

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

MCDR inspection REPORT

Hyderabad regional office

Mine file No : AP/CDP/Fe-3/HYD

Mine code : 30APR04003

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri Mahesh, Manager(Mines)
Official with
Designation
- (iv) Date of Inspection : 21/02/2020
- (v) Prev.inspection date : 19/06/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **CHABALI IRON ORE MINE**
- (b) **Registration NO.** : **IBM/4580/2011**
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : **ANDHRA PRADESH**
- District : **CUDDAPAH**
- Village : **CHABALI**
- Taluka : **PENDLIMARRI**
- Post office : **PENDLIMARRI**
- Pin Code : **516361**
- FAX No. : **(040)40275348,p.no.(040)234**
- E-mail : **bentiya industries limimte**
- Phone : **08564-252652/9440280315**
- (f) **Police Station** : **Pendlimarri**
- (g) **First opening date** : **10/11/2004**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **Chabali Village,Pendlimarri Mandal**
Kadapa District-516216
Andhra Pradesh State
3. (a) **Lease Number** : **APR2278**
- (b) **Lease area** : **163.48**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **09/11/2024**
4. **Mineral worked** : **LATERITE** Associated
IRON ORE Main

5. Name and Address of the

Lessee : M/S BENITA INDUSTRIES LTD
D-203, ADITYA ELITE
B.S.Maktha, Somajiguda
HYDERABAD HYDERABAD
TELANGANA
Phone:
FAX :

Owner : M/S.BENTIYA INDUSTRIES LTD,D.VENUGOPAL DIRECTOR
D.VENUGOPAL
DIRECTORM/S.BENTIYA IND D-
203 ADITYA ELITE,B.S.MAKTHA
SOMAJI GHDA HYDERABAD
HYDERABAD TELANGANA
Phone: (040)23418543
FAX : (040)40275348

Mining Engineer

Name : M.MALLIKARJUNA,Full Time
Qualification : Diploma in Mining Engineering ,S.M.M.C.
Appointment/ : 04/05/2012
Termination date

Geologist

Name : N.GOPINATH,Full Time
Qualification : M.Sc.GEOLOGY
Appointment/ :
Termination date

Manager

Name : Mahesh
Qualification : B Tech Mining
Appointment/ :
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	16/03/2004
		Modif.of approved Mining Plan	02/08/2006
		Mining Scheme rule 12 MCDR1988	20/07/2009
		Modif.approved Mining Scheme	15/02/2013
		Mining Scheme rule 12 MCDR1988	28/10/2014
		MP review under 17(1) MCR 2016	09/04/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	7 core and 8 DTH holes have been drilled.	
1b	Exploration over lease area for geological axis 1 or 2	Nil	Area under G1 scale is 100.864 hectares and under G3 scale is 58.575 hectares.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Lessee has reported that expenditure incurred towards exploration was Rs. 1.90,000/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Balance area to be upgraded to G1 scale is about 58.575 hectares.	
1e	Balance reserve as on 01/04/20	Nil	Balance reserves as on 01.04.2019 is 30 million tonnes.	
1f	General remarks of inspecting officers on geology, exploration etc			The exploration for G3 scale area of 58.575 hectares to be brought to G1 scale as proposed in the document.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	It was proposed to work in pit no.4 and pit no.9	Work carried out as per proposal.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Nil	Nil	
2c	Stripping ratio or ore to OB ratio	1:0.54	1:2	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	748149 cu.m	684556 Tonnes	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Seperate benches for OB and ore is maintained.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2	2	
3b	Quantity of ROM mineral production proposed	2019-20 - 1049069 Tonnes	2019-20 (upto Jan'20) - 238504 Tonnes	
3c	Recovery of sailable/usable mineral from ROM production	90%	Recovery reported was 90 %.	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Nil	Nil	
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical seperation	The ore is fed into crushing plant and two outputs of 0-5mm and 5-18mm are recovered. The material recovered is fed inot washing plant for washing and jigging.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	

3j	Provision of drilling and blasting in mineral benches	Drilling and blasting is proposed	Drilling of 115mm dia hole is carried out. Slurry explosive of 83mm and 75% ammonium nitrate fuel oil as mixture are used.	
3k	Provision of mining machineries in mineral benches	Machineries are proposed in benches.	Front end loader, ripper dozer for levelling and trucks for transport of material are being used.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Benches of 7-8m height are proposed.	Bench height developed of 7-8m is compatible with digging height of the deployed excavator.	
3m	Total area covered under excavation/pits	16.865 Ha	16.865 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.819	1:0.97	
3o	Total area put in use under different heads at the end of year	61.380 Ha	61.380 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2014-2015 :647971 T 2015-2016:677697 T 2016-2017:739404 T 2017-2018:719583 T 2018-2019:715466 T 2019-2020:1049069 T	2014-2015 :652849 T 2015-2016:266504 T 2016-2017:267468 T 2017-2018:308202 T 2018-2019:286360 T 2019-2020:238504 T (upto Jan'20)	
3q	General remarks of inspecting officers on method of mining etc.			The Mining operations are being carried out as per the proposals made in the approved document.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	It was proposed to dump the waste generated on the eastern side of the pit no. 9	The dump was observed as per the proposal.	
4b	Location of topsoil, OB and mineral reject dumps	It was proposed to dump the waste generated on the eastern side of the pit no. 9	The same was noticed during inspection.	
4c	Number of dumps within lease area and outside of lease area	It was proposed to have two active dumps	Two active dumps and 6 non active dumps in the lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Eastern part of the pit no. 9	Eastern part of the pit no. 9	Dump is located outside the UPL.
4e	Number of active and alive dumps.	Two active and 6 non active dumps	Two active and 6 non active dumps.	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Two dumps	Two dumps	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dumps	45 meters	45 meters	
4j	Number of settling ponds	Nil	Nil	
4k	Specific comments of inspecting officer on waste dump management			Waste dump management is being carried out as per the proposal. One tailing pond is maintained for receiving slimes from washing plant.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Mineral will be fully extracted before backfilling	Backfilling is not being carried out in the minerlised area.
5b	Area under backfilling of mined out area	3.354 Ha	3.30 Ha
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No top soil generation was proposed	No top soil generation was proposed
5d	Total area fully reclaimed and rehabilitated	3.354 Ha	3.30 Ha
5e	General remarks of inspecting officers on backfilling and reclamation etc.		The reclamation has been carried out as per the proposal.

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).	Nil	Nil	
6b	Area available for rehabilitation (ha) .	1.6 Ha	1.6 Ha	
6c	afforestation done (ha).	4000 Saplings for the plan period	2500 Saplings	
6d	No. of saplings planted during the year	Nil	500	
6e	Cumulative no .of plants	4000	2500	
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	Nil	Nil	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	It was proposed to backfill the mined out area by waste generated.	It was notice during inspection that backfilling is carried out with the waste generated.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed to carry out environmental monitoring in buffer and core zones.	Monitoring is carried out as per proposal
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	It was proposed to produce 10,49,069 tonnes of Iron ore duing the year 2018-19.	The actual production reported during the year the 2018-19 was 264403 Te (lumps) & 123319 Te (Fines).	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	It was proposed to sort the mineral both manually and mechanically.	During the inspection it was observed that mineral is being sorted both by manually and mechanically.	
7c	Different grade of mineral sorted out at mines.	It was proposed to sort grade below 55% Fe contenct only	The same was observed during the inspection.	

7d	Any beneficiation process at mines .	It was proposed to crush the ROM in Jaw crusher to 20 mm size and screend to remove the dust and fines.The crushed ore is then fed into rotary tanks for washing process.The output is Ore,Midlings & Slime.The Midlings are further subjected to secondary washing process for generation of Ore,Midlings & Slime.	The same process was observed duirng the inspection.The final ore from this washing plant is used for Sponge Iron industry,fines in Cement industry ad slime goes to a worked out pit called Amoda pit.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		The Iron ore produced is manually and Mechanically sorted out and later on washed in the plant for getting better grade and the same being consumed by spong Iron industry.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	There is no topsoil.	No topsoil generation.	
8b	Concurrent use or storage of topsoil	None	None	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Seperate dumps were proposed in the mining lease for waste disposal.	Maintained as per proposal.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	It was proposed to use the waste generated for reclamation of the mined out area.	During inspection it was observed that pit no.6 was backfilled using the waste generated.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	It was proposed to reclaim the old pits in a phased manner by the waste generated.	The same was noticed during inspection.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		Except for the plantation made by the lessee and for few shrubs and bushes, no other vegetation was observed.
8g	Survival rate	60%	50%
8h	Water sprinkling on roads to control airborne dust	Proposal made for water sprinkling for dust suppression in the mining lease.	Water sprinkling has been carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly and annual returns are being submitted by the lessee.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri. Mahesh, Mining Engineer & Sri. Nagasubbaiah, Geologist.	Geologist were not having experience as per Rule 55 (1) 3 of MCDR 2017	Violation issued as per rule.

- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. As per the Annual Returns 2018-19, the area under mining is 17.433 ha.under waste dump management is 19.704 ha,infrastrutur e is 10.197 ha reclaimed is 4.0 ha. The land use pattern was observed to be as per the proposals made in the approved document.
- 9d Scrutiny of Annual return on afforestation It was reported in the annual return 2018-19 that about 3000 trees were planted duirng the year The same was noticed during the inspection.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) It was reported that no mineral reject was generated during the year 2017-18. The same was observed during the inspection.
- 9f Scrutiny of Annual return on ROM stock and/or graded ore It was reported in the Annual return 2018-19 that 216718 tonnes was produced. The same was noticed from the registers during inspection.
- 9g Scrutiny of Annual return on sale value, Ex. Mine price and production cost It was reported in the Annual return 2018-19, the cost of production was reported as Rs.640.78.
- 9h Scrutiny of Annual return on fixed assets It was reported in the annual return 2018-19 that Rs.900000 as the value of fixed assets.

9k	Scrutiny of Annual return on mining machineries	<p>The following Mining Machineries were reported in the Annual Return 2017-18:</p> <ol style="list-style-type: none"> 1. Back Hoe - 1.5 Cum- 4 No. 2. Front End Loader - 2.200 Cum - 1 no. 3. Dumper - 32 tonne - 3 no.s 4. Dozer - 80 HP - 1 no. 5. Air Compressor - 7.00 Cum/Minutes -1 no. 6. Crusher - 150 T/H - 2no.s 7. Tipper - 8Cum - 20 8. WaterTanker - 9000Litre Capacity- 2 no.s 9. Water Tanker - 3000 litre - 1 no. 	<p>The mentioned mining machinery were noticed during the inspection. However during inspection it was observed that the log books were not maintained as per the contents mentioned in the Rule No.19 (1).</p>	<p>Violation issued as per rule.</p>
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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 55(1)(3)	08/05/2020				
MCDR17 Rule 19(1)	08/05/2020				
MCDR17 Rule 31(4)	08/05/2020				

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines