

Mill Test Certificate

Bri-Steel Manufacturing Inc.

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Product: Seamless Carbon Steel Pipe

Product Heat Number: BSM-0255

Product Size: NPS 18 STD

Production Date:

March 12, 2012

Production Method: Hot Expansion

Product Heat Treatment: As-rolled

Product Standards: ASTM/ASME A/SA106-2011 Grade B/C, A/SA53-2010 Grade B Type S, NACE MR0175-2009

Product Markings: .BRI-STEEL MFG NPS 18 STD ASTM/ASME A/SA106 GR B/C A/SA53 GR B HEAT BSM-0255 (PIPE # LENGTH MASS) NDE 1030PSI NACE MR0175 2012/03 MADE IN CANADA.

Pieces Length Ib/ft μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Core 15 DRL 70.59 <5 <20 Pass Pass Pass Pass Pass 37.5	<u></u>	Т		Т
Non-Destructive lesting Non-Destructive lesting Non-Destructive lesting Non-Destructive lesting Non-Destructive lesting HydroTest NPS SCH Pieces Length lb/ft µR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Cor 18 STD 15 DRL 70.59 <5 <20 Pass Pass Pass Pass Pass 37.5	SM-0255	Heat		
STD 15 DRL 70.59 <5 <20 Pass Pass Pass Pass Pass Pass 37.5	Heat	Test Type		
Pieces Length Ib/ft μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Core 15 DRL 70.59 <5 <20 Pass Pass Pass Pass Pass 37.5	18	NPS		
Pieces Length lb/ft μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Corollars Pass Pass Pass Pass Pass Pass 37.5	STD	SCH		Product Detail
Mass Geiger Res.Mag. Visual UT UT ET HydroTest 1 Ib/ft μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Cor 1 70.59 <5 <20 Pass Pass Pass Pass Pass 37.5	15	Pieces		IS
Geiger Res.Mag. Visual UT UT ET HydroTest μR/hr Gauss Insp. OD WT ASTM E213 ASTM E309 1030 psi/5s Cor <5	DRL	Length		
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g. Visual UT UT ET HydroTest Corona Pass Pass Pass Pass Pass Pass Pass Pa	\$	μR/hr	Geiger	
Non-Destructive Testing UT UT ET HydroTest OD WT ASTM E213 ASTM E309 1030 psi/5s Cor Pass Pass Pass Pass 37.5	<20	Gauss	Res.Mag.	
DR-Destructive Testing UT UT ET HydroTest WT ASTM E213 ASTM E309 1030 psi/5s Cor Pass Pass Pass 37.5	Pass	Insp.	Visual	
VE ESTING	Pass	OD		Non-E
ET HydroTest 213 ASTM E309 1030 psi/5s Cor Pass Pass 37.5	Pass	TW	T	Destructive 1
HydroTest E309 1030 psi/5s Cor		ASTM E213	TU	esting
est i/5s Coi 37.5	Pass	ASTM E309	티	
Co. 37.5	Pass	5	HydroTest	
nd lition Bevel	37.5° Bevel	Condition	End	

BSM-0255	Heat		
Heat	Test Type		
Refining; Vacuum Degas	Blast Furnace; EAF; Ladle	Steelmaking Method	
0.19	С		
0.85	Mn		
0.010	P		
0.006	S		Chemical /
0.22	Si		l Analysis (wt%)
0.03	ਵ		(wt%)
0.09	Cn		
0.01	Mo		1000
0.03	Z.		
0.003	<		
0.001	Ti		
0.001	Nb		
1 0.0001	В		
0.35	(IW)	Œ	
0.35	(CSA)	Œ	

		BSM-0255 Heat	неаг		
		Heat	lest lype	1	
		Ferrite & Pearlite	Microstructure		
		76	HRBW	Hardness	
		Pass	Flattening Test		Mechar
roigitadiia	l opgitudinal	Transverse	Flattening Test 50mm GL; 38mm x WT	Tension Test	Mechanical Properties
0,100	16 100	43,000	psi	Yield (Rt0.5)	
002,C#	00C 3V	41,700	psi) Yield (Rp0.2)	
11,300	71 500	71,500	psi	Tensile (Rm)	
0.04	0.64	0.60	(Rt0.5/Rm)	7/ү	
41	41	42	%	Elongation (A)	

Additional Details:

Inc. in accordance with ASTM/ASME A/SA106-2011, A/SA53-2010 and the purchase order requirements, and that the results meet the corresponding requirements. ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing

Service, and NACE MR0103-2010 Section 2.1. \checkmark No weld repairs have been performed on this product. This product has no mercury contamination

✓ This pipe product meet the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour

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.

2012 Mar 27

Manager of Quality and R&D