

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

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

Mine code : 38KAR10012

- (i) Name of the Inspecting : **M003**) **G C MEENA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 13/12/2018
- (v) Prev.inspection date : 18/01/2017

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 correspondance** : **M/s ACC Limited, Wadi Cement Works**
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** : **CLAY (OTHERS)** Associated
SHALE Associated
LIMESTONE Main

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
		MP review under 17(1) MCR 2016	08/11/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	No backlog
1b	Exploration over lease area for geological axis 1 or 2	Nil	G1 axis-390.04 Ha G3 axis-80.99 Ha	-
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	-	G3-80.99 Ha	Plant area falls in G3 axis
1e	Balance reserve as on 01/04/20		Limestone:111 - 5,24,35,000 tons Shale:111 - 3,22,22,000 tons	As per AR
1f	General remarks of inspecting officers on geology, exploration etc			390.04 Ha has been explored upto G-1 level & 80.99 Ha is occupied by plant which is under G3 level.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposal of Development in SL10 to SL13	Development is carried out in SL10 to SL13	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in OB & mineral	Separate benches maintained in OB & mineral	The actual work done in mineral as I Bench & II Bench - SL10 to SL13 & SL0 to SL8A. III Bench-SL1A to SL8A. Shale-SL3A to 6A
2c	Stripping ratio or ore to OB ratio	1:0.07	1:0.1	-
2d	Quantity of topsoil generation in m3	12000 Tons	11000 Tons	-

2e	Quantity of overburden generation in m3	375000 m3	418491 m3	Bulk Density :1.6 Tons/ m3
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The development was carried out as per the proposal. Separate benches maintained in OB & mineral.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	01	one pit only	-
3b	Quantity of ROM mineral production proposed	77,20,000 Tons	56,80,730 Tons	Production is done as per plant requirement
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	All mineral extracted is used for cement manufacturing
3d	Quantity of mineral reject generation	No Proposal	Nil	-
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	nil	-
3f	Quantity of sub grade mineral generation.	12,80,000 tons	8,09,555 tons	Production is done as per plant requirement
3g	Grade of sub grade mineral generation	-	CaO-27%; SiO2-34%	Shale mineral is used as corrective mineral in cement manufacturing process.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method of crushing is proposed	Mechanized method of crushing is adopted.	3 crushers are operated to reduce size of material

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal for beneficiation proposed	No beneficiation study carried out as mineral is directly used for cement manufacturing	ROM - Limestone & Shale is used for manufacturing of cement & does not require any beneficiation
3j	Provision of drilling and blasting in mineral benches	Drilling & blasting proposed	Drilling & blasting is carried out as per proposal	Drilling carried out by DTH Drills of 115mm & 150mm. Blasting is carried out by using NONEL detonators
3k	Provision of mining machineries in mineral benches	Provision made for using mining machineries in mineral bench	Mining machineries are used in mineral bench	Drills-02 Nos;Shovel-06 Nos;Dumpers-14 Nos;Crushers-03nos;
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposal for OB Bench Ht: 3mts; Ore bench ht: 8mts;	Bench height & width suitable for mining	-
3m	Total area covered under excavation/pits	256 Ha	256.057 Ha	No significant change
3n	Ore to OB ratio for the pit/mine during the year.	1:0.07	1:0.1	Additional Overburden removed
3o	Total area put in use under different heads at the end of year	Covered under current workings: 256.057 Ha, Reclaimed/Rehabilitated: 28.67 Ha; Used for waste disposal: 17.85 Ha; Occupied by Infrastructure : 96.158 Ha; Untouched area & top soil storage: 66.623 Ha	Same as proposed	-

3p	Production of ROM mineral during the last five year period as applicable	2013-14 Lst:77,19,500, Shale:12,75,75 0 2014-15 Lst:77,18,000, Shale:12,76,65 0 2015-16 Lst:77,19,250, Shale:12,76,87 5 2016-17 Lst:77,19,750, Shale:12,78,00 0 2017-18 Lst:77,18,250, Shale:12,76,87 5	2013-14 Lst:50,53,025, ,136 2014-15 Lst:54,74,760, ,422 2015-16 Lst:58,32,078, ,303 2016-17 Lst:51,00,099, ,667 2017-18 Lst:56,80,730, ,555	Actual production is within the proposed limits
3q	General remarks of inspecting officers on method of mining etc.			Exploitation of mineral is done as per the proposal

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	separate dumping of overburden, topsoil proposed	Separate dumping done	-
4b	Location of topsoil, OB and mineral reject dumps	Backfilling is proposed in SL 6A to 8A & SL 9 to SL 11	OB is removed & backfilled in SL 6A to 8A	-
4c	Number of dumps within lease area and outside of lease area	WML-4nos OML-0	WML-4nos OML-0	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposal for dumps :Dump1-SL10-SL12,Dump2-ML1A-SL7A,Dump3-ML0-SL1,Dump4-SL2-SL7	Dumped as per the proposal	Dumps are located along the lease boundary
4e	Number of active and alive dumps.	Nil	Nil	Backfilling in process

4f	Number of dead dumps.	4nos	4nos	All dumps are matured & stabilized by plantation
4g	Number of dumps established.	4nos	4nos	Dumps are stabilized by plantation
4h	Whether Retaining wall or garland drain all along dumps are there.	No proposal	Nil	-
4i	Length of Retaining wall or garland drain all along dumps	No proposal	Nil	-
4j	Number of settling ponds	No proposal	Nil	-
4k	Specific comments of inspecting officer on waste dump management			Solid waste management is as per the proposal. Backfilling is in process.

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.	Part of the mined out pit proposed for backfilling	Backfilling is carried out after extraction of shale mineral	Backfilling done in SL 6A to 8A
5b	Area under backfilling of mined out area	Proposed for backfilling in SL 6A to 8A, & SL 9 to SL 11 after mined out of shale	Backfilling done in SL 6A to 8A after mined out of shale	Backfilling done in SL 6A to 8A
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Concurrent use of top soil proposed	Concurrent use of top soil is done	Spreading of top soil on the waste dumps and thereafter plantation on the waste dumps for better survival rate of the plants
5d	Total area fully reclaimed and rehabilitated	44.8 Ha	41.74 Ha	-

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling is carried out in the earmarked place as per the proposal
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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).	Submission on Annual return on or before 01st July every year	Submitted PMCP Annual return on 30.06.2018	-
6b	Area available for rehabilitation (ha) .	Nil	nil	-
6c	afforestation done (ha).	3.5 Ha	3.5 Ha	-
6d	No. of saplings planted during the year	3500 nos.	3500 nos.	Neem, conocarpus, people, petlophorum etc
6e	Cumulative no .of plants	WML - 82000 nos	WML - 82750nos	Including plant & Mines area
6f	Any other method of rehabilitation	Proposal for converting dug out pits into water reservoir (2Ha)	2 Ha of area is converted into water reservoir	Sump 7 is under sump development
6g	Cost incurred on watch and care during the year	Rs.8,00,000	Rs.9,00,000	Expenses incurred for environment monitoring
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Backfilling proposed	Backfilling is done SL 6A to 8A	-
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal of reclamation & rehabilitation to 8A	Plantation carried out on backfilling in SL 6A	-

6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	3.5 Ha	2.00 Ha	-
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Proposal for converting dug out pits into water reservoir (2Ha)	2 Ha of area is converted into water reservoir	-
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No other proposal of reclamation	Plantation carried out on backfilling in SL 6A to 8A	-
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No proposal	1.5 Ha is afforested within lease	Neem, conocarpus, people, petlophorum etc
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)	Environmental monitoring proposed in core & buffer zone	Environmental monitoring carried out in core & buffer zone as proposed	All values of environment monitoring are within permissible limits.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP is carried out as per the proposals given in the document

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	No proposal for grade wise sorting of mineral.	Nil	Only crushing is done for size reduction
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised Working is proposed for crushing only;	Mechanised Working is adopted for crushing & no need of sorting is required.	100 % material excavated is used for cement manufacturing
7c	Different grade of mineral sorted out at mines.	No proposal	No sorting is done in mines	100% of material mined is used for cement manufacturing.
7d	Any beneficiation process at mines .	No proposal	No beneficiation is done in mines	Only crushing is done, after which mineral is conveyed to plant through covered belt conveyors
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation is taken care by blending the shale in the cement manufacturing process

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	12000 tons proposed quantity	11000 tons is generated and used for plantation purpose	Top soil is used for plantation purpose
8b	Concurrent use or storage of topsoil	Proposed	Using for green belt	Afforestation is carried out in SL 6A to 8A
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate earmarked place for backfilling is proposed	OB excavated is Backfilled in SL 6A to 8A	Ob is backfilled & no other waste rock / rejects / fines occur in mines
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Separate earmarked place for backfilling is proposed	OB excavated is Backfilled in SL 6A to 8A & plantation is done	-

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling & converting into water reservoirs is proposed	Carrying out phased restoration & reclamation as per the proposal	-
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Available	Available	Plantation including Neem, conocarpus, people, petlophorum etc
8g	Survival rate	90%	85%	-
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads	Continuous water sprinkling on haul roads by water tankers to suppress the dust generated; Along with this at crushers Bag filters are in place for preventing dust to airborne	02 water tankers each of 28KL & 10KL are operated to cover haul roads
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			The aesthetic beauty in and around the mine is good. Green belt is developed and greenery maintained

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 Nov 2018 A.R. Submitted up to 2017-2018.AR submitted on 30.06.2018	-
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Manager: Shri. Kunj Behari Verma Mining Engineer: Shri. B N Prasadrao Geologist: Shri. Jagadish Madival	Same as given	-

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current workings: 256.057 Ha Reclaimed/Rehabilitated: 28.67 Ha; Used for waste disposal: 17.85 Ha; Occupied by Infrastructure : 96.158 Ha; Untouched area & top soil storage: 66.623 Ha	Appears to be correct	
9d	Scrutiny of Annual return on afforestation	WML - 3500 nos @ 90% survival rate OML - 3500 nos @ 85% survival rate	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	Opening Stock: Nil Production: Limestone- 56,80,730 Tons; Shale- 809555 tons Closing stock: Nil	Appears to be correct	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale price- Nil Ex. Mine Price- Rs./T- 180.33 Production cost -Rs./T- 180.33	Appears to be correct	Captive mines
9h	Scrutiny of Annual return on fixed assets	Rs. 1791255108	Appears to be correct	-

9k Scrutiny of Drills - 115 / Appears to be correct
Annual return on 150
mining mm; Shovels-6.5
machineries m3 - 05nos;
10 m3 -
01no; Dumpers-
85Ton-10nos;
100Ton-4nos;
Water tankers-
10KL&28KL;
Explosive van-
10Ton-01no;
Crusher-
800Tph, 1000
Tph&1200 Tph

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 :

(G C MEENA)

Indian Bureau of Mines