

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/SNG/MCDR-3/BBS

Mine code : 30ORII3010

- (i) Name of the Inspecting : **RAM**) **RAMKISHAN R**
Officer and ID No.
- (ii) Designation : Sr. Asst. Contrl. Mines
- (iii) Accompanying mine : Shri Shatrujit Kumar, Mine Manager
Official with
Designation
- (iv) Date of Inspection : 26/08/2019
- (v) Prev.inspection date : 18/07/2018

PART-I : GENERAL INFORMATION

1. (a) Mine Name : KOIRA
- (b) Registration NO. : IBM/1289/2011
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address :
State : ORISSA
District : SUNDARGARH
Village : KOIRA
Taluka : BONAI
Post office : KOIRA
Pin Code : 770048
FAX No. : 06767-279218,275367
E-mail : emilbbl@adityabirla.com
Phone : 06767-279209,275489
- (f) Police Station : Koira
- (g) First opening date : 27/08/1971
- (h) Weekly day of rest : SUN
2. Address for : VILLAGE. KOIRA, PO: KOIRA
correspondance : TALUK. BONAI
DIST. SUNDERGARH, ORISSA, PIN- 770048
3. (a) Lease Number : ORI0148
- (b) Lease area : 90.14
- (c) Period of lease : 50
- (d) Date of Expiry : 26/08/2021
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : ESSEL MINING& INDUSTRIES LTD.
 AT/PO: BARBIL KEONJHAR
 ORISSA
 Phone:06767-30437
 FAX :06767-75367

Owner : ASWANI KOTHARI (NOMINATED OWNER)
 GOLD CORNET, FLOT NO 4 11,
 NAWRAJEE GAMADIA ROAD
 MUMBAI MUMBAI (SUBURBAN)
 MAHARASHTRA
 Phone:
 FAX :

Agent : SHRI V SRIKANTH
 BARBIL KEONJHAR ODISHA
 KEONJHAR ORISSA
 Phone: 06767-275367
 FAX : 06767-275367

Mining Engineer

Name : Rajesh Kumar Patel, Full Time
 Qualification : B.Tech (Mining)
 Appointment/ : 15/11/2016
 Termination date

Geologist

Name : JAYHARI MOHANTA, Full Time
 Qualification : MSC GEOLOGY
 Appointment/ : 10/12/2011
 Termination date

Manager

Name : Ajit Kumar Patra
 Qualification : B.Tech (Mining)
 Appointment/ : 15/11/2016
 Termination date

6. Date of approval of Mining Plan/Scheme of Mining	:	Mining Scheme rule 12 MCDR1988	28/05/2005
		Renewal under rule 24 MCR1960	27/02/2007
		Mining Scheme rule 12 MCDR1988	18/06/2007
		Modif. approved Mining Scheme	17/04/2015
		Mining Scheme rule 12 MCDR1988	18/03/2016
		Modif. approved Mining Scheme	03/11/2016
		MP modif under 17(3) MCR 2016	16/08/2018

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	the entire lease area has been explored under G1 level as per the approved mining plan dated 16.08.2018.	Not applicable	Nil
1b	Exploration over lease area for geological axis 1 or 2	No exploration proposal is envisaged as the entire lease area already explored g1 level.	Not applicable	Nil
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not applicable	Nil	Nil
1d	Balance area to be explored to bring Geological axis in 1 or 2	Not applicable	Nil	Nil
1e	Balance reserve as on 01/04/20	As per the approved document on 16.08.2018 the iron ore reserves are 39.22 mil.t. and resources are 18.6 mil.t.	due to depletion of reserves and resources over the period of time the updated iron ore reserves as on 01.04.2019 are 35.28 mil.t and resources are 18.6 mil.t.	Nil
1f	General remarks of inspecting officers on geology, exploration etc		entire lease area has been explored under G1 level.	Nil

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	One quarry is proposed for development during the year 2018-19 called as Quarry 1 & 6	development is carried out in quarry 1&6	Nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	no top soil generation is envisaged, seperate benches in OB and mineral are proposed.	seperate benches in OB and mineral are maintained.	Nil
2c	Stripping ratio or ore to OB ratio	1:0.11 t/cu.m.	1:0.017 t/cu.m.	Nil
2d	Quantity of topsoil generation in m3	Not applicable	Nil	Nil
2e	Quantity of overburden generation in m3	47000 cu.m.	69421 cu.m.	Nil
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc		development is carried out by opencast mining method in one quarry as proposed in the mining plan.	Nil

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	one quarry during the year 2018-19	one quarry	Nil
3b	Quantity of ROM mineral production proposed	4 mil.t	3.93 mil.t	Nil
3c	Recovery of sailable/usable mineral from ROM production	3.51 mil.t of saleable ore and mineral rejects of 0.48 mil.t	3.79 mil.t of saleable ore and mineral rejects of 0.14 mil.t	mineral rejects are blended with high grade ore to make it saleable ore

3d	Quantity of mineral reject generation	0.48 mil.t	0.14 mil.t	Nil
3e	Grade of mineral rejects generation and threshold value declared.	+45%-54% Fe	+45%-54% Fe	Nil
3f	Quantity of sub grade mineral generation.	addressed in mineral rejects	NA	Nil
3g	Grade of sub grade mineral generation	NA	Nil	Nil
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised	Mechanised	Nil
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed.	NA	Nil
3j	Provision of drilling and blasting in mineral benches	deep hole drilling and blasting is proposed in mineral benches.	deep hole drilling and blasting is carried out.	Nil
3k	Provision of mining machineries in mineral benches	shovel and dumper combination is proposed for excavation and hauling.	shovel and dumper combination is deployed for excavation and hauling.	Nil
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	9 m height is proposed.	maintained.	Nil
3m	Total area covered under excavation/pits	36.622 ha till the end of plan period i.e. 2021-22.	32.095 ha	Nil

3n	Ore to OB ratio for the pit/mine during the year.	1:0.11 t/cu.m. 1:0.017 t/cu.m.		Nil
3o	Total area put in use under different heads at the end of year	total put to use under different heads till the end of plan period is 76.269 ha	70.833 ha	Nil
3p	Production of ROM mineral during the last five year period as applicable	2014-15: 4 mil.t. 2015-16: 4 mil.t. 2016-17: 4 mil.t. 2017-18: 4 mil.t. 2018-19: 4 mil.t.	2014-15: 3 mil.t. 2015-16: 2.95 mil.t. 2016-17: 3.99 mil.t. 2017-18: 3.92 mil.t. 2018-19: 3.93 mil.t.	Nil
3q	General remarks of inspecting officers on method of mining etc.		production is carried out by opencast mining method as proposed in the mining plan.	Nil

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	no top soil generation is envisaged. the waste generated from mines is proposed to be backfilled in the mined out area and mineral rejects are proposed to be seperately stacked and blended with high grade	the waste generated from mines is backfilled in the mined out area and mineral rejects are seperately stacked and blended with high grade	Nil

4b	Location of topsoil, OB and mineral reject dumps	the waste generated from mines is proposed to be backfilled in the mined out area and mineral rejects are proposed to be seperately stacked and blended with high grade	the waste generated from mines is backfilled in the mined out area and mineral rejects are seperately stacked and blended with high grade	Nil
4c	Number of dumps within lease area and outside of lease area	No waste dumping is proposed, as the waste generated from mines is proposed to be backfilled in the mined out area	the waste generated from mines is backfilled in the mined out area	Nil
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Not applicable as No waste dumping is proposed.	the waste generated from mines is backfilled in the mined out area	
4e	Number of active and alive dumps.	Not applicable as the waste generated from mines is proposed to be backfilled in the mined out area	waste generated from mines is backfilled in the mined out area	Nil
4f	Number of dead dumps.	Not proposed.	Nil	Nil
4g	Number of dumps established.	Not proposed.	Nil	Nil
4h	Whether Retaining wall or garland drain all along dumps are there.	Retaining wall and garland drain all laong dumps are propsoed.		Nil
4i	Length of Retaining wall or garland drain all along dumps	200 mtrs	200 mtrs	Nil

4j	Number of settling ponds	Not proposed.	Nil	Nil
4k	Specific comments of inspecting officer on waste dump management		waste generated from mines is backfilled in the mined out area	Nil

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.	full extraction is propsoed before backfilling.	ensured.	Nil
5b	Area under backfilling of mined out area	0.51 ha	Nil	violation observed and communiated letter dated 06.09.2019
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	Not applicable	Nil	Nil
5d	Total area fully reclaimed and rehabilitated	7.695 ha as per the apporved mining plan dated 16.08.2018	7.695 ha	Nil
5e	General remarks of inspecting officers on backfilling and reclamation etc.		waste generated from mines is being utilised for bacfilling of mined out area	Nil

Progressive Mine Clousre Plan:

Sl.No.	Item	Propasals	Actual work	Remarks
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6a	Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2).	PMCP report to be submitted before 1 st July		Nil
6b	Area available for rehabilitation (ha) .	Not applicable	Nil	Nil
6c	afforestation done (ha).	1000 nos proposed as gap planattion	1582 nos planated.	Nil
6d	No. of saplings planted during the year	1000 nos	1582 nos	Nil
6e	Cumulative no .of plants	27440 nos	111192 nos	Nil
6f	Any other method of rehabilitation	Not applicable	Nil	Nil
6g	Cost incurred on watch and care during the year	Rs 80000	Rs 80000	Nil
6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	0.51 ha	0.51 ha	Nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	0.51 ha	Nil	violation observed and communicated to lessee dated 06.09.2019
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	Not applicable	Nil	Nil

6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	Not applicable Nil		Nil
6l	Compliance on reclamation and rehabilitation by backfilling (v) any other specific means.	Not applicable Nil		Nil
6m	Compliance of rehabilitation of waste land within lease (i) afforestation	Not applicable Nil		Nil
6n	Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha)	Not applicable Nil		Nil
6o	Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation	Not applicable Nil		Nil
6p	Compliance of environmental monitoring (core zone and buffer zone)	environmental monitoring is proposed for core and buffer zone	environmental monitoring is carried out as proposed.	Nil
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.		PMCP measures were carried out except backfilling.	Nil

Mineral Conservation:

Sl.No.	Item	Proposals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	grade-wise of sorting of mineral is proposed in lease area.	grade-wise sorting is carried out.	Nil
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical	Nil
7c	Different grade of mineral sorted out at mines.	+45%-54% Fe and +54% Fe	+45%-54% Fe and +54% Fe	Nil
7d	Any beneficiation process at mines	Not proposed.	Nil	Nil
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues		grade-wise sorting of mineral is being carried out.	Nil

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	no top soil generatin is envisaged.	Nil	Nil
8b	Concurrent use or storage of topsoil	Not applicable	Nil	Nil

8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	the waste generated from mines is proposed to be backfilled in the mined out area and mineral rejects are proposed to be seperately stacked and blended with high grade	the waste generated from mines is backfilled in the mined out area and mineral rejects are being seperately stacked and blended with high grade	Nil
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	the waste generated from mines is proposed to be backfilled in the mined out area	the waste generated from mines is being used for backfilling in the mined out area	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	the waste generated from mines is proposed to be backfilled in the mined out area	the waste generated from mines is being used for backfilling in the mined out area	Nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	1000 nos	1582 nos	Nil
8g	Survival rate		91.27%	Nil
8h	Water sprinkling on roads to control airborne dust	water sprinkling is proposed for dust supression.	water sprinkling on haul roads is carried out for dust supression	Nil

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	aesthetic beauty in and around the mines area is maintained.	Nil
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	monhtly and annual returns are to be submitted as per rule 45 of MCDR, 2017	submitted.	Nil
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	(i) Graduate Mining Engineer - 2 (ii) Diploma Mining Engineer - 9 (iii) Geologist - 3	found to be in order.	Nil
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	total land use area utilisation furinshed is 70.833 ha	found to be in order.	Nil
9d	Scrutiny of Annual return on afforestation	1582 nos	found to be in order.	Nil
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	0.14 mil.t	0.14 mil.t	Nil
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM closing stock is 907147 t	found to be in order.	Nil
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	production cost Rs. 887	Rs 887	Nil

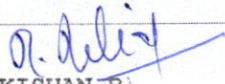
9h	Scrutiny of Annual return on fixed assets	Rs 311603560	Rs 311603560	Nil
9k	Scrutiny of Annual return on mining machineries	DUMPER 35.000 TONNE - 36 BACK HOE 1.900 CUM - 4 BACK HOE 0.900 CUM - 12 BACK HOE 1.500 CUM - 6 FRONT END LOADER 1.700 CUM - 19 FRONT END LOADER 2.000 CUM - 3	found to be in order.	Nil

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
MCDR17 Rule 11(1)	06/09/2019				
Rule 45(7)	06/09/2019				

Date :

25/10/19.


(RAMKISHAN R)

Indian Bureau of Mines