

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON/KJR/MCDR-85/BBS

**Mine code :** 30ORI08113

- (i) Name of the Inspecting : **RAM** ) **RAMKISHAN R**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Mahendra Kumar Mohanty, Mine Manager  
Official with  
Designation
- (iv) Date of Inspection : 11/09/2018
- (v) Prev.inspection date :

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KHANDBANDH IRON ORE MINE**
- (b) **Registration NO.** : **IBM/4135/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : ORISSA  
District : KEONJHAR  
Village : KHANDBANDH  
Taluka :  
Post office :  
Pin Code :  
FAX No. : 06767275529  
E-mail : sml@sreemetaliks.com  
Phone : 06767275529
- (f) Police Station : Bamebari
- (g) First opening date : 21/03/2018
- (h) Weekly day of rest : SUN
2. Address for :  
correspondance
3. (a) Lease Number :  
(b) Lease area :  
(c) Period of lease :  
(d) Date of Expiry :
4. Mineral worked :

## 5. Name and Address of the

Lessee : M/S SREE METALIKS LIMITED  
 KEONJHAR ORISSA  
 Phone:  
 FAX :

Owner : M/S SREE METALIKS LTD  
 KEONJHAR ORISSA  
 Phone:  
 FAX :

Agent : Mr. Mahesh Kumar Agarwal  
 SML House, Main Road ,  
 Barbil, KEONJHAR ORISSA  
 Phone: 9437075129  
 FAX : 6767275529

## Mining Engineer

Name : Sri Subit Kumar Sahu, Full Time  
 Qualification : B.Tech in Mining  
 Appointment/ : 29/03/2018  
 Termination date

## Geologist

Name : Sri Ranjan Kumar Moharana, Full Time  
 Qualification : M.sc in Applied Geology  
 Appointment/ : 29/03/2018  
 Termination date

## Manager

Name : Sri Mahendra Kumar Mohanty  
 Qualification : Diploma in Mining (First Class Manager C  
 Appointment/ : 29/03/2018  
 Termination date

6. Date of approval of Mining :  
 Plan/Scheme of Mining

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such proposal.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	10 nos of Borehole are proposed during the year 2017-18.	Nil.	26 boreholes were drilled during the year 2018-19.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such proposal.	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	28 boreholes were proposed during the plan period from 2016-17 to 2020-21.	Nil	26 boreholes were drilled during the date of inspection.
1e	Balance reserve as on 01/04/20	As per approved mining plan dated 8/2/2008 the iron reserves are 2.23 mt and resources are 1.89 mt.	Due to addition and depletion of over period of time the reserves as on 01.04.2018 are 2.24 mt and resources are 1.89 mt	Nil
1f	General remarks of inspecting officers on geology, exploration etc	No comments to offer.	Area explored in the year 2018-19 by drilling 28 nos of bore holes.	Nil

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Two quarries named as Quarry Q-2, Q-1	Development carried out in Quarry FQ-2	Violation issued on 25.09.2018.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil generation, separate benches in OB and mineral are proposed.	Separate benches in OB and mineral are maintained.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.054 cu.m.	Nil	Due to less development work.
2d	Quantity of topsoil generation in m3	No proposal.	Nil	Nil.
2e	Quantity of overburden generation in m3	8100 cu.m. during the year 2017-18.	Nil	Due to less development work.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No comments to offer.	Development work carried out in one quarry.	Nil

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two pits proposed named as Q-2, Q-1	Work carried out in single pit called Q-2.	Violation issued on 25.09.2018
3b	Quantity of ROM mineral production proposed	147600 t during the year 2017-18.	42240 t.	Less production due to mine operations were started on 21.03.2018.
3c	Recovery of sailable/usable mineral from ROM production	144000 t of saleable ore and 3600 t of mineral rejects	42240 t of saleable ore.	Due to less development work.
3d	Quantity of mineral reject generation	3600 t	Nil	Due to less development work.
3e	Grade of mineral rejects generation and threshold value declared.	+45-55% Fe	+45-55% Fe	Nil

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	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drill dia 100 mm and slurry explosive with electric delay detonation.	Drill dia 100 mm and slurry explosive with electric delay detonation.	Nil
3k	Provision of mining machineries in mineral benches	Shovel with dumper combination.	Shovel with dumper combination.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height proposed is 6 m.	Maintained.	Nil
3m	Total area covered under excavation/pits	8.382 Ha till the end of plan period i.e. 2020-21.	1.082 Ha	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.054 t/cu.m.	Nil	No OB generated due to less development work.

3o	Total area put in use under different heads at the end of year	Mining: 8.382 Ha Dumps: 2.309 ha, Infra: 0.17 ha till the end of plan period. i.e. 2020-21.	Mining: 1.082 ha Waste dumps: 0.54 Ha, Infra: 0.65 ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 43296 t 2017-18: 147600 t	2016-17: Nil 2017-18: 42240 t	Mine workings started from 21.03.2018. so less development carried out.
3q	General remarks of inspecting officers on method of mining etc.	No comments to offer.	Only single pit is developed for production.	Nil

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No top soil generation is proposed. Separate dumping of OB & mineral rejects are proposed.	NO OB and mineral rejects are generated.	Nil
4b	Location of topsoil, OB and mineral reject dumps	Waste Dump 100N-20S & 310W-410W	No waste generated during the year 2017-18.	Nil
4c	Number of dumps within lease area and outside of lease area	Inside Lease- 01 no.	One old dump existed in the lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Ouside UPL	Ouside UPL	Nil
4e	Number of active and alive dumps.	01 no. of waste dump	Nil	Nil
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.	Yes Proposed	Nil	As no active dump is built during the mine operation till date of inspection.
4i	Length of Retaining wall or garland drain all along dumps	170 m during the year 2017-18.	Nil	Nil
4j	Number of settling ponds	01no.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	No comments to offer.	No active waste dumping started yet in the mine.	Nil

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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.	Nil	Nil
5b	Area under backfilling of mined out area	Not proposed.	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Not proposed.	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No comments to offer	Area not matured for reclamation.	Nil

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## 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).	Yes Proposed	Not submitted.	Violation issued on 25.09.2018
6b	Area available for rehabilitation (ha) .	Not proposed	Nil	Nil
6c	afforestation done (ha).	0.9 ha	Nil	Mine operations started on 21.03.2018
6d	No. of saplings planted during the year	1000 nos during the year 2017-18.	Nil	Mine operations started on 21.03.2018
6e	Cumulative no .of plants	1000 nos.	Nil	Nil
6f	Any other method of rehabilitation	Not proposed	Nil	Nil
6g	Cost incurred on watch and care during the year	Not proposed	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	Not proposed	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not proposed	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Not proposed	Nil	Nil



6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Nil	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Not proposed	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not proposed	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular monitoring of air, water, noise quality proposed.	Nil	Work order has been issued to third party to carry out the work. Which will be started from 2018-19.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No comments to offer	It is a new mine and started operation on 21.03.2018. so PMCP measures could not be implemented.	Nil.

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Mineral Conservation:

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Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Mineral grade wise sorting is proposed.	Carried out.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed	Mechanical method carried out.	Nil
7c	Different grade of mineral sorted out at mines.	Yes proposed +55-58% Fe 62-65% Fe	+55-58% Fe 62-65% Fe	As per AR of 2017-18.
7d	Any beneficiation process at mines	Not proposed	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No comments to offer	Different grades of mineral sorting carried out.	Nil

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No generation of top soil proposed.	Nil	Nil
8b	Concurrent use or storage of topsoil	Not proposed	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	proposed	No waste material generated till yet.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1000 nos for the year 2017-18.	Nil	Nil
8g	Survival rate	Not proposed.	Nil	Nil
8h	Water sprinkling on roads to control airborne dust	Mobile water sprinklers are proposed for dust suppression	Water sprinkling carried out for dust suppression.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No comments to offer.	Aesthetic beauty is maintained.	Nil

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	Monthly & Annual returns will be submitted to concerned authorities on time as mentioned in the rule.	Monthly & Annual Return had been submitted with in stipulated time period.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Enigneer:1 Diploma Mining Engineer: 1 Geologist: 1	Graduate Mining Enigneer:1 Diploma Mining Engineer: 1 Geologist: 1	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit: 1.08 ha, waste dumps: 0.54 ha, infra: 0.65 ha	Pit: 1.08 ha, waste dumps: 0.54 ha, infra: 0.65 ha	Nil
9d	Scrutiny of Annual return on afforestation	Nil	Nil	Nil
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	ROM stock: Nil 55%-60%Fe: 23740 t. 62%-65% Fe: 6040 t	ROM stock: Nil 55%-60%Fe: 23740 t. 62%-65% Fe: 6040 t	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production cost: Rs 800.23	Production cost: Rs 800.23	Nil
9h	Scrutiny of Annual return on fixed assets	Rs 172902	Rs 172902	Nil

9k Scrutiny of excavator: 3 excavator: 3 nos, Nil  
Annual return on nos, loader: 1 no, dumpers: 3  
mining loader: 1 no, nos, dozer: 1 no  
machineries dumpers: 3  
nos, dozer: 1  
no

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**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
MCDR17 Rule 11(1)	25/09/2018		MCDR17 Rule 11(1)	25/09/2018	
Rule 26(2)	25/09/2018		Rule 26(2)	25/09/2018	

**Date :**

(RAMKISHAN R)

Indian Bureau of Mines