

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

**MCDR inspection REPORT**

**Bangalore regional office**

**Mine file No :** KNT/BLR/FE/331/BNG

**Mine code :** 30KAR03011

- (i) Name of the Inspecting : **OM5** ) **Dr.OMKESHA MURTHY.M.G**  
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : **SRI.S.M.JAGADEESHWAR, DGM(MINES), SRI.D.SOMASHEKARA RE**  
Official with  
Designation
- (iv) Date of Inspection : 14/09/2022
- (v) Prev.inspection date : 15/03/2022

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **DONIMALAI**
- (b) **Registration NO.** : **IBM/270/2011**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State** : **KARNATAKA**
- District** : **BELLARY**
- Village** : **DONIMALA TOWNSHIP**
- Taluka** : **SANDUR**
- Post office** : **DONIMALAI TOWNSHIP**
- Pin Code** : **583118**
- FAX No.** : **08395-274687**
- E-mail** : **diommining@nmdc.co.in, kior**
- Phone** : **08395-274649,274624, 94498'**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **18/10/1972**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **SRI.D.K.MOHANTHY, DIRECTOR( PRODUCTION)**  
**correspondance** : **NMDC LTD, MASAB TANK, HYDERABAD,**  
: **ANDHRAPRADESH - 500028. P-040- 23538711**
3. (a) **Lease Number** : **KAR0211**
- (b) **Lease area** : **608**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **03/11/2008**
4. **Mineral worked** : **IRON ORE** **Main**

## 5. Name and Address of the

Lessee : NATIONAL MINERAL DEV. CORPN. LTD  
 10-3-311/A, CASTLE HILLS,  
 MASAB TANK, HYDERABAD  
 TELANGANA  
 Phone:3538706  
 FAX :3538705

Owner : SATPATHY  
 10-3-311/A, KHANIJ BHAVAN,  
 CASTLE HILLS, MASAB TANK,  
 HYDERABAD HYDERABAD ANDHRA  
 PRADESH  
 Phone: 04023538752  
 FAX : 08395274649

Agent : B SAHOO  
 NMDC LIMITED PO DONIMALAI  
 BELLARY KARNATAKA  
 Phone:  
 FAX : 08395274624

## Mining Engineer

Name : S.K.JAIN,Full Time  
 Qualification : BE MINING  
 Appointment/ :  
 Termination date

## Mining Engineer

Name : C.B.P.SINHA,Full Time  
 Qualification : B.E.MINING  
 Appointment/ :  
 Termination date

## Geologist

Name : D.N.SHIVASHANKARAPPA,,Full Time  
 Qualification : M.SC GEOLOGY  
 Appointment/ : 01/12/2008  
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	05/06/1989
		Mining Scheme rule 12 MCDR1988	25/07/1995
		Renewal under rule 22 MCR1960	29/05/2000
		Mining Scheme rule 12 MCDR1988	20/10/2004
		Modif.approved Mining Scheme	16/03/2007
		Renewal under rule 22 MCR1960	18/08/2008
		Mining Scheme rule 12 MCDR1988	18/09/2012
		MS modif under MCR 1960	17/02/2014
		MP modif under 17(3) MCR 2016	08/09/2016
		MP modif under 17(3) MCR 2016	16/05/2017
		MP review under 17(1) MCR 2016	03/12/2020

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	9 Nos BH with 610 mtrs depth.	5 Nos BH with 258mtrs depth.	Violation issued under Rule 11(1).
1b	Exploration over lease area for geological axis 1 or 2	No proposal.	Mineralised area explored at G1 Level.	--
1c	Exploration Agencies and Expenditure in lakh rupees during the year	In house Exploration agency	--	Exploration expenditure separately not given same is reported in Part - VII cost of production in the annual return.
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not Applicable	Not Applicable	100% area Explored under G1 level.
1e	Balance reserve as on 01/04/20		Production reported for the year 2020-2021 is 0.554 MMT and for the year 2021-22 is 5.3164MMT respectively.	Total Mineral Resources as per the approved Mining Plan is 148.94 MMT (as on 01.04.2020), after depleting the reported production from the reserves (~ 143.084MMT) discrepancies observed during scrutiny of annual return violation issued u/r 45(7). As per Threshold value notification lessee has to calculate "All resources up to the threshold value and the resources between the threshold value and the cut-off grade shall be reported separately" Violation issued under Rule 11(1).

1f	General remarks of inspecting officers on geology, exploration etc	Entire Mineralised area explored up to G1 Level.
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## Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Location of development proposed: MMCS : E 675438 - 676083 N1662621 - 1663768 South Block: E 674897 - 675737 N1663677 - 1665446 2E/2W E 674355 - 675004 N 1665727 - 1666997 3E/3W E 673456 - 674282 N 1666846 - 1668585	MMCS : E 675438 - 676083 N1662621-1663768 South Block: E 674897 - 675737 N1663677- 1665446 2E/2W E 674355 - 675004 N 1665727 - 1666997 3E/3W E 673456 - 674282 N 1666846 - 1668585	Development is achieved is 46% less than the target development and not achieved the proposed stripping ratio (1:3.03 proposed to 1:1.80 achieved) Violation issued under Rule 11(1).
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Topsoil: NIL OB: 44 Mineral: 25	Topsoil: NIL OB: 40 Mineral: 40	--
2c	Stripping ratio or ore to OB ratio	1:3.03	1:1.80	Violation issued under Rule 11(1)
2d	Quantity of topsoil generation in m3	No proposal.	NIL	
2e	Quantity of overburden generation in m3	8,143,122	921,762	Less development carried out. Violation issued.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Proposed development and stripping ration not achieved violations issued for the same, benches have to be developed systematically.
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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	5	5	
3b	Quantity of ROM mineral production proposed	7,000,000 Tonnes	5,364,432 Tonnes	Violation issued for deviation.
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	--
3d	Quantity of mineral reject generation	No proposal.	--	--
3e	Grade of mineral rejects generation and threshold value declared.	No proposal.	The resources b/n threshold value and the cut-off grade not reported/estimated.	Violation issued under Rule 11(1).
3f	Quantity of sub grade mineral generation.	No Proposal	--	--
3g	Grade of sub grade mineral generation	35% Fe to 55% Fe	35% Fe to 55% Fe	All utilized
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed for segregating.	Mechanised method adopted for segregating	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	--	

3j	Provision of drilling and blasting in mineral benches	Spacing -3.5-5.5(depending on ore type) Burden ; 2.5 to 5.0 (depending on ore type) Ave. Bench Height :12	Spacing -3.5-5.5 (depending on ore type) Burden ; 2.5 to 5.0 (depending on ore type) Ave. Bench Height :12	
3k	Provision of mining machineries in mineral benches	YES	YES	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	YES	YES	
3m	Total area covered under excavation/pits	212.40 Ha	212.40 Ha	AS per AR
3n	Ore to OB ratio for the pit/mine during the year.	1:3.03	1:1.80	Violation issued for deviation
3o	Total area put in use under different heads at the end of year	Current (O/C) working : 212.40 Ha Waste disposal : 138.88 Ha Plants, Buildings & Roads: 27.50 Ha Others: 210.73 Ha	As proposed.	
3p	Production of ROM mineral during the last five year period as applicable	2017-18: 6000000 2018-19: 6000000 2019-20: 6000000 2020-21: 2000000 2021-22: 7000000	2017-18: 5999907 2018-19: 2012260 2019-20: Nil 2020-21: 554463 2021-22: 5364432	

3q General remarks of inspecting officers on method of mining etc.

Benches developed were needs to be systematized and strictly follow the bench parameters specified as per the approved Mining plan.

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Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	YES	Proposals followed by and large.	
4b	Location of topsoil, OB and mineral reject dumps	AD1 E 673924 - 674563 N 1666459 - 1667421  AD2 E 675292 - 676259 N 1664090 - 1665013  AD3 E 674529 - 675238 N 1664073 - 1665472  BF3 E 673984 - 674500 N 1666236 - 1666874  BF4 E 674400 - 674724 N 1665809 - 1666156	As per proposal.	
4c	Number of dumps within lease area and outside of lease area	05- Active 05 - In active	05- Active 05 - In active	All dumps are within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	All dumps are outside UPL.	All dumps are outside UPL.	

4e	Number of active and alive dumps.	05	05	
4f	Number of dead dumps.	05	05	
4g	Number of dumps established.	No proposal.	--	05 dumps established earlier.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall 380m & garland drain 400m.	Carried out as per proposal.	
4i	Length of Retaining wall or garland drain all along dumps	R&R measures as per CEC undertaken.	Carried out as per proposal	
4j	Number of settling ponds	No proposal.	--	
4k	Specific comments of inspecting officer on waste dump management			The development quantity has not achieved as proposed, hence violation issued.

#### 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.	No proposal.	--	--
5b	Area under backfilling of mined out area	146.72 ha	38.54 Ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal.	--	
5d	Total area fully reclaimed and rehabilitated	No proposal.	8.03 Ha	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Not achieved the proposed development, backfilling of mined out area is lagging.

## 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.	Yes, submitted within the time.	
6b	Area available for rehabilitation (ha) .	No proposal.	Not applicable.	4651631 Tons of material backfilled as per submitted for FA 2021-22.
6c	afforestation done (ha).	No proposal.	Nil.	
6d	No. of saplings planted during the year	12000 Nos	15000 Nos	
6e	Cumulative no .of plants		162000	
6f	Any other method of rehabilitation	No proposal.	--	
6g	Cost incurred on watch and care during the year	No proposal.	NA	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal.	NA	4651631 Tons of material backfilled as per submitted for FA 2021-22.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal.	NA	
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal.	NA	

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal.	NA	
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal.	NA	
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal.	NA	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal.	NA	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal.	NA	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed.	Environmental monitoring (core zone & buffer zone) carried out by M/s Pragati Lab Hyderabad.	Report verified, all parameters are within the permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Backfilling carried out after exhaustion of Ore from the pit.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM mined send to screening plant for grade-wise sorting.	Based on the size Lumps & Fines are sorted out.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical method proposed.	Mechanical method adopted for mineral sorting.	--
7c	Different grade of mineral sorted out at mines.	No proposal.	Different grade of mineral sorted (Fe) at the mine: Below 55% 55% to 58% 58% to 60% 60% to 62% 62% to 65% & Above 65%	
7d	Any beneficiation process at mines	No proposal.	No such beneficiation process Carried out at the mine.	Sizing & screening done.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mechanical method adopted for mineral sorting. Different grade of mineral sorted (Fe) at the mine and 55% to 65% grade material has been dispatched.

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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal.	NIL	
8b	Concurrent use or storage of topsoil	No proposal.	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumps proposed.	Separate dumps for overburden maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal.	Used for backfilling of mineral exhausted pit.	

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Maintained.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No proposal.	Nil.	
8g	Survival rate	100 %	85%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling proposed on haul roads	Water tanker deployed for suppression of air born dust in the mine.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty of the mining area and surrounding have to be maintained well and same has to be continued.

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#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Aug 2022 A.R. for the year 2021-22 submitted on 28.06.2021	M.R. Submitted up to Aug 2022 A.R. for the year 2021-22 submitted on 28.06.2021	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Sri SURAJ KUMAR, Mining Engineer Sri D SOMASEKHAR REDDY, Geologist	Correct for the reported period	For the year 2022-23 Shri. S M Jagadeeshwar, Mining Engineer And Shri. Varchaswi Kaushal, Geologist Date of Appointment: 20.07.2022

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Details incorporated /Reported in the AR	Verified and is correct.	
9d	Scrutiny of Annual return on afforestation	Details incorporated /Reported in the AR	Verified and is correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil.	Verified and is correct.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	--	Total Resources reported quantity not matching with the Approved mining plan after depletion of reported/achieved production in Part - V (3)	Violation issued for the same.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Grade wise Ex, Mine price & production cost given in the AR	Seems to be correct.	
9h	Scrutiny of Annual return on fixed assets	Rs. 2049648878/-	Seems to be correct.	
9k	Scrutiny of Annual return on mining machineries	Excavator - 8 Nos. Dumper - 11 Nos. Drills - 7 Nos. Wheel loaders - 3 Nos. Motor grader - 2Nos. Dozer - 7 Nos. Crane - 7 Nos.	Seems to be correct.	

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**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 11(1)	28/09/2022			
MCDR17	Rule 34(1)	28/09/2022			
	Rule 45(7)(i)	28/09/2022			

**Date :**

(Dr.OMKESHA MURTHY.M.G)

Indian Bureau of Mines