



**Certificate of Analysis**  
Compliance Test

**Client Information:**

**Red Mesa Science and Refining**  
4443 E Commerce Dr  
St. George, Utah 84790

Batch # R240405MS88  
Batch Date: 2024-04-05  
Extracted From: Hemp

Test Reg State: Utah

Production Facility: Red Mesa Science and Refining

Order # RED240411-010001  
Order Date: 2024-04-11  
Sample # AAFM273

Sampling Date: 2024-04-18  
Lab Batch Date: 2024-04-18  
Completion Date: 2024-04-23

Initial Gross Weight: 42.504 g



Product Image

Microbiology Petrifilm **Passed**
 Filtration **Passed**
 Heavy Metals **Passed**
 Mycotoxins **Passed**
 Residual Solvents **Passed**
 Pathogenic Microbiology **Passed**

**Potency 10**

Specimen Weight: 503.380 mg

**Tested**

SOP13.001 (LCUV)

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBN	50.000	1.40E-5	0.015	576.180	57.618
CBD	50.000	5.40E-5	0.015	196.970	19.697
CBC	50.000	1.80E-5	0.015	35.660	3.566
THCV	50.000	7.00E-6	0.015	2.930	0.293
CBDA	50.000	1.00E-5	0.015	<LOQ	<LOQ
CBDV	50.000	6.50E-5	0.015	<LOQ	<LOQ
CBG	50.000	2.48E-4	0.015	<LOQ	<LOQ
CBGA	50.000	8.00E-5	0.015	<LOQ	<LOQ
Delta-9 THC	50.000	1.30E-5	0.015	<LOQ	<LOQ
THCA-A	50.000	3.20E-5	0.015	<LOQ	<LOQ
Total Active CBD	50.000			196.970	19.697
Total Active THC	50.000			<LOQ	<LOQ

**Potency Summary**

Total Active THC None Detected	Total Active CBD 19.697%
Total CBG None Detected	Total CBN 57.618%
Other Cannabinoids 3.859%	Total Cannabinoids 81.174%

*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 THCV = 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 UT rule R68-37. Failed - Analyte/microbe is at the level that equal or above the action limit per UT rule R68-37. Sample not received via laboratory sampling.

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721 Cortaro Dr.  
Sun City Center, FL 33573  
www.acslabcannabis.com  
DEA No. RA0571996  
FL License # CMTL-0003  
CLIA No. 10D1094068

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**Filth and Foreign Material**

Specimen Weight: N/A Dilution Factor: 1.000

Analyte	Action Level (%)	Result (%)	Analyte	Action Level (%)	Result (%)
Covered Area	10	0.000	Weight %	1	0.000
Feces	0.5	0.000			

**Passed**  
SOP13.020  
(Visual/Microscope)

**Microbiology (Petrifilm)**  
Specimen Weight: 1005.600 mg

**Passed**  
SOP13.003  
(Petrifilm)

Analyte	LOQ (cfu/g)	Action Level (cfu/g)	Result (cfu/g)	Analyte	LOQ (cfu/g)	Action Level (cfu/g)	Result (cfu/g)
Aerobic Bacteria	10	10000	<10	Total Enterobacteriaceae	10	1000	<10
E. Coli / Coliform	10	100	<10	Yeast/Mold	10	1000	<10

**Pathogenic Microbiology SAE (MicroArray)**

Specimen Weight: 1042.600 mg

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

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

*Aixia Sun*

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

Definitions are found on page 1

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**Heavy Metals (For UT Clients ONLY)**

Specimen Weight: 247.900 mg

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

Dilution Factor: 201.694

Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOD (ppb)	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	.014	100	2000	<LOQ	Lead (Pb)	.006	100	1200	<LOQ
Cadmium (Cd)	.002	100	820	<LOQ	Mercury (Hg)	.014	100	400	<LOQ

**Mycotoxin - Utah**

Specimen Weight: 582.800 mg

**Passed**  
SOP13.007 (LCMS)

Dilution Factor: 2.570

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 (For UT Clients ONLY)**

Specimen Weight: 53.900 mg

**Passed**  
SOP13.056, 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)
1,2 Dimethoxyethane	.004	6.4	100	<LOQ	Ethyl Acetate	.0017	6.4	5000	<LOQ
1,4 Dioxane	.0022	8	380	<LOQ	Ethyl Ether	.0004	8	5000	<LOQ
1-Butanol	.0103	6.4	5000	<LOQ	Ethylene glycol	.0013	6.4	620	<LOQ
1-Pentanol	.0103	0.32	5000	<LOQ	Ethylene Oxide		0.32	50	<LOQ
1-Propanol	.003	8	5000	<LOQ	Heptane	.002	8	5000	<LOQ
2,2-dimethylbutane	.0016	12	290	<LOQ	Isopropyl acetate	.0012	8	5000	<LOQ
2,3-dimethylbutane	.0011	26.668	290	<LOQ	Isopropyl alcohol	.111	6.4	5000	<LOQ
2-Butanol	.0002	8	5000	<LOQ	Methanol	.0021	4	3000	<LOQ
2-Ethoxyethanol	.0013	4	160	<LOQ	Methylene chloride	.0006	0.8	600	<LOQ
2-methylbutane	.0108	2	5000	<LOQ	Methylpropane	.0366	2	5000	<LOQ
2-Methylpentane	.0108	6.4	290	<LOQ	N,N-dimethylacetamide	.0229	6.4	1090	<LOQ
3-Methylpentane	.0108	2.4	290	<LOQ	N,N-dimethylformamide	.005	0.132	880	<LOQ
Acetone	.0009	12	5000	<LOQ	n-Hexane		0.8	290	<LOQ
Acetonitrile	.0011	0.96	410	<LOQ	Pentane	.0167	12	5000	<LOQ
Benzene	.0003	0.016	2	<LOQ	Propane	.0849	26.668	5000	<LOQ
Butane	.0028	13.32	5000	<LOQ	Pyridine	.0014	6.4	100	<LOQ
Cumene	.0002	0.032	70	<LOQ	Sulfolane	.0518	6.4	160	<LOQ
Cyclohexane	.0024	0.032	3880	<LOQ	Tetrahydrofuran	.0006	6.4	720	<LOQ
Dimethyl sulfoxide	.001	6.4	5000	<LOQ	Toluene	.0003	2.4	890	<LOQ
Ethanol	.0044	16	NA	<LOQ	Total Xylenes	.0002	7.2	1000	<LOQ

*Aixia Sun*  
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