

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

**Mining Plan Modification REPORT**

**Bangalore regional office**

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

**Mine code :** 40KAR07059

- (i) Name of the Inspecting : **278** ) **KRISHNENDU CHATTERJEE**  
Officer and ID No.
- (ii) Designation : Junior Mining Geologist
- (iii) Accompanying mine : **DEEPAK C.A.**  
Official with  
Designation
- (iv) Date of Inspection : 22/05/2018
- (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

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Nil	Nil	Additional Exploration by Core drilling carried by lessee with cumulative meterage of 190.5 m by 7 holes during March 2017, end of the mineralization was established by drilling.
1b	Exploration over lease area for geological axis 1 or 2	G1	G1	entire mineralized area has been expolred.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Nil	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	Nil	Not Applicable.	
1e	Balance reserve as on 01/04/20	No proposal	22,225 tonnes as on 01.04.2018, average grade 15.50% Mn	
1f	General remarks of inspecting officers on geology, exploration etc			No deviation in respect of exploration was found during the course of inspection.

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N 1558922-1559035 E 633813-633922	N 1558920-1558990 E 633810-633900	No deviation in repection of development area.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	seperate benches for mineral and overburden	Working Pit area is devoid of top soil. Overburden Benches - Separately maintained	

2c	Stripping ratio or ore to OB ratio	1:7.20	1:5.20	Desired development was not achieved since consent for operation was due for renewal from the KSPCB w.e.f. 16.12.2017.
2d	Quantity of topsoil generation in m3	No proposal	Nil	
2e	Quantity of overburden generation in m3	32029 m3	14706 m3	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			No deviation w.r.t. deviation was observed during the course of inspection.

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#### Exploitation:

Sl.No.	Item	Proposals	Actual work	Remarks
3a	Number of pit proposed for production	Single Pit	Single Pit	
3b	Quantity of ROM mineral production proposed	6000 tons	4222 tons	Less production attributed as mining lease deemed extension is yet to be effected by the state DMG, mining operations suspended w.e.f.15th December 2017.
3c	Recovery of sailable/usable mineral from ROM production	25% recovery of ore from the ore zone	No change	
3d	Quantity of mineral reject generation	No proposal	Nil	
3e	Grade of mineral rejects generation and threshold value declared.	No proposal	No mineral reject generation	
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	Manual segregation	Manual	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	Not Applicable	
3j	Provision of drilling and blasting in mineral benches	No proposal	No drilling and blasting adopted	
3k	Provision of mining machineries in mineral benches	1 hired JCB for development	No change	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench Height 3 to 4 meters in Ore and Waste benches	Found to be maintained	
3m	Total area covered under excavation/pits	1.55 ha	1.55 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:7.20	1: 5.20	
3o	Total area put in use under different heads at the end of year	11.7 Ha	11.8 Ha.	Area covered under green belt was 7.5 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2013-14: 5033tons 2014-15: 5088tons 2015-16: 5060tons 2016-17: 5088tons 2017-18: 6000tons	2013-14: 4784tons 2014-15: 4960tons 2015-16: 4864tons 2016-17: 4558tons 2017-18: 4222tons	

3q	General remarks of inspecting officers on method of mining etc.	No deviation in respect of exploitation was observed during the course of inspection.
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## Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping for waste	Dumping of waste carried out in enmarked area.	
4b	Location of topsoil, OB and mineral reject dumps	N 1559000-1559095 E 633818-633932	No change in location.	
4c	Number of dumps within lease area and outside of lease area	Within lease-3 dumps Outside lease- Nil	No change.	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Active Dump is outside UPL	Outside UPL	
4e	Number of active and alive dumps.	1 active dump	single active dump	
4f	Number of dead dumps.	2 nos.	2 nos. of inactive dumps	
4g	Number of dumps established.	No proposal	2 inactive dumps have been stabilized.	
4h	Whether Retaining wall or garland drain all along dumps are there.	Yes	Retaining wall-334 meters, Earthen Garland drain-398 meters	
4i	Length of Retaining wall or garland drain all along dumps	Not specified	72 meters of retaining wall of 0.75 meters height has been made during 2017-18.	
4j	Number of settling ponds	No Proposal	Nil	
4k	Specific comments of inspecting officer on waste dump management			No deviation in respect of solid waste dump management was observed.

## 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.	No proposal	Nil	
5b	Area under backfilling of mined out area	No proposal	Nil	Mineral was not exhausted in the pit.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	ML is devoid of top soil.	
5d	Total area fully reclaimed and rehabilitated	No proposal	Nil	Recalvation and rehabilitation of mined out pit will be commenced during final mine closure period.
5e	General remarks of inspecting officers on backfilling and reclamation etc.			Backfilling not yet commenced as mineral is still present in the working pit.

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).	Proposed	Annual report of PMCP for 2016-17 has been submitted.	
6b	Area available for rehabilitation (ha) .	No Proposal	Not applicable.	
6c	afforestation done (ha).	0.5 Ha.	7.49 ha. within the ML area so far.	
6d	No. of saplings planted during the year	100 nos on dump 500 nos in green belt building	Afforestation on dump-200 nos. Afforestation in Green Belt area-2000 saplings	
6e	Cumulative no .of plants	5000 nos.	3800 on dumps 6500 in Green Belt area	

6f	Any other method of rehabilitation	No proposal	Not Applicable.
6g	Cost incurred on watch and care during the year	Not specified.	Rs. 104, 800/-
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( Lx B x D	No proposal	Nil
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 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	No waste land involved within ML.
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)	Proposed	One Season Ambient Air Quality, Ground Water Quality, Surface water, Soil Sampling carried out	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			No deviation w.r.t Progressive Mine Closure Plan was observed during the course of MCDR inspection

#### Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Manual grade wise sorting within 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.	Grade wise stocking proposed.	< 25% of Manganese Ore Produced and Sold. Avg Grade during the Year 16-17% Mn.	
7d	Any beneficiation process at mines	No proposal	Manual Sorting, Crushing and Screening.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			No deviation w.r.t mineral conservation was observed during the course of MCDR inspection .

#### Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	Not Applicable	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Seperate dumping for OB	No change.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	OB & Waste will be used during Final Mine Closure for back filling	Not applicable.	Mineral was not exhausted in the pit.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No Proposal	Not Applicable	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	On Dump-100 saplings In Green Belt- 500 Saplings	Gap plantation of 2250 saplings done at O/L area and 200 saplings done on dumps and 2000 saplings in Green Belt area	Green Belt area- 7.49 Ha
8g	Survival rate	55%	40%	low survival rate due to deficit rainfall.
8h	Water sprinkling on roads to control airborne dust	Yes, By Deploying water tanker.	Yes, Dust suppression carried out by Deploying water tanker on haul road.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			Aesthetic beauty in and around the ML area was not affected by the mining operation.

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Compliance of Rule 45:

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Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns		M.R. Submitted up to May- 2018 A.R. Submitted up to 2017-2018	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager- Gururaja Mining Engineer- Dhananjaya G. Reddy Geologist - Deepak C.A	Information furnished found correct.	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under current O/C working: 1.55 Ha. Used for waste disposal: 1.42 Ha. Infrastructure : 1.0 Ha.	Mining Area-1.55 ha Dumps- 1.42 ha Mineral Stocks-0.68 ha Roads-0.30 ha Infrastructure-0.21 ha Afforestation-7.49 ha Unbroken-11.82 ha	Information furnished appeared to be correct.
9d	Scrutiny of Annual return on afforestation	2200 nos. within ML	No change, survival rate 40%	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	No mineral reject generation	No deviation.	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock at mine head 568 tonnes	Stacked near mines office.	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Production Cost: Rs. 1083/ tonne Ex. Mine price: Below 25% Mn: Rs. 2328/ tonne	Appears to be correct.	
9h	Scrutiny of Annual return on fixed assets	Fixed assets of Rs. 1196777	Fixed assets includes office buliding and screening plants.	
9k	Scrutiny of Annual return on mining machineries	Nil	Cat. B manual mines.	

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**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

**Date :****(KRISHNENDU CHATTERJEE)**

Indian Bureau of Mines