

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-28/BBS

Mine code : 30ORI13067

- (i) Name of the Inspecting : **RKD**) **RAJESH KUMAR DAS**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri Prabeen Kumar Das, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 24-NOV-23
- (v) Prev. inspection date : 12-JAN-23

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **ADAGHAT**
- (b) **Registration NO.** : **IBM/6072/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **ORISSA**
- District : **SUNDARGARH**
- Village : **Adaghat**
- Taluka : **Koira**
- Post office : **Patmunda**
- Pin Code : **770048**
- FAX No. : **06767275631**
- E-mail : **neadaghatmines@gmail.com**
- Phone : **06767275686**
- (f) **Police Station** : **Koira**
- (g) **First opening date** : **04-JAN-20**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **Adaghat Iron Ore Mine**
correspondance : **M/s National Enterprisiers**
: **Post Box No-44, Barbil, Keonjhar, Odisha-758035**
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : M/S NATIONAL ENTERPRISES
 PO.BOX 44 BARBIL- 758035
 KEONJHAR ORISSA
 Phone:06767-275686
 FAX :06767-275631

Owner : Shri C S Grewal
 M/s National Enterprisers
 Post Box No-44, Barbil,
 Keonjhar Odisha KEONJHAR
 ORISSA
 Phone: 06767275686
 FAX : 06767275631

Mining Engineer

Name : SACHIN SANKAR PRADHAN,Full Time
 Qualification : B TECH MINING
 Appointment/ : 07-MAR-22
 Termination date

Geologist

Name : RAJANIKANTA NAYAK,Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 07-SEP-22
 Termination date

Manager

Name : shri Umasankar Rajbhar
 Qualification :
 Appointment/ : 04-FEB-22
 Termination date

6. Date of approval of Mining	:	MP review under 17(1) MCR 2016	09-NOV-20
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	31-MAR-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	05	no exploration proposed in 2022-23
1b	Exploration over lease area for geological axis 1 or 2	no proposal in 2022-23	05 nos drilling reported.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	K.R.K GEO INFRA SOLUTIONS PVT. LTD,5.47 Lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	approximately 1.0 ha. area in 2022-23	Broadly area explored in G2
1f	General remarks of inspecting officers on geology, exploration etc			Adaghat Iron Ore Mine deposit forms a part of Precambrian sedimentary formation known as the iron-ore series developed in Singhbhum-Keonjhar-Bonai area. The main rock types found in this mine are Laterite, Ferruginous Laterite, Iron ore formation (BIF), stratiform deposit such as BHJ/BHQ, argillaceous shale formation .Area broadly explored in G2.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	N325993- N326226,E24254 16-E2425546	Broadly as per proposal.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Yes
2c	Stripping ratio or ore to OB ratio	1:0.23	1:0.085
2d	Quantity of topsoil generation in m3	Nil	Nil
2e	Quantity of overburden generation in m3	72760	25676
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The development is broadly within lease area but development is less w.r.t. proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one pit	one pit	
3b	Quantity of ROM mineral production proposed	313778 MT	300300 MT	
3c	Recovery of sailable/usable mineral from ROM production	245565 MT	279673 MT	
3d	Quantity of mineral reject generation	68213 MT	33840 MT	
3e	Grade of mineral rejects generation and threshold value declared.	Mineral Reject is considered below 55%Fe	Broadly as per proposal.	

3f	Quantity of sub grade mineral generation.	68213 MT	33840.90 MT	Mineral reject is considered as subgrade mineral.
3g	Grade of sub grade mineral generation	below 55% Fe	below 55% Fe	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	NA	NA	
3j	Provision of drilling and blasting in mineral benches	Yes	Yes	Deep hole drilling and Blasting.
3k	Provision of mining machineries in mineral benches	Yes	Yes	Back hoe, Rock breaker, Dumper, Drill m/c etc.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	Bench height 6m and width 8m.
3m	Total area covered under excavation/pits	15.074 ha.	9.75 ha.	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.23	1:0.08	
3o	Total area put in use under different heads at the end of year	14.274 ha. for upto 25-26	9.75 ha. upto 22-23	

3p	Production of ROM mineral during the last five year period as applicable	2018-19: 213310 MT 2019-20: 266430 MT 2020-21: 319530 MT 2021-22: 300323 MT 2022-23: 313778 MT	2018-19: Nil 2019-20: 108416 MT 2020-21: 299597.315 MT 2021-22: 300192 MT 2022-23: 300300 MT
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3q	General remarks of inspecting officers on method of mining etc.	The method of Mining is by open cast method using HEMM and deep hole drilling blasting.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	yes but top soil proposal nil	Broadly as per proposal.	
4b	Location of topsoil, OB and mineral reject dumps	OB Dump- 1,N325802-N325823 ,E2425847-E2425867	Broadly as per proposal.	
4c	Number of dumps within lease area and outside of lease area	One OB dump,top soil generation Nil	One OB dump	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside lease area NW corner near boundary pillar C	Broadly as per proposal.	
4e	Number of active and alive dumps.	one	one	
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.	proposal given to construct retaining wall 200m and garland drain 200 m	Not done	
4i	Length of Retaining wall or garland drain all along dumps	200 m garland drain and 200 m retaining wall.	Nil	
4j	Number of settling ponds	3 settling pond proposed	Nil	
4k	Specific comments of inspecting officer on waste dump management			As mentioned only one OB dump active but the protection measures proposed i.e. retaining wall and garland drain proposed not constructed according to proposal.

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.	NA	NA	
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Generation of top soil proposal is nil	NA	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	only afforestation done.

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Area not matured for backfilling.
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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).	Before 1st July	Submitted with in time.	
6b	Area available for rehabilitation (ha) .	Rehabilitation of waste land 0.20 ha	afforestation reported in 0.95 ha. area.	
6c	afforestation done (ha).	0.20	0.95	
6d	No. of saplings planted during the year	320 nos	1402 nos reported.	
6e	Cumulative no .of plants	640 nos	7912 nos reported	
6f	Any other method of rehabilitation	NA	NA	
6g	Cost incurred on watch and care during the year	Nil	40000 Rs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NA	NA	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NA	NA	

6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	NA	NA
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NA	NA
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NA	NA
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	320 nos	1402 nos.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.20 ha.	0.95 ha.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	afforestation	afforestation
6p	Compliance of environmental monitoring (core zone and buffer zone)	As per statute i.e Air Quality,Water Quality,Noise Level,Ground vibration,etc	Broadly done as per proposal.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Broadly Complied.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise Dispatch	Gradewise Dispatch	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	Blending of low grade mineral with high grade mineral to get the desire grade mineral.
7c	Different grade of mineral sorted out at mines.	Yes	Yes	
7d	Any beneficiation process at mines .	NA	NA	Only crushing and screening
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Blending of low grade mineral with high grade mineral to get the desire grade mineral and dry beneficiation by crushing and screening.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil generation Nil	NA	

8b	Concurrent use or storage of topsoil	NA	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Broadly as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	NA	Area not matured for backfilling therefore only afforestation done on waste land.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	640 nos proposed	7912 nos actual done.	
8g	Survival rate	Not mentioned specifically	70% reported.	
8h	Water sprinkling on roads to control airborne dust	water sprinkling for dust suppression by water tanker proposed	Broadly done as per proposal.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			No adverse impact on aesthetic beauty in mines observed during mine visit.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly report to be submitted before the tenth day of every month in respect of the preceding month in electronic form along with a signed print copy of the same if it is not digitally signed, in the respective form & an annual return which shall be submitted before the 1st day of July each year for the preceding financial year in electronic form, along with a signed print copy of the same if it is not digitally signed, in the respective Form	Submitted within time.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes given	Shri Sachin Shankar Pradhan - Mining Engineer, Shri Umashankar Rajbhar - Manager, Shri Rajnikanta Nayak - Geologist	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	7.26 ha.- under current O/C working, 1.30 ha.-waste Disposal, 1.20 ha. - Infrastructure , 1.0 ha. for Mineral Stock.	Broadly as per actual.	Infrastructure broadly mobile crusher & screening unit.Mines office,Weigh bridge.
9d	Scrutiny of Annual return on afforestation	Yes given	1402 nos within lease area.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	yes given	33841 MT,Grade 54%Fe	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	Temporary stock.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The Gradewise lumps and fines are reported different Ex-mine price & sale value also dofferent for different client. Cost of production reported Rs 1928.69/-		
9h	Scrutiny of Annual return on fixed assets	Yes given	Rs1271244390/-	
9k	Scrutiny of Annual return on mining machineries	Yes given.	The of m/c back hoe,front end loader,Rock Drill,Dumper,water tanker.	

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)	12-DEC-23			
MCDR17	Rule 37(2)	12-DEC-23			

Date :

(RAJESH KUMAR DAS)

Indian Bureau of Mines