

**REPORT ON CHECK INSPECTION OF RAJANKA LIMESTONE MINE OF  
M/s ACC LTD. IN VILLAGE-BALIJORE, P.O & P.S. NOAMUNDI, DISTRICT-  
WEST SINGHBHUM**

**Name and designation of inspecting officer :** Shri Anupam Nandi

Regional Controller of Mines, Ranchi

**Date of Inspection** : 06.12.2019

**1. General information of the mine:**

- i) Name of mine : Rajanka Limestone Mine
- ii) Owner : ACC Limited
- iii) Nominated Owner : Neeraj Akhoury
- iv) Mining Engineer : Sanjeev Tripathi
- v) Agent : Raj Gurung
- vi) Mine Manager : Sanjeev Tripathi
- vii) Lease Area : 598.88 ha
- viii) Location : Village Rajanka , Tehsil Tonto, District  
West Singhbhum, Jharkhand
- ix) Lease Period : Upto 2030
- x) Date of Expiry : 31.03.2030
- xi) Date of approval of Mining Plan : 06.03.2018
- xii) Date of approval of scheme :
- xiii) Period of Mining Plan : 01.12.2017 To 2019-20
- xiv) Production (Year 2018-19) : 1245379 tons

## 2. Brief description of the mine:

ACC Limited hold three mining leases i.e. Main lease (598.88 ha) which comprises of 22 blocks of which F block is only working block, F2 Lease (63.87 ha) and recently grant F3 Lease (115.38 ha.) The 22 Blocks of the lease hold area falls under Survey of India Toposheet No. 73 F/11, 73F/14 and 73 F/15.

The mining operation in this area has been carried out by opencast fully mechanized mining method by deploying hydraulic excavators of 4 cum bucket capacity, dozers, DTH drills, Rock breakers to break the boulders & BEML dumpers fitted with exhaust conditioner of 40/50/60 Ton capacities for transportation of material. Mine is worked for 7 days per week in 3 shifts.

There is two pit in F block of main lease. The general dip of beds is towards west. The Pit is approached from a net work of roads and a well graded (1 in 16) ramp to pit bottom & there from individual benches are connected through gentle ramps & roads. Bench height ranges from 7 – 11.5 M depending on litho units available in those sections. The width of benches is being maintained minimum 15 m where dumpers are plying.

Two to three benches are developed in O/B and waste depending on thickness. One each bench is formed in shaly, low grade & high grade L.st respectively. Blast holes are drilled with the help of DTH drills & holes are blasted with column charge i.e. SME/ANFO in conjunction with primer charge i.e. slurry explosive/cast booster & initiated by non-electric detonating fuse. Blasted material is loaded with hydraulic shovels in 40/50/60 Tons dumpers and transported to the crusher hopper situated inside the pit. Limestone is crushed through Crusher of 1100 TPH in -50 mm size and conveyed by Pipe conveyor to the plant for Stacking.

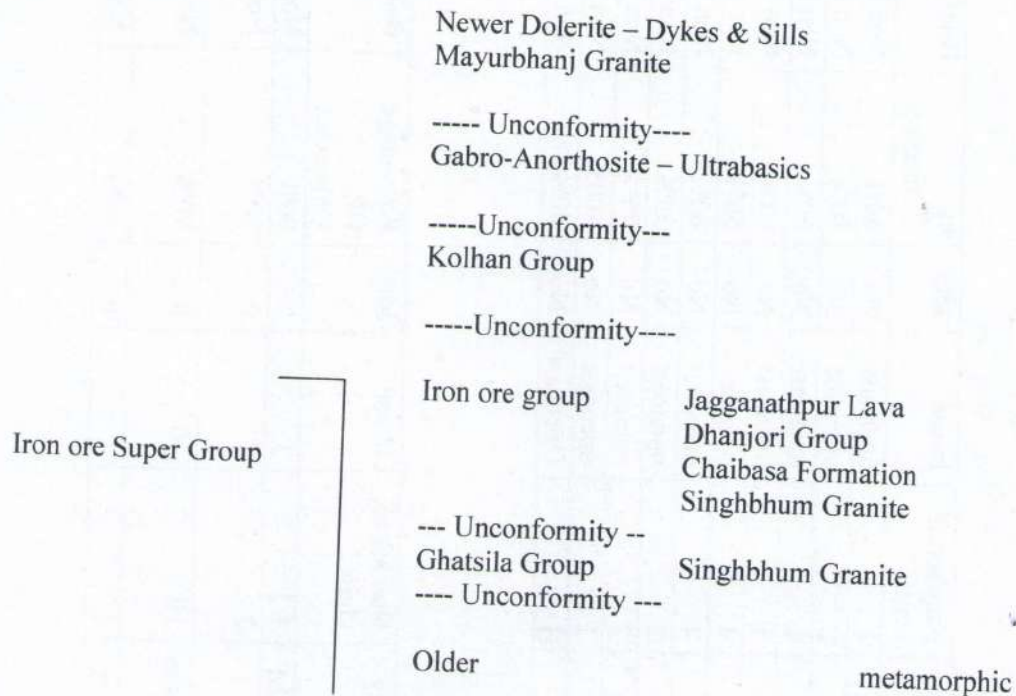
Waste is being backfilled within the pit from east to west direction in worked out area on exposed sandstone on eastern side of pit. The backfilling progresses from east to west and backfilled top is available for reclamation merging with natural topography of area. There are 6 benches on western and southern side, out of which bottom 3 benches are in Limestone.

## General Geology :

The generalized geological succession of the area may be summarized as below :

Geologically the area is a part of Singhbhum Belt where rocks of Achaean to Proterozoic age are found to occur. The Singhbhum belt is known for the larger shear zone and accurate thrust fault. The rocks south of this thrust are less metamorphosed than those occurring in the north. The generalized stratigraphic succession of Pre-Cambrian formation in Singhbhum and adjacent areas proposed by Sarkar and Saha (1977) of GSI is given as follows:

### REGIONAL STRATIGRAPHIC SUCCESSION:



b) Deployment of mining machinery:  
**Departmental**

Sl No	Machineries deployed	Capacity	Number of Units	In use	Idle	% Utilization	Brief description	Remarks
1	Excavator	4 Cum	1	opencast	No	40%	Non Electrical ( Diesel Driven)	
2	Excavator	5 Cum	2	opencast	No	80%	Non Electrical ( Diesel Driven)	
3	Excavator	6.5 Cum	1	opencast	No	50%	Non Electrical ( Diesel Driven)	
4	Backhoe	3.5 Cum	1	opencast	No	42%	Non Electrical ( Diesel Driven)	
5	Dumper	45 tons	4	opencast	No	50%	Non Electrical ( Diesel Driven)	
6	Dumper	55 tons	4	opencast	No	60%	Non Electrical ( Diesel Driven)	
7	Dozer	320 HP	2	opencast	No	35%	Non Electrical ( Diesel Driven)	
8	Drill Machine	150 mm	2	opencast	No	90%	Non Electrical ( Diesel Driven)	
9	Explosive Van	10 tons	1	opencast	No	100%	Non Electrical ( Diesel Driven)	
10	Excavator	RB	1	Opencast	No	80%	Non Electrical ( Diesel Driven)	

**Contractual**

Sl No	Machineries deployed	Capacity	Number of Units	In use	Idle	Percentage Of Utilization	Brief description	Remarks
1	Excavator – Back Hoe	2.1 Cu M	3	3	0	90%	Non Electrical ( Diesel Driven)	
2	Excavator – Rock Breaker	RB	2	2	0	90%	Non Electrical ( Diesel Driven)	
3	Tippers – Bharat Benz	17 Tonnes	10	10	0	90%	Non Electrical ( Diesel Driven)	
4	Loader - BEML	3.5 Cu m	1	1	0	90%	Non Electrical ( Diesel Driven)	

**3. Implementation of Mining Plan or scheme of Mining:**

Sr. No.	Proposal in the approved Mining Plan or Scheme of mining (Period from 01.12.2017 to 2019 - 2020)	Observations regarding implementation of proposals given in approved Mining Plan or Scheme of mining.	Remarks
<b>1.</b>	<b>CONSERVATION OF MINERALS</b>		
a)	Exploration:	Proposal of 5 nos Bore hole	Area already explored ( F-block)
b)	Utilization of subgrade mineral:	As Per proposal sub grade 34-38 % Cao	100 % utilization
c)	Any other proposal for monitoring:		
<b>2.</b>	<b>SCIENTIFIC MINING</b>		
a)	Mine Development and method of mining	Open cast Fully Mechanized	Open cast Fully Mechanized
b)	Handling of Waste/subgrade material:	As per proposed in Mining Plan	As per approved Mining plan
c)	Area reclamation & restoration:	23.81 ha	23.81 ha.
d)	Any other proposal for monitoring:		
<b>3.</b>	<b>PROTECTION OF ENVIRONMENT</b>		
a)	Afforestation:	6.11 ha	
b)	Quality of Air:	As per standard (Mining Plan)	Within Limit
c)	Quality of Water:	As per standard (Mining Plan)	Within Limit
d)	Noise Level:	As per standard (Mining Plan)	Within Limit

e)	Vibration:	As per standard (Mining Plan)	Within Limit
f)	Any other proposal for monitoring:		

**4. History of Violations after approval of Mining Plan or Scheme of Mining:**

Sl. No.	Date of Inspection	Name of Inspecting Officer	Violations of MCDR,88 observed and Pointed out	Rectification of Violations	Remarks
1	18.09.2019	Shri Naman Ekka	Rule 11(1), Rule 26(2), Rule 35(2)		
2	18.12.2017	Shri B.P. Kerketta	Rule 11(1), Rule 26(2), Rule 46	complied	

**5. Socio-Economic Development Plan: Total Rs. 2807350 spent for C S R activities during 2018-19.**

Sl. No.	Proposed Action Plan towards Socio-Economic Development	Expenditure Proposed (In Rs. Lakh)	Expenditure Incurred (In Rs. Lakh)	Remarks
1.	General Development in the area			
	i) Housing	Nil	Nil	
	ii) Water Supply	3885000	343000	
	iii) Sanitation	4435680	583800	

	iv) Health, Safety and Medical Facilities	49500	34650	
2.	Education and Training	1520440	1469701	
3.	Employment to local inhabitants			
4.	Public Transportation and communication	Nil	Nil	
5.	Recreation and other sports activities	Nil	Nil	
6.	Expenditure for environment management	Done combinedly with cement plant	Done combinedly with cement plant	
7.	Other			
	<b>Total:</b>	<b>5797940</b>	<b>2431151</b>	

*L*  
10/01/2020

(Anupam Nandi)

Regional Controller of Mines & Inspecting Officer