

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

(A Unit of BSL Castings Pvt. Ltd.)

(NABL ACCREDITED LAB)

CERTIFICATE NO.
T - 1452 & T - 1453**TEST REPORT**

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

Issued to : M/s. Nov Sara India (P) Ltd. **Report No.** 143783 **D.O.T. :** 18.05.2010
 7/1, Pritam Road, Unit - II, **Ref. No.** Nil **D.O.R. :** 15.05.2010
 Dehra Dun - 248001 **J.O. No. :** 44221
Sample Description Sample No. - 4768, Heat No. - S-481,

RESULTS**Chemical Analysis**

Sample ID: J.O.No. - 44221

By Spectrometer (ASTM E1507;1998)

<u>Element</u>	<u>%</u>
Carbon	0.100
Silicon	0.141
Sulphur	0.024
Phosphorus	0.025
Manganese	0.499
Nickel	0.062
Chromium	0.138
Molybdenum	<0.05
Vanadium	<0.04
Copper	0.040
Tungsten	<0.02
Cobalt	<0.03
Aluminium	0.027
Magnesium	<0.01
Titanium	<0.02
Iron	98.91


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 : sharusteels@connect2.dsl.net

AN ISO - 9001 : 2000 CERTIFIED COMPANY

QUALITY ASSURANCE DEPARTMENT

METALLURGICAL TEST REPORT

F-QCD-03



JAS-ANZ

ISO-9001 : 2000
REG. NO. : R91/1413

Customer
Address

NOV SARA INDIA PRIVATE LIMITED
DEHRADUN UTTRAKHAND

Date

22-10-2009

TEST RESULTS

CERTIFICATE NO.:

GRADE:

SIZE:

SAMPLE NO.:

HEAT NO.:

COLOUR CODE:

QTY/NO. OF BARS

MULTIPLE/FIX LENGTH

1639/10-2009

SAE 1008

40 MM

1

S 481

ORANGE

A. CHEMICAL ANALYSIS :

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu.	Ti	B
Spec : Low-High	-	-	-	-	-	-	-	-	-	-	-	-	-
Obtained	0.10	0.45	0.026	0.035	0.15	-	0.08	-	-	0.022	-	-	-

B. METALLOGRAPHIC CHARACTERISTICS :

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

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

C. MACRO RESULTS :

(In accordance With ASTM E-381)

D. JOMINY HARDENABILITY : (In accordance with IS : 3848)

E. OTHER SPECIAL TESTS :	

F. MECHANICAL PROPERTIES :

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

8465 M7

REMARKS :

[Handwritten Signature]