

Sample Result Name	Type	Measure Date Time	Recalculation Date Time	Origin
10071 (HNO ₃ -408469) RINL, RCS-90	Unknown	Saturday, September 27, 2014	5:45:29 PM	Measured
Method Name	Method Version	Operator Name	Check Type	Check Status
Fe-10-MO		SARA SAE	None	Not Used
Grade Verification Name	Grade Verification Similarity	Correction Type	Type Corr Sample Name	Grade Search Name
	0	None		
Grade Search Similarity	Type	Status	Outlier Removal	
0	None	Not Used		

Sample Name
10071 (HNO₃-408469) RINL, RCS-90

	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
1	0.073	0.20	0.42	0.036	0.019	0.009	<0.003	0.013	0.062	<0.002	0.005	0.005	0.002	0.005	0.062	<0.010	<0.002	<0.005	<0.003
2	0.10	0.20	0.43	0.028	0.029	0.009	<0.003	<0.005	0.067	<0.002	0.003	0.005	<0.0010	0.004	0.032	<0.010	<0.002	<0.005	<0.003
4	0.079	0.19	0.42	0.027	0.024	0.008	<0.003	<0.005	0.054	<0.002	0.003	0.005	<0.0010	0.004	<0.030	<0.010	<0.002	<0.005	0.003
Rep	0.085	0.20	0.42	0.030	0.024	0.009	0.003	0.008	0.061	<0.002	0.004	0.005	0.001	0.005	0.041	<0.010	<0.002	<0.005	0.003
Min Cal	0.005	0.005	0.004	0.003	0.002	0.005	0.003	0.005	0.003	0.002	0.002	0.003	0.0010	0.002	0.030	0.010	0.002	0.005	0.003
Mean	0.085	0.20	0.42	0.030	0.024	0.009	<0.004	0.006	0.061	<0.0001	0.004	0.005	<0.0008	0.005	0.041	<0.0005	<0.0004	<0.006	<0.002
Max Cal	1.80	24.00	2.76	0.16	0.30	10.10	10.20	6.48	2.40	2.52	1.44	0.39	1.20	1.32	3.72	0.31	0.18	0.17	0.28

	Ca	Ce	B	Zn	La	Fe
	Conc	Conc	Conc	Conc	Conc	Conc
1	0.002	0.013	0.0007	0.006	0.002	99.0
2	0.004	0.014	<0.0005	0.005	<0.002	99.0
4	0.002	0.014	<0.0005	0.004	<0.002	99.1
Rep	0.003	0.014	0.0006	0.005	0.002	99.1
Min Cal	0.0005	0.006	0.0005	0.003	0.002	99.1
Mean	0.003	0.014	<0.0002	0.005	<0.002	99.1
Max Cal	0.016	0.66	0.018	0.036	0.27	

Quality in 1008 as per
ACS 26-61's
Dorothy



RASHTRIYA ISPAT NIGAM LIMITED
VISAKHAPATNAM STEEL PLANT
QUALITY ASSURANCE & TECHNOLOGY DEVELOPMENT DEPARTMENT
VISAKHAPATNAM STEEL PLANT

19639

TEST CERTIFICATE

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DETAILS		CUSTOMER/DESTINATION		WAGON/TRUCK/TRAILOR NUMBERS		R.R. WEIGHT (KGS)		
T.C.NO:	QMS/R/QAD/RM/20/M/2014-15/9180/000034	DATE:	26.09.2014	SARA SAE PRIVATE LIMITED UNIT - II, A-2, SARA INDUSTRIAL ESTATE LIMITED, RAMPUR, CHAKRATA ROAD, SELAQUI, DEHRADUN, Dehradun-Dist, Uttarakhand, India		UK07CA 5261.		36.350
INV NO:	7180400668	DATE:	26.09.2014					

HEAT / LOT NUMBER	SECTION	NOMINAL SIZE (mm)	NO. OF COILS/ BUNDLES/ BILLETS/ BLOOMS	CHEMICAL PROPERTIES														GRADE/ DESIGNATION		
				C	MN	P	S	SI	AL	CR	CU	V	TI	B	NI	MO	N2		CE	
408469	MS	90X90	1	0.080	0.410	0.034	0.012	0.250	0.035	0.018	0.008	0.008	0.008	0.008	0.008	0.008	0.008	NA	0.152	SAE1008

STANDARD SPECIFICATION:

CHEMICAL	C	Mn	P	S	Si	Al	Cr	Cu	Ce
	<= 0.100	0.300 - 0.500	<= 0.040	<= 0.050	<= 0.300	0.020 - 0.150	<= 0.050	NA	0.080 - 0.1

THE MATERIAL SUPPLIED CONFORMS TO THE STANDARD ROLLING AND MASS TOLERANCES

AVERAGE WEIGHT OF EACH BUNDLE/COIL/BILLET/BLOOM IS 36.350 TONS APPROXIMATELY
MANUFACTURING ROUTE: BOF-LF/IRUT-CCM-BILLET
REDUCTION RATIO: 7.41 : 1

RASHTRIYA ISPAT NIGAM LTD
(A GOVT. OF INDIA ENTERPRISE)
1st Floor, 22-E.C. ROAD,
DEHRADUN-248001
TIN No.-05001202922
FOR (QA &
VISAKHAPATNAM STEEL PL