N60478.AR.001423
NWS EARLE
5090.3a

SITE INVESTIGATION REPORT SUMMARY OF FINDINGS VOLUME 3 OF 4 NWS EARLE NJ
9/15/1994
ENVIRO-TECH, INC.

Item # 3

Box 1

Closure Report for:

C2	MPL-1	554	S-53
C-8	MPL-2	555	
A64	GB-1	566/1	
589	MA-2	567	

(4/6/94 Soil Samples UST 567)

SITE INVESTIGATION REPORT
SUMMARY OF FINDINGS
for
UNITED STATES NAVAL WEAPONS STATION EARLE
Colts Neck, Monmouth County, New Jersey

September 15, 1994

VOLUME III

Prepared for:

Tom Dunn
ROICC
NWS Earle
Colts Neck, New Jersey 07722-5025

Prepared by:

Enviro-Tech, Inc.
247 Main Street
Matawan, New Jersey

No. 5

April 6, 1994 Soil Samples
(UST 567)

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:07

Sample I.D. AA22511
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: 567-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	96	PERCENT	04/08/94	DB
TPH-SOIL	32	mg/kg dry wt	04/08/94	DB
TPH EXTRACTION	Completed		04/08/94	DB

End of progress report on sample: AA22511

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:07

Sample I.D. AA22512
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: 567-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	92	PERCENT	04/08/94	DB
TPH-SOIL	31	mg/kg dry wt	04/08/94	DB
TPH EXTRACTION	Completed		04/08/94	DB

End of progress report on sample: AA22512

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:08

Sample I.D. AA22513
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: 567-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	95	PERCENT	04/08/94	DB
TPH-SOIL	27	mg/kg dry wt	04/08/94	DB
TPH EXTRACTION	Completed		04/08/94	DB

End of progress report on sample: AA22513

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:09

Sample I.D. AA22514
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: 567-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	95	PERCENT	04/08/94	DB
TPH-SOIL	25	mg/kg dry wt	04/08/94	DB
TPH EXTRACTION	Completed		04/08/94	DB

End of progress report on sample: AA22514

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:09

Sample I.D. AA22515
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: 567-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	95	PERCENT	04/08/94	DB
TPH-SOIL	60	mg/kg dry wt	04/08/94	DB
TPH EXTRACTION	Completed		04/08/94	DB

End of progress report on sample: AA22515

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-11-1994 Time: 14:54:10

Sample I.D. AA22516
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 04/06/94
Date submitted: 04/08/94
Due date: 04/20/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	04/08/94	SG
TPH EXTRACTION	Completed		04/08/94	SG

End of progress report on sample: AA22516

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: Deborah A. Kellen Date: 4/8/94

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405

CT. NO: PH-0671
MADEP NO: NJ386
PADER NO: 68-463
NJDEPE NO: 14622
NYDOH NO: 11408

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 04/06/94
Date Submitted: 04/08/94
Date Reported: 04/11/94
Project: EARL

Sample I.D.		AA22511		AA22512	
Sample Description		567-1 SOIL		567-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	96	1.0	92
TPH-SOIL	mg/kg dry wt	21	32	22	31
TPH-WATER					

Sample I.D.		AA22513		AA22514	
Sample Description		567-3 SOIL		567-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	95	1.0	95
TPH-SOIL	mg/kg dry wt	21	27	21	25
TPH-WATER					

Sample I.D.		AA22515		AA22516	
Sample Description		567-SP SOIL		FIELD BLANK	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	95		
TPH-SOIL	mg/kg dry wt	21	60		
TPH-WATER	mg/L			4.4	Not detected

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22511
Sample Matrix: Soil
% Solids: 96

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	1	32	1	21	4/8/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22512
Sample Matrix: Soil
% Solids: 92

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	2	31	1	22	4/8/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22513
Sample Matrix: Soil
% Solids: 95

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	3	27	1	21	4/8/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22514
Sample Matrix: Soil
% Solids: 95

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	4	25	1	21	4/8/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22515
Sample Matrix: Soil
% Solids: 95

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	5	60	1	21	4/8/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22516
Sample Matrix: Water
% Solids:

Date Received: 4/8/94
Date Extracted: 4/8/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	4.4	4/8/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	230s	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Water

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	046W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.
AA22502 MS

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 86

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	936		23	U	765	96		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22502 MSD

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 86

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	868		23	U	760	88		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22502 DUP

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 86

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	23	U	23	U	1.52		C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSION DATE 10-Mar-94
TPH_1S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 230

SAMPLE	ABS.	MG
10mg4-8	0.4779	10.2563
MBS	0.4882	10.4781
dup 22502	0.1196	2.5423
ms1 22502	0.5699	12.2371
ms2 22502	0.5319	11.4189
mb4-8	0.0062	0.1009
22502	0.123	2.6155
22503	0.0293	0.5982
22504	0.1467	3.1258
22511	0.0230	0.4626
22512	0.0220	0.4411
22513	0.0199	0.3959
22514	0.0183	0.3614
22515	0.0414	0.8587

√ data input
DB 4/8/94

analysis TPH SOILS

BATCH 330

DATE: 08-Apr-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.26	103%
MBS	666.7	698.54	105%
MS #1	764.99	936.13	96%
MS #2	759.99	867.83	88%
SAMPLE		198.78	RPD
SAMPLE DUP		195.78	1.52%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg4-8	1.00	1000	10.2563		1.0	10.26	
MBS	1.00	15.0	10.4781		1.0	698.54	20.00
dup 22502	0.86	15.1	2.5423		1.0	195.78	23.26
ms1 22502	0.86	15.2	12.2371		1.0	936.13	23.26
ms2 22502	0.86	15.3	11.4189		1.0	867.83	23.26
mb4-8	1.00	15.0	0.1009		1.0	6.73	20.00
22502	0.86	15.3	2.6155		1.0	198.78	23.26
22503	0.90	15.5	0.5982		1.0	42.88	22.22
22504	0.90	15.1	3.1258		1.0	230.01	22.22
22511	0.96	15.2	0.4626		1.0	31.70	20.83
22512	0.92	15.4 ✓	0.4411		1.0	31.13	21.74
22513	0.95	15.2 ✓	0.3959		1.0	27.41	21.05
22514	0.95	15.5 ✓	0.3614		1.0	24.54	21.05
22515	0.95	15.0 ✓	0.8587		1.0	60.26	21.05

3.0
4/8/94

√ data input

DB 4/8/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0325	0.0325
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 0464

SAMPLE	ABS.	MG
10mg2-31	0.4353	10.4157
MBS	0.4005	8.5900
MBSD	0.3998	8.5749
mb3-31	0.0052	0.0794
22406	0.0073	0.1246
22509	0.0098✓	0.1784
22516	0.0094✓	0.1698
mb4-3	0.0049✓	0.0729
10mg4-8	0.4775✓	10.2563

DB 4/8

Data input
S.C. 4-8-94

ANALYSIS: TPH WATERS

batch 046w

DATE: 08-Apr-94

ANALYST: sg

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.415	104%
MBS	10	8.59	86%
MBS DUP	10	8.575	86%
		RPD =	0.00%

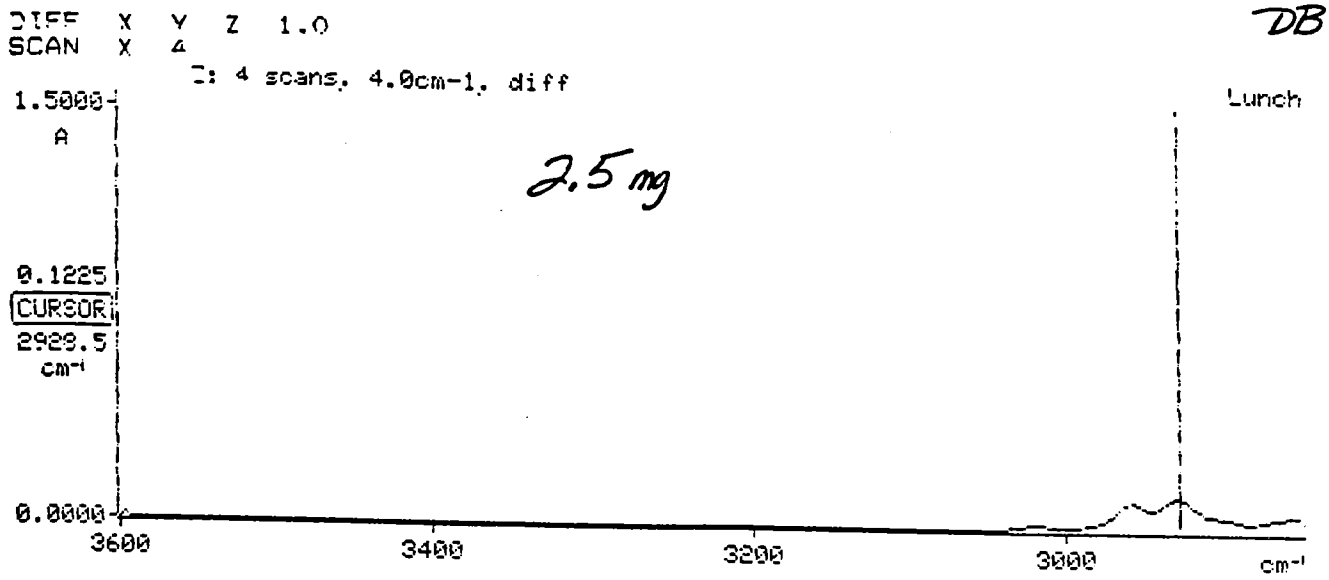
SAMPLE NO.	SAMPLE VOLUME	MG FROM CALC. CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10sg3-31	1000	10.4157	1.0	10.416	
MBS	1000	8.5900	1.0	8.590	
MBSD	1000	8.5749	1.0	8.575	
mb3-21	1000	0.0794	1.0	0.079	1.0
22496	250	0.1246	1.0	0.498	4.0
22503	960	0.1784	1.0	0.186	1.0
22516	225	0.1696	1.0	0.755	4.4
mb4-3	1000	0.0729	1.0	0.073	1.0
10mg4-3	1000	10.2563	1.0	10.256	1.0

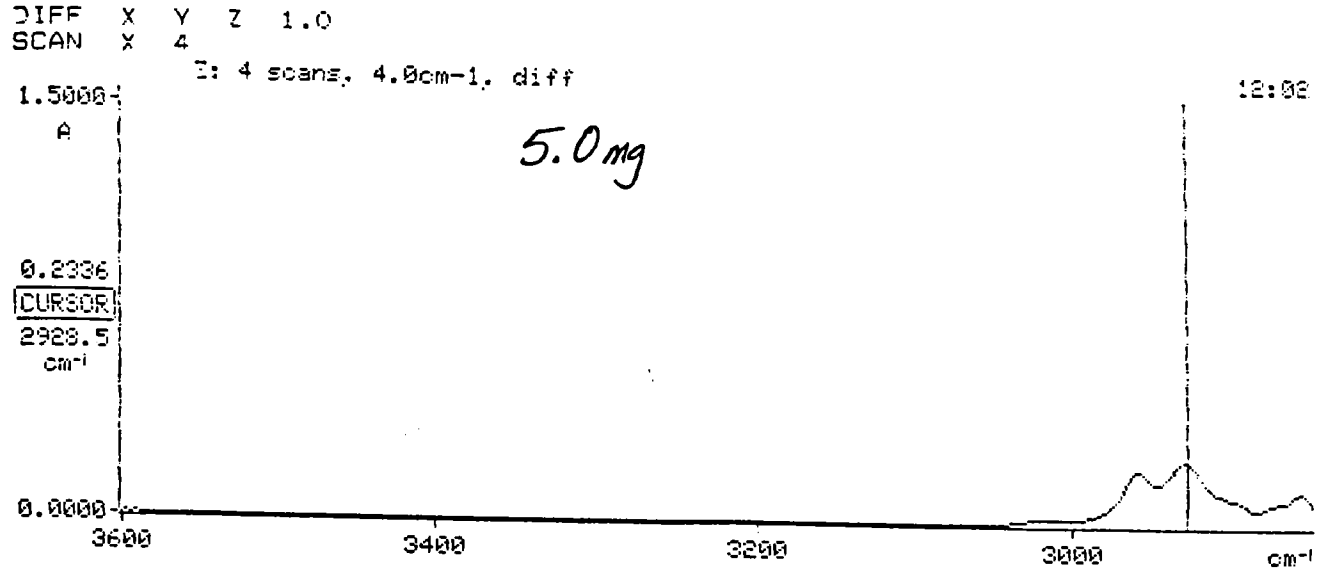
DB 4/8

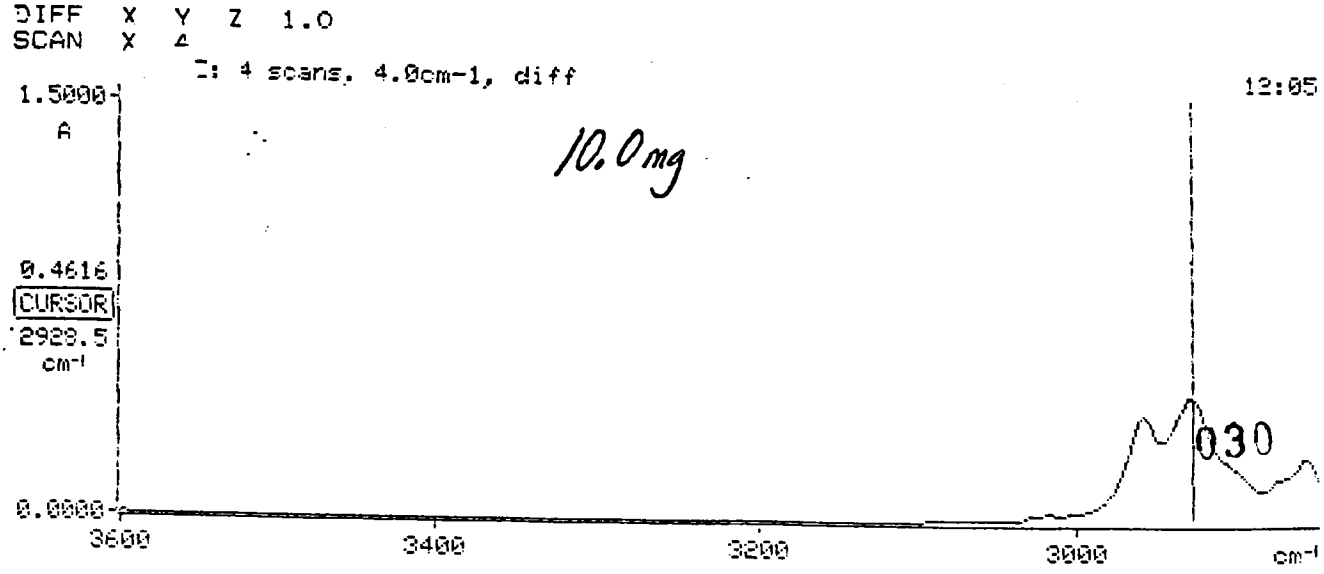
J data input S.G 4-8-94

TPH curve 3/10/9

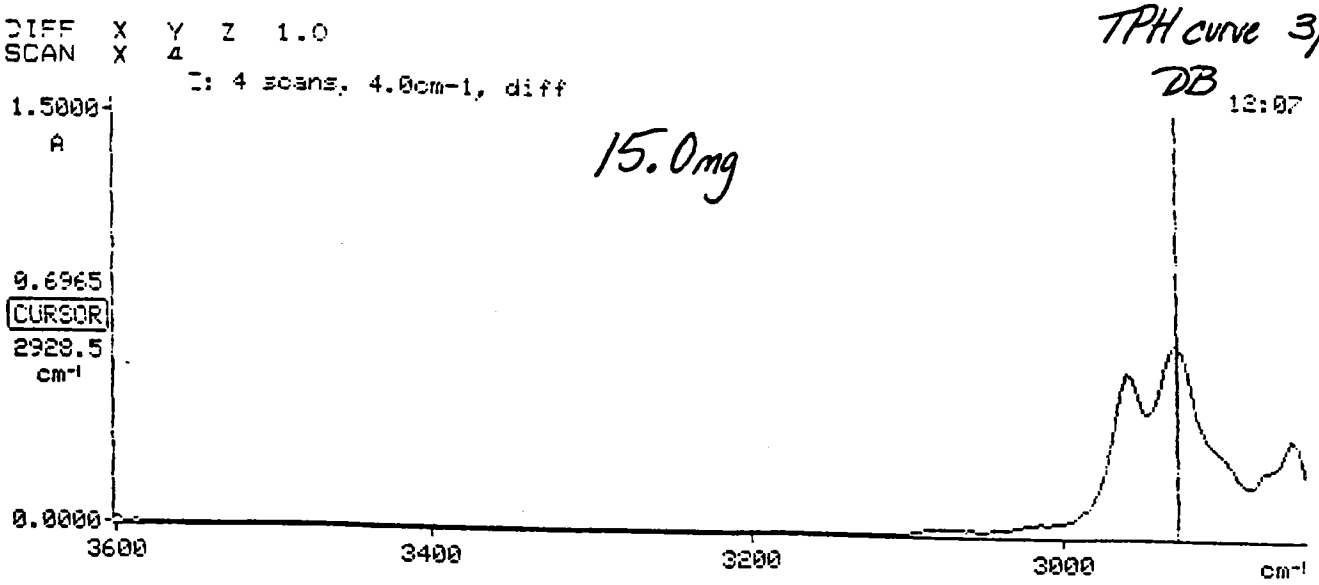
DB

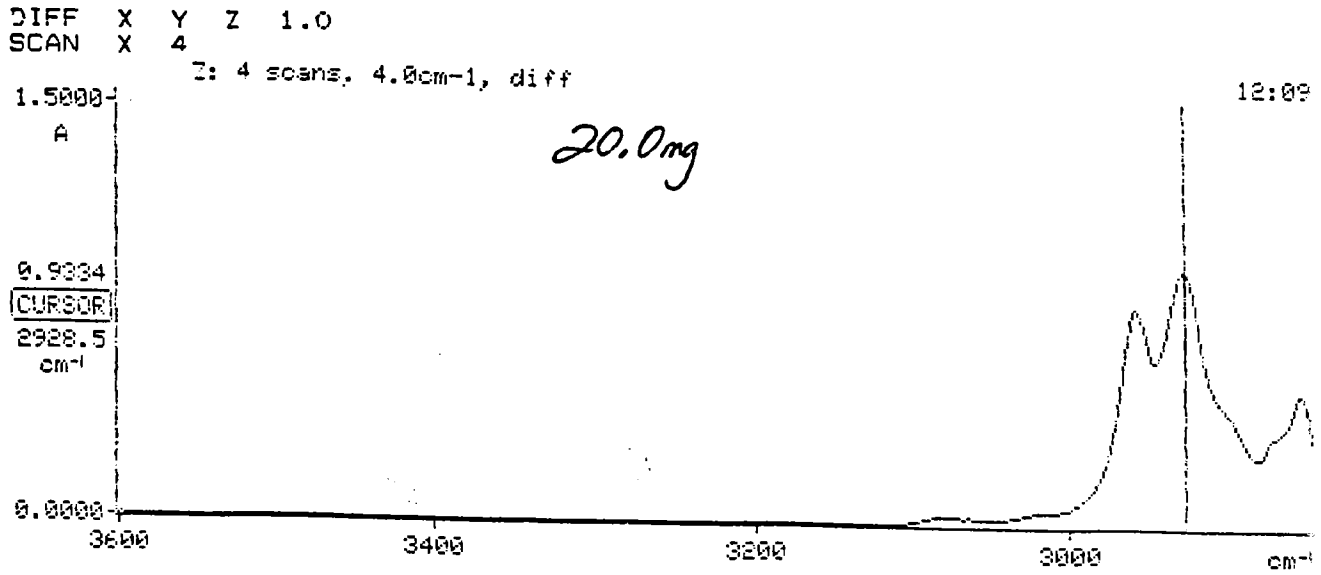


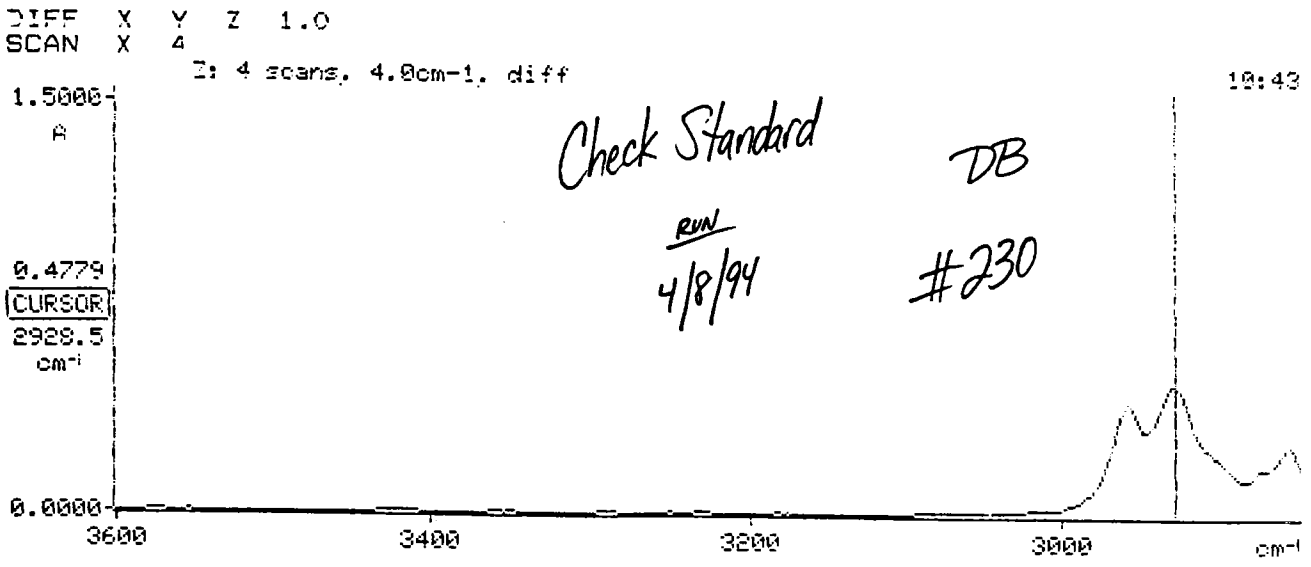




TPH curve 3/10/94
DB



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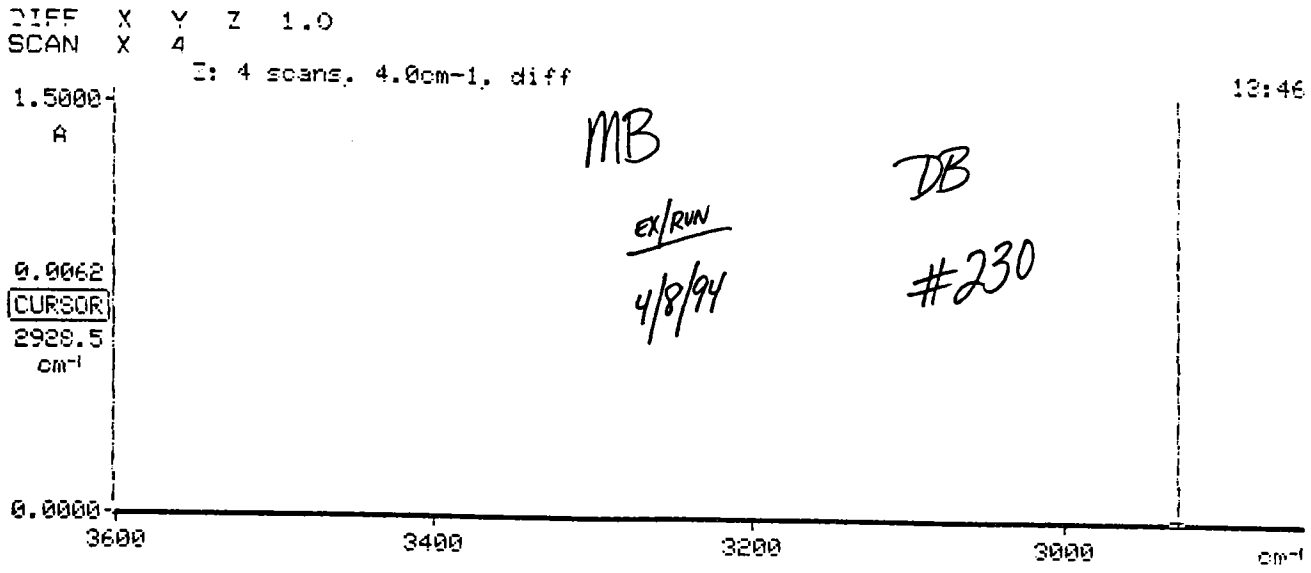
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
10:43
1.5000
A
0.4779
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
RUN
4/8/94
DB
#230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SCAN X 4
I: 4 scans, 4.0cm-1, diff
13:46
1.5000
A
0.0062
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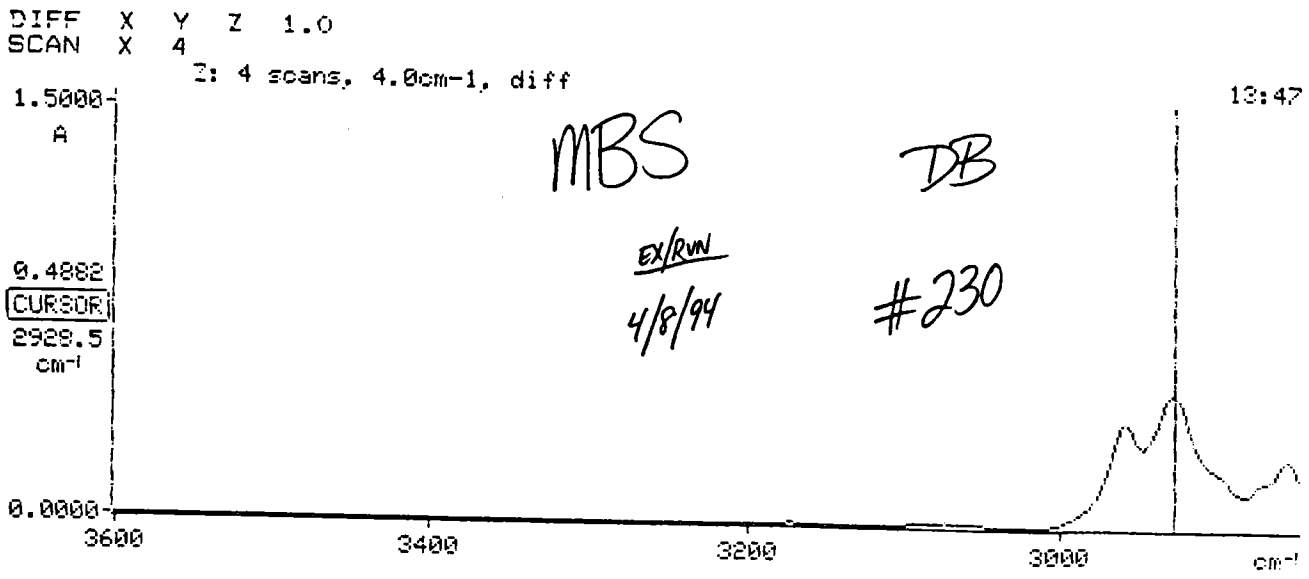
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
EX/RUN
4/8/94
DB
#230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1.5000
A
0.4882
CURSOR
2929.5
cm-1
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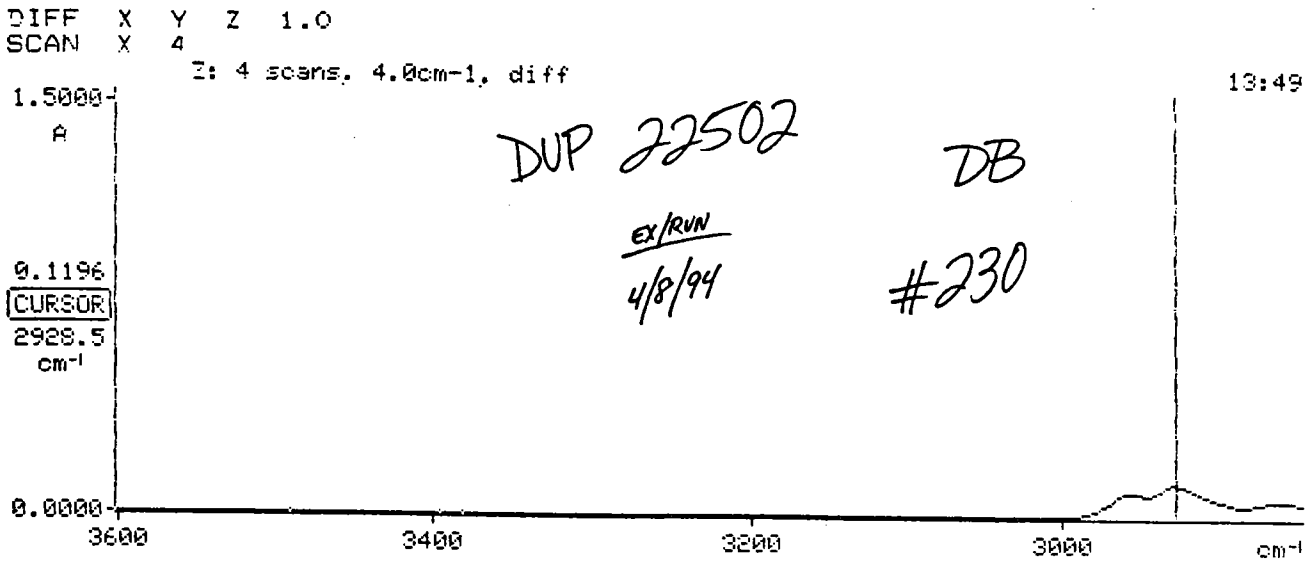
3600
3400
3200
3000
cm-1
MBS
DB
EX/RUN
4/8/94
#230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SCAN X 4
Z: 4 scans, 4.0cm-1, diff
13:49
1.5000
A
DUP 22502
DB
EX/RVN
4/8/94
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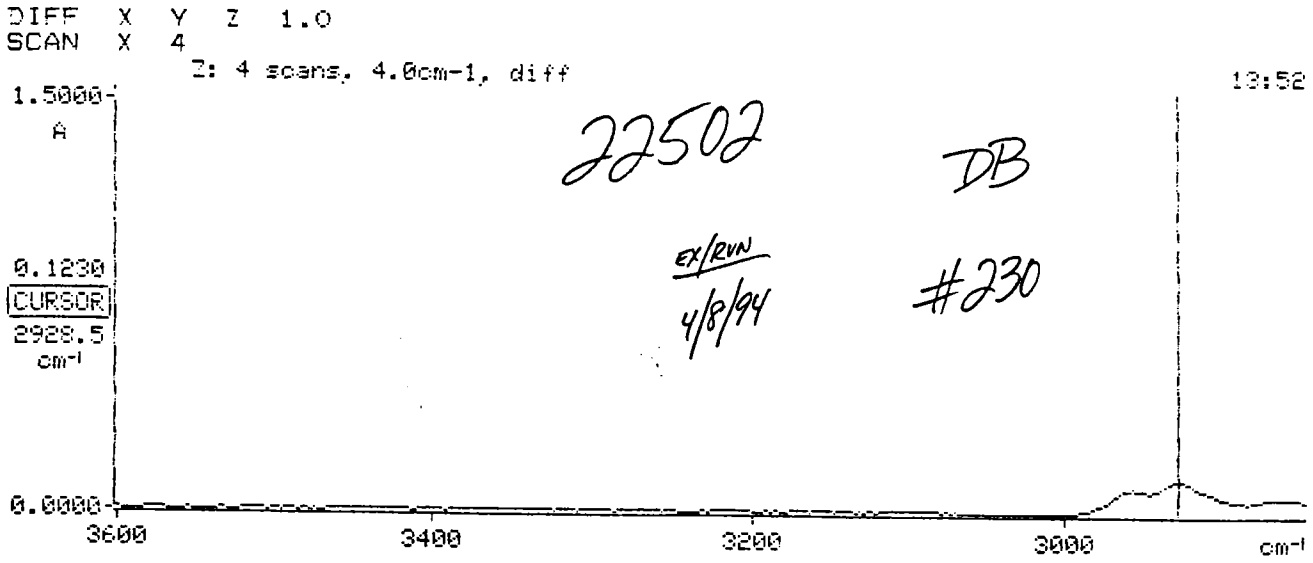
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1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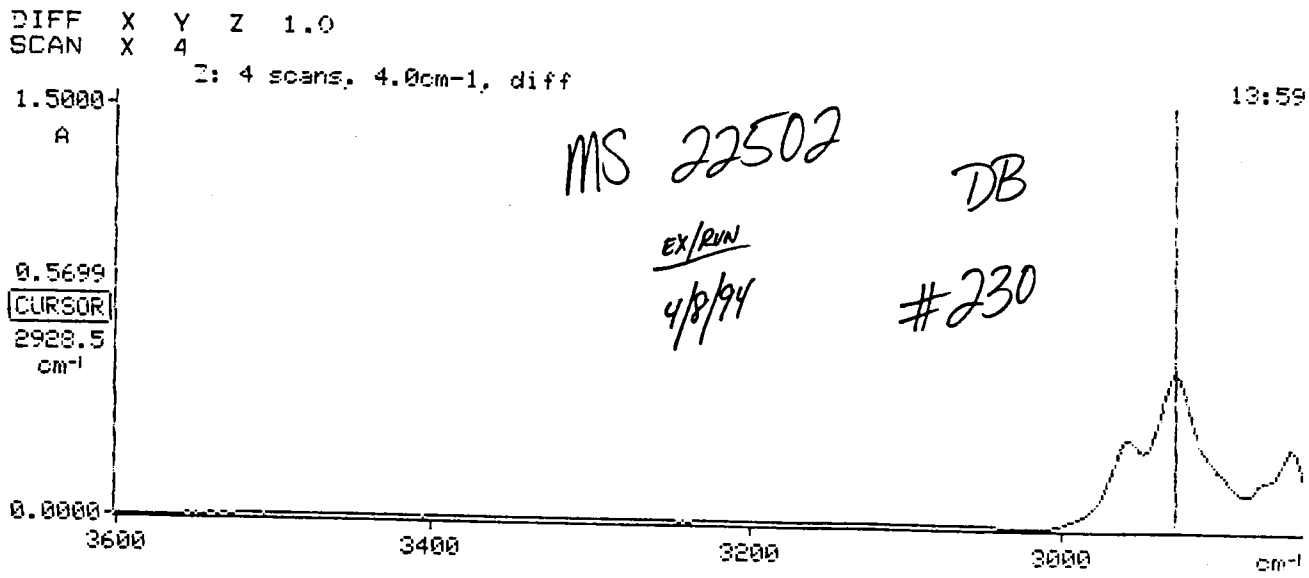
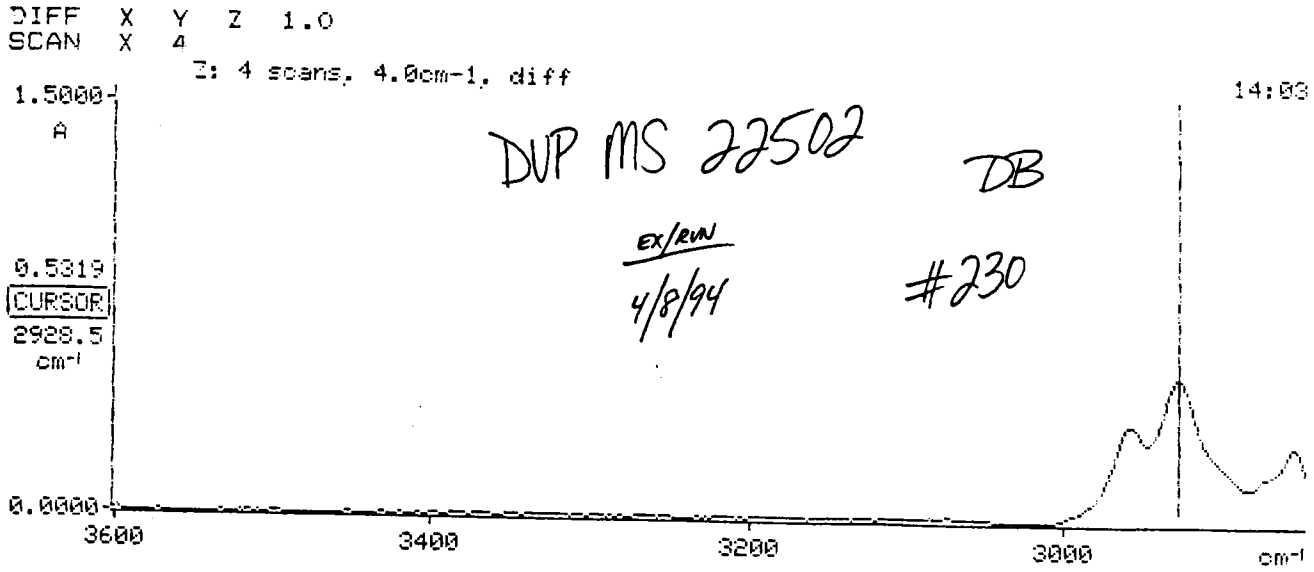
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
13:52
1.5000
A
22502
DB
EX/RVN
4/8/94
#230
0.1230
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
1.5000
A
13:59
MS 22502
DB
EX/RUN
4/8/94
#230
0.5699
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
1.5000
A
14:03
DUP MS 22502
DB
EX/RUN
4/8/94
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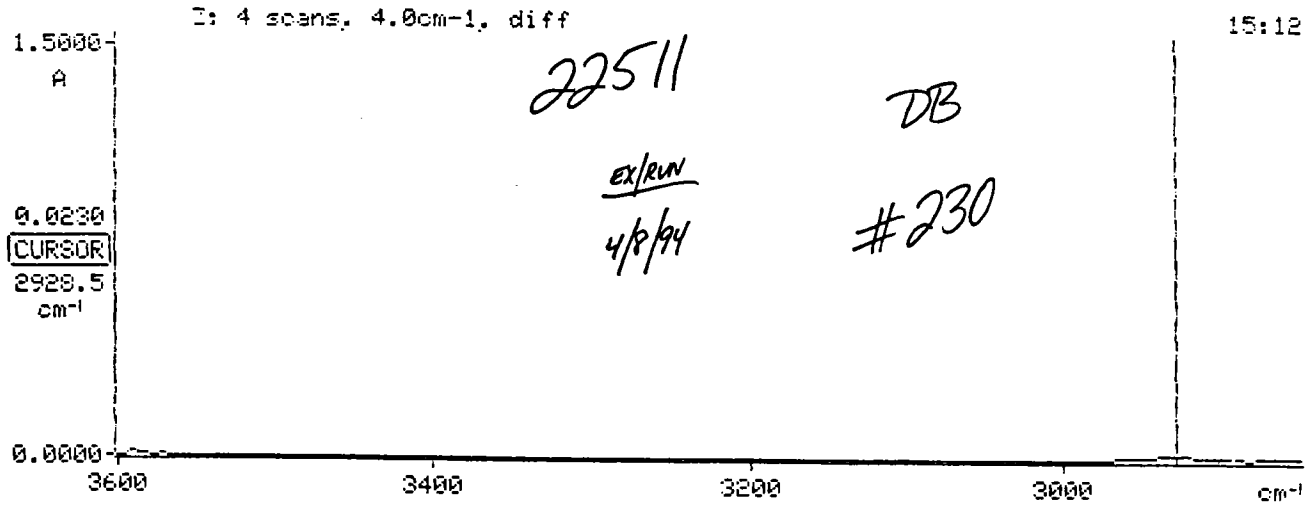
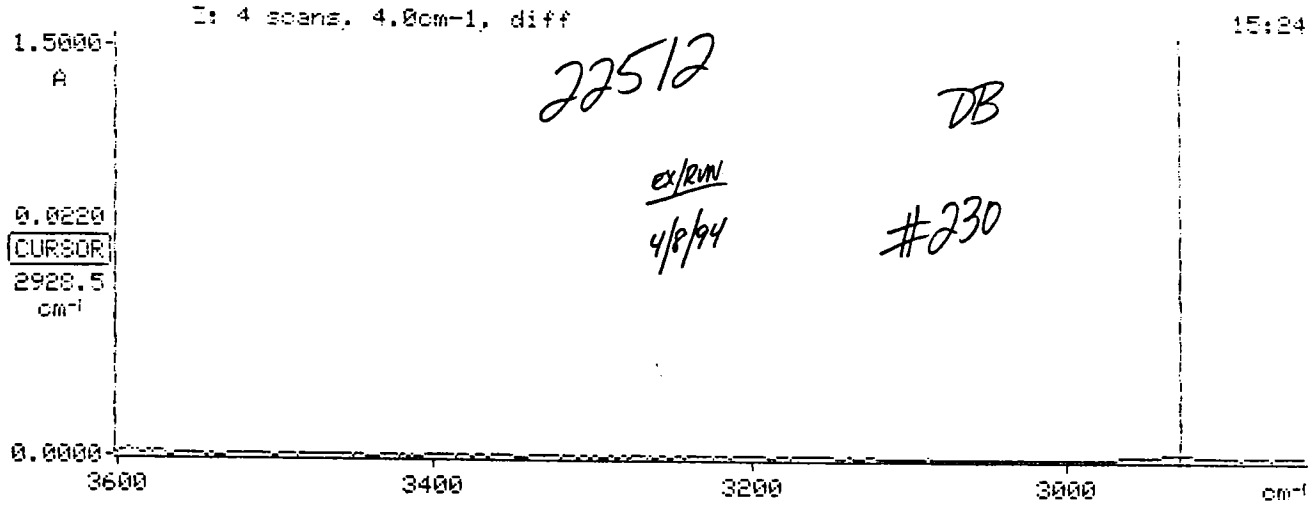
0.5319
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1



DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
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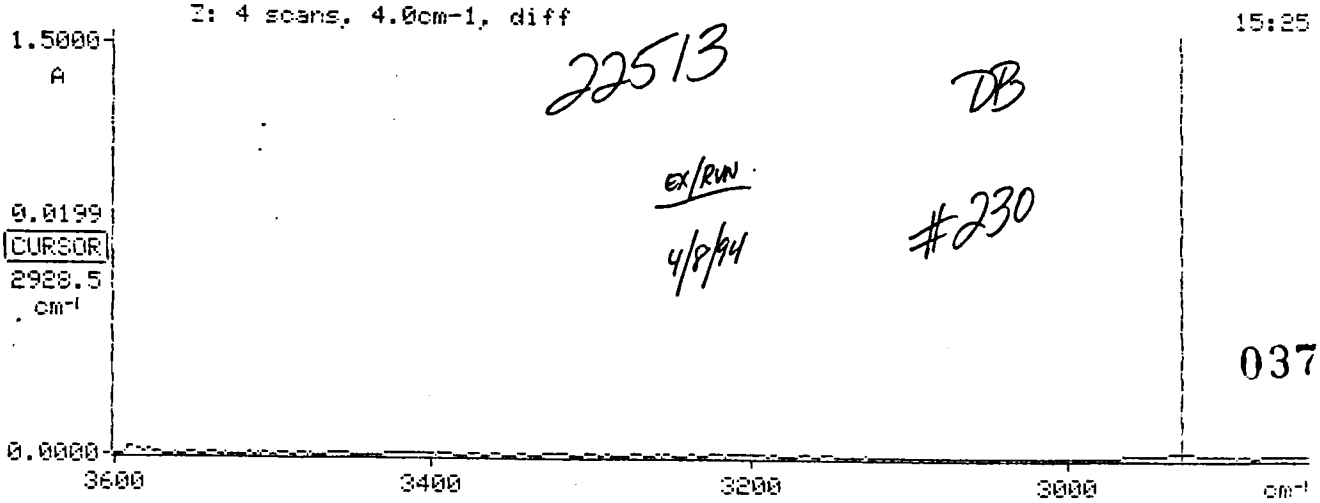

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SCAN X 4
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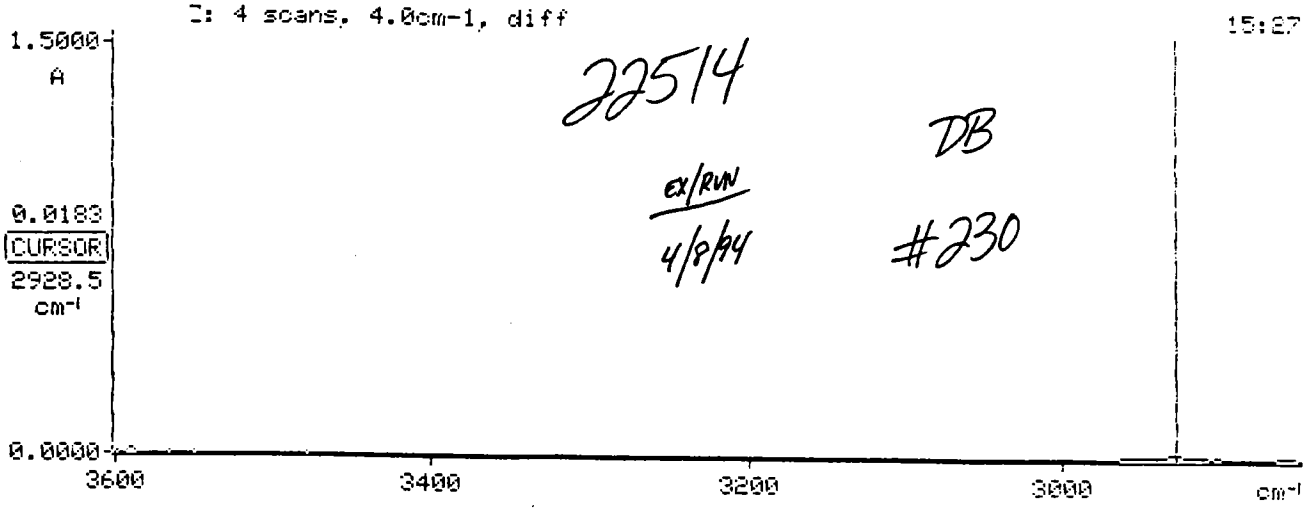

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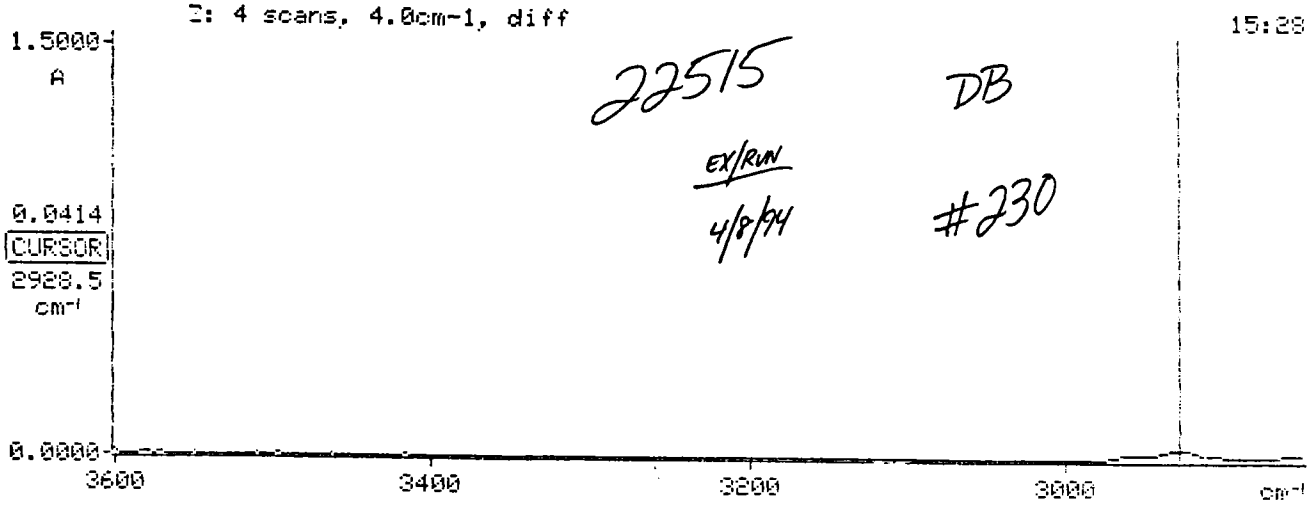
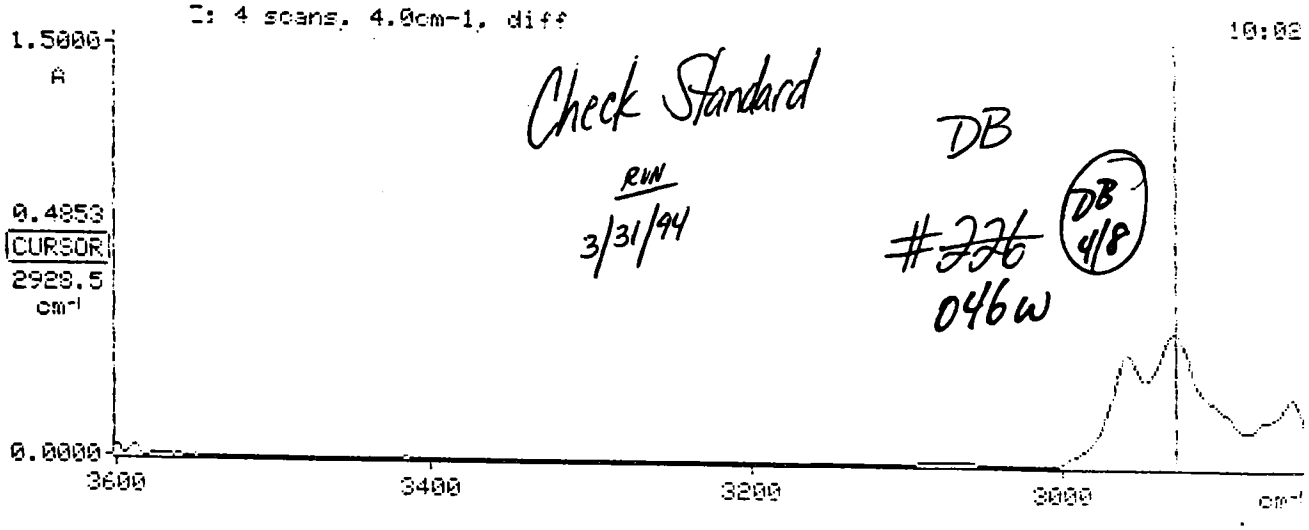
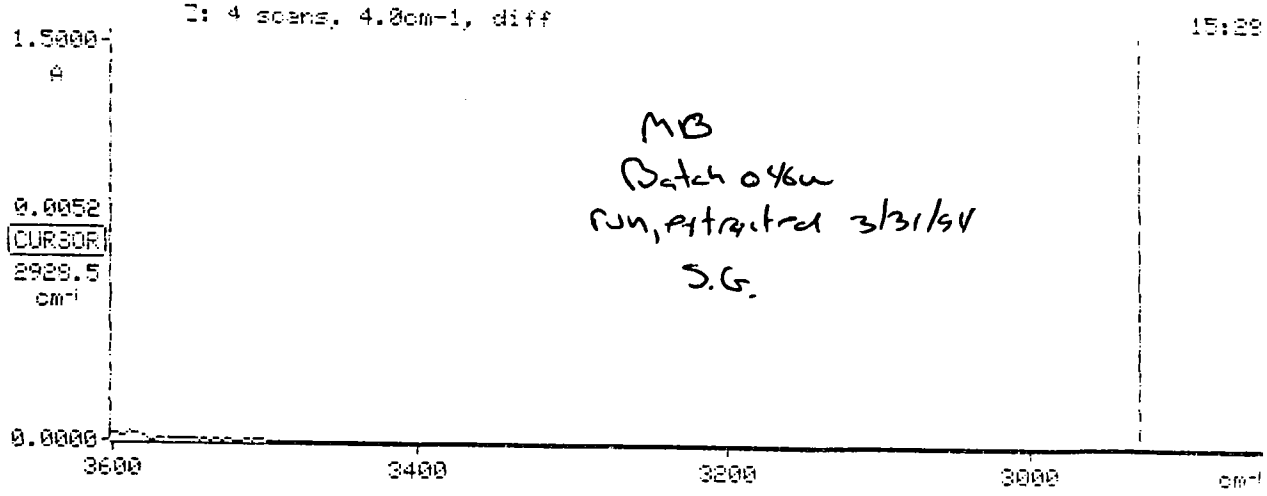
SCAN X 4
I: 4 scans, 4.0cm-1, diff



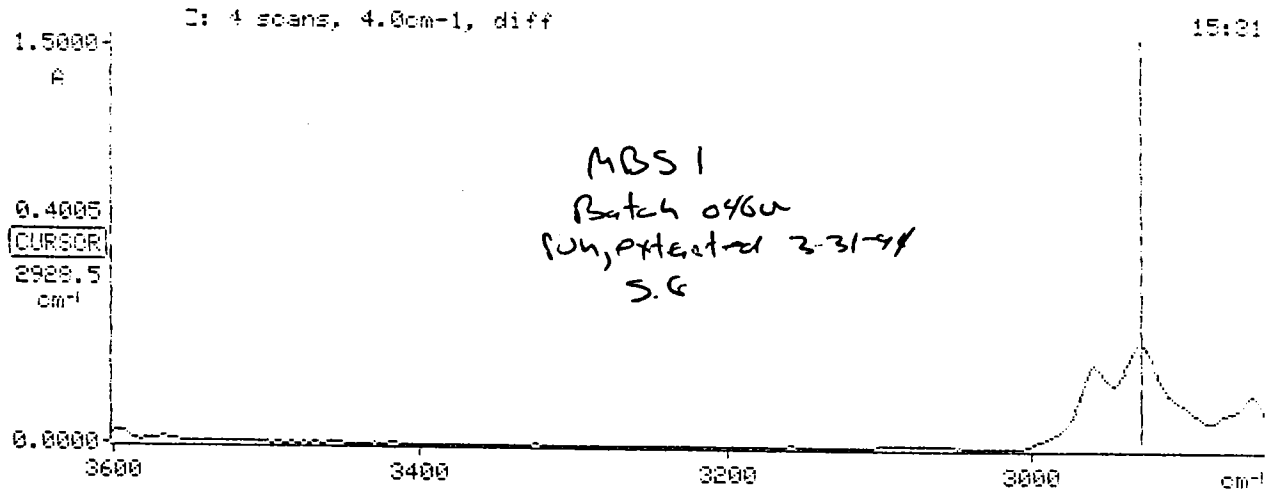
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4



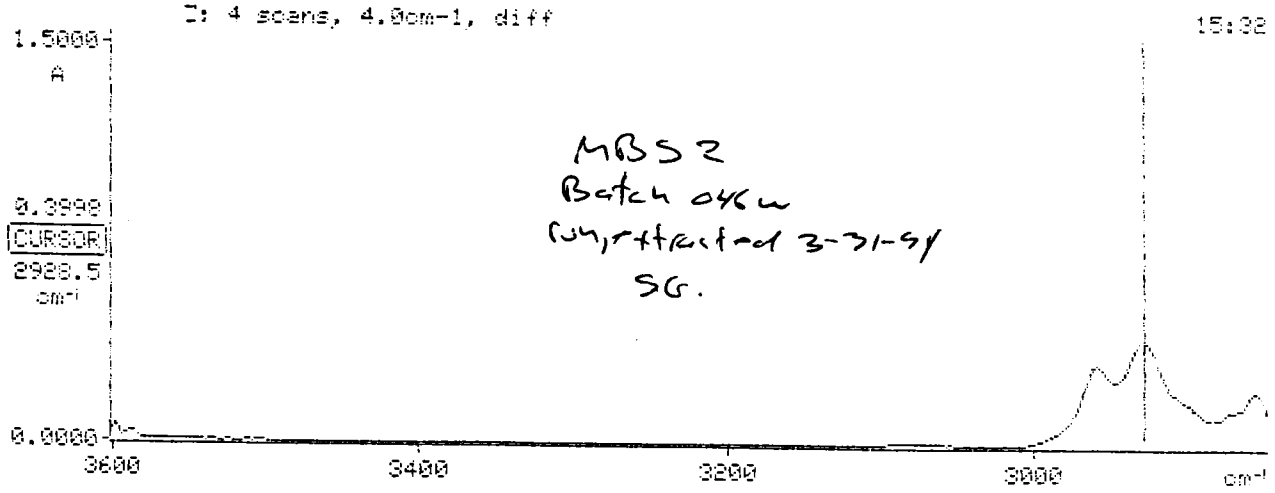
DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4



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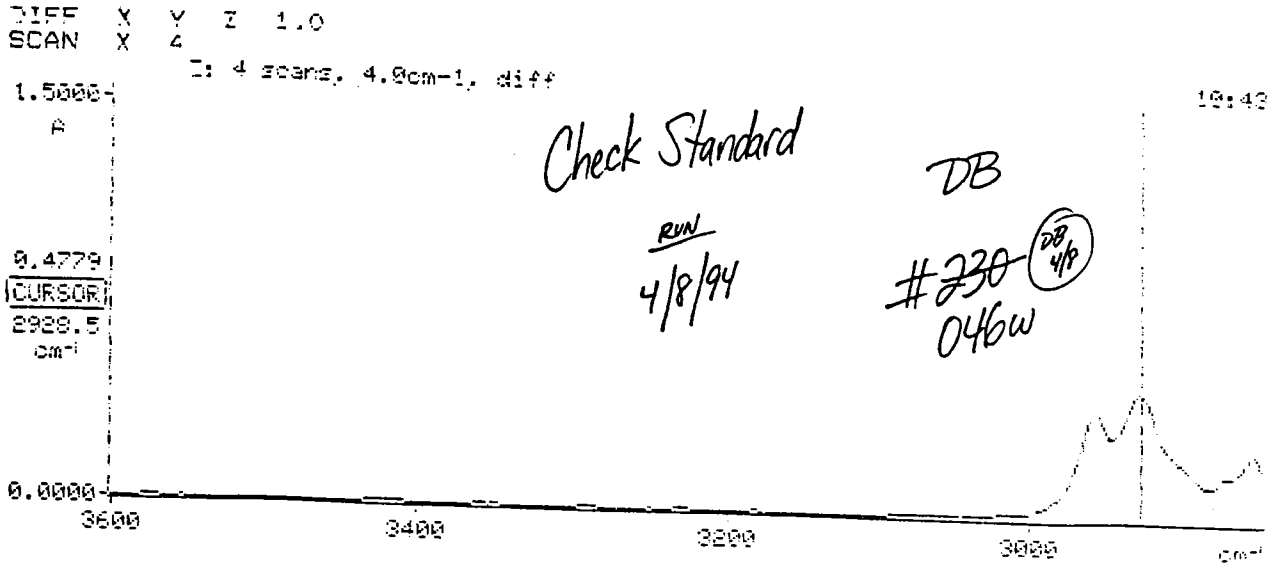
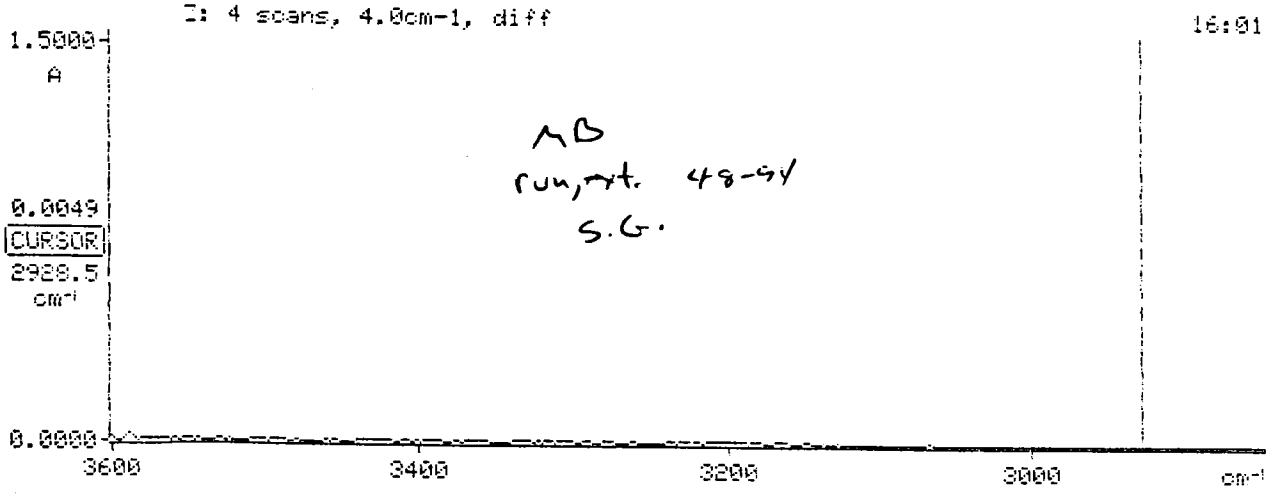
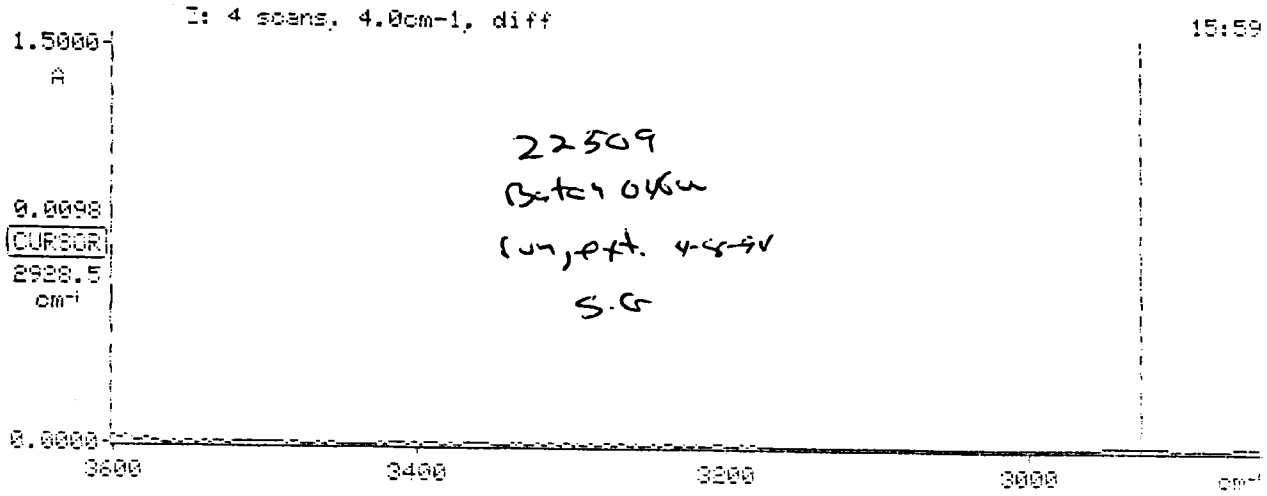
SCAN X 4

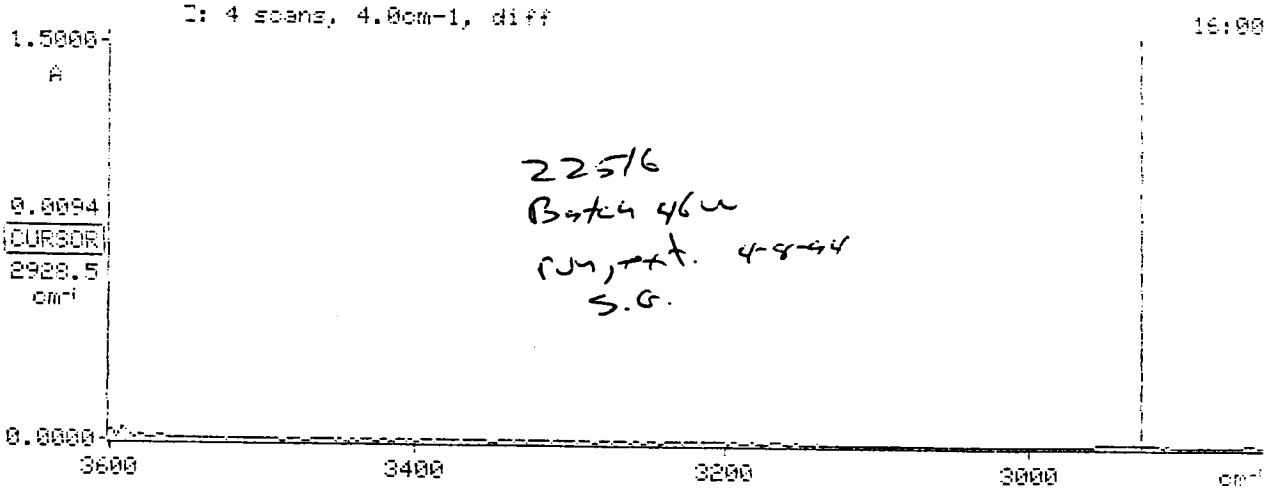

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
1.5000
A
0.4779
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
10:42
Check Standard
RUN
4/8/94
DB
#230
DB 4/8
046w


I: 4 scans, 4.0cm-1, diff
16:01
1.5000
A
0.0049
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
run, mt. 48-94
S.G.

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



DIFF X Y Z 1.0
SCAN X 4

No. 6

April 25, 1994 Soil Samples
(UST 554)

554

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.
NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22815-AA22824

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

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VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
554-1	AA22815
554-2	AA22816
554-3	AA22817
554-4	AA22818
FIELD BLANK	AA22819
554-SP	AA22824

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: *(Signature)* [signature]
Phone 908-566-2277

Date Shipped _____ Carrier _____
Airbill No. _____ Cooler No. _____

SHIP TO:

VERITECH

ATTENTION: _____

SEND RESULTS TO:

Client Name _____
Company ENVIRO-TECH, INC.
Address 247 MAIN ST.
MATAWAN, NJ
Phone 908-566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Military Time
[signature]	[signature] (X-Ray Del.)	4/26/94	0840
[signature] (X-Ray Del)	[signature]	4/26/94	1115
Relinquished by: *(Signature)*	Received at lab by: *(Signature)*	Date	Military Time
Relinquished from lab by: *(Signature)*	Received by: *(Signature)*	Date	Military Time

ANALYSIS REQUEST

Sample ID Number	Sample Description		Date/Time Sampled	Analysis Requested	Sample Condition Upon Receipt
554-1	Soil	1	4/25/94 13:05	TPH*, VOTIO, xylene	Cool AA22815
554-2	↓	1	↓ 13:12	↓	↓ 22816
554-3	↓	1	↓ 13:15	↓	↓ 22817
554-4	↓	1	↓ 13:25	↓	↓ 22818
FIELD BLANK	AQUIOUS	3	↓	↓	↓ 22819
554-SP	SOIL		4/25/94 13:30	↓	↓ AA22824

Special Instructions/Comments:

* Please analyze samples for TPH first. If results show a concentration greater than 1,000 ppm, please call ET,'S office for authorization of additional analyses.

Added on per Lee 4/26/94 3:55 PM — LF

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) _____ Standard

Sample Custodians Chain of Custody

veritech
Division of Hampton-Clarke, Inc.
environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

PARAMETER	SAMPLE NO.	COLDBOX NO.	REMOVED FROM DATE	TIME	SIGNATURE
PCB	AA22694, 96	3	4/23	1400	A. Gulyaev
Hg	AA22624	3	4/25/94	9:00	S Paramanthan
TCN	22677-79	3	4/25	9:30	Dan Batelli
PCB	22750-53	sample fridge	4/25	11:40	Tracy Crane
"	22700, 711, 791	3	"	"	"
GC/MS	22741, 22742, 22743	3	4/25	12:40	[illegible]
	22747-22750, 22791	3			
TD-SI-SG	22383, 22617-2023-25	3	4/25	2:07	Pete Johnson
TCLP	22570, 22700, 22711	3	4/25	2:14	Pete Johnson
↓	22791	↓	↓	↓	↓
Pest/PCB BNA	22617	3	4/25	2:30	Tracy Crane
% solid	22768-22774	sample frig	4/25	3:00	Dan Batelli
TPH	22741, 44-46, 52-53	3	4/25	4:00	Dan Batelli
TD-SI-SG	22636-38	3	4/25	4:05	Pete Johnson
% solid, TPH, Hg, pH	22768-73, 75-78, 74	sample frig	4/26	9:00	Dan Batelli
"	22791-22802, 815-18, 21	"	"	"	"
Hg H_2O	22677, 78, 79	3	4/26	10:10	[illegible]
↓	22697, 98, 99	↓	↓	↓	↓
Chem	22677-79	3	4/26	1:25	Steve Kuerich
GC/MS	22742, 22743	3	"	2:00	[illegible]
BNA, Pest/PCB	22617-79	3	4/26	3:00	Tracy Crane
22636, 22779	BN	3	4/26	3:00	Tracy Crane

PARAMETER	SAMPLE NO.	COLDBOX NO.	RETURNED TO DATE	TIME	SIGNATURE
PCB	AA22694, 96	3	4/23	1445	A. Gulyaev
Hg	AA22624	3	4/25/94	9:10	S. Paramanthan
TCN	22677-79	3	4/25	11:00	Dan Batelli
PCB	22750-53	sample Frig	4/25	11:45	Tracy Crane
"	22700, 711, 791	3	"	"	"
Pest/PCB BNA	22617	DONE	4/25		Tracy Crane
% solid	22768-22774	sample frig	4/25	4:00	Dan Batelli
TPH	22741, 44-46, 52-53	3	4/25	4:15	Dan Batelli
TCLP	22570, 22700, 22711	3	4/25	5:44	Pete Johnson
↓	22791, 22874-95	↓	↓	↓	↓
TD-SI-SG	22382, 22617-20	3	4/25	5:55	Pete Johnson
~~Chem Pest/PCB~~	22023-25, 22636-38	3	4/25	6:00	Pete Johnson
BNA Pest/PCB	22617-79	DONE	4/26		Tracy Crane
Oil	22636, 22779	"	"		"
Phenol	22677-79	3	4/26	3:42	Steve Kuerich
% solid, TPH, Hg, pH	22742, 22768-73, 75-78, 74, 22791-802, 815-18, 21	sample frig, 3	4/26	4:20	Dan Batelli
"		"	"	"	"

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:47

Sample I.D. AA22815
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: 554-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	87	PERCENT	04/26/94	DB
TPH-SOIL	30	mg/kg dry wt	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22815

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:48

Sample I.D. AA22816
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: 554-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	83	PERCENT	04/26/94	DB
TPH-SOIL	31	mg/kg dry wt	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22816

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:48

Sample I.D. AA22817
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: 554-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	04/26/94	DB
TPH-SOIL	26	mg/kg dry wt	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22817

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:49

Sample I.D. AA22818
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: 554-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	87	PERCENT	04/26/94	DB
TPH-SOIL	36	mg/kg dry wt	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22818

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:50

Sample I.D. AA22819
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22819

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-27-1994 Time: 17:53:50

Sample I.D. AA22824
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 04/25/94
Date submitted: 04/26/94
Due date: 05/09/94
Specification checking: off
Descript: 554-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	04/26/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	04/26/94	DB
TPH EXTRACTION	Completed		04/26/94	DB

End of progress report on sample: AA22824

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: Deborah A. Keller Date: 4/27/94

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405

CT. NO: PH-0671
MADEP NO: NJ386
PADER NO: 68-463
NJDEPE NO: 14622
NYDOH NO: 11408

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 04/25/94
Date Submitted: 04/26/94
Date Reported: 04/27/94
Project: EARL

Sample I.D.		AA22815		AA22816	
Sample Description		554-1 SOIL		554-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	87	1.0	83
TPH-SOIL	mg/kg dry wt	23	30	24	31
TPH-WATER					

Sample I.D.		AA22817		AA22818	
Sample Description		554-3 SOIL		554-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	91	1.0	87
TPH-SOIL	mg/kg dry wt	22	26	23	36
TPH-WATER					

Sample I.D.		AA22819		AA22824	
Sample Description		FIELD BLANK		554-SP SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT			1.0	91
TPH-SOIL	mg/kg dry wt			22	Not detected
TPH-WATER	mg/L	4.0	Not detected		

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22815
Sample Matrix: Soil
% Solids: 87

Date Received: 4/26/94
Date Extracted: 4/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	554-1	30	1	23	4/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22816
Sample Matrix: Soil
% Solids: 83

Date Received: 4/26/94
Date Extracted: 4/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	554-2	31	1	24	4/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22817
Sample Matrix: Soil
% Solids: 91

Date Received: 4/26/94
Date Extracted: 4/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	554-3	26	1	22	4/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22818
Sample Matrix: Soil
% Solids: 87

Date Received: 4/26/94
Date Extracted: 4/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	554-4	36	1	23	4/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22819 Date Received: 4/26/94
Sample Matrix: Water Date Extracted: 4/26/94
% Solids: 0

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	4.0	4/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22824
Sample Matrix: Soil
% Solids: 91

Date Received: 4/26/94
Date Extracted: 4/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	554-SP	ND	1.0	22	4/26/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	235s	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** WATER

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	047W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22774 MS

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 87

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	1020		275		761	98		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.
AA22774 MSD

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 87

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	1030		275		761	99		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22774 DUP

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 87

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	275		288		4.6		C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSION
TPH_3S

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000216

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0325	0.0325
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 235

SAMPLE	ABS.	MG
10mg4-26	0.4875	10.4630
mbs	0.4766	10.2714
dup 22774	0.1810	3.8642
ms1 22774	0.6261	13.4470
ms2 22774	0.6289	13.5073
mb4-26	0.0078	0.1353
22774	0.1737	3.7071
22775	0.0137	0.2624
22776	0.1152	2.4476
22777	0.0103	0.1892
22778	0.3062	6.5597
22792	0.0174	0.3420
22793	0.0173	0.3399
22794	0.0165	0.3227
22795	0.0211	0.4217
22815	0.0202	0.4023
22816	0.0197 ✓ SC	0.3915
22817	0.0183 ✓ 4/27	0.3614
22818	0.0235 ✓	0.4734
22824	0.0126 ✓	0.2387

✓ data input
DB 4/26/94

DB 4/26

ANALYSIS: TPH SOILS
BATCH 235
DATE: 26-Apr-94
ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.46	105%
MBS	666.7	684.76	103%
MS #1	761.21	1023.6	98%
MS #2	761.21	1028.19	99%
SAMPLE		274.90	RPD
SAMPLE DUP		288.42	4.80%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG CALC. FROM CURVE	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg4-26	1.00	1000	10.4630	1.0	10.46	
mbs	1.00	15.0	10.2714	1.0	684.76	20.00
dup 22774	0.87	15.4	3.8642	1.0	288.42	22.99
ms1 22774	0.87	15.1	13.4470	1.0	1023.60	22.99
ms2 22774	0.87	15.1	13.5073	1.0	1028.19	22.99
mb4-26	1.00	15.0	0.1353	1.0	9.02	20.00
22774	0.87	15.5	3.7071	1.0	274.90	22.99
22775	0.88	15.1	0.2624	1.0	19.75	22.73
22776	0.82	15.2	2.4476	1.0	196.37	24.39
22777	0.86	15.6	0.1892	1.0	14.10	23.26
22778	0.88	15.3	6.5597	1.0	487.21	22.73
22792	0.73	15.5	0.3420	1.0	30.23	27.40
22793	0.76	15.5	0.3399	1.0	28.67	26.32
22794	0.75	15.1	0.3227	1.0	28.490	26.67
22795	0.82	15.3	0.4217	1.0	33.612	24.39
22815	0.87	15.5	0.4022	1.0	29.643	22.99
22816	0.83	15.3	0.3915	1.0	30.833	24.10
22817	0.91	15.2	0.3614	1.0	26.128	21.98
22818	0.87	15.0	0.4734	1.0	36.273	22.99
22824	0.91	15.3	0.2367	1.0	17.144	21.98

DB 4/26

4/27

√ data input
DB 4/26/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 047w

SAMPLE	ABS.	MG
10mg4-18	0.4737	10.2736
MBS	0.4389	9.4167
MBSD	0.4412	9.4662
mb4-18	0.0063	0.1031
22639	0.2532	5.4187
22640	0.1882	4.0193
22647	0.6364	13.6688
22648	0.1597	3.4057
22649	0.1007	2.1354
22650	0.0743	1.5671
22651	0.0155	0.3011
22652	0.0130	0.2473
22701	0.0066 ✓	0.1095
22721	0.0068 ✓	0.1138
mb4-22	0.0042	0.0578
10mg4-22	0.4788	10.2757
22613	0.0067 ✓	0.1117
mb4-26	0.0072	0.1224
10mg4-26	0.4875	10.4630
22823	0.0071	0.1203
mb4-27	0.0051 ✓	0.0772
10mg4-27	0.4826	10.3575

S.C 4/27/94

√ data input
DB 4/27/94

ANALYSIS: TPH WATERS
batch 047w
DATE: 27-Apr-94
ANALYST: DB

Q.C. DATA

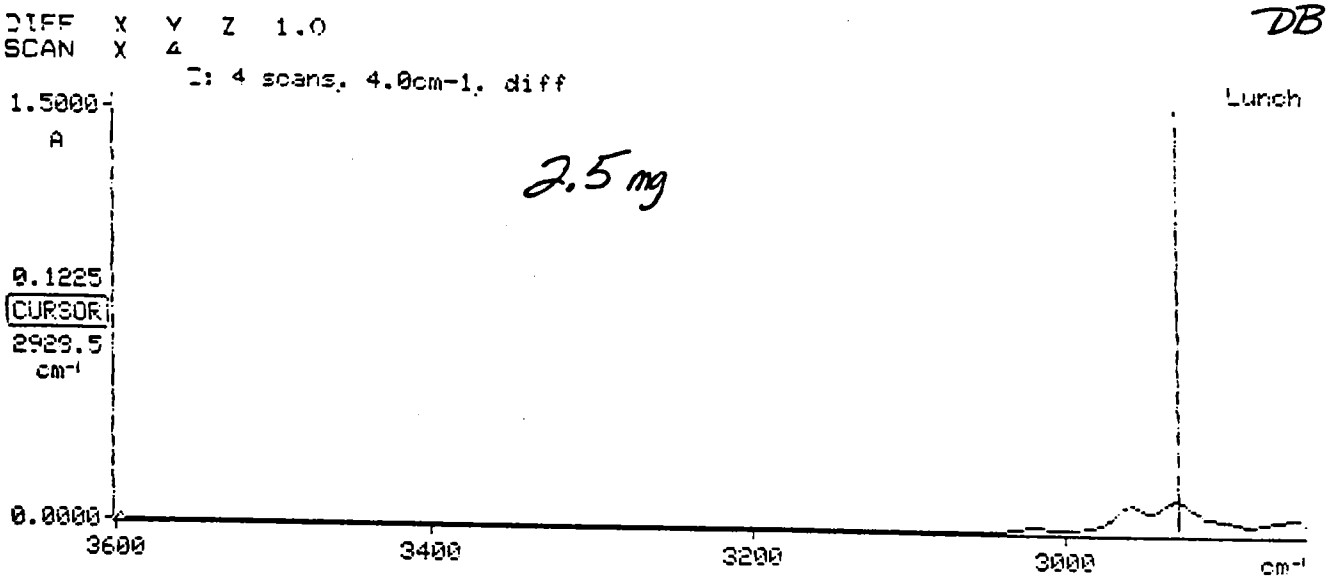
	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.274	103%
MBS	10	9.417	94%
MBS DUP	10	9.466	95%
		RPD =	0.00%

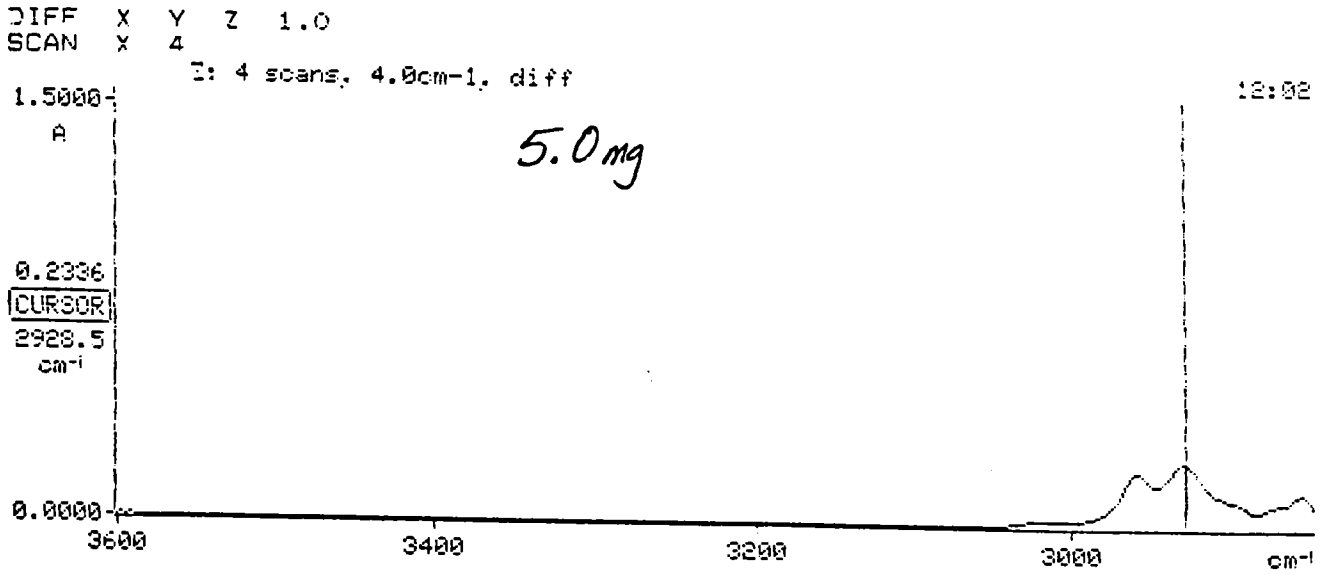
SAMPLE NO.	SAMPLE VOLUME	MG FROM CALC. CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg4-18	1000	10.2736	1.0	10.274	
MBS	1000	9.4167	1.0	9.417	
MBSD	1000	9.4662	1.0	9.466	
mb4-18	1000	0.1031	1.0	0.103	1.0
22639	1000	5.4187	100.0	541.868	100.0
22640	860	4.0193	20.0	93.471	23.3
22647	1000	13.6688	2.0	27.338	2.0
22648	1000	3.4057	1.0	3.406	1.0
22649	1000	2.1354	1.0	2.135	1.0
22650	1000	1.5671	1.0	1.567	1.0
22651	1000	0.3011	1.0	0.301	1.0
22652	1000	0.2473	1.0	0.247	1.0
22701	1000	0.1095	1.0	0.110	1.0
22721	265	0.1138	1.0	0.430	3.8
mb4-22	1000	0.0578	1.0	0.058	1.0
10mg4-22	1000	10.2757	1.0	10.276	1.0
22819	250	0.1117	1.0	0.447	4.0
mb4-26	1000	0.1224	1.0	0.122	1.0
10mg4-26	1000	10.4630	1.0	10.463	1.0
22823	255	0.1203	1.0	0.472	3.9
mb4-27	1000	0.0772	1.0	0.077	1.0
10mg4-27	1000	10.3575	1.0	10.358	1.0

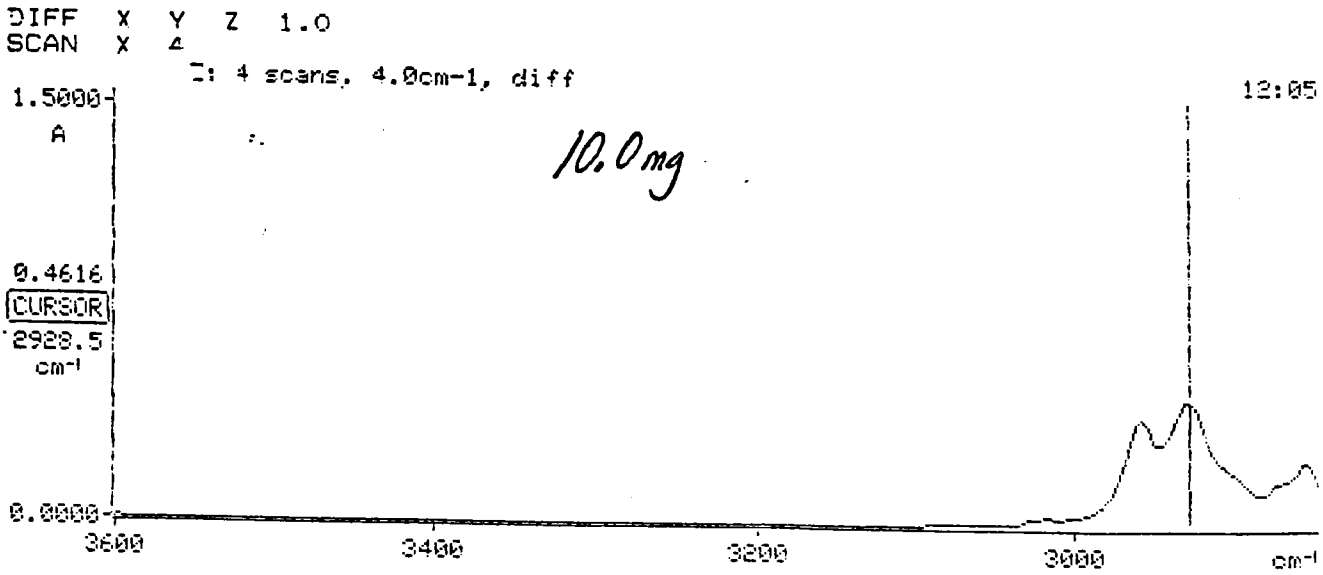
SV
4/27/94

√ data input
DB 4/27/94

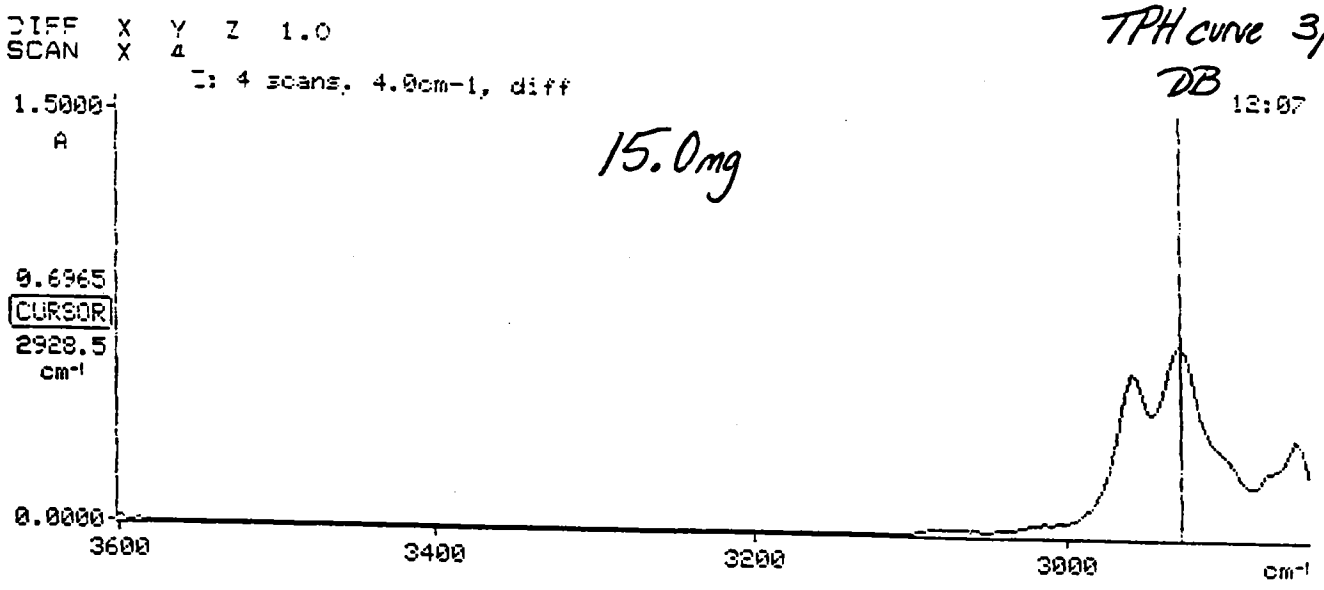
TPH curve 3/10/94
DB

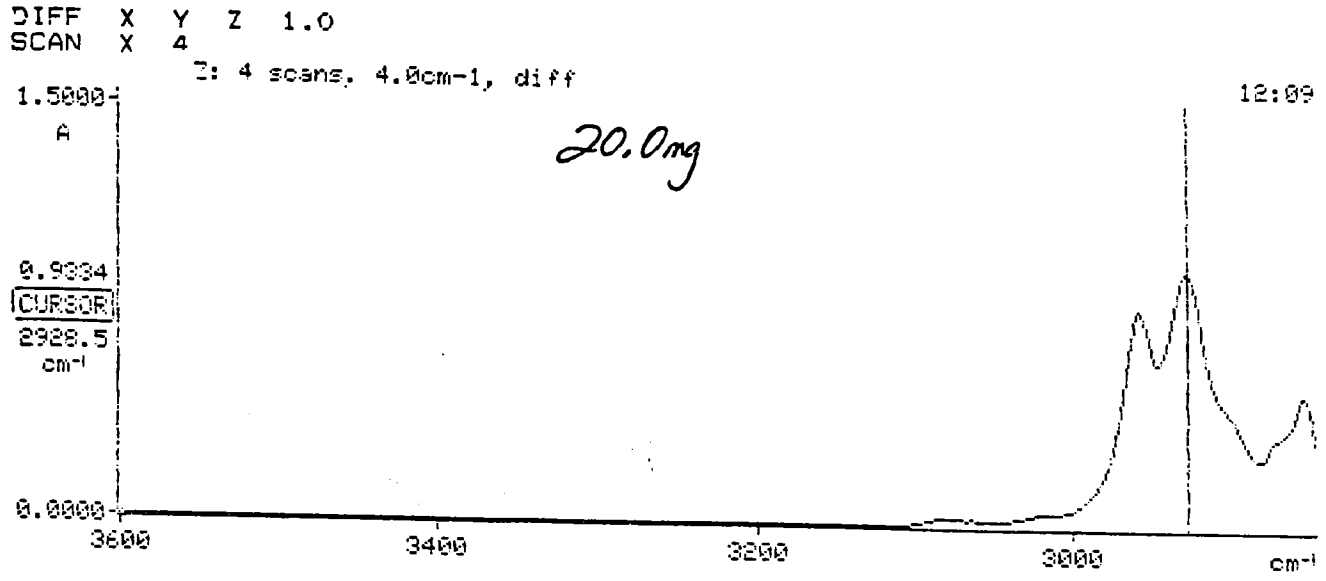


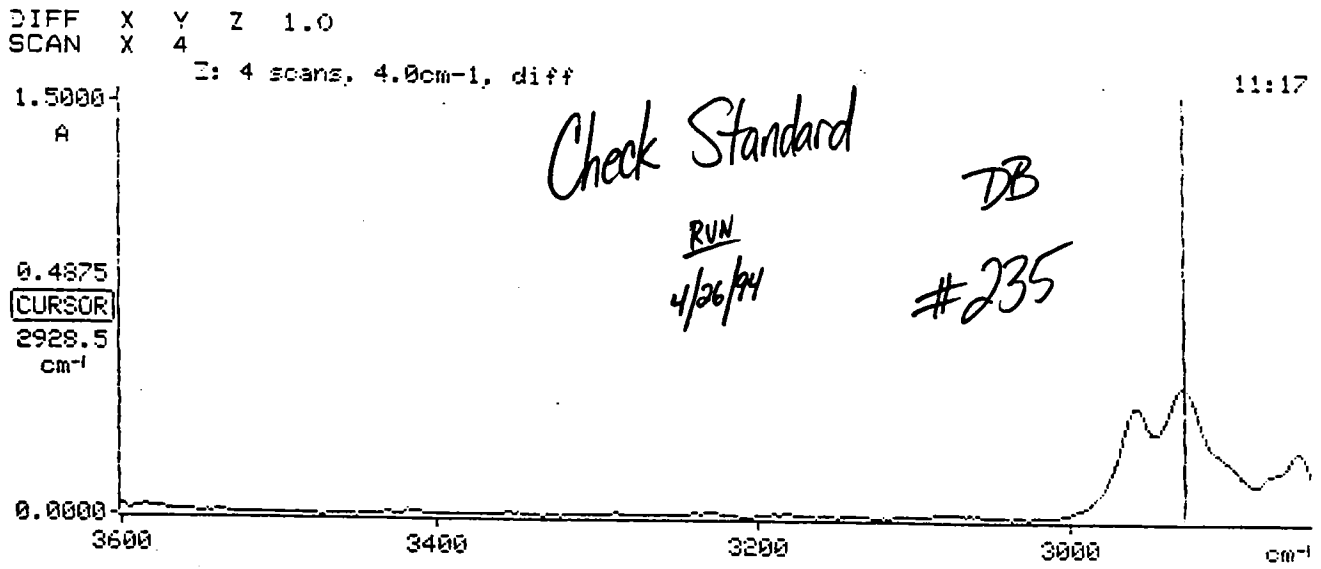




TPH curve 3/10/94
DB



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SCAN X 4
I: 4 scans, 4.0cm-1, diff
11:17
1.5000
A
0.4875
CURSOR
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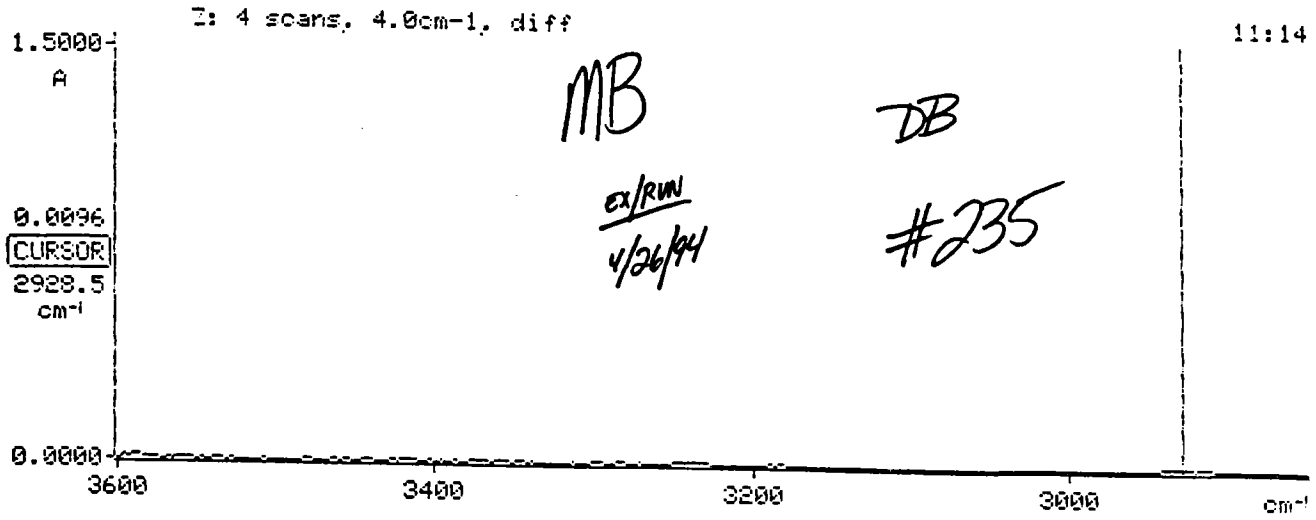
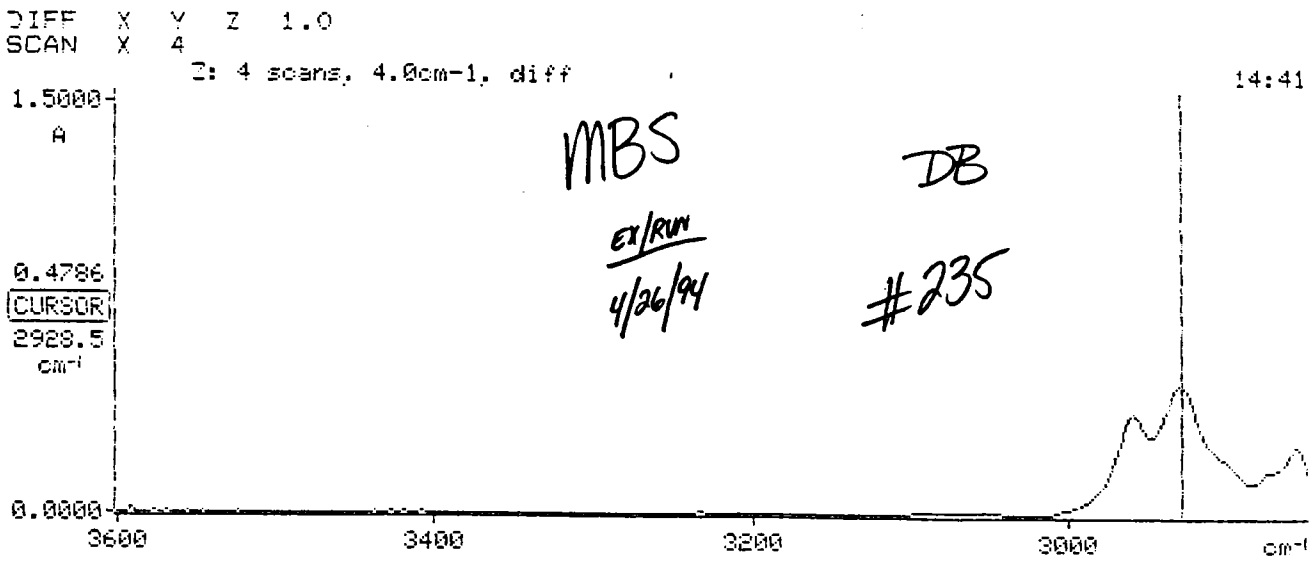
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
RUN
4/26/94
DB
#235



DIFF X Y Z 1.0
SCAN X 4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SCAN X 4
I: 4 scans, 4.0cm-1, diff
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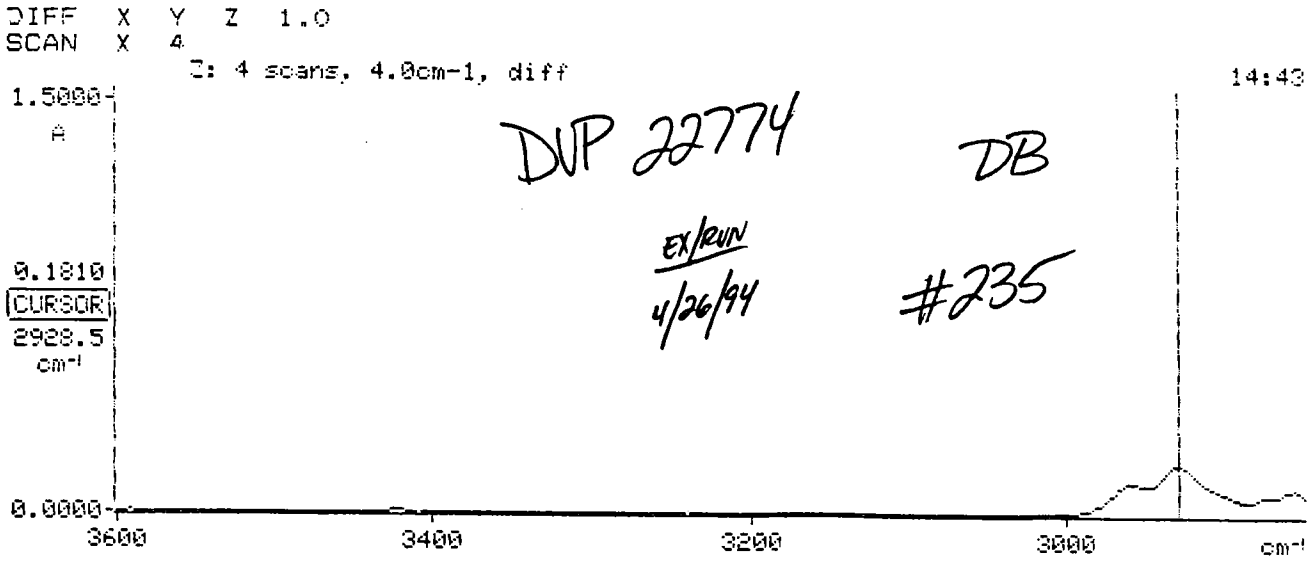
1.5000
A
0.4786
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MBS
DB
EX/RUN
4/26/94
#235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CURSOR
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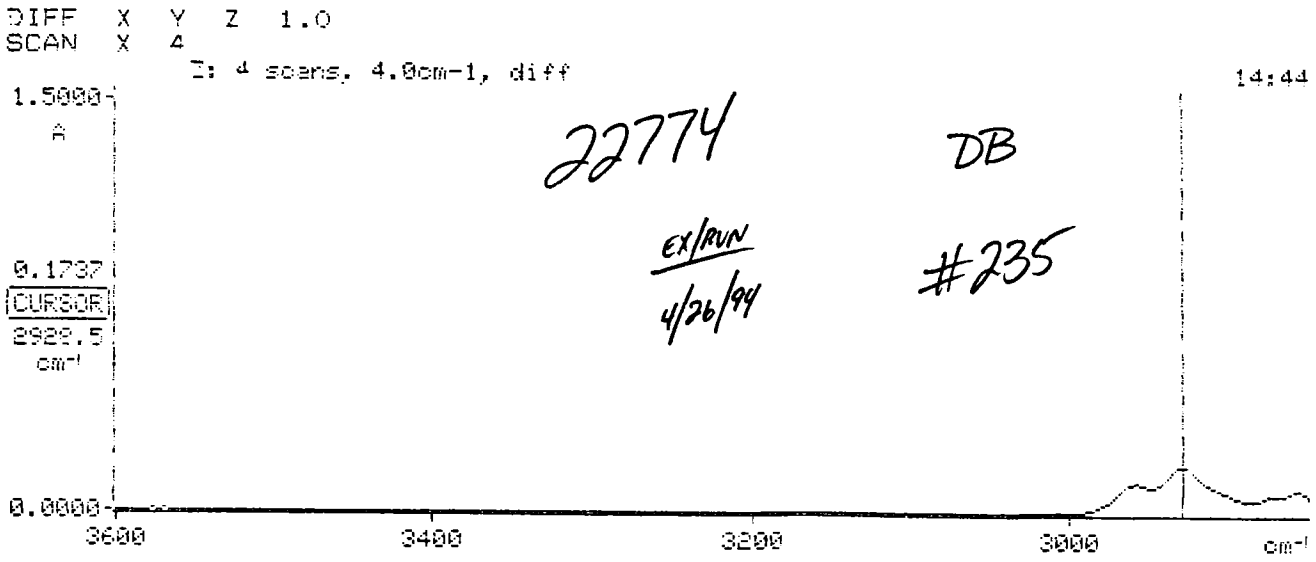
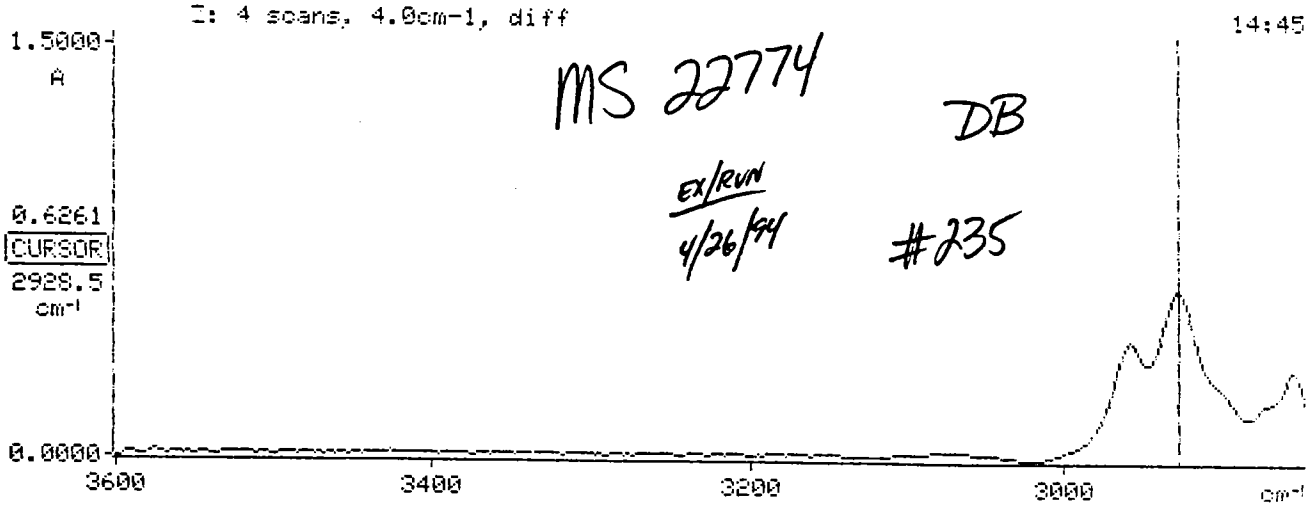
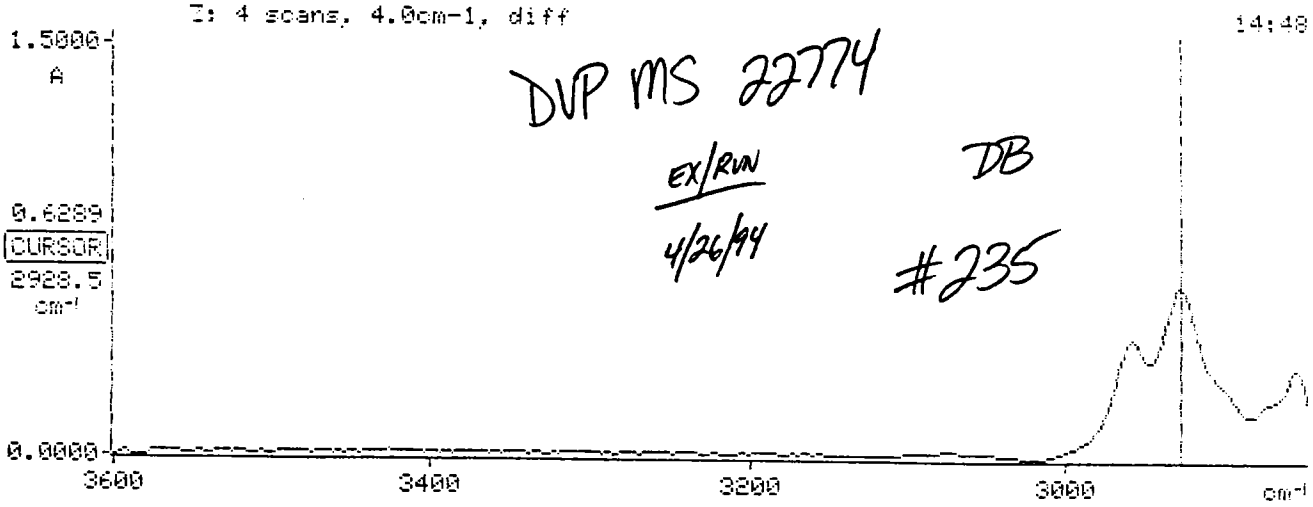
3600
3400
3200
3000
cm-1
DVP 22774
DB
EX/RUN
4/26/94
#235

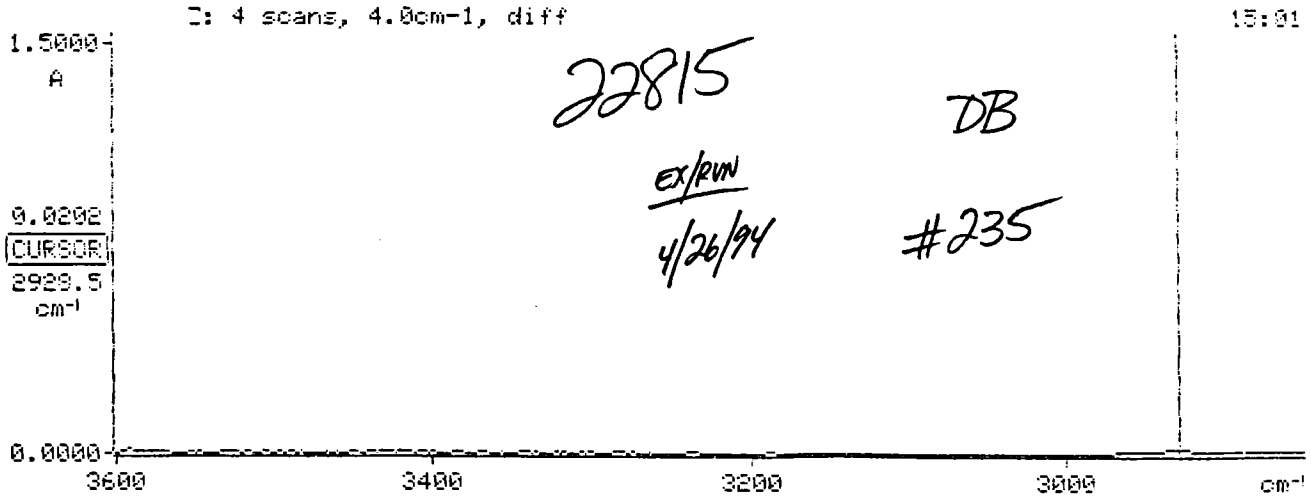

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:44
1.5000
A
0.1737
CURSOR
2929.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22774
DB
EX/RUN
4/26/94
#235

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff





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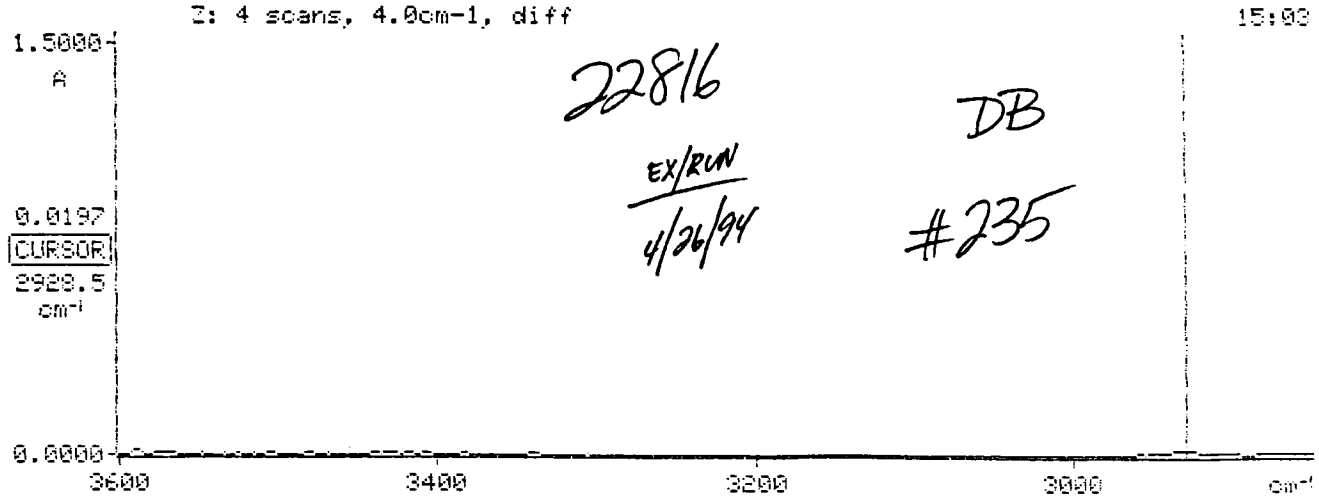
SCAN X 4



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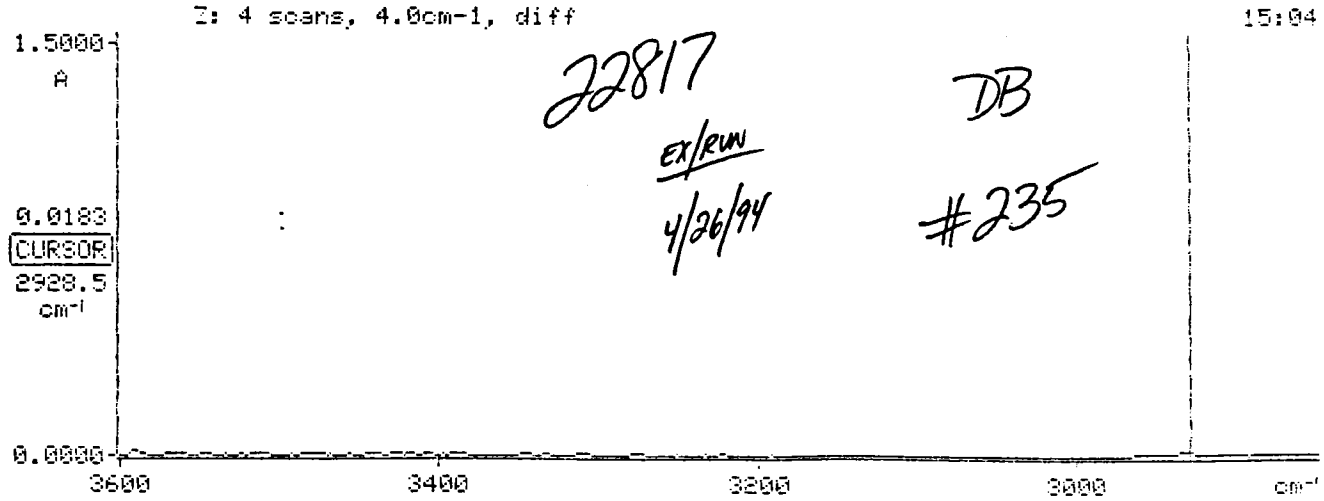
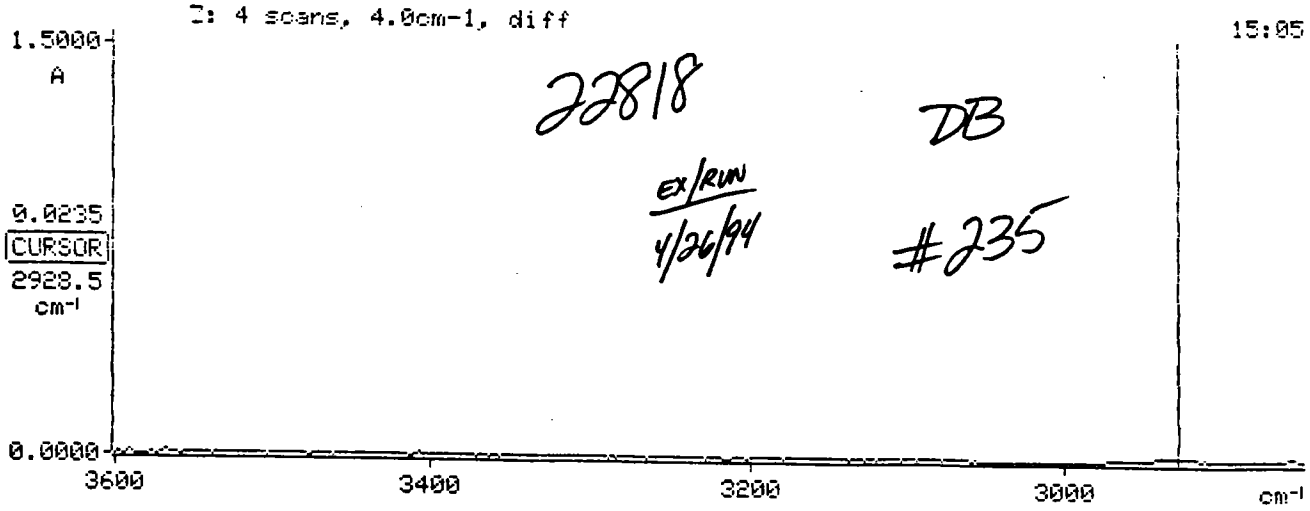
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4



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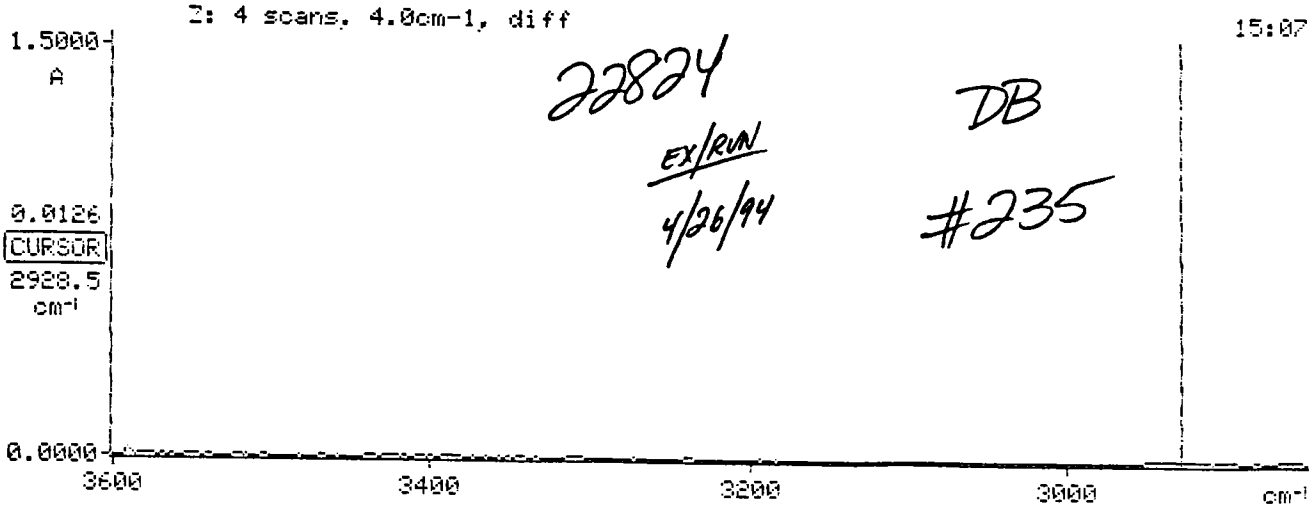
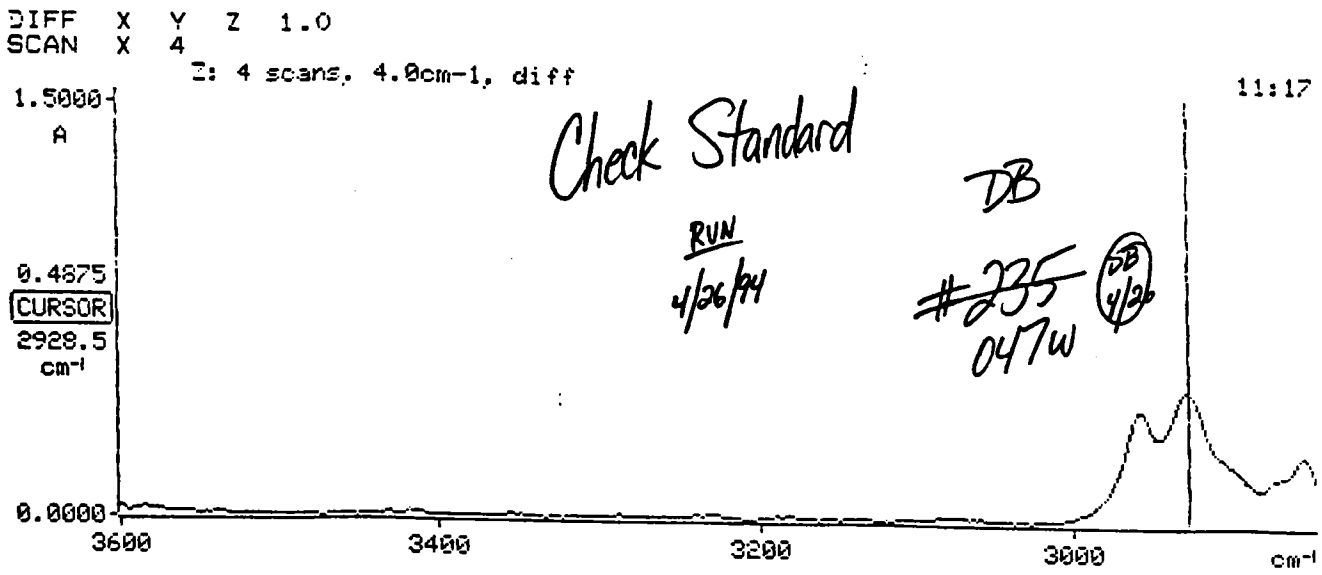
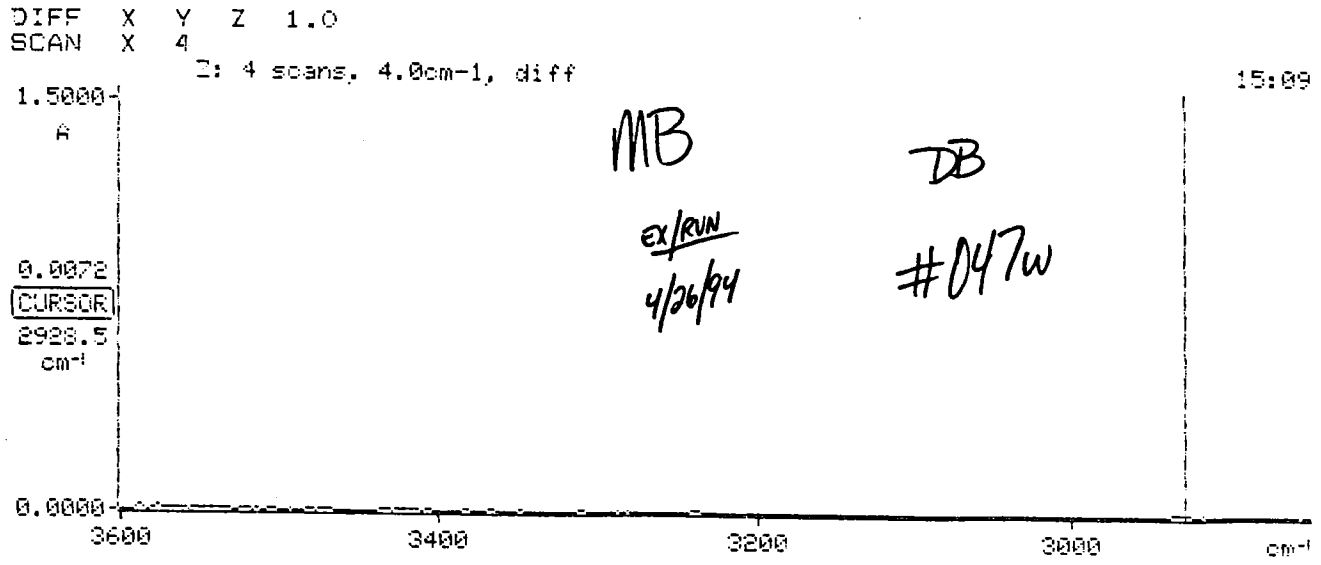
SCAN X 4



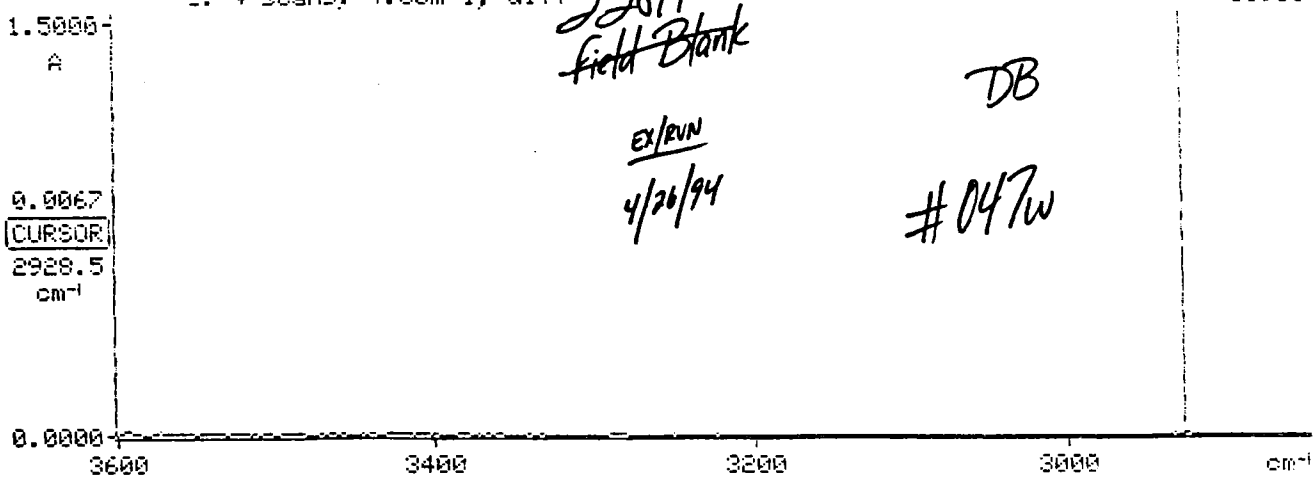

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
11:17
1.5000
A
0.4875
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
RUN
4/26/94
DB
#235
047W
DB
4/26


DIFF X Y Z 1.0
SCAN X 4
□: 4 scans, 4.0cm-1, diff
15:09
1.5000
A
0.0072
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
DB
EX/RUN
4/26/94
#047w

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff

22819 DB 4/27
~~Field Blank~~

15:11



EX/RUN
4/26/94

DB

#047w

No. 7

May 16, 1994 Soil Samples
(UST S-53)

S-53

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.

NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA23670-AA23673

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER Cert. #68-463, MA Cert. #NJ386
NYDOH Cert. #11408, NC Cert. #455

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

TABLE OF CONTENTS

VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
S53-1	AA23670
S53-2	AA23671
S53-3	AA23672
FIELD BLANK	AA23673

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: (Signature) _____ Date Shipped _____ Carrier _____

Phone 908-566-2277 Airbill No. _____ Cooler No. _____

SHIP TO:

ATTENTION: _____

SEND RESULTS TO:

Client Name _____

Company ENVIRO-TECH, INC.

Address 247 MAIN ST.
MATAWAN, NJ

Phone 908-566-2277

PROJECT NAME Gal **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
		4/17/94	9:25
Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
		4/17/94	
Relinquished by: (Signature)	Received at lab by (Signature)	Date	Military Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt
S53-1	Soil	5/16/94	12:10	TPH*, VOHO, xylene	Cool AA23670
S53-2	↓	↓	12:15	↓	23671
S53-3	↓	↓	12:23	↓	23672
FIELD BLANK	AQUEOUS	↓	12:00	↓	23673

Special Instructions/Comments:

* PLEASE ANALYZE SAMPLES FOR TPH FIRST. IF RESULTS SHOW CONCENTRATIONS GREATER THAN 1,000 ppm, PLEASE CALL ETI OFFICE FOR AUTHORIZATION OF ADDITIONAL ANALYSES.

LF

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: X Immediate Attention (200% surcharge) ___ RUSH (50-100% surcharge) ___ Standard

02

Sample Custodians Chain of Custody

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
[illegible]	23[illegible]	3	5/17	3:45	Tracy Crane
TPH, solids	Earl Ann	Sample Frig	5/17	10:00	Dave Russell
Hg	23135, 23137, 23167, 23291, 23338, 23178, 23179, 23180, 22403, 23326	3	5/17/94	4:20	S. Parasham
% solids	23619-27, 23631	2	5/17	5:00	Mark L. Gill
"	23652-59	"	"	"	"
GR/TPH	23570	Sample Frig	"		
	23575, 23576, 23580	3			
	23571			5:55	
TPH	23603-54	3	5/18	8:00	Mark L. Gill
TPH % solid	Earl 1-2-3	3	5/18	9:05	Mark L. Gill
"	23652-59	"	"	"	"
% solids	23642-51	3	5/18	9:30	Mark L. Gill
"	23662-68	"	"	"	"
TD-SI-SG	23011-26	3	5/18	10:13	Pete Johnson
PCB	23633-51	wet lab	5/18	1:30	Tracy Crane
TPH % solid	23674-76	3	5/18	1:45	Dan Batelle
TPH	23500-01	3	5/18	2:00	Mark L. Gill
TCLP	23172, 23281, 23329	3	5/18	2:40	
TPH	23674-76	3	5/18	2:00	Mark L. Gill
"	23455-500 [illegible]	"	"	"	"

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
PCB	23633-[illegible]	3	5/17	3:35	Tracy Crane
TPH, solids	Earl Ann	Sample Frig	5/17	4:30	Dave Russell
Hg	23135, 23137, 23167, 23291, 23338, 23178, 23179, 23180, 22403, 23326	3	5/17/94	6:30	S. Parasham
TPH	23603-54	3	5/18	8:30	Mark L. Gill
TPH % solid	Earl 1-2-3	3	5/18	9:56	Mark L. Gill
" "	23652-59	"	"	"	"
PCB	23633-51	wet lab	5/18	10:10	Tracy Crane
% solids	23642-51	3	5/18	3:03	Mark L. Gill
"	23662-68	"	"	"	"
TPH	23674-76	3	5/18	3:45	Mark L. Gill
TPH	23455-01	"	"	"	"
TPH	LCS 127-128-129	Sample Frig.	5/18	3:50	Mark L. Gill
"	LCS 130-131-132	"	"	"	
TCLP	23172, 23281, 23329	3	5/18	4:20	[illegible]
TD-SI-SG	23011-26	3	5/18	4:50	[illegible]

03

47 Carey Avenue • Butler, NJ 07405

Phone: (201) 492-8744 Fax: (201) 492-1815

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 05-23-1994 Time: 09:57:33

Sample I.D. AA23670
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 05/16/94
Date submitted: 05/18/94
Due date: 05/30/94
Specification checking: off
Descript: S53-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	92	PERCENT	05/17/94	DB
TPH-SOIL	92	mg/kg dry wt	05/17/94	DB
TPH EXTRACTION	Completed		05/17/94	MC

End of progress report on sample: AA23670

04

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 05-23-1994 Time: 09:57:33

Sample I.D. AA23671
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 05/16/94
Date submitted: 05/18/94
Due date: 05/30/94
Specification checking: off
Descript: S53-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	05/17/94	DB
TPH-SOIL	130	mg/kg dry wt	05/17/94	DB
TPH EXTRACTION	Completed		05/17/94	MC

End of progress report on sample: AA23671

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 05-23-1994 Time: 09:57:34

Sample I.D. AA23672
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 05/16/94
Date submitted: 05/18/94
Due date: 05/30/94
Specification checking: off
Descript: S53-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	95	PERCENT	05/17/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	05/17/94	DB
TPH EXTRACTION	Completed		05/17/94	MC

End of progress report on sample: AA23672

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 05-23-1994 Time: 09:57:35

Sample I.D. AA23673
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 05/16/94
Date submitted: 05/18/94
Due date: 05/30/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	05/17/94	DB
TPH EXTRACTION	Completed		05/17/94	DB

End of progress report on sample: AA23673

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: _____ Date: ___5/20/94_____

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405

CT. NO: PH-0671
MADEP NO: NJ386
PADER NO: 68-463
NJDEPE NO: 14622
NYDOH NO: 11408

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 05/16/94
Date Submitted: 05/18/94
Date Reported: 05/18/94
Project: EARL

Sample I.D.		AA23670		AA23671	
Sample Description		S53-1 SOIL		S53-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	92	1.0	91
TPH-SOIL	mg/kg dry wt	22	92	22	130
TPH-WATER					

Sample I.D.		AA23672		AA23673	
Sample Description		S53-3 SOIL		FIELD BLANK	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	95		
TPH-SOIL	mg/kg dry wt	21	Not detected		
TPH-WATER	mg/L			4.1	Not detected

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz, Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23670
Sample Matrix: Soil
% Solids: 92

Date Received: 5/17/94
Date Extracted: 5/17/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	S53-1	92	1.00	22	5/17/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23671
Sample Matrix: Soil
% Solids: 91

Date Received: 5/17/94
Date Extracted: 5/17/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	S53-2	130	1.00	22	5/17/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23672
Sample Matrix: Soil
% Solids: 95

Date Received: 5/17/94
Date Extracted: 5/17/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	S53-3	ND	1.00	21	5/17/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23673
Sample Matrix: Water
% Solids: ~~1.0~~ 0
dak 5-22-94

Date Received: 5/17/94
Date Extracted: 5/17/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	Field Blank	ND	1.00	4.1	5/17/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	248s	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Water

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	048W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA23672 MS

Lab Name: Veritech Sample Matrix: Soil

Lab Code: 14622

% Solids for Sample: 95

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	713		21.1	U	688	102		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA23672 MSD

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 95

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	716		21.1	U	688	102		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

MBS

Lab Name: Veritech **Sample Matrix:** Water

Lab Code: 14622

% Solids for Sample: 1.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	9.59		1.0	U	10.0	96		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.
MBS DUP

Lab Name: Veritech **Sample Matrix:** Water

Lab Code: 14622

% Solids for Sample: 1.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	9.30		1.0	U	10.0	93		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.

AA23672 Dup

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 95

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	21.1	U	21.1	U			C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
MBS DUP

Lab Name: Veritech **Sample Matrix:** Water

Lab Code: 14622

% Solids for Sample: 1.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	9.59		9.30				C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSIOON DATE 10-Mar-94
TPH 1S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 248

SAMPLE	ABS.	MG
10mg5-17	0.4825	10.3554
MBS	0.4872	10.4566
dup 23672	0.0148	0.2861
ms1 23672	0.4826	10.3575
ms2 23672	0.4850	10.4092
mb5-17	0.0079	0.1375
23653	0.0173	0.3399
23654	0.0566	1.1860
23655	0.0201	0.4002
23656	0.0144	0.2774
23657	0.1614	3.4423
23658	0.0961	2.0364
23659	0.2050	4.3810
23652	0.5679	12.1940
23628	0.6824	14.6591
23629	0.5748	12.3425
23630	0.0467	0.9728
23631	0.2255	4.8223
23670	0.0614	1.2893
23671	0.0876	1.8534
23672	0.0102	0.1870
23677	0.0114	0.2129
23678	0.0291	0.5939
23679	0.0208	0.4152
mb5-18	0.0119	0.2236
10mg5-18	0.4458	9.5652

✓ data input
DB 5/18/94

ANALYSIS: TPH SOILS

BATCH 248

DATE: 18-May-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.36	104%
MBS	666.7	697.1	105%
MS #1	687.99	712.59	102%
MS #2	687.99	716.15	102%
SAMPLE		<dl ~~12.99~~	RPD
SAMPLE DUP		<dl ~~19.99~~	0.00%

dah 5-22-94

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg5-17	1.00	1000	10.3554		1.0	10.36	
MBS	1.00	15.0	10.4566		1.0	697.10	20.00
dup 23672	0.95	15.4	0.2861		1.0	19.55	21.05
ms1 23672	0.95	15.3	10.3575		1.0	712.59	21.05
ms2 23672	0.95	15.3	10.4092		1.0	716.15	21.05
mb5-17	1.00	15.0	0.1375		1.0	9.17	20.00
23653	0.71	15.3	0.3399		1.0	31.29	28.17
23654	0.81	15.4	1.1860		1.0	95.08	24.69
23655	0.45	15.2	0.4002		1.0	58.50	44.44
23656	0.89	15.2	0.2774		1.0	20.51	22.47
23657	0.93	15.3	3.4423		1.0	241.92	21.51
23658	0.88	15.1	2.0364		1.0	153.25	22.73
23659	0.91	15.1	4.3810		1.0	318.82	21.98
23652	0.87	15.3	12.1940		2.0	1832.168	45.98
23628	0.92	15.4	14.6591		2.0	2069.328	43.48
23629	0.96	15.5	12.3425		2.0	1658.945	41.67
23630	0.96	15.4	0.9728		1.0	65.804	20.83
23631	0.92	15.1	4.8223		10.0	3471.286	217.39
23670	0.92	15.3	1.2893		1.0	91.598	21.74
23671	0.91	15.3	1.8534		1.0	133.118	21.98
23672	0.95	15.2	0.1870	0	1.0 ✓	12.951	21.05
23677	0.83	15.3	0.2129	4'	1.0 ✓	16.762	24.10
23678	0.85	15.1	0.5939	5/14	1.0 ✓	46.274	23.53
23679	0.88	15.2	0.4152		1.0 ✓	31.043	22.73
mb5-18	1.00	15.0	0.2236		1.0	14.908	20.00
10mg5-18	1.00	1000.0	9.5652		1.0	9.565	20.00

√ data input
DB 5/18/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 048w

SAMPLE	ABS.	MG
10mg5-13	0.4666	10.0131
MBS	0.4468	9.5868
MBSD	0.4333	9.2961
mb5-13	0.0061	0.0987
23188	0.0088 ✓	0.1569
23315	0.0118 ✓	0.2215
23341	0.0047 ✓	0.0686
23414	0.0062 ✓	0.1009
~~FB~~ 23673	0.0046	0.0665
mb5-17	0.0035	0.0428
10mg5-17	0.4825	10.3554

DB 5/18

✓ data input
DB 5/18/94

ANALYSIS: TPH WATERS

batch 048w

DATE: 18-May-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.013	100%
MBS	10	9.587	96%
MBS DUP	10	9.296	93%
		RPD =	0.00%

SAMPLE NO.	SAMPLE VOLUME	MG CALC. FROM CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg5-13	1000	10.0131	1.0	10.013	
MBS	1000	9.5868	1.0	9.587	
MBSD	1000	9.2961	1.0	9.296	
mb5-13	1000	0.0987	1.0	0.099	1.0
23188	940 ✓	0.1569	1.0	0.167	1.1
23315	985 ✓	0.2215	1.0	0.225	1.0
23342	970 ✓	0.0686	1.0	0.071	1.0
23414	270 ✓	0.1009	1.0	0.374	3.7
~~FB~~ 23673	245	0.0665	1.0	0.271	4.1

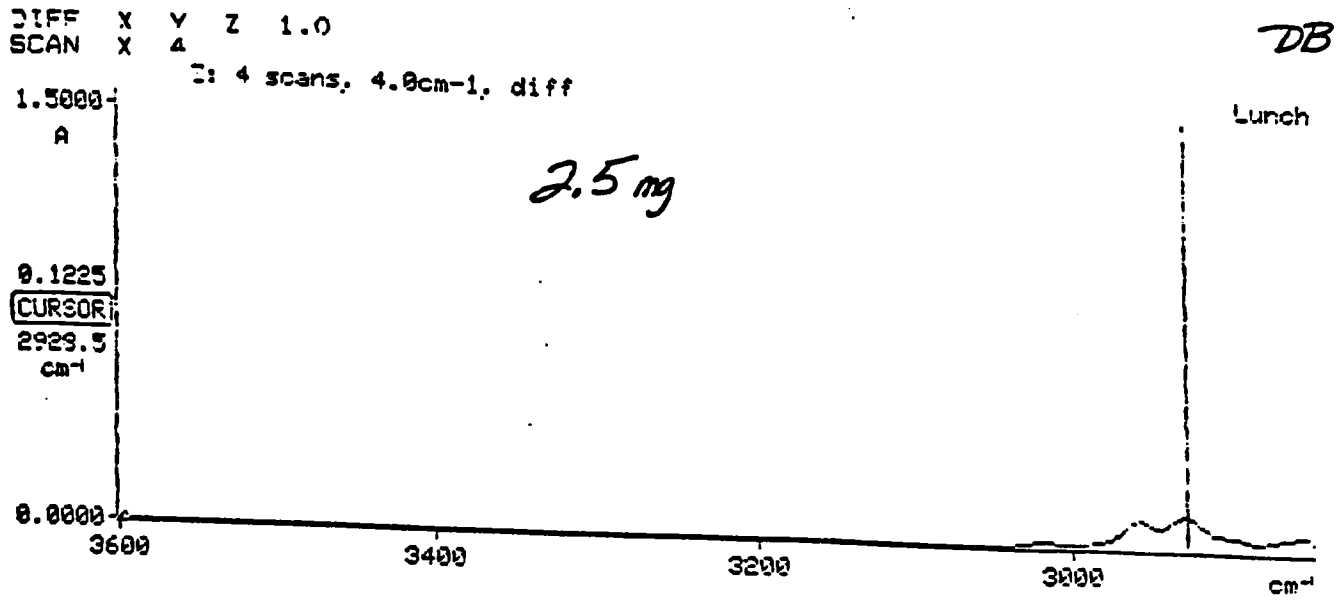
DB 5/18

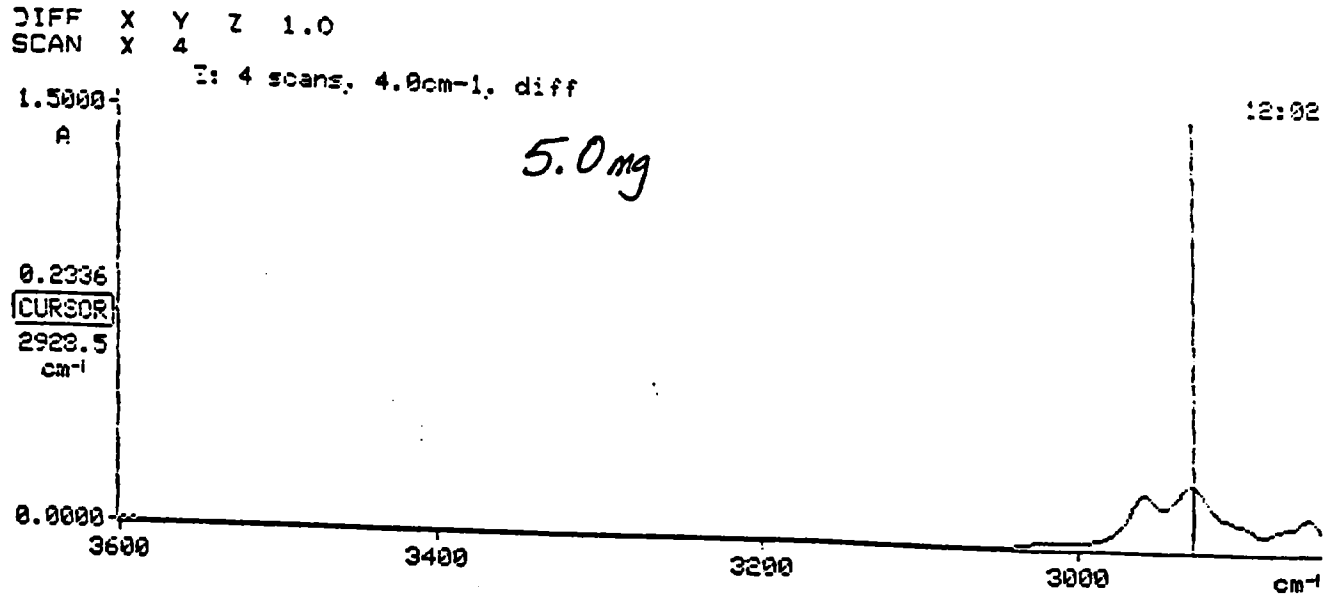
✓ sec 5/18/94

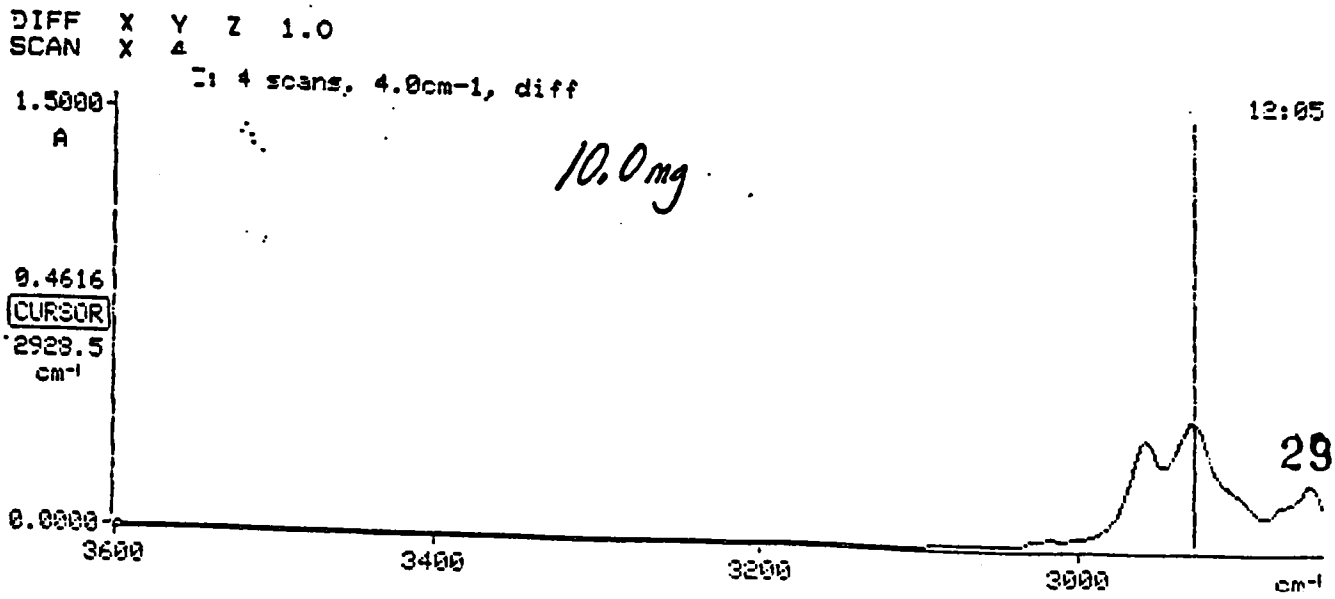
✓ data input DB 5/18/94

TPH curve 3/10/

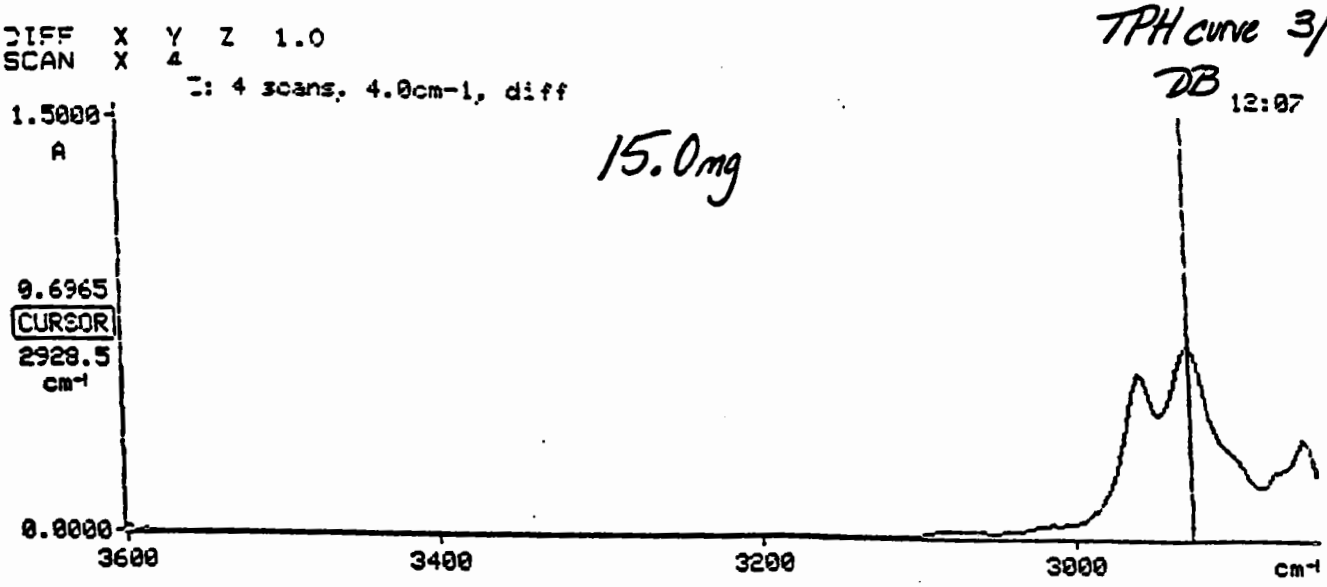
DB

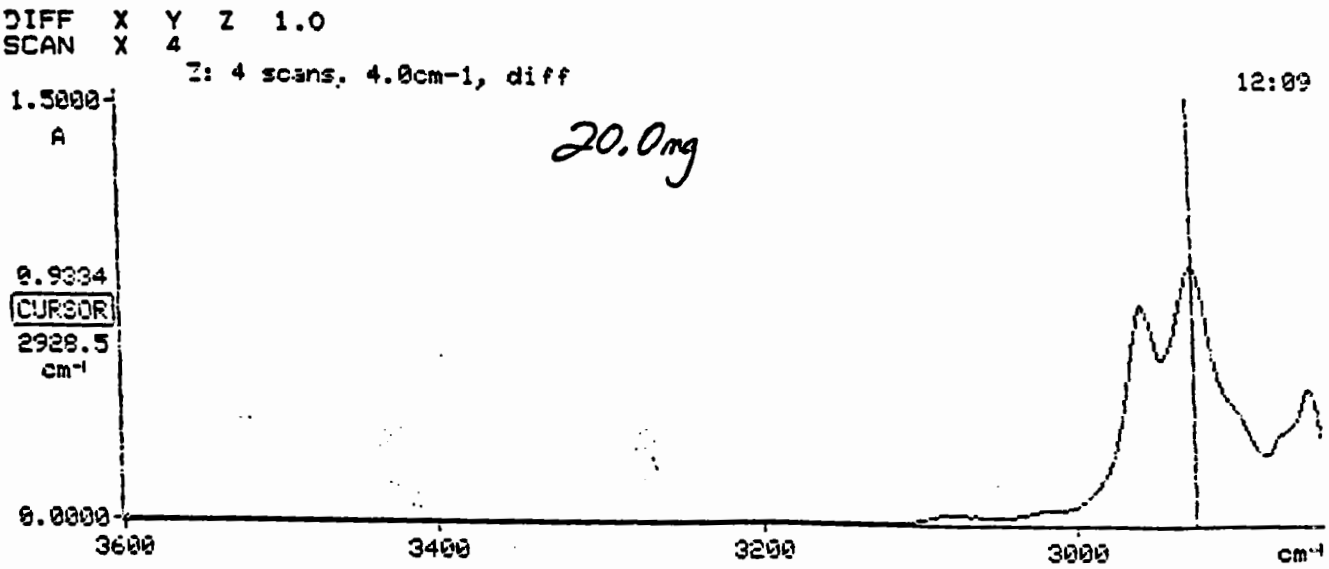


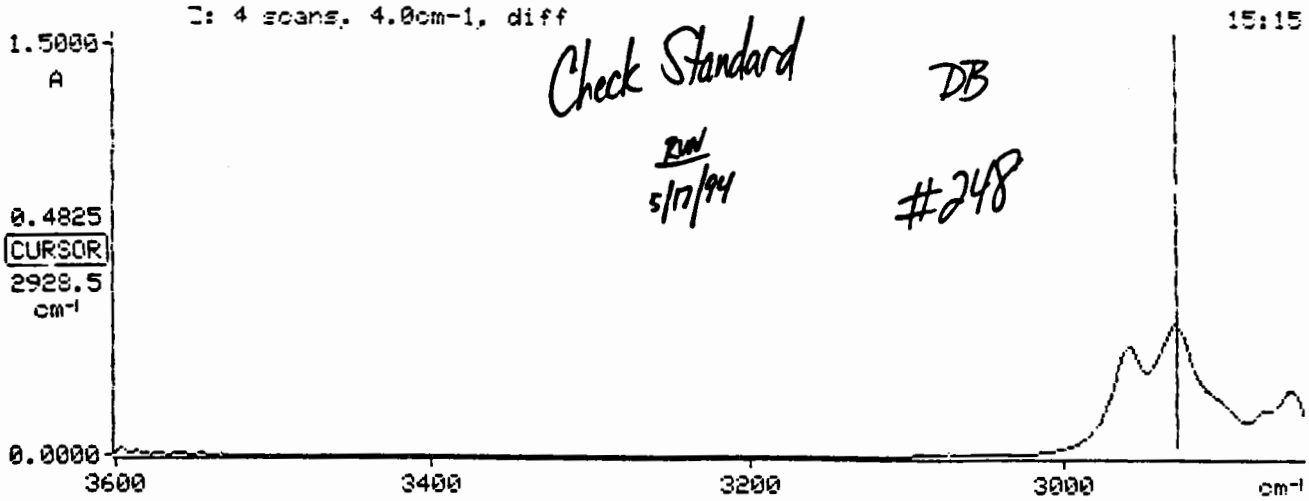




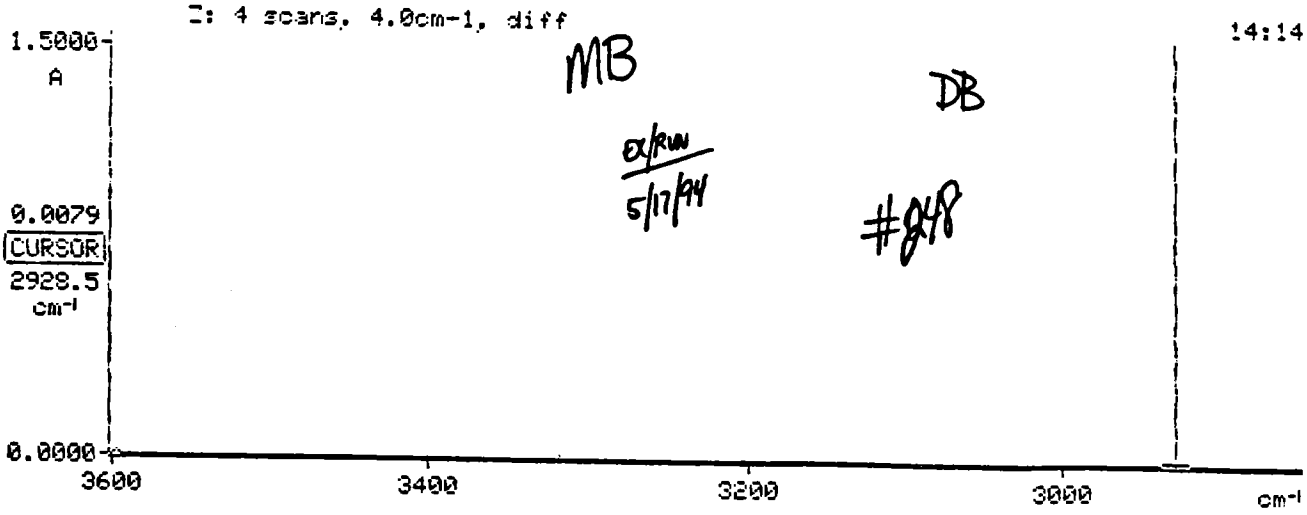
TPH curve 3/10/94
DB



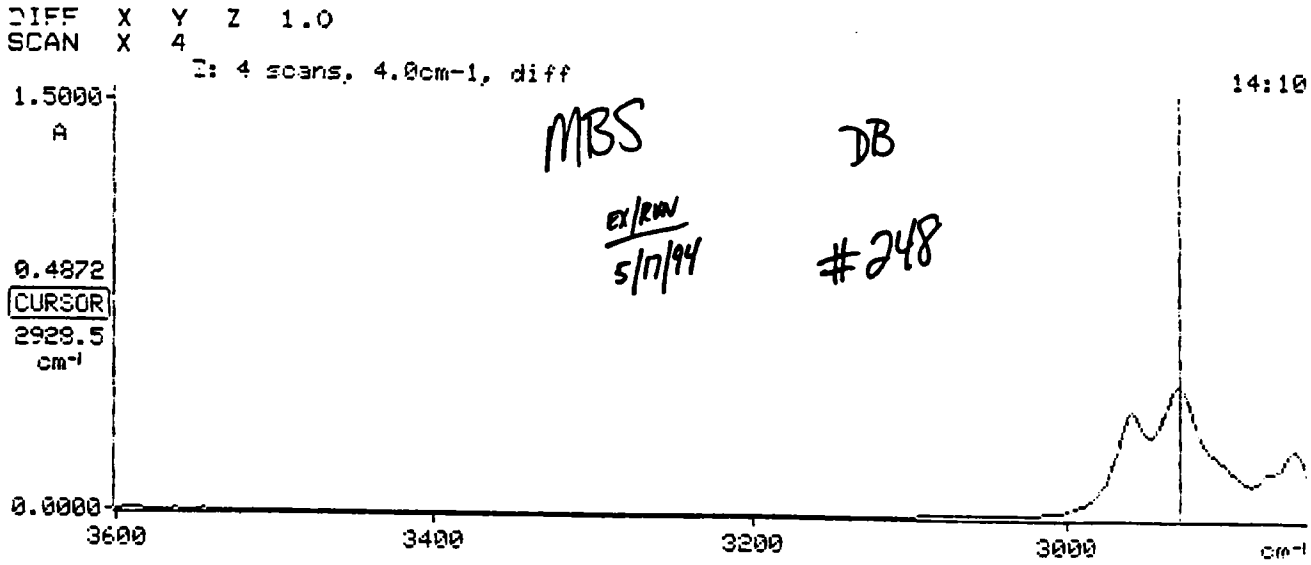



1: 4 scans, 4.0cm-1, diff
15:15
1.5000
A
0.4825
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
DB
5/17/94
#248

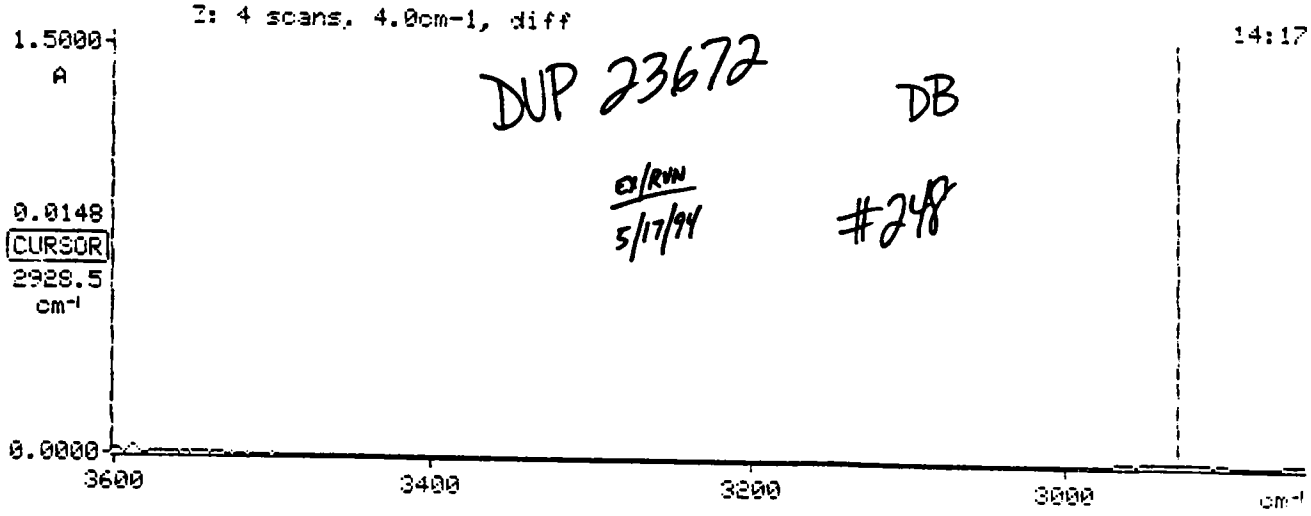
DIFF X Y Z 1.0
SCAN X 4



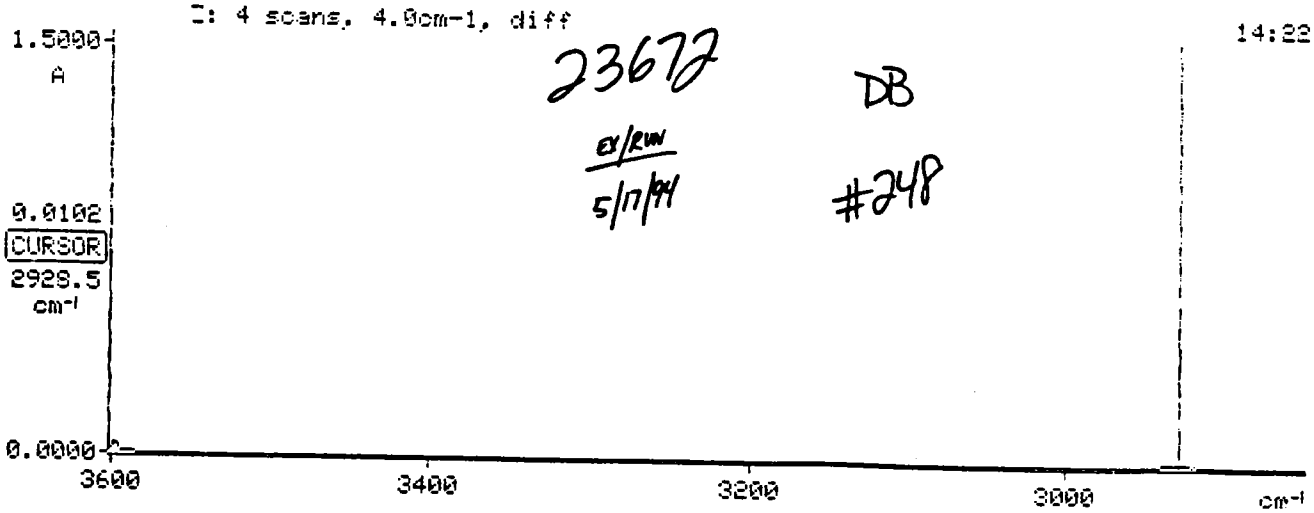
DIFF X Y Z 1.0
SCAN X 4

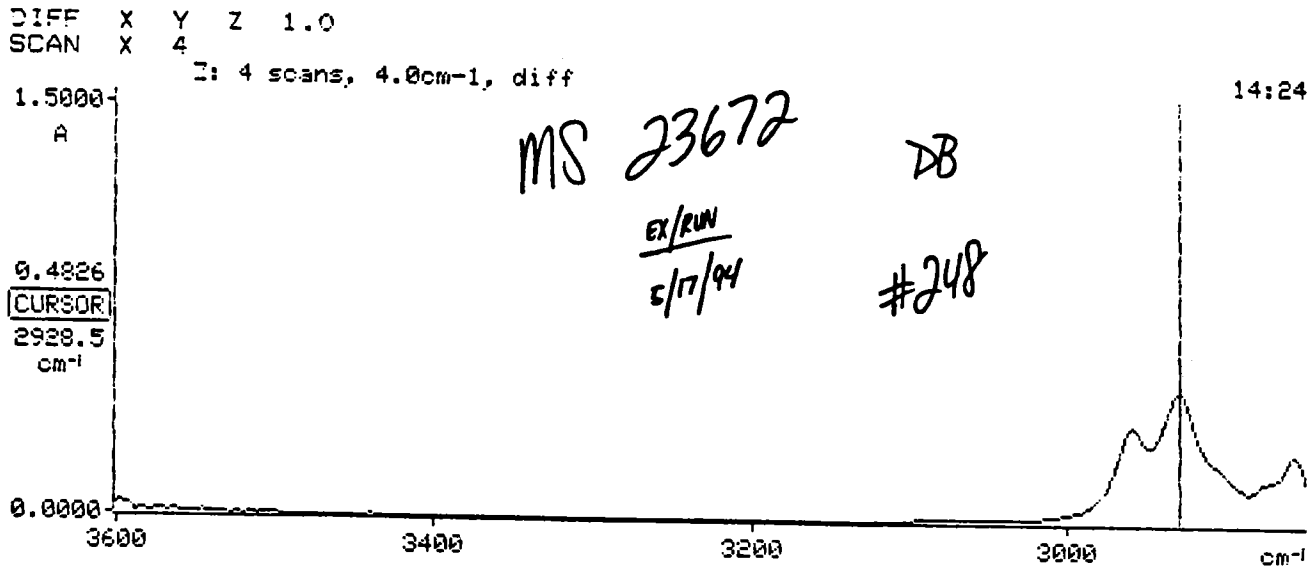

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:10
1.5000
A
0.4872
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MBS
DB
EX/RAN
5/17/94
#248

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff

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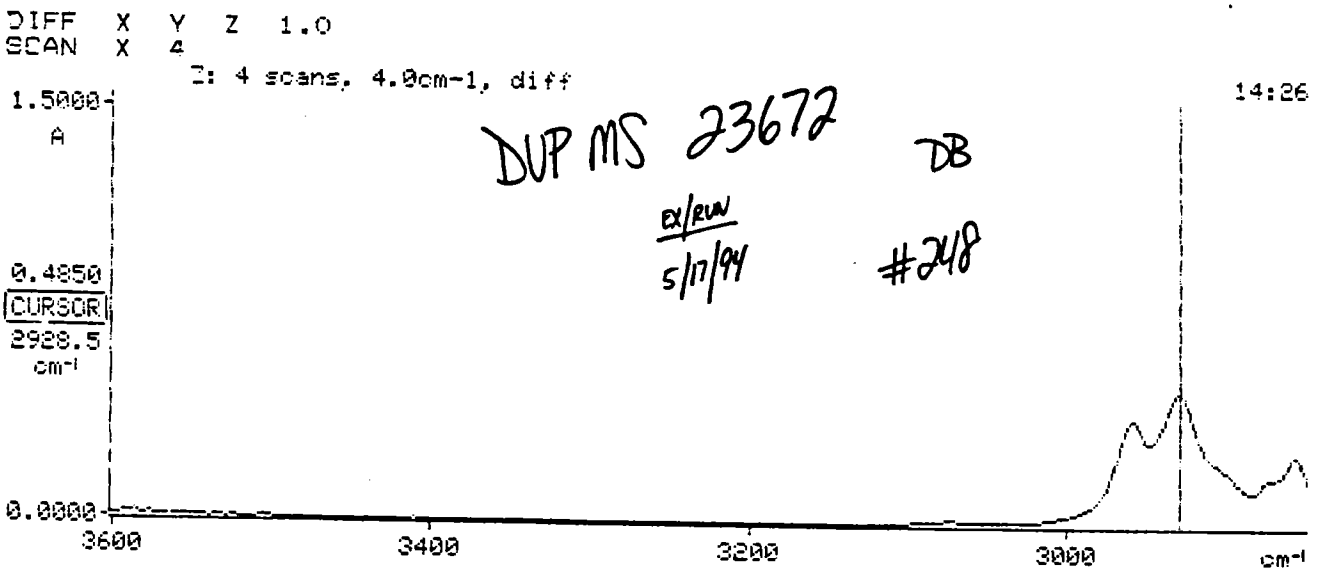
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:24
1.5000
A
0.4826
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MS 23672
DB
EX/RUN
5/17/94
#248


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
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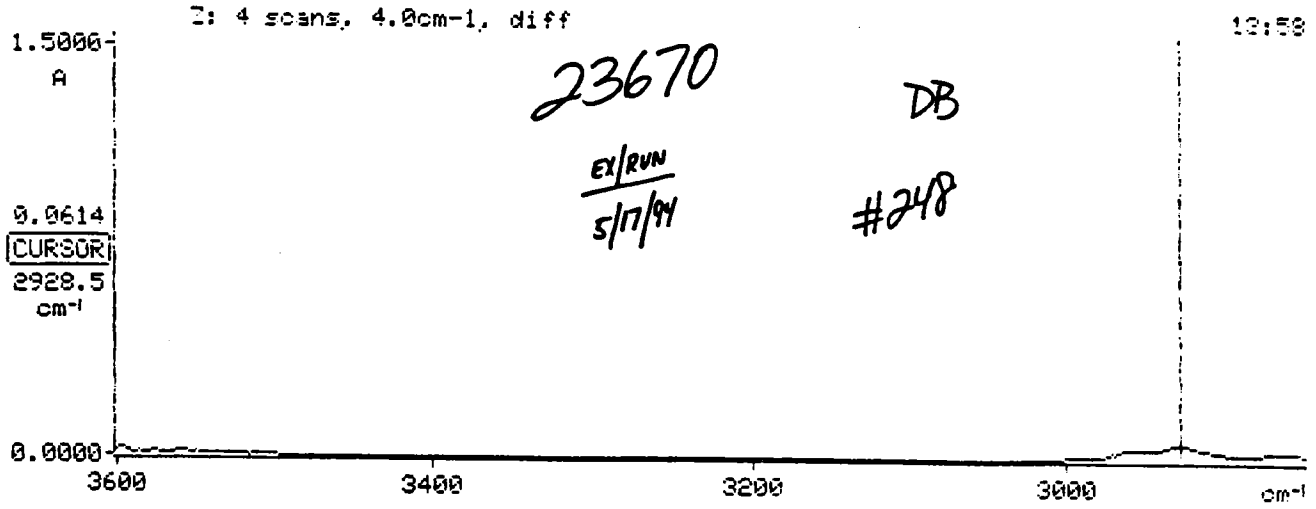
1.5000
A
0.4850
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
DUP MS 23672
DB
EX/RUN
5/17/94
#248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1.5000
A
23670
DB
EX/RUN
5/17/94
#248
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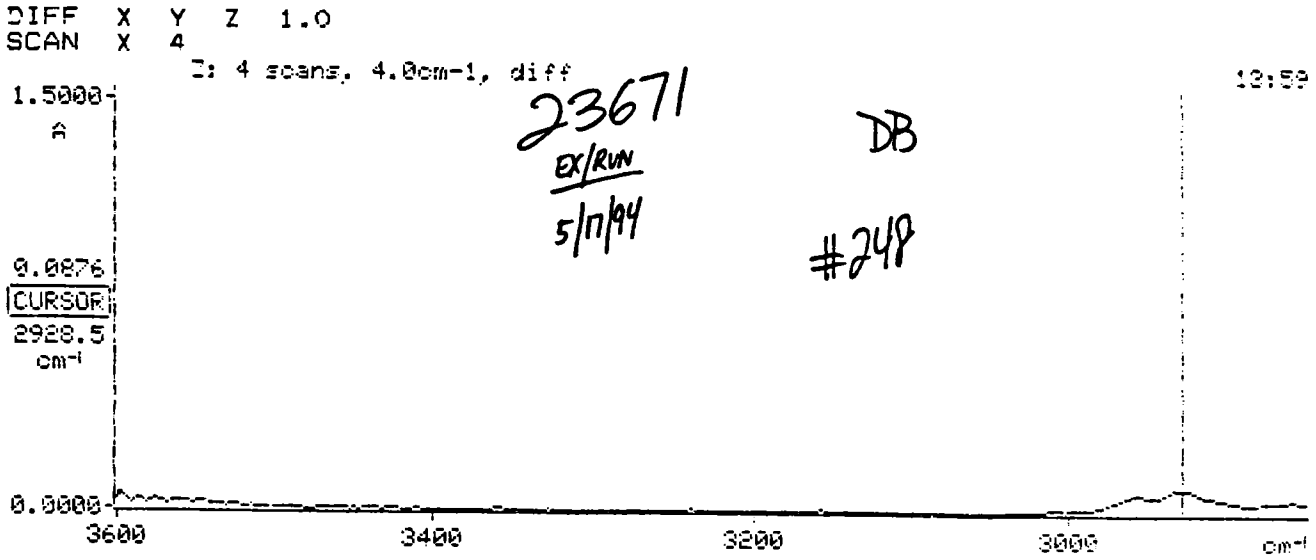
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1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SCAN X 4
I: 4 scans, 4.0cm-1, diff
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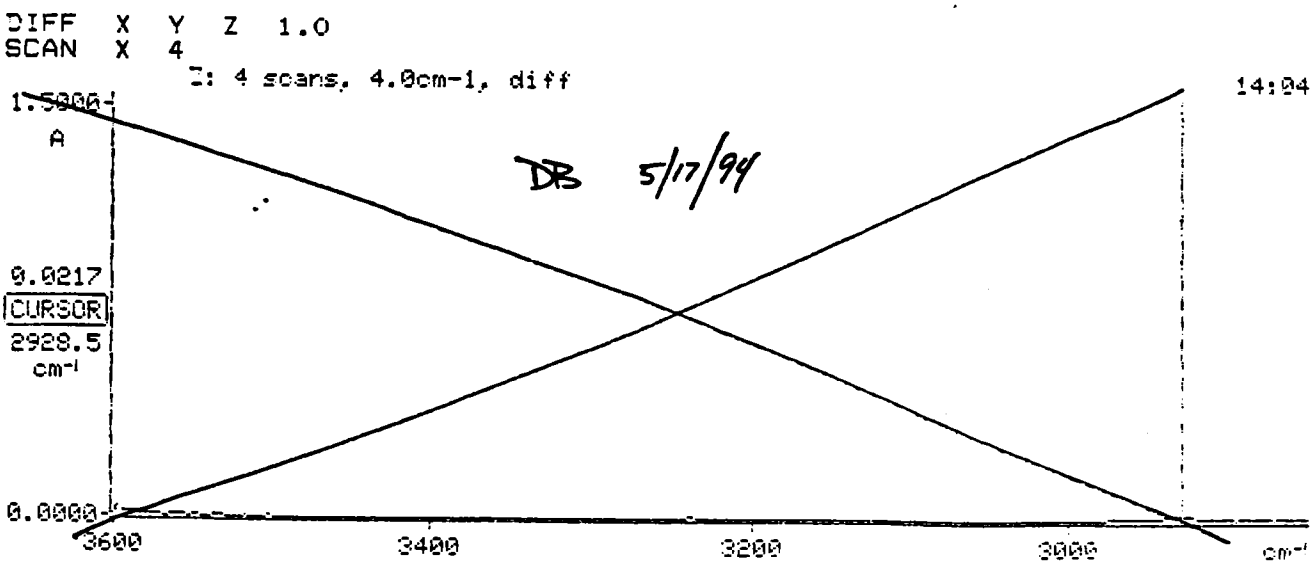
1.5000
A
23671
DB
EX/RUN
5/17/94
#248
0.0876
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1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SCAN X 4
I: 4 scans, 4.0cm-1, diff
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A
DB 5/17/94
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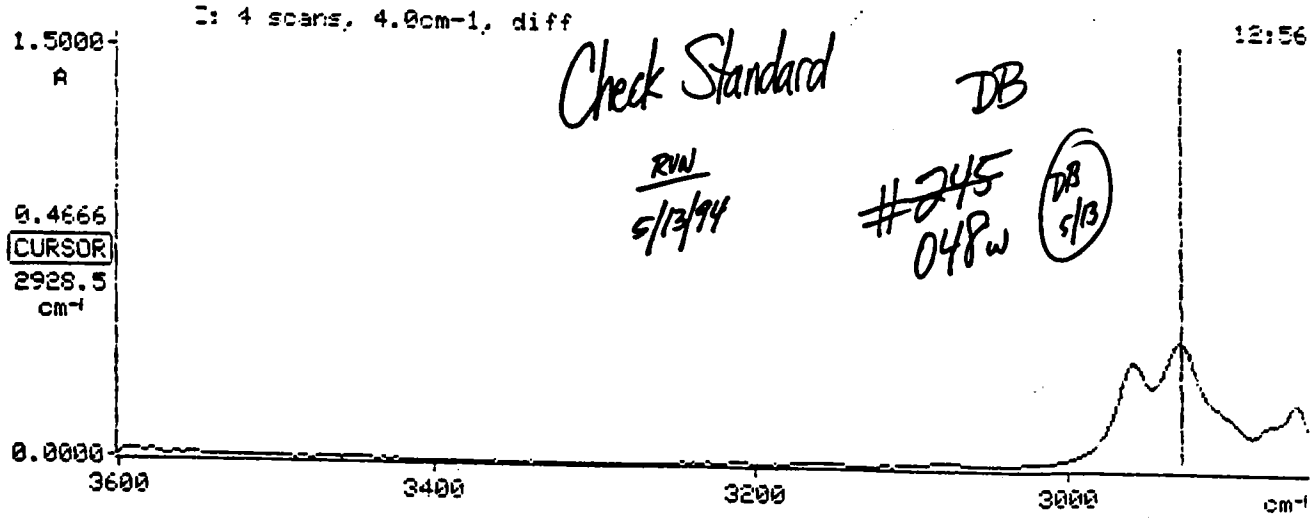
cm-1
0.0000
3600
3400
3200
3000
cm-1


I: 4 scans, 4.0cm-1, diff
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1.5000
A
0.4666
CURSOR
2928.5
cm-1
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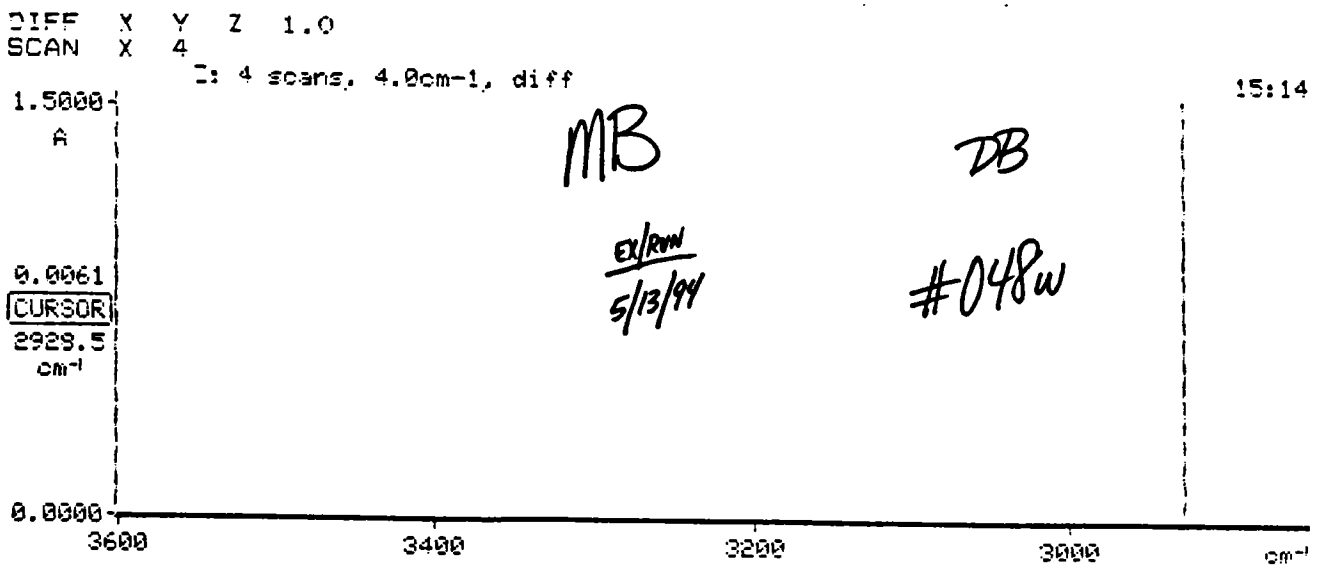
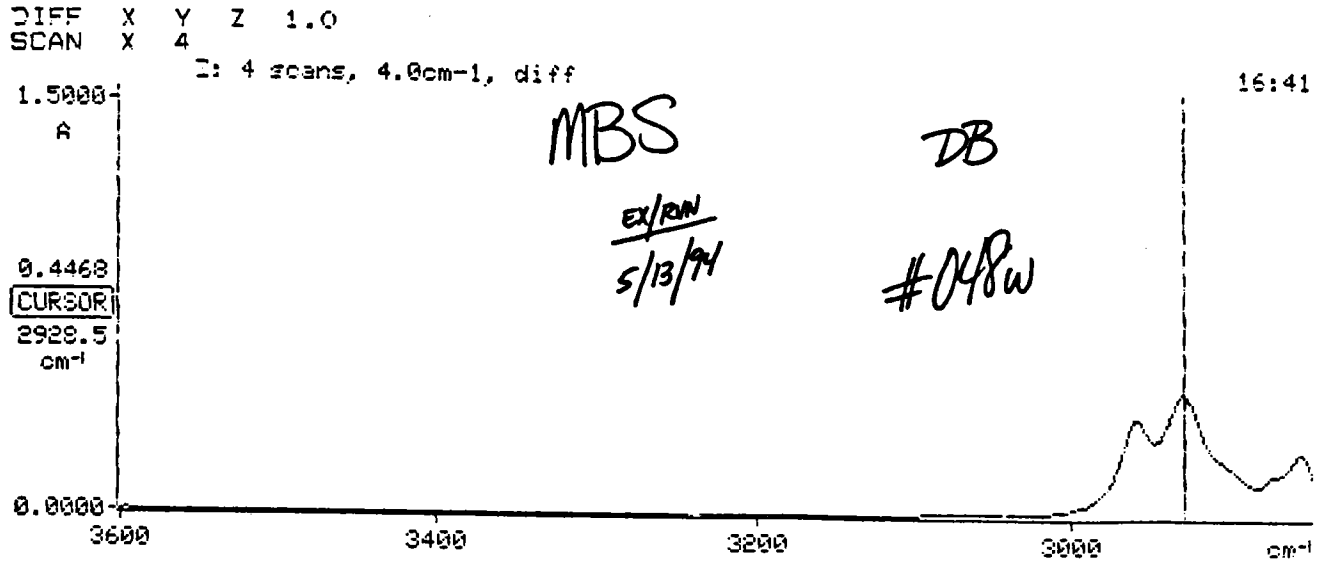
3600
3400
3200
3000
cm-1
Check Standard
RVW
5/13/94
DB
#245
048w
DB
5/13


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:14
1.5000
A
0.0061
CURSOR
2929.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
DB
EX/RAW
5/13/94
#048W


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:41
1.5000
A
MBS
DB
EX/RAW
5/13/94
#048W
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CURSOR
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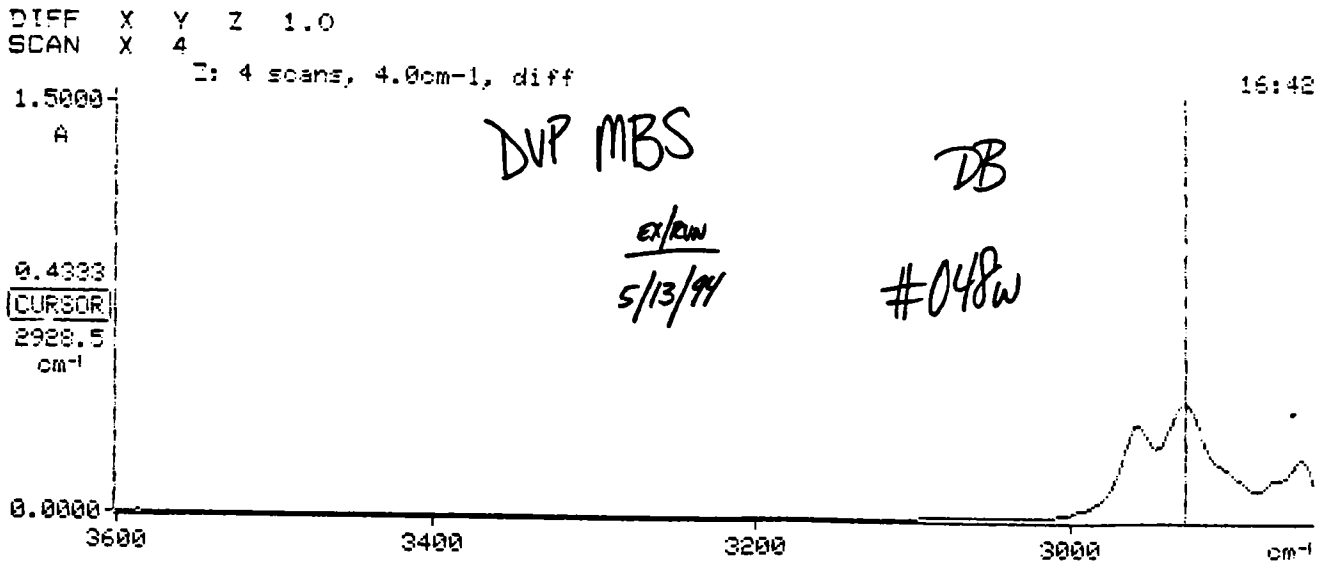
cm-1
0.0000
3600
3400
3200
3000
cm-1


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:42
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A
DUP MBS
DB
EX/RAW
5/13/94
#048W
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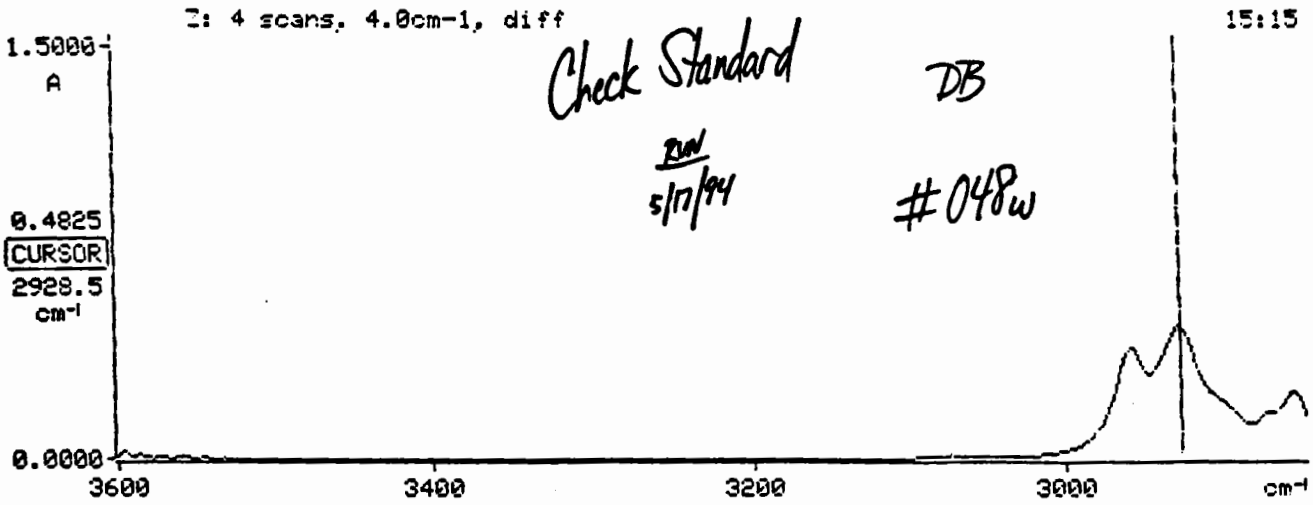
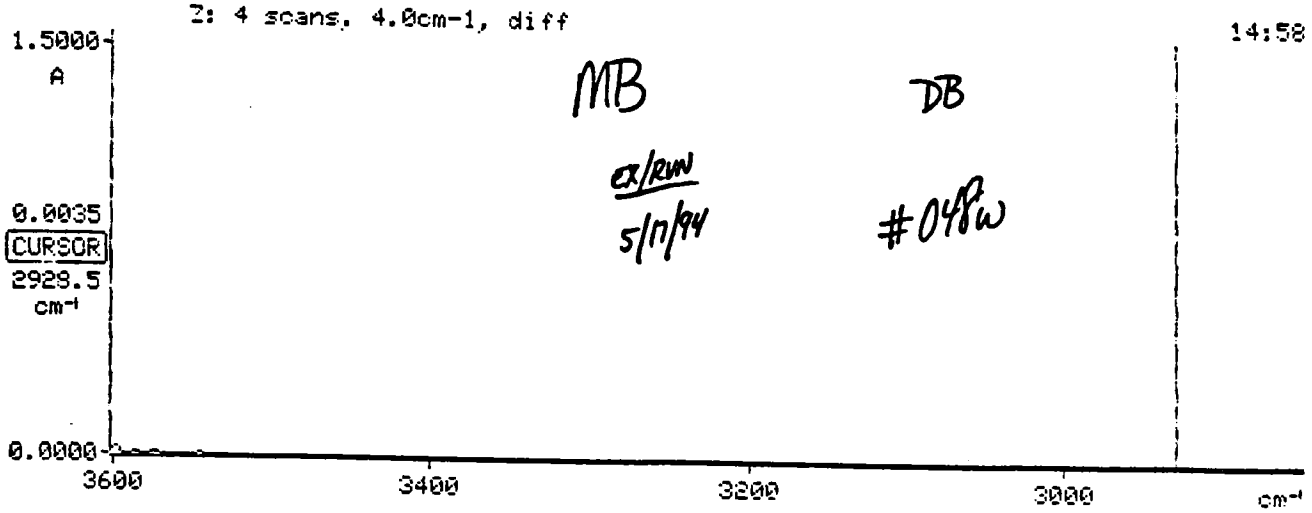
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1


I: 4 scans, 4.0cm-1, diff
15:15
1.5000
A
0.4825
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
DB
5/17/94
#048w

DIFF X Y Z 1.0
SCAN X 4

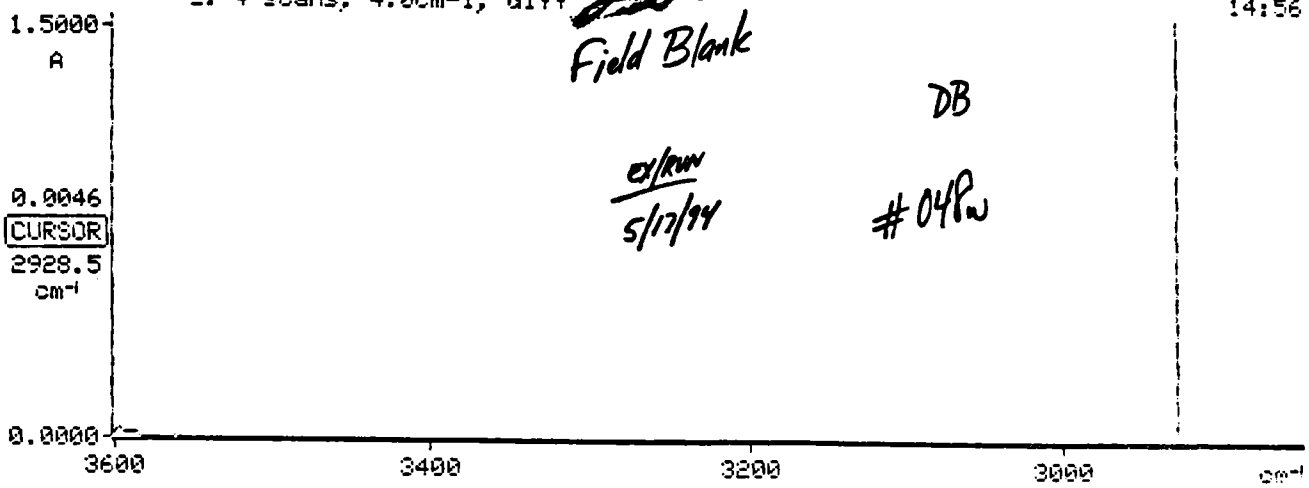


DIFF X Y Z 1.0
SCAN X 4

DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

Z: 4 scans, 4.0cm-1, diff ~~23613~~ Field Blank

14:56



DB

ex/run
5/17/94

#04Pw

No. 8

May 25, 1994 Soil Samples
(UST 566/1)

566

veritech
Division of Hampton-Clarke, Inc.
environmental and analytical services

ENVIRO-TECH, INC.
NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA23841-AA23849

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER Cert. #68-463, MA Cert. #NJ386
NYDOH Cert. #11408, NC Cert. #455

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

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VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
566-1	AA23841
566-2	AA23842
566-3	AA23843
566-4	AA23844
566-5	AA23845
566-6	AA23846
566-7	AA23847
566-8	AA23848
FIELD BLANK	AA23849

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: *(Signature)* [illegible] Date Shipped _____ Carrier GDM

Phone 908-566-2277 Airbill No. _____ Cooler No. _____

SHIP TO:

VERITECH

ATTENTION: _____

SEND RESULTS TO:

Client Name _____

Company ENVIRO-TECH, INC.

Address 247 MAIN ST.
MATAWAN, NJ

Phone 908-566-2277

PROJECT NAME EARL AMMO **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Military Time
D. Miller	Gerard DiMizio	5/26/94	1000
Relinquished by: *(Signature)*	Received by: *(Signature)*	Date	Military Time
Gerard DiMizio		5/26/94	1200
Relinquished by: *(Signature)*	Received at lab by: *(Signature)*	Date	Military Time
Relinquished from lab by: *(Signature)*	Received by: *(Signature)*	Date	Military Time

ANALYSIS REQUEST

	Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt	
2	566-1	Soil	5/25/94	15:40	TPH* VOT10, TOTAL XYLENE	Cool	AA23841
2	566-2			15:43			23842
2	566-3			15:48			23843
2	566-4			15:50			23844
2	566-5			15:52			23845
2	566-6			15:54			23846
2	566-7			15:56			23847
2	566-8			16:00			23848
3-	FIELD BLANK	AQUEOUS		15:30			23849

Special Instructions/Comments:

* PLEASE ANALYZE SAMPLES FOR TPH FIRST. IF RESULTS SHOW CONCENTRATION GREATER THAN 1,000 PPM, PLEASE CONTACT ETI OFFICE FOR AUTHORIZATION OF ADDITIONAL ANALYSES.

LP. Cooler temp 0.4

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) _____ Standard

02

GDM-010

Sample Custodians Chain of Custody

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
PCB	150	sample Frig	5/26	10:15	Tracy Crane
TPH	23811-13	3	5/26	10:40	[illegible]
TCN	23809	3	5/26	10:45	Dan Batelli
BNA	23808	3	5/26	1:40	Tracy Crane
TPH Solids	566-1-8	Sample Frig	5/26	12:40	[illegible]
TPH-W	Log Book	Sample Frig	5/26	1:00	[illegible]
pH	DTT 1-2	Sample Table	5/26	3:25	[illegible]
TD-WI, WD	23276-23278	3	5/26/94	3:25	S. Parthan
↓	23789, ~~2335~~	↓	↓	↓	↓
	22754, 22755	Metals table			
metals	23011-26	3	5/27	9:00	Tracy Crane
COD	23850, 23862	Sample Frig	5/27	9:15	Dan Batelli
Cl⁻ Fluoride Nitrate Cond.	23814-17 & 23	3	5/27	10:00	[illegible]
TPH GC	23829	"	"	"	[illegible]
TCLP	22501, 7071	3	5/27	2:19	[illegible]
GC/MS, TCLP	23700-23704	3	"	2:51	[illegible]
GC/MS	23705, 23707	3	5/27	6:33	[illegible]
TD-W Hg	23010, 23113-114, 125, 22493-496, 23370, 23347-349, 23566, 23717, 23568, 23726, 23493-498	3 and from Case (TCLP extracts)	5/28		
↓					

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
PCB	150	sample Frig	5/26	10:30	Tracy Crane
TPH-W	23811-13, ~~23~~ 199	sample Refrig			
BNA	23808	3	5/26	2:20	Tracy Crane
pH	DTT 1-2	Sample Frig	5/26	3:35	[illegible]
TPH Solids	23501-12	3	5/26	3:40	[illegible]
TPH, Solids	566-162	Sample Frig	5/26	3:40	[illegible]
TD WI, WD	23276-23278, 23789	3	5/26/94	4:30	S. Parthan
↓	22754, 22755	Metals table	↓	↓	↓
metals	23011-26	3	5/27	6:00	Tracy Crane
COD	23850, 23862	3	5/27	11:10	Dan Batelli
Cl⁻ Fluoride NO₃⁻	23814-17 & 23	3	5/27	4:45	[illegible]
Cond. TPH GC	23829	"	"	"	"
TCLP	22501, 7071	3	5/27	5:15	[illegible]
TD W Hg	23010, 23113-114, 125, 22493-496, 23370, 23347-349, 23566, 23717, 23568, 23726, 23493→498	3 and			
TPH	23860-61-70-75	3	5/28	8:00	[illegible]
"	23828-26-32-33-34-35	"	"	"	"

47 Carey Avenue • Butler, NJ 07405

Phone: (201) 492-8744 Fax: (201) 492-1815

VERITECH INTERNAL CHAIN OF CUSTODY RECORD
REFRIGERATOR NO 2

PARAMETER & FROM/TO REFRIG	SAMPLE NUMBER	DATE OUT	TIME OUT	DATE IN *	TIME IN *	SIGNATURE
METALS TD-51	AA 23662 - AA 23668	5/24/94	4:05			S. Parathan
GC/MS	AA 23662 ~ 23668 (from Metal)			5/24/94	4:19	
"	23666, 23663, 23665	5/24/94	4:38	"	4:46	
"	23669	"	5:16			
"	23662, 23663, 23787, 23788	"	6:09	5/24/94	6:19	
"	23667, 23668, 23543, 23546	"	6:13	"	6:30	
"	23436, 23438, 23786	"	6:41	"	6:51	
TPH	23397, 98	5/25	11:15			Tracy Crane
GC/MS	23676, 23543, 23631	"	3:03	5/25/94	3:10	
"	23632	"	5:45			
"	23619, 23620	"	5:52	5/25/94	5:58	
"	23622 ~ 23627	"	6:03	"	6:13	
"	23631, 23546	"	6:31	"	6:48	
"	23691, 23699 (dilute Run)	5/26/94	5:13	5/26/94	5:50	
"	23687 ~ 23689, 23696	"	6:21	"	6:33	
"	23686, 23690, 23717, 23698	"	6:40	"	6:55	
"	23691 ~ 23695, 23697	"	7:02	"	7:17	
"	~~23693 ~ 5/27/94~~ 23696	5/27/94	3:43	5/27/94	3:47	
"	23691, 23699	"	4:21			
"	23707, 23708	"	5:11	5/27/94	5:30	
"	23701 ~ 23704	"	6:02	"	6:10	
"	23705, 23706, 23709, 23707	"	6:33	"	6:44	
"	23845, 23847	5/31/94	12:45	5/31/94	12:56	
"	23849	"	3:11			
"	23725, 23815	"	3:27	5/31/94	3:33	
"	23704, 23705, 23711 ~ 23714	"	4:47	"	4:59	
"	23815, 23725, 23722	"	6:40	"	6:55	
Wetlab	23869 - 74	6/1/94	9:00			D. Patelle
TD-51	23234 - 54	6/1/94	9:30			Tracy Crane
GC/MS	AA 23809, 23810 ~ 23813, 23820 AA 23836	"	1:55			
GC/MS	23864 ~ 23868	"	3:15	6/01/94	3:18	
"	23863	"	3:55	"	4:01	
"	~~6/01/94 23810~~ ~ 23814	"	4:03			
"	23845 ~ 23900	"	4:13			
PCB	23717	"	4:40			Tracy Crane

COMMENTS: * Aqueous samples are not logged back into the refrigerator

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:18

Sample I.D. AA23841
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	77	PERCENT	05/26/94	MC
TPH-SOIL	Not detected	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23841

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:19

Sample I.D. AA23842
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	83	PERCENT	05/26/94	MC
TPH-SOIL	34	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23842

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:20

Sample I.D. AA23843
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	88	PERCENT	05/26/94	MC
TPH-SOIL	Not detected	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23843

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:20

Sample I.D. AA23844
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	85	PERCENT	05/26/94	MC
TPH-SOIL	Not detected	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23844

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:21

Sample I.D. AA23845
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-5 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	83	PERCENT	05/26/94	MC
TPH-SOIL	2800	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG
VOLATILES + 10	Completed	ATTACHED	05/31/94	YS

End of progress report on sample: AA23845

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:21

Sample I.D. AA23846
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-6 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	87	PERCENT	05/26/94	MC
TPH-SOIL	30	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23846

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:22

Sample I.D. AA23847
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-7 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	86	PERCENT	05/26/94	MC
TPH-SOIL	1300	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG
VOLATILES + 10	Completed	ATTACHED	05/31/94	YS

End of progress report on sample: AA23847

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:23

Sample I.D. AA23848
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 2

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: 566-8 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	82	PERCENT	05/26/94	MC
TPH-SOIL	39	mg/kg dry wt	05/26/94	MC
TPH EXTRACTION	Completed		05/26/94	SG

End of progress report on sample: AA23848

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 06-08-1994 Time: 11:29:23

Sample I.D. AA23849
Status: Complete and inactive
Priority:
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 05/25/94
Date submitted: 05/26/94
Due date: 06/08/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	05/26/94	SG
TPH EXTRACTION	Completed		05/26/94	SG
VOLATILES + 10	Completed	ATTACHED	05/31/94	YS

End of progress report on sample: AA23849

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

CLIENT: ENVIRO PROJECT: EARL
ANALYSIS: VOLATILE

	NO	YES
1. GC/MS Tune Specifications		
a. BFB passed	___	_X_
b. DFTPP passed	___	___
2. GC/MS Tuning Frequency - performed every 12 hours	___	_X_
3. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hours before sample analysis.	___	_X_
4. GC/MS Calibration Requirements		
a. Calibration Check Compounds	___	_X_
b. System Performance Check Compounds	___	_X_
5. Blank Contamination - List compounds for each fraction		
a. VOA Fraction See Form 1.		
b. B/N Fraction		
c. Acid Fraction		
6. Surrogate Recoveries Meet Criteria (If not met; list those compounds and their recoveries which fall outside the acceptable range)	___	_X_
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
7. Extraction Holding Time Met	___	___
Comments:		
8. Analysis Holding Time Met	___	___
Comments:		

Additional Comments: _____

Organics Director _____ Date: 06/02/94

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: Deborah A. Keller Date: 5/27/94

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - American Society for Testing & Materials (ASTM), D2361-91, June 1991.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405

CT. NO: PH-0671
MADEP NO: NJ386
PADER NO: 68-463
NJDEPE NO: 14622
NYDOH NO: 11408

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 05/25/94
Date Submitted: 05/26/94
Date Reported: 06/08/94
Project: EARL

Sample I.D.		AA23841		AA23842	
Sample Description		566-1 SOIL		566-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	77	1.0	83
TPH-SOIL	mg/kg dry wt	26	Not detected	24	34
TPH-WATER					
VOLATILES + 10					

Sample I.D.		AA23843		AA23844	
Sample Description		566-3 SOIL		566-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	88	1.0	85
TPH-SOIL	mg/kg dry wt	23	Not detected	24	Not detected
TPH-WATER					
VOLATILES + 10					

Sample I.D.		AA23845		AA23846	
Sample Description		566-5 SOIL		566-6 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	83	1.0	87
TPH-SOIL	mg/kg dry wt	48	2800	23	30
TPH-WATER					
VOLATILES + 10	ATTACHED		Completed		

Sample I.D.		AA23847		AA23848	
Sample Description		566-7 SOIL		566-8 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	86	1.0	82
TPH-SOIL	mg/kg dry wt	23	1300	24	39
TPH-WATER					

Sample I.D.		AA23847		AA23848	
Sample Description		566-7 SOIL		566-8 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
TPH-WATER					
VOLATILES + 10	ATTACHED		Completed		

Sample I.D.		AA23849	
Sample Description		FIELD BLANK	
Analyte	**Units**	**MDL**	**Result**
%SOLIDS			
TPH-SOIL			
TPH-WATER	mg/L	4.1	Not detected
VOLATILES + 10	ATTACHED		Completed

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID :
Date Rcvd/Extd:
Sample Matrix : Soil
Percent Solid : 100
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : DAILY BL
Lab File ID : >E0618
Date Analyzed : 05/31/94
Dilution Factor: 125
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	1300	U
74839	Bromomethane	1300	U
75014	Vinyl Chloride	630	U
75003	Chloroethane	1300	U
75092	Methylene Chloride	250	550
67641	Acetone	2500	U
75150	Carbon Disulfide	630	U
75694	Trichlorofluoromethane	630	U
75354	1,1-Dichloroethene	250	U
75343	1,1-Dichloroethane	630	U
156605	Trans-1,2-Dichloroethene	630	U
67663	Chloroform	630	U
107062	1,2-Dichloroethane	250	U
78933	2-Butanone	3100	U
71556	1,1,1-Trichloroethane	630	U
56235	Carbon Tetrachloride	250	U
108054	Vinyl Acetate	1300	U
75274	Bromodichloromethane	130	U
78875	1,2-Dichloropropane	130	U
10061015	cis-1,3-Dichloropropene	630	U
79016	Trichloroethene	130	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	630	U
79005	1,1,2-Trichloroethane	380	U
71432	Benzene	130	U
10061026	Trans-1,3-Dichloropropene	630	U
110758	2-Chloroethylvinylether	1300	U
75252	Bromoform	500	U
108101	4-Methyl-2-Pentanone	3100	U
591786	2-Hexanone	2500	U
127184	Tetrachloroethene	130	U
79345	1,1,2,2-Tetrachloroethane	250	U
108883	Toluene	630	U
108907	Chlorobenzene	500	U
100414	Ethylbenzene	630	U
100425	Styrene	630	U
108383	m&p-Xylenes	630	U
95476	o-Xylene	630	U
541731	1,3-Dichlorobenzene	630	U
95501	1,2-Dichlorobenzene	630	U
106467	1,4-Dichlorobenzene	630	U
1634044	Methyl-t-butyl ether	630	U
108203	Di-isopropyl-ether	630	U
75650	t-Butyl Alcohol	13000	U

TARGET COMPOUND SUMMARY: 550

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.

DAILY BLK(M

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: DAILY BLK(M

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >E0618

Level: (low/med) MED

Date Received:

% Solid: 100

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 125

Number of TICs found: 0

CONCENTRATION UNITS: ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0618::QT
Data File: >E0618::D2
Name: DAILY BLK(MEOH)
Misc: A,FOR MEOH EXT

Quant Rev: 7
Quant Time: 940531 13:17
Injected at: 940531 12:52
Dilution Factor: 1.00000
Instrument ID: MSD_1

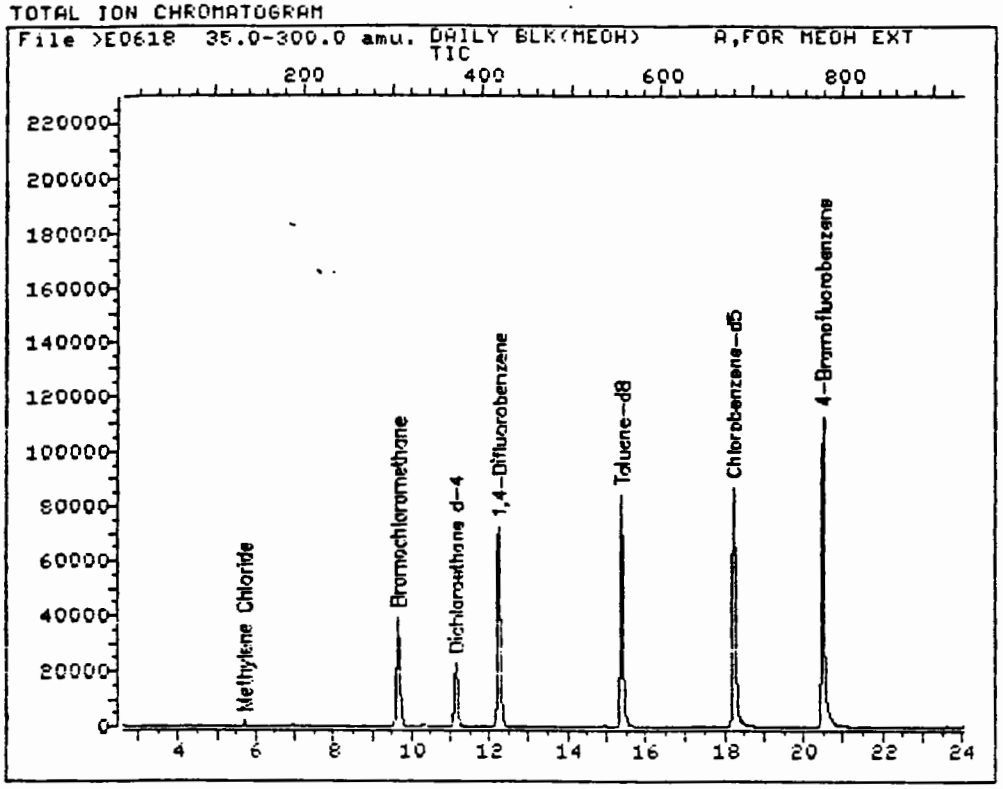
ID File: IDWVO1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20
Last Qcal Time: 940531 11:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.65	307	33619	50.00	ug/L	98
9)	Methylene Chloride	5.70	135	2582	4.42	ug/L	98
19)	1,2-Dichloroethane-d4	11.14	372	10052	47.84	ug/L	94
28)	*1,4-Difluorobenzene	12.24	420	163570	50.00	ug/L	96
39)	*Chlorobenzene-d5	18.21	680	147029	50.00	ug/L	94
46)	Toluene d-8	15.39	557	154813	50.64	ug/L	93
53)	Bromofluorobenzene	20.49	779	124887	50.74	ug/L	99

* Compound is ISTD

6/02/94

TOTAL ION CHROMATOGRAM



Data File: >E0618::D2 Quant Output File: ^E0618::QT
Name: DAILY BLK(MEOH) Instrument ID: MSD_1
Misc: A,FOR MEOH EXT

Id File: IDWU01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20 Last Qcal Time: 940531 11:53

Operator ID: LIN
Quant Time : 940531 13:17
Injected at: 940531 12:52

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID :
Date Rcvd/Extd:
Sample Matrix : Soil
Percent Solid : 100
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : DAILY BL
Lab File ID : >E0619
Date Analyzed : 05/31/94
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U	124481	Dibromochloromethane	5	U
74839	Bromomethane	10	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	5	U	71432	Benzene	1	U
75003	Chloroethane	10	U	10061026	Trans-1,3-Dichloropropene	5	U
75092	Methylene Chloride	2	4	110758	2-Chloroethylvinylether	10	U
67641	Acetone	20	U	75252	Bromoform	4	U
75150	Carbon Disulfide	5	U	108101	4-Methyl-2-Pentanone	25	U
75694	Trichlorofluoromethane	5	U	591786	2-Hexanone	20	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	U
75343	1,1-Dichloroethane	5	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	5	U	108883	Toluene	5	U
67663	Chloroform	5	U	108907	Chlorobenzene	4	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	5	U
78933	2-Butanone	25	U	100425	Styrene	5	U
71556	1,1,1-Trichloroethane	5	U	108383	m&p-Xylenes	5	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	5	U
108054	Vinyl Acetate	10	U	541731	1,3-Dichlorobenzene	5	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	5	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	5	U
10061015	cis-1,3-Dichloropropene	5	U	1634044	Methyl-t-butyl ether	5	U
79016	Trichloroethene	1	U	108203	Di-isopropyl-ether	5	U
				75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 4

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
DAILY BLK(S

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: DAILY BLK(S

Sample wt/vol: 5.0(g/ml) g

Lab File ID: >E0619

Level: (low/med) LOW

Date Received:

% Solid: 100

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 0

CONCENTRATION UNITS:
ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0619::QT
Data File: >E0619::D2
Name: DAILY BLK(S)
Misc: A,FOR SOIL

Quant Rev: 7
Quant Time: 940531 13:47
Injected at: 940531 13:22
Dilution Factor: 1.00000
Instrument ID: MSD_1

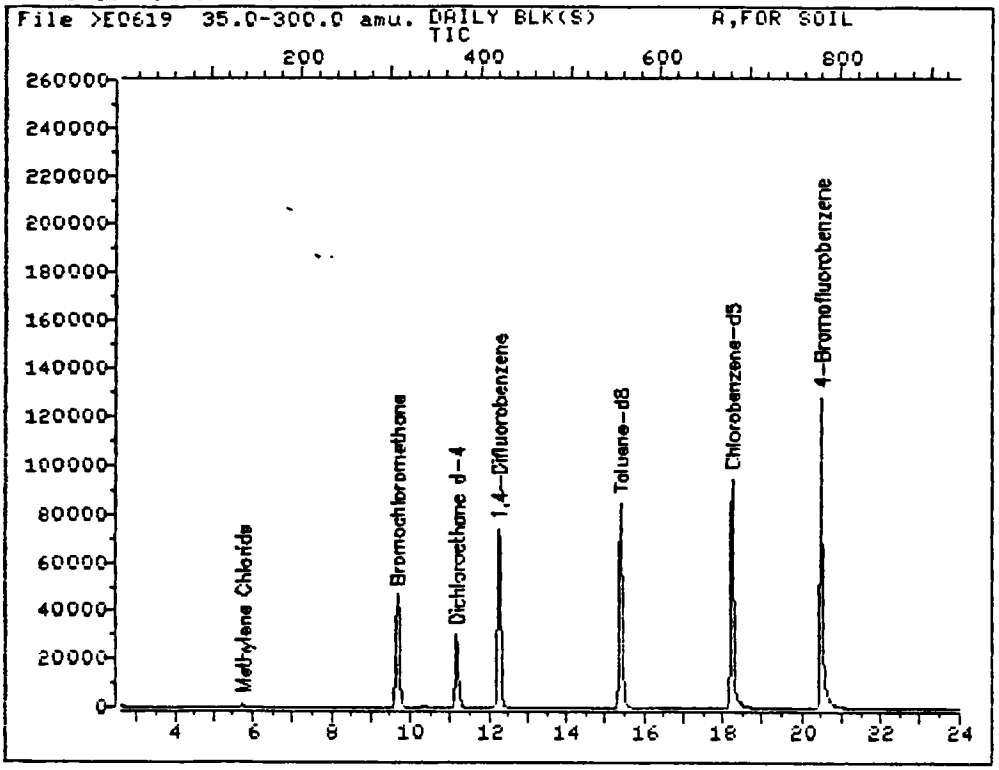
ID File: IDSVO1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 16:37
Last Qcal Time: 940531 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.67	308	40222	50.00	ug/L	92
9)	Methylene Chloride	5.76	138	2297	3.62	ug/L	87
19)	1,2-Dichloroethane-d4	11.16	373	12233	46.82	ug/L	94
28)	*1,4-Difluorobenzene	12.24	420	163116	50.00	ug/L	97
39)	*Chlorobenzene-d5	18.23	681	149122	50.00	ug/L	96
46)	Toluene d-8	15.39	557	154947	49.62	ug/L	96
53)	Bromofluorobenzene	20.48	779	138080	52.08	ug/L	96

* Compound is ISTD

5/02/94

TOTAL ION CHROMATOGRAM



Data File: >E0619::D2 Quant Output File: ^E0619::QT
Name: DAILY BLK(S) Instrument ID: MSD_1
Misc: A,FOR SOIL

Id File: IDSVO1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 16:37 Last Qcal Time: 940531 12:23

Operator ID: LIN
Quant Time : 940531 13:47
Injected at: 940531 13:22

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID :
Date Rcvd/Extd:
Sample Matrix : Water
Percent Solid : 0
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : DAILY BL
Lab File ID : >E0622
Date Analyzed : 05/31/94
Dilution Factor: 1
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/L (PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U
74839	Bromomethane	10	U
75014	Vinyl Chloride	5	U
75003	Chloroethane	10	U
75092	Methylene Chloride	2	4
67641	Acetone	20	U
75150	Carbon Disulfide	5	U
75694	Trichlorofluoromethane	5	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	5	U
156605	Trans-1,2-Dichloroethene	5	U
67663	Chloroform	5	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	25	U
71556	1,1,1-Trichloroethane	5	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	10	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	5	U
79016	Trichloroethene	1	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	5	U
79005	1,1,2-Trichloroethane	3	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	5	U
110758	2-Chloroethylvinylether	10	U
75252	Bromoform	4	U
108101	4-Methyl-2-Pentanone	25	U
591786	2-Hexanone	20	U
127184	Tetrachloroethene	1	U
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	5	U
108907	Chlorobenzene	4	U
100414	Ethylbenzene	5	U
100425	Styrene	5	U
108383	m&p-Xylenes	5	U
95476	o-Xylene	5	U
541731	1,3-Dichlorobenzene	5	U
95501	1,2-Dichlorobenzene	5	U
106467	1,4-Dichlorobenzene	5	U
1634044	Methyl-t-butyl ether	5	U
108203	Di-isopropyl-ether	5	U
75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 4

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
DAILY BLK(A

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: WATER

Lab Sample ID: DAILY BLK(A

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >E0622

Level: (low/med) LOW

Date Received:

% Solid: 0

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 0

CONCENTRATION UNITS:
ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0622::QT
Data File: >E0622::D2
Name: DAILY BLK(A)
Misc: A,FOR WATER

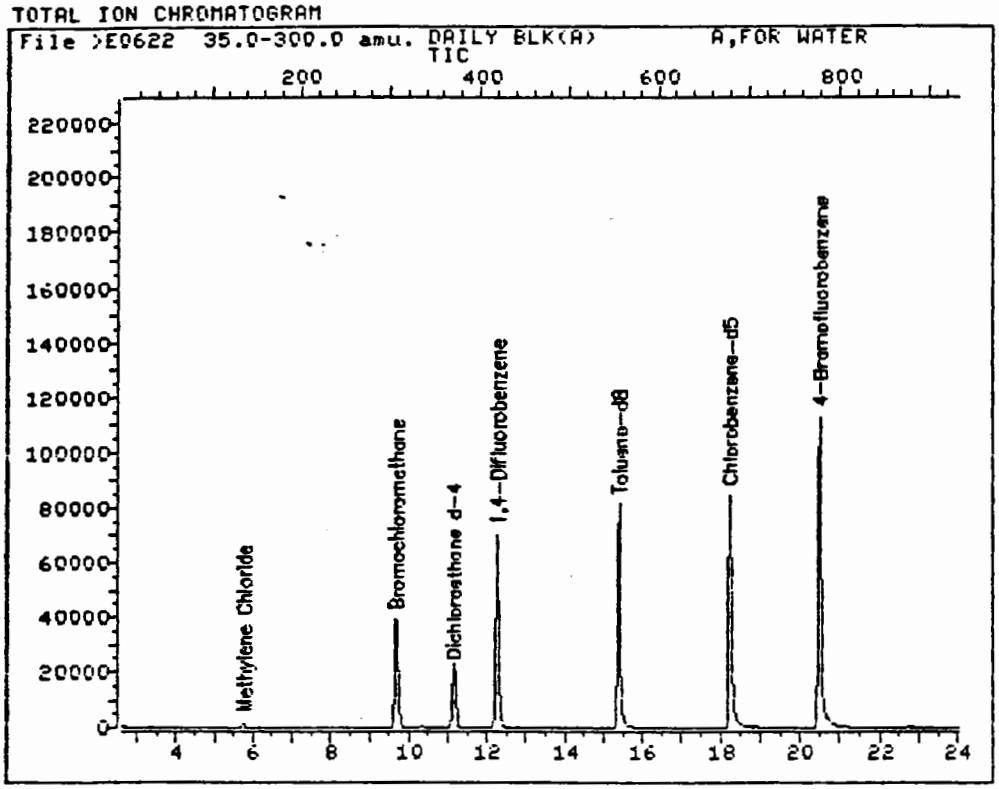
Quant Rev: 7
Quant Time: 940531 15:30
Injected at: 940531 15:05
Dilution Factor: 1.00000
Instrument ID: MSD_1

ID File: IDWVO1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20
Last Qcal Time: 940531 11:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.67	308	33737	50.00	ug/L	95
9)	Methylene Chloride	5.77	138	2084	3.56	ug/L	98
19)	1,2-Dichloroethane-d4	11.14	372	10100	47.90	ug/L	95
28)	*1,4-Difluorobenzene	12.24	420	156645	50.00	ug/L	97
39)	*Chlorobenzene-d5	18.22	680	144637	50.00	ug/L	96
46)	Toluene d-8	15.39	557	153264	50.97	ug/L	96
53)	Bromofluorobenzene	20.49	779	127081	52.49	ug/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >E0622::D2 Quant Output File: ^E0622::QT
Name: DAILY BLK(A) Instrument ID: MSD_1
Misc: A,FOR WATER

Id File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20 Last Qcal Time: 940531 11:53

Operator ID: LIN
Quant Time : 940531 15:30
Injected at: 940531 15:05

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : 566-5
Date Rcvd/Extd: 05/26/94-NA
Sample Matrix : Soil
Percent Solid : 83
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA23845
Lab File ID : >E0620
Date Analyzed : 05/31/94
Dilution Factor: 125
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	1500	U
74839	Bromomethane	1500	U
75014	Vinyl Chloride	750	U
75003	Chloroethane	1500	U
75092	Methylene Chloride	300	680 B
67641	Acetone	3000	U
75150	Carbon Disulfide	750	U
75694	Trichlorofluoromethane	750	U
75354	1,1-Dichloroethene	300	U
75343	1,1-Dichloroethane	750	U
156605	Trans-1,2-Dichloroethene	750	U
67663	Chloroform	750	U
107062	1,2-Dichloroethane	300	U
78933	2-Butanone	3800	U
71556	1,1,1-Trichloroethane	750	U
56235	Carbon Tetrachloride	300	U
108054	Vinyl Acetate	1500	U
75274	Bromodichloromethane	150	U
78875	1,2-Dichloropropane	150	U
10061015	cis-1,3-Dichloropropene	750	U
79016	Trichloroethene	150	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	750	U
79005	1,1,2-Trichloroethane	450	U
71432	Benzene	150	U
10061026	Trans-1,3-Dichloropropene	750	U
110758	2-Chloroethylvinylether	1500	U
75252	Bromoform	600	U
108101	4-Methyl-2-Pentanone	3800	U
591786	2-Hexanone	3000	U
127184	Tetrachloroethene	150	U
79345	1,1,2,2-Tetrachloroethane	300	U
108883	Toluene	750	U
108907	Chlorobenzene	600	U
100414	Ethylbenzene	750	370J
100425	Styrene	750	U
108383	m&p-Xylenes	750	2300
95476	o-Xylene	750	U
541731	1,3-Dichlorobenzene	750	U
95501	1,2-Dichlorobenzene	750	U
106467	1,4-Dichlorobenzene	750	U
1634044	Methyl-t-butyl ether	750	U
108203	Di-isopropyl-ether	750	U
75650	t-Butyl Alcohol	15000	U

TARGET COMPOUND SUMMARY: 2980

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
AA23845

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: AA23845

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >E0620

Level: (low/med) MED

Date Received:

% Solid: 83

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 125

Number of TICs found: 10

CONCENTRATION UNITS: ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1	611143	Benzene, 1-ethyl-2-methyl-	21.16	11747	
2	526738	Benzene, 1,2,3-trimethyl-	21.32	7831	
3	95636	Benzene, 1,2,4-trimethyl-	22.01	18072	
4	135988	Benzene, (1-methylpropyl)-	22.34	4970	
5	25155151	Benzene, methyl(1-methylethyl	22.52	5422	
6	622968	Benzene, 1-ethyl-4-methyl-	22.80	7380	
7	1074437	Benzene, 1-methyl-3-propyl-	23.23	15060	
8	1758889	Benzene, 2-ethyl-1,4-dimethy	23.35	18072	
9	1074551	Benzene, 1-methyl-4-propyl-	23.69	6627	
10	535773	Benzene, 1-methyl-3-(1-methy	23.90	14910	

Tentative Compound Summary: 110090

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0620::QT
Data File: >E0620::D2
Name: AA23845
Misc: A,100ul OF 4g/10ml

Quant Rev: 7
Quant Time: 940531 14:20
Injected at: 940531 13:51
Dilution Factor: 1.00000
Instrument ID: MSD_1

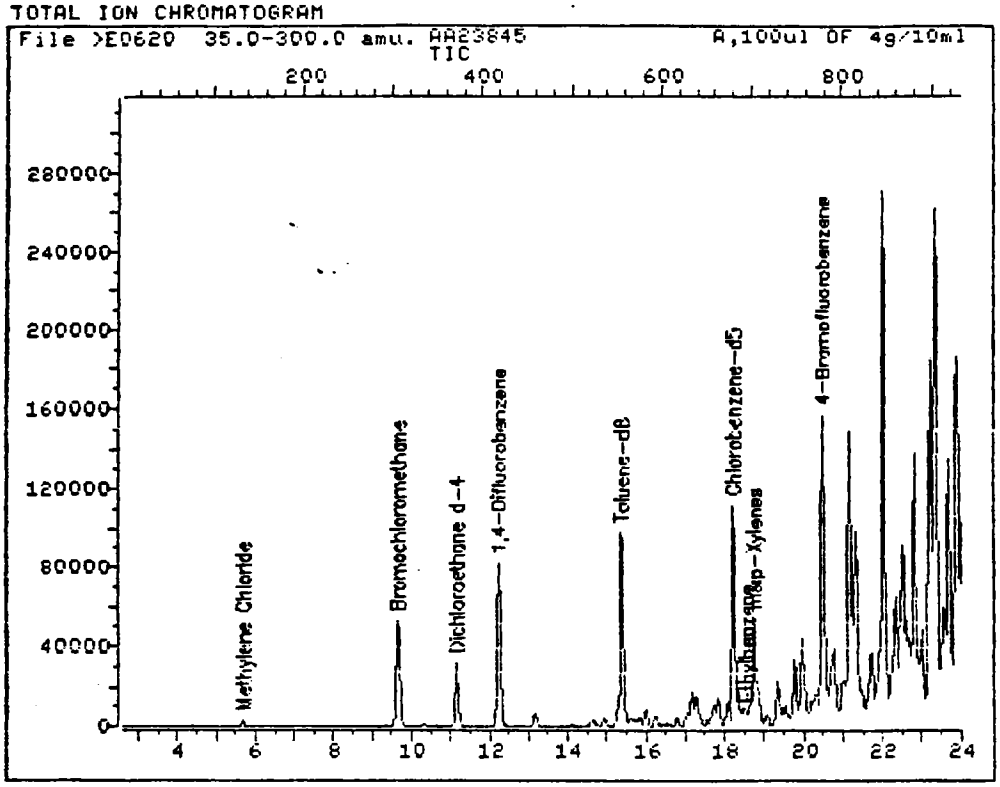
ID File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20
Last Qcal Time: 940531 11:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.65	307	43670	50.00	ug/L	97
9)	Methylene Chloride	5.70	135	3417	4.50	ug/L	91
19)	1,2-Dichloroethane-d4	11.14	372	13197	48.35	ug/L	93
28)	*1,4-Difluorobenzene	12.22	419	187799	50.00	ug/L	98
39)	*Chlorobenzene-d5	18.22	680	166011	50.00	ug/L	95
46)	Toluene d-8	15.37	556	172571	50.00	ug/L	98
48)	Ethylbenzene	18.54	694	11286	2.46	ug/L	96
50)	m&p-Xylenes	18.75	703	28088	15.19	ug/L	93
53)	Bromofluorobenzene	20.47	778	152035	54.71	ug/L	85

* Compound is ISTD

6/02/94

TOTAL ION CHROMATOGRAM



Data File: >E0620::D2 Quant Output File: ^E0620::QT
Name: AA23845 Instrument ID: MSD_1
Misc: A,100ul OF 4g/10ml

Id File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20 Last Qcal Time: 940531 11:53

Operator ID: LIN
Quant Time : 940531 14:20
Injected at: 940531 13:51

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : 566-7
Date Rcvd/Extd: 05/26/94-NA
Sample Matrix : Soil
Percent Solid : 86
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA23847
Lab File ID : >E0621
Date Analyzed : 05/31/94
Dilution Factor: 5
Sample Wt/Vol : 1.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	58	U
74839	Bromomethane	58	U
75014	Vinyl Chloride	29	U
75003	Chloroethane	58	U
75092	Methylene Chloride	12	110 B
67641	Acetone	120	130
75150	Carbon Disulfide	29	U
75694	Trichlorofluoromethane	29	U
75354	1,1-Dichloroethene	12	U
75343	1,1-Dichloroethane	29	U
156605	Trans-1,2-Dichloroethene	29	U
67663	Chloroform	29	U
107062	1,2-Dichloroethane	12	U
78933	2-Butanone	150	U
71556	1,1,1-Trichloroethane	29	U
56235	Carbon Tetrachloride	12	U
108054	Vinyl Acetate	58	U
75274	Bromodichloromethane	6	U
78875	1,2-Dichloropropane	6	U
10061015	cis-1,3-Dichloropropene	29	U
79016	Trichloroethene	6	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	29	U
79005	1,1,2-Trichloroethane	17	U
71432	Benzene	6	29
10061026	Trans-1,3-Dichloropropene	29	U
110758	2-Chloroethylvinylether	58	U
75252	Bromoform	23	U
108101	4-Methyl-2-Pentanone	150	U
591786	2-Hexanone	120	U
127184	Tetrachloroethene	6	U
79345	1,1,2,2-Tetrachloroethane	12	U
108883	Toluene	29	130
108907	Chlorobenzene	23	U
100414	Ethylbenzene	29	27J
100425	Styrene	29	U
108383	m&p-Xylenes	29	100
95476	o-Xylene	29	50
541731	1,3-Dichlorobenzene	29	U
95501	1,2-Dichlorobenzene	29	U
106467	1,4-Dichlorobenzene	29	U
1634044	Methyl-t-butyl ether	29	130
108203	Di-isopropyl-ether	29	U
75650	t-Butyl Alcohol	580	U

TARGET COMPOUND SUMMARY: 679

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
AA23847

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: AA23847

Sample wt/vol: 1.0(g/ml) g

Lab File ID: >E0621

Level: (low/med) LOW

Date Received:

% Solid: 86

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 5

Number of TICs found: 10

CONCENTRATION UNITS:
ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1	110543	Hexane	7.01	70	
2		Unknown substituted benzene	21.71	76	
3		Unknown substituted benzene	22.03	273	
4	135988	Benzene, (1-methylpropyl)-	22.36	41	
5	25155151	Benzene, methyl(1-methylethy	22.54	76	
6	622968	Benzene, 1-ethyl-4-methyl-	22.82	110	
7	1074437	Benzene, 1-methyl-3-propyl-	23.23	157	
8	933982	Benzene, 1-ethyl-2,3-dimethy	23.37	145	
9	1074551	Benzene, 1-methyl-4-propyl-	23.71	52	
10	535773	Benzene, 1-methyl-3-(1-methy	23.92	128	

Tentative Compound Summary: 1128

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0621::QT
Data File: >E0621::D2
Name: AA23847
Misc: S,1g

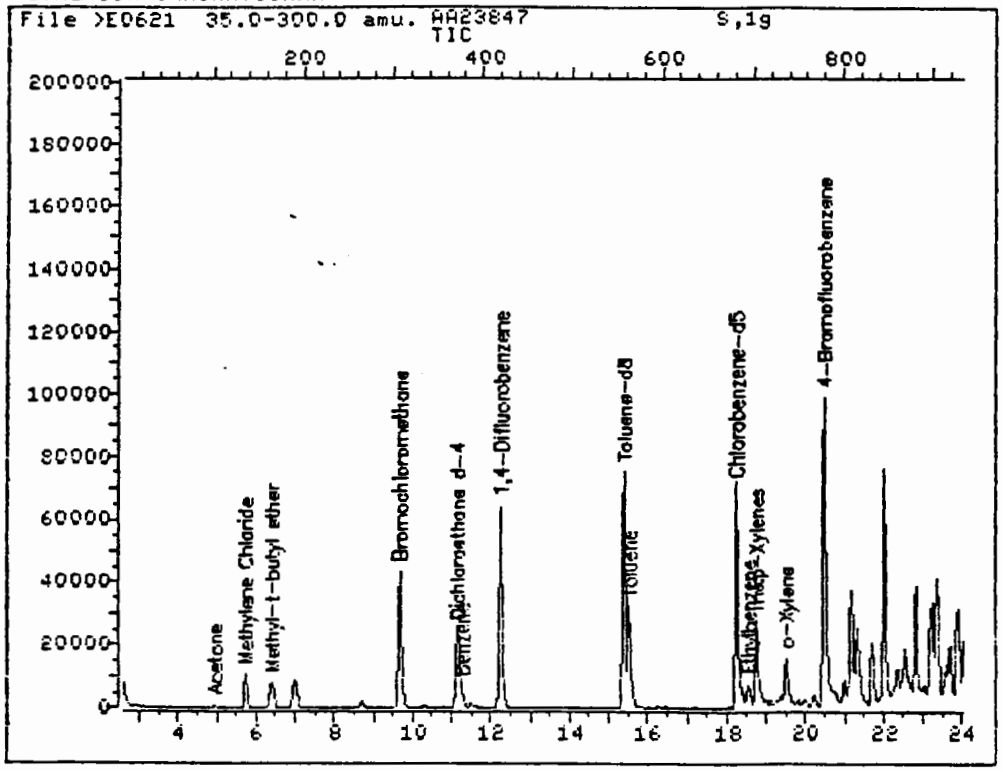
Quant Rev: 7
Quant Time: 940531 14:56
Injected at: 940531 14:27
Dilution Factor: 1.00000
Instrument ID: MSD_1

ID File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 16:37
Last Qcal Time: 940531 12:23

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.67	308	35663	50.00	ug/L	99
8)	Methyl-t-butyl ether	6.41	166	25541	22.29	ug/L	91
9)	Methylene Chloride	5.74	137	11040	19.61	ug/L	94
10)	Acetone	4.96	103	3734	23.20	ug/L	84
19)	1,2-Dichloroethane-d4	11.14	372	11238	48.51	ug/L	93
28)	*1,4-Difluorobenzene	12.24	420	141473	50.00	ug/L	95
35)	Benzene	11.26	377	12224	5.02	ug/L	100
39)	*Chlorobenzene-d5	18.22	680	127434	50.00	ug/L	98
45)	Toluene	15.53	563	36424	22.99	ug/L	94
46)	Toluene d-8	15.39	557	134175	50.28	ug/L	97
48)	Ethylbenzene	18.54	694	16007	4.58	ug/L	97
50)	m&p-Xylenes	18.75	703	23324	17.13	ug/L	91
51)	o-Xylene	19.50	736	28920	8.62	ug/L	95
53)	Bromofluorobenzene	20.49	779	114001	50.31	ug/L	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >E0621::D2 Quant Output File: ^E0621::QT
Name: AA23847 Instrument ID: MSD_1
Misc: S,1g

Id File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 16:37 Last Qcal Time: 940531 12:23

Operator ID: LIN
Quant Time : 940531 14:56
Injected at: 940531 14:27

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : FB
Date Rcvd/Extd: 05/26/94-NA
Sample Matrix : Water
Percent Solid : 0
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA23849
Lab File ID : >E0623
Date Analyzed : 05/31/94
Dilution Factor: 1
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/L (PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U	124481	Dibromochloromethane	5	U
74839	Bromomethane	10	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	5	U	71432	Benzene	1	U
75003	Chloroethane	10	U	10061026	Trans-1,3-Dichloropropene	5	U
75092	Methylene Chloride	2	15 B	110758	2-Chloroethylvinylether	10	U
67641	Acetone	20	63	75252	Bromoform	4	U
75150	Carbon Disulfide	5	U	108101	4-Methyl-2-Pentanone	25	U
75694	Trichlorofluoromethane	5	U	591786	2-Hexanone	20	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	U
75343	1,1-Dichloroethane	5	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	5	U	108883	Toluene	5	U
67663	Chloroform	5	U	108907	Chlorobenzene	4	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	5	U
78933	2-Butanone	25	U	100425	Styrene	5	U
71556	1,1,1-Trichloroethane	5	2J	108383	m&p-Xylenes	5	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	5	U
108054	Vinyl Acetate	10	U	541731	1,3-Dichlorobenzene	5	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	5	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	5	U
10061015	cis-1,3-Dichloropropene	5	U	1634044	Methyl-t-butyl ether	5	U
79016	Trichloroethene	1	U	108203	Di-isopropyl-ether	5	U
				75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 78

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
AA23849

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: WATER

Lab Sample ID: AA23849

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >E0623

Level: (low/med) LOW

Date Received:

% Solid: 0

Date Analyzed: 05/31/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 0

CONCENTRATION UNITS:
ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^E0623::QT
Data File: >E0623::D2
Name: AA23849
Misc: A,5ml

Quant Rev: 7
Quant Time: 940531 16:00
Injected at: 940531 15:35
Dilution Factor: 1.00000
Instrument ID: MSD_1

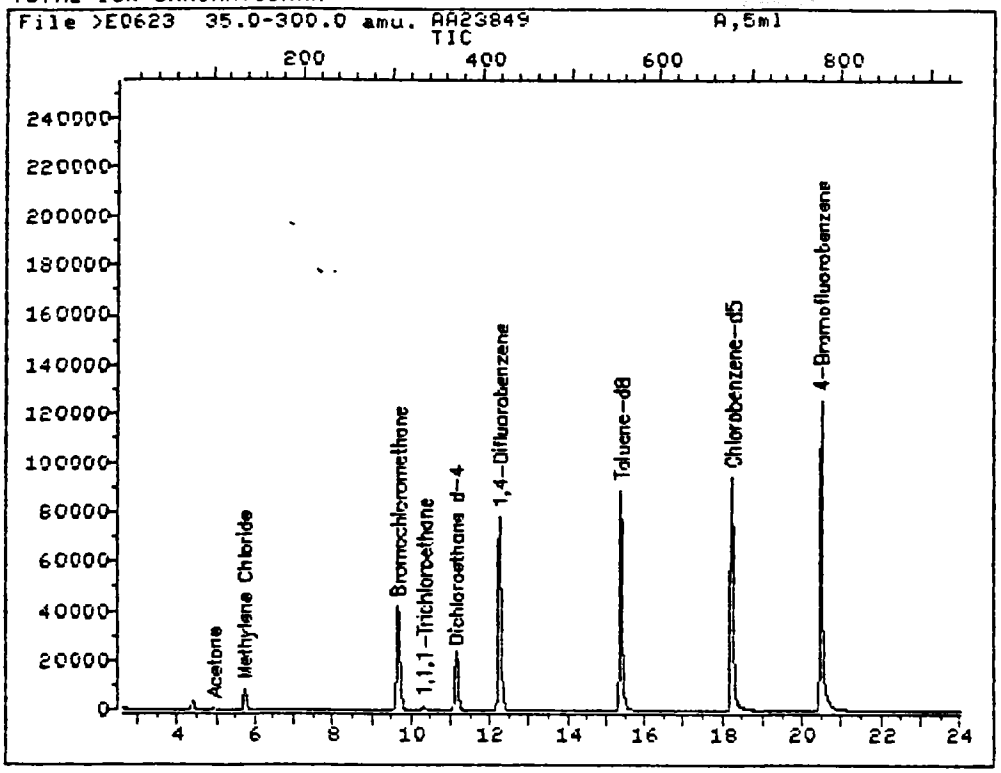
ID File: IDWVQ1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20
Last Qcal Time: 940531 11:53

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.67	308	35346	50.00	ug/L	96
9)	Methylene Chloride	5.74	137	9425	15.35	ug/L	95
10)	Acetone	4.96	103	4529	63.20	ug/L	76
19)	1,2-Dichloroethane-d4	11.14	372	10179	46.08	ug/L	94
22)	1,1,1-Trichloroethane	10.34	337	3747	1.95	ug/L	85
28)	*1,4-Difluorobenzene	12.24	420	169844	50.00	ug/L	96
39)	*Chlorobenzene-d5	18.24	681	153965	50.00	ug/L	97
46)	Toluene d-8	15.39	557	161610	50.49	ug/L	98
53)	Bromofluorobenzene	20.49	779	136768	53.07	ug/L	98

* Compound is ISTD

Sb 10/94

TOTAL ION CHROMATOGRAM



Data File: >E0623::D2 Quant Output File: ^E0623::QT
Name: AA23849 Instrument ID: MSD_1
Misc: A,5ml

Id File: IDWVO1::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940516 14:20 Last Qcal Time: 940531 11:53

Operator ID: LIN
Quant Time : 940531 16:00
Injected at: 940531 15:35

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23841
Sample Matrix: Soil
% Solids: 77

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-1	ND	1	26	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23842
Sample Matrix: Soil
% Solids: 83

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-2	34	1	24	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23843
Sample Matrix: Soil
% Solids: 88

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-3	ND	1	23	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23844
Sample Matrix: Soil
% Solids: 85

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-4	ND	1	24	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23845
Sample Matrix: Soil
% Solids: 83

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-5	2800	2.0	48	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23846
Sample Matrix: Soil
% Solids: 87

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-6	30	1	23	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23847
Sample Matrix: Soil
% Solids: 86

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-7	1300	1	23	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23848
Sample Matrix: Soil
% Solids: 82

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	566-8	39	1	24	5/26/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA23849
Sample Matrix: WATER
% Solids: 0

Date Received: 5/26/94
Date Extracted: 5/26/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	FIELD BLANK	ND	1	~~1.0~~ 4.1	5/26/94

dak 6/5/94

2A
VOLATILE SURROGATE RECOVERIES

Lab Name: Veritech NJDEPE CERT.# 14622

Lab Code: 020406 Case No.:---- SAS No.:---- SDG No.:----

Dates Analyzed: 05/27/94 thru 05/28/94

LAB SAMP NO.	($)	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	FILE	TOT OUT
DAILY BLK(	W	95	111*	107	^E0596	1
DAILY BLK(	S	96	99	101	^E0597	0
AA23696	S	93	103	112	^E0598	0
DAILY BLK(	W	96	104	106	^E0599	0
AA23691	W	93	108	107	^E0600	0
AA23699	W	93	104	111	^E0601	0
AA23707	S	93	96	107	^E0602	0
AA23708	S	97	95	104	^E0603	0
AA23700	S	95	98	106	^E0604	0
AA23701	S	96	93	103	^E0605	0
AA23702	S	98	92	104	^E0606	0
AA23703	S	95	96	102	^E0607	0
AA23704	S	98	75*	113	^E0608	1
AA23705	S	94	78*	130*	^E0609	2
AA23706	S	94	95	102	^E0610	0
AA23709	S	90	96	101	^E0611	0
AA23707MS	S	95	98	103	^E0612	0
AA23707MSD	S	98	98	103	^E0613	0
SMB-SPK	S	98	96	99	^E0614	0

EPA CLP QC Limits For:	Soil	Water	Sur Conc(ug/L) Water	Sur Conc(ug/L) Soil
S1 (DCE) = 1,2-Dichloroethane-d4	70-121	76-114	50	50
S2 (TOL) = Toluene d-8	81-117	88-110	50	50
S3 (BFB) = Bromofluorobenzene	74-121	86-115	50	50

$ Column indicating Soil or Water matrix
# Column to be used to flag recovery values
* Values outside of CLP QC limits

2A
VOLATILE SURROGATE RECOVERIES

Lab Name: Veritech NJDEPE CERT.# 14622

Lab Code: 020406 Case No.:---- SAS No.:---- SDG No.:----

Date Analyzed: 05/31/94

LAB SAMP NO.	($)	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	FILE	TOT OUT
DAILY CAL(	S	100	98	103	^E0617	0
DAILY BLK(	W	96	101	101	^E0618	0
DAILY BLK(	S	94	99	104	^E0619	0
AA23845	W	97	100	109	^E0620	0
AA23847	S	97	101	101	^E0621	0
DAILY BLK(	W	96	102	105	^E0622	0
AA23849	W	92	101	106	^E0623	0
AA23725	S	97	99	101	^E0624	0
AA23825	S	96	101	102	^E0625	0
AA23722	W	95	99	110	^E0626	0
AA23704	S	97	94	102	^E0627	0
AA23705	S	99	93	107	^E0628	0
AA23725	S	96	101	99	^E0629	0
AA23825	S	98	97	103	^E0630	0
AA23722	W	81	91	115	^E0631	0
AA23723	W	96	97	108	^E0632	0
AA23724	W	95	97	107	^E0633	0
AA23722MS	W	99	100	106	^E0634	0
AA23722MSD	W	97	98	110	^E0635	0
WMB-SPK	W	104	101	104	^E0636	0

EPA CLP QC Limits For:	Soil	Water	Sur Conc(ug/L) Water	Soil
S1 (DCE) = 1,2-Dichloroethane-d4	70-121	76-114	50	50
S2 (TOL) = Toluene d-8	81-117	88-110	50	50
S3 (BFB) = Bromofluorobenzene	74-121	86-115	50	50

$ Column indicating Soil or Water matrix
# Column to be used to flag recovery values
* Values outside of CLP QC limits

FORM 3

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Matrix Spike - Lab sample No.: AA23707

Non spiked file: ^E0602 Spiked file: ^E0612 Spike dup file: ^E0613

Compound	Spike Added (ug/Kg)	Sample Conc (ug/Kg)	MS Conc (ug/Kg)	MSD Conc (ug/Kg)	MS % Rec#	MSD % Rec#	% Rpd#	QC Limits Rpd	QC Limits Rec
1,1-Dichloroethene	50	0	51	49	102	98	4	22	59-172
Trichloroethene	50	0	51	53	102	106	4	24	62-137
Benzene	50	0	47	49	94	98	4	21	66-142
Toluene	50	0	48	50	96	100	4	21	59-139
Chlorobenzene	50	0	49	51	98	102	4	21	60-133

Column to be used to flag recovery and RPD values with an asterisk.
* Values outside of QC limits.

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

Comments:

FORM 3

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Matrix Spike - Lab sample No.: AA23723

Non spiked file: ^E0632 Spiked file: ^E0634 Spike dup file: ^E0635

Compound	Spike Added (ug/L)	Sample Conc (ug/L)	MS Conc (ug/L)	MSD Conc (ug/L)	MS % Rec#	MSD % Rec#	% Rpd#	QC Limits Rpd	QC Limits Rec
1,1-Dichloroethene	50	0	54	49	108	98	10	14	61-145
Trichloroethene	50	0	55	60	110	120	9	14	71-120
Benzene	50	0	52	52	104	104	0	11	76-127
Toluene	50	1	49	48	96	94	2	13	76-125
Chlorobenzene	50	0	48	48	96	96	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk.
* Values outside of QC limits.

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

Comments:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >E0597 Lab Sample ID: DAILY BLK(S

Date Analyzed: 05/27/94 Time Analyzed: 15:16

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>E0598	AA23696	15:46
>E0602	AA23707	17:50
>E0603	AA23708	18:25
>E0604	AA23700	19:00
>E0605	AA23701	19:35
>E0606	AA23702	20:11
>E0607	AA23703	20:46
>E0608	AA23704	21:22
>E0609	AA23705	21:57
>E0610	AA23706	22:32
>E0611	AA23709	23:07
>E0612	AA23707MS	23:43
>E0613	AA23707MSD	00:18
>E0614	SMB-SPK	00:53

Comments:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622.

Lab file ID: >E0618 Lab Sample ID: DAILY BLK(M

Date Analyzed: 05/31/94 Time Analyzed: 12:52

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>E0620	AA23845	13:51
>E0626	AA23722	17:16
>E0631	AA23722	20:16
>E0632	AA23723	20:51
>E0633	AA23724	21:26
>E0634	AA23722MS	22:02
>E0635	AA23722MSD	22:37
>E0636	WMB-SPK	23:13

Comments:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >E0619 Lab Sample ID: DAILY BLK(S

Date Analyzed: 05/31/94 Time Analyzed: 13:22

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>E0621	AA23847	14:27
>E0624	AA23725	16:06
>E0625	AA23825	16:41
>E0627	AA23704	17:52
>E0628	AA23705	18:28
>E0629	AA23725	19:05
>E0630	AA23825	19:40

Comments:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >E0622 Lab Sample ID: DAILY BLK(A

Date Analyzed: 05/31/94 Time Analyzed: 15:05

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>E0623	AA23849	15:35

Comments:

5A

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

Lab Name:VERITECH Contract: -----

Lab File ID: >E0399 BFB Injection date: 5/16/94

Instrument ID: MSD_1 BFB Injection time: 11:09

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	22.0
75	30-60% of mass 95	47.5
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	85.5
175	5.0 - 9.0% of mass 174	6.4(7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	85.3(99.8)1
177	5.0 - 9.0% of mass 176	5.5(6.5)2

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

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

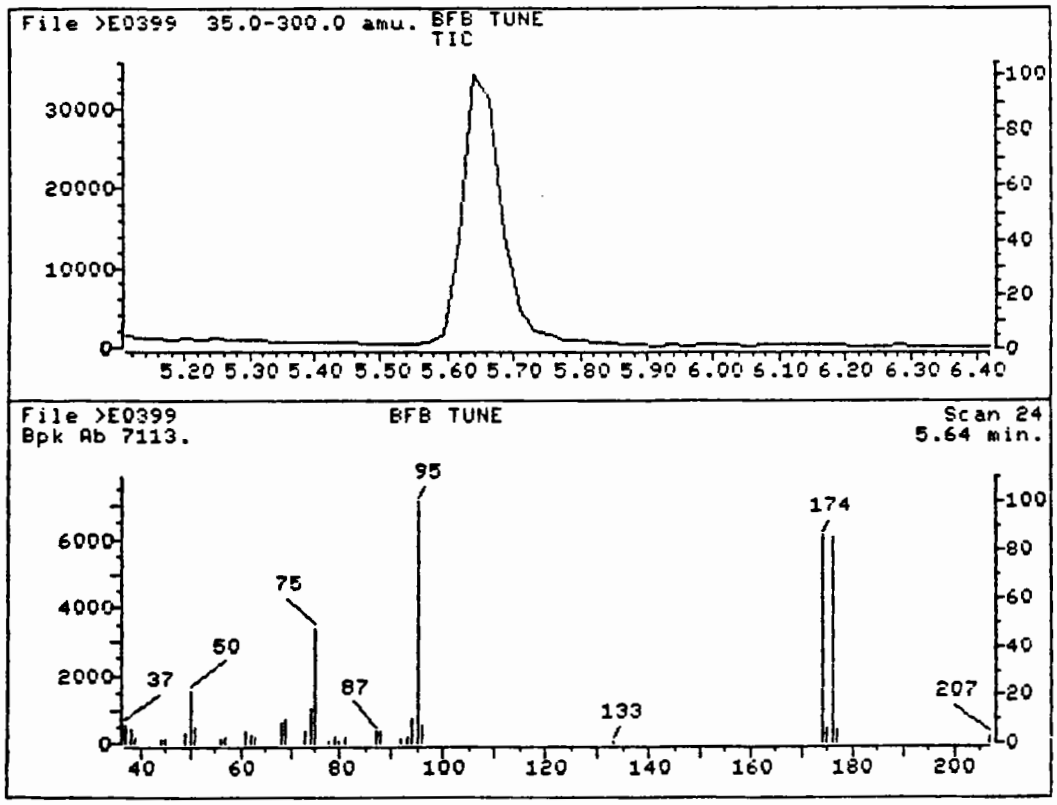
	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	----------	10PPB STD	>E0400	5/16/94	11:35
2	----------	20PPB STD	>E0401	5/16/94	12:04
3	----------	50PPB STD	>E0402	5/16/94	12:34
4	----------	100PPB STD	>E0403	5/16/94	13:04
5	----------	200PPB STD	>E0404	5/16/94	13:33
6	----------	10PPB STD	>E0405	5/16/94	14:03
7	----------	20PPB STD	>E0406	5/16/94	14:33
8	----------	50PPB STD	>E0407	5/16/94	15:02
9	----------	100PPB STD	>E0408	5/16/94	15:32
10	----------	200PPB STD	>E0409	5/16/94	16:02
11	----------	BLANK	>E0410	5/16/94	16:31
12	----------	DAILY BLK(S)	>E0411	5/16/94	17:01
13	----------	AA23298	>E0412	5/16/94	17:31
14	----------	AA23298	>E0413	5/16/94	18:06
15	----------	DAILY BLK(ME	>E0414	5/16/94	18:41
16	----------	AA23370	>E0415	5/16/94	19:16
17	----------	AA23419	>E0416	5/16/94	19:52
18	----------	AA23501	>E0417	5/16/94	20:27
19	----------	AA23401	>E0418	5/16/94	21:02
20	----------	AA23402	>E0419	5/16/94	21:37
21	----------	AA23403	>E0420	5/16/94	22:12
22	----------	AA23404	>E0421	5/16/94	22:48
23					

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	21.99	21.99	Ok
75	30-60% of mass 95	47.50	47.50	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	8.04	8.04	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	85.48	85.48	Ok
175	5-9% of mass 174	6.40	7.48	Ok
176	95-101% of mass 174	85.28	99.77	Ok
177	5-9% of mass 176	5.51	6.46	Ok

Injection Date: 05/16/94
Injection Time: 11:09
Data File: >E0399
Scan: 24



>E0399 BFB TUNE
24

File: >E0399 Scan #: 24 Retn. time: 5.64

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.00	578.00	51.00	474.00	69.05	706.00	80.95	169.00	96.05	572.00
38.00	446.00	56.05	110.00	73.05	366.00	86.95	374.00	133.05	54.00
39.10	204.00	57.05	206.00	74.05	1002.00	87.95	361.00	174.00	6080.00
44.00	151.00	61.05	350.00	75.05	3379.00	91.95	157.00	175.00	455.00
45.00	125.00	62.05	268.00	77.85	61.00	93.05	202.00	176.00	6066.00
49.00	318.00	63.05	176.00	78.95	168.00	94.05	743.00	177.00	392.00
50.10	1564.00	68.05	637.00	79.85	54.00	95.05	7113.00	207.10	199.00

5A

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

Lab Name: VERITECH Contract: -----

Lab File ID: >E0593 BFB Injection date: 5/27/94

Instrument ID: MSD_1 BFB Injection time: 13:21

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	26.2
75	30-60% of mass 95	50.4
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.9
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	4.8(7.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.4(95.8)1
177	5.0 - 9.0% of mass 176	4.7(7.1)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
1	----------	DAILY CAL(A)	>E0594	5/27/94	13:47
2	----------	DAILY CAL(S)	>E0595	5/27/94	14:16
3	----------	DAILY BLK(A)	>E0596	5/27/94	14:47
4	----------	DAILY BLK(S)	>E0597	5/27/94	15:16
5	----------	AA23696	>E0598	5/27/94	15:46
6	----------	DAILY BLK(A)	>E0599	5/27/94	16:21
7	----------	AA23691	>E0600	5/27/94	16:51
8	----------	AA23699	>E0601	5/27/94	17:20
9	----------	AA23707	>E0602	5/27/94	17:50
10	----------	AA23708	>E0603	5/27/94	18:25
11	----------	AA23700	>E0604	5/27/94	19:00
12	----------	AA23701	>E0605	5/27/94	19:35
13	----------	AA23702	>E0606	5/27/94	20:11
14	----------	AA23703	>E0607	5/27/94	20:46
15	----------	AA23704	>E0608	5/27/94	21:22
16	----------	AA23705	>E0609	5/27/94	21:57
17	----------	AA23706	>E0610	5/27/94	22:32
18	----------	AA23709	>E0611	5/27/94	23:07
19	----------	AA23707MS	>E0612	5/27/94	23:43
20	----------	AA23707MSD	>E0613	5/28/94	0:18
21	----------	SMB-SPK	>E0614	5/28/94	0:53
22					

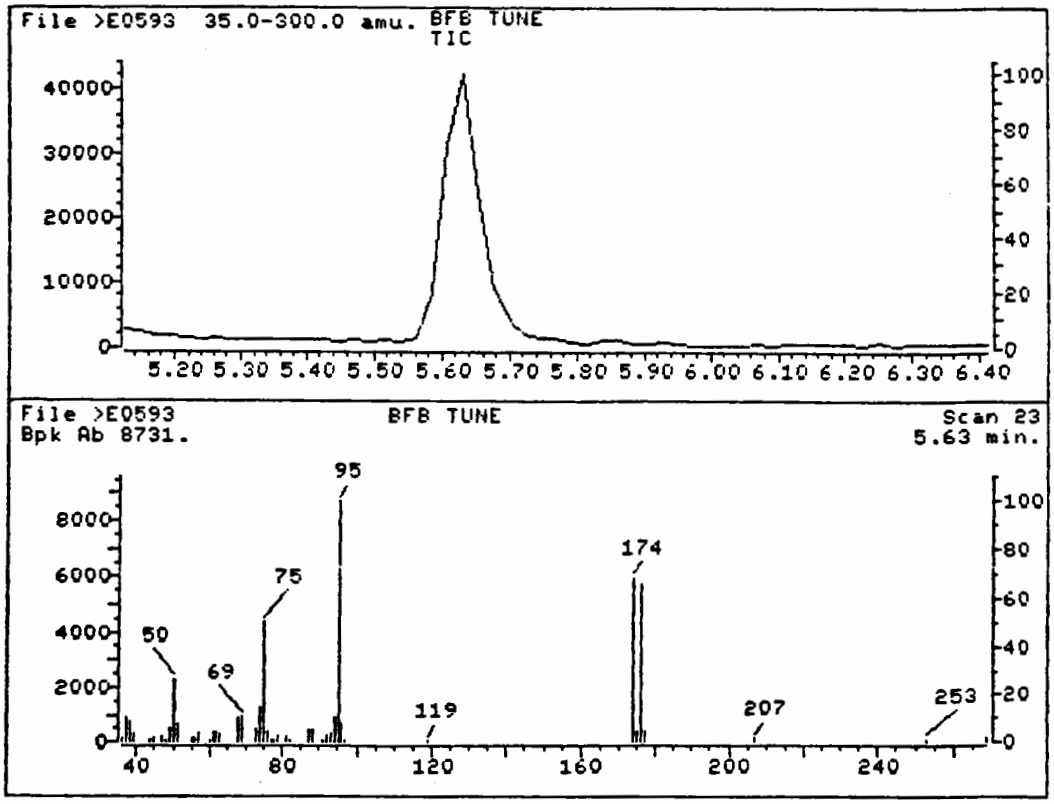
FORM V VOA

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	26.24	26.24	Ok
75	30-60% of mass 95	50.41	50.41	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.88	7.88	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	68.27	68.27	Ok
175	5-9% of mass 174	4.81	7.05	Ok
176	95-101% of mass 174	65.40	95.79	Ok
177	5-9% of mass 176	4.66	7.13	Ok

Injection Date: 05/27/94
Injection Time: 13:21
Data File: >E0593
Scan: 23



6/03/94

>E0593 BFB TUNE
23

File: >E0593 Scan #: 23 Retn. time: 5.63

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	175.00	51.10	687.00	69.05	959.00	81.95	86.00	97.05	81.00
37.00	870.00	55.10	155.00	73.05	450.00	86.95	482.00	118.95	79.00
38.00	727.00	55.95	167.00	74.05	1273.00	87.95	460.00	174.00	5961.00
39.00	311.00	57.05	307.00	75.05	4401.00	91.05	76.00	175.00	420.00
43.90	109.00	59.95	101.00	76.05	353.00	92.05	207.00	176.00	5710.00
45.00	129.00	61.05	399.00	77.05	114.00	93.05	296.00	177.00	407.00
47.10	241.00	62.05	399.00	77.95	88.00	94.05	890.00	207.10	151.00
48.00	64.00	63.05	305.00	78.95	226.00	95.05	8731.00	253.10	93.00
49.00	567.00	68.05	909.00	80.95	219.00	96.05	688.00	269.10	166.00
50.10	2291.00								

5A

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

Lab Name:VERITECH Contract: -----

Lab File ID: >E0615 BFB Injection date: 5/31/94

Instrument ID: MSD_1 BFB Injection time: 11:27

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	23.5
75	30-60% of mass 95	49.0
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	.5(.7)1
174	Greater than 50.0% of mass 95	68.5
175	5.0 - 9.0% of mass 174	5.4(7.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	68.9(100.5)1
177	5.0 - 9.0% of mass 176	4.7(6.8)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
1	----------	DAILY CAL(A)	>E0616	5/31/94	11:53
2	----------	DAILY CAL(S)	>E0617	5/31/94	12:23
3	----------	DAILY BLK(ME	>E0618	5/31/94	12:52
4	----------	DAILY BLK(S)	>E0619	5/31/94	13:22
5	----------	AA23845	>E0620	5/31/94	13:51
6	----------	AA23847	>E0621	5/31/94	14:27
7	----------	DAILY BLK(A)	>E0622	5/31/94	15:05
8	----------	AA23849	>E0623	5/31/94	15:35
9	----------	AA23725	>E0624	5/31/94	16:06
10	----------	AA23825	>E0625	5/31/94	16:41
11	----------	AA23722	>E0626	5/31/94	17:16
12	----------	AA23704	>E0627	5/31/94	17:52
13	----------	AA23705	>E0628	5/31/94	18:28
14	----------	AA23725	>E0629	5/31/94	19:05
15	----------	AA23825	>E0630	5/31/94	19:40
16	----------	AA23722	>E0631	5/31/94	20:16
17	----------	AA23723	>E0632	5/31/94	20:51
18	----------	AA23724	>E0633	5/31/94	21:26
19	----------	AA23722MS	>E0634	5/31/94	22:02
20	----------	AA23722MSD	>E0635	5/31/94	22:37
21	----------	WMB-SPK	>E0636	5/31/94	23:13
22					

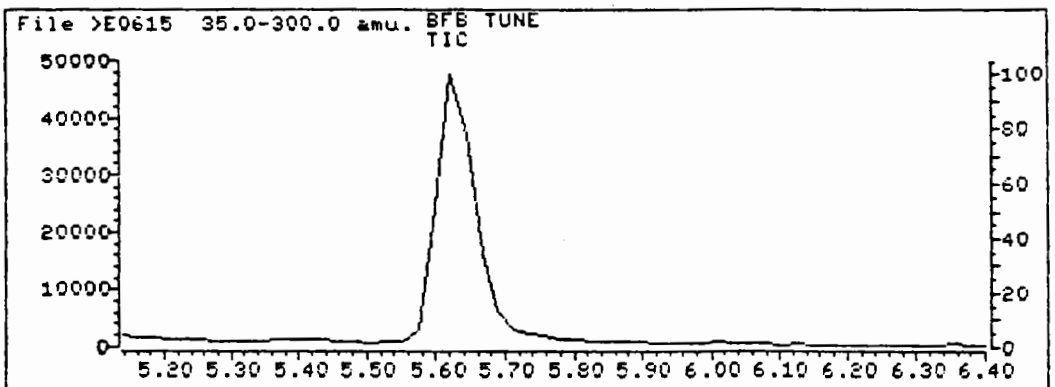
FORM V VOA

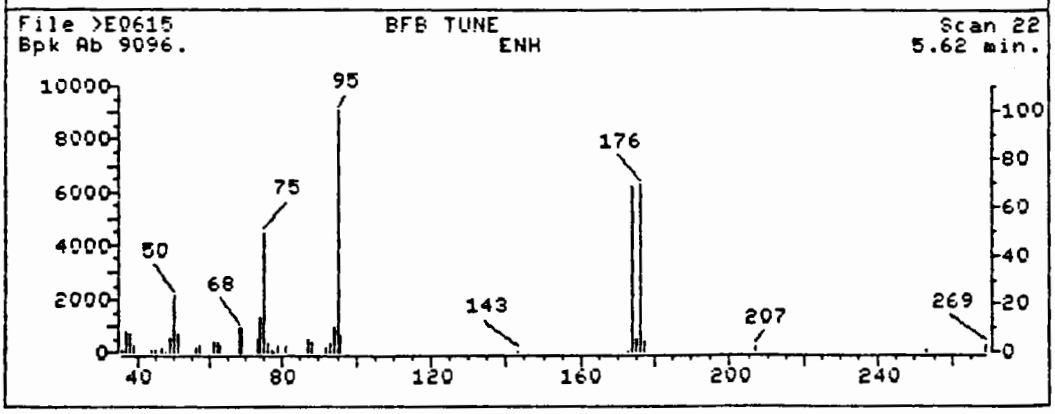
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	23.51	23.51	Ok
75	30-60% of mass 95	49.02	49.02	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.69	6.69	Ok
173	Less than 2% of mass 174	.46	.67	Ok
174	Greater than 50% of mass 95	68.54	68.54	Ok
175	5-9% of mass 174	5.35	7.81	Ok
176	95-101% of mass 174	68.90	100.53	Ok
177	5-9% of mass 176	4.67	6.78	Ok

Injection Date: 05/31/94
Injection Time: 11:27
Data File: >E0615
Scan: 22





6/02/94

>E0615 BFB TUNE
22 ENH

File: >E0615 Scan #: 22 Retn. time: 5.62

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	93.50	50.10	2138.50	73.05	456.00	87.05	454.00	172.90	42.00
37.10	815.50	51.10	677.50	74.05	1294.50	87.95	437.00	174.00	6234.00
38.10	697.00	56.05	145.50	75.05	4458.50	92.05	201.00	175.00	487.00
39.10	278.50	57.05	269.50	76.05	345.00	93.05	304.50	176.00	6267.00
44.00	60.00	60.95	424.50	77.05	58.50	94.05	902.00	177.00	425.00
45.10	128.50	62.05	400.00	77.85	42.00	95.05	9095.50	207.10	207.00
47.10	194.50	62.95	268.50	78.85	223.00	96.05	608.50	253.10	64.50
47.90	38.50	68.05	917.00	79.95	46.00	142.95	33.00	269.20	250.50
49.10	529.00	69.05	916.50	80.95	230.50				

Initial Calibration Data

Lab: Veritech Instrument ID: MSD_1
Cal Type: CAL FOR WATER Calibration Date: 05/16/94

Minimum Avg RF for SPCC is: .300 Maximum %RSD for CCC is: 30

Laboratory ID:	>E0400	>E0401	>E0402	>E0403	>E0404					
	RF	RF	RF	RF	RF					
Compound	10.0	20.0	50.0	100.0	200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Chloromethane	1.313	1.034	.9879	.9209	.8500	2.978	1.021	17.36	**	
Bromomethane	.4301	.4603	.4712	.4638	.4539	3.644	.4558	3.443		
Vinyl Chloride	1.207	1.043	1.091	1.058	.9882	3.107	1.077	7.566	*	
Chloroethane	.1336	.2204	.2651	.2630	.2727	3.576	.2310	25.18		
Trichlorofluoromethane	1.339	1.330	1.434	1.401	1.332	3.952	1.367	3.467		
t-Butyl Alcohol	.0160	.0280	.0314	.0421	.0324	6.203	.0299	31.43		(50.0,100.,250.,500.,1000)
Methyl-t-butyl ether	1.340	1.417	1.391	1.375	1.432	6.433	1.391	2.594		
Methylene Chloride	.8672	.8610	.7943	.8001	.7688	5.767	.8183	5.317		
Acrolein	--	--	--	.0063	.0043	4.696	.0053	26.52		
Acrylonitrile	--	.0903	.1106	.1137	.1171	6.341	.1079	11.14		
Acetone	.1205	.1036	.1050	.1050	.1010	4.986	.1070	7.229		
Carbon Disulfide	2.082	2.267	2.272	2.429	2.414	5.216	2.293	6.130		
1,1-Dichloroethene	.6335	.6711	.6719	.7151	.6906	4.825	.6765	4.428	*	
Di-isopropyl-ether	4.374	4.715	4.432	4.763	4.688	7.711	4.594	3.880		
1,1-Dichloroethane	2.160	2.431	2.344	2.512	2.462	7.398	2.382	5.801	**	
Trans-1,2-Dichloroethene	.7401	.8325	.8222	.8124	.8553	6.350	.8125	5.352		
Chloroform	2.628	2.971	2.852	3.086	2.991	9.971	2.905	6.053	*	
1,2-Dichloroethane-d4	.2860	.2902	.2916	.2888	.2991	11.18	.2911	1.683		(50.0,50.0,50.0,50.0,50.0)
1,2-Dichloroethane	1.284	1.493	1.511	1.622	1.616	11.37	1.505	9.087		
2-Butanone	.3874	.3431	.3253	.3545	.3416	9.226	.3504	6.615		
1,1,1-Trichloroethane	2.187	2.350	2.293	2.476	2.400	10.36	2.341	4.666		
Carbon Tetrachloride	2.346	2.591	2.532	2.735	2.635	10.78	2.568	5.624		
Vinyl Acetate	3.567	3.849	3.706	4.234	3.937	7.660	3.859	6.550		
Bromodichloromethane	2.519	2.882	2.849	3.137	3.115	13.94	2.900	8.631		
1,2-Dichloropropane	.3294	.3822	.3635	.3974	.3883	13.30	.3721	7.231	*	
Trans-1,3-Dichloropropene	.2711	.3378	.3449	.4000	.4033	16.05	.3514	15.41		
Trichloroethene	.4469	.4613	.4302	.4701	.4512	12.82	.4519	3.348		
Dibromochloromethane	.4161	.4575	.4518	.4972	.4910	17.14	.4627	7.093		
1,1,2-Trichloroethane	.2184	.2726	.2698	.2801	.2841	16.39	.2650	10.06		
Benzene	.7492	.8259	.7714	.8334	.8160	11.28	.7992	4.615		
cis-1,3-Dichloropropene	.4769	.5330	.5294	.5945	.5969	14.89	.5461	9.231		
2-Chloroethylvinylether	.0818	.1164	.1297	.1539	.1612	14.65	.1286	24.73		
Bromoform	.4116	.4561	.4652	.5241	.5196	19.88	.4753	9.908	**	
2-Hexanone	.1507	.1577	.1930	.2389	.2453	15.26	.1971	22.38		
4-Methyl-2-Pentanone	--	.0448	.0999	.1405	.1609	17.04	.1115	45.91		
Tetrachloroethene	.5219	.5689	.5334	.5731	.5334	16.62	.5461	4.257		
1,1,2,2-Tetrachloroethane	.4704	.5033	.4877	.5361	.5200	20.80	.5035	5.140	**	
Toluene	.5537	.6211	.5921	.6433	.6273	15.54	.6075	5.814	*	
Toluene d-8	1.012	1.078	1.108	1.112	1.114	15.41	1.085	3.980		(50.0,50.0,50.0,50.0,50.0)
Chlorobenzene	.8833	.9728	.9158	.9871	.9590	18.30	.9436	4.556	**	

* - Indicates CCC Compound ** - Indicates SPCC Compound Units in ug/L
$RT - Avg Retention Times $RF - Avg Response Factor $RSD- Relative Standard Deviation

FORM6 (Page 1 of 2)

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR WATER

Instrument ID: MSD_1
Calibration Date: 05/16/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>E0400	>E0401	>E0402	>E0403	>E0404					
	RF	RF	RF	RF	RF					
Compound	10.0	20.0	50.0	100.0	200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Ethylbenzene	1.177	1.323	1.292	1.427	1.411	18.54	1.326	7.621	*	
Styrene	.7595	.8773	.8728	.9345	.8642	19.56	.8616	7.367		
m&p-Xylenes	.4856	.5263	.5033	.5232	.4757	18.77	.5028	4.442		(20.0,40.0,100.,200.,400.)
o-Xylene	1.161	1.285	1.215	1.298	1.203	19.51	1.232	4.696		
Bromofluorobenzene	.8145	.8311	.8671	.8863	.9100	20.52	.8618	4.544		(50.0,50.0,50.0,50.0,50.0)
1,3-Dichlorobenzene	.9307	1.002	.9533	1.043	.9861	22.56	.9829	4.420		
1,4-Dichlorobenzene	1.293	1.233	1.079	1.143	1.044	22.73	1.159	8.991		
1,2-Dichlorobenzene	.9234	.9590	.8796	.9518	.9010	23.42	.9230	3.632		

* - Indicates CCC Compound
** - Indicates SPCC Compound
Units in ug/L
$RT - Avg Retention Times
$RF - Avg Response Factor
$RSD- Relative Standard Deviation

FORM6 (Page 2 of 2)

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR SOIL

Instrument ID: MSD_1
Calibration Date: 05/16/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>E0405	>E0406	>E0407	>E0408	>E0409					
Compound	RF 10.0	RF 20.0	RF 50.0	RF 100.0	RF 200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Chloromethane	.8097	.8321	.7023	.6908	.6858	2.976	.7441	9.510	**	
Bromomethane	.2529	.3277	.2528	.3008	.2458	3.505	.2760	13.15		
Vinyl Chloride	1.008	.9967	.8794	.8485	.8559	3.105	.9177	8.524	*	
Chloroethane	.0817	.2047	.1376	.1804	.1333	3.560	.1475	32.11		
Trichlorofluoromethane	.9224	.9817	.9638	.9329	.8500	3.918	.9302	5.447		
t-Butyl Alcohol	.0873	.0759	.0843	.0766	.0850	6.271	.0818	6.381		(50.0,100.,250.,500.,1000)
Methyl-t-butyl ether	1.661	1.785	1.628	1.607	1.654	6.436	1.667	4.159		
Methylene Chloride	.8920	.8221	.7437	.7381	.7077	5.742	.7807	9.632		
Acrolein	--	--	--	.0100	.0099	4.689	.0099	.9060		
Acrylonitrile	.1473	.1684	.1633	.1576	.1694	6.349	.1612	5.623		
Acetone	.2368	.2101	.1811	.1796	.1622	4.998	.1940	15.20		
Carbon Disulfide	1.900	1.970	1.877	2.061	1.979	5.177	1.958	3.714		
1,1-Dichloroethene	.6040	.6100	.5625	.6045	.5729	4.791	.5908	3.641	*	
Di-isopropyl-ether	4.509	4.553	4.230	4.384	4.439	7.709	4.423	2.842		
1,1-Dichloroethane	2.172	2.290	2.124	2.209	2.194	7.383	2.198	2.754	**	
Trans-1,2-Dichloroethene	.6649	.7208	.6432	.6885	.6629	6.326	.6761	4.393		
Chloroform	2.689	2.832	2.674	2.782	2.739	9.960	2.743	2.389	*	
1,2-Dichloroethane-d4	.3012	.2945	.3018	.2932	.2986	11.17	.2978	1.299		(50.0,50.0,50.0,50.0,50.0)
1,2-Dichloroethane	1.755	1.786	1.717	1.744	1.727	11.37	1.746	1.526		
2-Butanone	.8601	.7279	.6557	.6282	.6501	9.220	.7044	13.45		
1,1,1-Trichloroethane	2.102	2.192	2.088	2.219	2.165	10.36	2.153	2.621		
Carbon Tetrachloride	2.264	2.345	2.278	2.419	2.348	10.76	2.331	2.674		
Vinyl Acetate	3.852	2.934	3.070	4.796	4.737	7.663	3.878	22.80		
Bromodichloromethane	2.691	2.880	2.815	2.992	2.944	13.94	2.864	4.112		
1,2-Dichloropropane	.4088	.4317	.3956	.4001	.4080	13.30	.4088	3.400	*	
Trans-1,3-Dichloropropene	.4198	.4259	.4585	.4810	.4926	16.04	.4555	7.101		
Trichloroethene	.4783	.5300	.4683	.4700	.4572	12.81	.4808	5.930		
Dibromochloromethane	.5417	.6159	.6074	.6036	.5810	17.14	.5899	5.066		
1,1,2-Trichloroethane	.3691	.3726	.3726	.3640	.3633	16.38	.3683	1.229		
Benzene	.8392	.8726	.8060	.8082	.8272	11.28	.8306	3.275		
cis-1,3-Dichloropropene	.5711	.6049	.6159	.6423	.6514	14.89	.6171	5.173		
2-Chloroethylvinylether	.1826	.2202	.2298	.2259	.2453	14.65	.2208	10.54		
Bromoform	.6541	.7328	.7399	.7400	.7101	19.88	.7154	5.086	**	
2-Hexanone	.4257	.4820	.4344	.4579	.5256	15.25	.4651	8.665		
4-Methyl-2-Pentanone	.0458	.2435	.2855	.3310	.3881	17.09	.2588	50.48		
Tetrachloroethene	.5446	.5673	.5422	.5505	.5333	16.62	.5476	2.310		
1,1,2,2-Tetrachloroethane	.7657	.7764	.7745	.7784	.8021	20.80	.7794	1.739	**	
Toluene	.5568	.6390	.5958	.6169	.6349	15.54	.6087	5.531	*	
Toluene d-8	1.052	1.074	1.073	1.074	1.112	15.41	1.077	2.016		(50.0,50.0,50.0,50.0,50.0)
Chlorobenzene	.9437	1.005	.9313	.9504	.9796	18.30	.9621	3.118	**	

* - Indicates CCC Compound ** - Indicates SPCC Compound Units in ug/L
$RT - Avg Retention Times $RF - Avg Response Factor $RSD- Relative Standard Deviation

FORM6 (Page 1 of 2)

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR SOIL

Instrument ID: MSD_1
Calibration Date: 05/16/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>E0405	>E0406	>E0407	>E0408	>E0409					
	RF	RF	RF	RF	RF					
Compound	10.0	20.0	50.0	100.0	200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Ethylbenzene	1.238	1.378	1.291	1.375	1.416	18.53	1.340	5.444	*	
Styrene	.8233	.9153	.8905	.9300	.8849	19.55	.8888	4.606		
m&p-Xylenes	.5043	.5246	.4932	.4963	.4656	18.76	.4968	4.293		(20.0,40.0,100.,200.,400.)
o-Xylene	1.315	1.409	1.257	1.279	1.216	19.52	1.295	5.623		
Bromofluorobenzene	.8745	.8861	.9257	.9356	.9652	20.51	.9174	4.043		(50.0,50.0,50.0,50.0,50.0)
1,3-Dichlorobenzene	.9870	1.025	.9961	1.042	1.040	22.56	1.018	2.473		
1,4-Dichlorobenzene	1.387	1.285	1.165	1.161	1.090	22.73	1.217	9.676		
1,2-Dichlorobenzene	1.100	1.053	.9938	.9992	.9781	23.42	1.025	4.948		

* - Indicates CCC Compound
** - Indicates SPCC Compound
Units in ug/L
$RT - Avg Retention Times
$RF - Avg Response Factor
$RSD- Relative Standard Deviation

FORM6 (Page 2 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^E0595

Instrument ID : MSD_1
Calibration Date: 05/27/94
Injection Time : 1416

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	.7441	1.050	2.973	41.14	**	
Bromomethane	.2760	.3125	3.479	13.23		
Vinyl Chloride	.9177	1.075	3.088	17.13	*	
Chloroethane	.1475	.1217	3.548	17.53		
Trichlorofluoromethane	.9302	1.048	3.892	12.65		
t-Butyl Alcohol	.0818	.0884	6.259	8.00		(Conc=250)
Methyl-t-butyl ether	1.667	1.541	6.397	7.57		
Methylene Chloride	.7807	.8106	5.708	3.82		
Acrolein	--	--	--	--		
Acrylonitrile	.1612	.1711	6.305	6.15		
Acetone	.1940	.1871	4.972	3.52		
Carbon Disulfide	1.958	2.347	5.156	19.90		
1,1-Dichloroethene	.5908	.6575	4.765	11.30	*	
Di-isopropyl-ether	4.423	5.155	7.683	16.56		
1,1-Dichloroethane	2.198	2.380	7.339	8.30	**	
Trans-1,2-Dichloroethene	.6761	.7432	6.305	9.93		
Chloroform	2.743	2.864	9.934	4.41	*	
1,2-Dichloroethane-d4	.2978	.3244	11.15	8.90		
1,2-Dichloroethane	1.746	1.678	11.34	3.89		
2-Butanone	.7044	.7385	9.199	4.85		
1,1,1-Trichloroethane	2.153	2.276	10.33	5.68		
Carbon Tetrachloride	2.331	2.432	10.74	4.35		
Vinyl Acetate	3.878	5.047	7.614	30.15		
Bromodichloromethane	2.864	3.113	13.91	8.67		
1,2-Dichloropropane	.4088	.4388	13.27	7.32	*	
Trans-1,3-Dichloropropene	.4555	.4725	16.00	3.73		
Trichloroethene	.4808	.4736	12.78	1.48		
Dibromochloromethane	.5899	.6036	17.10	2.33		
1,1,2-Trichloroethane	.3683	.3799	16.35	3.14		
Benzene	.8306	.8735	11.24	5.16		
cis-1,3-Dichloropropene	.6171	.6549	14.85	6.11		
2-Chloroethylvinylether	.2208	.2401	14.62	8.76		
Bromoform	.7154	.6951	19.86	2.83	**	
2-Hexanone	.4651	.4488	15.22	3.52		
4-Methyl-2-Pentanone	.2588	.2910	16.92	12.46		
Tetrachloroethene	.5476	.5207	16.60	4.90		
1,1,2,2-Tetrachloroethane	.7794	.8137	20.78	4.40	**	
Toluene	.6087	.6278	15.52	3.15	*	
Toluene d-8	1.077	1.067	15.38	.94		
Chlorobenzene	.9621	.9696	18.28	.78	**	

* - Indicates CCC compound ** - Indicates SPCC compound
RT - Cont Cal Retention Times RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF $RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 1 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^E0595

Instrument ID : MSD_1
Calibration Date: 05/27/94
Injection Time : 1416

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.340	1.338	18.51	.11	*	
Styrene	.8888	.9368	19.52	5.40		
m&p-Xylenes	.4968	.5188	18.74	4.43		(Conc=100)
o-Xylene	1.295	1.249	19.49	3.60		
Bromofluorobenzene	.9174	.8593	20.48	6.34		
1,3-Dichlorobenzene	1.018	1.001	22.53	1.63		
1,4-Dichlorobenzene	1.217	1.140	22.69	6.34		
1,2-Dichlorobenzene	1.025	.9759	23.40	4.77		

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 2 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR WATER
File name: ^E0616

Instrument ID : MSD_1
Calibration Date: 05/31/94
Injection Time : 1153

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	1.021	1.270	2.967	24.39	**	
Bromomethane	.4558	.5131	3.634	12.55		
Vinyl Chloride	1.077	1.208	3.105	12.17	*	
Chloroethane	.2310	.3050	3.565	32.04		
Trichlorofluoromethane	1.367	1.332	3.932	2.58		
t-Butyl Alcohol	.0299	.0320	6.160	6.81		(Conc=250)
Methyl-t-butyl ether	1.391	1.365	6.413	1.88		
Methylene Chloride	.8183	.8686	5.724	6.15		
Acrolein	--	--	--	--		
Acrylonitrile	.1079	.1041	6.321	3.53		
Acetone	.1070	.1014	4.966	5.27		
Carbon Disulfide	2.293	2.573	5.196	12.23		
1,1-Dichloroethene	.6765	.7404	4.805	9.46	*	
Di-isopropyl-ether	4.594	5.127	7.677	11.58		
1,1-Dichloroethane	2.382	2.645	7.355	11.04	**	
Trans-1,2-Dichloroethene	.8125	.8402	6.321	3.41		
Chloroform	2.905	3.246	9.928	11.73	*	
1,2-Dichloroethane-d4	.2911	.3125	11.15	7.34		
1,2-Dichloroethane	1.505	1.603	11.33	6.51		
2-Butanone	.3504	.3374	9.193	3.70		
1,1,1-Trichloroethane	2.341	2.716	10.32	15.99		
Carbon Tetrachloride	2.568	2.943	10.73	14.60		
Vinyl Acetate	3.859	4.545	7.608	17.79		
Bromodichloromethane	2.900	3.410	13.90	17.57		
1,2-Dichloropropane	.3721	.3962	13.28	6.47	*	
Trans-1,3-Dichloropropene	.3514	.3937	16.02	12.02		
Trichloroethene	.4519	.4963	12.78	9.81		
Dibromochloromethane	.4627	.5243	17.12	13.31		
1,1,2-Trichloroethane	.2650	.3000	16.36	13.23		
Benzene	.7992	.8407	11.26	5.20		
cis-1,3-Dichloropropene	.5461	.5956	14.87	9.05		
2-Chloroethylvinylether	.1286	.1406	14.61	9.32		
Bromoform	.4753	.5448	19.85	14.61	**	
2-Hexanone	.1971	.1876	15.23	4.84		
4-Methyl-2-Pentanone	.1115	.1015	16.96	8.99		
Tetrachloroethene	.5461	.5803	16.59	6.25		
1,1,2,2-Tetrachloroethane	.5035	.5082	20.77	.93	**	
Toluene	.6075	.6307	15.51	3.81	*	
Toluene d-8	1.085	1.040	15.37	4.18		
Chlorobenzene	.9436	1.005	18.27	6.47	**	

* - Indicates CCC compound ** - Indicates SPCC compound
RT - Cont Cal Retention Times RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF $RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 1 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR WATER
File name: ^E0616

Instrument ID : MSD_1
Calibration Date: 05/31/94
Injection Time : 1153

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.326	1.379	18.50	4.04	*	
Styrene	.8616	.9448	19.53	9.65		
m&p-Xylenes	.5028	.5568	18.73	10.73		(Conc=100)
o-Xylene	1.232	1.305	19.49	5.88		
Bromofluorobenzene	.8618	.8369	20.48	2.89		
1,3-Dichlorobenzene	.9829	1.083	22.52	10.20		
1,4-Dichlorobenzene	1.159	1.206	22.70	4.14		
1,2-Dichlorobenzene	.9230	.9834	23.39	6.55		

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 2 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^E0617

Instrument ID : MSD_1
Calibration Date: 05/31/94
Injection Time : 1223

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	.7441	.9525	2.961	28.01	**	
Bromomethane	.2760	.2819	3.489	2.13		
Vinyl Chloride	.9177	1.075	3.099	17.12	*	
Chloroethane	.1475	.1470	3.535	.36		
Trichlorofluoromethane	.9302	.9572	3.880	2.91		
t-Butyl Alcohol	.0818	.1063	6.269	29.83		(Conc=250)
Methyl-t-butyl ether	1.667	1.606	6.430	3.64		
Methylene Chloride	.7807	.7895	5.694	1.12		
Acrolein	--	--	--	--		
Acrylonitrile	.1612	.1892	6.315	17.38		
Acetone	.1940	.2256	4.982	16.33		
Carbon Disulfide	1.958	2.178	5.143	11.24		
1,1-Dichloroethene	.5908	.6097	4.753	3.21	*	
Di-isopropyl-ether	4.423	4.875	7.670	10.22		
1,1-Dichloroethane	2.198	2.345	7.325	6.71	**	
Trans-1,2-Dichloroethene	.6761	.7229	6.292	6.92		
Chloroform	2.743	2.923	9.921	6.55	*	
1,2-Dichloroethane-d4	.2978	.3248	11.14	9.05		
1,2-Dichloroethane	1.746	1.783	11.32	2.14		
2-Butanone	.7044	.7774	9.186	10.36		
1,1,1-Trichloroethane	2.153	2.358	10.31	9.52		
Carbon Tetrachloride	2.331	2.542	10.73	9.07		
Vinyl Acetate	3.878	4.487	7.601	15.71		
Bromodichloromethane	2.864	3.178	13.90	10.96		
1,2-Dichloropropane	.4088	.4298	13.28	5.13	*	
Trans-1,3-Dichloropropene	.4555	.4940	16.01	8.43		
Trichloroethene	.4808	.5105	12.77	6.19		
Dibromochloromethane	.5899	.6498	17.11	10.15		
1,1,2-Trichloroethane	.3683	.4064	16.36	10.34		
Benzene	.8306	.8612	11.25	3.69		
cis-1,3-Dichloropropene	.6171	.6775	14.86	9.79		
2-Chloroethylvinylether	.2208	.2357	14.61	6.77		
Bromoform	.7154	.8105	19.85	13.30	**	
2-Hexanone	.4651	.5512	15.23	18.50		
4-Methyl-2-Pentanone	.2588	.3536	16.93	36.63		
Tetrachloroethene	.5476	.5622	16.59	2.67		
1,1,2,2-Tetrachloroethane	.7794	.8380	20.79	7.51	**	
Toluene	.6087	.6216	15.50	2.13	*	
Toluene d-8	1.077	1.047	15.39	2.76		
Chlorobenzene	.9621	.9997	18.29	3.91	**	

* - Indicates CCC compound ** - Indicates SPCC compound
RT - Cont Cal Retention Times RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF $RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 1 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^E0617

Instrument ID : MSD_1
Calibration Date: 05/31/94
Injection Time : 1223

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.340	1.372	18.52	2.45	*	
Styrene	.8888	.9621	19.53	8.25		
m&p-Xylenes	.4968	.5342	18.75	7.53		(Conc=100)
o-Xylene	1.295	1.316	19.48	1.57		
Bromofluorobenzene	.9174	.8890	20.49	3.10		
1,3-Dichlorobenzene	1.018	1.064	22.54	4.49		
1,4-Dichlorobenzene	1.217	1.201	22.70	1.33		
1,2-Dichlorobenzene	1.025	1.047	23.39	2.14		

* - Indicates CCC compound ** - Indicates SPCC compound
RT - Cont Cal Retention Times RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF $RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

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8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >E0407 Lab Sample ID: 50PPB STD

Date Analyzed: 05/16/94 Time Analyzed: 15:02

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	54160	9.68	205561	12.26	185915	18.25
UPPER LIMIT	108320		411122		371830	
LOWER LIMIT	27080		102780		92958	
LAB SAMPLE #						
10PPB STD	51758	9.69	198651	12.26	181298	18.24
20PPB STD	51454	9.70	192743	12.27	169819	18.25
100PPB STD	55969	9.70	220513	12.25	197261	18.25
200PPB STD	57249	9.69	222938	12.27	193944	18.24
DAILY BLK(	58042	9.70	229475	12.27	197386	18.24
AA23298	6985*	9.74	33307*	12.29	21840*	18.26
AA23298	47044	9.70	178461	12.28	155313	18.25

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

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

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >E0402 Lab Sample ID: 50PPB STD

Date Analyzed: 05/16/94 Time Analyzed: 12:34

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	39025	9.70	174531	12.27	151192	18.24
UPPER LIMIT	78050		349062		302384	
LOWER LIMIT	19513		87265		75596	
LAB SAMPLE #						
10PPB STD	29076	9.69	130933	12.27	124172	18.24
20PPB STD	34950	9.70	155021	12.27	137026	18.25
100PPB STD	40378	9.69	178383	12.27	155160	18.24
200PPB STD	43130	9.69	189940	12.27	165048	18.24
DAILY BLK(	46980	9.69	210306	12.26	179943	18.24
AA23370	46243	9.69	203727	12.26	175789	18.24
AA23419	44360	9.68	199821	12.26	171087	18.25
AA23501	44355	9.68	199688	12.25	176456	18.25
AA23401	43615	9.68	199003	12.25	175820	18.24
AA23402	41974	9.68	184965	12.25	167654	18.25
AA23403	44426	9.68	192295	12.25	169450	18.24
AA23404	45485	9.68	199816	12.26	174169	18.25

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

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

Column used to flag internal standard are values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >E0595 Lab Sample ID: DAILY CAL(S

Date Analyzed: 05/27/94 Time Analyzed: 14:16

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	32544	9.66	134403	12.23	127348	18.23
UPPER LIMIT	65088		268806		254696	
LOWER LIMIT	16272		67201		63674	
LAB SAMPLE #						
DAILY BLK(	36743	9.67	149350	12.24	136546	18.23
AA23696	38206	9.68	154173	12.25	118759	18.22
AA23707	45350	9.67	182362	12.24	168589	18.24
AA23708	40031	9.69	162046	12.24	148150	18.23
AA23700	41857	9.69	163912	12.24	147878	18.23
AA23701	41028	9.67	163398	12.24	143797	18.23
AA23702	42883	9.69	166255	12.24	152651	18.23
AA23703	39810	9.69	160203	12.24	144274	18.23
AA23704	32297	9.69	121176	12.24	93369	18.23
AA23705	41897	9.67	163120	12.24	115171	18.23
AA23706	41869	9.69	166110	12.24	154859	18.23
AA23709	40294	9.69	161842	12.24	148098	18.23
AA23707MS	41956	9.67	172319	12.24	161303	18.22
AA23707MSD	40834	9.67	166337	12.24	155928	18.22
SMB-SPK	41750	9.67	170092	12.24	163818	18.22

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

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

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >E0616 Lab Sample ID: DAILY CAL(A

Date Analyzed: 05/31/94 Time Analyzed: 11:53

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	29878	9.65	145547	12.23	140270	18.22
UPPER LIMIT	59756		291094		280540	
LOWER LIMIT	14939		72773		70135	
LAB SAMPLE #						
DAILY BLK(	33619	9.65	163570	12.24	147029	18.21
AA23845	43670	9.65	187799	12.22	166011	18.22
DAILY BLK(	33737	9.67	156645	12.24	144637	18.22
AA23849	35346	9.67	169844	12.24	153965	18.24
AA23722	36715	9.66	164207	12.23	150902	18.23
AA23722	13462*	9.68	49118*	12.25	49339*	18.24
AA23723	32801	9.68	150789	12.25	145489	18.22
AA23724	32467	9.67	149655	12.25	141608	18.22
AA23722MS	33814	9.66	160833	12.23	151846	18.21
AA23722MSD	34974	9.66	153720	12.23	149420	18.23
WMB-SPK	34430	9.65	159829	12.23	153331	18.22

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

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

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >E0617 Lab Sample ID: DAILY CAL(S

Date Analyzed: 05/31/94 Time Analyzed: 12:23

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	37195	9.65	152149	12.24	144629	18.22
UPPER LIMIT	74390		304298		289258	
LOWER LIMIT	18598		76075		72315	
LAB SAMPLE #						
DAILY BLK(	40222	9.67	163116	12.24	149122	18.23
AA23847	35663	9.67	141473	12.24	127434	18.22
AA23725	42166	9.67	166481	12.25	146522	18.22
AA23825	39056	9.67	153709	12.24	138621	18.22
AA23704	40526	9.67	167519	12.24	156707	18.24
AA23705	40261	9.67	163615	12.24	147027	18.21
AA23725	34987	9.67	134170	12.25	115062	18.22
AA23825	40244	9.68	159538	12.25	146617	18.22

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

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

Column used to flag internal standard are values with an asterisk

1/3/94

METHOD DETECTION LIMTS FOR MSD#1

All the followin analytes were injected at 10 ppb with the exeception of TBA and M&P-Xylene which were injected at 20 and 50 ppb respectively.

FILE ==========>	^C9008	^C9009	^C9010	^C9011	^C9012	^C9013	^C9014	AVG	STDDEV	MDL
Chloromethane	7.47	8.22	7.27	6.88	6.16	6.27	5.74	6.86	.86	2.71
Bromomethane	7.50	7.93	7.04	7.27	7.33	7.75	7.71	7.51	.31	.98
Vinyl Chloride	8.60	8.82	7.99	7.86	7.21	7.01	6.76	7.75	.79	2.49
Chloroethane	4.93	4.81	3.97	4.61	4.75	4.06	5.95	4.73	.66	2.06
Trichlorofluorometh	9.98	10.36	9.88	9.63	8.89	10.33	10.81	9.99	.62	1.94
t-Butyl Alcohol	73.64	63.64	75.78	62.38	67.24	70.21	74.03	69.56	5.29	16.62
Methyl-t-butyl ethe	11.32	10.70	10.88	11.27	11.20	11.31	11.38	11.15	.26	.81
Methylene Chloride	11.30	11.76	11.94	12.58	11.31	11.60	11.42	11.70	.46	1.43
Acetone	10.25	13.83	14.34	16.42	10.25	14.85	14.83	13.54	2.38	7.48
Carbon Disulfide	9.68	9.50	9.80	9.75	9.42	9.35	9.31	9.54	.20	.63
Di-isopropyl-ether	9.47	8.78	9.06	9.09	8.70	8.58	8.46	8.88	.35	1.10
1,1-Dichloroethene	10.18	10.06	9.95	10.77	10.38	10.72	10.41	10.35	.32	1.00
1,1-Dichloroethane	10.24	9.84	9.97	10.40	10.01	10.05	10.03	10.08	.19	.58
Trans-1,2-Dichloroe	10.03	9.65	9.70	9.76	9.31	9.53	9.54	9.65	.22	.70
Chloroform	10.45	10.25	10.86	11.02	10.90	10.98	10.99	10.78	.30	.96
1,2-Dichloroethane	11.06	10.75	11.86	12.26	12.14	12.55	12.54	11.88	.71	2.24
2-Butanone	11.17	11.03	12.21	12.28	11.74	10.39	12.41	11.60	.76	2.40
1,1,1-Trichloroetha	10.68	10.48	11.09	11.44	11.19	11.37	11.48	11.10	.39	1.22
Carbon Tetrachlorid	10.39	10.26	10.67	11.08	10.84	11.03	11.04	10.76	.33	1.04
Vinyl Acetate	8.72	7.83	7.29	6.88	6.09	6.40	5.14	6.91	1.18	3.70
Bromodichloromethan	9.54	9.48	9.91	9.91	10.21	9.82	10.15	9.86	.28	.87
1,2-Dichloropropane	9.22	8.91	9.54	9.40	8.93	9.26	9.30	9.22	.23	.73
cis-1,3-Dichloropro	9.09	8.62	9.20	9.11	9.14	9.08	8.88	9.02	.20	.64
Trichloroethene	9.74	9.28	9.71	9.97	9.79	9.64	9.70	9.69	.21	.66
Dibromochloromethan	9.11	8.68	9.53	9.57	9.55	9.38	9.38	9.31	.32	1.00
1,1,2-Trichloroetha	9.01	9.54	9.49	9.75	9.73	9.61	9.46	9.51	.25	.78
Benzene	9.99	9.69	9.83	10.08	9.66	9.81	9.67	9.82	.16	.51
Trans-1,3-Dichlorop	8.60	7.83	8.56	8.60	8.97	8.50	8.56	8.52	.34	1.06
2-Chloroethylvinyle	5.63	6.05	6.71	7.08	6.48	6.62	6.39	6.42	.47	1.48
Bromoform	8.83	8.30	9.25	9.24	9.42	9.05	8.76	8.98	.38	1.19
2-Hexanone	6.24	4.40	7.81	5.13	7.54	7.24	5.38	6.25	1.32	4.16
4-Methyl-2-Pentanon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tetrachloroethene	9.81	9.68	9.55	9.87	10.00	9.68	10.04	9.81	.18	.56
1,1,2,2-Tetrachloro	9.86	9.65	9.81	9.77	10.54	10.26	9.30	9.89	.40	1.27
Toluene	10.16	9.49	9.37	9.12	9.75	9.56	9.76	9.60	.33	1.05
Chlorobenzene	9.94	9.33	9.56	9.84	9.97	9.61	9.77	9.72	.23	.73
Ethylbenzene	9.64	9.24	9.53	9.58	9.65	9.68	9.74	9.58	.16	.51
Styrene	8.83	8.70	8.93	8.79	8.71	8.78	8.66	8.77	.09	.29
m&p-Xylenes	19.66	19.40	19.28	19.28	19.74	19.36	19.75	19.50	.21	.67
o-Xylene	10.53	10.06	10.29	10.57	10.77	10.76	10.83	10.54	.28	.89
1,3-Dichlorobenzene	9.73	8.84	9.39	9.13	9.57	9.61	9.56	9.41	.32	.99
1,4-Dichlorobenzene	10.52	10.07	10.27	10.28	10.67	10.10	10.50	10.34	.23	.71
1,2-Dichlorobenzene	10.30	9.71	10.17	10.18	10.49	10.31	10.14	10.19	.24	.76

The following analyte was injected at 50 ppb.

FILE ==========>	^c9018	^c9019	^c9020	^c9021	^c9022	^c9023	^c9024	AVG	STDDEV	MDL
4-Methyl-2-Pentanon	61.85	64.11	61.15	59.98	60.27	61.37	65.21	61.99	1.96	6.15

"C" unit converted to "E" unit after data file >C9999

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	251s	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** WATER

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	048W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

| AA23848 MS |

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 82

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	655		39.1		802	77		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

| AA23848 MSD |

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 82

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	674		39.1		808	79		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

MBS

Lab Name: Veritech **Sample Matrix:** WATER

Lab Code: 14622

% Solids for Sample: 0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	9.59		1.0	U	10.0	96		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

| MBS DUP |

Lab Name: Veritech **Sample Matrix:** WATER

Lab Code: 14622

% Solids for Sample: 0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	9.30		1.0	U	10.0	93		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA23848 DUP

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 82

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	39.1		44.3		12.5		C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
MBS DUP

Lab Name: Veritech **Sample Matrix:** WATER

Lab Code: 14622

% Solids for Sample: 0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	9.59		9.30				C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSION DATE 10-Mar-94
TPH_1S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 251

SAMPLE	ABS.	MG
10mg5-26	0.4658	9.9958
MBS	0.4395	9.4296
dup23848	0.0270	0.5487
ms1 23848	0.3809	8.1680
ms2 23848	0.3893	8.3488
mb5-26	0.0090	0.1612
23841	0.0123	0.2322
23842	0.0215	0.4303
23843	0.0149	0.2882
23844	0.0116	0.2172
23845	0.8294	17.8239
23846	0.0199	0.3959
23847	0.8035	17.2663
23848	0.0240	0.4841

mc 5/27/94

Jdata input
S.G 5/27/94

analysis TPH SOILS

BATCH 244

DATE: 27-May-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10	100%
MBS	666.7	628.64	94%
MS #1	802.31	655.33	77%
MS #2	807.62	674.27	79%
SAMPLE		39.10	RPD
SAMPLE DUP		44.32	12.51%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg5-26	1.00	1000	9.9958		1.0	10.00	
MBS	1.00	15.0	9.4296		1.0	628.64	20.00
dup23848	0.82	15.1	0.5487		1.0	44.32	24.39
ms1 23848	0.82	15.2	8.1680		1.0	655.33	24.39
ms2 23848	0.82	15.1	8.3488		1.0	674.27	24.39
mb5-26	1.00	15.0	0.1612		1.0	10.75	20.00
23841	0.77	15.0	0.2322		1.0	20.11	25.97
23842	0.83	15.2	0.4303		1.0	34.11	24.10
23843	0.88	15.3	0.2882		1.0	21.41	22.73
23844	0.85	15.3	0.2172		1.0	16.70	23.53
23845	0.83	15.4	17.8239		2.0	2788.91	48.19
23846	0.87	15.0	0.3959		1.0	30.33	22.99
23847	0.86	15.3	17.2663		1.0	1312.23	23.26
23848	0.82	15.1	0.4841		1.0	39.10	24.39

mc 5/27/94

Jdata input
S.G 5/27/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 047v 6/27 DB
SAMPLE 98

	ABS.	MG
10mg5-13	0.4666	10.0131
MBS	0.4468	9.5868
MBSD	0.4333	9.2961
mb5-13	0.0061	0.0987
23188	0.0088	0.1569
23315	0.0118	0.2215
23342	0.0047	0.0686
23414	0.0062	0.1009
23673	0.0046	0.0665
23721	0.0114	0.2129
23818	0.0068	0.1138
23811	0.0042	0.0578
23812	0.0849 ✓	1.7953
23813	0.1327 ✓	2.8244
23834	0.0201 ✓	0.4002
23849	0.0093 ✓	0.1676
10mg5-17	0.4825	10.3554
10mg5-19	0.4421	9.4856
10mg5-25	0.4672	10.0260
10mg5-26	0.4658	9.9958
mb5-17	0.0035	0.0428
mb5-19	0.0086	0.1526
mb5-25	0.0065	0.1074
mb5-26	0.0066	0.1095

✓ data input
DB 5/27/94

ANALYSIS: TPH WATERS

batch 048w

DATE: 27-May-94

ANALYST: DB

Q.C. DATA

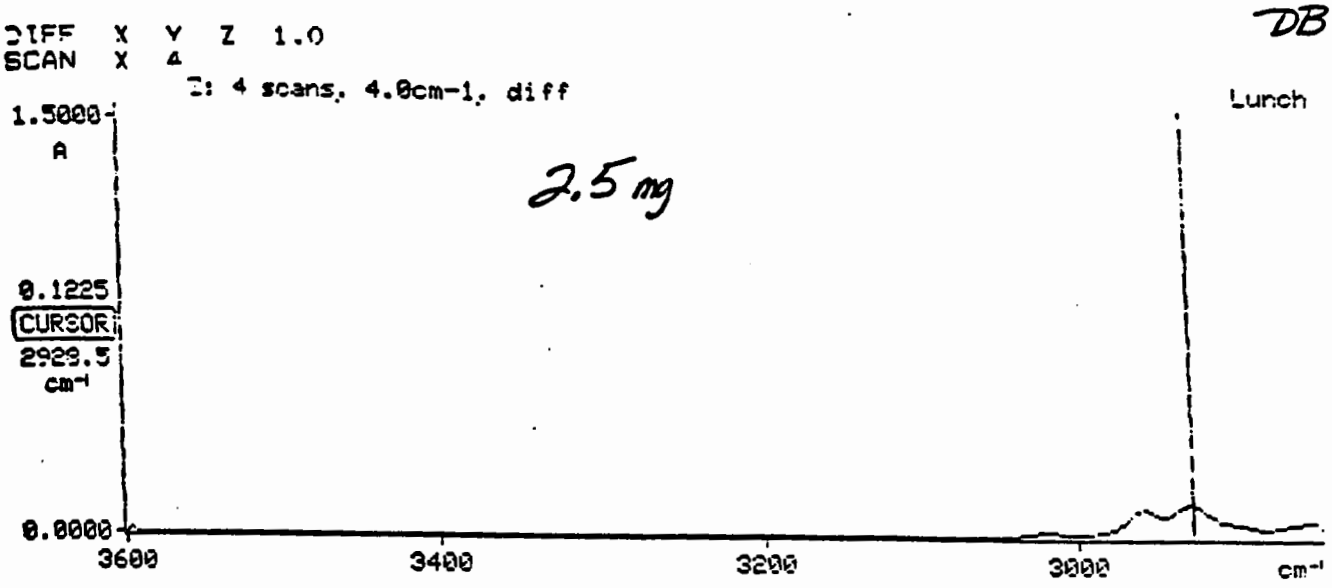
	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.013	100%
MBS	10	9.587	96%
MBS DUP	10	9.296	93%

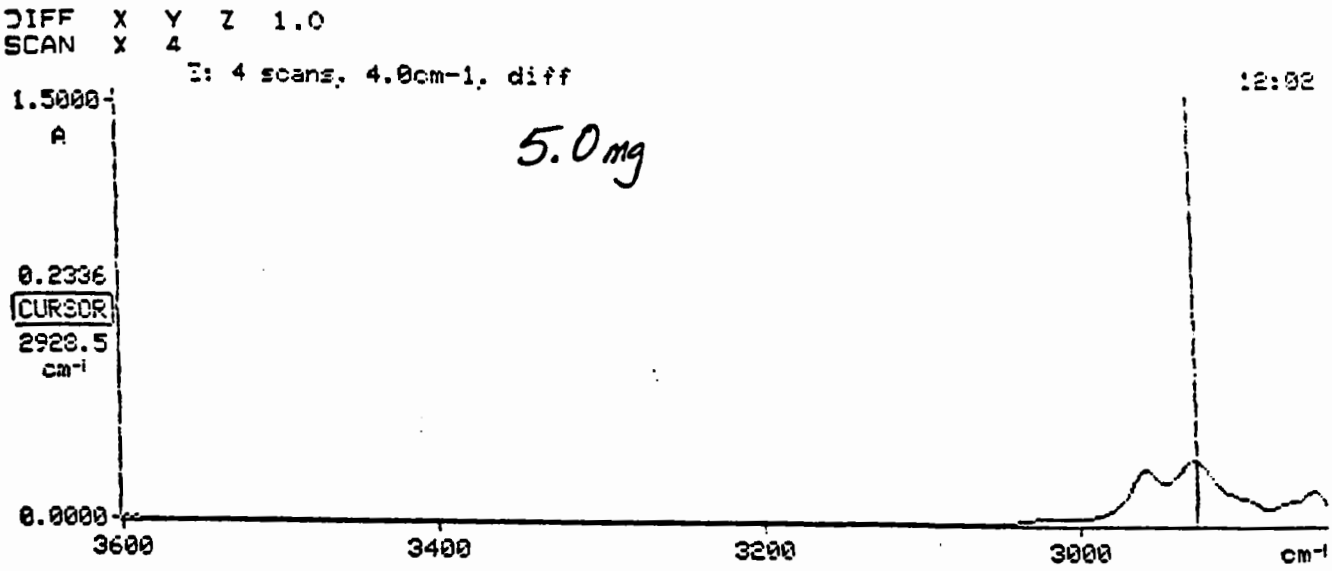
RPD = 0.00%

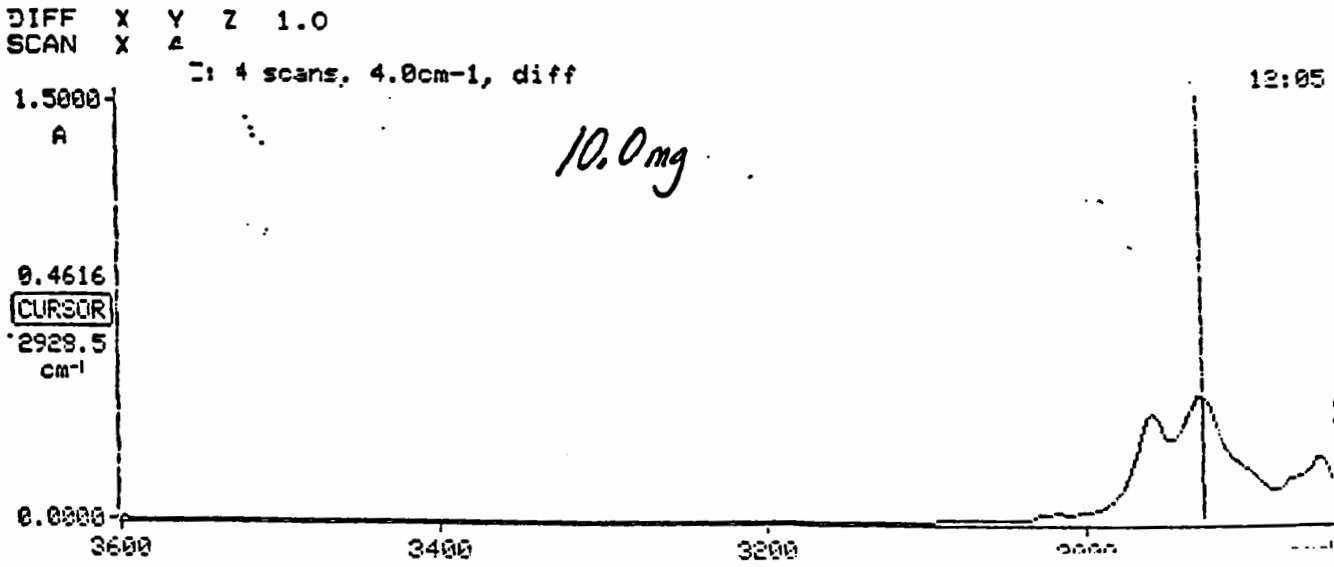
SAMPLE NO.	SAMPLE VOLUME	MG FROM CURV	CALC.	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg5-13	1000	10.0131		1.0	10.013	
MBS	1000	9.5868		1.0	9.587	
MBSD	1000	9.2961		1.0	9.296	
mb5-13	1000	0.0987		1.0	0.099	1.0
23186	940	0.1569		1.0	0.167	1.1
23315	985	0.2215		1.0	0.225	1.0
23342	970	0.0686		1.0	0.071	1.0
23414	270	0.1009		1.0	0.374	3.7
23673	245	0.0665		1.0	0.271	4.1
23721	475	0.2129		1.0	0.448	2.1
23818	925	0.1138		1.0	0.123	1.1
23811	985	0.0578		1.0	0.059	1.0
23812	985	1.7953	5d	1.0 ✓	1.823	1.0
23813	965	2.8244	5/27	1.0 ✓	2.927	1.0
23834	880	0.4002		1.0 ✓	0.455	1.1
23849	245	0.1676		1.0 ✓	0.684	4.1
10mg5-17	1000	10.3554		1.0	10.355	1.0
10mg5-19	1000	9.4856		1.0	9.486	1.0
10mg5-25	1000	10.0260		1.0	10.026	1.0
10mg5-26	1000	9.9958		1.0	9.996	1.0
mb5-17	1000	0.0428		1.0	0.043	1.0
mb5-19	1000	0.1526		1.0	0.153	1.0
mb5-25	1000	0.1074		1.0	0.107	1.0
mb5-26	1000	0.1095		1.0	0.110	1.0

√ data input
DB 5/27/94

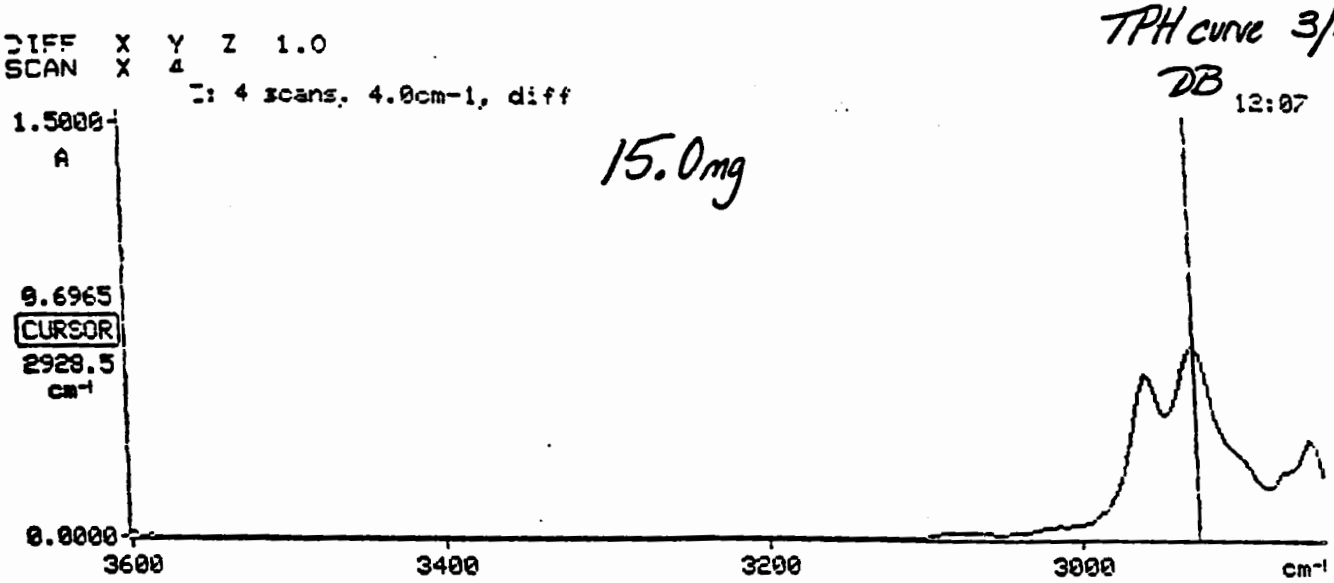
TPH curve 3/10/94
DB

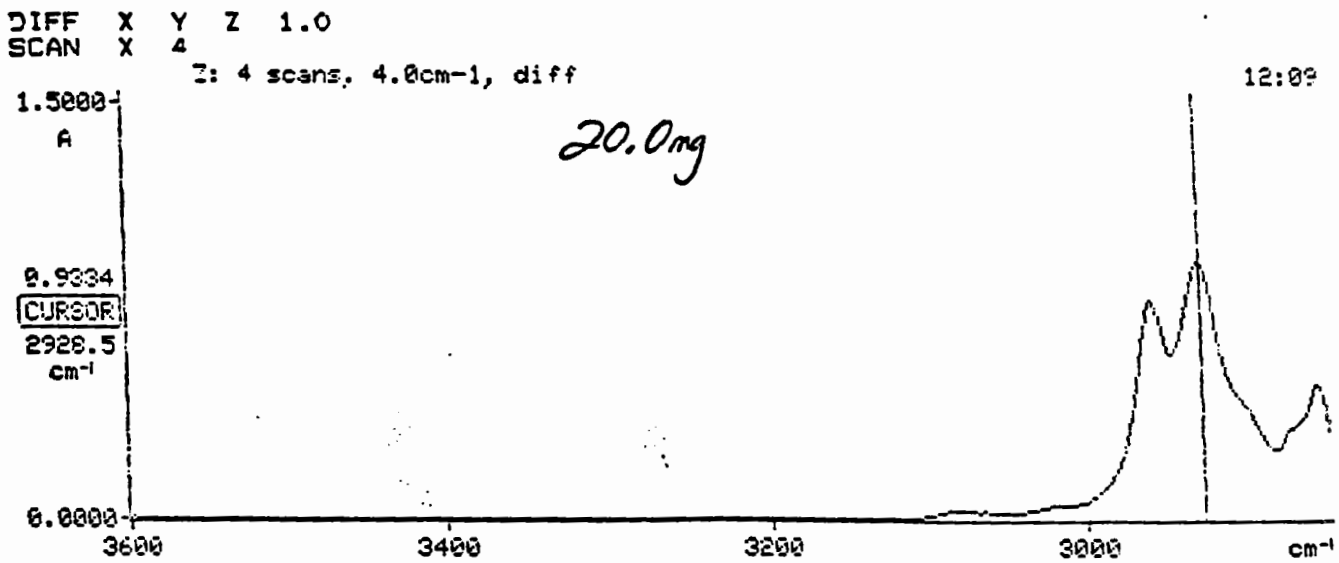


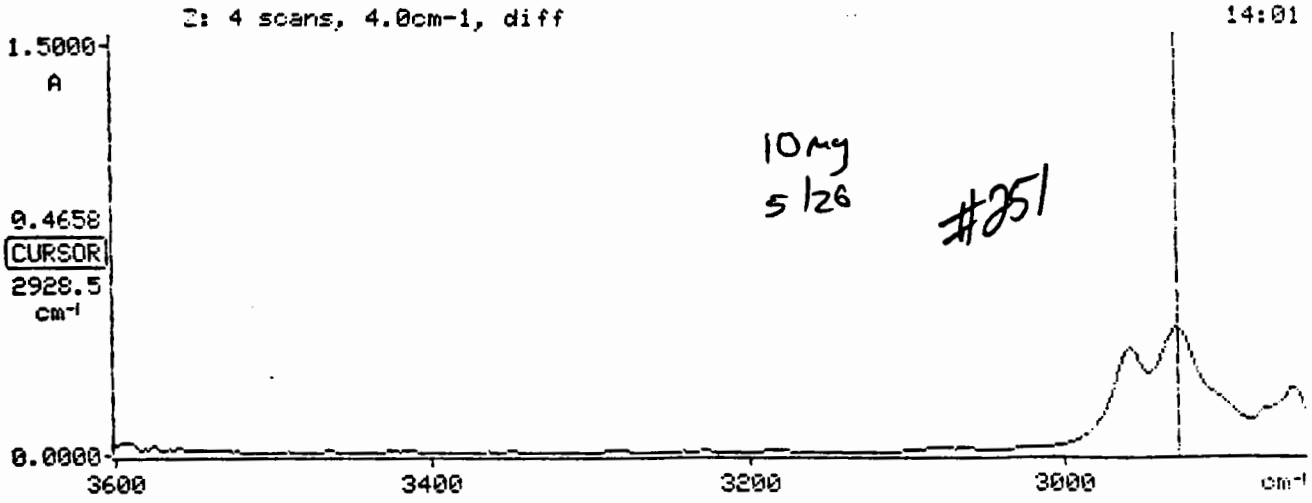


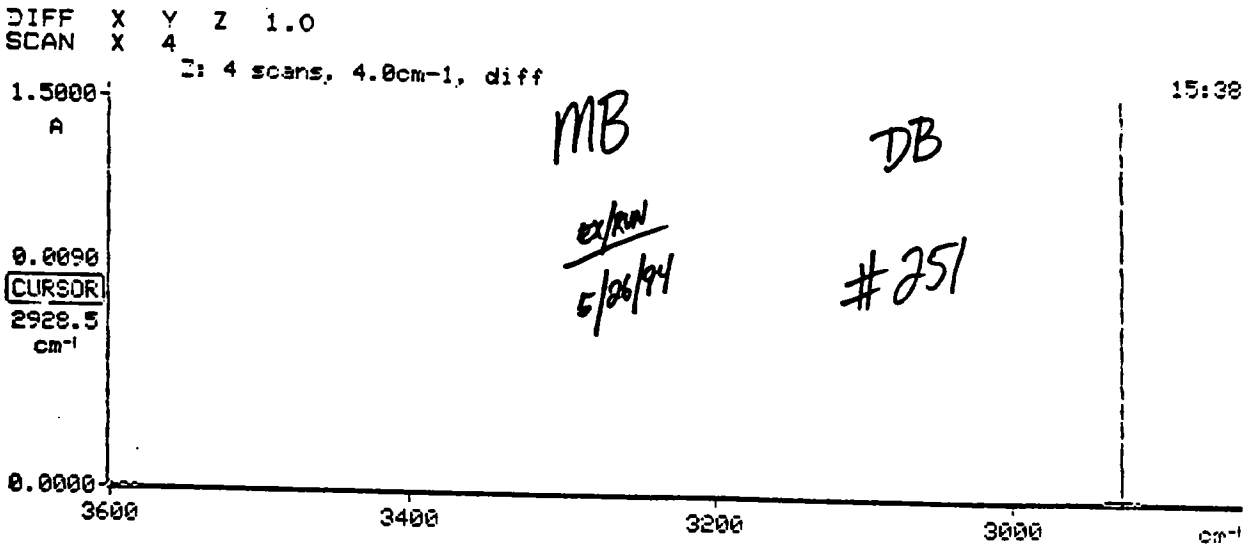


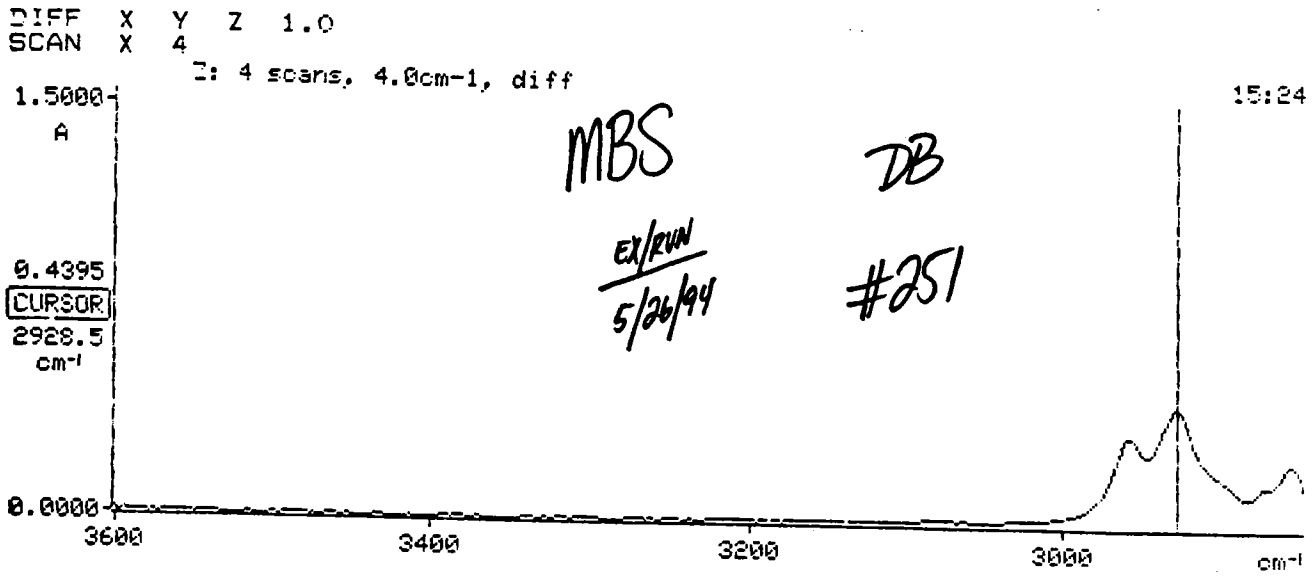
TPH curve 3/10/94
DB

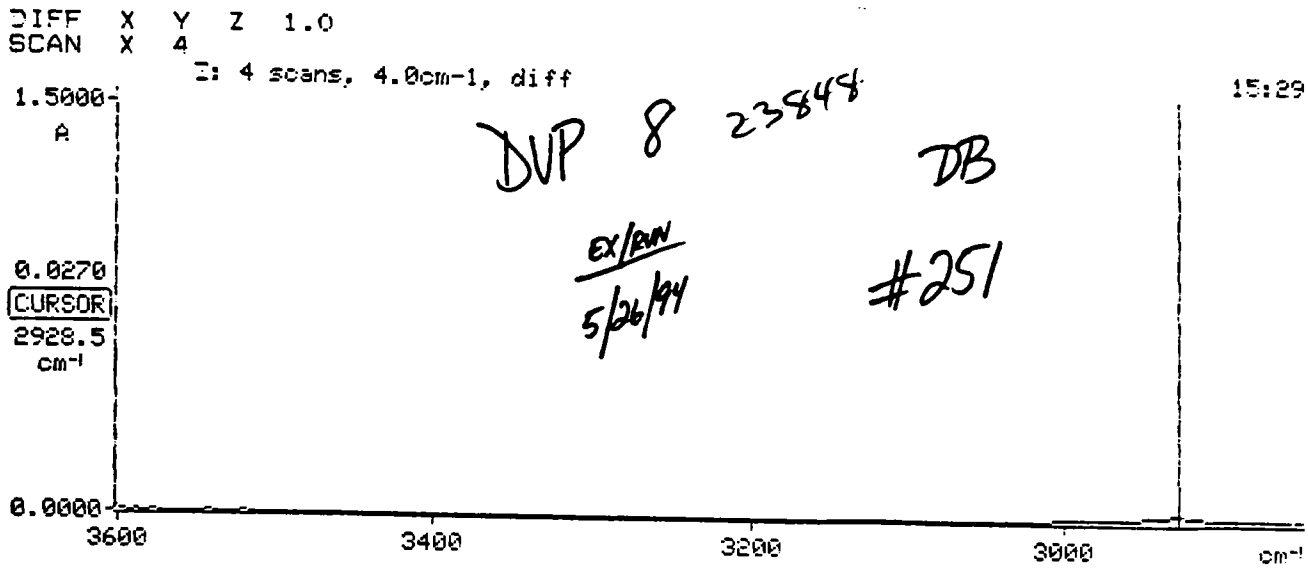


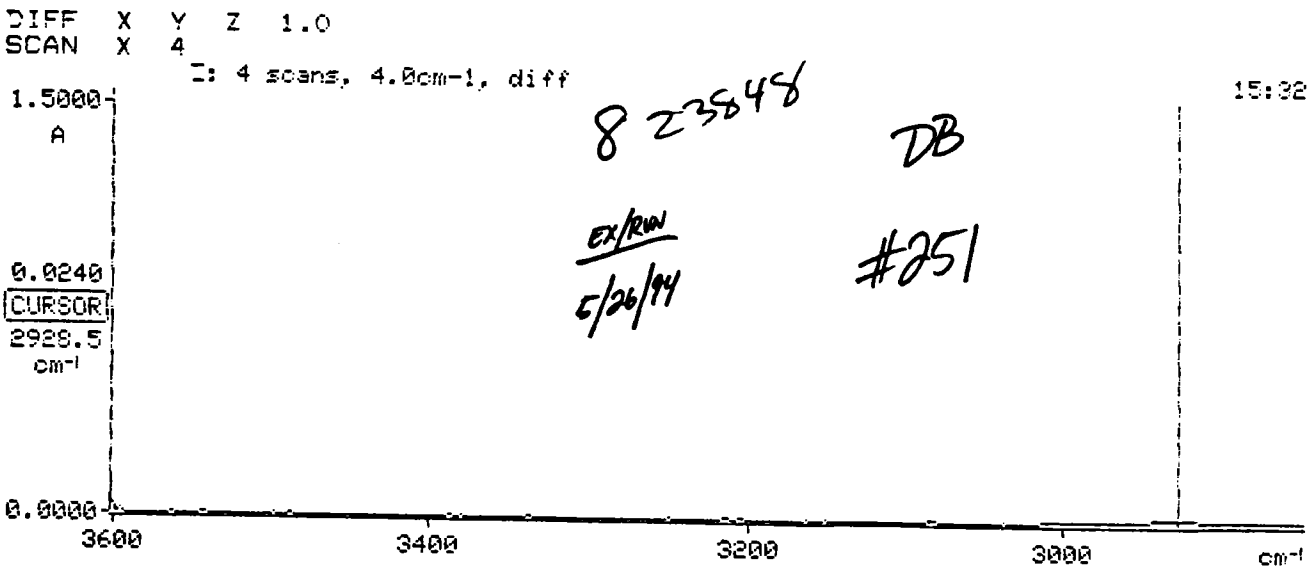


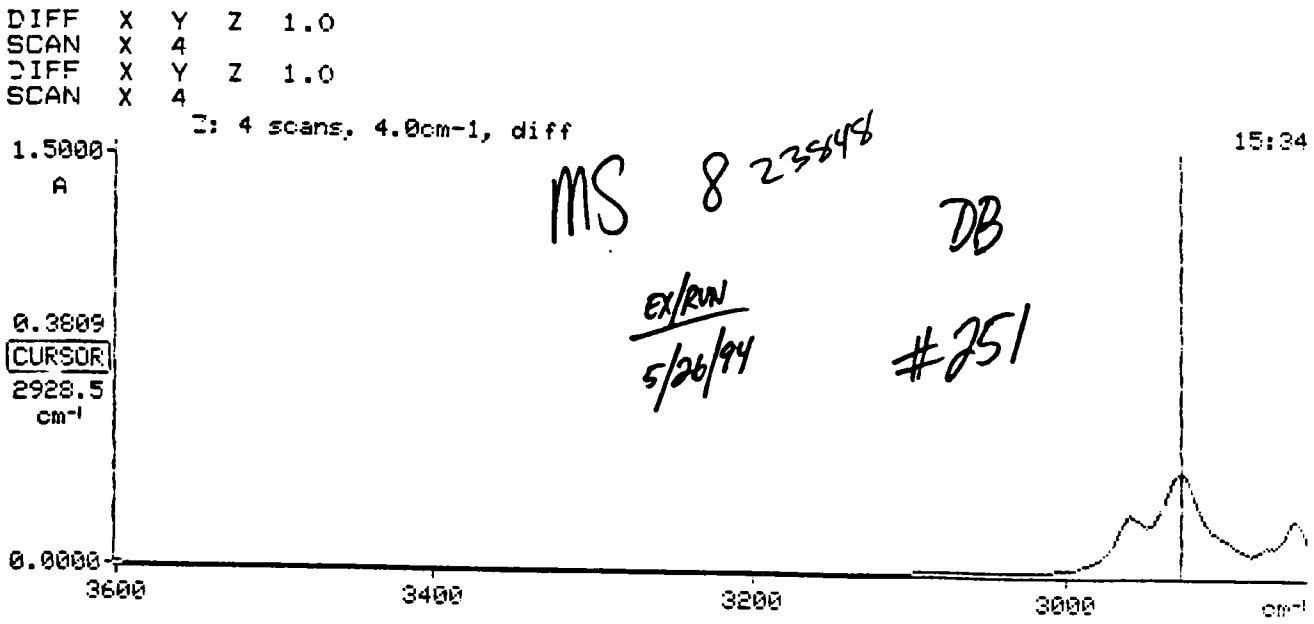

2: 4 scans, 4.0cm-1, diff
14:01
1.5000
A
0.4658
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
10 mg
5/26
#251

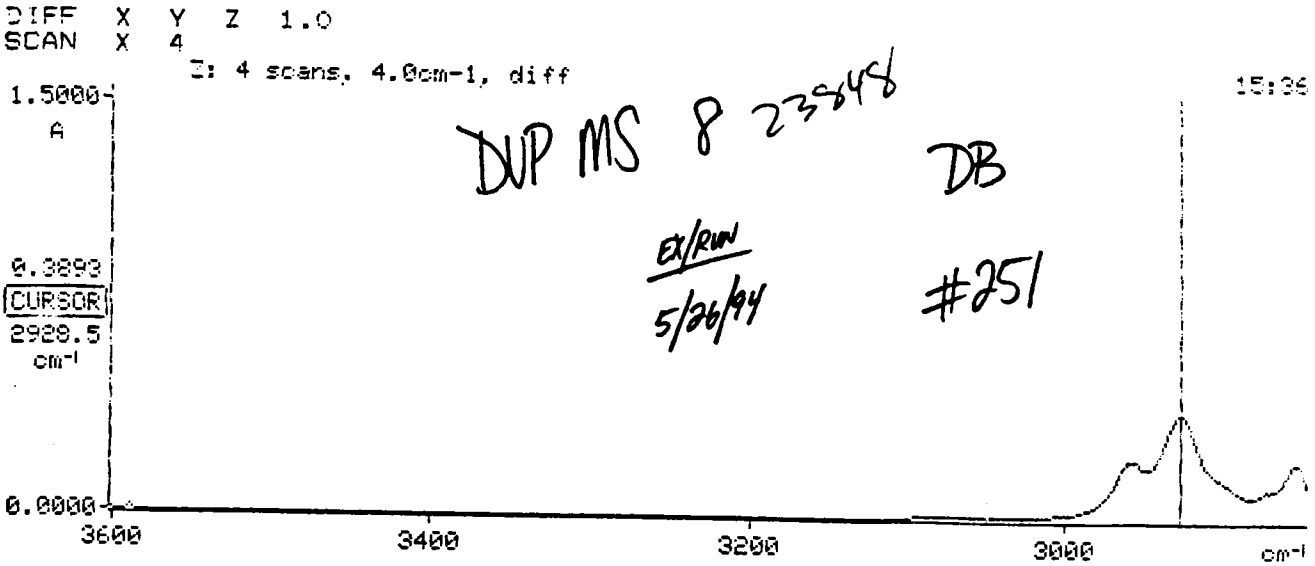

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:38
1.5000
A
0.0090
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
DB
ex/RW
5/26/94
#251


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:24
1.5000
A
0.4395
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MBS
DB
EX/RUN
5/26/94
#251

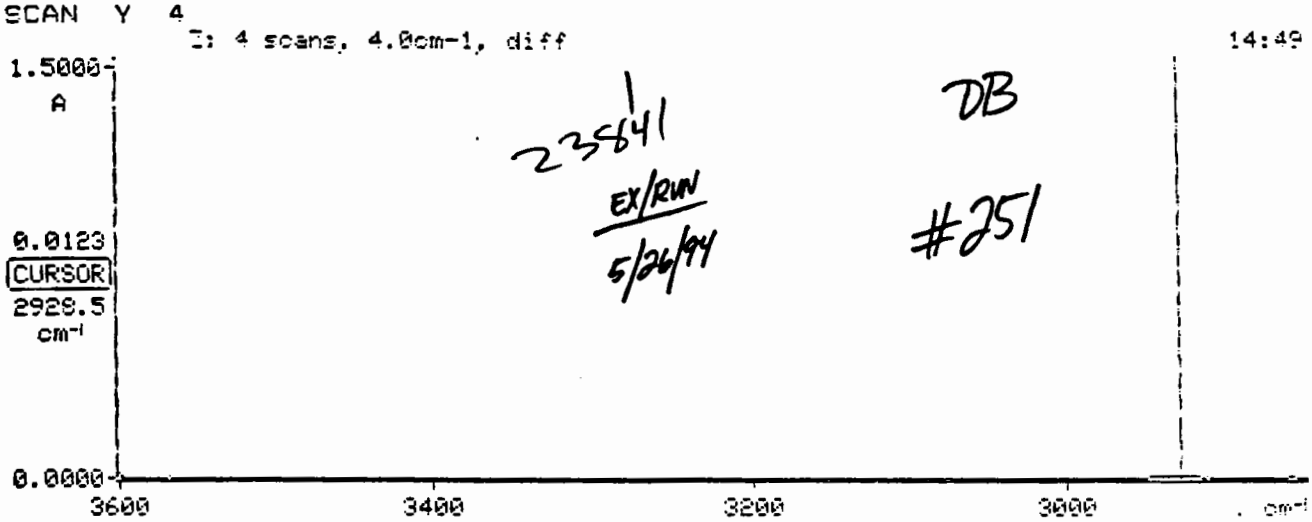

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:29
1.5000
A
0.0270
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
DUP 8 23848
DB
EX/RW
5/26/94
#251


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:32
1.5000
A
0.0240
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
8 23848
DB
EX/RW
5/26/94
#251

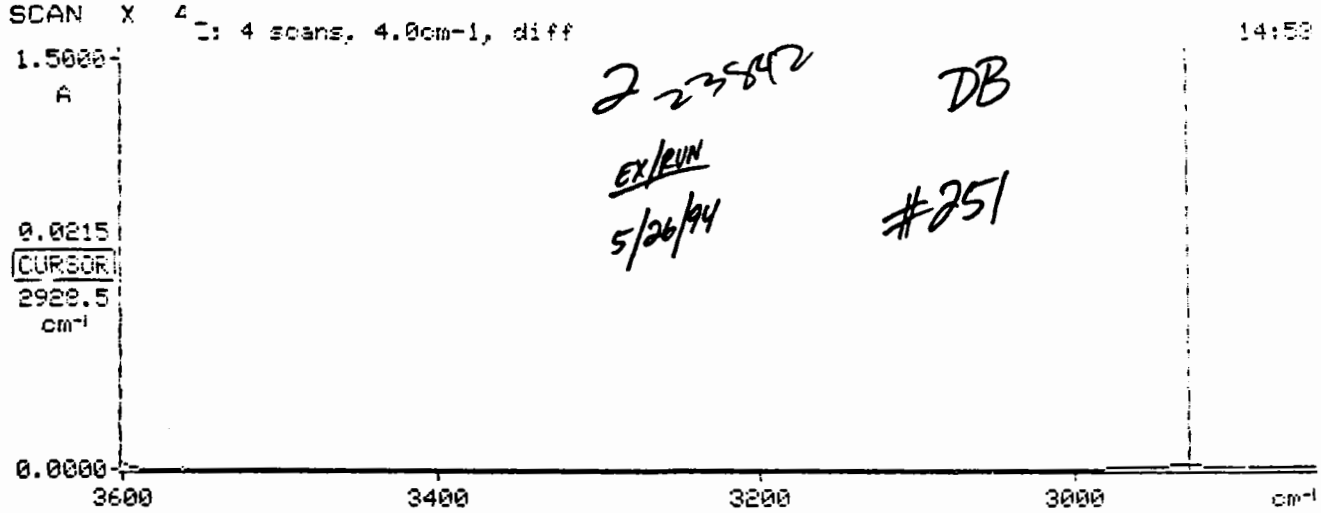

DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:34
1.5000
A
0.3809
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MS 8 23848
DB
EX/RUN
5/26/94
#251


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:36
1.5000
A
0.3893
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
DUP MS 8 23848
DB
EX/RUN
5/26/94
#251

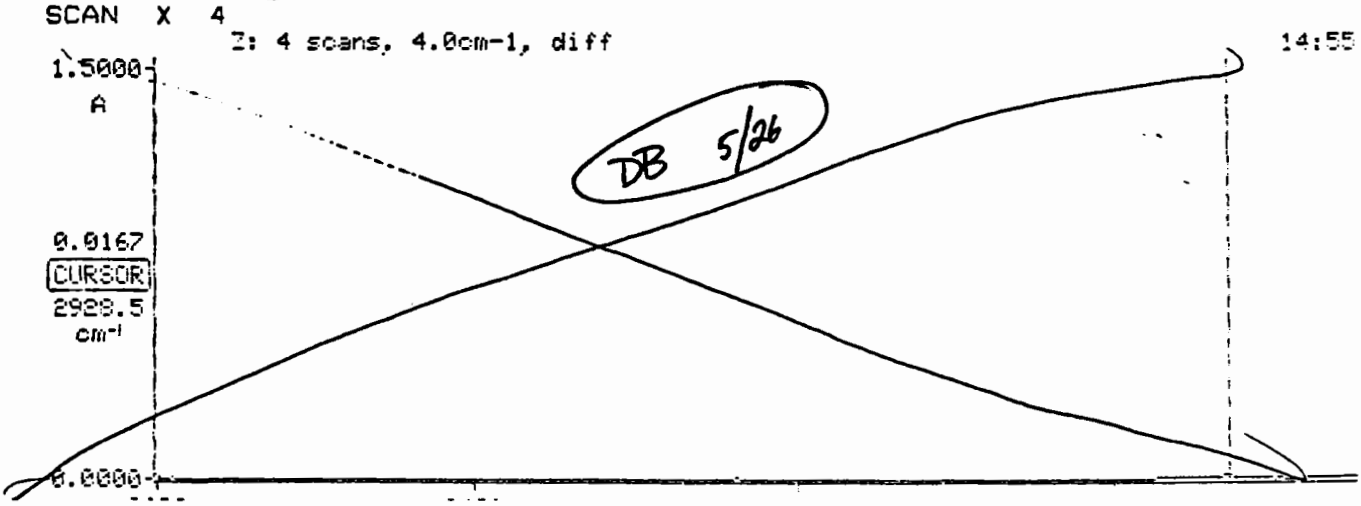
DIFF X Y Z 1.0
SCAN X 4
SCAN X 4
DIFF X Y Z 1.0
SCAN Y 4

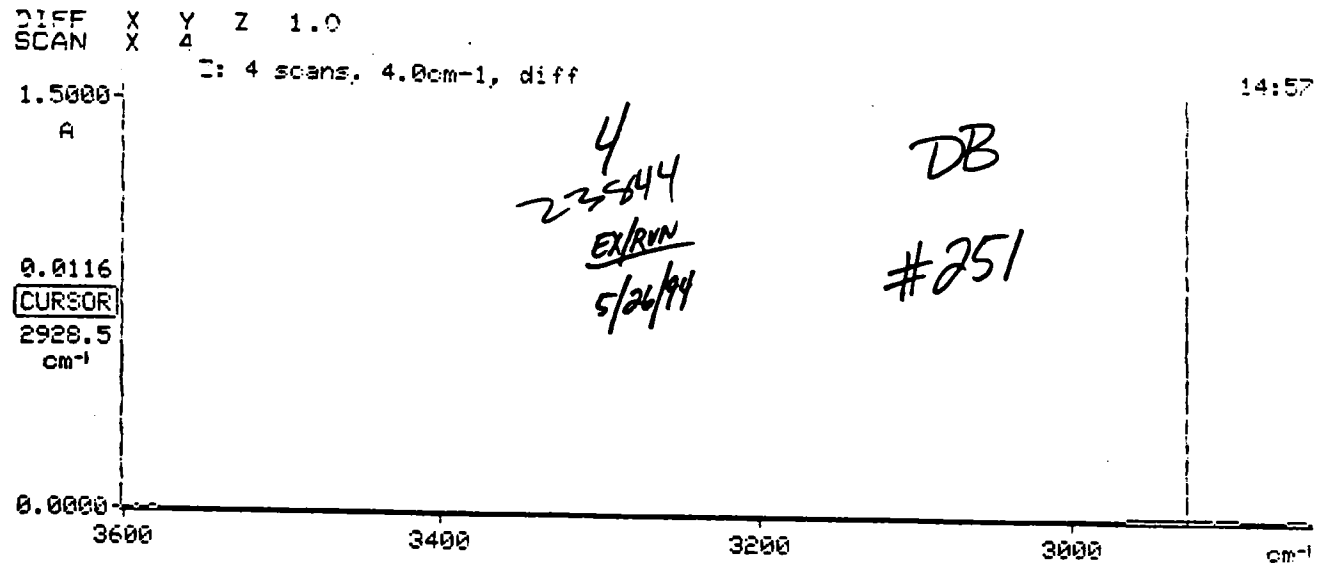


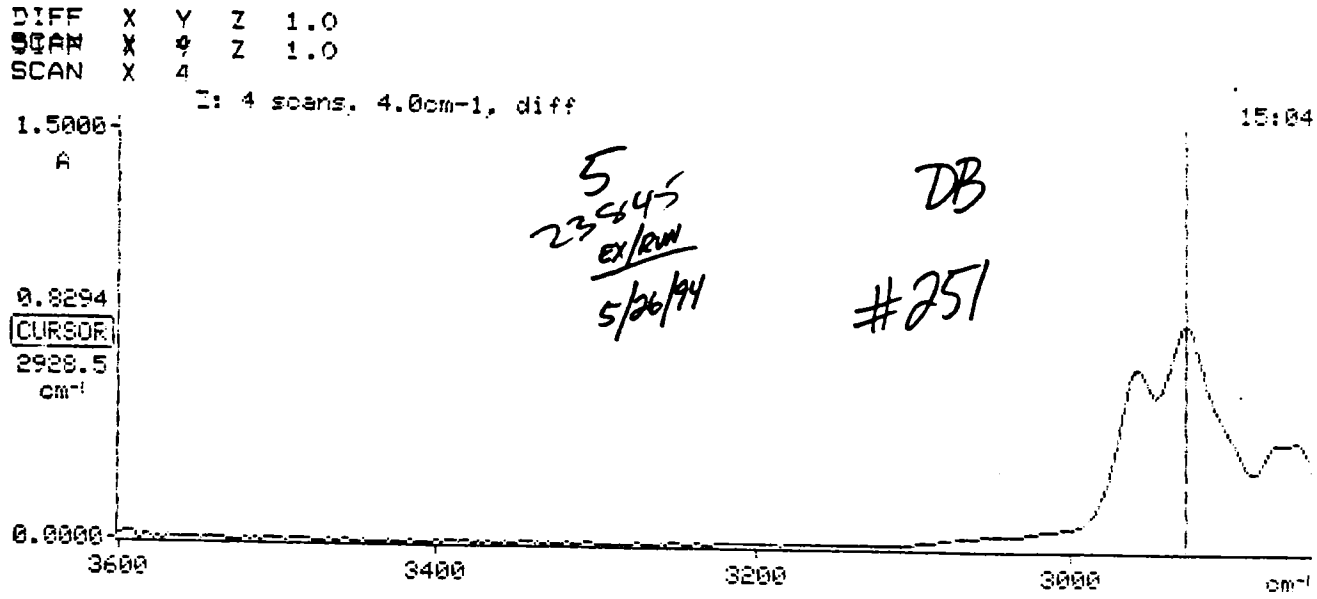
DIFF X Y Z 1.0
SCAN X 4

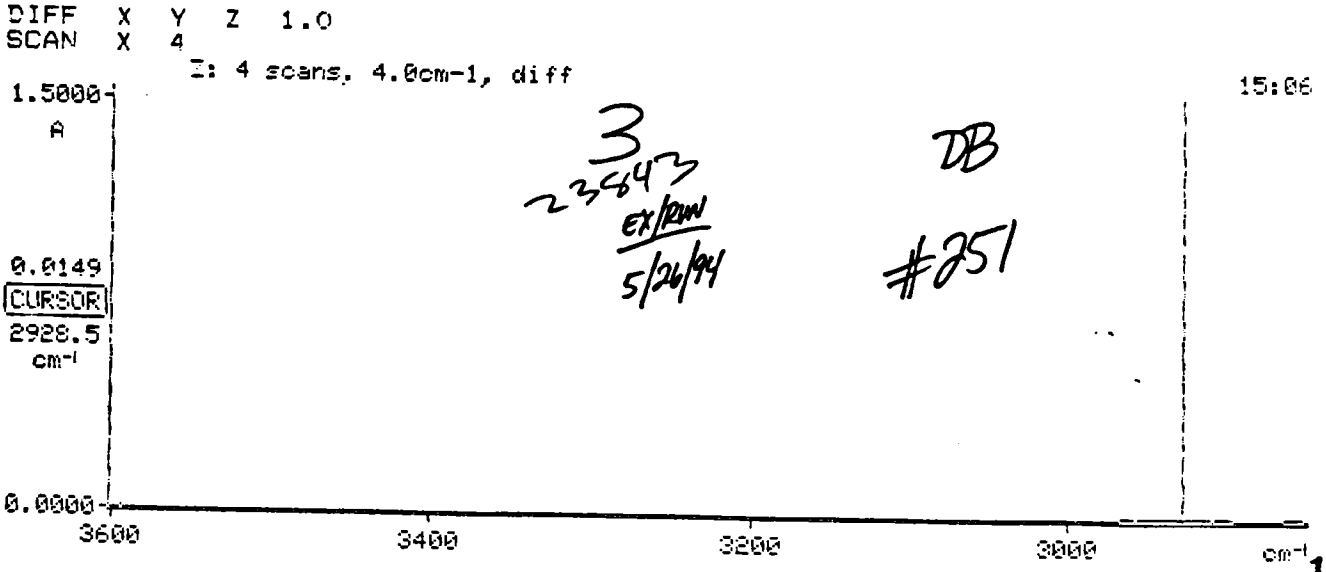


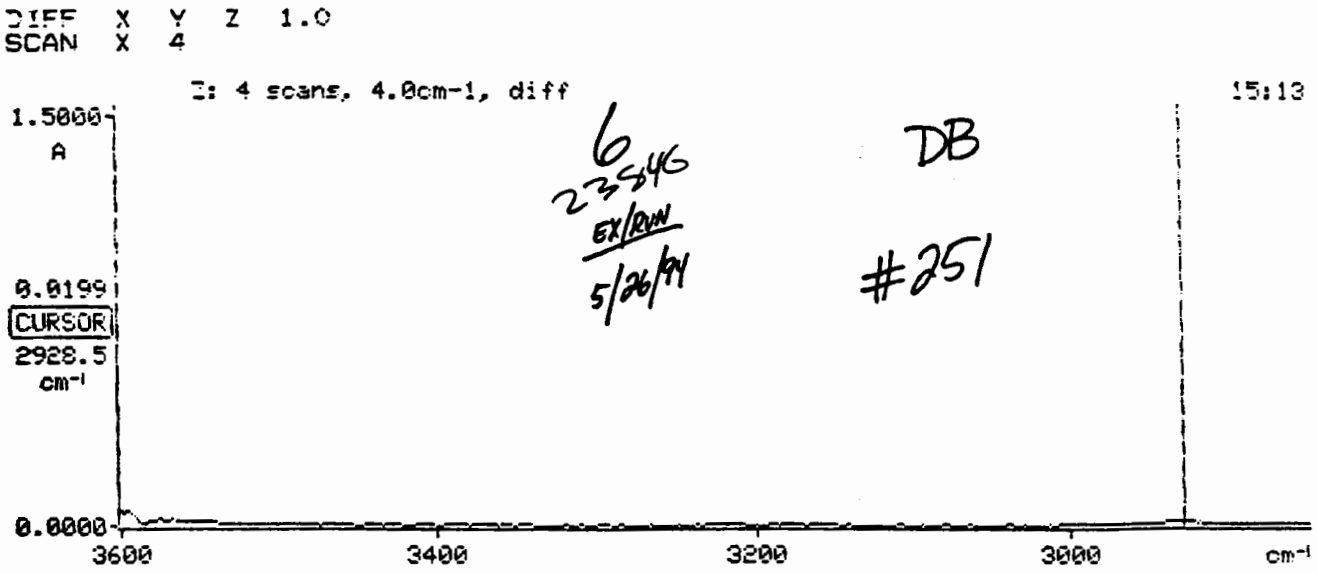
DIFF X Y Z 1.0
SCAN X 4

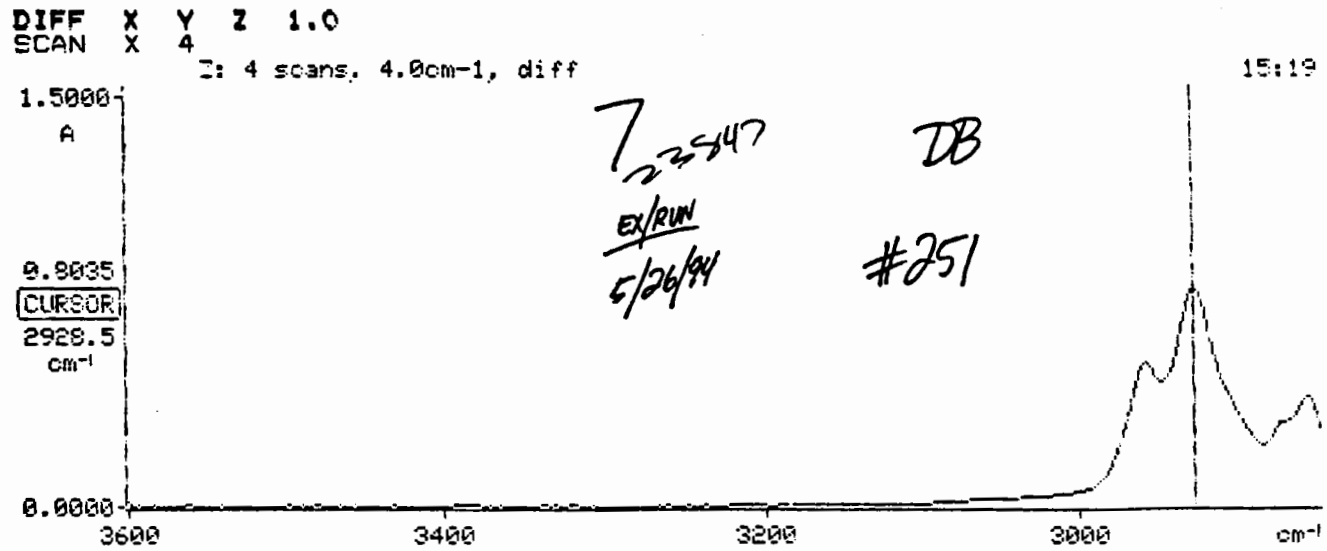


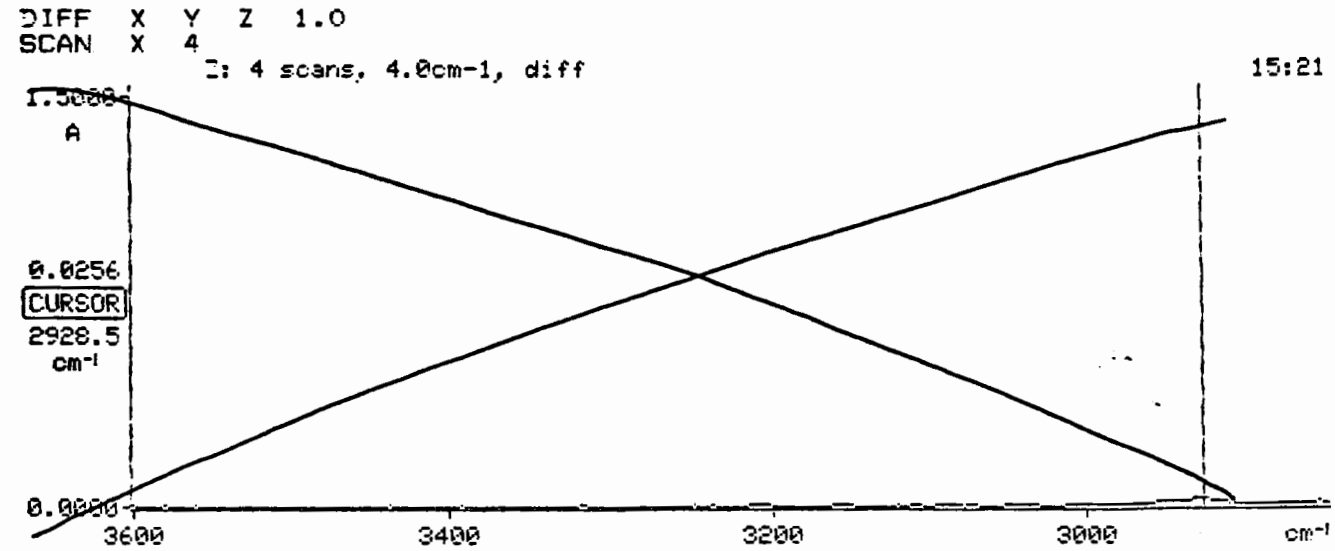

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:57
1.5000
A
0.0116
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
4
23844
EX/RUN
5/26/94
DB
#251

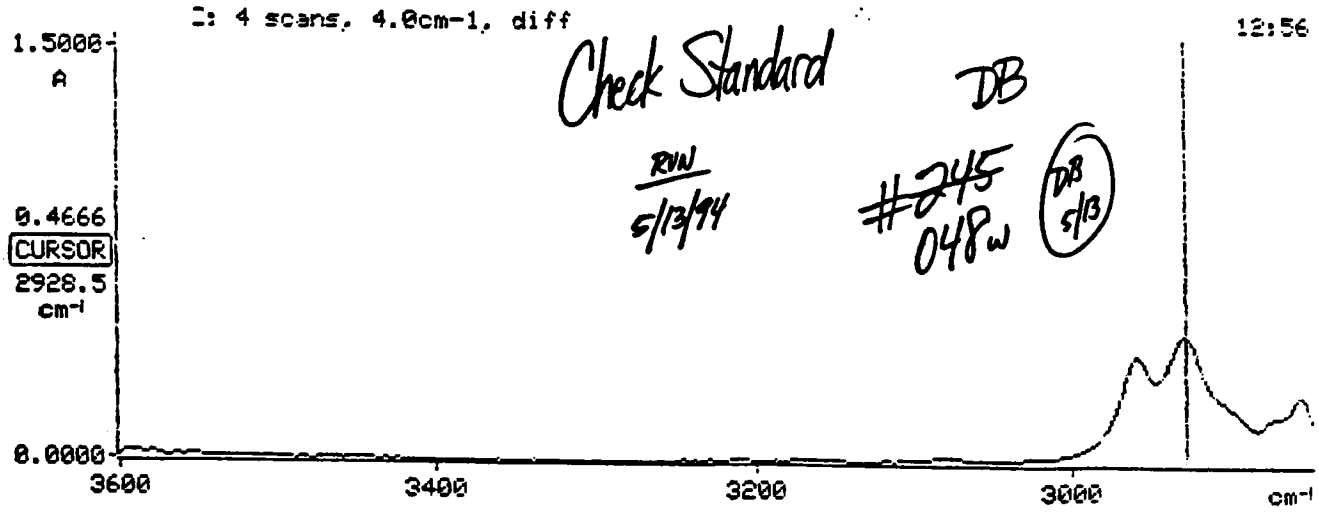

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:04
1.5000
A
0.8294
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
5
23845
EX/RUN
5/26/94
DB
#251

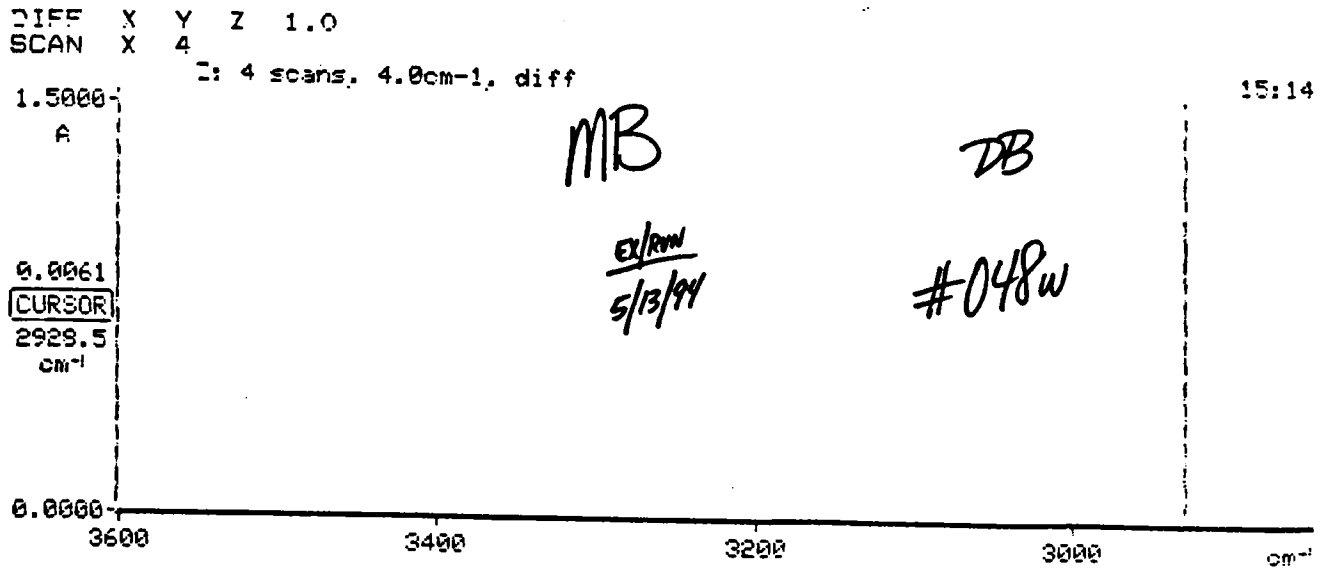

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:06
1.5000
A
0.0149
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
3
23843
EX/RUN
5/26/94
DB
#251

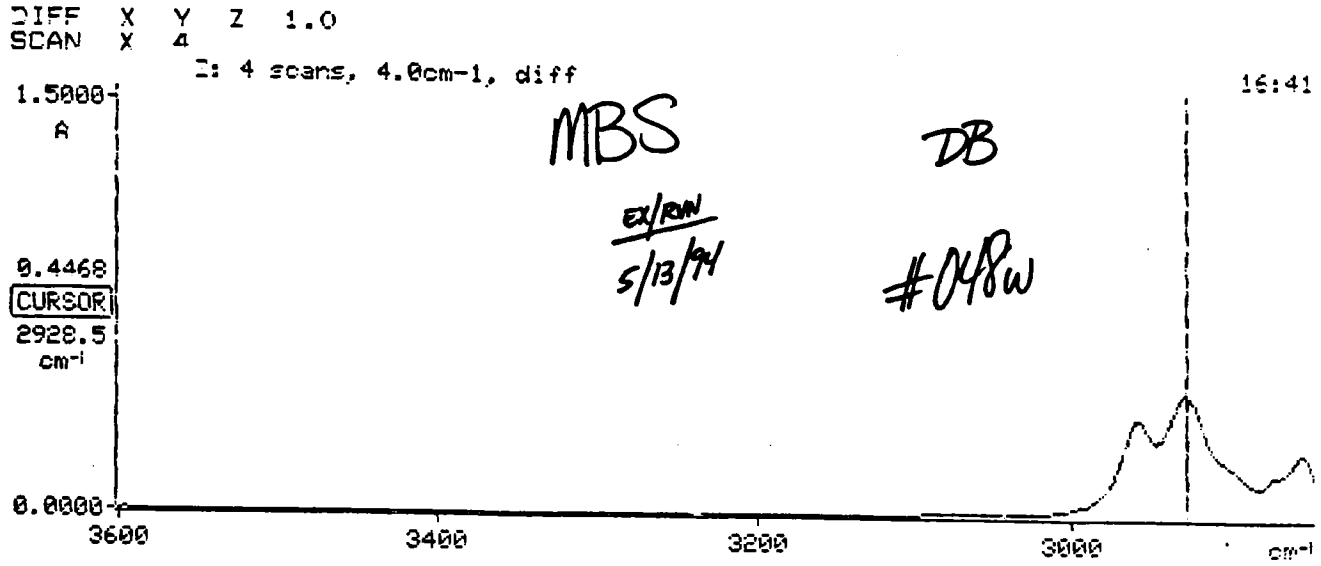

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:13
1.5000
A
0.0199
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
6
23846
EX/RUN
5/26/94
DB
#251

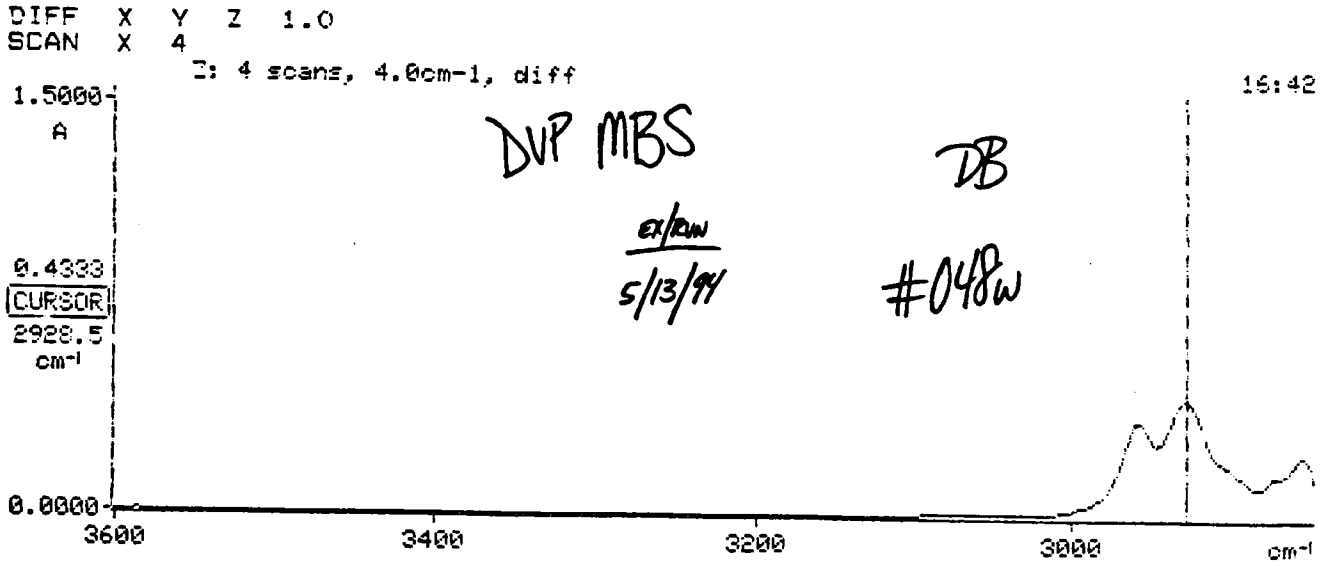

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:19
1.5000
A
0.8035
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
7
23847
EX/RUN
5/26/94
DB
#251

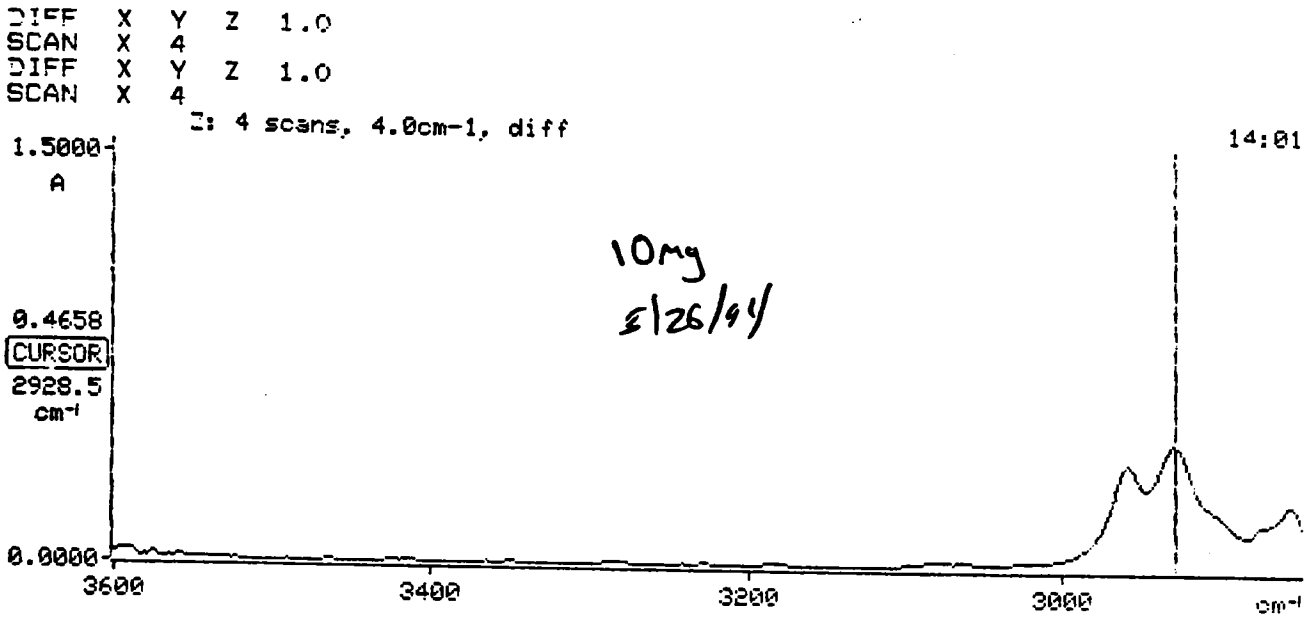

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:21
1.5000
A
0.0256
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1


I: 4 scans, 4.0cm-1, diff
12:56
1.5000
A
0.4666
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
Check Standard
DB
RVW
5/13/94
#~~245~~
048w
DB
5/13

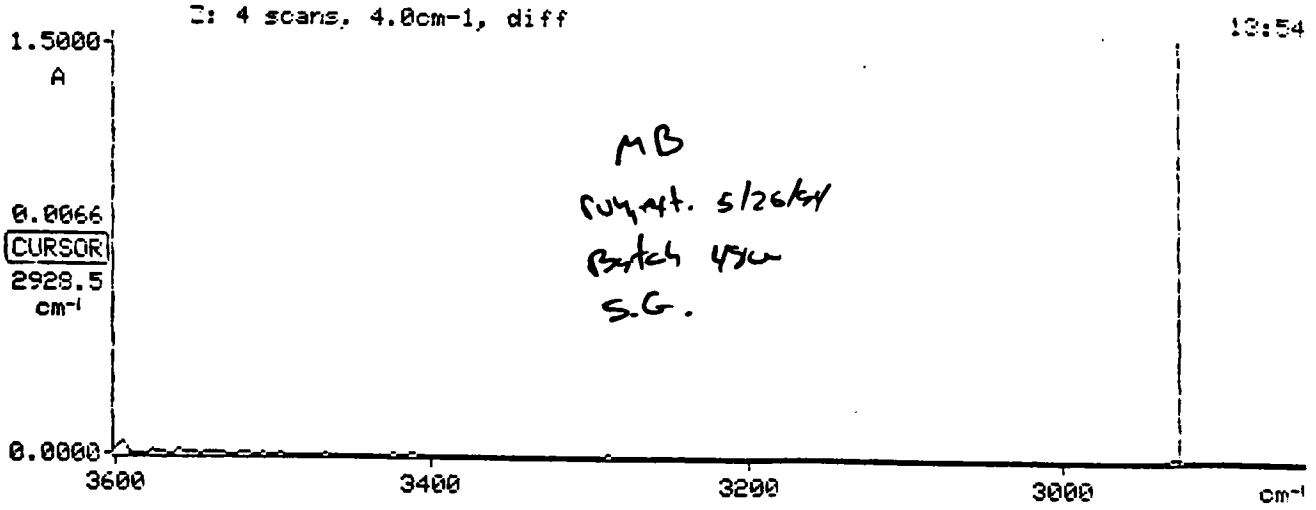

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
15:14
1.5000
A
0.0061
CURSOR
2929.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
DB
EX/RAW
5/13/94
#048W

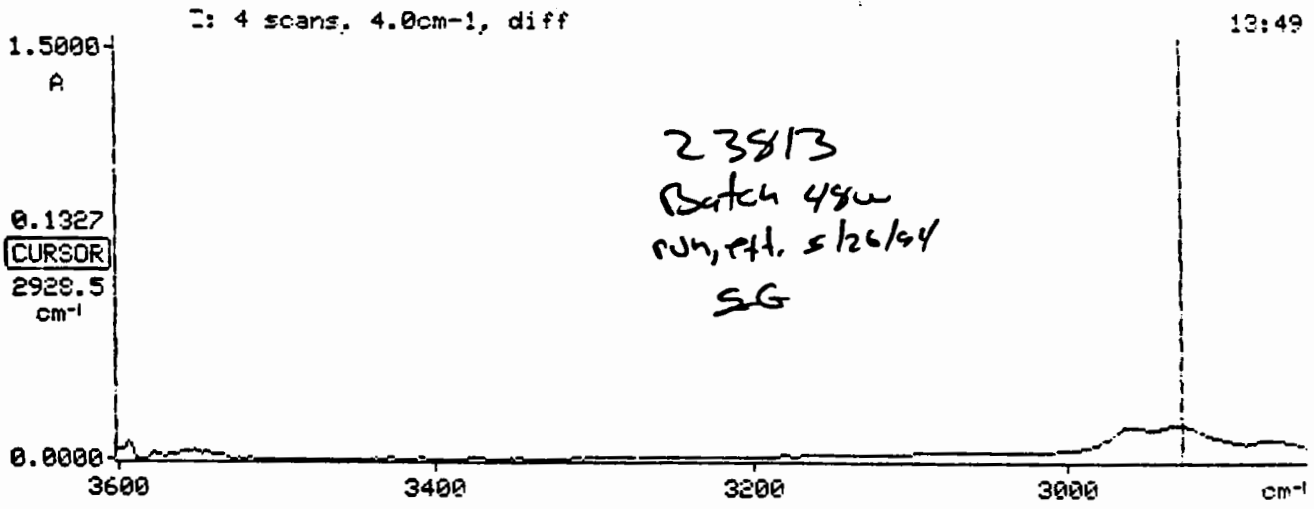

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:41
1.5000
A
MBS
DB
EX/RW
5/13/94
#048W
0.4468
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:42
1.5000
A
DVP MBS
DB
EX/RW
5/13/94
#048W
0.4333
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1

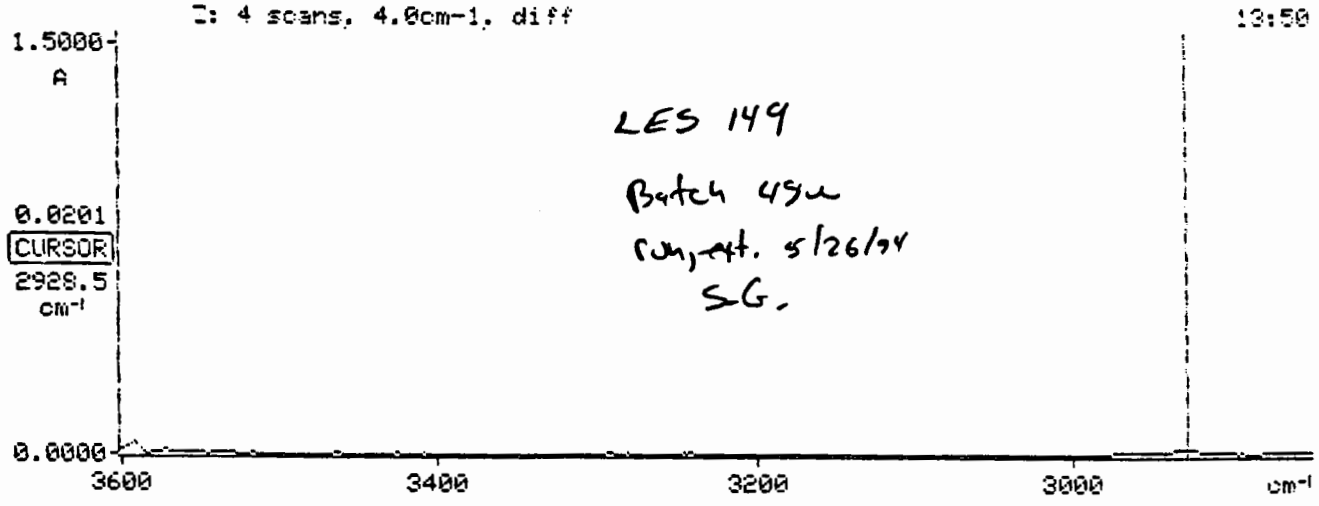
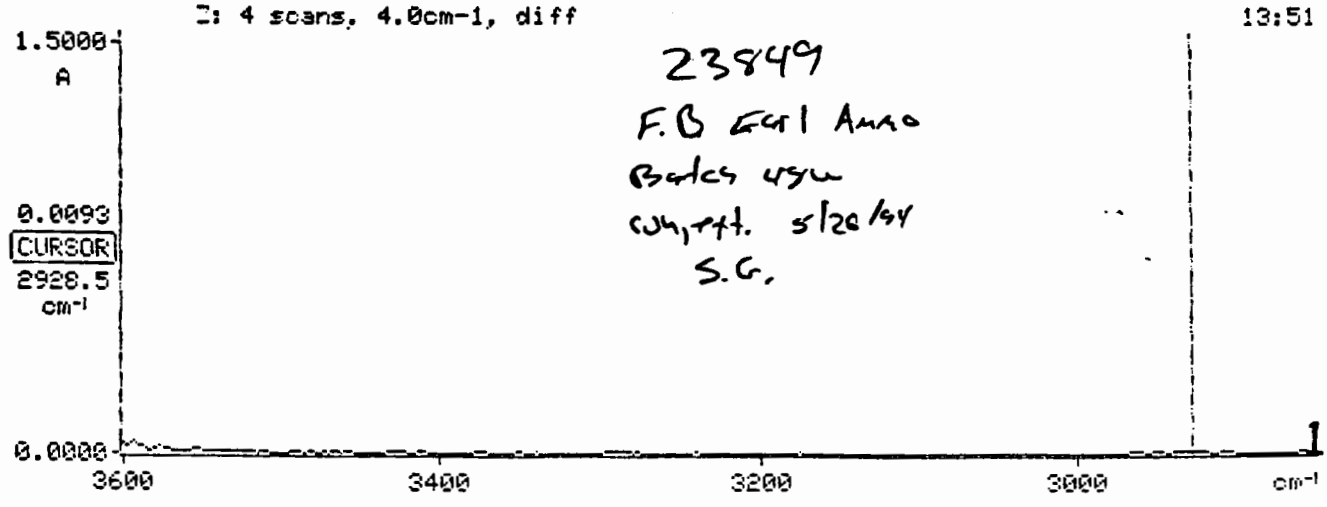

DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:01
1.5000
A
10mg
5/26/94
0.4658
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1

DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4





DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4