



Certificate of Analysis
Compliance Test

Client Information:

SUTHERLAND CBD
1420 BELKNAP ST
SUPERIOR, WI 54880

Batch # d95tp080723-10060
Batch Date: 2023-08-18
Extracted From: HEMP

Test Reg State: Florida

Production Facility: Midwest Botanical

Order # SUT230818-010001
Order Date: 2023-08-18
Sample # AAEU289

Sampling Date: 2023-08-21
Lab Batch Date: 2023-08-21
Completion Date: 2023-08-26

Initial Gross Weight: 54.896 g
Net Weight: 45.996 g

Number of Units: 1
Net Weight per Unit: 4181.455 mg
Sampling Method: MSP 7.3.1



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

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

Product Image

Potency 10
Specimen Weight: 1548.400 mg

Tested
SOP13.001 (LCUV)

Potency Summary

Total Active THC 0.138%	Total Active CBD 5.760mg	-	Total Active CBD None Detected
-	Total CBG None Detected	-	Total CBN None Detected
Other Cannabinoids 0%		Total Cannabinoids 0.138%	5.770mg

Pieces For Panel: 11

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
Delta-9 THC	10.000	1.30E-5	0.015	1.380	0.138
CBC	10.000	1.80E-5	0.015	<LOQ	<LOQ
CBD	10.000	5.40E-5	0.015	<LOQ	<LOQ
CBDA	10.000	1.00E-5	0.015	<LOQ	<LOQ
CBDV	10.000	6.50E-5	0.015	<LOQ	<LOQ
CBG	10.000	2.48E-4	0.015	<LOQ	<LOQ
CBGA	10.000	8.00E-5	0.015	<LOQ	<LOQ
CBN	10.000	1.40E-5	0.015	<LOQ	<LOQ
THCA-A	10.000	3.20E-5	0.015	<LOQ	<LOQ
THCV	10.000	7.00E-6	0.015	<LOQ	<LOQ
Total Active CBD	10.000			<LOQ	<LOQ
Total Active THC	10.000			1.378	0.138

Aixia Sun
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 = 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 THC + 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 (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.

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard.



Certificate of Analysis
Compliance Test

Client Information: SUTHERLAND CBD 1420 BELKNAP ST SUPERIOR, WI 54880	Batch # d95tp080723-10060 Batch Date: 2023-08-18 Extracted From: HEMP	Test Reg State: Florida	Production Facility: Midwest Botanical
Order # SUT230818-010001 Order Date: 2023-08-18 Sample # AAEU289	Sampling Date: 2023-08-21 Lab Batch Date: 2023-08-21 Completion Date: 2023-08-26	Initial Gross Weight: 54.896 g Net Weight: 45.996 g	Number of Units: 1 Net Weight per Unit: 4181.455 mg Sampling Method: MSP 7.3.1

Total Yeast and Mold Specimen Weight: 500.530 mg	Passed SOP13.017 (qPCR)	Pathogenic Microbiology SAE (MicroArray) Specimen Weight: 1008.950 mg	Passed SOP13.019 (Micro Array)																						
Dilution Factor: 1.000		Dilution Factor: 1.000																							
<table border="1"> <thead> <tr> <th>Analyte</th> <th>Action Level (cfu/g)</th> <th>Result (cfu/g)</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>Total Yeast/Mold</td> <td>100000</td> <td><LOQ</td> <td>Passed</td> </tr> </tbody> </table>	Analyte	Action Level (cfu/g)	Result (cfu/g)	Remark	Total Yeast/Mold	100000	<LOQ	Passed	<table border="1"> <thead> <tr> <th>Analyte</th> <th>Result (cfu/g)</th> <th>Analyte</th> <th>Result (cfu/g)</th> </tr> </thead> <tbody> <tr> <td>Aspergillus flavus</td> <td>Absence in 1g</td> <td>Aspergillus terreus</td> <td>Absence in 1g</td> </tr> <tr> <td>Aspergillus fumigatus</td> <td>Absence in 1g</td> <td>Salmonella</td> <td>Absence in 1g</td> </tr> <tr> <td>Aspergillus niger</td> <td>Absence in 1g</td> <td>STEC E. Coli</td> <td>Absence in 1g</td> </tr> </tbody> </table>	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
Analyte	Action Level (cfu/g)	Result (cfu/g)	Remark																						
Total Yeast/Mold	100000	<LOQ	Passed																						
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																						

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

Definitions are found on page 1
This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard.





Certificate of Analysis
Compliance Test

Client Information:

SUTHERLAND CBD
1420 BELKNAP ST
SUPERIOR, WI 54880

Batch # d95tp080723-10060
Batch Date: 2023-08-18
Extracted From: HEMP

Test Reg State: Florida

Production Facility: Midwest Botanical

Order # SUT230818-010001
Order Date: 2023-08-18
Sample # AAEU289

Sampling Date: 2023-08-21
Lab Batch Date: 2023-08-21
Completion Date: 2023-08-26

Initial Gross Weight: 54.896 g
Net Weight: 45.996 g

Number of Units: 1
Net Weight per Unit: 4181.455 mg
Sampling Method: MSP 7.3.1



Heavy Metals

Specimen Weight: 251.900 mg

Passed
SOP13.048 (ICP-MS)

Dilution Factor: 198

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: 604.330 mg

Passed
SOP13.007 (LCMS)

Dilution Factor: 2.480

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: 323.500 mg

Passed
SOP13.039 (GCMS)

Dilution Factor: 1.000

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	9.946
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	5000	130.800	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					

Aixia Sun

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

Definitions are found on page 1

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard.





Certificate of Analysis
Compliance Test

Client Information:

SUTHERLAND CBD
1420 BELKNAP ST
SUPERIOR, WI 54880

Batch # d95tp080723-10060
Batch Date: 2023-08-18
Extracted From: HEMP

Test Reg State: Florida

Production Facility: Midwest Botanical

Order # SUT230818-010001
Order Date: 2023-08-18
Sample # AAEU289

Sampling Date: 2023-08-21
Lab Batch Date: 2023-08-21
Completion Date: 2023-08-26

Initial Gross Weight: 54.896 g
Net Weight: 45.996 g

Number of Units: 1
Net Weight per Unit: 4181.455 mg
Sampling Method: MSP 7.3.1

Pesticides

Specimen Weight: 604.330 mg

Passed

SOP13.007 (LCMS/GCMS)

Dilution Factor: 2.480

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	100	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
Fonicamid	5.1700E-1	30	2000	<LOQ					

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

Definitions are found on page 1

This report shall not be reproduced, without written approval, from ACS Laboratory. The results of this report relate only to the material or product analyzed. Test results are confidential unless explicitly waived otherwise. ACS Laboratory is accredited to the ISO/IEC 17025:2017 Standard.

