

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/MN/SNG/MCDR-16/BBS

**Mine code :** 40ORI13005

- (i) Name of the Inspecting : **CHHA** ) **SHRI L H CHHANGTE**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : H.H. Panda , Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 30/07/2016
- (v) Prev.inspection date : 08/03/2015

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **GANUA**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address  
State : ORISSA  
District : SUNDARGARH  
Village : GANUA  
Taluka : BONAI  
Post office : MALDA  
Pin Code :  
FAX No. :  
E-mail :  
Phone : 75362
- (f) Police Station :
- (g) First opening date : 06/06/1980
- (h) Weekly day of rest : MON
2. Address for : VILL: GONUA, PO: MALDA  
correspondance DIST: SUNDERGARH, ORISSA  
POLICE STATION . KOIRA
3. (a) Lease Number : ORI0694  
(b) Lease area : 13.79  
(c) Period of lease : 20  
(d) Date of Expiry : 10/05/2019
4. Mineral worked : MANGANESE ORE Main

## 5. Name and Address of the

Lessee : PRABODH MOHANTY (L/HOF S.N.MOHANTY.)  
 AT: STATION ROAD, P.O.  
 BARBIL DIST. KEONJHAR,  
 ORISSA KEONJHAR ORISSA  
 Phone:  
 FAX :

Owner : S.N.MOHANTY  
 STATION ROAD POST BOX NO.21  
 PO. BARBIL KEONJHAR ORISSA  
 Phone: 30362 (O), 3025  
 FAX :

## Mining Engineer

Name : L.K.BEHURIA, Full Time  
 Qualification : B.E  
 Appointment/ : 19/05/1997  
 Termination date

## Manager

Name : S.N.SINGH  
 Qualification : PERMIT MANAGER  
 Appointment/ : 01/11/1983  
 Termination date

6. Date of approval of Mining	:	Renewal under rule 24 MCR1960	11/11/2004
Plan/Scheme of Mining		Modif.of approved Mining Plan	17/03/2008
		Modif.approved Mining Scheme	02/08/2013
		Mining Scheme rule 12 MCDR1988	22/05/2014

## PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	05 bore holes	Drilled 5 bore holes as proposed	No back log as on date of inspection
1b	Exploration over lease area for geological axis 1 or 2	All the ML area to be covered under G-1 &2	All the ML area has been covered under G1 & G2	Complied statute
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Exploration to be carried out departmentally	Carried out as proposed	No expenditure statement of the Exploration available as on date of inspection
1d	Balance area to be explored to bring Geological axis in 1 or 2	No proposal	NIL	The whole of the ML area has been covered under G 1 & 2 status of exploration under UNFC
1e	Balance reserve as on 01/04/20	Stipulated at G1 - 73957 MT, G2 - 13765.2 MT	Same as projected as on 01/04/2016	No deviation in this aspect
1f	General remarks of inspecting officers on geology, exploration etc	Details of exploration given in the SoM	Has carried out as proposed/ approved	The Lessee is found to have been able to carry out exploration satisfactorily as proposed/ approved in the MP

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	The main pit was proposed at the centre of the ML	Developed as proposed	No deviation
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and Minerals proposed	Developed separate benches as proposed	No deviation
2c	Stripping ratio or ore to OB ratio	1:30	Actual turned out to be 1:30.7	No significant deviation

2d	Quantity of topsoil generation in m3	15668 M3 for the year 2015-16	Actual removal turned out to be 13772.08 M3	Less generation of Top soil about 12% of the proposal. No significant deviation
2e	Quantity of overburden generation in m3	NIL	None	Apart from the top soil, no other OB, IB, SB were generated as was anticipated
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Clear proposals given for Development	Actual development was carried out as per proposal	No significant deviation

#### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Only 1 main pit	Developed only 1 main pit	No deviation
3b	Quantity of ROM mineral production proposed	4108 MT	1120.675 MT	Significantly under produced due to fluid market situation
3c	Recovery of sailable/usable mineral from ROM production	Manual and semi mechanised method of recovery proposed	Carried out as proposed	No deviation
3d	Quantity of mineral reject generation	None	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	10% of Mn is the threshold value, hence - 10% Mn is considered as rejects	Threshold value strictly followed	No deviation
3f	Quantity of sub grade mineral generation.	NONE	NIL	No subgrade ore produced here

3g	Grade of sub grade mineral generation	None	NIL	No subgrade classification in case of Manganese ores
3h	Manual / Mechanised method adopted for segregating from ROM	Semi mechanised method of mining	Practised Semi-Mechanised of Mining as well as proposed	No deviation
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None	NIL	No beneficiation work proposed nor carried out here
3j	Provision of drilling and blasting in mineral benches	Hand held drilling as and when necessary	Carried out as proposed	No deviation
3k	Provision of mining machineries in mineral benches	NONE	Not applicable	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Most suitable method of mining proposed in MP	Carried out as proposed in approved MP	This is the best suitable method of mining for the type and nature of ore deposits
3m	Total area covered under excavation/pits	4.20 hactares	4.20 hactares as well already exploited	No deviation
3n	Ore to OB ratio for the pit/mine during the year.	1:30	1:30.7	No significant deviation
3o	Total area put in use under different heads at the end of year	Specific land use pattern proposed in the MP	Present Land use pattern is : Out of total ML area of 13.796 hactares 1. Degraded Land by pit = 6.125 ha, 2. Degraded by dump = 1.52 ha, 3. Degraded by road = 0.16 ha 4. Plant/ Buildings = 1.19 ha,	No significant deviation

3p	Production of ROM mineral during the last five year period as applicable	Proposed production for 2015-16 was 4108 MT	Actual production for the year 2015-16 was 1120.675 MT only	Much under produced
3q	General remarks of inspecting officers on method of mining etc.	Production and Exploitation schedule given clearly in the approved MP	The same could not be strictly achieved due to fluidity in the market demand	No adverse effect / change noticed

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Seperate dumpings proposed	Carried out as per proposal	No deviation
4b	Location of topsoil, OB and mineral reject dumps	Northeastern side of the ML	Developed as proposed	No deviatin
4c	Number of dumps within lease area and outside of lease area	Only 1 proposed	Only 1 developed as well	No deviation
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump proposed outside UPL	Placed as proposed	No deviation
4e	Number of active and alive dumps.	1 only	1 only	No deviation
4f	Number of dead dumps.	None	NIL	No dead dump as of now
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall proposed all along the dump	There is reatining as proposed	No deviation

4i	Length of Retaining wall or garland drain all along dumps	150 m long retaining wall	Actually 136 m long retaining wall erected	About 14 m span was naturally covered by a high raining slope, hence not required to erect additional retaining wall
4k	Specific comments of inspecting officer on waste dump management	Waste management programme was clearly given in the approved mining plan	The same was followed as far as practicable	No significant deviation nor adverse effect under this head

#### Solid Waste Management - Backfilling:

Sl.No.	Item	Proposals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Hence no work of back filling	There has been no matured land for back filling
5b	Area under backfilling of mined out area	NIL	NONE	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NIL	Not applicable	No chance as of now
5d	Total area fully reclaimed and rehabilitated	NIL	NONE	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NIL	NONE	The type and nature of the deposit and the stage of development and exploitation has not rendered any matured land for rehabilitation and back filling

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 Progressive Mine Clousre Plan:
 

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Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	Yes	Yes	PMCP annual report has been submitted to IBm on a regular basis
6b	Area available for rehabilitation (ha) .	None	NIL	
6c	afforestation done (ha).	1.5 ha	1.35 ha	
6d	No. of saplings planted during the year	3000	3800	
6e	Cumulative no .of plants	25,000	20200	No significant deviation
6f	Any other method of rehabilitation	None	NIL	
6g	Cost incurred on watch and care during the year	Not given	Not available	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	None	NIL	
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	None	NIL	

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6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on backfilled area	Nil	None
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Nil	None
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	Nil	None
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Nil	None
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Nil	None
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Nil	None
6p	Compliance of environmental monitoring (core zone and buffer zone)	Routine air and water sampling	Carried out as per proposal

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Specific measures to be taken under PMCP are given in the MP	Prposal under PMC have been followed satisfactorily	There has been no matured land for rehabilitaion and reclamation
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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	No details given	+10% Manganese ores are mined and utilised here	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual and Semi Manual	Proposals were carried out	No prolem under this aspect
7c	Different grade of mineral sorted out at mines.	Only one grade + 10 Mn	Only one grade produced as proposed	
7d	Any beneficiation process at mines	Nil	None	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	NIL	None	

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#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Yes, in vogue	

8b	Concurrent use or storage of topsoil	Specific proposal made	Utilised for civil works as ar as possble as proposed in approved MP	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	NIL	None	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal as such	No work	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	None	No matured land as on date
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Yes	Plantations have been carried out as per proposal	
8g	Survival rate	80 %	70%	
8h	Water sprinkling on roads to control airborne dust	Routine waster sprinkling on haul road proposed	Carried out as per proposal	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The mine is category A	Limited mining activities	Small Manganese mine, manual/ semi manual method , hence no adverse effect of mining on the mines environment as on date of inspection

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Yes	Monthly and Annual returns have been submitted on a regular basis	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Proposal given	Statutory personnel have been appointed in this mine	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Specific land use pattern given in the MP	Present Land use pattern is : Out of total ML area of 13.796 hectares 1. Degraded Land by pit = 6.125 ha, 2. Degraded by dump = 1.52 ha, 3. Degraded by road = 0.16 ha 4. Plant/ Buildings = 1.19 ha,	
9d	Scrutiny of Annual return on afforestation	For 2015-16 , 3000 saplings proposed	Against the target, 3800 saplings were planted during the last year	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	None	No mineral reject in this mine practically
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Specific proposal given	As per AR 2015-16, ROM stock was 636.181 MT of -25% Mn , 863.990 MT of 25-35% Mn, 107 MT of + 35% Mn	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Specifics not given	Actual sale price is Rs 3218 /- per ton of 10-25% Mn , Rs 3700/- per ton of 25-35% Mn whereas cost of production is quoted as Rs 4777 per ton inclusive of all taxes etc	This is not a profit making mine
9h	Scrutiny of Annual return on fixed assets	Not given	Fixed assets calculated at Rs 60,25,000 approx	

**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 :**

(SHRI L H CHHANGTE)

Indian Bureau of Mines