

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/LST-DOL/SNG/MCDR-2/BBS

Mine code : 38ORI13003

- (i) Name of the Inspecting : SQ10) SHRI G.C. SETHI
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri A.K.Barik, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 10/09/2019
- (v) Prev.inspection date : 15/12/2018

PART-I : GENERAL INFORMATION

1. (a) Mine Name : BIRMITRAPUR
- (b) Registration NO. : IBM/4649/2011
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : ORISSA
District : SUNDARGARH
Village : BIRMITRAPUR
Taluka : BIRMITRAPUR
Post office : BIRMITRAPUR
Pin Code : 770033
FAX No. : 0661-2610270
E-mail : bslcoltd.brmp@gmail.com
Phone : 0661-2610270
- (f) Police Station : Birmitrapur
- (g) First opening date : 01/01/1922
- (h) Weekly day of rest : SUN
2. Address for correspondence : BIRAMITRAPUR LIMESTONE & DOLOMITE MINE
VILL-RAIPUR, BANUMUNDA
PO-BIRAMITRAPUR
3. (a) Lease Number : ORI0011
- (b) Lease area : 793.97
- (c) Period of lease : UPT 31.03.2020
- (d) Date of Expiry : 31/03/2020
4. Mineral worked : DOLOMITE Associated
LIMESTONE Main

5. Name and Address of the

Lessee : BISRA STONE LIME CO. LTD
 BIRAMITRAPUR SUNDERGARH
 DISTRICT ORISSA SUNDARGARH
 ORISSA
 Phone: 0661-2610270
 FAX : 0661-2610270

Owner : Bisra Stone & lime company ltd
 Birmitrapur SUNDARGARH
 ORISSA
 Phone: 0661-610202.
 FAX : 0661-610202

Agent : C.S. Tripathy
 At+ Post-Birmitrapur Dist-
 Sundargarh SUNDARGARH
 ORISSA
 Phone: 0661-2610069
 FAX : 0661-261270

Mining Engineer

Name : C.R. Nayak, Full Time
 Qualification : BE(Mining)
 Appointment/ : 25/03/2002
 Termination date

Geologist

Name : Dr. A.K. Mohapatra, Full Time
 Qualification : M.sc(Geo.)
 Appointment/ : 30/12/1992
 Termination date

Manager

Name : A.K.BARIK
 Qualification : AMIE(MINING)
 Appointment/ : 14/09/1992
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	06/07/2005
		Mining Scheme rule 12 MCDR1988	12/10/2009
		Modif.approved Mining Scheme	14/09/2010
		Mining Scheme rule 12 MCDR1988	27/08/2014
		FMCP under 23C(1)	05/01/2018
		MP modif under 17(3) MCR 2016	05/04/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	170 number of bore holes in 2018-19.	Only 03 nos. of boreholes were drilled during 2018-19.	The exploration is lagging behind the proposal and the shortcomings pointed out through violation letter.
1b	Exploration over lease area for geological axis 1 or 2	170 number of bore holes in 2018-19 are envisaged for G1/G2 Level of exploration.	Only 03 nos. of boreholes were drilled during 2018-19.	The exploration is lagging behind the proposal and the shortcomings pointed out through violation letter.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No specific proposal.	The bore holes were drilled through the consultants.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	170 number of bore holes in 2018-19 are envisaged for G1/G2 Level of exploration.	Only 03 nos. of boreholes were drilled during 2018-19.	The exploration is lagging behind the proposal and the shortcomings pointed out through violation letter.

1e	Balance reserve as on 01/04/20	The reserves & resources as per Scheme of mining approved on 27/08/2014, Limestone Proved Reserve-154.93 Million tonnes & resources-106.04 Million tonnes. Dolomite Proved Reserve-117.4 Million tonnes & resources-48.79 Million tonnes	Balance reserve as on 01/04/2019 Limestone Proved Reserve-154.93 Million tonnes & resources-106.04 Million tonnes Dolomite Proved Reserve-116.0 Million tonnes & resources-48.79 Million tonnes	Nil
1f	General remarks of inspecting officers on geology, exploration etc		An extent of 451.24 ha area has been explored under G1/G2 level by putting 134 nos. of bore holes. However, the proposed bore holes for the year 2018-19 were not drilled. The shortcomings pointed out through violation letter.	Nil

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Patpahar dolomite quarry, Main dolomite quarry, Gurupahar limestone quarry & Durasani/New hoist limestone quarry.	Development and production is only concentrated in Patpahar dolomite quarry during 2018-19.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No topsoil exists. Separate benches in overburden and ore zone envisaged,	No topsoil exists and no topsoil generated during 2018-19. Separate benches in overburden and ore zone are formed.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.12 t/cu.m for limestone & 1:0.21 t/cu.m for dolomite.	1:0.25t/cu.m for dolomite. No limestone quarry was under operation during 2018-19.	Nil
2d	Quantity of topsoil generation in m3	No top soil exists.	No top soil generated during 2018-19.	Nil
2e	Quantity of overburden generation in m3	258380cu.m envisaged in 2018-19.	144362cu.m generated during 2018-19.	Less quantity of overburden was generated due to less production of dolomite and nil production of limestone during 2018-19.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The development was proposed in four number of quarries for limestone and dolomite production.	The development and production was confined to Patpahar dolomite quarry only. No limestone production was reported due to lack of market demand.	Nil

Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
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3a	Number of pit proposed for production	Four nos. of limestone and dolomite quarries in 2018-19.	The development and production was restricted to single quarryt i.e Patpahar dolomite quarry.	The mine developmet was lagging behind due to lack of market demand financial constraints of the public sector company.
3b	Quantity of ROM mineral production proposed	Limestone- 3481884 tonnes & Dolomite - 2991104 tonnes	Limestone -Nil and dolomite- 567121.679 tonnes	The mine developmet was lagging behind due to lack of market demand financial constraints of the public sector company.
3c	Recovery of sailable/usable mineral from ROM production	80%	80%	Nil
3d	Quantity of mineral reject generation	Limestone(MR)- 325542 tonnes, Dolomite(MR)- 280416 tonnes in 2018-19	Limestone(MR)-Nil, Dolomite(MR)-910 tonnes generated during 2018-19.	The mine development was lagging behind due to lack of market demand financial constraints of the public sector company,thereby the production of limestone & dolomite as well as the generation status of mineral rejects are much in lower side than the proposal.
3e	Grade of mineral rejects generation and threshold value declared.	Limestone(MR): 35% to 42% CaO Dolomite(MR): 15 to19% MgO.	Limestone(MR): No limestone MR generated. Dolomite(MR): 15 to19% MgO.	The sub-grade is also considered as mineral reject.

3f	Quantity of sub grade mineral generation.	Limestone(SG)- 325542 tonnes, Dolomite(SG)- 280416 tonnes in 2018-19	Limestone(SG)-Nil, Dolomite(SG)-910 tonnes generated during 2018-19.	The mine development was lagging behind due to lack of market demand financial constraints of the public sector company, thereby the production of limestone & dolomite as well as the generation status of mineral rejects/sub-grade are much or nil in lower side than the proposal.
3g	Grade of sub grade mineral generation	Limestone(SG): 35% to 42% CaO Dolomite(SG): 15 to 19% MgO.	Limestone(SG): No limestone SG is generated. Dolomite(SG): 15 to 19% MgO.	The sub-grade is also considered as mineral reject.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised.	Mechanised.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	Not applicable.	Nil
3j	Provision of drilling and blasting in mineral benches	DTH drilling of 115 mm dia. Blast hole with cartridge explosive alongwith delay detonator.	Drilling and blasting is carried out with DTH drilling of 115 mm dia. Blast hole with cartridge explosive alongwith delay detonator.	Nil

3k	Provision of mining machineries in mineral benches	BACK HOE 1.8 CU.M-10, SHOVEL (HYDRAULIC) 0.9/1.8 cu.m-6, FRONT END LOADER 2.0 cu.m-2, DUMPER 20.0T-32, CRUSHER 150.000 T/H-1, WATER TANKER 8000L-2	BACK HOE 1.8 CU.M-10, SHOVEL (HYDRAULIC) 0.9/1.8 cu.m- 6, FRONT END LOADER 2.0 cu.m-2, DUMPER 20.0T-32, CRUSHER 150.000 T/H-1, WATER TANKER 8000L-2	Excavator, Loader and Dumper are equipped to winning out the mineral.
31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height- 8m	Bench height-8m	Nil
3m	Total area covered under excavation/pits	179.12 ha proposed during approved plan period.	An extent of 159.61 ha. has been covered under excavation pits.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.12 T/cu.m for limestone & 1:0.21 T/cu.m for dolomite.	1:0.25T/cu.m for dolomite.	The mine development was lagging behind due to lack of market demand financial constraints of the public sector company, thereby the production of limestone & dolomite as well as the generation status of mineral rejects/sub-grade are much or nil in lower side than the proposal. In view of the above, the stripping ratio also varried.

3o	Total area put in use under different heads at the end of year	The extent of area proposed under different heads are Pit-179.12 ha, waste dump-41.112 ha, Infrastructure -14.12ha, roads-10.08 ha & Mineral storage, plantation & others -64.845 ha.	The extent of area degraded under different heads are Pit-159.61 ha, waste dump-39.52 ha, Infrastructure, roads & Mineral storage, plantation & others - 54.940 ha.	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: Limestone- 3319032tonnes & Dolomite - 2963303tonnes 2015-16: Limestone- 3339696tonnes & Dolomite - 2975744tonnes 2016-17: Limestone- 3374628tonnes & Dolomite - 2985472tonnes 2017-18: Limestone- 3481884tonnes & Dolomite - 2991104tonnes 2018-19: Limestone- tonnes & Dolomite - tonnes 2018-19: Limestone- tonnes & Dolomite - tonnes	2014-15: Limestone- 3319032tonnes & Dolomite -2963303tonnes 2015-16: Limestone- 3339696tonnes & Dolomite -2975744tonnes 2016-17: Limestone- 3374628tonnes & Dolomite -2985472tonnes 2017-18: Limestone- 3481884tonnes & Dolomite -2991104tonnes 2018-19: Limestone- tonnes & Dolomite - tonnes	The production is in low side due to low market demand.

3q	General remarks of inspecting officers on method of mining etc.	The dolomite production was reported only from from Patpahar dolomite quarry and the other quarries could not operated due to lack of market demand and weak financial conditions of the central PSU.	Nil
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Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No topsoil exists. Provisions for separate dumping for overburden/waste and mineral reject are envisaged.	No topsoil exists and also not generated during 2018-19. Separate dumping for overburden/waste and mineral rejects for limestone & dolomite are being done.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The overburden materials are proposed to be dumped in Dump-4. No proposal of top soil generation as the mine operation are envisaged in the lower benches.	The overburden materials are being dumped in Dump-4. No top soil generated during 2018-19 as the mine operation are envisaged in the lower benches.	Nil
4c	Number of dumps within lease area and outside of lease area	16 dumps existing in the lease.	Only dump-4 is active one.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump-4, 5000W/46100W & 400N/1200N.	There is one active dumps i.e dump-4 5000W/46100W & 400N/1200N within the lease area.	Nil
4e	Number of active and alive dumps.	One	One	Nil

4f	Number of dead dumps.	Not specified.	There is 16 nos. of dumps exists in the lease area, out of which the dumping is done only in dump-4.	Nil
4g	Number of dumps established.	Not specified.	There is 16 nos. of dumps present in the lease area which are inactive which are mostly stabilised by plantation.	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No fresh proposal in 2018-19.	Retaining wall and garland drain maintained around dump.	Nil
4i	Length of Retaining wall or garland drain all along dumps	No fresh proposal in 2018-19.	Retaining wall and garland drain maintained around dump.	Nil
4j	Number of settling ponds	Not specified.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		There is 16 nos. of dumps are existing in the lease area, out of which only one dump i.e. dump-4 is used for waste dumping.	Nil

Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No mined out pit/area is matured for backfilling as the mineral has not been exhausted. Hence not applicable.	No mined out pit/area is matured for backfilling as the mineral has not been exhausted.	Nil
5b	Area under backfilling of mined out area	Not applicable.	No mined out pit/area is matured for backfilling as the mineral has not been exhausted.	Nil

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No topsoil exists. No mined out pit/area is matured for backfilling as the mineral has not been exhausted.	Not applicable.	Nil
5d	Total area fully reclaimed and rehabilitated	Not applicable.	Not applicable.	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No reclamation & rehabilitation envisaged.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil

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).	Annual report on PMCP has to be submitted in prscribed format.	Annual report on PMCP has been submitted.	Nil
6b	Area available for rehabilitation (ha) .	Pits are not fully exhausted of minerals for reclamation and rehabilitation	Not applicable.	Nil
6c	afforestation done (ha).	0.5 ha.	1.0 ha.	Nil
6d	No. of saplings planted during the year	800 saplings	During the year 2018-19, there are 2500 nos. of saplings were planted.	Nil
6e	Cumulative no .of plants	Not specified.	Cumulatively 26800 nos. of saplings were planted.	Nil
6f	Any other method of rehabilitation	None	Not applicable.	Nil

6g	Cost incurred on watch and care during the year	Not specified.	Reportedly Rs 2.5 lakh has been incurred on watch and care.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (L x B x D	Pits are not fully exhausted for reclamation and rehabilitation	Not applicable.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Not envisaged as pits are not exhausted of mineral.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Not envisaged as pits are not exhausted of mineral.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not envisaged as pits are not exhausted of mineral.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not proposed as pits are not exhausted.	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Waste land not proposed for rehabilitation	Not applicable.	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Waste land not proposed for rehabilitation	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not applicable.	Not applicable.	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of air, water and noise level are envisaged.	Quarterly monitoring of air, water and noise level are being done.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No proposal of recamation and rehabilitation as pits are not exhausted.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting envisaged.	Gradewise sorting is being practiced.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanised	Mechanised	Nil
7c	Different grade of mineral sorted out at mines.	35% to 42% & +40% Cao for limestone and 15 to19% & +19% Mgo for dolomite	15 to19% & +19% Mgo for dolomite.	Nil

7d	Any beneficiation process at mines	None	Not applicable.	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Sorting of different grade, 35% to 42% &+ 40% Cao for limestone and 15 to19% & +19% Mgo for dolomite	15 to19% & +19% Mgo sorted out for dolomite at mine head. The pits for limestone are not under operation during 2018-19.	Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No top soil exists.	Not applicable.	Nil
8b	Concurrent use or storage of topsoil	Not applicable.	Not applicable.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for OB/waste. No proposal of top soil & MR dump	OB/Waste generated during mining operations were dumped on active Dump-4 during 2018-19.	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Not proposed as pits are not exhausted.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not proposed as pits are not exhausted.	Pits are not fully exhausted for reclamation and rehabilitation.	Nil

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	800 nos. of saplings plantation envisaged in 2018-19	2500 nos. saplings were planted during 2018-19.	Nil
8g	Survival rate	Not specified.	As reported, the survival rate is about 80%.	Nil
8h	Water sprinkling on roads to control airborne dust	Provisions for water sprinkling on the haul road is envisaged.	Water tanker is used for sprinkling the water on the haul roads to control air borne dust.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	800 nos. of saplings plantation in 2018-19 envisaged.	In 2018-19, total 2500 nos of saplings were planted. As reported cumulatively 26800 nos. of saplings were planted by lessee.	Nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly & Annual returns are being regularly submitted to this office.	Monthly & Annual returns are being regularly submitted within the stipulated time span.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer-3, Diploma mining Engineer-2, Geologist-1, Surveyor-1	The emplyment status of mining engineers, geologists ect. are found to be in order.	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-149.930 ha, waste dump-39.520 ha, Plant, building, roads-53.940 ha & others - 1.0 ha.	Area covered under different heads are Pit-149.930 ha, waste dump-39.520 ha, Plant, building, roads-53.940 ha & others -1.0 ha.	Nil
9d	Scrutiny of Annual return on afforestation	Total 2500 nos. saplings were planted during 2018-19.	The plantation status furnished in the AR is satisfactory.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Dolomite 910 tonnes, Less than 18 % MgO%	Found to be in order.	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Limestone: Closing stock (BF Grade)- 410913.40 tonnes Dolomite: Production- 567121.67 tonnes, Closing stock- 265238.68 tonnes	Found to be in order.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price of dolomite Rs 671.00.	Ex mine price of dolomite Rs 671.00.	Nil
9h	Scrutiny of Annual return on fixed assets	Fixed asset as Rs 6058000/- furnished in AR is Rs 6058000/-		Nil

9k Scrutiny of Annual return on mining machineries

BLAST HOLE
DRILL 100mm-5,
SHOVEL 0.9
cu.m- 6, FRONT
END LOADER
1.7cu.m-6,
TIPPER 11
cu.m-20,
CRUSHER-6,

The deployment status of mining machineries are in order.

Nil

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)	17/09/2019			
MCDR17	Rule 24(1)	17/09/2019			
MCDR17	Rule 35(2)	17/09/2019			

Date : 21.11.2019


(SHRI G.C. SETHI)

Indian Bureau of Mines