Houston Forensic Science Center

Comparative and Analytical Division - Toxicology

Drug GC-MS Full Scan Batch Review Checklist

Batch Date: AND_20180924B_TS		Analyst Review	Technical Review
Worklist	Item tested written for each case	✓	✓
	Pipette(s) used listed	✓	✓
	Lot numbers for internal standard, calibrators, controls, negative matrices, reagents, solvents, and SPE columns are listed	✓	✓
	Verify preparation of internal standard, calibrators, and controls	✓	✓
Performance Verification	Verify autotune is acceptable and corresponds with method	✓	✓
	Verify system suitability is acceptable	✓	✓
GC-MS Method	Verify correct assay method is included and all pages are accounted for	✓	✓
Sequence	Verify batch file name is consistent	✓	✓
	Reviewer verified, initialed, and dated sequence	✓	✓
	Verify appropriate calibrator and controls were analyzed, and appropriate controls were run at least after every 10 case samples	✓	✓
	Verify all cases were processed and have data	✓	✓
Qualitative Data Analysis Worksheet	Review batch file name	✓	✓
	Verify lot number for calibrators, controls, internal standard, negative matrices, reagents, solvents, and SPE columns against those on the worklist	✓	✓
	Verify positive controls are acceptable for reporting analytes	✓	✓
Data	Verify controls are acceptable for reporting analyte(s)	✓	✓
	Verify internal standard is present in all case samples	✓	✓
	Verify appropriate task is added in LIMS for positive DRS case samples	N/a	NA
	Verify full mass spectra of positive case samples have comparable library match(es)	✓	✓
Qualitative Confirmation	Verify cut-off calibrator is acceptable	✓	✓
	For positive case samples, verify reporting analyte(s) are above cutoff calibrator	✓	✓
	Positive DRS detected for all reporting analyte(s)	✓	✓
	Verify internal standard response is acceptable in case samples	✓	✓
All comments and/or strikethroughs, if any, initialed		✓	✓
All pages initialed		✓	✓

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Notes from Technical Review

lot number of acidic methanol is incorrect.

MK 9/26/18

Analyst Review

Signature/Date: Tanuja Sathuraj 9/26/18

Technical Review

Signature/Date: Mel Lloyd 9/26/18

TS

AND_20180924B_TS

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Comparative and Analytical Division - Toxicology

GC-MS Qualitative Screen Batch QC Data

Batch File Name: AND_20180924B_TS **Analyst:** Tanuja Sathiraj

Negative Matrix: ☑ BLOOD Lot Number(s)/Expiration: 260478; exp: 5/10/19

☐ URINE Lot Number(s)/Expiration:

Positive Control: 050118L-Q-10 **Expiration:** 09/30/18

Cut-off Calibrator: 050318C-C-10 **Expiration:** 05/03/19

Internal Standard: 042018C-IS-10 **Expiration:** 04/20/19

SPE Columns: 1702085-1

Pipette(s): 8937; 0398; 790G

Reagents:	**Lot Number:**	**Exp:**
100 mM Phosphate Buffer, pH 6	180803-PB6	02/03/19
1 M Acetic acid	20180515-AA	05/15/19
Hexane (Acidic-Neutral Only)	157196	n/a
Methanol (Basic Only)	n/a	n/a
Methylene chloride (Basic Only)	n/a	n/a
Isopropanol (Basic Only)	n/a	n/a
Ammonium hydroxide (Basic Only)	n/a TS 9/26/18	n/a
Acidic methanol	180918-HClMeOH	12/10/18
Ethyl acetate	0000086545	Retest date:- 07/31/19

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BSD Acceptance

Analyte/Cut-off (ng/mL)	Cut-off Calibrator	PQC1	PQC2	PQC3	PQC4
Meperidine (100)					
Ketamine (50)					
Fluoxetine (100)					
Diphenhydramine (50)					
Doxylamine (50)					
Tramadol (100)					
Venlafaxine (50)					
Methadone (50)					
Propoxyphene (50)					
Amitriptyline (50)					
Nortriptyline (100)					
Imipramine (50)					
Cyclobenzaprine (25)					
Phenytoin (500)					
Sertraline (50)					
Zolpidem (25)					
Trazodone (100)					

TS 9/26/18

AND Acceptance

Analyte/Cut-off (ng/mL)	Cut-off Calibrator	PQC1	PQC2	PQC3	PQC4
Butalbital (500)	✓	✓	✓	|	|
Meprobamate (500)	✓	✓	✓		
Secobarbital (500)	✓	✓	✓	n/a	n/a
Carisoprodol (500)	✓	✓	✓		
Phenobarbital (500)	✓	✓	✓	|	|

Batch Notes:
Verifying AND QC lot # 180920L-Q-10; expiry:- 9/20/19.
Sample meets acceptance criteria. OK to use in casework.

TS

AND_20180924B_TS

Sequence Name: C:\MSDCHEM\1\SEQUENCE\AND_20180924B_TS.S
Comment:
Operator: Tanuja Sathiraj
Data Path: D:\DATA\2018\AND\AND_20180924B_TS\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

Sequence Barcode Options
(X) On Mismatch, Inject Anyway
( ) On Mismatch, Don't Inject
( ) Barcode Disabled

Line			Sample Name/Misc Info
1)	Specimen	1	01_BB QCONFIRM Blank Blood
2)	Specimen	2	Cutoff Cal Blood
	Datafile		02_CutoffBL
	Method		QCONFIRM
3)	Specimen	3	03_NegBL QCONFIRM Neg QC Blood
4)	Specimen	4	04_PosBL QCONFIRM Pos QC Blood
5)	Specimen	5	2018-08618-1.2
	Datafile		05_2018_08618
	Method		QCONFIRM
6)	Specimen	6	2018-09636-1.1
	Datafile		06_2018_09636
	Method		QCONFIRM
7)	Specimen	7	Pos QC1-180920L-Q-10
	Datafile		07_180920L-Q-10
	Method		QCONFIRM
8)	Specimen	8	Pos QC2-180920L-Q-10
	Datafile		08_180920L-Q-10
	Method		QCONFIRM
9)	Specimen	9	15_PosBL QCONFIRM Pos QC Blood
10)	Specimen	98	16_EtAc QCONFIRM Ethyl Acetate
11)	Specimen	98	17_EtAc QCONFIRM Ethyl Acetate
12)	Specimen	98	18_EtAc QCONFIRM Ethyl Acetate
13)	Specimen	100	19_MeOH QCONFIRM Methanol
14)	Specimen	100	20_MeOH QCONFIRM Methanol
15)	Specimen	100	21_MeOH QCONFIRM Methanol
16)	Specimen	100	Methanol
	Datafile		22_MeOH
	Method		QCONFIRM_CLEANUP
17)	Specimen	100	Methanol
	Datafile		23_MeOH
	Method		QCONFIRM_CLEANUP
18)	Specimen	100	Methanol
	Datafile		24_MeOH
	Method		QCONFIRM_CLEANUP

sequence verified
9/24/18 mh

TS

AND_20180924B_TS

Alcohol/Toxicology
Work List for Tanuja Sathiraj / AND

9/24/2018

Priority	Lab Case#/ Item#	Description
2018-08618	072055118	Driving While Intoxicated (Liquor)(DWI)
Normal		~4 mL -CLR 7/2/18
		Reanalyze for ALP-TS 08/28/18
	1.2 one grey top tube	
2018-09636	082352218	Driving While Intoxicated - Felony (DWI)
Normal		~13 mL -CLR 7/17/18
	1.1 one grey top tube	
Total Tasks	2	

Negative matrix:- 260478; expiry:- 5/10/19
cut off calibrator 050318C-C-10; expiry:-05/03/19
A/N QC : 050118L-Q-10; expiry:- 9/30/18
Pentobarbital I.S. :- 042018C-IS-10; expiry:- 4/20/19
Verifying A/N AND QC Lot# 180920L-Q-10; expiry:- 9/20/19 TS 9/24/18
100mM Sodium phosphate Buffer :- 180803-PB6; exp:-02/03/19
SPE Columns:- 1702085-1
1M acetic acid:- 20180515-AA; exp: 5/15/19
Hexane:- 157196 exp: n/a
Ethyl acetate:-00000 86545; Retest date:- 07/31/19
Acidic methanol:- 180918 TS 9/26/18 HCl MeOH; exp:- 12/10/18
Pipettes:- 8937; 0398; 7906

12,554

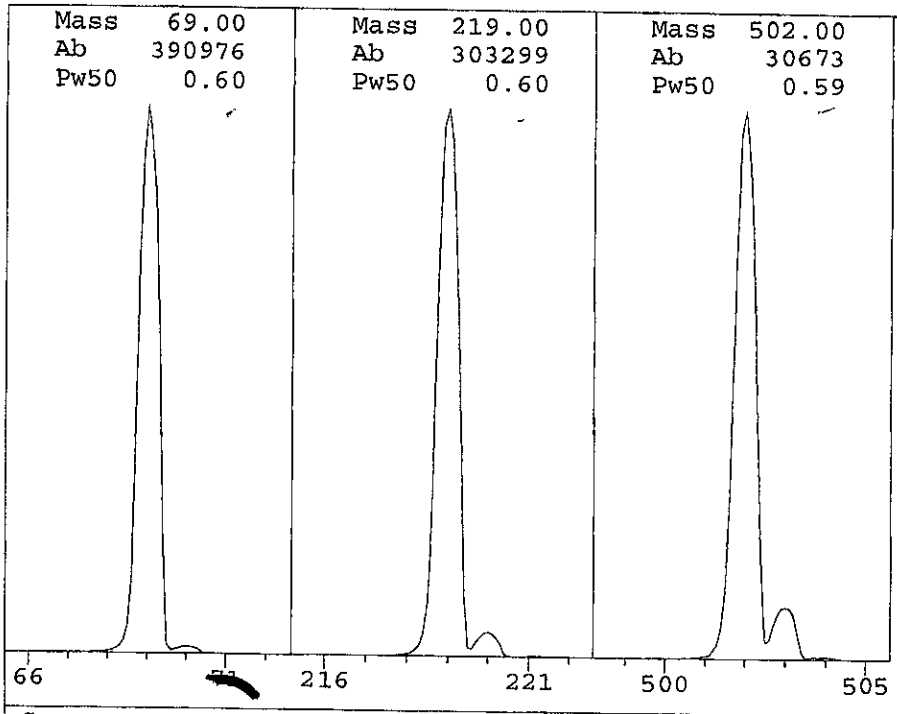
TS

AND_20180924B_TS

Autotune

Mon Sep 24 08:05:49 2018
C:\MSDCHEM\1\5975\atune.u

Instrument: GC-MS 4
US92013452

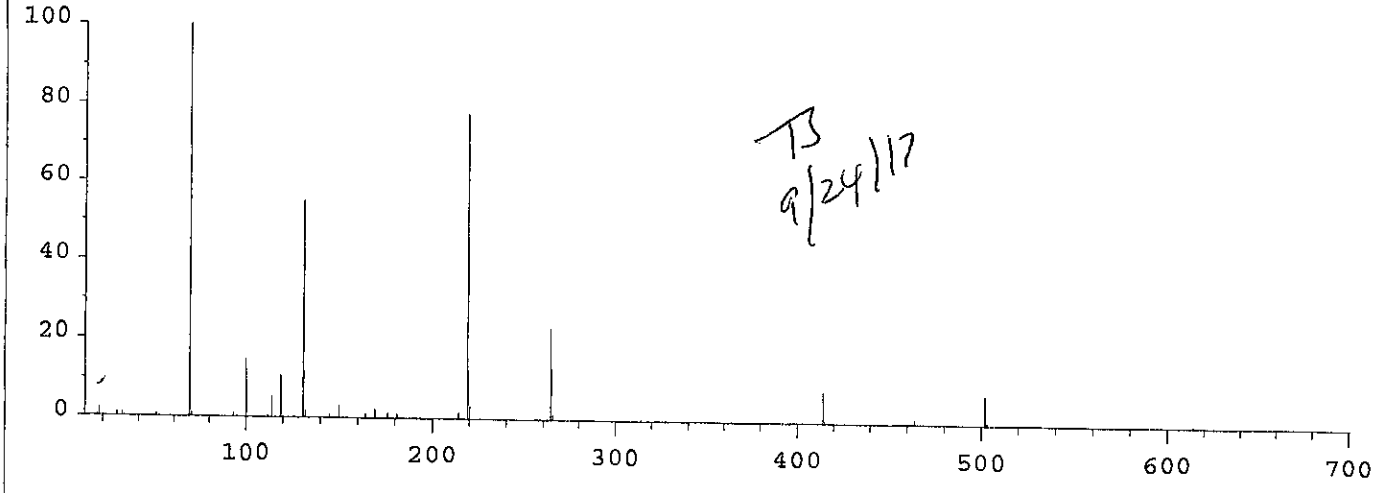


Ion Pol	Pos	MassGain	-605
		MassOffs	-37
Emission	34.6	AmuGain	1918
EIEnrgy	69.9	AmuOffs	121.56
Filament	2	Wid219	-0.028
		DC Pol	Pos
Repeller	27.27		
IonFcus	90.2	HEDEnab	On
EntLens	22.0	EMVolts	1765
EntOffs	19.07		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	Foreline	70.453
MS Quad	150	HiVac	1.00e10

Scan: 10.00 - 701.00 Samples: 8 Thresh: 100 Step: 0.10
97 peaks Base: 69.00 Abundance: 373632



TS 9/24/17

Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	373632	100.00	70.00	4271	1.14
219.00	290048	77.63	220.00	12357	4.26
502.10	28288	7.57	503.10	2909	10.28

Air/Water Check: H2O~2.15% N2~0.99% O2~0.28% CO2~0.06% N2/H2O~45.99%

Column(1) Flow: 1.49 Column(2): -1.79769e+308 ml/min. Interface Temp: 280

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 42595
Repeller Maximum 35 volts using ion 219; Gain Factor 0.43

MassGain Values(Samples): -596(3) -589(2) -583(1) -560(0) -473(FS)

TARGET MASS:	50	69	131	219	414	502	1050
Amu Offset:	121.6	121.6	121.6	121.6	121.6	121.6	121.6
Entrance Lens Offset:	19.1	19.1	19.1	19.1	19.1	19.1	19.1

AND_20180924B_TS

TS

INSTRUMENT CONTROL PARAMETERS: GC-MS 4

C:\MSDCHEM\1\METHODS\QCONFIRM.M
Mon Sep 24 11:23:02 2018

Control Information

Sample Inlet	: GC
Injection Source	: GC ALS
Mass Spectrometer	: Enabled

No Sample Prep method has been assigned to this method.

GC	
Oven	
Temperature	
Setpoint	On
(Initial)	110 °C
Hold Time	0.5 min
Post Run	150 °C
Program	
#1 Rate	20 °C/min
#1 Value	180 °C
#1 Hold Time	2.5 min
#2 Rate	5 °C/min
#2 Value	230 °C
#2 Hold Time	0.1 min
#3 Rate	25 °C/min
#3 Value	320 °C
#3 Hold Time	4.5 min
Equilibration Time	0.5 min
Max Temperature	325 °C
Slow Fan	Disabled
Cryo	Off
ALS	
Front Injector	
Syringe Size	10 µL
Injection Volume	2 µL
Injection Repetitions	1
Injection Delay	0 sec
Solvent A Washes (PreInj)	6
Solvent A Washes (PostInj)	6
Solvent A Volume	8 µL
Solvent B Washes (PreInj)	6
Solvent B Washes (PostInj)	6
Solvent B Volume	8 µL
Sample Washes	0
Sample Wash Volume	8 µL
Sample Pumps	0
Dwell Time (PreInj)	0 min
Dwell Time (PostInj)	0 min
Solvent Wash Draw Speed	300 µL/min
Solvent Wash Dispense Speed	6000 µL/min
Sample Wash Draw Speed	300 µL/min
Sample Wash Dispense Speed	6000 µL/min
Injection Dispense Speed	6000 µL/min
Viscosity Delay	7 sec
Sample Depth	Disabled
Sample Overlap	
Mode	Sample overlap is not enabled
ALS Errors	Pause for user interaction

TS

AND_20180924B_TS

Front SS Inlet He	
Mode	Pulsed Split
Heater	On 250 °C
Pressure	On 16.748 psi
Total Flow	On 15.435 mL/min
Septum Purge Flow	On 8 mL/min
Gas Saver	On 16 After 2 min mL/min
Split Ratio	4 :1
Split Flow	5.9482 mL/min
Injection Pulse Pressure	30 psi Until 1 min
Thermal Aux 2 (MSD Transfer Line)	
Temperature	
Setpoint	On
(Initial)	280 °C
Hold Time	0 min
Post Run	0 °C
Column	
Column #1	
Flow	
Setpoint	Off
(Initial)	1.487 mL/min
Hold Time	0 min
Post Run	0.57353 mL/min
Agilent 122-5532	
DB-5MS	
-60 °C–325 °C (325 °C): 30 m x 250 µm x 0.25 µm	
In	Front SS Inlet He
Out	MSD
(Initial)	110 °C
Pressure	16.748 psi
Flow	1.487 mL/min
Average Velocity	45.67 cm/sec
Holdup Time	1.0948 min
Signals	
Signal #1: Test Plot	
Description	Test Plot
Details	
Save	Off
Data Rate	50 Hz
Dual Injection Assignment	Front Sample
Signal #2: Test Plot	
Description	Test Plot
Details	
Save	Off
Data Rate	50 Hz
Dual Injection Assignment	Front Sample
Signal #3: Test Plot	
Description	Test Plot
Details	
Save	Off
Data Rate	50 Hz
Dual Injection Assignment	Back Sample
Signal #4: Test Plot	
Description	Test Plot
Details	
Save	Off
Data Rate	50 Hz
Dual Injection Assignment	Back Sample

General Information
------- -----------

Tune File : atune.u
Acquistion Mode : Scan

MS Information
-- -----------

Solvent Delay : 3.50 min

EMV Mode : Relative
Relative Voltage : 247
Resulting EM Voltage : 2012

[Scan Parameters]

Low Mass : 35.0
High Mass : 500.0
Threshold : 150
Sample # : 2 A/D Samples 4

[MSZones]

MS Source : 230 C maximum 250 C
MS Quad : 150 C maximum 200 C

END OF MS ACQUISITION PARAMETERS

TUNE PARAMETERS for SN: US92013452

Trace Ion Detection is ON.

EMISSION	:	34.610 ✓
ENERGY	:	69.922 ✓
REPELLER	:	27.275 ✓
IONFOCUS	:	90.157 ✓
ENTRANCE_LE	:	22.000 ✓
EMVOLTS	:	1764.706 ✓

Actual EMV : 2011.77
GAIN FACTOR : 1.50

AMUGAIN	:	1918.000 ✓
AMUOFFSET	:	121.563 ✓
FILAMENT	:	2.000 ✓
DCPOLARITY	:	0.000 ✓
ENTLENSOFFS	:	19.075 ✓
MASSGAIN	:	-605.000 ✓
MASSOFFSET	:	-37.000 ✓

TS 9/25/18

END OF TUNE PARAMETERS

END OF INSTRUMENT CONTROL PARAMETERS

AND-20180924B_TS

TS

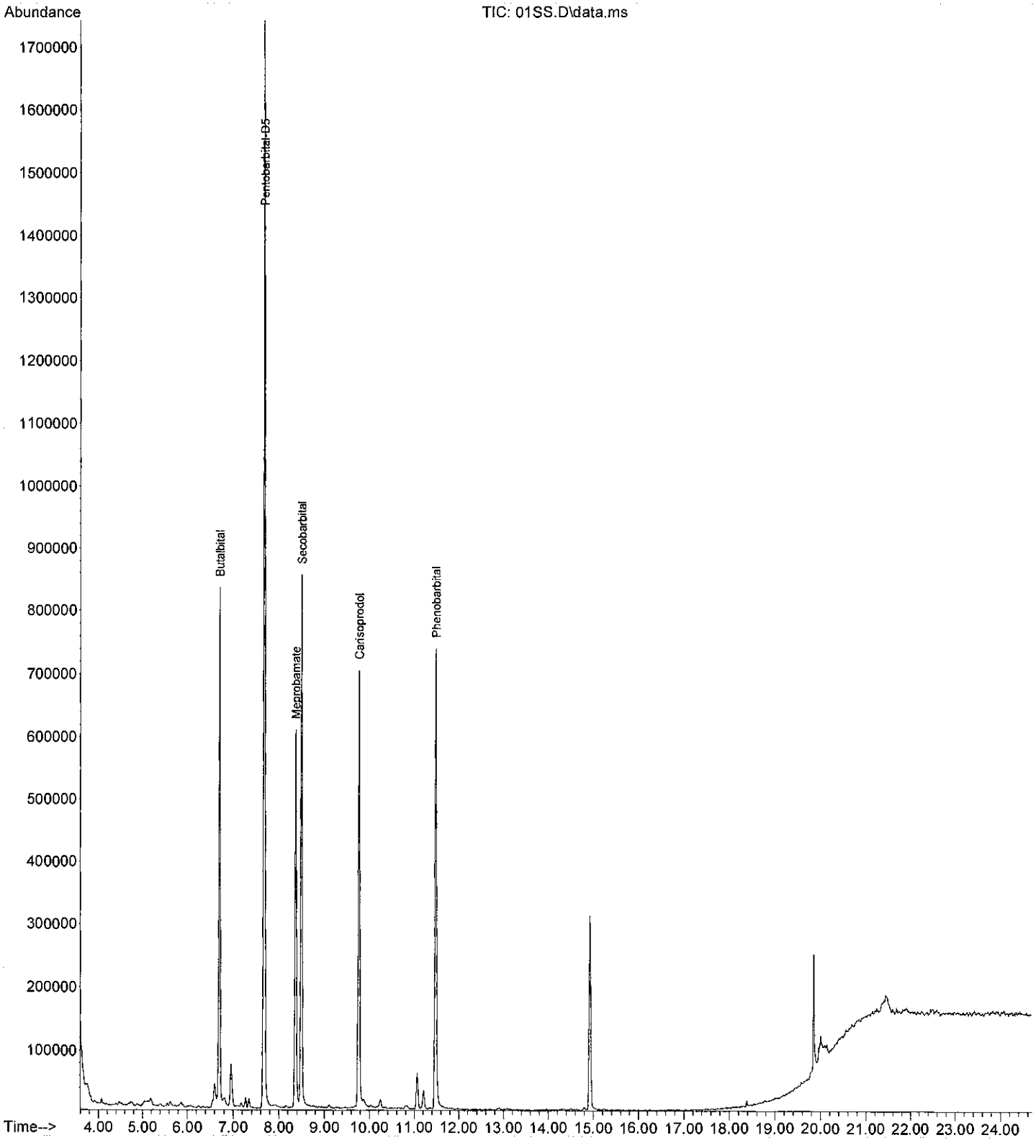
MSD Deconvolution Report
Sample Name: System Suitability
Data File: D:\DATA\2018\System Suitability\AND_20180924_SS\2018-09-24-0814.b\01SS.D
Date/Time: 9:12:32 AM Wednesday, September 26, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7079	77269	Butalbital			100✓	0.6	95	1
7.6835	52944668	Pentobarbital-D5			100✓	1.0		
7.6835	3189488	2-Indolizine, carboxylic acid					64	1
8.3766	57534	Meprobamate			100✓	-0.2	93	1
8.4975	76733	Secobarbital			100✓	-1.0	93	1
9.7748	78444	Carisoprodol			95✓	-1.8	95	1
11.4879	50066	Phenobarbital			99✓	-1.6	96	1
6.705		Butalbital	431.01					
7.684		Pentobarbital-D5	1					
8.374		Meprobamate	495.76					
8.502		Secobarbital	513.76					
9.775		Carisoprodol	534.34					
11.487		Phenobarbital	1174.6					

File :D:\DATA\2018\System Suitability\AND_20180924_SS\2018-09-24-0
... 814.b\01SS.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 8:20 using AcqMethod QCONFIRM.M
Sample Name: System Suitability
Misc Info :



AND_20180924B_TS

MSD Deconvolution Report
Sample Name: Blank Blood
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\01_BB.D
Date/Time: 2:52:32 PM Monday, September 24, 2018

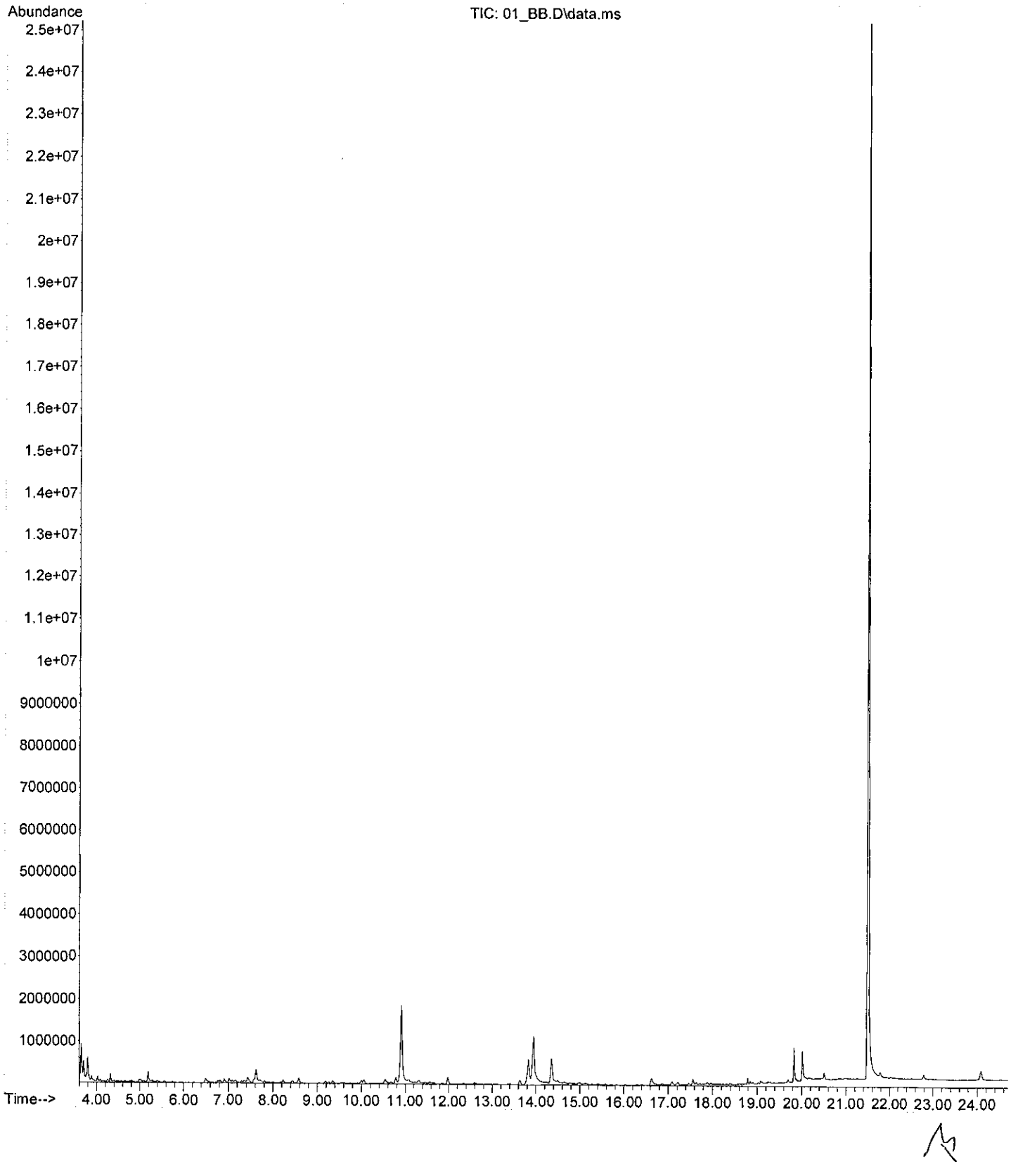
Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.

TS

File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\01_BB.D
Operator : Tanuja Sathiraj
Acquired : 24 Sep 2018 11:34 using AcqMethod QCONFIRM.M
Instrument : GC-MS 4
Sample Name: Blank Blood
Misc Info :
Vial Number: 1



MSD Deconvolution Report
Sample Name: Cutoff Cal Blood
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\02_CutoffBL.D
Date/Time: 2:51:29 PM Monday, September 24, 2018

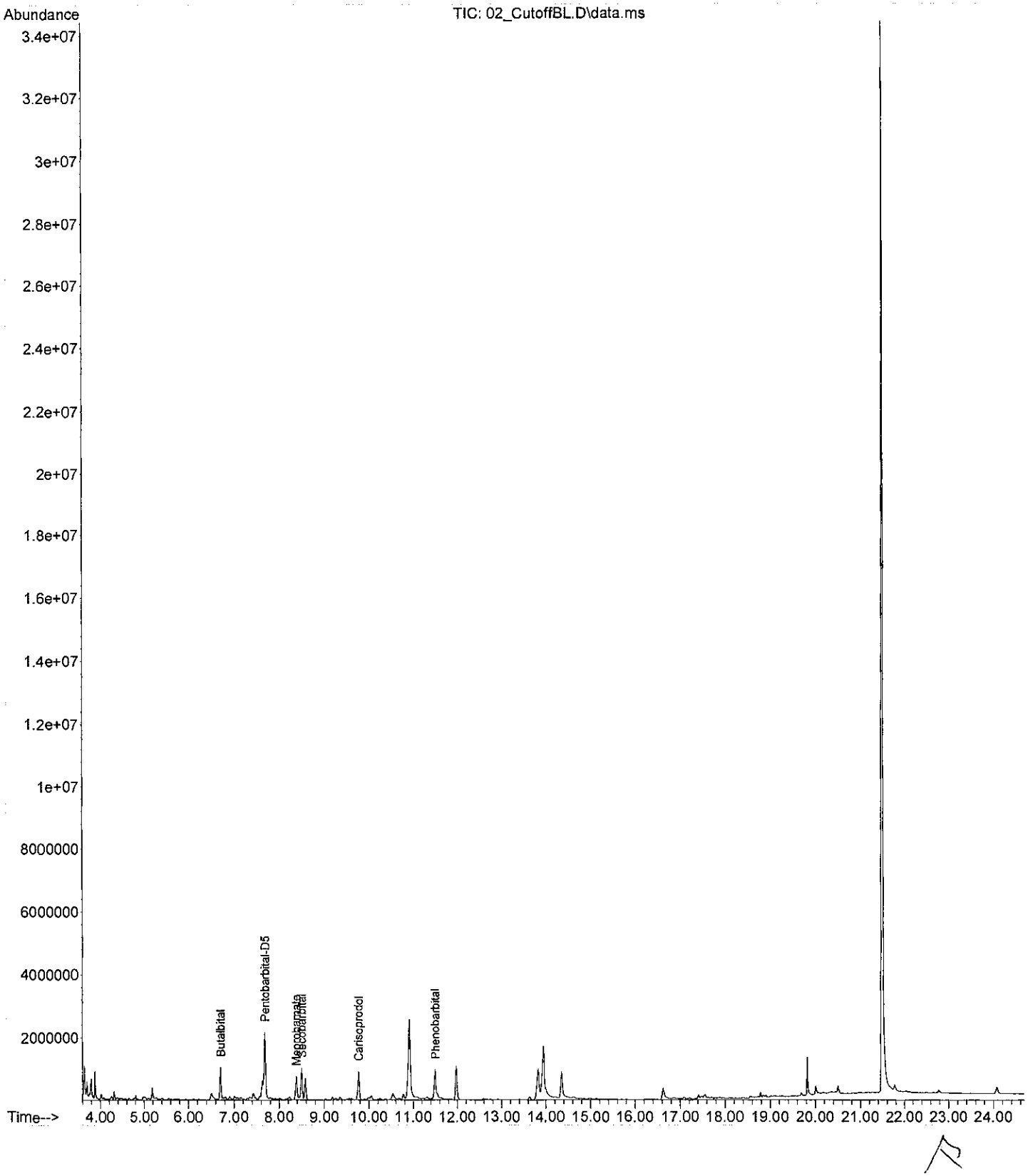
Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

The NIST library was searched for the components that were found in the AMDIS target library.

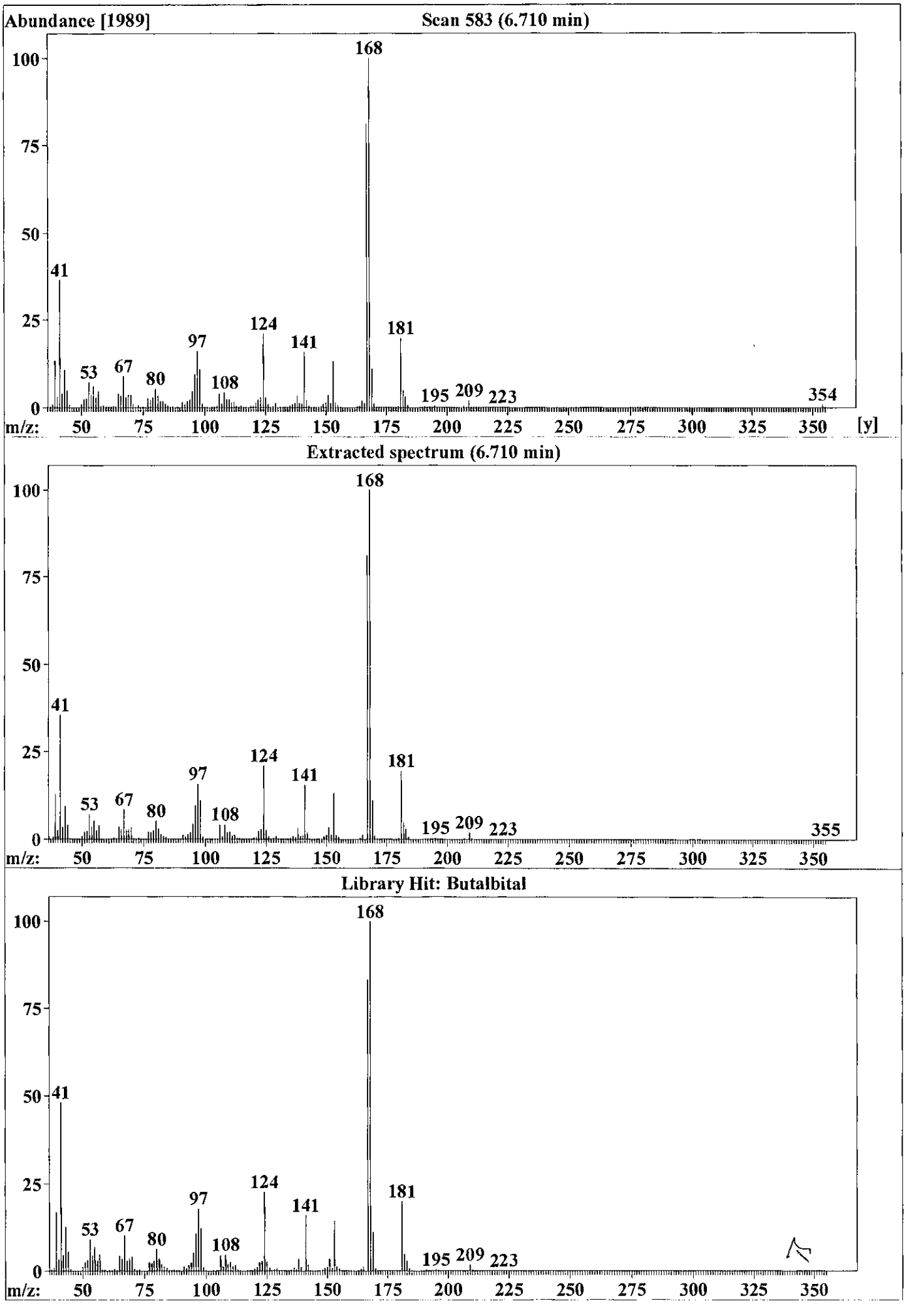
			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7094	77269	Butalbital		✓	100	0.7	96	1
7.6887	52944668	Pentobarbital-D5		✓	98	1.4		
7.6887	3189488	2-Indolizine, carboxylic acid					64	1
8.3878	57534	Meprobamate		✓	98	0.5	92	1
8.5034	76733	Secobarbital		✓	100	-0.7	93	1
9.7779	78444	Carisoprodol		✓	95	-1.6	93	1
11.5023	50066	Phenobarbital		✓	99	-0.8	95	1
6.71		Butalbital	500 ✓					
7.689		Pentobarbital-D5	1					
8.385		Meprobamate	500 ✓					
8.502		Secobarbital	500 ✓					
9.775		Carisoprodol	500 ✓					
11.503		Phenobarbital	500 ✓					

Average Internal Standard abundance for calibrator, negative and positive QCs is 5301.
50% to 200% range is 2650 to 10602
TS 9/26/18

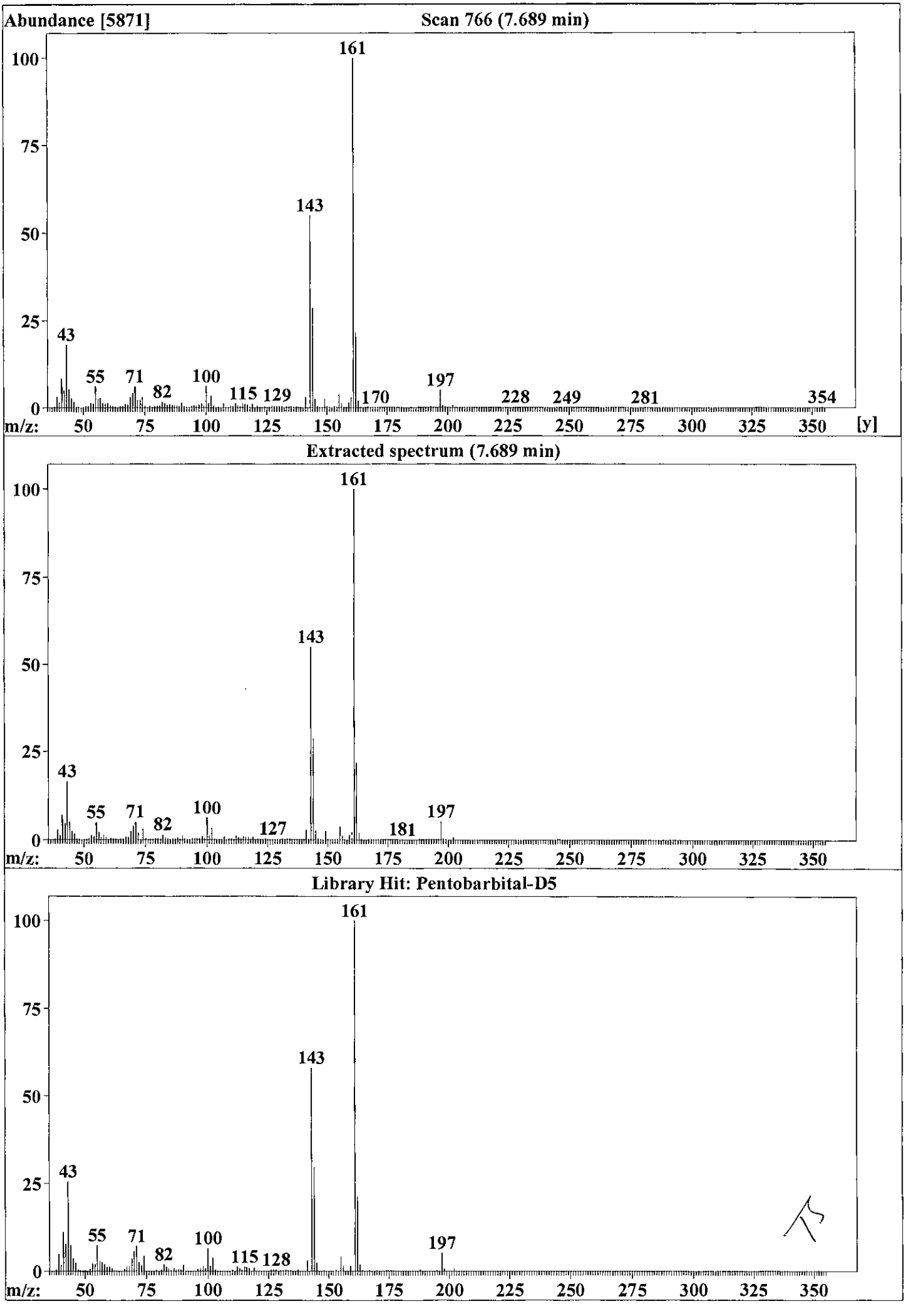
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\02_Cutof
... fBL.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 12:05 using AcqMethod QCONFIRM.M
Sample Name: Cutoff Cal Blood
Misc Info :



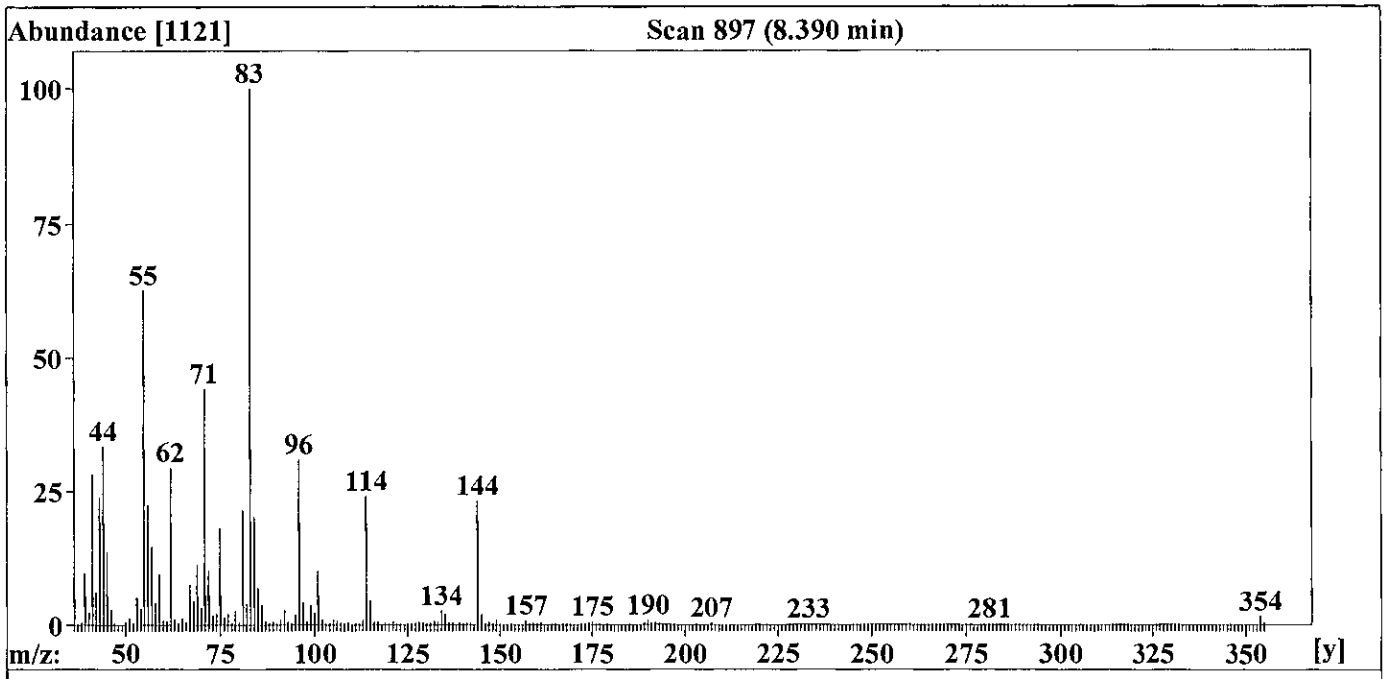
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL

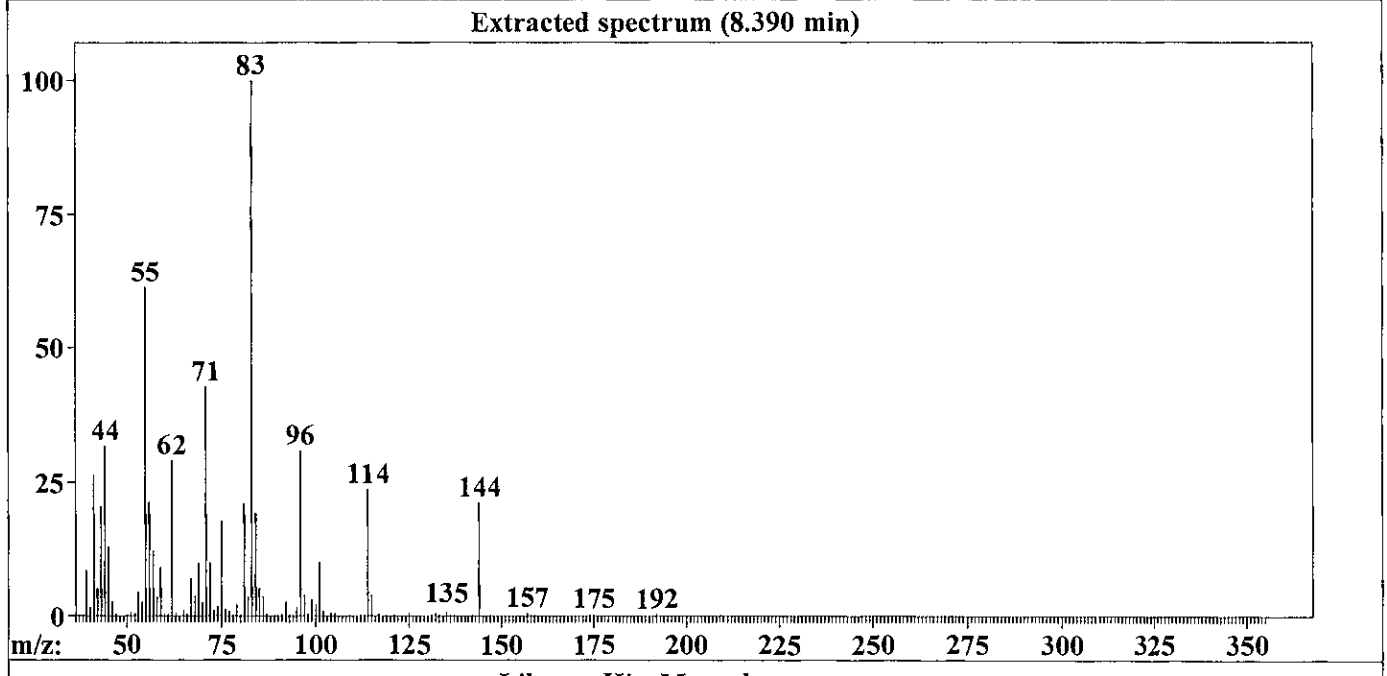


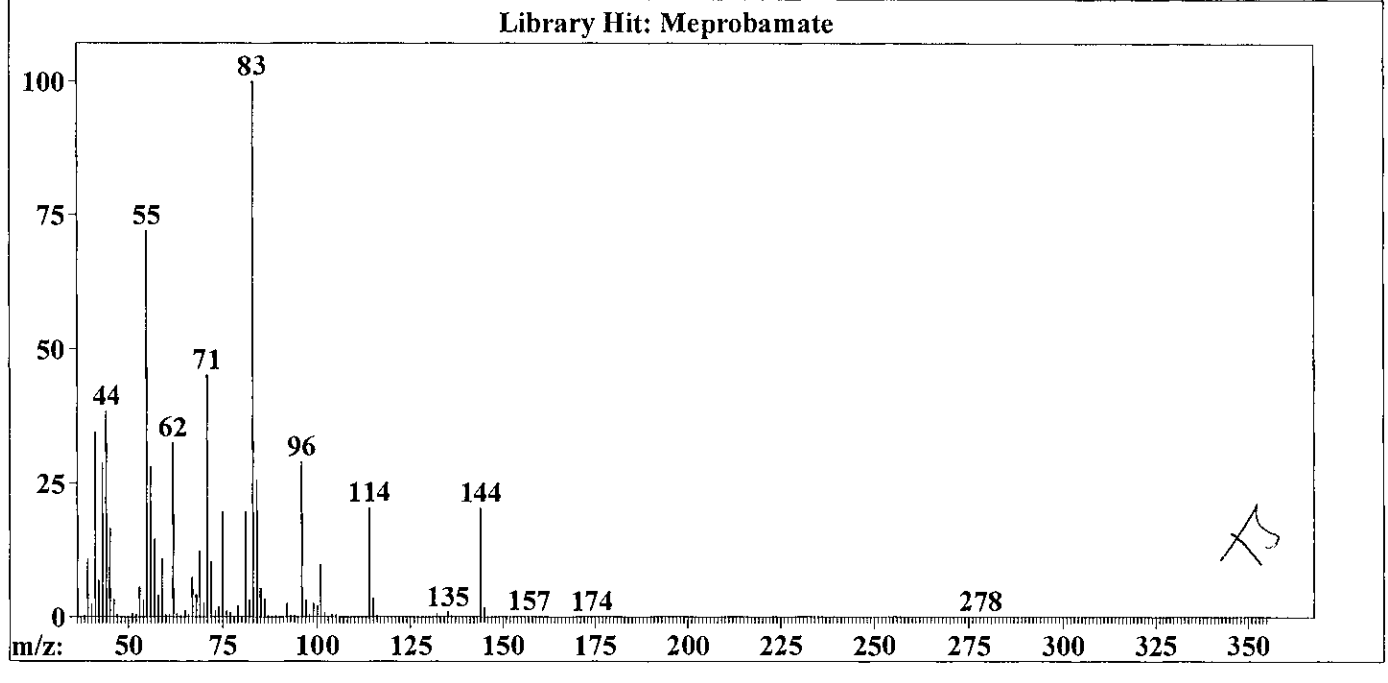
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL



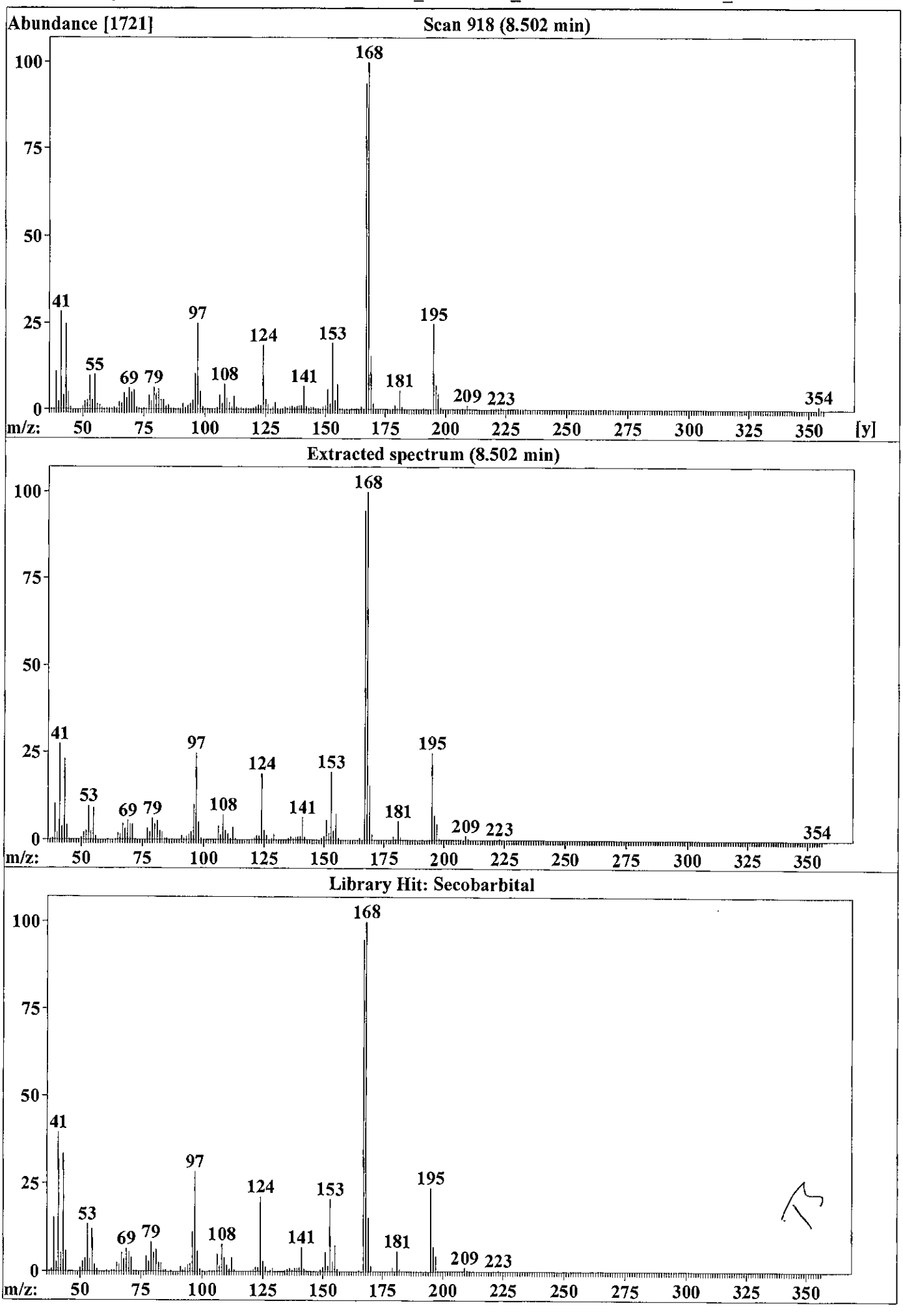
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL



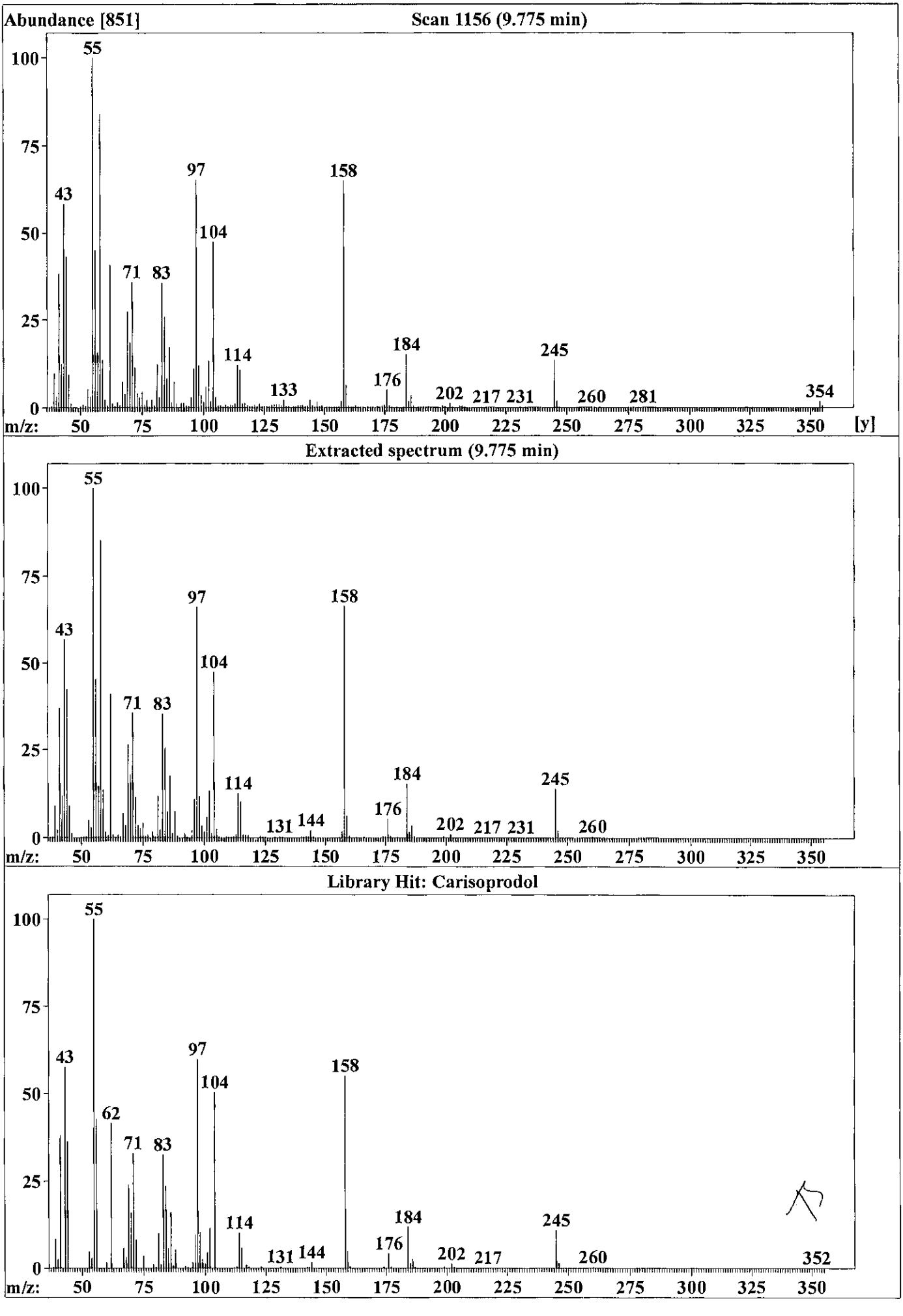




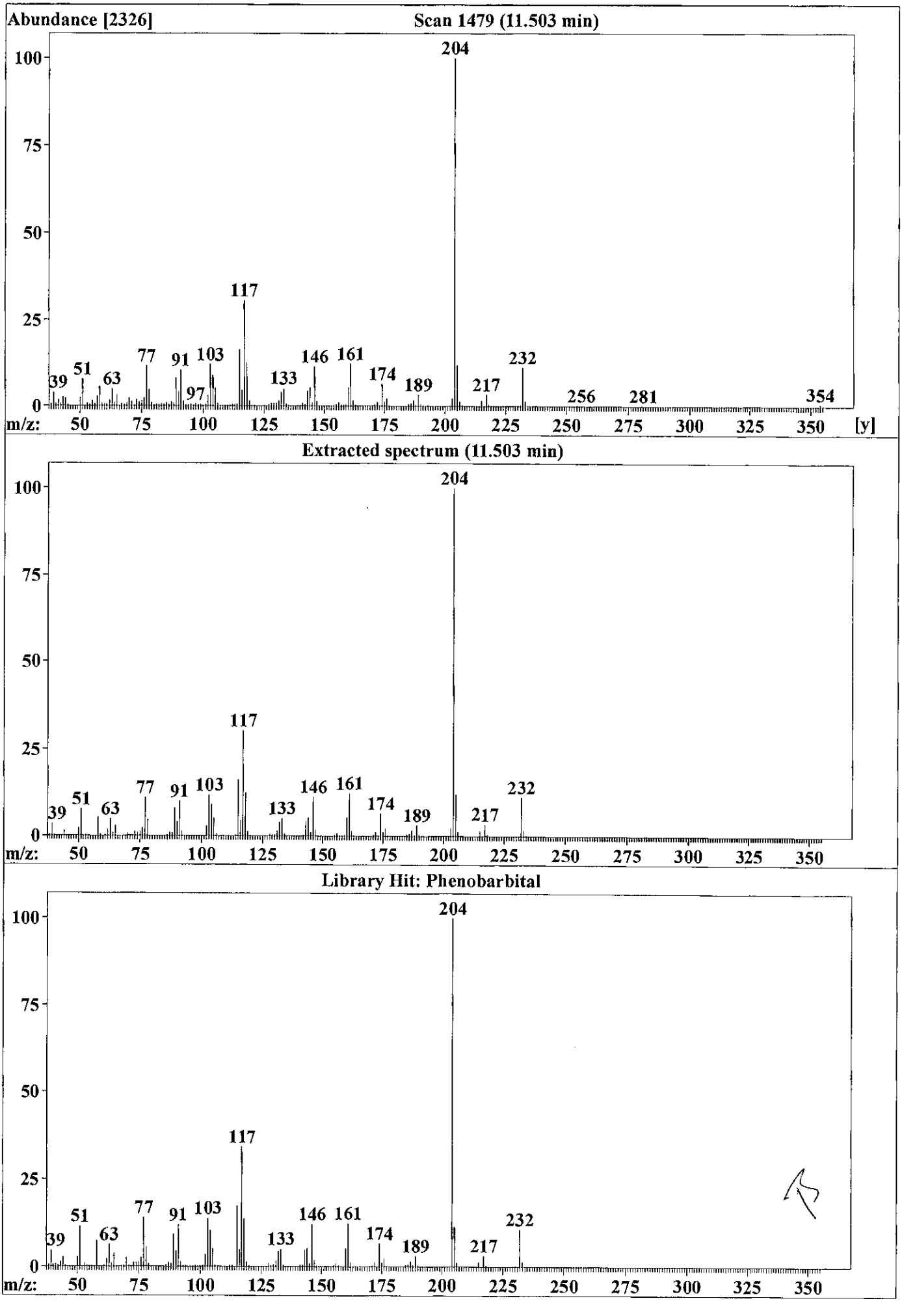
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\02_CUTOFFBL



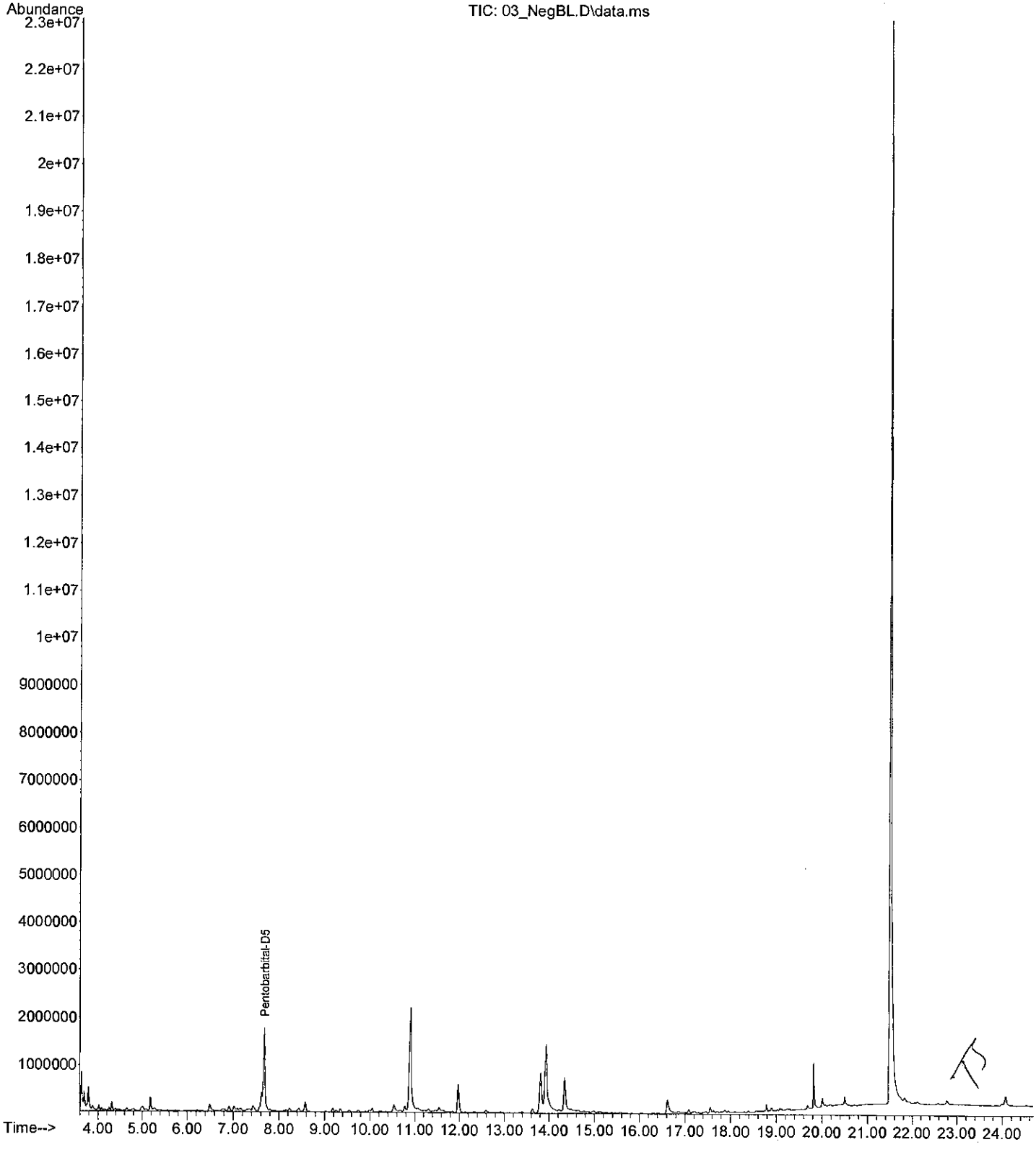
MSD Deconvolution Report
Sample Name: Neg QC Blood
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\03_NegBL.D
Date/Time: 2:53:56 PM Monday, September 24, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

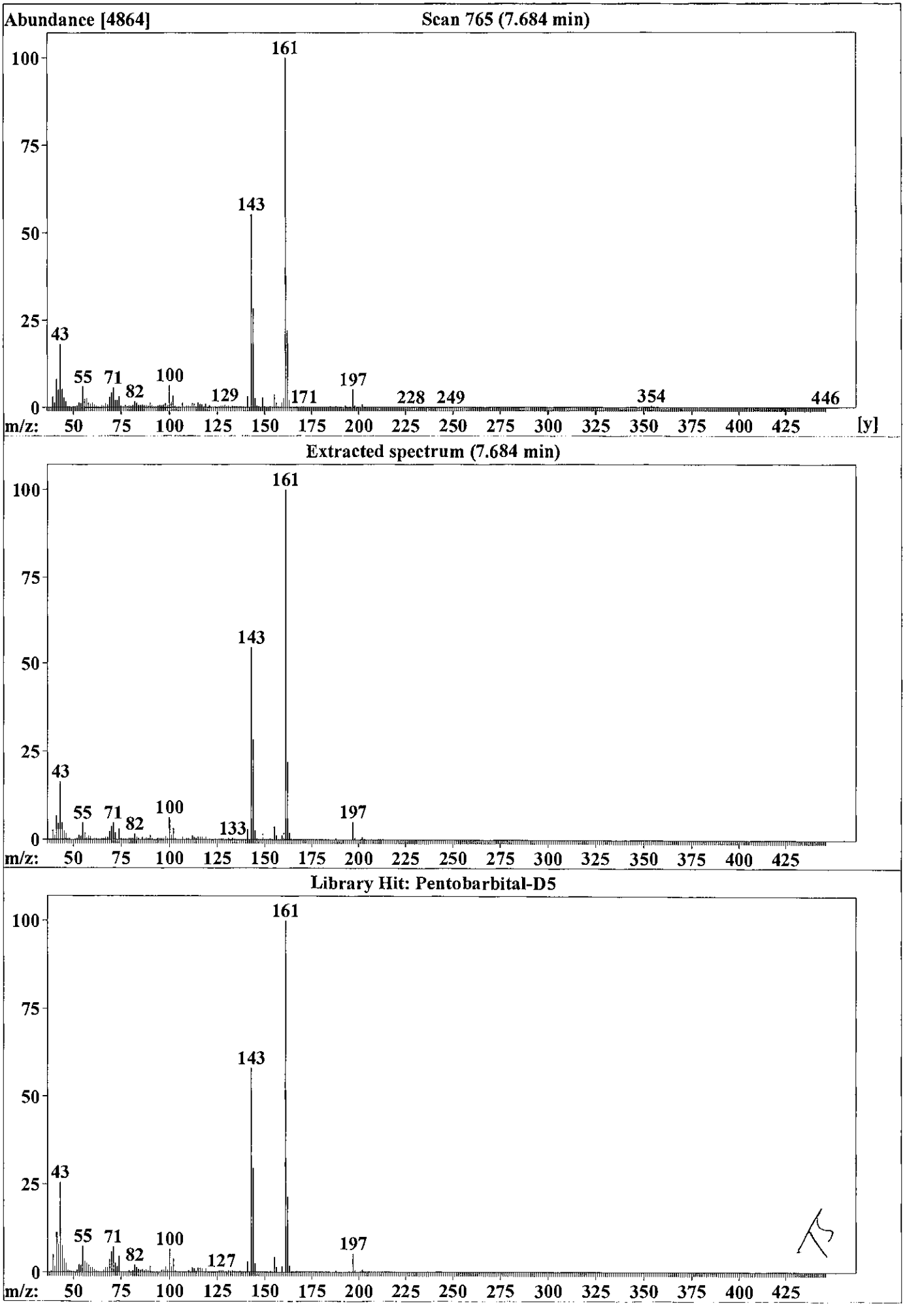
The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
7.6828	52944668	Pentobarbital-D5			99	1.0		
7.6828	3189488	2-Indolizine, carboxylic acid					63	1
7.684		Pentobarbital-D5	1					

File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\03_NegBL
... .D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 12:37 using AcqMethod QCONFIRM.M
Sample Name: Neg QC Blood
Misc Info :



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\03_NEGBL



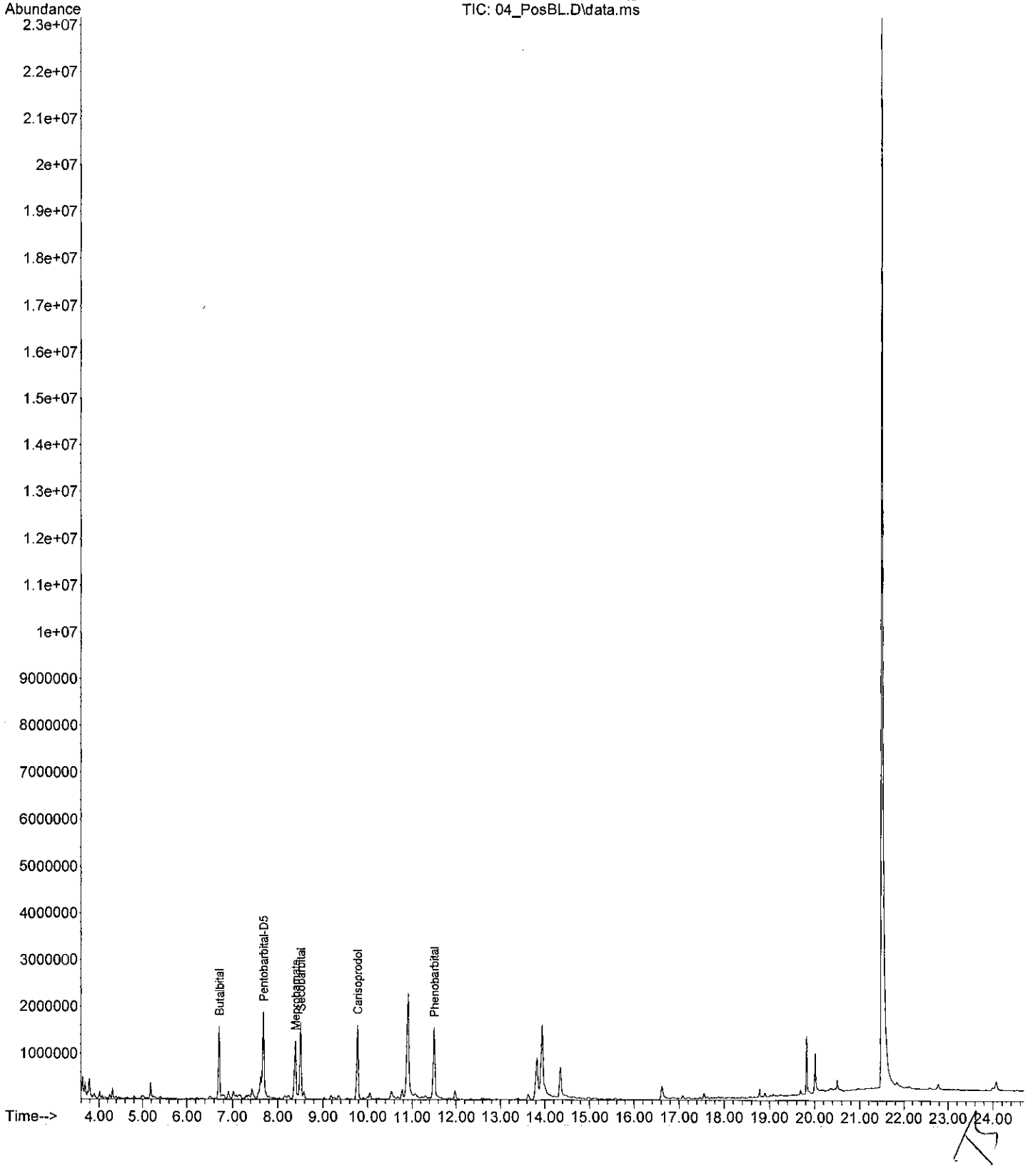
MSD Deconvolution Report
Sample Name: Pos QC Blood
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\04_PosBL.D
Date/Time: 3:01:13 PM Monday, September 24, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

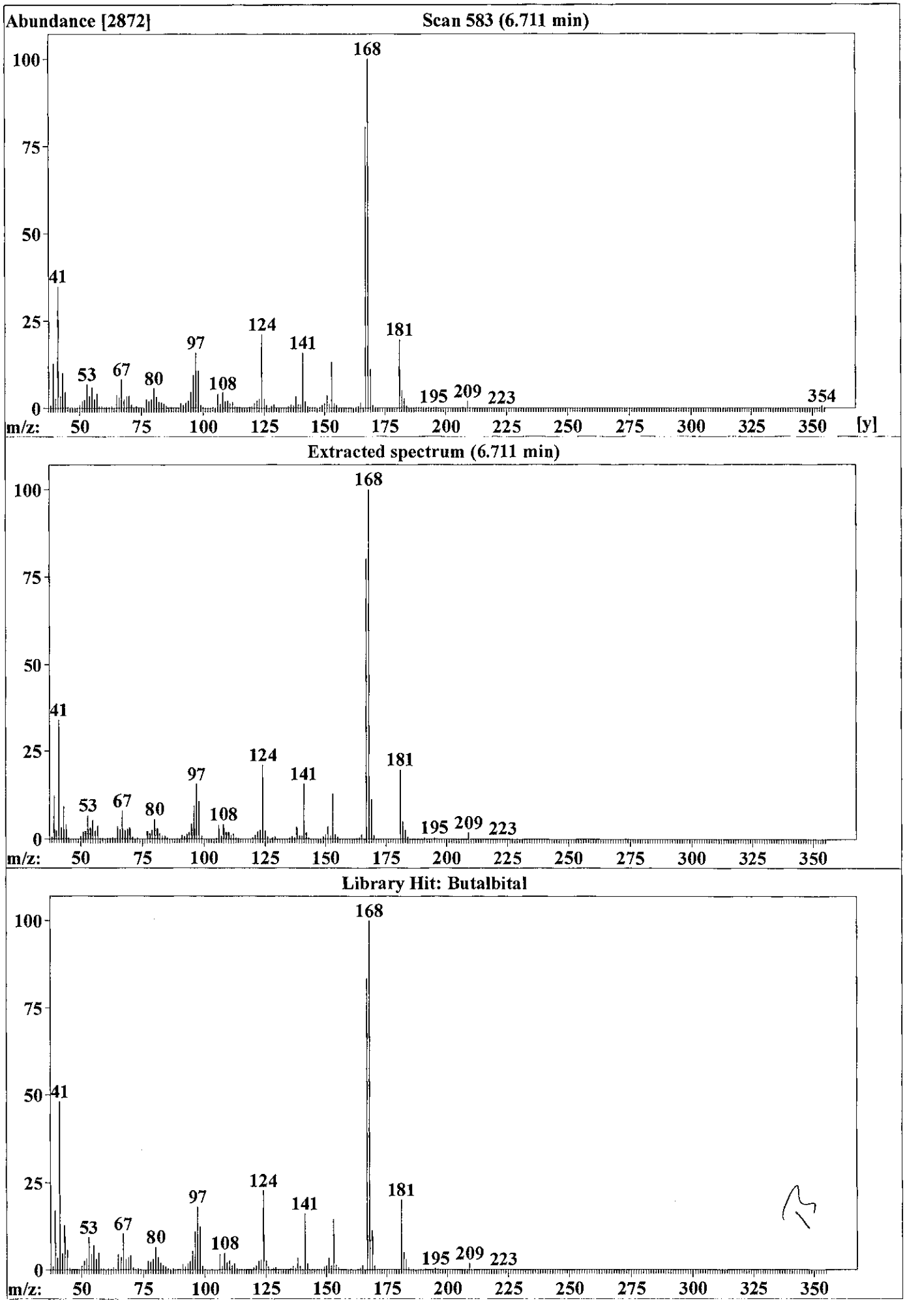
The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7122	77269	Butalbital			100 ✓	0.9	95	1
7.6862	52944668	Pentobarbital-D5			99 ✓	1.2		
7.6862	3189488	2-Indolizine, carboxylic acid					63	1
8.3981	57534	Meprobamate			98 ✓	1.1	93	1
8.5142	76733	Secobarbital			100 ✓	-0.0	93	1
9.7850	78444	Carisoprodol			95 ✓	-1.1	93	1
11.5105	50066	Phenobarbital			98 ✓	-0.3	95	1
6.716		Butalbital	931.57 ✓					
7.684		Pentobarbital-D5	1 ✓					
8.395		Meprobamate	1086.76 ✓					
8.513		Secobarbital	1018.6 ✓					
9.781		Carisoprodol	1066.85 ✓					
11.508		Phenobarbital	1001.34 ✓					

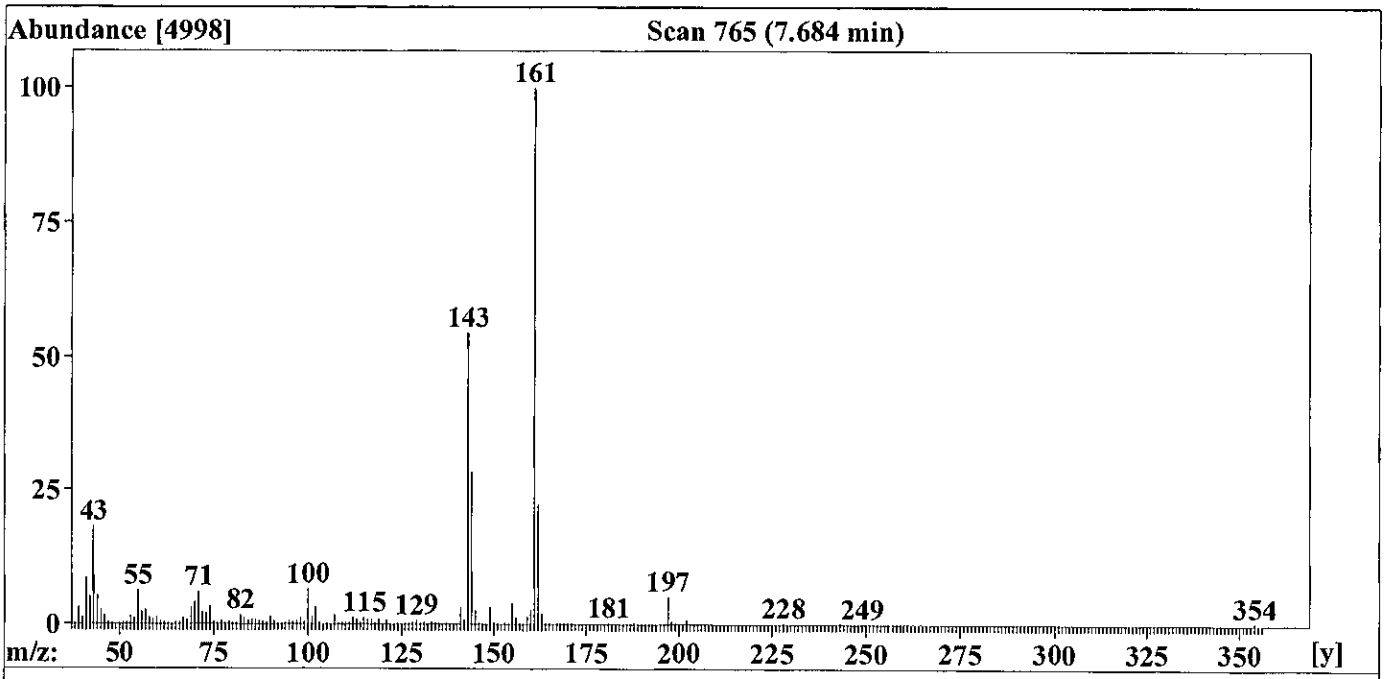
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\04_PosBL
... .D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 13:10 using AcqMethod QCONFIRM.M
Sample Name: Pos QC Blood
Misc Info :

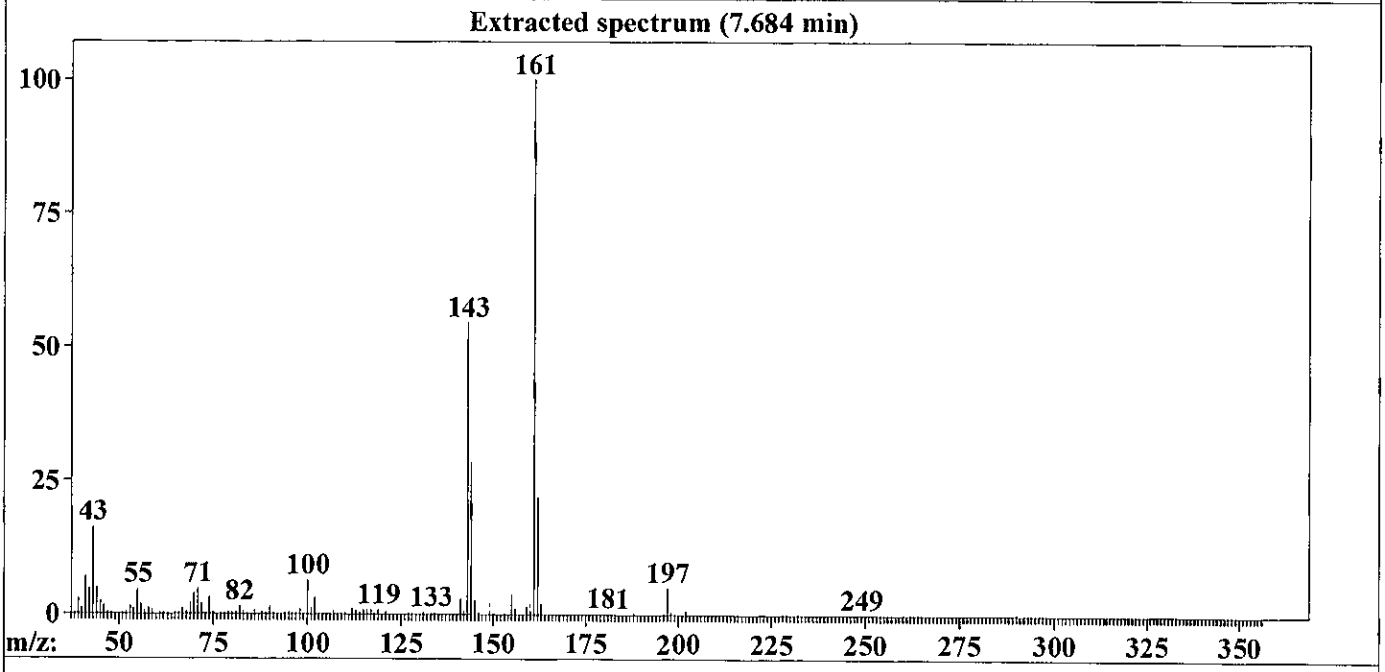


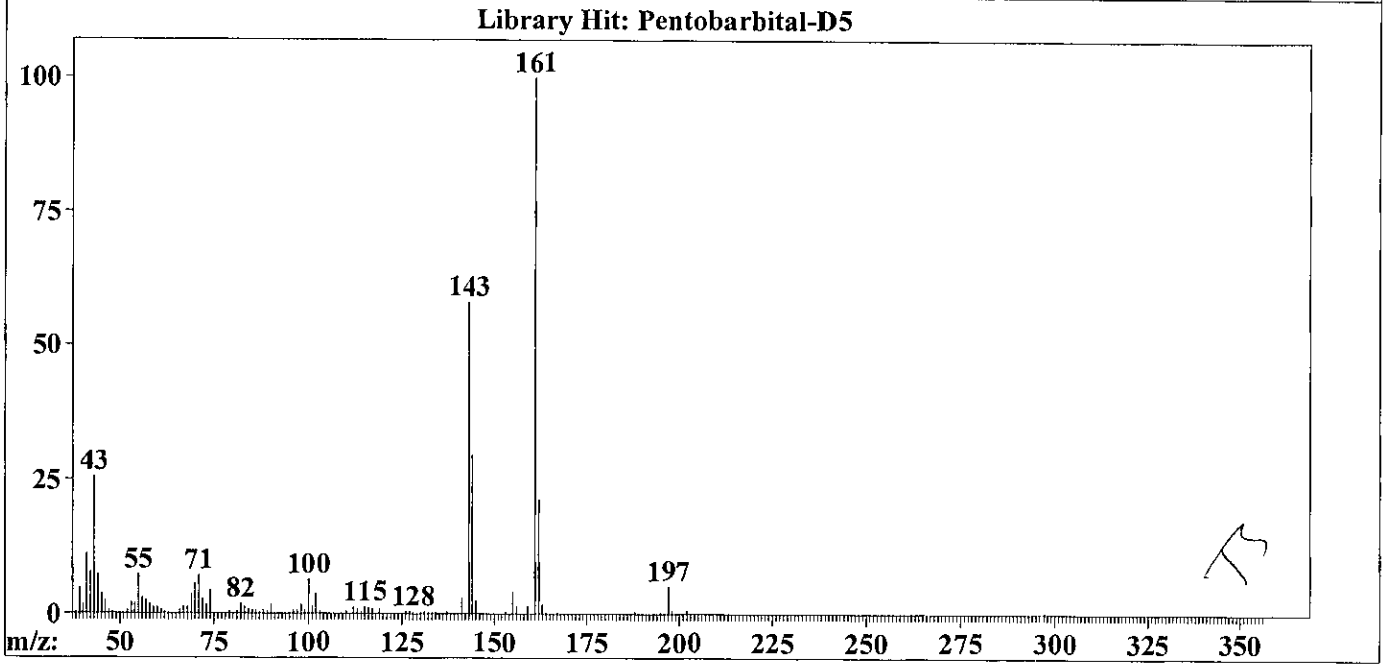
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



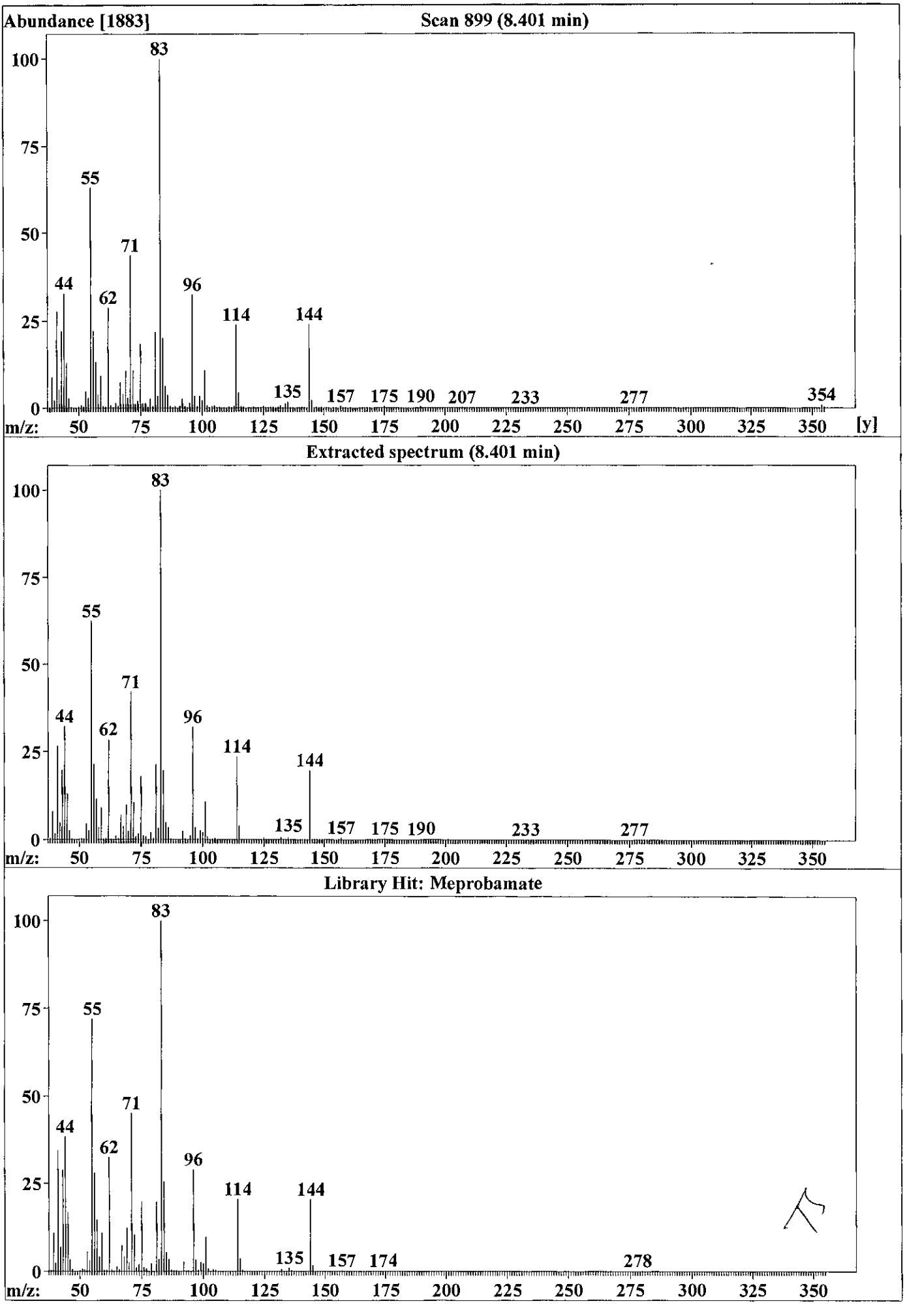
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



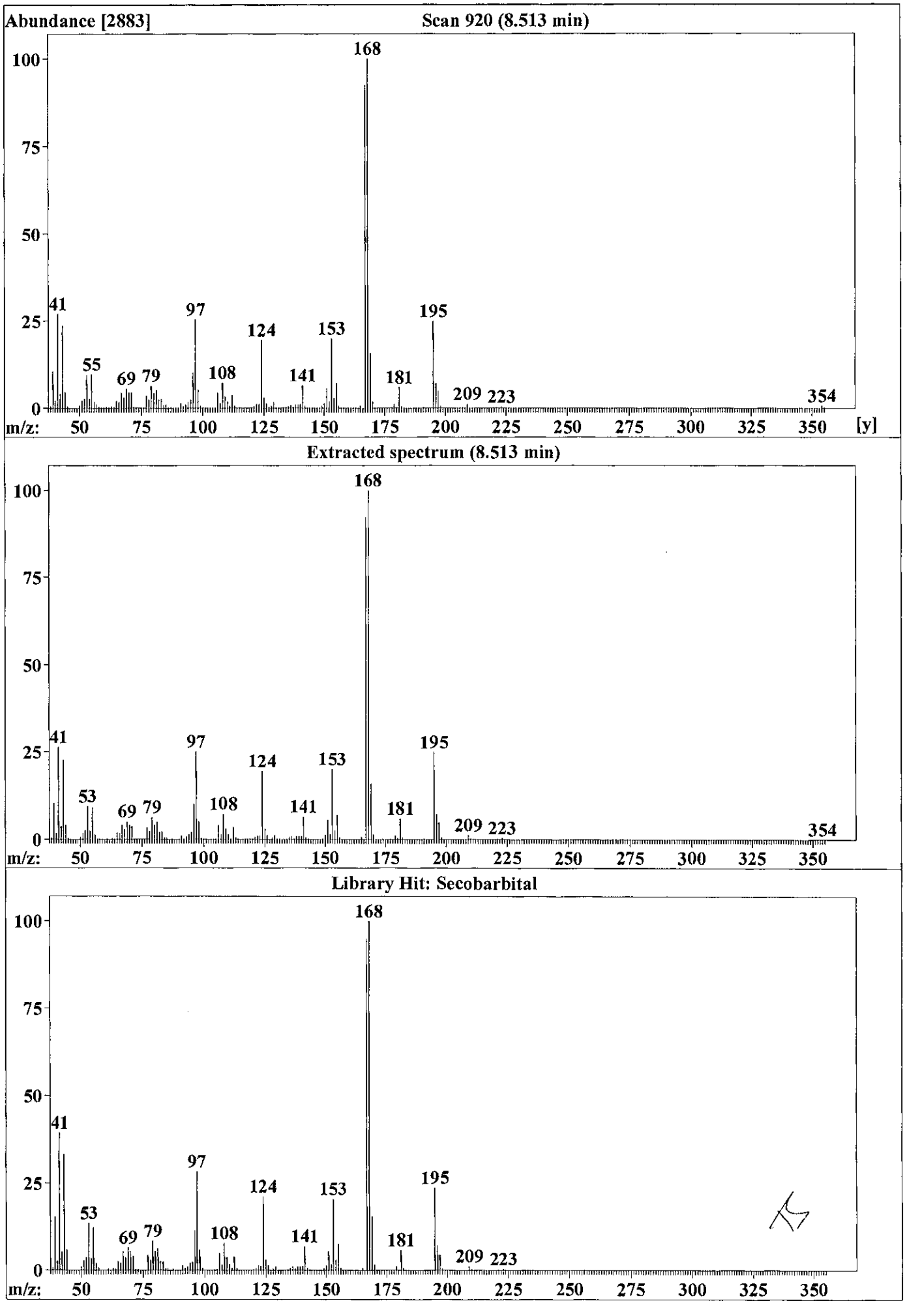




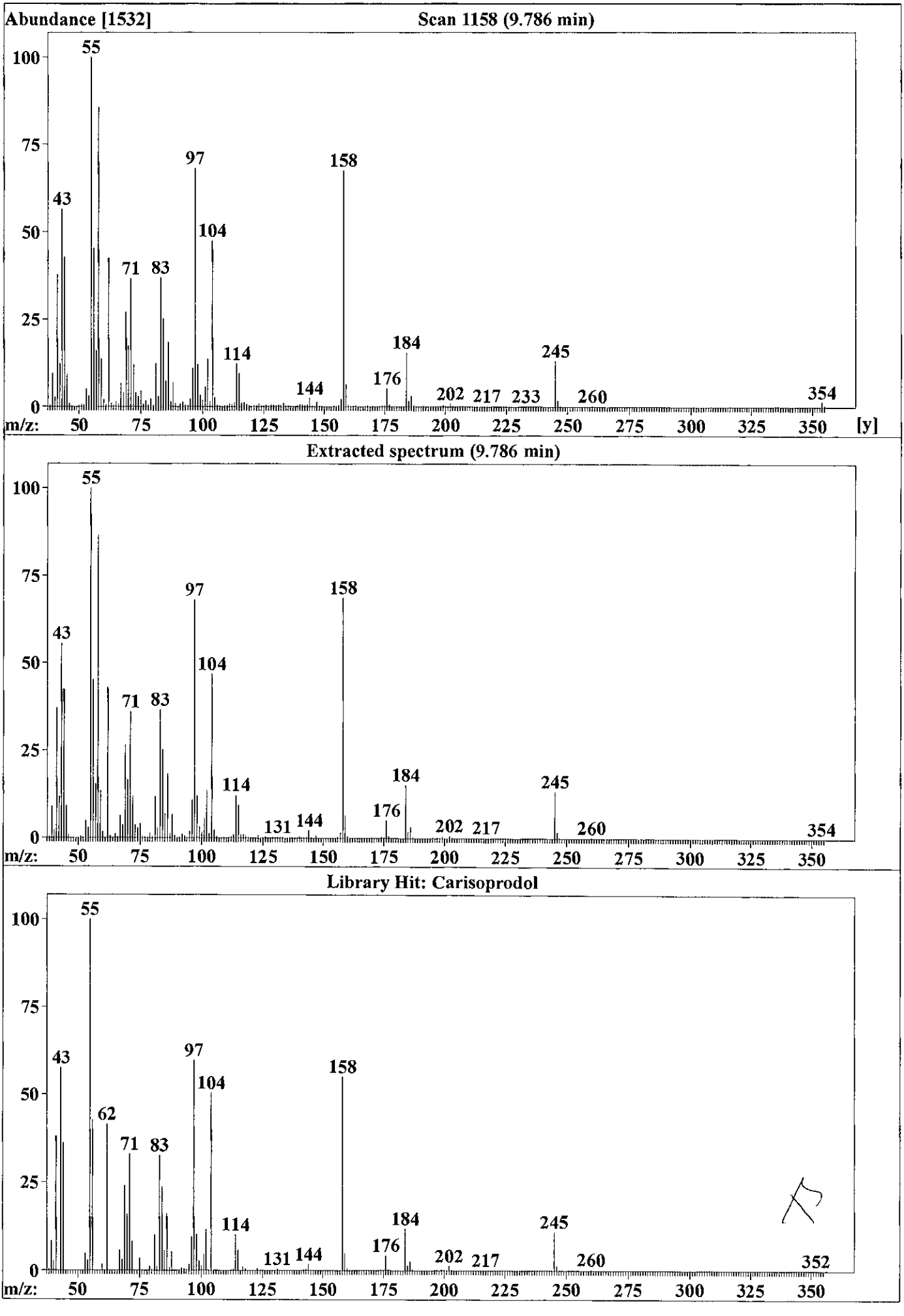
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



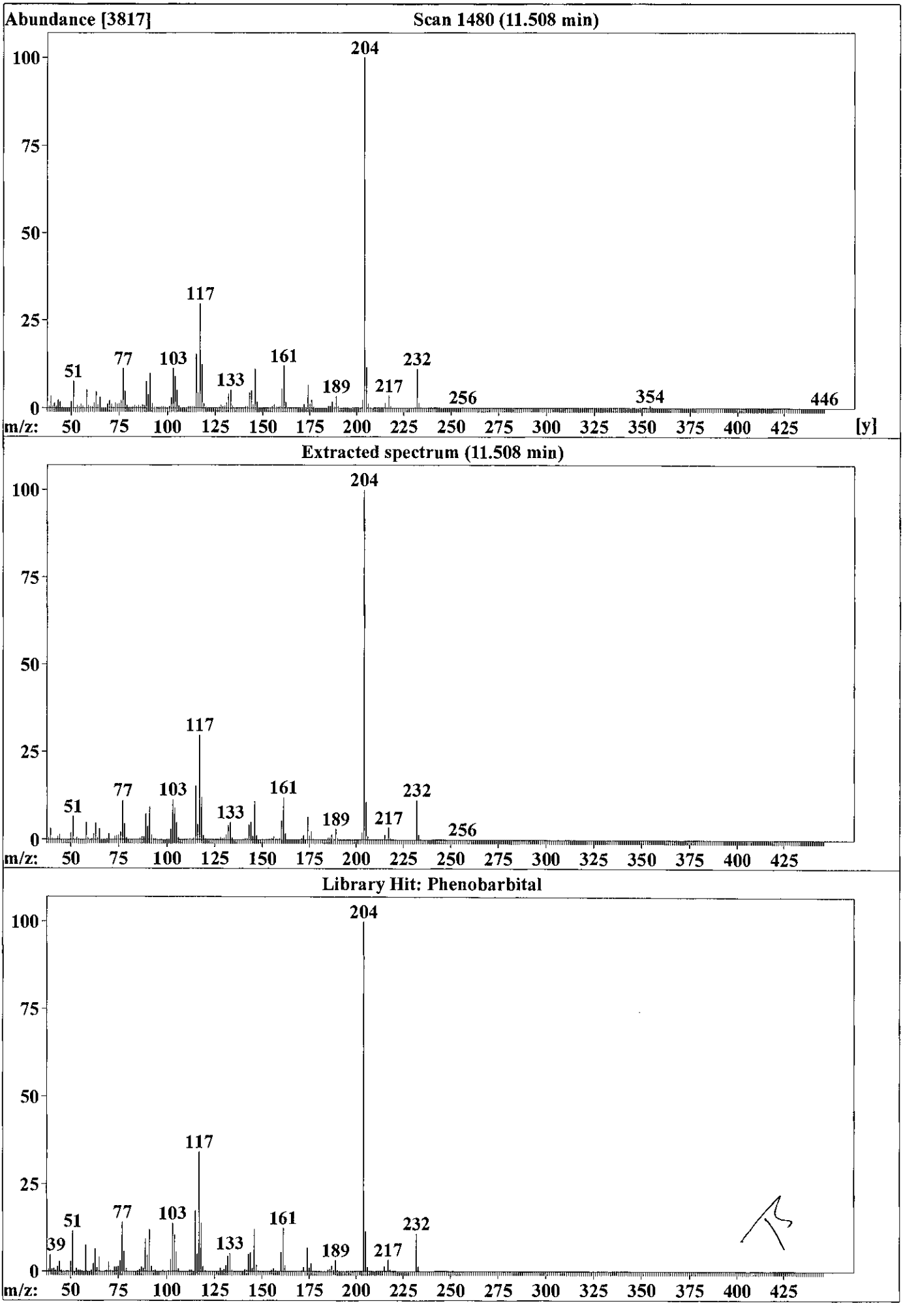
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\04_POSBL



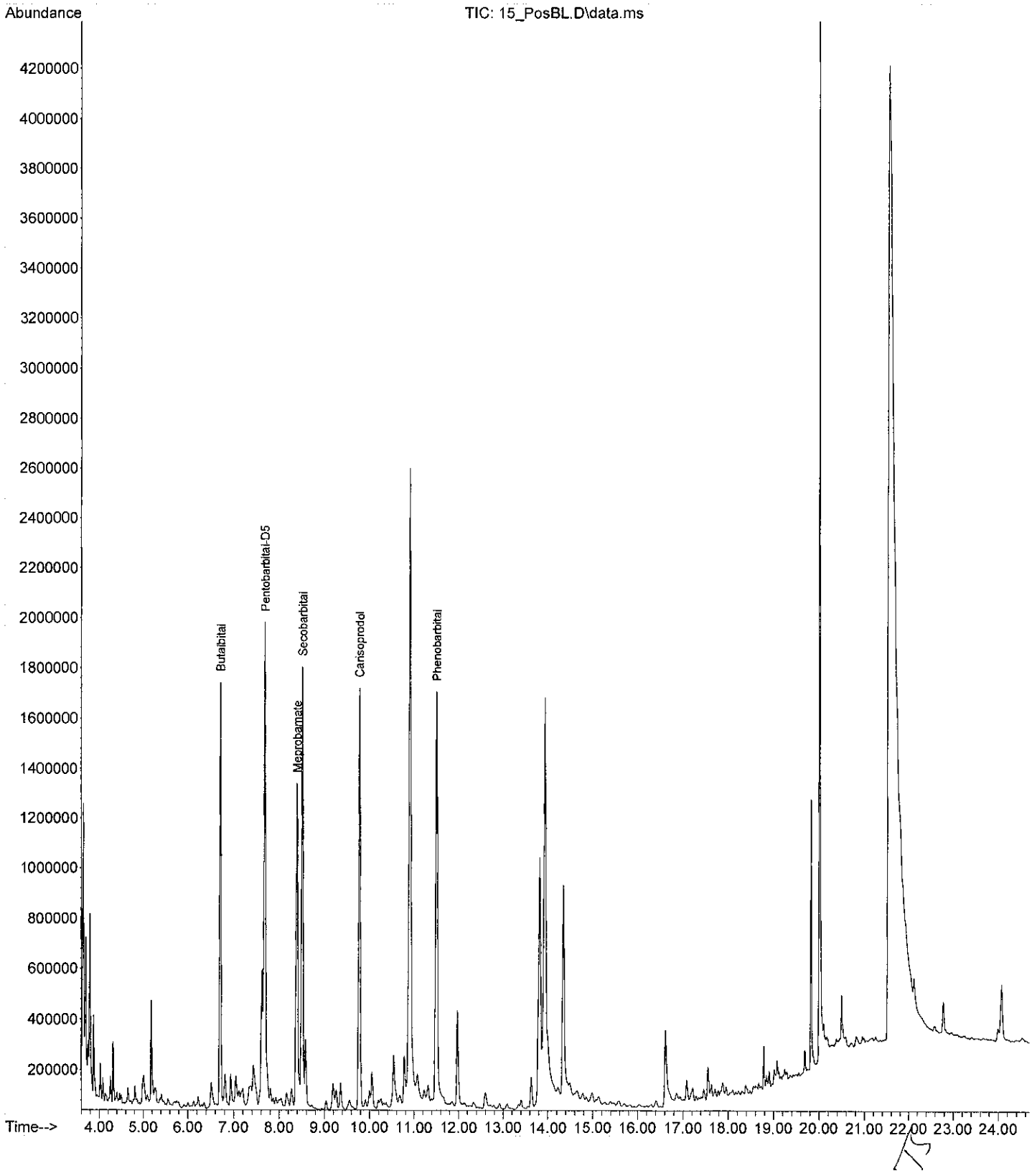
MSD Deconvolution Report
Sample Name: Pos QC Blood
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\15_PosBL.D
Date/Time: 7:40:09 AM Tuesday, September 25, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

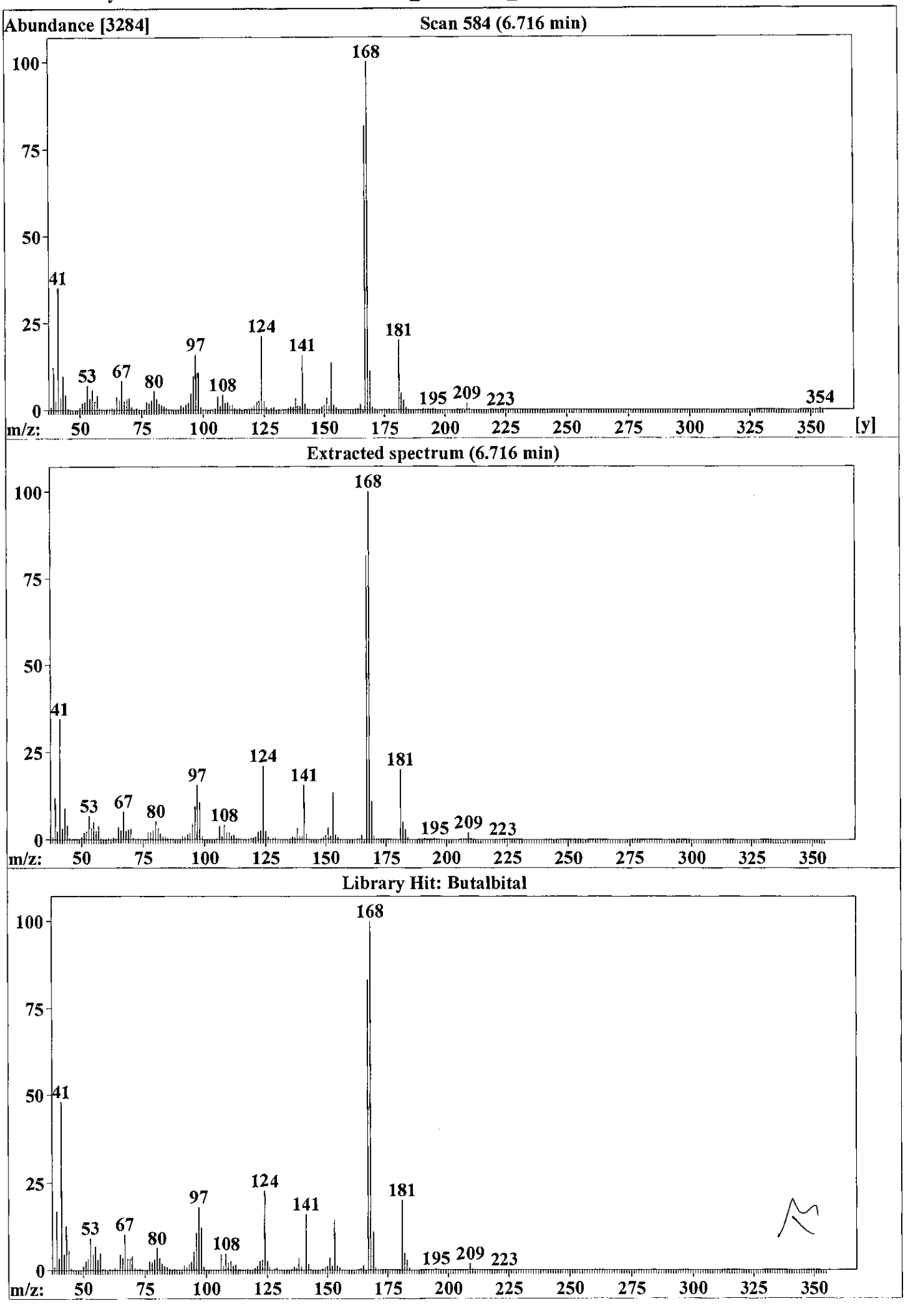
The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7180	77269	Butalbital			100	1.2	96	1
7.6882	52944668	Pentobarbital-D5			99	1.3		
7.6882	3189488	2-Indolizine, carboxylic acid					63	1
8.4034	57534	Meprobamate			98	1.4	93	1
8.5183	76733	Secobarbital			100	0.2	93	1
9.7828	78444	Carisoprodol			95	-1.3	93	1
11.5152	50066	Phenobarbital			99	0.0	95	1
6.716		Butalbital	965.19					
7.689		Pentobarbital-D5	1					
8.401		Meprobamate	1097.25					
8.518		Secobarbital	1045.26					
9.786		Carisoprodol	1055.42					
11.514		Phenobarbital	1037.48					

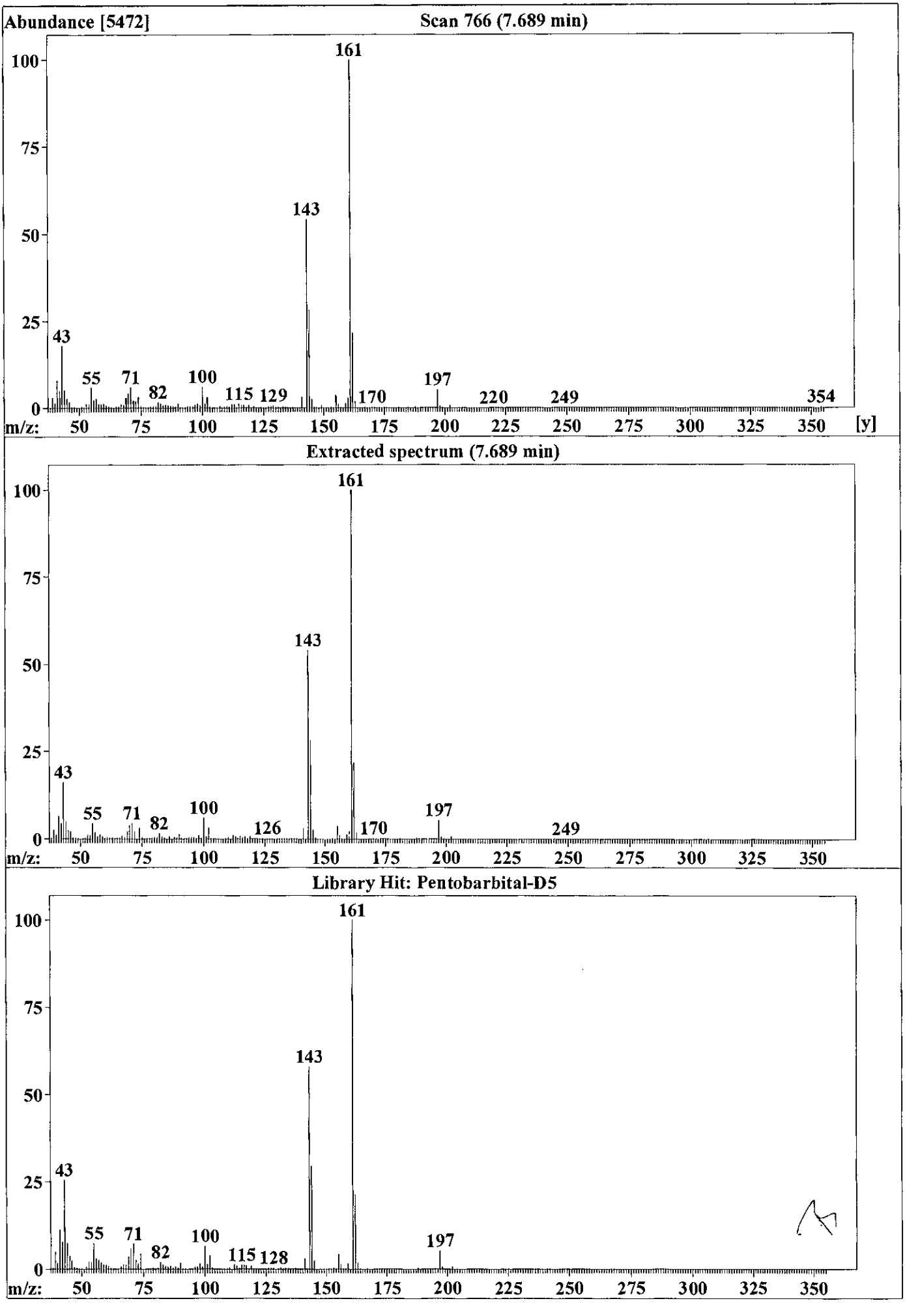
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\15_PosBL
... .D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 15:58 using AcqMethod QCONFIRM.M
Sample Name: Pos QC Blood
Misc Info :



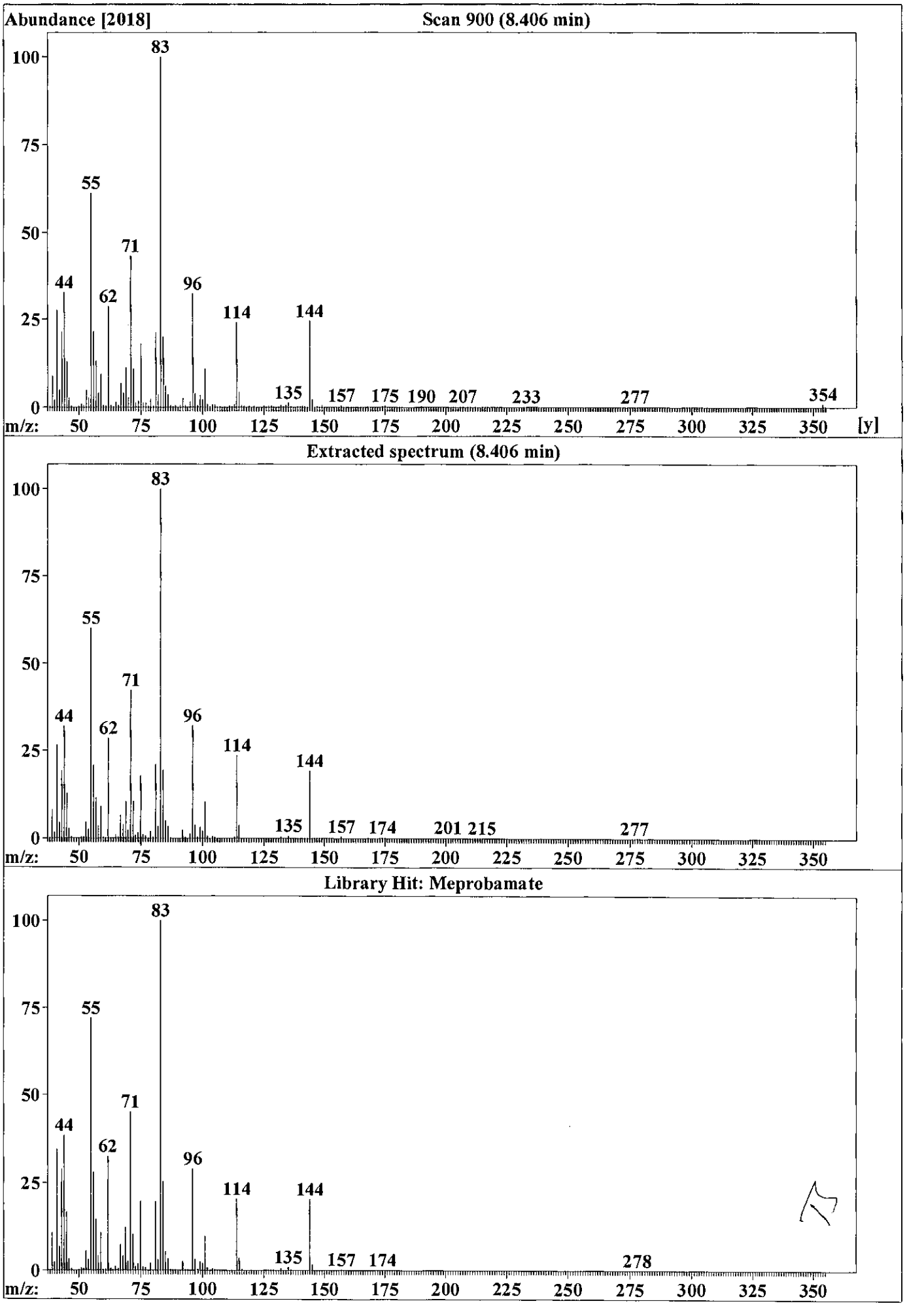
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL



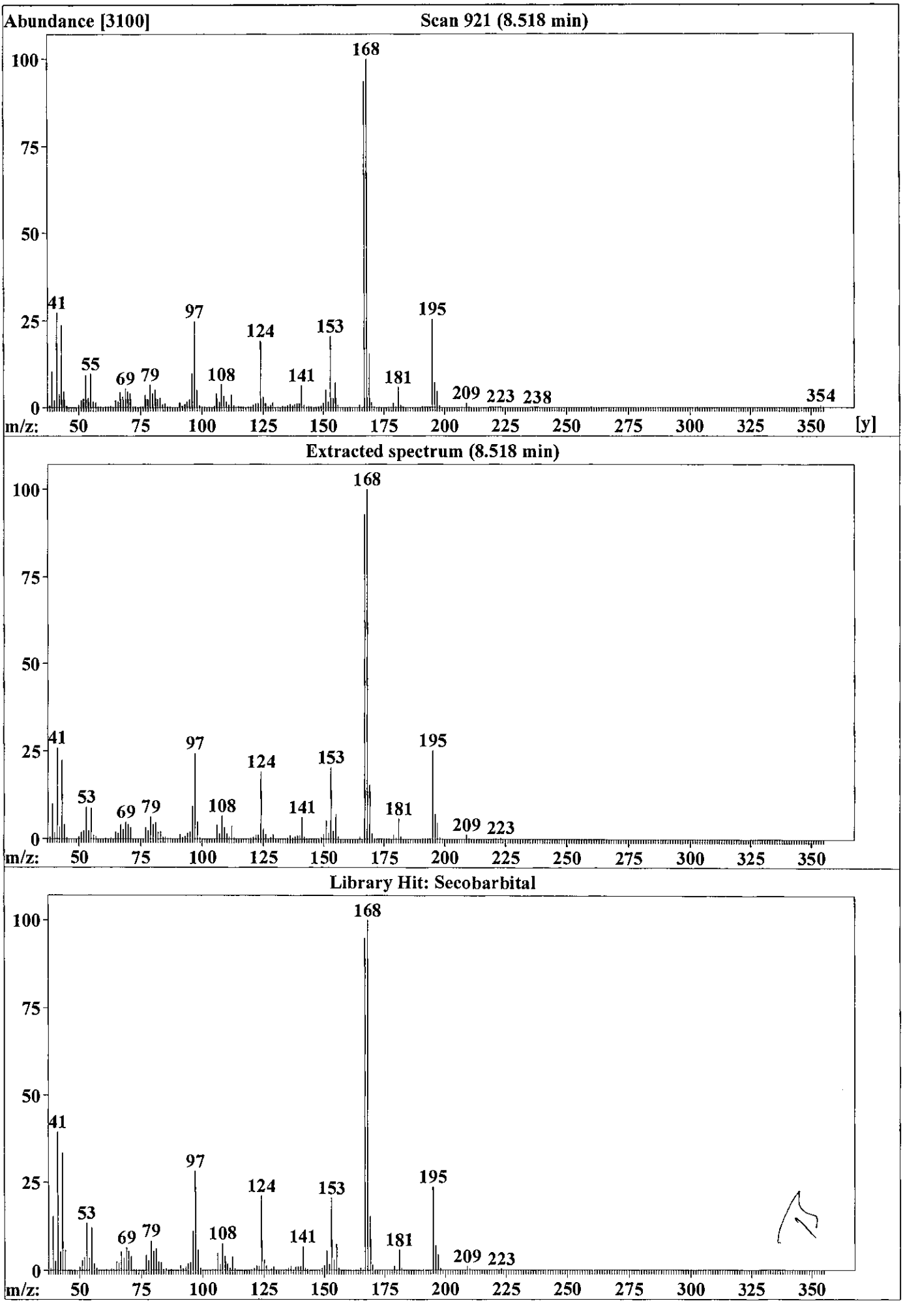
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL



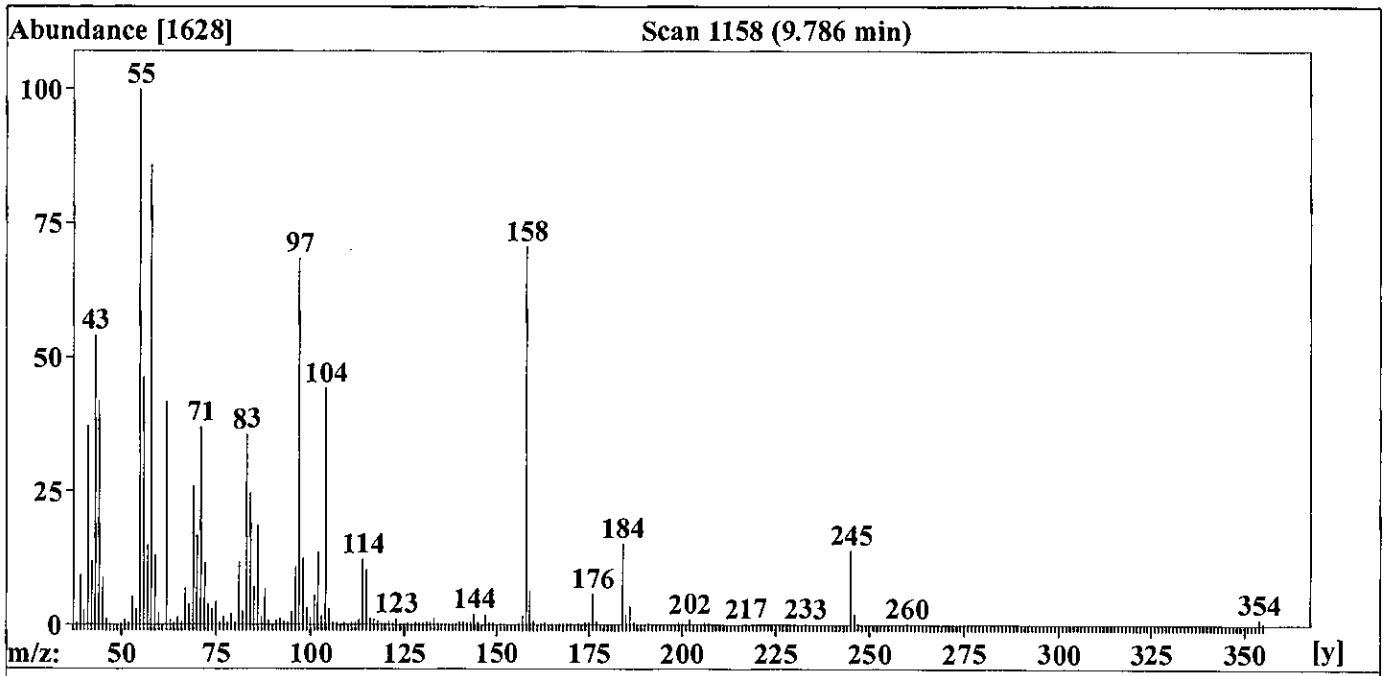
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL

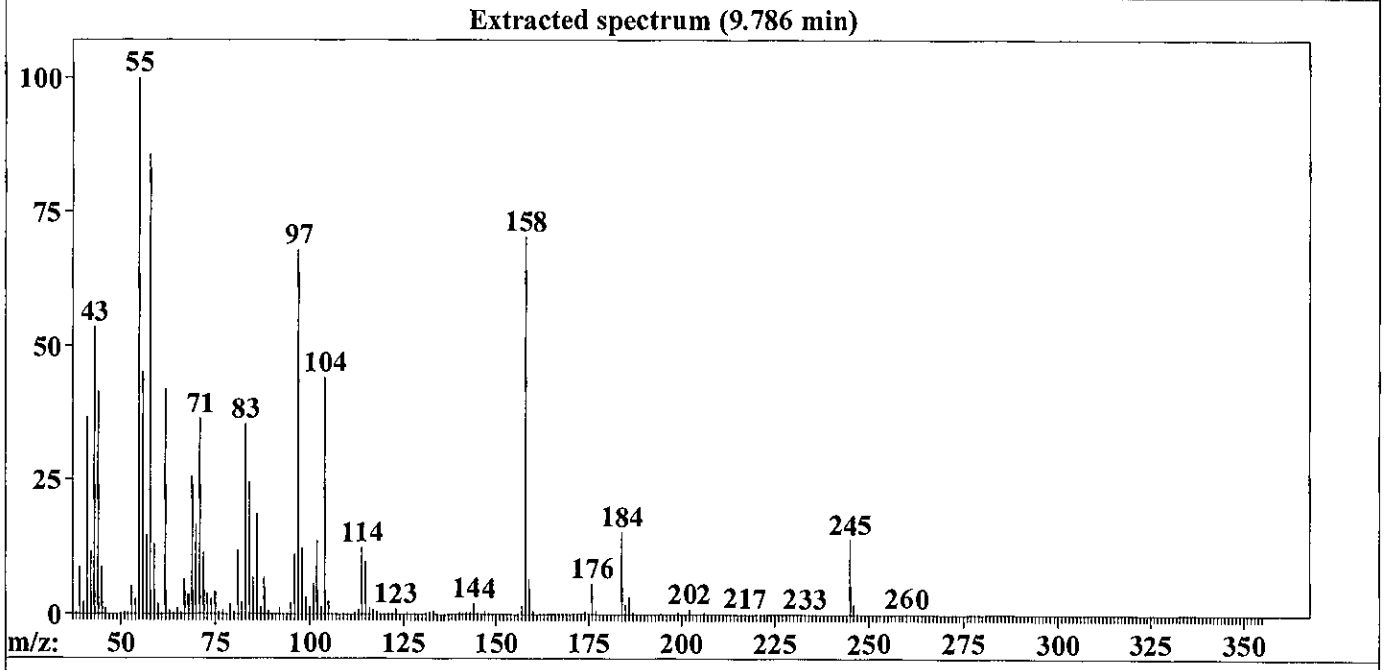


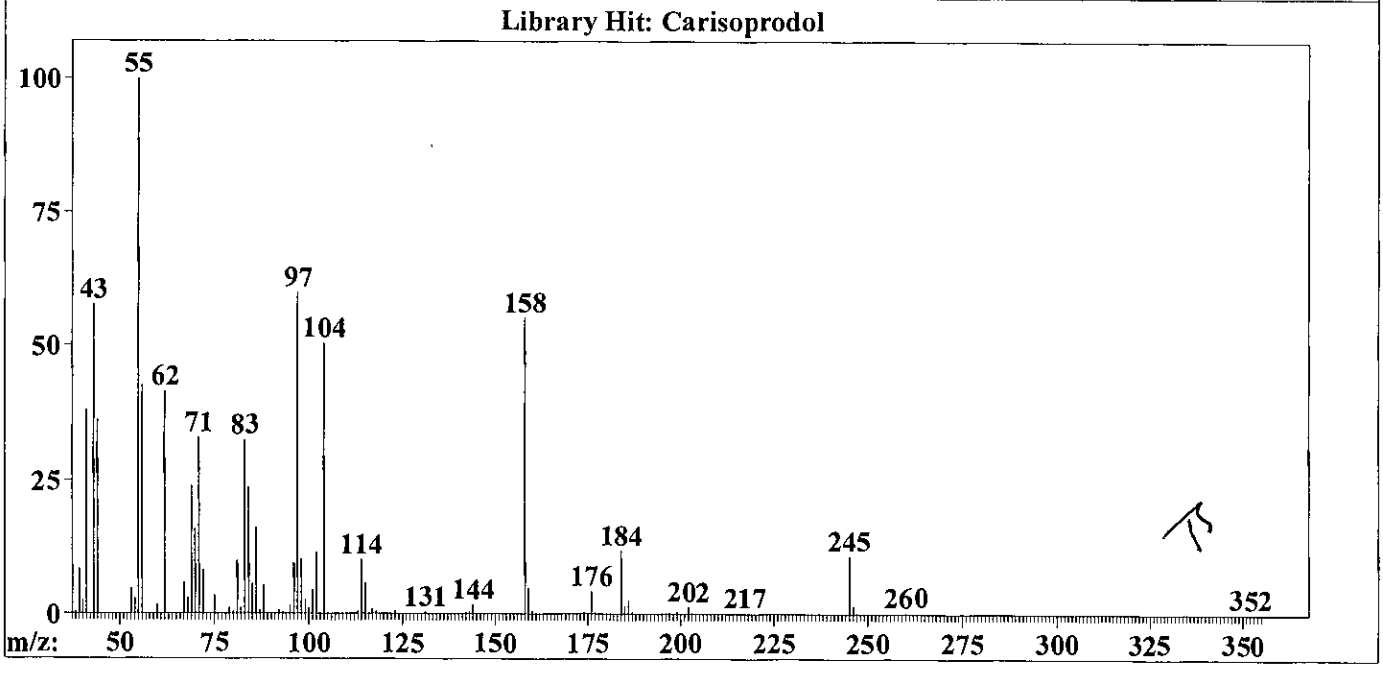
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL



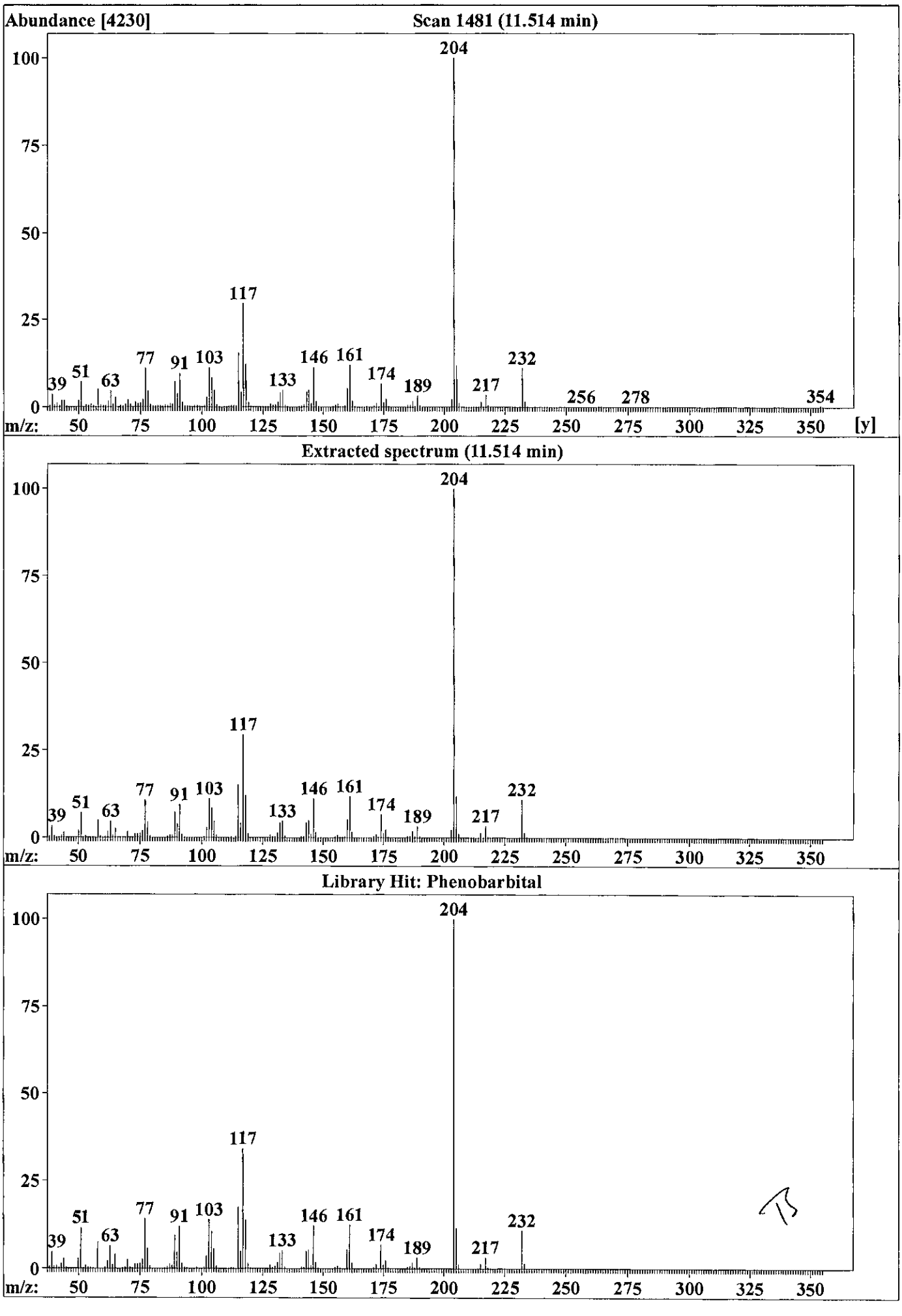
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL







GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\15_POSBL



MSD Deconvolution Report
Sample Name: Pos QC1-180920L-Q-10
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\07_180920L-Q-10.D
Date/Time: 4:03:22 PM Monday, September 24, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

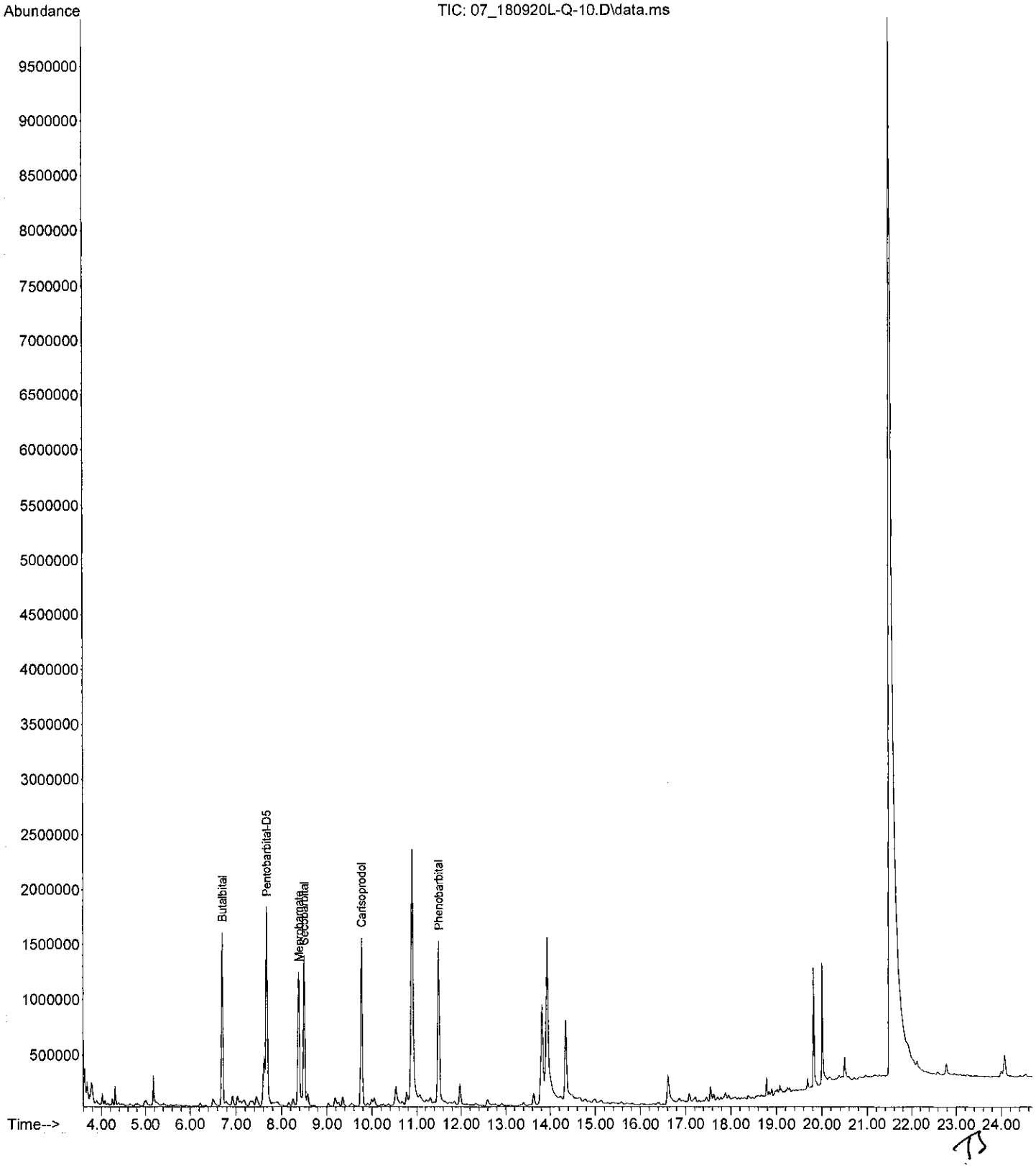
The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7153	77269	Butalbital			100✓	1.1	96	1
7.6851	52944668	Pentobarbital-D5			99✓	1.1		
7.6851	3189488	2-Indolizine, carboxylic acid					64	1
8.3943	57534	Meprobamate			98✓	0.8	93	1
8.5109	76733	Secobarbital			100✓	-0.2	93	1
9.7849	78444	Carisoprodol			95✓	-1.1	93	1
11.5099	50066	Phenobarbital			99✓	-0.3	95	1
17.6057	57410	Phenytoin			65✓	1.9	69	2
6.716		Butalbital	977.84 ✓					
7.684		Pentobarbital-D5	1 ✓					
8.395		Meprobamate	1079.84 ✓					
8.513		Secobarbital	843.77 ✓					
9.786		Carisoprodol	1033.43 ✓					
11.508		Phenobarbital	991.24 ✓					

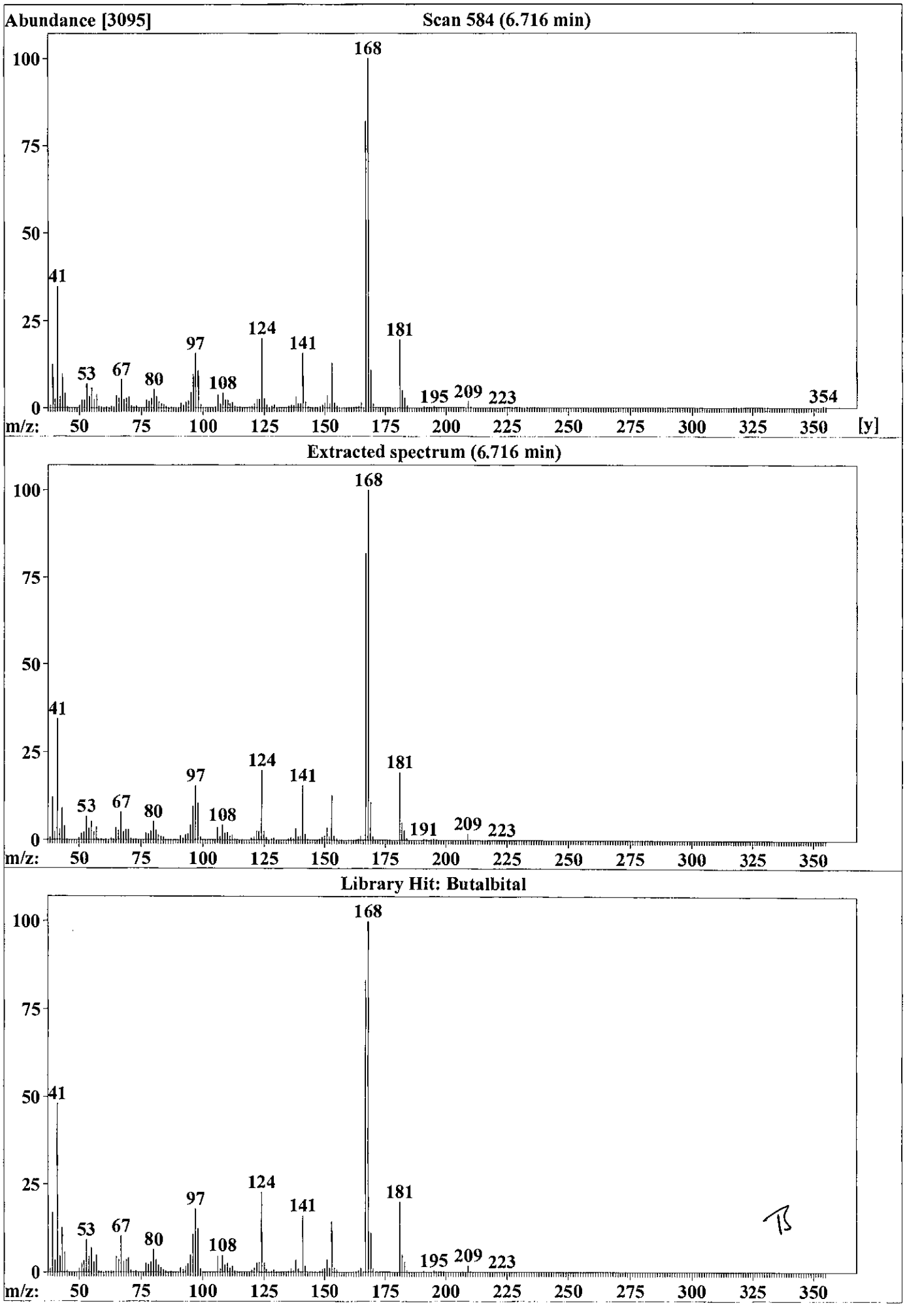
Sample meets acceptance criteria. OK to use in Casework.
TS 9/26/18

TS

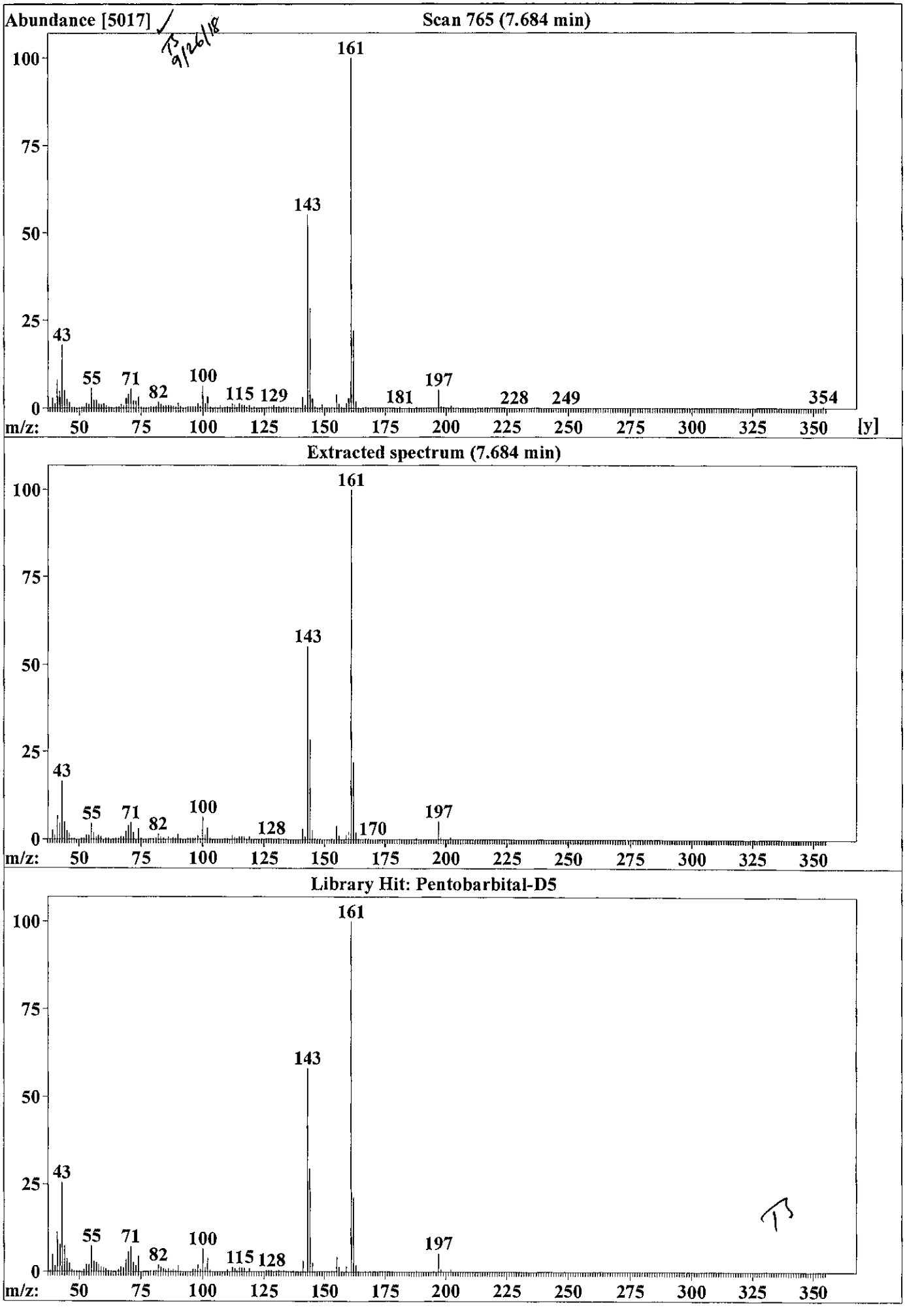
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\07_18092
... 0L-Q-10.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 14:49 using AcqMethod QCONFIRM.M
Sample Name: Pos QC1-180920L-Q-10
Misc Info :



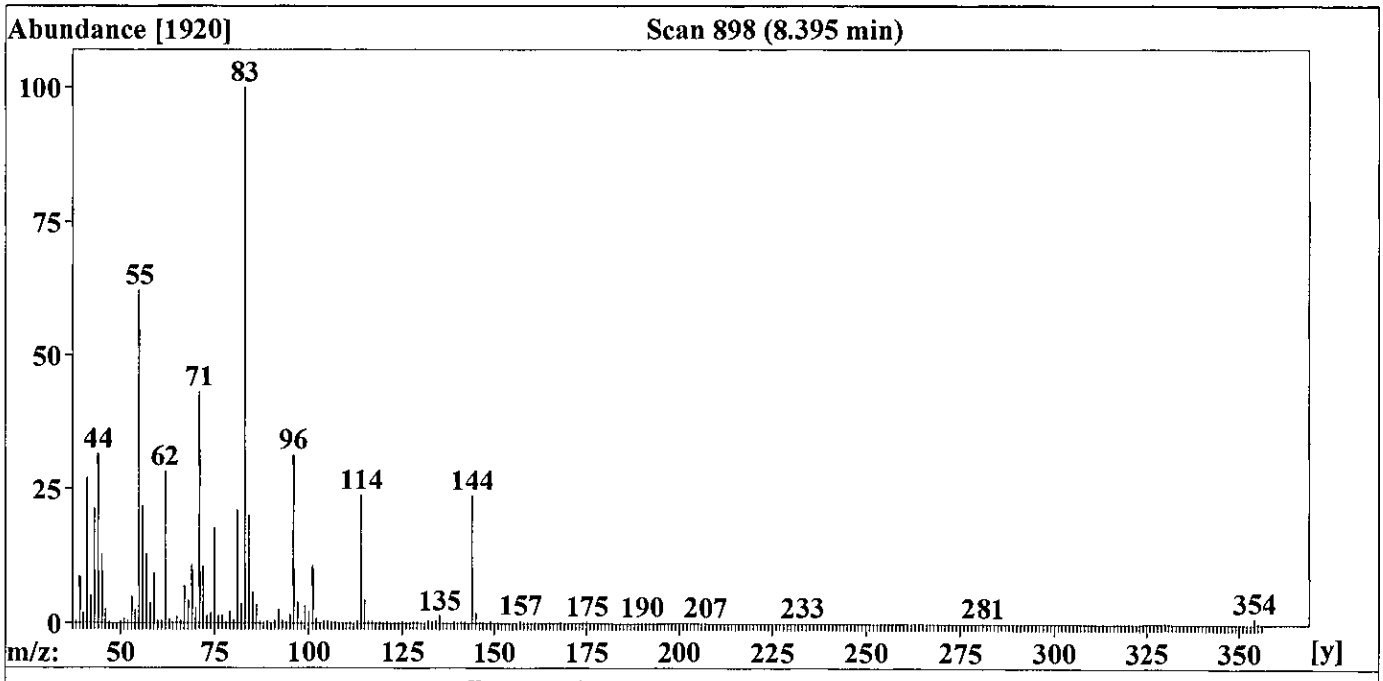
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10

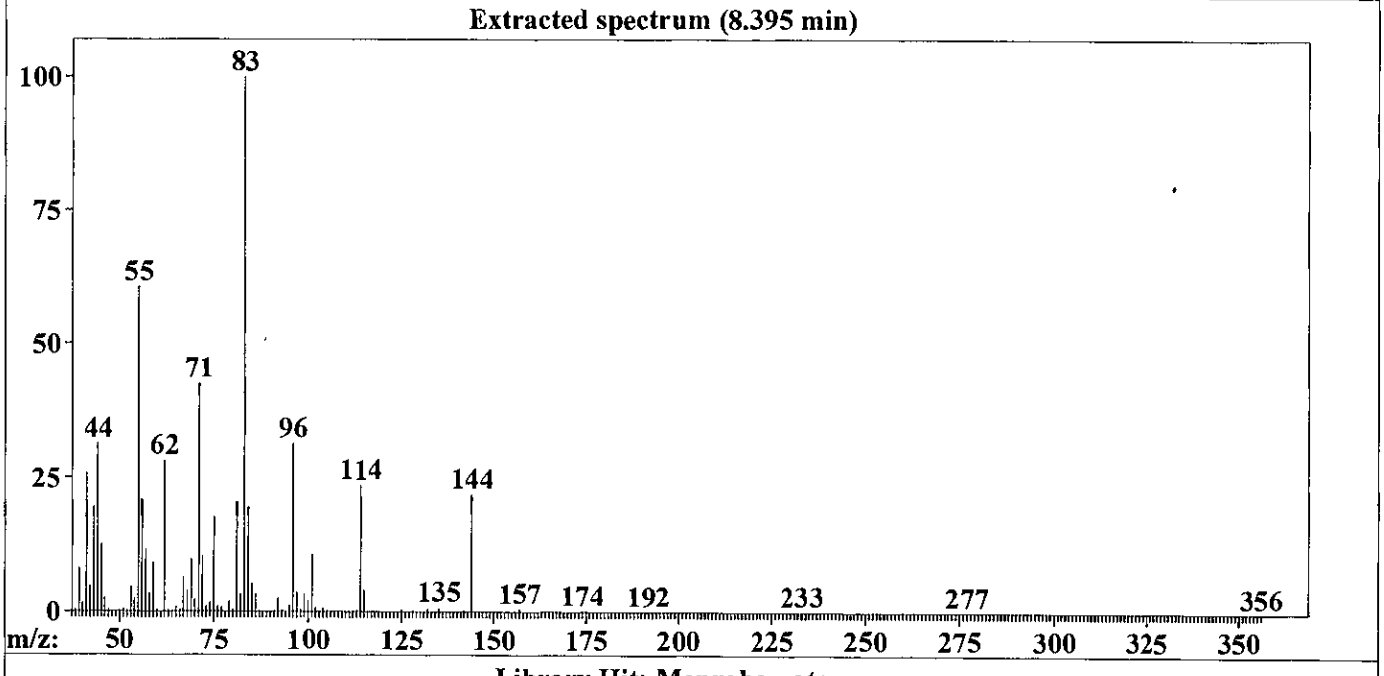


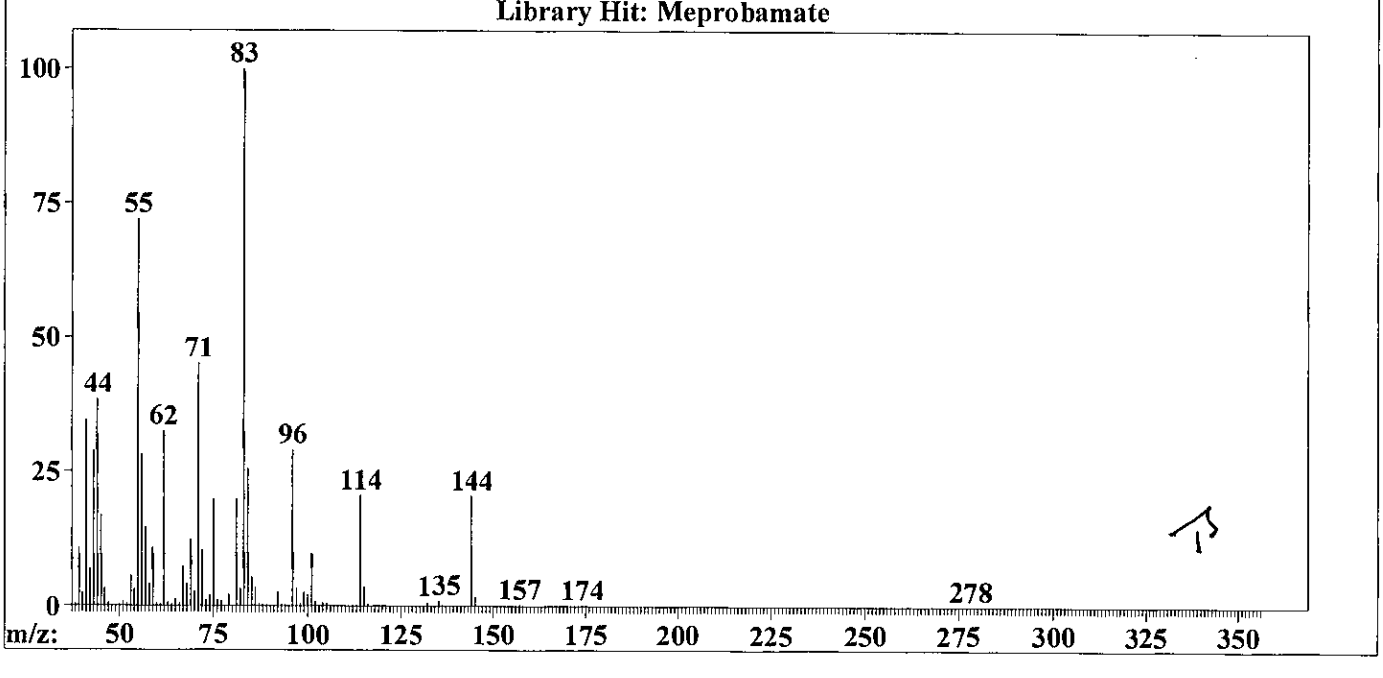
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10



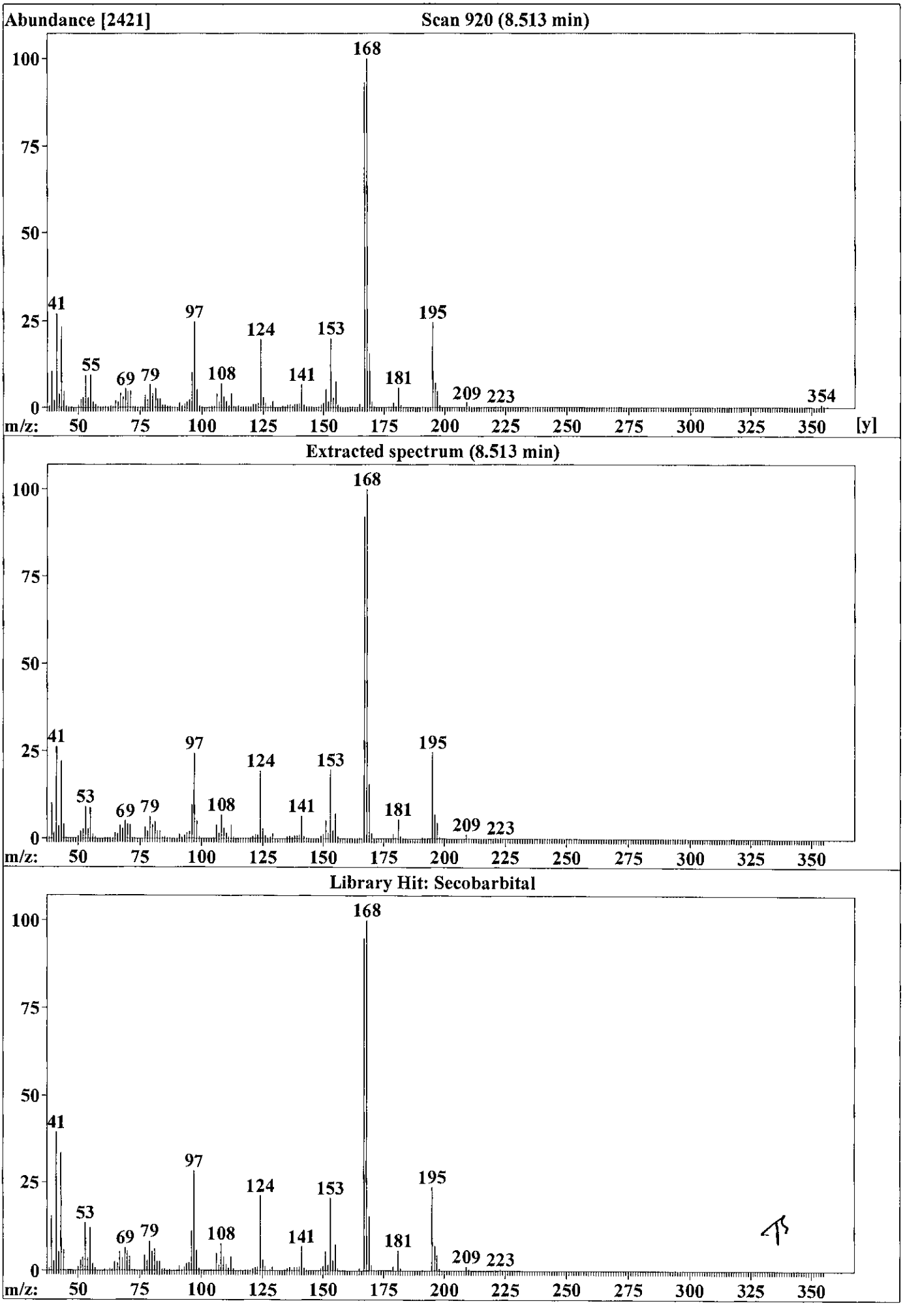
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10



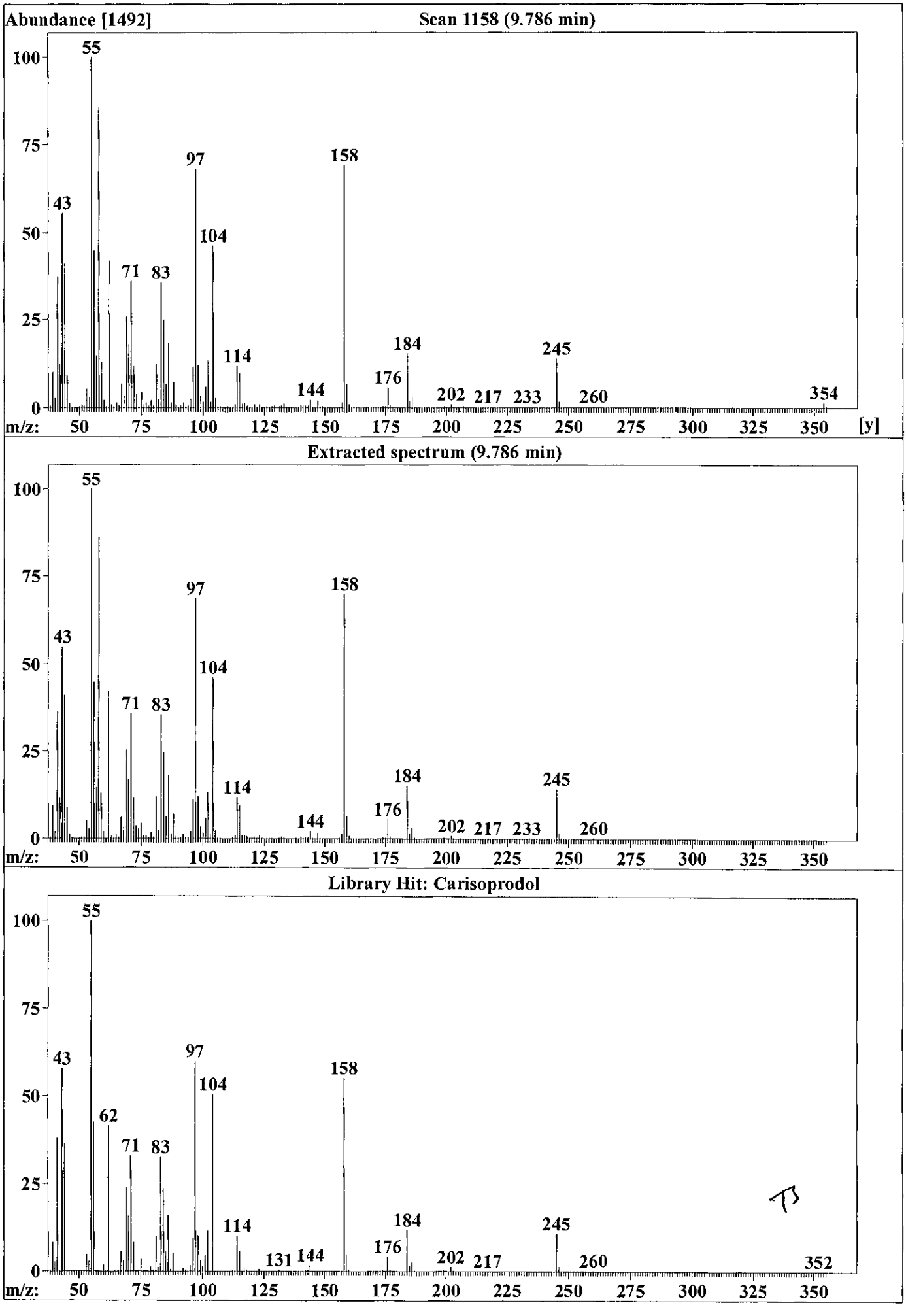




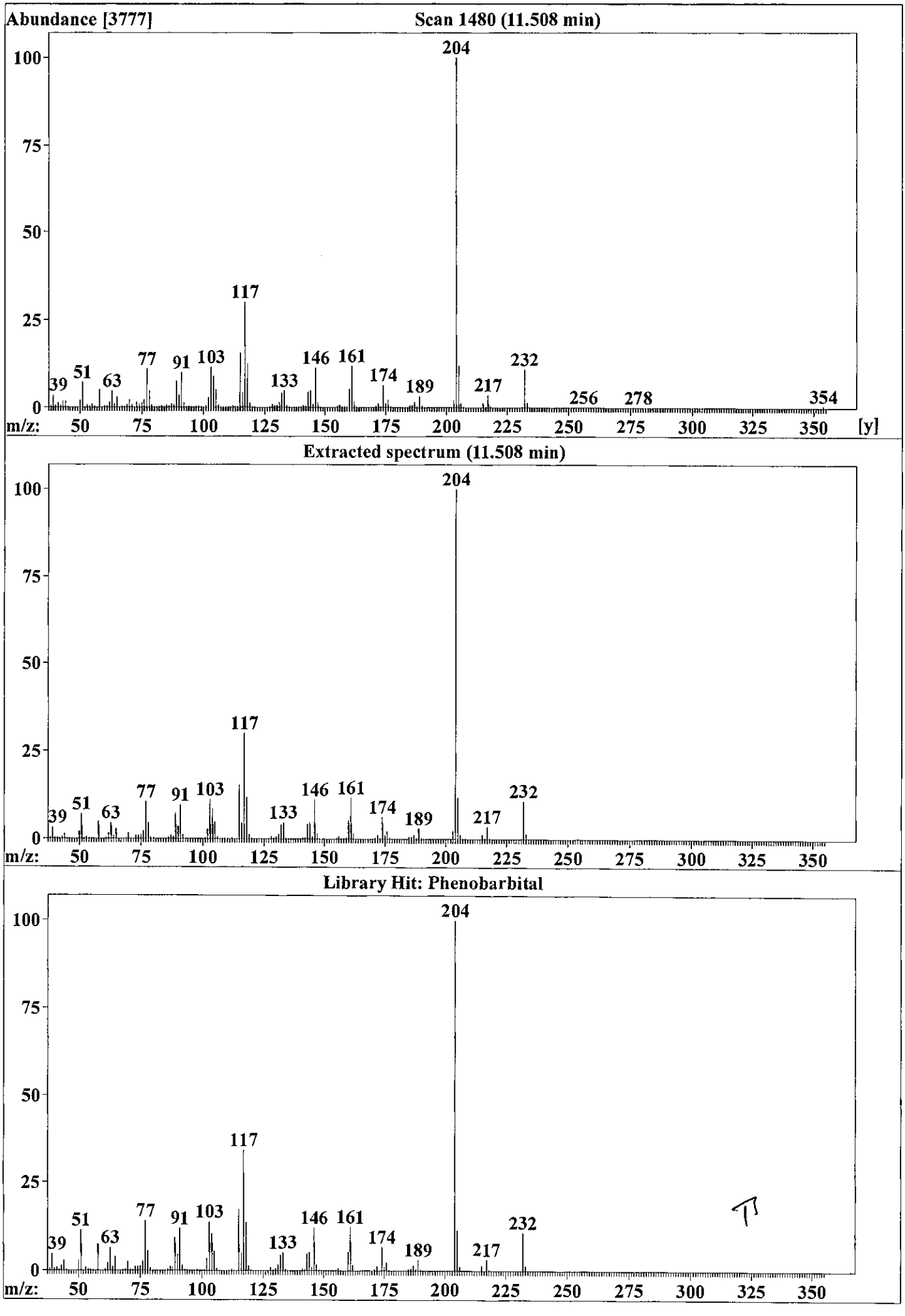
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10



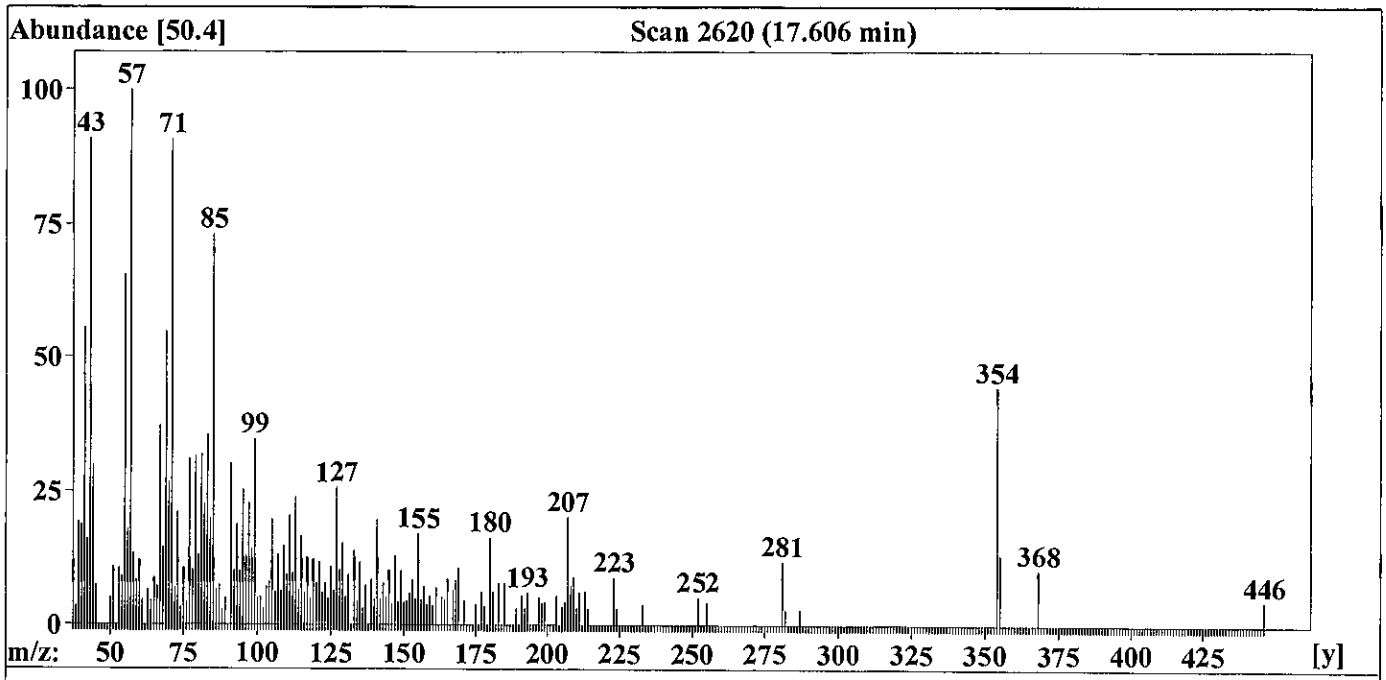
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10

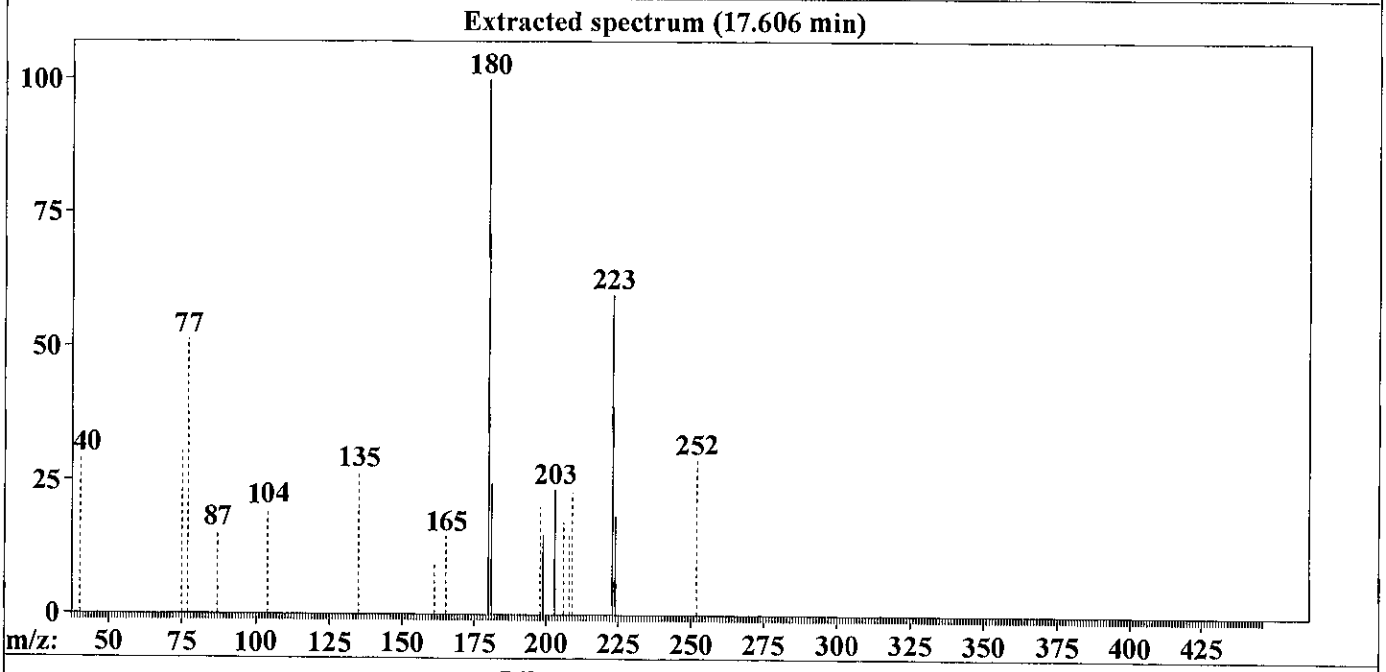


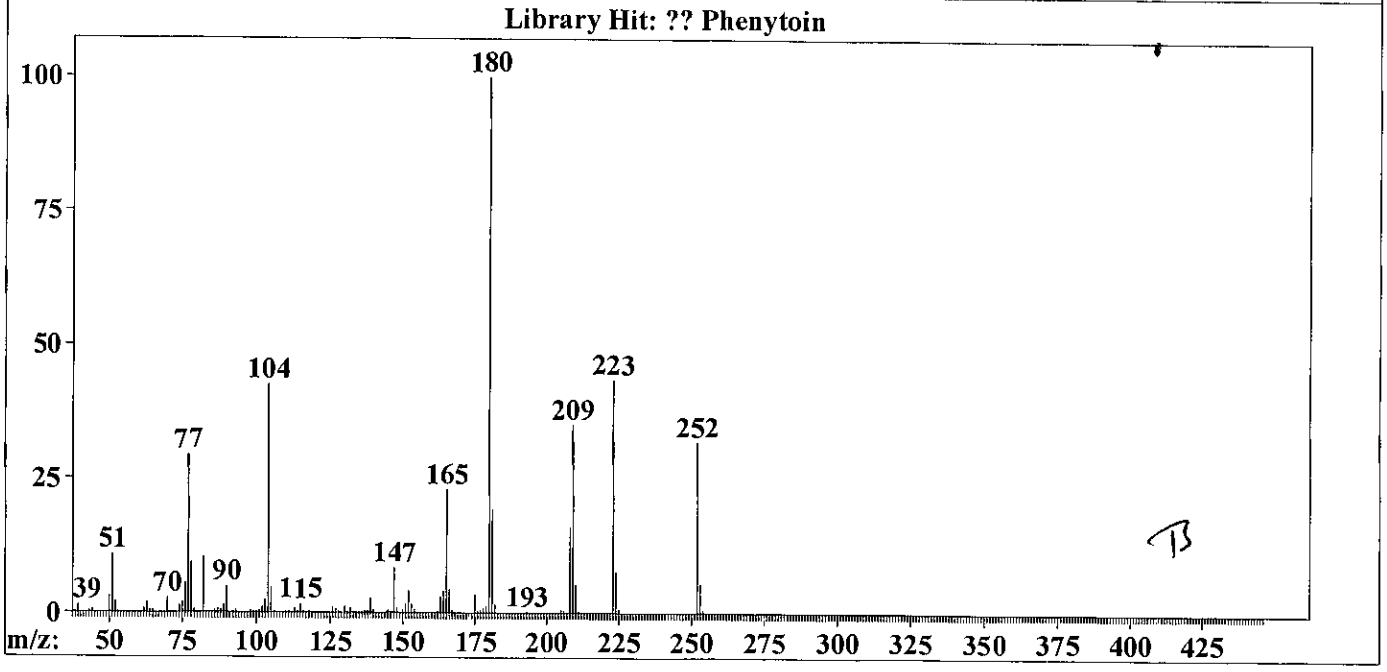
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10



GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\07_180920L-Q-10







MSD Deconvolution Report
Sample Name: Pos QC2-180920L-Q-10
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\08_180920L-Q-10.D
Date/Time: 4:05:02 PM Monday, September 24, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

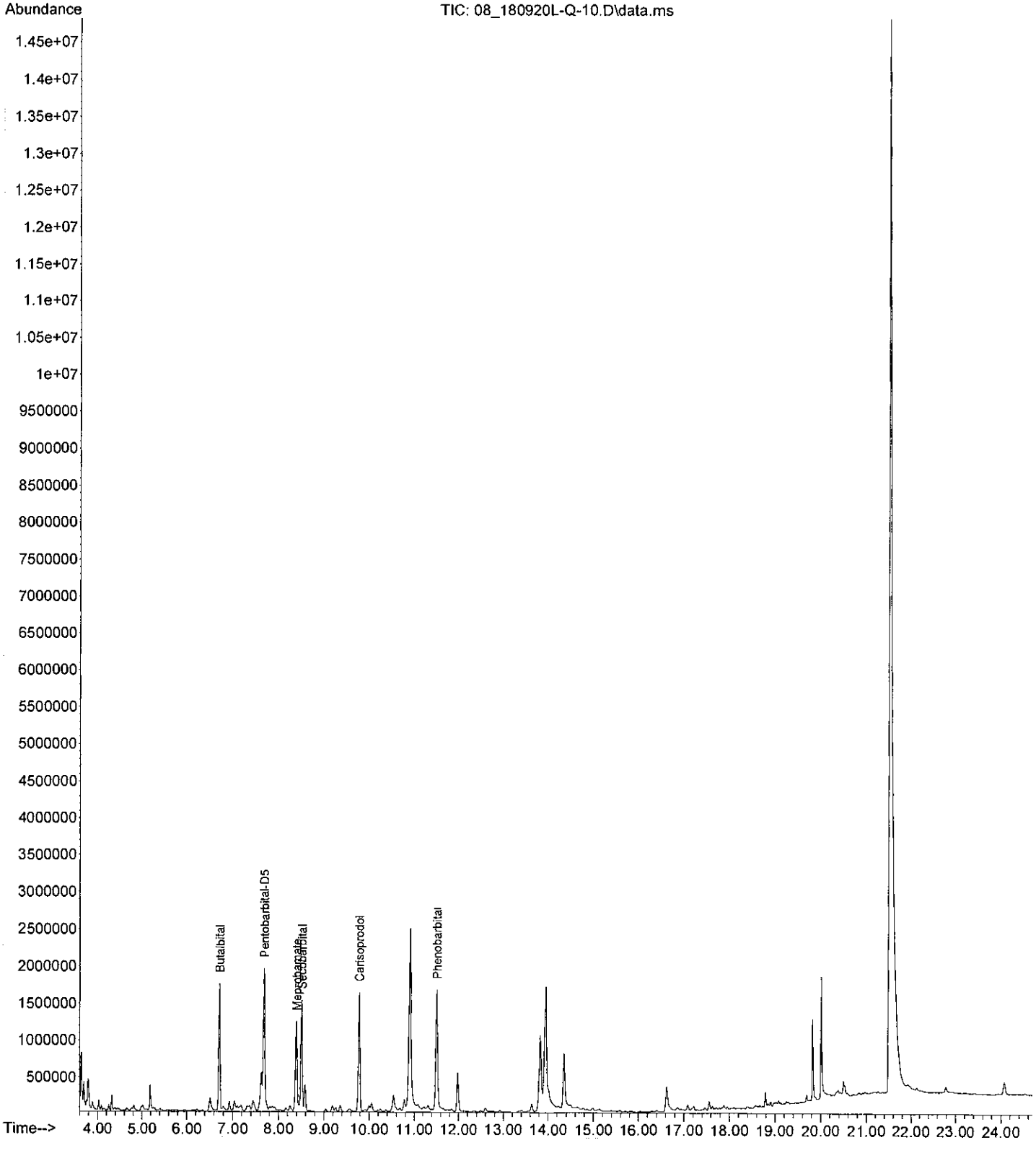
The **NIST library was searched for the components that were found in the AMDIS target library.**

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
6.7185	77269	Butalbital			100 ✓	1.3	96	1
7.6882	52944668	Pentobarbital-D5			99 ✓	1.3		
7.6882	3189488	2-Indolizine, carboxylic acid					64	1
8.4001	57534	Meprobamate			98 ✓	1.2	92	1
8.5135	76733	Secobarbital			100 ✓	-0.1	93	1
9.7870	78444	Carisoprodol			94 ✓	-1.0	92	1
11.5151	50066	Phenobarbital			99 ✓	0.0	96	1
6.716		Butalbital	1033.8 ✓					
7.689		Pentobarbital-D5	1 ✓					
8.401		Meprobamate	1031.42 ✓					
8.513		Secobarbital	889.85 ✓					
9.786		Carisoprodol	1021.97 ✓					
11.514		Phenobarbital	1045.94 ✓					

Sample meets acceptance criteria. OK to use in casework.
TB 9/26/18

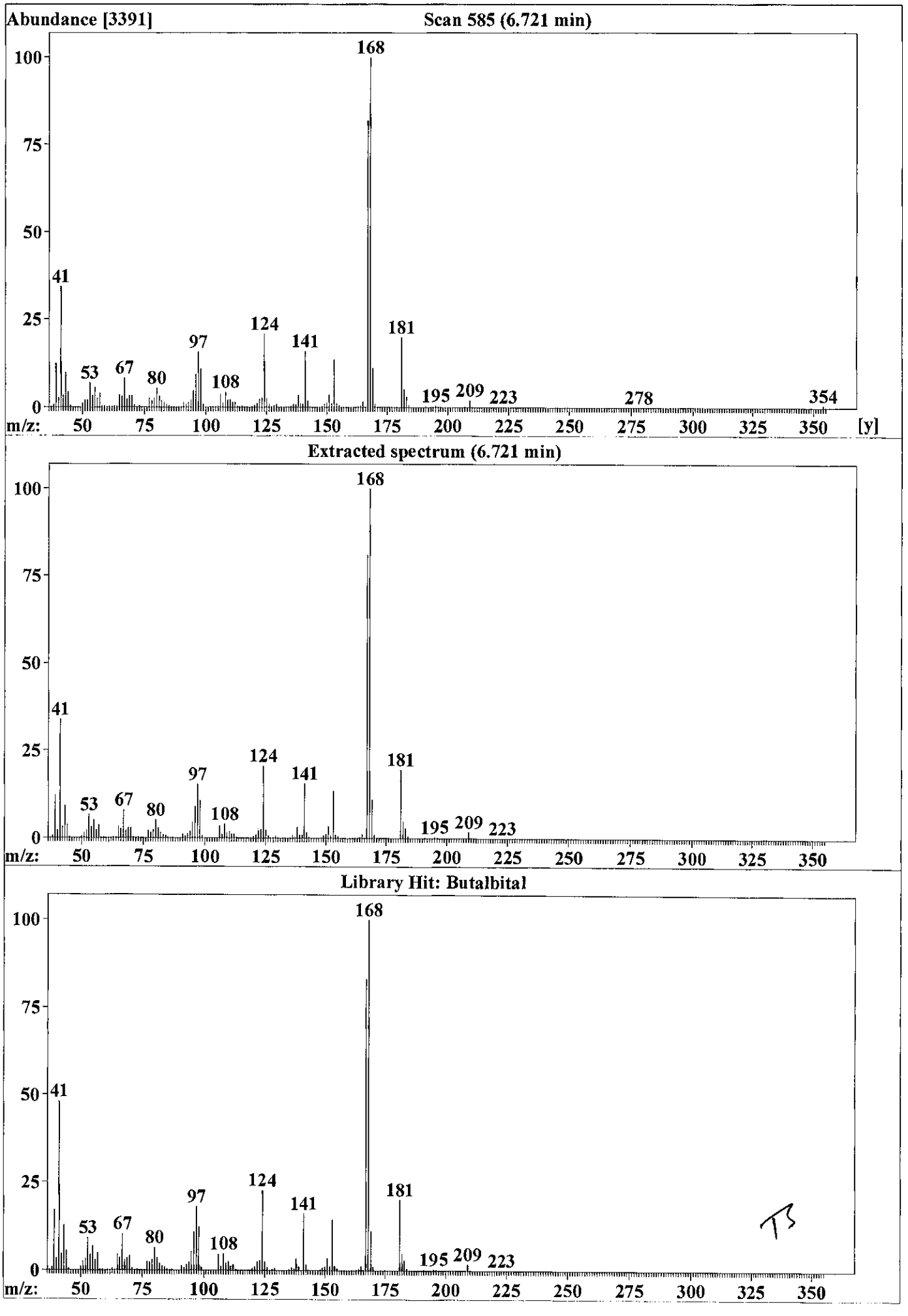
TB

File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\08_18092
... 0L-Q-10.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 15:24 using AcqMethod QCONFIRM.M
Sample Name: Pos QC2-180920L-Q-10
Misc Info :



TS

GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\08_180920L-Q-10



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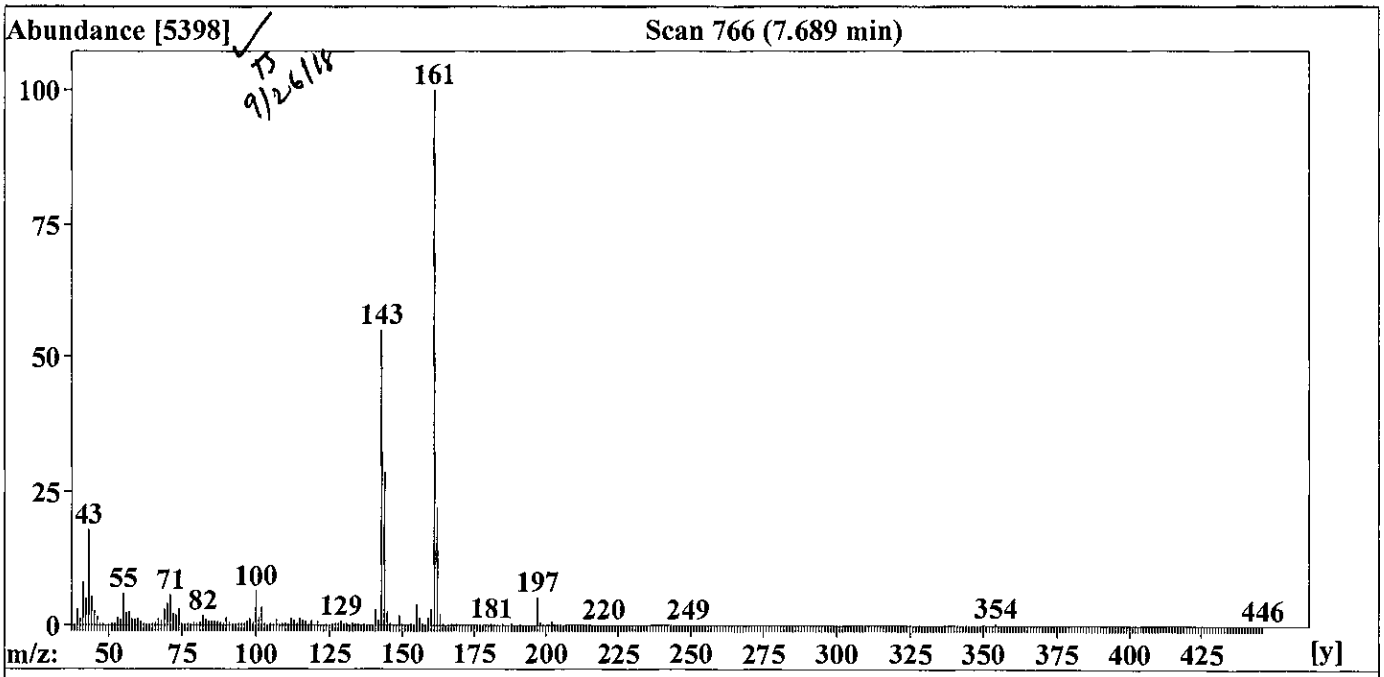

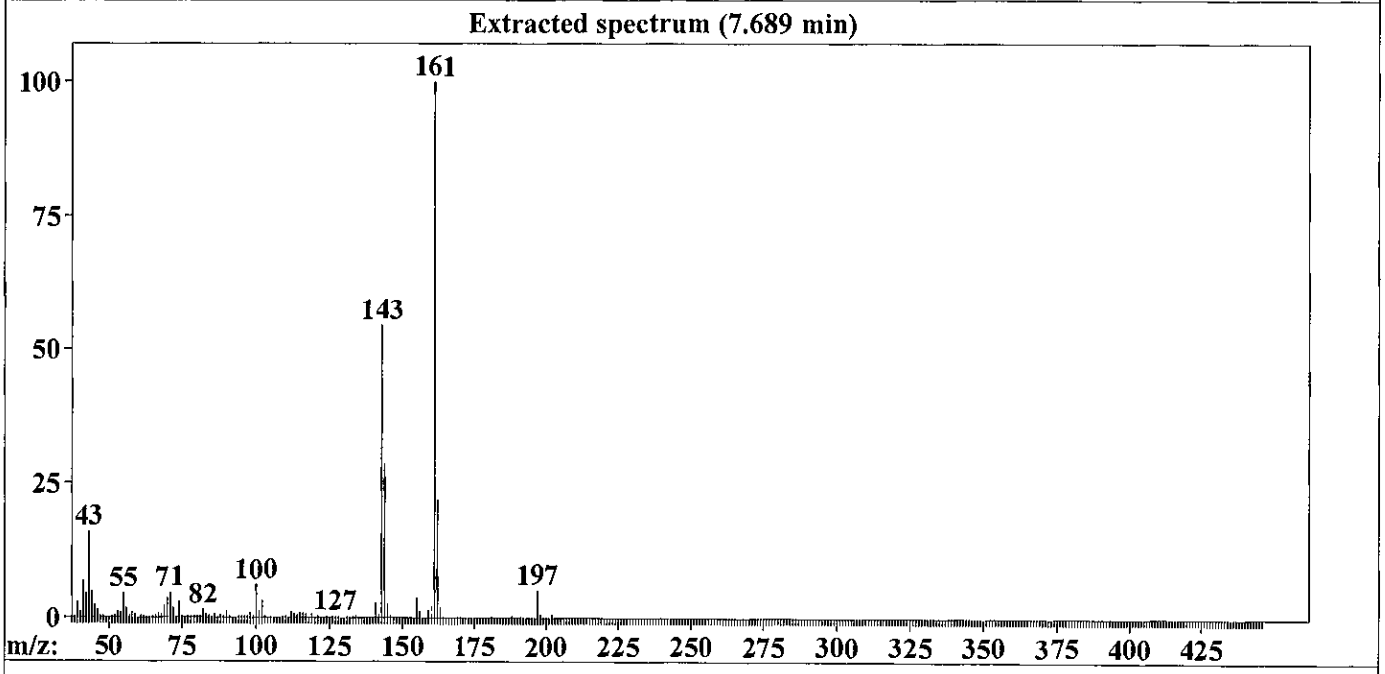

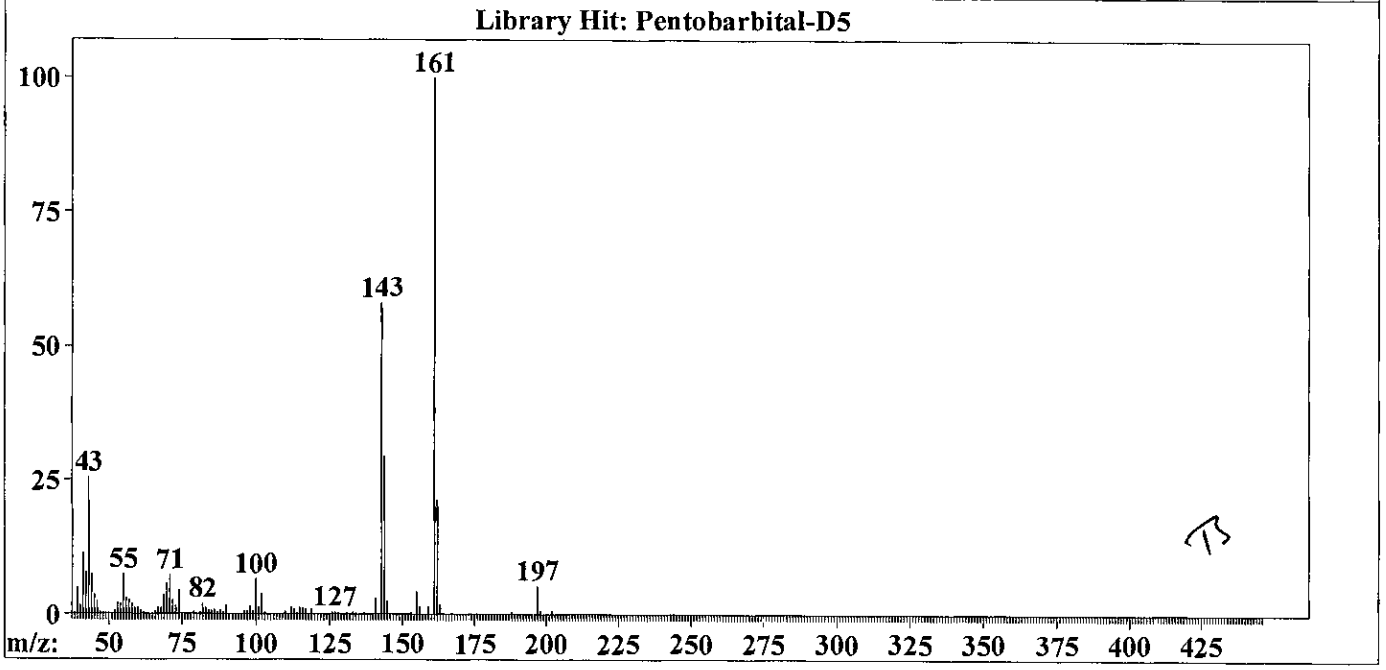

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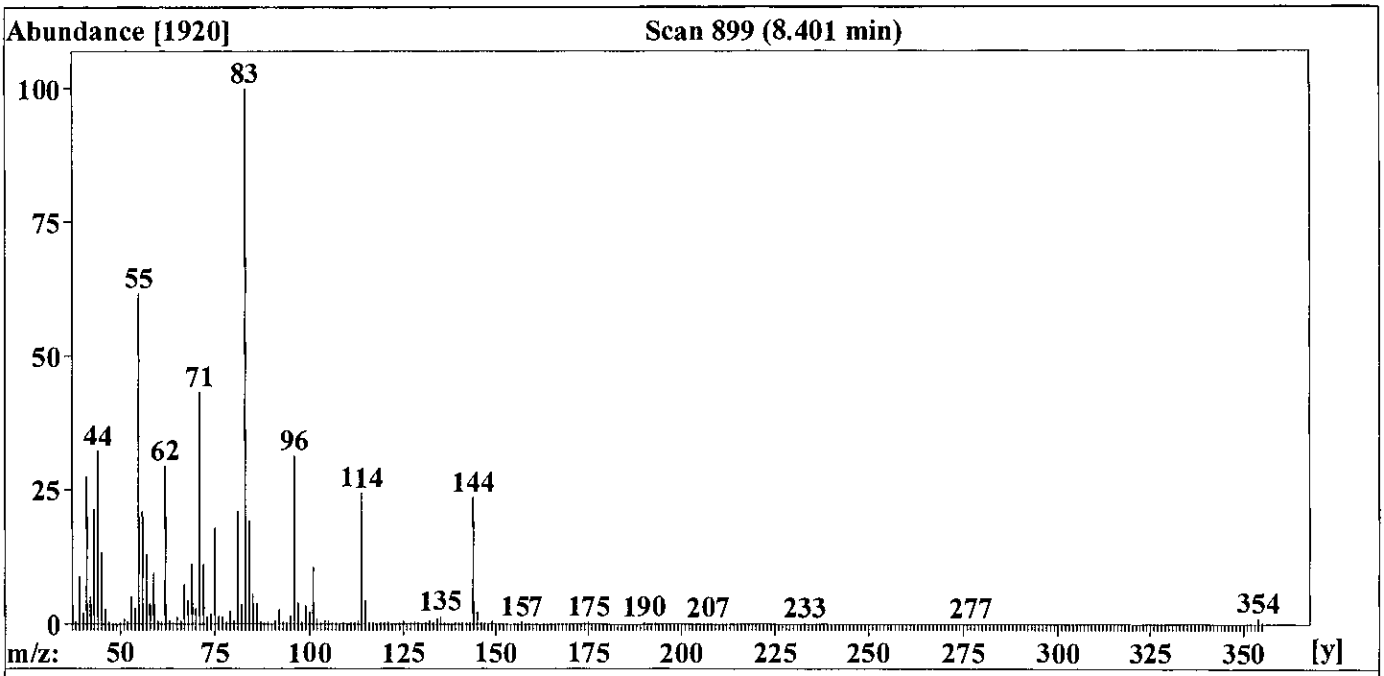

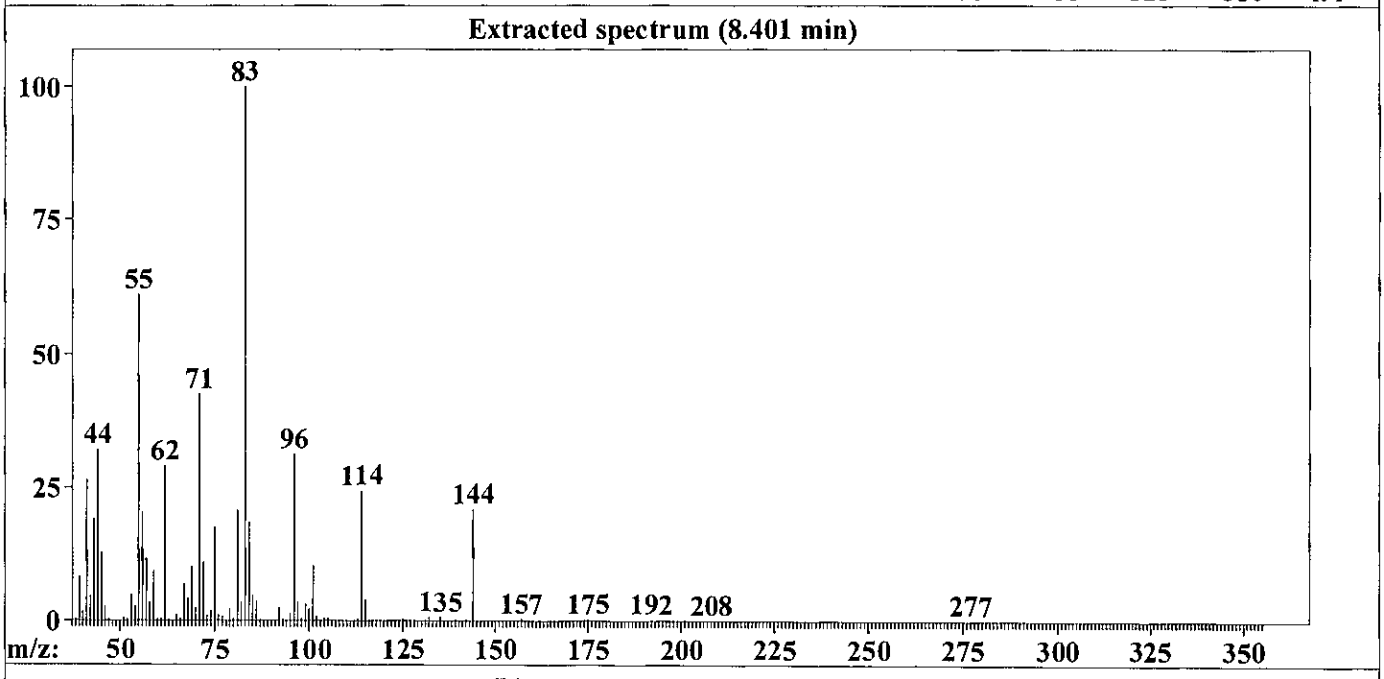

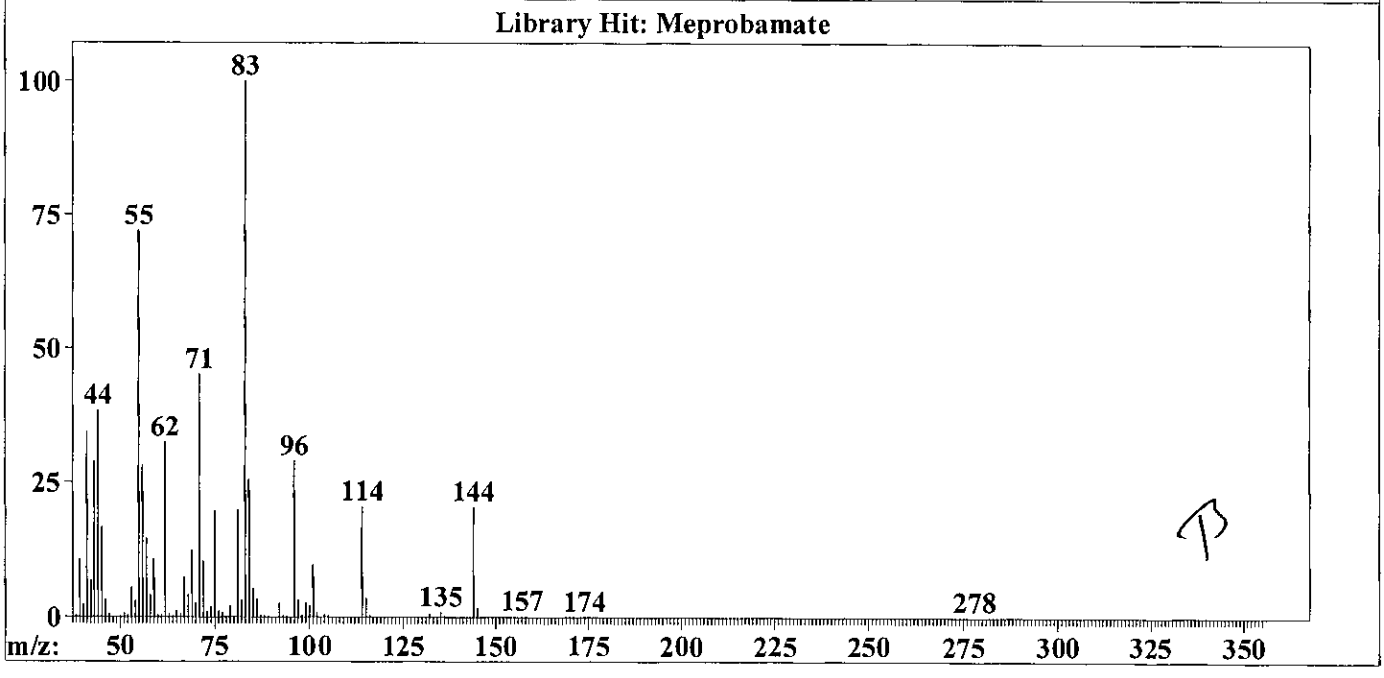

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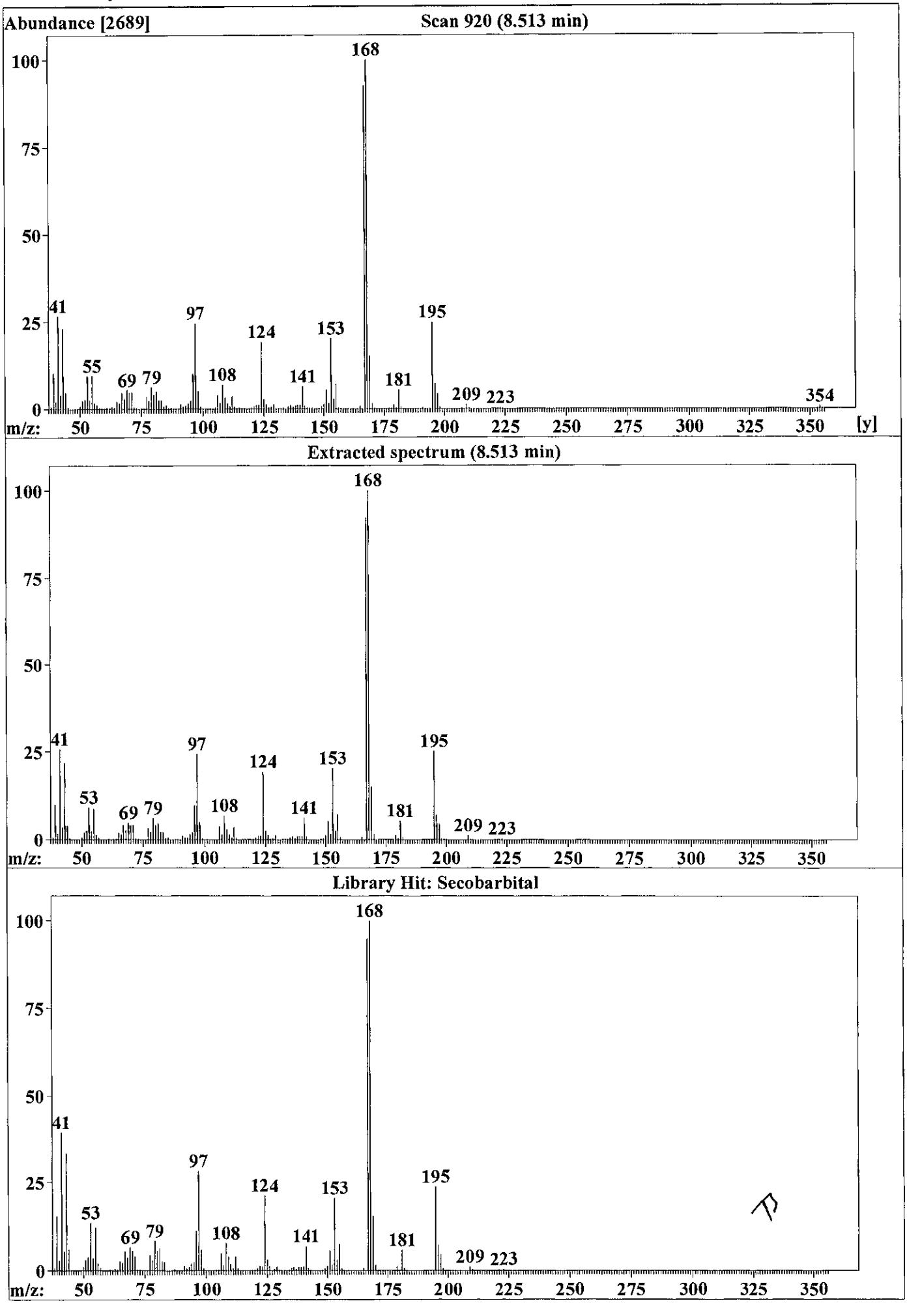

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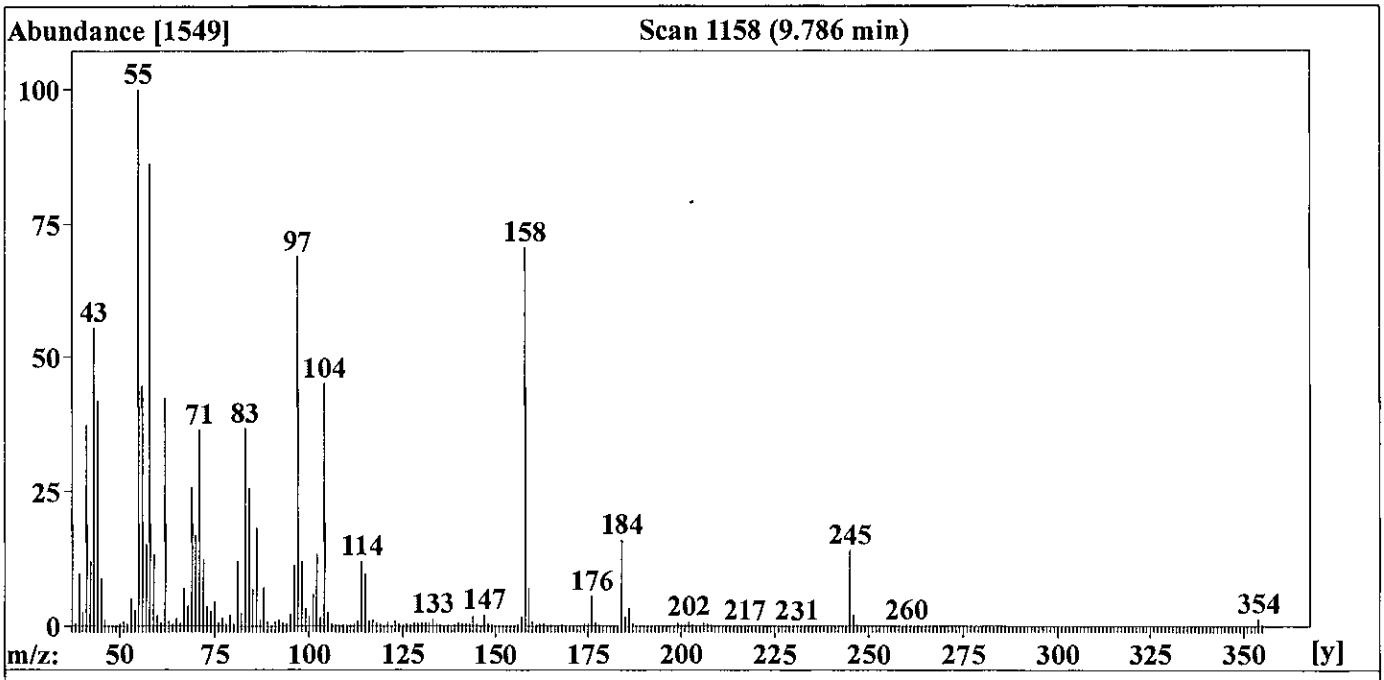

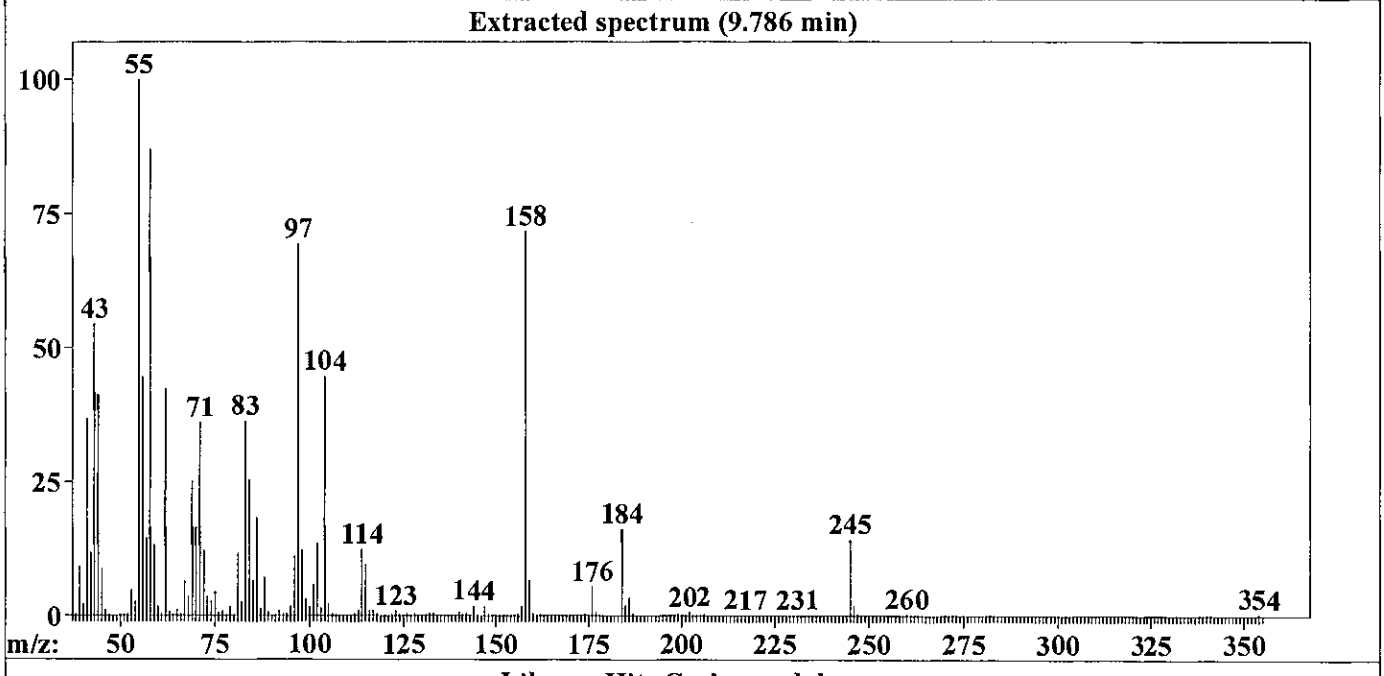

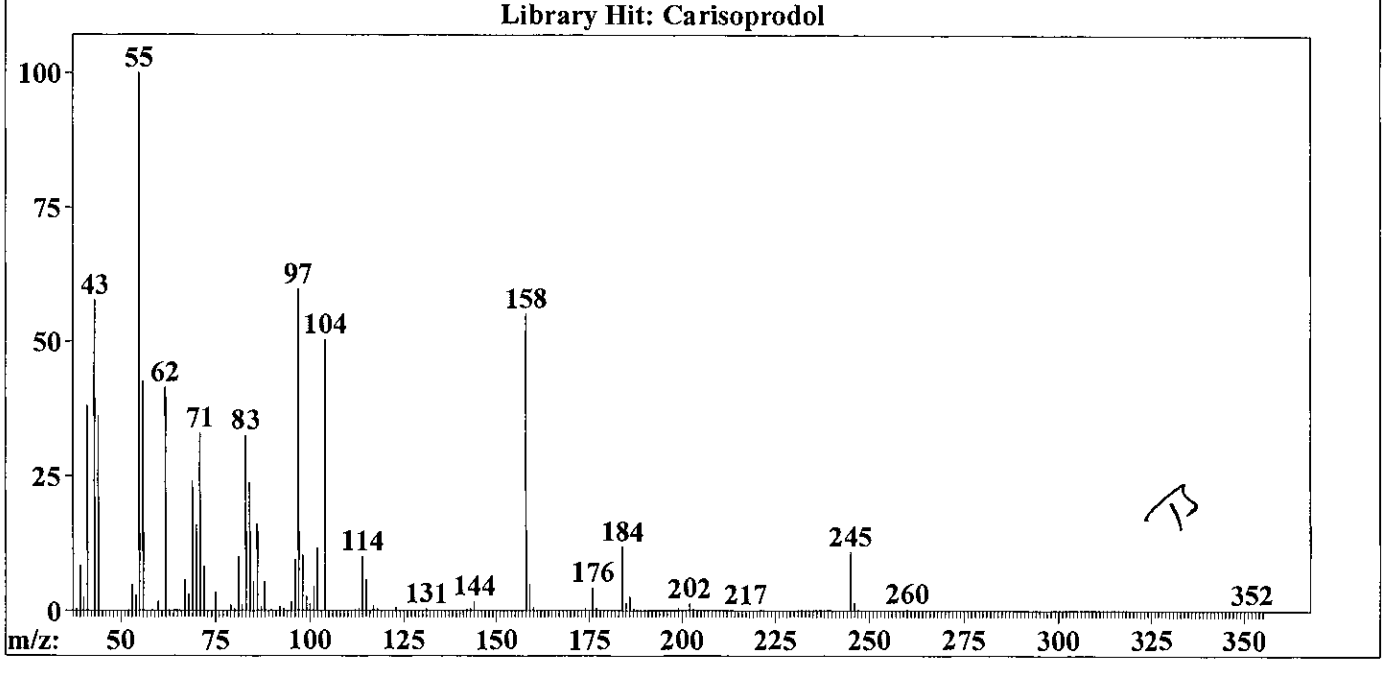

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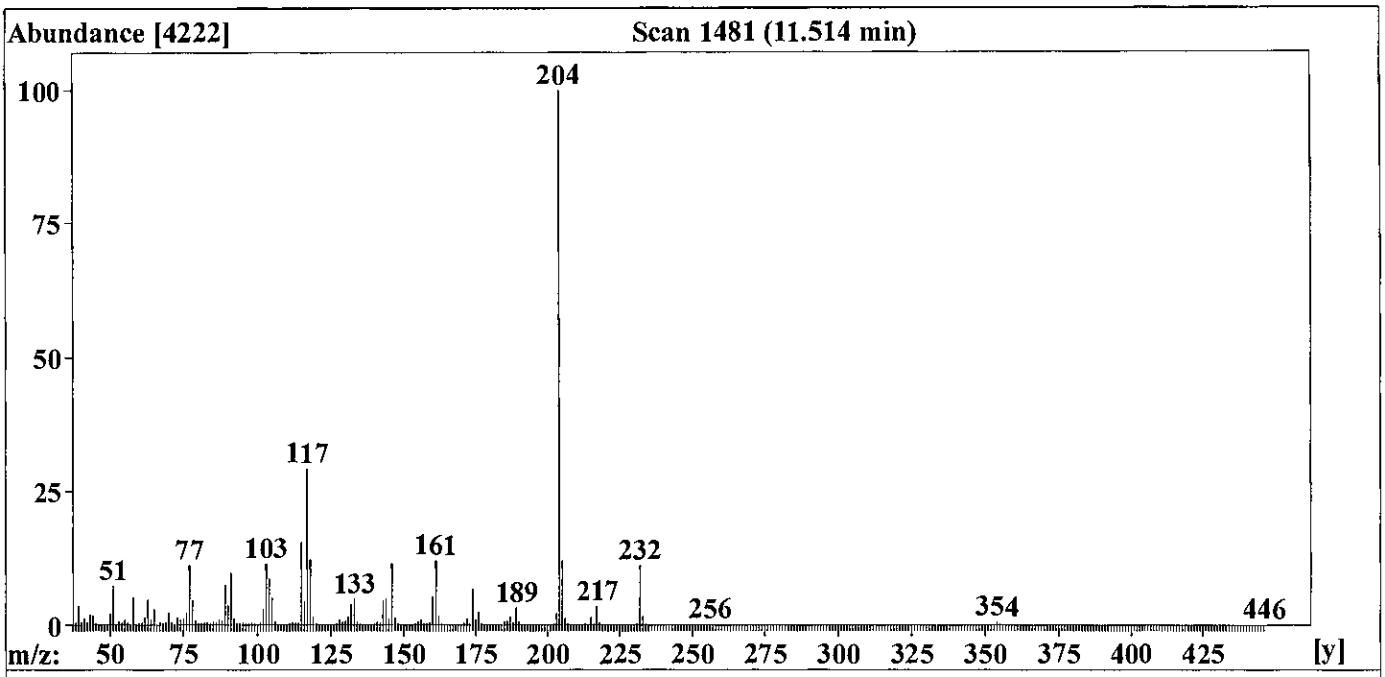
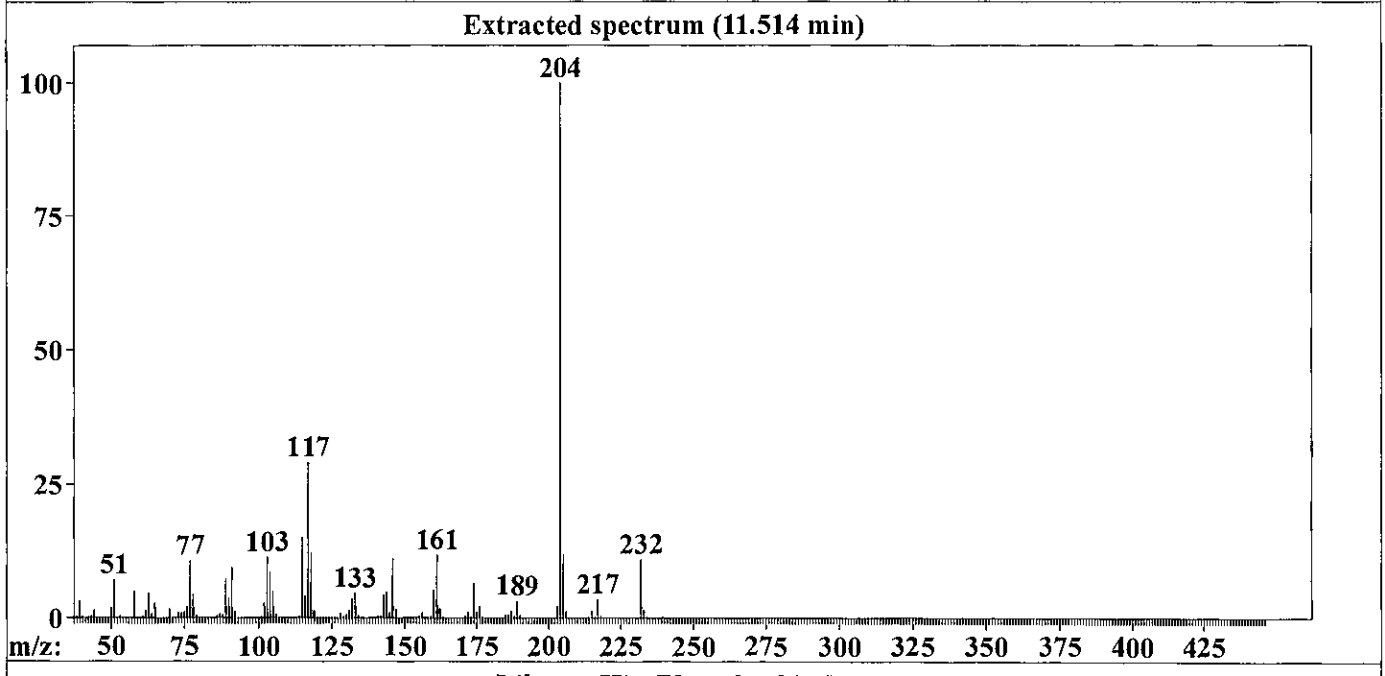
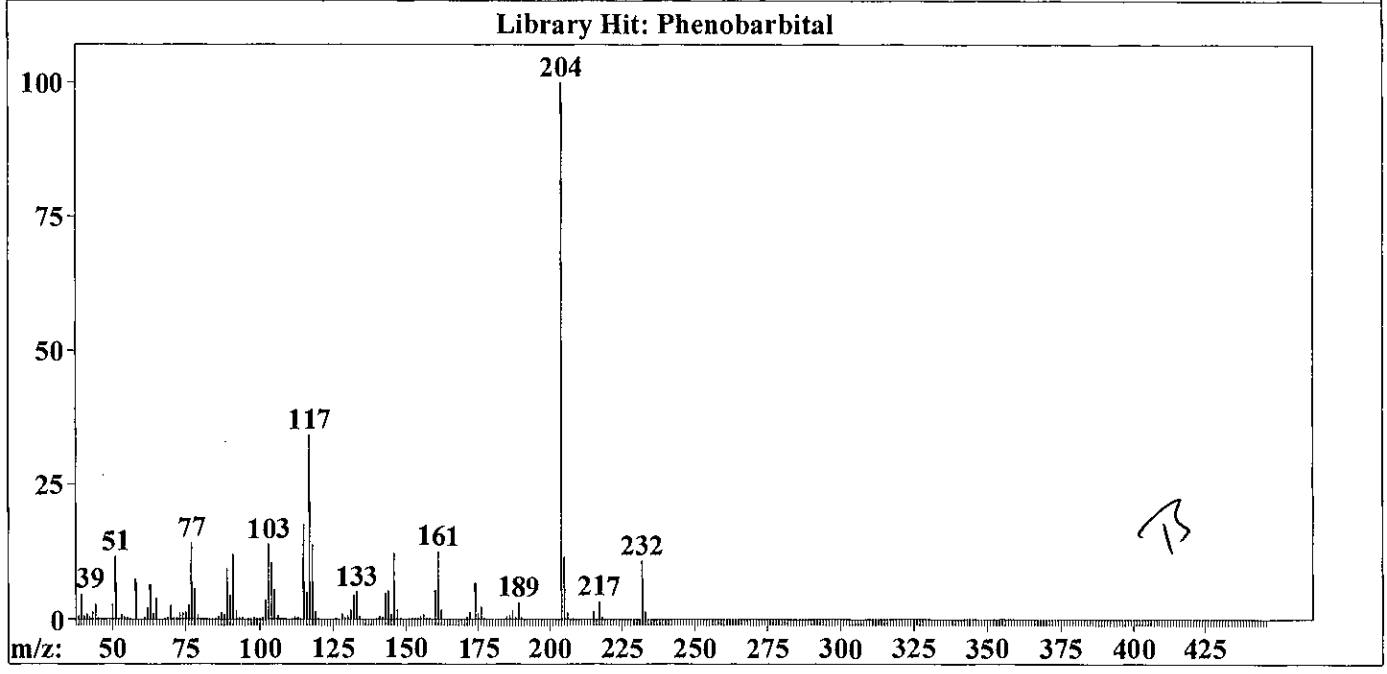






MSD Deconvolution Report
Sample Name: 2018-08618-1.2
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\05_2018_08618.D
Date/Time: 3:02:41 PM Monday, September 24, 2018

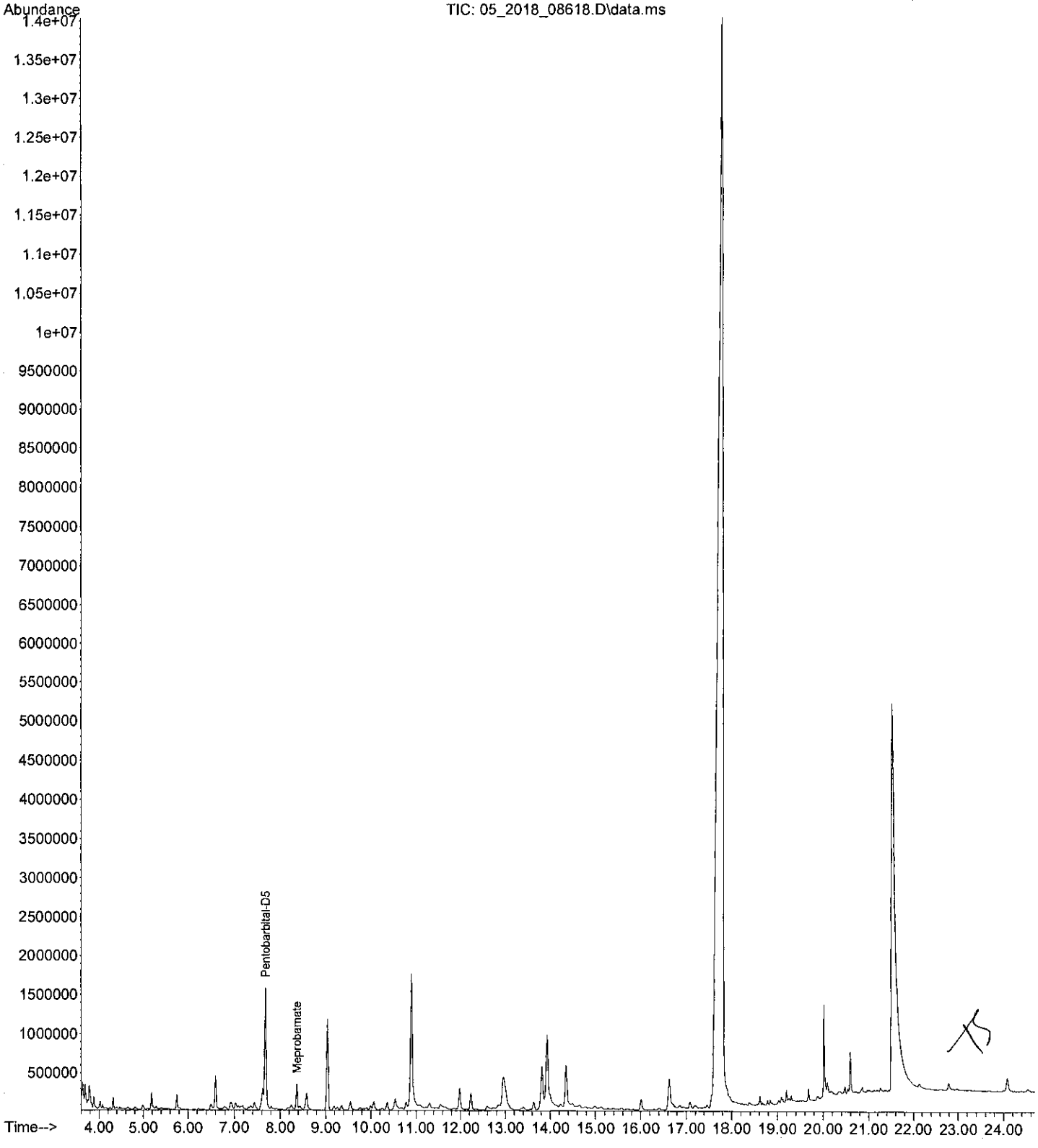
Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

The NIST library was searched for the components that were found in the AMDIS target library.

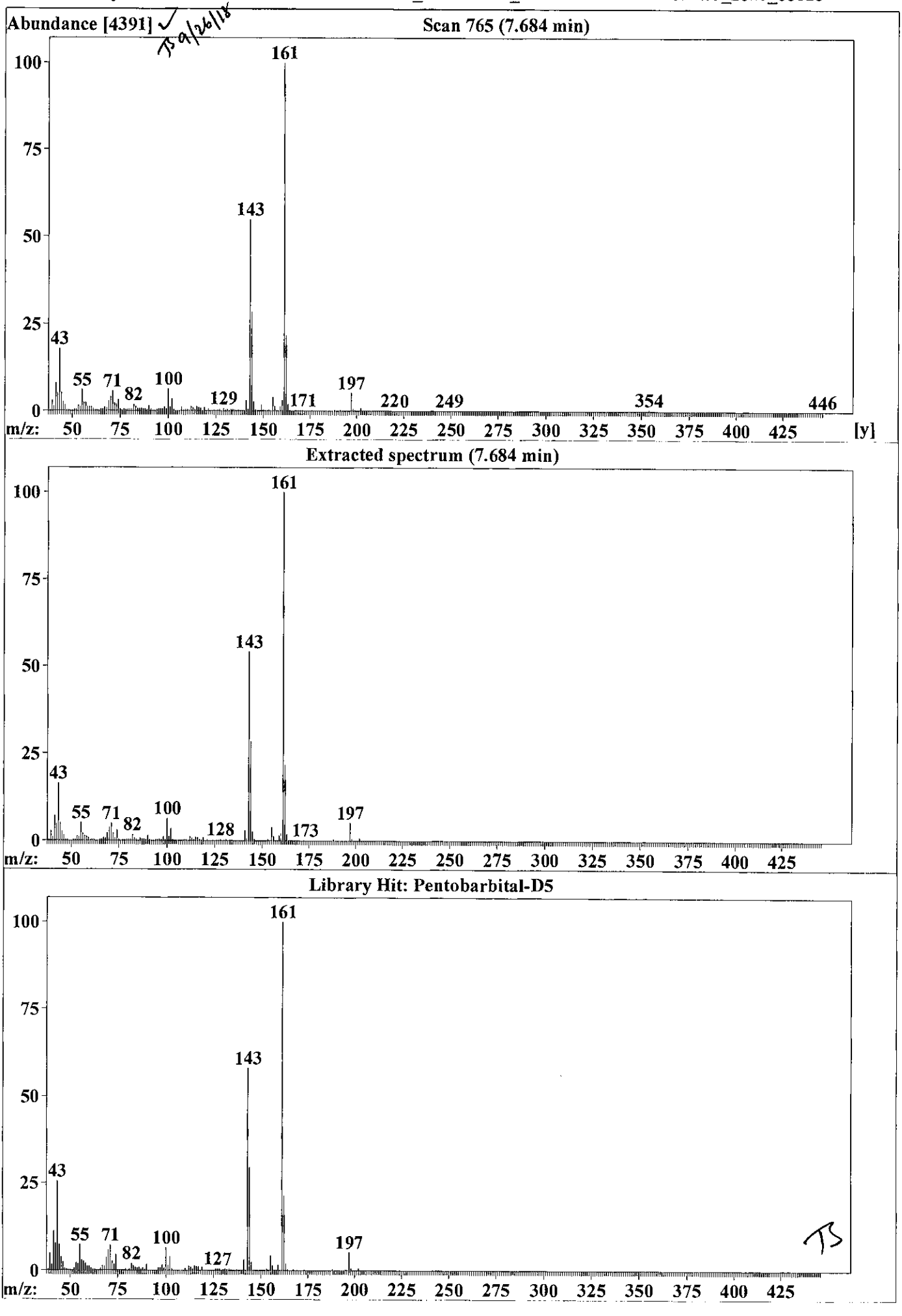
			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
7.6819	52944668	Pentobarbital-D5			99 ✓	0.9		
7.6819	3189488	2-Indolizine, carboxylic acid					64	1
8.3676	57534	Meprobamate			99 ✓	-0.7	93	1
9.7668	78444	Carisoprodol			65 ✓	-2.2	70	1
17.7154	57410	Phenytoin			90	8.6	83	1
7.679		Pentobarbital-D5	1 ✓					
8.369		Meprobamate	274.71					

Meprobamate less than cut off. Sample negative. TS 9/26/18

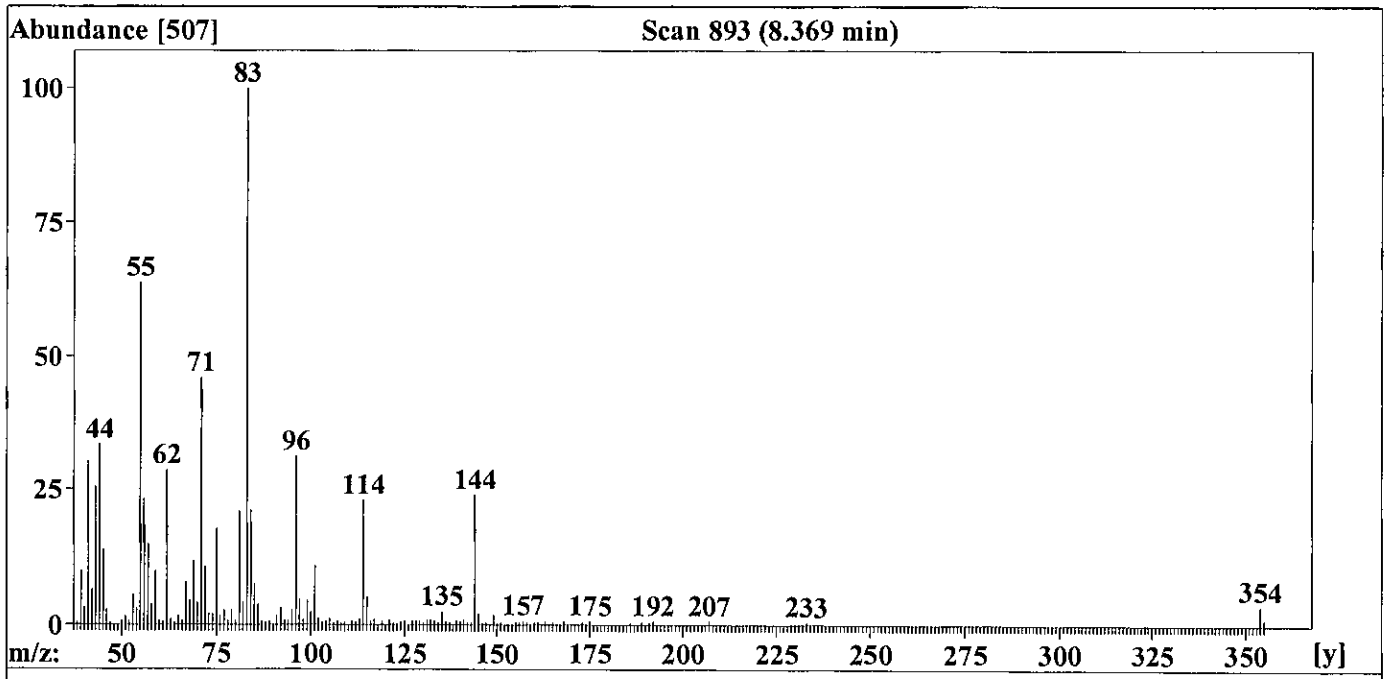
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\05_2018_
... 08618.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 13:42 using AcqMethod QCONFIRM.M
Sample Name: 2018-08618-1.2
Misc Info :

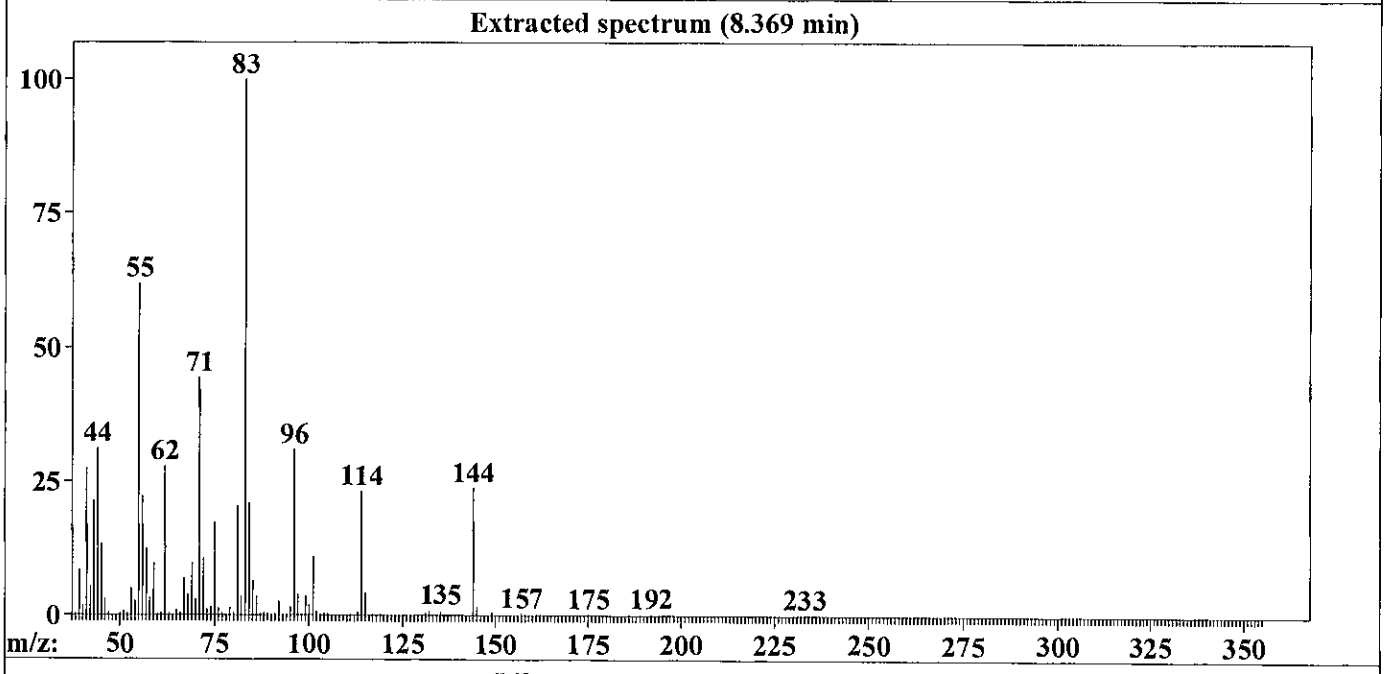


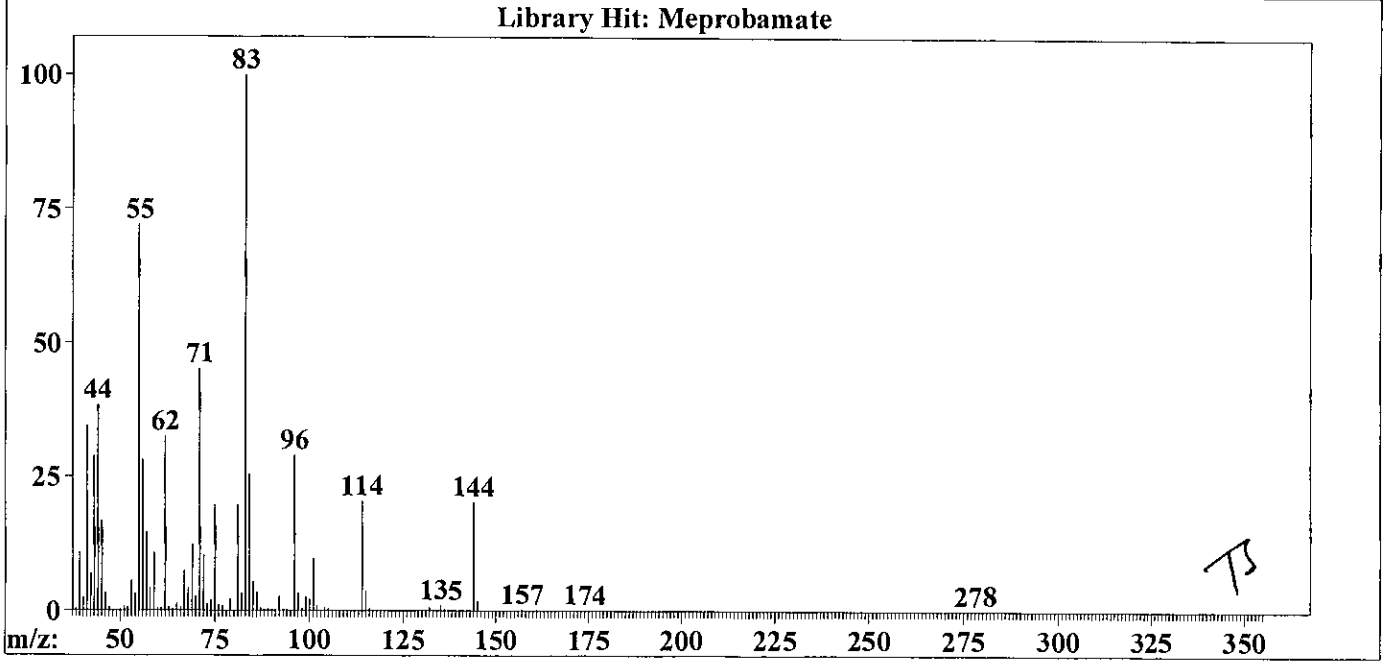
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\05_2018_08618



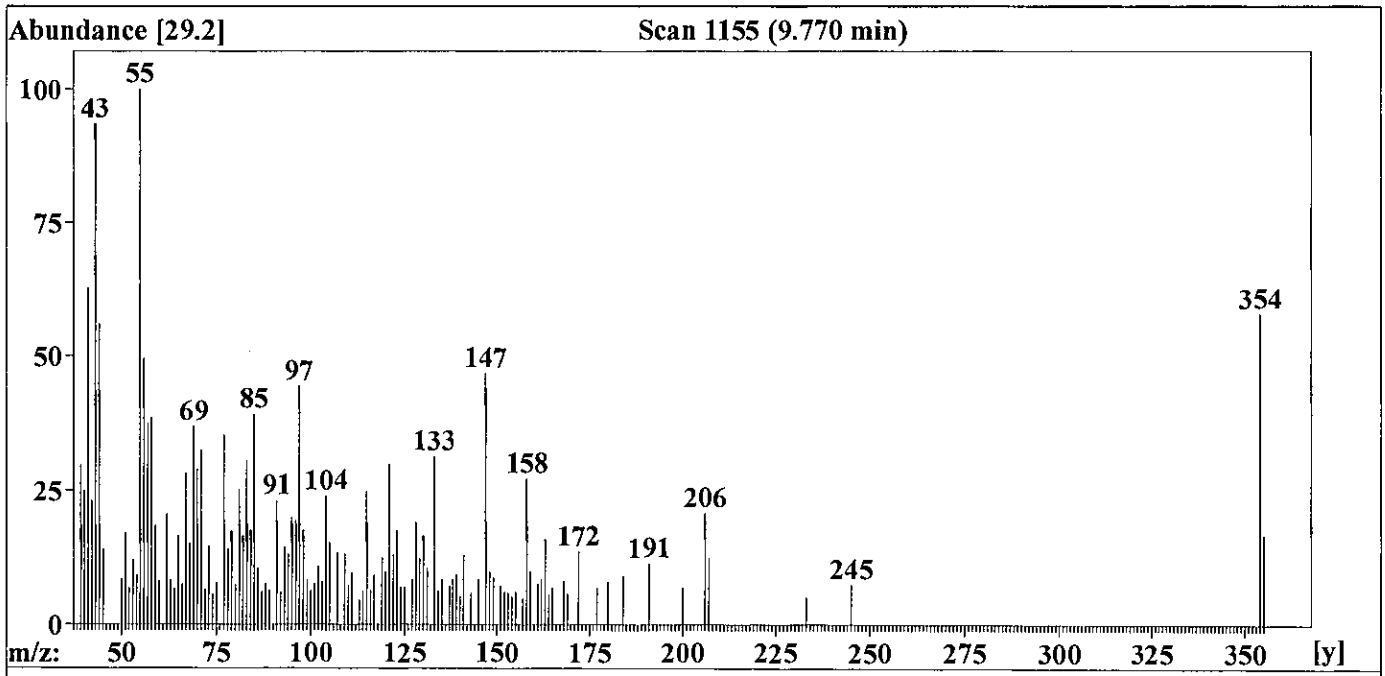
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\05_2018_08618

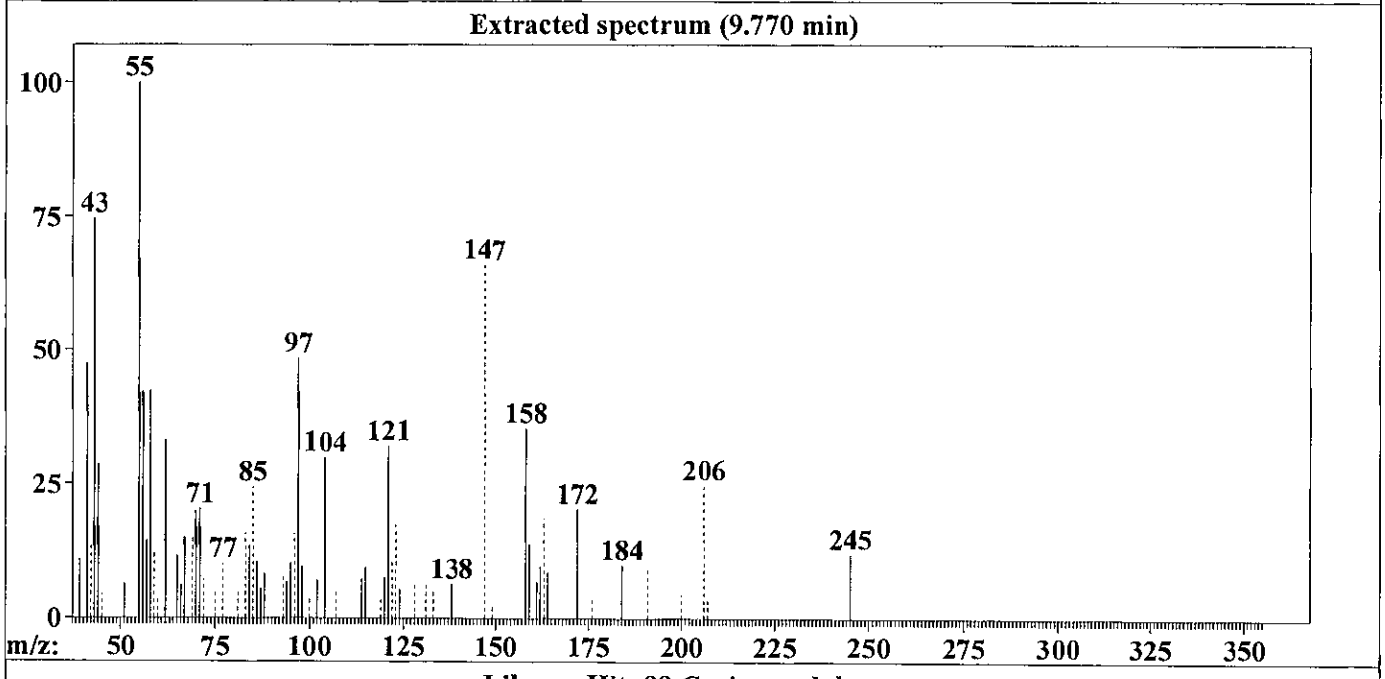


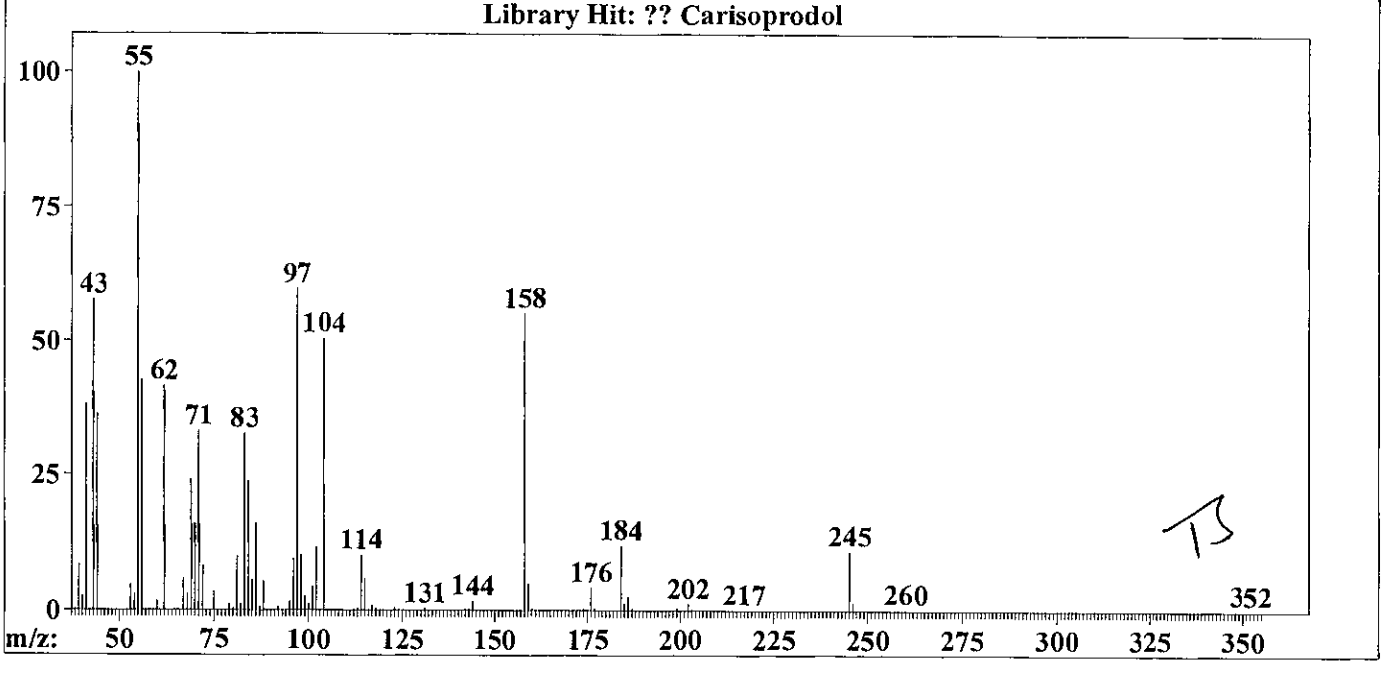




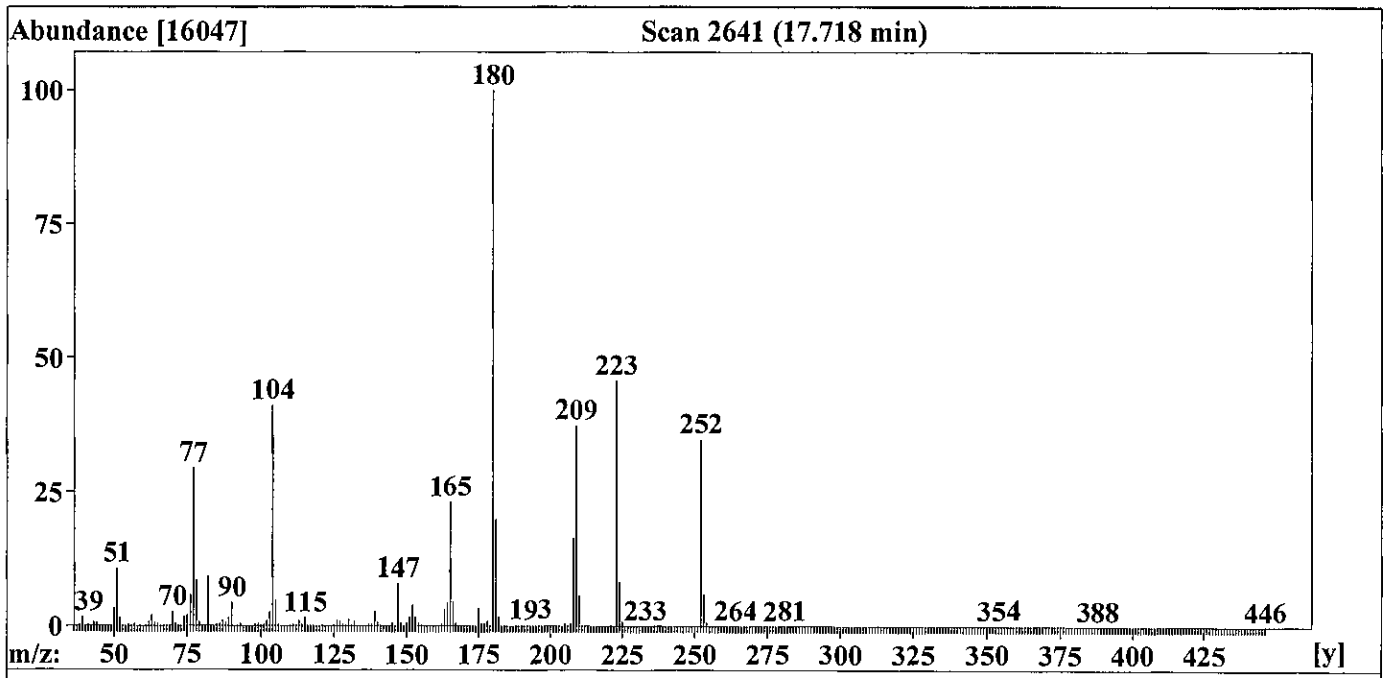
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\05_2018_08618

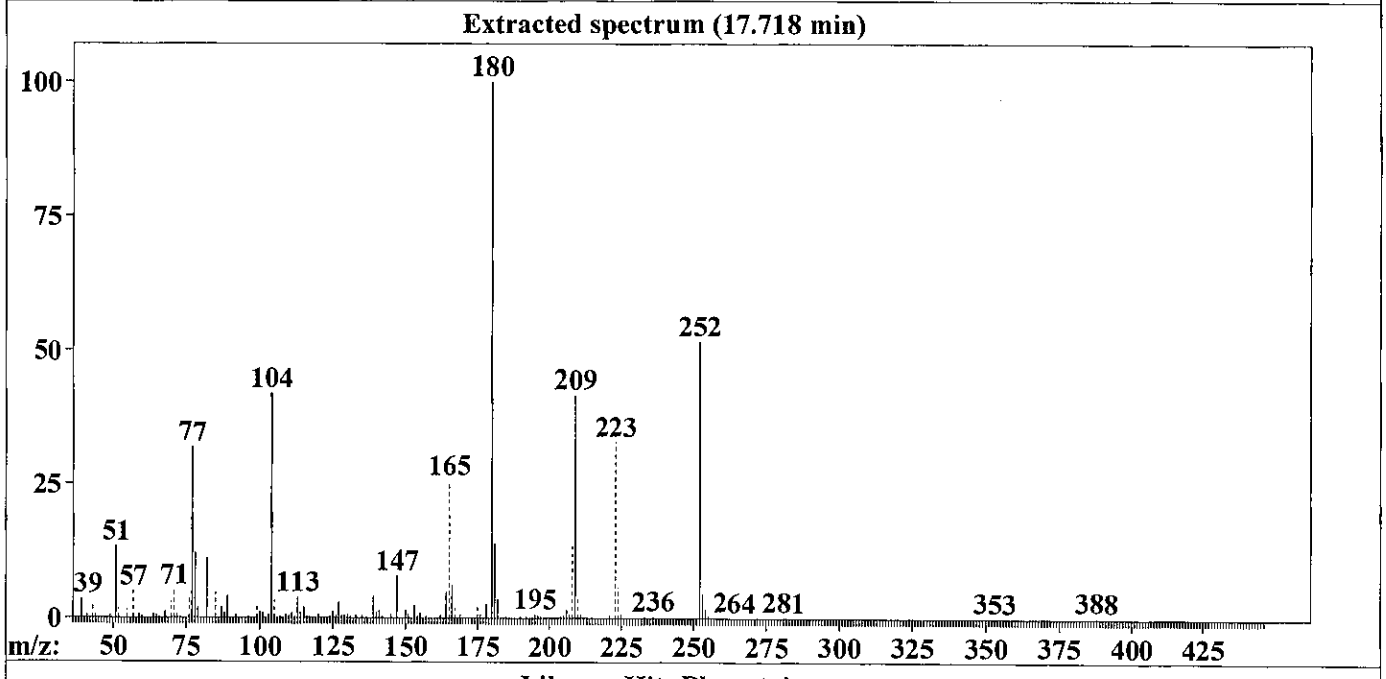


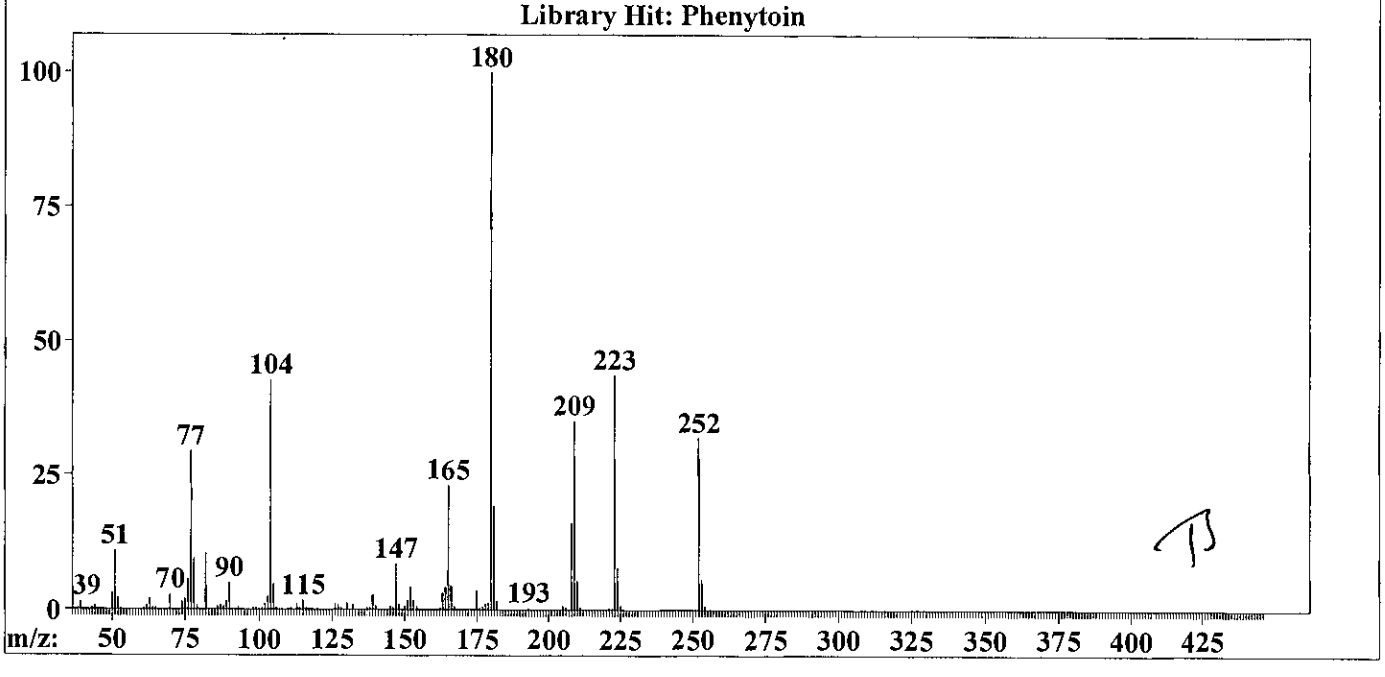




GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\05_2018_08618







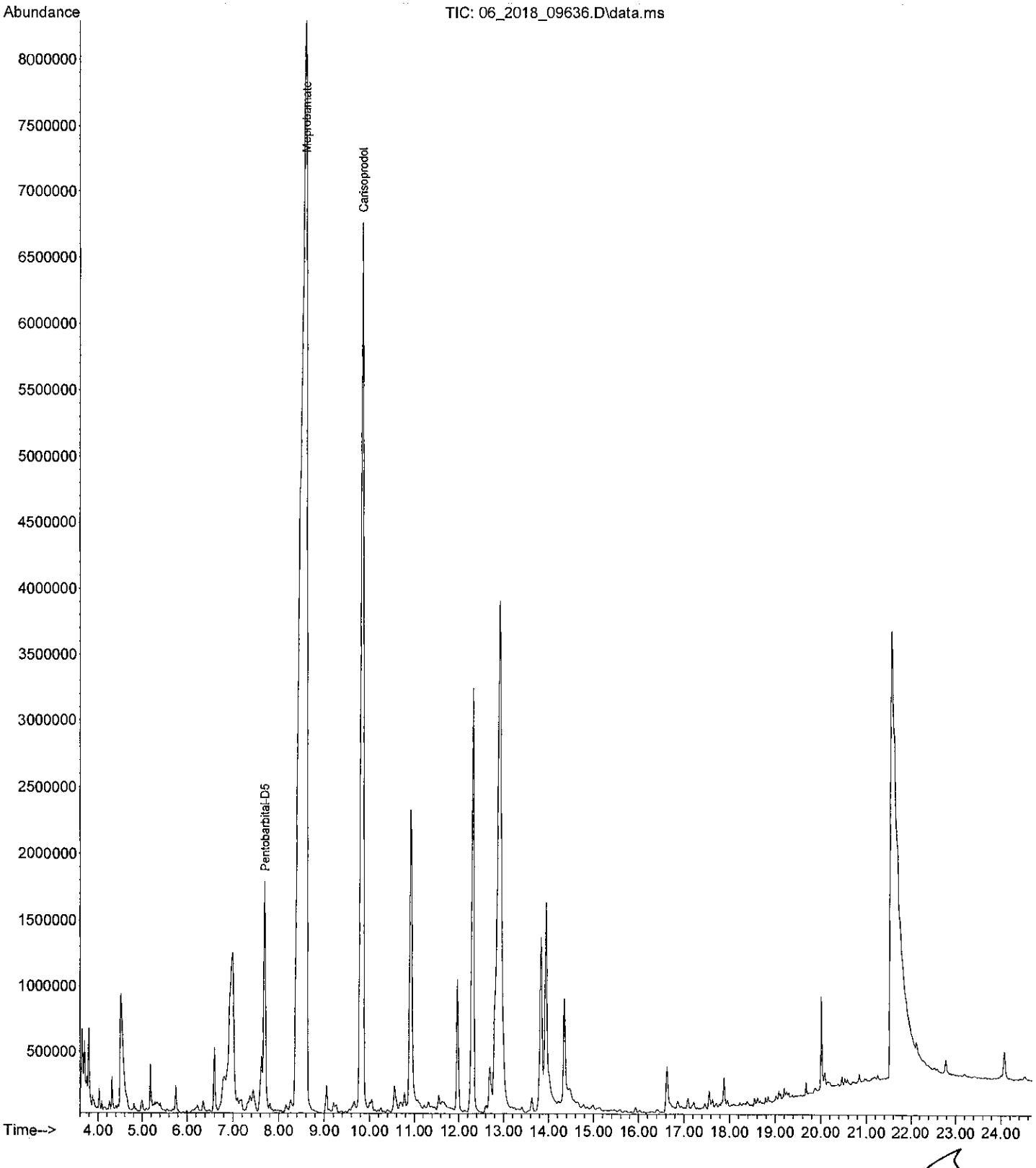
MSD Deconvolution Report
Sample Name: 2018-09636-1.1
Data File: D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\06_2018_09636.D
Date/Time: 3:03:50 PM Monday, September 24, 2018

Adjacent Peak Subtraction = 1
Resolution = Medium
Sensitivity = High
Shape Requirements = Medium

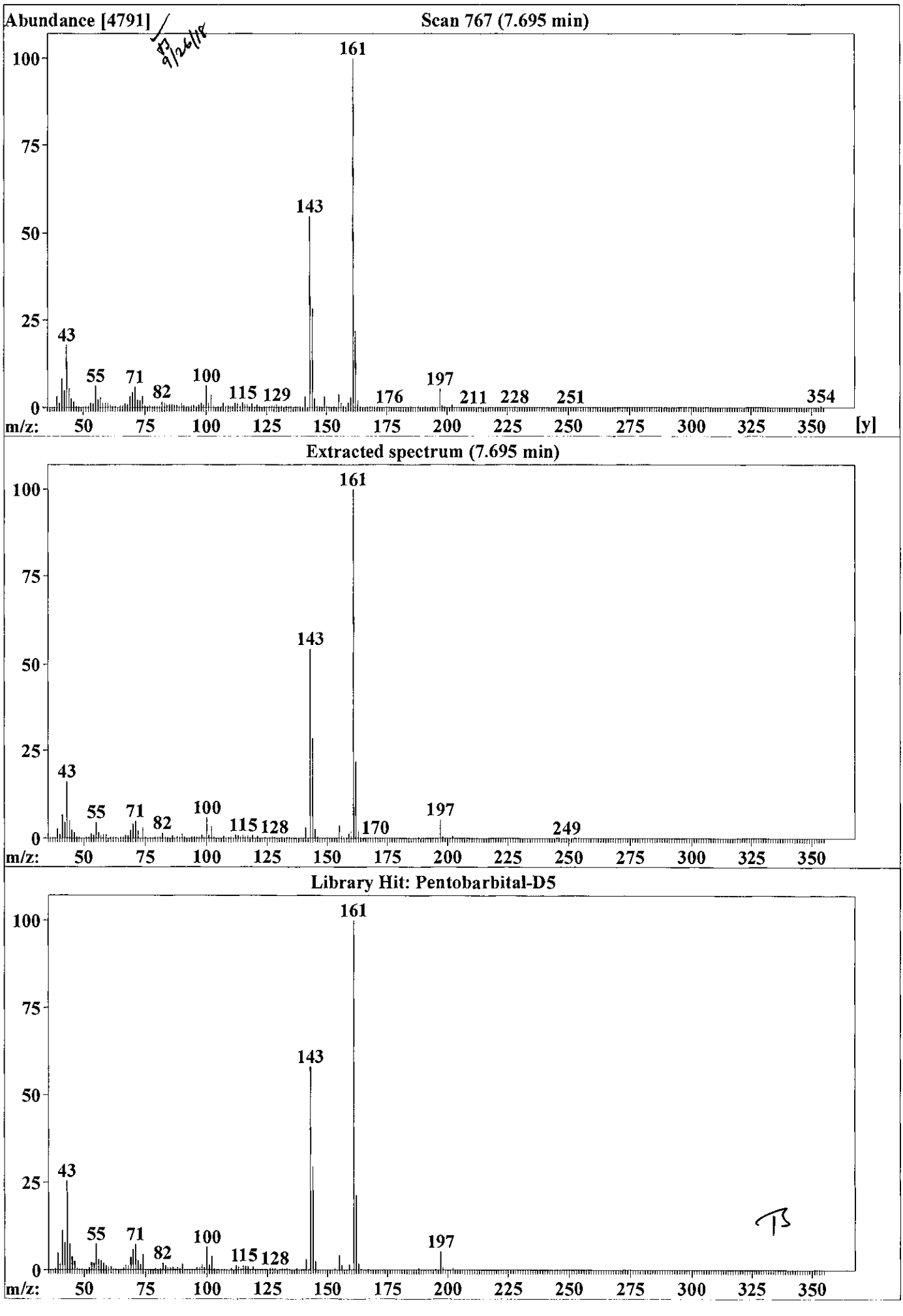
The NIST library was searched for the components that were found in the AMDIS target library.

			Amount (ng/mL)		AMDIS		NIST	
R.T.	Cas #	Compound Name	Chem station	AMDIS	Match	R.T. Diff sec.	Reverse Match	Hit Num.
7.6946	52944668	Pentobarbital-D5			99✓	1.7		
7.6946	3189488	2-Indolizine, carboxylic acid					63	1
8.4776	57534	Meprobamate			96✓	5.6	88	1
9.8661	78444	Carisoprodol			95✓	3.7	93	1
17.6142	57410	Phenytoin			88	2.4	78	2
7.695		Pentobarbital-D5	1 ✓					
8.62		Meprobamate	26546.26 ✓					
9.866		Carisoprodol	7053.9 ✓					

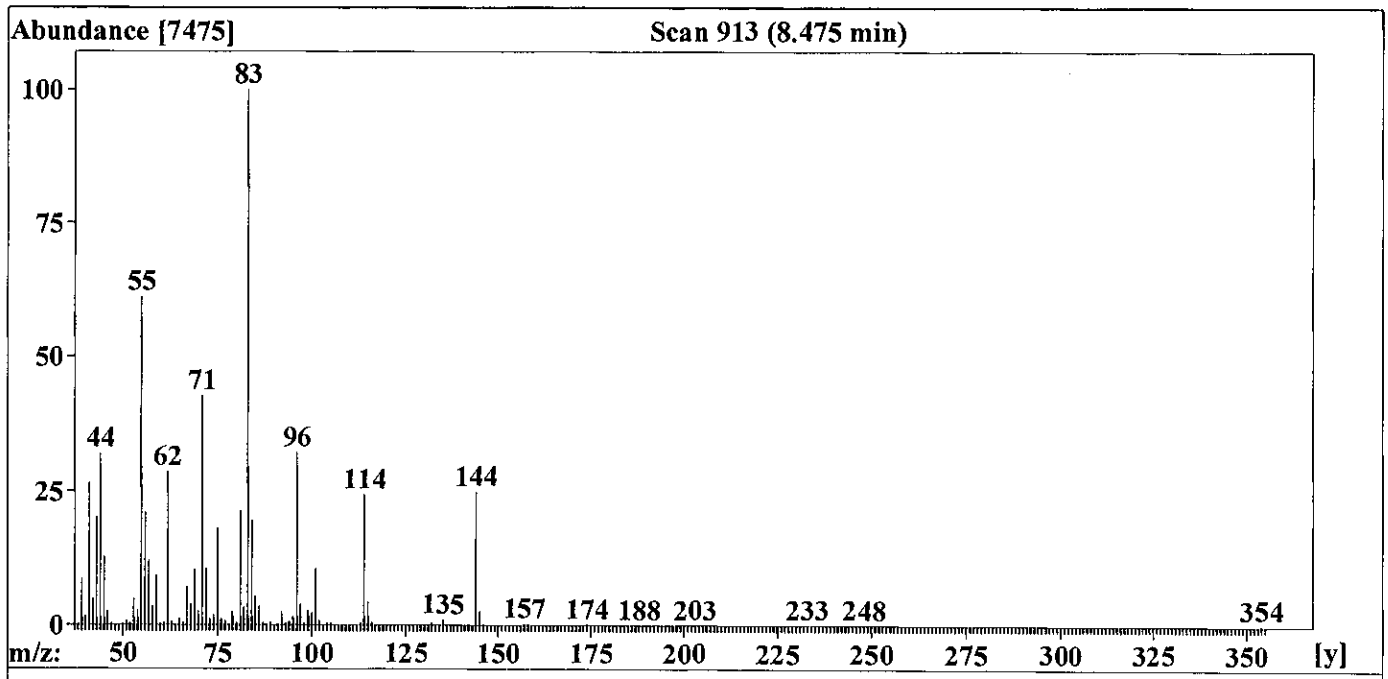
File :D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.b\06_2018_
... 09636.D
Operator : Tanuja Sathiraj
Instrument : GC-MS 4
Acquired : 24 Sep 2018 14:15 using AcqMethod QCONFIRM.M
Sample Name: 2018-09636-1.1
Misc Info :

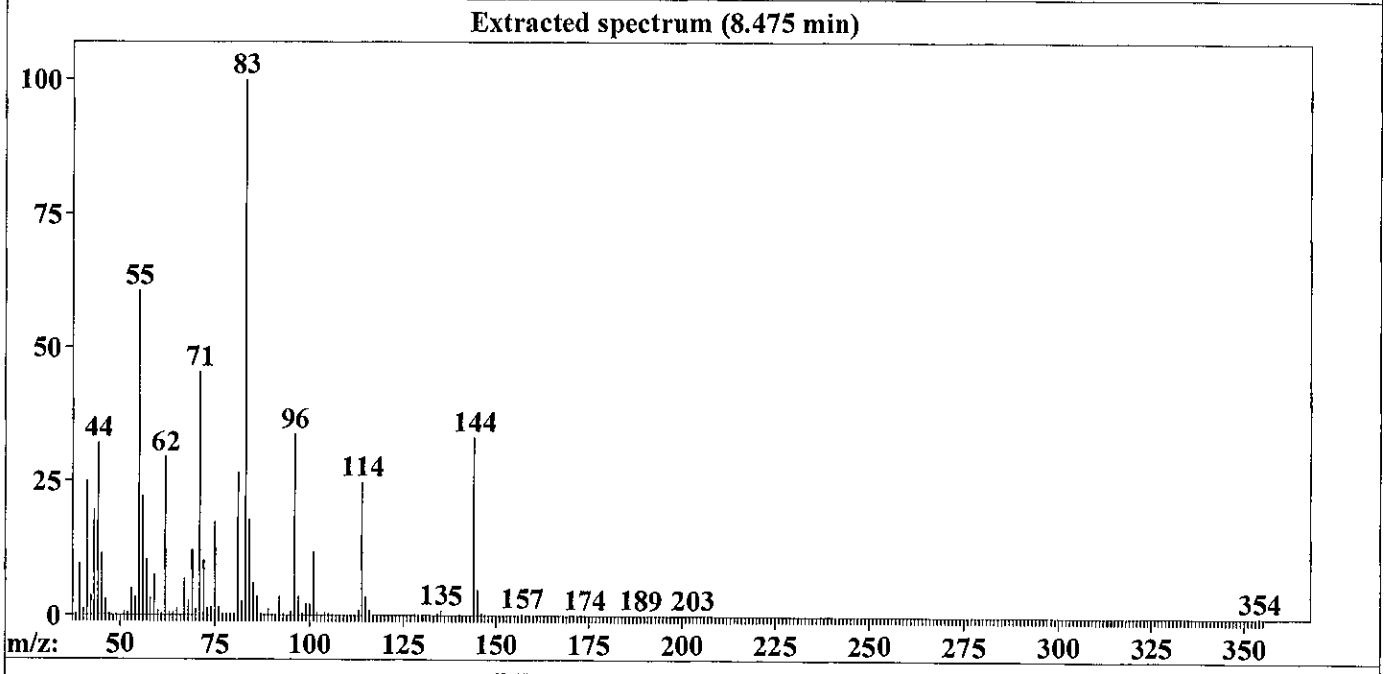


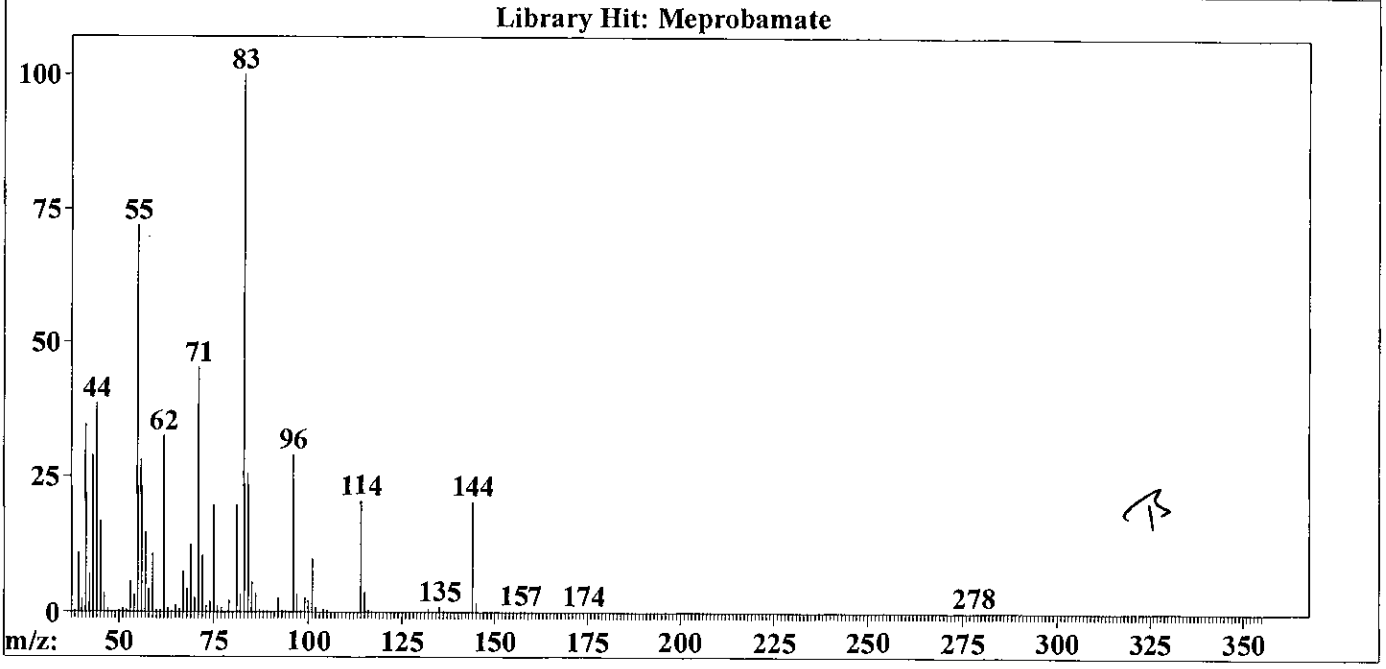
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\06_2018_09636



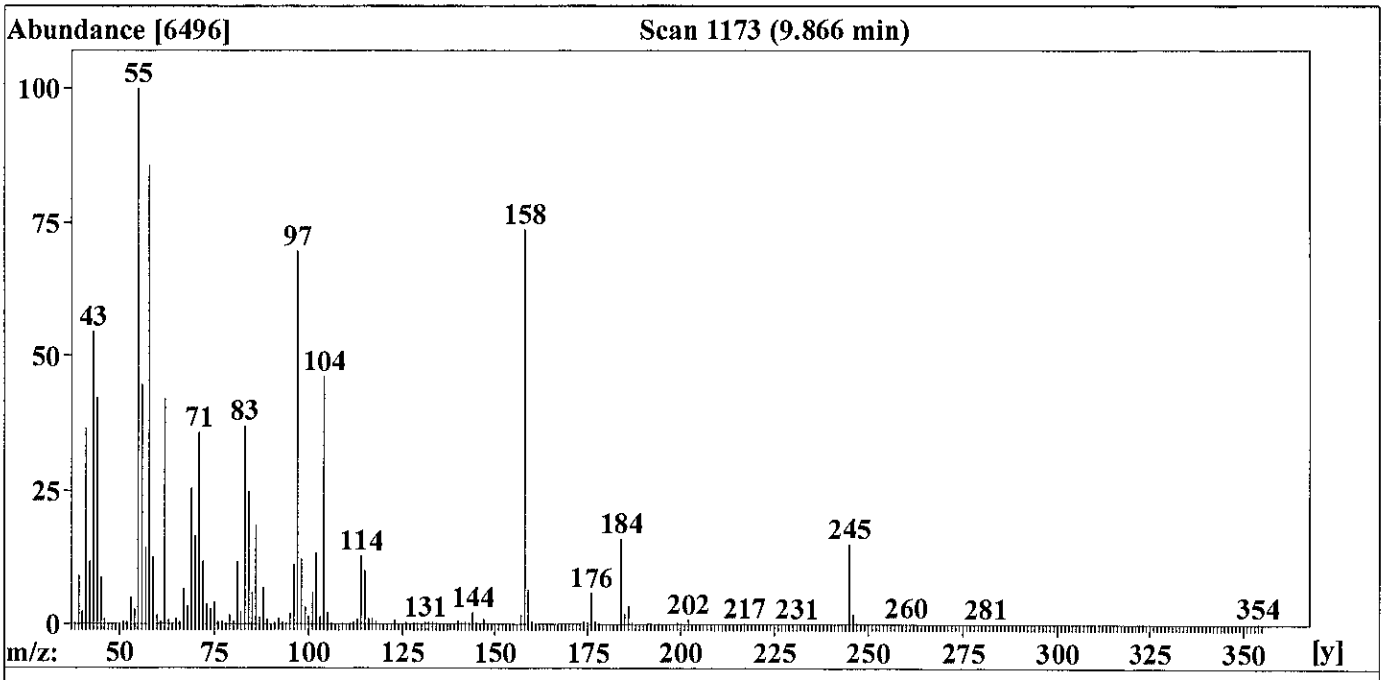
GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\06_2018_09636

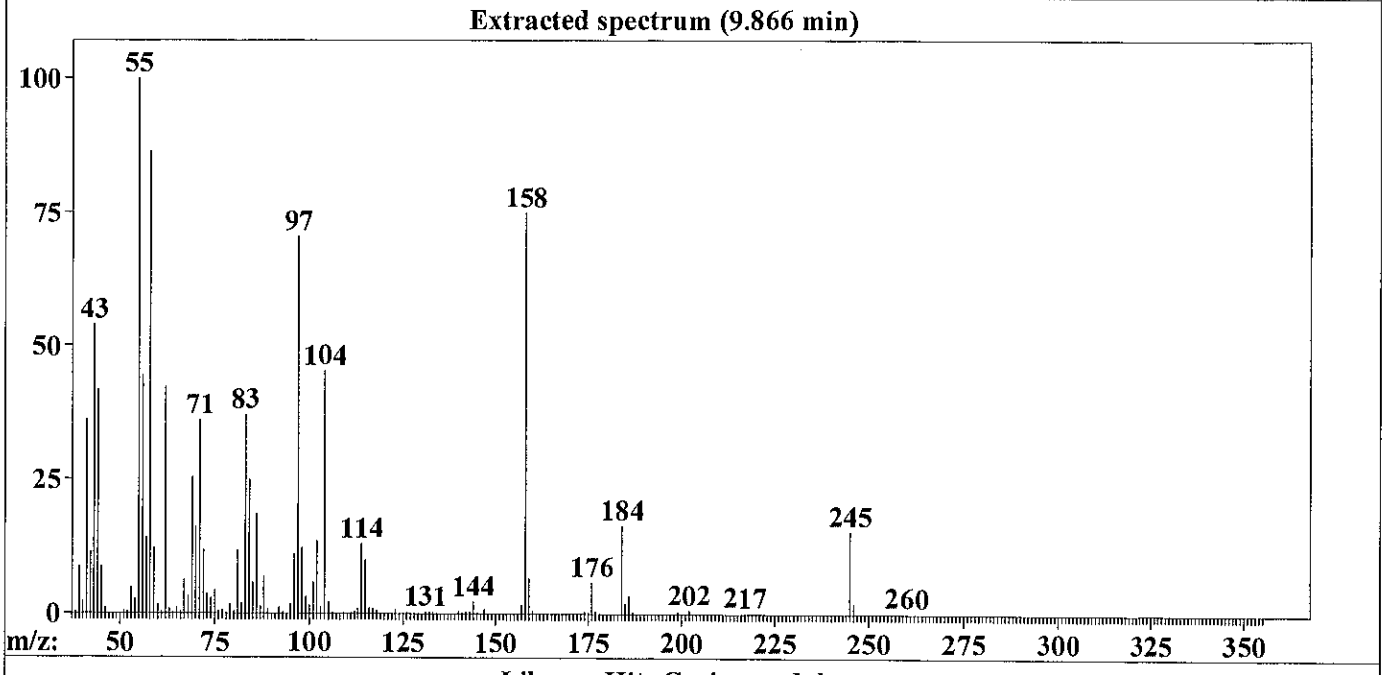


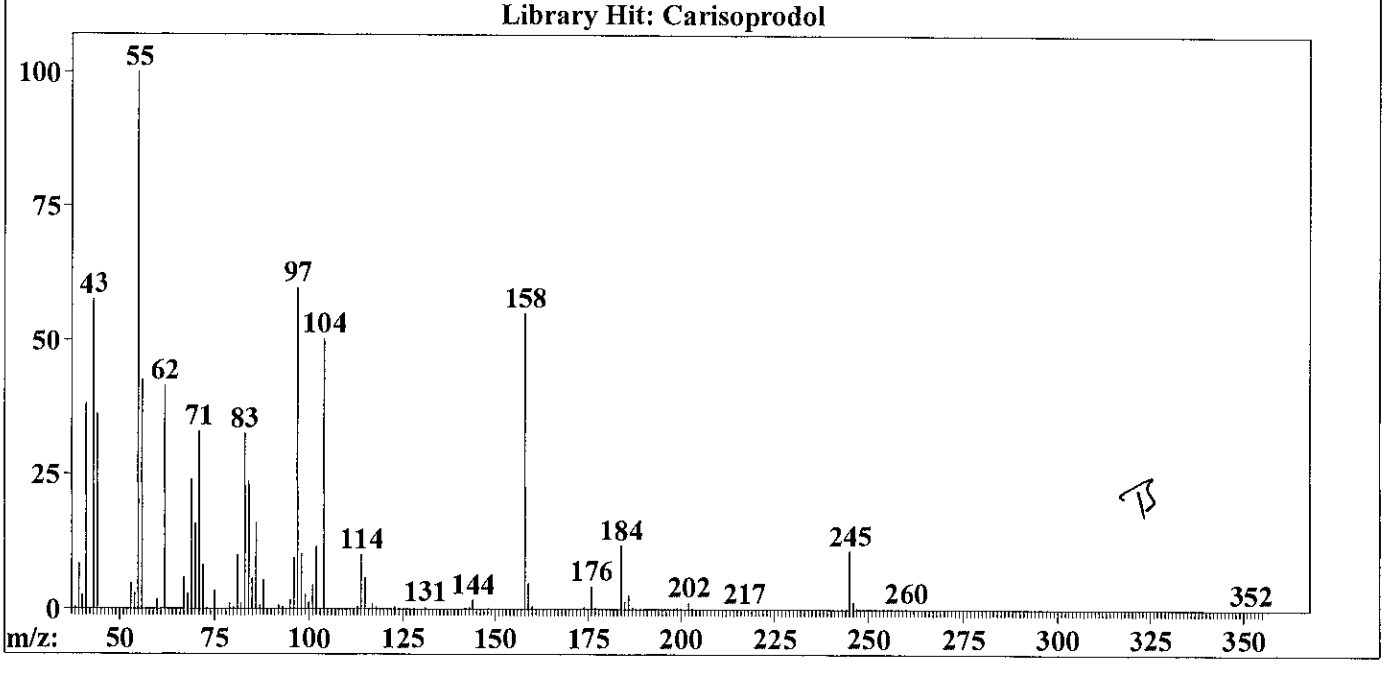




GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\06_2018_09636







GC/MS Analysis - Data:D:\DATA\2018\AND\AND_20180924B_TS\2018-09-24-1128.B\06_2018_09636