

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

Review and updation of Mining Plan REPORT

Bangalore regional office

Mine file No : KNT/RCH/AU/1/BNG

Mine code : 27KAR16001

- (i) Name of the Inspecting : **A101**) **ARUN KUMAR**
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 22/02/2018
- (v) Prev.inspection date : 09/11/2017

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **HUTTI**
- (b) **Registration NO.** : **IBM/4362/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Underground
- (e) Postal address :
State : KARNATAKA
District : RAICHUR
Village : HUTTI
Taluka : LINGSUGUR
Post office : HUTTI
Pin Code :
FAX No. : 08537-275054 (F),
E-mail : hygominhutti@bsnl.in
Phone : 08537-275026 (O), 94822380
- (f) Police Station : HUTTI
- (g) First opening date : 19/12/1978
- (h) Weekly day of rest : SUN
2. Address for : At & Po- HUTTI,
correspondance Tq- Lingasugur, Dist- Raichur
KARNATAKA - 584 115
3. (a) Lease Number : KAR0589
- (b) Lease area : 528.35
- (c) Period of lease : 30
- (d) Date of Expiry : 19/12/2008
4. Mineral worked : SILVER Associated
GOLD Main

5. Name and Address of the

Lessee : HUTTI GOLD MINES COMPANY LTD
 At & Po- Hutti Tq-Lingsugur
 584 115 RAICHUR KARNATAKA
 Phone:08537-275025
 FAX :08537-275054

Owner : HUTTI GOLD MINES COMPANY LTD
 Shri A.K.Monnappa, IAS, MD
 3rd Floor, KHB Shopping
 Complex, National Games
 Village, Koramangala
 BANGALORE KARNATAKA
 Phone: 080-25710501, 2
 FAX :

Agent : PRAKASH
 At & Po- HUTTI Tq-Lingsugur
 RAICHUR KARNATAKA
 Phone: 08537-275034
 FAX : 08537-275054

Mining Engineer

Name : PRAKASH, Full Time
 Qualification : B. Tech. Mining, 1st Class
 Appointment/ : 15/11/2011
 Termination date

Geologist

Name : PRABHAKAR.SANGURMATH, Full Time
 Qualification : M.Sc(AG), Ph.D
 Appointment/ : 01/04/1996
 Termination date

Manager

Name : SHANTH KUMAR
 Qualification : Dip. in Mining, First Class
 Appointment/ : 08/12/2011
 Termination date

6. Date of approval of Mining	:	Existing rule 11 MCDR1988	01/12/1993
Plan/Scheme of Mining		Mining Scheme rule 12 MCDR1988	13/04/2000
		Mining Scheme rule 12 MCDR1988	11/09/2003
		Renewal under rule 24 MCR1960	18/08/2008
		Mining Scheme rule 12 MCDR1988	13/02/2014
		MP review under 17(1) MCR 2016	14/02/2017

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Surface : 1200m, Underground: 1000m, Total : 3200m	Surface : 03 boreholes, Meterage: 1271.50, Underground : 598.20m	In house underground drilling-Due to delay in shifting of the machine to various levels and delay in the supply of diamond drilling accessories by the supplier.
1b	Exploration over lease area for geological axis 1 or 2	Not specified	G1 - 227.96 Ha, G2 - 147.72Ha	G3 Stage 118.23 Ha. Un-mineralized area: 34.44 Ha
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration in house & contractual proposed	Surface Exploration & Underground Exploration, Rs. 45.88 Lakhs.	Surface exploration- M/s DBM Geotek Construction Ltd. Mumbai. underground drilling-in-house
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	G3 Stage : 118.23 Ha	Northern part- G2 to G1 by decline shaft. Southern Extension- G2 and G3 level exploration will be upgraded to G1 level
1e	Balance reserve as on 01/04/20		Reserves: 10.46 Million Tonnes	Grade: 5.12 g/t
1f	General remarks of inspecting officers on geology, exploration etc			Exploration of 227.96 Ha at G1 stage, 147.72Ha at G2 stage has been done. 34.44 Ha is the non-mineralized area

Development :

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

2a	Location of development w.r.t.lease area	Mallappa Shaft, Central Shaft , Village Shaft and Gre'y Shafts of Hutti Gold Mine	Carried out the developments in the proposed shafts	-
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No applicable	Nil	It is an underground gold mine
2c	Stripping ratio or ore to OB ratio	1:0.003	1:0.11	more stress is given to off lode developments
2d	Quantity of topsoil generation in m3	No proposal	Nil	-
2e	Quantity of overburden generation in m3	No proposal	Nil	-
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			The locations of the development were as per the proposal

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production was proposed from Stopes at different reefs and primary and stope developments points from different levels of Strike Reef, zone-I Reef, Village Reef, Middle Reef and Oakley's Reef.	Production was carried out from Stopes at different reefs and primary and stope developments points from different levels as proposed	-
3b	Quantity of ROM mineral production proposed	5, 83,679 tonnes.	5,38,280 tonnes	From Stopes : 4,72,655 tonnes and from developments :65,625 tonnes

3c	Recovery of sailable/usable mineral from ROM production	No proposal	Complete ROM is processed & the gold extracted	Only after processing ,1472.36 Kgs of gold extracted
3d	Quantity of mineral reject generation	2063 tonnes	64,268 tonnes	Against proposed of 25 mts,434.60 m of shaft sinking done resulting in Higher mineral reject & more stress is given to off lode developments of stope preparation
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	nil	-
3f	Quantity of sub grade mineral generation.	No proposal	Nil	-
3g	Grade of sub grade mineral generation	No proposal	Nil	-
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised method proposed for segregating from ROM	Mechanised method adopted for segregating from ROM	-
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	Yes, provision of drilling & Blasting made	Drilling & blasting carried out in the drives, X-cuts, winze, shafts &the stopes	-
3k	Provision of mining machineries in mineral benches	Yes ,provision made	Drills for drilling holes, LHD cum LPDT combination machines used in trackless area. Also hopper loaders into tubs are used	-

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	No proposal	Stope of 90 m(L) X90 m(H) recommended by NIRM with rib pillar of 8 m thickness and crown pillar of 8 to 10 m thickness	However, keeping safety in view the stopping block as decided in consultation with DGMS the strike length is reduced to 60 mts.
3m	Total area covered under excavation/pits	No proposal	No excavation is carried on the surface, all work carried out below ground	-
3n	Ore to OB ratio for the pit/mine during the year.	1:0.003	1:0.11	more stress was given to off lode developments
3o	Total area put in use under different heads at the end of year	246.44 Ha at the beginning of the five year period	260.38 Ha at the end of the five year period, i.e 2017-18	Almost to the extent
3p	Production of ROM mineral during the last five year period as applicable	2012-13:5.75 2013-14:5.48 2014-15:5.53 2015-16:5.61 2016-17:5.83	2012-13:5.99 2013-14:3.74 2014-15:4.68 2015-16:5.24 2016-17:5.38	All units in Lakhs Ton
3q	General remarks of inspecting officers on method of mining etc.			production was carried out from Stopes at different reefs and stope developments points from different levels as proposed in the RMP

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Waste rock generated is proposed to be utilized for filling the empty stope & as road ballast	Waste rock generated is utilized for filling the empty stope & as road ballast	70% of the waste rock is utilized in stopes & rest are hoisted to the surface & is used as road ballast
4b	Location of topsoil, OB and mineral reject dumps	No proposal	nil	-

4c	Number of dumps within lease area and outside of lease area	Two tailing dumps proposed within ML area	02 (Tailing dumps within the lease area)	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	As per approved document	Northern end of lease area (between the boundary pillars BP-A and BP-2)	-
4e	Number of active and alive dumps.	01 No	01 No	New tailing dump (37 Ha)
4f	Number of dead dumps.	01 No	01 No	Old tailing dump (25 Ha)
4g	Number of dumps established.	01 No	01 No	Stabilized by plantation on the top & sides of the dump
4h	Whether Retaining wall or garland drain all along dumps are there.	Earthen bund & Garland drain proposed all along the tailing dump	Earthen bund & Garland drain made along the tailing dumps	GD covering both old and new tailing dumps
4i	Length of Retaining wall or garland drain all along dumps	No proposal	1664 m	Earthen bund & Garland drain constructed around the tailing dam, average 1.2km x 1.5m x 2m (LxWxH) to collect seepage water
4j	Number of settling ponds	Yes, settling ponds proposed	02 settling pond constructed	-
4k	Specific comments of inspecting officer on waste dump management			The solid waste management is as per the approved document

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.	Proposed to backfill the worked out stopes	06 stopes were backfilled during the year 2016-17	-

5b	Area under backfilling of mined out area	105062 tonnes	OR 19L-16L STOPE AE 39-4180 MT, MR 196-17L EE46/47- 28035Mt, SRF 13uBR S/L Stope JE 34-9250MT, SR 11L -800L HE 31-9030MT, OR 17-L-16L AW 37- 42650MT, ZI 18 Int. S/L STOPE DE-34/36-5540MT	Total of 98685 tonnes filled by sand stowing material (tailings)
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Stopes to be backfilled if the strata is found to be weak or left open	As decided by the competent authority NIRM
5d	Total area fully reclaimed and rehabilitated	NA	Nil	-
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Very old stopes were kept open and the new developed stopes were backfilled as per plans prepared by NIRM

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).	Tpo be submitted on 1st July every year	PMCP report Submitted on 12/07/2017	-
6b	Area available for rehabilitation (ha) .	NA	Nil	U/g mines
6c	afforestation done (ha).	3.00 Ha	2.00 Ha	-
6d	No. of saplings planted during the year	6000 Nos	3800 Nos	-
6e	Cumulative no .of plants	38000 Nos	26670 Nos	Survival rate is 60 %
6f	Any other method of rehabilitation	No proposal	Nil	-
6g	Cost incurred on watch and care during the year	Not specified	NA	-

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	52531 m3	46500m3	-	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	105062 MT	98685 MT	-	
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	Nil	-	
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	-	Rehabilitation of waste dump by covering Coir Matting

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& noise level	Season wise environmental monitoring of ambient air quality, water quality, dust fall rate, soil sample analysis& noise level are being carried out regularly.	All parameters are within limits
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			PMCP is carried out as per the proposal.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	NA	All the extracted ore is hoisted & sent to the metallurgical process unit	-
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	NA	Nil	The entire development is done in ore zone and whole thing is milled.
7c	Different grade of mineral sorted out at mines.	NA	ROM having 2g/tons & above	-
7d	Any beneficiation process at mines .	Yes ,proposed	All the ROM is passed through the SAG & BALL mill in the metallurgical process unit	2000 TPD beneficiation plant is in operation.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			All the ROM is passed through the SAG & BALL mill in the metallurgical process unit of 2000TPD

Environment:

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

8a	Separate removal and utilization of topsoil (Rule 32)	NA	Nil	U/g Mines
8b	Concurrent use or storage of topsoil	NA	Nil	-
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of classified tailing proposed	Separate dumping of classified tailing done	-
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	NA	Nil	The classified tailings are being used to fill the empty stopes
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NA	Some part of the area is envisaged to restore & other area were left as it is	Weak area supported as the study report of NIRM
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	6000 saplings in 3 Ha	3800 plantation done in 2016-17 in 2 Ha	-
8g	Survival rate	Not specified	-	60%
8h	Water sprinkling on roads to control airborne dust	Proposed	Water sprinkling on roads to control airborne dust is in practice	-
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty is maintained in and around at the surface and in belowground

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 Jan 2018 A.R. Submitted up to 2016-2017
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager-Sri. Shanthakumar ME- Sri. G. Thyagaraja Geologist- Dr. T.K. Abdul Rahim	Same as given in AR
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Waste disposal-37 Ha, Infrastructure & Roads-308.35	Appears to be correct as it is an Underground mines
9d	Scrutiny of Annual return on afforestation	3800 Nos of plantation @60% survival rate	Appears to be correct
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Nil	64268 Tons removed from Shaft Sinking & X-cuts
9f	Scrutiny of Annual return on ROM stock and/or graded ore	OS-56574 Tons, Production-535927 Tons, CS-54105 Tons	Appears to be correct
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex-mine price=Rs. 6698.86 /MT, cost for extraction = Rs.4285.04 /MT, Ore processing cost = Rs.2413.82/MT	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	Rs.1232652000 including mine, beneficiation plant, workshop, power, water installation	Appears to be correct

9k	Scrutiny of Annual return on mining machineries	Various machineries details furnished separately	Loaders,GB Cars,Drill machines,Battery Loco, LHD,double boom jumbo drills .These machaneries pertains to underground mines & was working satisfactorily
----	--	--	---

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