

MCDR INSPECTION REPORTGeneral

SN	Particulars	Details	
1(a)	Name of the Mine	Pillidhar Bauxite Mine	
1(b)	Name of Inspecting Officer & Designation	Shri.Sanjaya Kumar Sahoo, Junior Mining Geologist.	
1(c)	Accompanying Mines Representatives	Shri Sanjay Kumar Tiwari	
1(d)	Type of Inspection	Modified Mining Plan	
1(e)	Date of Inspection	07.08.2024	
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Area under lease (hectares)	121.4054
		Under Forest (hectares)	0.0000
		Outside Forest (hectares)	121.4054
3	Mine code	07GUJ 07097	
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/1077/2011	
5	Name of the lessee, Address, phone, email and fax number	M/s. Dalmia Refractories Limited (Formerly, Shri Nataraj Ceramic And Chemical Ind. Ltd.) Post Box No. 10 At & Po Jamkhambhalia, Dist : Devbhumi Dwarka, Gujarat Phone No.: 098252 08605 E-mail : k.sanjaykumar@dalmiabharat.com Fax No.: 0288-2573599	
6	Village	Virpur	
7	Taluka/Mandal	Kalyanpur	
8	District	Devbhumi Dwarka	
9	Pincode	361 305	
10	State	Gujarat	
11	Post office	Jam Khambhalia	
12	Nearest police station	Khambhalia	
13	Nearest Railway station	Khambhalia	
14	Date of Grant of Mining Lease	07.07.1979	
15	Date of Execution	16.10.1979	
16	Date of opening of Mine	11.02.1991 (Opening Date)	
	Date of first Renewal, if	Applied for Renewal vide his letter No: Snccil / KmbL / Mines / Renewal / 98 / 05192(A) Dated: 05.10.1998 and Application received in Form D Vide	

17	applicable and its period & expiry	No: ADGM / ML / Renewal / 969 / 13982, Dated: 03.11.1998 in time for further 20 Years. Date of Expiry: 31.03.2030
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	Date of Expiry: 31.03.2030 as per MMDR Amendment Act,2015
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Sameer Nagpal Nominated Owner / Occupier 4, Scindia House, Connaught Place, New Delhi - 110 001. Phone : 011-123465308, E-mail : nagpal.sameer@dalmiabharat.com Fax : 91 - 11 - 23324136 Date of appointment in mines 11.03.2016
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Sanjay Kumar Kaushik Agent of Mines Dalmia Refractories Limited (Shri Nataraj Ceramic and Chemical Ind. Ltd.) Post Box No. 10 at & Po Khambhalia, Dist : Devbhumi Dwarka, Gujarat 361 305. Phone : 09825208605, E-mail : k.sanjaykumar@dalmiabharat.com Date of appointment in mines 18.12.2018.
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Sanjay Kumar Tiwari Mines Manager Dalmia Refractories Limited (Shri Nataraj Ceramic and Chemical Ind. Ltd.) Post Box No. 10 at & Po Khambhalia, Dist : Devbhumi Dwarka, Gujarat 361 305. Phone : 09825126624, E-mail : Tiwari.sanjay1@dalmiabharat.com Date of appointment in mines 09.07.2013.
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri Sanjay Kumar Tiwari Mining Engineer (B.E. Mining) Total Experience :- 17 Years Dalmia Refractories Limited (Shri Nataraj Ceramic and Chemical Ind. Ltd.) Post Box No. 10 at & Po Khambhalia, Dist :

		Devbhumi Dwarka, Gujarat 361 305. Phone : 09825126624, E-mail : Tiwari.sanjay1@dalmiaocl.com Date of appointment in mines 09.07.2013.
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes Shri Sanjay Kumar Kaushik, Geologist Shri Sanjay Kumar Tiwari, Mining Engineer
25	Date of Approval of Mining Plan / Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Modified Mining Plan with approved Number: No. MCDR-MPCP0CaFl/73/2023-GNR-IBM_RO_GNR MP-580, Mine Code: 07GUJ07097 and letter dated 10/10/2024, period- 2024-25 to 2028-29.
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
27	Mineral(s) granted in lease and proved for mining	Bauxite
28	Method of Mining(Open cast, Underground)	Open cast Working
29	Category (Fully Mechanised, Others or Manual)	Category - A
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. -
1.0: Exploration

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
1a	Backlog of previous year	No Proposal	Nil	
1b	Exploration over lease area for Geological axis 1 or 2.	No Proposal	G1- 109.19540 Ha G3- 12.2100 Ha	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	No Proposal	Not Applicable	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	Not Applicable	
1e	Balance reserves as on 01.04.2024	UNFC Codes	Tonnes	
		111	3858786	
		121	310137	
		221	0	
		Total	4168923	
1f	General remarks of inspecting officer on geology, exploration etc.	Future Exploration has been proposed for 2028-2029 in the last Modified Mining Plan with approved Number: No. MCDR-MPCP0CaFl/73/2023-GNR-IBM_RO_GNR MP-580, Mine Code: 07GUJ07097 and letter dated 10/10/2024, period- 2024-25 to 2028-29.		

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2.0 Development

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
2a	Location of development w.r.t. lease area	Pit No- A2, B2, D2, F1, E1 N412-N262,W1138-W1201,N599-N659,W300-W36,N259-N381,W98-W191,N08-S60,W98-W191,S66-S393,E333-E500	Pit No- B2, F1, E1	Location of Pit E-1: N22° 15' 58.4", E069° 19' 22.8"
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No Proposal	Not Applicable	
2c	Stripping ratio or ore to OB ratio	1:0.62	1:0.62	
2d	Quantity of topsoil generation in m3	1059	1694	Generated top soils are used in Plantation.
2e	Quantity of overburden generation in m3	80036	2000	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	It was found that Pit profiles and Bench design parameters are not being maintained in accordance with Approved Review of Mining Plan No. 684(4) (1) MP-214/2019-20-GNR dated 09.04.2019 as Bench height and levels are very erratic and irregular near co-ordinates 22.27218516N, 69.31531376E & 22.27292472N, 69.31942608E and in some other locations also. Working has been found within 7.5 meters statutory limit near co-ordinates 22.27199755N,69.31122339E. Hence violation under Rule 11(1) was found.		

3.0 Exploitation

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
3a	Number of pits proposed for production	Five Pits	Three Pits	Location of Pit E-1: N22° 15' 58.4", E069° 19' 22.8" Size- 347m x 122m x 2m
3b	Quantity of ROM mineral production proposed	300800 MT	9157 MT	
3c	Recovery of saleable / usable mineral from ROM	100%	100%	

	production			
3d	Quantity of mineral reject generation	255680 MT	Nil	
3e	Grade of mineral reject generation and threshold value declared	No Proposal	Not Applicable	
3f	Quantity of sub-grade mineral generation	255680 MT	Nil	
3g	Grade of sub-grade mineral generation	Al ₂ O ₃ : 42 %	Al ₂ O ₃ : 42 %	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No Proposal	Not Applicable	
3j	Provision of drilling & blasting in mineral benches	Manual Drill (32mm Dia.)	Manual Drill (32mm Dia.)	
3k	Provision of mining machineries in mineral benches	Excavator-01 Tipper-04	Excavator-01 Tipper-04	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	3m in mineral	2m in mineral	
3m	Total area covered under excavation / pits	19.8787 Ha.	12.980 Ha.	
3n	Ore to OB ratio for the pit/mine during the year	1:3	1:2.5	
3o	Total area put in use under different heads at the end of year	Area under excavation-19.8787 Ha., OB Dump : 0.3918 Ha, Infrastructure & building, etc.): 2.4802 ha Mineral stack- 2.25 Ha, Green belt- 8.9647 Ha Back filling- 3.4368 Ha	Already exploited and abandoned by open cast (o-c) mining- 19.303, covered under current workings- - 12.980 Ha. OB Dump : 0.392 Ha. Other purpose: 4.410 Ha. Infrastructure & building, etc.): 2.480 Reclaimed & Rehabilitated Area: 8.113 Ha.	

		Yr-(2019-20)- 300772MT	75844 MT	
	Production of ROM mineral	Yr-(2020-21)- 300772MT	79835 MT	

3p	during last five-year period, as applicable	Yr-(2021-22)- 30773MT	79885 MT	
		Yr-(2022-23)-300785MT	39896 MT	
		Yr-(2023-24)-300800MT	9157 MT	
3q	General remarks of inspecting officer on method of mining etc.	Production has been carried out in three pits out of five pits proposed in approved mining plan.		

4.0 Solid Waste Management-Dumping

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	OB generated during the period will be backfilled in proposed part of the mined out area	Backfilled in proposed Area	
4b	Location of topsoil, OB & mineral reject dumps	No Proposal	Not Applicable	
4c	Number of dumps within lease area and outside lease area	No Proposal	Not Applicable	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No Proposal	Not Applicable	
4e	Number of active & alive dumps	No Proposal	Not Applicable	
4f	Number of dead dumps	No Proposal	Not Applicable	
4g	Number of dumps stabilised	No Proposal	Not Applicable	
4h	Whether Retaining wall or garland drain all along dumps are there	No Proposal	Not Applicable	
4i	Length of Retaining wall or garland drain all along dump	No Proposal	Not Applicable	
4j	Number of settling ponds	No Proposal	Not Applicable	
4k	Specific comments of inspecting officer	There is no proposal for separate dumping of topsoil, OB & mineral reject as topsoil. OB and Waste generated during the period were used for backfilling.		

5.0 Solid Waste Management-Backfilling

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	No Proposal	Not Applicable	
5b	Area under backfilling of mined out area	0.3269 Ha.	0.30 Ha.	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out	To be utilised for plantation area.	Utilised for plantation.	

	area (Rule 32)			
5d	Total area fully reclaimed & rehabilitated	8.9647 Ha	8.113 Ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc.	Generated topsoil were utilised for plantation. No Violation found.		

6.0 Progressive Mine Closure Plan

SN	Item	Proposals (2023-24)	Actual work (2023-24)	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.	As per Proposal submitted	Submitted along with Annual Return.	
6b	Management of worked/mined out benches			
	i) Area available for rehabilitation (ha)	1250 saplings, Survival rate- 90 %, Back filling- 0.3269 Ha	0.4514 Ha	
	ii) Afforestation done (ha)		0.4514 Ha	
	iii) No. of saplings planted during the year		1500 Nos., survival rate-98%	
	iv) Cumulative no. of plants		18751 Nos.	
	v) Any other specific method of rehabilitation		Nil	
	vi) Cost incurred on watch & care during the year		4 Lakh	
6c	Compliance on reclamation and rehabilitation by backfilling			
	i) Voids available for backfilling (L X B X D)	0.3269 Ha	0.3269 Ha	
	ii) Void filled by waste/tailings	75000 m ³	5.7196 Ha	
	iii) Afforestation on the backfilled area	No Proposal	Not Applicable	
	iv) Rehabilitation by making water reservoir	1.00 Ha.	Nil	
	v) Any other specific means (Fencing)	251 meter	255 Meter	
6d	Compliance of Rehabilitation of waste land within lease			
	i) Afforestation	No Proposal	Not Applicable	
	ii) Area rehabilitated (ha)			
iii) Method of rehabilitation				
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	Yes	
6f	General remarks of inspecting officer on PMCP compliance & progressive	PMCP report was submitted along with Annual Return of 2023-24. Co-ordinates taken at plantation area is N22° 16' 07.3", E069° 19' 04.5"		

7.0 Mineral Conservation

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Proposal made for manual sorting and sizing. PG - 45120 MT NPG - 255680 MT ROM 300800 MT	PG - 0.00 MT NPG - 9157 MT ROM 9157 MT	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sorted out at mines	Refractory & Non Refractory Grade	Refractory & Non Refractory Grade	
7d	Any beneficiation process at mines	No Proposal	Not Applicable	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	There was no proposal of beneficiation process at mines. Grade wise sorting has been done.		

8.0 Environment

SN	Item	Proposals (2023-24)	Actual work (2023-24)	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Separate removal and spreading of top soil on the backfilled area for plantation.	Used for plantation	
8b	Concurrent use or storage of topsoil	As Above	For plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	No Proposal	Not Applicable	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Not Applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Yes	Backfilled 8.113 Ha.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	1250 plants	1500 plants	
8g	Survival rate	90%	98%	

8h	Water sprinkling on roads to control airborne dust	Yes	Yes	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	The aesthetic environment of lease area is good. Top soil was used for plantation. During inspection, it was found that no preventive measures have taken up for suppression of airborne dust at Mine. Hence violation under Rule 40 was found.		

9.0 Compliance of Rule 45

S.N.	Item	COMMENTS	Remarks
9a	Status of submission of Monthly and Annual returns	January-2025 Monthly Return was submitted on 03-02-2025. Annual Return 2023 - 2024 was submitted on 18-05-2024	

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	Manager- Shri Sanjay Kumar Tiwari Mining Engineer- Shri Sanjay Kumar Tiwari Geologist in charge- Shri Sanjay Kumar Kaushik	Manager- Shri Sanjay Kumar Tiwari Mining Engineer- Shri Sanjay Kumar Tiwari Geologist in charge- Shri Sanjay Kumar Kaushik	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 19.303 Ha Reclaimed- Rehabilitated- 8.113 Ha	Pit- 19.303 Ha Reclaimed- Rehabilitated- 8.113 Ha	
9d	Scrutiny of Annual return on afforestation	1500 Plants	1500 plants	
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	9157 MT	9157 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Sale value- Rs.13194973/- Ex. Mine price- Rs.650/- Production cost- Rs.2606.84/-	Sale value- Rs.13194973/- Ex. Mine price- Rs.650/- Production cost- Rs.2606.84/-	
9i	Scrutiny of Annual return on fixed assets	Rs.1045869/-	Rs.1045869/-	
9k	Scrutiny of Annual return on mining machineries	Dumper- 06 Excavator- 01	Other HEM machinery-1 Haulage (Non-Elec.)- 6	Already SCN issued on type of machineries on 11-07-2024.

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

- a. Violations under Rules 11(1) and 40 were pointed out during current inspection.
- b. Show cause notice has been issued on 11-07-2024 on Rule 45(5) (C) read with 45(7). The same has been complied on 15-01-2025.
- c. Drone data has been submitted by the Lessee on 18-06-2024. It has been checked and found not as per SOP. Hence it has referred back to the Lessee.
- d. Self-assessment date of Star Rating is 23-05-2024 and given 4 Star by the Lessee. It has been evaluated and given 4 Star.

Shri. Sanjaya Kumar Sahoo
Junior Mining Geologist
Indian Bureau of Mines
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