

MCDR INSPECTION REPORT (2022-23)

General

Sl .No.	Particulars	Details
1	Name of the Mine	Boria Tibbu Iron Ore Mine
2	Date of Inspection:	22.09.2023
3	Name of Inspecting Officer	Shri Dayanand Upadhyay, DCOM
4	Name of official accompanying inspection	Mr Gangaram Verma, Agent(Mines)
5	Last date of Inspection & Officer	06/03/2023, Shri Deepak Chinchkhede, Sr. ACOM
6	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area : 110.00 Ha Forest Land : 110 Ha Non Forest Land : Nil
7	Mine code	30CHG15002
8	IBM Registration Number under rule 45 of MCDR, 1988/2017	IBM/4243/2011
9	Name of the Lease, Address, Phone, email and fax number	Boria Tibbu Iron Ore Mine Village:Boria, Taluka: Manpur State: Chhattisgarh FAX : 0771-4082709, 4082765 Email id vinod.pillai@hiragroup.com
10	Village	Boria
11	Taluka/Mandal	Manpur
12	District	Rajnandgaon
13	Pin code	491229
14	State	Chhattisgarh
15	Post Office	Khadgaon
16	Nearest Police Station	Khadgaon
17	Nearest Railway Station	Dalli- Rajhara
18	Date of Grant of Mining Lease	15.03.2010
19	Date of Execution	15.03.2010 (Lease deed execution)
20	Weekly day of rest	Sunday
21	Date of opening of Mine	01.04.2014
22	Date of First Renewal, if applicable and its period & expiry	Not applicable
23	Date of Second Renewal, if applicable and its period & expiry	Not applicable
24	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not applicable
25	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr Vinod Pillai B-7 Sahni Vihar, Raipur Phone -0771-4082706, fax – 0771-4057601 Email id vinod.pillai@hiragroup.com Appointment date 28.07.2009
26	Name of the Mine Agent with Address, phone, email, fax number and date of	Mr Gangaram Verma Capital city phase 1

Sl .No.	Particulars	Details
	appointment	Saddu Raipur Phone No 07714082765 Email id : grverma.gpil@gmail.com <u>gangaram.verma@hiragroup.com</u> Date of Appointment Appointment date 11.09.2019
27	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	Mr H Upate Boria Tibbu Iron Ore Mines Village:Boria, Taluka: Manpur State: Chhattisgarh Date of Appointment : 01.05.2015
28	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Mr H Upate Boria Tibbu Iron Ore Mines Village:Boria, Taluka: Manpur State: Chhattisgarh Date of Appointment : 01.05.2015
29	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Mr Kanwaljit Singh Dhaliwal (Geologist) Boria Tibbu Iron Ore Mines Village:Boria, Taluka: Manpur State: Chhattisgarh Date of Appointment : 16.04.2012
30	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	Review of mining plan approved vide letter no. Rajnandgaon/Iron/Khayo-232/2019, dated 19.03.2020
31	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any.	
32	Mineral(s) granted in lease and approved for Mining	Iron Ore
33	Method of Mining (Opencast, Underground)	Open cast
34	Category (Fully Mechanized, Others or Manual)	Fully Mechanised
35	Captive/Non-Captive	Captive
36	Present EC Status	EC Granted for 0.705 MTPA Iron Ore Production
37	Status of Financial Assurance	Bank guarantee of Rs. 24022800 was submitted @ Rs. 3.0 Lakh per hectare as Financial Assurance against net area of 80.076 hectare considered for Financial Assurance Calculation alongwith Review of Mining Plan. Subsequently after amendment in MCDR 2017, additional Bank guarantee of differential amount of Financial Assurance i.e. Rs. 16015200/- (Rs. One Crore Sixty Lakh Fifteen Thousand Two

Sl .No.	Particulars	Details
		<p>Hundred Only), as per the provision of the Mineral Conservation and Development (Amendment) Rule, 2021 in respect of Boria Tibbu Iron Ore Mines</p> <p>Details of Additional BG are as follows.</p> <p>Bank Guarantee No. :0853622BG0000025</p> <p>Date of Issue :27.01.2022</p> <p>Guarantee Amount :Rs. 16015200/-</p> <p><u>(Rs. One Crore Sixty Lakh Fifteen Thousand Two Hundred Only)</u></p> <p>Date of Expiry :31.03.2025</p> <p>Date of Claim :31.03.2026</p>

Exploration

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
1a	Backlog of previous year	Not proposed.	Backlog of 30 nos. of boreholes covering 4661.5 m of drilling has been completed in the FY 2022-23	Backlog of 30 nos. of boreholes covering 4661.5 m of drilling has been completed in the FY 2022-23
1b	Exploration over lease area for Geological axis 1 or 2.	Not proposed	G1 level	G1 level
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Not proposed	Exploration Agency : Kartikay Exploration & Mining Services (P) Limited Expenditure :Rs. 3.193 Crores	Exploration Agency : Kartikay Exploration & Mining Services (P) Limited Expenditure :Rs. 3.193 Crores
1d	Balance area to be explored to bring Geological axis in 1 or 2.	Not specified.	Entire Potentially Mineralized area has been explored in G1 Level	Entire Potentially Mineralized area has been explored in G1 Level
1e	Balance reserves as on 01.04.2023	Balance reserves as on 01.04.2023: Reserve : 58.822 Mt & Resource : 28.392 Mt		
1f	General remarks of Inspecting officer on geology, exploration etc.	Entire Potentially Mineralized area has been explored in G1 Level		

Development

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
2a	Location of Forest	Forest	Forest	Mines is temporary closed from

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
	Development w.r.t. lease area	Compartment 535 492300E to 492820E & 2262251N to 2262800N	Compartment 535 492300E to 492839E & 2262284N to 2262800N	10/10/2022 due non availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.
2b	Separate benches in topsoil overburden and mineral (Rule 15)	Yes	Yes	Mines is temporary closed from 10/10/2022 due non availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.
2c	Stripping ratio or ore to OB ratio	0.24: 1 (cu.m: t) (OB to Ore ratio)	4.14: 1 (cu.m: t)	Mines is temporary closed from 10/10/2022 due non availability of dumping space and large amount of generation of waste/OB. Notice of temporary discontinuance is submitted to this office on 05/12/2022.
2d	Quantity of topsoil generation in m ³	0.002 Million cu.m	Nil	Mines is temporary closed from 10/10/2022 due non availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.
2e	Quantity of overburden generation in m ³	0.73 Million cu.m	787759.50 (cum)	Mines is temporary closed from 10/10/2022 due non availability of dumping space and large amount of generation of waste/OB. Notice of temporary discontinuance is submitted to this office on 05/12/2022.
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Less development is carried out as the Mines is temporary discontinued since 10/10/2022 due non availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.		

Exploitation

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
3a	Number of pits proposed for production	1	1	01 pit
3b	Quantity of ROM mineral production proposed (2022-23)	0.308 Million Tonnes	0.190 Million Tonnes	Less development is carried out as the Mines is temporary discontinued since 10/10/2022.

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
3c	Recovery of Salable/usable mineral from ROM production	90%	90%	Less development is carried out as the Mines is temporary discontinued since 10/10/2022.
3d	Quantity of mineral reject generation	0.258 Million Tonnes	0.272Million Tonnes	0.272Million Tonnes
3e	Grade of mineral reject generation and threshold value declared	Grade of Mineral reject : 51.72% Threshold value declared : 15%	Grade of Mineral reject : 49.25-51.72% Threshold value declared : 15%	Less development is carried out as the Mines is temporary discontinued since 10/10/2022.
3f	Quantity of sub-grade mineral generation	0.258 Million Tonnes	0.272Million Tonnes	0.272Million Tonnes
3g	Grade of sub-grade mineral generation	Grade of Mineral reject : 51.72% Threshold value declared : 15%	Grade of Mineral reject : 49.25-51.72% Threshold value declared : 15%	Less development is carried out as the Mines is temporary discontinued since 10/10/2022.
3h	Manual/Mechanized method adopted for segregation from ROM	Mechanized	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Crushing, Screening & Beneficiation	At present only crushing & screening is being carried out	Pilot Scale BMQ Beneficiation Testing has been carried out by IMMT Bhubaneswar and statutory clearances is under progress for beneficiation plant
3j	Provision of drilling & blasting in mineral benches	Separate Drilling by 115 mm dia drills in Ore and OB Benches	Separate Drilling by 115 mm dia drills in Ore and OB Benches	Drilling by 115 mm dia drills in Ore and OB Benches
3k	Provision of mining machineries in mineral benches	Shovel and dumper combination	Shovel and dumper combination	Mines is temporary discontinued since 10/10/2022.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Bench height is suitably matched with the excavator.
3m	Total area covered under excavation /pits	16.971 ha	16.971 ha	16.971 ha
3n	Ore to OB ratio for the pit/mine during the year	1:0.24 (t: cu.m)	1:4.14 (t: cu.m)	Mines is temporary closed from 10/10/2022 due non

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks														
				availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.														
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of year is given below																
		Sl. No.	Particulars	Proposed Land Use, Ha	Actual Existing Land-use, Ha													
		1	Excavated Area	16.971	16.971													
		2	Subgrade dump	0	0.000													
		3	Waste dump	45.106	52.057													
		4	Mineral Storage	7.034	2.150													
		5	Top Soil Storage Area	0	0.000													
		6	Infrastructure (Workshop, administrative Building etc)	1.901	1.901													
		7	Roads	5.027	5.414													
		8	Mineral Processing	5.027	1.081													
			Total	81.065	79.574													
		9	Statutory barrier	4.918	4.918													
		10	Tenaments	0	0													
		11	Others (Unutilised)	24.017	25.508													
			Grand Total	110.00	110.00													
3p	Production of ROM mineral during last five-years period, as Applicable	<table border="1"> <thead> <tr> <th>Financial Year</th> <th>Production, Mt</th> </tr> </thead> <tbody> <tr> <td>2017-18</td> <td>0.405</td> </tr> <tr> <td>2018-19</td> <td>0.3871</td> </tr> <tr> <td>2019-20</td> <td>0.4929</td> </tr> <tr> <td>2020-21</td> <td>Nil</td> </tr> <tr> <td>2021-22</td> <td>0.207</td> </tr> <tr> <td>2022-23</td> <td>0.190</td> </tr> </tbody> </table>			Financial Year	Production, Mt	2017-18	0.405	2018-19	0.3871	2019-20	0.4929	2020-21	Nil	2021-22	0.207	2022-23	0.190
Financial Year	Production, Mt																	
2017-18	0.405																	
2018-19	0.3871																	
2019-20	0.4929																	
2020-21	Nil																	
2021-22	0.207																	
2022-23	0.190																	
3q	General remarks of inspecting officer on method of mining etc	Less development is carried out as the Mines is temporary discontinued since 10/10/2022 due non availability of dumping space. Notice of temporary discontinuance is submitted to this office on 05/12/2022.																

Solid Waste Management-Dumping

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	Yes	Yes	
4b	Location of topsoil, OB &	OB Dumps	OB Dumps	

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
	mineral reject dumps	1. Dump 1 492204E to 492590E & 2262714N to 2263182N OB Dumps 1. Dump 2 492579 E to 492843E & 2262028N to 2262340N	1. Dump 1 492150E to 492290E & 2261700N to 2262100N OB Dumps 1. Dump 2 492579 E to 492843E & 2262028N to 2262340N	
4c	Number of Dumps within lease area and outside lease area	2 nos. of dumps within the lease	2 nos. of active dumps within the lease	Total 5 nos. of dumps are located within the lease
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	Located Outside the UPL	Located Outside the UPL	Located Outside the UPL
4e	Number of Active & Alive dumps	2 nos. of active dumps	2 nos. of active dumps	2 nos. of active dumps
4f	Number of dead dumps	3	3	03 dead dumps
4g	Number of dumps Stabilised	Not proposed.	Partial Stabilization of Inactive Terraces of dumps by plantation	Partial Stabilization of Inactive Terraces of dumps by plantation
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Garland Drain 172m, Retaining wall : 180 m	Garland Drain 172 m Retaining wall : 180 m constructed.	Garland Drain 172 m Retaining wall : 180 m constructed.
4j	Number of settling ponds	1no.	6 nos. settling ponds	6 nos. settling ponds
4k	Specific commends of inspecting officer on waste dump management	Separate dumping of OB is maintained and. Retaining wall is made all along dump.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	NIL	Area is not matured for reclamation and rehabilitation.
5b	Area under backfilling of mined out area	Not proposed	NIL	--do--

5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Not proposed	NIL	--do--
5d	Total area fully reclaimed & rehabilitated	Not proposed	NIL	--do--
5e	General remarks of inspecting officer on backfilling, reclamation etc	Area is not matured for reclamation and rehabilitation.		

Progressive Mine Closer Plan

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly- Rule 23E(2).	As per provision of MCDR 2017.	Annual report on PMCP submitted	Annual report on PMCP submitted
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (Ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Not proposed	NIL	Area is not matured for reclamation and rehabilitation.
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L*B*D) ii) Void filled by waste/tailings iii) Afforestation on the backfilling iv) Rehabilitation by making water reservoir v) Any other specific means	Not proposed	NIL	Area is not matured for reclamation and rehabilitation.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitation iii) Method of rehabilitation	Not proposed	NIL	NIL
6e	Compliance of Environment monitoring (core zone & buffer zone)	Environmental monitoring proposed	Environmental monitoring carried out at regular interval and observed that all the parameters within the specified standard limit.	Environmental monitoring carried out at regular interval and observed that all the parameters within the specified standard limit.
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	Area is not matured for reclamation and rehabilitation.		

Mineral Conservation

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Grade-wise Sorting within the lease	Grade-wise Sorting within the lease	Grade-wise Sorting within the lease
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	Mechanical
7c	Different grade of mineral sort out at mine	Grade-wise Sorting	Being done as preproposal.	Being done as preproposal.
7d	Any beneficiation process at mines	Crushing, Screening & Beneficiation	At present only crushing & screening is being carried out	Pilot Scale BMQ Beneficiation Testing has been carried out by IMMT Bhubaneswar and statutory clearances is under progress for beneficiation plant
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	At present only crushing & screening is being carried out. Pilot Scale BMQ Beneficiation Testing has been carried out by IMMT Bhubaneswar.		

Environment

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Not Proposed	Nil	No topsoil is generated during the period
8b	Concurrent use or storage of topsoil	Not Proposed	Nil	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Not Proposed	Separate dumps for OB, Subgrade mineral and fines have been maintained	OB, Low grade materials, BMQ etc. are being stacked separately
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	Bottom of ore couldn't be reached as the orebody continues upto 286 mRL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	Nil	Bottom of ore couldn't be reached as the orebody continues upto 286 mRL
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	No. of Plants : 7250 Area : 2.90 Ha	No. of Plants : 10000 Area : 4.0 Ha	No. of Plants : 10000 Area : 4.0 Ha
8g	Survival rate	Not specified.-	Survival rate 75%	Survival rate 75%

S.N.	Item	Proposals (2022-23)	Actual Work (2022-23)	Remarks
8h	Water sprinkling on roads to control airborne dust	Water tanker	One water tanker deployed.	One water tanker deployed.
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	Water sprinkling in roads & benches are being carried out. Wet drilling has been adopted. Plantation along safety zone and inactive terraces of the OB dump has been carried out		

9.0 Compliance of Rule 45:

S N	Item	Comments	Remarks	
9a	Status of submission of monthly and Annual returns	MR submitted on time AR submitted on 29/06/2023	Submitted on time	
S N	Item	Details Given in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	<u>Mining Engineer</u> – Shri H Udate Date of appointment- 01/05/2015 <u>Geologist</u> – Mr Kanwaljit Singh Dhaliwal Date of appointment – 16/04/2012	Mining Engineer and Geologist appointed	Mining Engineer and Geologist appointed
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Current working – 16.971 Ha Waste Dump – 52.057Ha Mineral Processing – 1.081Ha Infrastructure- 1.901ha, crushing & Roads – 5.414Ha Others (Mineral Stock) – 2.150Ha	Found in order.	Found in order
9d	Scrutiny of Annual return on afforestation	Plantation : 10000 nos.	Found in order.	Found in order
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Reject generation : 0.272 Million Tonnes	Found in order.	Found in order
9f	Scrutiny of Annual return on ROM stock and/or grade ore	ROM Closing Stock (Hematite : 11546.52 Tonnes ROM Closing Stock of Magnetite : 27853 tonnes	Found in order.	Found in order
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Production Cost : Rs. 2779 per tonne	Found in order.	Ex-mine Price & Production Cost are

				same as the mine is a captive iron ore mines.
9i	Scrutiny of Annual return on Fixed assets	Value of fixed asset : Rs. 515396	Found in order.	Found in order
9k	Scrutiny of Annual return on mining Machineries	Excavator – 1 no, 2.1CuM Excavator – 1 no, 0.91CuM Tipper – 19 nos. 25 Tons Rock Drill – 2 nos. 115mm Dozer – 1 no.	Found in order.	Found in order

10- Details of violations observed during last inspection and the compliance status.

No Violation of serious nature is observed during the inspection.

Date:

Signature:
Name: D. Upadhyay
Designation: DCOM