

## MCDR INSPECTION REPORT

1) Name of Inspecting officer:	G. S. Kannan
2) Designation	Junior Mining Geologist
3) Accompanying mine official with designation	1) Shri. Srish Pal- (Agent) 2) Shri. Vuppu Lowa Raju- (Mines Manager) 3) Shri. Anurag Mishra -DGM (Mines) 4) Shri. D.R .Reddy- Sr. Manager(Mines) 5) Shri. Naveen Krishna Murthy Sr. Manager (Environment) 6) Shri. Amit Ghogale-Geologist 7) Shri. G. Krishna Chandra -Mine Surveyor
4) Date of Inspection	14/06/2017
5) Date of Previous Inspection	31/08/2015

### General Information

Sl.No	Particulars	Details
1	Name of the Mine	<b>Saniem Mine (Tc.No.02/51)</b>
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease Area:49.4110 Ha Forest Area: 32.1221 Ha Non Forest Area: 17.2889 Ha
3	Minecode	30GOA02011
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/499/2011
5	Name of the lessee, Address, phone, email and fax number	M/s. M.S. Talaulikar & Sons Pvt. Ltd. Vila Flores da Silva Erasmio Carvalho Street, P.B. No. 31, Margao-Goa- 403 601, Goa. Telephone No : (0832) 2732346 Fax No : 91 (0834) 2730651 E-mail : mst.goa@gmail.com
6	Village	Sancordem
7	Taluka/ Mandal	Dharbandora
8	District	South Goa
9	Pincode	403406
10	State	Goa
11	Post office	Sacorda, Dharbandora – Goa
12	Nearest police station	Collem
13	Nearest Railway station	Collem
14	Date of Grant of Mining Lease	06/01/2015
15	Date of Execution	23/02/2016
16	Date of opening of Mine	01/08/1951
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	Nil
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri. Srish Pal Date of appointment - 22/04/2016
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri. Vuppu Lowa Raju First Class Mines Manager Date of appointment - 01/02/2017
23	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri. Srish Pal, B.E.Mining, ISM-Dhanbad, Date of appointment – 01/02/2017
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-43/GOA/2015-16 Dt 24/11/2015. (Period
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	There is no Proposal in Previous approved Plan	32 Boreholes has been drilled during 2007-2011 with 1441 meterage.	
1b	Exploration Over Lease area for Geological Axis 1 or 2	Additional exploration was not proposed in modified mining plan.	Additional exploration is not carried out after re-commencement of mining operations in September 2015. Area explored under G-1 category is 40 Hect. Total 119 boreholes were drilled with 6004m drilling.	

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 119 boreholes were drilled. Total Rs. 90.07 lac was spent on exploration.	
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 9 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) = 1.8 Million Tons Pre-Feasibility Mineral Resources (221) = 2.6 Million Tons	As on 01.04.2017 Proved Mineral Reserves (111) = 1.8 Mill Tons Pre-Feasibility Mineral Resources (221) = 2.6 Mill Tons	Hence there is no mining activity; R & R has not been changed.
1f	General remarks of inspecting officer on geology, exploration etc.	The deposit is part of Sacorda-Gavane Deposit	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	N-1703900-1704150/ E-409800-409850	Nil	Mine is not Working because want of Statuary Clearances
2b	Separate benches in topsoil, overburden and mineral	3 Bench's Proposal in Both Ore & OB	Nil	
2c	Stripping ratio or ore to OB ratio	1 : 1.227	Nil	
2d	Quantity of topsoil generation in m3	Nil	Nil	No Top Soil is Existing
2e	Quantity of overburden generation in m3	125000 m3/ 321000 Tons	Nil	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Proposed 125000 m3 from 3 benches	Nil	Mine is not Working because want of Statuary Clearances

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-1.	Development and production are not carried out.	

3b	Quantity of ROM mineral production proposed	The total target of ROM Production was 149000 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- 5 No Ripper Dozer - 1 No Dozer – 2 No Truck/ Dumper – 80/30 No W/ Loader – 2 No Water tanker - 3 No Mobile Screen – 1 No Water Pump – 2 No DG set – 2 No	Machineries are present but not in use because of 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	Because of Non-Working for last five years few benches are collapsed with each other's due to monsoon.
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 = 29.0916 hect Dump = 6.618 hect Mine road = 0.6660 hect Public Road = 0.3447 hect Unused = 12.69 hect	Land use Pattern as on 01.04.2017. Mines = 29.0916 hect Dump = 6.618 hect Mine road = 0.6660 hect Public Road = 0.3447 hect Unused = 12.69 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 = 149000 tons 2015-2016 = 149000 tons 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = 301085 tons	2016-2017 = Nil 2015-2016 = Nil 2014-2015 = Nil 2013-2014 = Nil 2012-2013 = Nil	During the Period 2012 to till date, the Mine was not working due to want of statutory order
3q	General remarks of inspecting officer on method of mining etc.	Nil	Nil	

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 temporary backfilling inside the bottom of pit.	There is no generation of OB because of Non-working	
4b	Location of Topsoil, OB and Mineral Rejects Dumps	N-1703820-1704320/ E-409160-409480	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 (Rule-16)	Dump No.1: N 1703950 to N 1704300 & E 409530 to E 409900 Dump No.2: N 1703850 to N 1704150 & E 409000 to E 409220 Both are within UPL	Dump No.1: N 1703950 to N 1704300 & E 409530 to E 409900 Dump No.2: N 1703850 to N 1704150 & E 409000 to E 409220 Both are within UPL	
4e	Number of Active & Alive Dumps	Active Dump = Nil Alive Dump = Nil	There is no active dump within lease area for waste dumping.	Now there is no dumping proposal in Approved plan and only Backfilled has been proposed
4f	No of Dead Dumps	Nil	Two	
4g	No of Dumps Established	Nil	Two	
4h	Whether Retaining Wall or Garland drain along Dumps are there	Garland drain, Settling Pond was proposed on different terraces of Backfilled area to avoid wash-off.	Because of no activity, Garland drain, Settling ponds are not constructed.	Trench, Settling Pond is maintenances and cleaning was done in un proposed area.

4i	Length of Retaining Wall or Garland drain along Dumps	650 mts	Trench & Settling Pond are maintenance and cleaned	
4j	No of Settling tanks	One (Mine Pit) Twelve (Small Settling ponds)	One (Mine Pit) Twelve (Small Settling ponds)	
4k	Specific comments of inspecting officer on waste dump management	Nil	Old dump-2 is established. There is no generation of Topsoil and Mineral rejects. OB waste has proposed temporary backfilled inside the Pit. 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	Due to non-availability of area, it is proposed for temporary backfilling within Pit.	Nil	
5b	Area under backfilling of mined out area	22.7398 hect	22.7398 hect	Due to no development, backfilling has not done
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed and rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Nil	Nil	

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 temporary backfilling is proposed in it for Void available in this pit is N-1703820-1704320/E-409160-409480	i) As per proposal there is no backfilling due to Non-working of Mines.	

	<p>ii) Afforestation done (ha)</p> <p>iii) No. of saplings planted during the year</p> <p>iv) Cumulative no. of plants</p> <p>v) Any other specific method of rehabilitation</p> <p>vi) Cost incurred on watch &amp; care during the year</p>	<p>ii) Back Filled area</p> <p>iii) 1000 Gap filling Plant</p> <p>iv) Total 5000saplings were proposed during last approved document period from 2007-08 to 2012-13.</p> <p>v) Nil</p> <p>vi) Nil</p>	<p>ii) Back Filled fillings</p> <p>iii) Vetiver Grass - 2900 Forest &amp; Fruit Bearing Plant – 1200</p> <p>iv) Total 20662 saplings were planted during 2007-08 to 2012-13 .</p> <p>v) Nil</p> <p>vi) Nil</p>	<p>Cumulative Vetiver Grass – 55770 Forest &amp; Fruit Bearing Plant – 90828</p>
6c	<p>Compliance on reclamation and rehabilitation by backfilling</p> <p>i) Voids available for backfilling (L X B X D)</p> <p>ii) Void filled by waste/ tailings</p> <p>iii) Afforestation on the backfilled area</p> <p>iv) Rehabilitation by making water reservoir</p> <p>v) Any other specific means</p>	<p>i) Temporary backfilling is proposed in it for Void available in this pit is N-1703820-1704320/ E-409160-409480</p> <p>ii) Nil</p> <p>iii) Nil</p> <p>iv) Nil</p> <p>v) Nil</p>	<p>i) Nil</p> <p>ii) Nil</p> <p>iii) Nil</p> <p>iv) Nil</p> <p>v) Nil</p>	
6d	<p>Compliance of Rehabilitation of waste land within lease</p> <p>i) Afforestation</p> <p>ii) Area rehabilitated (ha)</p> <p>iii) Method of rehabilitation</p>	<p>i) Nil</p> <p>ii) Nil</p> <p>iii) Nil</p>	<p>i) Nil</p> <p>ii) Nil</p> <p>iii) Nil</p>	
6e	<p>Compliance of Environmental monitoring (core zone &amp; buffer zone)</p>	<p>Quarterly environment monitoring is required and report has to be sent to IBM Regional office.</p>	<p>Quarterly environment monitoring is carried out through own as well as private agency.</p>	
6f	<p>General remarks of inspecting officer on PMCP compliance &amp; progressive closure operations</p>		<p>Even the Mine is nonworking from 2012. They have taken more protective measures as per PMCP</p>	

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 +50% Fe, +45-50% Fe and below 45% Fe is considered as waste due to low market price.	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 +50% Fe & +45-50% Fe 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 temporary backfill the waste inside the pit due to non-availability of other area for dumping and mineral is persisting in the pits.	Nil	
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.	Additional Planation of Vetiver Grass - 2900 Forest & Fruit Bearing Plant – 1200 are planted during 2016-2017	
8g	Survival rate	No proposal.	Survival rate is around 60 to 70% 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 = 29.092 hect Dump = 6.618 hect Mine road = 0.666 hect Unused = 13.035 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 = 1243	Vetiver Grass - 2900 Forest & Fruit Bearing Plant – 1200	Vetiver Grass is not included in afforestation.
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	Shovel & 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 want of statutory clearance.

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