

**INDIAN BUREAU OF MINES
MINES CONTROL AND CONSERVATION OF MINERAL DIVISION**

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/KJR/MCDR-20/BBS-31/5/21

Mine code : 40ORI08031

- (i) Name of the Inspecting : **25**) **SHRI IBRAHIM SARIF**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : Shri K M SAHOO, Mines Manager
Official with
Designation
- (iv) Date of Inspection : 24/02/2016
- (v) Prev.inspection date : 23/05/2015

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SILJORA KALIMATI**
- (b) Category : A Other than Fully Mech.
- (c) Type of Working : Opencast
- (d) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : SILJORA KALIMATI
- Taluka : BARBIL
- Post office : SILJORA
- Pin Code :
- FAX No. : 91 - 6582 - 52442
- E-mail : rungtas@satyam.net.in
- Phone : (06582) 52861,52761,52661,!
- (e) Police Station :
- (f) First opening date : 01/01/1946
2. Address for : SILJORA KALIMATI MANGANESE MINE
correspondance DISTRICT KEONJHAR
ORISSA
3. (a) Lease Number : ORI0172
- (b) Lease area : 715.64
- (c) Period of lease : 20
- (d) Date of Expiry : 31/12/2035
4. Mineral worked : MAGNESITE Associated
MANGANESE ORE Main

5. Name and Address of the

Lessee : M/S M.L.Rungta
 Rungta House P.O.Chaibasa
 SINGHBHUM (WEST) JHARKHAND
 Phone:(06582) 52861,52761,52661,52561,52461
 FAX :91 - 6582 - 52442

Owner : M/S M.L.RUNGTA
 RUNGTA HOUSE AT
 P.O.CHAIBASA SINGHBHUM
 (WEST) JHARKHAND
 Phone: 06582- 52861, 5
 FAX : 91-6582 - 52442

Agent : SRI D.R.OJHA
 M/S M.L.RUNGTA AND SONS
 BARAJAMDA SILJORA
 KALIMATIMINES SINGHBHUM
 (WEST) JHARKHAND
 Phone: 06596 - 62321, 62221
 FAX : 06596-62101

Mining Engineer

Name : P.N.CHOUDHARY,Full Time
 Qualification : AISM (Mining), B.Sc (Honours)
 Appointment/ : 01/04/1999
 Termination date

Mining Engineer

Name : A.K.ROUT,Full Time
 Qualification : AMIE MINING
 Appointment/ : 01/03/1995
 Termination date

Mining Engineer

Name : K.M.SAHU,Full Time
 Qualification : DIPLOMA MINING
 Appointment/ : 08/07/2003
 Termination date

Geologist

Name : S.SARKAR,Full Time
 Qualification : M.Sc (Geology)
 Appointment/ :
 Termination date

Geologist

Name : S. GHOSH,Full Time
 Qualification : M.SC GEOLOGY, M.TECH IN MINERAL EXPLORAT
 Appointment/ : 16/11/2000
 Termination date

Manager	
Name	: P.N.CHOUDHARY
Qualification	: AISM (Mining) , B.Sc (Mining)
Appointment/	: 01/04/1999
Termination date	

6. Date of approval of Mining : 31/12/2015
Plan/Scheme of Mining

PART - II : TECHNICAL DETAILS/COMMENTS

1. Details about Average employment :

Maximum number of persons employed on any day during the year

Employment category	No.of employment	Av. yearly working days
DIRECT		
Managerial	18	306
Workers	33	306
Supervisory	14	306
Others	68	306
CONTRACT		
Others	62	306
Supervisory	41	306
Workers	296	306

2. Community Development Plan (in and around the mines) : Proposed action and expenditure towards socio-economic development.					
Action during the year	Expenditure in Rs. Lakhs for				Remarks
	previous year		current year		
	Proposed	Incurred	Proposed	Incurred	
General					
Water supply	20.38	5.65	20.38	5.65	
Sanitation	0.09	0.00	0.09	0.00	
Housing	4.30	0.00	4.30	0.00	
Medical facility	0.64	0.19	0.64	0.19	
Sub total	25.41	5.84	25.41	5.84	
Infrastructure					
Public transport	6.77	6.77	3.20	3.20	
Sub total	6.77	6.77	5.84	3.20	
Environment management	0.07	0.07	1.21	1.21	
Training	0.05	0.05	0.31	0.31	
Recreation	3.81	3.81	0.26	0.26	
Total	36.11	36.11	10.82	10.82	

3. Status of compliance of MCDR, 1988, including therewith the rectification of the outstanding violation of rules.

There was no outstanding violations.

4. A note on the justification in case of suspension of mining operation under rule 13(2) or prohibition of deployment of any person under rule 56 of MCDR, 19888, if recommended.

Not recommended.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
-------	----------	------------------	---------

A. Exploration (Rule 13)

a.Type of prospecting : 136 nos-550 m and exploration i.e. 100 nos-5000m pitting, drilling

b.Total area covered : 319.62 Ha

519 nos. of bore holes.
29052 meterage

488.81 Ha

B. Working (Rule 13)

a.Number and size of each pit (LxWxH)

Block-1 : 1500x 800
Block-2 : 1000X1000
Block-5 : 350X320
Block-6(Mn) : 700X600
Block-6(Fe) : 400X360

Block-1 : 1400x 800
Block-2 : 1000X1000
Block-6(Mn) : 650X500
Block-6(Fe) : 340X300

b.Bench size(LxWxH)length can be defined as regular/irregular

: H 6 m
W 10-20m

H 6 m
W 10-20m

c.Ore to waste ratio pit wise if possible otherwise for mine

: 1:22.60 (Mn)
1:1.89 (Fe)

1: 16.43 (Mn)
1:2.89) (Fe)

d.Total area covered under excavation/pits

: 315.509 Ha

315.509 Ha

C. Waste disposal (Rule 13)

a.Location of dumps

: Dump-A X 1000, Y 2100
Dump H X 800, Y 2000

Dump-A X 1000, Y 2100
Dump H X 800, Y 2000

e.Yearly generation of waste quantity.

: Mn- 1445978.68 m³
Fe- 116664.00 m³

Mn- 1173971.31 m³
Fe- 1884.50 m

b.Method of dumping whether advancing/retreat

: Retreating

Retreating

c.Total area covered under waste dump.

: 62.00 Ha

62.00 Ha

d.No.and size of each waste dump with No of steps/lift/bench

: Dump-A 29.45 Ha
Dump-H 27.55 Ha

Dump-A 28.55 Ha
Dump-H 25.05 Ha

D. Production

b.Year wise production of last

: (Mn)453408.62 MT,
(Fe) 50100 MT

(Mn)115054.719 MT
(Fe) 1839.714 MT

five year.

D. Reserve

a. Reserve position as :
per latest MP/MS and
at the time of
inspection.

Classification Code
Quantity Grade Quantity
Grade
Manganese Ore :
Proved Mineral Reserve
111
3500892.55 10% Mn &
above
Probable Mineral Reserve
121 and 122
50397.11 10% Mn. & above
-
Inferred Mineral
Resource 333
938275.35 10% Mn. &
above

Iron Ore:
Proved Mineral Reserve
111 757831.00
45% Fe & above
Inferred Mineral
Resource 333
150143.40 45% Fe & above

RESERVE POSITION AS ON 01/04/2015

MAGNESITE		
Category	Quantity in Tonnes	Grade
Proved	757831	45% Fe & above
Probable	0	
Possible	150143	45% Fe & above
Total	907974	
MANGANESE ORE		
Category	Quantity in Tonnes	Grade
Proved	3500892	10% Mn & above
Probable	50397	10% Mn & above
Possible	938275	10% Mn & above
Total	4489564	
<u>PRODUCTION FOR THE PREVIOUS YEAR 2014 - 2015</u>		
Mineral	Production	Unit
MANGANESE ORE	115054.7	TON
MAGNESITE	1839.7	TON

6. Conservation of Mineral - both quantitative and qualitative**Beneficiation (Rule 20 and 26)**

- Efforts for improving low grade and sub grade mineral. : Manual sorting & sizing is being carried out. Low grade ore is being stacked separately and time to time is being blended with high grade ore
- Efforts for improving percentage of recovery of ore. : By manual dressing, sizing & sorting of ore

Mineral Rule 15

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : Overall recovery of Mn ore is 5% w r t total excavation .
Iron ore recovery is 25% w r t total excavation

- Number of benches in ore and waste. : 6 no.of benches in ore,
9 No. of benches in OB

Sub/grd mineral/fines (Rule16)

- Qty of yearly generation and total qty available during inspection with grade : 10249.144 MT of sub grade is generated
Utilised- 4749.62 MT
Quantity available- 32914.688 MT.
- Number and size of each stack : Sub grade stock-B, 2.8 Ha
Low grade dump C, 1.2 Ha
Low grade dump-I,0.75 Ha
- Location of stacking. : Sub grade stock-B, E-150-380, S-2350-2550
Low grade dump C, E-1180-2580, S-1350-2400
Low grade dump-I,E-2480-2550, S-3200-3320
- Separate stacking from waste : The sub grade is sorted by manual method and stocked separately in the mine site
- Total area covered for stacking : 4.75 Ha

Exploration data as on 31/03/ 2015

No. of Boreholes	No. of Pits	No. of Trenches
2549		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2014 - 2015

Overburden/waste removed (in m3) :	1655313.12
------------------------------------	------------

Utilisation of Sub Grade Mineral and Mineral Rejects

<u>Generated</u>	<u>Utilised</u>	<u>Stacked</u>	(In Ton.)

7. Environment Management - both quantitative and qualitativ**A. Land environment**

- a. Landscape. : The lease area is highly undulated topography with hillocks & valleys highest RL is 772 MRL, lowest RL is 524MRL
- b. Aesthetic environment : Degradation of land will bw occurred due to mining excavation. However, to improve aesthetic beauty over 28.085 Ha area has been planted so far.
- c. Soil and land use pattern : No top soil was generated during the year.

	Total	Under forest	Outside forest
(i) Covered under current (O/C) workings	262.962		
	50.347	313.31	
(ii) Reclaimed/rehabilitated	4.727	11.233	15.96
(iii) Used for waste disposal	50.61	9.751	60.36
(iv) Occupied by plant, buildings, residential, welfare buildings & roads	11.64	25.956	37.6
(v) Used for any othe			

- d. Agriculture : No agricultural land exist inside the lease area.
- e. Forest(flora and fauna) : Common animals like Jackles are present

B Water environment.

- a. Surface water : The nearest surface water source is Kakarpani nala which flows outside lease boundary.
- b. Ground water : The ground water table is not affected by mining activities. Source of ground water in the area is dug well & tube wells.
- c. Quality of water : Potable

C. Air environment

- a. Noise : Noise level from quarterly monitoring data is found within permissible limit.
- b. Air : Water sprinkling was carried out at regular interval to arrest the air borne dust.
- c. Climatic condition : Max Temp 43°C in summer and 5°C in winter season.

D. Socio economic environment

- a. Social and demographic profile. : The near by villages having population of Gonua (1245), kasira (835), patmunda (818)
- d. Recreational facility. : The villagers are provided with the sports goods & contribution towards the sports arrangements. Disc antenna is provided in mine camp area.

7.1 Comments on the steps taken by the lessee towards maintaining environment and monitoring of environmental parameters to ensure the qualitative improvement in the environment and ecology.

Season	Station type	Station name	Water Management	
			Parameter	Value Actual Excess

Air data for excess parameters

Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

PLANTATION DURING THE PREVIOUS YEAR 2014 - 2015

Within lease area			Outside lease area			Area in Hect.
Area	Trees planted	Survival rate	Area	Trees planted	Survival rate	
2.59	22430	93.9	0	0	0	

TOP SOIL MANAGEMENT

Quantity as on 31/03/2015

8. Scrutiny of annual returns on cost of production, reserve, production, pit mouth value, stock, land use pattern and fixed assets.

For the year 2014-15

Cost of operation Rs. 4592.13/MT for Mn & for Iron ore is
6377.27 /MT

(1) Reserve

Classification	Code	Quantity	Grade
Quantity Grade			
Proved Mineral Reserve	111	3500892.55	10% Mn & above
757831.00 45% Fe & above			
Probable Mineral Reserve	121 and 122	50397.11	10% Mn. & above -
Inferred Mineral Resource	333 0938275.35	10% Mn. & above 150143.40	45% Fe & above
(2) Production	115054.719 MT (Mn)	and 1839.714 MT (Iron)	
(3) Pit's Mouth Value	Rs 4096.00/ MT		Rs. 2070.20 (Fe)

(5) Stock 77350.409 MT
4062.399 MT

(6) Land use pattern

	Under forest	Outside forest	Total
(i) Covered under current (O/C) workings	262.962	50.347	313.31
(ii) Reclaimed/rehabilitated	4.727	11.233	15.96
(iii) Used for waste disposal	50.61	9.751	60.36
(iv) Occupied by plant, buildings, residential, welfare buildings & roads	11.64	25.956	37.6
(v) Used for any other purpose (specify)			
Under Forest	89.12		
Out Side Forest		33.83	
Total			55.293

(7) Fixed assets 76398000.34

PART - III : PERFORMANCE OF MINE OWNER

(In case of lease expiring within 2 years - as per guidelines)

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

Indian Bureau of Mines (any issue related to CGPB, SGPB, Assistance, Consultancy, Annual Programme and studies, etc.)

None

State Government (Illegal mining, mining dispute, infrastructure, Mineral based industry, Mineral policy, etc.)

None

The Central Government (Infrastructure, Development, Mineral policy and Legislation, Mineral based industry, etc.)

None

Date :

(SHRI IBRAHIM SARIF)

Indian Bureau of Mines