MCDR-MiFLOMn/1/2022-BBS-IBM_RO_BBS MCDR INSPECTION REPORT BHUBANESWAR REGIONAL OFFICE

MINE CODE: 40ORI08061

Part-I: General

Part-I	: General	
S. N.	Particulars	Details
1	Name of the Mine	Siljora Kalimati Iron and Manganese Ore Block
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	713.510 Ha (Forest Land -509.710 Ha, Non-Forest Land -203.800 Ha)
3	Minecode	40ORI08061
4	IBM Registration Number under rule 45 of MCDR, 1988	IBM/23029/2020
5	Name of the lessee, Address, phone, email and fax number	Mr. Debabrata Behera 1234/P Govind Prasad, Bomikhal, Rasulgarh, Bhubaneswar State-Odisha, Pin code-751010 Phone No- 06742549944 Fax No- 06742549944 Email- dbmines2020@gmail.com
6	Village	Siljora
7	Taluka/Mandal	Barbil
8	District	Keonjhar
9	Pincode	758086
10	State	Odisha
11	Post office	Siljora
12	Nearest police station	Bamberi
13	Nearest Railway station	Nayagarh
14	Date of Grant of Mining Lease	26.06.2020
15	Date of Execution	27.06.2020
16	Date of opening of Mine	25.07.2020
17	Date of first Renewal, if applicable and its period & expiry	Not Applicable
18	Date of second Renewal, if applicable and its period & expiry	Not Applicable
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not Applicable
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Mr. Debabrata Behera 1234/P Govind Prasad, Bomikhal, Rasulgarh, Bhubaneswar State-Odisha, Pin code-751010 Phone No- 06742549944 Fax No- 06742549944 Email- dbmines2020@gmail.com
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri D.N. Parida At/Po: Baneikala,Joda Dist-Keonjhar, Pin-758034 State-Odisha Date Of Apointment-07.09.2020
22	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Janmejoy Mohanta Vill Siljora Po- Siljora Dist-Keonjhar

		MCDR-MiFLOMn /	1/2022-BRS-IRM RO BRS
		NICDIV IVIII LOIVIII/	1/2022-BBS-IBM_RO_BBS Odisha, 758086
1			Phone No-8480216106
1/12844/20	23		Email- j.mohanta@gmail.com
			Date of Appointment – 12.05.2021
	23	Name of the Mining Engineer,	Mohammad Shahrukh(Mining Engineer)
		Qualification and total	At/Po- Siljora
		experience with Address, phone,	VillSiljora
		email, fax number and date of	Dist-Keonjhar
		appointment in mine	Odisha,758086
		appointment in inme	Ph. No7656816068
			Email-mdshahrukh2025@gmail.com
			Date Of Apointment-04.03.2023
			Total Experience-1.5years
	24	Name of the Geologist,	Shri Prafulla Kumar Parida,
		Qualification and total	M.Sc (Geology),
		experience with Address, phone,	At/Po- Barbil
		email, fax number and date of	Dist- Keonjhar
			Odisha,758035
		appointment in mine	Ph. No9437009087
			year of experience-28 years
			Date Of Apointment-15.04.2022
	25	Whether Geologist and Mining	Yes
		Engineer appointed in mines	
		satisfy the rule 55& carrying out	
		their duties as per rule 56 & 57.	
	26	Date of Approval of Mining	Date of Approval of Mining Plan :11.11.2020
	= 0	Plan/Modified Mining Plan with	Modification of Mining Plan has been approved by IBM
		five-year period and specific	vide letter no-BBS/KJR/IRON-MN/2170/MPM/2022-23
		condition in approval letter, if	dt. 30.06.2022.
		11	
	27	Data of Approval of Scheme of	NA
	27	Date of Approval of Scheme of	IVA
		Mining/Modified Scheme of	
		Mining with five-year period and	
		specific condition in approval	
		letter, if any.	
	28	Mineral(s) granted in lease and	Iron and Manganese
		proved for mining	
	200		On an acet
	29	Method of Mining(Opencast,	Open cast
		Underground)	
	30	Category (Fully Mechanised,	A ,Other than Fully Mechanized
		Others or Manual)	
	31	Captive/Non Captive	Non-Captive

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. (Duplication of information in existing TMIS data sheets and draft write up has been avoided.) **Exploration**

	_	1		T
S.N.	Item	Proposals for, 2022-	Actual work	Remark
		23	during 2022-23	
1a	Backlog of previous			Mining lease has been
	year	Nil	Nil	granted through auction in 2020.
1b	Exploration over lease area for Geological axis 1 or 2.	157 nos of Boreholes were proposed to be done within G2 area	76 No. of Boreholes were carried out within G2 area to convert it into G1 area.	

		MCDR-N	MiFL 0Mn / 1 / 2022 - BI	SS-IBM RO BB	S
	1c	Exploration Agency	MiFLOMn/1/2022-Bl No specific proposal	M/S V.K.S	
1/12844/202	1 2	& Expenditure in		Mining	
1/12044/202	13	lakh Rupees during		Services&	
		the year		Own DTH	
				machine	
	1d	Balance area to be	487.76(G1) Ha	476.59(G1)	G2 will be converted to G1
		explored to bring	225.75 (G2)	236.92 (G2)Ha	in the next 2Years.
		Geological axis in 1			
		or 2			
	1e	Balance reserves as	Mn-3564312.64	Mn-	As per approved modified
		per latest approved	tonne	3438782.47	mining plan dated
		document		tonne	30.06.2022
			Fe-10886035.00	Fe-	
			tonne	10886035.00	
				tonne	
	1f	General remarks of	Violation letter has be	en issued under ru	lle 11(1) of MCDR, 2017
		inspecting officer on	for not achieving the t	arget of exploratio	on.
		geology, exploration			

Development

S.N.	Item	Proposals for 2022- 23	Actual work during 2022-23	Remark
2a	Location of development w.r.t. lease area	BLOCK-1 (2421352N-2421562N, 332248E-332411E, 2420930N-2421007N, 332234E-332235E) BLOCK-2 (2420320N-2420475N, 332553E-332653E, 2419955N-2420135N, 332811-332918E) BLOCK-3 (2420888N-2421118N, 333110E-333239E) BLOCK-4 (2420360N-2420463N, 333054E-333151E) BLOCK-5 (2419780N-2420321N, 333712E-333968E) BLOCK-6 (2419112N-2419184N, 333994E-334288E)	BLOCK-1 (2421352N-2421562N, 332248E-332411E, 2420930N-2421007N, 332234E-332235E) BLOCK-2 (2420320N-2420475N, 332553E-332653E, 2419955N-2420135N, 332811-332918E) BLOCK-3 (2420888N-2421035N, 33110E-333194E) BLOCK-4 (2420360N-2420463N, 333054E-333151E) BLOCK-5 (2419780N-2420321N, 333712E-333968E) BLOCK-6	Block-6 for iron ore production did not start due to the want of permission from forest department.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	No Proposal for top soil generation. For Manganese Ore-No. of benches for Ore-2 No. of benches for OB-27 (for all blocks) For Iron Ore-No. of benches for Ore-2 No. of benches for Ore-2 No. of benches for OB-Nil	No Proposal for top soil generation. For Manganese Ore- No. of benches for Ore-2 No. of benches for OB- 4-6 (for each block) For Iron Ore- No. of benches for Ore-Nil No. of benches for OB- Nil	Block-6 for iron ore production did not start due to the want of permission from forest department.

		MCDR-Mi	FL0Mn/1/2022-BB\$	S-IBM RO BBS	
	2c	Stripping ratio or ore to	2022-23	2022-23	
1/12844/202	2	OB ratio	Mn ore-1:12.11	Mn ore-1: 6.89	
1/12044/202	3		Fe ore-1:1	Fe ore-NIL	
	2d	Quantity of topsoil	No proposal	Nil	
		generation in m3			
	2e	Quantity of overburden	2022-23	2022-23	Block-6 for iron
		generation in m3	2334102 Cum	865308 Cum	ore production did
					not start due to the
					want of
					permission from
					forest department.
	2f	General remarks of			
		inspecting officer on			
		development of pit			
		w.r.t. type of deposit etc			

EXPLOITATION

N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
3a	Number of pits proposed for production	6	5	Block-6 for iron production could not be done due forest problem.
3b	Quantity of ROM mineral production proposed	2022-23 Mn-189000 MT Fe-136000 MT	2022-23 Mn- 125530.167MT Fe-NIL	Proposed iron production in Block-6 for could not be operated due forest problem.
3c	Recovery of salable/usable mineral from ROM production	Mn-90% (+25%Mn) Fe-10%	Mn-1.020% (+25%Mn) Fe-0.00MT	
3d	Quantity of mineral reject generation	Mn-18900 MT (+25%Mn) Fe-122400 MT	Mn-123774.644 MT (+10% to - 25%Mn) Fe-NIL	
3e	Grade of mineral reject generation and threshold value declared	Mn- Mineral reject is 10%- 25% mn & threshold value is 10% of mn content Fe- Mineral reject is 45-55% Fe & threshold value is 45% of Fe content.	Mn- Threshold value is 10% of mn content Fe- Threshold value is 45% of Fe content.	
3f	Quantity of sub-grade mineral generation	Mn-18900 MT (+25%Mn)	Mn-123774.644 MT (+10% to - 25%Mn)	
3g	Grade of sub-grade mineral generation	Fe-122400 MT Mn- Mineral reject is 10%- 25% mn & threshold value is 10% of mn	Fe-NIL Mn- Threshold value is 10% of mn content	

MCDR-MiFLOMn/1/2022-BBS-IBM_RO_BBS content Fe-Threshold value is 1/12844/2023 Mineral reject is 45-55% 45% of Fe content. Fe & threshold value is 45% of Fe content. 3h Manual / Mechanised Segregation method adopted for (sorting and segregating from picking) of ore Manual Manual **ROM** from ROM with the help of Manpower. NIL 3i Any analysis or No proposal beneficiation study proposed & carried out for sub-grade mineral and reject Provision of drilling & Deep Hole drilling was Nonel 3j type proposed keeping depth detonator with hole blasting in mineral 6.6m, spacing upto 2.5m, depth blasting benches burden 2m & blasting was technique with proposed and few rock depth 6-9 m, 2.5m, breakers will be used for burden 2m is being hard Ore breaking. adopted. The rock breakers is being used for boulder breaking. Type of Capacity of No. of Type of Capaci No. 3k Provision of mining machine each unit units machiner ty of of machineries in mineral each unit benches unit S Rock 25Ton 9 Breaker Back 2.8Cu 2 Excavat 3.8CuM 10+3 Hoe M 2.1 CuM 2.1 2 or 2 1.1CuM CuM Loaders 1.7 CuM 4 1 3.8Cu Dumper 25T 58 M Loaders 2.5Cu 1 12-Bar 8+1 Drill M Machine 26 Dumper 25T 4 Dozer Drill 140 3 Water 10KL/20Kl 6 Machine mm. Tanker 180HP Dozer 1 1 Screen Water 10 KL Plant 2 D G Set ЗНР Tanker 20Kl 1 1 Bolero 3 Crushing **60TP** 1 2 Camper Η Ambula Screenin nce g Plant Mobile 250TPH/ 125KW Generat 1 150TPH crushing or 7.5KW 3 unit Bolero 3 Jeep/ Camper Ambulan ce Other It is proposed to keep the 31 Whether height of Yes. The bench benches in overburden bench height up to 6mtr height has been kept for both Ore & OB up to 6m for both and mineral suitable benches. Ore & OB benches. for method of mining proposed in MP/SOM Total area covered 144.376 ha 144.376 ha The broken-up 3m under excavation/pits area was for proposed

_		MCD	R-MiFLOMn/	1/2022-BB	S-IBM_R	O BBS		
l/12844/202	3 3n	Ore to OB ratio for to pit/mine during the year			2022 Mn o			excavation for both iron and manganese ore. The operation could not be started due to the want of permission from the forest Dept.
	30	Total area put in use under different heads at the end of year	Type of land use (in ha) Mining Mineral Storage Mineral Beneficiation plant Infrastructure (Workshop, administrative building etc.) OB/waste dump Others(Safety Zone and Protective Measures)	Actual Area utilized in the proposal period 144.376 53.60 1.488 2.32 53.60	Mining Mineral Storage Mineral Beneficia plant Infrastrue (Workshe administe e building etc.) OB/wast dump Others(S y Zone a Protectiv Measure	land util the proper 144 53. ation 1.4 cture op, rativ 2.3 g	pposal iod 1.376 60	
	3p 3q	Production of ROM mineral during last three- year period, as applicable 2020-21 2021-22 2022-23 General remarks of inspecting officer on method of	2020-21 Mn-189000 M Fe-136000 M 2021-22 Mn-189000 M Fe-136000 M 2022-23 Mn-189000 M Fe-136000 M	Γ Τ Γ Τ	2020-21 Mn-103- Fe-NIL 2021-22 Mn-129- Fe-NIL 2022-23 Mn-125- Fe-NIL	485.02 M 951.037 I 530.167 I	MT MT	The mining lease has been executed on 27.06.2020.

of Solid Waste management-Dumping

S.	Item	Proposals for, 2022-23	Actual work during	Remark
N.			2022-23	
4a	Separate dumping of topsoil, OB & mineral reject (Rule 33, 37)	No top soil generation is proposed. Separate dumping for OB &mineral reject is proposed.	No top soil generation is proposed. OB &mineral reject are dumped as per proposal.	
4b	Location of topsoil, OB & mineral reject dumps	Mineral reject generation are proposed to stacked	Mineral reject generation are stacked separately. Dumping	

		MCDR-N	MiFLOMn/1/2022-BBS-	IBM RO BBS
		1105111	separately. Dumping	of waste generated is
1/12844/20	23		of waste generated is	done in DUMP-A and
			proposed to use for	Backfilling in BF-2 &
			dumping in DUMP-A	BF-5.
			and Backfilling in BF-	
			2,BF-3,BF-4,BF-	
			5,BF-6	
	4c	Number of dumps	02 no of dumps within	02 Nos of Dumps within
		within lease area and	the lease area	Lease area
		outside lease area		
	4d	Location of dumps	Dump-A:	Dump-A:
		w.r.t. ultimate pit limit	332594E TO 332789E	332594E TO 332789E
			2420706N TO	2420706N TO 2421132N
			2421132N	Dump-H:
			Dump-H:	331525E TO 331902E -
			331525E TO 331902E -	2420235N TO
			2420235N TO	2420966N
			2420966N	
	4e	Number of active &	6nos.	6nos.
		alive dumps		
	4f	Number of dead	1 no.	1no.
		dumps		
	4g	Number of dumps	01(Dump-H)	01(Dump-H)
		stabilished		
	4h	Whether Retaining	Yes,	Yes
		wall or garland drain		
		all along dumps are		
		there		
	4i	Length of Retaining	Retaining Wall of 1240m	Retaining Wall of 1246m
	11	wall or garland drain	& Garland drain 320 m	& Garland drain 324 m
		all along dump	length was proposed.	length is done.
	4j	Number of settling	1 Nos	1 Nos
	.,	ponds		
		F		
	4k	Specific comments of		
	TA	inspecting officer on		
		waste dump		
		management		

management Solid Waste management-Backfilling

S. N.	Item	Proposals for 2022-23	Actual work during 2022-23	Remark
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Proposal has been given for backfilling in BF-2, BF-3, BF-4, BF-5, BF-6	Backfilling of BF-2, BF-5 are done.	The backfilled has been carried out in the mined out area only as mentioned.
5b	Area under backfilling of mined out area	149100 m ²	116600 m ²	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	No proposal	Nil	
5d	Total area fully reclaimed &		Not fully reclaimed &	Not matured

		MCDR-MiFLO	Mn/1/2022-BBS-	IBM RO BBS	
		rehabilitated		rehabilitated	
1/12844/202	? 3 5e	General remarks of	Violation letter issued under rule 11(1) of MCDR, 2017		OR, 2017
		inspecting officer on			
		backfilling, reclamation etc.			

Progressive Mine Closure Plan

SN	Item	Proposals for 2022-	Actual work during	Remark
		23	2022-23	
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 26(2).	To be submitted on or before 1 st July, 2022.	Submitted	
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha)	No proposal 1.5 Ha.	Nil 2.17 Ha.	
	iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch &	3750 Nos. 11750 Nos. No proposal	9590 nos. 17940 Nos. Nil Rs. 304788/-	
6c	care during the year Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by	No proposal No proposal	Nil Nil	
	waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	No proposal No proposal No proposal	Nil Nil Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	3750 Nos. 1.57 Ha. By plantation	9590 Nos. 2017 Ha. By plantation	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	-	-	
6f	General remarks of inspecting officer on PMCP compliance & progressive closure operations			
N. # *	ral Conservation	•		

Mineral Conservation

S.N	Item	Proposals for 2022-23		Actual work during 2022-23	Remark
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Based proposed production	on of	Mn 5289.460 MT (25%- 35%)	

		MCDR-MiFLO	Mn/1/2022-BBS-IE	RM RO RRS
		11651111120	RoM ore, the	100831.040 MT
1/12844/202	23		dispatch will be	(below25%)
1, 120 1 1, 201			done as per	Fe
			buyers	+55% =0.00MT
			requirement	45-55%=0.00MT
	7b	Method of grade-wise	Manual	Manual
		mineral sorting i.e. manual		
		or mechanical		
	7c	Different grade of mineral	Mn	Mn-10-25%
		sorted out at mines	10-25%	&+25% and above
			& +25% and	Fe- Nil
			above	
			Fe45-	
			55%&+55%	
	7d	Any beneficiation process	No proposal	Nil
		at mines		
	7e	General remarks of		
		inspecting officer on		
		Mineral conservation &		
		beneficiation issues		

Environment

S.N.	Item	Proposals for, 2022-23	Actual work during 2022-23	Remark
8a	Separate removal and utilization of topsoil (Rule 36)	No proposal	Nil	
8b	Concurrent use or storage of topsoil	No proposal	Nil	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Separate dumps for overburden and mineral reject stacks, waste rocks are proposed.	Separate dumps for overburden and mineral reject stacks, waste rocks are maintained.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	During course of mining generated overburden/waste, etc rock will be dumped at the proposed dumping yard.	During course of mining generated overburden/waste rock, etc has been dumped/backfilled.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Phase wise backfilling was proposed to be done in BF-2, BF-3, BF-4, BF-5,BF-6 &Dump-A area.	Phase wise Back filling has been done partially.	
8f	Baseline information on existence of plantation & additional Plantation done	3750 no. of plantation has been proposed	8350 nos. of plants 9590 no. of sapling has been planted.	
8h	Water sprinkling on roads	Six nos of water	Three nos of water	

		MCDR-MiFLO	Mn/1/2022-BBS-IE	3M RO BBS	
l/12844/202	23	to control airborne dust	tanker are proposed for dust suppression on haul road. Capacity-10-20 KL	tanker (10-20 KL) has already been deployed to control dust on haul road.	
	8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			

Compliance of Rule 45

S.N.	Item	Proposals for 2021-22	Actual work during 2021-	Remarks
9a	Status of submission of Monthly and Annual returns	M.R. Submitted upto –June 2023 A.R. Submitted upto—2022-23	Submitted in time	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer:- Mohammad Shahrukh Geologist:- Mr Prafulla Kumar Parida Manager:- Mr. J. Mohanta	Found in order	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under pits:-144.376Ha. Dumps:-53.60Ha. Plant, buildings, road etc:38.474 ha Mineral Storage and green belet: 74.202 ha.	Found in order	
9d	Scrutiny of Annual return on afforestation	9590nos.	Found in order	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	MR-3491.78tonnes. Avg. grade-14.60% Mn.	Found in order	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing ROM stock at mine head:-Nil	Found in order	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	Ex Mine price:-Rs 3011.27 /- per tonne for below 25% Mn Rs 7017.20/- per tonne +25 to below 35% Mn Production Cost:- Rs 3049.62 /-per tonne	Found in order	
9i	Scrutiny of Annual return on fixed assets	Rs 4573980/-	Found in order	
9k	Scrutiny of Annual return on mining machineries	Details are provided	Found in order	

MCDR-MiFLOMn/1/2022-BBS-IBM_RO_BBS

1/12844/2023

Date: 10.07.2023

Details of violations observed during current inspection and compliance position of violation							
pointed out							
Violation observed Show cause position							
Rule No. Issued on Compliance			Rule	Issued on	Compliance on		
		e on	No.		_		
11(1) of MCDR, 2017	09.06.2023						
47 of MCDR, 2017	09.06.2023						
48 of MCDR, 2017	09.06.2023						

(Rajani Kanta Rautaray) INDIAN BUREAU OF MINES