

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

**MCDR INSPECTION REPORT**

**Bhubaneshwar regional office**

**Mine file No :** ORI/IRON-DOL/KJR/MCDR-34/BBS

**Mine code :** 30ORI08033

- (i) Name of the Inspecting : **CHHA** ) **SHRI L H CHHANGTE**  
Officer and ID No.
- (ii) Designation : Deputy Controller Mines
- (iii) Accompanying mine : Rajesh Kumar Patel , Mines Manager  
Official with  
Designation
- (iv) Date of Inspection : 23/10/2013
- (v) Prev.inspection date : 24/02/2013

**PART-I : GENERAL INFORMATION**

1. (a) **Mine Name** : **KASIA**
- (b) **Registration NO.** :
- (c) Category : A Mechanised
- (d) Type of Working : Opencast
- (e) Postal address  
State : ORISSA  
District : KEONJHAR  
Village : KASIA  
Taluka : BARBIL  
Post office : KASIA  
Pin Code : 758035  
FAX No. : 06767-75367  
E-mail : kjr\_emilbbi@sancharnet.in  
Phone : 06767-75224,75489(O),75095
- (f) Police Station :
- (g) First opening date : 14/09/1955
- (h) Weekly day of rest : SUN
2. Address for : KASIA IRON DOLOMITE MINE  
correspondance PO-KASIA DIST-KEONJHAR,PIN-758035  
ORISSA
3. (a) Lease Number : ORI0094  
(b) Lease area : 134.73  
(c) Period of lease : 30  
(d) Date of Expiry : 13/09/1985
4. Mineral worked : DOLOMITE Associated  
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 : Essel mining & Industries Ltd  
 Barbil KEONJHAR ORISSA  
 Phone: 06767-30437, 30  
 FAX : 06767-30367

Agent : RAVINDRA GAJANAN SATHE  
 KASIA IRON & DOLOMITE MINES  
 M/S ESSEL MINING &  
 INDUSTRIES LTD KASIA, PO-  
 BARBIL, KEONJHAR KEONJHAR  
 ORISSA  
 Phone:  
 FAX : 06767 275367

## Mining Engineer

Name : Rajesh Kumar Patel, Full Time  
 Qualification : B E Mining, FCC  
 Appointment/ : 09/07/2013  
 Termination date

## Geologist

Name : Subbaraya Sarma Chilumuru, Full Time  
 Qualification : M Sc GEOLOGY  
 Appointment/ : 10/12/2011  
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	06/05/2005
Plan/Scheme of Mining		Renewal under rule 24 MCR1960	08/12/2005
		Modif.of approved Mining Plan	22/05/2007
		Modif.of approved Mining Plan	05/03/2009
		Mining Scheme rule 12 MCDR1988	29/03/2011
		Mining Scheme rule 12 MCDR1988	14/03/2012

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

## Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	NIL	None	
1b	Exploration over lease area for geological axis 1 or 2	NIL	None	
1c	Exploration Agencies and Expenditure in lakh rupees during the year	Not specified		
1d	Balance area to be explored to bring Geological axis in 1 or 2	104.148 ha	None	Forest clearance awaited
1e	Balance reserve as on 01/04/20	145 MMT ( 111 &122) as on 1/4/2013	Same as proposed	
1f	General remarks of inspecting officers on geology, exploration etc			The mine has been closed since November 2012

## Development :

Sl.No.	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t.lease area	One pit each at North and South blocks	Developed as proposed	
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes	Seperate benches in OB, Ore maintained	
2c	Stripping ratio or ore to OB ratio	1:0.75	Actual turned out to be 1:0.05	Less development work during the year
2d	Quantity of topsoil generation in m3	5279840 MT	NIL	Practically no development work

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	The mine was closed since November 2012, development was halted except few months but due to rain, no significant work could be carried out
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	2 pits , 1 each in Northern and Southern block	Developed as proposed	
3b	Quantity of ROM mineral production proposed	7,500,000 MT	3,75,670 MT	The production was made from April 2012 to October 2012 only , thereafter the mine was closed
3c	Recovery of sailable/usable mineral from ROM production	100%	Almost a 100% when actual;ly worked	
3g	Grade of sub grade mineral generation	Sub grade is from 45-58% Fe	Same as proposed	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanical	mechanical in vogue as proposed	
3j	Provision of drilling and blasting in mineral benches	Yes	Scientific and controlled blasting method in vogue	
3k	Provision of mining machineries in mineral benches	Yes	All types of machineries have been deployed in this mine	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Bench dimensions specified	Benches in OB and Ore are 9m high and 15-20m wide as per proposed	
3m	Total area covered under excavation/pits	75 ha	Actual area covered by the 2 pits are 70.943 ha	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.7	1:0.05	There was practically no development in this mine
3o	Total area put in use under different heads at the end of year	Mining - 70.943 ha, Stacking- 5.960 ha, Dumps- 9.574 ha, Township- 12.486 ha, Roads - 7.609 ha, Safety zone - 30.621 ha, Reclaimed area- 7.099 ha, Private land - 3.968 ha, Unexplored area- 44.321 ha	Developed and exploited as proposed	
3q	General remarks of inspecting officers on method of mining etc.			The mine was closed since November 2012

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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)	Yes	Seperate dumping for OB, Ores, Rejects made in this mine	

4b	Location of topsoil, OB and mineral reject dumps	Specific locations identified / proposed	As proposed, 2 large dumps have been developed as Dump-6 at area lying between W 400-585 and S269-525 whereas another Dump-SE-1 lying in W 145-387 and S 673-1006	No deviation in this aspect
4c	Number of dumps within lease area and outside of lease area	2 within ML , No dump outside ML	Dumps developed as proposed	
4e	Number of active and alive dumps.	2 Active dumps only	Developed as proposed	
4h	Whether Retaining wall or garland drain all along dumps are there.	Specifics made in approved MP	Dump 6 is ( 34500 sqm) 200m long x 175m approx. Hence 750m long retaining wall has been constructed all around this dump. Similarly, another Dump SE-1 is 10080 ( 100m x 100m approx) is retained by a wall of 400m long	
4j	Number of settling ponds	Regular settling ponds proposed	Settling ponds have been constructed along the base of the 2 dumps	
4k	Specific comments of inspecting officer on waste dump management			There has been no problem with solid waste handling management here

#### 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.	15 ha proposed	Only 7.099 ha has been reclaimed	
5d	Total area fully reclaimed and rehabilitated	NIL	None	Active or partial reclamation of 7,099 only has been carried out in this mine

5e	General remarks of inspecting officers on backfilling and reclamation etc.	Specifics given here	Actually, reclamation has been planned for atleast 15 ha area but since the mine was closed from November 2012 , only 7.099 ha approx has been carried out so far as on date of inspection
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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).	Yes	Submitted regularly	
6b	Area available for rehabilitation (ha) .	15 ha	Actual is for 7.099 ha only	
6c	afforestation done (ha).	30 ha	28.667 ha inside the ML and another 0.32 ha outside the ML	
6d	No. of saplings planted during the year	5000 saplings	3000 sapling only	
6e	Cumulative no .of plants	3,00,000 saplings still 2012-13	2,29,895 saplings	
6f	Any other method of rehabilitation	Non proposed	None practically	
6p	Compliance of environmental monitoring (core zone and buffer zone)	Not specified	Apart from routine monitoring, the same is carried out as and when required	

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Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	7,500,000 MT	Only 2,550,000 desptached	The mine was closed since November 2012
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Mechanical	Mechanical process in vogue	
7d	Any beneficiation process at mines	Mechanical dry process	Mechanical dry process in vogue	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			There has been no conservation problem in this mine.

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**Environment:**

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	Non specified	Prcatically NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Yes	Dumps, wastes, fines, subgrade ores have been dumped seperately	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Not specified	No work practically in this aspect	
8g	Survival rate	80% within ML	75% actual within the ML	

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8h	Water sprinkling on roads to control airborne dust	Routine sprinkling proposed	Carried out as proposed	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area			There has been no detrimental effect in the environment due to this mining

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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 and A/R	They are submitted regularly	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Not specified	All statutory employment has been made satisfactorily	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Specifics given	Land has been utilised as proposed	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Not specified	Production during 2012-13 was 936881.40 MT, closing at 6872.620 MT	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Not specified in approved MP	Sale value at Rs 5492 per ton ( + 62 Fe ) and production cost Rs 505.37 per ton only	
9h	Scrutiny of Annual return on fixed assets	Not specified	Fixed asset estimated at Rs 185203000, found to be commensurate with field observation	
9k	Scrutiny of Annual return on mining machineries	Specified	Deployed more or less same as proposed. All together 57 units of machineries deployed.	

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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

**Date :**

(SHRI L H CHHANGTE)

Indian Bureau of Mines