

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

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/MYS/MG/2/BNG

Mine code : 39KAR14002

- (i) Name of the Inspecting : 130) PRASHANT S HEGDE
Officer and ID No.
- (ii) Designation : Senior Mining Geologist
- (iii) Accompanying mine : Shri H. J. Basavarajappa, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 29/12/2018
- (v) Prev.inspection date : 06/11/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : KARYA(282H)
- (b) **Registration NO.** : IBM/4369/2011
- (c) **Category** : A Mechanised
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : KARNATAKA
- District : MYSORE
- Village : KARYA
- Taluka : NANJANGUD
- Post office : HULLAHALLI
- Pin Code : 571314
- FAX No. : 080-25583172 (F),
- E-mail : karyaminesmml@gmail.com
- Phone : 080-22278813 (O), 08221-220
- (f) **Police Station** : Nanjangud
- (g) **First opening date** : 24/05/1983
- (h) **Weekly day of rest** : SUN
2. **Address for correspondance** : Karya Magnesite Mine of M/s KSMCL
Po-Hullahalli, Tq-Nanjangud
Dist-Mysore, Karnataka-571314
3. (a) **Lease Number** : KAR0556
- (b) **Lease area** : 86.25
- (c) **Period of lease** : 20
- (d) **Date of Expiry** : 23/05/2023
4. **Mineral worked** : MAGNESITE Main
DUNITE Associated

5. Name and Address of the

Lessee : Karnataka State Minerals Corp. Ltd
 TTMC, A Block, 5th Floor,
 BMTC Building, K.H.Road,
 Shanthinagar Bengaluru
 BANGALORE KARNATAKA
 Phone:080-22278813-14-15-16
 FAX :080-22213172

Owner : Naveen Raj Singh, IAS & MD
 Karnataka State Minerals
 Corp. Ltd TTMC, A Block,
 5th Floor, BMTC Building,
 K.H. Road, Shanthinagar,
 BANGALORE KARNATAKA
 Phone: 080-22278813-14
 FAX : 080-22213172

Agent : Shankarlingaiah
 Karnataka State Minerals
 Corp. LTD TTMC Building, A
 block,5th Floor BMTC Bus
 station, Shanthinagar
 BANGALORE KARNATAKA
 Phone: 080-22278813-14-15-16
 FAX : 080-22213172

Geologist

Name : R.CHANDRASHEKAR,Full Time
 Qualification : MSc (Geology)
 Appointment/ : 01/02/2018
 Termination date

Manager

Name : H J Basavrajappa
 Qualification : Dip. in Mining, 1ST Class MM Cert.
 Appointment/ : 07/10/2016
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	14/07/1992
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	16/12/1997
		Renewal under rule 22 MCR1960	18/06/2003
		Modif.of approved Mining Plan	19/12/2008
		Mining Scheme rule 12 MCDR1988	06/12/2013
		MP review under 17(1) MCR 2016	02/02/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	6 nos of BHs (with 30 m depth each).	NIL	V/L issued on 3/1/19.
1b	Exploration over lease area for geological axis 1 or 2	13 Ha area under G-1/G-2	NIL	V/L letter issued.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NA	NIL	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	13 Ha	NIL	NIL
1e	Balance reserve as on 01/04/20	-----	Magnesite: 212,625 tonnes (+35% MgO and < 6 % SiO ₂) Dunite: 3,309,057 tonnes (35 to 45 % MgO)	Based on approved RMP dated 5/2/2018
1f	General remarks of inspecting officers on geology, exploration etc	-----	-----	12 nos of Core BHs drilled (25 to 67 m depth) by state DMG during year 1972-73 and 75 nos Wagon drill (8 to 18 m depth) by the lessee during year 1992-2002. Present approved RMP dated 5/2/18, 16 nos of Core BHs (30 m depth each) were proposed during year 2018-19 to 2019-20. V/L issued on 3/1/2019 for not starting of exploration activities so far.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Southern side of w.r.t lease area	Southern side of w.r.t. lease area	NIL

2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and Minerals	SSeparate benches in OB and minerals maintained.	NIL
2c	Stripping ratio or ore to OB ratio	1: 0.38	1: 0.78	Based on tonnage data and Dunite (minor mineral) also considered as being utilised as ore.
2d	Quantity of topsoil generation in m3	NIL	NIL	NIL
2e	Quantity of overburden generation in m3	80,700	16,404	BD of 1.8 considered.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	-----	-----	The development of pit is being carried out as per approved RMP. Less quantity of development was due to poor market condition.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	Single pit having dimension of 409 m X 225 m X 40m.
3b	Quantity of ROM mineral production proposed	Magnesite: 23,975 tonnes Dunite: 359,625 tonnes	Magnesite: 2,439 tonnes Dunite: 35,594 tonnes	Less quantity was due to poor market condition.
3c	Recovery of sailable/usable mineral from ROM production	5 % recovery for Magnesite and 75 % recovery ofr Dunite	Recovery as per the proposals.	Magnesite occurs in the form of intersecting veins in altered Ultrabasic rocks. Veins measuring from few cms to 3 m length and thickness ranging from few cms to 1 m.
3d	Quantity of mineral reject generation	NIL	NIL	NIL

3e	Grade of mineral rejects generation and threshold value declared.	NIL	NIL	No threshold value for Dunite and is minor mineral. Magnesite: 35 % MgO (Min), CaO 3 % (Max) & 3 % Fe2O3 (max) was present threshold value. Entire Magnesite produced is being utilised after blending (< 6 % SiO2 was market requirement).
3f	Quantity of sub grade mineral generation.	NIL	NIL	Entire Magnesite produced is being utilised after blending (< 6 % SiO2 was market requirement).
3g	Grade of sub grade mineral generation	NIL	NIL	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Manual segregation for Magnesite.	Manual segregation for Magnesite.	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	NIL	NIL
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting proposed in mineral benches.	Carried out as per the proposals.	NIL
3k	Provision of mining machineries in mineral benches	Excavators and tippers combinations.	Excavators and tippers combinations.	NIL
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	6 m bench height and 8 m bench width proposed.	Carried out as per the proposals.	NIL
3m	Total area covered under excavation/pits	9.2 Ha	9.2 Ha	NIL

3n	Ore to OB ratio for the pit/mine during the year.	1: 0.38	1: 0.78	Based on tonnage data and Dunite (minor mineral) also considered as being utilised as ore.
3o	Total area put in use under different heads at the end of year	Pit: 9.2 Ha Dumps: 19.83 Ha Road: 0.8 Ha Green-belt: 5 Ha Infrastructure : 0.02 Ha	Pit: 9.2 Ha Dumps: 19.63 Ha Road: 0.8 Ha Green-belt: 5 Ha Infrastructure: 0.05 Ha	NIL
3p	Production of ROM mineral during the last five year period as applicable	Magnesite: 2013-14: 17,952 2014-15:18,389 2015-16: 19,544 2016-17: 22,085 2017-18: 23,975 Dunite: 2013-14: 269,430 2014-15: 275,835 2015-16: 293,160 2016-17: 331,275 2017-18: 359,625	Magnesite: 2013-14: 533 2014-15: 2,429 2015-16: 2,731 2016-17: 3,926 2017-18: 2,439 Dunite: 2013-14: 378 2014-15: 895 2015-16: 5,000 2016-17: 28,600 2017-18: 35,594	Unit: In tonnes Dunite is minor mineral.
3q	General remarks of inspecting officers on method of mining etc.	-----	-----	Mining operation and method of mining are being carried out as per approved SOM/ RMP.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping OB wastes proposed.	Carried out as per proposals.	No generation of top soil.

4b	Location of topsoil, OB and mineral reject dumps	Dumping of waste proposed on western side active dump	Carried out as per the proposals.	NIL
4c	Number of dumps within lease area and outside of lease area	3 nos within ML	3 nos within ML	NIL
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps located as per approved MP/ Outside UPL	Carried out as per the proposals.	NIL
4e	Number of active and alive dumps.	One	One	NIL
4f	Number of dead dumps.	Two	Two	NIL
4g	Number of dumps established.	Two	Two	Partly.
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain proposed all along dumps.	Carried out as per the proposals.	NIL
4i	Length of Retaining wall or garland drain all along dumps	132 m Retaining wall & garland drain	140 m Retaining wall & garland drain	Cumulative 528 m Retaining wall & garland drain so far.
4j	Number of settling ponds	NIL	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management	-----	-----	Waste dump management is being carried out as per approved SOM/RMP.

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.	NIL	NIL	Pit not matured for back-filling as ore not exhausted.
5b	Area under backfilling of mined out area	NIL	NIL	NIL

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	NIL	No generation of top-soil.
5d	Total area fully reclaimed and rehabilitated	NIL	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.	-----	-----	Pit not matured for back-filling as ore not exhausted.

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).	1 st July of every year	24/07/18	NIL
6b	Area available for rehabilitation (ha) .	5.05 Ha	5.05 Ha	Cum. Figure
6c	afforestation done (ha).	0.28 Ha	0.28 Ha	NIL
6d	No. of saplings planted during the year	500 nos saplings.	500 nos saplings.	NIL
6e	Cumulative no .of plants	17,000 nos of plants	17,026 nos of palnts	On Dumps slope.
6f	Any other method of rehabilitation	Afforestation.	Afforestation.	NIL
6g	Cost incurred on watch and care during the year	NA	NA	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	NIL	NIL	Pit not matured for back-filling as ore not exhausted.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NIL	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NIL	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NIL	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	NIL	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	NIL	NIL	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Season-wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis and noise level.	Season-wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis and noise level are being carried out and all parameters are within limit.	V/L issued related environmental monitoring for year 2018-19.

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	-----	-----	PMCP implementation is being carried out as per the proposals during year 2017-18.
----	---	-------	-------	--

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise manual sorting Magnesite ore within ML.	Grade-wise manual sorting Magnesite ore within ML.	NIL
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual sorting Magnesite ore.	Manual sorting Magnesite ore.	NIL
7c	Different grade of mineral sorted out at mines.	< 6 % SiO ₂ grade Magnesite with 10 to 300 mm size was requirement of market.	Carried out as per proposal with proper blending.	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	-----	-----	Mineral conservation aspects are being carried out as per the approved SOM/RMP.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NIL	NIL	No generation of top soil.

8b	Concurrent use or storage of topsoil	NIL	NIL	No topsoil generating in the mine. Topsoil generated already used in afforestation.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of OB wastes	Carried out as per the proposals.	NIL
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NIL	NIL	Pit not matured for back-filling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NIL	NIL	Safety and environmental protective measures for Dumps management are being carried out as per the proposals.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation of 500 nos of saplings proposed during year 2017-18.	Plantation of 500 nos of saplings carried out during year 2017-18. Cum. of 17,026 nos of saplings were planted so far.	NIL
8g	Survival rate	NA	70 %	NIL
8h	Water sprinkling on roads to control airborne dust	Proposed.	One water tanker provided to suppress the dust in the mine.	NIL
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	----- -	-----	Aesthetic beauty in and around mine's area is good as the lessee carried out afforestation and other protective measures as per approved SOM/RMP.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
--------	------	-----------	-------------	---------

9a	Status of submission of Monthly and Annual returns	MRs upto Nov-2018 and AR upto 2017-18 received.	Submission of MRs and ARs were regular.	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri H.J.Basavaraja ppa, MM and ME Shri R. Chandrashekar, Geologist.	Actual also same.	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit area: 9.2 Ha Dumps area: 19.63 Ha Road and infrastructure : 0.82	Actual also same.	NIL
9d	Scrutiny of Annual return on afforestation	500 nos within ML.	Actual also same.	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Actual also same.	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Magnesite stock: 3091 tonnes	Actual also appears to same at that time.	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value of Magnesite: Rs 7150 per tonne and cost of production of Magnesite: Rs 8513 per tonnes	Letter already issued on 30/7/2018 for clarifications.	Reminder-I issued on 14/01/2019.
9h	Scrutiny of Annual return on fixed assets	Rs 1,16,86,281	Actual also appears to same.	NIL
9k	Scrutiny of Annual return on mining machineries	Shovel(Hy) 2.4 CUM: 2 nos Air compressor: 1 nos Tippers (6 cum): 6 nos	Actual also same.	NIL

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)	03/01/2019	02/05/2019				
MCDR17	Rule 33	03/01/2019	19/03/2019				
MCDR17	Rule 35(2)	03/01/2019					

Date :

(PRASHANT S HEGDE)

Indian Bureau of Mines