

MCDR INSPECTION REPORT
BHUBANESWAR REGIONAL OFFICE

MINE CODE: 11ORI19014

Part-I : General

Sl. N.	Particulars	Details
1	Name of the Mine	Sukinda Mines (Chromite)
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total Lease Area- 116.760 Ha, Forest- 115.05 Ha, Non-forest- 1.71 Ha
3	Minecode	11ORI19014
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/4200/2011
5	Name of the lessee, Address, phone, email and fax number	M/s Indian Metals & Ferro Alloys Ltd. At- Bomikhal, PO- Rasulgarh Bhubaneswar- 10 Phone No.- 06742580100 Email- minesplanningcell@imfa.in
6	Village	Kaliapani
7	Taluka/Mandal	Sukinda
8	District	Jajpur.
9	Pincode	755047.
10	State	Odisha.
11	Post office	Kaliapani
12	Nearest police station	Kaliapani
13	Nearest Railway station	J K Road
14	Date of Grant of Mining Lease	17.08.1999
15	Date of Execution	04.09.1999
16	Date of opening of Mine	15 th September 1999
17	Date of first Renewal, if applicable and its period & expiry	NA
18	Date of second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. C R Ray IMFA Building At/Po - Bomikhal, Rasulgarh,BBSR. District: Khurda, State: Odisha, Pin code: 751010 Phone: (0674) 2580100/125, Fax: (0674) 2580020 Email id: crray@imfa.in
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Mr Lalatendu Mahapatra, At- Kaliapani, PO- kaliapani Via – Sukinda, Dist – Jajpur, 755047 Phone No.- 06742580100 Email- lalatendumahapatra@imfa.in Date of Appointment-24/01/2022
22	Name of the Mines Manager with Address, phone, email, fax number	Mr. J. Patra, First class Mines Manager certificate of

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	and date of appointment in mines	competency (R) Kaliapani, Jajpur, 755047 Mob.9937297143, Email- jalandharpatra@imfa.in Date of appointment: -01/04/2022
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. Jalandhar, DGM-Mining M.Tech in Mining Eng. Kaliapani, Jajpur, 755047 Experience-18Years Mob- 9937297143, Email-- jalandharpatra@imfa.in Date of appointment: -01/04/2022, Full Time
24	Name of the Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Mr. H S Sahoo, Geologist M.Phil in Geology, Date of appointment: -16.11.2010 Full Time
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.	1 st MP Dtd: 18.11.1999, Period- 1999-00 to 2003-04 1 st Mod MP: Dtd: 18.10.2002, Period- 2002-03 to 2003-04
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	1 st MS: Dtd: 25.06.2004, Period- 2004-05 to 2008-09 1 st Mod of 1 st MS:Dtd: 06.05.2005, Period- 2004-05 to 2008-09 2 nd Mod of 1 st MS: Dtd: 14.06.2007, Period- 2004-05 to 2008-09 2 nd MS: Dtd: 01.01.2010, Period- 2009-10 to 2013-14 1 st Mod to 2 nd MS:, Dtd: 14.09.2012, Period- 2012-13 to 2013-14 3 rd MS: Dtd: 31.07.2013, Period-2014-15 to 2018-19 1 st Mod to 3 rd MS: , Dtd: 23.09.16, Period- 2016-17 to 2018-19 2 nd Mod to 3 rd MS: MPM/FM/25-ORI/BHU/2017-18/2815 Dtd: 14.02.2018 4 th RMP : MS/FM/27-ORI/BHU/2018-19/1796 Dtd: 31.10.2018 1 st Mod:MRMP/A/40-ORI/BHU/2020-21 Dated 13.01.2021 2 nd MRMP/A/40-ORI/BHU/2021-22 Dated 05.04.2022
28	Mineral(s) granted in lease and proved for mining	Chromite
29	Method of Mining(Opencast, Underground)	Opencast.

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30	Category (Fully Mechanised, Others or Manual)	A – Fully Mechanized.
31	Captive/Non Captive	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	Nil	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	G146.76Ha. G2-70.00Ha. 7nos.	G146.76Ha. G2-70.00Ha. 28 Nos	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Maheshwari Mining Private Ltd.	51615068/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	G146.76Ha, G2-70.00Ha	Not applicable	
1e	Balance reserves as on 01.04.2023		115.96 Lakh MT	
1f	General remarks of inspecting officer on geology, exploration etc.	Mineralized potential area has been explored as per statute.		

Development

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	Band I Quarry Band II Quarry	Band I Quarry Band II Quarry	
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	150 mRL,142 mRL	150 mRL,142 mRL	
2c	Stripping ratio or ore to OB ratio	01:03.10	01:03.74	
2d	Quantity of topsoil generation in m3	6048	6048	
2e	Quantity of overburden generation in m3	1000000	1050000	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc			

Exploitation

S.N.	Item	Proposals for 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	1	1	
3b	Quantity of ROM mineral production proposed	310000	280611	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	

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3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral reject generation and threshold value declared	No proposal	Nil	
3f	Quantity of sub-grade mineral generation	No proposal	Nil	
3g	Grade of sub-grade mineral generation	No proposal	Nil	
3h	Manual / Mechanized method adopted for segregating from ROM	Mech.	Mech.	
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	115 mm diameter Drilling in staggered pattern and controlled blasting	115 mm diameter Drilling in staggered pattern and controlled blasting has been practiced.	
3k	Provision of mining machinery in mineral benches	Excavator-5 no Dumper-26 no Drill Machine- 2 no Dozer-3 no Grader- 1 no Front end Loader- 2 Water Tanker- 6	Excavator-5 no Dumper-26 no Drill Machine- 2 no Dozer-3 no Grader- 1 no Front end Loader- 2 Water Tanker- 6	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	8 m	8 m	
3m	Total area covered under excavation/pits	33.298	33.298	
3n	Ore to OB ratio for the pit/mine during the year	01:03.10	01:03.74	
3o	Total area put in use under different heads at the end of year	Area Under Mining- 33.298 Overburden & Sub grade Dump - 51.497 Mineral Stores- 4.469 Infrastructure-	Area Under Mining- 33.298 Overburden & Sub grade Dump - 51.497 Mineral Stores-	

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		12.378 Road- 4.160 ETP- 5.660 Township- 1.05 Safety Zone- 4.138 Magazine- 0.110	4.469 Infrastructure - 12.378 Road- 4.160 ETP- 5.660 Township- 1.05 Safety Zone- 4.138 Magazine- 0.110	
3p	Production of ROM mineral during last five year period, as applicable	2018-19=351000 MT 2019-20=351000 MT 2020-21=280000 MT 2021-22=351000 MT 2022-23=310000 MT	2018- 19=341003 MT 2019- 20=320141 MT 2020- 21=266493 MT 2021- 22=256659 MT 2022- 23=280611 MT	
3q	General remarks of inspecting officer			

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)	Top soil- No Overburden- Yes Mineral Reject - No	Top soil- 6048 MT Overburden- Yes Mineral Reject - No	No generation of top soil & mineral reject.
4b	Location of topsoil, OB & mineral reject dumps	Top soil- NA Overburden- E2055 N1945, E3165 N2304 Mineral Reject - NA	Top soil- NA Overburden- E2055 N1945, E3165 N2304 Mineral Reject - NA	
4c	Number of dumps within lease area and outside lease area	Within Lease- One	Within Lease- One	

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		Outside Lease- Nil	Outside Lease- Nil	
4d	Location of dumps w.r.t. ultimate pit limit	E2055/N1945 to E3165/N2304	E2055/N1945 to E3165/N2304	
4e	Number of active & alive dumps	One	One	
4f	Number of dead dumps	No proposal	Nil	
4g	Number of dumps stabilised	Partly active dump,E2249,N17 55 E2556N1999.	Partly active dump,E2249, N1755 E2556N1999.	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Yes	
4i	Length of Retaining wall or garland drain all along dump	Retaining wall - Nil Garland drain – Repair & maintenance	Retaining wall –Nil Garland drain – Maintained	
4j	Number of settling ponds	Maintenance	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			

Progressive Mine Closure Plan

N.	Item	Proposals for, 2022-2023	Actual work during 2022-23	Remark
6a	Whether Annual report on PMCP submitted on time and	Before 1 st of July, 2021-22	Submitted vide letter no	

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	correctly - Rule 26(2).		IMFA/SMC/2 1/560 Dt- 27.06.2022	
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	i) Rehabilitation of Dump slope-1.10 ha ii) 1.10 iii) 2750 No proposal vi) 7.56 Lakhs	i) Rehabilitation of Dump slope-1.10 ha ii) 1.10 iii) 2820 iv) 85349 Nil vi) 13.47 Lakhs	
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	i)No Proposal ii) No Proposal iii) No Proposal iv) No Proposal	i)Nil ii)Nil iii)Nil iii)Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i)2750 ii)1.10 iii)Plantation	i)2820 ii)1.10 iii)Plantation	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly monitoring of AAQ,Water Quality and Noise level through a recognized Environmental consultant	Quarterly monitoring of AAQ,Water Quality and Noise level are being carried out through a recognized Environmental consultant, M/S Sophisticated Industrial Analytic Labs. Pvt. Ltd.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations			

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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	<u>Grade</u> <u>Dispatch (Captive Plant)</u> 52% & above Fines – 129362.900 MT 40 to 51.99% Fines - 88575.100 MT 30 to 39.99% Fines - 56516.250 MT Below 30% Fines - 0.00 40 to 51.99% Lumps - 0.000 30 to 39.99% Lumps - 2405.200 MT		
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines	Below 40% , 40% to below 52% and Above 52%	Below 40% , 40% to below 52% and Above 52%	
7d	Any beneficiation process at mines	No Proposal	No Proposal	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues			

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	No Proposal	
8b	Concurrent use or storage of topsoil	No Proposal	No Proposal	
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	No Proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Reclamation of Pits, dumps etc - Nil Rehabilitation of Pit – Nil Rehabilitation of	Reclamation of Pits, dumps etc - Nil Rehabilitation of Pit – Nil Rehabilitation	

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		dump-Planting of 2750 nos of plants covering an area of 1.1 ha.	of dump-Planted of 2820 nos of plants covering an area of 1.1 ha.	
8f	Baseline information on existence of plantation & additional Plantation done	As per approved Review of mining plan	Plantation done as per approved Review of mining plan.	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road by mobile water tanker to control airborne dust.	Being done by 4 no. of water sprinkler and Sprinkling mobile mist canyon.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Besides plantation has also been carried out at outside of the lease area. Till 2022-23, total 85349 nos of plants have been planted over lease area covering an area of 27.76 ha. Similarly till 2022-23, total 15357 nos of plants have been planted at outside of lease area covering an area of 8.30 ha.		

Compliance of Rule 45

S. N.	Item	Details given in A.R. for the year 2021-22	Observation of I/ Officer	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to June 2023 A.R. Submitted upto 2022-23	Submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	ME - Mr J Patra Geologist- Mr H S Sahoo Mines Manager - Mr J Patra	ME- Mr Mr J Patra Geologist- Mr H S Sahoo Mines Manager-Mr J Patra	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	<u>Land Use</u> <u>Area in Hect.</u> Area Under Mining- 33.298 Overburden & Sub grade Dump - 51.497 Mineral Stores- 4.469 Infrastructure- 12.378 ETP- 5.660 <p style="text-align: right;">Total-</p> 116.76		
9d	Scrutiny of Annual return on afforestation	2750 in 1.10 Ha	2820 in 1.10 Ha	

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9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	310000 MT	280611 MT	Balance ROM Stock-718 MT, Balance Graded Ore-13850MT
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex mines price : 7156.24	Ex mines price : 7156.24	
9i	Scrutiny of Annual return on fixed assets	Rs.830713814/-	Rs.830713814/-	
9k	Scrutiny of Annual return on mining machinery	Excavator-5 no Dumper-29 no Drill Machine- 2 no Dozer-3 no Grader- 1 no	Excavator-5 no Dumper-25 no Drill Machine- 2 no Dozer-3 no Grader- 1 no	

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

NIL

Date : 14.07.2023

(Rajani Kanta Rautaray)
INDIAN BUREAU OF MINES