

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

Review and updation of Mining Plan REPORT

Bangalore regional office

Mine file No : KNT/GLB/LST/7/BNG

Mine code : 38KAR10012

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 06/10/2017
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **WADI - I**
- (b) **Registration NO.** : **IBM/256/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : KARNATAKA
District : GULBARGA
Village : WADI
Taluka : CHITTAPUR
Post office : WADI
Pin Code :
FAX No. : 022-25811618
E-mail : kunj.verma@acclimited.com
Phone : 022-67973967 (O),948068626:
- (f) Police Station : Chittapur
- (g) First opening date : 09/08/1966
- (h) Weekly day of rest : SUN
2. Address for : M/s ACC Limited, Wadi Cement Works
correspondance : Wadi-585 225,Taluk-Chittapur
Dist-Gulbarga ,State -Karnataka
3. (a) Lease Number : KAR0074
- (b) Lease area : 471.03
- (c) Period of lease : 20
- (d) Date of Expiry : 18/02/2023
4. Mineral worked : LIMESTONE Main
CLAY (OTHERS) Associated
SHALE Associated

5. Name and Address of the

Lessee : ACC Limited
 WADI CEMENT WORKS, WADI
 [P.O], GULBARGA, GULBARGA
 KARNATAKA
 Phone:08476-62411
 FAX :08476-62190

Owner : Neeraj Akhoury
 121, Maharshi Karve road,
 "Cement House" Mumbai
 MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone:
 FAX : 02225811618

Agent : K RAVEENDRANATHA REDDY
 Wadi cement Works, Wadi
 GULBARGA KARNATAKA
 Phone:
 FAX :

Mining Engineer

Name : B N Prasadrao, Full Time
 Qualification : B.E. Mining Engineering
 Appointment/ : 20/06/2016
 Termination date

Geologist

Name : JAGDISH MADIVAL, Full Time
 Qualification : M.Sc (GEOLOGY)
 Appointment/ : 05/07/2013
 Termination date

Manager

Name : KUNJ BEHARI VERMA
 Qualification : B.E (MINING)
 Appointment/ : 16/09/2012
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	28/06/1990
		Modif.of approved Mining Plan	10/06/1993
		Mining Scheme rule 12 MCDR1988	12/10/1994
		Mining Scheme rule 12 MCDR1988	08/03/2000
		Renewal under rule 22 MCR1960	16/06/2003
		Mining Scheme rule 12 MCDR1988	20/10/2008
		Mining Scheme rule 12 MCDR1988	24/09/2013

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	25no of bore holes	Boreholes drilled-27 nos	Total meterage-625 m
1b	Exploration over lease area for geological axis 1 or 2	Nil	G1 axis:390.04 Ha,G3-80.99 Ha	Entire ML area is covered under G1 except plant area
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	M/S Synergy Geotech, Nagpur	Expenditure incurred: Rs.23 Lakhs
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	G1 axis:390.04 Ha,G3-80.99 Ha	Entire ML area is covered under G1 except plant area
1e	Balance reserve as on 01/04/20		Limestone:57.19 Million Tons as on 01.04.2017	Based on approved RMP
1f	General remarks of inspecting officers on geology, exploration etc			214 bore holes with 4955 mts were drilled at 150X150 m grid interval. Entire ML area is covered under G1 except plant area.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Block-1(N-part),Block-4(SW part)	Block-1(N-part),Block-4(SW part)	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in ore & OB	One bench in top soil & 4 benches in ore	-
2c	Stripping ratio or ore to OB ratio	1:0.08	1:0.08	Based on limestone production data
2d	Quantity of topsoil generation in m3	7500	4375	-
2e	Quantity of overburden generation in m3	337000	252750 (404400 Tons)	BD-1.6 for OB

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	1 to 3 mts of OB bench with very little OB. The formation of benches was made based on the grade of mineral to facilitate proper blending.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single pit	Single pit (Existing pit 3000mX1000mX35m)	-
3b	Quantity of ROM mineral production proposed	7.72 Million Ton of limestone	Limestone-5.1 Million Ton	low demand
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	-
3d	Quantity of mineral reject generation	Nil	Nil	-
3e	Grade of mineral rejects generation and threshold value declared.	Limestone threshold:CaO-35% Min	Entire ROM is being utilized in their captive plant	High grade blended with shale /low grade limestone
3f	Quantity of sub grade mineral generation.	No proposal	Nil	Shale is used as silica corrective
3g	Grade of sub grade mineral generation	NA	Nil	-
3h	Manual / Mechanised method adopted for segregating from ROM	No proposal	The limestone from pit is transported to the crushers by 85/100 Ton dumper, then to plant thru conveyor belt arrangement	-
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	No study carried out	-

3j	Provision of drilling and blasting in mineral benches	Deep hole drilling & blasting proposed	Deep hole drilling & blasting done	-
3k	Provision of mining machineries in mineral benches	Shovel dumper combination	The m/c were deployed as proposed in approved SOM	-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	YES	OB-1to 3 m, Mineral-6-9 mts, 15-30 m (avg. width)	4 nos of ore benches
3m	Total area covered under excavation/pits	275 Ha	246.29 Ha	-
3n	Ore to OB ratio for the pit/mine during the year.	1:0.08	1:0.08	For limestone mineral
3o	Total area put in use under different heads at the end of year	Pit-275 Ha, Dumps-35 Ha, Green Belt-26 Ha, Infrastructure & roads-85.8 Ha	Pit-246.29 Ha, Dumps-24 Ha, Green Belt-26 Ha, Infrastructure & roads-96 Ha	-
3p	Production of ROM mineral during the last five year period as applicable	Limestone 2012-13- 7.72 2013-14- 7.72 2014-15-7.72 2015-16-7.72 2016-17-7.72	2012-13- 5.21 2013-14- 5.05 2014-15-5.47 2015-16-5.83 2016-17-5.10	Unit: Million Tons
3q	General remarks of inspecting officers on method of mining etc.			Low production due to less demand of cement in the market. Against the target proposal of 1.28 million tonnes of shale, 669667 Tons produced in 2016-17.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate stacking of topsoil & OB	Separate dumping of OB & top soil carried out	-

4b	Location of topsoil, OB and mineral reject dumps	The top soil utilized for afforestation. Partial OB proposed to be backfilled	OB were backfilled & top soil utilized for afforestation	-
4c	Number of dumps within lease area and outside of lease area	WML-5dumps OML-Nil	WML-5dumps OML-Nil	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Along the mining lease boundary	Along the mining lease boundary	Entire ML area is mineralized
4e	Number of active and alive dumps.	Nil	Nil	-
4f	Number of dead dumps.	5	5	-
4g	Number of dumps established.	5	5 dumps stabilized by plantation	-
4h	Whether Retaining wall or garland drain all along dumps are there.	Nil	Garland drain all along the periphery of the dump	-
4i	Length of Retaining wall or garland drain all along dumps	NA	NA	-
4j	Number of settling ponds	No proposal	NA	-
4k	Specific comments of inspecting officer on waste dump management			26 Ha has been developed as green belt & 28.169 ha area of mined pit was fully reclaimed & rehabilitated in the mine as per the approved document

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.	337000m3 quantity of waste will be backfilled	252750 m3 quantity of waste backfilled	-

5b	Area under backfilling of mined out area	Backfilling proposals in Block-4 & Block-1 (4 Ha)	Backfilling carried out in Block-1 only (1.5 Ha)	-
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Spreading of top soil on the waste dumps and thereafter plantation on the waste dumps for better survival rate of the plants	Actual work done as per the proposals.	-
5d	Total area fully reclaimed and rehabilitated	Proposed to convert the mined out area into water reservoir & back filling in part of pit	Actual work done as per the proposals.	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling was carried out in Block- 1 covering an area of 1.5 Ha with a total quantity of 252750 m3

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 before 1st July every year	AR on PMCP submitted on 22/7/2017	-
6b	Area available for rehabilitation (ha) .	30 Ha	30 Ha	-
6c	afforestation done (ha).	28 Ha	28 Ha	-
6d	No. of saplings planted during the year	3500 nos	3500 nos	-
6e	Cumulative no .of plants	75000 Nos	79270 Nos	-

6f	Any other method of rehabilitation converting dug out pits into water reservoir (2Ha)	Water Reservoir-2Ha	-	
6g	Cost incurred on watch and care during the year	Rs.5,00,000/-	Rs.6,00,000/-	-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	4 Ha	4 Ha	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	4 Ha	1.5 Ha	-
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	3.5 Ha	Nil	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	2 Ha	2Ha	-
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	Nil	Part of existing pit (60.63 Ha) is converted into water reservoir, further 28.169 ha was fully reclaimed & rehabilitated in the mine
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	3500 nos of sapling WML in 3 Ha & 3500 nos of saplings outside ML were planted	-

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	3500 nos of sapling WML in 3 Ha & 3500 nos of saplings outside ML were planted	-
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	Nil	-
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis& noise level	Season wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis& noise level are being carried out regularly.	All parameters are within limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			The lessee had carried out PMCP activities as per the proposal

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Direct ROM mineral dispatch to their captive cement plant.	Direct ROM mineral dispatch to their captive cement plant. Having 6.5 mtpa clinkering capacity	As per the plant requirement ROM from diff. benches will be crushed and transported by conveyer.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No such proposals	Bench wise blending as per their requirement	-
7c	Different grade of mineral sorted out at mines.	No such proposals	Bench wise blending as per their requirement	Shale occurring below the limestone is utilized in the plant feed as silica corrective.

7d	Any beneficiation process at mines	No mineral beneficiation proposals	Only crushing & sizing is done	Three Crusher units.capacity- 650TPH,1000 TPH & 1200TPH respectively
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Beneficiation of limestone is not required as the entire ore is crushed, blended & transported to the plant.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	The top soil generated(7500 m3) will be utilized for afforestation	4375 m3 of top soil generated during the year 2016-17 & utilized for afforestation work	-
8b	Concurrent use or storage of topsoil	Spreading of top soil on the waste dumps and thereafter plantation on the waste dumps for better survival rate of the plants	4375 m3 of top soil generated during the year 2016-17 & utilized for afforestation work	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump of top soil & OB proposed	Separate dumping of top soil & OB carried out	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposals	Nil	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Converting the dug out pit into water reservoir & part back filling	Water Reservoir-60.6 Ha, Backfilling-28 Ha so far	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	3500 saplings proposed in 3 Ha within ML area	3500 saplings proposed in 3 Ha within ML area & 3500 saplings outside the ML area in 2016-17	-
8g	Survival rate	90%	85%(2016-17)	-
8h	Water sprinkling on roads to control airborne dust	Proposed	Sprinklers are provided along haul road and tanker is used to suppress the airborne dust on haul roads in mines.	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in & around the mine is good as lessee has carried out huge afforestation & environmental protective measures have been taken as per the approved document

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	-	M.R. Submitted upto Sept 2017; A.R. submitted upto 2016-17	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	ME-B N Prasad Rao, Geologist- M K Jagadish	ME-B N Prasad Rao, Geologist-M K Jagadish	-

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit-246.29 Ha, Reclaimed/ rehabilitated area-28.169 Ha, Dump-24 Ha, Infrastructure, road & plant area-96 Ha	Appears to be correct	-
9d	Scrutiny of Annual return on afforestation	WML-3500 nos, OML-3500 Nos	Appears to be correct	-
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	Ex-mine price =cost of production=Rs. 174 /Ton	Appears to be correct as captive mine	-
9h	Scrutiny of Annual return on fixed assets	Rs.1842676911/ -	Appears to be correct	-
9k	Scrutiny of Annual return on mining machineries	Drills-3 nos, Hyd. Shovel-4 nos, Electric shovel-1 no, 85 Ton dumper-11 nos, 100 Tons dumper-2 nos, Dozer & motorgrader-1 no, Loader-2 nos & crushers-03 nos.	Same as mentioned in AR	

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

Date :

(ARUN KUMAR)

Indian Bureau of Mines