



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

IPSCO RESEARCH & DEVELOPMENT CENTER  
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 Houston, TX 77064  
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MECHANICAL

Valid To: May 31, 2017

Certificate Number: 3425.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on casing and tubing connections:

<u>Test</u>	<u>Test Methods</u>
Testing Casing and Tubing Connections	API Recommended Practice 5C5; ISO 13679
Collapse	API TR 5C3, Annex I
NACE HIC	NACE TM0284; API 5L
NACE SSC (Method A)	NACE TM0177, MR0175
Rockwell Hardness (B and C)	ASTM E18; API 5CT
Vickers Hardness (500 g)	ASTM E384
Jominy	ASTM A255
Charpy Impact (-70° F to Room Temperature)	ASTM A370, E23; API 1104
Elevated Tensile (Up to 500° C)	ASTM E21
Tensile	ASTM A370, E8/E8M
Macro Etching	ASTM E340
Failure Analysis (SEM/EDX)	ASM Handbook, Volume 11; ASTM E1508
Grain Size	ASTM E112, E930, E1181
Microstructure	ASTM E3, E407, E1268, E562
Steel Cleanliness	ASTM E45 (Methods A and D)
Optical Emission Spectroscopy (OES) (Al, As, B, C, Ca, Cr, Cu, Mn, Mo, N, Nb, Ni, P, Pb, S, Sb, Si, Sn, Ti, V, W, Zn, Zr)	ASTM E415



## Accredited Laboratory

A2LA has accredited

### TMK IPSCO RESEARCH & DEVELOPMENT CENTER

*Houston, TX*

for technical competence in the field of

### Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 23<sup>rd</sup> day of June 2015.

A handwritten signature in blue ink, appearing to read "Jim C. Bunt".

Senior Director of Quality & Communications  
For the Accreditation Council  
Certificate Number 3425.01  
Valid to May 31, 2017  
Revised January 6, 2016

*For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.*