



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Customer: Trojan Horse Cannabis
Product identity: 10:1 Tropical Blast Gummies
Client/Metric ID: Batch: TBD1032822TH
Laboratory ID: 22-004023-0001

Summary

Potency:

Analyte per 6g	Result	Limits	Units	Status		
CBC per 6g [†]	5.85		mg/6g		CBD-Total per 6g	119 mg/6g
CBD per 6g	119		mg/6g			
CBDV per 6g [†]	0.618		mg/6g		THC-Total per 6g	10.8 mg/6g
CBE per 6g [†]	1.24		mg/6g			
CBG per 6g [†]	2.52		mg/6g		(Reported in milligrams per serving)	
CBN per 6g	0.482		mg/6g			
CBT per 6g [†]	2.67		mg/6g			
Δ9-THC per 6g	10.8		mg/6g			

Residual Solvents:

All analytes passing and less than LOQ.

Pesticides:

All analytes passing and less than LOQ.

Metals:

Analyte	Result	Units	Limit	Status
Lead	0.0320	mg/kg	0.50	pass

Microbiology:

Less than LOQ for all analytes.



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Customer: Trojan Horse Cannabis
United States of America (USA)
Product identity: 10:1 Tropical Blast Gummies
Client/Metric ID: Batch: TBD1032822TH
Sample Date:
Laboratory ID: 22-004023-0001
Evidence of Cooling: No
Temp: 20.8 °C
Relinquished by: UPS
Serving Size #1: 6 g

Sample Results

Potency per 6g Method J AOAC 2015 V98-6 (mod)Units mg/se Batch: 2203161 Analyze: 4/13/22 2:02:00 PM					
Analyte	Result	Limits	Units	LOQ	Notes
CBC per 6g†	5.85		mg/6g	0.194	
CBC-A per 6g†	< LOQ		mg/6g	0.194	
CBC-Total per 6g†	5.85		mg/6g	0.365	
CBD per 6g	119		mg/6g	1.94	
CBD-A per 6g	< LOQ		mg/6g	0.194	
CBD-Total per 6g	119		mg/6g	2.11	
CBDV per 6g†	0.618		mg/6g	0.194	
CBDV-A per 6g†	< LOQ		mg/6g	0.194	
CBDV-Total per 6g†	0.618		mg/6g	0.363	
CBE per 6g†	1.24		mg/6g	0.194	
CBG per 6g†	2.52		mg/6g	0.194	
CBG-A per 6g†	< LOQ		mg/6g	0.194	
CBG-Total per 6g†	2.52		mg/6g	0.363	
CBL per 6g†	< LOQ		mg/6g	0.194	
CBL-A per 6g†	< LOQ		mg/6g	0.194	
CBL-Total per 6g†	< LOQ		mg/6g	0.365	
CBN per 6g	0.482		mg/6g	0.194	
CBT per 6g†	2.67		mg/6g	0.194	
Δ8-THCV per 6g†	< LOQ		mg/6g	0.194	
Δ8-THC per 6g†	< LOQ		mg/6g	0.194	
Δ9-THC per 6g	10.8		mg/6g	0.194	
exo-THC per 6g†	< LOQ		mg/6g	0.194	
THC-A per 6g	< LOQ		mg/6g	0.194	
THC-Total per 6g	10.8		mg/6g	0.365	
THCV per 6g†	< LOQ		mg/6g	0.194	
THCV-A per 6g†	< LOQ		mg/6g	0.194	
THCV-Total per 6g†	< LOQ		mg/6g	0.365	
Total Cannabinoids per 6g	144		mg/6g		



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed	Method	Notes
Aerobic Plate Count	< LOQ	10,000	cfu/g	10	2203054	04/11/22	AOAC 990.12 (Petrifilm)	X
E.coli	< LOQ	100	cfu/g	10	2203052	04/11/22	AOAC 991.14 (Petrifilm)	X
Total Coliforms	< LOQ	100	cfu/g	10	2203052	04/11/22	AOAC 991.14 (Petrifilm)	X
Mold (RAPID Petrifilm)	< LOQ	1,000	cfu/g	10	2203053	04/12/22	AOAC 2014.05 (RAPID)	X
Yeast (RAPID Petrifilm)	< LOQ	1,000	cfu/g	10	2203053	04/12/22	AOAC 2014.05 (RAPID)	X
Salmonella spp. by PCR	Negative		/25g		2203056	04/10/22	AOAC 2020.02	X
EHEC including STEC	Negative		/25g		2203059	04/10/22	AOAC RI 121806	X

Solvents	Method	Residual Solvents by GC/MS				Units µg/g	Batch 2203192	Analyzed 04/14/22			
Analyte	Result	Limits	LOQ	LOD	Notes	Analyte	Result	Limits	LOQ	LOD	Notes
2-Methylbutane (Isopentane)	< LOD	1000	200	51.7		2-Methylpentane	< LOD	60.0	30.0	3.75	
2-Propanol (IPA)	< LOD	1000	200	39.3		2,2-Dimethylbutane	< LOD	60.0	30.0	4.01	
2,2-Dimethylpropane (neo-pentane)	< LOD	1000	200	50.0		2,3-Dimethylbutane	< LOD	60.0	30.0	6.09	
3-Methylpentane	< LOD	60.0	30.0	5.44		Acetone	< LOD	1000	200	16.6	
Benzene	< LOD	2.00	1.00	0.120		Butanes (sum)	< LOQ	1000	400		
Ethanol	< LOD	1000	200	32.8		Ethyl acetate	< LOD	1000	200	22.0	
Hexanes (sum)	< LOQ	60.0	150			m,p-Xylene	< LOD	430	200	35.5	
Methanol	< LOD	600	200	50.0		Methylpropane (Isobutane)	< LOD	1000	200	25.9	
n-Butane	< LOD	1000	200	32.2		n-Heptane	< LOD	1000	200	37.1	
n-Hexane	< LOD	60.0	30.0	3.14		n-Pentane	< LOD	1000	200	39.5	
o-Xylene	< LOD	430	200	47.1		Pentanes (sum)	< LOQ	1000	600		
Propane	< LOD	1000	200	26.0		Toluene	< LOD	180	100	21.4	
Total Xylenes	< LOQ	430	400								



Pesticides						Method AOAC 2007.01 & EN 15662 (mod) Units mg/kg Batch 2203150 Analyzed 04/13/22					
Analyte	Result	Limits	LOQ	LOD	Notes	Analyte	Result	Limits	LOQ	LOD	Notes
Abamectin	< LOD		0.070	0.019		Acephate	< LOD		0.020	0.003	
Acequinocyl	< LOD		0.025	0.010		Acetamiprid	< LOD		0.050	0.005	
Aldicarb	< LOD		0.100	0.005		Bifenazate	< LOD		0.010	0.003	
Bifenthrin	< LOD		0.100	0.017		Boscalid	< LOD		0.010	0.003	
Carbaryl	< LOD		0.025	0.003		Carbofuran	< LOD		0.010	0.001	
Chlorantraniliprole	< LOD		0.010	0.002		Chlorfenapyr	< LOD		0.100	0.050	
Chlorpyrifos	< LOD		0.010	0.003		Clofentezine	< LOD		0.010	0.003	
Cyfluthrin	< LOD		0.200	0.20		Cypermethrin	< LOD		0.300	0.050	
Daminozide	< LOD		0.050	0.008		Diazinon	< LOD		0.010	0.001	
Dichlorvos	< LOD		0.050	0.006		Dimethoate	< LOD		0.010	0.003	
Ethoprophos	< LOD		0.010	0.002		Etofenprox	< LOD		0.010	0.002	
Etoxazole	< LOD		0.010	0.003		Fenoxycarb	< LOD		0.010	0.002	
Fenpyroximate	< LOD		0.020	0.002		Fipronil	< LOD		0.010	0.002	
Flonicamid	< LOD		0.025	0.004		Fludioxonil	< LOD		0.010	0.002	
Hexythiazox	< LOD		0.010	0.001		Imazalil	< LOD		0.010	0.002	
Imidacloprid	< LOD		0.010	0.004		Kresoxim-methyl	< LOD		0.010	0.004	
Malathion	< LOD		0.010	0.003		Metalaxyl	< LOD		0.010	0.001	
Methiocarb	< LOD		0.010	0.003		Methomyl	< LOD		0.025	0.004	
MGK-264	< LOD		0.050	0.008		Myclobutanil	< LOD		0.010	0.002	
Naled	< LOD		0.100	0.020		Oxamyl	< LOD		0.500	0.023	
Paclobutrazole	< LOD		0.010	0.002		Parathion-Methyl	< LOD		0.030	0.010	
Permethrin	< LOD		0.040	0.008		Phosmet	< LOD		0.010	0.003	
Piperonyl butoxide	< LOD		0.200	0.032		Prallethrin	< LOD		0.050	0.014	
Propiconazole	< LOD		0.010	0.003		Propoxur	< LOD		0.010	0.003	
Pyrethrins (total)	< LOD		0.025	0.004		Pyridaben	< LOD		0.020	0.004	
Spinosad	< LOD		0.010	0.003		Spiromesifen	< LOD		0.030	0.002	
Spirotetramat	< LOD		0.010	0.002		Spiroxamine	< LOD		0.010	0.001	
Tebuconazole	< LOD		0.010	0.003		Thiacloprid	< LOD		0.010	0.002	
Thiamethoxam	< LOD		0.010	0.003		Trifloxystrobin	< LOD		0.010	0.002	

Metals										
Analyte	Result	Limits	Units	LOQ	LOD	Batch	Analyzed	Method		Notes
Arsenic	< LOD	1.50	mg/kg	0.0179	0.00358	2203170	04/13/22	AOAC 2013.06 (mod.)		X
Cadmium	< LOD	0.500	mg/kg	0.0179	0.00270	2203170	04/13/22	AOAC 2013.06 (mod.)		X
Lead	0.0320	0.500	mg/kg	0.0179	0.00173	2203170	04/13/22	AOAC 2013.06 (mod.)		X
Mercury	< LOD	1.50	mg/kg	0.00895	0.00115	2203170	04/13/22	AOAC 2013.06 (mod.)		X

Mycotoxins										
Analyte	Result	Limits	Units	LOQ	LOD	Batch	Analyzed	Method		Notes
Aflatoxin B2	< LOD	5.00	µg/kg	5.00	1.09	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin B1	< LOD	5.00	µg/kg	5.00	1.26	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin G1	< LOD	5.00	µg/kg	5.00	1.00	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		
Aflatoxin G2	< LOD	5.00	µg/kg	5.00	0.967	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		
Ochratoxin A	< LOD	5.00	µg/kg	5.00	1.54	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		
Ochratoxin B	< LOD		µg/kg	2.00	0.750	2203124	04/12/22	AOAC 2007.01 & EN 15662 (mod)		



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Nutrition

Analyte	Result	Limits	Units	LOQ	LOD	Batch	Analyzed	Method	Notes
Moisture (Loss on Drying)	14.0		g/100g	0.10		2203211	04/13/22	AOAC 925.10 (mod.)	X



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Threshold Note: Action levels per 6 CCR 1010-21 CDPHE requirements

† = Analyte not NELAP accredited.

Units of Measure

/25g = Per 25g

cfu/g = Colony forming units per gram

g = g

g/100g = Grams per 100 Grams

µg/g = Microgram per gram

µg/kg = Micrograms per kilogram = parts per billion (ppb)

mg/kg = Milligram per kilogram = parts per million (ppm)

mg/6g = Milligram per 6g

% = Percentage of sample

% wt = µg/g divided by 10,000

Glossary of Qualifiers

X: Not ORELAP accredited.

Approved Signatory

Derrick Tanner
General Manager



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11



CDPHE - Hemp Product Analysis
Chain of Custody
ORELAP ID: OR100028 | ISO 17025 (ANAB) ID: AT-1508

Document Control ID: 7067 Revision: 3

Company: Trojan Horse Cannabis				Analysis Requested										PO Number:			
Contact: Carly Jackson				Poten	CDP	CDP	Hea	Myc	Mois	CDP				Project Number:			
Street: 4545 E60th Ave #160				cy (H00	HE Pesti	HE Resi	vy Meta	otoxi	ture	HE	Final	Micro	Project Name:				
City: Commerce City State: CO Zip: 80222				10)	cide s (P21	dual Solv	ls (H00	42)	ucts (N19	0)	Prod o	Profil e (	Sampled By:				
Email Results: Support@trojanhorsecannabis.com				50)	(H00	23)							License #: ☐ USDA: ☐ Other:				
Ph: (435) 5534961 Fax: ()													Reporting Requested: ☒ Compliance (CDPHE) or ☐ R&D testing				
Billing (if different):													Turnaround time (TAT) in Business Days (BD): ☐ 5 BD ☒ 3 BD* ☐ 2 BD* *Check for availability				
Lab ID	Amount Received (g)	Client Sample Identification	Date Collected										Sample Type	Product Weight (Units)	Container Weight	Comments	
		10:1 Tropical Blast Gummies, Batch: TBD1032822TH	4/4/22	✓	✓	✓	✓	✓	✓	✓	✓	✓	E	84 g	31	7 INCLUDING PINK IS TBD1032822TH BLUE IS BBD1032822TH	
		10:1 Blueberry Lemon Gummies, Batch: BBD1032822TH	4/4/22	✓	✓	✓	✓	✓	✓	✓	✓	✓	E	84 g	31		
Signature - Relinquished By: Carly Jackson				Date: 4/4/22	Time: 12pm	Signature - Received By: AC				Date: 4-8	Time: 11:11	Lab Use Only:					
												Shipped Via: UPS or ☐ Client drop-off					
												Evidence of cooling: ☐ Yes ☒ No - Temp (°C): 20.8					
												Sample in good condition: ☒ Yes ☐ No					
												☐ Cash ☐ Check ☐ CC ☐ Net:					
												Prelog storage:					

F - Sample Type Codes: Industrial Hemp Plant Material (P); Industrial Hemp Concentrates (C); Topical Product (T); Beverage (B); Industrial Hemp Edible Product (E)

** CDPHE Microbial Panel includes: Salmonella, STEC, Aerobic Plate Count, E.coli & Coliforms, Yeast & Mold

Samples submitted to Columbia Laboratories with testing requirements constitute an agreement for services in accordance with the current terms of service associated with this COC. By signing "Relinquished by" you are agreeing to these terms.
12423 NE Whitaker Way
Portland, OR 97230
P: (503) 254-1794 | Fax: (503) 254-1452
info@columbialaboratories.com
Page of
www.columbialaboratories.com



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11



Document ID: 3177 Revision: 2
Effective: 06/25/2021
Page 1 of 1

Job Number: _____ Search Name: _____

Package/Cooler opened on (if different than received date/time) Date: _____ Time: _____

Received By (Initials): AC Logged in by (Initials): _____ Date: 4-8 Time: 11:09

1) Were custody seals on outside of the package/cooler? YES NO NA
If YES, how many and where? _____

Does date match collection date on COC? _____ YES NO NA

2) Was Chain of Custody (COC) included in the package/cooler? YES NO NA

3) Was COC signed when relinquished and received? (time, date)? YES NO NA

4) How was the package/cooler delivered?

UPS FEDEX USPS CLIENT COURIER OTHER: _____

Tracking Number (written in or copy of shipping label): 1Z 6FX997 03 0955 6166

5) Was packing material used? YES NO NA

Peanuts Bubble Wrap Foam Paper Other: _____

6) Was temperature upon receipt 4°C+- 2°C (if appropriate)? YES NO NA

If not, client contacted: 20.8

Proceed? YES NO

7) Was there evidence of cooling? YES NO NA

What kind? Blue Ice Ice Cooler Packs Dry Ice

8) Were all sample containers sealed in separate plastic bags? YES NO NA

9) Did all sample containers arrive in good condition? YES NO NA

10) Were all sample container labels complete? YES NO NA

11) Did all sample container labels and tags agree with the COC? YES NO NA

12) Were correct sample containers used for the tests indicated? YES NO NA

13) Were VOA vials checked for absence of air bubbles (note if found)? YES NO NA

14) Was a sufficient amount of sample sent in each sample container? YES NO NA

16) Sample location prior to login: R99 R39 R44 F44 Ambient Shelf Cannabis Table Other: _____

Explain any discrepancies: _____

*No Labels
on samples*



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6								
Batch ID: 2203161								
Laboratory Control Sample								
Analyte	Result	Spike	Units	% Rec	Limits	Evaluation	Notes	
CBDVA	0.0331	0.033	%	99.2	80.0 - 120	Acceptable		
CBDV	0.0352	0.033	%	105	80.0 - 120	Acceptable		
CBE	0.0328	0.033	%	98.5	80.0 - 120	Acceptable		
CBD A	0.0339	0.033	%	102	90.0 - 110	Acceptable		
CBGA	0.0326	0.033	%	97.8	80.0 - 120	Acceptable		
CBG	0.0334	0.033	%	100	80.0 - 120	Acceptable		
CBD	0.0337	0.033	%	101	90.0 - 110	Acceptable		
THCV	0.0330	0.033	%	98.9	80.0 - 120	Acceptable		
d8THCV	0.0342	0.033	%	103	80.0 - 120	Acceptable		
THCVA	0.0312	0.033	%	93.6	80.0 - 120	Acceptable		
CBN	0.0360	0.033	%	108	90.0 - 110	Acceptable		
exo-THC	0.0319	0.033	%	95.6	80.0 - 120	Acceptable		
d9THC	0.0353	0.033	%	106	90.0 - 110	Acceptable		
d8THC	0.0323	0.033	%	96.9	90.0 - 110	Acceptable		
CBL	0.0309	0.033	%	92.6	80.0 - 120	Acceptable		
CBC	0.0331	0.033	%	99.3	80.0 - 120	Acceptable		
THCA	0.0345	0.033	%	103	90.0 - 110	Acceptable		
CBCA	0.0324	0.033	%	97.1	80.0 - 120	Acceptable		
CBLA	0.0340	0.033	%	102	80.0 - 120	Acceptable		
CBT	0.0316	0.033	%	94.7	80.0 - 120	Acceptable		

Method Blank

Analyte	Result	LOQ	Units	Limits	Evaluation	Notes	
CBDVA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBDV	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBE	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBD A	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBGA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBG	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBD	< LOQ	0.0006	%	< 0.0006	Acceptable		
THCV	< LOQ	0.0006	%	< 0.0006	Acceptable		
d8THCV	< LOQ	0.0006	%	< 0.0006	Acceptable		
THCVA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBN	< LOQ	0.0006	%	< 0.0006	Acceptable		
exo-THC	< LOQ	0.0006	%	< 0.0006	Acceptable		
d9THC	< LOQ	0.0006	%	< 0.0006	Acceptable		
d8THC	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBL	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBC	< LOQ	0.0006	%	< 0.0006	Acceptable		
THCA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBCA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBLA	< LOQ	0.0006	%	< 0.0006	Acceptable		
CBT	< LOQ	0.0006	%	< 0.0006	Acceptable		

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Revision: 1 Document ID: 7148
Legacy ID: Worksheet Validated 04/20/2021

Laboratory Quality Control Results

J AOAC 2015 V98-6						Batch ID: 2203161		
Sample Duplicate						Sample ID: 21-012002-0002		
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Evaluation	Notes
CBDVA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBDV	0.0251	0.0254	0.003	%	0.969	< 20	Acceptable	
CBE	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBD	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBGA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBG	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBD	9.35	9.48	0.003	%	1.46	< 20	Acceptable	
THCV	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
d8THCV	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
THCVA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBN	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
exo-THC	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
d9THC	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
d8THC	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBL	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBC	0.00589	0.00592	0.003	%	0.537	< 20	Acceptable	
THCA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBCA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBLA	< LOQ	< LOQ	0.003	%	NA	< 20	Acceptable	
CBT	0.00460	0.00457	0.003	%	0.727	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

% - Percent



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Revision: Document ID:
Legacy ID: Effective:

Laboratory Quality Control Results									
Batch ID: 2203192									
Residual Solvents									
Method Blank									
Laboratory Control Sample									
Analyte	Result	LOQ	Notes	Result	Spike	Units	% Rec	Limits	Notes
Propane	ND	< 200		588	572	µg/g	104.5	60 - 120	
Isobutane	ND	< 200		687	731	µg/g	94.0	60 - 120	
Butane	ND	< 200		668	731	µg/g	91.4	60 - 120	
2,2-Dimethylpropane	ND	< 200		978	936	µg/g	104.5	60 - 120	
Methanol	ND	< 200		1730	1620	µg/g	106.8	60 - 120	
Ethylene Oxide	ND	< 30		55.2	56.2	µg/g	98.2	60 - 120	
2-Methylbutane	ND	< 200		1770	1620	µg/g	109.3	60 - 120	
Pentane	ND	< 200		1800	1610	µg/g	111.8	60 - 120	
Ethanol	ND	< 200		1960	1630	µg/g	120.2	70 - 130	
Ethyl Ether	ND	< 200		1790	1620	µg/g	110.5	60 - 120	
2,2-Dimethylbutane	ND	< 30		134	174	µg/g	77.0	60 - 120	
Acetone	ND	< 200		1650	1650	µg/g	100.0	60 - 120	
2-Propanol	ND	< 200		1200	1610	µg/g	74.5	60 - 120	
Ethyl Formate	ND	< 500		1410	1600	µg/g	88.1	70 - 130	
Acetonitrile	ND	< 100		466	496	µg/g	93.6	60 - 120	
Methyl Acetate	ND	< 500		1540	1610	µg/g	95.7	70 - 130	
2,3-Dimethylbutane	ND	< 30		222	176	µg/g	126.1	60 - 120	
Dichloromethane	ND	< 60		491	510	µg/g	96.3	60 - 120	
2-Methylpentane	ND	< 30		167	176	µg/g	94.9	60 - 120	
MTBE	ND	< 500		1580	1600	µg/g	98.8	70 - 130	
3-Methylpentane	ND	< 30		208	175	µg/g	118.9	60 - 120	
Hexane	ND	< 30		192	177	µg/g	108.5	60 - 120	
1-Propanol	ND	< 500		1740	1610	µg/g	108.1	70 - 130	
Methylisobutylketone	ND	< 500		1670	1600	µg/g	104.4	70 - 130	
Ethyl acetate	ND	< 200		1830	1630	µg/g	112.3	60 - 120	
2-Butanol	ND	< 200		1550	1620	µg/g	95.7	60 - 120	
Tetrahydrofuran	ND	< 100		353	500	µg/g	70.6	60 - 120	
Cyclohexane	ND	< 200		1550	1620	µg/g	95.7	60 - 120	
2-methyl-1-propanol	ND	< 500		1440	1620	µg/g	88.9	70 - 130	
Benzene	ND	< 1		3.61	5.32	µg/g	67.9	60 - 120	
Isopropyl Acetate	ND	< 200		1820	1620	µg/g	112.3	60 - 120	
Heptane	ND	< 200		1820	1770	µg/g	102.8	60 - 120	
1-Butanol	ND	< 500		1460	1600	µg/g	91.3	70 - 130	
Propyl Acetate	ND	< 500		1620	1600	µg/g	101.3	70 - 130	
1,4-Dioxane	ND	< 100		532	504	µg/g	105.6	60 - 120	
2-Ethoxyethanol	ND	< 30		219	181	µg/g	121.0	60 - 130	
Methylisobutylketone	ND	< 500		1610	1610	µg/g	100.0	70 - 130	
3-Methyl-1-butanol	ND	< 500		1600	1610	µg/g	99.4	70 - 130	
Ethylene Glycol	ND	< 200		576	494	µg/g	116.6	60 - 120	
Toluene	ND	< 200		495	491	µg/g	100.8	60 - 120	
Isobutyl Acetate	ND	< 500		1560	1600	µg/g	97.5	70 - 130	
1-Pentanol	ND	< 500		1500	1610	µg/g	93.2	70 - 130	
Butyl Acetate	ND	< 500		1510	1610	µg/g	93.8	70 - 130	
Ethylbenzene	ND	< 200		992	973	µg/g	102.0	60 - 120	
m,p-Xylene	ND	< 200		939	996	µg/g	94.3	60 - 120	
o-Xylene	ND	< 200		980	973	µg/g	100.7	60 - 120	
Cumene	ND	< 30		172	170	µg/g	101.2	60 - 120	
Anisole	ND	< 500		1490	1610	µg/g	92.5	70 - 130	
DMSO	ND	< 500		1380	1630	µg/g	84.7	70 - 130	
1,2-dimethoxyethane	ND	< 50		159	164	µg/g	97.0	70 - 130	
Triethylamine	ND	< 500		1370	1600	µg/g	85.6	70 - 130	
N,N-dimethylformamide	ND	< 150		455	497	µg/g	91.5	70 - 130	
N,N-dimethylacetamide	ND	< 150		446	498	µg/g	89.6	70 - 130	
Pyridine	ND	< 50		174	180	µg/g	96.7	70 - 130	
1,2-Dichloroethane	ND	< 1		1	1	µg/g	100.0	70 - 130	
Chloroform	ND	< 1		0.852	1	µg/g	85.2	70 - 130	
Trichloroethylene	ND	< 1		0.71	1	µg/g	71.0	70 - 130	



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11

Revision: Document ID:
Legacy ID: Effective:

QC - Sample Duplicate		Sample ID: 22-004009-0001						
Analyte	Result	Org. Result	LOQ	Units	RPD	Limits	Accept/Fail	Notes
Propane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Butane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylpropane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Methanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethylene Dioxide	ND	ND	30	µg/g	0.0	< 20	Acceptable	
2-Methylbutane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Pentane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Ether	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2,2-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Acetone	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Propanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Ethyl Formate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Acetonitrile	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Methyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2,3-Dimethylbutane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Dichloromethane	ND	ND	60	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
MTBE	ND	ND	500	µg/g	0.0	< 20	Acceptable	
2-Methylpentane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Hexane	ND	ND	30	µg/g	0.0	< 20	Acceptable	
1-Propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Methylethylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethyl acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-Butanol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Tetrahydrofuran	ND	ND	100	µg/g	0.0	< 20	Acceptable	
Cyclohexane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
2-methyl-1-propanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Benzene	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Isopropyl Acetate	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Heptane	ND	ND	200	µg/g	0.0	< 20	Acceptable	
1-Butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Propyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,4-Dioxane	ND	ND	100	µg/g	0.0	< 20	Acceptable	
2-Ethoxyethanol	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Methylisobutylketone	ND	ND	500	µg/g	0.0	< 20	Acceptable	
3-Methyl-1-butanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylene Glycol	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Toluene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Isobutyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1-Pentanol	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Butyl Acetate	ND	ND	500	µg/g	0.0	< 20	Acceptable	
Ethylbenzene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
m,p-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
o-Xylene	ND	ND	200	µg/g	0.0	< 20	Acceptable	
Cumene	ND	ND	30	µg/g	0.0	< 20	Acceptable	
Anisole	ND	ND	500	µg/g	0.0	< 20	Acceptable	
DMSO	ND	ND	500	µg/g	0.0	< 20	Acceptable	
1,2-dimethoxyethane	ND	ND	50	µg/g	0.0	< 20	Acceptable	
Triethylamine	ND	ND	500	µg/g	0.0	< 20	Acceptable	
N,N-dimethylformamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
N,N-dimethylacetamide	ND	ND	150	µg/g	0.0	< 20	Acceptable	
Pyridine	ND	ND	50	µg/g	0.0	< 20	Acceptable	
1,2-Dichloroethane	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Chloroform	ND	ND	1	µg/g	0.0	< 20	Acceptable	
Trichloroethylene	ND	ND	1	µg/g	0.0	< 20	Acceptable	

Abbreviations

ND - None Detected at or above MRL
RPD - Relative Percent Difference
LOQ - Limit of Quantitation

Units of Measure:

µg/g - Microgram per gram or ppm



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 22-004023/D005.R000
Report Date: 04/15/2022
ORELAP#: OR100028
Purchase Order:
Received: 04/08/22 11:11





Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.