



- CERTIFICATE of ANALYSIS -

Material:	Alkaline Black Fulvic/Humic Minerals	Product Number:	HHAK50A50201
Country of Origin:	United States	Batch Number:	21232
Handling Instructions:	See MSDS attached	Date of Manufacture:	8/19/2021
Laboratory FDA Registration Number:	11405908668	Retest Date:	8/2024
Mineral Logic FDA Registration Number:	18395658198	Lab Report Numbers:	221180-01, 21H0436-01
Packaging:	1 / 20 / 1000 Liters or 1 / 30 / 55 / 275 Gallons	Test Completion Date(s):	9/7/2021, 9/14/21

Physical Data:	Specification	Result	Per Unit	Method
pH	10.8 – 11.3	11.04	N/A	EPA 150.1 or AOAC 943.2
Appearance/Color	Black Liquid	Complies	N/A	Visual
TDS = Total Dissolved Solids	> 0.5%	3.93	%	AOAC 920.193
Sample Type:	Liquid	Complies	N/A	Physical/Visual
SG = Specific Gravity (G/CC) 20° C:	1.000-1.150	1.008	N/A	Modified USP <841> or Standard
Humic Acid: (%)	>0.5%	2.51	%	LAMAR STANDARDIZED
Fulvic Acid: (%)	0.05- 1.0 %	0.73	%	LAMAR STANDARDIZED

Heavy Metals	Specification ppm	Result	Per Unit	Method
Arsenic	< 2	0.012	ppm	ICP-MS USP <730>
Cadmium	< 0.5	0.003	ppm	ICP-MS USP <730>
Lead	< 2	0.290	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	< 10,000	120	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: 9/ 15 /2021

Released by:

Mark K. Williams, Ph.D., Quality Assurance
Mineral Logic LLC

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