ENCLOSURE 7

ADVANCED NUCLEAR FUELS CORPORATION

2101 HORN RAPIDS ROAD PO BOX 130, RICHLAND, WA 99352-0130
(509) 375-8100 TELEX: 15-2878

REGULATORY COMPLIANCE

February 5, 1991
SRL:91:008

bxc: C. W. Malody (w/o enc)
W. E. Stavig (w/o enc)
File/LB

WESTINGHOUSE HANFORD COMPANY
Attn: Mr. Steve Weiss
P. O. Box 1970
Richland, WA 99352

Dear Mr. Weiss:

In response to our conversation today, I have enclosed the groundwater analysis results of samples taken November 1, 1990.

Advanced Nuclear Fuels Corporation has previously sent groundwater results to members of the Tri-Party Agreement in cooperation with the Phase I and II remedial investigation of the Horn Rapids landfill. The enclosed analyses are not part of Phase I and II, but are results of testing ANF has done for background reference.

Very truly yours,

Stephen R. Lockhaven
Environmental Engineer

SRL:jrs

Enclosure
As Stated

cc: Steve Clark, WHC (w/o enc)
Bob Stewart, DOE (w/o enc)

MAY

NATIONAL EXPRESS LABORATORIES, INC.

Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

November 20, 1990

Steven Lockhaven
Advanced Nuclear Fuels
2101 Horn Rapids Road
Richland WA 99352

NARRATIVE FOR PNEL 2740

Enclosed are data summary sheets and supporting documentation for the samples received on November 1, 1990. The samples were received as follows:

FIELD ID	LAB ID	DATE COLLECTED
Well #11	2740-01	10-31-90
Well #12	2740-02	10-31-90
Well #13	2740-03	10-31-90
Well #19	2740-04	10-31-90
Well #20	2740-05	10-31-90
Well #21	2740-06	10-31-90
Well #22	2740-07	10-31-90
Well #23	2740-08	10-31-90
Well #24	2740-09	10-31-90
Trip Blank	2740-10	10-31-90

Listed below are anomalies and narratives associated with the receipt and/or analysis of these samples.

Sample Receiving

The samples 2740-03 and 2740-08 contained an airbubble in one of two vials for volatiles analysis. The vial without the airbubble was to be used for analysis.

The sample 2740-02 contained an airbubble in four of four vials for volatiles analysis. The sample was processed as originally requested.

The samples 2710-01 and 2740-07 contained an airbubble in two of two vials for volatiles analysis. The sample was processed as originally requested.

According to the chain of custody record for these samples, the MS/MSD was to be run on 2740-01. However, extra volume was not submitted for this sample, but it was submitted for 2740-02. Therefore, the MS and MSD were to be run on 2740-02.

The sample 2740-10 was broken upon receipt.

Steve Lockhaven of Advanced Nuclear was notified verbally of these anomalies.

TCE Analysis

The samples were analyzed for trichloroethylene only. No problems were encountered with the analyses.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or designee, as verified by the following signature.

Sincerely,

Randal G. Jackson

\NAR-2740
Enclosures

NATIONAL EXPRESS LABORATORIES, INC.
NATEX
Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

METHOD REFERENCE

Analytical Methods for Volatiles	Environmental Protection Agency, Contract Laboratory Program, Organic Statement of Work, Exhibit-D, February 1988.

\MTH-2740

NATIONAL EXPRESS LABORATORIES, INC.
NATEX
Pacific Northwest Environmental Laboratory, Inc.
3820 159th Avenue, N.E.
Redmond, WA 98052
(206) 885-0083
FAX (206) 867-2214

DATA REPORTING QUALIFIERS

Some of these qualifiers may appear in this analytical data report. Soil samples are analyzed and reported on a dry weight basis unless otherwise noted.

ORGANICS QUALIFIERS

A - This flag indicates that a TIC is a suspected aldol-condensation product.

B - Indicates compound was found in the associated blank as well as in the sample.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a target compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

M - Indicates value is taken from a medium level analysis.

ND- Not detected. Detection limit shown in parentheses.

NQ- Not quantitated as...

U - Indicates compound was analyzed for but not detected at the given detection limit. The sample quantitation limit was corrected for dilution and for percent moisture, when applicable.

X - Other specific flags and footnotes may be required to properly define the results. If more than two qualifiers are required for a sample result, the "X" flag combines several flags, as needed. For instance, the "X" flag might combine the "A," "B," and "D" flags for some sample.

* - Indicates spiked compounds used for MS/MSD analysis.

INORGANICS QUALIFIERS

NA- Relative percent difference calculation is not applicable to analytes when not detected.

NC- Not calculated when analyte is not detected.

NS- Not calculated when sample concentration of analyte exceeds spike level by a factor of four or more.

U - Indicates that analyte was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

B - Indicates that analyte was analyzed for and detected, but the concentration was less than the CRDL provided in the current SOW for inorganics CLP.

INORGANICS METHOD QUALIFIERS

CV- Manual Cold Vapor AA

F - FURNACE AA

P - ICP

DATA SUMMARY PACKAGE

A. Organics Data Summary by Fraction (when appropriate)

1) Analysis Data Sheets
   - Form I
   - Form I - TIC
2) Surrogate Recovery Data Sheets
   - Form II
3) MS/MSD Recovery Data Sheets
   - Form III
4) Method Blank Summary
   - Form IV
5) Method Blank Analysis Data Sheets
   - Form I
   - Form I - TIC
6) Internal Standard Area Data - VOA, Semi-VOA Only
   - Form VIII

B. Inorganics Data Summary (when appropriate)

1) Analysis Data Sheets
   - Form I - IN
2) Method Blank Summary
   - Form III - IN
3) Spike Sample Data Sheets
   - Form V (Part 1) - IN
   - Form V (Part 2) - IN
4) Duplicate Data Sheets
   - Form VI - IN
5) Laboratory Control Sample
   - Form VII - IN

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_11

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-01_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5544_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	20	

FORM I VOA 1/87 Rev.

000001

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_11

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-01_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5544_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5541_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	24	

FORM I VOA 1/87 Rev.

000003

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_12

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5541_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12_MS

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02MS____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5542_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	72	*

FORM I VOA 1/87 Rev.

000005

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12_MSD

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02MSD___

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5543_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	70	*

FORM I VOA 1/87 Rev.

000006

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_13

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-03_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5545_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

000007

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_13

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-03_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5545_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

FORM I VOA-TIC

1/87 Rev.

000008

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_19

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-04_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5546_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	11	

FORM I VOA 1/87 Rev.

000009

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_19

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-04_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5546_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000010

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_20

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-05_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5547_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	

FORM I VOA 1/87 Rev.

000011

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_20

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-05_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5547_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL-21

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-06_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5548_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	2	J

FORM I VOA 1/87 Rev.

000013

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_21

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-06_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5548_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

FORM I VOA-TIC

1/87 Rev.

000014

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_22

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-07_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5549_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

000015

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_22

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-07_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5549_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000016

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_23

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-08_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5550_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

000017

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_23

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-08_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5550_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000018

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_24

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-09_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5551_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

000019

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_24

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-09_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5551_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000020

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	WELL_11	102	100	96	0	0
02	WELL_12	101	101	96	0	0
03	WELL_13	105	101	97	0	0
04	WELL_19	104	101	98	0	0
05	WELL_20	99	97	96	0	0
06	WELL_21	98	98	97	0	0
07	WELL_22	103	97	99	0	0
08	WELL_23	101	99	95	0	0
09	WELL_24	103	102	102	0	0
10	WELL_12_MS	100	99	92	0	0
11	WELL_12_MSD	104	103	94	0	0
12	VBLKAD	100	100	93	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

000021

FORM II VOA-1

1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix Spike - EPA Sample No.: WELL_12_____ ____

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	0	47.9	96		61-145
Trichloroethene_____	50.0	24.4	72.0	95		71-120
Benzene_____	50.0	0	65.6	131	*	76-127
Toluene_____	50.0	0	53.3	107		76-125
Chlorobenzene_____	50.0	0	48.6	97		75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	44.8	90		6		14	61-145
Trichloroethene_____	50.0	69.5	90		5		14	71-120
Benzene_____	50.0	63.1	126		4		11	76-127
Toluene_____	50.0	52.4	105		2		13	76-125
Chlorobenzene_____	50.0	47.5	95		2		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: __1 out of _10 outside limits _ __

COMMENTS:

000022

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID: A5540_____ Lab Sample ID: VBLKA0_____

Date Analyzed: 11/05/90 Time Analyzed: 0954____

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

Instrument ID: VOA1____ ____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	WELL_11	2740-01	A5544	1230
02	WELL_12	2740-02	A5541	1024
03	WELL_13	2740-03	A5545	1303
04	WELL_19	2740-04	A5546	1336
05	WELL_20	2740-05	A5547	1408
06	WELL_21	2740-06	A5548	1440
07	WELL_22	2740-07	A5549	1513
08	WELL_23	2740-08	A5550	1545
09	WELL_24	2740-09	A5551	1618
10	WELL_12_MS	2740-02MS	A5542	1131
11	WELL_12_MSD	2740-02MSD	A5543	1158

COMMENTS:

000023

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKAO

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: VBLKAO_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5540_____

Level: (low/med) LOW___ Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

000024

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKA0

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: VBLKA0_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5540_____

Level: (low/med) LOW___ Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

000025

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID (Standard): A5539_____ Date Analyzed: 11/05/90

Instrument ID: VOA1____ Time Analyzed: 0912____

Matrix: (soil/water) WATER_ Level: (low/med) LOW___ Column: (pack/cap) CAP___

		IS1 (BCM) AREA #	RT	IS2 (DFB) AREA #	RT	IS3 (CBZ) AREA #	RT
	12 HOUR STD	108000	6.62	465000	8.54	373000	13.45
	UPPER LIMIT	216000		930000		746000	
	LOWER LIMIT	54000		232500		186500	
	EPA SAMPLE NO.						
01	WELL_11	100000	6.58	454000	8.52	351000	13.42
02	WELL_12	102000	6.57	473000	8.47	364000	13.39
03	WELL_13	101000	6.48	451000	8.44	341000	13.34
04	WELL_19	95300	6.45	439000	8.40	335000	13.32
05	WELL_20	96000	6.50	444000	8.44	339000	13.34
06	WELL_21	94700	6.53	426000	8.47	331000	13.37
07	WELL_22	98400	6.53	449000	8.45	335000	13.37
08	WELL_23	95300	6.55	408000	8.47	308000	13.37
09	WELL_24	95500	6.47	421000	8.42	317000	13.32
10	WELL_12_MS	107000	6.62	470000	8.52	368000	13.42
11	WELL_12_MSD	104000	6.58	466000	8.50	354000	13.42
12	VBLKA0	104000	6.67	478000	8.59	370000	13.49

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

000026

FORM VIII VOA 1/87 Rev.

VOLATILE DATA PACKAGE

A. QC SUMMARY

1) Surrogate Percent Recovery (Form II - VOA)
2) MS/MSD Summary (Form III - VOA)
3) Method Blank Summary (Form IV - VOA)
4) GC/MS Tuning and Mass Calibration (Form V - VOA)
5) Internal Standard Area Summary (Form VIII - VOA)

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	WELL_11	102	100	96	0	0
02	WELL_12	101	101	96	0	0
03	WELL_13	105	101	97	0	0
04	WELL_19	104	101	98	0	0
05	WELL_20	99	97	96	0	0
06	WELL_21	98	98	97	0	0
07	WELL_22	103	97	99	0	0
08	WELL_23	101	99	95	0	0
09	WELL_24	103	102	102	0	0
10	WELL_12_MS	100	99	92	0	0
11	WELL_12_MSD	104	103	94	0	0
12	VBLKAO	100	100	93	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(88-110)
S2 (BFB)	= Bromofluorobenzene	(86-115)
S3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

001001

FORM II VOA-1

1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix Spike - EPA Sample No.: WELL_12_____ ____

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	0	47.9	96	61-145
Trichloroethene_____	50.0	24.4	72.0	95	71-120
Benzene_____	50.0	0	65.6	131 *	76-127
Toluene_____	50.0	0	53.3	107	76-125
Chlorobenzene_____	50.0	0	48.6	97	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene_____	50.0	44.8	90	6	14	61-145
Trichloroethene_____	50.0	69.5	90	5	14	71-120
Benzene_____	50.0	63.1	126	4	11	76-127
Toluene_____	50.0	52.4	105	2	13	76-125
Chlorobenzene_____	50.0	47.5	95	2	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: __1 out of _10 outside limits _ __

COMMENTS:

001002

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID: A5540_____ Lab Sample ID: VBLKA0_____

Date Analyzed: 11/05/90 Time Analyzed: 0954____

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

Instrument ID: VOA1____ ____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	WELL_11	2740-01	A5544	1230
02	WELL_12	2740-02	A5541	1024
03	WELL_13	2740-03	A5545	1303
04	WELL_19	2740-04	A5546	1336
05	WELL_20	2740-05	A5547	1408
06	WELL_21	2740-06	A5548	1440
07	WELL_22	2740-07	A5549	1513
08	WELL_23	2740-08	A5550	1545
09	WELL_24	2740-09	A5551	1618
10	WELL_12_MS	2740-02MS	A5542	1131
11	WELL_12_MSD	2740-02MSD	A5543	1158

COMMENTS:

001003

5A
VOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID: A5361_____ BFB Injection Date: 10/23/90

Instrument ID: VOA1____ BFB Injection Time: 0727____

Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.8
75	30.0 - 60.0% of mass 95	40.8
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	68.3
175	5.0 - 9.0% of mass 174	5.6 (8.9)1
176	Greater than 95.0%, but less than 101.0% of mass 174	62.3 (98.4)1
177	5.0 - 9.0% of mass 176	4.5 (7.2)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD20	VSTD20	A5362	10/23/90	0858
02	VSTD50	VSTD50	A5363	10/23/90	0937
03	VSTD100	VSTD100	A5364	10/23/90	1020
04	VSTD150	VSTD150	A5365	10/23/90	1103
05	VSTD200	VSTD200	A5366	10/23/90	1145

001004

FORM V VOA 1/87 Rev.

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID: A5537_____ BFB Injection Date: 11/05/90

Instrument ID: VOA1____ BFB Injection Time: 0758____

Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.4
75	30.0 - 60.0% of mass 95	43.9
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	Greater than 50.0% of mass 95	71.6
175	5.0 - 9.0% of mass 174	5.4 (7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	70.9 (99.0)1
177	5.0 - 9.0% of mass 176	4.4 (6.2)2

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

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	VSTD50	A5539	11/05/90	0912
02	VBLKA0	VBLKA0	A5540	11/05/90	0954
03	WELL_12	2740-02	A5541	11/05/90	1024
04	WELL_12_MS	2740-02MS	A5542	11/05/90	1131
05	WELL_12_MSD	2740-02MSD	A5543	11/05/90	1158
06	WELL_11	2740-01	A5544	11/05/90	1230
07	WELL_18	2740-03	A5545	11/05/90	1303
08	WELL_19	2740-04	A5546	11/05/90	1336
09	WELL_20	2740-05	A5547	11/05/90	1408
10	WELL-21	2740-06	A5548	11/05/90	1440
11	WELL_22	2740-07	A5549	11/05/90	1513
12	WELL_23	2740-08	A5550	11/05/90	1545
13	WELL_24	2740-09	A5551	11/05/90	1618

001005

FORM V VOA 1/87 Rev.

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID (Standard): A5539_____ Date Analyzed: 11/05/90

Instrument ID: VOA1____ Time Analyzed: 0912____

Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	108000	6.62	465000	8.54	373000	13.45
	UPPER LIMIT	216000		930000		746000	
	LOWER LIMIT	54000		232500		186500	
	EPA SAMPLE NO.						
01	WELL_11	100000	6.58	454000	8.52	351000	13.42
02	WELL_12	102000	6.57	473000	8.47	364000	13.39
03	WELL_13	101000	6.48	451000	8.44	341000	13.34
04	WELL_19	95300	6.45	439000	8.40	335000	13.32
05	WELL_20	96000	6.50	444000	8.44	339000	13.34
06	WELL_21	94700	6.53	426000	8.47	331000	13.37
07	WELL_22	98400	6.53	449000	8.45	335000	13.37
08	WELL_23	95300	6.55	408000	8.47	308000	13.37
09	WELL_24	95500	6.47	421000	8.42	317000	13.32
10	WELL_12_MS	107000	6.62	470000	8.52	368000	13.42
11	WELL_12_MSD	104000	6.58	466000	8.50	354000	13.42
12	VBLKA0	104000	6.67	478000	8.59	370000	13.45

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

001006

FORM VIII VOA

1/87 Rev.

VOLATILE DATA PACKAGE

B. SAMPLE DATA

Each Packet consists of:

1) TCL Results (Form I - VOA)

2) TIC Compounds (Form I - VOA-TIC)

3) RICs/Quantitation Reports

4) Spectra for TCL and TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_11

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-01_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5544_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	20	

FORM I VOA 1/87 Rev.

001007

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_11

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: Z740__ SAS No.: _____ SDG No.: Z740__

Matrix: (soil/water) WATER_ Lab Sample ID: Z740-01_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5544_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

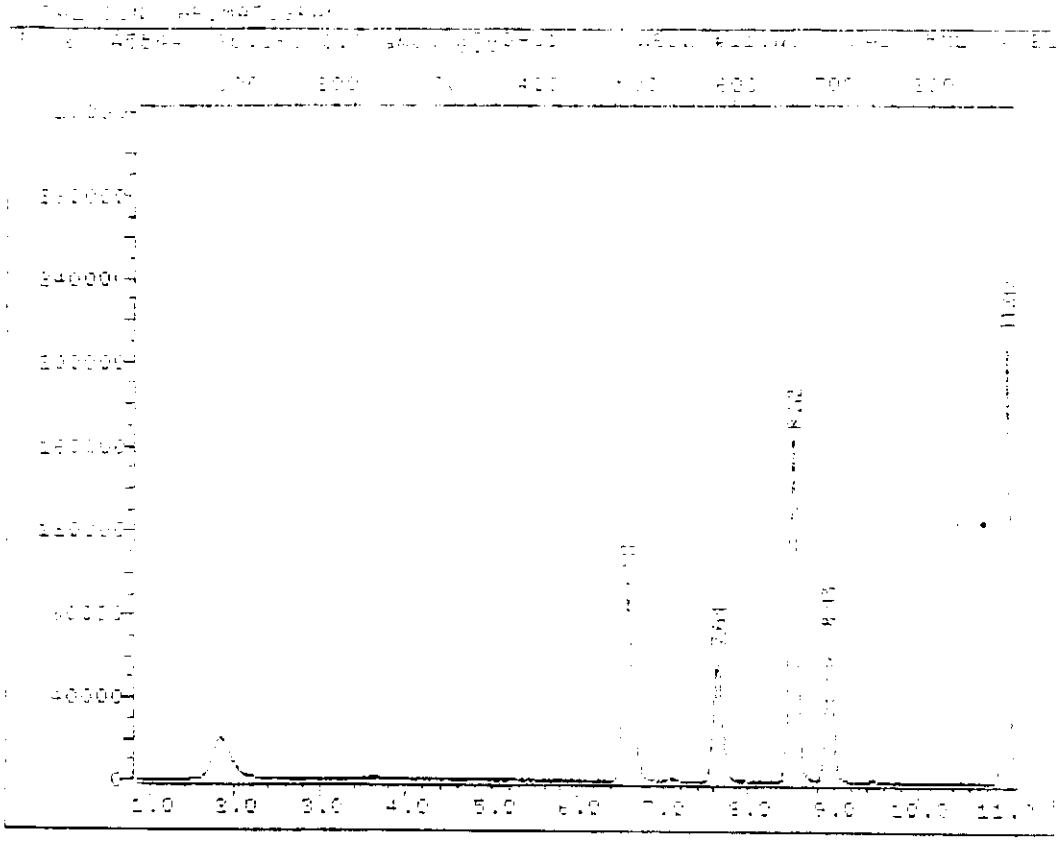
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

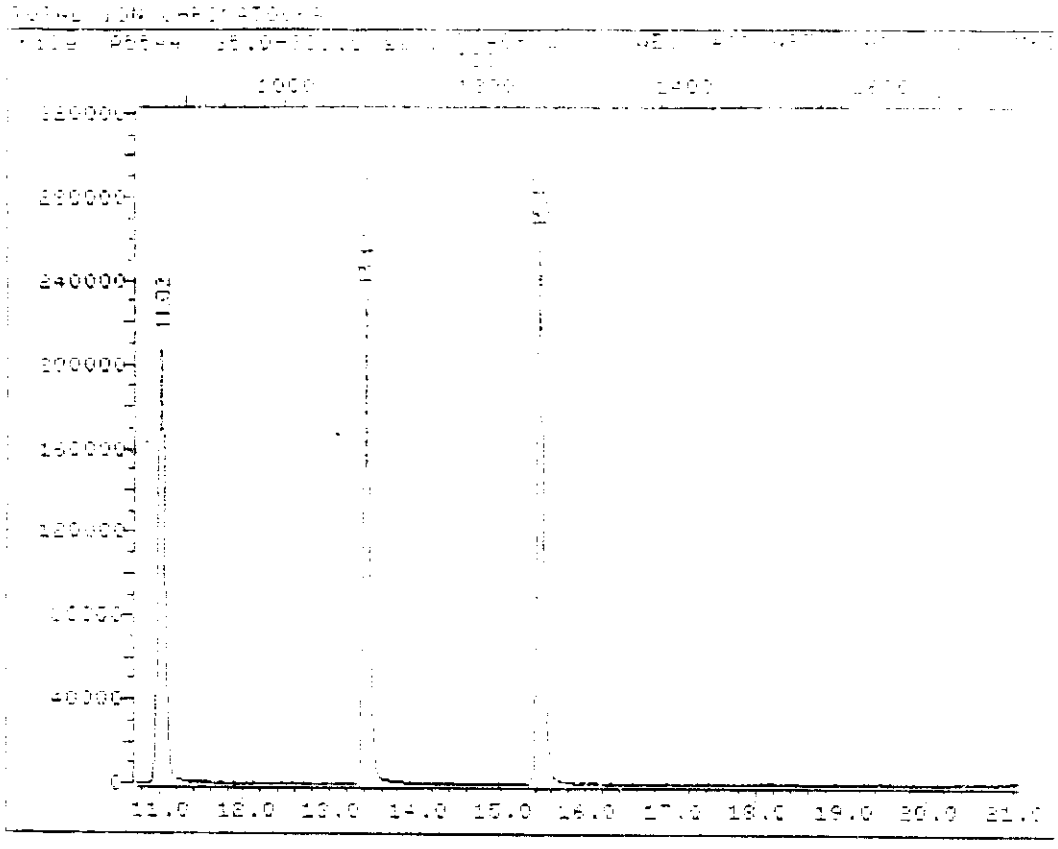
Data not requested

001008



POOR COPY RECEIVED

001009



POOR COPY RECEIVED

001010

[illegible]

[illegible]

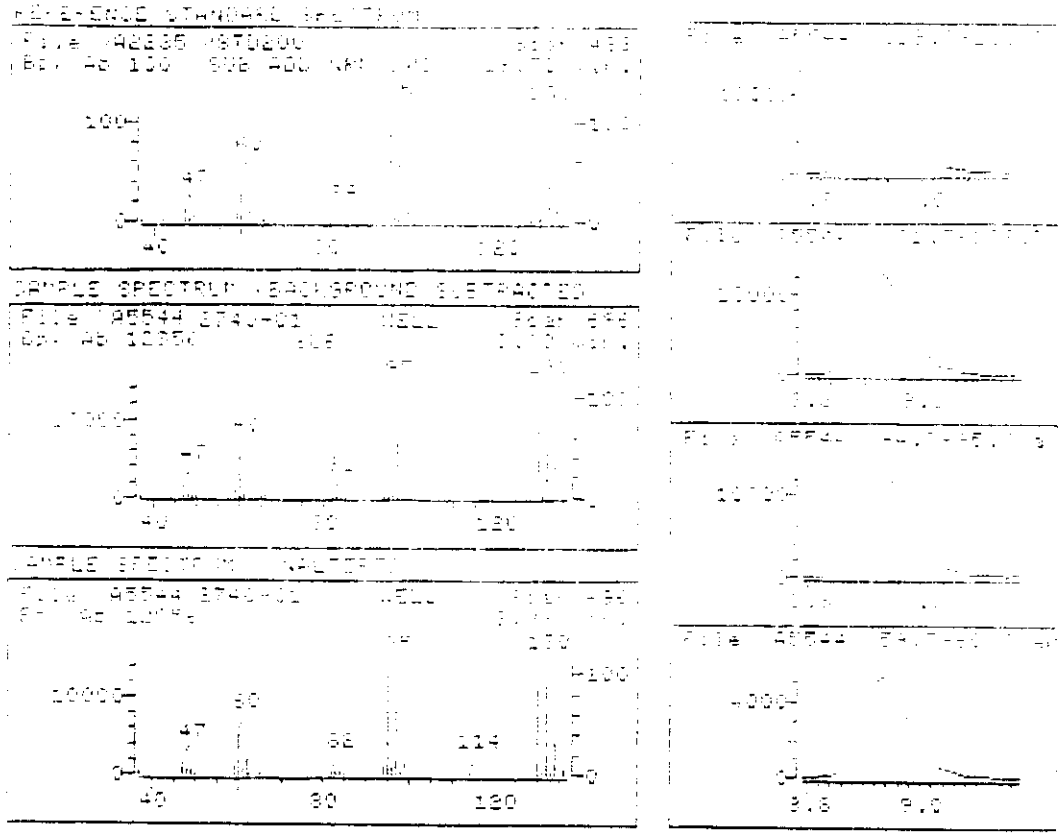
Title: WATER CALIBRATION LIST FOR INSTRUMENT [illegible]
Last Calibration: [illegible]

	Compound	R.T.	Q Ion	Area	Conc	[illegible]	[illegible]
[illegible]	*I001 Bromochloromethane	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	*I011 [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	S007 Toluene-d8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	S011 Bromofluorobenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is ISTD

POOR COPY RECEIVED

001011



POOR COPY RECEIVED

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5541_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	24	

FORM I VOA 1/87 Rev.

001013

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_12

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5541_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

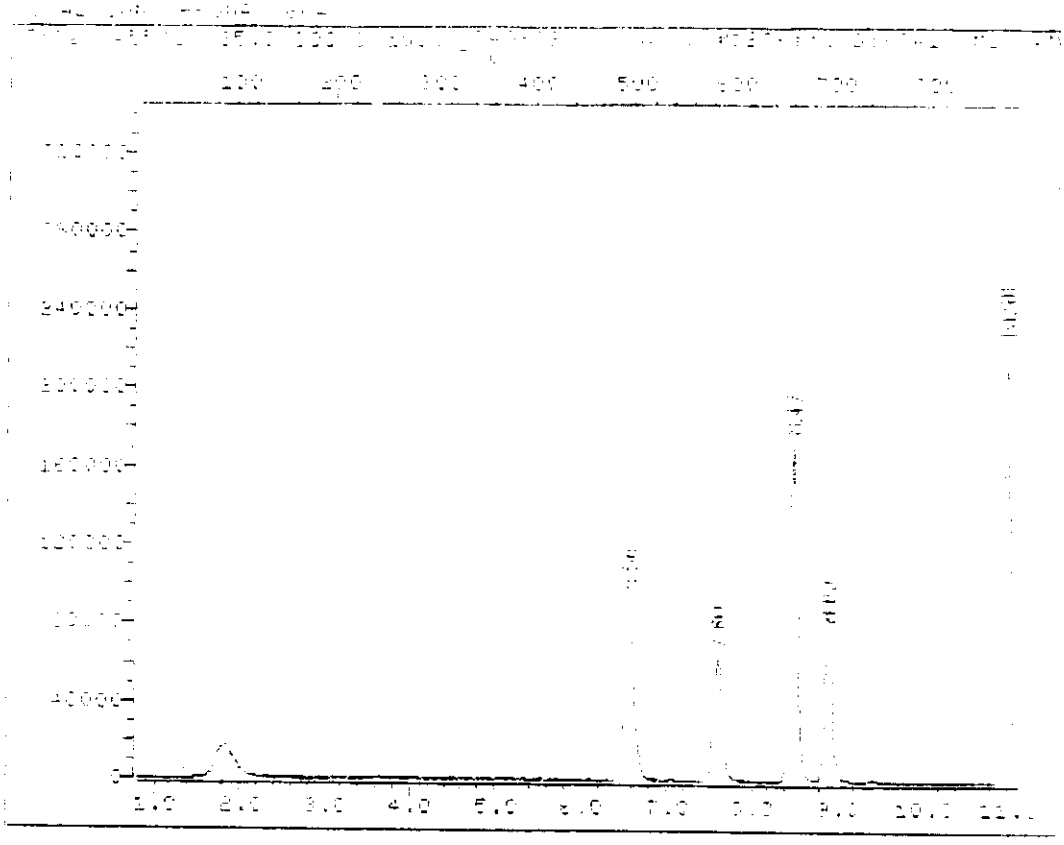
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

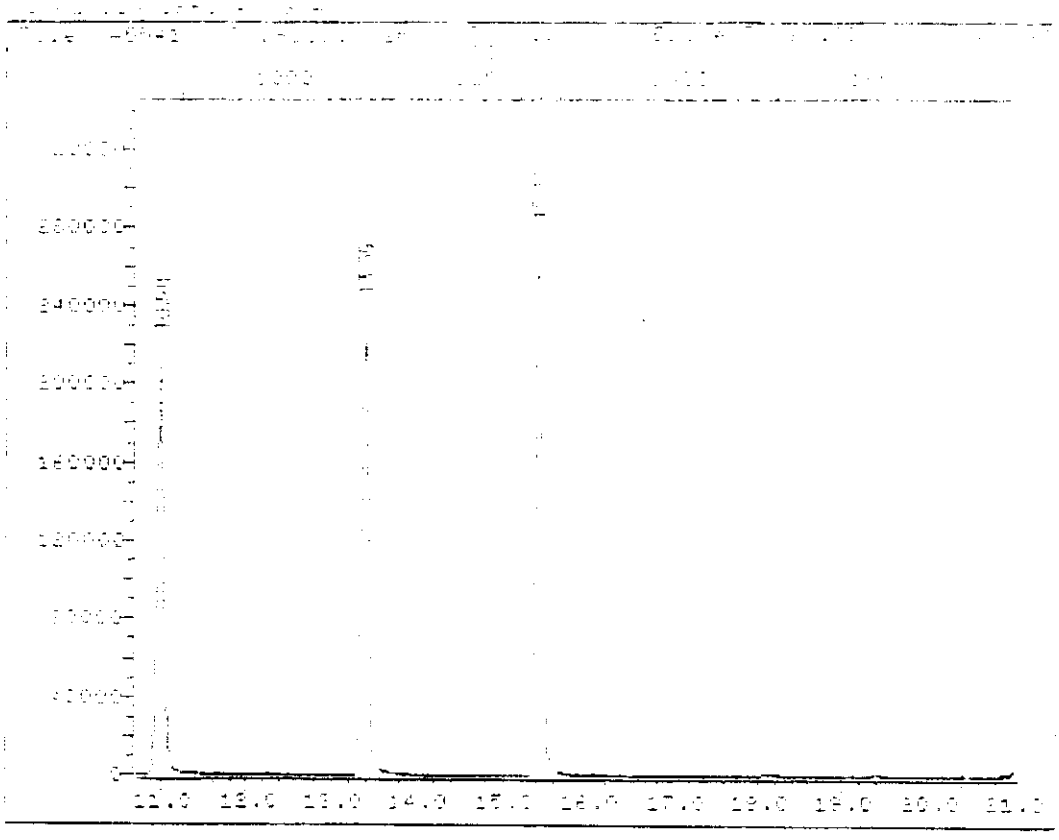
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

data not requested

001014



POOR COPY RECEIVED



PLAIN COPY RECEIVED

001016

[illegible]

[illegible]

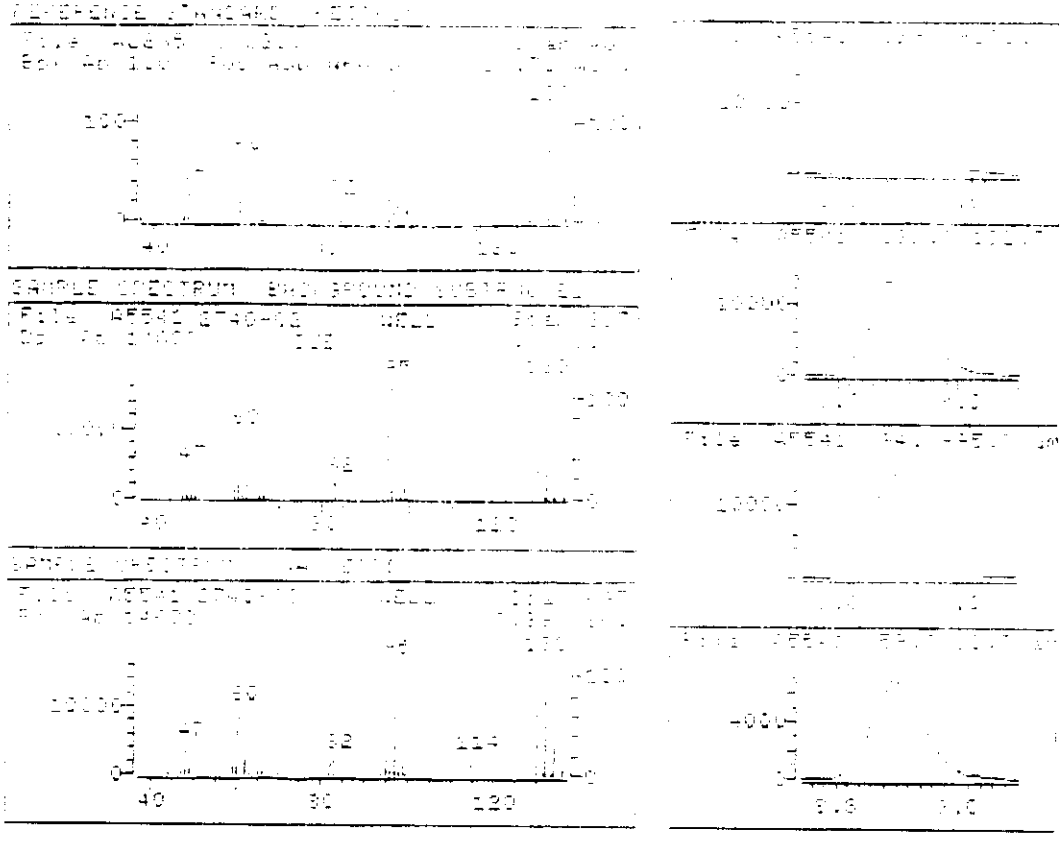
ID File: [illegible]
Title: [illegible] LIST FOR INSTRUMENT [illegible]
Last Calibration: [illegible]

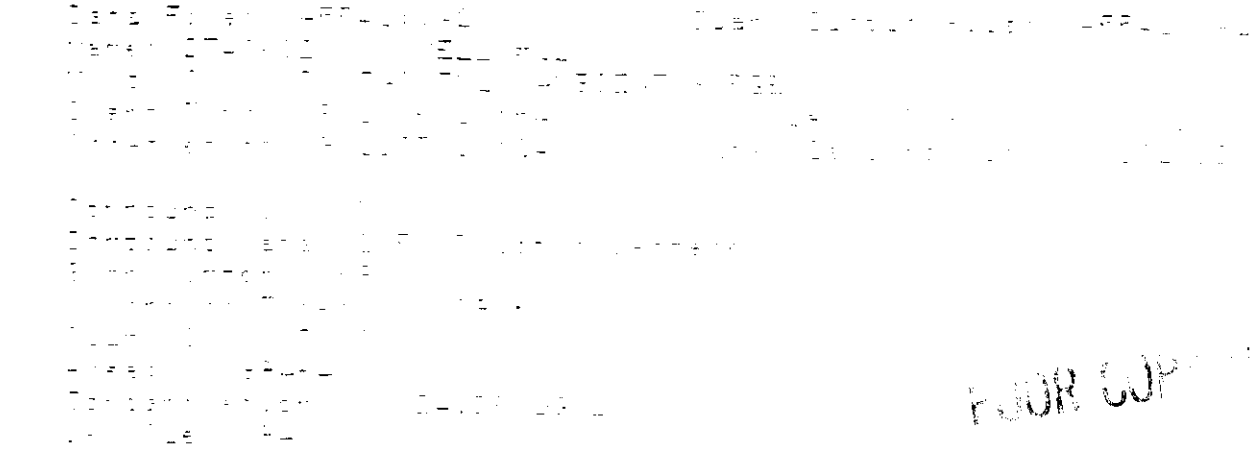
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Bromomethane	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 1,1-Dichloroethane-D4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 1,4-Dichlorobenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Chloroform	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Tetrachloroethene-D8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Toluene-d8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Bromofluorobenzene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is [illegible]

POOR COPY RECEIVED

0010017





FOR COPY

001018

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_13

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-03_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5545_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

001019

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_13

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-03_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5545_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

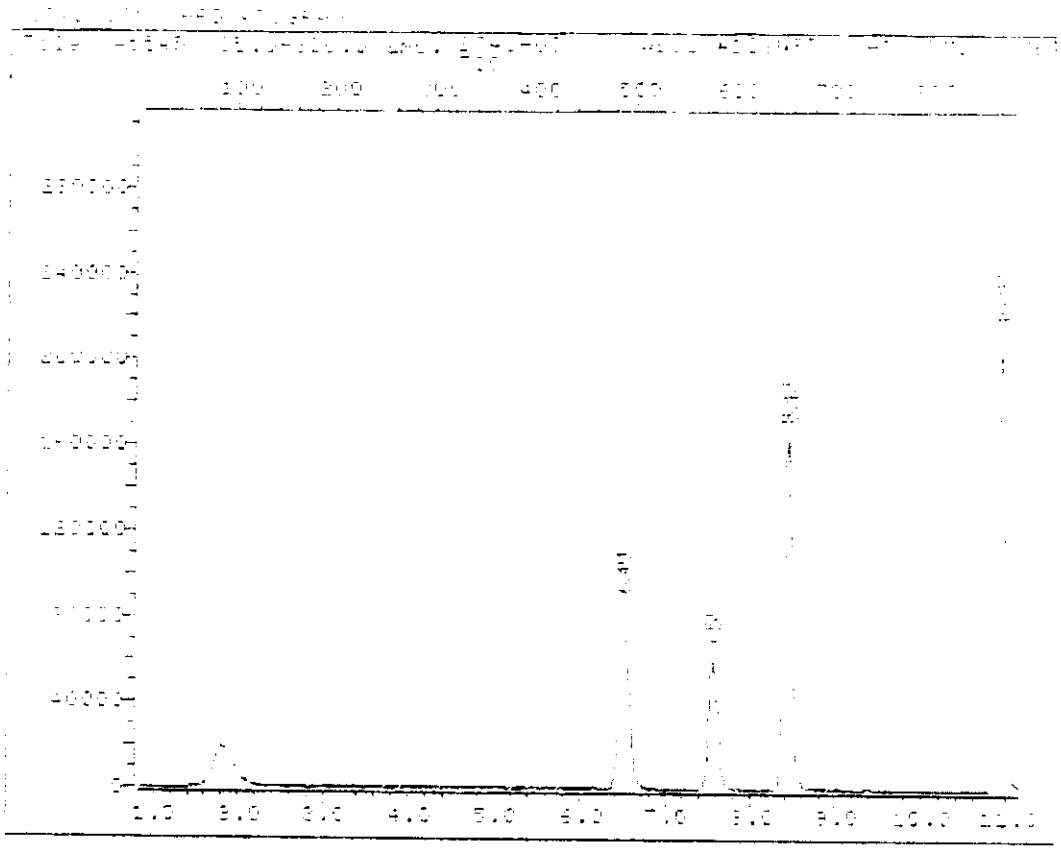
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

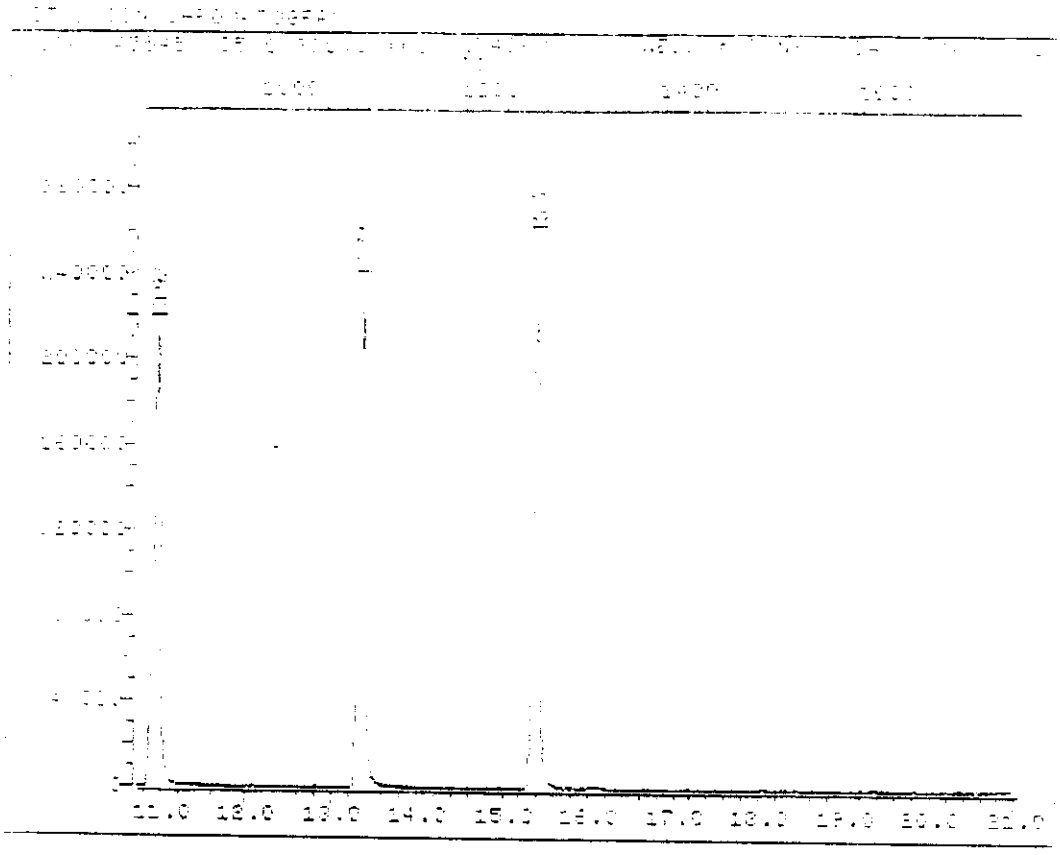
Data not requested

001020



POOR COPY RECEIVED

001021



POOR COPY RECEIVED

001022

[illegible]

Operator ID: [illegible]
Output File: [illegible]
Data File: [illegible]
Name: [illegible]
Disc: [illegible]

ID File: [illegible]
Title: WATER DISTRIBUTION LIST FOR INSTRUMENT [illegible]
Last Calibration: [illegible]

	Compound	[illegible]	[illegible]	Area	[illegible]
1	*0101 Bromomethane	[illegible]	[illegible]	[illegible]	[illegible]
2	0010 Chloroethane	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	*0110 Vinyl chloride	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	*0101 Chloromethane	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0000 Methanol	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	0010 Ethanol/Acetone	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is [illegible]

[illegible]

001023

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_19

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-04_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5546_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	11	

FORM I VOA 1/87 Rev.

001024

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_19

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-04_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5546_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

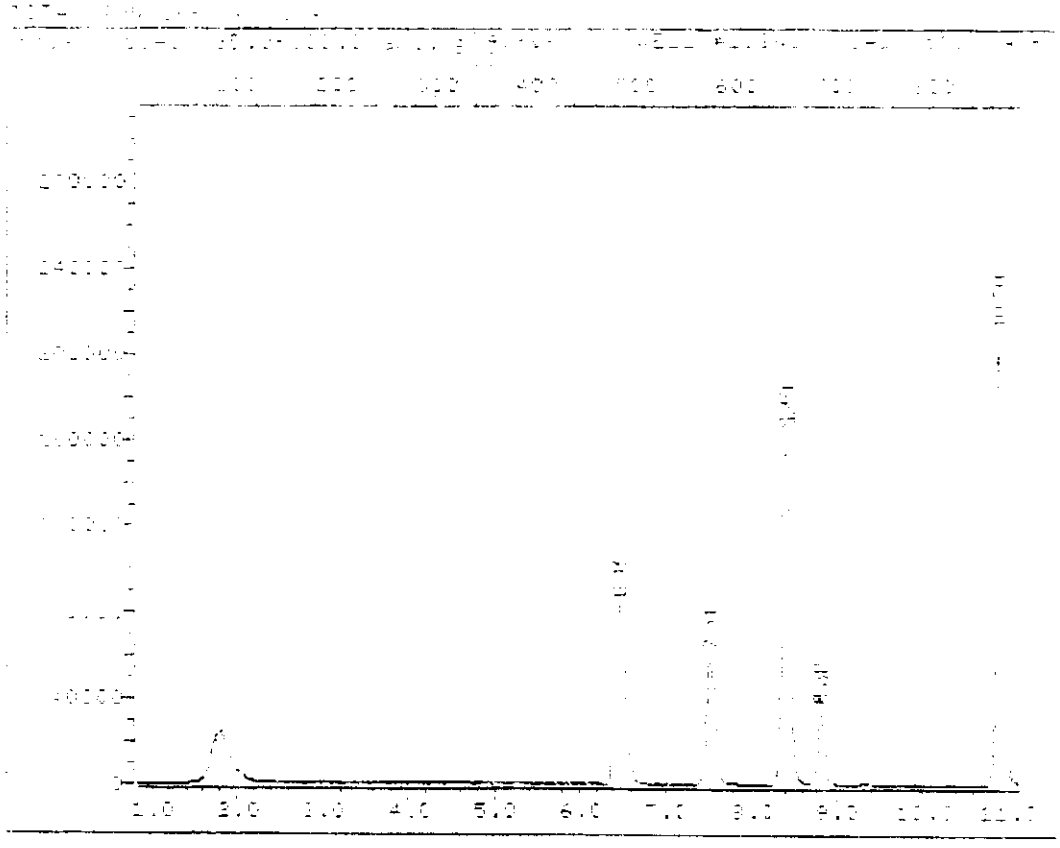
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

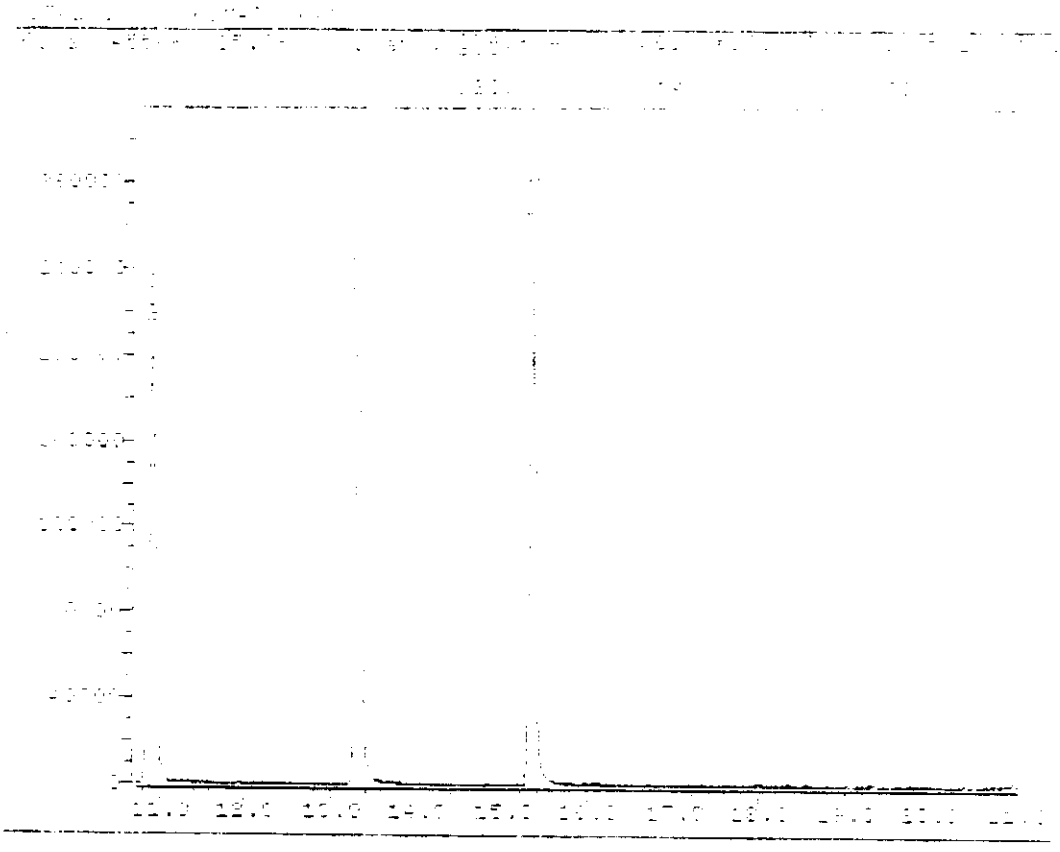
Data not requested

001025



POOR COPY RECEIVED

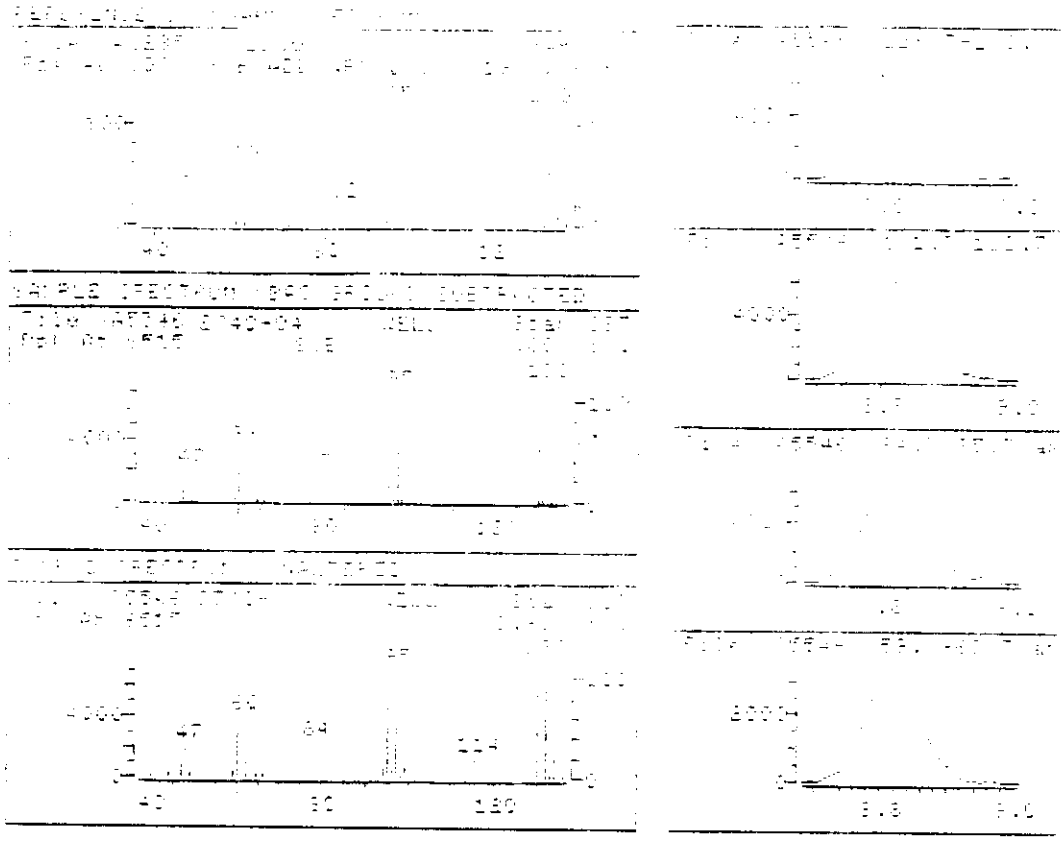
0001026



POOR COPY RECEIVED

0010027

POOR COPY



POOR COPY RECEIVED

001029

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_20

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-05_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5547_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	

FORM I VOA 1/87 Rev.

001030

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_20

Lab Name: FNELI_____ Contract: ADV_NUCLEAR

Lab Code: FNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-05_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5547_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

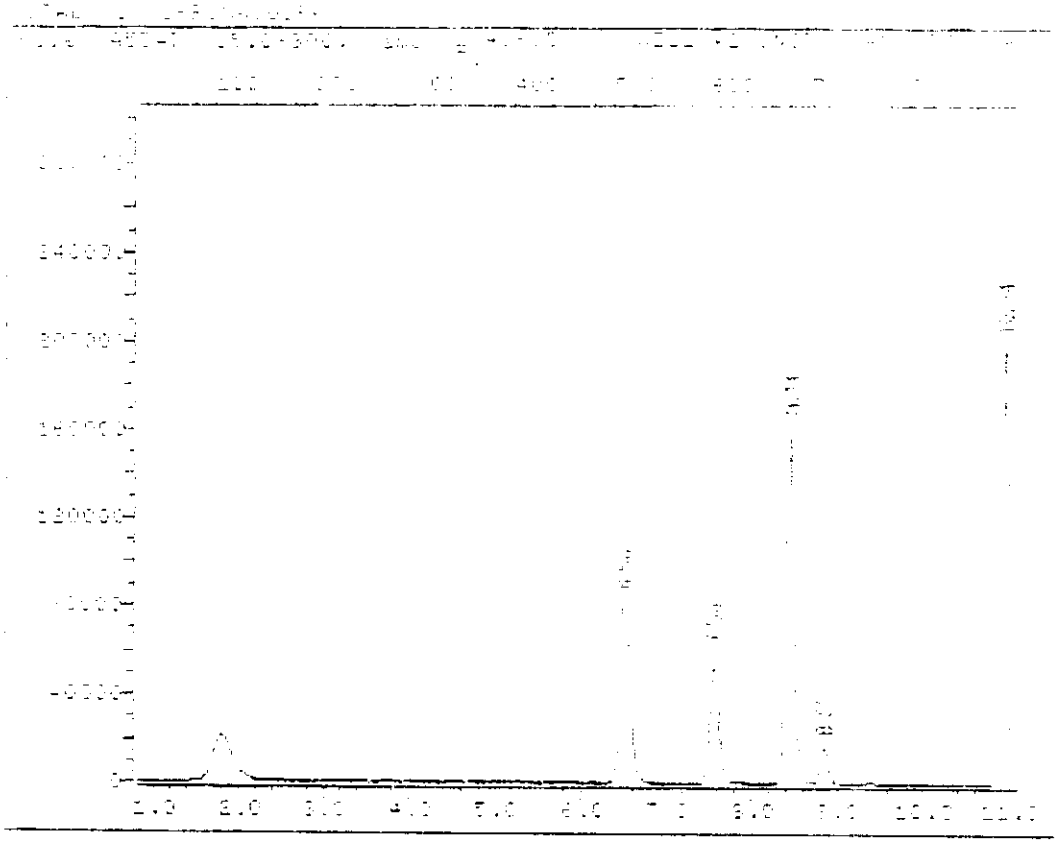
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

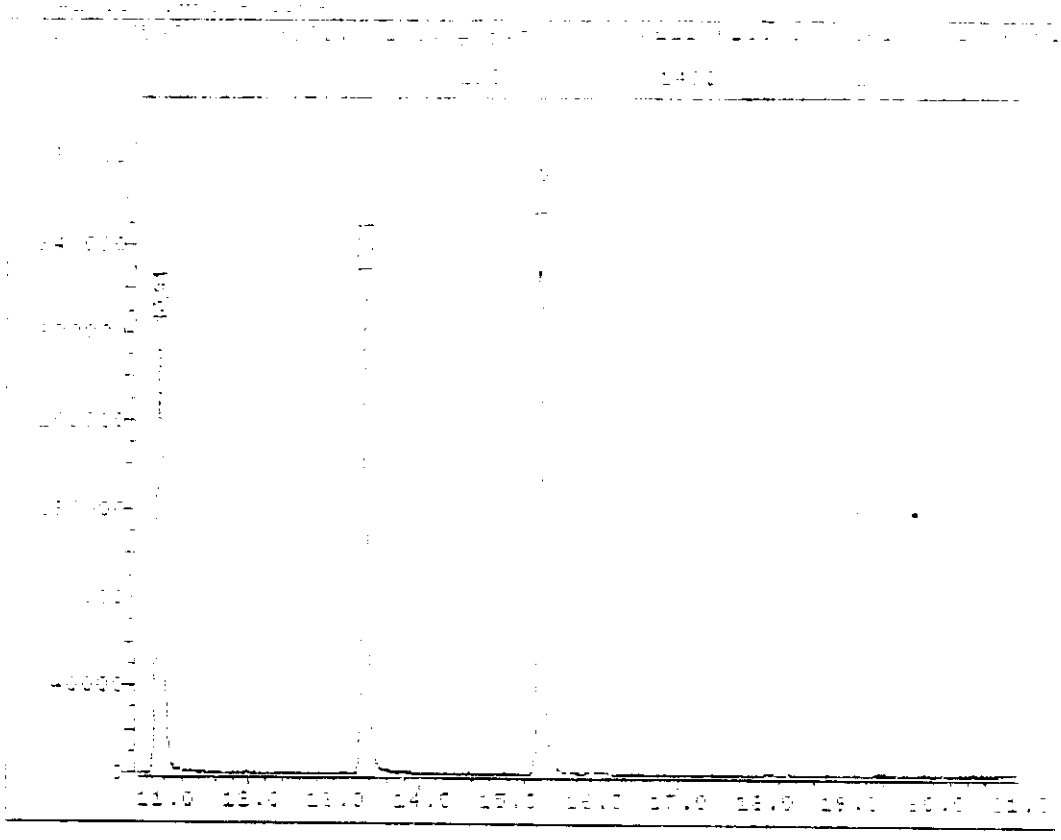
Data not requested

001031



POOR COPY RECEIVED

001032



POOR COPY RECEIVED

001033

[illegible]

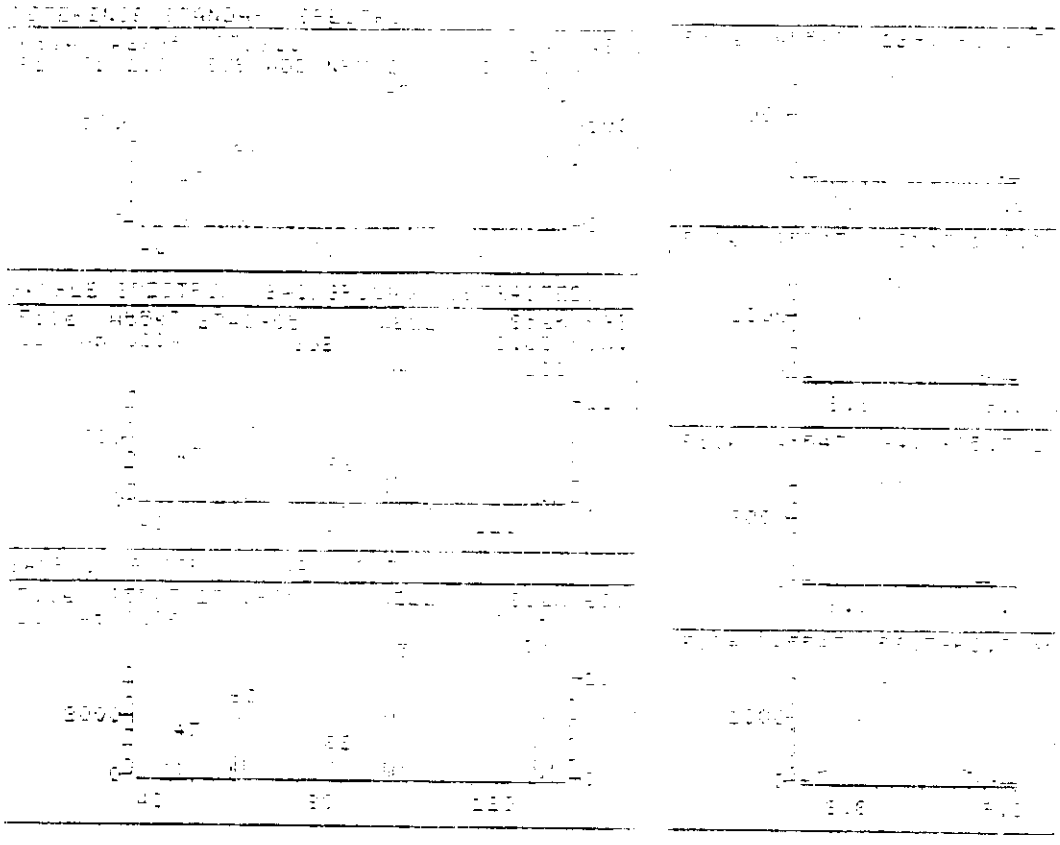
Operator ID: TERMID
Output File: [illegible]
Data File: [illegible]
Name: [illegible]
Mass: [illegible]

ID Filter: [illegible]
Filter: [illegible]
Lab: [illegible]

	Compound	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Bromomethane	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 1,2-Dichloroethane	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] 1,4-Dichlorobenzene	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Toluene-d8	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Chloromethane	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Toluene-d8	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible] Bromobenzene	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is [illegible]

POOR COPY ALWAYS



POOR COPY RECEIVED

001035

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL-21

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-06_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5548_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	2	J

FORM I VOA 1/87 Rev.

001036

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL-21

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-06_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5548_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

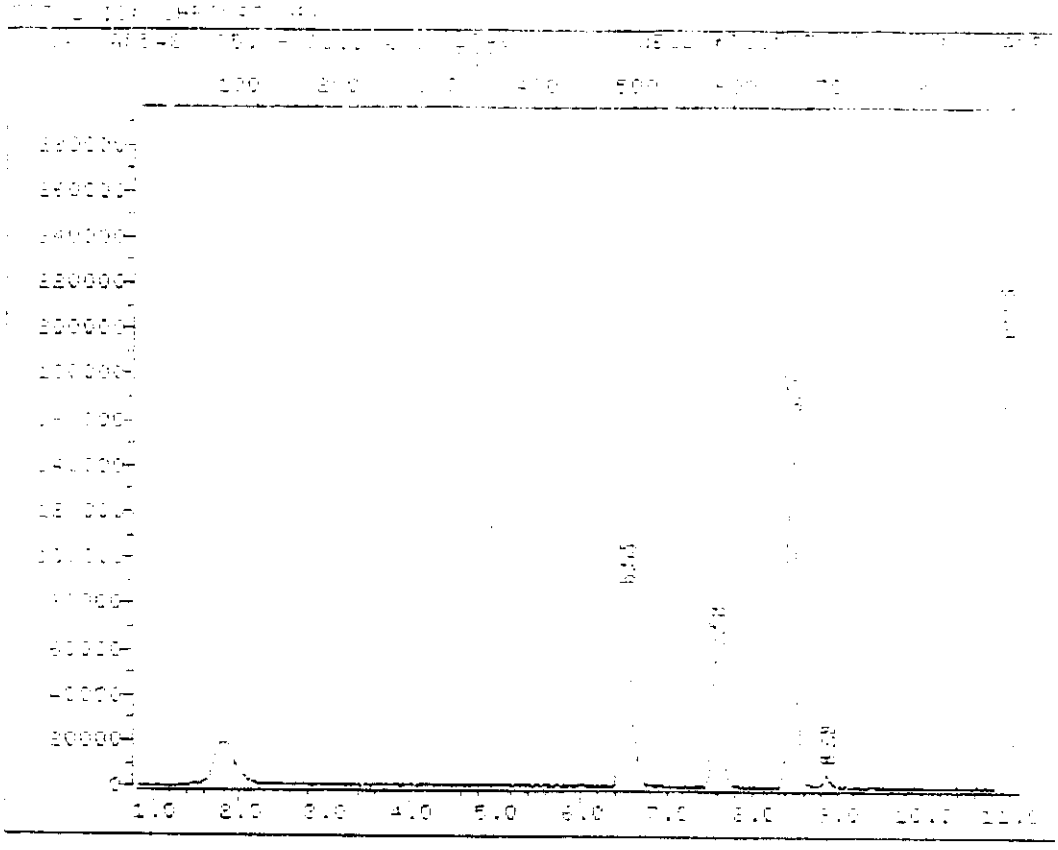
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

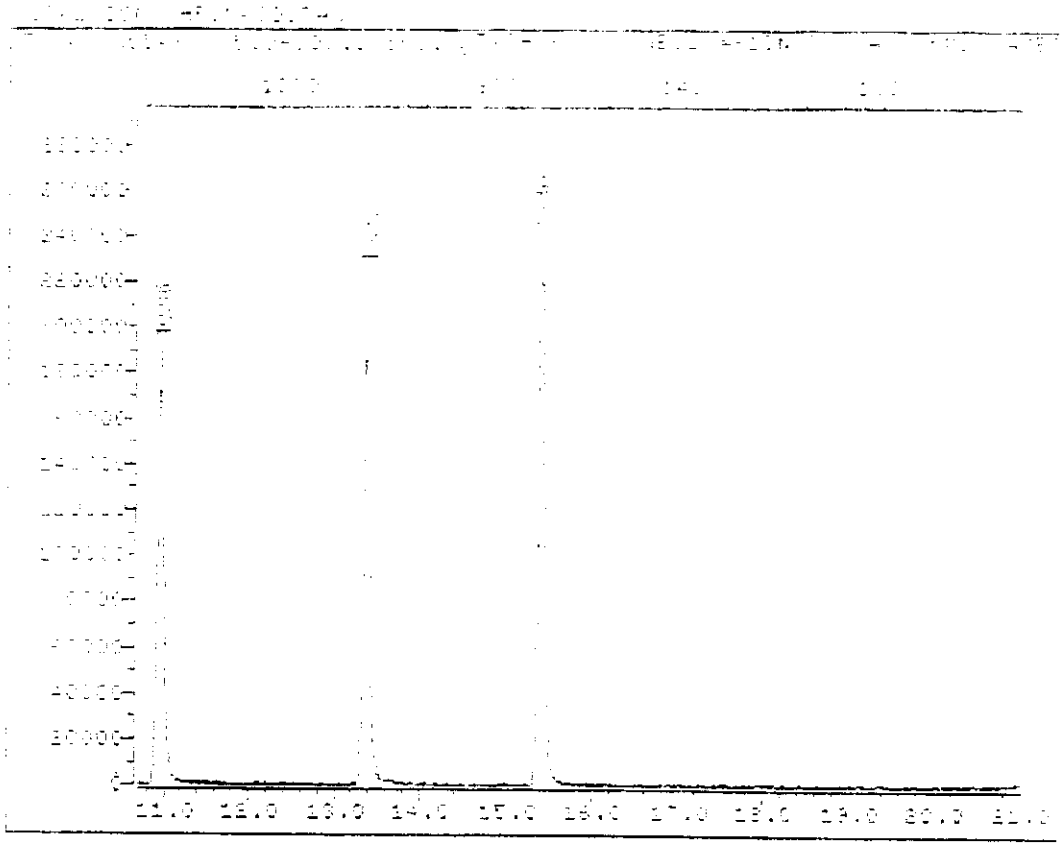
Data not requested

001037



POOR COPY RECEIVED

001038



001039

[illegible]

Operator ID: [illegible]
Method File: [illegible]
Data File: [illegible]
Name: [illegible]
Date: [illegible]

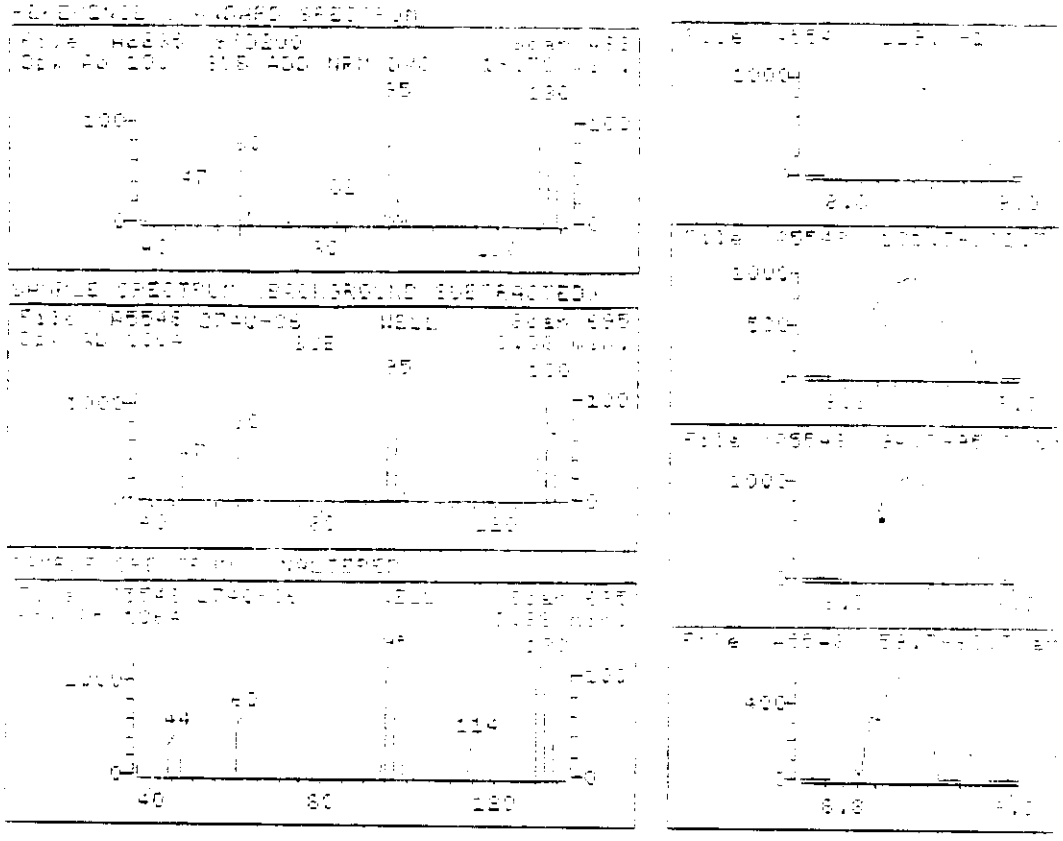
ID File: [illegible]
Title: [illegible]
Last Calibration: [illegible]

	Compound	[illegible]	[illegible]	Area	[illegible]	[illegible]
1	*[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	*[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	*[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is [illegible]

POOR COPY RECEIVED

001040



POOR ORIGINAL

001011

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_22

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-07_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5549_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

001012

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_22

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-07_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5549_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

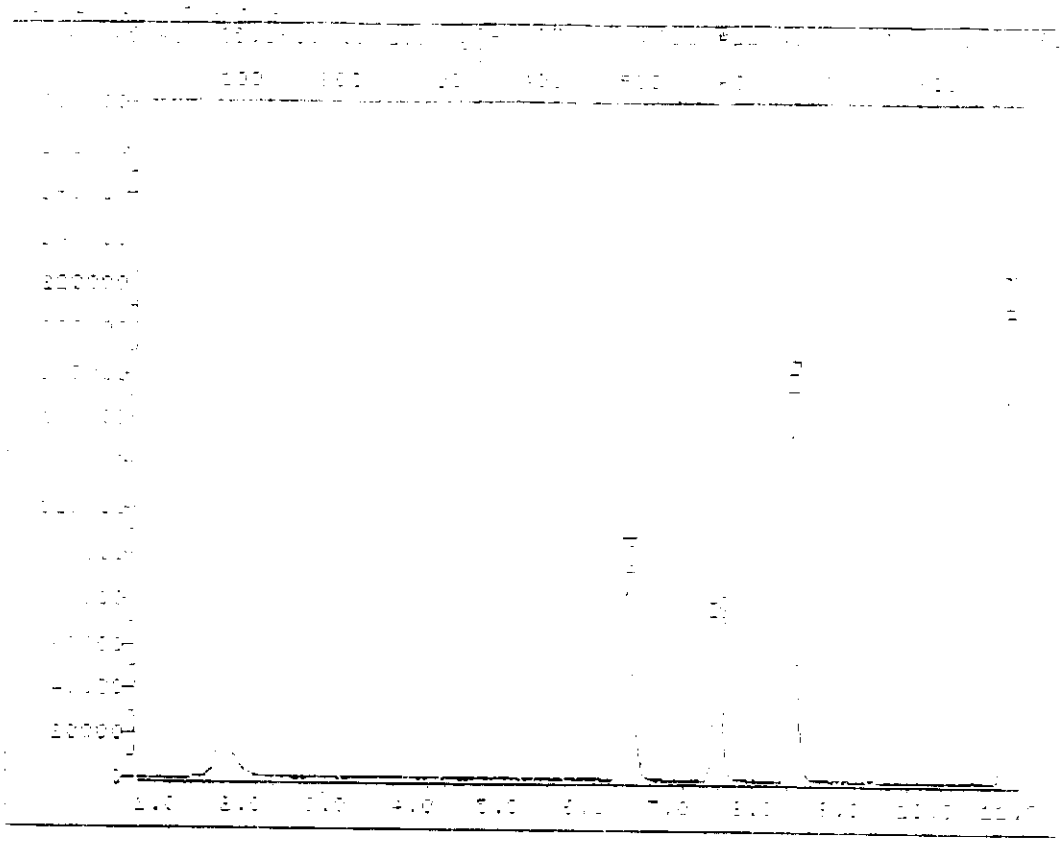
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

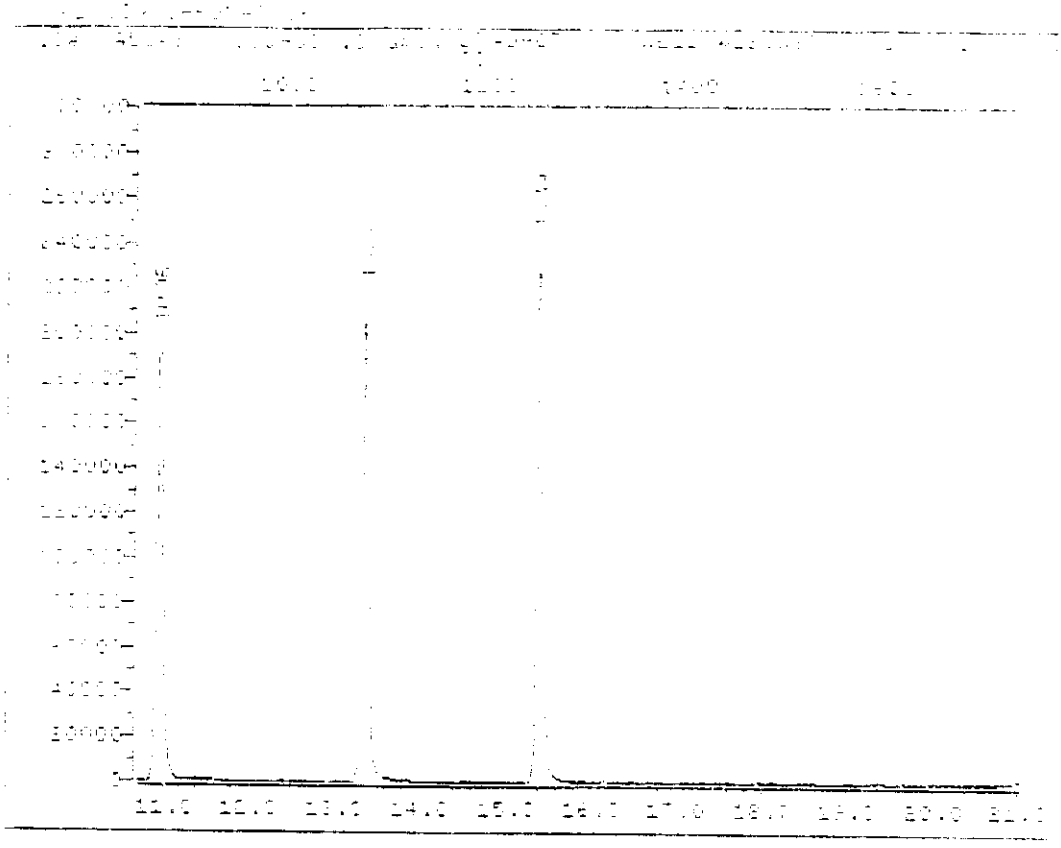
Data not requested

001043



POOR COPY RECEIVED

0010144



POOR COPY RETAINED

001045

POOR COPY RECEIVED

001046

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_23

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-08_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5550_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

001047

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_23

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: Z740__ SAS No.: _____ SDG No.: Z740__

Matrix: (soil/water) WATER_ Lab Sample ID: Z740-08_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5550_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

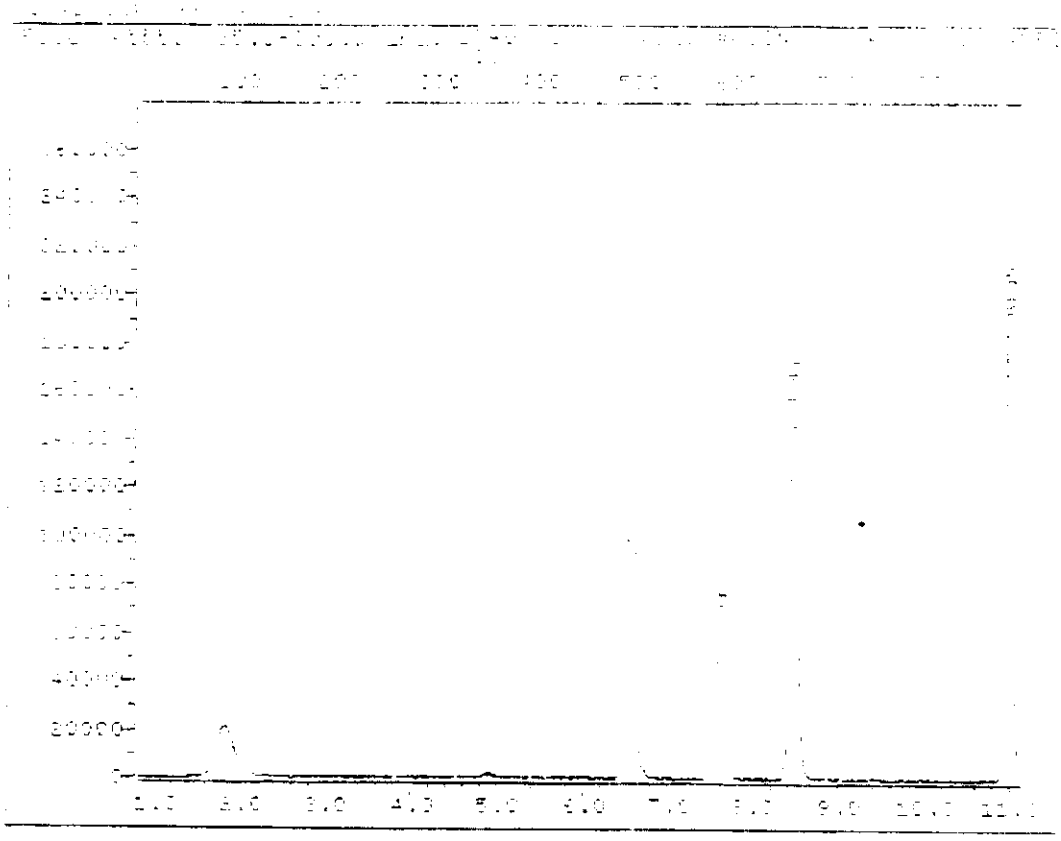
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

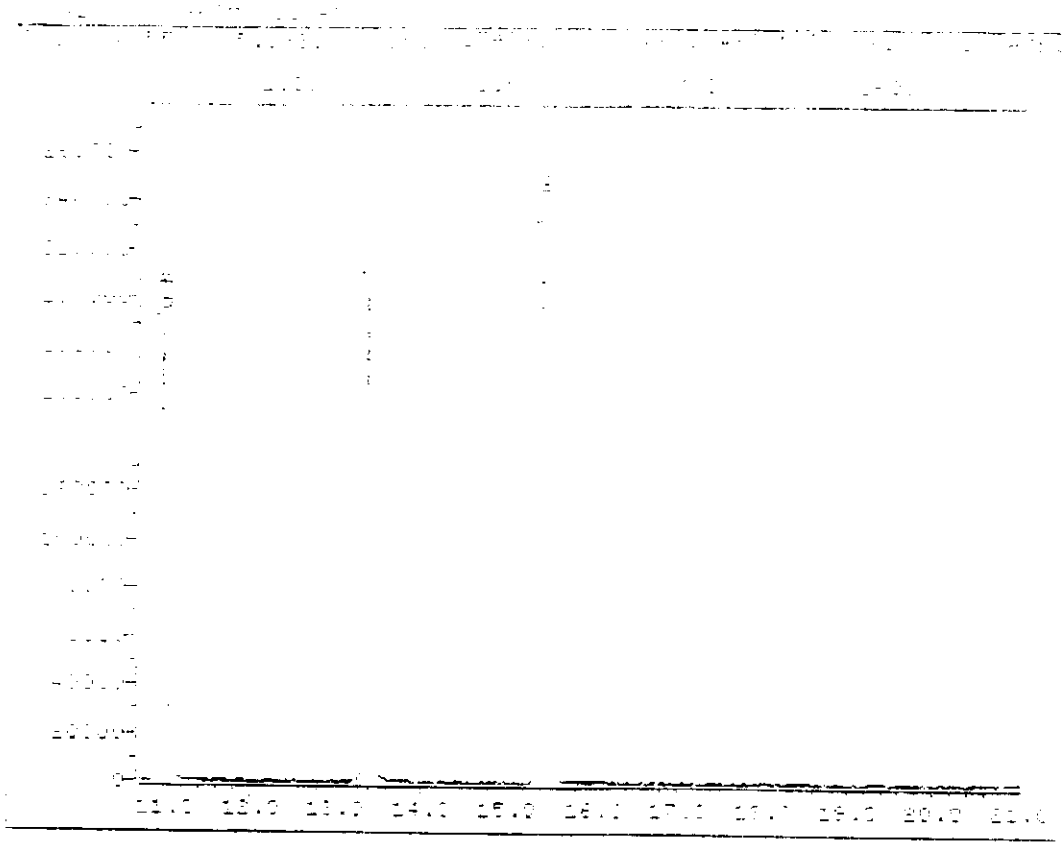
Data not requested

001048



POOR COPY PRINTED

001049



POOR COPY RECEIVED

001050

POOR COPY RECEIVED

001051

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_24

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-09_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5551_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

001052

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

WELL_24

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-09_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5551_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

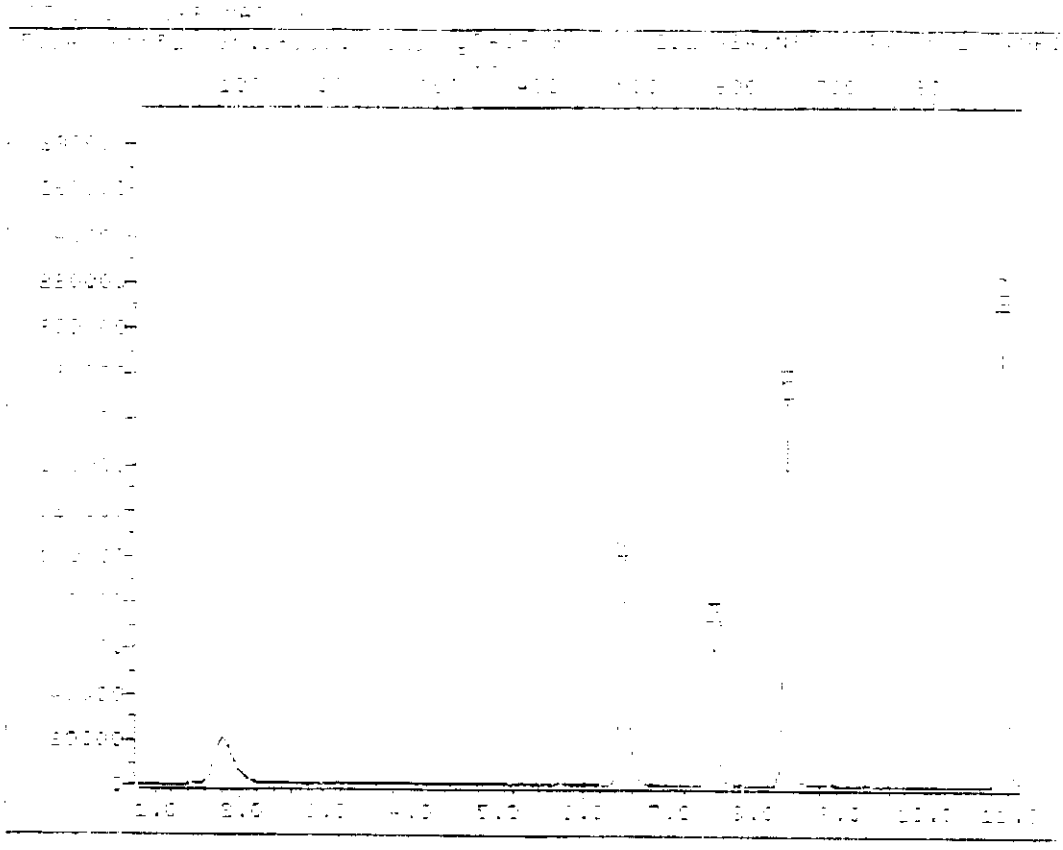
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

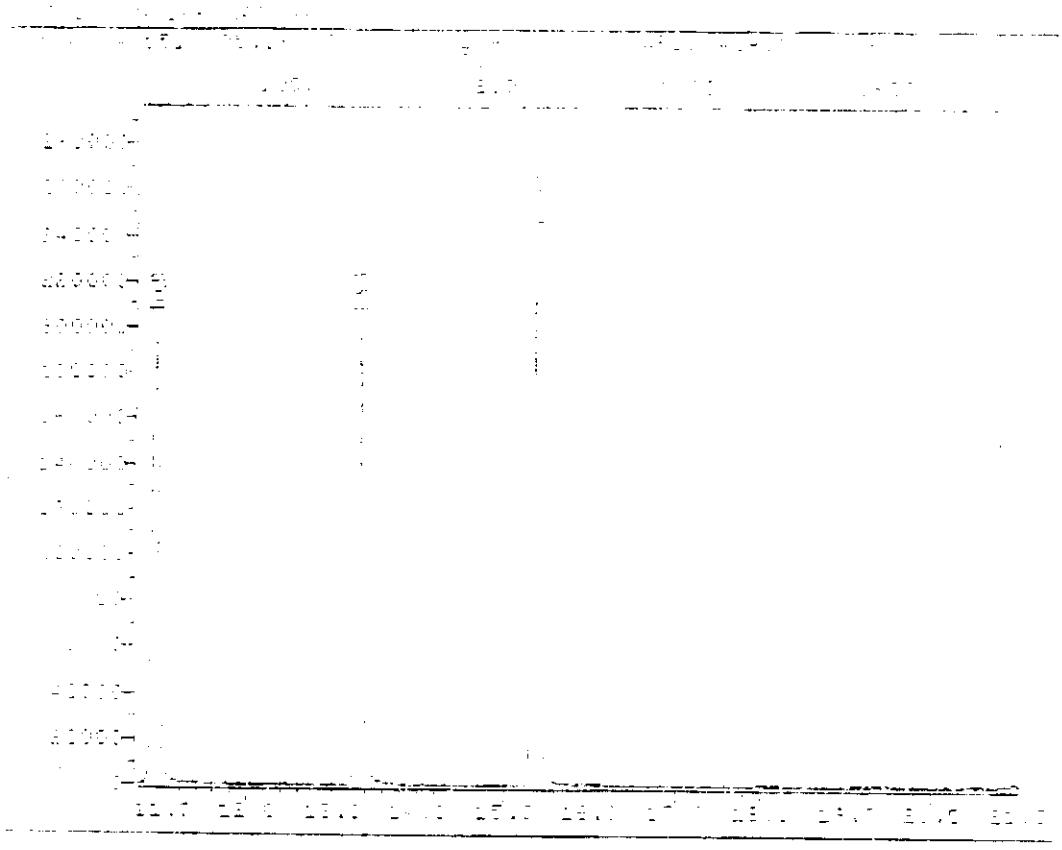
Data not requested

001053



POOR COPY RECEIVED

0010054



POOR COPY RECEIVED

001055

001056

VOLATILE DATA PACKAGE

C. STANDARDS DATA

1) Initial Calibration (Form VI - VOA)
   - RICs/Quantitation Reports
2) Continuing Calibration (Form VII - VOA)
   - RICs/Quantitation Reports
3) Internal Standard Area Summary (Form VIII - VOA)

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Instrument ID: VOA1____ Calibration Date(s): 10/23/90 10/23/90

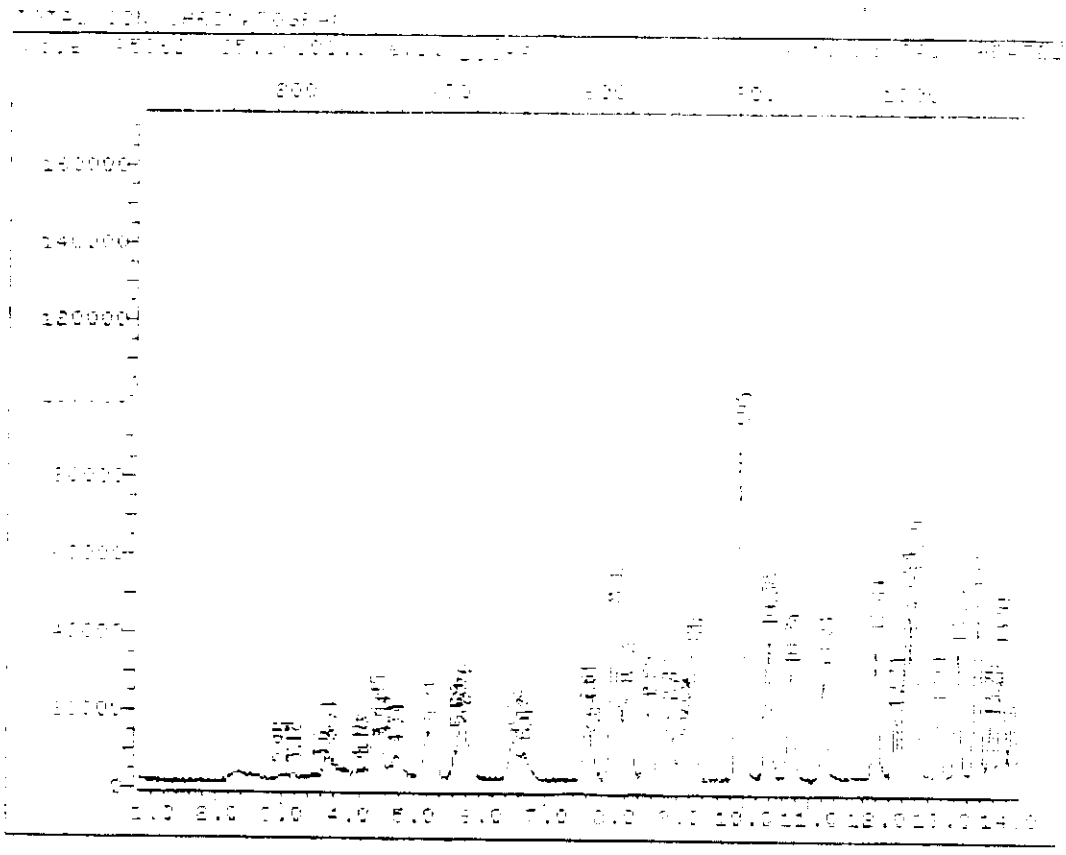
Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

Min RRF for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = A5362_____ RRF50 = A5363_____
RRF100= A5364_____ RRF150= A5365_____ RRF200= A5366_____

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	RRF	% RSD
Chloromethane#	0.478	0.672	0.681	0.649	0.628	0.622	13.3#
Bromomethane	0.806	0.973	0.986	0.932	0.909	0.921	7.8
Vinyl Chloride*	0.664	0.771	0.781	0.772	0.748	0.747	6.4*
Chloroethane	0.345	0.646	0.661	0.651	0.567	0.574	23.2
Methylene Chloride	1.367	1.327	1.296	1.263	1.212	1.293	4.6
Acetone	0.842	0.369	0.367	0.427	0.353	0.472	44.3
Carbon Disulfide	2.059	2.024	2.009	1.912	1.877	1.976	3.9
1,1-Dichloroethene*	1.333	1.262	1.229	1.196	1.154	1.235	5.5*
1,1-Dichloroethane#	2.353	2.375	2.345	2.288	2.236	2.319	2.4#
1,2-Dichloroethene (total)	1.564	1.538	1.506	1.490	1.487	1.517	2.2
Chloroform*	3.242	3.255	3.132	3.115	3.068	3.162	2.6*
1,2-Dichloroethane	1.690	1.593	1.590	1.619	1.576	1.614	2.8
2-Butanone	0.101	0.106	0.109	0.131	0.126	0.115	11.4
1,1,1-Trichloroethane	0.507	0.509	0.489	0.478	0.476	0.492	3.2
Carbon Tetrachloride	0.455	0.461	0.460	0.456	0.452	0.457	0.8
Vinyl Acetate	0.507	0.435	0.411	0.439	0.432	0.445	8.2
Bromodichloromethane	0.587	0.576	0.572	0.578	0.572	0.577	1.1
1,2-Dichloropropane*	0.373	0.385	0.375	0.374	0.371	0.376	1.5*
cis-1,3-Dichloropropene	0.496	0.483	0.482	0.479	0.473	0.483	[illegible]
Trichloroethene	0.469	0.449	0.441	0.421	0.422	0.440	4.6
Dibromochloromethane	0.530	0.521	0.525	0.514	0.525	0.523	[illegible]
1,1,2-Trichloroethane	0.335	0.314	0.298	0.304	0.300	0.310	[illegible]
Benzene	0.699	0.698	0.677	0.659	0.660	0.679	[illegible]
Trans-1,3-Dichloropropene	0.397	0.387	0.392	0.398	0.395	0.394	1.1
Bromoform#	0.363	0.349	0.367	0.377	0.379	0.367	3.3#
4-Methyl-2-Pentanone	0.451	0.393	0.364	0.402	0.393	0.401	7.9
2-Hexanone	0.478	0.279	0.284	0.332	0.308	0.336	24.4
Tetrachloroethene	0.445	0.439	0.432	0.427	0.407	0.430	3.4
1,1,2,2-Tetrachloroethane#	0.609	0.515	0.490	0.568	0.538	0.544	8.5#
Toluene*	0.785	0.762	0.744	0.741	0.736	0.754	2.7*
Chlorobenzene#	1.103	1.078	1.066	1.054	1.032	1.067	2.5#
Ethylbenzene*	0.462	0.463	0.448	0.449	0.443	0.453	2.0*
Styrene	1.032	1.009	0.981	0.995	0.960	0.995	2.7
Xylene (total)	0.582	0.580	0.557	0.570	0.525	0.563	4.1
Toluene-d8	1.184	1.183	1.129	1.192	1.162	1.170	2.2
Bromofluorobenzene	0.804	0.809	0.779	0.825	0.785	0.800	2.3
1,2-Dichloroethane-d4	1.546	1.561	1.535	1.569	1.520	1.546	1.3

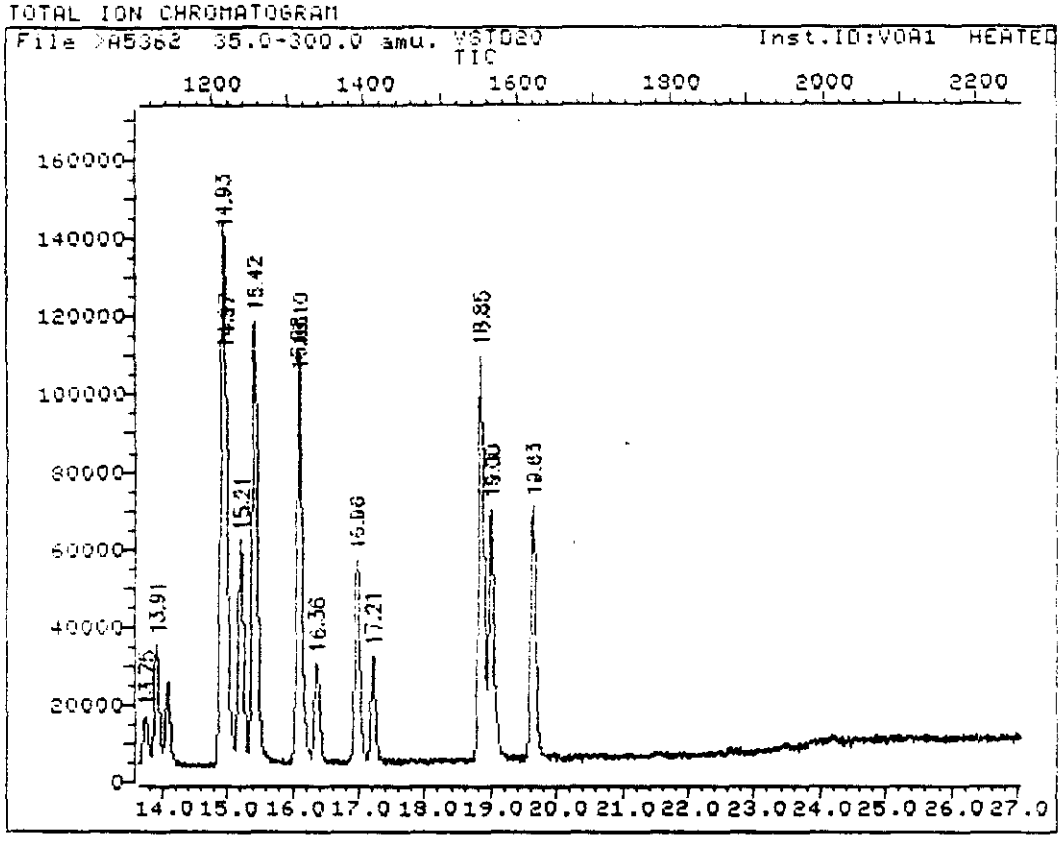
000100



POOR COPY RECEIVED

001058

TOTAL ION CHROMATOGRAM



Data File: >A5362::A1 Quant Output File: >A5362::QT
Name: VSTD20
Misc: Inst.ID:VOA1 HEATED PURGE

Id File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901019 09:46

Operator ID: TERMB
Quant Time: 901023 09:31
Injected at: 901023 08:58

TIC page 2 of 2

QUANT REPORT

Operator ID: TERMB Quant Rev: 6 Quant Time: 901023 09:3[illegible]
Output File: ^A5362::OT Injected at: 90[illegible] 08:[illegible]3
Data File: ^A5362::A[illegible] Dilution Factor: [illegible]
Name: WSTD20
Misc: Inst.ID:VOA1 HEATED PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901019 09:46

	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
1)	*C101 Bromochloromethane	8.02	128.0	56784	50.00	UG/L	[illegible]
2)	C015 1,2-Dichloroethane-d4	9.09	65.0	75122	20.31	UG/L	[illegible]
3)	C010 Chloromethane	2.98	50.0	108698M	21.78	UG/L	[illegible]
4)	C015 Bromomethane	7.62	94.0	193070M	23.21	UG/L	
5)	C020 Vinyl Chloride	3.19	62.0	150887M	27.32	UG/L	
6)	C025 Chloroethane	4.19	64.0	78420M	17.07	UG/L	[illegible]
7)	C030 Methylene Chloride	5.24	84.0	31052	23.38	UG/L	[illegible]
8)	C035 Acetone	4.54	43.0	191378	38.64	UG/L	[illegible]
9)	C036 Acrolein	4.27	56.0	7929	49.85	UG/L	[illegible]
10)	C040 Carbon Disulfide	4.74	76.0	46790	29.00	UG/L	[illegible]
11)	C042 Trichlorofluoromethane	3.71	101.0	32391	32.78	UG/L	[illegible]
12)	C043 Acrylonitrile	5.68	53.0	26277	94.12	UG/L	[illegible]
13)	C045 1,1-Dichloroethene	4.45	96.0	30293	27.40	UG/L	[illegible]
14)	C050 1,1-Dichloroethane	6.52	63.0	57451	20.99	UG/L	[illegible]
15)	C052 trans-1,2-Dichloroethene	5.76	96.0	71317	23.65	UG/L	[illegible]
16)	C053 cis-1,2-Dichloroethene	7.61	96.0	35542	22.77	UG/L	[illegible]
17)	C060 Chloroform	8.23	83.0	77622	22.72	UG/L	[illegible]
18)	C065 1,2-Dichloroethane	8.23	62.0	33401	22.11	UG/L	[illegible]
19)	C110 2-Butanone	7.69	72.0	2289	18.71	UG/L	[illegible]
20)	*C110 1,4-Dichlorobenzene	9.98	114.0	265031	50.00	UG/L	[illegible]
21)	C115 1,1,1-Trichloroethane	8.35	97.0	53768	25.50	UG/L	[illegible]
22)	C120 Carbon Tetrachloride	8.87	117.0	48236	23.91	UG/L	[illegible]
23)	C125 Vinyl Acetate	6.67	43.0	53788	22.24	UG/L	[illegible]
24)	C130 Bromodichloromethane	11.21	83.0	62171	23.92	UG/L	[illegible]
25)	C140 1,2-Dichloropropane	10.74	63.0	39871	19.10	UG/L	[illegible]
26)	C143 cis-1,3-Dichloropropene	12.01	75.0	67362	27.32	UG/L	[illegible]
27)	C150 Trichloroethene	10.38	130.0	49725	21.10	UG/L	[illegible]
28)	C155 Dibromochloromethane	13.91	129.0	56142	21.22	UG/L	[illegible]
29)	C160 1,1,2-Trichloroethane	13.26	97.0	35553	22.79	UG/L	[illegible]
30)	C165 Benzene	9.20	78.0	74089	21.33	UG/L	[illegible]
31)	C172 trans-1,3-Dichloropropene	12.96	75.0	30307	16.26	UG/L	[illegible]
32)	C178 2-Chloroethylvinyl ether	12.59	63.0	8180	19.52	UG/L	[illegible]
33)	C180 Bromoform	16.36	173.0	38476	18.89	UG/L	[illegible]
34)	*C120 Chlorobenzene-d5	14.93	117.0	210796	50.00	UG/L	[illegible]
35)	C205 4-Methyl-2-Pentanone	12.31	43.0	38049	21.42	UG/L	[illegible]
36)	C210 2-Hexanone	13.75	43.0	40350	29.06	UG/L	[illegible]
37)	C220 Tetrachloroethene	13.54	164.0	37847	19.08	UG/L	[illegible]
38)	C225 1,1,2,2-Tetrachloroethane	17.21	83.0	51413	27.79	UG/L	[illegible]
39)	C230 Toluene	12.59	92.0	86217	21.74	UG/L	[illegible]
40)	C235 Chlorobenzene	14.97	112.0	83103	20.84	UG/L	[illegible]
41)	C240 Ethylbenzene	15.21	106.0	38955	21.39	UG/L	[illegible]
42)	C243 Xylene-meta,para	15.42	106.0	103252	43.04	UG/L	[illegible]
43)	C245 Styrene	16.10	104.0	87064	[illegible]	UG/L	[illegible]

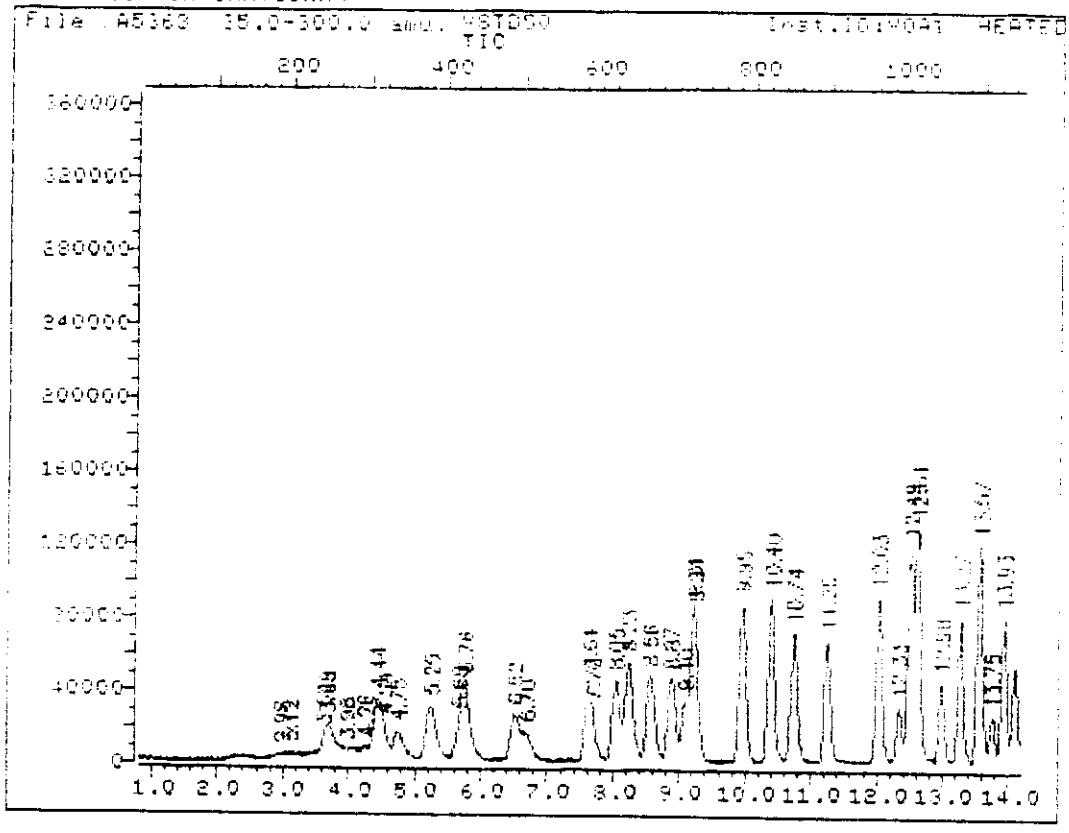
001060

	Compound	R.T.	Q ion	Area	Conc	Units	S
44)	C250 Xylene-ortho	16.08	106.0	49126	21.10	UG/L	9
45)	C335 1,3-Dichlorobenzene	18.85	146.0	142128	19.61	UG/L	9
46)	C340 1,4-Dichlorobenzene	19.00	146.0	89819	19.[illegible]	UG/L	9
47)	C350 1,2-Dichlorobenzene	19.63	146.0	92241	20.30	UG/L	9
48)	CS05 Toluene-d8	12.47	98.0	99892	20.74	UG/L	9
49)	CS10 Bromofluorobenzene	16.96	95.0	67845	18.[illegible]	UG/L	9

* Compound is ISTD

001061

TOTAL ION CHROMATOGRAM



Data File: A5363::A1 Quant Output File: A5363::QT
Name: VSTD50
Misc: Inst.IC1:MDA1 HEATED PURGE

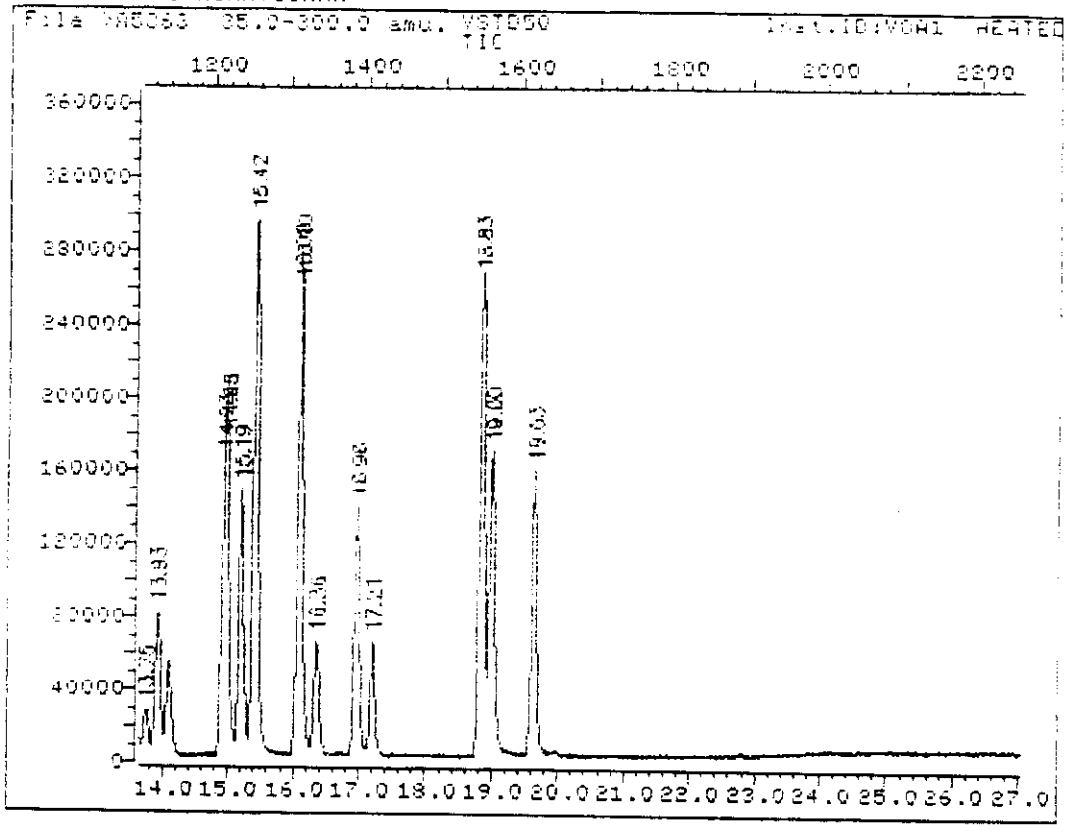
Id File: IC1::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT MDA1
Last Calibration: 901113 19:46

Operator ID: TERMD
Quant Time: 901103 19:17
Injected at: 901103 09:37

TIC page 1 of 1

001062

TOTAL ION CHROMATOGRAM



Data File: VA5363::A1 Quant Output File: VA5363::QT
Name: VSTD50
Misc: Inst.ID:VOA1 HEATED PURGE

Id File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901019 09:46

Operator ID: TERMO
Quant Time: 901027 10:15
Injected at: 901027 09:37

TIC page 2 of 2

001063

QUANT REPORT

Operator ID: TEPMC Quant Rev: 0 Quant Time: 901023 [illegible]
Output File: [illegible] Injected at: 901023 [illegible]
Data File: [illegible] Dilution Factor: [illegible]
Name: [illegible]
Misc: Inst.ID:VOA1 HEATED PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901019 09:46

	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
1)	*C101 Bromochloromethane	3.05	128.0	57098	50.00	UG/L	[illegible]
2)	C315 1,2-Dichloroethane-d4	9.10	65.0	89136	51.25	UG/L	[illegible]
3)	C010 Chloromethane	2.98	50.0	383714	71.45	UG/L	
4)	C015 Bromomethane	3.62	94.0	556814	70.05	UG/L	[illegible]
5)	C020 Vinyl Chloride	3.12	62.0	440174	69.10	UG/L	
6)	C025 Chloroethane	3.98	64.0	365947	52.07	UG/L	[illegible]
7)	C030 Methylene Chloride	5.25	84.0	79785	56.72	UG/L	[illegible]
8)	C035 Acetone	4.54	43.0	21092	42.41	UG/L	[illegible]
9)	C036 Acrolein	4.26	56.0	7119	89.83	UG/L	[illegible]
10)	C040 Carbon Disulfide	4.75	76.0	115556	71.23	UG/L	[illegible]
11)	C042 Trichlorofluoromethane	3.68	101.0	81811	82.33	UG/L	[illegible]
12)	C043 Acrylonitrile	5.68	53.0	50980	181.64	UG/L	[illegible]
13)	C045 1,1-Dichloroethene	4.44	96.0	72056	64.52	UG/L	[illegible]
14)	C050 1,1-Dichloroethane	6.51	63.0	135613	52.57	UG/L	[illegible]
15)	C052 trans-1,2-Dichloroethene	5.76	96.0	80149	60.24	UG/L	[illegible]
16)	C057 cis-1,2-Dichloroethene	7.64	96.0	97330	57.97	UG/L	[illegible]
17)	C060 Chloroform	8.23	83.0	188854	56.73	UG/L	[illegible]
18)	C065 1,2-Dichloroethane	9.24	62.0	90982	52.11	UG/L	[illegible]
19)	C110 2-Butanone	7.70	72.0	5040	41.13	UG/L	[illegible]
20)	*C110 1,4-Dichlorobenzene	9.95	114.0	265809	50.0[illegible]	UG/L	[illegible]
21)	C115 1,1,1-Trichloroethane	8.56	97.0	135387	54.17	UG/L	[illegible]
22)	C120 Carbon Tetrachloride	8.87	117.0	122555	50.55	UG/L	[illegible]
23)	C125 Vinyl Acetate	6.70	43.0	115631	47.70	UG/L	[illegible]
24)	C171 Bromodichloromethane	11.25	83.0	157257	57.61	UG/L	[illegible]
25)	C140 1,2-Dichloropropane	10.74	63.0	102366	49.31	UG/L	[illegible]
26)	C147 cis-1,3-Dichloropropene	12.03	75.0	164284	50.44	UG/L	[illegible]
27)	C150 Trichloroethene	10.40	130.0	119477	50.54	UG/L	[illegible]
28)	C155 Dibromochloromethane	13.93	129.0	138482	52.18	UG/L	[illegible]
29)	C160 1,1,2-Trichloroethane	13.27	97.0	83506	53.37	UG/L	[illegible]
30)	C165 Benzene	9.21	78.0	185633	53.27	UG/L	[illegible]
31)	C172 trans-1,3-Dichloropropene	12.98	75.0	74104	39.64	UG/L	[illegible]
32)	C178 2-Chloroethylvinyl ether	12.61	63.0	21747	51.73	UG/L	[illegible]
33)	C180 Bromoform	16.36	173.0	92851	45.46	UG/L	[illegible]
34)	*C120 Chlorobenzene-d5	14.93	117.0	215576	50.00	UG/L	[illegible]
35)	C205 4-Methyl-2-Pentanone	12.33	43.0	84862	46.72	UG/L	[illegible]
36)	C210 2-Hexanone	13.75	43.0	60297	42.46	UG/L	[illegible]
37)	C220 Tetrachloroethene	13.57	164.0	94372	47.14	UG/L	[illegible]
38)	C225 1,1,2,2-Tetrachloroethane	17.21	83.0	111288	58.57	UG/L	[illegible]
39)	C230 Toluene	12.61	92.0	164371	51.16	UG/L	[illegible]
40)	C235 Chlorobenzene	14.99	112.0	232899	50.49	UG/L	[illegible]
41)	C240 Ethylbenzene	15.19	106.0	99904	53.63	UG/L	[illegible]
42)	C243 Xylene-meta,para	15.42	106.0	364716	107.90	UG/L	[illegible]
43)	C245 Styrene	16.10	104.0	217978	53.05	UG/L	[illegible]

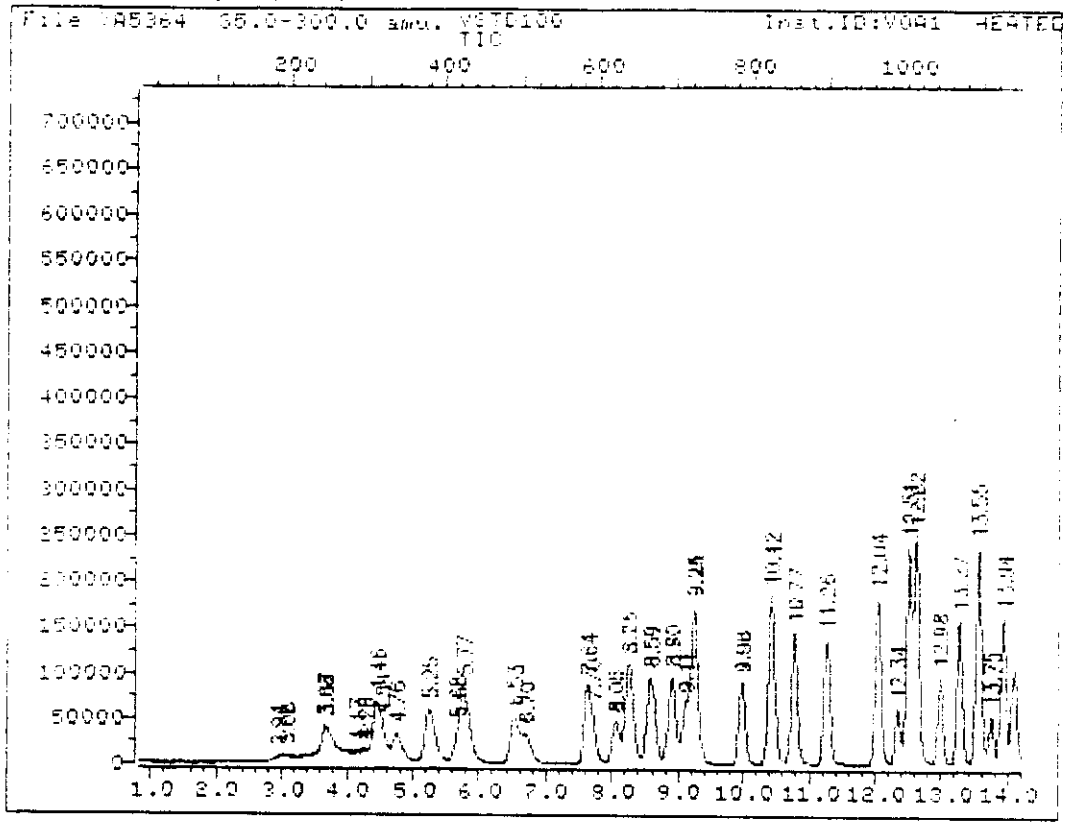
001064

	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
44)	C250 Xylene-ortho	16.09	106.0	129748	[illegible]	UG/L	[illegible]
45)	C335 1,3-Dichlorobenzene	18.83	146.0	364717	[illegible]	UG/L	[illegible]
46)	C340 1,4-Dichlorobenzene	19.00	146.0	248032	[illegible]	UG/L	[illegible]
47)	C350 1,2-Dichlorobenzene	19.53	146.0	214558	[illegible]	UG/L	
48)	CS05 Toluene-d8	12.49	98.0	255445	[illegible]	UG/L	[illegible]
49)	CS10 Bromofluorobenzene	16.96	95.0	174710	[illegible]	UG/L	[illegible]

* Compound is ISTD

001065

TOTAL ION CHROMATOGRAM



Data File: 5A5364::A1 Quant Output File: 5A5364::QT
Name: VSTD100
Misc: Inst.ID:V0A1 HEATED PURGE

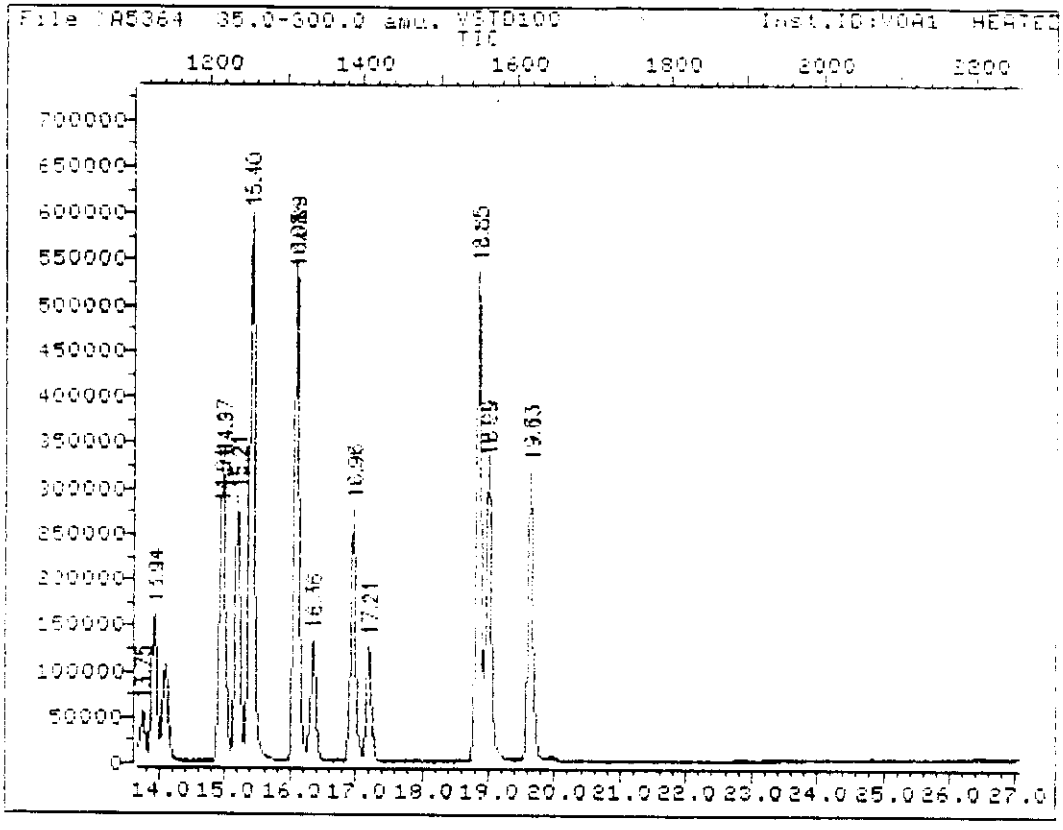
Id File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT V0A1
Last Calibration: 901013 09:46

Operator ID: TERMO
Quant Time: 901023 11:57
Injected at: 901023 10:09

TIC page 1 of 2

001066

TOTAL ION CHROMATOGRAM



Data File: :A5364::A1 Quant Output File: A5364::QT
Name: VSTD100
Misc: Inst.ID:V0A1 HEATED PURGE

Id File: ID1W::LF
Title: WATER CALIBRATION LIST FOR INSTRUMENT 0A1
Last Calibration: 901019 09:45

Operator ID: TERMD
Quant Time: 901027 11:57
Injected at: 901027 10:27

TIC page 2 of 2

001067

QUANT REPORT

Operator ID: TEPMD Quant Rev: 6 Quant Time: 901023 10:57
Output File: VA5364::QT Injected at: 901023 10:20
Data File: VA5364::H1 Dilution Factor: 1.00000
Name: VSTD100
Misc Instr.ID:VOA1 HEATED PURGE

ID File: IDIV::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901019 09:46

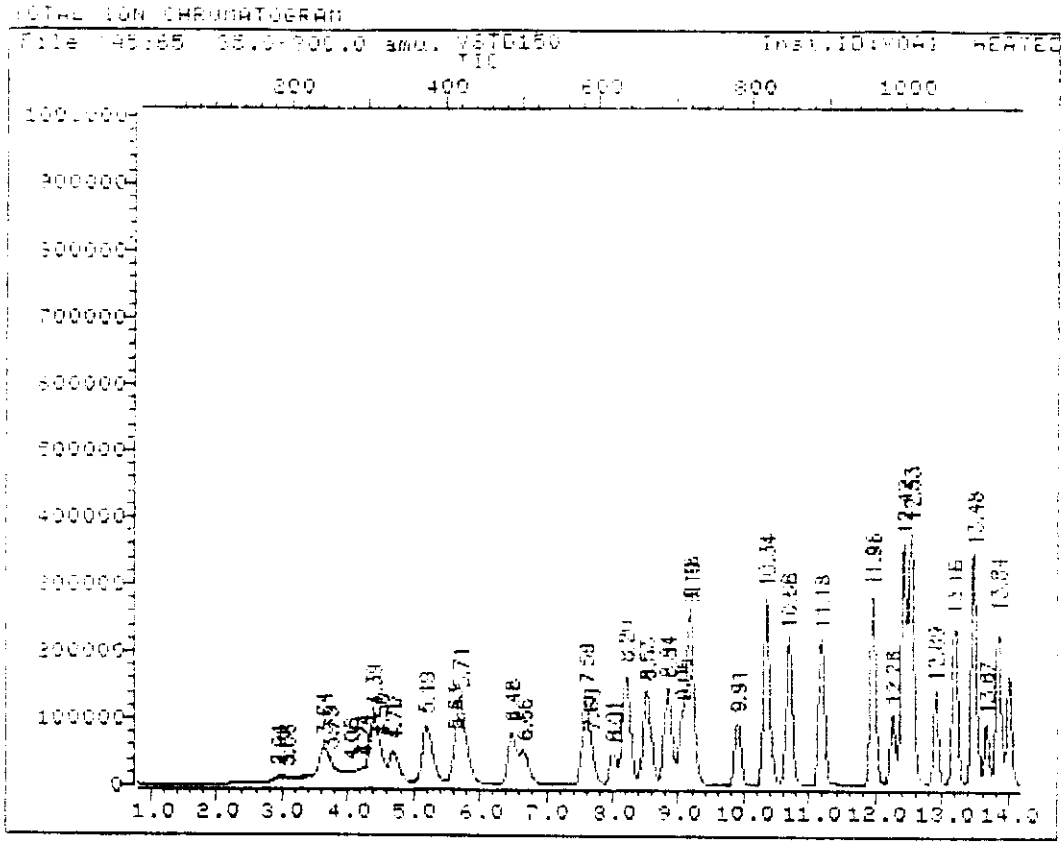
	Compound	R.T.	Q ion	Area	Conc	Units	
1)	*C101 Bromochloromethane	8.05	128.0	58059	50.00	UG/L	9
2)	C519 1,2-Dichloroethane-d4	9.11	65.0	178329	100.84	UG/L	9
3)	C013 Chloromethane	2.34	50.0	790831M	154.96	UG/L	9
4)	C019 Bromomethane	3.67	94.0	1146181M	142.14	UG/L	9
5)	C020 Vinyl Chloride	3.08	62.0	90772M	140.14	UG/L	9
6)	C025 Chloroethane	4.17	64.0	76854M	127.17	UG/L	
7)	C030 Methylene Chloride	5.25	84.0	150604	110.39	UG/L	9
8)	C035 Acetone	4.54	43.0	42649	84.33	UG/L	9
9)	C036 Acrolein	4.28	56.0	34656	430.05	UG/L	9
10)	C040 Carbon Disulfide	4.76	76.0	233453	141.53	UG/L	10
11)	C042 Trichlorofluoromethane	3.68	101.0	156654	155.05	UG/L	9
12)	C043 Acrylonitrile	5.68	53.0	104478	366.09	UG/L	9
13)	C045 1,1-Dichloroethene	4.46	96.0	142805	126.74	UG/L	9
14)	C050 1,1-Dichloroethane	6.53	63.0	172482	104.55	UG/L	9
15)	C052 trans-1,2-Dichloroethene	6.77	96.0	158096	115.96	UG/L	9
16)	C053 cis-1,2-Dichloroethene	7.64	96.0	174942	109.45	UG/L	9
17)	C060 Chloroform	8.25	83.0	363991	108.53	UG/L	9
18)	C065 1,2-Dichloroethane	9.25	62.0	184719	104.07	UG/L	9
19)	C110 2-Butanone	7.70	72.0	12683	95.14	UG/L	9
20)	*C110 1,4-Difluorobenzene	9.99	114.0	274602	50.00	UG/L	9
21)	C115 1,1,1-Trichloroethane	8.59	97.0	268741	127.32	UG/L	9
22)	C120 Carbon Tetrachloride	8.90	117.0	292229	121.03	UG/L	9
23)	C125 Vinyl Acetate	5.70	43.0	226159	90.23	UG/L	10
24)	C130 Bromodichloromethane	11.26	83.0	314834	114.96	UG/L	9
25)	C140 1,2-Dichloropropane	10.77	63.0	206254	96.19	UG/L	9
26)	C143 cis-1,3-Dichloropropene	12.04	75.0	339140	132.79	UG/L	9
27)	C150 Trichloroethene	10.42	130.0	242385	99.25	UG/L	9
28)	C155 Dibromochloromethane	13.94	129.0	288600	105.27	UG/L	9
29)	C160 1,1,2-Trichloroethane	13.27	97.0	163966	101.43	UG/L	9
30)	C165 Benzene	9.24	78.0	372598	107.51	UG/L	10
31)	C172 trans-1,3-Dichloropropene	12.98	75.0	155389	80.46	UG/L	9
32)	C178 2-Chloroethylvinyl ether	12.62	63.0	44557	102.60	UG/L	10
33)	C180 Bromoform	16.36	173.0	201766	95.63	UG/L	9
34)	*C120 Chlorobenzene-d5	14.94	117.0	221572	50.00	UG/L	9
35)	C205 4-Methyl-2-Pentanone	12.34	43.0	161808	86.59	UG/L	9
36)	C210 2-Hexanone	13.75	43.0	126162	96.43	UG/L	9
37)	C220 Tetrachloroethene	13.55	164.0	191605	91.54	UG/L	9
38)	C225 1,1,2,2-Tetrachloroethane	17.21	83.0	217743	111.95	UG/L	9
39)	C230 Toluene	12.62	92.0	330357	101.30	UG/L	9
40)	C235 Chlorobenzene	14.97	112.0	473520	99.89	UG/L	9
41)	C240 Ethylbenzene	15.21	106.0	198927	107.99	UG/L	9
42)	C243 Xylene-meta,para	15.40	106.0	871674	219.81	UG/L	9
43)	C245 Styrene	15.79	104.0	175849	103.48	UG/L	9

001068

	Compound	R.T.	Ion	Area	[illegible]	[illegible]	[illegible]
44)	C250 Xylene-ortho	16.08	106.0	347306	[illegible]	[illegible]	[illegible]
45)	C335 1,3-Dichlorobenzene	18.85	146.0	710883	94.19	[illegible]	[illegible]
46)	C340 1,4-Dichlorobenzene	18.99	146.0	472121	[illegible]	[illegible]	[illegible]
47)	C350 1,2-Dichlorobenzene	19.53	146.0	424854	91.16	[illegible]	[illegible]
48)	CS05 Toluene-d8	12.51	98.0	501157	96.01	[illegible]	[illegible]
49)	CS10 Bromofluorobenzene	15.96	95.0	345945	92.01	[illegible]	[illegible]

* Compound is ISTD

001063



Data File: >A5365::A1 Quant Output File: 45365::IT
Name: VSTD150
Misc: Inst.ID:VOA1 HEATED PURGE

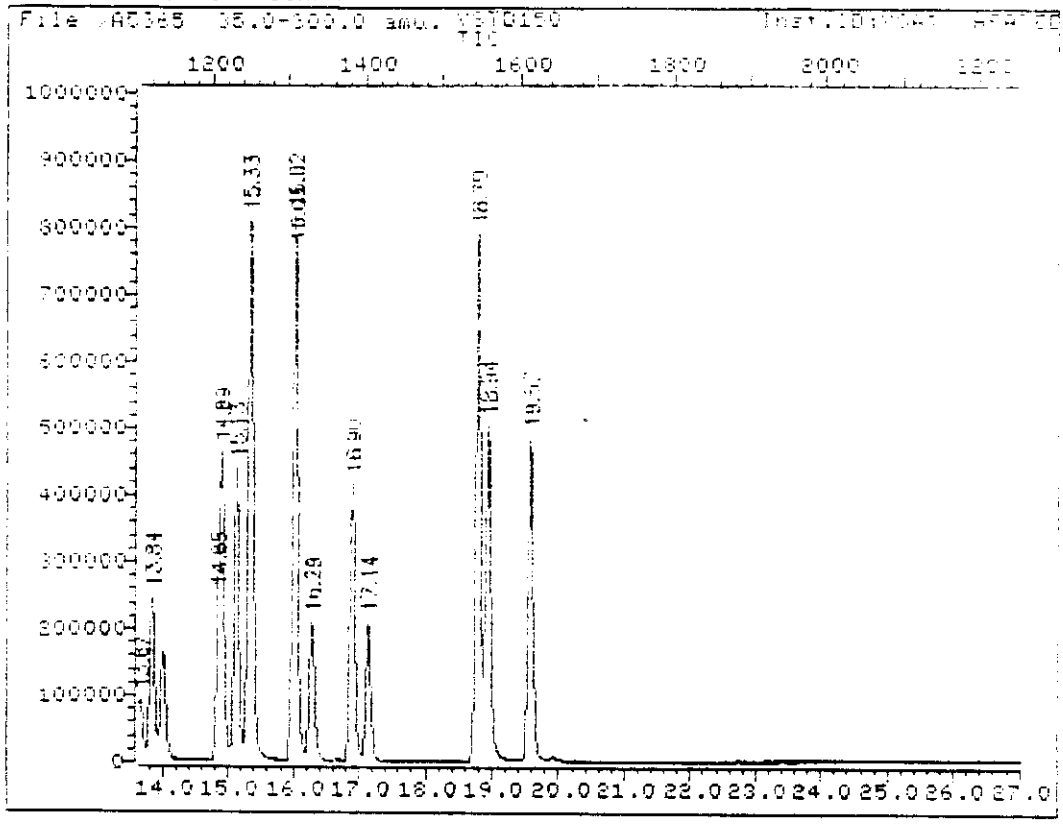
Is File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901023 11:34

Operator ID: TERMB
Quant Time: 901027 11:43
Injected at: 901027 11:07

TIC page 1 of 2

001070

TOTAL ION CHROMATOGRAM



Data File: A5365::41 Quant Output File:

Name: VSTD150

Misc: Inst.ID:0041 HEATED PURGE

Ia File:

Title: WATER CALIBRATION LIST FOR INSTRUMENT

Last Calibration:

Operator ID: TERME

Quant Time:

Injected at:

TIC page 2 of 2

POOR COPY RECEIVED

001071

QUANT REPORT

Operator ID: TERMB Quant Rev: 6 Quant Time: 901023 11:40
Output File: [illegible] Injected at: 901023 11:17
Data File: [illegible] Dilution Factor: 1.00000
Name: WST0150
Misc: Inst.ID:VOA1 HEATED PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901023 11:39

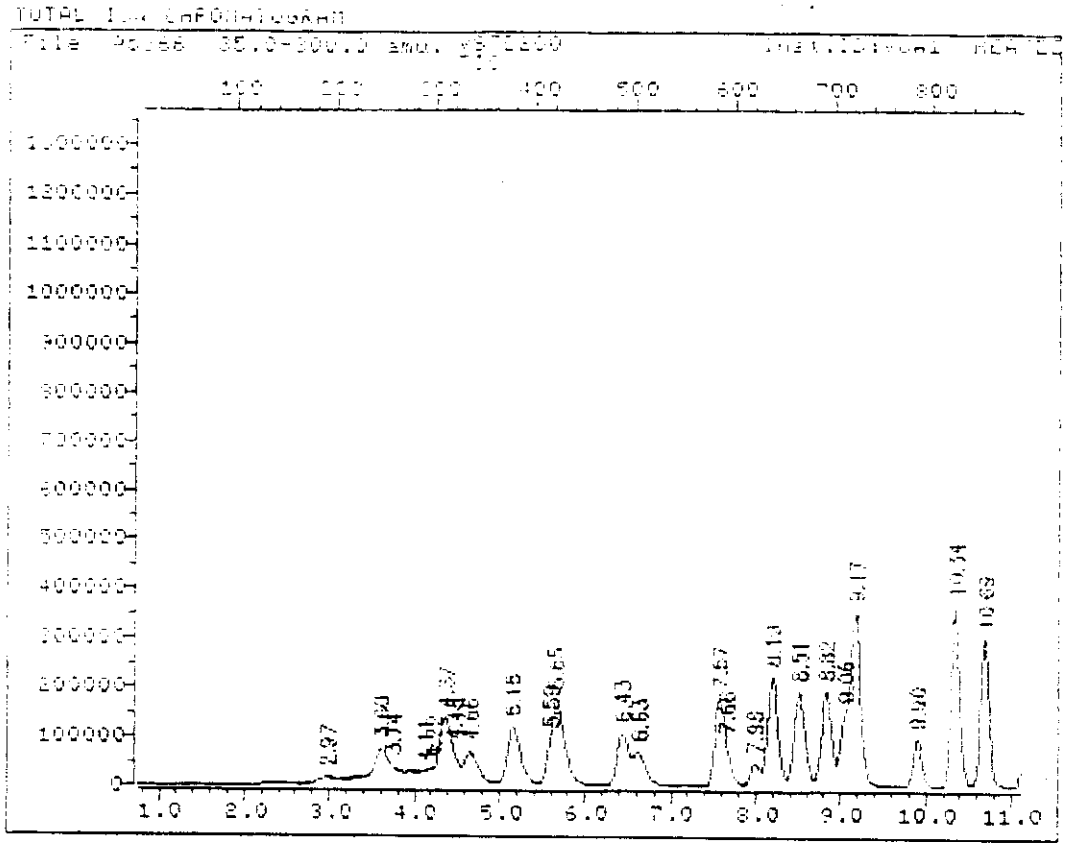
	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
1)	*C101 Bromochloromethane	9.01	128.0	58900	50.00	UG/L	[illegible]
2)	C019 1,2-Dichloroethane-d4	9.06	65.0	277236	150.76	UG/L	[illegible]
3)	C010 Chloromethane	2.94	50.0	114668M	144.85	UG/L	[illegible]
4)	C015 Bromomethane	3.72	94.0	164741M	147.74	UG/L	[illegible]
5)	C020 Vinyl Chloride	3.08	62.0	136412M	150.21	UG/L	[illegible]
6)	C025 Chloroethane	4.06	64.0	115097M	151.21	UG/L	
7)	C030 Methylene Chloride	5.19	84.0	223124	142.76	UG/L	[illegible]
8)	C035 Acetone	4.56	43.0	75448	173.38	UG/L	[illegible]
9)	C036 Acrolein	4.24	56.0	55995	1524.99	UG/L	[illegible]
10)	C040 Carbon Disulfide	4.70	76.0	337884	141.77	UG/L	[illegible]
11)	C042 Trichlorofluoromethane	3.64	101.0	211795	125.48	UG/L	[illegible]
12)	C043 Acrylonitrile	5.65	53.0	172849	457.36	UG/L	[illegible]
13)	C045 1,1-Dichloroethene	4.79	96.0	211270	142.12	UG/L	[illegible]
14)	C050 1,1-Dichloroethane	5.46	63.0	404260	144.49	UG/L	[illegible]
15)	C052 trans-1,2-Dichloroethene	5.71	96.0	232143	140.18	UG/L	[illegible]
16)	C053 cis-1,2-Dichloroethene	7.59	96.0	263237	148.27	UG/L	[illegible]
17)	C060 Chloroform	8.29	83.0	550436	147.54	UG/L	[illegible]
18)	C065 1,2-Dichloroethane	9.19	62.0	286042	151.32	UG/L	[illegible]
19)	C110 2-Butanone	7.68	72.0	23187	188.87	UG/L	[illegible]
20)	*C110 1,4-Difluorobenzene	9.91	114.0	277239	50.00	UG/L	[illegible]
21)	C115 1,1,1-Trichloroethane	8.57	97.0	397491	141.77	UG/L	[illegible]
22)	C120 Carbon Tetrachloride	8.84	117.0	778669	148.11	UG/L	[illegible]
23)	C125 Vinyl Acetate	6.66	43.0	365001	151.36	UG/L	[illegible]
24)	C130 Bromodichloromethane	11.18	83.0	480631	150.34	UG/L	[illegible]
25)	C140 1,2-Dichloropropane	10.68	63.0	310844	145.57	UG/L	[illegible]
26)	C143 cis-1,3-Dichloropropene	11.96	75.0	509861	149.44	UG/L	[illegible]
27)	C150 Trichloroethene	10.34	130.0	349906	140.40	UG/L	[illegible]
28)	C155 Dibromochloromethane	13.84	129.0	426724	147.72	UG/L	[illegible]
29)	C160 1,1,2-Trichloroethane	13.18	97.0	252286	144.33	UG/L	[illegible]
30)	C165 Benzene	9.18	78.0	547936	141.50	UG/L	[illegible]
31)	C172 trans-1,3-Dichloropropene	12.89	75.0	238118	110.91	UG/L	[illegible]
32)	C178 2-Chloroethylvinyl ether	12.53	63.0	67307	147.71	UG/L	[illegible]
33)	C180 Bromoform	16.29	173.0	313312	161.76	UG/L	[illegible]
34)	*C120 Chlorobenzene-d5	14.39	117.0	216983	50.00	UG/L	[illegible]
35)	C205 4-Methyl-2-Pentanone	12.26	43.0	261373	153.29	UG/L	[illegible]
36)	C210 2-Hexanone	13.67	43.0	215917	177.99	UG/L	[illegible]
37)	C220 Tetrachloroethene	13.48	164.0	277321	145.47	UG/L	[illegible]
38)	C225 1,1,2,2-Tetrachloroethane	17.14	83.0	763757	154.96	UG/L	[illegible]
39)	C230 Toluene	12.53	92.0	482177	145.53	UG/L	[illegible]
40)	C235 Chlorobenzene	14.39	112.0	686421	146.41	UG/L	[illegible]
41)	C240 Ethylbenzene	15.13	106.0	292335	145.76	UG/L	[illegible]
42)	C243 Xylene-meta,para	15.33	106.0	774946	190.95	UG/L	[illegible]
43)	C245 Styrene	16.07	104.0	447737	147.53	UG/L	[illegible]

001072

	Compound	R.T.	Q	Area	Conc	Units	
44)	C250 Xylene-ortho	15.01	106.0	770942	[illegible]	ug/L	[illegible]
45)	C335 1,3-Dichlorobenzene	18.79	146.0	[illegible]	[illegible]	[illegible]	[illegible]
46)	C340 1,4-Dichlorobenzene	18.94	146.0	[illegible]	[illegible]	[illegible]	[illegible]
47)	C350 1,2-Dichlorobenzene	19.87	146.0	[illegible]	[illegible]	[illegible]	[illegible]
48)	C505 Toluene-d8	10.40	98.0	[illegible]	[illegible]	[illegible]	[illegible]
49)	C310 Bromofluorobenzene	15.90	95.0	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is ISTD

POOR COPY RECEIVED



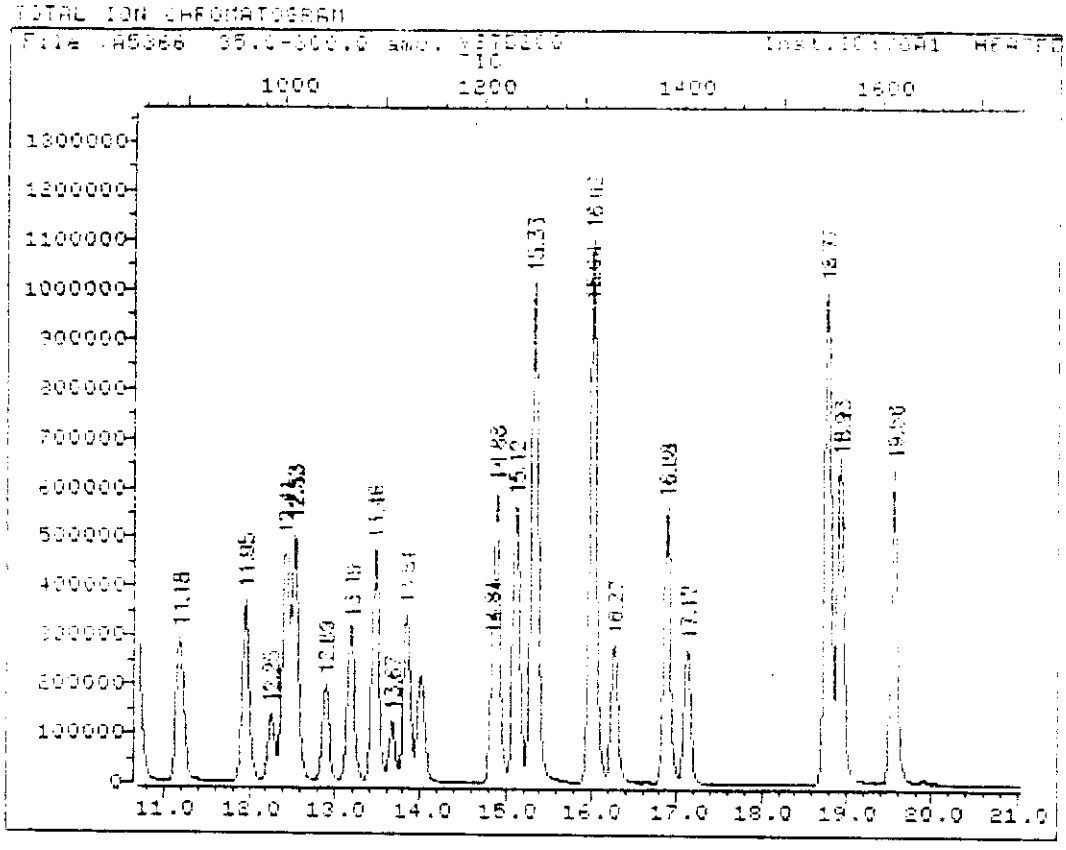
Data File: A4536b::H1 Quant Output File: A536b::IT
Name: VSTD200
Misc: Inst.ID:VC41 HEATED PURGE

Id File: ID1W::L7
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA
Last Calibration: 901027 11:39

Operator ID: TEPHO
Quant Time: 901027 11:18
Injected at: 901027 11:18

TIC page 1 of 2

001074



Data File: 45Feb11:41 Quant Output File: 45Feb11:QT
Name: WETD200
Misc: Inst.ID: 0-1 HE-TEE PURGE

TC File: 101W11:LT
Title: WATER CALIBRATION LIST FOR INSTRUMENT 0-1.
Last Calibration: 901027 11:53

Operator ID: TERMO
Quant Time: 901027 12:18
Injected at: 901027 11:18

TIC page 2 of 2

001075

QUANT REPORT

Operator ID: TERMD Quant Rev: 6 Quant Time: 901027 [illegible]
Output File: ^A5366::QT Injected at: 901027 [illegible]
Data File: A5366::41 Dilution Factor: [illegible]
Name: WSTD200
Misc: Ins.ID:MOA1 HEATED PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT MOA1
Last Calibration: 901027 11:39

		Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
1)	*C101	Bromochloromethane	7.98	128.0	61039	50.00	UG/L	[illegible]
2)	C515	1,2-Dichloroethane-d4	9.06	65.0	372089	194.61	UG/L	[illegible]
3)	C010	Chloromethane	2.97	50.0	1533291	186.90	UG/L	[illegible]
4)	C015	Bromomethane	3.74	94.0	222624M	186.83	UG/L	[illegible]
5)	C020	Vinyl Chloride	2.97	62.0	1832210	194.15	UG/L	[illegible]
6)	C025	Chloroethane	4.11	64.0	1388760M	175.49	UG/L	
7)	C030	Methylene Chloride	5.15	84.0	296586	182.52	UG/L	[illegible]
8)	C035	Acetone	4.48	43.0	86476	191.15	UG/L	[illegible]
9)	C036	Acrolein	4.22	56.0	73562	1926.92	UG/L	[illegible]
10)	C040	Carbon Disulfide	4.66	76.0	459542	185.40	UG/L	10
11)	C042	Trichlorofluoromethane	3.60	101.0	277430	158.09	UG/L	[illegible]
12)	C043	Acrylonitrile	5.59	53.0	232219	849.47	UG/L	[illegible]
13)	C045	1,1-Dichloroethene	4.37	96.0	282482	192.76	UG/L	[illegible]
14)	C050	1,1-Dichloroethane	6.43	63.0	547399	188.15	UG/L	[illegible]
15)	C052	trans-1,2-Dichloroethene	5.65	96.0	710[illegible]	[illegible]	UG/L	[illegible]
16)	C053	cis-1,2-Dichloroethene	7.57	96.0	564[illegible]	[illegible]	UG/L	[illegible]
17)	C060	Chloroform	8.19	83.0	781[illegible]	[illegible]	UG/L	[illegible]
18)	C065	1,2-Dichloroethane	8.17	62.0	335677	[illegible]	UG/L	[illegible]
19)	C110	2-Butanone	7.66	72.0	[illegible]	[illegible]	UG/L	[illegible]
20)	*C110	1,4-Difluorobenzene	9.90	114.0	630031	[illegible]	UG/L	[illegible]
21)	C115	1,1,1-Trichloroethane	8.51	97.0	532856	186.73	UG/L	[illegible]
22)	C120	Carbon Tetrachloride	8.82	117.0	506[illegible]	187.[illegible]	UG/L	[illegible]
23)	C125	Vinyl Acetate	6.63	43.0	487961	199.97	UG/L	[illegible]
24)	C130	Bromodichloromethane	11.18	83.0	640144	198.11	UG/L	[illegible]
25)	C140	1,2-Dichloropropane	10.69	63.0	415726	192.42	UG/L	[illegible]
26)	C147	cis-1,3-Dichloropropene	11.95	75.0	578181	253.60	UG/L	[illegible]
27)	C150	Trichloroethene	10.34	130.0	472099	187.40	UG/L	[illegible]
28)	C155	Dibromochloromethane	13.84	129.0	588539	201.56	UG/L	[illegible]
29)	C160	1,1,2-Trichloroethane	13.19	97.0	335677	190.65	UG/L	[illegible]
30)	C165	Benzene	9.17	78.0	739621	186.36	UG/L	100
31)	C172	trans-1,3-Dichloropropene	12.89	75.0	318855	146.33	UG/L	[illegible]
32)	C178	2-Chloroethylvinyl ether	12.53	63.0	91228	198.95	UG/L	1[illegible]
33)	C180	Bromoform	16.27	173.0	424828	217.10	UG/L	[illegible]
34)	*C120	Chlorobenzene-d5	14.64	117.0	223917	50.00	UG/L	[illegible]
35)	C205	4-Methyl-2-Pentanone	12.25	43.0	392181	199.77	UG/L	[illegible]
36)	C210	2-Hexanone	13.67	43.0	275661	220.07	UG/L	[illegible]
37)	C220	Tetrachloroethene	13.46	164.0	364872	185.11	UG/L	[illegible]
38)	C225	1,1,2,2-Tetrachloroethane	17.12	83.0	482467	208.[illegible]	UG/L	[illegible]
39)	C230	Toluene	12.52	92.0	659836	197.15	UG/L	[illegible]
40)	C235	Chlorobenzene	14.88	112.0	924440	191.07	UG/L	[illegible]
41)	C240	Ethylbenzene	15.12	106.0	397364	191.46	UG/L	[illegible]
42)	C243	Xylene-meta,para	15.33	106.0	1024564M	372.63	UG/L	[illegible]
43)	C245	Styrene	15.02	104.0	[illegible]	[illegible]	UG/L	[illegible]

001076

		Compound	R.T.	I.	Area	Conc	Units	
44)	C350	[illegible]	15.99	102.0	[illegible]	[illegible]	[illegible]	[illegible]
45)	C370	1,3-Dichlorobenzene	18.77	146.	[illegible]	[illegible]	[illegible]	[illegible]
46)	C340	1,4-Dichlorobenzene	19.97	146.0	[illegible]	[illegible]	[illegible]	[illegible]
47)	C390	1,2-Dichlorobenzene	19.64	146.0	[illegible]	[illegible]	[illegible]	[illegible]
48)	C805	Toluene-d8	11.41	98.0	[illegible]	[illegible]	[illegible]	[illegible]
49)	C810	Bromofluorobenzene	16.48	95.0	[illegible]	[illegible]	[illegible]	[illegible]

* Compound is ISTD

POOR COPY RECEIVED

001077

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Instrument ID: VOA1____ Calibration date: 11/05/90 Time: 0912____

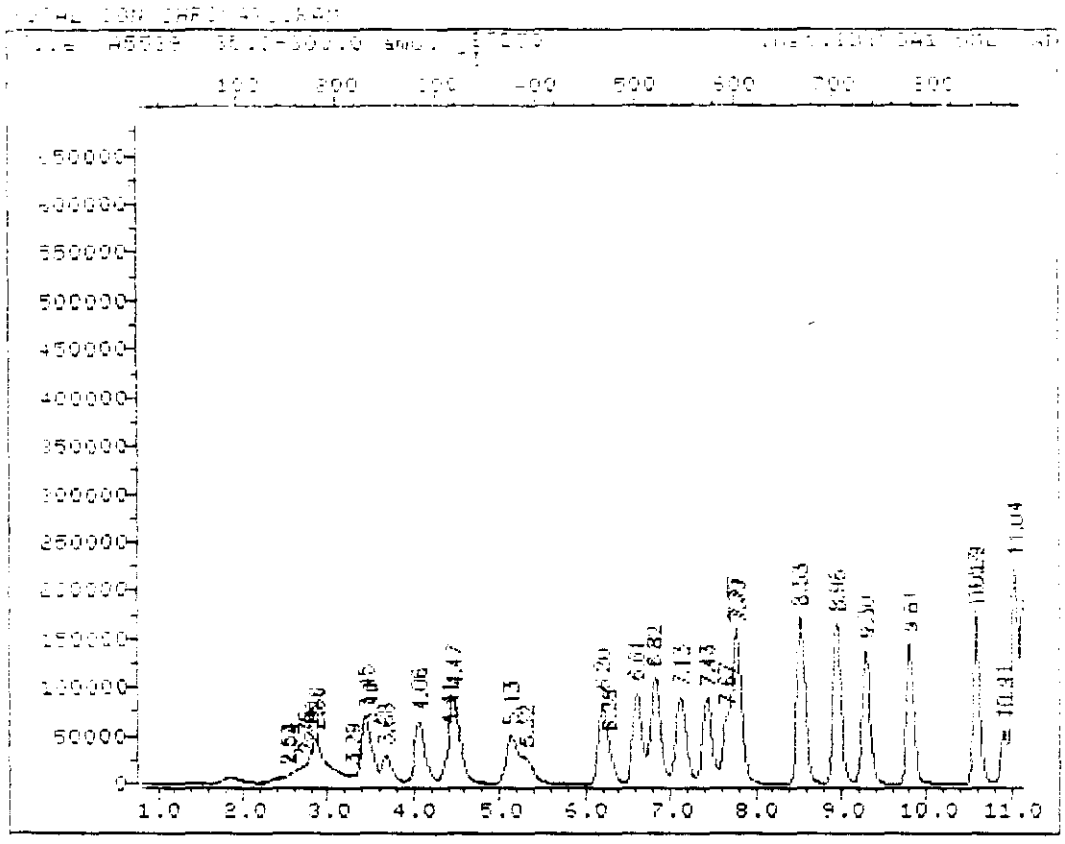
Lab File ID: A5539_____ Init. Calib. Date(s): 10/23/90 10/23/90

Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D
Chloromethane #	0.622	0.470	24.4 #
Bromomethane	0.921	0.770	16.4
Vinyl Chloride *	0.747	0.586	21.6 *
Chloroethane	0.574	0.630	-9.8
Methylene Chloride	1.293	1.244	3.8
Acetone	0.472	0.337	28.6
Carbon Disulfide	1.976	1.505	23.8
1,1-Dichloroethene *	1.235	1.015	17.8 *
1,1-Dichloroethane #	2.319	2.290	1.3 #
1,2-Dichloroethene (total)	1.517	1.422	6.3
Chloroform *	3.162	3.199	-1.2 *
1,2-Dichloroethane	1.614	1.684	-4.3
2-Butanone	0.115	0.106	7.8
1,1,1-Trichloroethane	0.492	0.523	-6.3
Carbon Tetrachloride	0.457	0.481	-5.3
Vinyl Acetate	0.445	0.419	5.8
Bromodichloromethane	0.577	0.641	-11.1
1,2-Dichloropropane *	0.376	0.384	-2.1 *
cis-1,3-Dichloropropene	0.483	0.489	-1.2
Trichloroethene	0.440	0.419	4.8
Dibromochloromethane	0.523	0.539	-3.1
1,1,2-Trichloroethane	0.310	0.312	-0.6
Benzene	0.679	0.677	0.3
Trans-1,3-Dichloropropene	0.394	0.394	0.0
Bromoform #	0.367	0.365	0.5 #
4-Methyl-2-Pentanone	0.401	0.345	14.0
2-Hexanone	0.336	0.272	19.0
Tetrachloroethene	0.430	0.441	-2.6
1,1,2,2-Tetrachloroethane #	0.544	0.653	-20.0 #
Toluene *	0.754	0.742	1.6 *
Chlorobenzene #	1.067	1.064	0.3 #
Ethylbenzene *	0.453	0.446	1.5 *
Styrene	0.995	0.983	1.2
Xylene (total)	0.563	0.560	0.5
Toluene-d8	1.170	1.175	-0.4
Bromofluorobenzene	0.800	0.839	-4.9
1,2-Dichloroethane-d4	1.546	1.612	-4.3

001078



Data File: [illegible]:HQ Quant Output File: [illegible]:HQ
Name: MSTD50
Misc: Inst.ID: OH1 5ML AMBIENT PURGE

Id File: [illegible]:LT
Title: WATER CALIBRATION LIST FOR INSTRUMENT OOH1
Last Calibration: 901102 [illegible]

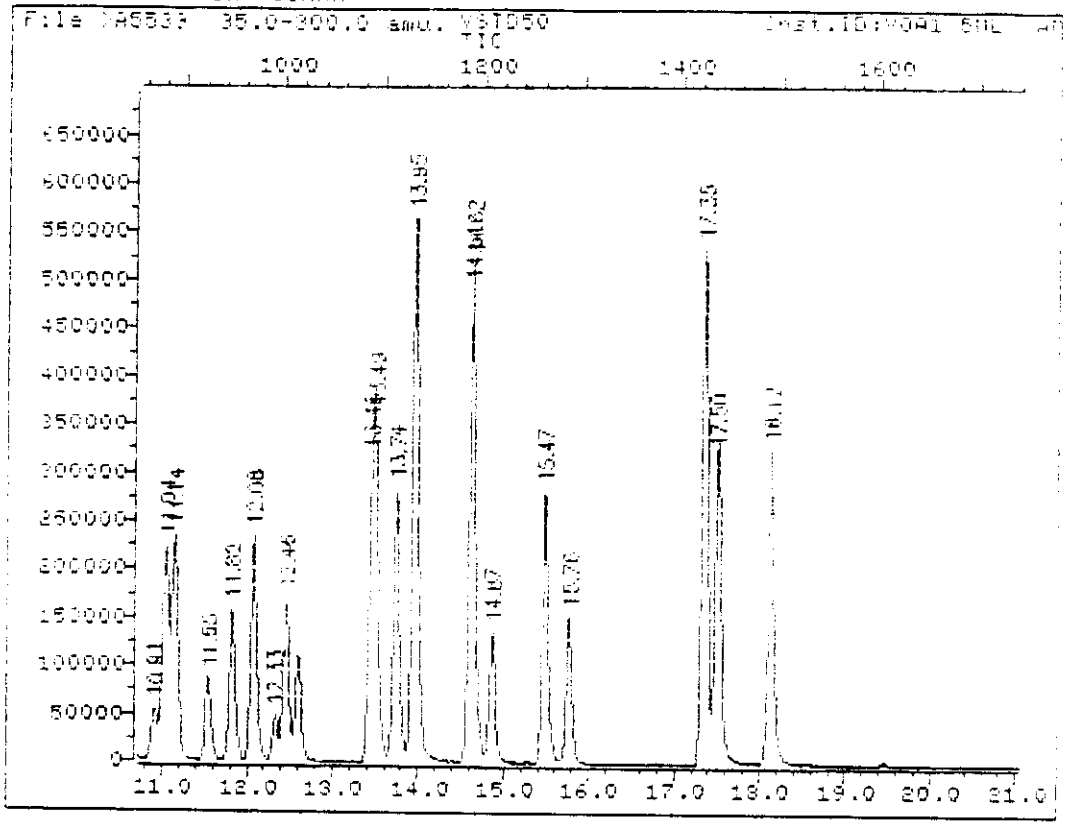
Operator ID: TERMD
Quant Time: 901105 09:34
Injected at: 901105 09:10

TID page 1 of 1

[illegible] RECEIVED

001079

TOTAL ION CHROMATOGRAM



Data File: A5533::A2 Quant Output File: A5533::A2
Name: WSTD50
Misc: Inst.ID:HGA1 5ML AMBIENT PURGE

Id File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT 3A1
Last Calibration: 931102 22:34

Operator ID: TERMO
Quant Time: 931109 09:34
Injected at: 931109 09:12

TIC page 2 of 2

001080

POOR COPY RECEIVED

QUANT REPORT

Operator ID: TERMO
Output File: A8539::A2
Data File: A8539::A2
Name: WSTD50
Misc: Inst.ID: 04, 5%, AMBIENT PURGE

Quant Method: [illegible]
Quant Time: 901102 [illegible]
Injected At: 901102 [illegible]
Dilution Factor: [illegible]

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT 04A1
Last Calibration: 901102 22:34

		Compound	R.T.	Q ion	Area	Conc	Units	S
1)	*C101	Bromochloromethane	6.61	128.0	107867	[illegible]	UG/L	[illegible]
2)	C215	1,2-Dichloroethane-d4	7.07	67.0	174141	49.94	UG/L	[illegible]
3)	C010	Chloromethane	2.07	50.0	[illegible]	[illegible]	UG/L	[illegible]
4)	C015	Bromomethane	2.75	94.0	97191	49.39	UG/L	[illegible]
5)	C020	Vinyl Chloride	2.54	62.0	677240M	48.[illegible]	UG/L	[illegible]
6)	C025	Chloroethane	2.80	64.0	680736M	49.91	UG/L	[illegible]
7)	C030	Methylene Chloride	4.06	84.0	134345	51.66	UG/L	[illegible]
8)	C035	Acetone	3.49	43.0	36423	87.00	UG/L	[illegible]
9)	C036	Acrolein	3.29	56.0	27086	184.36	UG/L	[illegible]
10)	C040	Carbon Disulfide	3.68	76.0	162517	51.59	UG/L	[illegible]
11)	C042	Trichlorofluoromethane	2.96	101.0	2132194M	50.34	UG/L	[illegible]
12)	C043	Acrylonitrile	4.41	53.0	35742	195.6[illegible]	UG/L	[illegible]
13)	C045	1,1-Dichloroethene	3.45	96.0	199616	[illegible]	UG/L	[illegible]
14)	C051	1,1-Dichloroethane	5.13	63.0	247744	[illegible]	UG/L	[illegible]
15)	C050	trans-1,2-Dichloroethene	4.47	96.0	[illegible]	[illegible]	UG/L	[illegible]
16)	C055	cis-1,2-Dichloroethene	5.20	96.0	153602	[illegible]	UG/L	[illegible]
17)	C060	Chloroform	5.32	83.0	748577	50.03	UG/L	[illegible]
18)	C065	1,2-Dichloroethane	5.79	62.0	131325	[illegible]	UG/L	[illegible]
19)	C070	2-Butanone	5.02	[illegible]	[illegible]	[illegible]	UG/L	[illegible]
20)	*C110	1,4-Difluorobenzene	9.57	114.0	[illegible]	[illegible]	[illegible]	[illegible]
21)	C115	1,1,1-Trichloroethane	5.17	97.0	207791	57.[illegible]	[illegible]	[illegible]
22)	C120	Carbon Tetrachloride	5.43	117.0	227669	[illegible]	[illegible]	[illegible]
23)	C125	Vinyl Acetate	5.73	[illegible]	194817	[illegible]	[illegible]	[illegible]
24)	C130	Bromodichloromethane	9.81	83.0	297994	53.55	UG/L	[illegible]
25)	C140	1,2-Dichloropropane	9.30	63.0	178443	51.[illegible]	[illegible]	[illegible]
26)	C147	cis-1,3-Dichloropropene	10.53	75.0	[illegible]	57.37	[illegible]	[illegible]
27)	C150	Trichloroethene	8.96	130.0	194375	54.[illegible]	UG/L	[illegible]
28)	C155	Dibromochloromethane	12.46	129.0	250799	52.43	UG/L	[illegible]
29)	C160	1,1,2-Trichloroethane	11.32	97.0	145284	50.75	UG/L	[illegible]
30)	C165	Benzene	7.77	78.0	315016	52.14	UG/L	10[illegible]
31)	C172	trans-1,3-Dichloropropene	11.86	75.0	171370	57.[illegible]	UG/L	[illegible]
32)	C178	2-Chloroethylvinyl ether	10.57	63.0	1170	4[illegible]	UG/L	10[illegible]
33)	C180	Bromoform	14.87	173.0	169941	57.79	UG/L	[illegible]
34)	*C120	Chlorobenzene-d5	13.45	117.0	373112	[illegible]	UG/L	[illegible]
35)	C205	4-Methyl-2-Pentanone	10.91	43.0	103513	[illegible]	UG/L	[illegible]
36)	C210	2-Hexanone	12.77	43.0	101[illegible]	[illegible]	UG/L	[illegible]
37)	C220	Tetrachloroethene	12.05	164.0	164737	[illegible]	UG/L	[illegible]
38)	C225	1,1,2,2-Tetrachloroethane	15.75	83.0	147[illegible]	[illegible]	UG/L	[illegible]
39)	C230	Toluene	11.14	92.0	276024	[illegible]	UG/L	[illegible]
40)	C235	Chlorobenzene	13.49	112.0	396905	49.[illegible]	UG/L	[illegible]
41)	C240	Ethylbenzene	13.74	106.0	455164	49.77	UG/L	[illegible]
42)	C243	Xylene-meta,para	13.96	106.0	442055	99.71	UG/L	[illegible]
43)	C245	Isomers	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

001081

POOR COPY RECEIVED

	Compound	R.T.	Q ion	Area	Conc	Unit	
44)	C250 Xylene-ortho	14.61	106.0	208992	[illegible]	[illegible]	
45)	C335 1,3-Dichlorobenzene	17.35	146.0	606429	[illegible]	[illegible]	
46)	C340 1,4-Dichlorobenzene	17.50	146.0	399391	[illegible]	[illegible]	
47)	C350 1,2-Dichlorobenzene	18.12	146.0	381897	[illegible]	[illegible]	
48)	CS05 Toluene-d8	11.04	98.0	438235	[illegible]	[illegible]	*
49)	CS10 Bromofluorobenzene	15.47	95.0	412335	[illegible]	[illegible]	

* Compound is ISTD

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: PNELI_____ Contract: ADV_NUCLEAR _____

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Lab File ID (Standard): A5539_____ Date Analyzed: 11/05/90

Instrument ID: VOA1____ Time Analyzed: 0912____

Matrix:(soil/water) WATER_ Level:(low/med) LOW___ Column:(pack/cap) CAP___

		IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
	12 HOUR STD	108000	6.62	465000	8.54	373000	13.45
	UPPER LIMIT	216000		930000		746000	
	LOWER LIMIT	54000		232500		186500	
	EPA SAMPLE NO.						
01	WELL_11	100000	6.58	454000	8.52	351000	13.42
02	WELL_12	102000	6.57	473000	8.47	364000	13.39
03	WELL_13	101000	6.48	451000	8.44	341000	13.34
04	WELL_19	95300	6.45	439000	8.40	335000	13.32
05	WELL_20	96000	6.50	444000	8.44	339000	13.34
06	WELL_21	94700	6.53	426000	8.47	331000	13.37
07	WELL_22	98400	6.53	449000	8.45	335000	13.37
08	WELL_23	95300	6.55	408000	8.47	308000	13.37
09	WELL_24	95500	6.47	421000	8.42	317000	13.32
10	WELL_12_MS	107000	6.62	470000	8.52	368000	13.42
11	WELL_12_MSD	104000	6.58	466000	8.50	354000	13.42
12	VBLKA0	104000	6.67	478000	8.59	370000	13.49

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

001083

FORM VIII VOA

1/87 Rev.

VOLATILE DATA PACKAGE

D. RAW QC DATA

1) BFB

- Bar Graph Spectrum
- Mass Lists

2) Blank Data (Chronological)

- Form I - VOA
- Form I - VOA-TIC
- RICs/Quantitation Reports
- Spectra (TCL and TIC)
    - Quantitation of TIC

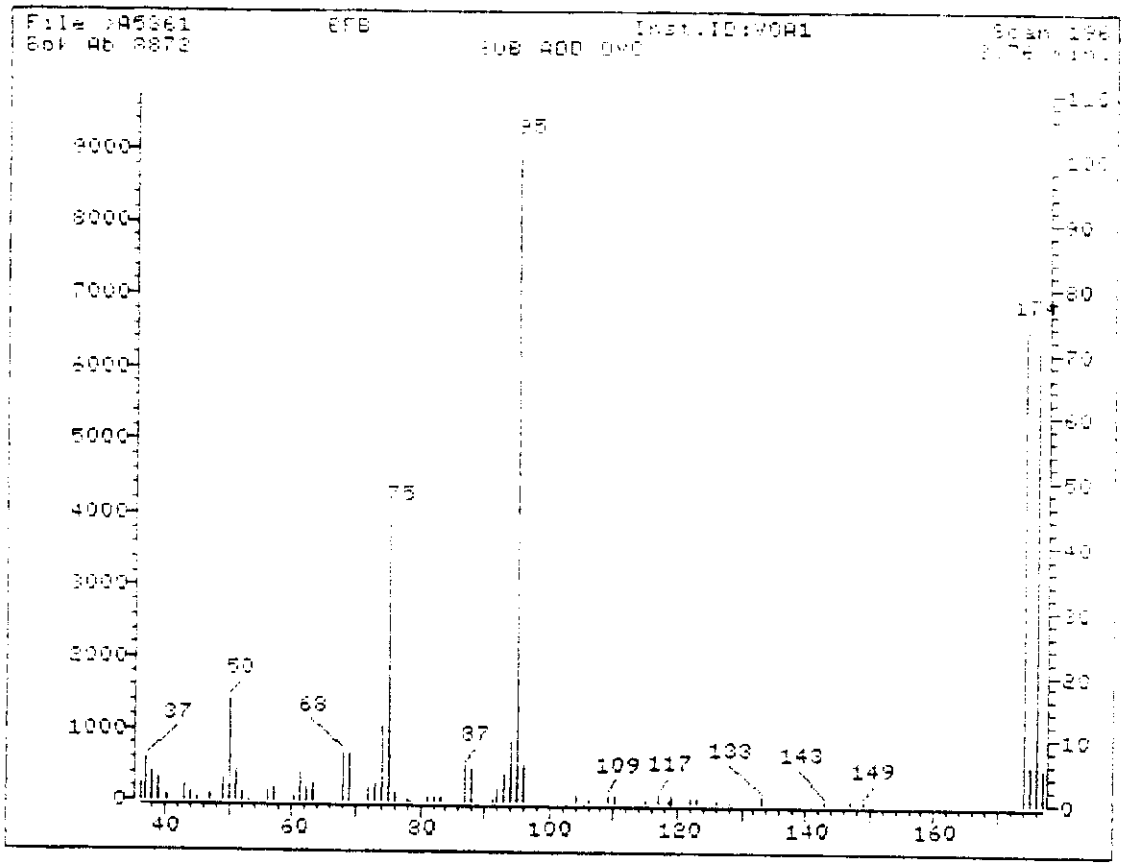
3) Matrix Spike Data

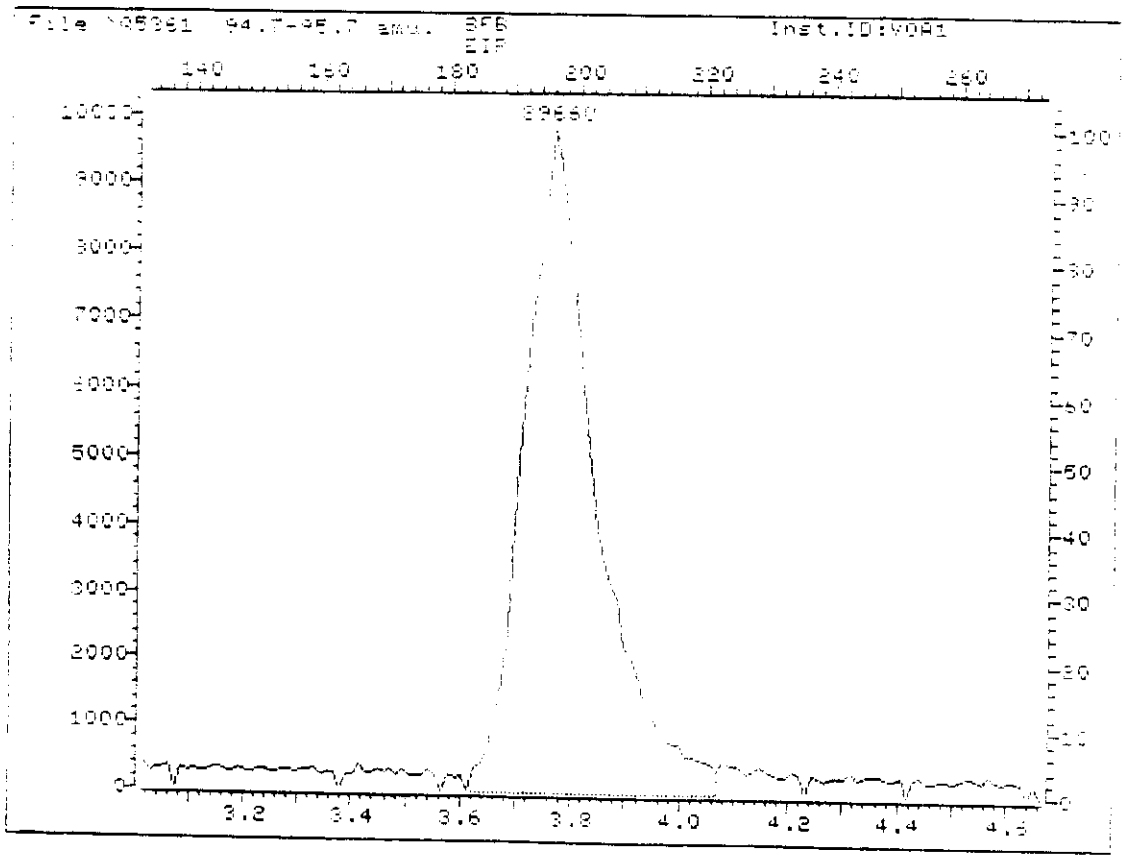
- Form I - VOA
- RICs/Quantitation Reports

4) Matrix Spike Duplicate Data

- Form I - VOA
- RICs/Quantitation Reports

Instrument #: 1 Acquisition date and time:





001084

GC/MS Instrument #: 1 Acquisition date and time: [illegible]

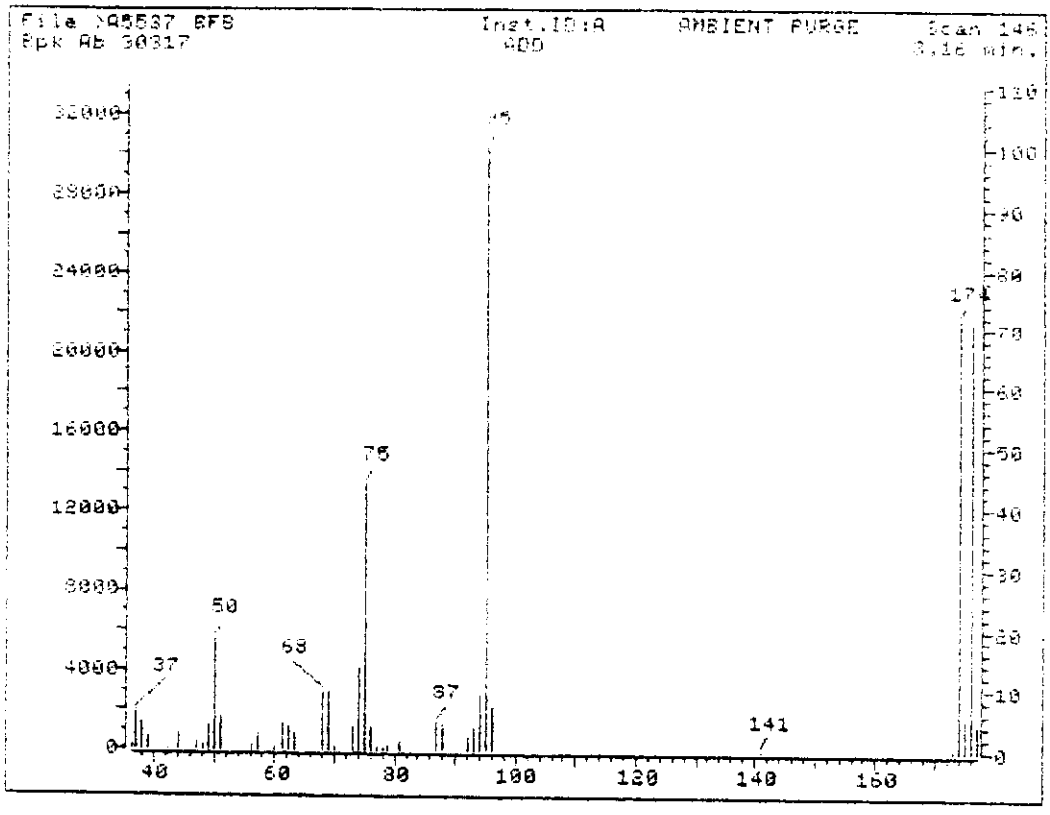
H53e1 BFB Inst.ID:GCH1
196 SUB HDI DWC

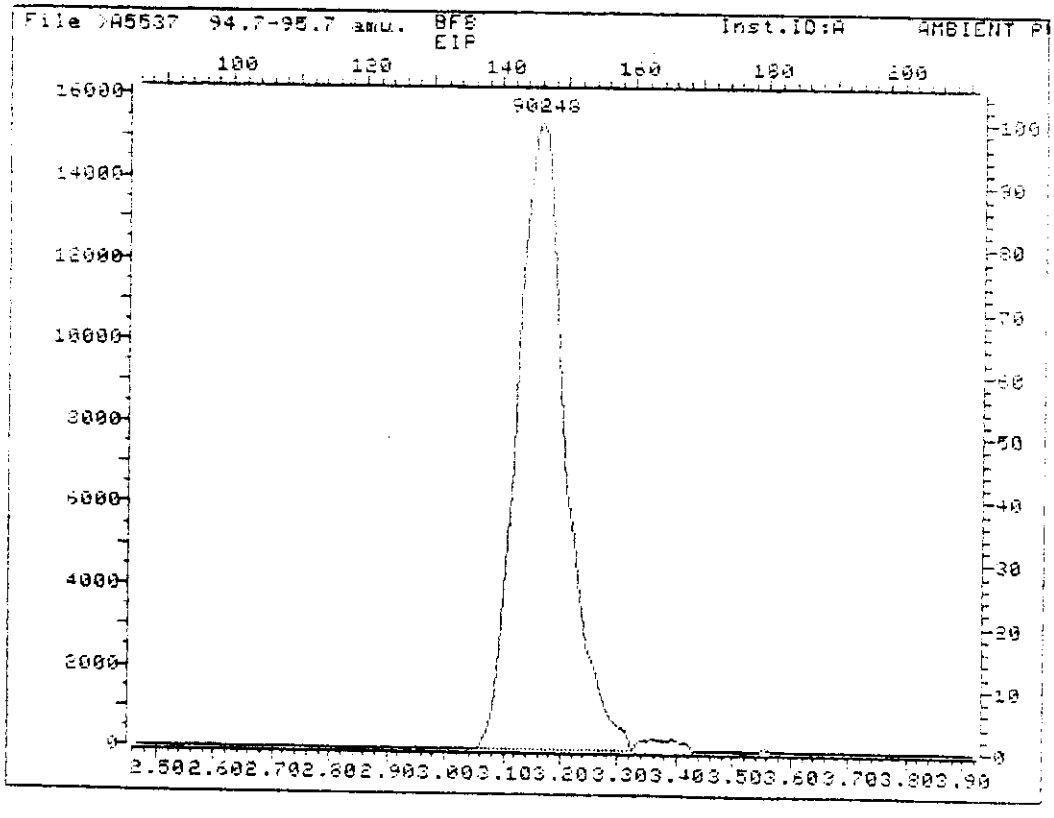
File: H53e1 Scan #: 196 Retn. time: 7.76

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	237.33	52.10	112.67	74.15	1042.33	94.10	833.00	123.15	[illegible]
37.05	558.33	53.10	13.33	75.15	3828.00	95.10	8871.67	126.15	[illegible]
38.05	379.33	56.10	163.00	76.15	115.33	96.10	519.33	129.05	[illegible]
39.05	315.67	57.10	173.67	78.15	35.33	104.10	91.00	[illegible]	[illegible]
40.10	76.00	60.10	77.00	81.05	64.33	106.10	37.67	143.05	[illegible]
43.10	212.00	61.10	336.00	82.15	57.67	109.10	97.00	147.15	[illegible]
44.10	137.33	62.10	183.67	87.15	49.33	110.20	86.00	149.15	[illegible]
45.10	33.33	63.10	254.00	87.05	509.33	115.10	42.67	154.15	1471.67
47.10	97.67	68.05	630.67	88.05	459.67	117.10	116.33	171.05	[illegible]
49.20	303.33	69.15	659.67	91.15	47.67	118.05	24.10	176.15	[illegible]
50.10	1407.67	70.15	199.67	92.10	196.00	119.15	89.00	177.15	[illegible]
51.10	422.00	73.15	246.33	93.10	387.67	122.15	79.10		

001085

VOA Instrument #: 1 Acquisition date and time: 11/05/90 7:58





001086

VOA Instrument #: 1 Acquisition date and time: 11/05/90 7:58

>A5537 BFB Inst.ID:A AMBIENT PURGE
146 ADD

File: >A5537 Scan #: 146 Retn. time: 3.16

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	202.0	50.10	5581.0	68.05	2887.0	78.25	72.0	95.10	30317.0
37.05	1943.0	51.10	1604.0	69.15	2900.0	79.95	248.0	96.10	2184.0
38.05	1338.0	56.10	233.0	70.05	111.0	80.95	454.0	140.85	55.0
39.05	579.0	57.10	722.0	73.15	1153.0	87.05	1426.0	173.15	105.0
42.30	51.0	60.00	109.0	74.15	4114.0	89.05	1261.0	174.05	21711.0
44.10	832.0	61.10	1319.0	75.05	13311.0	92.10	695.0	175.09	1624.0
47.00	283.0	62.10	1139.0	76.15	1148.0	93.10	1161.0	176.05	21499.0
47.90	214.0	63.10	823.0	76.95	136.0	94.10	2714.0	177.15	1325.0
49.10	1253.0								

001087

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKAO

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: VBLKAO_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5540_____

Level: (low/med) LOW___ Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	5	U

FORM I VOA 1/87 Rev.

001088

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKAO

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: VBLKAO_____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5540_____

Level: (low/med) LOW___ Date Received: _____

% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column (pack/cap) CAP___ Dilution Factor: 1.0_____

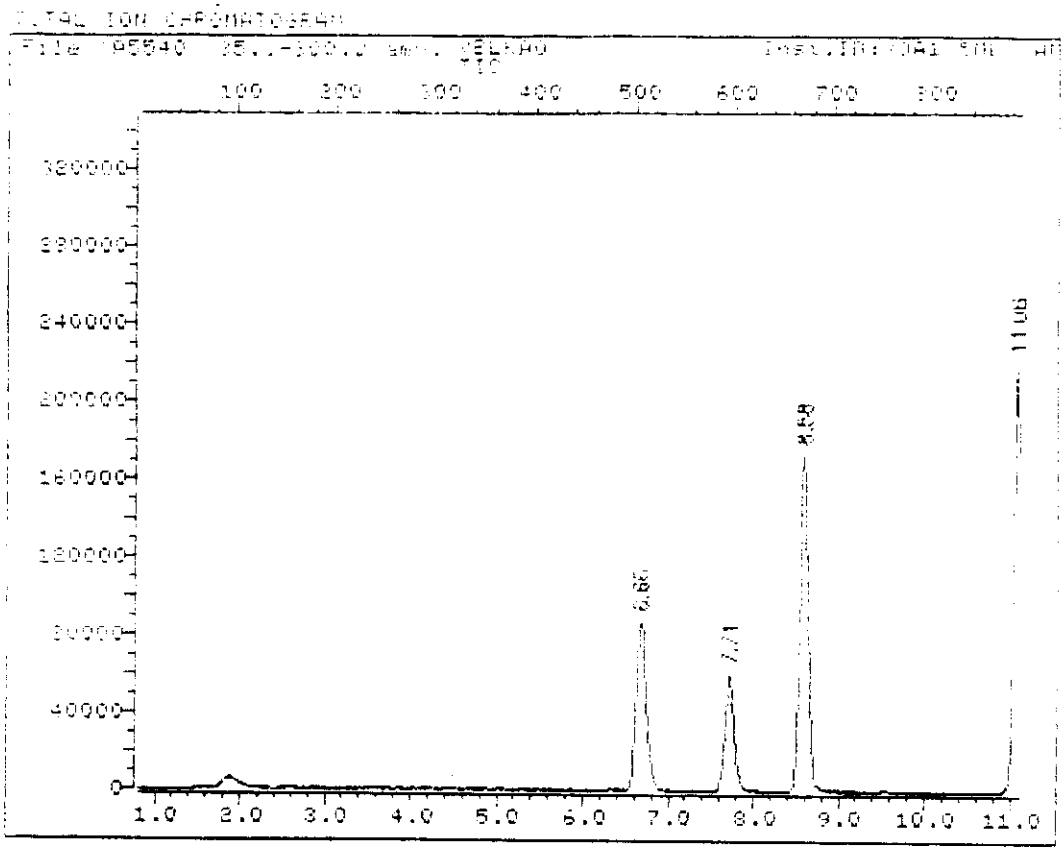
Number TICs found: __0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L_

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Data not requested

001089



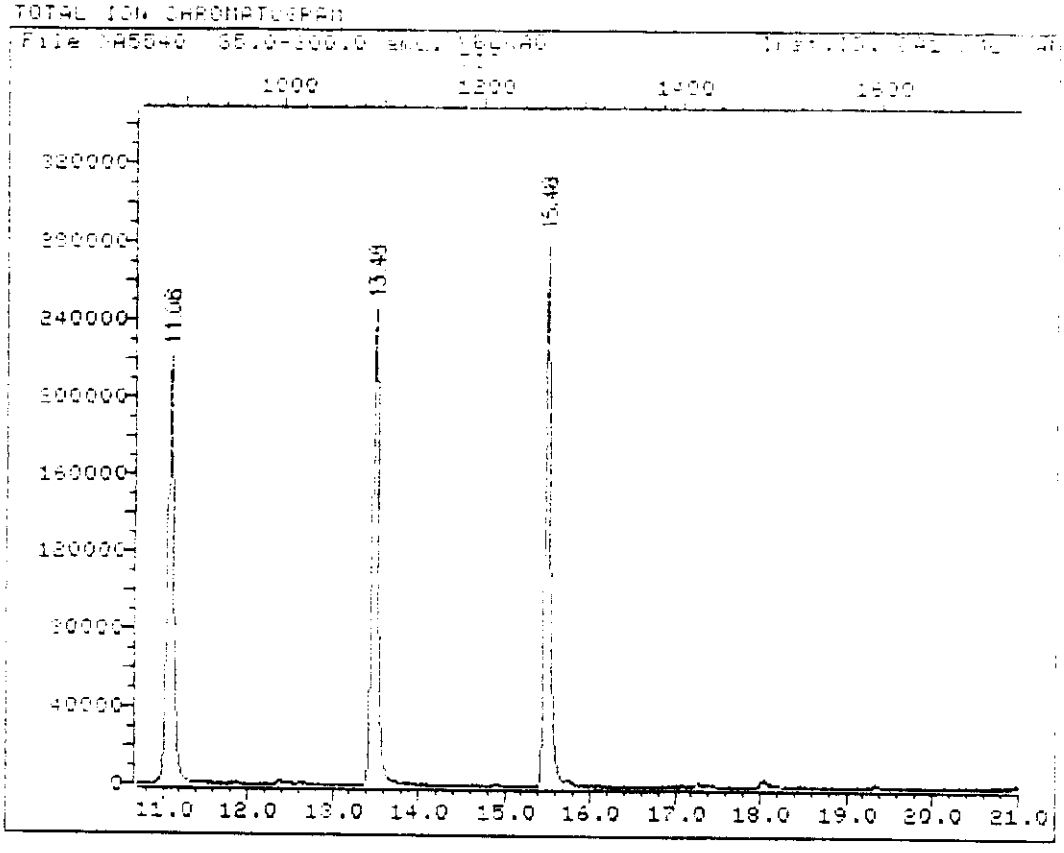
Data File: A65540::A0 Quant Output File: AFTL0::A0
Name: VSLKA0
Misc: Inst.ID:V041 FML AMBIENT PURGE

Id File: ID1W::L7
Title: WATER CALIBRATION LIST FOR INSTRUMENT V041
Last Calibration: 901102 22:34

Operator ID: TERMO
Quant Time: 901108 10:16
Injected at: 901108 10:01

TIC page 1 of 1

001090



Data File: [illegible]40::A2 Quant Output File: [illegible]40::A1
Name: MBLKA0
Misc: Inst.ID:MS41 RML AMBIENT PURGE

Is File: ID1W::L7
Title: WATER CALIBRATION LIST FOR INSTRUMENT MS41
Last Calibration: [illegible] [illegible]

Operator ID: TERMO
Quant Time: [illegible]
Injected at: [illegible]

TIC page 1 of 2

001091

QUANT REPORT

Operator ID: TEPMD Quant Meth: 5 Quant Time: 901109 10:16
Output File: A8540::4C Injected at: 901109 09:14
Data File: A8540::4I Dilution Factor: 1.00 00
Meth: VBLK40
Misc: Inst.ID:VOA1 5ml AMBIENT PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901102 22:34

	Compound	R.T.	Q ion	Area	Conc	Units	D
1)	*CI01 Bromochloromethane	6.66	128.0	103668	50.00	UG/L	34
2)	CS19 1,2-Dichloroethane-d4	7.71	65.0	159421	46.54	UG/L	5
20)	*CI10 1,4-Difluorobenzene	8.88	114.0	477724	50.00	UG/L	99
74)	*CI20 Chlorobenzene-d5	13.48	117.0	369925	50.00	UG/L	4
83)	CS05 Toluene-d8	11.38	98.0	441836	49.46	UG/L	3
49)	CE10 Bromofluorobenzene	15.48	95.0	314323	51.22	UG/L	3

* Compound is ISTD

001092

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12_MS

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02MS____

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5542_____

Level: (low/med) LOW___ Date Received: 11/01/90

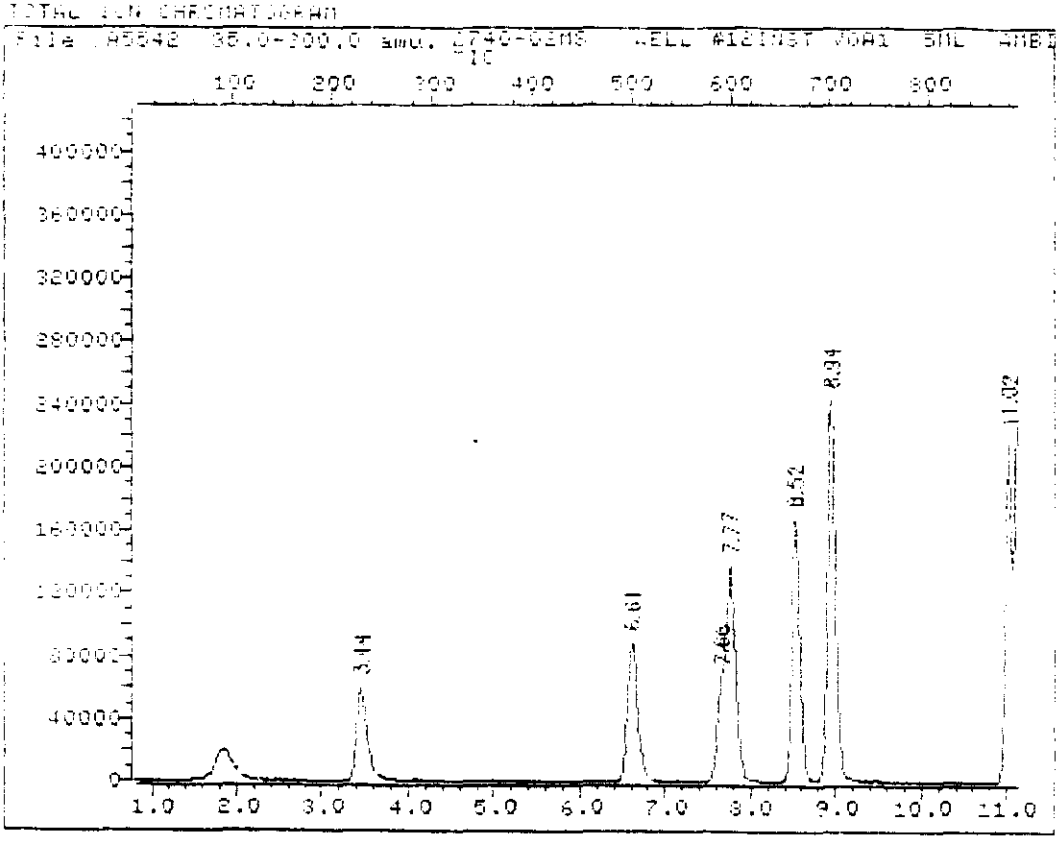
% Moisture: not dec. ____ Date Analyzed: 11/05/90

Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	72	*

FORM I VOA 1/87 Rev.

001093



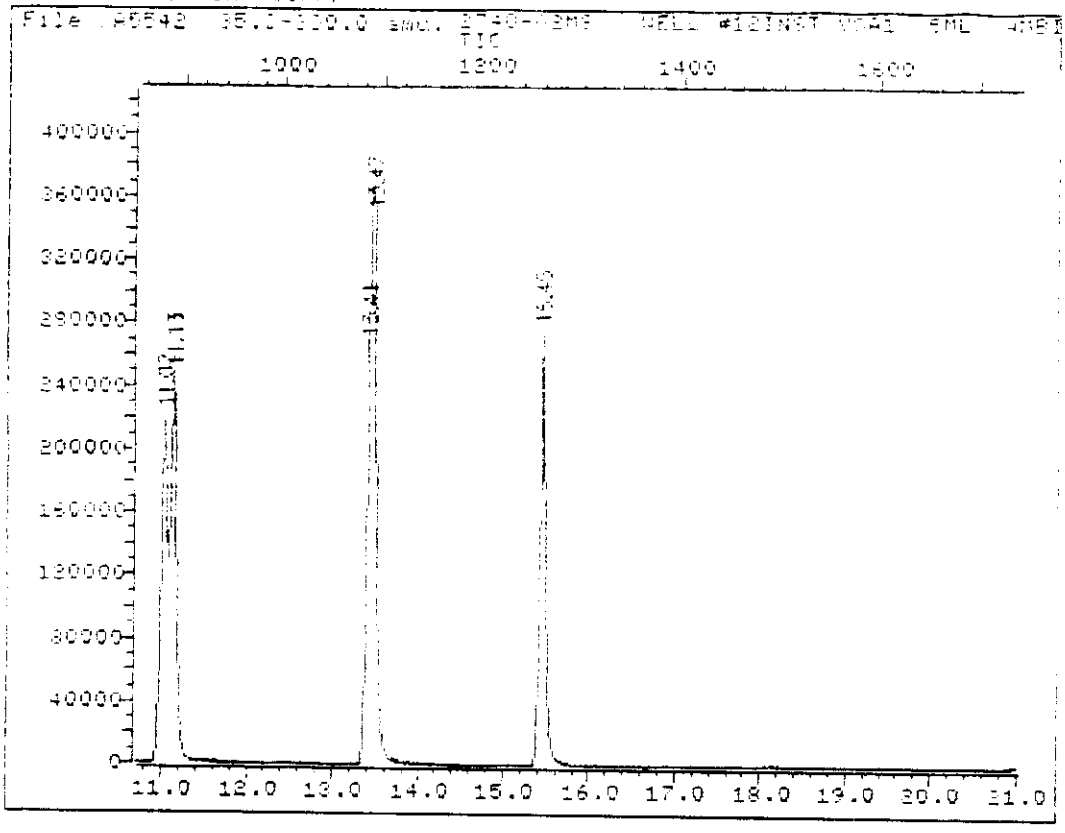
Data File: A5542::A2 Quant Output File: A5541::QT
Name: 2740-02MS WELL #12
Misc: INST W0A1 5ML AMBIENT PURGE

Id File: ID1W::L7
Title: WATER CALIBRATION LIST FOR INSTRUMENT W0A1
Last Calibration: 901105 12:30

Operator ID: TERMO
Quant Time: 901109 11:34
Injected at: 901109 11:31

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: [illegible] Quant Output File: [illegible]
Name: 2740-02MS WELL #10
Misc: INST WQ41 FML AMBIENT PURGE

ID File: [illegible]
Title: WATER CALIBRATION LIST FOR INSTRUMENT WQ41
Last Calibration [illegible]

Operator ID: TERMO
Quant Method [illegible]
Injected at [illegible]

TIC page 1 of 1

POOR COPY RECEIVED

001095

QUANT REPORT

Operator ID: TERMD Quant Rev: c Quant Time: 901105 11:39
Output File: [illegible]::QT Injected at: 901105 11:[illegible]
Data File: [illegible]::A2 Dilution Factor: 1.00000
Name: 2740-02MS WELL #12
Misc: INST VOA1 50L AMBIENT PURGE

ID File: ID1W::L3
Title: WATER CALIBRATION LIST FOR INSTRUMENT VOA1
Last Calibration: 901105 12:30

	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
1)	*C101 Bromochloromethane	6.61	128.0	106274	50.00	UG/L	[illegible]
2)	C315 1,2-Dichloroethane-d4	7.66	65.0	158995	46.08	UG/L	[illegible]
17)	C045 1,1-Dichloroethene	3.44	96.0	107956	47.95	UG/L	[illegible]
18)	*C110 1,4-Difluorobenzene	8.52	114.0	470741	50.00	UG/L	[illegible]
27)	C190 Trichloroethene	8.94	130.0	284075	72.01	UG/L	[illegible]
30)	C165 Benzene	7.77	78.0	418403	65.65	UG/L	[illegible]
34)	*C120 Chlorobenzene-d5	13.41	117.0	368219	50.00	UG/L	[illegible]
39)	C230 Toluene	11.13	92.0	291056	53.31	UG/L	[illegible]
40)	C235 Chlorobenzene	13.47	112.0	381056	48.64	UG/L	[illegible]
48)	CS05 Toluene-d8	11.02	98.0	431577	49.89	UG/L	[illegible]
49)	CS10 Bromofluorobenzene	15.45	95.0	304307	49.27	UG/L	[illegible]

* Compound is ISTD

001096

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

WELL_12_MSD

Lab Name: PNELI_____ Contract: ADV_NUCLEAR

Lab Code: PNELI__ Case No.: 2740__ SAS No.: _____ SDG No.: 2740__

Matrix: (soil/water) WATER_ Lab Sample ID: 2740-02MSD___

Sample wt/vol: __5.0 (g/mL) ML__ Lab File ID: A5543_____

Level: (low/med) LOW___ Date Received: 11/01/90

% Moisture: not dec. ____ Date Analyzed: 11/05/90

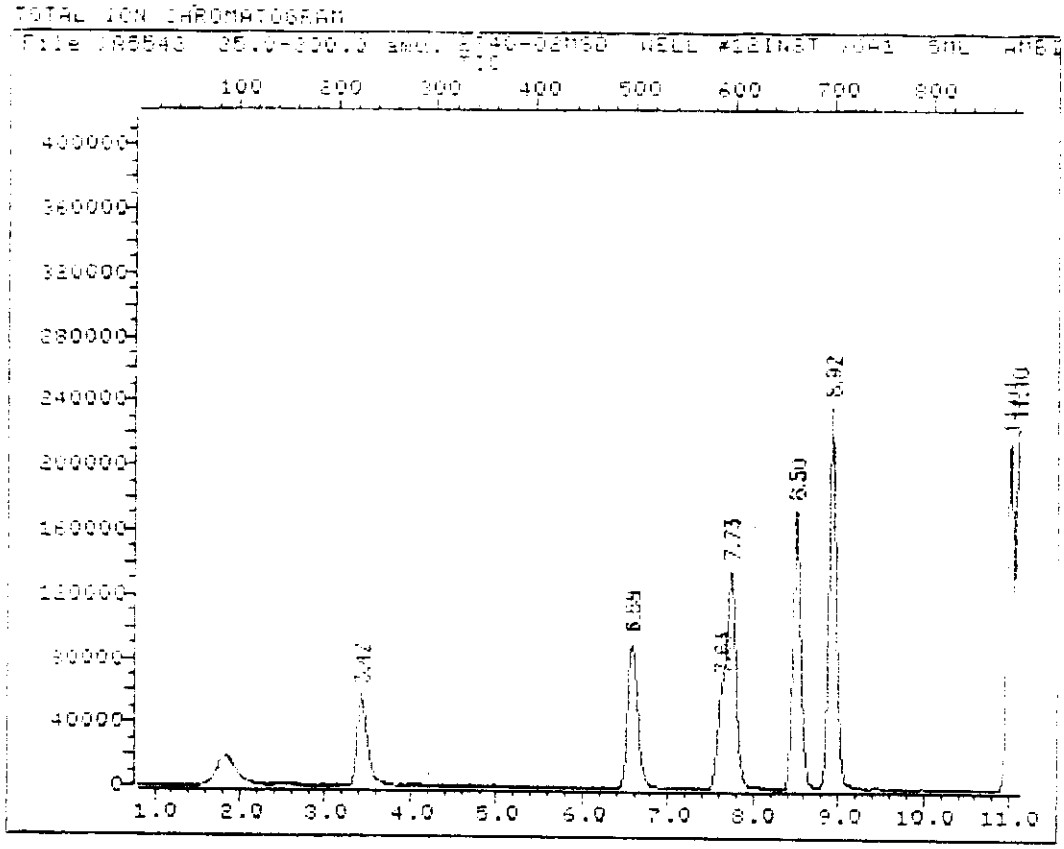
Column: (pack/cap) CAP___ Dilution Factor: 1.0_____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L_	Q
79-01-6	Trichloroethene	70	*

FORM I VOA 1/87 Rev.

001097

TOTAL ION CHROMATOGRAM



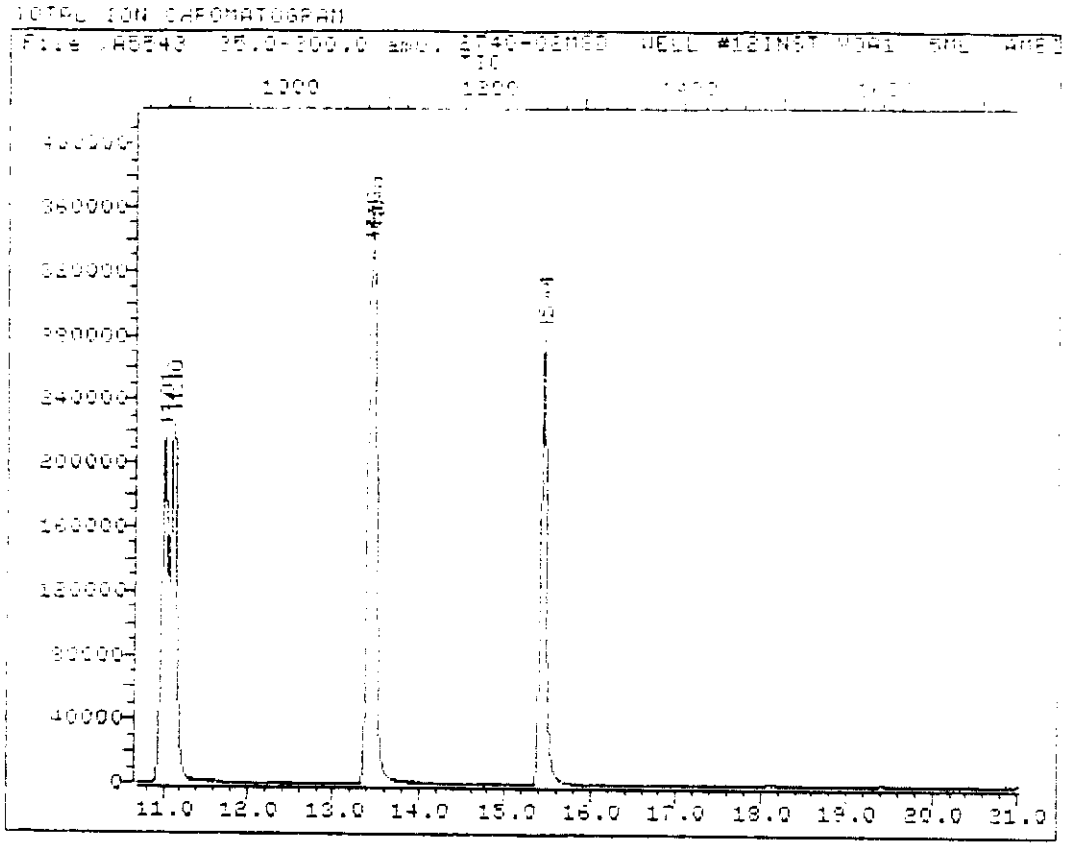
Data File: H6543::A2 Quant Output File: H6543::QT
Name: 2740-02MSD WELL #1C
Misc: INST VOH1 5ML AMBIENT PURGE

Id File: ID1W::L3
Title: WHTEP CALIBRATION LIST FOR INSTRUMENT VOH1
Last Calibration: 901109 10:30

Operator ID: TEPMO
Quant Time: 901109 12:42
Injected at: 901109 11:58

TIC page 1 of 2

001098



Data File: >A5543::A2 Quant Output File: A5543::QT
Name: 2T40-02MBS WELL #10
Meth: INST VOA1 5ML AMBIENT PURGE

Id File: ID1W::LT
Title: ATEP CALIBRATION LIST FOR INSTRUMENT CH1
Last Calibration: 901109 11:50

Operator ID: TERMO
Quant Time: 901109 11:42
Injected at: 901109 11:53

TIC page 2 of 2

POOR COPY RECEIVED

001099

QUANT REPORT

Operator ID: TERMD
Output File: A5543::QT
Data File: A5543::42
Name: 2740-02MSD WELL #10
Misc: INST UOA1 5ML AMBIENT PURGE

Quant Per: 6 Quant Time: 901105 10:[illegible]
Injected at: 901105 11:[illegible]
Dilution Factor: 1.0000[illegible]

ID File: IDLW::L7
Title: WATER CALIBRATION LIST FOR INSTRUMENT UOA1
Last Calibration: 901105 12:30

		Compound	R.T.	Q ion	Area	Conc	Units	S
10	*CI01	Bromochloromethane	6.58	128.0	104270	50.00	UG/L	[illegible]
2	CS15	1,2-Dichloroethane-d4	7.57	65.0	157705	46.86	UG/L	[illegible]
13	C045	1,1-Dichloroethene	7.42	96.0	95005	44.95	UG/L	[illegible]
20	*CI10	1,4-Difluorobenzene	9.80	114.0	466463	50.0	UG/L	[illegible]
27	C150	Trichloroethene	9.90	130.0	271354	59.[illegible]	[illegible]	[illegible]
30	CI65	Benzene	7.77	78.0	798810	43.1[illegible]	UG/L	[illegible]
34	*CI20	Chlorobenzene-d5	13.42	117.0	753868	50.00	UG/L	[illegible]
39	C230	Toluene	11.10	92.0	274590	51.36	UG/L	[illegible]
40	C235	Chlorobenzene	13.45	112.0	357355	47.57	UG/L	[illegible]
48	CS05	Toluene-d8	11.01	98.0	430983	51.84	UG/L	[illegible]
49	CS10	Bromofluorobenzene	15.44	95.0	304485	51.30	UG/L	[illegible]

* Compound is ISTD

001100

NATIONAL EXPRESS LABORATORIES, INC.

NATEX

Pacific Northwest Environmental Laboratory, Inc.

CHAIN-OF-CUSTODY / REQUEST FOR ANALYSIS

Client Name: Advanced Nuclear Fuels

Client Number:

Bill To: Advanced Nuclear Fuels
2101 Horn Rapids Rd.
Richland, WA 99352

PO No.:

Carrier No.: FUEL #2740

Laboratory Contact: Susan Winter

Send Lab Report To: Steve Lockhaven

Date Report Required: normal Processing

Client Contact: Steve Lockhaven

Client Contact Phone: (509) 375-8228

Analysis and Container

	Sample Number	Sample Location and Description	Date Collected	Time Collected	Sample Matrix	Number of Containers	TCE 40 mL						Comments
01	well # 11	well # 11	10-31-90		water	2	✓	2 of 2 <1/4'		1/4'			2 of 4 Cap not inter.
01	well #11 a/b	well #11	10-31-90		water	2 R.C. 11/01/90	✓						Not bottle #11 with QA/QC
02	well #12	well #12	10-31-90		water	2 → 4	✓	3 of 4 semi/ 4 of 4 <1/4		<1/4			2 of 4 Cap not inter
03	well #13	well #13	10-31-90		water	2	✓	on bottle #12 show QA/QC					1 of 2 <1/4
04	well #19	well #19	10-31-90		water	2	✓						
05	well #20	well #20	10-31-90		water	2	✓						
06	well #21	well #21	10-31-90		water	2	✓						
07	well #22	well #22	10-31-90		water	2	✓	2 of 2 semi/ 3 on					>1/2'
08	well #23	well #23	10-31-90		water	2	✓					1 of 2 <1/4'	
09	well #24	well #24	10-31-90		water	2	✓						
	Trip Blank				W	2							2 of 2 8/10 Kal, 1 on

Special Instructions: none

Possible Hazards: none

Was Preservative Used? No ☐ Yes ☒ What Kind? HCL What Analysis? ALL

1. Relinquished By	Steve Lockhaven	Date 10-31-90	Time 14:00	Received By	Craig Ward	Date 10-31	Time 1450
2. Relinquished By	Airborne Exp	Date 11/01/90	Time 10:30	Received By	Rayna Cook/FUEL	Date 11/01/90	Time 10:30
3. Relinquished By		Date	Time	Received By		Date	Time
4. Relinquished By		Date	Time	Received By		Date	Time