

ANALYZED BY:

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CUSTOMER:

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4443 E Commerce Drive
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MANUFACTURER:

Red Mesa Science and Refining
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St George 84790



SAMPLE INFORMATION

Sample No.: 1331616
Product Name: Water Soluble CBN 20%
Matrix: Concentrate (Orally Consumed Concentrate)
Lot #: RW250804MS134

Date Collected: 08/20/2025
Date Received: 08/19/2025
Date Reported: 08/25/2025

TEST SUMMARY

Cannabinoid Profile: ✔ Tested
Pesticide Residue Screen: ✔ Pass
Heavy Metal Screen: ✔ Pass
Mycotoxin Screen: ✔ Pass
Microbiological Screen: ✔ Pass
Residual Solvent Screen: ✔ Pass
Foreign Material: ✔ Pass

Cannabinoid Profile

08/21/2025

Method: MF-CHEM-15
Instrument: Liquid Chromatography Diode Array Detector (LC-DAD)
Limit of Detection 0.1667 mg/g
Limit of Quantitation 0.5000 mg/g

Cannabinoid	mg/g	%
Δ8-THC	ND	ND
Δ9-THC	ND	ND
Δ9-THCA	ND	ND
THCV	ND	ND
THCVA	ND	ND
CBD	ND	ND
CBDA	ND	ND
CBC	ND	ND
CBCA	ND	ND
CBDV	ND	ND
CBG	ND	ND
CBGA	ND	ND
CBN	180.96	18.096
Total THC	ND	ND
Total CBD	ND	ND
Total Cannabinoids	180.96	18.096
Sum of Cannabinoids	180.96	18.096

Total THC = Δ8-THC + Δ9-THC + (0.877 * THCA)
Total CBD = CBD + (0.877 * CBDA)
Total Cannabinoids = Σ (neutral cannabinoids) + [0.877 * Σ (acidic cannabinoids)]

Comments Reported value is based on the average of two replicates (188.38 and 173.55 mg/g CBN). Difference between replicates was outside acceptable range and the sample was retested.

Microbiological Screen ✔ Pass

08/25/2025

Analyte	Findings	Units	Method	Limit	Status
Salmonella	ND	/1g	AOAC 2016.01	ND	Pass
STEC	ND	/1g	Neogen MDS STEC	ND	Pass
Aspergillus	ND	/1g	GENE- UP ASPERGILLUS PRO	ND	Pass
Listeria Species	ND	/1g	AOAC 2016.07	ND	Pass
Total Aerobic Plate Count	<10	cfu/g	FDA BAM	100	Pass
Total Coliforms	<10	cfu/g	FDA BAM - ECC Agar	100	Pass
E. Coli	ND	/1g	FDA BAM Modified	1	Pass
Total Enterobacteriaceae	<10	cfu/g	AOAC 2003.01	ND	Pass
Staphylococcus aureus	<10	cfu/g	AOAC 2003.07	ND	Pass
Total Yeast and Mold	<10	cfu/g	FDA BAM	1,000	Pass

Pesticide Residue Screen ✔ Pass

08/25/2025

Method: MF-CHEM-13

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Abamectin	0.04/0.10	ND	0.3	Pass
Acephate	0.02/0.06	ND	5.0	Pass
Acequinocyl	0.04/0.10	ND	4.0	Pass
Acetamiprid	0.017/0.05	ND	5.0	Pass
Aldicarb	0.02/0.06	ND	0.02	Pass
Azoxystrobin	0.02/0.06	ND	40.0	Pass
Bifenazate	0.02/0.06	ND	5.0	Pass
Bifenthrin	0.04/0.10	ND	0.5	Pass
Boscalid	0.02/0.06	ND	10.0	Pass
Captan	0.2/0.6	ND	5.0	Pass
Carbaryl	0.02/0.06	ND	0.5	Pass
Carbofuran	0.017/0.05	ND	0.017	Pass
Chlorantraniliprole	0.02/0.06	ND	40.0	Pass
Chlordane	0.02/0.06	ND	0.02	Pass
Chlorfenapyr	0.02/0.06	ND	0.02	Pass
Chlorpyrifos	0.02/0.06	ND	0.02	Pass
Clofentezine	0.02/0.06	ND	0.5	Pass
Coumaphos	0.02/0.06	ND	0.02	Pass
Cyfluthrin	0.10/0.30	ND	1.0	Pass
Cypermethrin	0.10/0.30	ND	1.0	Pass
Daminozide	0.017/0.05	ND	0.017	Pass
DDVP (Dichlorvos)	0.013/0.04	ND	0.013	Pass
Diazinon	0.017/0.05	ND	0.2	Pass
Dimethoate	0.017/0.05	ND	0.017	Pass
Dimethomorph	0.017/0.05	ND	20.0	Pass
Ethoprop(hos)	0.02/0.06	ND	0.02	Pass
Etofenprox	0.02/0.06	ND	0.02	Pass
Etoxazole	0.02/0.06	ND	1.5	Pass
Fenhexamid	0.017/0.05	ND	10.0	Pass
Fenoxycarb	0.02/0.06	ND	0.02	Pass
Fenpyroximate	0.02/0.06	ND	2.0	Pass
Fipronil	0.02/0.06	ND	0.02	Pass
Flonicamid	0.02/0.06	ND	2.0	Pass
Fludioxonil	0.02/0.06	ND	30.0	Pass
Hexythiazox	0.02/0.06	ND	2.0	Pass
Imazalil	0.02/0.06	ND	0.02	Pass
Imidacloprid	0.02/0.06	ND	3.0	Pass
Kresoxim Methyl	0.02/0.06	ND	1.0	Pass
Malathion	0.017/0.05	ND	5.0	Pass
Metalaxyl	0.017/0.05	ND	15.0	Pass
Methiocarb	0.02/0.06	ND	0.02	Pass
Methomyl	0.013/0.04	ND	0.1	Pass
Methyl parathion	0.02/0.06	ND	0.02	Pass
Mevinphos	0.02/0.06	ND	0.02	Pass
Myclobutanil	0.02/0.06	ND	9.0	Pass
Naled	0.017/0.05	ND	0.5	Pass
Oxamyl	0.013/0.04	ND	0.2	Pass
Paclobutrazol	0.02/0.06	ND	0.02	Pass
Pentachloronitrobenzene	0.017/0.05	ND	0.2	Pass
Permethrins	0.10/0.30	ND	20.0	Pass
Phosmet	0.02/0.06	ND	0.2	Pass
Piperonyl Butoxide	0.02/0.06	ND	8.0	Pass
Prallethrin	0.04/0.10	ND	0.4	Pass
Propiconazole	0.02/0.06	ND	20.0	Pass
Propoxur	0.013/0.04	ND	0.013	Pass
Pyrethrins	0.15/0.50	ND	1.0	Pass
Pyridaben	0.017/0.05	ND	3.0	Pass
Spinetoram	0.02/0.06	ND	3.0	Pass
Spinosad	0.02/0.06	ND	3.0	Pass
Spiromesifen	0.04/0.10	ND	12.0	Pass
Spirotetramat	0.02/0.06	ND	13.0	Pass
Spiroxamine	0.017/0.05	ND	0.017	Pass
Tebuconazole	0.02/0.06	ND	2.0	Pass
Thiacloprid	0.013/0.04	ND	0.013	Pass
Thiamethoxam	0.02/0.06	ND	4.5	Pass

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Trifloxystrobin	0.02/0.06	ND	30.0	Pass

Residual Solvent Screen ✔ Pass

08/25/2025

Method: MF-CHEM-32

Instrument: Gas Chromatography Mass Spectrometry (GC/MS)

Analyte	LOD/LOQ (ppm)	Findings (ppm)	Limit (ppm)	Status
1,2-Dichloroethane	0.5/0.5	ND	1	Pass
Acetone	57/200	ND	5000	Pass
Acetonitrile	56/200	ND	410	Pass
Benzene	0.5/0.5	ND	1	Pass
n-Butane	45/200	ND	5000	Pass
Chloroform	0.5/0.5	ND	1	Pass
Ethanol	37/200	<LOQ	Not Applicable	Pass
Ethyl acetate	38/200	ND	5000	Pass
Ethyl ether	37/200	ND	5000	Pass
Ethylene oxide	0.1/0.5	ND	1	Pass
n-Heptane	135/200	ND	5000	Pass
n-Hexane	49/200	ND	290	Pass
Isopropyl alcohol	57/200	ND	5000	Pass
Methanol	37/200	ND	3000	Pass
Methylene chloride	0.1/0.5	ND	1	Pass
n-Pentane	37/200	ND	5000	Pass
Propane	72/200	ND	5000	Pass
Toluene	49/200	ND	890	Pass
Total xylenes (ortho-, meta-, para-)	58/200	ND	2170	Pass
Trichloroethylene	0.5/0.5	ND	1	Pass

Heavy Metal Screen ✔ Pass

08/25/2025

Method: MF-CHEM-16

Instrument: Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.003/0.05	<LOQ	1.5	Pass
Cadmium	0.008/0.05	ND	0.5	Pass
Mercury	0.002/0.05	ND	3	Pass
Lead	0.01/0.125	<LOQ	0.5	Pass

Foreign Material ✔ Pass

08/25/2025

Method: MF-CHEM-7

Analyte	Findings	Limit	Status
Sand, Soils, Cinders, and Dirt	ND	25%	Pass
Mold	ND	25%	Pass
Imbedded Foreign Material	ND	25%	Pass
Insect Fragment	ND	1 per 3g	Pass
Hair	ND	1 per 3g	Pass
Mammalian Excreta	ND	1 per 3g	Pass

Mycotoxin Screen ✔ Pass

08/25/2025

Method: MF-CHEM-13

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/kg)	Findings (µg/kg)	Limit (µg/kg)	Status
Aflatoxin B1	2/5	ND	-	-
Aflatoxin B2	2/5	ND	-	-
Aflatoxin G1	2/5	ND	-	-
Aflatoxin G2	2/5	ND	-	-
Total Aflatoxins	8/20	ND	20	Pass
Ochratoxin A	6/18	ND	20	Pass

ND = None Detected
LOD = Limit of Detection
LOQ = Limit of Quantitation

Reported by



Vu Lam
Lab Co Director



Scan to verify