

MCDR Insp. Report

1) Name of Inspecting officer:	Mr. Prem Prakash
2) Designation	Deputy Controller of Mines
3) Accompanying mine official with designation	Mr. Sanjay Singh, Mines Manager
4) Date of Inspection	17.05.2017
5) Date of Previous Inspection	11.08.2016

PART –I GENERAL INFORMATION

1.Name of mine	Nomoxitembo De Caurem Mine
a. Category of mine (A-Fully mechanized, A-Other than fully mechanized, B-Manual )	A-FM
b. Mode of working ( OC/UG/Both o/c & u/g)	OC
c. Postal address	
d. State	Kadar Manzil, Margao, Goa - 403601
e. District	South Goa
f. Tehsil/ Taluka	Sanguem and Quepem
g. Police station	Quepem
h. Village	Colomba and Sulcorna
i. Post	Rivona
j. Pin Code	403705
k. FAX	-
l. E-mail	Admin.caurem@timblos.com
m. Phone	0832 2720100
n. Weekly day of rest	Sunday

2. a) Lease No.	:	TC No.-14 of 1952
b) Lease area in hect.	:	99.6100
c) Period of lease	:	20 years
d) Date of expiry.	:	21.11.2027

3.a) Mineral(s) included in the lease deed	:	Iron and Manganese ores
b) Mineral(s) worked	:	Iron ore

4. Name and address of ( including FAX/ E-mail, if any)		
a) Lessee/ owner	:	M/s Baddrudin Hussainbhai Mavani
b) Nominated owner	:	Shri. Arvind Mangesh Hodarkar, constituted Attorney of Baddrudin Hussainbhai Mavani
c) Agent with date of appointment	:	Mr. Saroj Kumar ,16.03.2010
d) Mining Engineer and geologists appointed under rule 42 of MCDR, 1988 with date of appointment and whether full/ part time with qualification	:	Mining Engineer Mr. Sanjay Singh 16.07.2004 Geologist Mrs. Moncy Fernandes Khan 02.05.2008
e) Mine Manager with qualification and date of appointment	:	Mr. Sanjay Singh, AMIE in Mining with 1 <sup>st</sup> class certificate of competency. 29.12.2003

5. Details about Mining Plan/ Mining Scheme	
a) Letter No. and date of approval of mining plan	: MMP/MECH-30/GOA-15-16,Vol-I Dt. 06.09.2016
d) Period of mining plan/ its modification in force :	: From...01.04.2016.....to 31.03.2018..... (financial year)

## PART II-TECHNICAL DETAILS

### I. Details about employment.

Maximum number of persons employed on any day during the year(i) below ground (ii) above ground and (iii) in all in the mines.

Classification	Average daily employment			Average No. of days worked in a year	Remarks
	Direct	Contract	Total		
OPENCAST				302	
a) Managerial person			3		
b) Supervisory persons			4		
c) Workers			40		
d) Ministerial persons			3		
e) Employment in plant			13		
f) Others			11		
UNDERGROUND	Not applicable				

### II. Community Development Plan (in and around the mines)

S. N	Proposed action towards socio-economic development during the current year	Expenditure proposed in Rs. (Previous financial year) (2016-17)	Expenditure proposed in Rs. for current year (2017-18)	Expenditure incurred in Rs. (Previous financial year) (2016-17)	Expenditure incurred so far in Rs. in current year (2017-18) Till the date of inspection	Remarks
1	General development in the area		-		-	Expenditures given here are as reported by the Agent/ mines manager. Not verified by the undersigned
	a) Housing					
	b) Water supply	2471528		2471528		
	c) Sanitation					
	d) Health, safety and medical facilities.	967038		967038		
2	Training					
3	Employment to local inhabitants					
4	Infrastructure-public transport, roads, communication and electricity	627896		627896		

5	Recreation and other sports activities	79710		79710		
6	Expenditure for environment management	1541239		1541239		
7	Others	1800		1800		

III. Status of compliance of MCDR, 88 including therewith the rectification of outstanding violation of the rules.

Date of last inspection	Violation pointed out	Compliance reported
11.08.2016	Nil	NA

\*\*\* Annual Return for the year 2016-17 has not been submitted by the lessee till the date of inspection, as due date of submission is 1<sup>st</sup> July of proceeding year. Hence, information given below is based on the Data provided by the Agent/ mines manager of the mine and information/proposal given in the Modification of Mining Plan (MMP) approved vide letter no.- MMP/MECH-30/GOA-15-16,Vol-I,Dt. 06.09.2016

IV. Scientific Mining (As per latest approved mining Plan/Scheme) : (for year 206-17)

1. Exploration:

1A.Backlog of previous year	Nil
1B.Exploration over lease area for geological axis 1 or 2	42 Bore holes -2798.50 mts, About 11.30 ha covered during 2016-17
1C.Exploration agencies and expenditure in lakh during the year	About Rs. 3777975
1D.Balance area to be explored to bring geological axis 1 or 2	32.8312 Ha.
1E.Balance reserve	Reserves 6.48 Million t & resources 6.67 Mt as on 01.04.2016
1F. General remarks of inspecting officer on geology, exploration etc. :	Satisfactory

2. Development:

A. Location of development lease area	As proposed in the MMP
B. Separate benches in topsoil, overburden and minerals (Rule 15)	Yes
C. Stripping ratio (ore to OB ratio)	1:6.3
D. Quantity of topsoil generation in m <sup>3</sup>	Nil
E. Quantity of overburden generation in M <sup>3</sup>	44993m <sup>3</sup> (103484 tonnes)

3. Exploitation:

A. Number of pit proposed for production	2 Pits ( 3AB and 3C)
B. Quantity of ROM mineral production proposed.	178000 tonnes
C. Recovery of sailable/usable mineral from ROM production	80% recovery
D. Quantity of mineral rejects generation	Nil

E. Grade of Mineral rejects generation and threshold value declared	Not applicable
F. Quantity of Subgrade mineral	Nil
G. Grade of Subgrade mineral generation	Not applicable
H. Manual/Mechanical method adopted for segregating from ROM. Mechanical	Mechanical, Beneficiation plant
I. Any analysis for benefaction study proposed and carried out for sub grade mineral	In house only
J. Provision of drilling and blasting in mineral benches.	No, Ripper dozer deployed
L. Whether height of benches in overburden and mineral suitable for method of mining proposed.	Yes.
M. Total area covered under excavation/pits	About 20.5170 Ha
N. Ore to OB ratio for the pit/mine during the year	1: 6.3
O. Total area put in use under different heads at the end of the year	About 44 ha.
P. Production of ROM mineral during the last five years period as applicable	2016-17:16380 tonnes 2015-16: 20,000 t, 2014-15: Nil, 2013-14: Nil, 2012-13 : 199240 t,
Q. General remarks of inspecting officers on method of mining etc.:	Development & Exploitation were much less than proposed in the mining plan due to various reasons. Even on the dt. Of inspection mine was non-working due to want of CTO from SPCB.

#### 4. Waste:

A. Separate dumping of top soil, OB and mineral rejects (Rule 32, 33) Separate stacking of overburden on surface dumps and as backfilling	Yes. OB is stacked separately. Mineral rejects are not generated.
B. Location of top soil, OB and mineral rejects dumps	Backfilling within the following coordinates as proposed in the approved MP : 1671990 – 1672010 N and 407740_407770 E and 1671820 – 1671960 N and 407580 – 407694 E in two separate blocks within pit 3. However, the quantity generated was much less than proposed in the mining plan and hence the entire stretch proposed in the mining plan could not be covered.
C. Number of dumps with in lease area and outside of the lease area	2 dump, both within the ML
D. Location of dumps w.r.t ultimate pit limit (Rule 16)	Dump 1, partly Within the pit limit
E. Number of active and alive dumps.	One , (D-2)
F. Number of dead dumps	One (D-1)
G. Numbers of dumps established	2 surface dumps and backfilling
H. Whether retaining wall or garland drain all along dumps are there	Yes

I. Length of retaining wall or garland drain all along dumps :	About 3225 mts long
J. Number of settling ponds	Around ponds 7 numbers and 8 filter beds
K. Specific comments of inspecting officer on waste dump management :	Satisfactory

#### 5. Backfilling:

A. Status of part or full extraction of mineral from mined out area before starting backfilling	Pit demineralized
B. Area under backfilling of mined out area	Parts of pit 8 and 3AB .
C. Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Mining activities proposed over already broken area and top soil not being generated.
D. Total area fully reclaimed and rehabilitated.	Nil

#### 6. PMCP:

A. Whether annual report on PMCP submitted on time and correctly, Rule 23E (2)	Not submitted for yr 2016-17 till the date of inspection. Due date is 1st July.
B. Area available for rehabilitation (Ha)	Backfilling proposed over 2.51 Ha ( 0.76 in pit 3AB & 1.75 Ha in pit 3)
C. Afforestation done (Ha) :	In about 12 Ha area
D. No. of sapling planted during the year.	812
E. Cumulative no. of plants.	Plantation by about 184753 nos. of saplings (as on 01.04.2017)
F. Any other method of rehabilitation	None
G. Cost incurred on watch and care during the year	-
H. Compliance on reclamation and rehabilitation by backfilling	L*B*H 170*16*10 pit 3AB & 340*20*16 pit 3
I. Compliance on reclamation and rehabilitation by backfilling (ii) voids filled by waste/tailings.	L*B*H 183*15*5 & 70*33*12 I pit 3 (2 locations)
J. Compliance on reclamation and rehabilitation by backfilling (iii) afforestation on backfilling area	Nil. Reclamation is going on.
K. Compliance on reclamation and rehabilitation by backfilling( iv) rehabilitation by making water reservoir	Nil
L. Compliance on reclamation and rehabilitation by backfilling (V) any other specific means.	None
M. Compliance on rehabilitation of waste land within lease (i) afforestation	0.037 Ha. 370 saplings
N. Compliance on rehabilitation of waste land within lease (ii) area rehabilitation (Ha) -	Avenue plantation in 2.66 Ha.
O. Compliance on rehabilitation of waste land within lease (iii) method of rehabilitation .	plantation
P. Compliance of environmental monitoring (core zone & buffer zone)	Yes

V. Conservation:

A. ROM mineral dispatch or grade wise sorting within lease area.	Yes. ROM is grade sorted and stacked separately at plant and fed to plant grade wise and dispatched to jetty gradewise.
B. Method of grade wise mineral sorting i.e. manual or mechanical.	At the mine, by eye estimation, sampling and analyses. The exercise is aided by the analyses of the core samples of the bore holes drilled within the mining blocks.
C. Different grade of mineral sorted out of mines	Yes. Sorted into various grades/stacks
D. Any beneficiation process at mines	Wet beneficiation involving Screening, crushing, classifying and hydrocycloning for upgradation of ROM
E. General remarks of inspecting officer on Mineral conservation and beneficiation issues:	satisfactory

VI. Environment:

A. Separate removal and utilization of topsoil (Rule 32)	Not applicable. Working within broken area ; stripped of the top soil.
B Separate removal and utilization of topsoil (Rule 32)	Not applicable.
C. Separate dumps for overburden, waste rock, rejects and fines (Rule 32)	Yes. Ore and waste stacked separately.
D. Use overburden, waste rock, rejects and fines dumps for restoring the lands to its original use.	Part reclamation of pit 3AB is underway.
E. Phased restoration, reclamation and rehabilitation of lands affected by mining operation (pits, dumps etc.)	Dump No. 1, with 5.27 ha of land is already rehabilitated with plantation, Dump 2 with an area of 3.52 ha by plantation..
F. Baseline information on existence of plantation and additional plantation done (Rule-41)	Plantation by 184753 nos. of saplings (as on 01.04.2017)
G. Survival rate	Around 60 %
H. Water sprinkling on roads to control airborne dust :	A water tanker of 9000 liters capacity is deployed at the mine, which makes are 12 to 15 trips per day for dust suppression.
I. General remarks of inspecting officer on Envnt.:	Satisfactory

VII. Compliance on Rule 45:

A. Status of submission of monthly annual return	<p>Monthly returns for the year 2016-17 Submitted.</p> <p>Annual Return for the year 2016-17 has not been submitted till the date; due date of submission is 1<sup>st</sup> July of every year for preceding year.</p>
B. Scrutiny of annual return for information on Mining Engineer, Geologist and Manager :	
C. Scrutiny of annual return on land use pattern for area under pits, reclaimed area, dumps etc	
D. Scrutiny of annual return on afforestation	
E. Scrutiny of annual return on mineral rejects generation (grade and quantity)	
F. Scrutiny of annual return on ROM stock and /graded ore	
G. Scrutiny of annual return on sale value, Ex. Mines price and production cost	
H. Scrutiny of annual return on fixed assets	

I. Scrutiny of annual return on mining machineries.	
<p>*Annual Return for the year 2016-17 has not been submitted till date; since due date of submission is 1<sup>st</sup> July of every year for preceding year. Hence, Sample scrutiny of Monthly Return of April 2017 and Annual Return for the year 2015-16 were carried out and discrepancies observed being communicated to the party in terms of violation of Rule 45 of Mineral Conservation and Development Rules'2017:</p>	
Rule 45	<p>(i) In Monthly Return of April 2017 submitted for your mine; details reported under Part-II, w.r.to the Ex-mines price is given as below:  Iron Ore (Lumps)- 55% to below 58% Fe (fe content) grade: Rs. 726.44 (Rs. per te)  Iron Ore (fines) - 55% to below 58% Fe (fe content) grade: Rs. 671.91 (Rs. per te)  Whereas, Average Sale Price of minerals by Grades, Published by IBM for March 2017 in respect of Goa State was as follows:  Iron Ore (Lumps)- 55% to below 58% Fe (fe content) grade: Rs.1430 (Rs. per te)  Iron Ore (fines) - 55% to below 58% Fe (fe content) grade: Rs.1310 (Rs. per te)  From above, it is evident that Ex-mines price of ore reported by you is incorrect and un-realistic.</p> <p>(ii) In Annual Return for the year 2015-16 submitted for your mine; details reported under Part- VI, w.r.to ROM ore is given as below:  Opening Stock of ROM= 68089 tonnes  Production of ROM = 20000 tonnes  Closing Stock of ROM = 20000.  However grade-wise production, dispatch, stock etc. of processed ore was reported as Nil and dispatch was also reported as Nil. Hence, there is a difference in Opening Stock and Closing Stock of ROM of 68089 tonnes.</p> <p>(iii) In Annual Return for the year 2015-16 submitted for your mine; details under Part-IIA, w.r.to Capital Structure was reported as Nil /Zero.  However, the same seems to be incorrect and un-realistic, as in mine beneficiation plant, machineries, power and water installation etc. exist.</p>

(P. Prakash)  
DCOM