

Eden Research Laboratory

To: Biosphere

Date: August 9, 2024

From: Thomas Poth

Number of pages including cover: 2

Regarding: ASTM D 5511-18 update for Biosphere Study - 1691 days

Update

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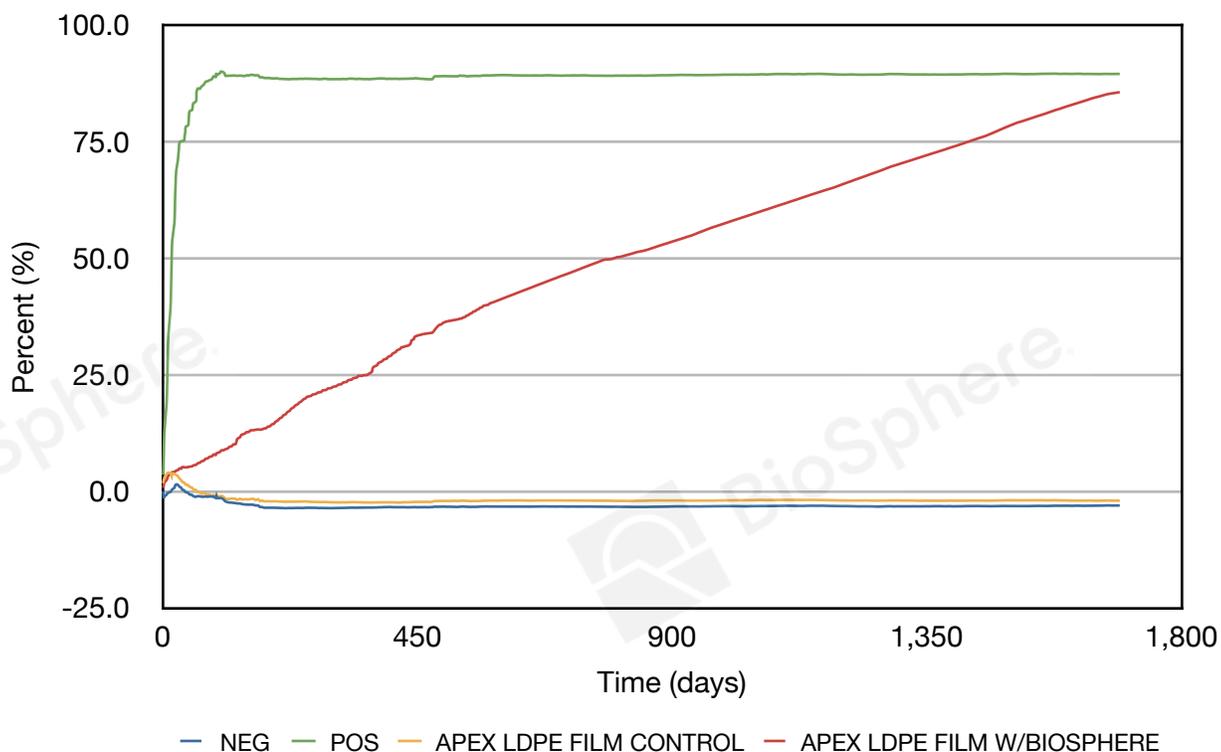
T 505.508.3994

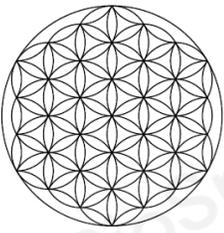
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	Inoculum	Negative	Positive	APEX LDPE FILM CONTROL	APEX LDPE FILM W/ BIOS-PHERE
Cumulative Gas Volume (mL)	7092.1	6590.8	15524.6	6757.4	38109.0
Percent CH ₄ (%)	52.8	52.4	45.8	48.3	53.7
Volume CH ₄ (mL)	3746.1	3455.0	7113.7	3266.8	20452.1
Mass CH ₄ (g)	2.68	2.47	5.08	2.33	14.61
Percent CO ₂ (%)	35.9	36.0	40.2	35.9	34.9
Volume CO ₂ (mL)	2544.7	2371.1	6246.8	2426.4	13300.1
Mass CO ₂ (g)	5.00	4.66	12.27	4.77	26.13
Sample Mass (g)	10	10	10	20.0	20.0
Theoretical Sample Mass (g)	0.0	8.6	4.2	17.1	17.1
Biodegraded Mass (g)	3.37	3.12	7.16	3.05	18.08
Percent Biodegraded (%)		-2.9	89.7	-1.9	85.8

Biodegradation





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