

C2016-1350 and M2016-2784 are going to be re-extracted due to low ISTD responses.

1/6/2017

Worklist: 1467

reviewed 1/24/17 *Boyle*

Reviewed 1/13/17

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
C2016-1226	1.1	69956	AM 14 Blood Cannabinoids by	
C2016-1261	1.1	69957	AM 14 Blood Cannabinoids by	
C2016-1347	1.1	72641	AM 14 Blood Cannabinoids by	
C2016-1350	1	73495	AM 14 Blood Cannabinoids by	
C2016-1354	1.1	72642	AM 14 Blood Cannabinoids by	
C2016-1386	1	73496	AM 14 Blood Cannabinoids by	
C2016-1766	1	73498	AM 14 Blood Cannabinoids by	
C2016-2001	1	73499	AM 14 Blood Cannabinoids by	
M2016-2784	1	73508	AM 14 Blood Cannabinoids by	
M2016-2847	1	73509	AM 14 Blood Cannabinoids by	
M2016-2903	1	73510	AM 14 Blood Cannabinoids by	
M2016-2934	1.1	72643	AM 14 Blood Cannabinoids by	
M2016-3395	2	73512	AM 14 Blood Cannabinoids by	
M2016-3999	1	73514	AM 14 Blood Cannabinoids by	
P2016-1668	1.2	73710	AM 14 Blood Cannabinoids by	
P2016-1692	1.1	73780	AM 14 Blood Cannabinoids by	
P2016-1724	1.2	72644	AM 14 Blood Cannabinoids by	
P2016-1725	1.1	72645	AM 14 Blood Cannabinoids by	
P2016-1730	1.1	72646	AM 14 Blood Cannabinoids by	
P2016-1812	1.1	73713	AM 14 Blood Cannabinoids by	
P2016-1946	1.1	73715	AM 14 Blood Cannabinoids by	

Worklist Report

Worklist Path:	C:\MassHunter\ISP Methods\worklists\CS CANN 122316.wkl
Date Modified:	12/23/2016 12:42:43 PM
Date Printed:	12/23/2016 12:42:49 PM

Worklist Run Parameters

Operator Name:	62340
Run Type:	Standard Start
Part of Method to Run:	Acquisition Only
Execution for Acquisition-DA:	Synchronous
Acquisition Method Path:	C:\MassHunter\ISP Methods\Acquisition
DA Method Path:	D:\MassHunter\methods
Data File Path:	C:\MassHunter\Data\2016\CANN\100416 CANN CS
Pre-Worklist Script:	---
Post-Worklist Script:	SCP_InstrumentStandby(){MH_Acq_Scripts.exe}
Acquisition Clean Up Script:	---
Overlapped Injection:	No
Clear sample selection after run:	Yes
Wait Time for Ready(Min):	10
Threshold Disk Value(GB):	10
Comment:	---

Plate Barcode Information

Plate	Barcode
P1	
P2	

Worklist Table

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank1-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank2-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A2	Blood: 1_5 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL1-r001.d	Calibration	1	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @5ng/mL, all others @1 ng/mL
P2-A3	Blood: 2_10 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL2_r001.d	Calibration	2	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @10ng/mL, all others @2 ng/mL
P2-A4	Blood: 5_25 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL3_r001.d	Calibration	3	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @25ng/mL, all

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
							others @5 ng/mL
P2-A5	Blood: 10_50 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL4_r001.d	Calibration	4	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @50ng/mL, all others @10 ng/mL
P2-A6	Blood: 25_125 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL5_r001.d	Calibration	5	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @125ng/mL, all others @25 ng/mL
P2-A7	Blood: 50_250 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL6_r001.d	Calibration	6	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @250ng/mL, all others @50 ng/mL
P2-A8	Blood: 100_500 ng/mL	isp blood cannabinoids Poky 2016-3.m	B_CAL7_r001.d	Calibration	7	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @500ng/mL, all others @100 ng/mL
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Carryover blank1_r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A9	Blood Negative Control	isp blood cannabinoids Poky 2016-3.m	B-NC-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Negative Blood UTAK Lot B1013
P2-B1	Blood PC 1	isp blood cannabinoids Poky 2016-3.m	B-POS Ctrl 1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Positive Control- UTAK B1013 + WS060716
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Carryover blank2_r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-B2	C2016-1350-1	isp blood cannabinoids Poky 2016-3.m	C2016-1350-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B3	C2016-1386-1	isp blood cannabinoids Poky 2016-3.m	C2016-1386-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B4	C2016-2001-1	isp blood cannabinoids Poky 2016-3.m	C2016-2001-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B5	M2016-2784-1	isp blood cannabinoids Poky 2016-3.m	M2016-2784-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B6	M2016-2847-1	isp blood cannabinoids Poky 2016-3.m	M2016-2847-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B7	M2016-2903-1	isp blood cannabinoids Poky 2016-3.m	M2016-2903-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B8	M2016-3395-2	isp blood cannabinoids Poky 2016-3.m	M2016-3395-2-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B9	M2016-3999-1	isp blood cannabinoids Poky 2016-3.m	M2016-3999-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C1				Sample			Blood

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
	C2016-1226-1	isp blood cannabinoids Poky 2016-3.m	C2016-1226-1-r001.d			AM 6.1.2 Cannabinoids by LCQQQ	
P2-C2	C2016-1261-1	isp blood cannabinoids Poky 2016-3.m	C2016-1261-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C3	P2016-1668-1	isp blood cannabinoids Poky 2016-3.m	P2016-1668-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-F5	Blood PC 2	isp blood cannabinoids Poky 2016-3.m	B-POS Ctrl 2-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Positive Control- UTAK B1013 + WS060716
P2-C4	P2016-1692-1	isp blood cannabinoids Poky 2016-3.m	P2016-1692-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C5	P2016-1812-1	isp blood cannabinoids Poky 2016-3.m	P2016-1812-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C6	P2016-1946-1	isp blood cannabinoids Poky 2016-3.m	P2016-1946-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C7	P2016-1347-1	isp blood cannabinoids Poky 2016-3.m	P2016-1347-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C8	C2016-1354-1	isp blood cannabinoids Poky 2016-3.m	C2016-1354-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C9	M2016-2934-1	isp blood cannabinoids Poky 2016-3.m	M2016-2934-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D1	P2016-1724-1	isp blood cannabinoids Poky 2016-3.m	P2016-1724-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D2	P2016-1725-1	isp blood cannabinoids Poky 2016-3.m	P2016-1725-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D3	P2016-1730-1	isp blood cannabinoids Poky 2016-3.m	P2016-1730-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D4	C2016-1766-1	isp blood cannabinoids Poky 2016-3.m	C2016-1766-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank3-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	Blood

**Idaho State Police
Forensic Services
Toxicology Discipline**

Request for Departure from an Analytical Method

Date of Request

01-06-2017

Forensic Scientist

Celena Shrum

Analytical Method

AM 14 - LCMS-QQQ Confirmation of Cannabinoids in Blood and Urine

Request

I am requesting a deviation to exclude the PC1 for this run and only use PC2. PC1 and PC2 were both run and the results for PC2 were as expected. The compounds seen in PC1 were correct but the concentrations were below the LOD's. This was due to an error in the method that specified the amount of solution to add. The solution was added at a concentration of 0.5ng/mL for the THC and cannabidiol and at 2.5ng/mL for the carboxy THC, which put them all below our limits of detection. Since these values were not high enough to produce useful data, I am requesting to have it removed as a requirement for this run. The method will be changed to the correct amounts and those amounts will be used in the future.

Lab Manager Review

Departure approved
Comments:

Departure Not Approved
Comments:

Date: 1/17/17



Rachel Cutler
Pocatello Laboratory Manager

ISP Forensics Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin

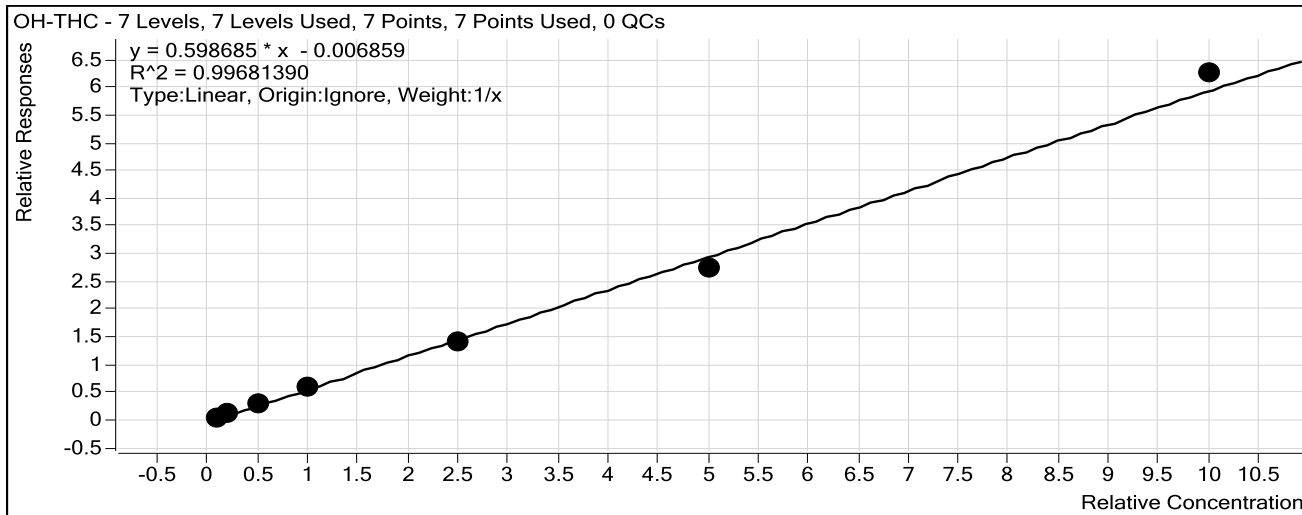
Last Calib Update 1/10/2017 12:20 PM

Analyst Name

ISP TOX

Target Compound *OH-THC*

Internal Standard *OH-THC-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ng/mL	1	<input checked="" type="checkbox"/>	1	1.1	105.6
Blood: 2_10 ng/mL	2	<input checked="" type="checkbox"/>	2	2.0	99.7
Blood: 5_25 ng/mL	3	<input checked="" type="checkbox"/>	5	5.0	100.9
Blood: 10_50 ng/mL	4	<input checked="" type="checkbox"/>	10	10.1	101.1
Blood: 25_125 ng/mL	5	<input checked="" type="checkbox"/>	25	23.9	95.4
Blood: 50_250 ng/mL	6	<input checked="" type="checkbox"/>	50	46.4	92.7
Blood: 100_500 ng/mL	7	<input checked="" type="checkbox"/>	100	104.6	104.6

ISP Forensics Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin

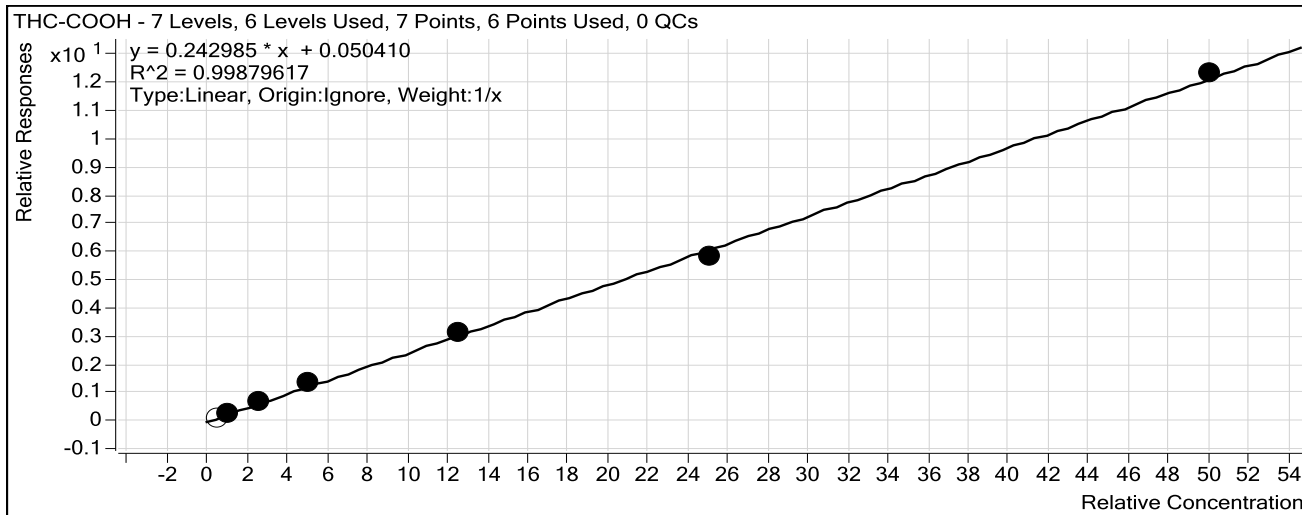
Last Calib Update 1/10/2017 12:20 PM

Analyst Name

ISP TOX

Target Compound *THC-COOH*

Internal Standard *THC-COOH-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ng/mL	1	<input type="checkbox"/>	5	3.4	67.6
Blood: 2_10 ng/mL	2	<input checked="" type="checkbox"/>	10	9.4	94.3
Blood: 5_25 ng/mL	3	<input checked="" type="checkbox"/>	25	24.8	99.1
Blood: 10_50 ng/mL	4	<input checked="" type="checkbox"/>	50	54.0	108.0
Blood: 25_125 ng/mL	5	<input checked="" type="checkbox"/>	125	127.4	101.9
Blood: 50_250 ng/mL	6	<input checked="" type="checkbox"/>	250	239.3	95.7
Blood: 100_500 ng/mL	7	<input checked="" type="checkbox"/>	500	505.1	101.0

ISP Forensics Calibration Curve Report

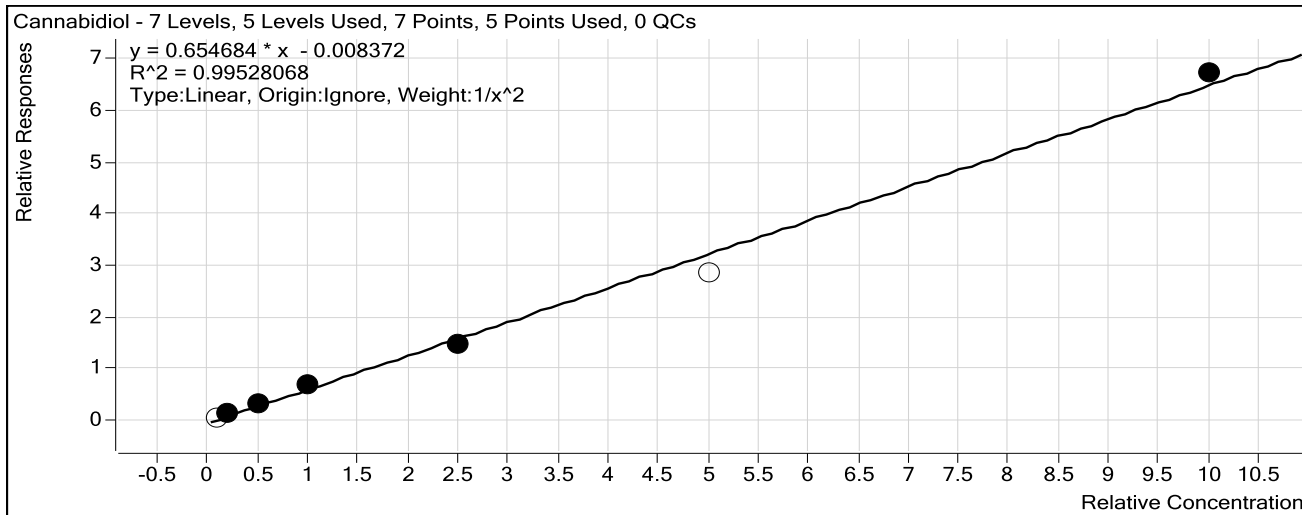
Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin

Last Calib Update 1/10/2017 12:20 PM

Analyst Name ISP TOX

Target Compound *Cannabidiol*

Internal Standard *Cannabidiol-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ng/mL	1	<input type="checkbox"/>	1	1.2	119.6
Blood: 2_10 ng/mL	2	<input checked="" type="checkbox"/>	2	2.0	99.5
Blood: 5_25 ng/mL	3	<input checked="" type="checkbox"/>	5	5.0	99.7
Blood: 10_50 ng/mL	4	<input checked="" type="checkbox"/>	10	10.7	106.6
Blood: 25_125 ng/mL	5	<input checked="" type="checkbox"/>	25	22.9	91.5
Blood: 50_250 ng/mL	6	<input type="checkbox"/>	50	43.8	87.6
Blood: 100_500 ng/mL	7	<input checked="" type="checkbox"/>	100	102.8	102.8

ISP Forensics Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin

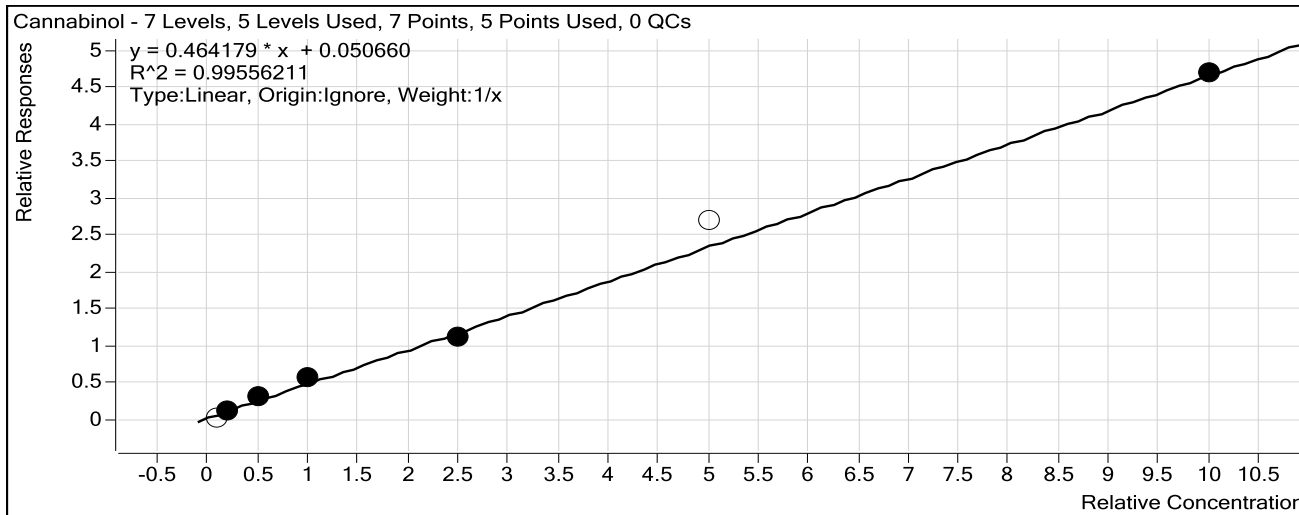
Last Calib Update 1/10/2017 12:20 PM

Analyst Name

ISP TOX

Target Compound *Cannabinol*

Internal Standard *Cannabinol-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ng/mL	1	<input type="checkbox"/>	1	0.0	0.0
Blood: 2_10 ng/mL	2	<input checked="" type="checkbox"/>	2	1.6	81.4
Blood: 5_25 ng/mL	3	<input checked="" type="checkbox"/>	5	5.4	108.9
Blood: 10_50 ng/mL	4	<input checked="" type="checkbox"/>	10	11.7	116.5
Blood: 25_125 ng/mL	5	<input checked="" type="checkbox"/>	25	23.3	93.1
Blood: 50_250 ng/mL	6	<input type="checkbox"/>	50	57.4	114.8
Blood: 100_500 ng/mL	7	<input checked="" type="checkbox"/>	100	100.0	100.0

ISP Forensics Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin

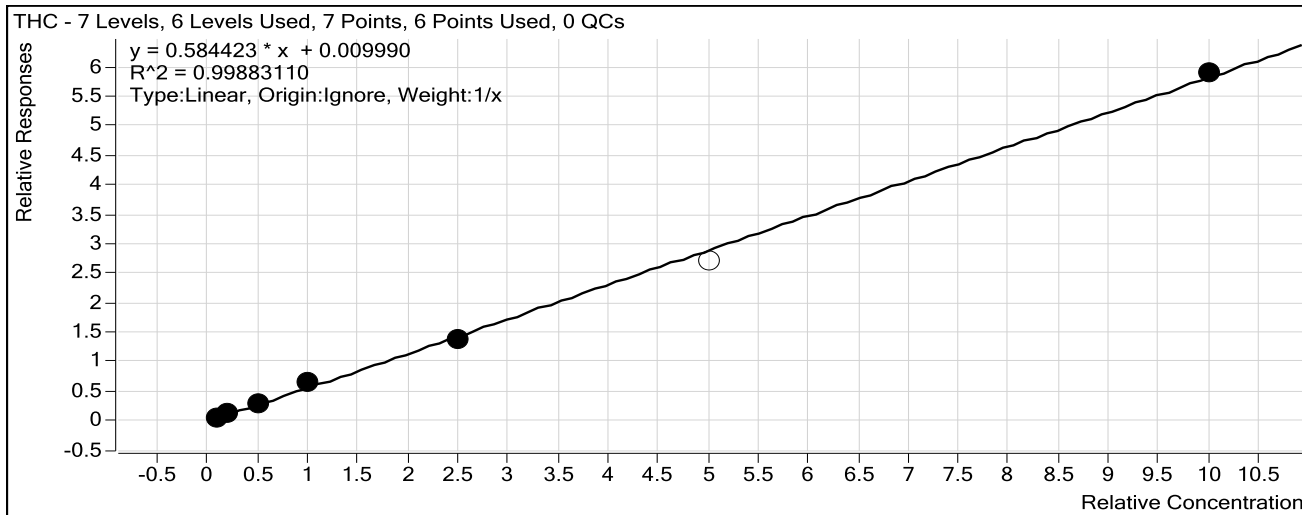
Last Calib Update 1/10/2017 12:20 PM

Analyst Name

ISP TOX

Target Compound *THC*

Internal Standard *THC-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ng/mL	1	<input checked="" type="checkbox"/>	1	1.0	96.7
Blood: 2_10 ng/mL	2	<input checked="" type="checkbox"/>	2	2.1	103.4
Blood: 5_25 ng/mL	3	<input checked="" type="checkbox"/>	5	4.8	95.8
Blood: 10_50 ng/mL	4	<input checked="" type="checkbox"/>	10	10.8	108.4
Blood: 25_125 ng/mL	5	<input checked="" type="checkbox"/>	25	23.8	95.2
Blood: 50_250 ng/mL	6	<input type="checkbox"/>	50	46.1	92.2
Blood: 100_500 ng/mL	7	<input checked="" type="checkbox"/>	100	100.5	100.5

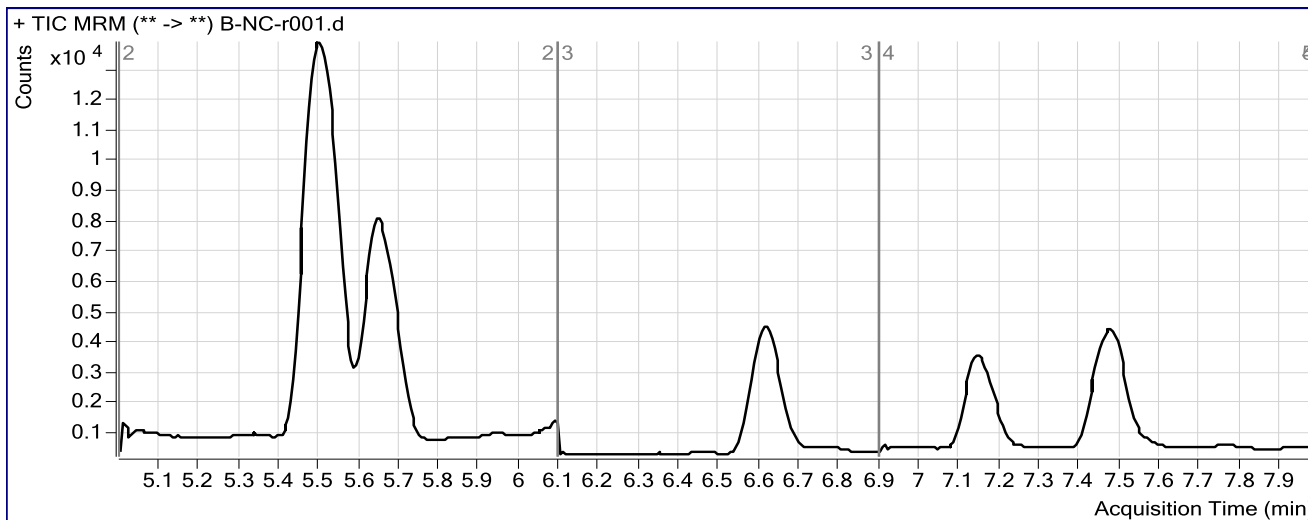
ISP FORENSICS Pocatello Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin		
Analysis Time	1/10/2017 12:20 PM	Analyst Name	ISPUser
Report Time	1/10/2017 12:24 PM	Reporter Name	ISPUser
Last Calib Update	1/10/2017 12:20 PM	Batch State	Processed

Analysis Info

Acq Time	2016-12-23 14:59	Data File	B-NC-r001.d
Sample Type	Sample	Sample Name	Blood Negative Control
Dilution	1	Acq Method	isp blood cannabinoids Poky 2016-3.m
Position	P2-A9	Sample Info	Negative Blood UTAK Lot B1013
Inj Vol	-1	Comment	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
OH-THC	OH-THC-d3	5.538	141	63935	0.0022	0.1513

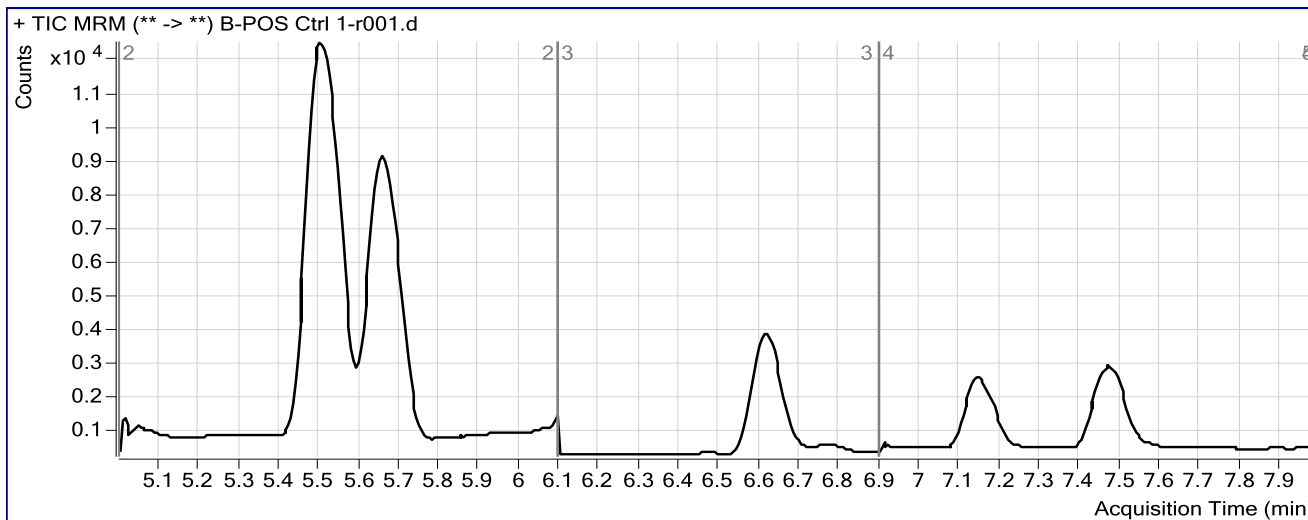
ISP FORENSICS Pocatello Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin		
Analysis Time	1/10/2017 12:20 PM	Analyst Name	ISPUser
Report Time	1/10/2017 12:24 PM	Reporter Name	ISPUser
Last Calib Update	1/10/2017 12:20 PM	Batch State	Processed

Analysis Info

Acq Time	2016-12-23 15:12	Data File	B-POS Ctrl 1-r001.d
Sample Type	Sample	Sample Name	Blood PC 1
Dilution	1	Acq Method	isp blood cannabinoids Poky 2016-3.m
Position	P2-B1	Sample Info	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	Comment	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
OH-THC	OH-THC-d3	5.393	118	55880	0.0021	0.1497
THC-COOH	THC-COOH-d3	5.664	1672	12657	0.1321	3.3611
Cannabinol	Cannabinol-d3	7.157	542	8033	0.0674	0.3613
THC	THC-d3	7.468	354	3783	0.0935	1.4285

CS

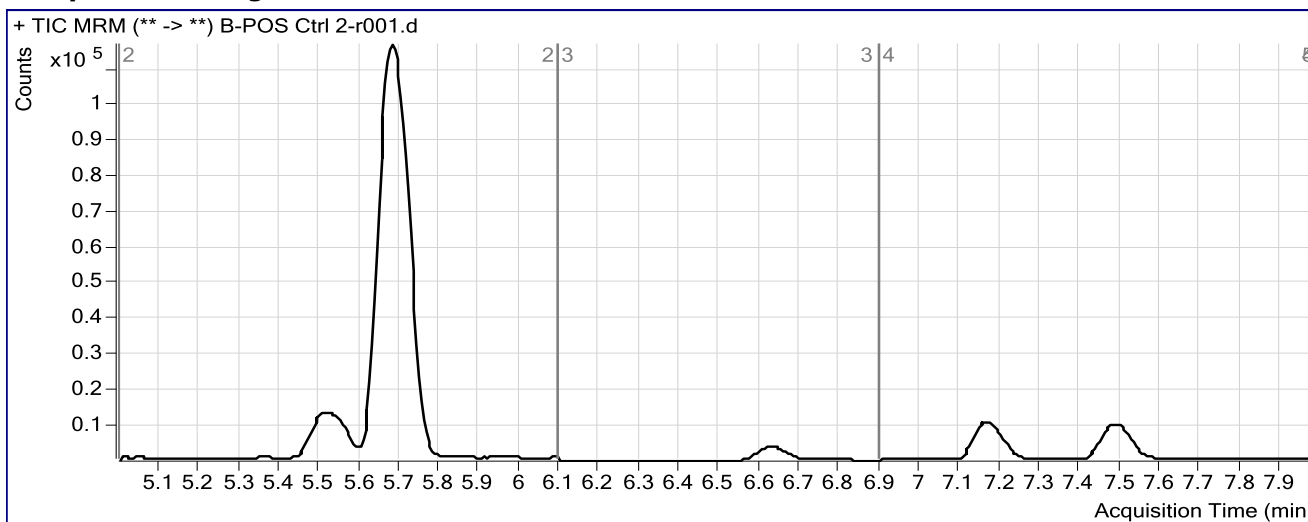
ISP FORENSICS Pocatello Cannabinoid Analysis Report

Batch Data Path C:\MassHunter\Data\2016\CANN\122316 CANN CS\QuantResults\CANN CS 12-23-16.batch.bin
Analysis Time 1/10/2017 12:20 PM **Analyst Name** ISPUser
Report Time 1/10/2017 12:22 PM **Reporter Name** ISPUser
Last Calib Update 1/10/2017 12:20 PM **Batch State** Processed

Analysis Info

Acq Time 2016-12-23 18:05 **Data File** B-POS Ctrl 2-r001.d
Sample Type Sample **Sample Name** Blood PC 2
Dilution 1 **Acq Method** isp blood cannabinoids Poky 2016-3.m
Position P2-F5 **Sample Info** Positive Control- UTAK B1013 + WS060716
Inj Vol -1 **Comment** AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
OH-THC	OH-THC-d3	5.589	192	64844	0.0030	0.1641
THC-COOH	THC-COOH-d3	5.681	83363	10037	8.3057	339.7442
Cannabinol	Cannabinol-d3	7.168	30817	7765	3.9684	84.4023
THC	THC-d3	7.485	15201	4863	3.1261	53.3189