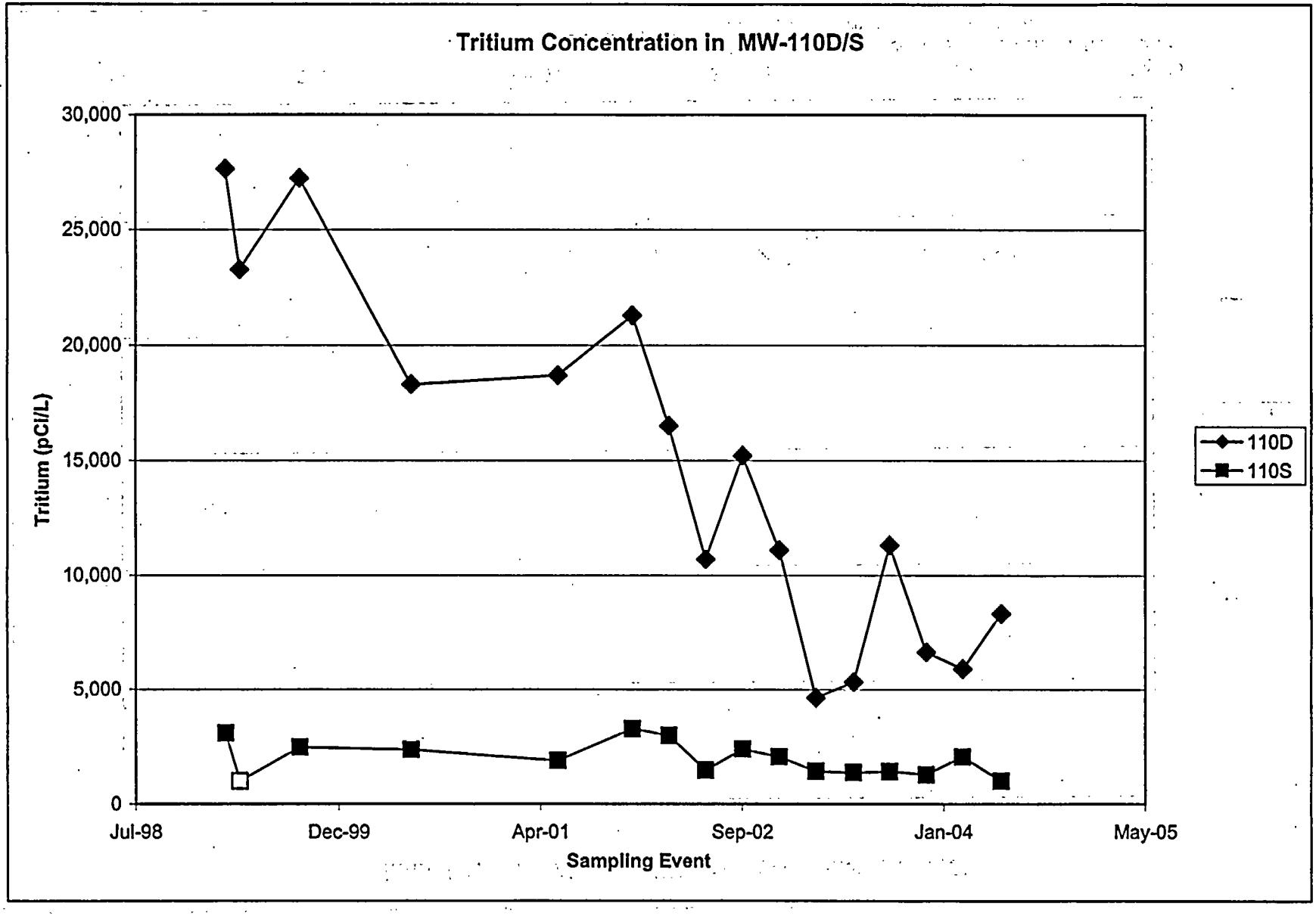

Tritium Concentration in MW-105D/S
160,000
140,000
120,000
100,000
80,000
60,000
40,000
20,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
105D
105S

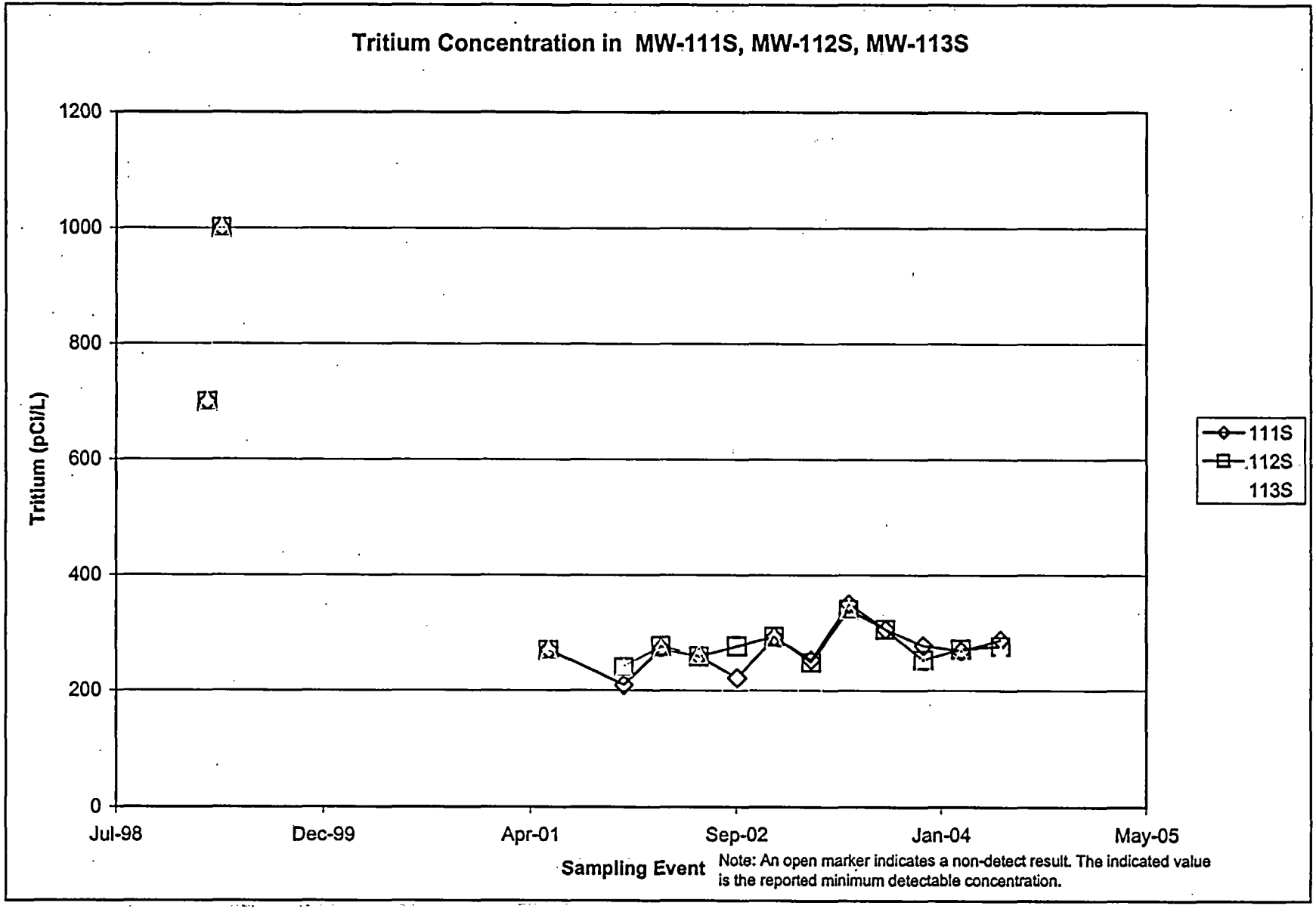

Tritium Concentration in MW-106D/S
30,000
25,000
20,000
15,000
10,000
5,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
106D
106S

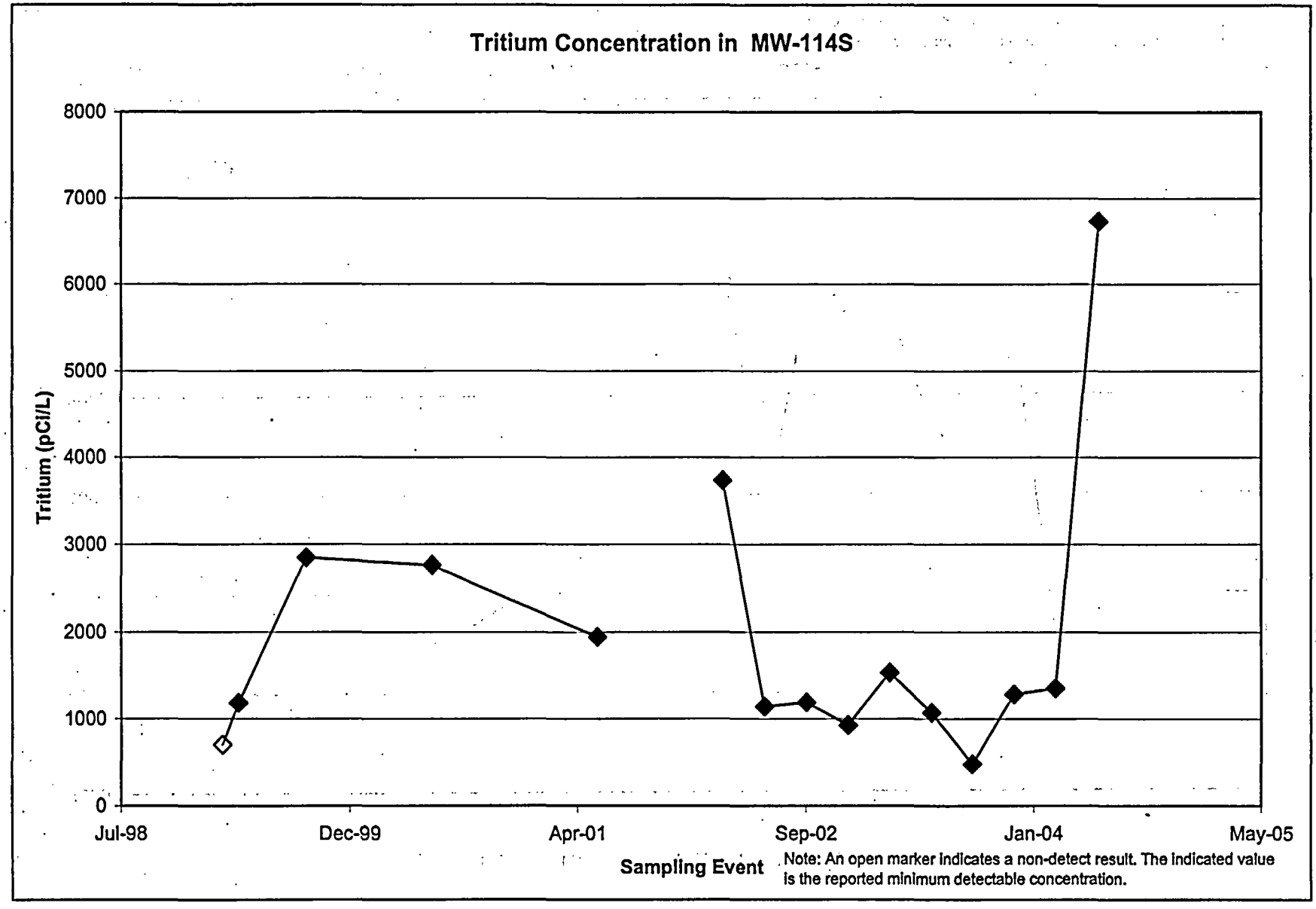

Tritium Concentration in MW-107D/S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
107D
107S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

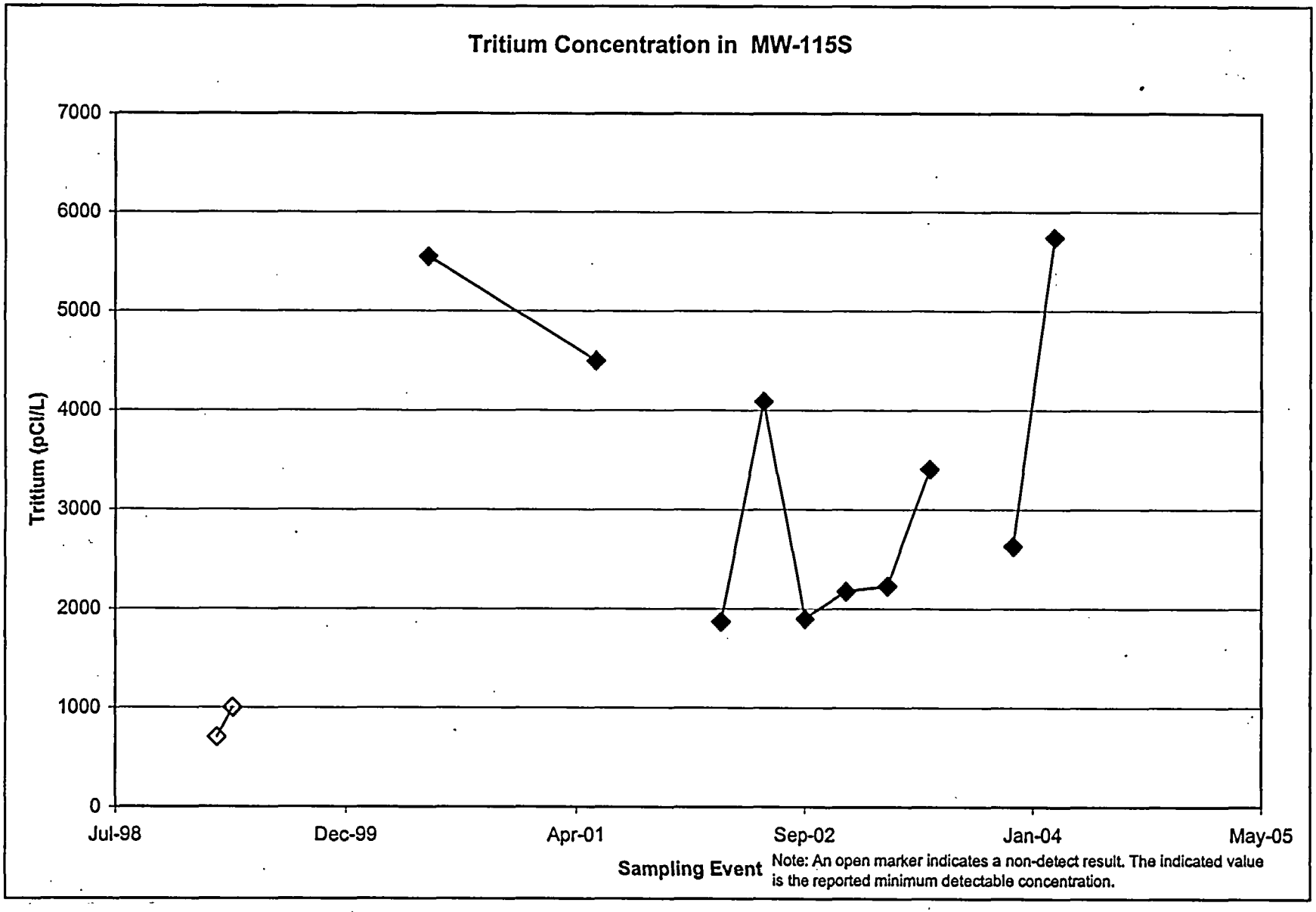

Tritium Concentration in MW-108S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

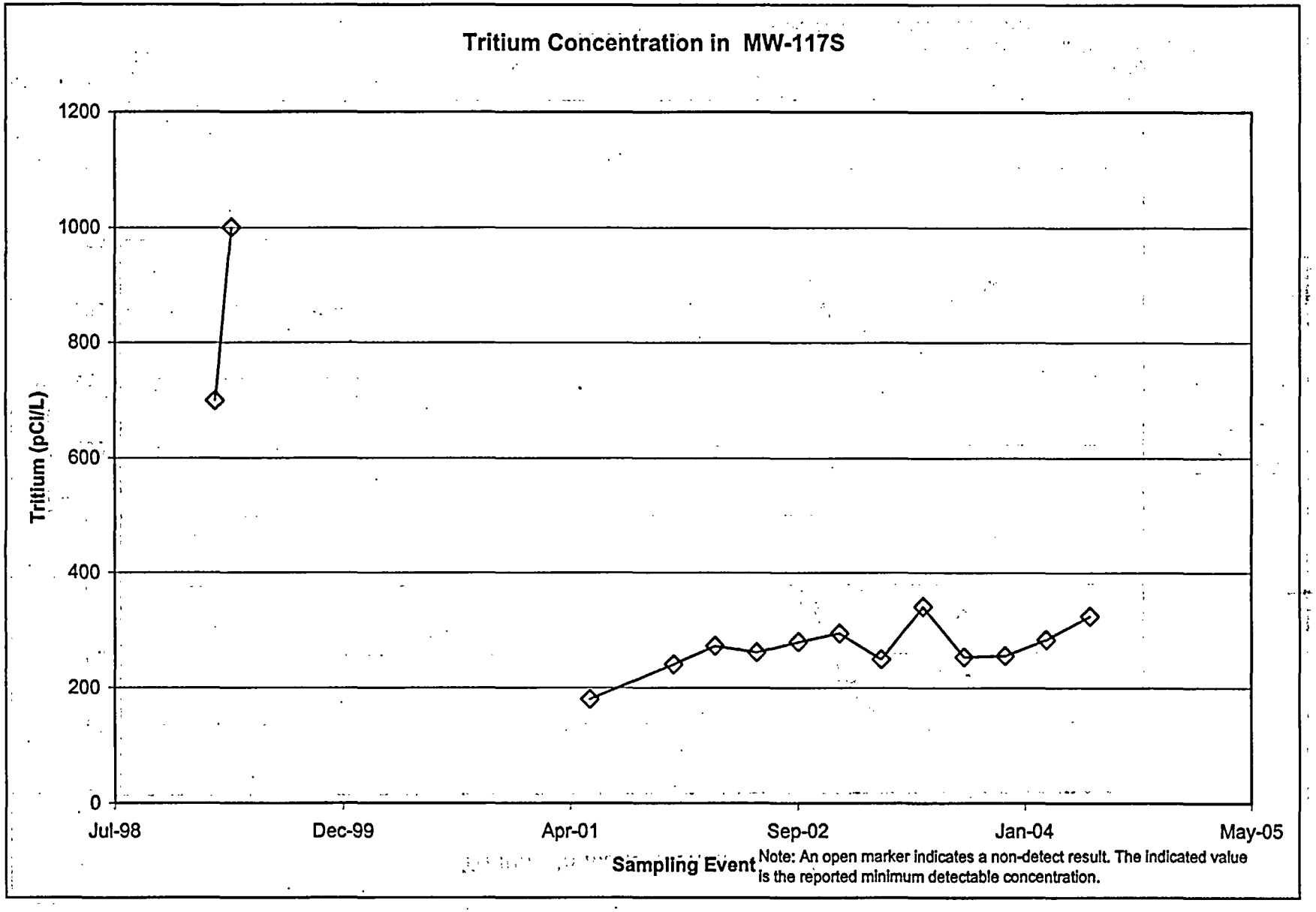

Tritium Concentration in MW-109D/S
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
109D
109S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

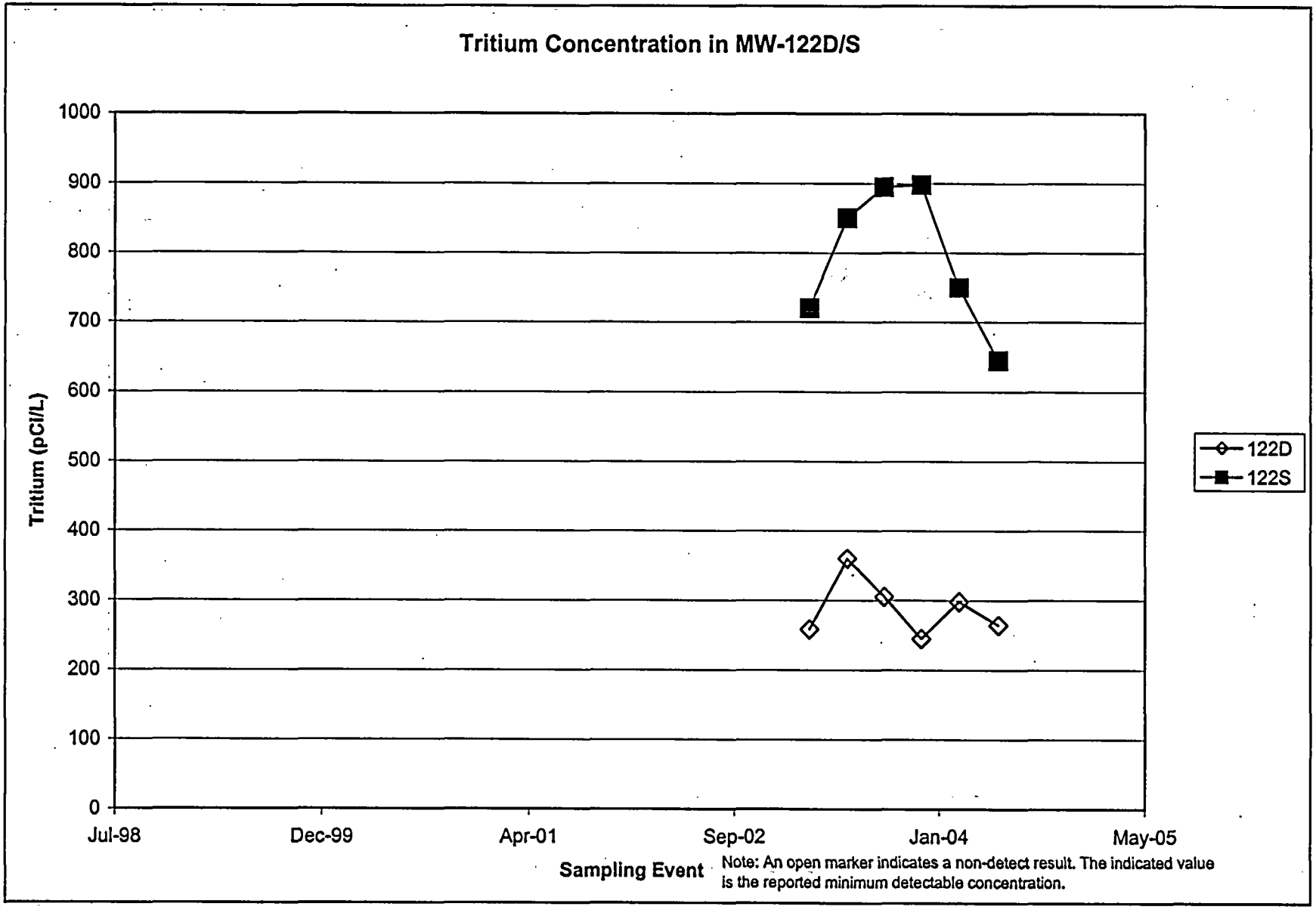

Tritium Concentration in MW-110D/S
30,000
25,000
20,000
15,000
10,000
5,000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
110D
110S

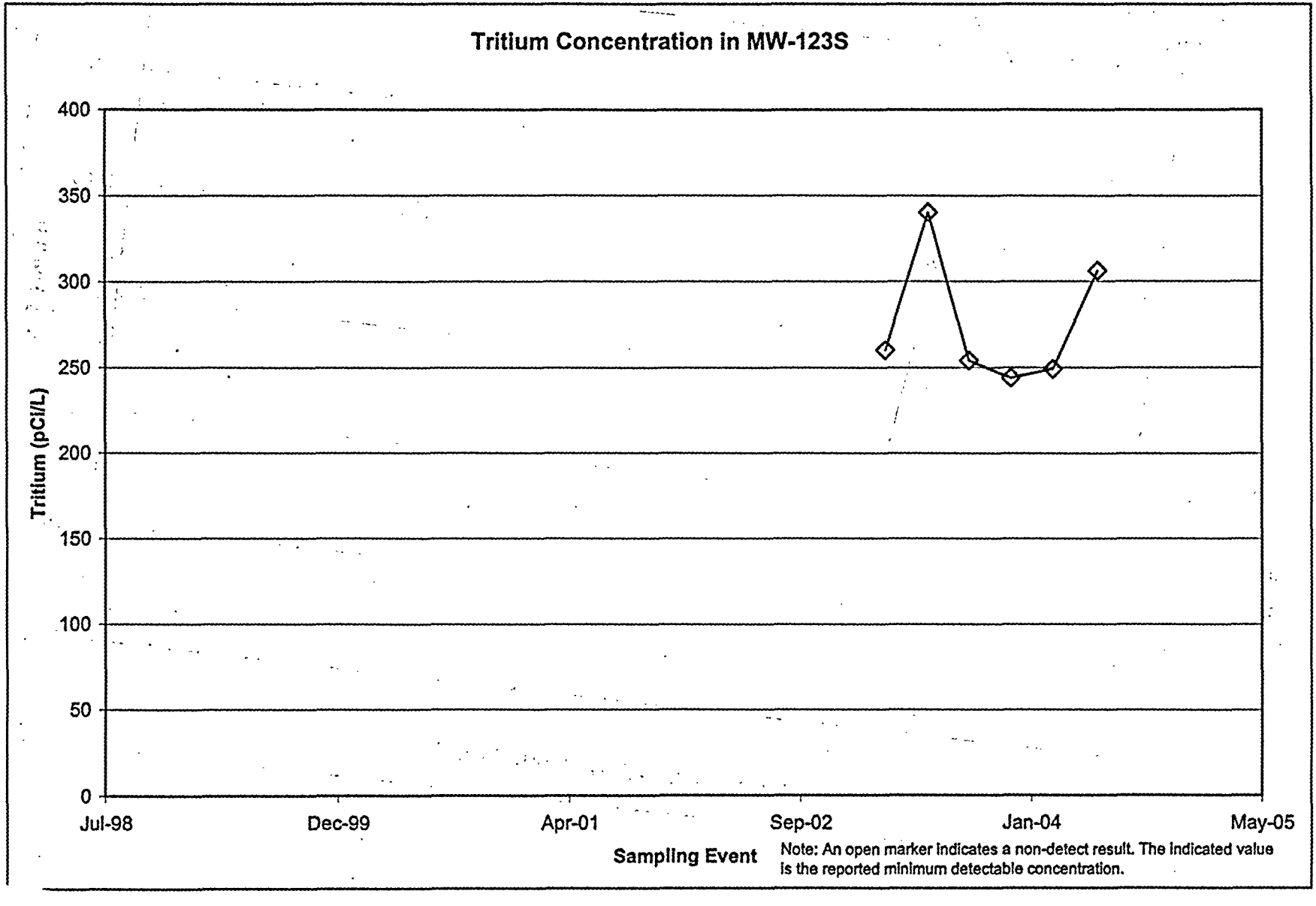

Tritium Concentration in MW-111S, MW-112S, MW-113S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
111S
112S
113S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

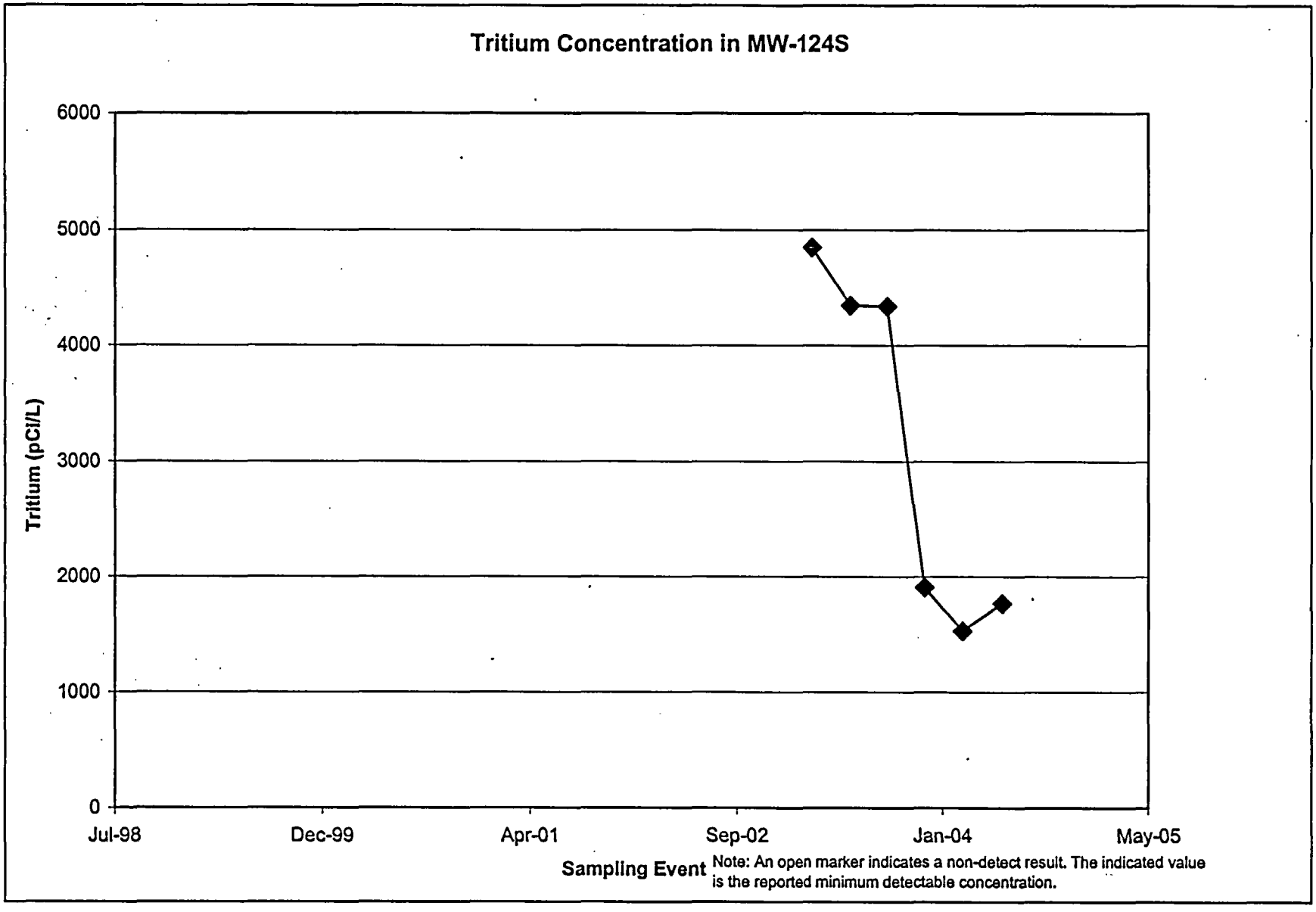

Tritium Concentration in MW-114S
Tritium (pCi/L)
8000
7000
6000
5000
4000
3000
2000
1000
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

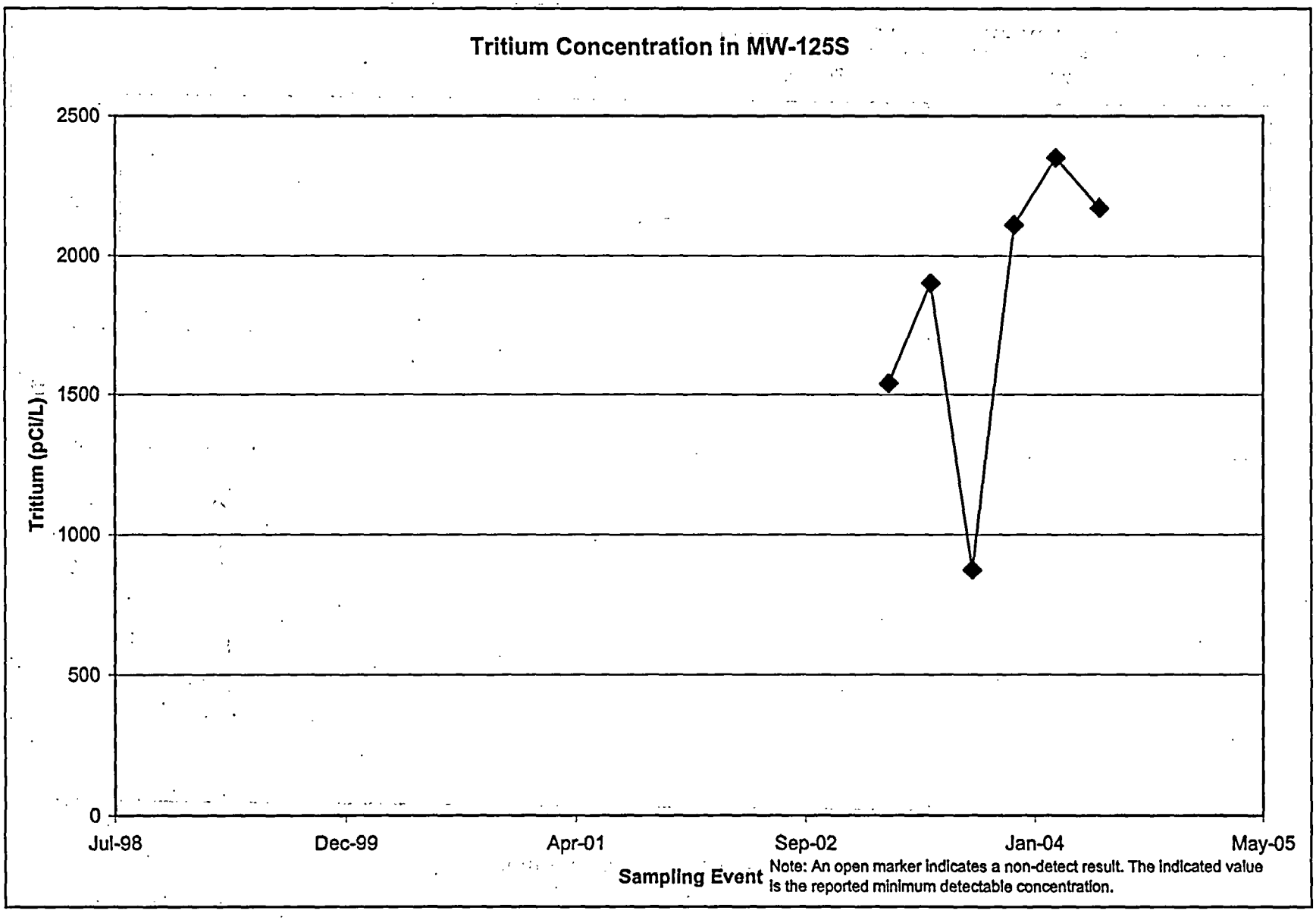

Tritium Concentration in MW-115S
Tritium (pCi/L)
7000
6000
5000
4000
3000
2000
1000
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

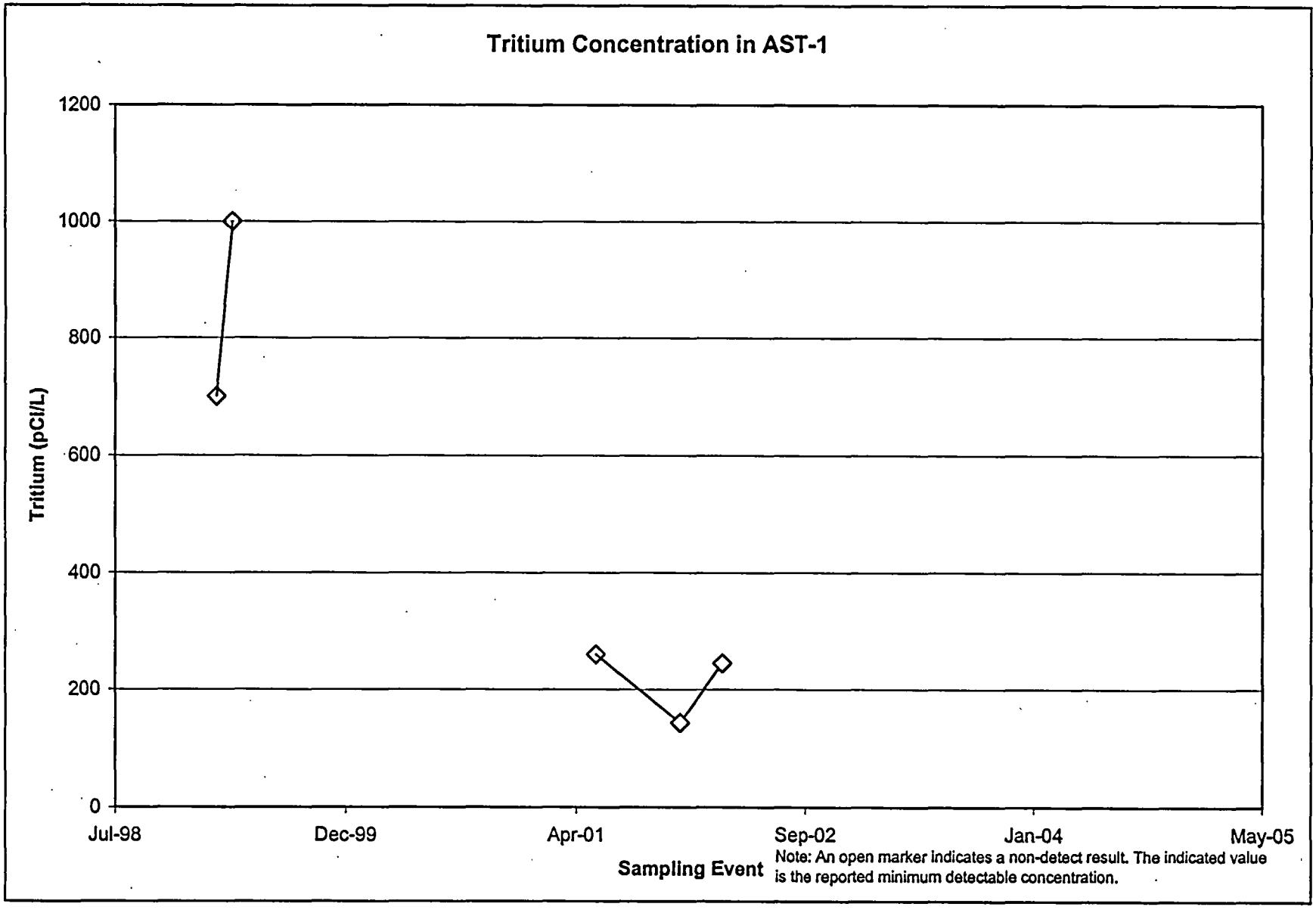

Tritium Concentration in MW-117S
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

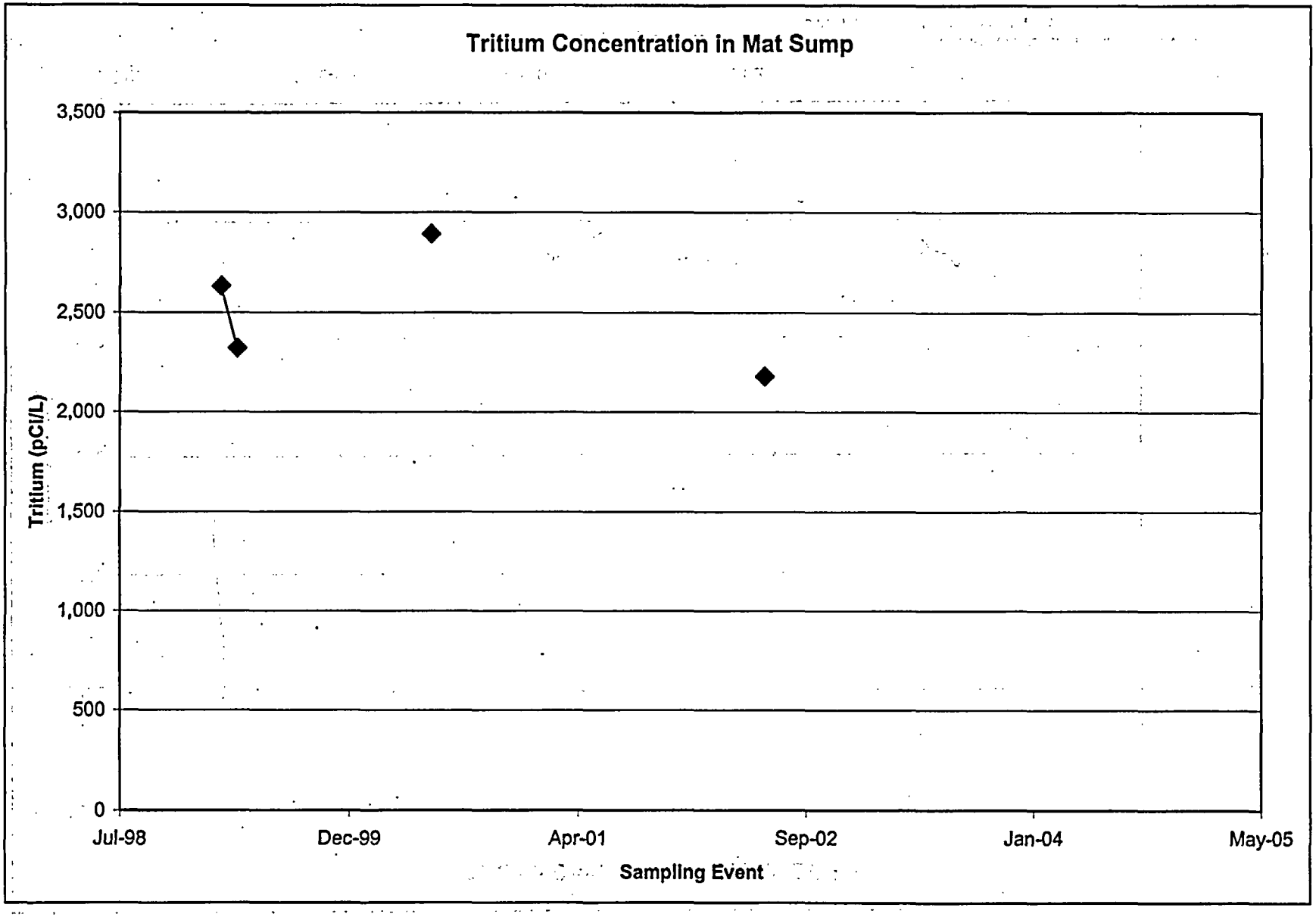

Tritium Concentration in MW-122D/S
Tritium (pCi/L)
1000
900
800
700
600
500
400
300
200
100
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
122D
122S
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

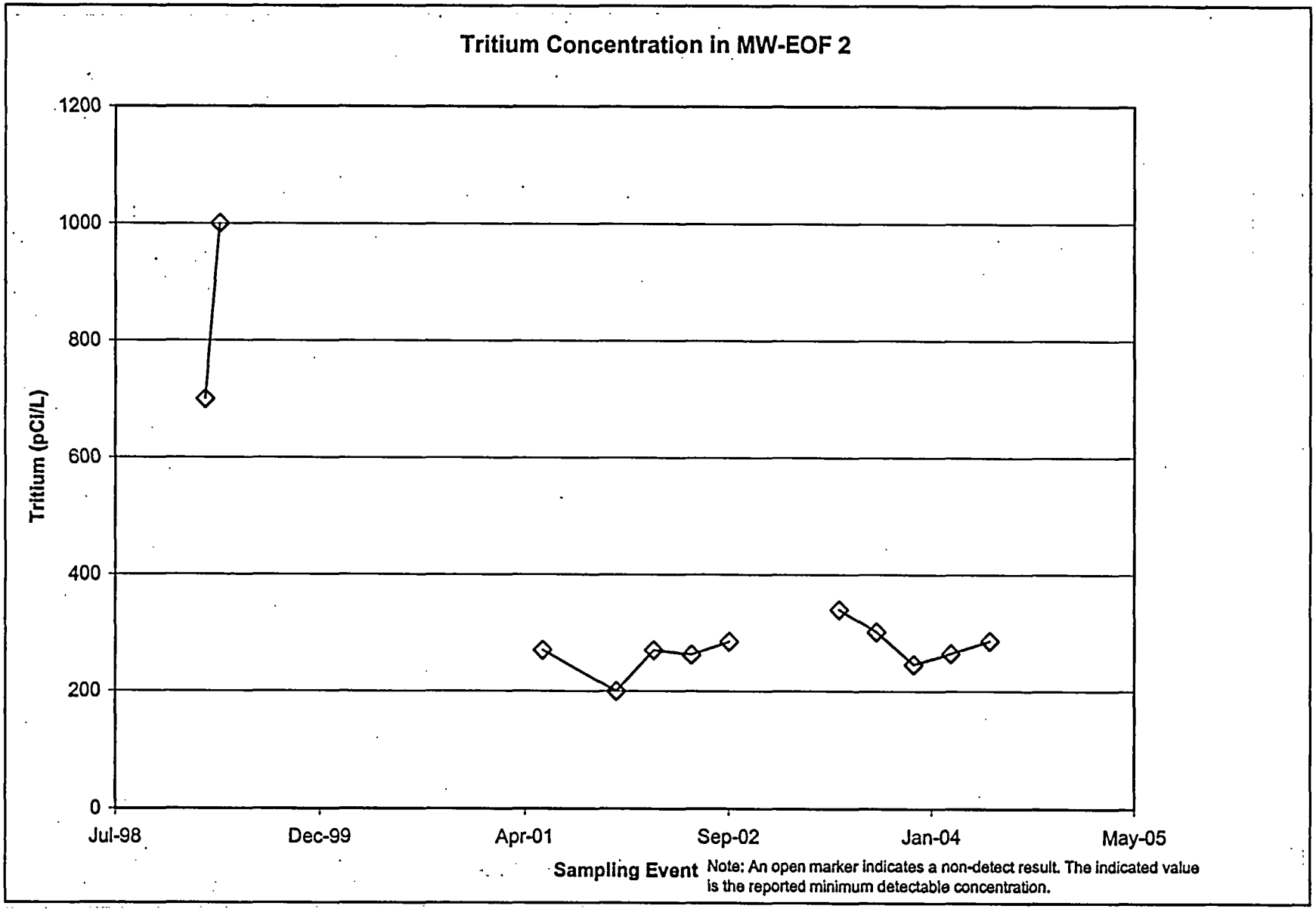

Tritium Concentration in MW-123S
Tritium (pCi/L)
400
350
300
250
200
150
100
50
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

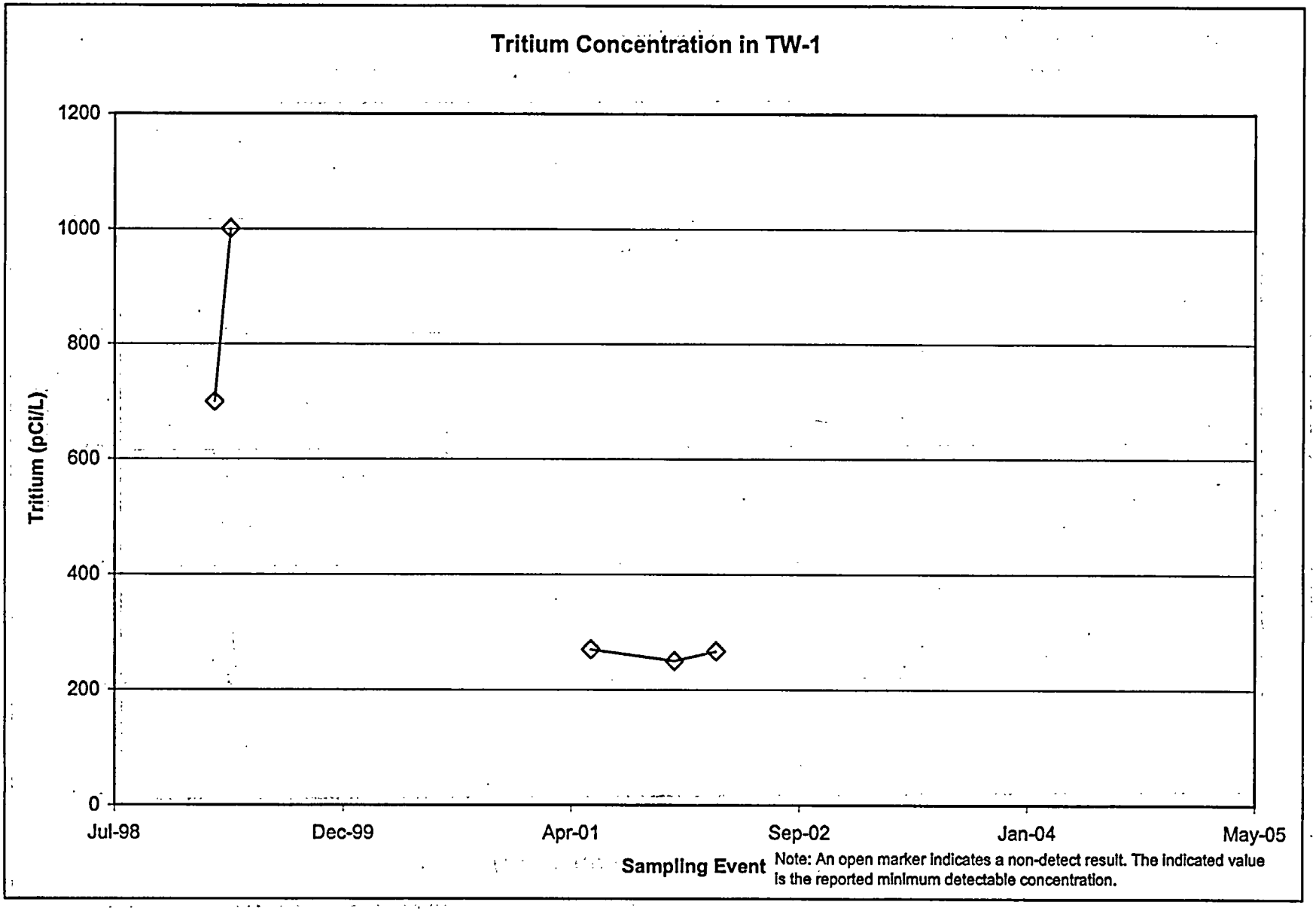

Tritium Concentration in MW-124S
6000
5000
4000
3000
2000
1000
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

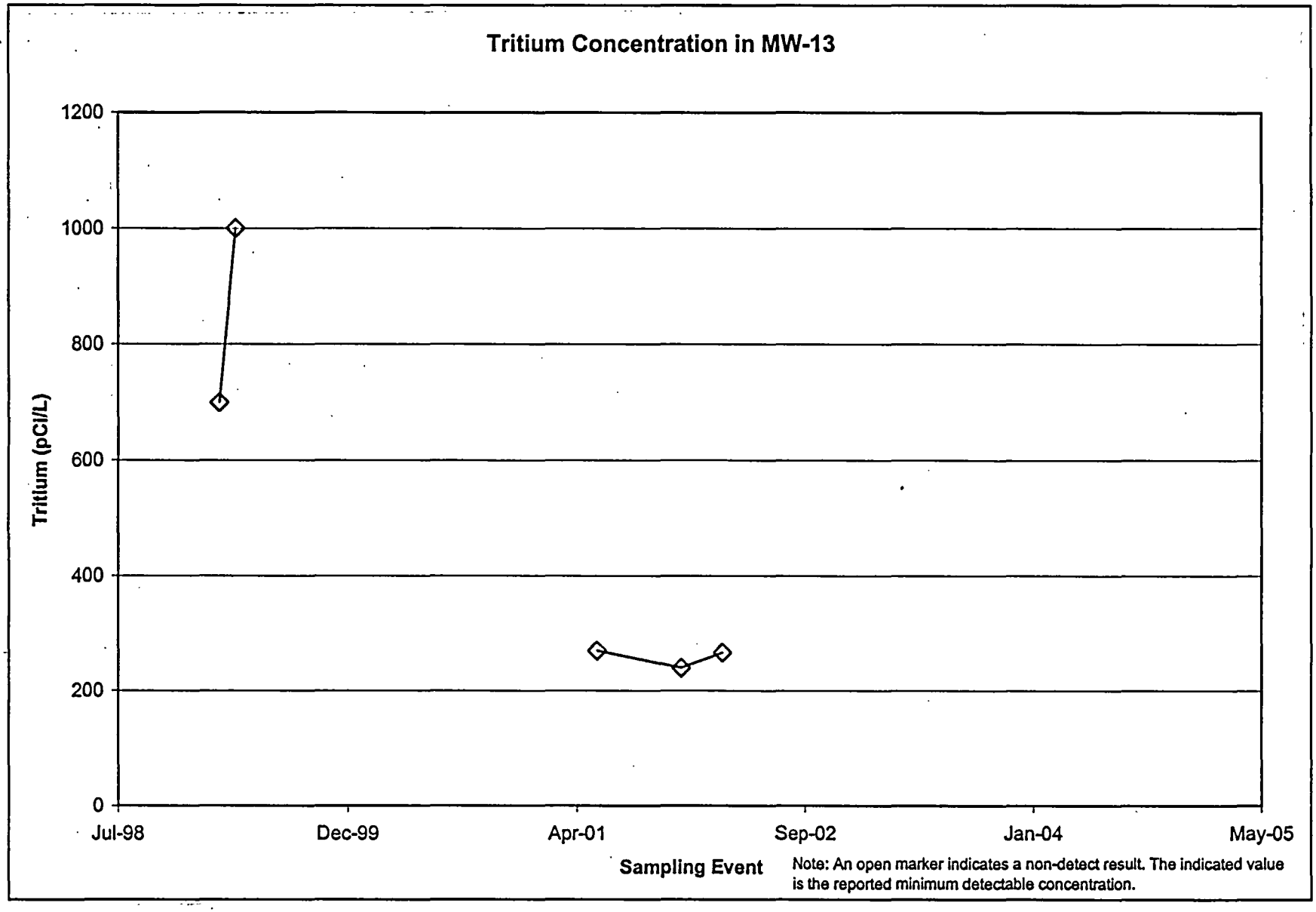

Tritium Concentration in MW-125S
Tritium (pCi/L)
2500
2000
1500
1000
500
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Tritium Concentration in AST-1
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Tritium Concentration in Mat Sump
3,500
3,000
2,500
2,000
1,500
1,000
500
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event

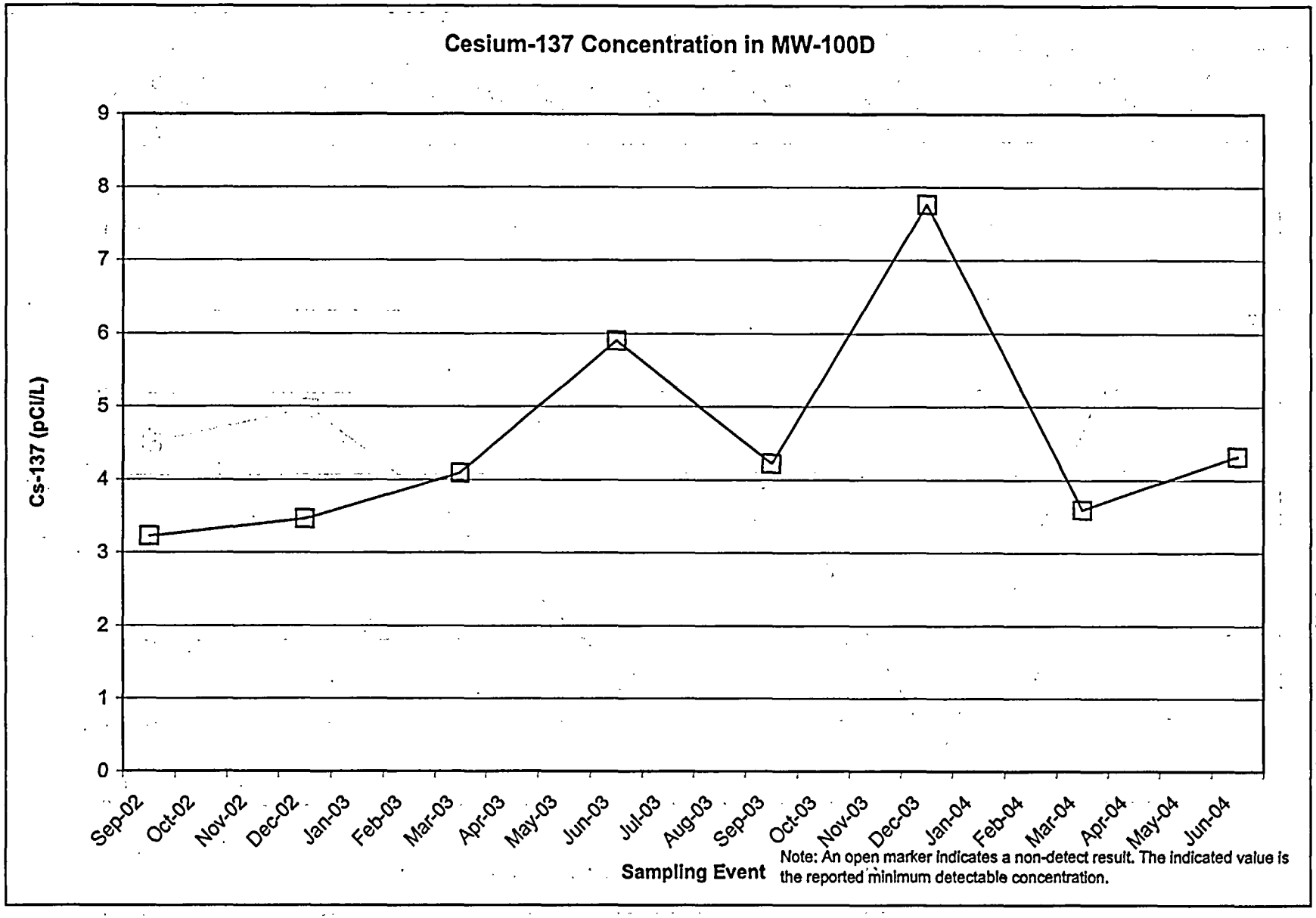

Tritium Concentration in MW-EOF 2
Tritium (pCi/L)
1200
1000
800
600
400
200
0
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

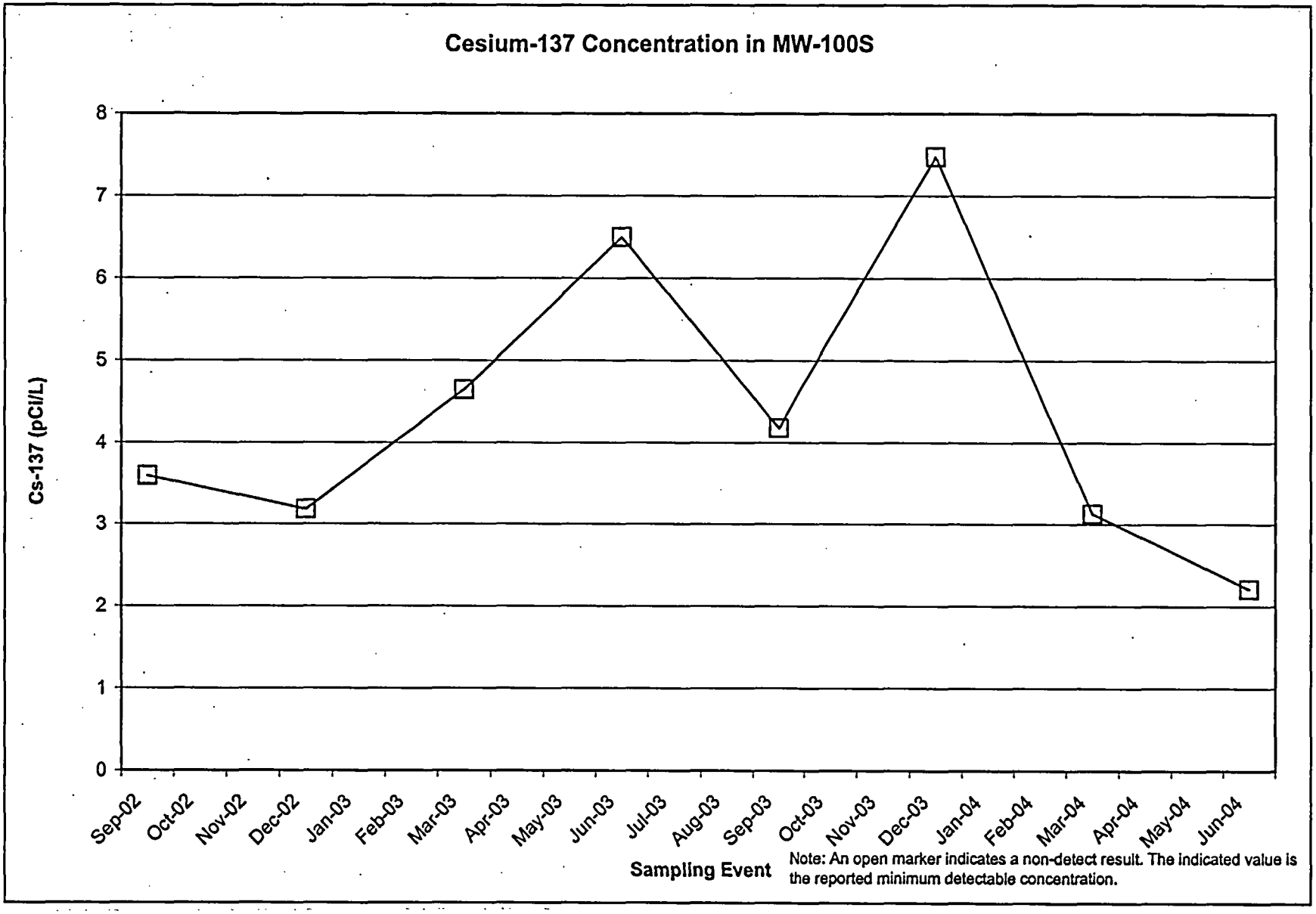

Tritium Concentration in TW-1
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

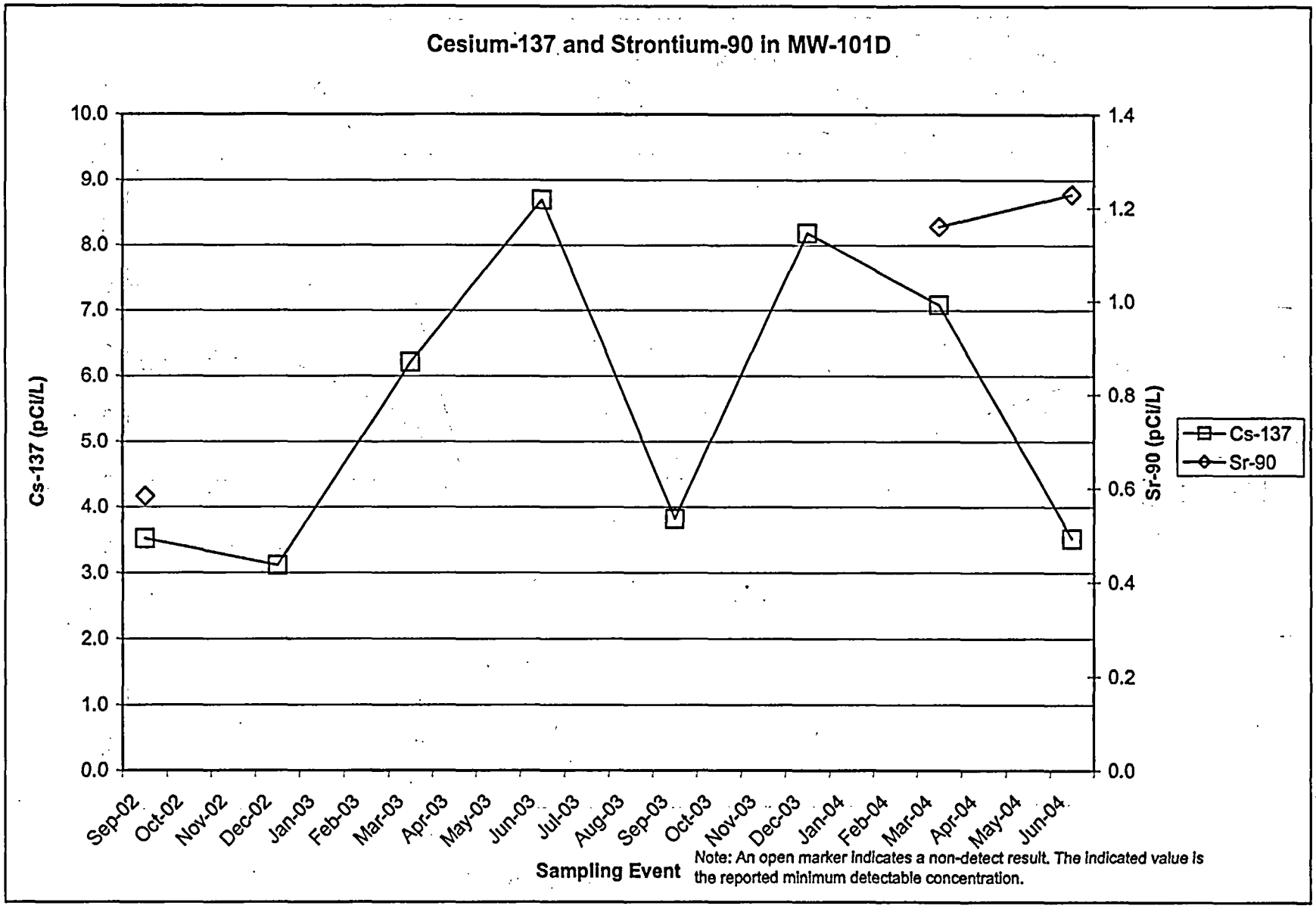

Tritium Concentration in MW-13
1200
1000
800
600
400
200
0
Tritium (pCi/L)
Jul-98
Dec-99
Apr-01
Sep-02
Jan-04
May-05
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

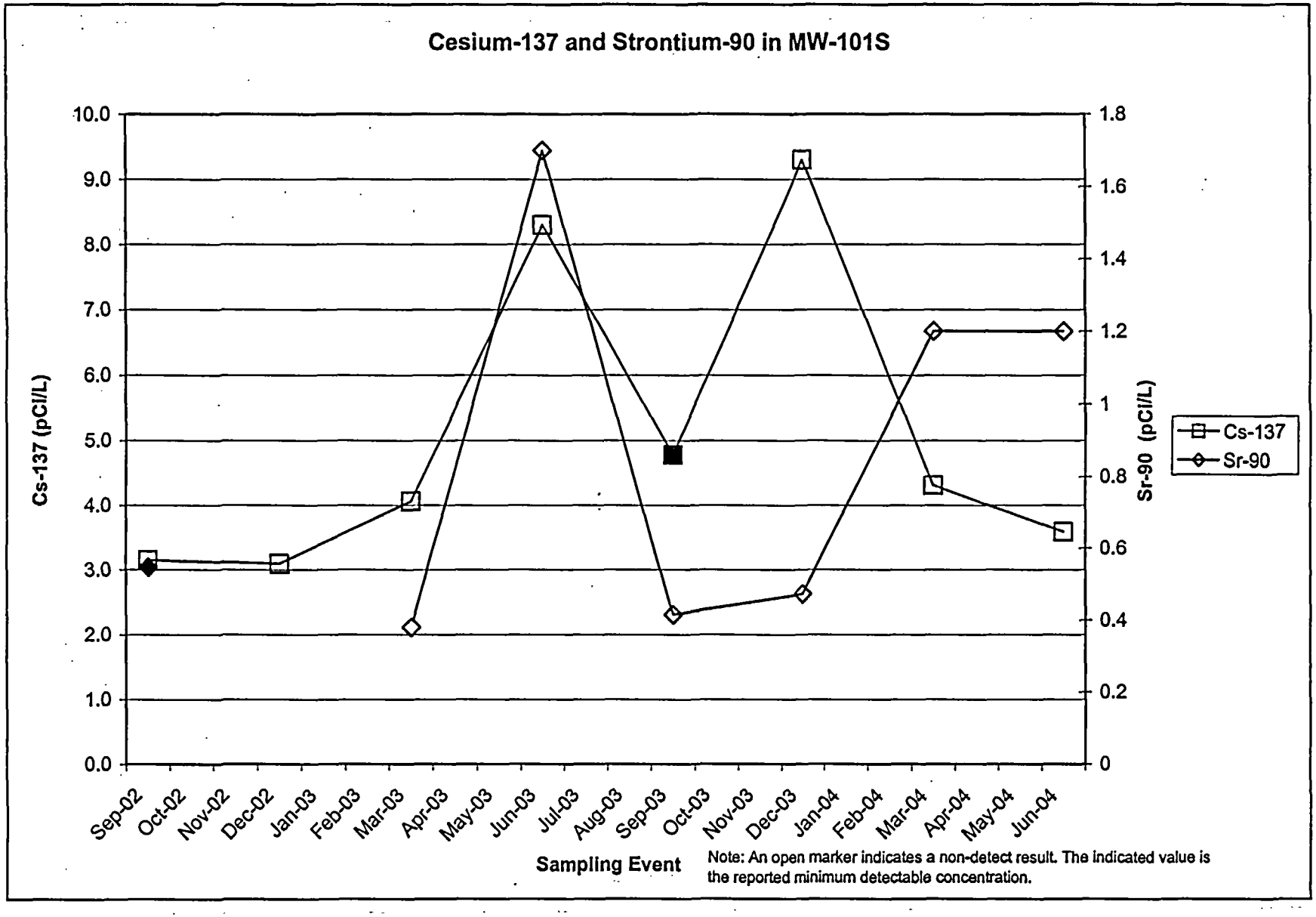
Appendix H

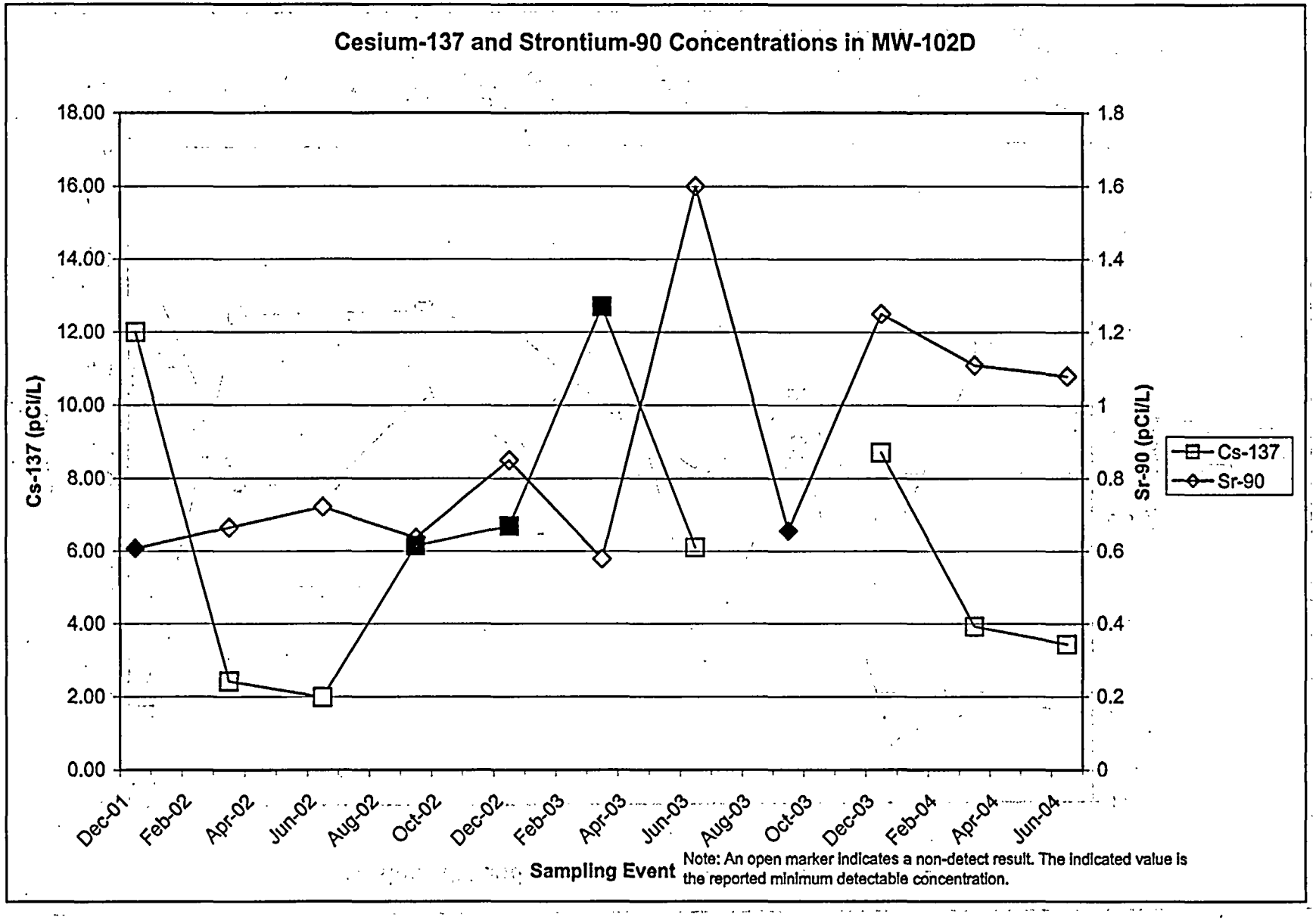
Cesium-137 and Strontium-90 Time Series Plots

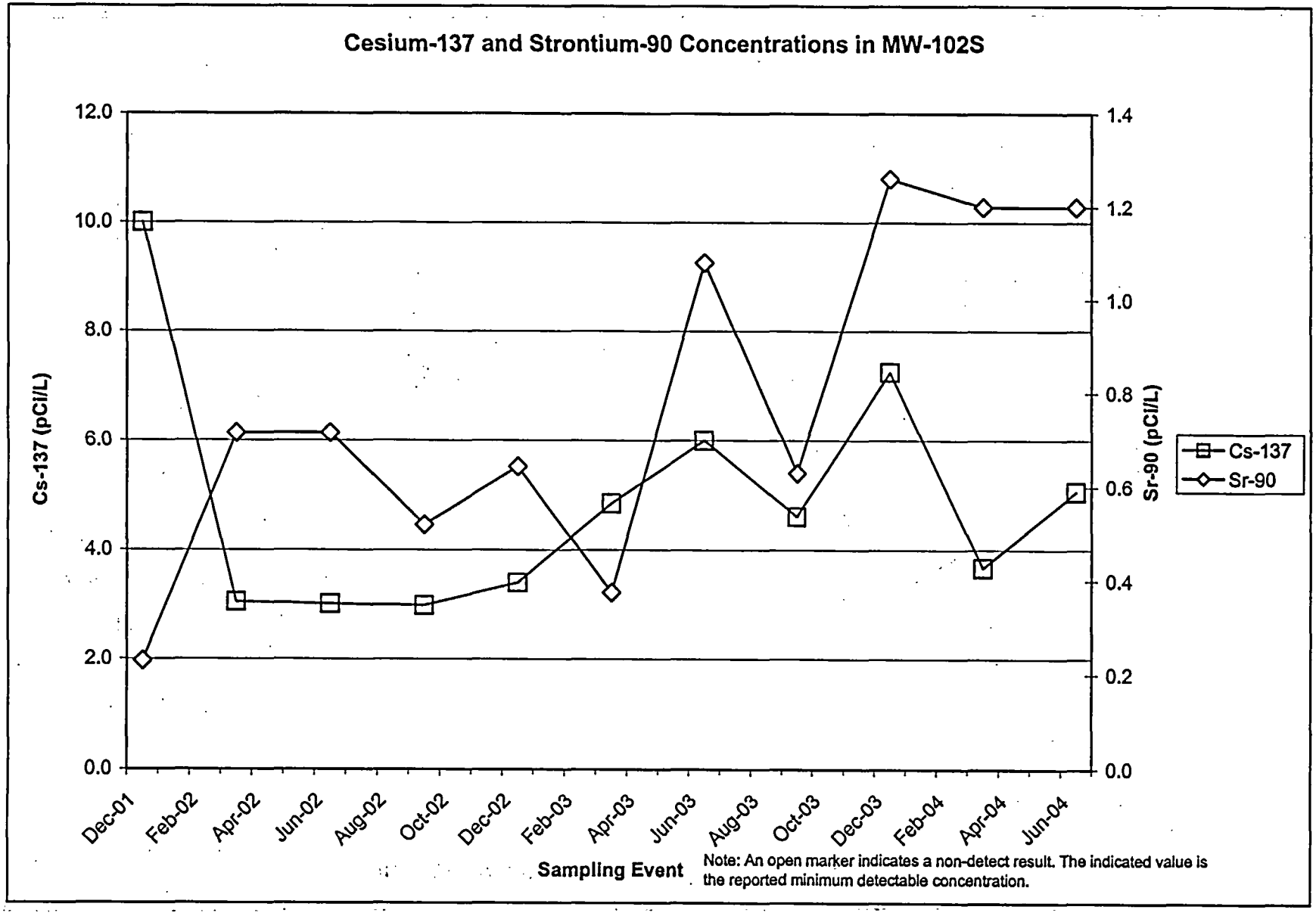

Cesium-137 Concentration in MW-100D
Cs-137 (pCi/L)
0
1
2
3
4
5
6
7
8
9
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

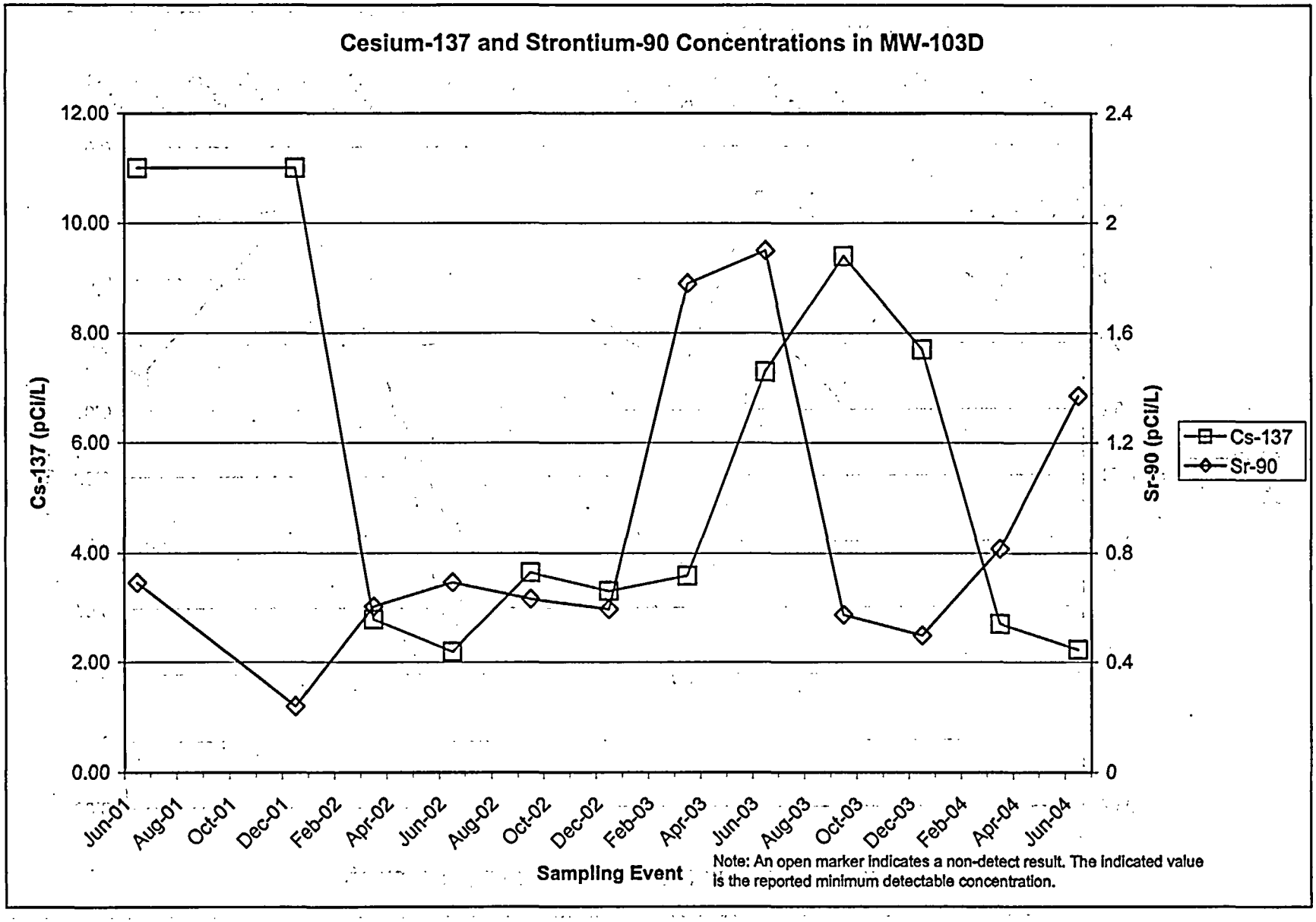

Cesium-137 Concentration in MW-100S
Cs-137 (pCi/L)
0
1
2
3
4
5
6
7
8
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

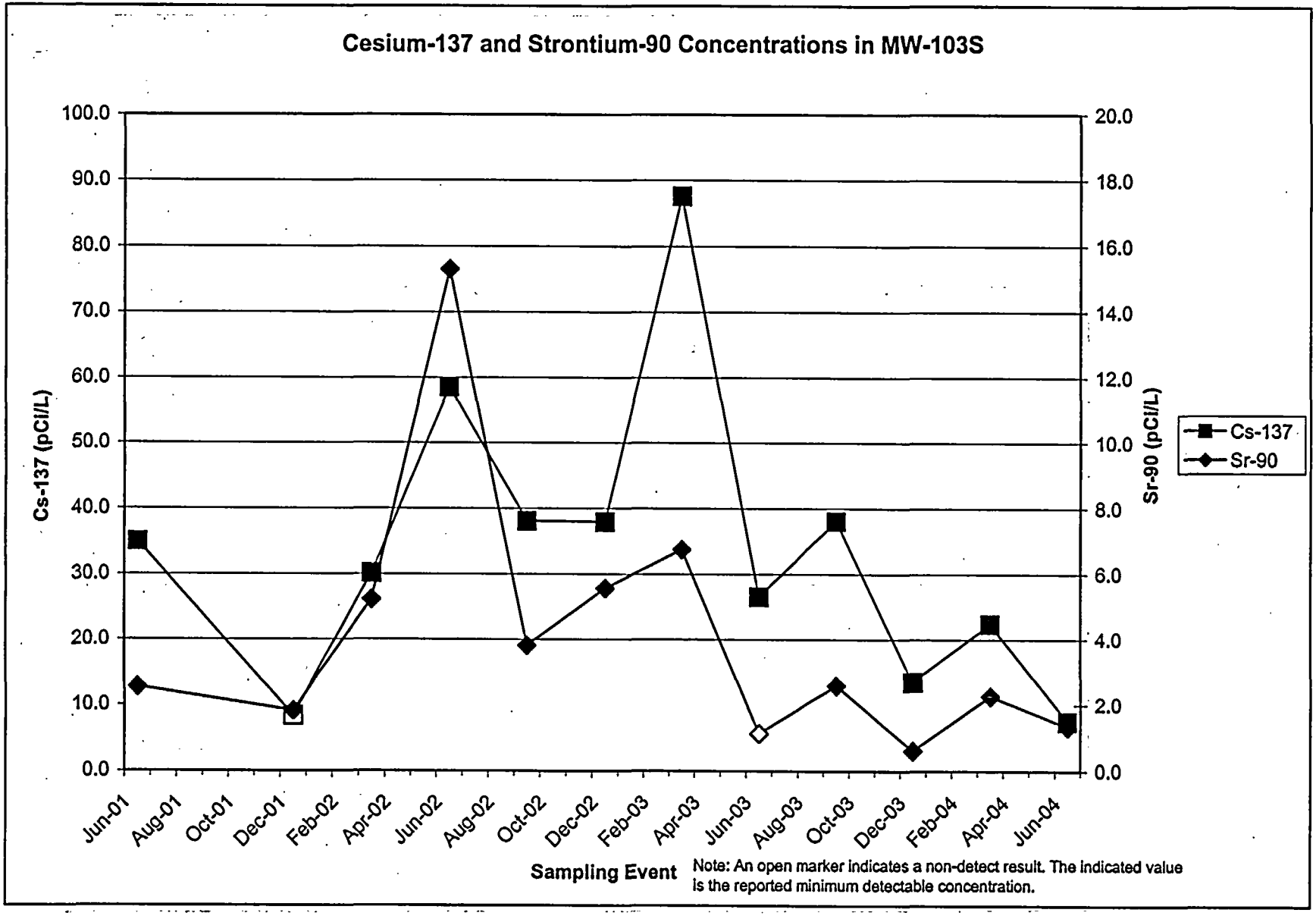

Cesium-137 and Strontium-90 in MW-101D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Cs-137
Sr-90
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

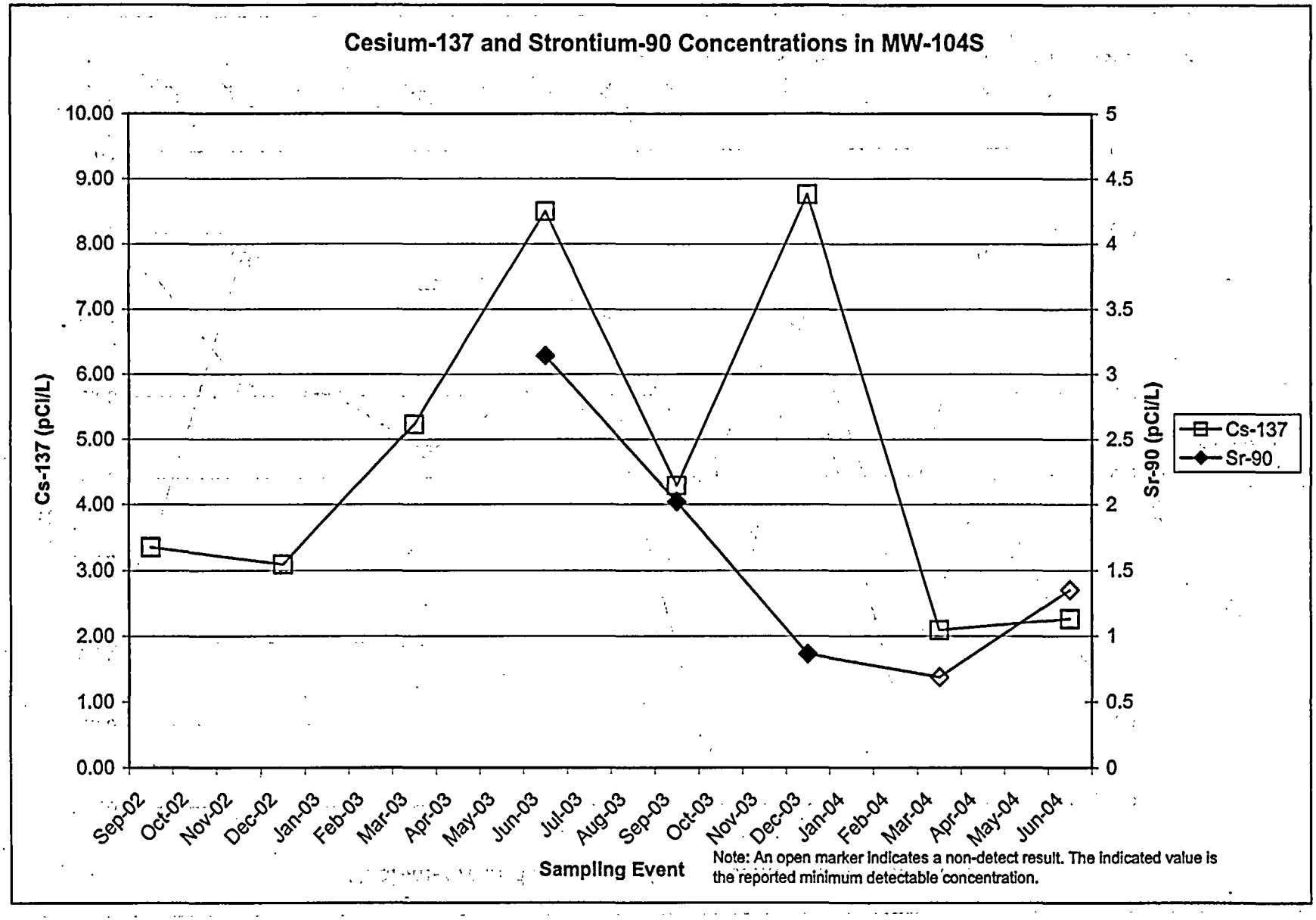

Cesium-137 and Strontium-90 in MW-101S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

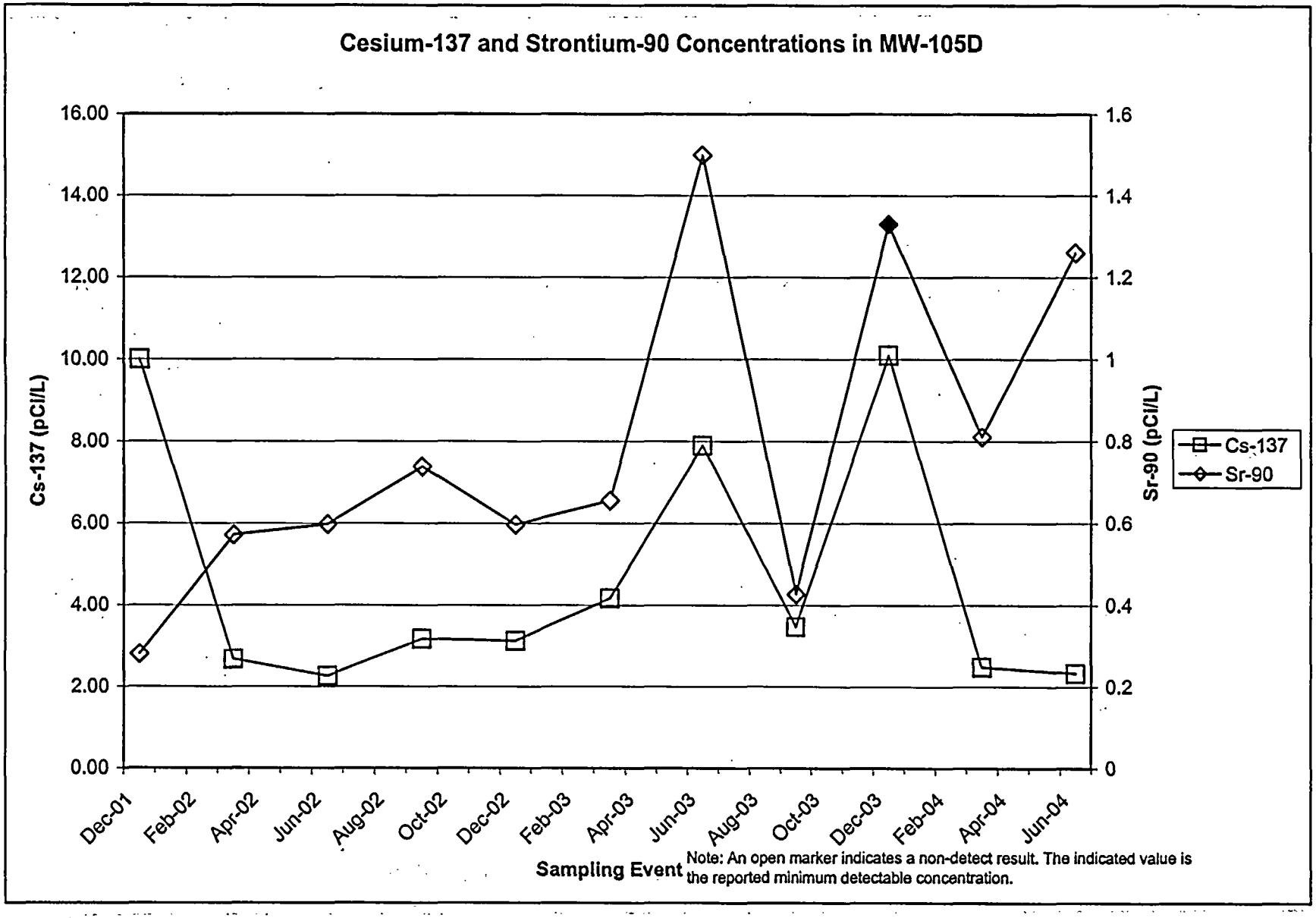

Cesium-137 and Strontium-90 Concentrations in MW-102D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

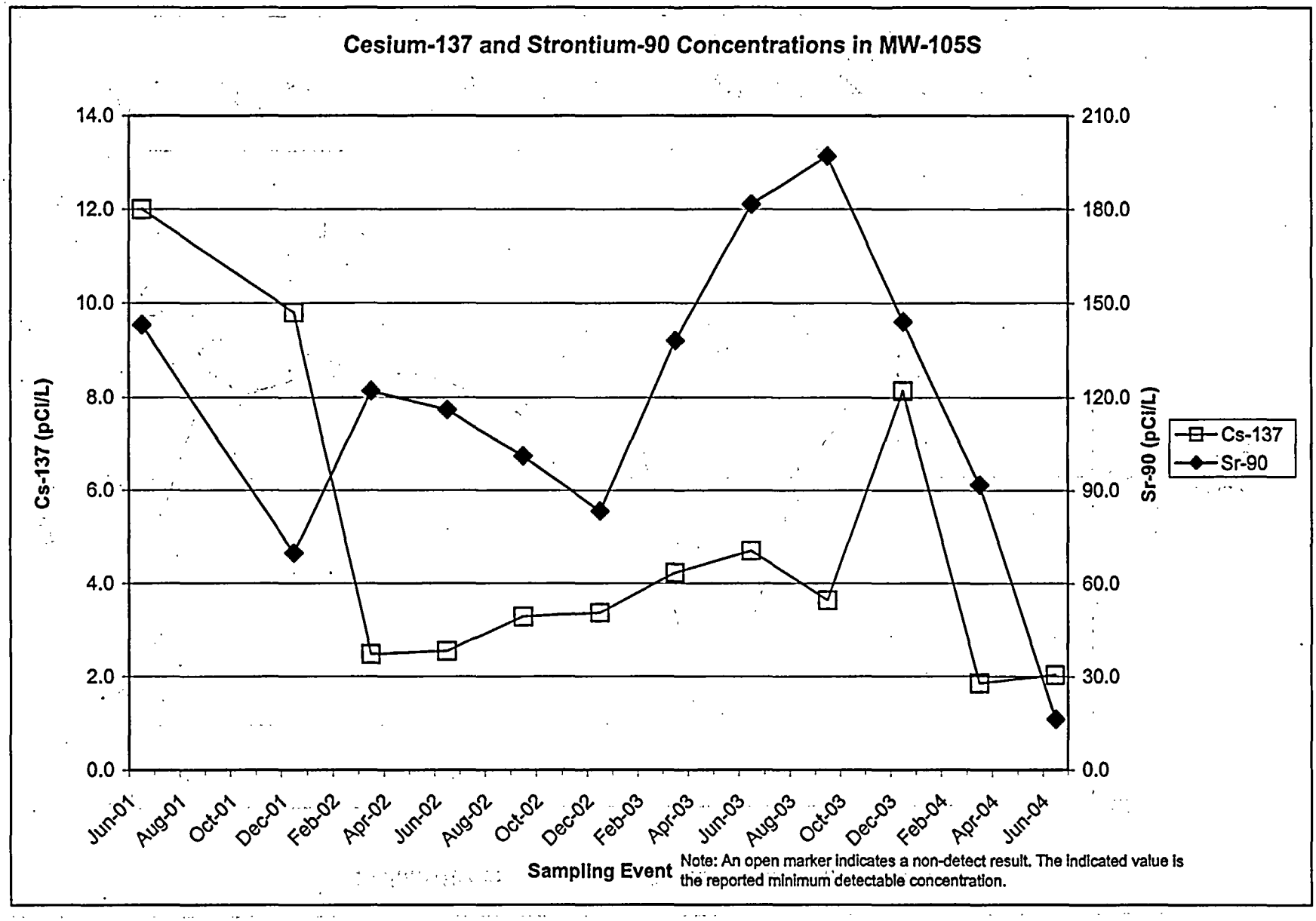

Cesium-137 and Strontium-90 Concentrations in MW-102S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

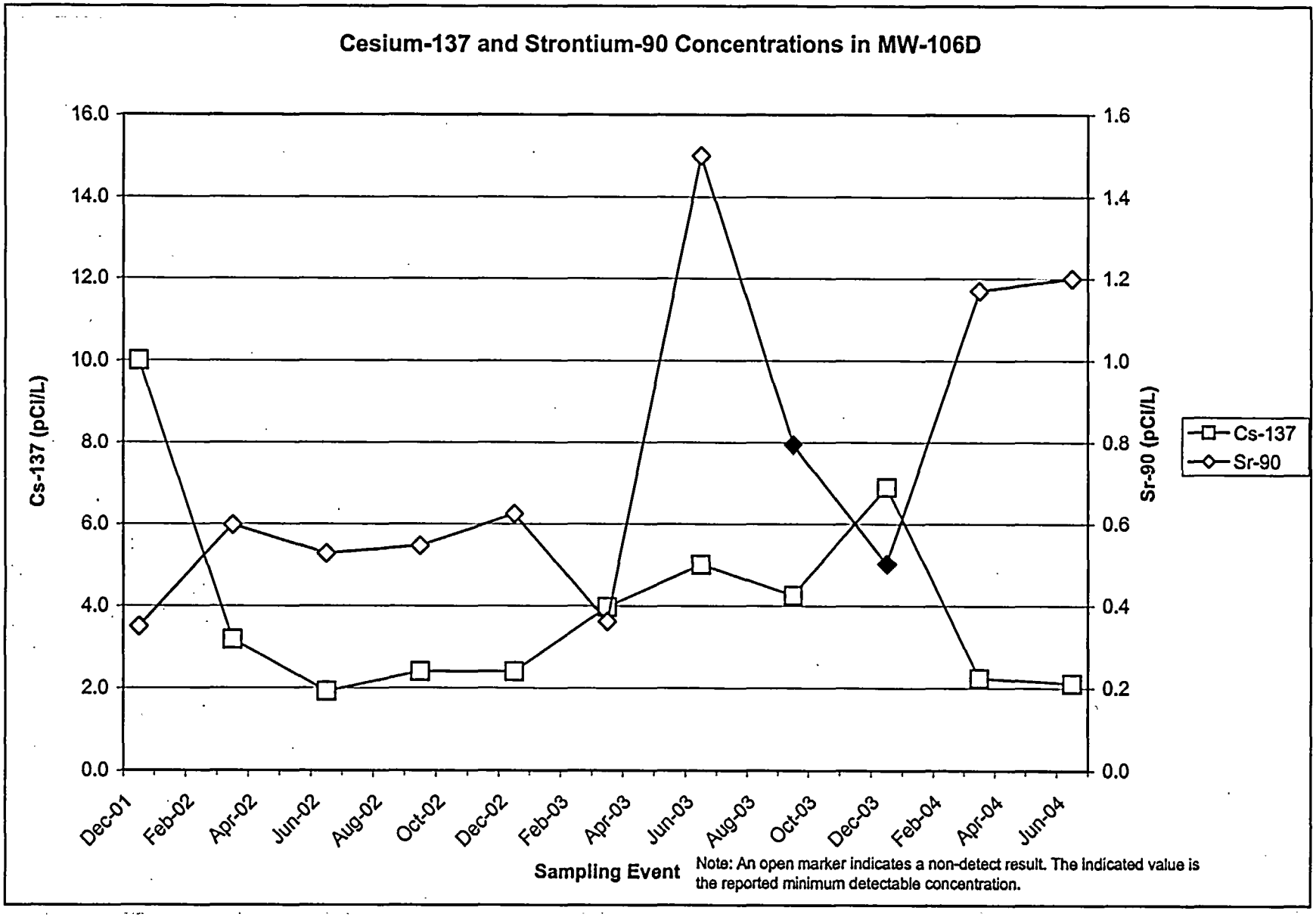

Cesium-137 and Strontium-90 Concentrations in MW-103D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
2.4
2
1.6
1.2
0.8
0.4
0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

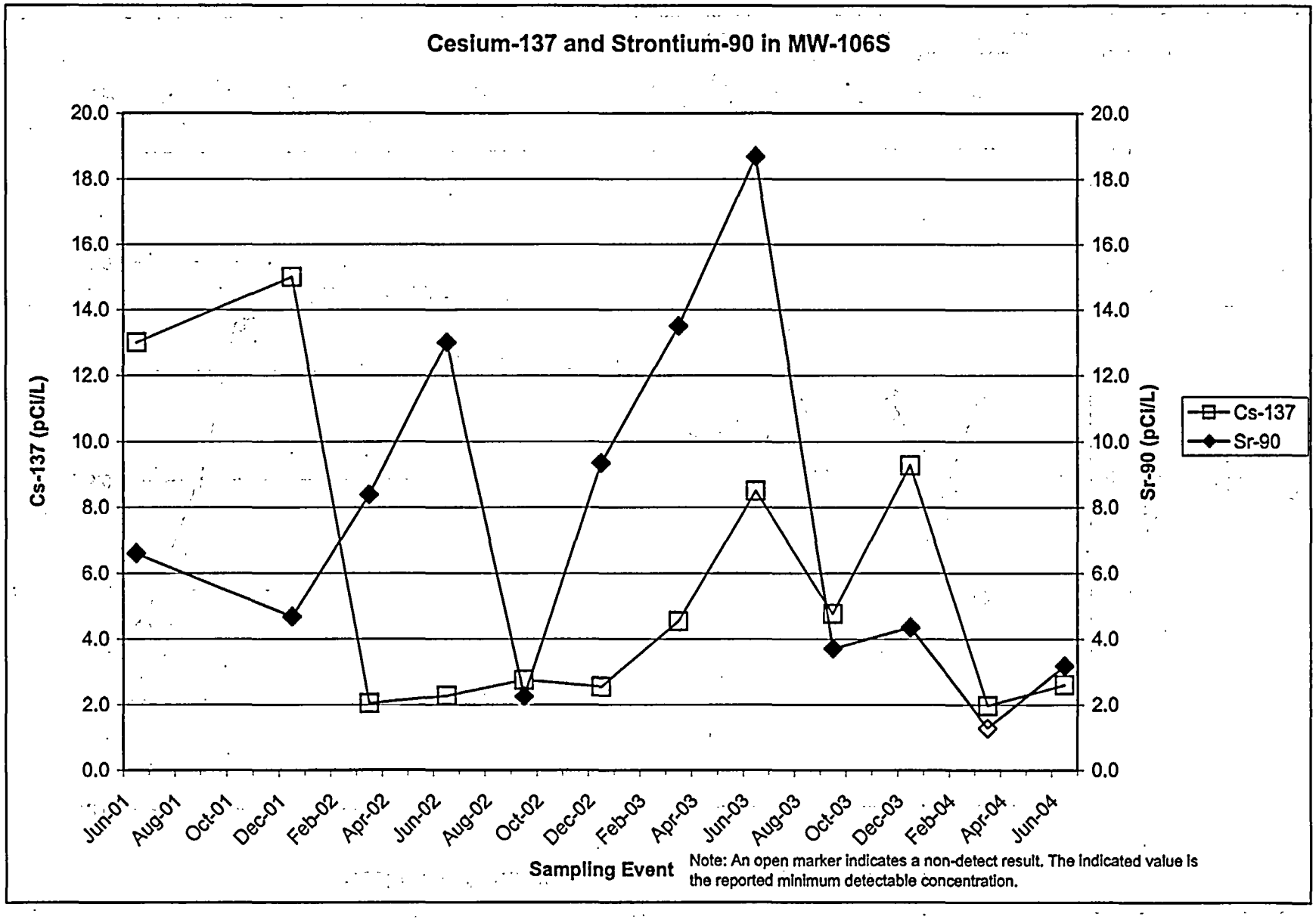

Cesium-137 and Strontium-90 Concentrations in MW-103S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

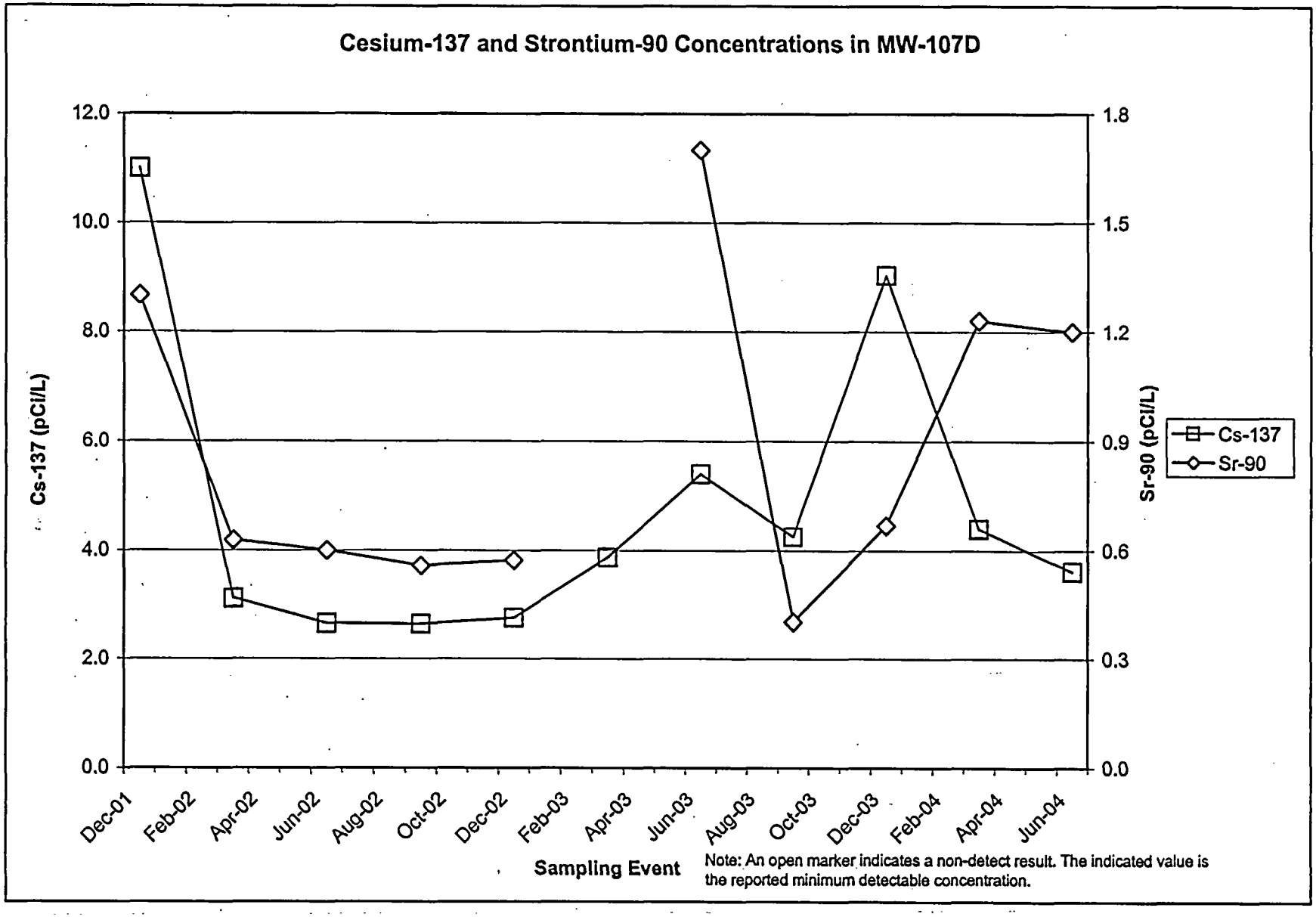

Cesium-137 and Strontium-90 Concentrations in MW-104S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

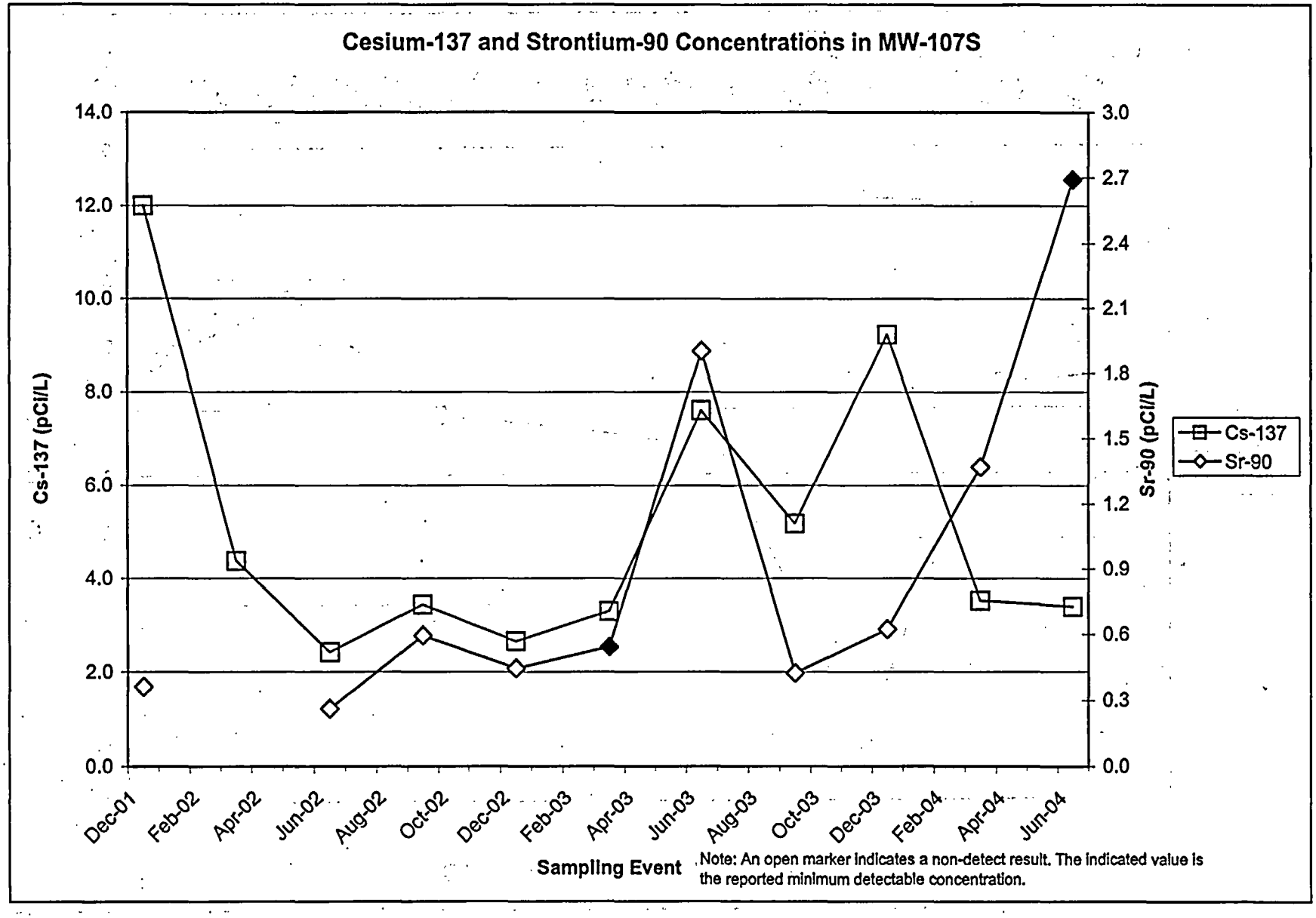

Cesium-137 and Strontium-90 Concentrations in MW-105D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

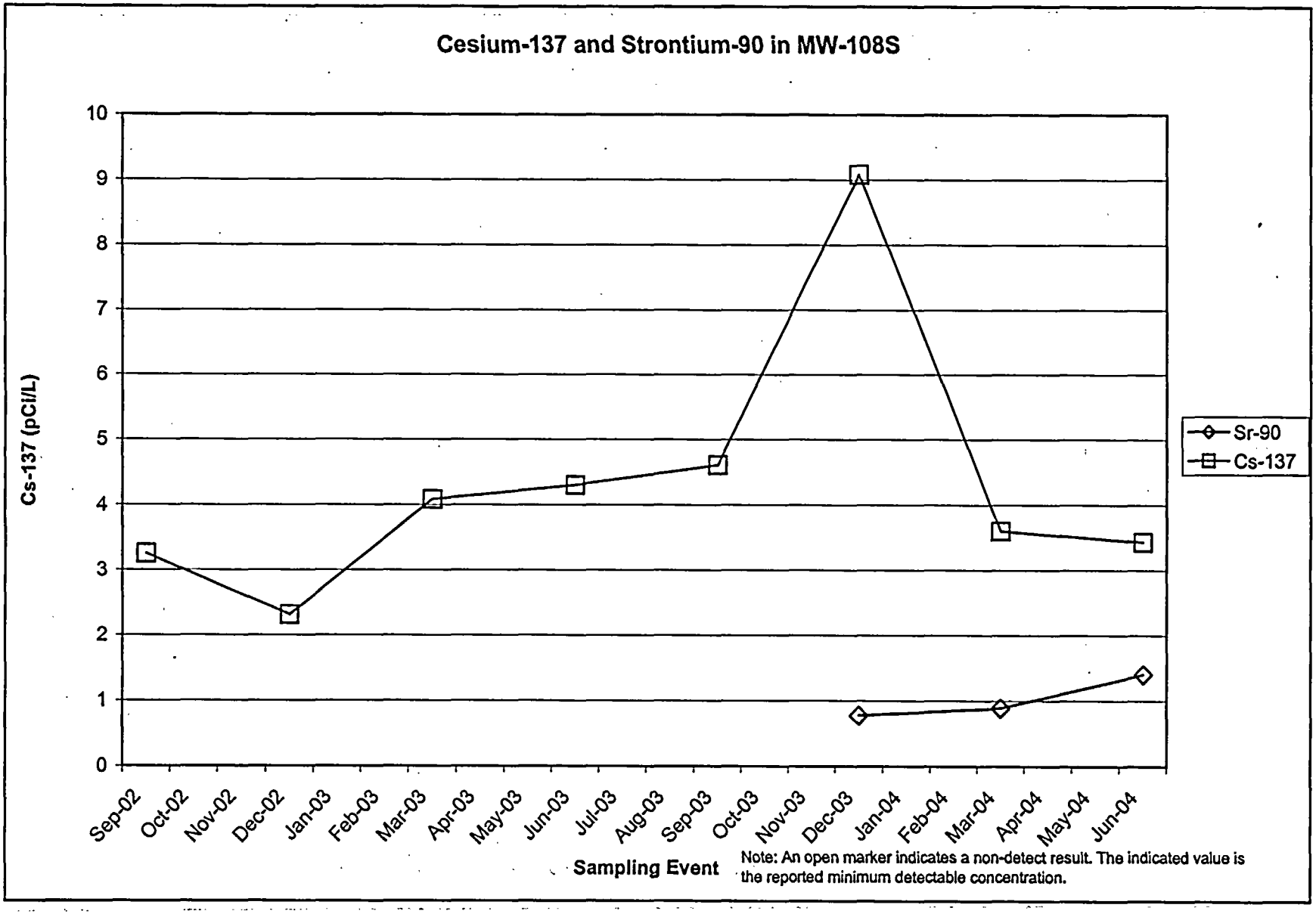

Cesium-137 and Strontium-90 Concentrations in MW-105S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
210.0
180.0
150.0
120.0
90.0
60.0
30.0
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

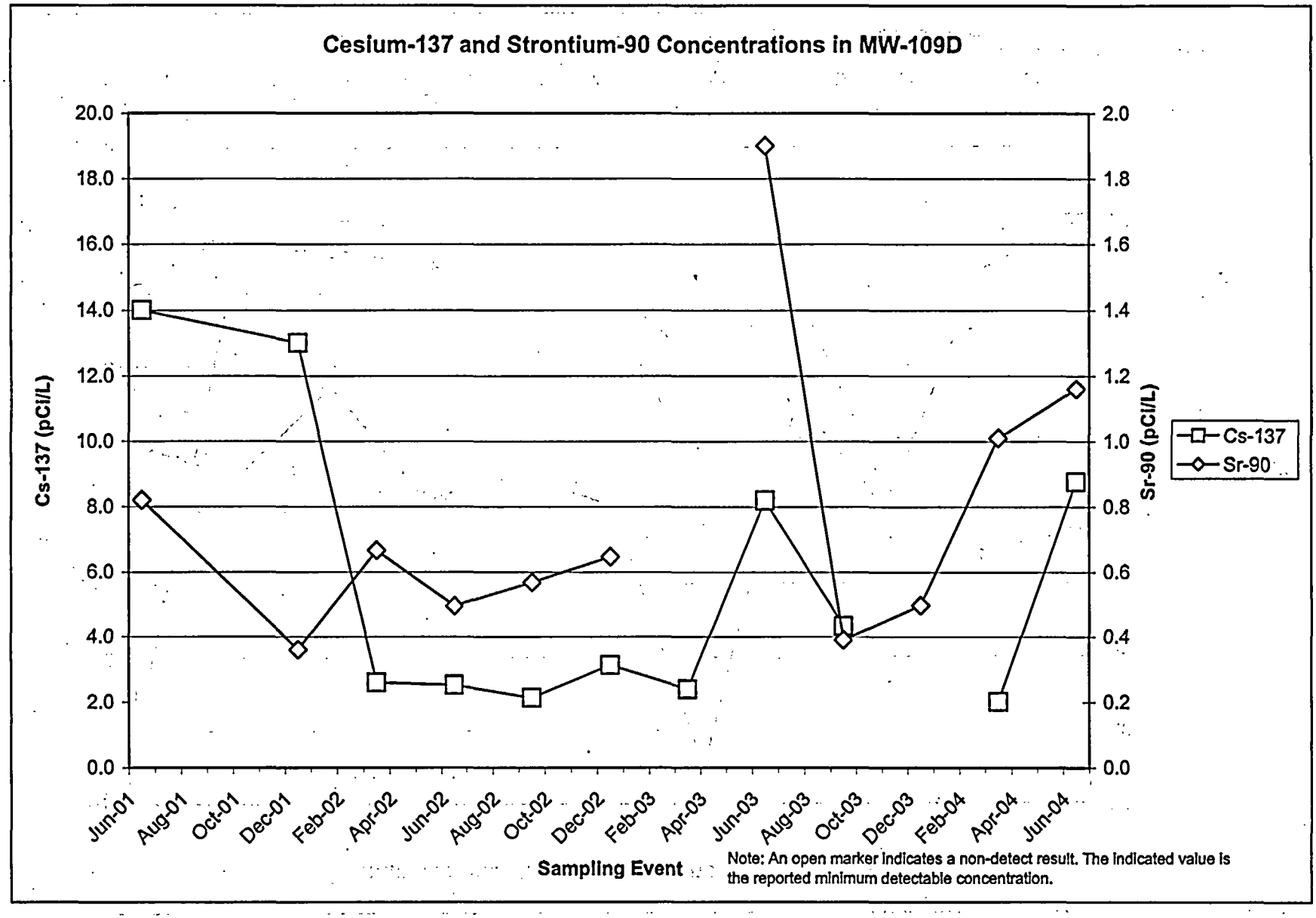

Cesium-137 and Strontium-90 Concentrations in MW-106D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

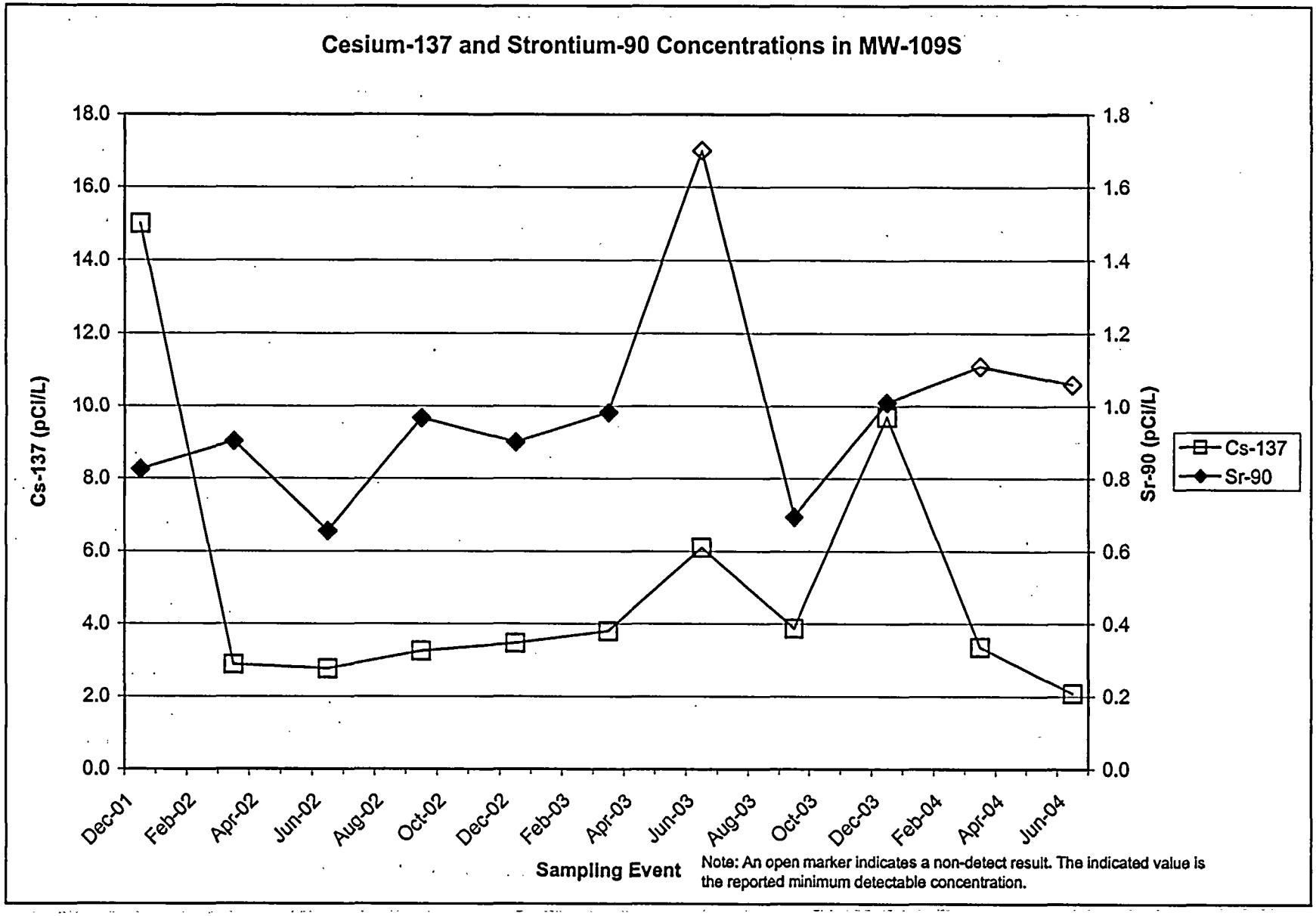

Cesium-137 and Strontium-90 in MW-106S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

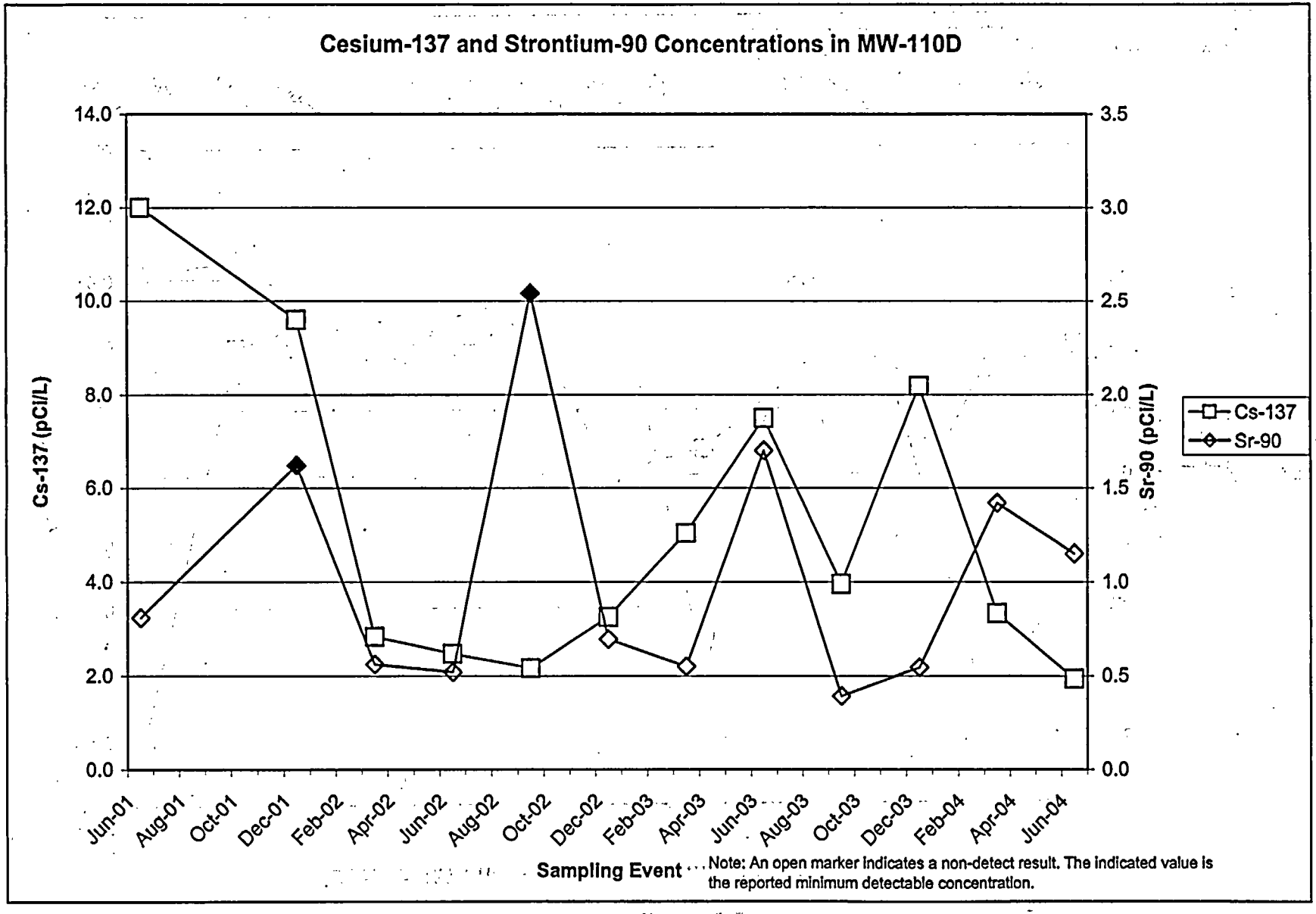

Cesium-137 and Strontium-90 Concentrations in MW-107D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.8
1.5
1.2
0.9
0.6
0.3
0.0
Cs-137
Sr-90
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

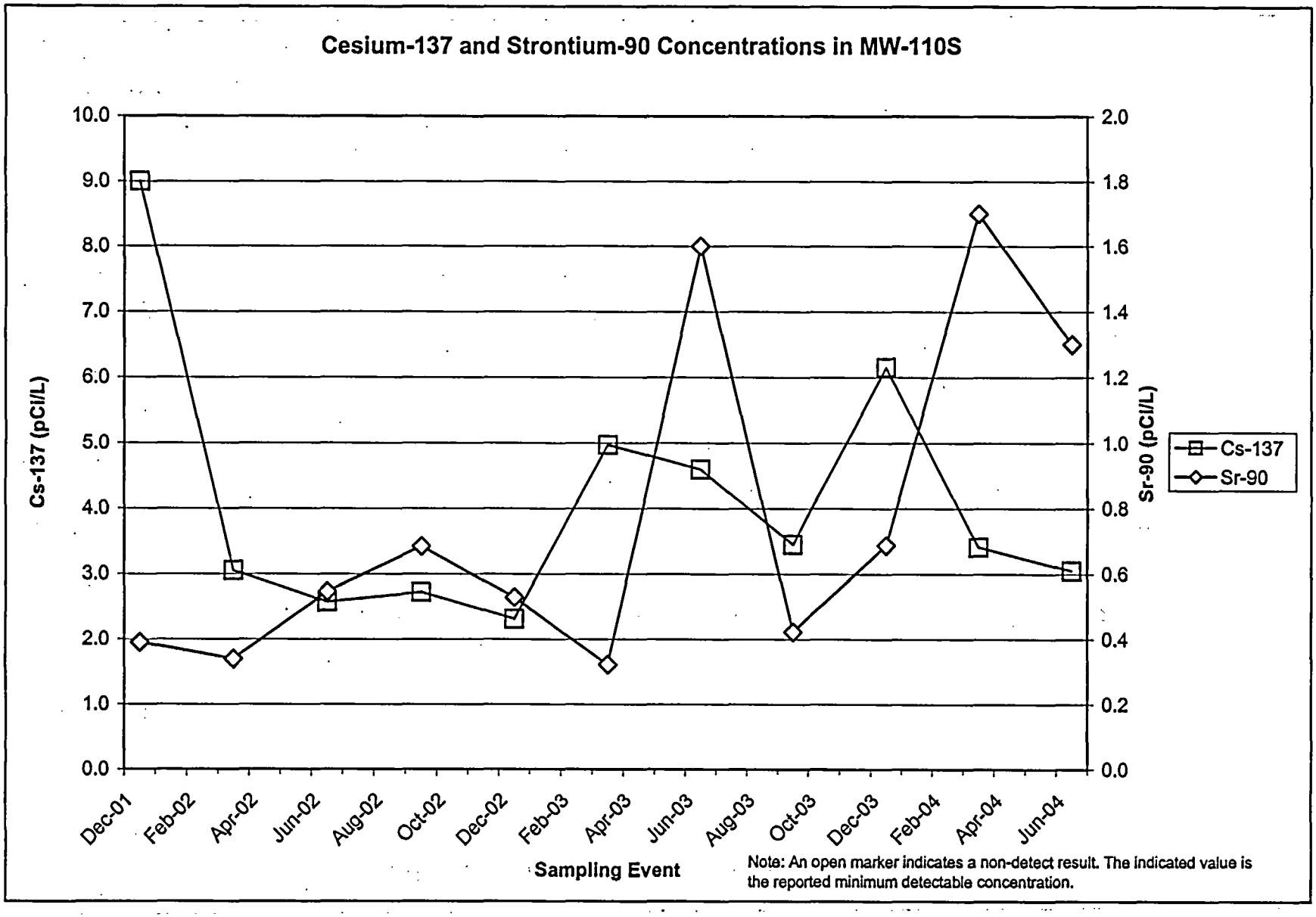

Cesium-137 and Strontium-90 Concentrations in MW-107S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3.0
2.7
2.4
2.1
1.8
1.5
1.2
0.9
0.6
0.3
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

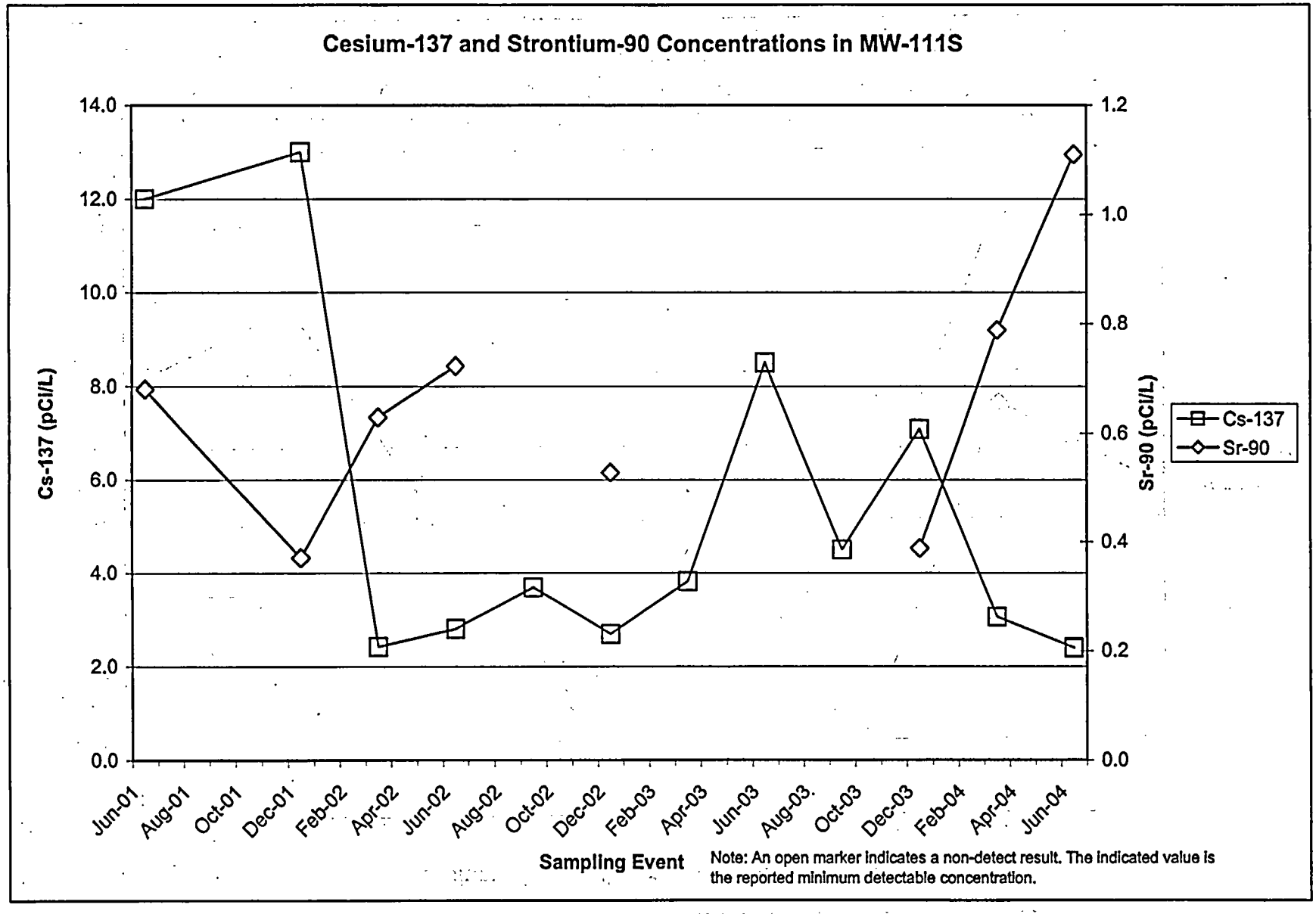

Cesium-137 and Strontium-90 in MW-108S
Cs-137 (pCi/L)
10
9
8
7
6
5
4
3
2
1
0
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Sr-90
Cs-137
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

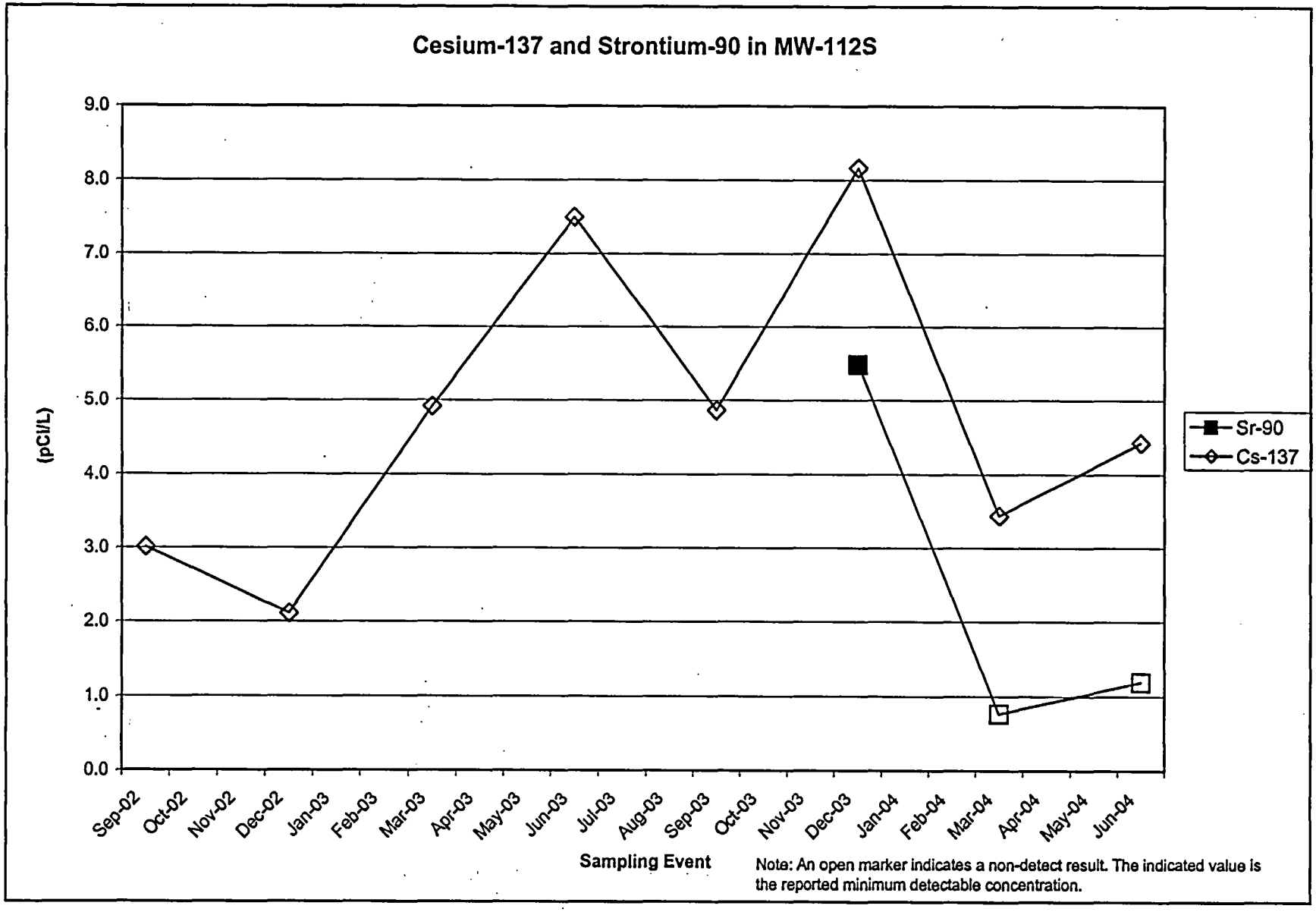

Cesium-137 and Strontium-90 Concentrations in MW-109D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

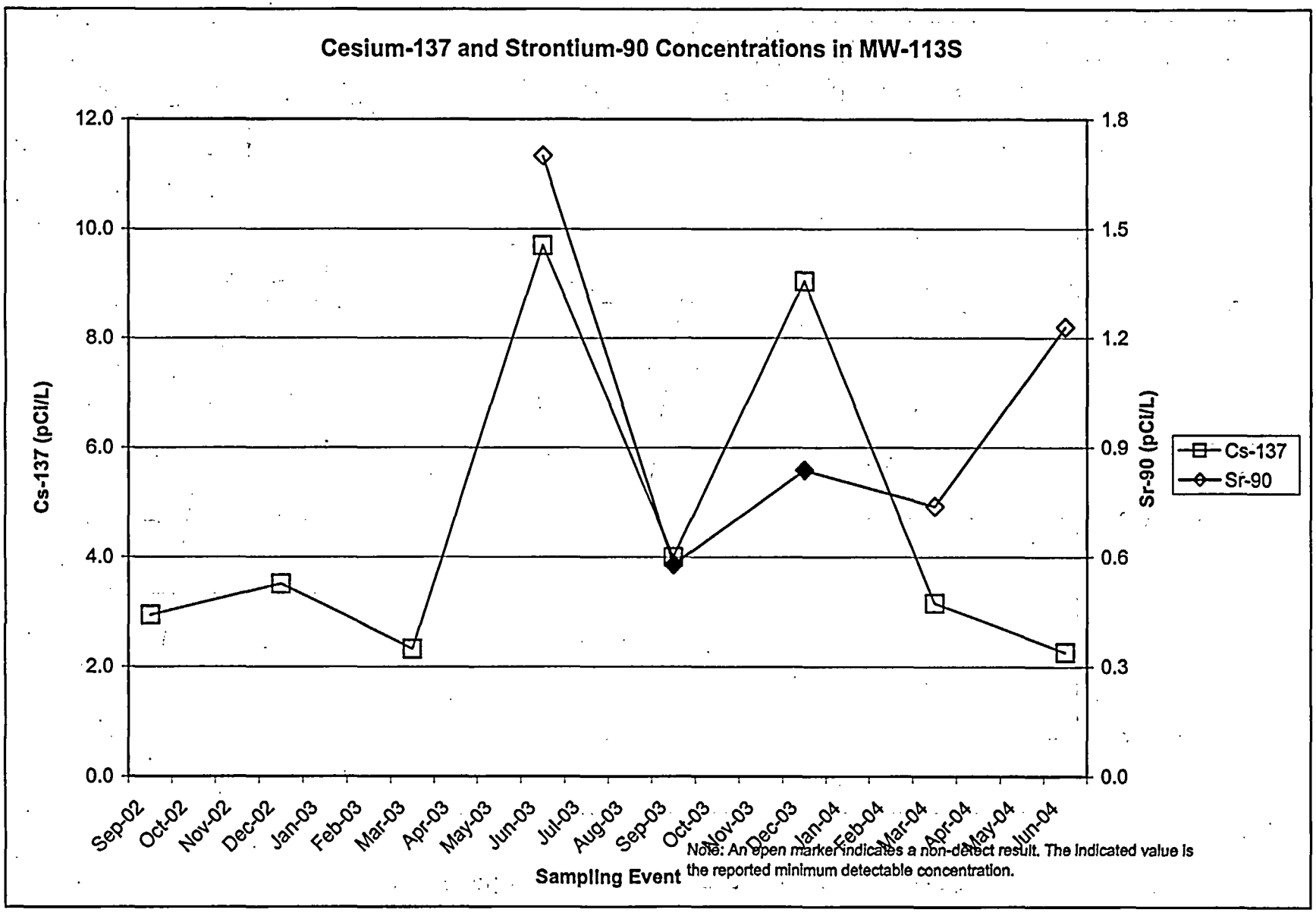

Cesium-137 and Strontium-90 Concentrations in MW-109S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

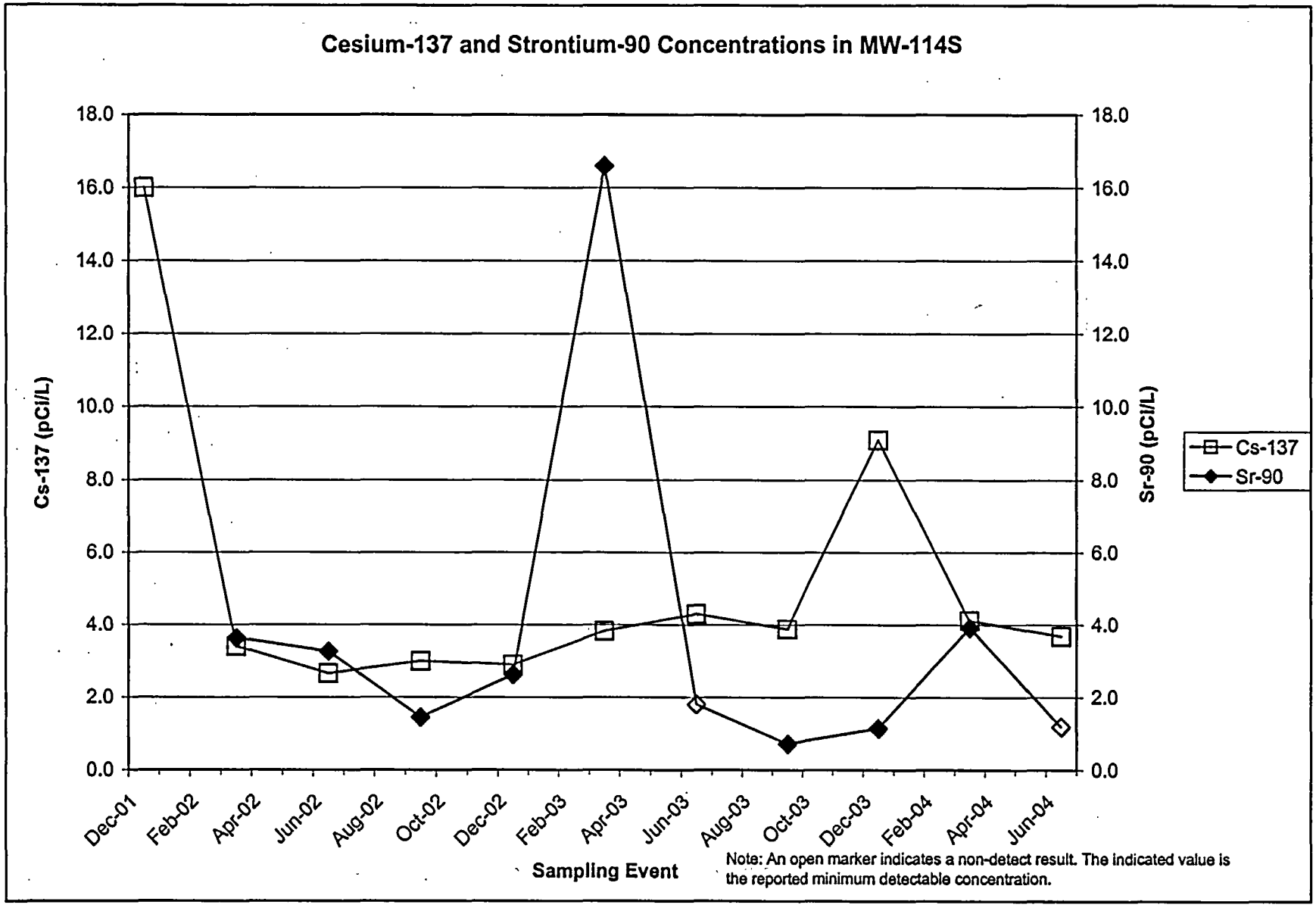

Cesium-137 and Strontium-90 Concentrations in MW-110D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

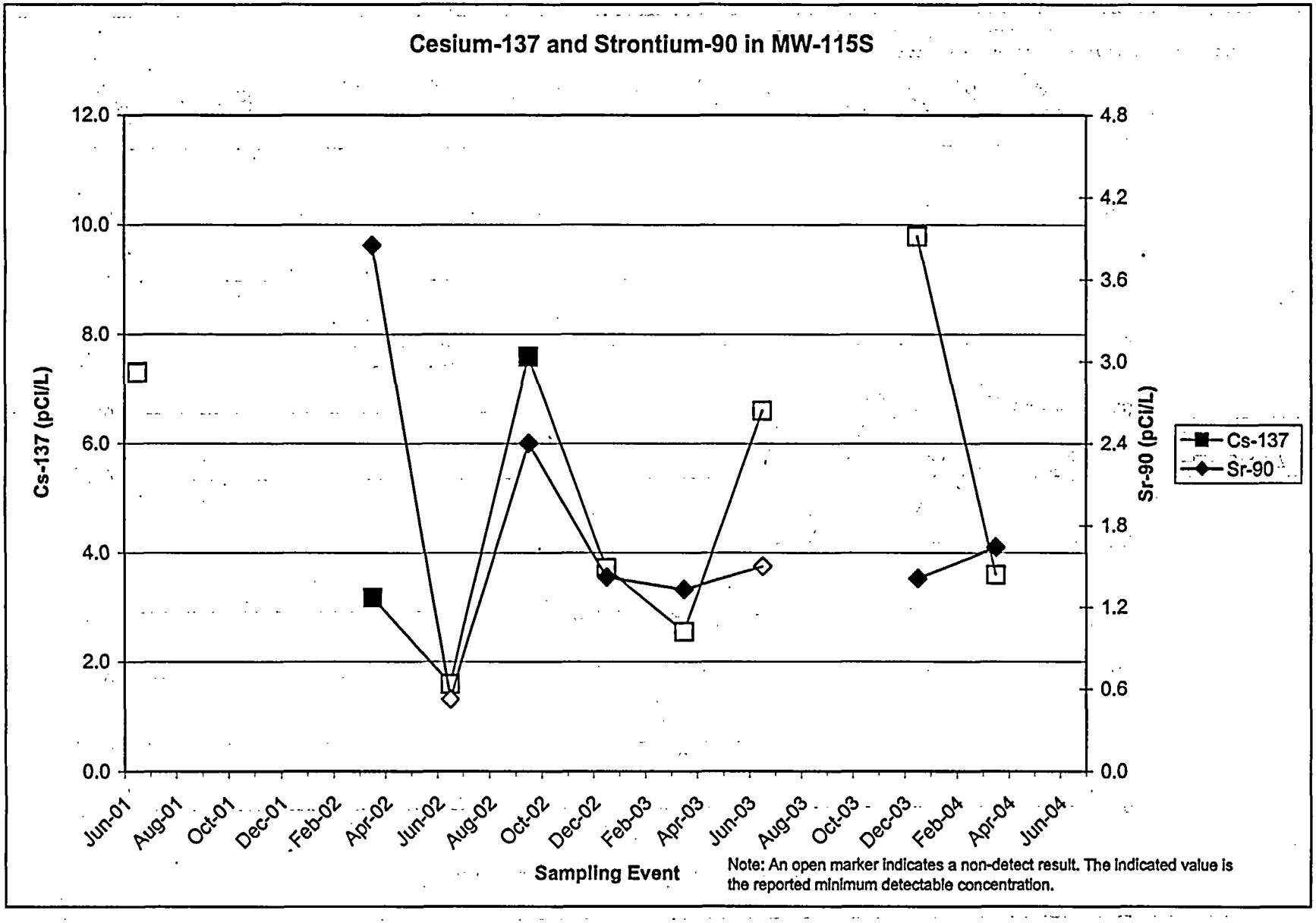

Cesium-137 and Strontium-90 Concentrations in MW-110S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

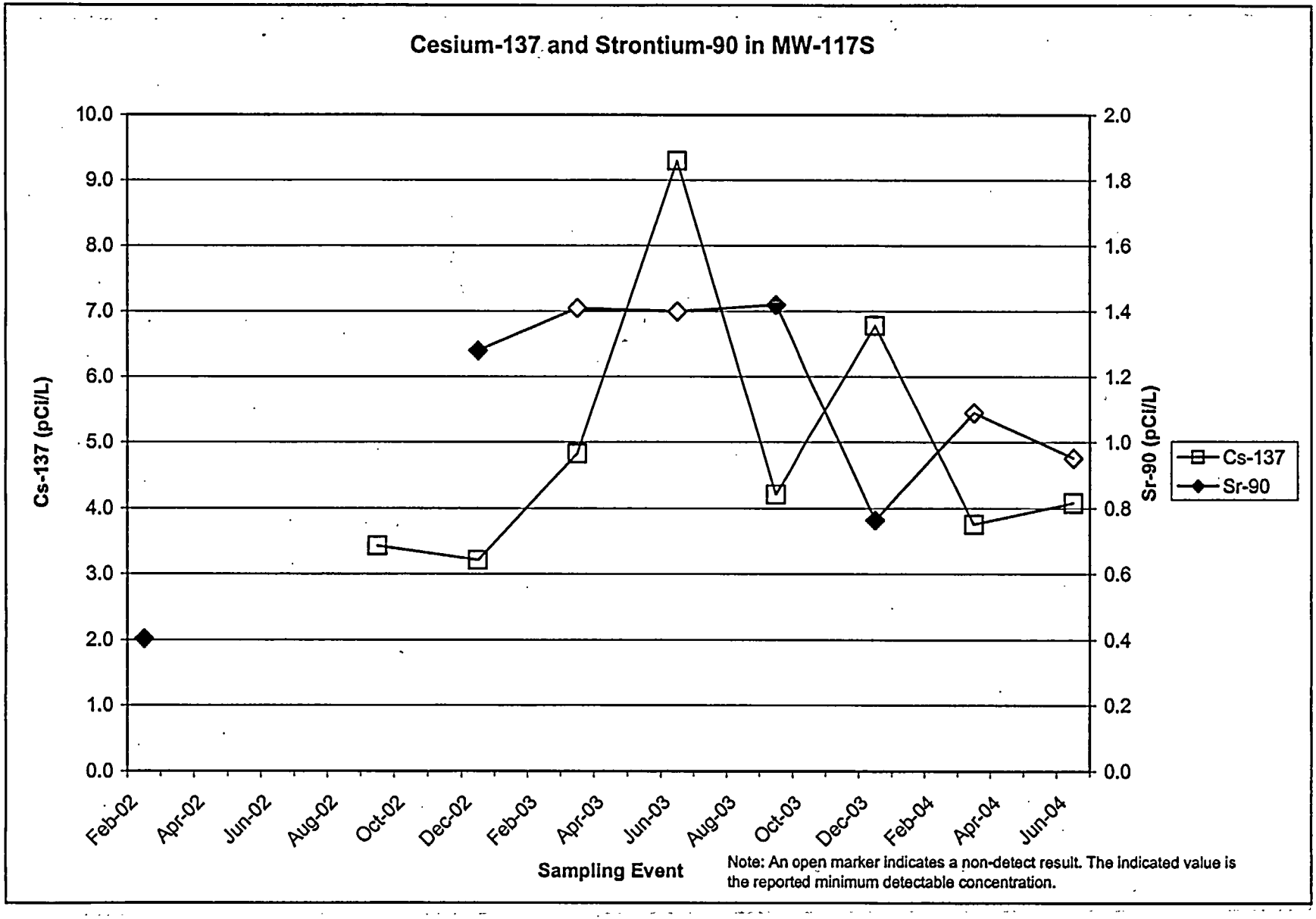

Cesium-137 and Strontium-90 Concentrations in MW-111S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

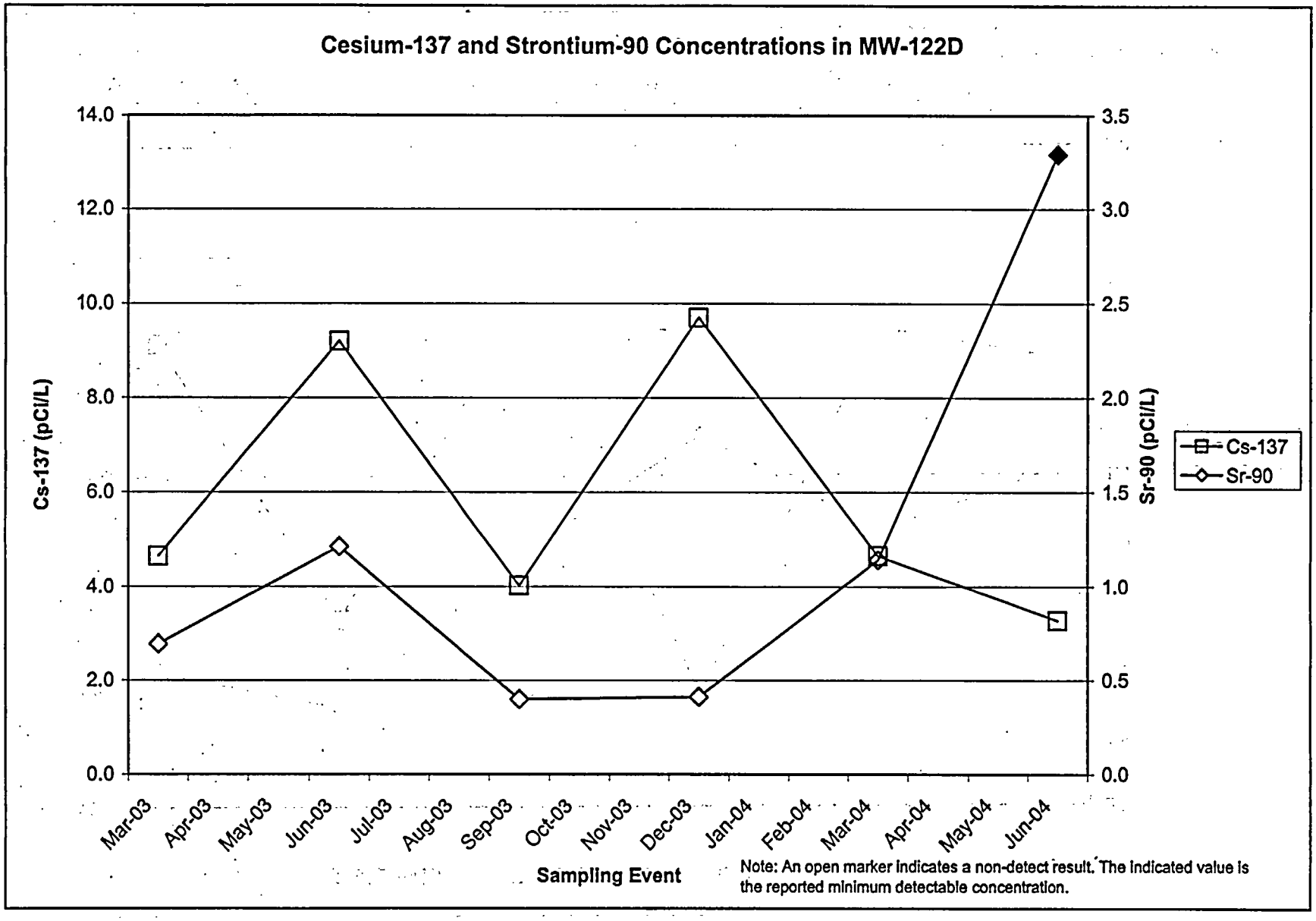

Cesium-137 and Strontium-90 in MW-112S
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
(pCi/L)
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Sr-90
Cs-137
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

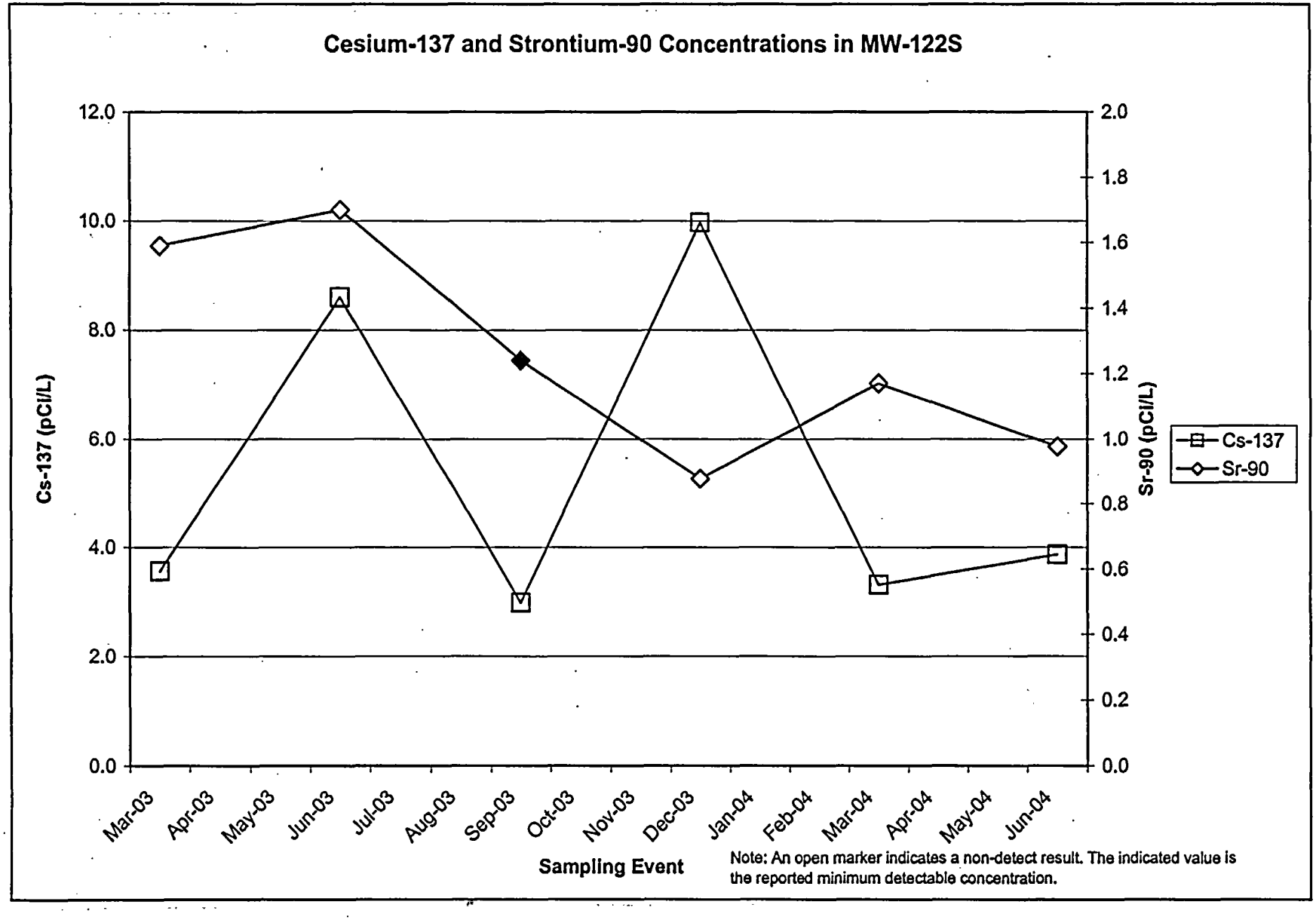

Cesium-137 and Strontium-90 Concentrations in MW-113S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1.8
1.5
1.2
0.9
0.6
0.3
0.0
Cs-137
Sr-90
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

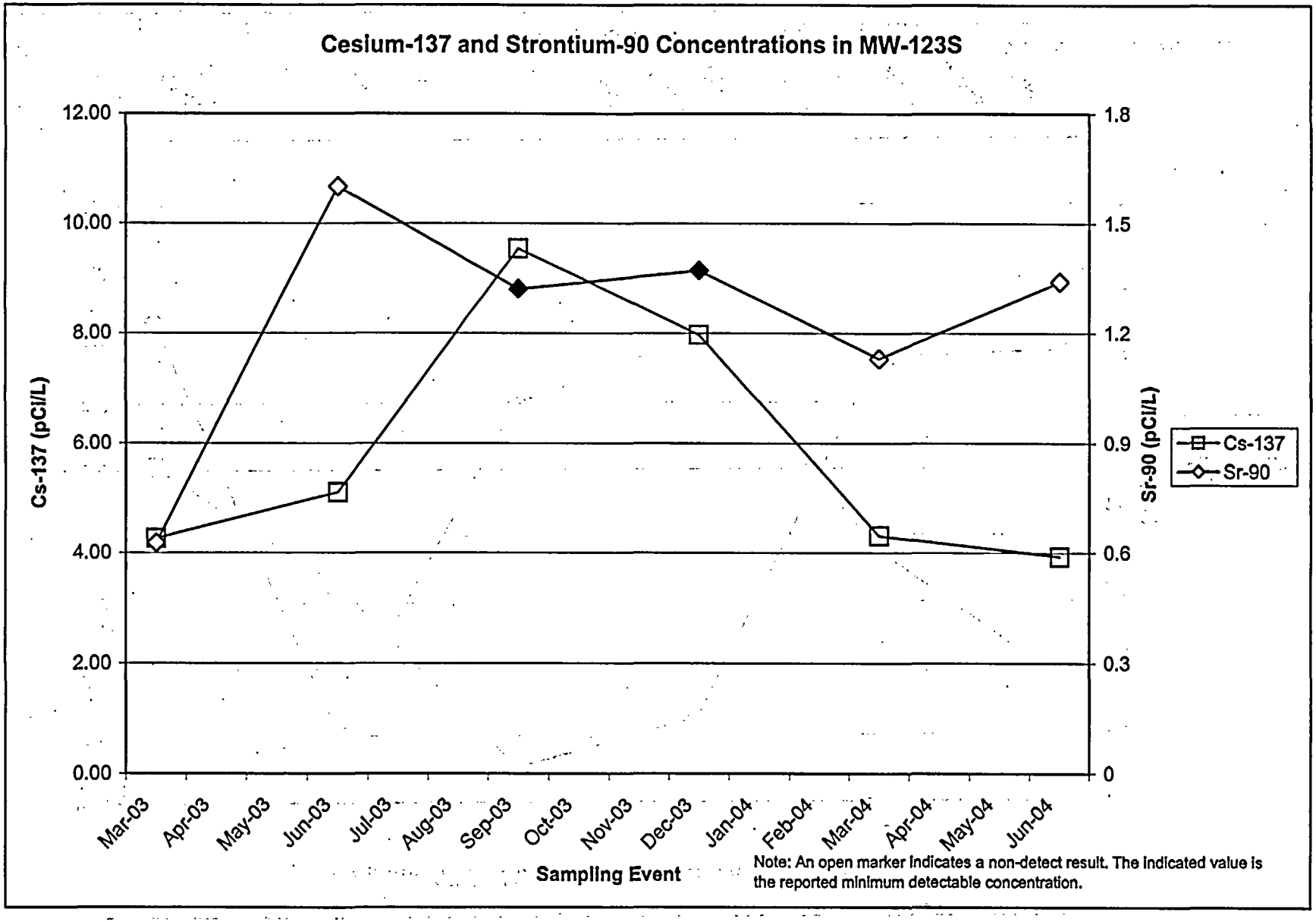

Cesium-137 and Strontium-90 Concentrations in MW-114S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

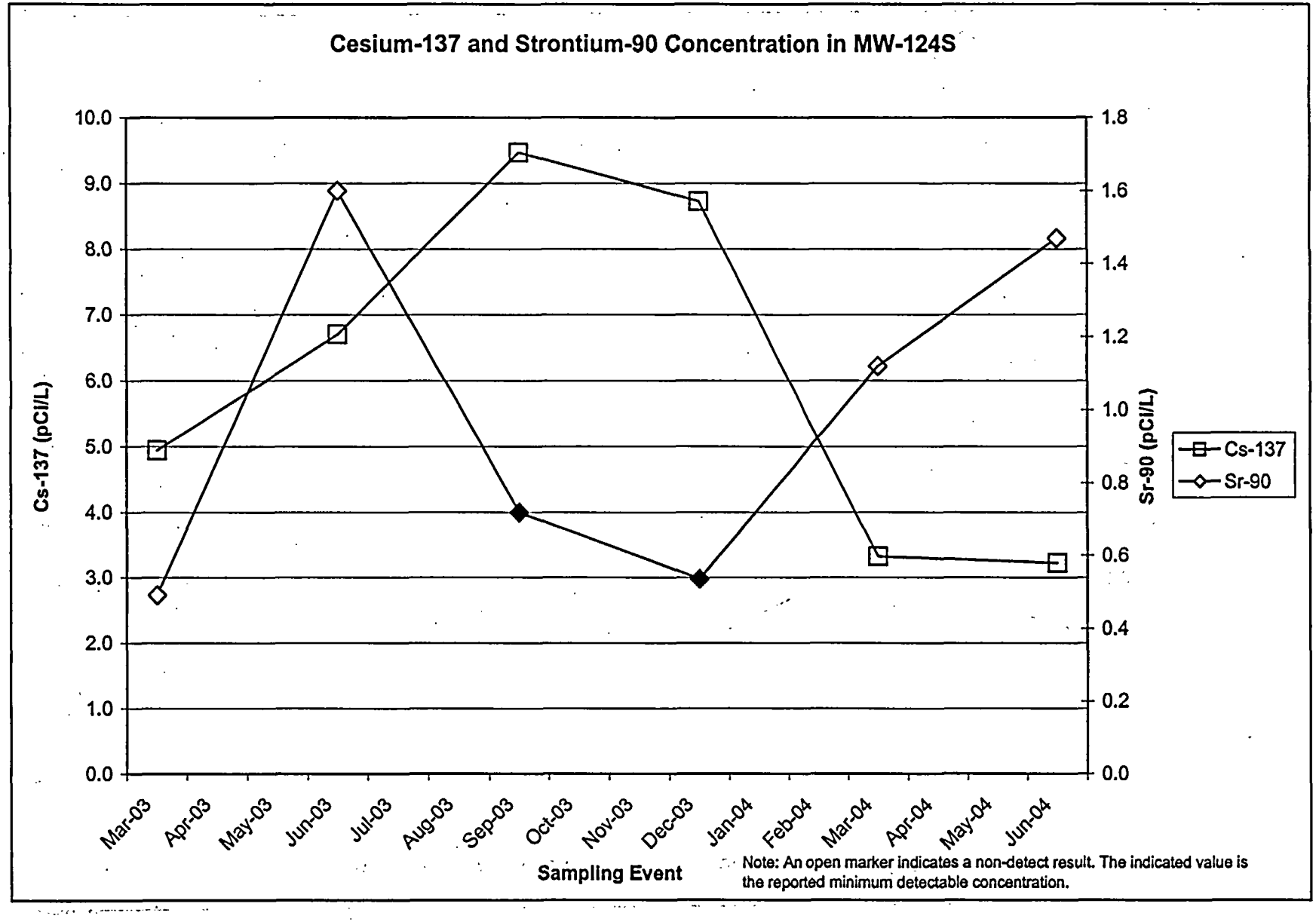

Cesium-137 and Strontium-90 in MW-115S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
4.8
4.2
3.6
3.0
2.4
1.8
1.2
0.6
0.0
Jun-01
Aug-01
Oct-01
Dec-01
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.

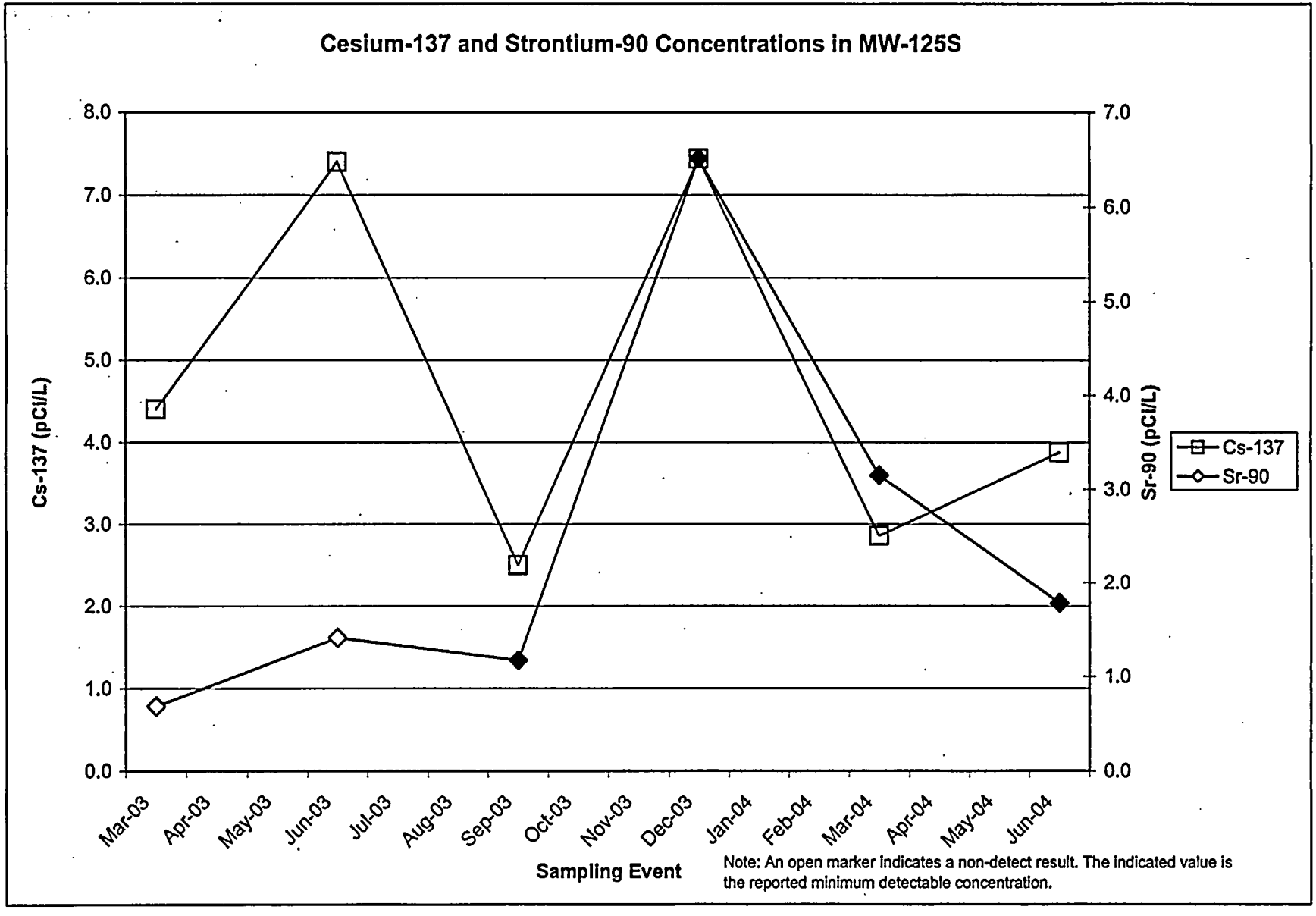

Cesium-137 and Strontium-90 in MW-117S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Feb-02
Apr-02
Jun-02
Aug-02
Oct-02
Dec-02
Feb-03
Apr-03
Jun-03
Aug-03
Oct-03
Dec-03
Feb-04
Apr-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Cesium-137 and Strontium-90 Concentrations in MW-122D
Cs-137 (pCi/L)
Sr-90 (pCi/L)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Cesium-137 and Strontium-90 Concentrations in MW-122S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.0
10.0
8.0
6.0
4.0
2.0
0.0
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Cesium-137 and Strontium-90 Concentrations in MW-123S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
12.00
10.00
8.00
6.00
4.00
2.00
0.00
1.8
1.5
1.2
0.9
0.6
0.3
0
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Cesium-137 and Strontium-90 Concentration in MW-124S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.


Cesium-137 and Strontium-90 Concentrations in MW-125S
Cs-137 (pCi/L)
Sr-90 (pCi/L)
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Mar-03
Apr-03
May-03
Jun-03
Jul-03
Aug-03
Sep-03
Oct-03
Nov-03
Dec-03
Jan-04
Feb-04
Mar-04
Apr-04
May-04
Jun-04
Sampling Event
Cs-137
Sr-90
Note: An open marker indicates a non-detect result. The indicated value is the reported minimum detectable concentration.