

M/s Sesa Environment Laboratory

Vedanta Limited ,Mining Division ,Codli Mines,P.O. Kirlapale ,Goa-403727

Recognised by Ministry of Environment, Forests and Climate change, Govt. of India Vide Notification .S.O.137(E). Dated 12th January 2015, valid up to 11.01.2020
* Certified by ISO 9001:2008, ISO 14001 :2004 and OHSAS 18001:2007

Well Water Analysis Report

Mine Name: Bicholim Mine
Date of Sample collection :26.09.2016
Standard method used for analysis: APHA Standard
Test Report No: 166

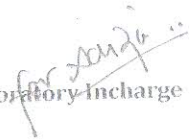
Date of Receipt of sample:26.09.2016
Analysis completion date:30.09.2016

Parameter	Unit	Permissible Limit	Location			
			Mayem Village Well	Pilgaon Village Well	Mulgao Well	Lamgao Well
Colour	Hazen	<5.0	<5	<5	<5	<5
pH	-	6.5-8.5	5.2	5.52	5.24	5.46
Turbidity	NTU	5	3.6	0.8	0.9	0.7
Conductivity	µs/cm	-	48	33	52	69
Dissolved Solids	mg/lit	500	24	16	26	34
Suspended Solids	mg/lit	-	2	1	2	1
Chloride	mg/lit	250	6.9	6.9	6.9	6.9
Total Hardness as CaCO ₃	mg/lit	200	12	14	16	14
Calcium as Ca ⁺⁺	mg/lit	75	3.2	1.6	2.4	3.2
Magnesium as mg ⁺⁺	mg/lit	30	1.0	2.4	2.4	1.5
Sulphate as SO ₄	mg/lit	200	5.2	1.2	4.1	7.0
Nitrate as NO ₃	mg/lit	45	0.1	0.1	0.1	0.1
Alkalinity	mg/lit	200	17	15	20	23
Iron as Fe	mg/lit	0.3	BDL	0.02	0.02	BDL
Manganese as Mn	mg/lit	0.1	BDL	BDL	BDL	BDL
MPN/100ml	-	Absent	22	21	10	17

BDL- Below Detection Limit


Govt. Analyst




Laboratory Incharge

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Surface Water Analysis Report for the Month of September 2016

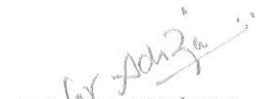
Date of Receipt of sample: 26.09.2016
Analysis completion date: 30.09.2016

Mine Name: Bicholim Mine
Date of Sample collection: 26.09.2016
Standard method used for analysis: APHA Standard
Test Report No: 165

Parameter	Unit	Permissible limits	Location						
			1Top settling pond (Vagachiper lease Discharge)	2Top settling pond (Langao lease Discharge)	3Top settling pond (Totichomordon gor lease Discharge)	Upstream River Assanora	Downstream River Assanora	Upstream River Bicholim	Downstream River Bicholim
Colour	Hazen	----	6	5	5	9	10	9	10
pH	----	5.5 to 9.0	6.51	5.71	5.98	6.6	6.56	6.5	6.55
Turbidity	NTU	----	1	0.8	1.5	3	2	1.5	2
Dissolved Solids	mg/lit	----	43	27	17	31	35	29	30
Conductivity	µS/cm	----	86	53	34	62	70	58	59
Suspended Solids	mg/lit	100	2	2	2	5	6	4	5
Chlorides	mg/lit	----	13.9	10.9	6	8.9	6.9	6.9	6.9
Total Hardness as CaCO ₃	mg/lit	----	26	14	12	18	24	20	20
Calcium as Ca ⁺⁺	mg/lit	----	6.4	2.4	2.4	4.0	4.0	4.8	4.0
Magnesium as Mg ⁺⁺	mg/lit	----	2.4	1.9	1.5	1.9	3.4	1.9	2.4
Sulphate as SO ₄	mg/lit	----	6.8	0.6	2.1	3.5	3.7	3.1	2.9
Phosphate as PO ₄	mg/lit	5	0.1	BDL	BDL	BDL	BDL	0.1	0.1
Nitrate as NO ₃	mg/lit	10	0.1	0.1	0.1	0.1	0.1	<3	<3
B.O.D (3days, 27°C)	mg/lit	30	<3	<3	<3	<3	<3	<10	<10
C.O.D	mg/lit	250	<10	<10	<10	<10	<10	<10	<10
Total Iron	mg/lit	3	BDL	BDL	0.01	BDL	0.02	0.08	BDL
Manganese as Mn	mg/lit	2	BDL	0.09	BDL	BDL	BDL	BDL	BDL
D.O	mg/lit	----	7	6.7	6.9	6.8	6.5	6.8	6.8
Oil & Grease	mg/lit	10	Nil	Nil	Nil	<1	<1	1	1

BDL- Below Detection Limit


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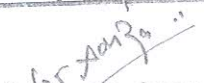
Well water level Report

Mine Name: Bicholim mine

Instrument Used: Well water tape

Sr.No	Location	Total Depth of well in mtr	Depth of Water level from the reference point in mtr	Water Column in mtr
			26.09.2016	
1	Mulgao Village Well	7.1	4.25	2.85
2	Lamgao Village Well-Santosh	5.4	3.1	2.3
3	Pilgao Village Well- Ratur	5.75	2.1	3.65
4	Mayem Village-Mohan	9.25	7.6	1.65


Govt Analyst


Laboratory Incharge

