



Mill Test Certificate

Bri-Steel Manufacturing Inc.
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Product: **Seamless Carbon Steel Pipe** Product Heat Number: **BSM-0034** Product Size: **NPS 24 True SCH 40** Production Date: **2011 Sept 19**

Production Method: **Hot Expansion** Product Heat Treatment: **As-rolled** MTR Certificate No: **1332**

Product Standards: **ASTM/ASME A/SA106-2010 Grade B/C, A/SA53-2010 Grade B Type S, NACE MR0175-2003**

Product Markings: **.BRI-STEEL MFG NPS 24 SCH40 0.687 INCHWT ASTM/ASME A/SA106 GR B/C HEAT BSM-0034 (PIPE LENGTH MASS) NDE 1300 PSI NACE MR0175-03 2011/09 MADE IN CANADA.**

Product Details				Non-Destructive Testing										
Heat	Test Type	NPS	SCH	Pieces	Length	Geiger μ R/hr	Res. Mag. Gauss	Visual Insp.	OD	UT	UT	ET	HydroTest	End Condition
BSM-0034	Heat	24	40	2	27-30FT	<5	<20	Pass	Pass	Pass	Pass	Pass	Pass	Plain End

		Chemical Analysis (wt%)																	
Heat	Test Type	Steelmaking Method		C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE (IIW)	CE (CSA)	
		Blast Furnace; EAF; Ladle	Refining; Vacuum Degas																
BSM-0034	Heat			0.20	0.99	0.010	0.002	0.22	0.05	0.02	0.02	0.02	0.01	0.001	0.001	0.006	0.0001	0.38	0.39

Mechanical Properties										
Heat	Test Type	Microstructure	Hardness HRB	Flattening Test	Tension Test		Yield (Rt0.5) psi	Yield (Rp0.2) psi	Tensile (Rm) psi	Elongation (A) %
					Transverse: 50mm GL; 38mm x WT	Pass				
BSM-0034	Heat	Ferrite & Pearlite	76	Pass	Pass	58000	58000	73000	45	

Additional Details:

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected 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 15156-2003 Annex A2 for Region 3 Sour Service, and NACE MR0103-2004 Para. 2.1.
- ✓ This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1.

Mill Test Certificate approved by:


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