

**Details of the chemical analysis of primary Borehole samples during G4 work for Manganese
in Bharatbahal Manganese and Graphite (G3) Block , Dist.-Balangir, Odisha**

Sl. No.	Sample No.	Type of Sample	From (m)	To (m)	Thickness (m)	True Thickness (m)	Mn %	SiO ₂ %	P ₂ O ₅ %	Fe ₂ O ₃ %	MnO ₂ %	Acid Insoluble %
1	MLB-02M-01	Borehole	19.89	20.89	1.00	0.89	12.57	35.75	0.30	19.81	12.45	49.81
2	MLB-02M-02	Borehole	20.89	21.89	1.00	0.89	14.88	24.71	0.58	27.57	15.00	38.36
3	MLB-02M-03	Borehole	21.89	22.89	1.00	0.89	20.24	18.96	0.67	31.30	19.19	23.96
4	MLB-02M-04	Borehole	22.89	23.89	1.00	0.89	17.35	23.38	0.98	26.89	15.52	29.15
5	MLB-02M-05	Borehole	23.89	24.89	1.00	0.89	11.89	32.92	0.34	17.74	11.80	36.13
6	MLB-02M-06	Borehole	24.89	25.89	1.00	0.89	6.33	45.00	0.52	11.79	6.72	58.30
7	MLB-02M-07	Borehole	25.89	26.89	1.00	0.89	13.72	33.41	0.76	16.10	15.12	37.54
8	MLB-02M-08	Borehole	26.89	27.89	1.00	0.89	13.22	30.22	1.38	20.86	13.57	43.30
9	MLB-02M-09	Borehole	27.89	28.89	1.00	0.89	14.21	35.61	0.79	17.69	15.84	47.93
10	MLB-02M-10	Borehole	28.89	29.49	0.60	0.54	20.01	23.46	0.85	22.74	12.36	26.68
11	MLB-03M-01	Borehole	11.50	12.00	0.50	0.43	15.03	20.01	0.56	31.94	15.62	27.29
12	MLB-03M-02	Borehole	12.00	13.00	1.00	0.87	23.54	25.54	0.26	19.74	18.23	49.47
13	MLB-03M-03	Borehole	13.00	14.00	1.00	0.87	14.65	35.13	0.32	28.27	15.94	36.98
14	MLB-03M-04	Borehole	14.00	15.00	1.00	0.87	15.56	28.29	0.36	32.23	17.31	29.35
15	MLB-03M-05	Borehole	15.00	16.00	1.00	0.87	17.51	29.45	0.28	29.39	18.77	30.61
16	MLB-03M-06	Borehole	16.00	17.00	1.00	0.87	17.91	31.36	0.29	27.05	19.50	32.96
17	MLB-03M-07	Borehole	17.00	18.00	1.00	0.87	16.37	32.55	0.38	24.41	17.72	33.55
18	MLB-03M-08	Borehole	18.00	19.00	1.00	0.87	15.11	31.45	0.25	25.40	15.66	32.48
19	MLB-03M-09	Borehole	19.00	20.00	1.00	0.87	17.23	29.52	0.36	26.87	17.44	30.59
20	MLB-03M-10	Borehole	20.00	21.00	1.00	0.87	21.37	25.58	0.39	25.82	21.05	28.02
21	MLB-03M-11	Borehole	21.00	22.00	1.00	0.87	21.95	26.91	0.21	27.26	23.22	30.54
22	MLB-03M-12	Borehole	22.00	23.00	1.00	0.87	20.00	28.39	0.52	23.44	20.62	33.70
23	MLB-03M-13	Borehole	23.00	24.00	1.00	0.87	20.43	27.14	0.36	23.44	19.70	31.61
24	MLB-03M-14	Borehole	24.00	25.00	1.00	0.88	25.04	23.49	0.49	23.11	19.56	28.17

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25	MLB-03M-15	Borehole	25.00	26.00	1.00	0.90	23.99	22.21	0.50	26.41	21.94	26.18
26	MLB-03M-16	Borehole	26.00	27.00	1.00	0.90	16.72	28.91	0.61	19.30	19.38	42.05
27	MLB-03M-17	Borehole	27.00	28.00	1.00	0.90	22.90	26.89	0.31	23.92	18.74	28.55
28	MLB-04M-01	Borehole	21.00	22.00	1.00	0.85	13.47	35.90	1.38	17.07	12.79	46.79
29	MLB-04M-02	Borehole	22.00	23.00	1.00	0.85	18.22	18.85	1.71	28.39	19.16	28.54
30	MLB-04M-03	Borehole	23.00	24.00	1.00	0.87	9.66	39.07	0.96	14.01	10.42	54.44
31	MLB-04M-04	Borehole	24.00	25.00	1.00	0.87	10.03	39.40	0.99	13.71	11.61	54.72
32	MLB-04M-05	Borehole	25.00	26.00	1.00	0.87	23.58	26.19	1.56	13.11	22.02	35.54
33	MLB-04M-06	Borehole	26.00	27.00	1.00	0.87	16.48	37.60	0.72	12.63	14.71	44.00
34	MLB-04M-07	Borehole	27.00	27.70	0.70	0.61	9.16	40.14	1.94	13.84	10.80	54.16
35	MLB-05M-01	Borehole	11.00	12.00	1.00	0.89	17.12	28.86	0.67	15.70	16.29	40.32
36	MLB-05M-02	Borehole	12.00	13.00	1.00	0.89	21.17	21.41	1.11	20.79	18.80	36.02
37	MLB-05M-03	Borehole	13.00	14.00	1.00	0.89	24.59	5.08	1.48	43.07	22.67	11.02
38	MLB-05M-04	Borehole	14.00	15.00	1.00	0.93	28.95	7.23	1.29	36.48	20.78	14.03
39	MLB-05M-05	Borehole	15.00	16.00	1.00	0.93	32.12	5.67	0.96	37.93	20.44	11.51
40	MLB-05M-06	Borehole	16.00	17.00	1.00	0.93	30.90	8.84	1.31	31.15	21.48	19.33
41	MLB-05M-07	Borehole	17.00	18.00	1.00	0.93	29.89	8.83	1.12	31.57	19.43	20.75
42	MLB-05M-08	Borehole	18.00	19.00	1.00	0.93	6.47	44.47	0.98	12.45	4.72	64.60
43	MLB-05M-09	Borehole	19.00	20.00	1.00	0.89	17.58	29.30	0.54	14.69	17.87	45.96
44	MLB-05M-10	Borehole	20.00	21.00	1.00	0.89	20.58	22.04	2.09	23.91	18.47	33.45
45	MLB-05M-11	Borehole	21.00	22.00	1.00	0.94	29.45	15.36	1.84	27.63	20.22	20.56
46	MLB-05M-12	Borehole	22.00	23.00	1.00	0.94	32.01	12.08	1.85	27.71	21.17	17.01