

MCDR INSPECTION REPORT

Name & Designation of Inspecting Officer: Subrata Kumar Muduli, Senior Mining Geologist
Date of Inspection: 2nd & 3rd July 2024.

S. N.	Particulars	Details
1	Name of the Mine	Sutnga Limestone Mine
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	230 ha non-forest land
3	Mine-code	38MEG657002
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/22638/2019
5	Name of the lessee, Address, phone, email and fax number	M/s Cosmos Cements Limited, Village- Thangskai, District- East Jaintia Hills, State-Meghalaya -793201
6	Village	Salang
7	Taluk/Mandal	Sutnga
8	District	East Jaintia Hills
9	Pincode	793200
10	State	Meghalaya
11	Post office	Sutnga
12	Nearest police station	Khliehriat
13	Nearest Railway station	Badarpur
14	Date of Grant of Mining Lease	2 nd Sep, 2010
15	Date of Execution	7 th Apr, 2011
16	Date of opening of Mine	4 th Sep, 2022 (reopening)
17	Date of first Renewal, if applicable and its period & expiry	
18	Date of second Renewal, if applicable and its period & expiry	
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Padmanav Chakravarty Address- F/No-A4,8 TH Floor, Block 1B , Regent Paradise , Ghoramara, GHY, Kamrup, Phone: 8811017766 Email: chakravarty.padmanav@dalmiacement.com Date of appointment: 9 th May, 2024
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Hemant Sharma Village-Thangskai,

		<p>PO-Lumshnong, District- East Jaintia Hills, Meghalaya – 793210 Phone: 6909367704 Email: sharma.hemant1@dalmiabharat.com Date of appointment: 21st December, 2022</p>
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	<p>Santosh Ganpatrao Mogre, Village- Salang, Elaka- Sutnga, District- East Jaintia Hills, Meghalaya -793200 Phone: 7099093343 Email: sinha.manoj@dalmiacement.com Date of appointment: 21st August, 2023</p>
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	<p>Dhananjay Kumar BE (Mining), Experience: 25 years Village-Thangskai, PO-Lumshnong, District- East Jaintia Hills, Meghalaya – 793210 Phone: 8974008009 Email: kumar.dhananjay@dalmiabharat.com Date of appointment: 26th September, 2019</p>
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
25	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<p>314(3)2008- MCCM(CZ)/MP-7 Dated 28.07.2007(2011-12 to 2015- 16),IBM/GHY/MEG/E JNH/LST/MP-91 Dated 10.04.2019(2019-20 to 2020-21), IBM/GHY/MEG/JNH /LST/MP-91 Dated 07.06.2020(2020-21 to 2025-26)</p>

26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	07/06/2022
27	Mineral(s) granted in lease and proved for mining	Limestone & Shale
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully mechanized
30	Captive/ Non-captive	Non-captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.)

Exploration

S.N.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Backlog of 2022-23 : 12 nos core bore holes. Proposal for 2023-24: 13 nos core bore holes.	14 nos bore holes done in 2023-24. Drilling Machine has been shifted out of the ML.	Violation issued u/r 11(1) for not carrying out the approved exploration proposal of 2023-24.
1b	Exploration over lease area for Geological axis 1 or 2.	G4- 3.26 Ha. G3-97.1 Ha. Total-100.36 Ha. To G1 (During 2023-24)	Based on the exploration carried out in 2023-24, G-1: 80.06 G-2: 98.68 G-3: 51.26	Violation issued for not carrying out the approved Exploration proposal.
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No such details approved.	Udaipur MinTech Pvt Ltd.	Rate of per meter core drilling Rs 2500.00. Total expenditure made towards exploratory operation during 2023-24 for drilling is Rs 6809800.00.
1d	Balance area to be explored to bring Geological axis in 1 or 2	G4- 3.26 Ha. G3-97.1 Ha. Total-100.36 Ha. To G1 (During 2023-24)	51.26 Ha area is under G-3 and to be brought under G-1 and 98.68 Ha of G-2 level area to be brought in to G1.	
1e	Balance reserves as on 01.04.2024	85.005 million tones	85.062 million tones	Violation issued u/r 45(7)(a) of MCDR-2017 for not submitting

				the details.
1f	General remarks of inspecting officer on geology, exploration etc.	Exploration needs to be done to explore the entire ML area under G1 level of exploration. Limestone thickness from East to west is gradually decreasing.		

Development

S.N.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	Mining Pit E448201.822m N2799286.971m to E448238.437m N2799136.946m	Mining Pit is bound by: E448165.5596m N2799120.9217 to E448823.0185 to N2799891.2975	Earlier Violation for deviation in location is still pending and modification of mining plan is under process. Due to no drilling & blasting, development is done in the area where limestone pinnacles are exposed. Violation issued u/r 11(1) of MCDR-2017 for not carrying out mining by deploying rock breaker and by jack hammer drilling and blasting instead of HEMM with deep hole drilling and blasting, also for Limestone stack, crusher area.
2b	Separate benches in topsoil, overburden and	Yes	Yes.	Mine development

	mineral (Rule 15)			is at initial stage.
2c	Stripping ratio or ore to OB ratio	0.029	0.85	OB generation-80250MT Limestone Production – 94193MT.
2d	Quantity of topsoil generation in m3	117.99 m3	Nil	
2e	Quantity of overburden generation in m3	Nil	50156.25	OB generated has been used for road levelling and widening.
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The top pinnacles of Limestone are being mined out by deploying Rock Breaker for developing a smooth ground for large scale mining by deep hole drilling and blasting and utilizing HEMM. In total there are two nos of mining pits over an area of 4.68 Ha (Pit-1) and 2.87 Ha (Pit-2). There are a total of 69 nos of illegal deep pits within the ML and the issue of illegal mining of carbonaceous rock/coal has already been intimated to DMR, State Govt. of Meghalaya vide this office letter dated 05.09.2023.		

Exploitation

S.N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	2	Violation u/r 11(1) of MCDR-2017 was issued on date 01.09.2023 at point (ii) for deviation in mining area and the same violation is continuing till date of inspection. Hence no separate violation has been issued again.
3b	Quantity of ROM mineral production proposed	94196.6 tonnes	94193 tonnes	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral	Nil	Nil	

	reject generation and threshold value declared			
3f	Quantity of sub-grade mineral generation	Nil	Nil	
3g	Grade of sub-grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Nil	Segregation from ROM is not required as recovery is 100%.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	1nos drilling machine each of 115mm dia, Spacing- 5m, Burden- 4m, Bench height- 9m, Hole depth- 9m, Staggered pattern drilling and blasting.	Jack Hammer and Rock breaker	Violation u/r 11(1) of MCDR-2017 issued.
3k	Provision of mining machineries in mineral benches	Mechanized mining with the combination of deep hole drilling and blasting, also by deploying Hydraulic Excavator of 0.9m ³ with dumpers of 28 MT.	Jack Hammer and Rock breaker, Dumpers of 28 MT-10 nos, Back hoe- 3.1m ³ -2 nos	-do-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Suitable.	Boom height of excavator is suitable for the bench height.	
3m	Total area covered under excavation/pits	1.22 hectare	7.55 hectare	MMP under process.
3n	Ore to OB ratio for the pit/mine during the year	0.029	0.85	OB generation- 80250MT Limestone Production – 94193MT. Violation u/r 11(1) of MCDR-2017 issued.
3o	Total area put in use	21.69 hectare	44.57 hectare	Roads and

	under different heads at the end of year			township area additional. MMP under process.
3p	Production of ROM mineral during last five-year period, as applicable	2019-20 to 2020-21-700049.32 T 2021-22- Lapsed Period 2022-23 -61031 T 2023-24 – 94196.6	2019-20 to 2020-21-Nil 2021-22- Nil 2022-23 -4000 T 2023-24 – 94193T	
3q	General remarks of inspecting officer on method of mining etc.	No deep hole drilling and blasting is being done. Mining is being done by deploying Jack hammer drilling and blasting, Rock Breaker and Excavator.		

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	Yes	Yes for Top soil	
4b	Location of topsoil, OB & mineral reject dumps	Topsoil: E448166.744 N2799418.469 to E448216.525 N2799420.861 OB: E 448166.7 42 N2799466.824 and E 448216.525 N 2799486.27	Top Soil dump- E 448190- E448345, N2799548-N 2799494 No OB Dump found.	Violation u/r 11(1) of MCDR-2017 issued.
4c	Number of dumps within lease area and outside lease area	2(One-Top Soil,One-Waste)	One for top soil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out of UPL	Yes out of UPL	
4e	Number of active & alive dumps	1	1	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Yes	Nil	As waste dump is of short term/ temporary/ stack type, no activity has been done.

4i	Length of Retaining wall or garland drain all along dump	Retaining wall: 74 meters Garland drain: 77 meters	Nil	Due to Short term/ temporary /small waste stack, the construction of Retaining wall and Garland drain, settling pond has not been carried out.
4j	Number of settling ponds	1	Nil	-do-
4k	Specific comments of inspecting officer on waste dump management.	Due to short term/temporary/stack of waste no construction of Retaining wall and Garland drain has been made. Waste is being used in road development and leveling.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Still mineral is occurring in depth.	Mineral is yet to exhaust and hence no part of the ML is matured to start back filling.	
5b	Area under backfilling of mined out area	Nil	0.0173 Ha, Vol- 8453.5 m ³	6 No. of Deep pits backfilled for safety purpose both for development & cattle.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	No such proposal was approved.	Nil	As per approved document Top Soil is to be used for green belt development and balance quantity to be stacked.
5d	Total area fully reclaimed & rehabilitated	No such proposal was approved.	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Mineral is yet to exhaust. No part of the lease area is matured to start backfilling, reclamation.		

Progressive Mine Closure Plan

S.N.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	PMCP report to be submitted before 1st day of July of Every Year	Submitted.	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	i) Nil ii) Nil iii) Nil iv) Nil v) Nil vi) Nil	i) Nil ii) Nil iii) Nil iv) Nil v) Nil vi) Nil	Mineral yet to exhaust and the mining activity is in dynamic stage. Hence, no rehabilitation of mined out benches during 2023-24.
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	Mineral yet to exhaust and the mining activity is in dynamic stage. Hence, no reclamation and rehabilitation by back filling during 2023-24.
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Nil ii) Nil iii) Nil	i) Nil ii) Nil iii) Nil	No such proposal approved. However against the proposal of 500 nos of sapling plantation in 0.50 Ha within the 7.5m safety barrier of ML, the

				lessee has planted 500 nos sapling of 2022-23. Hence violation under rule 11(1) of MCDR-2017 issued.
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Monitoring of air, noise, water & soil	Environmental Monitoring is being regularly carried out.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	There are no of deep pits for wining coal and are not safe. Proposed Sapling plantation, ML boundary fencing, has not been carried out. Violation letter has been issued. Letter issued to DMR, State Govt. of Meghalaya on 05.09.2023 for mining of coal.		

Mineral Conservation

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	100% of ROM to be dispatched	During 2023-24 94193.000 tonnes of ROM produced and a total of 42881.364 MT quantity of ROM dispatched.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	No such proposal was approved.	Nil	
7c	Different grade of mineral sorted out at mines	CaO%-45.76, MgO%-1.35	Cement Grade Limestone	
7d	Any beneficiation process at mines	No such proposal was approved.	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The Lessee has reported 100% ore recovery. There is no generation of mineral reject and no issue of beneficiation.		

Environment

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	To be removed separately.	Yes being removed separately.	
8b	Concurrent use or storage	Topsoil to be	Yes	

	of topsoil	utilized for plantation and balance quantity to be stacked.		
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Yes being maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposal approved.	Overburden/waste generated has been used for Road widening and levelling.	Dumping has not been done of OB. OB generated has been used for Road widening and leveling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposal approved.	Nil	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	1000 nos. saplings (which includes 500 of 2022-23 carry forwarded) to be planted over an area of 1.0 hectare during 2023-24.	500 nos. saplings planted in the year 2023-24 in respect of the approved proposal for 2022-23.	Violation issued u/r 11(1) for not carrying out the approved plantation proposal for 2023-24.
8g	Survival rate	No such proposal approved.	70%	
8h	Water sprinkling on roads to control airborne dust	Water Sprinkling on Haul roads	Water sprinkling by water tanker fitted with sprinklers over haul roads is being carried out regularly.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The mining operation is at initial stage. and the aesthetic beauty in and around the mine is still good. However Lessee is doing plantation in and around the mines to improve the aesthetic beauty of Mines and surrounding areas.		

Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to May,2024 and Annual return submitted for 2023-24.	

S.N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager is Santosh Mogre, ME is Dhananjay Kumar and Geologist is Tapas Pal.	Mines Manager is Santosh Mogre, ME is Dhananjay Kumar and Geologist is Tapas Pal.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	7.547(Mining Pit of Limestone) 0.00(Reclaimed Area) 3.016(Mineral Storage)	7.547(Mining Pit of Limestone) 0.00(Reclaimed Area) 3.016(Mineral Storage)	
9d	Scrutiny of Annual return on afforestation	500	500	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	Nil	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	55311.636 tonnes	55311.636 tonnes	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value- Rs. 550; Ex-mine price – 550/- Production cost- 1846.06	It has been observed that cost per tonne of mineral is more than the sale price per tonne of mineral and under this situation mining production is not feasible. Either cost per tonne or ex-mine price/sale price is not correct.	Violation issued u/r 45(7)(a) of MCDR-2017.
9i	Scrutiny of Annual return on fixed assets	Rs 449275116.00	Details not available for checking.	
9k	Scrutiny of Annual return on mining machineries	DOZER-1No, DUMPER-28 tonnesr-10nos, WATER	1. Back-hoe-hydraulic: a) KOBELCO SK 520 SD (1), b)	

		TANKER-12KL-1No, BACK HOE-3.100m3-2 nos, MOTOR GRADER-120 HP-1 No, OTHER HEM MACHINERY-3no	KOBELCO SK 220 (1). 2. Rock breaker with base machine-KOBELCO SK 520 (3) 3. Dumpers: a) VOLVO FMX460 (4); b) BHARATBENZ 2828C (6) 4. Dozer; a) Dozer PR734 (1); b) Dozer D-80 (1) 5. Grader; Grader CAT -120 (1) 6. Water Tanker; Water Sprinkler-tata ultra -12 KL (1)	
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Details of violations observed during current inspection and compliance position of earlier violation pointed out:

As per the inspection dated 2nd and 3rd July 2024, violation have been issued for Rule 11(1) of MCDR-2017 for seven nos. of issues, Rule 45(7)(a) of MCDR-2017 for two nos. of issues. Earlier violation of rule 11(1) of MCDR-2017 wrt mine inspection dated 07.08.2023 and 08.08.2023 is still pending for complete closure of deep pits lying within the Mining Lease. Lessee has already backfilled 6(six) nos. of deep pits for safety purpose which are adjacent to and falling within the mining pit area.

Seemuduli

**Subrata Kumar Muduli, SMG
(Name of inspecting officer with designation and date)**