

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-6/BBS

Mine code : 11ORI19007

- (i) Name of the Inspecting : **K013**) **KEWAL KRISHAN**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Sri Prasanna Kumar Swain, Agent-cum- Regional Manager
Official with
Designation
- (iv) Date of Inspection : 07/04/2022
- (v) Prev.inspection date : 09/09/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SOUTH KALIAPANI**
- (b) **Registration NO.** : **IBM/4269/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : JAJPUR
- Village : KALIAPANI
- Taluka : SUKINDA
- Post office : KALIAPANI
- Pin Code :
- FAX No. : 06767-230367
- E-mail : info@orissamining.com
- Phone : 06726-268722
- (f) Police Station : Kaliapanio
- (g) First opening date : 06/10/1980
- (h) Weekly day of rest : SUN
2. Address for : SOUTH KALIAPANI CHROMITE MINE
correspondance AT/PO: KALIAPANI, DIST: JAJPUR
ORISSA
3. (a) Lease Number : ORI0236
- (b) Lease area : 552.46
- (c) Period of lease : 50
- (d) Date of Expiry : 21/01/2030
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : M/S Orissa Mining Corporation Ltd
P.O.NO.34 OMC House
Bhubaneswar KHURDA ORISSA
Phone:
FAX :

Owner : Sri R. Vineel Krishna
The Odisha Mining
Corporation Ltd. OMC House
Post Box 34 Bhubaneshwar
BHUBNESHWAR ORISSA
Phone: 0674-2393431
FAX : 0674-2391629

Agent : SHRI MANOJ PATI
JAJPUR ORISSA
Phone:
FAX :

Mining Engineer

Name : SHRI N SETHI, Full Time
Qualification : B E MINING
Appointment/ : 12/06/2019
Termination date

Geologist

Name : Sri Kali Charan Rath, Full Time
Qualification : M. Sc> Geology
Appointment/ :
Termination date

Manager

Name : KATHI PRADHAN
Qualification : BE(Mining)
Appointment/ : 14/06/2019
Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	21/02/2003
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	22/03/2007
	:	Mining Scheme rule 12 MCDR1988	22/03/2010
	:	Modif.approved Mining Scheme	22/08/2014
	:	Mining Scheme rule 12 MCDR1988	16/04/2015
	:	MP modif under 17(3) MCR 2016	13/02/2018
	:	MP review under 17(1) MCR 2016	20/11/2019

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	proposed during the year 2020-21, 16 no	drilled 14 nos	02 nos backlog of previous year
1b	Exploration over lease area for geological axis 1 or 2	14 nos of boreholes were proposed during the year 2021-22	17 nos of boreholes during the year.	total boreholes proposed from 2020-21 to 2021-22, 30 nos and drilled during the said period 31 nos.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	not specified	Odisha Mining Corporation Limited & Maheshwari Mining Pvt. Ltd 353.74 Lakh	
1d	Balance area to be explored to bring Geological axis in 1 or 2	66 nos of boreholes were proposed in approxi. 250 ha area, during the plan period 2020-21 to 2024-25 as per the approved document on 20.11.2019.	17 nos of boreholes were drilled during the year.	
1e	Balance reserve as on 01/04/20		reserves 5.99 MT and resources 5.35MT as on 1/4/2022	as per approved document on 12/5/22 the reserves/ resources as on 31/12/2021 are reserves 6.26MT& resources 5.35MT

2c	Stripping ratio or ore to OB ratio	1: 9 t/cum	1: 8.9 t/cum	
2d	Quantity of topsoil generation in m3	1,32,000	1,32074	
2e	Quantity of overburden generation in m3	10871000	88,87,533.49	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mine development is carried out by open cast mining with three pits.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	04 nos of pits are proposed	production carriedout in three pits only	
3b	Quantity of ROM mineral production proposed	10,00,000 MT	9,99,991.00 MT	
3c	Recovery of sailable/usable mineral from ROM production	7,00,000 MT	Saleable -886100 MT	Blending of 50,700 MT of MR/sub grade with high grade of 886100MT . Thus total saleable 936810MT.
3d	Quantity of mineral reject generation	3,00,000MT	113881 MT	out of 113881 MT produced ,50700MT blended with high grade.
3e	Grade of mineral rejects generation and threshold value declared.	10-40% (Cr2O3)	10-40% (Cr2O3)	
3f	Quantity of sub grade mineral generation.	same as mineral reject	same as mineral reject	

3g	Grade of sub grade mineral generation	10-40% (Cr2O3)	10-40% (Cr2O3)	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised and manual	mechanical and manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Proposed	not carried out because of non availability of tailing pond.	proposed for new beneficiation plant .
3j	Provision of drilling and blasting in mineral benches	drilling and blasting as proposed	drilling and blasting as proposed	
3k	Provision of mining machineries in mineral benches	shovel and Dumper combination is proposed	shovel and Dumper combination is deployed for excavation.	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	height of 6m and width 11m is proposed	broadly maintained as per proposal	
3m	Total area covered under excavation/pits	227.742 ha	183.65	at the end of plan period 2021-22
3n	Ore to OB ratio for the pit/mine during the year.	1: 9	1: 8.9	

3o	Total area put in use under different heads at the end of year	as per approved document dt.20.11.2019 total area put to use under different heads Area under Mining 227.742ha Overburden Dump 144.484ha Mineral storage & Mineral Reject ore storage 55.385ha Infrastructure (Workshop, Admn. Building ETP, COBP etc)34.1041ha Roads27.252ha Tailing pond 20.000ha	Area under Mining - 183.65ha Overburden dump- 140.4 Ha miineral storage- 24.46ha Infrastructure (workshop, Admin. Building - 9.276 5. ha Road - 12.17ha Tailing-20 ha
3p	Production of ROM mineral during the last five year period as applicable	2017-18= 832716 MT 2018-19 = 1391228 MT 2019-20= 1385751 MT 2020-21= 14,00,000 MT 2021- 22=10,00,000MT	2017-18 =755145 MT 2018-19 = 1050513 MT 2019-20 = 7,13,526 MT 2020-21= 965736 MT 2021-22=9,99,991 MT

3q	General remarks of inspecting officers on method of mining etc.	The method of mining is A category and is fully mechanised . The ROM production is carriedout by opencast mining methods .
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	seperate dumping of top soil,OB and mineral reject is proposed	seperate dumping of top soil,OB and mineral reject is proposed is envisaged
4b	Location of topsoil, OB and mineral reject dumps	Overburden- 2328750N to 2326500N 375750E to 373500E (144.48 Ha) Subgrade - Within the Mineral stored area	broadly as per proposal
4c	Number of dumps within lease area and outside of lease area	01 WD1	01 WD1
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	outside UPL	outside UPL
4e	Number of active and alive dumps.	01	as per the proposal
4f	Number of dead dumps.	no such proposal	no such proposal
4g	Number of dumps established.	no such proposal	no such proposal
4h	Whether Retaining wall or garland drain all along dumps are there.	proposed	broadly constructed as per proposal
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall 1300 Garland drain 1100	broadly constructed as per proposal
4j	Number of settling ponds	01	01
4k	Specific comments of inspecting officer on waste dump management		waste dump management is carried out as proposed.

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	no such proposal	
5b	Area under backfilling of mined out area	no such proposal	no such proposal	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	top soil is proposed for utilization for plantation	carried out	
5d	Total area fully reclaimed and rehabilitated	no such proposal	no such proposal	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		mineralization continue in the depth and pits are not matured, hence no backfilling is proposed.	

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).	to be submitted before Ist July	Submitted on 19.04.2022	
6b	Area available for rehabilitation (ha) .	no such proposal	not applicable	
6c	afforestation done (ha).	1 ha	broadly as per proposal	
6d	No. of saplings planted during the year	2500 nos	broadly as per proposal	
6e	Cumulative no .of plants	no specified	108659	

6f	Any other method of rehabilitation	no such proposal	no such proposal
6g	Cost incurred on watch and care during the year	Rs.5,00,000/-	Rs.81,14,600/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	no such proposal	not applicable
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	no such proposal	not applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	no such proposal	not applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	no such proposal	not applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	no such proposal	not applicable
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	no such proposal	no such proposal

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	no such proposal	no such proposal	
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)	periodical monitoring of environmental parameter are proposed in Buffer zone and Core zone.	carried out	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures are carried out as proposed.	PMCP measures are carried out as proposed.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade- wise Sorting	carried out	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanically	Mechanically	
7c	Different grade of mineral sorted out at mines.	+40% Cr2O3-saleable 10 to 40%Cr2O3 +40% Cr2O3	10 to 40%Cr2O3 +40% Cr2O3	

7d	Any beneficiation process at mines .	proposed	not carried out because of non availability of tailing pond.	proposed for new beneficiation plant .
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grdae wise sorting is carried out as proposed.	grdae wise sorting is carried out as proposed.

Environment :

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	seperate removal and utilization of top soil is proposed	seperate removal and utilization of top soil is carried out	
8b	Concurrent use or storage of topsoil	proposed	carried out	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps for overburden, waste rock, rejects and fines are proposaed	maintained	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	no such proposal	not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	plantation proposed on waste dump	broadly carried out	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	2500 nos proposed	5500 nos broadly	
8g	Survival rate		90%	90%
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads is proposed to control dust	Water sprinkling carried out on roads is control dust suppression.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		aesthetic beauty in and around mines area is maintained	aesthetic beauty in and around mines area is maintained

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule Monthly and Annual Returns are to be submitted to IBM	M.R Submitted up to Feb -2022 A. R for 2021-22 not due for submission. hence not submitted yet .	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022.	The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise.	

- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022. The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise
- 9d Scrutiny of Annual return on afforestation The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022. The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022. The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise
- 9f Scrutiny of Annual return on ROM stock and/or graded ore The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022. The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022.	The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise
9h	Scrutiny of Annual return on fixed assets	The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022.	The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise
9k	Scrutiny of Annual return on mining machineries	The annual return for the year 2021-22 was not due for submission as on date of inspection, which has to be submitted on or before Ist july of 2022.	The scrutiny of annual return for the year 2021-22 during the inspection doesnot arise

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 :

(KEWAL KRISHAN)

Indian Bureau of Mines