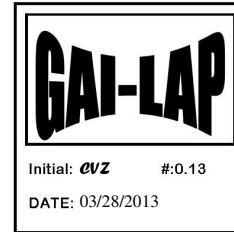




March 28, 2013

Jerry Brownstein
Xetex Corporation USA
70 East Sunset Way #188
Issaquah, WA 98027



Re: FINAL LABORATORY TEST REPORT

Dear Mr. Brownstein:

Thank you for consulting Precision Geosynthetic Laboratories International (PGLI) for your material testing needs.

Enclosed is the **final** laboratory report for the Conformance testing of one (1) 12oz Non-Woven Geotextile sample.

PROJECT NAME: Geotextile Testing

DATE REPORTED: March 28, 2013

REFERENCE PGLI JOB NO.: G130210

DATE RECEIVED: March 11, 2013

SAMPLES SENT BY: Xetex Corp.

SAMPLE IDENTIFICATIONS:

SAMPLE ID

12oz Non-Woven Geotextile

PGLI CONTROL NUMBER

89767

TESTS REQUIRED / PERFORMED:

TEST METHOD

1. ASTM D3786
2. ASTM D4491
3. ASTM D4533
4. ASTM D4595
5. ASTM D4632
6. ASTM D4751
7. ASTM D4833
8. ASTM D5261

DESCRIPTION

- Mullen Burst Strength
- Permittivity
- Trapezoidal Tear Resistance
- Wide-Width Strip Tensile
- Grab Tensile
- Apparent Opening Size
- Puncture Resistance
- Mass Per Unit Area

TEST RESULTS: The test results are summarized in the attached Table 1.

Respectfully,

PRECISION GEOSYNTHETIC LABORATORIES INTERNATIONAL

Maria Espitia
Quality Assurance

Carmelo V. Zantua
Technical Director

Signatures are on file

It shall be noted that the sample tested is believed to be true representative of the material produced under the designation herein stated. In addition, the attached laboratory tests results are considered indicative only of the quality of samples/specimens that were actually tested. The appropriate test methods hereby employed are based on the current and accepted industry practices. PGLI neither accepts responsibility for nor makes claims to the intended final use and purpose of the material. The test data and all associated project information shall be held confidential and not to be reproduced and/or disclosed to other parties except in full and with prior written approval from pertinent entity duly authorized by the respective client or from the client itself. It is our policy to keep physical records of each job for two (2) years commencing from the date of receipt of the samples and keep its corresponding electronic file for seven (7) years. **Retained conformance samples are disposed of after one (1) month.** On the other hand, should you need us to keep them at a longer period, please advise us in writing.

3 Pages Total

TABLE 1.
MATERIAL PROPERTIES
CLIENT: Xextex Corporation USA
PROJECT: Geotextile Testing

Date Received: 3/11/2013
 Date Reported: 3/28/2013
 Client Sample ID: 12 oz Non-Woven Geotextile
 Material Description: 12oz Non-Woven Geotextile

QC'd By: Maria Espitia
 PGL Job No.: **G130210**
 PGL Control No.: **89767**

| | | SPECIMENS | | | | | | | | | | Avg. | Std. Dev. | Min | Max | Proj. Specs. |
|------------|---|-----------|------|------|----------------|------|-----|----------------|---|---|----|------|-----------|------|------|--------------|
| METHOD | DESCRIPTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | |
| ASTM D5261 | Mass per Unit Area (oz/ yd. ²) <i>Test Specimen Size: 4" x 8"</i> | 12.1 | 12.1 | 12.2 | 12.2 | 11.7 | | | | | | 12.1 | 0.2 | 11.7 | 12.2 | |
| ASTM D4632 | Grab Tensile <i>Test was performed as directed in D4632, dry condition. Instron Tensile Testing Machine with hydraulic action grips and 1 in x 2 in rubber faces was used. Maximum load used for testing: 500 lbs</i> | | | | | | | | | | | | | | | |
| | Grab Breaking Load (lbs) | | | | | | | | | | | | | | | |
| | MD | 219 | 186 | 180 | 178 | 202 | 209 | Limited Sample | | | | 196 | 17 | 178 | 219 | |
| | TD | 224 | 226 | 223 | 224 | 219 | 213 | Limited Sample | | | | 222 | 5 | 213 | 226 | |
| | Apparent Breaking Elongation (percent) | | | | | | | | | | | | | | | |
| | MD | 107 | 110 | 100 | 104 | 108 | 109 | Limited Sample | | | | 106 | 4 | 100 | 110 | |
| | TD | 114 | 114 | 115 | 115 | 111 | 106 | Limited Sample | | | | 113 | 3 | 106 | 115 | |
| ASTM D4595 | Wide- Width Strip Tensile <i>Test was performed as directed in D4595, dry condition. Instron Tensile Testing Machine equipped with 2 in x 8 in Curtis Sure Grips was used. Full scale force range used for testing: 1500 lbs</i> | | | | | | | | | | | | | | | |
| | Tensile Strength (lbs/ in.) | | | | | | | | | | | | | | | |
| | MD | 77 | 73 | 80 | Limited Sample | | | | | | | 77 | 3 | 73 | 80 | |
| | TD | 101 | 104 | 104 | Limited Sample | | | | | | | 103 | 2 | 101 | 104 | |
| | Elongation at Break (percent) | | | | | | | | | | | | | | | |
| | MD | 94 | 89 | 88 | Limited Sample | | | | | | | 90 | 3 | 88 | 94 | |
| | TD | 106 | 93 | 110 | Limited Sample | | | | | | | 103 | 9 | 93 | 110 | |
| ASTM D4595 | Wide- Width Strip Tensile <i>Test was performed as directed in D4595, wet condition. Instron Tensile Testing Machine equipped with 2 in x 8 in Curtis Sure Grips was used. Full scale force range used for testing: 1500 lbs</i> | | | | | | | | | | | | | | | |
| | Tensile Strength (lbs/ in.) | | | | | | | | | | | | | | | |
| | MD | 75 | 73 | 87 | Limited Sample | | | | | | | 78 | 8 | 73 | 87 | |
| | TD | 105 | 103 | 90 | Limited Sample | | | | | | | 99 | 8 | 90 | 105 | |
| | Elongation at Break (percent) | | | | | | | | | | | | | | | |
| | MD | 91 | 87 | 92 | Limited Sample | | | | | | | 90 | 3 | 87 | 92 | |
| | TD | 90 | 96 | 84 | Limited Sample | | | | | | | 90 | 6 | 84 | 96 | |

Continued on next page

(Sheet 1 of 2)

LEGENDS:
 MD - MACHINE DIRECTION
 TD - TRANSVERSE DIRECTION



Precision Geosynthetic Laboratories International



TABLE 1.
MATERIAL PROPERTIES
CLIENT: Xextex Corporation USA
PROJECT: Geotextile Testing

Date Received: 3/11/2013
 Date Reported: 3/28/2013
 Client Sample ID: 12 oz Non-Woven Geotextile
 Material Description: 12oz Non-Woven Geotextile

QC'd By: Maria Espitia
 PGL Job No.: G130210
 PGL Control No.: 89767

| | | SPECIMENS | | | | | | | | | | Avg. | Std. Dev. | Min | Max | Proj. Specs. |
|---------------|---|-----------|---------|---------|---------|---------|-----|----------------|-----|-----|-----|---------|-----------|-------|-------|--------------|
| METHOD | DESCRIPTION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | | | |
| ASTM D4833 | Puncture Resistance (lbs) <i>Specimens were tested as directed in Test Method D4833. They were clamped without tension between circular plates of a ring clamp attachment secured in the tensile machine. Test specimens were extended to or beyond the outer edges of the clamping plates.</i> | 136 | 147 | 136 | 155 | 155 | 129 | 134 | 134 | 127 | 137 | 141 | 10 | 127 | 155 | |
| | | 148 | 137 | 149 | 155 | 143 | | | | | | | | | | |
| ASTM D4533 | Trapezoid Tear Strength (lbs) <i>Specimens were tested as directed in Test Method D4533, dry condition.</i> | MD 90 | 109 | 100 | 95 | 93 | 93 | Limited Sample | | | | 97 | 7 | 90 | 109 | |
| | | TD 110 | 102 | 111 | 100 | 120 | 96 | Limited Sample | | | | 106 | 9 | 96 | 120 | |
| ASTM D3786 | Mullen Burst Strength (psi) (Total Breaking Pressure - Tare Pressure) <i>Specimens were tested as directed in Test Method D3786 using the Mullen Tester.</i> | 315 | 330 | 305 | 335 | 350 | 340 | 340 | 340 | 310 | 325 | 329 | 15 | 305 | 350 | |
| ASTM D4491 | Permittivity (sec. ⁻¹) | 0.93 | 1.05 | 1.09 | 1.10 | | | | | | | 1.04 | 0.08 | 0.93 | 1.10 | |
| Constant Head | Four specimens were tested by holding the head constant at 50 mm. The corresponding water volume passing through the specimen was collected at the discharge side and the amount and time recorded. Five readings were taken for each specimen. <i>BT Technology permittivity testing apparatus compliant to ASTM D4491 requirements was used.</i> | | | | | | | | | | | | | | | |
| | Permeability (cm./ sec.) | 0.39 | 0.41 | 0.45 | 0.47 | | | | | | | 0.43 | 0.03 | 0.39 | 0.47 | |
| | Flow Rate (gpm/ ft. ²) | 69 | 78 | 81 | 82 | | | | | | | 78 | 6 | 69 | 82 | |
| ASTM D4751 | Apparent Opening Size (U.S. standard sieve size) <i>Specimens were tested as directed in Test Method D4751. Type of sieve shaker used is W.S. Tyler Rotap.</i> | 140-200 | 140-200 | 140-200 | 140-200 | 140-200 | | | | | | 140-200 | N/A | N/A | N/A | |
| ASTM D4751 | Apparent Opening Size (mm) <i>Specimens were tested as directed in Test Method D4751. Type of sieve shaker used is W.S. Tyler Rotap.</i> | 0.104 | 0.104 | 0.104 | 0.104 | 0.104 | | | | | | 0.104 | 0.000 | 0.104 | 0.104 | |

(End of Table 1)

(Sheet 2 of 2)

By accepting the data and results presented on this report, the Client agrees to limit the liability of Precision Geosynthetic Laboratories from Client and all other parties for claims on issues, due to the use of this data, to the cost for the respective tests presented in this report; and the Client agrees to indemnify and hold harmless Precision Geosynthetic Laboratories from and against all liabilities in excess of the aforementioned limit.

LEGENDS:
 MD - MACHINE DIRECTION
 TD - TRANSVERSE DIRECTION

