

MCDR Insp. Reoprt

1) Name of Inspecting officer:	Mr. P. Prakash
2) Designation	Deputy Controller of Mines
3) Accompanying mine official with designation	Mr. Sebastian Pereira, Mines Manager Mr. Muthumari M, Mining Engineer Mr. Santosh Ghadi, Geologist
4) Date of Inspection	20.12.2016
5) Date of Previous Inspection	13.04.2015

PART –I GENERAL INFORMATION

1. Name of mine	Mareta Sodo Iron Ore Mine
a. Category of mine (A-Fully mechanized, A-Other than fully mechanized, B-Manual)	A Fully Mechanized
b. Mode of working (OC/UG/Both o/c & u/g)	OC
c. Postal address	Village: Honda, Post Office: Pissurlem, Tahsil /Taluk: Sattari, District: North Goa, State: Goa, PIN Code: 403 530
d. State	Goa
e. District	North
f. Tehsil/ Taluka	Sattari
g. Police station	Valpoi
h. Village	Honda
i. Post	Honda
j. Pin Code	403530
k. FAX	-
l. E-mail	Sauvick.Mazumdar@vedanta.co.in
m. Phone	0832-2617200
n. Date of first opening	18 th February 1955
o. Weekly day of rest	Sunday

2. a) Lease No.	:	T. C. No. 06/55
b) Lease area in hect.	:	26.6677Ha
c) Period of lease	:	20 Years (22.11.2007 to 21.11.2027)
d) Date of expiry.	:	21.11.2027

3.a) Mineral(s) included in the lease deed	:	Hematite - Iron Ore
b) Mineral(s) worked	:	Iron Ore

4. Name and address of (including FAX/ E-mail, if any)

- a) Lessee/ owner : Vedanta Limited (Formerly Sesa Goa Limited)
- b) Nominated owner : Mr. Sauvick Mazumdar
- c) Agent with date of appointment : Mr. Vijay Kumar appointed on 04.08.2016
- 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 (full time) - Mr. Muthumari M. (B.E. in Mining Engineering) apt. on 25.02.2016.
Geologist (full time) - Mr. Santosh Ghadi (M.Sc. Geology), apt. on 01.04.2016.
- e) Mine Manager with qualification and date of appointment : Mr. Pereira Sebastian B.W. (Diploma in Mining & Mine Surveying, 1st Class Mines Managers Certificate) Appointed on: 12.05.2008.

5. Details about Mining Plan/ Mining Scheme:

- a) Letter No. and date of approval of mining plan : MP/OTF.MECH-38/GOA/2006-07,dated 11.04.2007

b) Letter No. and date of approval of mining : Modification (Current) – MMP/MECH-03/GOA/2015-16 dtd. 11.08.2015

c) Period of mining plan/ mining scheme in force : : From 2013-14 to 2017-18
(Proposals 2015-16 to 2017-18)

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					
a) Managerial person	5	0	5	1015	
b) Supervisory persons	3	0	3	609	
c) Workers	6	14	20	4060	
d) Ministerial persons	0	0	0	0	
c) Employment in plant	0	0	0	0	
f) Others	4	0	4	812	
UNDERGROUND					
a) Managerial person*					
b) Supervisory persons					
c) Workers					
d) Ministerial persons					
c) Employment in plant					
f) Others					* If common, please state

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. Lakhs (Previous financial year) (2015-16)	Expenditure proposed in Rs. Lakhs for current year (2016-17)	Expenditure incurred in Rs. Lakhs (Previous financial year) (2015-16)	Expenditure incurred so far in Rs. Lakhs, in current year (2016-17), Till the date of inspection	Remarks
1	General development in the area					1. Drinking water supplied to villagers in Soliye village. Water storage tank and pipeline work in progress in Soliye. 2. Dental Health Camp for villagers 3. Transport facility to
	a) Housing	Nil	Nil	Nil	Nil	
	b) Water supply	5.5	30	10.3	Work in progress on creating drinking water project	
	c) Sanitation	Nil	Nil	Nil	Nil	
	d) Health, safety and medical facilities.	Nil	0.25	Nil	0.05	
2	Training	Nil	Nil	Nil	Nil	
3	Employment to local inhabitants					

4	Infrastructure-public transport, roads, communication and electricity	Nil	Nil	Nil	Nil	school children of Sonshi village. 4. Also we are having Sesa Technical School at Sankhali which is open for all Goan youth.
5	Recreation and other sports activities	0.50	0.50	0.56	0.36	
6	*Expenditure for environment management	96.93	189.2	21.35	68.16	
7	Others (transport for school children)	3.30	2.5	2.46	0.63	
	Total	100.73	192.2	24.37	69.15	

*Common for Maretasodo, Botvadeacho Dongor & Gaval Sonshi Mines : Expenditures given here is as reported by the Agent/mines manager; Not verified by the undersigned.

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
13.04.2015	Nil	NA

IV. Scientific Mining (As per latest approved mining Plan/Scheme):- (for Year 2015-16)

1. Exploration:

1A.Backlog of previous year:- NIL

1B.Exploration over lease area for geological axis 1 or 2:- NIL

1C.Exploration agencies and expenditure in lakh during the year:- NIL

1D.Balance area to be explored to bring geological axis 1 or 2:- 7.25 Hect.

1E.Balance reserve on 01.04.2016:- 11.062 million tones

1F. General remarks of inspecting officer on geology, exploration etc. : As per MP

2. Development:

A. Location of development lease area:- As per MP

B. Separate benches in topsoil, overburden and minerals (Rule 15):- topsoil – NIL, Overburden and Mineral – 6 benches

C. Stripping ratio (ore to OB ratio):- 1:0.2 (Te:m3)

D. Quantity of topsoil generation in m3:- NIL

E. Quantity of overburden generation in M3:- 39540m³ (79080 te)

3. Exploitation:

A. Number of pit proposed for production: - 1 (One)

B. Quantity of ROM mineral production :- 202985 tons

C. Recovery of saleable/usable mineral from ROM (Ore) production:- ROM despatch

D. Quantity of mineral rejects generation:- NA

E. Grade of Mineral rejects generation and threshold value declared:- +45%Fe / -54%Fe, Threshold value +45%Fe

F. Quantity of Subgrade mineral generation:- NA

G. Grade of Subgrade mineral generation:-NA

H. Manual/Mechanical method adopted for segregating from ROM.:- NA

I. Any analysis for benefaction study proposed and carried out for sub grade mineral:- NA

J. Provision of drilling and blasting in mineral benches.:- NA

K. Provision of mining machineries in mineral benches.:- Yes (HEMM)

L. Whether height of benches in overburden and mineral suitable for method of mining proposed:- Yes,

M. Total area covered under excavation/pits. About 15 Ha.

N. Ore to OB ratio for the pit/mine during the year 1:0.2

O. Total area put in use under different heads at the end of the year: about 20.5 Ha

P. Production of ROM mineral during the last five years period as applicable:

Year	ROM (in tones)
2012-13	133917
2013-14	NIL
2014-15	NIL
2015-16	202985
2016-17	286914 (Apr 16 to Nov 16)

Q. General remarks of inspecting officers on method of mining etc.: Satisfactory

4. Waste:

A. Separate dumping of top soil, OB and mineral rejects (Rule 32, 33):- Yes;

No topsoil generated, OB temporarily backfilled, Mineral reject was used for blending.

B. Location of top soil, OB and mineral rejects dumps.

OB was temporarily backfilled between Section 8 to 9.

C. Number of dumps with in lease area and outside of the lease area: Two dumps within lease area. Outside- Nil

D. Location of dumps w.r.t ultimate pit limit (Rule 16):Partially within ultimate pit limit.

E. Number of active and alive dumps.NIL.

F. Number of dead dumps: Two

G. Numbers of dumps stabilized: Two

H. Whether retaining wall or garland drain all along dumps are there. YES.

I. Length of retaining wall or garland drain all along dumps: Retaining wall/Garland Drain:-1320m

J. Number of settling ponds:- One

K. Specific comments of inspecting officer on waste dump management : In this regard, Violations of rule 13(1) of MCDR,88 communicated to the party as Mining operations have not been carried out in accordance with the Modification of Mining Plan approved dated 11.08.2015 to the extent indicated below:-

- (i) Temporary backfilling is approved to be carried out by having dump floors inward sloping with drainage system and in order to arrest the solid wash-off, the monsoon run-off to be channelized to a central location in each dump terrace & collected through pipe lines in to settling ponds/pit.

However, it was observed during inspection that waste material being dump in to water logged pit for backfilling near to common lease boundary with Sonshi Mine of M/s V.G. Queni, without taking aforesaid protection measures. Hence, waste/backfilled material may escape uncontrolled in haphazard manner and even enter into adjacent lease and thus cause degradation of the environment.

5. Backfilling: Temporary

A. Status of part or full extraction of mineral from mined out area before starting backfilling. NA

B. Area under backfilling of mined out area. NA

C. Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) NA

D. Total area fully reclaimed and rehabilitated. NA

E. General remarks of inspecting officer on backfilling and reclamation : Backfilling proposed and being carried out temporarily.

6. PMCP:

A. Whether annual report on PMCP submitted on time and correctly, Rule 23E (2) :YES

B. Area available for rehabilitation (Ha): NIL

C. Afforestation done (Ha): Nil

D. No. of sapling planted during the year : Nil (2395 nos. Outside Mining lease)

E. Cumulative no. of plants : NA

F. Any other method of rehabilitation NIL

G. Cost incurred on watch and care during the year. 7.5 lakh Rupees approx

H. Compliance on reclamation and rehabilitation by backfilling (i) voids available for backfilling
It is temporary backfilling.

I. Compliance on reclamation and rehabilitation by backfilling (ii) voids filled by waste/tailings. NIL

J. Compliance on reclamation and rehabilitation by backfilling (iii) afforestation on backfilling area
NIL

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. NIL
- M. Compliance on rehabilitation of waste land within lease (i) afforestation NIL
- N. Compliance on rehabilitation of waste land within lease (ii) area rehabilitation (Ha) NIL
- O. Compliance on rehabilitation of waste land within lease (iii) method of rehabilitation NIL
- P. Compliance of environmental monitoring (core zone & buffer zone) YES.
- Q. General remarks of inspecting officer on PMCP compliance and progressive closure operation etc. :
Satisfactory

VI. Conservation:

- A. ROM mineral dispatch or grade wise sorting within lease area : ROM mineral dispatch
- B. Method of grade wise mineral sorting i.e. manual or mechanical : NA
- C. Different grade of mineral sorted out of mines NA
- D. Any beneficiation process at mines NIL
- E. General remarks of inspecting officer on Mineral conservation and beneficiation issues; satisfactory

VII. Environment:

- A. Separate removal and utilization of topsoil (Rule 32) NA
- B. Concurrent use or storage of topsoil NA
- C. Separate dumps for overburden, waste rock, rejects and fines (Rule 32): Yes
- D. Use overburden, waste rock, rejects and fines dumps for restoring the lands to its original use. NIL
- E. Phased restoration, reclamation and rehabilitation of lands affected by mining operation (pits, dumps etc.) NIL
- F. Baseline information on existence of plantation and additional plantation done (Rule-41) YES
- G. Survival rate 85%
- H. Water sprinkling on roads to control airborne dust : YES
- I. General remarks of inspecting officer on Envnt.: Satisfactory

VIII. Compliance on Rule 45:

- A. Status of submission of monthly annual return YES
- 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.

(A-I) : Above, observed to be in order, except followings points for which Violations of following rules of MCDR,88 communicated to the party.

42	Appointed Mining Engineer-Mr. Muthumari M and Geologist-Mr. Santosh Ghadi do not have 10 years of experience as required under this rule.
45	As per the submitted Annual Return for the year 2015-16; 202985 tonnes of ROM ore was produced and 178750 tonnes of ROM ore mentioned as closing Stock. However gradewise production, dispatch, stock etc. of processed ore was reported as Nil and Sales/dispatch effected for Domestic Consumption & for Export was also reported as Nil. Hence, there is no record of 24235 tonnes of ore is observed. Further, this type of discrepancy is also observed in the subsequent Monthly returns submitted.

P. Prakash
DCOM