



# Mill Test Certificate

**Bri-Steel Manufacturing Inc.**  
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Product: **Seamless Carbon Steel Pipe** Product Heat Number: **BSM-0166** Product Size: **NPS 30 STD** Production Date: **2012 Jan 5**

Production Method: **Hot Expansion** Product Heat Treatment: **As-rolled**

Product Standards: **ASTM/ASME A/SA106-2010 Grade B/C, A/SA53-2010 Grade B Type S, NACE MR0175-2009**

Product Markings: **.BRI-STEEL MFG NPS 30 STD ASTM/ASME A/SA106 GR B/C A/SA53 GR B HEAT BSM-0166 (PIPE # LENGTH MASS) NDE 630PSI NACE MR0175 2011/11 MADE IN CANADA.**

Product Details				Non-Destructive Testing											
Heat	Test Type	NPS	SCH	Pieces	Length	Mass	Geiger	Res. Mag.	Visual	OD	UT	UT	ET	HydroTest	End
BSM-0166	Heat	30	STD	2	DRL	118.60	µR/hr	Gauss	Insp.	Pass	Pass	Pass	Pass	Pass	Condition
							<5	<20	Pass	Pass	Pass	---	Pass	Pass	37.5° Bevel


		Chemical Analysis (wt%)														
Heat	Test Type	Steelmaking Method														
BSM-0166	Heat	Blast Furnace; EAF; Ladle Refining; Vacuum Degas														
		C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE	CE
		0.21	0.86	0.014	0.007	0.24	0.05	0.07	0.01	0.02	0.003	0.002	0.001	0.0003	0.37	0.38

Mechanical Properties											
Heat	Test Type	Microstructure	Hardness	Flattening Test	Tension Test		Yield (Rt0.5)	Yield (Rp0.2)	Tensile (Rm)	Y/T	Elongation (A)
BSM-0166	Heat	Ferrite & Pearlite	HRBW	Pass	50mm GL; 38mm x WT	Transverse	psi	psi	psi	(Rt0.5/Rm)	%
			75		Longitudinal		44,000	42,700	71,000	0.62	45
							44,800	44,000	70,500	0.64	45

**Additional Details:**

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with ASTM/ASME A/SA106-2010, A/SA53-2010 and the purchase order requirements, and that the results meet the corresponding requirements.
- ✓ This pipe product meet the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service, and NACE MR0103-2010 Section 2.1.
- ✓ No weld repairs have been performed on this product. This product has no mercury contamination.
- ✓ This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1.

Mill Test Certificate approved by:

  
 2012 Jan 13  
 Kenton Dechant, P. Eng.  
 Manager of Quality and R&D