

**REPORT ON CHECK INSPECTION OF BALDA BLOCK IRON MINES OF M/s
SERAJUDDIN & CO. IN KEONJHAR DISTRICT OF ODISHA STATE
[PREPARED IN THE FORMAT, PRESCRIBED VIDE CCOM'S LETTER NO.
11013/35/MP/MISC/89-CCOM (Vol. III)]**

Name and designation of inspecting officer : Shri Harkesh Meena, RCOM
Date of Inspection : 18.03.2018

1. General information of the mine :

(i) Name of the mine : Balda Block Iron Mines.
(ii) Owner : M/s Serajuddin & Co.
(iii) Nominated owner : Md. Intekhab Alam.
(iv) Mining Engineer : Shri. Anjan Kumar Sahoo
(v) Agent : Shri Nihar Ranjan Nayak
(vi) Mine Manager : Shri P.K. Dehury
(vii) Lease area : 335.594 hect
(viii) Location : Vill-Balda, Dist-Keonjhar, State-Odisha.
(ix) Lease period : 02.12.1997 to 31.03.2020
(x) Date of Expiry : 31.03.2020
(xi) Date of approval of Mining Plan : 03.01.1992
(xii) Date of approval of Review of Mining Plan : 17.07.2017
(xiii) Period of Mining Plan/ Review of Mining Plan : 03.12.2017 to 31.03.2020.
(xiv) Production :

Year	Proposed in Million Tonnes	Actual in Million Tonnes
2016-17	15.0	10.78
2017-18 (up to Feb'18)	15.0	8.21

2. Brief description of the mine:

(a) A brief description of the mine covering location, geology, problems associated with mining of the deposit etc.

(1) Location:-

The Balda Iron Ore Mines of M/s Serajuddin & Co. over an area of 335.594 hectares is located in village Balda, Bada Kalimati and Nayagarh under Keonjhar District, Odisha.

Name of the Mine	Balda block Iron ore Mine
Latitude	21°51'49.62618" to 21°53'28.15786" N
Longitude	85°23'40.83562" to 85°25'05.09920"E
Topo Sheet No.	73G/5

(2) Geology

The lease area is a south eastern part of the Singhbhum - Keonjhar-Bonai belt, a narrow NNE – SSW trending folded synclinorium of 60 Km long and 25 Km wide. This deposit

occupies a south-central position on the eastern limb of the synclinorium. This Precambrian horse-shoe shaped belt is well known for its large reserves of iron and manganese ore.

During the field studies, it was found that the local structural elements are compatible with the general regional trend of the eastern limb of the synclinorium. The main rock types found in this mines are Laterite, lateritic iron ore, Hematite (Massive, Laminated, blue dust), BHJ/BHQ. In the ML area, iron ore found as mainly hard massive laminated and powdery variety. The strike of the ore body/host rock is along NE – SW. In block-F, the dip is due east varying from 30-45⁰ and in the block – A, it varies from 34⁰ - 49⁰ due east. In the Kalimati pit, the dip of the ore body is due west varying from 28⁰ to 51⁰. These normally confirm to the regional trend of the rock bed.

The lithological succession established as observed within the leasehold area are compatible with other locations on the western limb of the synclinorium. The important ore types are hematite with minor portion of Goethite and limonite. The iron ore is occurring in the form of hard lumpy, laminated, friable and powdery ore.

The Balda block iron ore mine discerns a fairly wide range of rock types of the iron ore group. The different lithological units present can be broadly categorized into three major groups, namely -

- (a) Laterite/ Lateritic iron ore
- (b) Iron Ore formations (BIF), stratiform deposit such as BHJ/BHQ.
- (b) Argillaceous formations such as shale.

(3) Problems associated with mining of the deposit etc.:- Not Any.

(b) Description on deployment of mining machinery

Type of Machinery		Capacity of each type of machinery	Units (in which capacity is reported)	No of machinery	Electrical-Non-electrical specify)	Used in Opencast / underground (specify)
1	Stationary Crusher	175 TPH	500 HP	1	Electrical	Opencast
2	Mobile Crusher	150 TPH	390 HP	2	Non Electrical	
3	Stationary Crusher	200 TPH	300 HP	1	Dual Power	
4	Stationary Screening Plant	1500 TPH	1600 HP	1	Electrical	
5	Mobile Screen Plant	150 TPH	100 HP	6	Non Electrical	
6	Mobile Screen Plant	250TPH	204HP	3	Dual Power	
7	Excavator (PC 2000)	9 Cu.m	976 HP	2	Non Electrical	

8	Excavator (PC 300)	2.1 Cu.m	246 HP	9	Non Electrical
9	Excavator (Zx 670)	4.2 Cu.m	460 HP	1	Non Electrical
10	Excavator (PC 200)	1 Cu.m	143 HP	6	Non Electrical
11	Excavator (Volvo 210)	1.2 Cu.m	132 HP	1	Non Electrical
12	Excavator (EX 200)	1 Cu.m	132 HP	1	Non Electrical
13	Excavator (EX 110)	0.65Cu.m	80 HP	5	Non Electrical
14	Loader (WA 900)	9 Cu.m	853 HP	2	Non Electrical
15	Loader (L 950)	11 Cu.m	1050HP	1	Non Electrical
16	Loader (L 220G)	4.7 Cu.m	373 HP	2	Non Electrical
17	Loader (SDLG LG 958)	3 Cu.m	230 HP	1	Non Electrical
18	Loader (L 120F)	3 Cu.m	179 HP	3	Non Electrical
19	Loader (950 H)	2.7 Cu.m	197 HP	3	Non Electrical
20	Loader (HL-760-7A)	4.3 Cu.m	205 HP	1	Non Electrical
21	HD 785 Dumper	100 Tons	1200 HP	12	Non Electrical
22	BH 85T Dumper	85 Tons	877 HP	8	Non Electrical
23	BH 50T Dumper	50 Tons	648 HP	4	Non Electrical
24	BH 40T Dumper	40 Tons	400 HP	8	Non Electrical
25	Grader		280 HP	1	Non Electrical
26	Drilling D-40	115 MM	260 HP	3	Non Electrical
27	Dozer	-	324 HP	2	Non Electrical
28	Rock Breaker	-	123 HP	3	Non Electrical
29	Weigh Bridge	60 Tons		8	Electrical
30	Miscellaneous water& Diesel Tanker etc.,	(2-28 KL 4-12 KL 4-18KL)	1300 HP	10	Non Electrical

3. Implementation of Mining Plan or Review of Mining Plan:

Sl.No	Proposal in the approved Mining Plan or Review of Mining plan	Observations regarding implementation of proposals given in approved Mining Plan or Review of Mining plan	Remarks
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1	2	3	4									
(1) CONSERVATION OF MINERALS												
(a)	Exploration	<table border="1"> <thead> <tr> <th>Year</th> <th>Borehole Proposed</th> <th>Borehole Actual</th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>0</td> <td>0</td> </tr> <tr> <td>2017-18</td> <td>72</td> <td>2</td> </tr> </tbody> </table>	Year	Borehole Proposed	Borehole Actual	2016-17	0	0	2017-18	72	2	The violation letter was issued under Rule 11(1) of MCDR, 2017 vide this office letter dated 27.03.2018 for deviation in exploration proposal.
Year	Borehole Proposed	Borehole Actual										
2016-17	0	0										
2017-18	72	2										
(b)	Utilization of sub-grade mineral	Out of the of Sub-Grade material generated during the plan period, 70% will be directly blended with High grade material to make it saleable and the balance was stocked in the subgrade dump.										
(c)	Any other proposal for monitoring	No proposal										
(2) SCIENTIFIC MINING												
(a)	Mine Development and method of mining	<table border="1"> <thead> <tr> <th>Year</th> <th>Proposed in Metric Tonnes</th> <th>Actual in Metric Tonnes</th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>15.0</td> <td>10.78</td> </tr> <tr> <td>2017-18 (Feb'18)</td> <td>15.0</td> <td>8.21</td> </tr> </tbody> </table> <p>The mining is proposed to be carried out by open cast Fully Mechanized method. Hydraulic drills with 102mm dia, 85 tonne dumpers and 9.0 cum excavator have been deployed within the lease area for smooth operation of mines. During the ensuing plan period, it has been envisaged to work within the Block-A, Kalimati pit and F1-quarry.</p>	Year	Proposed in Metric Tonnes	Actual in Metric Tonnes	2016-17	15.0	10.78	2017-18 (Feb'18)	15.0	8.21	During site inspection it was observed that the waste dumping is not carried out in the proposed area. The dumping was carried out over the waste dump-2 and the same is extended around 0.64 ha towards grid line 2421053. The violation letter was issued under Rule 11(1) of MCDR, 2017 vide this office letter dated 27.03.2018 for such deviation.
Year	Proposed in Metric Tonnes	Actual in Metric Tonnes										
2016-17	15.0	10.78										
2017-18 (Feb'18)	15.0	8.21										
(b)	Handling of Waste/ sub-grade material	<table border="1"> <thead> <tr> <th>Year</th> <th>Proposed Waste in Tonnes</th> <th>Actual in Waste Tonnes</th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>634850</td> <td>1280678</td> </tr> <tr> <td>2017-18 (FEB'18)</td> <td>770025</td> <td>343755</td> </tr> </tbody> </table>	Year	Proposed Waste in Tonnes	Actual in Waste Tonnes	2016-17	634850	1280678	2017-18 (FEB'18)	770025	343755	
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		Out of the of Sub-Grade material generated during the plan period, 70% will be directly blended with high grade material to make it saleable and the balance was stocked in the subgrade dump.										
(c)	Area reclamation & restoration	No mined out area is matured for reclamation and rehabilitation.										
(d)	Any other proposal for monitoring	No proposal										
(3) PROTECTION OF ENVIRONMENT												
(a)	Afforestation	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Year</th> <th>No. of Plantation Proposed</th> <th>No. of Plantation Achieved</th> </tr> </thead> <tbody> <tr> <td>2016-17</td> <td>5250</td> <td>10809</td> </tr> <tr> <td>2017-18</td> <td>3500</td> <td>6630</td> </tr> </tbody> </table>	Year	No. of Plantation Proposed	No. of Plantation Achieved	2016-17	5250	10809	2017-18	3500	6630	
		Year	No. of Plantation Proposed	No. of Plantation Achieved								
		2016-17	5250	10809								
2017-18	3500	6630										
(b)	Quality of air	Quality of air is monitored in regular interval and is within the permissible standard.										
(c)	Quality of Water	Quality of water is monitored in regular interval and is within the permissible standard.										
(d)	Noise level	Noise level is monitored and is within the permissible limit.										
(e)	Vibration	Under permissible limit										
(f)	Any other proposal for monitoring.	No Proposal										

4. History of Violations after approval of Mining Plan or Review of Mining Plan:

SL No.	Date of Inspection	Name of inspecting officer	Violations of MCDR, 2017 observed and pointed out	Rectification of violations	Remarks
1	2	3	4	5	6
1	13.06.2017	Shri Dayanand Upadhyay, SR ACOM, & Shri Dilip Jain, JMG	Violation of Rule 11(1) was observed and pointed out to lessee on 23.06.2017	Complied on 29.08.2017	
2	18.03.2018	Shri Harkesh Meena, RCOM	Violation of Rule 11(1) was observed and pointed out to lessee on 27.03.2018.		

5. Socio-Economic Development Plan:

Sl. No.	Proposed Action Plan towards socio-Economic Development	Expenditure proposed for 17-18 (In Rs. Lakh)	Expenditure Incurred for 17-18 (In Rs. Lakh)	Remarks
1	2	3	4	5
(1)	General Development in the area			
	(i) Housing	---	---	
	(ii) Water Supply	25.00	16.42	
	(iii) Sanitation	45.00	26.01	
	(iv) Health safety and Medical Facilities	75.00	73.65	
(2)	Education and Training	24.00	7.59	
(3)	Employment to local inhabitants	10.00	4.00	
(4)	Public Transportation and communication		63.63	
(5)	Recreation and other sports activities	10.00	3.01	
(6)	Expenditure for environment management	75.00	73.08	
(7)	Other	147.00	54.38	
	Total	411.00	321.77	

(HARKESH MEENA)
Regional Controller of Mines