

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

Review and updation of Mining Plan REPORT

Jabalpur regional office

Mine file No : MP/SIDHI/BX-2

Mine code : 07MPR41005

- (i) Name of the Inspecting : **K006**) SANJAY M. GIRHE
Officer and ID No.
- (ii) Designation : REGIONAL MINING GEOLOGISTS
- (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** : **BEERPUR (6.314 A)**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MADHYA PRADESH
District : SIDHI
Village : BIRPUR
Taluka : RAMPUR NAIKIN
Post office : BAGHWAR
Pin Code :
FAX No. : N. A.
E-mail : N. A.
Phone : 07622-30076, 51793
- (f) Police Station :
- (g) First opening date : 02-MAY-79
- (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 : MPR0865
(b) Lease area : 6.31
(c) Period of lease : 20
(d) Date of Expiry : 06-SEP-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	31-MAY-05
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	30-JUN-08
	:	Mining Scheme rule 12 MCDR1988	19-SEP-12
	:	MP modif under 17(3) MCR 2016	12-OCT-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No exploration proposals during the year 2020-21 & 2021-22	No exploration carried out	About 3.45Ha area explored by working pits only
1b	Exploration over lease area for geological axis 1 or 2	No exploration proposals during the year 2020-21 & 2021-22	Nil	About 3.45Ha area explored by working pits only
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposals	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration proposals during the year 2020-21 & 2021-22	Nil	About 3.45Ha area explored in G2 level by working pits only. No detailed exploration carried out in past
1e	Balance reserve as on 01/04/20	Reserves in Tonnes Probable (121) -134168 MT Probable (122)- 153994 MT Resources in Tonnes Pre-Feasibility(21): 18490 MT Pre-Feasibility(22): 57132 MT As per last MMP approved 12.10.2017	Reserves in Tonnes Probable (122)- 209407 MT Resources in Tonnes Pre-Feasibility(22): 69585 MT As per last ROMP approved on 11.03.2022	Resorces & reserves have been re-estimated as per the provisions of MEMC Rules,2015

1f	General remarks of inspecting officers on geology, exploration etc	No Proposals	No exploration carried out. Reserves have been estimated based on ore body explored by working pits only.	The bauxite ore of ML area occurs as float deposit associated with fire clay. The genesis of bauxite is considered as sedimentary rock. Bauxite is soft brittle & pisolitic in nature.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Excavation was proposed in Quarry-1 from 307mRL to 298mRL	Working carried out as per the proposals	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Bench height of 1.5m in top soil/OB and 3 to 4mts proposed in bauxite ore	Bench heights were maintained as proposed	No irregularities observed in bench heights.
2c	Stripping ratio or ore to OB ratio	1:0.78 Tonne/CuM	Nil	No overburden generated during the year 2020-21 as reported in AR
2d	Quantity of topsoil generation in m3	4950 CuM proposed in 2020-21	NA	
2e	Quantity of overburden generation in m3	7196 CuM in 2020-21	Nil. No overburden generated during 2020-21	As per annual return marked as Nil
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 its dimensions are Pit-1 : 130m x 100m x 5-9mts. Mechanised opencast method of mining without drilling & blasting being practised.

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit	Working carried out in single pit as proposed	Maximum depth of bauxite proved in pit as 9mts
3b	Quantity of ROM mineral production proposed	During the year 2020-21 total 29274 tonnes & in 2021-22 total 30519 tonnes bauxite ore production proposed	Achieved in 2020-21 as 4660.184 tonnes & 27464.967 tonnes in 2021-22	During the year 2020-21 production is less due to poor market demand as reported.
3c	Recovery of sailable/usable mineral from ROM production	70% of ROM	About 70% bauxite recovered from ROM as proposed	Rest fire clay & mineral rejects generation was proposed
3d	Quantity of mineral reject generation	1953 tonnes	Nil	No mineral rejects generated during the year 2020-21
3e	Grade of mineral rejects generation and threshold value declared.	Not Proposed	Not mentioned in approved document	During the year 2020-21, no mineral rejects generated
3f	Quantity of sub grade mineral generation.	Not proposed	Nil	No subgrade generation proposed
3g	Grade of sub grade mineral generation	Not Proposed	Nil	No subgrade ore generated during the year
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sizing & sorting proposed	Manual sizing & sorting carried out	Manual sizing & sorting for deriving desired grades of ore
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Nil	Beneficiation not required

3j	Provision of drilling and blasting in mineral benches	Not Proposed	Nil	Due to brittle & soft nature of ore body, drilling-blasting not required
3k	Provision of mining machineries in mineral benches	L & T PC-200 of 0.9CuM capacity, Dumpers of 16 tonnes capacity, Water Tanker-2KL capacity	L & T PC-200 of 0.9CuM capacity, Dumpers of 16 tonnes capacity, Water Tanker-2KL capacity	In-house deployment machineries being practised
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Bench height of 1.5m in top soil/OB and 3 to 4mts proposed in bauxite ore
3m	Total area covered under excavation/pits	1.47 Ha (area put to use at start of plan) as per MMP approved on 12.10.2017	1.59 Ha (area put to use at start of plan) as per ROMP approved on 11.03.2022	Less excavation carried out lateraly
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.78 Tonne/CuM in 2020-21	Nil. No overburden generated during 2020-21	Lateral excavation not carried out. Violation u/r 11(1) of MCDR, 2017 issued
3o	Total area put in use under different heads at the end of year	Area under pits-1.47Ha, Waste dumps-0.20Ha, Mineral Storage-0.25Ha, Road-0.05Ha	Area under pits-1.59Ha, Waste dumps-0.96Ha, Mineral Storage-0.036Ha, Road-0.05Ha	Area area as per ROMP approved on 11.03.2022
3p	Production of ROM mineral during the last five year period as applicable	2017-18-: 27221 MT 2018-19-: 20896 MT 2019-20-: 22919 MT 2020-21-: 29274 MT 2021-22-: 30519 MT	2017-18-: NA 2018-19-: 4619.660 MT 2019-20-: 4695.160 MT 2020-21-: 4660.184 MT 2021-22-: 27464.967 MT	Production details as per online submitted annual returns

3q	General remarks of inspecting officers on method of mining etc.	NA	NA	Category "A" mine opencast mechanised method of mining without drilling & blasting. Excavator with dumpers combination proposed.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top & OB uses for concurrent backfilling proposed	During the year no overburden generated	
4b	Location of topsoil, OB and mineral reject dumps	No dumping proposed in 2020-21	No overburden generated during 2020-21	Total 12 to 13 OB dumps of varied dimensions are lying scatterdly in ML area
4c	Number of dumps within lease area and outside of lease area	Total 12-13 OB dumps of different dimension are in ML area	Total 12-13 OB dumps of different dimension are in ML area	No dumps outside ML area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Existing OB dumps are outside UPL	Existing OB dumps are outside UPL	Toal 12-13 OB dumps in ML area
4e	Number of active and alive dumps.	Total 12-13 active OB dumps in ML area	Total 12-13 active OB dumps in ML area	Proposals of rehandling these dumps given in approved ROMP
4f	Number of dead dumps.	Nil	Nil	No dead dumps in ML area
4g	Number of dumps established.	No Proposals	Nil	No dumps have been stabilised so far
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposals	Nil	Not provided along existing dumps. Proposals have been given in approved ROMP

4i	Length of Retaining wall or garland drain all along dumps	NA	NA	
4j	Number of settling ponds	No Proposals	Nil	No settling ponds
4k	Specific comments of inspecting officer on waste dump management	NA	NA	Concurrent use of overburden dumps for reclamation/backfilling proposed. OB in area mostly latritic soil & sandstone pebbles.

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.	In exisitng pit-1 some area of 1000M3 is available for backfilling	In exisitng pit-1 some area of 1000M3 is available for backfilling	
5b	Area under backfilling of mined out area	None	None	No area has been backfilled so far
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use for plantation purpose proposed	NA	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	None of pit area has been reclaimed & rehabilitated
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NA	NA	Only small area in existing pit-1 is available for backfilling. Most of the pit area not mineral/ore exhausted so far

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 for non-compliance has been issued.
6b	Area available for rehabilitation (ha) .	About 1000 SqM available in Pit-1	About 1000 SqM available in Pit-1	
6c	afforestation done (ha).	NA	About 50 saplings in ML area & 25 nos outside ML area planted	
6d	No. of saplings planted during the year	NA	About 50 saplings in ML area & 25 nos outside ML area planted	
6e	Cumulative no .of plants	NA	NA	Details not available
6f	Any other method of rehabilitation	Not Proposed	NA	
6g	Cost incurred on watch and care during the year	Not Proposed	Nil	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Proposed as 6000 SqM	Not done	Violation under Rule 11(1) of MCDR,2017 were observed & issued
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Proposed as 6000 SqM	Reclamation not done as proposed	Violation under Rule 11(1) of MCDR,2017 were observed & issued
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	100 saplings proposed	150 saplings planted in ML & outside ML area	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil		Pit area is not matured so far for reclamation & rehabilitation so far by making water reservoir
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	Env. monitoring carried out as proposed		Env. monitoring entrusted to the outsourced party
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NA	NA		Most of working pit area are still having the ore and not matured for reclamation & rehabilitation. Existed OB dumps material shall be used for this purpose in future.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	30519 tonne ROM production proposed. Manual as well as mechanical sizing & sorting proposed	4660 tonnes ROM excavation acheived & Manual as well as mechanical sizing & sorting being practised	Mechanical screening by rotary screen of 12mm is proposed
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual as well as mechanical sizing & sorting proposed	Manual as well as mechanical sizing & sorting carried out as proposed	Screening of bauxite is proposed for removing of silica. Feed size is +12mm, -40mm and product size is +4mm, -12mm
7c	Different grade of mineral sorted out at mines.	Cement & refractory grade proposed	Refractory Grade : Al ₂ O ₃ - (+50%), SiO ₂ - (-3%), Fe ₂ O ₃ - (3% to 5%) Cement Grade: Al ₂ O ₃ - (+42%), SiO ₂ - (10-12%), Fe ₂ O ₃ - (18% to 22%)	Mechanical and manual sizing & sorting proposed
7d	Any beneficiation process at mines .	Mechanical screening of ore proposed	Mechanical screening of ore carried out	Only mechanical screening by rotary screen of 12mm is proposed
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NA	NA	Bauxite ore as refractory & cement grade being conserved in systematic manner by adopting manual as well as mechanical sizing & sorting of ore.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	4950 CuM top soil generation & concurrent use for backfilling proposed	Not generated during the year	Due very less ore production during the year

8b	Concurrent use or storage of topsoil	Concurrent use for backfilling proposed	Nil	No top soil generated during the year
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Concurrent use for backfilling proposed	No overburden generated during the year	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not Proposed	Nil	Overburden uses were proposed for backfilling
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	About 6000 SqM area was proposed for reclamation & rehabilitation	Not done	Overburden not generated during the year 2020-21
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	100 saplings were proposed	150 saplings planted within & outside ML area	
8g	Survival rate	80%	About 75% achieved	
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 3KL 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 maximum numbers of plants in final approval of document.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. submitted upto- Janl- 2022 A.R. submitted upto- 2020-21	Monthly & annual returns were submitted online in stipulated time	MR & AR copies were produced during the inspection
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not Given	During the year not appointed	During inspection Smt. Kalpana Mishra as Geologist & Shri Hemant Bagri as Mining Eng. were appointed
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Given	Open cast working- 1.470 Ha, OB dumps-0.20 Ha, Other purpose-0.15Ha, etc	
9d	Scrutiny of Annual return on afforestation	Given	100 saplings planted in ML area & 50 saplings outside ML area	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Not Given	Nil	No mineral reject generated during the year

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Given	Cement Grade: O/S-1233.748 MT Despatch-3330.095 MT C/S-206.962 MT Refractory Grade: O/S-1399.55 MT Despatch-3719.68 C/S-37.750 MT
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Given	Ex-mine price: Cement Grade -Rs 913/Tonne Refractory GradeRs 2822/Tonne
9h	Scrutiny of Annual return on fixed assets	Given	Nil
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 couse 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 :

(NARESH KUMAR KATARIYA)

Indian Bureau of Mines