



# Smith-Emery Laboratories

An Independent Commercial Testing Laboratory, Established 1904

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Project No.: 40463-1  
Lab. No. : T-11-2041

November 21, 2011

CLIENT: **Roberts Hot Tubs Inc.**  
2343 Welcome Ave.  
Richmond, CA 94804  
Attn.: Robert Ghelerter

SUBJECT: **Mechanical Testing on Spas and Hot Tubs Covers**  
SPECIFICATION: ASTM F1346 -91 *Standard Performance Specification for Safety Covers and Labeling Requirements for All Covers for Swimming Pools, Spas and Hot Tubs*  
SOURCE: Submitted to Laboratory by Client.

## **Report of Tests**

### **Material Identification:**

Cover #1: Serial No.: 123621  
Cover #2: Serial No.: 123622  
Cover #3: Serial No.: 123623

### **Test No.1: STATIC LOAD TEST**

*Load of 275 pounds was placed on top of an installed spa cover for 5 minutes.*

Cover #1: Shows no damage after loading on center and at mid point attachment center.  
Cover #2: Shows no damage after loading on center and at mid point attachment center.  
Cover #3: Shows no damage after loading on center and at mid point attachment center.

### **Test No.2: PERIMETER DEFLECTION TEST**

*Load of 50 pounds was placed on top of an installed spa cover 4 ft. from the side of the pool; then a "Perimeter Deflection Test Object" (3.7-inch by 5.7-inch by 12-inch length ellipsoidal shape object at 36.6 lbs.) was placed at closed openings and joints for observations.*

Cover #1: Perimeter Deflection Test Object did not pass through.  
Cover #2: Perimeter Deflection Test Object did not pass through.  
Cover #3: Perimeter Deflection Test Object did not pass through.

### **Test No.3: SURFACE DRAINAGE TEST** (Not Applicable - No Equipment to be operated)

### **Test No.4: OPENINGS TEST**

*A load of 40 pounds was applied to a solid faced sphere with a maximum diameter of 4.5-inches on any openings to observe if it will pass through.*

Cover #1: Opening Test Object did not pass through.  
Cover #2: Opening Test Object did not pass through.  
Cover #3: Opening Test Object did not pass through.

Respectfully Submitted,  
**SMITH-EMERY LABORATORIES**

- Materials Tested Comply With Specifications.
- Materials Tested Did Not Comply With Specifications.
- No Established Criteria for Acceptable Limits.
- For Information Only