

INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR INSPECTION REPORT

Bhubaneswar regional office

Mine file No : ORI/IRON/KJR/MCDR-43/BBS

Mine code : 30ORI08040

- (i) Name of the Inspecting : U11) DAYANAND UPADHYAY
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Sahadat Mandal (Mines Manager) and Sri Jawan Kum
Official with
Designation
- (iv) Date of Inspection : 31/10/2019
- (v) Prev.inspection date : 01/04/2019

PART-I : GENERAL INFORMATION

1. (a) Mine Name : NUAGAON
- (b) Registration NO. : IEM/4132/2011
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : GUALI
- Taluka : BARBIL
- Post office : GUALI
- Pin Code : 758035
- FAX No. : 06767-270049
- E-mail : kjsahluwalia@rediffmail.co
- Phone : 06767-270048, 9437041818
- (f) Police Station : Barbil
- (g) First opening date : 01/01/1959
- (h) Weekly day of rest : SUN
2. Address for : VILL& PO: GUALI
correspondance : POLICE STATION :BARBIL
DIST: KEONJHAR,ORISSA,PIN:758035
3. (a) Lease Number : ORI0070
- (b) Lease area : 767.28
- (c) Period of lease : 50
- (d) Date of Expiry : ~~03/03/1999~~ 31.03.2020 (As per section 8A(G) of
Amendment MMDR Act 2015)
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : K.J.S.AHLUWALIA
 AT/PO.BARBIL KEONJHAR
 ORISSA
 Phone:
 FAX :

Owner : K.J.S AHLUWALIA
 AT/PO. BARBIL P.B NO.3
 KEONJHAR ORISSA
 Phone: 06767 75348,756
 FAX : 06767-30348, 30

Mining Engineer

Name : Manoj Kumar, Full Time
 Qualification : BE Mi ning
 Appointment/ : 12/08/2012
 Termination date

Geologist

Name : RANJAN KUMAR MOHARANA, Full Time
 Qualification : Msc. Applied Geology
 Appointment/ : 08/08/2016
 Termination date

Manager

Name : Sahadat Mandal
 Qualification : Diploma in Mining Engg, FCC
 Appointment/ : 16/09/2011
 Termination date

6. Date of approval of Mining	:	Renewal under rule 22 MCR1960	10/05/2005
Plan/Scheme of Mining		Modif.approved Mining Scheme	15/10/2007
		Modif.approved Mining Scheme	23/10/2008
		Mining Scheme rule 12 MCDR1988	23/06/2009
		Modif.approved Mining Scheme	18/08/2010
		Mining Scheme rule 12 MCDR1988	05/07/2013
		Mining Scheme rule 12 MCDR1988	22/07/2014
		FMCP under 23C(1)	20/11/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	457 number of bore holes.	In 2018-19, 309 nos of bore hole of Total meterage 28762.32 and in 2019-20, 47 nos of bore holes of Total meterage 3878.68 have been drilled by lessee.	Remaining 101 nos. of bores holes not drilled due to area falls under forest and forest clearance is under process.
1b	Exploration over lease area for geological axis 1 or 2	Exploration Over an area of 362.587ha under G1 level.	A total of 309 boreholes have been drilled in 2018-19 and 47 boreholes in 2019-20. So total area explored is under G1-650.134 Ha., under G2- 117.150 Ha	Proposed 362.587 ha area covered under G1/G2 Level to complete the exploration of the total lease area. As the proposed area falls under forest land and partly in diversified forest land therefore in place of G1 level the area explored under G1level of diversified forest land and G2 level of exploration of non-diversified forest land after obtaining permission from State Govt.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified.	Expenditure incurred in drilling was Rs.956 Lakh. Exploration agency involved in drilling was M/s Gemco Kati Pvt Ltd, M/s Geo Exploration Pvt Limited and M/s Thriveni Earthmovers Pvt Ltd	Expenditure incurred in drilling was Rs.956 Lakh. Exploration agency involved in drilling was M/s Gemco Kati Pvt Ltd, M/s Geo Exploration Pvt Limited and M/s Thriveni Earthmovers Pvt Ltd

1d	Balance area to be explored to bring Geological axis in 1 or 2	Balance area of 362.587 ha proposed to explored	Proposed 362.587 ha area explored under G1/G2 Level to complete the exploration of the total lease area.	As the proposed area falls under forest land and partly in diversified forest land therefore in place of G1 level the area explored under G1 level of diversified forest land and G2 level of exploration of non-diversified forest land after obtaining permission from State Govt.
1e	Balance reserve as on 01/04/20	Balance reserve as per Modification of review of mining plan approved on 23.04.2018: Iron ore 346.998MT under proved (111, 121 & 122) category and 70.949MT under resources.	Balance reserve as on 01/04/2019 as per annual return for 2018-19 , Proved reserve-341 million tonnes and about 71 million tonnes furnished under resources.	Balance reserve as on 01/04/2019 as per annual return for 2018-19 , Proved reserve-341 million tonnes and about 71 million tonnes furnished under resources.
1f	General remarks of inspecting officers on geology, exploration etc	Balance area of 362.587 ha was proposed to explore.	Proposed 362.587 ha area explored under G1/G2 Level to complete the exploration of the total lease area. Total lease area explored is under G1-650.134 Ha, under G2-117.150 Ha.	Total lease area explored under G1/G2 level of exploration. Area under G1 level - 650.134 Ha, under G2 level - 117.150 Ha explored by putting 509 nos. of bore holes of total meterage 43707.05.

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	(Barpada block: S500-380N,E340-700), (Katasahi Block: E1960-2220/S710-910), (Topadihi block: Gangeigoda Quarry:-W-240-E-110/N840-1300, Kaliakocha Quarry:-E505-670/N770-905, Topadihi Quarry:- E790-870/N1120 - 1720, Sonukocha Quarry:-E585-0/N1010-1830), Dumka Block: W-560-1050/N350-500), (Kanusahi Block: Quarry 1:-W-510-80/S-1340-1770, Quarry 2:- E650-815/S1140-1310), Guali Block: E10-280/N1880-2080)	The work of development for the year 2019-20 has been carried out within the approved limits for different blocks other than Guali & kanhusahi-Quarry 2 .	The working as proposed in kanhusahi-2 quarry could not been started due to non availability of tree felling order. The guali block could not be opened because NH 520 is passing adjacent to the block and there are no permission for blasting.
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Separate benches in OB and ore. Ttop soil bench- nil.	Separate benches in OB and ore have been maintained.	Separate benches in OB and ore have been maintained.
2c	Stripping ratio or ore to OB ratio	1:0.18T/cu.m	1:0.057T/cu.m	Average stripping ratio varies 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	0.684 million cum	0.182million cum	Less quantity of OB generated as the ROM production is restricted to EC approval of 5.62 million tons per annum and EC for enhance quantity of 7.99 million tonnes per annum as proposed in approved modification of mining plan is still under process.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	A total of 10 pits/quarries has been proposed out of 06 blocks during 2018-19.	The work of development for the year 2019-20 has been carried out within the approved limits for different blocks other than Guali & kanhusahi-Quarry 2 .	The working as proposed in kanhusahi-2 quarry could not been started due to non availability of tree felling order. The guali block could not be opened because NH 520 is passing adjacent to the block and there are no permission for blasting.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	A total of 10 pits/quarries has been proposed out of 06 blocks during 2018-19.	The work of development for the year 2019-20 has been carried out within the approved limits for different blocks other than Guali & kanhusahi-Quarry 2 .	The working as proposed in kanhusahi-2 quarry could not been started due to non availability of tree felling order. The guali block could not be opened because NH 520 is passing adjacent to the block and there are no permission for blasting.

3b	Quantity of ROM mineral production proposed	7.99 million tonnes	ROM production reported in 2018-19 is 5.61 million tonnes	ROM production is restricted to EC approval of 5.62 million tons per annum and EC for enhance quantity of 7.99 million tonnes per annum is still under process.
3c	Recovery of sailable/usable mineral from ROM production	6.13 million tonnes	5.52 million tonnes.	ROM production is restricted to EC approval of 5.62 million tons per annum and EC for enhance quantity of 7.99 million tonnes per annum is still under process.
3d	Quantity of mineral reject generation	1459630 MT	Mineral reject/sub grade generated during 2018-19 is 83300 MT	Mineral reject generation is low due to less ROM production as proposed.
3e	Grade of mineral rejects generation and threshold value declared.	45-58% Fe	Mineral reject/sub grade generated during 2018-19 is 83300 MT of 45-58% Fe.	Mineral reject/sub grade generated during 2018-19 is 83300 MT of 45-58% Fe.
3f	Quantity of sub grade mineral generation.	1459630 MT	Mineral reject/sub grade generated during 2018-19 is 83300 MT	Mineral reject generation is low due to less ROM production as proposed.
3g	Grade of sub grade mineral generation	- 45-58% Fe	Mineral reject/sub grade generated during 2018-19 is 83300 MT of 45-58% Fe.	Mineral reject generation is low due to less ROM production as proposed.
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Mechanised

- 3i Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. Dry processing (through crushing and screening) and beneficiation. The Iron ore raised from the mines are being sized, dressed, sorted/screened blended as per requirement of end users, prior to dispatch. A 2 x 185TPH Beneficiation Plant for 2.0 MTPA capacity has been established in the lease area for beneficiation of low grade ore. A 2 x 185TPH Beneficiation Plant for 2.0 MTPA capacity has been established in the lease area for beneficiation of low grade ore. Wet beneficiation is not carried out in 2018-19 due to breakdown.
- 3j Provision of drilling and blasting in mineral benches Deep hole drilling & blasting with high explosive alongwith delay detonator. Drilling by 105mm to 115mm dia drill machine is being carried out for blasting. High explosives is loaded by deck charging. The explosive column is blasted under 'V' type blasting pattern initiated by detonator & NONEL and safety fuse. The explosive column is blasted under 'V' type blasting pattern initiated by detonator & NONEL and safety fuse.
- 3k Provision of mining machineries in mineral benches FRONT END LOADER 1.5/2.5 CU.M-19, EXCAVATOR SHOVEL (HYDRAULIC) 2.1/2.5/2.8/3.7/1.5 cu.m- 10, DUMPER 20/30/35.0T-40, ROCK DRILL-2, CRUSHER -10, WATER TANKER 8, 10, 12, 14, 18KL, -20 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- 6-8m 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	206.586 Ha proposed during approved plan period.	About 181.826 ha. has been covered under excavation pits.	About 181.826 ha. has been covered under excavation pits.
3n	Ore to OB ratio for the pit/mine during the year.	1:0.18T/cu.m	1:0.057T/cu.m	Average stripping ratio varies 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 Mine working - 206.586 Ha, OB dump-13.63 Ha. Minerals Storage-80.855 Ha. Infrastructure with road - 9.64 Ha. Mineral separation plant - 19.545 Ha, Township Area-3.290 Ha, Magazine-0.077 Ha.	Area covered under different heads are Mine working -181.826 Ha., waste dump-8.35 Ha , Sub-Grade stack/ Mineral storage-77.855, Infrastructure with road -9.64 Ha. , Mineral separation plant-19.545 Ha, Others - 0.077 Ha, Safety zone-34.171 Ha.	Area covered under different heads are Mine working -181.826 Ha., waste dump-8.35 Ha , Sub-Grade stack/ Mineral storage-77.855, Infrastructure with road -9.64 Ha. , Mineral separation plant-19.545 Ha, Others - 0.077 Ha, Safety zone-34.171 Ha.
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 5.62 MTPA 2015-16: 5.62 MTPA 2016-17: 5.62 MTPA 2017-18: 5.62 MTPA 2018-19: 7.99 MTPA	2014-15: 1066453.260 T 2015-16: 4073670.0 T 2016-17: 5614000.0 T 2017-18: 5602000.0 T 2018-19: 5610000.0 T	ROM production is restricted to EC approval of 5.62 million tons per annum and EC for enhance quantity of 7.99 million tonnes per annum is still under process.

3q	General remarks of inspecting officers on method of mining etc.	A total of 10 pits/quarries has been proposed out of 06 blocks during 2018-19.	The work of development for the year 2019-20 has been carried out within the approved limits for different blocks other than Guali & kanhusahi-Quarry-2. Drilling by 105mm to 115mm dia drill machine is being carried out for blasting. High explosives is loaded by deck charging. The explosive column is blasted under 'V' type blasting pattern initiated by detonator & NONEL and safety fuse.	The working as proposed in kanhusahi-2 quarry could not been started due to non availability of tree felling order. The guali block could not be opened because NH 520 is passing adjacent to the block and there are no permission for blasting.
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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 reject. mineral reject.	Separate dumping for overburden and mineral	There is no top soil generation.

4b	Location of topsoil, OB and mineral reject dumps	<p>Proposed waste dump: PD1 2100-1720E & 1180- 870S, PD2 360E - 600E & 550N - 650N, PD3 30E- 130E & 1300s - 1500s, PD4 100-180E & 950-1050N Mineral Reject/Sub Grade Dump: SGD1 530-640E &840-940S SGD2 70-170E & 440-480N SGD3 1680- 1820E&870-960S SGD4 790- 880E&760-820N SDG5 300-450E &850-890N SDG6 10-70W & 990-1150N SDG7 720- 840E&1140- 1270N SDG8 470-570W &550-590N SDG9 220- 360W&1760- 1800S SDG10 60- 150W&250-290N</p>	<p>Presently the OB has dumped on PD1 & PD4 and Mineral reject/sub grade dumped on dump no. 4,6,8 & 9 as per approved limit.</p>	<p>There is no proposal of top soil. OB dump PD2 &PD3 and Mineral reject/sub grade dump 1,2,3,5,7 &10 are not created due to ROM production is restricted to EC approval of 5.62 million tons per annum and EC for proposed enhance quantity of 7.99 million tonnes per annum is still under process.</p>
4c	Number of dumps within lease area and outside of lease area	<p>Within lease area 4 numbers OB dumps proposed.</p>	<p>Total 06 numbers of OB dumps are available within lease area.</p>	<p>Total 06 numbers of OB dumps are available within lease area.</p>

4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Proposed waste dump: PD1 2100-1720E & 1180- 870S, PD2 360E - 600E & 550N - 650N, PD3 30E- 130E & 1300s - 1500s, PD4 100-180E & 950-1050N	Presently the OB dumps PD1 & PD4 are active and lies outside the ultimate pit limit.	Presently the OB dumps PD1 & PD4 are active and lies outside the ultimate pit limit.
4e	Number of active and alive dumps.	There are 4 numbers of OB dumps proposed.	Presently the OB dumps PD1 & PD4 are active.	OB dump PD2 & PD3 are not created due to ROM production is restricted to EC approval of 5.62 million tons per annum and EC for proposed enhance quantity of 7.99 million tonnes per annum is still under process.
4f	Number of dead dumps.	02 Nos.	2 Nos of dead dumps i.e dump-27 and dump-28 have been rehabilitated by plantation.	2 Nos of dead dumps i.e dump-27 and dump-28 have been rehabilitated by plantation.
4g	Number of dumps established.	02 Nos.	2 Nos of dead dumps i.e dump-27 and dump-28 have been rehabilitated by plantation.	2 Nos of dead dumps i.e dump-27 and dump-28 have been rehabilitated by plantation.
4h	Whether Retaining wall or garland drain all along dumps are there.	3 numbers of OB dumps and 10 numbers of mineral reject dumps were proposed for retaining wall and garland drain .	The retaining wall and garland drain of OB dump PD1 and Mineral reject Dump SGD 4,6,8,9 was completed and rest of the retaining wall and garland drain as proposed not completed.	Violation of retaining wall and garland drain has been issued to lessee.

4i	Length of Retaining wall or garland drain all along dumps	OB Dump Retaining wall-1435m & Garland drain-2435 m Mineral Reject Dump Retaining wall-2750m & Garland drain-1500 m	OB Dump: Retaining wall-620m, Garland drain-650 m Mineral Reject Dump: Retaining wall-850m , Garland drain-1020m	Violation of retaining wall and garland drain has been issued to lessee.
4j	Number of settling ponds	4 Nos of settling pond	Only 1 Nos of settling pond completed in 2018-19.	Violation of settling pond has been issued to lessee.
4k	Specific comments of inspecting officer on waste dump management	Proposed waste dump: PD1 2100-1720E & 1180- 870S, PD2 360E - 600E & 550N - 650N, PD3 30E- 130E & 1300s - 1500s, PD4 100-180E & 950-1050N	OB dump PD2 & PD3 are not created due to ROM production is restricted to EC approval of 5.62 million tons per annum and EC for proposed enhance quantity of 7.99 million tonnes per annum is still under process. Slope of the dead dump has been stabilised by plantation.	Dead dumps i.e dump-27 and dump-28 have been rehabilitated by plantation.

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.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry.	0.8 Ha area of Gangaigoda quarry has been backfilled as proposed.	0.8 Ha area of Gangaigoda quarry has been backfilled as proposed.
5b	Area under backfilling of mined out area	Backfilling the Part of 0.8 ha area of Gangaigoda quarry.	0.8 Ha area of Gangaigoda quarry has been backfilled as proposed.	0.8 Ha area of Gangaigoda quarry has been backfilled as proposed.

5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not proposed.	Nil	There is no top soil generation.
5d	Total area fully reclaimed and rehabilitated	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.,
5e	General remarks of inspecting officers on backfilling and reclamation etc.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.

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) .	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.

6c	afforestation done (ha).	7.9 ha area by 9000 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings.
6d	No. of saplings planted during the year	7.9 ha area by 9000 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings.
6e	Cumulative no .of plants	Not specified.	Cumulative nos. of saplings planted in the lease area is about 184150.	Cumulative nos. of saplings planted in the lease area is about 184150.
6f	Any other method of rehabilitation	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
6g	Cost incurred on watch and care during the year	Not specified.	Around Rs 3.5 Lakhs cost incurred on watch and care.	Around Rs 3.5 Lakhs cost incurred on watch and care.
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.

6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
6j	Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on backfilled area	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not proposed.	Nil.	There is no proposal of Rehabilitation of waste land

6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	Not proposed.	Nil.	There is no proposal of Rehabilitation of waste land.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	Not proposed.	Nil.	There is no proposal of Rehabilitation of waste land.
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.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.

Mineral Conservation:

Sl.No.	Item	Proposals	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.	Mechanised	Mechanised	Mechanised sorting is being practiced.

7c	Different grade of mineral sorted out at mines.	Gradewise sorting Iron Ore :-45-55%Fe, 55-58%Fe, 58-60%Fe, 60-62%Fe, 62-65%Fe	Different grades of minerals sorted out at mines are 45- 55%Fe, 55-58%Fe, 58-60%Fe, 60-62%Fe, 62-65%Fe	Different grades of minerals sorted out at mines are 45- 55%Fe, 55-58%Fe, 58-60%Fe, 60-62%Fe, 62-65%Fe
7d	Any beneficiation process at mines .	Dry processing (through crushing and screening) and beneficiation.	The Iron ore raised from the mines are being sized, dressed, sorted/screened blended as per requirement of end users, prior to dispatch. A 2 x 185TPH Beneficiation Plant for 2.0 MTPA capacity has been established in the lease area for beneficiation of low grade ore.	A 2 x 185TPH Beneficiation Plant for 2.0 MTPA capacity has been established in the lease area for beneficiation of low grade ore. Wet beneficiation is not carried out in 2018-19 due to breakdown.
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	Gradewise sorting.	The Iron ore raised from the mines are being sized, dressed, sorted/screened blended as per requirement of end users, prior to dispatch. A 2 x 185TPH Beneficiation Plant for 2.0 MTPA capacity has been established in the lease area for beneficiation of low grade ore.	Different grades of minerals sorted out at mines are 45- 55%Fe, 55-58%Fe, 58-60%Fe, 60-62%Fe, 62-65%Fe.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Not proposed.	Nil.	No top top soil generation is proposed.
8b	Concurrent use or storage of topsoil	Not proposed.	Nil.	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.	Separate dumps for overburden, rejects and fines have maintained.	Separate dumps for overburden, rejects and fines have maintained.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling the Part of 0.8 ha area of Gangaigoda quarry and rehabilitation of 2.50 Ha area of Dump No-27 & 28.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.	Backfilling the Part of 0.8 ha area of Gangaigoda quarry has been backfilled as proposed. 2.50 Ha area of Dump No-27 & 28 has been rehabilitation by plantation.
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	7.9 ha area by 9000 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings.	Cumulative nos. of saplings planted in the lease area is about 184150.been planted by lessee
8g	Survival rate	Not specified.	As reported survival rate is 84%.	As reported survival rate is 84%.
8h	Water sprinkling on roads to control airborne dust	Mobile water sprinkler.	Mobile water sprinkler are used to control air borne dust.	Mobile water sprinkler are used to control air borne dust.

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	7.9 ha area by 9000 nos. of saplings.	In 2018-19, total area cover under afforestation is about 7.92 ha by 12551 nos. of saplings. Cumulative nos. of saplings planted in the lease area is about 184150.been planted by lessee .	Aesthic beauty in and around mines area is maintained. Cumulative nos. of saplings planted in the lease area is about 184150.been planted by lessee .
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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	Information has been furnished about Mining Engineer, Geologist, and Manager.	Information has been furnished about Mining Engineer, Geologist, and Manager.	Information has been furnished about Mining Engineer, Geologist, and Manager.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area covered under different heads are Mine working - 181.826 Ha., waste dump- 8.35 Ha , Infrastructure with road - 25.290Ha. , Reclaimed/Rehabilitated- 6.930 Ha, Sub-Grade stack/ Mineral storage & Others - 83.820 Ha	Area covered under different heads are Mine working -181.826 Ha., waste dump-8.35 Ha , Infrastructure with road -25.290Ha. , Reclaimed/Rehabilitated- 6.930 Ha, Sub-Grade stack/ Mineral storage & Others - 83.820 Ha	Area covered under different heads are Mine working -181.826 Ha., waste dump-8.35 Ha , Infrastructure with road - 25.290Ha. , Reclaimed/Rehabilitated- 6.930 Ha, Sub-Grade stack/ Mineral storage & Others - 83.820 Ha

9d	Scrutiny of Annual return on afforestation	Total 12551 nos. saplings have been planted in 2018-19.	Total 12551 nos. saplings have been planted in 2018-19.	Total 12551 nos. saplings have been planted in 2018-19.
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject 83300 T below 55% Fe	Mineral reject 83300 T below 55% Fe	Mineral reject 83300 T below 55% Fe
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM Closing stock-Nil.	ROM Closing stock-Nil.	ROM Closing stock- Nil.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex Mine Price (Rs) Iron Ore (Lumps):- 58-60%Fe- 3500.00, 60-62% Fe - 3402.56, 62-65% Fe- 4267.75, Iron Ore (Fines) 55-58%Fe- 1342.22, 58-60%Fe- 1364.23, 60-62%Fe- 1300.00 62-65%Fe- 2294.16. Cost of Production - Rs 2080.72/tonne	Ex Mine Price (Rs) Iron Ore (Lumps):- 58-60%Fe- 3500.00, 60-62% Fe - 3402.56, 62-65% Fe- 4267.75, Iron Ore (Fines) 55-58%Fe- 1342.22, 58-60%Fe-1364.23, 60-62%Fe- 1300.00 62-65%Fe- 2294.16. Cost of Production - Rs 2080.72/tonne	Cost of Production - Rs 2080.72/tonne
9h	Scrutiny of Annual return on fixed assets	Fixed asset as furnished in AR is Rs 284923602/-	Fixed asset as furnished in AR is Rs 284923602/-	Fixed asset as furnished in AR is Rs 284923602/-

9k	Scrutiny of Annual return on mining machineries	FRONT END LOADER 1.5/2.5 CU.M-11, SHOVEL (HYDRAULIC) 2.1/2.5/2.8/3. 7/1.5 cu.m- 10, DUMPER 20/30/35.0T- 40, ROCK DRILL- 2, CRUSHER -10, WATER TANKER 8, 10, 12, 14, 18K L, -20	FRONT END LOADER 1.5/2.5 CU.M-11, SHOVEL (HYDRAULIC) 2.1/2.5/2.8/3.7/1.5 cu.m- 10, DUMPER 20/30/35.0T-40, ROCK DRILL-2, CRUSHER -10, WATER TANKER 8, 10, 12, 14, 18KL, -20	FRONT END LOADER 1.5/2.5 CU.M-11, SHOVEL (HYDRAULIC) 2.1/2.5/2.8/3.7/1. 5 cu.m- 10, DUMPER 20/30/35.0T-40, ROCK DRILL- 2, CRUSHER -10, WATER TANKER 8, 10, 12, 14, 18KL, - 20
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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
	Violation of rule 11(c) issued on 13.11.2019.		
Date : 02.12.2019			<i>Dayanand Upadhyay</i> (DAYANAND UPADHYAY)

Indian Bureau of Mines