



**Certificate of Analysis**  
Compliance Test

Client Information:

**SUTHERLAND CBD**  
1420 BELKNAP ST  
SUPERIOR, WI 54880

Batch # 24-051  
Batch Date: 2024-02-20  
Extracted From: HEMP

Test Reg State: Florida

Production Facility: Earth Rider  
Production Date: 2024-02-20

Order # SUT240220-010001  
Order Date: 2024-02-20  
Sample # AAF1024

Sampling Date: 2024-02-21  
Lab Batch Date: 2024-02-21  
Completion Date: 2024-02-27

Volume: 355 ml



Product Image

**Potency Tested**
**Heavy Metals Passed**
**Mycotoxins Passed**
**Pesticides Passed**
**Residual Solvents Passed**

**Pathogenic Microbiology Passed**
**Microbiology (qPCR) Passed**

**Potency 10 - (LCMS)**

Specimen Weight: 340000.000 mg

**Tested**

SOP13.030 (LCMS)

**Potency Summary**

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (µg/ml)	Result (µg/ml)
Delta-9 THC	8.000	2.98E-5	7.5E-5	26.080	0.002608
CBC	8.000	1.94E-6	7.5E-5	<LOQ	<LOQ
CBD	8.000	3.37E-7	7.5E-5	<LOQ	<LOQ
CBDA	8.000	7.78E-8	7.5E-5	<LOQ	<LOQ
CBDV	8.000	9.80E-8	7.5E-5	<LOQ	<LOQ
CBG	8.000	4.00E-7	7.5E-5	<LOQ	<LOQ
CBGA	8.000	4.71E-8	7.5E-5	<LOQ	<LOQ
CBN	8.000	1.25E-6	7.5E-5	<LOQ	<LOQ
THCA-A	8.000	1.51E-7	7.5E-5	<LOQ	<LOQ
THCV	8.000	1.24E-6	7.5E-5	<LOQ	<LOQ
Total Active CBD	8.000			<LOQ	<LOQ
Total Active THC	8.000			26.080	0.002608

<b>Total Active THC</b> 0.002608%	9.258mg	-	<b>Total Active CBD</b> ND
-	<b>Total CBG</b> ND	-	<b>Total CBN</b> ND
-	<b>Other Cannabinoids</b> ND	<b>Total Cannabinoids</b> 0.002608%	9.258mg

Aixia Sun Lab Director/Principal Scientist  
D.H.Sc., M.Sc., B.Sc., MT (AAB)



Definitions and Abbreviations used in this report: Total Active CBD = CBD + (CBD-A \* 0.877), \*Total CBDV = CBDV + (CBDVA \* 0.87), Total Active THC = THCA-A \* 0.877 + Delta 9 THC, Total THC = THCV + (THCVA \* 0.87), CBG Total = (CBGA \* 0.877) + CBG, CBN Total = (CBNA \* 0.877) + CBN, Total CBC = CBC + (CBCA \* 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Total THCP = Delta8-THCP + Delta9-THCP, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta6a10a-THC + Delta8-THC + Total CBN + CBT + CBE + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate + Total THCP. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor, (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram, (µg/g) = Microgram per Gram, (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = Water Activity, (mg/Kg) = Milligram per Kilogram. ACS uses simple acceptance criteria. Passed - Analyte/microbe is not detected or is at the level below the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034. Failed - Analyte/microbe is at the level that equal or above the action limit per FL rule 64ER20-39, 5K-4.036, 5K-4.034 Sample not received via laboratory sampling, An unknown compound found. Did not match CRM.

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Production Facility: Earth Rider  
Production Date: 2024-02-20

Order # SUT240220-010001  
Order Date: 2024-02-20  
Sample # AAFI024

Sampling Date: 2024-02-21  
Lab Batch Date: 2024-02-21  
Completion Date: 2024-02-27

Volume: 355 ml

**Total Yeast and Mold**  
Specimen Weight: 476.900 mg

**Passed**  
SOP13.017 (qPCR)

**Pathogenic Microbiology SAE**  
(MicroArray)

**Passed**  
SOP13.019  
(Micro Array)

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result (cfu/g)	Remark
Total Yeast/Mold	100000	<LOQ	Passed

Dilution Factor: 1.000

Analyte	Result (cfu/g)	Analyte	Result (cfu/g)
Aspergillus flavus	Absence in 1g	Aspergillus terreus	Absence in 1g
Aspergillus fumigatus	Absence in 1g	Salmonella	Absence in 1g
Aspergillus niger	Absence in 1g	STEC E. Coli	Absence in 1g

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Definitions are found on page 1

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Volume: 355 ml



**Heavy Metals**

Specimen Weight: 249.500 mg

**Passed**  
SOP13.048 (ICP-MS)

Dilution Factor: 200

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	4.83	100	1500	<LOQ	Lead (Pb)	11.76	100	500	<LOQ
Cadmium (Cd)	.64	100	500	<LOQ	Mercury (Hg)	.58	100	3000	<LOQ



**Mycotoxins**

Specimen Weight: 592.600 mg

**Passed**  
SOP13.007 (LCMS)

Dilution Factor: 2.530

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	3.0400E-1	6	20	<LOQ	Aflatoxin G2	2.7100E-1	6	20	<LOQ
Aflatoxin B2	7.7000E-2	6	20	<LOQ	Ochratoxin A	7.5400E-1	3.8	20	<LOQ
Aflatoxin G1	3.0400E-1	6	20	<LOQ					



**Residual Solvents - FL (CBD)**

Specimen Weight: 318.800 mg

**Passed**  
SOP13.039 (GCMS)

Dilution Factor: 500.000

Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOD (ppm)	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethene	0.0094	0.16	8	<LOQ	Heptane	0.0013	1.39	5000	<LOQ
1,2-Dichloroethane	0.0003	0.04	5	<LOQ	Hexane	0.068	1.17	290	<LOQ
Acetone	0.015	2.08	5000	<LOQ	Isopropyl alcohol	0.0048	1.39	500	<LOQ
Acetonitrile	0.06	1.17	410	<LOQ	Methanol	0.0005	0.69	3000	<LOQ
Benzene	0.0002	0.02	2	<LOQ	Methylene chloride	0.0029	2.43	600	<LOQ
Butanes	0.4167	2.5	2000	<LOQ	Pentane	0.037	2.08	5000	<LOQ
Chloroform	0.0001	0.04	60	<LOQ	Propane	0.031	5.83	2100	<LOQ
Ethanol	0.0021	2.78	NA	<LOQ	Toluene	0.0009	2.92	890	<LOQ
Ethyl Acetate	0.0012	1.11	5000	<LOQ	Total Xylenes	0.0001	2.92	2170	<LOQ
Ethyl Ether	0.0049	1.39	5000	<LOQ	Trichloroethylene	0.0014	0.49	80	<LOQ
Ethylene Oxide	0.0038	0.1	5	<LOQ					

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Volume: 355 ml

**Pesticides**

Specimen Weight: 592.600 mg

**Passed**

SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.530

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	2.8800E-1	28.23	300	<LOQ	Fludioxonil	1.7400E+0	48	3000	<LOQ
Acephate	2.3000E-2	30	3000	<LOQ	Hexythiazox	4.9000E-2	30	2000	<LOQ
Acequinocyl	9.5640E+0	48	2000	<LOQ	Imazalil	2.4800E-1	30	100	<LOQ
Acetamiprid	5.2000E-2	30	3000	<LOQ	Imidacloprid	9.4000E-2	30	3000	<LOQ
Aldicarb	2.6000E-2	30	100	<LOQ	Kresoxim Methyl	4.2000E-2	30	1000	<LOQ
Azoxystrobin	8.1000E-2	10	3000	<LOQ	Malathion	8.2000E-2	30	2000	<LOQ
Bifenazate	1.4150E+0	30	3000	<LOQ	Metalaxyl	8.1000E-2	10	3000	<LOQ
Bifenthrin	4.3000E-2	30	500	<LOQ	Methiocarb	3.2000E-2	30	100	<LOQ
Boscalid	5.5000E-2	10	3000	<LOQ	Methomyl	2.2000E-2	30	100	<LOQ
Captan	6.1200E+0	30	3000	<LOQ	methyl-Parathion	1.7100E+0	10	100	<LOQ
Carbaryl	2.2000E-2	10	500	<LOQ	Mevinphos	2.1500E+0	10	100	<LOQ
Carbofuran	3.4000E-2	10	100	<LOQ	Myclobutanil	1.0290E+0	30	3000	<LOQ
Chlorantraniliprole	3.3000E-2	10	3000	<LOQ	Naled	9.5000E-2	30	500	<LOQ
Chlordane	1.0000E+1	10	100	<LOQ	Oxamyl	2.5000E-2	30	500	<LOQ
Chlorfenapyr	3.4000E-2	30	100	<LOQ	Paclbutrazol	6.5000E-2	30	100	<LOQ
Chloromequat Chloride	1.0800E-1	10	3000	<LOQ	Pentachloronitrobenzene	1.3200E+0	10	200	<LOQ
Chlorpyrifos	3.5000E-2	30	100	<LOQ	Permethrin	3.4300E-1	30	1000	<LOQ
Clofentezine	1.1900E-1	30	500	<LOQ	Phosmet	8.2000E-2	30	200	<LOQ
Coumaphos	3.7700E+0	48	100	<LOQ	Piperonylbutoxide	2.9000E-2	30	3000	<LOQ
Cyfluthrin	3.1100E+0	30	1000	<LOQ	Prallethrin	7.9800E-1	30	400	<LOQ
Cypermethrin	1.4490E+0	30	1000	<LOQ	Propiconazole	7.0000E-2	30	1000	<LOQ
Daminozide	8.8500E-1	30	100	<LOQ	Propoxur	4.6000E-2	30	100	<LOQ
Diazinon	4.4000E-2	30	200	<LOQ	Pyrethrins	2.3593E+1	30	1000	<LOQ
Dichlorvos	2.1820E+0	30	100	<LOQ	Pyridaben	3.2000E-2	30	3000	<LOQ
Dimethoate	2.1000E-2	30	100	<LOQ	Spinetoram	8.0000E-2	10	3000	<LOQ
Dimethomorph	5.8300E+0	48	3000	<LOQ	Spinosad	8.8000E-2	30	3000	<LOQ
Ethoprophos	3.6000E-1	30	100	<LOQ	Spiromesifen	2.6100E-1	30	3000	<LOQ
Etofenprox	1.1600E-1	30	100	<LOQ	Spirotetramat	8.9000E-2	30	3000	<LOQ
Etoxazole	9.5000E-2	30	1500	<LOQ	Spiroxamine	1.3100E-1	30	100	<LOQ
Fenhexamid	5.1000E-1	10	3000	<LOQ	Tebuconazole	6.7000E-2	30	1000	<LOQ
Fenoxycarb	1.0700E-1	30	100	<LOQ	Thiacloprid	6.4000E-2	30	100	<LOQ
Fenpyroximate	1.3800E-1	30	2000	<LOQ	Thiamethoxam	5.0000E-2	30	1000	<LOQ
Fipronil	1.0700E-1	30	100	<LOQ	Trifloxystrobin	3.7000E-2	30	3000	<LOQ
Flonicamid	5.1700E-1	30	2000	<LOQ					

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