INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Bangalore regional office

Mine file No : KNT/BLR/FE/437/BNG Mine code : 30KAR03156 (i) Name of the Inspecting : CQ07) J. R. CHAUDHARY Officer and ID No. (ii) Designation : Controller of Mines (iii) Accompaning mine : Accompanied by P.Sreenivasa Rao, GM & Pramod S Ritti, Official with Designation (iv) Date of Inspection : 15/03/2019 (v) Prev.inspection date : 10/10/2017 PART-I : GENERAL INFORMATION 1. (a) Mine Name : HADDINAPADE (b) Registration NO. : IBM/155/2011 (C) Category : A Fully Mechanised (d) Type of Working : Opencast Postal address (e) : KARNATAKA State District : BELLARY Village : HULIKUNTA Taluka : SANDUR Post office : SANDUR Pin Code : 583119 FAX No. : 08395-260471 (F), geosurve E-mail : bkgsurveygeo@gmail.com Phone : 08395-252139 (O), (f) Police Station : SANDUR : 14/03/2006 (g) First opening date Weekly day of rest (h) : SUN Address for : Sri B. Rudragouda 2 correspondance #2198, BKG house, K.H.B.Colony, SANDUR - 583 119, Bellary District Karnataka 3. (a) Lease Number : KAR1504 (b) Lease area : 54.22 Period of lease (C) : 20 (d) Date of Expiry : 13/03/2026 Mineral worked : IRON ORE 4. Main

| 5. Nar | me and Address of t | the | | |
|--------|---------------------------------|---------|--|--|
| | Lessee | : | B.RUDRA GOUDA #2198,BKG house, K.H.B.Colony, SANDUR - 583 119,Bellary District BELLARY KARNATAKA Phone: FAX : | |
| | Owner | : | B.RUDRA GOUDA #2198,BKG house, K.H.B.Colony, SANDUR - 583 119,Bellary District BELLARY KARNATAKA Phone: FAX : | |
| | Mining Enginee | r | | |
| | Name | : | NARESH KAKUMANU,Full Time | |
| | Qualification | : | B.E.IN MINING | |
| | Appointment/ Termination dat | : te | 24/05/2010 | |
| | Geologist | | | |
| | Name | : | PRAMOD S RITTI,Full Time | |
| | Qualification | : | MSc Applied Geology | |
| | Appointment/ Termination dat | : te | 01/12/2013 | |
| | Manager | | | |
| | Name | : | P.SREENIVASA RAO | |
| | Qualification | : | FCC, DIP IN MINING ENGINEER | |
| | Appointment/ Termination dat | : te | 07/04/2006 | |
| | te of approval of Maning | | ng : Modif.of approved Mining Plan Mining Scheme rule 12 MCDR1988 MP modif under MCR 1960 Mining Scheme rule 12 MCDR1988 MP modif under 17(3) MCR 2016 | 16/05/2007 10/09/2012 23/09/2015 03/03/2016 14/10/2016 |

MP review under 17(1) MCR 2016 19/09/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|---------|
| la | Backlog of previous year | No Backlog hence no proposal. | Not applicable | |
| lb | Exploration over lease area for geological axis 1 or 2 | as per old MP | 16 Boreholes with 410.50m | |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Exploration Agency is Central Province Drilling Company. | Rs. 20 lacs | |
| ld | Balance area to be explored to bring Geological axis in 1 or 2 | No proposal as no area left for exploartion. | About 24Ha in G3 & 2 in unexplored/Non explored needs to be explored. | |
| le | Balance reserve as on 01/04/20 | 29.00 MMT- Reserves & 16.623 MMT- Resources. | 29.00 MMT-Reserves & 16.623 MMT-Resources | |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|----------------------------|---|---------|
| 2a | Location of development w.r.t.lease area | 5 | are proposed in cross sections E-E',F-F', G-G' | |
| 2b | in topsoil, | in ore with dyke & Sill | 17 benches are in ore with dyke & Sill intrusions at places | |
| 2c | Stripping ratio or ore to OB ratio | 1:0.15 | 1:0.15 | |

2d Quantity of As on date about 3700 m3 No top soil topsoil likely to be of Topsoil is generated generation in m3 generated. & utilised in nursery and avenue road plantation purpose. Quantity of 150900 MT 150900 MT 2e overburden 68590.9 Cu M 68590.9 Cu M generation in m3

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--|---|---------|
| 3a | Number of pit proposed for production | Single pit, workings are proposed in cross sections E-E',F-F', G- G' H-H' and I-I' | Single pit, workings are in cross sections E- E',F-F', G-G' H-H' and I-I' | |
| 3b | Quantity of ROM mineral production proposed | 1.26 MMT | 1.1657MMT As on 01.03.2019 | |
| 3с | Recovery of sailable/usable mineral from ROM production | 100% | 100% | |
| 3d | Quantity of mineral reject generation | No Mineral Reject generation | No Mineral Rejects generated | |
| 3e | Grade of mineral rejects generation and threshold value declared. | No Proposal | Nil | |
| 3f | Quantity of sub grade mineral generation. | No Proposal | Whatever Subgrade mineral generated has been (will be) blended and sold through e- auction. | |
| 3g | Grade of sub grade mineral generation | >45% to <55% Fe | >45% to <55% Fe | |

| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanized method, Deephole blasting and HEMM are used. | Mechanized method, Deephole blasting and HEMM are used. |
|----|--|---|--|
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposal | No proposal |
| 3j | Provision of drilling and blasting in mineral benches | MS delay detonators & cord relays will be utilised | MS delay detonators & cord relays are utilised for better fragmentation & control of vibration. |
| 3k | Provision of mining machineries in mineral benches | Dozers, Wheel loaders, Volvo | Excavators, Dozers, Wheel loaders, Volvo Dumpers, Drill machine, Compressor, Mobile Crushers & Screens |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | height 6-7m & Width more | Bench height is 6-7m & Width is ?8m |
| 3m | Total area covered under excavation/pits | 17.14 Ha | 17.14 Ha |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0.15 | 1:0.15 |
| 30 | Total area put in use under different heads at the end of year | 25.46 Ha | 25.46 На |

Production of 2013-14: 6,34,980 3p 2013-14: ROM mineral 6,40,000 2014-15: 6,36,230 during the last 2014-15: 2015-16: 6,36,265 five year period 6,40,000 2016-17: 9,44,160 as applicable 2017-18: 12,56,115 2015-16: 6,40,000 (in tonnes) 2016-17: 9,50,000 2017-18:12,60,000 (in tonnes) 3q General remarks NA Mining activity of inspecting conducted as per officers on approved mining plan method of mining etc.

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|---|---|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | | - | |
| 4b | Location of topsoil, OB and mineral reject dumps | Overburden dump, In South block section X2-X'2 | Overburden dump, In South block section X2- X2' | Dumping in proposed area is not possible owing to denial from forest department to enter into the location & tree felling permission is kept on hold. |
| 4c | Number of dumps within lease area and outside of lease area | 3 | 3 | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | NW portion of south block | NW portion of south block | |
| 4e | Number of active and alive dumps. | 1 | 1 | |
| 4f | Number of dead dumps. | 2 | 2 | |

| 4g | Number of dumps established. | 2 | 2 | One Dump in South block is fully stabilized by covering Geo- textile matt, where as another in North block is partly stabilized |
|----|--|--------------------|---|--|
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Yes | Yes | |
| 4i | Length of Retaining wall or garland drain all along dumps | | As on date Retaining Wall-395m, Garland drain-339m constructed. | |
| 4j | Number of settling ponds | 1 settling pond | 2 constructed | |
| 4k | Specific comments of inspecting officer on waste dump management | NA | Waste management is found systematicaly. | |

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 | None | |
| 5b | Area under backfilling of mined out area | No proposal | Area is not mactured for backfilling | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | No proposal | Low grade material generated is used for blending with high grade ore | |
| 5d | Total area fully reclaimed and rehabilitated | -No proposal- | NA | |

5e General remarks NA of inspecting officers on backfilling and reclamation etc. Area is not matured for backfilling.

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|---|--|---------|
| ба | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | Annual report on PMCP should be submitted in time in compliance to rule 23 e(2). | Annual report on PMCP is submitted for the year 2017-18 in time. | |
| 6b | Area available for rehabilitation (ha) . | No proposal | NA | |
| бс | afforestation done (ha). | No proposal | Available area within and out side lease plantation done | |
| 6d | No. of saplings planted during the year | No Proposal | 11469 | |
| бе | Cumulative no .of plants | No proposal | 3 lacs | |
| 6f | Any other method of rehabilitation | No proposal | NA | |
| бg | Cost incurred on watch and care during the year | No specific proposal | 50 lacs | |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No Proposal | NA | |

| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No | Proposal | NA |
|----|--|----|----------|----|
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | No | Proposal | NA |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No | Proposal | NA |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No | Proposal | NA |
| бm | Compliance of rehabilitation of waste land within lease (i)afforestation | No | Proposal | NA |
| бn | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | No | prposal | NA |
| 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | No | proposal | NA |

Compliance of Monitoring Environmental Monitoring environmental Locations are is regularly done бр Locations are is regularly done environmental monitoring (core Air Quality-10 through MOEF recognised zone and buffer Surface Water- Laboratory. zone) 3 Ground Water-6 Noise-10 Soil-5 General remarks NA Satisfactory бq of inspecting officers on PMCP compliance and progressive closure operations etc.

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 | Dry crushing & screening for size separation | |
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | method with | Mechanical method with Crushers and Screening plants | |
| 7c | Different grade of mineral sorted out at mines. | >45% to < 65% | >45% to < 65% | |
| 7d | Any beneficiation process at mines | screening is | Crushers of 100-150TPH & Screens 150-250 TPH are utilised | |

Environment:

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

| 8a | Separate removal and utilization of topsoil (Rule 32) | since no top soil likely to | No action require since no top soil likely to be encountered at the proposed area for mining. |
|----|--|---|---|
| 8b | Concurrent use or storage of topsoil | | No action require since no top soil likely to be encountered at the proposed area for mining. |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Separate dump for overburden is planned | Overburden is dumped in northwest part of south block of lease area. |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No OB generation | Low grade ore generated will be used for blending with high grade ore |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal | NA |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | No proposal | 11469 |
| 8g | Survival rate | About 80% | About 80% |
| 8h | Water sprinkling on roads to control airborne dust | Yes | 6 Water Tankers & 1 Mist spray Air borne dust suppression system is used. |

8i General remarks NA Satisfactory of inspecting officer on aesthetic beauty in and around mines area

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--|--|---------|
| 9a | Status of submission of Monthly and Annual returns | up to | M.R. Submitted up to February-2019 A.R. Submitted up to 2017-18 | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Naresh Kakumanu- Mining Engineer, Pramod S. Ritti - Geologist, P.Sreenivasa Rao- Mines Manager. | Statutary persons employed | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | | As per approved mining plan. | |
| 9d | Scrutiny of Annual return on afforestation | Total Number of Plantation :11469 | Done as per the requirement. | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | No proposal | NA | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | ROM stock: Nil | None | |

| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | 254,23,46,917. 20 Rs, Ex. Mine | None |
|----|---|--------------------------------------|---------------|
| 9h | Scrutiny of Annual return on fixed assets | Found in order | Satsisfactory |
| 9k | Scrutiny of Annual return on mining machineries | | |

| Details of violations observed during current inspection and compliance position of violation pointed out | | | | | | | |
|---|-------------------------|---------------------|-------------------------|--|--|--|--|
| Viola | tion observed | Show couse position | | | | | |
| Rule NO. | Issued on Compliance on | Rule NO. | Issued on Compliance on | | | | |

Date :

(J. R. CHAUDHARY)

Indian Bureau of Mines