

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

Review and updation of Mining Plan REPORT

Nagpur regional office

Mine file No : MP/BGT/MN-52/NGP

Mine code : 40MPR01049

- (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 : 23-DEC-21
- (v) Prev.inspection date : 01-MAY-18

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JAGANTOLA (62.58H)**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : BALAGHAT
Village : JAGANTOLA
Taluka : PARASWARA
Post office : UKWA
Pin Code : 481105
FAX No. :
E-mail :
Phone :
- (f) Police Station :
- (g) First opening date : 01-NOV-07
- (h) Weekly day of rest :
2. Address for :
correspondance
3. (a) Lease Number : MPR2213
(b) Lease area : 62.58
(c) Period of lease : 20
(d) Date of Expiry : 10-JUN-27
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : M/S SHREE KRISHNA MINING & TRADING SYNDI
BHANDARA MAHARASHTRA
Phone:
FAX :

Owner : SHRI BIHARI PARASPURIA, POWER OF ATTORNEY HOLDER
BALAGHAT MADHYA PRADESH
Phone:
FAX :

6. Date of approval of Mining : Fresh under rule 22 MCR1960 18-APR-07
Plan/Scheme of Mining : Mining Scheme rule 12 MCDR1988 02-AUG-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration was proposed in 2020-21	Nil	Total 06 boreholes were drilled during the year 2016-17
1b	Exploration over lease area for geological axis 1 or 2	No exploration was proposed in 2020-21	Nil	Total 06 boreholes were drilled during the year 2016-17
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No exploration was proposed in 2020-21	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration was proposed in 2020-21	About 8.8821 Ha explored in G1 level, G3-1.7844Ha & Non Mineralised area-36.7600Ha & rest 15.1535 Ha area to be explored in G1 level	Total 06 boreholes were drilled during the year 2016-17
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 37126 MT Probable (121)-20020 MT Resources in Tonnes Feasibility(21): Nil Pre-Feasibility(21): Nil Resources & reserves position as per ROMP approved dtd 12.09.2018	Reserves in Tonnes Proved(111) -37126 MT Probable (121)-20020 MT Resources in Tonnes Feasibility(221): Nil Pre-Feasibility(221): Nil As per annual return for the year 2020-21	No changes in resources & reserves as per annual return of 2020-21

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	Jagantola manganese mine is mainly characterised by the rock units of Mansar and Sitasaongi formations. The rocks outcrops of Mansar formations mostly covered with soil in the area, where as Sitasaongi formations.
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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 N1000 to N1220 & E800 to E1090	Working carried out at proposed location but less production carried out during the year	For aforesaid deviations violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Bench height of 6m proposed for development in OB & 3m in ore for MNn production	Seperate bench is observed in OB and Ore as per the proposals	Nil
2c	Stripping ratio or ore to OB ratio	Proposed as 1:26 Tonne/CuM	Acheived as Nil	No overburden generated during the year 2020-21 & very less production of 901 MT of Mn ore carried out.
2d	Quantity of topsoil generation in m3	6510 CuM proposed in 2020-21	Nil	No top soil generated during the year 2020-21 due to very less production of Mn ore

2e	Quantity of overburden generation in m3	2187 CuM proposed in 2020-21	Acheived-Nil	No overburden generated during the year 2020-21, for said deviations violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There is single working pit and 5 yrs production and development planning was given in this pit. Ore body encountered in entire pit but water logged at the time of mines inspection.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single, Pit-1	Working was carried out in single pit as proposed	Nil
3b	Quantity of ROM mineral production proposed	5668 MT Mn ore production was proposed in 2020-21	901 MT Mn ore production acheived in 2020-21	Propoduction on lower side and for said deviations violation under Rule 11(1) of MCDR,2017 pointed out and issued to the lessee
3c	Recovery of sailable/usable mineral from ROM production	About 65% of ROM proposed	Acheived about 65% of ROM as proposed	Rest 10% is mineral rejects and 25% as interburden or waste from ore zone proposed.
3d	Quantity of mineral reject generation	875 MT proposed as mineral reject generation	No mineral rejects generated during 2020-21	Very less production of 901MT of Mn ore carried out in 2020-21
3e	Grade of mineral rejects generation and threshold value declared.	Avove 10% Mn & below cut-off	Avove 10% Mn & below cut-off	No mineral rejects generated during 2020-21
3f	Quantity of sub grade mineral generation.	No Proposal	Nil	Nil

3g	Grade of sub grade mineral generation	No Proposals	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposals	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	34mm dia drilling & blasting was proposed	Drilling & blasting carried out as per the proposals	The shot holes proposed as vertical or slightly inclined
3k	Provision of mining machineries in mineral benches	JCB - Nos, 2.1CuM capacity Tippers-03Nos, 10 Tonnes capacity Compressor- 02 Nos, 350 cfm Jack Hammer-02 Nos Wagon Drill-02 Nos for large dia holes	JCB - Nos, 2.1CuM capacity Tippers-03Nos, 10 Tonnes capacity Compressor- 02 Nos, 350 cfm Jack Hammer-02 Nos Wagon Drill-02 Nos for large dia holes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 6m for development in OB and 3M in ore for production proposed	Bench heights maintained as per the proposals	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	Proposed 3.98 Ha as per ROMP approved dtd 12.09.2018	3.25 Ha as per Annual Return for 2020-21	Due less production, lateral excavation carried out in less manner.
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:26 Tonne/CuM	Acheived -Nil	No overburden generated during the year 2020-21.

3o	Total area put in use under different heads at the end of year	As per the previous approved ROMP dtd 12.09.2018 Pits-3.98Ha Top soil storage-0.10Ha Waste Dumps-5.44Ha Mineral Storage-0.48 Ha Infrastructure -0.020Ha Road-0.42Ha	As per the Annual Return 2020-21 Pits-3.25Ha Top soil storage-0.10Ha Waste Dumps-4.06Ha Mineral Storage-0.48 Ha Infrastructure-0.020Ha	
3p	Production of ROM mineral during the last five year period as applicable	2016-17-: 7000 MT 2017-18-: 6794 MT 2018-19-: 5688 MT 2019-20-: 5688 MT 2020-21-: 5688 MT	2016-17-: 1546 MT 2017-18-: NA 2018-19-: 470 MT 2019-20-: 2352 MT 2020-21-: 1060 MT	Production details as per onile submitted Annual Returns
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Open cast mechanised mining operation with combination shovel/JCB and tipper with deep/shallow hole drilling & blasting proposed.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	OB dumping proposed towards souther side between grid N730 to N820 & E700 to E890	Not done	No overburden generated during the year 2020-21
4b	Location of topsoil, OB and mineral reject dumps	OB dumping proposed towards souther side between grid N730 to N820 & E700 to E890	Not Done	Top soil concurrent proposed to utilized for bund formation.

4c	Number of dumps within lease area and outside of lease area	Total 04 nos of overburden dumps within mining lease area at different places	Total 04 nos of overburden dumps within mining lease area at different places	No Ob dumps outside mining lease area noticed
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Total 04 nos of overburden dumps within mining lease area outside UPL	Total 04 nos of overburden dumps within mining lease area outside UPL	
4e	Number of active and alive dumps.	Total 04 nos of overburden dumps are active dumps	Total 04 nos of overburden dumps are active dumps	
4f	Number of dead dumps.	No dead dumps in ML area	No dead dumps in ML area	All four dumps are active dumps
4g	Number of dumps established.	No Proposals	Nil	No dumps have been stabilized
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposals	Nil	Nil
4i	Length of Retaining wall or garland drain all along dumps	No Proposals	Nil	No retaining wall all along dumps noticed
4j	Number of settling ponds	No Proposals	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	NA	NA	During the year 2020-21 no overburden waste generated, hence scope of waste dumps management presently doesnot exists

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposals	Presently none of the pit area is ore ehausted, hence scope of backfilling does not exists	Single working pit area yet to be mineral/ore exhausted

5b	Area under backfilling of mined out area	No area is under backfilled	No area is under backfilled	Mined out area not matured so far for backfilling
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use for bunds formation was proposed	Not done	No top soil generated during the year 2020-21
5d	Total area fully reclaimed and rehabilitated	No Proposals	None of the mined out area fully reclaimed & rehabilitated	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	There is single working pit at centralised part of ML area and none of the pit area is matured or ore exhausted for further backfilling and reclamation.

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 as per the provisions of Rule 26 of MCDR,2018	Violation for the Rule 26(2) of MCDR,2017 pointed out and issued to the lessee.
6b	Area available for rehabilitation (ha) .	No Proposals	Nil	Nil
6c	afforestation done (ha).	No details furnished in approved document	No details furnished in approved document	
6d	No. of saplings planted during the year	No Proposals	150 saplings in ML area 50 saplings outside ML area planted during the year 2020-21	
6e	Cumulative no .of plants	NA	NA	No details furnished in approved document.
6f	Any other method of rehabilitation	No Proposals	Nil	Nil

6g	Cost incurred on watch and care during the year	No Proposals	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposals	Nil	None of pit's area/voids matured for backfilling so far
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposals	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No Proposals	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposals	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposals	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposals	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Proposals	Nil	Nil

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposals	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Air, Water, Noise monitoring Proposed	Yes, Compliances of environmental monitoring is being carried out.	Analysis reports were provided
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	Scope of backfilling/reclamation & rehabilitation doesn't exist presently as the required mined out & mineral exhausted area not matured so far. Periodic monitoring is being carried out by outsourced consultant.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	5688 MT proposed as total ROM/Mn ore production for despatch. Grade wise sorting proposed within lease area for different grade of Mn ore	No dispatched occurred during the year 2020-21. Grade wise sorting carried out within lease area for different grade of Mn ore	Only production of 1060 MT of manganese ore reported during the year 2020-21
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Below 25% Mn, 25% to below 35% Mn and 35% to below 46% Mn	Below 25% Mn, 25% to below 35% Mn and 35% to below 46% Mn	Production of Mn ore as per aforesaid grades also reported in Annual Return

7d	Any beneficiation process at mines	No Proposals	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Ore is being conserved by grade wise sorting in the lease area. Ore sorted for grades of ore as - Below 25% Mn, 25% to below 35% Mn and 35% to below 46% Mn. Grade wise stacking is done on earmarked locations.

Environment:

Sl.No.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and concurrent use for bunds formation proposed	Not done	No topsoil generated during the year 2020-21
8b	Concurrent use or storage of topsoil	Concurrent use for bunds formation proposed during the year 2020-21	Not done	Top soil not generated during the year 2020-21
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Total 04 nos. of overburden waste dumps are located in ML area	Total 04 nos. of overburden waste dumps are located in ML area	Dumps positions/locations have been marked on surface plan
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposals	Nil	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposals	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No Proposals	During the year 150 nos of saplings in ML area & 50 nos outside ML area planted	
8g	Survival rate	No Proposals	90% as reported in annual return	
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 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 not much satisfactory as plantation not done up to that extent. Hence, it was instructed to propose at least 300-400 sapling/year in next ROMP approval.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly Return for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Monthly Return for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR, 2017 pointed out during mine's inspection and issued to the lessee.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9d	Scrutiny of Annual return on afforestation	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9h	Scrutiny of Annual return on fixed assets	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.
9k	Scrutiny of Annual return on mining machineries	Monthly Return Nil for the month of November-2021 and December-2021 till the date of mine inspection. Further, annual returns are also not submitted online since 2011 onwards.	Violation of Rule 45(5) (b) & 45(5) (c) of MCDR,2017 pointed out during mine's inspection and issued to the lessee.

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

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines