

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/MN/SNG/MCDTR-6/BBS

Mine code : 40ORI13015

- (i) Name of the Inspecting : **DEY**) **NARENDRA MOHAN DEY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 16/09/2014
- (v) Prev.inspection date : 18/02/2013

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **MALDA**
- (b) Category : A Other than Fully Mech.
- (c) Type of Working : Opencast
- (d) Postal address
State : ORISSA
District : SUNDARGARH
Village : MALDA(BONAI)
Taluka : KOIRA
Post office : MALDA-VIA-JODA
Pin Code :
FAX No. : 06767-272971
E-mail : ashishkumar@tatasteel.com
Phone : 06767-272971/ 9437577041
- (e) Police Station : MALDA
- (f) First opening date : 01/04/1935
2. Address for : VILL-MALDA
correspondance PO-CHORMALDA
DIST-SUNDERGARH
3. (a) Lease Number : ORI0207
(b) Lease area : 822
(c) Period of lease : 20
(d) Date of Expiry : 12/08/1990
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : TISCO
Bombay House 24, Homy Mody
Street Mumbai MUMBAI
(SUBURBAN) MAHARASHTRA
Phone:
FAX :

Owner : A.N.SINGH
C/O TISCO LTD SINGHBHUM
(EAST) JHARKHAND
Phone: 0657-431227
FAX :

Agent : SHRI SATYABADI SAHU, HEAD (MN GROUP OF MINES)
AT/PO: BICHAKUNDI M/S TATA
STEEL LTD. DIST: KEONJHAR,
ORISSA KEONJHAR ORISSA
Phone:
FAX : 06767-272971

Geologist

Name : shri rookam bhagabati, Full Time
Qualification : M.Sc. APPLIED GEOLOGY
Appointment/ :
Termination date

Manager

Name : S.K.SINGH
Qualification : DME (MINING)
Appointment/ : 14/10/2008
Termination date

Manager

Name : SHRI ASHISH KUMAR
Qualification : AMIE (MINING), FIRST CLASS MANAGER HOLDE
Appointment/ :
Termination date

6. Date of approval of Mining :
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	2	309
Supervisory	4	309
Others	11	309
Ministrial	1	309
CONTRACT		
Others	102	309

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	47.47	20.00	25.00		
Housing		0.00			
Sanitation	5.65	4.99	7.00		
Health	1.22	1.05	14.64	5.51	MOBILE AMBULANCE
Sub total	54.34	26.04	46.64	5.51	
Infrastructure					
Roads	10.00	66.00	8.95		
Electricity	9.75	23.75	9.06		SOLAR LIGHT ELEC
Sub total	19.75	89.75	26.04		
Employment					1000 PERSONS ARE
Training	0.70	5.00	0.56		
Recreation	15.00	14.00			
Sports activities	6.90	2.00	4.88		
Others	10.59	85.10	4.69		EDUCATION
Total	107.28	242.49	54.18	5.51	

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

THERE WAS NO OUTSTANDING VIOLATION.

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, 1988, if recommended.

5. Scientific Mining

Items	Proposal	Actual work done	Remarks
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A. Exploration (Rule 13)

a.Type of prospecting : 40 NOS BORE HOLES
and exploration i.e.
pitting, drilling

AFTER OBTAINING
PERMISSION FROM DFO,
BONAI FOR CARRYING OUT
DRILLING IN FOREST AREA
, THE LESSEE HAS DUG 2
NUMBER OF BOREHOLES WITH
MAXIMUM DEPTH 70 M,
MINIMUM DEPTH 65.20 M
AND TOTAL METERAGE
135.20 M

B. Working (Rule 13)

a.Number and size of :
each pit (LxWxH)

BLOCK I : 600 M X 400 M
X 62 M (RB QUARRY)
BLOCK II: 200 M X 200 M
X 38 M
BLOCK III : 366 M X 250
M X 54 M
BLOCK IV : 308 M X 303 M
X 56 M
KUSUM PIT : 144 M X96 M
X 16 M
KENAVETA PIT : 200M X 85
M X 36 M
G-PIT : 100 M X39 M X10M

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

IRREGULAR LENGTH WITH 6-
8 M MINIMUM WIDTH AND 6-
8 M MAXIMUM HEIGHT.

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

NIL (MINING OPERATION
STOPPED SINCE
25.02.2011BY STATE
GOVT.)

d.Total area covered :
under excavation/pits

42.25 HA OF FOUR PITS
DEVELOPED.

C. Waste disposal (Rule 13)

a.Location of dumps :
FOUR NUMBER OF DUMPS IN
EACH BLOCK

e.Yearly generation :
of waste quantity.

MINING OPERATION STOPPED
SINCE 25.02.2011

b.Method of dumping : RETREATING
whether
advancing/retreat

NO DUMPING DONE SINCE
25.02.2011.

c.Total area covered :
under waste dump.

21.316 HA

d.No.and size of each :
waste dump with No of

DUMP BLOCK I: 340 M X
263M X 50 M (3 LIFTS

steps/lift/bench

OF 20 M APPROX)
 DUMP BLOCK II: 166M X
 100 M X 29 M (2 LIFTS)
 DUMP BLOCK III: 353 M X
 200 M X 28 M (2 LIFTS
 OF 25 M APPROX)
 DUMP BLOCK IV : 241 M X
 165 M X 38 M

D. Production

b. Year wise :
 production of last
 five year.

SINCE THE MINING
 OPERATION HAS BEEN
 STOPPED BY DFO, BONAI
 DIVISION VIDE LETTER
 DATED 25.02.2011, THERE
 IS NO PRODUCTION SINCE
 THEN.

D. Reserve

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

RESERVE POSITION AS ON 01.04.2014 AS PER MINING PLAN APPROVED ON 11.11.2010 VALID UPTO 2014-15 IS AS FOLLOWS:
 ON THE DATE OF INSPECTION MINE WAS CLOSED SINCE 25.02.2011.

PROVED (111) : 1124008
 MT
 PROBABLE (121 + 122) :
 1210820 MT
 INDICATED (332) : 170000
 MT
 INFERRED (333) : 3470000
 MT

RESERVE POSITION AS ON 01/04/2014

MANGANESE ORE

Category	Quantity in Tonnes	Grade
Proved	1124008	AS PER UNFC 111
Probable	1210820	AS PER UNFC 121 + 122
Possible	170000	AS PER UNFC 332 BESIDES ABOVE ANOTHER 3470000 TC
Total	2504828	

PRODUCTION FOR THE PREVIOUS YEAR 2013 - 2014

Mineral	Production	Unit
MANGANESE ORE	0	TON

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

- Efforts for improving low grade and sub grade mineral. : THE LOW GRADE ORE WERE CONSIDERED AS PRODUCTION AND WERE SOLD. THE SUB-GRADE ORE IN THE COURSE OF MINING WERE STORED SEPARATELY FOR FUTURE USE.
- Efforts for improving percentage of recovery of ore. : MANUAL SCREENING OF MINERAL REJECTS AND FINES GENERATED DURING SORTING AND SIZING WAS IN PRACTICE TO RECOVER - 6+10MM AND LESS THAN 6 MM SIZED MN ORE. THE STACKS WERE SEPARATELY MADE AND KEPT AT STACK YARD AS FINISHED PRODUCT.

Mineral Rule 15

- Percentage of recovery of ore pitwise w.r.t. ROM and total material : PRESENTLY MINING OPERATION HAS BEEN STOPPED SINCE 25.02.2011
- Number of benches in ore and waste. : NUMBER OF BENCHES IN ORE 3 AND IN WASTE 7

Sub/grade mineral/fines (Rule 16)

- Qty of yearly generation and total qty available during inspection with grade : MINING OPERATION HAS BEEN STOPPED SINCE 25.02.2011. HOWEVER CUMULATIVE QUANTITY IS 48805 CUM HAVING MN CONTENT LESS THAN 15% IS AVAILABLE DURING INSPECTION.
- Number and size of each stack : 2 STACKS, ONE ABOUT 1.5 HA AND THE OTHER 1.0 HA
- Location of stacking. : AT THE ENTRY OF THE ML
- Separate stacking from waste : YES
- Total area covered for stacking : 2.5 HA APPROX

Exploration data as on 31/03/ 2014

No. of Boreholes	No. of Pits	No. of Trenches
641		

OVERBURDEN HANDLED DURING PREVIOUS YEAR 2013 - 2014

Overburden/waste removed (in m3) :	0
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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 MINING LEASE AREA IS HILL WITH MODERATE SLOPE.
- b. Aesthetic environment : AESTHETIC BEAUTY HAS BEEN TAKEN CARE OF BY WELL PLANNED PLANTATION INSIDE AND OUT SIDE THE LEASE.
- c. Soil and land use pattern : TOP SOIL WHENEVER GENERATED WERE BEING UTILISED FOR VARIOUS CIVIL WORKS, PLANTATION ETC. 70% OF TOTAL ML AREA IS FOREST LAND .53% OF THE TOTAL LEASE AREA IS MINERALISED AND 88% OF THE MINERALISED AREA FOR MN ORE IS IN FOREST LAND
- d. Agriculture : FEW SCATTERED UNORGANISED CULTIVATION / AGRICULTURAL LAND WAS THERE IN THE BUFFER ZONE OVER AN AREA 74.174 HA AROUND 9.02 % OF THE TOTAL LEASE. THE MINING OPERATION DOES NOT AFFECT ANY AGRICULTURAL LAND.
- e. Forest(flora and fauna) : THE FOREST AREA COVERED OVER 578.859 HA WITH THIN VEGETATION. FAUNA LIKE JACKAL, WOLF, BAT SQUIRREL ARE FOUND IN THE AREA.
- f. Vegetation : THE AREA IS MODERATELY THICK VEGETATED.
- h. Public building, places and monuments (protected, historical), placec of worship and places of tourist : NO SUCH BUILDING EXIST IN THE LEASE AREA EXCEPT ONE TEMPLE IS LOCATED NEAR THE COLONY AT A DISTANCE OF NEARLY 4 KM FROM THE ACTIVE MINING AREA.

B Water environment.

- a. Surface water : KUNDRA NALLA FLOWS IN THE NORTH EAST PART OF THE ML. THE SURFACE WATER FLOWS NATURAL DRAINAGE, NOT AFFECTED MUCH BY MINING.
- b. Ground water : NONE OF THE MINING PITS DUG TILL DATE HAS SHOWN INTERSECTION WITH WATER TABLE.
- c. Quality of water : THERE IS NO ADVERSE EFFECT OF WATER QUALITY DUE TO ON-GOING MINING ACTIVITY.

C. Air environment

- a. Noise : WITHIN PERMISSIBLE LIMIT
- b. Air : NOT MUCH AIR POLLUTION AS THE SCALE OF MINING OPERATION IS LIMITED.
- c. Climatic condition : MAXIMUM TEMPAERATURE REACHES UPTO 43.8 DEGREE DURING MAY-JUNE AND MINIMUM 4.1 DEGREE DURING DECEMBER-JANUARY.
DRY HOT TROPICAL TYPE CLIMATE.

D. Socio economic environment

- a. Social and demographic profile. : THERE ARE 13 VILLAGES WITHIN THE LEASE HOLD AREA. NUMBER OF HOUSE NEARLY 1100, POPULATION NEARLY 5000. CONSIST OF ST 64%, GENERAL & OBC 25% AND SC 12% APPROX.
POPULATION DEPENDS DIRECTLY OR INDIRECTLY ON MINING ACTIVITIES.
- b. Recommending health and : TATA STEEL RURAL DEVELOPMENT SOCIETY PUT THE

safety.

CONTINUOUS EFFORT TOWARDS AWARENESS OF PEOPLE AND RENDERING THE MEDICAL SUPPORT INSIDE THE CORE AND BUFFER ZONE.

c. Human settlement : THERE ARE 13 VILLAGES IN THE CORE ZONE AND ALMOST 200 SMALL HAMLETS IN THE BUFFER ZONE.

d. Recreational facility. : STANDARD RECREATIONAL FACILITIES AVAILABLE IN THE COLONY WHICH ARE ALSO ACCESSABLE BY LOCAL VILLAGERS.

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.

<u>Water Management</u>					
Season	Station type	Station name	Parameter	Value	
				Actual	Excess

<u>Air data for excess parameters</u>					
Season	Station name	Type of area	Parameter	Value	
				Actual	Excess

<u>PLANTATION DURING THE PREVIOUS YEAR</u>	<u>2013 - 2014</u>	Area in Hect.
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<u>TOP SOIL MANAGEMENT</u>
Quantity as on 31/03/2014

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

ANNUAL RETURN FOR THE YEAR 2013-14 HAS BEEN RECEIVED. SINCE THE MINING OPERATION HAS BEEN STOPPED SINCE 25.02.2011, NO PRODUCTION DURING 2013-14. COST OF OPERATION : NIL
PIT MOUTH VALUE : NIL FIXED ASSETS: Rs.39686000 /-

PART - III : PERFORMANCE OF MINE OWNER

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

a. Compliance of terms and conditions of lease deed.

MINING LEASE IS UNDER 4TH RENEWAL FROM 13.08.2010,
RENEWAL APPLICATION FILED ON 24.04.2009.
MINING PLAN APPROVED ON 11.11.2010 WAS VALID UPTO 2014-15.
SUBSEQUENT SCHEME OF MINING APPROVED ON 06.04.2015 FOR THE PERIOD 2015-16 TO 2019-20.
DGPS MAP HAS BEEN PREPARED BY OSAC DATED 30.04.2012.
READINGS MENTIONED ON THE BOUNDARY PILLARS ARE ALMOST MATCHING WITH THE READINGS
MENTIONED ON THE DGPS MAP.

b. Compliance of the provisions of MCDR, 88 and advise given.

DURING CURRENT INSPECTION NO VIOLATION WAS OBSERVED / POINTED OUT.

PART - IV : PROPOSALS FOR FURTHER ACTION FOR :

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

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

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

Date :

(NARENDRA MOHAN DEY)

Indian Bureau of Mines