

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

**MCDR inspection REPORT  
Hyderabad regional office**

**Mine file No :** AP/VZNR/MN-106/HYD

**Mine code :** 40APR20054

- (i) Name of the Inspecting : **C\$10** ) **Ch.Suseela**  
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine : SRI. JANARDHAN RAO, Foreman  
Official with  
Designation
- (iv) Date of Inspection : 27-AUG-21
- (v) Prev.inspection date : 12-JAN-18

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **GARBHAM**
- (b) **Registration NO.** : **IBM/8741/2012**
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address :  
State : ANDHRA PRADESH  
District : VIZIANAGARAM  
Village : GARBHAM  
Taluka : MEREKAMUDIDAM  
Post office : GARBHAM  
Pin Code :  
FAX No. :  
E-mail :  
Phone :
- (f) Police Station : BUDARAYAVALLASA
- (g) First opening date : 15-JUL-97
- (h) Weekly day of rest : SUN
2. Address for : M/S MAHALAKSHMI MINERALS,  
correspondance : VILL:GARBHAM,  
DIST:VIZIAYANAGARAM.
3. (a) Lease Number : APR1121
- (b) Lease area : 10.52
- (c) Period of lease : 20
- (d) Date of Expiry : 15-JUL-17
4. Mineral worked : MANGANESE ORE Main

## 5. Name and Address of the

Lessee : M/S MAHALAKSHMI MINIERALS  
SRI SASIDHAR RADDY,  
VILL:GARBHAM  
MANDAL:MERAKAMUDDIM,DI:VZNR  
VIZIANAGARAM ANDHRA PRADESH  
Phone:  
FAX :

Owner : SASIDHAR REDDY  
VILL:GARBHAM  
MANDAL:MERAKAMUDIDAM,  
DIST:VZNR VIZIANAGARAM  
ANDHRA PRADESH  
Phone:  
FAX :

## Manager

Name : S.K.MISHRA  
Qualification : B.TECH,MINING A.I.S.M.  
Appointment/ :  
Termination date

6. Date of approval of Mining : Modif.approved Mining Scheme 29-MAY-15  
Plan/Scheme of Mining MP modif under 17(3) MCR 2016 03-JUL-17

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	NIL	
1b	Exploration over lease area for geological axis 1 or 2	_____	4.50 Ha in G1 Scale	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	NIL	Lessee Rs.19,48,000/-	
1d	Balance area to be explored to bring Geological axis in 1 or 2	_____ -	NIL	The entire mineralised area has been explored under G1 Scale
1e	Balance reserve as on 01/04/20	Reserves as on 1.4.2017-- 523787 tonnes(111) Depletion- 94728 tonnes Balance Reserves as on 1.4.2021-- 429059 tonnes(111)	Reserves as on 1.4.2017-- -523787 tonnes(111) Depletion-49283 tonnes Balance Reserves as on 1.4.2021--474504 tonnes(111)	

1f	General remarks of inspecting officers on geology, exploration etc			The ML area is a part of the Archean terrain consisting of Biotite gneisses, Garnet Sillimanite Gneisses, Felspathic Quartzites, Calc Granulites, Quartz veins etc. Manganese ore horizon is associated with Garnite Gneisses and Lithomarge. The ore zone strikes in E-W to N70oW to S70oE direction with dip of 70o towards South. Total mineralised area has been explored under G1 scale.
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Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area	N 360 to 380 and E 160 to 190 Section B-B' to C-C' RL- 110 to 107	Development work is going on as per the proposals.	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, Ore and OB benches to be maintained	Separate benches for Ore and OB are maintained	
2c	Stripping ratio or ore to OB ratio	0.41	0.43	
2d	Quantity of topsoil generation in m3	No proposal	NIL	

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2e	Quantity of overburden generation in m3	5950 Cu.m	2075 cu.m	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	_____	_____	Development work is being carried out as per the proposals

### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One	One	
3b	Quantity of ROM mineral production proposed	36528 tonnes	26390 tonnes	
3c	Recovery of sailable/usable mineral from ROM production	70 %	70%	
3d	Quantity of mineral reject generation	No Proposal	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	Not Applicable	Not Applicable	
3f	Quantity of sub grade mineral generation.	NIL	No sub grade mineral is generated	
3g	Grade of sub grade mineral generation	Not Applicable	Not Applicable	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual method to be adopted for segregation of ROM	Manual method adopted for seggregation of ROM	

3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NIL	
3j	Provision of drilling and blasting in mineral benches	No proposal as Ore and OB are soft in nature	NIL	
3k	Provision of mining machineries in mineral benches	One Excavator- 0.9 cum, Tippers- 2, (8.33 cu.m)	One Excavator- 0.9 cum, Tippers- 2, (8.33 cu.m)	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes, Bench ht : 3m, Width- 4.5 m	Bench ht : 3m, Width- 4.5 m	Boom length of 0.9 cu.m capacity excavator is suitable for maintaining bench ht of 3 m
3m	Total area covered under excavation/pits	4.6ha	4.669 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1: 0.41	1: 0.43	
3o	Total area put in use under different heads at the end of year	6.0 ha	6.009 ha	
3p	Production of ROM mineral during the last five year period as applicable	2016-17--24231 t, 2017-18-- 23581 t, 2018-19--24003 t, 2019-20--23131 t, 2020-21-- 24012 t	2016-17--6651 t, 2017-18-- 9431 t, 2018-19-- 7709 t, 2019-20--15036 t, 2020-21--17107 t	
3q	General remarks of inspecting officers on method of mining etc.	_____	_____	Opencast semi mechanised method is being practiced with a bench ht of 3m and 4.5m width.

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Solid Waste Management - Dumping:

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Sl.No.	Item	Proposals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Yes, Separate waste dump is proposed	Separate waste dump is maintained	
4b	Location of topsoil, OB and mineral reject dumps	North West side of ML	North West side of ML	
4c	Number of dumps within lease area and outside of lease area	One dump within the lease area	One dump within the lease area	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Beyond UPL	Beyond UPL	
4e	Number of active and alive dumps.	One active dump	One active dump	
4f	Number of dead dumps.	NIL	NIL	
4g	Number of dumps established.	NIL	NIL	
4h	Whether Retaining wall or garland drain all along dumps are there.	Garland drain and retaining wall to be constructed	Garland drain was made around the dump. Retaining wall under construction	
4i	Length of Retaining wall or garland drain all along dumps	Not specific	Garland drain --32 x0.5 x 1m	
4j	Number of settling ponds	No proposal	NIL	
4k	Specific comments of inspecting officer on waste dump management	_____	_____	waste dump is maintained as per the approved proposals

#### Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	Pit is not matured for reclamation	
5b	Area under backfilling of mined out area	Not Applicable	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	NIL	There is no generation of top soil. The proposed workings are within the pit
5d	Total area fully reclaimed and rehabilitated	Not Applicable	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	_____	_____	Pit is not matured for backfilling

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Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	The yearly report on PMCP compliance is to be submitted	The yearly report on PMCP compliance has not been submitted	Violation of Rule 26(2) has been pointed out to the lessee
6b	Area available for rehabilitation (ha) .	No Proposal	NIL	
6c	afforestation done (ha).	NIL	NIL	
6d	No. of saplings planted during the year	200 plants	200 plants	
6e	Cumulative no .of plants	800 plants		

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6f	Any other method of rehabilitation	NIL	NIL
6g	Cost incurred on watch and care during the year	NIL	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	NIL	NIL
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	NIL	NIL

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NIL	
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NIL	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring of environmental parameters is to be carried out	Quarterly monitoring of environmental parameters has been carried out	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	_____	_____	Environmental parameters are being monitored as per the approved proposals.

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#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting within thwe lease area	Grade wise sorting within thwe lease area	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual method adopted	
7c	Different grade of mineral sorted out at mines.	25 to 35% Mn	25 to 35% Mn	
7d	Any beneficiation process at mines	No proposal	NIL	

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7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Manual Sorting and Screening is being carried out to improve the grade
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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	NIL	There is no generation of top soil
8b	Concurrent use or storage of topsoil	Not applicable	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	waste dump in North west side of ML	waste dump in North west side of ML	
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 and additional plantation done (Rule 41)	200 plants per year	200 plants	

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8g	Survival rate	_____	70%	
8h	Water sprinkling on roads to control airborne dust	Yes, water sprinkling on haul roads is to be done	water sprinkling on haul roads is being done	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	_____	_____	The mining lease is surrounded by Mango garden which contributes to improve in aesthetic beauty

#### Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Online Monthly and Annual returns are to be submitted within stipulated time	Online Monthly and Annual returns are being submitted within stipulated time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Shri. S.K.Mishra- Mines Manager cum Mining Engineer Geologist- NIL	Shri. S.K.Mishra- Mines Manager cum Mining Engineer Geologist- NIL	Violation of Rule 55(1)(C) has been pointed out to the lessee
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under pit--- 4.116 ha Area covered under waste dump--0.45 ha	Area covered under pit-- - 4.669 ha Area covered under waste dump--0.045 ha	Requested to refer back the Annual return to make changes
9d	Scrutiny of Annual return on afforestation	NIL	200 plants were planted during the year 2020-21	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	NIL	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM--26390 tonnes Graded ore-- 17107 tonnes	ROM--26390 tonnes Graded ore--17107 tonnes	

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value- - Rs.4400/-, Ex.Mine Price- - Rs.4400/- Cost of production-- Rs.1993/- Grade- 25 to 35% of Mn	Found to be in order
9h	Scrutiny of Annual return on fixed assets	Rs.9152000/-	Rs.9152000/-
9k	Scrutiny of Annual return on mining machineries	Shovel-1(1.0 cu.m), Tippers-- 2(8.33 cu.m) Elec.Motor-- 1(20 HP), Elec.Motor-- 6(10 HP)	Shovel-1(1.0 cu.m), Tippers--2(8.33 cu.m) Elec.Motor--1(20 HP), Elec.Motor--6(10 HP)

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**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
Rule 26(2)	21-SEP-21		
MCDR17 Rule 31(4)	21-SEP-21		
MCDR17 Rule 55(1)(3)	21-SEP-21		

**Date :**

**(Ch.Suseela)**

Indian Bureau of Mines