

## UNCONFINED COMPRESSIVE STRENGTH of INTACT NUT SHELL SPECIMENS

ASTM D 7012-07 Method C (Modified) SOP S-45

CLIENT: GEOTECHNICS  
 CLIENT PROJ: SHELL STRENGTH  
 PROJECT NO.: 2010-001-01  
 LAB ID NO.: 2010-001-01-01

SAMPLE ID: PECAN  
 AKA: PECAN HICKORY  
 GENUS: *Carya illinoinesis*

SPECIMEN LENGTH (in.)

BEFORE CAPPING

READING 1: 1.47  
 READING 2: 1.47  
 READING 3: 1.47  
**AVERAGE: 1.47**

SPECIMEN DIAMETER(in.):

READING 1: 0.92  
 READING 2: 0.92  
**AVERAGE: 0.92**  
 AREA(in<sup>2</sup>): 0.67  
 L/D: 1.59

SPECIMEN LENGTH (in.)

AFTER CAPPING

READING 1: 1.47  
 READING 2: 1.47  
 READING 3: 1.47  
**AVERAGE: 1.47**

TOTAL LOAD(lbs) 178  
**COMPRESSIVE STRENGTH (PSI): 270**  
**(1) CORRECTION (PSI): 260**

FRACTURE TYPE: **SPLIT**

RATE OF LOADING(lbs/sec): 2  
 TIME TO BREAK(min:sec.): 1:33.12

DEVIATION FROM STRAIGHTNESS<sup>4</sup>:

AXIAL: *Pass*                      TOP: *Pass*                      BOTTOM: *Pass*

- NOTES: 1) Corrected PSI value for L/D <2.00, as per client's instructions. [ failure stress/( 0.88 + 0.24 \* (d/l) ]  
 2) Moisture conditions at time of test are as received.  
 3) Specimens capped with cement/plaster paste.  
 4) Deviation from straightness, Procedure A of ASTM D 4543.  
 5) Temperature is laboratory room temperature.  
 Pass/Fail criteria: gap < 0.02 = Pass, gap > 0.02 = Fail



PHYSICAL DESCRIPTION: PECAN

Notes:

Tested By: JAC

Date: 02/26/10

Checked By: *KB*

Date: *4-7-10*