

TEST REPORT NO. 56069



TEST, ENGINEERING AND RESEARCH GROUP, SAN BERNARDINO

Pelican Products, Inc.
23215 Early Avenue
Torrance, CA 90505

Our Job No. T56069
Contract —
Your P.O. No. 4500000982
Date October 1, 2008

This report contains true and correct data obtained in the performance of the test program set forth in your purchase order. Test methods, results, and equipment used are recorded on these data sheets.

Where applicable, instrumentation used in obtaining this data has been calibrated using standards which are traceable to the National Institute of Standards and Technology.

SUMMARY:

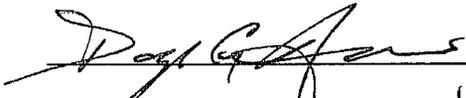
One Case #1730, Part No. 1730-001-110, was subjected to Immersion (IPX7) Testing in accordance with IEC 60529, Paragraph 14.2.7, and Dust (IP6X, Category 2) Testing in accordance with IEC 60529, Paragraphs 13.4 and 13.6. Complete test details, including photos and equipment list, and test results are contained in this report.

Test Dates: 9/26/08-9/29/08

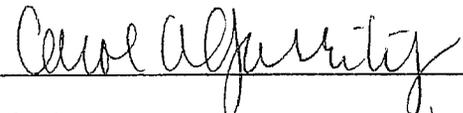
STATE OF CALIFORNIA }
COUNTY OF SAN BERNARDINO } SS.

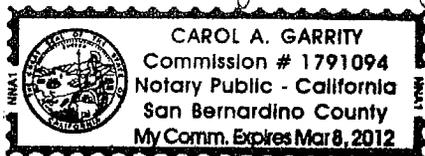
Douglas G. Anderson

, being duly sworn, deposes and says: That the information contained in this report is the result of complete and carefully conducted tests and is to the best of his knowledge true and correct in all respects.

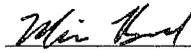


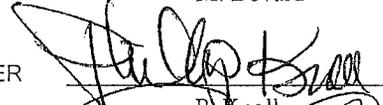
SUBSCRIBED and sworn to before me this 1 day of Oct, 2008 by Douglas G. Anderson proved to me on the basis of satisfactory evidence to be the person who appeared before me.

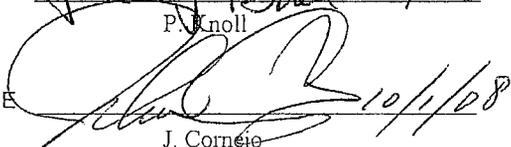




TEST OPERATIONS

TEST ENGINEER  10/1/08
M. Bovard

DEPT. MANAGER  10/1/08
P. Knoll

QUALITY ASSURANCE  10/1/08
J. Cornejo



DATA SHEET

Customer Pelican Products, Inc. Job No. T56069
Date 9/22/2008
Specimen Case #1730

RECEIVING INSPECTION

No. of Specimens Received: One (1)

Record identification information exactly as it appears on the tag or specimen:

Manufacturer: Pelican Products, Inc.

P/N's	S/N's
<u>1730-001-110</u>	<u>N/A</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

How does identification information appear: (name plate, tag, painted, imprinted, etc.)
Identification information appeared on a sticker on the specimen.

Examination: Visual, for evidence of damage, poor workmanship, or other defects, and completeness of identification.

Inspection Results: There was no visible evidence of damage to the specimen(s) unless otherwise noted below.

recinsp

Inspected By Shawn Pearson 9/22/08
Sheet No. 1 of 1
Approved [Signature] Date 10/1/08



DATA SHEET

Test Title Immersion (IPX7)

Customer	<u>Pelican Products, Inc.</u>	Job No.	<u>T56069</u>
Specimen	<u>Case #1730</u>	Date Started	<u>9/26/2008</u>
Part No.	<u>See Recv. Insp.</u>	Serial No.	<u>See Recv. Insp.</u>
Spec.	<u>IEC 60529</u>	Par.	<u>14.2.7</u>
		Photo	<u>Yes</u>
		Amb. Temp.	<u>15°C to 35°C</u>

Requirements:

No. of Specimens: 1

Water Level: Test specimens with a height less than 850 mm (33.46 inches) has the lowest point of the test specimen 1000 mm (39.37 inches) below the surface of the water surface. Test specimens with a height equal to or greater than 850 mm (33.46 inches) has the highest point of the test specimen 150 mm (3.9 inches) below the surface of the water

Water Temperature: Water temperature does not differ from that of the equipment by more than 5 K (9°F)

Soak Duration: 30 minutes

Test Method:

Perform a visual inspection of the test item and photograph the test setup. Place the test specimen in a submersion tank. Test specimens with a height less than 850 mm (33.46 inches) shall have the lowest point of the test specimen 1000 mm (39.37 inches) below the surface of the water surface. Test specimens with a height equal to or greater than 850 mm (33.46 inches) shall have the highest point of the test specimen 150 mm (3.9 inches) below the surface of the water.

Verify the water temperature does not differ from that of the test item by more than 5 K (9°F). Allow the test specimen to soak for 30 minutes.

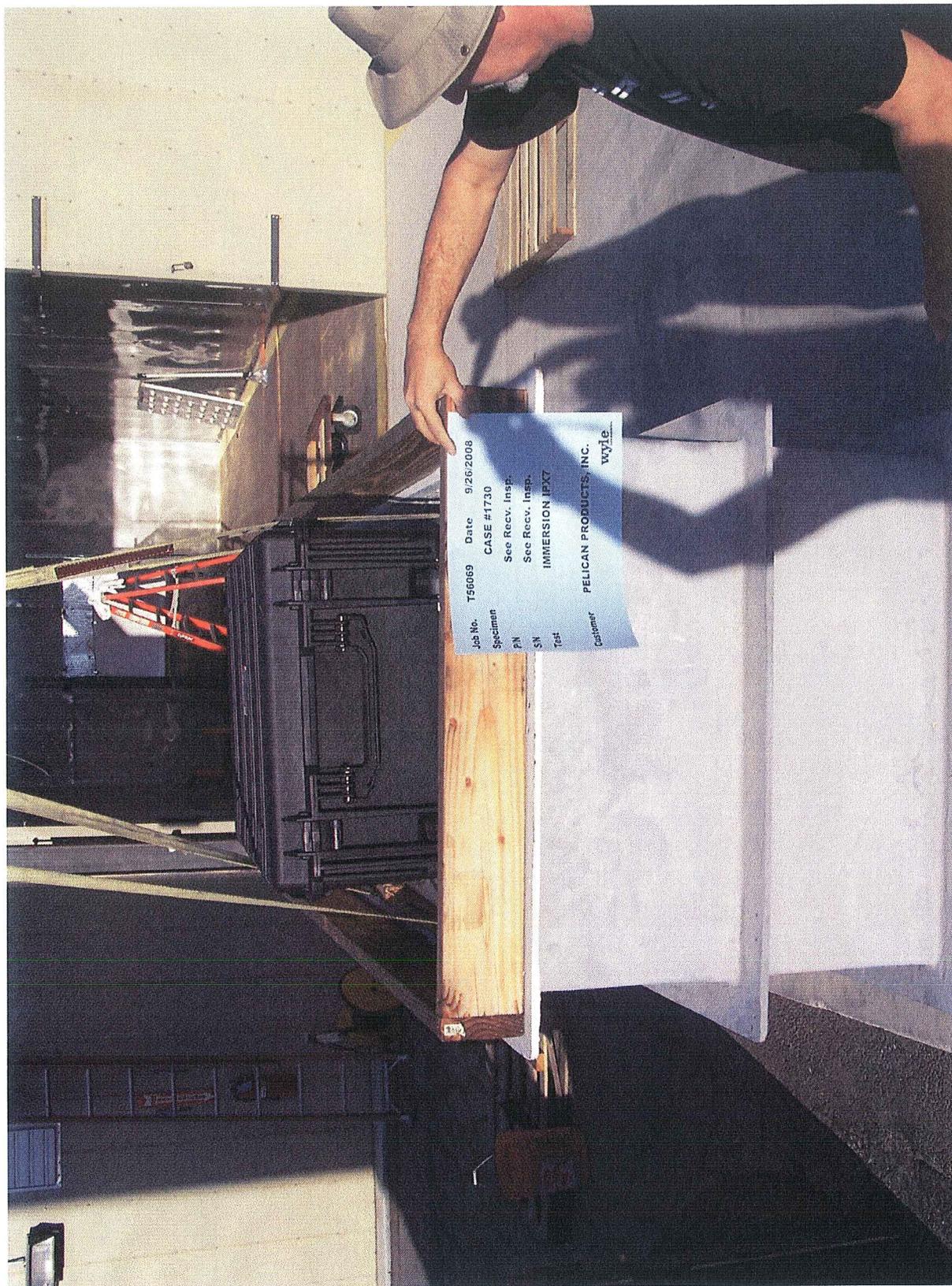
Upon completion of the test, perform a visual inspection. Inspect for the ingress of water and quantify any amount found. If any water has entered it shall not: be sufficient to interfere with the correct operation of the equipment or impair safety, deposit on insulation parts where it could lead to tracking along the creepage distances, reach live parts or windings not designed to operate when wet, or accumulate near the cable end or enter the cable if any. Ensure any drain holes are working properly. Document all results.

Test Results:

The test was performed according to the test method and requirements stated above. Upon completion of the immersion the exterior was towel dried and the case was opened for inspection. No evidence of water penetration was observed during the inspection. Photos were taken throughout test procedure.



*Photograph 1
Immersion Test Setup*



*Photograph 2
Immersion Test*



*Photograph 3
Immersion Test*



*Photograph 4
Post Immersion Test*



TEST TITLE: Immersion (IPX7)

CUSTOMER: Pelican Products, Inc. Job No.: T56069 Date: 09/25/2008
 Specimen: Case Technician: S. Paysen 9/25/08

Part No.: 1730 Serial No.: See Recv. Insp. Engineer: M. Bovard MS 10/1/08

EQUIPMENT	MANUFACTURER	MODEL #	RANGE	WYLE #	CALIBRATION		ACCY.
					LAST	DUE	
Steel Rule	Starrett	C416R	72 Inch	W31220	* System	Calibration *	Mfg. Spec.
Stopwatch	Cole Parmer	365530	10 hour	W13605	04/17/2008	10/17/2008	.1 sec
Temperature - Digital Indicator	Tegam	819	-300 TO +700 °F/T	W47032	06/18/2008	10/18/2008	.1% rdg +1°F

Where applicable, the listed test equipment has been calibrated using standards which are traceable to the National Institute of Science & Technology. Certificates and reports of all calibrations are retained in the Wyle Laboratories QA files and are available for inspection upon request. *Equipment identified as System Calibration are verified prior to use.



DATA SHEET

Test Title Dust (IP6X, Category 2)

Customer	<u>Pelican Products, Inc.</u>	Job No.	<u>T56069</u>
Specimen	<u>Case #1730</u>	Date Started	<u>9/29/2008</u>
Part No.	<u>See Recv. Insp.</u>	Serial No.	<u>See Recv. Insp.</u>
		Date Comp.	<u>9/29/2008</u>
Spec.	<u>IEC 60529</u>	Par.	<u>13.4 & 13.6</u>
		Photo	<u>Yes</u>
		Amb. Temp.	<u>15°C to 35°C</u>

Requirements:

No. of Specimens:	1
Temperature:	15 to 35°C
Relative Humidity:	less than 75%
Dust Concentration:	2 kg/m ³
Dust Type:	Talcum powder
Dust Size:	See below
Duration:	8 hours
Functional:	Performed by customer

Test Method:

Install the test specimen in a chamber designed to meet the specification requirements. Place thermocouples on the test item as directed by the customer. Perform a visual inspection and take photographs of the test setup.

Subject the test item to a dust concentration of 2 kg per cubic meter of the test chamber volume for a period of 8 hours. The dust used should be talcum powder that shall be able to pass through a square-mesh sieve the nominal wire diameter of which is 50 µm and the nominal width of a gap between wires 75 µm. During the test, use a powder circulation pump or other suitable means to maintain the dust in suspension in a closed test chamber.

Upon completion of the testing perform a visual examination and take photographs of the test specimen. Inspect the test item for ingress of dust. The protection is satisfactory if no deposit of dust is observable inside the enclosure at the end of the test. Document all results.

Test Results:

The test was performed according to the test method and requirements stated above. Upon completion of the test the accumulated dust was removed from the exterior of the specimen and the specimen was inspected for ingress of dust. There was no deposit of dust observed inside the specimen. Photos were taken before and after testing.

Tested By Steve Pappas 9/29/08
 Engineer Wm Hunt 10/1/08



*Photograph 5
Dust Test Setup*



Photograph 6
Post Dust Test



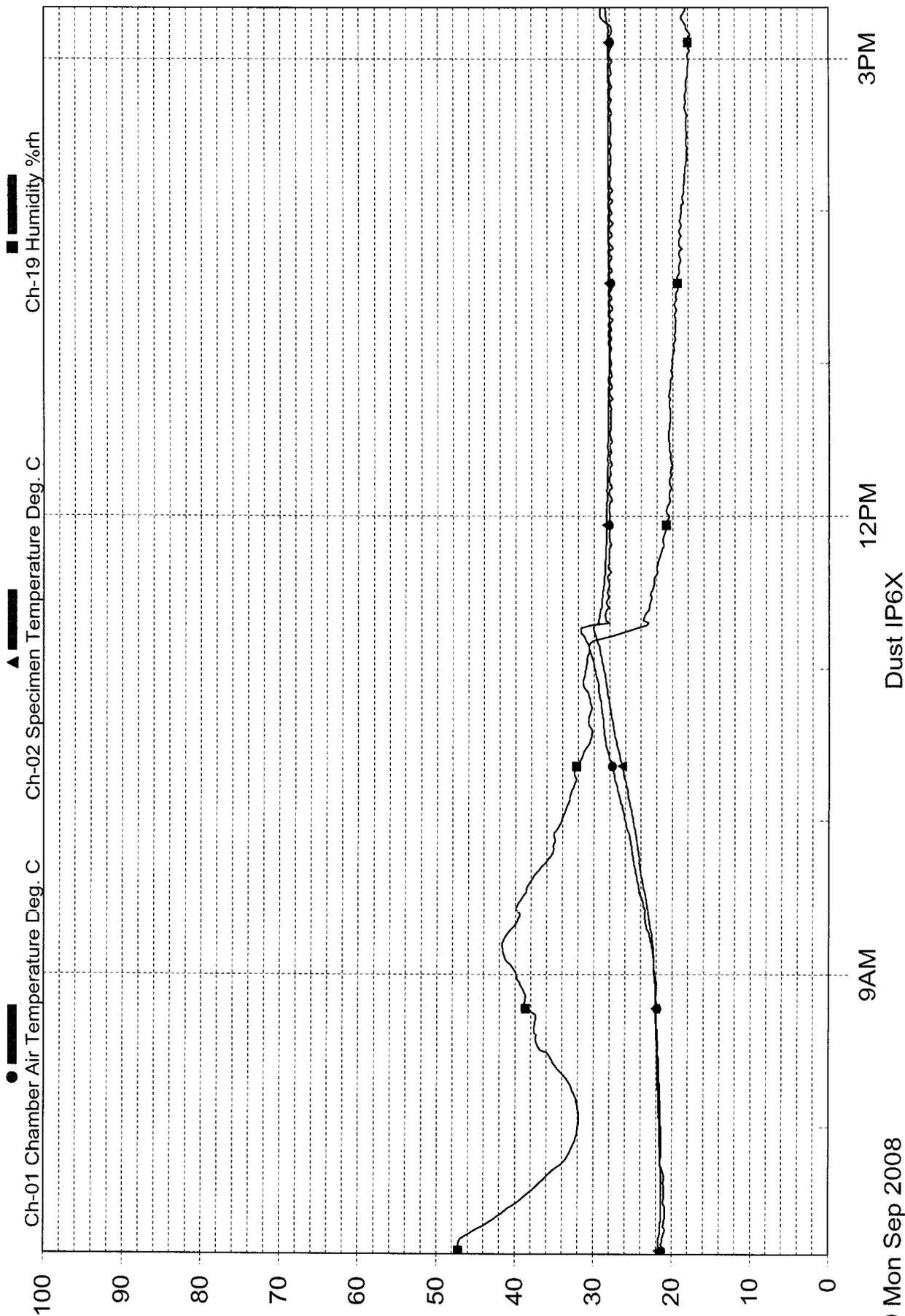
*Photograph 7
Post Dust Test*



Pelican Products, Inc. J/N-T56069
Case # 1730

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TEST TITLE: Dust (IP6X, Category 2)

CUSTOMER: Pelican Products, Inc.

Job No.: T56069

Date: 09/26/2008

Specimen: Case

Technician: S. Paysen

SP
9/26/08

Part No.: 1730

Serial No.: See Recv. Insp.

Engineer: M. Bovard

MBO
10/1/08

EQUIPMENT	MANUFACTURER	MODEL #	RANGE	WYLE #	CALIBRATION		ACCY.
					LAST	DUE	
Chamber - Environmental	Wyle	Dust	-60 to +180°F / 11' x 7' x 7' / LN2	W50716	* System	Calibration *	Mfg. Spec.
Controller - Chamber	Watlow / Omega	920 / CN9000	-100° to 240°F	W50707	* System	Calibration *	Mfg. Spec.
Multimeter/DAS	Keithley	2700	10VDC & Type T TC's	W12435	10/24/2007	10/24/2008	±2%
Multiplexer Module	Keithley	7700	20 Channels Volts or TC's	W12436	10/24/2007	10/24/2008	Mfg. Spec.
Rh Probe	Vaisala	HMP135	0 - 100% rH	W11874	08/05/2008	02/05/2009	3%
Scale/Electronic	A & D	FG-60K	0 - 150 lbs	W12414	12/18/2007	12/18/2008	±0.05 lbs
Stopwatch	Micronta	63 5010	10 Hrs.	W10298	06/18/2008	12/18/2008	.1 Sec.

Where applicable, the listed test equipment has been calibrated using standards which are traceable to the National Institute of Science & Technology. Certificates and reports of all calibrations are retained in the Wyle Laboratories QA files and are available for inspection upon request. *Equipment identified as System Calibration are verified prior to use.