

MCDR-MiFLOCR/4/2023-BBS-IBM_RO_BBS
INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION

I/4286/2023

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-71/BBS

Mine code : 11ORI19029

- (i) Name of the Inspecting : VPD) VIKRAM DESHPANDE
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : S/Shri, Dibyendu Behera, Mines Manager, Rajkumar Gand
Official with
Designation
- (iv) Date of Inspection : 09/01/2023
- (v) Prev.inspection date : 08/09/2021

PART-I : GENERAL INFORMATION

1. (a) Mine Name : KAMARDA CHROMITE BLOCK
- (b) Registration NO. : IBM/5765/2011
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ORISSA
District : JAJPUR
Village : Kamarda
Taluka : Kaliapani
Post office : Kalarangiatta
Pin Code : 755028
FAX No. :
E-mail : pk.satija@tatasteelmining.
Phone : 06742551045
- (f) Police Station : Kaliapani
- (g) First opening date : 21/09/2020
- (h) Weekly day of rest : SUN
2. Address for : AT/PO: Kalarangatta
correspondance District: Jajpur
Odisha State
3. (a) Lease Number :
(b) Lease area :
(c) Period of lease :
(d) Date of Expiry :
4. Mineral worked : CHROMITE Main

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5. Name and Address of the

Lessee : TATA STEEL MINING LTD
SUKINDA JAJPUR ORISSA
Phone:
FAX :

Owner : Tata Steel Mining Limited
KALIAPANI JAJPUR ODISHA
JAJPUR ORISSA
Phone:
FAX :

Agent : Sushanta Kumar Mishra
AT/P.O: Kalaringatta
District: Jajpur JAJPUR
ORISSA
Phone: 9238087051
FAX :

Geologist

Name : Rajkumar Gandhi, Full Time
Qualification : Msc
Appointment/ :
Termination date

Manager

Name : Dibyendu Behera
Qualification : BTECH Mining
Appointment/ :
Termination date

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

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.
1b	Exploration over lease area for geological axis 1 or 2	15	15	Completed during financial year 2022.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Rs. 34,08,000	58,11,000, Tera Walker Company	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.
1e	Balance reserve as on 01/04/20	As per approved mining plan, Reserves and Resources(MT) as on 01/07/2020 111-1708860 211-5786	Reserves and Resources(MT) as on 01/04/2022 111-1593864 211-578610	Cr203 is of two grades Viz +40% and +10%-40%
1f	General remarks of inspecting officers on geology, exploration etc			This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	378163E-378512E 2329220N-2329540N	378163E-378512E 2329220N-2329540N	Carried out as per proposal during the reporting year i.e. 2021-22.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in over burden and ore.	Separate benches in over burden and ore.	
2c	Stripping ratio or ore to OB ratio	1:4.5	1:4.40	For the year 2021-22
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	358000	352151.74	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The lesee has carried out as within the proposal for the reporting year but could not achieved the proposed generation of overburden.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2Nos. (Pit 3&4)	2Nos. (Pit 3&4)	There are a total of 4 pits in the lease. Pit 1 and 2 was observed to be waterlogged during inspection.
3b	Quantity of ROM mineral production proposed	80307 tonnes	79998.122 tonnes	Year 2021-22
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	Carried out as per proposal

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3d	Quantity of mineral reject generation	Nil	Nil	Proposal for year 2021-22.
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	Not Applicable	10%-40% Cr2O3
3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	Not Applicable	Not Applicable	
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, as proposed	
3k	Provision of mining machineries in mineral benches	Yes	Yes, as proposed	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height-6m Width-10 to12m Same in Ore & OB	Height-6m Width-10 to12m Ore & OB	Same in
3m	Total area covered under excavation/pits	40.888 ha	36.16 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:4.5	1:4.40	

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3o	Total area put in use under different heads at the end of year	Mining-40.888 Ha Dumps-45.723 Ha Occupied by Plant, buildings, residential, welfare buildings & roads- 8.990 Ha Other purpose (Safety zone, Green belt etc.)-27.610 Ha	Mining-40.888 Ha Dumps-45.723 Ha Occupied by Plant, buildings, residential, welfare buildings & roads- 8.990 Ha Other purpose (Safety zone, Green belt etc.)-27.610 Ha	
3p	Production of ROM mineral during the last five year period as applicable	2020-21: 35070 Tonnes 2021-22: 80307 Tonnes Not applicable before that.	2020-21: 35070 Tonnes 2021-22: 80307 Tonnes Not applicable before that.	This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.
3q	General remarks of inspecting officers on method of mining etc.			This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020. Mining has been carried outy as per the proposals.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Only dump - F is proposed for OB disposal.	OB generated was disposed at dump - F.	
4b	Location of topsoil, OB and mineral reject dumps	For Overburden only.	OB generated was disposed at dump-F.	No topsoil generation.

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4c	Number of dumps within lease area and outside of lease area	5	5	All dumps are located within mining lease.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside UPL	Outside UPL	
4e	Number of active and alive dumps.	1	1	
4f	Number of dead dumps.	None	None	
4g	Number of dumps established.	None	None	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Yes, as per proposal	
4i	Length of Retaining wall or garland drain all along dumps	Retaining Wall:270 Garland Drain:270	Retaining Wall:270 Garland Drain:270	
4j	Number of settling ponds	3	3	
4k	Specific comments of inspecting officer on waste dump management			

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.	No such proposal	As proposed	
5b	Area under backfilling of mined out area	No such proposal	As per proposal	

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5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such Proposal	None	No topsoil generation
5d	Total area fully reclaimed and rehabilitated	No such proposal	None	Dump -C area of 5.789 Ha. is rehabilitated by plantation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			There was no proposal for backfilling and reclamation within the lease area during the reporting year.

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).	As per Rule 26(2) Annual PMCP report to be submitted before 1st day of July of Every Year	Submitted within the stipulated time period for the reporting year.	
6b	Area available for rehabilitation (ha) .	No such proposal	None	
6c	afforestation done (ha).	3.207	3.40 ha	Plantation carried out by the present lessee.
6d	No. of saplings planted during the year	5130	11883	Plantation carried out by present lessee.
6e	Cumulative no .of plants	5130	11883	Plantation carried out by present lessee.
6f	Any other method of rehabilitation	None	None	
6g	Cost incurred on watch and care during the year	None	Rs 11.2 Lakh	

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6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	None	None
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	None	None
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	None	None
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	None	None
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	None	None
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	3.207 ha	3.4 ha
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	None	None

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6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	None	None	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Periodical Monitoring as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB	Periodical Monitoring carried out at regular interval as stipulated in Environment Clearance granted by MoEF & CC and Consent to Operate granted by SPCB.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Cr203 above threshold value of 10% .	Cr203 above threshold value of 10% is used.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	Cr203 above threshold value of 10% .	Cr203 above threshold value of 10% is used.	
7d	Any beneficiation process at mines .	Blending.	Blending.	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise mechanised sorting and dispatch is being practiced within the lease area.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	None	None	No topsoil generation reported.
8b	Concurrent use or storage of topsoil	None	None	No topsoil generation reported.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for overburden	OB generated was disposed at dump-F.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	None	None	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	None	None	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)		92524 saplings were planted by the earlier lessee prior to auction. The present lessee has planted 11883 saplings.	

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8g	Survival rate	80%	70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to control the air borne dust.	Water sprinkling by mobile water sprinklers on roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The earlier lessee had carried out substantial plantation prior to auction and addition to which has been done by the present lessee. Regular water sprinkling is carried out hence minimising the dust suspension in air. These efforts have helped in mainintaing the aesthetic beauty in and around the mine.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual return by 31st June 2022 and monthly by 10th of succeeding month.	Annual return and Monthly returns have been submitted within the stipulated time frame.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		1. Shri Dibyendu Behera -Mines Manager and Mining Engineer 2. Shri Rajkumar Gandhi- Geologist.	Both the mines manager and geologists were present during the inspection.

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining-40.888 Ha Dumps-45.723 Ha Occupied by Plant, buildings, residential, welfare buildings & roads- 8.990 Ha Other purpose (Safety zone, Green belt etc.)-27.610 Ha	Mining-40.888 Ha Dumps-45.723 Ha Occupied by Plant, buildings, residential, welfare buildings & roads- 8.990 Ha Other purpose (Safety zone, Green belt etc.)-27.610 Ha	
9d	Scrutiny of Annual return on afforestation	3.207 ha	3.40 ha	Plantation carried out by the present lessee.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	None	Not Applicable	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	80307 Tonnes	79998.122 Tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production Cost per tonne: Rs 9926. Ex-mine price Fines below 40% Cr203: 6473.59	Production Cost per tonne: Rs 9926. Ex-mine price Fines below 40% Cr203: 6473.59	
9h	Scrutiny of Annual return on fixed assets	Rs. 220078007	Rs. 220078007	This mine is a auctioned block of 2020, the mine is opened on 06.11.2020 after execution on 26.06.2020.

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9k	Scrutiny of Annual return on mining machineries	Dozer-1 No. (187 HP)-2 Shovel (Hydraulic)-1 1.9 Cu.m-1 Shovel (Hydraulic)- 3.20 Cu.m-1 Water Tanker- 18000 Litre-1 Wheel Loader- 2.90 Cu.m-1 Tipper-18.00 Cu.m Pumps (Elec.)- 3300 Nos.-3 Electric Motor-120.0 HP-1 Electric Motor-2(40 HP)	Backhoe-2 Nos. (3.1 Cu.m -1 No. & 2.53 Cu.m -1 No.) Tippers-09 Nos. (18 Cu.m) Dozer-1 No. (200 HP) Grader-1 No. (196 HP) Wheel Loader - 1(1.8 Cu.m) Pumps (Elec.)- 3 Nos. (2500 L/MN-2 Nos. & 2833 L/MN-1 Nos.) Water Tanker-1 (18 Litre) Electric Motor-2(40 HP)
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed			Show cause position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on

Date :**(VIKRAM DESHPANDE)**

Indian Bureau of Mines