AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150 Columbia MD 21045-1992
(410) 730-8525 Fax (410) 997-2536

N62269.AR.000460
NAWC WARMINSTER
5090.3a

September 29, 1997

C. Dannigh
~~Dan Kopcow~~
Foster Wheeler Environmental Corporation
One Oxford Valley
2300 Lincoln Highway East
Suite 200
Langhorne, PA 19047

Dear Mr. Kopcow:

Enclosed please find results of analyses performed on samples received 9/17/97.

The samples were analyzed in accordance with EPA-approved methods.

Please feel free to call me at (410) 730-8525 if you have any questions about this report.

Sincerely,

John C. Ermatinger
Project Manager

9709095
Enclosures
jce

Prepare in quintuplicate (original and 4 copies)

CONTRACTOR DRAWINGS & INFORMATION SUBMITTAL
NORTHNAVFACENGCOM 4335/3 (Rev 6/80)

CONTROL NO 38

CONTRACT NO	DELIVERY ORDER #	ACTIVITY LOCATION
N62472-94-D-0398	0018	Warminster, PA

PROJECT TITLE
Various Remedial Action at NAWC

FROM	DATE
Foster Wheeler Environmental Corp. - Program QCM: Akram Aziz	October 29, 1997
TO	DATE
S. Lehman (2 copies)	October 29, 1997

1 THE CONTRACTOR SUBMITTALS LISTED BELOW ARE FORWARDED FOR YOUR REVIEW AND RECOMMENDATIONS
(a) APPLY APPROPRIATE STAMP IMPRINT TO EACH SUBMITTAL AND INDICATE REVIEW COMMENTS, AS REQUIRED
(b) RETAIN ONE (1) COPY OF THIS TRANSMITTAL FORM AND RETURN REMAINING COPIES WITH REVIEWED SUBMITTALS TO ROICC

2 THESE SUBMITTALS SHOULD BE RETURNED TO THIS OFFICE BY _____

3 _____

COPY TO

[X] ROICC E. Beatty (2 copies) [ ] RPM [X] CSO M. Hunter (2 copies)

SIGNATURE AND DATE 10/29/97

FROM DESIGNER	DATE
TO ROICC	DATE

1 THE SUBMITTALS LISTED BELOW HAVE BEEN REVIEWED AND ARE RETURNED, WITH ACTION TAKEN AS INDICATED

2 _____

COPY TO

[ ] ROICC [ ] DESIGNER

SIGNATURE AND DATE

FROM ROICC	DATE
TO CONTRACTOR	DATE

1 THE SUBMITTALS LISTED BELOW HAVE BEEN REVIEWED AND ARE APPROVED/DISAPPROVED AS SHOWN BELOW AND ON EACH STAMP IMPRINT

COPY TO.
[ ] ROICC [ ] OTHER

FOR COMMANDING OFFICER, NORTHERN DIVISION NAVAL FACILITIES ENGINEERING COMMAND DATE

ITEM NO.	SUBMITTAL DESCRIPTION	PREPARED/ SUBMITTED BY	APPROVED	DISAPPROVED	REMARKS
38	SD-10, Test Reports	A. Aziz			
	WWTP Laboratory Analysis for				
	September 1997				

MISC\96-184 DOC

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Client: Foster Wheeler Environmental Corp.

Project: NAWC Warminster

Case: 9709095

Analysis: General Chemistry Parameters

Date: September 24, 1997

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-002	9709095-002	09/17/97	09/17/97
DO-0018-06-006	9709095-006	09/17/97	09/17/97
DO-0018-06-007	9709095-007	09/17/97	09/17/97

Three samples were received and analyzed for General Chemistry Parameters. The samples were subcontracted to a our Florida lab for Total Organic Carbon analyses.

The enclosed reports consist of tabulated results.

Report Released By:

John C. Ermatinger
Project Manager

American Environmental Network, Inc.
11 East Olive Road • Pensacola, FL 32514 • (904) 474-1001

SIGNATURE PAGE

Reviewed by: Linda Lofton
AEN Project Manager

Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC. COLUMBIA, MARYLAND
Project Name:	FOSTER WHEELER
Project Number:	9709095
Project Location:	WARMINSTER, PA
Accession Number:	709313
Project Manager:	JOHN C. ERMATINGER
Sampled By:	N/S

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Analysis Report

Analysis: TOTAL ORGANIC CARBON

Accession:	709313
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9709095
Project Name:	FOSTER WHEELER
Project Location:	WARMINSTER, PA
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"FINAL REPORT FORMAT - SINGLE"

Accession:	709313
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9709095
Project Name:	FOSTER WHEELER
Project Location:	WARMINSTER, PA
Test:	TOTAL ORGANIC CARBON
Analysis Method:	415.1/EPA-600/4-79-020,March 1983.
Extraction Method:	N/A
Matrix:	WATER
QC Level:	II

Lab Id:	001	Sample Date/Time:	17-SEP-97 1108
Client Sample Id:	DO-0018-06-002	Received Date:	19-SEP-97
Batch: TOW085		Extraction Date:	N/A
Blank: A	Dry Weight %: N/A	Analysis Date:	22-SEP-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	
ANALYST	INITIALS	LP		

Comments:

"FINAL REPORT FORMAT - SINGLE"

Accession: 709313
Client: AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number: 9709095
Project Name: FOSTER WHEELER
Project Location: WARMINSTER, PA
Test: TOTAL ORGANIC CARBON
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A
Matrix: WATER
QC Level: II

Lab Id: 003 Sample Date/Time: 17-SEP-97 1035
Client Sample Id: DO-0018-06-007 Received Date: 19-SEP-97

Batch: TOW085 Extraction Date: N/A
Blank: A Dry Weight %: N/A Analysis Date: 22-SEP-97

Parameter:	Units:	Results:	Rpt Lmts:	Q:
TOTAL ORGANIC CARBON	MG/L	ND	1	
ANALYST	INITIALS	LP		

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Quality Control Report

Analysis: TOTAL ORGANIC CARBON

Accession:	709313
Client:	AMERICAN ENVIRONMENTAL NETWORK OF MARYLAND, INC.
Project Number:	9709095
Project Name:	FOSTER WHEELER
Project Location:	WARMINSTER, PA
Department:	SEMI-VOLATILE FUELS

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Blank
Batch: TOW085
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Blank Id: A Date Analyzed: 22-SEP-97 Date Extracted: N/A

Parameters:	Units:	Results:	Reporting Limits:
TOTAL ORGANIC CARBON	MG/L	ND	1
ANALYST	INITIALS	LP	

Comments:

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Reagent
Batch: TOW085
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

RS Date Analyzed: 22-SEP-97 RS Date Extracted: N/A
RSD Date Analyzed: 22-SEP-97 RSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	RS Conc	RS %Rec	RSD Conc	RSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	<1	6.8	101	7.0	104	3	30	71-127

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

AMERICAN ENVIRONMENTAL NETWORK 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

"QC Report"

Title: Water Matrix
Batch: TOW085
Analysis Method: 415.1/EPA-600/4-79-020,March 1983.
Extraction Method: N/A

Dry Weight %: N/A
Sample Spiked: 709276-1

MS Date Analyzed: 22-SEP-97
MSD Date Analyzed: 22-SEP-97

MS Date Extracted: N/A
MSD Date Extracted: N/A

Parameters:	Spike Added	Sample Conc	MS Conc	MS %Rec	MSD Conc	MSD %Rec	RPD	RPD Lmts	Rec Lmts
TOC	6.7	1	7.5	97	7.5	97	0	30	51-135

Surrogates:

Comments:

Notes:
N/S = NOT SUBMITTED N/A = NOT APPLICABLE D = DILUTED OUT
MG/L = PARTS PER MILLION. < = LESS THAN REPORTING LIMIT.
* = VALUES OUTSIDE OF QUALITY CONTROL LIMITS.
SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

Common Notation for Organic Reporting

N/S = NOT SUBMITTED
N/A = NOT APPLICABLE
UG = MICROGRAMS
UG/L = PARTS PER BILLION
UG/KG = PARTS PER BILLION
MG/M3 = MILLIGRAM PER CUBIC METER
PPMV = PART PER MILLION BY VOLUME
MG/KG = PARTS PER MILLION
MG/L = PARTS PER MILLION
< = LESS THAN
ND = NOT DETECTED

SOURCES FOR CONTROL LIMITS ARE INTERNAL LABORATORY QUALITY ASSURANCE PROGRAM AND REFERENCED METHOD.

ORGANIC SOILS ARE REPORTED ON A DRYWEIGHT BASIS.

RPT LMTS = REPORTING LIMITS BASED ON METHOD DETECTION LIMIT STUDIES.

RPD = RELATIVE PERCENT DIFFERENCE (OR DEVIATION)

AEN/GC/FID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME IONIZATION DETECTOR (FID).

AEN/GC/FIX
AEN GAS CHROMATOGRAPHIC METHOD FOR ANALYSIS OF FIXED GASES EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD) AND FLAME IONIZATION DETECTOR (FID).

AEN/GC/FPD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH FLAME PHOTOMETRIC DETECTOR (FPD) IN SULFUR-SPECIFIC MODE.

AEN/GC/PID
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH PHOTOIONIZATION DETECTOR (PID).

AEN/GC/TCD
AEN GAS CHROMATOGRAPHIC METHOD EMPLOYING DIRECT INJECTION ON COLUMN WITH THERMAL CONDUCTIVITY DETECTOR (TCD).

SW-846 METHOD 9020
PARTICULATE MATTER IS REMOVED BY ALLOWING PARTICULATES TO SETTLE IN THE SAMPLE CONTAINER AND DECANTING THE SUPERNATANT LIQUID. EXCESSIVE PARTICULATES ARE REMOVED BY FILTRATION OF THE SUPERNATANT LIQUID.

AEN-PN USES THE MOST CURRENT PROMULGATED METHODS CONTAINED IN THE REFERENCE MANUALS.

SW = STEVE WILHITE
RW = ROBERT WOLFE
KS = KENDALL SMITH
KL = KERRY LEMONT
JO = JENNIFER O'NEAL
LP = LEVERNE PETERSON
PLD = PAULA DOUGHTY

Sample

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road, Columbia, MD 21045 Phone (410) 730-8525 Fax (410) 997-2586

CHAIN OF CUSTODY RECORD

GREY SHADED AREAS FOR AEN LAB USE

AEN-FL

Page_____ of _____

AEN # 709313 Quote #_____ Scope Q / M

Client Name: AEN - MD

Project Nam : 9709095

Site Location: City, State _____

# of Container	9
Container Type	250 A
Preservative Used	H_2SO_4
Type of Analysis	TOC

LAB #	SAMPLE - ID	DATE	TIME	MATRIX	TOC	REMARKS
1	DO-0018-06-002	9/17	11:08	H_2O	✓	
2	DO-0018-06-006	"	10:50	"	✓	
3	DO-0018-06-007	"	10:35	"	✓	

Relinquished by: (Signature) ①	Date / Time	Received by: (Signature)	Received by Laboratory: (Signature)	Date / Time	Shipped via: Shipping Ticket No.
By Pelini	9/18/97 16:00		Robert Espeman	9/19/97 1030	
Relinquished by: (Signature) ②	Date / Time	Received by: (Signature)	Remarks: SEG ILWO		
Relinquished by: (Signature) ③	Date / Time	Received by: (Signature)	Sampling By:	Sampler's Signature	

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
DO-0018-06-001	9709095-001	09/17/97	09/17/97
DO-0018-06-002	9709095-002	09/17/97	09/17/97
DO-0018-06-003	9709095-003	09/17/97	09/17/97
DO-0018-06-004	9709095-004	09/17/97	09/17/97
DO-0018-06-007	9709095-007	09/17/97	09/17/97

Five water samples were received and analyzed for General Chemistry Parameters.

All quality control data were within acceptable limits.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By:

Christopher Baggett
Inorganic Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095-001
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Sample ID: D0-0018-06-001

Parameter	Method	Result	Date Analyzed
pH	EPA 150.1	7.1	09/18/97
Total Suspended Solids (1,2)	EPA 160.2	9	09/22/97

(1) Results reported as mg/L.
(2) Date analysis started.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095-002
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Sample ID: D0-0018-06-002

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	09/18/97
pH	EPA 150.1	7.4	09/18/97
Total Cyanide (1)	SW846 9010A	< 0.02	09/23/97
Total Suspended Solids (1,2)	EPA 160.2	< 1	09/22/97

(1) Results reported as mg/L.
(2) Date analysis started.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095-003
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Sample ID: D0-0018-06-003

Parameter	Method	Result	Date Analyzed
Total Suspended Solids	EPA 160.2	< 1	09/22/97

(1) Results reported as mg/L.
(2) Date analysis started.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095-004
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Sample ID: D0-0018-06-004

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	09/18/97
pH	EPA 150.1	7.5	09/18/97
Total Cyanide (1)	SW846 9010A	< 0.02	09/23/97
Total Suspended Solids (1,2)	EPA 160.2	< 1	09/22/97

(1) Results reported as mg/L.
(2) Date analysis started.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095-007
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Sample ID: D0-0018-06-007

Parameter	Method	Result	Date Analyzed
Hexavalent Chromium (1)	SW846 7196	< 0.01	08/18/97
pH	EPA 150.1	7.4	09/18/97
Total Cyanide (1)	SW846 9010A	< 0.02	09/23/97
Total Suspended Solids (1,2)	EPA 160.2	< 1	09/22/97

(1) Results reported as mg/L.
(2) Date analysis started.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9709095
Report To: Foster Wheeler Environmental Corp.
Project: NAWC Warminster
Date: September 24, 1997
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Hexavalent Chromium	PBLK970918	< 0.01 mg/L
	BS970918	95%
	BSD970918	102%
	9709095-007	< 0.01 mg/L
	9709095-007D	< 0.01 mg/L
	9709095-007MS	99%
	9709095-007MSD	97%
Total Suspended Solids	PBLK970922	< 1 mg/L
	BS970922	99%
	9709095-001	9 mg/L
	9709095-001D	10 mg/L
pH (true value = 6.00)	BS970918	6.00
	BSD970918	6.00
	9709095-001	7.1
	9709095-001D	7.1
Total Cyanide	PBLK970923	< 0.02 mg/L
	BS970923	102%
	BSD970923	102%
	9709115-006	0.18 mg/L
	9709115-006D	0.19 mg/L
	9709115-008	< 0.02 mg/L
	9709115-008MS	105%
	9709115-010	0.07 mg/L
	9709115-010MS	100%

AMERICAN ENVIRONMENTAL NETWORK,INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

September 24, 1997

Client: Foster Wheeler Environmental Corp.

Project: NAWC Warminster

Case: 9709095

Analysis: TAL Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
DO-0018-06-002	9709095-002	09/17/97	09/17/97	09/22,23/97
DO-0018-06-004	9709095-004	09/17/97	09/17/97	09/22,23/97
DO-0018-06-007	9709095-007	09/17/97	09/17/97	09/22,23/97

Three groundwater samples were received and analyzed for metals per SW846 methodology. Results are reported in units of ug/L.

All quality control results were within normal control limits.

Report Released By

Christopher Baggett
Inorganics Manager

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DO001806002

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970909502

Level (low/med): LOW Date Received: 09/17/97

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	298			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	39600			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	224			P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	13000			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7910			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	43.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: DO-0018-06-002

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DO001806004

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970909504

Level (low/med): LOW Date Received: 09/17/97

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	295			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	39900			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	13100			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	8150			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	49.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: DO-0018-06-004

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

DO001806007

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Lab Sample ID: 970909507

Level (low/med): LOW Date Received: 09/17/97

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	289			P
7440-41-7	Beryllium	2.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	39900			P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	11.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	10.0	U		P
7439-95-4	Magnesium	13200			P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	15.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U		P
7440-23-5	Sodium	7980			P
7440-28-0	Thallium	10.0	U		P
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	44.8			P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: DO-0018-06-007

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum	9000.0	8897.17	98.9	10000.0	10310.56	103.1	10176.28	101.8	P
Antimony	450.0	448.77	99.7	500.0	494.99	99.0	499.29	99.9	P
Arsenic	45.0	44.06	97.9	500.0	499.87	100.0	504.33	100.9	P
Barium	9000.0	9043.24	100.5	10000.0	10012.54	100.1	10030.25	100.3	P
Beryllium	225.0	224.33	99.7	250.0	249.28	99.7	251.13	100.5	P
Cadmium	225.0	228.22	101.4	250.0	250.86	100.3	251.34	100.5	P
Calcium	45000.0	45714.45	101.6	50000.0	50925.84	101.9	51120.03	102.2	P
Chromium	450.0	457.56	101.7	1000.0	998.72	99.9	1002.44	100.2	P
Cobalt	2250.0	2277.27	101.2	2500.0	2513.05	100.5	2525.91	101.0	P
Copper	1125.0	1113.53	99.0	1250.0	1222.86	97.8	1222.46	97.8	P
Iron	4500.0	4542.67	100.9	5000.0	5205.52	104.1	5159.11	103.2	P
Lead	450.0	459.11	102.0	2500.0	2507.42	100.3	2514.04	100.6	P
Magnesium	45000.0	44699.20	99.3	50000.0	49848.77	99.7	50012.78	100.0	P
Manganese	2250.0	2275.75	101.1	2500.0	2504.51	100.2	2517.29	100.7	P
Mercury	1.0	1.05	105.0	2.0	2.31	115.5	2.20	110.0	AV
Nickel	2250.0	2250.49	100.0	2500.0	2507.63	100.3	2525.71	101.0	P
Potassium	45000.0	41500.22	92.2	50000.0	46732.29	93.5	46882.19	93.8	P
Selenium	45.0	45.15	100.3	500.0	507.88	101.6	511.91	102.4	P
Silver	450.0	451.15	100.3	500.0	493.24	98.6	493.28	98.7	P
Sodium	45000.0	40493.43	90.0	50000.0	45747.78	91.5	45815.48	91.6	P
Thallium	400.0	408.00	102.0	500.0	496.45	99.3	504.09	100.8	P
Vanadium	2250.0	2239.35	99.5	2500.0	2480.19	99.2	2507.83	100.3	P
Zinc	2250.0	2280.53	101.4	2500.0	2526.06	101.0	2527.37	101.1	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	9912.67	99.1	9936.72	99.4	P
Antimony				500.0	516.24	103.2	513.47	102.7	P
Arsenic				500.0	503.51	100.7	505.47	101.1	P
Barium				10000.0	10243.86	102.4	10242.96	102.4	P
Beryllium				250.0	256.07	102.4	256.04	102.4	P
Cadmium				250.0	256.85	102.7	256.06	102.4	P
Calcium				50000.0	51709.05	103.4	51652.68	103.3	P
Chromium				1000.0	1012.37	101.2	1011.33	101.1	P
Cobalt				2500.0	2549.73	102.0	2549.20	102.0	P
Copper				1250.0	1232.20	98.6	1232.09	98.6	P
Iron				5000.0	5042.14	100.8	5041.02	100.8	P
Lead				2500.0	2564.57	102.6	2567.86	102.7	P
Magnesium				50000.0	50355.20	100.7	50312.45	100.6	P
Manganese				2500.0	2540.23	101.6	2540.47	101.6	P
Mercury									NR
Nickel				2500.0	2607.25	104.3	2600.62	104.0	P
Potassium				50000.0	47351.76	94.7	47431.78	94.9	P
Selenium				500.0	528.25	105.6	524.73	104.9	P
Silver				500.0	497.71	99.5	497.79	99.6	P
Sodium				50000.0	46389.41	92.8	46434.17	92.9	P
Thallium				500.0	526.07	105.2	524.36	104.9	P
Vanadium				2500.0	2560.02	102.4	2559.39	102.4	P
Zinc				2500.0	2521.35	100.9	2519.92	100.8	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Initial Calibration Source: INORG VENTUR

Continuing Calibration Source: INORG VENTUR

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				10000.0	9943.83	99.4	10318.89	103.2	P
Antimony				500.0	518.95	103.8	520.69	104.1	P
Arsenic				500.0	505.04	101.0	507.23	101.4	P
Barium				10000.0	10262.62	102.6	10288.74	102.9	P
Beryllium				250.0	256.77	102.7	257.84	103.1	P
Cadmium				250.0	257.92	103.2	258.94	103.6	P
Calcium				50000.0	51889.91	103.8	52313.14	104.6	P
Chromium				1000.0	1012.23	101.2	1014.39	101.4	P
Cobalt				2500.0	2556.24	102.2	2556.23	102.2	P
Copper				1250.0	1232.36	98.6	1235.98	98.9	P
Iron				5000.0	5037.89	100.8	5212.20	104.2	P
Lead				2500.0	2581.60	103.3	2585.37	103.4	P
Magnesium				50000.0	50504.98	101.0	50922.89	101.8	P
Manganese				2500.0	2537.79	101.5	2539.42	101.6	P
Mercury									NR
Nickel				2500.0	2617.45	104.7	2623.61	104.9	P
Potassium				50000.0	47550.74	95.1	47672.61	95.3	P
Selenium				500.0	531.41	106.3	534.00	106.8	P
Silver				500.0	496.54	99.3	499.75	99.9	P
Sodium				50000.0	46608.10	93.2	46452.18	92.9	P
Thallium				500.0	524.93	105.0	525.26	105.1	P
Vanadium				2500.0	2562.34	102.5	2567.09	102.7	P
Zinc				2500.0	2528.83	101.2	2535.45	101.4	P
Cyanide									NR

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U	200.000	U	P
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Arsenic	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	4.000	U	P
Calcium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	11.000	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	25.000	U	P
Iron	100.0	U	100.0	U	100.0	U	100.0	U	100.000	U	P
Lead	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Magnesium	500.0	U	500.0	U	500.0	U	500.0	U	500.000	U	P
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.200	U	AV
Nickel	15.0	U	15.0	U	15.0	U	15.0	U	15.000	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	5.000	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	8.000	U	P
Sodium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	16.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	20.000	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			20.0	U	20.0	U	20.0	U			P
Arsenic			8.0	U	8.0	U	8.0	U			P
Barium			100.0	U	100.0	U	100.0	U			P
Beryllium			2.0	U	2.0	U	2.0	U			P
Cadmium			4.0	U	4.0	U	4.0	U			P
Calcium			500.0	U	500.0	U	500.0	U			P
Chromium			10.0	U	10.0	U	10.0	U			P
Cobalt			11.0	U	11.0	U	11.0	U			P
Copper			25.0	U	25.0	U	25.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			10.0	U	10.0	U	10.0	U			P
Magnesium			500.0	U	500.0	U	500.0	U			P
Manganese			15.0	U	15.0	U	15.0	U			P
Mercury			0.2	U							AV
Nickel			15.0	U	15.0	U	15.0	U			P
Potassium			1000.0	U	1000.0	U	1000.0	U			P
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			8.0	U	8.0	U	8.0	U			P
Sodium			1000.0	U	1000.0	U	1000.0	U			P
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			16.0	U	16.0	U	16.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U	200.0	U					P
Antimony			20.0	U	20.0	U					P
Arsenic			8.0	U	8.0	U					P
Barium			100.0	U	100.0	U					P
Beryllium			2.0	U	2.0	U					P
Cadmium			4.0	U	4.0	U					P
Calcium			500.0	U	500.0	U					P
Chromium			10.0	U	10.0	U					P
Cobalt			11.0	U	11.0	U					P
Copper			25.0	U	25.0	U					P
Iron			100.0	U	100.0	U					P
Lead			10.0	U	10.0	U					P
Magnesium			500.0	U	500.0	U					P
Manganese			15.0	U	15.0	U					P
Mercury											NR
Nickel			15.0	U	15.0	U					P
Potassium			1000.0	U	1000.0	U					P
Selenium			5.0	U	5.0	U					P
Silver			8.0	U	8.0	U					P
Sodium			1000.0	U	1000.0	U					P
Thallium			10.0	U	10.0	U					P
Vanadium			16.0	U	16.0	U					P
Zinc			20.0	U	20.0	U					P
Cyanide											NR

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No: SDG No.: DO0018

ICP ID Number: TJA TRACE PB ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	511747	514516.2	102.9	516427	519204.8	103.8
Antimony	0	0	4	5.5		3	4.8	
Arsenic	0	2000	-5	2065.8	103.3	-3	2081.7	104.1
Barium	0	500	10	544.7	108.9	9	557.1	111.4
Beryllium	0	500	0	504.0	100.8	-1	519.3	103.9
Cadmium	0	1000	24	1018.4	101.8	23	1042.4	104.2
Calcium	500000	500000	487515	491420.8	98.3	500730	503394.2	100.7
Chromium	0	500	-1	500.8	100.2	-3	502.1	100.4
Cobalt	0	500	-3	489.0	97.8	-7	496.7	99.3
Copper	0	500	3	536.4	107.3	1	539.1	107.8
Iron	200000	200000	188677	190669.7	95.3	190035	192007.3	96.0
Lead	0	1000	-10	999.8	100.0	-12	1016.8	101.7
Magnesium	500000	500000	535296	539687.2	107.9	545647	549047.0	109.8
Manganese	0	500	10	517.6	103.5	13	521.0	104.2
Mercury								
Nickel	0	1000	2	989.8	99.0	0	1023.4	102.3
Potassium	0	0	-18	-12.7		-13	-18.1	
Selenium	0	2000	0	2060.6	103.0	-4	2119.7	106.0
Silver	0	1000	1	1070.5	107.0	1	1080.5	108.0
Sodium	0	0	589	878.4		559	588.6	
Thallium	0	0	-11	-21.4		-16	-19.3	
Vanadium	0	500	-15	485.2	97.0	-15	501.5	100.3
Zinc	0	1000	14	1040.5	104.0	13	1034.5	103.4

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DO001806002S

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	2.2000		0.2000	U	2.00	110.0		AV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
CLIENT_ID: DO-0018-06-002
MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DO001806002M

Lab Name: AENI Contract: 9709095

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Matrix (soil/water): WATER_ Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury	80-120	2.0100		0.2000	U	2.00	100.5		AV
Nick l	[illegible]	[illegible]				[illegible]	[illegible]		NR
Potassium	NR	[illegible]				[illegible]	[illegible]		NR
Selenium							[illegible]		NR
Silver	[illegible]	[illegible]				[illegible]	[illegible]		NR
Sodium	[illegible]	[illegible]				[illegible]	[illegible]		NR
Thallium	[illegible]	[illegible]				[illegible]	[illegible]		NR
Vanadium	NR	[illegible]				[illegible]	[illegible]		NR
Zinc	NR	[illegible]				[illegible]	[illegible]		NR
Cyanide	[illegible]								NR

Comments:
CLIENT_ID: DO-0018-06-002
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

DO001806007S

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	2015.9400		200.0000	U	2000.00	100.8		P
Antimony	80-120	104.4040		20.0000	U	100.00	104.4		P
Arsenic	80-120	101.2170		8.0000	U	100.00	101.2		P
Barium	80-120	2414.7810		289.0610		2000.00	106.3		P
Beryllium	80-120	51.4990		2.0000	U	50.00	103.0		P
Cadmium	80-120	52.4230		4.0000	U	50.00	104.8		P
Calcium	80-120	49860.8800		39947.4100		10000.00	99.1		P
Chromium	80-120	209.7240		10.0000	U	200.00	104.9		P
Cobalt	80-120	521.9040		11.0000	U	500.00	104.4		P
Copper	80-120	252.0120		25.0000	U	250.00	100.8		P
Iron	80-120	1062.7200		100.0000	U	1000.00	106.3		P
Lead	80-120	521.7200		10.0000	U	500.00	104.3		P
Magnesium	80-120	23181.6400		13152.6600		10000.00	100.3		P
Manganese	80-120	530.2100		15.0000	U	500.00	106.0		P
Mercury									NR
Nickel	80-120	531.2190		15.0000	U	500.00	106.2		P
Potassium	80-120	9535.6800		1000.0000	U	10000.00	95.4		P
Selenium	80-120	99.2490		5.0000	U	100.00	99.2		P
Silver	80-120	100.3030		8.0000	U	100.00	100.3		P
Sodium	80-120	16964.0000		7977.3600		10000.00	89.9		P
Thallium	80-120	101.3330		10.0000	U	100.00	101.3		P
Vanadium	80-120	525.5200		16.0000	U	500.00	105.1		P
Zinc	80-120	547.2520		44.8460		500.00	100.5		P
Cyanide									NR

Comments:
CLIENT_ID: DO-0018-06-007
MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

D0001806007M

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	80-120	2048.8700		200.0000	U	2000.00	102.4		P
Antimony	80-120	105.0110		20.0000	U	100.00	105.0		P
Arsenic	80-120	102.9590		8.0000	U	100.00	103.0		P
Barium	80-120	2441.7870		289.0610		2000.00	107.6		P
Beryllium	80-120	52.1370		2.0000	U	50.00	104.3		P
Cadmium	80-120	53.4490		4.0000	U	50.00	106.9		P
Calcium	80-120	50085.7600		39947.4100		10000.00	101.4		P
Chromium	80-120	211.4110		10.0000	U	200.00	105.7		P
Cobalt	80-120	528.1310		11.0000	U	500.00	105.6		P
Copper	80-120	254.7090		25.0000	U	250.00	101.9		P
Iron	80-120	1069.6500		100.0000	U	1000.00	107.0		P
Lead	80-120	530.1920		10.0000	U	500.00	106.0		P
Magnesium	80-120	23383.7400		13152.6600		10000.00	102.3		P
Manganese	80-120	535.7300		15.0000	U	500.00	107.1		P
Mercury									NR
Nickel	80-120	541.1630		15.0000	U	500.00	108.2		P
Potassium	80-120	9771.9100		1000.0000	U	10000.00	97.7		P
Selenium	80-120	101.2120		5.0000	U	100.00	101.2		P
Silver	80-120	100.6860		8.0000	U	100.00	100.7		P
Sodium	80-120	17035.3600		7977.3600		10000.00	90.6		P
Thallium	80-120	110.4450		10.0000	U	100.00	110.4		P
Vanadium	80-120	532.0300		16.0000	U	500.00	106.4		P
Zinc	80-120	553.3440		44.8460		500.00	101.7		P
Cyanide									NR

Comments:
CLIENT_ID: DO-0018-06-007
MATRIX_SPIKE_DUPLICATE

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6
DUPLICATES

EPA SAMPLE NO.

DO001806002D

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead								NR
Magnesium								NR
Manganese								NR
Mercury		0.2000	U	0.2000	U			AV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

D0001806007D

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		200.0000	U	200.0000	U			P
Antimony		20.0000	U	20.0000	U			P
Arsenic		8.0000	U	8.0000	U			P
Barium	100.0	289.0610		282.8630		2.2		P
Beryllium		2.0000	U	2.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		39947.4100		39969.8700		0.1		P
Chromium		10.0000	U	10.0000	U			P
Cobalt		11.0000	U	11.0000	U			P
Copper		25.0000	U	25.0000	U			P
Iron		100.0000	U	100.0000	U			P
Lead		10.0000	U	10.0000	U			P
Magnesium		13152.6600		13153.1400		0.0		P
Manganese		15.0000	U	15.0000	U			P
Mercury								NR
Nickel		15.0000	U	15.0000	U			P
Potassium		1000.0000	U	1000.0000	U			P
Selenium		5.0000	U	5.0000	U			P
Silver		8.0000	U	8.0000	U			P
Sodium		7977.3600		7926.0200		0.6		P
Thallium		10.0000	U	10.0000	U			P
Vanadium		16.0000	U	16.0000	U			P
Zinc	20.0	44.8460		42.7440		4.8		P
Cyanide								NR

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7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9709095

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Solid LCS Source: _____

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	1.0	1.11	111.0						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

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7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9709095

Lab Code: _____ Case No.: FOS60_ SAS No.: _____ SDG No.: DO0018

Solid LCS Source: _____

Aqueous LCS Source: HIGH PURITY

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	2000.0	2045.92	102.3						
Antimony	100.0	104.93	104.9						
Arsenic	100.0	101.64	101.6						
Barium	2000.0	2192.48	109.6						
Beryllium	50.0	52.50	105.0						
Cadmium	50.0	55.20	110.4						
Calcium	10000.0	11010.59	110.1						
Chromium	200.0	218.52	109.3						
Cobalt	500.0	542.81	108.6						
Copper	250.0	258.38	103.4						
Iron	1000.0	1124.47	112.4						
Lead	500.0	580.05	116.0						
Magnesium	10000.0	10504.90	105.0						
Manganese	500.0	549.17	109.8						
Mercury									
Nickel	500.0	561.57	112.3						
Potassium	10000.0	8255.83	82.6						
Selenium	100.0	103.39	103.4						
Silver	100.0	88.44	88.4						
Sodium	10000.0	8545.97	85.5						
Thallium	100.0	108.24	108.2						
Vanadium	500.0	541.09	108.2						
Zinc	500.0	591.98	118.4						
Cyanide									

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ICP SERIAL DILUTION

EPA SAMPLE NO.

D0001806007L

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: D00018

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	200.00	U	1000.00	U			P
Antimony	20.00	U	100.00	U			P
Arsenic	8.00	U	40.00	U			P
Barium	289.06		500.00	U	100.0		P
Beryllium	2.00	U	10.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	39947.41		40780.40		2.1		P
Chromium	10.00	U	50.00	U			P
Cobalt	11.00	U	55.00	U			P
Copper	25.00	U	125.00	U			P
Iron	100.00	U	500.00	U			P
Lead	10.00	U	50.00	U			P
Magnesium	13152.66		13384.00		1.8		P
Manganese	15.00	U	75.00	U			P
Mercury							NR
Nickel	15.00	U	75.00	U			P
Potassium	1000.00	U	5000.00	U			P
Selenium	5.00	U	25.00	U			P
Silver	8.00	U	40.00	U			P
Sodium	7977.36		6444.15		19.2		P
Thallium	10.00	U	50.00	U			P
Vanadium	16.00	U	80.00	U			P
Zinc	44.85		100.00	U	100.0		P
	10		NR				
	16		NR				

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Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

ICP ID Number: Date: 06/30/97

Flame AA ID Number : PE_3100

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			20		NR
Arsenic			8		NR
Barium			100		NR
Beryllium			2		NR
Cadmium			4		NR
Calcium			500		NR
Chromium			10		NR
Cobalt			11		NR
Copper			10		NR
Iron			100		NR
Lead			10		NR
Magnesium			500		NR
Manganese			15		NR
Mercury	253.05		0.2	0.2	AV
Nickel			15		NR
Potassium			1000		NR
Selenium			5		NR
Silver			8		NR
Sodium			1000		NR
Thallium			10		NR
Vanadium			16		NR
Zinc			20		NR

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: AENI Contract: 9709095

Lab Code: Case No.: FOS60 SAS No.: SDG No.: DO0018

ICP ID Number: TJA_TRACE_PB Date: 07/21/97

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.21		200	200.0	P
Antimony	206.83		20	20.0	P
Arsenic	189.04		8	8.0	P
Barium	493.41		100	100.0	P
Beryllium	313.04		2	2.0	P
Cadmium	226.50		4	4.0	P
Calcium	317.93		500	500.0	P
Chromium	267.72		10	10.0	P
Cobalt	228.62		11	11.0	P
Copper	324.75		10	25.0	P
Iron	271.44		100	100.0	P
Lead	220.35		10	10.0	P
Magnesium	279.08		500	500.0	P
Manganese	257.61		15	15.0	P
Mercury			0.2		NR
Nickel	231.60		15	15.0	P
Potassium	766.49		1000	1000.0	P
Selenium	196.02		5	5.0	P
Silver	328.07		8	8.0	P
Sodium	330.20		1000	1000.0	P
Thallium	190.86		10	10.0	P
Vanadium	292.40		16	16.0	P
Zinc	206.20		20	20.0	P

Comments:

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PREPARATION LOG

Lab Name: AENI_____ Contract: 9709095___

Lab Code: _____ Case No.:_FOS60_ SAS No.: _____ SDG No.:DO0018

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
1806002	09/22/97		100
1806004	09/22/97		100
1806007	09/22/97		100
806007D	09/22/97		100
806007M	09/22/97		100
806007S	09/22/97		100
LCS3281	09/22/97		100
LCS3281	09/22/97		100
PBW3281	09/22/97		100

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PREPARATION LOG

Lab Name: AENI_____ Contract: 9709095___

Lab Code: _____ Case No.:_FOS60_ SAS No.: _____ SDG No.:DO0018

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
1806002	09/21/97		100
806002D	09/21/97		100
806002M	09/21/97		100
806002S	09/21/97		100
1806004	09/21/97		100
1806007	09/21/97		100
LCS1415	09/21/97		100
PBW1415	09/21/97		100

American Environmental Network, Inc.

Case Number: L9709095
Client Name: Foster Wheeler Environmental Corp.
Project Name: FWE-WARMINSTER
Method: 8260A

Client ID	AEN ID	Matrix	Date Sampled	Date Received	Date Analyzed
DO-0018-06-002	L9709095-002	Water	09/17/97	09/17/97	09/23/97
DO-0018-06-005	L9709095-005	Water	09/17/97	09/17/97	09/23/97
DO-0018-06-006	L9709095-006	Water	09/17/97	09/17/97	09/23/97
DO-0018-06-007	L9709095-007	Water	09/17/97	09/17/97	09/23/97
DO-0018-06 FIELD BLK	L9709095-008	Water	09/17/97	09/17/97	09/23/97

Five ground water samples were analyzed for the TCL volatile organic compounds using SW846 Method 8260A. This package consists of the tabulated results of the sample(s), method blank(s), and the QC forms II, III, IV, V, VI, VII, and VIII.

Form I(Tabulated Results):
All sample analyses were performed within the holding time requirement.

Form II(Surrogate Recovery):
All surrogate recoveries were within specified limits.

Form III(Matrix Spike/Matrix Spike Duplicate(MS/MSD):
The MS/MSD analysis was performed on client sample 9709102-027 (batch QC). All recoveries and %RPDs were within specified limits.

Form IV(Method Blank Summary):
The method blank was free of target analytes.

Form V(Tuning and Mass Calibration):
All analyses were performed within the specified mass calibration and tune time criteria.

Form VI(Initial Calibration):
Each initial calibration was within the specified minimum mean RRF and maximum %RSD.

Form VII(Continuing Calibration):
Each continuing calibration standard was within the specified minimum RRF and maximum %DIFF.

Form VIII(Internal Standard Summary):
All internal standard areas and retention times were within specified criteria.

Analyst: Jim Pruenal Date 9/26/97

Released by: Marsha J Burrell Date 9-26-97

EPA ORGANIC DATA QUALIFIERS

U - Indicates compound was analyzed for but was not detected.

J - Indicates that a compound is present below the reporting limits but above the instrument or method detection limits. This flag is may is also used When estimating a concentration for tentatively identified compounds where a 1:1 response is assumed,

B - Indicates that the compound is found in the associated bank as well as in the sample, a possible/probable indication of blank contamination. It warns the data user to take appropriate action.

E - Indicates compounds whose concentrations exceed the calibration range of the instrument for that specific analysis.

D - Indicates compounds in an analysis at a secondary dilution factor.

P- Indicates that there is a greater than 25% difference for detected concentrations between the two GC columns used for pesticide analysis. The lower of the two values is reported on the Form I.

A - Aldol condensation product. Used in tentatively identified compounds indicating potential reaction by-product from the extraction process.

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: _____ Location: _____ Group: _____

	SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER #	TOT OUT
01	VBLK01	102	108	97		
02	9709102-027	97	104	99		
03	9709102-027MS	104	110	95		
04	9709102-027MS	101	101	99		
05	DO-0018-06-002	103	100	101		
06	DO-0018-06-005	107	97	102		
07	DO-0018-06-006	107	106	94		
08	DO-0018-06-007	97	94	98		
09	DO-0018-06 FIEL	103	100	97		
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27						
28						
29						
30						

		QC LIMITS
SMC1	= Dibromofluoromethane	(79-122)
SMC2	= Toluene-d8	(86-112)
SMC3	= Bromofluorobenzene	(76-118)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix Spike - Sample No.: 9709102-027

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	51	102	(61-145)
Benzene	50	0	50	100	(76-127)
Trichloroethene	50	0	50	100	(71-120)
Toluene	50	0	50	100	(76-125)
Chlorobenzene	50	0	51	102	(75-130)

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	50	100	2	14	(61-145)
Benzene	50	49	98	2	11	(76-127)
Trichloroethene	50	52	104	4	14	(71-120)
Toluene	50	51	102	2	13	(76-125)
Chlorobenzene	50	51	102	0	13	(75-130)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Comments:

4A

VOLATILE METHOD BLANK SUMMARY

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Lab File ID: FI158.D Lab Sample ID: 970923FW

Date Analyzed: 9/23/97 Time Analyzed: 1011

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: F7200

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	9709102-027	QC	FI159.D	9/23/97
02	9709102-027MS	QC MS	FI160.D	9/23/97
03	9709102-027MSD	QC MSD	FI161.D	9/23/97
04	D0-0018-06-002	#002	FI164.D	9/23/97
05	D0-0018-06-005	#005	FI165.D	9/23/97
06	D0-0018-06-006	#006	FI166.D	9/23/97
07	D0-0018-06-007	#007	FI167.D	9/23/97
08	D0-0018-06 FIELD BLA	#008	FI168.D	9/23/97
09				
10				
11				
12				
13				
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30				

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name : AENI Contract: TCL

Project No.: 8260FD1 Site: _____ Location: _____ Group: _____

Lab File ID: FD200.D BFB Injection Date: 4/25/97

Instrument ID: F7200 BFB Injection Time: 1411

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.0
75	30.0 - 60.0% of mass 95	50.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	73.0
175	5.0 - 9.0% of mass 174	6.0 (8.2)1
176	95.0 - 101.0% of mass 174	73.0 (100.0)1
177	5.0 - 9.0% of mass 176	5.0 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD020	STD#2734	FD210.D	4/25/97	1934
02	VSTD050	STD#2735	FD211.D	4/25/97	2011
03	VSTD100	STD#2736	FD212.D	4/25/97	2050
04	VSTD150	STD#2737	FD213.D	4/25/97	2124
05	VSTD200	STD#2738	FD214.D	4/25/97	2200
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK

BROMOFLUOROBENZENE (BFB)

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: _____ Location: _____ Group: _____

Lab File ID: FI156.D BFB Injection Date: 9/23/97

Instrument ID: F7200 BFB Injection Time: 0921

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.0
75	30.0 - 60.0% of mass 95	46.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 100.0% of mass 95	75.0
175	5.0 - 9.0% of mass 174	6.0 (8.0)1
176	95.0 - 101.0% of mass 174	73.0 (97.3)1
177	5.0 - 9.0% of mass 176	5.0 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

This check applies to the following SAMPLES, MS, MSD, BLANKS and STANDARDS:

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	STD#2994	FI157.D	9/23/97	0936
02	VBLK01	970923FW	FI158.D	9/23/97	1011
03	9709102-027	QC	FI159.D	9/23/97	1045
04	9709102-027MS	QC MS	FI160.D	9/23/97	1118
05	9709102-027MS	QC MSD	FI161.D	9/23/97	1151
06	DO-0018-06-002	#002	FI164.D	9/23/97	1329
07	DO-0018-06-005	#005	FI165.D	9/23/97	1402
08	DO-0018-06-006	#006	FI166.D	9/23/97	1435
09	DO-0018-06-007	#007	FI167.D	9/23/97	1508
10	DO-0018-06 FIEL	#008	FI168.D	9/23/97	1540
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AENI Contract: TCL

Project No.: 8260FD1 Site: _____ Location: _____ Group: _____

Instrument ID: F7200 Calibration Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Calibration Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

Lab File ID: RRF20 - FD210.D RRF50 - FD211.D
RRF100 - FD212.D RRF150 - FD213.D RRF200 - FD214.D

COMPOUND		RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD	
Chloromethane	*	0.142	0.144	0.125	0.102	0.130	0.128	13.0	*
Vinyl Chloride		0.141	0.138	0.128	0.113	0.132	0.130	8.4	
Bromomethane		0.137	0.129	0.123	0.128	0.129	0.129	4.1	
Chloroethane		0.062	0.057	0.059	0.058	0.059	0.059	3.1	
Acetone		0.061	0.063	0.053	0.050	0.048	0.055	11.8	
1,1-Dichloroethene		0.183	0.178	0.160	0.156	0.180	0.171	7.3	
Carbon Disulfide		0.321	0.326	0.310	0.276	0.334	0.313	7.2	
Methylene Chloride		0.235	0.219	0.210	0.197	0.221	0.216	6.6	
trans-1,2-Dichloroethene		0.195	0.195	0.186	0.175	0.196	0.189	4.8	
1,1-Dichloroethane	*	0.414	0.348	0.344	0.341	0.350	0.360	8.6	*
cis-1,2-Dichloroethene		0.251	0.236	0.230	0.230	0.236	0.237	3.6	
Chloroform		0.542	0.517	0.514	0.522	0.512	0.521	2.4	
1,1,1-Trichloroethane		0.495	0.499	0.472	0.448	0.491	0.481	4.3	
2-Butanone		0.159	0.155	0.135	0.132	0.136	0.143	8.8	
Carbon Tetrachloride		0.471	0.445	0.448	0.454	0.458	0.455	2.3	
1,2-Dichloroethane		0.361	0.349	0.349	0.359	0.334	0.350	3.1	
Benzene		0.792	0.777	0.748	0.758	0.755	0.766	2.4	
Trichloroethene		0.455	0.437	0.430	0.430	0.428	0.436	2.5	
1,2-Dichloropropane		0.418	0.404	0.391	0.391	0.378	0.396	3.8	
Bromodichloromethane		0.704	0.681	0.678	0.679	0.638	0.676	3.5	
trans-1,3-Dichloropropene	*	2.818	2.777	2.807	2.823	2.613	2.768	3.2	*
Toluene		3.316	3.230	3.220	3.137	3.146	3.210	2.3	
cis-1,3-Dichloropropene		0.589	0.554	0.561	0.565	0.527	0.559	4.0	
1,1,2-Trichloroethane		2.375	2.222	2.225	2.209	2.001	2.207	6.0	
4-Methyl-2-pentanone		0.563	0.544	0.525	0.508	0.467	0.521	7.1	
2-Hexanone		1.385	1.452	1.345	1.289	1.153	1.325	8.5	
Tetrachloroethene		3.401	3.081	3.155	2.843	3.143	3.125	6.4	
Dibromochloromethane		4.331	4.146	4.207	4.156	3.835	4.135	4.4	
Chlorobenzene	*	4.826	4.670	4.611	4.512	4.402	4.604	3.5	*
Ethylbenzene		2.097	2.066	2.026	1.923	1.974	2.017	3.5	
m + p-Xylene		2.351	2.303	2.300	2.232	2.290	2.295	1.9	
o-Xylene		2.447	2.381	2.407	2.248	2.318	2.360	3.3	
Styrene		4.400	4.258	4.344	4.158	4.255	4.283	2.2	
Bromoform	*	3.953	3.920	3.889	3.745	3.465	3.794	5.3	*
1,1,2,2-Tetrachloroethane		3.865	3.806	3.682	3.530	3.207	3.618	7.3	

Min RRF for SPCC(#) = 0.3 (.25 for Bromoform; .10 for Chloromethane and 1,1-Dichloroethane)
Max %RSD for CCC (*) = 30%

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: AENI Contract: TCL

Project No.: 8260FD1 Site: _____ Location: _____ Group: _____

Instrument ID: F7200 Calibration Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Calibration Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

Lab File ID: RRF20 - FD210.D RRF50 - FD211.D
RRF100 - FD212.D RRF150 - FD213.D RRF200 - FD214.D

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: _____ Location: _____ Group: _____

Instrument ID: F7200 Calibration Date: 9/23/97 Time: 0936

Lab File ID: FI157.D Init. Calib. Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Init. Calib. Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D
Chloromethane	0.128	0.134	0.100	-4.7	20.0
Vinyl Chloride	0.130	0.133		-2.3	20.0
Bromomethane	0.129	0.135		-4.7	20.0
Chloroethane	0.059	0.062		-5.1	20.0
Acetone	0.055	0.056		-1.8	30.0
1,1-Dichloroethene	0.171	0.164		4.1	20.0
Carbon Disulfide	0.313	0.330		-5.4	20.0
Methylene Chloride	0.216	0.220		-1.9	30.0
trans-1,2-Dichloroethene	0.189	0.201		-6.3	20.0
1,1-Dichloroethane	0.359	0.362	0.100	-0.8	20.0
cis-1,2-Dichloroethene	0.237	0.246		-3.8	20.0
Chloroform	0.521	0.549		-5.4	20.0
1,1,1-Trichloroethane	0.481	0.456		5.2	20.0
2-Butanone	0.143	0.142		0.7	30.0
Carbon Tetrachloride	0.455	0.424		6.8	20.0
1,2-Dichloroethane	0.350	0.366		-4.6	20.0
Benzene	0.766	0.729		4.8	20.0
Trichloroethene	0.436	0.411		5.7	20.0
1,2-Dichloropropane	0.396	0.402		-1.5	20.0
Bromodichloromethane	0.676	0.626		7.4	20.0
trans-1,3-Dichloropropene	2.767	2.718		1.8	20.0
Toluene	3.210	3.219		-0.3	20.0
cis-1,3-Dichloropropene	0.559	0.566		-1.3	20.0
1,1,2-Trichloroethane	2.207	2.104		4.7	20.0
4-Methyl-2-pentanone	0.521	0.510		2.1	30.0
2-Hexanone	1.325	1.349		-1.8	30.0
Tetrachloroethene	3.125	2.173		30.5	20.0
Dibromochloromethane	4.135	4.237		-2.5	20.0
Chlorobenzene	4.604	4.509	0.300	2.1	20.0
Ethylbenzene	2.017	2.025		-0.4	20.0
m + p-Xylene	2.295	2.072		9.7	20.0
o-Xylene	2.360	2.409		-2.1	20.0
Styrene	4.283	3.896		9.0	20.0
Bromoform	3.794	2.549	0.250	32.8	20.0
1,1,2,2-Tetrachloroethane	3.618	3.355	0.300	7.3	20.0

Min RRF for SPCC(#) = 0.3 (.25 for Bromoform; 0.1 for Chloromethane and 1,1-Dichloroethene)
Max %RSD for CCC (*) = 25%

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: _____ Location: _____ Group: _____

Instrument ID: F7200 Calibration Date: 9/23/97 Time: 0936

Lab File ID: FI157.D Init. Calib. Date(s): 4/25/97 4/25/97

Heated Purge: (Y/N) N Init. Calib. Times: 1934 2200

GC Column: CAP ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF10	MIN RRF	%D	MAX %D

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Lab File ID (Standard): FI157.D Date Analyzed: 9/23/97

Instrument ID: F7200 Time Analyzed: 0936

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
	12 HOUR STD	1095045	6.49	1100327	8.07	215488	13.19
	UPPER LIMIT	2190090	6.99	2200654	8.57	430976	13.69
	LOWER LIMIT	547523	5.99	550164	7.57	107744	12.69
	SAMPLE NO.						
01	VBLK01	941327	6.49	947979	8.07	181734	13.19
02	9709102-027	866644	6.49	882249	8.06	171980	13.19
03	9709102-027MS	884571	6.48	910382	8.07	176675	13.19
04	9709102-027MSD	840882	6.49	840488	8.06	158798	13.19
05	D0-0018-06-002	799911	6.49	814855	8.07	160008	13.19
06	D0-0018-06-005	833432	6.49	848938	8.07	158879	13.19
07	D0-0018-06-006	799551	6.49	872518	8.07	167668	13.21
08	D0-0018-06-007	686866	6.49	715972	8.06	140868	13.19
09	D0-0018-06 FIELD BLANK	770392	6.49	791510	8.07	166469	13.21
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IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: _____ Location: _____ Group: _____

Lab File ID (Standard): FI157.D Date Analyzed: 9/23/97

Instrument ID: F7200 Time Analyzed: 0936

GC Column: CAP ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS4 AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	569922	17.52				
	UPPER LIMIT	1139844	18.02				
	LOWER LIMIT	284961	17.02				
	SAMPLE NO.						
01	VBLK01	482038	17.52				
02	9709102-027	447511	17.52				
03	9709102-027MS	458230	17.52				
04	9709102-027MSD	461449	17.52				
05	DO-0018-06-002	446166	17.52				
06	DO-0018-06-005	438453	17.52				
07	DO-0018-06-006	471504	17.52				
08	DO-0018-06-007	414881	17.52				
09	DO-0018-06 FIELD BLANK	446761	17.52				
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IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI164.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	6.7	J
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI164.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-002

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI164.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Number TICs found: 0 Concentration Units: (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI165.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI165.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
DO-0018-06-005

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #005

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI165.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI166.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI166.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

DO-0018-06-006

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI166.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
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30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI167.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

FORM I VOA 8260/TCL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI167.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

D0-0018-06-007

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI167.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06 FIELD BLA

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI168.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

FORM I VOA 8260/TCL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
DO-0018-06 FIELD BLA

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI168.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
D0-0018-06 FIELD BLA

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: #008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI168.D

Level: (low/med) Date Received: 9/17/97

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:
Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 970923FW

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI158.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
78-93-3	2-Butanone	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3/106-4	m + p-Xylene	10	U
95-47-6	o-Xylene	10	U
100-42-5	Styrene	10	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9709095 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 970923FW

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI158.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM I VOA 8260/TCL

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLK01

Lab Name: AENI Contract: FOS60

Project No.: 9709 Site: Location: Group:

Matrix: (soil/water) WATER Lab Sample ID: 970923FW

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FI158.D

Level: (low/med) Date Received:

% Moisture: not dec. 100 Date Analyzed: 9/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Concentration Units:

Number TICs found: 0 (ug/L or ug/Kg) ug/L

CAS Number	Compound Name	RT	Est. Conc.	Q
1.				
2.				
3.				
4.				
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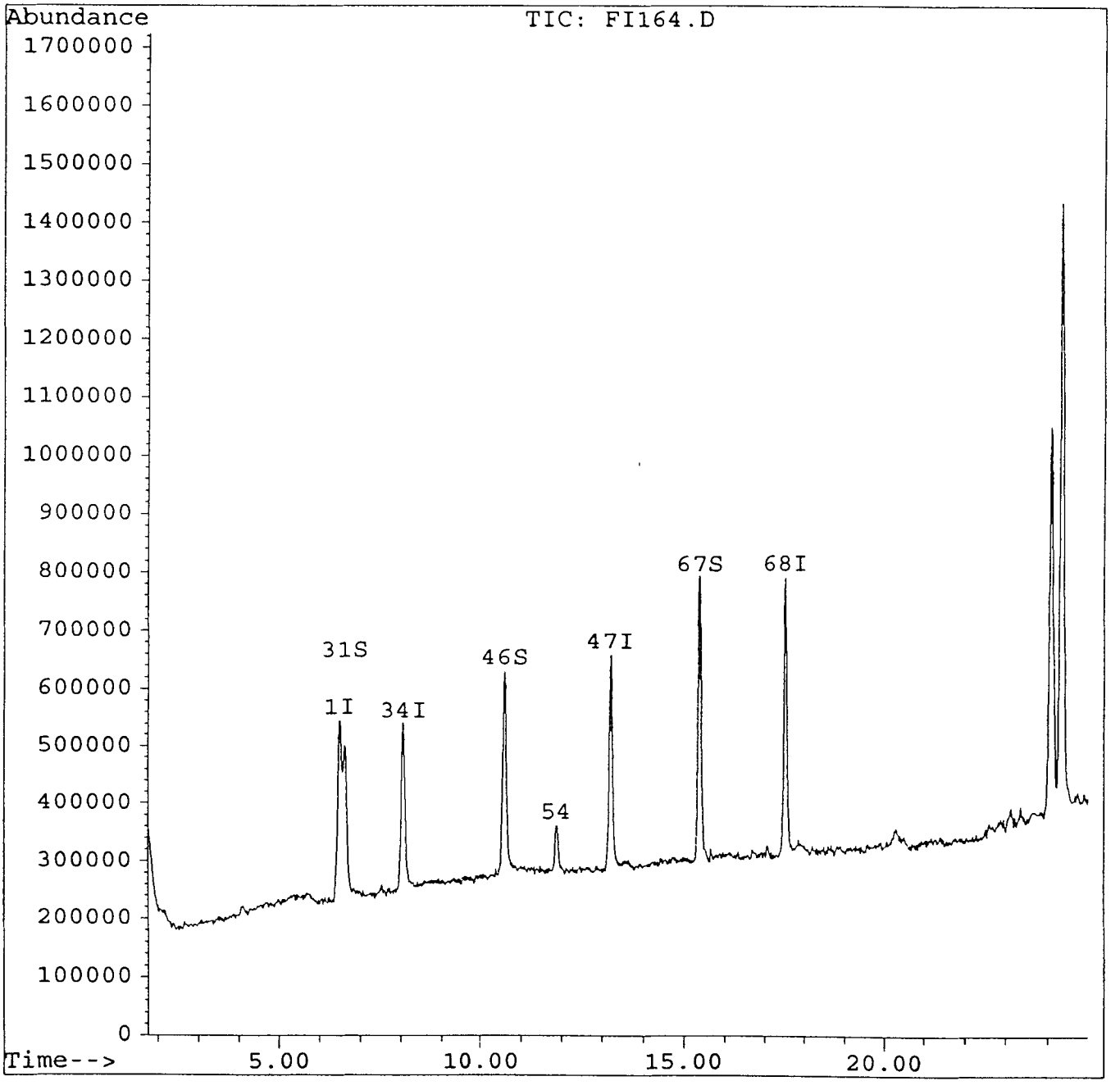
Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI164.D
Acq Time : 23 Sep 97 1:29 pm
Sample : DO-0018-06-002,09095-002,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:31 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI164.D
Acq Time : 23 Sep 97 1:29 pm
Sample : DO-0018-06-002,09095-002,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:31 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	799911	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.07	114	814855	50.00 ppb	0.00
47) Chlorobenzene-d5	13.19	54	160008	50.00 ppb	0.00
68) 1,4-Dichlorobenzene-d4	17.52	152	446166	50.00 ppb	0.02
System Monitoring Compounds					**%Recovery**
31) Dibromofluoromethane	6.62	113	425321	51.67 ppb	103.33%
46) Toluene-d8	10.61	98	775727	50.02 ppb	100.04%
67) Bromofluorobenzene	15.38	174	471516	50.48 ppb	100.95%
Target Compounds					**Qvalue**
54) Tetrachloroethene	11.88	164	66662	6.67 ppb	97

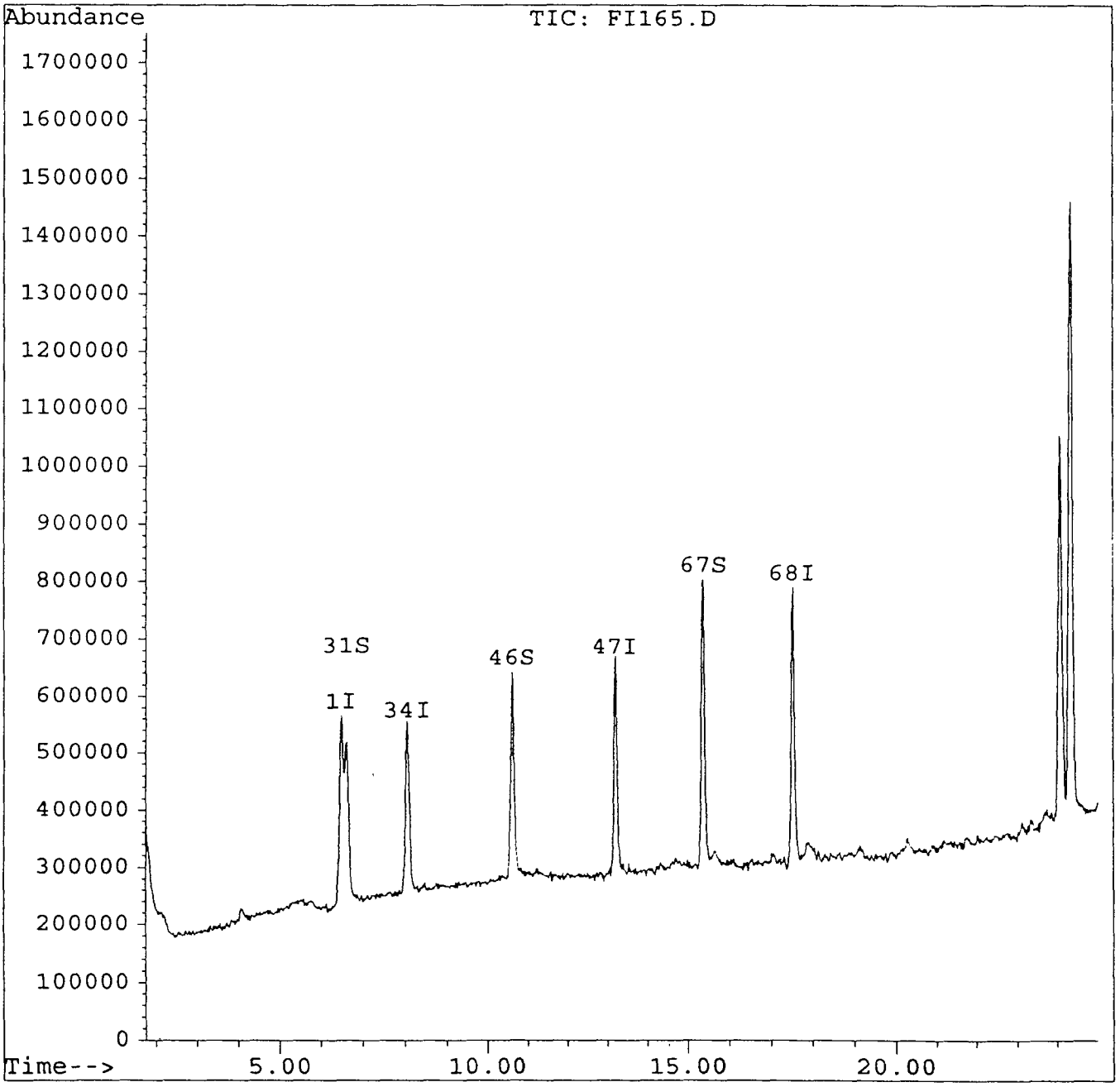
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI165.D
Acq Time : 23 Sep 97 2:02 pm
Sample : DO-0018-06-005,09095-005,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:33 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI165.D
Acq Time : 23 Sep 97 2:02 pm
Sample : DO-0018-06-005,09095-005,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:33 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	833432	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.07	114	848938	50.00 ppb	0.00
47) Chlorobenzene-d5	13.19	54	158879	50.00 ppb	0.00
68) 1,4-Dichlorobenzene-d4	17.52	152	438453	50.00 ppb	0.02
System Monitoring Compounds					**%Recovery**
31) Dibromofluoromethane	6.62	113	459872	53.62 ppb	107.23%
46) Toluene-d8	10.61	98	787285	48.73 ppb	97.46%
67) Bromofluorobenzene	15.38	174	475175	51.23 ppb	102.46%

Target Compounds Qvalue

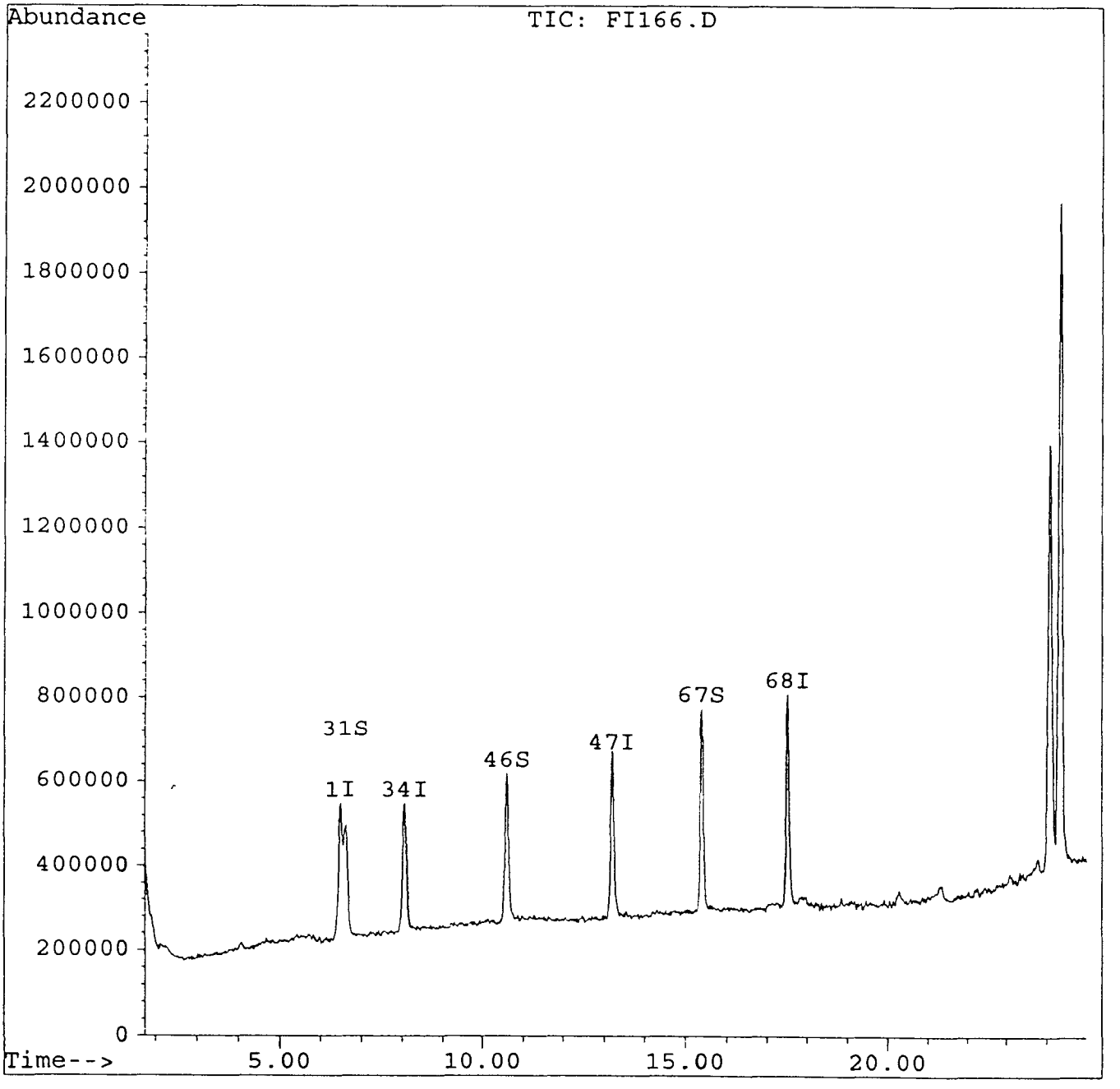
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI166.D
Acq Time : 23 Sep 97 2:35 pm
Sample : DO-0018-06-006,09095-006,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:34 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI166.D
Acq Time : 23 Sep 97 2:35 pm
Sample : DO-0018-06-006,09095-006,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:34 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	799551	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.07	114	872518	50.00 ppb	0.00
47) Chlorobenzene-d5	13.21	54	167668	50.00 ppb	0.02
68) 1,4-Dichlorobenzene-d4	17.52	152	471504	50.00 ppb	0.02
System Monitoring Compounds					**%Recovery**
31) Dibromofluoromethane	6.62	113	439393	53.40 ppb	106.80%
46) Toluene-d8	10.61	98	883847	53.23 ppb	106.45%
67) Bromofluorobenzene	15.38	174	459982	46.99 ppb	93.99%
Target Compounds					**Qvalue**

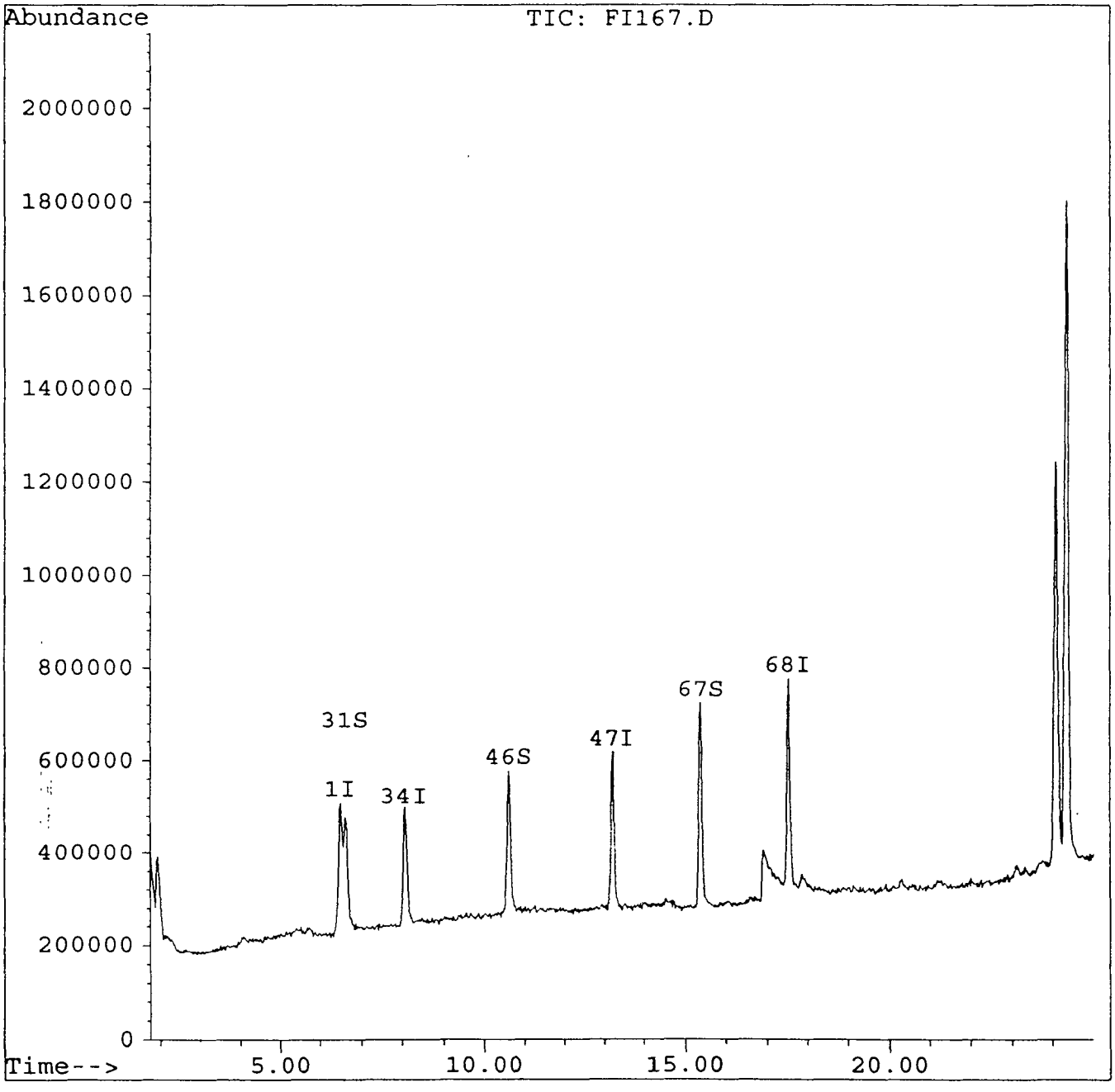
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI167.D
Acq Time : 23 Sep 97 3:08 pm
Sample : DO-0018-06-007,09095-007,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:35 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI167.D
Acq Time : 23 Sep 97 3:08 pm
Sample : DO-0018-06-007,09095-007,W,5,8260A
Misc : FOS09095,TCL LIST,L3
Quant Time: Sep 24 14:35 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

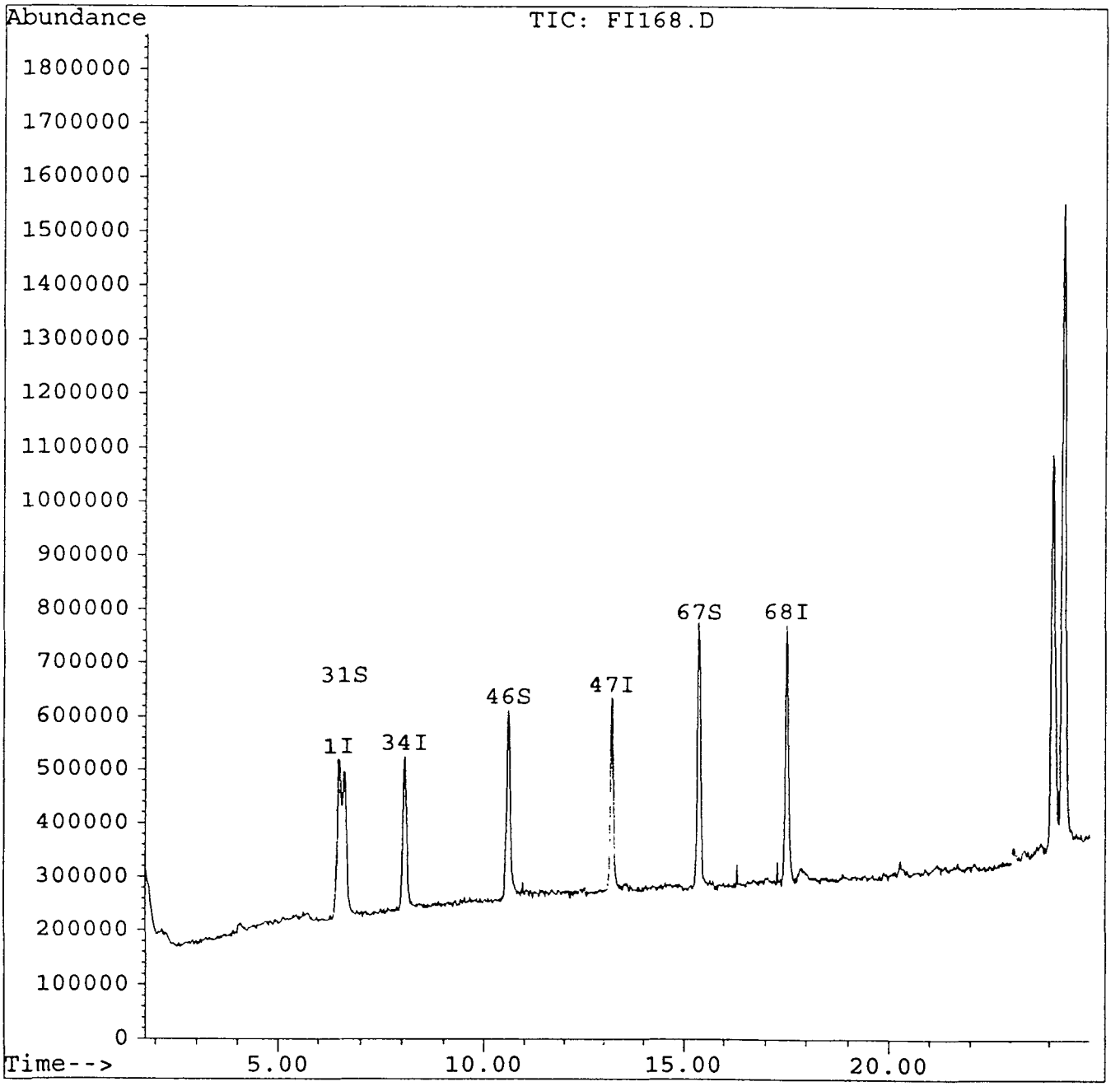
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	686866	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.06	114	715972	50.00 ppb	-0.02
47) Chlorobenzene-d5	13.19	54	140868	50.00 ppb	0.00
68) 1,4-Dichlorobenzene-d4	17.52	152	414881	50.00 ppb	0.02
System Monitoring Compounds					**%Recovery**
31) Dibromofluoromethane	6.60	113	343807	48.64 ppb	97.28%
46) Toluene-d8	10.61	98	641036	47.05 ppb	94.09%
67) Bromofluorobenzene	15.38	174	402084	48.89 ppb	97.79%
Target Compounds					**Qvalue**

(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI168.D
Acq Time : 23 Sep 97 3:40 pm Operator: DJP
Sample : DO-0018-06 FIELD BLK,09095-008,W,5,8260A Inst : F7200
Misc : FOS09095,TCL LIST,L3 Multiplr: 1.00
Quant Time: Sep 24 14:36 1997

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI168.D
Acq Time : 23 Sep 97 3:40 pm Operator: DJP
Sample : DO-0018-06 FIELD BLK,09095-008,W,5,8260A Inst : F7200
Misc : FOS09095,TCL LIST,L3 Multiplr: 1.00
Quant Time: Sep 24 14:36 1997

Method : c:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	770392	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.07	114	791510	50.00 ppb	0.00
47) Chlorobenzene-d5	13.21	54	166469	50.00 ppb	0.02
68) 1,4-Dichlorobenzene-d4	17.52	152	446761	50.00 ppb	0.02

System Monitoring Compounds					%Recovery
31) Dibromofluoromethane	6.62	113	406874	51.32 ppb	102.64%
46) Toluene-d8	10.61	98	756076	50.19 ppb	100.39%
67) Bromofluorobenzene	15.38	174	473683	48.74 ppb	97.48%

Target Compounds Qvalue

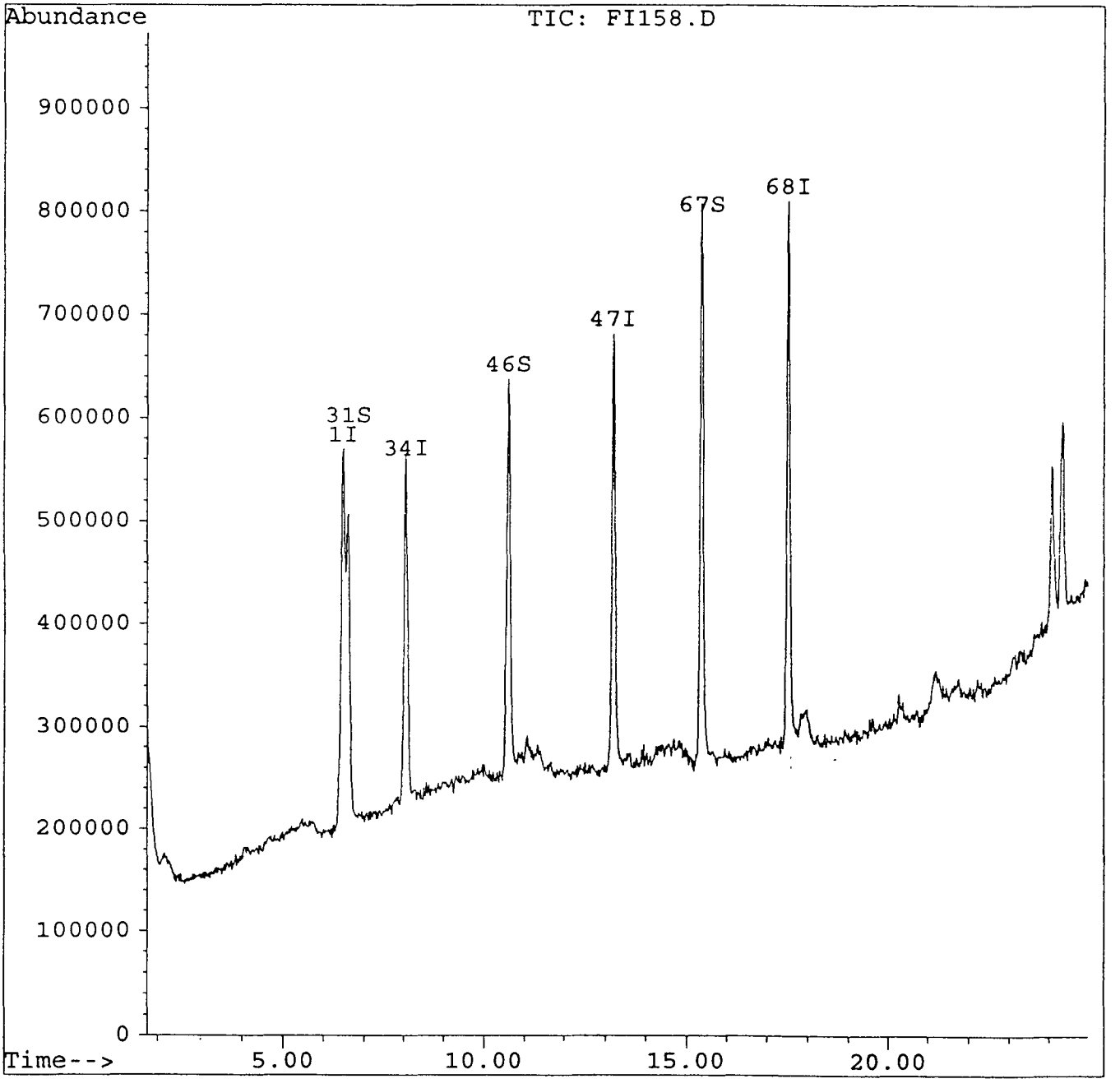
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI158.D
Acq Time : 23 Sep 97 10:11 am
Sample : METHOD BLANK,VBLK,W,5,8260A
Misc : DAILY QC
Quant Time: Sep 24 9:30 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration



Quantitation Report

Data File : K:\F7200\DATA\SEP2397\FI158.D
Acq Time : 23 Sep 97 10:11 am
Sample : METHOD BLANK,VBLK,W,5,8260A
Misc : DAILY QC
Quant Time: Sep 24 9:30 1997

Operator: DJP
Inst : F7200
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\SW846_5.M
Title : SW846 Volatiles/5mL Purge/Ambient
Last Update : Fri May 23 11:42:20 1997
Response via : Multiple Level Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Pentafluorobenzene	6.49	168	941327	50.00 ppb	0.00
34) 1,4-Difluorobenzene	8.07	114	947979	50.00 ppb	0.00
47) Chlorobenzene-d5	13.19	54	181734	50.00 ppb	0.00
68) 1,4-Dichlorobenzene-d4	17.52	152	482038	50.00 ppb	0.02

System Monitoring Compounds					%Recovery
31) Dibromofluoromethane	6.62	113	494798	51.08 ppb	102.15%
46) Toluene-d8	10.60	98	974661	54.02 ppb	108.05%
67) Bromofluorobenzene	15.38	174	511905	48.25 ppb	96.50%

Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration