

MCDR INSPECTION REPORT

Name of the Mine: Banspani Iron Ore mine, of M/s OMC Ltd,
30ORI08089

Name of the Inspecting Officer : Shri Sanjay Kumar Mahapatra, ACOM

Name of the accompanying official: Sri Deepak Ranjan, Mine Manager

Date of Inspection: 05.03.2024.

General

S. N.	Particulars	Details
1	Name of the Mine	BANSPANI IRON ORE MINES
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	TOTAL AREA-380.40 Ha FOREST LAND- 187.753 Ha NON FOREST LAND- 192.647 Ha
3	Mine code	30ORI08089
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4269/2011
5	Name of the lessee, Address, phone, email and fax number	ORISSA MINING CORPORATION LTD, A GOVT OF ORISSA UNDERTAKING, OMC HOUSE, UNIT-V, POST BOX NO.34, BHUBANESWAR-751001 Email- info@odishamining.in Fax- (0674) 2391629, 2396889
6	Village	BANSPANI
7	Taluka/Mandal	BARBIL
8	District	KEONJHAR
9	Pin code	758034
10	State	ODISHA
11	Post office	JODA
12	Nearest police station	JODA
13	Nearest Railway station	BANSPANI
14	Date of Grant of Mining Lease	21/05/1966
15	Date of Execution	21/05/1966
16	Date of opening of Mine	21/05/1966
17	Date of first Renewal, if applicable and its period & expiry	21/05/1996, 20/05/2016
18	Date of second Renewal, if applicable and its period & expiry	21/05/2016, 20/05/2036
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	15/03/2022
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	SHRI BALWANT SINGH, IAS MD, ORISSA MINING CORPORATION LTD, A GOVT OF ORISSA UNDERTAKING, OMC HOUSE, UNIT-V, POST BOX NO.34, BHUBANESWAR-751001 Email- md@odishamining.in Fax- (0674) 2391629, 2396889 Date of Nomination- 08/01/2021
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	SHRI ABANIKANTA PRADHAN, OMC Regional Office, Barbil, Keonjhar, Odisha-758035 Mob-9861248414 Email- rmbartil@gmail.com Date of appointment- 02.06.2021
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	SHRI DEEPAK RANJAN, AT/PO- Banspani, Keonjhar, Odisha- 758034, Mob-9337283269

1/28695/2024	23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SHRI SUBHENDU KUMAR SAHOO, B.TECH (MINING), EXPERIENCE- 8 yrs 7 months, AT/PO- Banspani, Keonjhar, Odisha- 758034, Mob-7978374904, Email- Subhendu.sahoo@odishamining.in Date of appointment-28/09/2022
	24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	SHRI BISWANATH BARIK, M PHIL (GEOLOGY), Experience: 5 yrs AT/PO- Banspani, Keonjhar, Odisha- 758034, Mob-7978374904, Email- biswanath.barik@odishamining.in Date of appointment- 26/12/2022
	25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	15/03/2022
	26	Mineral(s) granted in lease and proved for mining	IRON ORE
	27	Method of Mining(Open cast, Underground)	Open cast
	28	Category (Fully Mechanised, Others or Manual)	A-Mechanized
	29	Captive/Non Captive	Non captive

Exploration

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
1a	Backlog of previous year	NIL	NIL	No back log.
1b	Exploration over lease area for Geological axis 1 or 2.	49 boreholes	84 bore holes	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Agency- Maheswari Mining Pvt Ltd Expenditure: INR 2,78,68,546	INR 2,55,08,529.70	
1d	Balance area to be explored to bring Geological axis in 1 or 2	NIL	NIL	Remaining area Non-mineralized area
1e	Balance reserves as per latest approved document	Reserve as on 31/12/2021 as per approved MRMP is 14734760 ton	Reserve as on 29/02/2023 is 13236700 ton	
1f	General remarks of inspecting officer on geology, exploration etc.	Violation issued on 12.03.2024 as Geological Study Report has not been submitted as specified in Rule 12(4B) of MCDR 2017 for the exploration carried during the year 2022-23		

Development

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	KMC quarry: 2429765.5193N to 2430018.1263N 336491.9193E to 336801.5460 E 520 MRL to 570 MRL	KMC quarry: 2429778.569N to 2429980.4871N 336501.5487E to 336801.2452 E 520 MRL to 560 MRL	Mining operation carried only in KMC Quarry and no mining operation carried in
		Banspani quarry:		

2438225.459N to
2438396.458N
359449.736E to
359592.079E
600MRL to 620 MRL

the
Banspani
Quarry
violation
issued
under Rule
11(1) of
MCDR
2017 on
12.03.2024.

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2b	Separate benches in topsoil, overburden and mineral (Rule 15)	YES	Top soil benches-0 Overburden-3 Mineral-3	
2c	Stripping ratio or ore to OB ratio	1:0.48	1:0.26	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	475580.21	190222.27	As only one quarry in operation the OB generation is less than proposed..
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Mining operation carried only in KMC Quarry and no mining operation carried in the Banspani Quarry. In this regard violation issued under Rule 11(1) of MCDR 2017 on 12.03.2024.		

EXPLOITATION

N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	2	1	Mining operation carried only in KMC Quarry and no mining operation carried in the Banspani Quarry
3b	Quantity of ROM mineral production proposed	1000000 MT	727800 MT	Lss than proposed as only 01 quarry was in operation. Violation of Rule 11(1) Issued on 12.03.2024
3c	Recovery of salable/usable mineral from ROM production	956922.8 MT	727800 MT	
3d	Quantity of mineral reject generation	43077.2 MT	NIL	
3e	Grade of mineral reject generation and threshold value declared	45%-55% Fe	NIL	No mineral reject has been generated for FY22-23
3f	Quantity of sub-grade mineral generation	NIL	NIL	
3g	Grade of sub-grade mineral generation	NA	NA	

	Manual / Mechanised	Mechanized	Mechanized		
1/28695/2024	3h	method adopted for segregating from ROM			
	3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed.	Not applicable.	
	3j	Provision of drilling & blasting in mineral benches	Blast holes to be drilled by 115/150 mm dia. Single or multi row drilling with hole delay to be done.	Blast hole drills are of 115 mm dia. with proper burden and spacing. Multi row drilling with delay of 17ms and 25 ms is being done.	
	3k	Provision of mining machineries in mineral benches	Excavator- 7 Dumper-32 Front end loaders- 4 Dozer-2 Drill machine-4	Excavator- 06 Dumper – 07 Dozer - 01 Front end loader - 2 nos Drill machine - 01	
	3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of bench-10 m	Height of benche-9m	
	3m	Total area covered under excavation/pits	47.0553 Ha	43.0553 Ha	
	3n	Ore to OB ratio for the pit/mine during the year	1:0.48	1:0.26	
	3o	Total area put in use under different heads at the end of year	Mining: 47.0553 Ha Top soil stacking: NIL Overburden dumping: 20.865 Ha Mineral storage: 15.1962 Ha Infrastructure: 18.2840 Ha Roads: 4.1414 Ha Railways: 68.978 Ha Tailing Pond: 0 ETP:0 Mineral Separation Plant: 0.9591 Ha Others: 0.77 Ha	Mining: 43.0553 Ha Top soil stacking: NIL Overburden dumping: 1.47 Ha Mineral storage: 2.829 Ha Infrastructure: 11.1643 Ha Roads: 4.1414 Ha Railways: 68.978 Ha Tailing Pond: 0 ETP:0 Mineral Separation Plant: 0.726 Ha Others: 0.77 Ha	
	3p	Production of ROM mineral during last six-year period, as applicable	2016-17: NIL 2017-18: 556290 MT 2018-19: 275640 MT 2019-20: 991041 MT 2020-21: 992514 MT 2021-22: 992130 MT 2022-23:1000000 MT	2016-17: NIL 2017-18: NIL 2018-19: NIL 2019-20: NIL 2020-21: NIL 2021-22: NIL 2022-23:727800 MT	Production Started in the year 2022-23.
	3q	General remarks of inspecting officer on method of	Mining operation carried only in KMC Quarry and no mining operation carried in the Banspani Quarry.Mineral rejected generated is NIL. In this rega5rd violation issued under Rule 11(1) of MCDR		

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Solid Waste Management-Dumping

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	No proposal for top soil generation Separate OB dump to be maintained No proposal for mineral reject dump	No top soil dump Separate OB dump is being maintained. No mineral reject generated	No mineral reject has been generated for FY22-23. Violation issued under Rule 11(1)of MCDR 2017 on 12.03.2024.
4b	Location of topsoil, OB & mineral reject dumps	No top soil proposed. 2429985.924N – 2430309.26N 336362.266E-336779.498E 540 MRL to 580 MRL	No top soil generated. 2430340.94N – 2430173.25N 336616.28E-336620.51E 561 MRL to 578 MRL	Dump over the area as proposed.
4c	Number of dumps within lease area and outside lease area	03 (within lease area)	02 (within lease area)	
4d	Location of dumps w.r.t. ultimate pit limit	2429985.924N – 2430309.26N 336362.266E-336779.498E 540 MRL to 580MRL	2430340.94N – 2430173.25N 336616.28E-336620.51E 561 MRL to 578 MRL	
4e	Number of active & alive dumps	2	1	
4f	Number of dead dumps	1	1	
4g	Number of dumps stabilized	0	0	
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	893m	548m	Construction of remaining part of retaining wall under progress as observed during inspection.
4j	Number of settling ponds	2	2	
4k	Specific comments of inspecting officer on waste dump management	No mineral reject has been generated for FY22-23. Violation issued under Rule 11(1)of MCDR 2017 on 12.03.2024.		

Solid Waste Management-Backfilling

S.N	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No proposal	NIL	

5b	Area under backfilling of mined out area	No proposal	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	No proposal	NIL
5d	Total area fully reclaimed & rehabilitated	No proposal	NIL
5e	General remarks of inspecting officer on backfilling, reclamation etc	Not matured for reclamation. No area is matured for back filling and there is no proposal or achievement..	

Progressive Mine Closure Plan

N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	YES	YES, submitted on dt 29.06.2023 with Annual Return.	
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	i) Area available for rehabilitation (ha)-NIL ii) Afforestation done (ha) -NIL iii) No. of saplings planted during the year-1000 iv) Cumulative no. of plants-1000 v) Any other specific method of rehabilitation -NIL vi) Cost incurred on watch & care during the year -NIL	i) Area available for rehabilitation (ha)-NIL ii) Afforestation done (ha) -NIL iii) No. of saplings planted during the year-1100 iv) Cumulative no. of plants-1100 v) Any other specific method of rehabilitation -NIL vi) Cost incurred on watch & care during the year -NIL	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	iNA	NA	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of	NA	Nil	

rehabilitation

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Compliance of Environmental monitoring (core zone & buffer zone)

Environmental monitoring to be done regularly and monitoring parameters to be maintained within limits

Environmental monitoring is being carried out regularly and monitoring parameters are maintained within limits

Parameters are within limits

6f General remarks of inspecting officer on PMCP compliance & progressive closure operations

Area is not matured for reclamation and rehabilitation. During inspection the Plantation as carried out by the lessee was found to be satisfactory. Environmental reports checked and found that all parameters within limit.

Mineral Conservation

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S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Yes	Yes	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Mineral of different grade ranges to be sorted	Mineral of different grade ranges are being sorted.	
7d	Any beneficiation process at mines	Dry beneficiation (crushing & screening) proposed	Dry beneficiation (crushing & screening) of ROM is practiced.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	It is observed that, dry beneficiation (crushing & screening) of ROM for sizing of ore is presently going on in the mines.		

Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	No proposal	NIL	
8b	Concurrent use or storage of topsoil	No proposal	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Separate dumps for overburden, waste rock and fines proposed, no proposal for mineral reject dump	Separate dumps for overburden, waste rock and fines is being maintained	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	NA	
8f	Baseline information on existence of plantation & additional Plantation done	1000 no. of saplings in 1.1ha area	1100no. of saplings in 1.1ha area	
8h	Water sprinkling on roads to control airborne dust	Sufficient water sprinkling to be done	Water sprinkling on haul roads has been carried out for control of air borne dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The mine is ODF free and Mining faces has been left with large boulders in haphazard manner resulting unsystematic development of KMC quarry for which violation of Rule 11(1) of MCDR 2017		

1/28695/2024 **Compliance of Rule 45**

S.N	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Novemenber'22 return submitted on dt 08.12.2022 Decemenber'22 return submitted on dt 07.01.2023 January'23 return submitted on dt 08.02.2023	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	A.R. for FY22-23 Submitted on dt 29.06.2023 Mining Engineer Shri Subhendu Kumar Sahoo, Geologist: Biswajit Basak and Manager Shri Deepak Ranjan	Mining Engineer Shri Subhendu Kumar Sahoo, Geologist: Biswanath Barik and Manager Shri Deepak Ranjan were present during inspection.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining: 47.0553 Ha Top soil stacking: NIL Overburden dumping: 1.47 Ha Mineral storage: 2.829 Ha Infrastructure: 11.1643 Ha Roads: 4.1414 Ha Railways: 68.978 Ha Tailing Pond: 0 ETP:0 Mineral Separation Plant: 0.726 Ha Others: 0.77 Ha Excavated area to be reclaimed: 0 Waste dump area to be reclaimed: 0	As per Annual Return
9d	Scrutiny of Annual return on afforestation	Saplings planted- 1100 Are covered- 1.1 Ha	Found to be in order. Survival rate 70%
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	No mineral reject has been generated during FY2022-23	As per Annual Return . violation issued in this regard,.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock of ROM Nil as per AR.	ROM Stock as on 29/02/2024: NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Cost of production: 2133.60 per ton Mineral grade	As per Annual Return

		Fines (58-60% Fe) -3390.00	
		Fines (60-62% Fe)- 3834.77	
		Fines (62-65% Fe)- 6053.21	
		10-40mm CLO (62-65% Fe)- 6799.33	
		10-40mm CLO (+65% Fe)- 9435.00	
9i	Scrutiny of Annual return on fixed assets	Value of fixed assets as per AR- 262100899	As per Annual Return
9k	Scrutiny of Annual return on mining machineries	Back hoe- 06 nos Dumper – 07 nos Water tanker - 01 no Dozer - 01 no Wheel loader - 2 nos Rock drill- 01 no Crusher- 01 no Diesel Generator- 6 nos	As per Annual Return. Deployed in the mines.

10. Drone Survey Information and data thereof : Drone survey carried on quarterly basis.
Last drone survey carried in the month of January 2024 on 15.01.2024.

(Sanjay Kumar Mahapatra)
Assistant Controller of Mines