

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-13/BBS

Mine code : 30ORI13025

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri S.C. Nayak, Qualified Person
Official with
Designation
- (iv) Date of Inspection : 06/04/2021
- (v) Prev.inspection date : 26/02/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **TANTRA**
- (b) **Registration NO.** : **IBM/6694/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : SUNDARGARH
- Village : TANTRA
- Taluka : BONAI
- Post office : TENSA
- Pin Code : 770042
- FAX No. : 06625-236305
- E-mail : onkargroup@hotmail.com
- Phone : 06625-236305
- (f) Police Station : Koira
- (g) First opening date : 01/09/1986
- (h) Weekly day of rest : SUN
2. Address for : AT/PO-KOIRA
correspondance DIST- SUNDERGARH
ORISSA-770042
3. (a) Lease Number : ORI0132
- (b) Lease area : 72.56
- (c) Period of lease : 20
- (d) Date of Expiry : 21/11/2005
4. Mineral worked : BAUXITE Associated
IRON ORE Main

5. Name and Address of the

Lessee : M/S KORP RESOURCES PVT LTD
 161, RABINDRA SARANI, PS-
 BURRA BAZAR KOLKATTA
 KOLKATA WEST BENGAL
 Phone:03322683832
 FAX :03322683832

Owner : SHRI PRAHLAD ROY GOENKA
 161, RABINDRA SARANI, PS-
 BURRA BAZAR KOLKATA KOLKATA
 WEST BENGAL
 Phone: 9831094640
 FAX : 03322683832

Mining Engineer

Name : SHRI RUDRA MOHAN NAYAK, Full Time
 Qualification : B E MINING (AMIE)
 Appointment/ : 01/03/2019
 Termination date

Geologist

Name : SHRI P K PATHAK, Full Time
 Qualification : MSC (GEOLOGY)
 Appointment/ : 05/07/2012
 Termination date

Manager

Name : SHRI CHANDRA SEKHAR MISHRA
 Qualification : MSC GEOLOGY (FIRST CLASS MINES MANAGER C
 Appointment/ : 15/03/2016
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	29/03/2004
Plan/Scheme of Mining		PMCP under 23B(2) for Existing	22/10/2007
		Mining Scheme rule 12 MCDR1988	11/12/2008
		Modif. approved Mining Scheme	03/03/2010
		Mining Scheme rule 12 MCDR1988	19/04/2013
		MP review under 17(1) MCR 2016	18/05/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Not proposed in 2020-21.	16 nos. of bore holes are drilled in 2020-21.	16 nos. of bore holes are drilled in 2020-21.
1b	Exploration over lease area for geological axis 1 or 2	Not proposed in 2020-21.	16 nos. of bore holes are drilled in 2020-21. Total 32.50 ha area explored under G1 level and 25.635 ha area under G2 level of exploration.	16 nos. of bore holes are drilled in 2020-21. To explore the balancee area under G1 level lessee has proposed the onward exploration in 2021-22.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed in 2020-21.	16 nos. of bore holes are drilled in 2020-21. Cost incurred in drilling was Rs 45/- lakh. Exploration agency involved in drilling was M/s Asia Pacific Drilling Services.	16 nos. of bore holes are drilled in 2020-21. Cost incurred in drilling was Rs 45/-lakh. Exploration agency involved in drilling was M/s Asia Pacific Drilling Services.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not proposed in 2020-21.	Total 32.50 ha area explored under G1 level and 25.635 ha area under G2 level of exploration.	To explore the balancee area under G1 level lessee has proposed the onward exploration in 2021-22.
1e	Balance reserve as on 01/04/20	As per the review of mining plan approved dated 18.05.2018, the reserve is 3.918 million tones and remaining resources is 1.01 million tones. Total Reserve and Resource is 4.928 million tones.	As per the modification of review of mining plan approved dated 04/08/2021, as on 02/04/2021 the reserve is 2.055 million tones and remaining resources is 2.005 million tones.	As per the modification of review of mining plan approved dated 04/08/2021, as on 02/04/2021 the reserve is 2.055 million tones and remaining resources is 2.005 million tones.

1f	General remarks of inspecting officers on geology, exploration etc	Not proposed in 2020-21.	16 nos. of bore holes are drilled in 2020-21. Total 32.50 ha area explored under G1 level and 25.635 ha area under G2 level of exploration.	To explore the balancee area under G1 level lessee has proposed the onward exploration in 2021-22.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	In 2020-21, it is proposed to develop the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	There was no proposal for top soil generation. Separate benches in overburden and mineral proposed.	There was no generation of top soil. Separate benches in overburden and mineral maintained.	There was no generation of top soil. Separate benches in overburden and mineral maintained.
2c	Stripping ratio or ore to OB ratio	1:0.04 t/m3	OB proposed nil, however intercalatted waste was proposed. No intercalatted waste generated during year.	No intercalatted waste generated during year.
2d	Quantity of topsoil generation in m3	There was no proposal for top soil generation.	There was no generation of top soil.	There was no generation of top soil.
2e	Quantity of overburden generation in m3	In 2020-21, there was no proposal for OB generation. However, there was proposal for 8664.02 Cum of intercalated waste generation.	No intercalatted waste generated during year.	No intercalatted waste generated during year.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	In 2020-21, it is proposed to develop the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One Quarry	One Quarry	In 2020-21, development done in the quarry in the North East side.
3b	Quantity of ROM mineral production proposed	In 2020-21,ROM proposed 239993.44 MT	119300T	ROM production is within approved proposal.
3c	Recovery of sailable/usable mineral from ROM production	Saleable (+58%Fe)- 142956.38 T and Mineral reject (+45-58%Fe)- 97037.06 T	Total ROM production in 2020-21 is 119300T below 58% Fe.	Due to generation low grade/mineral reject ore lessee has modified the review of mining plan which was approved on 04/08/2021.
3d	Quantity of mineral reject generation	Mineral reject (+45-58%Fe)- 97037.06 T	Total ROM production in 2020-21 is 119300T below 58% Fe.	Due to generation low grade/mineral reject ore lessee has modified the review of mining plan which was approved on 04/08/2021.
3e	Grade of mineral rejects generation and threshold value declared.	45 to - 58% Fe	Total ROM production in 2020-21 is 119300T below 58% Fe.	Due to generation low grade/mineral reject ore lessee has modified the review of mining plan which was approved on 04/08/2021.

3f	Quantity of sub grade mineral generation.	Mineral reject (+45-58%Fe)- 97037.06 T	Total ROM production in 2020-21 is 119300T below 58% Fe.	Due to generation low grade/mineral reject ore lessee has modified the review of mining plan which was approved on 04/08/2021.
3g	Grade of sub grade mineral generation	45 to - 58% Fe	Total ROM production in 2020-21 is 119300T below 58% Fe.	Due to generation low grade/mineral reject ore lessee has modified the review of mining plan which was approved on 04/08/2021.
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.	Existing beneficiation plant.	Beneficiation plant is not in operation due to want of statutory clearance.	Beneficiation plant is not in operation due to want of statutory clearance.
3j	Provision of drilling and blasting in mineral benches	Massive hard iron ore will be loosened through drilling & blasting.	Drilling & blasting have been carried as per requirement as proposed.	Drilling & blasting have been carried as per requirement as proposed
3k	Provision of mining machineries in mineral benches	Excavator and dumper combination have been proposed for mining in mineral benches.	Excavator and dumper combination have been deployed for mining in mineral benches.	Excavator and dumper combination have been deployed for mining in mineral benches.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches proposed is 6m	Height of benches in overburden and mineral is suitable for method of mining proposed in mining plan.	Height of benches in overburden and mineral is suitable for method of mining proposed in mining plan.

3m	Total area covered under excavation/pits	Area under mining at the end of plan period will be 10.8 Ha	Area under mining at the end of year is 7.85 Ha	Area under mining at the end of year is 7.85 Ha.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.04 t/m ³	OB proposed nil, however inercalattted waste was proposed. No inercalattted waste generated during year.	OB proposed nil, however inercalattted waste was proposed. No inercalattted waste generated during year.
3o	Total area put in use under different heads at the end of year	Total area put in use under different heads at the end of plan period will be 29.486 Ha	Total area put in use under different heads at the end of year is 23.486 ha.	Total area put in use under different heads at the end of year is 23.486 ha.
3p	Production of ROM mineral during the last five year period as applicable	2015-16: 115600 tones 2016-17: 119300 tones 2017-18: 119300 tones 2017-18: 106200 tones 2018-19: 118700 tones 2019-21:239992.30 tones 2020-21:239993.44tones	2015-16: 115600 tones 2016-17: 119300 tones 2017-18: 106200 tones 2018-19: 118700 tones 2019-20:117500tones 2020-21:119300trones	ROM production is within approved proposal.
3q	General remarks of inspecting officers on method of mining etc.	In 2020-21, it is proposed to develop the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.	In 2020-21, development done in the quarry in the North East side.

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)	In 2020--21, there was no proposal for top soil generation. Separate dumping of waste and mineral reject proposed	In 2020--21, there was no generation of top soil generation and waste. Mineral reject after dry processing solding out to market as per requirement.	In 2020--21, there was no generation of top soil generation and waste. Mineral reject after dry processing solding out to market as per requirement.
4b	Location of topsoil, OB and mineral reject dumps	No proposal for top soil generation. Waste dump: N2420850-2420900 & E311350-311500. Mineral reject proposed on existing reject dump in the western side of the quarry.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.
4c	Number of dumps within lease area and outside of lease area	One dump	There is one waste dump in the lease area.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Beyond UPL	Beyond UPL	Waste dump outside UPL
4e	Number of active and alive dumps.	One dump	There is one waste dump in the lease area.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.
4f	Number of dead dumps.	Not proposed.	Nil	Nil
4g	Number of dumps established.	Not proposed.	Nil	Nil

4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed in 2020-21.	Retaining wall and of garland drain maintained.	Retaining wall and of garland drain maintained.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed in 2020-21.	Retaining wall and of garland drain maintained.	Retaining wall and of garland drain maintained.
4j	Number of settling ponds	Not proposed.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	No proposal for top soil generation. Waste dump: N2420850-2420900 & E311350-311500. Mineral reject proposed on existing reject dump in the western side of the quarry.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.

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.	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
5b	Area under backfilling of mined out area	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed as pit is not exhausted.	Top soil not generated.	Top soil not generated.

5d	Total area fully reclaimed and rehabilitated	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.

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).	Annual report on PMCP to be submitted as per Rule 26 (2) of MCDR, 2017	Annual report on PMCP have been submitted	Annual report on PMCP have been submitted
6b	Area available for rehabilitation (ha) .	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6c	afforestation done (ha).	0.20 Ha.	0.20 Ha.	Rehabilitation of Barren area by plantation.
6d	No. of saplings planted during the year	500 nos of saplings proposed for plantation	2500 nos of saplings planted within lease area.	2500 nos of saplings planted within lease area.
6e	Cumulative no .of plants	Not Specified	34250 nos of saplings	34250 nos of saplings
6f	Any other method of rehabilitation	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6g	Cost incurred on watch and care during the year	Not Specified	Around Rs 2.4 lakh cost incurred on watch and care.	Around Rs 2.4 lakh cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Waste land 0.2 ha by 500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Waste land 0.2 ha by 500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Waste land 0.2 ha by 500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.	Waste land 0.2 ha by 2500 nos. of plantation.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Monitoring of environmental parameters proposed	Monitoring of environmental parameters done as proposed	Monitoring of environmental parameters done as proposed
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Reclamation and rehabilitation not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Mechanical
7c	Different grade of mineral sorted out at mines.	45% Fe to -58% Fe and +58% Fe	45% Fe to -58% Fe	45% Fe to -58% Fe
7d	Any beneficiation process at mines .	Existing beneficiation plant.	Beneficiation plant is not in operation due to want of statutory clearance.	Beneficiation plant is not in operation due to want of statutory clearance.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Grade wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	No top soil generated.	No top soil generated.
8b	Concurrent use or storage of topsoil	Not proposed	No top soil generated.	No top soil generated.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal for top soil generation. Waste dump: N2420850-2420900 & E311350-311500. Mineral reject proposed on existing reject dump in the western side of the quarry.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.	In 2020--21, there was no generation of top soil and waste. Mineral reject after dry processing solding out to market as per requirement.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed as pit is not exhausted.	Pit is not matured for reclamation and re-habilitation.	Pit is not matured for reclamation and re-habilitation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	500 nos of saplings proposed for plantation	2500 nos of saplings planted within lease area	2500 nos of saplings planted within lease area
8g	Survival rate	Not specified.	Survival rate : 75%	Survival rate : 75%

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on roads to control airborne dust proposed	Water sprinkling on roads to control airborne dust is being done	Water sprinkling on roads to control airborne dust is being done
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	500 nos of saplings proposed for plantation	2500 nos of saplings planted within lease area in 2020-21. Aesthetic beauty in and around mines is maintained	Aesthetic beauty in and around mines is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual returns to be submitted as per rule 45 of MCDR 2017	Monthly returns and annual return for 2019-20 have been submitted.	Monthly returns and annual return for 2019-20 have been submitted.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information on Mining Engineer and Geologist furnished in annual return for 2019-20	Mining Engineer has been appointed in mines.	Mining Engineer has been appointed in mines.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 14.487 Ha	current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 14.487 Ha	current working: 7.85 ha, Used for waste disposal: 0.131 Ha, Occupied by plant buildings, residential, welfare buildings & roads: 1.0 Ha, other purposes: 14.487 Ha
9d	Scrutiny of Annual return on afforestation	Within lease area 8200 nos.	Within lease area 8200 nos.	Within lease area 8200 nos.

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	In 2019-20: 21250T	Mineral reject is not correctly furnished in annual return for 2019-20. Deviation is pointed out through violation letter.	Mineral reject is not correctly furnished in annual return for 2019-20. Deviation is pointed out through violation letter.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock of ROM: 159000.0 tones in 2019-20	Closing Stock of ROM: 159000.0 tones in 2019-20	Closing Stock of ROM: 159000.0 tones in 2019-20.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price in Rs per tonne Lump (below 55% Fe): Rs 1897.62 Lump (55% to below 58% Fe): Rs 2153.27 Fines (55% to below 58% Fe): Rs 721.41 Fines (55% to below 58% Fe): Rs 767.87	Ex-mine price is not correctly furnished in annual return for 2019-20. Deviation is pointed out through violation letter.	Ex-mine price is not correctly furnished in annual return for 2019-20. Deviation is pointed out through violation letter.
9h	Scrutiny of Annual return on fixed assets	Rs 151020869/-	Fixed asset furnished in AR 2019-20: Rs151020869	Fixed asset furnished in AR 2019-20: Rs151020869
9k	Scrutiny of Annual return on mining machineries	Back Hoe: 2 nos; Dumper (20 tonne capacity): 2nos; Tipper: 3nos. Front end loader (2.5 cum capacity): 2 nos etc	Back Hoe: 2 nos; Dumper (20 tonne capacity): 2nos; Tipper: 3nos. Front end loader (2.5 cum capacity): 2 nos etc	Back Hoe: 2 nos; Dumper (20 tonne capacity): 2nos; Tipper: 3nos. Front end loader (2.5 cum capacity): 2 nos etc

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
MCDR17	Rule 35(2)	19/04/2021			
MCDR17	Rule 45(5)(e)	19/04/2021			

Date :

(DAYANAND UPADHYAY)

Indian Bureau of Mines