

**MCDR INSPECTION REPORT  
BHUBANESWAR REGIONAL OFFICE**

MINE CODE : 400RI13050

**General**

S.N.	Particulars	Details
1	Name of the Mine	Nuagoan Iron & Manganese Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	29.257 Ha.
3	Minecode	400RI13050
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/135/2011
5	Name of the lessee, Address, phone, email and fax number	Sri Prabodh mohanty, Weigh bridge road barbil, post : Barbil, Dist: Keonjhar, Odisha, pin - 758035, Phone No.:9437197242 E-mail: <a href="mailto:smbbl@gmail.com">smbbl@gmail.com</a> Fax No.: 06767275362
6	Village	Nuagoan
7	Taluka/Mandal	Koira
8	District	Sundargarh
9	Pin code	770048
10	State	Odisha
11	Post office	Koira
12	Nearest police station	Koira
13	Nearest Railway station	Barsuan
14	Date of Grant of Mining Lease	Letter no-iii (B) SM – 14/95 – 4239 Dt. 06-06-98
15	Date of Execution	11.05.1999
16	Date of opening of Mine	11.05.1999
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr T.C.Sei Dt.19.3.2005 Barbil, Keonjhar, Odisha Date of appointment.-19.3.2005
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Mr. A. N. Prasad Koira, Sundergarh, Odisha Date of appointment-29/03/2011
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Subrat patel BE.Mining At/po-Koira,Sundergarh,Odisha Date of appointment:- 02.07.2019
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Soukeen Mahanta, At/Po:- Koira, Dist-Sundargarh, Odisha. Date of appointment-26/10/2016
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55& carrying out their duties as per rule 56 & 57.	Yes

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26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	CAL/SG/Fe&Mn/MP-536 DT-03.04.1998  MSM/OTFM/49-ORI/BHU/2008-09 DT-25.03.2009
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	MS/OTFM/29-ORI/BHU/2018-19/1963 on Dt.- 14.11.2018,FY-2019-20 to 2023-24
28	Mineral(s) granted in lease and proved for mining	Iron & Manganese
29	Method of Mining(Open cast, Underground)	Open cast
30	Category (Fully Mechanised, Others or Manual)	OTFM
31	Captive/Non Captive	Non Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining.

**Exploration**

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
1a	Backlog of previous year	Nil	Nil	There was no proposal of exploration for the year 2020-21
1b	Exploration over lease area for Geological axis 1 or 2.	No proposal	Nil	7.932 hectare area is unexplored. Which includes safety zone & tenant land.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Not proposed	Nil	GEO Exploration India, from 2007-08 to 2015-16 Expenditure (Rs.) - 10787805&Gemcokati Exploration Pvt. Ltd. from 2018-19 Expenditure (Rs.)- 6717628,
1d	Balance area to be explored to bring Geological axis in 1 or 2	7.932 ha	-	7.932 hectare area is unexplored. Which includes safety zone & tenant land.
1e	Balance reserves as per latest approved document	As on 30.09.2018, Reserve of Iron:688714 T Manganese:224175T Resource of iron :564347 T Manganese:130462 T Total Reserve/ resources of Iron:1239261T, Manganese: 354637 T	As on 01.04.2022, Reserve of iron:674414 T Manganese:222531 T Resource of iron :564347 T Manganese:130462 T Total Reserve/resources of iron :1238761T, Manganese: 352993T	
1f	General remarks of inspecting officer on geology, exploration etc.			

**Development**

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S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
2a	Location of development w.r.t. lease area	208 E-48 W, 260N-160 S	182 E-48 W, 220N-118 S	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	-	-	
2c	Stripping ratio or ore to OB ratio	<b>1:0.8 (T/cum)</b>	<b>1:0.86 (T/cum)</b>	
2d	Quantity of topsoil generation in m3	0.00	0.00	
2e	Quantity of overburden generation in m3	92890 m <sup>2</sup>	6599.54 m <sup>2</sup>	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Waste dump is to be explored as per MEMC Rule, 2015		

**EXPLOITATION**

N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
3a	Number of pits proposed for production	One pits is proposed for iron and manganese production.	One pit is present in ML area for iron and manganese production.	
3b	Quantity of ROM mineral production proposed	Iron –100485T Mn –12150 T	Iron – 7300.00 T Manganese –310.00 T	
3c	Recovery of salable/usable mineral from ROM production	Iron 57750.00 T Manganese – 8424.00 T	Iron – 0.00 T Manganese –310.00 T	
3d	Quantity of mineral reject generation	Iron – 42735T Manganese – 3726 T	Iron – 7300.00 Manganese –0.000	
3e	Grade of mineral reject generation and threshold value declared	Grade: Fe> 45 to < 55% Threshold :Fe 45 % Grade: Mn> 10 to < 20% Threshold : Manganese 10 %	Grade: Fe> 45 to < 55% Threshold :Fe 45 % Grade: Mn> 10 to < 20% Threshold : Manganese 10 %	
3f	Quantity of sub-grade mineral generation	Iron – 42735 Manganese –3726	Iron – 7300.00 Manganese –0.00	
3g	Grade of sub-grade mineral generation	Grade: Fr> 45 to < 55% Grade: Mn> 10 to < 25%	Grade: Fr> 45 to < 55% Grade: Mn> 10 to < 25%	
3h	Manual / Mechanised method adopted for segregating from ROM	OTFM	Both manual & machinery methods are adopted for segregation of Rom.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed	No such analysis or beneficiation study carried out for sub-grade mineral and mineral reject by us.	
3j	Provision of drilling & blasting in mineral benches	J/H Drilling & IR Machinery	J/H Drilling & IR Machinery	100mm diameter Depth-4.5m

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3k	Provision of mining machineries in mineral benches	Excavator with tipper combination	Excavator with tipper combination			
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes : 5 meter in manganese bench & 5 meter in iron bench	Yes : 5meter in manganese bench & 5 meter in iron bench	As per approved proposal		
3m	Total area covered under excavation/pits	5.977 ha (For financial year 2021-22)	5.25 ha (For financial year 2021-22)			
3n	Ore to OB ratio for the pit/mine during the year	1:0.8 (T/ cum)	1:0.86 (T/ cum)			
3o	Total area put in use under different heads at the end of year	19.801 ha (As end of the plan period)	Mining	9.61 ha		
			Mineral storage	1.42 ha		
			Road	0.35 ha		
			Infrastructure	0.30 ha		
			Waste dump	4.75 ha		
			others	1.87 ha		
			Total area used	18.30 ha		
3p	Production of ROM mineral during last five-year period, as applicable (in Tonne)	<b>Iron Proposed</b>	<b>Manganese Proposed</b>	<b>Iron Actual</b>	<b>Manganese Actual</b>	
		2017-18	117600.000	5096.000	9090.000	0.00
		2018-19	125440.000	5642.000	4700.000	0.000
		2019-20	92655.000	10050.000	3000.000	360.000
		2020-21	95918.000	11025.000	4000.000	973.850
		2021-22	100485.0000	12150.000	7300.00	310.00
3q	General remarks of inspecting officer on method of					

**Solid Waste management-Dumping**

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Dumping of OB in waste dump.	Dumping of OB in waste dump.	
4b	Location of topsoil, OB & mineral reject dumps	OB: 0 E to 25 W & 16 N to 42 S.	OB: 32 E to 170 W & 80 N to 42 S.	
4c	Number of dumps within lease area and outside lease area	1 Dump within the ML area.	1 Dump within the ML area.	Waste dump may be explored under MEMC Rule, 2015
4d	Location of dumps w.r.t. ultimate pit limit	OB: 0 E to 25 W & 16 N to 42 S.	OB: 32 E to 170 W & 80 N to 42 S.	
4e	Number of active & alive dumps	One active Dump	One active Dump	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	One Dump	One Dump is partly stabilized by coir matting.	
4h	Whether Retaining wall or garland drain all along dumps are there	Maintenance	Maintained	

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4i	Length of Retaining wall or garland drain all along dump	Maintenance	Maintained	
4j	Number of settling ponds	Not proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management	Waste dump may be explored under MEMC Rule, 2015		

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**Solid Waste management-Backfilling**

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	Nil	
5b	Area under backfilling of mined out area	Not proposed	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	Not proposed	Nil	
5d	Total area fully reclaimed & rehabilitated	Not proposed	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc			

**Progressive Mine Closure Plan**

N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	Yes	PMCP submitted in due time.	
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	No proposal	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	No proposal	Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	0.1 ha	Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Core zone & buffer zone	Core zone & buffer zone	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations			

**Mineral Conservation**

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S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting of Rom mineral according to its size and grade proposal is present in mining scheme.	Sorting and sizing of Rom mineral according to its grade and size is being done, both manually & mechanically before stacking within ML area.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Both manual & machinery	Both manual & machinery	
7c	Different grade of mineral sorted out at mines	-	-	
7d	Any beneficiation process at mines	Not Proposed	There is no beneficiation process at mines.	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			

**Environment**

S.N.	Item	Proposals for, 2021-22	Actual work during 2021-22	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	Not proposed	Nil	
8b	Concurrent use or storage of topsoil	Not proposed	Nil	Mineable area exposes lateritic iron ore and manganese ore. Hence, there is no generation of top soil in plan period.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Overburden & Waste rock : Waste Dump	Overburden & Waste rock : Waste Dump	As per the approved Proposal
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Overburden and waste rock will be used for restoring the land to its original use after completion of excavation of ore from pit.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal for the year 2020-21	Nil	
8f	Baseline information on existence of plantation & additional Plantation done	No proposal	Nil	Afforestation already done completely over safety zone, backfilled area & coir matting area of dump.

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8h	Water sprinkling on roads to control airborne dust		Water sprinkling on haul road	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

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**Compliance of Rule 45**

S.N.	Item	COMMENTS		Remarks
S.N.	Status of submission of Monthly and Annual returns	Monthly Return submitted in due time	Annual Return submitted in due time	
9a	Item	Details given in A.R. for the year 2020-21	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager- Mr. A. N. Prasad, Mining Engineer- Mr. Subrat Ku Patel, Geologist- Mr. Soukeen Mahanta	Found in order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land Detail Area (in Ha.) Mining 9.61 Mineral Storage 1.42 Road 0.35 Infra 0.30 OB Dump 4.75 Other 1.87	Found in order	
9d	Scrutiny of Annual return on afforestation	800 No's	Provided	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Iron :7300 T, Grade: 54.11 %Fe	Found in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Iron ore Lumps- 6540.00 MT Grade-55% Fe, Fines- 760 Grade- 55% Fe, Lumps Manganese: 70 MT Grade 25 to 35 % Mn. And 240 MT Grade 35 to 46%Mn.	Found in order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Details are provided	Found in order	
9i	Scrutiny of Annual return on fixed assets	Rs- 551839.00	Details are provided	
9k	Scrutiny of Annual return on mining machineries	Excavator(0.9 m <sup>3</sup> ):1 Tipper:4 Water tanker: 1	The above machinery have already completed their service period. Proposal initiated for discard of those machine/tippers.	

Details of violations observed during current inspection and compliance position of violation pointed out
Nil

Date : 04.01.2023

**(Rajani Kanta Rautaray)**  
**INDIAN BUREAU OF MINES**