

I/25805/2024

Mining Plan Modification REPORT

Bangalore regional office

Mine file No : KNT/BLR/Fe-492/BNG

Mine code : 30KAR03183

- (i) Name of the Inspecting : **S19**) **SANDEEP KUMAR SINGH**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Nishant Kumar Sharma, Mine Manager, Shri Rajarsh
Official with
Designation
- (iv) Date of Inspection : 04/12/2023
- (v) Prev.inspection date : 20/10/2022

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **DEVADARI IRON ORE MINE**
- (b) **Registration NO.** : **IBM/432/2011**
- (c) Category : A Fully Mechanised
- (d) Type of Working : Opencast
- (e) Postal address :
State : KARNATAKA
District : BELLARY
Village : Lakshmipura
Taluka : Sandur
Post office : Sandur
Pin Code : 583119
FAX No. : 022-42863000
E-mail : sunil.singh@jsw.in
Phone : 022-42861000
- (f) Police Station : Sandur
- (g) First opening date : 28/12/2018
- (h) Weekly day of rest : SUN
2. Address for : Lakshmipura Village
correspondance Sandur Taluk, Bellary
Karnataka
3. (a) Lease Number : ML No 006
- (b) Lease area : 100.54 Ha
- (c) Period of lease : 50 Years
- (d) Date of Expiry : 25/12/2068
4. Mineral worked : IRON ORE Main

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5. Name and Address of the

Lessee : JSW STEEL LIMITED
 JSW Mining office, Near
 Talur Cross Vidyanagar
 Post, Toranagallu Sandur,
 Bellary BELLARY KARNATAKA
 Phone:9448286155
 FAX :

Owner : Shri Gajraj Singh Rathore,Nominated owner
 JSW Mining office Near
 Talur Cross, Vidyanagar
 Works Po-Vidyanagar, Dist-
 Ballari, Karnat BELLARY
 KARNATAKA
 Phone: 9448286017
 Email :gajraj.rathore@jsw.in

Agent : SUNIL KUMAR SINGH,
 JSW steel Ltd., Vijayanagar
 works, Vidyanagar Po,
 Bellari, Karnataka BELLARY
 KARNATAKA
 Phone: 9448286155
 FAX : 08395250132/142

Mining Engineer
 Name : JITENDRA KUMAR,,Full Time
 Qualification : B. Tech (Mining)
 Appointment/ : 02/12/2023
 Termination date

Geologist
 Name : Rajarshi Mazumdar,Full Time
 Qualification : M.Sc., Applied Geology
 Appointment/ : 20/11/2023
 Termination date

Manager
 Name : Nishant Kumar Sharma
 Qualification : B E (Mining)
 Appointment/ : 22/12/2018
 Termination date

6. Date of approval of Mining	:	MP under 16(1) of MCR 2016	31/03/2017
Plan/Scheme of Mining	:	MP modif under 17(3) MCR 2016	21/10/2020
	:	MP review under 17(1) MCR 2016	08/02/2023

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PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	No backlog	NIL	NIL
1b	Exploration over lease area for geological axis 1 or 2	8 nos. of exploratory boreholes with total meterage 415 metres proposed for the year 2022-23.	33 nos. of exploratory boreholes drilling with total meterage of 1290 metres carried out during year 2022-23.	NIL
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not mentioned	M/s. JSW Steel Ltd, Rs. 10289164 costs incurred for exploration	As reported in AR 2022-23
1d	Balance area to be explored to bring Geological axis in 1 or 2	G-1-59.79 ha, G-2-0.64 ha, G-3-0.84 ha Non mineralized area- 39.27 ha. (As per the last approved document dtd 08/02/2023	G-1-59.79 ha, G-2-0.64 ha, G-3-0.84 ha Non mineralized area- 39.27 ha. (As per the last approved document dtd 08/02/2023	NIL
1e	Balance reserve as on 01/04/20	34,420,638.73 tons of iron ore as on 1/09/2022. (HIO - 13458543.1905 MT, GRADE - 57.33% Fe, HSIO - 20962095.539 MT, GRADE - 38.19 %Fe.)	33,860, 424 tons of iron ore as on 1.04.2023	As reported in AR 2022-23.
1f	General remarks of inspecting officers on geology, exploration etc			Reserve/Resource Reported correctly in AR 2022-23. Exploratory drilling carried out as per the proposals.

Development :

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Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	N-1666051 to 1666453, E-669342 to 669704 (S8-8' to S10-10').	Development carried out within the proposed extent as per the proposal.	NIL
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No topsoil generation. Separate benches proposed in OB & mineral.	Separate benches maintained in OB & mineral.	NIL
2c	Stripping ratio or ore to OB ratio	1: 0.49(in tons) proposed	1: 0.68(in tons) achieved.	ROM- 1164600 tons Waste- 364043 Cum~ 800894 tons (As reported in AR 2022-23)
2d	Quantity of topsoil generation in m3	No proposal	NIL	NIL
2e	Quantity of overburden generation in m3	2,62,400 Cum proposed	3,64,043 Cum achieved	As reported in AR 2022-23.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc			Development carried out within the proposed extent as per the proposal.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	1 pit proposed for production	Production carried out from 1 pit as per the proposal	NIL
3b	Quantity of ROM mineral production proposed	1,164,998 tons of ROM production proposed	1,164,600 tons of ROM production achieved	As reported in AR 2022-23.
3c	Recovery of sailable/usable mineral from ROM production	100% proposed	100 % achieved	NIL
3d	Quantity of mineral reject generation	No proposal	NIL	NIL

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3e	Grade of mineral rejects generation and threshold value declared.	No proposal	NIL	NIL
3f	Quantity of sub grade mineral generation.	No proposal	NIL	NIL
3g	Grade of sub grade mineral generation	No proposal	NIL	NIL
3h	Manual / Mechanised method adopted for segregating from ROM	Only dry Crushing & Screening proposed	Dry Crushing & Screening carried out within the Lease area	*Crusher & Screen-250 TPH capacity. O/p Size 0 - 10 mm (Fines) 10-40 mm (Lumps).
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	No proposal	NIL	NIL
3j	Provision of drilling and blasting in mineral benches	Deep hole Drilling and Blasting proposed.	Deep hole Drilling and Blasting is being carried out. Drilling is done with drill of 102 mm dia. and slurry explosive used in conjunction with delay detonators.	Drill-102 mm dia. Explosive-Slurry Explosive.
3k	Provision of mining machineries in mineral benches	Mining Machineries proposed.	Excavators-1.6 Cum-6 nos. 0.6 Cum-1 no. Wheel Loader- 2.6 Cum-4 nos. Tippers-14 Cum-22 nos. Drill-102 mm-1 no. Water tanker-10 KL-4 nos.	As reported in AR 2022-23.
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed Bench Height- 8m for both OB & Mineral.	Bench Height- 8m maintained for both OB & mineral.	NIL
3m	Total area covered under excavation/pits	51.06 ha as per the last approved document.	51.06 ha	As reported in AR 2022-23.

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3n	Ore to OB ratio for the pit/mine during the year.	1: 0.49(in tons) proposed	1: 0.68(in tons) achieved.	ROM- 1164600 tons Waste- 364043 Cum- 800894 tons (As reported in AR 2022-23)
3o	Total area put in use under different heads at the end of year	Mining- 51.06 Ha O/B Dumps- 20.71 Ha Infrastructure & roads-4.63 ha (As per the last approved document dated 08/02/2023)	Mining- 51.06 Ha O/B Dumps- 20.71 Ha Infrastructure& roads- 4.63 ha	As reported in AR 2022-23.
3p	Production of ROM mineral during the last five year period as applicable	2018-19: 1,165,000 2019-20: 1,165,000 2020-21: 1,164,996 2021-22: 1,164,990 2022-23: 1,164,998 (in Metric Tonnes)	2018-19: 1,163,958 2019-20: 1,164,618 2020-21:1,164,700 2021-22:1,164,745 2022-23: 1,164,600 (in Metric Tonnes)	NIL
3q	General remarks of inspecting officers on method of mining etc.	*It was observed during inspection that tertiary crushing of iron ore (+10 mm) to 100 % fines as per the State govt proceedings has started in the mine but the approved modality for the State Govt. proceedings dated 26.08.2022 has not been submitted to this office in accordance with the Special condition of approved mine plan dated 08/02/2023.		Accordingly, Letter was issued to the Lessee vide MCDR-MiFLOFE/5/2022-BNG-IBM_RO_BNG dated 18/12/2023 advising to submit the State Government approved modality for 100 % fines dispatch in accordance with the aforesaid approved mine plan condition at the earliest.

Solid Waste Management - Dumping:

Sl.No.	Item	Proposals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate dumping of Overburden is proposed. Backfilling dump (BF(AD))	It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping.	Violation issued under Rule 11(1) of MCDR 2017.
4b	Location of topsoil, OB and mineral reject dumps	OB Dump Proposal: E-669122 to 669329 N-1666133 to 1666400 Backfilling waste dump, BF(AD)	It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping.	Violation issued under Rule 11(1) of MCDR 2017.
4c	Number of dumps within lease area and outside of lease area	Within Lease Area-3 Dumps (1 Backfilling BF(AD), 2 Inactive Dumps, ID-1 & ID-2).	Within Lease Area-3 Dumps (1 Backfilling BF(AD), 2 Inactive Dumps, ID-1 & ID-2).	Currently Active Dump is Backfilling dump BF(AD).
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumps (ID-1, BF(AD)) are outside UPL. Only portion of ID-2 lie within UPL as per the current exploration data.	Dumps (ID-1, BF(AD)) are outside UPL. Only portion of ID-2 lie within UPL as per the current exploration data.	Portion of ID-2 waste dump lie inside the UPL.
4e	Number of active and alive dumps.	1 active dump, Backfilling dump, BF(AD)	1 active dump, Backfilling dump, BF(AD). It is observed during inspection that the Backfilling Waste dump at Section S-10-10' (N-1666226 E-669235) has gone beyond the proposed maximum top vertical limit of 950 mRL till 956 mRL.	Violation issued under Rule 11(1) of MCDR 2017.
4f	Number of dead dumps.	2 nos of Inactive Dumps (ID-1 & ID-2)	2 nos of Inactive Dumps (ID-1 & ID-2)	NIL

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4g	Number of dumps established.	2 In active dumps stabilization under progress as per R&R plan	2 In active dumps stabilization under progress as per R&R plan	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	360 m Retaining Wall (TW-7) & 363 m garland drain (GD-7) proposed along Temporary dump (TD) for the year 2022-23	The construction of 360 m Retaining Wall (TW-7) & 363 m garland drain (GD-7) proposed along Temporary dump (TD) for the year 2022-23 were not carried out as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
4i	Length of Retaining wall or garland drain all along dumps	360 m Retaining Wall (TW-7) & 363 m garland drain (GD-7) proposed along Temporary dump (TD) for the year 2022-23	The construction of 360 m Retaining Wall (TW-7) & 363 m garland drain (GD-7) proposed along Temporary dump (TD) for the year 2022-23 were not carried out as per the proposal.	Violation issued under Rule 11(1) of MCDR 2017.
4j	Number of settling ponds	No proposal	NIL	NIL
4k	Specific comments of inspecting officer on waste dump management	i)It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping. Violation issued under Rule 11(1) of MCDR 2017.	ii)It is observed during inspection that the Backfilling Waste dump at Section S-10-10' (N-1666226 E-669235) has gone beyond the proposed maximum top vertical limit of 950 mRL till 956 mRL. Violation issued under Rule 11(1) of MCDR 2017.	iii)The construction of 360 m Retaining Wall (TW-7) & 363 m garland drain (GD-7) proposed along Temporary dump (TD) for the year 2022-23 were not carried out as per the proposal. Violation issued under Rule 11(1) of MCDR 2017.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	No proposal	NIL	NIL
5b	Area under backfilling of mined out area	3.28 Ha proposed Backfilling dump BF(AD)	3.28 Ha achieved. It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping.	Violation issued under Rule 11(1) of MCDR 2017.
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposal	Nil	No Top soil Generation
5d	Total area fully reclaimed and rehabilitated	No proposal	NIL	NIL
5e	General remarks of inspecting officers on backfilling and reclamation etc.			<p>i)The waste generated have been dumped at the Backfilling dump BF(AD) as per the proposal.</p> <p>ii) It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping. Violation issued under Rule 11(1) of MCDR 2017.</p>

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Sl.No.	Item	Propasals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	To be submitted before 1st of July Every year.	Annua PMCP report for the year 2022-23 submitted within timeline	NIL
6b	Area available for rehabilitation (ha) .	1.61 ha plantation proposed in safety zone	1.61 ha plantation carried out in safety zone.	NIL
6c	afforestation done (ha).	1.61 ha plantation proposed in safety zone	1.61 ha plantation carried out in safety zone.	NIL
6d	No. of saplings planted during the year	2097 nos. of saplings plantation proposed within lease area.	1612 nos. of saplings planted within the lease area	As reported in AR 2022-23.
6e	Cumulative no .of plants	5397 nos. cumulative plantation proposed till 2022-23.	8582 nos. of cumulative plants as on 1.04.2023	As reported in AR 2022-23.
6f	Any other method of rehabilitation	No proposal	NIL	NIL
6g	Cost incurred on watch and care during the year	Not mentioned	NIL	NIL
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	238m x 222m x 20m	It is also observed during inspection that the Backfilling Waste dump at Section S-10-10' (N-1666226 E-669235) has gone beyond the proposed maximum top vertical limit of 950 mRL till 956 mRL.	Violation issued under Rule 11(1) of MCDR 2017.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	3.28 Ha extent backfilling proposed by waste for the year 2022-23	3.28 Ha achieved.	As report in Annual PMCP report 2022-23.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area	No proposal	NIL	NIL

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6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	No proposal	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	No proposal	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	No proposal	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	No proposal	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	No proposal	NIL	NIL
6p	Compliance of environmental monitoring (core zone and buffer zone)	Regular Environmental Monitoring of Core and Buffer zone is proposed.	Environmental Monitoring of Core and Buffer zone is being carried out. Environmental monitoring report of Jan -23 & March-23 checked. All parameters within limit.	Parameters which are being Monitored: (Air, Noise, Surface water quality, Ground water & Dust)
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.			It is also observed during inspection that the Backfilling Waste dump at Section S-10-10' (N-1666226 E-669235) has gone beyond the proposed maximum top vertical limit of 950 mRL till 956 mRL. Violation issued under Rule 11(1) of MCDR 2017.

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Only dry Crushing & Screening proposed	Dry Crushing & Screening carried out within the Lease area	*Crusher & Screen-250 TPH capacity. O/p Size 0 - 10 mm (Fines) 10-40 mm (Lumps).
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Only Dry crushing and screening proposed.	Fines Fe 51-55% Fe 55-58% Lumps Fe 45-51 % Fe 51-55% Fe 55-58% (Production grade range for the year 2022-23)	As reported in AR 2022-23.
7c	Different grade of mineral sorted out at mines.	Only Dry crushing and screening proposed.	Fines Fe 51-55% Fe 55-58% Lumps Fe 45-51 % Fe 51-55% Fe 55-58% (Production grade range for the year 2022-23)	As reported in AR 2022-23.
7d	Any beneficiation process at mines	No Proposal	NIL	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		*It was observed during inspection that tertiary crushing of iron ore (+10 mm) to 100 % fines as per the State govt proceedings has started in the mine but the approved modality for the State Govt. proceedings dated 26.08.2022 has not been submitted to this office in accordance with the Special condition of approved mine plan dated 08/02/2023.	Accordingly, Letter was issued to the Lessee vide MCDR-MiFLOFE/5/2022-BNG-IBM_RO_BNG dated 18/12/2023 advising to submit the State Government approved modality for 100 % fines dispatch in accordance with the aforesaid approved mine plan condition at the earliest.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	No proposal	NIL	NIL
8b	Concurrent use or storage of topsoil	No proposal	NIL	NIL
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Separate dumping of Overburden is proposed. Backfilling dump (BF(AD))	It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping.	Violation issued under Rule 11(1) of MCDR 2017.
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	NIL	NIL
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No proposal	NIL	NIL
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	5397 nos. cumulative plantation proposed till 2022-23.	8582 nos. of cumulative plants as on 1.04.2023	As reported in AR 2022-23.
8g	Survival rate	85-90% proposed within lease area	80% achieved Within lease area	As reported in AR 2022-23.
8h	Water sprinkling on roads to control airborne dust	Water sprinkling on road is proposed to control airborne dust.	Water tankers have been deployed for sprinkling on roads to control airborne dust.	No. of Water Tankers:4 nos. Capacity:10 KL.

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8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	It is observed during inspection that mineral stacks were located on the Backfilling waste dump, BF(AD) between Section S9-9' & S10-10' (N-1666170 E-669325 to N-1666289 E-669273) which is the earmarked location for waste dumping. Violation issued under Rule 11(1) of MCDR 2017.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted up to: October, 2023 on 9.11.2023 A.R. Submitted up to: Year 2022-23 on 30.06.2023	M.R. Submitted up to: October, 2023 on 9.11.2023 A.R. Submitted up to: Year 2022-23 on 30.06.2023	NIL
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: BP Umaphathi Geologist: Vivek G Mine manager: Nishant Kumar Sharma	Appears to be correct. Geologist-Rajarshi Mazumdar DoA- 20.11.2023 Mining Engineer-Jitendra Kumar DoA- 2.12.2023	NIL
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Mining- 51.06 Ha O/B Dumps- 20.71 Ha Occupied by plant, buildings, residential, welfare buildings and roads-4.63 ha	Appears to be correct	NIL

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9d	Scrutiny of Annual return on afforestation	Achieved Within Mine Lease: 1612 nos. of plants Survival Rate- 80%	Appears to be correct	NIL
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Appears to be correct	NIL
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: O/s -0 ton, Production - 11,64,600 tons, C/s - 0 ton Graded Ore O/s- 34,968.34 tons Production- 11,64,600 tons Despatch- 9,85,546.81 tons C/s- 2,14,021.54 tons.	Appears to be correct	NIL
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex. Mine price:Rs/Ton, Rs 577.24 Rs/Ton (Captive mine) Cost of production: 577.24 Rs/Ton,	Appears to be correct	Captive mine
9h	Scrutiny of Annual return on fixed assets	Rs. 803175085/- including industrial, plant and machinery and capitalized expenditure	Appears to be correct	NIL

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9k	Scrutiny of Annual return on mining machineries	Excavators-1.6 Appears to be correct Cum-6 nos. 0.6 Cum-1 no. Wheel Loader- 2.6 Cum-4 nos. Tippers-14 Cum-22 nos. Drill-102 mm-1 no. Water tanker- 10 KL-4 nos.	NIL
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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
MCDR17	Rule 11(1)	18/12/2023			

Date :**(SANDEEP KUMAR SINGH)**

Indian Bureau of Mines