

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

Inspection under SDF for star rating of mines REPORT

Bangalore regional office

Mine file No : KNT/CTD/MN/135/BNG

Mine code : 40KAR07059

- (i) Name of the Inspecting : **M003**) **G C MEENA**
Officer and ID No.
- (ii) Designation : Regional Controller Mines
- (iii) Accompanying mine : Deepak C.A., Geologist
Official with
Designation
- (iv) Date of Inspection : 05/11/2019
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **SHIVAGANGA ML 2453**
- (b) **Registration NO.** : **IBM/5318/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address :
State : KARNATAKA
District : CHITRADURGA
Village :
Taluka :
Post office :
Pin Code :
FAX No. : 080-22440795 (F)
E-mail : mail@ermgroup.in; ermgroup
Phone : 080-26655930, 9449842341
- (f) Police Station : Holalkere
- (g) First opening date : 16/12/1977
- (h) Weekly day of rest : SUN
2. Address for : M/s Alfa Minerals
correspondance : No.-59, 12th Main, Banashankari 1st stage
1st Block, Srinagar, Bangalore--560 050
3. (a) Lease Number : KAR0386
- (b) Lease area : 23.47
- (c) Period of lease :
- (d) Date of Expiry :
4. Mineral worked : MANGANESE ORE Main

5. Name and Address of the

Lessee : ALFA MINERALS.
 NO-59, 12TH MAIN
 Banashankari 1st stage, 1st
 block Srinagar-560 050
 BANGALORE KARNATAKA
 Phone:080-26655930
 FAX :080-22440795

Owner : R.PRAVEEN CHANDRA, MD
 M/s ALFA MINERALS, NO-59,
 12TH MAIN BANASHANKARI, 1ST
 STAGE, 1ST BLOCK, SRINAGAR
 560 050 BANGALORE KARNATAKA
 Phone: 080-26655930
 FAX : 080-22440795

Mining Engineer

Name : DHANANJAYA . G.REDDY, Full Time
 Qualification : B.E (MINING), GM MINES
 Appointment/ : 01/04/2008
 Termination date

Manager

Name : GURURAJ
 Qualification : Diploma in Mining with 2nd Class MM
 Appointment/ : 01/04/2014
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	11/09/2012
Plan/Scheme of Mining		MP review under 17(1) MCR 2016	31/03/2017
		MP modif under 17(3) MCR 2016	13/06/2018
		FMCP under 23C(1)	28/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No proposal of exploration for reporting year	NIL	NIL
1b	Exploration over lease area for geological axis 1 or 2	No proposal for the Reporting Year	NIL	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	No proposal for the Reporting Year	NIL	NIL
1d	Balance area to be explored to bring Geological axis in 1 or 2	Mineralized area has been explored to G1 category	Minerliased zone covering 1.55 ha has been explored and 21.92 ha is proved to be non-mineralized.	-
1e	Balance reserve as on 01/04/20	-	-	Balance Reserve as on 01.04.2019 is 16340 tonnes
1f	General remarks of inspecting officers on geology, exploration etc	NIL	NIL	The lease is going to expire on 31.03.2020.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	E633810-633910 N1558860-1559050 RL-799-768m	E633810-633910 N1558860-1559050 RL-799-775m	Working are within Grids as per Modified Mining Plan, However, the proposed depth is not reached as lessee has not achieved full production of 10,000 tonnes during the RY.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No Proposal	Lessee has maintained separate benches in Ore and Overburden. Area broken up for mining is devoid of topsoil	Nil

2c	Stripping ratio or ore to OB ratio	1:9.37	1:7.17	Deviation in stripping ratio is due to non-achievement of proposed production and development
2d	Quantity of topsoil generation in m3	No proposal for generation of topsoil during the reporting year	Nil	NIL
2e	Quantity of overburden generation in m3	67505 m3	28166 m3	Deviation is due to non-achievement of proposed production and development due to delay in grant of deemed extension by state govt and also delay in grant of CFO for production of 10,000 tonnes.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	NIL	NIL	The lease is going to expire on 31.03.2020.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Single Pit proposed	Lessee has carried out work in single pit	NIL
3b	Quantity of ROM mineral production proposed	10000 tonnes	5885 tonnes	Violation issued for Less production against the target production.
3c	Recovery of sailable/usable mineral from ROM production	100 % of ROM is saleable	100 % of ROM is Saleable	Nil
3d	Quantity of mineral reject generation	No proposal	NIL	NIL
3e	Grade of mineral rejects generation and threshold value declared.	No Proposal	NIL	NIL

3f	Quantity of sub grade mineral generation.	No Proposal of Sub-grade	NIL	Nil
3g	Grade of sub grade mineral generation	No Proposal	NIL	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Manual method of Crushing, Screening and Sorting.	Manual Method of Crushing, Screening and Sorting adopted	NIL
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No such proposals	NIL	NIL
3j	Provision of drilling and blasting in mineral benches	No Drilling and Blasting Proposed	NIL	NIL
3k	Provision of mining machineries in mineral benches	1 JCB and hired tipper proposed for loading and development	No change	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height will be 3-4m and bench width will be 4-5m in Ore and Waste benches	Found to be maintained	Nil
3m	Total area covered under excavation/pits	1.55 Ha	1.55 Ha	As per Proposal
3n	Ore to OB ratio for the pit/mine during the year.	1:9.37	1:7.17	Difference is due to non-achievement of full proposed production and development.

3o	Total area put in use under different heads at the end of year	Mining- 1.55 Ha Dumps-1.74 Ha Roads- 0.30 Ha Infrastructure -0.21 Ha Afforestation- 7.49 Ha Stock yard- 0.68 Ha Un disturbed- 11.75 Ha	Mining- 1.55 Ha Dumps-1.74 Ha Roads- 0.30 Ha Infrastructure-0.21 Ha Afforestation-7.49 Ha Stock yard-0.68 Ha Un disturbed-11.75 Ha
3p	Production of ROM mineral during the last five year period as applicable	2015-16-5060 tonnes 2016-17-5088 tonnes 2017-18-6000 tonnes 2018-19-10000 tonnes 2019-20-10000tonnes	2015-16-4864 tonnes 2016-17-4558 tonnes 2017-18-4222 tonnes 2018-19-5885 tonnes 2019-20-9946tonnes
3q	General remarks of inspecting officers on method of mining etc.	NIL	NIL

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separates dumping for waste.Proposal for stocking of OB in dumps covering 01.Ha accumulating about 14970 tonnes	Dumping of waste carried out in enmarked area	
4b	Location of topsoil, OB and mineral reject dumps	Location for OB E633990-634040 N1559030-1559086 RL-10 meters.	No change in Location.	
4c	Number of dumps within lease area and outside of lease area	With in Lease- 03 dumps, Out side Lease-NIL	No change	

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps are Outside the UPL	Dumps are Outside the UPL	
4e	Number of active and alive dumps.	01 Active dump	01 Active dump	
4f	Number of dead dumps.	02 dumps	02 dumps	
4g	Number of dumps established.	02	02 dumps have been stabilized	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Retaining wall-334m., Garland drain-398m.	
4i	Length of Retaining wall or garland drain all along dumps	115 meters below toe of back filled area	During RY 34 meters of toe wall of back filled area	Cummulatively 334 meters RW and 398 meters Garland drains have been constructed.
4j	Number of settling ponds	No Proposal	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management	NIL	Nil	

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Manganese has been fully extracted for the area between cross section going to be back filled between cross section A-A'	Manganese has been fully extracted for the area between cross section going to be back filled between cross section A-A'	As per proposal
5b	Area under backfilling of mined out area	0.45 Ha	0.2055 Ha	Violation issued due to deviation
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	NIL	

5d	Total area fully reclaimed and rehabilitated	0.45 Ha	0.2055 Ha	Part of proposed area reclaimed
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Due to deviation in reclamation and rehabilitation, violation letter issued.

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).	Before 1st July 2019	Submitted on 15th May 2019	Annual report of PMCP have been submitted for the year 2018-19.
6b	Area available for rehabilitation (ha) .	No Proposals	NIL	
6c	afforestation done (ha).	0.45 Ha.	0.205ha.	
6d	No. of saplings planted during the year	Area-7.49 Ha Plantation-Gap plantation within 7.49 Ha with 2000 saplings	Gap Plantation with 1930 saplings within 7.49 ha carried out.	
6e	Cumulative no .of plants	1930	8430 in Green Belt area 3800 on dumps	
6f	Any other method of rehabilitation	No Proposal	Not Applicable	
6g	Cost incurred on watch and care during the year	No Proposal	Not Applicable	
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No Proposal	Not applicable	

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	No Proposal	Not Applicable
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	No Proposal	Not Applicable
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No Proposal	Not Applicable
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	No Proposal	Not Applicable
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	No Proposal	Not Applicable
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	No Proposal	Not Applicable
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	No Proposal	Not Applicable
6p	Compliance of environmental monitoring (core zone and buffer zone)	No Proposal	Not Applicable

6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	No Proposal	Not Applicable
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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual Grade wise sorting with in ML area.	No Change	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	Manganese < 25%	<25% Manganese ore produced and sold.	
7d	Any beneficiation process at mines	No Proposal	Manual Sorting, Screening and crushing.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		No Deviation observed.	

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	No proposal of generation of top soil.	Not applicable	Mining area is devoid of top soil
8b	Concurrent use or storage of topsoil	No proposal	Nil	

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dump for OB	No Change	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No Proposal	Not applicable	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Partial Backfilling of Mined out area covering 0.45 Ha .	Partial backfilling covering 0.25 Ha .	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Mining area dominated by Govt Revenue Lands which are primarily used for agriculture.	Lessee has taken up afforestation covering 7.49 ha in wasteland within lease area. 17145 saplings have been planted in waste land and 1940 saplings planted within lease area.	
8g	Survival rate	40%	35%	
8h	Water sprinkling on roads to control airborne dust	Spraying using water tanker	Spraying using water tanker on haul roads	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around th ML area was not affected by the mining operations.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto Sept 2019 A.R. submitted upto FY 2018-19		

9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer- Dhananjaya G Reddy Geologist- Deepak Mines Manager- Gururaja	Upon verification furnished information found correct.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		
9d	Scrutiny of Annual return on afforestation	With in ML- 1930, Out side ML-975	Survival rate 35% and 30% respectively.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No Mineral reject	No deviation
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing Stock- Nil Closing Stock of Manganese 5676 tonnes	Stacked near mine office
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Sale Value of Manganese < 25% Mn is 1634	Appears to be correct
9h	Scrutiny of Annual return on fixed assets	1276610	Appears to be correct
9k	Scrutiny of Annual return on mining machineries	Only one JCB deployed by the Lessee.	Manual Mines.

Details of violations observed during current inspection and compliance position of violation pointed out

Violation observed				Show cause position			
Rule NO.	Issued on	Compliance on		Rule NO.	Issued on	Compliance on	
MCDR17	Rule 11(1)	02/12/2019	27/12/2019				

Date :

(G C MEENA)

Indian Bureau of Mines