

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

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/KSN/LST-13/HYD

Mine code : 38APR10001

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri. Ram Reddy, Mines Manager and Sri. Naresh, Geologist
Official with
Designation
- (iv) Date of Inspection : 18-DEC-20
- (v) Prev. inspection date : 23-FEB-20

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HEMADRI (NO.221)**
- (b) **Registration NO.** :
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
State : ANDHRA PRADESH
District : KRISHNA
Village : VEDADRI
Taluka : JAGGAIYAPET
Post office : VEDADRI
Pin Code : 521438
FAX No. : 0865422373
E-mail : NA
Phone : 27373 22317
- (f) **Police Station** :
- (g) **First opening date** : 01-APR-85
- (h) **Weekly day of rest** : SUN
2. **Address for** : **HEMADRI LIMESTONE MINE**
correspondance **VEDADRI, JAGGAYYAPET**
KRISHNA DIST
3. (a) **Lease Number** : APR0058
(b) **Lease area** : 38.69
(c) **Period of lease** : 20
(d) **Date of Expiry** : 09-NOV-21
4. **Mineral worked** : **LIMESTONE** Main

5. Name and Address of the

Lessee : M/S HEMADRI CEMENTS LIMITED
 KRISHNA ANDHRA PRADESH
 Phone:22373 22317
 FAX :08654 22373

Owner : M/SHEMADRI CEMENTS LTD
 M/S HEMDRI CEMENTS LTD
 VEDADRI JAGGAYYAPET KRISH
 KRISHNA ANDHRA PRADESH
 Phone: 22373/22317
 FAX : 0865422373

Agent : SRI P.RAMA KRISHNA RAO.
 M/S HEMADRI CEMENTS LTD,
 VILL& POST: VEDADRI, DIST:
 KRISHNA, KRISHNA ANDHRA
 PRADESH
 Phone: 08678-284538
 FAX : 0878- 284859

Mining Engineer

Name : SHRI D.Venkata Akhil Kalyan,Full Time
 Qualification : B.Tech in Mining Engineering
 Appointment/ : 10-NOV-16
 Termination date

Geologist

Name : M.RAMACHANDRA REDDY,Full Time
 Qualification : MSc, Geology.
 Appointment/ : 02-JUN-08
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	28-JUL-94
Plan/Scheme of Mining	:	Renewal under rule 24 MCR1960	18-APR-08
	:	MP modif under MCR 1960	29-FEB-16
	:	MP review under 17(1) MCR 2016	15-MAY-18

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2019-20 -Nil	Nil	
1b	Exploration over lease area for geological axis 1 or 2	---	20.04 Ha mineralised area has been explored under G1 level. Non-mineralised area - 18.04 Ha	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	---	Exploration agency - Rock Engineering Core drillers, Hyderabad. Exploration expenditure - 4.065 lakhs	
1d	Balance area to be explored to bring Geological axis in 1 or 2	---	Entire mineralised area of 20.04 Ha has been explored under G1 level. Non-mineralised area - 18.04 Ha	
1e	Balance reserve as on 01/04/20	---	Proved Reserves as on 31/11/2020 - 1.055 million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			Entire mineralised area of 20.04 Ha has been explored under G1 level. Non-mineralised area - 18.04 Ha

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1857727 - N1857877 E408653 - E408481	Work done within the proposed co-ordinates.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Seperate benches proposed in OB and limestone	3 benches developed in OB and 3 benches in limestone	
2c	Stripping ratio or ore to OB ratio	1:0.5	1:0.6	

2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	58916 cu.m	39880 cu.m	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mechanised mining method is adopted. Seperate benches in OB and limestone has been developed.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	One	Working is carried out in Pit-1.
3b	Quantity of ROM mineral production proposed	2019-20 - 177543 Te 2020-21 - 173745 Te	2019-20 - 109500 Te 2020-21 - 108000 Te (till Nov'30)	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	Not applicable	Nil	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	Not applicable	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	Nil	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed in mineral benches	Wagon Drill Machine Dia 115 mm -1No & Compressor -16 m ³ /450cfm. Burden -4m, Spacing -3 m, Bench height-7m. Blasting with slurry explosive with NONELS as initiating system.
3k	Provision of mining machineries in mineral benches	Excavator-0.9 m ³ -1no, Tippers (17 Tons) -7 Nos Rock breaker - 1 No.	Excavator -0.9 m ³ - 2no, Tippers (18 Tons) -5 Nos, Rock breaker - 1 No.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	It was proposed to maintain the bench height of 6-7 meters	During inspection it was noticed that the bench height is being maintained between 6-7 m and digging height of the excavators are compatible with bench height.
3m	Total area covered under excavation/pits	16.971 Ha	14.27 Ha
3n	Ore to OB ratio for the pit/mine during the year.	1:0.5	1:0.6
3o	Total area put in use under different heads at the end of year	22.728 Ha	20.44 Ha

3p	Production of ROM mineral during the last five year period as applicable	2016-17 :180058 Ton 2017-18 : 179970 Ton 2018-19 : 173673 Ton 2019-20 - 177543 Te 2020-21 - 1783745 Te	2016-17 : 158100 Tonnes 2017-18 : 145500 Tonnes 2018-19 : 149500 Tonnes 2019-20 : 109500 Tonnes 2020-21 : 108000 Tonnes (till Nov'20)
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3q	General remarks of inspecting officers on method of mining etc.	Mechanised opencast mining method has been adopted with deep hole drilling and blasting techniques for ore fragmentation. For loading & haulage, Hydraulic excavators, backhoe & tippers are being used.
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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 topsoil, OB and mineral reject dumps proposed	Nil	
4b	Location of topsoil, OB and mineral reject dumps	No proposal in 2019-20	Nil	Existing Old Dumps: Dump 1 - N1857700 - N1858000 E408600 - E408800 Dump 2 - N1858084 - N1858252 E408988 - E409069
4c	Number of dumps within lease area and outside of lease area	Two dumps within lease area	Two dumps within lease area	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps outside UPL	Dumps maintained outside UPL	
4e	Number of active and alive dumps.	Two	Two	
4f	Number of dead dumps.	Nil	Nil	
4g	Number of dumps established.	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there.	To be maintained	Constructed and maintained	
4i	Length of Retaining wall or garland drain all along dumps	---	450m length of retaining wall and garland drain maintained along the dumps.	
4j	Number of settling ponds	No proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			Separate OB dumps were proposed and accordingly they are being maintained.

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	Nil	1.28 Ha completely mineral mined out area is already existing prior to 2018-19.
5b	Area under backfilling of mined out area	0.40 Ha	0.40 Ha	Plans and sections not maintained upto date. Violation issued as per rule.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling done in the North east side of the mining lease. No record/register maintained showing quantity of material backfilled. Violation issued as per rule.

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).	To be submitted	Submitted	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	0.0875 Ha on dump slope 0.11 Ha in safety zone	0.0875 Ha on dump slope 0.53 Ha is safety zone	
6d	No. of saplings planted during the year	1500 Nos. on dump slope 500 Nos. on safety zone	3320 Nos. on dump slope 559 Nos. on safety zone	
6e	Cumulative no .of plants	No proposal	Nil	
6f	Any other method of rehabilitation	No proposal	Nil	

6g	Cost incurred on watch and care during the year	No proposal	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.40 Ha area and 58916 cu.m quantity is proposed to backfill	0.4 Ha and 71785 Te of material is backfilled.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	1500 on slopes of waste dump 500 in safety barrier zone of Mining Lease	Plantation done at slope of waste dump and 559 nos of planataion has been done in 7.5 m safety barrier.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly environmental monitoring of core and buffer zone.	Quarterly environmental monitoring carried out during 2019-20 and all the parameters are within the permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Backfilling is being carried out in the North east side of the mining lease.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal	Nil	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	Nil	
7c	Different grade of mineral sorted out at mines.	No proposal	Nil	
7d	Any beneficiation process at mines	No proposal	Nil	

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	No sub grade has been generated. Beneficiation is not required as the entire ROM mineral is utilised for captive plant.
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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)	No separated dumping of waste proposed.	Waste generated is used for backfilling the mined out area.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB generated is proposed to backfill	OB generated is utilised for backfilling	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling of 0.40 Ha is proposed	Backfilling is being carried out in the mined out land.	

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	----	559 Nos. of saplings planted in the safety zone covering area of 0.53 Ha.	
8g	Survival rate	80%	70%	
8h	Water sprinkling on roads to control airborne dust	Water Tankers to be provided for dust suppression	Water tanker is provided for dust suppression.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Plantation is done in the 7.5m safety zone and on the dumps.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	To be submitted in time	Submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager & Mining Engineer - Sri. R. Ram Reddy. Geologist - Sri.S.Naresh Kumar	Manager & Mining Engineer - Sri. R. Ram Reddy. Geologist - Sri.S.Naresh Kumar	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Opencast working - 1.2 Ha Waste disposal - 4.23 Ha Road and infrastructure - 0.67 Ha	Broadly as per submission.	
9d	Scrutiny of Annual return on afforestation	559 Nos.	Broadly as submission and same quantity is verified in afforestation register maintained.	

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	Nil	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production is reported as Rs.250.88/-.	Total overhead cost is not submitted in Part-III, Sl.No.6(i). Annual returns has been referred back to the lessee by MMS division.
9h	Scrutiny of Annual return on fixed assets	Nil	Lessee has not submitted that details of the fixed assests. Annual returns has been referred back to the lessee by MMS division.
9k	Scrutiny of Annual return on mining machineries	Excavator - 1No. Tipper - 4 Nos. Drill machine - 1 Nos.	Machineries found in the mining area.

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 31(1)	21-JAN-21	05-FEB-21				

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines