

**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(N-9)

Mine code : 30BHR27024

- (i) Name of the Inspecting : **E025**) **NAMAN EKKA**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : Dipak Behra, Mines Manager, Geologist - Asim Chatterj
Official with
Designation
- (iv) Date of Inspection : 17/09/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **NOAMUNDI**
- (b) **Registration NO.** : **IBM/4376/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **JHARKHAND**
- District : **SINGHBHUM (WEST)**
- Village : **NOAMUNDI**
- Taluka : **NOAMUNDI**
- Post office : **NOAMUNDI**
- Pin Code : **833217**
- FAX No. : **06596 233706**
- E-mail : **noaoprn.grp@tatasteel.com**
- Phone : **06596 233746**
- (f) **Police Station** : **NOAMUNDI**
- (g) **First opening date** : **01/06/1925**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **PO:NOAMUNDI.**
correspondance **DIST:WEST SINGHBHUM.**
JHARKHAND.
3. (a) **Lease Number** : **BHR0077**
- (b) **Lease area** : **1160.36**
- (c) **Period of lease** : **30**
- (d) **Date of Expiry** : **31/12/2011**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : TATA STEEL LIMITED
SINGHBHUM (EAST)
JHARKHAND
Phone:
FAX :

Owner : T. V. NARENDRAN
JAMSHEDPUR SINGHBHUM
(WEST) JHARKHAND
Phone: 0657-2145625
FAX : 0657-2424098

Agent : R.P.MALI
NOAMUNDI IRON MINE TATA
STEEL LTD,P.O.NOAMUNDI
DIST. SINGHBHUM
WEST,JHARKHAND SINGHBHUM
(WEST) JHARKHAND
Phone: 9238003485
FAX :

Mining Engineer

Name : Mr.N.K.Srinivas Rao,Full Time
Qualification : Diploma in Mining
Appointment/ : 07/06/2019 29/07/2019
Termination date

Mining Engineer

Name : Dipak Bahera,Full Time
Qualification : B.tech.(Mining)
Appointment/ : 29/07/2019
Termination date

Manager

Name : Mr. N.K. Srinivas Rao
Qualification : Diploma(Mining)
Appointment/ : 07/06/2019 29/07/2019
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	16/02/1992
		Mining Scheme rule 12 MCDR1988	09/09/1996
		Mining Scheme rule 12 MCDR1988	09/11/2001
		Modif.approved Mining Scheme	08/06/2004
		PMCP under 23B(2) for MS	28/01/2006
		Mining Scheme rule 12 MCDR1988	13/10/2006
		Mining Scheme rule 12 MCDR1988	28/01/2011
		Renewal under rule 24 MCR1960	31/01/2011
		Modif.of approved Mining Plan	31/03/2015
		MP modif under 17(3) MCR 2016	13/08/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	60	15	Violation has been issued earlier.
1b	Exploration over lease area for geological axis 1 or 2	Proposal to drill the area in G1 Level	Area explored up to G2 level .	Area explored up to G2 level .
1c	Exploration Agencies and Expenditure in lakh rupees during the year	150 lakhs	22 lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	480 ha	386 ha in non-mineralised area
1e	Balance reserve as on 01/04/20	Balance reserve as on 01/04/2019 Total Mineral Resources - 213.52 million tons	Total reserve as on 01/04/2019 = 150.74 million tonnes	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Hill 3 & 4 Hill 5 & 6 Western Pit	Hill 3 & 4 Hill 5 & 6 Western Pit	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:0.42	1:0.44	
2d	Quantity of topsoil generation in m3	NIL	NIL	
2e	Quantity of overburden generation in m3	1689000	1400860	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development of pit is as proposed in the approved document.	Development of pit is as proposed in the approved document.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	3	3	
3b	Quantity of ROM mineral production proposed	10 Million Tonnes	7.97 Million tonnes	
3c	Recovery of sailable/usable mineral from ROM production	80% of ROM fed in Wet plant & full recovery in dry Plant.	80% of ROM fed in Wet plant & full recovery in dry Plant.	
3d	Quantity of mineral reject generation	0.607 Millon tonnes	0.650 Millon tonnes	
3e	Grade of mineral rejects generation and threshold value declared.	58 > Fe % ? 45	51.35 % Fe	
3f	Quantity of sub grade mineral generation.	0.607 Millon tonnes	0.650 Millon tonnes	
3g	Grade of sub grade mineral generation	58 > Fe % ? 45	51.35 % 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.	NIL	NIL	
3j	Provision of drilling and blasting in mineral benches	Yes	Yes Drilling & blasting done in mineral Benches	

3k	Provision of mining machineries in mineral benches	Yes	Yes mining machineries present in mineral benches	
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	Mining - 447.10 Ha	Mining - 377.005 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.42	1:0.44	
3o	Total area put in use under different heads at the end of year	Mining - 447.10 Ha	Mining - 377.005 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2014-15 10 MT 2015-16 10 MT 2016-17 10 MT 2017-18 10 MT 2018-19 10 MT	2014-15 5.37 MT 2015-16 3.95 MT 2016-17 4.74 MT 2017-18 6.2 MT 2018-19 7.97MT	
3q	General remarks of inspecting officers on method of mining etc.		Method of mining is being practiced as proposed in MP.	Method of mining is being practiced as proposed in MP.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate stacking of OB and Mineral	Separate stacking of OB and Mineral	

4b	Location of topsoil, OB and mineral reject dumps	Waste Dump 1 E: 11480 - 11900 N: 11485 - 12060 Waste Dump 2 E: 12550 - 12810 N: 12190 - 12510 Subgrade Dump 1 - 12330E - 12900E 12405 N - 13182N	Waste Dump 1 E: 11485- 11900 N: 11490- 12013 Waste Dump 2 E: 12555 - 12808 N: 12256 - 12510 Subgrade Dump 1 - 12358E - 12900E 12410 N - 13182N	
4c	Number of dumps within lease area and outside of lease area	3 within lease area	3 within lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside Upl	Outside Upl	
4e	Number of active and alive dumps.	3	3	
4f	Number of dead dumps.	NIL	NIL	
4g	Number of dumps established.	NIL	NIL	
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	450	986	
4j	Number of settling ponds	1 (240m3)	2 (240m3)	
4k	Specific comments of inspecting officer on waste dump management		there is Separate stacking of OB and Mineral. Plantation carried out as per PMCP proposal in the stablized dumps.	there is Separate stacking of OB and Mineral. Plantation carried out as per PMCP proposal in the stablized dumps.

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.	No Proposal	NIL	
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)	NIL	NIL	
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Backfilling has not been done during 2018-19	Backfilling is not proposed during 2018-19

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	yes	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).		Number of trees planted during the year - 5762 (within Lease area); 3734 (Outside Lease area)	Number of trees planted during the year - 5762 (within Lease area); 3734 (Outside Lease area)
6d	No. of saplings planted during the year	5000 saplings were to be planted.	Achieved Plantation of 5010	
6f	Any other method of rehabilitation	No proposal	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	NIL	NIL
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.	No proposal	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	5000nos.(Waste Dump2& Green Belt)	5762nos.(Waste Dump2& Green Belt) 3734nos.Outside mining Lease area. Survival rate 89% & 76% for plantation within lease and Outside lease respectively.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	0.19 Ha Safety Zone

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation	Plantation	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes Proposed	As per Standard	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		The PMCP compliance and progressive closure operations are as per approved Modified Mining Plan as far as possible.	The PMCP compliance and progressive closure operations are as per approved Modified 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 within the lease area	Grade wise sorting within the lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Fe % >and = 45%	Fe % >and = 45%	
7d	Any beneficiation process at mines .	Yes	Yes within the lease arera	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Mineral conservation is taken care of and mineral beneficiation is practised as per approved Modified Mining Plan.	Mineral conservation is taken care of and mineral beneficiation is practised as per approved Modified Mining Plan.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NIL	
8b	Concurrent use or storage of topsoil	NIL	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for Waste and Sub-grade	Separate dumps for Waste and Sub-grade	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	To be used for making embankment of proposed slime dam at Hill no.5.For bench floor levelling,main tenance of haul road& berms,making ramps & haul roads.	The overburden generated is being used for preparation of haul road.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	2 Ha.	2.11 Ha.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 saplings(WML)	5762 saplings(WML)& 3734 saplings (OML)	
8g	Survival rate	Not proposed.	89%(Within Mining Lease),76% (Outside Mining Lease)	
8h	Water sprinkling on roads to control airborne dust	Mobile water sprinkler	Mobile water sprinkler	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty is very good in and around the mines area.	The aesthetic beauty is very good in and around the 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 submitted on time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer & Manager : Sri Dipak Behera, B.Tech(Mining) , Geologist: Dr.Indranil Saha, MSc.(Geo)	Mining Engineer & Manager : Sri Dipak Behera, B.Tech(Mining) , Geologist: Dr.Indranil Saha, MSc.(Geo)	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining - 447.10 Ha OB/Rejects/tailings - 82.34 Ha Infrastructure - 18.68 Ha Roads - 8.09 Ha Green Belt - 8.14 Ha Mineral Separation Plant - 19.79 Ha Township Area - 145.11 Ha	Mining - 377.005 Ha OB/Rejects/tailings - 152.435 Ha Infrastructure - 17.364 Ha Roads - 8.09 Ha Green Belt - 8.14 Ha Mineral Separation Plant - 19.79 Ha Township Area - 145.11 Ha others(Magazine, Water harvesting, ETP)-1.326	
9d	Scrutiny of Annual return on afforestation	5000 Saplings	5010 Saplings Within lease	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	6.07 Lakh Tonnes Grade: Fe % (?45 & < 58)	6.50 Lakh Tonnes Grade: Fe % (?45 & < 58)	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Proposal of 10 MT	ROM Production - 7.97 MT, Closing Stock - 0.646 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	As per Proposal	As mentioned in H1- Rs1322.33(in Per Tonne)	
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets (in) 7079694550	Value of Fixed Assets (in) 7079694550	Value of Fixed Assets (in) 7079694550

9k	Scrutiny of Annual return on mining machineries	DUMPER 100Te 12nos. SHOVEL 5.900 CUM 4 nos. (HYDRAULIC) BLAST HOST DRILL 150.000 MM 3 nos. DOZER 410.000 HP 2 DOZER 452.000 HP 1 MOTOR GRADER 268.000 HP 1 FRONT END LOADER 9.5 CUM 1 WATER TANKER 28000.000 LITRE 1no. CRANE 75.000 TONNE 1 CRANE 15.000 TONNE 1	Instead of WATER TANKER 28000.000 LITRE ,WATER TANKER 50.000 LITRE has been written	Instead of WATER TANKER 28000.000 LITRE ,WATER TANKER 50.000 LITRE has been written
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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