

**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 : Sri Uttam Pal Pahadia, Director and nominated owner,
Official with
Designation
- (iv) Date of Inspection : 08-OCT-19
- (v) Prev.inspection date :

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 :
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/ : 18-JUN-19
 Termination date

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

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

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	08-APR-93
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	04-FEB-03
		Mining Scheme rule 12 MCDR1988	24-JUL-13
		MP modif under MCR 1960	14-JUN-16

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	07 BH have been proposed in the year 2017-18.	09 BH have been drilled during the year 2017-18	No backlog of previous year.
1b	Exploration over lease area for geological axis 1 or 2	No proposal of exploration during the reporting year i.e. 2018-19.	During reporting year 32 BH have been drilled with 5500 mts.	NIL.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No specific proposal of exploration agency and expenditure.	Exploratory drilling has been carried out by various agencies during the reporting year. The name of same area (1) Dept. Wagon Drill (2) Murugan borewells. (3) Shir Balaji Borewells. (4) Anburaj Tube Wells. (5) Shreeji Borewells. Total Expenditure = 25.00 Lacs	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 level of exploration. Mainly exploration work carried out to know depth continuity of the mineralized zone.	NIL.
1e	Balance reserve as on 01/04/20	As per approved document dated 14/06/2016, the position of Reserve and Resource of Wollastonite as on 01/04/2016 was 2372167 MT and 5360945 MT respectively.	As on 01/04/2019, the position of reserve and resources of Wollastonite was 1912460 MT and 5360945 MT respectively.	As per AR 2018-19.
1f	General remarks of inspecting officers on geology, exploration etc	No proposal of exploration for reporting year.	A total of 32 BH have been drilled with 5500 mts during reporting year.	Geologically the area is complex and the grade of the CaSiO ₃ in Wollastonite is also variable.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	During the reporting year East Deposit has been proposed to develop between grid lines E315305 to 314850, N2739740 to 2740150.	The development for reporting year has been found within the approved limits i.e. E315305 to 314850, N2739740 to 2740150.	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 Separate bench for top soil as no proposal. Separate benches have been observed in Mineral and Waste.	NIL.
2c	Stripping ratio or ore to OB ratio	1:4.30 MT/MT	1:3.48MT/MT	Due to highly variable nature of the Mineral, quantity of ROM and waste both has been affected.
2d	Quantity of topsoil generation in m3	NIL	365 MT	From the area of waste dumping.
2e	Quantity of overburden generation in m3	418065 CuM.	311953 CuM.	NIL.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Considering the near surface deposit open pit development has been proposed.	Development has been carried out through open pit. Two pits have been developed for the production of mineral.	NIL.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Only one pit namely East Deposit has been proposed for production.	During reporting year production has been carried out from proposed pit namely East Deposit.	NIL.

3b	Quantity of ROM mineral production proposed	Woll. - 193612	Woll. - 179323 MT	Less production is due to low market demand.
3c	Recovery of sailable/usable mineral from ROM production	Woll. - 193612	Woll. - 179323 MT	Less production is due to low market demand.
3d	Quantity of mineral reject generation	No proposal of Mineral Reject Generation.	A 45000 tonnes of Wollastonite having grade (below 30% CaSiO ₃) below threshold value has been stocked for future use.	NIL.
3e	Grade of mineral rejects generation and threshold value declared.	No specific proposal of grade of Mineral Reject as no proposal of production. Threshold value declared for wollastonite is 35% CaSiO ₃ .	As reported the grade of the material stocks as a Mineral reject is below 30% CaSiO ₃ .	NIL.
3f	Quantity of sub grade mineral generation.	Sub-grade mineral is proposed to blend with high grade mineral.	Entire sub-grade material has been blended with high grade material.	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 has been 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 and reject during the reporting year.	No benefaction study has been conducted during the reporting year.	NIL.
3j	Provision of drilling and blasting in mineral benches	Wagon Drill/ Jack Hammer drill has been proposed along with ANFO Explosive.	Drilling & blasting in mineral benches are being practiced as per proposal.	NIL.

3k	Provision of mining machineries in mineral benches	Excavator, Loader, Tripper etc.	Excavator, Loader, Tripper etc.	NIL.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height of the benches has been proposed to 8 meters.	Height of the benches has been maintained as per proposal.	NIL.
3m	Total area covered under excavation/pits	An area of 24.70 Ha has been proposed at the end of the plan period.	Area degraded under excavation as on 01/04/2019 is 23.59 Ha.	As per AR 2018-19.
3n	Ore to OB ratio for the pit/mine during the year.	1:4.30 MT/MT	1:3.48MT/MT	NIL.
3o	Total area put in use under different heads at the end of year	As per approved document dated 14/06/2016, total area put under different heads at the end of the plan period i.e. 2020-21 is 36.55 Ha.	The area put to utilized under different heads as on 01/04/2019 is 32.52 Ha. (other than the area reclaimed and rehabilitated)	As per AR 2018-19.
3p	Production of ROM mineral during the last five year period as applicable	2014-15- 171655 MT 2015-16- 177517 MT 2016-17- 182865 MT 2017-18- 185291 MT 2018-19- 193612 MT	2014-15- 147156 MT 2015-16- 145159 MT 2016-17- 139555 MT 2017-18- 140829 MT 2018-19- 179323 MT	All figures in Metric tonnes. Less production is in account of reduced market demand.
3q	General remarks of inspecting officers on method of mining etc.			

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No proposal of top soil and Mineral Reject generation. OB/intercalate d waste is proposed to dump separately.	Top soil and Mineral Reject has not been generated. Waste generated during the year has been dumped separately.	NIL.
4b	Location of topsoil, OB and mineral reject dumps	No proposal of top soil generation. Wollastonite having grade (>30% CaSiO3) below threshold value has been proposed to stack at crushing plan for future use. The dumping of the waste has been proposed over waste dump-E near boundary pillar 1.	Top soil generated during the year has been stacked near contractor workshop. Dumping of waste and Wollastonite has been observed as per proposal.	NIL.
4c	Number of dumps within lease area and outside of lease area	There exist Four waste dumps in lease area. Dumping of waste has been given over existing waste dump-E during reporting Year. An old waste dump has been observed outside of the lease area. No proposal of waste dumping outside of the lease area.	Four waste dumps have been observed in lease area. Dumping of waste has been observed as per proposal. An old waste dump has been observed outside of the 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.	Active dumping during reporting year has been proposed over one dump namely waste dump-E.	Active dumping of the waste has been observed as per proposal.	NIL.
4f	Number of dead dumps.	Three	Three	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.	Retaining wall and Garland drain has been proposed along the tow of the waste dump.	Retaining wall has not been observed at places.	Violation of MCDR issued vide letter dated 18/10/2019.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall- 1118 m Garland drains - 0 m	It is reported that 1200 mts of retaining wall has been constructed. However, retaining wall has not been observed at places along the tow of the waste dump-E.	Violation of MCDR issued vide letter dated 18/10/2019.
4j	Number of settling ponds	No proposal.	NIL.	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	Violation of MCDR for non-construction of Retaining wall issued.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal of full or part extraction of mineral from mine out area.	Backfilling has not been observed during the reporting year.	NIL.
5b	Area under backfilling of mined out area	No Proposal of backfilling.	Not applicable as no proposal.	NIL.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Top soil of 365 tonnes has been generated during reporting year.	65 tonnes of topsoil has been utilized for stabilizing dumps slopes by plantation.	Top soil has been generated form the proposed dump area.

5d	Total area fully reclaimed and rehabilitated	No proposal of fully reclamation and rehabilitation of mine out area.	Not applicable as no proposal.	NIL.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	No proposal of backfilling.	No comment to offer as no proposal of backfilling.	NIL.

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 2018-19 has been submitted.	NIL.
6b	Area available for rehabilitation (ha) .	An area of 0.33 Ha has been proposed afforestation/ rehabilitation	An area of around 1.0 Ha has been afforestation/ rehabilitation.	NIL.
6c	afforestation done (ha).	An area of 0.33 Ha has been proposed.	An area of around 1.0 Ha has been afforestation/ rehabilitation.	NIL.
6d	No. of saplings planted during the year	It was plan to plant 660 numbers of saplings.	During the year 2000 number of saplings have been planted.	NIL.
6e	Cumulative no .of plants	As per approved document dated 14/06/2016, cumulatively 3300 number of plants has been proposed to plant during 2016-17 to 2020-21within lease area.	Cumulatively 3400 number of plants has been planted within lease area by the end of FY 2018-19.	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	No specific proposal on cost of watch and care during the year.	A total of 2.40 lacs have been spent for plantation work.	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 making reservoir.	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 plan to plant 660 numbers of saplings.	During the year 2000 number od saplings have been planted.	NIL.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	An area of 0.33 Ha has been proposed afforestation/ rehabilitation .	An area of around 1.0 Ha has been afforestation/ rehabilitation.	NIL.
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.	An area of 0.33 Ha has been proposed to plant with 660 numbers of saplings.	An area of 1.0 Ha has been planted with 2000 number of saplings.	No issue related to PMCP compliance.

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% CaSiO ₃ and below 35 % CaSiO ₃ .	Wollastonite above 35% CaSiO ₃ and below 35 % CaSiO ₃ .	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	Entire ROM is proposed to be utilized.	The Wollastonite below threshold value mineral is being stacked within lease area for future use.	There is no specific 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.	During the year 365 mt of top soil has been generated.	Top soil has been generated form the proposed dump area.
8b	Concurrent use or storage of topsoil	No proposal of top soil generation.	A total of 65 mt of top soil has been reused for the purpose of planation.	NIL.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of waste/Ob has been proposed. No proposal of generation of rejects and fines during 2018-19.	Waste has been dumped at its designated place.	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.	Overburden, waste rock and Rejects are presently stored at earmarked location.	NIL.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	An area of 0.33 Ha has been proposed to rehabilitate/a fforestation during the year 2018-19 within lease area by the way of plantation.	An area of 1.0 Ha has been rehabilitated/afforested during the year 2018-19 within lease area by the way of plantation.	NIL.

8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	It was plan to plant 660 numbers of saplings.	During the year 2000 number of saplings have been planted.	NIL.
8g	Survival rate	No specific proposal of survival rate.	Survival rate for the reporting year was around 85.00 %.	As per AR 2018-19.
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 is propose to plant 660 number of sapling over an area of 0.33 Ha.	A total of 2000 number of plant has been planted over an area of 1.0 Ha. Aesthetic beauty around the mine is maintained.	NIL.

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.	Monthly and Annual return of the year 2018-19 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.	Mining Engineer, Geologist and Mine Manager as per MCDR, 2017 has been appointed at the mine.	NIL.

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings- 23.596 Ha, Reclaimed/ Rehabilitated- 7.02 Ha, Used for waste disposal-4.02 Ha, Occupied by plant, building, workshop, roads, plantation- 4.92 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	2000 number of trees has been reflected for plantation.	The information furnished found to be in order.	NIL.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	A quantity of 45000 tonnes have been reflected under MR for Wollastonite Mineral.	As reported the quantity furnished in AR is below threshold value and being stacked separately for future use.	NIL.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Wollastonite closing stock: 80380.440 tonnes, Closing stock of Graded Wollastonite: 80380.440 tonnes.	The information furnished appears to be correct.	NIL.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value of Rs. 115861249.8, Ex-mine price: Rs. 947.81per tonne, Cost of production: RS. 876.00 per tonne.	As the mine is captive mine, in such cases the cost of production should be the Ex-mine price.	Violation of MCDR issued vide letter dated 18/10/2019.
9h	Scrutiny of Annual return on fixed assets	The value of fixed asset furnished is Rs. 14091638.00	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.
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Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed				Show cause position			
Rule NO.		Issued on	Compliance on	Rule NO.		Issued on	Compliance on
MCDR17	Rule 11(1)	18-OCT-19	03-DEC-19				
MCDR17	Rule 45(7)(a)	18-OCT-19	03-DEC-19				
MCDR17	Rule 48	18-OCT-19	03-DEC-19				

Date :

(DILIP JAIN)

Indian Bureau of Mines