

**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 : **G004** ) **OM PRAKASH GOPAL**  
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Sh. Shirish Shekhar, Agent, Sh. Sanjit Kumar Adhya Mi  
Official with  
Designation
- (iv) Date of Inspection : 28/09/2021
- (v) Prev.inspection date : 05/12/2020

**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 : 1160.06
- (c) Period of lease : 50
- (d) Date of Expiry : 31/03/2030
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 : Mr Sirish Shekhar  
 Noamundi Iron Mine, Tata  
 Steel Ltd. PO - Noamundi,  
 Dist-Singhbhum(W) Jharkhand  
 SINGHBHUM (WEST) JHARKHAND  
 Phone: 9238003485  
 FAX :

## Mining Engineer

Name : Sanjit Kumar Adhya, Full Time  
 Qualification : B. Tech. (Mining)  
 Appointment/ :  
 Termination date

## Manager

Name : Sanjit kumar Adhya  
 Qualification : B . tech (Mining)  
 Appointment/ : 15/05/2020  
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	16/02/1992
Plan/Scheme of Mining		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
		MP modif under 17(3) MCR 2016	13/01/2021

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	58 boreholes(2019-20)	36 Boreholes(2019-20)	Backlogs of previous year (2019-20) are incorporated in proposals for 2020-21 as envisaged in Modification in Mining Plan approved on 13/01/2021.
1b	Exploration over lease area for geological axis 1 or 2	78 boreholes	73 boreholes	Remaining 5 boreholes could not be drilled due to surface right issue.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	Exploration Agency: OMQ Division, Tata Steel Ltd. Expenditur- Rs. 175 lakhs	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	78 boreholes	73 boreholes	NIL
1e	Balance reserve as on 01/04/20	Baence Reserves (in million tonnes) as on 1/7/2020: 97.73 ((111), 12.08 (121) and 35.07(122)	NA	NIL

1f	General remarks of inspecting officers on geology, exploration etc	NIL	NIL	Noamundi iron ore deposit belongs to Precambrian era of Dharwarian age. This deposit is a part of Eastern limb of major Bonai Synclinorium and trends NNE-SSW with an overturned western limb. Reported lithology of area comprises of shale, BHJ, iron ore with interbedded shales within BIF, laterite, limonite, canga and soil. Iron ore bodies generally occupy top portion of the hills and are elongated in N-S direction
----	--	-----	-----	--

---

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	NIL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes	NIL
2c	Stripping ratio or ore to OB ratio	1:0.40	1:0.33	NIL
2d	Quantity of topsoil generation in m3	NIL	NIL	NIL
2e	Quantity of overburden generation in m3	1950000 m3	1217714 m3	NIL

---

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NIL	NIL	NIL
----	---	-----	-----	-----

---

**Exploitation:**

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Three	Three	NIL
3b	Quantity of ROM mineral production proposed	12.28 Million Tonnes	9.13 Million tonnes	NIL
3c	Recovery of sailable/usable mineral from ROM production	80% recovery of ROM feed in Wet processing plant & 100% recovery in dry processing plant.	80% recovery of ROM feed in Wet processing plant & 100% recovery in dry processing plant.	NIL
3d	Quantity of mineral reject generation	1.370 Million tonnes	0.309 Million tonnes	NIL
3e	Grade of mineral rejects generation and threshold value declared.	45 to 58% Fe	55.39%Fe	NIL
3f	Quantity of sub grade mineral generation.	1.370 Million tonnes	0.309 Million tonnes	NIL
3g	Grade of sub grade mineral generation	45 to 58% Fe	55.39% Fe	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NIL	NIL	NIL

3j	Provision of drilling and blasting in mineral benches	Yes	Yes	NIL
3k	Provision of mining machineries in mineral benches	Yes	Yes	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	NIL
3m	Total area covered under excavation/pits	442.343 ha	366.885 ha	NIL
3n	Ore to OB ratio for the pit/mine during the year.	1:0.40	1:0.33	NIL

3o	Total area put in use under different heads at the end of year	Mining 442.343 ha Waste Dump 51.876 ha Mineral Beneficiation Plant 38.940 ha Mineral Storage 91.329 ha Tailing Pond 82.665 ha Roads, Conveyors, pipeline, electric line 20.780ha Infrastructure 19.828 ha Township 111.767ha Topsoil 0.108 ha Effluent Treatment Plant 0.009 ha Others (Magazine, Rainwater harvesting, Back Filling Areal) 33.281 ha Green Belt 14.27 ha	Mining 366.885 ha Waste Dump 32.369 ha Mineral Beneficiation Plant 19.79 ha Mineral Storage 37.401 ha Tailing Pond 82.665 ha Roads, Conveyors, pipeline, electric line 8.09 ha Infrastructure 17.364 ha Township 145.11 ha Topsoil 0 ha Effluent Treatment Plant 0.009 ha Others (Magazine, Rainwater harvesting, Back Filling Area-1) 11.437 ha Green Belt 14.27 ha	NIL
3p	Production of ROM mineral during the last five year period as applicable	2016-17 10 MT 2017-18 10 MT 2018-19 10 MT 2019-20 12 MT 2020-21 12.28 MT	2016-17 4.74 MT 2017-18 6.81 MT 2018-19 7.97 MT 2019-20 9.87 MT 2020-21 9.13 MT	NIL

3q	General remarks of inspecting officers on method of mining etc.	NIL	NIL	Noamundi Iron ore mine is Fully mechanised mine. Hydraulic drills are used for blast hole drilling. Excavation of ROM and OB is undxertaken through hydraulic shovells varying in capacities from 5.7 to 5.9 cum and mining loader of capacity 9 cum. Excavated material is hauled through 100 tonner dumper.
----	---	-----	-----	---

## 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 rejects.	Separate stacking of OB and Mineral rejects.	NIL
4b	Location of topsoil, OB and mineral reject dumps	Waste Dump 1 : E: 11400-12000 and N: 11100 - 12100 Sub Grade Dump 1: 12200N to 13350 N, 12500E to 13200E , Back filling area : E: 12270 - 12677 and N: 13197-13761	Waste Dump 1 : E: 11557-11903 and N: 11688-12013 SG Dump 1: 12510-13050E, 12600 N to 13180N , Back filling area : E: 12272 - 12665 and N: 13197 - 13761	NIL
4c	Number of dumps within lease area and outside of lease area	4	4	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside as well as Inside UPL	Outside as well as Inside UPL	NIL
4e	Number of active and alive dumps.	4	4	NIL
4f	Number of dead dumps.	None	None	NIL



4g	Number of dumps established.	NIL	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes	NIL
4i	Length of Retaining wall or garland drain all along dumps	1218 m	1241 m	NIL
4j	Number of settling ponds	One	One	NIL
4k	Specific comments of inspecting officer on waste dump management	NIL	NIL	NIL

#### 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	NIL
5b	Area under backfilling of mined out area	29.9 ha	10.12 ha	NIL
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Generation of soil not envisaged	NIL	NIL
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NIL	NIL	NIL

#### 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	NIL
6b	Area available for rehabilitation (ha) .	NIL	NIL	NIL
6c	afforestation done (ha).	6 ha	NA	NIL
6d	No. of saplings planted during the year	15000	15347	NIL
6e	Cumulative no .of plants	NA	NA	NIL
6f	Any other method of rehabilitation	NA	NA	NIL
6g	Cost incurred on watch and care during the year	20,28,000/-	NA	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	29.9 ha	10.12 ha	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	29.9 ha	10.12 ha	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	NIL

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NIL	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes	Yes	NIL
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NIL	NIL	NIL

---

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting	Gradewise sorting	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	NIL

---

7c	Different grade of mineral sorted out at mines.	NA	Lumps: 60% to below 62% Fe- 136236.75 tonnes: 62% to below 65% Fe-663435.35 tonnes: 65% and above Fe-514699.494 tonnes Fines: 60% to below 62% Fe- 1065197.394 tonnes: 62% to below 65% Fe- 3971872.166 tonnes: 65% and above Fe- 444347.491 tonnes	NIL
7d	Any beneficiation process at mines .	Yes	ROM is being processed in wet and dry processing plants.	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NIL	NIL	NIL

---

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Generation of top soil not envisaged.	NIL	NIL
8b	Concurrent use or storage of topsoil	No such proposal	NIL	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Extension of Backfilled Area no. 1 by backfilling generated OB in the northern part of pit Hill 3 and Hill 4.	Extension of Backfilled Area no. 1 as proposed	NIL

---

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Yes	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	15000 saplings	15347 saplings	NIL
8g	Survival rate	NA	85%	NIL
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NIL	NIL	Mining activity destroy aesthetic beauty in and around mining area. To restore aesthetic beauty, backfilling of mined out area and plantation over dumps and backfilled area are being done.

---

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	MR and AR submitted	MR and AR submitted	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: Sh. Sandip Adhya Geologist: Sh. Asim Chaterjee	Mining Engineer and Geologists are in post.	NIL

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under O/C workings : 366.885 ha; Waste Disposal: 32.369 ha; Plant, Buildings and roads: 45.244 ha; Others: 276.622 ha	Details on land use pattern as furnished in submitted AR is in order	NIL
9d	Scrutiny of Annual return on afforestation	No of saplings planted during reporting period: 15347	Details regarding afforestation appears to be in order.	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	309450 tonnes	Reported details are in order	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Stocks:99320.2 6 tonnes	Reported details are in order	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production : Rs. Rs. 1405.65 per tonnes	Details appears to be in order	NIL
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets: Rs. 7806414666/-	Financial matters no comments	NIL
9k	Scrutiny of Annual return on mining machineries	Dumper-14; Hydraulic Showel- 5; Loader- 2; Blast hole drill-3; Dozer- 4; Morter grader- 2; Water Tanker-2; Crane-2	Details regrading mining machenaries are more or less in order.	NIL

---

**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 :

(OM PRAKASH GOPAL)

Indian Bureau of Mines