

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

**MCDR inspection REPORT**

**Goa regional office**

**Mine file No :** MAH/SDG/Fe-46/GOA

**Mine code :** 30MSH28029

- (i) Name of the Inspecting : P01 ) PREM PRAKASH  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :  
Official with  
Designation
- (iv) Date of Inspection : 28-NOV-19
- (v) Prev.inspection date : 19-SEP-17

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : KALANE IRON & MANGANESE O
- (b) **Registration NO.** : IBM/6114/2011
- (c) **Category** : A Fully Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : MAHARASHTRA
- District : SINDHUDURG
- Village : KALANE
- Taluka : DODAMARG
- Post office : KALANE
- Pin Code : 416511
- FAX No. : 022-23630045
- E-mail : Shrivashtra@Boms5.vsnl.in.
- Phone : 022-23630045
- (f) **Police Station** : DODAMARG
- (g) **First opening date** : 10-MAR-09
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : Minerals & Metals AT-KALANE  
TQ-DODAMARG, DIST- SINDHDURG  
MAHARASHTRA
3. (a) **Lease Number** : MSH0372
- (b) **Lease area** : 32.25
- (c) **Period of lease** : 50
- (d) **Date of Expiry** : 15-MAR-59
4. **Mineral worked** : MANGANESE ORE Associated  
IRON ORE Main

## 5. Name and Address of the

Lessee : MINERALS AND METALS  
 32, ASHUTOSH, NEPEAN SEA  
 ROAD, MUMBAI GREATER BOMBAY  
 MAHARASHTRA  
 Phone:  
 FAX :

Owner : SANDEEP SRIVASTAVA  
 NIRMAL, 16th Floor NARIMAN  
 POINT GREATER BOMBAY  
 MAHARASHTRA  
 Phone: 022-22025893, 2  
 FAX : 022-22854417

Agent : MANOJ THAKUR  
 WSH 4,W BLOCK,SUNSET  
 BOULVARD, ALTO DHULER,  
 MAPUSA-GOA SINDHUDURG  
 MAHARASHTRA  
 Phone: 0832-2253864, 9769111533  
 FAX : 832-2253863

## Geologist

Name : Rajan S Patil,Full Time  
 Qualification : M Sc Geology  
 Appointment/ : 01-FEB-15  
 Termination date

## Manager

Name : SURESH KULAL  
 Qualification : B.TECH (MINING)  
 Appointment/ : 01-JUN-11  
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	20-OCT-00
Plan/Scheme of Mining		Modif.of approved Mining Plan	11-DEC-08
		Modif.of approved Mining Plan	03-FEB-11
		Mining Scheme rule 12 MCDR1988	20-MAR-14
		MP review under 17(1) MCR 2016	01-APR-19

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	During 2014-15 to 2016-17, 24 bore holes were proposed and 24 boreholes drilled.
1b	Exploration over lease area for geological axis 1 or 2	Nil	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	-	4.15 Ha.	Exploration Proposal given in Review and updatation of Mining Plan Approved Dated- 01/04/2019 for 2019-20 to 2023-24
1e	Balance reserve as on 01/04/20	-	reserves (111 Code) = 1.30 MT (122 Code) = 0.14 MT Total = 1.44 MT	As per Review and updatation of Mining Plan Approved Dated- 01/04/2019
1f	General remarks of inspecting officers on geology, exploration etc		Exploration Proposal of 24 BHs given in previous approved Mining Plan/Scheme got completed and further Exploration Proposal is given in Review and updatation of Mining Plan Approved Dated- 01/04/2019 for period 2019-20 to 2023-24.	

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1743650 to N1743430 E384800 to E385030 Section E-E' to G-G'	Nil	No any excavation/ ROM production carried out in year 2018-19.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No top soil is available	Nil	
2c	Stripping ratio or ore to OB ratio	O:OB =1: 1.65	nil	
2d	Quantity of topsoil generation in m3	Nil	Nil	
2e	Quantity of overburden generation in m3	324830 Tons	Nil	No any excavation/ development carried out in year 2018-19.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No any excavation/ development carried out in year 218-19 for reason prevailing market condition & monsoon from April to September,2018 and from 18.10.2018 to 01.04.2019, mine was suspended by IBM. The same got reviewed and ratified in Review and updatation of Mining Plan Approved Dated- 01/04/2019 for period 2019-20 to 2023-24.

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one	Nil	
3b	Quantity of ROM mineral production proposed	257355 te	Nil	
3c	Recovery of sailable/usable mineral from ROM production	100%	NA	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	

3f	Quantity of sub grade mineral generation.	Nil	Nil	
3g	Grade of sub grade mineral generation	NA	NA	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised Method	NA(No Mining Operation Done)	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Nil	Nil	
3j	Provision of drilling and blasting in mineral benches	Not Proposed	NA	
3k	Provision of mining machineries in mineral benches	HEMMs Proposed for deployment	NA(No Mining Operation Done)	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6m Height height of benches are proposed	It is observed during inspection that benches are merged in irregular manner with height of benches up to about 12 m and width of benches less than its height at places.	Violation issued for the same.
3m	Total area covered under excavation/pits	-	About 18 Ha	cummulative
3n	Ore to OB ratio for the pit/mine during the year.	0:OB = 1:1.65	NA(No Mining Operation Done)	
3o	Total area put in use under different heads at the end of year	-	About 22 Ha.	cummulative
3p	Production of ROM mineral during the last five year period as applicable	2014-15= 737884Tons 2015-16 = 735490 Tons 2016-17= 741874 Tons 2017-18= 417487Tons 2018-19= 257355 Tons	2014-15= 737681 Tons 2015-16 = 735421 Tons 2016-17= 711857 Tons 2017-18= 127635Tons 2018-19= Nil	ROM Production given as reported in approved MP/Annual Returns

3q	General remarks of inspecting officers on method of mining etc.	Mechanized open cast mining with shovel-dumper combination is proposed in approved Mining Plan/scheme. However, No any excavation/ development was carried out in year 218-19 for reason prevailing market condition & monsoon from April to September,2018 and from 18.10.2018 to 01.04.2019, mine was suspended by IBM.
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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)	No Top Soil generation.No surface dumping.Back filling of OB/waste within the mined out part of Pit is Proposed	Nil	
4b	Location of topsoil, OB and mineral reject dumps	Not Proposed	Not Done	
4c	Number of dumps within lease area and outside of lease area	Lease area = Nil Non Lease area = Nil	Lease area = Nil Non Lease area = Nil	1 No. Old Dead O/B Dump is there within ML area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Nil	Nil	
4e	Number of active and alive dumps.	Nil	Nil	Back filling of OB/waste within the mined out part of Pit is Proposed
4f	Number of dead dumps.	Nil	Nil	One earlier created dead dump is located within ML which is rehabilitated/afforested

4g	Number of dumps established.	Nil	Nil	one
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Nil	Old Dump is stabilized
4i	Length of Retaining wall or garland drain all along dumps	Nil	Nil	NA
4j	Number of settling ponds	Nil	Nil	One Settling tank made earlier.
4k	Specific comments of inspecting officer on waste dump management		Back filling of OB/waste within the mined out part of Pit is Proposed; However, No any excavation/ development and back-filling were carried out in year 218-19.	

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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.	Mineral to be fully extracted before starting backfilling	No any Back-filling was carried out in year 218-19.	
5b	Area under backfilling of mined out area	5.15 Ha	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top Soil generation is not proposed	Nil	
5d	Total area fully reclaimed and rehabilitated	-	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.		Reclamation/Back filling of OB/waste within the mined out part of Pit is Proposed; However, No any Reclamation/Back filling was carried out in year 218-19.	

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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	Annual report on PMCP for the year 2018-19 is submitted on time. However, quantity with respect to back-filling is given incorrectly as in Annual return submitted for year 2018-19, waste generation mentioned was nil.	Violation issued for the same.
6c	afforestation done (ha).	-	about 3500 Nos. saplings planted in year 2018-19 over the old dump and Backfilled area and as gap plantation	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	5.15Ha	Nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	-	Nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	-	about 3500 Nos. saplings planted in year 2018-19 over the old dump and Backfilled area and as gap plantation	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	-	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	-	Nil	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Not Proposed	nil	



6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not Proposed	nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not Proposed	nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed	Being carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Reclamation/Back filling of OB/waste within the mined out part of pit was not carried out in year 218-19 . However, plantation over old dump and Backfilled area was carried out to rehabilitate the same.

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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	Nil	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	nil	
7c	Different grade of mineral sorted out at mines.	yes	nil	
7d	Any beneficiation process at mines .	No wet beneficiation of ore, only dry crushing/screeing proposed	Nil	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No any excavation/ processing of ore was carried out in year 218-19.
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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not Proposed	Nil	
8b	Concurrent use or storage of topsoil	Top Soil not available	NA	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Overburden waste is proposed for backfilling	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Overburden waste is proposed for backfilling within the pit	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Pit reclamation by backfilling proposed	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	-	about 3500 Nos. saplings planted in year 2018-19 over the old dump and Backfilled area and as gap plantation	
8g	Survival rate	-	70% approx.	
8h	Water sprinkling on roads to control airborne dust	Proposed	Nil	NA

8i General remarks of inspecting officer on aesthetic beauty in and around mines area

Aesthetic beauty in and around mines area is good.

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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	-	MR & AR being Submitted regularly.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mr. Kiran Gad - Mining Engineer Mr. Anil Patil - Geologist Mr. Amit Kaisukar-Mine Manager	Mr. Kiran Gad - Mining Engineer Mr. Anil Patil - Geologist Mr. Amit Kaisukar-Mine Manager	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land Use: ( in Ha) Covered under Pits: 15 Reclaimed = (3.8') Dumps: 1.0 Infrastructure , Road etc:1.15 Temporary ore stock : 1.95 Work done under PMCP:2.4	Land Use: ( in Ha) Covered under Pits: 15 Reclaimed = (3.8') Dumps: 1.0 Infrastructure, Road etc:1.15 Temporary ore stock : 1.95 Work done under PMCP:2.4	
9d	Scrutiny of Annual return on afforestation	WML - 3500 Nos. 60 - 70% Survival Rate	WML - 3500 Nos. 60 - 70% Survival Rate	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	Nil	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM stock Nil Lumps below 55% Fe: 26620.53Tons Fines below 55% Fe: 464.73Tons	ROM stock Nil Lumps below 55% Fe: 26620.53Tons Fines below 55% Fe: 464.73Tons	AR-2018-19
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price : Lumps below 55% Fe: 850 Fines below 55% Fe:640 Production cost : Nil	No excavtion/production of ROM in year 2018-19	Only desptach of ore from stock.
9h	Scrutiny of Annual return on fixed assets	Rs. 130774850/-	Rs. 130774850/-	
9k	Scrutiny of Annual return on mining machineries	Hydraulic Shovel :1.6m3; 1 Nos Dumpers; 25T; 09 Nos. Water Tanker; 6000 Ltrs; 1 Nos	Hydraulic Shovel :1.6m3; 1 Nos Dumpers; 25T; 09 Nos. Water Tanker; 6000 Ltrs; 1 Nos	

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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)	06-DEC-19	03-FEB-20			
MCDR17	Rule 26(2)	06-DEC-19	03-FEB-20			

**Date :**

**(PREM PRAKASH)**

Indian Bureau of Mines