

Sample Result Name	9823 (DIA-68)HNO-S-64	Type	Unknown	Measure Date Time	Thursday, August 14, 2014	Recalculation Date Time	12:35:38 PM	Origin	Measured
Method Name	Fe-30-MO	Method Version		Operator Name	SARA SAE	Check Type	None	Check Status	Not Used
Grade Verification Name		Grade Verification Similarity	0	Correction Type	None	Type Corr Sample Name		Grade Search Name	
Grade Search Similarity	0	Type	None	Status	Not Used	Outlier Removal			
Sample Name	9823 (DIA-68)HNO-S-64	Grade							

	C	Si	Mn	P	S	Cr	Mo	Ni	Al	Co	Cu	Nb	Ti	V	W	Pb	Sn	As	Zr
	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc	Conc
2	0.084	0.092	0.44	0.037	0.027	0.060	<0.003	0.044	<0.003	<0.005	0.044	<0.005	<0.0010	<0.002	<0.040	<0.010	0.012	0.009	<0.003
3	0.076	0.093	0.43	0.035	0.024	0.059	0.005	0.042	<0.003	<0.005	0.043	<0.005	<0.0010	<0.002	<0.040	<0.010	0.011	0.007	<0.003
6	0.085	0.090	0.43	0.038	0.030	0.062	0.006	0.046	<0.003	<0.005	0.044	<0.005	<0.0010	<0.002	<0.040	<0.010	0.016	0.011	<0.003
Rep	0.082	0.092	0.43	0.036	0.027	0.061	0.005	0.044	<0.003	<0.005	0.044	<0.005	<0.0010	<0.002	<0.040	<0.010	0.013	0.009	<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	0.013	0.009	0.003
Mean	0.082	0.092	0.43	0.036	0.027	0.061	0.005	0.044	<0.003	<0.005	0.044	<0.011	<0.002	0.002	0.040	0.010	0.013	0.009	0.003
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	<0.001
Ca																			
Conc	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
B																			
Conc	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Fe																			
Conc	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
2	0.001	0.002	99.1																
3	<0.0005	0.002	99.1																
6	<0.0005	0.002	99.1																
Rep	0.0008	0.002	99.1																
Min Cal	0.0005	0.0005	99.1																
Mean	0.0007	0.002	99.2																
Max Cal	0.016	0.025																	

Quartz in 100% copper

8/16/2014

8/16/2014

8/16/2014

Sample Results



SHARU STEELS (P) LTD.

B-48 & D-251, Phase-VII, Focal Point, LUDHIANA - 141 010.
Mobile : 98550-82559 E-mail : info@sharusteels.com & sales@sharusteels.com

QUALITY ASSURANCE DEPARTMENT
METALLURGICAL TEST REPORT

18396

F-QCD-03

ISO 9001 : 2008
Certified Company

TEST CERTIFICATE

M/S. SARA SAE PRIVATE LIMITED DIVISION-II A-2 SARA INDUSTRIAL ESTATE LTD. CHAKRATA ROAD, SELAQUI RAMPUR DEHRADUN (UTTRAKHAND)	T.C. No. 0493 Date 09-08-2014 Invoice No. Truck No. PB23K/8410
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GRADE	SIZE	HEAT NO.	MANUFACTURING ROUTE	COLOUR CODE	SUPPLY COND.N.	QNTY. M.T.	NO. OF PCS.
SAE1008	68 MM	S-64	L/HT	YELLOW	AS ROLLED	5.305 MT	LOOSE

CHEMICAL COMPOSITION IN PERCENTAGE

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu	Sn	Ti	B	Ca
Min.	-														
Max.	-														
Actual	0.10	0.45	0.022	0.026	0.08					0.025					

METALLURGICAL RESULTS

INCLUSION RATING IS : 4163/JK CHART/ASTM E-45A									Aust. Grain Size ASTM No. (E-112)	5/6	Gas content (ppm)	
A		B		C		D			Decarb. (MM)		O ₂	
T	H	T	H	T	H	T	H				N ₂	
STD MAX									Micro-Structure	p+f	H ₂	
ACTUAL	1.0		1.0		1.0		1.0	0.5				

MECHANICAL PROPERTIES

	U.T.S.	Y.S.	EL %	RA %	Impact Value	Hardness B.H.N. / Rb	MACRO	ULTRASONIC TEST	MIX UP TEST
Reqd.							OK		OK
Actual						145			

HARDENABILITY (HRC) AS PER IS : 3848

Distance											
Regd.											
Actual											

Remarks :

Qualify in per 20-321
Dephar