

BSL**BHUPENDRA STEELS (P) LIMITED**
SPECTRO LAB & METALLURGICAL TESTING CENTRE**WORKS & OFFICE :**
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1098, BASEMENT,
CHITRANJAN PARK,
NEW DELHI (INDIA)**TEST REPORT**

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

Issued to :	M/s. Nov Sara India (P) Ltd. 7/1, Pritam Road, Unit - II Dehra Dun - 248001	Report No.	99427	D.O.T. :	16.05.2008
		Ref. No.	Nil	D.O.R. :	15.05.2008
Sample Description	Sample No. - 1194A, Heat No. - S-48, Sharu Steel			J.O. No. :	30854

RESULTS**Chemical Analysis**

Sample ID; J.O.No. - 30854/64

By Spectrometer (ASTM E1507;1998)

<u>Element</u>	<u>%</u>
Carbon	0.096
Silicon	0.140
Sulphur	0.036
Phosphorus	0.032
Manganese	0.420
Nickel	0.050
Chromium	0.066
Molybdenum	0.004
Vanadium	0.002
Copper	0.064
Tungsten	0.003
Cobalt	0.002
Aluminium	0.004
Titanium	0.002
Iron	99.06


Checked By

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. This report can not be used as an evidence in a court of law.
4. Samples will be destroyed after 15 days.
5. Any Complaints about this report should be communicated with in 7 days of issue of this report.
6. This report shall not be reproduced except in full, without the written permission of the Laboratory.

SHARU

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

omer
essNOV SARA INDIA PRIVATE LIMITED
DEHRADUN, UTTARAKHAND

23-04-2008

TEST RESULTS

CERTIFICATE NO.:

GRADE :

SIZE :

SAMPLE NO.:

HEAT NO.:

COLOUR CODE :

QTY/NO. OF BARS

MULTIPLE/FIX LENGTH

0495/04-2008

SAE 1008

56 MM

4

S 48

PINK

A. CHEMICAL ANALYSIS :

	C	Mn	S	P	Si	Ni	Cr	Mo	V	Al	Cu.	Ti	B
Spec : Low-High	-	-	-	-	-	-	-	-	-	-	-	-	-

Obtained	0.09	0.45	0.038	0.040	0.14								0.016
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METALLOGRAPHIC CHARACTERISTICS :

Inclusion Rating :

(In accordance with IS : 4163)

A

B

C

D

Thin Thick

Thin Thick

Thin Thick

Thin Thick

2.0

1.5

1.0

2.0

Grain Size

High

Low

(In accordance With IS : 4748)

6

C. MACRO RESULTS :

(In accordance With ASTM E-381)

OK

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

E. OTHER SPECIAL TESTS :

F. MECHANICAL PROPERTIES :

Tensile Strength

Yield Strength

% Elongation

% Area Reduction Impact Horizontal/
VerticalHardness High/
Low

REMARKS :