

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

Mining Plan Modification REPORT

Jabalpur regional office

Mine file No : MP/JBP/IORE-4

Mine code : 30MPR18003

- (i) Name of the Inspecting : **G005**) **SANJAY M. GIRHE**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 01-OCT-20
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DUBIYARA**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : JABALPUR
Village : DUBIYARA
Taluka : SIHORA (MEGHAGWA)
Post office : TIKARIYA
Pin Code : 483334
FAX No. : NONE
E-mail : NONE
Phone : 07624-271239 (Mine), 07622-
- (f) Police Station :
- (g) First opening date : 21-AUG-87
- (h) Weekly day of rest : THU
2. Address for : Dubiyara Iron ore Mine of M/S Nirmala Minerals
correspondance : village Dubiyara, Taluk Sihora
Dist. Jabalpur, M.P. State.
3. (a) Lease Number : MPR0562
- (b) Lease area : 32.37
- (c) Period of lease : 50
- (d) Date of Expiry : 05-MAR-37
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : NIRMALA MINERALS
PATHAK WARD KATNI MADHYA
PRADESH
Phone:N. A.
FAX :N. A.

Owner : NIRMALA MINERALS
PATHAK WARD KATNI MADHYA
PRADESH
Phone: N. A.
FAX : N. A.

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	15-DEC-99
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	24-NOV-05
		Renewal under rule 24 MCR1960	26-JUL-07
		Mining Scheme rule 12 MCDR1988	13-FEB-13
		MP modif under 17(3) MCR 2016	11-APR-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed during the year 2019-20.	NA.	
1b	Exploration over lease area for geological axis 1 or 2	During 2019-20 no exploration was proposed	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration proposed	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration was proposed.	G2 level: 26.66 Ha G3 level: 5.71 Ha Area explored under G2 by way of working & trial pits.	No systematic detailed exploration carried out in past by the lessee.
1e	Balance reserve as on 01/04/20	Reserves in Million Tonnes Probable (122) -8.90 Resources in Million tonnes Pre-Feasibility(22): 2.14 Reserves position as on 1/4/2017 as per approved MMP dtd 11.04.2017	Reserves in Million Tonnes Proved (111) - 0.37 Probable (122) -8.46 Resources in Million tonnes Pre-Feasibility(22): 2.14 Reserves position as on 1/4/2020 as per annual return 2019-20.	

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Most of the lase area has been explored by working pits only. No detailed exploration carried out by the lessee in past Hence, exploration was proposed to convert G2 & G3 reserves/resources into G1 level as per the provisions of Rule 12(4) of MCDR, 2017
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to work in between E415580 to E415180 & N2585600 to N258600 with bench mRLs 422 to 402mRL as earmarked in Plate-9 for the year 2019-20	Mine working was carried out as per the proposed locations during the year 2019-20	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil or OB benches proposed. Separate benches of 6mts were proposed in mineral.	Benches formation has done as per the proposals	No top soil encountered during the year. OB in pocket form & proposed to be scrapped before ROM excavation.
2c	Stripping ratio or ore to OB ratio	Proposed as 1:0.11 Tonne/CuM	Acheived as 1:0.17Tonne/CuM	
2d	Quantity of topsoil generation in m3	Not Proposed	Nil	No top soil encountered during the year

2e	Quantity of overburden generation in m3	Total 7900 CuM intereburden proposed	Total 32175 CuM interburden generated during 2019-20	Interburden is yellow ochre/ phyllites
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single quarry of following dimensions Quarry-1 : 576m x (156-200)m x 36m

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Excavation were proposed in Quarry-1 from 422mRL to 404mRL as marked in Plate-9	Mine working were carried out as per proposals	
3b	Quantity of ROM mineral production proposed	2,13,300 MT proposed in 2019-20	1,85,293 MT production acheived in 2019-20	
3c	Recovery of sailable/usable mineral from ROM production	Total 90% recovery of Iron ore proposed	Recovery of iron ore acheived as per the proposals	Total 10% proposed as interburden waste consist as quartzite, phyllite, etc
3d	Quantity of mineral reject generation	Not Proposed	Nil	Entire 90% recovered ROM is salable/benefiable
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral rejects generation proposed
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	No subgrade generation proposed during the year
3g	Grade of sub grade mineral generation	Not Proposed	Nil	

3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical sizing & sorting proposed by portable screening	Mechanical sizing & sorting carried out	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Portable screening for sizing proposed during the year
3j	Provision of drilling and blasting in mineral benches	No drilling & blasting proposed	Nil	Iron ore friable & soft in nature as blue dust and no blasting required
3k	Provision of mining machineries in mineral benches	L&T PC Excavator- 1.2CuM, 210HP, TATA Dumper, 10 T capacity- 05 Nos Jack Hammer with Drill rods -32mm Water Tanker- 5KL Water pump with Diesel engine	L&T PC Excavator-1.2CuM, 210HP, TATA Dumper, 10 T capacity-05 Nos Jack Hammer with Drill rods -32mm Water Tanker-5KL Water pump with Diesel engine	HEMM deployment proposed as per the capacity & targeted production.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No OB bench height is proposed Bench height of 6m proposed in iron ore	Bench height maintained as proposed	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	13.93 Ha area was proposed in approved MMP period i.e. 2017-18 to 2021-22	12.89Ha as on 01.04.2020 as per Annual Return,2019-20	During approved ROMP period 2017- 18 to 2021-22, additional area was proposed for ROM excavation.
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:0.11 Tonne/CuM	Achieved as 1: 0.40 Tonne/Cum	During the year 36371 CuM waste generated

3o	Total area put in use under different heads at the end of year	As per the previous approved MMP dtd 11.04.2017 Pits-13.93 Ha Waste Dumps-0.40Ha Infrastructure -0.50Ha Infrastructure -0.40Ha Road-0.50Ha	As per the previous approved MMP dtd 11.04.2017 Opencast working-12.84 Ha Waste Dumps-1.240 Ha Infrastructure-3.10 Ha Others- Stacks, green belt-12.97Ha As per annual return 2019-20 as on 01.04.2020	
3p	Production of ROM mineral during the last five year period as applicable	2015-16-: 217215 MT 2016-17-: 369360 MT 2017-18-: 421910 MT 2018-19-: 399962 MT 2019-20-: 413300 MT	2015-16-: 216532 MT 2016-17-: 25000 MT 2017-18-: 179971 MT 2018-19-: 148420 MT 2019-20-: 185293 MT	Production details as per online submitted annual returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Mechanised open cast working proposed by using Excavator /JCB & dumper combination without drilling & blasting due to friable nature of ore i.e. blue dust.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	During the year no dumping proposed	Nil	OB generated being utilized for backfilling purpose towards NW mined out area
4b	Location of topsoil, OB and mineral reject dumps	Dumping not proposed	Exisitng OB dump laying towards Eastern part of lease area	Location duly marked on surface plan- Plate No-IV

4c	Number of dumps within lease area and outside of lease area	Two numbers of OB dumps located towards NE part of lease area	Two numbers of OB dumps located towards NE part of lease area	No dumping outside mining lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB dumps outside ultimate pit limit	OB dumps observed outside the ultimate pit limit	Dumping towards NE & close to the ML boundary
4e	Number of active and alive dumps.	Two active dumps	Two active dumps in the lease area	
4f	Number of dead dumps.	No dumps in lease area	No dumps in lease area	
4g	Number of dumps established.	Not Proposed	Presently scope doesnot exists	OB being used fro backfilling purpose
4h	Whether Retaining wall or garland drain all along dumps are there.	Not Proposed	NA	
4i	Length of Retaining wall or garland drain all along dumps	Not Proposed	NA	
4j	Number of settling ponds	Not Proposed	NA	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Mostly overburden generated being utilized for backfilling purpose in mined out area. Exisiting dumps are outside ultimate pit limit being maintained.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Not Proposed	In existng pits ore not fully extracted for backfilling purpose.	Backfilling was proposed on 7.5m barrier zone towards NW part of lease area
5b	Area under backfilling of mined out area	About 1.80 Ha proposed for backfilling	About 0.24 Ha backfilled as on date	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not Proposed	Nil	
5d	Total area fully reclaimed and rehabilitated	About 1.80 Ha proposed for backfilling	About 0.24 Ha backfilled as on date	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	None of the pit area matured for backfilling but some area towards NW part within 7.5m barrier zone proposed for backfilling. Presently scope doesnot exists for backfilling.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted before 1st July of every year	Not submitted within time limit	Violation of Rule 26(2) of MCDR,2017 pointed out & issued
6b	Area available for rehabilitation (ha) .	About 1.80 Ha proposed	About 0.24 Ha backfilled as on date	
6c	afforestation done (ha) .	NA	NA	Information not available

6d	No. of saplings planted during the year	About 400 saplings proposed to be planted	416 saplings planted during the year	
6e	Cumulative no .of plants	NA	NA	No information available on this
6f	Any other method of rehabilitation	Not Proposed	Nil	
6g	Cost incurred on watch and care during the year	NA	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1800 SqM proposed for backfilling	About 0.24 Ha backfilled as on date	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not Proposed	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not Proposed	Nil	

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	Nil		
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	Nil		
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	Nil		
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Carried out as per the proposals		Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA		Presently none of working pit area is mineral exhausted hence scope of reclamation by backfilling doesnot exists. However, backfilling done on 7.5m barrier zone area at some places.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	413300 MT proposed as total ROM production for despatch.	185293 MT iron ore lumps & fines despatched during the year	Out of this 91476 tonne lumps iron ore & 93817 tonne fine ore

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Screening & sizing proposed	Screening & sizing carried out by feeding 100mm & output size is 0-5mm, 5mm to 20mm, 40mm to 100mm	The capacity designed as 300 TPH
7c	Different grade of mineral sorted out at mines.	Not Proposed	Different sizes of ore by screening & sizing	
7d	Any beneficiation process at mines	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Mineral conservation being practised by systematic screening and sizing of ore for upgradation of ore quality by removing gangue material.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	Nil	During the year no proposals
8b	Concurrent use or storage of topsoil	Not Proposed	No top soil generated during the year	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not Proposed	Concurrent use of overburden/waste material for backfilling proposed	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Concurrent use of overburden/waste material for backfilling proposed	Carried out as per the proposals	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not Proposed	NA	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	About 400 saplings proposed for plantation	About 416 saplings planted during the year	
8g	Survival rate	Proposed as 85%	Acheived as 80%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling is proposed by water tanker	Regular water sprinkling is done by water tanker	Water tanker of 5KL capacity is provided for the purpose
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NA	NA	Aesthetic beauty in and around mine area is quite satisfactory as plantation done in mine as well as near mines office.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. not submitted upto- November- 2020 A.R. not submitted for the year - 2019-20	Violation under Rule 45(5) (c) of MCDR, 2017 pointed out & issued for non-submission of annual return	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Vijay Singh appointed as Mining Eng but no geologist was appointed	Violation of Rule 55(1)(c)(i) of MCDR,2017 was pointed out & issued
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Opencast working-12.84 Ha Waste Dumps-1.240 Ha Infrastructure-3.10 Ha Others- Stacks, green belt-12.97Ha	
9d	Scrutiny of Annual return on afforestation	Given	Total 416 saplings were plated during the year	Plantation works observed during the mine inspection
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral rejects generated during the year	No proposals were given mineral rejects generation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Lumps Iron Ore Below 55% Fe: O/S-201241 MT Despatch-91476 MT C/S-201241 MT Fines Iron Ore Below 55% Fe: O/S-168804 MT Despatch-93817 MT C/S-168804 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Lumps Iron Ore Below 55% Fe: Rs 416/MT Fines Iron Ore Below 55% Fe: Rs 354/MT	
9h	Scrutiny of Annual return on fixed assets	Given	Value of Fixed Assets (in .) 97307251 reported	
9k	Scrutiny of Annual return on mining machineries	Given	Nil	

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

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17 Rule 26(2)	11-DEC-20		MCDR17 Rule 26(2)	11-DEC-20	
MCDR17 Rule 45(5) (c)	11-DEC-20	04-MAY-21	MCDR17 Rule 55(1)	11-DEC-20	
MCDR17 Rule 55(1) (1)	11-DEC-20		Rule 45(1) (c)	11-DEC-20	04-MAY-21
Rule 26(2)	11-DEC-20	02-JUL-21			
Rule 45(1) (c)	11-DEC-20				
MCDR17 Rule 55(1) (3)	11-DEC-20	02-JUL-21			

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines