

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/MN/KJR/MCDR-20/BBS-31/5/21

**Mine code :** 40ORI08031

- (i) Name of the Inspecting : **U11** ) **DAYANAND UPADHYAY**  
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri A.S Mohapatra, Agent  
Official with  
Designation
- (iv) Date of Inspection : 14/04/2018
- (v) Prev.inspection date : 12/07/2017

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **SILJORA KALIMATI**
- (b) **Registration NO.** : **IBM/5431/2011**
- (c) Category : A Other than Fully Mech.
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : SILJORA KALIMATI
- Taluka : BARBIL
- Post office : SILJORA
- Pin Code :
- FAX No. : 91 - 6582 - 52442
- E-mail : rungtas@satyam.net.in
- Phone : (06582) 52861,52761,52661,!
- (f) Police Station :
- (g) First opening date : 01/01/1946
- (h) Weekly day of rest : MON
2. Address for : SILJORA KALIMATI MANGANESE MINE  
correspondance : DISTRICT KEONJHAR  
ORISSA
3. (a) Lease Number : ORI0172
- (b) Lease area : 715.64
- (c) Period of lease : 20
- (d) Date of Expiry : 31/12/2035
4. Mineral worked : MAGNESITE Associated  
MANGANESE ORE Main

## 5. Name and Address of the

Lessee : M/S M.L.Rungta  
 Rungta House P.O.Chaibasa  
 SINGHBHUM (WEST) JHARKHAND  
 Phone:(06582) 52861,52761,52661,52561,52461  
 FAX :91 - 6582 - 52442

Owner : M D RUSTAGI  
 RUNGTA OFFICE, MAIN ROAD  
 BARBIL KEONJHAR, ORISSA  
 KEONJHAR ORISSA  
 Phone: 06767275221  
 FAX : 06767276161

Agent : SHRI D N PARIDA  
 RUNGTA OFFICE MAIN ROAD  
 BARBIL KEONJHAR KEONJHAR  
 ORISSA  
 Phone: 06767275221  
 FAX : 06767276161

## Geologist

Name : RITESH RANJAN,Full Time  
 Qualification : MSC GEOLOGY  
 Appointment/ : 16/04/2008  
 Termination date

## Manager

Name : A K ROUL  
 Qualification : AMIE (MINING)  
 Appointment/ : 01/03/1995  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	16/10/2001
Plan/Scheme of Mining	:	Renewal under rule 22 MCR1960	13/08/2003
	:	Mining Scheme rule 12 MCDR1988	07/07/2005
	:	Modif.approved Mining Scheme	27/01/2010
	:	Mining Scheme rule 12 MCDR1988	10/05/2010
	:	Modif.approved Mining Scheme	07/01/2011
	:	Modif.approved Mining Scheme	20/04/2012
	:	Mining Scheme rule 12 MCDR1988	25/03/2015
	:	MP modif under MCR 1960	31/12/2015

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	80 number of bore holes.	In 2017-18, total 280 number of bore holes have been drilled by lessee.	There is no backlog.
1b	Exploration over lease area for geological axis 1 or 2	G1 Level of exploration.	In 2017-18, total 280 number of bore holes have been drilled by lessee under G1 Level of exploration.	About 458.36 ha area has been explored uner G1/G2 level by putting 3075 nos. of bore holes of total meterage 138303m.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Till date at the end of 2017-18, total total cost incurred in drilling was Rs 10651053/-. Exploration agency involved in drilling was M/s Geovision Pvt Ltd and M/s V.K.S Mining Services.	Exploration agency involved in drilling was M/s Geovision Pvt Ltd and M/s V.K.S Mining Services.
1d	Balance area to be explored to bring Geological axis in 1 or 2	About 202.869 ha area has been proposed to explore upto the end of 2018-19.	About 458.36 ha area has been expored uner G1/G2 level by putting 3075 nos. of bore holes of total meterage 138303m.	About 458.36 ha area has been expored uner G1/G2 level by putting 3075 nos. of bore holes of total meterage 138303m.

1e	Balance reserve as on 01/04/20	Balance reserve as per Modification of review of mining plan approved on 31/12/2015 was: Iron ore- 0.546MT under proved (111) category and 0.01MT was under feasibility resources (211) category, Mn ore: 3.682MT under proved (111) category and 0.105648MT was under feasibility resources (211, 222 & 333) category.	Balance reserve as on 01/04/2018 under 111 category was 0.53MT of Iron ore and reserve of Mn ore under (111) category was 3.45MT.	Balance reserve as on 01/04/2018 under 111 category was 0.53MT of Iron ore and reserve of Mn ore under (111) category was 3.45MT.
1f	General remarks of inspecting officers on geology, exploration etc	In 2017-18, total 80 number of bore holes have been proposed.	In 2017-18, total 280 number of bore holes have been drilled by lessee. About 458.36 ha area has been explored uner G1/G2 level by putting 3075 nos. of bore holes of total meterage 138303m. About 202.869 ha unexplored area has been proposed to explore upto the end of 2018-19.	About 458.36 ha area has been expored uner G1/G2 level by putting 3075 nos. of bore holes of total meterage 138303m. About 202.869 ha unexplored area has been proposed to explore upto the end of 2018-19.

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Development :

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Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Block-1- S 1080/1800 & W 160/E1200, Block-2- S 2150/2720 & E 910/1400, Block-3-S 1590/1790 & E 1640/1820, Block-4-S 2190/2290 & E 1550/1790, Block-5-S 2100/2550 & E 2120/2440, Block-6(Mn)-S 2980/3380 & E 2580/2950, Block-6(Iron)-S 3440/3500 & E 2520/2820.	Development is concentrated in six blocks, Development is concentrated in six blocks, Block-1- S 1080/1800 & W 160/E1200, Block-2- S 2150/2720 & E 910/1400, Block-3-S 1590/1790 & E 1640/1820, Block-4-S 2190/2290 & E 1550/1790, Block-5-S 2100/2550 & E 2120/2440, Block-6(Mn)-S 2980/3380 & E 2580/2950, Block-6(Iron)-S 3440/3500 & E 2520/2820.	Development is concentrated in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and ore with 6m height.	Separate benches in OB and ore of 6m height have been maintained.	Separate benches in OB and ore of 6m height have been maintained.
2c	Stripping ratio or ore to OB ratio	Iron- 1:2.02t/cu.m, Manganese- 1:12.69t/cu.m	Iron-1:1.91t/cu.m, Manganese- 1:12.38t/cu.m	Average stripping ratio varries due to irregular nature of ore deposit .
2d	Quantity of topsoil generation in m3	Not proposed.	Not applicable.	There is no top soil generation.
2e	Quantity of overburden generation in m3	4318341 cu.m	1466339.72 cu.m	Less quantity of OB generated due to less production of ROM as proposed.

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	Development is Proposed in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.	About 116.572 ha area has been expored uner G1 level by putting 513 nos. of bore holes of total meterage 30677m. Development is concentrated in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.	About 116.572 ha area has been expored uner G1 level by putting 513 nos. of bore holes of total meterage 30677m. Development is concentrated in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.
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### Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	06 Blocks.	Working is concentrated in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.	Working is concentrated in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.
3b	Quantity of ROM mineral production proposed	Iron ore-135859.69T, Mn ore-318721.85T	Iron ore-273.017T, Mn ore-118367.436T	ROM Production is less due to low market demand.
3c	Recovery of sailable/usable mineral from ROM production	Iron ore-122273.72T, Mn ore-286849.67T	Iron ore-273.01T, Mn ore-112612.436T	Iron ore-273.01T, Mn ore-112612.436T
3d	Quantity of mineral reject generation	Iron ore-13585.97T, Mn ore-31872.18T	Iron ore-Nil, Mn ore-5755T	Mineral reject/sub grade of Mn ore generated during 2017-18 is 5755T.
3e	Grade of mineral rejects generation and threshold value declared.	-55% to +45% Fe and 10-25% Mn ore.	Mineral reject/sub grade generated during 2017-18 is 5755T of greade 10-25% Mn. No mineral reject for iron ore is reported for the year 2017-18.	Mineral reject/sub grade generated during 2017-18 is 5755T of greade 10-25% Mn. No mineral reject for iron ore is reported for the year 2017-18.

3f	Quantity of sub grade mineral generation.	Iron ore-13585.97T, Mn ore-31872.18T	Iron ore-Nil, Mn ore-5755T	Mineral reject/sub grade generated during 2017-18 is 5755T of greade 10-25% Mn. No mineral reject for iron ore is reported for the year 2017-18.
3g	Grade of sub grade mineral generation	-55% to +45% Fe and 10-25% Mn ore.	Mineral reject/sub grade generated during 2017-18 is 5755T of greade 10-25% Mn. No mineral reject for iron ore is reported for the year 2017-18.	Mineral reject/sub grade generated during 2017-18 is 5755T of greade 10-25% Mn. No mineral reject for iron ore is reported for the year 2017-18.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised for iron ore and manual for Mn ore.	Mechanised for iron ore and manual for Mn ore.	Mechanised for iron ore and manual for Mn ore.
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	Not applicable.	Nil.
3j	Provision of drilling and blasting in mineral benches	DTH drilling of 110mm dia. Blast hole with emulsion/slurry y exlposive as coloumn charge and booster alongwith delay detonator.	Drilling and blasting is carried out with DTH drilling of 110mm dia. Blast hole with emulsion/slurry exlposive as coloumn charge and booster alongwith delay detonator.	Drilling and blasting is carried out with DTH drilling of 110mm dia. Blast hole with emulsion/slurry exlposive as coloumn charge and booster alongwith delay detonator.

3k	Provision of mining machineries in mineral benches	BACK HOE 1.8 CU.M-10, SHOVEL (HYDRAULIC) 0.9/1.8 cu.m-6, FRONT END LOADER 2.0 cu.m-2, DUMPER 20.0T-32, CRUSHER 150.000 T/H-1, WATER TANKER 8000L-2	BACK HOE 1.8 CU.M-10, SHOVEL (HYDRAULIC) 0.9/1.8 cu.m- 6, FRONT END LOADER 2.0 cu.m-2, DUMPER 20.0T-32, CRUSHER 150.000 T/H-1, WATER TANKER 8000L-2	Excavator, Loader and Dumper are equipped to winning out the mineral.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench height-6m	Bench height is suitably matched with the loading excavator.	Bench height is suitably matched with the loading excavator.
3m	Total area covered under excavation/pits	329.139 ha proposed during approved plan period.	About 319.359 ha. has been covered under excavation pits.	About 57.266 ha. has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	Iron-1:2.02t/cu.m, Manganese-1:12.69t/cu.m	Iron-1:1.91t/cu.m, Manganese- 1:12.38t/cu.m	Average stripping ratio varries due to irregular nature of ore deposit .
3o	Total area put in use under different heads at the end of year	Total area proposed under different heads are Pit-329.139 ha, waste dump-65.404 ha, Plant, residential & building, roads-27.108 ha & Mineral storage, plantation & others -99.499 ha.	Area covered under different heads are Pit-319.359 ha, waste dump-62.0 ha, Plant, residential & building, roads-38.474ha & others -89.350 ha.	Area covered under different heads are Pit-319.359 ha, waste dump-62.0 ha, Plant, residential & building, roads-38.474ha & others -89.350 ha.



3p	Production of ROM mineral during the last five year period as applicable	2013-14: Iron-30180T & Mn-446382.4T 2014-15: Iron-100914T & Mn -292821.18T 2015-16: Iron-100914T & Mn -292821.18T 2016-17: Iron-136005.94T & Mn -342482.31T 2017-18: Iron-135859.69 & Mn -318721.85T	2013-14: 2911.2218T & Mn -120461.063T 2014-15: 770.21T & Mn -91856.421T 2015-16: Iron-773.768T & Mn -93896.498T 2016-17: Iron-778.28T & Mn -107521.701T 2017-18: Iron-273.017T & Mn -118367T	ROM Production is less due to low market demand.
3q	General remarks of inspecting officers on method of mining etc.	Excavation of ROM has been proposed in six block i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.	The ROM production has been carried out six blocks i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.. DTH drilling of 110mm dia. Blast hole with emulsion/ slurry exlpusive alongwith delay detonator is being practiced for drilling and blasting.	The ROM production has been carried out six blocks i.e . Block-1, Block-2, Block-3, Block-4, Block-5 & Block-6.. DTH drilling of 110mm dia. Blast hole with emulsion/ slurry exlpusive alongwith delay detonator is being practiced for drilling and blasting.

#### Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping for overburden and mineral reject.	Overbureden generated during mining operation has been back filled in block B2, B3,B4,B5,B6, and partially on dump-A & H.	There is no top soil generation.

4b	Location of topsoil, OB and mineral reject dumps	Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400.	Overbureden generated during mining operation has been back filled in in block B2, B3,B4,B5,B6, and partially on dump-A & H between grid E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400 respectively.	Overbureden generated during mining operation has been back filled in in block B2, B3,B4,B5,B6, and partially on dump-A & H between grid E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400 respectively.
4c	Number of dumps within lease area and outside of lease area	Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400.	There are two active dumps i.e dump-A, dump-H lies within the lease area.	There are two active dumps i.e dump-A, dump-H lies within the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400.	There are two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400. lies within the lease area.	There are two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400. lies within the lease area.
4e	Number of active and alive dumps.	Two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400.	There are two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400. lies within the lease area.	There are two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400. lies within the lease area.
4f	Number of dead dumps.	Not proposed.	There is two dead dump-D and Dump-E which is rehabilitated by plantation.	There is two dead dump-D and Dump-E which is rehabilitated by plantation.
4g	Number of dumps established.	Not proposed.	There is two dead dump-D and Dump-E which is rehabilitated by plantation.	There is two dead dump-D and Dump-E which is rehabilitated by plantation.

4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall of 500mX1.0mX1.0m and a garland drain of 500mX1.5mX1.0m .	Retaining wall 640mX1.0mX1.0m and a garland drain of 165mX1.0mX1.0m has been completed.	Retaining wall 640mX1.0mX1.0m and a garland drain of 165mX1.0mX1.0m has been completed.
4i	Length of Retaining wall or garland drain all along dumps	Retaining wall of 500mX1.0mX1.0m and a garland drain of 500mX1.5mX1.0m .	Retaining wall 640mX1.0mX1.0m and a garland drain of 165mX1.0mX1.0m has been completed.	Retaining wall 640mX1.0mX1.0m and a garland drain of 165mX1.0mX1.0m has been completed.
4j	Number of settling ponds	Not proposed.	Nil.	Nil.
4k	Specific comments of inspecting officer on waste dump management	Two active dumps i.e Dump-A, E 800/1600 & S 1400/2100, Dump-H, W 100/E400 & S 1650/2400 alongwith retaining wall and garland .	Slope of the dead dump has been stabilised by plantation. The dead dump has been fully rehabilitated by plantation. The retaining wall and garland drain has been constructed around the dump.	Slope of the dead dump has been stabilised by plantation. The dead dump has been fully rehabilitated by plantation. The retaining wall and garland drain has been constructed around the dump.

#### 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.	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued tha backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued tha backfilling as proposed has not been fully completed.

5b	Area under backfilling of mined out area	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Not applicable.	Nil.
5d	Total area fully reclaimed and rehabilitated	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
5e	General remarks of inspecting officers on backfilling and reclamation etc.	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.

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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).	Not specified.	Annual return on PMCP has been submitted.	Annual return on PMCP has been submitted.

6b	Area available for rehabilitation (ha) .	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6c	afforestation done (ha).	4.15	In 2017-18, total area cover under afforestation is about 4.145 ha.	In 2017-18, total area cover under afforestation is about 4.145 ha.
6d	No. of saplings planted during the year	15000 saplings.	In 2017-18, total 26910 nos. of saplings have been planted by lessee.	In 2017-18, total 26910 nos. of saplings have been planted by lessee.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 68380.	Cumulative nos. of saplings planted in the lease area is about 68380.
6f	Any other method of rehabilitation	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 7.5 lakh cost incurred on watch and care.	Around Rs 7.5 lakh cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling ( L x B x D	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not proposed.	Not applicable.	Nil.

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Not applicable.	Nil.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Not applicable.	Nil.
6p	Compliance of environmental monitoring (core zone and buffer zone)	Quarterly monitoring	Quarterly monitoring of air, water and noise level are being carried out.	Quarterly monitoring of air, water and noise level are being carried out.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	18.05 ha area of partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4. As the mineralisation is continued the backfilling as proposed has not been fully completed. Afforestation has been carried out along slope of waste dump & safety zone.	About 6.08 ha area of western portion of chattan pit has been backfilled and afforestation has been carried out along slope of waste dump & safety zone.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Gradewise sorting.	Gradewise sorting is being practiced.	Gradewise sorting is being practiced.
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual for Mn ore mechanised for Iron ore.	Manual for Mn ore mechanised for Iron ore.	Manual for Mn ore mechanised for Iron ore.

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7c	Different grade of mineral sorted out at mines.	25% to 46% Mn and +46% dioxide grade and 45% to 55% Fe and +55% Fe.	25% to 46% Mn and +46% dioxide grade and 45% to 55% Fe and +55% Fe.	Different grades of minerals sorted out at mines are 25% to 46% Mn and +46% dioxide grade and 45% to 55% Fe and +55% Fe.
7d	Any beneficiation process at mines .	Not proposed.	Not applicable.	Nil.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		Cut off grade of Mn ore for the mine is +25%. Different grades of minerals sorted out at mines are +10% to 46% & above of Mn . Cut off grade of iron ore for the mine is +55%. Different grades of minerals sorted out at mines are -65% Fe, 62 to 58% fe and 58 to 55% Fe.	Cut off grade of Mn ore for the mine is +25%. Different grades of minerals sorted out at mines are +10% to 46% & above of Mn . Cut off grade of iron ore for the mine is +55%. Different grades of minerals sorted out at mines are -65% Fe, 62 to 58% fe and 58 to 55% Fe.

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**Environment:**


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Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	Not applicable.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	Not proposed.	Not applicable.	No top top soil generation is proposed.
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping for overburden and mineral reject.	Overbureden generated during mining operation has been back filled in block B2, B3,B4,B5,B6, and partially on dump-A & H.	Overbureden generated during mining operation has been back filled in block B2, B3,B4,B5,B6, and partially on dump-A & H.



8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Partly backfilling of Block-B2, Block-B3 and Block-B4 .	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4.	About 7.05 ha area has been partly backfilled of Block-B2, Block-B3 and Block-B4.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	15000 nos. of plantation on dump-B.	Total 26910 nos. saplings have been planted in 2017-18. Cumulative 68380 nos. have been planted by lessee .	Cumulative 68380 nos. have been planted by lessee.
8g	Survival rate	Not specified.	As reported survival rate is 80%.	As reported survival rate is 80%.
8h	Water sprinkling on roads to control airborne dust	Four water sprinkler.	Four water sprinkler are used to control air borne dust.	Four water sprinkler are used to control air borne dust.
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Aesthetic beauty in and around mined area is maintained. In 2017-18, total 26910 nos of saplings have been planted by lessee. As reported cumulative no. of trees planted by lessee is about 68380 nos.	Aesthetic beauty in and around mined area is maintained. In 2017-18, total 26910 nos of saplings have been planted by lessee. As reported cumulative no. of trees planted by lessee is about 68380 nos.

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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	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.	Monthly & Annual returns are being regularly submitted by lessee.
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Graduate Mining Engineer-1, Diploma mining Engineer-3, Geologist-3, Other-12	Graduate Mining Engineer-1, Diploma mining Engineer-3, Geologist-3, Other-12	Graduate Mining Engineer-1, Diploma mining Engineer-3, Geologist-3, Other-12
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Pit-319.359 ha, waste dump-62.0 ha, Plant, residential & building, roads-38.474ha & others - 89.350 ha.	Area covered under different heads are Pit-319.359 ha, waste dump-62.0 ha, Plant, residential & building, roads-38.474ha & others -89.350 ha.	Area covered under different heads are Pit-319.359 ha, waste dump-62.0 ha, Plant, residential & building, roads-38.474ha & others -89.350 ha.
9d	Scrutiny of Annual return on afforestation	Total 26910 nos. saplings have been planted in 2017-18.	Total 26910 nos. saplings have been planted in 2017-18.	Total 26910 nos. saplings have been planted in 2017-18.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject 5755T, 20.10% Mn.	Mineral reject 5755T, 20.10% Mn.	Mineral reject 5755T, 20.10% Mn.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing stock maintained below 25% Mn, 25-46% Mn and above 46% and dioxide grade.	Closing stock maintained below 25% Mn, 25-46% Mn and above 46% and dioxide grade.	Closing stock maintained below 25% Mn, 25-46% Mn and above 46% and dioxide grade.

9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price between grade 35% - 46% Mn is Rs 18618.59 and ex mine price between grade 62% to below 65% Fe is Rs 2225.42.	Ex mine price between grade 35% - 46% Mn is Rs 18618.59 and ex mine price between grade 62% to below 65% Fe is Rs 2225.42.	Ex mine price between grade 35% - 46% Mn is Rs 18618.59 and ex mine price between grade 62% to below 65% Fe is Rs 2225.42.
9h	Scrutiny of Annual return on fixed assets	Fixed asset as furnished in AR is Rs 80091010/-	Fixed asset as furnished in AR is Rs 80091010/-	Fixed asset as furnished in AR is Rs 80091010/-
9k	Scrutiny of Annual return on mining machineries	SHOVEL (HYDRAULIC) 0.9/1.1/2.1 cu.m- 9, FRONT END LOADER 2.0 cu.m-1, TIPPER 12 cu.m-41, WATER TANKER 20& 8KL-4	SHOVEL (HYDRAULIC) 0.9/1.1/2.1 cu.m- 9, FRONT END LOADER 2.0 cu.m-1, TIPPER 12 cu.m-41, WATER TANKER 20& 8KL-4	SHOVEL (HYDRAULIC) 0.9/1.1/2.1 cu.m- 9, FRONT END LOADER 2.0 cu.m-1, TIPPER 12 cu.m-41, WATER TANKER 20& 8KL-4

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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	

**Date :**

(DAYANAND UPADHYAY)

Indian Bureau of Mines