

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

MCDR inspection REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/FE(A-1)

Mine code : 30BHR27003

- (i) Name of the Inspecting : **K004**) **B.P KERKETTA**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Sri Prakash kumar, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 04/02/2020
- (v) Prev.inspection date : 11/02/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **AJITABURU**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : BOKNA
Taluka : GUA
Post office : BARAJAMDA
Pin Code : 833221
FAX No. : 06596 262294
E-mail : NIL
Phone : 06596 262294
- (f) Police Station :
- (g) First opening date : 04/08/1953
- (h) Weekly day of rest : WED
2. Address for : P.O. - BARAJAMDA.
correspondance : DIST: SINGHBHUM WEST
JHARKHAND.
3. (a) Lease Number : BHR0178
- (b) Lease area : 46.62
- (c) Period of lease : 30
- (d) Date of Expiry : 03/08/1983
4. Mineral worked : MANGANESE ORE Associated
IRON ORE Main

5. Name and Address of the

Lessee : DEVKABAI VELJI
 SMT DEVKABAI VELJI PO-
 BARAJAMDA SINGHBHUM (WEST)
 JHARKHAND
 Phone:06596-262229/262294
 FAX :NIL

Owner : SMT. DEVKABAI VELJI
 AT & P.O. - BARAJAMDA DIST.
 SINGHBHUM(W) JHARKHAND
 SINGHBHUM (WEST) JHARKHAND
 Phone: 06596-262229/26
 FAX : NIL

Agent : SANJAY KUMAR SHARDA
 AT & P. O. - Barajamda P.
 S. - Gua DIST.SINGHBHUM(W)
 SINGHBHUM (WEST) JHARKHAND
 Phone: 06596-262294
 FAX : NIL

Mining Engineer

Name : UJJAL KUMAR PATSA,Full Time
 Qualification : AMIE(MINING)
 Appointment/ : 01/10/2017
 Termination date

Geologist

Name : BIKRAM KUMAR SWAIN,Full Time
 Qualification : M.Sc(GEO)
 Appointment/ : 01/04/2017
 Termination date

Manager

Name : PRAKASH KUMAR
 Qualification : AMIE(MINING)
 Appointment/ : 01/04/2017
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	06/04/2005
		Modif.approved Mining Scheme	21/04/2005
		Mining Scheme rule 12 MCDR1988	22/07/2009
		Renewal under rule 24 MCR1960	27/01/2010
		Modif.approved Mining Scheme	19/03/2012
		Mining Scheme rule 12 MCDR1988	23/02/2015
		MP review under 17(1) MCR 2016	17/09/2018
		MP modif under 17(3) MCR 2016	12/10/2018
		FMCP under 23C(1)	07/12/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Total no of hole:-34nos i) 26Nos in Mn quarry ii) 08Nos in Iron ore.	Out of 26nos of Hole in Mn, we have already done 23nos of hole. rest of hole Mn & Iron falls under Forest area.	Exploration programme for the year 2018-19 is 34 Nos of hole, out of which 23Nos of hole of Mn has already completed. The another 08nos of hole Iron ore & 03Nos of Mn is coming under Forest area, so Lessee has applied for permission of Exploration.
1b	Exploration over lease area for geological axis 1 or 2	34nos	23Nos.in Manganese Section.	11nos of Boreholes are in un-diverted forest area.Applied to Forest Deptt.for permission of drilling,which has not yet been received.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	N A	Rs,41,43,520.00	
1d	Balance area to be explored to bring Geological axis in 1 or 2		N A	
1e	Balance reserve as on 01/04/20		IRON ORE:-Proved Reserve 111: 8930290.00MT as on 01/04/2019. Probable Reserve 122: 202000.00MT Mn ORE:- Proved Reserve 111: 127725.00MT Probable Reserve 122: 488000.00MT	

1f	General remarks of inspecting officers on geology, exploration etc	Out of proposed 34 boreholes only 23 boreholes were drilled. Remaining 11 nos of boreholes could not be drilled since it were in un-diverted forest land. Permission is sought by the lessee from the Forest Deptt.in appropriate form.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In Iron ore pit: N2452154/2452485 E329937/330163 TO N2452729/2452937 E330222/330385 In Manganese Pit N-2452315/2452937 E330148/330435 TO N2452427/2452639 E330303/330485	In Iron ore pit: N2452260/2452705 E329937/330215 TO N2452729/2452915 E330250/330300 In Manganese Pit N-2452315/2452640 E330148/330435 TO N2452427/2452630 E330300/330485	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There is no top soil occurred, Proposal for separate benches on OB & mineral	As per proposal there are separate benches for overburden & mineral.	
2c	Stripping ratio or ore to OB ratio	IRON ORE: 1:0.06 Mn ORE : 1:3.60	IRON ORE: 1:0.064 Mn ORE : 1:3.73	
2d	Quantity of topsoil generation in m3	Nil	Nil	

2e	Quantity of overburden generation in m3	IRON ORE SECTION : 38381 Mn ORE SECTION : 15390	IRON ORE SECTION : 38116 Mn ORE SECTION : 14443
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Mine development was carried out as per approved Modification in approved mining plan.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	IRON ORE: 3 Mn ORE :2	IRON ORE: 3 Mn ORE :2	
3b	Quantity of ROM mineral production proposed	IRON ORE: 599999.63MT Mn ORE :4274.66MT	IRON ORE: 587837MT Mn ORE :3864MT	
3c	Recovery of sailable/usable mineral from ROM production	IRON ORE: 85% Mn ORE :10%	IRON ORE: 85.22% Mn ORE :11.02%	
3d	Quantity of mineral reject generation	NIL	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NIL	Threshold value of iron ore 45%Fe, after that analyzing <45% Fe are considered as waste & being kept in the earmarked dumps.	
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	Iron ore:- Mechanized Mn ore:- Manual	Iron ore:-Mechanized Mn ore:- Manual	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	N.A.	Nil
3j	Provision of drilling and blasting in mineral benches	Provision of drilling & Blasting in Mineral benches.	Drilling & Blasting are done as per proposal of Approved Modification in approved mining plan.
3k	Provision of mining machineries in mineral benches	Machineries are to be deployed in mineral benches.	Machineries are deployed in mines following year wise production proposal.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Mining work is proposed to be done using Shovel-dumper combination by keeping bench height 6mtrs.	The height of benches of OB & mineral of 6mtrs. are suitable as per the proposed method of Mining.
3m	Total area covered under excavation/pits	23.09ha.	In iron ore:-10.835Ha Mn ore:-10.046Ha
3n	Ore to OB ratio for the pit/mine during the year.	Iron ore:- 1:0.06 Mn ore:-1:3.60	In iron ore:-1:0.064 Mn ore:-1:3.73
3o	Total area put in use under different heads at the end of year	01.Mining:- 23.09Ha 02.Used for waste disposal:- 2.501ha 03.Occupied by plant,building s & roads:- 1.117ha 04.Green belt,Weigh bridge,crusher area,mineral stack yard:- 2.669ha& others Total area:- 29.377Ha.	01.Mining:-20.8810Ha 02.Used for waste disposal:-2.501ha 03.Occupied by plant,buildings & roads:-1.512ha 04.Green belt,Weigh bridge,crusher area,mineral stack yard:-3.204ha& others Total area:-28.098Ha.as on date of inspection.

3p	Production of ROM mineral during the last five year period as applicable	IRON ORE:- 2013-14:- 546000MT 2014-15:- 579165MT 2015-16:- 582420MT 2016-17:- 579615MT 2017-18:- 694620MT 2018-19:- 599997.17MT 2019-20:- 599999.63MT Manganese:- 2013-14:- 59500MT 2014-15:- 8500MT 2015-16:- 10725MT 2016-17:- 13375MT 2017-18:- 17225MT 2018-19:- 4275.12MT 2019-20:- 4274.66MT	IRON ORE:- 2013-14:-545973MT 2014-15:-315684MT 2015-16:-NIL 2016-17:-NIL 2017-18:- 599709.57MT 2018-19 :- 599710.56MT Manganese:- 2013-14:-4272MT 2014-15:-3993MT 2015-16&16-17:-NIL 2017-18 & 2018-19:4275MT
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3q	General remarks of inspecting officers on method of mining etc.	Mining was carried out by Opencast Method of mining, using Shovel Dumper combination.
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Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No generation of Top soil.O.B. and mineral rejects to be excavated and dumped.	No topsoil was generated during the period. only OB has been generated & dumped at the earmarked dump.	
4b	Location of topsoil, OB and mineral reject dumps	N.A.	Location of OB dump is Dump no 1:- N2452715/2452815 E330355/330435 Dump no2:- N2452215/2452270 E330320/330415.	

4c	Number of dumps within lease area and outside of lease area	Within lease area:- 02Nos(Dump nol&2) Outside lease area:-Nil.	Within lease area:- 02Nos(Dump nol&2) Outside lease area:-Nil.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Iron ore:- N2452153/2452871 - 71 - E329925/330358 Mn ore:- N2452093/2452715 - 15 - E330007/330485	Iron ore:- N2452153/2452871 - E329925/330358 Mn ore:-N2452093/2452715 - E330007/330485
4e	Number of active and alive dumps.	Active dumps:- 02 Nos.	Active dumps:-02 Nos.
4f	Number of dead dumps.	Dead dumps:- Nil.	Dead dumps:-Nil.
4g	Number of dumps established.	2 dumps	2 dumps exists within the lease area
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall & garland drains to be constructed at the surrounding the toe of dump.	Yes, Retaining wall & garland drains have been constructed at the surrounding the toe of dump.
4i	Length of Retaining wall or garland drain all along dumps	Dump no 1: Retaining wall:- 108mtrs. Garland drain:- 138mtrs. Dump no 2:- Retaining wall:- 80mtrs. Garland drain:- 192mtrs	Dump no 1: Retaining wall:- 140mtrs. Garland drain:- 160mtrs. Dump no 2:- Retaining wall:- 120mtrs. Garland drain:- 150mtrs
4j	Number of settling ponds	One settling pond/tank & Check Dam to be made near Dump no-1	One settling pond/tank & Check Dam has been made near Dump no-1

4k	Specific comments of inspecting officer on waste dump management	The waste generated from iron ore was 30% utilized for making haul road and 40% dumped over the near DUMP -2 & 1. And also 30% of total waste blending with high grade iron ore. Out of the total IW from Manganese zone, 30% of the materials will be utilized for road maintenance and the balance 70% will be dumped in the earmarked yard. There is no overburden in the manganese zone.
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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.	N.A	There is no any quarry exhausted so far, there is no proposal for back filling.	
5b	Area under backfilling of mined out area	N.A.	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	N.A.	No top soil generated during the period.	
5d	Total area fully reclaimed and rehabilitated	N.A.	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Mineral Exists in the Quarry Floor.No backfilling done in 2018-19.	

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP Report to be submitted in time.	PMCP Report submitted in time.	
6b	Area available for rehabilitation (ha) .	Nil	Nil	
6c	afforestation done (ha).	2.454ha	2.454ha	
6d	No. of saplings planted during the year	2454nos.	800nos.	Cumulative 16120nos.
6e	Cumulative no .of plants	N.A.	16120nos.	
6f	Any other method of rehabilitation	Nil	Nil	
6g	Cost incurred on watch and care during the year	Rs 98160/-	Rs.10000/-	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	N.A.	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	N.A.	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	N.A.	Nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	N.A.	Nil	

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	N.A.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	2454nos.affore station	800 nos.afforestation
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	2.454ha	2.454ha
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Afforestation	Aforestation done.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Air(AAQ),Noise quality to be monitered Quarterlyand water quality every year.	Environmental monitoring of Air(AAQ),Noise,water quality in core zone& buffer zone & being reported quarterly and complied.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		The PMCP compliance and progressive closure operations have been carried out as per approved modification in approved mining plan as far as possible.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting of RoM to be done within lease area.	Grade wise sorting of RoM being done within lease area.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Iron ore :- Mechanically Mn ore:- Manually	Iron ore :- Mechanically Mn ore:- Manually	

7c	Different grade of mineral sorted out at mines.	45 % to 55 % Fe 55% to below 58% Fe 58% to below 60% Fe Below 25% Mn 25% to below35%Mn 35% to below46%Mn	45 % to 55 % Fe 55% to below 58% Fe 58% to below 60% Fe Below 25% Mn 25% to below35%Mn 35% to below46%Mn
7d	Any beneficiation process at mines .	Proposal for Size & Grade wise sorting within the Lease area	Size & Grade wise sorting within the Lease area done in 2018-19, using Mobile Screen & Mobile Crushing Unit.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Size & Grade wise sorting within the Lease area using Mobile Crushing & Screening unit. Ores of different grades are kept seperately and Low grade of ore is blended with high grade of ore to meet the market requiriment.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No such proposal	No work done against this item.	
8b	Concurrent use or storage of topsoil	No such Proposal.	No work done against this item.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dump 1 & 2 proposed for waste rock, rejects and overburden.	There exists a seperate dump for waste rock, rejects, overburden and one separate low grade fines stock situated in the opposite side of waste dump.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal	No work done against this item.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NO such proposal	NO work done against this item.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Proposal for water sprinkling on roads to control airborne dust.	Water sprinkling on roads to control airborne dust done as per proposal within the lease area.
8g	Survival rate	Not proposed	75%
8h	Water sprinkling on roads to control airborne dust	Proposal for water sprinkling on roads to control airborne dust.	Water sprinkling on roads by water tanker to control airborne dust done as per proposal within the lease area and also pipeline post near crushing area.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The area lies in the saranda forest division, in a hilly terrain. Aesthetic beauty in and around mines area is good.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		Monthly and annual returns were submitted by the lessee online for the period 2018-19	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer - PRAKASH KUMAR Geologist - BIKRAM KUMAR SWAIN	Mining Engineer - PRAKASH KUMAR & Geologist - BIKRAM KUMAR SWAIN, were present at the time of inspection.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings - 20.585 ha. Occupied by plant, buildings, residential, welfare buildings & roads - 1.503 Ha. GREEN BELT, WEIGHBRIDGE, CRUSHER AREA MINERAL STACK YARDS - 2.173 Ha., Area for waste disposal 2.16ha. Work done under progressive mine closure plan during the year 26.421ha.	Covered under current (O/C) Workings - 20.585 ha. Occupied by plant, buildings, residential, welfare buildings & roads - 1.503 Ha. GREEN BELT, WEIGHBRIDGE, CRUSHER AREA MINERAL STACK YARDS - 2.173 Ha., Area for waste disposal 2.16ha., Work done under progressive mine closure plan during the year 26.421ha.
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year - 800 (Within lease area)	Number of trees planted during the year - 800 (Within lease area)
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral rejects generated during 2018-19.	Mineral Rejects (Iron) - Quantity - 0 Mineral Rejects (Mn) - Quantity - 0

9f Scrutiny of ROM(Iron Ore) The figures as per
Annual return on opening stock annual returns matches
ROM stock and/or 25905.91Te, with the figures of
graded ore Production monthly reurns on adding
during 2018- as submitted online by
19:599710Te,C1 the lessee.
osing Stock
(at the end of
2018- 19)ROM
was
25905.910Te
Graded Ore
(Iron Ore
Lumps)
Below 55% -
12575.44 T
55% to below
58% - 34695.66
T
58% to below
60% - 14335.27
T
60 % to Below
62 % - 1.42 T
Closing Stock
(at the end of
2018- 19)
Graded
Ore(Iron Ore
Fines)
Below 55% -
1133.50 T
55% to below
58% - 20.88 T
58% to below
60% - 5301.94
T
60 % to Below
62 % -
11431.81T
ROM(Manganese)
Production
4275MT.Op& C1
St: Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	<p>Ex Mine Price per tonne for Lumps Below 55% - 1000/- 55 % to Below 58% - 1500/- 58% to below 60% - 1800/- 60% to below 62% - 2000/-</p> <p>Ex Mine Price per Tonne for Fines Below 55% - 800/- 55 % to Below 58% - 1000/- 58% to below 60% - 1200/- 60% to below 62%- 1500/- 62% to below 65%- 1800/-</p>	The Ex-mine price as reported in the annual returns seems to be correct as per details furnished in AR.
9h	Scrutiny of Annual return on fixed assets	Fixed Asset: Rs.33388786/-	<p>Industrial Building -Rs 983761.00 Residential Building -Rs 8241517.00 Machinery including transport equipment - Rs 23981967.00 Repair to machinery etc. - Rs 181541.00 Total Rs.33388786/-</p>
9k	Scrutiny of Annual return on mining machineries	<p>SHOVEL (HYDRAULIC) 1.24cum - 01, SHOVEL (HYDRAULIC) 0.9cum - 03,, SHOVEL (HYDRAULIC) 1.4cum - 01, BLAST HOST DRILL (100mm)- 1 FRONT END LOADER - 1 Tipper - 15 Water Tanker - 1</p>	Mining Machinery as proposed in approved documet matches with the AR. No defency observed.

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)	24/02/2020			
MCDR17	Rule 26(2)	24/02/2020		18/05/2020	
MCDR17	Rule 35(2)	24/02/2020		18/05/2020	

Date :

(B.P KERKETTA)

Indian Bureau of Mines