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Ref: SMCL/ENV/2016/59

Date: 10/08/2016

To,
The Member Secretary
Goa State Pollution Control Board
EDC, Patto Plaza
Panjim, Goa -403001

Subject: Compliance of Consent conditions of Bicholim Iron Ore Mine, T.C. Nos: 11/1941, 12/1941, 13/1941, 14/1941 & 15/1941, Village Mayem, Lamgao, Bordem, Mulgao & Shirgao of Bicholim Taluka for the month of July 2016.

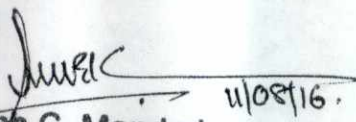
Ref: Consent to Operate No. 5/2569/15-PCB/CI-554 dated 07/09/2015

With reference to the condition in Consent to Operate and Authorization granted to Bicholim Iron Ore Mine, we have enclosed herewith the Water Analysis Report for the Month of **July 2016**.

Thanking you,

Yours faithfully,

For Sesa Mining Corporation Limited,


Santosh C. Mandrekar
Mines Manager
Sesa Mining Corporation Ltd.,
Bicholim Iron Ore Mine
Bicholim, Goa.


11/08/2016
Goa State Pollution Control Board
EDC, Patto Plaza
Panaji, Goa - 403 001

Sesa Mining Corporation Limited: Sesa Ghor, 20 EDC Complex, Patto, Panjim, Goa - 403 001, India
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Registered Office: Sesa Ghor, 20 EDC Complex, Patto, Panaji (Goa) - 403 001
CIN: U13209GA1969PLC000091

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

Surface Water Analysis Report for the Month of July 2016

Mine Name: Bicholim Mine
Date of Sample collection : 25.07.2016
Standard method used for analysis: APHA Standard

Date of Receipt of sample: 25.07.2016
Analysis completion date: 30.07.2016

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	----	20	16	8	23	26	21	23.1
pH	----	5.5 to 9.0	6.2 ✓	6.13	6.35	6.28	6.37	6.51	6.53
Turbidity	NTU	----	11	8.3	3.7	18	20	10.3	13
Dissolved Solids	mg/lit	----	40.7 ✓	13	16.4	38.8	39	32.2	32.7
Conductivity	µS/cm	----	81.2	26	32.8	77.6	77.8	64.3	65.4
Suspended Solids	mg/lit	100	3 ✓	3	2	14	10	7	6
Chlorides	mg/lit	----	7.8	5.9	6.9	17.6	18.6	8.8	7.8
Total Hardness as CaCO ₃	mg/lit	----	32.3	8.1	10.1	20.2	22.2	24.2	24.2
Calcium as Ca ⁺⁺	mg/lit	----	7.3	1.6	2.4	4.0	4.9	6.5	7.3
Magnesium as Mg ⁺⁺	mg/lit	----	3.4	1.0	1.0	2.5	2.5	2.0	1.5
Sulphate as SO ₄	mg/lit	----	0.6	0.4	0.4	1	0.8	1	0.7
Phosphate as PO ₄	mg/lit	5	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Nitrate as NO ₃	mg/lit	10	0.1	0.1	0.1	0.1	0.1	0.1	BDL
B.O.D (3days, 27°C)	mg/lit	30	<3	<3	<3	<3	<3	<3	<3
C.O.D	mg/lit	250	<10	<10	<10	<10	<10	<10	<10
Total Iron	mg/lit	3	0.01	Nil	BDL	0.14	0.09	0.04	0.06
Manganese as Mn	mg/lit	2	BDL	BDL	BDL	BDL	BDL	BDL	BDL
D.O	mg/lit	----	5 ✓	6	5	5	5	4	5
Oil & Grease	mg/lit	10	Nil	Nil	Nil	<1	<1	<1	<1

BDL - Below Detection Limit

[Signature]
Govt. Analyst



[Signature]
Laboratory Incharge

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Well Water Analysis Report

Mine Name: Bicholim Mine

Date of Sample collection :25.07.2016

Standard method used for analysis: APHA Standard

Date of Receipt of sample:25.07.2016

Analysis completion date:30.07.2016

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	5.12	5.34	5.36	5.4
Turbidity	NTU	5	3.7	1.5	3.0	1.2
Conductivity	µs/cm	-	57	37.1	77.7	73.2
Dissolved Solids	mg/lit	500	28.6	18.6	38.7	36.6
Suspended Solids	mg/lit	-	2	2	2	1
Chloride	mg/lit	250	11.7	5.9	9.8	11.7
Total Hardness as CaCO3	mg/lit	200	16.2	12.1	28.3	24.2
Calcium as Ca++	mg/lit	75	4.0	3.2	6.5	5.7
Magnesium as mg++	mg/lit	30	1.5	1.0	2.9	2.5
Sulphate as SO4	mg/lit	200	1.8	1.1	2.0	2.0
Nitrate as NO3	mg/lit	45	0.1	0.1	0.1	BDL
Alkalinity	mg/lit	200	9	20	28	13
Iron as Fe	mg/lit	0.3	0.05	0.01	0.03	0.03
Manganese as Mn	mg/lit	0.1	BDL	BDL	BDL	BDL
MPN/100ml	-	Absent	17	21	10	15

BDL- Below Detection Limit



Govt. Analyst

Laboratory Incharge

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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
			25.07.2016	
1	Mulgao Village Well	7.1	3.2	3.9
2	Lamgao Village Well-Santosh	5.4	1.4	4
3	Pilgao Village Well- Ratur	5.75	1.2	4.55
4	Mayem Village-Mohan	9.25	5.4	3.85


Govt Analyst




Laboratory Incharge