

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

**MCDR inspection REPORT
Hyderabad regional office**

Mine file No : AP/KNL/LST-190/HYD

Mine code : 38APR11130

- (i) Name of the Inspecting : **M029**) **MADHU SUDHAN YADAV M**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Sri. Anil Kumar K.G. Mines Manager, Sri. Ritesh Chatt
Official with
Designation
- (iv) Date of Inspection : 30-JUL-21
- (v) Prev.inspection date : 05-JAN-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **JSW LIMESTONE MINE**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : ANDHRA PRADESH
District : KURNOOL
Village : BILAKALAGUDUR
Taluka : GADIVEMULA
Post office : GADIVEMULA
Pin Code : 518508
FAX No. :
E-mail :
Phone : 08514202304,202305
- (f) Police Station : Gadivemula
- (g) First opening date : 01-APR-08
- (h) Weekly day of rest : SUN
2. Address for : Bilakalgudur village,
correspondance : Gadivemula Mandal
Kurnool district.
3. (a) Lease Number : APR2820
- (b) Lease area : 617.57
- (c) Period of lease : 20
- (d) Date of Expiry : 24-APR-28
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : JSW CEMENTS
 403, SAI RAM ENCLAVE
 SRINIVAS NAGAR NANDYAL
 KURNOOL ANDHRA PRADESH
 Phone:
 FAX :

Owner : NILESH NARWEKAR
 MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone:
 FAX :

Agent : ARPAN PAREKH
 KURNOOL ANDHRA PRADESH
 Phone:
 FAX :

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	16-OCT-07
Plan/Scheme of Mining	:	Modif.of approved Mining Plan	02-DEC-08
	:	Modif.of approved Mining Plan	21-AUG-12
	:	Mining Scheme rule 12 MCDR1988	07-OCT-13
	:	MP review under 17(1) MCR 2016	27-NOV-17

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal	Nil	
1b	Exploration over lease area for geological axis 1 or 2	No proposal	Nil	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Area Under G1= 243.90ha. G2= 60 ha. G3 = 46.67 ha. Plant established on remaining 267 hectare lease area which is not having cement grade limestone.	
1e	Balance reserve as on 01/04/20	---	Proved Mineral Reserves as on 01/04/2021 - 54.33 million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			106.67 Ha is yet to be proved under G1 level of exploration. Advisory letter issued to the lessee on 31/03/2021 for carrying out exploration of G2 and G3 level explored area in G1 level. During inspection lessee has reported that work order has been issued to carried out exploration within the time limit.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Pit No 1 N 1735066 to N1735722 & E226234 to E 226891 RL 236m to 228 m Pit no 2 N1734458 to N1734907 & E 225941 to E226755. RL 242m to 228 m	Work done within the proposed co-ordinates.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposed	No benches have been developed in top soil.Top soil has been scrapped off and utilised for Green Belt Developement. Benches has been developed in mineral only.	
2c	Stripping ratio or ore to OB ratio	No proposal	Nil	
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	No proposal	Nil	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Mineral is being extracted in two pits (Pit-1 & Pit-2) for blending the low grade from Pit-1.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Two	Two	
3b	Quantity of ROM mineral production proposed	2020-21 - 3725520 Te	2020-21 - 2320806 Te	

3c	Recovery of sailable/usable mineral from ROM production	3725520 Te of limestone and 763200 Te of mineral rejects in 2020-21.	2320806 Te of limestone and 376704 Te of mineral rejects generated in 2020-21.
3d	Quantity of mineral reject generation	2020-21 - 763200 Te	2020-21 - 376704 Te
3e	Grade of mineral rejects generation and threshold value declared.	CaO - >35 % SiO2 - >18%	CaO - >35 % SiO2 - >18%
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	The segregation of the blasted material is done at the blast site itself. Limestone quality is checked both before and after the blast.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	It has been proposed to conduct the beneficiation study for Mineral Reject within the plan period 2018-19 to 2022-23.	The lessee has reported varying silica percentage in the ore body. The lessee has undertaken the beneficiation study.
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed in the mineral benches.	During inspection it was observed that Wagon drill being used for drilling with a blast hole dia of 115 mm & depth of 8.8 m, spacing of 4.5 meters and burden of 4 meters. Blasting with slurry and ANFO with NONELS as initiating system.

3k	Provision of mining machineries in mineral benches	It was proposed to use wagon drills, exvators & dumpers for drilling, loading & transporting of ore to crushing plant.	During inspection, it was observed that wagon drills, dumpers & excavators are being used for drilling, loading & transportation of ore to crushing plant
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 8-9 meters	During inspection it was noticed that the bench height is being maintained between 8-9 m and digging height of the excavators are compatible with bench height.
3m	Total area covered under excavation/pits	103.20 Ha till 2022-23.	63.20 Ha till 2020-21.
3n	Ore to OB ratio for the pit/mine during the year.	No proposal	Nil
3o	Total area put in use under different heads at the end of year	250.55 Ha till 2022-23.	193.2 Ha till 2020-21.
3p	Production of ROM mineral during the last five year period as applicable	2016-17- 4466422T 2017- 18-4410775T 2018- 19-2817240T 2019- 20-3406920 T 2020-21 - 3725520 Te	2016-17 - 1340883Te 2017-18 - 982770 Te 2018-19 - 2054984Te 2019-20 - 2262434 Te 2020-21 - 2320806 Te
3q	General remarks of inspecting officers on method of mining etc.		Mining is carried out by fully mechanised method by deploying HEMM.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Proposed to dump topsoil and mineral reject seperately	Mineral reject is being is dumped seperately and topsoil is used for greenbelt development.	
4b	Location of topsoil, OB and mineral reject dumps	Mineral Reject: E226024-N1735628 E226204-N1735587 E226104-N1735910 E226287-N1735876	Two mineral reject dumps of more than 18% silica is there on the western side of the lease along side the road. One subgrade dump has been observed in the south side of pit-1 near plant crusher gate.	
4c	Number of dumps within lease area and outside of lease area	Three	Three	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps outside the UPL	Dumps maintained outside UPL	
4e	Number of active and alive dumps.	Three	Three	
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.	Proposed	Retaining wall and garland drain maintained along the dump.	
4i	Length of Retaining wall or garland drain all along dumps	2020-21 - 250 m	2020-21 - 100 mts	Due to less production and generation of mineral rejects, there is no scope to construct 250 m of garland drain and retaining wall.
4j	Number of settling ponds	No proposal	Nil	

4k	Specific comments of inspecting officer on waste dump management	As per mining plan 763200 Tonnes of mineral reject was to be generated against the same 376704 Tonnes of mineral reject is generated which is reported as over burden in the annual return for 2020-21. Advised to correct the annual returns since lessee has requested for refer back from MMS division.
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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.	No proposal	Nil	
5b	Area under backfilling of mined out area	No proposal	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Topsoil is being utilised for green belt development as and when generated.	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The pit is not mined out upto its ultimate pit limit to start backfilling.

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).	5.47 Ha	5.47 Ha	
6d	No. of saplings planted during the year	5000 Nos. in 2020-21	5502 Nos. in 2020-21	
6e	Cumulative no .of plants	No proposal	---	
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	No proposal	Nil	
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)Afforestati 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	No proposal	Nil	
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 2020-21 and all the parameters are within the permissible limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No area of pit has reached its ultimate pit limit to start Reclamation and Rehabilitation and backfilling activities.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No grade wise sorting proposed	Cement grade Limestone is directly shifted to crusher whereas the subgrade ore is shifted to the corresponding dump depending upon the quality.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No proposal	The segregation of Cement Grade or sub grade is done at the blast site itself.	
7c	Different grade of mineral sorted out at mines.	No proposal	The segregation of Cement Grade or sub grade is done at the blast site itself . The material is then blended to meet the plant requirement.	
7d	Any beneficiation process at mines .	No proposal	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral reject generated is stacked and utilised as and when required by the cement plant.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate top soil removal and utilization has been proposed.	Meager quantity of Topsoil generated is used for plantation & greenery development	
8b	Concurrent use or storage of topsoil	Proposed to use for green belt development	Concurrently used for plantation purposes as per proposal	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No proposal	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5000 nos saplings in 5.47 Ha was proposed to be planted in 2020-21.	2020-21 - 5502 nos saplings planted.	
8g	Survival rate	----	75%	
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 being done along road sides to improve the aesthetic beauty of mine.

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	Mining Engineer S K Shukla Geologist- Ritesh Chattraj Manager-Anil Kumar G.	Mining Engineer S K Shukla Geologist- Ritesh Chattraj Manager-Anil Kumar G.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	O/C workings - 63.2 Ha Cement Plant, buildidings and roads - 122.3 Ha Top soil dump - 7.7 Ha	Same as submitted.
9d	Scrutiny of Annual return on afforestation	5502 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	376704 Tonnes of mineral reject is reported as over burden in annual returns. Advised to correct the annual returns since lessee has requested for refer back from MMS division.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	2320806 Te	2320806 tonnes of ROM is found to be produced during 2020-21 as per records.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production and ex mine price repoted as Rs.234.37/-	Total overhead cost, depreciation are not matching with the cost per tonne calculation. Advised to correct the annual returns since it has been referred back by the MMS division.
9h	Scrutiny of Annual return on fixed assets	The value of fixed assets reported by the lessee in annual returns is Rs.36338679/-	---

9k	Scrutiny of Annual return on mining machineries	Hydraulic shovel - 7 Nos. Tipper - 21 Nos. Water Tanker - 1 No. Rock Drill - 1 No. Explosive van - 1 No. Air compressor - 1 No.	Machineries found in the mining area.
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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

Date :

(MADHU SUDHAN YADAV M)

Indian Bureau of Mines