

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

MCDR INSPECTION REPORT

Ranchi regional office

Mine file No : BIH/ROH/LST/353/RRO

Mine code : 38BHR22018

- (i) Name of the Inspecting : **M008**) **J. MOHANTA**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri Sanjay Kumar Singh, G.M (Mines)
Official with
Designation
- (iv) Date of Inspection : 09/11/2016
- (v) Prev.inspection date : 19/12/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **BANJARI (NEW)(12.16 HA)**
- (b) **Registration NO.** : **IBM/209/2011**
- (c) **Category** : **A Other than Fully Mech.**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **BIHAR**
- District : **ROHTAS**
- Village : **BANJARI**
- Taluka : **DEHRI-ON-SONE**
- Post office : **BANJARI**
- Pin Code : **821303**
- FAX No. : **06188-233242**
- E-mail : **sanjaysingh@kalyanpur.com**
- Phone : **06188-233215, 233413**
- (f) **Police Station** : **ROHTAS**
- (g) **First opening date** : **18/01/1983**
- (h) **Weekly day of rest** : **SUN**
2. **Address for** : **VILL/PO-BANJARI**
correspondance : **TALUKA-ROHTAS**
: **DIST-ROHTAS-821303, BIHAR**
3. (a) **Lease Number** : **BHR0140**
- (b) **Lease area** : **12.16**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **02/12/2012**
4. **Mineral worked** : **LIMESTONE** **Main**

5. Name and Address of the

Lessee : KALYANPUR CEMENTS LIMITED
 AT BANJARI PO-BANJARI
 ROHTAS, BIHAR ROHTAS BIHAR
 Phone: 7221, 7205, 7433, 7215
 FAX : 06188-7242

Owner : B.C.Srivastava,
 M/s Kalyanpur Cements Ltd
 At/P.O- Banjari- 821303
 Distt.- Rohtas, Bihar.
 ROHTAS BIHAR
 Phone: 06188-233215, 2
 FAX : 06188-233242

Agent : SANJAY KUMAR SINGH
 M/s Kalyanpur Cements Ltd.
 Banjari Rohtas ROHTAS BIHAR
 Phone:
 FAX :

Mining Engineer
 Name : PROMOD KUMAR, Full Time
 Qualification : B.E(MIN)
 Appointment/ : 01/10/2010
 Termination date

Geologist
 Name : SRI KAILASH PRASAD, Full Time
 Qualification : M. Sc. (GEOLOGY)
 Appointment/ : 31/03/2016
 Termination date

Manager
 Name : PRAMOD KUMAR
 Qualification : B.E(MIN)
 Appointment/ : 01/10/2010
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 27/09/1989
 Mining Scheme rule 12 MCDR1988 29/06/1999

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There is no valid approved document from 2004-05 onwards.	No exploration has been carried out during the year 2016-17. No information also available on backlog of exploration due to non availability of approved document.	
1b	Exploration over lease area for geological axis 1 or 2	There is no valid approved document from 2004-05 onwards. There was no proposal of exploration in the last approved document.	No exploration work carried out by the lessee during the year under review.	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	The mine has no valid approved document.	Figures on exploration agencies and expenditure not available.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	The mine has no valid approved document.	The entire lease area of 12.16 ha has been fully explored by mine working.	
1e	Balance reserve as on 01/04/20	No valid approved document from 2004-05 onwards available.	Reported reserve as on 01.04.2016 is: Proved (111): 291249 MT, Remaining resources (211): 269601 MT.	
1f	General remarks of inspecting officers on geology, exploration etc	Not applicable.	No valid approved document from 2004-05 onwards available. The last approved Scheme of Mining dated 29.06.1999 was valid for the plan period 1999-00 to 2003-04. No exploration has not been carried out during the year under review. The limestone of the lease is of cement grade having Cao: 38.48 - 48.24%, Mgo- 1.08 - 3.13%, Sio2-5.48 - 16.32%.	

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	No valid approved document is available.	Only one quarry has been developed on the NW portion of lease area.	Violation cum show cause notice was issued to the party for violation of rule 11(4) and 23 of MCDR,2017 vide this office letter no. BIH/ROH/LST/353/RR O dated 15/05/2017.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No valid approved document is available.	Separate benches in OB and mineral have been developed. Two benches have been formed in OB and one bench in Ore. The bench height have been kept 6m in OB and 6.5m in Ore.	
2c	Stripping ratio or ore to OB ratio	No valid approved document is available.	Reported Ore and OB ration is 1:1.61.	
2d	Quantity of topsoil generation in m3	No valid approved document is available.	No topsoil generation during the year 2015-16 is reported.	
2e	Quantity of overburden generation in m3	No valid approved document is available.	Reported OB generation during the year 2015-16 is 739888 tonnes.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Not applicable.	Only one quarry has been developed in the lease area. The OB consists mostly of laminated shale, sandstone and some top soil. The Banjari limestone area belongs to sedimentary origin of Vindhyan System. Lithologically the area consisted of alternate layers of shale and limestone.	Violation cum show cause notice was issued to the party for violation of rule 11(4) and 23 of MCDR,2017 vide this office letter no. BIH/ROH/LST/353/RR O dated 15/05/2017.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	No valid approved document is available.	Only one (01) pit was found under operation during the field visit.	

3b	Quantity of ROM mineral production proposed	No valid approved document from 2004-05 onwards available.	During the year 2015-16, 459041.940 MT ROM mineral was produced.
3c	Recovery of sailable/usable mineral from ROM production	No valid approved document from 2004-05 onwards available.	The reported percentage of ore recovery is about 80%.
3d	Quantity of mineral reject generation	No valid approved document from 2004-05 onwards available.	No mineral reject generation was reported from the mine during the year 2015-16.
3e	Grade of mineral rejects generation and threshold value declared.	No valid approved document from 2004-05 onwards available.	Not applicable as no mineral reject generation was reported. The threshold value of Limestone for Jharkhnad/Bihar is: CaO: 35% (Min), MgO: 4% (Max), SiO ₂ : 18% (Max) and Alkalies: 0.5% (Max).
3f	Quantity of sub grade mineral generation.	No valid approved document from 2004-05 onwards available.	No sub grade mineral generation is reported during the year 2015-16 from the mine. However, whatever sub-grade mineral generated from the mine is sent to lessee's own crushing plant, located in the adjacent lease area where it is blended with high grade material before feeding to the Cement Plant.
3g	Grade of sub grade mineral generation	No valid approved document from 2004-05 onwards available.	Not applicable as no sub grade mineral generation is reported during the year 2015-16.
3h	Manual / Mechanised method adopted for segregating from ROM	No valid approved document from 2004-05 onwards available.	Manual sorting and sizing is in practice at the mine site. Machineries were used for mining of major Limestone layer of 5.49m and 9.14m.

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No valid approved document from 2004-05 onwards available.	No beneficiation study was carried out.
3j	Provision of drilling and blasting in mineral benches	No valid approved document from 2004-05 onwards available.	Drilling and blasting were carried out in the mine both in OB and mineral benches.
3k	Provision of mining machineries in mineral benches	No valid approved document from 2004-05 onwards available.	Mining machinery is used for OB and limestone removal. The machineries used in the mine are:- i. Excavator: 01 nos. (1.6 cu.m); ii. Tipper: 10 nos. (13MT); iii. Wagon Drill: 01 no. (110 mm dia); iv. Compressor: 01 no. (300 cfm); v. Water tanker; vi. Water Pump: 03 nos (300Kl/hr).
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	There was no valid approved document.	The height of the benches in OB and mineral are maintained within stipulated limit.
3m	Total area covered under excavation/pits	There was no valid approved document.	As reported about 3.79 ha area has been covered under excavation.
3n	Ore to OB ratio for the pit/mine during the year.	There was no valid approved document.	Ore to OB ratio was about 1: 1.81 during the period under review.
3o	Total area put in use under different heads at the end of year	No valid approved document.	As per annual report submitted for the year 2015-16, area put in use under different heads are: covered uner current working-0.320ha, area reclaimed/rehabilitated-2.580ha, used for waste disposal-8.850ha, plants, buildings etc.-0.410ha, total 12.16ha.

3p	Production of ROM mineral during the last five year period as applicable	No valid approved document.	Reported production of ROM during last five years is given below:- 2011-12: 109694 MT 2012-13: 64781 MT 2013-14: 190329 MT 2014-15: 473157 MT 2015-16: 459012 MT	
3q	General remarks of inspecting officers on method of mining etc.	Not applicable	Mechanised opencast method of mining is being carried out in the mine. Two benches have been formed in OB and one bench in Ore. The bench height have been kept 6m in OB and 6.5m in Ore.	Violation cum show cause notice was issued to the party for violation of rule 11(4) and 23 of MCDR,2017 vide this office letter no. BIH/ROH/LST/353/RR O dated 15/05/2017.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No valid approved document from 2004-05 onwards available.	There are two dumps, one OB/waste dump and another top soil dump are located within lease area. No separate subgrade and mineral reject dump in the lease area.	
4b	Location of topsoil, OB and mineral reject dumps	No valid approved document from 2004-05 onwards available.	The OB/Waste dump was located on the Eastern part of lease area extending upto Central part of lease area and the top soil dumps was located on the Northern part of lease area.	
4c	Number of dumps within lease area and outside of lease area	No valid approved document from 2004-05 onwards available.	There are two dumps are located within the lease area. One is OB/waste dump and another is topsoil dump. The OB/Waste dump was located on the Eastern part of lease area extending upto Central part of lease area and the top soil dump was located on the Northern part of lease area.	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No valid approved document from 2004-05 onwards available.	There are two dumps located within the lease area are close to the working quarry.
4e	Number of active and alive dumps.	No valid approved document from 2004-05 onwards available.	Both the dumps OB/waste and topsoil are active as on date of inspection.
4f	Number of dead dumps.	No valid approved document from 2004-05 onwards available.	No dead dumps within the lease area.
4g	Number of dumps established.	No valid approved document from 2004-05 onwards available.	As reported no dumps has been established as on date.
4h	Whether Retaining wall or garland drain all along dumps are there.	No valid approved document.	No retaining wall has been made along the waste dump.
4i	Length of Retaining wall or garland drain all along dumps	No valid approved document.	Not applicable.
4j	Number of settling ponds	No valid approved document	No settling pond has been created in the lease area.
4k	Specific comments of inspecting officer on waste dump management	Not applicable.	Two waste dumps are located in the lease area, one on the eastern side of the lease area and onther on the northern part of the lease area close to the working quarry.

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 valid approved document from 2004-05 onwards available.	In actual practice total lease area has been broken but the limestone has not been fully extracted.
5b	Area under backfilling of mined out area	No valid approved document from 2004-05 onwards is available.	No backfilling is carried out. As on date area is not matured for backfilling.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No valid approved document from 2004-05 onwards is available.	There was no backfilling in the lease area. Hence concurrent use of topsoil is not applicable.
5d	Total area fully reclaimed and rehabilitated	No valid approved document from 2004-05 onwards is available.	No reclamation and rehabilitation was carried out in the lease area.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Not applicable.	The mineral has not yet been fully extracted from the lease area. Hence the lease area was not matured for backfilling, reclamation and rehabilitation.

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).	No valid approved document from 2004-05 onwards is available.	Annual report on PMCP for the year 2014-15 has been submitted.	
6b	Area available for rehabilitation (ha) .	No valid approved document from 2004-05 onwards is available.	No rehabilitation work has been commenced in the lease area as the area is not matured for backfilling.	

6c	afforestation done (ha).	No valid approved document from 2004-05 onwards is available.	No information on afforestation was available. It was reported some afforestation out side the lease area.
6d	No. of saplings planted during the year	No valid approved document from 2004-05 onwards is available.	No information on afforestation was available. It was reported some afforestation out side the lease area.
6e	Cumulative no .of plants	No valid approved document from 2004-05 onwards is available.	No information on cumulative plantation available. However lessee has done some plantation outside the lease area.
6f	Any other method of rehabilitation	No valid approved document.	Not applicable.
6g	Cost incurred on watch and care during the year	No valid approved document.	No information available on cost incurred on watch and care during the year.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No valid approved document.	No backfilling was carried out in the lease area.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No valid approved document.	The area was not matured for backfilling.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No valid approved document.	No backfilling in the lease area has been carried out hence afforestation on backfilled area is not applicable.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No valid approved document.	No water reservoir was constructed within the lease area.

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No valid approved document.	Not applicable.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No valid approved document.	Not applicable.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No valid approved document.	Not applicable.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No valid approved document.	Not applicable.
6p	Compliance of environmental monitoring (core zone and buffer zone)	No proposal.	As reported the environmental parameters such air, water and noise monitoring is done regularly by the company.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Not applicable.	The lease area has not yet been fully extrated. Out of about 3.2 Ha of excavated area within the lease, no area was backfilled as the area was not matured for the same. The OB/Waste dump area covered about 3.14 ha and Soil dump area covered about 0.03 ha. No information on plantation within lease area was available.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No valid approved document.	Total ROM after sorting and sizing is directly sent to its own captive plant located in Kalyanpur lease area for crushing and cement manufacturing.	

7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	No valid approved document.	No grade wise sorting of mineral was done in the lease area, entire mined out limestone despatched to the plant after crushing.
7c	Different grade of mineral sorted out at mines.	No valid approved document.	Grade wise sorting of mineral was not done in the mine as the entire mined out limestone was sent to its captive cement plant after crushing.
7d	Any beneficiation process at mines .	No valid approved document.	Other than crushing no beneficiation was carried out at the mine site.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Not applicable.	Since it is a captive mine. all possible efforts like hand sorting, mechanical screening etc is done to improve the percentage of recovery of ore. No beneficiation was carried out at the mine site.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No valid approved document.	The top soil generated during mining operation was stacked on the Northern part of lease area, on the NE side of working quarry. The quantity of topsoil removed during the year was not available.	
8b	Concurrent use or storage of topsoil	No valid approved document.	There was one top soil dump within the lease area which located on the Northern part of lease area. There was no concurrent use of top soil in the mine.	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No valid approved document.	On the Eastern side of the working quarry, there is only one OB/Waste dump existing in the lease area. No Mineral reject/Fines dumps are existing within the lease area. There was one top soil dump present within the lease area.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No valid approved document.	There was no restoration of land by backfilling of excavated area, since the area was not matured for the same.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No valid approved document.	No restoration of land was carried out in the lease area.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	No valid approved document.	No information on plantation was available.
8g	Survival rate	No valid approved document.	Not applicable since information on plantation done was not available.
8h	Water sprinkling on roads to control airborne dust	No valid approved document.	Water sprinkling was done regularly on the haul road for dust suppression.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Not applicable.	Only one quarry was developed on the NW portion of lease area. The backfilling has not been started as the limestone is yet to be extracted completely. As reported company has made beautification outside the ML area by developing park, garden etc. The aesthetic beauty in and around the mines area has not been affected much due to mining.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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- 9a Status of submission of Monthly and Annual returns
- The information furnished in Annual Return for the year 2015-16 covered Part-I of General information about mine and labour employment, Part-II about Employment & wages, Part-IIA about Capital Structure, Part-III consists of Consumption of materials, Part-IV about Consumption of explosives, Part-V consists of General Geology & Mining under various sections, Part-VI about Production, Dispatch & Stock and finally Part-VII consists of Cost of production.
- Party is submitting monthly return regularly and also submitted annual return for the year 2015-16.
- 9b Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager
- The name of Mining Engineer and Geologist submitted in the annual report.
- Party has appointed mining engineer and geologist as required under the rule.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	The land use pattern given in the Annual Return for the Year 2015-16 was as under:- Area already exploited/abandoned by OC working : Nil.; Covered under current working: 0.32 ha; Area Reclaimed/Rehabilitated: 2.58 ha; Used for waste disposal: 8.85 ha; Occupied by plant, building etc: 0.41 ha.	The land use pattern for the area under pits, reclaimed area, dump etc. furnished in the annual return appears to be in order.
9d	Scrutiny of Annual return on afforestation	Under Part-V, item no. 4.4 of the Annual Return, 2015-16, it was given that 2500 nos. of saplings were planted within the ML area and 1500 nos. of plantation outside ML area during the year with 60% survival rate.	Information on plantation figures were not available. Some afforestation has done outside lease area but number was not available.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation has been reported in Part-V, Sec 4 of the Annual Return 2015-16.	Not applicable since there was no generation of mineral reject during the year.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	As per the annual report 2015-16, ROM stock - Opening balance: Nil, Production: 459042 MT and Closing balance: Nil.	During the year 2015-16, 459042 MT ore production of cement grade has been reported. Since it is a captive mine the entire production of limestone sent to its cement plant.

- 9g Scrutiny of Annual return on sale value, Ex. Mine price and production cost The sale value, Ex mine price and production cost shown in the annual return 2015-16. In Part-VI, item no. 2 of the Annual Return 2015-16, the ex-mine price was shown as 259.23. In Part-VI, item no. 5, the sale value was shown as Nil. In Part-VII, the cost of production was shown as 375.70. Since New Banjari Limestone mine is a captive mine of Kalyanpur Cements Ltd, figure shown in the annual return for Sale value as Nil.
- 9h Scrutiny of Annual return on fixed assets The value of Fixed Assets of the lessee was given as Rs 532667000 in Part-IIA of the Annual Return 2015-16. The information on value of Fixed Assets of the lessee given in the Annual Return 2015-16 appears to be correct.
- 9k Scrutiny of Annual return on mining machineries In Part-V, Sec 5/6/8/9 of the Annual Return 2015-16, the machineries used in the mine were shown. The machinery used during the period 2015-16 were as given below:-
i. Excavator: 03 nos. (1.6 cu.m);
ii. Dozer: 01 no. (80 HP);
iii. Tipper: 20 nos. (13MT);
iv. Wagon Drill: 01 no. (110 mm dia);
v. Compressor: 01 no. (300 cfm);
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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
MCDR17 Rule 11(4)	15/05/2017		MCDR17 Rule 11(4)	15/05/2017	
MCDR17 Rule 23	15/05/2017		MCDR17 Rule 23	15/05/2017	
MCDR17 Rule 11(4)	15/05/2017				
MCDR17 Rule 23	15/05/2017				

Date :

(J. MOHANTA)

Indian Bureau of Mines