



Nilawar Laboratories
(A Unit of MNEC Consultants Pvt. Ltd)

NABL ACCREDITED LAB VIDE - TC-9782
CIN No. U74140MH112009PTC196108



TEST REPORT

Project Name & Address	: Urtan North Coal Field, Taluka – Kotma, District – Anuppur (MP)		
Customer Name & Address	: JMS Mining Pvt. Ltd., Kolkata		
Contact Details	: 9822438061	Customer Reference	: --
Test Report No	: NL/WATER/876	Sampling Date	: 06/02/2024 to 07/02/2024
Sample Received On	: 08/02/2024	Report Issue Date	: 28/02/2024
Sample ID.	: NL-0443/MAR24/WA-01to WA-06	Date of Test Start	: 08/02/2024
Sampling Plan Ref.	: As per Work Order	Date of Test complete	: 15/02/2024
Sampling Method Ref.	: APHA 24 th Edition	Sample Description	: Ground Water Sample
Sampling By	: Lab	ULR No.	: TC97822400000551F
Environmental Condition at the time of Sampling	: Avg. Temperature : 30.3 °C Avg. Humidity : 56 % Weather condition : Sunny	Environmental Condition at the time of Testing	: Temp. : 25.0 °C : Humidity : 45 %
Sample Quantity Received	: General Parameters – 2 liter PVC Bottle 06 samples, Metals – 250 ml PVC Bottles 06 samples, Oil & Grease – 1 liter glass bottle 06 samples.		

I. Chemical Testing
III. Water

DESCRIPTION LIST GROUND WATER SAMPLES

Sr. No.	Lab Sample Code	Client Sample code	Location	Lat.	Long.
				(Northing)	(Easting)
1	WA-01	UN-GW-1	Thoda Village Hand Pump	23°14.912"N	81°59.498"E
2	WA-02	UN-GW-2	Mauhari Village Hand Pump	23°16.04' N	82° 0.423' E
3	WA-03	UN-GW-3	Baskhala Village Dug Well	23°16.283' N	81°59.724' E
4	WA-04	UN-GW-4	Murdhoha Village Hand Pump	23°16.415' N	81°58.394' E
5	WA-05	UN-GW-5	Pathraundi Village Hand Pump	23°16.431' N	82°01.893' E
6	WA-06	UN-GW-6	Manmari Village Hand Pump	23°13.787' N	82°59.807'E



Off. : First Floor, 'Pratibha Sankul', Beside Alankar Cinema, Dharampeth, Nagpur - 10. Ph. : +91-712-2542261, 2542291, E-mail : nilawarlabs@gmail.com
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TEST RESULT

Sr. No.	Parameters	Units	Result						Test Method Used	As Per IS 10500:2012	
			UN GW-1	UN GW-2	UN GW-3	UN GW-4	UN GW-5	UN GW-6		Acceptable	Permissible
Client sample Code											
Lab sample code			WA-01	WA-02	WA-03	WA-04	WA-05	WA-06			
Physical Parameters											
1	Colour	Hazen	2.8	1.9	2.6	3.5	2.2	2.6	IS 3025 (Part 4)	5	15
2	Odour	-	AG	AG	AG	AG	AG	AG	IS 3025 (Part 5)	Agreeable	Agreeable
3	Taste	-	AG	AG	AG	AG	AG	AG	IS 3025 (Part 8)	Agreeable	Agreeable
4	Turbidity	NTU	0.6	1.1	0.8	0.5	1.7	1.1	IS 3025 (Part 10)	1	5
5	pH at 25 0C	-	7.11	7.05	6.97	7.44	6.78	7.21	IS 3025 (Part 11)	6.5-8.5	No Relaxation
Inorganic Parameters											
6	Electrical Conductivity	µS/cm	424	496	626	584	766	388	IS 3025 (Part 14)	-	-
7	Total Dissolved Solids	mg/l	262	302	382	356	468	238	IS 3025 (Part 16)	500	2000
8	Total Suspended Solids	mg/l	12.4	4.9	4.5	14.6	18.5	17.2	IS 3025 (Part 17)	-	-
9	Total Alkalinity as CaCO ₃	mg/l	144	78	162	78	182	80	IS 3025 (Part 23)	200	600
10	Total Hardness as CaCO ₃	mg/l	184	132	176	138	232	132	IS 3025 (Part 21)	200	600
11	Calcium Hardness as CaCO ₃	mg/l	142	85	138	124	181	102	IS 3025 (Part 21)	-	-
12	Calcium as Ca ⁺⁺	mg/l	56.8	34	55.2	49.6	72.4	40.8	IS 3025 (Part 40)	75	200
13	Magnesium as Mg ⁺⁺	mg/l	42.0	47.0	38.0	14.0	51.0	30.0	IS 3025 (Part 46)	30	100
14	Sodium as Na	mg/l	14.62	26.08	7.14	9.16	10.22	12.08	IS 3025 (Part 45)	-	-
15	Potassium as K	mg/l	8.82	7.58	4.25	2.05	3.22	3.14	IS 3025 (Part 45)	-	-
16	Chlorides as Cl	mg/l	60.2	40.8	60.3	82.7	20.5	22.6	IS 3025 (Part 32)	250	1000



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➤ Soil Testing for all types of Foundation Designs. ➤ Chemical Analysis of Soil & Water ➤ Mechanical Analysis of Soil & Rock

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			UN GW-1	UN GW-2	UN GW-3	UN GW-4	UN GW-5	UN GW-6		Acceptable	Permissible
Client sample Code											
Lab sample code			WA-01	WA-02	WA-03	WA-04	WA-05	WA-06			
17	Sulphates as SO4	mg/l	14.2	29.2	112.3	55.5	135.6	9.2	APHA 24 th Edition	200	400
18	Nitrates as NO3	mg/l	2.858	5.638	8.525	8.535	6.958	8.253	APHA 24 th Edition	45	No Relaxation+
19	Fluoride as F	mg/l	0.26	0.25	0.44	0.18	0.26	0.20	APHA 24 th Edition	1	1.5
Pollutants											
20	Amonical Nitrogen as NH3-N	mg/l	0.088	0.247	0.059	0.071	0.071	0.028	IS 3025 (Part34)	0.5	No Relaxation
21	Nitrite Nitrogen as NO2-N	mg/l	BDL	0.471	0.092	0.017	BDL	BDL	IS 3025 (Part34)	-	-
22	Total Phosphate as PO4-P	mg/l	BDL	0.031	0.062	BDL	0.045	0.021	IS 3025 (Part 31)	-	-
23	Total Oil & Grease	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 39)	0.5	No Relaxation
Trace Metals											
24	Aluminium as Al	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 55)	0.03	0.2
25	Arsenic as As	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 37)	0.01	0.05
26	Boron as B	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 37)	0.5	1
27	Cadmium as Cd	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 41)	0.003	No Relaxation
28	Chromium as Cr6+	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 52)	0.05	No Relaxation
29	Copper as Cu	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 42)	0.05	1.5
30	Iron as Fe	mg/l	0.024	0.015	BDL	0.018	0.017	0.032	IS 3025 (Part 53)	0.3	No Relaxation
31	Lead as Pb	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 47)	0.01	No Relaxation
32	Manganese as Mn	mg/l	0.062	0.022	0.041	0.064	0.015	0.051	APHA 24 th Edition	0.1	0.3
33	Mercury as Hg	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 48)	0.001	No Relaxation



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Client sample Code											
Lab sample code			WA-01	WA-02	WA-03	WA-04	WA-05	WA-06			
34	Zinc as Zn	mg/l	0.958	1.056	0.289	0.417	0.385	0.605	IS 3025 (Part 49)	5	15
35	Nickel as Ni	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	IS 3025 (Part 54)	0.02	No Relaxation

For M/s Nilawar Laboratories,

D.B.



Dinesh Bangadkar
(Authorized Signatory)

Note -

1. This report should not be reproduced wholly or in part and not to be used as evidence in any court of law.
2. The results listed referred to the tested samples and applicable parameters only.
3. Our liability is limited to the commercial value of the test/tests carried out.
4. NR-No Relaxation, AG-Agreeable; NA- Not Applicable; BDL- Below Detection Limit.

Checked By,

N. Bhangde

Nikita Bhangde
(Chemist)

-----**End of Report**-----



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