

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/CR/JJP/MCDR-13/BBS

Mine code : 11ORI19013

- (i) Name of the Inspecting : **SKM1**) **SANJIB KUMAR MOHAPATRA**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sri Tarini Prasad Mohanty, Agent cum Geologist
Official with
Designation
- (iv) Date of Inspection : 27/04/2022
- (v) Prev.inspection date : 04/01/2021

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KALIAPANI**
- (b) **Registration NO.** : **62**
- (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 : 755047
- FAX No. : 06726-224384
- E-mail : ialmines@yahoo.com
- Phone : 06726-268297,98,224274
- (f) Police Station :
- (g) First opening date : 14/09/2000
- (h) Weekly day of rest : SUN
2. Address for : VILL & PO: KALIAPANI
correspondance POLICE STATION : TOMKA
DIST: JAJPUR, PIN: 755 047, ORISSA
3. (a) Lease Number : ORI0745
- (b) Lease area : 64.46
- (c) Period of lease : 30
- (d) Date of Expiry : 16/07/2030
4. Mineral worked : CHROMITE Main

5. Name and Address of the

Lessee : M/S BALASORE ALLOYS LTD.
BALAGOPALPUR - 756020
BALASORE ORISSA BALASORE
ORISSA
Phone:06782-275780
FAX :06782-27524, 275786

Owner : SANTANU MOHAPATRA
C-66 ,PALASAPALLI
BHUBANESWAR-20 BHUBNESHWAR
ORISSA
Phone:
FAX :

Agent : Tarini Prasad Mohanty
At/ po-kaliapani Teh-
sukinda Dist-Jajpur JAJPUR
ORISSA
Phone: 06782275781
FAX : 06782275781

Mining Engineer

Name : P K Mohapatra,Full Time
Qualification : B.E (mining)
Appointment/ : 16/01/2004
Termination date

Geologist

Name : PREM PRAKASH,Part Time
Qualification : M.Sc (GEOLOGY)
Appointment/ : 14/09/2000
Termination date

Manager

Name : Amarnath Dhar
Qualification : Diploma in Mining & 1st class Manager Ce
Appointment/ : 16/05/2016
Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	20/04/2000
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	10/09/2004
	:	Mining Scheme rule 12 MCDR1988	15/12/2005
	:	Modif.approved Mining Scheme	25/11/2008
	:	Mining Scheme rule 12 MCDR1988	18/05/2010
	:	Modif.approved Mining Scheme	25/07/2014
	:	Mining Scheme rule 12 MCDR1988	27/03/2015
	:	Modif.approved Mining Scheme	07/02/2019
	:	MP review under 17(1) MCR 2016	07/01/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2 Nos of bore hole	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
1b	Exploration over lease area for geological axis 1 or 2	2 no of core boreholes	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.

1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	NA	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
1d	Balance area to be explored to bring Geological axis in 1 or 2	21.290 Ha	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
1e	Balance reserve as on 01/04/20		25626169 tonnes of chromite ore as on 01.04.2022 (based on the revised resrve calculation in the draft modification review of mining plan)	25626169 tonnes of chromite ore as on 01.04.2022 (based on the revised resrve calculation in the draft modification review of mining plan)

1f	General remarks of inspecting officers on geology, exploration etc	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals. A total of 25626169 tonnes of chromite ore as on 01.04.2022 (based on the revised resrve calculation in the draft modification review of mining plan).	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploration could not be executed. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals. A total of 25626169 tonnes of chromite ore as on 01.04.2022 (based on the revised resrve calculation in the draft modification review of mining plan).
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	2326000N-2326500N / 371850E-372400E	2326000N-2326500N / 371850E-372400E	2326000N-2326500N / 371850E-372400E
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	OB-22 Ore-4	OB-22 Ore-4	OB-22 Ore-4
2c	Stripping ratio or ore to OB ratio	1:0.765	1:1.033	As the production of ROM during the reporting year is less, according the there is a deviation in stripping ratio.

2d	Quantity of topsoil generation in m3	Nil	Nil	Generation of topsoil was nil during the reporting year.
2e	Quantity of overburden generation in m3	365099 tons	17944 tons	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed development could not be carried out. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed development could not be carried out. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed development could not be carried out. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	One

3b	Quantity of ROM mineral production proposed	279344 tons	18540 tons	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed production could not be carried out. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
3c	Recovery of sailable/usable mineral from ROM production	235524 tons	18540 tons	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed production could not be carried out. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.

3d	Quantity of mineral reject generation	43820 tons	Nil	The mine was temporary discontinued from October 2020 and reopened on 17.11.2021, hence the proposed production could not be carried out. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
3e	Grade of mineral rejects generation and threshold value declared.	+10%-40% Cr2O3	+10%-40% Cr2O3	+10%-40% Cr2O3
3f	Quantity of sub grade mineral generation.	Nil	Nil	Nil
3g	Grade of sub grade mineral generation	Nil	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	Mechanized
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting is proposed.	Drilling and blasting is carried out.	Drilling and blasting is carried out.
3k	Provision of mining machineries in mineral benches	Excavator & Dumper Combination & road header	Excavator & Dumper Combination.	Excavator & Dumper Combination.

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height and width of the benches will be kept at 8m and 8m respectively.	Height and width of the benches more or less kept at 8m and 8m respectively.	Height and width of the benches more or less kept at 8m and 8m respectively.
3m	Total area covered under excavation/pits	20.625 Ha. upto the end of romp period	20.130 ha. till the end of the reporting year.	20.130 ha. till the end of the reporting year.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.765	1:1.033	As the production of ROM during the reporting year is less, according the there is a deviation in stripping ratio.
3o	Total area put in use under different heads at the end of year	Total are proposed under different head during the Romp periodd is 64.463 Ha	Total are proposed under different head during the reporting year is 61.992 Ha	Total are proposed under different head during the reporting year is 61.992 Ha
3p	Production of ROM mineral during the last five year period as applicable	2017- 2018:518578MT 2018- 2019:253407 MT 2018- 2019:253407MT 2019- 2020:774239MT 2020-2021:- 3808267 MT 2021-2022:- 279344 MT	2017-2018:-242916 MT 2018-2019:-209595 MT 2019-2020:-189313 MT 2020-2021:-053044 MT 2021-2022:- 018540 MT G.TOTAL:-713408 MT	2017-2018:-242916 MT 2018-2019:-209595 MT 2019-2020:-189313 MT 2020-2021:-053044 MT 2021-2022:- 018540 MT G.TOTAL:-713408 MT

3q	General remarks of inspecting officers on method of mining etc.	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploitation could not be carried out during the reporting year. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed exploitation could not be carried out during the reporting year. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
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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)	Separate dumping of topsoil, OB, and mineral reject was proposed.	Separate dumping of topsoil, OB, and mineral reject is being praticesed.	Separate dumping of topsoil, OB, and mineral reject is being praticesed.
4b	Location of topsoil, OB and mineral reject dumps	Dump1,X-495 & Y-1070 Dump-2 X-1110 & Y-990 Dump-3,X-1200 & Y-200 MR -X -1300.Y-950	Dump1,X-495 & Y-1070 Dump-2 X-1110 & Y-990 Dump-3,X-1200 & Y-200 MR -X -1300.Y-950	Dump1,X-495 & Y-1070 Dump-2 X-1110 & Y-990 Dump-3,X-1200 & Y-200 MR -X -1300.Y-950
4c	Number of dumps within lease area and outside of lease area	03 Nos dump existing within the lease area.	03 Nos dump existing within the lease area.	03 Nos dump existing within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All 3 dumps are out side of UPL.	All 3 dumps are out side of UPL.	All 3 dumps are out side of UPL.
4e	Number of active and alive dumps.	03 Nos.	03 Nos.	03 Nos.

4f	Number of dead dumps.	Nil	Nil	Nil
4g	Number of dumps established.	Nil	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 15m 380m × 1m × 2m 116m × 2m × 1m 150m × 1m × 5m 380m × 1m × 2m 150m × 1m × 5m Already exists.	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 380m × 1m × 2m 150m × 1m × 5m	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 380m × 1m × 2m 150m × 1m × 5m
4i	Length of Retaining wall or garland drain all along dumps	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 15m 380m × 1m × 2m 116m × 2m × 1m 150m × 1m × 5m 380m × 1m × 2m 150m × 1m × 5m already exists.	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 380m × 1m × 2m 150m × 1m × 5m	Yes, 1006 mtrs. 360m × 20m × 15m 116m × 2m × 1m 380m × 1m × 2m 150m × 1m × 5m
4j	Number of settling ponds	Nil	04 Nos.	04 Nos.
4k	Specific comments of inspecting officer on waste dump management		03 nos. of waste dump exist within the lease area and about 1006m of retaining wall already exist within the lease area. out of the 1006 mtr, about 360 of gabion waal already exist around the Dump-1 of the lease area.	03 nos. of waste dump exist within the lease area and about 1006m of retaining wall already exist within the lease area. out of the 1006 mtr, about 360 of gabion waal already exist around the Dump-1 of the lease area.

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.	Nil	Nil	No proposal of backfilling within the reporting year.

5b	Area under backfilling of mined out area	Nil	Nil	No proposal of backfilling within the reporting year.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Nil	Nil	No proposal of backfilling & generation of topsoil within the reporting year.
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	No proposal of reclamation and rehabilitation within the reporting year.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		As the chromite is deposit of this region is a vertical band ore body and extended upto a very deep depth, reclamation and rehabilitation of the mined out area is not possible at this stage within the lease area.	As the chromite is deposit of this region is a vertical band ore body and extended upto a very deep depth, reclamation and rehabilitation of the mined out area is not possible at this stage within the lease area.

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.	As per Rule 26(2) Annual PMCP report of 2021-22 yet to be submitted.	As per Rule 26(2) Annual PMCP report of 2021-22 yet to be submitted.
6b	Area available for rehabilitation (ha) .	Nil	Nil	Nil

6c	afforestation done (ha).	Nil	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed afforestation could not be carried out. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
6d	No. of saplings planted during the year	Nil	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed afforestation could not be carried out. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
6e	Cumulative no .of plants		90540 nos of sapplings	90540 nos of sapplings
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Nil	Nil	Nil

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Nil

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	Nil	The mine was temporary discontinues from October 2020 and reopened on 17.11.2021, hence the proposed afforestation could not be carried out. However the lesee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Air, Noise and Water quality monitoring will be done during the year within the lease area.	Air, Noise and Water quality monitoring carried out as per the proposal during the reporting year.	Air, Noise and Water quality monitoring carried out as per the proposal during the reporting year.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	This mine is not matured for reclamation and rehabilitation during the reporting year. The mine was temporary discontinued from October 2020 and reopened on 17.11.2021, hence the proposed afforestation could not be carried out. The lessee has carried out environmental monitoring as per the proposal during the reporting year. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.	This mine is not matured for reclamation and rehabilitation during the reporting year. The mine was temporary discontinued from October 2020 and reopened on 17.11.2021, hence the proposed afforestation could not be carried out. The lessee has carried out environmental monitoring as per the proposal during the reporting year. However the lessee has submitted a draft modification of review of mining plan to this office on 20.04.2022 with fresh proposals.
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are to be sorted within lease hold area.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	

7c	Different grade of mineral sorted out at mines.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are to be sorted within lease hold area.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area.
7d	Any beneficiation process at mines .	Yes	COB plant is exist within the lease area and wet beneficiation is being praticed.	COB plant is exist within the lease area and wet beneficiation is being praticed.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area and wet beneficiation is being praticed to enhance the grade of crome ore from mineral rejects generated from the mine.	+52% cr2o3 40-52% cr2o3 below 40% cr203 grade are sorted within lease hold area and wet beneficiation is being praticed to enhance the grade of crome ore from mineral rejects generated from the mine.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Nil	Nil	No generation of top soil during the reporting year.
8b	Concurrent use or storage of topsoil	Nil	Nil	No generation of top soil during the reporting year. Hence question of use or storage will not arise.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste, rejects and fines are [proposed.	Separate dumping of waste, rejects and fines are being praticed.	Separate dumping of waste, rejects and fines are being praticed.

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	No such proposal during thereporting year.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	No such proposal during thereporting year.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Nil	200 Sapplings planted during the reporting year.	200 Sapplings planted during the reporting year.
8g	Survival rate	Nil	73%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on hual roads proposed by using 02 Nos of 20KL water tanker.	Water sprinkling on hual roads are carried out by using 02 Nos of 20KL water tanker.	Water sprinkling on hual roads are carried out by using 02 Nos of 20KL water tanker.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly return for the month of March has been submitted. Annual return for FY 2021-22 yet to be submitted.	A show cause letter vide dated 18.04.2022 issued based on the office record for delay submission of monthly returns online.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		Annual return for Fy 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		Annual return for Fy 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9d	Scrutiny of Annual return on afforestation		Annual return for Fy 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		Annual return for Fy 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Annual return for FY 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Annual return for FY 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9h	Scrutiny of Annual return on fixed assets	Annual return for FY 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.
9k	Scrutiny of Annual return on mining machineries	Annual return for FY 2021-22 has not been submitted till the date of inspection and yet to be submitted within the scheduled time period.

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 :

(SANJIB KUMAR MOHAPATRA)

Indian Bureau of Mines