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# **R. K. INSPECTION & TESTING SERVICES**

C.B.B. GOVT. APPD. LAB., COMP. PERSON FOR SMPV (U) RULES 1981 OF C.C.O.E. NAGPUR  
SPECTRO/WET ANALYSIS, P.M.I., MECH. TEST, HOT TENSILE, METALLURGICAL ANALYSIS  
N.D.T., X-RAY, CIVIL TEST, STRUCTURAL TESTING ETC., U.T.P. INSP.

## **SPECTRO ANALYSIS REPORT**

PARTY : M/s NOV SARA INDIA (P) LTD.; A/2 SARA INDUSTRIAL ESTATE . CHAKRATA ROAD RAMPUR  
SELAQUI DEHRADUN-240001, INDIA

REF : LETTER DT: 12.12.2009

DESC : TEST SAMPLE FOR SPECTRO ANALYSIS

| ID. MARK                        | DATE OF TESTING | W. O. NO.  |
|---------------------------------|-----------------|------------|
| SAMPLE NO.: 4073                | 16.12.2009      | 35619-8/10 |
| ITEM: 56MM DIA, HEAT NO.: C-373 |                 |            |

| C     | Si    | Mn    | P      | S      | Cr    | Mo   | Ni    | Al    | Co    | Cu    |
|-------|-------|-------|--------|--------|-------|------|-------|-------|-------|-------|
| 0.070 | 0.415 | 1.38  | 0.0320 | 0.0220 | 16.68 | 2.02 | 10.01 | 0.015 | 0.198 | 0.420 |
| Ti    | V     | N     |        |        |       |      |       |       |       |       |
| 0.015 | 0.080 | 0.070 |        |        |       |      |       |       |       |       |

TESTED BY : ASTM E 1507/ E-1086-94 / E-415 - 99

For **R.K. INSPECTION & TESTING SERVICES**

- Note :**
1. The results listed refer to the sample submitted for testing.
  2. Sample will be destroyed after 30 days unless instructed otherwise.



(Quality Manager)

We undertake testing jobs under Third Party Inspection Agencies e.g.  
LLOYDS, PDIL, EIL, IBR, BAX COUNSEL, BUREAU VERITAS, DNV, ABS, IRS, NPC, NTPC, TUV (I) LTD., H&G Etc.  
E-mail : rkits\_its@yahoo.co.in Visit us at : www.rkits.co.in



# Kesri Steels Limited

## MATERIAL TEST CERTIFICATE

|                        |                             |                                        |
|------------------------|-----------------------------|----------------------------------------|
| TC NO. :-KSL-843/09-10 | Date : 27.11.2009           | Customer : M/S NOV SARA INDIA PVT LTD. |
| Heat No. C - 0373      |                             | DEHRADUN                               |
| Specification:- SS 316 | P.O. NO.: B / KES 0215 / 09 | Dtd.:- 06.10.2009                      |

| SL. NO. | ITEM DESCRIPTION & DRAWING NO. | QUANTITY NOS |
|---------|--------------------------------|--------------|
| 1       | SS 316 DIA 56 MM<br>FB 765     | 39           |
|         |                                |              |
|         |                                |              |

### CHEMICAL COMPOSITION

| PERCENT         | C     | Mn   | Si   | P     | S     | Cr    | Ni    | Mo   | Cu | Ti | Al | V |
|-----------------|-------|------|------|-------|-------|-------|-------|------|----|----|----|---|
| AS PER Min. (%) |       |      |      |       |       | 16.00 | 10.00 | 2.00 |    |    |    |   |
| SPEC. Max. (%)  | 0.080 | 2.00 | 1.00 | 0.045 | 0.030 | 18.00 | 14.00 | 3.00 |    |    |    |   |
| Actual Value    | 0.074 | 1.26 | 0.47 | 0.024 | 0.027 | 16.90 | 10.02 | 2.04 |    |    |    |   |

### HEAT TREATMENT

| Condition | Temp. C | Soaking Time Hrs. | Cooling Medium |
|-----------|---------|-------------------|----------------|
|           |         |                   |                |

### PHYSICAL PROPERTIES

| MECHANICAL PROPERTIES | Y.S.<br>N/mm <sup>2</sup> | U.T.S.<br>N/mm <sup>2</sup> | ELONG %<br>GL mm | REDN IN<br>AREA % | BEND | HARDNESS | IMPACT<br>(Joules) |
|-----------------------|---------------------------|-----------------------------|------------------|-------------------|------|----------|--------------------|
| AS PER Min.           |                           |                             |                  |                   |      |          |                    |
| SPEC. Max.            |                           |                             |                  |                   |      |          |                    |
| Actual Value          |                           |                             |                  |                   |      |          |                    |

We hereby certify that the items mentioned above have been tested and inspected in our presence and are found to be in accordance with the drawing, specifications, and purchase order.

### REMARK

Sign of the Inspecting Officer

Sign of the Chief of Quality Control