

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

Check up inspection REPORT

Jabalpur regional office

Mine file No : MP/DAMOH/LST-6

Mine code : 38MPR09003

- (i) Name of the Inspecting : **NQ07**) **PUKHRAJ NENIVAL**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Mr. G.Taluja (Mine manager), Mr. R.S.Shukla (Geologist)
Official with
Designation
- (iv) Date of Inspection : 10-JUL-21
- (v) Prev.inspection date : 17-MAY-19

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DIAMOND PATHARIA1247.267H**
- (b) **Registration NO.** : **IBM/398/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : DAMOH
Village : SATPARA, JAGTHAR
Taluka : PATHARIA
Post office : PATHARIA
Pin Code : 470666
FAX No. : 07601-241235
E-mail : diam@sancharnet.in
Phone : 07601-241301 TO 304
- (f) Police Station : NARSINGHPUR
- (g) First opening date : 30-APR-04
- (h) Weekly day of rest : SUN
2. Address for : M/S HEIDELBERGCEMENT INDIAN LIMITED
correspondance BIRLAPUR, P.O. NARSINGHGARH
DISTT. DAMOH (M.P.) 470675
3. (a) Lease Number : MPR0103
- (b) Lease area : 1689.4
- (c) Period of lease : 20
- (d) Date of Expiry : 30-JUL-95
4. Mineral worked : LIMESTONE Main

5. Name and Address of the

Lessee : HEIDELBERGCEMENT INDIAN LIMITED
 BIRLAPUR, P.O. NARSINGGARH
 DAMOH MADHYA PRADESH
 Phone:07601-241301 TO 304
 FAX :07601-241235

Owner : MR S K TIWARI.
 HeidelbergCement India
 Limited, 2nd Floor, Plot No
 68, Sector-44, Gurugram
 (Haryana) - 122002 DAMOH
 MADHYA PRADESH
 Phone: 0124-4503733
 FAX : 0124-4147698

Agent : Mr. Sanjeev Kumar Gupta
 HeidelbergCement India
 Limited P.O. & Village-
 Narsingarh Distt. Damoh (M.P.)
 470675 DAMOH MADHYA PRADESH
 Phone: 07601-241301
 FAX : 07601-241301

Mining Engineer

Name : C.P.DADHICH, Full Time
 Qualification : BE MINING
 Appointment/ Termination date :

Geologist

Name : RAVI SHANKER SHUKLA, Full Time
 Qualification : MSC GEOLOGY
 Appointment/ Termination date :

6. Date of approval of Mining Plan/Scheme of Mining : MP review under 17(1) MCR 2016 01-FEB-17

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	G1	Total 550 nos. of borehole drilled (12067.07 Mtrs.) in ML area . Entire lease area has been explored in G1 category.
1c	Exploration Agencies and Expenditure in lakh rupees during the year			
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserve as on 01/04/20		174.16 Million tonnes	
1f	General remarks of inspecting officers on geology, exploration etc			Entire lease area has been explored in G1 category.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Pit No- 5 & Pit No.- 7	Pit No- 5 & Pit No.- 7	During the year 2020-21, It was proposed total 25.25 ha. Area will be freshly excavated from pit no 5 & 7 and about 3 million tons of Limestone exploitation was propose from pit no 7. During inspection it was observed that mostly development and production work was carried out from pit no 5. As proposed in the approved document the development & production work from pit no 7 was not achieved. For this reasons violation letter has been issued to the mine owner on 14.07.2021.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, Top Soil-1 bench (0.5-0.75 m) Sub Soil 1 bench (3-4 m) Hard OB -2 bench (4-5 m) Limestone 2 bench (6-8 m)	Yes, Top Soil-1 bench (0.5-0.75 m) Sub Soil 1 bench (3-4 m) Hard OB -2 bench (4-5 m) Limestone 2 bench (6-8 m)	
2c	Stripping ratio or ore to OB ratio	Ore to OB ratio for the mine during the respective year 2016-17 0.50 2017-18 0.29 2018-19 0.42 2019-20 0.44 2020-21 0.40	Ore to OB ratio for the mine during the respective year 2016-17 0.47 2017-18 0.38 2018-19 0.29 2019-20 0.37 2020-21 0.25	

2d	Quantity of topsoil generation in m3	Quantity of topsoil removed in m3	Quantity of topsoil removed in m3	Entire quantity of Top soil generated has been utilized for spreading (thickness of 0.3 to 0.5 mtr from place to place) over backfilled area for carrying out plantation
		2016-17 162637	2016-17 182550	
		2017-18 233117	2017-18 197470	
		2018-19 276887	2018-19 177200	
		2019-20 225274	2019-20 201092	
		2020-21 189404	2020-21 76000	
2e	Quantity of overburden generation in m3	Quantity of Overburden removed in m3	Quantity of Overburden /HR removed in m3	
		2016-17 1417448	2016-17 828913	
		2017-18 661606	2017-18 743872	
		2018-19 1099796	2018-19 484234	
		2019-20 1425123	2019-20 684956	
		2020-21 1419677	2020-21 537098	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Lessar development & distroting of stripping ratio. The violation is already pointed out.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2, Pit No- 5 & Pit No.- 7	2, Pit No- 5 & Pit No.- 7	

3b	Quantity of ROM mineral production proposed	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes) 2016-17 5044800 2017-18 5625000 2018-19 5625000 2019-20 5625000 2020-21 5625000	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes) 2016-17 4010110 2017-18 4524086 2018-19 4636100 2019-20 4623314 2020-21 4401599	Lesser Production is pointed out.
3c	Recovery of sailable/usable mineral from ROM production	No Proposal	Not applicable.	
3d	Quantity of mineral reject generation	Quantity of mineral reject generation 2016-17 1014500 2017-18 1125000 2018-19 1125000 2019-20 1125000 2020-21 1125000	Quantity of mineral reject generation 2016-17 658063 2017-18 584190 2018-19 556660 2019-20 834360 2020-21 490498	Screen rejects below 34% CaO. but the mineral reject record is not maintained.
3e	Grade of mineral rejects generation and threshold value declared.	Below 34 % CaO	Below 34 % CaO	

3f	Quantity of sub grade mineral generation.	Quantity of sub-grade mineral generation 2016-17 500000 2017-18 1280175 2018-19 1693510 2019-20 1286302 2020-21 2204649	Quantity of sub-grade mineral generation 2016-17 530000 2017-18 1509395 2018-19 1365631 2019-20 1682440 2020-21 1349240	"Sub-grade mineral is blend with high grade mineral and utilized 100 percent." "
3g	Grade of sub grade mineral generation	CaO% 34-38%	CaO% 34-38%	
3h	Manual / Mechanised method adopted for segregating from ROM	The crushing plant & ancillary facilities mainly consist of 1200TPH, impact crusher with screening system which can crush the limestone to (-75 mm) size. The crusher is preceded by a screening system (Wobbler feeder+vibrating screen combination) that will generate a screen rejects which shall be less than 20mm.	The crushing plant & ancillary facilities mainly consist of 1200TPH, impact crusher with screening system which can crush the limestone to (-75 mm) size. The crusher is preceded by a screening system (Wobbler feeder+vibrating screen combination) that will generate a screen rejects which shall be less than 20mm.	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not applicable.	

3j	Provision of drilling and blasting in mineral benches	Yes	Yes
3k	Provision of mining machineries in mineral benches	Yes	Yes
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes
3m	Total area covered under excavation/pits	35.50 Ha. & 28.50 Ha.,	33.79 Ha. & 23.67 Ha.,
3n	Ore to OB ratio for the pit/mine during the year.	Ore to OB ratio for the mine during the respective year 2020-21 0.40	Ore to OB ratio for the mine during the respective year 2020-21 0.25

30	Total area put in use under different heads at the end of year	Total area covered under (Land use pattern)/Land put to use under various heads Proposal in latest approved doc Excavation/pit s (Ha.) 326.06 Top soil storage (Ha.) 0.00 Waste/Ob/IB dumps (Ha.) 0.00 Mineral rejects (Ha.) 0.00 Sub grade mineral stacks (Ha.) 0.00 Mineral stacks (Ha.) 2.00 Plants, buildings, Infrastructure etc. (Ha.) 7.00 Others (Specify) Road & Green belt 16.50 Total area put in use under different heads at the end of year For which FA given (Ha.) 351.56	Total area covered under (Land use pattern)/Land put to use under various heads Proposal in latest approved doc on 31/03/21 Excavation/pits (Ha.) 282.65 Top soil storage (Ha.) 0.00 Waste/Ob/IB dumps (Ha.) 0.00 Mineral rejects (Ha.) 0.00 Sub grade mineral stacks (Ha.) 0.00 Mineral stacks (Ha.) 2.00 Plants, buildings, Infrastructure etc. (Ha.) 8.50 Others (Specify) Road & Green belt 13.42 Total area put in use under different heads at the end 306.57
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3p	Production of ROM mineral during the last five year period as applicable	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes)	Quantity of ROM mineral production proposed (last 5 years) (In Tonnes)
		2016-17	4010110
		2017-18	4524086
		2018-19	4636100
		2019-20	4623314
		2020-21	4401599
		5625000	
		2018-19	5625000
		2019-20	5625000
		2020-21	5625000

3q	General remarks of inspecting officers on method of mining etc.	Violation is pointed out for lesser production & not maintained the record of mineral reject.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Not Proposed.	Not applicable	
4b	Location of topsoil, OB and mineral reject dumps	Not proposed	Not applicable	
4c	Number of dumps within lease area and outside of lease area	Not proposed.	Not applicable.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not proposed.	Not applicable.	
4e	Number of active and alive dumps.	Not proposed.	Not applicable.	
4f	Number of dead dumps.	Not proposed.	Not applicable.	

4g	Number of dumps established.	Not proposed.	Not applicable.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed.	Not applicable.	
4i	Length of Retaining wall or garland drain all along dumps	Not proposed.	Not applicable.	
4j	Number of settling ponds			
4k	Specific comments of inspecting officer on waste dump management			No specific comments on waste dump management, However Entire quantity of Top soil generated has been utilized for spreading (thickness of 0.3 to 0.5 mtr from place to place) over backfilled area for carrying out plantation.

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.	25.25 ha.	18.24 ha.	
5b	Area under backfilling of mined out area	19.90 ha.	7.16 ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	189404 m3	76000 m3	

5d	Total area fully reclaimed and rehabilitated	13.50 ha.	11.51 ha.
5e	General remarks of inspecting officers on backfilling and reclamation etc.		

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).	Yes	Yes, Report submitted	Annual report on PMCP submitted on stipulated time.
6b	Area available for rehabilitation (ha) .	13.50 ha	11.51 ha	
6c	afforestation done (ha).	13.50 ha	11.51 ha.	
6d	No. of saplings planted during the year	8000 numbers	8250 numbers	
6e	Cumulative no .of plants	not proposed	86500 numbers	
6f	Any other method of rehabilitation	Not prposed	Not applicable.	
6g	Cost incurred on watch and care during the year	48 lakhs	47.94 lakhs	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	25.25 ha	18.24 ha.	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	19.90 ha	7.16 ha
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	13.50 ha	11.51 ha
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not proposed	Not applicable.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed.	Not applicable.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not proposed.	Not applicable.
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not proposed.	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not proposed.	Not applicable.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Yes, all parameter found within prescribed limit
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	
7c	Different grade of mineral sorted out at mines.	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	
7d	Any beneficiation process at mines .	Crushed & Screened Limestone Dispatched	Crushed & Screened Limestone Dispatched	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	Yes,	Entire quantity of Top soil generated has been utilized for spreading (thickness of 0.3 to 0.5 mtr from place to place) over backfilled area for carrying out plantation	
8b	Concurrent use or storage of topsoil		Entire quantity of Top soil generated has been utilized for spreading (thickness of 0.3 to 0.5 mtr from place to place) over backfilled area for carrying out plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Not proposed	Not applicable	Entire quantity of Top soil and reject has been utilized for backfilling.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use		Entire quantity of Top soil and reject has been utilized for backfilling.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)		Backfilling and restoration of the mined out area is being done.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	8000 numbers	8250 numbers	Plantation has been done on entire backfilled area.
8g	Survival rate		96%	

8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads, wet drilling, water sprinkling on loading faces, dense plantation, PPE to workers	Water sprinkling on haul roads, wet drilling, water sprinkling on loading faces, dense plantation, PPE to workers is being carried out.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Work is carried out for environmental protection as per PMCP.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Timely submitted.	Timely submitted. Annual return scrutinised and found satisfactory.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		The all information on Mining Engineer, Geologist and Manager given in annual returns. Annual return scrutinised and found satisfactory.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		The all information given in annual returns. Annual return scrutinised and found satisfactory.	
9d	Scrutiny of Annual return on afforestation		Annual return scrutinised and found satisfactory.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)		Annual return scrutinised and found satisfactory.	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	Annual return scrutinised and found satisfactory.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Annual return scrutinised and found satisfactory.
9h	Scrutiny of Annual return on fixed assets	
9k	Scrutiny of Annual return on mining machineries	

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
MCDR17	Rule 11(1)	14-JUL-21			

Date :

(PUKHRAJ NENIVAL)

Indian Bureau of Mines