

**MCDR INSPECTION REPORT**

1) Name of Inspecting officer:	G. S. Kannan
2) Designation	Junior Mining Geologist
3) Accompanying mine official with designation	1) Shri. Alexio Manuel Costa- (Lessee) 2) Shri. Suresh - (Admin Manager) 3) Shri. S.S.Mahato –Mines Manager
4) Date of Inspection	13/06/2017
5) Date of Previous Inspection	24/11/2015

**General Information**

Sl.No	Particulars	Details
1	Name of the Mine	<b>Sem Denominacao Esp Mine (Tc.No.05/53)</b>
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease Area : 93.9901 Ha Forest Area: Nil Non Forest Area: 93.9901 Ha
3	Minecode	30GOA02020
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/205/2011
5	Name of the lessee, Address, phone, email and fax number	Shri. Aleixo Manuel C.P.Da Costa, Baboy Commerce Centre, A-Building, S.O.12, Near Hari Mandir, Margao-Goa- 403 601, S.Goa. Telephone No : (0832) 2705011/2736397 Fax No : 91 (0832) 2731893 E-mail : manueldacosta@rediffmail.com
6	Village	Patiem & Tudou
7	Taluka/ Mandal	Sanguem
8	District	South Goa
9	Pincode	403601
10	State	Goa
11	Post office	Uguem
12	Nearest police station	Sanguem
13	Nearest Railway station	Kalay
14	Date of Grant of Mining Lease	12/01/2015
15	Date of Execution	
16	Date of opening of Mine	01/04/1954
17	Date of first Renewal, if applicable and its period & expiry	For 20 years upto 21.11.2007
18	Date of second Renewal, if applicable and its period & expiry	For 20 years upto 21.11.2027
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Nil
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri. Aleixo Manuel C.P.Da Costa, Baboy Commerce Centre, A-Building, S.O.12, Near Hari Mandir, Margao-Goa- 403 601, S.Goa.

21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Nil
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri. S.S.Mahato, DME, I Class Manager, Date of Appointed : 11.08.2011
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri. S.S.Mahato, DME, I Class Manager, Date of Appointed : 11.08.2011
24	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes appointed as per Rule.
25	Date of Approval of Mining Plan/ Modified Mining Plan with five-year period and specific condition in approval letter, if any.	MMP/MECH-56/GOA/2015-16 Dt 08/04/2016. (Period 01.04.2013 to 31.03.2018)
26	Date of Approval of Scheme of Mining/ Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	Nil
27	Mineral(s) granted in lease and proved for mining	Iron Ore
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
30	Captive/ Non Captive	Non Captive

### SCIENTIFIC MINING

Sl. No	Item	Proposals	Actual Work	Remarks
<b>A. EXPLORATION:-</b>				
1a	Backlog of Previous Year	The proposal was to drill 51 boreholes with 2835m in Previous approved Plan	59 Boreholes has been drilled during 2007-2012 with 3083 meterage.	Form-J has been submitted
1b	Exploration Over Lease area for Geological Axis 1 or 2	Additional exploration not proposed in modified mining plan during 2016-2017.	Additional exploration is not carried out after re-commencement of mining operations in September 2015. Area explored under G-1 category is 34.96 Hect. Total 197 boreholes were drilled with 9924m drilling.	20 boreholes have been proposed during 2017-2018 to explore in G2 area of 14.61 hect.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Own drilling and/ or Contract drilling machines were used for Exploration in the past.	Total 197 boreholes were drilled. Total Rs. 100.00 lacs were spent on exploration.	37 no of Non Coring holes with 1454m & 160 nos of Coring holes with 8470m

1d	Balance area to be explored to bring Geological axis 1 or 2	Exploration was carried out at 50m X 50m grid interval. Additional exploration was not proposed	Exploration was carried out at 50m X 50m grid interval. Balance area of 14.61 hect area has to be explored for availability of ore from G-2 to G-1.	
1e	Balance reserves as on 01/04/2017	As on 01.04.2017 Proved Mineral Reserves (111) = 1.514 Mil Tons Probable Mineral Reserves (121) = 0.495 Mill Tons	As on 01.04.2017 Proved Mineral Reserves (111) = 1.514 Mil Tons Probable Mineral Reserves (121) = 0.495 Mill Tons	Hence there is no mining activity; R & R has not been changed.
1f	General remarks of inspecting officer on geology, exploration etc.	Two ore bands are identified.	The general Structure of Ore body is tightly folded and steeply dipping.	For the presently, no exploration proposals drawn.

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<b>B. DEVELOPMENT:-</b>				
2a	Location of development w.r.t. lease area	In between Section 27 to 31	Nil	Mine is not Working because want of Statuary Clearances – ESZ.
2b	Separate benches in topsoil, overburden and mineral	7 Bench's Proposal in OB & 4 Bench's Proposal in Ore	Nil	
2c	Stripping ratio or ore to OB ratio	1 : 2.14	Nil	
2d	Quantity of topsoil generation in m3	Nil	Nil	No Top Soil is Existing
2e	Quantity of overburden generation in m3	193000 m3/ 483000 Tons	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Proposed 483000 Tons from 7 benches during 2016-2017	Nil	Mine is not Working because want of Statuary Clearances – ESZ.

Sl. No	Item	Proposals	Actual Work	Remarks
<b>C. EXPLOITATION:-</b>				
3a	Number of Pit Proposed for Production	Development and production was proposed in Pit-5.	Development and production are not carried out. Because want of ESZ.	
3b	Quantity of ROM mineral production proposed	The total target of ROM Production was 225000 tons during 2016- 2017 as per distribution from lessee on capping on EC limit.	Nil	

3c	Recovery of Sailable/ Usable Mineral from ROM Production	100 %	Nil	
3d	Quantity of mineral reject generation	No Proposal	Nil	
3e	Grade of mineral reject generation and threshold value declared	No Proposal	Nil	
3f	Quantity of sub-grade mineral generation	No Proposal	Nil	
3g	Grade of sub-grade mineral generation	No Proposal	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Dry Mobile screening was proposed for grade-wise production.	Because of Non-Working, Mobile screening is not in use.	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	Drilling and blasting was not proposed.	Nil	Drilling and blasting is not carried out and ripper dozer is Proposed for excavation.
3k	Provision of mining machineries in mineral benches	Excavator- 3 No Ripper Dozer - 1 No Truck – 25 No W/ Loader – 1 No Water tanker - 1 No Mobile Screen – 1 No Water Pump – 2 No	Machineries are present but not in use because want of Statuary Clearances	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/ SOM	Bench height of 6m was proposed in waste and Ore.	As per the Proposal all bench height is maintained	
3m	Total area covered under excavation/pits	29.0916 hect area is under Pit and additional 0.011 hect is required	29.0916 hect areas are under Pit only.	Due to Non-working of Mines, additional area is not in use.
3n	Ore to OB ratio for the pit/ mine during the year	1 : 1.227	Nil	
3o	Total area put in use under different heads at the end of year	Land use Pattern as on 01.04.2017. Mines = 20.30 hect Dump = 27.50 hect Mine road = 1.9635 hect Infrastructure = 0.034 hect Unused = 44.1926 hect	Land use Pattern as on 01.04.2017. Mines = 20.30 hect Dump = 27.50 hect Mine road = 1.9635 hect Infrastructure = 0.034 hect Unused = 44.1926 hect	There are no Changes in land use Pattern because of Non-Working.

3p	Production of ROM mineral during last five-year period, as applicable	2016-2017 = 225000 tons 2015-2016 = Nil 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = 351000 tons	2016-2017 = Nil 2015-2016 = Nil 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = 52920	During the Period 2013 to till date, the Mine was not working due to statutory order - ESZ
3q	General remarks of inspecting officer on method of mining etc.	Nil	The Mines falls under 1Km buffer line of Eco Sensitive Line, because of this issue the mine is not in operation.	

Sl. No	Item	Proposals	Actual Work	Remarks
<b>D. SOLID WASTE MANAGEMENT - DUMPING:-</b>				
4a	Separate Dumping of Topsoil, OB and Mineral Rejects	There is no Topsoil and Mineral rejects, only OB is proposed as dumping in the existing dump area.	There is no generation of OB because of Non-working	
4b	Location of Topsoil, OB and Mineral Rejects Dumps	New Dump N-1684700 to 1685200/ E-414900 to 415430	Nil	Mine is not Working because want of Statuary Clearances
4c	Number of Dumps within Lease & Outside Lease area	Lease area = 2 Dumps Non Lease area = Nil	Lease area = 2 Dumps Non Lease area = Nil	
4d	Location of Dumps, within Ultimate Pit Limit	Old Dump: N-1684900 to 1685200/ E-415400-415900 New Dump N-1684700-1685200/ E-414900-415430 Both are outside UPL	Old Dump: N-1684900 to 1685200/ E-415400-415900 New Dump N-1684700-1685200/ E-414900-415430 Both are outside UPL	Old Dump = 11.38 hect New Dump = 5.18 hect
4e	Number of Active & Alive Dumps	Active Dump = One Alive Dump = One	There is no active dump within lease area for waste dumping.	Old Dump is almost rehabilitated and New dump is active.
4f	No of Dead Dumps	Nil	One	
4g	No of Dumps Established	Nil	One	
4h	Whether Retaining Wall or Garland drain along Dumps are there	Garland drain, Settling Pond was proposed to maintain & cleaned on different terraces of Backfilled area to avoid wash-off.	Trench, Settling Pond is maintenances and cleaning.	

4i	Length of Retaining Wall or Garland drain along Dumps	Parapet wall – 1121m Drainage Channel – 6510m	Parapet wall & channel are maintenance and cleaned	
4j	No of Settling tanks	6 Small Settling ponds	6 Small Settling ponds	
4k	Specific comments of inspecting officer on waste dump management	Nil	Old Dump is almost rehabilitated and New dump is active. There is no generation of Topsoil and Mineral rejects. OB waste has proposed to dump in existing dump only. Trench's, Settling Pond is maintained and cleaning was done to avoid wash off.	

Sl. No	Item	Proposals	Actual Work	Remarks
<b>E. SOLID WASTE MANAGEMENT - BACKFILLING:-</b>				
5a	Status of part or full extraction of mineral from mined out area before starting backfilling	There is no proposal for backfilling during this plan period.	Nil	
5b	Area under backfilling of mined out area	Nil	Nil	There is no proposal for backfilling during this plan period.
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area	Nil	Nil	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Nil	There is no backfilled area in the mines and only two dumps are present.	

Sl. No	Item	Proposals	Actual Work	Remarks
<b>F. PROGRESSIVE MINE CLOSURE PLAN:-</b>				
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E(2). Details should be given in the format as given in Annexure-20.	It should be on or before 1st July every year.	Submitted within time	
6b	Management of worked/ mined out benches i) Area available for rehabilitation (ha)	i) Mineral is persisting in pit bottom and no temporary backfilling is proposed.	i) As per proposal there is no backfilling carried out due to Non-working of Mines.	
	ii) Afforestation done (ha)	ii) Nil	ii) Nil	

	iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	iii) Nil iv) Nil v) Nil vi) Nil	iii) Nil iv) Nil v) Nil vi) Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/ tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	i) Nil ii) Nil iii) Nil iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) Nil ii) Nil iii) Nil	i) 600 ii) 0.500 iii) Gap Filling in Dump	Cumulative of 17.81 hect has been afforested with 183456 saplings in Dumps & Road Side.
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Quarterly environment monitoring is required and report has to be sent to IBM Regional office.	Quarterly environment monitoring is carried out through own as well as private agency.	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations		Even the Mine is nonworking from 2012. They have afforested and taken protective measures as per PMCP	

Sl. No	Item	Proposals	Actual Work	Remarks
<b>G. MINERAL CONSERVATION:-</b>				
7a	ROM mineral dispatch or grade wise sorting within lease area	As per approved mining plan proposed ROM was classified as >54% Fe as powdery ore & >35 % Fe as Siliceous ore	Nil	

7b	Method of Grade-wise mineral sorting i.e. manual or mechanical	Mechanical processing i.e. dry screening was proposed for grade-wise production.	Nil	
7c	Different grade of mineral sorted out at mines	The grade-wise production of >54% Fe as powdery ore & >35 % Fe as Siliceous ore was proposed in modified mining plan.	Nil	
7d	Any beneficiation process at mines	Mechanical processing i.e. dry screening was proposed for grade-wise production.	Nil	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Nil	Nil	

Sl. No	Item	Proposals	Actual Work	Remarks
<b>H. ENVIRONMENT:-</b>				
8a	Separate removal and utilization of topsoil	No Proposal	Nil	
8b	Concurrent use or storage of topsoil	Nil	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines	Proposal was to dump the waste in New dump area and mineral is persisting in the pits.	Nil	Old Dump = 11.38 hect New Dump = 5.18 hect
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Nil	Nil	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Nil	Nil	
8f	Baseline information on existence of plantation & additional plantation done	Existence of plantation is there on slopes of the dump, along the road and other part of lease area.	Forest & Fruit Bearing Plant – 600 are planted during 2016-2017	Cumulative of 17.81 hect has been afforested with 183456 saplings in Dumps & Road Side.
8g	Survival rate	No proposal.	Survival rate is around 50% for previous plantation	



8h	Water sprinkling on roads to control airborne dust	Yes, it is proposed for waster sprinkling on haul roads.	Water sprinkling on road is observed during the inspection.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	Nil	Surrounding area beyond lease area is greenery and lessee has carried out plantation on dump, along road etc.	

Sl. No	Item	Comments		Remarks
<b>I. COMPLIANCE OF RULE-45:-</b>				
9a	Status of Submission of Monthly & Annual Returns	MR Submitted up to = May 2017 AR Submitted up to = 2016-2017		Both Annual & Monthly returns are submitting in online system.
Sl. No	Item	Details Given in A.R	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Geologist & Surveyor are appointed partly.	It is advised to appoint full time Geologist & Surveyor	This Technical persons are working as part time in other Non-working mines also
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Land use Pattern as per A.R. Mines = 20.30 hect Dump = 27.50 hect Mine road = 1.9635 hect Infrastructure = 0.034 hect	Land use pattern as per approved modified mining plan and AR are coinciding	Due to No Production & development, there is no changes in landuse pattern
9d	Scrutiny of Annual return on afforestation	Within Lease = Nil Outside Lease = 600	Forest & Fruit Bearing Plant – 600 are planted during 2016-2017	Cumulative of 17.81 hect has been afforested with 183456 saplings in Dumps & Road Side.
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	No Proposal	Nil	Due to No Production & development, there is no mineral reject generation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Nil	Due to Non-Working from 2013, there is no stock and all are nil only.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex.Mine Price & Production cost is Zero	Due to Non-Working from 2013, there is no ROM, hence Ex.Mine Price & Production cost is Zero.	

9i	Scrutiny of Annual return on fixed assets	Fixed assets have filled	Fixed asset have filled properly.	
9k	Scrutiny of Annual return on mining machineries	Wheel Loader	They are used for maintain of road and protective measures only.	

**Details of violations observed during current inspection and compliance position of earlier violation pointed out:-**

There is no Violation pointed out because of mine is not working for 1 km Buffer line from ESZ.

**G.S.Kannan**  
**Junior Mining Geologist**