

MCDR INSPECTION REPORT

General

S N	Particulars	Details
1	File no	CG/DURG/LST/38MPR13001
2	Name of the Mine	Jamul Cement Works Limestone Mine
3	Total Lease Area (Ha) with breakup of Non-forest and forest land	Total -269.95 Ha, Forest Land :Nil. Non-forest land 269.95 Ha
4	Mine code	38MPR13001
5	Date of Inspection	6/8/2021
6	Name of official accompanying inspection	Shri. Arvind Bhaurao Zade, Manager Mines
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/256/2011
8	Name of the lessee, Address, phone, email and fax number	Jamul Cement Works, ACC Limited, Durg, CG-490024 Ph:0788-2285081 to 2285085
9	Village	Jamul, Dhour, Kurud
10	Taluka/Mandal	Durg
11	District	Durg
12	Pincode	490024
13	State	Chhatisgarh
14	Post office	Jamul
15	Nearest police station	Jamul
16	Nearest Railway station	Bhilai Power House
17	Date of Grant of Mining Lease	04.05.1960
18	Date of Execution	04.05.1960
19	Date of opening of Mine	12.06.1963
20	Date of first Renewal, if applicable and its period & expiry	04.05.1980
21	Date of second Renewal, if applicable and its period & expiry	04.05.2000
22	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Lease validity 31.03.2030 being captive lease
23	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri. Sridhar Balakrishnan Jamul Cement Works, ACC Limited, Durg, CG-490024 Ph:0788-2285081 to 2285085 Date of appointment:21/02/2020
24	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Vaibhav Dixit, Agent & Director Plant Jamul cement Works, ACC Limited Mail.id:vaibhav.dixit@acclimited.com Date of appointment: 01/07/2018
25	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri. Arvind Bhaurao Zade, Manager Jamul Cement Works, ACC Limited Email id: arvindbhaurao.zade@acclimited.com Mob:07225026281 Date of appointment: 19/12/2015

26	Name of the Mining Engineer & Geologist, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri. Jai Sachdeva M.Tech, Mining Jamul Cement Works, ACC Limited Email.id: jaikumar.sachdeva@acclimited.com Mob: 9109916582 Date of appointment: 08/05/2017 Geologist Shri. Divya Kant Dave, M.Tech, Applied Geology Jamul Cement Works, ACC Limited Email.id: d.dave@acclimited.com , Mob: 7225026283 Date of appointment: 20/11/2015
27	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes
28	Date of Approval of Review of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Approval letter no.& Date:No.DURG/CHOOP/KHAYO/- 1212/2019-RAIPUR DATED 09.12.2019 for Review of mining plan valid upto 2024-25
29	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
30	Mineral(s) granted in lease and proved for mining	Limestone
31	Method of Mining(Open cast, Underground)	Open cast
32	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
33	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/Review of mining.

Exploration

S.N.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was no exploration proposal for the year 2020-21	Nil	Complete area explored in G1 category.
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	Nil	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Nil	
1e	Balance reserves as on 01.04.2021	NA	77.83 Million Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	Complete area explored in G1 category. Only small patches are left over for which 8 nos of boreholes are proposed in year 2021-22		

Development

S.N.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	ML 22 to ML24A South & NW , ML15.5 to ML19,EAST	Within ML24 & ML 18	As proposed location
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	3 mts top bench	3 mts top bench and below that limestone benches	Overburden benches kept ahead of mineral benches.
2c	Stripping ratio or ore to OB ratio	1:0.36	1:0.30	
2d	Quantity of topsoil generation in m ³	28987 Cum	9000 in CUM	
2e	Quantity of overburden/waste generation in m ³	838494 CUM	724071 CUM	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Overburden removed at same pace with production of limestone		

Exploitation

S.N.	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	1	1	
3b	Quantity of Limestone production proposed	3000000 tonnes	2362249 tonnes	Year 2020-21
3c	Recovery of salable/usable mineral from ROM production	3000000 tonnes	2362249 tonnes	
3d	Quantity of mineral reject generation	Nil	Used with high grade limestone	
3e	Grade of mineral reject generation and threshold value declared	Nil, Threshold value <34% of CaO	Nil	
3f	Quantity of sub-grade mineral generation	Nil	Used with high grade limestone simultaneously	
3g	Grade of sub-grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Nil	Nil	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not Applicable	Subgrade limestone is used with high grade limestone simultaneously	
3j	Provision of drilling & blasting in mineral benches	Deep hole drilling blasting by using Nonel	Deep hole drilling with 88mm dia hole blasting by using Nonel	
3k	Provision of mining machineries in mineral benches	Sufficient no. of hyd. MC deployed on benches as per the requirement. Shovel 5.1cu.m., Dumper 60ton	a)Hydraulic shovel- 5.1 CUM- 2 nos b) Rock drill 115 mm/ 89 mm-2 nos c)Dumper 60 tonnes- 8 nos Dozer 340 HP- one nos	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	yes	Bench height-6 to 9 mts in limestone and 0.1 to 3 mts in OB bench	Maintaining benches separately
3m	Total area covered under excavation/pits	104 ha during plan period	95.70 ha cumulative	
3n	Ore to OB ratio for the pit/mine during the year	1:0.36	1:0.0.30	
3o	Total area put in use under different heads at the end of year		Covered under current (O/C) Workings 95.7 Reclaimed/Rehabilitated 4.98 Occupied by building, residential, welfare buildings, roads 17.01 ha Work done under progressive mine closure plan 1.4	
3p	Production of ROM mineral during last five-year period, as applicable	2015-16:3000030 tonnes 2016-17:3003115 tonnes 2017-18:3035625 tonnes 2018-19:3014460 tonnes 2019-20:3000000 Tones 2020-21:3000000 tonnes	2015-16: 577107.69 Tones 2016-17: 1798970.07 Tones 2017-18:1796741 tonnes 2018-19:2138462.92 tonnes 2019-20: 2620330.220 Tones 2020-21: 2362249.370 tonnes	
3q	General remarks of inspecting officer on method of mining etc.	Production are within proposed limit and 76 % achieved in year 2020-21		

Solid Waste Management-Dumping

S.N.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	yes	Top soil is used for Plantation also.	
4b	Location of topsoil, OB & mineral reject dumps	TOP Soil Dump is between ML 13.0 to ML 14.5North East	TOP Soil Dump is between ML 13.0 to ML 14.5North East	
4c	Number of dumps within lease area and outside lease area	Within Lease :9 Outside Lease: Nil	Within Lease :9 Outside Lease: Nil	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	
4e	Number of active & alive dumps	0	OB is backfilled in worked out pit.	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilised	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	yes	Yes	

4i	Length of Retaining wall or garland drain all along dump	Nil	400mts garland made	
4j	Number of settling ponds	Not Applicable	As no discharging water to outside of mining lease	
4k	Specific comments of inspecting officer on waste dump management	No new waste/OB dump is created and waste/ inter burden is being back filled in mine out area .		

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	Backfilling	No new waste/OB dump is created and waste/ inter burden is being back filled in mine out area .	
5b	Area under backfilling of mined out area	3.4Ha.	1.4 Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Nil	Backfilling in progress at first bench level.	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	No new waste/OB dump is created and waste/ inter burden is being back filled in mine out area and 1.4 ha area back filed during year 2020-21 cumulative 4.9 ha.		

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.	Yes	Yes	
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	Nil	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L *B * D) ii) Void filled by waste/tailings iii)Afforestation on the backfilled area	i) NA ii) 3.4 iii) Nil iv) Nil v) Nil	i) NA ii) 1.4 ha iii) Nil iv) Nil v) Nil	

	iv) Rehabilitation by making water reservoir v) Any other specific means			
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 1000nos ii) 0.4 Ha iii) Nil	i) 2660 nos ii) 1.03 Ha iii) Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	EMP parameters are monitored online displayed near crusher.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations	EMP parameters are found within permissible limit on online display board during inspection.		

Mineral Conservation

S.N.	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Nil	Limestone from faces are directly fed to crusher	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Operation of different faces for quality control	Different faces are operated to maintain LSF of 100 to 110	
7c	Different grade of mineral sorted out at mines	NA	No need of sorting	
7d	Any beneficiation process at mines	NA	Not applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Different faces are operated to maintain LSF of 100 to 110		

Environment

S.N.	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Plantation purpose	
8b	Concurrent use or storage of topsoil	Yes	Yes	Plantation purpose
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No	Backfilling done by utilizing waste	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Yes	Backfilling in progress in workedout area.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Backfilling in progress in workedout area.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Yes	68.16 ha lease are plantation carried out	
8g	Survival rate	85%	85%	Within ML
8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	General aesthetic beauty in and around mines area is maintained .		

Compliance of Rule 45

S.N.	Item	COMMENTS		Remarks
9a	Status of submission of Monthly and Annual returns	Submitted within times		
S.N.	Item		Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Appointed	Appointed	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Under pit-95.7 ha Rehabilitated 26.13 ha plant-17 Mineral storage 13.120 ha	None	
9d	Scrutiny of Annual return on afforestation	During yr-2660 nos within MI and 3200 nos outside ML	None	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	Nil	No reject generated	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Limestone -2362249.370 tonnes	None	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Used for own consumption for cement manufacturing	None	
9i	Scrutiny of Annual return on fixed assets	Total fixed asset of Rs 232721722/-	None	
9k	Scrutiny of Annual return on mining machineries		Efficiency of shovel and dumper is found to be low.	

Machinery statement and performance is given as under.

	Equipment	Bucket cap	Output/ hr (t/hr)
1	Excavator, 70081, PC800-8R1, 486HP,	5.1m ³	280
2	Excavator, 70088, PC800-8R1, 486HP,	5.1m ³	300
3	Excavator. N600094, PC450LC-7, 330HP,	2.6m ³	143
4	Dumper, N10258, HD465-7E0, 715HP,	60T	142
5	Dumper, N10265, HD465-7E0, 715HP,	60T	131
6	Dumper, N10348, HD465-7E0, 715HP,	60T	136
7	Dumper, N10349, HD465-7E0, 715HP,	60T	120
8	Dumper, N10350, HD465-7E0, 715HP	60T	127
9	Dumper, N10351, HD465-7E0, 715HP,	60T	135
10	Dumper, N10387, HD465-7E0, 715HP,	60T	115

Details of violations observed during current inspection and compliance position of earlier violation pointed out:-

Star rating validated and found to be four star for the year 2020-21 . No serious violation found during current inspection. Cost of major mining head per tones as given below.

sn	Items	Cost Rs/T of Limestone	Cost Rs/T of Total material handling
1	Loading Cost	24.80	21.30
2	Transportation Cost	29.62	23.63
3	Blasting Cost	6.48	5.48
4	Drilling Cost	6.21	5.28

10- CSR work

sr	item	amount	Remarks
1	Water storage tanks, supply & iiregation support	Rs 2040951 =00	Sanskshit paryavaran
2	Support to health & medical services , covid assistance	Rs 1864880=67	arogyam
3	Promotion of Hygiennce and sanitation , public health	Rs 3221021=11	
4	Support to skill development	Rs 7566814=93	Disha
5	Social livelihood support	Rs 1217073+00	Drona/swavlamban
6	Support to transportation and services	Rs 1417183=41	
		Total Rs 1,73,27,924/-	



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