



Apple Pie

Sample ID: G5D0166-02

Matrix: Industrial Hemp

Test ID: 5037088

Source ID:

Date Sampled: 04/14/25

Date Accepted: 04/15/25

Arete Enterprises
support@aretehemp.com

Results at a Glance

Total THC : 0.5348 %

Total CBD : 15.33 %

Total CBG : 0.2091 %

Total Terpenes : 0.997 % **PASS**



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Potency Analysis

Date/Time Extracted: 04/17/25 14:56

Analysis Method/SOP: 215

Batch Identification: 2516055

Cannabinoids	LOQ (%)	% by Wt.	mg/g	Cannabinoids Profile
Total THC	0.009080	0.5348	5.348	
Total CBD	0.008300	15.33	153.3	
Total CBG	7.900E-4	0.2091	2.091	
THCA	5.000E-4	0.5601	5.601	
delta 9-THC	5.000E-4	0.04357	0.4357	
delta 8-THC	0.004490	< LOQ	< LOQ	
THCV	0.005055	< LOQ	< LOQ	
THCVA	0.001885	< LOQ	< LOQ	
CBD	0.002000	0.6532	6.532	
CBDA	0.002000	16.74	167.4	
CBDV	0.005000	< LOQ	< LOQ	
CBDVA	0.001640	0.008559	0.08559	
CBN	0.002990	< LOQ	< LOQ	
CBG	7.900E-4	< LOQ	< LOQ	
CBGA	7.900E-4	0.2382	2.382	
CBC	0.008965	0.07820	0.782	

Total THC = delta 9-THC + (THCA * 0.877)

Total CBD = CBD + (CBDA * 0.877)

Total CBG = CBG + (CBGA * 0.878)

LOQ=Limit of Quantification, the lowest measurable concentration of an analyte.

THCA, delta 9-THC, delta 8-THC, CBDA and CBD are accredited by TNI 2016 and ISO 17025



ISO 17025
ACCREDITED
LABORATORY

Nolan Mundie
Lab Director - 4/18/2025

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This is for informational testing and is not compliance testing. Lab results apply to the sample as received.



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Terpene Analysis by GCMS

Date/Time Extracted: 04/17/25 14:56

Analysis Method/SOP: 204

Date/Time Analyzed: 04/18/25 04:38

Analyte	Result	LOD	LOQ	Units	Analyte	Result	LOD	LOQ	Units
(-)-Borneol	< LOQ	0.002	0.005	mg/g	(+)-Borneol	< LOQ	0.002	0.005	mg/g
3-Carene	< LOQ	0.002	0.005	mg/g	alpha-Bisabolol	< LOQ	0.002	0.005	mg/g
alpha-Cedrene	< LOQ	0.002	0.005	mg/g	alpha-Humulene	0.46	0.002	0.005	mg/g
Alpha-Phellandrene	< LOQ	0.002	0.005	mg/g	alpha-Pinene	0.69	0.002	0.005	mg/g
alpha-Terpinene	< LOQ	0.002	0.005	mg/g	alpha-Thujone	< LOQ	0.002	0.005	mg/g
A-Terpineol	< LOQ	0.002	0.005	mg/g	beta-Caryophyllene	1.69	0.002	0.005	mg/g
beta-Myrcene	5.31	0.002	0.005	mg/g	beta-Pinene	< LOQ	0.002	0.005	mg/g
Camphene	< LOQ	0.002	0.005	mg/g	Camphor	< LOQ	0.002	0.005	mg/g
Carvacrol	< LOQ	0.002	0.005	mg/g	Carvone	< LOQ	0.002	0.005	mg/g
Caryophyllene Oxide	< LOQ	0.002	0.005	mg/g	Cedrol	< LOQ	0.002	0.005	mg/g
Cis-beta-Farnesene	< LOQ	0.002	0.005	mg/g	Cis-beta-Ocimene	< LOQ	0.002	0.005	mg/g
cis-Nerolidol	< LOQ	0.002	0.005	mg/g	Citral	< LOQ	0.002	0.005	mg/g
Citronellol	< LOQ	0.002	0.005	mg/g	Endo-fenchyl alcohol	< LOQ	0.002	0.005	mg/g
Eucalyptol	< LOQ	0.002	0.005	mg/g	Farnesol 1	< LOQ	0.002	0.005	mg/g
Farnesol 2	< LOQ	0.002	0.005	mg/g	gamma-Terpinene	< LOQ	0.002	0.005	mg/g
Geraniol	< LOQ	0.002	0.005	mg/g	Geranyl acetate	< LOQ	0.002	0.005	mg/g
Guaiol	< LOQ	0.002	0.005	mg/g	Isoborneol	< LOQ	0.002	0.005	mg/g
Isobornyl Acetate	< LOQ	0.002	0.005	mg/g	Isopulegol	< LOQ	0.002	0.005	mg/g
Limonene	1.18	0.002	0.005	mg/g	Linalool	0.64	0.002	0.005	mg/g
Menthol	< LOQ	0.002	0.005	mg/g	Menthone	< LOQ	0.002	0.005	mg/g
Nootkatone	< LOQ	0.002	0.005	mg/g	Octyl Acetate	< LOQ	0.002	0.005	mg/g
p-Cymene	< LOQ	0.002	0.005	mg/g	Phytane	< LOQ	0.002	0.005	mg/g
Piperitone	< LOQ	0.002	0.005	mg/g	Pulegone	< LOQ	0.002	0.005	mg/g
Sabinene	< LOQ	0.002	0.005	mg/g	Sabinene hydrate	< LOQ	0.002	0.005	mg/g
Safranal	< LOQ	0.002	0.005	mg/g	Squalene	< LOQ	0.002	0.005	mg/g
Terpinen-4-ol	< LOQ	0.002	0.005	mg/g	Terpinolene	< LOQ	0.002	0.005	mg/g
Thymol	< LOQ	0.002	0.005	mg/g	trans-beta-Farnesene	< LOQ	0.002	0.005	mg/g
trans-beta-Ocimene	< LOQ	0.002	0.005	mg/g	trans-Nerolidol	< LOQ	0.002	0.005	mg/g
Valencene	< LOQ	0.002	0.005	mg/g	Verbenone	< LOQ	0.002	0.005	mg/g
Total Terpenes	9.97	0.002	0.005	mg/g					

ND - Compound not detected, <LOQ - Results below the Limit of Quantitation
Terpenes are not Accredited by ORELAP to TNI 2016 and ISO 17025



Apple Pie

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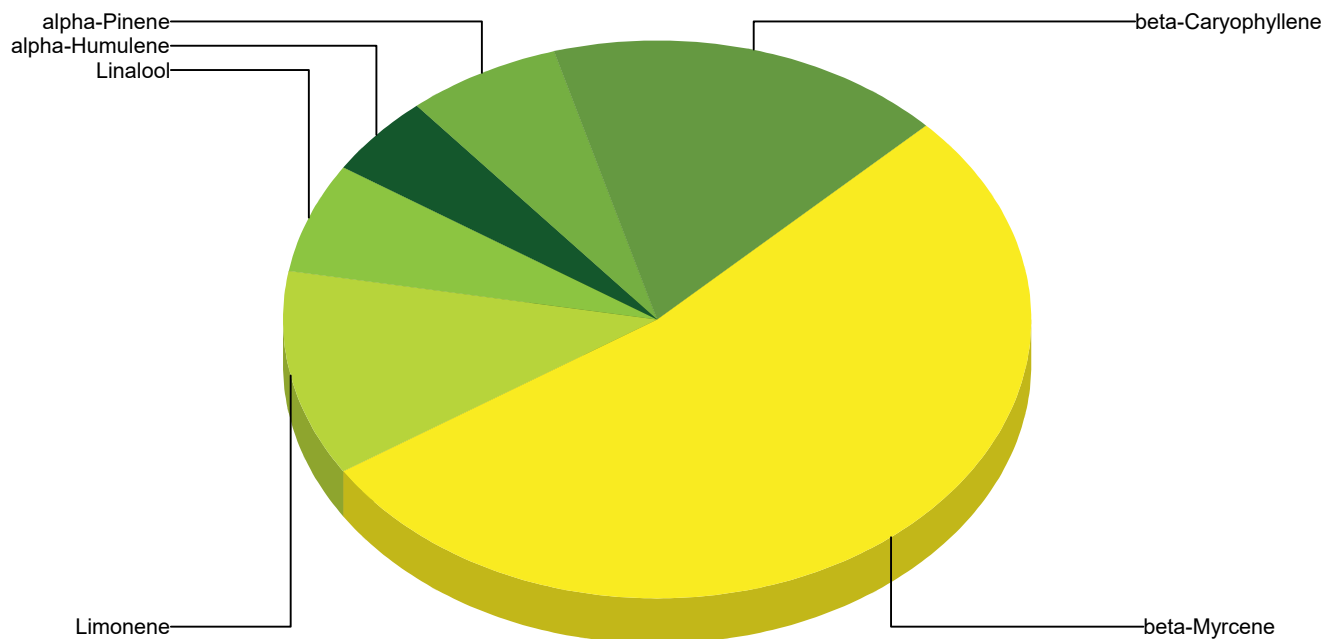
Source ID:

Date Sampled: 04/14/25

Date Accepted: 04/15/25

Arete Enterprises
support@aretehemp.com

Terpene Profile



Percentage of Total Terpenes Identified



Quality Control Potency

Batch: 2516055 - 215-Hemp

Blank(2516055-BLK1)							
Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
THCA	< LOQ	5.000E-4	%		04/17/25 14:56	04/18/25 05:17	
delta 9-THC	< LOQ	5.000E-4	%		04/17/25 14:56	04/18/25 05:17	
delta 8-THC	< LOQ	0.004490	%		04/17/25 14:56	04/18/25 05:17	
THCV	< LOQ	0.005055	%		04/17/25 14:56	04/18/25 05:17	
THCVA	< LOQ	0.001885	%		04/17/25 14:56	04/18/25 05:17	
CBD	< LOQ	5.000E-4	%		04/17/25 14:56	04/18/25 05:17	
CBDA	< LOQ	5.000E-4	%		04/17/25 14:56	04/18/25 05:17	
CBDV	< LOQ	0.005000	%		04/17/25 14:56	04/18/25 05:17	
CBDVA	< LOQ	0.001640	%		04/17/25 14:56	04/18/25 05:17	
CBN	< LOQ	0.002990	%		04/17/25 14:56	04/18/25 05:17	
CBG	< LOQ	7.900E-4	%		04/17/25 14:56	04/18/25 05:17	
CBGA	< LOQ	7.900E-4	%		04/17/25 14:56	04/18/25 05:17	
CBC	< LOQ	0.008965	%		04/17/25 14:56	04/18/25 05:17	

Reference(2516055-SRM1)							
Analyte	% Recovery	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
THCA	97.5	5.000E-4	%	90-110	04/17/25 14:56	04/18/25 05:41	
delta 9-THC	95.7	5.000E-4	%	90-110	04/17/25 14:56	04/18/25 05:41	
delta 8-THC	96.6	0.004490	%	90-110	04/17/25 14:56	04/18/25 05:41	
CBD	90.2	5.000E-4	%	90-110	04/17/25 14:56	04/18/25 05:41	
CBDA	90.4	5.000E-4	%	90-110	04/17/25 14:56	04/18/25 05:41	

Terpene Analysis

Batch: 2516055 - 215-Hemp

Blank(2516055-BLK2)							
Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Bisabolol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Camphene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Camphor	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
3-Carene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
beta-Caryophyllene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Caryophyllene Oxide	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
alpha-Cedrene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Cedrol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Endo-fenchyl alcohol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Eucalyptol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Geraniol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Geranyl acetate	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Guaiol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	



Quality Control Terpene Analysis (Continued)

Batch: 2516055 - 215-Hemp (Continued)

Blank(2516055-BLK2)							
Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Humulene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Isoborneol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Isopulegol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Limonene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Linalool	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
beta-Myrcene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
trans-Nerolidol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
alpha-Pinene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
beta-Pinene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Pulegone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Sabinene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Sabinene hydrate	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
gamma-Terpinene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
alpha-Terpinene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Terpinolene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Valencene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Verbenone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
trans-beta-Farnesene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
A-Terpineol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
cis-Nerolidol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Thymol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Terpinen-4-ol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Squalene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Safranal	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Piperitone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Phytane	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
p-Cymene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Octyl Acetate	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Nootkatone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Menthone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Menthol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Isobornyl Acetate	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Farnesol 1	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Carvone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
alpha-Thujone	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Alpha-Phellandrene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
(+)-Borneol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
(-)-Borneol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	



Quality Control Terpene Analysis (Continued)

Batch: 2516055 - 215-Hemp (Continued)

Blank(2516055-BLK2)							
Analyte	Result	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
Carvacrol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
trans-beta-Ocimene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Cis-beta-Ocimene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Citral	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Citronellol	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Farnesol 2	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	
Cis-beta-Farnesene	< LOQ	0.000500	%		04/17/25 14:56	04/18/25 03:25	

Reference(2516055-SRM2)							
Analyte	% Recovery	LOQ	Units	%Recovery Limits	Extracted	Analyzed	Notes
alpha-Bisabolol	70.0	0.000500	%	70-130	04/17/25 14:56	04/18/25 04:01	
beta-Caryophyllene	80.1	0.000500	%	70-130	04/17/25 14:56	04/18/25 04:01	
alpha-Humulene	72.6	0.000500	%	70-130	04/17/25 14:56	04/18/25 04:01	
Limonene	72.6	0.000500	%	70-130	04/17/25 14:56	04/18/25 04:01	



Notes and Definitions

Regulatory Compliance samples were collected onsite at facility according to SOP-402 and SOP-403 and following Sampling Plan FN117. Quality Control samples were tested as received.
Results do not include uncertainty of measurements. Available upon request.

ATM	Non-cannabis matrix related interference or suppression of Internal standard
BLI	Baseline Interference - Cannabinoid peak interference in chromatographic baseline affecting QC recovery .
BLK	Analyte detected in method blank, but not associated samples.
BSH	Blank Spike High - Blank Spike recovery above method limit. no detections in samples.
BSL	Blank Spike Low - Blank Spike recovery below lower method limit, analyte chromatography reviewed
C	manually for all samples.
CBD	Interference due to co-elution
CV1	CBD matrix interference on GC Pest chromatography
CV2	CCV was above acceptance criteria, Non-detect samples are considered acceptable.
INF	CCV was below acceptance criteria, sample still exceeds regulatory limit.
ISH	One or more QC falls outside acceptance criteria. Data entered into LIMS for informational purposes only.
ISL	Internal Standard concentration is above acceptance criteria.
MSH	Internal Standard concentration is below acceptance criteria.
MSI	Matrix Spike High - Matrix Spike recovery above method limits.
MSL	Matrix Spike Interference - Matrix spike source sample contains analyte hit above calibration affecting
TPP	recovery accuracy in Matrix Spike.
U	Matrix Spike Low - Matrix Spike recovery below lower method limit, analyte chromatography reviewed
	manually for all samples.
	Internal Standard concentration outside control limit due to matrix interference