

MCDR INSPECTION REPORT

Name of the Mine: Roida-C Iron & Manganese Mines, of M/s OMC Ltd. , 30ORI08066

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

Name of the accompanying official: Shri Abanikanta Pradhan, Agent and Shri Uday Sankar Pattanaik, Mines Manager

Date of Inspection: 02.05.2023.

General Information:-

S.N.	Particulars	Details
1	Name of the Mine	Roida-C Iron & Manganese Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	192.81 Ha (Entire area coming within reserve forest)
3	Minecode	30ORI08066
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4269/2011
5	Name of the lessee, Address, phone, email and fax number	M/s OMC Ltd. Regd. Office of OMC- OMC House. At. Bhubaneswar. Dist-Khurda (Odisha) 751001.
6	Village	Kolha –Roida
7	Taluka/Mandal	Bhadrasahi
8	District	Keonjhar
9	Pincode	Pin-758036
10	State	Odisha
11	Post office	Barbil
12	Nearest police station	Rugudih
13	Nearest Railway station	Barbil
14	Date of Grant of Mining Lease	08-02-1977
15	Date of Execution	30-12-1985 (Supplementary lease deed executed on dtd. 02.02.2017 and valid upto 07.02.2027.)
16	Date of opening of Mine	10.04.1996
17	Date of first Renewal, if applicable and its period & expiry	08-02-1997
18	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Balwant Singh, IAS Managing Director, OMC House. At. Bhubaneswar. Dist-Khurda (Odisha) 751001., Email-info@orissamining.com DoA-16/06/2021
19	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Abanikanta Pradhan, At-Kolha-Roida, Po- Bhadrasahi, Via-Barbil, Mob no-9437431943 Email-apradhan@odishamining.in DoA: 30.09.2022

20	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Uday SankarPattanaik B.E. with 1 st class Mines Manager, Exp.16 yrs. At-Kolha-Roida, Po- Bhadrasahi, Via-Barbil, Ph No:9437888304, Mail id- manageromcroidac@gmail.co m DoA: 01.10.2022
21	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mining Engineer- Shri Biswa Prakash Sahu, B.Tech (Mining), Exp. 14 yrs. Address: Matkambeda,758036,Keonjhar ,Odisha Ph No: 9438117866 Mail id: idcmining@gmail.com DOA: 31.10.2021,
22	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Geologist- Shri Zeeshan Ahmad Intg M.Sc.(Applied Geology) Exp. 07 yrs. Mail id: zeeshan.ahmad@odishamining .in Mob: 9167849834 DOA: 20.10.2022
23	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes.
24	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Date: 23/11/2021 Letter No: RPM/A/25- ORI/BHU/2021-22/1257
25	Mineral(s) granted in lease and proved for mining	Iron & manganese
26	Method of Mining(Opencast, Underground)	Opencast
27	Category (Fully Mechanised, Others or Manual)	A-OTFM
28	Captive/Non Captive	Non-Captive

Exploration

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
1a	Backlog of previous year	09	51	51 Nos. BHs in applied non-DRP area.
1b	Exploration over lease area for Geological axis 1 or 2.	Entire lease area	96.035 Ha	Violation of Rule 12(4) of MCDR 2017 has been issued vide letter No: MCDR-MiFL0FE /23/2023-BBS-IBM_RO_BBS dated 11.05.23 regarding Exploration of entire lease area.
1c	Exploration Agency & Expenditure in lakh Rupees during the year		M/s MMPL Rs. 1.8 Cr. (Approx)	
1d	Balance area to be explored to bring Geological axis in 1 or 2	96.035 Ha		Violation of Rule 12(4) of MCDR 2017 has been issued vide letter No: MCDR-MiFL0FE /23/2023-BBS-IBM_RO_BBS dated 11.05.23 regarding Exploration of entire lease area.
1e	Balance reserves as per latest approved document	Actual Reserve as on. Dt. 01.04.2023		
		<u>Iron Ore in MT</u>		
		UNFC CODE	QTY.(t)	GRADE
		111	NIL	NIL
		121	21,85,144	+58 % Fe
		121	20,58,745	+45-58% Fe
		<u>Mn. Ore in MT</u>		
		UNFC CODE	QTY.(t)	GRADE
		122	31,637	+ 20 % Mn
		122	7,909	+10-20% Mn
1f	General remarks of inspecting officer on geology, exploration etc.	Violation of Rule 12(4) of MCDR 2017 has been issued vide letter No: MCDR-MiFL0FE /23/2023-BBS-IBM_RO_BBS dated 11.05.23 regarding Exploration of entire lease area.		

2. Development

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	2437300N-2437783N 334429E-334917E	2437305N- 2437781N 334560E- 334870E	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Topsoil:NIL Overburden:11	Topsoil:NIL Overburden:11	

2c	Stripping ratio or ore to OB ratio	Mineral:3 1:1.07	Mineral:3 1:1.09
2d	Quantity of topsoil generation in m ³	Topsoil: NIL	Topsoil: NIL
2e	Quantity of overburden generation in m ³	493860 M ³	158781M ³
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Less development due to “no mining operation from 01.06.2022 to 30.11.2022 “ as strike by Ex-mine workers.	

3. EXPLOITATION

N.	Item	Proposals for 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	One no. Pit 01.Main Pit,	One no. Pit 01. Main Pit,	
3b	Quantity of ROM mineral production proposed	459990T	145220T	Less production as to “no mining operation from 01.06.2022 to 30.11.2022 “ as strike by Ex-mine workers.
3c	Recovery of salable/usable mineral from ROM production	277590T	155553 MT (+58% Fe)	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral reject generation and threshold value declared	NIL	NIL	
3f	Quantity of sub-grade mineral generation	182400T	35891 MT (-58% Fe)	
3g	Grade of sub-grade mineral generation	+45%fe -58% Fe	+45%fe -58% Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	Control Blasting Technique adopted	Control Blasting Technique adopted	Dia of the Hole:100mm, Drilling Pattern: Burden 2m & spacing 3m. Depth of hole is 10 m powder factor 8t/kg. Initiative explosive: ED
3k	Provision of mining machineries in mineral benches	Excavator 0.9cum: 2 nos	Excavator 0.9cum: 2 nos.	

		Excavator 3.2cum:2 nos	Excavator 2.8cum:3 nos.
		Drilling 100mm dia: 3 nos	Drilling 100mm dia: 1 no.
		Pay loader 1.5 cum:2 nos	Pay loader 1.5 cum:1 no.
		Dumper 35t:10 nos	Dumper 30t: 10 nos
		Tipper 10t :11 nos	Mobile screen150tph: 01 no.
		Mobile crusher90tph:01 nos	Mobile crusher 90tph:01 no.
		Water tanker 12KL:01 nos	Water tanker 12KL:01 no.
		Ambulance :01 nos	Ambulance :01 no.
		4 wheeler / Jeep: 03 nos	4 wheeler / Jeep: 03 nos.
3lZ	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes, height of benches: 9m	Yes, height of benches maintained at 9m
3m	Total area covered under excavation/pits	31.039 HA	28.373 HA
3n	Ore to OB ratio for the pit/mine during the year	1:1.07	1:1.09
3o	Total area put in use under different heads at the end of year	<u>At the end of plan period</u> 1.Excavation-29.876 2.OB dump- 28.850 3.Mineral Storage- 7.447 4.Infrastructure-2.000 5. Road -4.950 6.Mineral separation plant-1.500 7. others- 7.138 Sub Total -81.761 8. Green belt - 5.8 9. Remaining Area- <u>105.249</u> Total - 192.81	<u>At the end of RY period</u> 1.Excavation- 28.373 2.OB dump - 23.695 3.Mineral Storage- 6.5 4.Infrastructure -2.25 5. Road -5.075 6.Mineral separation plant -1.5 7. others - 7.138 Sub Total - 74.531 8. Green belt - 5.8 9. Remaining Area- <u>112.479</u> Total - 192.81
3p	Production of ROM mineral during last six-year period, as applicable	2017-18:- 389823.000 MT 2018-19:- 459990.000 MT 2019-20 : 459990.000 MT 2020-21 : 459990.000 MT 2021-22 459990.000 MT 2022-23 459990.000 MT	2017-18:- 389510 mt 2018-19: 375670 mt 2019-20 : 309020.000 MT 2020-21 : 232370.000 MT 2021-22 429690.000 MT 2022-23 145220T
3q	General remarks of inspecting officer on method of	Violation of Rule 12(1) of MCDR 2017 has been issued vide letter No: MCDR-MiFL0FE /23/2023-BBS-IBM_ RO_BBS dated 11.05.23 regarding prominent cracks have been developed in the working faces in the western side of the Main Pit. This	

may cause Slope failure from the western side of the quarry which defeats the purpose of systematic development of mineral deposits.

4. 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)	Top soil to be utilized in the plantation area .Separate area demarcated for Stacking & dumping.	No Top Soil generation during 2022-23	
4b	Location of topsoil, OB & mineral reject dumps	OB Dump-3 2438031N- 2438352N 334230E- 334582E OB Dump-6 OB Dump-8 2437809N- 2438040N 334557E- 334800E OB Dump-10	OB Dump-8 2437814N- 2438020N 334592E- 334793E	Violation of Rule 11(1) of MCDR 2017 has been issued vide letter No: MCDR-MiFLOFE /23/2023-BBS-IBM_ RO_BBS dated 11.05.23 Dumping only in one Dump..
4c	Number of dumps within lease area and outside lease area	within lease area :07 outside lease area: NIL	within lease area :07 outside lease area: NIL	
4d	Location of dumps w.r.t. ultimate pit limit	Outside ultimate pit limit	Dumps located outside ultimate pit limit	
4e	Number of active dumps	Active:2	Active:2	
4f	Number of dead dumps	dead dumps:5	dead dumps: 5	
4g	Number of dumps stabilized	5	5	
4h	Whether Retaining wall or garland drain all along dumps are there	YES	Not carried as proposed	Violation issued.
4i	Length of Retaining wall or garland drain all along dump	1080 m	Not carried as proposed	Violation issued
4j	Number of settling ponds	nil	nil	
4k	Specific comments of inspecting officer on waste dump management	Violation of Rule 11(1) of MCDR 2017 has been issued vide letter No: MCDR-MiFLOFE /23/2023-BBS-IBM_ RO_BBS dated 11.05.23 Dumping only in one Dump..		

5. 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	Nil	Nil	
5b	Area under backfilling of mined out area	9810 m2	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	Nil	Nil	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	No specific comment.		

6. 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).			Submitted within time
6b	Management of worked/mined out benches			N/A
	i) Area available for rehabilitation (ha)			
	ii) Afforestation done (ha)	ii) 2.0	ii) 2.0	
	iii) No. of saplings planted during the year	iii) 5000	iii) 5000	
	iv) Cumulative no. of plants			
	v) Any other specific method of rehabilitation			
	vi) Cost incurred on watch & care during the year			
6c	Compliance on reclamation and rehabilitation by backfilling	NIL	NIL	
6d	Compliance of Rehabilitation of waste land within lease	Plantation - 5000nos.	Plantation- 5000nos.	
	i) Afforestation	Dump area- 2.0 ha.	Dump area- 2.0 ha.	
	ii) Area rehabilitated (ha)			
	iii) Method of rehabilitation			
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Regular Monitoring	Regular Monitoring was carried out.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	Plantation carried as proposed.		

7. Mineral Conservation

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting (+58 % Fe) (+45% - 58 % Fe)	grade-wise sorting (+58 % Fe) (+45 -58 % Fe)	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Yes	Yes	
7d	Any beneficiation process at mines	No proposal of beneficiation.	-	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No beneficiation proposal . But screening and crushing are being carried out.		

8. Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	To be spread over plantation area	Spread over dump for plantation	
8b	Concurrent use or storage of topsoil	Concurrent use	Concurrent use	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Separate area earmarked	Dumping has been done as per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Area not available for reclamation	Area not available for reclamation	
8f	Baseline information on existence of plantation & additional Plantation done	Afforestation: Proposal-5000 nos. Cumulative plantation as on Date. 1,52,178 nos.	Afforestation: 5000 nos sapling planted in.2022-23	
8h	Water sprinkling on roads to control airborne dust	Yes	yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Plantation carried as proposed.		

9. Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to march-2023 A.R. Not Submitted for 2022-23	MR submitted within time. Annual return to be submitted before 01.07.2023.

As Annual return not submitted (as not due) on the date of inspection, scrutiny was not carried.

Violations of provisions of MCDR 2017 Observed:

Violation of Rule No.	Violation	Date of issue of violation
11(1)	During inspection it was observed that:- (i) Dumping carried only in Dump No- 8. (ii) Retaining wall and Garland Drain as proposed has not been carried.	11.05.2023
12(1)	During inspection it is observed that, prominent cracks have been developed in the working faces in the western side of the Main Pit. This may cause Slope failure from the western side of the quarry which defeats the purpose of systematic development of mineral deposits. Further, adequate precautionary safety measures have not been taken for safety of man and material.	
12(4)	During inspection it is observed that the entire potentially mineralised area under the mining lease has not been explored to G1 level. 96.035 ha balance area yet to be explored.	

Sanjay Kumar Mahapatra
Assistant Mining Engineer