

**BSL****SPECTRO LAB****METALLURGICAL TESTING CENTRE**

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

**WORKS & OFFICE :**  
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CERTIFICATE NO.  
T - 1452 & T - 1453**TEST REPORT**

BSL/SPECTRO/5.10F-01/01/00

Issued to : M/s. Nov Sara India (P) Ltd. Report No. 142064 D.O.T. : 29.04.2010  
 7/1, Pritam Road, Unit - I, Ref. No. Nil D.O.R. : 28.04.2010  
 Dehra Dun - 248001 J.O. No. : 43844  
 Sample Description Sample No. - 4691, Heat No. - 958A

**RESULTS****Chemical Analysis**

Sample ID: J.O.No. - 43844/22

By Spectrometer (ASTM E1507;1998)

<u>Element</u>	<u>%</u>
Carbon	0.094
Silicon	0.136
Sulphur	0.018
Phosphorus	0.022
Manganese	0.492
Nickel	<0.05
Chromium	<0.05
Molybdenum	<0.05
Vanadium	<0.04
Copper	0.029
Tungsten	<0.02
Cobalt	<0.03
Aluminium	<0.01
Magnesium	<0.01
Titanium	<0.02
Iron	99.14

Checked By



**Authorised Signatory**  
 ( Q.M. / T.M. )

Note : 1. The result listed refer only to the tested samples and applicable parameters, Endorsement of product is neither inferred nor implied.  
 2. Total Liability of our Laboratory is limited to the invoiced amount. No liability will be accepted after the sample is taken back.  
 3. \*Not Covered under NABL Scope.  
 4. This report can not be used as an evidence in a court of law.  
 5. Samples will be destroyed after 15 days.  
 6. Any Complaints about this report should be communicated within 7 days of issue of this report.  
 7. This report shall not be reproduced except in full, without the written permission of the Laboratory.



# SHARU STEELS (P) LTD.

B-48 & D-251, Phase-VII, Focal Point, LUDHIANA - 141 010.

E-mail : [info@sharusteels.com](mailto:info@sharusteels.com)

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## QUALITY ASSURANCE DEPARTMENT

### METALLURGICAL TEST REPORT

F-QCD-03



ISO 9001-2008

ISO 14001-2004

Customer Address

NOV SARA INDIA PRIVATE LIMITED  
DEHRADUN UTTARAKHAND

Date

13-07-2010

## TEST RESULTS

CERTIFICATE NO. :

GRADE :

SIZE :

SAMPLE NO. :

HEAT NO. :

COLOUR CODE :

QTY/NO. OF BARS

MULTIPLE/FIX LENGTH

0987/07-2010

SAE 1008

25X40 MM

1

S 958

YELLOW

### A. CHEMICAL ANALYSIS :

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu.	Ti	B
Spec : Low-High	-	-	-	-	-	-	-	-	-	-	-	-	-
Obtained	0.09	0.40	0.030	0.036	0.15				0.019				

### B. METALLOGRAPHIC CHARACTERISTICS :

Inclusion Rating : (In accordance with IS : 4163)	A	B	C	D
	Thin	Thick	Thin	Thick
	2.0	1.5	1.0	2.0

Grain Size : (In accordance With IS : 4748)	High	Low
	7	

C. MACRO RESULTS : (In accordance With ASTM E-381)	OK
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### D. JOMINY HARDENABILITY : (In accordance with IS : 3848)

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### E. OTHER SPECIAL TESTS :

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### F. MECHANICAL PROPERTIES :

Tensile Strength	Yield Strength	% Elongation	% Area Reduction	Impact Horizontal/	Hardness High/
				Vertical	Low
				6820 MT	

REMARKS :

D. A. /