

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/CND/LST-20/NGP

Mine code : 38MSH08021

- (i) Name of the Inspecting : **KQ13**) **KEWAL KRISHAN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sh. RR Prasad GM mines
Official with
Designation
- (iv) Date of Inspection : 29/09/2018
- (v) Prev.inspection date : 06/10/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MARATHA (880.31 HA)**
- (b) **Registration NO.** : **IBM/447/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : MAHARASHTRA
- District : CHANDRAPUR
- Village : UPPARWAHI
- Taluka : RAJURA / KORPANA
- Post office : UPPARWAHI
- Pin Code : 442908
- FAX No. : 07173-40008
- E-mail :
- Phone : 40017-20
- (f) Police Station :
- (g) First opening date : 17/07/2001
- (h) Weekly day of rest :
2. Address for : P.O.- UPPARWAHI, TAH.- KORPANA,
correspondance DISST.- CHANDRAPUR-442908
STATE- MAHARASHTRA
3. (a) Lease Number : MSH0229
- (b) Lease area : 880.31
- (c) Period of lease : 50
- (d) Date of Expiry : 13/12/2050
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : M/S GUJARAT AMBUJA CEMENTS LTD.
P.O.- UPPARWAHI, TAH.-
KORPANA, DISSTT.-
CHANDRAPUR (M.S.) CHANDRAPUR
MAHARASHTRA
Phone: 40017-20
FAX : 07173-40008

Owner : SHRI A. L. KAPUR
P.O.- UPPARWAHI, TAH.-
KORPANA-442908, DISSTT.-
CHANDRAPUR (M. S.)
CHANDRAPUR MAHARASHTRA
Phone: 40017-20
FAX : 07173-40008

6. Date of approval of Mining	:	Modif.of approved Mining Plan	17/03/2005
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	18/08/2005
		Mining Scheme rule 12 MCDR1988	05/07/2006
		Mining Scheme rule 12 MCDR1988	12/08/2011
		FMCP under 23C(1)	31/07/2013
		MP modif under MCR 1960	02/09/2016

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	
1b	Exploration over lease area for geological axis 1 or 2	G1 Level already established	G1 Level already established	
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	nil	nil	about 311 ha area is mineralized and rest area is non-mineralized. Entire mineralized area is already explored.
1e	Balance reserve as on 01/04/20	reserves as on 01/04/2018	111 - 68.411 MT 211 65 MT	
1f	General remarks of inspecting officers on geology, exploration etc			Area has already been proved through exploration by DGM and by the lessee . Geologically the area is complex. Cement Grade Limestone with intercalated bands of clay and shale, marginal low grade Limestone, occurs in the area.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t. lease area	2 pits N310400 - N312000 E2179900- E2181300 N308900- N 309500 E2185000- E2185200	1 pit only	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	yes	as per proposal	
2c	Stripping ratio or ore to OB ratio	1:0.91	1:0.51	
2d	Quantity of topsoil generation in m3	180000	51611	
2e	Quantity of overburden generation in m3	Total= 974091 M3 Top Soil 180000m3 Sub-grade 209091m3 Reject 585000m3	Total= 453434 M3 Top Soil 51611m3 Sub-grade 212396m3 Reject 189427m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Based on the type of deposit , overall development in the lease area has been done as per the proposals .

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
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3a	Number of pit proposed for production	2pits N310400 - N312000 E2179900- E2181300 N308900- N 309500 E2185000- E2185200	one pit only	From N310400 - N312000 and E2179900-E2181300
3b	Quantity of ROM mineral production proposed	2.00MT	1.77MT	
3c	Recovery of sailable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	1.17 MT	0.38MT	
3e	Grade of mineral rejects generation and threshold value declared.	<34 Cao	as per proposal	
3f	Quantity of sub grade mineral generation.	0.46MT	0.21MT	
3g	Grade of sub grade mineral generation	34 to 42 % Cao	as per proposal	
3h	Manual / Mechanised method adopted for segregating from ROM	mechanised crushing	as per proposal	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	nil	nil	Crushing & reducing the size -80 mm for plant supply

3j	Provision of drilling and blasting in mineral benches	Yes, as per the present practice, down the hole drill machine of 150mm size drill bit are deployed for drilling the blast holes. Rock breakers are also being used for breaking oversized boulders and Explosives for blasting	yes	
3k	Provision of mining machineries in mineral benches	yes	Drill, Shovel (Hydrallic), Dumper (35 T) & Dumper (55 T)	All the operations are through mechanical means as the mine is fully mechanized Category A mine
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	as per proposal	8m
3m	Total area covered under excavation/pits	Additional requirement of 72.95 ha area for the 5 years period of 2016-17 to 2020-21 resulting in net area under mining at the end of the proposal period to be 175.50 ha	During 2017-18, addition area put to use under excavation is 4.15 ha and total area under excavation/pits at the end of year 2017-18 is 110.19 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.91	1:0.51	

3o	Total area put in use under different heads at the end of year	Area under: Mining: 110.19 ha , waste disposal 29.58 ha, Infrastructure and road 7.97 ha other purposes (plantations)43.26 ha Total: 191.00 ha .		
3p	Production of ROM mineral during the last five year period as applicable	2017-18-2.000 MT 2016-17- 1.619 MT 2015-16-1.469 MT 2014-15 -1.512 MT 2013-14-1.599 MT MT 2014-15-2.072 MT 2013-14-2.172 MT	2017-18-1.769 MT 2016-17- 1.619 MT 2015-16-1.469 MT 2014-15 -1.512 MT 2013-14-1.599 MT	
3q	General remarks of inspecting officers on method of mining etc.	Method of mining is Category A opencast and is fully mechanized , which is justified in terms of Capital expenditure, production equirements for feeding the Cement Plant..		

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping yes of topsoil, OB and mineral rejects (Rule 32,33)		topsoil, OB & mineral reject has been stack separately	
4b	Location of topsoil, OB and mineral reject dumps	N311179 - 311667 E2181500-2181320	as per proposal	

4c	Number of dumps within lease area and outside of lease area	05	05	within lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Towards north as per proposal and North east		
4e	Number of active and alive dumps.	03	03	
4f	Number of dead dumps.	01	01	
4g	Number of dumps established.	01	01	
4h	Whether Retaining wall or garland drain all along dumps are there.	nil	Already made earlier & only being maintained from time to time	
4i	Length of Retaining wall or garland drain all along dumps	nil	nil	Garland drains (L=125m, W=1m, D=1m)
4j	Number of settling ponds	nil	nil	Deeper part of the pits are converted into water reservoir during rainy season within lease area
4k	Specific comments of inspecting officer on waste dump management			Dump management is satisfactory. Protective measures in form of garland drain and retaining wall all along the toe of the dumps are constructed and maintained .

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	no such proposal	nil	
5b	Area under backfilling of mined out area	no such proposal	nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	no such proposal	Not applicable as the mineral has not been exhausted and no such mined out area is available for restoration or rehabilitation.	Top soil is being stacked separately and if required, it is being used for plantation over the waste land within the lease area.
5d	Total area fully reclaimed and rehabilitated	nil	nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No backfilling has been proposed upto the conceptual period and pits developed are proposed to be converted into water reservoir at conceptual stage.

Progressive Mine Closure Plan:

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	yes	yes	
6b	Area available for rehabilitation (ha) .	nil	nil	
6c	afforestation done (ha) .	2.50 ha	as per proposal	

6d	No. of saplings planted during the year	6250	almost as per proposal	
6e	Cumulative no .of plants		221817 nos	
6f	Any other method of rehabilitation	no	no	
6g	Cost incurred on watch and care during the year		718750 /-	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	nil	nil	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	nil	nil	
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	nil	nil	
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	nil	nil	No backfilling has been proposed upto the conceptual period and pits developed are proposed to be converted into water reservoir at conceptual stage
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	nil	nil	

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Plantation over 2.5 ha area with 6250 saplings was proposed for the year 2017-18	Plantation over 2.5 ha area with 6250 saplings	
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	nil	nil	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	afforestation	as per proposal green belt has been developed	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, environment monitoring is roposed for core zone and buffer zone	as per proposal	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Afforestation and Environment Monitoring in the core zone and buffer zone are being done regularly.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM is not dispatched, instead, ROM after rushing and sizing and blended with sub-grade (if required) is being dispatched to Cement plant.	as per proposal	Grade dispatched is Cement grade Limestone

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	mechanised	mechanised	
7c	Different grade of mineral sorted out at mines.	cement grade	cement grade	
7d	Any beneficiation process at mines .	Only crushing through mechanical means.	The mechanical crushing of limestone is being undertaken wherein the size of Limestone is reduced to make it amenable for use as raw feed.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			ROM after crushing is being fed to kiln. Some studies are still underway to upgrade the quality alongwith higher yield at the mine level, sub-grade is being stacked separately and is being used for blending as and when required

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	yes	yes	
8b	Concurrent use or storage of topsoil	yes	for plantation	Removed & stack separately in Top soil dump
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	yes	dumps are maintained sepertely	

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	no such proposal	nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	no such proposal	nil	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Within lease area	yes	Plantation has been done along lease boundary
8g	Survival rate	83%	80%	
8h	Water sprinkling on roads to control airborne dust	yes	3 Nos Water tanker deployed	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is good due to the plantation carried out within the lease area by the lessee.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns		M.R. Submitted upto August 2018 A.R. submitted from April 17 to March 2018	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	yes	provided
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	yes	provided
9d	Scrutiny of Annual return on afforestation	yes	provided
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	yes	provided
9f	Scrutiny of Annual return on ROM stock and/or graded ore	yes	provided
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	yes	provided
9h	Scrutiny of Annual return on fixed assets	yes	provided
9k	Scrutiny of Annual return on mining machineries	yes	provided

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 :
(KEWAL KRISHAN)

Indian Bureau of Mines