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 : 380RI13003

(i) Name of the Inspecting : SQ10) SHRI G.C. SETHI

Officer and ID No.

(ii) Designation : Deputy Controller Mines

(iii) Accompaning mine : Shri S.C.Nayak, Qualified Person & Shri A.K.Barik, Mi

Official with Designation

(iv) Date of Inspection : 29/11/2017
(v) Prev.inspection date : 11/03/2016

PART-I : GENERAL INFORMATION

1. (a) Mine Name : BIRMITRAPUR

(b) Registration NO. :

(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 :

Phone : 0661-2610270

(f) Police Station :

(g) First opening date : 01/01/1922

(h) Weekly day of rest : SUN

2. Address for : BIRAMITRAPUR LIMESTONE & DOLOMITE MINE

correspondance VILL-RAIPUR, BANUMUNDA

PO-BIRAMITRAPUR

3. (a) Lease Number : ORI0011 (b) Lease area : 793.97

(c) Period of lease

(d) Date of Expiry : 31/03/2020

4. Mineral worked : LIMESTONE Main

DOLOMITE Associated

5. Name and Address of the

Lessee : BISRA STONE LIME CO. LTD

BIRAMITRAPUR SUNDERGARH
DISTRICT ORISSA SUNDARGARH

ORISSA Phone: FAX :

Owner : Bisra Stone & lime company ltd

Birmitrapur SUNDARGARH

ORISSA

Phone: 0661-610202.

FAX :

Agent : T.C.SEI

M/S BISRA STONE LIME CO LTD BIRAMITRAPUR SUNDARGARH

ORISSA
Phone:
FAX:

Mining Engineer

Name : A.K.BARIK, Full Time

Qualification : AMIE(MINING)
Appointment/ : 14/09/1992

Termination date

Mining Engineer

Name : S.S. MISHRA, Full Time

Qualification : A.M.I.E

Appointment/ : Termination date

Geologist

Name : V DUNGDUNG, Full Time

Qualification : MSC GEOLOGY Appointment/ : 30/12/1992

Termination date

6. Date of approval of Mining : Renewal under rule 22 MCR1960 06/07/2005
Plan/Scheme of Mining Mining Scheme rule 12 MCDR1988 12/10/2009
Modif.approved Mining Scheme 14/09/2010

Modif.approved Mining Scheme 14/09/2010 Mining Scheme rule 12 MCDR1988 27/08/2014

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration:

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No such proposal.	Nil	Nil
1b	Exploration over lease area for geological axis 1 or 2	An extent of 347.400ha of area has been explored upto G1 level & 103.840ha upto G2 level as envisaged in the scheme of mininhg approved on 27.08.2014.	An extent of 347.400h of area has been explored upto G1 level & 103.840ha upto G2 level	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No such specific proposal	Not available.	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Certain extent of area has already been surrendered & no specific proposal is available.	Not avaialble as certain extent of lease area has been surrendered.	

1e Balance reserve as on 01/04/20

As per the approved scheme of mining,dated 27.08.2014, urces for limestone & dolomite is as given below:-Limestone: Proved reserves million tonnes, Probable Reserves (122): 35.28 million tonnes & remaining resources: 106.04 million tonnes and the same for dolomite-Proved (111): 83.62 million tonnes, Probable(122) 33.78million tonnes & remaining resources:

48.79 million

tonnes.

The available limestone The updated & dolomite reserves/resources after depletion of production for the years depletion of the available 2014-15 to 2016-17 is as production reserves/reso given below: Limestone: Limestone: Proved reserves (111): 119.641 million tonnes, Probable Reserves (122): 35.28 million tonnes & remaining resources: 106.04 million tonnes and the same for (111): 119.65 dolomite- Proved (111): 82.765 million tonnes, Probable(122): 33.78million tonnes & remaining resources:

48.79 million tonnes.

reserves/resources have been furnished after reported for the years 2014-15 to 2016-17.

1f General remarks of inspecting officers on geology, exploration etc

In the approved scheme of mining, 14 nos. of bore holes were proposed to be drilled during the year 2016-17.

In Sundargarh distriect, Nil the limestone & dolomite forms an important horizon in Gangpur area and have been classified as Birmitrapur Stage of the archean complex belonging to the Gangpur group of Dharwar age. The Gangpur series of rocks occupy Panposh Subdivision and a part of Sundargarh sub-division of Sundargarh district. The proposed bore holes could not drilled as the suspension of mining operations.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Dolomite: Patpahar Quarry, Main Dolomite Quarry & Duarsini Dolo Quarry. Limestone: Gurupahar Linestone Quarry & New Hoist Limestone Quarry in different locations of the leaae area.	Patpahar Dolomite Quarry, Main Dolomite Quarry & Duarsini Dolo Quarry. Practically, the mining operation in limestone quarries are not done due to lack of market demand.	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches for overburden and limestone & dolomite are proposed in the approved scheme of mining.	Separate benches are made in, overburden as well as in mineral zone.	Nil

2c	Stripping ratio or ore to OB ratio	Dolomite: (1:0.048 t/cum) & Limestone: (1:0.05 t/cum) Quarry- 291:0.13t/cum)	in the annual return	Nil
2d	Quantity of topsoil generation in m3	No topsoil generation proposal was envisaged for the year 2016- 17 in the approved scheme of mining.	No top soil was generated during the year 2016-17.	Nil
2e	Quantity of overburden generation in m3	In the year 2016-17, it was proposed to generate 14400cum of overburden material as envisaged in the approved scheme of mining.	During the year 2016-17, only 159985 tonnes of overburden/waste material was generated and specific information for overburden generation is furnished in the aforesaid annual return.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No comment is offered.	Both production of limestone & dolomite are lagging behind against the proposal envisaged in the approved scheme of mining due to lack of market demand for limestone & dolomite.	Nil

Actual work

Remarks

Exploitation:

Item

Propasals

Sl.No.

3a	Number of pit proposed for production	Dolomite: Patpahar Quarry, Main Dolomite Quarry & Duarsini Dolo Quarry. Limestone: Gurupahar Linestone Quarry & New Hoist Limestone Quarry were proposed for production during the year 2016-17.	The Dolomite Quarries such as Patpahar Quarry, Main Dolomite Quarry & Duarsini Dolo Quarry were under operation during the year 2016-17. Practically, the limestone quarries were not operated due to lack of market intake for limestone.	Nil
3b	Quantity of ROM mineral production proposed	During the year 2016-17, 2743600 tonnes of limestone & 2425696 tonnes of dolomite was proposed for production as envisaged in the approved scheme of mining.	Only 242.670 tonnes of limestone and 476241 tonnes of dolomite was produced from the mine as indicated in the annual return submitted by the party for the year 2016-17.	The low production of limestone & dolomite was due to lack of market demand for limestone & dolomite.
3c	Recovery of sailable/usable mineral from ROM production	The recovery of limestone was proposed for 80% of the ore zone and the same for dolomite was also for 80% as envisaged in the approved scheme of mining.	Reportedly 80%.	Nil
3d	Quantity of mineral reject generation	No proposal for mineral reject generation in the approved scheme of mining.	1570 tonnes as indicated in the annual return submitted for the year 2016-17.	Nil

3e	Grade of mineral rejects generation and threshold value declared.	Not applicable.	Not known.	Nil
3f	Quantity of sub grade mineral generation.		The sub-grade so generated was blended with the high grade ore as reported during the field visit and stacks for the same was seen in the mine.	Nil
3g	Grade of sub grade mineral generation	No such specific proposal as such no sub-grade was practically generated and the low grade so generated is being blended with the high grade materials.	Not applicable.	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method such as crushing & screening has been proposed to be adopted for segregation of ROM limestone & dolomite.	The same practice is being followed as per the proposal.	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposal.	Not applicable.	Nil

Nil

3j Provision of drilling and blasting in

Provisions for The same practice is drilling by being followed in the DTH drills of mine as found during the mineral benches 100mm dia and field visit.

> blasting by putting explosives in the drilled holes in overburden as well as in ore zones.

Nil

3k Provision of The details of As per the annual return mining mining submitted by the party machineries in machineries for the year 2016-17, mineral benches proposed to be the details of mining deployed in machineries deployed in the mine is as the mine is as given given below: - (i) Air (i) DTH drills Compressor 450cum/mn (4 (LM-100) (3 nos.) (ii) Crusher 12 nos.), (t/h)/100 (t/h)/80(t/h)(ii)Loader HM- -4 nos. (iii) 10 tonner 1.75cum (5 dumper (24 nos.) (iv) nos.),(iii) E 100mm dial drills (4 excavator L & nos.) (v) Shovel T-0.9cum(Hydraulic 0.9cum) (5 nos.), (v) Front end (1no.) (iv) Excavator loader 1.7cum(3 nos.) Volvo-0.9cum etc. (3 nos.), (v) Rock Breaker Volvo (2 nos.) (vi) JCB 0.75cum (2 nos.) (vii) Compressor 450cfm (4 nos.) (viii) Water Tanker 6000ltr. (1 no.), (ix) Oil tanker 6000ltr (1 no.) (x)6.4 cum dumper (10 nos.) (xi) 8.0 cum

Dumper HYVA (10 nos.) (xii) Hindustan Tractor (1 no.) etc.

31	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	the benches in over burden &	The height & width of the benches 8m & 10m respectively formed.	Nil
3m	Total area covered under excavation/pits	An extent of 19.51ha. was proposed to be degraded during the scheme of mining period 2013-14 to 2017-18.	An extent of 15.845ha has been degraded by the current opencast working.	Nil
3n	Ore to OB ratio for the pit/mine during the year.	<pre>t/cum) & Limestone: (1:0.05 t/cum) Quarry-</pre>	Dolomite:Dolomite: (1:0.33 t/t). No sepaarte generation of waste from limestone zone has been furnished in the annual return submitted by the party for the year 2016-17. During the year 2016-17, only 242.670 tonnes of limestone was produced. Therefore, the stripping ratio for limestone has not been computed.	Nil

30 Total area put in use under different heads at the end of year

The item wise The item wise land use additional under different heads at land use under the end of the year different 2016-17 is as given heads at the below:-(i) Covered under current opencast end of the scheme of working-163.535ha mining period (commulative figure). 2017-18 is as (ii) Waste disposalgiven below: - 31202ha(commulative (i) Mining- figure) (iii) Occupied 19.51ha (ii) by plant, buildings Dumping-6.91ha etc.-55.940ha. & (iv) (iii) Plantation-1.00ha Afforestation-2.0ha & (iv) Mineral separation plant-2.0ha etc.

Nil

3р Production of The proposed The achivements in During all the ROM mineral production of production of limestone above five years, during the last limestone & & dolomite during the the achievements five year period dolomite period from 2012-13 to in production are as applicable 2016-17 is as given during the lagging behind the below: Limestone: - 2012period from proposals, due to 2012-13 to 13: 25740t, 2013-14: lack of market 2016-17 is as 17684t, 2014-15: 2229t, demand. 2015-16: 5636t & 2016follows: Limestone:-17:243t. Similarly, the 2012-13: dolomite production 2667480t during the aforesaid ,2013-14: period is as given 2618400t, below: Dolomite: - 2012-2014-15: 13: 367947t, 2013-14: 378225t, 2014-15: 2698400t, 2015-102498t, 2015-16: 16:2715200t & 476391t & 2016-17: 2016-17: 276241t respectively. 2743600t. Dolomite: -2012-13: 2128097.8t,201 3-14:1289850t, 2014-15:2407683t, 2015-16:2417792t & 2016-17:2425696t 2013-14:339091t , 2014-15:339074t, 2015-16: 339158t & 2016-17:339226t respectively. General remarks The method of Nil 3q The mining operations of inspecting mining was were carried out by officers on fully mechanised proposed for method of mining fully opencast methods as per etc. mechanised the proposal envisaged open cast in the approved methods in the document. approved scheme of

mining.

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Provisions for separate dumping of OB has been made as envisaged in the approved scheme of mining. There is no provisions for dumping/stacki ng of topsoil & mineral rejects.	The overburden material generated from the mine has been dumped in the existing dumps and there is no generation topsoil & Mineral rejects from the mine during 2016-17.	Nil
4b	Location of topsoil, OB and mineral reject dumps	The OB/waste was proposed to be dumped in the existing dump avaiable near to the respective quarries proposed under excavation planning.	The OB/waste generated was dumped in the existing waste dumps as envisaged in the scheme of mining.	Nil
4c	Number of dumps within lease area and outside of lease area	There are 9 nos. of existing dump is available in the lease area as envisaged in the approved scheme of mining.	9 nos. of existing dump is available in the lease area.	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Only two nos. of dumps has been proposed beyond the ultimate pit limits as per the approved scheme of mining.	The dumps were found located beyond the ultimate pit limit.	Nil
4e	Number of active and alive dumps.		The two active dump was found during th field visit.	Nil
4f	Number of dead dumps.	No such proposal.	7 nos. of dead dumps are seen in the lease area.	Nil

4g	Number of dumps established.	No such proposal.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	for the waste	Boulder retaining wall all along the toes of the dump was found made.	Nil
4i	Length of Retaining wall or garland drain all along dumps		Boulder retaining wall & garland drain all around the toe of the dump is made as found during the field visit.	Nil
4ј	Number of settling ponds	No such proposal.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management	No comments.	Dumping is being done in the two locatrions such as near dump no.4 & western side of BSD-7 as observed during the inspection, which is as per the proposal.	Nil

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.	was proposed	No backfilling was done during the year 2016-17.	Nil
5b	Area under backfilling of mined out area	Nil	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No such proposal & no proposal for generation of topsoil during 2016-17.	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No such proposal.	Nil	Nil

Se General remarks No No reclamation has been Nil of inspecting reclamation/ done during the year officers on backfilling 2016-17.

backfilling and was proposed reclamation etc. during the year 2016-17.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
ба	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	No such proposal in the approved scheme of mining.	The annual report on PMCP for the year 2016-17 has been submitted by the party under Rule 26(2) of MCDR, 2017.	Nil
6b	Area available for rehabilitation (ha) .	No such rehabiltation proposal for the year 2016-17.	Nil	Nil
6c	afforestation done (ha).	In the year 2016-17, there are 800 nos. of saplings were proposed to be planted over an extent of 0.50ha.	During the year 2016-17, 2500 nos. of saplings were planted within the lease area. but the extent of area was not available.	Nil
6d	No. of saplings planted during the year	Only 800 nos. of saplings were proposed to be planted in the year 2016-17.	During the year 2016-17, 2500 nos. of saplings were planted.	Nil
бе	Cumulative no .of plants	No such proposal.	The commulatrive plantation figures were not avialble. However, during the year 2016-17, 2500 salpings were planted.	Nil
6f	Any other method of rehabilitation	No such specific proposal in the approved document.	Nil	Nil

6g	Cost incurred on watch and care during the year	specific	Not availble.	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No comments to offer.	No reclamation & rehabilitation was undertaken during the year 2016-17.	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Nil	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	Nil	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No such proposal for the year 2016-17.	Nil	Nil
61	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No such proposal.	Not applicable.	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No such proposal.	Nil	Nil

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No such specific proposal in the scheme of mining.	Not applicable.	Nil
60	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No such proposal.	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)		level etc. were being monitored in every quarter and found within the permissible limits.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No comments.	No reclamation & rehabilitation was undertaken during the year 2016-17.	Nil

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	The ROM limestone & dolomite produced are processed through screening & curshing as per the buyers specifications	The ROM limestone & dolomite produced are processed through e screening & curshing as per the buyers specifications.	Nil

7b	Method of grade- wise mineral sorting i.e. manual or mechanical.	screening & crushing for limestone &		Nil
7c	Different grade of mineral sorted out at mines.	crushing for	By screening & crushing for limestone & dolomite.	Nil
7d	Any beneficiation process at mines .	No such proposal.	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	the proposal given in the approved	There is no mineral conservation problems in the mine.	Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a		generation was	No top soil was generated from the mine during the year 2016-17.	Nil
8b	Concurrent use or storage of topsoil	Nil	No top soil gerenated from the mine during the year 2016-17.	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)		During the year 2016-17, dumping was done in the proposed site.	Nil

8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal.	Nil	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal.	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Status of existing plantation has not been given in the approved document. However, 8000 nos. of saplings was proposed to be planted in the year 2016-17.	During the year 2500 nos. of saplings were planted within the lease are	Nil
8g	Survival rate	of 800	The survival rate of plantation is about 80% during the year 2016-17.	Nil

8h	Water sprinkling on roads to control airborne dust	sprinkling was proposed on	Water sprinkling was a regular practice in the mine as found during the field visit of the area.	Nil
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	No such specific proposal.	The austhetic beauty of the mine was enhanced by by planation within & out side the lease area.	Nil

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	to submit the monthly	The party has submitted all the monthly & annual returns during the year 2016-17.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	mining engineer,	As the mine fall under category -A(FM), full time mining engineer, geologist & mine managers were employed in the mine.	Nil

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	2016-17, an extent of 163.535ha of	The land use status on account of current opencast workings and waste disposal seems to be for cummilative figures by end of the year 2016-17.	Nil
9d	Scrutiny of Annual return on afforestation	During the year 2016-17, 2500 nos. of saplings with in the lease area.	The status of plantation furnished in the annual return is in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	During the year 2016-17, no mineral rejects was generated as per the annual return.	Nil	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore		The production figures furnished in the annual returns are verified & found to be correct.	Nil

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	limestone is	The ex-mine price for limestone & dolomite furnished in the annual return is found to be in order.	Nil
9h	Scrutiny of Annual return on fixed assets	The total value of the fixed assets is for Rs. 14014272000.00 as indicated in the annual return 2016-17.	The same was not available for verification during the inspection.	Nil
9k	Scrutiny of Annual return on mining machineries	The deployment status of mining machineries furnished in the annual return is as given below:-(i) Air compressor 450cum/mn (4 nos.), (ii) Crusher 120t/h,80t/h/10t/h (4 nos.), (iii) 10 tonner dumpers (24 nos.), (iv) Shovel Hydraulic 0.9cum (5 nos.) & (v) Front end loader 1.7cum (3 nos.).	The same is found to be in order.	Nil

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Details of violations observed during current inspection and compliance position of violation pointed out				
Violat	zion observed	Show co	ouse position	
Rule NO.	Issued on Compliance on	Rule NO.	Issued on Compliance on	

Date: (SHRI G.C. SETHI)

Indian Bureau of Mines