

**INDIAN BUREAU OF MINES
MINERALS DEVELOPEMMENT AND REGULATION DIVISION**

MCDR INSPECTION REPORT

Ajmer regional office

Mine file No : RAJ/PALI-36/WOL-CAL-01

Mine code : 63RAJ26001

- (i) Name of the Inspecting : **DJ03**) **DILIP JAIN**
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Sh. U P Pahadia, Agent & Sri Amresh Kumar, Mine Mange
Official with
Designation
- (iv) Date of Inspection : 07-SEP-21
- (v) Prev.inspection date : 15-JUN-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KHERATARLA**
- (b) **Registration NO.** : **IBM/462/2011**
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : RAJASTHAN
District : UDAIPUR
Village : KHERA
Taluka : KOTRA
Post office : TEJAWAS
Pin Code : 307021
FAX No. : 0294-2494200
E-mail : info@wolkem.com
Phone : 0294-2494200
- (f) Police Station : Kotra
- (g) First opening date : 19-MAR-76
- (h) Weekly day of rest : SUN
2. Address for : Khertala Wollastonite Mine,
correspondance Uparla Khera and Nichla Khera, Tehsil: Bali kotr
District: PAlI and Udaipur (Rajasthan)
3. (a) Lease Number :
(b) Lease area :
(c) Period of lease :
(d) Date of Expiry :
4. Mineral worked : WOLLASTONITE Main

5. Name and Address of the

Lessee : WOLKEM INDUSTRIES LTD
 SALUMBER HOUSE AMBAVGARH
 UDAIPUR UDAIPUR RAJASTHAN
 Phone:0297-222313
 FAX :0297-222097

Owner : Sri U.P. Pahadiya
 Wolkem Industries Ltd.,
 Post Box 21, E-101, Mewar
 Industrial area, Madri,
 UDAIPUR RAJASTHAN
 Phone: 7340064511
 FAX : 02942494608

Agent : Sri U.P. Pahadiya
 Wolkem Industries Ltd.,
 Post Box 21, E-101, Mewar
 Industrial area, Madri,
 UDAIPUR RAJASTHAN
 Phone: 7340064511
 FAX : 02942494608

Mining Engineer
 Name : Sri M.K. Pitaliya, Full Time
 Qualification : BE Mining
 Appointment/ Termination date : 18-JUN-19

Geologist
 Name : Sri Ganpat Singh, Full Time
 Qualification : M.Sc-Tech(AppliedGeology)
 Appointment/ Termination date : 11-MAY-16

Manager
 Name : Sri Amresh Kumar
 Qualification : BE Mining
 Appointment/ Termination date : 30-NOV-19

6. Date of approval of Mining Plan/Scheme of Mining	:	Existing rule 11 MCDR1988	08-APR-93
		Mining Scheme rule 12 MCDR1988	04-FEB-03
		Mining Scheme rule 12 MCDR1988	24-JUL-13
		MP modif under MCR 1960	14-JUN-16
		MP review under 17(1) MCR 2016	08-DEC-20
		MP modif under 17(3) MCR 2016	23-JUL-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal during the previous year 2019-20.	A total of 06 BHs with 1107 mts of drilling was carried out.	No backlog of previous year.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration for reporting year (RY) 2020-21.	Not applicable as no proposal.	The proposed work completed during 2019-20.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable as no proposal.	Not applicable.	NIL.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No specific proposal of exploration to bring area under G1/G2 level of exploration.	Entire potentially mineralized area explored under G1/G2 level of exploration.	NIL.
1e	Balance reserve as on 01/04/20	The position of Reserve and resource as on 01/04/2021 was 2.40 and 4.04 million tonnes respectively.	The position of Reserve and resource as on 01/04/2021 was 2.40 and 4.04 million tonnes respectively.	As per approved document dated 23/07/2021.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration.	No exploratory work during RY.	The deposit is of Skarn type and complex in nature.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Development in East Deposit- E 315065 to 315280 N- 2740105 to 2739920.	Development observed as per approved proposal.	NIL.

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal of top soil generation. Benches have been proposed for mineral and waste both.	No top soil generation. Separate benches have been observed in mineral and benches.	NIL.
2c	Stripping ratio or ore to OB ratio	1:2.3 T/T	1:4.58 T/T	Violation of rule 11(1) of MCDR 2017 issued vide letter dated 29/09/2021 for variation in SR.
2d	Quantity of topsoil generation in m3	No proposal of top soil generation.	No top soil has been generated.	NIL.
2e	Quantity of overburden generation in m3	446116 tons 178446 m3	474761 tons 189904 m3	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Opencast method of the development has been proposed.	Development carried out through open cast method as proposed.	Development has been carried out through open pit. Two pits have been developed for mineral production.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Only one pit namely East Deposit was proposed for mineral production during RY.	Mineral production was carried out from proposed pit namely East Deposit.	NIL.
3b	Quantity of ROM mineral production proposed	Woll. - 200241 MT	Woll.-103590 MT	NIL.
3c	Recovery of sailable/usable mineral from ROM production	Woll. - 200241 MT	Woll.-103590 MT	NIL.
3d	Quantity of mineral reject generation	No proposal.	No mineral reject generation during RY. However, material below threshold value containing low grade Wollastonite is stacked for future use.	NIL.

3e	Grade of mineral rejects generation and threshold value declared.	Not applicable as no proposal of mineral reject generation. The threshold value of Wollastonite mineral is declared as 35% CaSiO ₃ .	Not applicable as no mineral reject generation during the RY.	NIL.
3f	Quantity of sub grade mineral generation.	Sub-grade mineral is proposed to blend with high grade mineral.	Entire Sub-grade mineral blended with high grade mineral.	NIL.
3g	Grade of sub grade mineral generation	Between 30 to 70% CaSiO ₃ .	Between 30 to 70% CaSiO ₃ .	NIL.
3h	Manual / Mechanised method adopted for segregating from ROM	Mostly proposed through manual method.	Manual method of segregation of mineral from ROM observed.	NIL.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No specific proposal of beneficiation study for sub-grade mineral/reject during RY.	No beneficiation study carried out during RY.	NIL.
3j	Provision of drilling and blasting in mineral benches	Wagon drill/jack hammer drill has been proposed along with ANFO explosive.	Drilling and blasting in mineral benches are being practiced as per proposal.	NIL.
3k	Provision of mining machineries in mineral benches	Back hoe, shovel, Blast hole drill, Dozer, Dumper, JCB Loader, Explosive van, etc.	Back hoe, shovel, Blast hole drill, Dozer, Dumper, JCB Loader, Explosive van, etc.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches have been proposed to 8 mts.	Height of the benches has been maintained as per proposal. .	NIL.

3m	Total area covered under excavation/pits	A total of 24.70 ha. proposed at the end of the plan period i.e. 2020-21.	Area under excavation as on 31/03/2021 was 24.30 ha.	As per AR 2020-21.
3n	Ore to OB ratio for the pit/mine during the year.	1:2.3 T/T	1:4.58 T/T	Violation of rule 11(1) of MCDR 2017 issued vide letter dated 29/09/2021 for variation in SR.
3o	Total area put in use under different heads at the end of year	A total of 36.55 Ha. area proposed to put in use under different heads at the end of 2020-21.	An area of 33.32 Hectare.	As per MRMP approved on 23/07/2021.
3p	Production of ROM mineral during the last five year period as applicable	2016-17: 182865MT 2017-18: 185291MT 2018-19: 193612MT 2019-20: 201512MT 2020-21: 200241MT	2016-17: 139555MT 2017-18: 140829MT 2018-19: 179323MT 2019-20: 121642MT 2020-21: 103590MT	NIL.
3q	General remarks of inspecting officers on method of mining etc.	Opencast method of mining has been proposed for the RY.	Opencast method mining was practiced during the RY.	Opencast mechanised mining method adopted which is best suited to the type of deposit.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil and Mineral Reject generation. Waste is proposed to dump separately.	Top soil and Mineral Reject has not been generated. Waste generated dumped separately.	NIL.

4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil generation. Waste dumping proposed over waste dump-E near boundary pillar 1.	No top soil and mineral reject generation. Waste dumping as per proposal.	NIL.
4c	Number of dumps within lease area and outside of lease area	Within lease area -3 (D, E, & F). An old waste dump has been observed outside of the lease area. No proposal of waste dumping outside of the lease area.	Within lease Area - 3 (D, E, & F). An old waste dump observed outside lease area.	NIL.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed outside ultimate pit limit.	Done as per proposal.	NIL.
4e	Number of active and alive dumps.	Two.	Two.	NIL.
4f	Number of dead dumps.	One.	One.	NIL.
4g	Number of dumps established.	No specific proposal of establishment.	Waste dump-D has been stabilized partly.	NIL.
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposal given.	Retaining wall & garland drain observed at necessary places.	NIL for RY.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall- NIL m Garland drains - NIL m	Retaining wall- 236 m Garland drains - 0 m	NIL.
4j	Number of settling ponds	No proposal.	Not applicable.	NIL.
4k	Specific comments of inspecting officer on waste dump management	OB dumping has been proposed within the lease area.	Ob dumping has been observed within the lease area.	No issue related to waste dumping.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal of backfilling during RY.	No backfilling during reporting year.	NIL.
5b	Area under backfilling of mined out area	Not applicable as no proposal.	Not applicable.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal of top soil generation.	No top soil generation.	NIL.
5d	Total area fully reclaimed and rehabilitated	No proposal of full reclamation and rehabilitation of mine out area.	Not applicable.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of backfilling.	Not applicable.	No area for backfilling.

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	As per rule 26 of MCDR, 2017 holder of mining lease shall submit PMCP before 1st day of July every year.	PMCP report for the year 2020-21 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	0.36 hect.	0.27 hect.	Violation of rule 11(1) of MCDR 2017, issued vide letter dated 29/09/2021 for less area coverage.
6c	afforestation done (ha).	0.36 hect.	0.27 hect.	Violation of rule 11(1) of MCDR 2017, issued vide letter dated for less area coverage.

6d	No. of saplings planted during the year	720 plants	750 plants.	NIL.
6e	Cumulative no .of plants	No specific proposal on cumulative number of plants	33599 plants. as per PMCP report.	NIL.
6f	Any other method of rehabilitation	Other than plantation, no specific proposal of any other method of rehabilitation	Plantation has been carried out as per proposal.	NIL.
6g	Cost incurred on watch and care during the year	Not specified	Not applicable.	NIL.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal of backfilling.	No work related to backfilling has been carried out during the year.	NIL.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal of backfilling.	Not applicable as no proposal of backfilling.	NIL.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	No proposal of backfilling.	Not applicable as no proposal of backfilling.	NIL.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal making reservoir.	Not applicable as no proposal of backfilling.	NIL.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No any other specific proposal.	Not applicable as no proposal.	NIL.

6m	Compliance of rehabilitation of waste land within lease (i)afforestation	It was proposed to plant 720 numbers of saplings.	During the year 750 number of saplings have been planted.	NIL.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	0.36 hect.	0.27 hect.	Violation of MCDR issued vide letter dated 29/09/2021 for less area coverage.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Plantation.	Plantation.	NIL.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Provision of environment monitoring stations has been given.	Environment monitoring parameters are found to be within permissible limit.	NIL.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Plantation over 0.36 Ha. area with 720 number of plant was proposed during RY.	Plantation over 0.27 Ha. area with 750 number of plants has been carried out.	Violation of MCDR issued vide letter dated 29/09/2021 for less area coverage.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within lease area has been proposed.	Grade wise sorting of ROM has been observed in the lease area.	NIL.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Both Manual and Mechanical.	Both Manual and Mechanical.	NIL.
7c	Different grade of mineral sorted out at mines.	Wollastonite above 35% CaSiO3 and below 35 % CaSiO3.	Wollastonite above 35% CaSiO3 and below 35 % CaSiO3.	NIL.
7d	Any beneficiation process at mines .	No proposal of any beneficiation at Mine site.	No beneficiation process observed at the mine.	NIL.

7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Manual and mechanised sorting proposed.	Both system adopted for mineral sorting :Mechanical process - Breaking & screening and Manual process - sorting by labors.	There is no issue related to mineral conservation.
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Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of top soil generation during the year as no fresh area has been proposed for excavation.	No top soil generated during the year.	NIL.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	Not applicable as no top soil generated during RY.	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes.	Dumping carried out as per proposal.	NIL.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal of use of overburden/ waste rock for restoring the land to its original use.	Not applicable as no proposal.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal.	Not applicable.	NIL.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	It was proposed to plant 720 numbers of saplings during the year.	During the year 750 number of saplings have been planted.	NIL.

8g	Survival rate	No specific proposal of survival rate.	Survival rate for the reporting year was around 80 %.	As per AR 2020-21.
8h	Water sprinkling on roads to control airborne dust	To control the air born dust particle, water sprinkling has been proposed.	Water sprinkling has been observed during the mine inspection.	NIL.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	It was proposed to plant 720 numbers of saplings during the year.	During the year 750 number of saplings have been planted.	Aesthetic beauty is staisfatory in and around mine area.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	As per rule 45 of MCDR, 2017, holder of mining lease should submit Monthly and Annual return in prescribed format and within prescribed time limit.	Monthly returns submitted up to July 2021. Annual return of the year 2020-21 has been submitted by the lessee.	NIL.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Information of Mining Engineer, Geologist and Manager has been furnished.	Found ok.	NIL.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings-24.30 Ha, Reclaimed/ Rehabilitated- 7.39 Ha, Used for waste disposal-4.02 Ha, Occupied by plant, building, workshop, roads, plantation- 5.00 Ha.	The information furnished in respect of the land use pattern in annual return appears to be correct.	NIL.

9d	Scrutiny of Annual return on afforestation	750 numberr plantation reported.	The information furnished found to be in order.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No information on mineral reject generation.	No mineral reject generation.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Wollastonite closing stock: 116274.760 tonnes.	The information furnished appears to be correct.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price & production cost-Rs 1178.00 per tonne.	Found in order.	NIL.
9h	Scrutiny of Annual return on fixed assets	The value of fixed asset furnished is Rs. 11805065.00	The information furnished appears to be correct.	NIL.
9k	Scrutiny of Annual return on mining machineries	Air Compressor, Back Hoe, Blast Hole Drill, Dozer, Dumper, Explosive Van, Generator, Rock Drill, Shovel, Water Tanker, Wheel Loader etc.	The information furnished in respect of mining machineries appears to be correct.	NIL.

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

Violation observed				Show couse position		
Rule NO.		Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 11(1)	29-SEP-21	22-DEC-21			

Date :

(DILIP JAIN)

Indian Bureau of Mines