

**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 : **278**) **KRISHNENDU CHATTERJEE**
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : P.Manjunath, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 11/02/2019
- (v) Prev.inspection date : 07/08/2018

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 : Sri Kumaraswamy Mineral Exports Pvt Ltd
correspondance : 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

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	9 Core Boreholes proposed during 2018-19	6 nos. Core Boreholes drilled till 31.01.2019	64 nos. of boreholes drilled during 2017-18.
1b	Exploration over lease area for geological axis 1 or 2	G1-0.30 ha G2-5.45 ha G3-26.72 ha	G1-36.94 ha G2-5.138 ha G3-0.0 ha	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	M/s. Sri Kumaraswamy Mineral Exports Pvt.Ltd. Expenditure was Rs.116.711 lakhs during 2017-18 for 64 nos. of drilled boreholes.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	Mineralized area has been explored under G1 and G2	
1e	Balance reserve as on 01/04/20	No proposal	36.4 million tonnes of iron ore	As on 01.08.2018
1f	General remarks of inspecting officers on geology, exploration etc		As on 31.01.2019, ML was explored by 70 nos. of boreholes with cumulative meterage of 4015.2m.	

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N1666500 to N1667000 E662100 to E662500	N1666500 to N1667000 E662100 to E662500	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Top Soil: Nil Overburden: 2 benches Mineral: 8 benches	Top Soil: Nil Overburden: 2 benches Mineral: 8 benches	
2c	Stripping ratio or ore to OB ratio	1:0.17	1:0.12	Achieved till 31.12.2018.
2d	Quantity of topsoil generation in m3	No proposal	Nil	

2e	Quantity of overburden generation in m3	99865 m3 in 2018-19	37938 m3 till 31.12.2018
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	No deviation in respect of development was observed during the course of inspection.	

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Pit A, single pit proposed	Single pit (Pit A)	Dimensions of existing pits were: Pit A: 900m(L) x 140m(W) x 81m(D) Pit B: 500m(L) x 250m(W) x 40m(D) Pit C: 450m(L) x 260m(W) x 50m(D)
3b	Quantity of ROM mineral production proposed	1480,000 tonnes during F.Y. 2018-19	905,000 tonnes achieved till 31.12.2018.	
3c	Recovery of sailable/usable mineral from ROM production	100%	100% recovery from ROM.	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	Not Applicable.	
3f	Quantity of sub grade mineral generation.	No proposal	Nil	
3g	Grade of sub grade mineral generation	No proposal	Not Applicable.	

3h	Manual / Mechanised method adopted for segregating from ROM	Fully Mechanized	Fully Mechanized	The Method of working is opencast mechanized method. Excavation by Excavators, Drilling & Blasting, Loading of Ore & Waste and Crushing & Screening by mechanically.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Nil	
3j	Provision of drilling and blasting in mineral benches	Proposed in Hard Strata. Spacing & Burden is 3.0m & 3.5m	Hard Strata. Spacing & Burden is 3.0m & 3.5m	
3k	Provision of mining machineries in mineral benches	Proposed.	Wagon Drill-01 No, Air Compressor-01 No. Excavators-9 Nos, Wheel Loaders-07 Nos, Dumpers-18 Nos, Crusher-2 Nos, Water Tankers-09 Nos	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	OB-7.5 M Mineral- 7.5M	OB-7.5 M Mineral- 7.5M	
3m	Total area covered under excavation/pits	32.7 Ha	32.7 Ha	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.17	1: 0.12	
3o	Total area put in use under different heads at the end of year	48.24 Ha	48.24 Ha	

3p	Production of ROM mineral during the last five year period as applicable	2012-13: 640,000 2013-14: 640,000 2015-16: 640,000 2016-17: 640,000 2017-18: 640,000 2018-19: 1480,000 (in tonnes)	2012-13: Nil 2013-14: Nil 2015-16: Nil 2016-17: Nil 2017-18: 426,000 2018-19: 905,000* till Dec. 2018 (in tonnes)	Mining operations were suspended by Hon'ble Supreme Court from July-2011. Mining operations are started during the period 2017-18.
3q	General remarks of inspecting officers on method of mining etc.	In south-eastern side of the working pit, i.e. pit no. A, BHQ band was not handled completely at pit bottom as per approved production and development proposals; violation of rule 11(1) was issued to the lessee dated 27.02.2019.		

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	No separate dumping proposal for top soil and mineral reject.	BHQ waste stacked separately at North Western side of the ML, at Pit C bottom.	
4b	Location of topsoil, OB and mineral reject dumps	Waste Dumps N1666940-1667120 E662200-662330	Waste Dumps N1666940-1667120 E662200-662330	
4c	Number of dumps within lease area and outside of lease area	2 Nos : Within the Lease area	2 Nos of dumps located within the lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump-1 N1667390 to N1667658 E662055 to E661835 Dump-2 N1666970 to N1667095 E662180 to E662304	Dump-1(D1) N1667390 to N1667658 E662055 to E661835 Dump-2(D2) N1666970 to N1667095 E662180 to E662304	

4e	Number of active and alive dumps.	2 Nos.	2 Nos.
4f	Number of dead dumps.	No proposal	Nil
4g	Number of dumps established.	No proposal	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Proposed.	Constructed by the lessee.
4i	Length of Retaining wall or garland drain all along dumps	Proposed as per the approved R & R plan.	So far, 2545m of retaining wall constructed by the lessee within the ML area covering both dumps. 2470m of garland drain constructed so far.
4j	Number of settling ponds	Proposed as per the approved R & R plan.	10 nos. of settling pond constructed so far.
4k	Specific comments of inspecting officer on waste dump management		Step-wise waste dumping with maximum height of 10 m for each terrace was proposed for active dump D-2; but during the course of inspection it was found that active waste dump D-2 was not suitably terraced and stabilized, violation of rule 11(1) was issued to the lessee dated 27.02.2019.

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	
5b	Area under backfilling of mined out area	No proposal	Nil	

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		There was no proposal for backfilling in the plan period. None of the areas of mined out pits were matured for backfilling due to occurrence of mineral at depth.

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).	Proposed	Submitted for 2017-18.	
6b	Area available for rehabilitation (ha) .	No proposal	Nil	
6c	afforestation done (ha).	0.10 Ha.	So far, 2.03 Ha. in green belt areas and 1.54 Ha. in D1 dump.	
6d	No. of saplings planted during the year	1000 nos. during 2018-19	1140 nos. planted till 31.12.2018.	
6e	Cumulative no .of plants	No proposal	30,000 approx. within ML.	
6f	Any other method of rehabilitation	No proposal	Nil	
6g	Cost incurred on watch and care during the year	Rs. 50,000/-	Rs. 50,000/-	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No proposal	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No proposal	Nil
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	No proposal	Nil
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	Nil
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	No waste land within ML area.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	Nil
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	Nil

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed for buffer zone and for core zone	Carried out on monthly basis and found to be within permissible limit.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		No deviation in respect to the PMCP compliance was observed during the course of inspection.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM proposed to be crushed and dry Screening.	ROM Mineral dispatched after dry screening.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanized	Mechanized	
7c	Different grade of mineral sorted out at mines.	Proposed for all +45% Fe ROM	Yes, Grade wise sorting done as per buyer requirement.	
7d	Any beneficiation process at mines .	No proposal except crushing and dry screening	Crushing and dry screening	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Grade wise sorting & sizing done within the lease area as planned using crusher and screening arrangement.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	ML area was devoid of any top soil	

8b	Concurrent use or storage of topsoil	No proposal	Not applicable.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for waste proposed in Dump No. 2.	Dumping of waste (other than BHQ) was carried out in dump no. 2(D2).	BHQ waste stacked separately at North Western side of the ML, at Pit C bottom.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not applicable as mineral not exhausted at pit bottom.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	Mined out pits were not matured for restoration.	
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.	
8g	Survival rate	80%	70 to 80% within ML.	
8h	Water sprinkling on roads to control airborne dust	Proposed	Water tankers were arranged for water sprinkling on roads for control the dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		The aesthetic beauty in and around mine was good as lessee had carried out afforestation and other environmental protective measures as per approved RMP.	

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to Mar. 2019 A.R. Submitted up to 2017-18.	M.R. Submitted up to Mar. 2019 A.R. Submitted up to 2017-18.	

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mines Manager- No change. P.Manjunath Mining Engineer - Srish Pal Geologist- Harish Ninganahalli	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Covered under current (O/C) Workings-32.13 ha, Waste disposal- 3.020 ha, Infrastructure and road: 5.561 ha. Other Purpose- 18.649 Ha.	No change.
9d	Scrutiny of Annual return on afforestation	Total No of saplings-1180 No's Survival Rate- 80%	Appears to be correct.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	No mineral reject generation during 2017-18.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Graded Ore Stocks: in tons (i)Lumps: 55% to 58%- 47511.251, 60% to 62%- 15984.03, 62% to 65%- 19985.24, 65% & above- 0.010. (ii)Fines: 60% to 62%- 10.030, 62% to 65%- 48710.39. 65% & above- 7987.070 Total Stocks - 140188.021 tonnes	Appears to be correct.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	(i)Ex-mine price per tonne Lumps: 55% to 58%- Rs. 1320, 60% to 62%-Rs. 2670, 62% to 65%- Rs. 3292, 65% & above- Rs. 3300 (ii)Ex-mine price per tonne Fines: 60% to 62%-Rs. 2398, 62% to 65%-Rs. 2905 65% & above- Rs. 3081 Cost of Production- Rs.746/ tonne	Appears to be correct.
9h	Scrutiny of Annual return on fixed assets	Rs.303,51,603/ -	Appears to be correct.
9k	Scrutiny of Annual return on mining machineries	Wagon Drill-01 No. Air compressor-01 No. Excavators-6 Nos. Wheel Loaders-04 Nos. Dumpers-6 Nos. Crushers-1 No. Water Tankers-04 Nos.	Wagon Drill-01 No, Air Compressor-01 No. Excavators-9 Nos, Wheel Loaders-07 Nos, Dumpers-18 Nos, Crusher-2 Nos, Water Tankers-09 Nos

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
Rule 11(1)	27/02/2019				

Date :

(KRISHNENDU CHATTERJEE)

Indian Bureau of Mines