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MONSANTO COMPANY / DAYTON LABORATORY / DAYTON, OHIO 45407

ESC/DAYTON
(Department/Section)

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TITLE: ANALYSIS OF WIPES FOR 2,3,7,8-TCDD

AUTHORS: R. W. Noble

ABSTRACT: Wipe samples from the Nitro Plant were analyzed for possible concentrations of 2,3,7,8-TCDD. The results of these analyses are shown in this report.

TECHNICAL APPROVAL:

P. L. Sherman / H72

P. L. Sherman
Sr. Research Group Leader

APPROVED BY:

R. F. Ivory

R. F. Ivory
Environmental Sciences Center
Service Project Manager

APPROVAL DATE:

1-17-85

RESTRICTED DISTRIBUTION: (see over)

C O M P A N Y C O N F I D E N T I A L

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C10904

R. W. Noble
ANALYSIS OF WIPES FOR 2,3,7,8-TCDD

AUTHORS:
TITLE:

REPORT NO.: MDA-570

COPY NO.: 4

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ANALYSIS REPORT FOR 2,3,7,8-TCDD IN NITRO SAMPLES

INTRODUCTION

On 1 Nov 84 thirty-five wipe samples were received for the analysis of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD). For internal purposes, the samples were assigned MRC Log #1-84-11-01-02. The samples were analyzed according to the September 1983 EPA Region VII method "Determination of 2,3,7,8-TCDD in Soil and Sediment". For quality control purposes MRC Method #07-QAQC-R3 was followed. Briefly this method requires that for every set of samples of the same matrix type a replicate sample, a low (9.6 ng in this case) spiked sample, a high (96 ng in this case) spiked sample, and a method blank must be analysed.

PREPARATION AND ANALYSIS (WIPES)

The wipes were spiked with 24.0 ng of carbon-13 labeled 2,3,7,8-TCDD and 9.6 ng of chlorine-37 labeled 2,3,7,8-TCDD. Then ten grams of washed anhydrous sodium sulfate was added and the samples were stirred, allowed to stand and stirred again. Samples were mixed again immediately prior to addition of extraction solvents. The extraction process involved the addition of 15 mL of methanol (all solvents are Burdick and Jackson "distilled in glass" grade), stirring and the subsequent addition of 150 mL of hexane. The samples were then shaken for one hour on a wrist action shaker and the extraction solvent removed. The solvent was then successively extracted with 50 mL of water, concentrated sulfuric acid (until clear), water, 20% potassium hydroxide and water. The hexane was then dried with 10 grams of anhydrous sodium sulfate. Each sample was then placed on the head of a mixed phase column consisting of (top to bottom) 2 g of silica, 4 g of silica plus 40% sulfuric acid, 1 g of silica, 2 g of silica plus 36% potassium hydroxide and 1 g of silica. The column was eluted directly onto a column containing 2.5 g of Woelm basic alumina. The alumina column was first eluted with 10 mL of 2% methylene chloride/hexane (v/v) and this fraction discarded. An additional elution was made with 15 mL of a 50% methylene chloride/hexane (v/v) solution to elute the TCDD off the column.

All samples had 50 μ L of dodecane keeper added to them and then were concentrated under a gentle stream of nitrogen and submitted for GC/MS analysis. The GC/MS analyses were conducted on a Hewlett/Packard 5987 GC/MS instrument. The analysis was conducted using a 60 m SP2330 capillary column. The mass spectrometer was operated in the selected ion monitoring mode analyzing for ions characteristic of both the native (unlabeled) 2,3,7,8-TCDD (m/z 257, 320, 322), chlorine-37 labeled 2,3,7,8-TCDD (m/z 328), and carbon-13 labeled 2,3,7,8-TCDD (m/z 332, 334).

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STANDARDS

Standard solutions were prepared from standards that had been cross validated with a standard provided as a check sample by the EPA. Concentration of the internal standard conformed to the levels specified by the method.

RESULTS

The results of the analyses are given in tables 1-3. The tables also give all pertinent QA/QC information.

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TCDD DATA REPORT
MCKINSTRON COMPANY, DAYTON LABORATORY

TABLE 1

GC C1 UP4: SP230
RF NATIVE: .973
RF SURROGATE: 1.324

SAMPLE NUMBER	ETTR MTM	CLEAN	GRAMS		PPB TCDD	D.L.	ANALYTICAL		320		322		%	320		322		257	328+	332	334	M
			NET WGT	WGT			DATE	TIME	322	334	320	322										
LANDFILL 1A	J	BC	10.410	MD	.14	11/05	0100	.88	.81	99.	9308.	10543.	6421.	198778	160080.	197666.	Y					
LANDFILL 1B	J	BC	10.210		7.31	11/05	0120	.82	.79	100.	271687.	331687.	157982.	110659.	91898.	115792.						
LANDFILL 1B L	J	BC	11.270		9.87	11/05	0140	.83	.80	98.	598907.	721274.	318020.	153153.	136026.	169062.						
LANDFILL 1C	J	BC	10.020		1.62	11/05	0200	.81	.81	97.	79776.	120374.	55704.	178082.	157214.	190428.						
LANDFILL 1C R	J	BC	10.630		2.23	11/05	0220	.80	.82	98.	114939.	143415.	64206.	145743.	126212.	153195.						
LANDFILL 2	J	BC	10.250		.78	11/05	0305	.76	.81	99.	15714.	20590.	12100.	169523.	143702.	177596.						
LANDFILL 2 H	J	BC	10.410		9.19	11/05	0325	.81	.84	101.	414889.	512623.	212577.	133019.	113409.	135802.						
LANDFILL 3A	J	BC	9.940		.14	11/05	0343	.73	.81	101.	7138.	9772.	5905.	149050.	124392.	153953.						
LANDFILL 3A R	J	BC	10.150		.14	11/05	0405	.86	.82	99.	7014.	8151.	4040.	145384.	125136.	151916.						
LANDFILL 3B	J	BC	10.310		.23	11/05	0425	.81	.82	101.	11163.	13833.	10304.	145443.	122432.	148933.						
LANDFILL 3C	J	BC	10.770		.83	11/05	0510	.76	.83	107.	27784.	34350.	17421.	104397.	83700.	100360.						
LANDFILL 3C L	J	BC	10.560		1.20	11/05	0529	.79	.83	102.	59021.	74343.	34156.	146212.	122725.	147721.						
LANDFILL 4A	J	RC	10.400	MD	.13	11/05	0549	1.26	.83	102.	8896.	7064.	8719.	164274.	137753.	146649.	Y					
LANDFILL 4R	J	BC	10.290	MD	.17	11/05	0609	1.18	.82	98.	9468.	7995.	0.	132433.	117207.	142756.	Y					
LANDFILL 4B H	J	BC	11.020		9.41	11/05	0629	.83	.83	104.	513920.	618539.	290935.	154720.	177707.	152945.						
LANDFILL 4C	J	BC	11.540		.16	11/05	0714	.76	.84	112.	8990.	11831.	7781.	169937.	130522.	153119.						
LANDFILL 5A	J	BC	10.110	MD	.08	11/05	0734	1.10	.85	112.	7967.	7215.	0.	286390.	221556.	260291.	Y					
LANDFILL 5B	J	RC	10.610	MD	.09	11/05	0754	.90	.84	105.	8272.	9185.	0.	758033.	212445.	251975.	Y					
LANDFILL 6A	J	BC	10.050	MD	.09	11/05	0815	.72	.84	110.	5359.	7441.	0.	212569.	166153.	198014.						
BLANK	J	BC	10.000	MD	.06	11/05	0835	1.14	.83	103.	4901.	4314.	0.	233638.	93055.	232916.						

TCDD DATA REPORT
MORGANTHAU COMPANY, DAYTON LABORATORY

GC COLUMN: SP2100
RF NATIVE: .725
RF SURROGATE: 1.023

TABLE 1 CONT

AMPLE TYPE	ETTR MTHD	CLEAN	GRAMS NET WGHT	PPR TCDD	D.L.	ANALYTICAL DATE	TIME	320 322	322 324	% ACC	320	322	257	378+	322	324	N
ASDFILL AB	J	BC	10.680	.11	—	11/05	1802	.81	.79	94.	2279.	2320.	2201.	55195.	63433.	80794.	
ASDFILL 6A H	J	BC	10.710	8.19	—	11/05	1837	.73	.80	90.	182902.	257199.	84382.	53404.	70261.	87733.	
ASDFILL 7A	J	BC	10.740	.11	—	11/05	1848	.84	.78	93.	2779.	3319.	2556.	63706.	73002.	70511.	
ASDFILL 7B	J	BC	10.350	ND	.10	11/05	1908	.84	.77	94.	2258.	2693.	0.	58432.	65837.	85687.	
ASDFILL 7B L	J	BC	10.590	.94	—	11/05	1928	.73	.77	97.	19379.	26564.	9399.	58260.	53800.	87495.	
ASDFILL 7C	J	BC	10.820	1.76	—	11/05	2009	.70	.77	102.	29827.	42418.	14043.	50349.	52535.	68411.	
VITRO SITE 1A	J	BC	10.610	.14	—	11/05	2029	.84	.78	98.	3061.	3627.	3137.	57441.	62114.	83298.	
VITRO SITE 1AR	J	BC	10.350	ND	.12	11/05	2049	.87	.81	98.	2673.	3072.	0.	57699.	63950.	79259.	
VITRO SITE 1R	J	BC	11.410	ND	.48	11/05	2109	.85	.76	107.	2516.	2960.	0.	14043.	13870.	18171.	
VITRO SITE 1RM	J	BC	9.950	9.28	—	11/05	2130	.75	.81	99.	63490.	84734.	28852.	20723.	22806.	28326.	
VITRO SITE 1C	J	BC	11.040	ND	.34	11/05	2210	.82	.77	96.	2819.	3438.	0.	20723.	22885.	29628.	
VITRO SITE 2	J	BC	10.400	ND	.46	11/05	2230	.81	.82	107.	2581.	3190.	0.	16760.	17274.	21013.	
VITRO SITE 2L	J	BC	11.110	1.52	—	11/05	2251	.78	.84	115.	4469.	5694.	3370.	8790.	8725.	10428.	
VITRO SITE 3A	J	BC	11.030	ND	.13	11/05	2311	.71	.78	122.	3100.	4353.	0.	79913.	70151.	90422.	
VITRO SITE 3B	J	BC	10.320	.14	—	11/05	2331	.76	.79	104.	3550.	4443.	2476.	75712.	78872.	99650.	
VITRO SITE 4	J	BC	11.660	ND	.09	11/05	0158	.83	.80	110.	2164.	2599.	0.	64856.	65753.	82695.	
VITRO SITE 4R	J	BC	10.980	ND	.04	11/05	0218	0.00	.80	110.	0.	2175.	0.	64859.	65753.	82695.	
VITRO SITE 5A	J	BC	11.560	.91	—	11/05	0239	.72	.78	102.	19078.	26403.	8419.	57525.	60593.	77400.	
VITRO SITE 5B	J	BC	11.530	.74	—	11/05	0259	.77	.78	103.	19025.	25090.	8727.	69985.	72387.	93277.	
VITRO SITE 5C	J	BC	10.290	.47	—	11/05	0319	.81	.79	104.	10611.	13085.	5434.	67502.	68851.	87047.	
VITRO SITE 6	J	BC	10.430	10.34	—	11/05	0405	.75	.79	111.	240320.	320370.	92691.	75223.	73061.	92481.	
VITRO SITE 7	J	BC	10.300	ND	.67	11/05	0425	.67	.74	97.	5078.	7535.	0.	73110.	24431.	33494.	
VITRO SITE 8	J	BC	11.660	ND	20.9	11/05	0445	0.00	.81	147.	0.	36039.	395A.	7997.	7270.	7745.	EV
FB	J	BC	10.000	ND	.03	11/05	0505	++++	.78	110.	0.	0.	0.	71800.	69795.	89619.	1

* CORRECTED FOR CONTRIBUTION BY NATIVE TCDD (SUBTRACT .009 OF M/E 322)

NOTE CODES:

X: ISOTOPE RATIO OUT OF ACCEPTABLE RANGE
Y: % ACCURACY OUT OF ACCEPTABLE RANGE

FB=FIELD BLANK

P=PARTIAL SCAN

R=SEPARATE WEIGHING AND WORKUP

D=DUPLICATE (INTERLAB)

FB=FIELD BLANK

L=IMMEDIATE TCDD SPIKES

ND=NOT DETECTED

DL=DETECTION LIMIT

HL=HLR

FILENAME =TCDD003

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06.0007

C10910

TOTO DATA REPORT
 WYASANTO COMPANY, DAYTON LABORATORY

TABLE 1 (cont)

DC COLUMB: SP0330
 RF NATIVE: .721
 RF SURROGATE: .924

SAMPLE NUMBER	EXTR MTHD	CLEAN	GRAMS		PPR TOTO	D.L.	ANALYTICAL		T00 322	332 334	SURR %	320	322	257	328*	332	334	X
			NET	WEIGHT			DATE	TIME										
NITRO #9	J	BC	10.430	.84	—	11/9	1431	.82	.75 108.	1.772.	1.645.	1.531.	4764.	5115.	6860.			
NITRO #10	J	BC	10.500	ND	.98	11/9	1452	****	.87 127.	0.	0.	0.	2356.	2336.	2698.			
NITRO #10 L	J	BC	10.200	1.72	—	11/9	1512	.76	.76 78.	2053.	2688.	1913.	2681.	4030.	5315.			
NITRO #11	J	RC	10.570	3.70	—	11/9	1532	.71	.75 86.	48191.	67584.	22778.	32714.	44181.	53277.			
NITRO #12	J	BC	9.850	.89	—	11/9	1553	.87	.82 113.	8174.	9422.	6420.	29160.	31487.	39314.			
NITRO #12 H	J	BC	9.800	11.25	—	11/9	1635	.76	.78 98.	22410.	29318.	11939.	5844.	7104.	9109.			
NITRO #13	J	BC	10.840	.22	—	11/9	1657	.68	.82 108.	2051.	3030.	2613.	29933.	33994.	41331.			
NITRO #13 R	J	BC	10.500	.23	—	11/9	1737	.68	.82 108.	1814.	2651.	2243.	25770.	29387.	35794.			
NR	J	BC	10.000	ND	.07	11/9	1717	****	.79 108.	0.	0.	0.	29767.	32990.	41748.			

* CORRECTED FOR CONTRIBUTION BY NATIVE TOTO (SUBTRACT .009 OF N/E 322)

NOTE CODES:

X: ISOTOPE RATIO OUT OF ACCEPTABLE RANGE
 Y: % ACCURACY OUT OF ACCEPTABLE RANGE

NR=METHOD BLANK
 P=PARTIAL SCAN
 R=SEPARATE WEIGHING AND WORKUP
 D=DUPLICATE (INTERLAB)
 F=FIELD BLANK

L=NEGATIVE TOTO SPIKES
 ND=NOT DETECTED
 DL=DETECTION LIMIT
 J=JAR

FILENAME = TOTO04

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C10911

TABLE 2. CALIBRATION SUMMARY

ug/Kg NATIVE TCDD	RRF (NATIVE)	DATE	TIME	RRF (SURROGATE)
.501	.836	11/9	13.51	.925
5.01	.662	11/9	14.11	.884
50.01	.703	11/9	16.14	.940
1.25	.729	11/9	17.58	.951
12.5	.721	11/9	18.19	.952
125.0	.677	11/9	18.39	.901
.501	1.11	11/5	00.38	1.27
5.01	.909	11/5	02.43	1.29
50.01	.944	11/5	04.47	1.40
1.25	1.04	11/5	06.52	1.37
12.5	.923	11/5	08.55	1.29
125.0	.923	11/5	09.15	1.32

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C10912

TABLE 3. QUALITY CONTROL SUMMARY

ITEM	# DATA POINTS	MEAN + S.D.
SURROGATE ACCURACY	35	105 10.8
SPIKE RECOVERY	10	*

* Not technically correct to report recoveries for
internal standard calculated results.

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C10913

DOCUMENTATION INVENTORY FORM

Monsanto Research Corporation
Dayton Laboratory

I. Sample Information

Sample Identification: NITRO

Number of Samples: 35

Analyte: 2,3,7,8 TCDD

Matrix: Water

Method: DETERMINATION OF 2,3,7,8 TCDD in Soil + Sediment

II. Documentation Control

	<u>Copies Attached</u>	<u>Initials</u>
(a) Sample Receipt Form	<u>✓</u>	<u>RWN</u>
(b) Internal Sample Tracking Form	<u>—</u>	<u>RWN</u>
(c) Sample Tags	<u>—</u>	<u>RWN</u>
(d) Airbill (Number <u>—</u>)	<u>—</u>	<u>RWN</u>
(e) Chain of Custody Form	<u>✓</u>	<u>RWN</u>
(f) Analysis Request (Log Number <u>1-94-11-21-22</u>)	<u>✓</u>	<u>RWN</u>
(g) Extraction/Preparation notebook pages (NBP) <u>2831824-6</u>	<u>✓</u>	<u>RWN</u>
(h) Analysis NBP <u>2637230-2</u>	<u>✓</u>	<u>RWN</u>
Instrument Logbook pages <u>1576738-1510742</u> <u>156611A-B</u>	<u>✓</u>	<u>RWN</u>
Computer Data Files hard copy output	<u>✓</u>	<u>RWN</u>
Chromatograms	<u>✓</u>	<u>RWN</u>
(i) Data Reduction NBP <u>see analysis NBP</u>	<u>✓</u>	<u>RWN</u>
(j) Final Report	<u>✓</u>	<u>RWN</u>
(k) Additional Documentation (note immediately upon acquisition)	<u>✓</u>	<u>RWN</u>

File Complete

R. W. Noble
(signature)

00011
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10 Jan 85
(date)

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C10914

Sample Receipt Form

Monsanto Research Corporation
Dayton Laboratory

Customer Identification: NITRO

MRC Log Number: 1-24-11-01-02

Airbill Number: —

Date: 1 Nov. 84

Sample Receipt Information:

				Initials
(a) Shipping Containers	intact	damaged (describe below)	No. <u>2</u>	<u>RWN</u>
(b) Custody Seals	present	<u>absent</u> (describe sealing below)	intact <u>—</u>	<u>RWN</u>
(c) Chain of Custody Forms	<u>present</u>	absent	No. <u>3</u>	<u>RWN</u>
(d) Sample Tags	<u>present</u>	absent	No. <u>25</u>	<u>RWN</u>
(e) Sample Containers	<u>intact</u>	damaged (describe below)	No. <u>5</u>	<u>RWN</u>
(f) Agreement of Sample Documentation	<u>yes</u>	no (describe discrepancies)		<u>RWN</u>

Additional Description (if sample numbers not listed on chain of custody form, list here and contact SMO).

⑤ sealed with sealing tape

00012

Ry W. M. H.
(Signature)

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C10915

MRC JOB NUMBER _____

CUSTOMER REPRESENTATIVE Mark Townsend

CONTRACT NUMBER _____

MRC CONTRACT MANAGER _____

PLANT NAME OR CODE Monsanto - Nitro

MRC TEAM LEADER _____

(Specific information on samples is available on attached "Sample Identification Log")

Signatures		Date	Time	Remarks
Team Leader Verification of Collected Samples:				
Relinquished by: <u>M. Townsend</u>	Received by:	<u>10/30/91</u>	<u>10:45</u>	
Relinquished by:	Received by: <u>R. W. Nicks</u>	<u>10/31/84</u>	<u>230</u>	
Logged-in-by:				
Received for Analysis by:				
Method of Shipment:		Number of Containers:		

Special Instructions (Sample preservation, security, delivery to, etc.)

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100013

C10916

10/30/44

Customer Representative Mark Townsend

MRC Contract Manager _____

Team Leader _____

By W. Noble

SAMPLE IDENTIFICATION LOG

MRC Job No. _____

Customer Representative Mark Twinsen 10/30/94

Contract No. _____

MRC Contract Manager _____

Plant Name or Code NITRO

Team Leader _____

Sampling Location	Run Number	Date Sampled	Type of Sample & No. of Containers	Analysis Required	Sample recovered By (Initials) and Comments
2			NO NITRO SOIL 1	2,3,7,8	
4			"	"	
13			"		
5C			"		
5A			"		
9			"		
6			"		
8			"		
13			"		
11			"		
10			"		
12			"		
3B			"		
1A			"		
5B			"		
7			"		
1C			"		
3A			"	✓	
			18		

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Re 9/1/76

484.4340

3) Oct 84 C10918

SUBJECT

Nitro Soils - Landfill site

JOB NO.

484,4340

PREPARED BY (SIGNATURE)

Benet Curtis

DATE

20 Nov 8

Date 1 Nov 84

Nitro Soils - Landfill

Log No.

Job No.

Data Sheet

weighed by Benet Curtis

spiral by Benet Curtis

Code No.				Am. to weigh	Actual wt.	Am. & Active Spinal	Cis (✓)	CI (✓)	Comments
UT 3041	1A			10.09g	10.41		✓	✓	
42	1B				10.21		✓	✓	each sample received
43	1B	Lo Spike			11.27	40µl	✓	✓	100µl of internal std.
44	1C				10.02		✓	✓	2nd 1/1 C7
45	1C	Replicate			10.63		✓	✓	
46	2				10.25		✓	✓	
47	2	Hi Spike			10.41	400µl	✓	✓	
48	3A				9.96		✓	✓	
49	3A	Replicate			10.15		✓	✓	
50	3B				10.31		✓	✓	
51	3C				10.77		✓	✓	
52	3C	Lo Spike			10.56	40µl	✓	✓	
53	4A				10.40		✓	✓	
54	4B				10.29		✓	✓	
55	4B	Hi Sp. Ke			11.02	400µl	✓	✓	
56	4C				11.54		✓	✓	
57	5A				10.11		✓	✓	
58	5B				10.61		✓	✓	
59	10A				10.05		✓	✓	
UT 3073	Master	File V					✓	✓	

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C10920

00017

READ AND UNDERSTOOD BY

Gary Thomas

DATE

10-JAN-8

MONSANTO COMPANY

Nº 2831625

SUBJECT

Nitro Soils - Landfill + Nitro Site Samples

JOB NO.

484.4340

PREPARED BY (SIGNATURE)

Bret R. Curtis

DATE

20 Nov 84

Date 11/4/84

Log No.

Job No. 484.4340 484.4340 Data Sheetweighed by C. Kautantunovspiked by C. Kautantunov

Code No.			Amt. to weigh	Actual WT.	Amt of Native Spiked	Co (N)	CI (N)	Comments
UT 3074	6B		10.0 gm	10.68				100 samples were
75	6B	High Spike		10.71	400 µl			spiked with
76	7A			10.79				24 "C/1.1" C1-1100
77	7B			10.35				spiked at 100 µl
78	7B	Low Spike		10.59	40 µl			
79	7C			10.82				LANDFILL site ↑
80	1A			10.61				NITRO site ↓
81	1A	Replicate		10.35				
82	1B			11.41				
83	1B	High Spike		9.95	400 µl			
84	1C			11.04				
85	2			10.40				
86	2	Low Spike		11.11	40 µl			
87	3A			11.03				
88	3B			10.32				
89	4			11.66				
90	4	Replicate		10.98				
91	5A			11.56				
92	5B			11.53				
93	5C			10.29				
94	6			10.43				
95	7			10.30				
96	8			10.06				
97	Method	Blank						

CONFIDENTIAL

SUBJECT TO PROTECTIVE ORDER

C10921

00018

READ AND UNDERSTOOD BY

Darryl Thomas

DATE

10 JAN 85

Nº 2831626

SUBJECT

ST Nitro Soils - Nitro Site

JOB NO.

484.4340

PREPARED BY (SIGNATURE)

PREPARED BY (SIGNATURE)
Benet R. Curtis

DATE _____

20 Nov 84

Date 7 Nov 84

Nitro location Soils

Ex. No.

File No. 484,4340

Data Sheet

weighed by Benet Curtis

Spiked by Bernie Curtis

[illegible]

~~CONFIDENTIAL~~

SUBJECT TO PROTECTIVE ORDER.

C10922

READ AND UNDERSTOOD BY

DATE _____

UNDERSTOOD BY	DATE
Darryl Thomas	10 JAN 85

MONSANTO COMPANY

Nº 2637230

SUBJECT

Nitr. Soil

JOB NO.

76018-503

PREPARED BY (SIGNATURE)

R. W. Noble

DATE

10 Jan 84

TCD DATA REPORT
MONSANTO COMPANY, DAYTON LABORATORY

TABLE 1

IC CLIP: SP23A
RF NATIVE: .973
RF SENSITIVE: 1.324

SAMPLE ID	ELEM METHOD	CLEAN	GROSS		PBR TCD	D.L.	ANALYTICAL DATE	TIME	SUM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			NET MONT						320	322	324	326	328	330	332	334	336	338																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
LACFTILL 1A	J	BC	10.410	NO		.14	11/05	0100	.98	.81	99.				9785.	10243.	6421.	18878.	16008.	19744.	16008.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</

Nº 2637231

SUBJECT

of Nitro Soil

JOB NO.

710.18-502

PREPARED BY (SIGNATURE)

Ry. W. note

DATE _____

10 Jan

YOUR DATA REPORT
WELGASTO COMPANY, DAYTON LABORATORY

DC COLLEGE: 4.700
 DC UNIV: .725
 DC STATE: 1.025

Table 1. (cont.)

SAMPLE NUMBER	ETTR METHOD	DEPTH	CRAPS MET WEIGHT	MOR TONN	D.L.	ANALYTICAL DATE	SUM		370	322	3	370	322	257	329	322	334	M
							TIME	ACC										
ACOFFILL 48	J	BC	10.480	.11	-	11/05	1907	.81	.79	94.		2279.	2220.	2201.	2272.	4340.	2079.	
ACOFFILL 68 M	J	BC	10.710	8.19	-	11/05	1907	.73	.80	90.	182902.	221199.	84392.	58494.	70241.	87732.		
ACOFFILL 74	J	BC	10.740	.11	-	11/05	1848	.84	.78	93.		2779.	3319.	2254.	61704.	73200.	72211.	
ACOFFILL 78	J	BC	10.350	.10	-	11/05	1908	.84	.77	94.		2228.	2492.	0.	56432.	62827.	87437.	
ACOFFILL 78 L	J	BC	10.390	.94	-	11/05	1978	.73	.77	87.	19379.	24548.	9399.	58240.	63870.	87495.		
ACOFFILL 70	J	BC	10.620	1.74	-	11/05	2009	.70	.77	102.	29227.	42418.	14242.	55149.	67224.	84811.		
VITRO SITE 1A	J	BC	10.310	.14	-	11/05	2029	.84	.78	98.		2061.	2477.	3137.	5944.	55114.	82298.	
VITRO SITE 18A	J	BC	10.370	.12	-	11/05	2049	.87	.81	98.		2472.	3072.	0.	57499.	62752.	79239.	
VITRO SITE 18	J	BC	11.410	.18	-	11/05	2159	.85	.74	107.		2514.	2940.	0.	14245.	13870.	18171.	
VITRO SITE 18M	J	BC	9.950	9.28	-	11/05	2130	.75	.81	99.	63490.	64734.	78252.	20723.	22326.	28204.		
VITRO SITE 10	J	BC	11.040	.24	-	11/05	2210	.82	.77	96.		2819.	3438.	0.	20721.	22975.	78428.	
VITRO SITE 2	J	BC	10.400	.46	-	11/05	2230	.81	.82	107.		2581.	3190.	0.	16710.	17274.	21013.	
VITRO SITE 2L	J	BC	11.110	1.52	-	11/05	2251	.78	.84	115.		4449.	5494.	3270.	8990.	8725.	10428.	
VITRO SITE 26	J	BC	11.430	.13	-	11/05	2311	.71	.78	122.		3100.	4255.	0.	79913.	70121.	90422.	
VITRO SITE 30	J	BC	10.320	.14	-	11/05	2331	.74	.79	104.		3220.	4442.	2474.	73512.	73872.	90450.	
VITRO SITE 4	J	BC	11.660	.04	-	11/05	0158	.83	.80	110.		2164.	2599.	0.	64824.	65732.	87495.	
VITRO SITE 4R	J	BC	10.980	.04	-	11/05	0218	0.00	.80	110.		0.	2125.	0.	64859.	65700.	87495.	
VITRO SITE 5A	J	BC	11.560	.91	-	11/05	0239	.72	.78	102.	19078.	24402.	8419.	57535.	63752.	71420.		
VITRO SITE 5B	J	BC	11.520	.74	-	11/05	0259	.77	.78	103.	19025.	24090.	8477.	64982.	71357.	92277.		
VITRO SITE 5C	J	BC	10.290	.17	-	11/05	0319	.81	.79	104.	10611.	17925.	5434.	67402.	62521.	87867.		
VITRO SITE 4	J	BC	10.430	10.34	-	11/05	0405	.75	.79	111.	240700.	303700.	92691.	79223.	77041.	92481.		
VITRO SITE 7	J	BC	10.300	.47	-	11/05	0425	.47	.74	87.		9078.	7325.	0.	23110.	24421.	30484.	
VITRO SITE 8	J	BC	11.640	.20.9	-	11/05	0445	0.00	.81	147.		0.	36039.	3754.	2997.	7730.	2745.	TV
END	J	BC	16.000	.03	-	11/05	0525	0.00	.78	110.		0.	0.	0.	71802.	69792.	89419.	1

* CORRECTED FOR CONTRIBUTION BY NATIVE TISSO (SUBTRACT .009 OF N/E 322)

UNIT CODES:

2: ISOTOPE RATIO D17 OF ACCEPTABLE RANGE
 V1: 1 ACCURACY D17 OF ACCEPTABLE RANGE

SOMETIMES BLANK
PREDICTION SCAN
RESEPARATE WEIGHING AND WORKUP
DUPLICATE (INTERNAL)
FIELD BLANK

L=IMMEDIATE THRO SPKES
 M=NOT DETECTED
 D=DETECTION LIMIT
 IN 100

FILE# 91-2004

CONFIDENTIAL

SUBJECT TO PROTECTIVE ORDER.

C10924

00004

READ AND UNDERSTOOD BY

DATE _____

Nitro Silk

760.18, 503

Ray W. Noble

10 JUN 8

DE DEBIT: \$100
 OF MATHE: .721
 OF SINGLET: .51

TABLE 1 (cont)

SAMPLE NUMBER	ETTER METHOD	CLEAN	GRAMS		PPH T20	D.L.	ANALYTICAL DATE	T20 TIME	SUM							
			NET WEIGHT	MOIST					322	332	334	336	338	342	344	346
K1780 89	J	BC	10.470	.84	—	11/9	1431	.82	.75	108.	1372.	1463.	1551.	1764.	5115.	6860.
K1780 810	J	BC	10.500	ND	.98	11/9	1452	0.000	.87	127.	0.	0.	0.	7356.	2304.	2499.
K1780 810 L	J	BC	10.200	1.72	—	11/9	1512	.74	.74	98.	2053.	2688.	1913.	2481.	4230.	5310.
K1780 811	J	BC	10.570	3.70	—	11/9	1532	.71	.75	96.	48191.	47864.	23778.	32714.	44181.	55577.
K1780 812	J	BC	9.950	.89	—	11/9	1553	.87	.82	113.	8176.	9422.	6470.	29160.	31487.	38104.
K1780 817 H	J	BC	9.830	11.25	—	11/9	1635	.74	.78	98.	72410.	29718.	11979.	5844.	7104.	9109.
K1780 813	J	BC	10.840	.22	—	11/9	1657	.68	.82	108.	2051.	3530.	2613.	29983.	33904.	41331.
K1780 813 H	J	BC	10.500	.23	—	11/9	1737	.68	.82	108.	1814.	2451.	2243.	26770.	29587.	35794.
ND	J	BC	10.000	ND	.07	11/9	1719	0.000	.79	108.	0.	0.	0.	29767.	32990.	41748.

* CORRECTED FOR CONTRIBUTION BY NATIVE TIDE (ISRAEL) .009 OF NVE 3271

NOTE: DATES

T: ISOTOPE RATIO OUT OF ACCEPTABLE RANGE
 Y: % ACCURACY OUT OF ACCEPTABLE RANGE

SAMPLE NO. 10
 PARTIAL SEAL
 ROSEHATTE WEIGHING AND MEASURING
 (NO. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)
 FIELD NO. 10

L=MINIMATIVE TCON SPIKES
 N=NOT DETECTED
 D=DETECTION LIMIT
 -10-100

FILMRENTAL

CONFIDENTIAL

C10925

SUBJECT TO PROTECTIVE ORDER.

00022

READ AND UNDERSTOOD BY

DATE _____

DAYTON L. AUSTIN, CHAIRMAN

19

MRC-D
No 1570

Nº 1570-

DATA

JOB NO.[illegible]

3

241. 244. 245.

DOUGLAS
APR 1920
MIA

SE: 64P 6/11/18-51. 2/25/50
 J
 TAT 64RY41: 4 3/23/50
 at

11/10/12
4
100-1/3/250

10 2200 100 1 200 40
1 1 1 1 1 1
20

10	1000/10/2	3
1	1000/10/2	5
2	1000/10/2	7
3	1000/10/2	7
4	1000/10/2	9
5	1000/10/2	11
6	1000/10/2	11
7	1000/10/2	13
8	1000/10/2	15
9	1000/10/2	17
10	1000/10/2	19
11	1000/10/2	21
12	1000/10/2	23
13	1000/10/2	25
14	1000/10/2	27
15	1000/10/2	29
16	1000/10/2	31
17	1000/10/2	33
18	1000/10/2	35
19	1000/10/2	37
20	1000/10/2	39

CONFIDENTIAL

SUBJECT TO PROTECTIVE ORDER

00023

C10926

Date	Analyst	Job Number	Net of Time	Time of Day	CRN	AR	7920 Disc Pack	FRN	g (13) Vol	Sample Identification	Comments	Bottle #	EC Conditions	Run Time	MS Conditions
															Wt
7/20/84	GT	101-43929			A4			240142	2	TE mix 1002/46/2 1002/46/2 UT-3089 10 1 2 3 50 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 					

~~CONFIDENTIAL~~

~~SUBJECT TO PROTECTIVE ORDER~~

00024

C10927

19

No. 1571174

2000 2000 15/10 15/10

00025

RTIAL

19

MRC-DA
No 15707

Date	Analyst	Job Number	Net Time	Time of Day	CRM	AR	7920 Disc Pack	FRN	Aug 10A	(1)	Sample Identification	Comments	Bottle Number	GC Conditions	Run Time	MS
12/06/87	GT	78Y-23129			AH			>G0196 ? ?	2		.7501/.44/2 .7504/.44/2 25.04/.48/2 Do LANE PE MIX .1002/.49/20 UT3096.02 BTL *22 (check *22 .7503/.46/20 1.002/.44/.20	572330		x00-1/2/250		
13 Nov 88 GP		484-1510			AY			>G0194 ? G0195 ?G0196 ?G0197 ?G0198 ?G0199	2		SF 7330		200-1/3/250			

00055

C10929

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER

W. L. H. R

NEANTO RESEARCH CORPORATION

SUBJECT _____ DATE _____

DAYTON LABORATORY

SIGNATURE _____

JOB NO. _____

1	Run	4844330	1700	03	703011	2	PE mix
					100		0.1002/48/20
					1		1.002/48/26
					2		UT=3065
					3		9
					4		7.0
					5		1
					6		2
					7		10.02/78/26
					8		2504
					9		2504
					10		2504
4	Run	4844340	4 hrs	0015	1	2	Darken
				03	2		PE mix
					3		0.1002
					4		UT=3041
					5		3042
					6		3043
					7		3044
					8		3045
					9		1.002/48/2
					20		UT 3046



156691A

19

READ AND UNDERSTOOD BY ME

DATE

19

C10930

BTCHRN

SP2330

1

200-1/1/25

3

5

7

9

11

13

15

17

29

41

43

89

BTCHRN

SP2331

1

200-1/1/25

3

31

32

35

37

39

5

51

SUBJECT TO PROTECTIVE ORDER

15

15



cccc

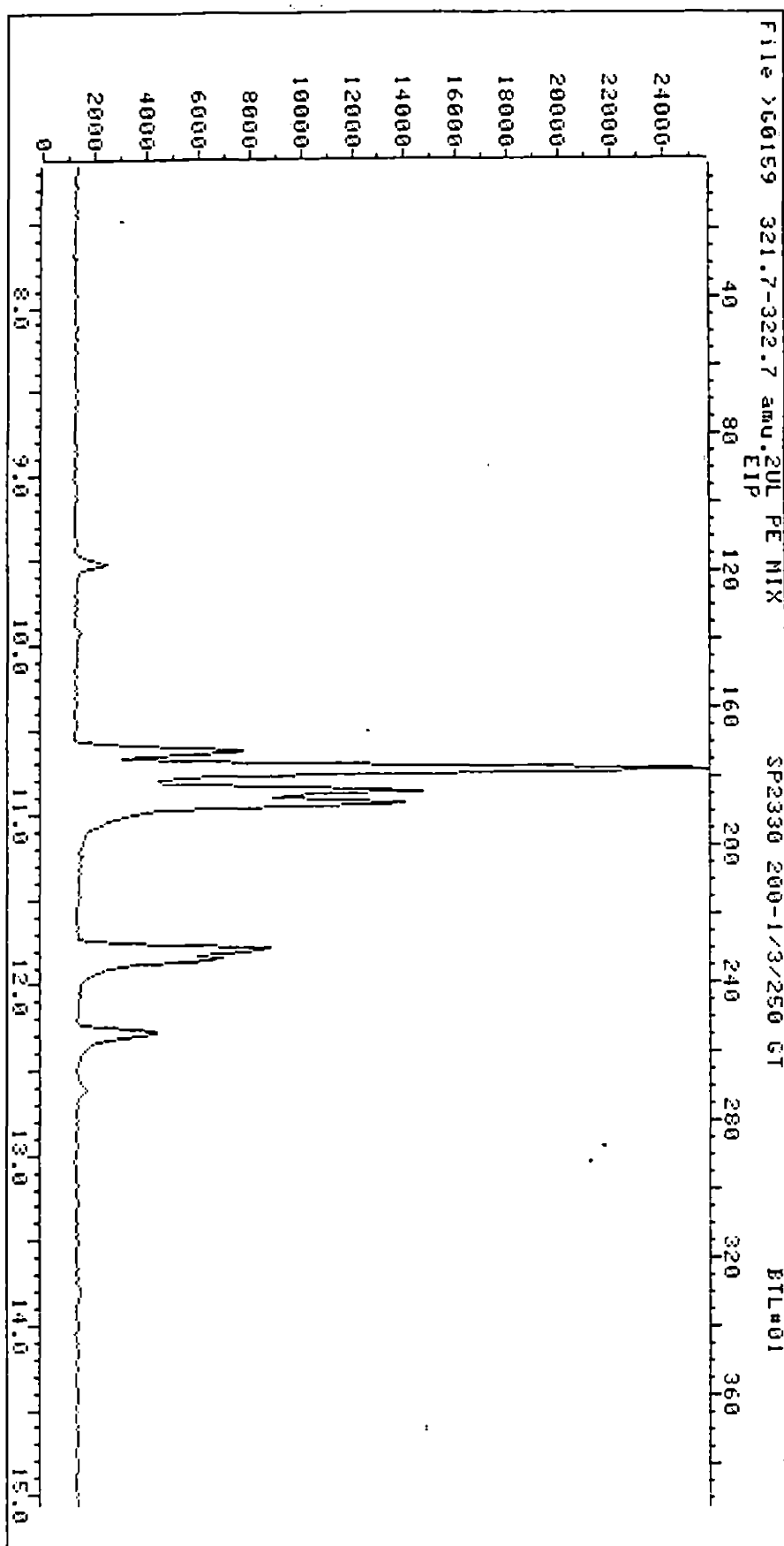
15669LB

Analyst	Job Number	Net Time	Time of Day	CRM	AR	7920 Disc Pack	FRN	Volume (ul)	Sample Identification	Comments	ALS Bottle Number	GC Conditions	Run Time
4	Run 484 4840			03			283125	2	10.00/48/20	BTX HEN STAIN	17	200-1/3/250	15
							6		45-3051		13		
							7		3052		65		
							8		3053		67		
							9		3054		69		
							30		3055		71		
							1		0.2504		29		
							2		45-3056		75		
							3		3057		77		
							4		3058		79		
							5		3059		81		
							6		3072		83		
							7		2504/48/20		41		
							8		2504/48/20		43		
							9		Discussion		85		
817	309 6101	8 hr		03			3562	2ul	Yucca PBF + Hydrocar	ISOPET		175-1/6/300	25
							357	1ul	Yucca PBF REP. 3rd				
41	309 6101			03			358	2ul	Yucca C13-OCOD (Kiv) 2nd	H-OCOD		200-1/10/275	18
							359	2ul	C137-OCOD	H-OCOD			
1	309 66021	2/3 hr		03			250545	1ul	TCDF (#1105A)	SYN/PRO. 2nd		25-1/10/300	20
							46	"	PCDD (#1105B)				
Run	309 6101	0.5		03			283140	2ul	Discussion (CSL)	DBSSC		200-1/14/275	10

C10931

CONFIDENTIAL
SUBJECT TO PROTECTIVE ORDER

82200



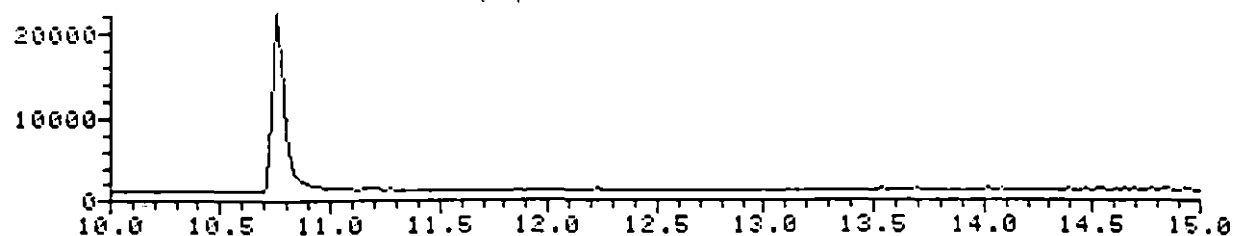
CONFIDENTIAL

SUBJECT TO PROTECTIVE ORDER.

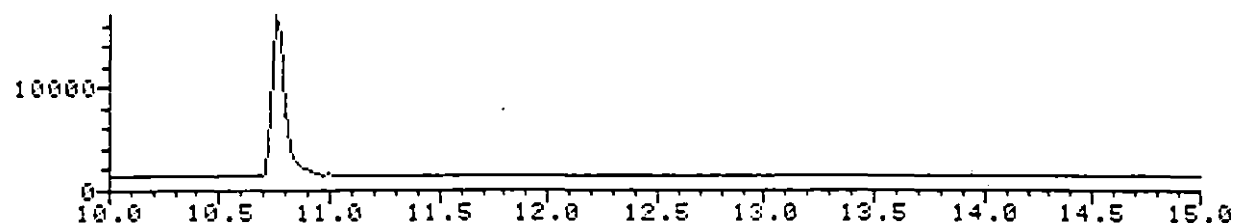
00029

C10932

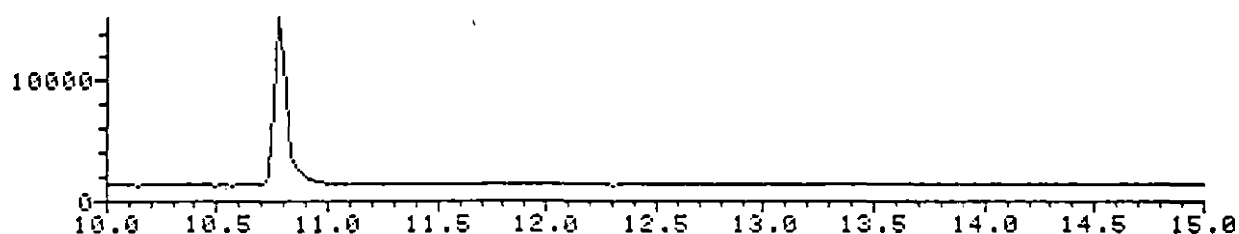
File >G0160 333.6-334.6 amu.2UL .1002/.48/.2 SP2330 200-1/3/250 GT..



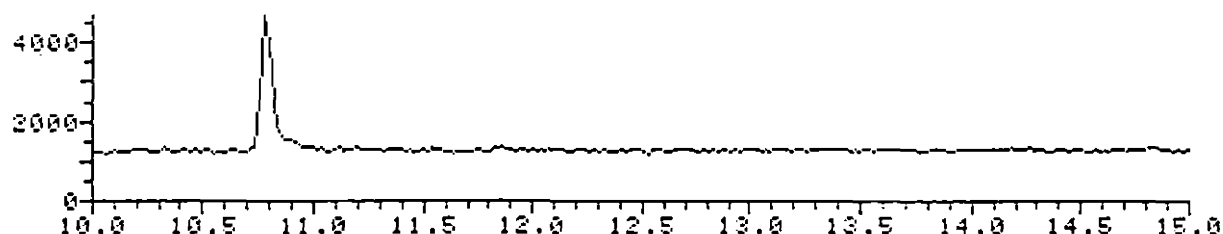
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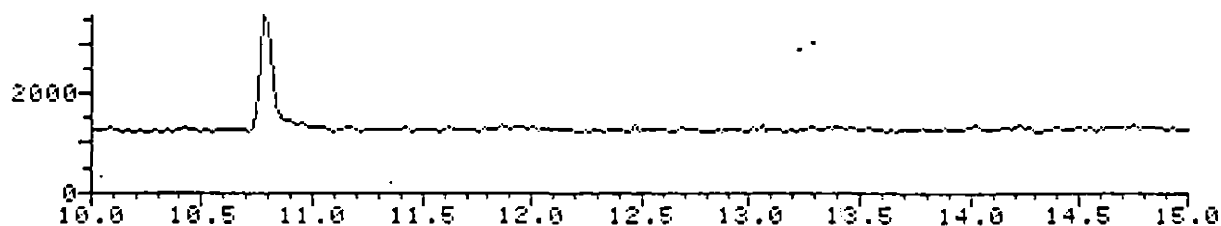
File >G0160 327.6-328.6 amu.2UL .1002/.48/.2 SP2330 200-1/3/250 GT..



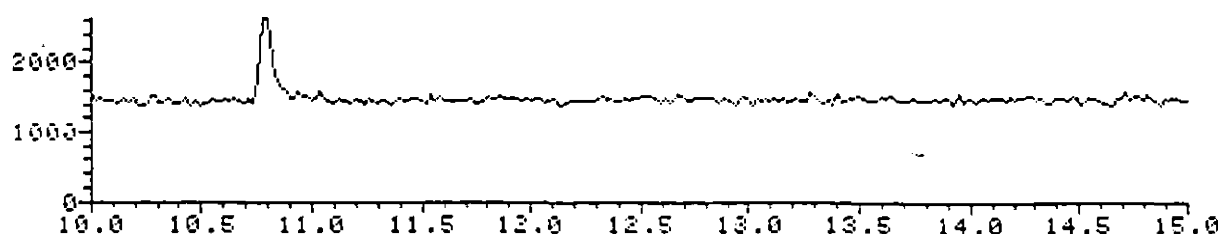
File >G0160 321.6-322.6 amu.2UL .1002/.48/.2 SP2330 200-1/3/250 GT..



File >G0160 319.6-320.6 amu.2UL .1002/.48/.2 SP2330 200-1/3/250 GT ...



File >G0160 256.7-257.7 amu.2UL .1002/.48/.2 SP2330 200-1/3/250 GT.:



00020

C10933

CONFIDENTIAL

MS data file header from : >G0160

Sample: ZUL .1002/.48/.2 S Operator: GARY MS2 11/09/84-13:51
Misc : P2330 200-1/3/250 GT BTL#03 BTL# 3
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265.....

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.754	168	179	195	27	100828	65566	100.00
2	10.754	168	179	195	27	100828	63716	97.18

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.754	171	179	206	35	98202	54452	100.00
2	10.754	171	179	206	35	98202	52754	96.88

332/334 CALCULATION

R-Global(0) = .8305

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.774	165	180	196	31	85238	46364	100.00
2	10.774	165	180	196	31	85238	43853	94.58

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	P.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.774	175	180	190	15	31299	12159	100.00
2	10.774	175	180	190	15	31299	11611	95.49

00031

CONFIDENTIAL

C10934

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>G0160

M/Z = 319.9

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.774	176	180	191	15	28013	8798	100.00
2	10.774	176	180	191	15	28013	8588	97.61

(320/322) CALCULATION

R-Global(1) = .7236

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	10.795	178	181	186	8	17155	5723	100.00
2	10.795	178	181	186	8	17155	5443	95.11

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = .1746

(328)/(332 + 334) CALCULATION

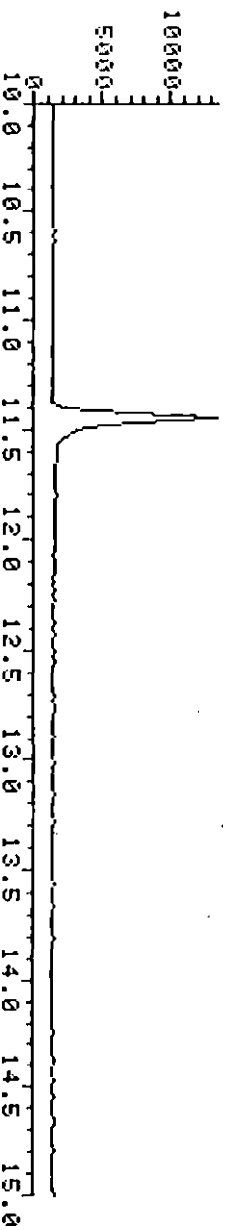
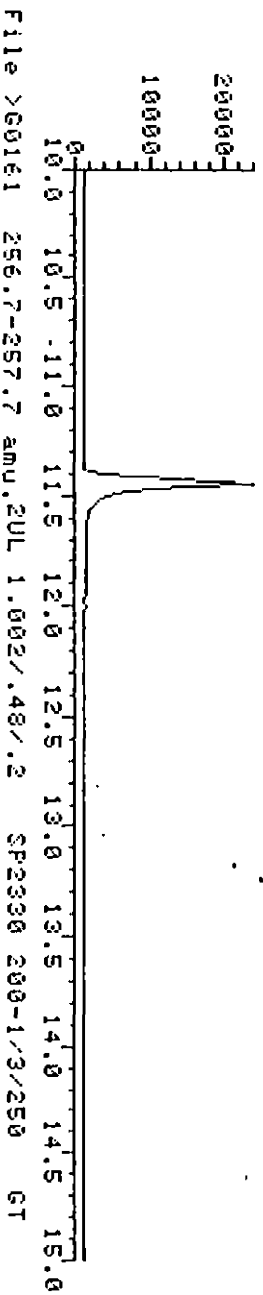
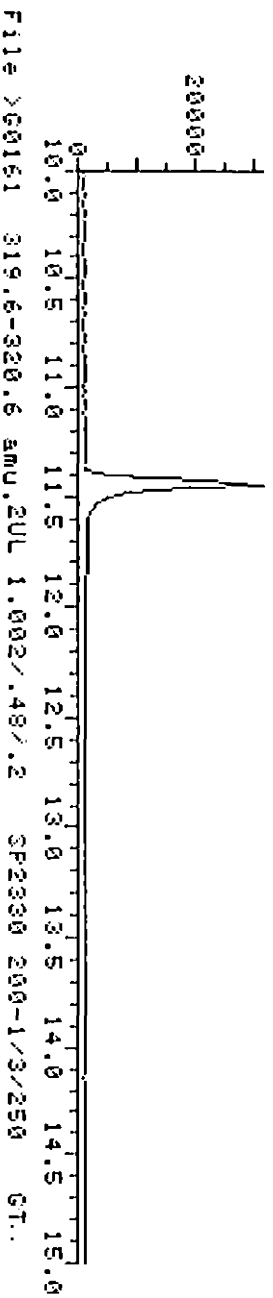
R-Global(3) = .3854

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CONFIDENTIAL
 SUBJECT TO PROTECTIVE ORDER

C10935

File >G0161 321.6-322.6 amu.2UL 1.002/.48/.2 SP2330 200-1/3/250 GT

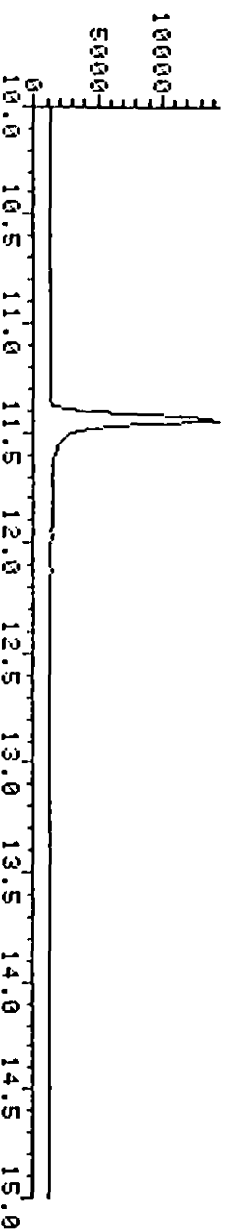
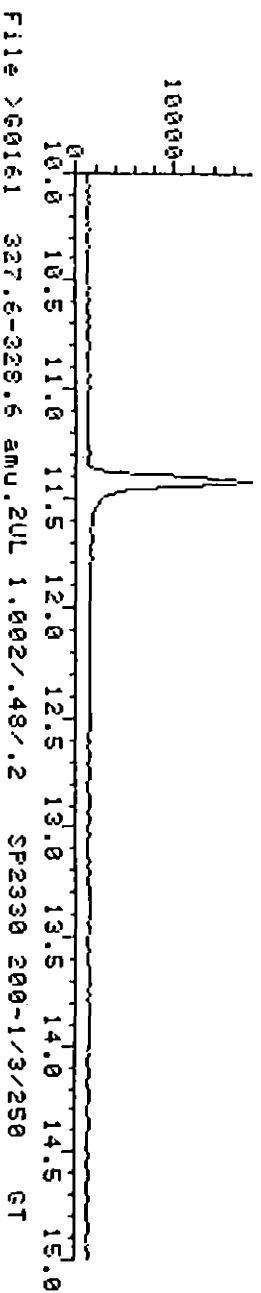
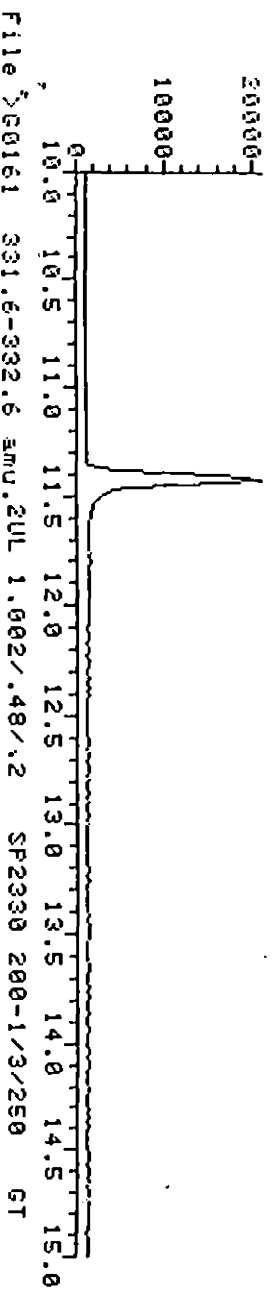


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C10936

SUBJECT TO PROTECTIVE ORDER

File >G0161 333.6-334.6 amu.2UL 1.002/.48/.2 SP2330 200-1/3/250 GT



MS data file header from : >G0161

Sample: 2UL 1.002/.48/.2 S Operator: GARY MS2 11/09/84 14:11
Misc : P2330 200-1/3/250 GT BTL#05 BTL# 5
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS # : 0
Method file: SP2330 Tuning file: APE101 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.424	198	212	232	34	109186	66788	100.00
2	11.424	198	212	232	34	109186	62232	93.18

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.424	198	212	235	37	100274	56170	100.00
2	11.424	198	212	235	37	100274	53247	94.80

332/334 CALCULATION

R-Global(0) = .8410

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.444	203	213	227	24	75197	46205	100.00
2	11.444	203	213	227	24	75197	43365	93.90

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.444	199	213	238	39	147338	98900	100.00
2	11.444	199	213	238	39	147338	94142	95.19

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C10937

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M/Z = 319.9

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.444	201	213	229	28	104678	71022	100.00
2	11.444	201	213	229	28	104678	65394	92.08

320/322 CALCULATION

R-Global(1) = .7181

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.444	199	213	232	33	85860	40386	100.00
2	11.444	199	213	232	33	85860	37746	93.46

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = 1.3820

(328)/(332 + 334) CALCULATION

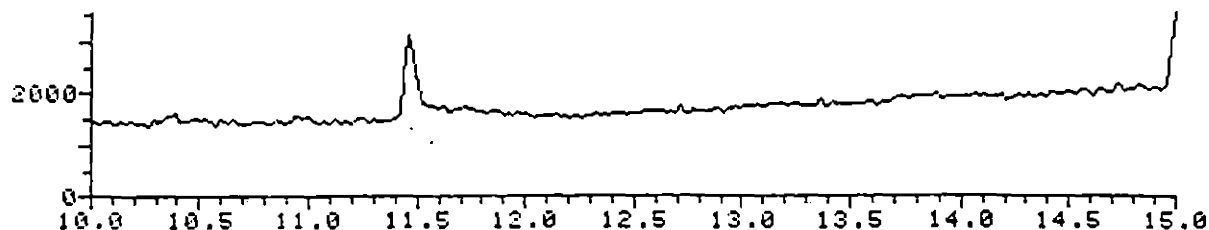
R-Global(3) = .3685

00035

C10938

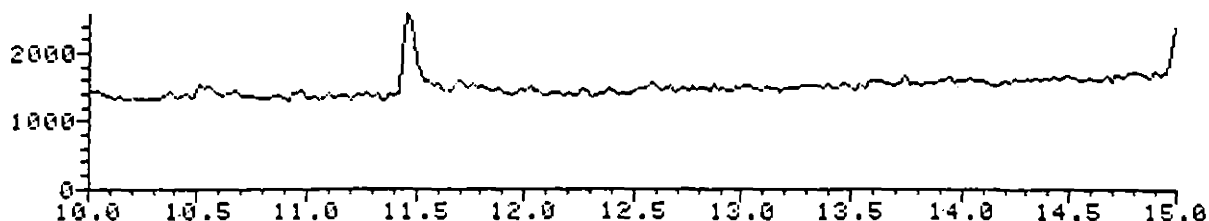
File >G0162 333.6-334.6 amu.2UL UT-3109

SP2330 200-1/3/250 GT



File >G0162 331.6-332.6 amu.2UL UT-3109

SP2330 200-1/3/250 GT



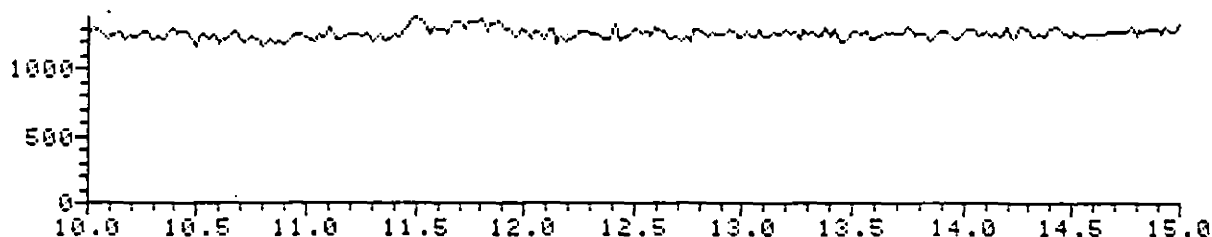
File >G0162 327.6-328.6 amu.2UL UT-3109

SP2330 200-1/3/250 GT



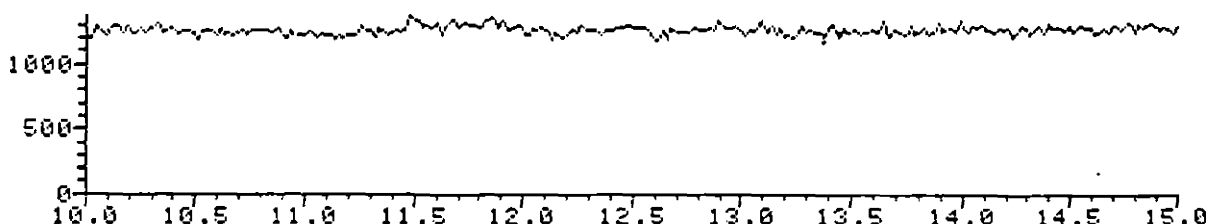
File >G0162 321.6-322.6 amu.2UL UT-3109

SP2330 200-1/3/250 GT



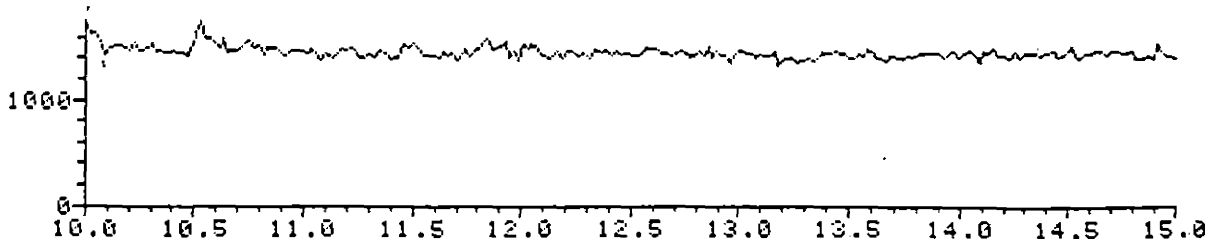
File >G0162 319.6-320.6 amu.2UL UT-3109

SP2330 200-1/3/250 GT



File >G0162 256.7-257.7 amu.2UL UT-3109

SP2330 200-1/3/250 GT



CONFIDENTIAL

00036

SUBJECT TO PROTECTIVE ORDER

C10939

MS data file header from : >G0162

Sample: 2UL UT-3109 Operator: GARY MS2 11/09/84 14:31
Misc : SP2330 200-1/3/250 GT BTL#07BTL# 7
Sys. #: 1 MS model: 87 SW/HW rev.: CR ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.462	210	214	219	9	20045	6860	100.00
2	11.462	210	214	219	9	20045	5717	83.34

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.462	212	214	218	6	13497	5115	100.00
2	11.462	212	214	218	6	13497	4614	90.21

332/334 CALCULATION

R-Global(0) = .7456

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.482	212	215	219	7	13620	4779	100.00
2	11.482	212	215	219	7	13620	4089	85.56

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.502	213	216	219	5	8075	1665	100.00
2	11.502	213	216	219	5	8075	1482	89.01

00037

C10940

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>GC162

M/Z = 319.9

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.482	215	215	217	2	4026	1372	100.00
2	11.482	215	215	217	2	4026	1330	96.94

320/322 CALCULATION

R-Global(1) = .8240

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.462	213	214	214	1	2961	1551	100.00
2	11.462	213	214	214	1	2961	1480	95.42

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = .2536

(328)/(332 + 334) CALCULATION

R-Global(3) = .3978

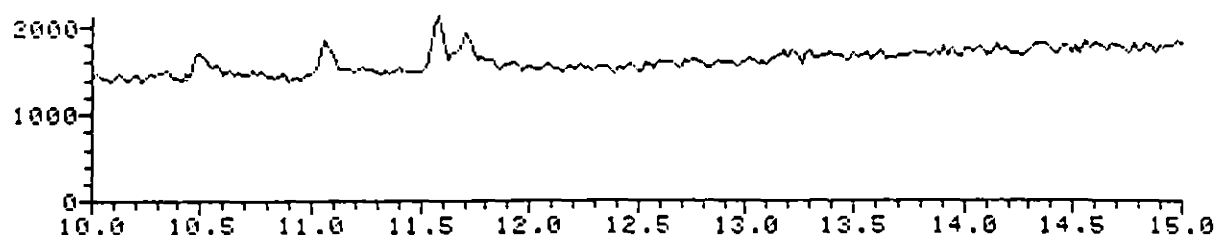
00038

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C10941

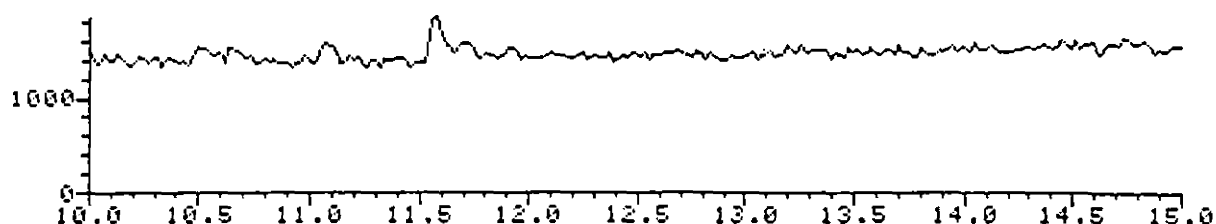
File >G0163 333.6-334.6 amu.2UL UT-3110

SP2330 200-1/3/250 GT



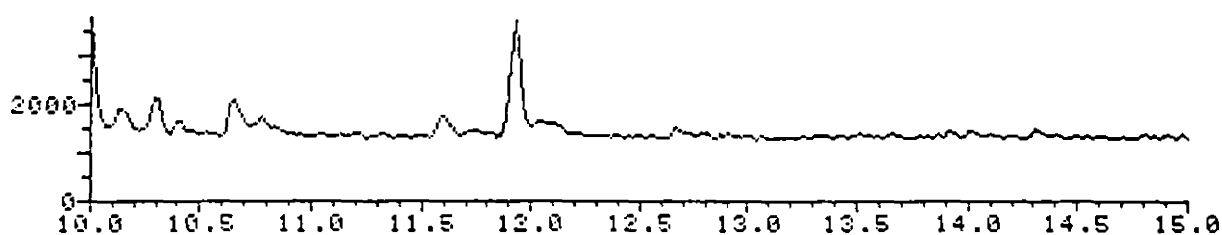
File >G0163 331.6-332.6 amu.2UL UT-3110

SP2330 200-1/3/250 GT



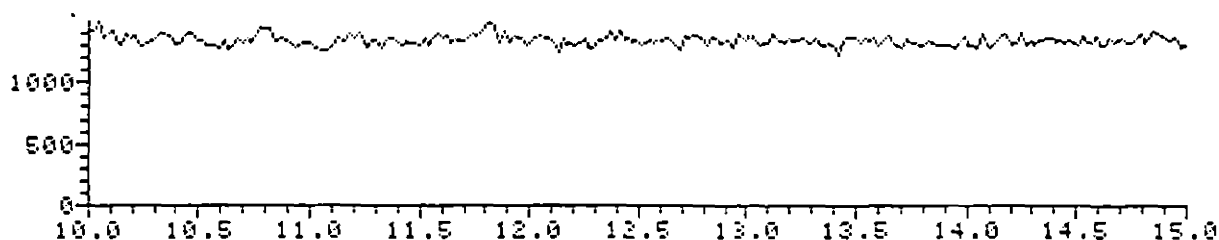
File >G0163 327.6-328.6 amu.2UL UT-3110

SP2330 200-1/3/250 GT



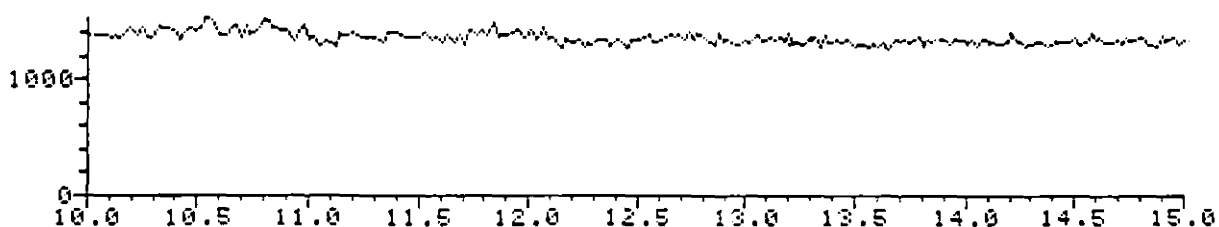
File >G0163 321.6-322.6 amu.2UL UT-3110

SP2330 200-1/3/250 GT



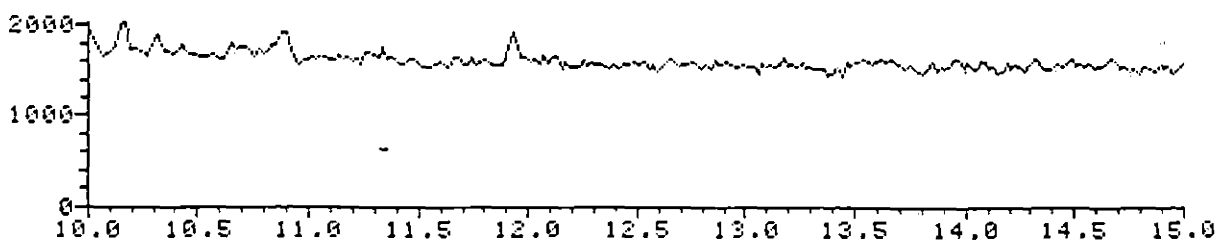
File >G0163 319.6-320.6 amu.2UL UT-3110

SP2330 200-1/3/250 GT



File >G0163 256.7-257.7 amu.2UL UT-3110

SP2330 200-1/3/250 GT



MS data file header from : >G0163

Sample: 2UL UT-3110 S Operator: GARY MS2 11/09/84 14:52 ..
Misc : P2330 200-1/3/250 GT BTL#09BTL# 9
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS #: 0
Method file: SP2330 Tuning file: RPE101 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265.....

* Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.583	218	220	222	4	9162	2698	100.00
2	11.583	218	220	222	4	9162	2662	98.67

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.583	218	220	221	3	6854	2336	100.00
2	11.583	218	220	221	3	6854	2079	89.00

332/334 CALCULATION

R-Global(0) = .8658

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.603	219	221	223	4	8028	2356	100.00
2	11.603	219	221	223	4	8028	2052	87.10

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	0.000	224	0	223	-1	0	1341	100.00
2	0.000	224	0	223	-1	0	1341	100.00

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00040

C10943

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>60163

M/Z = 319.9

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	0.000	224	0	223	-1	0	1345	100.00
2	0.000	224	0	223	-1	0	1345	100.00

320/322 CALCULATION

R-Global(1) = 1.0030

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	0.000	224	0	223	-1	0	1605	100.00
2	0.000	224	0	223	-1	0	1605	100.00

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = .5336

(328)/(332 + 334) CALCULATION

R-Global(3) = .4656

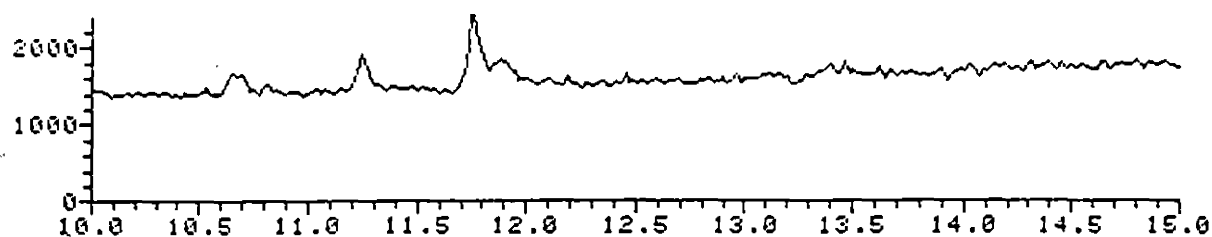
00041.

SUBJECT TO PRELIMINARY CHECK

C10944

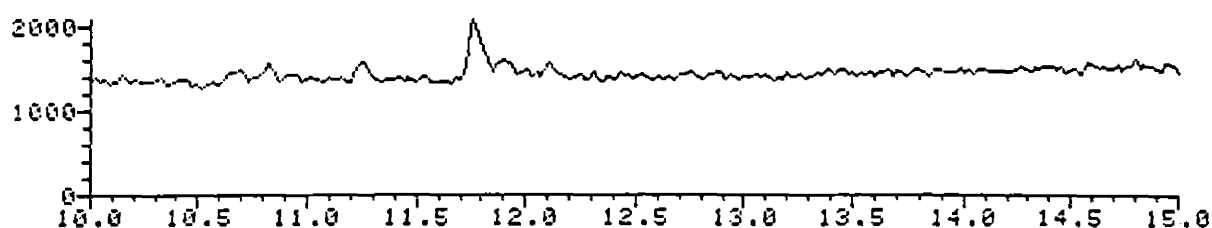
File >G0164 333.6-334.6 amu.2UL UT-3111

SP2330 200-1/3/250 GT



File >G0164 331.6-332.6 amu.2UL UT-3111

SP2330 200-1/3/250 GT



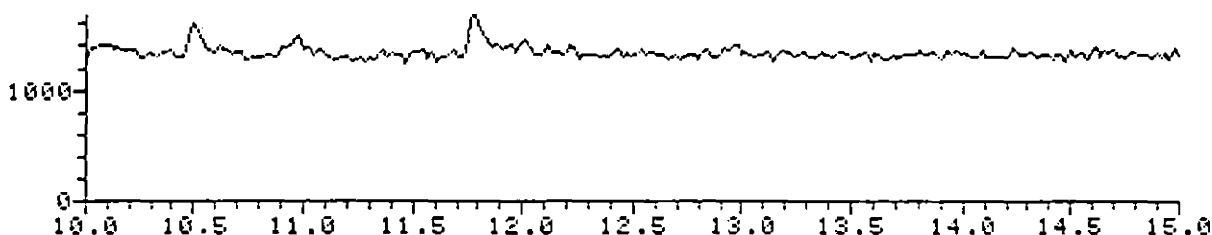
File >G0164 327.6-328.6 amu.2UL UT-3111

SP2330 200-1/3/250 GT



File >G0164 321.6-322.6 amu.2UL UT-3111

SP2330 200-1/3/250 GT



File >G0164 319.6-320.6 amu.2UL UT-3111

SP2330 200-1/3/250 GT



File >G0164 256.7-257.7 amu.2UL UT-3111

SP2330 300-1/3/250 GT



CONFIDENTIAL

00042

SUBJECT TO PROTECTIVE ORDER

C10945

GC/MS default file: >G0164::A4

MS data file header from : >G0164

Sample: 2UL UT-3111 Operator: GARY MS2 11/09/84 15:12 ..
Misc : SP2330 200-1/3/250 GT BTL#11BTL#11
Sys. #: 1 MS model: 87 SN/HW rev.: CR ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265.....

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.746	224	228	232	8	16531	5315	100.00
2	11.746	224	228	232	8	16531	4231	79.60

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.766	226	229	232	6	12238	4030	100.00
2	11.766	226	229	232	6	12238	3346	83.03

332/334 CALCULATION

R-Global(0) = .7582

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.787	228	230	232	4	8937	2705	100.00
2	11.787	228	230	232	4	8937	2613	96.60

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.787	227	230	233	6	10530	2688	100.00
2	11.787	227	230	233	6	10530	2370	88.17

00043

C10946

S

>G0164

M/Z = 319.9

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.766	228	229	233	5	8833	2053	100.00
2	11.766	228	229	233	5	8833	1938	94.40

320/322 CALCULATION

R-Global(1) = .7638

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.787	229	230	232	3	6677	1913	100.00
2	11.787	229	230	232	3	6677	1857	97.07

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = .5073

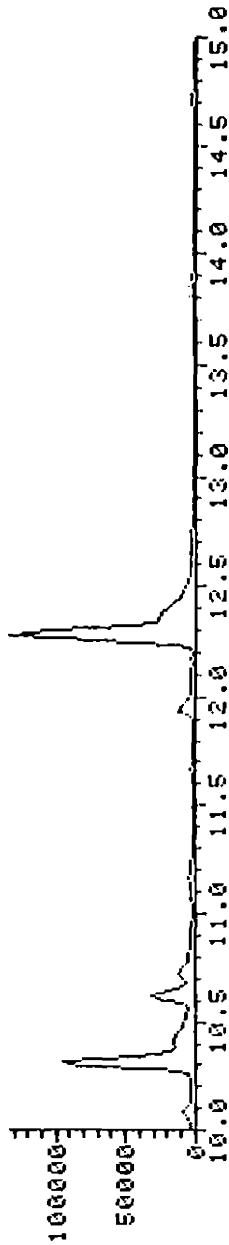
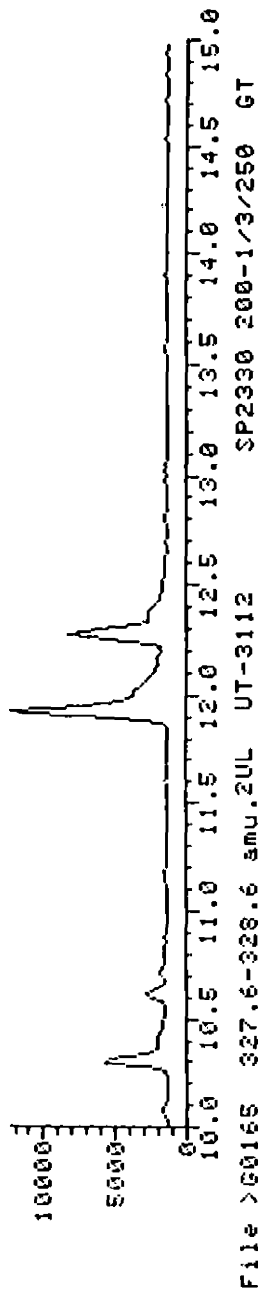
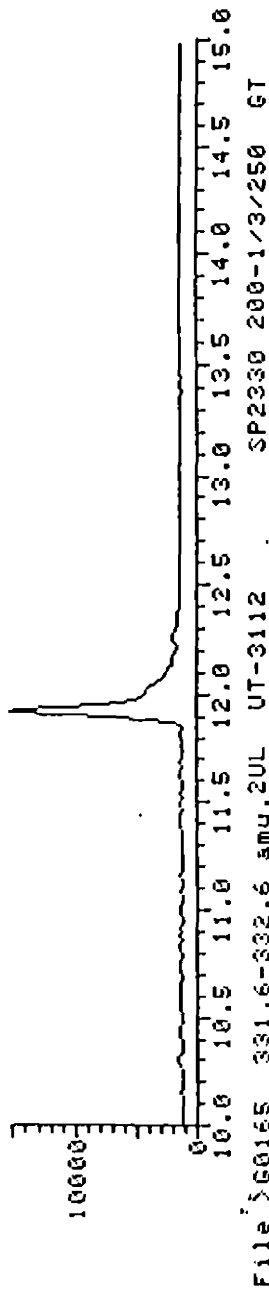
(328)/(332 + 334) CALCULATION

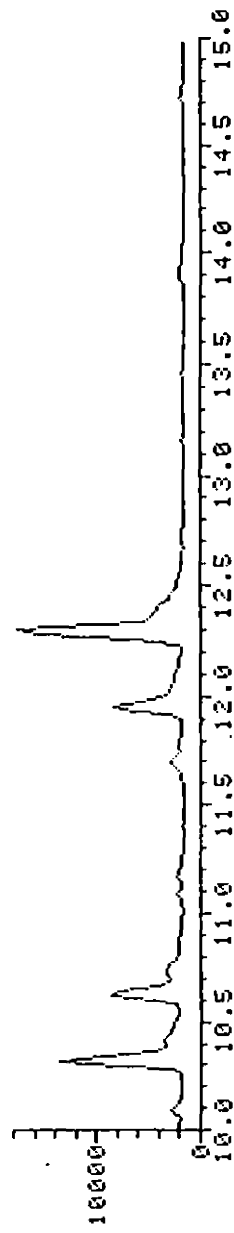
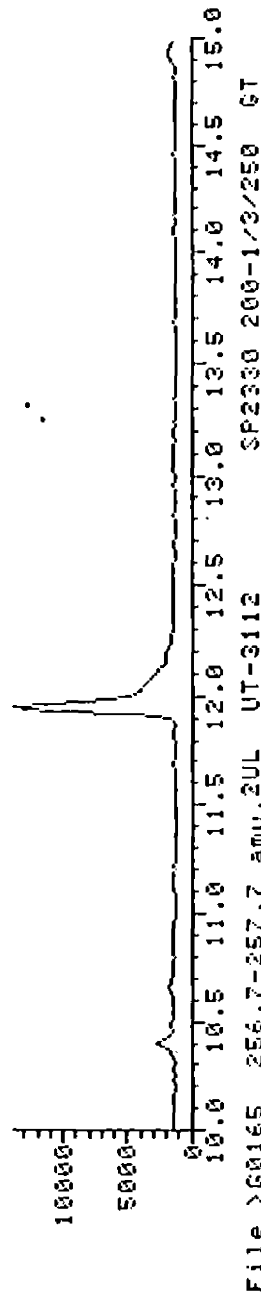
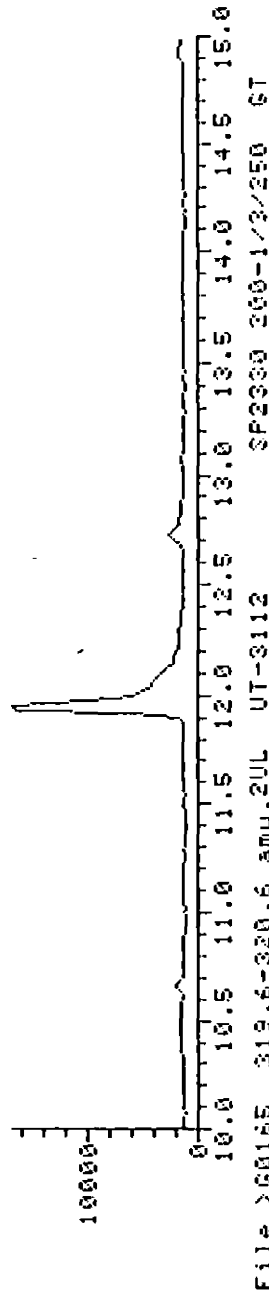
R-Global(3) = .2869

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 SUBJECT TO PROTECTIVE ORDER.

C10947

File >G0165 333.6-334.6 amu.2UL UT-3112 SP2330 200-1/3/250 GT





00045

C10948

MS data file header from : >G0165

Sample: 2UL UT-3112 Operator: GARY MS2 11/09/84 15:32
Misc : SP2330 200-1/3/250 GT BTL#13BTL#13
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS #: 0
Method file: SP2330 Tuning file: APE101 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265.....

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.913	230	235	246	16	81281	58577	100.00
2	11.913	230	235	246	16	81281	53057	90.58

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.933	228	236	243	15	64086	44181	100.00
2	11.933	228	236	243	15	64086	34348	77.74

332/334 CALCULATION

R-Global(0) = .7542

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.933	228	236	241	13	53953	33322	100.00
2	11.933	228	236	241	13	53953	22363	67.11

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.953	229	237	247	18	92820	67584	100.00
2	11.953	229	237	247	18	92820	58962	87.24

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C10949

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M/Z = 319.9

>60165

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.953	229	237	244	15	68471	48191	100.00
2	11.953	229	237	244	15	68471	37301	77.40

(320/322) CALCULATION

R-Global(1) = .7131

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.953	233	237	241	8	36664	22728	100.00
2	11.953	233	237	241	8	36664	17964	79.04

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = 1.1267

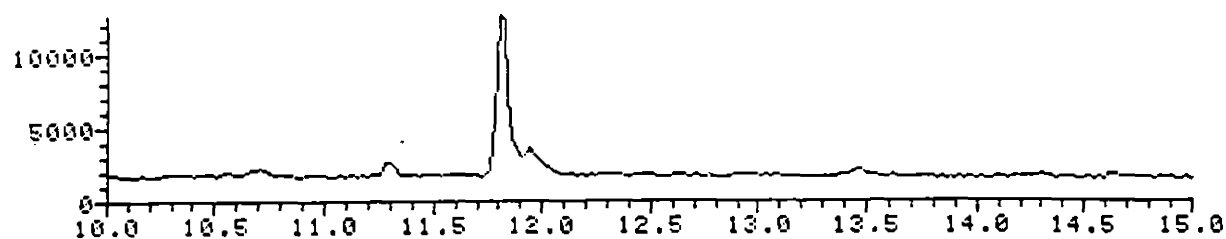
(328)/(332 + 334) CALCULATION

R-Global(3) = .3184

C10950

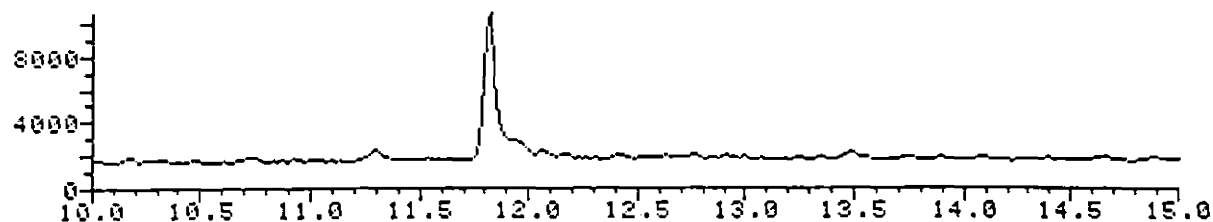
File >G0166 333.6-334.6 amu.2UL UT-3113

SP2330 200-1/3/250 GT



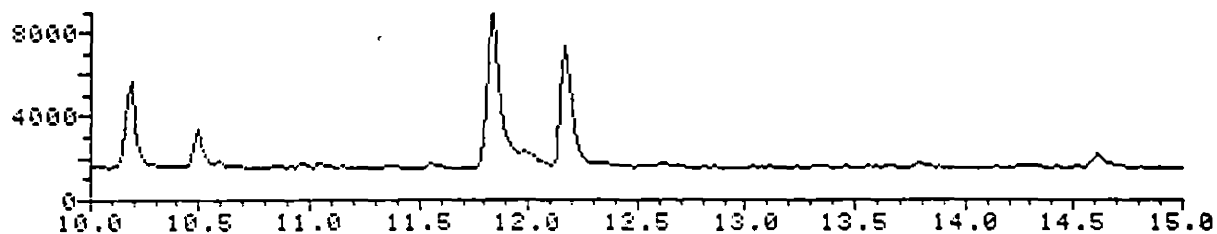
File >G0166 331.6-332.6 amu.2UL UT-3113

SP2330 200-1/3/250 GT



File >G0166 327.6-328.6 amu.2UL UT-3113

SP2330 200-1/3/250 GT



File >G0166 321.6-322.6 amu.2UL UT-3113

SP2330 200-1/3/250 GT



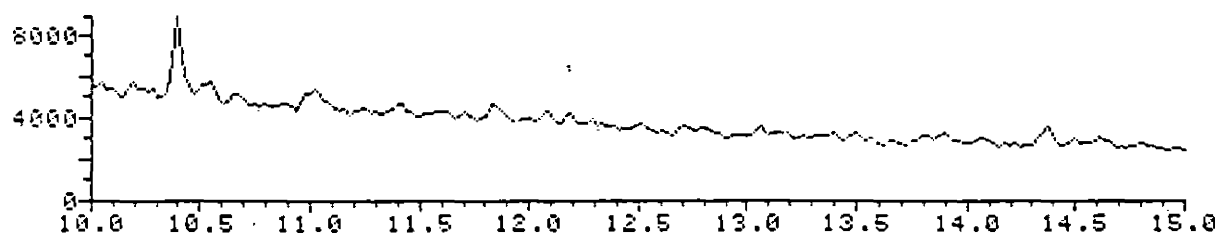
File >G0166 319.6-320.6 amu.2UL UT-3113

SP2330 200-1/3/250 GT



File >G0166 256.7-257.7 amu.2UL UT-3113

SP2330 200-1/3/250 GT



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C10951

GC/MS default file: >G0166::A4

MS data file header from : >G0166

Sample: 2UL UT-3113 Operator: GARY MS2 11/09/84 15:53
Misc : SP2330 200-1/3/250 GT BTL#15BTL#15
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.804	225	231	236	11	58402	38316	100.00
2	11.804	225	231	236	11	58402	31276	81.63

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.825	227	232	236	9	46526	31487	100.00
2	11.825	227	232	236	9	46526	26010	82.61

332/334 CALCULATION

R-Global(0) = .8218

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.845	227	233	239	12	47209	29245	100.00
2	11.845	227	233	239	12	47209	25381	86.79

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.845	230	233	236	6	20150	9422	100.00
2	11.845	230	233	236	6	20150	8732	92.68

00049

C10952

260166

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M/Z = 319.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.845	230	233	235	5	18949	8174	100.00
2	11.845	230	233	235	5	18949	6364	77.86

320/322 CALCULATION

R-Global(1) = .8675

M/Z = 257.0

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.845	230	233	236	6	30162	6420	100.00
2	11.845	230	233	236	6	30162	6324	98.50

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = .2521

(328)/(332 + 334) CALCULATION

R-Global(3) = .4177

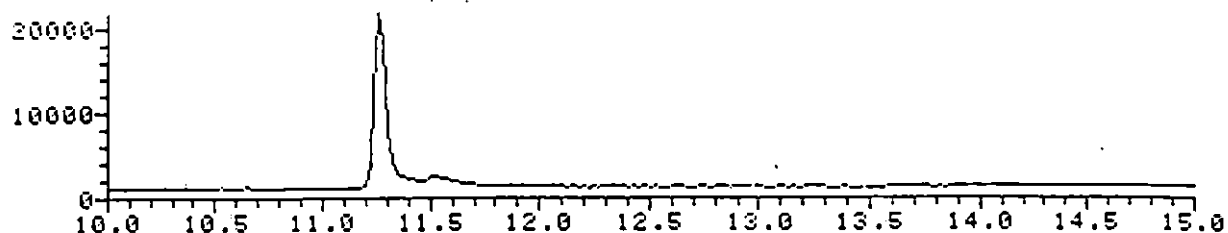
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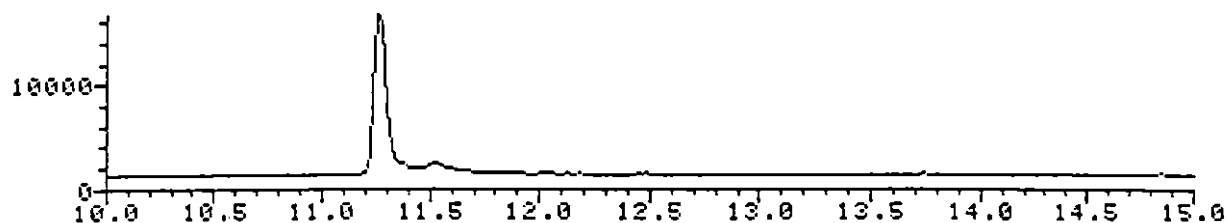
00050

C10953

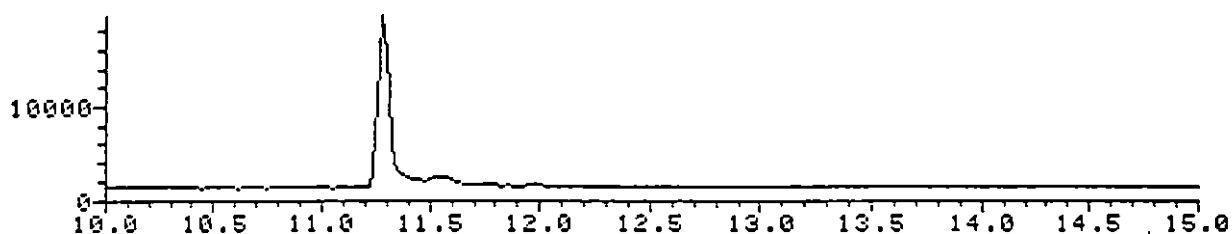
File >G0167 333.6-334.6 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT..



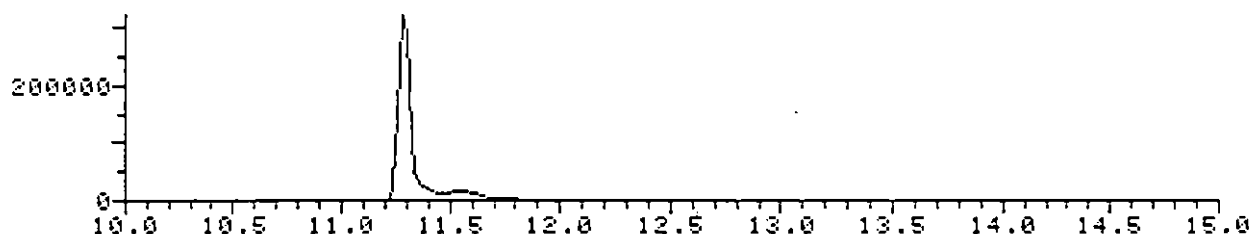
File >G0167 331.6-332.6 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT



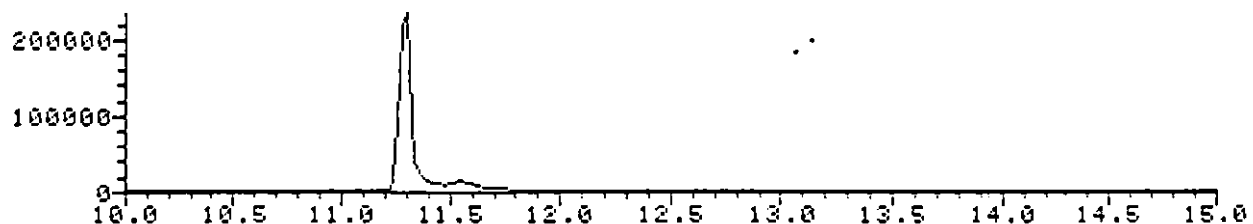
File >G0167 327.6-328.6 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT..



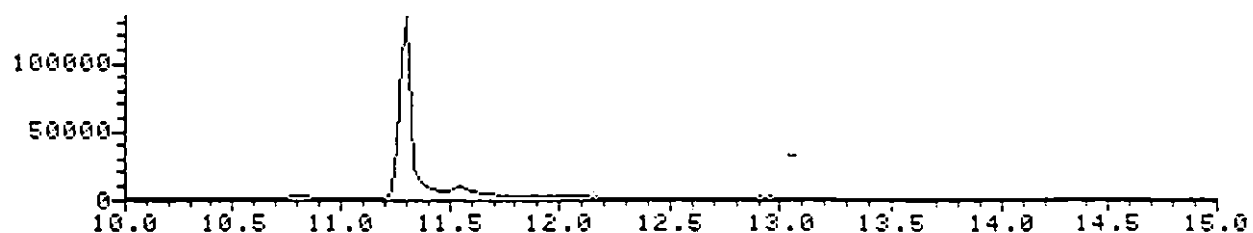
File >G0167 321.6-322.6 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT



File >G0167 319.6-320.6 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT...



File >G0167 256.7-257.7 amu.2UL 10.02/.48/.20 SP2230 200-1/3/250 GT..



00051

C10954

MS data file header from : >G0167

Sample: 2UL 10.02/1.48/.20 Operator: GARY MS2 11/09/84-16:14...
Misc : SP2230 200-1/3/250 GT BTL#17BTL#17
Sys. #: 1 MS model: 87 SW/HW rev.: CR ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265.....

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.260	194	202	210	16	90032	68336	100.00
2	11.260	194	202	210	16	90032	60928	89.16

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.260	196	202	211	15	75797	56597	100.00
2	11.260	196	202	211	15	75797	51129	90.34

332/334 CALCULATION

R-Global(0) = .8282

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.280	198	203	211	13	76469	58451	100.00
2	11.280	198	203	211	13	76469	53459	91.46

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.280	192	203	212	20	1085361	1057321	100.00
2	11.280	192	203	212	20	1085361	926731	87.65

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C10955

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M/Z = 319.9

>G0167

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.300	195	204	212	17	800010	776958	100.00
2	11.300	195	204	212	17	800010	695145	89.47

320/322 CALCULATION

R-Global(1) = .7348

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	11.300	192	204	212	20	451265	416825	100.00
2	11.300	192	204	212	20	451265	363455	87.20

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = 14.6821

(328)/(332 + 334) CALCULATION

R-Global(3) = .3917

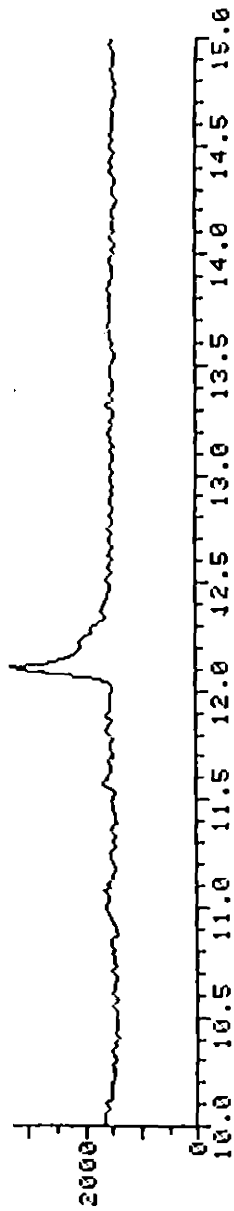
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C10956

File >G0168 333.6-334.6 amu.2UL UT-3114

SP2330 200-1/3/250 GT



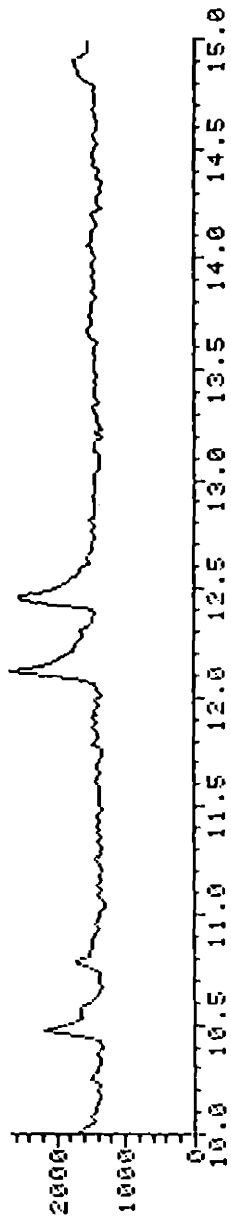
File >G0168 331.6-332.6 amu.2UL UT-3114

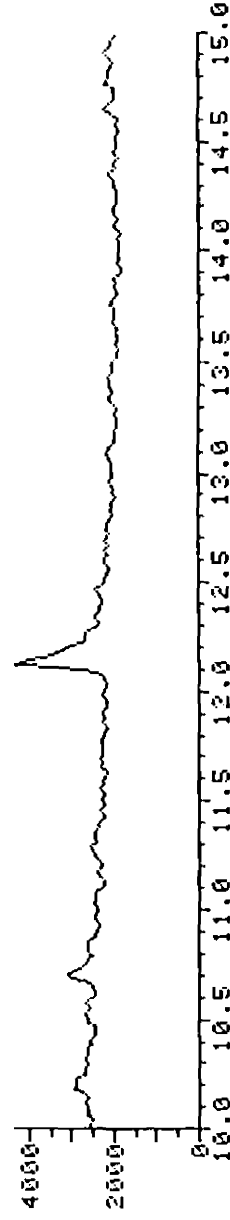
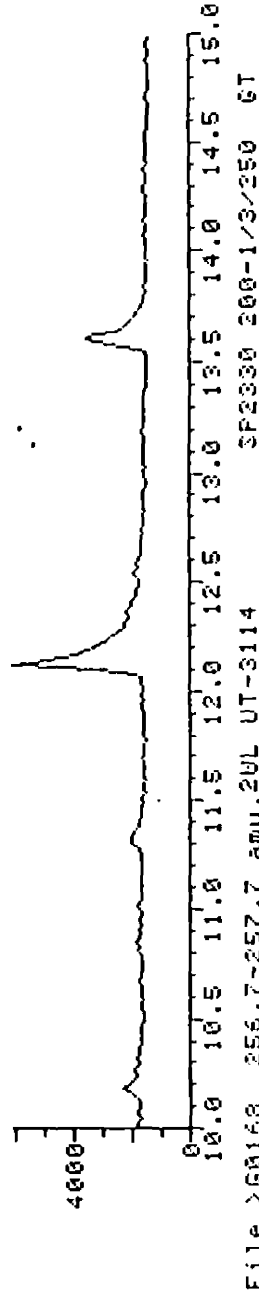
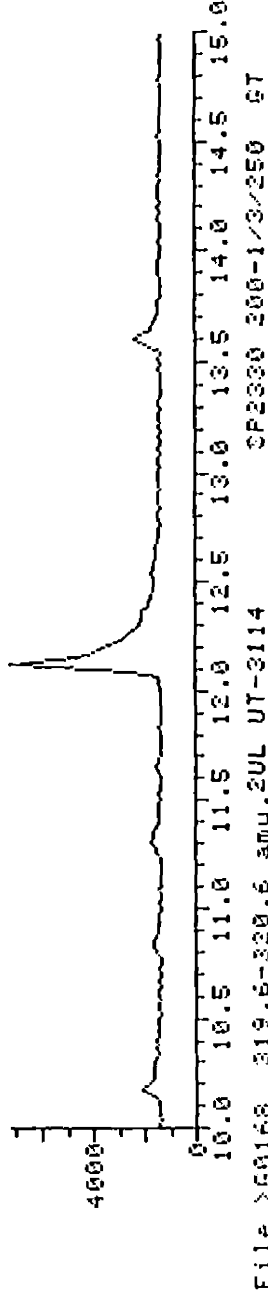
SP2330 200-1/3/250 GT



File >G0168 327.6-328.6 amu.2UL UT-3114

SP2330 200-1/3/250 GT



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C10957

MS data file header from : >G0168

Sample: 2UL UT-3114 Operator: GARY MS2 11/09/84 16:35
Misc : SP2330 200-1/3/250 GT BTL#19BTL#19
Sys. #: 1 MS model: 87 SW/HW rev.: CA ALS #: 0
Method file: SP2330 Tuning file: APEI01 No. of extra records: 2
Source temp.: 250 Analyzer temp.: 265 Transfer line temp.: 265

Chromatographic temperatures : 200. 250. 0. 0. 0.
Chromatographic times, min. : 1.0 25.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 3.0 0.0 0.0 0.0 0.0

M/Z = 333.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.104	240	245	250	10	23759	9109	100.00
2	12.104	240	245	250	10	23759	6349	69.70

M/Z = 331.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.104	242	245	250	8	18562	7106	100.00
2	12.104	242	245	250	8	18562	5590	78.67

332/334 CALCULATION

R-Global(0) = .7601

M/Z = 327.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.124	243	246	250	7	16139	6108	100.00
2	12.124	243	246	250	7	16139	5044	82.58

M/Z = 321.9

First peak is baseline drop corrected area.
Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.124	240	246	255	15	50273	29318	100.00
2	12.124	240	246	255	15	50273	23340	79.61

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M/Z = 319.9

>60168

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.124	241	246	254	13	43223	22410	100.00
2	12.124	241	246	254	13	43223	12094	80.74

320/322 CALCULATION

R-Global(1) = .7644

M/Z = 257.0

First peak is baseline drop corrected area.
 Second peak is tangent skimmed corrected area.

Peak #	R.T. min.	first scan	max scan	last scan	peak width	raw area	corr. area	corr. %
1	12.124	242	246	252	10	33539	11939	100.00
2	12.124	242	246	252	10	33539	9289	77.80

(320 + 322)/(332 + 334) CALCULATION

R-Global(3) = 3.1901

(320)/(332 + 334) CALCULATION

R-Global(3) = .3604

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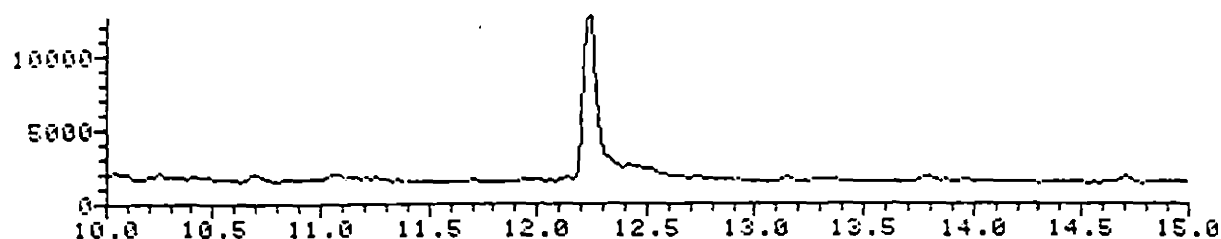
00056

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C10959

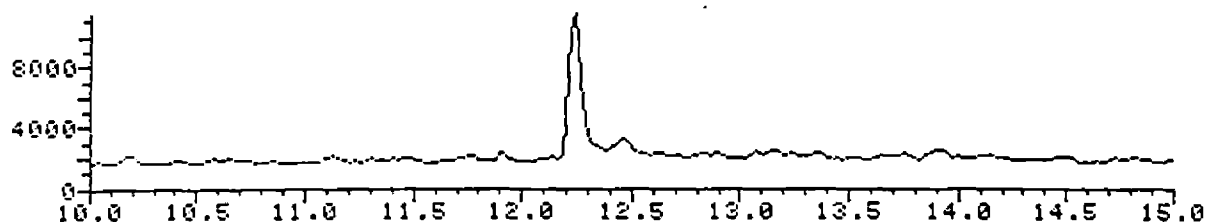
File >G0169 333.6-334.6 amu.2UL UT-3115

SP2330 200-1/3/250 GT



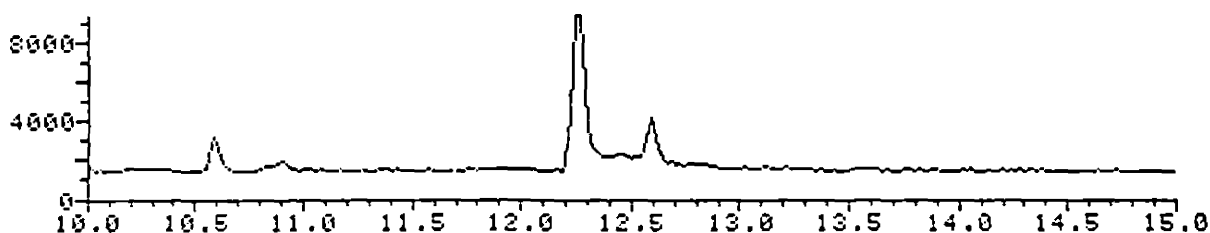
File >G0169 331.6-332.6 amu.2UL UT-3115

SP2330 200-1/3/250 GT



File >G0169 327.6-328.6 amu.2UL UT-3115

SP2330 200-1/3/250 GT



File >G0169 321.6-322.6 amu.2UL UT-3115

SP2330 200-1/3/250 GT



File >G0169 319.6-320.6 amu.2UL UT-3115

SP2330 200-1/3/250 GT



File >G0169 256.7-257.7 amu.2UL UT-3115

SP2330 200-1/3/250 GT



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C10960