

9546

Sample Res

Sample Result Name	Type	Measure Date Time	Recalculation Date Time	Origin
9546 (75522) BX-155	Unknown	Tuesday, June 10, 2014	3:18:40 PM	Measured
Method Name	Method Version	Operator Name	Check Type	Check Status
Fe-30-MO		SARA SAE	None	Not Used
Grade Verification Name	Grade Verification Similarity	Correction Type	Type Corr Sample Name	Grade Search Name
	0	None		
Grade Search Similarity	Type	Status	Outlier Removal	
0	None	Not Used		

Sample Name
9546 (75522) BX-155

	C Conc %	Si Conc %	Mn Conc %	P Conc %	S Conc %	Cr Conc %	Mo Conc %	Ni Conc %	Al Conc %	Co Conc %	Cu Conc %	Nb Conc %	Ti Conc %	V Conc %	W Conc %	Pb Conc %	Sn Conc %	As Conc %	Zr Conc %
2	0.077	0.099	0.46	0.031	0.037	0.067	<0.003	0.040	0.030	<0.005	0.056	<0.005	<0.0010	<0.002	<0.040	0.012	0.009	<0.005	<0.003
5	0.061	0.10	0.45	0.038	0.038	0.068	<0.003	0.038	0.043	<0.005	0.054	<0.005	<0.0010	<0.002	<0.040	0.012	0.009	<0.005	<0.003
8	0.074	0.098	0.43	0.040	0.043	0.062	<0.003	0.034	0.026	<0.005	0.051	<0.005	<0.0010	<0.002	<0.040	0.018	0.016	0.008	<0.003
Rep	0.071	0.099	0.45	0.036	0.039	0.066	0.003	0.037	0.033	<0.005	0.054	<0.005	<0.0010	<0.002	<0.040	0.014	0.011	0.006	0.003
Min Cal	0.006	0.005	0.004	0.003	0.002	0.005	0.003	0.005	0.003	<0.005	0.002	0.005	<0.0010	<0.002	<0.040	0.010	0.002	0.005	0.003
Mean	0.071	0.099	0.45	0.036	0.039	0.066	<-0.006	0.037	0.033	<0.004	0.054	<-0.025	<-0.005	<-0.004	<-0.071	0.014	0.011	0.006	<0.0010
Max Cal	3.00	5.04	18.12	0.18	0.30	36.00	10.20	55.2	6.24	21.60	7.44	3.60	3.60	12.00	7.32	0.13	0.27	0.13	0.19
	Ca Conc %	B Conc %	Fe Conc %																
2	0.005	0.002	99.0																
5	0.005	0.002	99.0																
8	0.003	0.003	99.0																
Rep	0.004	0.002	99.0																
Min Cal	0.0005	0.0005																	
Mean	0.004	0.002	99.2																
Max Cal	0.016	0.025																	

OK in 1008
Dupak

6/11/2014

Sample Results

JSW STEEL LIMITED - SALEM WORKS

BR-155 2900 Pcs

Works: pottaneri Village, Mecheri Post - 636 453, salem, india

QR / QA / 54

Registered Office: "JSW CENTRE" Bandra Kurla Complex, Bandra (East), Mumbai - 400 051

TEST CERTIFICATE

Certificate No: 7912

Customer Name: JSW Steel Ltd Depot - Rajkot, Veraval

Cust. Address: Survey NO. 171/1, Plot NO. - 2

Rajkot, Gujarat-111111, India

Date: 24.12.2013

SO No: 400104392

SO Date: 18.12.2013

Truck No: TN52C1067

Po Number EMAIL

Po date: 18.12.2013

Packing Slip No: 700586458

Ex. Invoice No: 1320051985

Heat No	Grade	Size (mm)	Length (mm)	ML (mm)	No. of Bundles	No. of PCS	Weight	Prod STD No
75522	SAE 1008	60.00 mm DIA	6,000.00 mm	0 mm	8	158	20.829 MT	ODQA06 860

TDC NO: SUN_FORGE_SAE_1008_0_SFPL_019_13_14 14.06.2013, 14.06.2013

Process Route: BF_EOF_LRF_VD_CCM_EMS_BRM

Billet/Bloom Size: 180MM, 160MM

Reduction Ratio: / - 9.06 1

CHEMICAL ANALYSIS

Element	C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	B ppm	V%	Cu%	Pb%	Sn%	Ti%	Nb%	Zr%	As%	Sb%	Al%	Ca ppm	CE%
MIN			0.250																		
MAX	0.0800	0.200	0.400	0.030	0.0500															0.0500	
Actual	0.050	0.090	0.270	0.013	0.006	0.040	0.002	0.021	2	0.003	0.015	0.000	0.002	0.0013	0.000	0.000	0.000	0.000	0.027	17	0.106

Other Elements

Gas Levels

N ppm: / / - 60

O ppm: / / - 13.0

H ppm: / / - 1.45

MECHANICAL PROPERTIES

Test Cond

PC	YS	UTS	ELONG	RA	As Rolled	As Quenched	As Quenched	As Q&T
MIN			%	%				
MAX								
Actual								

Impact Test Temp

Impact Test Type

Impact Notch Type

Impact Test Cond

J - Kg/cm2

	*Energy - T1	**Strength - T1	*Energy - T2	**Strength - T2	*Energy - T3	**Strength - T3
MIN						
MAX						
ACTUAL						
Test Temp						

Edge Radius (mm)

Upset Percentage

Upsetability

JOMINY HARDENABILITY

Ideal Diameter (DI): / / -

Distance																					
MIN (HRC)																					
MAX (HRC)																					
Actual (HRC)																					

METALLURGICAL PROPERTIES & PHYSICAL INSPECTION

Surface Inspection		Step Down Test		BFT Test		MPI Test		Segregation Test		Spark Test		Spectra Test		Ni-Spot Test		
Actual	OK		Pass				OK				OK		OK			
Macro Etch Test			Micro Structure				CN		CZ Looser		CZ Closer		GBC Level		Supply Condition	
Spec							/		/						AS ROLLED	
Actual	C1R1S1		Ferrite - Pearlite													
	Grain Size	Decarb (mm)	Banding (µm)	A		B		C		D		DOS µm	Ultrasonic Test			
Spec				Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick					
Actual	7.00	0.100 mm		1.00		0.50					0.50					
Inclusion Rating Test Standard : ASTM E45 A																

Inclusion Rating Test Standard: ASTM E45 A

Macro Etch Test Standard: ASTM E381

Grain Size Standard: ASTM E112

Tensile Test Standard:

Decarb Standard: SAE J419

Jominy Test Standard

JSW COLOR CODE: WHITE

CUSTOMER COLOR CODE

INSPECTION CERTIFICATE 3.1 ACCORDING TO EN 10204 : 2004

Remarks: Spark test is 100% OK, Mobile Spectra Test is 100% OK, MetaScope Test is 100% OK

Reference: WE HEREBY CERTIFY THAT THE MATERIAL SHIPPED UNDER THIS TEST CERTIFICATE DID NOT COME IN DIRECT CONTACT WITH ANY MERCURY CADMIUM & HEXA VALENT CHROMIUM CONTAINING DEVICES. FREE FROM RADIO ACTIVE CONTAMINATION EMPLOYING A SINGLE BOUNDARY OF CONTAINMENT DURING THE MANUFACTURING PROCESS TESTS, INSPECTION AND STORAGE

WE CERTIFY THAT CONTENTS OF THIS REPORT ARE CORRECT AND ACCURATE AND MEET THE REQUIREMENTS OF THE PURCHASE ORDER, TECHNICAL DELIVERY CONDITION, GENERAL STEEL REQUIREMENTS AND THE MATERIAL CERTIFICATION REQUIREMENTS.

For JSW STEEL LIMITED

Chief Metallurgist

Magnesium 0.03% Don't have