

TBI-Forensic Services Division

Quality System Risk Assessment

Risk Assessment Code: RA-FC GCIR Heroin and Morphine Limit of Detection 4-3-24
RA-Unit-Issue-Date

Assessed By: Brett Trotter Date: 3-12-25 to 4-3-25

Issue to Assess: GCIR sensitivity on PTV and non PTV inlets for Heroin and Morphine

Laboratory/Discipline: Nashville / Forensic Chemistry

Policy Referenced: FCU SOP Chapter 22 - GC / IR

Evaluation of Potential Risk:

We have noticed heroin, morphine, and potentially other opioid compounds have varying instrument responses on PTV and non PTV inlet GC/IRs. The results seem to vary based on inlet maintenance schedule and sample concentration.

Potential Impact on Quality System: High

Proposed Plan (list RCA and/or CAR codes if they were initiated):

Known concentrations and extractions of heroin and morphine were run on both PTV and non PTV GC/IRs and there results were compared to GC/MS results. This study will give analysts information based on the results of their GC/MS data whether or not GC/IR is appropriate and which inlet might yield the best results.

Plan Assigned to: Lela Jackson Date: 3/12/2025

Plan Accepted: Yes

Unit Supervisor: Rebecca Hernandez

Technical Leader: Brett Trotter

SAFS Manager: Glenn B. Everett

IT Manager (if applicable):

Regional Administrator: Jennifer Hall (Apr 3, 2025 11:39 CDT)

Quality Assurance Manager: Chad Johnson

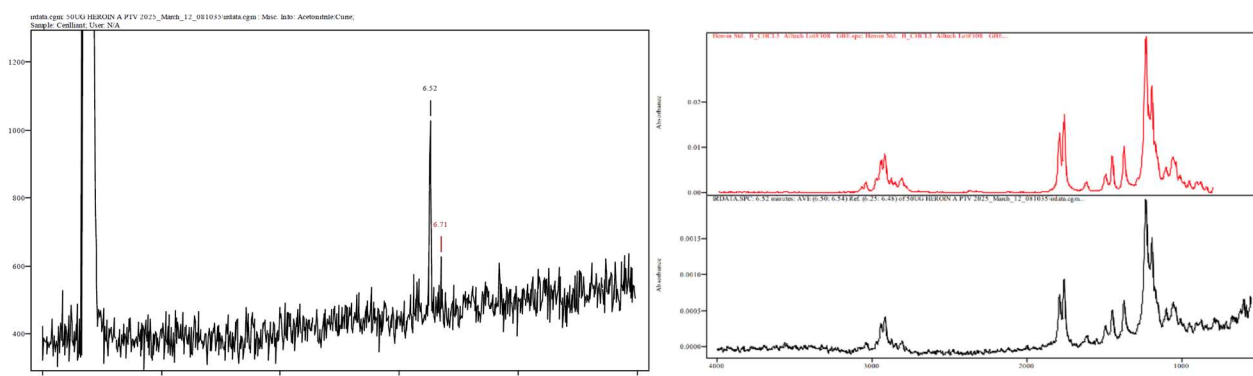
TBI LOD Study (Heroin and Morphine)

Introduction

During casework the Forensic Chemistry Unit has noticed that some drugs exhibit a poor response on the GCIR's with PTV inlets compared to the GCIR's without PTV inlets. Of particular interest are certain drugs within the opioid subclass. We have noticed that sample peaks that have a relatively strong abundance and exhibit a defined spectrum on the GCMS will sometimes not be detected on the PTV GCIRs. Given that this has routinely been observed a Limit of detection study was carried out. Since we have seen this observed between the opioid subclass of drugs, heroin and morphine were studied. All sample concentrations were run concurrently on the GCMS, PTV GCIR, and non-PTV GCIR. Sample concentrations were run at 1000 ug/ml, 800 ug/ml, 600 ug/ml, 400 ug/ml, 200 ug/ml, 150 ug/ml, 100 ug/ml, 50 ug/ml, and 25 ug/ml. For all substances tested, initial concentrations of 1000 ug/ml, 800 ug/ml, 600 ug/ml, 400 ug/ml, and 200 ug/ml were evaluated and injections of 1ul was performed. Based on the data that was obtained and evaluated from those results, lower concentrations were tested. Since the area of interest is what levels of heroin and morphine might appear on the PTV GCIRs and non PTV GCIRs vs what is on the GCMS, the results listed will compare those values.

Heroin vs Heroin

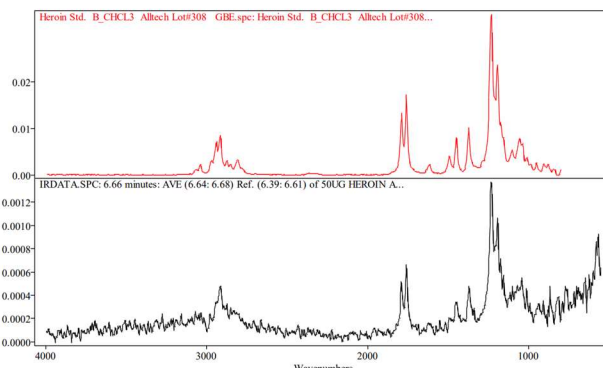
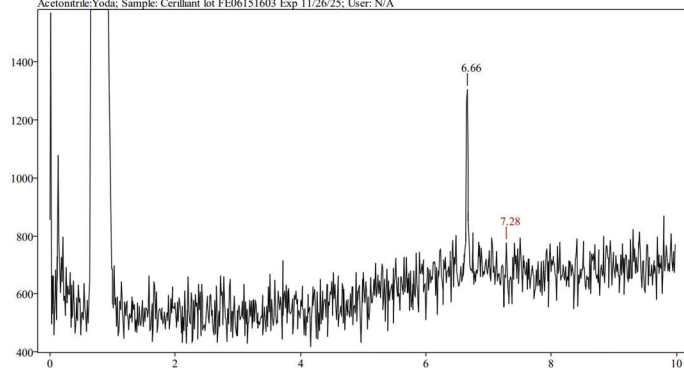
Two heroin standards were used, one heroin standard was made using saturated sodium bicarbonate into chloroform at 1 mg/ml since this extraction was the most common in case work. The other standard was obtained from Cerilliant and was made in acetonitrile at a concentration of 1 mg/ml also. The heroin standard out of acetonitrile displayed a peak with a concentration as low as 50 ug/ml. Below 25 ug/ml there was no considerable peak on either GCIR.



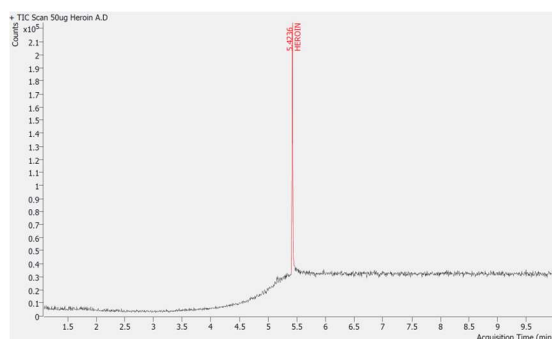
50 ug/ml Heroin acetonitrile PTV GCIR

TBI LOD Study (Heroin and Morphine)

irdata.cgm: 50UG HEROIN A 2025_March_13_050055irdata.cgm : Misc. Info:
Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



50 ug/ml Heroin acetonitrile non-PTV GCIR

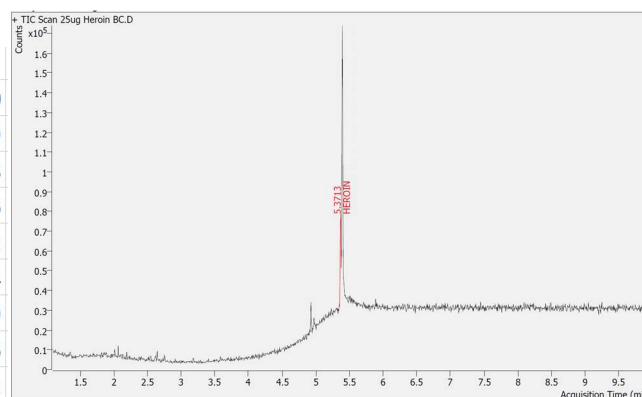


Concentration ug/ml	Area	non-PTV	PTV
25	101139.7	0	0
50	205599.8	25.6	18.8
100	480328.6	54.2	36.5
150	1164136.9	86.1	54.8
200	955739.9	123.8	96.2
400	3706966.8	297.3	178.3
600	8706808.8	431	267.6
800	14801050.9	603.8	311.8
1000	21364843.4	777.7	492.1

Interestingly enough, the PTV heroin acetonitrile spectrum resembled the heroin standard better than the non PTV sample even though the area of the non PTV Heroin sample was greater.

At the same concentration, the heroin solution made in saturated sodium bicarbonate then extracted into chloroform (for simplicity this extraction will be referred to as the chloroform extraction) had a slightly greater response. A peak was apparent in concentrations as low as 25 ug/ml with some qualifications.

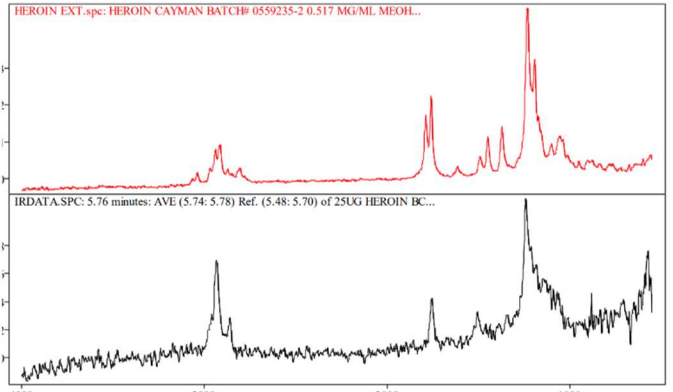
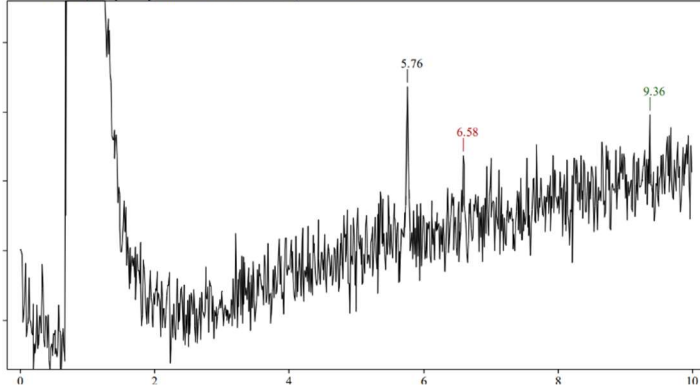
Concentration ug/ml	GCMS	non-PTV	PTV
25	41241.7	11.9	0
50	461714.6	71.9	36.9
100	789144.1	87.8	52.8
150	3163206.9	302.2	125.6
200	1857263.7	175.1	127.2
400	6916630.9	424.9	343.4
600	14132953.3	683.3	512.9
800	21983437.2	936.7	706.6
1000	27569843.6	1171.6	734.2



At 25 ug/ml, the heroin in chloroform extraction displayed an extra peak which could have been due to potential breakdown, this was present until the concentration of 100 ug/ml. After 100 ug/ml the extra peak does go away. There was a slight peak in the 25 ug/ml concentration of the non PTV GCIR, but the peak was not resolved enough to provide usable data. Below are those results.

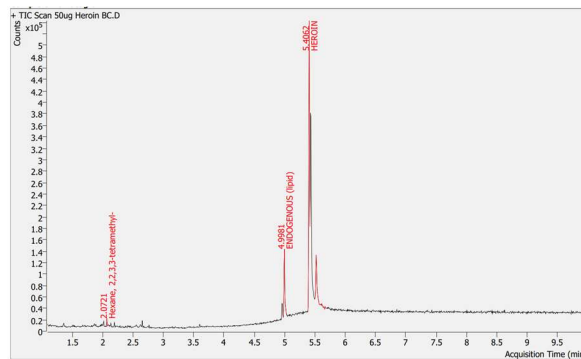
TBI LOD Study (Heroin and Morphine)

irdata.cgm: 25UG HEROIN BC 2025_March_13_055158\irdata.cgm : Misc. Info: Bicarb
 --> CHCB\Yoda; Sample: Cayman Chemical lot 0559235-2; User: N/A



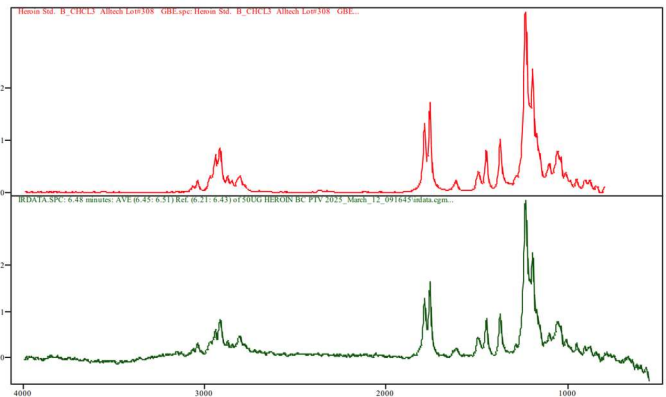
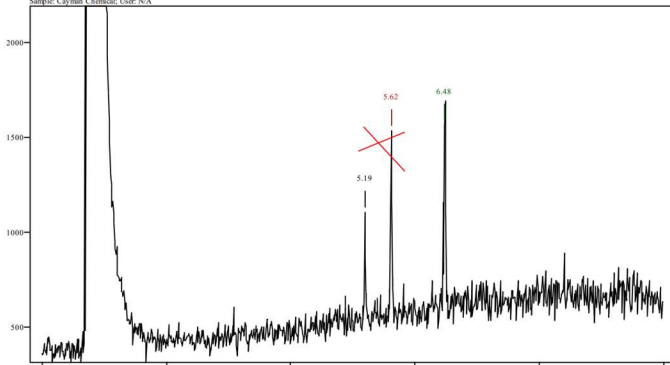
25 ug/ml Heroin chloroform extraction non PTV GCIR

There was better resolution for the 50 ug/ml heroin chloroform concentration compared to the 25 ug/ml concentration. Please note, as referenced previously, there was still an extra peak in the GCMS spectrum. However, unlike the heroin acetonitrile 50 ug/ml dilution, there was also an extra peak in both GCIRs.



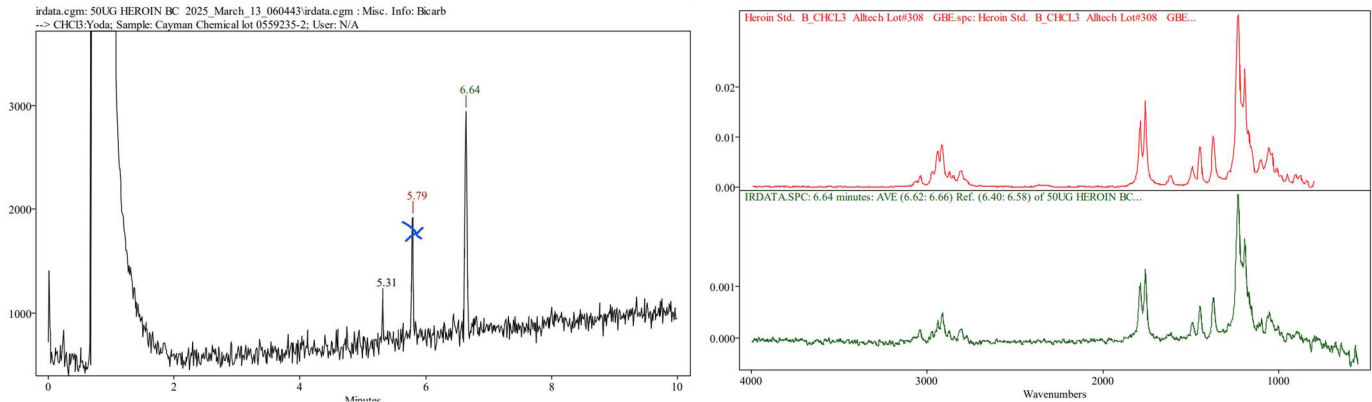
50 ug/ml Heroin chloroform extraction

irdata.cgm: 50UG HEROIN BC PTV 2025_March_12_091645\irdata.cgm : Misc. Info: Bicarb -> CHCB\Conte;
 Sample: Cayman Chemical; User: N/A



50 ug/ml Heroin Chloroform PTV GCIR

TBI LOD Study (Heroin and Morphine)

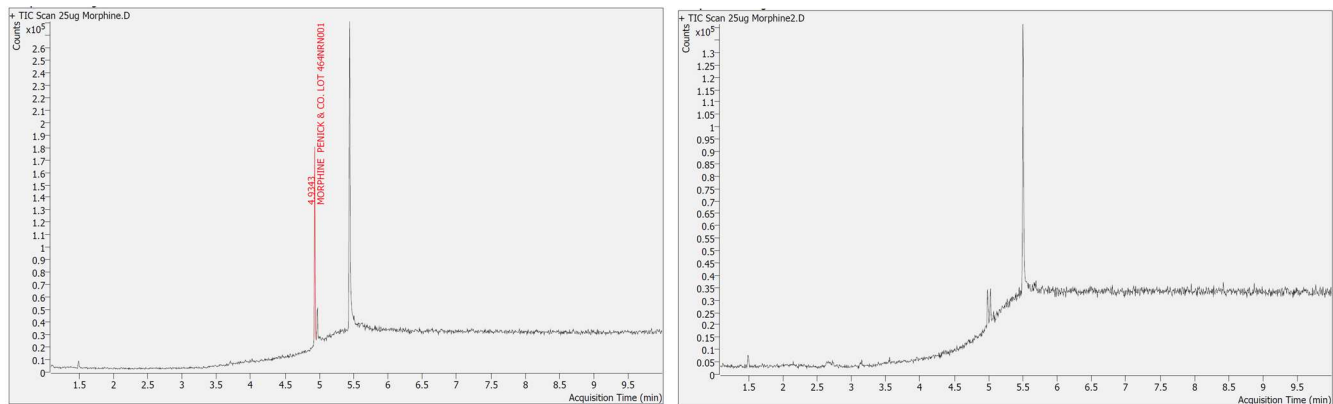


50 ug/ ml Heroin Chloroform non PTV GCIR

Heroin appears to be detected on the GCIRs in either solution at a minimum concentration of 50 ug/ml.

Morphine

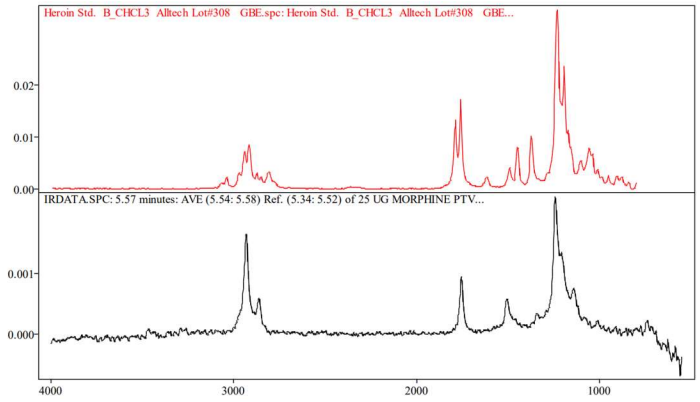
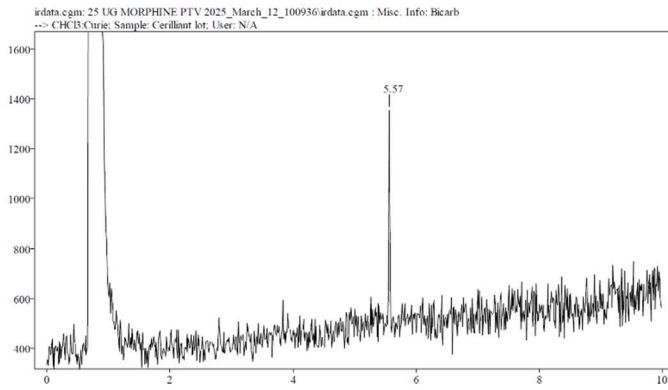
Morphine was another drug that was studied by GCMS, PTV GCIR, and non-PTV GCIR. All morphine dilutions were run in methanol. When the lower concentrations were analyzed, the results were inconsistent. Lower concentration dilutions were made two times amid inconsistent results, even at a concentration of 25 ug/ml on the GCMS. There was also an extra peak in the GCMS extractions until a concentration of 200 ug/ml.



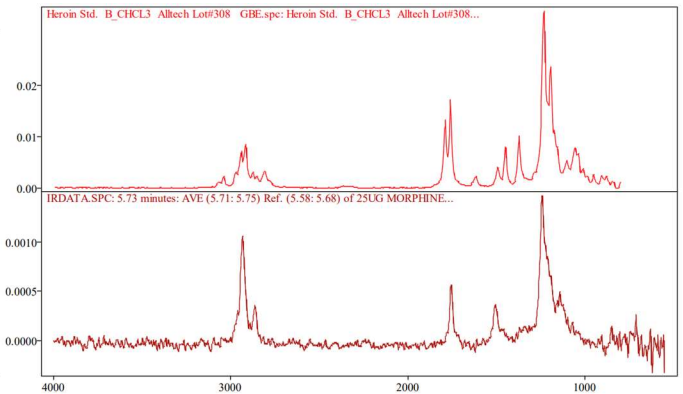
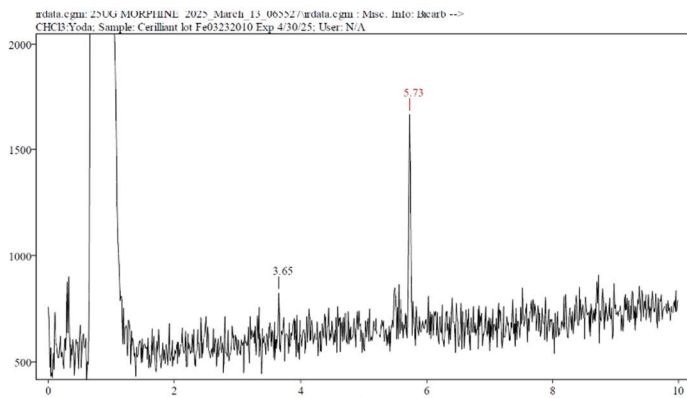
25 ug/ml Morphine GCMS

There were peaks in the 25 ug/ml dilutions of both GCIRs. However, those peaks did not show a significant comparison to the morphine standard.

TBI LOD Study (Heroin and Morphine)

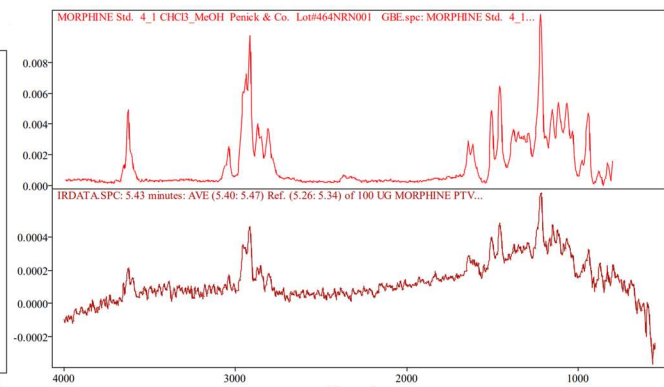
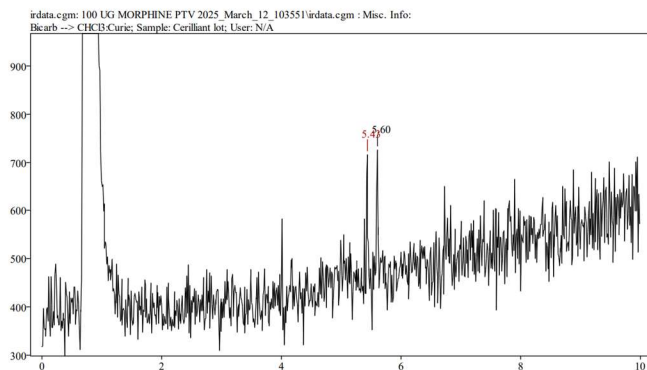


25 ug/ml morphine PTV GCIR



25 ug/ml morphine non PTV GCIR

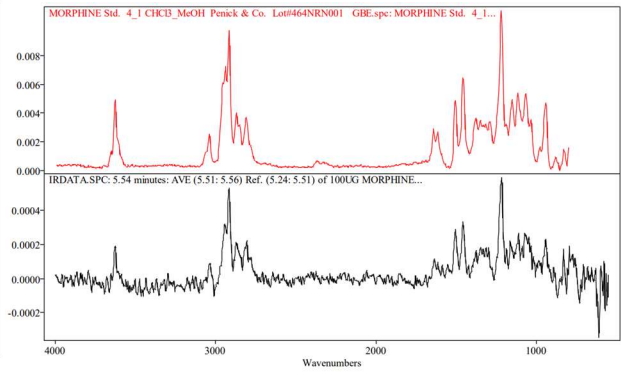
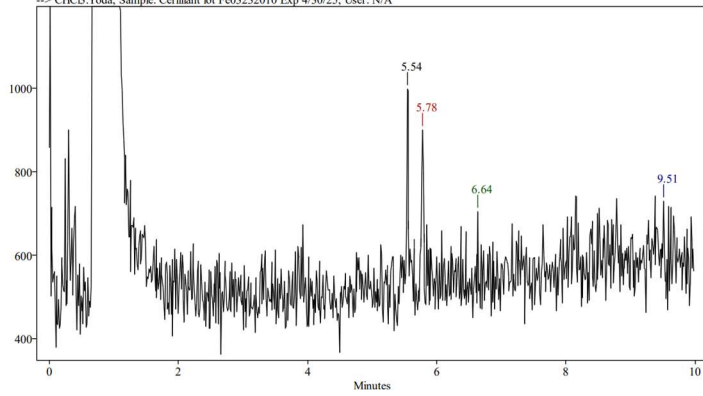
The morphine did not match when compared to the TBI GCIR library until 100 ug/ml, and that match was relatively weak both on the PTV and non PTV GCIRs.



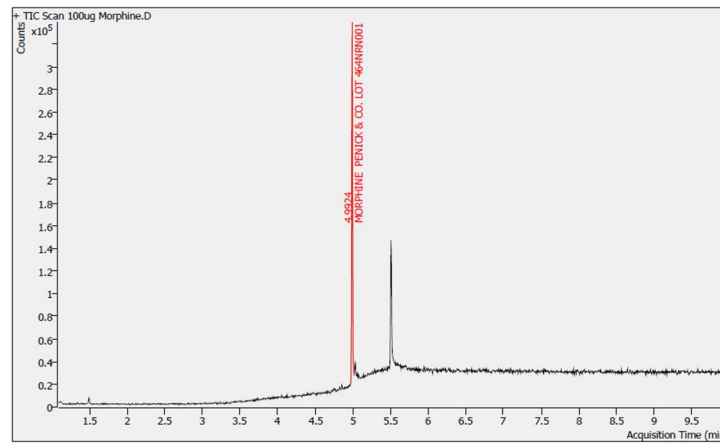
100 ug/ml Morphine PTV GCIR

TBI LOD Study (Heroin and Morphine)

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--> CHCB:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



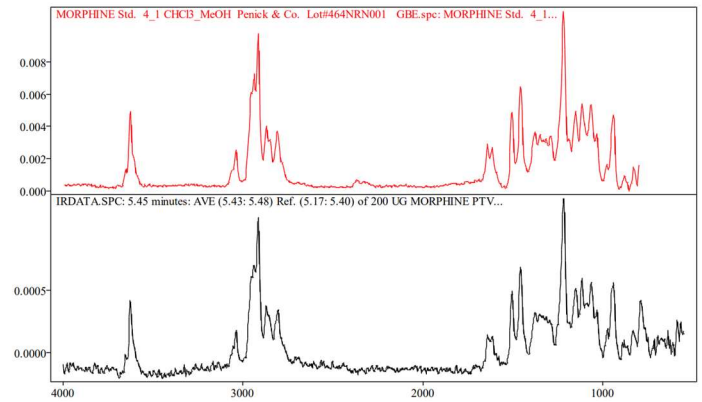
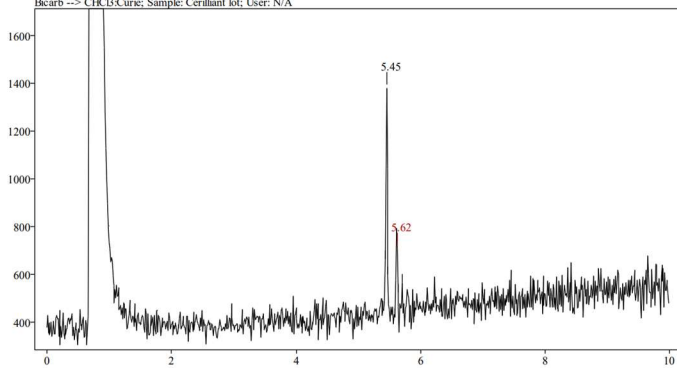
100 ug/ml morphine non PTV GCIR



100 ug/ml morphine GCMS

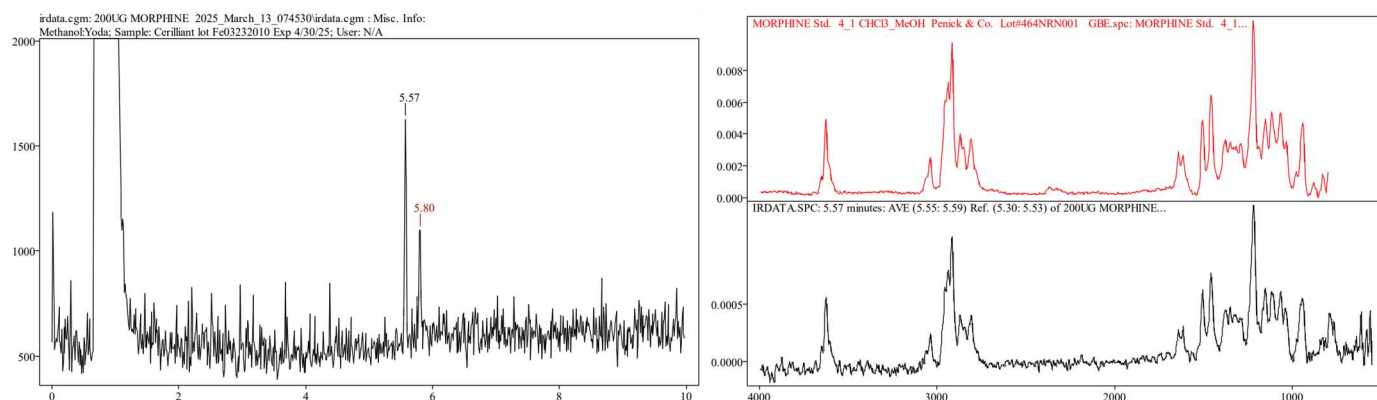
At 200 ug/ml both the PTV and the non PTV GCIR yielded comparable results.

irdata.cgm: 200 UG MORPHINE PTV 2025 March 12 110143\irdata.cgm : Misc. Info: Bicarb --> CHCB:Curie; Sample: Cerilliant lot; User: N/A



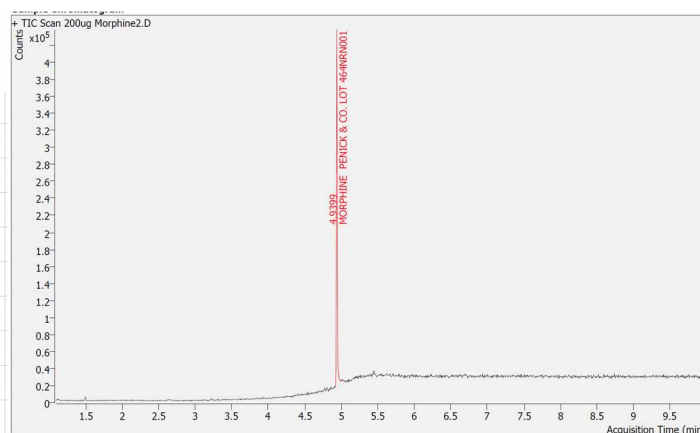
200 ug/ml Morphine PTV GCIR

TBI LOD Study (Heroin and Morphine)



200 ug/ml Morphine non PTV GCIR

Concentration ug/ml	GCMS	non-PTV	PTV
25	120810.1	0	0
50	57765.3	0	0
100	170715.2	13.3	3.13
150	275818.4	11.5	9.2
200	346735.5	27.6	19.73
400	1188290.7	63.8	68.5
600	3110388.3	113	117
800	3846425.5	157.5	174.4
1000	9107566.5	111.7	176.2



200 ug/ml Morphine

The response by the GCIRs differed greatly from that of the GCMS. The Limit of Detection for Morphine on the GCIRs to obtain a comparable match against the library is about 200 ug/ml.

Conclusion

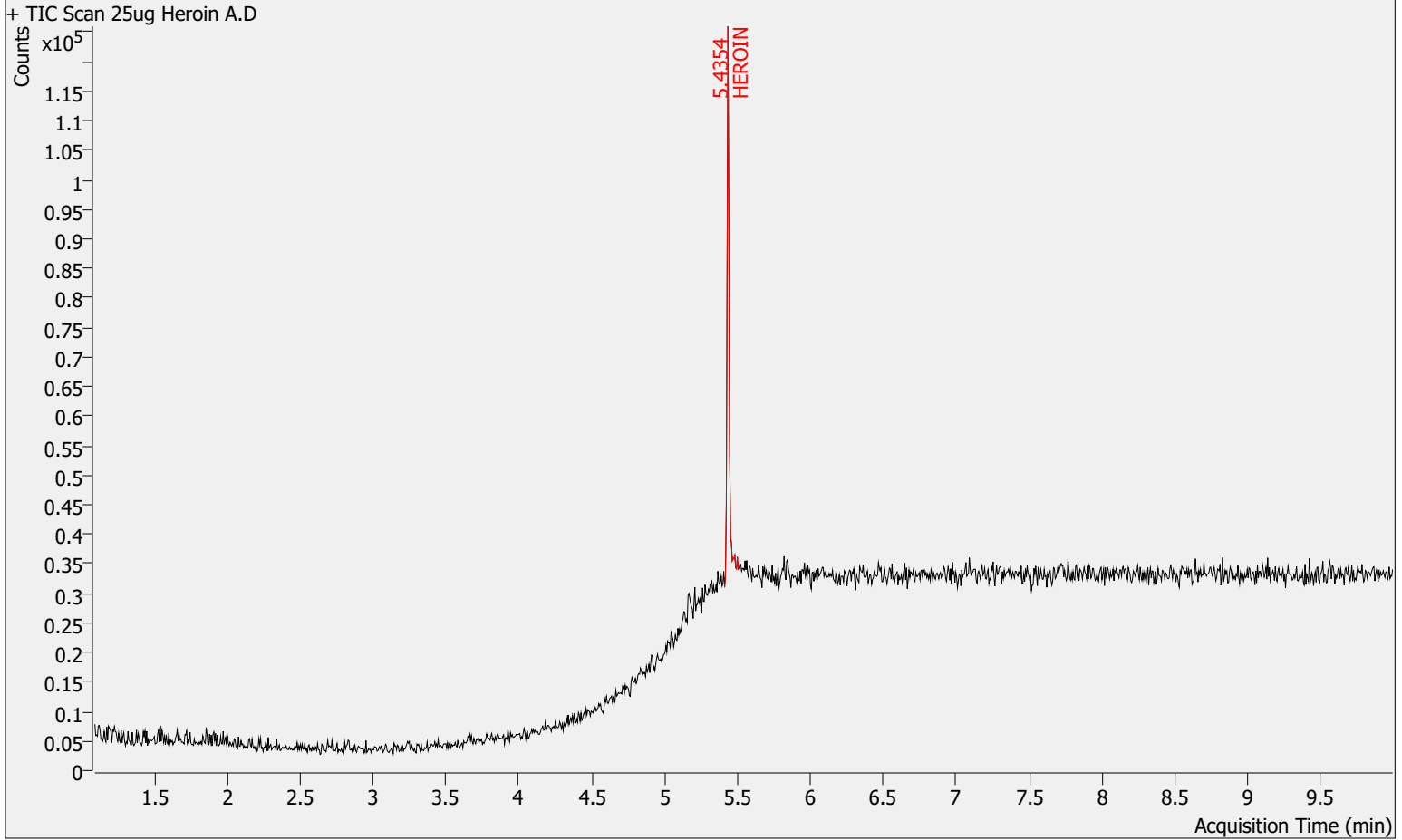
Based on the data obtained and evaluated from this Limit of Detection study, Heroin and Morphine behave differently on the GCIRs even though they are in the same class of drugs. GCIRs were more sensitive to heroin than morphine, and if examined even further, the acetonitrile extraction of heroin is the most stable and has a greater response. Additionally, there did not appear to be a significant difference between the PTV and the non PTV responses for either heroin or morphine. This study was done on new liners. Dirty liners or other inlet conditions could negatively impact these instruments sensitivity and the analyst may need to consider inlet maintenance if there is a noticeable decrease in the expected instrument response.

Heroin Acetonitrile

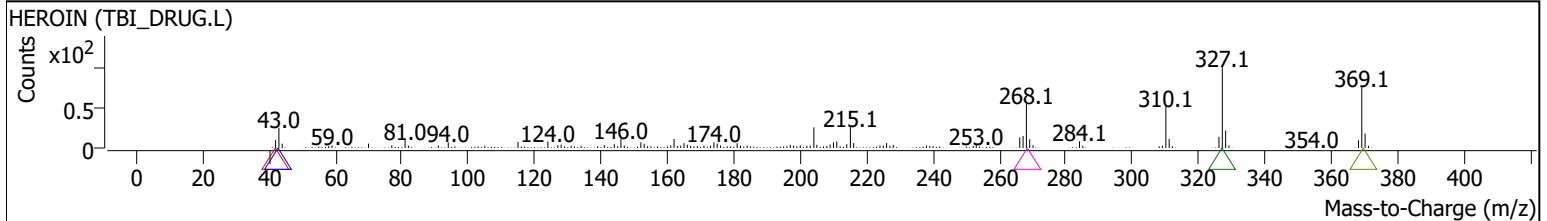
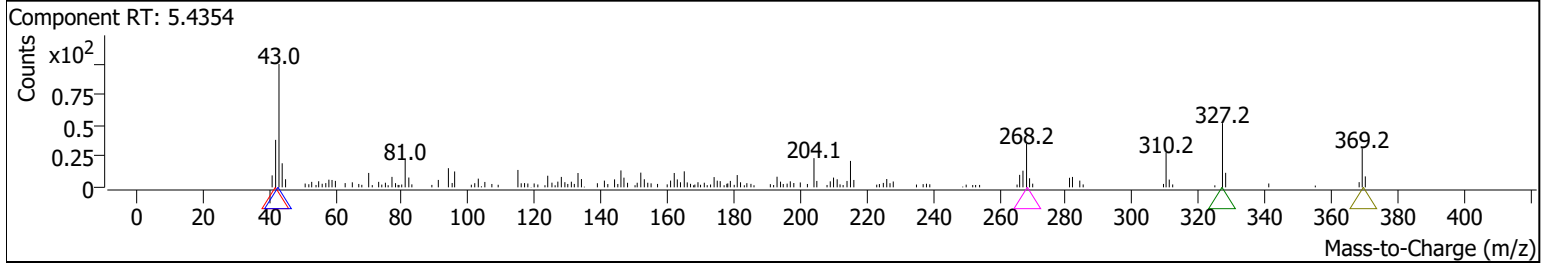
TBI Forensic Chemistry Report

File Name	25ug Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 8:31:41 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	3

Sample Chromatogram



Compound Name	Component Area	Component RT
HEROIN	101139.734979417	5.4

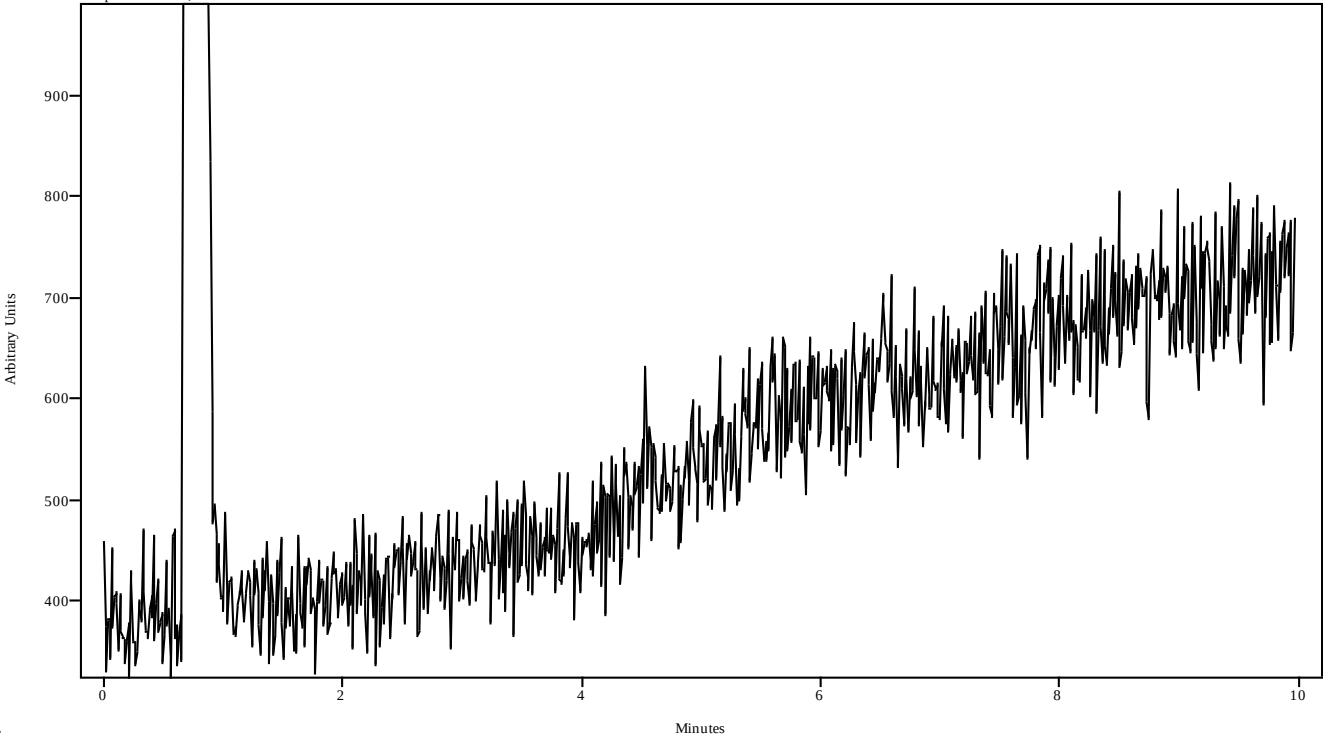


HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	101139.734979417	5.4	ASMSDRUGS100	Kenny	Acetonitrile	FE06151603 Exp 11/26/25

IRD Data Analysis Report

Data Filename	25UG HEROIN A PTV 2025_March_12_075718
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:06:58 2025
Date Processed	Wed Mar 12 10:40:39 2025

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Sample: Cerilliant; User: N/A

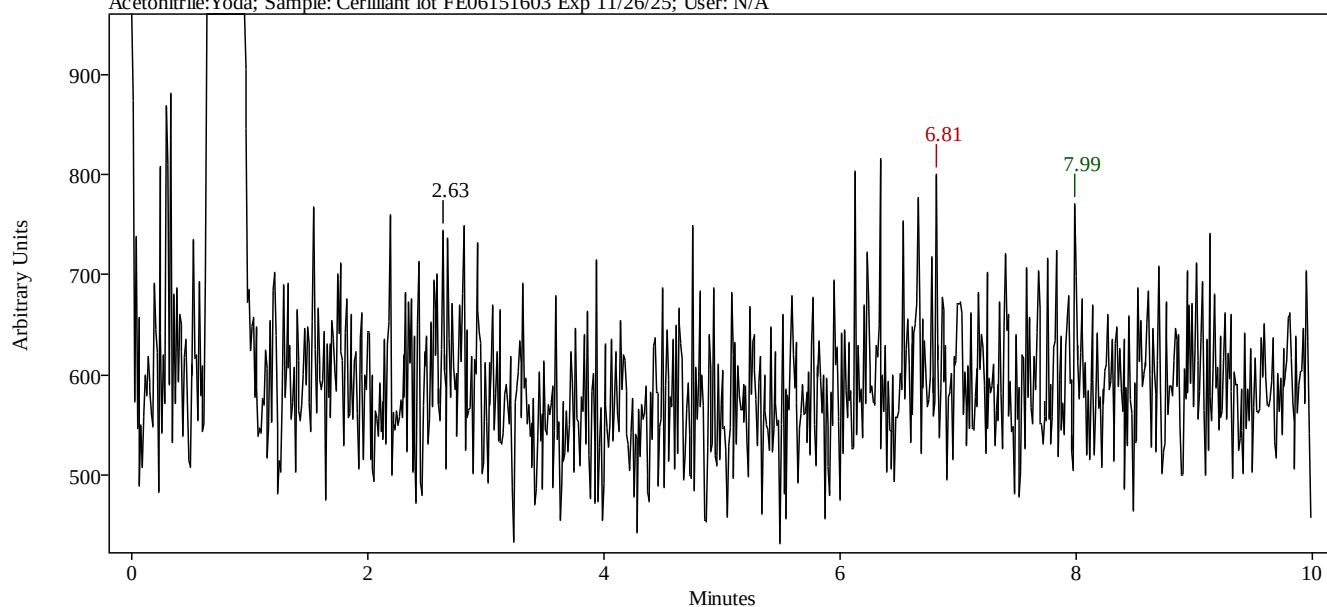


Peak Start	Peak End	Peak Width	Reference Start	Reference End
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IRD Data Analysis Report

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Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:00:21 2025
Date Processed	Sat Mar 15 10:52:57 2025

irdata.cgm: 25UG HEROIN A 2025_March_13_044812\irdata.cgm : Misc. Info:
Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A

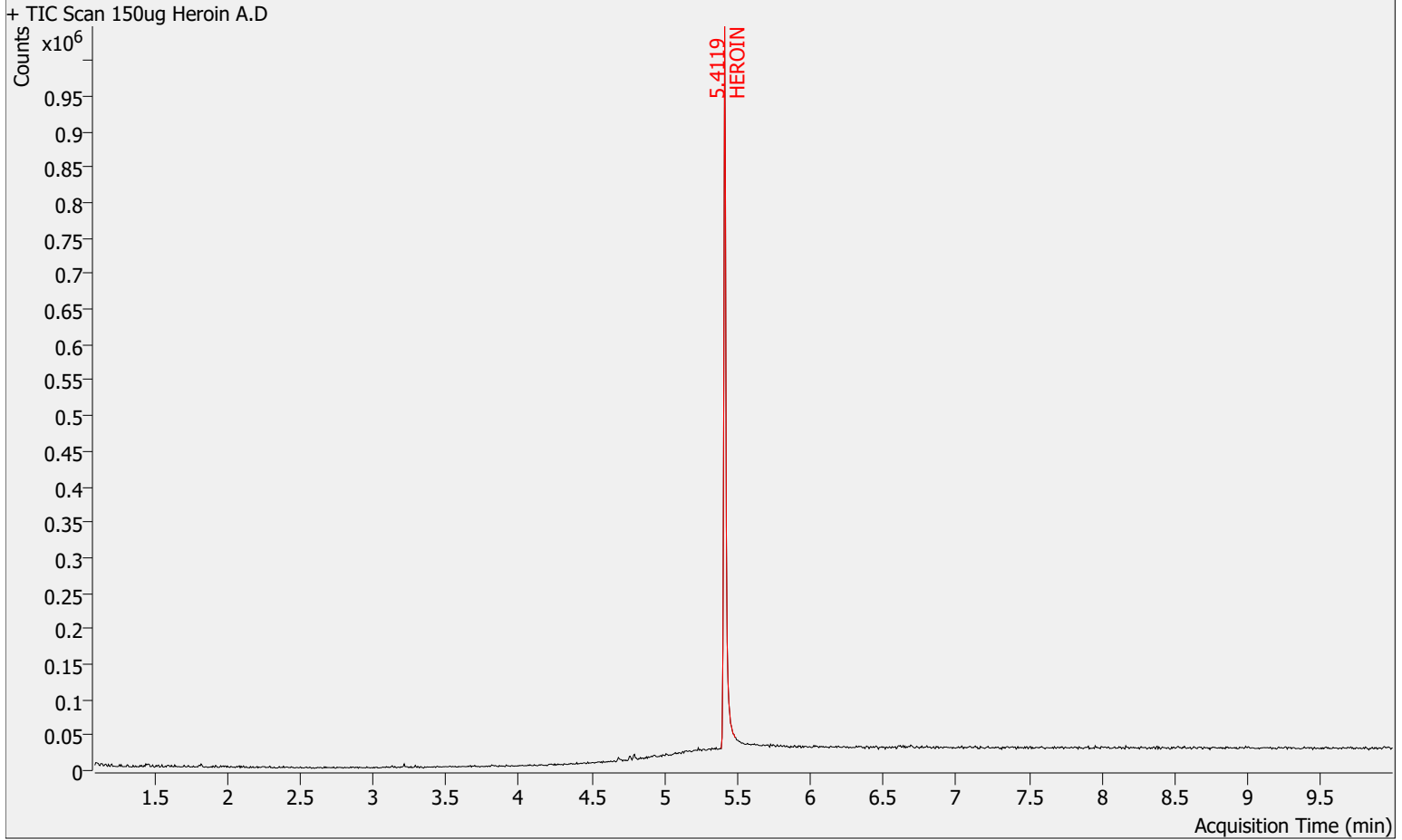


Peak Start	Peak End	Peak Width	Reference Start	Reference End
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6.781	6.826	0.045	6.603	6.781
7.952	8.008	0.056	7.729	7.952

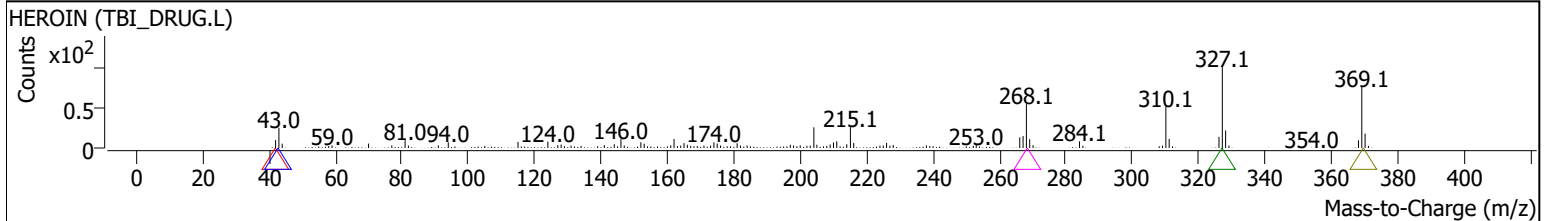
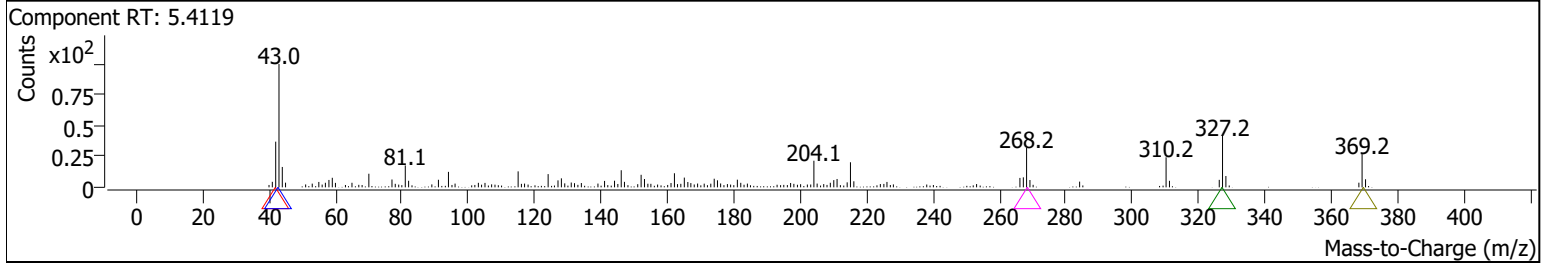
TBI Forensic Chemistry Report

File Name	150ug Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
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Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 9:11:12 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	6

Sample Chromatogram



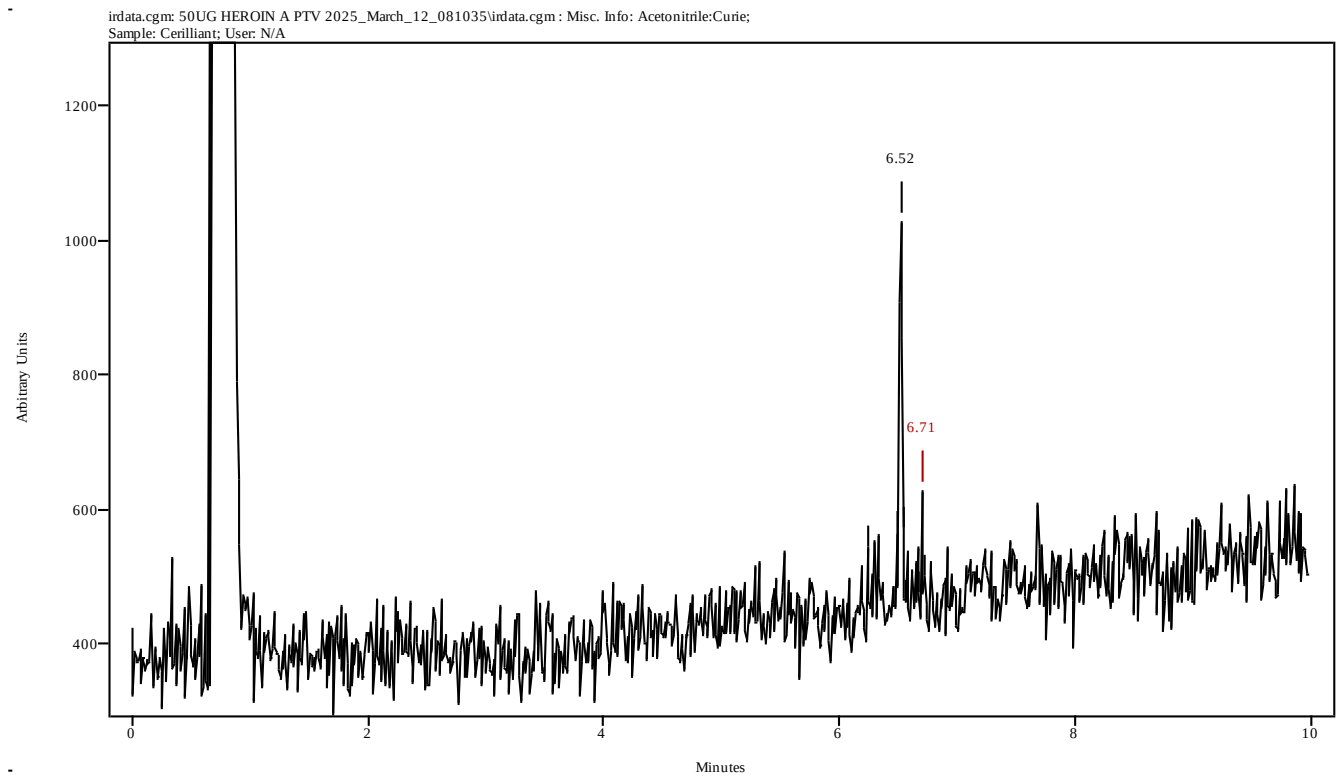
Compound Name	Component Area	Component RT
HEROIN	1164136.9295441	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	1164136.9295441	5.4				FE06151603 Exp
						11/26/25

IRD Data Analysis Report

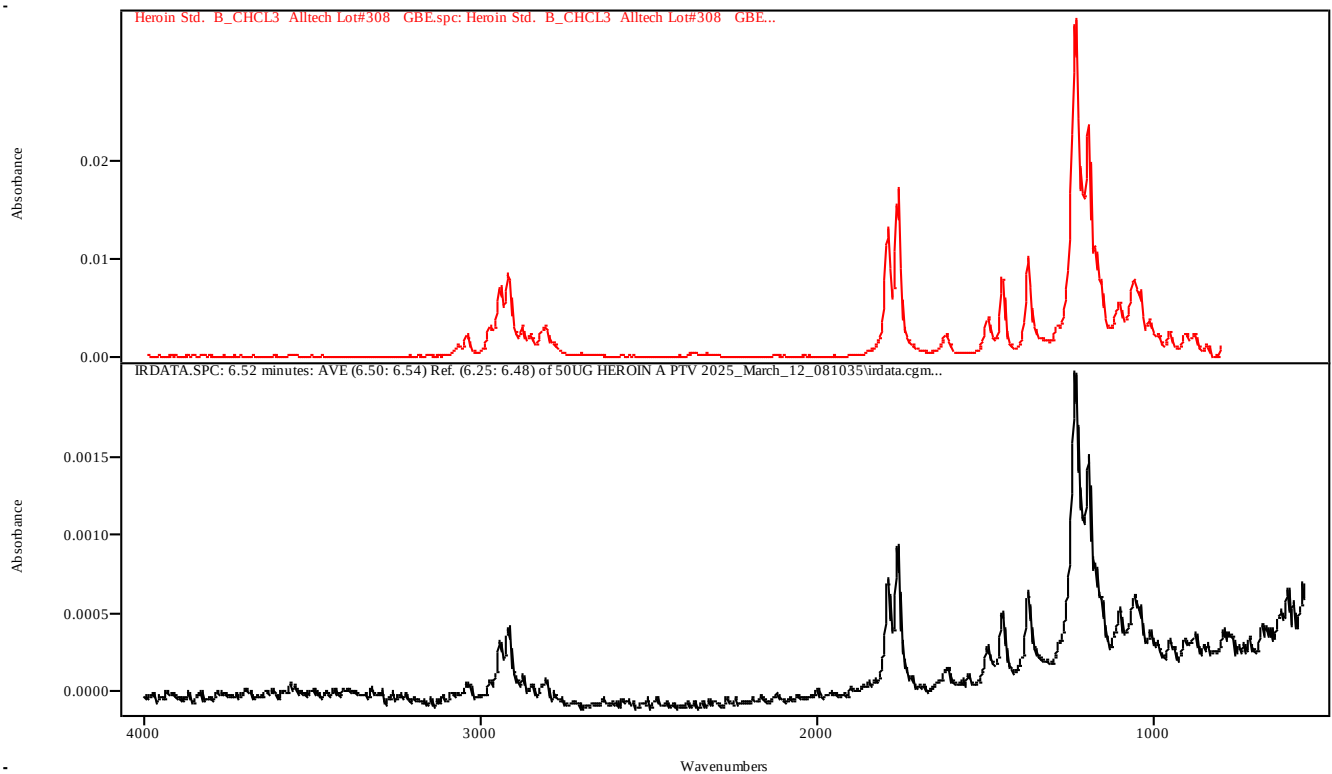
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GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:19:45 2025
Date Processed	Wed Mar 12 10:46:08 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
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6.678	6.723	0.045	6.565	6.678

IRD Data Analysis Report

Data Filename	50UG HEROIN A PTV 2025_March_12_081035
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:19:45 2025
Date Processed	Wed Mar 12 10:46:08 2025



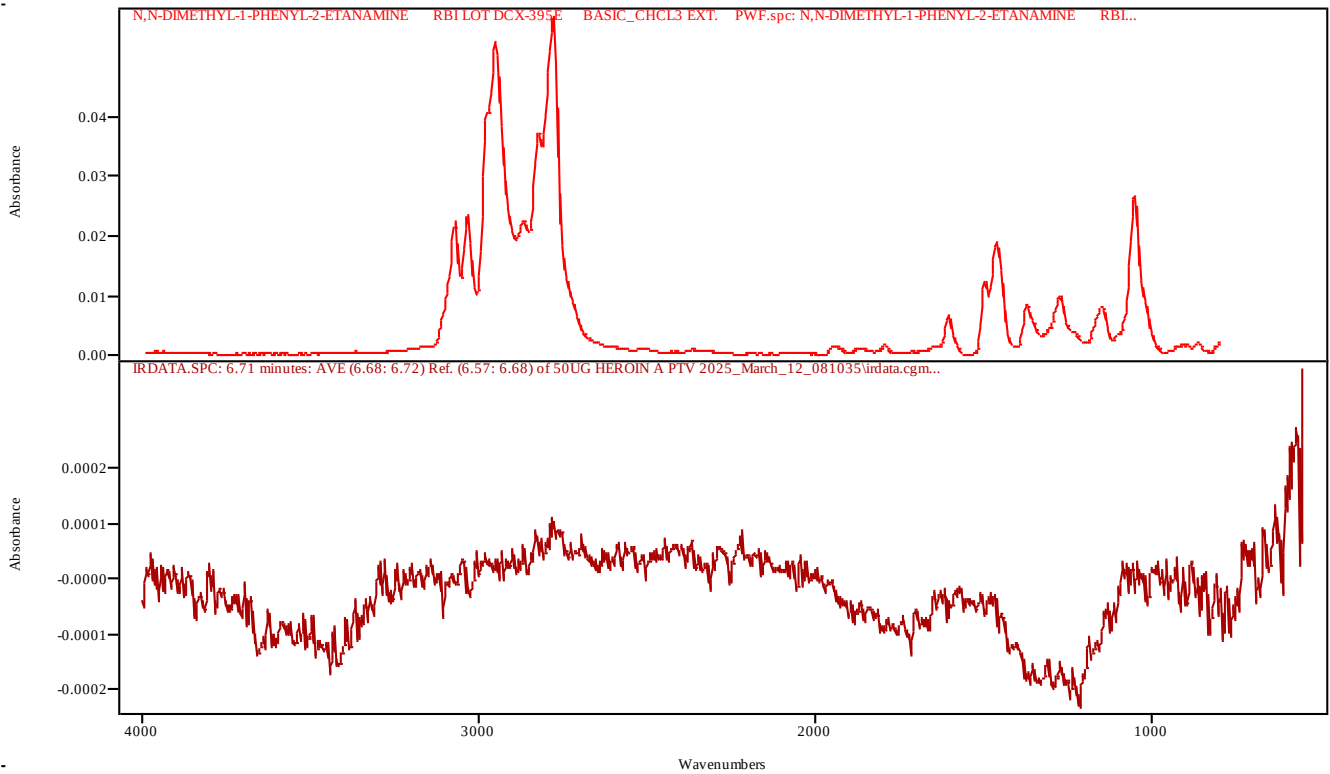
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Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.960631	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN A PTV 2025_March_12_081035
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:19:45 2025
Date Processed	Wed Mar 12 10:46:08 2025



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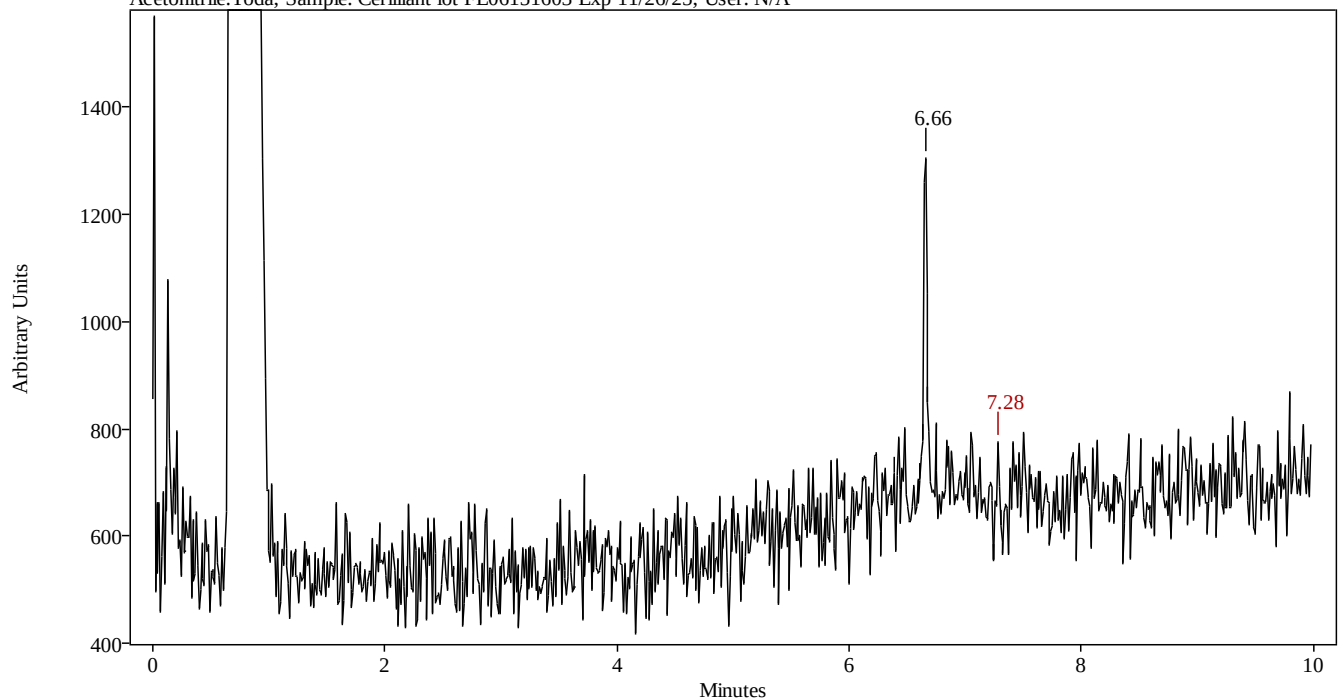
N,N-DIMETHYL-1-PHENYL-2-ETANAMINE RBI LOT DCX-395E BASIC_CHCL3 EXT. PWF.spc:
N,N-DIMETHYL-1-PHENYL-2-ETANAMINE RBI LOT DCX-395E BASIC_CHCL3 EXT. PWF

Metric	Name	Library	Entry
0.370061	N,N-DIMETHYL-1-PHENYL-2-ETANAMINE RBI LOT DCX-395E BASIC_CHCL3 EXT. PWF	TBI GCIR combined Thermo generated libraries	368: N,N-DIMETHYL-1-PHE NYL-2-ETANAMINE RBI LOT DCX-395E BASIC_CHCL3 EXT. PWF.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN A 2025_March_13_050055
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:12:44 2025
Date Processed	Sat Mar 15 10:55:15 2025

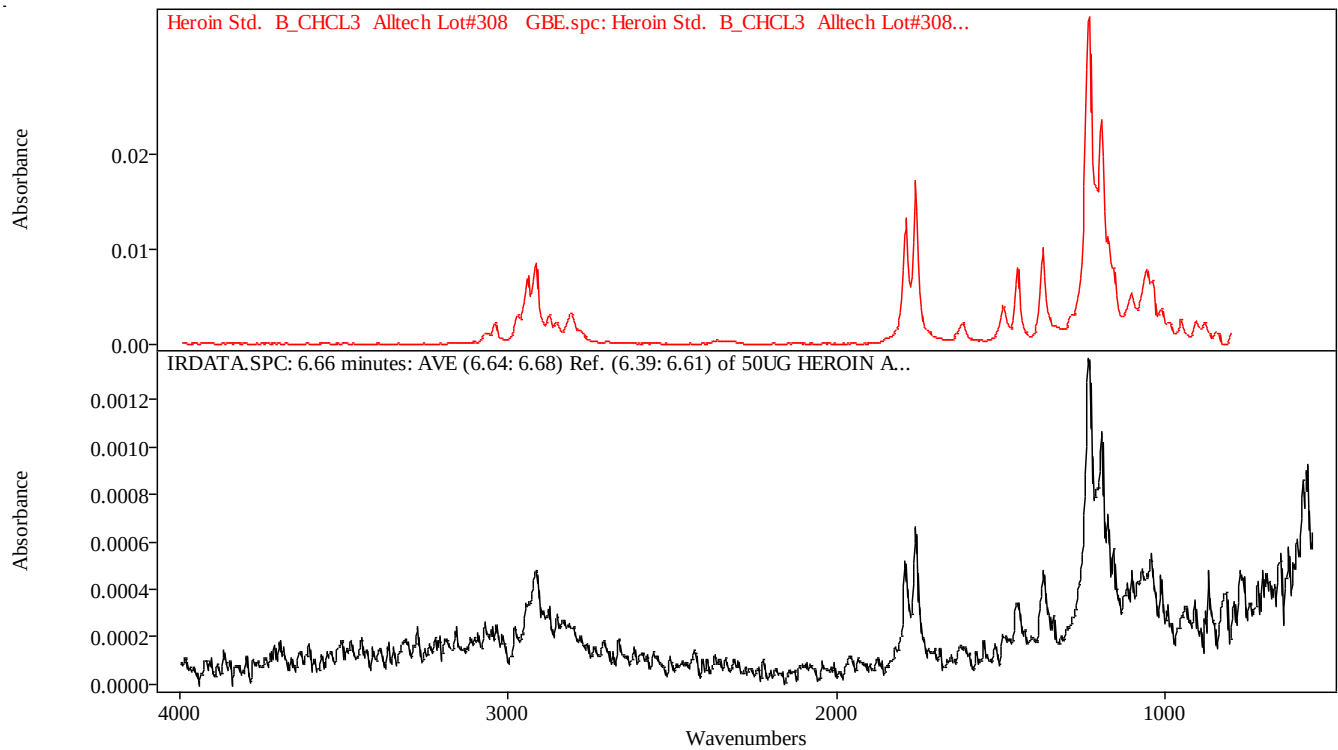
irdata.cgm: 50UG HEROIN A 2025_March_13_050055\irdata.cgm : Misc. Info:
Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.636	6.681	0.045	6.391	6.614
7.250	7.306	0.056	7.027	7.250

IRD Data Analysis Report

Data Filename	50UG HEROIN A 2025_March_13_050055
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:12:44 2025
Date Processed	Sat Mar 15 10:55:15 2025



IRDATA.SPC: 6.66 minutes: AVE (6.64: 6.68) Ref. (6.39: 6.61) of 50UG HEROIN A
2025_March_13_050055.cgm

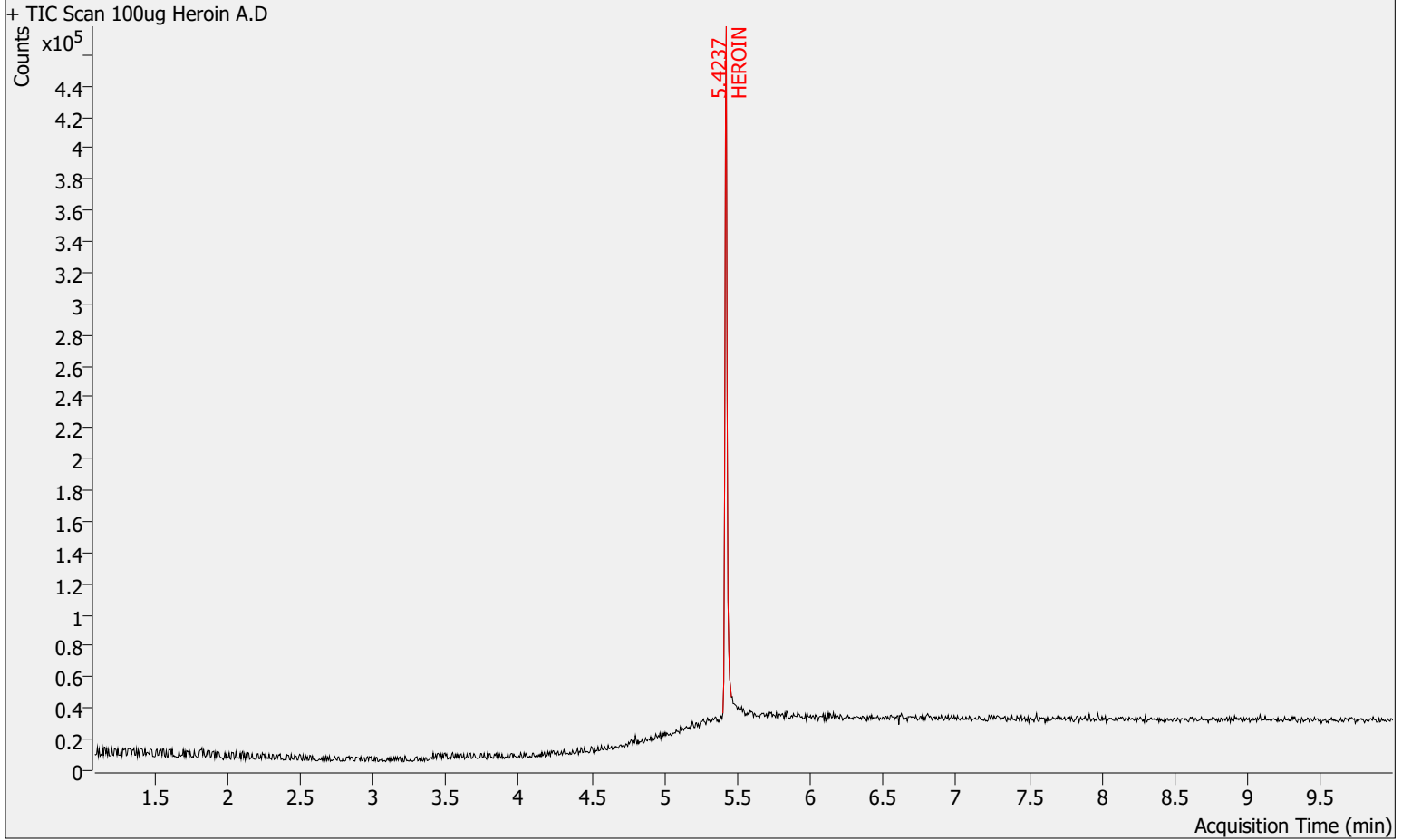
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.924098	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

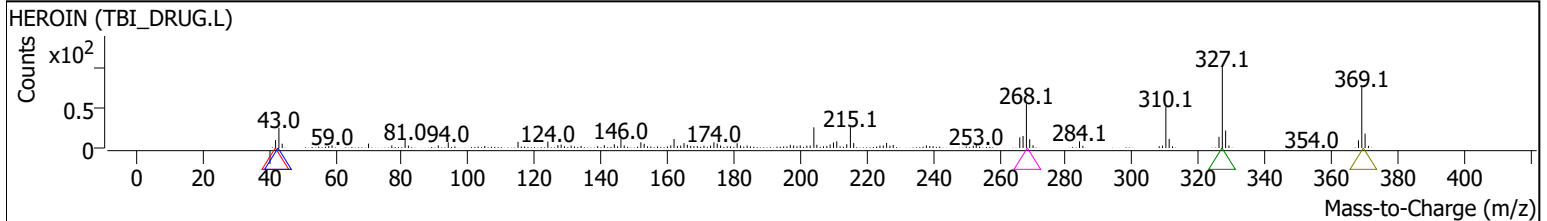
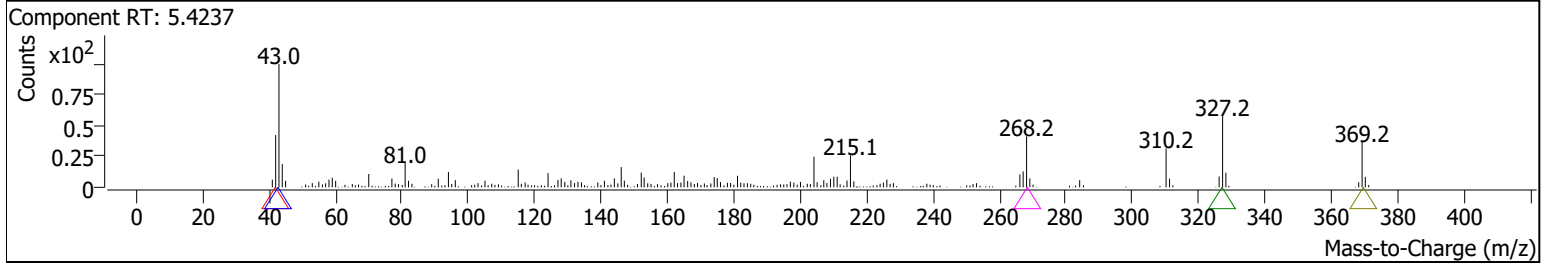
TBI Forensic Chemistry Report

File Name	100ug Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 8:58:04 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	5

Sample Chromatogram



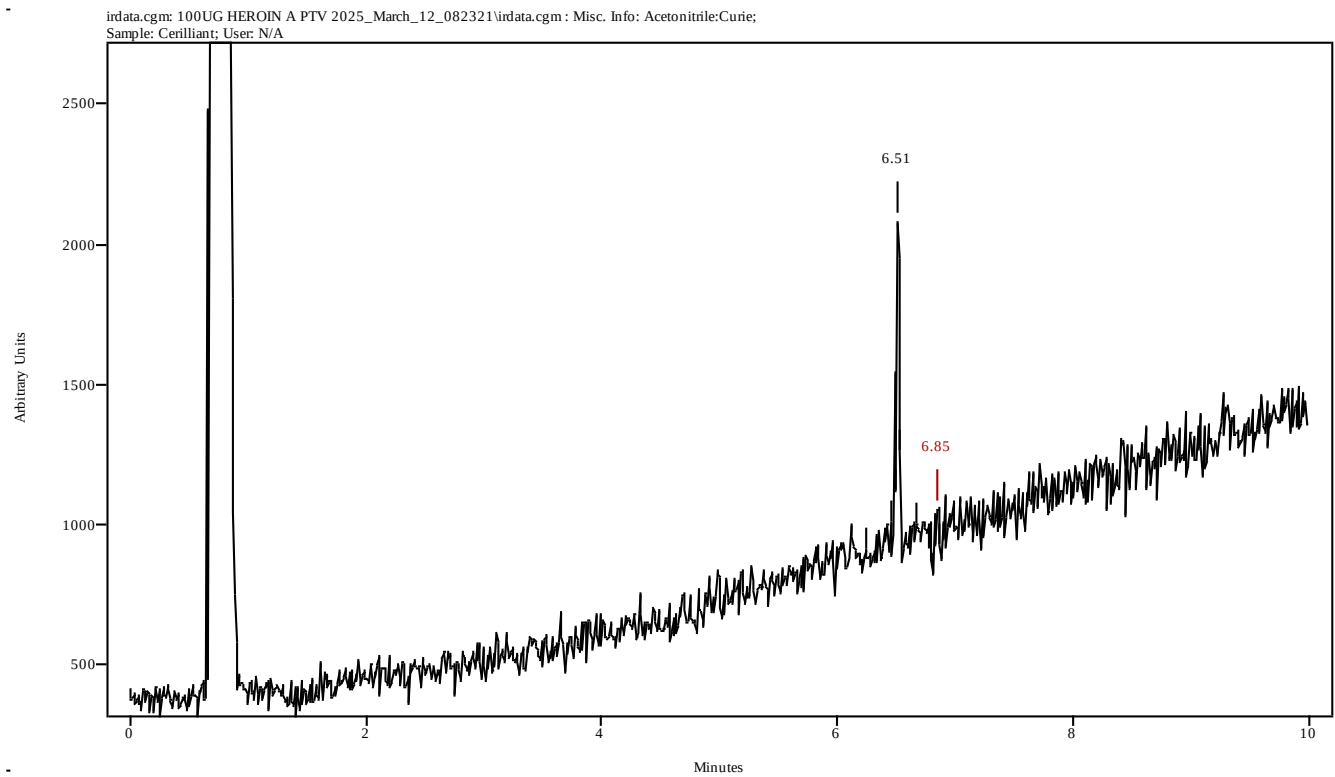
Compound Name	Component Area	Component RT
HEROIN	480328.559888309	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	480328.559888309	5.4				FE06151603 Exp
						11/26/25

IRD Data Analysis Report

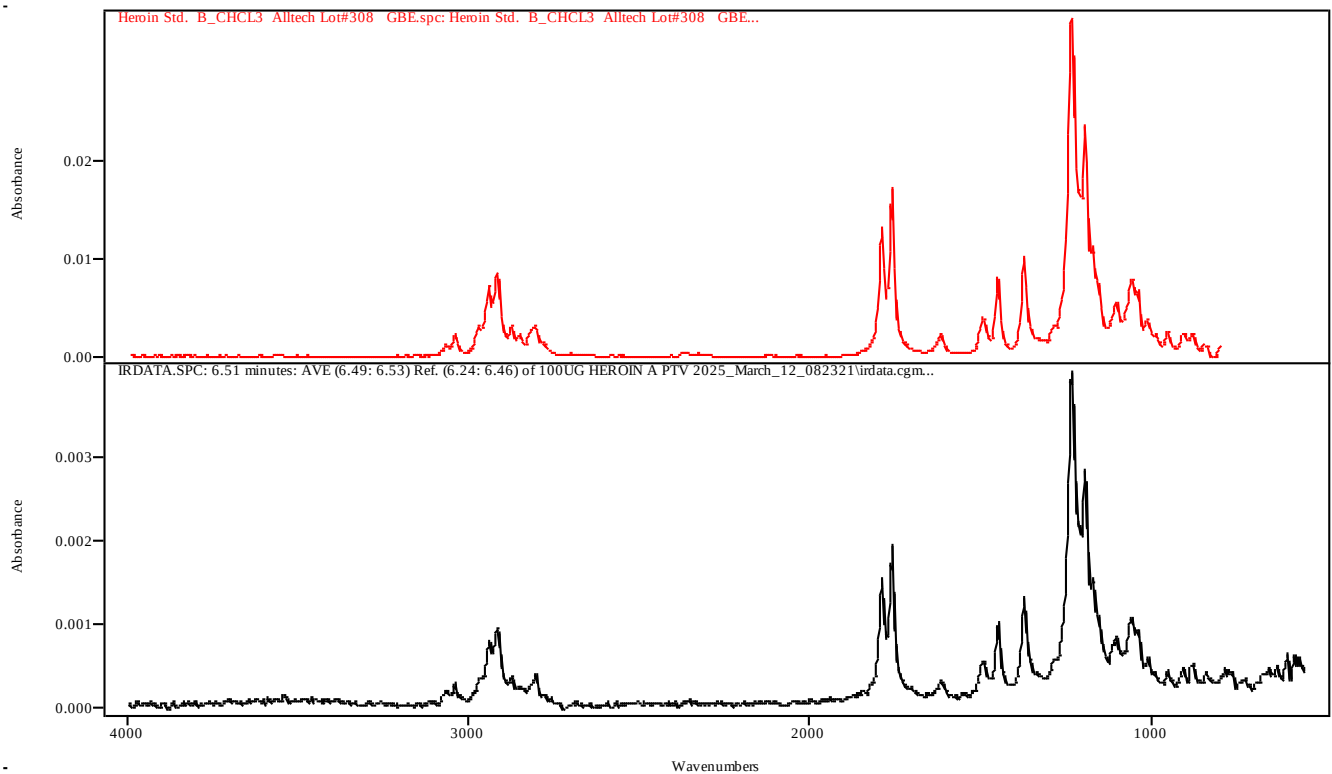
Data Filename	100UG HEROIN A PTV 2025_March_12_082321
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:32:40 2025
Date Processed	Wed Mar 12 10:48:51 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.487	6.532	0.045	6.239	6.464
6.824	6.858	0.034	6.678	6.813

IRD Data Analysis Report

Data Filename	100UG HEROIN A PTV 2025_March_12_082321
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:32:40 2025
Date Processed	Wed Mar 12 10:48:51 2025



IRDATA.SPC: 6.51 minutes: AVE (6.49: 6.53) Ref. (6.24: 6.46) of 100UG HEROIN A PTV 2025_March_12_082321.cgm

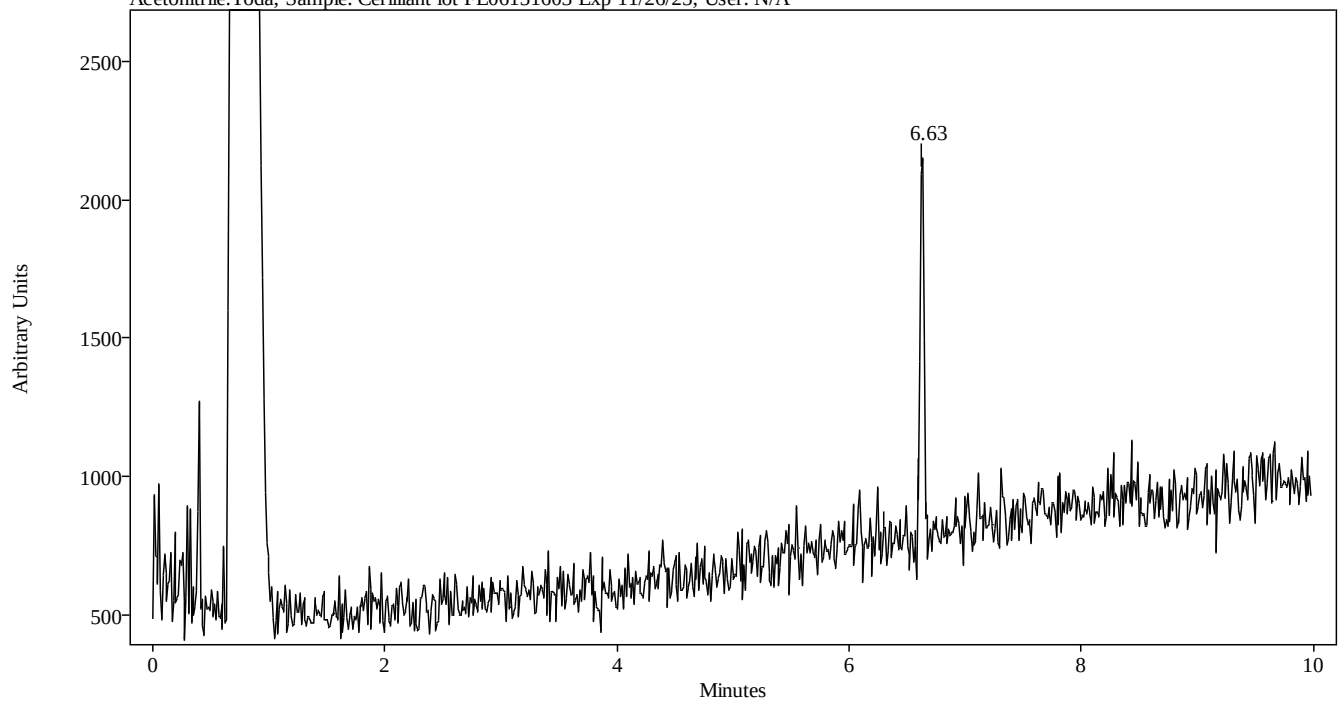
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.989558	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	100UG HEROIN A 2025_March_13_051318
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:25:07 2025
Date Processed	Sat Mar 15 10:59:39 2025

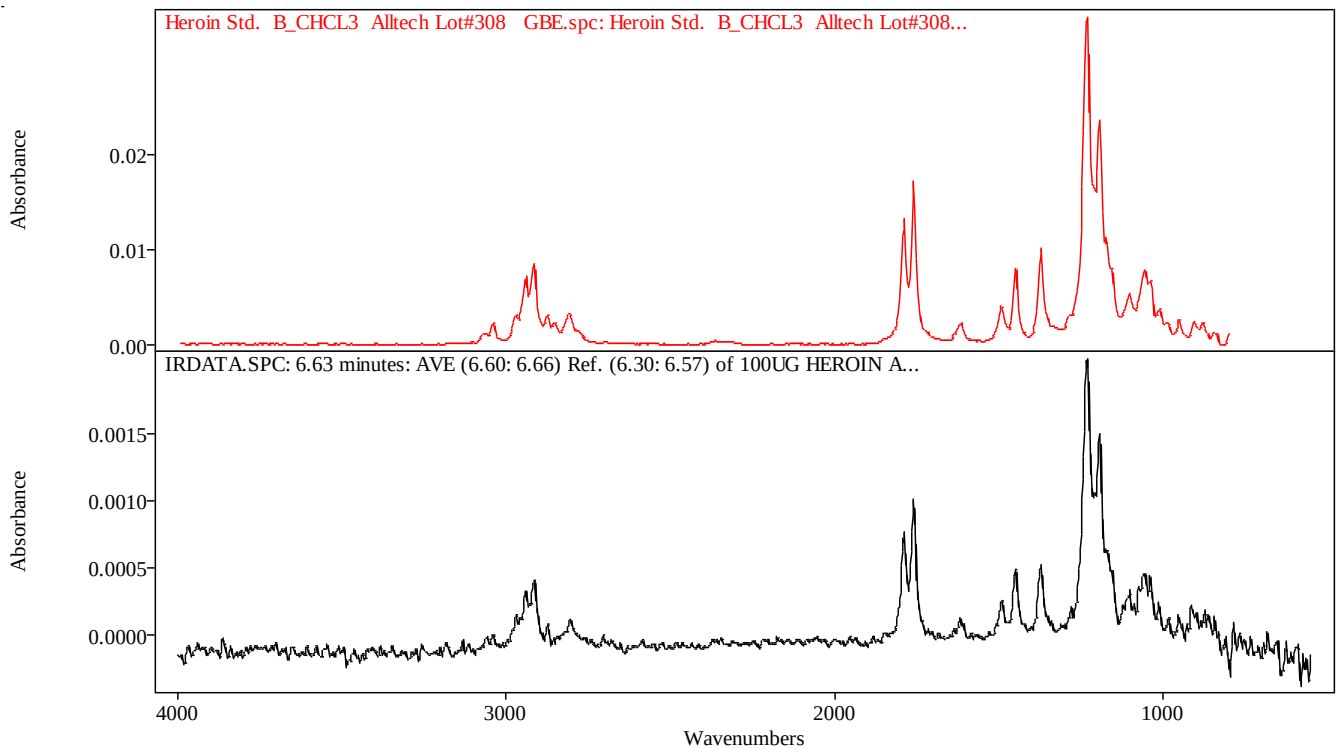
irdata.cgm: 100UG HEROIN A 2025_March_13_051318\irdata.cgm : Misc. Info:
Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.603	6.659	0.056	6.302	6.570

IRD Data Analysis Report

Data Filename	100UG HEROIN A 2025_March_13_051318
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:25:07 2025
Date Processed	Sat Mar 15 10:59:39 2025



IRDATA.SPC: 6.63 minutes: AVE (6.60: 6.66) Ref. (6.30: 6.57) of 100UG HEROIN A
2025_March_13_051318.cgm

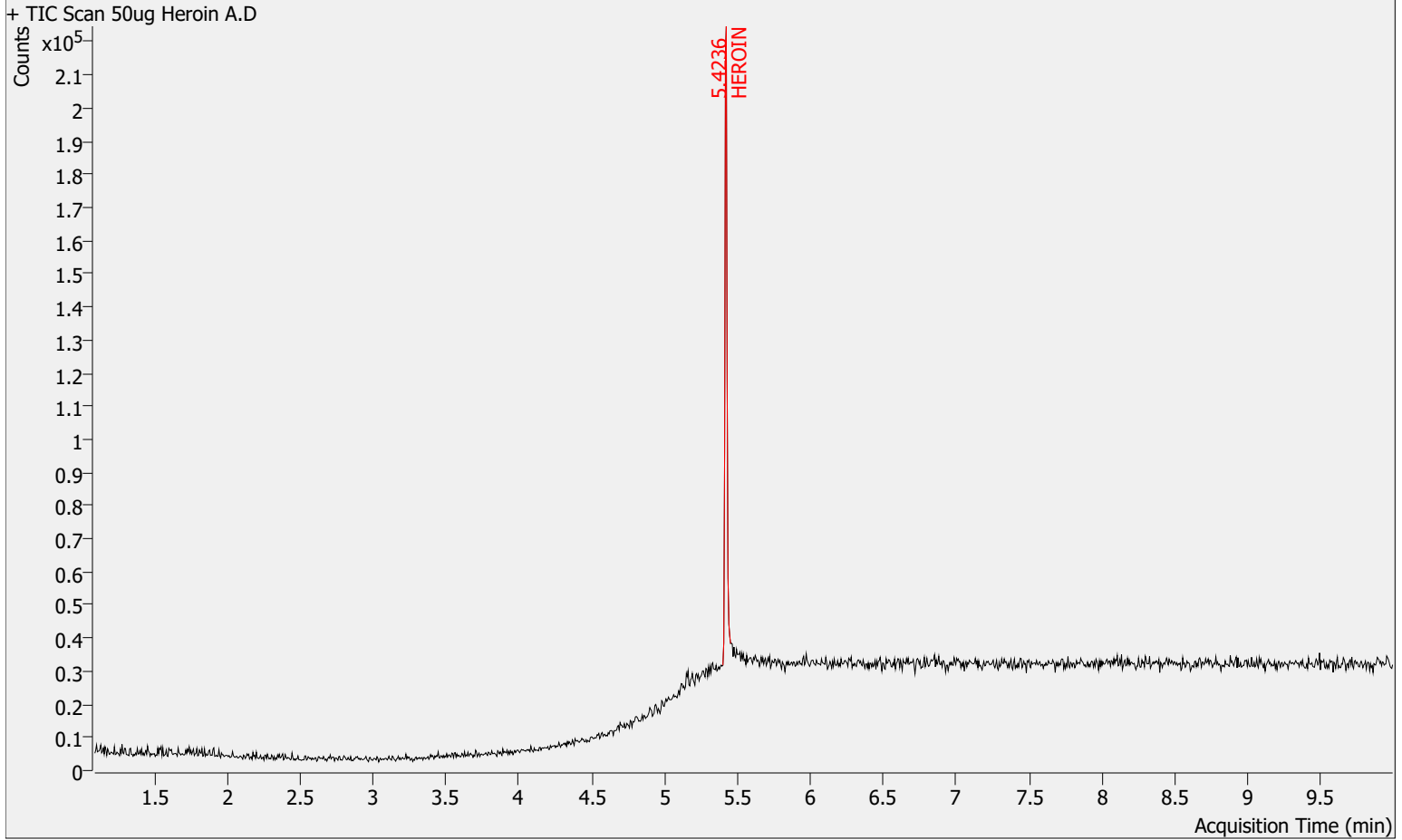
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.988973	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

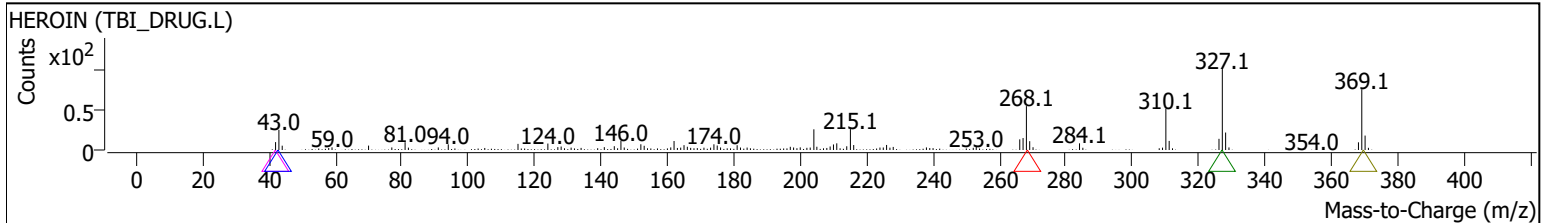
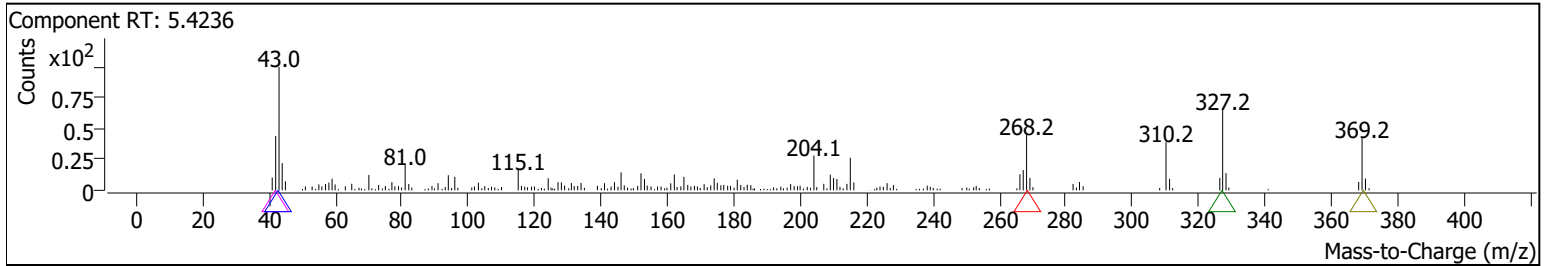
TBI Forensic Chemistry Report

File Name	50ug Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 8:44:49 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	4

Sample Chromatogram



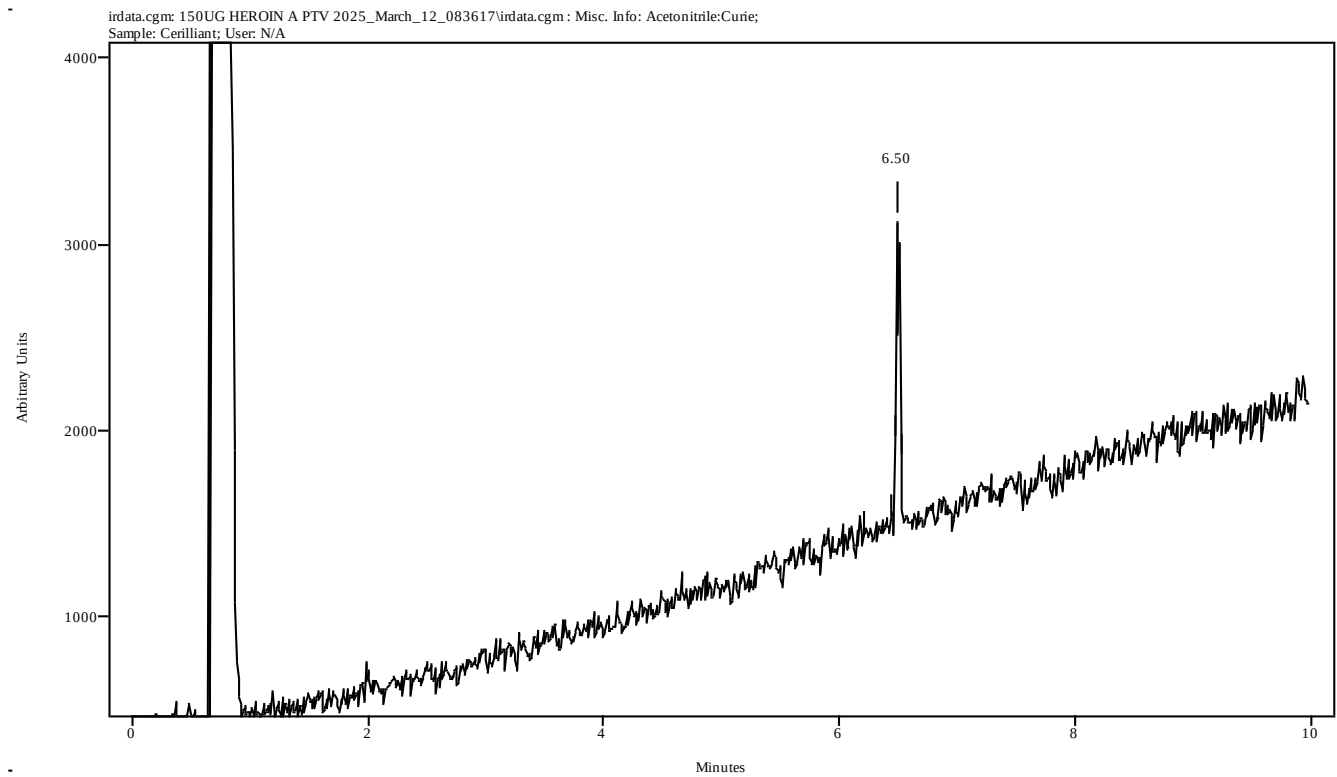
Compound Name	Component Area	Component RT
HEROIN	205599.846770293	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	205599.846770293	5.4	ASMSDRUGS100	Kenny	Acetonitrile	FE06151603 Exp 11/26/25

IRD Data Analysis Report

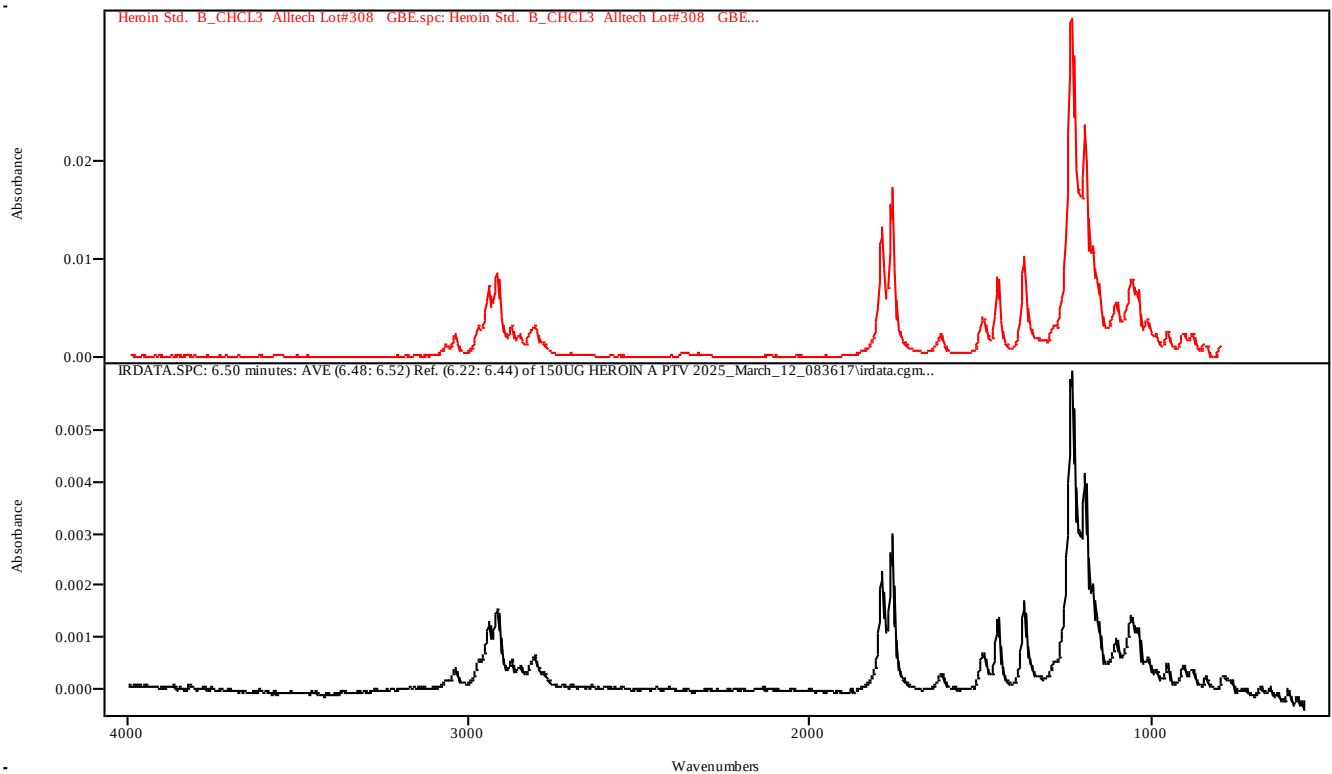
Data Filename	150UG HEROIN A PTV 2025_March_12_083617
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:45:34 2025
Date Processed	Wed Mar 12 10:50:56 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.475	6.520	0.045	6.216	6.441

IRD Data Analysis Report

Data Filename	150UG HEROIN A PTV 2025_March_12_083617
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Wed Mar 12 08:45:34 2025
Date Processed	Wed Mar 12 10:50:56 2025



IRDATA.SPC: 6.50 minutes: AVE (6.48: 6.52) Ref. (6.22: 6.44) of 150UG HEROIN A PTV 2025_March_12_083617.cgm

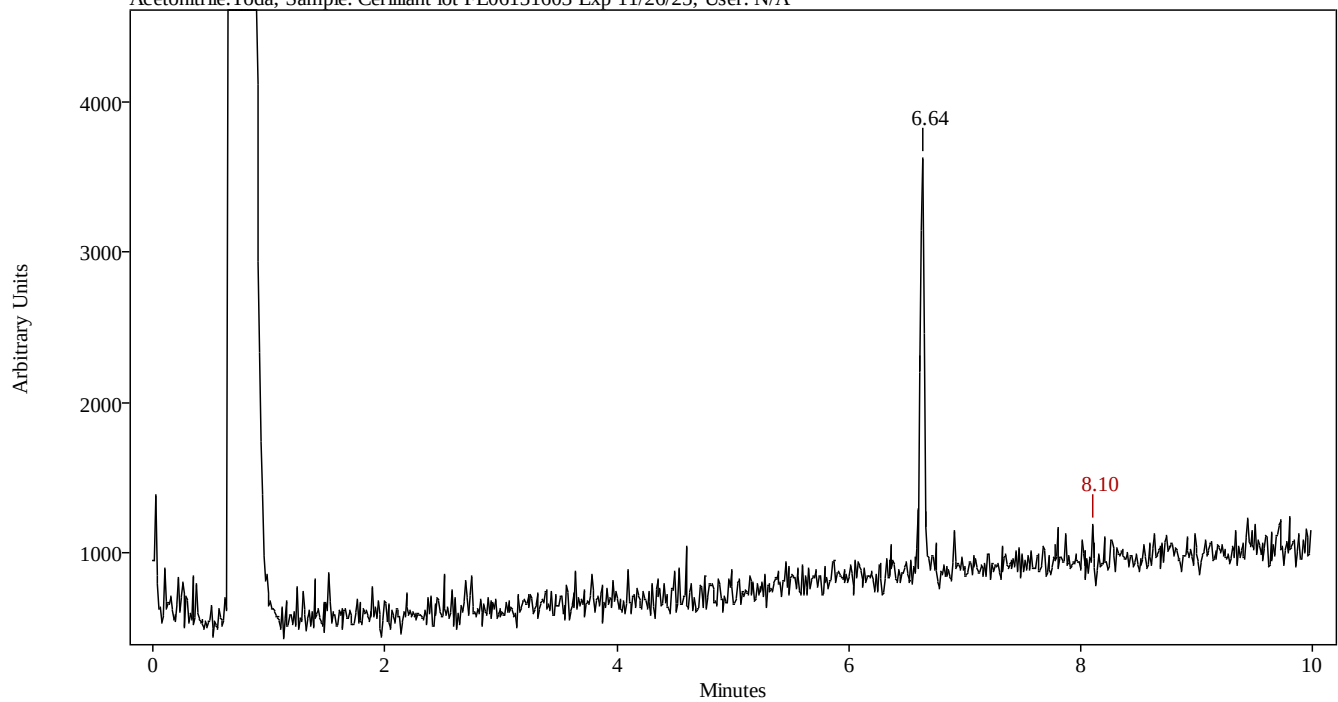
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998370	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	150UG HEROIN A 2025_March_13_052541
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:37:30 2025
Date Processed	Sat Mar 15 11:01:32 2025

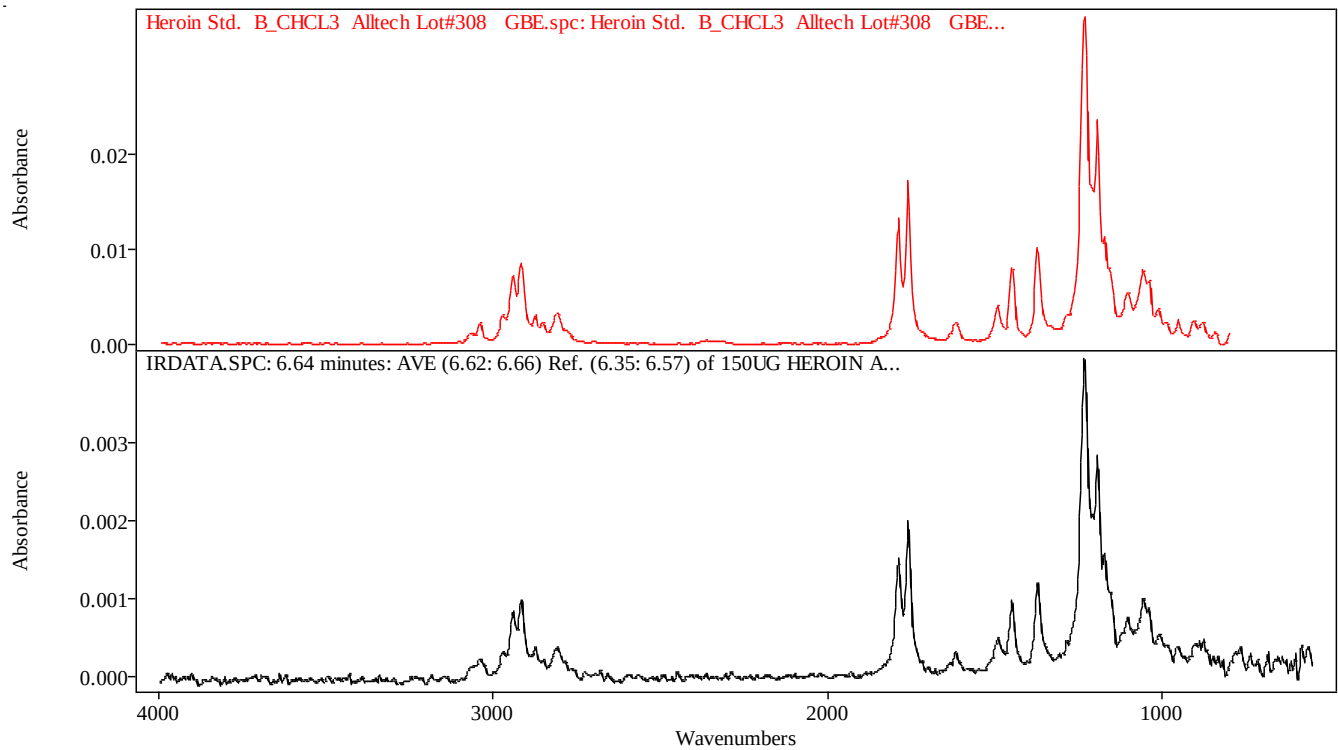
irdata.cgm: 150UG HEROIN A 2025_March_13_052541\irdata.cgm : Misc. Info:
Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.615	6.660	0.045	6.347	6.571
8.043	8.110	0.067	7.775	8.043

IRD Data Analysis Report

Data Filename	150UG HEROIN A 2025_March_13_052541
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Thu Mar 13 05:37:30 2025
Date Processed	Sat Mar 15 11:01:32 2025



IRDATA.SPC: 6.64 minutes: AVE (6.62: 6.66) Ref. (6.35: 6.57) of 150UG HEROIN A
2025_March_13_052541.cgm

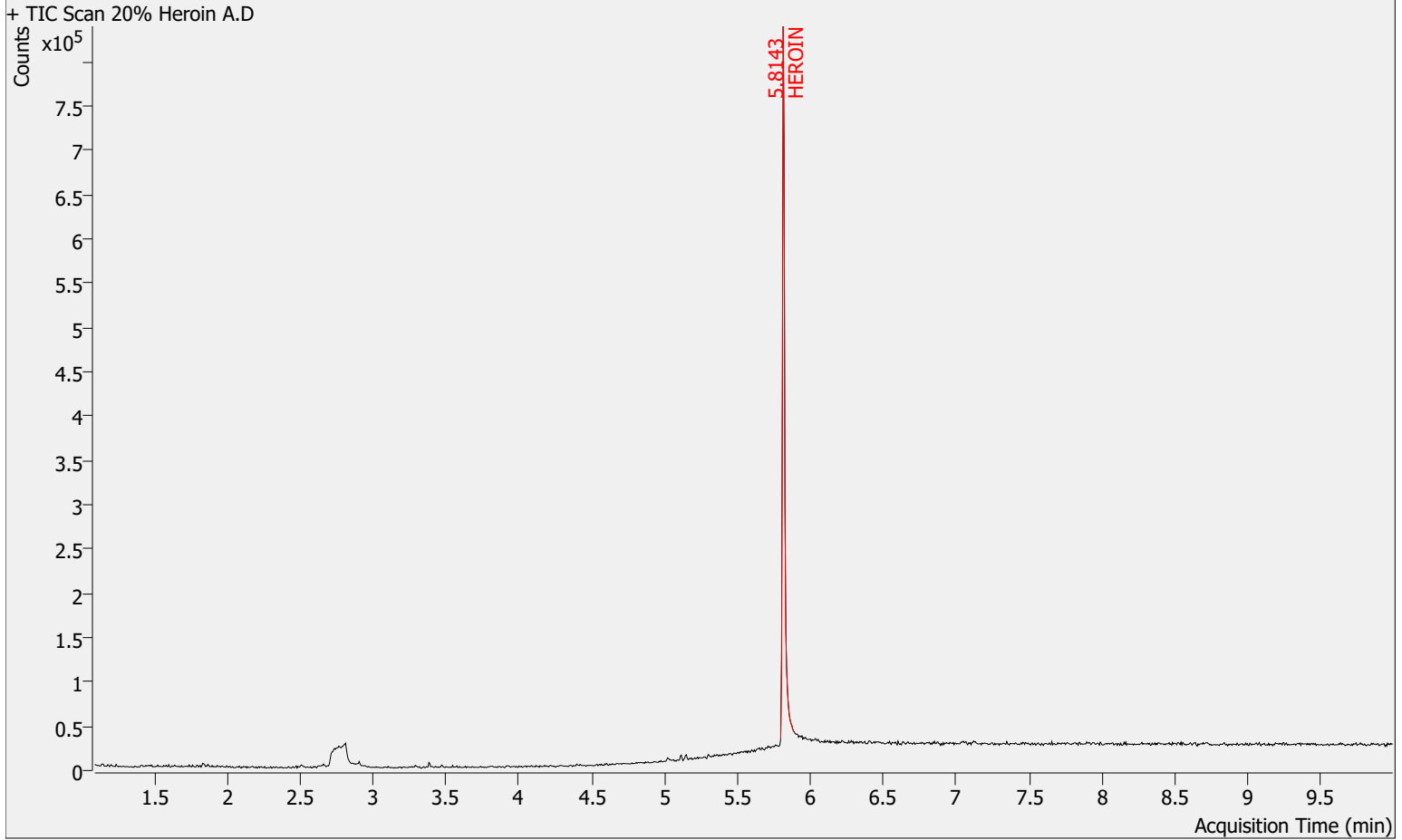
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.994348	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

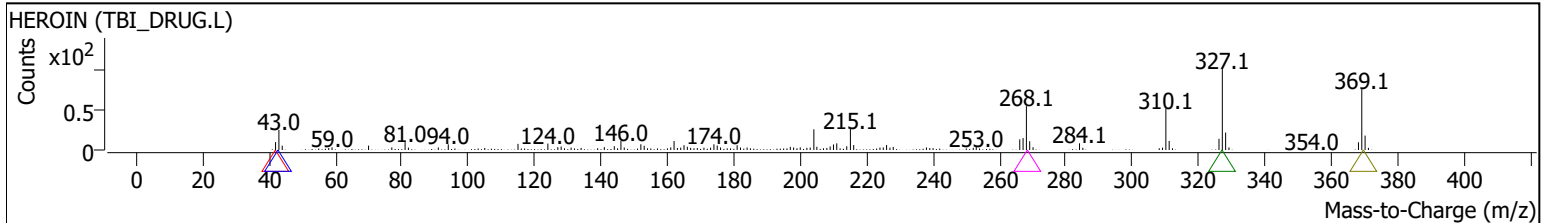
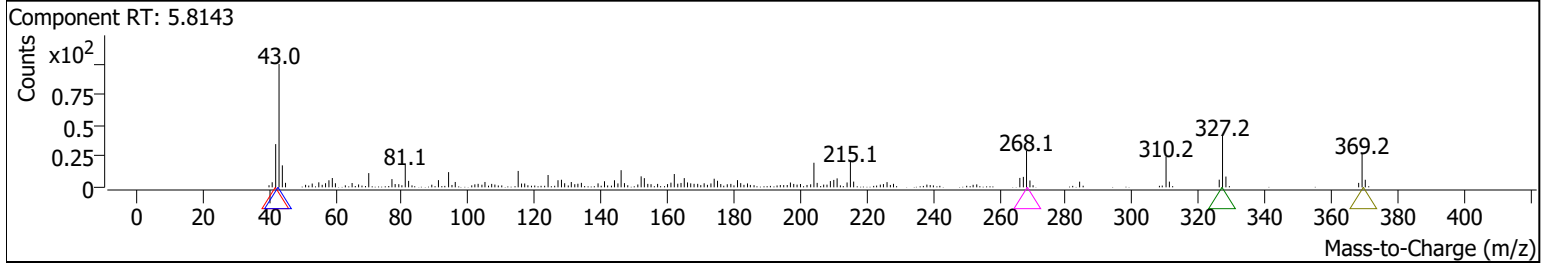
TBI Forensic Chemistry Report

File Name	20% Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 9:33:58 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	3

Sample Chromatogram



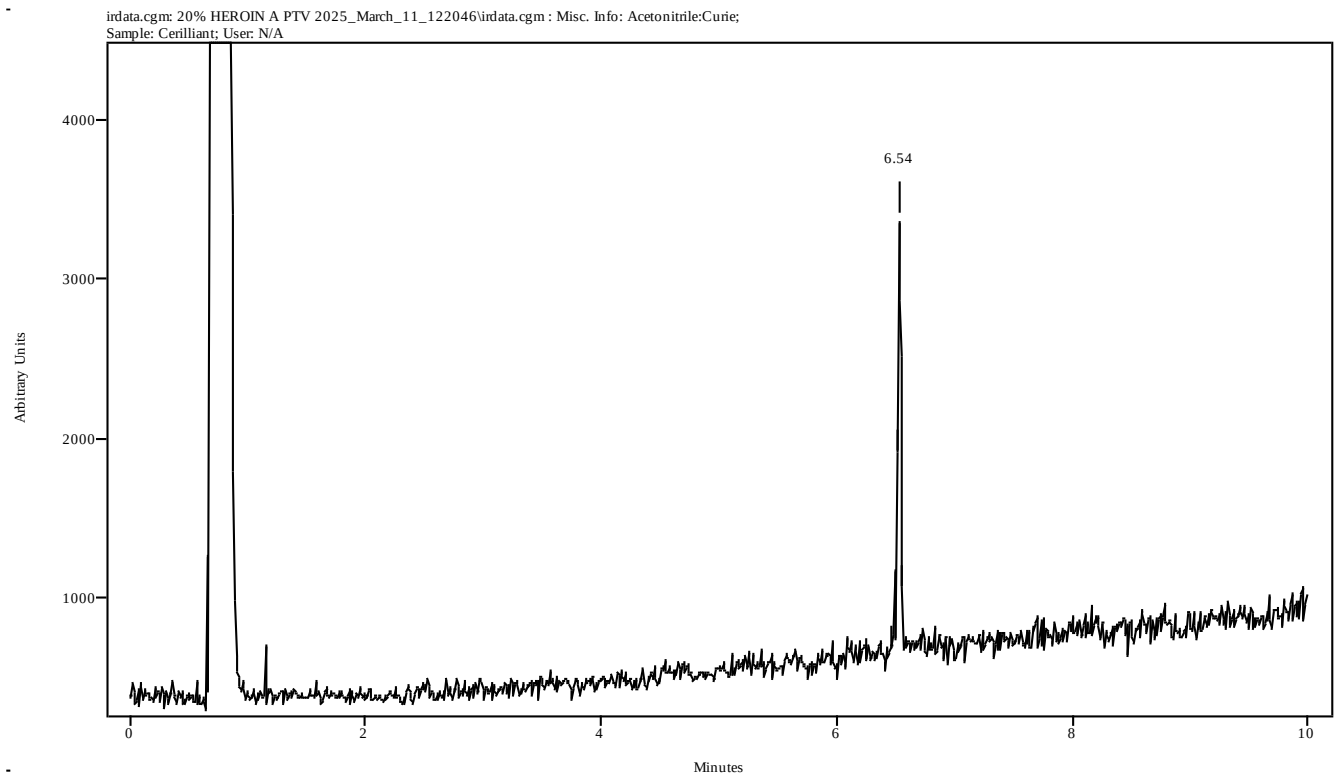
Compound Name	Component Area	Component RT
HEROIN	955739.912132717	5.8



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	955739.912132717	5.8	ASMSDRUGS100	Kenny	Acetonitrile	FE06151603 Exp 11/26/25

IRD Data Analysis Report

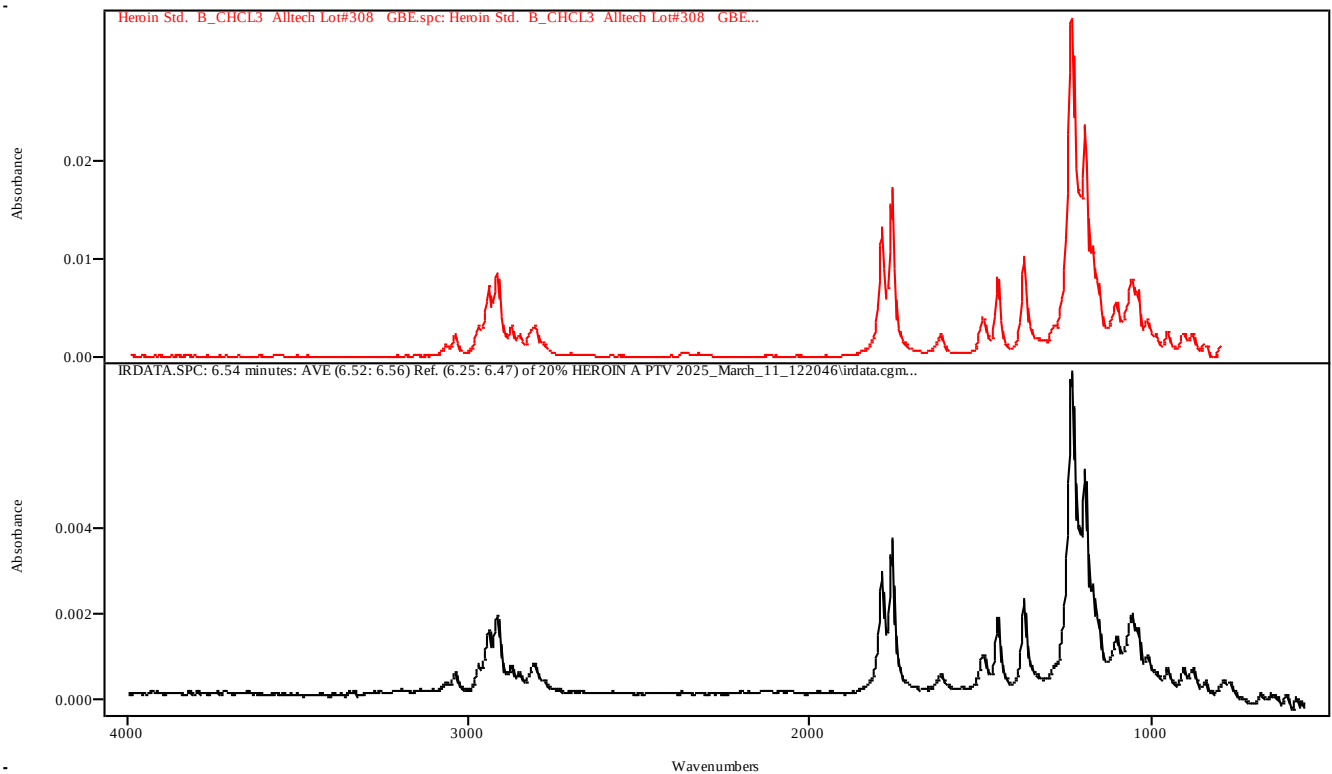
Data Filename	20% HEROIN A PTV 2025_March_11_122046
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:30:27 2025
Date Processed	Wed Mar 12 10:52:53 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.517	6.562	0.045	6.246	6.471

IRD Data Analysis Report

Data Filename	20% HEROIN A PTV 2025_March_11_122046
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:30:27 2025
Date Processed	Wed Mar 12 10:52:53 2025



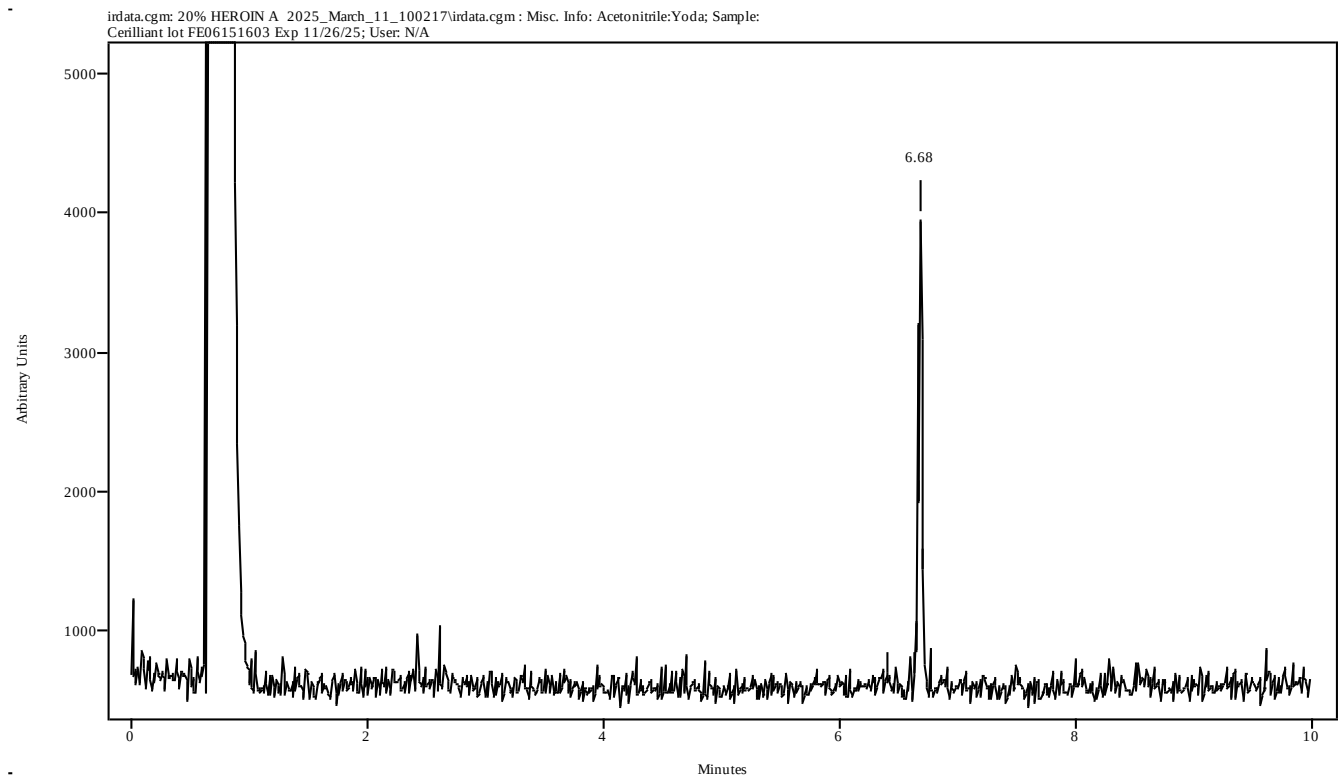
IRDATA.SPC: 6.54 minutes: AVE (6.52: 6.56) Ref. (6.25: 6.47) of 20% HEROIN A PTV 2025_March_11_122046.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998741	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

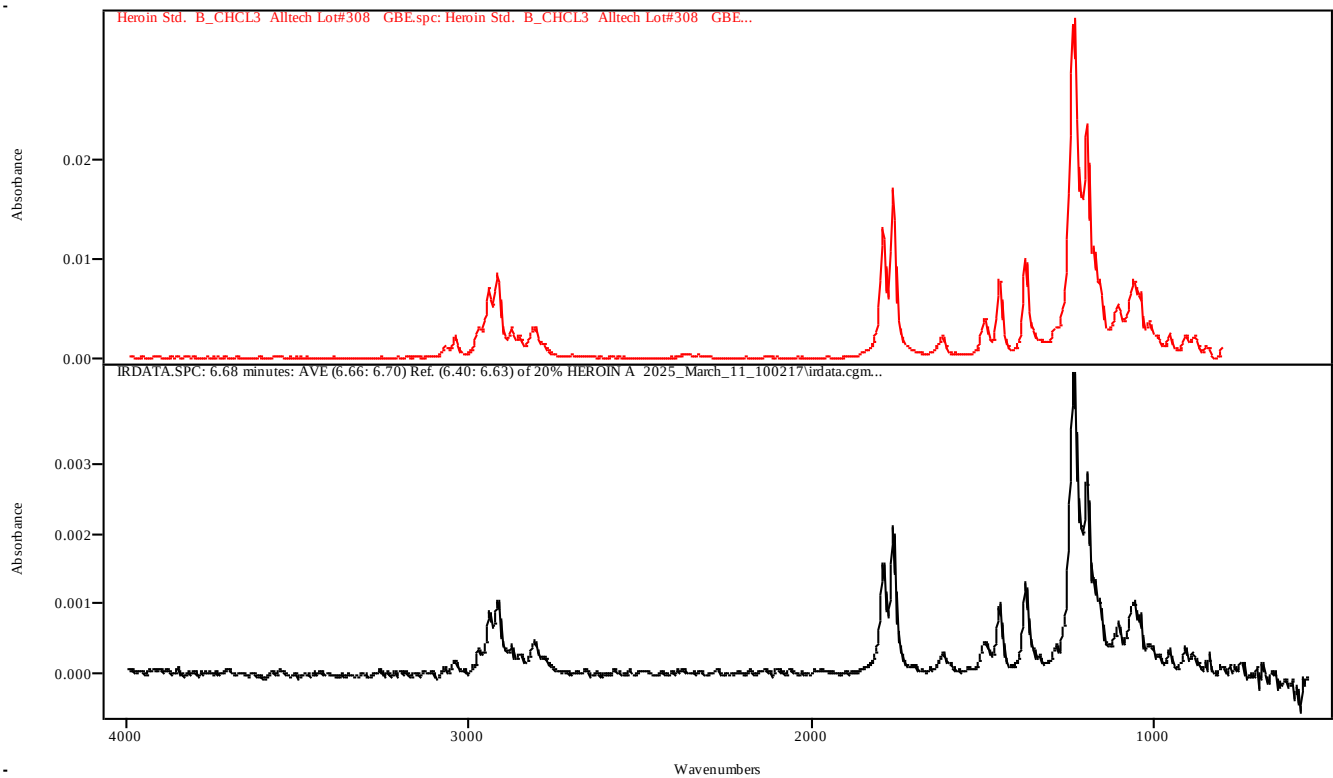
Data Filename	20% HEROIN A 2025_March_11_100217
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:14:32 2025
Date Processed	Tue Mar 11 10:41:01 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.659	6.703	0.045	6.402	6.625

IRD Data Analysis Report

Data Filename	20% HEROIN A 2025_March_11_100217
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:14:32 2025
Date Processed	Tue Mar 11 10:41:01 2025



IRDATA.SPC: 6.68 minutes: AVE (6.66: 6.70) Ref. (6.40: 6.63) of 20% HEROIN A
2025_March_11_100217.cgm

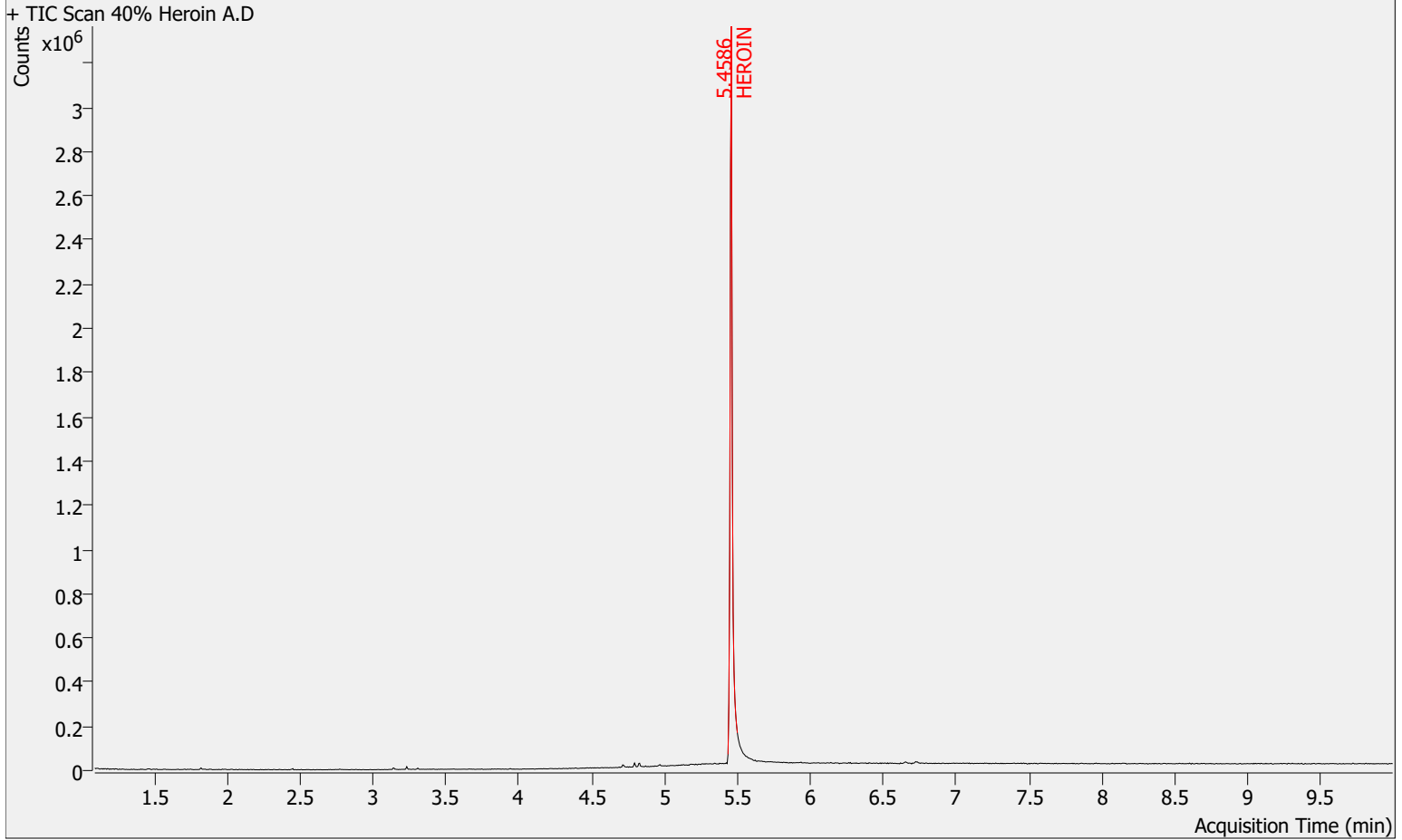
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.997789	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

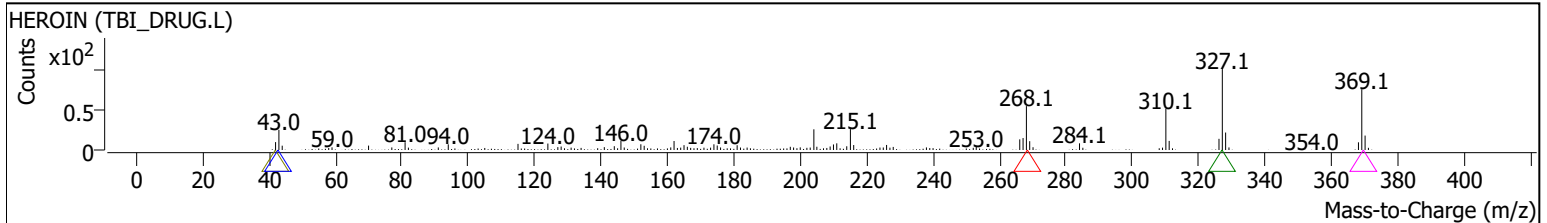
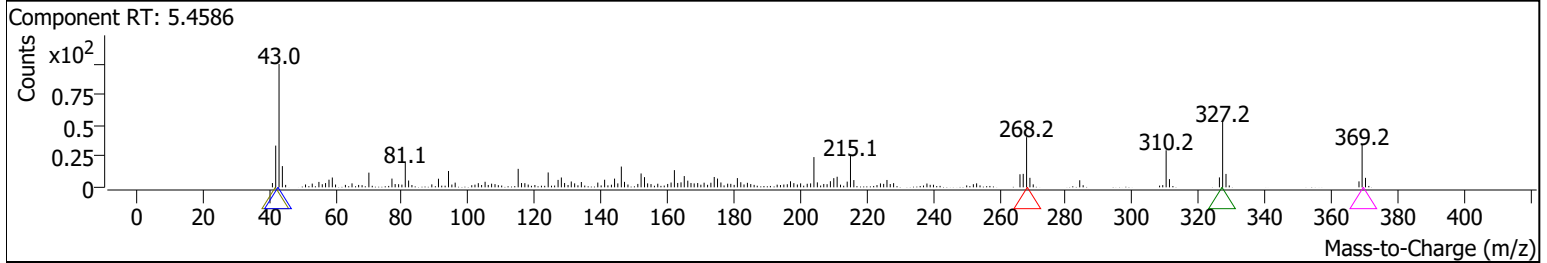
TBI Forensic Chemistry Report

File Name	40% Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 9:47:10 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	4

Sample Chromatogram



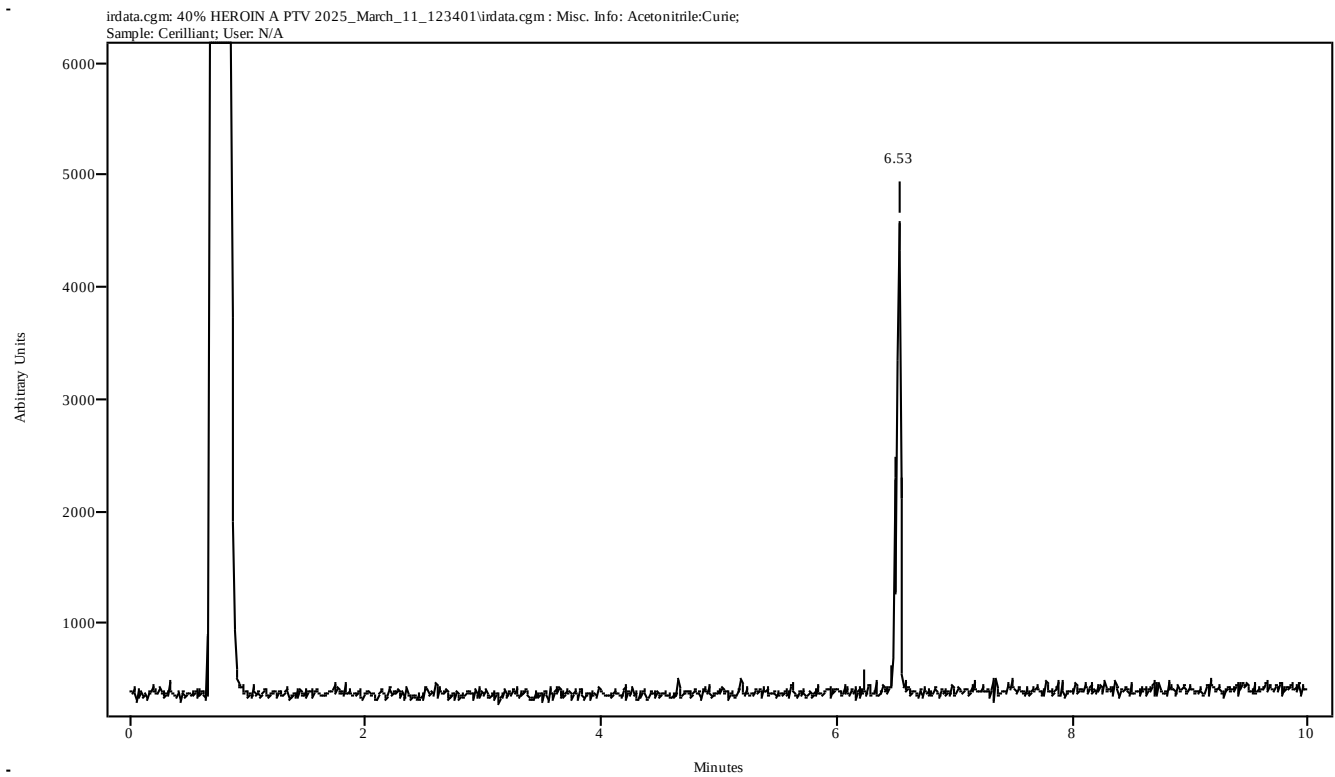
Compound Name	Component Area	Component RT
HEROIN	3706966.76452747	5.5



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	3706966.76452747	5.5	ASMSDRUGS100	Kenny	Acetonitrile	FE06151603 Exp 11/26/25

IRD Data Analysis Report

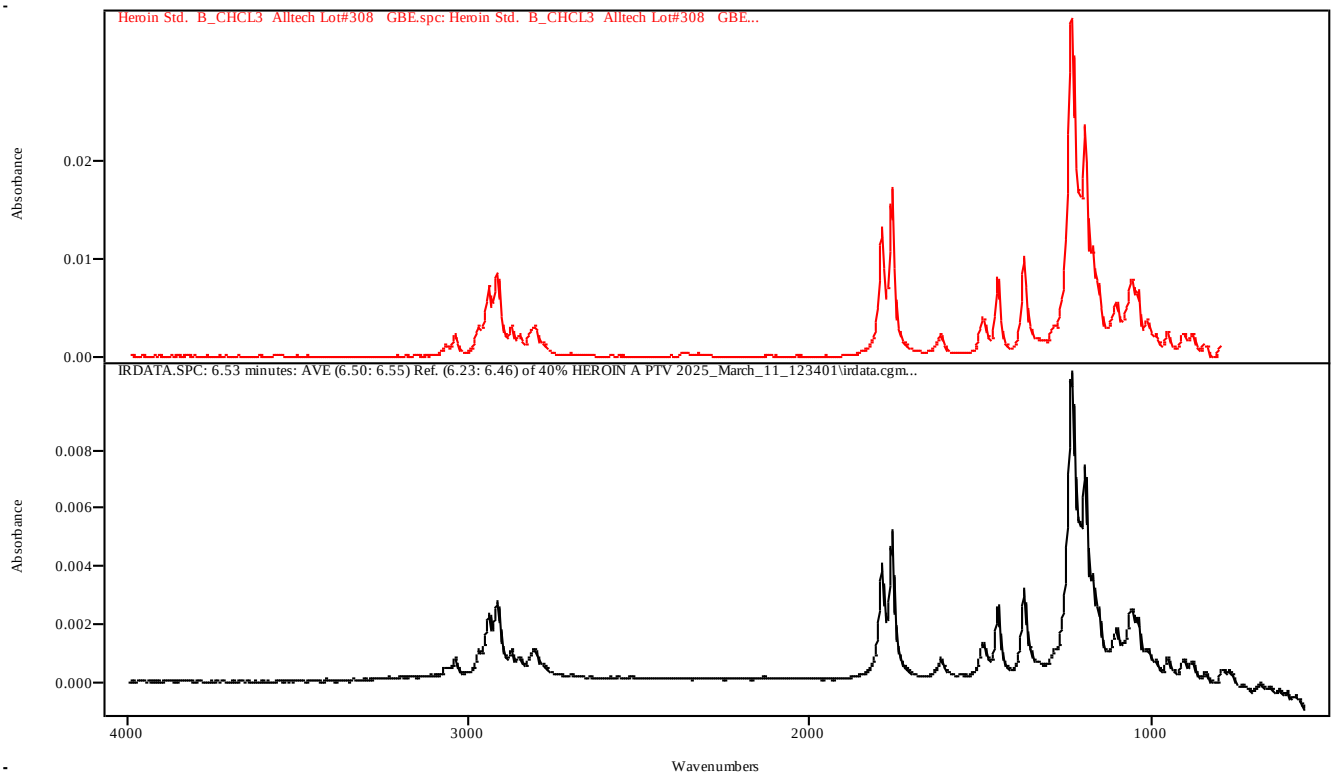
Data Filename	40% HEROIN A PTV 2025_March_11_123401
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:43:22 2025
Date Processed	Wed Mar 12 10:54:43 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.505	6.550	0.045	6.234	6.459

IRD Data Analysis Report

Data Filename	40% HEROIN A PTV 2025_March_11_123401
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:43:22 2025
Date Processed	Wed Mar 12 10:54:43 2025



IRDATA.SPC: 6.53 minutes: AVE (6.50: 6.55) Ref. (6.23: 6.46) of 40% HEROIN A PTV 2025_March_11_123401.cgm

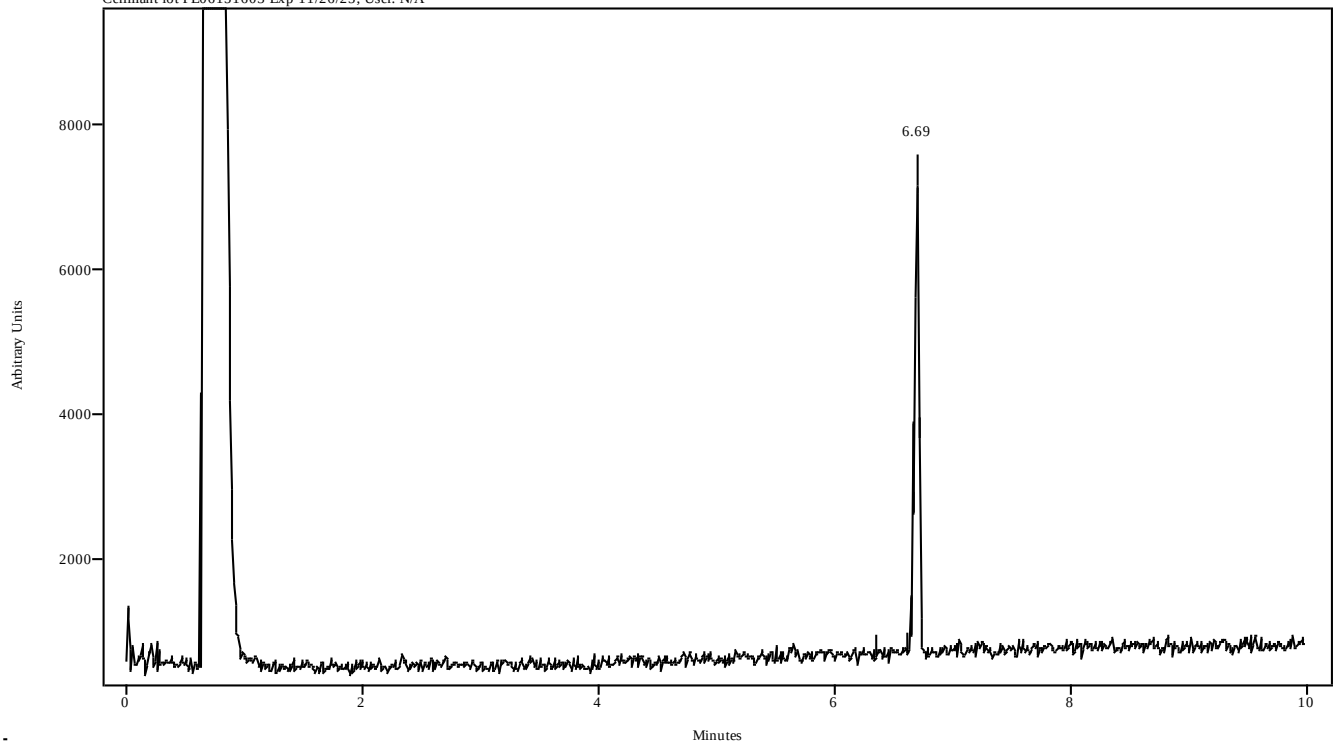
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998290	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	40% HEROIN A 2025_March_11_101501
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:26:57 2025
Date Processed	Tue Mar 11 10:42:48 2025

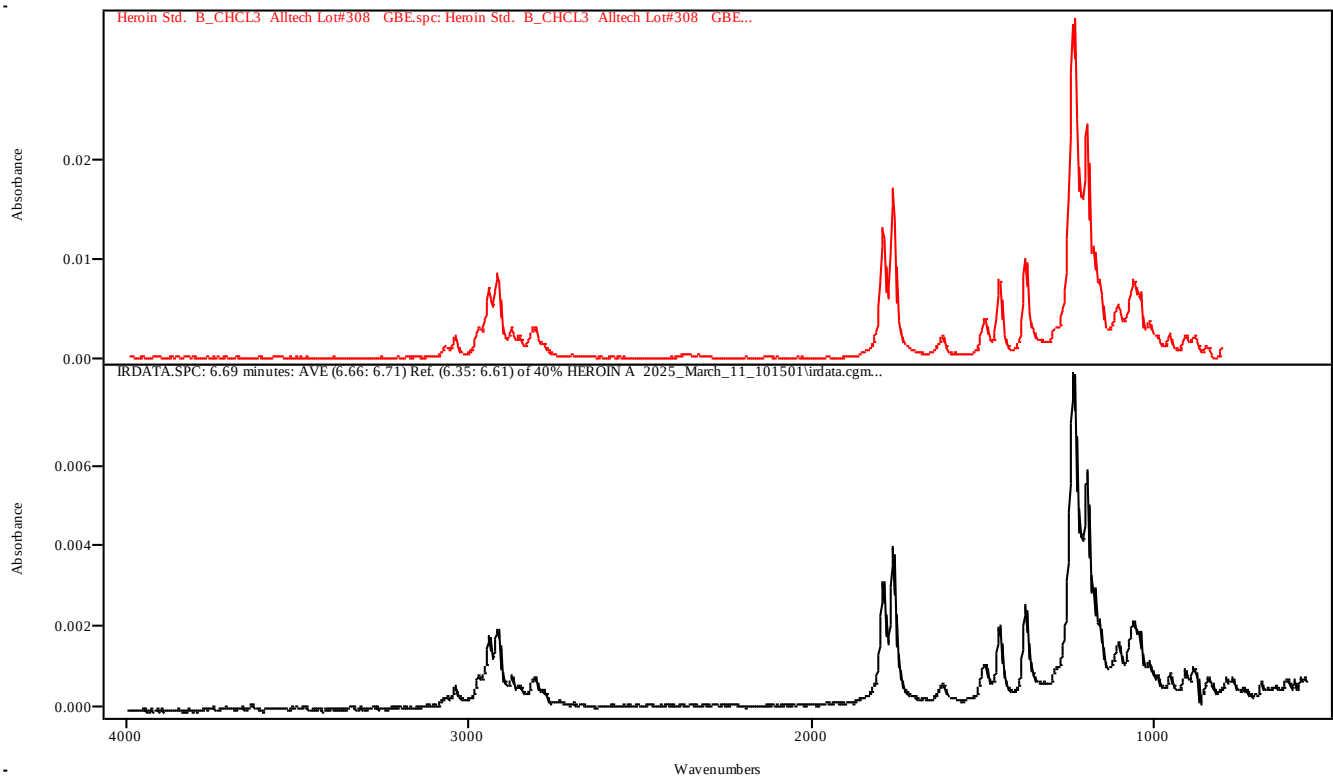
irdata.cgm: 40% HEROIN A 2025_March_11_101501\irdata.cgm : Misc. Info: Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.659	6.715	0.056	6.347	6.614

IRD Data Analysis Report

Data Filename	40% HEROIN A 2025_March_11_101501
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:26:57 2025
Date Processed	Tue Mar 11 10:42:48 2025



IRDATA.SPC: 6.69 minutes: AVE (6.66: 6.71) Ref. (6.35: 6.61) of 40% HEROIN A
2025_March_11_101501.cgm

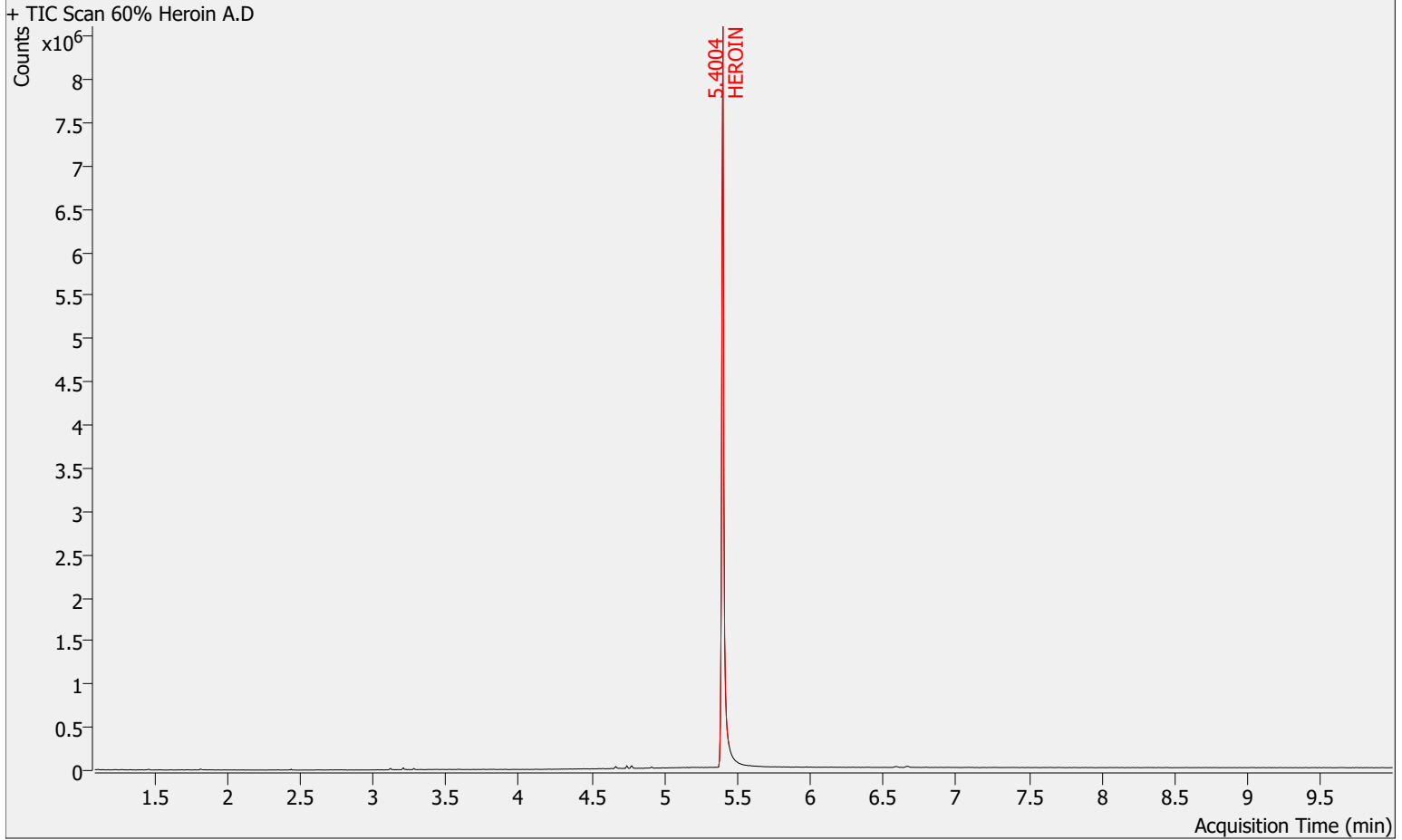
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.994747	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

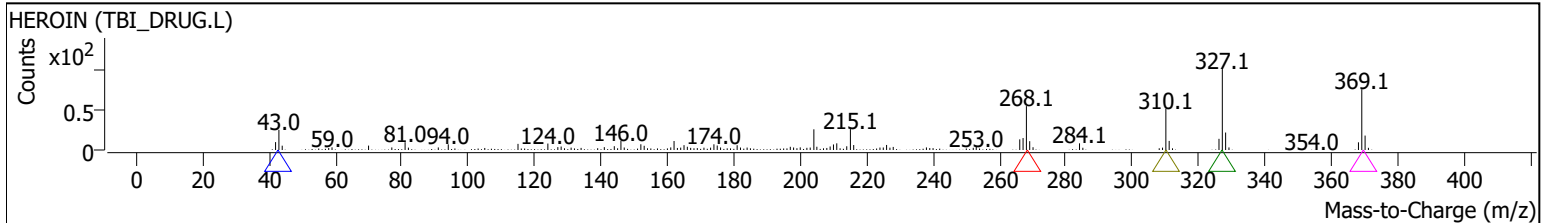
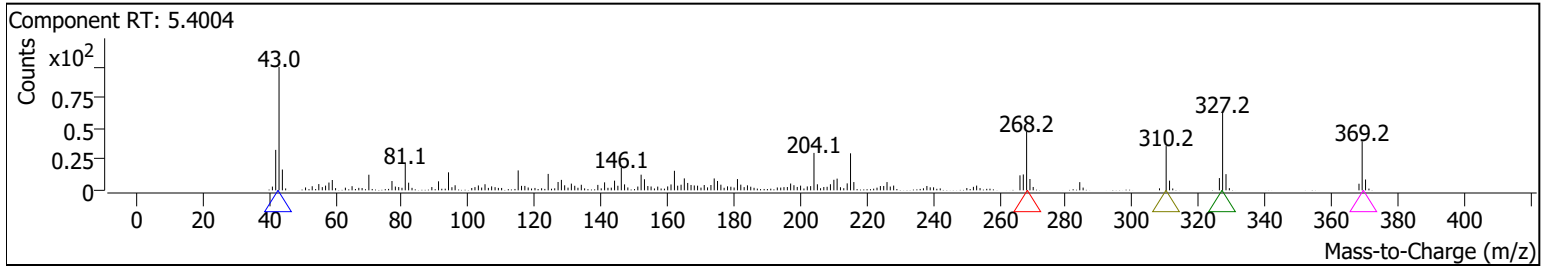
TBI Forensic Chemistry Report

File Name	60% Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 10:00:19 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	5

Sample Chromatogram



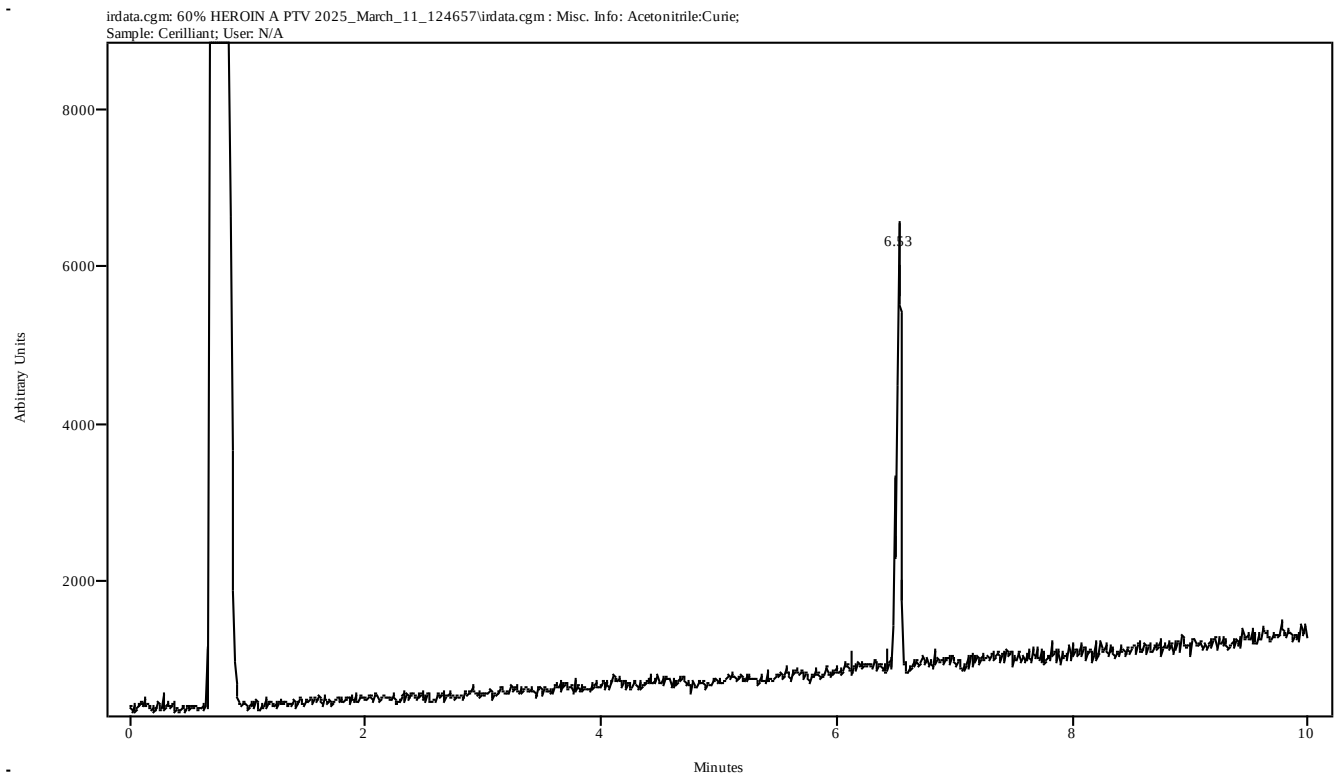
Compound Name	Component Area	Component RT
HEROIN	8706808.82706191	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	8706808.82706191	5.4				FE06151603 Exp
						11/26/25

IRD Data Analysis Report

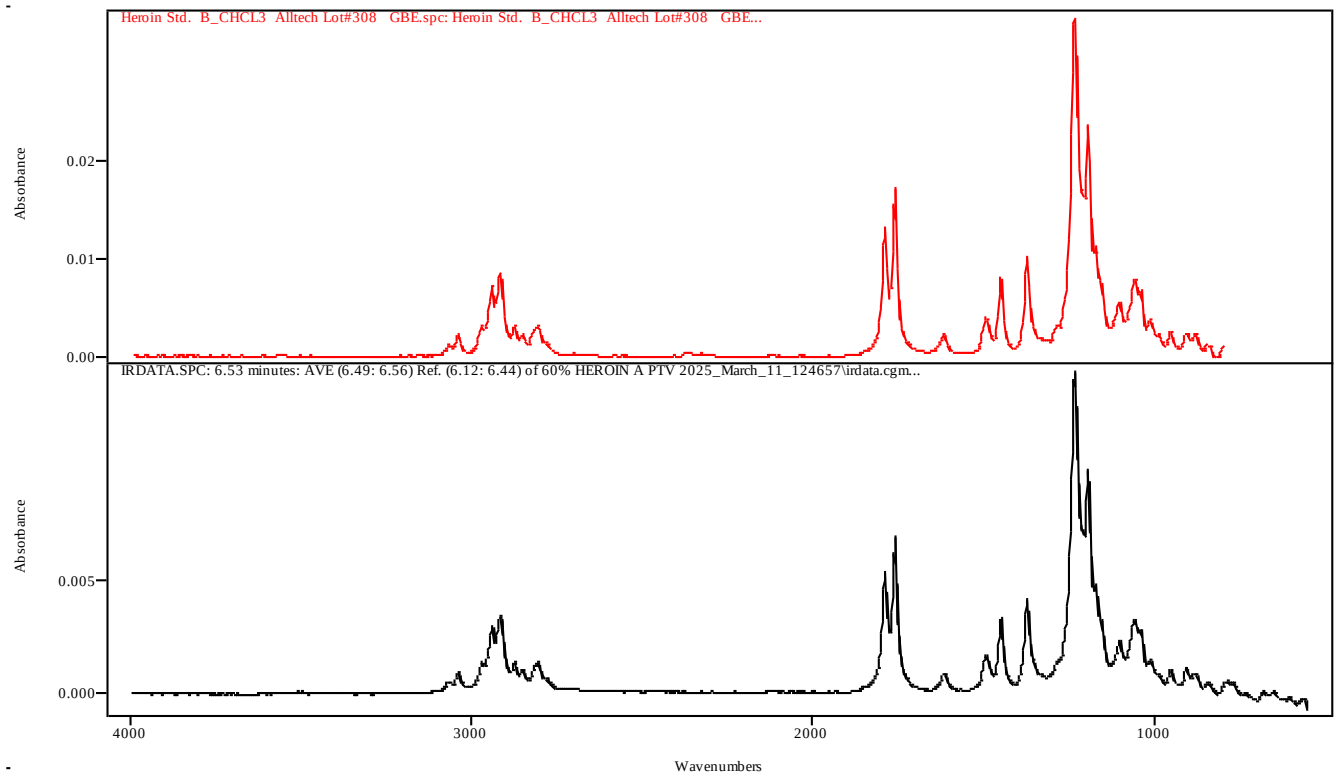
Data Filename	60% HEROIN A PTV 2025_March_11_124657
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:56:09 2025
Date Processed	Wed Mar 12 10:55:56 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.493	6.561	0.068	6.121	6.437

IRD Data Analysis Report

Data Filename	60% HEROIN A PTV 2025_March_11_124657
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 12:56:09 2025
Date Processed	Wed Mar 12 10:55:56 2025



IRDATA.SPC: 6.53 minutes: AVE (6.49: 6.56) Ref. (6.12: 6.44) of 60% HEROIN A PTV 2025_March_11_124657.cgm

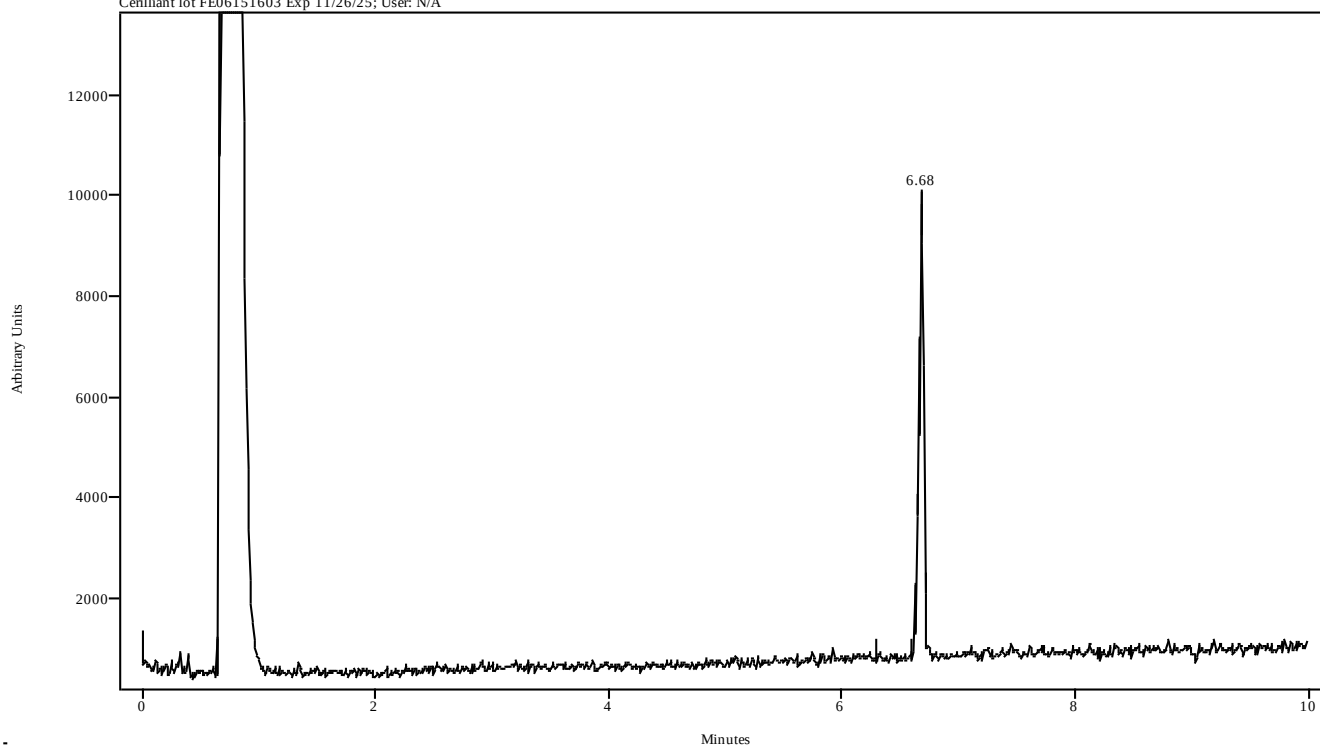
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.999303	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	60% HEROIN A 2025_March_11_102727
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:39:23 2025
Date Processed	Tue Mar 11 10:43:52 2025

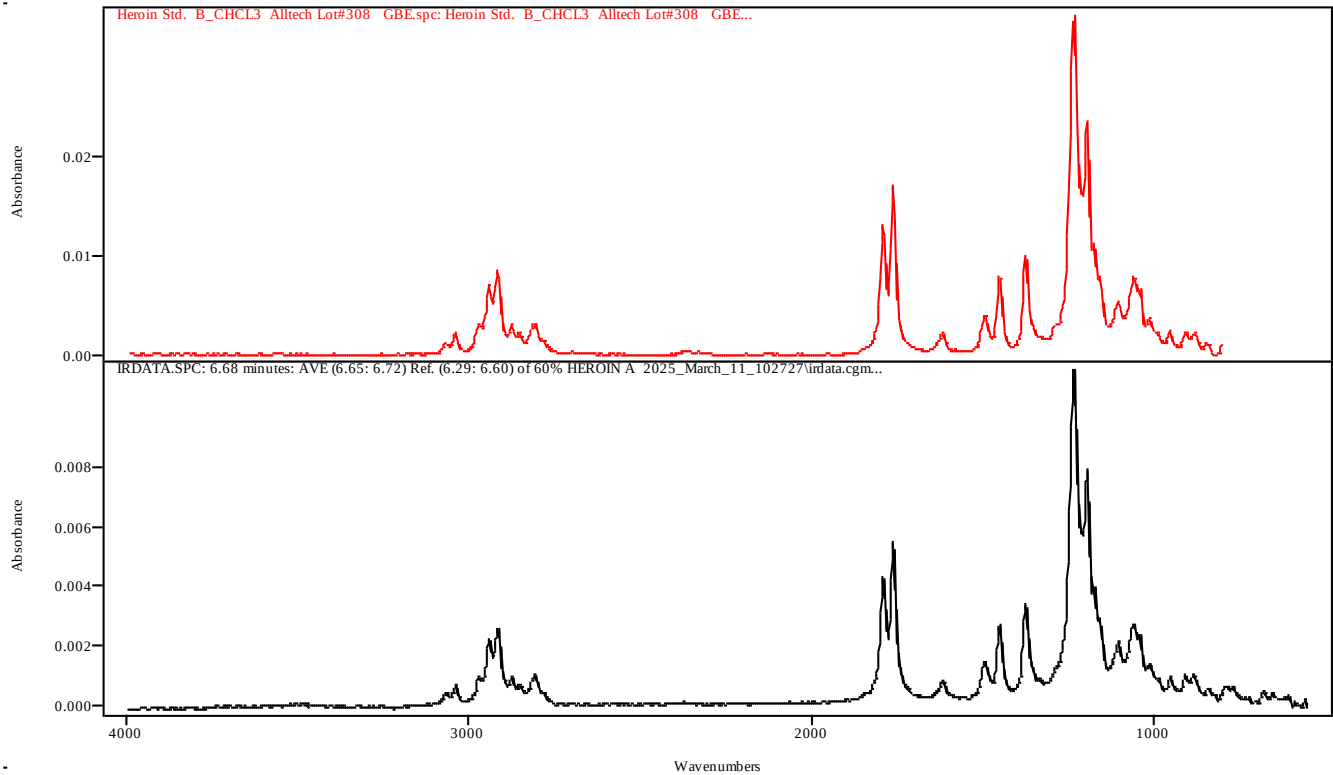
irdata.cgm: 60% HEROIN A 2025_March_11_102727\irdata.cgm : Misc. Info: Acetonitrile:Yoda; Sample: Cerilliant lot FE06151603 Exp 11/26/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.648	6.715	0.067	6.291	6.604

Spectral Library Search Results

Data Filename	60% HEROIN A 2025_March_11_102727
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
File Title	6.68 minutes: AVE (6.65: 6.72) Ref. (6.29: 6.60) of 60% HEROIN A 2025_March_11_102727.cgm
Date	Tue Mar 11 10:43:53 2025
Search Algorithm	Correlation Coefficient
Search Regions	Full Spectrum



IRDATA.SPC: 6.68 minutes: AVE (6.65: 6.72) Ref. (6.29: 6.60) of 60% HEROIN A 2025_March_11_102727.cgm

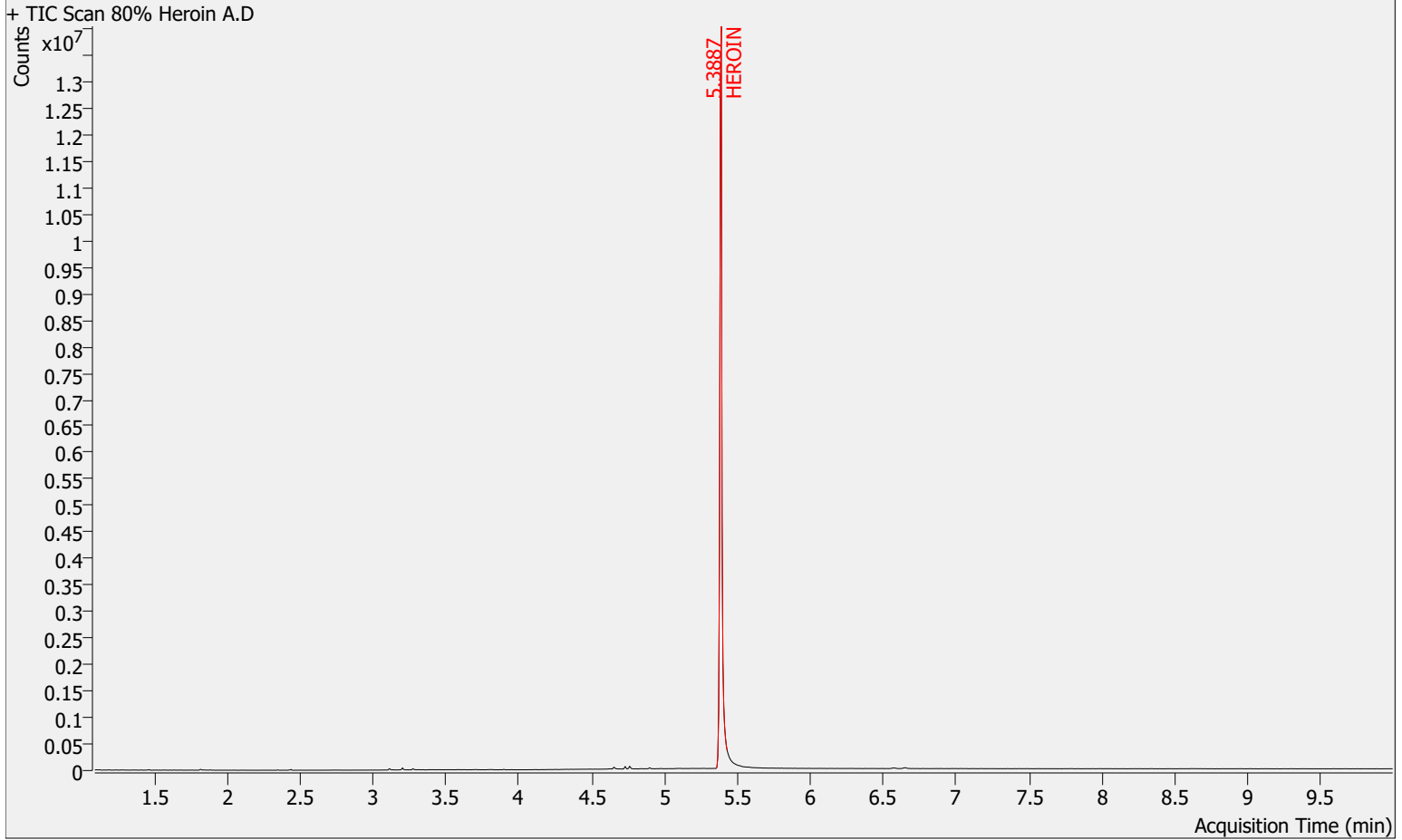
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.996691	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

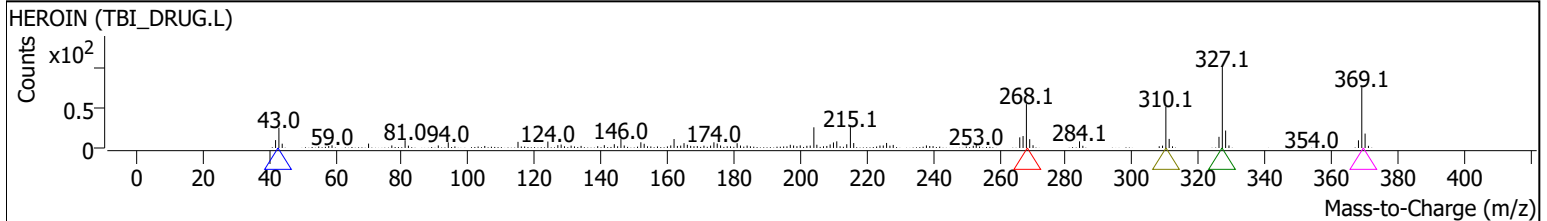
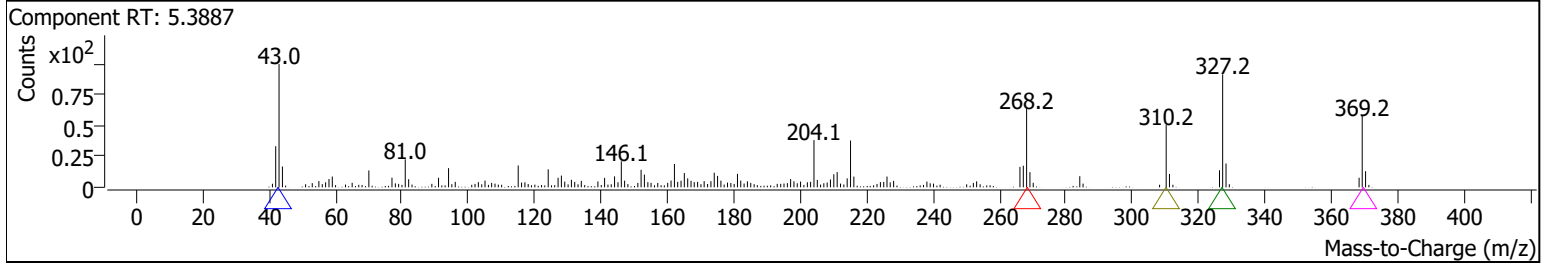
TBI Forensic Chemistry Report

File Name	80% Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 10:13:27 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	6

Sample Chromatogram



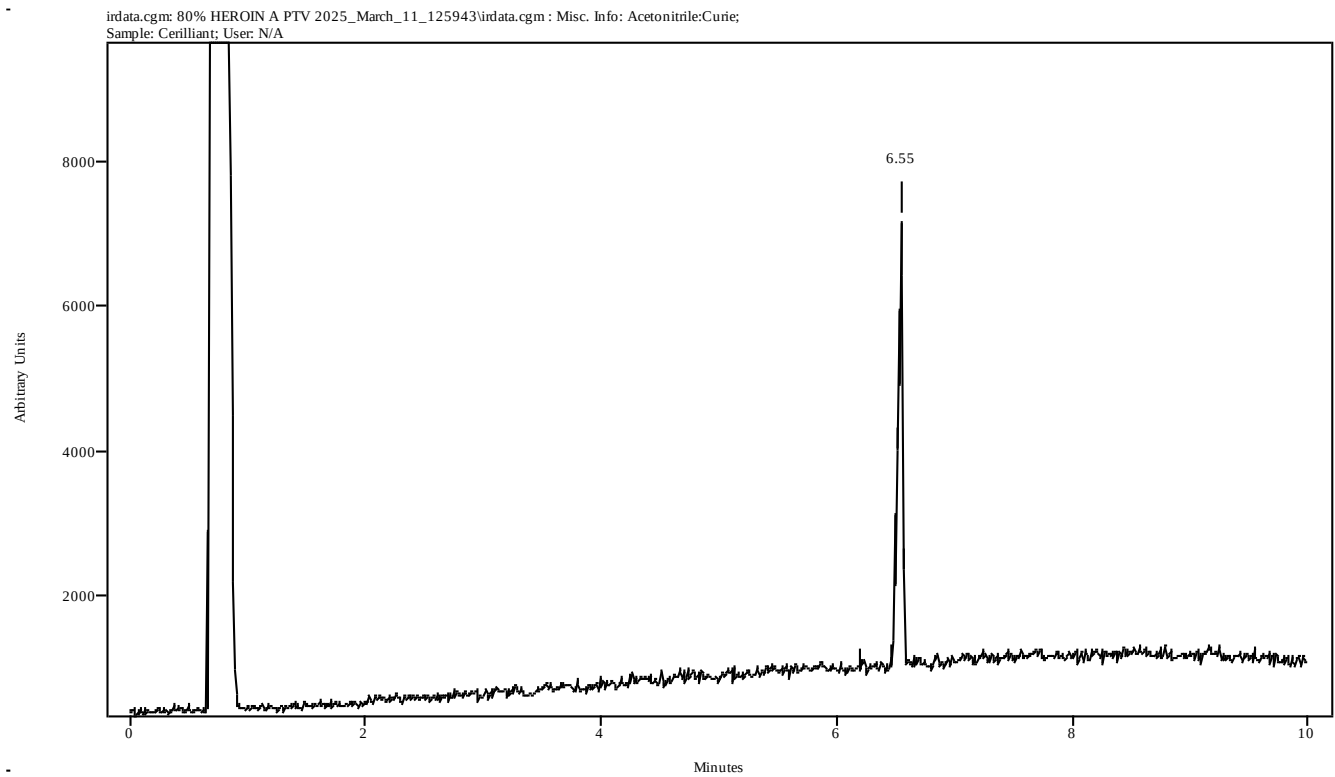
Compound Name	Component Area	Component RT
HEROIN	14801050.8698295	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	14801050.8698295	5.4				FE06151603 Exp
						11/26/25

IRD Data Analysis Report

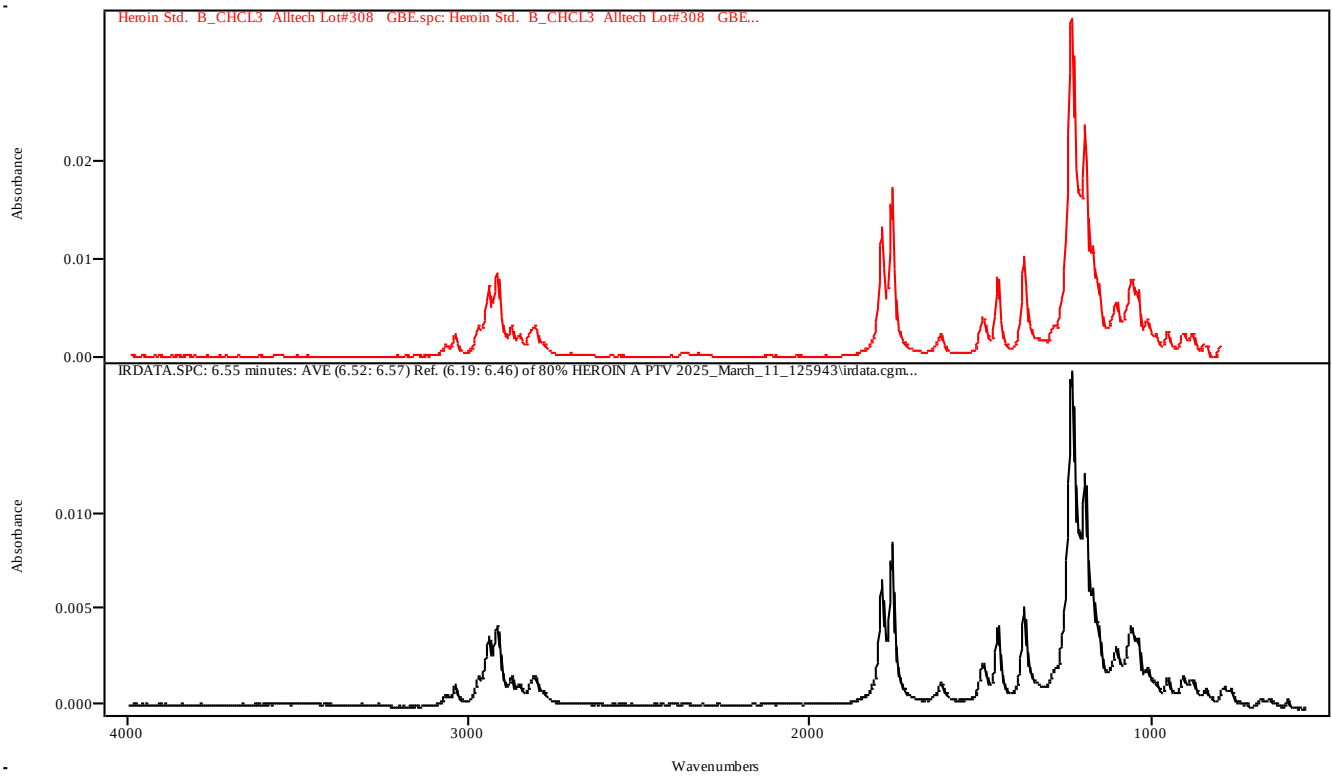
Data Filename	80% HEROIN A PTV 2025_March_11_125943
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:08:58 2025
Date Processed	Wed Mar 12 10:57:36 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.515	6.572	0.056	6.189	6.459

IRD Data Analysis Report

Data Filename	80% HEROIN A PTV 2025_March_11_125943
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:08:58 2025
Date Processed	Wed Mar 12 10:57:36 2025



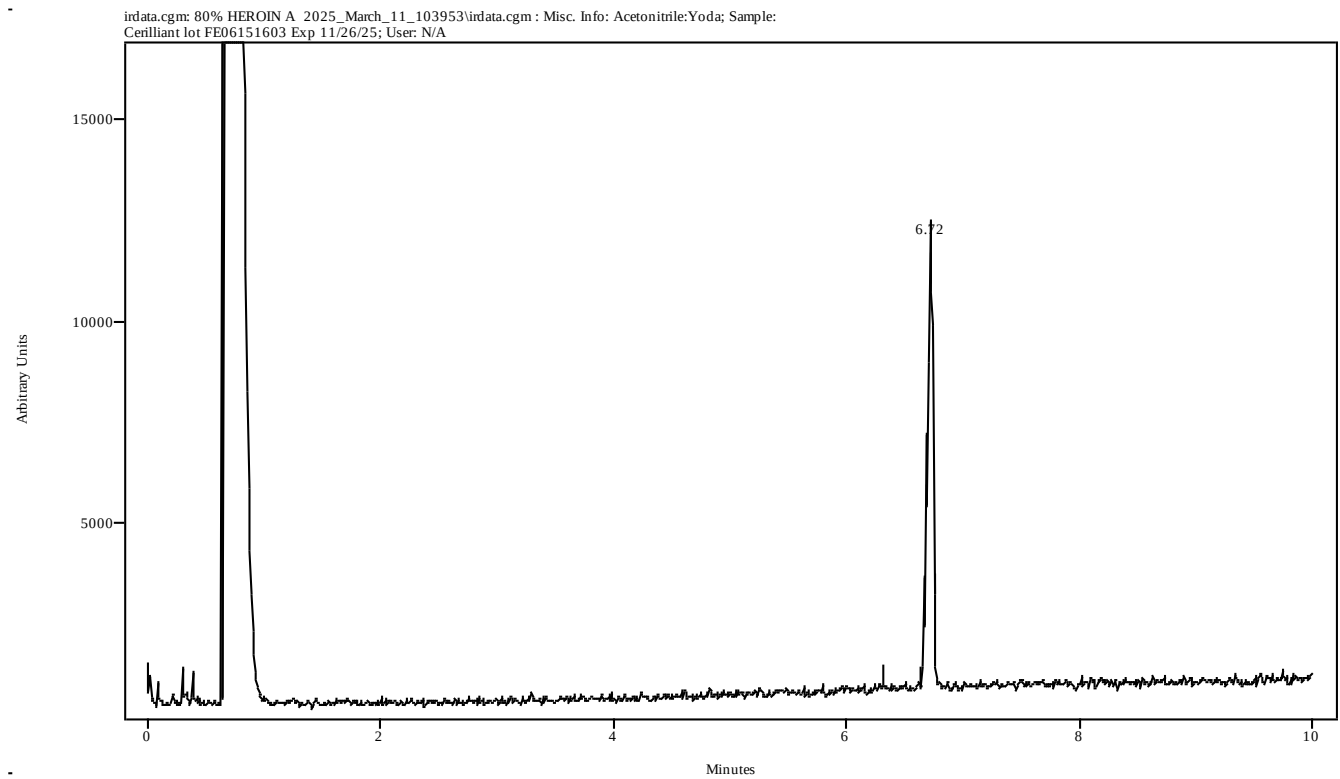
IRDATA.SPC: 6.55 minutes: AVE (6.52: 6.57) Ref. (6.19: 6.46) of 80% HEROIN A PTV 2025_March_11_125943.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998710	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

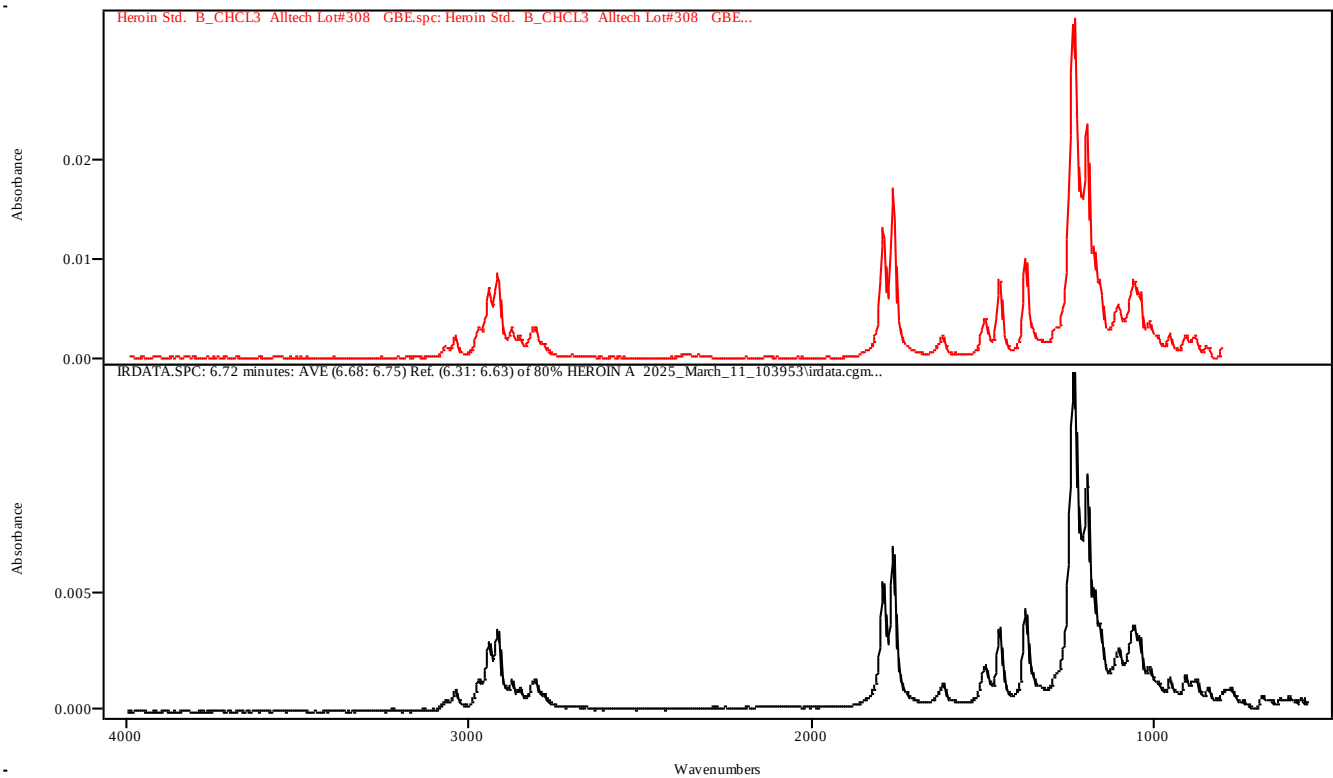
Data Filename	80% HEROIN A 2025_March_11_103953
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:51:48 2025
Date Processed	Tue Mar 11 11:35:46 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.683	6.750	0.067	6.315	6.627

IRD Data Analysis Report

Data Filename	80% HEROIN A 2025_March_11_103953
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 10:51:48 2025
Date Processed	Tue Mar 11 11:35:46 2025



IRDATA.SPC: 6.72 minutes: AVE (6.68: 6.75) Ref. (6.31: 6.63) of 80% HEROIN A
2025_March_11_103953.cgm

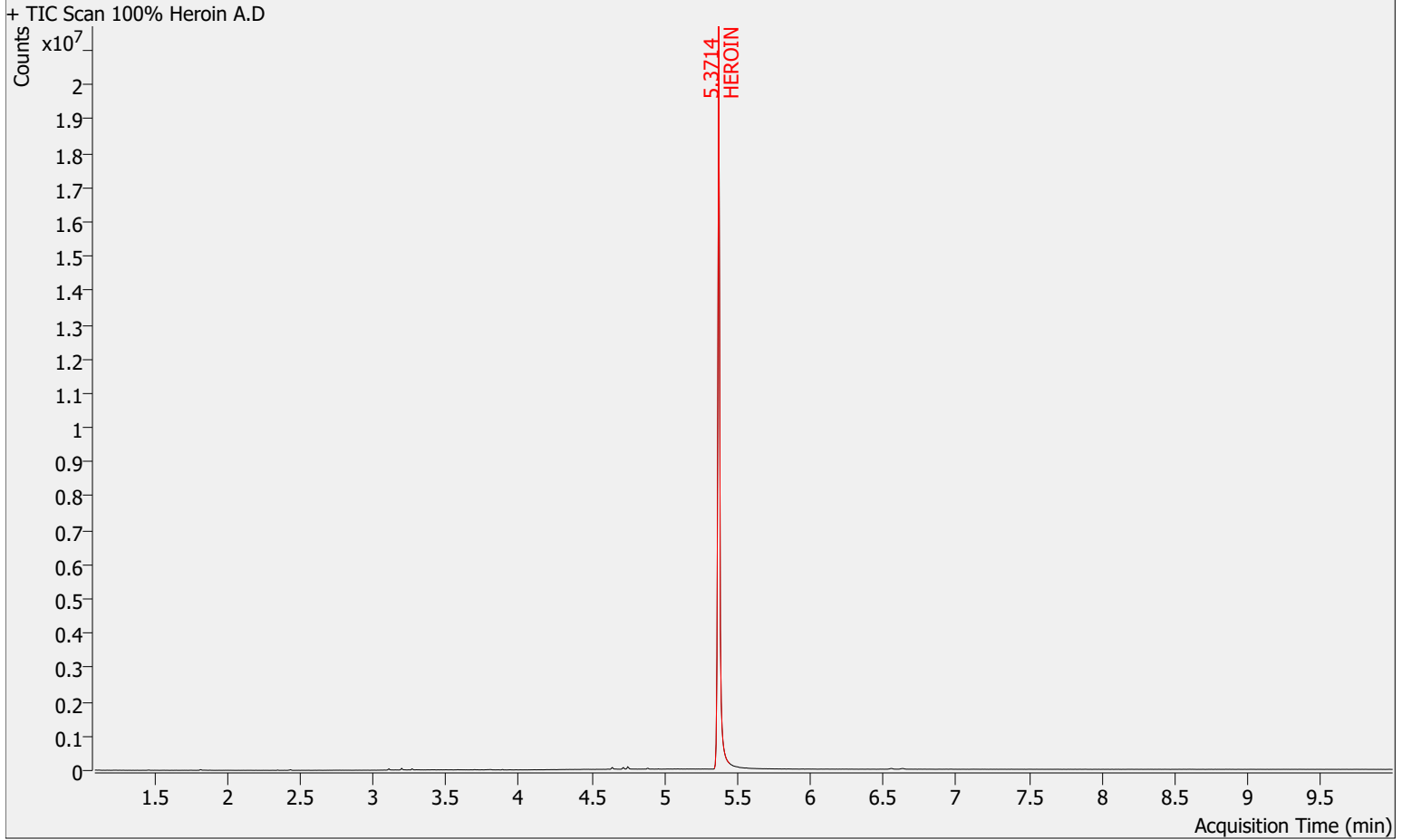
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.996706	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

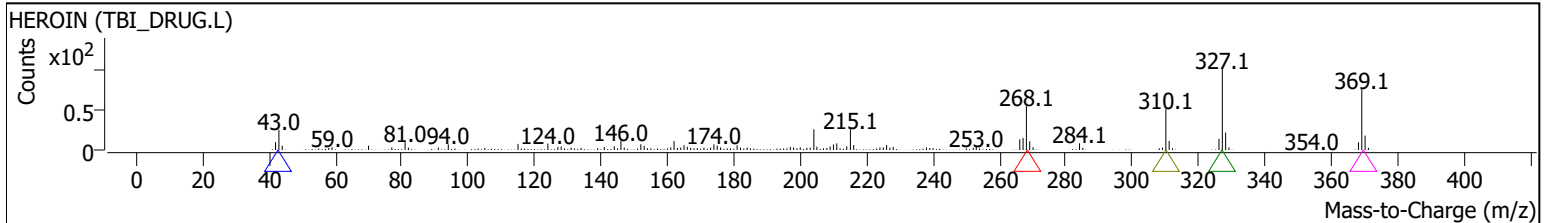
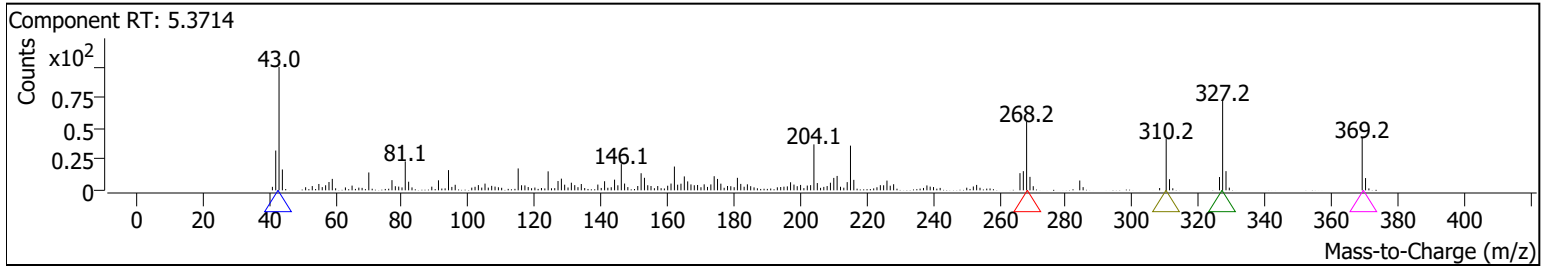
TBI Forensic Chemistry Report

File Name	100% Heroin A.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 10:26:34 AM	Acq. Operator	TBI Nashville Analyst
Comment	Acetonitrile	Vial	7

Sample Chromatogram



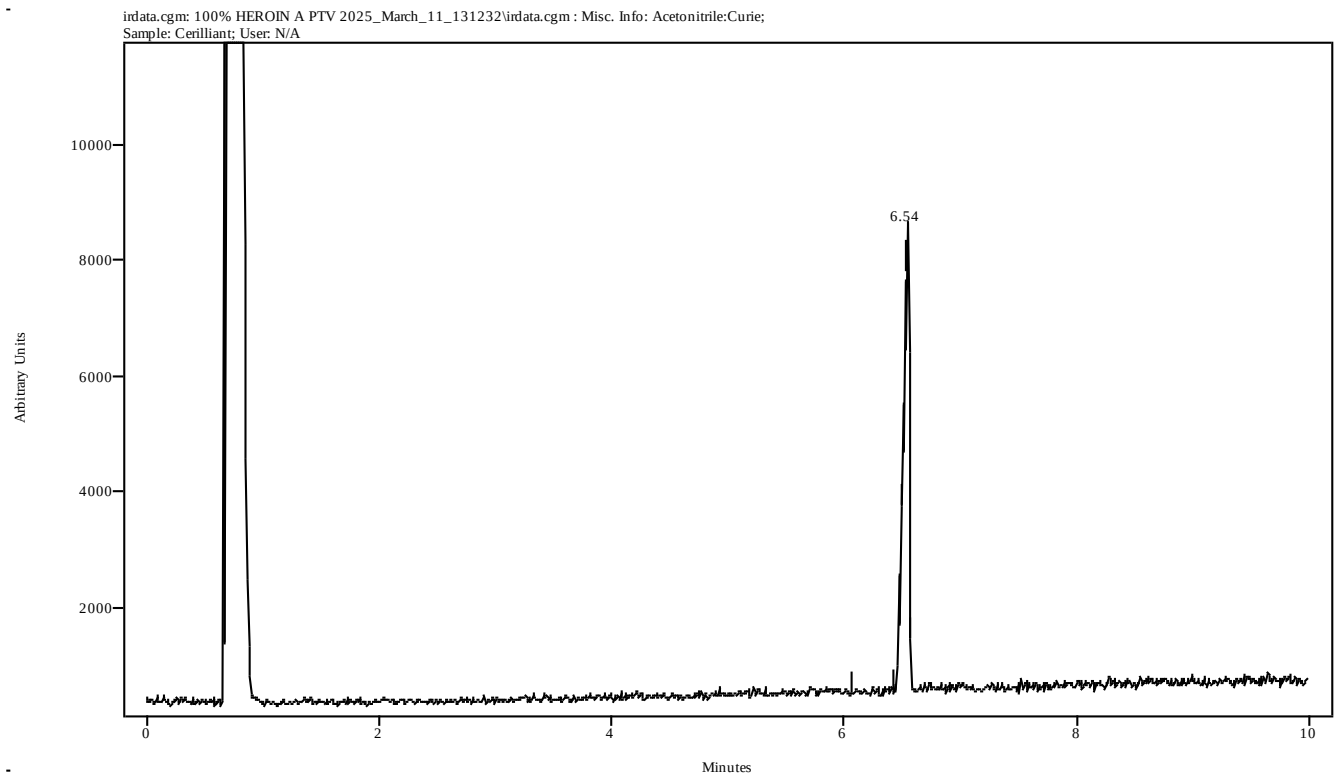
Compound Name	Component Area	Component RT
HEROIN	21364843.4177269	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Acetonitrile	Cerilliant lot
	21364843.4177269	5.4	ASMSDRUGS100	Kenny	Acetonitrile	FE06151603 Exp 11/26/25

IRD Data Analysis Report

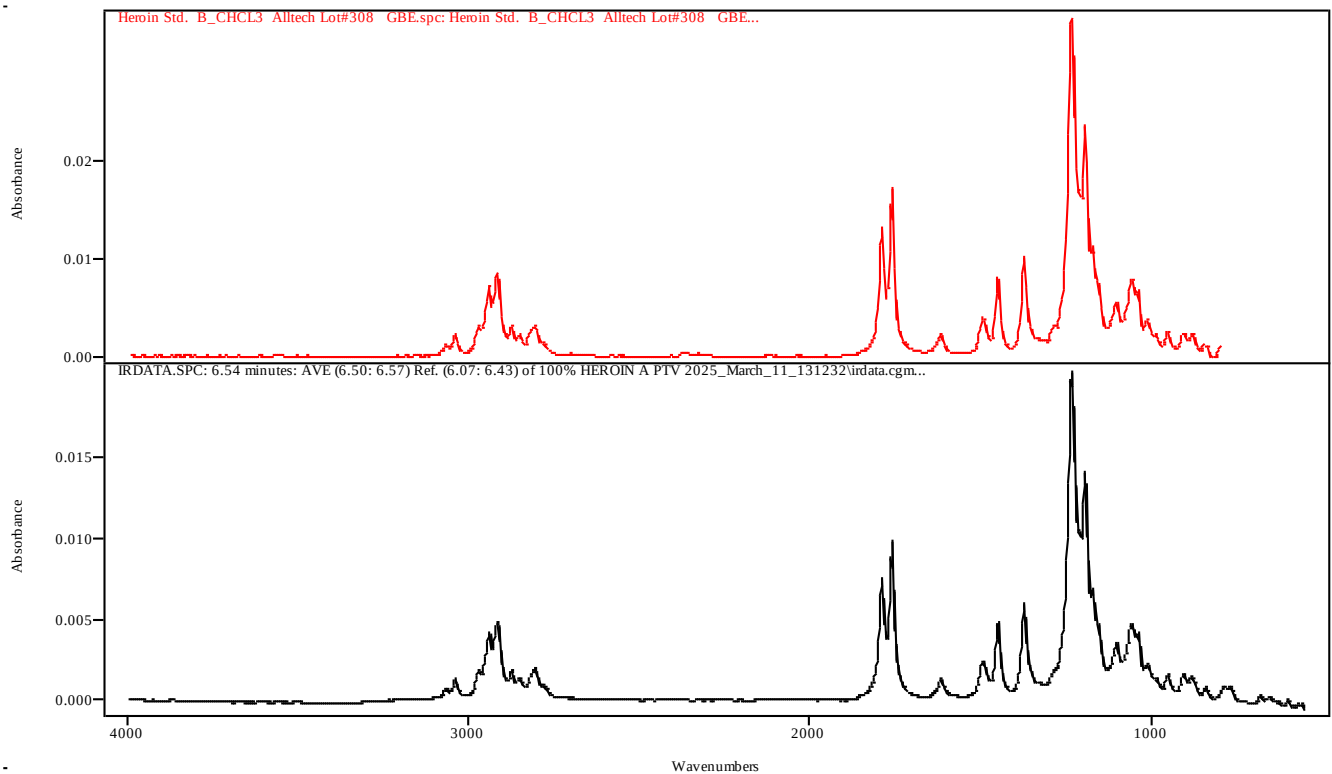
Data Filename	100% HEROIN A PTV 2025_March_11_131232
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:21:58 2025
Date Processed	Wed Mar 12 10:59:31 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.495	6.574	0.079	6.067	6.428

IRD Data Analysis Report

Data Filename	100% HEROIN A PTV 2025_March_11_131232
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant
Misc. Info	Acetonitrile:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:21:58 2025
Date Processed	Wed Mar 12 10:59:31 2025



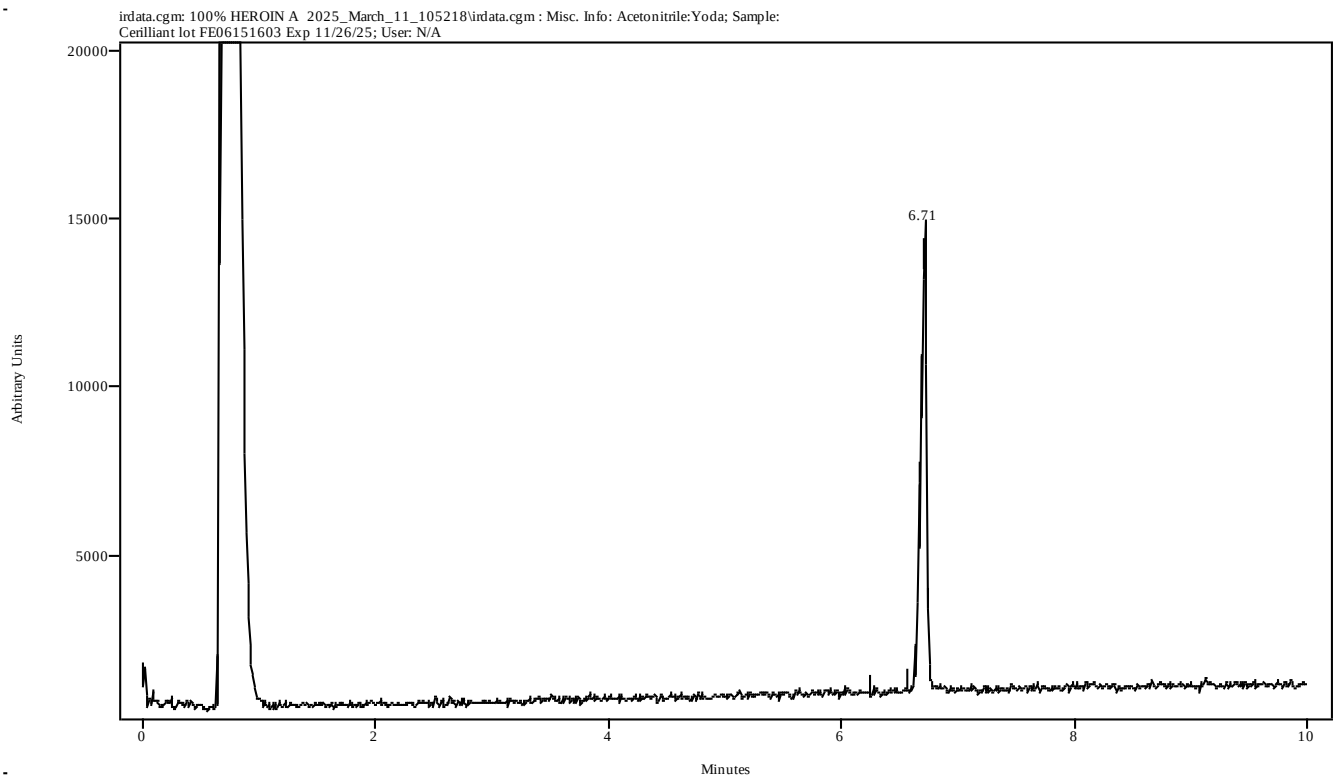
IRDATA.SPC: 6.54 minutes: AVE (6.50: 6.57) Ref. (6.07: 6.43) of 100% HEROIN A PTV 2025_March_11_131232.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.999309	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

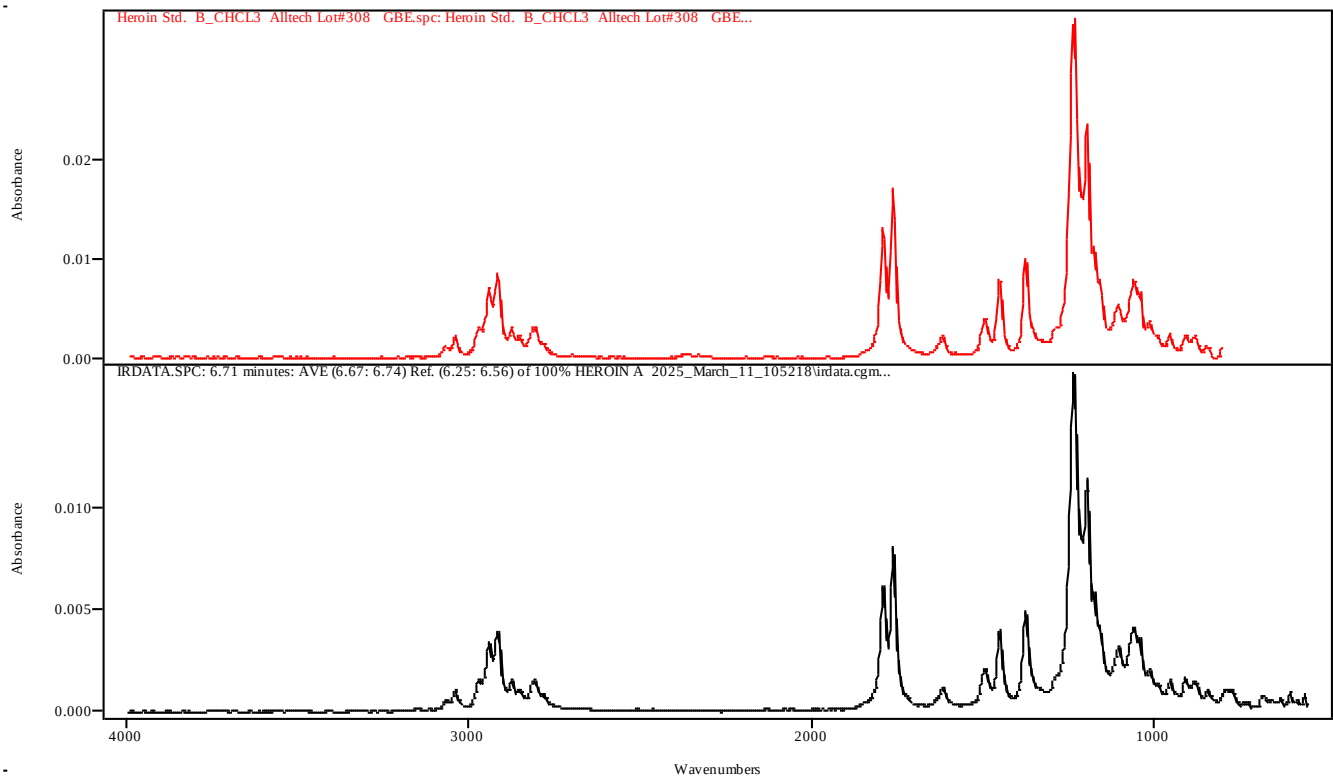
Data Filename	100% HEROIN A 2025_March_11_105218
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:04:09 2025
Date Processed	Tue Mar 11 11:37:30 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.672	6.739	0.067	6.248	6.561

IRD Data Analysis Report

Data Filename	100% HEROIN A 2025_March_11_105218
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant lot FE06151603 Exp 11/26/25
Misc. Info	Acetonitrile:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:04:09 2025
Date Processed	Tue Mar 11 11:37:30 2025



IRDATA.SPC: 6.71 minutes: AVE (6.67: 6.74) Ref. (6.25: 6.56) of 100% HEROIN A
2025_March_11_105218.cgm

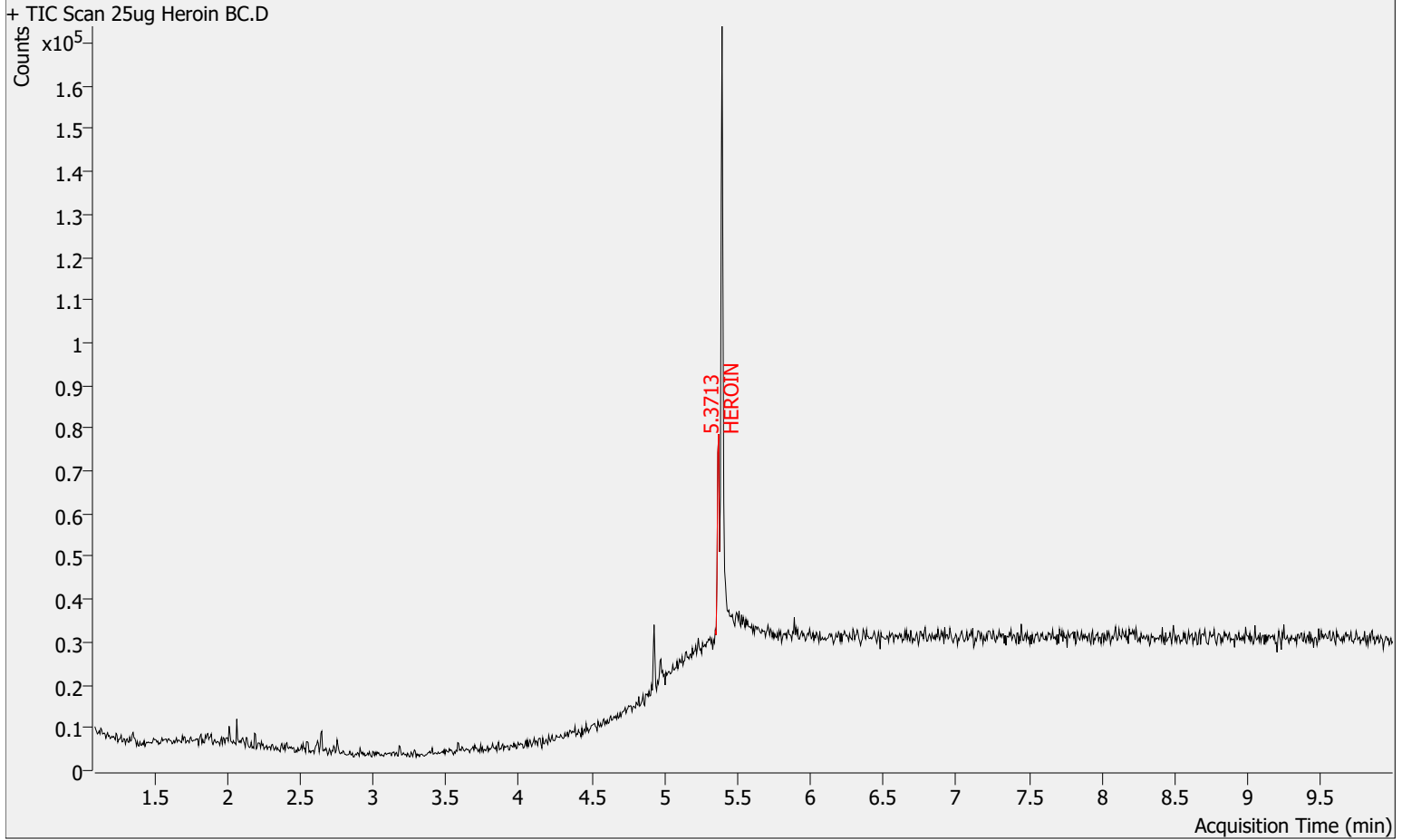
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.997207	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

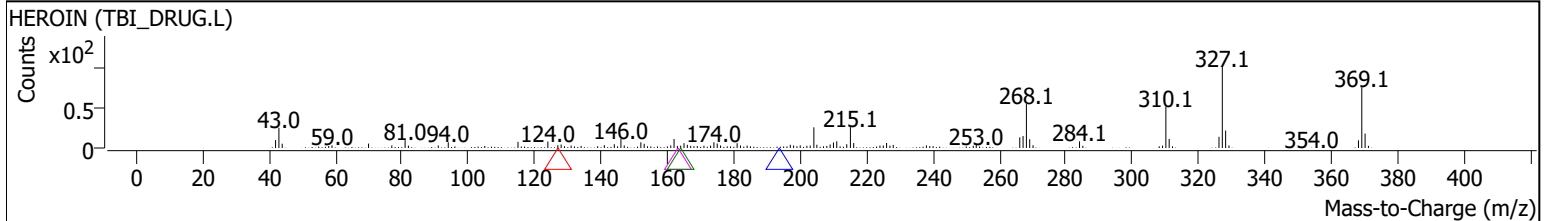
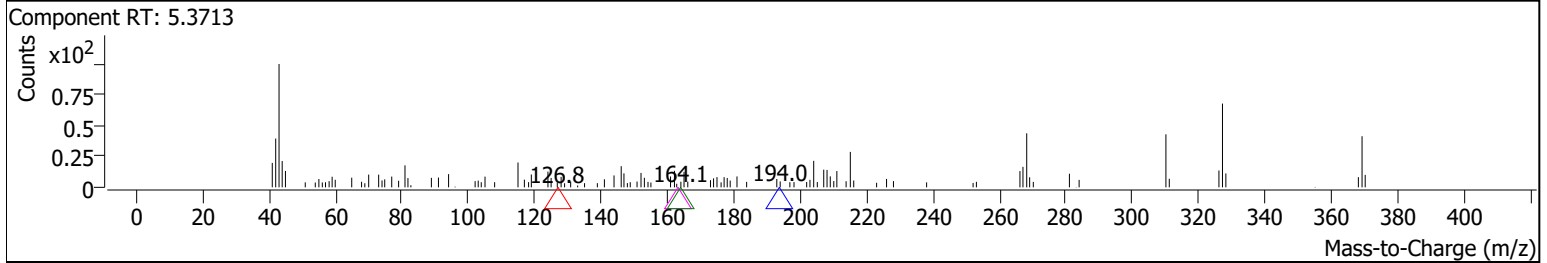
TBI Forensic Chemistry Report

File Name	25ug Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 9:34:18 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	7

Sample Chromatogram



Compound Name	Component Area	Component RT
HEROIN	41241.6526385478	5.4

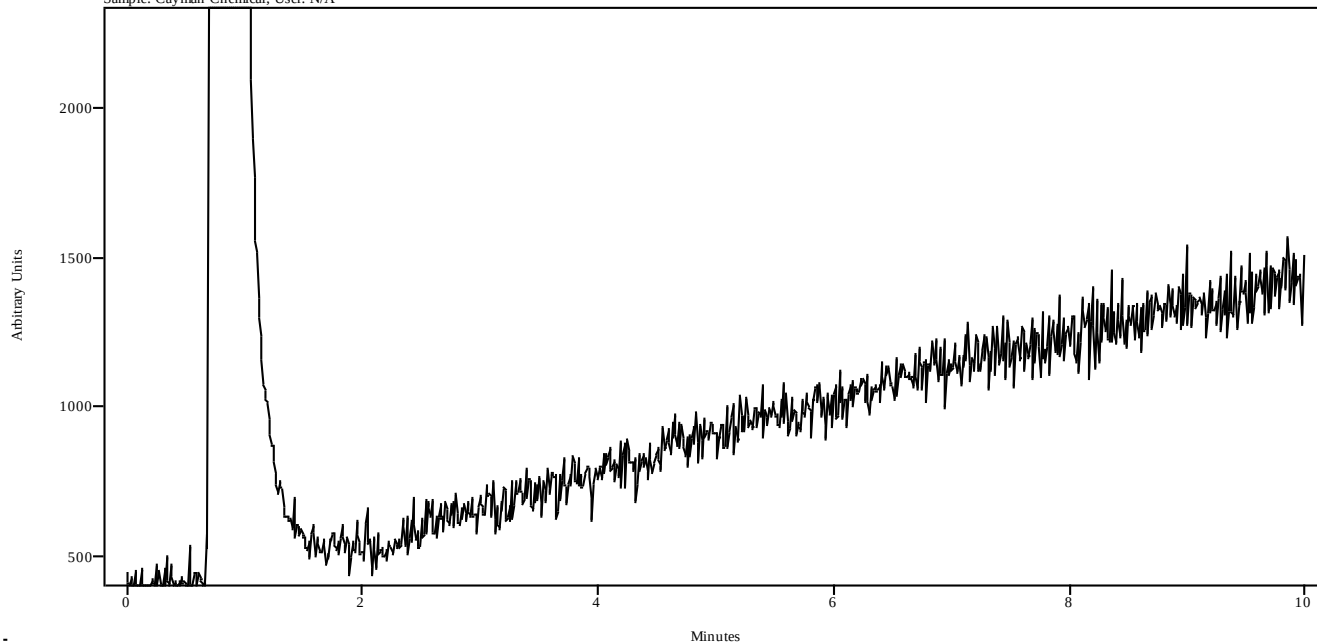


HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	41241.6526385478	5.4				

IRD Data Analysis Report

Data Filename	25UG HEROIN BC PTV 2025_March_12_090322
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:13:09 2025
Date Processed	Wed Mar 12 11:02:03 2025

irdata.cgm: 25UG HEROIN BC PTV 2025_March_12_090322\irdata.cgm : Misc. Info: Bicarb --> CHCl3:Curie;
Sample: Cayman Chemical; User: N/A

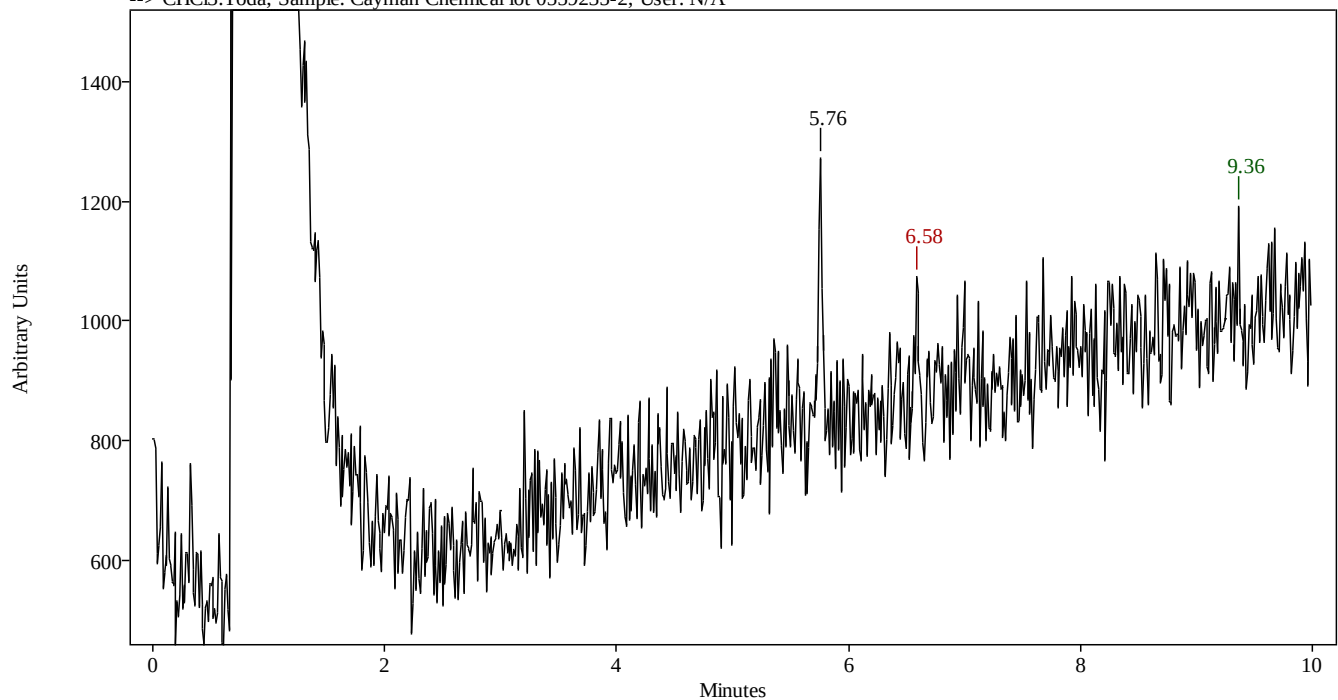


Peak Start	Peak End	Peak Width	Reference Start	Reference End
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IRD Data Analysis Report

Data Filename	25UG HEROIN BC 2025_March_13_055158
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:04:10 2025
Date Processed	Sat Mar 15 11:16:59 2025

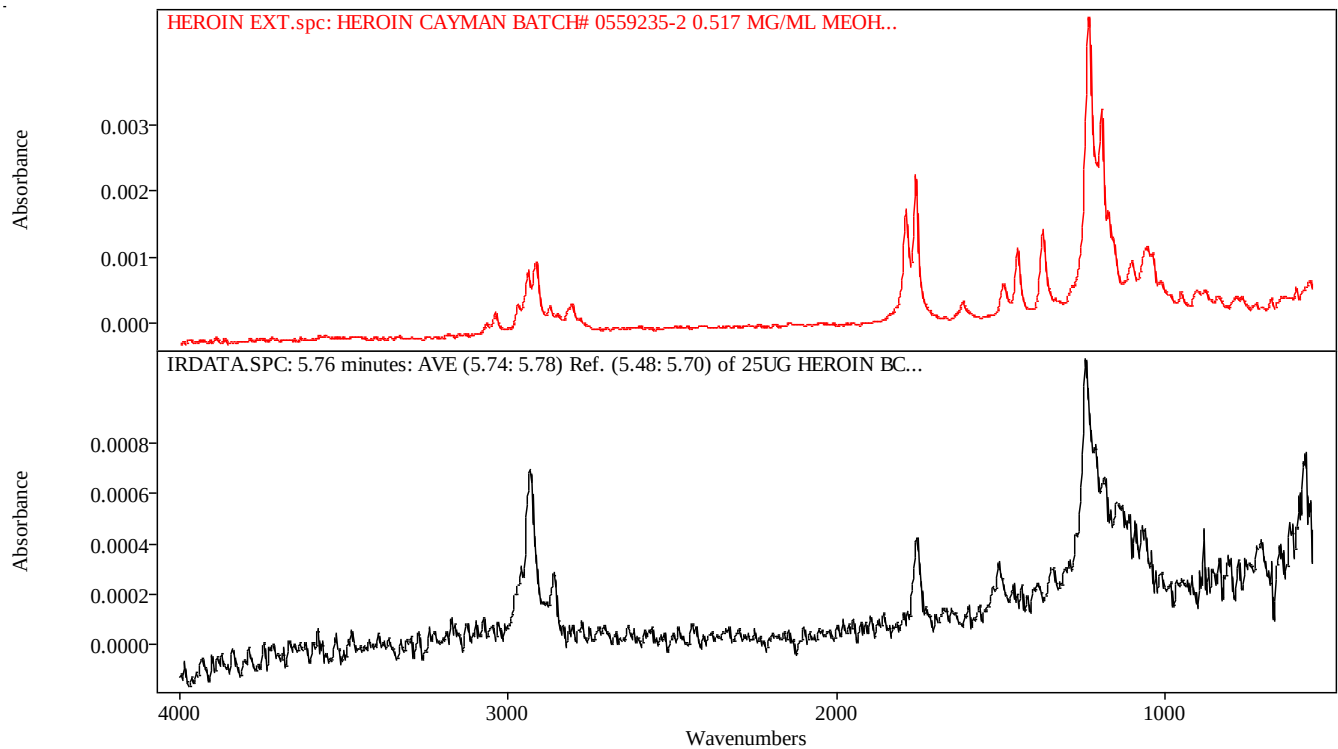
irdata.cgm: 25UG HEROIN BC 2025_March_13_055158\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Yoda; Sample: Cayman Chemical lot 0559235-2; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.735	5.780	0.045	5.478	5.702
6.550	6.605	0.056	6.315	6.538
9.328	9.373	0.045	9.149	9.328

IRD Data Analysis Report

Data Filename	25UG HEROIN BC 2025_March_13_055158
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:04:10 2025
Date Processed	Sat Mar 15 11:16:59 2025



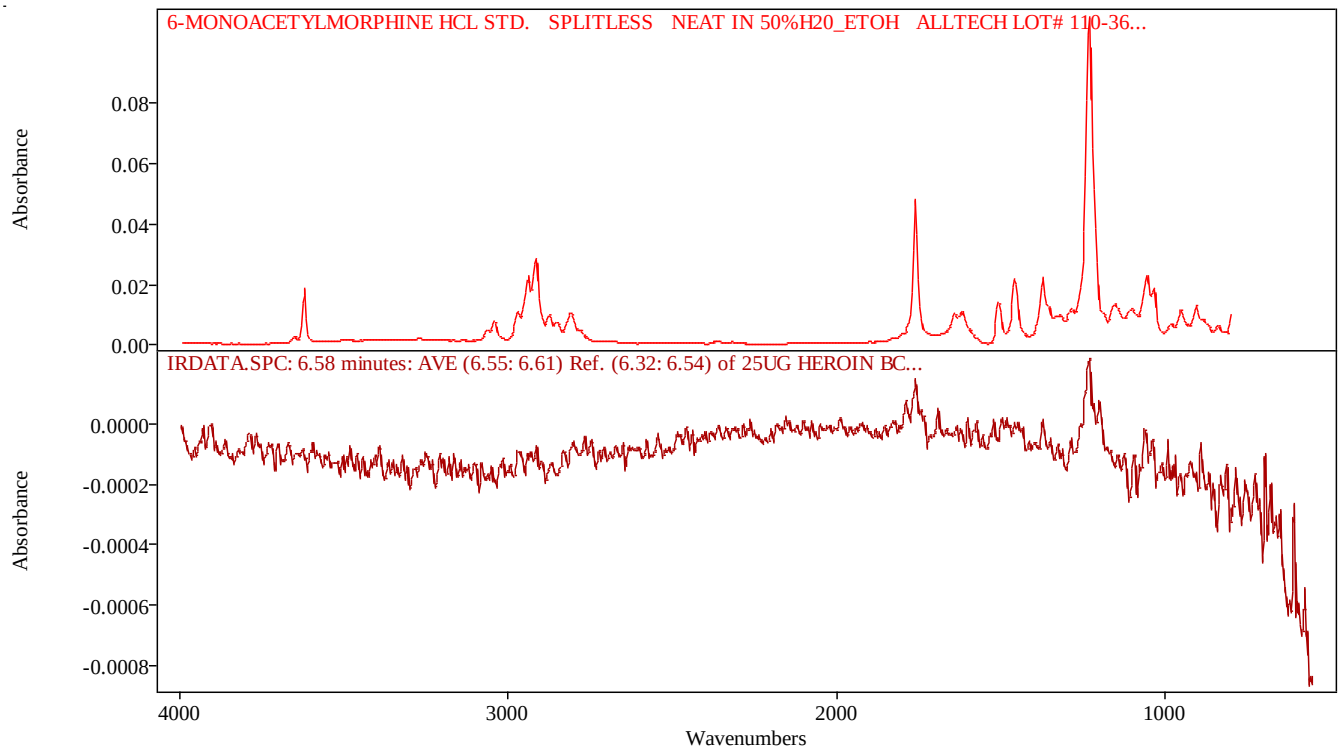
IRDATA.SPC: 5.76 minutes: AVE (5.74: 5.78) Ref. (5.48: 5.70) of 25UG HEROIN BC
2025_March_13_055158.cgm

HEROIN EXT.spc: HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH
2021_March_17_033238\irdata.cgm

Metric	Name	Library	Entry
0.826488	HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm	TBI GCIR EXT BH	45: HEROIN EXT.spc

IRD Data Analysis Report

Data Filename	25UG HEROIN BC 2025_March_13_055158
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:04:10 2025
Date Processed	Sat Mar 15 11:16:59 2025



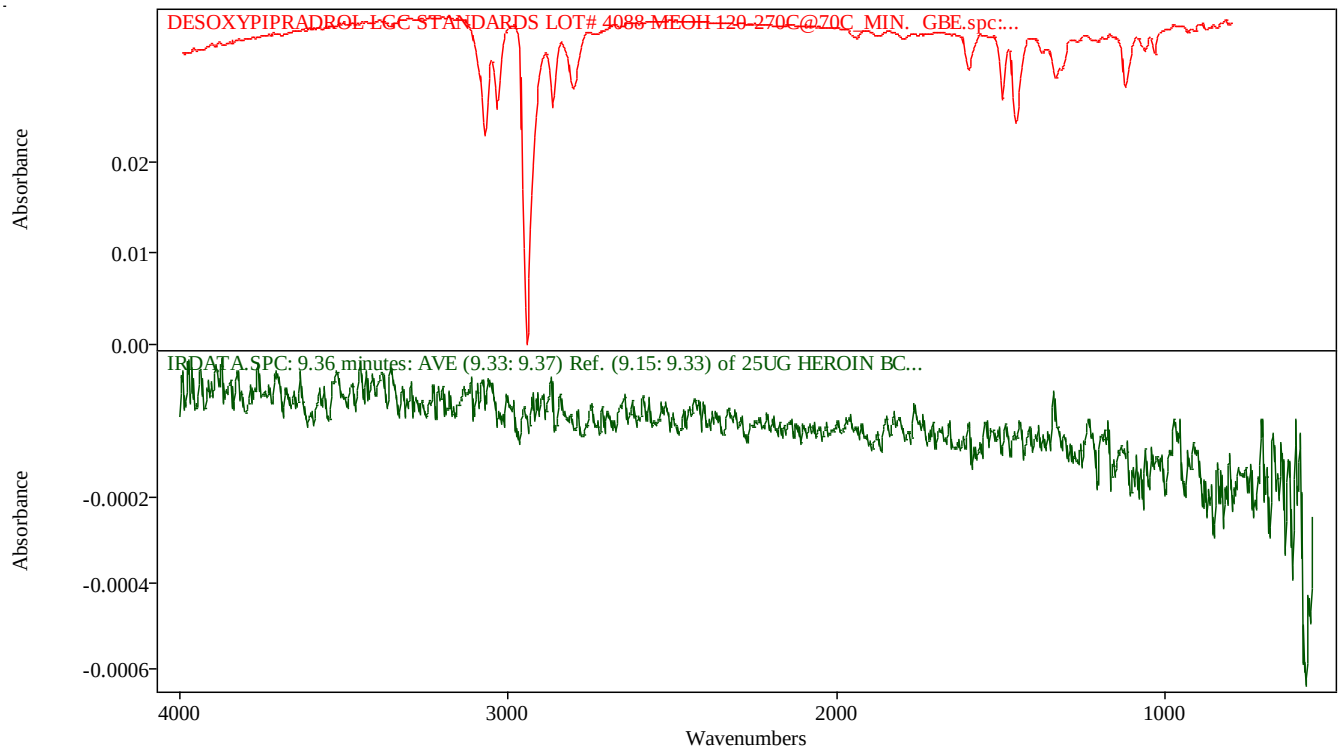
IRDATA.SPC: 6.58 minutes: AVE (6.55: 6.61) Ref. (6.32: 6.54) of 25UG HEROIN BC
2025_March_13_055158.cgm

6-MONOACETYLMORPHINE HCL STD. SPLITLESS NEAT IN 50%H2O_ETOH ALLTECH LOT#
110-36 9032-2 TLB.spc: 6-MONOACETYLMORPHINE HCL STD. SPLITLESS NEAT IN
50%H2O_ETOH ALLTECH LOT# 110-36 9032-2 TLB

Metric	Name	Library	Entry
0.762135	6-MONOACETYLMORPHINE HCL STD. SPLITLESS NEAT IN 50%H2O_ETOH ALLTECH LOT# 110-36 9032-2 TLB	TBI GCIR combined Thermo generated libraries	325: 6-MONOACETYLMOR PHINE HCL STD. SPLITLESS NEAT IN 50%H2O_ETOH ALLTECH LOT# 110-36 9032-2 TLB.spc

IRD Data Analysis Report

Data Filename	25UG HEROIN BC 2025_March_13_055158
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:04:10 2025
Date Processed	Sat Mar 15 11:16:59 2025



IRDATA.SPC: 9.36 minutes: AVE (9.33: 9.37) Ref. (9.15: 9.33) of 25UG HEROIN BC
2025_March_13_055158.cgm

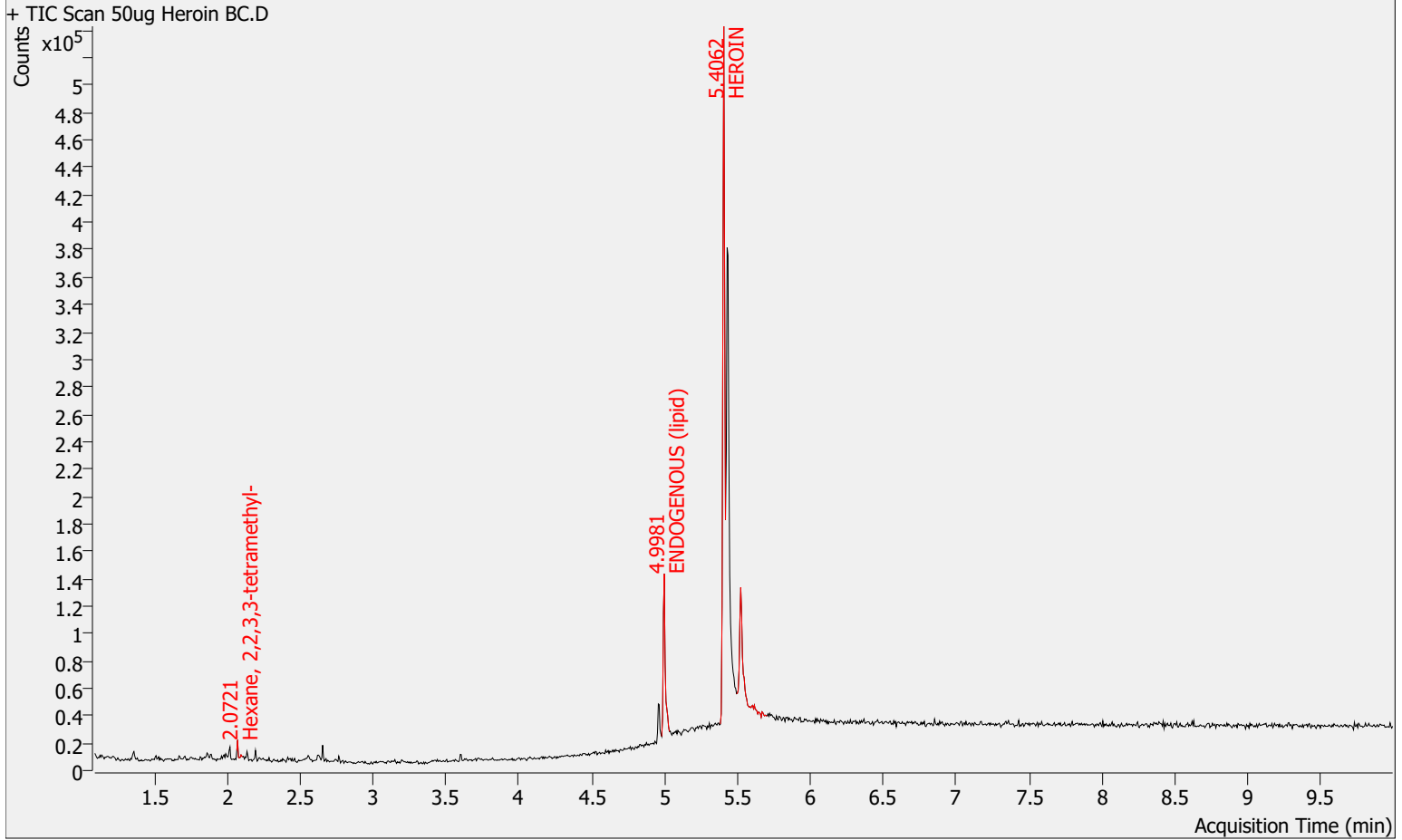
DESOXYPIPRADROL LGC STANDARDS LOT# 4088 MEOH 120-270C@70C_MIN. GBE.spc:
DESOXYPIPRADROL LGC STANDARDS LOT# 4088 MEOH 120-270C@70C_MIN. GBE

Metric	Name	Library	Entry
0.022013	DESOXYPIPRADROL LGC STANDARDS LOT# 4088 MEOH 120-270C@70C_MIN. GBE	TBI GCIR combined Thermo generated libraries	360: DESOXYPIPRADROL LGC STANDARDS LOT# 4088 MEOH 120-270C@70C_MIN. GBE.spc

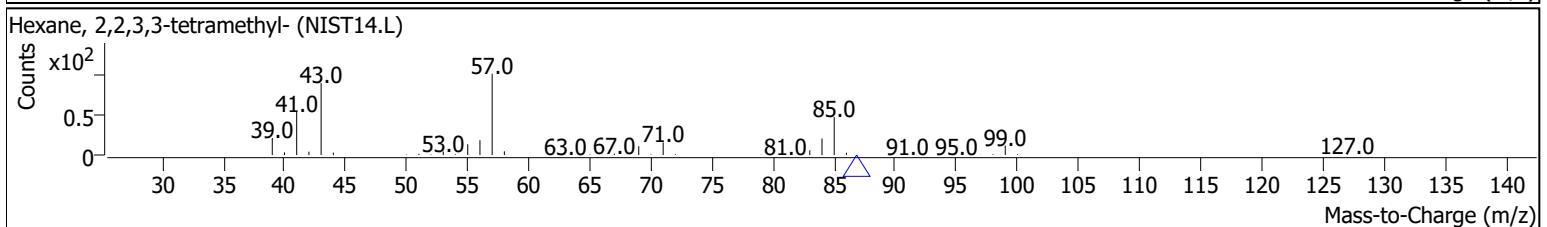
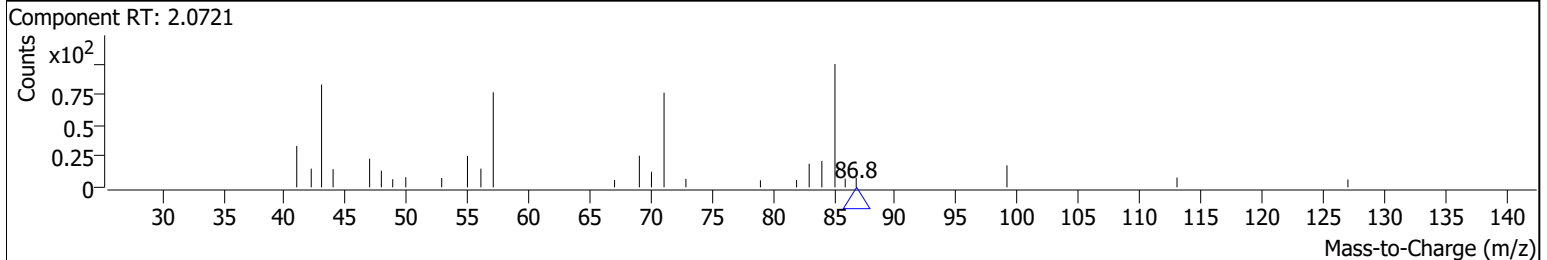
TBI Forensic Chemistry Report

File Name	50ug Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 9:47:25 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	8

Sample Chromatogram



Compound Name	Component Area	Component RT
Hexane, 2,2,3,3-tetramethyl-	8193.02856036687	2.1
ENDOGENOUS (lipid)	121348.60069806	5.0
HEROIN	461714.566900464	5.4
Octadecanoic acid, 2,3-dihydroxypropyl ester	316521.902511958	5.5

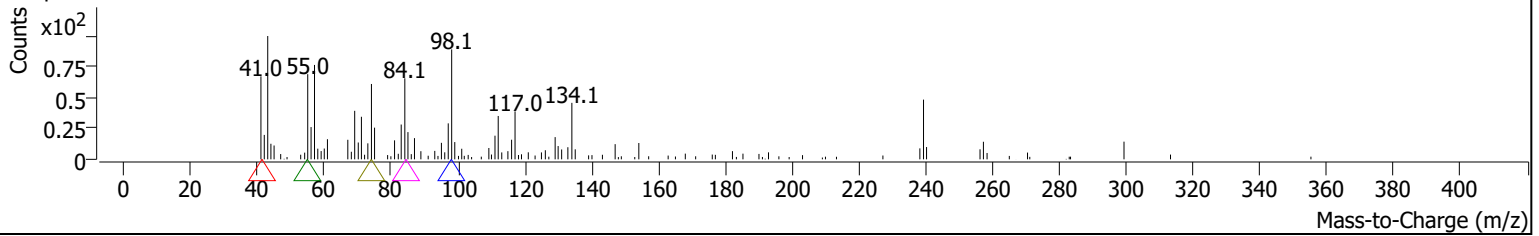


Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
8193.02856036687	2.1				

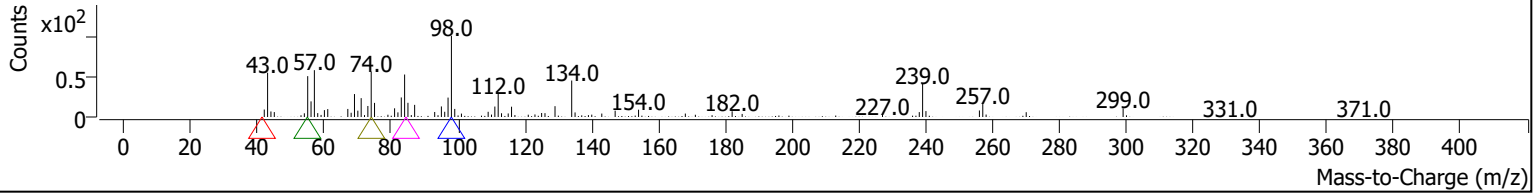
Hexane, 2,2,3,3-tetramethyl-

TBI Forensic Chemistry Report

Component RT: 4.9981

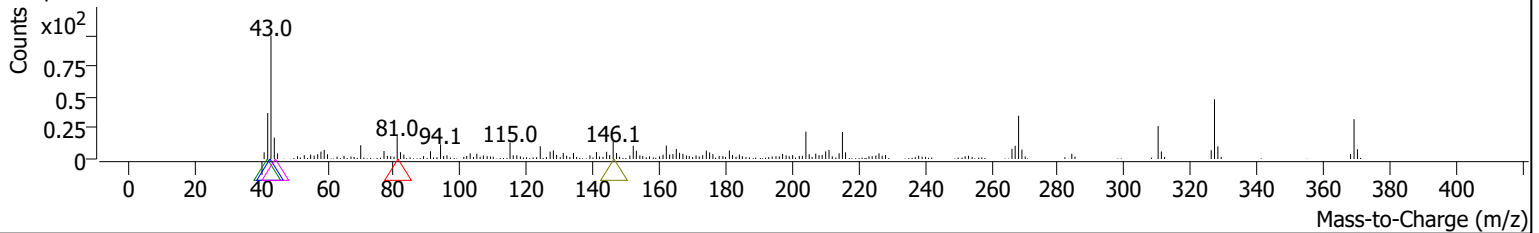


ENDOGENOUS (lipid) (NEW-AAFS2011.L)

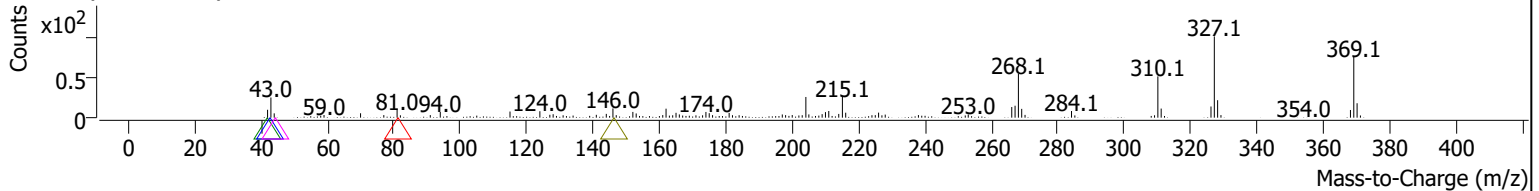


ENDOGENOUS (lipid)	Component Area 121348.60069806	Component RT 5.0	ASMSDRUGS100	Kenny	Bicarb --> CHCl ₃	Cayman chemical lot 0559235-2
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Component RT: 5.4062

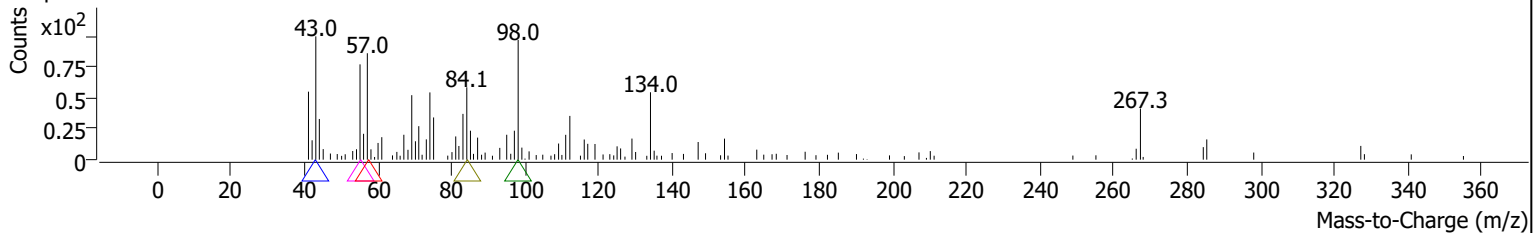


HEROIN (TBI_DRUG.L)

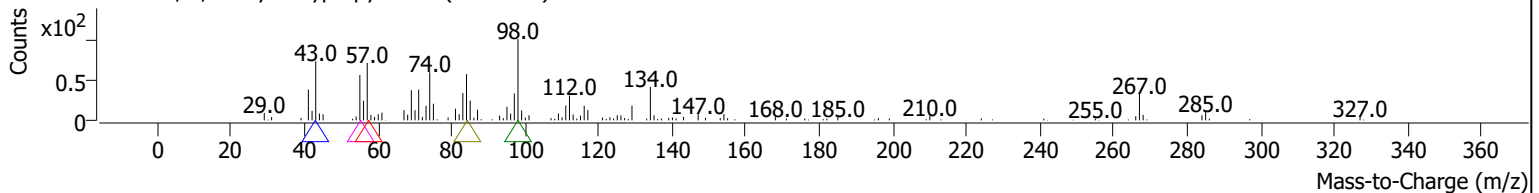


HEROIN	Component Area 461714.566900464	Component RT 5.4	ASMSDRUGS100	Kenny	Bicarb --> CHCl ₃	Cayman chemical lot 0559235-2
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Component RT: 5.5227



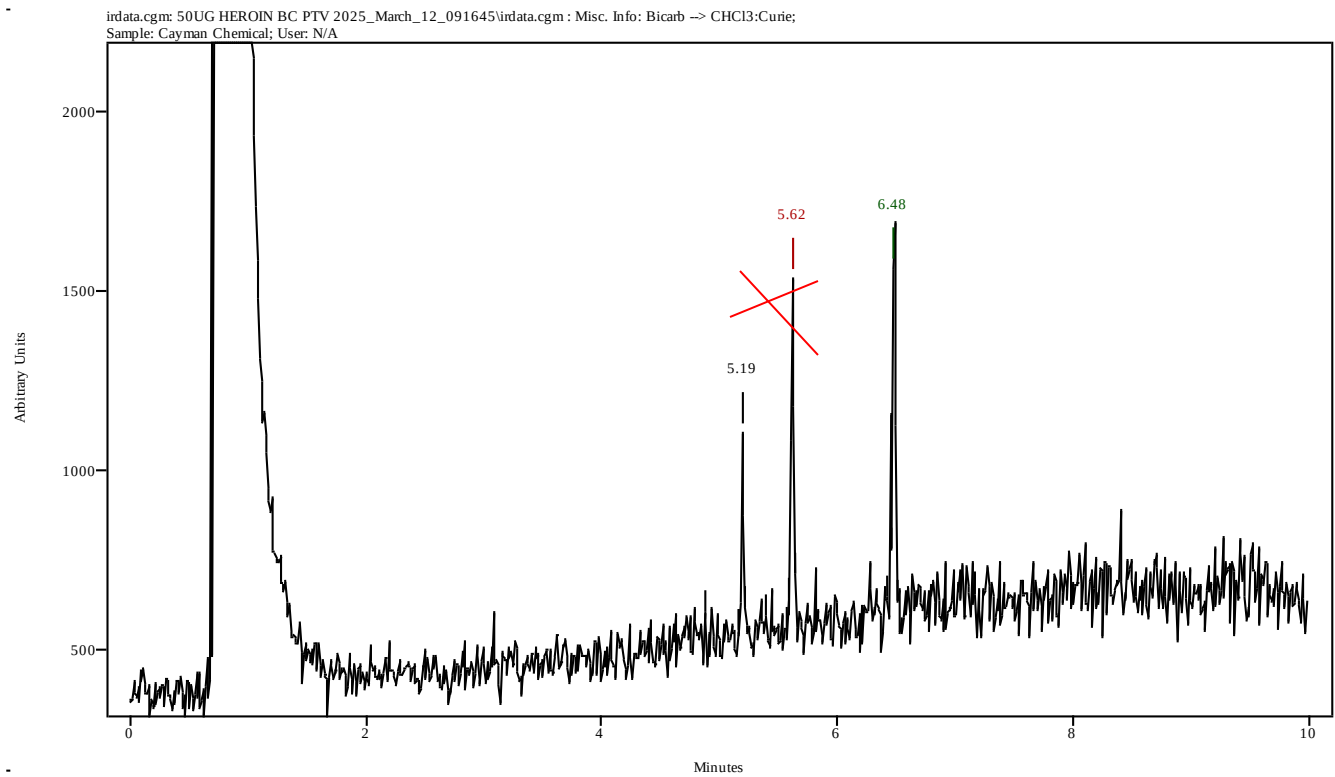
Octadecanoic acid, 2,3-dihydroxypropyl ester (NIST14.L)



Octadecanoic acid, 2,3-dihydroxypropyl ester	Component Area 316521.902511958	Component RT 5.5	ASMSDRUGS100	Kenny	Bicarb --> CHCl ₃	Cayman chemical lot 0559235-2
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IRD Data Analysis Report

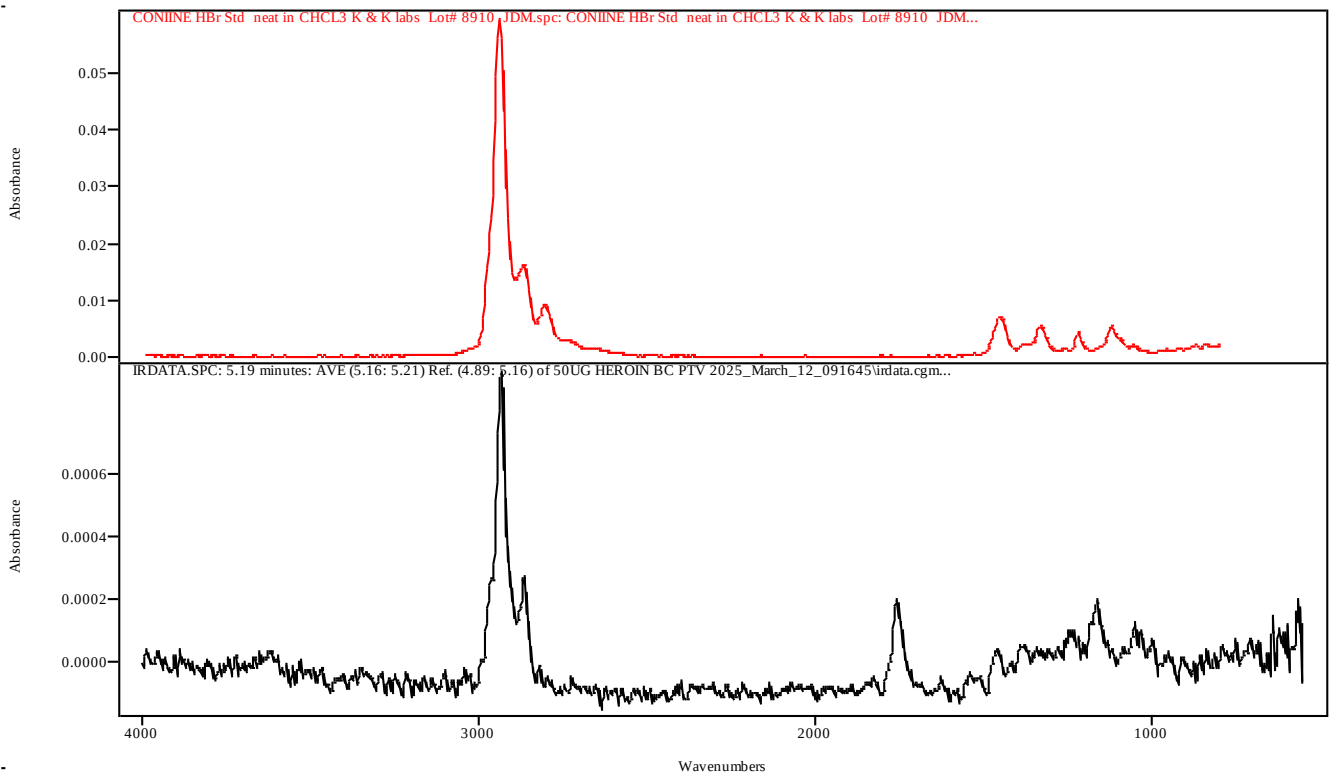
Data Filename	50UG HEROIN BC PTV 2025_March_12_091645
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:26:05 2025
Date Processed	Wed Mar 12 11:04:28 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.158	5.214	0.056	4.888	5.158
5.597	5.642	0.045	5.394	5.575
6.453	6.509	0.056	6.205	6.431

IRD Data Analysis Report

Data Filename	50UG HEROIN BC PTV 2025_March_12_091645
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:26:05 2025
Date Processed	Wed Mar 12 11:04:28 2025



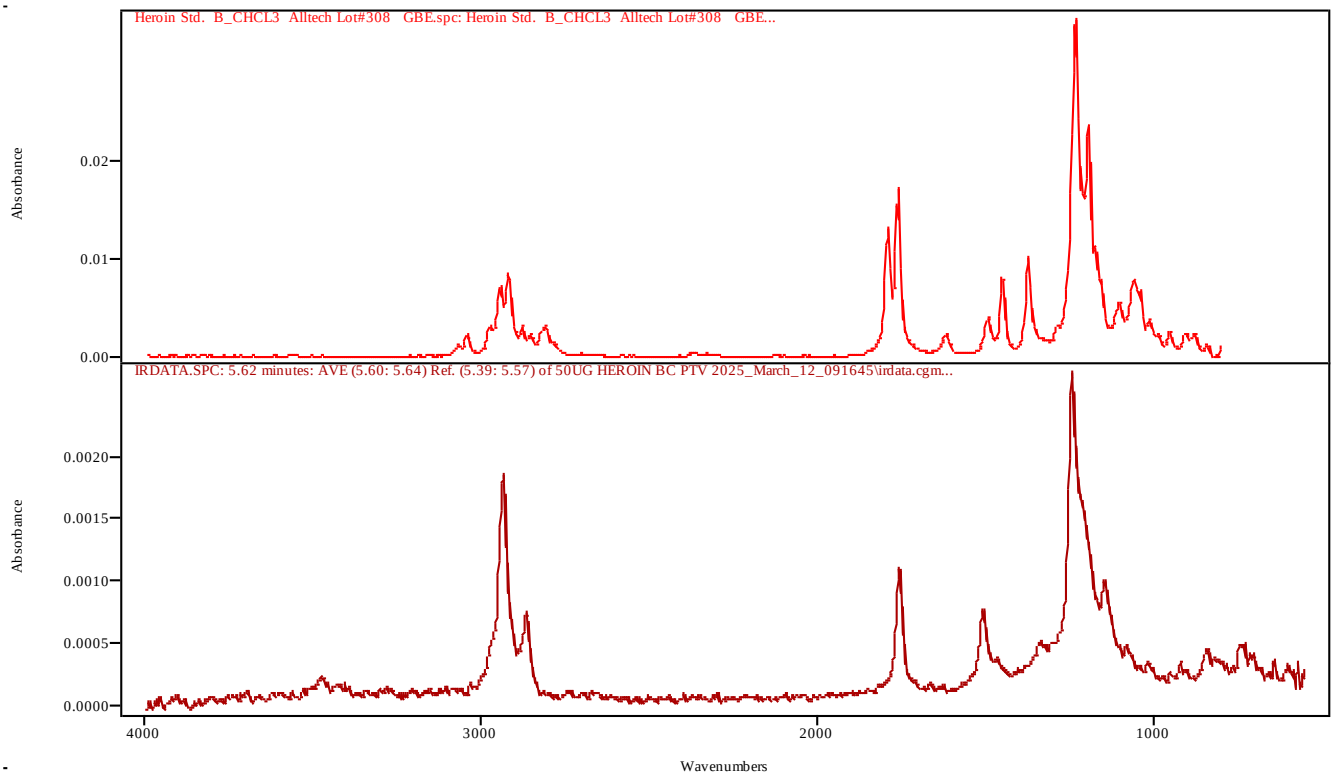
IRDATA.SPC: 5.19 minutes: AVE (5.16: 5.21) Ref. (4.89: 5.16) of 50UG HEROIN BC PTV 2025_March_12_091645.cgm

CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM.spc: CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM

Metric	Name	Library	Entry
0.913057	CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM	TBI GCIR combined Thermo generated libraries	387: CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN BC PTV 2025_March_12_091645
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:26:05 2025
Date Processed	Wed Mar 12 11:04:28 2025



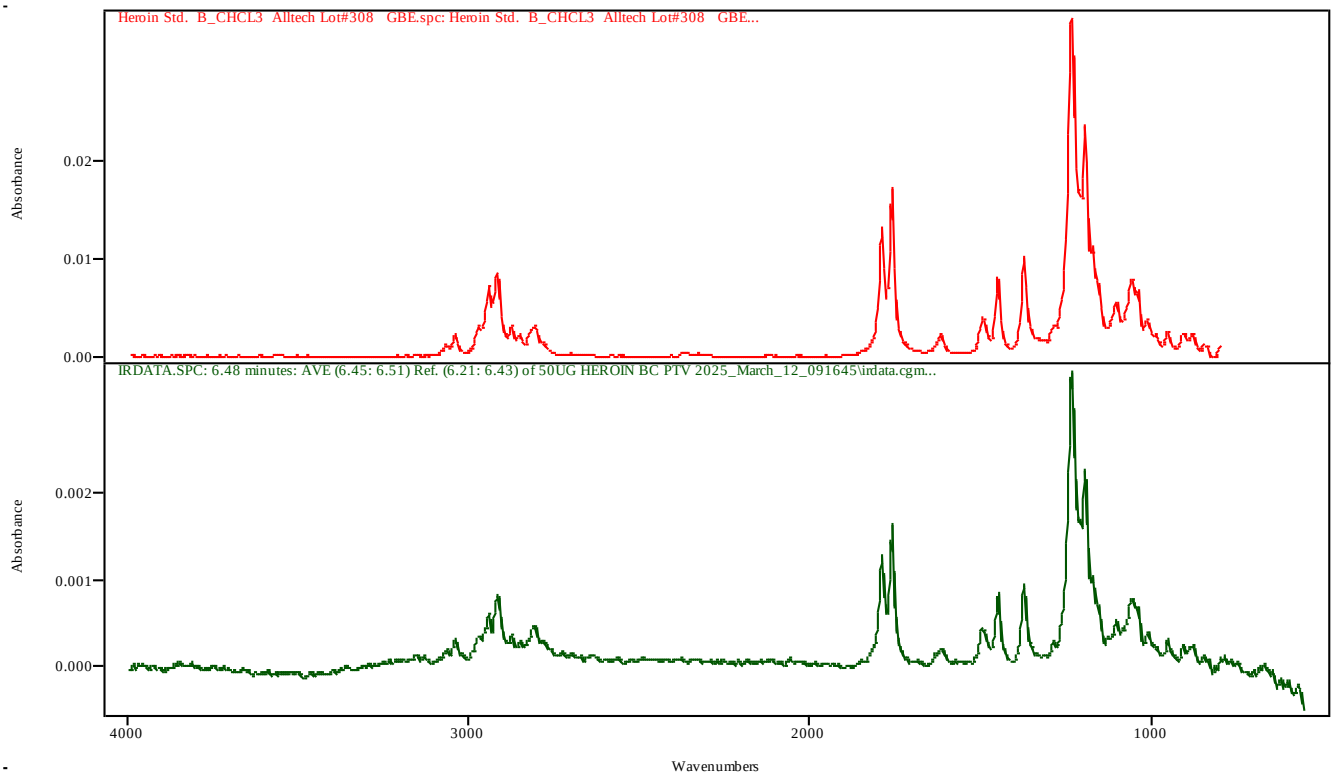
IRDATA.SPC: 5.62 minutes: AVE (5.60: 5.64) Ref. (5.39: 5.57) of 50UG HEROIN BC PTV 2025_March_12_091645.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.837974	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN BC PTV 2025_March_12_091645
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:26:05 2025
Date Processed	Wed Mar 12 11:04:28 2025



IRDATA.SPC: 6.48 minutes: AVE (6.45: 6.51) Ref. (6.21: 6.43) of 50UG HEROIN BC PTV 2025_March_12_091645.cgm

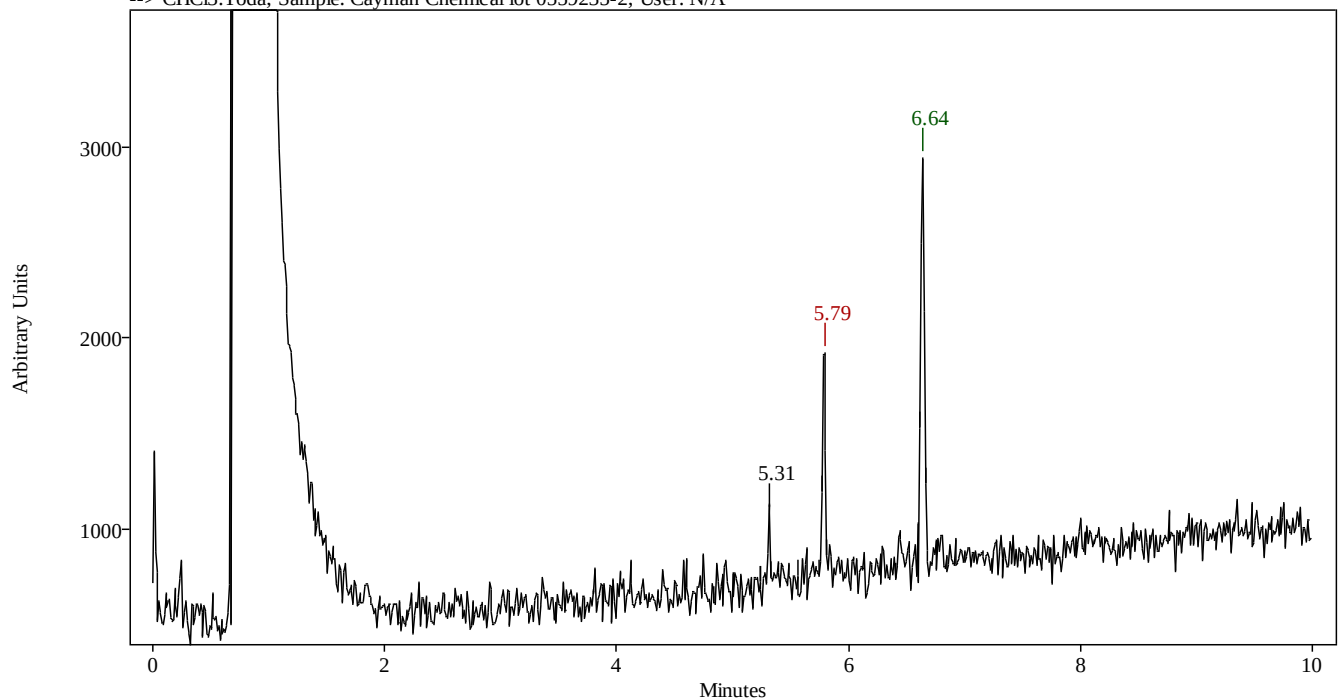
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.993397	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN BC 2025_March_13_060443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:16:25 2025
Date Processed	Sat Mar 15 11:23:26 2025

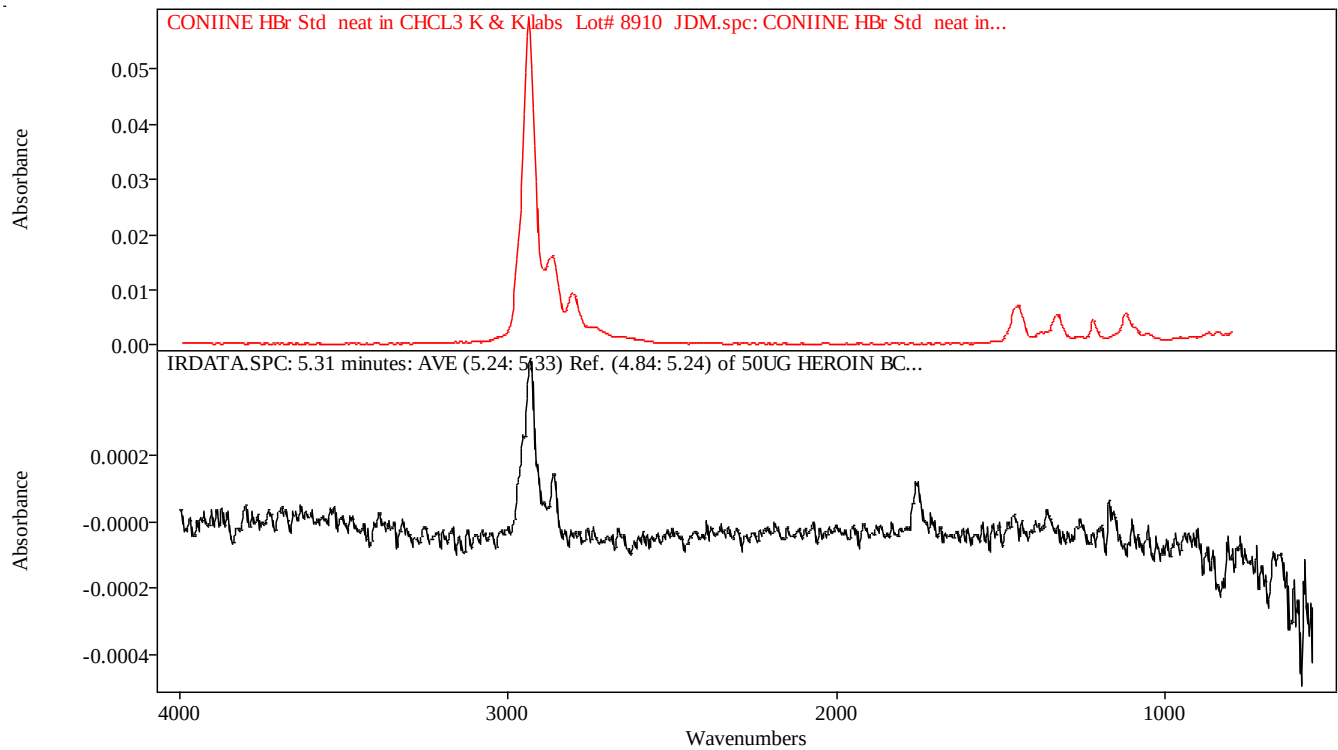
irdata.cgm: 50UG HEROIN BC 2025_March_13_060443\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Yoda; Sample: Cayman Chemical lot 0559235-2; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.244	5.333	0.089	4.843	5.244
5.769	5.813	0.045	5.568	5.746
6.617	6.661	0.045	6.405	6.583

IRD Data Analysis Report

Data Filename	50UG HEROIN BC 2025_March_13_060443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:16:25 2025
Date Processed	Sat Mar 15 11:23:26 2025



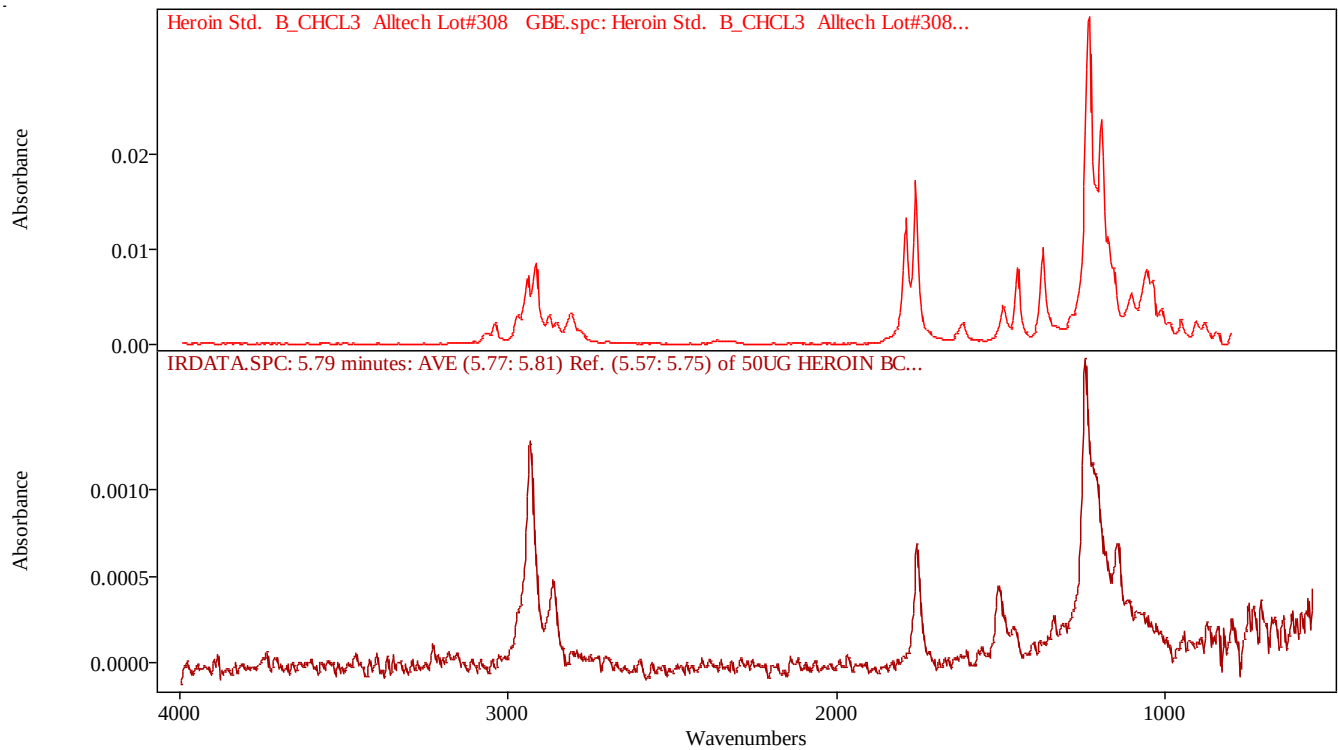
IRDATA.SPC: 5.31 minutes: AVE (5.24: 5.33) Ref. (4.84: 5.24) of 50UG HEROIN BC
2025_March_13_060443.cgm

CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM.spc: CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM

Metric	Name	Library	Entry
0.909516	CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM	TBI GCIR combined Thermo generated libraries	387: CONIINE HBr Std neat in CHCL3 K & K labs Lot# 8910 JDM.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN BC 2025_March_13_060443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:16:25 2025
Date Processed	Sat Mar 15 11:23:26 2025



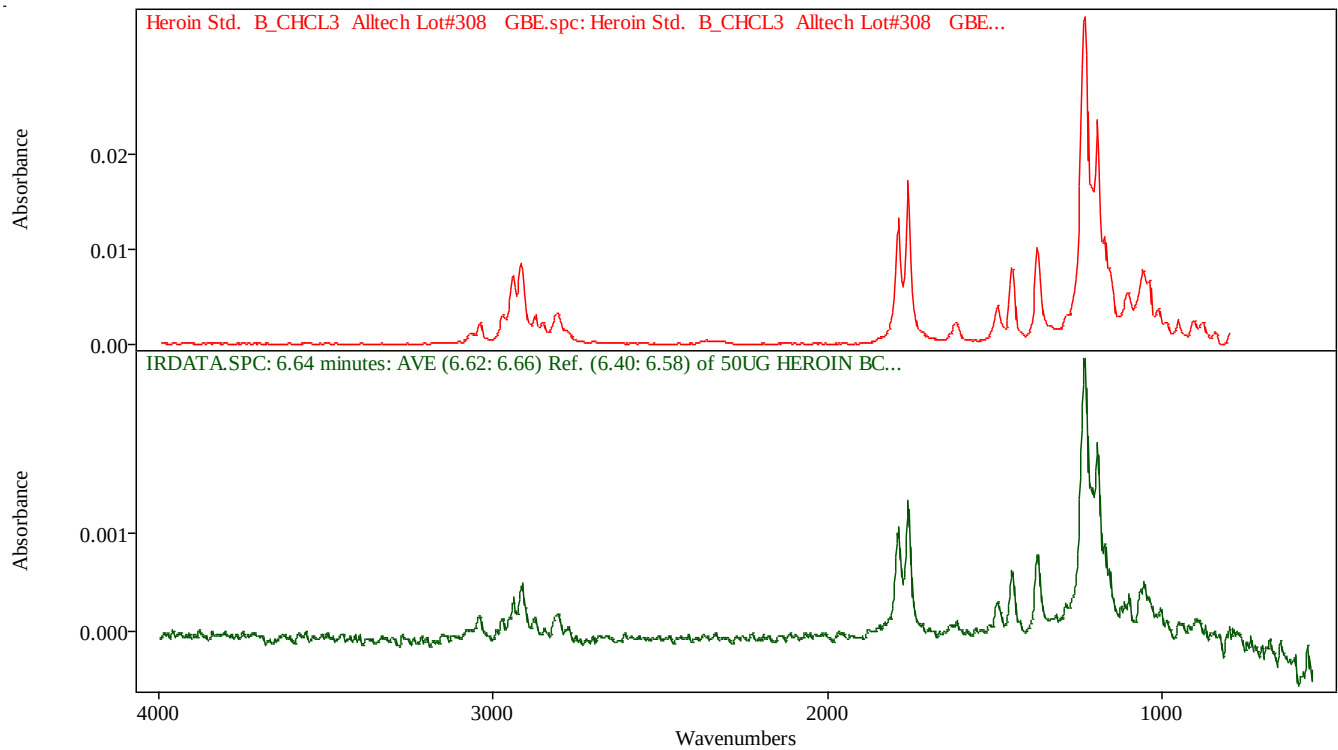
IRDATA.SPC: 5.79 minutes: AVE (5.77: 5.81) Ref. (5.57: 5.75) of 50UG HEROIN BC
2025_March_13_060443.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.827674	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	50UG HEROIN BC 2025_March_13_060443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:16:25 2025
Date Processed	Sat Mar 15 11:23:26 2025



IRDATA.SPC: 6.64 minutes: AVE (6.62: 6.66) Ref. (6.40: 6.58) of 50UG HEROIN BC
2025_March_13_060443.cgm

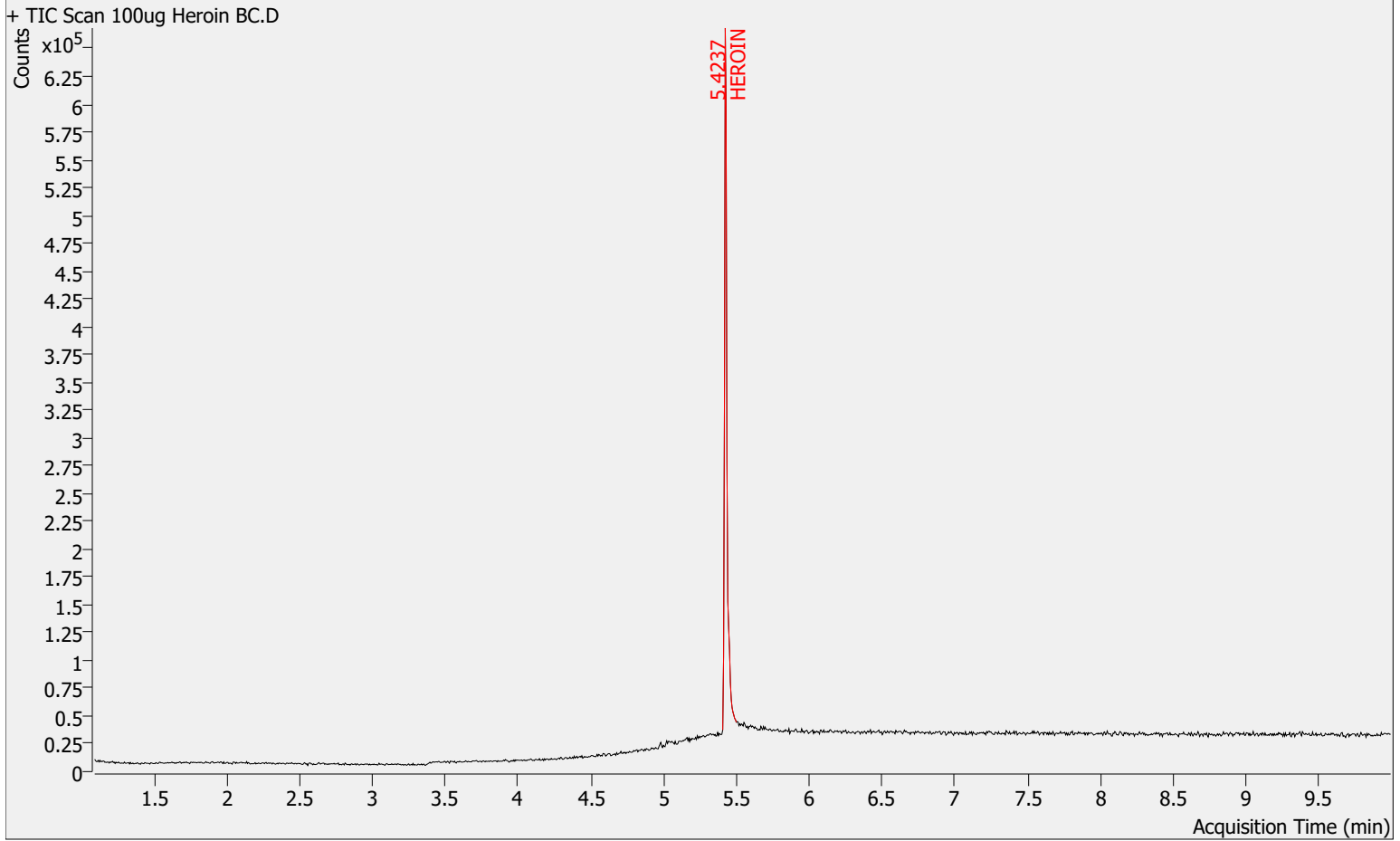
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.987164	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

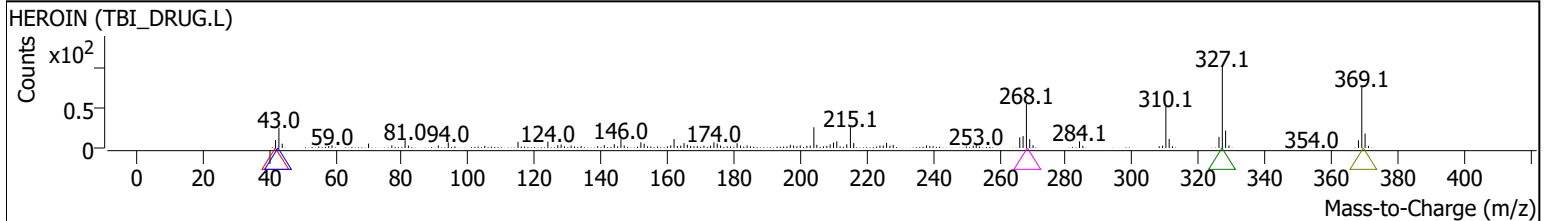
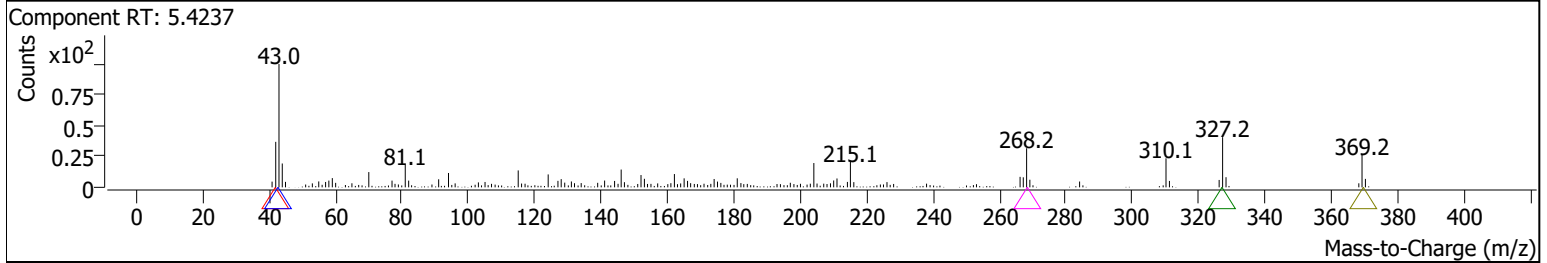
TBI Forensic Chemistry Report

File Name	100ug Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 10:00:44 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	9

Sample Chromatogram



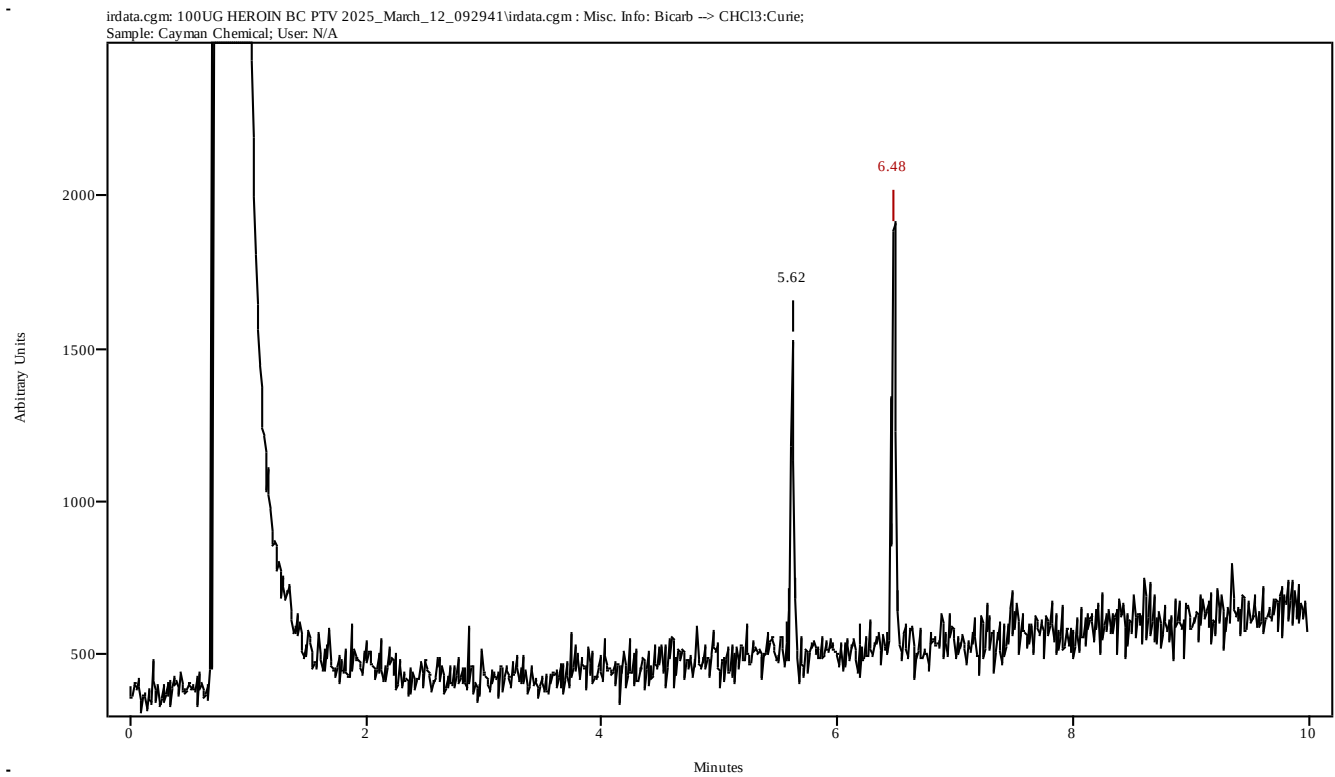
Compound Name	Component Area	Component RT
HEROIN	789144.097587229	5.4



HEROIN	Component Area 789144.097587229	Component RT 5.4	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
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IRD Data Analysis Report

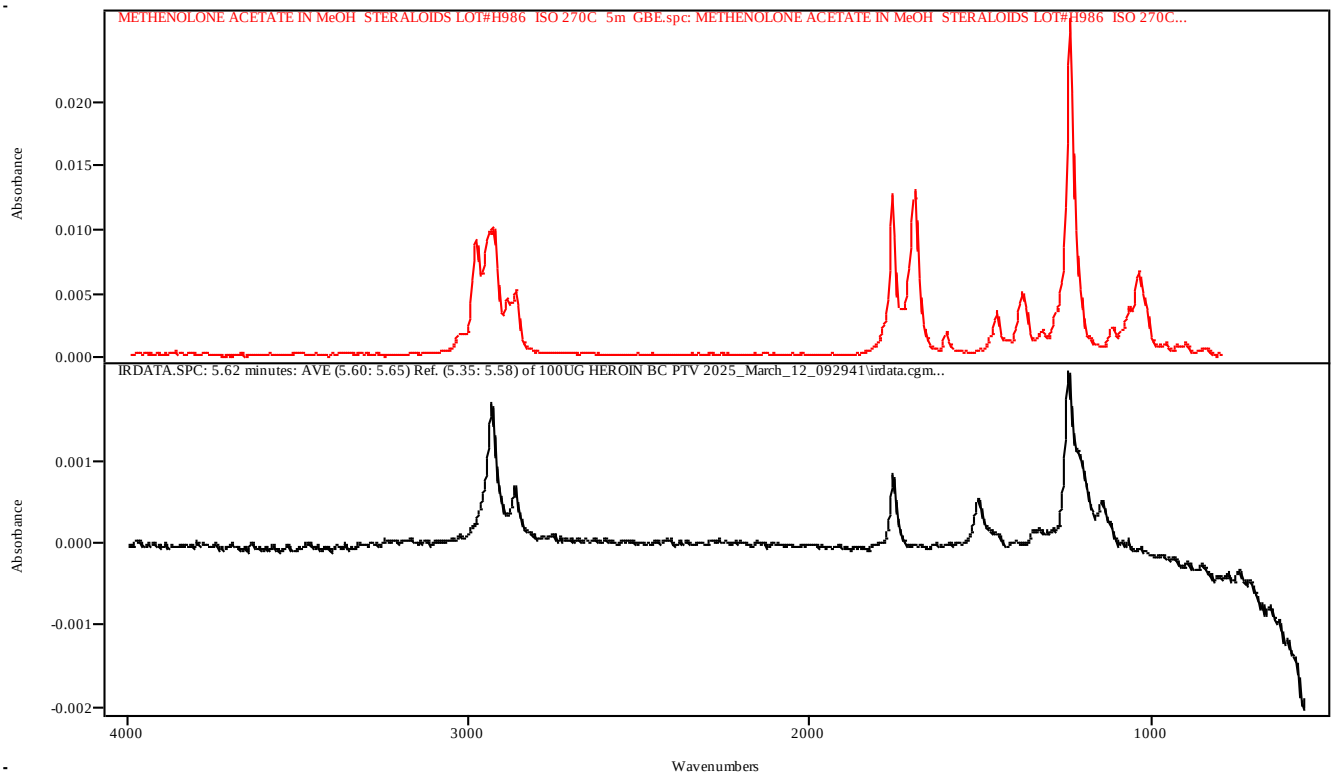
Data Filename	100UG HEROIN BC PTV 2025_March_12_092941
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:38:51 2025
Date Processed	Wed Mar 12 11:09:33 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.600	5.645	0.045	5.352	5.578
6.457	6.513	0.056	6.197	6.423

IRD Data Analysis Report

Data Filename	100UG HEROIN BC PTV 2025_March_12_092941
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:38:51 2025
Date Processed	Wed Mar 12 11:09:33 2025



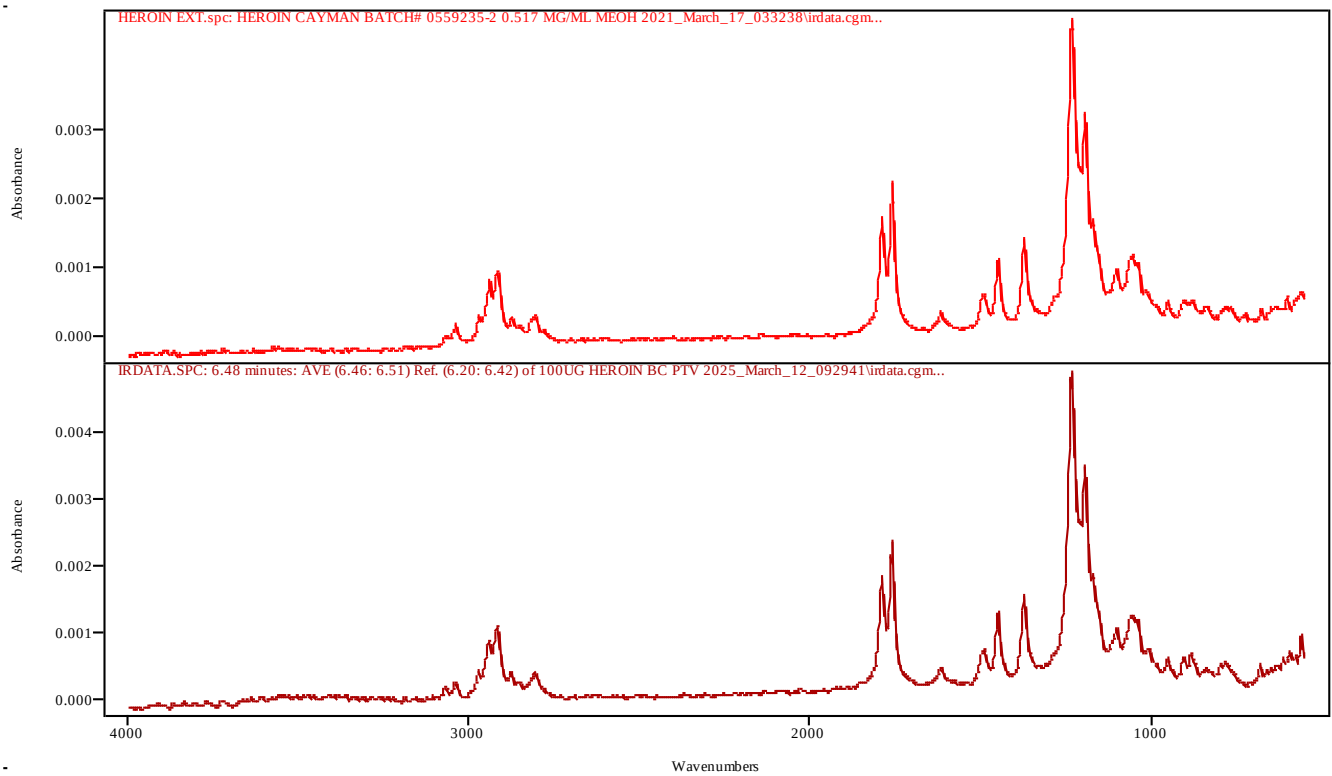
IRDATA.SPC: 5.62 minutes: AVE (5.60: 5.65) Ref. (5.35: 5.58) of 100UG HEROIN BC PTV 2025_March_12_092941.cgm

METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE.spc:
METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE

Metric	Name	Library	Entry
0.769667	METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE	TBI GCIR combined Thermo generated libraries	51: METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE.spc

IRD Data Analysis Report

Data Filename	100UG HEROIN BC PTV 2025_March_12_092941
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:38:51 2025
Date Processed	Wed Mar 12 11:09:33 2025



IRDATA.SPC: 6.48 minutes: AVE (6.46: 6.51) Ref. (6.20: 6.42) of 100UG HEROIN BC PTV 2025_March_12_092941.cgm

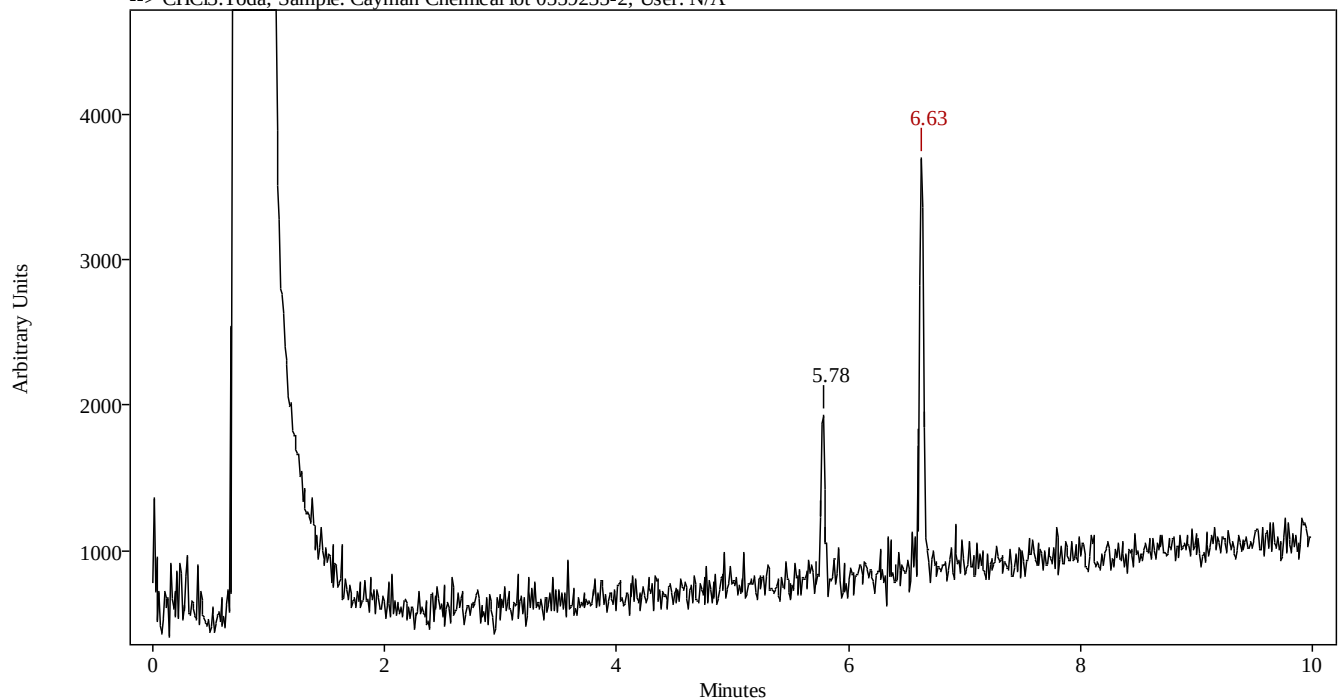
HEROIN EXT.spc: HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm

Metric	Name	Library	Entry
0.994290	HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm	TBI GCIR EXT BH	45: HEROIN EXT.spc

IRD Data Analysis Report

Data Filename	100UG HEROIN BC 2025_March_13_061658
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:28:43 2025
Date Processed	Sat Mar 15 11:28:56 2025

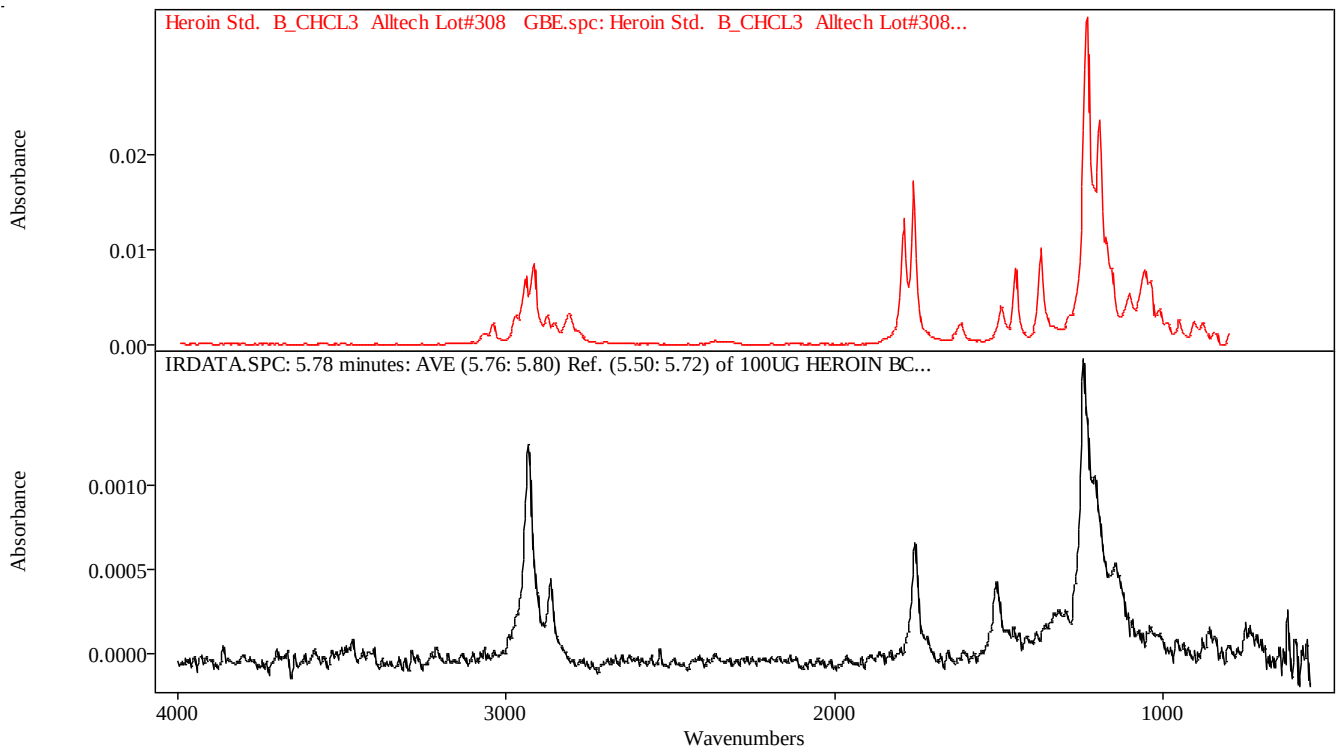
irdata.cgm: 100UG HEROIN BC 2025_March_13_061658\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Yoda; Sample: Cayman Chemical lot 0559235-2; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.758	5.803	0.045	5.501	5.724
6.606	6.651	0.045	6.405	6.584

IRD Data Analysis Report

Data Filename	100UG HEROIN BC 2025_March_13_061658
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:28:43 2025
Date Processed	Sat Mar 15 11:28:56 2025



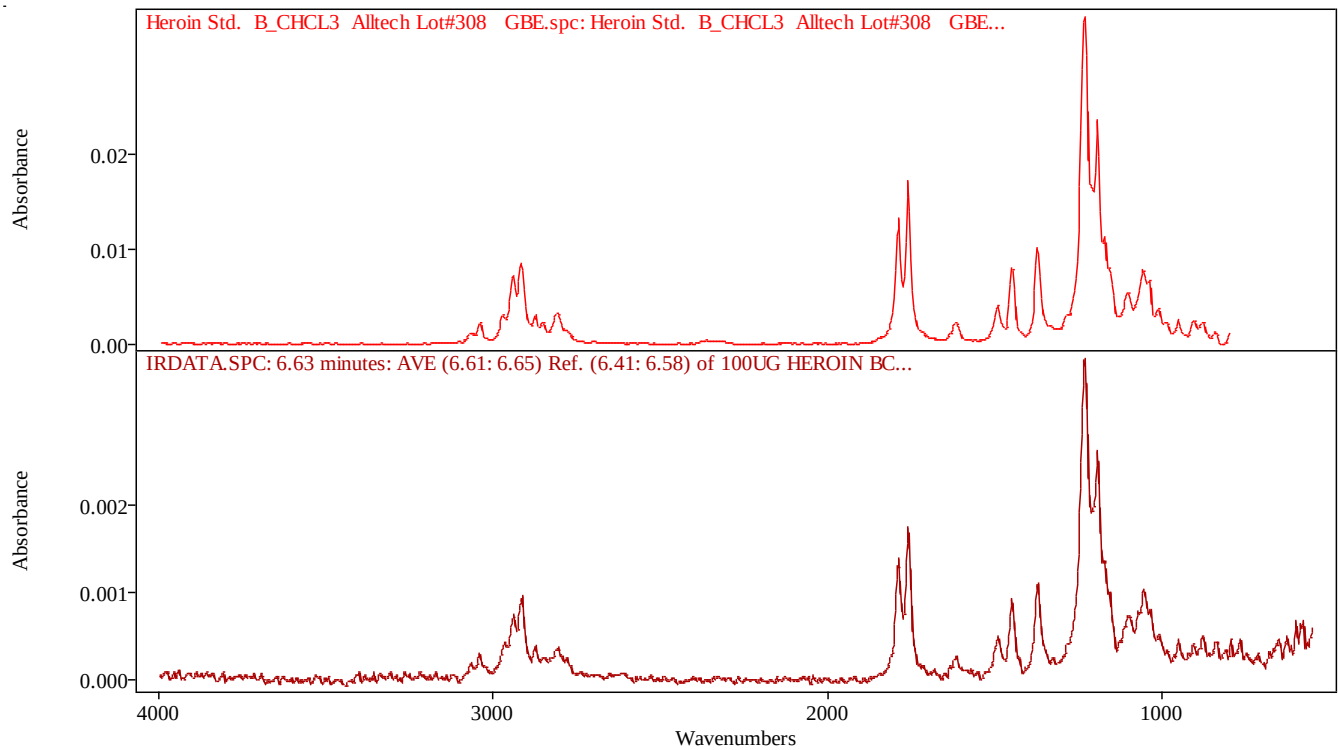
IRDATA.SPC: 5.78 minutes: AVE (5.76: 5.80) Ref. (5.50: 5.72) of 100UG HEROIN BC
2025_March_13_061658.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.836225	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	100UG HEROIN BC 2025_March_13_061658
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:28:43 2025
Date Processed	Sat Mar 15 11:28:56 2025



IRDATA.SPC: 6.63 minutes: AVE (6.61: 6.65) Ref. (6.41: 6.58) of 100UG HEROIN BC
2025_March_13_061658.cgm

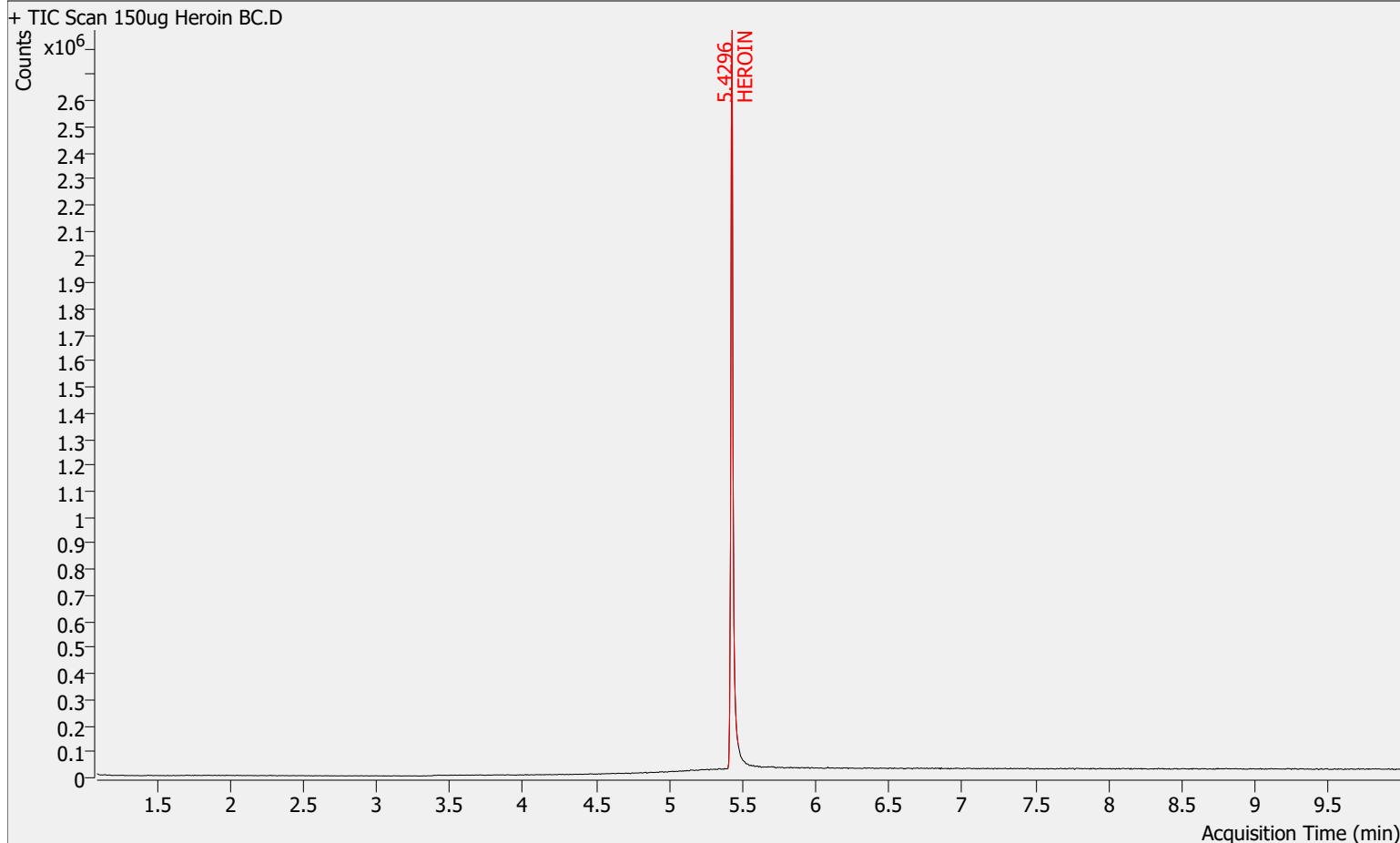
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.990220	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

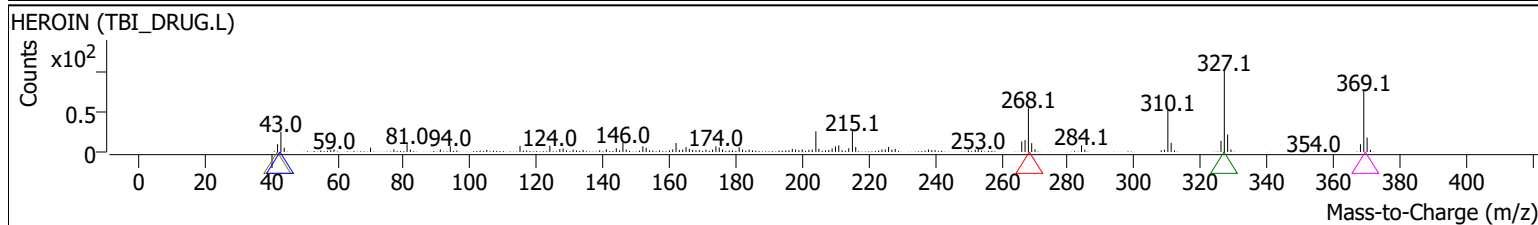
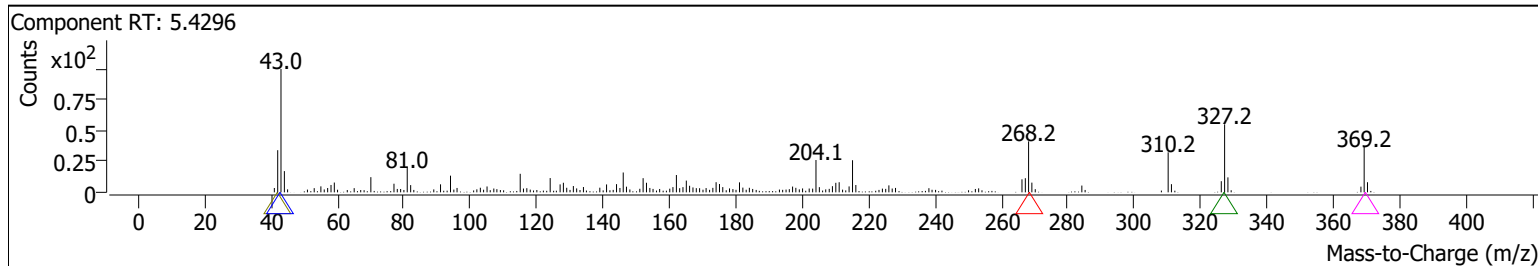
TBI Forensic Chemistry Report

File Name	150ug Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 10:13:52 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	10

Sample Chromatogram



Compound Name	Component Area	Component RT
HEROIN	3163206.93312038	5.4

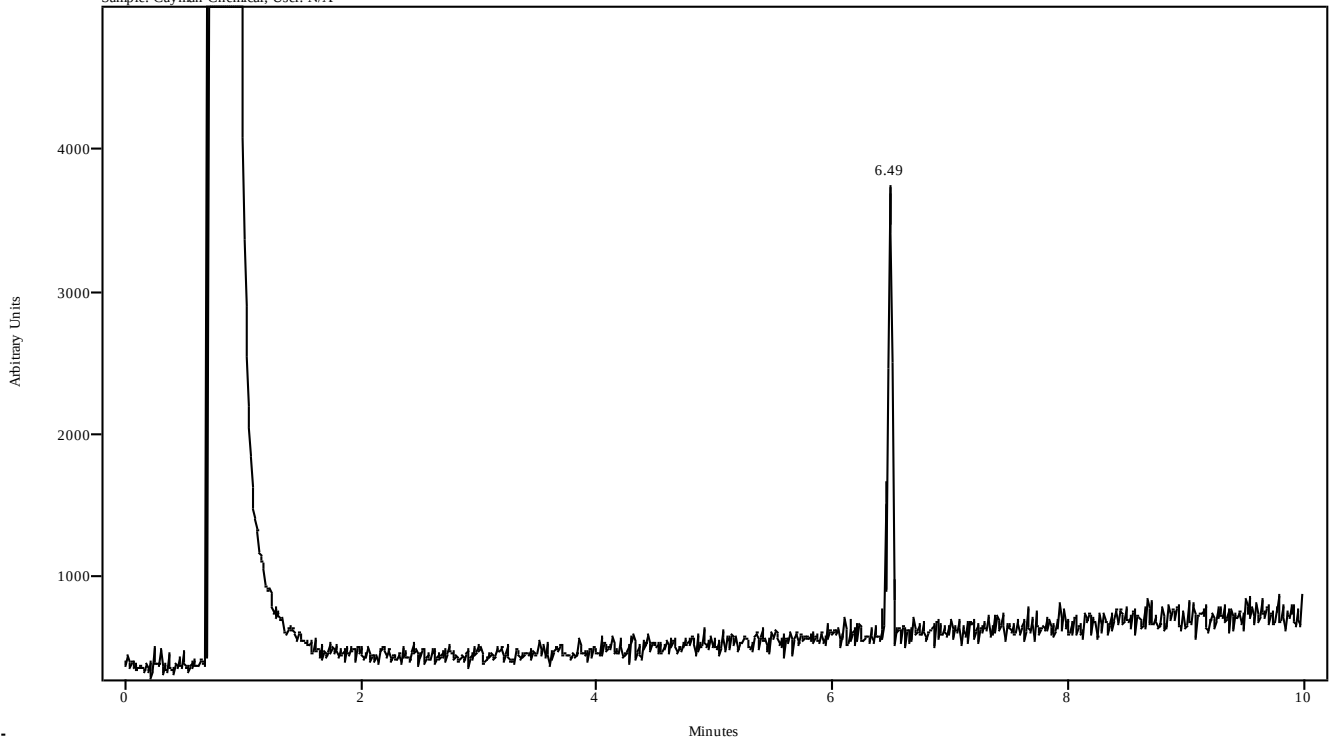


HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	3163206.93312038	5.4				

IRD Data Analysis Report

Data Filename	150UG HEROIN BC PTV 2025_March_12_094228
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:51:46 2025
Date Processed	Wed Mar 12 11:11:58 2025

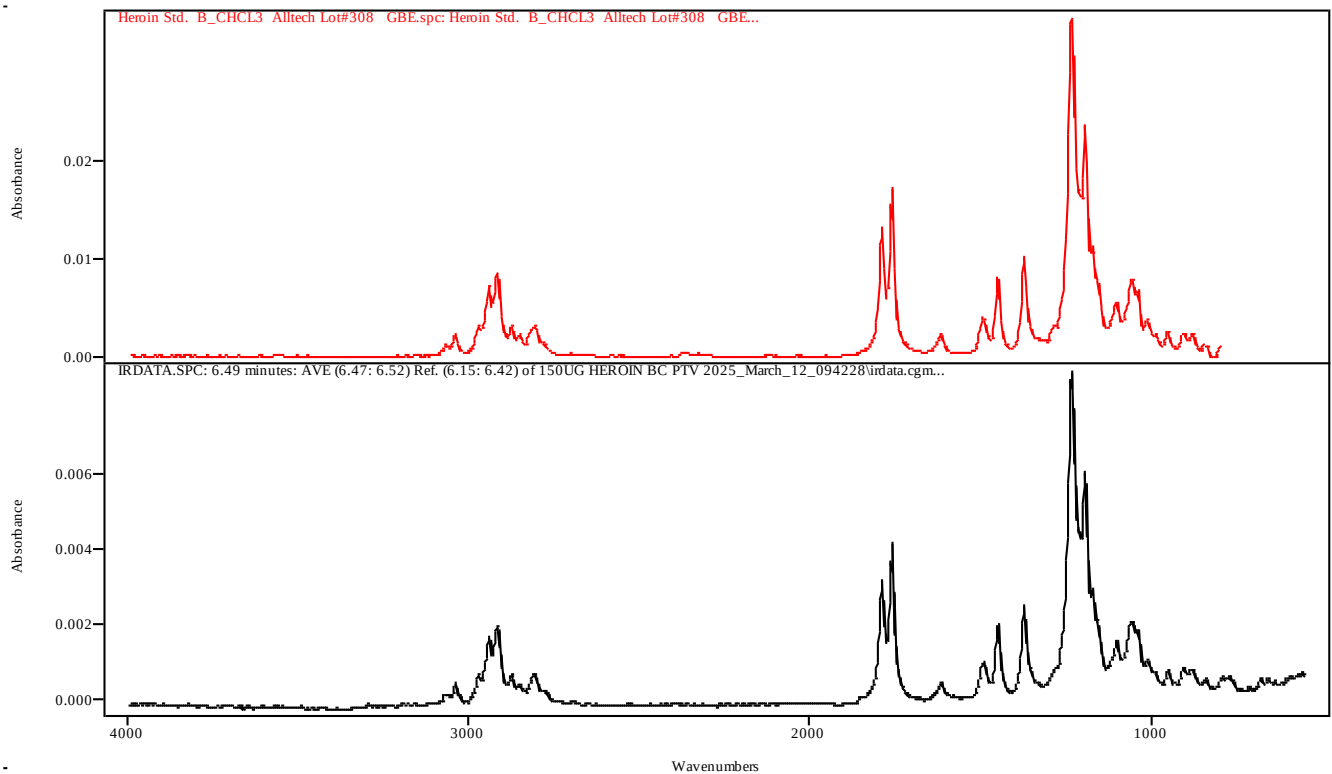
irdata.cgm: 150UG HEROIN BC PTV 2025_March_12_094228\irdata.cgm : Misc. Info: Bicarb --> CHCl3:Curie;
Sample: Cayman Chemical; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.467	6.524	0.056	6.152	6.422

IRD Data Analysis Report

Data Filename	150UG HEROIN BC PTV 2025_March_12_094228
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 09:51:46 2025
Date Processed	Wed Mar 12 11:11:58 2025



IRDATA.SPC: 6.49 minutes: AVE (6.47: 6.52) Ref. (6.15: 6.42) of 150UG HEROIN BC PTV 2025_March_12_094228.cgm

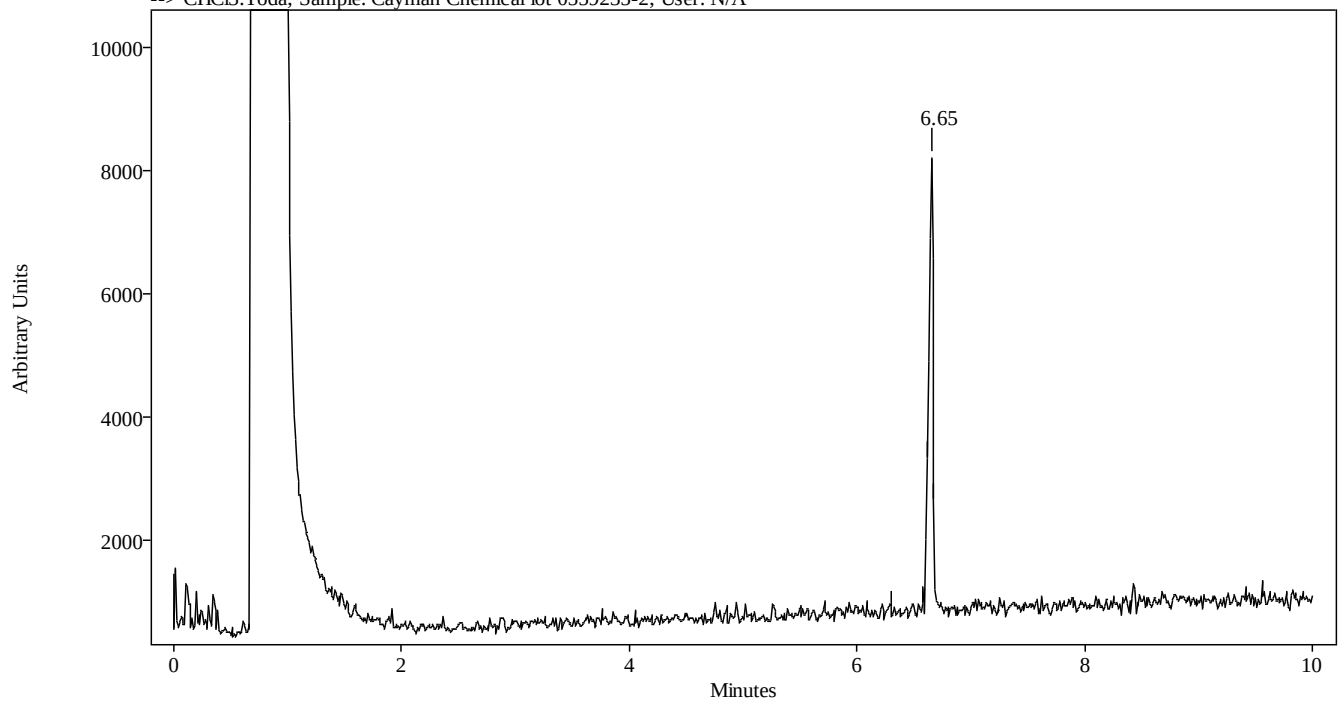
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.995972	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	150UG HEROIN BC 2025_March_13_062917
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:41:08 2025
Date Processed	Sat Mar 15 11:34:42 2025

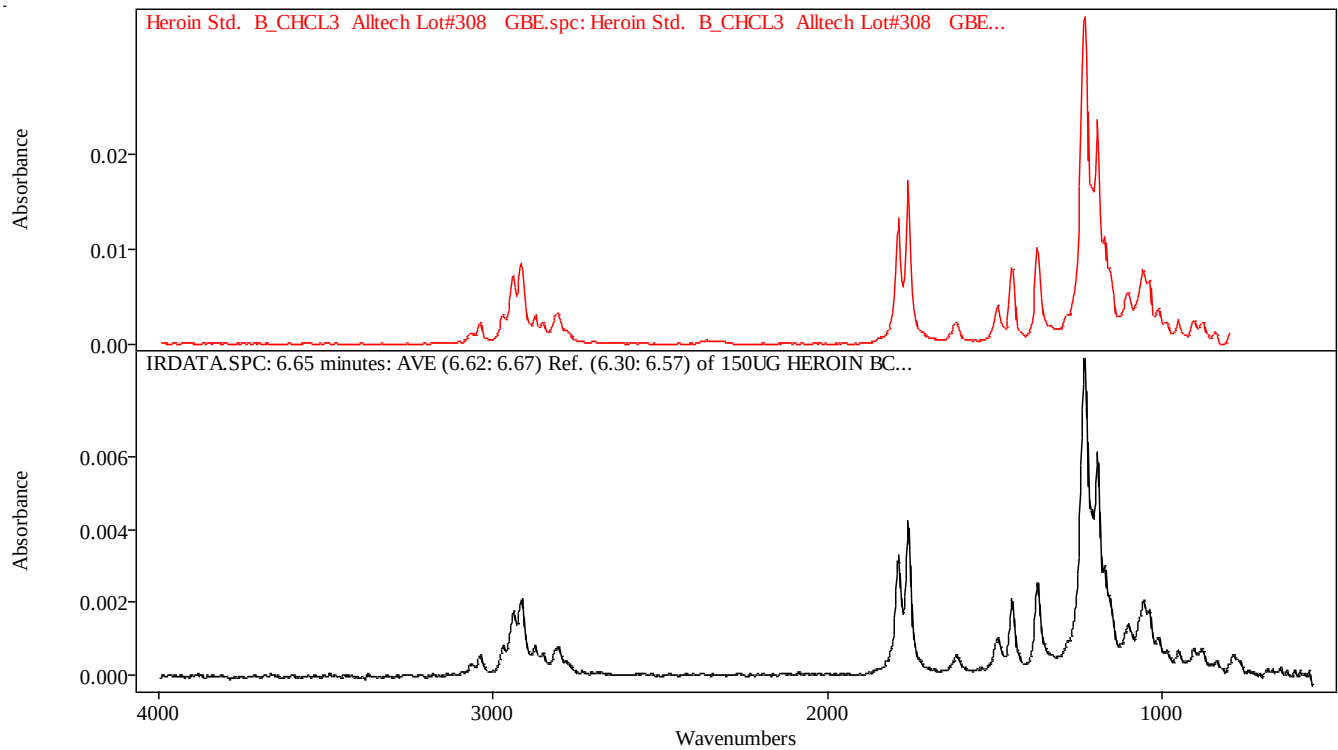
irdata.cgm: 150UG HEROIN BC 2025_March_13_062917\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Yoda; Sample: Cayman Chemical lot 0559235-2; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.617	6.673	0.056	6.305	6.573

IRD Data Analysis Report

Data Filename	150UG HEROIN BC 2025_March_13_062917
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 06:41:08 2025
Date Processed	Sat Mar 15 11:34:42 2025



IRDATA.SPC: 6.65 minutes: AVE (6.62: 6.67) Ref. (6.30: 6.57) of 150UG HEROIN BC
2025_March_13_062917.cgm

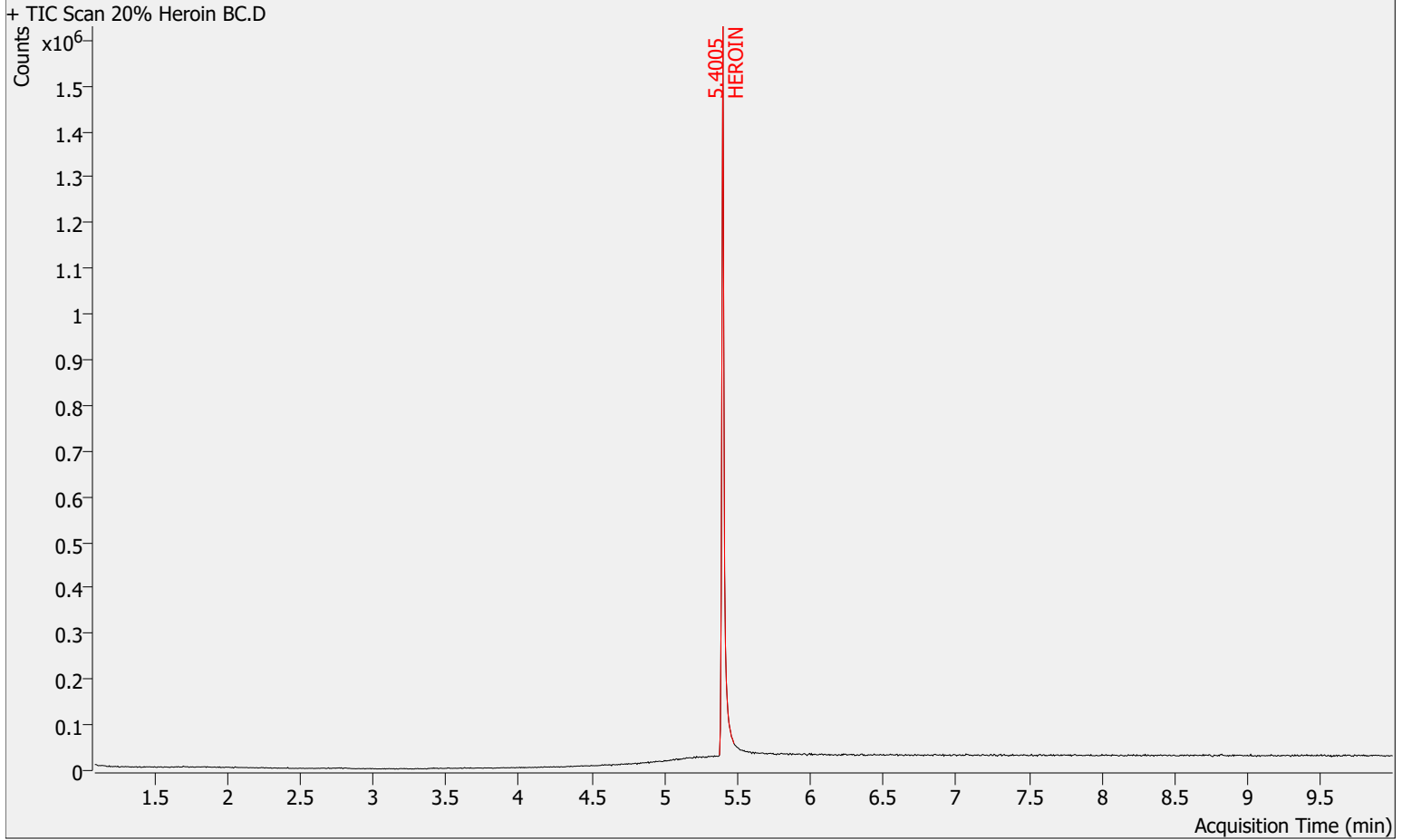
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998408	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

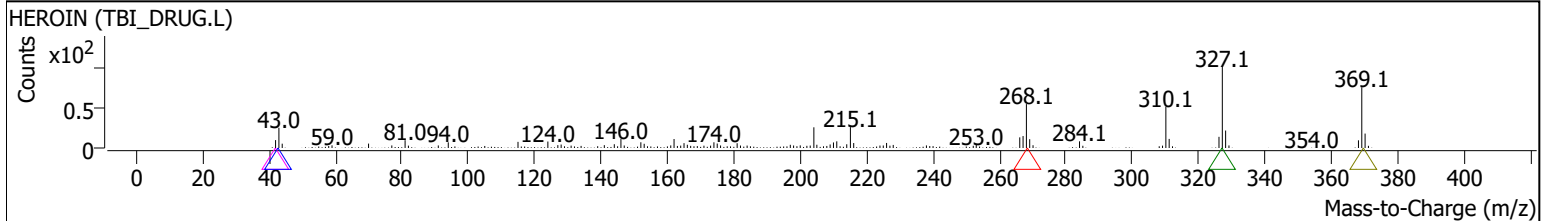
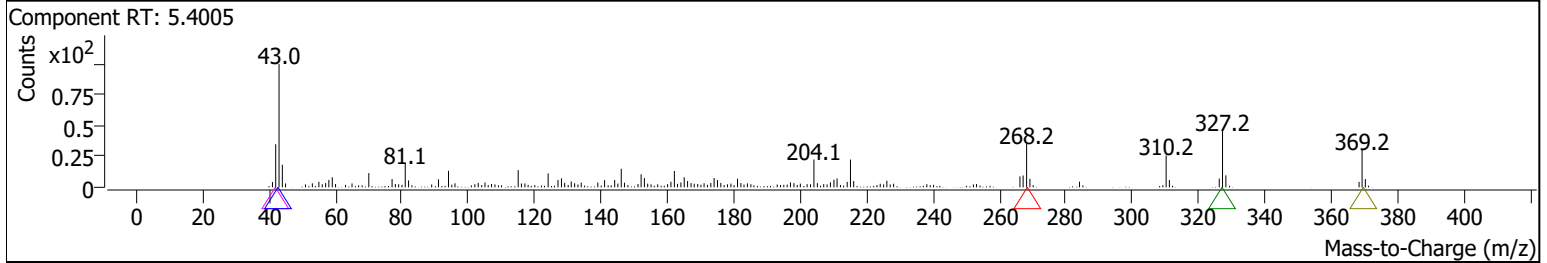
TBI Forensic Chemistry Report

File Name	20% Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 10:50:16 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	8

Sample Chromatogram



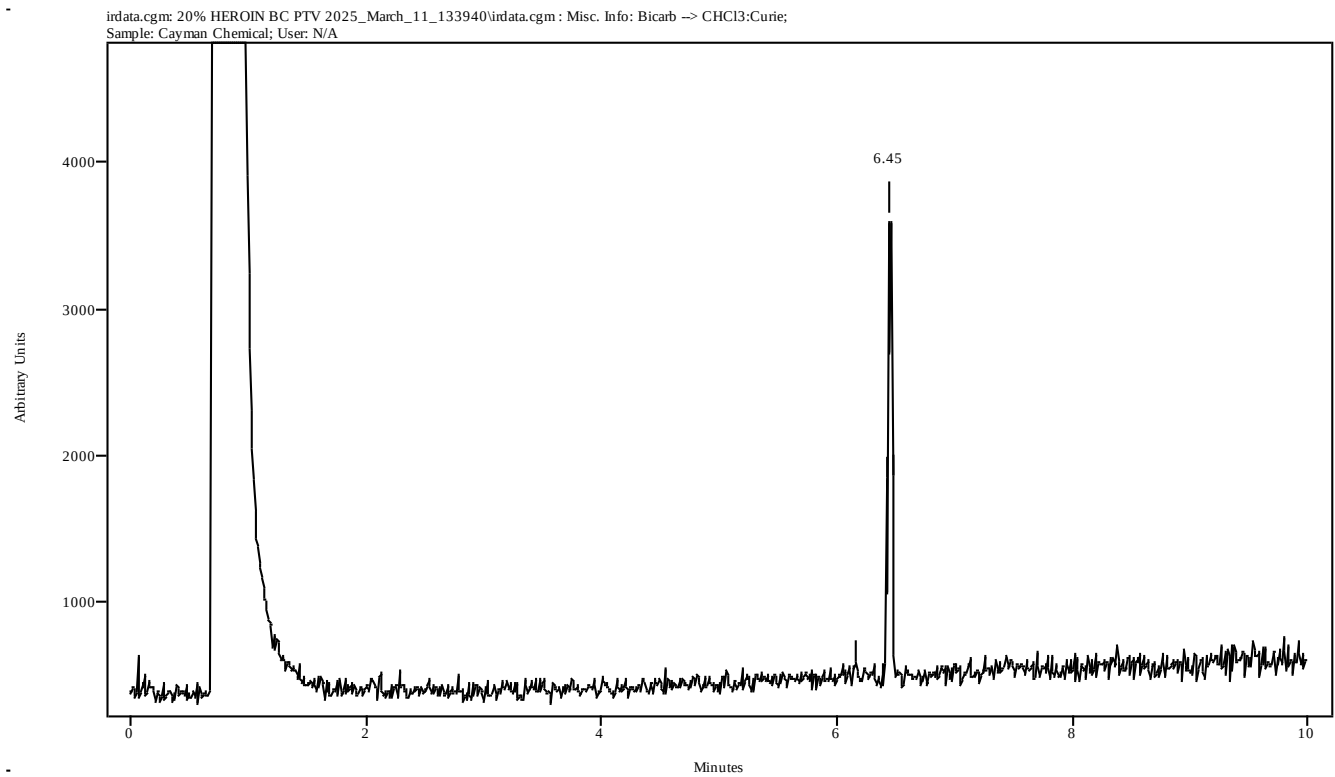
Compound Name	Component Area	Component RT
HEROIN	1857263.73663368	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	1857263.73663368	5.4				

IRD Data Analysis Report

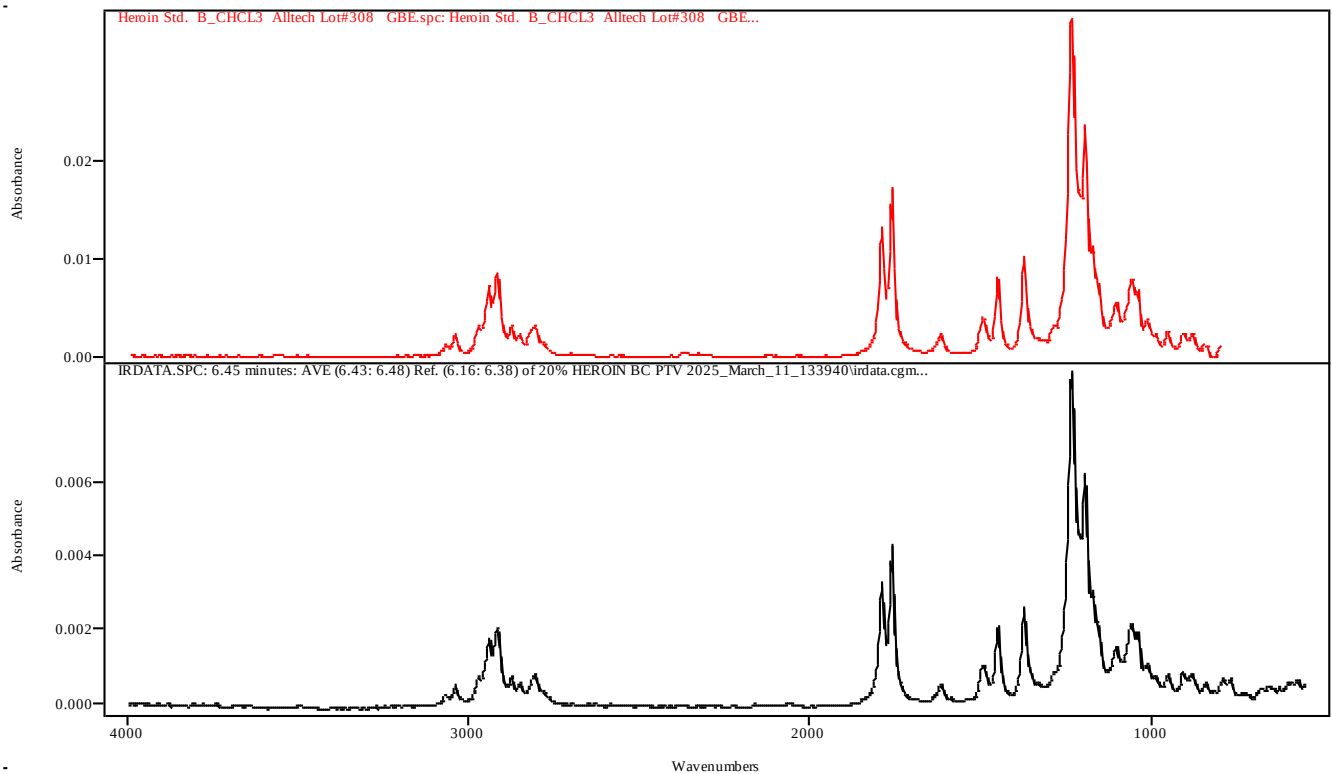
Data Filename	20% HEROIN BC PTV 2025_March_11_133940
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:49:33 2025
Date Processed	Wed Mar 12 11:16:04 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.430	6.476	0.045	6.159	6.385

IRD Data Analysis Report

Data Filename	20% HEROIN BC PTV 2025_March_11_133940
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 13:49:33 2025
Date Processed	Wed Mar 12 11:16:04 2025



IRDATA.SPC: 6.45 minutes: AVE (6.43: 6.48) Ref. (6.16: 6.38) of 20% HEROIN BC PTV 2025_March_11_133940.cgm

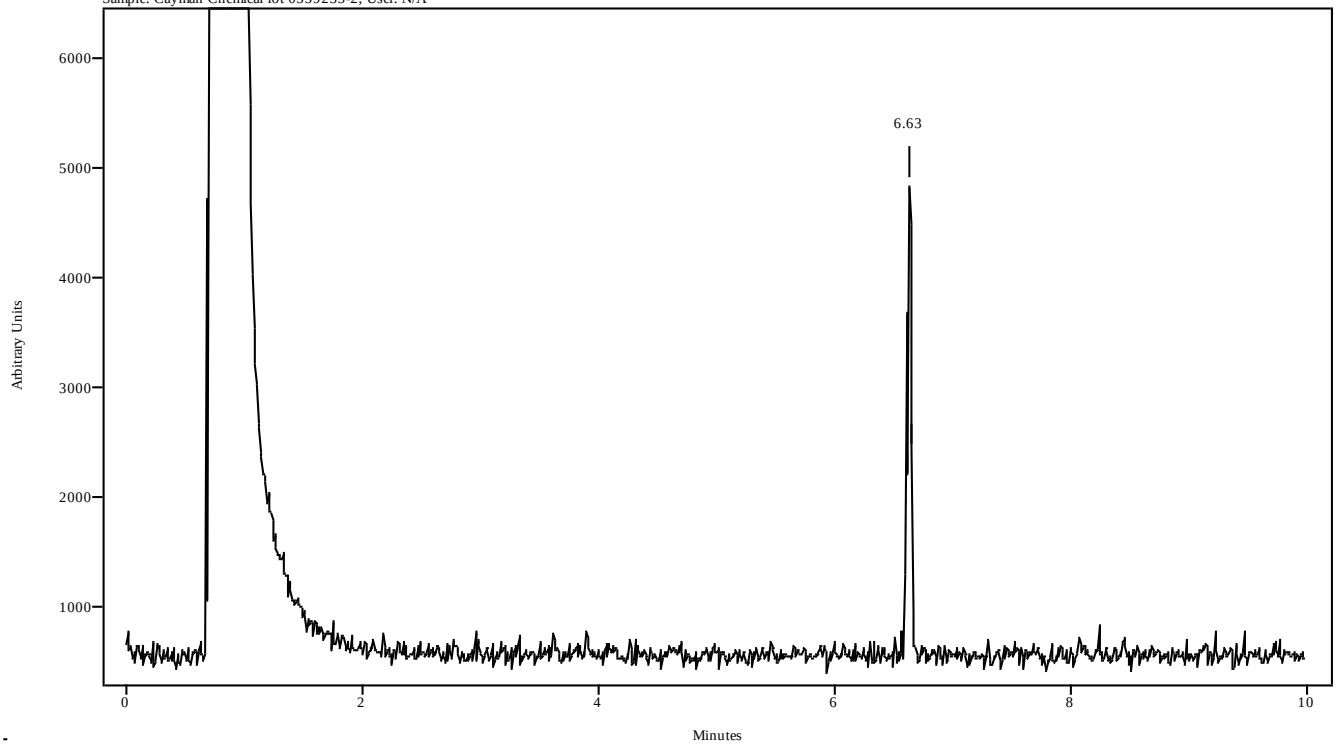
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.997437	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	20% HEROIN BC 2025_March_11_111823
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:30:38 2025
Date Processed	Tue Mar 11 11:38:54 2025

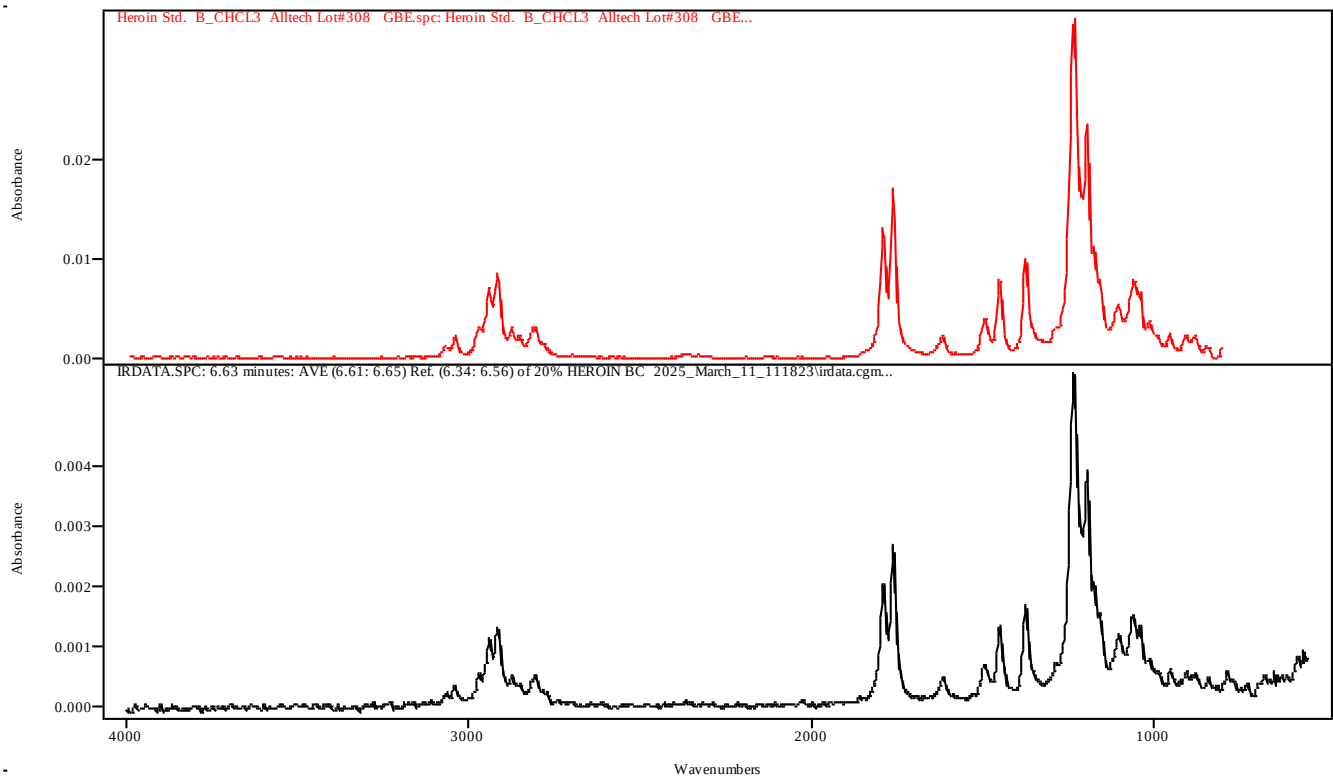
irdata.cgm: 20% HEROIN BC 2025_March_11_111823\irdata.cgm : Misc. Info: Bicarb --> CHCl3:Yoda;
Sample: Cayman Chemical lot 0559235-2; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.607	6.651	0.045	6.339	6.562

IRD Data Analysis Report

Data Filename	20% HEROIN BC 2025_March_11_111823
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	57
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:30:38 2025
Date Processed	Tue Mar 11 11:38:54 2025



IRDATA.SPC: 6.63 minutes: AVE (6.61: 6.65) Ref. (6.34: 6.56) of 20% HEROIN BC
2025_March_11_111823.cgm

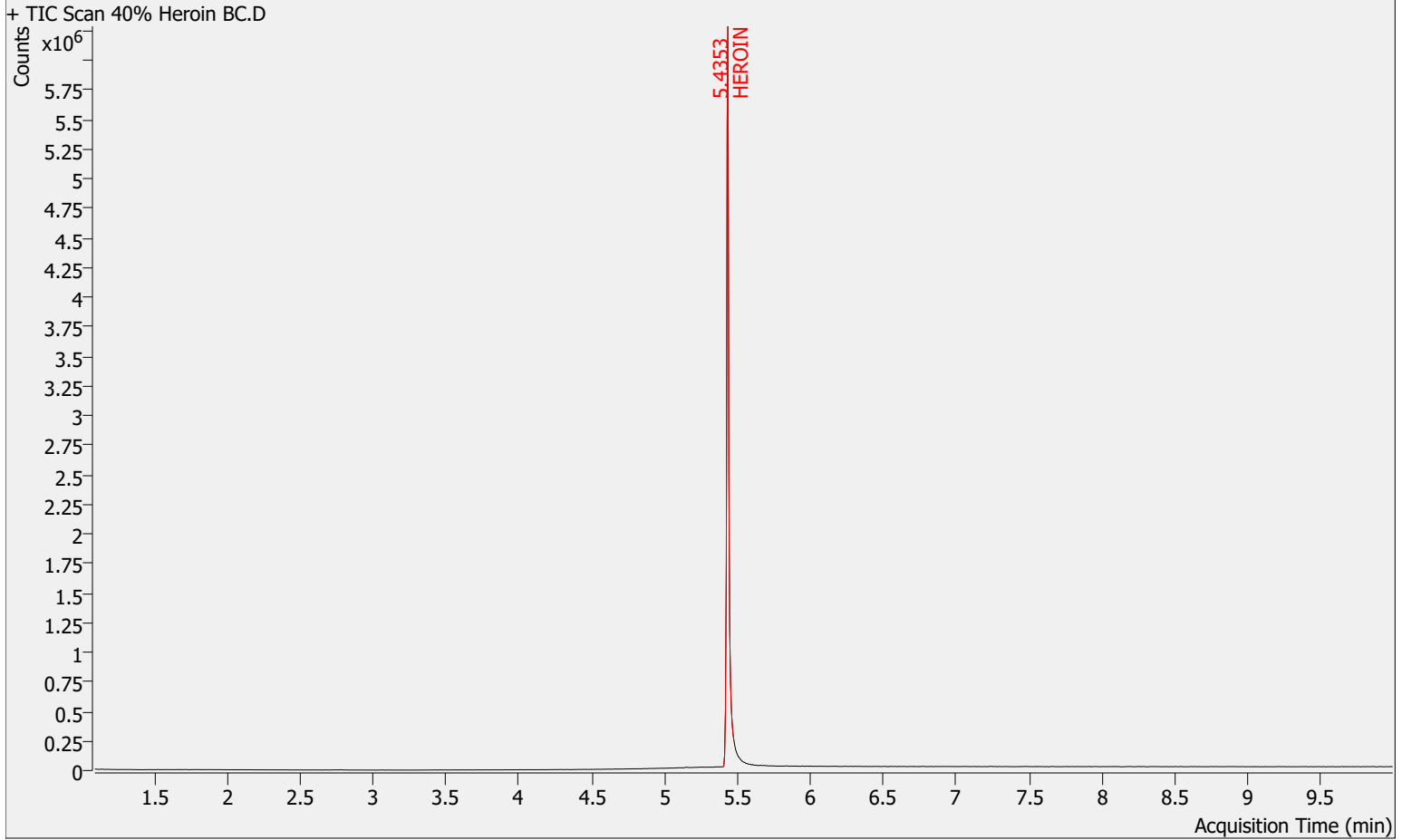
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.992339	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

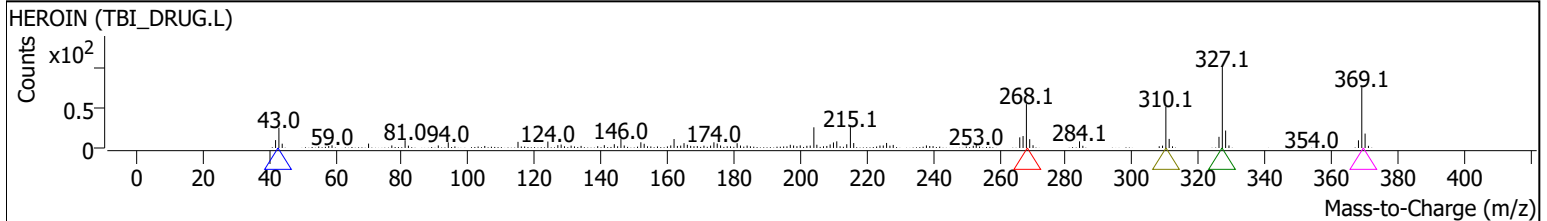
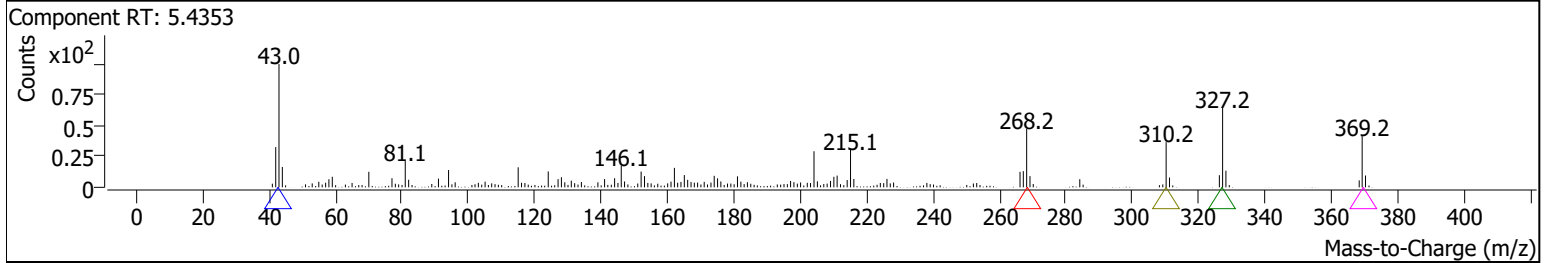
TBI Forensic Chemistry Report

File Name	40% Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 11:03:26 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	9

Sample Chromatogram



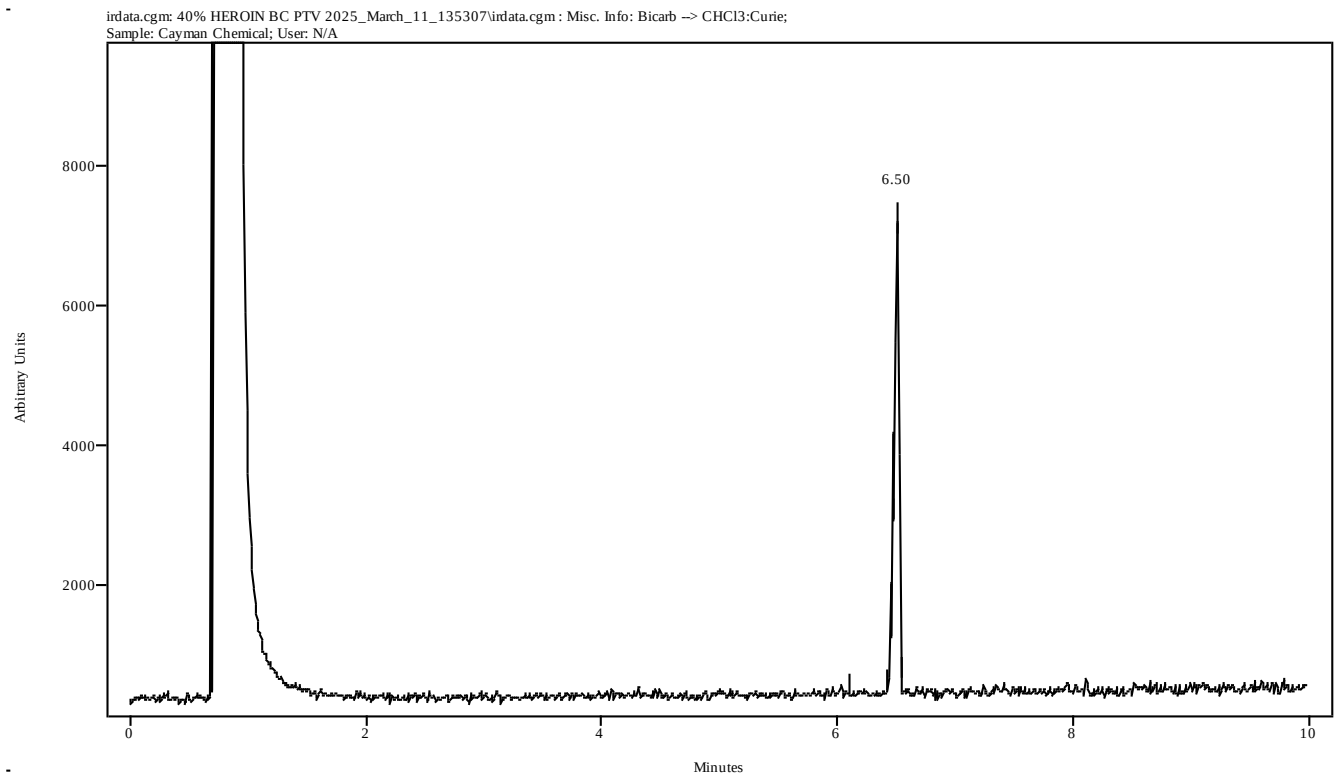
Compound Name	Component Area	Component RT
HEROIN	6916630.89978309	5.4



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	6916630.89978309	5.4				

IRD Data Analysis Report

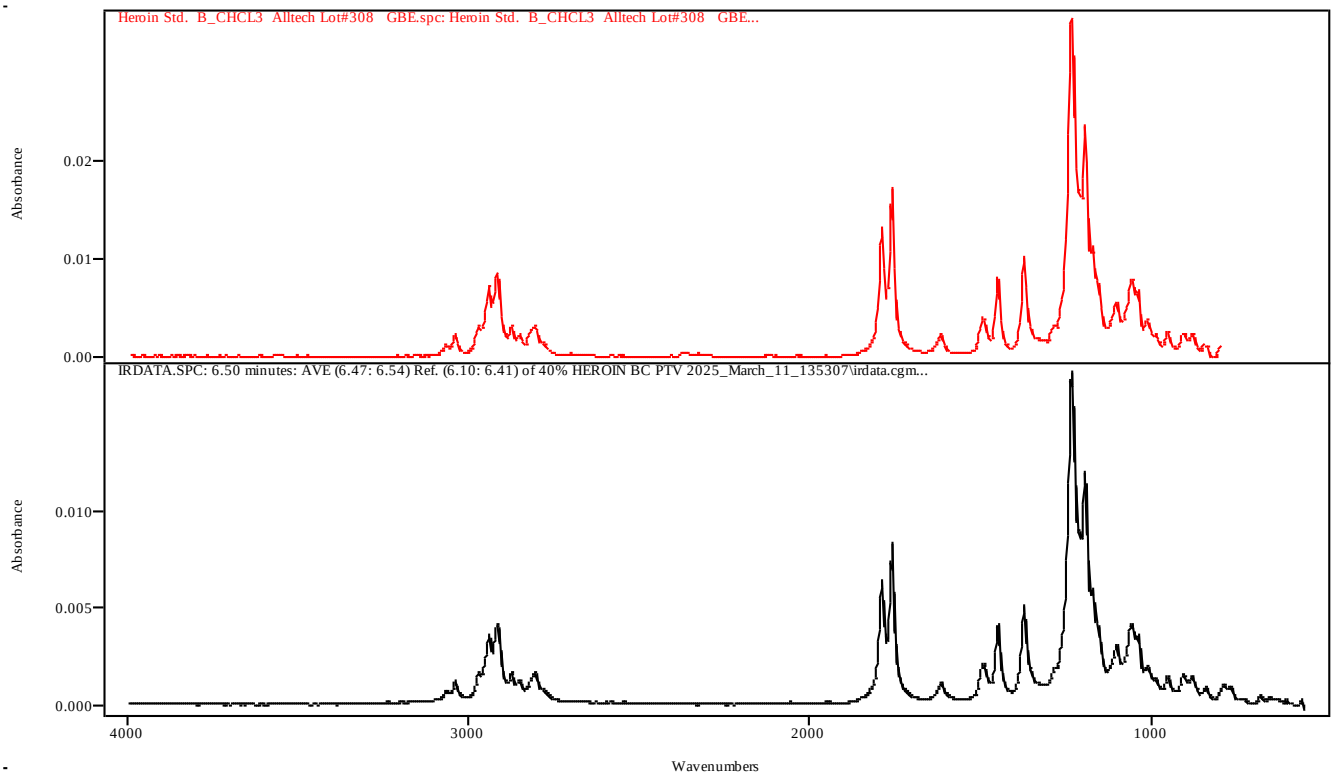
Data Filename	40% HEROIN BC PTV 2025_March_11_135307
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:02:21 2025
Date Processed	Wed Mar 12 11:18:30 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.470	6.538	0.068	6.098	6.414

IRD Data Analysis Report

Data Filename	40% HEROIN BC PTV 2025_March_11_135307
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:02:21 2025
Date Processed	Wed Mar 12 11:18:30 2025



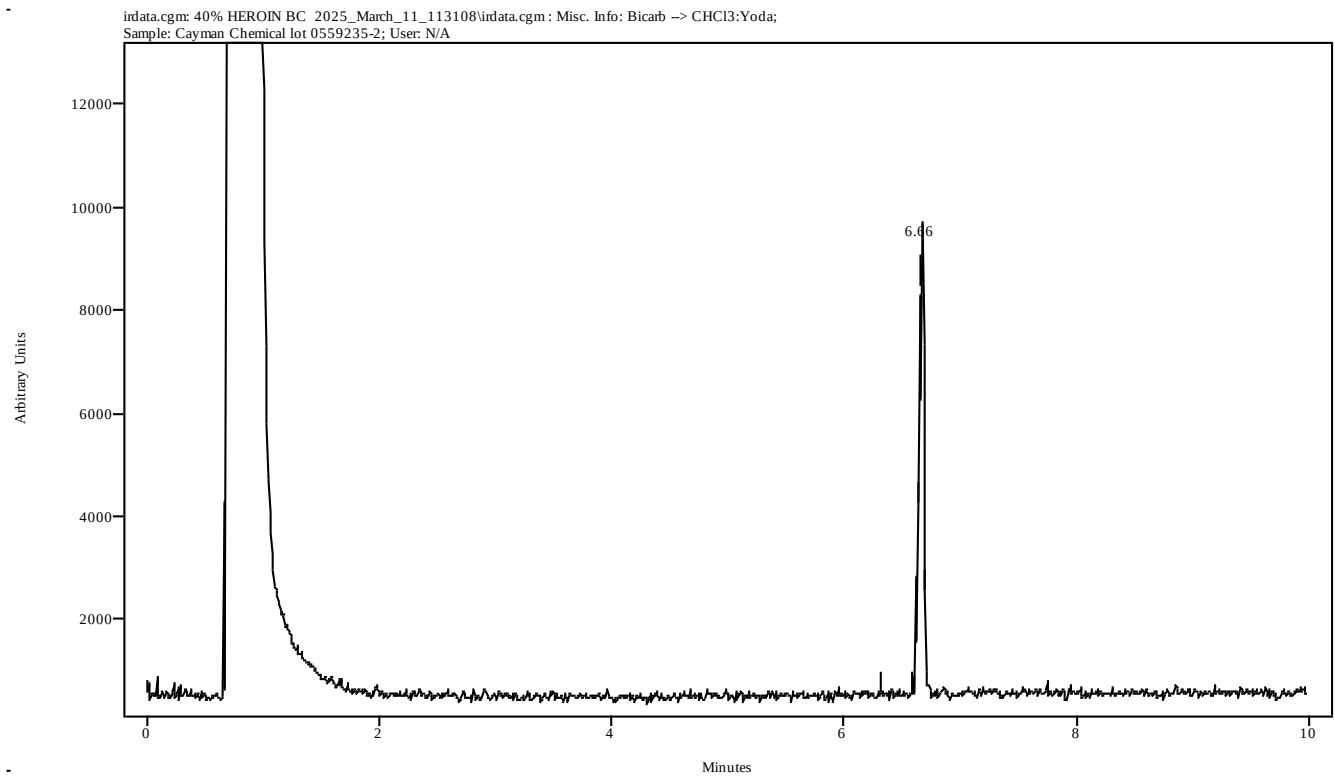
IRDATA.SPC: 6.50 minutes: AVE (6.47: 6.54) Ref. (6.10: 6.41) of 40% HEROIN BC PTV 2025_March_11_135307.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998541	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

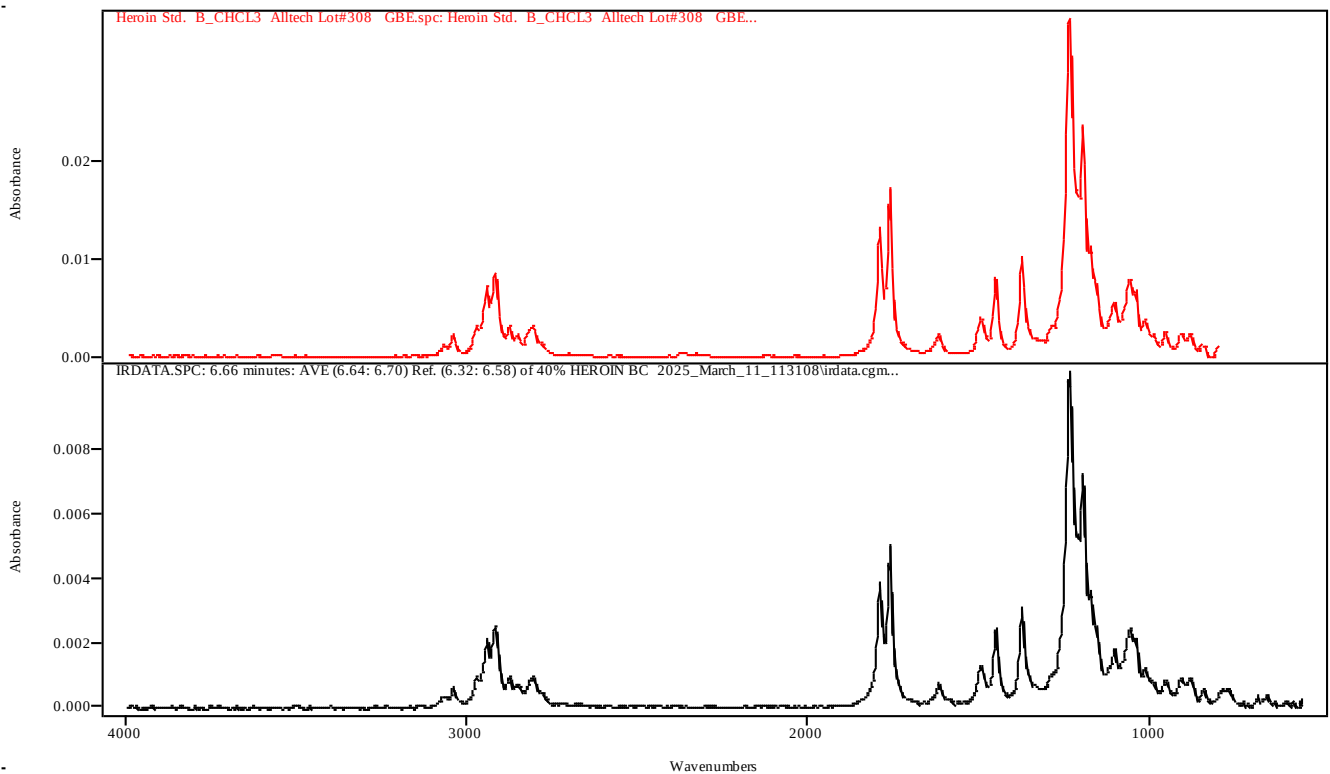
Data Filename	40% HEROIN BC 2025_March_11_113108
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:43:02 2025
Date Processed	Wed Mar 12 08:21:10 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.641	6.696	0.056	6.317	6.585

IRD Data Analysis Report

Data Filename	40% HEROIN BC 2025_March_11_113108
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	58
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:43:02 2025
Date Processed	Wed Mar 12 08:21:10 2025



IRDATA.SPC: 6.66 minutes: AVE (6.64: 6.70) Ref. (6.32: 6.58) of 40% HEROIN BC 2025_March_11_113108.cgm

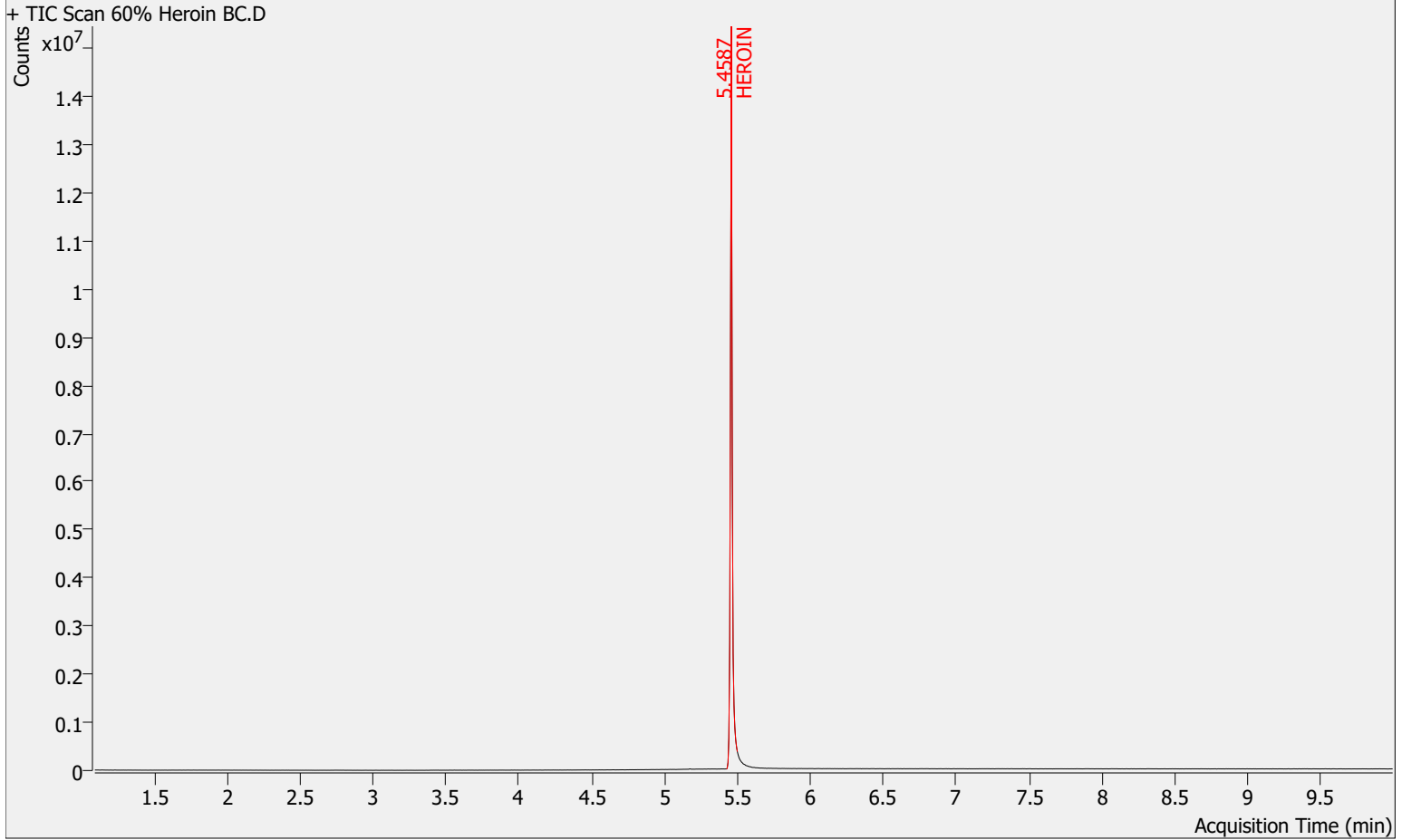
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998506	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

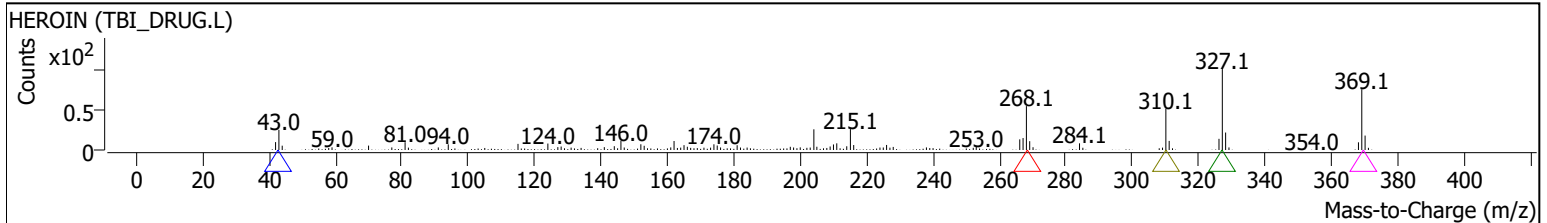
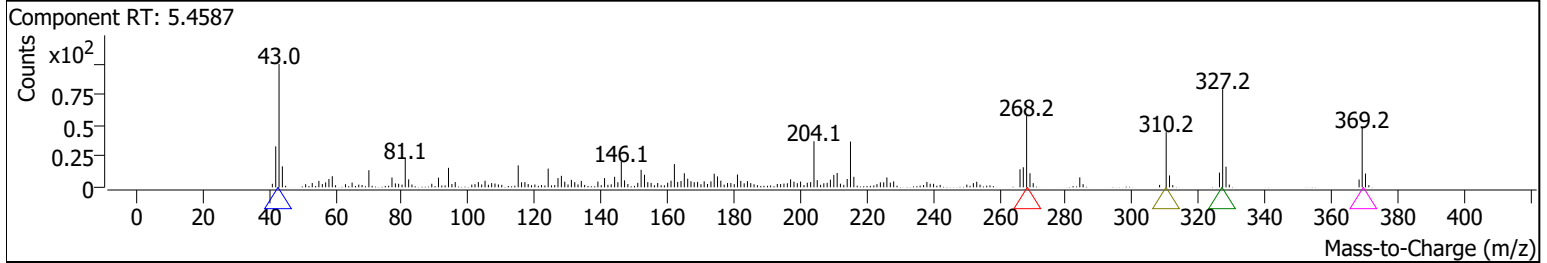
TBI Forensic Chemistry Report

File Name	60% Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 11:16:36 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	10

Sample Chromatogram



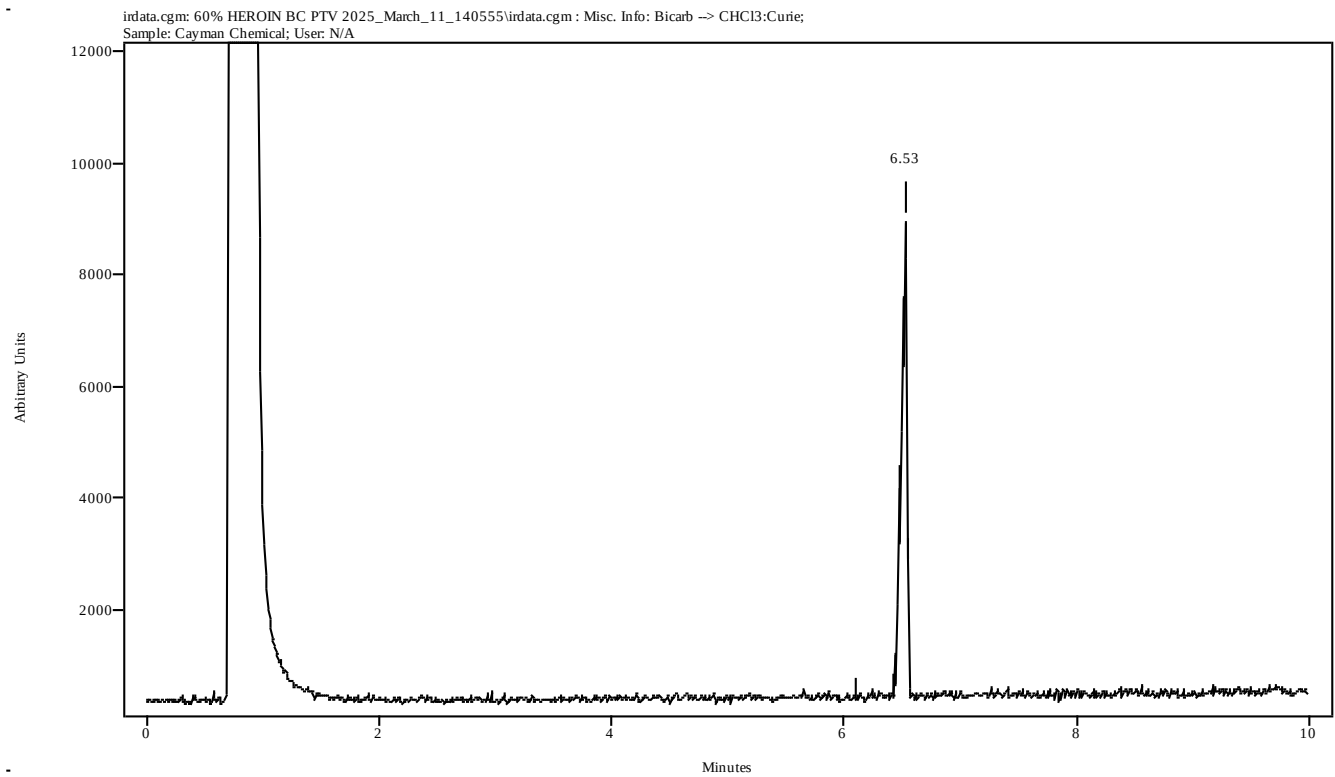
Compound Name	Component Area	Component RT
HEROIN	14132953.2563434	5.5



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	14132953.2563434	5.5				

IRD Data Analysis Report

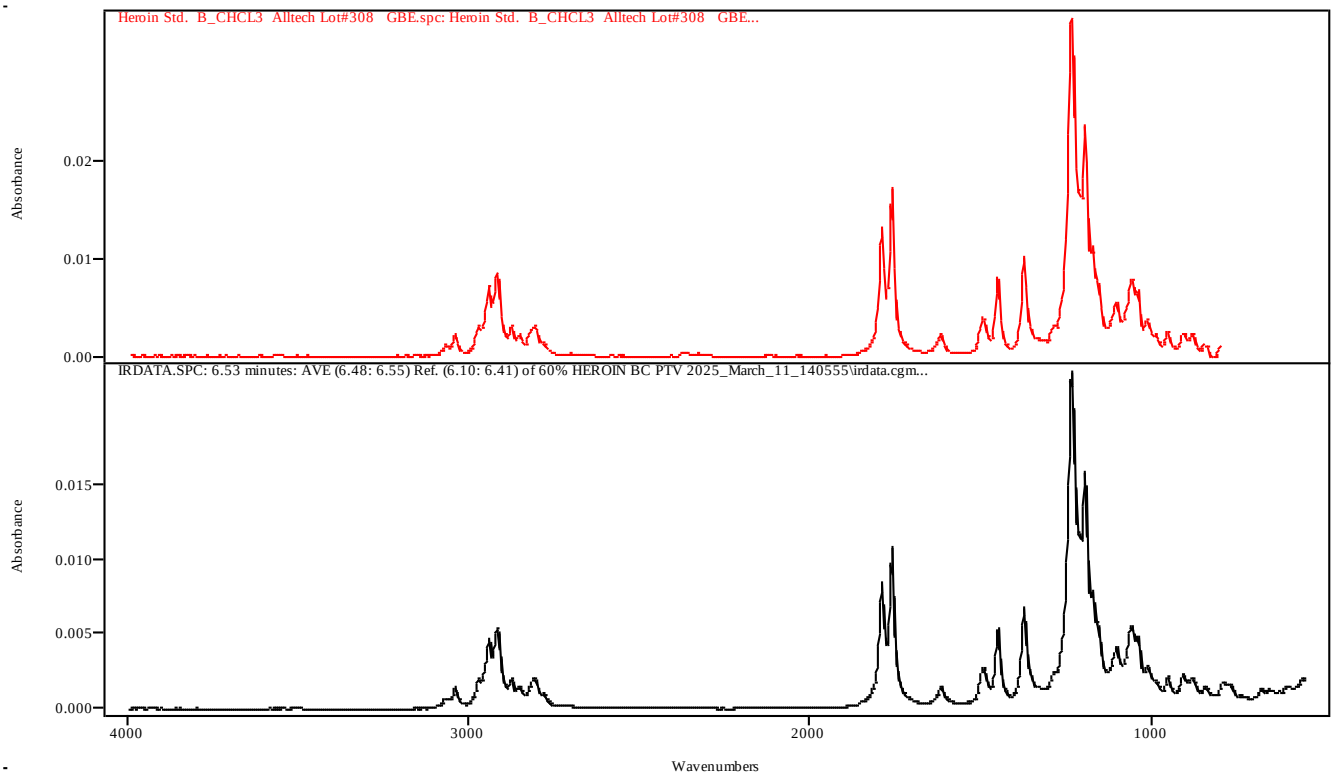
Data Filename	60% HEROIN BC PTV 2025_March_11_140555
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:15:07 2025
Date Processed	Wed Mar 12 11:19:53 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.482	6.550	0.068	6.099	6.415

IRD Data Analysis Report

Data Filename	60% HEROIN BC PTV 2025_March_11_140555
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:15:07 2025
Date Processed	Wed Mar 12 11:19:53 2025



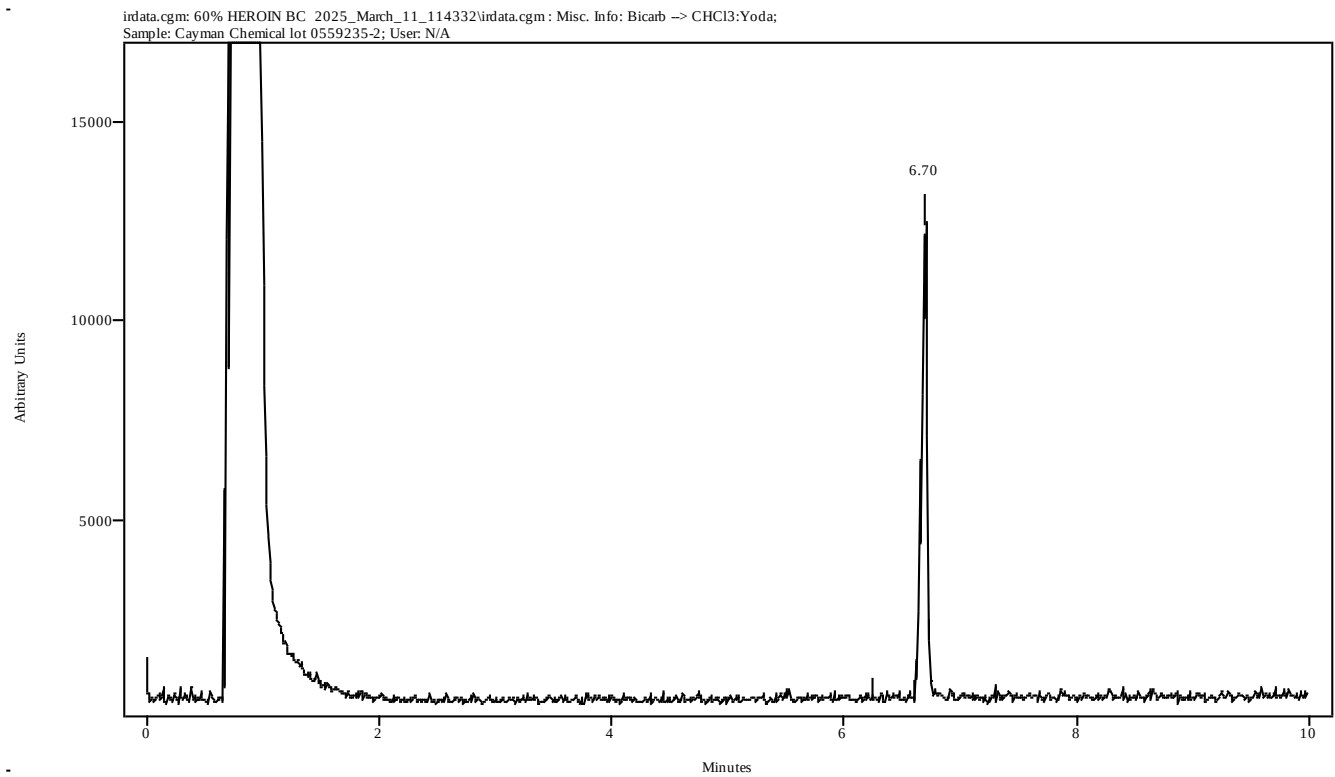
IRDATA.SPC: 6.53 minutes: AVE (6.48: 6.55) Ref. (6.10: 6.41) of 60% HEROIN BC PTV 2025_March_11_140555.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.997031	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

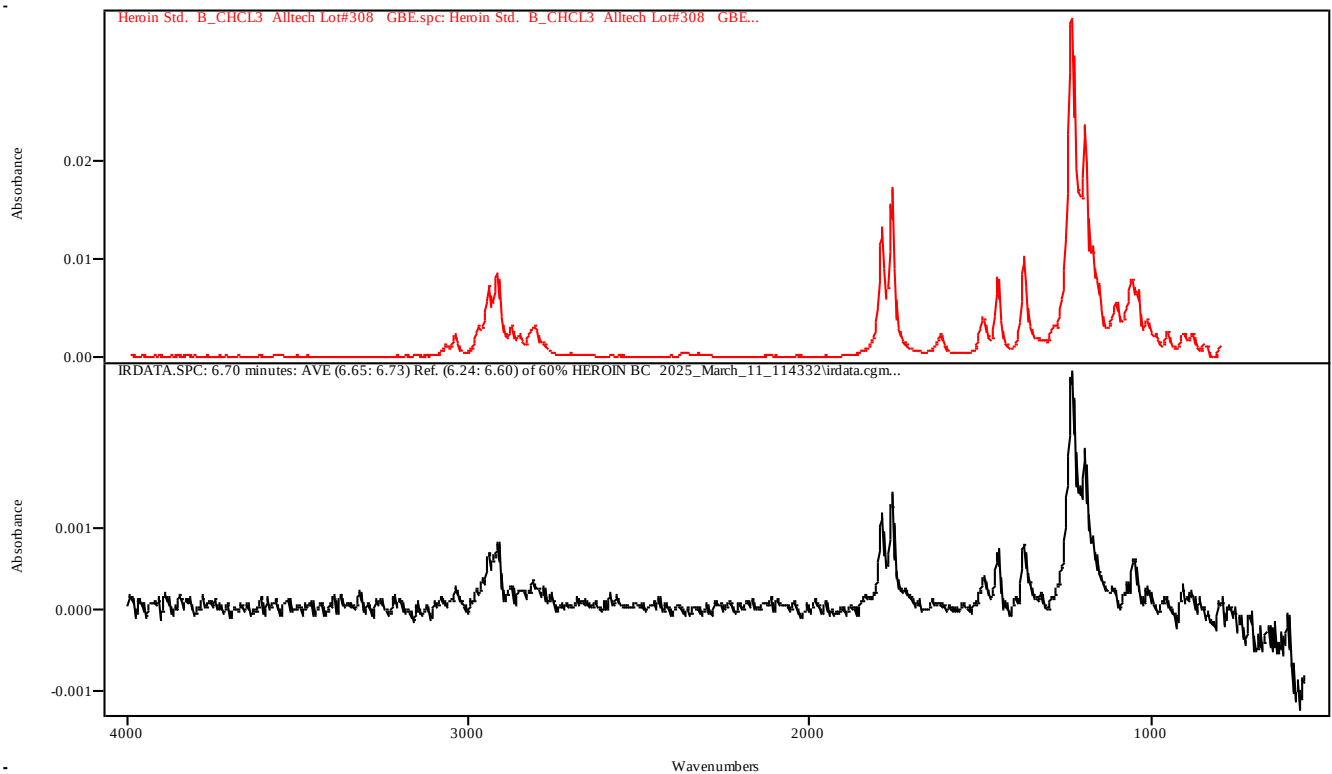
Data Filename	60% HEROIN BC 2025_March_11_114332
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:55:28 2025
Date Processed	Wed Mar 12 08:31:59 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.652	6.730	0.078	6.239	6.596

IRD Data Analysis Report

Data Filename	60% HEROIN BC 2025_March_11_114332
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:55:28 2025
Date Processed	Wed Mar 12 08:31:59 2025



IRDATA.SPC: 6.70 minutes: AVE (6.65: 6.73) Ref. (6.24: 6.60) of 60% HEROIN BC 2025_March_11_114332.cgm

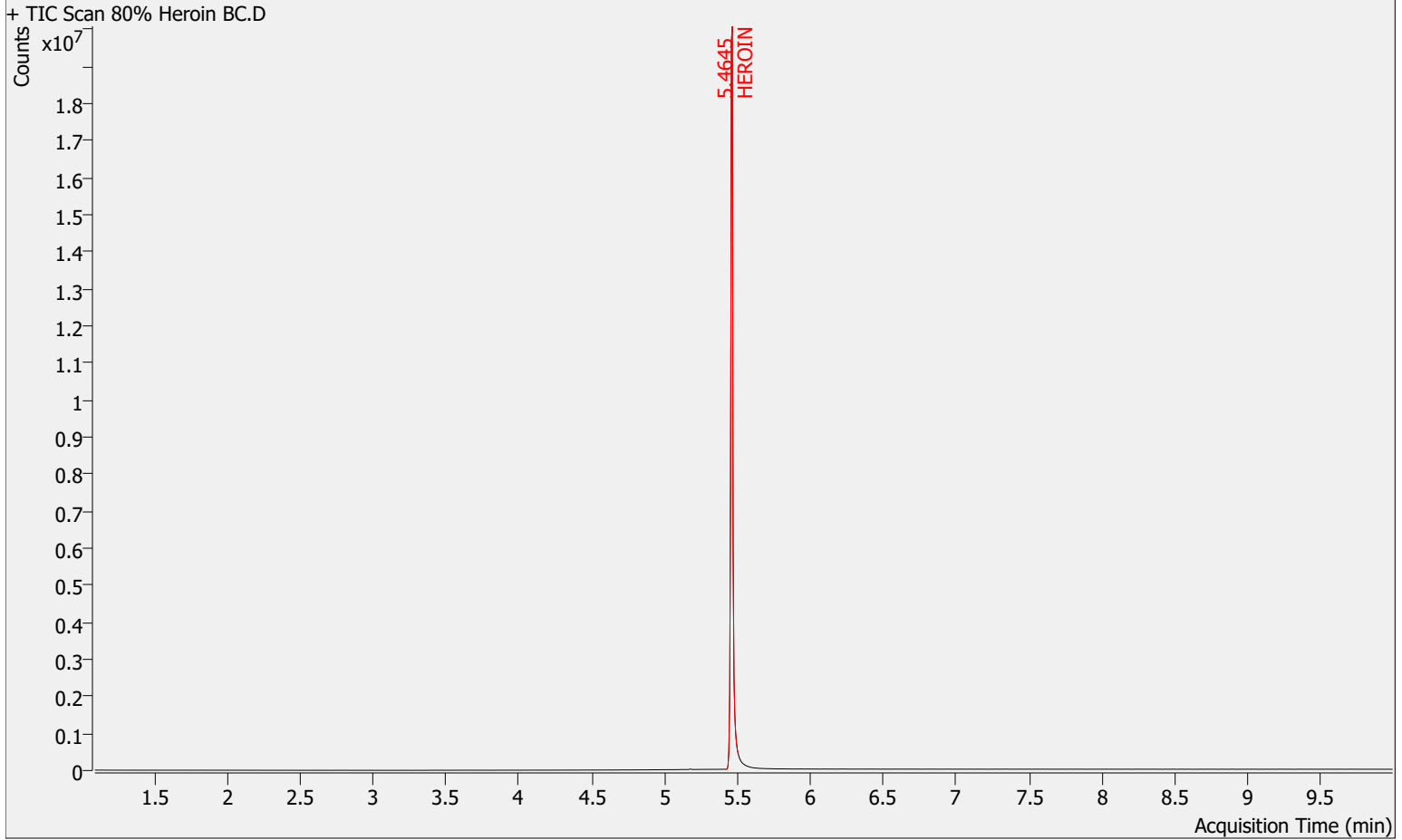
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.973660	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

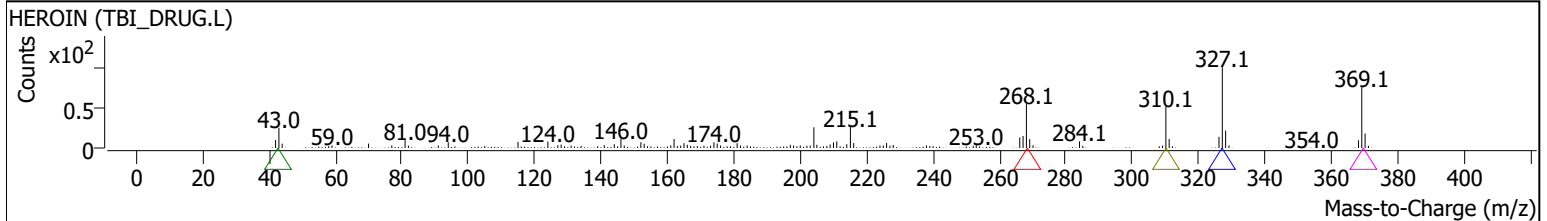
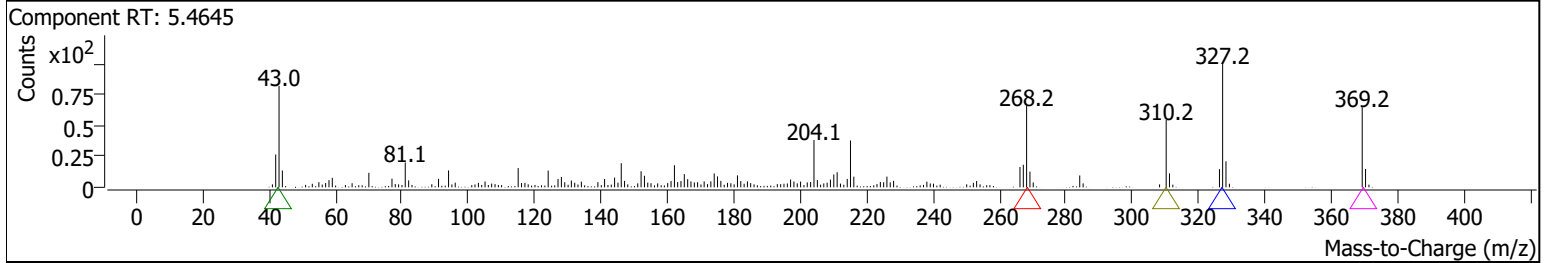
TBI Forensic Chemistry Report

File Name	80% Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 11:29:44 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	11

Sample Chromatogram



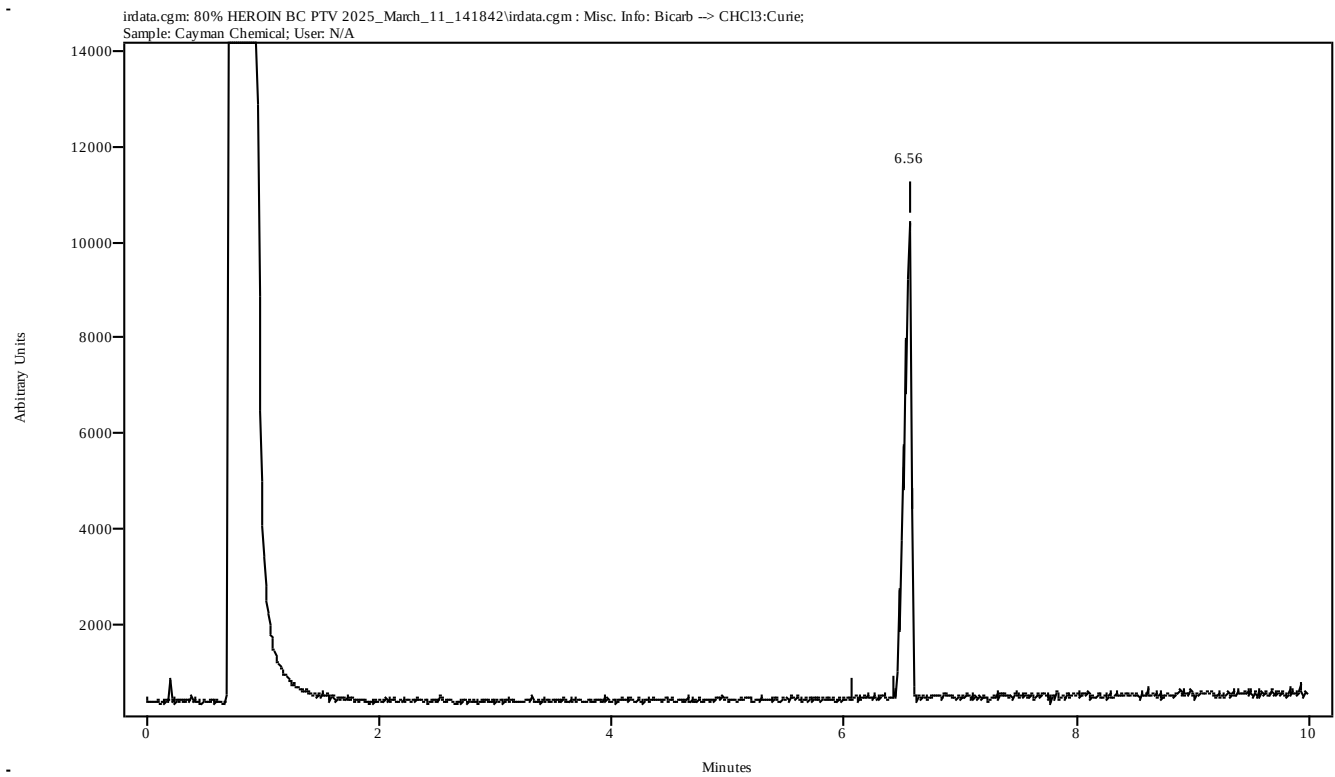
Compound Name	Component Area	Component RT
HEROIN	21983437.1917722	5.5



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	21983437.1917722	5.5				

IRD Data Analysis Report

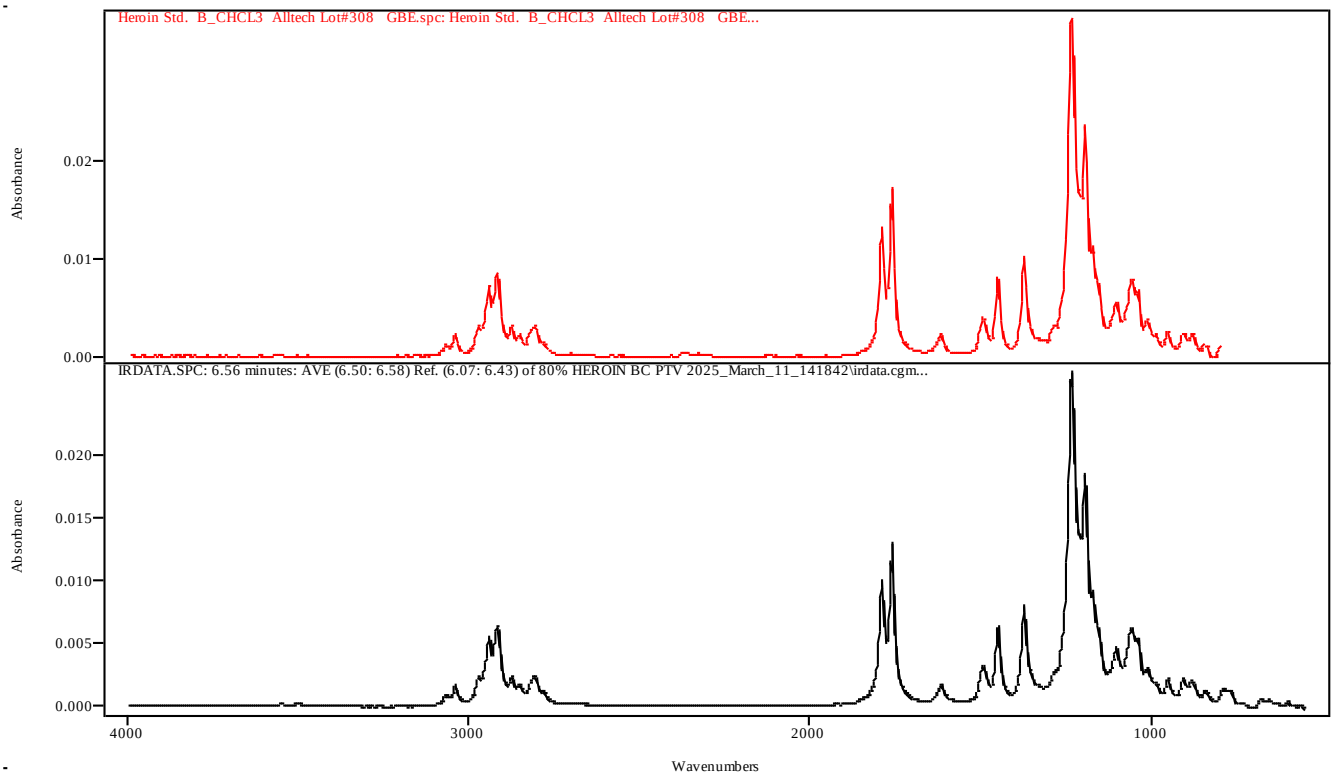
Data Filename	80% HEROIN BC PTV 2025_March_11_141842
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:28:10 2025
Date Processed	Wed Mar 12 11:21:22 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.505	6.584	0.079	6.065	6.426

IRD Data Analysis Report

Data Filename	80% HEROIN BC PTV 2025_March_11_141842
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:28:10 2025
Date Processed	Wed Mar 12 11:21:22 2025



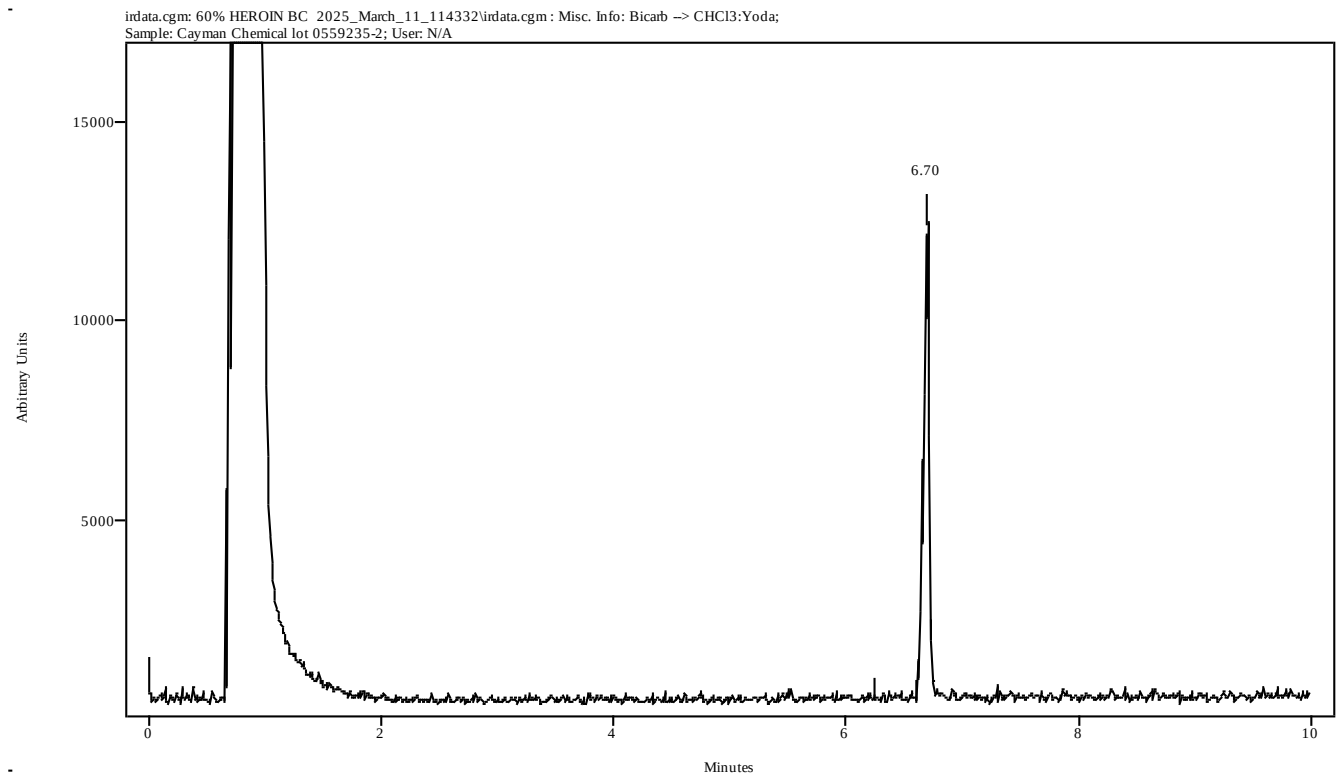
IRDATA.SPC: 6.56 minutes: AVE (6.50: 6.58) Ref. (6.07: 6.43) of 80% HEROIN BC PTV 2025_March_11_141842.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998828	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

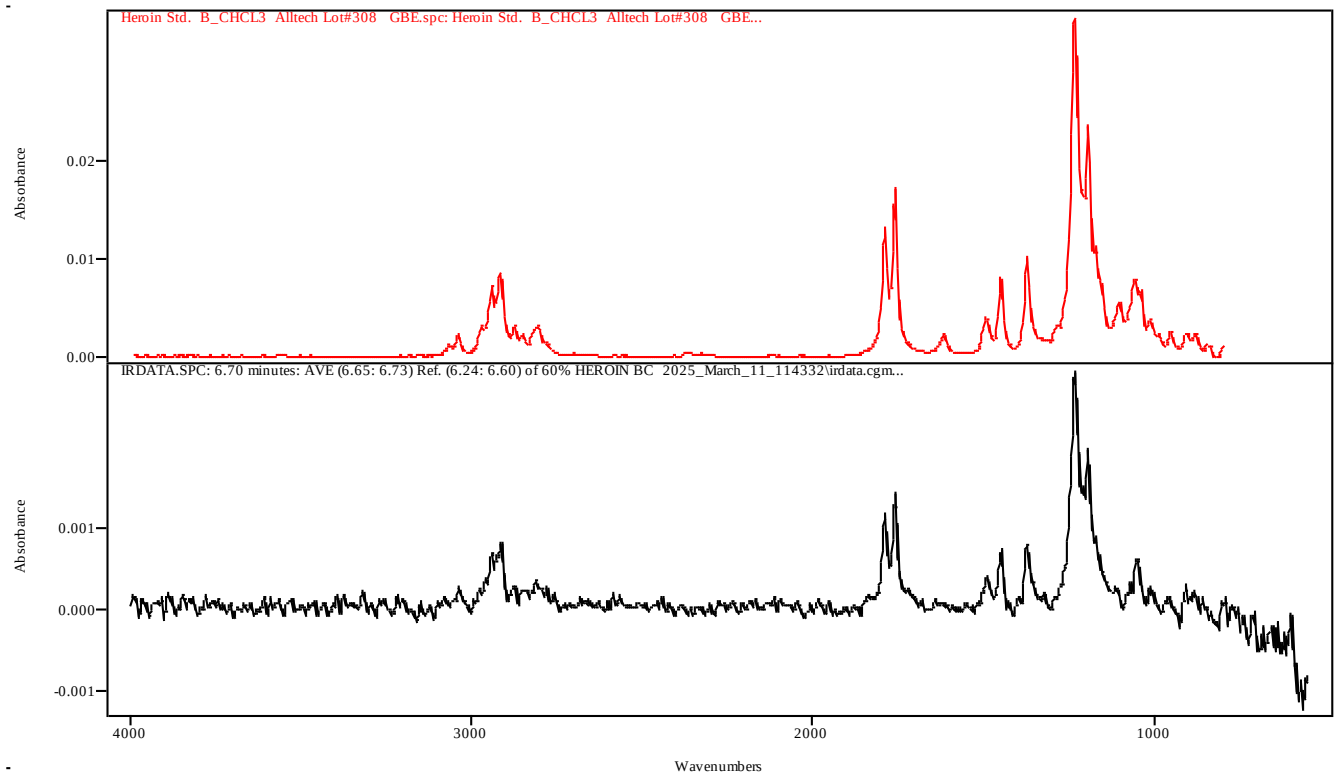
Data Filename	60% HEROIN BC 2025_March_11_114332
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:55:28 2025
Date Processed	Wed Mar 12 08:31:59 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.652	6.730	0.078	6.239	6.596

IRD Data Analysis Report

Data Filename	60% HEROIN BC 2025_March_11_114332
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	59
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 11:55:28 2025
Date Processed	Wed Mar 12 08:31:59 2025



IRDATA.SPC: 6.70 minutes: AVE (6.65: 6.73) Ref. (6.24: 6.60) of 60% HEROIN BC
2025_March_11_114332.cgm

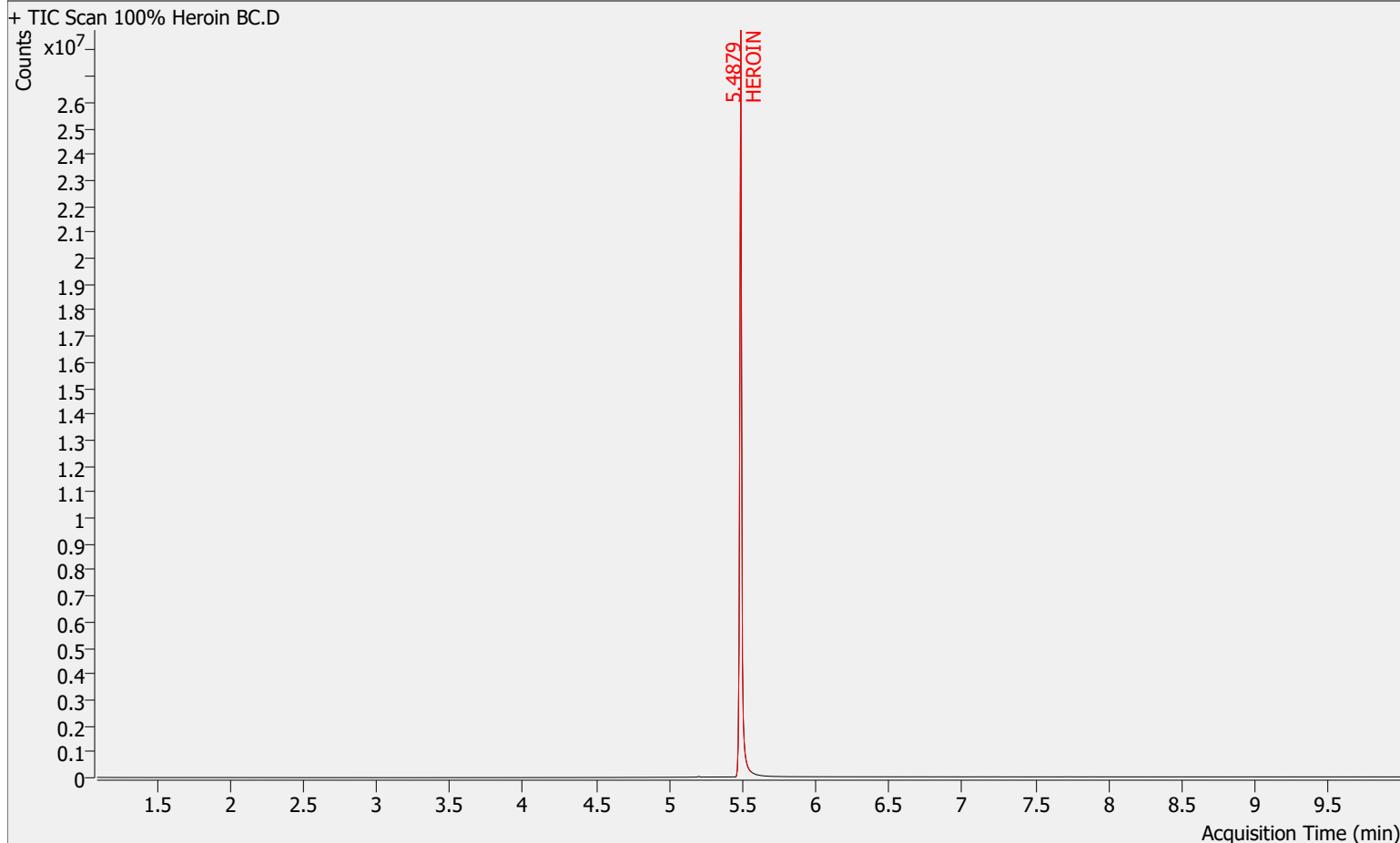
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.973660	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

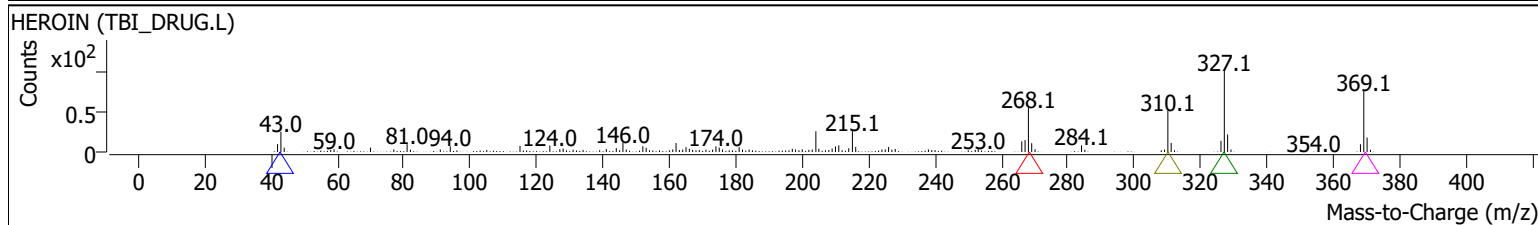
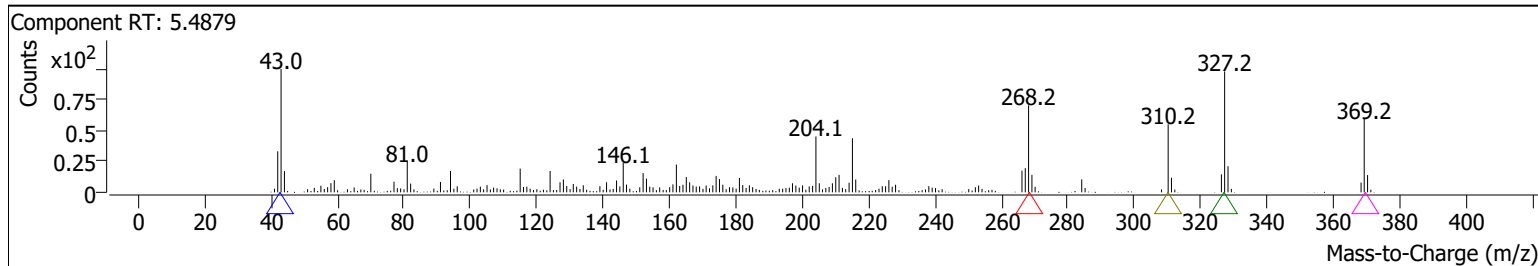
TBI Forensic Chemistry Report

File Name	100% Heroin BC.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cayman chemical lot 0559235-2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 11:43:01 AM	Acq. Operator	TBI Nashville Analyst
Comment	Bicarb --> CHCl3	Vial	12

Sample Chromatogram



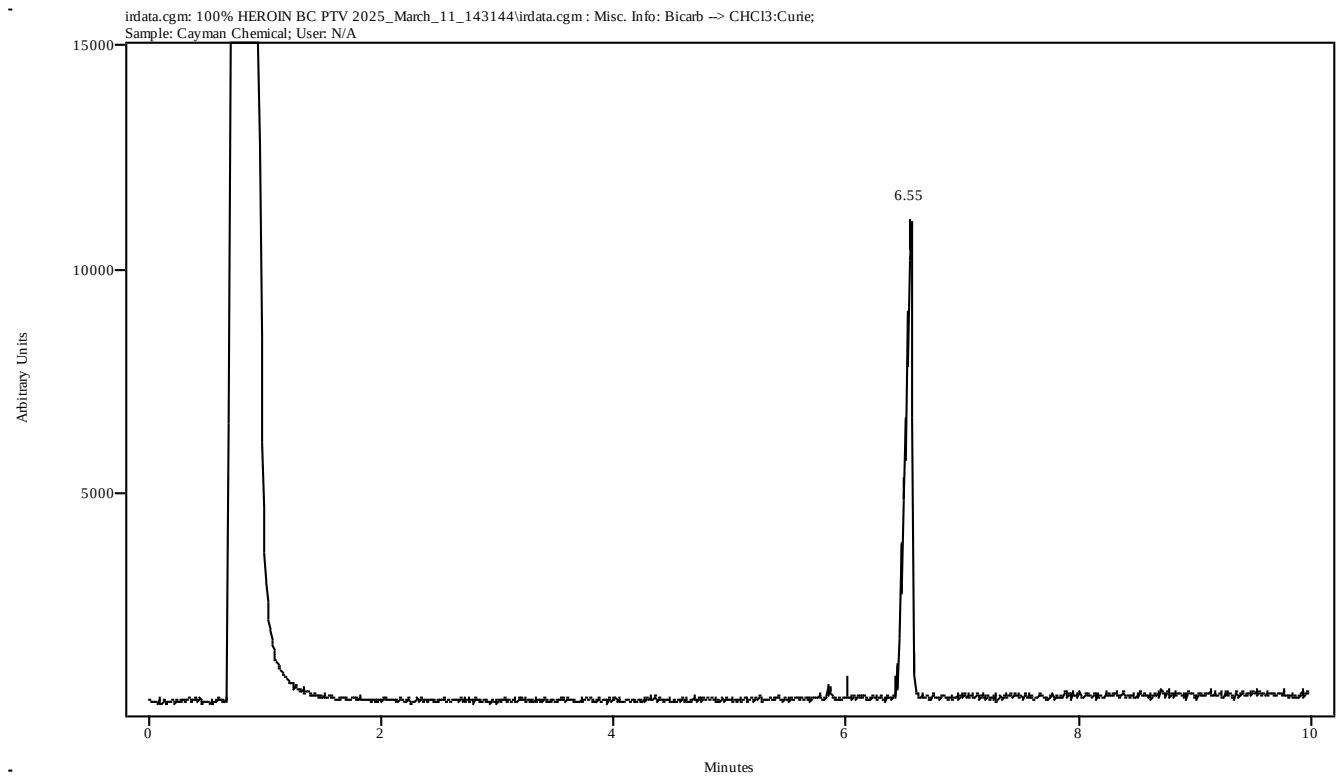
Compound Name	Component Area	Component RT
HEROIN	27569843.6420024	5.5



HEROIN	Component Area	Component RT	ASMSDRUGS100	Kenny	Bicarb --> CHCl3	Cayman chemical lot 0559235-2
	27569843.6420024	5.5				

IRD Data Analysis Report

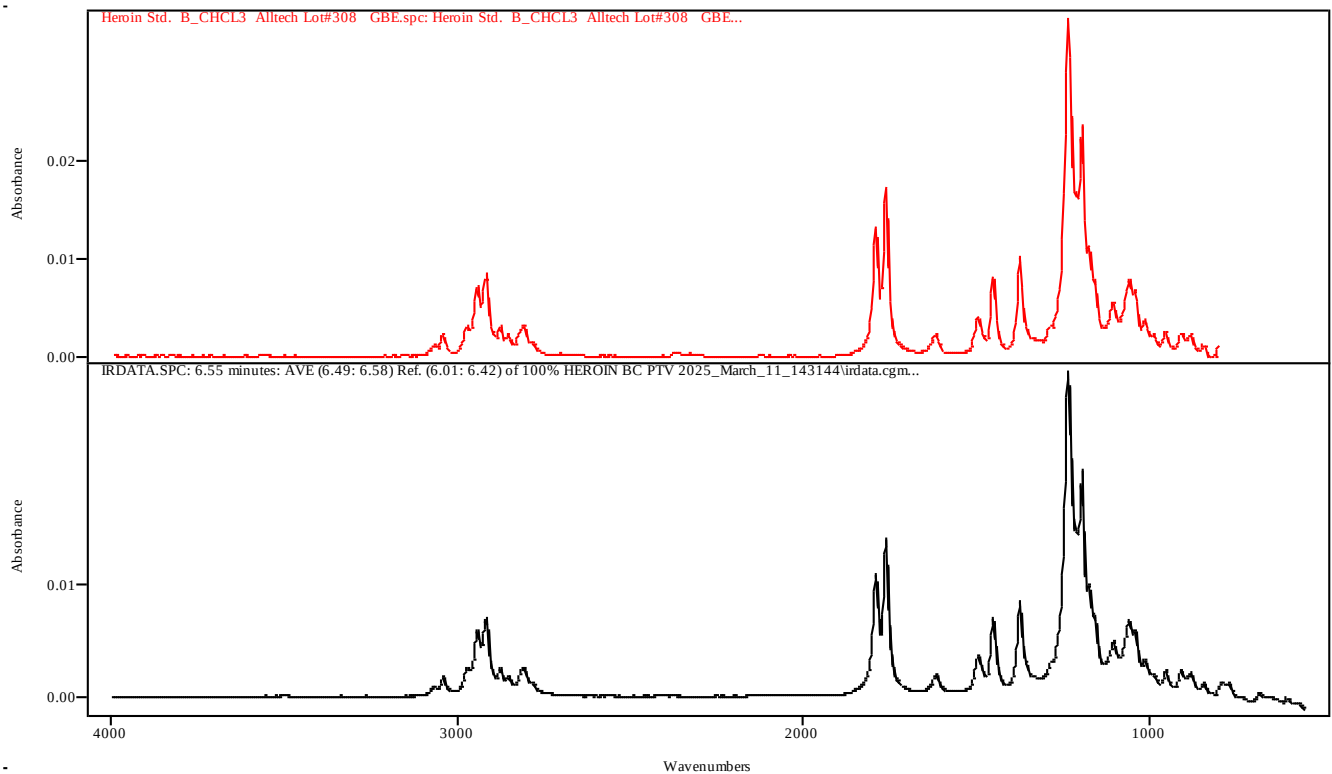
Data Filename	100% HEROIN BC PTV 2025_March_11_143144
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:40:57 2025
Date Processed	Wed Mar 12 11:23:07 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.494	6.584	0.090	6.009	6.415

IRD Data Analysis Report

Data Filename	100% HEROIN BC PTV 2025_March_11_143144
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cayman Chemical
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 14:40:57 2025
Date Processed	Wed Mar 12 11:23:07 2025



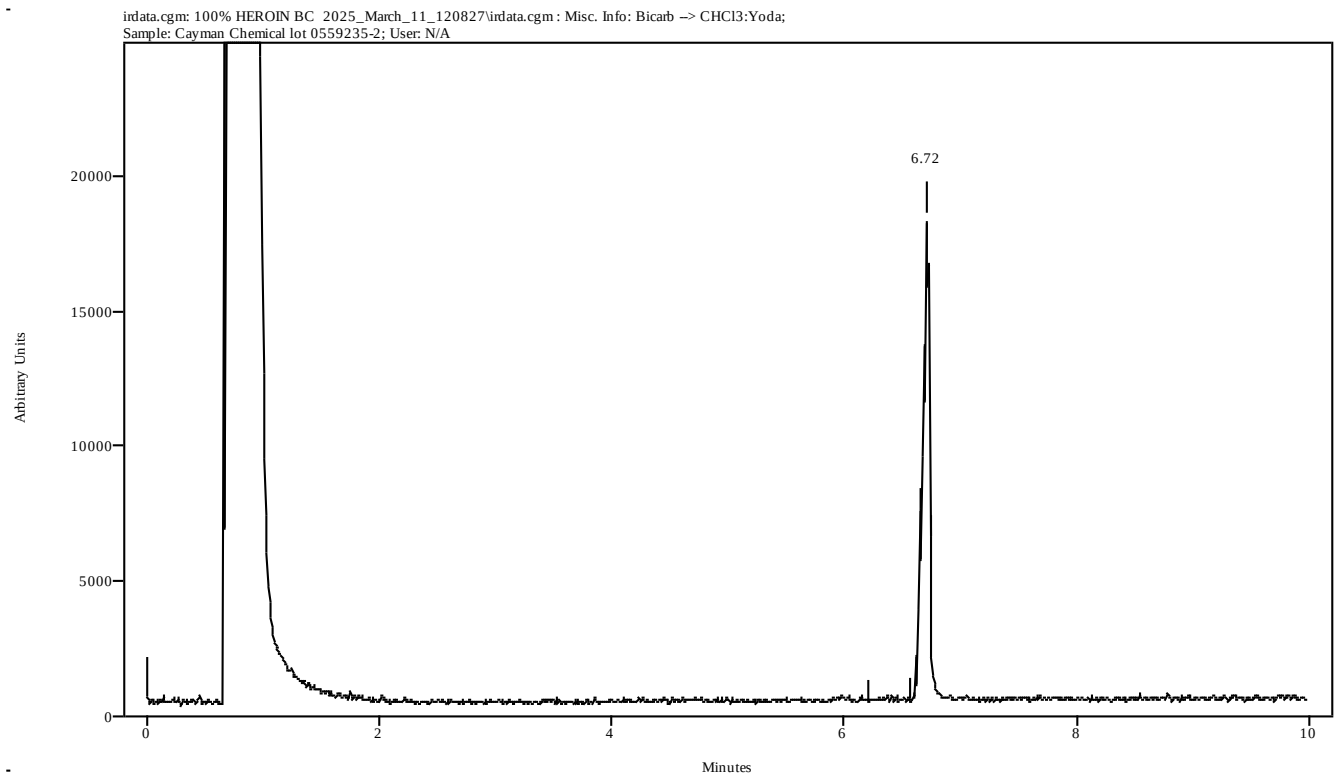
IRDATA.SPC: 6.55 minutes: AVE (6.49: 6.58) Ref. (6.01: 6.42) of 100% HEROIN BC PTV
2025_March_11_143144.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.998710	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

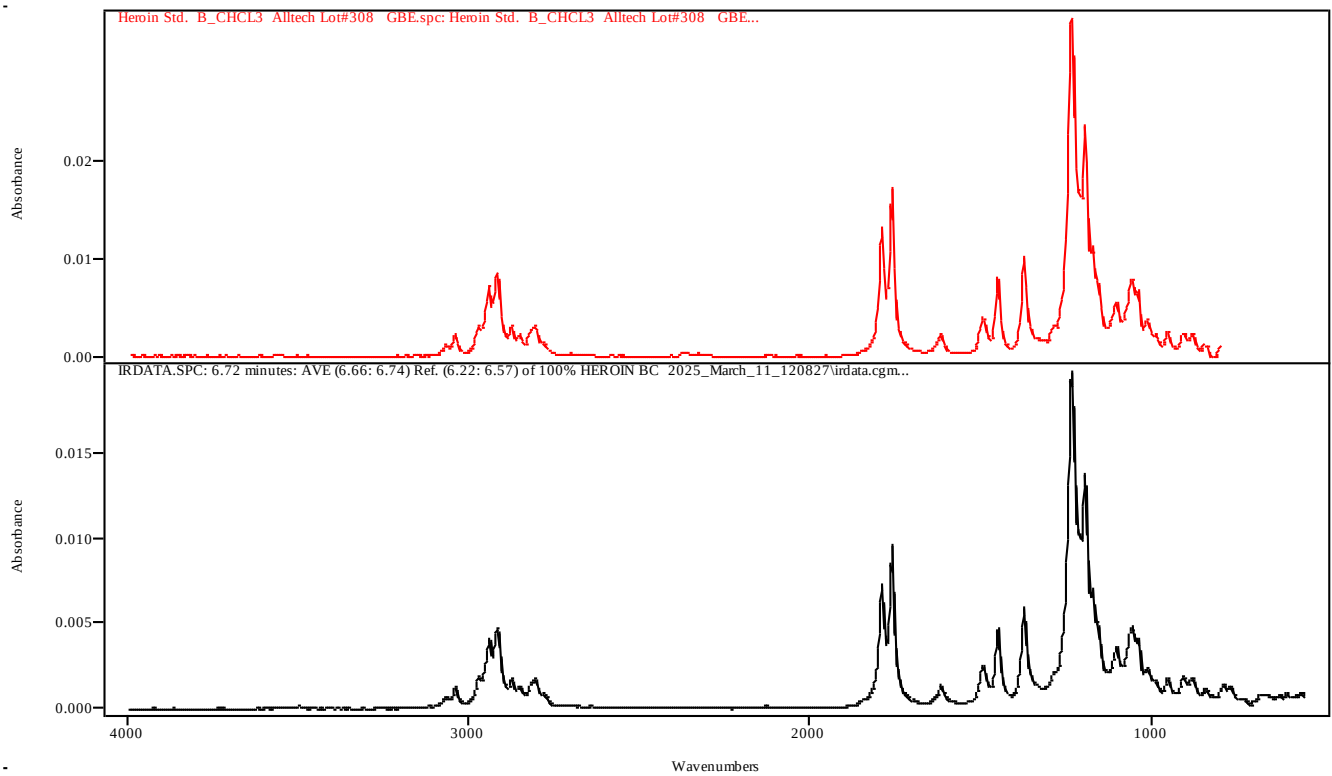
Data Filename	100% HEROIN BC 2025_March_11_120827
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 12:20:25 2025
Date Processed	Wed Mar 12 08:34:10 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
6.664	6.742	0.078	6.218	6.575

IRD Data Analysis Report

Data Filename	100% HEROIN BC 2025_March_11_120827
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cayman Chemical lot 0559235-2
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Tue Mar 11 12:20:25 2025
Date Processed	Wed Mar 12 08:34:10 2025



IRDATA.SPC: 6.72 minutes: AVE (6.66: 6.74) Ref. (6.22: 6.57) of 100% HEROIN BC
2025_March_11_120827.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.997644	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

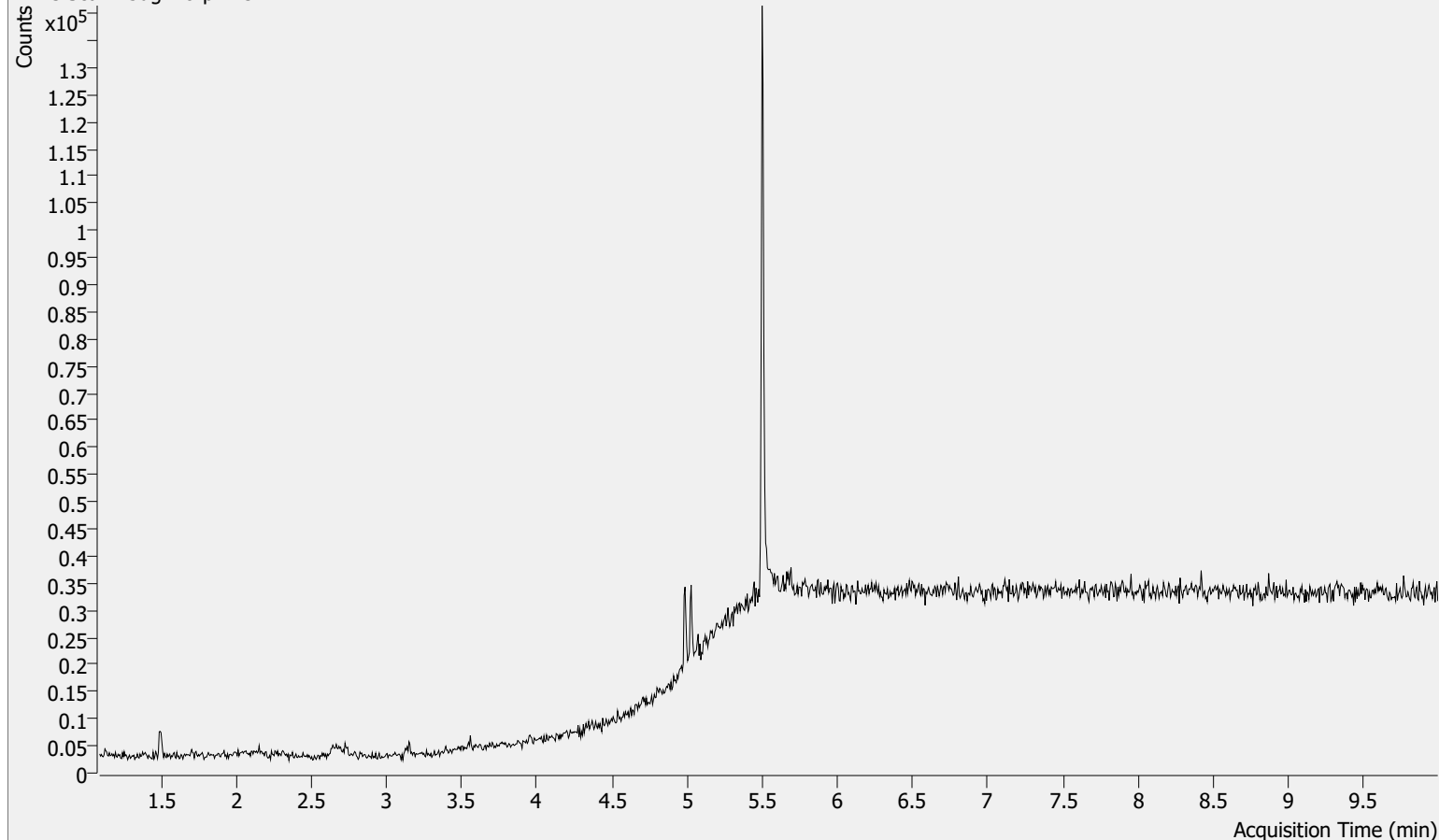
TBI Forensic Chemistry Report

File Name 25ug Morphine2.D
Sample Name 25ug Morphine2
Acq. Method File ASMSDRUGS100
Acq. Date-Time 3/17/2025 7:38:17 AM
Comment Methanol

Path Name H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study\03-17-25
Sample Type Sample
Instrument Name Kenny
Acq. Operator TBI Nashville Analyst
Vial 3

Sample Chromatogram

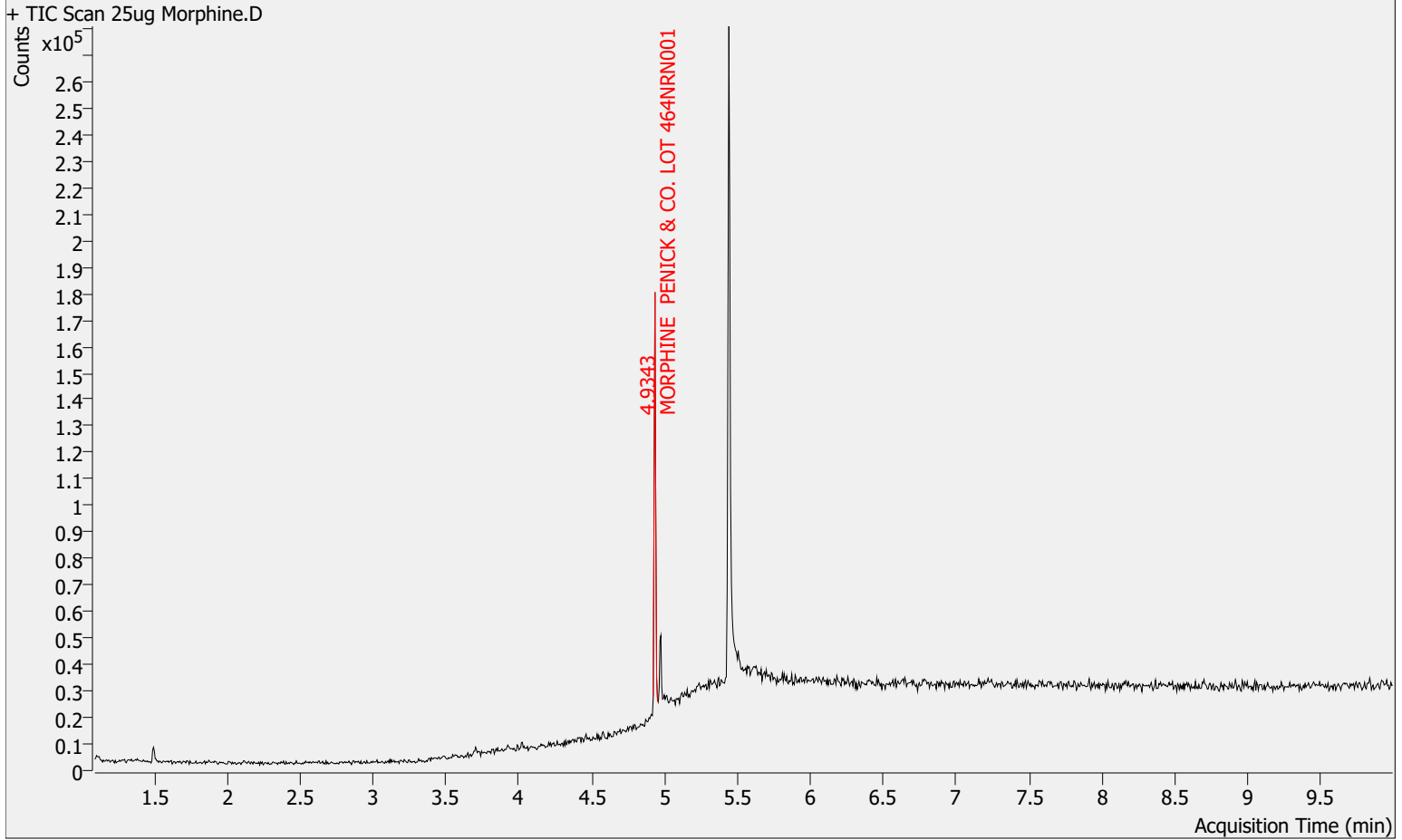
+ TIC Scan 25ug Morphine2.D



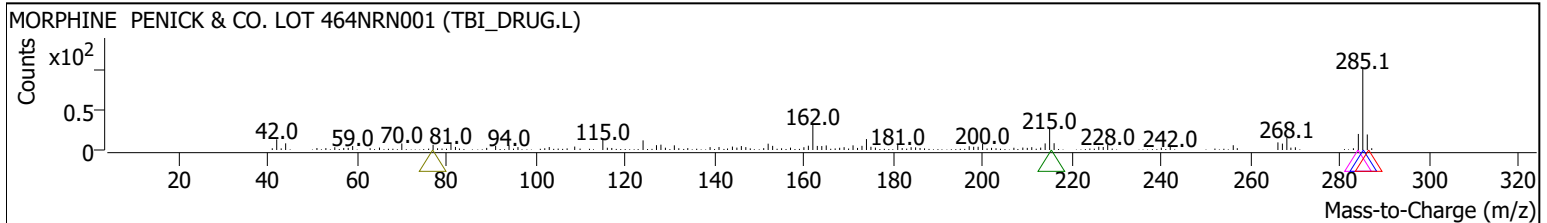
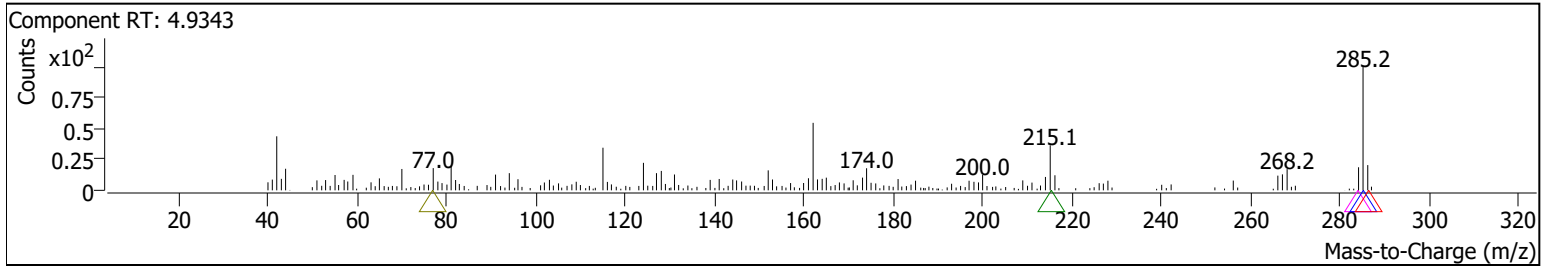
TBI Forensic Chemistry Report

File Name	25ug Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 10:37:00 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	11

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	120810.11527217	4.9

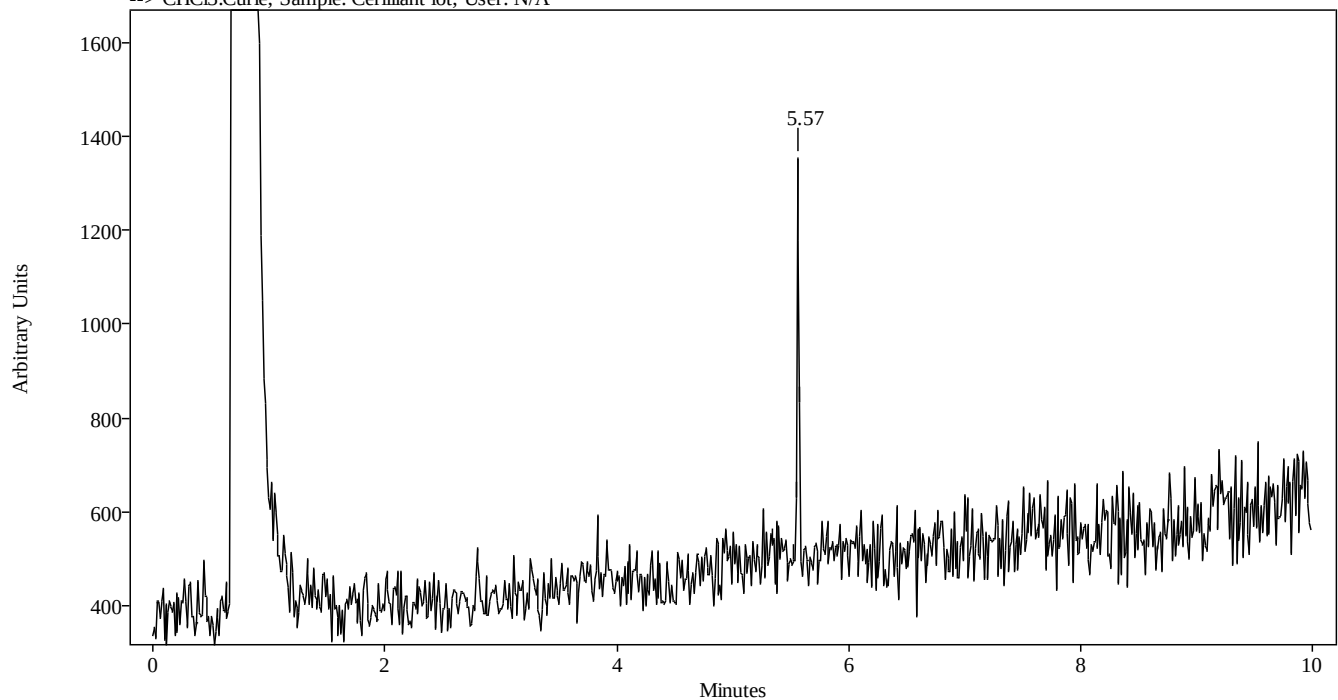


MORPHINE PENICK & CO. LOT 464NRN001	120810.11527217	4.9	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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IRD Data Analysis Report

Data Filename	25 UG MORPHINE PTV 2025_March_12_100936
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:19:17 2025
Date Processed	Sat Mar 15 12:25:17 2025

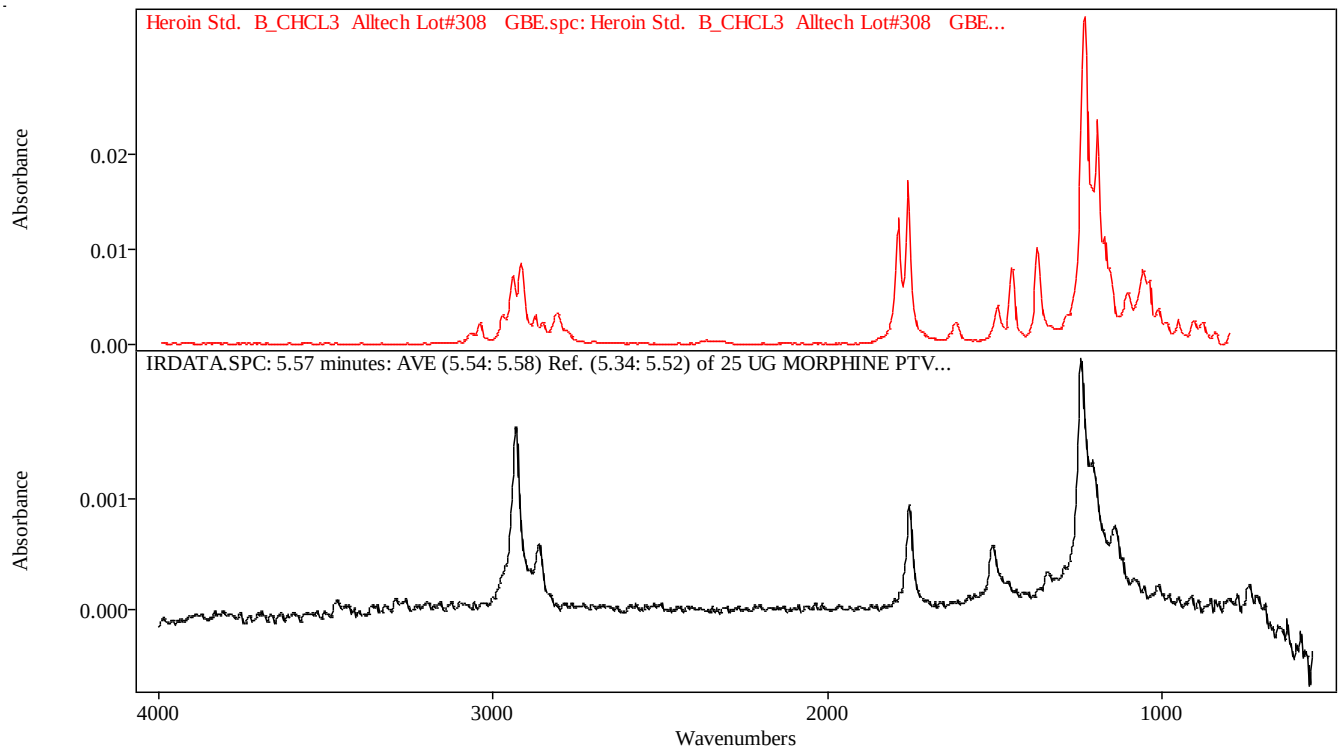
irdata.cgm: 25 UG MORPHINE PTV 2025_March_12_100936\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.544	5.578	0.034	5.341	5.521

IRD Data Analysis Report

Data Filename	25 UG MORPHINE PTV 2025_March_12_100936
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:19:17 2025
Date Processed	Sat Mar 15 12:25:17 2025



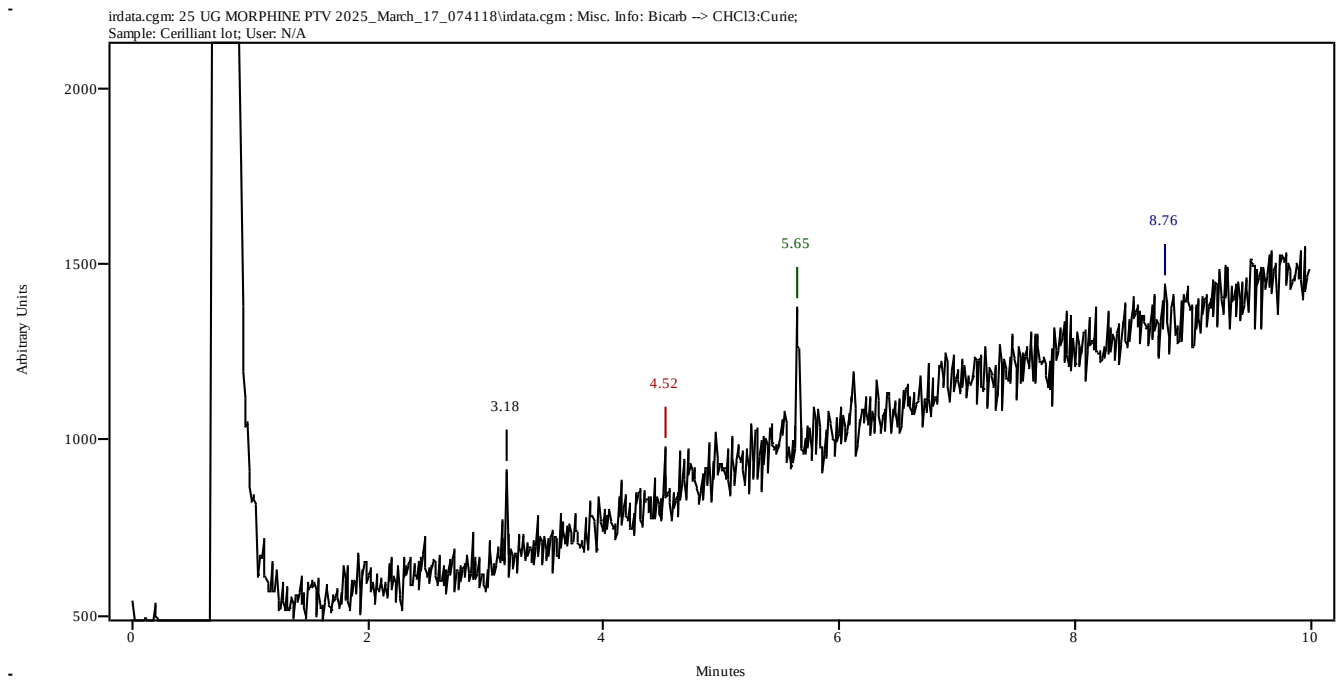
IRDATA.SPC: 5.57 minutes: AVE (5.54: 5.58) Ref. (5.34: 5.52) of 25 UG MORPHINE PTV
2025_March_12_100936.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.829305	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

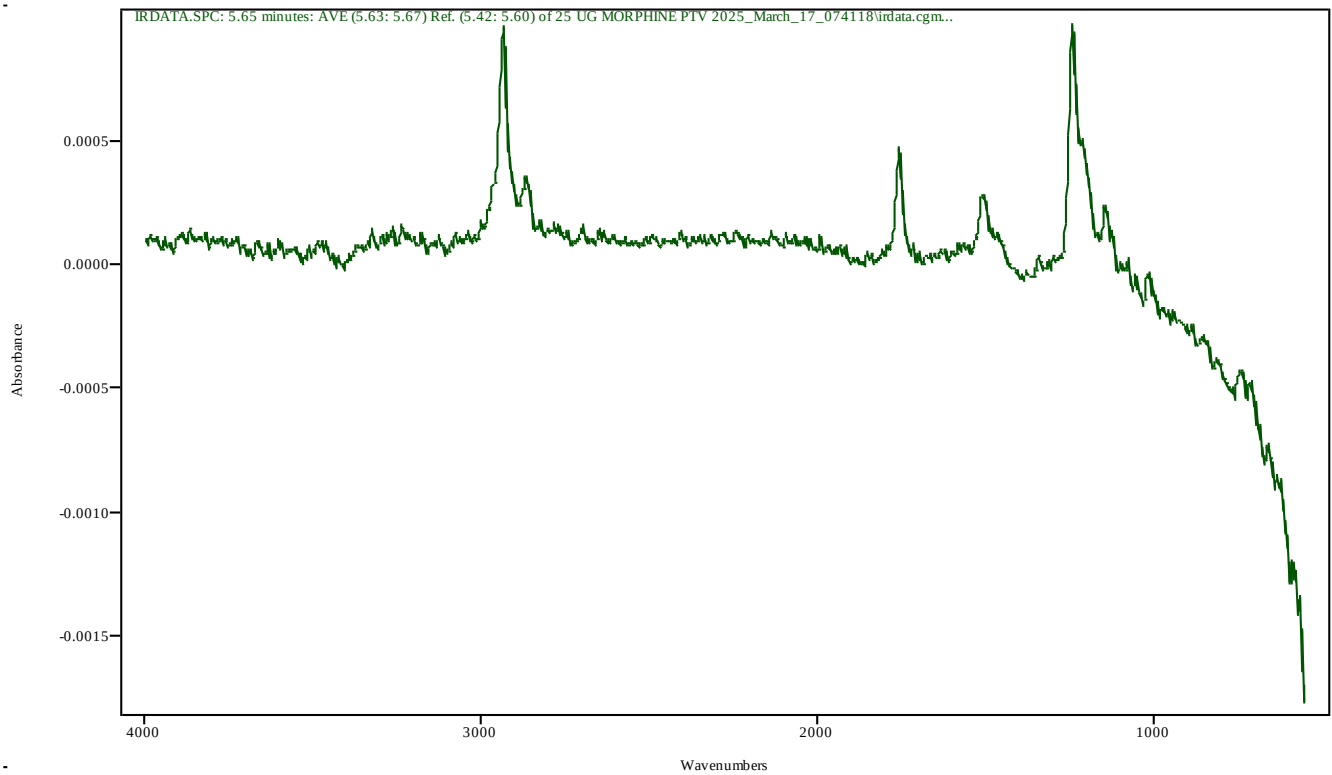
Data Filename	25 UG MORPHINE PTV 2025_March_17_074118
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 07:50:59 2025
Date Processed	Mon Mar 17 09:16:14 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
3.145	3.191	0.045	2.920	3.145
4.487	4.532	0.045	4.307	4.487
5.626	5.671	0.045	5.423	5.603
8.715	8.771	0.056	8.489	8.715

IRD Data Analysis Report

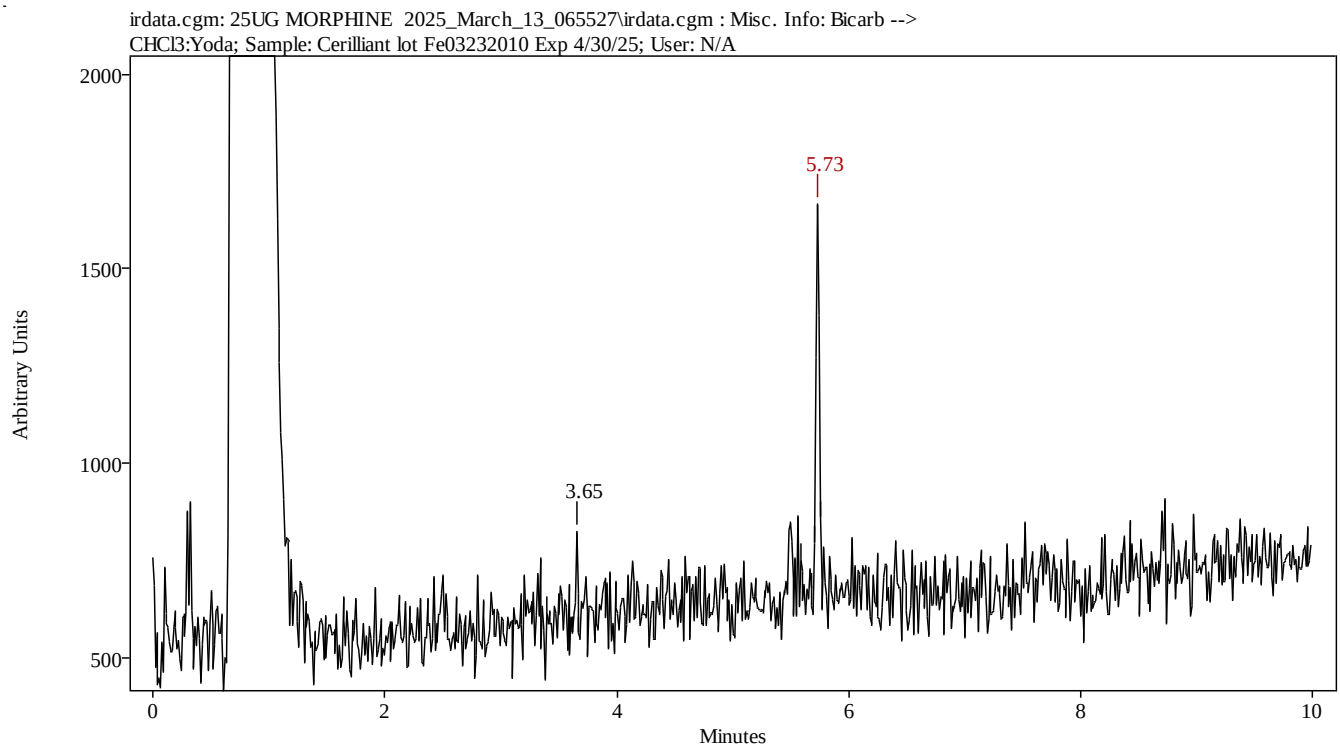
Data Filename	25 UG MORPHINE PTV 2025_March_17_074118
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 07:50:59 2025
Date Processed	Mon Mar 17 09:16:14 2025



IRDATA.SPC: 5.65 minutes: AVE (5.63: 5.67) Ref. (5.42: 5.60) of 25 UG MORPHINE PTV 2025_March_17_074118.cgm

IRD Data Analysis Report

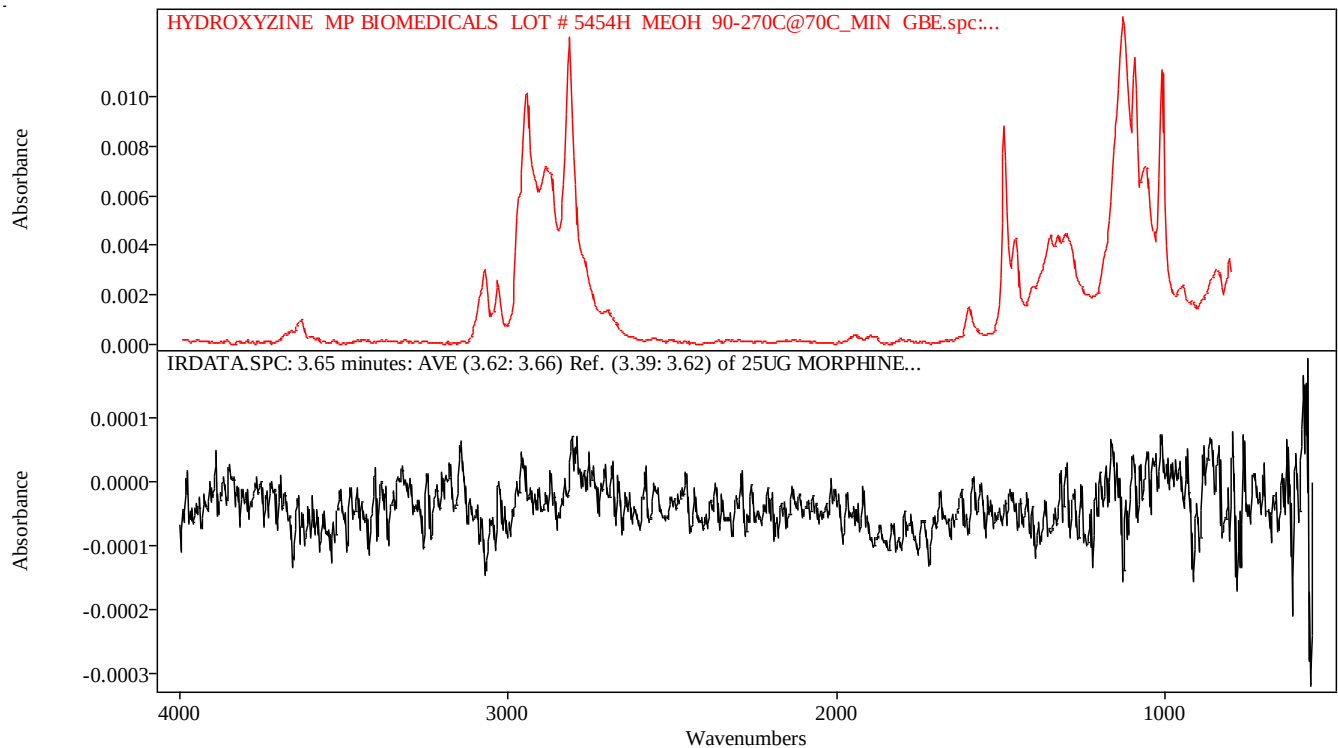
Data Filename	25UG MORPHINE 2025_March_13_065527
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:07:42 2025
Date Processed	Sat Mar 15 11:45:46 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
3.618	3.663	0.045	3.395	3.618
5.707	5.751	0.045	5.585	5.684

IRD Data Analysis Report

Data Filename	25UG MORPHINE 2025_March_13_065527
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:07:42 2025
Date Processed	Sat Mar 15 11:45:46 2025



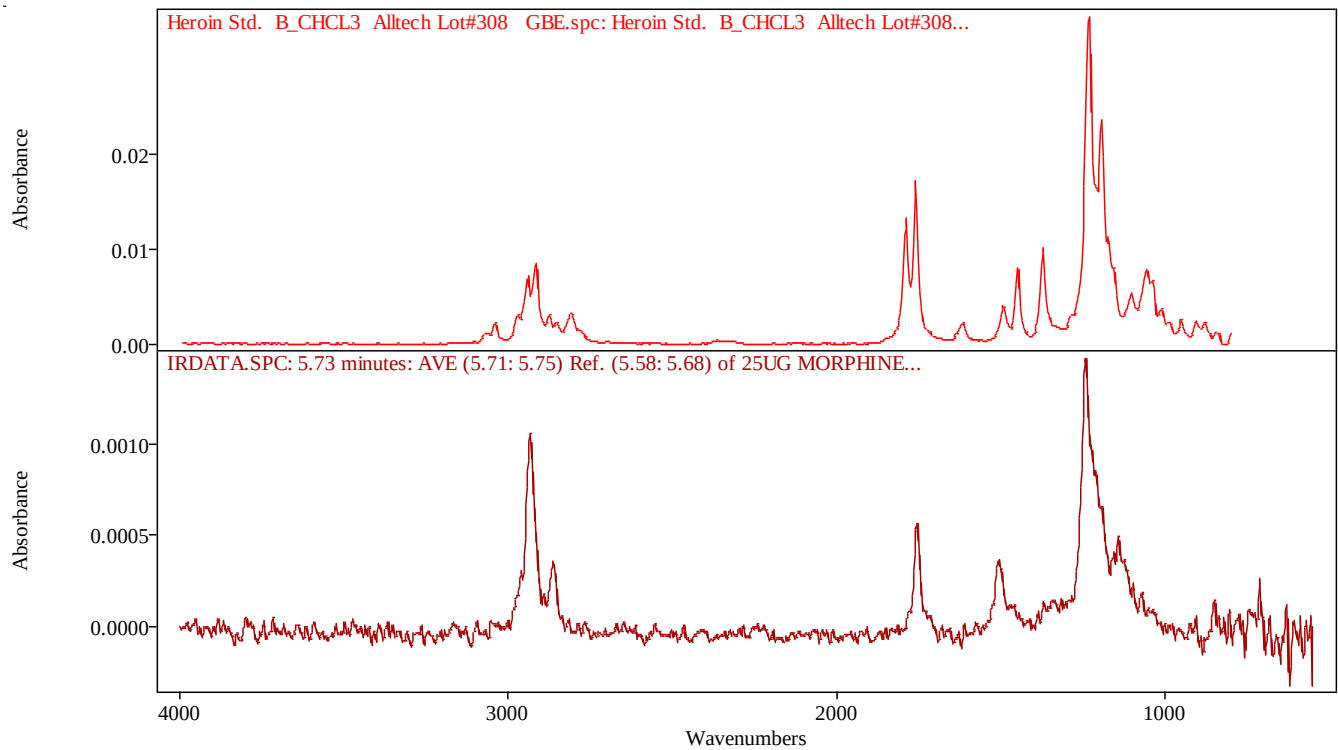
IRDATA.SPC: 3.65 minutes: AVE (3.62: 3.66) Ref. (3.39: 3.62) of 25UG MORPHINE
2025_March_13_065527.cgm

HYDROXYZINE MP BIOMEDICALS LOT # 5454H MEOH 90-270C@70C_MIN GBE.spc:
HYDROXYZINE MP BIOMEDICALS LOT # 5454H MEOH 90-270C@70C_MIN GBE

Metric	Name	Library	Entry
0.338506	HYDROXYZINE MP BIOMEDICALS LOT # 5454H MEOH 90-270C@70C_MIN GBE	TBI GCIR combined Thermo generated libraries	228: HYDROXYZINE MP BIOMEDICALS LOT # 5454H MEOH 90-270C@70C_MIN GBE.spc

IRD Data Analysis Report

Data Filename	25UG MORPHINE 2025_March_13_065527
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	60
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:07:42 2025
Date Processed	Sat Mar 15 11:45:46 2025



IRDATA.SPC: 5.73 minutes: AVE (5.71: 5.75) Ref. (5.58: 5.68) of 25UG MORPHINE
2025_March_13_065527.cgm

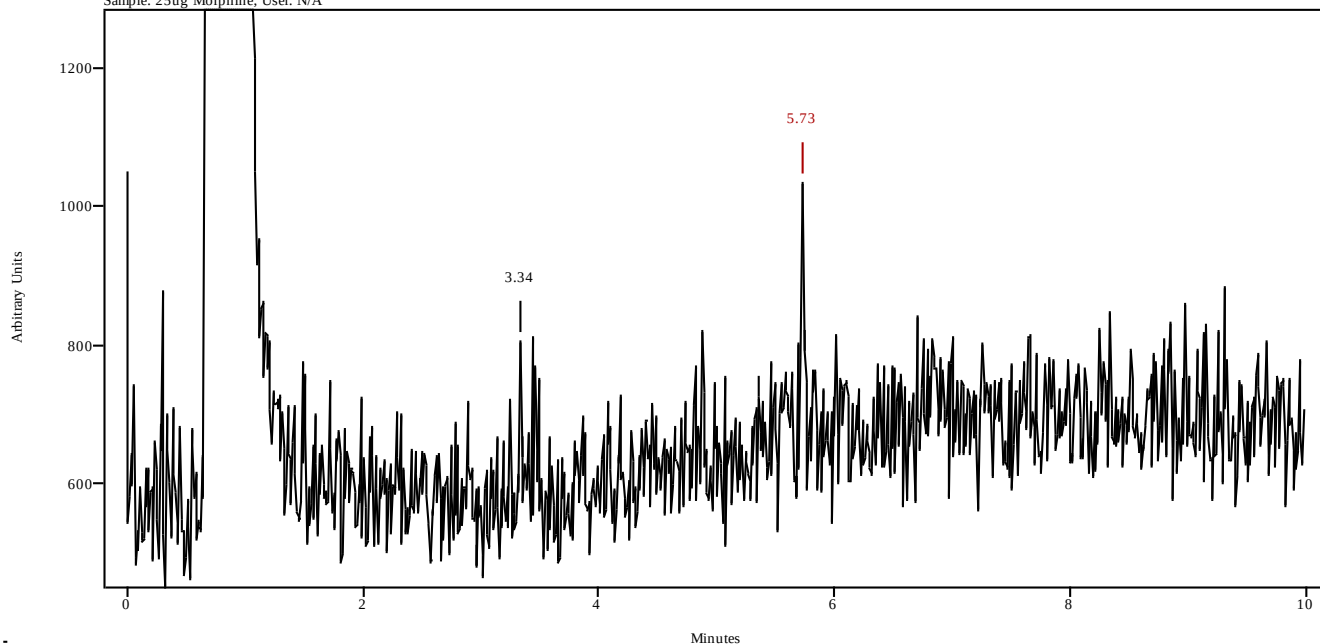
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.817343	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	25UG MORPHINE NON-PTV 2025_March_17_105421
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	52
Sample Name	25ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:06:44 2025
Date Processed	Tue Mar 18 07:21:59 2025

irdata.cgm: 25UG MORPHINE NON-PTV 2025_March_17_105421\irdata.cgm : Misc. Info: Methanol:Yoda;
Sample: 25ug Morphine; User: N/A

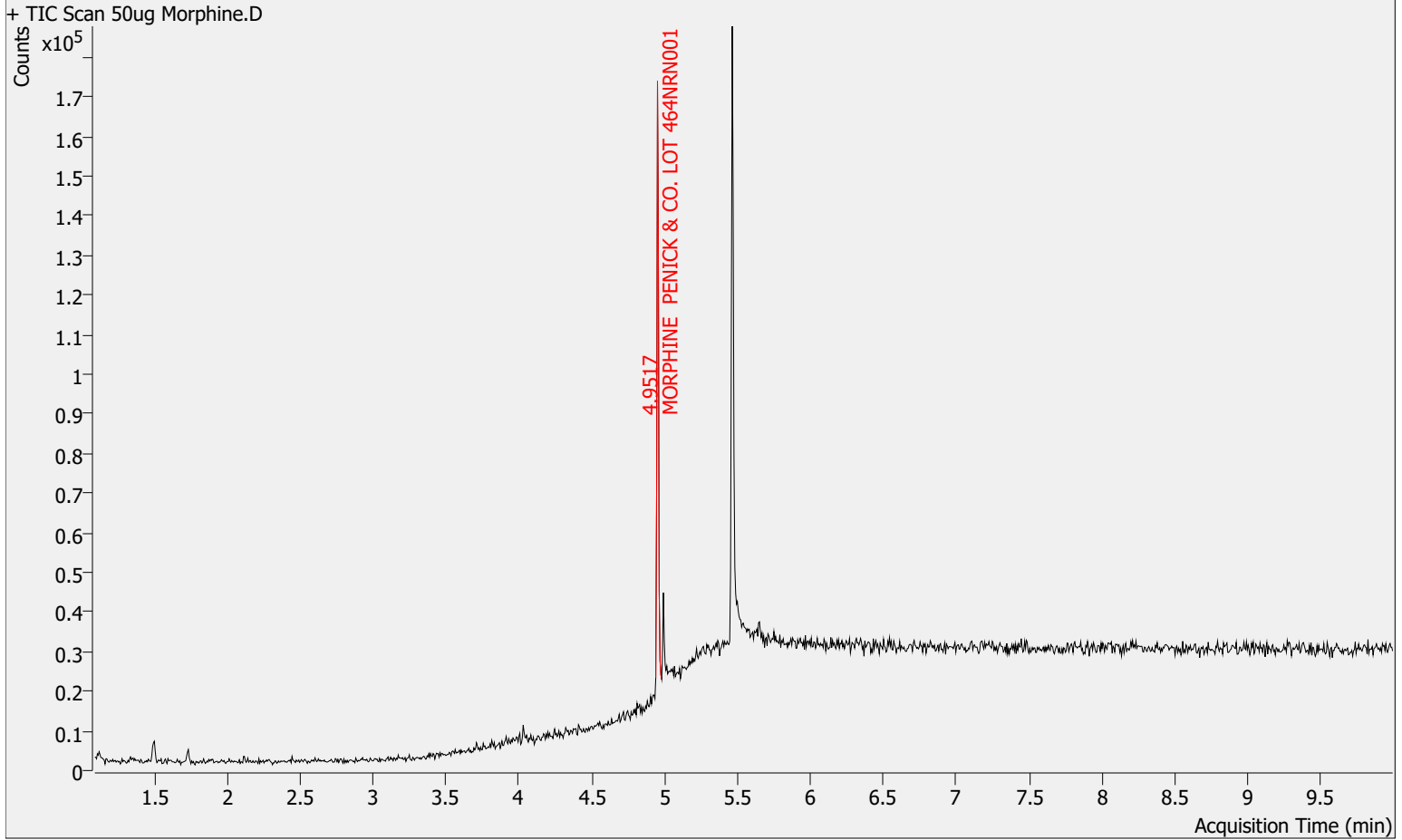


Peak Start	Peak End	Peak Width	Reference Start	Reference End
3.282	3.349	0.067	2.969	3.282
5.671	5.749	0.078	5.358	5.671

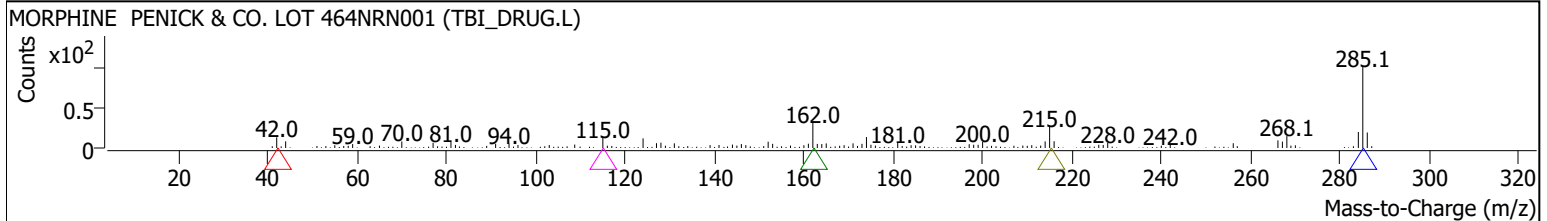
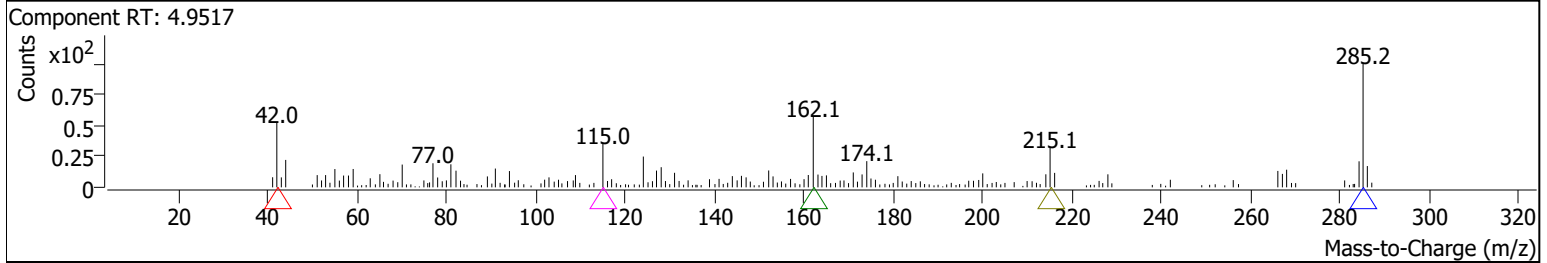
TBI Forensic Chemistry Report

File Name	50ug Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 10:50:08 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	12

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	122673.933368225	5.0

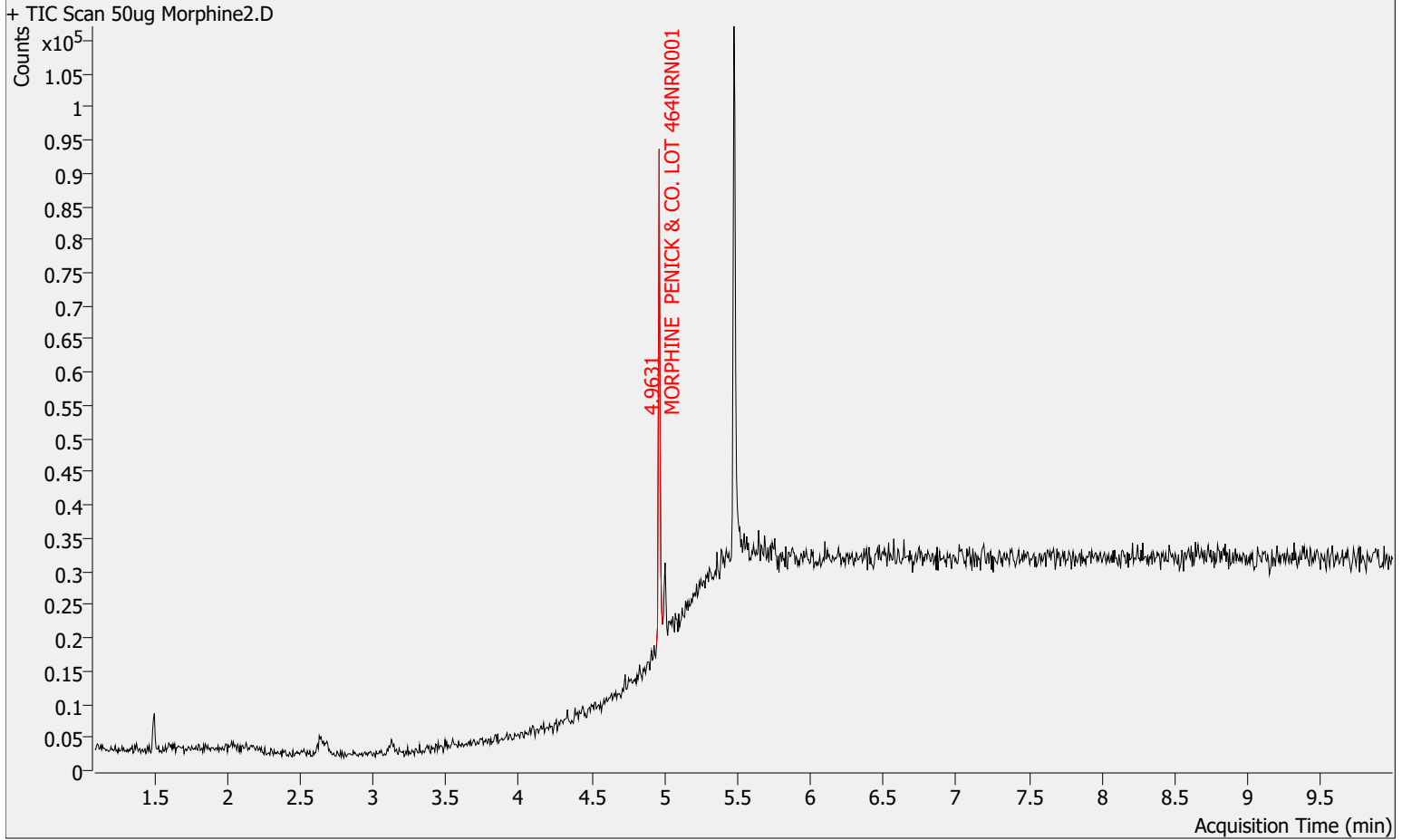


MORPHINE PENICK & CO. LOT 464NRN001	122673.933368225	5.0	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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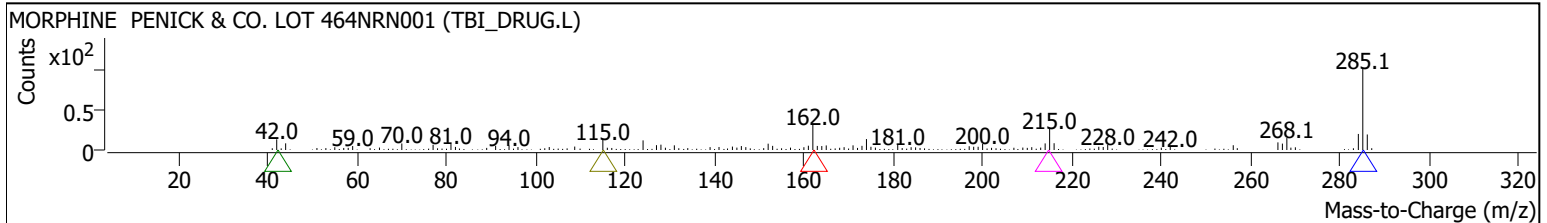
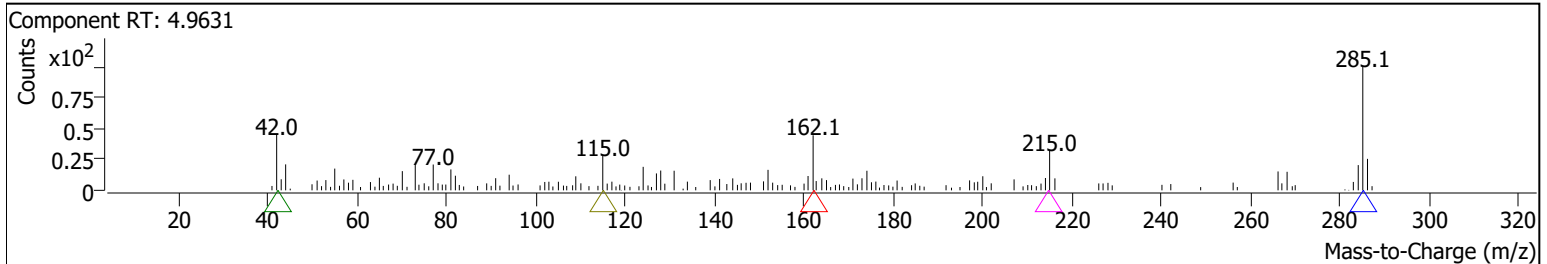
TBI Forensic Chemistry Report

File Name	50ug Morphine2.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study\03-17-25
Sample Name	50ug Morphine2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/17/2025 7:51:25 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	4

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	57765.3112664996	5.0

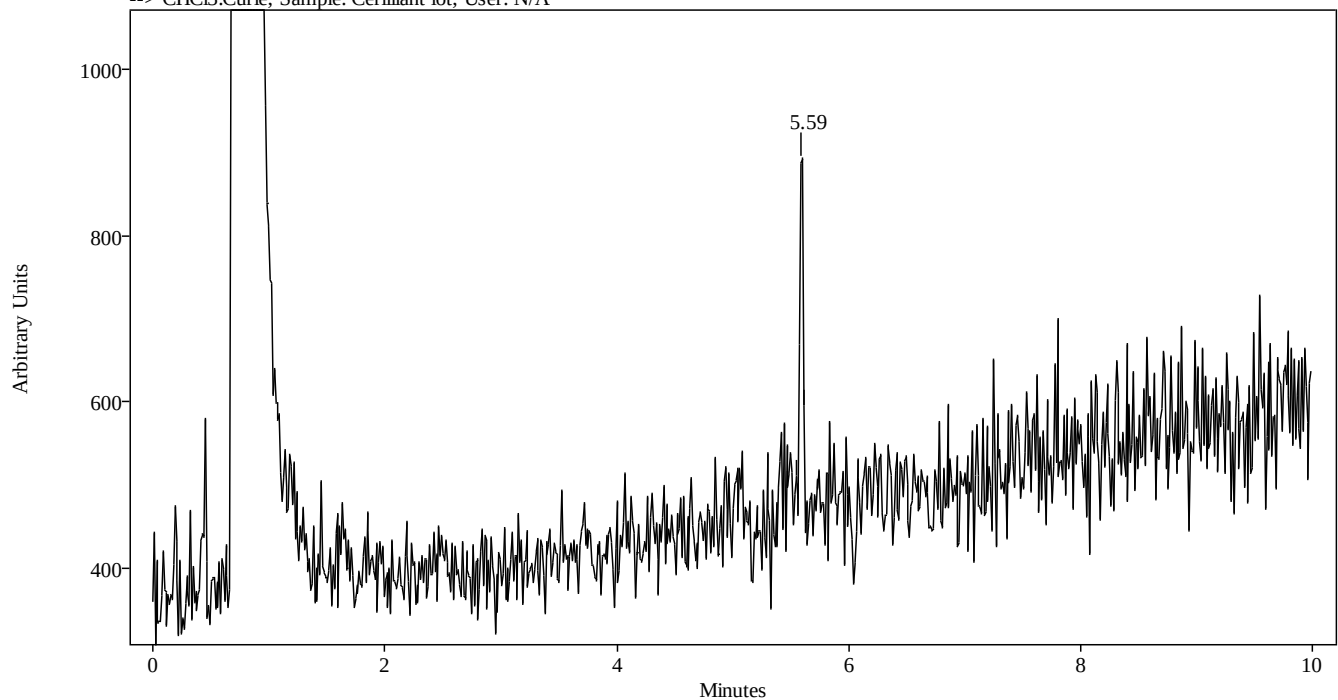


Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	50ug Morphine2
MORPHINE PENICK & CO. LOT 464NRN001 57765.3112664996	5.0				

IRD Data Analysis Report

Data Filename	50 UG MORPHINE PTV 2025_March_12_102254
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:32:14 2025
Date Processed	Sat Mar 15 12:26:30 2025

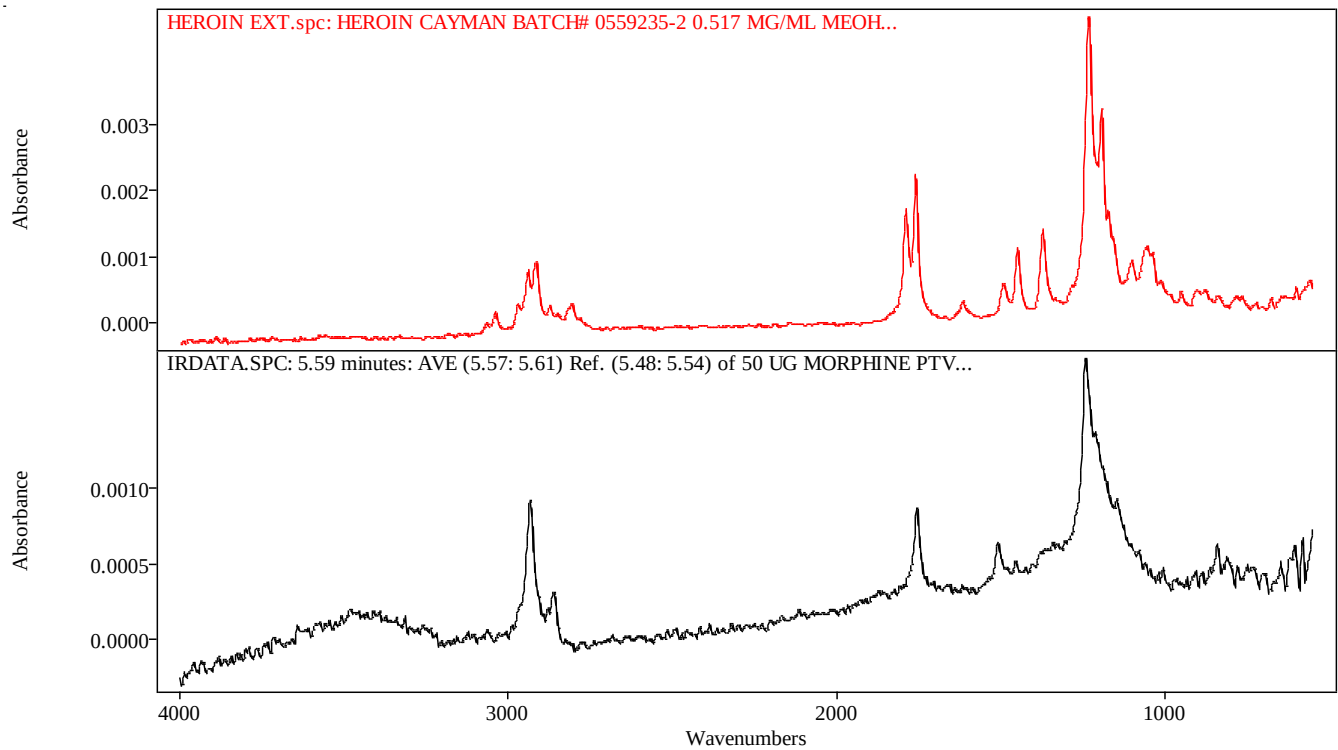
irdata.cgm: 50 UG MORPHINE PTV 2025_March_12_102254\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.567	5.612	0.045	5.477	5.544

IRD Data Analysis Report

Data Filename	50 UG MORPHINE PTV 2025_March_12_102254
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:32:14 2025
Date Processed	Sat Mar 15 12:26:30 2025



IRDATA.SPC: 5.59 minutes: AVE (5.57: 5.61) Ref. (5.48: 5.54) of 50 UG MORPHINE PTV
2025_March_12_102254.cgm

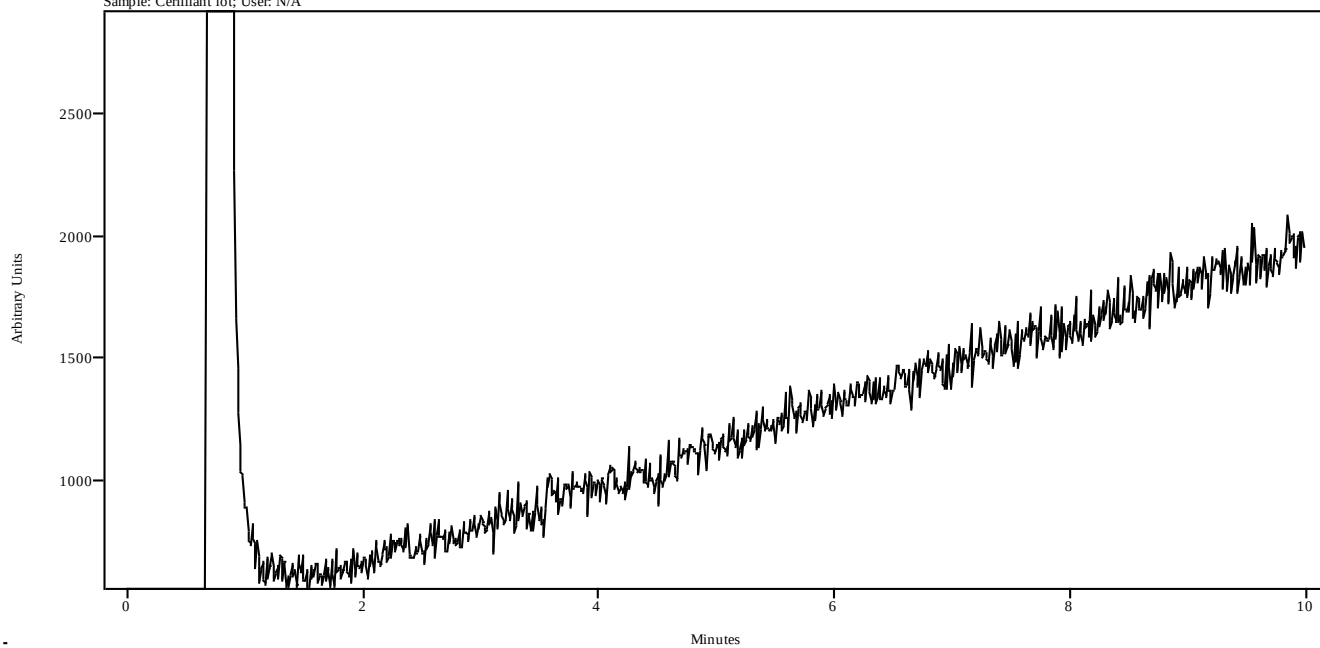
HEROIN EXT.spc: HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH
2021_March_17_033238\irdata.cgm

Metric	Name	Library	Entry
0.863867	HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm	TBI GCIR EXT BH	45: HEROIN EXT.spc

IRD Data Analysis Report

Data Filename	50 UG MORPHINE PTV 2025_March_17_075434
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:03:45 2025
Date Processed	Mon Mar 17 09:15:44 2025

irdata.cgm: 50 UG MORPHINE PTV 2025_March_17_075434\irdata.cgm : Misc. Info: Bicarb --> CHCl3:Curie;
Sample: Cerilliant lot; User: N/A

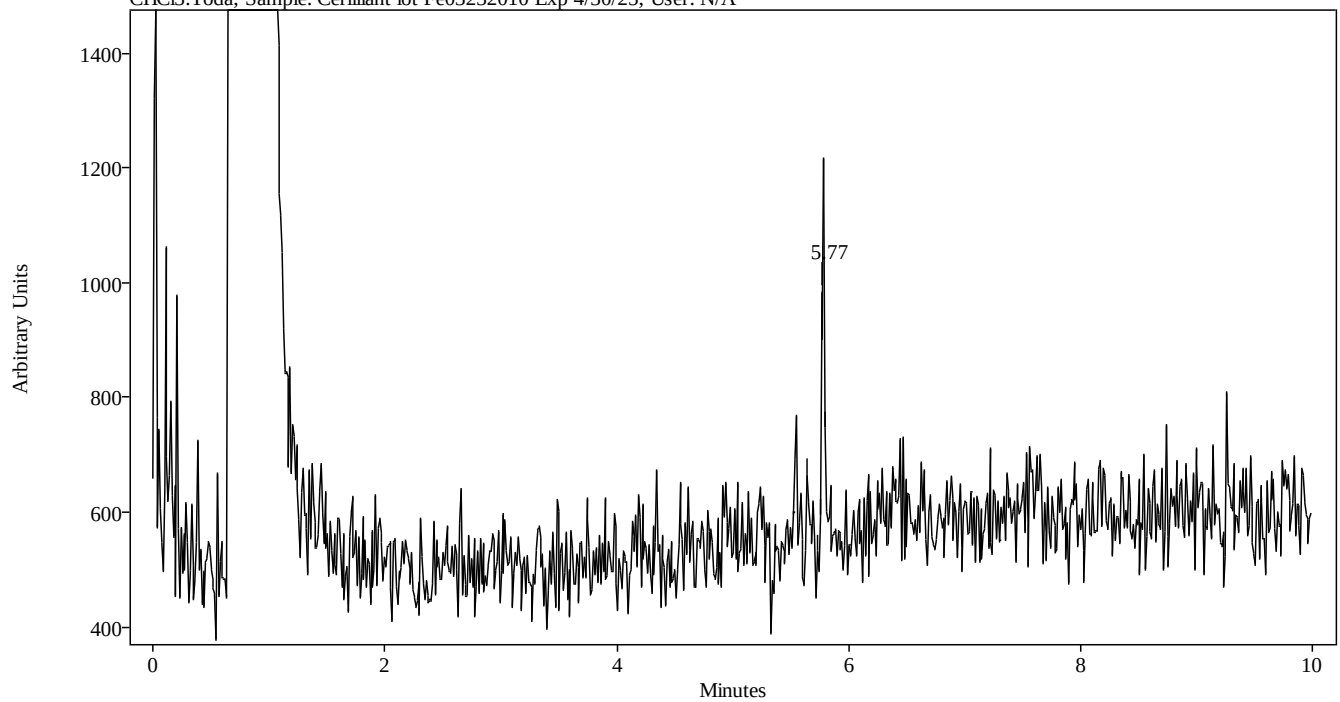


Peak Start	Peak End	Peak Width	Reference Start	Reference End
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IRD Data Analysis Report

Data Filename	50UG MORPHINE 2025_March_13_070816
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:20:07 2025
Date Processed	Sat Mar 15 11:50:41 2025

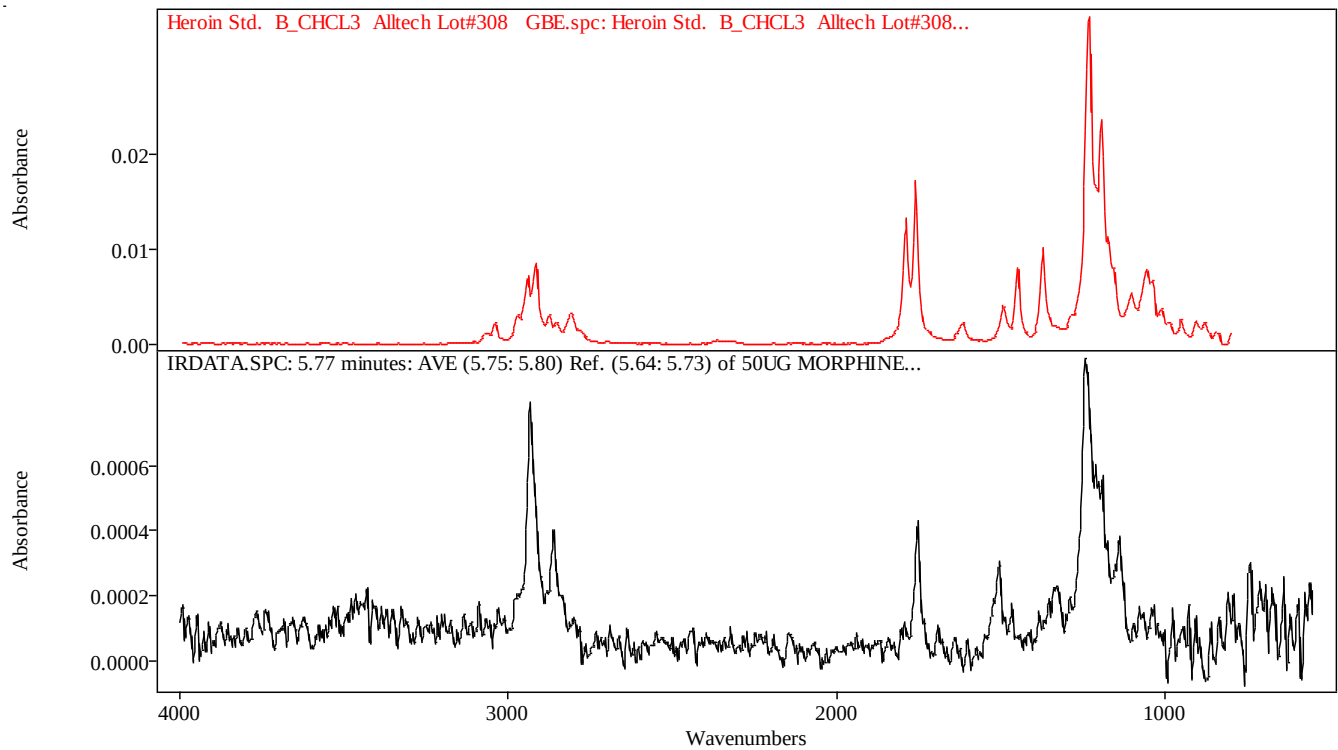
irdata.cgm: 50UG MORPHINE 2025_March_13_070816\irdata.cgm : Misc. Info: Bicarb -->
CHCl3:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.752	5.796	0.045	5.643	5.729

IRD Data Analysis Report

Data Filename	50UG MORPHINE 2025_March_13_070816
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	61
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:20:07 2025
Date Processed	Sat Mar 15 11:50:41 2025



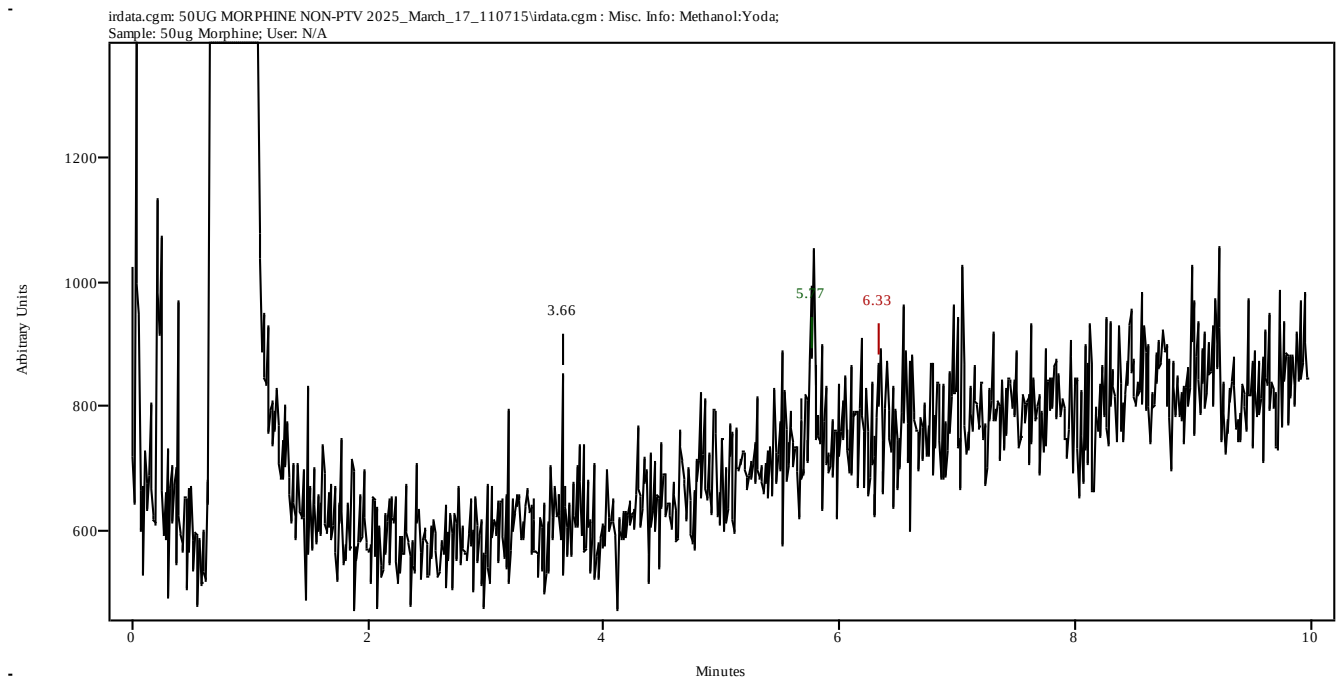
IRDATA.SPC: 5.77 minutes: AVE (5.75: 5.80) Ref. (5.64: 5.73) of 50UG MORPHINE
2025_March_13_070816.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.753646	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

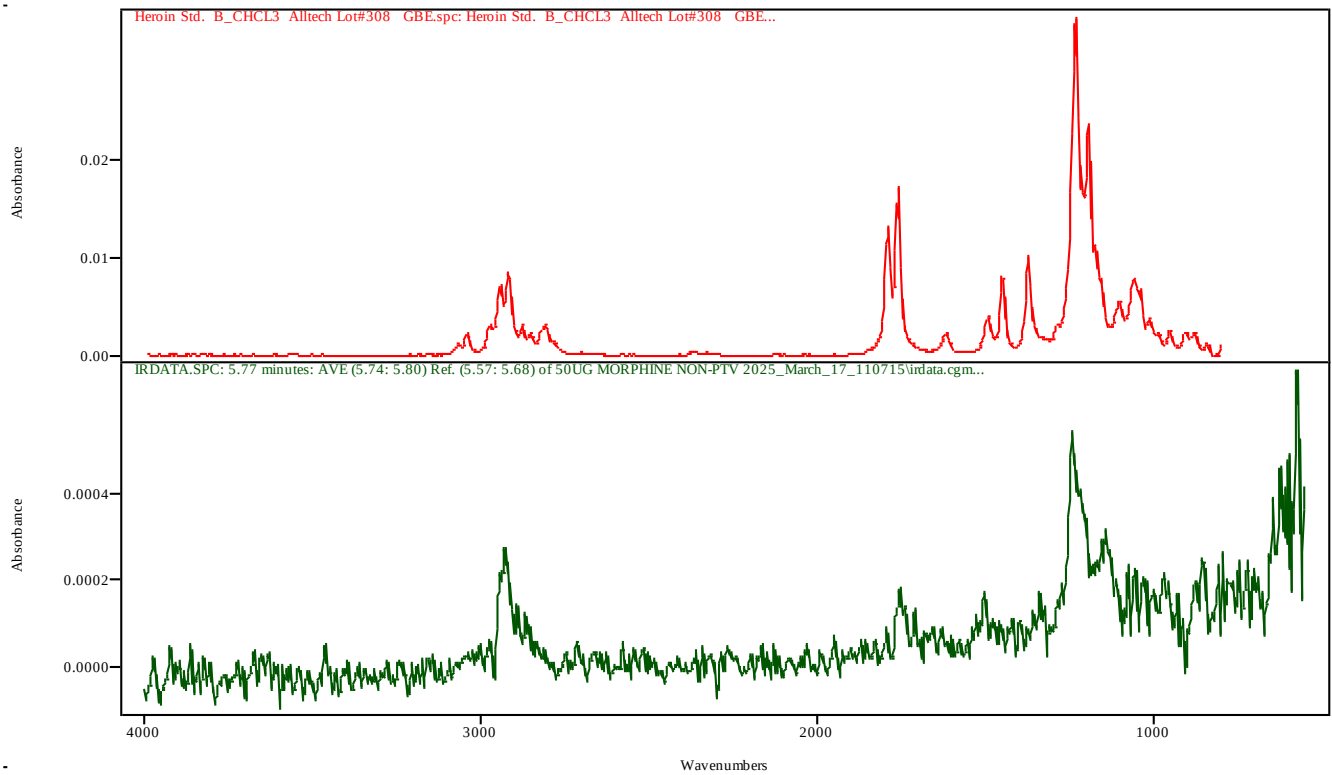
Data Filename	50UG MORPHINE NON-PTV 2025_March_17_110715
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	50ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:19:09 2025
Date Processed	Tue Mar 18 07:23:50 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
3.628	3.673	0.045	3.405	3.628
5.738	5.805	0.067	5.572	5.678
6.307	6.363	0.056	6.073	6.296

IRD Data Analysis Report

Data Filename	50UG MORPHINE NON-PTV 2025_March_17_110715
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	53
Sample Name	50ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:19:09 2025
Date Processed	Tue Mar 18 07:23:50 2025



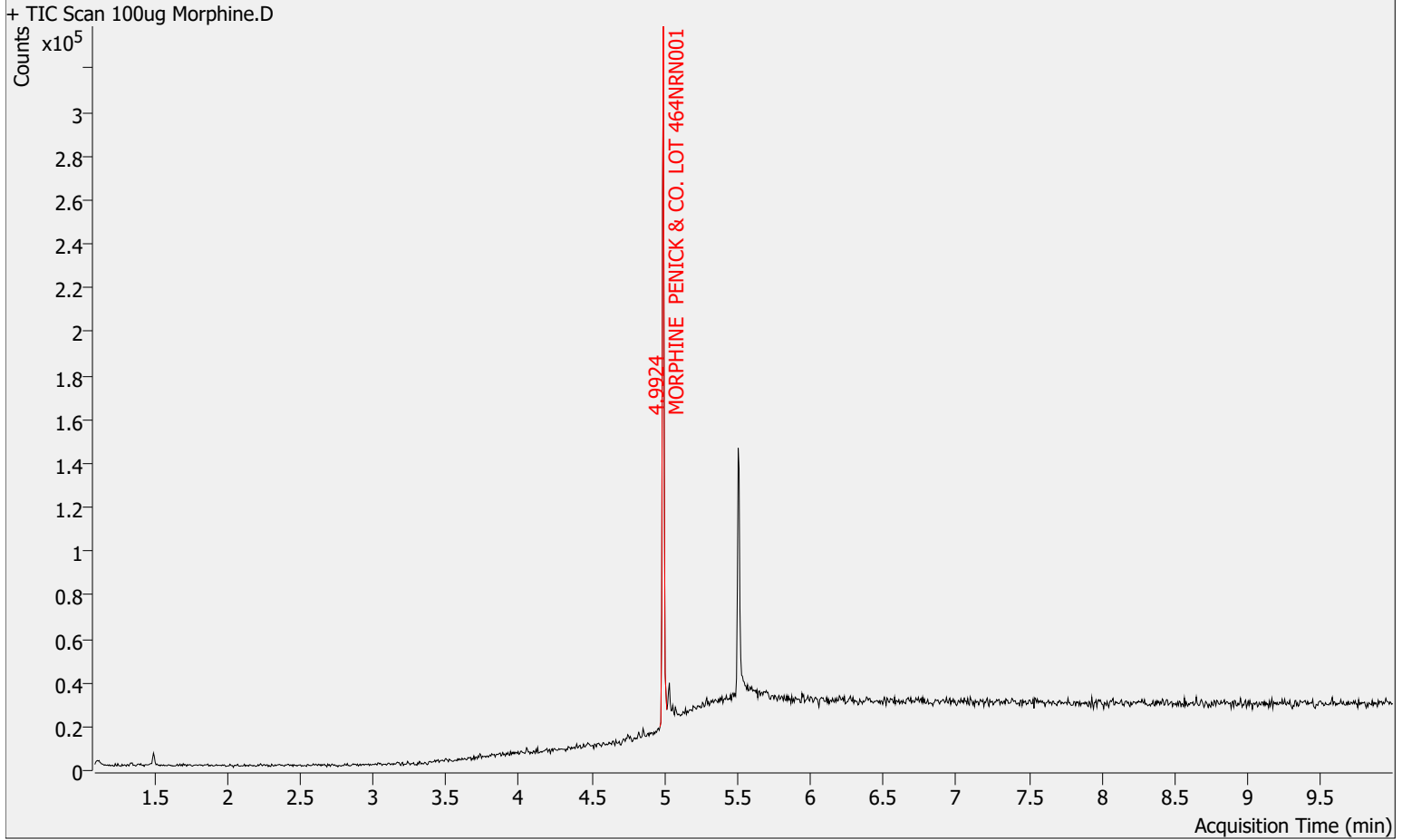
IRDATA.SPC: 5.77 minutes: AVE (5.74: 5.80) Ref. (5.57: 5.68) of 50UG MORPHINE NON-PTV 2025_March_17_110715.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

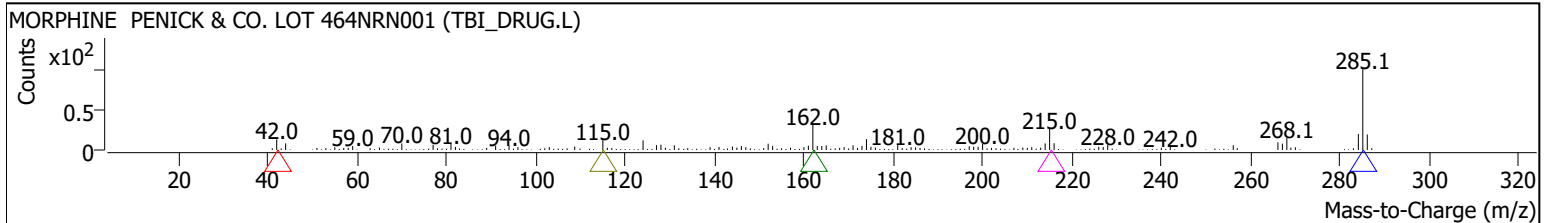
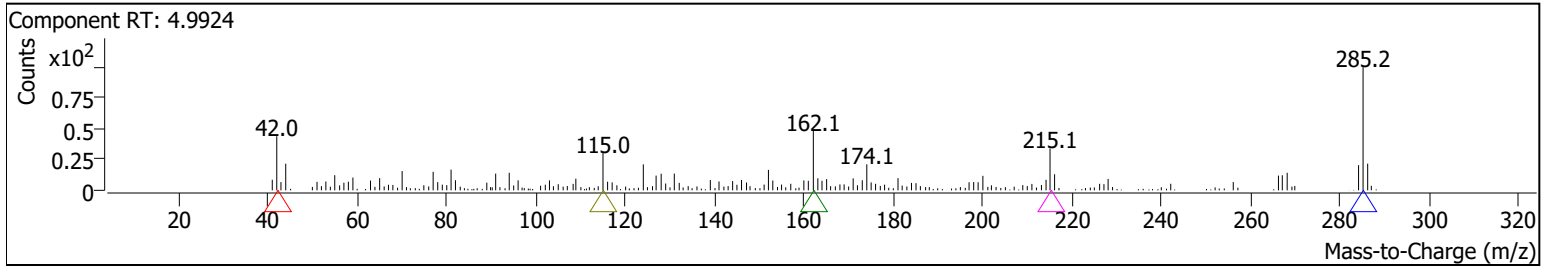
TBI Forensic Chemistry Report

File Name	100ug Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 11:03:27 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	13

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	270038.472960587	5.0

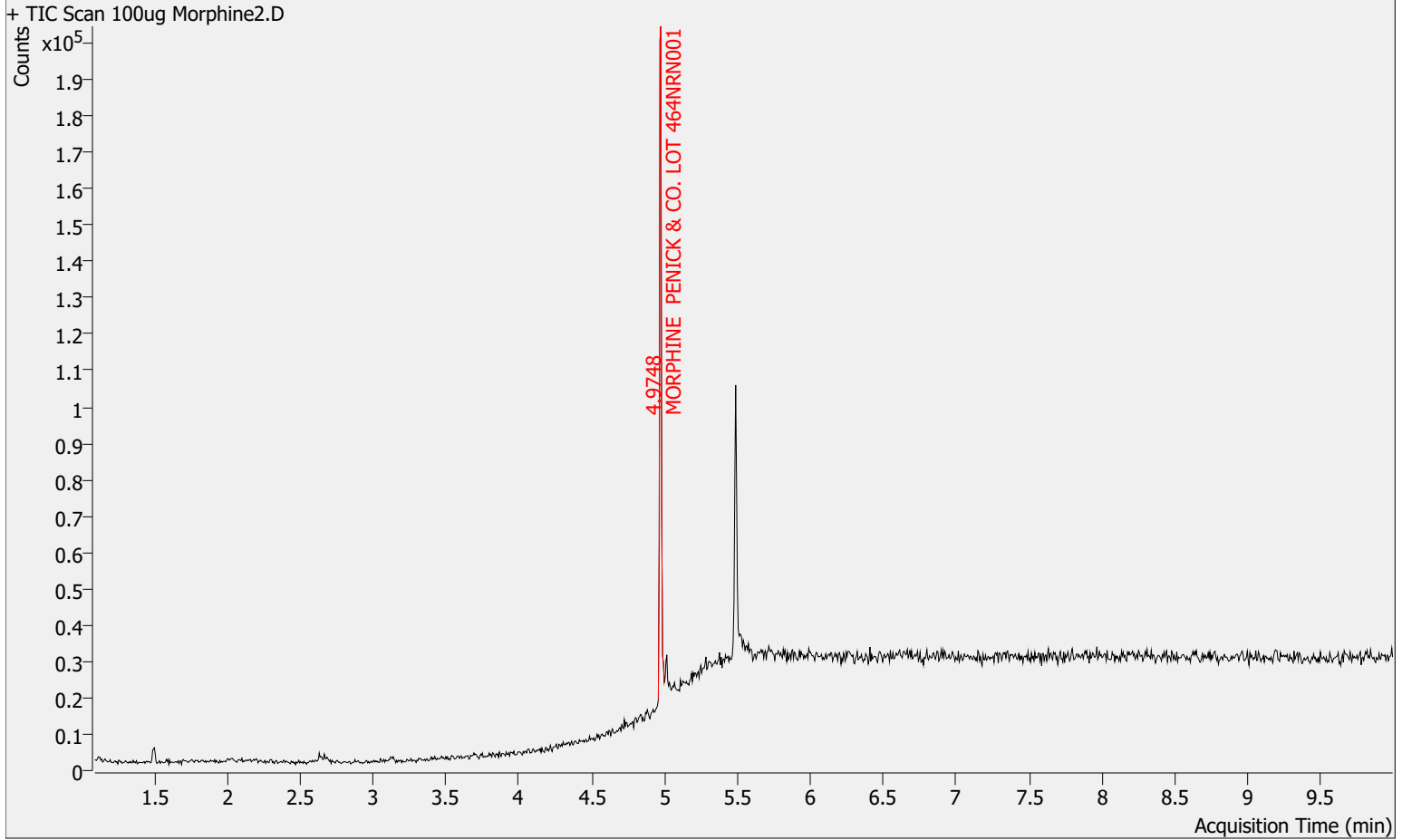


Compound Name	Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot
MORPHINE PENICK & CO. LOT 464NRN001	270038.472960587	5.0	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25

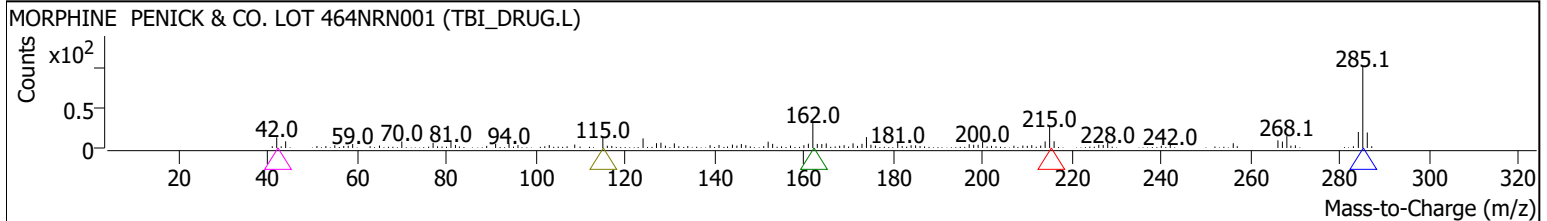
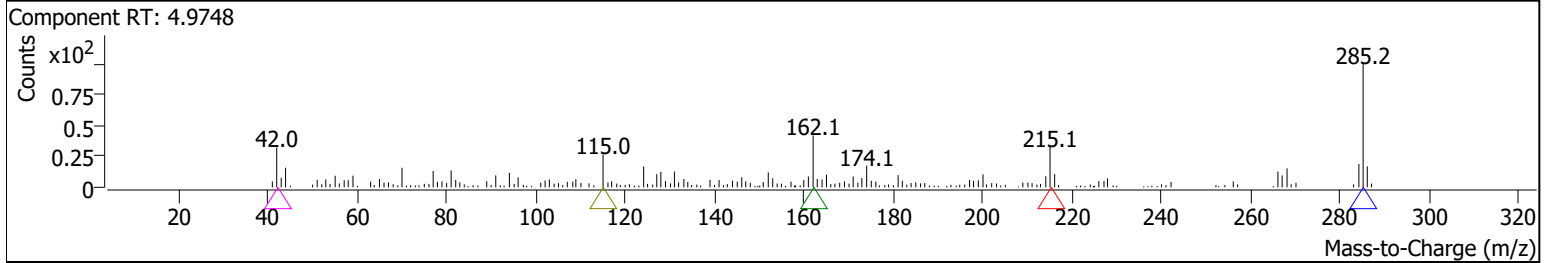
TBI Forensic Chemistry Report

File Name	100ug Morphine2.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study\03-17-25
Sample Name	100ug Morphine2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/17/2025 8:04:40 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	5

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	170715.207124497	5.0

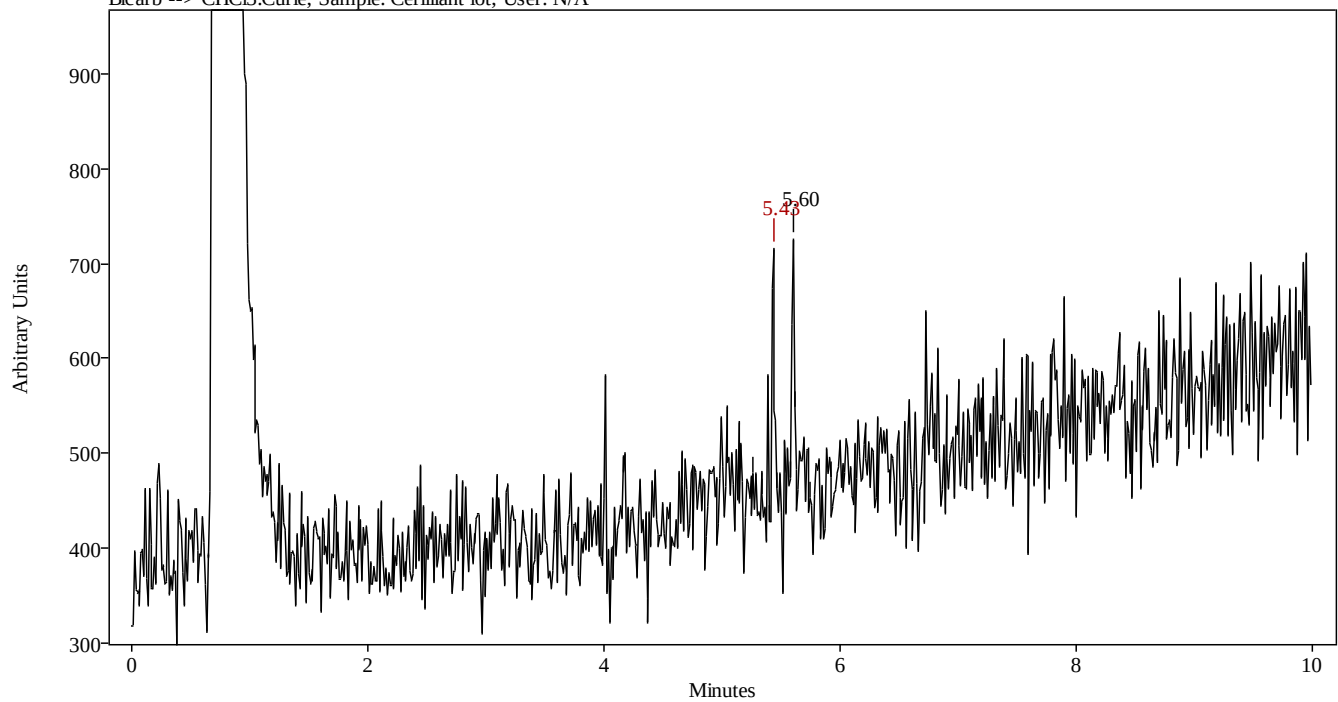


Compound Name	Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	100ug Morphine2
MORPHINE PENICK & CO. LOT 464NRN001	170715.207124497	5.0				

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_12_103551
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:45:10 2025
Date Processed	Sat Mar 15 12:29:42 2025

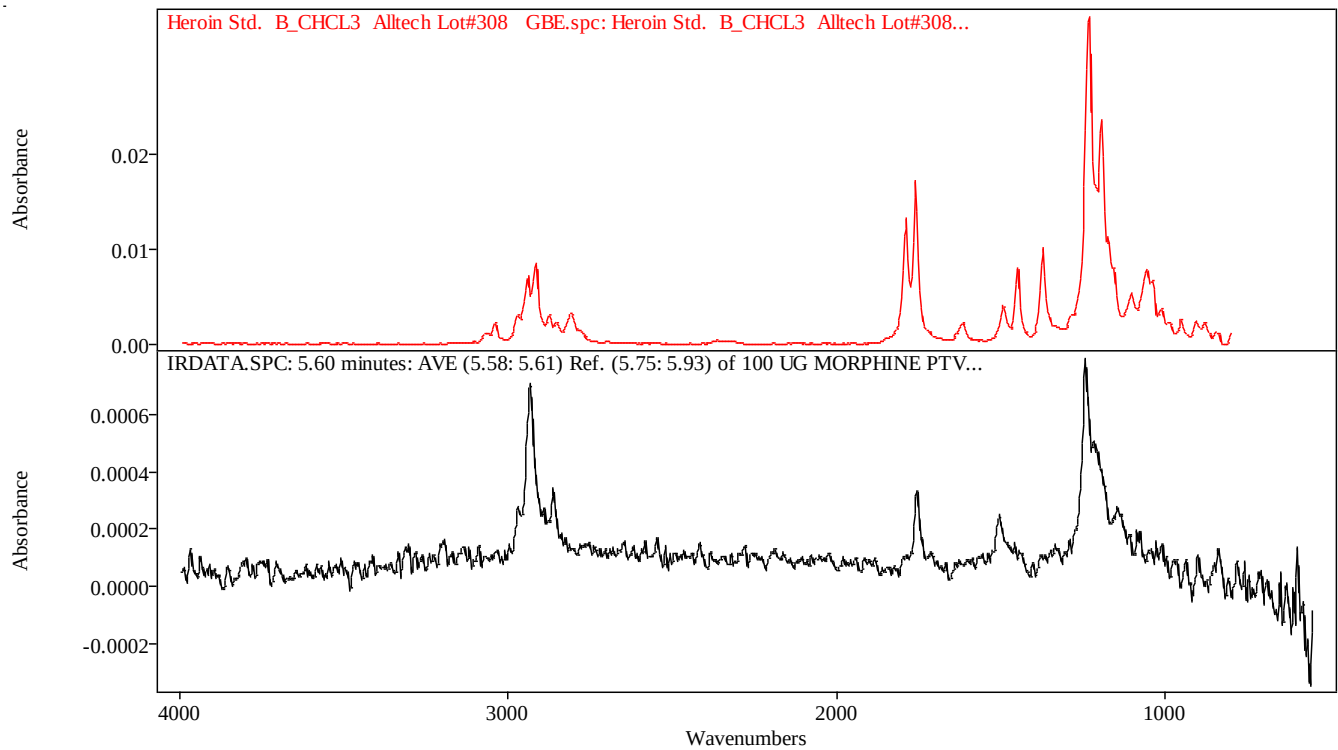
irdata.cgm: 100 UG MORPHINE PTV 2025_March_12_103551\irdata.cgm : Misc. Info:
Bicarb --> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.398	5.465	0.068	5.262	5.341
5.578	5.612	0.034	5.747	5.930

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_12_103551
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:45:10 2025
Date Processed	Sat Mar 15 12:29:42 2025



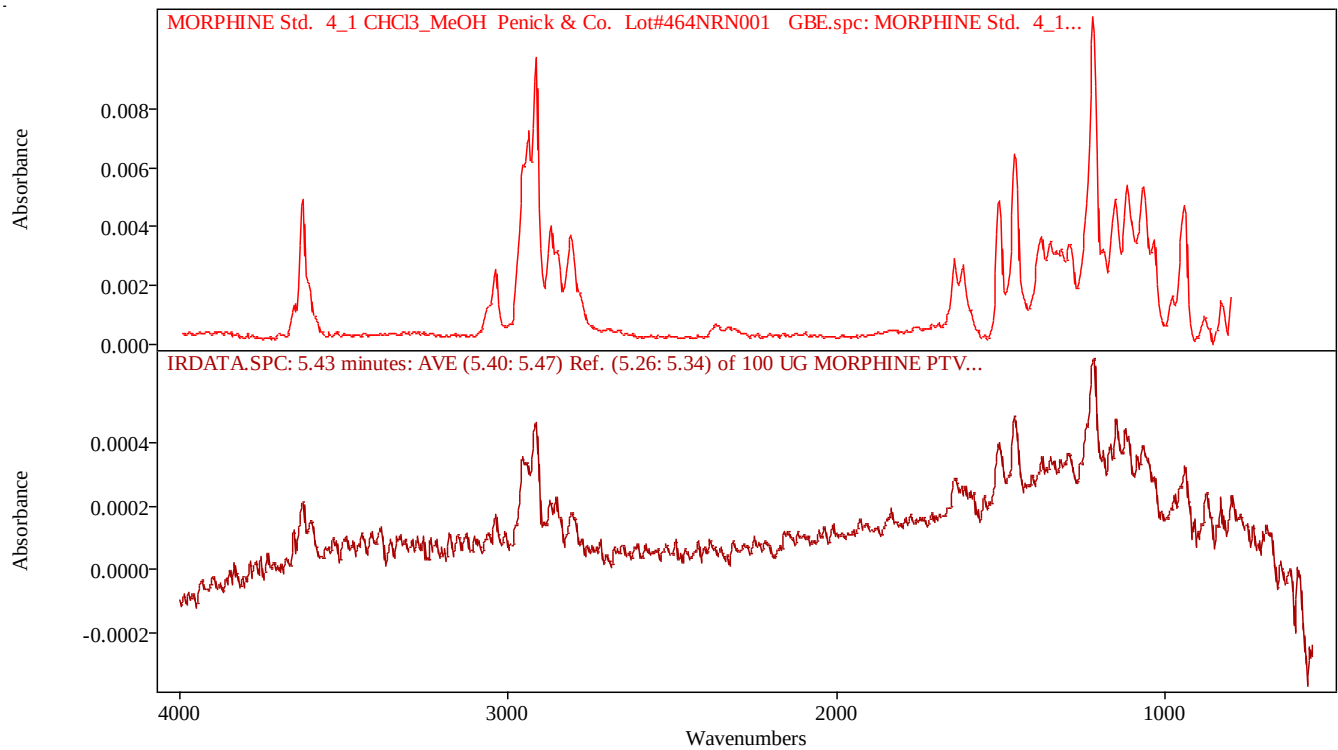
IRDATA.SPC: 5.60 minutes: AVE (5.58: 5.61) Ref. (5.75: 5.93) of 100 UG MORPHINE PTV
2025_March_12_103551.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.731934	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_12_103551
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:45:10 2025
Date Processed	Sat Mar 15 12:29:42 2025



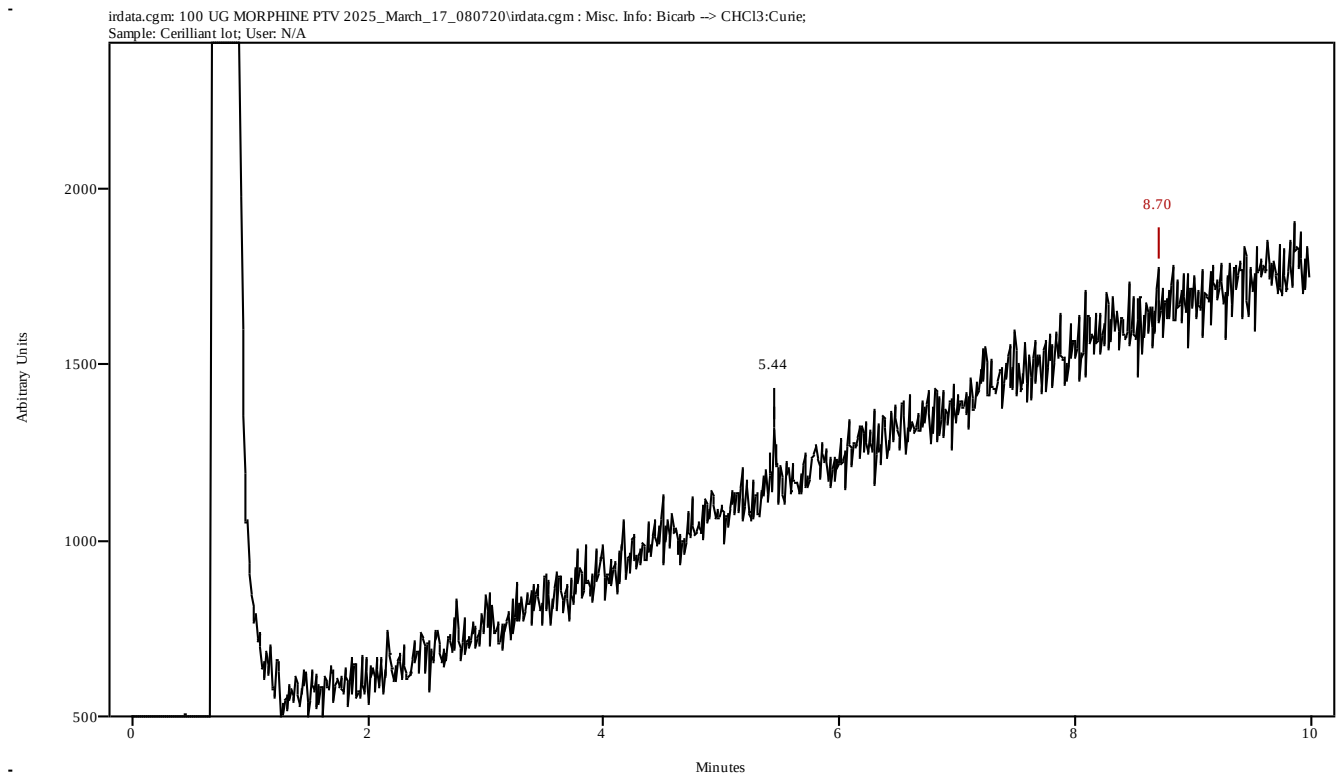
IRDATA.SPC: 5.43 minutes: AVE (5.40: 5.47) Ref. (5.26: 5.34) of 100 UG MORPHINE PTV
2025_March_12_103551.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.855411	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

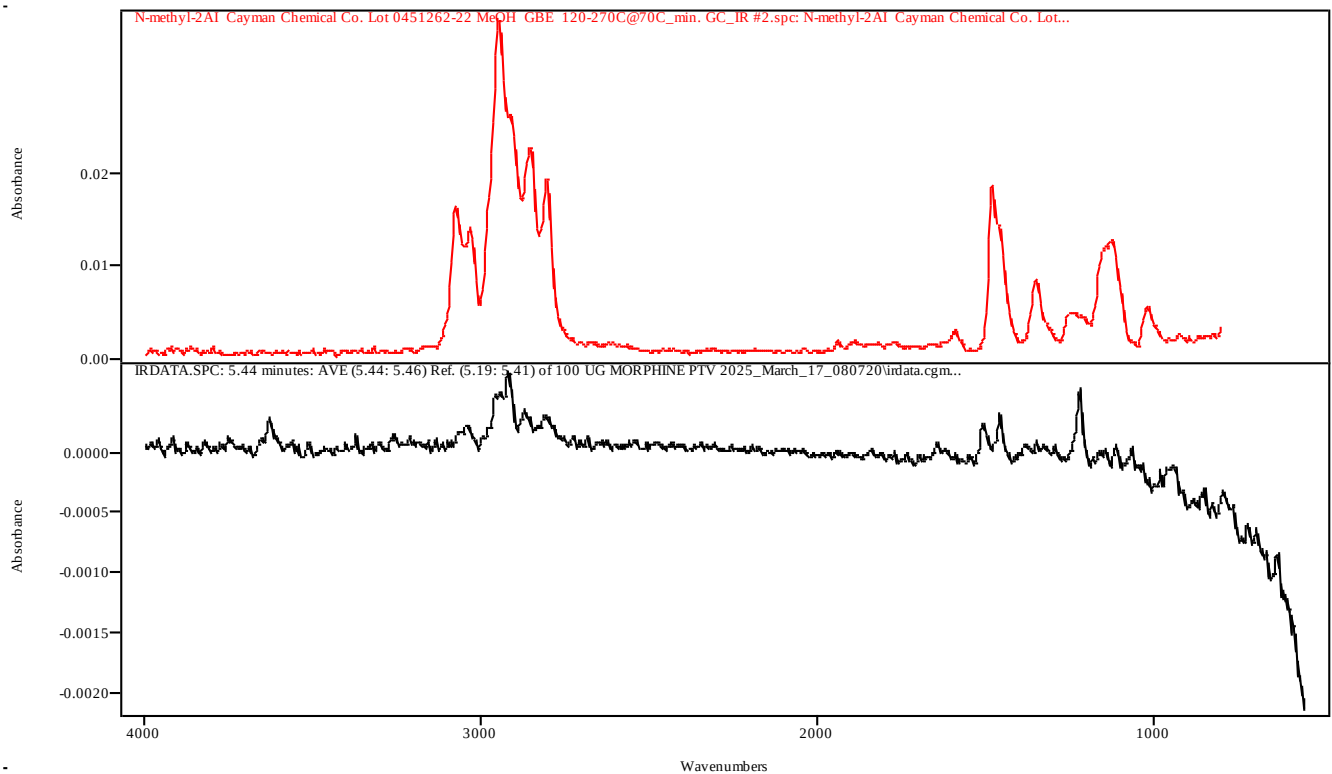
Data Filename	100 UG MORPHINE PTV 2025_March_17_080720
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:16:31 2025
Date Processed	Mon Mar 17 09:14:44 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.440	5.456	0.011	5.185	5.411
8.680	8.714	0.034	8.522	8.657

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_17_080720
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:16:31 2025
Date Processed	Mon Mar 17 09:14:44 2025



IRDATA.SPC: 5.44 minutes: AVE (5.44: 5.46) Ref. (5.19: 5.41) of 100 UG MORPHINE PTV 2025_March_17_080720.cgm

N-methyl-2AI Cayman Chemical Co. Lot 0451262-22 MeOH GBE 120-270C@70C_min. GC_IR #2.spc:
N-methyl-2AI Cayman Chemical Co. Lot 0451262-22 MeOH GBE 120-270C@70C_min. GC_IR #2

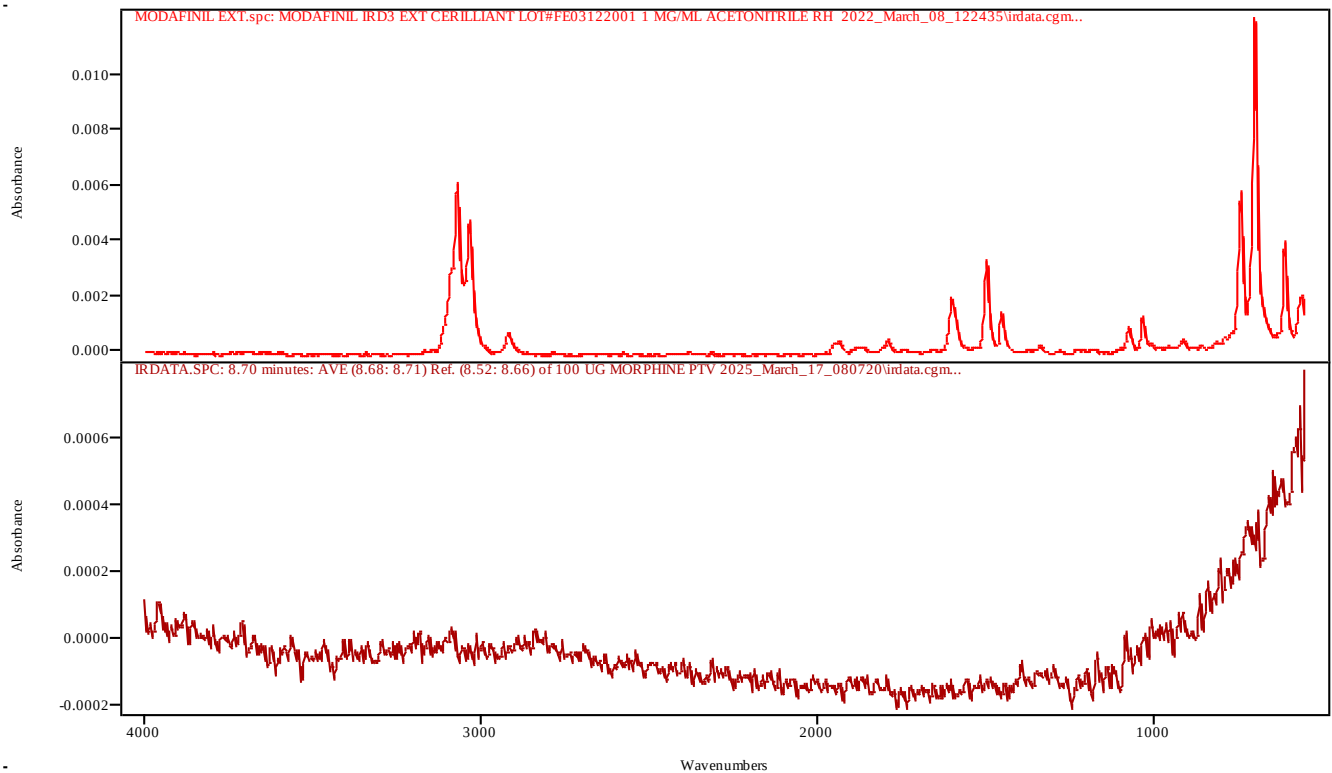
Metric	Name	Library	Entry
0.746330	N-methyl-2AI Cayman Chemical Co. Lot 0451262-22 MeOH GBE 120-270C@70C_min. GC_IR #2	TBI GCIR combined Thermo generated libraries	437: N-methyl-2AI Cayman Chemical Co. Lot 0451262-22 MeOH GBE 120-270C@70C_min. GC_IR #2.spc

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_17_080720
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:16:31 2025
Date Processed	Mon Mar 17 09:14:44 2025

Spectral Library Search Results

Data Filename	100 UG MORPHINE PTV 2025_March_17_080720
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
File Title	8.70 minutes: AVE (8.68: 8.71) Ref. (8.52: 8.66) of 100 UG MORPHINE PTV 2025_March_17_080720.cgm
Date	Mon Mar 17 09:14:45 2025
Search Algorithm	Correlation Coefficient
Search Regions	Full Spectrum



IRDATA.SPC: 8.70 minutes: AVE (8.68: 8.71) Ref. (8.52: 8.66) of 100 UG MORPHINE PTV 2025_March_17_080720.cgm

IRD Data Analysis Report

Data Filename	100 UG MORPHINE PTV 2025_March_17_080720
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:16:31 2025
Date Processed	Mon Mar 17 09:14:44 2025

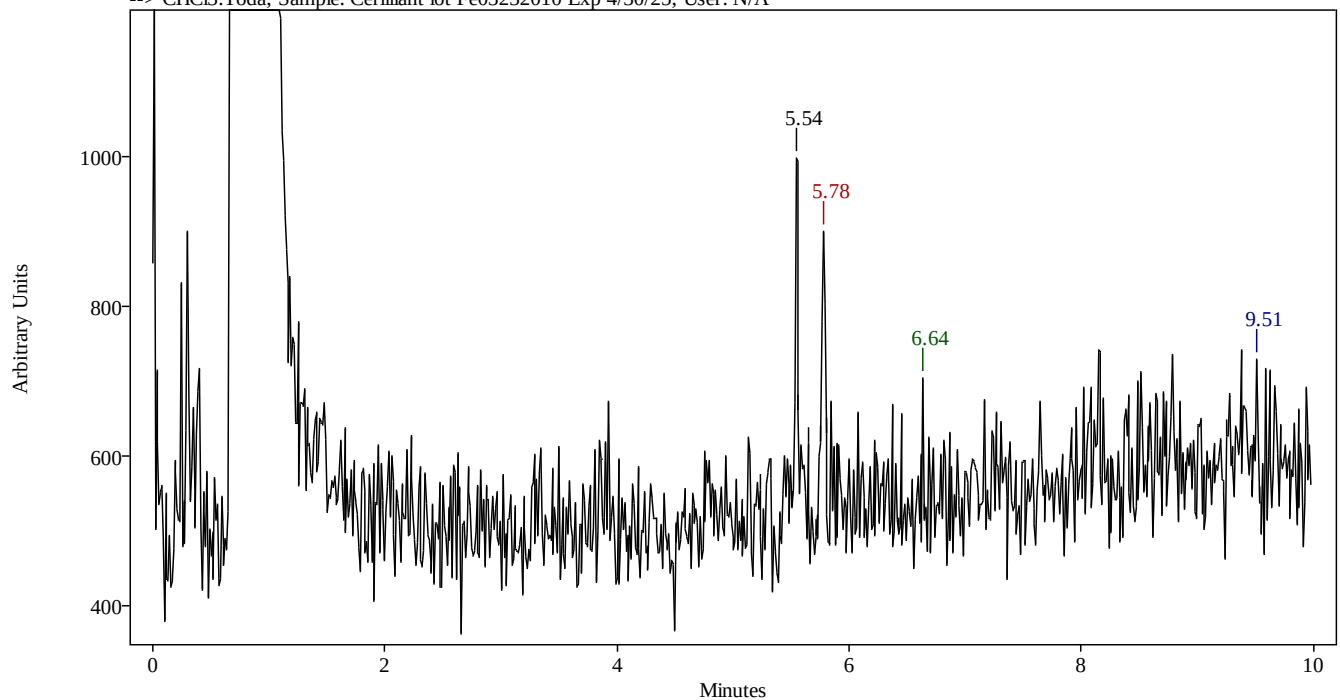
MODAFINIL EXT.spc: MODAFINIL IRD3 EXT CERILLIANT LOT#FE03122001 1 MG/ML ACETONITRILE RH
2022_March_08_122435\irdata.cgm

Metric	Name	Library	Entry
0.399283	MODAFINIL IRD3 EXT CERILLIANT LOT#FE03122001 1 MG/ML ACETONITRILE RH 2022_March_08_122435\irdata.cgm	TBI GCIR EXT BH	61: MODAFINIL EXT.spc

IRD Data Analysis Report

Data Filename	100UG MORPHINE 2025_March_13_072041
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:32:32 2025
Date Processed	Sat Mar 15 11:56:21 2025

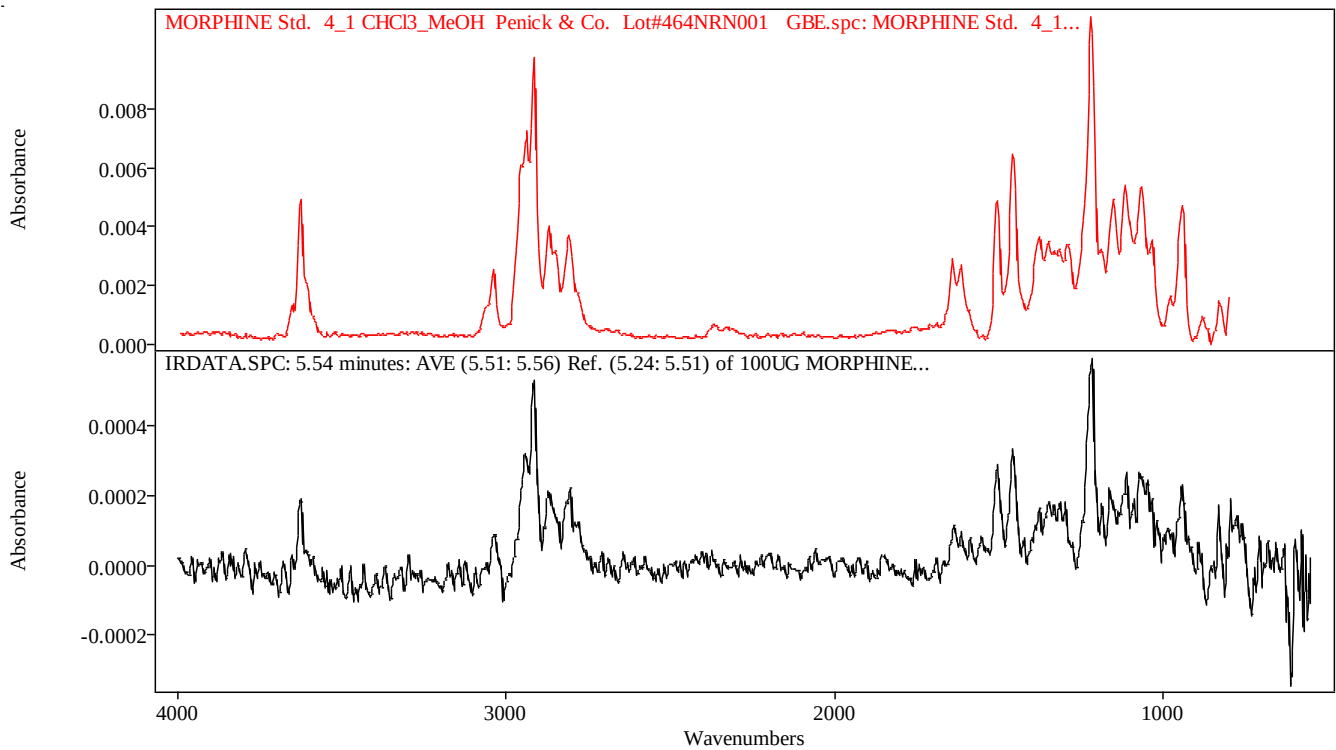
irdata.cgm: 100UG MORPHINE 2025_March_13_072041\irdata.cgm : Misc. Info: Bicarb
 --> CHCl3:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.509	5.565	0.056	5.241	5.509
5.755	5.800	0.045	5.644	5.710
6.604	6.649	0.045	6.425	6.604
9.476	9.532	0.056	9.252	9.476

IRD Data Analysis Report

Data Filename	100UG MORPHINE 2025_March_13_072041
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:32:32 2025
Date Processed	Sat Mar 15 11:56:21 2025



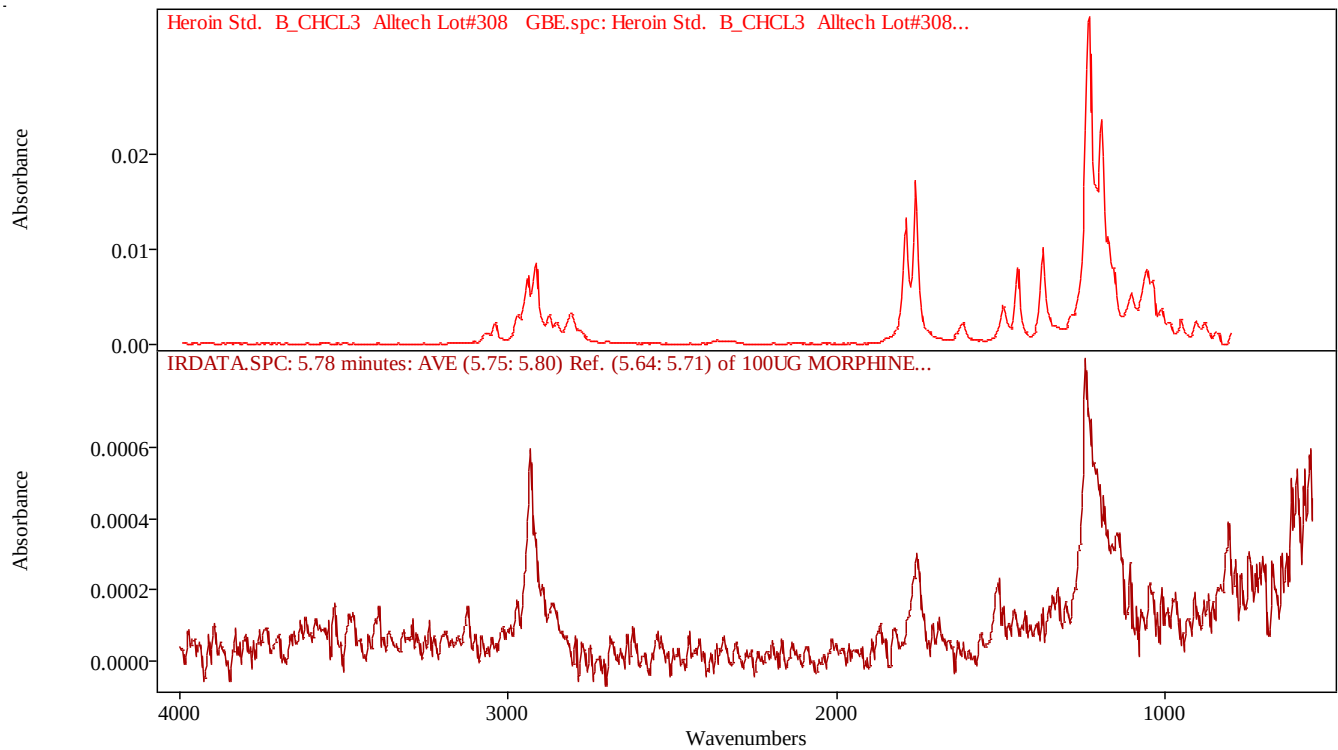
IRDATA.SPC: 5.54 minutes: AVE (5.51: 5.56) Ref. (5.24: 5.51) of 100UG MORPHINE
2025_March_13_072041.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.953031	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	100UG MORPHINE 2025_March_13_072041
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	62
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:32:32 2025
Date Processed	Sat Mar 15 11:56:21 2025



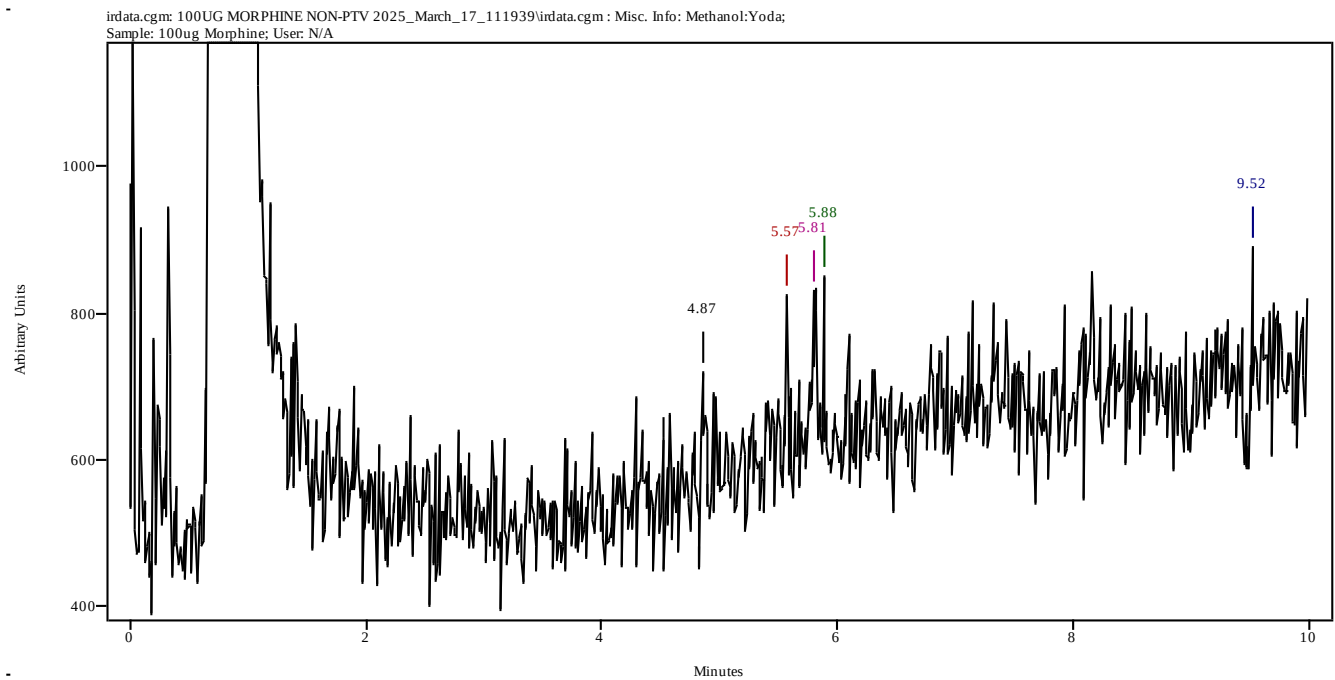
IRDATA.SPC: 5.78 minutes: AVE (5.75: 5.80) Ref. (5.64: 5.71) of 100UG MORPHINE
2025_March_13_072041.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.800180	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

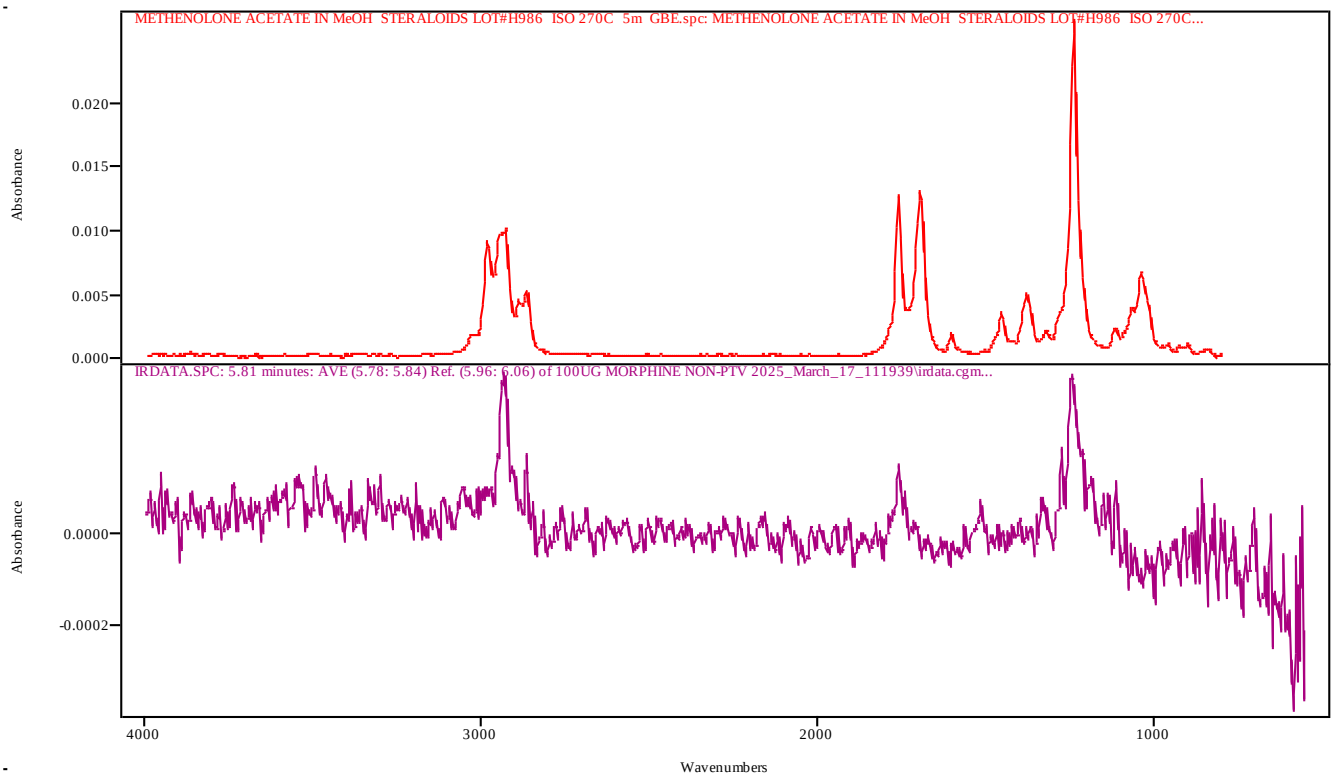
Data Filename	100UG MORPHINE NON-PTV 2025_March_17_111939
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	100ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:31:33 2025
Date Processed	Tue Mar 18 07:27:04 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
4.834	4.901	0.067	4.521	4.834
5.537	5.582	0.045	5.359	5.537
5.783	5.839	0.056	5.961	6.062
5.850	5.894	0.045	5.671	5.850
9.467	9.534	0.067	9.199	9.467

IRD Data Analysis Report

Data Filename	100UG MORPHINE NON-PTV 2025_March_17_111939
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	54
Sample Name	100ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:31:33 2025
Date Processed	Tue Mar 18 07:27:04 2025



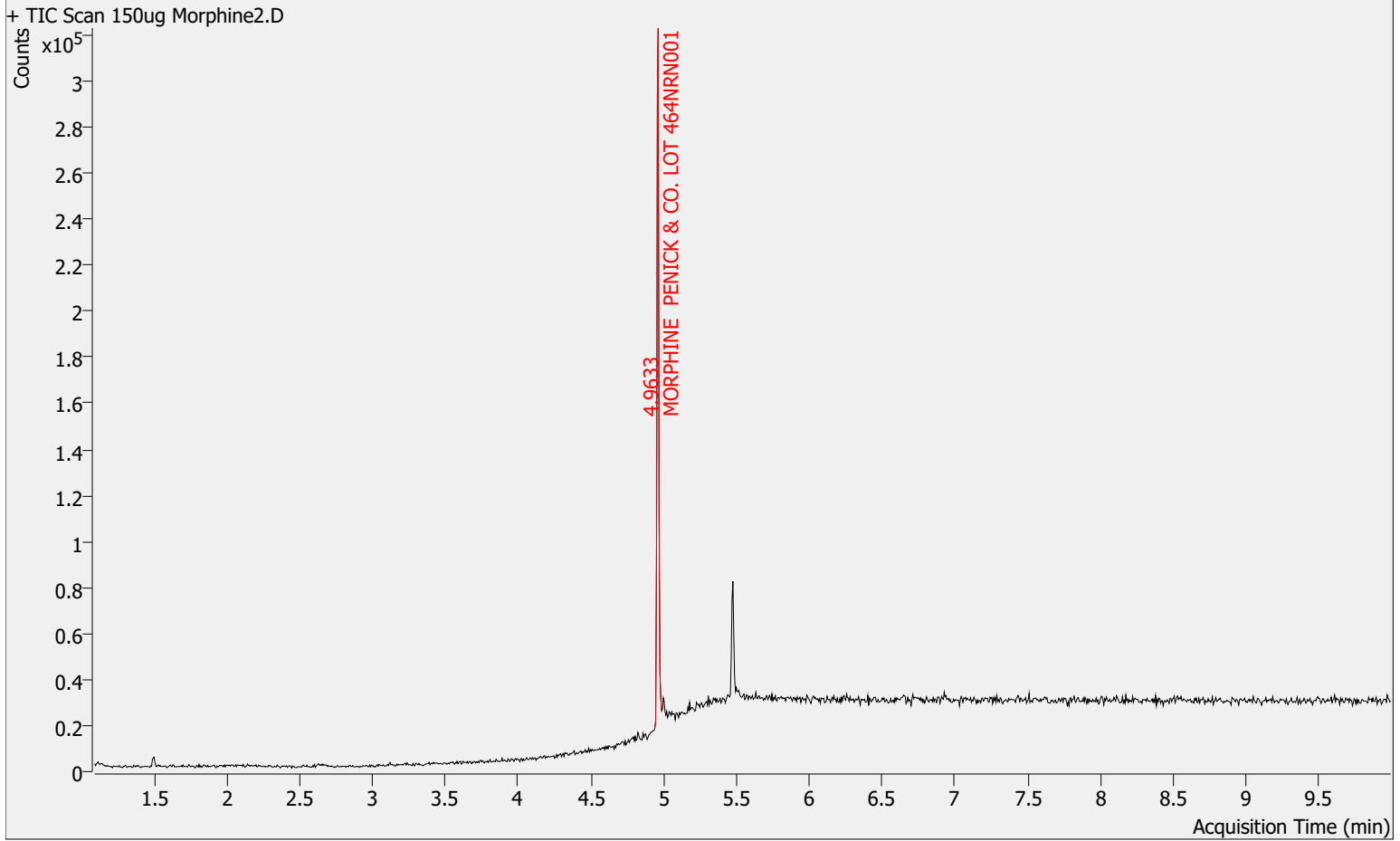
IRDATA.SPC: 5.81 minutes: AVE (5.78: 5.84) Ref. (5.96: 6.06) of 100UG MORPHINE NON-PTV 2025_March_17_111939.cgm

METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE.spc:
METHENOLONE ACETATE IN MeOH STERALOIDs LOT#H986 ISO 270C 5m GBE

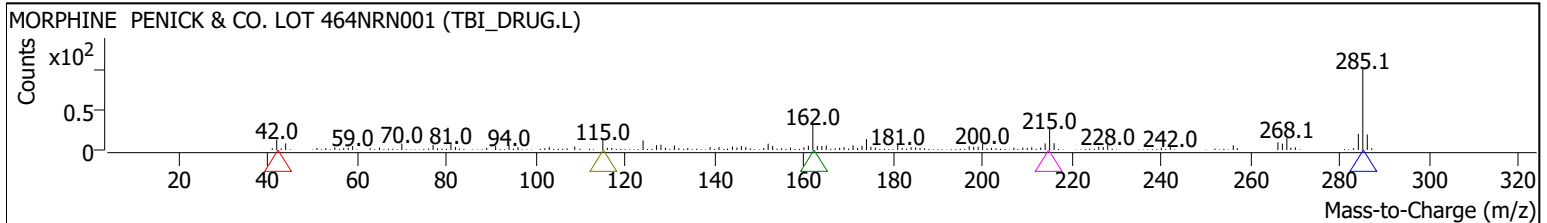
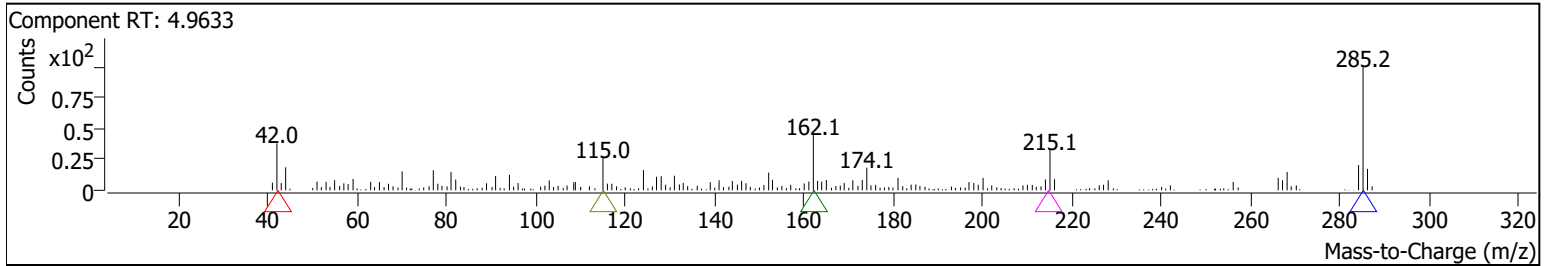
TBI Forensic Chemistry Report

File Name	150ug Morphine2.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study\03-17-25
Sample Name	150ug Morphine2	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/17/2025 8:17:48 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	6

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	275818.419407889	5.0

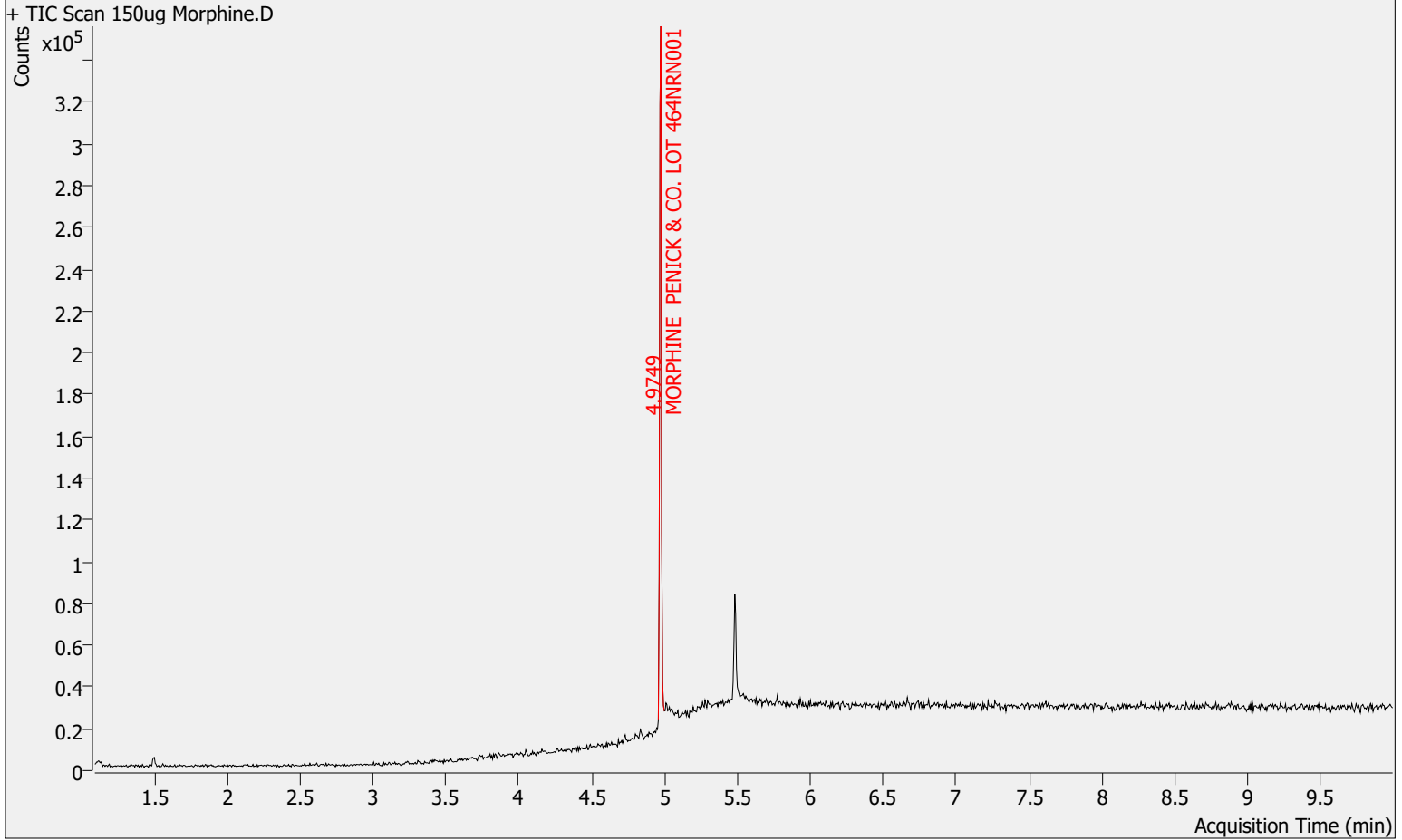


Compound Name	Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	150ug Morphine2
MORPHINE PENICK & CO. LOT 464NRN001	275818.419407889	5.0				

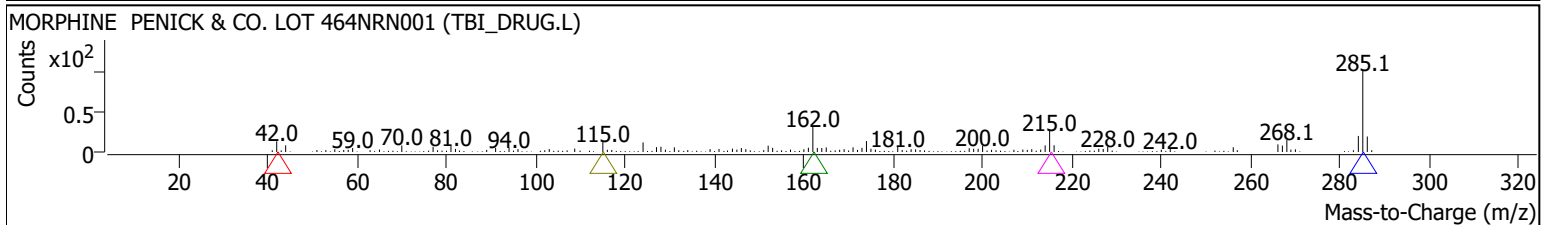
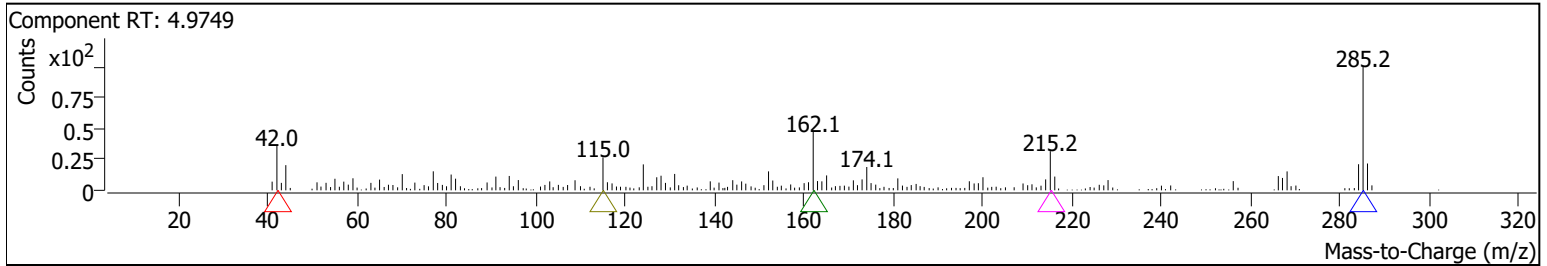
TBI Forensic Chemistry Report

File Name	150ug Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/12/2025 11:16:35 AM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	14

Sample Chromatogram



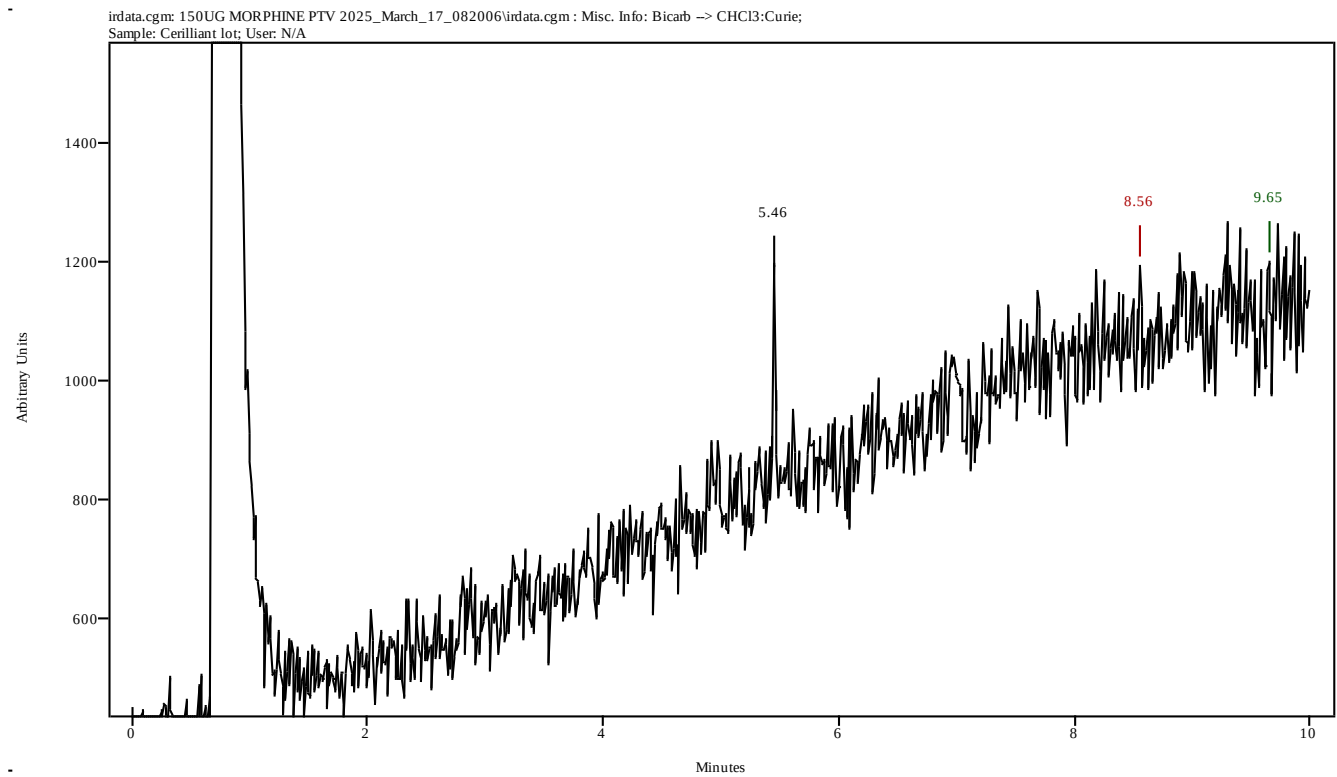
Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	289609.796222736	5.0



MORPHINE PENICK & CO. LOT 464NRN001	Component Area 289609.796222736	Component RT 5.0	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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IRD Data Analysis Report

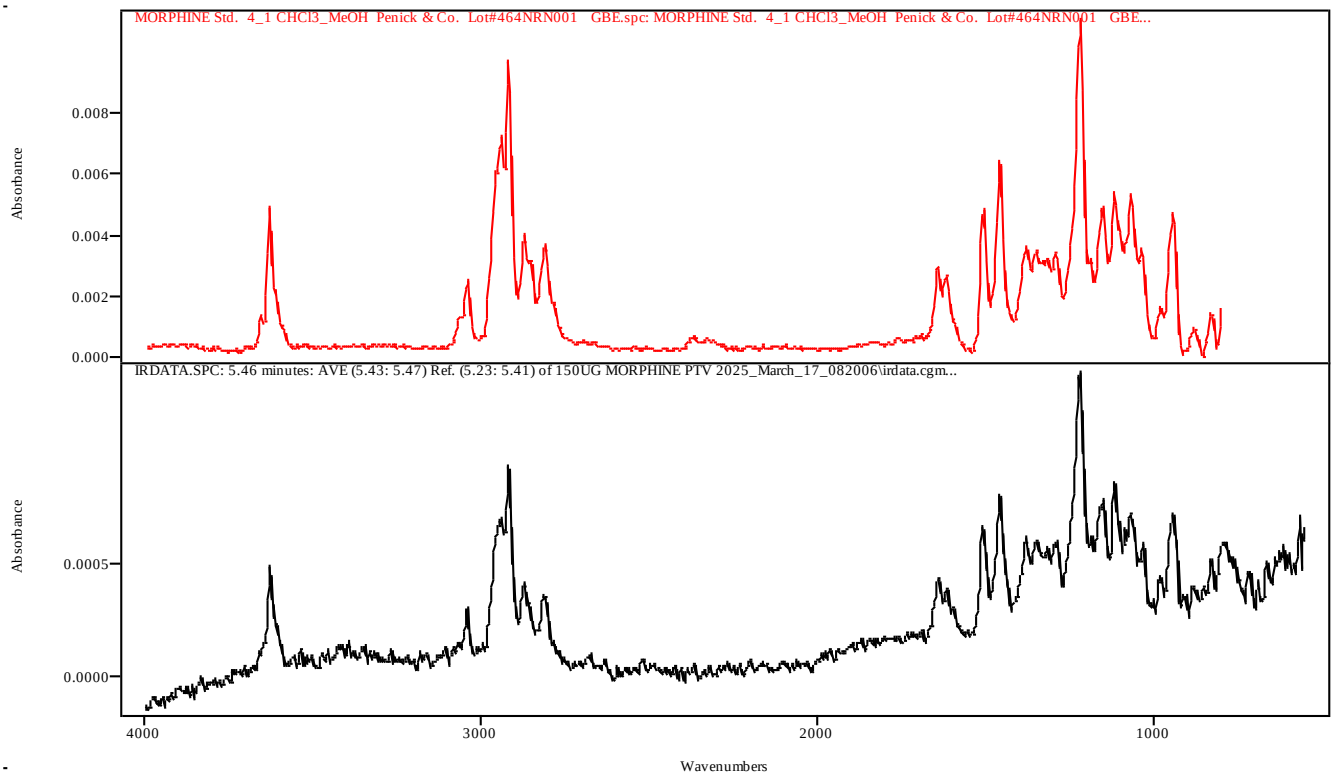
Data Filename	150UG MORPHINE PTV 2025_March_17_082006
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:29:28 2025
Date Processed	Mon Mar 17 09:18:01 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.433	5.467	0.034	5.230	5.411
8.522	8.567	0.045	8.341	8.522
9.626	9.683	0.056	9.389	9.615

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_17_082006
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:29:28 2025
Date Processed	Mon Mar 17 09:18:01 2025



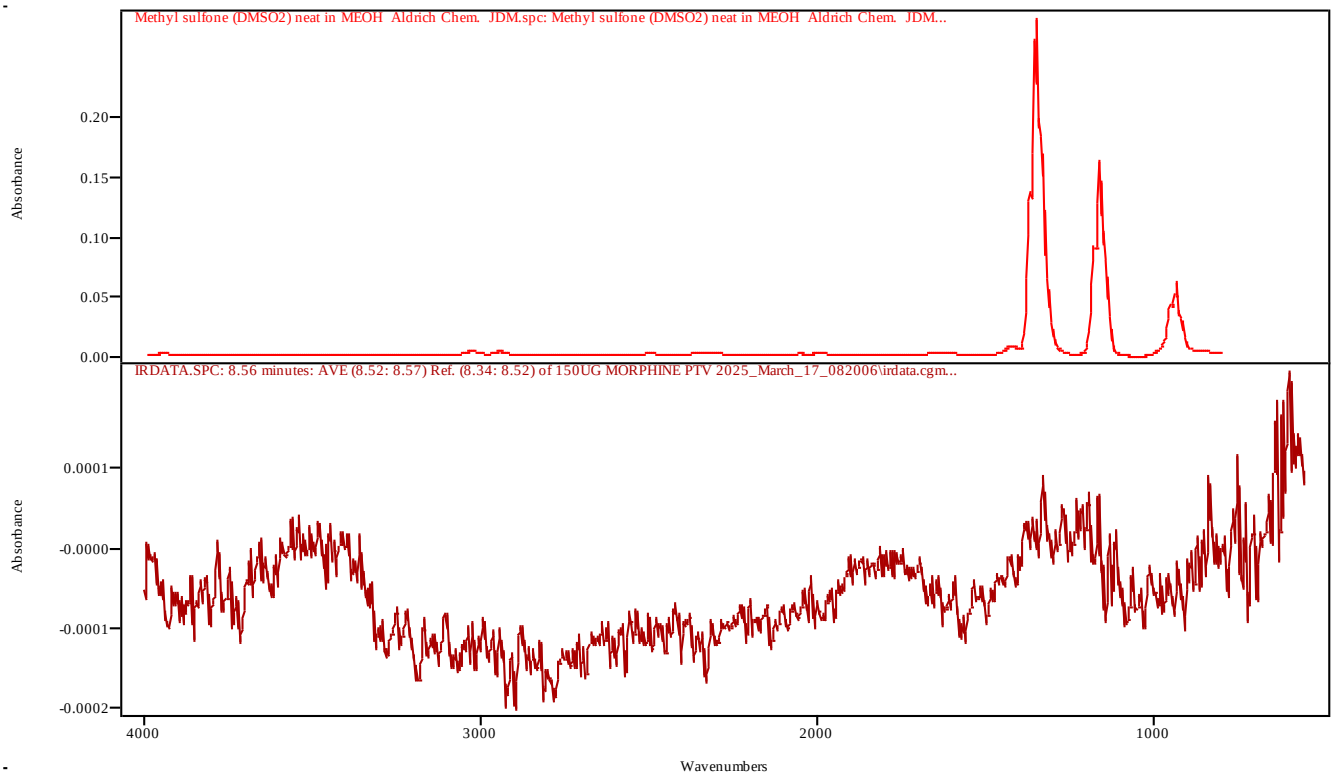
IRDATA.SPC: 5.46 minutes: AVE (5.43: 5.47) Ref. (5.23: 5.41) of 150UG MORPHINE PTV 2025_March_17_082006.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.901196	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_17_082006
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:29:28 2025
Date Processed	Mon Mar 17 09:18:01 2025



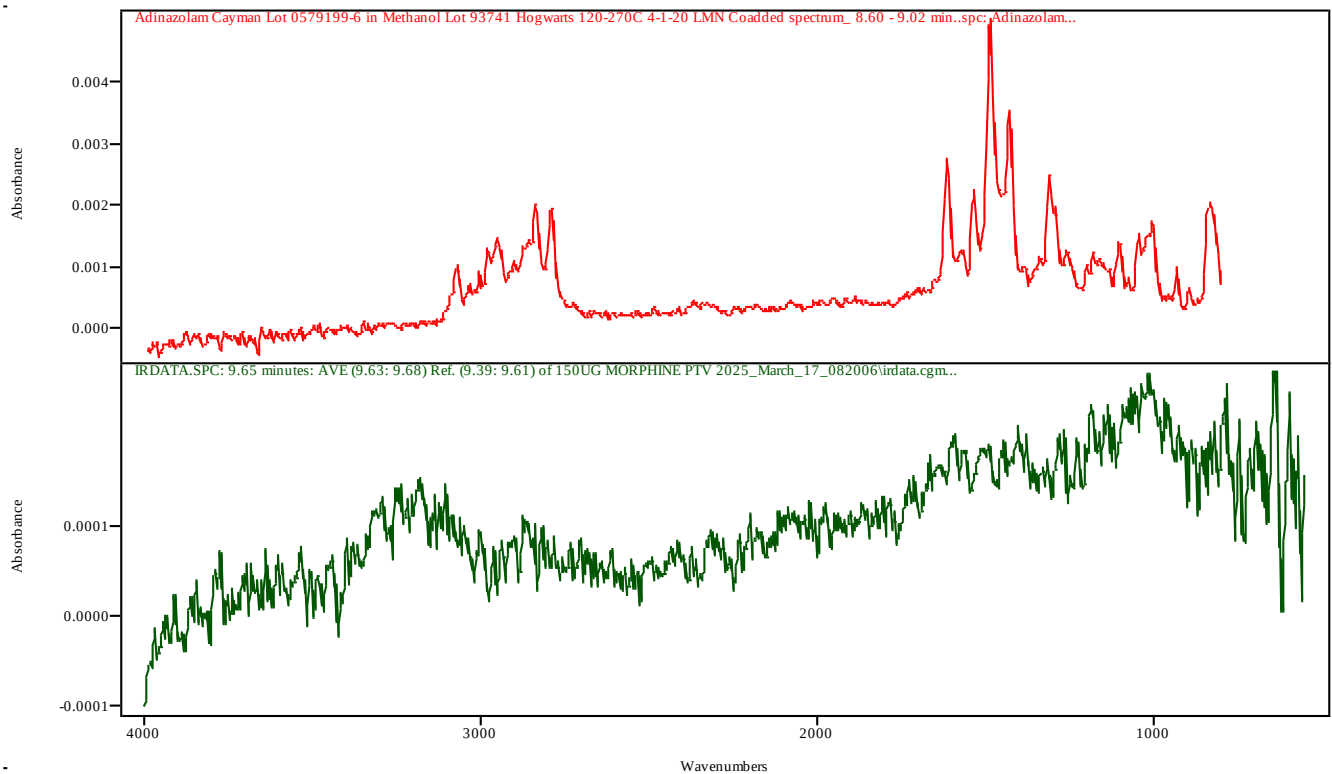
IRDATA.SPC: 8.56 minutes: AVE (8.52: 8.57) Ref. (8.34: 8.52) of 150UG MORPHINE PTV 2025_March_17_082006.cgm

Methyl sulfone (DMSO2) neat in MEOH Aldrich Chem. JDM.spc: Methyl sulfone (DMSO2) neat in MEOH Aldrich Chem. JDM

Metric	Name	Library	Entry
0.369800	Methyl sulfone (DMSO2) neat in MEOH Aldrich Chem. JDM	TBI GCIR combined Thermo generated libraries	328: Methyl sulfone (DMSO2) neat in MEOH Aldrich Chem. JDM.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_17_082006
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:29:28 2025
Date Processed	Mon Mar 17 09:18:01 2025



IRDATA.SPC: 9.65 minutes: AVE (9.63: 9.68) Ref. (9.39: 9.61) of 150UG MORPHINE PTV 2025_March_17_082006.cgm

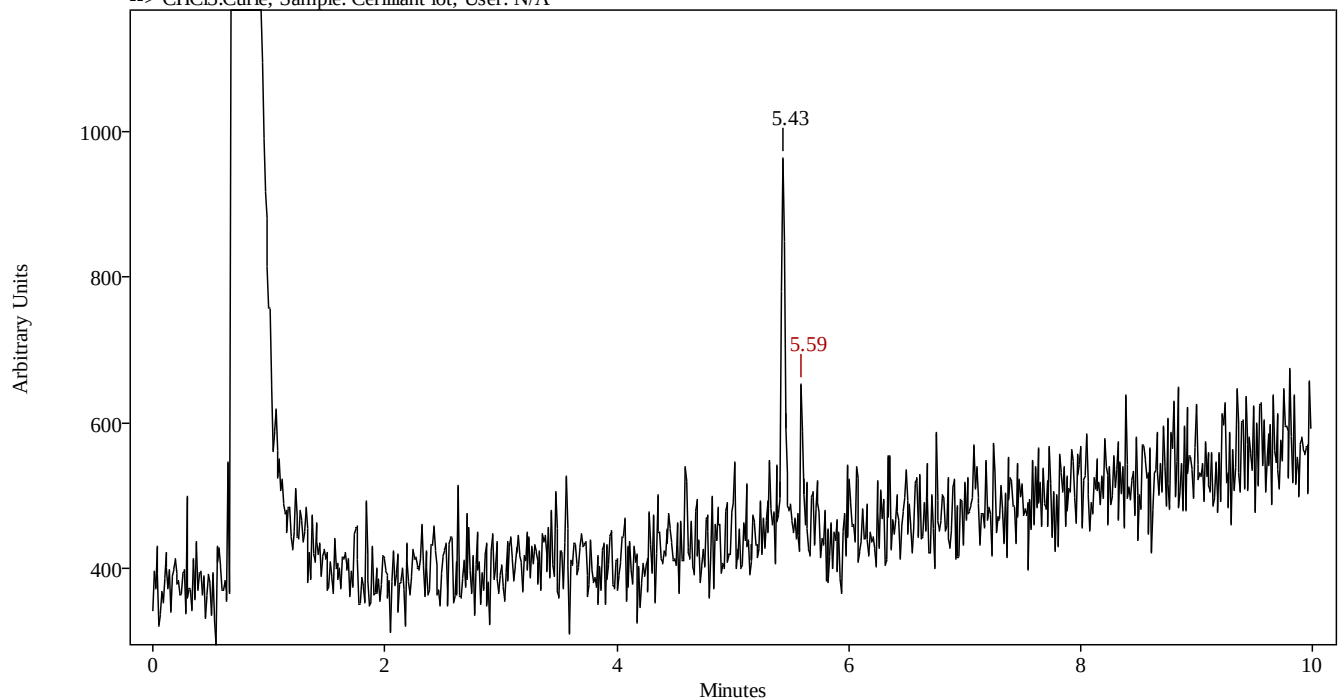
Adinazolam Cayman Lot 0579199-6 in Methanol Lot 93741 Hogwarts 120-270C 4-1-20 LMN Coadded spectrum_ 8.60 - 9.02 min..spc: Adinazolam Cayman Lot 0579199-6 in Methanol Lot 93741 Hogwarts 120-270C 4-1-20 LMN Coadded spectrum_ 8.60 - 9.02 min.

Metric	Name	Library	Entry
0.594080	Adinazolam Cayman Lot 0579199-6 in Methanol Lot 93741 Hogwarts 120-270C 4-1-20 LMN Coadded spectrum_ 8.60 - 9.02 min.	TBI GCIR combined Thermo generated libraries	280: Adinazolam Cayman Lot 0579199-6 in Methanol Lot 93741 Hogwarts 120-270C 4-1-20 LMN Coadded spectrum_ 8.60 - 9.02 min..spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_12_104847
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:58:06 2025
Date Processed	Sat Mar 15 12:37:23 2025

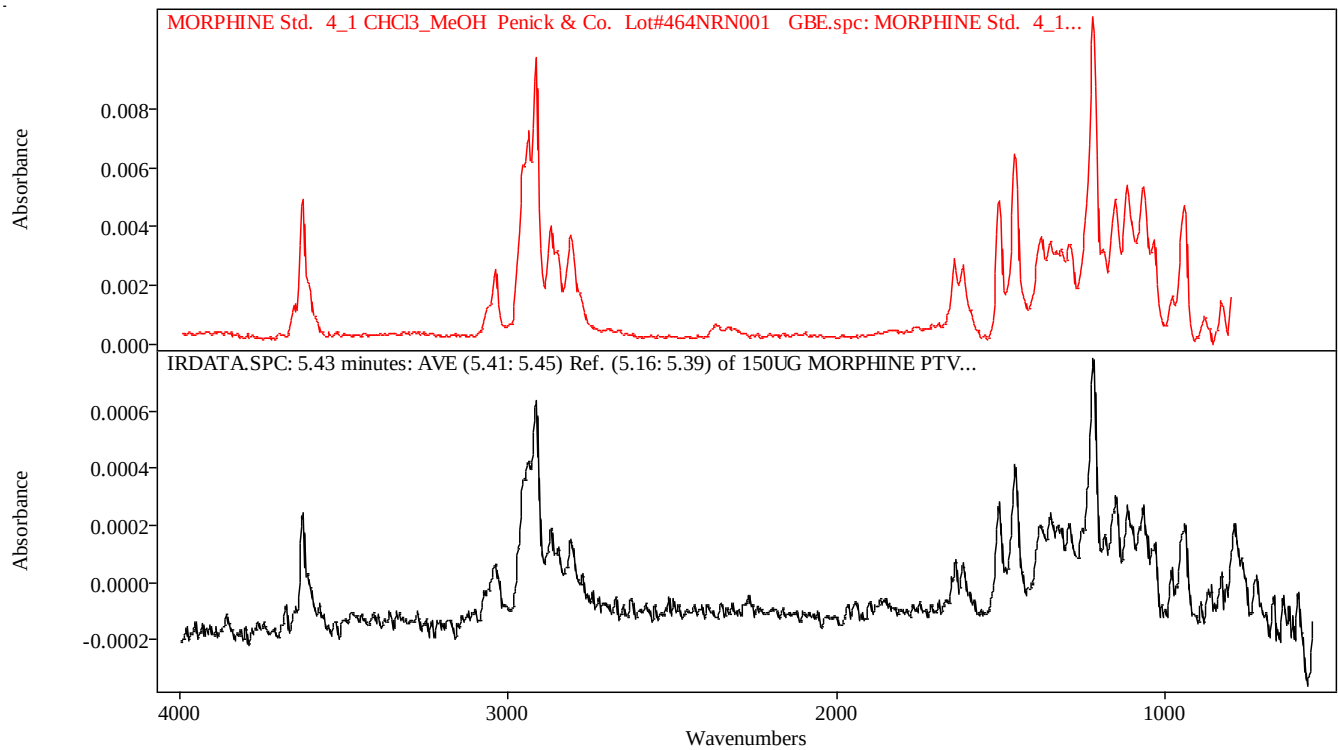
irdata.cgm: 150UG MORPHINE PTV 2025_March_12_104847\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.409	5.454	0.045	5.161	5.387
5.556	5.612	0.056	5.161	5.387

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_12_104847
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:58:06 2025
Date Processed	Sat Mar 15 12:37:23 2025



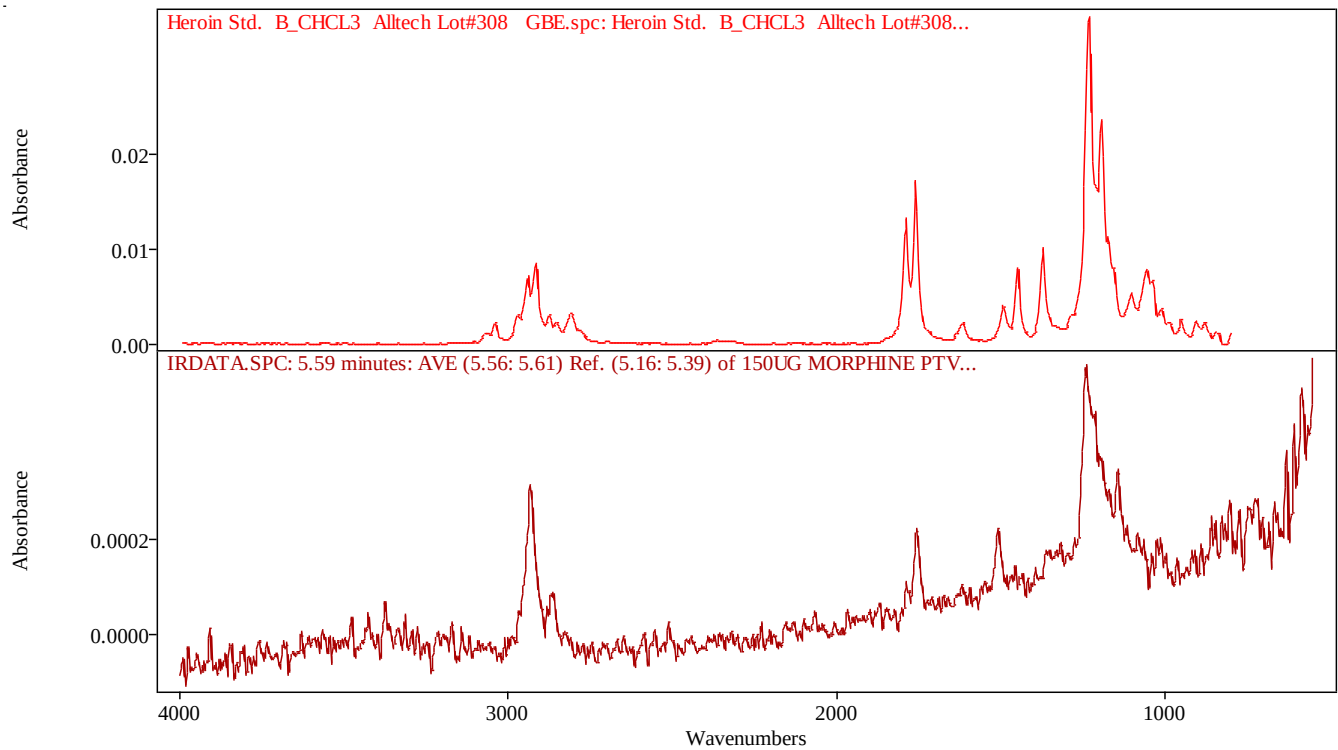
IRDATA.SPC: 5.43 minutes: AVE (5.41: 5.45) Ref. (5.16: 5.39) of 150UG MORPHINE PTV
2025_March_12_104847.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.955925	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE PTV 2025_March_12_104847
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 10:58:06 2025
Date Processed	Sat Mar 15 12:37:23 2025



IRDATA.SPC: 5.59 minutes: AVE (5.56: 5.61) Ref. (5.16: 5.39) of 150UG MORPHINE PTV
2025_March_12_104847.cgm

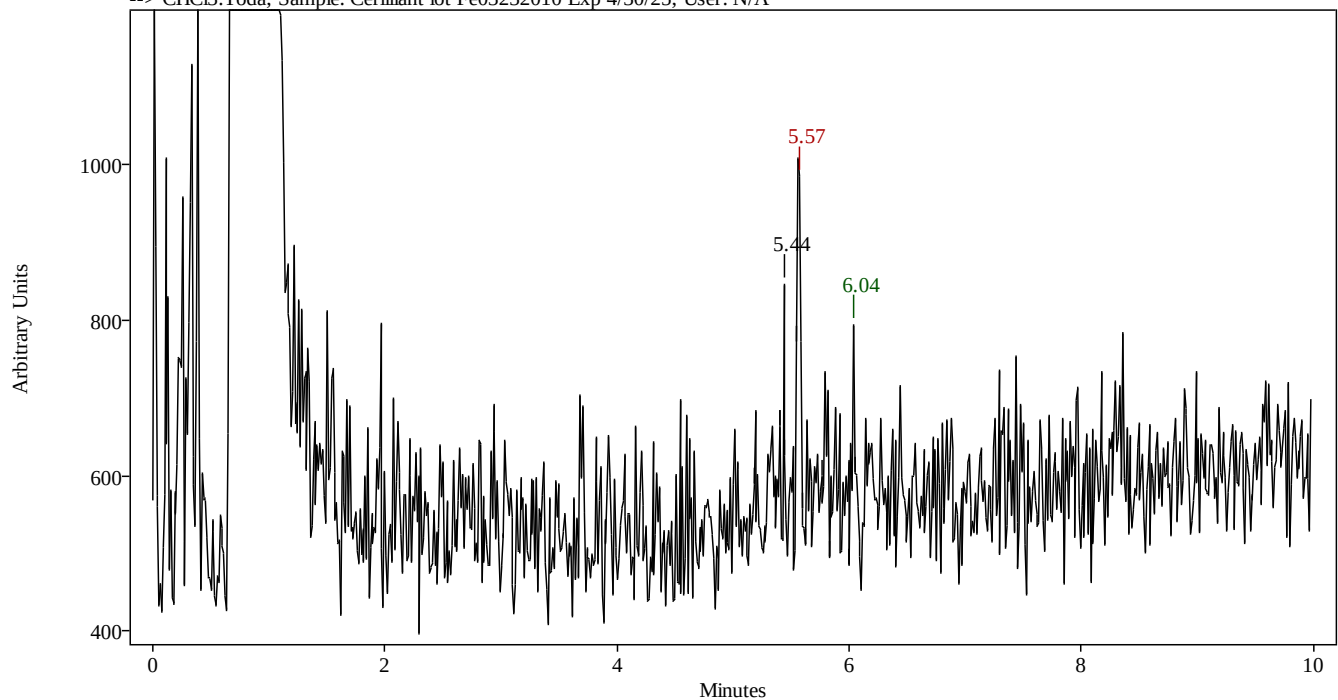
Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.780463	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE 2025_March_13_073306
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:44:57 2025
Date Processed	Sat Mar 15 12:01:03 2025

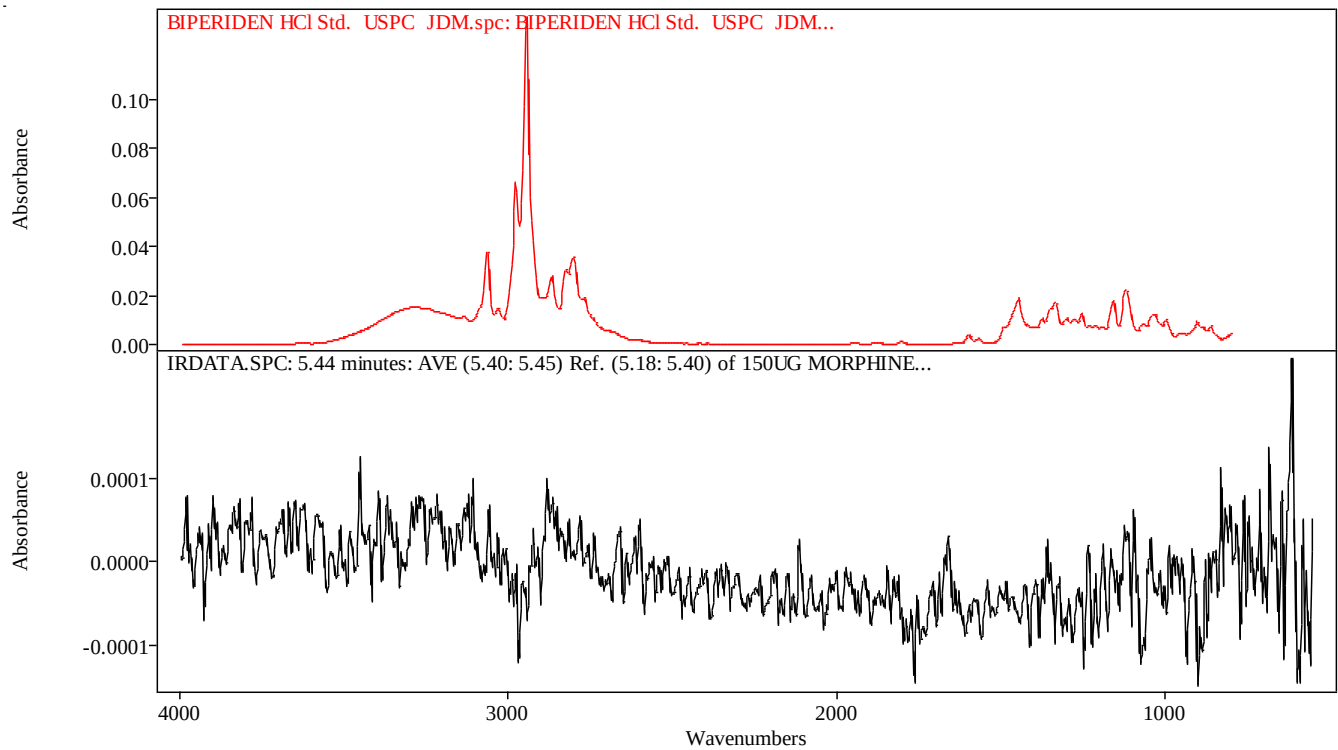
irdata.cgm: 150UG MORPHINE 2025_March_13_073306\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.403	5.447	0.045	5.179	5.403
5.548	5.592	0.045	5.631	5.765
6.005	6.050	0.045	5.827	6.005

IRD Data Analysis Report

Data Filename	150UG MORPHINE 2025_March_13_073306
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:44:57 2025
Date Processed	Sat Mar 15 12:01:03 2025



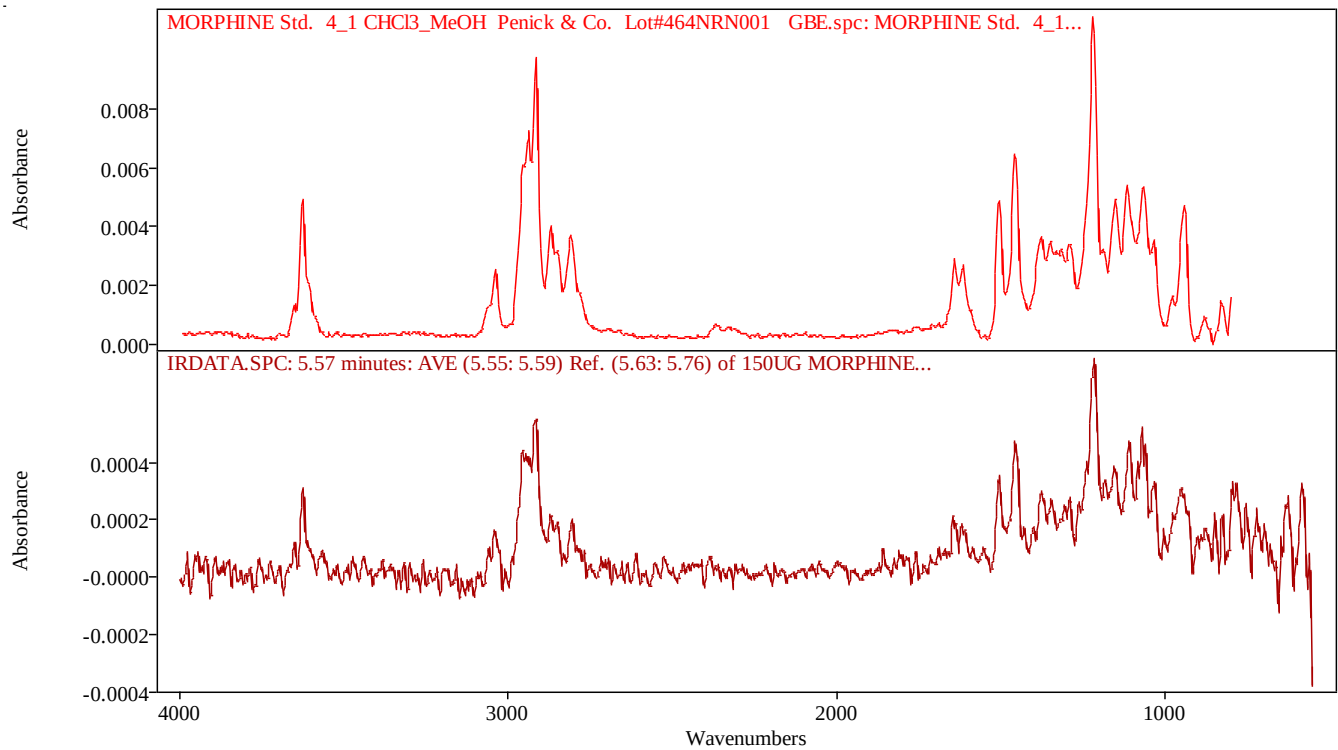
IRDATA.SPC: 5.44 minutes: AVE (5.40: 5.45) Ref. (5.18: 5.40) of 150UG MORPHINE
2025_March_13_073306.cgm

BIPERIDEN HCl Std. USPC JDM.spc: BIPERIDEN HCl Std. USPC JDM

Metric	Name	Library	Entry
0.072697	BIPERIDEN HCl Std. USPC JDM	TBI GCIR combined Thermo generated libraries	208: BIPERIDEN HCl Std. USPC JDM.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE 2025_March_13_073306
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:44:57 2025
Date Processed	Sat Mar 15 12:01:03 2025



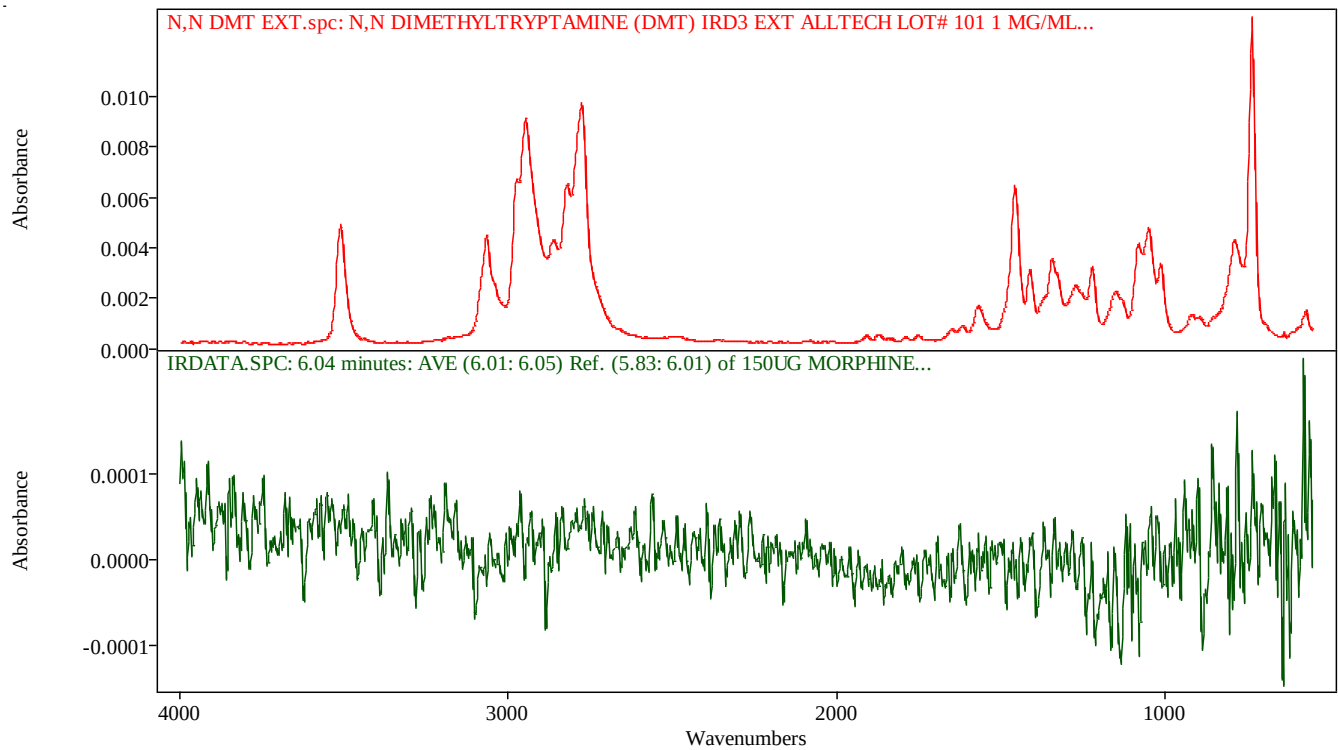
IRDATA.SPC: 5.57 minutes: AVE (5.55: 5.59) Ref. (5.63: 5.76) of 150UG MORPHINE
2025_March_13_073306.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.940932	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE 2025_March_13_073306
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	63
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Bicarb --> CHCl3:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:44:57 2025
Date Processed	Sat Mar 15 12:01:03 2025



IRDATA.SPC: 6.04 minutes: AVE (6.01: 6.05) Ref. (5.83: 6.01) of 150UG MORPHINE
2025_March_13_073306.cgm

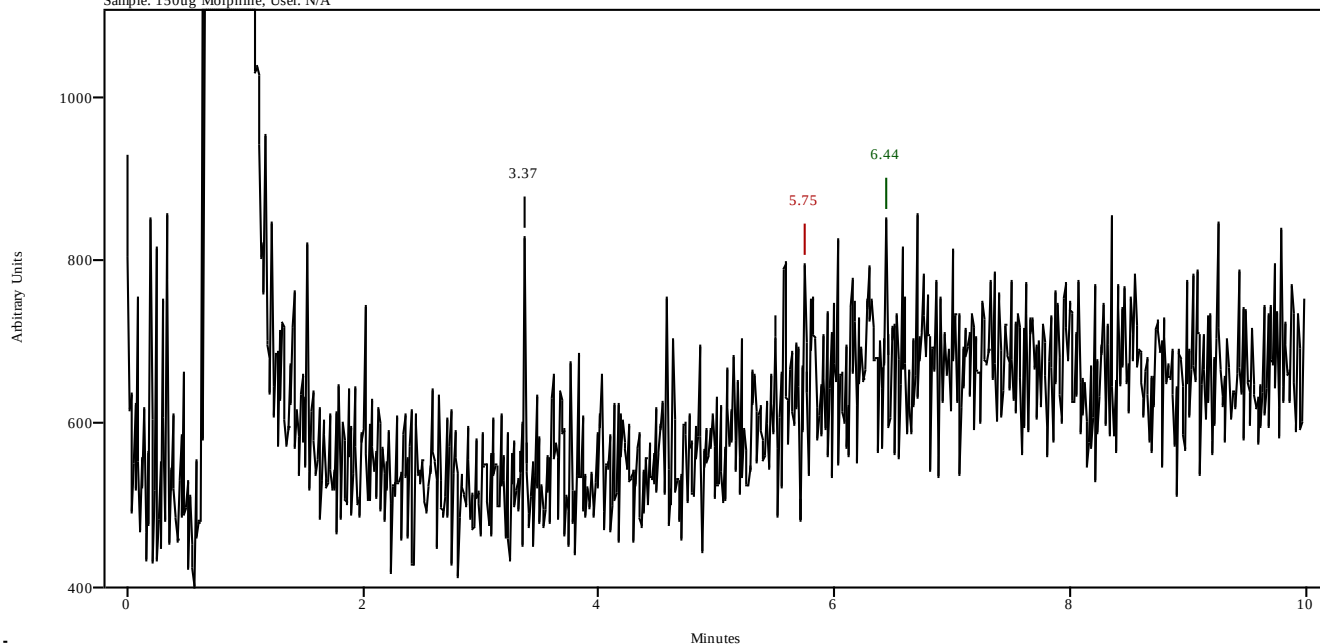
N,N DMT EXT.spc: N,N DIMETHYLTRYPTAMINE (DMT) IRD3 EXT ALLTECH LOT# 101 1 MG/ML MEOH RH
2022_March_08_130636\irdata.cgm

Metric	Name	Library	Entry
0.042202	N,N DIMETHYLTRYPTAMINE (DMT) IRD3 EXT ALLTECH LOT# 101 1 MG/ML MEOH RH 2022_March_08_130636\irdata.cgm	TBI GCIR EXT BH	62: N,N DMT EXT.spc

IRD Data Analysis Report

Data Filename	150UG MORPHINE NON-PTV 2025_March_17_113203
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	55
Sample Name	150ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:44:00 2025
Date Processed	Tue Mar 18 07:29:58 2025

irdata.cgm: 150UG MORPHINE NON-PTV 2025_March_17_113203\irdata.cgm : Misc. Info: Methanol:Yoda;
Sample: 150ug Morphine; User: N/A

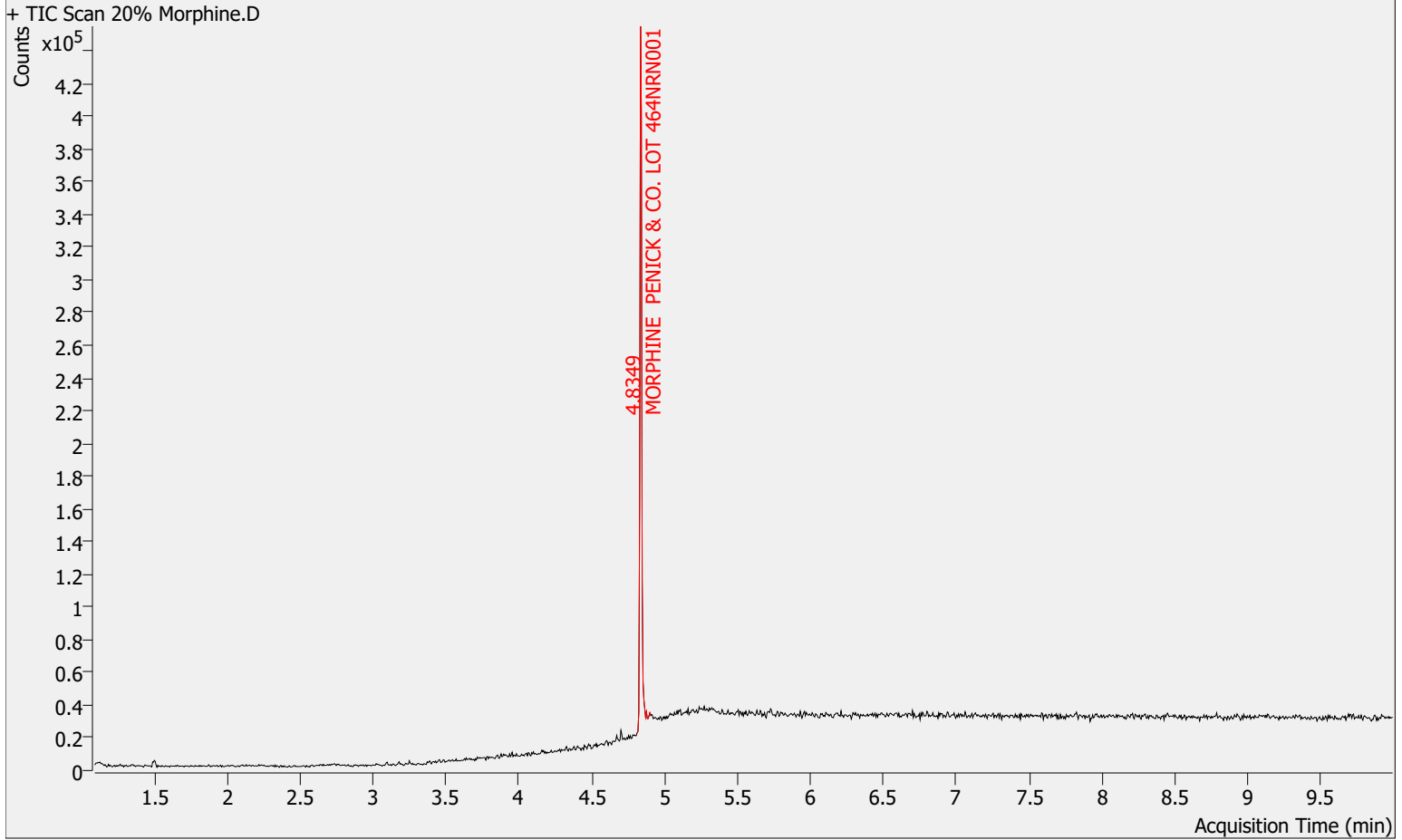


Peak Start	Peak End	Peak Width	Reference Start	Reference End
3.338	3.383	0.045	3.115	3.338
5.716	5.772	0.056	5.493	5.716
6.397	6.453	0.056	6.174	6.397

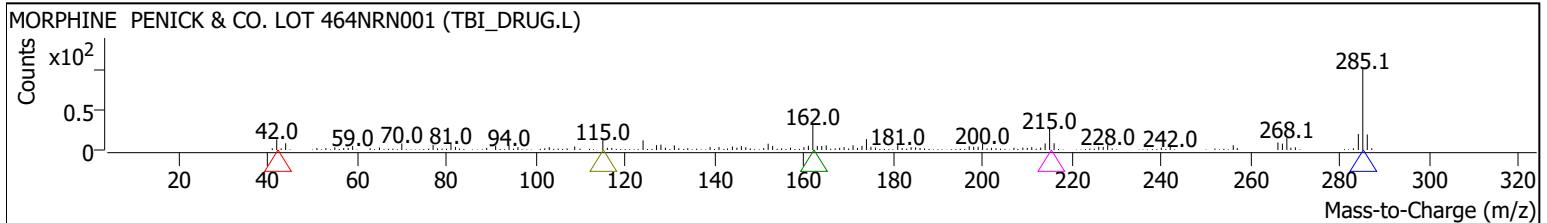
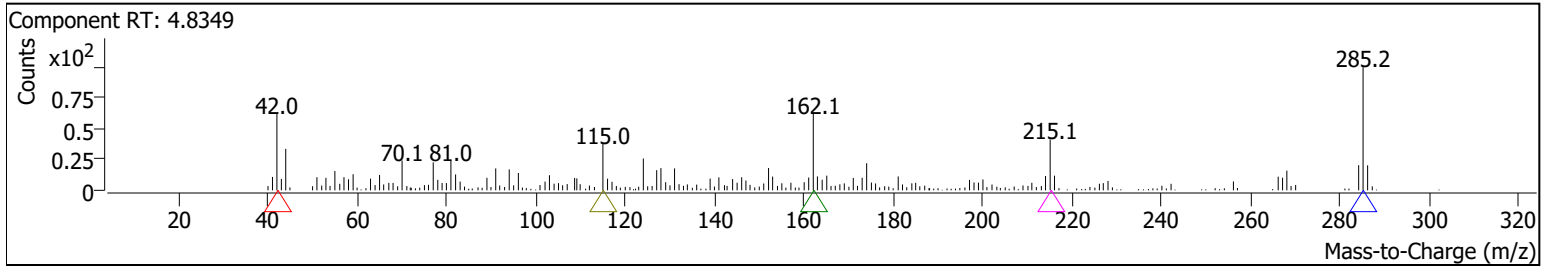
TBI Forensic Chemistry Report

File Name	20% Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 12:06:02 PM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	13

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	403331.566226514	4.8

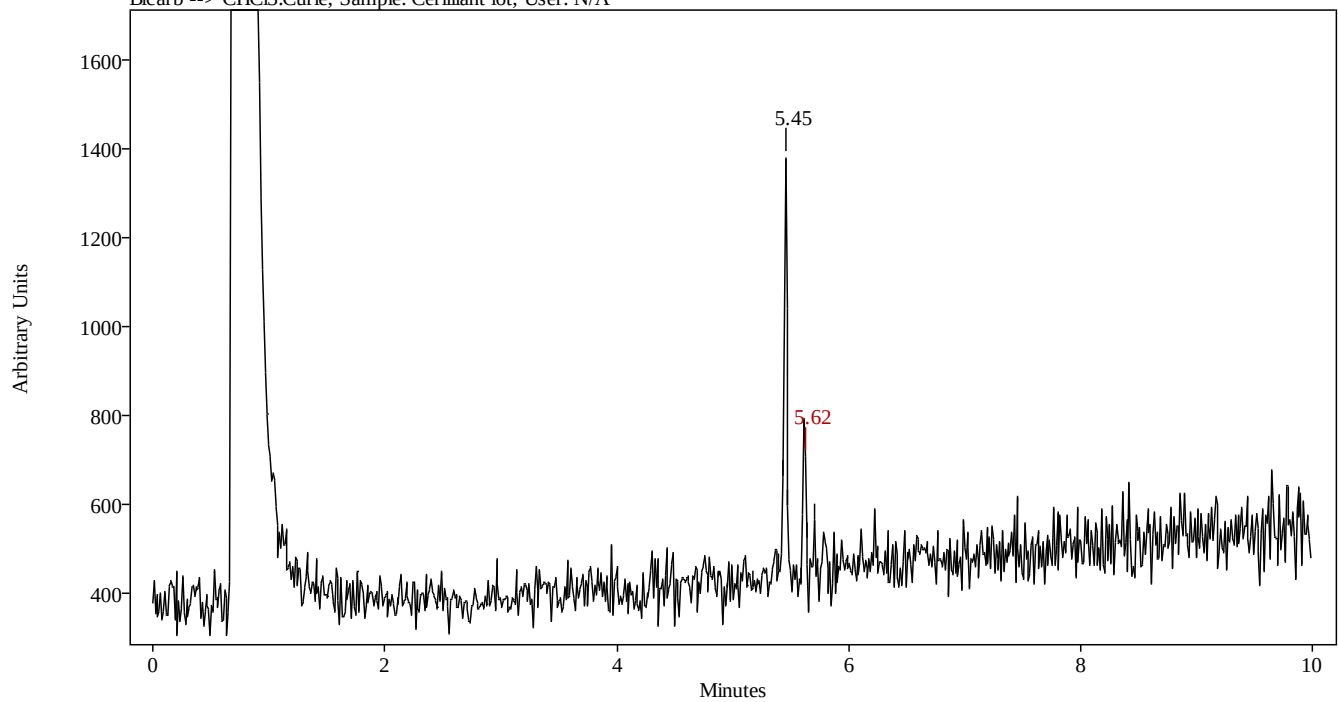


MORPHINE PENICK & CO. LOT 464NRN001	403331.566226514	4.8	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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IRD Data Analysis Report

Data Filename	200 UG MORPHINE PTV 2025_March_12_110143
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:11:07 2025
Date Processed	Sat Mar 15 12:39:52 2025

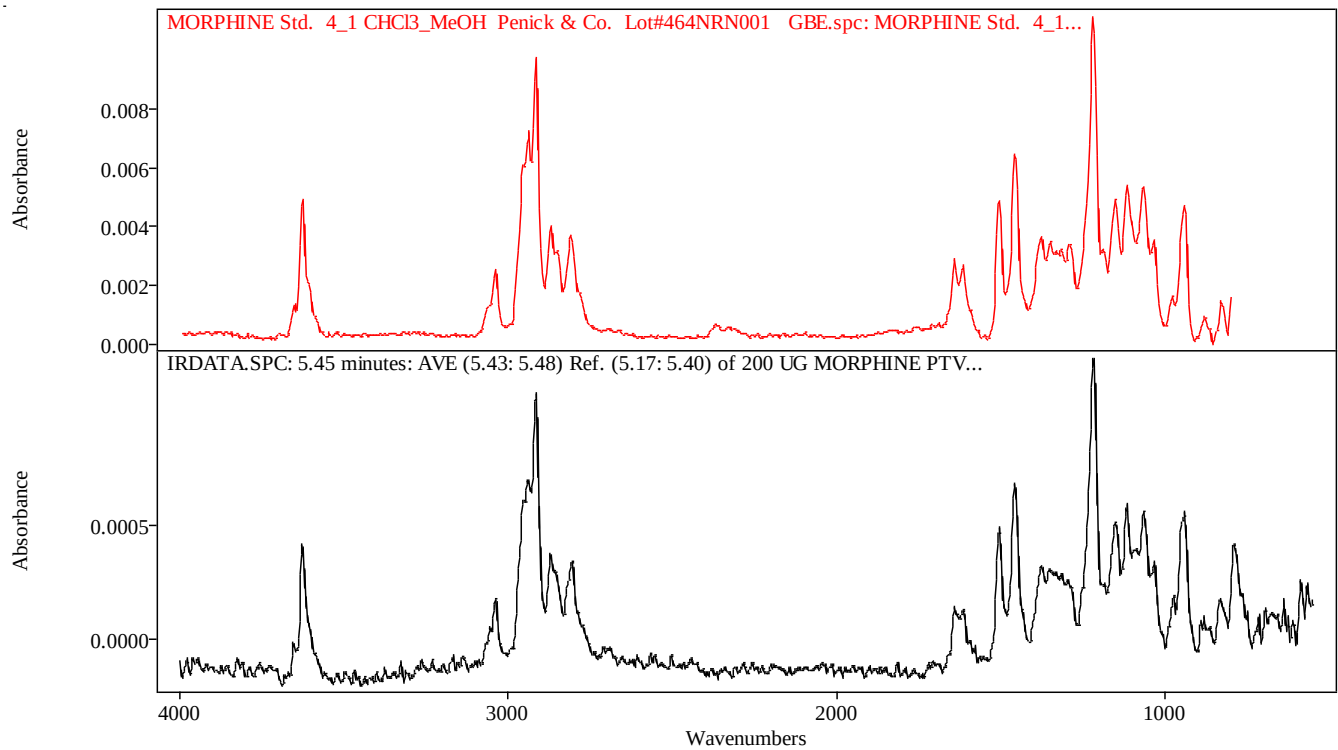
irdata.cgm: 200 UG MORPHINE PTV 2025_March_12_110143\irdata.cgm : Misc. Info:
Bicarb --> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.432	5.477	0.045	5.173	5.398
5.590	5.635	0.045	5.701	5.906

IRD Data Analysis Report

Data Filename	200 UG MORPHINE PTV 2025_March_12_110143
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:11:07 2025
Date Processed	Sat Mar 15 12:39:52 2025



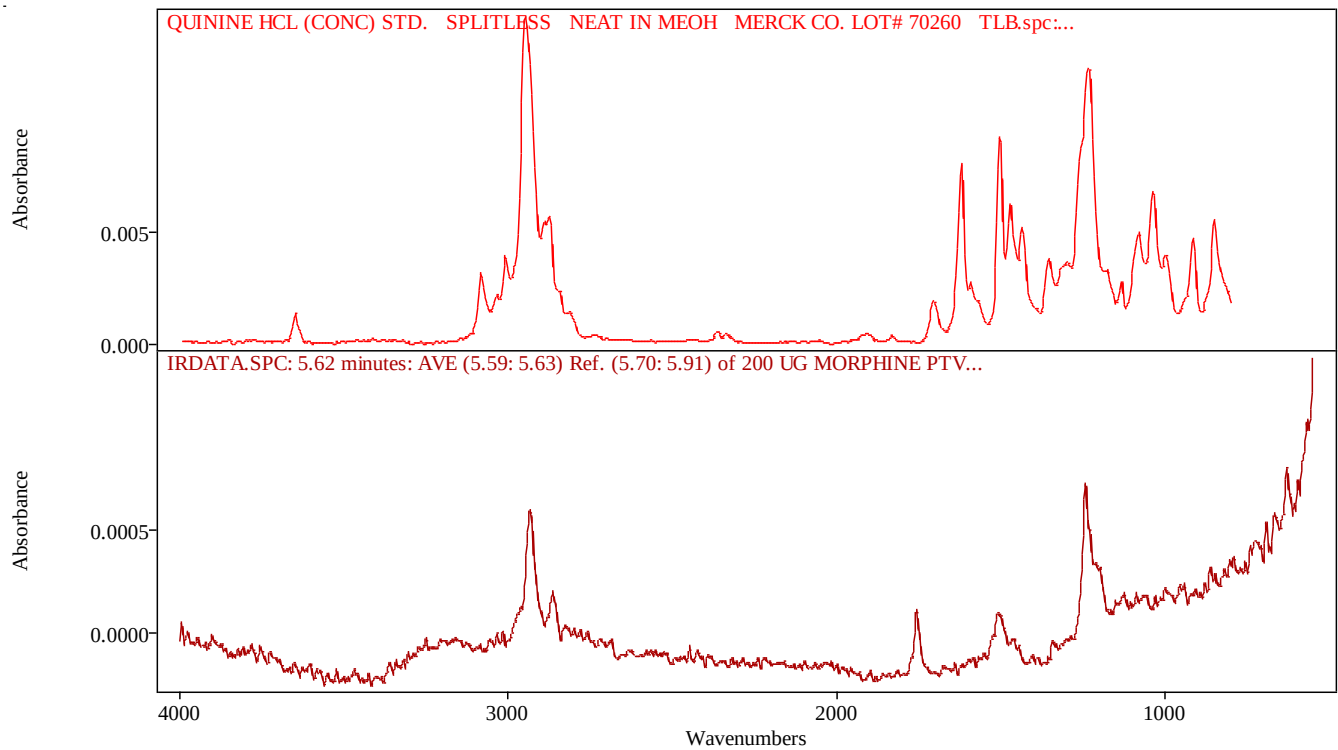
IRDATA.SPC: 5.45 minutes: AVE (5.43: 5.48) Ref. (5.17: 5.40) of 200 UG MORPHINE PTV
2025_March_12_110143.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.978040	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	200 UG MORPHINE PTV 2025_March_12_110143
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:11:07 2025
Date Processed	Sat Mar 15 12:39:52 2025



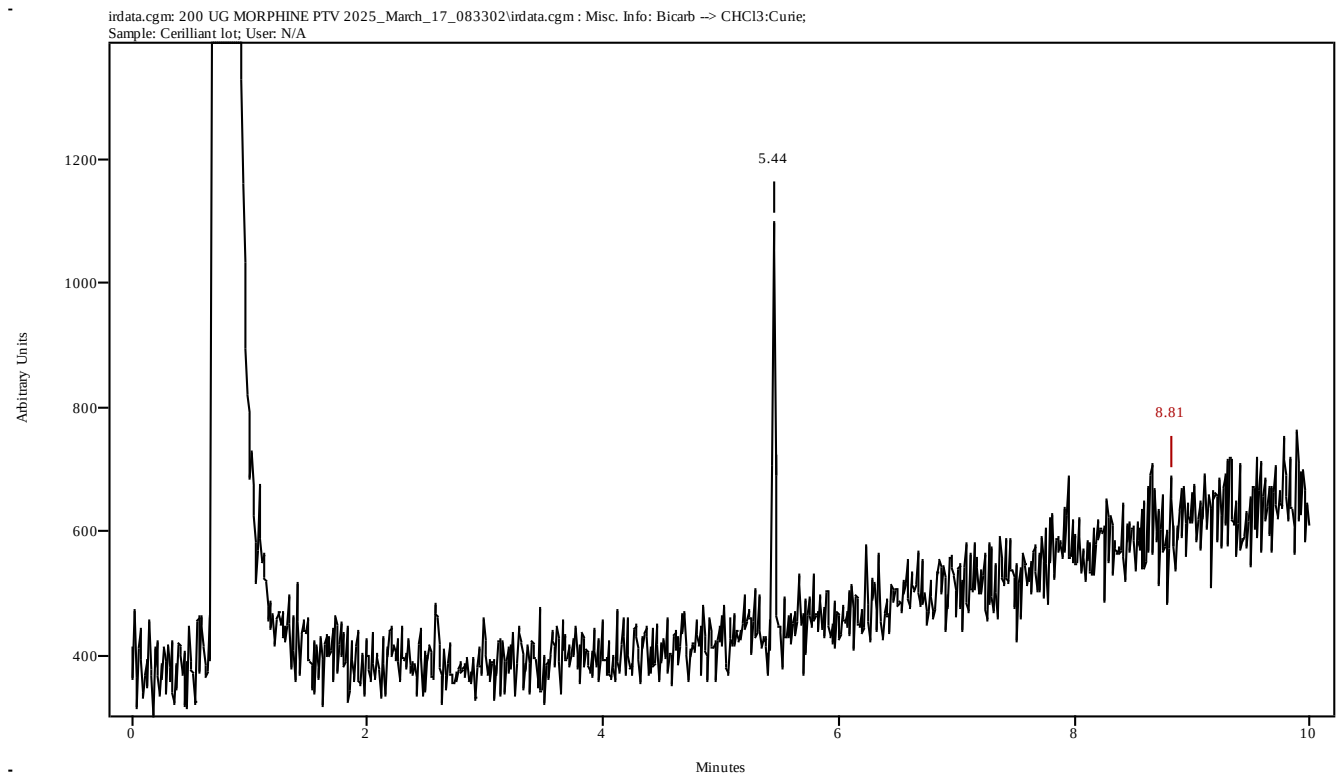
IRDATA.SPC: 5.62 minutes: AVE (5.59: 5.63) Ref. (5.70: 5.91) of 200 UG MORPHINE PTV 2025_March_12_110143.cgm

QUININE HCL (CONC) STD. SPLITLESS NEAT IN MEOH MERCK CO. LOT# 70260 TLB.spc:
 QUININE HCL (CONC) STD. SPLITLESS NEAT IN MEOH MERCK CO. LOT# 70260 TLB

Metric	Name	Library	Entry
0.718712	QUININE HCL (CONC) STD. SPLITLESS NEAT IN MEOH MERCK CO. LOT# 70260 TLB	TBI GCIR combined Thermo generated libraries	304: QUININE HCL (CONC) STD. SPLITLESS NEAT IN MEOH MERCK CO. LOT# 70260 TLB.spc

IRD Data Analysis Report

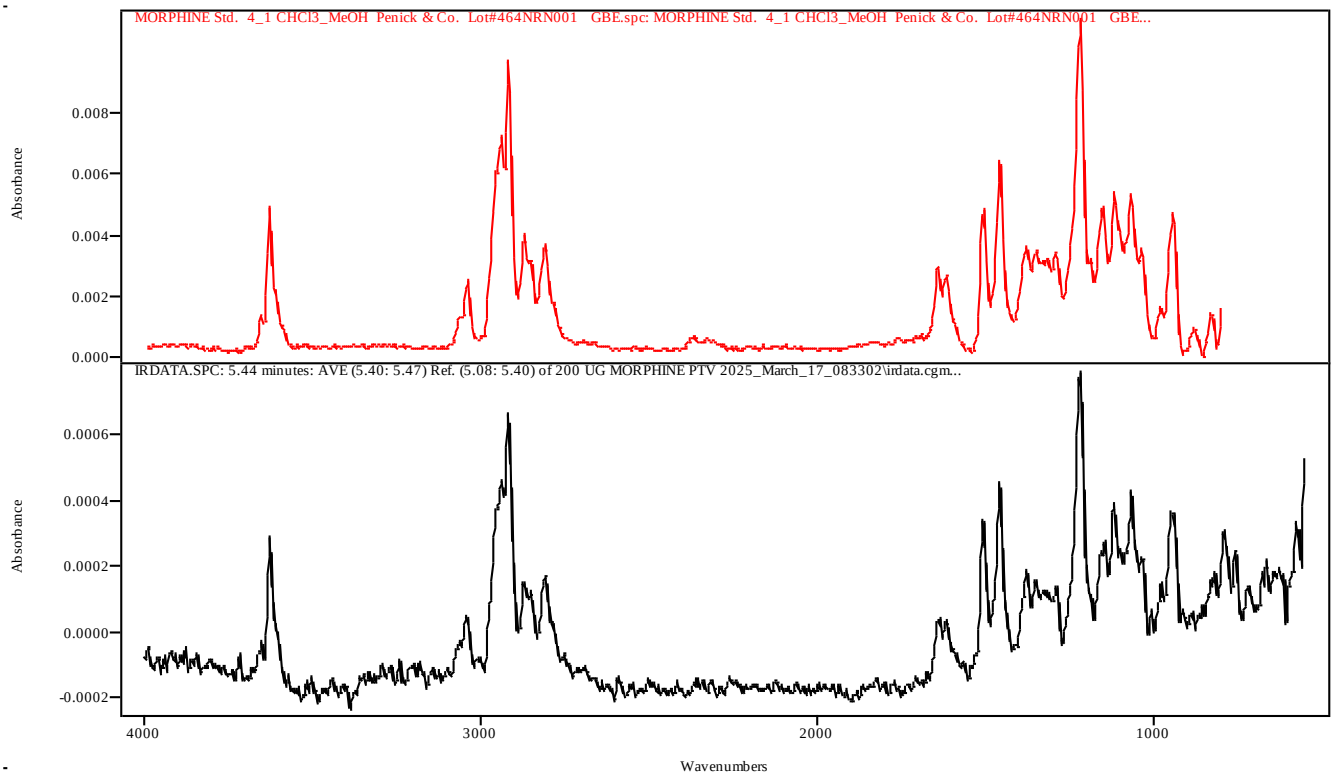
Data Filename	200 UG MORPHINE PTV 2025_March_17_083302
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:42:29 2025
Date Processed	Mon Mar 17 09:20:51 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.399	5.467	0.068	5.083	5.399
8.781	8.837	0.056	8.555	8.781

IRD Data Analysis Report

Data Filename	200 UG MORPHINE PTV 2025_March_17_083302
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:42:29 2025
Date Processed	Mon Mar 17 09:20:51 2025



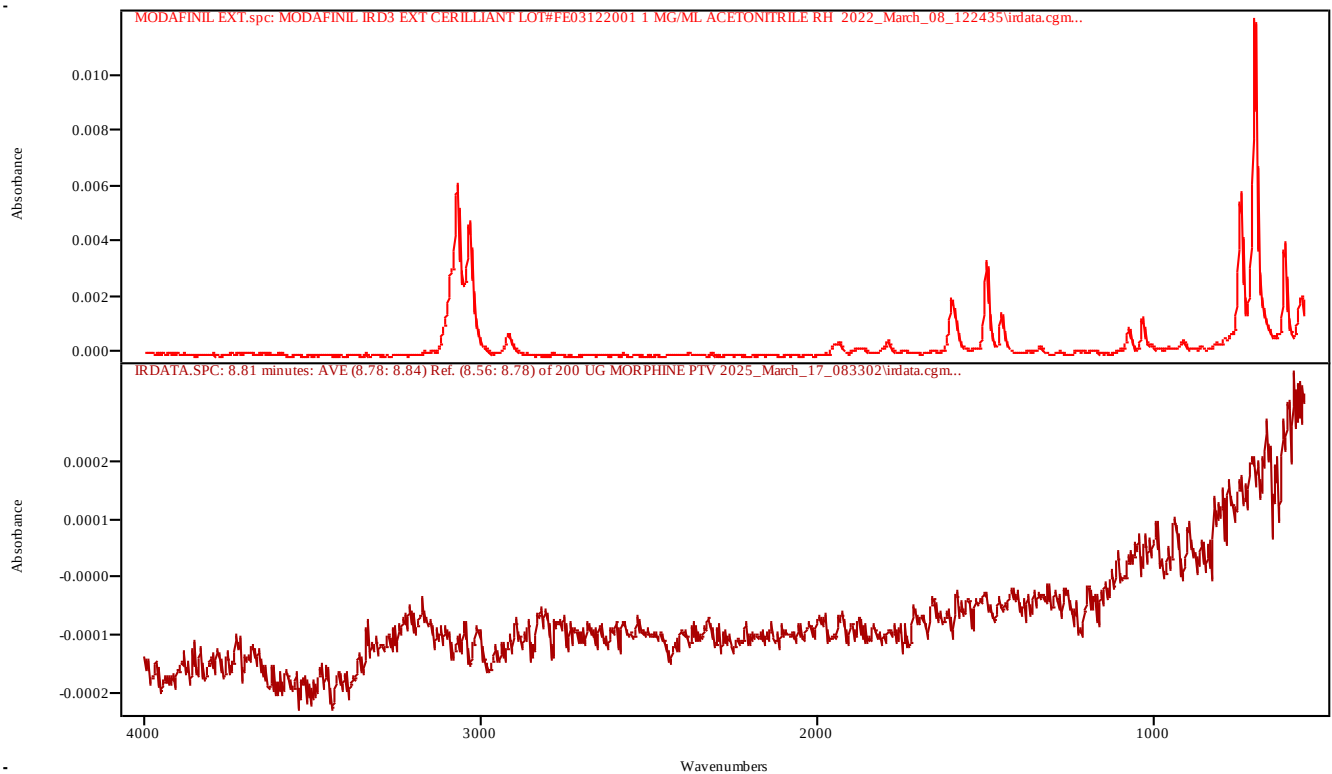
IRDATA.SPC: 5.44 minutes: AVE (5.40: 5.47) Ref. (5.08: 5.40) of 200 UG MORPHINE PTV 2025_March_17_083302.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.935738	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	200 UG MORPHINE PTV 2025_March_17_083302
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Mon Mar 17 08:42:29 2025
Date Processed	Mon Mar 17 09:20:51 2025



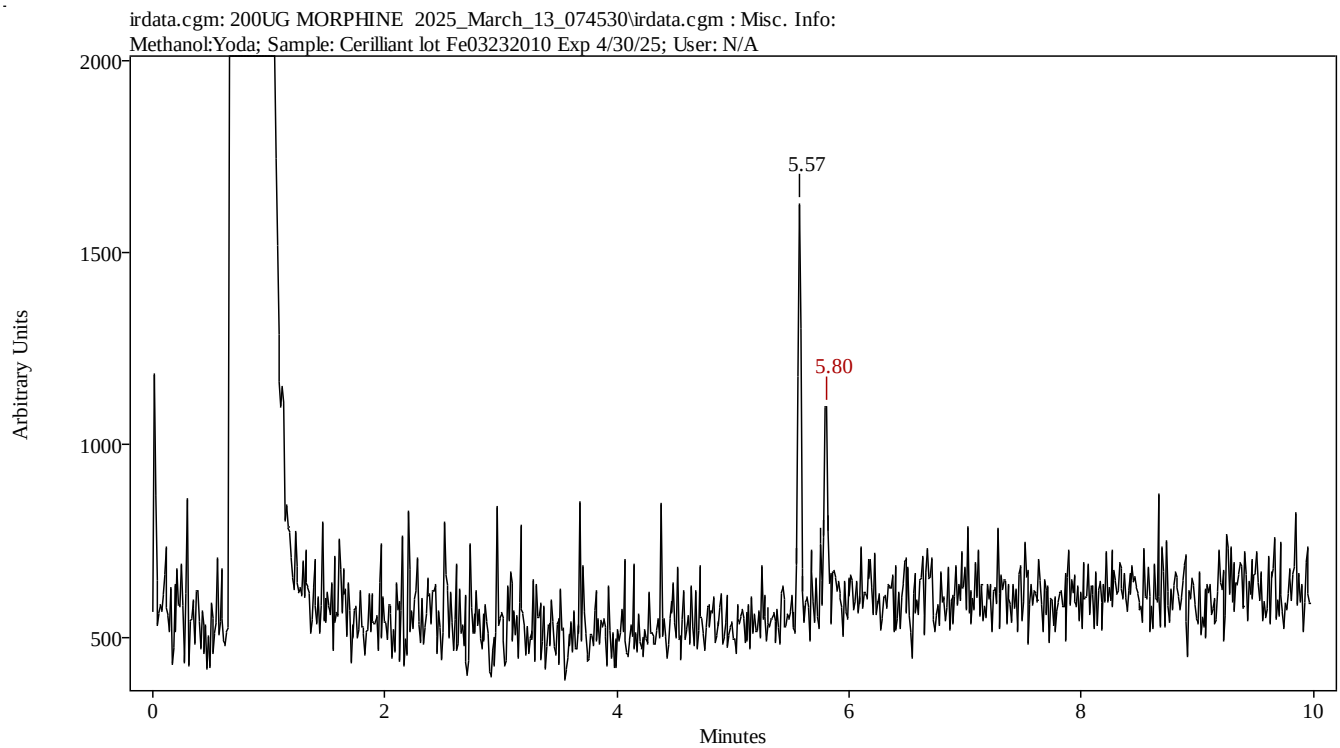
IRDATA.SPC: 8.81 minutes: AVE (8.78: 8.84) Ref. (8.56: 8.78) of 200 UG MORPHINE PTV 2025_March_17_083302.cgm

MODAFINIL EXT.spc: MODAFINIL IRD3 EXT CERILLIANT LOT#FE03122001 1 MG/ML ACETONITRILE RH 2022_March_08_122435\irdata.cgm

Metric	Name	Library	Entry
0.419887	MODAFINIL IRD3 EXT CERILLIANT LOT#FE03122001 1 MG/ML ACETONITRILE RH 2022_March_08_122435\irdata.cgm	TBI GCIR EXT BH	61: MODAFINIL EXT.spc

IRD Data Analysis Report

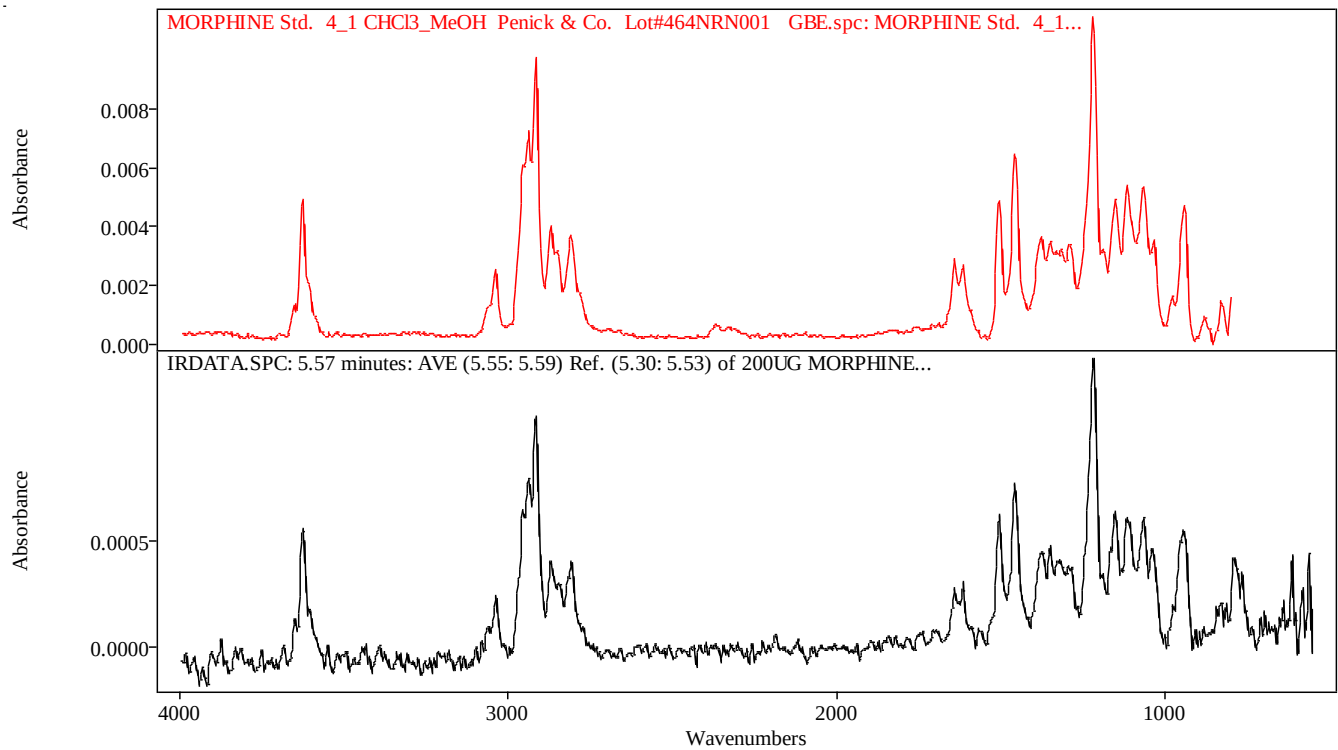
Data Filename	200UG MORPHINE 2025_March_13_074530
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:57:24 2025
Date Processed	Sat Mar 15 12:04:34 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.548	5.593	0.045	5.302	5.526
5.782	5.816	0.033	5.615	5.749

IRD Data Analysis Report

Data Filename	200UG MORPHINE 2025_March_13_074530
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:57:24 2025
Date Processed	Sat Mar 15 12:04:34 2025



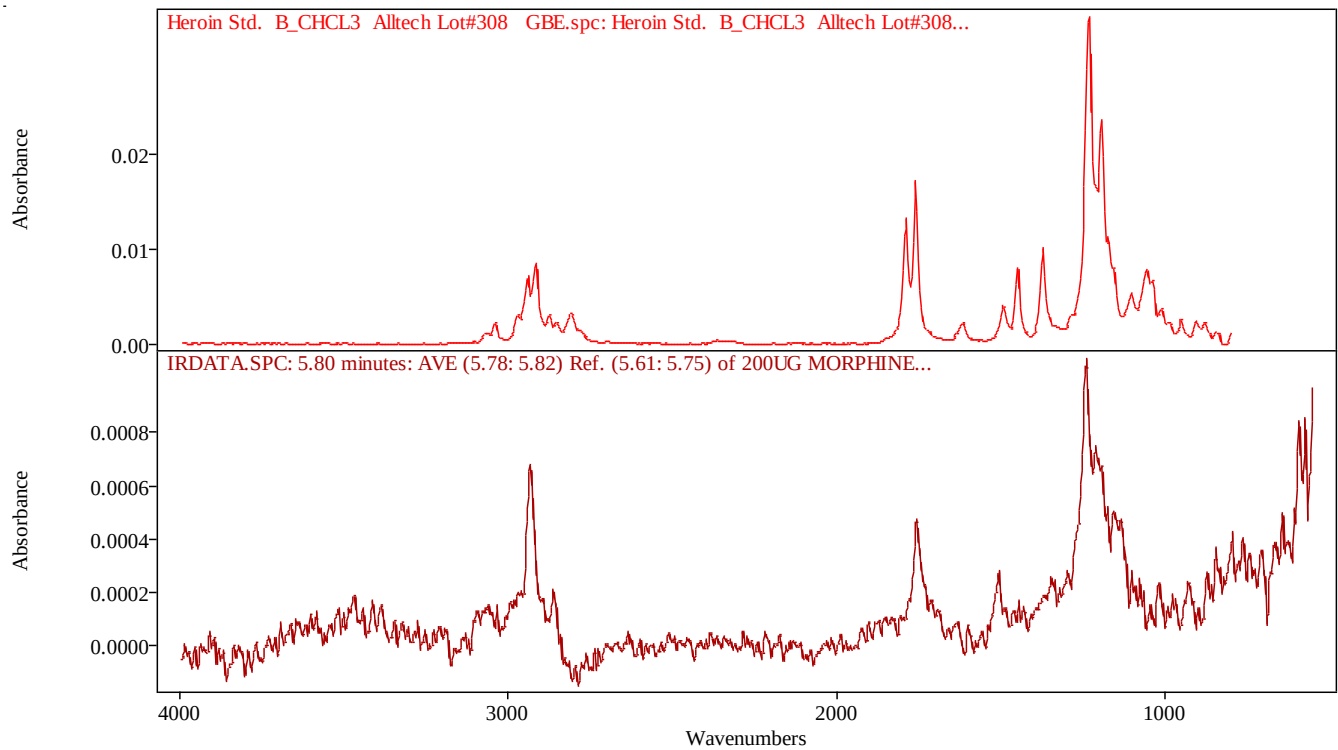
IRDATA.SPC: 5.57 minutes: AVE (5.55: 5.59) Ref. (5.30: 5.53) of 200UG MORPHINE
2025_March_13_074530.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.984534	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	200UG MORPHINE 2025_March_13_074530
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	64
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 07:57:24 2025
Date Processed	Sat Mar 15 12:04:34 2025



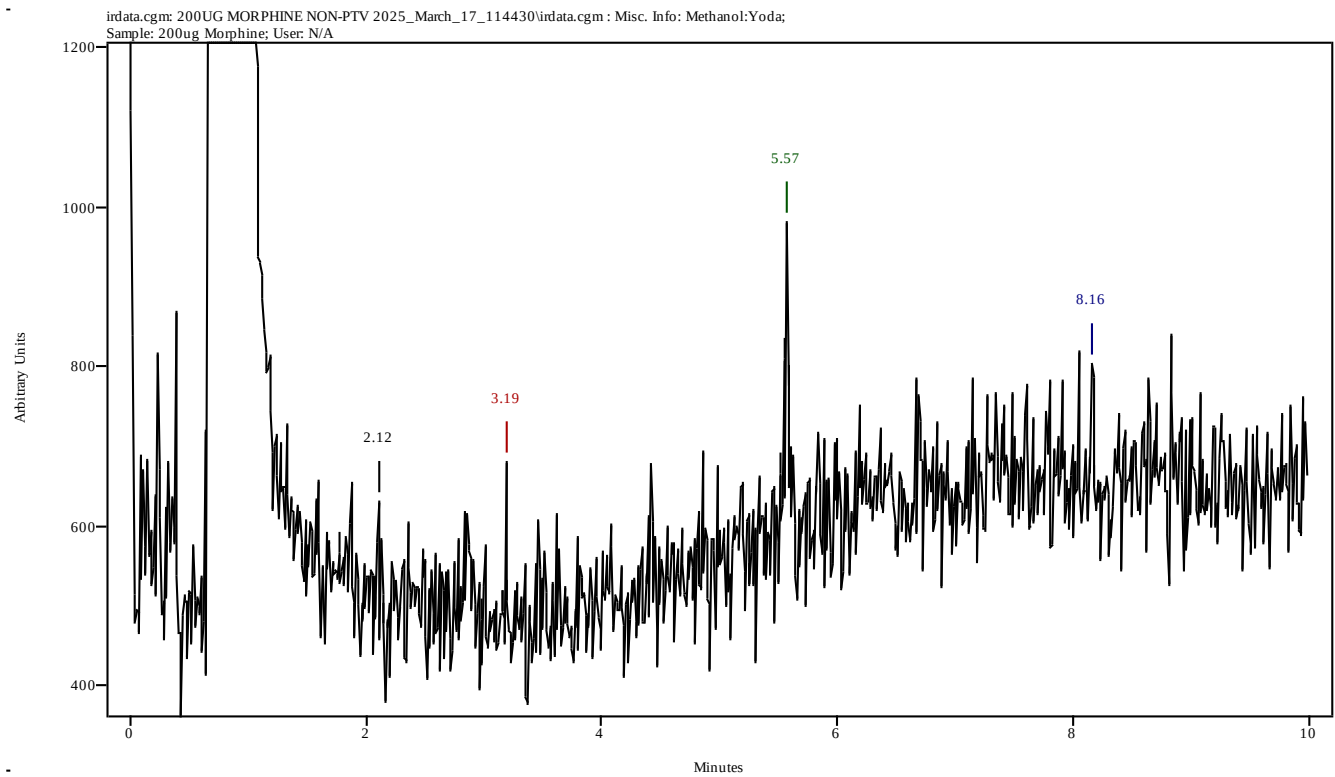
IRDATA.SPC: 5.80 minutes: AVE (5.78: 5.82) Ref. (5.61: 5.75) of 200UG MORPHINE
2025_March_13_074530.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.805980	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

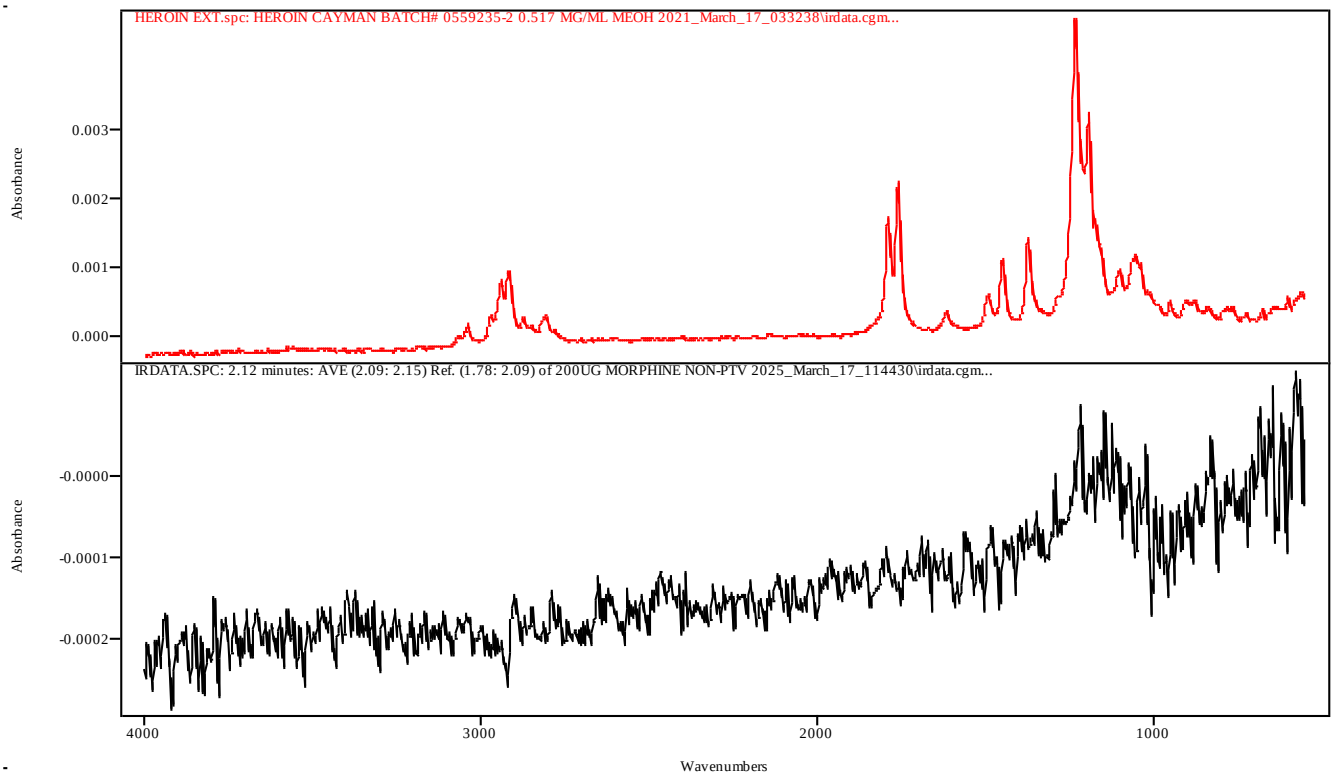
Data Filename	200UG MORPHINE NON-PTV 2025_March_17_114430
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	200ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:56:23 2025
Date Processed	Tue Mar 18 07:33:12 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
2.088	2.155	0.067	1.775	2.088
3.159	3.204	0.045	2.981	3.159
5.561	5.582	0.022	5.247	5.515
8.127	8.172	0.045	7.949	8.127

IRD Data Analysis Report

Data Filename	200UG MORPHINE NON-PTV 2025_March_17_114430
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	200ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:56:23 2025
Date Processed	Tue Mar 18 07:33:12 2025



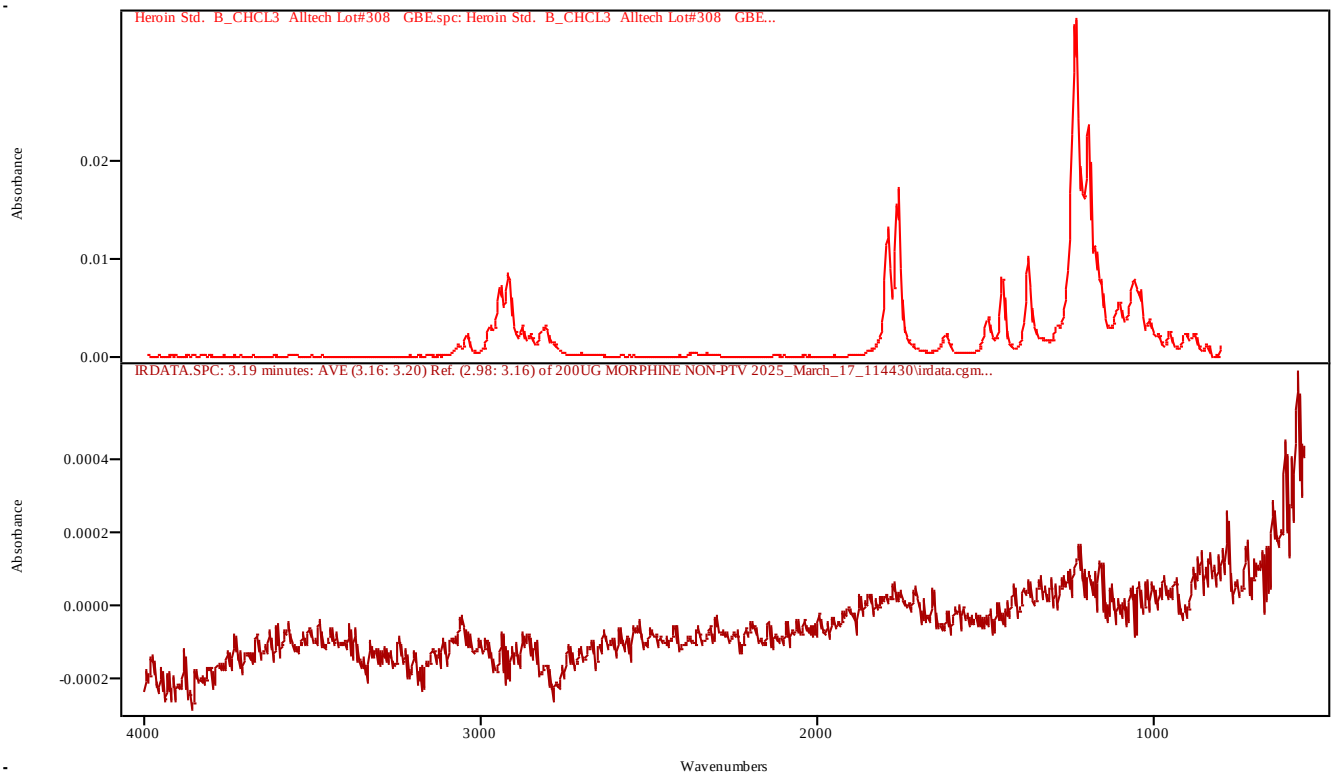
IRDATA.SPC: 2.12 minutes: AVE (2.09: 2.15) Ref. (1.78: 2.09) of 200UG MORPHINE NON-PTV 2025_March_17_114430.cgm

HEROIN EXT.spc: HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm

Metric	Name	Library	Entry
0.598817	HEROIN CAYMAN BATCH# 0559235-2 0.517 MG/ML MEOH 2021_March_17_033238\irdata.cgm	TBI GCIR EXT BH	45: HEROIN EXT.spc

IRD Data Analysis Report

Data Filename	200UG MORPHINE NON-PTV 2025_March_17_114430
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	200ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:56:23 2025
Date Processed	Tue Mar 18 07:33:12 2025



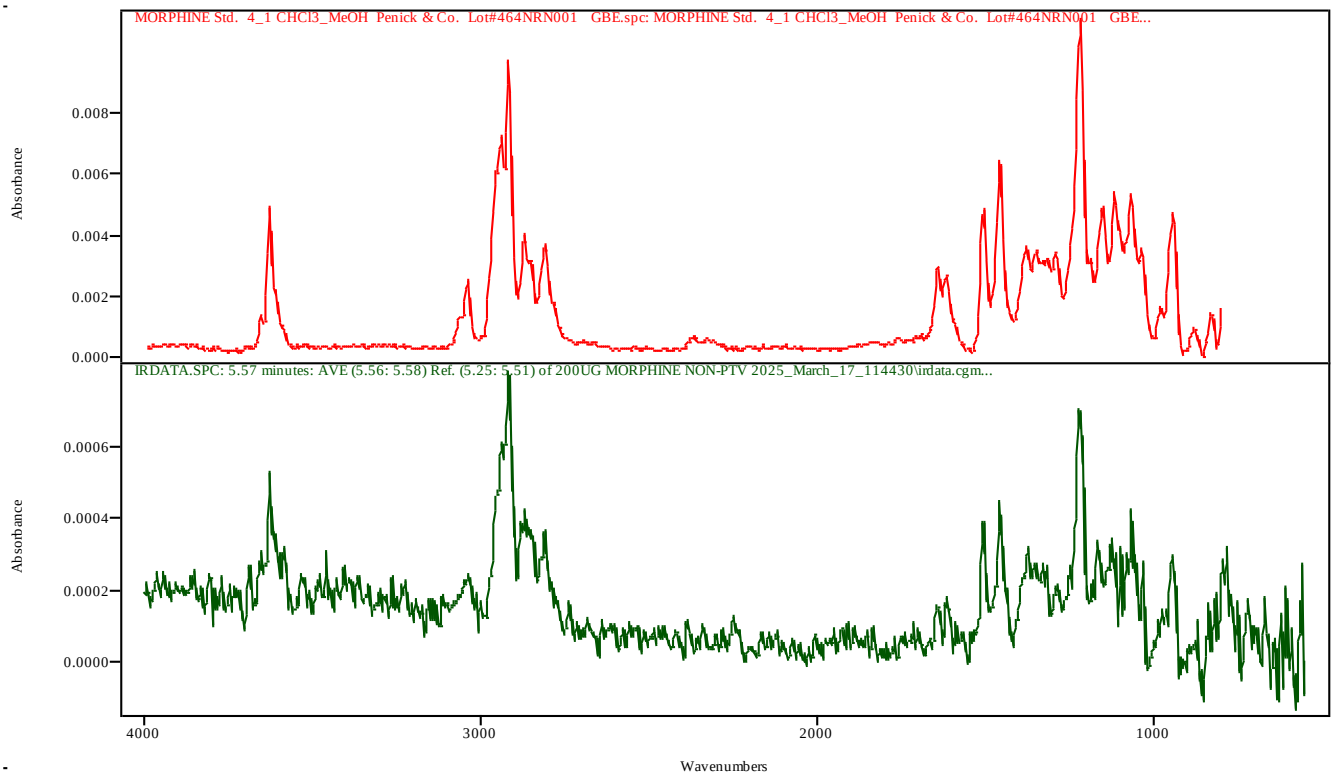
IRDATA.SPC: 3.19 minutes: AVE (3.16: 3.20) Ref. (2.98: 3.16) of 200UG MORPHINE NON-PTV 2025_March_17_114430.cgm

Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc: Heroin Std. B_CHCL3 Alltech Lot#308 GBE

Metric	Name	Library	Entry
0.533287	Heroin Std. B_CHCL3 Alltech Lot#308 GBE	TBI GCIR combined Thermo generated libraries	245: Heroin Std. B_CHCL3 Alltech Lot#308 GBE.spc

IRD Data Analysis Report

Data Filename	200UG MORPHINE NON-PTV 2025_March_17_114430
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/03-17-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	56
Sample Name	200ug Morphine
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Mon Mar 17 11:56:23 2025
Date Processed	Tue Mar 18 07:33:12 2025



IRDATA.SPC: 5.57 minutes: AVE (5.56: 5.58) Ref. (5.25: 5.51) of 200UG MORPHINE NON-PTV 2025_March_17_114430.cgm

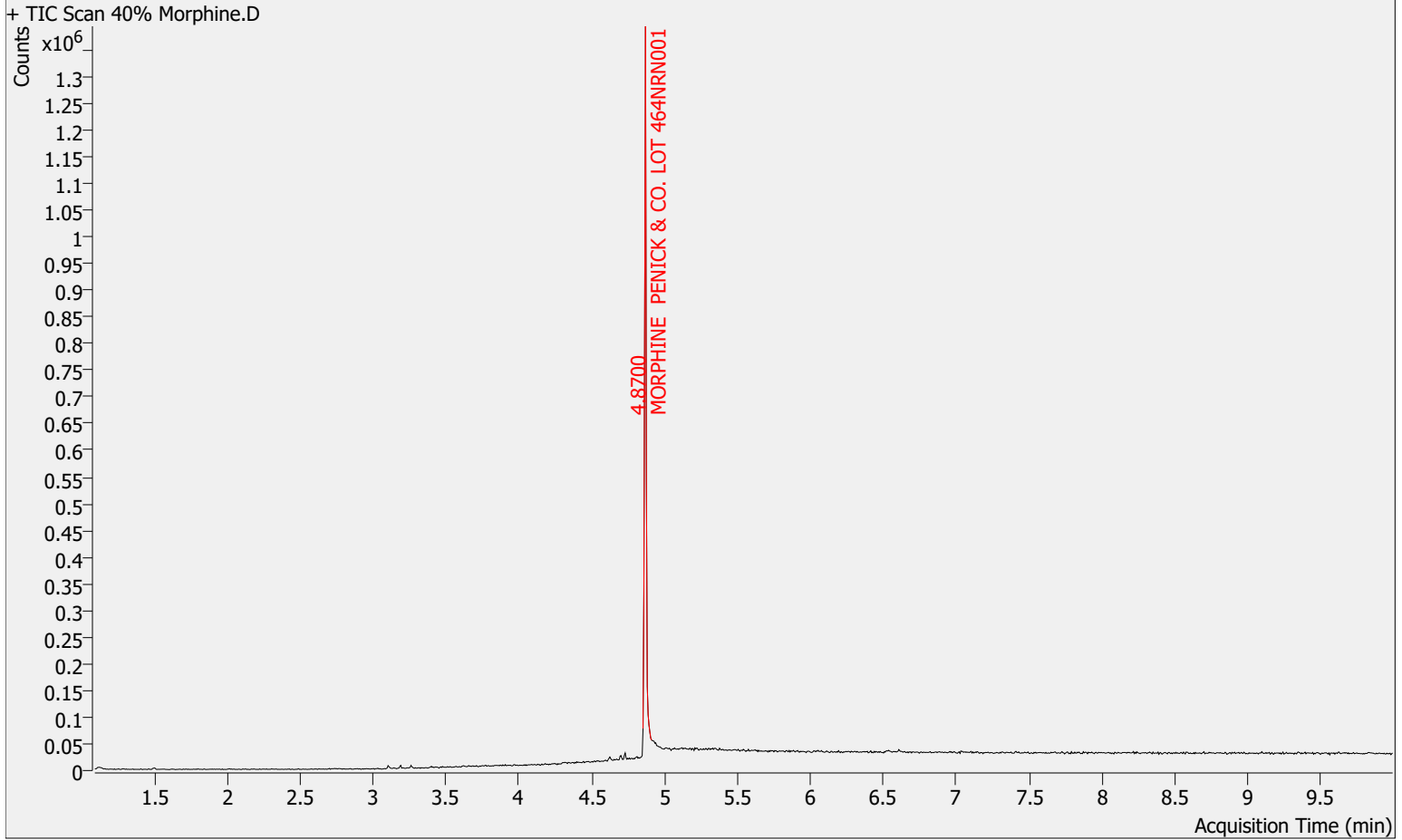
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.776640	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

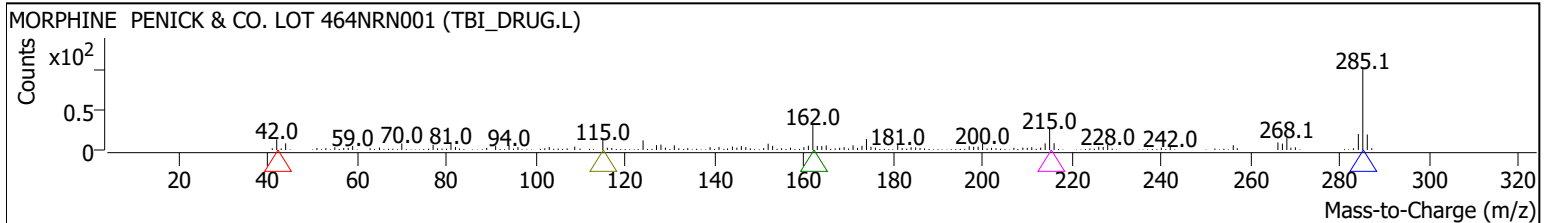
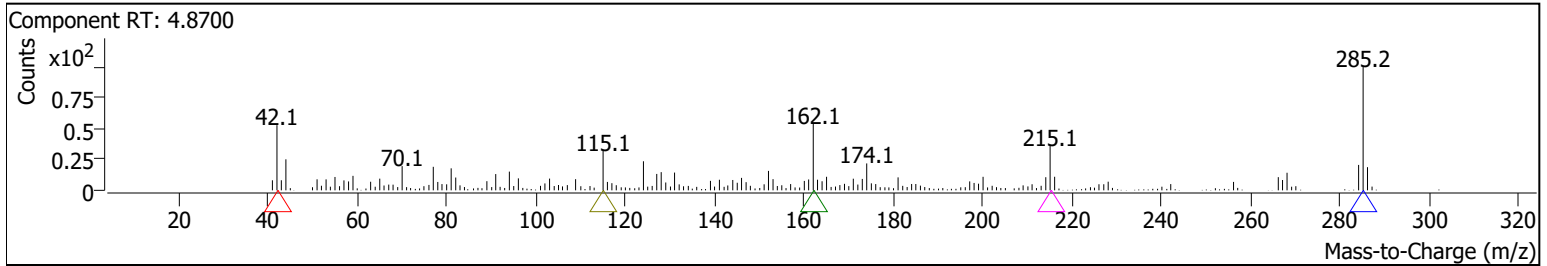
TBI Forensic Chemistry Report

File Name	40% Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 12:19:12 PM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	14

Sample Chromatogram



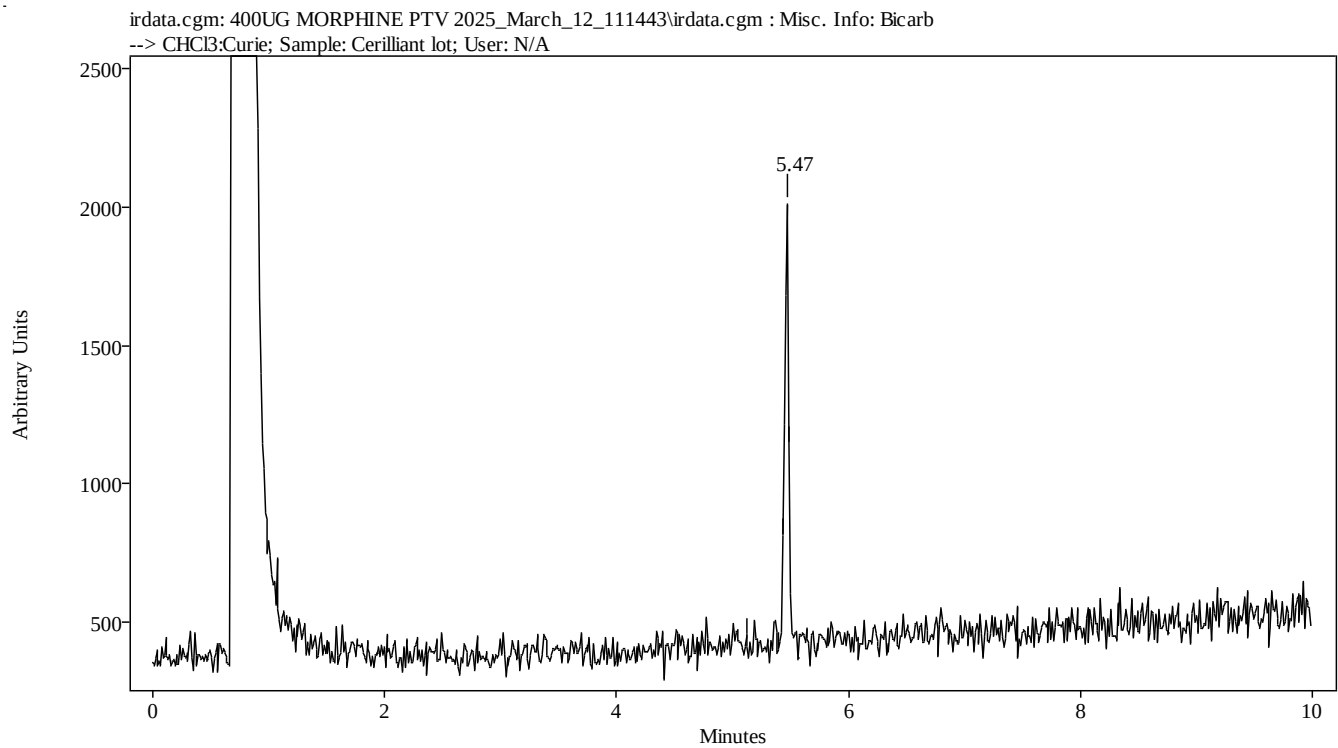
Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	1188290.71381884	4.9



MORPHINE PENICK & CO. LOT 464NRN001	Component Area 1188290.71381884	Component RT 4.9	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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IRD Data Analysis Report

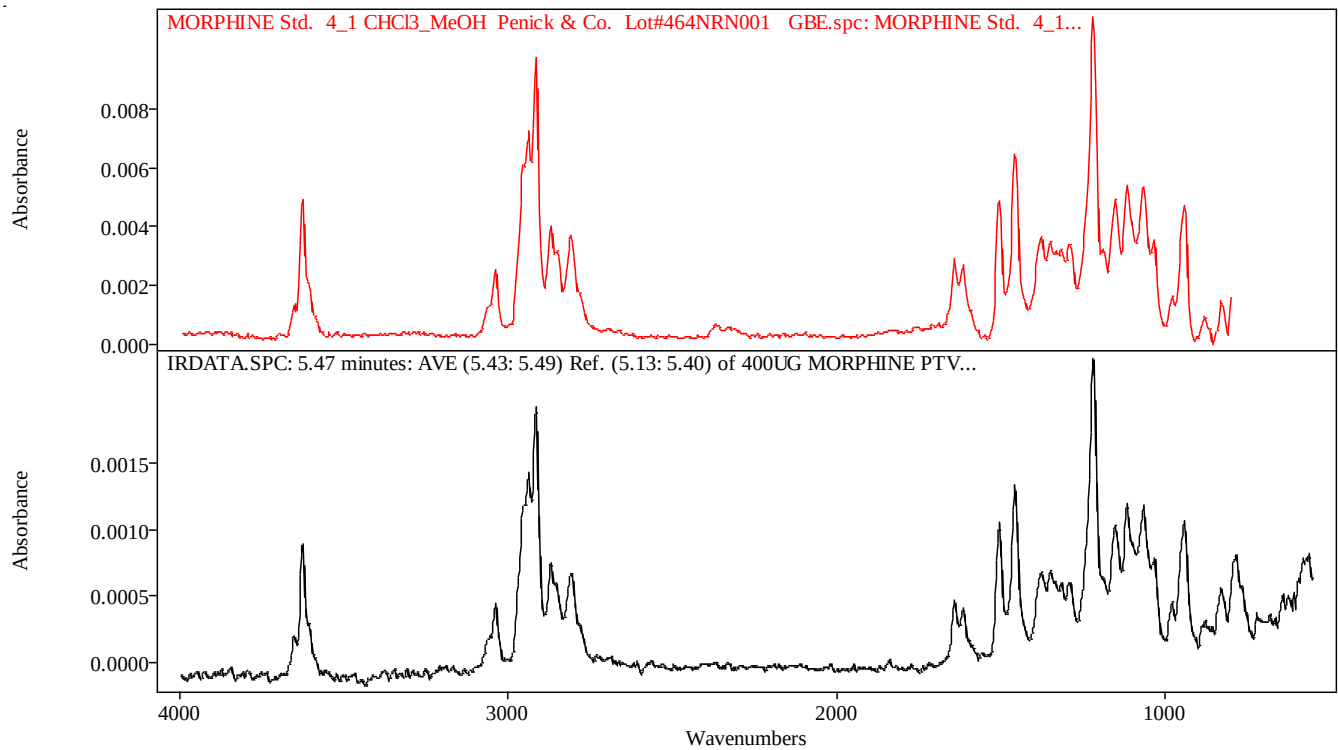
Data Filename	400UG MORPHINE PTV 2025_March_12_111443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	65
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:24:03 2025
Date Processed	Sat Mar 15 12:41:43 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.432	5.488	0.056	5.128	5.398

IRD Data Analysis Report

Data Filename	400UG MORPHINE PTV 2025_March_12_111443
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	65
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:24:03 2025
Date Processed	Sat Mar 15 12:41:43 2025



IRDATA.SPC: 5.47 minutes: AVE (5.43: 5.49) Ref. (5.13: 5.40) of 400UG MORPHINE PTV
2025_March_12_111443.cgm

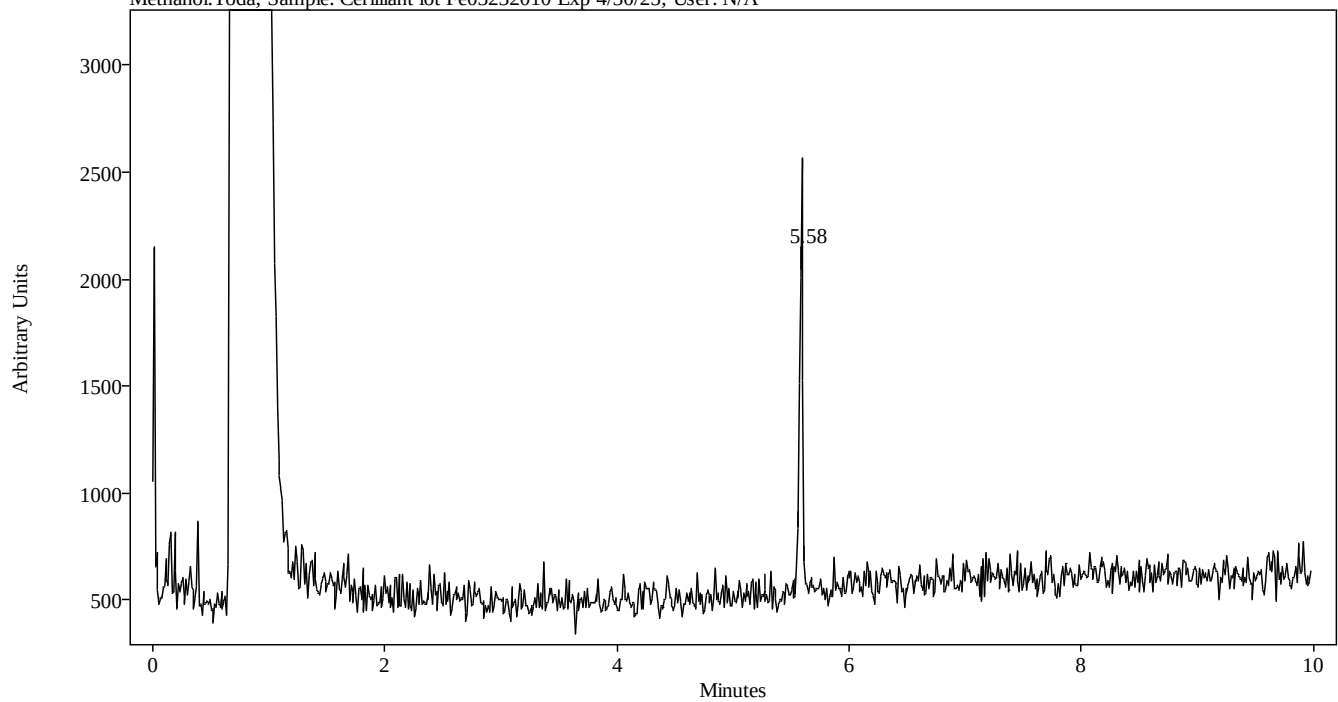
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.981063	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	400UG MORPHINE 2025_March_13_075758
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	65
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:09:48 2025
Date Processed	Sat Mar 15 12:06:35 2025

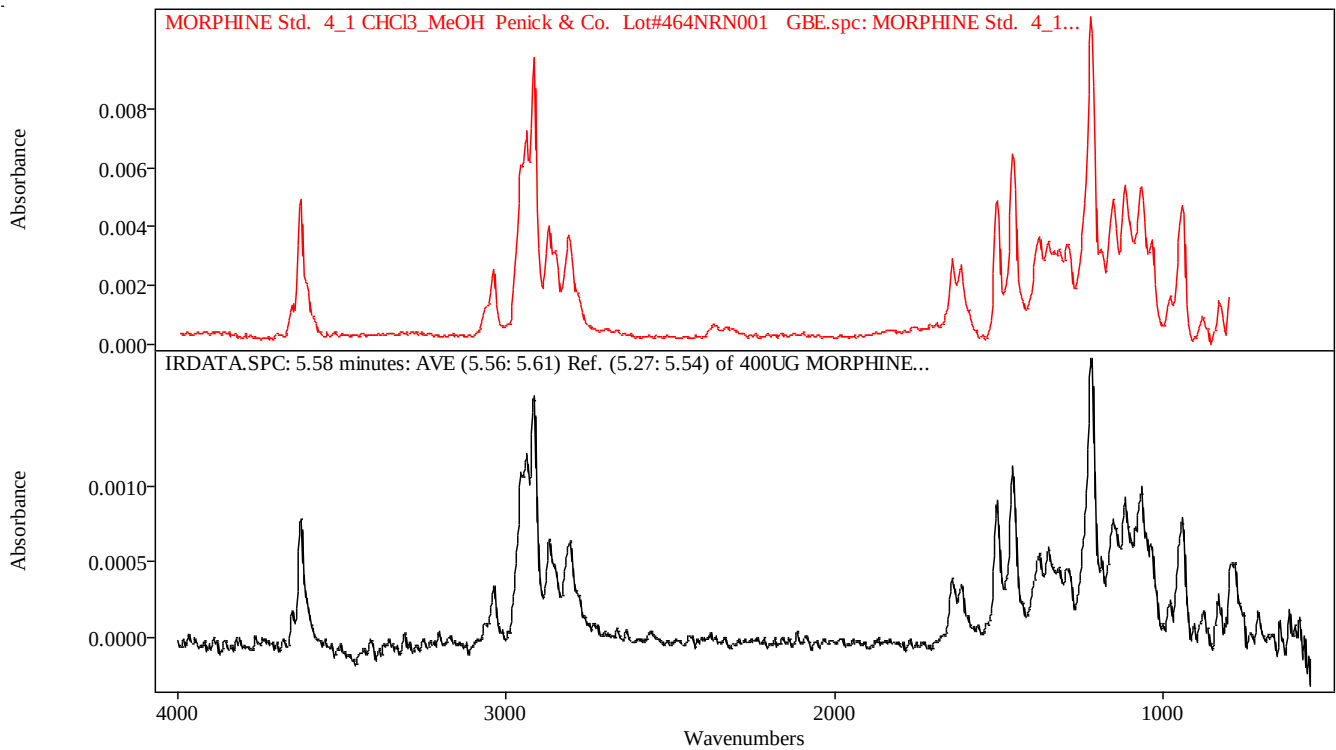
irdata.cgm: 400UG MORPHINE 2025_March_13_075758\irdata.cgm : Misc. Info:
Methanol:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.559	5.615	0.056	5.269	5.537

IRD Data Analysis Report

Data Filename	400UG MORPHINE 2025_March_13_075758
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	65
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:09:48 2025
Date Processed	Sat Mar 15 12:06:35 2025



IRDATA.SPC: 5.58 minutes: AVE (5.56: 5.61) Ref. (5.27: 5.54) of 400UG MORPHINE
2025_March_13_075758.cgm

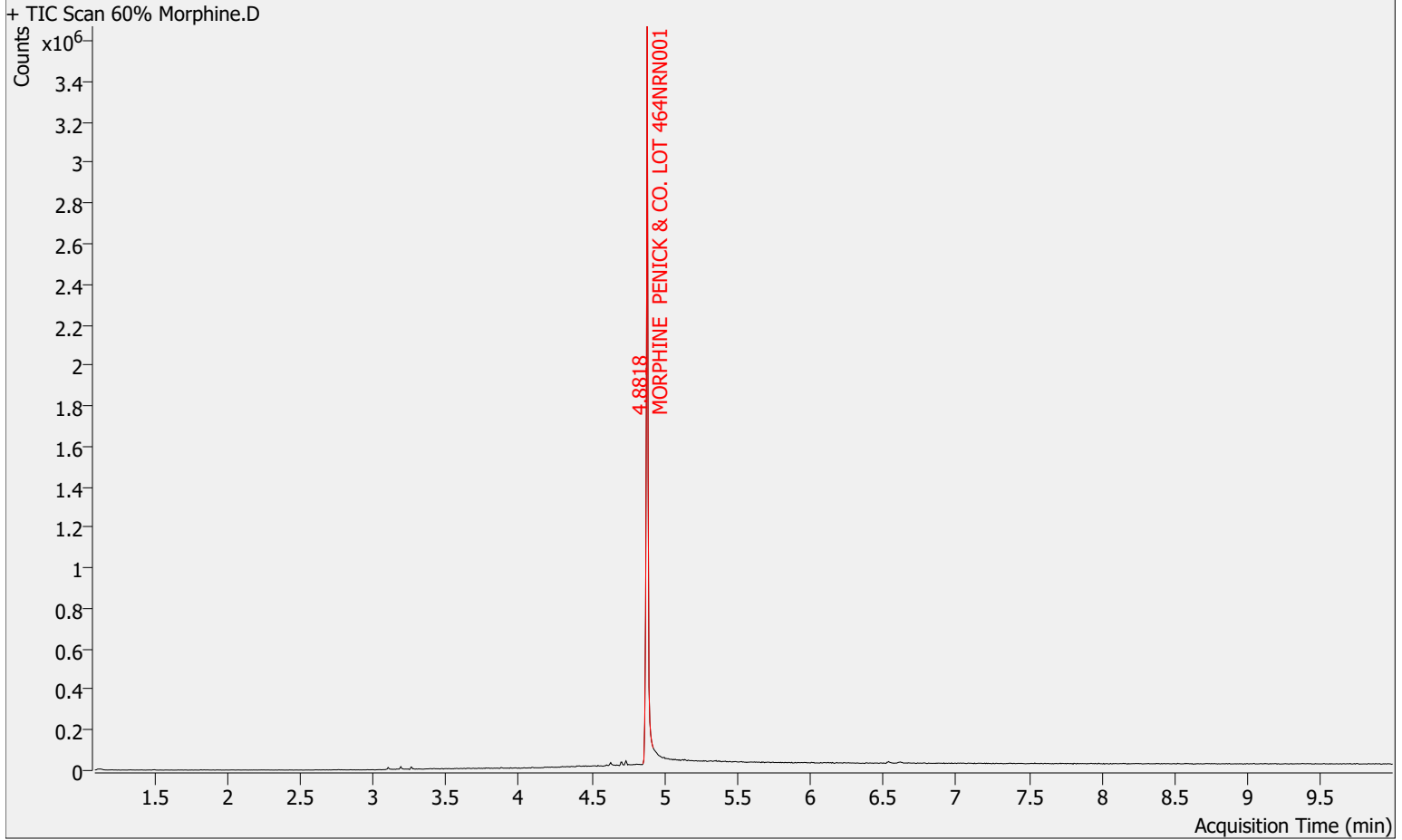
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.991686	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

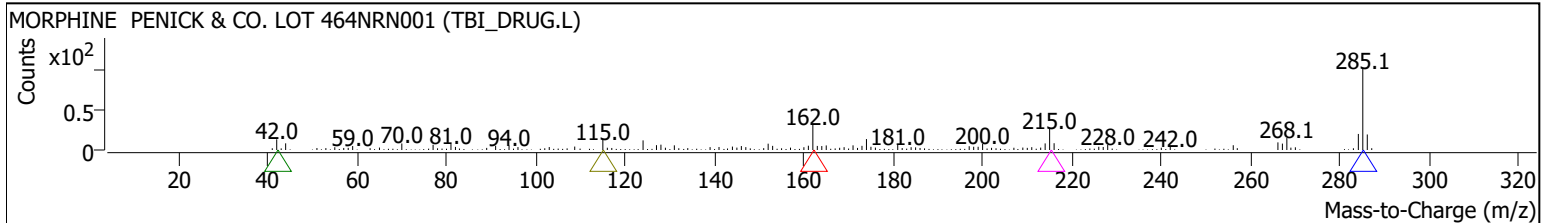
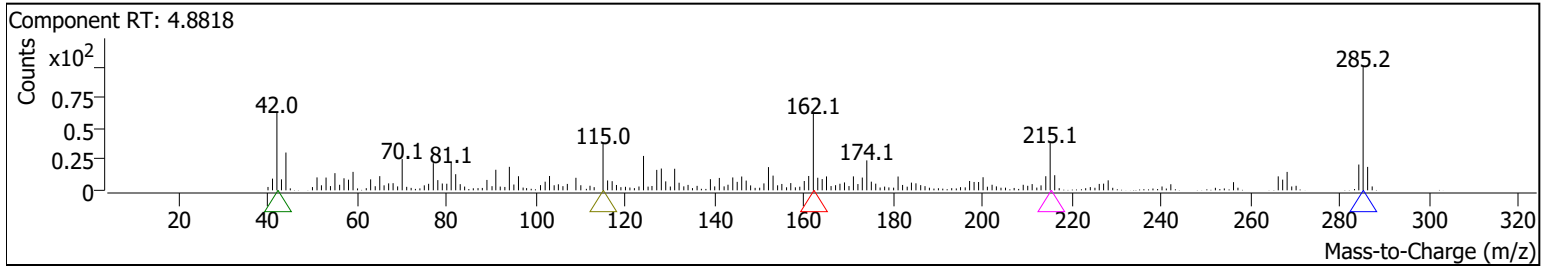
TBI Forensic Chemistry Report

File Name	60% Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 12:32:21 PM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	15

Sample Chromatogram



Compound Name	Component Area	Component RT
MORPHINE PENICK & CO. LOT 464NRN001	3110388.29680429	4.9

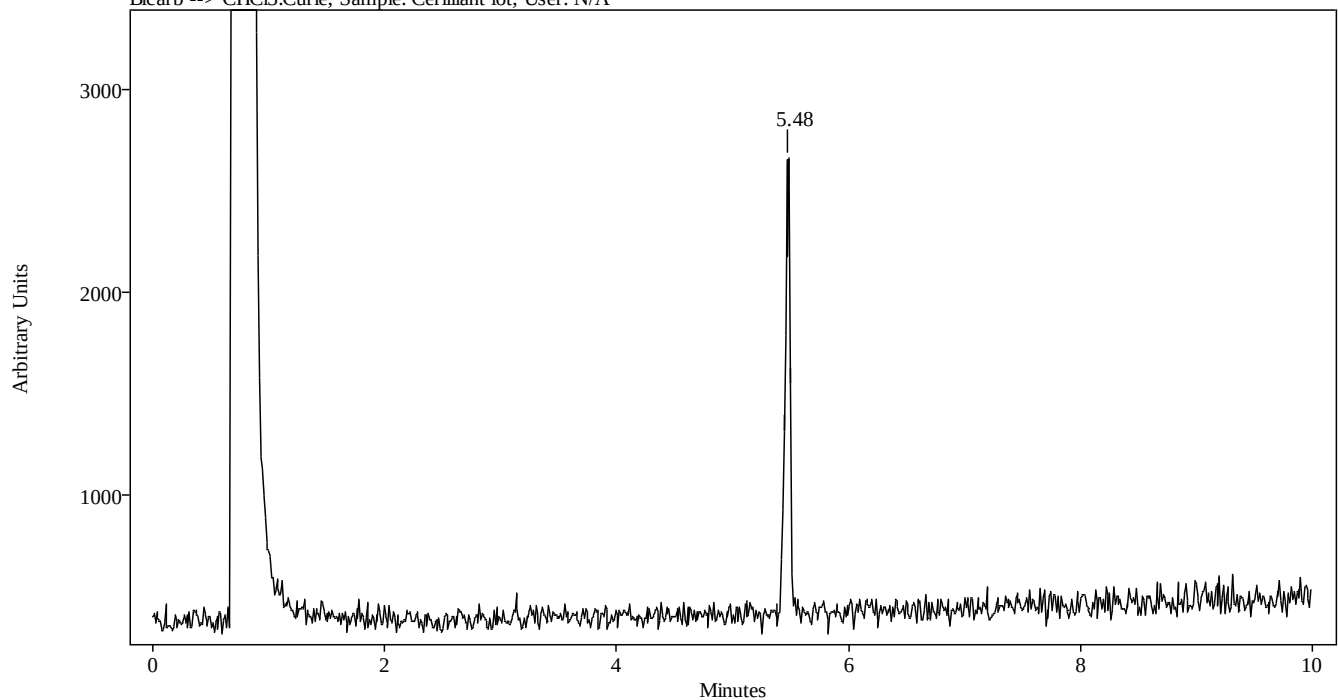


MORPHINE PENICK & CO. LOT 464NRN001	3110388.29680429	4.9	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25
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IRD Data Analysis Report

Data Filename	600 UG MORPHINE PTV 2025_March_12_112740
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:36:55 2025
Date Processed	Sat Mar 15 12:49:43 2025

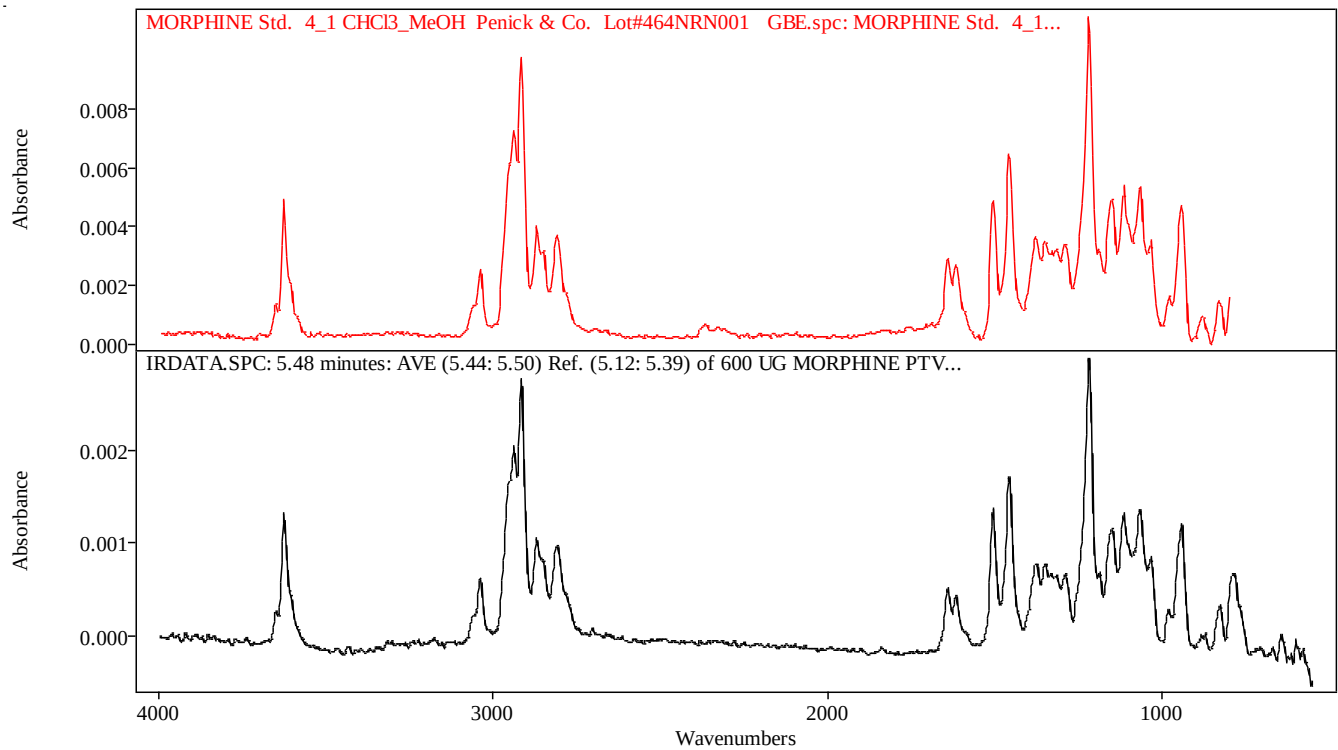
irdata.cgm: 600 UG MORPHINE PTV 2025_March_12_112740\irdata.cgm : Misc. Info:
Bicarb --> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.444	5.500	0.056	5.117	5.387

IRD Data Analysis Report

Data Filename	600 UG MORPHINE PTV 2025_March_12_112740
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:36:55 2025
Date Processed	Sat Mar 15 12:49:43 2025



IRDATA.SPC: 5.48 minutes: AVE (5.44: 5.50) Ref. (5.12: 5.39) of 600 UG MORPHINE PTV
2025_March_12_112740.cgm

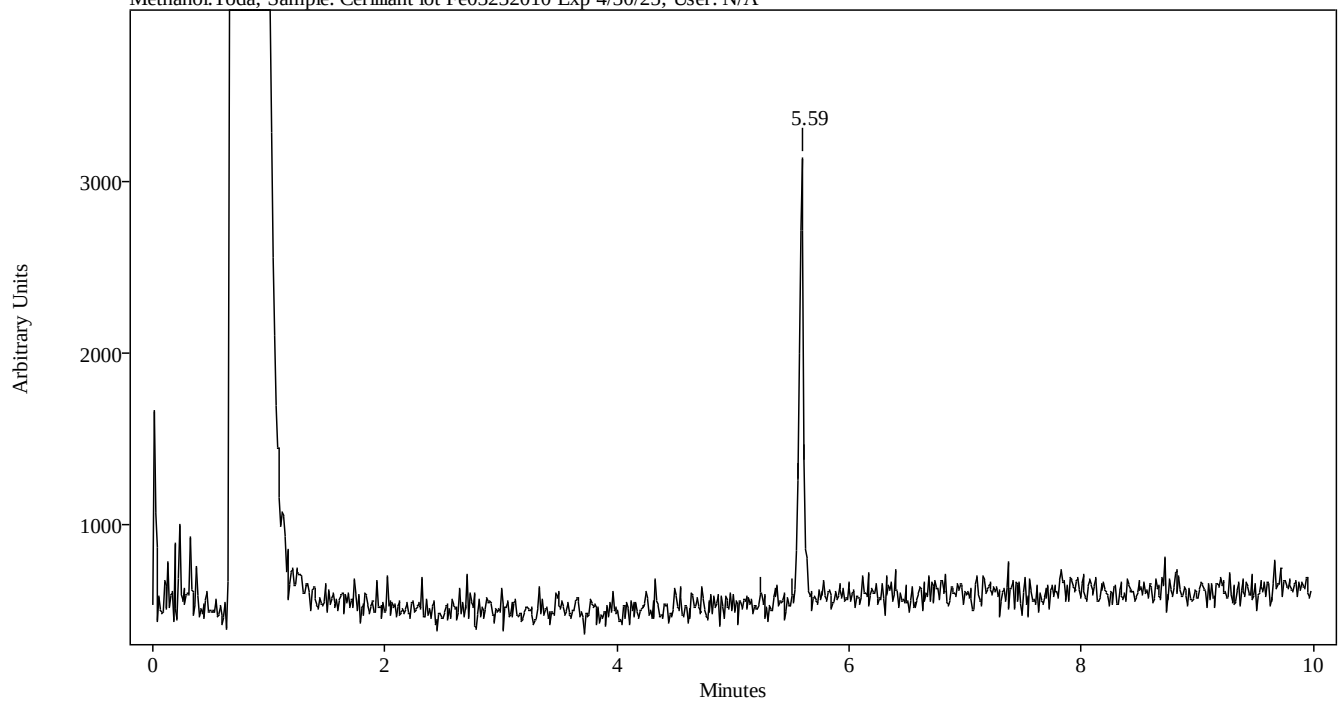
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.990661	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	600UG MORPHINE 2025_March_13_081022
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:22:05 2025
Date Processed	Sat Mar 15 12:09:57 2025

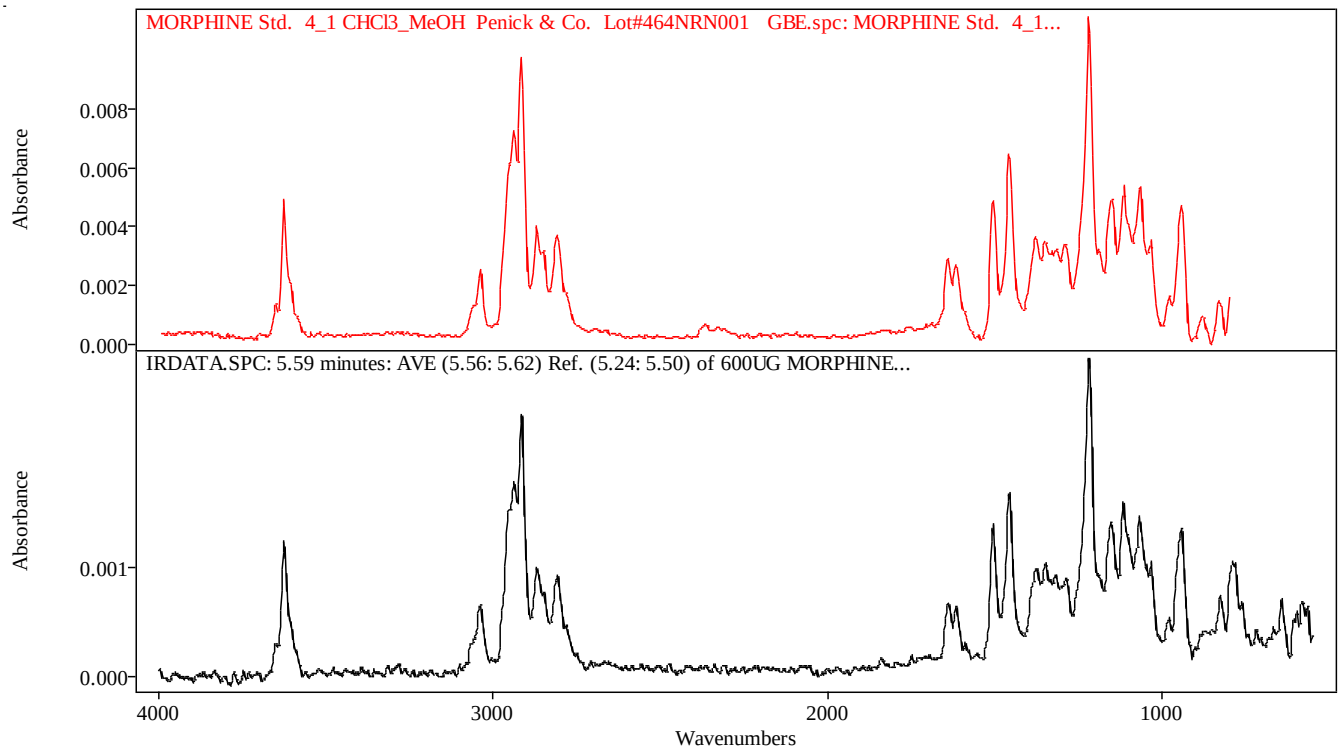
irdata.cgm: 600UG MORPHINE 2025_March_13_081022\irdata.cgm : Misc. Info:
Methanol:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.559	5.615	0.056	5.236	5.504

IRD Data Analysis Report

Data Filename	600UG MORPHINE 2025_March_13_081022
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:22:05 2025
Date Processed	Sat Mar 15 12:09:57 2025



IRDATA.SPC: 5.59 minutes: AVE (5.56: 5.62) Ref. (5.24: 5.50) of 600UG MORPHINE
2025_March_13_081022.cgm

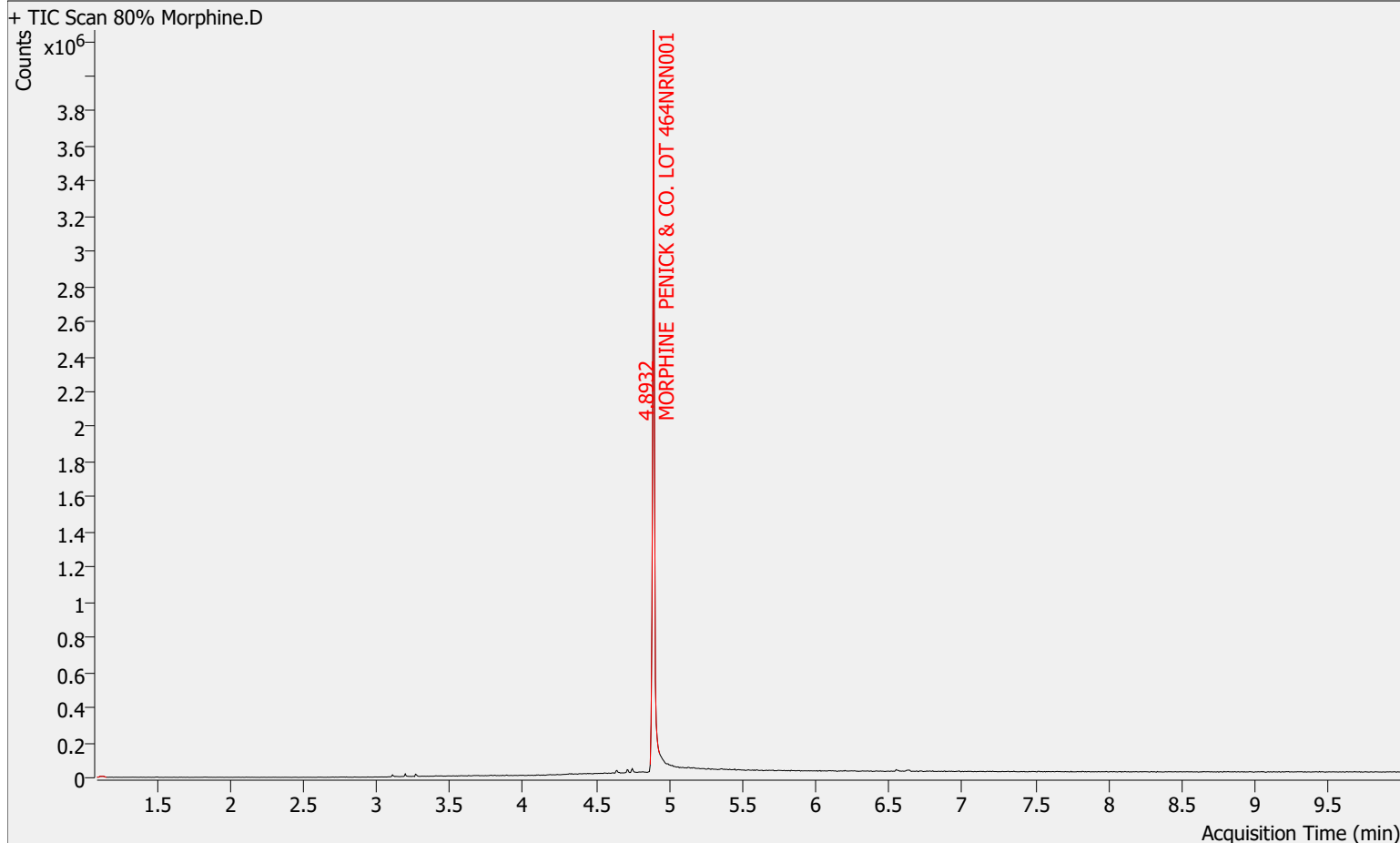
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.982676	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

TBI Forensic Chemistry Report

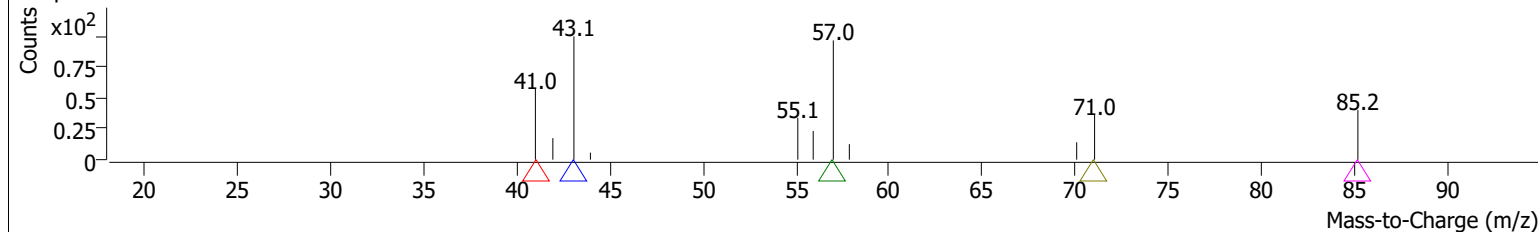
File Name	80% Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 12:45:40 PM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	16

Sample Chromatogram

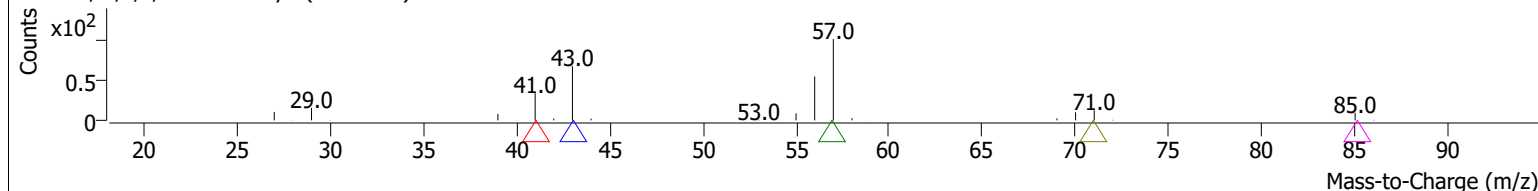


Compound Name	Component Area	Component RT
Pentane, 2,2,3,4-tetramethyl-	12865.8134150944	1.1
MORPHINE PENICK & CO. LOT 464NRN001	3846425.47614874	4.9

Component RT: 1.1279



Pentane, 2,2,3,4-tetramethyl- (NIST14.L)

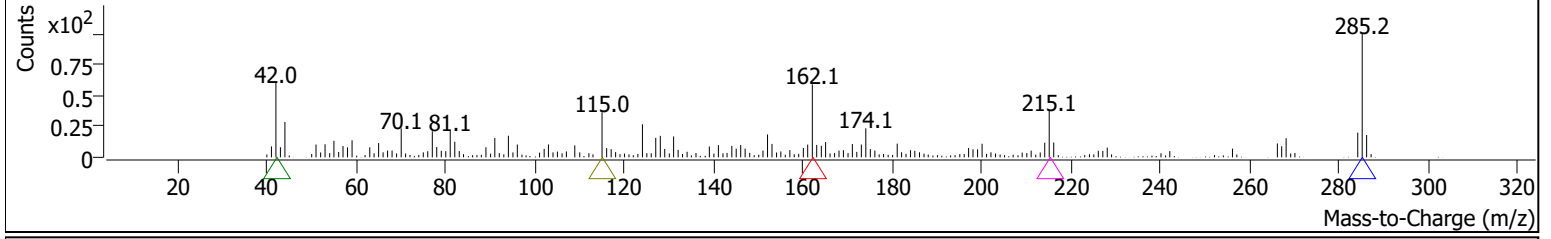


Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot
12865.8134150944	1.1	ASMSDRUGS100	Kenny	Methanol	FE03232010 Exp 4/30/25

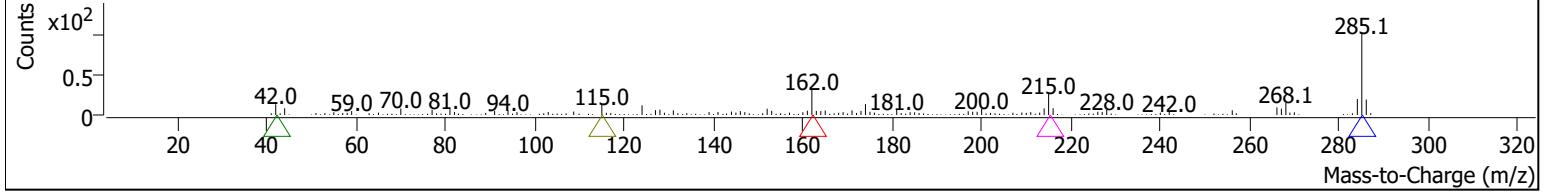
Pentane, 2,2,3,4-tetramethyl-

TBI Forensic Chemistry Report

Component RT: 4.8932



MORPHINE PENICK & CO. LOT 464NRN001 (TBI_DRUG.L)



MORPHINE PENICK & CO.
LOT 464NRN001

Component Area
3846425.47614874

Component RT
4.9 ASMSDRUGS100 Kenny

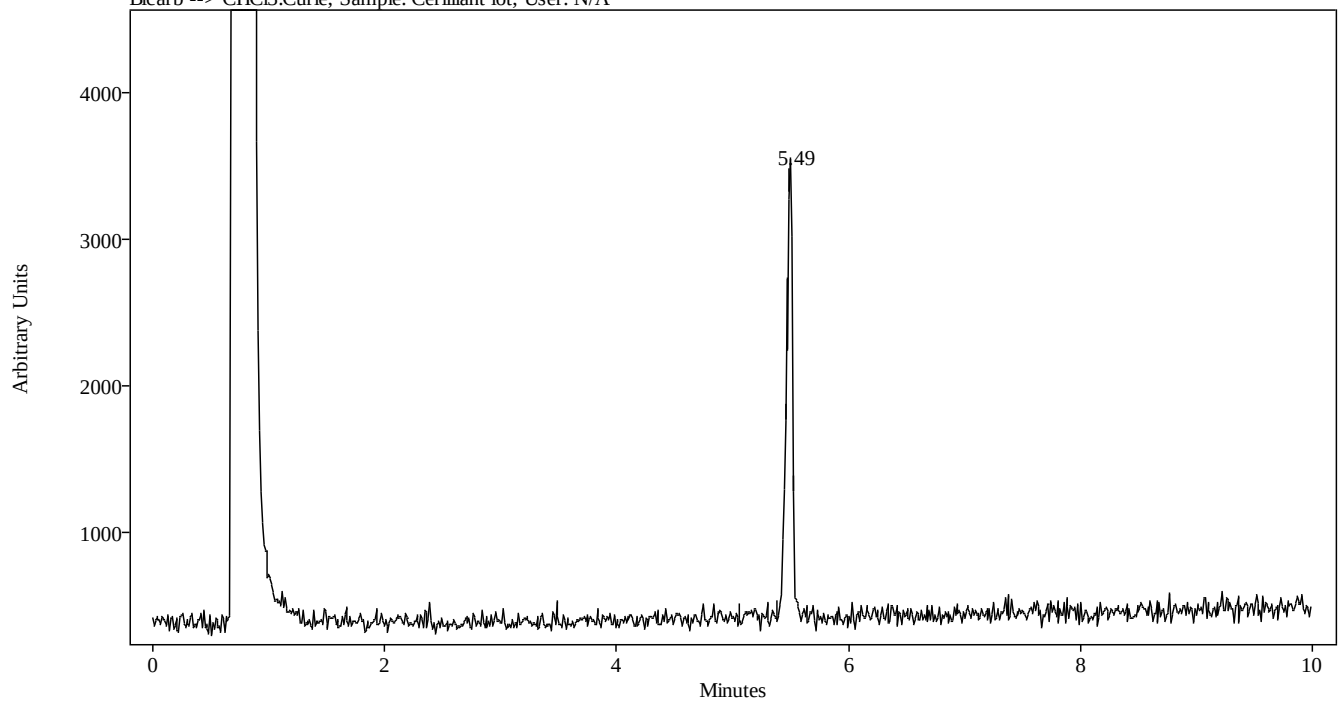
Methanol

Cerilliant lot
FE03232010 Exp
4/30/25

IRD Data Analysis Report

Data Filename	800 UG MORPHINE PTV 2025_March_12_114031
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	67
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:49:52 2025
Date Processed	Sat Mar 15 12:51:25 2025

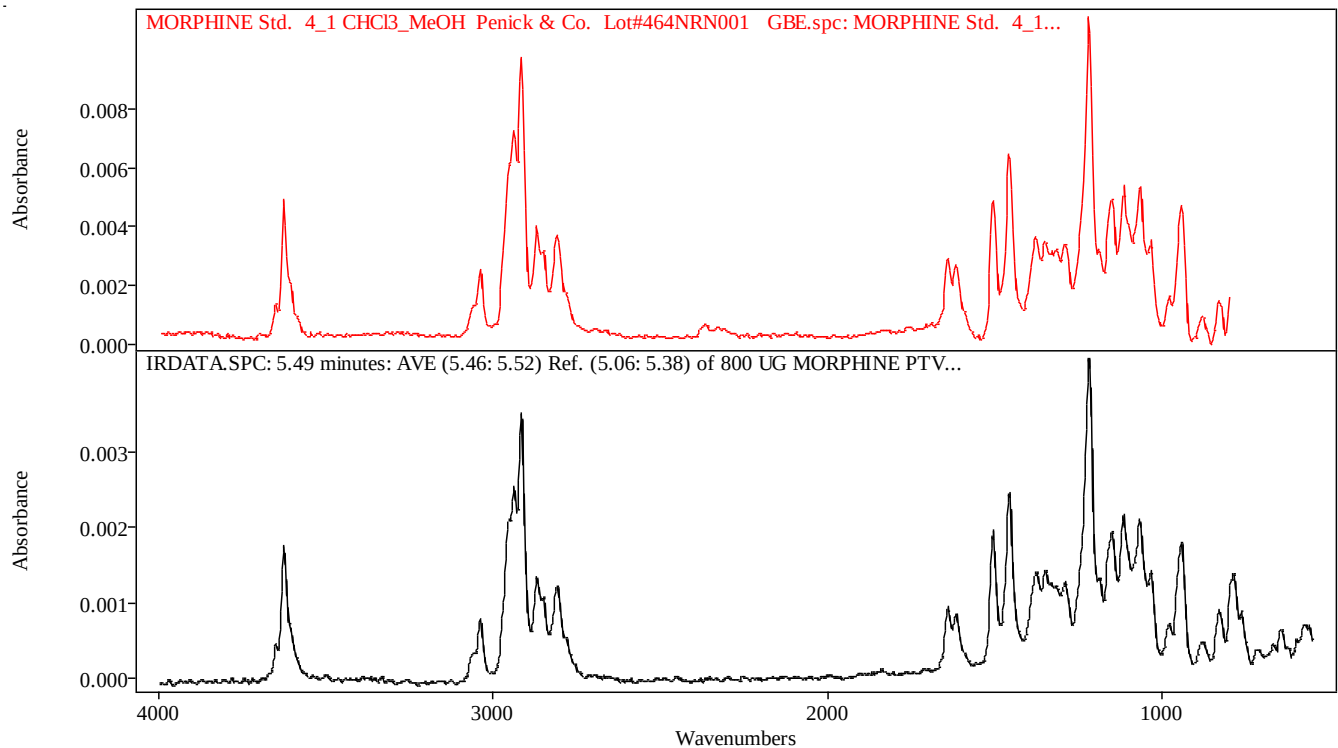
irdata.cgm: 800 UG MORPHINE PTV 2025_March_12_114031\irdata.cgm : Misc. Info:
 Bicarb --> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.455	5.523	0.068	5.061	5.377

IRD Data Analysis Report

Data Filename	800 UG MORPHINE PTV 2025_March_12_114031
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	67
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Wed Mar 12 11:49:52 2025
Date Processed	Sat Mar 15 12:51:25 2025



IRDATA.SPC: 5.49 minutes: AVE (5.46: 5.52) Ref. (5.06: 5.38) of 800 UG MORPHINE PTV
2025_March_12_114031.cgm

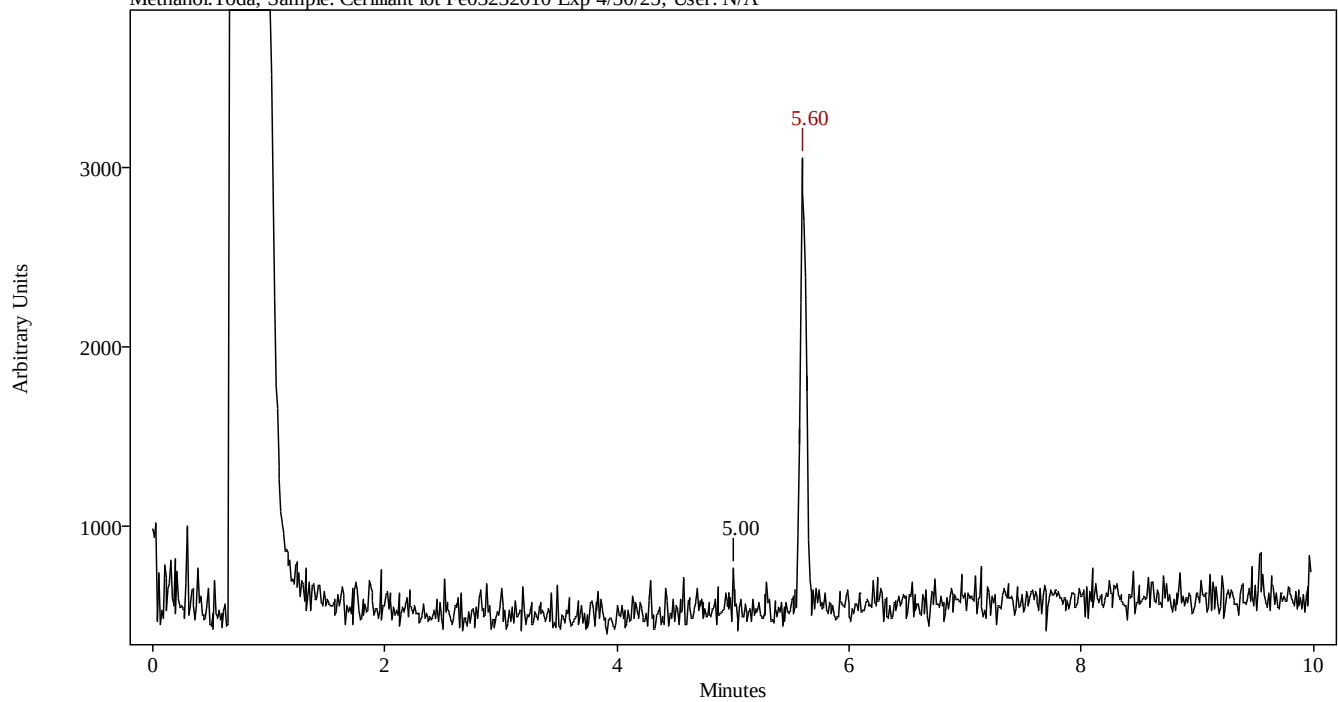
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.987730	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

Data Filename	800UG MORPHINE 2025_March_13_082238
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	67
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:34:20 2025
Date Processed	Sat Mar 15 12:11:51 2025

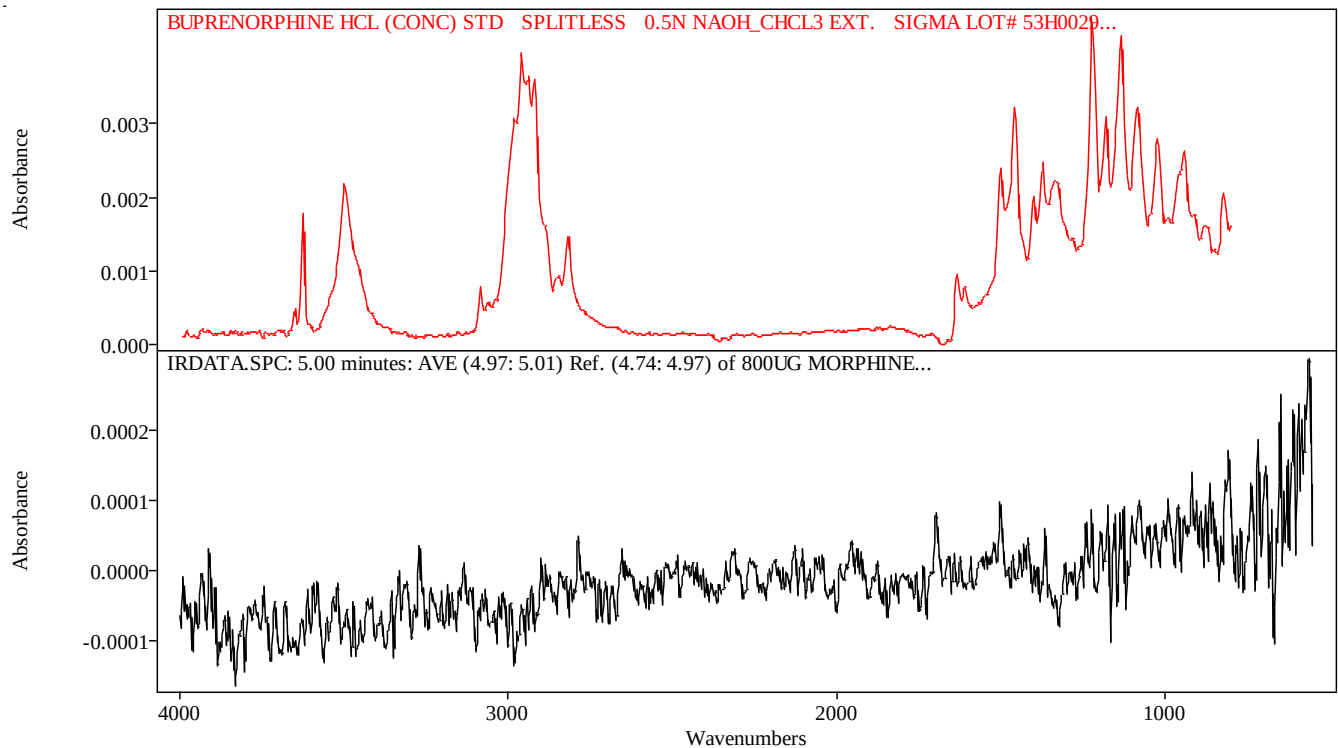
irdata.cgm: 800UG MORPHINE 2025_March_13_082238\irdata.cgm : Misc. Info:
Methanol:Yoda; Sample: Cerilliant lot Fe03232010 Exp 4/30/25; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
4.968	5.012	0.045	4.745	4.968
5.571	5.638	0.067	5.269	5.537

IRD Data Analysis Report

Data Filename	800UG MORPHINE 2025_March_13_082238
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	67
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:34:20 2025
Date Processed	Sat Mar 15 12:11:51 2025



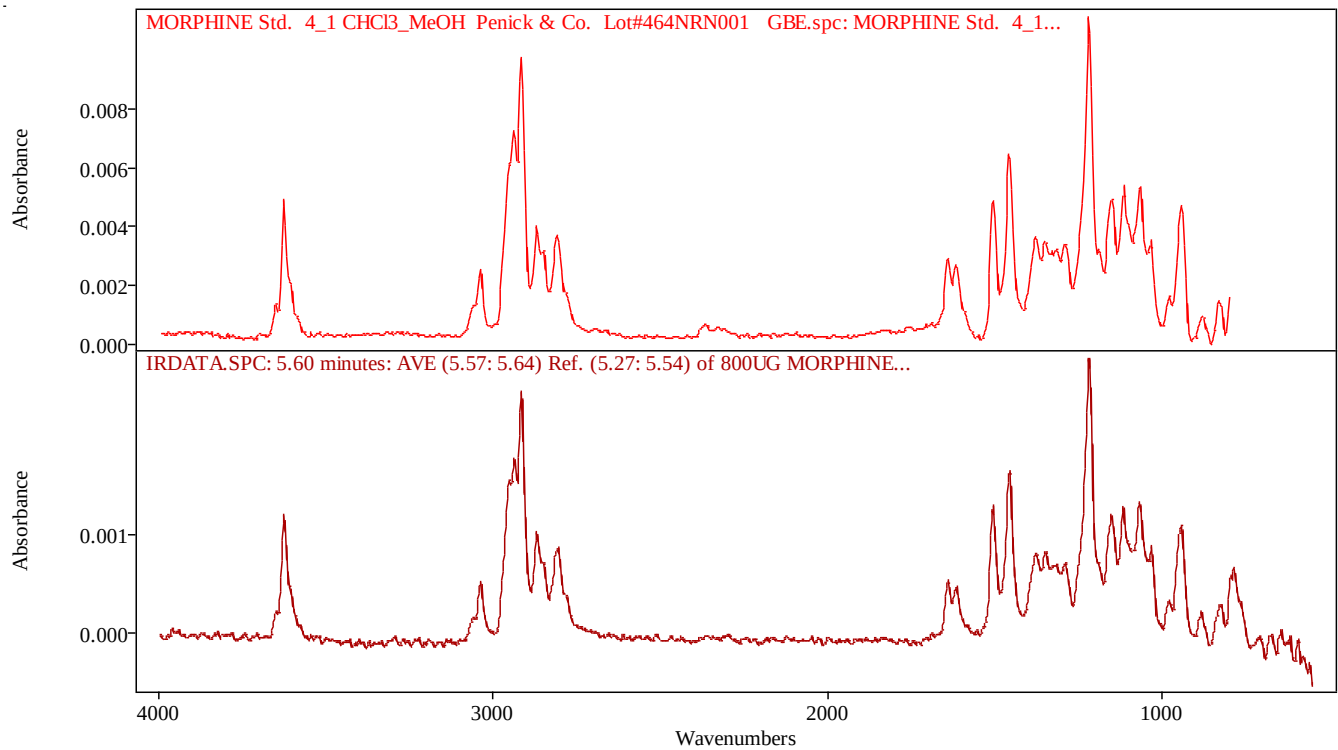
IRDATA.SPC: 5.00 minutes: AVE (4.97: 5.01) Ref. (4.74: 4.97) of 800UG MORPHINE
2025_March_13_082238.cgm

BUPRENORPHINE HCL (CONC) STD SPLITLESS 0.5N NAOH_CHCL3 EXT. SIGMA LOT# 53H0029
TLB.spc: BUPRENORPHINE HCL (CONC) STD SPLITLESS 0.5N NAOH_CHCL3 EXT. SIGMA LOT#
53H0029 TLB

Metric	Name	Library	Entry
0.409822	BUPRENORPHINE HCL (CONC) STD SPLITLESS 0.5N NAOH_CHCL3 EXT. SIGMA LOT# 53H0029 TLB	TBI GCIR combined Thermo generated libraries	495: BUPRENORPHINE HCL (CONC) STD SPLITLESS 0.5N NAOH_CHCL3 EXT. SIGMA LOT# 53H0029 TLB.spc

IRD Data Analysis Report

Data Filename	800UG MORPHINE 2025_March_13_082238
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-13-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	67
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Thu Mar 13 08:34:20 2025
Date Processed	Sat Mar 15 12:11:51 2025



IRDATA.SPC: 5.60 minutes: AVE (5.57: 5.64) Ref. (5.27: 5.54) of 800UG MORPHINE
2025_March_13_082238.cgm

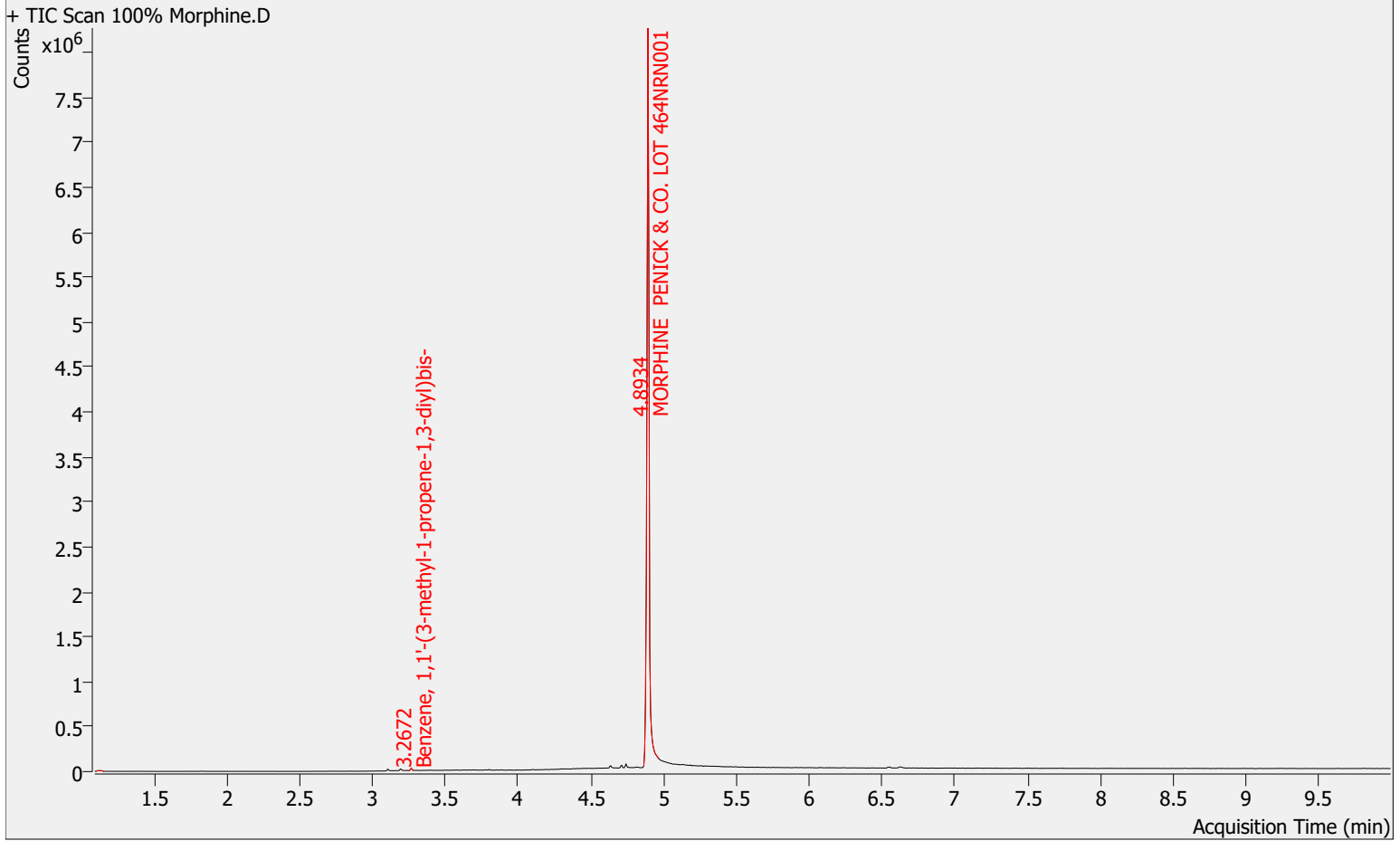
MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.995087	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

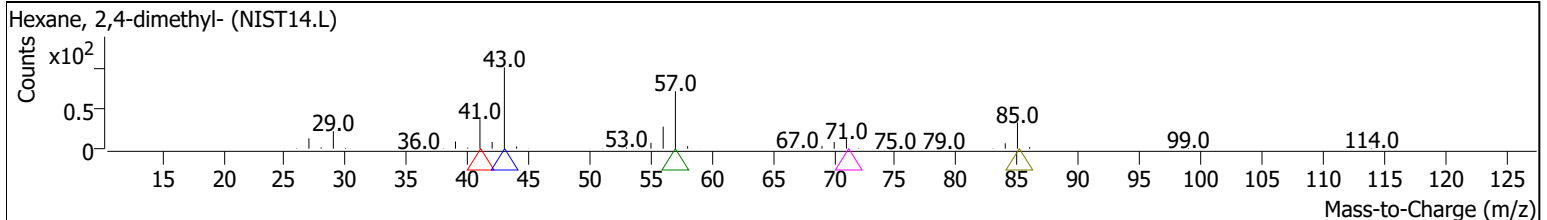
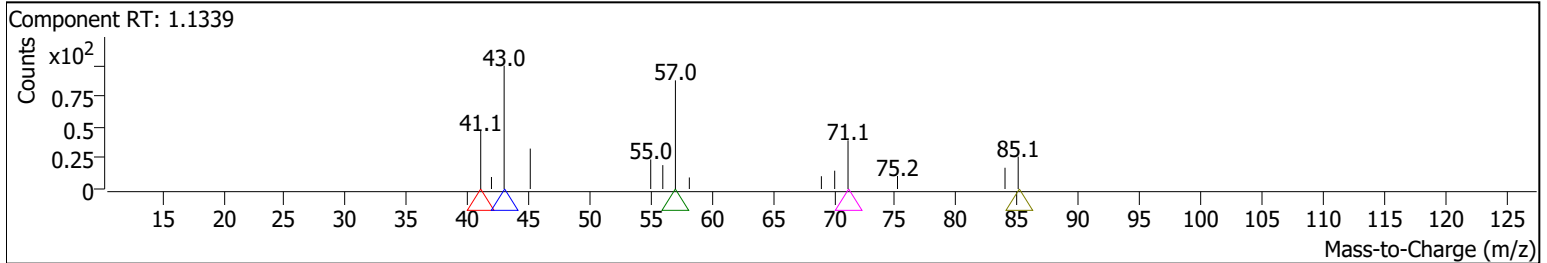
TBI Forensic Chemistry Report

File Name	100% Morphine.D	Path Name	H:\Forensic Chemistry\Instruments\GCMS\Kenny\2025\LJ\Mar\LOD study
Sample Name	Cerilliant lot FE03232010 Exp 4/30/25	Sample Type	Sample
Acq. Method File	ASMSDRUGS100	Instrument Name	Kenny
Acq. Date-Time	3/11/2025 12:58:48 PM	Acq. Operator	TBI Nashville Analyst
Comment	Methanol	Vial	17

Sample Chromatogram



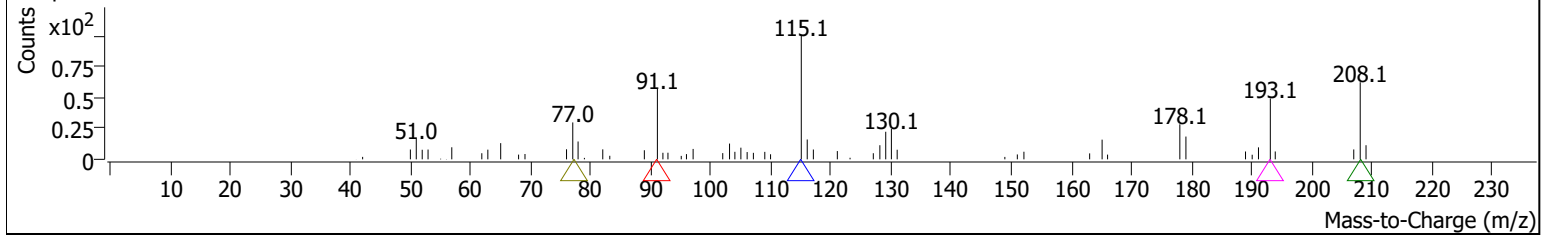
Compound Name	Component Area	Component RT
Hexane, 2,4-dimethyl-	18465.118368421	1.1
Benzene, 1,1'-(3-methyl-1-propene-1,3-diyl)bis-	18704.8998759454	3.3
MORPHINE PENICK & CO. LOT 464NRN001	9107566.52635325	4.9



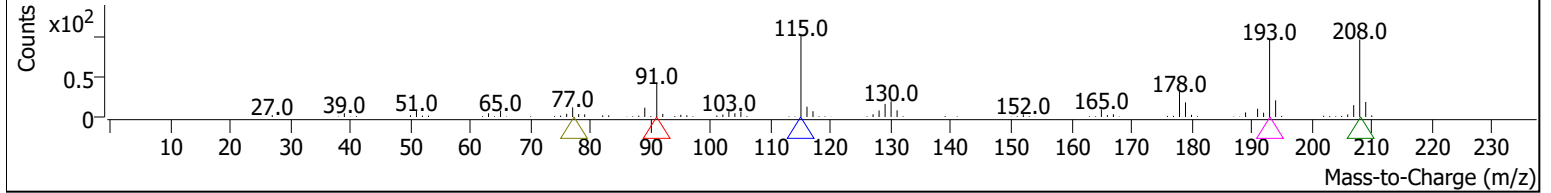
Compound Name	Component Area	Component RT	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot
Hexane, 2,4-dimethyl-	18465.118368421	1.1	ASMSDRUGS100	Kenny	Methanol	FE03232010 Exp 4/30/25

TBI Forensic Chemistry Report

Component RT: 3.2672

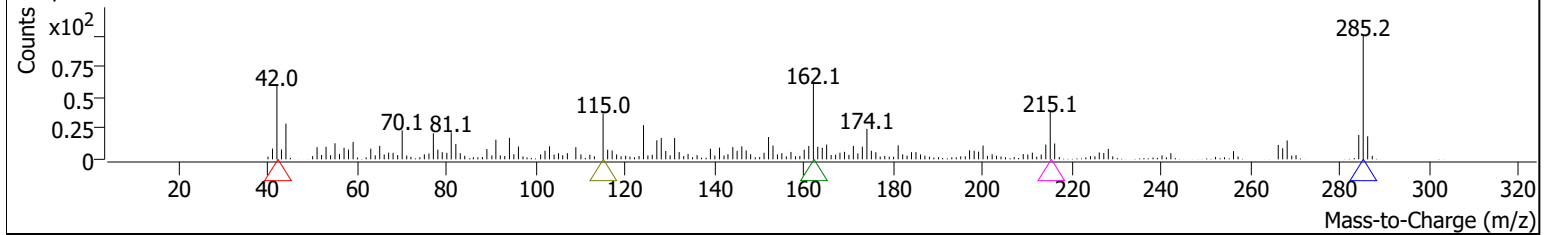


Benzene, 1,1'-(3-methyl-1-propene-1,3-diyl)bis- (NIST14.L)

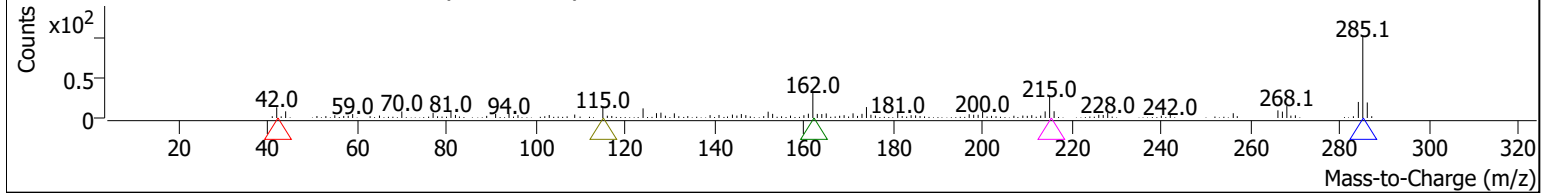


Component Area	Component RT				
18704.8998759454	3.3	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25

Component RT: 4.8934



MORPHINE PENICK & CO. LOT 464NRN001 (TBI_DRUG.L)



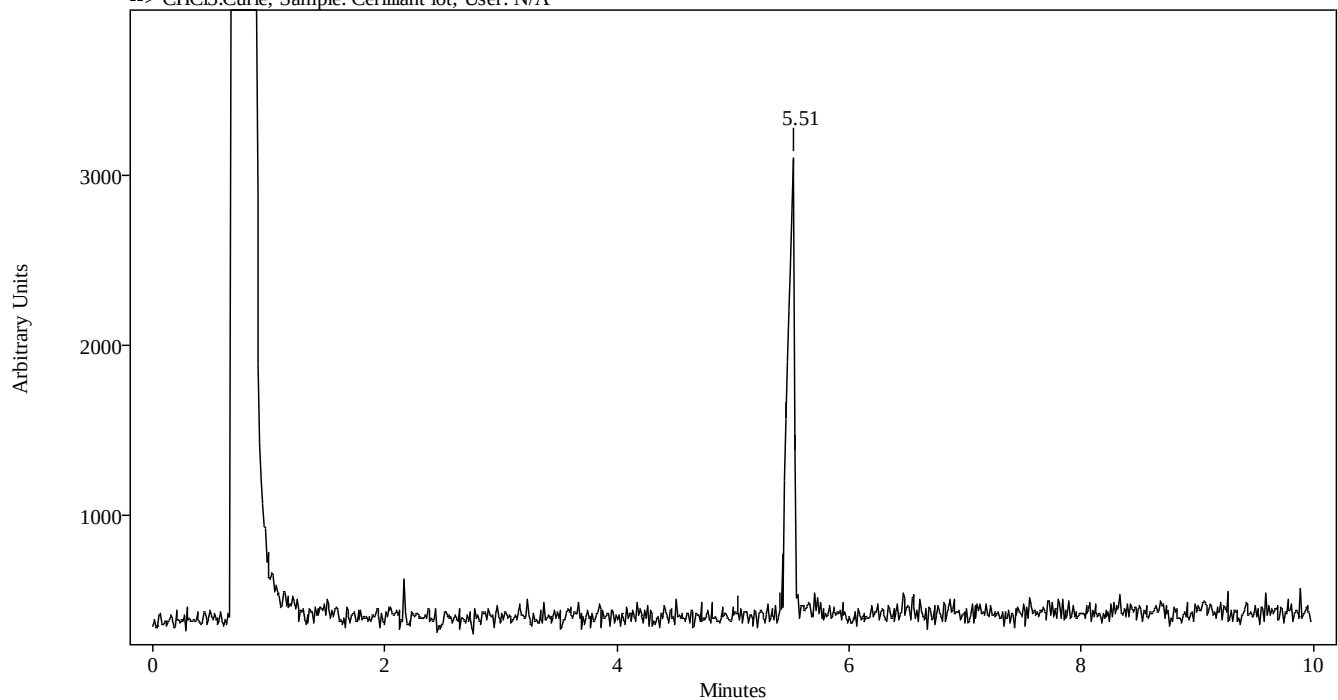
Component Area	Component RT				
9107566.52635325	4.9	ASMSDRUGS100	Kenny	Methanol	Cerilliant lot FE03232010 Exp 4/30/25

MORPHINE PENICK & CO.
LOT 464NRN001

IRD Data Analysis Report

Data Filename	100% MORPHINE PTV 2025_March_11_155102
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 16:00:14 2025
Date Processed	Sat Mar 15 12:22:59 2025

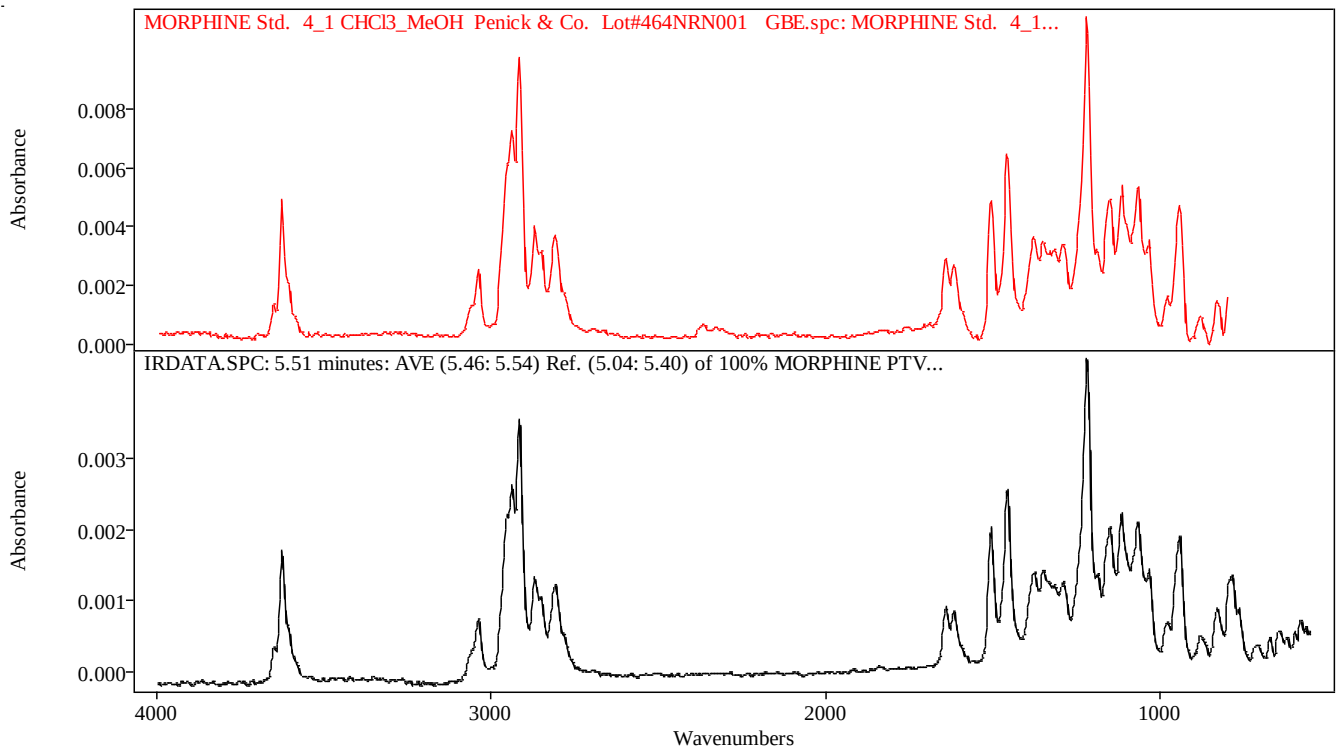
irdata.cgm: 100% MORPHINE PTV 2025_March_11_155102\irdata.cgm : Misc. Info: Bicarb
--> CHCl3:Curie; Sample: Cerilliant lot; User: N/A



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.458	5.537	0.079	5.041	5.402

IRD Data Analysis Report

Data Filename	100% MORPHINE PTV 2025_March_11_155102
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Curie/CURIE 2025/QC/LOD
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot
Misc. Info	Bicarb --> CHCl3:Curie
User ID	N/A
Injection Time	Tue Mar 11 16:00:14 2025
Date Processed	Sat Mar 15 12:22:59 2025



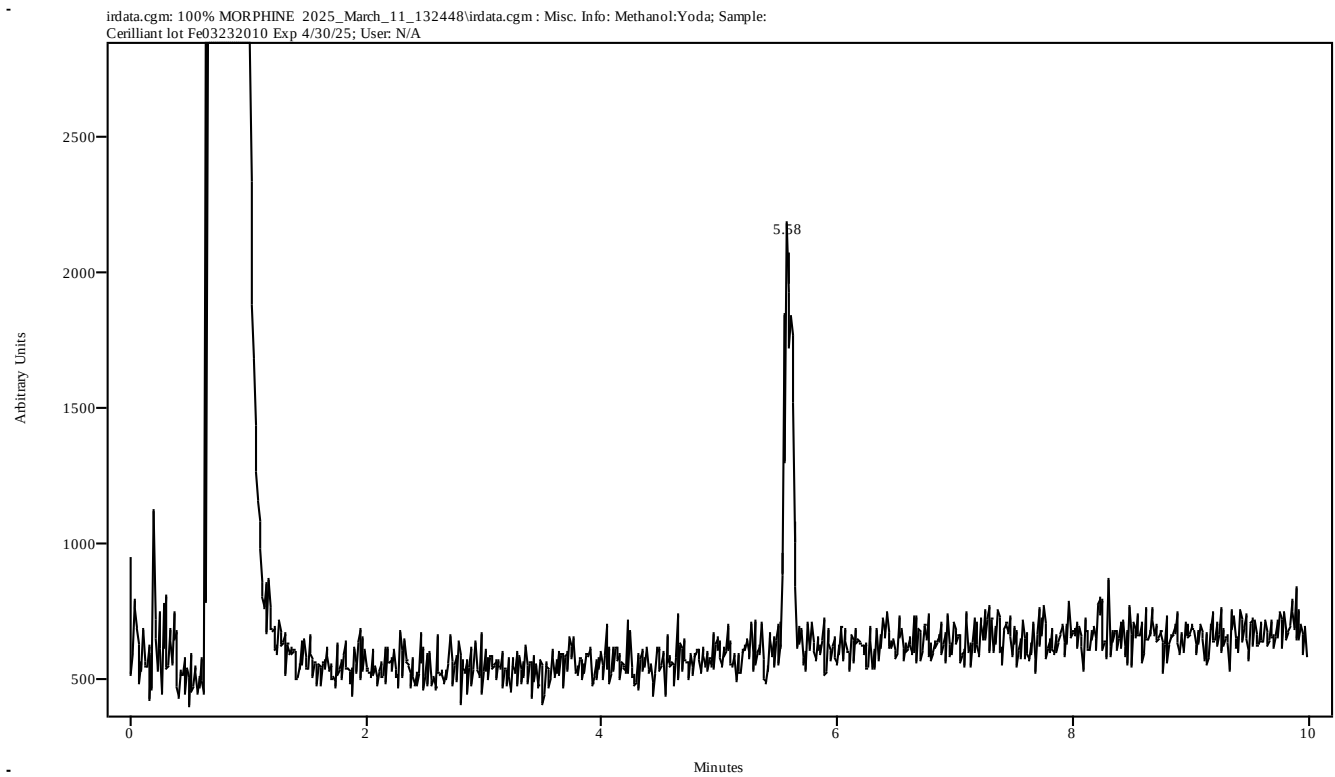
IRDATA.SPC: 5.51 minutes: AVE (5.46: 5.54) Ref. (5.04: 5.40) of 100% MORPHINE PTV
2025_March_11_155102.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.987323	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc

IRD Data Analysis Report

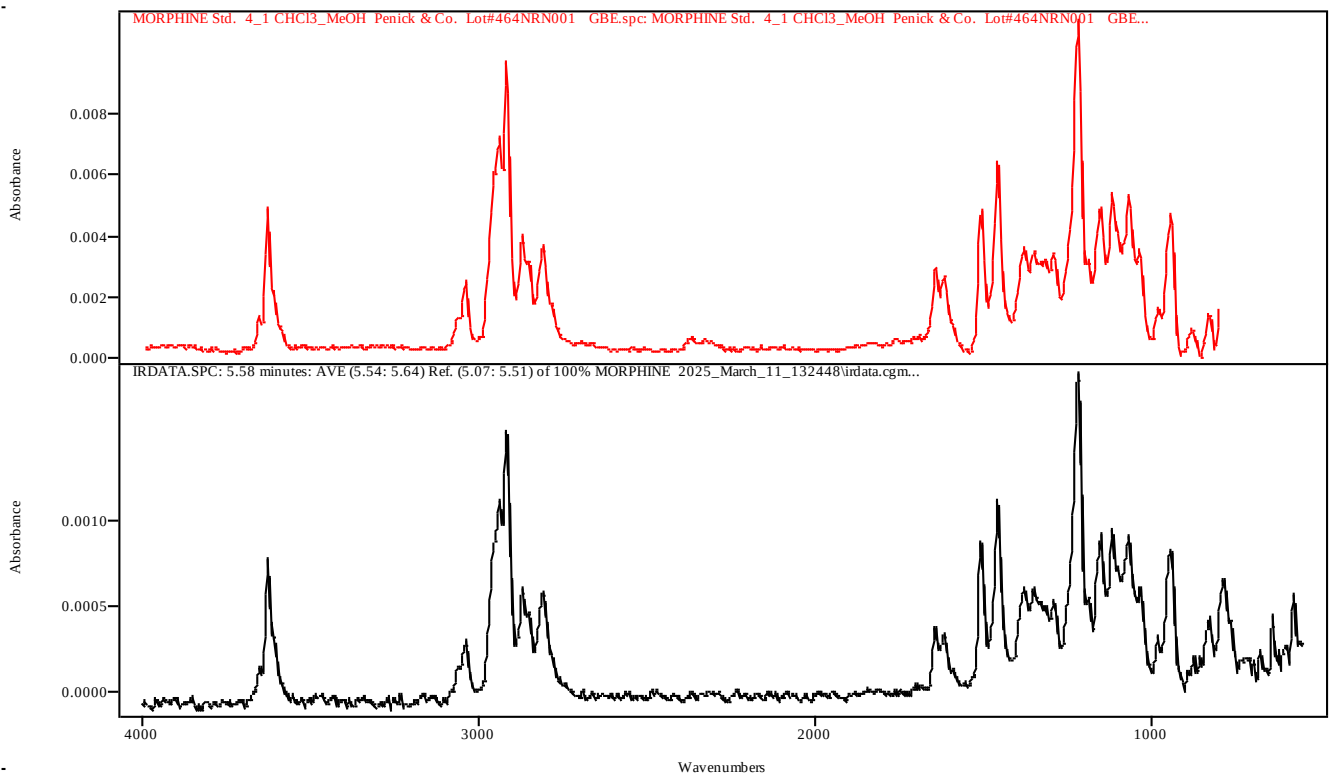
Data Filename	100% MORPHINE 2025_March_11_132448
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Tue Mar 11 13:36:44 2025
Date Processed	Wed Mar 12 10:16:42 2025



Peak Start	Peak End	Peak Width	Reference Start	Reference End
5.536	5.637	0.101	5.066	5.514

IRD Data Analysis Report

Data Filename	100% MORPHINE 2025_March_11_132448
Data Path	H:/Forensic Chemistry/Instruments/GCIR/Yoda/YODA 2025/LOD 03-11-25
IRD Method	IRD3 EXT
GC Method	DRUGS10
GC Vial	66
Sample Name	Cerilliant lot Fe03232010 Exp 4/30/25
Misc. Info	Methanol:Yoda
User ID	N/A
Injection Time	Tue Mar 11 13:36:44 2025
Date Processed	Wed Mar 12 10:16:42 2025



IRDATA.SPC: 5.58 minutes: AVE (5.54: 5.64) Ref. (5.07: 5.51) of 100% MORPHINE
2025_March_11_132448.cgm

MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc: MORPHINE Std. 4_1
CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE

Metric	Name	Library	Entry
0.986182	MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE	TBI GCIR combined Thermo generated libraries	49: MORPHINE Std. 4_1 CHCl3_MeOH Penick & Co. Lot#464NRN001 GBE.spc