

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

Review and updation of Mining Plan REPORT

Kolkata regional office

Mine file No : CAL/BH/SB/FE(N-1)

Mine code : 30BHR27031

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Geologist in charge - Mr. Prasenjit Chatterjee
Official with
Designation
- (iv) Date of Inspection : 18/10/2018
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BALAJI**
- (b) **Registration NO.** : **IBM/6896/2011**
- (c) Category : A Other Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : NOAMUNDI
Taluka : CHAIBASA
Post office : NOAMUNDI BAZAR
Pin Code : 833217
FAX No. :
E-mail : ankit.khirwal@gmail.com
Phone : 06582-255157
- (f) Police Station : NOAMUNDI
- (g) First opening date : 01/05/1972
- (h) Weekly day of rest : SUN
2. Address for : AT & PO: CHAIBASA -833201.
correspondance : DIST: SINGHBHUM WEST.
JHARKHAND .
3. (a) Lease Number : BHR0054
- (b) Lease area : 22.66
- (c) Period of lease : 30
- (d) Date of Expiry : 30/04/2002
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : ANIL KHIRWAL
 KHIRWAL MARKET, SADAR BAZAR
 AT & PO. CHAIBASA SINGHBHUM
 (WEST), JHARKHAND SINGHBHUM
 (WEST) JHARKHAND
 Phone: 09431300407
 FAX : 06582-258357/257157

Owner : ANIL KHIRWAL
 KHIRWAL MARKET PO. CHAIBASA
 . SINGHBHUM (WEST),
 JHARKHAND SINGHBHUM (WEST)
 JHARKHAND
 Phone: 9431300407
 FAX : NIL

Agent : ANIL KHIRWAL
 M/S MARUTI MINERALS
 INDUSTRIES KHIRWAL MARKET,
 AT & PO. CHAIBASA
 SINGHBHUM(W) SINGHBHUM
 (WEST) JHARKHAND
 Phone: 06582-258357, 259157
 FAX : NIL

Mining Engineer

Name : B. D. PANDEY, Full Time
 Qualification : AMIE(MIN. ENGG.)
 Appointment/ : 08/01/2014
 Termination date

Geologist

Name : CHOWDHURY SABIR AHAMAD, Full Time
 Qualification : M. Sc.(Geo)
 Appointment/ : 16/06/2014
 Termination date

Manager

Name : BHISMA DEO PANDEY
 Qualification : AMIE(Min. Engg.)
 Appointment/ : 08/01/2014
 Termination date

6. Date of approval of Mining	:	Renewal under rule 24 MCR1960	25/10/2004
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	16/04/2010
		MP modif under 17(3) MCR 2016	19/12/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No Proposal	No work done	
1b	Exploration over lease area for geological axis 1 or 2	No Proposal	No work done	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	No exploration work done during 2017-18	
1d	Balance area to be explored to bring Geological axis in 1 or 2	11.089 Ha.	No exploration work carried out in 2017-18 as No forest Clearance was accorded to the Lessee. The lease area fall in Forest land.	
1e	Balance reserve as on 01/04/20	Balance Reserve as on 01/04/2018	12,55,221.00 M.T. Proved (111).	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Puja Pit.& Mahabir Pit.	Puja Pit only.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Overburden: 0 Mineral : 4	Overburden: 0 Mineral: 4 nos. of benches.	
2c	Stripping ratio or ore to OB ratio	1:0	1:0	No top soil & no operation in overburden.
2d	Quantity of topsoil generation in m3	NO Topsoil	NIL	
2e	Quantity of overburden generation in m3	NO Overburden	NIL	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development of Pit is as per approved document.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3a. Number of pit proposed for production: Two nos. of Pit(Puja & Mahabir Pit)	Puja Pit Only	
3b	Quantity of ROM mineral production proposed	1,50,000 M.T.	71,740.000 M.T.	
3c	Recovery of sailable/usable mineral from ROM production	85% recovery form ROM.	90.65% recovery from ROM.	Reject generation 6470 M.T.
3d	Quantity of mineral reject generation	NIL	NIL	
3f	Quantity of sub grade mineral generation.	NIL	Generated and kept as separate for blending purpose.	All are blended with high grade.
3g	Grade of sub grade mineral generation	NIL	All are blended with high grade.	All are blended with high grade.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized.	Mechanized & Manual Method.	Category of the Mine is OTFM
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not Proposed	Not Done	
3j	Provision of drilling and blasting in mineral benches	Shot hole drilling & blasting.	Shot hole drilling & blasting done	
3k	Provision of mining machineries in mineral benches	One Excavator 03 nos. of Hyva dumper & one compressor.	Two Excavators & 06 nos. of Hyva dumper & one compressor.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes, 6mtr. Height & 10 mtr. in width.	The height and width of benches in OB and Minerals are as per Mining Plan.	

3m	Total area covered under excavation/pits	4.642 Ha. (Pit broken area).	4.642 Ha. (Pit broken area).
3n	Ore to OB ratio for the pit/mine during the year.	1:0.	1:0.
3o	Total area put in use under different heads at the end of year	Pit - 4.642 Ha. Dumps - 2.157 Ha. Roads - 1.423 Ha. Building - 0.02 Ha.	Pit - 4.344 Ha. Dumps - 2.157 Ha. Roads - 1.423 Ha. Building - 0.02 Ha. Reclaim : 0.2972 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2017-18=150000.00 T 2016-17=73998.60 T 2015-16=73999.50 T 2014-15=73998.84 T 2013-14: 74000.00 T	2017-18=71,740 T 2016-17=26,670 T 2015-16=59,373 T 2014-15=73,996 T 2013-14=68,816 T
3q	General remarks of inspecting officers on method of mining etc.		At the Time of inspection Method of mining adopted was as per Approved Document, and and benches were maintained properly. there was no OB generation during 2017-18.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No generation of OB & top soil. Only waste materials after screening are dump in North side of Puja pit as concurrent back filling.	No generation of top soil & mineral reject. Only intercalated waste material sorting from ROM and after screening are dump in North side of Puja pit as concurrent back filling.	

4b	Location of topsoil, OB and mineral reject dumps	<p>Dump No. Type of material Co ordinates.</p> <p>01 OB 100N 50E</p> <p>02 BHQ 450N 275E</p> <p>03 OB 675N 250E</p> <p>04 OB 640N 180E</p> <p>05 ROM 625N 300E</p> <p>06 OB 675N 440E</p> <p>07 OB 640N 440E</p> <p>08 OB 310N 120E</p> <p>09 OB 475N 75E</p>	<p>Dump No. Type of material Co ordinates.</p> <p>01 OB 100N 50E</p> <p>02 BHQ 450N 275E</p> <p>03 OB 675N 250E</p> <p>04 OB 640N 180E</p> <p>05 ROM 625N 300E</p> <p>06 OB 675N 440E</p> <p>07 OB 640N 440E</p> <p>08 OB 310N 120E</p> <p>09 OB 475N 75E</p>	Grid Position of Hanuman Pit - A : 450E to 550E & 675N to 600 N.
4c	Number of dumps within lease area and outside of lease area	Total 9 Nos. of Dumps (All are within the lease area). There is no dump outside the lease area.	Total 9 Nos. of Dumps (All are within the lease area). There is no dump outside the lease area.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Since the total area is not explored, hence the ultimate pit limit is not calculated.	All dumps are to be backfilled after exhaust of mineral of the pits.	
4e	Number of active and alive dumps.	Dump no - 1 & 9 were active till the FY 2017 - 2018 along with concurrent back filling in northern side of Puja pit.	Dump no 01 & 09 are active only.	

4f	Number of dead dumps.	All are dead dumps except dump no 1& 9.	All are dead dumps except dump no 1& 9.	All area Old dumps except 1 & 9
4g	Number of dumps established.	7 Nos. dumps are stabilized.	All 7 Nos. dumps are stabilized.	All old dumps are being stabilized by tree plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	All dumps except Dump no 01, 02, 09 are old and negligible height. Hence Retaining wall & Garland drains are constructed in Dump no 01, 02, 09.	All are old dumps and done by manually, height is negligible.
4i	Length of Retaining wall or garland drain all along dumps	No Proposal	337.5mtrs. no 1 & 9 retaining wall & 304 mts dump no 1,2 &9 garland drains.	
4j	Number of settling ponds	NIL	03 Settling Ponds found during inspection.	
4k	Specific comments of inspecting officer on waste dump management			Waste is dumped on the earmarked position as per approved document.

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.	Back filled in the Northern part of Puja Pit.	Back filled in the Northern part of Puja Pit.	
5b	Area under backfilling of mined out area	0.0996 Ha.	0.10 Ha.	Back filled in northern side of Puja pit.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No generation of top soil as work is restricted only in broken up.	No generation of top soil as work is restricted only in broken up area. All the previously stock top soil are being used for plantation purpose.	
5d	Total area fully reclaimed and rehabilitated	0.0996 Ha. area to be Reclaimed.	0.100 Ha. area has been reclaimed at North side of Puja Pit.	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Only 0.100 Ha. area has been reclaimed at North side of Puja Pit.	Only 0.100 Ha. area has been reclaimed at North side of Puja Pit.

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).		Yes, Report submitted on PMCP on time dated 30.06.2018 under Rule 23E(2)	Yes, Report submitted on PMCP on time dated 30.06.2018 under Rule 23E(2)
6b	Area available for rehabilitation (ha) .	0.0996 Hect. Back filled.	0.100 Hect. Back filled area	
6c	afforestation done (ha).	0.1Hect.(Green belt)	0.1976.(Green belt)	
6d	No. of saplings planted during the year	250 nos. of sapling.	250 nos of (Akasia) sapling are planted in reclaimed area of Hanuman Pit -B in the year 2015-16	
6e	Cumulative no .of plants	250 nos of sapling	Cummulative nos of Plants 250 nos in Hanuman Pit-B in the year 2015-16	
6f	Any other method of rehabilitation	No proposal	NIL	
6g	Cost incurred on watch and care during the year	Rs. 60,000.00	Rs. 65,000.00	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	2505.94 Cum	2505.94 Cum	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Filled by waste	Filled by intercalated waste materials	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Not Proposed	Not Done	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	No work done in this regard.	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	No work done.	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	No work done	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	No work done	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Now ork done	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Enviromental monitering in core zone and buffer zone proposed	Quarterly done by Yugantar Bharati lab Accredited by NABL& JSPCB and all the reports are within the prescribed limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Reclamation work done in 0.10 Ha. as on date of inspection.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade Wise Sorting Within the Lease Area:- 10-40mm(58.20% Fe) : 37500.00MT +40mm(58.94%Fe) :15000.00MT (5-10)mm Fines (57.19% Fe) :75000.00MT	Grade wise mineral Sorting: Below 55%Fe - 9860.15 MT 55% Fe to 58% Fe - 36600.23 MT 58% Fe to 60% Fe - 8342.78 MT 60% Fe to 62% Fe - 3816.55 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	58.20%Fe(size-10-40mm), 58.94% Fe(size-+40mm) 57.19%Fe(size-fines)	Below 55% Fe, 55% Fe to 58% Fe, 58% Fe to 60% Fe, 60% Fe to 62% Fe.	
7d	Any beneficiation process at mines	Not Proposed.	Nil (manually sorting of minerals by hammering)	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No benification issues as on date of inspection.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No Proposal	Top soil previously kept was used for plantation.	
8b	Concurrent use or storage of topsoil	No Proposal	No work done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Separate dumps are made for waste rocks, rejects etc.	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes it is proposed.	Northern part of Puja Pit of an area of 0.1 ha was backfilled by intercalated waste.	Cumulative backfilled area upto 31st March 2018 is 0.2972 Ha.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Northern part of Puja Pit of an area of 0.1 ha was backfilled by intercalated waste.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No Proposal	Up to the end of march 2018, 3124 & 1540 nos. of sapling were planted in WML & OML respectively.	
8g	Survival rate	No Proposal	WML-29.27% OML-36.36%	
8h	Water sprinkling on roads to control airborne dust	Proposed	Done as per proposal	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Details have been filled as per statnard format online.	Monthly and Annual returns for the year 2017-18 submitted online on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer in charge - Mr. B. D. Pandey Geologist in charge - Mr. Prasenjit Chatterjee	Mining Engineer in charge - Mr. B. D. Pandey and Geologist in charge - Mr. Prasenjit Chatterjee were present during the inspoection	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Pits (O/C workings) - 4.344 Ha. Reclaimed area - 0.298 Ha. Dumps - 2.157 Ha.	Area under Pits (O/C workings) - 4.344 Ha. Reclaimed area - 0.298 Ha. Dumps - 2.157 Ha.	During inspection the data as mentioned in Annual returns seems to be correct. NO actual measurments have been made or surveyed.
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year - 250	Number of trees planted during the year - 250 with survival rate 30 % approx.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral Reject Generated - Shale	Mineral Reject Generated - Shale	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Opening stock ROM - 19962.020 Tonnes at the begning of the Year i.e., as on 01/04/2017 Closing stock ROM - 2538.020 Tonnes at the end of year ie., as on 31/03/2018	Opening stock ROM - 19962.020 Tonnes at the begning of the Year i.e., as on 01/04/2017 Closing stock ROM - 2538.020 Tonnes at the end of year ie., as on 31/03/2018	Found correct.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine price of lumps and fines of different grades are mentioned seperately	Ex Mine price of lumps and fines of different grades are mentioned seperately	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in .) 3442686	Value of Fixed Assets (in .) 3442686	
9k	Scrutiny of Annual return on mining machineries	BACK HOE - 02 FRONT END LOADER - 03 DUMPER - 06 WATER TANKER - 01 AIR COMPRESSOR - 01	BACK HOE - 02 FRONT END LOADER - 03 DUMPER - 06 WATER TANKER - 01 AIR COMPRESSOR - 01	Machines were present at 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

Date :

(NAMAN EKKA)

Indian Bureau of Mines