Brazoria County Crime Lab

Seized Drugs Section

FTIR Maintenance Log

Instrument: FTIR **Month/Year:** March 2025

Entry Number	Date	Alignment	ValPro Qualification	Known Standard Verification	Maintenance/PM	Analyst/Technician	Comments	Initials
1	3/5/2025	✓	Pass	N/A	Maintenance	Analyst		KB
2	3/11/2025	✓	Pass	✓	Maintenance	Analyst	std run on 3/14/2025 -KB 8/26/2025	KB
3	3/24/2025	✓	Pass	✓	Maintenance	Analyst		KB
4	3/31/2025	✓	Pass	✓	Maintenance	Analyst		KB

Signature: Kayla M. Baylor Digitally signed by Kayla M. Baylor Date: 2025.08.26 12:18:39 -05'00'

Date: 8/26/2025

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Wednesday, March 5, 2025 7:55:09 AM (GMT-06:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250305_075509.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.4	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.3	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.0	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.3	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.5	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.3	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.4	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	0.01	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	0.01	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	0.01	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.45	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.35	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.49	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.01	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.010	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.02	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.17	Pass
RMS noise 4050 - 3950	0.05	0.00	0.00	Pass
RMS noise 2050 - 1950	0.039	0.00	0.002	Pass
RMS noise 1050 - 950	0.014	0.00	0.004	Pass
RMS noise 550 - 450	0.30	0.00	0.03	Pass

PV Detector linearity

Slope	1.10	0.90	1.04	Pass
Intercept (%T)	1.00	-1.00	-0.04	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.3	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.4	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass

Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Tuesday, March 11, 2025 9:40:31 AM (GMT-05:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250311_094031.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.5	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.3	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.0	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.3	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.5	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.3	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	0.00	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	0.01	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	0.01	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.44	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.36	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.49	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.01	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.008	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.02	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.20	Pass
RMS noise 4050 - 3950	0.05	0.00	0.00	Pass
RMS noise 2050 - 1950	0.039	0.00	0.002	Pass
RMS noise 1050 - 950	0.014	0.00	0.003	Pass
RMS noise 550 - 450	0.30	0.00	0.05	Pass

PV Detector linearity

Slope	1.10	0.90	1.04	Pass
Intercept (%T)	1.00	-1.00	-0.04	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.3	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.4	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass

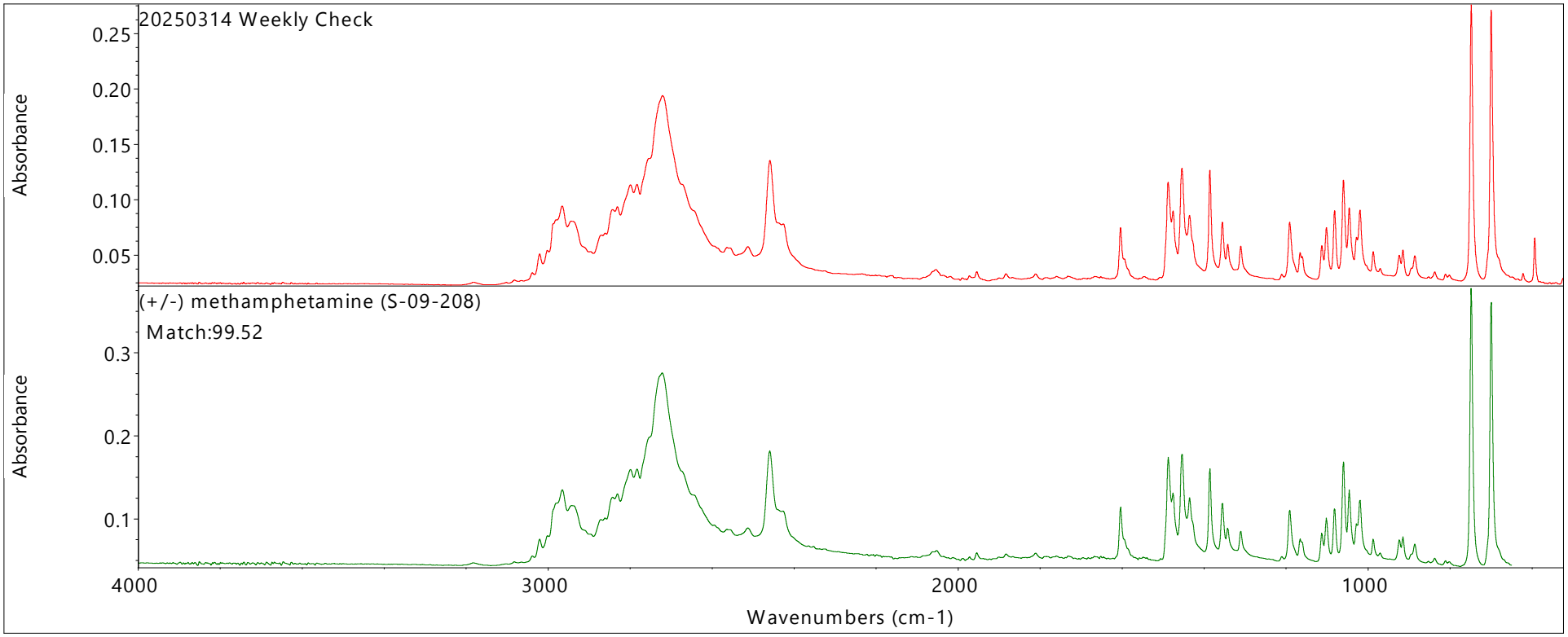
Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

BCCL Nicolet FTIR iS20 20250314 Weekly Check Fri Mar 14 10:35:24 2025 (GMT-05:00)



Collection time: Fri Mar 14 10:34:35 2025 (GMT-05:0

Detector: DTGS KBr
Beamsplitter: KBr
Source: IR

Number of sample scans: 16
Number of background scans: 16
Resolution: 4.000
Sample gain: 1.0
Optical velocity: 0.4747
Aperture: 80.00

Spectrum: 20250314 Weekly Check
Region: 3999.64-649.89
Search type: Correlation
Hit List:

Index	Match	Compound name	Library
3	99.52	(+/-) methamphetamine (S-09-208)	BCCL Drug
1	99.41	Methamphetamine HCl (S-09-204)	BCCL Drug
14	31.23	d,l Amphetamine sulfate (S-09-207)	BCCL Drug
13	30.12	d Amphetamine sulfate (S-09-205)	BCCL Drug
30	18.72	Methocarbamol (S-18-033)	BCCL Drug

Fri Mar 14 10:35:00 2025 (GMT-05:00)
FIND PEAKS:
Spectrum: 20250314 Weekly Check
Region: 4000.1 525.0
Absolute threshold: 0.149
Sensitivity: 50
Peak list:

Position		Intensity	
Position:	698.9	Intensity:	0.271
Position:	747.6	Intensity:	0.276
Position:	2720.4	Intensity:	0.194

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Monday, March 24, 2025 11:21:37 AM (GMT-05:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250324_112137.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.4	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.3	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.0	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.3	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	24.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.5	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.3	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.4	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	25.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	0.00	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	-0.05	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	-0.05	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.44	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.35	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.48	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.01	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.008	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.01	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.20	Pass
RMS noise 4050 - 3950	0.05	0.00	0.00	Pass
RMS noise 2050 - 1950	0.039	0.00	0.002	Pass
RMS noise 1050 - 950	0.014	0.00	0.003	Pass
RMS noise 550 - 450	0.30	0.00	0.04	Pass

PV Detector linearity

Slope	1.10	0.90	1.05	Pass
Intercept (%T)	1.00	-1.00	-0.03	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.3	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.3	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass

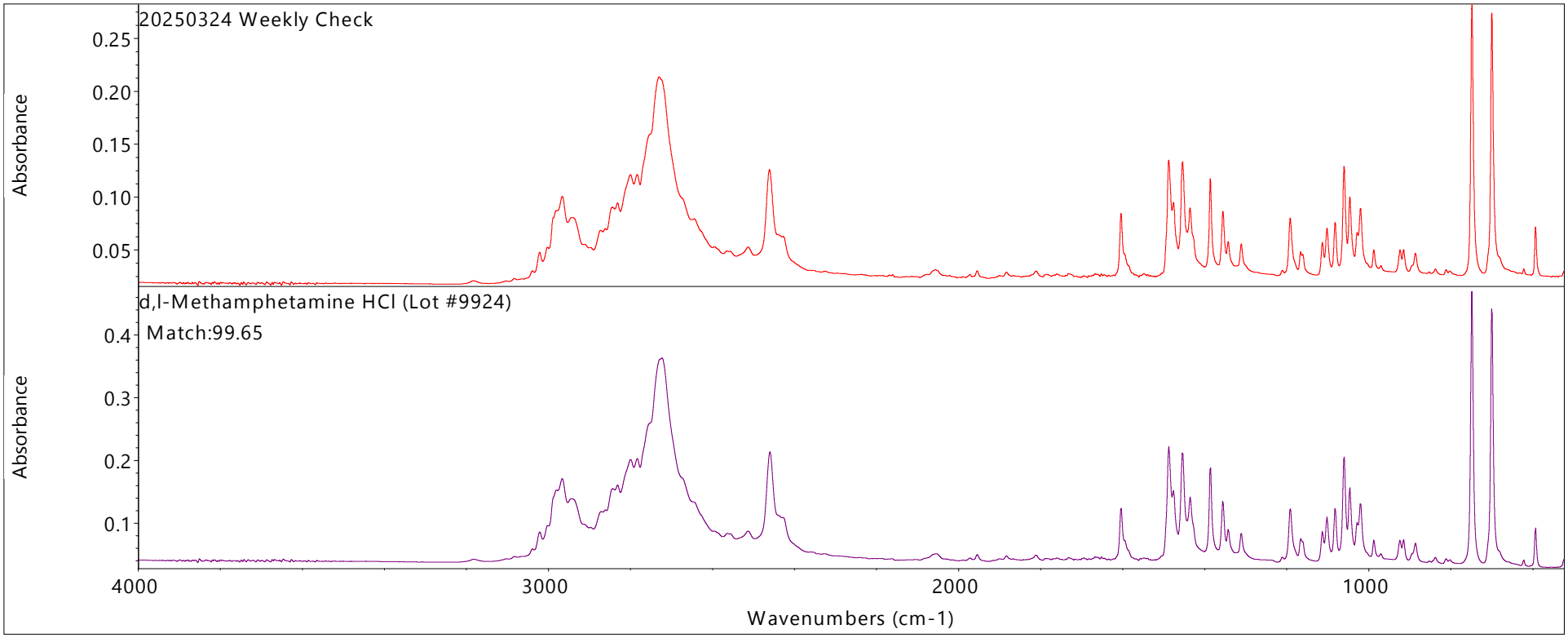
Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

BCCL Nicolet FTIR iS20 20250324 Weekly Check Mon Mar 24 12:02:13 2025 (GMT-05:00)



Collection time: Mon Mar 24 11:58:56 2025 (GMT-05

Detector: DTGS KBr
Beamsplitter: KBr
Source: IR

Number of sample scans: 16
Number of background scans: 16
Resolution: 4.000
Sample gain: 1.0
Optical velocity: 0.4747
Aperture: 80.00

Mon Mar 24 12:00:49 2025 (GMT-05:00)
FIND PEAKS:
Spectrum: 20250324 Weekly Check
Region: 4000.1 525.0
Absolute threshold: 0.149
Sensitivity: 50
Peak list:

Position:	Intensity:
699.2	0.274
747.8	0.282
2729.7	0.213

Spectrum: 20250324 Weekly Check
Region: 3999.81-525.03
Search type: Correlation
Hit List:

Index	Match	Compound name	Library
278	99.65	d,l-Methamphetamine HCl (Lot #9924)	Master SFL1 FTIR library v. 082719
207	99.19	d-Methamphetamine HCl (Lot #406D)	Master SFL1 FTIR library v. 082719
155	97.71	l-methamphetamine HCl (Lot #STD 570.1)	Master SFL1 FTIR library v. 082719
131	55.65	BZP diHCl (Lot #ALB90-5)	Master SFL1 FTIR library v. 082719
512	46.78	Ephedrine base (Lot #02502DU)	Master SFL1 FTIR library v. 082719
530	46.47	dl-N-Methylephedrine HCl (Lot #10675)	Master SFL1 FTIR library v. 082719
243	44.84	APP-CHMINACA (Lot #0467677-8)	Master SFL1 FTIR library v. 082719
595	43.85	para-Methoxy furanyl fentanyl HCl (Lot # 0546725-1)	Master SFL1 FTIR library v. 082719
607	42.96	5-Fluoro-CUMYL-PINACA (Lot #0546719-1)	Master SFL1 FTIR library v. 082719
581	40.67	3-Methyl butyryl fentanyl HCl (Lot #0535 128-1)	Master SFL1 FTIR library v. 082719

ValPro Qualification Report

Qualification test: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV
Operator: OMNICAdmin
Date: Monday, March 31, 2025 2:21:37 PM (GMT-05:00)
Instrument: Nicolet iS20 Serial number: BEP2210424
Filename: Nicolet iS20 KBr - Factory (CP,JP,PHEUR,PV,USP) - PV_20250331_142137.spg

Test description	High limit	Low limit	Measured	Result
CP Wavenumber accuracy				
Peak at 3027.0 (cm-1)	3032.0	3022.0	3025.5	Pass
Peak at 2851.0 (cm-1)	2856.0	2846.0	2849.3	Pass
Peak at 1601.0 (cm-1)	1602.0	1600.0	1601.0	Pass
Peak at 1028.0 (cm-1)	1029.0	1027.0	1028.3	Pass
Peak at 907.0 (cm-1)	908.0	906.0	906.6	Pass
CP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	24.00	Pass
CP Peak Resolution				
Peaks between 3120 and 2850 cm-1	7	7	7	Pass
JP Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.5	3058.5	3059.5	Pass
Peak at 2849.5 (cm-1)	2851.0	2848.0	2849.3	Pass
Peak at 1942.9 (cm-1)	1944.4	1941.4	1942.4	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
JP Optical resolution				
Resolution 2870 - 2849.5 (%T)	100.00	18.00	37.00	Pass
Resolution 1589 - 1583 (%T)	100.00	12.00	24.00	Pass
JP Repeatability				
Peak at 3027.1 (cm-1)	5.00	-5.00	0.00	Pass
Peak at 1028.3 (cm-1)	1.00	-1.00	0.00	Pass
Intensity at 2849.5 (%T)	0.50	-0.50	-0.03	Pass
Intensity at 1028.3 (%T)	0.50	-0.50	-0.02	Pass
PHEUR Wavenumber accuracy				
Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass
Peak at 906.6 (cm-1)	907.6	905.6	906.6	Pass
PHEUR Optical resolution				
Resolution 2870 - 2849.5 (Abs)	10.00	0.33	0.44	Pass
Resolution 1589 - 1583 (Abs)	10.00	0.08	0.13	Pass
PV Energy ratio				
Energy ratio 4000 / 2000	1.00	0.20	0.35	Pass
Energy ratio 2000 / 1000	4.00	0.80	1.49	Pass

PV Noise level

P-P noise 4050 - 3950 (%T)	0.25	0.00	0.01	Pass
P-P noise 2050 - 1950 (%T)	0.221	0.00	0.008	Pass
P-P noise 1050 - 950 (%T)	0.10	0.00	0.01	Pass
P-P noise 550 - 450 (%T)	1.50	0.00	0.17	Pass
RMS noise 4050 - 3950	0.05	0.00	0.00	Pass
RMS noise 2050 - 1950	0.039	0.00	0.002	Pass
RMS noise 1050 - 950	0.014	0.00	0.002	Pass
RMS noise 550 - 450	0.30	0.00	0.03	Pass

PV Detector linearity

Slope	1.10	0.90	1.06	Pass
Intercept (%T)	1.00	-1.00	-0.01	Pass

USP Wavenumber accuracy

Peak at 3060.0 (cm-1)	3061.0	3059.0	3059.5	Pass
Peak at 2849.5 (cm-1)	2850.5	2848.5	2849.3	Pass
Peak at 1942.9 (cm-1)	1943.9	1941.9	1942.4	Pass
Peak at 1601.2 (cm-1)	1602.2	1600.2	1601.0	Pass
Peak at 1583.0 (cm-1)	1584.0	1582.0	1582.9	Pass
Peak at 1154.5 (cm-1)	1155.5	1153.5	1154.4	Pass
Peak at 1028.3 (cm-1)	1029.3	1027.3	1028.3	Pass

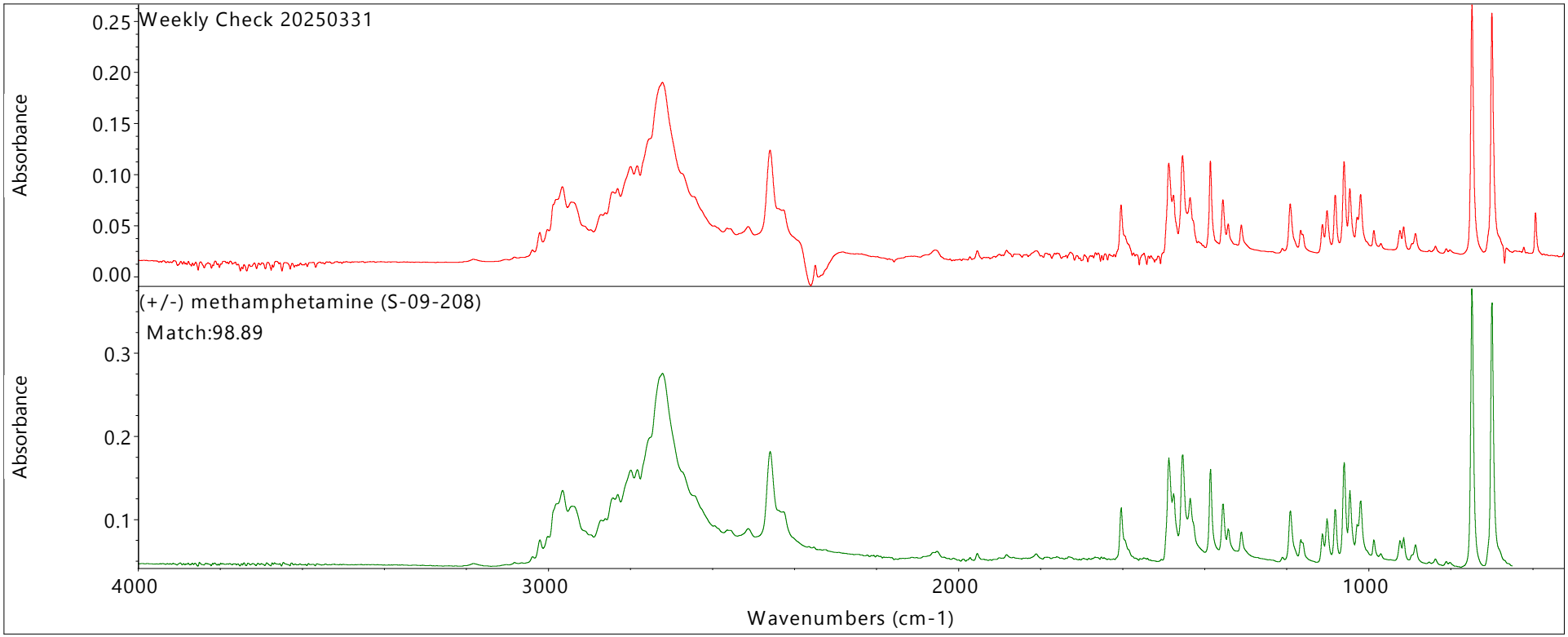
Performed by: _____ Title: _____ Date: _____

Approved by: _____ Title: _____ Date: _____

Comments: _____

Digital comment(s):
No digital comments found.

BCCL Nicolet FTIR iS20 Weekly Check 20250331 Wed Apr 02 14:58:45 2025 (GMT-05:00)



Collection time: Mon Mar 31 15:28:34 2025 (GMT-05

Detector: DTGS KBr
Beamsplitter: KBr
Source: IR

Number of sample scans: 16
Number of background scans: 16
Resolution: 4.000
Sample gain: 1.0
Optical velocity: 0.4747
Aperture: 80.00

Spectrum: Weekly Check 20250331
Region: 3999.64-649.89
Search type: Correlation
Hit List:

Index	Match	Compound name	Library
3	98.89	(+/-) methamphetamine (S-09-208)	BCCL Drug
1	98.51	Methamphetamine HCl (S-09-204)	BCCL Drug
14	30.22	d,l Amphetamine sulfate (S-09-207)	BCCL Drug
13	29.12	d Amphetamine sulfate (S-09-205)	BCCL Drug
30	19.00	Methocarbamol (S-18-033)	BCCL Drug

Wed Apr 02 14:58:34 2025 (GMT-05:00)
FIND PEAKS:
Spectrum: Weekly Check 20250331
Region: 4000.1 525.0
Absolute threshold: 0.129
Sensitivity: 50
Peak list:

Position:	699.1	Intensity:	0.258
Position:	747.7	Intensity:	0.266
Position:	2721.5	Intensity:	0.190