



March 13, 2014

Mail To:

Bill Sabatka
Arcadis U.S., Inc.
211 North Florence, Suite 202
El Paso, TX 79901

email: bill.sabatka@arcadis-us.com

Bill To:

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Dear Mr. Sabatka:

Thank you for consulting TRI/Environmental, Inc. (TRI) for your geosynthetics testing needs. TRI is pleased to submit this final report for laboratory testing.

Project: **Asarco El Paso-Category 1 Landfill Cell 3**
TRI Job Reference Number: **E2388-16-07**
Material(s) Tested: **Two Bentomat DN GCL(s)**
Test(s) Requested: **Mass/Unit Area (ASTM D5993)**

If you have any questions or require any additional information, please call us at 1-800-880-8378.

Sincerely,

John M. Allen, P.E.
Division Director
Geosynthetic Services Division
www.GeosyntheticTesting.com



GCL TEST RESULTS

TRI Client: Arcadis U.S., Inc.

Project: Asarco El Paso-Category 1 Landfill Cell 3

Material: Bentomat DN GCL

TRI Log #: E2388-16-07

PARAMETER	TEST REPLICATE NUMBER										MEAN	STD. DEV.	
	1	2	3	4	5	6	7	8	9	10			
Bentonite - Mass/Unit Area (ASTM D5993, result @ 0% M.C.)													
Sample Identification: 10													
Bentonite mass/unit area (lbs/ft ²)	1.06	1.14	1.06	1.05	1.02							1.07	0.04
Moisture Content (%)	26.8	27.4	28.1	28.0	28.3							27.7	0.6
Bentonite - Mass/Unit Area (ASTM D5993, result @ 0% M.C.)													
Sample Identification: 10319													
Bentonite mass/unit area (lbs/ft ²)	0.81	0.89	0.81	0.88	0.95							0.87	0.06
Moisture Content (%)	23.8	22.6	23.0	20.2	20.6							22.0	1.6
MD Machine Direction	TD Transverse Direction		NA Not Available										