

MATERIALS ANALYSIS REPORT

TXI T Sand



TESTING CERT # 1794-01

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Customer Name: **TXI Bells Savoy**
Customer Address: PO Box 380
City, State, Zip Code: Savoy, TX 75479
Customer Telephone: 903-965-4367

Date Sample Received: 5/4/2007
Sample Description: T Sand
Sample Condition: Good 3.3 %M
Customer Fax:

| | | Porosity ⁽¹⁾ | | | | | | | | |
|---------------------|-------------------|--------------------------------|---------|----------------------------|----------------------|---|---|--|---|----------------------------------|
| Sample Number | Lab Number | Ksat ⁽¹⁾ (in/hr) | % Total | % Capillary ^(a) | % Air ^(a) | Bulk Density ⁽¹⁾ (g/cm ³) | Particle Density ⁽¹⁾ (g/cm ³) | % Organic Matter ⁽³⁾ (LOI) | Conductivity* ⁽²⁾ (mmhos) | pH ⁽⁴⁾ (CaCl2 1:1) |
| USGA Recommendation | | ≥ 6 | 35-55 | 15-25 | 15-30 | --- | --- | --- | --- | --- |
| T Sand | LR07-090A1 | | | | | | | | | |
| Within Range or Not | | | | | | | | | | |

| Particle Size Analysis ⁽⁵⁾ | | | Sand Size Distribution ^{(5), (b)} | | | | | | | D ₈₅ |
|---------------------------------------|-------------|--------|--|------------------------------|-------------------------|-------------------------|------------------------|---|-------------|-----------------|
| % Sand | % Silt | % Clay | % Gravel (#10 sieve) | % Very Coarse (#18 sieve) | % Coarse (#35 sieve) | % Medium (#60 sieve) | % Fine (#100 sieve) | % Very Fine ^(c) (#140 sieve) (#270 sieve) | | |
| T Sand 07-090A1 | | | | | | | | | | |
| >92 % | ≤ 5% | ≤ 3% | ≤ 3% gravel ≤ 10% combined | | ≥ 60 % | | ≤ 20% | ≤ 5% | | --- |
| 98.8 | 0.91 | | 0.26 | 1.8 | 14.2 | 55.4 | 22.1 | 3.47 | 1.71 | |

| Sample Number | Peat Analysis | | | | Gravel Size Distribution (8),(b) | | | | | |
|---------------------|--------------------------|----------------------|------------------------|-------------------|----------------------------------|--------|--------|---------|---------|-----|
| | % Organic ⁽⁶⁾ | % Ash ⁽⁶⁾ | % Water ⁽⁶⁾ | pH ⁽⁷⁾ | % 1/2" | % 3/8" | % 1/4" | 10 Mesh | 18 Mesh | Pan |
| USGA Recommendation | ≥ 85% | ≤ 15% | --- | --- | --- | --- | --- | --- | --- | --- |

| Particle Shape ⁽⁵⁾ | |
|-------------------------------|------------|
| Angularity | Sphericity |
| Sub-angular/sub-round | Medium |
| OK | OK |

(1) ASTM F1815, (2) Soil EC 1:2 soil H2O ratio method,
(3) ASTM F1647, (4) ASTM D4972, (5) ASTM 1632,
(6) ASTM D2974, (7) ASTM D2976, (8) ASTM C136,
(a) determined at 30 cm tension, (b) % retained on sieve,
(c) as defined by USGA specifications

Member of the Putting Greens Materials Testing Technical Advisory Committee
Member of USGA Proficiency Testing Program

This report applies only to the sample(s) tested. Samples are maintained a maximum of thirty days before disposal. This test report contains confidential information and shall not be reproduced except in full, and with the express written approval of DAKOTA. All tests are performed according to USGA guidelines and ASTM methods. DAKOTA is not responsible for the accuracy of these test methods and makes no claims about their ability to predict performance in actual use.

ALL IN-HOUSE REFERENCE MATERIALS TESTED WITHIN LIMITS X YES ___ NO - EXPLAIN

ASTM Methods: C136, D421, D2974, D2976, D4972, F1632, F1647, F1815

Ksat adjusted to 8%M.

*This test result is not covered by our current A2LA accreditation.

Comment:

By:

Diane K. Kuehl

5/10/2007 Title:

Lab Manager



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