

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

Review and updation of Mining Plan REPORT

Jabalpur regional office

Mine file No : MP/SDH/BX-3

Mine code : 07MPR41003

- (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-FEB-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NAIKIN (10.82)**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : SIDHI
Village : NAIKIN
Taluka : RAMPUR NAIKIN
Post office : RAGHUNATHPUR
Pin Code :
FAX No. : N. A.
E-mail : N. A.
Phone : N, A,
- (f) Police Station :
- (g) First opening date : 24-MAR-77
- (h) Weekly day of rest : SUN
2. Address for : M/S SHRIKRISHNA DAS TIKARAM
correspondance P.BOX NO.156, CIVIL LINES, KATNI (M.P.) 483501
3. (a) Lease Number : MPR0863
- (b) Lease area : 4.25
- (c) Period of lease : 20
- (d) Date of Expiry : 25-FEB-97
4. Mineral worked : FIRECLAY Associated
BAUXITE Main

5. Name and Address of the

Lessee : SHRIKRISHNA DAS TIKARAM
 CIVIL LINES KATNI MADHYA
 PRADESH
 Phone:07622-230881
 FAX :N. A.

Owner : SHRIKRISHNA DAS TIKARAM
 AT & P.O. KATNI, CIVIL
 LINES AT & P.O. KATNI, MP
 KATNI MADHYA PRADESH
 Phone: 07622-230881
 FAX : N. A.

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	09-JUL-01
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	30-JUN-08
		Mining Scheme rule 12 MCDR1988	01-JUL-08
		Mining Scheme rule 12 MCDR1988	14-NOV-11
		Mining Scheme rule 12 MCDR1988	28-JAN-15
		MP modif under 17(3) MCR 2016	13-OCT-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was no exploration proposals for year 2020-21 & 2021-22	No exploration carried out during 2020-21 & 2021-22	As last approved MMP dtd 13.10.2017 no exploration proposals were given
1b	Exploration over lease area for geological axis 1 or 2	There was no exploration proposals for year 2020-21 & 2021-22	Nil	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	There was no exploration proposals for year 2020-21 & 2021-22	NA	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	There was no exploration proposals for year 2020-21 & 2021-22	Area explored under G2 level-3.417Ha	Proposal for G1 level exploration given current ROMP dtd 03.03.2022
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Proved(111) - 319410 MT Resources in Tonnes Feasibility(211): 304724 MT As per last MMP approved on 13.10.2017	Reserves in Tonnes Probable (122) -269419 MT Resources in Tonnes Pre-Feasibility(222): 241620 MT As per current ROMP approved on 03.03.2022	Resources & Reserves re-estimated as per the provisions of MEMC Rules,2015

1f	General remarks of inspecting officers on geology, exploration etc	No exploration proposals given for year 2020-21 & 2021-22	Nil	No detailed exploration carried out by the lessee in past. Most of ML area explored by working pits only. Exploration proposals for G1 level given in current ROMP. Bauxite formation resting over Deccan trap or may be on Upper Vindhyan.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development & excavation proposed in quarry-1 towards east & towards south-east in quarry-2	By an large working carried out as per the given proposals	Mining lease worked out in existing two pits only
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Bench height of 1.0m proposed in OB & 3 to 5m height in bauxite ore	Benches heights in OB & ore benches maintained as per the proposals	No irregularity observed in benches heights
2c	Stripping ratio or ore to OB ratio	During the year 2020-21 as 1:0.13 tonne/CuM & in 2021-22 as 1:0.12 tonne/CuM	During the year 2020-21 & 2021-22, no top soil & OB generated	For the said diviations, violation under Rule 11(1) of MCDR,2017 pointed out & issued
2d	Quantity of topsoil generation in m3	176 CuM in 2020-21 & 127 CuM in 2021-22	Nil	For the said diviations, violation under Rule 11(1) of MCDR,2017 pointed out & issued

2e	Quantity of overburden generation in m3	1208.10 CuM in 2020-21 & 1208.10 CuM in 2021-22	Not acheived as proposed	For the said diviations, violation under Rule 11(1) of MCDR,2017 pointed out & issued
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Year wise development & excavation proposals were given	Development not carried out as proposed	For the said diviations, violation under Rule 11(1) of MCDR,2017 pointed out & issued. There are two working pits & its dimension are (Pit-1 ; 120m x 72m x 15-16m, Pit-2: 175m x 73m x 6-8m

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	In two pits (Pit-1 & Pit-2)	Excavation carried out as per the proposals	
3b	Quantity of ROM mineral production proposed	25007.67 tonnes in 2020-21 & 25007.67 tonnes in 2021-22	Acheived as 24975.040 Tonnes in 2020-21 & 24909.635 tonnes in 2021-22	Bauxite ore production carried out as per the proposed target of production
3c	Recovery of sailable/usable mineral from ROM production	90% recovery of bauxite	Acheived as per the proposals	10% as interburden waste clay/ lateritic soil material
3d	Quantity of mineral reject generation	Not Proposed	Nil	No proposals were given as per approved document
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Nil	No mineral reject generation was given in approved document
3f	Quantity of sub grade mineral generation.	Not Proposed	Nil	No mineral sub-grade generation was given in approved document

3g	Grade of sub grade mineral generation	Not Proposed	Nil	No mineral sub-grade generation was given in approved document
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Manual sizing & sorting of ore carried out as proposed	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposals	Nil	Not required in view nature of ore
3j	Provision of drilling and blasting in mineral benches	Not Proposed	Nil	Due soft nature of formation drilling & blasting is not required
3k	Provision of mining machineries in mineral benches	L & T PC-200 Excavator of 0.9CuM bucket capacity, Dumpers-16 Tonnes, Water Tank of 2KL capacity, etc proposed	L & T PC-200 Excavator of 0.9CuM bucket capacity, Dumpers-16 Tonnes, Water Tank of 2KL capacity, etc deployed	In-huse machineries deployed.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 1.0m proposed in OB & 3 to 5m height in bauxite ore	Benches height appears suitable as proposed	Benches height being maintained as proposed
3m	Total area covered under excavation/pits	Area under excavation - 2.15Ha as per last MMP approved on 13.10.2017	Area under excavation - 2.60 Ha as per current ROMP approved on 03.03.2022	Area after updated survey furnished as above
3n	Ore to OB ratio for the pit/mine during the year.	1:0.13 Tonne/CuM in 2020-21 & 1:0.12 Tonne/CuM in 2021-22	Not acheived as proposed	Violation under Rule 11(1) of MCDR, 2017 observed & issued

3o	Total area put in use under different heads at the end of year	Area under working pits- 2.15Ha Mineral Storage-0.25Ha Road-0.10 Ha As per MMP approved on 13.10.2017	Area under working pits- 2.15Ha OB dumps-0.049 Ha Mineral Storage-0.281Ha Road-0.10 Ha As per ROMP approved on 03.03.2022	Furnished area put to use on updated survey
3p	Production of ROM mineral during the last five year period as applicable	2017-18-: 25016.99 MT 2018-19-: 24736.50 MT 2019-20-: 25098.75 MT 2020-21-: 25007.67 MT 2021-22-: 25007.67 MT	2017-18-: NA 2018-19-: 21301.746 MT 2019-20-: 24957.037 MT 2020-21-: 24975.040 MT 2021-22-: 24909.635 MT	Production details furnished as online returns submitted by the lessee
3q	General remarks of inspecting officers on method of mining etc.	Different proposals of mining operations given	Working carried out as per the proposals, some deviations also observed	For deviations violation under Rule 11(1) issued. Method of mining was proposed by opencast working by mechanised mining with excavator & dumper combination.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping proposed for top soil & OB	No top soil & OB generated during the year	Violation under rule 11(1) of MCDR,2017 observed & issued
4b	Location of topsoil, OB and mineral reject dumps	OB dump-1 located in between grid N2693600 & E540100 & Dump-2 towards N2693500 & E540400	OB dump-1 located in between grid N2693600 & E540100 & Dump-2 towards N2693500 & E540400	

4c	Number of dumps within lease area and outside of lease area	Two numbers of OB dumps within ML area	Two numbers of OB dumps within ML area	No OB dumps observed outside ML area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Two numbers of OB dumps outside UPL	Two numbers of OB dumps outside UPL	
4e	Number of active and alive dumps.	Two numbers of active OB dumps within ML area	Two numbers of active OB dumps within ML area	
4f	Number of dead dumps.	No dead dumps in ML area	No dead dumps in ML area	
4g	Number of dumps established.	No Proposals	Nil	None of the dumps stabilised so far
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposals	Nil	
4i	Length of Retaining wall or garland drain all along dumps	No Proposals	Nil	Details not provided in approved document
4j	Number of settling ponds	No Proposals	Nil	
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Very meager quantity of OB generation was proposed. Some OB generated previously being used for backfilling purpose.

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Some part area of pit-1 is matured for backfilling	Some part area of pit-1 is matured for backfilling	

5b	Area under backfilling of mined out area	About 3700 SqM area proposed for backfilled in Pit-1	About 0.250Ha area backfilled in Pit-1	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use for plantation proposed	During the year no top soil generated	
5d	Total area fully reclaimed and rehabilitated	About 0.250Ha area backfilled in Pit-1	About 0.250Ha area backfilled in Pit-1	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Some of the area in Pit-1 is matured for backfilling. As the OB generation is very less so the scope of backfilling doesnot exists up to large extent

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 for the year 2020-21	Violation under Rule 26(2) of MCDR,2017 was issued
6b	Area available for rehabilitation (ha) .	3700 SqM proposed during the year 2020-21	About 0.250Ha area backfilled in Pit-1 as of now	
6c	afforestation done (ha).	Proposed over 200 SqM	About 50 saplings in ML area & 25 nos outside ML planted	
6d	No. of saplings planted during the year	NA	About 50 saplings in ML area & 25 nos outside ML planted	
6e	Cumulative no .of plants	NA	NA	No information furnished in approved document

6f	Any other method of rehabilitation	Not Proposed	Nil	
6g	Cost incurred on watch and care during the year	NA	NA	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	About 3700 SqM area proposed for backfilling	Nil	No OB generated during the year 2020-21
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposals	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No Proposals	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	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposals	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 during the mines inspection
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA	PMCP report as required under Rule 26(2) of MCDR,2017 was not submitted, hence violation was issued.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	25007.67 MT ROM proposed during 2020-21 for dispatch. Manual sizing & sorting proposed	22478.985 MT cement grade & 5200.890 Refractory grade bauxite ore dispatched during 2020-21	Mauual sizing & sorting carried out as proposed
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sizing & sorting proposed	Manual sizing & sorting being excercised.	
7c	Different grade of mineral sorted out at mines.	Refractory & cement grade proposed	Refractory grade-: +50% Al ₂ O ₃ , SiO ₂ : -3% & Fe ₂ O ₃ : 3% to 5% Cement grade-: -42% Al ₂ O ₃ , SiO ₂ : 10-12% & Fe ₂ O ₃ : 18-22%	Cement & refractory grade ore supplied to the cement plants & refractory plants near Katni

7d	Any beneficiation process at mines .	Not Proposed	Nil	Not proposed in approved ROMP document
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Bauxite ore being conserved in systematic manner by adopting manual sizing & sorting for deriving cement & refractory grades of bauxite ore.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Concurrent use of plantation purpose proposed	During the year no top soil generated	
8b	Concurrent use or storage of topsoil	Concurrent use of plantation purpose proposed	During the year no top soil generated	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent use of OB for backfilling proposed	No OB generated during the year 2020-21	Very less quantity of OB generated was proposed in approved document
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	Very less quantity of OB generated was proposed in approved document
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling was proposed	Not done as no OB generated during the year 2020-21	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	During the year 50 saplings planted in ML area & 25 nos outside ML area	About 75% survival rate acheived
8g	Survival rate	NA	About 75% survival rate acheived	
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 2KL 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 200 sapling/year & accordingly proposals were given in ROMP for the year 2022-23 to 2026-27

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- January- 2022 A.R. submitted upto- 2020-21	Online monthly & annual returns were submitted within stipulated period	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not Given	Mining Eng. & Smt. Kalpana Mishra as Geologist were appointed at the time of inspection	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Working pits area- 2.60Ha, Reclaimed/Rehabilitated- 0.25Ha, Waste dumps- 0.25Ha & Other uses- 0.27Ha	
9d	Scrutiny of Annual return on afforestation	Given	50 saplings in ML & 25 saplings outside ML planted	
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	Cement Grade: O/S-2716.356 MT Despatch-22478.985 MT C/S-184.835 MT Refractory Grade: O/S-241.947 MT Despatch-5200.89 MT C/S-68.633 MT	Position as marked in annual return
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Cement Grade -Rs 890/MT Refractory GradeRs 2796/MT	
9h	Scrutiny of Annual return on fixed assets	Given	Nil	Nil
9k	Scrutiny of Annual return on mining machineries	Given	Nil	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 11(1)	23-MAR-22			
MCDR17	Rule 26(2)	23-MAR-22			
MCDR17	Rule 35(2)	23-MAR-22			

Date :

(SANJAY M. GIRHE)

Indian Bureau of Mines