



Blood Cannabinoids Analysis

Test No. 21-5662 Summary Report

Each sample set contained blood samples from three separate cases, where each individual is suspected of being under the influence of cannabinoids. Participants were requested to analyze the blood samples and report the presence of any cannabinoids, any quantitative data obtained (including uncertainty), and the methods used. Data were returned from 43 participants and are compiled into the following tables:

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This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

Each sample set contained a blood sample for three separate cases where an individual is suspected of being under the influence of Cannabis. Each case sample consisted of one grey-top vial containing whole human blood. Participants were asked to analyze the blood sample and report the presence of cannabinoids and quantitative data obtained (including uncertainty).

SAMPLE PREPARATION:

The human blood used in this test was from the same lot, which tested negative for a variety of common controlled substances prior to being obtained from a commercial supplier.

A stock solution of cannabinoids was used to spike items. These solutions were obtained in sealed ampoules and were not opened until needed for production. Items were prepared at separate times using the following procedure.

ITEMS 1, 2, and 3 (PREPARATION):

Item preparation consisted of adding a predetermined amount of one or more cannabinoid stock solutions to human whole blood. It was stirred after pipetting the mixture into a beaker and adding an appropriate amount of NaF. It was pipetted into grey-top vials, sealed, and inverted multiple times to mix the preservatives in the vials with the blood solution. All vials were placed in a refrigerator immediately after production and stored there until the sample sets were prepared.

SAMPLE SET ASSEMBLY:

Each sample set contained one vial of each of the three items and placed into a Department of Transportation regulated shipping container. The sample packs were then returned to the refrigerator until shipment.

VERIFICATION:

The laboratories that conducted predistribution testing identified the expected cannabinoids and reported concentration values that correlated with production data and consensus.

<u>Item 1 Drug (Concentration)</u>	<u>Item 2 Drug (Concentration)</u>	<u>Item 3 Drug (Concentration)</u>
THC (11 ng/mL)	THC (76.5 ng/mL)	Carboxy THC (16.5 ng/mL)
Carboxy THC (109.5 ng/mL)	Carboxy THC (24.5 ng/mL)	
Hydroxy THC (5.5 ng/mL)	Hydroxy THC (3.5 ng/mL)	
<p>Please note that the preparation concentration is the value used for calculations during the test preparation phase and may not necessarily represent the final concentration of the samples. It is advised to wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.</p>		

Summary Comments

This test was designed to allow participants to assess their proficiency in the examination for the presence and concentration of cannabinoids in blood. The sample sets provided to participants contained three vials of human whole blood, each representing a separate case. Participants were asked to analyze the blood sample and report the presence of any cannabinoids, any quantitative data obtained (including uncertainty), and the methods used (Refer to the Manufacturer's Information for preparation details).

A total of 43 participants returned results. Of these, 37 screened all three items for the presence of cannabinoids, five did not screen any items and one only screened Items 2 and 3.

Item 1

All participants that reported screening results indicated that cannabinoids were detected. A review of confirmatory testing shows that all 42 participants reported the presence of THC and Carboxy THC. Twenty-nine (69%) participants reported the presence of Hydroxy THC.

Item 2

All participants that reported screening results indicated that cannabinoids were detected. A review of confirmatory testing shows that all 42 participants reported the presence of THC and Carboxy THC. Thirty-three (79%) participants reported the presence of Hydroxy THC.

Item 3

Of the participants that reported screening results, 33 participants reported that cannabinoids were detected and the remaining five (13%) did not detect any cannabinoids with screening methods. A review of confirmatory testing shows that all but one of the 41 reporting participants, reported the presence of Carboxy THC and the one remaining did not detect cannabinoids.

For all three items, the most common screening method was immunoassay and for confirmatory testing, LC/MS/MS was reported most frequently to analyze the samples. The majority of the population used a single determination for their quantitative analysis reporting procedures. If a participant did not report raw data results but indicated that the confirmatory quantitative result was a single determination and reported in ng/mL, their result was included in the raw data table. The raw data was used to calculate the grand mean and standard deviation for each item and are supplied to assist the participants and accrediting bodies in their performance evaluations.

Statistical analysis of all reported analytes showed consistent data and reasonable standard deviations with the exception of those predistribution participants who tested prior to the final distribution. Those results were removed from the analysis and are marked as such in the report. Further analysis of the data received during the normal distribution of the test showed a slight downward trend in concentration based on analysis dates. Although this did not appear to affect the overall statistics, this trend is being investigated further and subsequent tests may include updates to address any stability issues discovered.

Cannabinoid Screening Results - Item 1

TABLE 1A
Were cannabinoids detected?

WebCode	Response	WebCode	Response
2RY79C	Yes	PJ3AGR	Yes
2ZPPP7	Yes	PXZGBM	Yes
4CTR2D	Yes	QH4JNH	Yes
6EGKD9	Yes	RHKZGQ	Yes
6PWD44	No screening performed	RQBKMN	Yes
7LVTEA	Yes	RXA6PJ	No screening performed
94P9R7	Yes	RZ32CR	Yes
AG8F2C	Yes	TJME4L	Yes
C4VUT3	Yes	UVGXHR	Yes
D88Y63	Yes	VREC6F	Yes
E923AX	Yes	WH4CAJ	Yes
EGUDJT	Yes	WNCXXF	Yes
EYCG4Z	Yes	Y4DJBM	Yes
FJRFLZ	Yes	YBVPAE	Yes
GR6REQ	Yes	YJ6J3L	Yes
GYKBW6	No screening performed	YTFLNM	No screening performed
J7DG7N	Yes	ZLU8Z8	Yes
JENJRP	Yes		
JPAPNT	Yes		
JW7KLR	No screening performed		
L6C4XL	Yes		
LA8XVN	Yes		
LBH37Q	Yes		
MQCNBX	Yes		
NX4LDQ	Yes		
PEMWEJ	No screening performed		

Cannabinoid Screening Response Summary for Item 1		Participants: 43
Were cannabinoids detected in this Item?		
<u>Response</u>	<u>Total</u>	
Yes	37	
No	0	
No Screening	6	
No Response	0	

Confirmatory Results - Item 1

TABLE 1B

Item Contents and Preparation Concentration: THC (11 ng/mL)
 Carboxy THC (109.5 ng/mL)
 Hydroxy THC (5.5 ng/mL)

What Cannabinoids were detected in Item 1?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2RY79C	THC		3	1	ng/mL
	Carboxy THC		97	19	ng/mL
	Hydroxy THC		1	0.3	ng/mL
2ZPPP7	THC		5.5	1.1	ng/mL
	Carboxy THC		92	18	ng/mL
	Hydroxy THC		1.9	0.4	ng/mL
4CTR2D	THC		4,98		µg/L
	Carboxy THC		95,1		µg/L
6EGKD9	THC		3	1	ng/mL
	Carboxy THC		96	18	ng/mL
	Hydroxy THC		1	0.2	ng/mL
6PWD44	THC		12	1.6	ng/mL
	Carboxy THC		121		ng/mL
	Hydroxy THC		3.6		ng/mL
94P9R7	THC		3	± 1	ng/mL
	Carboxy THC		89	± 17	ng/mL
	Hydroxy THC		1	± 0.2	ng/mL
AG8F2C	THC		3.7	1.1	ng/mL
	Carboxy THC		78	18	ng/mL
	Hydroxy THC		1.5	0.4	ng/mL
C4VUT3	THC		4	18.35%	ng/mL
	Carboxy THC		92	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
D88Y63	THC		2	0.4	ng/ml
	Carboxy THC		72	+/-14	ng/ml
E923AX	THC		3	0.7	ng/mL
	Carboxy THC		92	18	ng/mL
	Hydroxy THC		1	0.3	ng/mL
EGUDJT	THC		3	1	ng/mL
	Carboxy THC		104	9	ng/mL

TABLE 1B: Confirmatory Results - Item 1

What Cannabinoids were detected in Item 1?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
EYCG4Z	THC		3	+/- 1	ng/mL
	Carboxy THC		98	+/- 19	ng/mL
	Hydroxy THC		1	+/- 0.3	ng/mL
FJRFLZ	THC		6	18.35%	ng/mL
	Carboxy THC		82	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
GR6REQ	THC		3.98	1	ng/mL
	Carboxy THC		90.97	22.75	ng/mL
	Hydroxy THC		1.65	0.42	ng/mL
GYKBW6	THC		4,77	13,2%	ng/mL
	Carboxy THC		91,0	10,3%	ng/mL
	Hydroxy THC		2,14	10,0%	ng/mL
J7DG7N	THC		3	18.35	ng/mL
	Carboxy THC		101	19.08	ng/mL
	Hydroxy THC		1	17.69	ng/mL
JENJRP	THC		3	18.35%	ng/mL
	Carboxy THC		85	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
JPAPNT	THC		3 ng/ml	+/- 1	ng/ml
	Carboxy THC		96 ng/ml	+/- 18	ng/ml
	Hydroxy THC		1 ng/ml	+/- 0.3	ng/ml
JW7KLR	THC		7.4	1.5	ng/ml
	Carboxy THC				
L6C4XL	THC		2	1	ng/ml
	Carboxy THC		74	7	ng/ml
LA8XVN	THC		5	1	ng/mL
	Carboxy THC		0.10	0.02	µg/mL
	Hydroxy THC		2.0	0.4	ng/mL
LBH37Q	THC		3	1	ng/mL
	Carboxy THC		89	17	ng/mL
	Hydroxy THC		1	0.2	ng/mL
MQCNBX	THC		3.3	0.6	ng/mL
	Carboxy THC		74	12	ng/mL
	Hydroxy THC		1.4	0.3	ng/mL

TABLE 1B: Confirmatory Results - Item 1

What Cannabinoids were detected in Item 1?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
NX4LDQ	THC		3	18.35%	ng/mL
	Carboxy THC		97	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
PEMWEJ	THC		0.002		mg/L
	Carboxy THC	✓			
PJ3AGR	THC		3	18.35%	ng/ml
	Carboxy THC		101	19.08%	ng/ml
	Hydroxy THC		1	17.69%	ng/ml
PXZGBM	THC		2	+/- 0.5	ng/ml
	Carboxy THC		78	+/- 15	ng/ml
QH4JNH	THC		5.6	0.9	ng/mL
	Carboxy THC		0.10	0.02	µg/mL
	Hydroxy THC		1.9	0.3	ng/mL
RHKZGQ	THC		4.7	1.2	ng/mL
	Carboxy THC		93	20	ng/mL
RQBKMN	THC		4	18.35%	ng/mL
	Carboxy THC		92	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
RXA6PJ	THC		4.1		ng/mL
	Carboxy THC	✓			
	Hydroxy THC		1.7		ng/mL
RZ32CR	THC		2.5	0.4	ng/mL
	Carboxy THC		61	9	ng/mL
TJME4L	THC		4	+/- 18.35%	ng/mL
	Carboxy THC		98	+/- 19.08%	ng/ml
	Hydroxy THC		1	+/- 17.69%	ng/mL
UVGXHR	THC		3.0	0.4	ng/mL
	Carboxy THC		67.5	9.5	ng/mL
VREC6F	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			

TABLE 1B: Confirmatory Results - Item 1

What Cannabinoids were detected in Item 1?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
WH4CAJ	THC		4	18.35%	ng/mL
	Carboxy THC		98	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
WNCXXF	THC		2	0.5	ng/mL
	Carboxy THC		80	15	ng/mL
Y4DJBM	THC		3.7	0.4	ng//mL
	Carboxy THC		71	8	ng//mL
YBVPAE	THC		3	1	ng/ml
	Carboxy THC		98	19	ng/ml
	Hydroxy THC		1	0.2	ng/ml
YJ6J3L	THC		3,7	1,5	ng/ml
	Carboxy THC		58,7	23,5	ng/ml
YTFLNM	THC		6.0		ug/L
	Carboxy THC		98		ug/L
	Hydroxy THC	✓			
ZLU8Z8	THC		5.1	± 0.9	ng/ml
	Carboxy THC		0.10	± 0.02	µg/ml
	Hydroxy THC		1.9	± 0.3	ng/ml

Confirmatory Response Summary for Item 1		Participants: 42
THC:	42 (100.0%)	
Carboxy THC:	42 (100.0%)	
Hydroxy THC:	29 (69.0%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)	

Raw Data - Item 1

TABLE 1C

Item 1 Raw Data - THC
Preparation concentration: 11 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
2RY79C	3.9900		3.9900
2ZPPP7	5.5000		5.5000
4CTR2D	5.1100	4.8600	4.9850
6EGKD9	3.3800		3.3800
6PWD44	12.000		12.000 *
94P9R7	3.6300		3.6300
AG8F2C	3.7300	3.8700	3.8000
C4VUT3	4.1000		4.1000
D88Y63	2.4200		2.4200
E923AX	3.5500		3.5500
EGUDJT	3.4200		3.4200
EYCG4Z	3.8900		3.8900
FJRFLZ	6.6000		6.6000 *
GR6REQ	3.9800		3.9800
GYKBW6	4.7700		4.7700
J7DG7N	3.3000		3.3000
JENJRP	3.2000		3.2000
JPAPNT	3.7900		3.7900
JW7KLR	7.4900		7.4900 *
L6C4XL	2.1200		2.1200
LA8XVN	5.6710		5.6710
LBH37Q	3.7500		3.7500
MQCNBX	3.2600		3.2600
NX4LDQ	3.6000		3.6000
PEMWEJ	No results were reported for this item or results were not in requested units.		
PJ3AGR	3.3000		3.3000
PXZGBM	2.6100		2.6100
QH4JNH	5.6230		5.6230
RHKZGQ	4.7200		4.7200
RQBKMN	4.4000		4.4000
RXA6PJ	4.0400	4.1300	4.0850
RZ32CR	2.5200		2.5200

TABLE 1C: Raw Data - Item 1

Item 1 Raw Data - THC
Preparation concentration: 11 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
TJME4L	4.3000		4.3000
UVGXHR	3.0000		3.0000
WH4CAJ	4.5000		4.5000
WNCXF	2.6600		2.6600
Y4DJBM	3.7100		3.7100
YBVPAE	3.3500		3.3500
YJ6J3L	3.5000	3.9000	3.7000
YTFLNM	5.8900	6.2000	6.0450
ZLU8Z8	5.1110		5.1110

Statistical Analysis for Item 1 - THC			
Grand Mean	3.88	Number of Participants Included	37
Standard Deviation	0.95	Number of Participants Excluded	3
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		1	

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

TABLE 1C: Raw Data - Item 1
Item 1 Raw Data - Carboxy THC
Preparation concentration: 109.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
2RY79C	97.100	97.100
2ZPPP7	92.000	92.000
4CTR2D	97.900 92.400	95.150
6EGKD9	96.520	96.520
6PWD44	121.00	121.00 *
94P9R7	89.710	89.710
AG8F2C	78.260 78.050	78.160
C4VUT3	92.700	92.700
D88Y63	72.600	72.600
E923AX	92.100	92.100
EGUDJT	104.96	105.00
EYCG4Z	98.700	98.700
FJRFLZ	82.300	82.300 *
GR6REQ	90.970	90.970
GYKBW6	91.000	91.000
J7DG7N	101.70	101.70
JENJRP	85.900	85.900
JPAPNT	96.950	96.950
JW7KLR	89.750	89.750 *
L6C4XL	74.040	74.040
LA8XVN	108.17	108.20
LBH37Q	89.330	89.330
MQCNBX	74.300	74.300
NX4LDQ	97.500	97.500
PJ3AGR	101.60	101.60
PXZGBM	78.100	78.100
QH4JNH	107.80	107.80
RHKZGQ	93.990	93.990
RQBKMN	92.900	92.900
RZ32CR	61.560	61.560
TJME4L	98.200	98.200
UVGXHR	67.500	67.500
WH4CAJ	98.100	98.100

TABLE 1C: Raw Data - Item 1
Item 1 Raw Data - Carboxy THC
Preparation concentration: 109.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)		Participant Mean
WNCXF	80.700		80.700
Y4DJBM	71.470		71.470
YBVPAE	98.800		98.800
YJ6J3L	58.600	58.800	58.700
YTFLNM	97.600	98.940	98.270
ZLU8Z8	105.53		105.50

Statistical Analysis for Item 1 - Carboxy THC			
Grand Mean	89.80	Number of Participants Included	36
Standard Deviation	12.91	Number of Participants Excluded	3
		Number of Participants without Raw Data or Data that was not reported in ng/mL	
		0	

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

TABLE 1C: Raw Data - Item 1
Item 1 Raw Data - Hydroxy THC
Preparation concentration: 5.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
2RY79C	1.7400	1.7400
2ZPPP7	1.9000	1.9000
6EGKD9	1.0300	1.0300
6PWD44	3.6000	3.6000 *
94P9R7	1.1900	1.1900
AG8F2C	1.6400 1.5800	1.6100
C4VUT3	1.6000	1.6000
E923AX	1.6900	1.6900
EYCG4Z	1.8100	1.8100
FJRFLZ	1.7000	1.7000 *
GR6REQ	1.6500	1.6500
GYKBW6	2.1400	2.1400
J7DG7N	1.7000	1.7000
JENJRP	1.4000	1.4000
JPAPNT	1.4600	1.4600
LA8XVN	2.0800	2.0800
LBH37Q	1.0900	1.0900
MQCNBX	1.4300	1.4300
NX4LDQ	1.4000	1.4000
PJ3AGR	1.3000	1.3000
QH4JNH	1.9650	1.9650
RQBKMN	1.7000	1.7000
RXA6PJ	1.6500 1.6500	1.6500
TJME4L	1.8000	1.8000
WH4CAJ	2.0000	2.0000
YBVPAE	1.3300	1.3300
ZLU8Z8	1.9930	1.9930

Statistical Analysis for Item 1 - Hydroxy THC

Grand Mean	1.63	Number of Participants Included	25	Number of Participants without Raw Data or Data that was not reported in ng/mL	0
Standard Deviation	0.30	Number of Participants Excluded	2		

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

Reporting Procedures - Item 1

TABLE 1D - Item 1

Quantitative Reporting Procedures	
WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
2RY79C	A single determination.
2ZPPP7	A single determination.
4CTR2D	The mean of duplicate/several determinations.
6EGKD9	A single determination.
6PWD44	A single determination.
94P9R7	A single determination.
AG8F2C	The lowest of the duplicate
C4VUT3	A single determination.
D88Y63	A single determination.
E923AX	A single determination.
EGUDJT	A single determination.
EYCG4Z	A single determination.
FJRFLZ	A single determination.
GR6REQ	A single determination.
GYKBW6	A single determination.
J7DG7N	A single determination.
JENJRP	A single determination.
JPAPNT	A single determination.
JW7KLR	A single determination.
L6C4XL	A single determination.
LA8XVN	A single determination.
LBH37Q	A single determination.
MQCNBX	A single determination.
NX4LDQ	A single determination.
PEMWEJ	The mean of duplicate/several determinations.
PJ3AGR	A single determination.
PXZGBM	A single determination.
QH4JNH	A single determination.
RHKZGQ	A single determination.
RQBKMN	A single determination.
RXA6PJ	The mean of duplicate/several determinations.

TABLE 1D: Reporting Procedures - Item 1

Quantitative Reporting Procedures

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
RZ32CR	A single determination.
TJME4L	A single determination.
UVGXHR	A single determination.
WH4CAJ	A single determination.
WNCXXF	A single determination.
Y4DJBM	A single determination.
YBVPAE	A single determination.
YJ6J3L	The mean of duplicate/several determinations.
YTFLNM	The mean of duplicate/several determinations.
ZLU8Z8	A single determination.

Response Summary for Item 1		Participants: 41
A single determination:	35 (85.4%)	
The mean of duplicate/several determinations:	5 (100.0%)	
Other:	1 (2.4%)	

Methods of Analysis - Item 1

TABLE 1E - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
2RY79C	Immunoassay LC/MS/MS	✓	✓	✓
2ZPPP7	Immunoassay LC/MS/MS	✓	✓	✓
4CTR2D	LC/MS/MS			✓
6EGKD9	Immunoassay LC/MS/MS	✓	✓	✓
6PWD44	LC/MS/MS		✓	✓
7LVTEA	Immunoassay	✓		
94P9R7	Immunoassay LC/MS/MS	✓	✓	✓
AG8F2C	Immunoassay LC/MS/MS	✓	✓	✓
C4VUT3	Immunoassay LC/MS/MS	✓	✓	✓
D88Y63	Immunoassay LC/MS/MS	✓	✓	✓
E923AX	Immunoassay LC/MS/MS	✓	✓	✓
EGUDJT	Immunoassay LC/MS/MS	✓	✓	✓
EYCG4Z	Immunoassay LC/MS/MS	✓	✓	✓
FJRFLZ	Immunoassay LC/MS/MS	✓	✓	✓
GR6REQ	LC/MS/MS	✓	✓	✓
GYKBW6	GC/MS/MS		✓	✓
J7DG7N	Immunoassay LC/MS/MS	✓	✓	✓
JENJRP	Immunoassay LC/MS/MS	✓	✓	✓
JPAPNT	Immunoassay LC/MS/MS	✓	✓	✓
JW7KLR	GC/MS/MS		✓	

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
L6C4XL	Immunoassay LC/MS/MS	✓	✓	✓
LA8XVN	Immunoassay LC/MS/MS	✓	✓	✓
LBH37Q	Immunoassay LC/MS/MS	✓	✓	✓
MQCNBX	Immunoassay LC/MS/MS	✓	✓	✓
NX4LDQ	Immunoassay LC/MS/MS	✓	✓	✓
PEMWEJ	LC/MS/MS		✓	✓
PJ3AGR	Immunoassay LC/MS/MS	✓	✓	✓
PXZGBM	Immunoassay LC/MS/MS	✓	✓	✓
QH4JNH	Immunoassay LC/MS/MS	✓	✓	✓
RHKZGQ	LC/MS/MS	✓	✓	✓
RQBKMN	LC/MS/MS Immunoassay	✓	✓	✓
RXA6PJ	LC/MS/MS		✓	✓
RZ32CR	Immunoassay LC/MS/MS	✓	✓	✓
TJME4L	Immunoassay LC/MS/MS	✓	✓	✓
UVGXHR	Immunoassay GC/MS	✓	✓	✓
VREC6F	Immunoassay GC/MS	✓	✓	
WH4CAJ	Immunoassay LC/MS/MS	✓	✓	✓
WNCXXF	Immunoassay LC/MS/MS	✓	✓	✓
Y4DJBM	Immunoassay LC/MS/MS	✓	✓	✓
YBVPAE	Immunoassay LC/MS/MS	✓	✓	✓

TABLE 1E: Methods of Analysis - Item 1

WebCode	Method	Screening	Confirmatory	Quantitation
YJ6J3L	LC/MS/MS			✓
YTFLNM	GC/MS/MS		✓	✓
ZLU8Z8	Immunoassay LC/MS/MS	✓	✓	✓

Response Summary for Item 1 - Methods of Analysis				Participants: 43
	Screening	Confirmatory	Quantitation	
Immunoassay:	33	0	0	
GC/MS:	0	2	1	
LC/MS:	0	0	0	
LC/MS/MS:	2	35	37	
Other:	0	3	2	

Additional Comments for Item 1

TABLE 1F

WebCode	Item Comments
2ZPPP7	Internal Standards: Carboxy THC: COOH-THC-d9, Hydroxy THC: 11-OH-THC-d3, THC: Delta-9-THC-d3. LOD/LOQ (low end of curve): Carboxy THC: 2.5 ng/mL, Hydroxy THC: 0.5 ng/mL, THC: 0.5 ng/mL. LOQ (high end of curve): Carboxy THC: 500 ng/mL (if over report as greater than 500 ng/mL), Hydroxy THC: 100 ng/mL, THC: 100 ng/mL
6PWD44	Internal Standards: D3 THC, D3 Hydroxy THC, D3 Carboxy THC. Calibration ranges: THC: 1-50 ng/mL, Hydroxy THC: 1-50 ng/mL, Carboxy THC: 5-250 ng/mL
AG8F2C	Internal standards used were THC-D3, THC-OH-D3, and THC-COOH-D3. Limit of detection for THC and THC-OH is 1 ng/mL and 5 ng/mL for THC-COOH.
GR6REQ	Limit of detection: delta-9-THC 1ng/mL, Hydroxy THC 1ng/mL, Carboxy-THC 5ng/mL. Confirmation method specific to delta-9-THC, was optimized to eliminate interference from delta-8-THC, delta-10-THC, and delta-6a(10a)-THC.
JW7KLR	Internal Standard Lot # 041919bg. Control Lot # 112520. Calibrator Lot # 112320. Calibrator Range 1-100 for THC and 5-100 for Carboxy.
LA8XVN	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
MQCNBX	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL): Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL): Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 1, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoylcegonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
PEMWEJ	The value of THC would be reported as approximate as we do not currently have uncertainty for THC. Deuterated IS was used. [Raw data results not reported in requested units were moved from the tables and not used for statistical calculations. From Table 1C: Raw Data – Item 1, THC: “0.0020, 0.0022”]
QH4JNH	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
RHKZGQ	All uncertainties k=3
RXA6PJ	Internal standards: THC-D3, hydroxy-THC-D3, and carboxy-THC-D9.
UVGXHR	*** THC *** Internal Standard = THC-D3, Reporting Limit = 1 ng/mL, Lower Limit of Quantitation = 1 ng/mL, Upper Limit of Quantitation = 25 ng/mL. *** Carboxy THC *** Internal Standard = Carboxy THC-D9, Reporting Limit = 4 ng/mL, Lower Limit of Quantitation = 4 ng/mL, Upper Limit of Quantitation = 100 ng/mL.
VREC6F	The cutoff for THC, Hydroxy THC, and Carboxy THC is 1 ng/mL.
WH4CAJ	ISTD: THC-D3, THC-OH-D3, and THC-COOH-D3
YTFLNM	Hydroxy THC reported as qualitative only as QC's outside of acceptance criteria for quantitative analysis. Cannabinol was also detected but could not be added in [Data Entry From].
ZLU8Z8	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.

Cannabinoid Screening Results - Item 2

TABLE 2A
Were cannabinoids detected?

WebCode	Response	WebCode	Response
2RY79C	Yes	PJ3AGR	Yes
2ZPPP7	Yes	PXZGBM	Yes
4CTR2D	Yes	QH4JNH	Yes
6EGKD9	Yes	RHKZGQ	Yes
6PWD44	No screening performed	RQBKMN	Yes
7LVTEA	Yes	RXA6PJ	No screening performed
94P9R7	Yes	RZ32CR	Yes
AG8F2C	Yes	TJME4L	Yes
C4VUT3	Yes	UVGXHR	Yes
D88Y63	Yes	VREC6F	Yes
E923AX	Yes	WH4CAJ	Yes
EGUDJT	Yes	WNCXXF	Yes
EYCG4Z	Yes	Y4DJBM	Yes
FJRFLZ	Yes	YBVP AE	Yes
GR6REQ	Yes	YJ6J3L	Yes
GYKBW6	No screening performed	YTFLNM	No screening performed
J7DG7N	Yes	ZLU8Z8	Yes
JENJRP	Yes		
JPAPNT	Yes		
JW7KLR	No screening performed		
L6C4XL	Yes		
LA8XVN	Yes		
LBH37Q	Yes		
MQCNBX	Yes		
NX4LDQ	Yes		
PEMWEJ	Yes		

Cannabinoid Screening Response Summary for Item 2		Participants: 43
Were cannabinoids detected in this Item?		
<u>Response</u>	<u>Total</u>	
Yes	38	
No	0	
No Screening	5	
No Response	0	

Confirmatory Results - Item 2

TABLE 2B

Item Contents and Preparation Concentration: THC (76.5 ng/mL)
 Carboxy THC (24.5 ng/mL)
 Hydroxy THC (3.5 ng/mL)

What Cannabinoids were detected in Item 2?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2RY79C	THC		37	7	ng/mL
	Carboxy THC		26	5	ng/mL
	Hydroxy THC		2	0.4	ng/mL
2ZPPP7	THC		57	11	ng/mL
	Carboxy THC		22	4	ng/mL
	Hydroxy THC		2.3	0.5	ng/mL
4CTR2D	THC		49,67		µg/L
	Carboxy THC		22,69		µg/L
6EGKD9	THC		37	7	ng/mL
	Carboxy THC		25	5	ng/mL
	Hydroxy THC		1	0.2	ng/mL
6PWD44	THC		91	11.8	ng/mL
	Carboxy THC		30		ng/mL
	Hydroxy THC		4.1		ng/mL
94P9R7	THC		38	± 7	ng/mL
	Carboxy THC		23	± 5	ng/mL
	Hydroxy THC		1	± 0.3	ng/mL
AG8F2C	THC		37	11	ng/mL
	Carboxy THC		19	5	ng/mL
	Hydroxy THC		1.9	0.5	ng/mL
C4VUT3	THC		43	18.35%	ng/mL
	Carboxy THC		20	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
D88Y63	THC		26	+/-5	ng/ml
	Carboxy THC		25	+/-5	ng/ml
	Hydroxy THC		1	+/-0.2	ng/ml
E923AX	THC		36	6.6	ng/mL
	Carboxy THC		23	5	ng/mL
	Hydroxy THC		1	0.3	ng/mL

TABLE 2B: Confirmatory Results - Item 2

What Cannabinoids were detected in Item 2?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
EGUDJT	THC		36	4	ng/mL
	Carboxy THC		24	2	ng/mL
EYCG4Z	THC		43	+/- 8	ng/mL
	Carboxy THC		25	+/- 5	ng/mL
	Hydroxy THC		2	+/- 0.4	ng/mL
FJRFLZ	THC		66	18.35%	ng/mL
	Carboxy THC		22	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
GR6REQ	THC		39.88	9.97	ng/mL
	Carboxy THC		18.85	4.72	ng/mL
	Hydroxy THC		2.02	0.51	ng/mL
GYKBW6	THC		44,6	8,7%	ng/mL
	Carboxy THC		23,6	14,5%	ng/mL
	Hydroxy THC		2,45	10,0%	ng/mL
J7DG7N	THC		49	18.35	ng/mL
	Carboxy THC		27	19.08	ng/mL
	Hydroxy THC		2	17.69	ng/mL
JENJRP	THC		34	18.35%	ng/mL
	Carboxy THC		23	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
JPAPNT	THC		40 ng/ml	+/- 7	ng/ml
	Carboxy THC		26 ng/ml	+/- 5	ng/ml
	Hydroxy THC		2 ng/ml	+/- 0.3	ng/ml
JW7KLR	THC		61	13	ng/ml
	Carboxy THC				
L6C4XL	THC		26	3	ng/ml
	Carboxy THC		20	2	ng/ml
LA8XVN	THC		52	9	ng/mL
	Carboxy THC		25	4	ng/mL
	Hydroxy THC		2.5	0.4	ng/mL
LBH37Q	THC		38	7	ng/mL
	Carboxy THC		23	5	ng/mL
	Hydroxy THC		1	0.3	ng/mL

TABLE 2B: Confirmatory Results - Item 2

What Cannabinoids were detected in Item 2?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
MQCNBX	THC		33	6	ng/mL
	Carboxy THC		18	3	ng/mL
	Hydroxy THC		1.8	0.3	ng/mL
NX4LDQ	THC		37	18.35%	ng/mL
	Carboxy THC		26	19.08%	ng/mL
	Hydroxy THC		1	17.69%	ng/mL
PEMWEJ	THC		0.022		mg/L
	Carboxy THC	✓			
PJ3AGR	THC		39	18.35%	ng/ml
	Carboxy THC		27	19.08%	ng/ml
	Hydroxy THC		2	17.69%	ng/ml
PXZGBM	THC		31	+/- 6	ng/ml
	Carboxy THC		24	+/- 5	ng/ml
	Hydroxy THC		1	+/- 0.3	ng/ml
QH4JNH	THC		55	9	ng/mL
	Carboxy THC		26	4	ng/mL
	Hydroxy THC		2.4	0.4	ng/mL
RHKZGQ	THC		46	12	ng/mL
	Carboxy THC		23	5	ng/mL
RQBKMN	THC		43	18.35%	ng/mL
	Carboxy THC		22	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
RXA6PJ	THC		>20		ng/mL
	Carboxy THC	✓			
	Hydroxy THC		2.2		ng/mL
RZ32CR	THC		31	5	ng/mL
	Carboxy THC		17	3	ng/mL
	Hydroxy THC		1.4	0.2	ng/mL
TJME4L	THC		46	+/-18.35%	ng/mL
	Carboxy THC		23	+/-19.08%	ng/mL
	Hydroxy THC		2	+/-17.69%	ng/mL
UVGXHR	THC		>25		ng/mL
	Carboxy THC		17.2	2.5	ng/mL

TABLE 2B: Confirmatory Results - Item 2

What Cannabinoids were detected in Item 2?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
VREC6F	THC	✓			
	Carboxy THC	✓			
	Hydroxy THC	✓			
WH4CAJ	THC		38	18.35%	ng/mL
	Carboxy THC		24	19.08%	ng/mL
	Hydroxy THC		2	17.69%	ng/mL
WNCXXF	THC		32	6	ng/mL
	Carboxy THC		24	5	ng/mL
	Hydroxy THC		1	0.3	ng/mL
Y4DJBM	THC		45	5	ng//mL
	Carboxy THC		19	2	ng//mL
YBVPAE	THC		38	7	ng/ml
	Carboxy THC		27	5	ng/ml
	Hydroxy THC		2	0.4	ng/ml
YJ6J3L	THC		57,5	23,0	ng/ml
	Carboxy THC		14,0	5,6	ng/ml
YTFLNM	THC	✓			
	Carboxy THC		22		ug/L
	Hydroxy THC	✓			
ZLU8Z8	THC		50	± 9	ng/ml
	Carboxy THC		24	± 4	ng/ml
	Hydroxy THC		2.3	± 0.4	ng/ml

Confirmatory Response Summary for Item 2		Participants: 42
THC:	42 (100.0%)	
Carboxy THC:	42 (100.0%)	
Hydroxy THC:	33 (78.6%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	0 (0.0%)	

Raw Data - Item 2

TABLE 2C

Item 2 Raw Data - THC
Preparation concentration: 76.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
2RY79C	37.600			37.600
2ZPPP7	57.000			57.000
4CTR2D	50.470	48.880		49.680
6EGKD9	37.280			37.280
6PWD44	91.000			91.000 *
94P9R7	38.790			38.790
AG8F2C	37.940	38.370		38.160
C4VUT3	43.500			43.500
D88Y63	26.900			26.900
E923AX	36.000			36.000
EGUDJT	36.880			36.880
EYCG4Z	43.300			43.300
FJRFLZ	66.800			66.800 *
GR6REQ	39.880			39.880
GYKBW6	44.600			44.600
J7DG7N	49.400			49.400
JENJRP	34.300			34.300
JPAPNT	40.450			40.450
JW7KLR	61.530			61.530 *
L6C4XL	26.790			26.790
LA8XVN	52.951			52.950
LBH37Q	38.520			38.520
MQCNBX	33.420			33.420
NX4LDQ	37.700			37.700
PEMWEJ	No results were reported for this item or results were not in requested units.			
PJ3AGR	39.200			39.200
PXZGBM	31.500			31.500
QH4JNH	55.737			55.740
RHKZGQ	46.670			46.670
RQBKMN	43.900			43.900
RXA6PJ	37.780	38.460		38.120
RZ32CR	36.700	29.470	29.420	31.860

TABLE 2C: Raw Data - Item 2
Item 2 Raw Data - THC
Preparation concentration: 76.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
TJME4L	46.300	46.300
UVGXHR	29.600	29.600
WH4CAJ	38.900	38.900
WNCXF	32.700	32.700
Y4DJB	45.030	45.030
YBVP	38.200	38.200
YJ6J3L	55.200 59.800	57.500
ZLU8Z8	50.443	50.440

Statistical Analysis for Item 2 - THC		
Grand Mean	40.80	Number of Participants Included 36
Standard Deviation	7.98	Number of Participants Excluded 3
		Number of Participants without Raw Data or Data that was not reported in ng/mL 1

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

TABLE 2C: Raw Data - Item 2
Item 2 Raw Data - Carboxy THC
Preparation concentration: 24.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
2RY79C	26.500	26.500
2ZPPP7	22.000	22.000
4CTR2D	22.370 23.010	22.690
6EGKD9	25.620	25.620
6PWD44	30.000	30.000 *
94P9R7	23.720	23.720
AG8F2C	19.330 19.330	19.330
C4VUT3	20.100	20.100
D88Y63	25.500	25.500
E923AX	23.700	23.700
EGUDJT	24.310	24.310
EYCG4Z	25.000	25.000
FJRFLZ	22.700	22.700 *
GR6REQ	18.850	18.850
GYKBW6	23.600	23.600
J7DG7N	27.700	27.700
JENJRP	23.600	23.600
JPAPNT	26.690	26.690
JW7KLR	21.360	21.360 *
L6C4XL	20.590	20.590
LA8XVN	25.875	25.880
LBH37Q	23.920	23.920
MQCNBX	17.990	17.990
NX4LDQ	26.700	26.700
PJ3AGR	27.000	27.000
PXZGBM	24.800	24.800
QH4JNH	26.650	26.650
RHKZGQ	23.260	23.260
RQBKMN	22.900	22.900
RZ32CR	17.120	17.120
TJME4L	23.900	23.900
UVGXHR	17.200	17.200
WH4CAJ	24.300	24.300

TABLE 2C: Raw Data - Item 2
Item 2 Raw Data - Carboxy THC
Preparation concentration: 24.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)					Participant Mean	
WNCXF	24.800					24.800	
Y4DJBM	19.080					19.080	
YBVPAE	27.000					27.000	
YJ6J3L	14.600	13.400				14.000	
YTFLNM	23.110	23.990	24.930	25.590	18.440	18.690	22.460
ZLU8Z8	24.792					24.790	

Statistical Analysis for Item 2 - Carboxy THC

Grand Mean	23.15	Number of Participants Included	36	Number of Participants without Raw Data or Data that was not reported in ng/mL	0
Standard Deviation	3.31	Number of Participants Excluded	3		

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

TABLE 2C: Raw Data - Item 2
Item 2 Raw Data - Hydroxy THC
Preparation concentration: 3.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)			Participant Mean
2RY79C	2.2400			2.2400
2ZPPP7	2.3000			2.3000
6EGKD9	1.1700			1.1700
6PWD44	4.1000			4.1000 *
94P9R7	1.6000			1.6000
AG8F2C	1.9200	1.9600		1.9400
C4VUT3	2.6000			2.6000
D88Y63	1.3000			1.3000
E923AX	1.8900			1.8900
EYCG4Z	2.4200			2.4200
FJRFLZ	2.4000			2.4000 *
GR6REQ	2.0200			2.0200
GYKBW6	2.4500			2.4500
J7DG7N	2.4000			2.4000
JENJRP	2.0000			2.0000
JPAPNT	2.1600			2.1600
LA8XVN	2.5770			2.5770
LBH37Q	1.7700			1.7700
MQCNBX	1.8200			1.8200
NX4LDQ	1.8000			1.8000
PJ3AGR	2.1000			2.1000
PXZGBM	1.8100			1.8100
QH4JNH	2.4620			2.4620
RQBKMN	2.6000			2.6000
RXA6PJ	2.1600	2.1400		2.1500
RZ32CR	1.5100	1.4600	1.3600	1.4430
TJME4L	2.4000			2.4000
WH4CAJ	2.4000			2.4000
WNCXXF	1.5200			1.5200
YBVP AE	2.0100			2.0100
ZLU8Z8	2.3840			2.3840

Statistical Analysis for Item 2 - Hydroxy THC

Grand Mean	2.06	Number of Participants Included	29	Number of Participants without Raw Data or Data that was not reported in ng/mL	0
Standard Deviation	0.40	Number of Participants Excluded	2		

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

Reporting Procedures - Item 2

TABLE 2D - Item 2

WebCode	Quantitative Reporting Procedures <i>If quantitative analysis was performed, the reported concentrations are:</i>
2RY79C	A single determination.
2ZPPP7	A single determination.
4CTR2D	The mean of duplicate/several determinations.
6EGKD9	A single determination.
6PWD44	A single determination.
94P9R7	A single determination.
AG8F2C	The lowest of duplicate
C4VUT3	A single determination.
D88Y63	A single determination.
E923AX	A single determination.
EGUDJT	A single determination.
EYCG4Z	A single determination.
FJRFLZ	A single determination.
GR6REQ	A single determination.
GYKBW6	A single determination.
J7DG7N	A single determination.
JENJRP	A single determination.
JPAPNT	A single determination.
JW7KLR	A single determination.
L6C4XL	A single determination.
LA8XVN	A single determination.
LBH37Q	A single determination.
MQCNBX	A single determination.
NX4LDQ	A single determination.
PEMWEJ	The mean of duplicate/several determinations.
PJ3AGR	A single determination.
PXZGBM	A single determination.
QH4JNH	A single determination.
RHKZGQ	A single determination.
RQBKMN	A single determination.
RXA6PJ	The mean of duplicate/several determinations.

TABLE 2D: Reporting Procedures - Item 2

Quantitative Reporting Procedures

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
RZ32CR	Carboxy THC is a single determination. The rest are the mean of several determinations.
TJME4L	A single determination.
UVGXHR	A single determination.
WH4CAJ	A single determination.
WNCXXF	A single determination.
Y4DJBM	A single determination.
YBVPAE	A single determination.
YJ6J3L	The mean of duplicate/several determinations.
YTFLNM	The mean of duplicate/several determinations.
ZLU8Z8	A single determination.

Response Summary for Item 2	Participants: 41
A single determination:	34 (82.9%)
The mean of duplicate/several determinations:	5 (100.0%)
Other:	2 (4.9%)

Methods of Analysis - Item 2

TABLE 2E - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
2RY79C	Immunoassay LC/MS/MS	✓	✓	✓
2ZPPP7	Immunoassay LC/MS/MS	✓	✓	✓
4CTR2D	LC/MS/MS			✓
6EGKD9	Immunoassay LC/MS/MS	✓	✓	✓
6PWD44	LC/MS/MS		✓	✓
7LVTEA	Immunoassay	✓		
94P9R7	Immunoassay LC/MS/MS	✓	✓	✓
AG8F2C	Immunoassay LC/MS/MS	✓	✓	✓
C4VUT3	Immunoassay LC/MS/MS	✓	✓	✓
D88Y63	Immunoassay LC/MS/MS	✓	✓	✓
E923AX	Immunoassay LC/MS/MS	✓	✓	✓
EGUDJT	Immunoassay LC/MS/MS	✓	✓	✓
EYCG4Z	Immunoassay LC/MS/MS	✓	✓	✓
FJRFLZ	Immunoassay LC/MS/MS	✓	✓	✓
GR6REQ	LC/MS/MS	✓	✓	✓
GYKBW6	GC/MS/MS		✓	✓
J7DG7N	Immunoassay LC/MS/MS	✓	✓	✓
JENJRP	Immunoassay LC/MS/MS	✓	✓	✓
JPAPNT	Immunoassay LC/MS/MS	✓	✓	✓
JW7KLR	GC/MS/MS		✓	

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
L6C4XL	Immunoassay LC/MS/MS	✓	✓	✓
LA8XVN	Immunoassay LC/MS/MS	✓	✓	✓
LBH37Q	Immunoassay LC/MS/MS	✓	✓	✓
MQCNBX	Immunoassay LC/MS/MS	✓	✓	✓
NX4LDQ	Immunoassay LC/MS/MS	✓	✓	✓
PEMWEJ	Immunoassay LC/MS/MS	✓	✓	✓
PJ3AGR	Immunoassay LC/MS/MS	✓	✓	✓
PXZGBM	Immunoassay LC/MS/MS	✓	✓	✓
QH4JNH	Immunoassay LC/MS/MS	✓	✓	✓
RHKZGQ	LC/MS/MS	✓	✓	✓
RQBKMN	LC/MS/MS Immunoassay	✓	✓	✓
RXA6PJ	LC/MS/MS		✓	✓
RZ32CR	Immunoassay LC/MS/MS	✓	✓	✓
TJME4L	Immunoassay LC/MS/MS	✓	✓	✓
UVGXHR	Immunoassay GC/MS	✓	✓	✓
VREC6F	Immunoassay GC/MS	✓	✓	
WH4CAJ	Immunoassay LC/MS/MS	✓	✓	✓
WNCXXF	Immunoassay LC/MS/MS	✓	✓	✓
Y4DJBW	Immunoassay LC/MS/MS	✓	✓	✓
YBVPAE	Immunoassay LC/MS/MS	✓	✓	✓

TABLE 2E: Methods of Analysis - Item 2

WebCode	Method	Screening	Confirmatory	Quantitation
YJ6J3L	LC/MS/MS			✓
YTFLNM	GC/MS/MS		✓	✓
ZLU8Z8	Immunoassay LC/MS/MS	✓	✓	✓

Response Summary for Item 2 - Methods of Analysis				Participants: 43
	Screening	Confirmatory	Quantitation	
Immunoassay:	34	0	0	
GC/MS:	0	2	1	
LC/MS:	0	0	0	
LC/MS/MS:	2	35	37	
Other:	0	3	2	

Additional Comments for Item 2

TABLE 2F

WebCode	Item Comments
2ZPPP7	Internal Standards: Carboxy THC: COOH-THC-d9, Hydroxy THC: 11-OH-THC-d3, THC: Delta-9-THC-d3. LOD/LOQ (low end of curve): Carboxy THC: 2.5 ng/mL, Hydroxy THC: 0.5 ng/mL, THC: 0.5 ng/mL. LOQ (high end of curve): Carboxy THC: 500 ng/mL (if over report as greater than 500 ng/mL), Hydroxy THC: 100 ng/mL, THC: 100 ng/mL.
6PWD44	Internal Standards: D3 THC, D3 Hydroxy THC, D3 Carboxy THC. Calibration ranges: THC: 1-50 ng/mL, Hydroxy THC: 1-50 ng/mL, Carboxy THC: 5-250 ng/mL.
AG8F2C	Internal standards used were THC-D3, THC-OH-D3, and THC-COOH-D3. Limit of detection for THC and THC-OH is 1 ng/mL and 5 ng/mL for THC-COOH.
GR6REQ	Limit of detection: delta-9-THC 1ng/mL, Hydroxy THC 1ng/mL, Carboxy-THC 5ng/mL. Confirmation method specific to delta-9-THC, was optimized to eliminate interference from delta-8-THC, delta-10-THC, and delta-6a(10a)-THC.
JW7KLR	Internal Standard Lot # 041919bg. Control Lot # 112520. Calibrator Lot # 112320. Calibrator Range 1-100 for THC and 5-100 for Carboxy.
LA8XVN	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
MQCNBX	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL): Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL): Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 1, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoyllecgonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
PEMWEJ	The value of THC would be reported as approximate as we do not currently have uncertainty for THC. Deuterated IS was used. [Raw data results not reported in requested units were moved from tables and not used for statistical calculations. From Table 12: Raw Data – Item 2, THC: “0.0230, 0.0215”]
QH4JNH	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
RHKZGQ	All uncertainties k=3
RXA6PJ	Upper limit of quantitation for THC is 20 ng/mL, so THC concentrations reported as >20 ng/mL. Internal standards: THC-D3, hydroxy-THC-D3, and carboxy-THC-D9.
UVGXHR	*** THC *** Internal Standard = THC-D3, Reporting Limit = 1 ng/mL, Lower Limit of Quantitation = 1 ng/mL, Upper Limit of Quantitation = 25 ng/mL. *** Carboxy THC *** Internal Standard = Carboxy THC-D9, Reporting Limit = 4 ng/mL, Lower Limit of Quantitation = 4 ng/mL, Upper Limit of Quantitation = 100 ng/mL.
VREC6F	The cutoff for THC, Hydroxy THC, and Carboxy THC is 1 ng/mL.
WH4CAJ	ISTD: THC-D3, THC-OH-D3, and THC-COOH-D3
YTFLNM	Hydroxy THC reported as qualitative only as QC's outside of acceptance criteria for quantitative analysis. THC reported as qualitative only as initial result >ULOQ (>25ug/L); Sample analysis repeated 2 further times and THC result decreased significantly therefore result not reported.
ZLU8Z8	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.

Cannabinoid Screening Results - Item 3

TABLE 3A

Were cannabinoids detected?

WebCode	Response	WebCode	Response
2RY79C	Yes	PJ3AGR	Yes
2ZPPP7	No	PXZGBM	Yes
4CTR2D	Yes	QH4JNH	Yes
6EGKD9	Yes	RHKZGQ	Yes
6PWD44	No screening performed	RQBKMN	Yes
7LVTEA	Yes	RXA6PJ	No screening performed
94P9R7	Yes	RZ32CR	Yes
AG8F2C	Yes	TJME4L	Yes
C4VUT3	Yes	UVGXHR	No
D88Y63	No	VREC6F	Yes
E923AX	Yes	WH4CAJ	Yes
EGUDJT	Yes	WNCXXF	No
EYCG4Z	Yes	Y4DJBM	Yes
FJRFLZ	Yes	YBVPAE	Yes
GR6REQ	Yes	YJ6J3L	No
GYKBW6	No screening performed	YTFLNM	No screening performed
J7DG7N	Yes	ZLU8Z8	Yes
JENJRP	Yes		
JPAPNT	Yes		
JW7KLR	No screening performed		
L6C4XL	Yes		
LA8XVN	Yes		
LBH37Q	Yes		
MQCNBX	Yes		
NX4LDQ	Yes		
PEMWEJ	Yes		

Cannabinoid Screening Response Summary for Item 3**Participants: 43**

Were cannabinoids detected in this Item?

<u>Response</u>	<u>Total</u>
Yes	33
No	5
No Screening	5
No Response	0

Confirmatory Results - Item 3

TABLE 3B

Item Contents and Preparation Concentration: Carboxy THC (16.5 ng/mL)

What Cannabinoids were detected in Item 3?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2RY79C	Carboxy THC		15	3	ng/mL
2ZPPP7	Carboxy THC		13	3	ng/mL
4CTR2D	Carboxy THC		13,51		µg/L
6EGKD9	Carboxy THC		16	3	ng/mL
6PWD44	Carboxy THC		17		ng/mL
94P9R7	Carboxy THC		13	± 3	ng/mL
AG8F2C	Carboxy THC		12	3	ng/mL
C4VUT3	Carboxy THC		12	19.08%	ng/mL
D88Y63	Carboxy THC		14	+/-3	ng/ml
E923AX	Carboxy THC		15	3	ng/mL
EGUDJT	Carboxy THC		14	1	ng/mL
EYCG4Z	Carboxy THC		16	+/- 3	ng/mL
FJRFLZ	Carboxy THC		14	19.08%	ng/mL
GR6REQ	Carboxy THC		11.31	2.83	ng/mL
GYKBW6	Carboxy THC		13,8	14,5%	ng/mL
J7DG7N	Carboxy THC		16	19.08	ng/mL
JENJRP	Carboxy THC		14	19.08%	ng/mL
JPAPNT	Carboxy THC		16 ng/ml	+/- 3	ng/ml
JW7KLR	Carboxy THC				
L6C4XL	Carboxy THC		9	1	ng/ml
LA8XVN	Carboxy THC		15	3	ng/mL
LBH37Q	Carboxy THC		14	3	ng/mL
MQCNBX	Carboxy THC		11	2	ng/mL
NX4LDQ	Carboxy THC		15	19.08%	ng/mL
PEMWEJ	Carboxy THC	✓			
PJ3AGR	Carboxy THC		16	19.08%	ng/ml

TABLE 3B: Confirmatory Results - Item 3

What Cannabinoids were detected in Item 3?					
WebCode	Analytes Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
PXZGBM	Carboxy THC		15	+/- 3	ng/ml
QH4JNH	Carboxy THC		15	3	ng/mL
RHKZGQ	Carboxy THC		11	2	ng/mL
RQBKMN	Carboxy THC		15	19.08%	ng/mL
RXA6PJ	Carboxy THC	✓			
RZ32CR	Carboxy THC		10	2	ng/mL
TJME4L	Carboxy THC		15	+/-19.08%	ng/mL
VREC6F	Carboxy THC	✓			
WH4CAJ	Carboxy THC		13	19.08%	ng/mL
WNCXXF	Carboxy THC		15	3	ng/mL
Y4DJBM	Carboxy THC		11	1	ng//mL
YBVPAE	Carboxy THC		16	3	ng/ml
YJ6J3L	No Drugs/Metabolites detected utilizing confirmatory methods.				
YTFLNM	Carboxy THC		14		ug/L
ZLU8Z8	Carboxy THC		15	± 3	ng/ml

Confirmatory Response Summary for Item 3		Participants: 41
Carboxy THC:	40 (97.6%)	
No Drugs/Metabolites Detected Utilizing Confirmatory Methods:	1 (2.4%)	

Raw Data - Item 3

TABLE 3C

Item 3 Raw Data - Carboxy THC
Preparation concentration: 16.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
2RY79C	15.700	15.700
2ZPPP7	13.000	13.000
4CTR2D	13.190 13.830	13.510
6EGKD9	16.150	16.150
6PWD44	17.000	17.000 *
94P9R7	13.160	13.160
AG8F2C	12.510 12.340	12.430
C4VUT3	12.500	12.500
D88Y63	14.000	14.000
E923AX	15.300	15.300
EGUDJT	14.210	14.210
EYCG4Z	16.100	16.100
FJRFLZ	14.000	14.000 *
GR6REQ	11.310	11.310
GYKBW6	13.800	13.800
J7DG7N	16.500	16.500
JENJRP	14.300	14.300
JPAPNT	16.160	16.160
JW7KLR	13.530	13.530 *
L6C4XL	9.8700	9.8700
LA8XVN	15.728	15.730
LBH37Q	14.540	14.540
MQCNBX	10.570	10.570
NX4LDQ	15.600	15.600
PJ3AGR	16.700	16.700
PXZGBM	15.500	15.500
QH4JNH	15.377	15.380
RHKZGQ	11.490	11.490
RQBKMN	15.100	15.100
RZ32CR	10.330	10.330
TJME4L	15.300	15.300
WH4CAJ	13.400	13.400

TABLE 3C: Raw Data - Item 3
Item 3 Raw Data - Carboxy THC
Preparation concentration: 16.5 ng/mL

WebCode	List of Raw Data determinations (ng/mL)	Participant Mean
WNCXF	15.500	15.500
Y4DJBM	11.570	11.570
YBVPAE	16.200	16.200
YTFLNM	15.110 14.630	14.870
ZLU8Z8	15.100	15.100

Statistical Analysis for Item 3 - Carboxy THC		
Grand Mean 14.14	Number of Participants Included 34	Number of Participants without Raw Data or Data that was not reported in ng/mL 0
Standard Deviation 1.92	Number of Participants Excluded 3	

* Due to the apparent degradation of cannabinoids in the samples, participants that tested earlier than the general population as part of predistribution testing were removed from statistical calculations.

Reporting Procedures - Item 3

TABLE 3D - Item 3

Quantitative Reporting Procedures	
WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
2RY79C	A single determination.
2ZPPP7	A single determination.
4CTR2D	The mean of duplicate/several determinations.
6EGKD9	A single determination.
6PWD44	A single determination.
94P9R7	A single determination.
AG8F2C	The lowest of duplicate
C4VUT3	A single determination.
D88Y63	A single determination.
E923AX	A single determination.
EGUDJT	A single determination.
EYCG4Z	A single determination.
FJRFLZ	A single determination.
GR6REQ	A single determination.
GYKBW6	A single determination.
J7DG7N	A single determination.
JENJRP	A single determination.
JPAPNT	A single determination.
JW7KLR	A single determination.
L6C4XL	A single determination.
LA8XVN	A single determination.
LBH37Q	A single determination.
MQCNBX	A single determination.
NX4LDQ	A single determination.
PJ3AGR	A single determination.
PXZGBM	A single determination.
QH4JNH	A single determination.
RHKZGQ	A single determination.
RQBKMN	A single determination.
RXA6PJ	The mean of duplicate/several determinations.
RZ32CR	A single determination.

TABLE 3D: Reporting Procedures - Item 3

Quantitative Reporting Procedures

WebCode	<i>If quantitative analysis was performed, the reported concentrations are:</i>
TJME4L	A single determination.
WH4CAJ	A single determination.
WNCXXF	A single determination.
Y4DJBM	A single determination.
YBVPAE	A single determination.
YTFLNM	The mean of duplicate/several determinations.
ZLU8Z8	A single determination.

Response Summary for Item 3	Participants: 38
A single determination:	34 (89.5%)
The mean of duplicate/several determinations:	3 (100.0%)
Other:	1 (2.6%)

Methods of Analysis - Item 3

TABLE 3E - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
2RY79C	Immunoassay LC/MS/MS	✓	✓	✓
2ZPPP7	Immunoassay LC/MS/MS	✓	✓	✓
4CTR2D	LC/MS/MS			✓
6EGKD9	Immunoassay LC/MS/MS	✓	✓	✓
6PWD44	LC/MS/MS		✓	✓
7LVTEA	Immunoassay	✓		
94P9R7	Immunoassay LC/MS/MS	✓	✓	✓
AG8F2C	Immunoassay LC/MS/MS	✓	✓	✓
C4VUT3	Immunoassay LC/MS/MS	✓	✓	✓
D88Y63	Immunoassay LC/MS/MS		✓	✓
E923AX	Immunoassay LC/MS/MS	✓	✓	✓
EGUDJT	Immunoassay LC/MS/MS	✓	✓	✓
EYCG4Z	Immunoassay LC/MS/MS	✓	✓	✓
FJRFLZ	Immunoassay LC/MS/MS	✓	✓	✓
GR6REQ	LC/MS/MS	✓	✓	✓
GYKBW6	GC/MS/MS		✓	✓
J7DG7N	Immunoassay LC/MS/MS	✓	✓	✓
JENJRP	Immunoassay LC/MS/MS	✓	✓	✓
JPAPNT	Immunoassay LC/MS/MS	✓	✓	✓
JW7KLR	GC/MS/MS		✓	

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
L6C4XL	Immunoassay LC/MS/MS	✓	✓	✓
LA8XVN	Immunoassay LC/MS/MS	✓	✓	✓
LBH37Q	Immunoassay LC/MS/MS	✓	✓	✓
MQCNBX	Immunoassay LC/MS/MS	✓	✓	✓
NX4LDQ	Immunoassay LC/MS/MS	✓	✓	✓
PEMWEJ	Immunoassay LC/MS/MS	✓	✓	
PJ3AGR	Immunoassay LC/MS/MS	✓	✓	✓
PXZGBM	Immunoassay LC/MS/MS	✓	✓	✓
QH4JNH	Immunoassay LC/MS/MS	✓	✓	✓
RHKZGQ	LC/MS/MS	✓	✓	✓
RQBKMN	LC/MS/MS Immunoassay	✓	✓	✓
RXA6PJ	LC/MS/MS		✓	✓
RZ32CR	Immunoassay LC/MS/MS	✓	✓	✓
TJME4L	Immunoassay LC/MS/MS	✓	✓	✓
UVGXHR	Immunoassay	✓		
VREC6F	Immunoassay GC/MS	✓	✓	
WH4CAJ	Immunoassay LC/MS/MS	✓	✓	✓
WNCXF	Immunoassay LC/MS/MS	✓	✓	✓
Y4DJB	Immunoassay LC/MS/MS	✓	✓	✓
YBVP	Immunoassay LC/MS/MS	✓	✓	✓

TABLE 3E: Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
YJ6J3L	LC/MS/MS			✓
YTFLNM	GC/MS/MS		✓	✓
ZLU8Z8	Immunoassay LC/MS/MS	✓	✓	✓

Response Summary for Item 3 - Methods of Analysis				Participants: 43
	Screening	Confirmatory	Quantitation	
Immunoassay:	33	0	0	
GC/MS:	0	1	0	
LC/MS:	0	0	0	
LC/MS/MS:	2	35	36	
Other:	0	3	2	

Additional Comments for Item 3

TABLE 3F

WebCode	Item Comments
2ZPPP7	Internal Standards: Carboxy THC: COOH-THC-d9, Hydroxy THC: 11-OH-THC-d3, THC: Delta-9-THC-d3. LOD/LOQ (low end of curve): Carboxy THC: 2.5 ng/mL, Hydroxy THC: 0.5 ng/mL, THC: 0.5 ng/mL. LOQ (high end of curve): Carboxy THC: 500 ng/mL (if over report as greater than 500 ng/mL), Hydroxy THC: 100 ng/mL, THC: 100 ng/mL.
6PWD44	Internal Standards: D3 THC, D3 Hydroxy THC, D3 Carboxy THC. Calibration ranges: THC: 1-50 ng/mL, Hydroxy THC: 1-50 ng/mL, Carboxy THC: 5-250 ng/mL
AG8F2C	Internal standards used were THC-D3, THC-OH-D3, and THC-COOH-D3. Limit of detection for THC and THC-OH is 1 ng/mL and 5 ng/mL for THC-COOH.
D88Y63	The ELISA THC raw data value (0.956) was closer to the cutoff mean (0.900) than the negative mean (2.424), so confirmatory cannabinoid analysis was performed.
GR6REQ	Limit of detection: delta-9-THC 1ng/mL, Hydroxy THC 1ng/mL, Carboxy-THC 5ng/mL. Confirmation method specific to delta-9-THC, was optimized to eliminate interference from delta-8-THC, delta-10-THC, and delta-6a(10a)-THC.
JW7KLR	Internal Standard Lot # 041919bg. Control Lot # 112520. Calibrator Lot # 112320. Calibrator Range 1-100 for THC and 5-100 for Carboxy.
LA8XVN	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
MQCNBX	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Cannabinoids confirmation panel: Analyte Quantitative Range (ng/mL): Delta-9-THC 0.5 – 50, 11-hydroxy-Delta-9-THC 0.5 – 50, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500. Analysis by immunoassay screening in whole blood for: Assay Cutoff* (ng/mL): Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 1, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoyllecgonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. * Results within 20% of these concentrations are also reported as preliminarily positive.
QH4JNH	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.
RHKZGQ	All uncertainties k=3
RXA6PJ	LOD: 0.5 ng/mL for THC and hydroxy-THC. ULOQ 1 ng/mL for THC and hydroxy-THC. Internal standards: THC-D3, hydroxy-THC-D3, and carboxy-THC-D9.
UVGXHR	NA - No Confirmation Performed
VREC6F	The presence of cannabinoids indicated as the result was below cutoff (10 RLU), but above cutoff for confirmation. The item was continued on for confirmatory analysis. The cutoff for THC, Hydroxy THC, and Carboxy THC is 1 ng/mL.
WH4CAJ	ISTD: THC-D3, THC-OH-D3, and THC-COOH-D3
WNCXF	Screening results were closer to the cutoff than the negative control so confirmatory testing was performed despite the negative screen result.
YJ6J3L	THC LOQ = 1 ng/ml, THCCOOH LOQ = 10 ng/ml.
YTFLNM	No other cannabinoids were detected.
ZLU8Z8	Following a positive cannabinoid screen, confirmation/quantitation of THC, carboxy-THC, and hydroxy-THC is performed using THC-D3, carboxy-THC-D3, and hydroxy-THC-D3, respectively, as internal standards. LOD for both THC and hydroxy-THC is 0.5 ng/mL; LOQ for both is 1 ng/mL. LOD for carboxy-THC is 2.5 ng/mL and LOQ is 5 ng/mL.

Additional Comments

TABLE 4

WebCode	Additional Comments
6PWD44	Participant in Pre-distribution testing
FJRFLZ	Note: These samples were received as a pre-distribution test. Samples were analyzed on Sept. 02, 2021.
PEMWEJ	[Raw data not reported in requested units were removed from tables and not used for statistical calculations. From Table 1C: Raw Data – Item 1, THC: “0.0020, 0.0022”; Table 2C – Item 2, THC: “0.0230, 0.0215”]

-End of Report-
(Appendix may follow)

Test No. 21-5662: Blood Cannabinoids Analysis

DATA MUST BE SUBMITTED BY **Nov. 29, 2021, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234G

WebCode: JXGM8Q

Scenario:

Investigators have submitted three tubes of blood from separate cases to be examined; each was taken from a person suspected of being under the influence of cannabinoids. Using your laboratory's procedures, analyze each tube and report the concentration of any cannabinoid(s) present.

-Samples may contain methanol and ethanol as artifacts from production.

Items Submitted (Sample Pack BCAN):

Item 1: One vial of blood from Case 1

Item 2: One vial of blood from Case 2

Item 3: One vial of blood from Case 3

Screening Results for Item 1:

- 1-1). Were cannabinoids detected for Item 1?
- No screening was performed for this item.
 - No, cannabinoids were not detected.
 - Yes, cannabinoids were detected.

Confirmatory Results and Quantitative Analysis for Item 1:

- 1-2). Was confirmatory analysis performed for this item? Yes No
- 1-3). What cannabinoid(s) were detected in Item 1? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	(<input style="width: 50%;" type="text"/>)
Date(s) Analysis Performed on Analyte: <input style="width: 95%;" type="text"/>				
Raw Data (ng/mL):				
<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>

- 1-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?
 - The mean of duplicate / several determinations?
 - Other? (Specify):

Methods of Analysis for Item 1:

- 1-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments for Item 1:

- 1-6). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

Screening Results for Item 2:

- 2-1). Were cannabinoids detected for Item 2?
- No screening was performed for this item.
 - No, cannabinoids were not detected.
 - Yes, cannabinoids were detected.

Confirmatory Results and Quantitative Analysis for Item 2:

- 2-2). Was confirmatory analysis performed for this item? Yes No
- 2-3). What cannabinoid(s) were detected in Item 2? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	(<input style="width: 40%;" type="text"/>)
Date(s) Analysis Performed on Analyte: <input style="width: 95%;" type="text"/>				
Raw Data (ng/mL):				
<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>

- 2-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?
 - The mean of duplicate / several determinations?
 - Other? (Specify):

Methods of Analysis for Item 2:

- 2-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments for Item 2:

- 2-6). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

Screening Results for Item 3:

- 3-1). Were cannabinoids detected for Item 3?
- No screening was performed for this item.
 - No, cannabinoids were not detected.
 - Yes, cannabinoids were detected.

Confirmatory Results and Quantitative Analysis for Item 3:

- 3-2). Was confirmatory analysis performed for this item? Yes No
- 3-3). What cannabinoid(s) were detected in Item 3? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.
- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input style="width: 95%;" type="text"/>	<input style="width: 95%;" type="text"/>	(<input style="width: 50%;" type="text"/>)
Date(s) Analysis Performed on Analyte: <input style="width: 95%;" type="text"/>				
Raw Data (ng/mL):				
<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>	<input style="width: 15%;" type="text"/>

- 3-4). If quantitative analysis was performed, are the reported concentrations above
- A single determination?
 - The mean of duplicate / several determinations?
 - Other? (Specify):

Methods of Analysis for Item 3:

- 3-5). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation
<input style="width: 95%;" type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Additional Comments for Item 3:

- 3-6). Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

Date Samples Received:

Additional Comments on Test

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section below must be completed.)
- This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory.

ANAB Certificate No.
(Include ASCLD/LAB Certificate here)

A2LA Certificate No.

Step 2: Complete the Laboratory Identifying Information in its entirety.

Authorized Contact Person and Title

Laboratory Name

Location (City/State)