

MINERALS DEVELOPEMMENT AND REGULATION DIVISION

I/8354/2023

Review and updation of Mining Plan REPORT

Jabalpur regional office

Mine file No : MP/KTN/LST-283

Mine code : 38MPR47123

- (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 : 08-APR-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) Mine Name : NANHWARA (18.09 HA)
- (b) Registration NO. :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :  
State : MADHYA PRADESH  
District : KATNI  
Village :  
Taluka :  
Post office :  
Pin Code :  
FAX No. : NA  
E-mail : NA  
Phone : NA
- (f) Police Station :
- (g) First opening date : 01-JUN-07
- (h) Weekly day of rest :
2. Address for correspondence : SHRI RAJ KISHORE AGRAWAL  
C/O GANESH MOTORS, JABALPUR ROAD,  
KATNI (M.P.) 483501
3. (a) Lease Number : MPR2517
- (b) Lease area : 18.09
- (c) Period of lease : 20
- (d) Date of Expiry : 05-FEB-27
4. Mineral worked : DOLOMITE Associated  
LIMESTONE Main

I/8354/2023

## 5. Name and Address of the

Lessee : RAJ KISHORE AGRAWAL  
CIVIL LINES KATNI MADHYA  
PRADESH  
Phone:N. A.  
FAX :N. A.

Owner : RAJ KISHORE AGRAWAL  
CIVIL LINES KATNI MADHYA  
PRADESH  
Phone: N. A.  
FAX : N. A.

6. Date of approval of Mining	:	Modif.of approved Mining Plan	06-OCT-08
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	01-OCT-12
		MP review under 17(1) MCR 2016	16-DEC-16
		MP modif under 17(3) MCR 2016	02-MAR-20

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	During the year 2019-20 & 2020-21 total 03 core boreholes & 03 DTH boreholes were proposed	Exploration carried out as proposed	Supporting documents like Form-I, Form-J, boreholes Chemical analysis reports were produced during inspection
1b	Exploration over lease area for geological axis 1 or 2	During the year 2019-20 & 2020-21 total 03 core boreholes & 03 DTH boreholes were proposed	Exploration carried out as proposed	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	During the year 2019-20 & 2020-21 total 03 core boreholes & 03 DTH boreholes were proposed	Exploration carried out as proposed	Name of exploration agency not furnished
1d	Balance area to be explored to bring Geological axis in 1 or 2	During the year 2019-20 & 2020-21 total 03 core boreholes & 03 DTH boreholes were proposed	G1 level: 3.0 Ha G2 level: 8.23 Ha G3 level:1.39 Ha Area explored under G1&G2 by way of drilled boreholes and working pits.	
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 462174MT Probable (121)-2502748 MT Resources Feasibility(211): 852797 MT Pre-Feasibility(22):1931825 The Resources & Reserves position as per ROMP approved on dtd 02.03.2020	Reserves in Tonnes Proved(111) -543280 MT Probable (121)- 2991772 MT Resources Feasibility(211): 683100 MT Pre-Feasibility(22): 1725800 The Resources & Reserves position as per Annual Return 2021-22	Re-estimation done based on the exploration carried out during the year 2019-20 & 2020-21

I/8354/2023

1f	General remarks of inspecting officers on geology, exploration etc	NA	NA	The occurrence of limestone in the lease area stratigraphically controlled and belongs to Rohtas formation of Semari group of Vindhyan super group. The rocks northerly dipping of 5deg to 45 deg and general east-west trend
----	--	----	----	---

## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to work in block-3 and block-1 from 379 to 340mRL	Mine working was not carried out as per the proposals	Violation under Rule 11(1) of MCDR,2017 pointed out & issued
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Benches in Top soil - 2m Overburden Benches - 3m, Mineral Limestone - 5 Benches (Height 8.5 9 m)	Benches heights maintained for OB benches as well as mineral limestone benches	Benches configuration found in order as proposed
2c	Stripping ratio or ore to OB ratio	Proposed as 1:1.06 Tonne/CuM	Achieved as 1:0.90 Tonne/CuM	During the year 2021-22 total 32460 CuM OB generated
2d	Quantity of topsoil generation in m3	24305 CuM	Achieved as 10875 CuM	Violation under Rule 11(1) of MCDR,2017 pointed out & issued
2e	Quantity of overburden generation in m3	60758 CuM	Achieved as 32460 CuM	Violation under Rule 11(1) of MCDR,2017 pointed out & issued

I/8354/2023

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NA	NA	There are two working pits and its dimensions are Pit No-1 (40-70m x 55m x 5m), Pit No-2(160m x 140-185m x 30m). Limestone mineralisation very well seen in all the working pits
----	---	----	----	--

## Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Excavation were proposed in Block-3 from 379mRL to 340mRL & in Block-1 from 376mRL to 362mRL as marked in Plate-3C	Mine working were carried out as per proposals	
3b	Quantity of ROM mineral production proposed	200000 MT proposed in 2021-22	67440 MT (Achieved in 2021-22)	Production of limestone on lower side during the year. Violation under Rule 11(1) of MCDR,2017 pointed out & issued
3c	Recovery of sailable/usable mineral from ROM production	Proposed as 70%	Achieved as about 70%	
3d	Quantity of mineral reject generation	No Proposals	Nil	Nil
3e	Grade of mineral rejects generation and threshold value declared.	No Proposals	Nil	Nil
3f	Quantity of sub grade mineral generation.	No Proposals	Nil	Nil
3g	Grade of sub grade mineral generation	No Proposals	Nil	Nil

I/8354/2023

3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Manual sizing & sorting carried out	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposals	Lessee is not having any plan for beneficiation study	
3j	Provision of drilling and blasting in mineral benches	Small dia 32mm shallow depth drilling & blasting is proposed by Jack hammer	Drilling & blasting using jack hammer carried out Small dia 32mm shallow depth.	
3k	Provision of mining machineries in mineral benches	L&T PC-200, 1.2Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	L&T PC-200, 1.2Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	OB bench height is 3m proposed Bench height of 9m proposed in mineral	At some extent bench height is not regular due to quality constraints	Proposed bench height is suitable as per the deposit
3m	Total area covered under excavation/pits	5.0 Ha area was proposed in approved MMP period i.e. 2020-21 to 2021-22 dtd 02.03.2020	4.19Ha as on 01.04.2022, less excavated area due low production during the year 2021-22	
3n	Ore to OB ratio for the pit/mine during the year.	Proposed as 1:1.06 Tonne/CuM	Achieved as 1:0.90 Tonne/CuM	During the year 2021-22 total 32460 CuM OB generated

I/8354/2023

3o	Total area put in use under different heads at the end of year	As per the previous approved MMP Pits-5,0Ha Top soil storage-0.76Ha Mineral Storage-0.25Ha Waste Dumps-0.99Ha Infrastructure -0.10Ha Road-0.10Ha	As per the Annual Return 2021-22 Pits-4.19Ha Mineral Storage-0.50Ha Waste dump-0.94Ha Infrastructure-0.10Ha Road-0.10Ha	Deviation in excavated area due to less production in 2021-22
3p	Production of ROM mineral during the last five year period as applicable	2017-18-: 45010 MT 2018-19-: 44993MT 2019-20-:44888 MT 2020-21-:178325 MT 2021-22-: 200000MT	2017-18-: 44510 MT 2018-19-: 44100MT 2019-20-:42870 MT 2020-21-:44160 MT 2021-22-: 67440MT	Violation under Rule 11(1) of MCDR,2017 pointed out & issued for deviation in production during 2021-22
3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Mechanised open cast working proposed by using Excavator /JCB & dumper combination with shallow drilling & blasting using jack hammer.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Dumping proposed on existing dump	Dumping carried out as per the proposals	OB generated during the year dumped on earmarked locations
4b	Location of topsoil, OB and mineral reject dumps	OB dumps are located in Block-3 towards eastern & southern side	OB dumps are located in Block-3 towards eastern & southern side	Total 03 OB dumps located in Block-3
4c	Number of dumps within lease area and outside of lease area	Total 03 OB dumps located in Block-3	Total 03 OB dumps located in Block-3	No OB dumps outside ML area

I/8354/2023

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	OB dumps located in between grid N2656000 to N2656500 & E454600 to E454900	OB dumps located in between grid N2656000 to N2656500 & E454600 to E454900	OB dumps are located in Block-3 towards eastern & southern side
4e	Number of active and alive dumps.	Total 03 OB dumps located in Block-3 of ML area	Total 03 OB dumps located in Block-3. Of ML area	
4f	Number of dead dumps.	No dead OB dumps in ML area	No dead OB dumps in ML area	
4g	Number of dumps established.	No Proposals	Nil	Nil
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	Nil
4j	Number of settling ponds	No Proposals	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	NA	NA	There are 03 overburden dumps in mining lease area. Generated OB proposed for backfilling in mined out pits area during the year.

---

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.	Limestone exhausted pit area proposed for backfilling during the year 2021-22	Backfilling carried out as per the proposals	Backfilling carried out at proposed locations
5b	Area under backfilling of mined out area	4000 SqM	2230 SqM	



I/8354/2023

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Proposed for plantation purpose over backfilled area	Concurrent use of top soil for plantation purpose carried out over backfilled area	
5d	Total area fully reclaimed and rehabilitated	NA	NA	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Overburden generated from mine proposed for reclamation by backfilling over mined out limestone exhausted area.

---

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,2017	Violation under Rule 26(2) of MCDR,2017 pointed out & issued on 13.06.22
6b	Area available for rehabilitation (ha) .	No Proposals	Nil	Nil
6c	afforestation done (ha).	No Proposals	Nil	Nil
6d	No. of saplings planted during the year	No Proposals	Nil	Nil
6e	Cumulative no .of plants	No Proposals	Nil	Nil
6f	Any other method of rehabilitation	No Proposals	Nil	Nil
6g	Cost incurred on watch and care during the year	No Proposals	Nil	Nil

I/8354/2023

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Proposed over 4000 SqM	Achieved over 2230 SqM	Limestone exhausted in pits backfilled by OB material
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Proposed over 4000 SqM	Achieved over 2230 SqM	Limestone exhausted in pits backfilled by OB material
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

I/8354/2023

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	Year wise reclamation & rehabilitation proposed by OB material backfilling. Periodic monitoring is being carried out by outsourced consultant. PMCP implementation was satisfactory.

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	200000 MT proposed as total ROM production for despatch. Grade wise sorting proposed within lease area for SMS & Cement grade limestone	67440MT dispatched as chemical grade limestone No cement grade limestone despatched during the year	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Proposed as Manual	Manual sorting is done	Entire ROM is sorted grade wise & utilised in steel Plant and Industrial Lime companies
7c	Different grade of mineral sorted out at mines.	Steel Plat grade Limestone: CaO-48% (Min), MgO-3% Max, SiO2-3% Max. Industrial Lime Grade: CaO-48% Min, SiO2-4% Max, Size-150 to 250mm	Steel Plat grade Limestone: CaO-48% (Min), MgO-3% Max, SiO2-3% Max. Industrial Lime Grade: CaO-48% Min, SiO2-4% Max, Size-150 to 250mm	Entire ROM is sorted grade wise & utilised in steel Plant and Industrial Lime companies

I/8354/2023

7d	Any beneficiation process at mines	No Proposals	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Mineral is being conserved by grade wise sorting in the lease area. Steel Plat grade Limestone: CaO-48% (Min), MgO-3% Max, SiO <sub>2</sub> -3% Max. and Industrial Lime Grade: CaO-48% Min, SiO <sub>2</sub> -4% Max, Size-150 to 250mm proposed to be sorted. Grade wise stacking is done on earmarked locations.

---

**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and concurrent use for backfilling propose	Carried out as per the proposals	Top-soil generated during the year
8b	Concurrent use or storage of topsoil	Separate removal and concurrent use for backfilling propose	Separate removal and concurrently used for backfilling propose	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumps proposed on existing dumps during the year	Dumping carried out as per the proposals	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Proposed for backfilling	Backfilling carried out as proposed	OB generated during the year backfilled as per the proposals

I/8354/2023

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)	250 plants proposed on 2500 SqM	250 saplings planted during the year 2021-22	Survival rate is about 80%
8g	Survival rate	80 %	75%	
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 not much satisfactory as plantation not done up to that extent. Hence, it was instructed to propose at least 300-400 sapling/year.

---

**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- March-22 A.R. submitted upto- 2021-22	Annual Return for the year 2021-22 submitted within time limit	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Given	Shri Ashish Suhane, Mining Engineer & Shri Puneet Shukla, Geologist appointed as per the provisions of Rule 55 of MCDR, 2017	Mining Eng & Geologist were present in mine inspection

I/8354/2023

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Pits-4.19Ha Mineral Storage-0.50Ha Waste dump-0.94Ha Infrastructure-0.10Ha Road-0.10Ha	Nil
9d	Scrutiny of Annual return on afforestation	Given	Saplings planted -250 Nos Survival rate-75%	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	No mineral rejects generated during the year	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Chemical Grade Limestone:  O/S- 22229.740 MT Despatch- 67063.720MT C/S- 22606.020 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Chemical Grade Limestone -Rs 411.00 /MT	
9h	Scrutiny of Annual return on fixed assets	Given	Value of Fixed Assets Rs- 6663088	
9k	Scrutiny of Annual return on mining machineries	Given	L&T PC-200, 1.2Cum capacity TATA Dumper model 2515, 16 T capacity Tractor mounted Air Compressor Jack Hammer with Drill rods Mahindra Tractor with Water Tank on trolley Water pump with Diesel engine	Nil

---

I/8354/2023

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

Violation observed				Show couse position		
Rule NO.		Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	13-JUN-22	17-AUG-22			
MCDR17	Rule 26(2)	13-JUN-22	17-AUG-22			
MCDR17	Rule 31(4)	13-JUN-22	17-AUG-22			

**Date :****(SANJAY M. GIRHE)**

Indian Bureau of Mines