

**STOPING INSPECTION REPORT Annexure-I**  
**INDIAN BUREAU OF MINES**  
**Bangalore Regional Office**

*Mine Code No. 27KAR 16001*

- (i) **Report Prepared by** : Shri. Sandeep Kumar Singh & Dr. Omkesha Murthy
- (ii) **Designation** : Assistant Controller of Mines & Regional Mining Geologist  
IBM, Bangalore
- (iii) **ML.No** : 2671
- (iv) **Accompanying Mine Official** : (1) Sri Arunava Ghosh  
(2) Sri Somesh K V  
(3) Dr. Sanjeeva Kumar Solankar  
(4) Sri Prashant  
(5) Amal Roy
- (v) **Designation** : (1) Dy General Manager (Mining) & Mines Manager  
(2) Manager (Min) & Mining Engineer  
(3) Manager (Exploration) & Geologist  
(4) Dy. Manager (Survey)  
(5) Dy. Manager (Ventilation & Rock Mechanics)
- (vi) **Date of Inspection** : 12/07/2023
- (vii) **Date of submission of the application by lessee** : Application from Lessee vide letter no 114/MIN/SO/2023-24/IBM dated 30.05.2023, received in the office on 16.06.2023.

**PART – I General Information**

1. a) **Name of the mine** : Hutti Gold Mine
- b) **Category of the mine** : A-Mechanized U/G mine
- c) **Address of the mine**
- State** : Karnataka
- District** : Raichur
- Village** : Hutti
- Pin** : 584115
- Fax** :
- E-mail** : [rohgml@gmail.com](mailto:rohgml@gmail.com)
- d) **Name of Police Station** : Hutti
- e) **Lease area in Hectare** : 528.35 Ha
- (i) Forest** : -
- (ii) Non-forest** : Non-Forest
2. a) **Period of Lease** : 20 years (19/12/2008 to 18/12/2028)
- b) **Date of expiry** : 18/12/2028
3. a) **Mineral worked** : Gold, Scheelite and Associated Minerals
- b) **Main mineral** : Gold
- c) **Associated minerals** : Silver
- d) **Captive /non-captive use** : Captive

4. a) **Date of approval of mining plan with reference No.** : No. 279/356/92/BNG, dt.: 28/03/2023  
Review and Updation of Mining Plan along with Progressive Mine Closure Plan
- b) **Special conditions stipulated in approval letter** :
- i) The Geotechnical study report for 20th level and above attached with the document is of June-2003. As the mining thereafter has progressed substantially below 20th level & old stopes above 20<sup>th</sup> level are open stope, a fresh geotechnical study may be carried out above and below the 20th level to assess overall geotechnical condition of the stopes. If there are any changes in stope design parameters and filling sequence based on the study recommendations, the document needs to be modified accordingly. The copy of the aforesaid Geotechnical study report may be submitted to this office immediately after its completion
  - ii) The tailing dump stability study report submitted with the document is of April 2003. As the dumping quantity in the tailing dumps have substantially added since then, a fresh tailing dump stability study may HUTTI (60053501) Approved be carried out. If there are any recommendations in the study for changes in tailing dump design parameters or location, the document needs to be modified accordingly. The copy of the aforesaid tailing dump stability report may be submitted to this office immediately after its completion.
  - iii) Approval of Review and Updation of Mining Plan along with Progressive Mine Closure Plan is subject to obtaining all the statutory clearances from the concerned Central and State Authorities before commencement of the mining plan proposals.
5. **Name and address of Lessee and Agent(including Fax/E-mail, if any)**
- a) **Lessee** : Sri. Sanjay B Shettennavar  
The Managing Director  
The Hutti Gold Mines Co. Ltd.  
Address:3<sup>rd</sup> Floor, KHB shopping Complex,  
National Games Village, Koramangla, Bangalore

Phone:05837275022

Email: [rohgml@gmail.com](mailto:rohgml@gmail.com),

Date of Appointment :31/10/2022

b) **Agent** : Sri. Ravikumar T  
Address: The Hutti Gold Mines Co. Ltd.  
Hutti-584115, Taluk.: Lingasugur, Dist.: Raichur,  
Karnataka

Phone:9449615014

Fax: -

Email:[dgmengg03@gmail.com](mailto:dgmengg03@gmail.com),

[tn.ravikumar@ka.gov.in](mailto:tn.ravikumar@ka.gov.in)

Date of Appointment :01/06/2021

c) **Status of lessee (Private/ PSU/Joint sector)** : State PSU

d) **Mining Engineer/Geologist under Rule 55 of MCDR, 2016 with date of appointment whether full-time or part time and qualifications.** : Mining Engineer  
Sri. Somesh K V  
Full time  
Date of Appointment :07/07/2023

Geologist

Dr. Sanjeeva Kumar Solankar

Full time

Date of Appointment :08/07/2019

e) **Mines Manager Qualifications and date of Appointment** : Sri. Arunava Ghosh  
Address: The Hutti Gold Mines Co. Ltd.  
Hutti-584115, Taluk: Lingasugur, Dist.: Raichur,  
Karnataka  
Phone: +91-9742150161  
Email: [ghosh.arunava@ka.gov.in](mailto:ghosh.arunava@ka.gov.in)  
Date of Appointment:06/04/2022

## PART- II: TECHNICAL DETAILS

### 1. Details of Section/Stop applied for permission:

Sl.No.	Name of applied block.	Stope ID	Level		Region	Proposed period as per approved MRMP dated 28/03/2023
			Top Level	Bottom Level		
1	S-5 BLOCK	ZONE I REEF	14 L	16 Inter level	EE 38	2023-2024

	Co-ordinates		Stope Dimension (LxWxH)
	Latitude (From, to) UTM/Local	Longitude (From, to) UTM/Local	(50 x 9.59 x 52.3)
Top level- 14 L	676649,676680	1791485,1791445.6	
Bottom Level- 16Inter L	676633,676661.5	1791473.4,1791432	

*Table 1: The details of the proposed stopes*

**2. Level and stope wise completed and pending development:** The status of the development has been examined during the mine inspection on 12/07/2023. The updated development as on **30/06/2023** as reported by the Lessee is as below.

Sl.No.	Block	Reef	Level	Development Required (mts)			Development Completed (mts)			Development % Completed
				Drive	X-Cuts	Total	Drive	X-Cuts	Total	
1	S-5	Zone I	14 Level	58	6	64	58	6	64	100%
2			15 SubLevel	61	12	73	61	12	73	100%
3			15 Level	66	22	88	66	22	88	100%
4			16 Inter Level	58	8	66	58	8	66	100%
5			16 Int. Draw Level (Off Lode)	155	100	255	155	100	225	100%
6			Total	398	148	546	398	148	546	100%

*Table2: Proposed stope development status*

**3. Extent of Development in the mine:** Details of UG development in Zone-I Reef is as follows:

Access	Dimension
Mallappa Shaft	6.1 m x 2.17 m
Central Shaft	3.76 m x 1.83 m
Village Shaft	3.51 m x 2.13 m
New Circular Shaft	6 m diameter
Greys Shaft	2.3 m x 1.5 m

*Table3: Extent of development in mine as on 30/06/2023*

Levels	Strike Reef(F/W)	Strike Reef(H/W)	Village Reef	Zone-I Reef	Middle Reef	Oakley's Reef	Prospect Reef	Main Reef (MNR)	Remarks
1st	-	85.00	88.00	-	-	107.00	-	-	
2nd	-	233.00	-	145.00	95.00	343.00	-	-	
3rd	191.00	405.00	575.00	<b>1,004.50</b>	260.00	<b>1,371.70</b>	<b>19.70</b>	<b>65.10</b>	
4th	180.00	305.00	256.00	923.00	202.00	1,064.00	-	-	
5th	205.00	265.00	300.00	<b>1,248.70</b>	310.00	1,566.00	<b>90.50</b>	<b>355.10</b>	
6th	211.00	335.00	272.00	633.00	210.00	1,202.00	-		

7th	<b>256.00</b>	395.00	434.00	<b>1,343.00</b>	807.00	1,287.00	<b>167.10</b>		
8th	283.00	315.00	370.00	631.00	540.00	1,215.00	-		
9th	355.00	425.00	353.00	680.00	487.00	870.00	-		
10th	418.00	492.00	260.00	833.00	<b>1,108.30</b>	<b>1,113.80</b>	-		
11th	620.00	480.00	189.00	788.00	-	-	-		
12th	671.00	530.00	158.00	736.00	-	-	-		
13th Inter	-	<b>40.80</b>	-	190.00	575.00	948.00	-		
13th	713.00	525.00	164.00	1,018.00	720.00	953.00	-		
14th	588.00	480.00	96.00	<b>1,228.30</b>	630.00	968.00	-		
15th	513.00	875.00	122.00	<b>1,140.00</b>	<b>973.70</b>	1,060.00	-		
16th	160.00	845.00	27.00	<b>755.10</b>	<b>910.50</b>	887.00	-		
17th	-	800.00	-	734.00	742.40	760.00	-		
18th	-	670.00	-	<b>875.70</b>	950.00	775.00	-		
19th	-	700.00	-	764.00	<b>781.50</b>	680.00	-		
20th	-	<b>674.20</b>	-	<b>886.30</b>	<b>892.50</b>	997.00	-		
21st	-	650.00	-	733.00	750.00	576.00	-		
22nd	-	620.00	86.00	687.00	935.00	795.00	-		
23rd	-	470.00	-	595.00	720.00	288.00	-		
24th	-	<b>845.70</b>	-	795.00	<b>1,190.10</b>	1,019.00	-		
25th	-	-	-	<b>633.50</b>	-	<b>228.50</b>	-		
26th	-	<b>860.90</b>	<b>118.00</b>	<b>926.80</b>	<b>1,625.50</b>	<b>503.50</b>	-		
27th	-	<b>423.60</b>	-	155.00	93.00	18.00	-		
28th	-	<b>661.00</b>	-	<b>76.00</b>	35.00	-	-		
<b>Total</b>	<b>5,364.00</b>	<b>14,406.20</b>	<b>3,868.00</b>	<b>21,157.90</b>	<b>16,543.50</b>	<b>21,595.50</b>	<b>277.30</b>	<b>420.20</b>	<b>83,632.60</b>

#### 4. Stope already worked out during last 5 years:

<i>Permission Letter</i>	<i>Stopes already worked out</i>	<i>No. of Stopes</i>	<i>Top level RL</i>	<i>Bottom Level RL</i>	<i>Quantity Proposed (Tonnes)</i>	<i>Quantity recovered (Tonnes)</i>
XVI.No.KNT/RCH/G-I-SZ/253, Dated 15.6.2018	OR 17 L - 19 L BE 43-44 (7P & 8P Block)	1	545.61	609.61	1,55,697	1,80,208
XII.No.MS/RCH/G-I-SZ, Dated 18.09.2003	MR 15 L - 17 L (M7-2& M7-3 Block)	1	441.22	544.96	2,47,779	2,12,437
XV.No.KNT/RCH/G-I-SZ/250, Dated 15.06.2018	SR 8L - 11L KE35-KE36 (B-2 Block)	1	240.76	338.05	58,802	1,56,298

<i>Permission Letter</i>	<i>Stopes already worked out</i>	<i>No. of Stopes</i>	<i>Top level RL</i>	<i>Bottom Level RL</i>	<i>Quantity Proposed (Tonnes)</i>	<i>Quantity recovered (Tonnes)</i>
XVII.No.KNT/RCH/G-I-SZ/256, Dated 15.06.2018	SR 24 L -26 L EE34 (SR-1 Block)	1	779.20	839.40	1,16,188	2,28,734
XVIII.No.KNT/RCH/G-I-SZ/259, Dated 15.06.2018	OR 9 L - 13 Int. L GE47-GE49 (ORT block)	2	274.61	356.0	1,00,169	1,59,826
XXIII.No.KNT/RCH/G-I-SZ/351, Dated 01.12.2022	SR 24L - 26L DE34 (S-1 Extension Block)	1	778.336	839.18	51,768	54,118

**Table 4: Details of stope workout during last five years**

- 5. Reserve position of stopes in operation:** Balance reserves in stopes under operation for which permission is granted as on 30/06/2023 as reported by the Lessee during inspection are.

<b>Level</b>	<b>Name of the Reef</b>	<b>Stope ID</b>	<b>Permission letter and date</b>	<b>Quantity Proposed (T)</b>	<b>Quantity Recovered (T)</b>	<b>Balance Reserves(T)</b>	<b>Remarks</b>
17L - 19L	Middle Reef	MR (FW)	XVI.No.KNT/RCH/G-I-SZ/171, Dated 06.09.2019	7,51,475	4,30,794	4,49,608	'A' Block is Completed. B & C Blocks are yet to be extracted. The combined reserves of B & C Blocks are 4,49,608 T
24L - 26L	Middle Reef	N-1 Sub Block A	XX. No KNT/RCH/G-1-SZ/218, Dated 20.10.2021	3,52,301	90,610	2,61,691	
24L - 26L	Oakley's Reef	S-1	XXIII.No.KNT/RC H/G-I-SZ/221 Dated 20.10.2021	2,72,942	70,382	2,02,560	
24L - 26L	Zone-I reef	S-1	XXII.No.KNT/RCH /G-I-SZ/348 Dated 01.12.2022	1,12,393	26,694	85,699	
15L - 16 Int.	Zone-I reef	S-4	XXIV.No.KNT/RC H/G-I-SZ/354 Dated 01.12.2022	60,973	43,115	17,858	

**Table 5: Details of stope under operation for the quarter ending June-23(30/06/2023).**

- 6. Reserve position of applied stopes:** In-situ tonnage is geological resources; Movable tonnage is tons including planned dilution.

<b>S. No.</b>	<b>Reef</b>	<b>Stope Name</b>	<b>Level</b>	<b>In-situ Tonnage</b>	<b>Movable Tonnage</b>	<b>Grade (g/t)</b>
1	ZONE I Reef	S-5 Block	14 L - 16 Int. L	70950	73,302	3.58

**Table 6: Reserve position in applied/proposed stopes.**

**7. Balance Reserves: Position of Reserve and Resource as on 01/04/2023 is as follows:**

<b>A. Total Mineral Reserves &amp; Resources</b>			
	<b>UNFC</b>	<b>Million Tonnes</b>	<b>Grade (g/t)</b>
Proved Mineral Reserve	<b>111</b>	15.13	4.18
Probable Mineral Reserve	<b>121&amp;122</b>	4.33	3.58
Feasibility Mineral Resource	<b>211</b>	1.74	5.97
Pre-feasibility Mineral Resource	<b>221</b>	0	0
Measured Mineral Resource	<b>331</b>	0	0
Indicated Mineral Resource	<b>332</b>	1.49	3.26
Inferred Mineral Resource	<b>333</b>	3.25	2.69
Reconnaissance Mineral Resource	<b>334</b>	0	0

*Table 7: Reserve & Resource position of the mine as on 1.04.2023*

**8. Manner of Extraction of ZI 14L - 16 Inter L EE 38 'S-5' Block**

Reference Plans and Sections: Plate No.1 & Annexure-A

**SEQUENCE OF OPERATION**

**8.1. STOPE PREPARATION: [Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A-Plate-1]**

- A. 15<sup>th</sup> Level and 15 Sub Level have been developed between 14<sup>th</sup> level and 16<sup>th</sup> Inter level.
- B. One service raise from 14<sup>th</sup> Level to 15<sup>th</sup> sub-Level and 15<sup>th</sup> Sub Level to 15<sup>th</sup> Level and 15<sup>th</sup> Level to 16<sup>th</sup> Inter level has been developed at the northern side of the proposed block S-5. And southern side of S-5 Block, a service rise has been developed from 15<sup>th</sup> Level to 16<sup>th</sup> Inter level.

**8.2. EXTRACTION LEVEL: [Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A-Plate-1]**

The bottom level of the proposed Block i.e. 16<sup>th</sup> Inter level shall be used as extraction level. A footwall haulage drive of 3.00 m.(H) x 3.00 m. (W) is developed in the waste rock at distance of 14.60 m - 16.60 m away from the Payable limit of the ore body. Draw cross cuts are developed with dimensions of 3.00 m. (H) x 3.00m. (W) at an interval of 9.50 m – 11.70 m.

**8.3. DRILLING OF BLAST HOLES: [Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A-Plate-1]**

57 mm dia. downward holes with burden of 1.5m and toe spacing of 1.8 m will be drilled from 15th Level to 16 Inter level covering pillar of 19.2 m height, holes of 57 mm will be drilled from 15 Sub Level to 15 Level covering 18.4 m pillar and downward holes of 57 mm will be drilled from 14 Level to 15 Sub level covering pillar of 14.7 m.

**8.4. BLASTING [Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A-Plate-1]**

- a. Blasting of holes drilled from 15<sup>th</sup> level to 16<sup>th</sup> Inter level will be commenced from slot rise provided at southern end of the stope S-5 block and will progress towards north.
- b. Blasting of holes at 15 level, shall blast against the slot at Southern end. The blasting of downward holes from 15 Sub Level and 14 Level shall be carried out maintaining a lead and lag of minimum 6.00 m between every level of stope. This sequence of blasting operation shall be maintained for the entire stoping block. (As shown in Longitudinal Vertical Section in Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A)
- c. Emulsion /Slurry explosives of 40 mm & 83 mm will be used for blasting operations.

**Sequence of Blasting: [Drg No. MP/SPA/2023/1/S-5 BLOCK\_ZI/A-Plate-1]**

- (1) Slot Raise (**Slice-1A**) between 15 Level (15L) and 16 Inter Level (16 Int L) shall be blasted from 15L by Drop Raising method.
- (2) Slot Widening (**Slice-1B**) between 15L and 16 Int L shall be done by blasting of holes drilled from 15L. The already blasted slot raise (Slice-1A) shall act as free face for slot widening.
- (3) This will be followed by blasting of **Slice-2** from 15L against the free face of Slot between 16 Inter L and 15L.
- (4) Slot Raise (**Slice-3A**) between 15 Sub Level (15 S/L) and 15L shall be blasted from 15S/L by Drop Raising method.
- (5) Slot Widening (**Slice-3B**) between 15 S/L and 15 L shall be done by blasting of holes drilled from 15 S/L. The already blasted slot raise (Slice-3A) shall act as free face for slot widening.
- (6) This will be followed by blasting of **Slice-4** between 15 L and 16 Int L & **Slice- 5** between 15 S/L and 15L.
- (7) Slot Raise (**Slice-6A**) between 14 Level (14L) and 15 S/L shall be blasted from 14L by Drop Raising method.
- (8) Slot Widening (**Slice-6 B**) between 14L and 15S/L shall be done by blasting of holes drilled from 14L. The already blasted slot raise (Slice-6A) shall act as free face for slot widening.
- (9) This will be followed by blasting of **Slice-7, Slice-8 and Slice-9** from 15L, 15S/L and 14L respectively.
- (10) This will be followed by blasting slices from **Slice-11 to Slice-27** in the sequence and manner shown in the above referred Plans and Sections.

Slice- 10, 13, 16, 19 and 22 shall be blasted from 15 L.

Slice- 11, 14, 17, 20, 23 and 25 shall be blasted from 15S/L.

Slice- 12, 15, 18, 21, 26 and 27 shall be blasted from 14L.

This will mark **completion of blasting** in ZI 14L - 16 INT L EE 38 'S-5' Block.

## 8.5. WITHDRAWAL & TRANSPORTATION OF ORE

SL No	Name of Sub-Block	In-situ Ore Reserve			Irrecoverable Reserve			Recoverable ore			Dilution @ 15 %			Extraction from the Block		
		Tonnes (MT)	Grade (g/t)	Gold (g)	Tonnes (MT)	Grade (g/t)	Gold (g)	Tonnes (MT)	Grade (g/t)	Gold (g)	Tonnes (MT)	Grade (g/t)	Gold (g)	Tonnes (MT)	Grade (g/t)	Gold (g)
1	S-5 BLOK	70,950	4.15	294443	7,209	4.46	32,152	63,741	4.11	2,62,290	9,561	0.00	0.0	73,302	3.58	2,62,290

The broken ore shall be drawn from stope by Electric LHD and will be dumped into Ore Transfer Rise EE 38 at 16 Inter Level.

## PROPOSED RATE OF PRODUCTION FROM STOPE

BLOCK ID	MONTH	TONNAGE	TOTAL
S-5	Aug-23	7667	73,302
	Sep-23	9750	
	Oct-23	9375	
	Nov-23	9375	
	Dec-23	9375	
	Jan-24	9375	
	Feb-24	9375	
	Mar-24	9000	

*Table 8: Proposed rate of production from stope.*

## ESTIMATED TONNAGE & GRADE TO BE RECOVERED FROM 'S-5' BLOCK

*Table 9: Estimated tonnage of grade from proposed block.*

## 8.6. SUPPORT OF WORKINGS: Drg. NO.MP/SPA/2023/1/S-5 BLOCK\_ZI/J-Plate-10

The following measures have been implemented for support of workings,

- 1) All drives and cross cuts developed inside the ore body and not exceeding 3m X 3m size in the proposed block are supported with 20mm diameter tor steel rock bolts of 1.50m length at 1.0m spacing.
- 2) All drives and cross cuts of 3m X 3m size developed in waste rock outside the ore body are supported with 20mm diameter tor steel rock bolts of 1.50 m length at 1.0mspacing.

## 8.7. SAFETY MEASURES: Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/M-Plate-13

The following safety measures will be implemented for proposed Stopping Blocks.

- 1) Effect of Mining of the proposed block would be monitored by installing Stress Cells in the RIB Pillars adjacent to the block and in the crown pillar.
- 2) Convergence would be monitored by installing Tape Extensometers and Convergence Recorders in the Haulage Drives and in the Draw Cross Cuts in the proposed stopping block as shown in the drawing.

## 8.8. VENTILATION: Drg. No. MP/SPA/2023/1/S-5 BLOCK\_ZI/D- Plate- 4

The stope will be ventilated with 400m<sup>3</sup>/min fresh intake air from Mallappa Shaft 20th Level Split and through ventilation raises reaches 16 Int. Level. The return air would go up to the North Return Air Shaft in the return circuit as shown in Drawing.

### North Return Air Shaft Fan Details:

Make: ZITRON

Capacity: 7500 m<sup>3</sup>/min

Water Gauge: 145 mm

## 8.9. STOWING:

After completion of extraction of the proposed block, the stope void shall be backfilled by hydraulic stowing with classified mill tailings and waste rock, in order to ensure stable working conditions in future stope blocks adjacent to the proposed block

**9. Compliance of Rule 30 under MCDR, 2017:** - has been complied with as Stopping application has been applied in prescribed Form –F under rule 30(2) of MCDR, 2017 by Hutti Underground Gold Mine of M/s The Hutti Gold Mines Company limited.

**10. Comments on the scrutiny of stopping notice:** The stopping notice has been examined in light of the field visit on 12/07/2023 and discussion held with mine officials. The scrutiny comments were communicated to the Lessee vide Letter no KNT/RCH/G-1/BNG-Vol-XV dated 19/07/23. The Lessee has incorporated corrections and the final copy is submitted vide Lessee letter no. 126/MIN/SO/2023-24/IBM dated 25.07.2023.

- Application of stopping was submitted for Zone-I reef between 14<sup>th</sup> level to 16<sup>th</sup> Interlevel EE-38 region (S-5 block) between grids as mentioned in Table 1.
- As per Review and updation of Mining Plan approved on 28/03/2023, above mentioned stope in Table-1 is proposed to stope out in the year 2023-24 as mentioned below in Table 11. The proposed stope details have been furnished in the table 1. The proposed rate of production & estimated tonnage and grade has been furnished in Table 8 & 9.
- Adequate development has been carried out for the proposed stope w.r.t the off-lode, on-lode & primary development by the Lessee as mentioned above in Table 2 & below in Table-10.
- Accordingly, the proposed stope is recommended for permission as adequate development has been carried out in this stope.

Sl.No.	Block	Reef	Level	Development Required (mts)			Development Completed (mts)			Development % Completed
				Drive	X-Cuts	Total	Drive	X-Cuts	Total	
1	S-5	Zone I	14 Level	58	6	64	58	6	64	100%
2			15 SubLevel	61	12	73	61	12	73	100%
3			15 Level	66	22	88	66	22	88	100%
4			16 Inter Level	58	8	66	58	8	66	100%
5			16 Int. Draw Level (Off Lode)	155	100	255	155	100	225	100%
6			Total	398	148	546	398	148	546	100%

**Table 10 showing status of development of stope recommended for permission.**

**4B.2.2.6:Stope wise Production**

Sl.No.	Year	Level (mRL)	Stope ID	Estimated Reserve in Stope (t)	Proposed ROM production from Stope (t)	Planned Recovery (%)	Planned Dilution (%)	Grade Range (%)	Remarks
1		15-16:476-495.5	ZI 15L - 16 INT DE 34 S-4 BLOCK	18151	15973	88	15	2 to 2.41 g/t	676556,1791633 676595,1791552 676553,1791631 676590,1791549
2		24-26:780.4-840	ZI 24L - 26L BE 35-36 S-1 BLOCK	117834	99698	84.6	15	2 to 3.21 g/t	676465,1791594 676497,1791532 676449,179158 6676479,1791523
3		24-26:780.6-837.6	OR 24L -26L CW 37 S-1 BLOCK	102745	90000	87.6	15	2 to 2.77 g/t	676293,1791471 676307,1791385 676276,1791465 676283,1791372
4		24-26:778.5-835.5	MR 24L - 26L CE 43-45 N-1 BLOCK SUB BLOCK A	117161	90000	76.8	15	2 to 2.1 g/t	676534,1791171 676563,1791115 676504,1791136 676531,1791097
5		14-16:442.3-494.6	ZI 14L - 16 INT EE 39 S-5 BLOCK	81592	73302	89.8	15	2 to 3.52 g/t	676649,1791485 676680,1791445. 6 676633,1791473. 4 676661.5,1791432
6		3-5:88.86-146.84	MNR 3L-5L AW 55 MNR-1 BLOCK	23333	22500	96.4	15	2 to 4.25 g/t	676470,179060 7676508,1790526 676432,1790589

**Mining Operation(UG)**

**4B.2.2 Mining Method**

**4B.2.2.6 Stope Wise Production**

S.No.	Year	Level (mRL)	Stope ID	Estimated Reserve in Stope (t)	Proposed ROM production from Stope (t)	Planned Recovery (%)	Planned Dilution (%)	Grade Range (%)	Remarks
1	2023-2024	15-16:47	ZI 15L -	18151	15973	88	15	2 to 2.4	676556,17
2	2023-2024	24-26:78	ZI 24L -	117834	99698	84.6	15	2 to 3.21	676465,17
3	2023-2024	24-26:78	OR 24L	102745	90000	87.6	15	2 to 2.77	676293,17
4	2023-2024	24-26:77	MR 24L	117161	90000	76.8	15	2 to 2.1	676534,17
5	2023-2024	14-16:44	ZI 14L -	81592	73302	89.8	15	2 to 3.52	676649,17
6	2023-2024	3-5:88.8	MNR 3L	23333	22500	96.4	15	2 to 4.25	676470,17

**Table 11: Proposed period as per approved RMP dated 28/03/2023 for recommended stope.**

**11. Recommendation:** Based on field observations, compliance of scrutiny comments submitted by the Lessee, recommendations in NIRM report and proposals in present Review and updation of mining plan, the present stoping permission for Zone-I reef 14<sup>th</sup> level to 16<sup>th</sup> Inter level in EE 38 region (S-5 Block) may be granted.

**Dr.Omkasha MurthySandeep Kumar Singh**  
Mining Geologist

**Assistant Controller of Mines**

