

- CERTIFICATE OF ANALYSIS -

Material:	Fulvic Trace Mineral Powder	Product Number:	HHFMP8090120
Country of Origin:	United States	Batch Number:	20080
Handling Instructions:	See MSDS attached	Date of Manufacture:	03/21/2020
Laboratory FDA Registration Number:	11405908668	Expiration Date:	03/2025
Mineral Logic FDA Registration Number:	18395658198	Lab Report Numbers:	208877-01, 21C0489-01
Packaging: (Kilograms)	Poly-bags: 4 - 6 mil	Test Completion Date(s):	1/14/2021, 4/13/2021

Physical Data:	Specification	Result	Per Unit	Method
% Soluble	100	100	%	Standard
pH	7.0-9.0	8.65	N/A	EPA 150.1
Color	Brown Powder	Complies	N/A	Visual
Moisture (%)	< 5.0	0.94	%	Modifies USP <921> Method 111
Water Activity (Aw)	< 0.86	0.217	N/A	AOAC 978.18
Particle Size (mesh)	40 mesh	> 99.9	% Passing	USP <786>
Sample Type:	Powder	Complies	N/A	Physical/Visual
Fulvic Acid: (%)	> 22 %	43.00	%	J AOAC, 97 (3): 721-730/L LAMAR STANDARDIZED

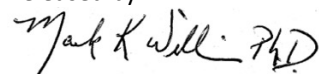
Minerals	Specification ppm	Result	Per Unit	Method
Calcium	18,000 - 45,000	33,420	ppm	ICP-OES USP <730>
Iron	1500 - 10,000	2,112	ppm	ICP-OES USP <730>
Magnesium	1000 -4,500	1,965	ppm	ICP-OES USP <730>
Potassium	10,000 - 35,000	29,950	ppm	ICP-OES USP <730>
Sodium	10,000 - 45,000	31,820	ppm	ICP-OES USP <730>
Sulfur	20,000 - 70,000	57,180	ppm	ICP-OES USP <730>

Heavy Metals	Specification ppm	Result	Per Unit	Method
Arsenic	< 5	1.017	ppm	ICP-MS USP <730>
Cadmium	< 1	0.065	ppm	ICP-MS USP <730>
Lead	< 2	0.126	ppm	ICP-MS USP <730>
Mercury	<0.10	< 0.001	ppm	ICP-MS USP <730>

Microbiology:	Specification	Result	Per Unit	Method
Total Aerobic Microbial Count	< 5,000	< 10	CFU/g	USP <2021>
Coliform Count	< 10	< 3	MPN/g	FDA BAM
E. Coli Count	< 10	< 3	MPN/g	FDA BAM
Salmonella	Absent per 10 g	Absent	per 10 g	USP <2022>
Staphylococcus	Absent per 10 g	Absent	per 10 g	USP <2022>
Yeast	< 1000	<10	CFU/g	USP <2021>
Mold	< 1000	< 10	CFU/g	USP <2021>

Quality Unit Release Date: 4/14/2021

Released by:



Mark K. Williams, PhD, QU Manager
Mineral Logic LLC