

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

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

Mine code : 30ORI08014

- (i) Name of the Inspecting : **U11**) **DAYANAND UPADHYAY**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : S.K. Das, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 22/01/2019
- (v) Prev.inspection date : 24/09/2018

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **CHAMAKPUR**
- (b) **Registration NO.** : **IBM4639/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : CHAMAKPUR
- Taluka : CHAMPUA
- Post office : CHAMAKPUR
- Pin Code : 758034
- FAX No. : 067671-272326
- E-mail : sp@kcp.in
- Phone : 06767-273338
- (f) Police Station : Champua
- (g) First opening date : 30/01/1971
- (h) Weekly day of rest : THU
2. Address for : AT/PO. CHAMAKPUR
correspondance DIST. KEONJHAR, ORISSA
PIN. 758034, POLICE STATION. CHAMPUA
3. (a) Lease Number : ORI0062
- (b) Lease area : 31.69
- (c) Period of lease : 19
- (d) Date of Expiry : 29/01/2021
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : SRI K.C PRADHAN
 PLOT-1262 ROAD UNIT -IX
 BHUBANESWAR KHURDA ORISSA
 Phone:(0674)402078, 402099
 FAX :(0674)412794

Owner : M/S.K.C.Pradhan.
 PLOT - 1262 ROAD -8 UNIT IX
 BHUBANESWAR KEONJHAR ORISSA
 Phone: (0674)402078. 4
 FAX : (0674)412794

Agent : Sri Siddartha Pradhan
 KHURDA ORISSA
 Phone:
 FAX :

Geologist

Name : Shri Bishnu Barik,Full Time
 Qualification : M.Sc
 Appointment/ : 01/10/2016
 Termination date

Manager

Name : S.K.DAS
 Qualification : DME(MINING)
 Appointment/ : 01/03/1996
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	23/06/2004
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	05/05/2010
	:	Modif.of approved Mining Plan	06/05/2013
	:	MP modif under MCR 1960	05/01/2015
	:	MP review under 17(1) MCR 2016	13/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10 number of bore holes.	In 2017-18, total 10 numbers of bore holes have been drilled by lessee.	No backlog.
1b	Exploration over lease area for geological axis 1 or 2	G1 level.	Total lease area has been explored under G1 level.	Total lease area has been explored under G1 level.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	In 2017-18, cost incurred in drilling was Rs180000/-. Exploration agency involved in drilling was M/s R.V. Briggs Co. Pvt Ltd.	In 2017-18, cost incurred in drilling was Rs180000/-. Exploration agency involved in drilling was M/s R.V. Briggs Co. Pvt Ltd.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not specified.	Total lease area has been explored under G1 level.	Total lease area has been explored under G1 level.
1e	Balance reserve as on 01/04/20	Reserves & resources as per approved document 0.79Million Tonnes.	Balance reserves & resources as on 01.04.2018, 3,79,000 ton.	Balance reserves & resources as on 01.04.2018, 3,79,000 ton.
1f	General remarks of inspecting officers on geology, exploration etc	10 number of bore holes in 2017-18.	In 2017-18, total 10 numbers of bore holes have been drilled by lessee.	Total lease area has been explored under G1 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
--------	------	-----------	-------------	---------

2a	Location of development w.r.t.lease area	Departmental pit : 30W/200W & 230N/120N, Lucky pit: 30W/120E & 210N/240N, Pit1: 10W/130E & 10N/200N, Boulder Pit: 130W/270W & 200N/300N.	Departmental pit : 30W/200W & 230N/120N, Lucky pit: 30W/120E & 210N/240N, Pit1: 10W/130E & 10N/200N, Boulder Pit: 130W/270W & 200N/300N.	Development is carried out within approved proposal.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No separate benches in OB and ore, Benches with 3m height, top soil bench-nil.	No separate benches in OB and ore, Benches with 3m height, top soil bench-nil.	No separate benches in OB and ore, Benches with 3m height, top soil bench-nil.
2c	Stripping ratio or ore to OB ratio	1:0.4T/cu.m	1:0.35T/cu.m	Average stripping ratio varies due to irregular nature of ore deposit.
2d	Quantity of topsoil generation in m3	No Proposal.	No top soil is generated as working is proposed in broken up area.	No top soil is generated as working is proposed in broken up area.
2e	Quantity of overburden generation in m3	12120 cu.m	810 cu.m	Less quantity of waste generated due to less production of ROM as proposed.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development is proposed in four pits.	The development is carried out in four pits as per proposal.	The development is carried out in four pits as per proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	04 pits.	Working is concentrated in four pit as proposed.	Working is concentrated in four pit as proposed.

3b	Quantity of ROM mineral production proposed	ROM production in 2017-18: 94320MT	ROM produced in 2017-18: 15,113.0Tonnes	Mineral available in lease area is of mostly Low grade and due to poor demand less production is carried out.
3c	Recovery of saleable/usable mineral from ROM production	Recovery of saleable ore 65290.5T	Saleable ore produced in 2017-18 is 15,113.0Tonnes.	The ROM produced is of mostly Low grade.
3d	Quantity of mineral reject generation	16999.5T	15,113.0Tonnes.	The ROM produced is of mostly Low/below cut off grade.
3e	Grade of mineral rejects generation and threshold value declared.	+ 45% Fe to below 55% Fe	+ 45% Fe to below 55% Fe	The ROM produced is of mostly Low/below cut off grade.
3f	Quantity of sub grade mineral generation.	16999.5T	15,113.0Tonnes.	The ROM produced is of mostly Low/below cut off grade.
3g	Grade of sub grade mineral generation	+ 45% Fe to below 55% Fe	+ 45% Fe to below 55% Fe	The ROM produced is of mostly Low/below cut off grade.
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Manual method is practiced.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Nil.	No beneficiation is proposed.

3j	Provision of drilling and blasting in mineral benches	Occasionally blasting with Jack hammer drilling of 32mm dia drill holes.	Ore is mostly weathered and soft nature and it is excavated by excavator. Occasionally blasting in hard strata with Jack hammer drilling is practiced.	Ore is mostly weathered and soft nature and it is excavated by excavator. Occasionally blasting in hard strata with Jack hammer drilling is practiced.
3k	Provision of mining machineries in mineral benches	Hydraulic shovel- 2 nos., Backhoe - 1 no., Wheel Loader - 1 no., Crusher - 2 nos., Tipper - 4 nos., Generator - 2nos., Rock drill - 1 no.	Hydraulic shovel- 2 nos., Backhoe - 1 no., Wheel Loader - 1 no., Crusher - 2 nos., Tipper - 4 nos., Generator - 2nos., Rock drill - 1 no.	Ore is excavated thorough shovel dumper combination.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height 3m.	Bench height is suitably matched with the excavator.	Bench height is suitably matched with the excavator.
3m	Total area covered under excavation/pits	7.110 ha.	About 7.110 ha area has been covered under excavation pits.	About 7.110 ha area has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.4T/cu.m	1:0.35T/cu.m	Average stripping ratio varies due to irregular nature of ore deposit.
3o	Total area put in use under different heads at the end of year	Area proposed under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others - 0.20 ha.	Area covered under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others -0.20 ha.	Area covered under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others -0.20 ha.

3p	Production of ROM mineral during the last five year period as applicable	2013-14= 64,402.500 2014-15= 68,132.300 2015-16= 78,593.500 2016-17= 79,459.500 2017-18= 77,470.500	2013-14: 34,497.000 2014-15: 47,750.000 2015-16: 16,635.000 2016-17: 7,277.000 2017-18: 15,113.000	Production is less due to low grade ore and poor market demand.
3q	General remarks of inspecting officers on method of mining etc.	Working proposed in 04 pits.	Working is concentrated in four pits as per proposal.	ROM Production is less due to low grade ore and poor market demand.

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 waste & mineral reject.	Separate dumping of waste & mineral reject, top soil not proposed.	Separate dumping of waste & mineral reject, top soil not proposed..
4b	Location of topsoil, OB and mineral reject dumps	West side of ML area.	Waste is dumped located in the west side of ML area. No proposal of top soil generation.	Waste is dumped located in the west side of ML area. No proposal of top soil generation.
4c	Number of dumps within lease area and outside of lease area	One active dump in western part of the lease area.	Waste has been dumped in Western part of the lease area.	There are 05 old dumps lies in the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL.	Outside the UPL.	Dumps are lies outside the UPL.
4e	Number of active and alive dumps.	One active dump.	One active dump.	Waste has been dumped in Western part of the lease area.
4f	Number of dead dumps.	Not proposed.	There is five dead dump.	The dead dumps are naturally vegetated.

4g	Number of dumps established.	Not proposed.	The dead dumps are naturally vegetated.	The dead dumps are naturally vegetated.
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed in 2017-18.	Retaining wall and garland drain have been made around dumps.	Retaining wall and garland drain have been made around dumps.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed in 2017-18.	Retaining wall and garland drain have been made around dumps.	Retaining wall and garland drain have been made around dumps.
4j	Number of settling ponds	Not proposed.	Nil.	There are 02 settling ponds in lease area.
4k	Specific comments of inspecting officer on waste dump management	01 active dump in western part of ML.	There is 01 active dump in western part of the lease area. The dump is partly stabilized by plantation.	There is 01 active dump in western part of the lease area. The dump is partly stabilized by plantation. The dead dumps lies in the lease area are naturally vegetated.

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 pits are not fully exhausted.	Nil.	Pits are not fully exhausted.
5b	Area under backfilling of mined out area	Not proposed as pits are not fully exhausted.	Nil.	Pits are not fully exhausted.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed as pits are not fully exhausted.	Nil.	Pits are not fully exhausted.

5d	Total area fully reclaimed and rehabilitated	Not proposed as pits are not fully exhausted.	Nil.	Pits are not fully exhausted.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	backfilling not proposed.	Pit is not matured for reclamation and rehabilitation.	At present pit is not matured for reclamation and rehabilitation. Earlier about 2.20 ha mined out area has been reclaimed and rehabilitated.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Not specified.	Annual return on PMCP has been submitted.	Annual return on PMCP has been submitted.
6b	Area available for rehabilitation (ha) .	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6c	afforestation done (ha).	247 saplings.	In 2017-18, total 340 nos. of saplings have been planted by lessee.	In 2017-18, total 340 nos. of saplings have been planted by lessee.
6d	No. of saplings planted during the year	247 saplings.	In 2017-18, total 340 nos. of saplings have been planted by lessee.	In 2017-18, total 340 nos. of saplings have been planted by lessee.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 5271.	Cumulative nos. of saplings planted in the lease area is about 5271.
6f	Any other method of rehabilitation	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 65000/- cost incurred on watch and care.	Around Rs 65000/- 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 pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed.	Nil.	Rehabilitation of waste land is not proposed.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Nil.	Rehabilitation of waste land is not proposed.

6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Nil.	Rehabilitation of waste land is not proposed.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring of air, water and noise level are being carried out.	Quarterly monitoring of air, water and noise level are being carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Reclamation and rehabilitation not proposed as pit is not fully exhausted.	No backfilling has been proposed as the mineralisation is continue. Quarterly monitoring of air, water and noise level are being carried out.	Reclamation and rehabilitation not proposed as pit is not fully exhausted.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting.	Gradewise sorting.	Gradewise sorting.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting	Manual sorting	Manual sorting
7c	Different grade of mineral sorted out at mines.	Yes.	+45% to 55 Fe and +55to 56Fe.	+45% to 55 Fe and +55to 56Fe.
7d	Any beneficiation process at mines	Not proposed.	Nil.	Manual sorting is being practiced..
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise Manual sorting	The ore lying in the lease area is mostly low garde. Different grade sorting at mines is +45% to 55 Fe and +55to 56Fe.	The ore lying in the lease area is mostly low garde. Different grade sorting at mines is +45% to 55 Fe and +55to 56Fe.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation.	No top soil generation as the working is made in broken up area.	No top soil generation as the working is made in broken up area.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	No top soil generation as the working is made in broken up area.	No top soil generation as the working is made in broken up area.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste & mineral reject.	Separate dumping is being carried out for waste & mineral reject.	Separate dumping is being carried out for waste & mineral reject.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed as pits are not fully exhausted.	Pit is not matured for reclamation and rehabilitation.	Pit is not matured for reclamation and rehabilitation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	247 nos of saplings.	Total 340 nos. saplings have been planted in 2017-18.	Total 340 nos. saplings have been planted in 2017-18.
8g	Survival rate	Not specified.	As reported survival rate is 60%.	As reported survival rate is 60%.
8h	Water sprinkling on roads to control airborne dust	Water sprinkler	Two water sprinkler are used to control air borne dust.	Two water sprinkler are used to control air borne dust.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	247 nos of saplings proposed in 2017-18.	Aesthetic beauty in and around mined area is maintained. In 2017-18, total 340 nos of saplings have been planted by lessee. As reported cumulative no. of trees planted by lessee is about 18295 nos.	Aesthetic beauty in and around mined area is maintained.
----	--	--	---	--

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining engineer-1, Diploma ME-1, Others-9	Mining engineer-1, Diploma ME-1, Others-9	Mining engineer-1, Diploma ME-1, Others-9
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others - 3.730 ha.	Area covered under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others -3.730 ha.	Area covered under different heads are Pit-7.110 ha, waste dump-5.024 ha, Plant, residential & building, roads-3.730ha & others -3.730 ha.
9d	Scrutiny of Annual return on afforestation	340 nos of saplings	340 nos of saplings	340 nos of saplings
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil.	Nil.	Nil.

9f	Scrutiny of Annual return on ROM stock and/or graded ore	During the year 2017-18, 15,113 tonnes of iron ore was produced.	During the year 2017-18, 15,113 tonnes of iron ore was produced.	During the year 2017-18, 15,113 tonnes of iron ore was produced.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-Mines price: Fines - Rs.969.18/- Lump: Below 55%- Rs 1673.34, 55% to below 58%- Rs 1673.34/- Production cost-Rs.956/-	Ex-Mines price: Fines - Rs.969.18/- Lump: Below 55%- Rs 1673.34, 55% to below 58%- Rs 1673.34/- Production cost-Rs.956/-	Ex-Mines price: Fines -Rs.969.18/- Lump: Below 55%- Rs 1673.34, 55% to below 58%- Rs 1673.34/- Production cost- Rs.956/-
9h	Scrutiny of Annual return on fixed assets	Rs.81,87,647/-	Rs.81,87,647/-	Rs.81,87,647/-
9k	Scrutiny of Annual return on mining machineries	Hydraulic shovel- 2 nos., Backhoe - 1 no., Wheel Loader - 1 no., Crusher - 2 nos., Tipper - 4 nos., Generator - 2nos., Rock drill - 1 no.	Hydraulic shovel- 2 nos., Backhoe - 1 no., Wheel Loader - 1 no., Crusher - 2 nos., Tipper - 4 nos., Generator - 2nos., Rock drill - 1 no.	Hydraulic shovel- 2 nos., Backhoe - 1 no., Wheel Loader - 1 no., Crusher - 2 nos., Tipper - 4 nos., Generator -2nos., Rock drill - 1 no.

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 :

(DAYANAND UPADHYAY)

Indian Bureau of Mines