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MCDR inspection REPORT

Jabalpur regional office

Mine file No : MP/STN/LST-49

Mine code : 38MPR35071

- (i) Name of the Inspecting : **SQ25**) **IBRAHIM SHARIEF**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Mr. Rajesh Chaubey, Agent, Mr. Kumar Rajan - mining E
Official with
Designation
- (iv) Date of Inspection : 19-SEP-22
- (v) Prev.inspection date : 24-JUL-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SAGMANIA**
- (b) **Registration NO.** :
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : SATNA
Village : SAGMANIA
Taluka : RAGHURAJ NAGAR
Post office : SAGMANIA
Pin Code : 485114
FAX No. : N. A.
E-mail : scw1@vsnl.com
Phone : N. A.
- (f) Police Station :
- (g) First opening date :
- (h) Weekly day of rest : SUN
2. Address for : M/S SATNA CEMENTS WORKS
correspondance P.O.BIRLA VIKAS, SANTA (M.P.) 485005
3. (a) Lease Number : MPR0379
(b) Lease area : 1000
(c) Period of lease : 50 Years
(d) Date of Expiry : 31-MAR-2030
4. Mineral worked : LIMESTONE Main

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5. Name and Address of the

Lessee : SATNA CEMENTS WORKS
UNIT OF M/S BIRLA COR. LT
P.O.BIRLA VIKAS SATNA
MADHYA PRADESH
Phone:23581,23584
FAX :7672-25396

Owner : Mr. Arvind Pathak
M/s Birla Corporation
Limited Add. 1, Shakespeare
Sarani,Kolkata, West Bengal
-700071 SATNA MADHYA
PRADESH
Phone: 033-66033379
FAX : 033-66033379

Agent : Mr. Rajesh Chaubey
M/s Birla Corporation
Limited Birla Colony, Satna
- 485005 SATNA MADHYA
PRADESH
Phone: 7272412774
FAX : 7272412774

Mining Engineer

Name : Mr. Kumar Rajan, Full Time
Qualification : BE Mining
Appointment/ :
Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	21-AUG-01
		Modif.approved Mining Scheme	03-DEC-04
		Mining Scheme rule 12 MCDR1988	05-JUL-06
		Modif.approved Mining Scheme	31-OCT-08
		Modif.of approved Mining Plan	08-AUG-11
		Mining Scheme rule 12 MCDR1988	18-NOV-11
		MP modif under MCR 1960	01-APR-16
		MP modif under 17(3) MCR 2016	27-MAR-20
		MP review under 17(1) MCR 2016	24-DEC-20

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	In 2020-21, there was no proposal for exploration	Nil	
1b	Exploration over lease area for geological axis 1 or 2	In 2021-22, there was no proposal for exploration.	Nil	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not proposed	Nil	Exploration Agency: M/s Synergy Geotech; Expenditure Incurred: 44.64 Lakhs
1d	Balance area to be explored to bring Geological axis in 1 or 2	In 2021-22, there was no proposal for exploration.	First Band of limestone has been explored at G1 level in the entire lease area.	
1e	Balance reserve as on 01/04/20	balance reserves as on 1.4.2022, is 71,342,779 tones and resources 55,640,000 tones.	Balance reserves as on 01.04.2022 is 71,34,779 and resources is 55,640,000 tones.	
1f	General remarks of inspecting officers on geology, exploration etc		There is no backlog in exploration. In 2022-23, there was no exploration proposal. First Band of limestone has been explored at G1 level in the entire lease area. However, during the year 2022-23, the lessee has drilled 37 nos of boreholes. Further, lessee has submitted Form I for 174 numbers of boreholes as per exploration proposal proded during the year 2023-24 to 2025-26 in the Review of Mining Plan approved dated 24.12.2020.	There is no backlog in exploration. In 2022-23, there was no exploration proposal. First Band of limestone has been explored at G1 level in the entire lease area.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	In 2021-22, development proposed in Block Bharjuna North , Bharjuna South Block , Block A Quarry, Block D-Cutting and Block N1	Mining operations are found carried out within proposala	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in topsoil overburden and mineral has been proposed	Separate benches in topsoil overburden and mineral has been maintained	
2c	Stripping ratio or ore to OB ratio	1: 0.74	1: 0.19	
2d	Quantity of topsoil generation in m3	In 2021-22, the proposal for top soil generation was 74890 cum	In 2022-23, top soil generated was more i.e., 1,58,711 cum due to more depth of soil occurrence	
2e	Quantity of overburden generation in m3	In 2021-22, the proposal for overburden generation was 423777Cu.m	In 2021-22, the Overburden quantity generated was , 1,01,786cu.m cum	No occurrence of OB was less in development benches
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		Benches are well maintained as per proposal.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Four numbers of Pits proposed for production	Production done from four number of pits	
3b	Quantity of ROM mineral production proposed	In 2021-22, ROM production proposed was 4499340 Ttones	In 2021-22, actual ROM production was less i.e.,2995675 tones.	
3c	Recovery of sailable/usable mineral from ROM production	97% recovery of usable mineral from ROM	97% recovery of usable mineral from ROM	

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3d	Quantity of mineral reject generation	Mineral reject has been considered 3% of ROM production from crusher screening as per requirement of cement grade limestone quantity. Quantity Proposed: 135150 tones	Actual generation of mineral reject from crusher screening is 112878 tones.	Mineral reject quantity generated was less as actual ROM processed quantity was less
3e	Grade of mineral rejects generation and threshold value declared.	Below 34% CaO	Below 34% CaO	
3f	Quantity of sub grade mineral generation.	Not proposed	Nil	
3g	Grade of sub grade mineral generation	Not proposed	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized	Mechanized	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Nil	
3j	Provision of drilling and blasting in mineral benches	Deep hole Drilling and blasting proposed	Drilling is being carried out with 115mm atlas copco and blasting is practiced as per the proposal	
3k	Provision of mining machineries in mineral benches	Excavator (4.5 cum) and Dumper (60 T) Drilling machine (110 mm dia) are deployed	Mining machineries Excavator (4.5 cum) and Dumper (60 T) Drilling machine (110 mm dia) are deployed in mineral benches	

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3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes suitable	Yes suitable	
3m	Total area covered under excavation/pits	Total area proposed under excavation /pits at the end of plan period 2025-26 is 421.62 Ha	Total area put to use is within proposed limit	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.23 cum/cum	1:0.22 cum/cum	
3o	Total area put in use under different heads at the end of year	Total area proposed to be put in use under different heads at the end of plan period 2025-26 is 467.21 Ha	Total area put to use is within proposed limit	
3p	Production of ROM mineral during the last five year period as applicable	2021-22: 4499340 tones	2021-22: 2995675 tones	Applicable proposal period 2021-22 to 2025-26
3q	General remarks of inspecting officers on method of mining etc.			In 2021-22, actual ROM production was less than the proposal due to less demnd from CEMENT plant.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Top soil and overburden generated will be partially stacked and partially used in protective bunds. No mineral reject dump proposed.	Top soil generated has been utilized. Overburden generated has been partially stacked and partially used in protective bunds. There is no mineral reject dump.	

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4b	Location of topsoil, OB and mineral reject dumps	The OB/waste generated from N1 block, D-Cutting and Bharjuna North pit will be utilized for preparation of bund all long the PWD road passing through the ML area and in pit/trenches area and Overburden waste generated from A-quarry in first two year will be stacked in A quarry second bench floor for temporary basis.	Top soil has been utilized for soil coating over backfilled area. Overburden generated has been temporarily stacked in A -Quarry as per proposal.
4c	Number of dumps within lease area and outside of lease area	Existing 05 nos of dumps within lease area	Existing 05 nos of dumps within lease area
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Outside the UPL	Outside the UPL
4e	Number of active and alive dumps.	Not proposed	Nil
4f	Number of dead dumps.	Not proposed	There exists five numbers of dead dumps in the lease area
4g	Number of dumps established.	Not proposed	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed	Nil
4i	Length of Retaining wall or garland drain all along dumps	Not proposed	Nil
4j	Number of settling ponds	Not proposed	Nil

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4k	Specific comments of inspecting officer on waste dump management	Top soil has been utilized for soil coating over backfilled area. Overburden generated has been temporarily stacked in A - Quarry as per proposal.
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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.	There was no proposal for backfilling	No backfilling done	
5b	Area under backfilling of mined out area	Not Proposed	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil and overburden generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area.	
5d	Total area fully reclaimed and rehabilitated	Not Proposed	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			No reclamation and rehabilitation is done during 2021-22.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The holder of a mining lease shall submit to the competent authority a yearly report as per the format specified by the Indian Bureau of Mines, before 1st day of July report every year	The annual return on PMCP has been submitted timely.
6b	Area available for rehabilitation (ha) .	Not Proposed	Nil
6c	afforestation done (ha) .	0.5 Ha	0.7 Ha
6d	No. of saplings planted during the year	800Nos of saplings proposed for plantation	12600 Nos of saplings planted
6e	Cumulative no .of plants	1600 nos during 2021-22	260950 Nos of plantation till 2021-22
6f	Any other method of rehabilitation	Not Proposed	Nil
6g	Cost incurred on watch and care during the year	Rs 16000	Rs 2001875
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	no proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not Proposed	Nil during the year
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not Proposed	Nil

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6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not Proposed	Nil	
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not Proposed	Nil	
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not Proposed	Nil	
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not Proposed	Nil	
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not Proposed	Nil	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment Monitoring is proposed	Environment monitoring is being carried out as proposed	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			Plantation is being carried out to improve aesthetic beauty

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area	Grade wise sorting within lease area Aand 2982170 T dispatched during the year	

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7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	
7c	Different grade of mineral sorted out at mines.	Cement grade	Cement grade	
7d	Any beneficiation process at mines .	Not Proposed	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			ROM limestone is crushed in the crusher installed within ML area. The material from mines is passed through vibrating screen and reject fraction is separated out.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Top soil generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area.	
8b	Concurrent use or storage of topsoil	Top soil generated will be partially stacked and partially used in protective bunds.	Top soil has been utilized for soil coating over backfilled area.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Dumps for OB/ Waste rock to be maintained	Dumps for OB/ Waste is found maintained	

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8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	There was no proposal for backfilling	No backfilling during 2021-22	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No roposal of bacflfilling	No bsckfilling carried out	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	800Nos of saplings proposed for plantation	18550 Nos of saplings planted	
8g	Survival rate	Not Proposed	70%	
8h	Water sprinkling on roads to control airborne dust	Water sprinkling to be done to supress the dust	Water sprinkling is being carried out to supress the dust	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around mines is maintained.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly and Annual Returns are to be submitted in time	Yes MR & AR submitted in Time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer SHRI KUMAR RAJAN Geologist in charge SHRI ANUP PATIDAR	Mining Engineer SHRI KUMAR RAJAN Geologist in charge SHRI ANUP PATIDAR are employed.	

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9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	(i) Covered under current (O/C) Workings 347.000 (iii) Reclaimed/Rehabilitated 37.000 (iv) Used for waste disposal 17.500 (v) Occupied by plant, buildings, residential, welfare buildings & roads 2.000 (vi) Work done under progressive mine closure plan during the year 1.400	i) Covered under current (O/C) Workings 347.000 (iii) Reclaimed/Rehabilitated 37.000 (iv) Used for waste disposal 17.500 (v) Occupied by plant, buildings, residential, welfare buildings & roads 2.000 (vi) Work done under progressive mine closure plan during the year 1.400
9d	Scrutiny of Annual return on afforestation	12600 sapplings planted	12600 sapplings planted in the field
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	112878 low grade ore below threshold value	112878 ow grade ore below threshold value
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded Ore- 131109 Tonnes.	Graded Ore- 131109 Tonnes
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of production per tonne of ore-mineral produced is Rs 341.78	As reported by lessee
9h	Scrutiny of Annual return on fixed assets	Value of Fixed Assets Rs 1883705467	Value of Fixed Assets Rs 1883705467
9k	Scrutiny of Annual return on mining machineries	Dumper 6 nos; Shovel : 2 Nos; Loader: 1no; Rock drill: 3 Nos etc.	Dumper 6 nos; Shovel : 2 Nos; Loader: 1no; Rock drill: 3 Nos etc.

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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 :**(IBRAHIM SHARIEF)**

Indian Bureau of Mines