

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/BHD/SLM-2/NGP

Mine code : 55MSH05001

- (i) Name of the Inspecting : **K02**) **Kalmata.M.K.**
Officer and ID No.
- (ii) Designation : Regional Mining Geologist
- (iii) Accompanying mine : Mohd.Shafeeque.Mohd Siddique, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 16/01/2020
- (v) Prev.inspection date : 24/07/2019

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **POHARA BODKI HILL**
- (b) **Registration NO.** : **IBM/5319/2011**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : MAHARASHTRA
District : BHANDARA
Village : POHARA
Taluka : LAKHANI
Post office : POHARA
Pin Code : 441809
FAX No. :
E-mail :
Phone : 522875:(M. D.),526419,53310
- (f) Police Station :
- (g) First opening date : 01/01/1976
- (h) Weekly day of rest : SUN
2. Address for : 3RD FLOOR, UDYOG BHAVAN,
correspondance : CIVIL LINES,
NAGPUR-440 001
3. (a) Lease Number : MSH0149
- (b) Lease area : 12.15
- (c) Period of lease : 20
- (d) Date of Expiry : 16/11/2017
4. Mineral worked : PYROPHYLLITE Associated
SILLIMANITE Main

5. Name and Address of the

Lessee : M/s Maharashtra State Mining Corporation
5, Abhyankar Nagar Nagpur -
10 NAGPUR MAHARASHTRA
Phone:
FAX :

Owner : Shri S. Ramamoorthy
Maharashtra State Mining
Corp. Ltd. Khanikarm
Bhawan, Plot No.7, Ajni
Square, Wardha Road NAGPUR
MAHARASHTRA
Phone:
FAX :

Agent : P.Y.Tembhare
Maharashtra State Mining
Corporatio Khanikarm
Bhawan, Ajni Square Wardha
Road, NAGPUR MAHARASHTRA
Phone:
FAX :

Mining Engineer

Name : SHRI T.L. SAHU, Full Time
Qualification : B.E. MINING
Appointment/ : 04/09/2004 19/10/2004
Termination date

Geologist

Name : Prashant Shyam Sonpipare, Full Time
Qualification : M.Sc. Tech Applied Geology
Appointment/ : 04/09/2004
Termination date

Manager

Name : SHRI S.N. TIWARI
Qualification :
Appointment/ : 19/10/2004
Termination date

6. Date of approval of Mining : Fresh under rule 22 MCR1960 27/07/2000
Plan/Scheme of Mining Fresh under rule 22 MCR1960 03/04/2001
Mining Scheme rule 12 MCDR1988 03/07/2007
Mining Scheme rule 12 MCDR1988 07/04/2014
MP review under 17(1) MCR 2016 16/05/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	There was a proposal to drill one bore hole in the year 2018-19 up to a depth of 30 mtrs.	Exploration was not carried out as per the proposal.	The mine was previously inspected by DCOM, on 24.07.2019 & Violation was pointed out for the same and mine is suspended on, 12.02.2020 for non compliance of Rule 11(1) of MCDR-17. So no fresh violation is pointed out.
1b	Exploration over lease area for geological axis 1 or 2	About 0.5ha was proposed to explore under G-1 level in the plan period (2017-18 to 2021-22) by drilling five boreholes.	No exploration work has been done in the present plan period up to 2018-19 .	The mine was previously inspected by DCOM, on 24.07.2019 & Violation was pointed out for the same and mine is suspended on, 12.02.2020 for non compliance of Rule 11(1) of MCDR-17. So no fresh violation is pointed out.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Proposals not given in the approved document.	No exploration is carried out in the year 2017-18 and 18-19.	Earlier, exploration was carried out by the Geotech India, Nagpur and expenditure incurred is shown as Rs- 10 lakhs.

1d	Balance area to be explored to bring Geological axis in 1 or 2	Area not mentioned only number of boreholes given.	No eexploration has been carried out in the present plan period.	<p>Details of mineralized area, non mineralized area and area to be explored are not given in the approved document.</p> <p>As per the details given in the approved document, total 36 boreholes were drilled in the lease area. Out of 36, 32 boreholes were drilled by DMG, Maharashtra b/w 1974 to 77 and 1989 to 1992, remaining 4 borholes were drilled by lessee in the year 2003-04. No exploration has been carried out in the present plan period.</p>
1e	Balance reserve as on 01/04/20	<p>As per the approved document position of reserves/reou rces as on 1.04.2017 is as follows. Sillimanite- Reserves- 143895.51 tonnes Pyrophyllite- Reserves- 720157.16 tonnes. Additional to this, 7258.45 tonnes of Pyrophyllite and 118.98 tonnes of Sillimanite is estimated from dumps.</p>	<p>position of insitu reserves/reources as on 1.04.2019 is as follows. Sillimanite- Reserves- 143895.51 tonnes Pyrophyllite- Reserves- 720157.16 tonnes. Quantity of remaing ore in the dumps as on 1.04.2019, is as follows. Pyrophyllite- 5383.82 tonnes.</p>	<p>In the last two years, i.e. in 2017-18 and 2018-19, production was carried out by dump woking only, so insitu reserves/resources remain same as per the approved document.</p>

1f	General remarks of inspecting officers on geology, exploration etc	As per the details given in the approved document, total 36 boreholes were drilled in the lease area up to 2003-04. Lessee has not carried out the exploration as per the proposal in the present plan period. The mine was previously inspected by DCOM, on 24.07.2019 & Violation was pointed out for the same and mine is suspended on, 12.02.2020 for non compliance of Rule 11(1) of MCDR-17. So no fresh violation is pointed out.
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	There was a proposal to work in the dump for the year 2018-19.	Working has been carriedout as per the proposal in the year 2018-19.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Only dump working was proposed in the year 2018-19.	Working has been carriedout in the dump only.	Working has been carriedout in the dump as per the proposal. No insitu working has been proposed in the year 2018-19.
2c	Stripping ratio or ore to OB ratio	Not proposed in the approved document.	No insitu, mining has been carried out in the year 2018-19.	Working has been carried out in the dump only.
2d	Quantity of topsoil generation in m3	No topsoil generation was proposed in the year 2018-19.	Nil.	Working has been carried out in the dump only.
2e	Quantity of overburden generation in m3	Generation of overburden was not proposed in the year 2018-19.	Nil	Working has been carriedout in the dump only. waste generated during dump handling was levelled there only.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Only dump working has been carried out in the year 2018-19.
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Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	No insitu mining was proposed in the year 2018-19.	Only dump working has been carried out in the year 2018-19 and no pits were made.	One old pit measuring 400mtr (l) x 150mtr (W, avg) exist within the lease area.
3b	Quantity of ROM mineral production proposed	The proposed ROM production for the year 2018-19 was as follows. Sillimanite-72.912 tonnes(ROM), recoverable ore-65.62 tonnes and Pyrophyllite-3858 tonnes.	Sillimanite -57.28 tonnes Pyrophyllite -833.91 tonnes	
3c	Recovery of sailable/usable mineral from ROM production	Recover was shown 90% for sillimanite	100%	Only dump mining was carried out in the year 2018-19, minerals was segregated manually and recovery was 100%.
3d	Quantity of mineral reject generation	6255 m3	No mineral reject was generated.	Only dump working has been carried out by segregation of ore manually. So no mineral reject was generated.
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable.	Not Applicable.	Not Applicable.
3f	Quantity of sub grade mineral generation.	Subgrade mineral generation not proposed.	No subgrade mineral has been generated.	
3g	Grade of sub grade mineral generation	Not Applicable.	Not Applicable.	Not Applicable.

3h	Manual / Mechanised method adopted for segregating from ROM	Manual	Manual	Lessee is doing manual sorting, for gradewise segregation of mineral.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	Nil	Nil
3j	Provision of drilling and blasting in mineral benches	Drilling and blasting was not proposed for the year 2018-19.	Only dump working has been carried out in the year 2018-19.	Since no insitu mining was carried out in the year 2018-19, drilling and blasting was not done.
3k	Provision of mining machineries in mineral benches	Not proposed for the year 2018-19.	Nil	Only dump working has been carried out manually. Semi mechanized mining was proposed 2019- 20 onwards.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No benches were proposed in the year 2018-19.	Only dump working has been carried out manually.	
3m	Total area covered under excavation/pits	No pit excavation was proposed in the year 2018- 19.	Nil	Only dump working has been carried out in the year 2018-19. However total broken up area as on date is around 8.2Ha.
3n	Ore to OB ratio for the pit/mine during the year.	Nil	Nil	Working has been carried out in the dump only.
3o	Total area put in use under different heads at the end of year			Area under mining- 8.21 ha, Waste dump-8.02ha, Mineral storage- 0.5ha

3p	Production of ROM mineral during the last five year period as applicable	2018-19: Sillimanite/pyrophyllite-72.91/ 3858 tonnes 2017-18: Sillimanite/pyrophyllie-68.94/3651 tonnes 2016-17:Sillimanite/pyrophyllie-8960/11700 tonnes 2015-16:Sillimanite/pyrophyllie-11463/7200 tonnes 2014-15:Sillimanite/pyrophyllie-54.90/4012.68 tonnes	2018-19: Sillimanite/pyrophyllite-57.280/833.91tonnes 2017-18: Sillimanite/pyrophyllie-90.220/1040.720tonnes 2016-17:Sillimanite/pyrophyllie-110.00/857.00 tonnes 2015-16:Sillimanite/pyrophyllie-00/1677.04 tonnes 2014-15:Sillimanite/pyrophyllie-275.36/1410.52tonnes
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3q	General remarks of inspecting officers on method of mining etc.	No insitu mining was carriedout in the year 2018-19. Production was done from dump working only.
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Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No dumping was proposed for topsoil, OB and Mineral reject.	No topsoil was generated in the year 2018-19. Working has been carried out from the dump only. No mineral reject was generated in the year 2018-19. The waste generated during dump mining was levelled there itself.	
4b	Location of topsoil, OB and mineral reject dumps	No dumping was proposed in the year 2018-19.	No dumping was made in the year 2018-19.	Five old dumps are exist within the lease area.
4c	Number of dumps within lease area and outside of lease area	No waste dump was proposed in the year 2018-19.	No waste dumping was made in the year 2018-19.	Five old waste dumps are exist with in the lease area.

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	No dumping was proposed in the year 2018-19.	No dumping was made in the year 2018-19.	Five old dumps are present within the lease area and appers outside the UPL. However UPL is not marked on Surface Geological plan.
4e	Number of active and alive dumps.	No dumping was proposed in the year 2018-19.	No dumping was made in the year 2018-19.	Five active dumps are present within the lease area.
4f	Number of dead dumps.	Not Proposed.	Nil	Nil
4g	Number of dumps established.	Not proposed	63 saplings were planted in the existing dump during the year 2018-19. Total five dumps are exist within the lease area.	Some plantation was made on the existing 3 dumps. However dumps are not fully stabalized.
4h	Whether Retaining wall or garland drain all along dumps are there.	Not proposed.	No retaining wall or Garland drain was made in the year 2018-19.	No retaining wall or garland drain was made in the present plan period.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed.	Nil	Nil
4j	Number of settling ponds	Not proposed	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management			Waste dump was not proposed in the year 2018-19. Production was carriedout from the dump working only and no OB was handled in the year 2018-19. Five old dumps are exist within the lease area. Three dumps are partially vegetated.

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 backfilling was proposed in the year 2018-19.	No backfilling was done in the year 2018-19.	Mineral is not exhausted in the lease area, so no backfilling was proposed and carried out in the present plan period.
5b	Area under backfilling of mined out area	Not proposed	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	Not proposed	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Working has been not reached up to the proved depth and no backfilling was proposed in the present plan period.

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).	Lessee have to submit yearly report on implimentation of PMCP before first day of July every year.	Lessee has not submitted yearly report on PMCP within time.	Violation was pointed out for the same by DCOM based on his previous inspection and mine is under suspension . So no fresh violation was issued.
6b	Area available for rehabilitation (ha) .	Not proposed	Nil	Nil

6c	afforestation done (ha).	2.60Ha	0.04Ha	Plantaion was made less than the proposal and violation was pointed out for the same by DCOM and mine is under suspension. So no fresh violation was pointed out.
6d	No. of saplings planted during the year	1040 in the year 2018-19.	100	Plantaion was made less than the proposal, and violation was pointed out for the same by DCOM. The mine is under suspension. So no fresh violation was pointed out.
6e	Cumulative no .of plants	Total 2080 plants were proposed in two years,i.e. 1040 in the year 2017-18 and 1040 in the year 2018-19.	Only 265 plantation was made in two years, 165 in the year 2017-18 and 100 in the year 2018-19.	Plantaion was made less than the proposal and violation was pointed out for the same by DCOM and mine is under suspension. So no fresh violation was pointed out.
6f	Any other method of rehabilitation	Nil	Nil	Nil
6g	Cost incurred on watch and care during the year	Not proposed	Not Available	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Nil	Nil	Nil
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 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)		Lessee is doing only dump working by manual method. The impact of mining on environment is negligible.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		Lessee has made only 100 plantation in the year 2018-19 against 1040. Violation was pointed out by the DCOM for the same. The mine is under suspension so no fresh violation was issued.	

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Sorting of Sillimanite and Pyrophyllite was proposed.	Sillimanite and Pyrophyllite were recovered from dump working.	100 tonnes of pyrophyllite is dispatched from the mine.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Sillimanite & Pyrophyllite.	Sillimanite and Pyrophyllite	
7d	Any beneficiation process at mines	Nil	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Lessee is doing manual sorting from dump.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed	Nil	Lessee is doing production from dumps only.
8b	Concurrent use or storage of topsoil	NIL	Not applicable.	Not applicable.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Nil	waste generated during dump mining is dumped in existing OB dumps.	No fresh dump was made in the year 2018-19.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	The ore is not extracted upto proved level and no backfilling was proposed in the present plan period.

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1040 plantation was proposed in the year 2018-19.	100 plantation was made in the year 2018-19. Total 265 plantation was made in the present plan period.	Plantation was made less than the proposal and violation was pointed out for the same by DCOM and mine is under suspension. So no fresh violation was pointed out.
8g	Survival rate	Not proposed	50%	
8h	Water sprinkling on roads to control airborne dust		Only dump working is going on manually, so no dust generation is there. However during transportation time lessee is using water tanker for wetting roads.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Total 265 plantation was made in the plan period. Lessee is doing only dump mining so impact on environment is negligible.	

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Monthly returns, before the tenth day of every month in respect of the preceding month and Annual returns, before the first day of July of each year for the preceding financial year.	Lessee is regularly submitting monthly returns. However annual returns for the year 2018-19 was not submitted within time period. Violation was pointed out for the same by DCOM.	Annual returns submitted on 14.10.2019.

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri . P. S. Sonpipare is shown as the Geologist & No Mining engineer was shown.	As per the office record the details of geologist given in the Annual return is correct.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under current working- 9.00Ha, For waste disposal- 11.00Ha, for infrastructure -1.50Ha.	The land use details given in AR are almost matching.	
9d	Scrutiny of Annual return on afforestation	100 plantation with survival rate of 50%.	Plantation details given in the annual returns is matching with field observation.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation was shown in the Annual returns.	No mineral reject was generated.	Only dump mining was carried out by manual method.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	325 tonnes of sillimanite and 3275 tonnes of pyrophyllite is shown as the closing stock.	Quantity observed in the field is almost matching with the stock details given in the annual returns.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale value and ex-mine price for pyrophyllite was shown as Rs- 825/tonnee. and cost of production Rs- 8140.17/tonnee	The cost of production given in the annual returns appears high and lessee was advised to submit justification for the same.	
9h	Scrutiny of Annual return on fixed assets	Value of fixed asset is shown as Rs-476047. The land value is shown as Rs-369994.	Lessee has advised to estimate land value as per present market value and update same in the annual returns.	
9k	Scrutiny of Annual return on mining machineries	Dozer-01, Rockdrill-02 and one front end loader was given in the Annual returns.	On the day of inspection no machineries were observed in the mines.	Only dump working is done by manual method.

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

Date :

(Kalmata.M.K.)

Indian Bureau of Mines