

**MCDR INSPECTION REPORT**

**1.0 GENERAL**

SN	Particulars	Details
1(a)	Name of the Mine	<b>Patan Limestone Mine (Sy.No-288)</b>
1(b)	Name of Inspecting Officer & Designation	G. Ram Sr. Asst. Controller of Mines
1(c)	Accompanying Mines Representatives	Subhash Adhikari , Mine Manager
1(d)	Type of Inspection	Star Rating
1(e)	Date of Inspection	12.9.2021
2	Total Lease Area (Ha) with breakup of Non-forest/ forest	911.4145 Ha
3	Mine code	38GUJ07092
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/265/2011
5	Name of the lessee, Address, phone, email and fax number	M/s. NIRMA LIMITED, NIRMA HOUSE, Ashram Road, Near Income Tax,, Ahmedabad
6	Village	Patan
7	Taluka/Mandal	Jam jodhpur
8	District	Jamnagar
9	Pin code	360530
10	State	Gujarat
11	Post office	Jam jodhpur
12	Nearest police station	Jam jodhpur
13	Nearest Railway station	Jam jodhpur
14	Date of Grant of Mining Lease	31.05.2016
15	Date of Execution	19.10.2016
16	Date of opening of Mine	---
17	Date of first Renewal, if applicable and its period, expiry	NA
18	Date of second Renewal, if applicable, period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Shailesh.V.Sonara, NIRMA HOUSE, Ashram Road, Near Income Tax, Ahmedabad-380009, Ph. 07927546565, Fax-07927546603, mines@nirma.co.in
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Ashvinbhai Patel, Nirma Limited, Chemical Complex, Kalatalab, Bhavnagar-364313 , 07.09.2016
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Sh. Subhash Adhikari, V-Patan, T- jam jodhpur, District –Jamnagar-360530/ 05.11.2016
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Sanjay Kumar Singh, (Diploma In Mining)Vill.-Patan, Taluka- jam jodhpur, District –Jamnagar-360530 21.10.2018
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties	Yes, Ramesh Vishwakarma MSc (Geology)
25	Date of Approval of MP/MMP/ <b>Review of Mine Plan</b> with five-year period and specific condition in approval letter, if any.	683(23) (568)/2007-MCCM (N)-UDP-Dated 06/03/08 for-2016-17 to 2020-21.
26	Date of Approval of SOM/RMP with five-year period and specific condition in approval letter, if any.	684(4)(1)/MP-323/2020-21 Dated 18/03/2021 for 2021-22 to 2025-26.
27	Mineral(s) granted in lease and proved for mining	Limestone
28	Method of Mining(Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Mechanised (Category A)
30	Captive/Non Captive	Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

**Exploration**

SN	Item	Proposals (2020-21)	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	G1- 260.78 Ha & G2- 149.57 Ha, G3- 70 (Non-mineralised area 431.0645 Ha. (Approx.)
1b	Exploration over lease area for Geological axis 1/ 2.	Not proposed	Not done	
1c	Exploration Agency & Exp. in lakh Rs. during the yr			
1d	Balance area to be explored to bring Geological axis in 1/2			
1e	Balance reserves as on 01.04.2021.	Reserves-25.627 T, Resources-0.579T as per RMP Dated 18.3.21		
1f	General remarks of inspecting officer on geology, exploration etc.	ML area is developed by various mine pits & Part of lease area is still remain for exploration.		

**2.0 Development**

SN	Item	Proposals (2020-21)	Actual work	Remarks
2a	Location of development w.r.t. lease area	It was proposed to work as earmarked in plate	Partly done due to legging in ROM	Partly done due to legging in plan period  Topsoil is used for plantation purposes.
2b	Separate benches in topsoil, OB and mineral	Not proposed	As per proposal	
2c	Stripping ratio or ore to OB ratio	1:0	1:0	
2d	Quantity of topsoil generation in m3	Not proposed	775 tonnes	
2e	Quantity of overburden generation m3	Not proposed	As per proposal	
2f	General remarks of I/Officer on development of pit w.r.t. type of deposit	Lease area is developed by mine pits in irregular height & width of more than height.		

**3.0 Exploitation**

SN	Item	Proposals (2020-21)	Actual work	Remarks
3a	Number of pits proposed for production	06 Pits	06 pits, partly done to legging in plan period	
3b	Quantity of ROM mineral production proposed	360000 T	267255.306 T	
3c	Recovery of saleable/usable mineral from ROM production	90%	As proposed	
3d	Quantity of mineral reject generation	10%	Undersize generated but not reported.	
3e	Grade of mineral reject generation and threshold value declared	No proposed	--	
3f	Quantity of sub-grade mineral generation	36000T	71472.825T	
3g	Grade of sub-grade mineral generation	Under size Limestone	Chemical/Cement	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not proposed	Nil	
3j	Provision of drilling & blasting in mineral benches	Yes, DTH drilling with bottom initiation	As per proposal	
3k	Provision of mining machineries in mineral benches	Excavator, rock breaker Dozer, drill m/c	As per proposal	
3l	Whether height of benches in OB and mineral suitable for method of mining	Bench height 3m & width more than height	As per proposal	
3m	Total area covered under excavation/pits	---	About Pits-46.17Ha,	
3n	Ore to OB ratio for pit/mine during year	1:0	1:0	
3o	Total area put in use under different heads at the end of year	----	Pits-46.17Ha, Stack 0.27Ha ,Infr-0.5Ha, Road-7.45Ha	
3p	Production of ROM mineral during last five-year period, as applicable	2017-18-360000T 2018-19-360000T 2019-20-360000T 2020-21-360000T 2021-22-300000T	2017-18-140243.27T 2018-19-189002.82T 2019-20-232183.35T 2020-21-267255.3T 2021-22-84128.43T(Till)	Legging in ROM in plan period.
3q	General remarks of inspecting officer on method of mining etc.	Mechanised opencast method of mining with HEMM/rock breaker & drilling and blasting used.		

**4.0 Solid Waste Management-Dumping**

SN	Item	Proposals (2020-21)	Actual work	Remarks
4a	Separate dumping of topsoil, OB & reject	Not proposed	Not done	
4b	Location of topsoil, OB, mineral reject			
4c	Number of dumps within lease & outside			
4d	Location of dumps w.r.t. ultimate pit limit			
4e	Number of active & alive dumps			
4f	Number of dead dumps			
4g	Number of dumps stabilised			
4h	Whether Retaining wall or garland drain all along dumps are there			
4i	Length of Retaining wall or garland drain all along dump			
4j	Number of settling ponds			
4k	Specific comments of inspecting officer	NIL		

**5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals (2020-21)	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Not proposed	NIL	
5b	Area under backfilling of mined out			
5c	Concurrent use of topsoil for restoration rehabilitation of mined out			
5d	Total area fully reclaimed & rehabilitated			
5e	General remarks of inspecting officer on backfilling, reclamation etc	There are no OB/Waste generation. Hence no backfilling & reclamation proposed & not carried out.		

**6.0 Progressive Mine Closure Plan**

SN	Item	Proposals (2020-21)	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly	Proposed to submit with in time limit.	Annual report on PMCP has been submitted	VL pointed out for given zero expenditure details, which is not correct.
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during year iv) Cumulative no. of plants v) Any other specific method of rehabilitation	No proposal	As per proposal	

	vi) Cost incurred on watch & care during the year			
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	No proposal	As per proposal	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	5000 5 Ha	5000 No. (63%) 5 ha	(3.5 New+1.5 ha under at previous year plants area)
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proposal as per environment clearance	Env.monitoring has been carried out	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Lessee is submitted the PMCP compliances to this office in stipulated time limit.		

#### 7.0 Mineral Conservation

SN	Item	Proposals (2020-21)	Actual work (2020-21)	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	360000T	267255.306T	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual/Mech.	Manual/Mech.	
7c	Different grade of mineral sorted out at mines	Proposed	As per proposal	
7d	Any beneficiation process at mines	No	NIL	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	No beneficiation study is required presently.		

#### 8.0 Environment

SN	Item	Proposals (2020-21)	Actual work	Remarks
8a	Separate removal utilization of topsoil	Proposal for Plantation	Used in plantation	
8b	Concurrent use or storage of topsoil	Storage & utilisation	Utilised in plantation	
8c	Separate dumps for overburden, waste rock, rejects and fines	No proposal	As per proposal	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	As per proposal	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations	No proposal	As per proposal	
8f	Baseline information on existence of plantation & additional plantation	-----	Neem, Sagwan, Karrenge, golmohar, mango, guswa.	
8g	Survival rate	--	63%	
8h	Water sprinkling on roads to control airborne dust	Proposal as per condition of EC	Water sprinkling on roads carried out	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The aesthetic beauty of area in & around mines are degraded mine pit/land of irregular bench height & width etc.		

#### 9.0 Compliance of Rule 45

S.N	Item	COMMENTS		Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted unto date, A.R. submitted 2020-2021 on 29.06.2021		
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	Sanjay Singh (ME), Ramesh Vishwakarma (Geol.), Subhash Adhikari (Manager)	Sanjay Singh (ME) Dip., Ramesh Vishwakarma (Geol.), Subhash Adhikari (Manager)	VL pointed out for appointment of full time ME as per rule
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	As per details given in AR 2020-21	Scrutiny of annual return for the year 2020-21 has been carried out & deficiencies pointed out to lessee for rectification.	VL pointed out under rule 45(7) of MCDR, 2017.
9d	Scrutiny of Annual return on afforestation			
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)			
9f	Scrutiny of Annual return on ROM stock and/or graded ore			
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost			
9i	Scrutiny of Annual return on fixed assets			
9k	Scrutiny of Annual return on mining machineries			

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: - Presently mine was inspected for Star Rating 2020-21 and validation done (4Star). Violation of provision of rule 26(2), 45(7), 55(1)(3) pointed out for rectifications.

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