

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

Review and updation of Mining Plan REPORT

Goa regional office

Mine file No : GOA/FeMn/340

Mine code : 40GOA02020

- (i) Name of the Inspecting : **K07**) **KRISHNENDU CHATTERJEE**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : **SHRI KIRAN PADIYAR OWNERS REP. & SHRI VIVEK NAVARE,T**
Official with
Designation
- (iv) Date of Inspection : 07-JAN-22
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **VAXEP DANDO**
- (b) **Registration NO.** : **IBM/775/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : GOA
- District : SOUTH GOA
- Village : MOLCORNEM
- Taluka : SANGUEM
- Post office : MOLCORNEM
- Pin Code :
- FAX No. : 08322662983
- E-mail : gspadiar@gmail.com
- Phone : 08322662983
- (f) Police Station : QUEPEM
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : Village : Malcornem,
correspondance Taluka : Sanguem
District : South Goa, Goa.
3. (a) Lease Number : GOA0308
- (b) Lease area : 89.24
- (c) Period of lease : 20
- (d) Date of Expiry : 12-JAN-98
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : GAJANAN SANTU PADIYAR
 House No. 121, Paroda,
 Quepem, Dist. South Goa,
 Goa. SOUTH GOA GOA
 Phone:662498
 FAX :

Owner : GAJANAN SANTU PADIYAR
 House No. 121, Paroda,
 Quepem, Dist. South Goa,
 Goa. SOUTH GOA GOA
 Phone: 662498
 FAX :

Mining Engineer

Name : AJAY KUMAR, Full Time
 Qualification : DIPLOMA IN MINING & MINE SURVEYING
 Appointment/ : 01-FEB-00
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	29-NOV-02
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	18-JUL-08
		Mining Scheme rule 12 MCDR1988	12-JUL-12
		MP modif under 17(3) MCR 2016	28-JUN-17
		MP modif under 17(3) MCR 2016	08-OCT-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	20 nos. of borehole proposed during 2020-21	Nil during 2020-21	Violation of Rule 11(1) issued on dated 17.01.2022 7 the mine was non working in 2020-21.
1b	Exploration over lease area for geological axis 1 or 2	G1 proposed.	Area covered under G1 and G2: 4.00 Ha.	Remaining ML area is unexplored.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G1 proposed	Small part of the ML area was explored under G1 and G2.	
1e	Balance reserve as on 01/04/20		0.224 million tonnes of Iron Ore (UNFC Cat. 111) 0.0664 million tonnes of Manganese Ore (UNFC Cat. 111 and 122) Quality: +45 to 58% Fe and +10 to 49.9% Mn.	As on 01.04.2021
1f	General remarks of inspecting officers on geology, exploration etc			So far, 4.00 Ha. of the ML area was explored by the lessee under G1 & G2 level by drilling with 12 nos. of core boreholes drilled in 2017-18. Forty (40) nos. of boreholes were proposed to be drilled in the ML area during 2019-20 and 2020-21; against which no borehole has been drilled by the lessee. Violation of Rule 11(1) issued on dated 17.01.2022.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	1679050 N to 1679180 N, E 407180 E to 407260 E	Nil	Production Proposals given for manganese ore mining only.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in ore and OB proposed.	Nil	Earlier mining benches available in the pit.
2c	Stripping ratio or ore to OB ratio	1: 3.46	Nil	No mining operation during 2020-21.
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	7873.2 m3	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The mine was non-working since 31.03.2017 due to non-availability of consent to operate from the State Pollution Control Board.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Working at Single pit proposed (Pit no. 2)	Nil during 2020-21.	Total 8 nos. of small pits available in the ML area; covering total extent of 1.30 Ha.
3b	Quantity of ROM mineral production proposed	5,000 tonnes of Manganese	Nil	
3c	Recovery of sailable/usable mineral from ROM production	40% recovery of ROM proposed.	Nil	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not applicable	

3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised (OTFM) mining proposed.	Nil	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	No proposal for drilling and blasting.	Nil	
3k	Provision of mining machineries in mineral benches	Hydraulic Shovel: 1 No. Dumpers: 2 nos. Wheel Loader: 1 no. Water Tanker: 1 no.	No mining machineries available in the ML area.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	2m bench height proposed.	Nil during 2020-21. Earlier bench height was maintained by 2 to 3m.	
3m	Total area covered under excavation/pits	2.13 Ha. at the end of F.Y. 2021-22.	Nil	Area covered by old pits 1.30 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1: 3.46	Nil	No OB generation during 2020-21.
3o	Total area put in use under different heads at the end of year	Area under mining: 2.13 Ha Waste Dump: 0.39 Ha. Infrastructure s & Road: 1.51 Ha	Area under mining: 1.30 Ha. Waste Dumps: 0.5 Ha. Infrastructures & Road: 1.51 Ha.	

3p	Production of ROM mineral during the last five year period as applicable	2016-17: 350 2017-18: 350 2018-19: 350 2019-20: 5,000 2020-21: 5,000 (Manganese ore (in tonnes) proposals in tonnes)	2016-17: 150 2017-18: Nil 2018-19: Nil 2019-20: Nil 2020-21: Nil	No production of Manganese has been reported since 2017-18. No iron ore production proposals have been given in the approved Mod. Mining Plan dated 08.01.2018.
3q	General remarks of inspecting officers on method of mining etc.			The mine was non-working since 31.03.2017 due to non-availability of consent to operate from the State Pollution Control Board.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Disposal of waste by backfilling proposed.	Nil during 2020-21.	
4b	Location of topsoil, OB and mineral reject dumps	No proposal by surface dumping	Nil during 2020-21	4 nos. of small waste dumps present in the ML area.
4c	Number of dumps within lease area and outside of lease area	4 nos. within ML area.	4 nos. within ML area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Located outside UPL	
4e	Number of active and alive dumps.	No proposal	Nil	
4f	Number of dead dumps.	04 nos.	04 nos.	
4g	Number of dumps established.	No proposal	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil	

4i	Length of Retaining wall or garland drain all along dumps	150m parapet wall and garland drain proposed along the periphery of the backfilled area.	The mine was non-working since 31.03.2017 and therefore backfilling was not commenced.	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Disposal of waste by backfilling proposed at part of the pit no. 2(section no. C-C'); however the same was not commenced since the mine was non-working. Old existing dumps are not found to be properly secured by means of construction of retaining wall and garland drains to prevent escape of material. Violation of rule 37(2) issued on dated 17.01.2022.

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 proposal	Nil as the mine pit was not matured for backfilling.	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	

5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Mine pit was not matured for backfilling since mineral persists at the bottom of mine workings.

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).	Proposed	Not Submitted for F.Y. 2020-21.	The mine was not in operation since 31.03.2017.
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	0.13 Ha.	Nil during 2020-21.	
6d	No. of saplings planted during the year	230 nos.	100 nos. at outside the ML area during 2020-21.	
6e	Cumulative no .of plants	Not specified.	Apprx. 200 nos. within ML area.	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	Rs. 6,500/-	No change, as stated by the lessee representative.	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Not applicable	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Not applicable	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Not applicable	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Not applicable	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Not applicable	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	Not applicable	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Not applicable	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Not applicable	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed.	Nil during 2020-21 as the mine was non-working.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP compliance was not undertaken since the mine was not in operation from 31.03.2017 and therefore no change in the status/landscape of the mine.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM dispatch proposed after sizing and sorting	Nil	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sizing and sorting of manganese ROM.	Nil	
7c	Different grade of mineral sorted out at mines.	Proposed for all +10% Mn Ore	Nil	
7d	Any beneficiation process at mines	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			40% salable recovery of manganese ore from total ROM is proposed.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Not applicable.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	Not applicable.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Mine pits are not matured for backfilling.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed during conceptual stage.	Not applicable as of now.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposed	Apprx. 200 nos. saplings planted within ML area so far.	
8g	Survival rate	Not specified.	60 to 70%	
8h	Water sprinkling on roads to control airborne dust	Proposed by using water tanker.	Nil	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the mining area is good, ML area is covered by greenery and vegetation.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Jan. 2022 & A.R. Submitted up to 2020-2021	M.R.s are submitted regularly in 2020-21.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information are furnished as Nil in respect of Mining Engineer and Geologist.	No Mining Engineer and Geologist were found appointed.	The mine is non-working since 31.03.2017. Lessee representative stated that Mining Engineer and Geologist would be appointed on resumption of mining activity.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Information are furnished as Nil.	Area under mining: 1.30 Ha. Waste Dumps: 0.5 Ha. Infrastructures & Road: 1.51 Ha.	AR has been referred back by the lessee for correction.
9d	Scrutiny of Annual return on afforestation	100 nos.	100 nos. outside ML area.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil as the mine was not in operation during 2020-21.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock: 250. Graded ore closing Stock: Nil	Actual was also same at the time of inspection.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Nil	No despatch reported in 2020-21.	
9h	Scrutiny of Annual return on fixed assets	Information are furnished as Nil.	Nil	
9k	Scrutiny of Annual return on mining machineries	Information are furnished as Nil.	No mining machineries were available in the ML area during the time of inspection.	

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)	17-JAN-22			
MCDR17	Rule 37(2)	17-JAN-22			

Date :

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines