

Mill Test Certificate

2125-64 Avenue, Edmonton, AB Canada T6P 1Z4 Bri-Steel Manufacturing Inc.

Tel: 001 (780) 469-6603

Fax: 001 (780) 469-6986 www.bri-steel.com

Seamless Carbon Steel Pipe **Product Heat Number:** BSM-1835 Product Size: 24STD Production Date: May 09, 2014

Product Heat Treatment: As-rolled Certificate No.: MTR- 001114

Product Standards: ASME B36.10-2004, ASTM/ASME A/SA106-2013 Grade B NDE, A/SA53-2012 Grade B Type S, NACE MR0175-2009 MR0103-2010

Production Method:

Hot Expansion

Product Markings NPS 24 STD 0.375 INCHWT SMLS 2014/05 NDE 750PSI

MARKUPAGUPAN HEAT BSM-1835 (PIPE # LENGTH MASS) 94.62lb/ft ASTM/ASME A/SA106 GR B A/SA53 GR B NACE MR0175/MR0103 MADE IN CANADA

	BSM-1835		<u> </u>	
	1835		Heat	
	Heat		Test Type	
	NPS 24 STD 0.375in. WT		Product Size	Product: Details
	1		Pieces	
	DRL		Length	
	94.62	lb/ft	Mass	
1000	&	μR/hr	Geiger	
	<10	Gauss	Res. Mag.	
	Pass	Insp.	Visual	
	Pass		OD	N
	Pass	TW	TU	Non-Destructive Testing
	Pass	ASTM E213 ASTM	TU	tive Testing
	Pass	ASTM	ET	
	Pass	750 PSI/ 5 s	HydroTest	
	32.5° Bevel	Condition	End	

									•								
0.38	0.38	0.0002	0.001	0.002	0.003	0.07	0.01	0.10	0.06	0.25	0.007	0.008	0.86	0.21	Product	pegas, runy saled	
	-	0.0003				0.07	0.01	0.09	0.06	0.24	8 0.005	0.008	0.84	0.20	Heat	Blast Furnace; EAF; Ladle Refining; Vacuum	BSM-1835
CE(CSA)	CE(IIW)	В	Nb	=	<	Z:	Mo	Cu	Cr	Si	S	סי	Mn	0	Test Type	Steelmaking Method	Heat
									(wt%)	Analysis (Chemical Analysis (wt%)						

	m	_		
	BSM-1835		Heat	
	Heat		Test Type	
	Ferrite & Pearlite		Microstructure	
	76 HRBW		Hardness	
	Pass		Flattening Test	
	Longitudinal; 38.1 mm x WT	50mm GL	Tension Test	Mechanical Properties
Brook Section 19	45,600	psi	Yield (Rt0.5)	
Management of the Control of the Con	69,000	psi	Tensile (Rm)	
	0.66	(Rt0.5/Rm)	Τ/Υ	
	41	%	Elongation (A)	

ı	Ð	i.	ŭ		•		ı	1	Ē,	ı		1	•	•	BSM-1835
AVG	mm	mm	mm	AVG	%	%	%	AVG	Į	J	L	°C	Sample Details	Standard	
	Lateral Expansion	Lateral E			% Shear	% SI			t Energy	Impact		Temp	Impact Test	Test	Heat

Additional Details:

- \checkmark We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in meet the corresponding requirements. accordance with ASTM/ASME A/SA106-2013 Grade B A/SA53-2012, and the purchase order requirements, and that the results
- \checkmark This pipe product meets the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service-2009 NACE MR0103-2010 Section 2.1
- ✓ No weld repairs have been performed on this product.
- ✓ This product has not come into contact with mercury during the Bri-Steel Manufacturing processes.
- \checkmark 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