

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

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/408/BNG

Mine code : 30KAR03101

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Shri. P.Manjunath - Mines Manager
Official with
Designation
- (iv) Date of Inspection : 20/11/2020
- (v) Prev.inspection date : 26/02/2020

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **RAMANADURGA**
- (b) **Registration NO.** : **IBM/11807/2012**
- (c) **Category** : **A Fully Mechanised**
- (d) **Type of Working** : **Opencast**
- (e) **Postal address**
- State : **KARNATAKA**
- District : **BELLARY**
- Village : **DHARMAPURA**
- Taluka : **SANDUR**
- Post office : **SANDUR**
- Pin Code :
- FAX No. : **08392-266767 (F),**
- E-mail : **kumnex@rediffmail.com**
- Phone : **08392-267484 (O), 94498419**
- (f) **Police Station** : **SANDUR**
- (g) **First opening date** : **17/03/1990**
- (h) **Weekly day of rest** : **SUN**
2. **Address for correspondance** : **Sri Kumaraswamy Mineral Exports Pvt Ltd**
No.39B, 2nd Main, Paravathi Nagar,
BELLARY- 583102
3. (a) **Lease Number** : **KAR0329**
- (b) **Lease area** : **82.55**
- (c) **Period of lease** : **20**
- (d) **Date of Expiry** : **23/01/2012**
4. **Mineral worked** : **IRON ORE** **Main**

5. Name and Address of the

Lessee : SRI KUMARASWAMY MINERAL EXPORTS
 2 ND CROSS, LINK ROAD,
 PARVATI NAGAR, BELLARY
 KARNATAKA
 Phone:08392-79484
 FAX :

Owner : SRI KUMARASWAMY MINERAL EXPORTS
 GURUKRUPA NILAYA, NEHRU
 COLONY, BELLARY. BELLARY
 KARNATAKA
 Phone:
 FAX :

Agent : S.VIJAYAKUMAR
 BELLARY KARNATAKA
 Phone:
 FAX :

Geologist

Name : SHANMUKHAPPA MANDAL, Full Time
 Qualification : MSc GEOLOGY
 Appointment/ :
 Termination date

Manager

Name : BHARATH KUMAR.R.S
 Qualification : D.MIN.ENGG WITH F.C.C
 Appointment/ : 07/07/2004
 Termination date

6. Date of approval of Mining	:	Fresh under rule 22 MCR1960	07/03/1990
Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	13/05/1999
	:	Mining Scheme rule 12 MCDR1988	06/06/2003
	:	Modif.approved Mining Scheme	18/04/2006
	:	Modif.of approved Mining Plan	17/08/2009
	:	Renewal under rule 24 MCR1960	18/09/2012
	:	MP review under 17(1) MCR 2016	08/03/2017
	:	MP modif under 17(3) MCR 2016	19/02/2018
	:	MP review under 17(1) MCR 2016	23/08/2018
	:	MP modif under 17(3) MCR 2016	26/02/2019
	:	MP review under 17(1) MCR 2016	10/03/2020

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	10 Core Bore Holes	12 core bore holes drilled with total meterage of 559 metres. At a grid interval of 100*100 metres.	Nil
1b	Exploration over lease area for geological axis 1 or 2	G1	G1-43.44 Ha	15.92 Ha is Non-Mineralized
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No Proposal	In House Exploratory Drilling carried out by M/S SKMEPL.	Expenditure incurred on Exploration - Rs.10.166 Lakhs.
1d	Balance area to be explored to bring Geological axis in 1 or 2	No Proposal	Nil	Nil
1e	Balance reserve as on 01/04/20	Nil	39.302 Million Tons of Reserves with average grade of 61.1 % FE.	As per Annual return submitted for the year F.Y. 2019-20.
1f	General remarks of inspecting officers on geology, exploration etc			12 core bore holes were drilled with total meterage of 559 metres at an grid interval of 100*100 metres against the proposal of 10 core BH's.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N 1666510 to N1667310, E661800 to E662490	N 1666520 to N1667260, E661870 to E662440	Development carried out within the proposed Grids.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches proposed in overburden and mineral	Separate benches maintained in overburden and mineral	Overburden-2 Mineral-9
2c	Stripping ratio or ore to OB ratio	1:0.161	1:0.160	No Change

2d	Quantity of topsoil generation in m3	No Proposal	Nil	Working in the broken up Area
2e	Quantity of overburden generation in m3	264242 Tonnes	263190 Tonnes	Bulk Density t/m3: Ore : 3.2 OB : 2.2 BHQ : 2.75
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development was carried out as per the proposal in the mine.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit proposed	Working in one pit only	Nil
3b	Quantity of ROM mineral production proposed	1640000 Tonnes	1640000 Tonnes	Nil
3c	Recovery of sailable/usable mineral from ROM production	98%	98%	Nil
3d	Quantity of mineral reject generation	No Proposal	Nil	No generation of mineral reject
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	Nil	Nil
3f	Quantity of sub grade mineral generation.	No Proposal	Nil	Nil
3g	Grade of sub grade mineral generation	No Proposal	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanized method proposed for segregating from ROM	Mechanized method adopted for segregating from ROM	Dry Crushing (150 Tph)& Screening (250 Tph)

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No Proposal	No such Beneficiation study carried out.	Nil
3j	Provision of drilling and blasting in mineral benches	Provision of Drilling and blasting is made in Mineral benches for hard strata	Drilling and blasting carried out by combination of slurry and Nonel Detonators	30% of the total material handled is blasted spacing and burden is 3 * 3.5 m respectively
3k	Provision of mining machineries in mineral benches	Hydraulic excavators and Dumper combination Proposed	Mining is carried out by using Hydraulic excavators and 30Tonner Dumper.	Machineries deployed wagon drill -1nos , compressor-1nos, excavators-16 nos, wheel loaders-12 nos, dumpers-28 nos, extec screens-5 nos, crushers-4 nos
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height of 7.5 m and width of 10 m proposed	Bench height of 7.5-9 m and bench width of 9-10 m maintained. At some places the bench height was in excess to the proposed, in section L-L' & M-M'.	Violation issued vide letter no.KNT /BLR/Fe-408/BNG dt.11.11.2020
3m	Total area covered under excavation/pits	38.6506 Ha at the End of Plan Period	36.1551 Ha. At the end of reporting year	Nil
3n	Ore to OB ratio for the pit/mine during the year.	1:0.161	1:0.160	In tonnes
3o	Total area put in use under different heads at the end of year	Area under Mining - 38.6 Ha, Waste Dump : 4.90 Ha, Mineral Storage : 2.17 Ha, Infrastructure : 0.33 Ha, Roads : 2.01 Ha, Others : 3.65 Ha, Unused Broken up Area : 7.63 Ha. at the end of plan period	Area under Mining - 36.15Ha, Waste Dump : 2.90 Ha, Infrastructure & Roads : 3.09 Ha, Others (Area for subgrade stack , Protective Measures , Bunds , Inactive dump, etc : 17.206 Ha at the end of reporting year	Nil

3p	Production of ROM mineral during the last five year period as applicable	2015-16: 640000 2016-17: 640000 2017-18: 640000 2018- 19:1480000 2019- 20:1640000 (in tonnes)	2015-16: 0 2016-17: 0 2017-18: 426000 2018-19 : 1480000 2019-20 : 1640000 (in tonnes)	Actual production within the proposed limits
3q	General remarks of inspecting officers on method of mining etc.			Opencast method of mining using excavator tipper combination carried out as per proposal. Violation issued for excess of bench height at some places

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 for OB proposed	Separate dump for OB maintained	Nil
4b	Location of topsoil, OB and mineral reject dumps	waste dump Proposal :N 1667020 to N 1667250, E 662050 to E 662260	N 1667030 to N 1667180, E 662170 to E 662242	Nil
4c	Number of dumps within lease area and outside of lease area	Within the Lease area: 2 No's. Outside Mining lease : Nil	Within the Lease area: 2 No's. Outside Mining lease : Nil	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps proposed outside the UPL	Dumps are located outside the UPL	Dump-1: N1667450 to N1667600, E661820 to E662000 Dump-2: N 1667030 to N 1667180, E 662170 to E 662242
4e	Number of active and alive dumps.	active & alive dumps : 1 No	active & alive dumps : 1 No	Nil

4f	Number of dead dumps.	No Proposal	Nil	Nil
4g	Number of dumps established.	No Proposal	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	No Proposal	Retaining wall & garland drain are provided all along dumps.	Constructed in the previous years.
4i	Length of Retaining wall or garland drain all along dumps	No Proposal	nil	Retaining wall & garland drain Maintained.
4j	Number of settling ponds	No Proposal	nil	9 SST Constructed in the past and are Maintained.
4k	Specific comments of inspecting officer on waste dump management			Waste dump management was carried out as per the proposal

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	Nil	Mineral is not exhausted for Backfilling.
5b	Area under backfilling of mined out area	No Proposal	Nil	Nil
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No Proposal	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	No Proposal	Nil	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.			The Mineral is not exhausted and the Mine has been restarted in 2017-18.

Sl.No.	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report to be submitted by 1st of July every year.	PMCP report submitted.	Submitted on 10.07.2020.
6b	Area available for rehabilitation (ha) .	No Proposal	Nil	Nil
6c	afforestation done (ha).	No Proposal	Nil	Nil
6d	No. of saplings planted during the year	500 saplings proposed	550 saplings planted	Gap Plantation Done
6e	Cumulative no .of plants	No Proposal	584735 no of Saplings Planted and Maintained.	Nil
6f	Any other method of rehabilitation	No Proposal	Nil	Nil
6g	Cost incurred on watch and care during the year	No Proposal	Nil	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal	Nil	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Nil	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No Proposal	Nil	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Nil	Nil

6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No Proposal	Nil	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No Proposal	Nil	Nil
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No Proposal	Nil	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No Proposal	Nil	Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed Environmental monitoring in core and Buffer Zone	Environmental monitoring in core and Buffer Zone is carried out regularly	Monitoring carried out by MES , Bellary . All the parameters were observed to be within the permissible limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP activities were carried out as per proposal.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise sorting proposed within the lease area	grade-wise sorting done within the lease area	ROM Mineral dispatched after dry screening
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical sorting proposed.	Mechanical method adopted for grade wise sorting.	Dry Crushing (150 Tph)& Screening (250 Tph)

7c	Different grade of mineral sorted out at mines.	Lumps & Fines : Below 55 % , 55% to 58% , 58 % to below 60 % , 60 % , 62 % to below 65 % , 65 % and above.	Lumps & Fines : Below 55 % , 55% to 58% , 58 % to below 60 % , 62 % to below 65 % , 65 % and above.	Grade wise sorting done as per buyer requirement
7d	Any beneficiation process at mines	No proposal	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Mineral conservation is taken care off. Dry crushing and screening adopted in the mine.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Nil	No generation of top soil
8b	Concurrent use or storage of topsoil	No proposal	Nil	Nil
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for OB proposed	Separate dump for OB maintained	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Nil	Nil

8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Nil	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Plantation proposed in safety Zone & dumps slopes gap filling area	Plantation was done in safety Zone & dumps slopes gap filling area & maintained regularly.	WML - 550 saplings planted.
8g	Survival rate	80%	80%	Nil
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on haul roads proposed to control airborne dust.	Water Tankers were deployed to control the airborne dust on haul roads and screening plants.	8 nos of water tankers each of 8000 Litres capacity. Excluding water mist sprayer.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in & around the mine area was good as the lessee had carried out afforestation & environmental protection measures as per the proposal.

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to November 2020 A.R. Submitted up to 2019-2020.	AR submitted on 30.06.2020.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager- P.Manjunath Mining Engineer - Nishant B N Geologist- Ambarish Volvoikar	Same officers were present during the course of inspection	

- 9c Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. Area under Mining - 36.15Ha, Waste Dump : 2.90 Ha, Infrastructure & Roads : 3.09 Ha, Others (Area for subgrade stack , Protective Measures , Bunds , Inactive dump, etc : 17.206 Ha. Appears to be correct.
- 9d Scrutiny of Annual return on afforestation Total No of saplings Within Mining lease -550 No's Survival Rate- 80% Appears to be correct.
- 9e Scrutiny of Annual return on mineral reject generation (Grade and quantity) NIL NIL
- 9f Scrutiny of Annual return on ROM stock and/or graded ore ROM Stock: Opening balance : 12000 Tonnes , Production : 1640000 Tonnes . Closing Stock : 112000 Tonnes Appears to be correct.

- 9g Scrutiny of average sale value- rs. Appears to be correct.
 Annual return on sale value, Ex. 2164/Tonne
 Mine price and production cost Ex mine Price Rs/Tonne :
 Lumps Below 55 % : 1405.34,
 55% to 58% : 2182.23, 58 % to below 60%: 2380.24
 60% to below 62% : 2709.78 , 62 % to below 65 % : 3080.86,
 65 % and above : 3241.37.
 Fines Below 55 % : 870.47,
 55% to 58% : 1078.96,
 58 % to below 60%: 1700
 60% to below 62% : 1978.96 , 62 % to below 65 % : 2619.77,
 65 % and above : 2750.68.
 cost of production- 1555
- 9h Scrutiny of Annual return on fixed assets Rs. 58096560 including land , industrial , plant and machinery. Appears to be correct.
- 9k Scrutiny of Annual return on mining machineries wagon drill -1 compressor-1 excavators-16 wheel loaders-12 dumpers-28 extec screens-5 crushers-4 water tankers-7 tipper-1. Appears to be correct.
-

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 :

(ARUN KUMAR)

Indian Bureau of Mines