

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

Inspection under SDF for star rating of mines REPORT

Kolkata regional office

Mine file No : KOL/JHK/SB(W)/FE(M-4)

Mine code : 30BHR27018

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 05/02/2020
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MEGHAHATUBURU**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : JHARKHAND
District : SINGHBHUM (WEST)
Village : MEGHAHATUBURU
Taluka : CHAIBASA
Post office : MEGHAHATUBURU
Pin Code : 833223
FAX No. : 011-24367015
E-mail : envrmd@gmail.com
Phone : 011-24367539
- (f) Police Station : MEGHAHATUBURU
- (g) First opening date : 15/06/1985
- (h) Weekly day of rest : SUN
2. Address for : Vill:- Meghahatuburu. Po:-Meghahatuburu.
correspondance Dist - Singhbhum west
State:- Jharkhand. PIN---833223
3. (a) Lease Number : BHR0073
- (b) Lease area : 879.44
- (c) Period of lease :
- (d) Date of Expiry : 31/03/2020
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : STEEL AUTHORITY OF INDIA LTD.
 INDUSTRY HOUSE 5TH & 6TH
 FLOOR 10, CAMAC STREET
 KOLKATA WEST BENGAL
 Phone:033-22822316/0462/3385
 FAX :033-22822316/0462

Owner : Harinand Rai
 Steel Authority of India
 Ltd. Ispat Bhawan, Lodi
 road New Delhi-110003
 SINGHBHUM (WEST) JHARKHAND
 Phone: 011-24367481-86
 FAX : 011-24367015

Agent : kamlesh Rai
 Meghahatuburu Iron Ore
 Mines Dist.-West Snghbhum
 Jharkhand SINGHBHUM (WEST)
 JHARKHAND
 Phone: 8986881116
 FAX :

Mining Engineer

Name : SANJAY KUMAR, Full Time
 Qualification : B.Tech (Mining)
 Appointment/ : 14/09/2019
 Termination date

Mining Engineer

Name : Shankar Prasad Das, Full Time
 Qualification : B.Tech (Mining) & FCMMC (Registered)
 Appointment/ : 16/01/2019 14/09/2019
 Termination date

Geologist

Name : DR. MANOJ KUMAR, Full Time
 Qualification : M.SC. (GEOLOGY), PHD GEOLOGY
 Appointment/ : 28/02/2015
 Termination date

Manager

Name : KAMLESH RAI
 Qualification : B TECH (MIN ENGG)
 Appointment/ : 07/08/2014
 Termination date

6. Date of approval of Mining :
 Plan/Scheme of Mining

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	A total of 25 boreholes proposed for drilling in 2018-19.	No boreholes were drilled in 2018-19	Drilling could not be done due to nonavailability of Stage - II Forest Clearance
1b	Exploration over lease area for geological axis 1 or 2	-	-	-
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such proposal	-	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No such proposal	-	-
1e	Balance reserve as on 01/04/20	Balance Reserves as on 1/7/2019 Meghahatuburu Block : Reserves - 17.78MT and Remaining resources: 14.60MT Central Block : Reserves = 10.60 MT and Remaining resources: 0.07MT East of Central Block Reserves : NIL and Remaining Resource= 14.85 MT	-	-

1f	General remarks of inspecting officers on geology, exploration etc	-	-	Meghatuburu block consists of undulating hills with central portion rising to 918 m above the MSL. Block stretches over a strike length of 2100 m in N 37 0 E direction and width varies from 250 to 600 m. The ore in central part of the deposit extends upto 130 m depth and to relatively shallower depth in the northern and southern part. The Central block is situated at about 600 m south of Meghatuburu block and stretches over a strike length of 2000 m. having highest elevation of 890m MSL.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development proposed in broken area of Meghatuburu Block and also to develop new pit in Meghatuburu Central Block	Mining continued in Meghatuburu Block but no development in Meghatuburu Central Block for want of Forest Clearences.	-

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	In Meghatuburu Block it was proposed to develop ore benches. In Central block it was proposed to develop benches in top soil OB and minerals.	Development of ore benches in Meghatuburu block are being done as per proposal. No development in Meghatuburu Central Block for want of Forest Clearances.	
2c	Stripping ratio or ore to OB ratio	1.70 : 1	1.04 : 1	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	Meghatuburu Block: 1.09 Mil. m3 Meghatuburu Central Block: 0.5 Mil. m3	Meghatuburu Block: 1.198 Mil. m3 Meghatuburu Central Block: NIL	Central block not opened during reporting period for want of Stage-II forest clearance. Therefore no OB generation from Central block.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-	-	Development by deepening of existing pit continued in Meghatuburu Block. No development in Central block for want of Stage-II forest clearance.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two (One pit each in Meghatuburu block and Central Block)	One pit only in Meghatuburu block	Central Block not opened for want of Stage II FC.
3b	Quantity of ROM mineral production proposed	Meghatubru Block: 5550000 T Central Block: 2460000 T	Meghatubru Block: 3851100 T Central Block: NIL	For Central block Stage-II FC awaited.
3c	Recovery of sailable/usable mineral from ROM production	-	ROM- 3737696 T (Lump- 1039136 T and Fines- 2698560 T)	-

3d	Quantity of mineral reject generation	NIL	NIL	-
3e	Grade of mineral rejects generation and threshold value declared.	-	-	-
3f	Quantity of sub grade mineral generation.	Meghatuburu Block : 0.6 Mill tonees Central Block: 0.92 Mill tonnes	Meghatuburu Block : 0.35 Mill tonees Central Block: NIL	-
3g	Grade of sub grade mineral generation	-	49-52 %Fe	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	None	
3j	Provision of drilling and blasting in mineral benches	Wet drilling and Use of delay detonators (NONEL)	Wet drilling and Use of delay detonators (NONEL)	
3k	Provision of mining machineries in mineral benches	Dumpers & Excavators	Dumpers & Excavators	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	
3m	Total area covered under excavation/pits	65.00 Ha	65.00 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1.70:1 (Meghahatuburu block) 1.52:1 (Meghahatuburu Central block)	1.04:1 (Meghahatuburu block). No production from Meghahatuburu Central block	

3o	Total area put in use under different heads at the end of year	255.04 Ha	255.04 Ha	
3p	Production of ROM mineral during the last five year period as applicable	Meghatuburu Block: 2015-16 - 5040000 T 2016-17 - 5040000 T 2017-18 - 4140000 T 2018-19 - 6540000 T 2019-20 - 5550000 T Central Block: 2015-16 - 90000 T 2016-17 - 960000 T 2017-18 - 2670000 T 2018-19 - 1890000 T 2019-20 - 2460000 T	Meghatuburu Block: 2015-16 - 3737160 T 2016-17 - 3868060 T 2017-18 - 3967340 T 2018-19 - 3870450 T 2019-20 - 3851100 T Production not commenced from Central Block for want of FC	-
3q	General remarks of inspecting officers on method of mining etc.	-	-	Mining carried out by open cast method by deploying HEMM keeping bench height at 10 m and width at 30 m. . Benches are developed by deploying 150 mm dia drilling machine and blasting with Low density (LD) cartridge explosives. 100 t dumpers with matching capacity hydraulic excavators/ loaders are being utilised for loading and transportation of ore.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Backfilling of excavated voids envisaged for Meghatubru Central Block. Proposal for external dumping at earmarked places proposed for Central block.	Backfilling done as per proposal in Meghatubru Central Block however, development of pit yet to start in Central block for want of FC.	-
4b	Location of topsoil, OB and mineral reject dumps	Backfilling of excavated voids envisaged for Meghatubru Central Block. Proposal for external dumping at earmarked places proposed for Central block	Backfilling done as per proposal in Meghatubru Central Block however, development of pit yet to start in Central block for want of FC.	-
4c	Number of dumps within lease area and outside of lease area	9	9	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	-
4e	Number of active and alive dumps.	1	1	-
4f	Number of dead dumps.	8	8	-
4g	Number of dumps established.	8	8	-
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	No such proposal during reporting period	-	-
4j	Number of settling ponds	1	1	-

4k	Specific comments of inspecting officer on waste dump management	-	-	-
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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.	Full extraction	Full extraction	
5b	Area under backfilling of mined out area	10.22 Ha	0.8 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Stacking of generated soil (0.04 mill cum) at earmarked location envisaged in Central Block. Generation of top soil not envisaged from Megatuburu Block.	Development in Central Block could not be initiated for want of FC.	
5d	Total area fully reclaimed and rehabilitated	10.22 ha	2.0 ha	Since mineral is not completely exhausted from the proposed area, the actual area available for backfilling is less than proposal.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-	-	-

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).	Yes	Yes	
6b	Area available for rehabilitation (ha) .	10.22 ha	0.8 ha	-
6c	afforestation done (ha) .	6.11 h	0.8 ha	
6d	No. of saplings planted during the year	2000	2000	
6e	Cumulative no .of plants	33000	-	-
6f	Any other method of rehabilitation	None	-	-
6g	Cost incurred on watch and care during the year	15.03 Crore	NA	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	10.22 ha	2.00 ha	The area envisaged for backfilling could not be met due to creation of insufficient void and less intake from steel plant.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	10.22 ha	2.00 ha	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	6.11 ha	0.8 ha	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal	-	-

6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No such proposal	-	-
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No such proposal	-	-
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No such proposal	-	-
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No such proposal	-	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	4 stations	4 stations	-
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	Grade wise sortng	Grade wise sortng	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	

7c	Different grade of mineral sorted out at mines.	-	(ii) Fines - 2899457.45 (a) Below 55% -0 (b) 55% to below 58% - 0 (c) 58% to below 60% 71466.840 (d) 60% to below 62% - 791889.400 (e) 62% to below 65% 2002673.010 (f) 65% and above 33428.200	-
7d	Any beneficiation process at mines	Both Wet and dry circuit	Both Wet and dry circuit	-
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-	-	-

 Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal from Meghatuburu Block. It was propposaed to remove and store soil from Central block.	In Meghatuburu Block mining was restricted inside broken area and there is no removal of top soil. Development of Central block yet to commence for want of FC.	
8b	Concurrent use or storage of topsoil	No proposal from Meghatuburu Block and it was propposaed to rto store soil from Central block.	In Meghatuburu Block mining was restricted inside broken area and there is no removal of top soil. Development of Central block yet to commence for want of FC.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Restoration of profile by backfilling of mined out area.	Restoration of profile by backfilling of mined out area.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Restoration of profile by backfilling of mined out area followed by leveling and plantation.	Restoration of profile by backfilling of mined out area followed by leveling and plantation.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	80%	70%	-
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
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	-	AR for 2018-19 submitted	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Sh. Sanjai Kumar Geologist: Dr. Manoj Kumar	Mining Engineer and Geologist are in post.	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under Opencast Working: 65 Ha Reclaimed/ Rehabilitated Area: 5.68 ha Waste Desposal: 24 Ha Infrastructures and other: 166.04 ha	Details furnished on land use pattern are more or less in order	
9d	Scrutiny of Annual return on afforestation	Plantation: 2000 saplings	Details furnished in AR are more or less in order	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	107464 tonnes (50-55% Fe)	Details furnished in AR regarding generation of subgrade are in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM : 209437 T	Details furnished in AR are in order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production : Rs. 992/- per tonnes	Details furnished in AR are in order	
9h	Scrutiny of Annual return on fixed assets	Total Fixed Assets:Rs. 2987964124	-	-
9k	Scrutiny of Annual return on mining machineries	Hydraulic Showel: 04, Backhoe: 03, Front end Loader: 01, Dumper : 09, Blast hole drill 04, Motor Grader: 02, Dozer: 07, Water Tanker: 03	Details furnished in AR are more or less in order	-

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