



केन्द्रीय प्रदूषण नियंत्रण बोर्ड
CENTRAL POLLUTION CONTROL BOARD
 (पर्यावरण एवं वन मंत्रालय, भारत सरकार)
 (MINISTRY OF ENVIRONMENT & FORESTS, GOVT. OF INDIA)

No.C-14011/CPCB/PT-30/Water/164

Date: 30th April, 2014

LABORATORY DIVISION - WATER LABORATORY
30th PROFICIENCY TESTING PROGRAMME - METAL - DECEMBER, 2013

REPORT

Laboratory Address : The Laboratory Incharge
 M/s Mantec Environmental Laboratory
 D-36, Sector - 6,
 NOIDA
 District - Gautam Budh Nagar, U.P.

Laboratory Code : 164

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S.No.	Test Parameter	Unit	Sample	Reference Value	SD (NIQR Basis)	Lab's result	Lower Accept. Limit	Higher Accept. Limit	Robust Z-score	Remarks (Y/N/NR)
1.	IRON	mg/l	A	1.11	0.13	1.11	0.86	1.36	0.00	Y
			B	3.34	0.42	3.28	2.50	4.18	0.43	Y
2.	CADMIUM	mg/l	A	0.34	0.04	0.38	0.27	0.41	1.10	Y
			B	0.93	0.06	0.99	0.80	1.06	0.99	Y
3.	COPPER	mg/l	A	1.07	0.09	1.07	0.88	1.26	0.32	Y
			B	4.32	0.23	4.57	3.85	4.79	1.07	Y
4.	NICKEL	mg/l	A	1.13	0.09	1.21	0.94	1.31	0.87	Y
			B	3.34	0.26	3.65	2.81	3.87	1.18	Y
5.	LEAD	mg/l	A	1.67	0.22	1.96	1.24	2.10	1.33	Y
			B	3.34	0.31	3.55	2.72	3.96	0.68	Y
6.	MAGNESE (Mn)	mg/l	A	0.54	0.06	0.62	0.43	0.65	1.44	Y
			B	3.30	0.23	3.68	2.84	3.75	1.68	Y
Overall performance in %										100.0

Note: Acceptable limits are fixed based on **Reference value** (Median) $\pm$ 2 **Standard Deviation** (NIQR basis) i.e. within $\pm$ 2 **Z Scores** values for both sample A & B individually.

IQR (Inter Quartile Range) = $Q3 - Q1$; **Q1** = 1st Quartile; **Q3** = 3rd Quartile
NIQR (Normalized IQR) = $IQR \times 0.7413$ = 1 Standard Deviation
Z Score = (Observed value - Reference Value) / 1 Standard Deviation
Y - Within Acceptable Limit; **N** - Not within acceptable limit; **NR** - Not Reported

(Dr. P. K. Behera)
 Scientist 'C' &
 I/c. Water Lab