

MCDR INSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE

MINE CODE: 11ORI19008

Part-I : General

S. N.	Particulars	Details
1	Name of the Mine	Sukrangi Chromite Mines
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease area :- 382.709 Ha Forest Land:-267.210 Ha Non forest Land:-115.499 Ha.
3	Minecode	11ORI19008
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4269/2011
5	Name of the lessee, Address, phone, email and fax number	The Odisha Mining Corporation Ltd. (OMC House, Post Box No.34, Bhubaneswar-751001, India Telephone: 0674-2377400/2377401, Fax: 0674-2396889/2391629 E-mail: planningcellomc@gmail.com , info@orissamining.com , Website: www.omcltd.in
6	Village	Sukrangi
7	Taluka/Mandal	Sukinda
8	District	Jajpur
9	Pincode	755047
10	State	Odisha
11	Post office	Kaliapani
12	Nearest police station	Kaliapani P.S
13	Nearest Railway station	Tomka
14	Date of Grant of Mining Lease	20.09.1980
15	Date of Execution	05.08.1978
16	Date of opening of Mine	27.05.1985
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Date of second Renewal, if applicable and its period & expiry	Renewal on Dt. 08.01.2020 valid up to 19.09.2030 (in terms of Rule 3(1) of minerals (Mining by Govt. company) rules 2015
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	19.09.1999
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Sri. Balwant Singh (IAS) Managing Director & Nominated Owner OMC House, Post Box No.34, Bhubaneswar-751001, Odisha Telephone: 0674-2377400/2377401, Fax: 0674-2396889/2391629
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Sri Ashish Kumar Samantray, Regional Manager, Regional Office, JK Road Region, Odisha Mining Corporation Ltd., Mob-9937297144
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Sri Manoj Kumar Sethy, Mines Manager Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha. Mob – 9437883572 Date of appointment – 31.03.2023
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Sri Tusar Kanta Pradhan, B Tech in Mining Engg. Total Experience – 9 yrs

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		Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha. Mob -9692107963 Date of appointment – 14.01.2022
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Srimati Jharana Naik M. Sc Geology Sukrangi Chromite Mines Odisha Mining Corporation Ltd. Kaliapani, Jajpur, Odisha Date of appointment – 19.05.2021
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	YES
26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	23.01.2019
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	23.01.2019 (Review of Mining Plan)
28	Mineral(s) granted in lease and proved for mining	Chromite
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	FM (Fully mechanized)
31	Captive/Non Captive	Non Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

Exploration

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
1a	Backlog of previous year	No Proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	G1: 103.96 Ha G2: 10.4 Ha G3: 9.7 Ha	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposal	Not Applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	G1: 10.4Ha G2: 9.7Ha	
1e	Balance reserves as per latest approved document	As per approved Review of Mining Plan	6062041 Tonne	As on 31.03.2023
1f	General remarks of inspecting officer on geology, exploration etc.			

Development

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	-615E to 610E, -100N to 395N	-530E TO 585E -90N to 340N	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Separate benches in overburden and mineral were proposed	As per proposal	No topsoil bench
2c	Stripping ratio or ore to OB ratio	5.93	6.39	
2d	Quantity of topsoil generation in m3	63099.52 Cum.	4850.00 Cum.	Utilized in Waste dump-5 for plantation
2e	Quantity of overburden generation	1781589 Cum.	448456.42 Cum.	

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	in m3		
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc	Less production of ROM causing less overburden generation.	

Exploitation

S. N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	01	01	ACDE
3b	Quantity of ROM mineral production proposed (MT)	299615 Tonne	70,195 Tonne	Due to failure of Mine Operator (MO) the target could not be achieved according to the mining plan. MO was terminated and hence work stopped. Letter of Award (LoA) was given to new MO after tendering process is completed.
3c	Recovery of salable/usable mineral from ROM production		Saleable: 22042.59 Tonne Mineral Reject: 14158.71 Tonne	
3d	Quantity of mineral reject generation MT	91958.42 Tonne	14158.71Tonne	Due to less production of ROM
3e	Grade of mineral reject generation and threshold value declared	10-40% Cr2O3 & 10 % Cr2O3	10-40% Cr2O3 & 10 % Cr2O3	Cutoff grade: 40% Cr2O3
3f	Quantity of sub-grade mineral generation MT	91958.42 Tonne	14158.71 Tonne	Due to less production of ROM
3g	Grade of sub-grade mineral generation	10-40% Cr2O3	31.60 % Cr2O3	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No proposal	Nil	
3j	Provision of drilling & blasting in mineral benches	drilling & blasting in mineral benches is prosed	Carried out as per proposal	
3k	Provision of mining machineries in mineral benches	Proposed	as per proposal	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m. bench height was proposed	Not carried out as per proposal	Violation letter issued
3m	Total area covered under excavation/pits	39.35 Ha	31.90Ha	
3n	Ore to OB ratio for the pit/mine during the year	1:5.93	1:6.39	
3o	Total area put in use under different heads at the end of year	Pit : 31.90Ha waste disposal: 33.12Ha Infra., Roads etc.: 13.865Ha	Pit : 31.90Ha waste disposal: 33.12Ha Infra., Roads etc.: 13.865Ha	

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		Mineral Storage: 16.07Ha	Mineral Storage: 16.07Ha	
3p	Production of ROM mineral (MT) during last six-year period, as applicable 2018-19 2019-20 2020-21 2021-22 2022-23	130000.000 299293.000 299894.000 299229.000 299615.000	126999.070 121143.000 126999.610 163764.000 70195.000	
3q	General remarks of inspecting officer on method of	Violation letter was issued under rule 11(1) of MCDR, 2017		

Solid Waste management-Dumping

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	Topsoil: Nil OB: Yes Mineral Reject: Yes	Topsoil: Nil OB: Yes Mineral Reject: Yes	
4b	Location of topsoil, OB & mineral reject dumps	OB: -750E to -125E 997N to 1710N Mineral Reject: 108E TO 461E 391 N TO 518 N	OB: -621E TO -188E 1175N TO 1540 N Mineral Reject: 108 E TO 461 E 380N TO 515 N	
4c	Number of dumps within lease area and outside lease area	Within lease area:5 Outside lease area: Nil	Within lease area:5 Outside lease area: Nil	
4d	Location of dumps w.r.t. ultimate pit limit	1. WD1: -780E to -90E -90N to -400N 2. OB Dump 1: 480E to 650E 325N to 550N 3. OB Dump 3: 280E to 430E -20N to -150N 4. WD4: 30E to 623E -642N to -450N 5. WD5: -621E to -191E 1175N to 1540N	1. WD1: -780E to -90E -90N to -400N 2. OB Dump 1: 480E to 650E 325N to 550N 3. OB Dump 3: 280E to 430E -20N to -150N 4. WD4: 30E to 623E -642N to -450N 5. WD5: -621E to -191E 1175N to 1540N	
4e	Number of active & alive dumps	1 (WD5)	1 (WD5)	
4f	Number of dead dumps	4	4	
4g	Number of dumps stabilized	4	4	
4h	Whether Retaining wall or garland drain all along dumps are there	Maintenance Proposed	Maintained	

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4i	Length of Retaining wall or garland drain all along dump	Maintenance Proposed	Maintained	
4j	Number of settling ponds	Maintenance Proposed	Maintained	
4k	Specific comments of inspecting officer on waste dump management			

Solid Waste management-Backfilling

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
5a	Status on 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 mined out area (Rule 36)	No proposal	NIL	
5d	Total area fully reclaimed & rehabilitated	No proposal	NIL	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Pits are not matured for backfilling, reclamation etc.		

Progressive Mine Closure Plan

S. N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	Proposed	Submitted in time	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	No proposal	NIL	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	No proposal	NIL	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	No proposal	NIL	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proposed	Quarterly report on Environmental monitoring	

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			received	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations			

Mineral Conservation

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting and dispatch	1. Below 40% Cr2O3: 55306.64 MT 2. 40% to below 52% Cr2O3: 85483.22 MT 3. 52% Cr2O3 and above: 3014.63 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	mechanical	mechanical	
7c	Different grade of mineral sorted out at mines	Grade wise sorting	1. Below 40% Cr2O3: 14158.71 MT 2. 40% to below 52% Cr2O3: 21704.18MT 3. 52% Cr2O3 and above: 338.41 MT	
7d	Any beneficiation process at mines	No Proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No beneficiation process was proposed.		

Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	No proposal	4850m3	
8b	Concurrent use or storage of topsoil	No proposal	4850m3	Utilization in WD5 for Plantation
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Proposed	As per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Nil	
8f	Baseline information on existence of plantation & additional Plantation done	No proposal	Nil	
8g	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust	Through movable water sprinkler	
8h	General remarks of inspecting officer on aesthetic			

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beauty in and around mines area			
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Compliance of Rule 45

S.N.	Item	Details given in A.R. for the year 2022-23	Observation of I/Officer	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to <u>June 2023</u> A.R. Submitted up to <u>FY 2022-23</u>		
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri Manoj K Sethy (Mines Manager) Sri Tusar K Pradhan (ME) Srimati Jharana Naik (Geologist)	Found in order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits: 31.90Ha Reclaimed area: NIL Dumps: 33.12 Ha Plant, buildings, residential, roads etc.: 13.865 Ha Mineral Storage: 16.07Ha	Found in order	
9d	Scrutiny of Annual return on afforestation	3200 saplings (2Ha)	Found in order	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Above 10 % Below 40% Cr2O3: 14158.71 MT	Found in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: 33993.7 MT <40% : 337081.919 40-52%: 17846.041 MT >52%: 729.446 MT	Found in order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value: 1,55,31,32,788/- Ex. Mine price: <40%: 5331.84/- 40-52%: 14082.54/- >52%: 18053.91/- Prod Cost: Rs. 8988/ MT	Found in order	
9i	Scrutiny of Annual return on fixed assets	7,25,18,294.70 /-	ok	
9k	Scrutiny of Annual return on mining machineries	Shovel (hydraulic): 3 Nos. Tipper: 15 Nos., Dozer: 1 No., Grader: 1 No. Water tanker: 1 No.	Found in order	

Details of violations observed during current inspection and compliance position of violation pointed out	
Violation observed	Show cause position

MCDR-MiFLOCR/12/2023-BBS-IBM_RO_BBS

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Rule No.	Issued on	Compliance on	Rule No.	Issued on	Compliance on
11(1) of MCDR, 2017	14.07.2023				
12(4) of MCDR, 2017	14.07.2023				

Date : 24.07.2023

(Rajani Kanta Rautaray)
INDIAN BUREAU OF MINES