

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

MCDR INSPECTION REPORT

Bhubaneshwar regional office

Mine file No : ORI/IRON/KJR/MCDR-44/BBS

Mine code : 30ORI08041

- (i) Name of the Inspecting : **DEY**) **NARENDRA MOHAN DEY**
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : SHRI BINOD KUMAR MOHANTY, REPRESENTATIVE OF LESSEE.
Official with
Designation
- (iv) Date of Inspection : 04/06/2015
- (v) Prev.inspection date : 03/02/2014

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **PUTALIPANI**
- (b) **Registration NO.** : **IBM /5190 /2011**
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address
- State : ORISSA
- District : KEONJHAR
- Village : PUTALIPANI
- Taluka : SADAR
- Post office : URUMUNDA
- Pin Code :
- FAX No. : 91-671-2425931
- E-mail : shreejagannath@hotmail.com
- Phone : 671 -2423461 / 2423221
- (f) Police Station : KEONJHARGARH
- (g) First opening date : 01/06/1973
- (h) Weekly day of rest : TUE
2. Address for : VILL-PUTLIPANI
correspondance PO-URUMUNDA
DIST-KEONJHAR
3. (a) Lease Number : ORI0073
- (b) Lease area : 100.06
- (c) Period of lease : 30
- (d) Date of Expiry : 07/04/1994
4. Mineral worked : IRON ORE Main

5. Name and Address of the

Lessee : M/S GANDHAMARDHAN SPONGE INDUSTRIES
 P-3, NEW CIT ROAD CAL-73
 KOLKATA WEST BENGAL
 Phone:
 FAX :

Owner : M/S GANDHAMARDHAN SPONGE INDUSTRIES
 P-3, NEW CIT ROAD KOLKOTA-73
 KOLKATA WEST BENGAL
 Phone:
 FAX :

Mining Engineer

Name : S.C.NAYAK, Full Time
 Qualification : M.TECH
 Appointment/ : 10/03/1993
 Termination date

Manager

Name : SUDERSHAN SAHU
 Qualification : PERMIT MANAGER
 Appointment/ : 01/08/1986
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	31/12/2004
Plan/Scheme of Mining		Modif.approved Mining Scheme	22/02/2008
		Mining Scheme rule 12 MCDR1988	18/12/2009
		Renewal under rule 24 MCR1960	06/08/2014

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	2014-15: 9 BH	NIL	MINING OPERATION WAS SUSPENDED WITH EFFECT FROM 08.04.2014 BY MINING OFFICER, KEONJHAR, VIDE THEIR LETTER DATED 22.03.2014. AS THE 1ST RML EXPIRED ON 07.04.2014.
1b	Exploration over lease area for geological axis 1 or 2	DURING 5 YEARS PERIOD 2014-15 TO 2018-19 THERE IS PROPOSAL TO DRILL 45 NO BH.	LESS HAS ALREADY DRILLED 37 NO CORE DRILL HOLES. LEASE AREA ALREADY EXPLORED AS PER UNFC NORMS OUT OF TOTAL LEASE 100.1632 HA IS AS FOLLOWS: UNDER G1 LEVEL : 63.2468 HA, UNDER G2 LEVEL: 7.5708 HA, UNDER G3 LEVEL: 25.9348 HA , EXPLORED AND FOUND NON-MINERALISED : 3.4108 HA, BALANCE LREASE AREA TO BE EXPLORED : 36.9164 HA	
1c	Exploration Agencies and Expenditure in lakh rupees during the year		NOT AVAILABLE.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	36.9164 HA	NIL	MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER, KEOMJHAR.

1e	Balance reserve as on 01/04/20	RESERVE AS PER UNFC CLASSIFICATION AS ON 01.04.2014 AS PER MINING PLAN APPROVED ON 06.08.2014 IS AS FOLLOWS: 111: 12474450 MT + 121: 2793600 MT = 15268050 MT 211: 76050 MT + 222: 92700 MT + 168750 MT GRAND TOTAL: 15436800 MT WITH AVERAGE GRADE : + 45% FE.	MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER; KEONJHAR.
1f	General remarks of inspecting officers on geology, exploration etc		

Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	BLOCK A AND BLOCK B LOCATED IN THE CENTRAL PART OF THE LEASE	NIL	MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER KEONJHAR
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	NO TOP SOIL SEPARATE BENCHES IN OB AND MINERALS	SEPARATE BENCHES IN OB AN D MINERALS NO WORK DURING 2014-15.	
2c	Stripping ratio or ore to OB ratio	1 : 0.20	NO WORK	
2d	Quantity of topsoil generation in m3	NO PROPOSAL	NIL	
2e	Quantity of overburden generation in m3	316650 MT	NIL NO WORK SINCE 08.04.2014.	

2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	BLOCK A AND BLOCK B TWO WORKING AREAS HAVE BEEN DEVELOPED, LOCATED IN THE CENTRAL PART OF THE LEASE. MINING OPERATION HAS BEEN SUSPENDED BY MINING OFFICER KEONJHAR SINCE 08.04.2014.
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Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	BLOCK A : 420 M X 240 M BLOCK B: 510 M X 340 M	NO WORK SINCE 08.04.2014	
3b	Quantity of ROM mineral production proposed	1741575 MT	NIL NO WORK SINCE 08.04.2014	
3c	Recovery of sailable/usable mineral from ROM production	2014-15: ROM : 1741575 MT SALEABLE : 1139940 MT (+ 55% FE) + SUB-GRADE : 284985 MT (45% FE TO 55% FE) = 1424925 MT	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	LESS THAN 45% FE	NIL	
3f	Quantity of sub grade mineral generation.	284985 MT	NIL	
3g	Grade of sub grade mineral generation	45% FE TO 55% FE	NIL	

3h	Manual / Mechanised method adopted for segregating from ROM	MECHANISED	NIL	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	THE BENEFICIATION TEST FOR LOW GRADE ORES INCLUDING THE REJECTED FINES WAS UNDER PROCESS IN THE RECOGNISED LABORATORY. THE SIZE ANALYSIS WAS ALSO DONE AND THE GRADE FOR DIFFERENT SIZES WOULD BE ANALYSED. AFTER GETTING THE RESULTS SUITABLE BENEFICIATION WET PROCESS SHALL BE ADOPTED AFTER CONSULTATION WITH THE METALLURGICAL EXPERTS.	NIL	
3j	Provision of drilling and blasting in mineral benches	YES	NIL	
3k	Provision of mining machineries in mineral benches	YES	NIL	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	HEIGHT OF BENCHES IN OB : 5 M HEIGHT OF BENCHES IN ORE : 6 M	NO WORK SINCE 08.04.2014.	SUITABLE FOR METHOD OF MINING AS PROPOSED IN THE MINING PLAN APPROVED ON 06.08.2014.
3m	Total area covered under excavation/pits	15.160 HA	NIL	

3n	Ore to OB ratio for the pit/mine during the year.	1 : 0.20	NIL	
3o	Total area put in use under different heads at the end of year		COVERED UNDER OPENCAST WORKING: 15.160 HA, USED FOR WASTE DISPOSAL : 7.0 HA OCCUPIED BY ROAD AND BUILDING : 5.067 HA MAGAZINE : 0.209 HA	
3p	Production of ROM mineral during the last five year period as applicable	2009-10: 1116339 MT 2010-11: 1216950 MT 2011-12: 1333731 MT 2012-13: 1400112 MT 2013-14: 1425000 MT 2014-15: 1741575 MT	2009-10: 151890 MT 2010-11: NIL 2011-12: NIL 2012-13: 420980 MT 2013-14: 710340 MT 2014-15 : NIL	MINE WAS SUSPENDED FROM 2009 TO 2012 AND AGAIN MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY GOVT OF ODISHA.
3q	General remarks of inspecting officers on method of mining etc.	METHOD OF MINING IS FULLY MACHANISED BY DEPLOYING MACHINES LIKE WAGON DRILL, HYDRAULIC EXCAVATORS, DUMPERS, JACK HAMMER DRILL, AIR COMPRESSOR ETC. WHEREEVER ANY HARD FORMATION IS ENCOUNTERED BLASTING IS ADOPTED		PRESENTLY MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER, KEONJHAR.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
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4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	NO TOP SOIL DUMPING PROPOSAL FOR DUMPING OB / WASTE	NIL
4b	Location of topsoil, OB and mineral reject dumps	OB / WASTE DUMP ON THE NON-MINERALISED LAND IN THE SOUTHERN PART OF THE LEASE	NO DUMPING DURING THIS YEAR 2014-15.
4c	Number of dumps within lease area and outside of lease area	NO DUMP OUT SIDE OF LEASE AREA ONE DUMP WITH IN LEASE AREA	ONE DUMP WITH IN LEASE AREA
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	SOUTHERN PART OF THE LEASE AREA BEYOND ULTIMATE PIT LIMIT	SOUTHERN PART OF THE LEASE AREA BEYOND ULTIMATE PIT LIMIT OVER AN AREA ABOUT 7.50 HA , 2 NOS TERRACES 10 M EACH
4e	Number of active and alive dumps.	ONE	ONE
4f	Number of dead dumps.	NO	NIL
4g	Number of dumps established.	ONE	ONE
4h	Whether Retaining wall or garland drain all along dumps are there.	YES	YES
4i	Length of Retaining wall or garland drain all along dumps	RETAINING WALL : 160 M X 2 M X 1 M GARLAND DRAIN: 160 M X 2 M X 1 M	RETAINING WALL : 160 M X 2 M X 1 M GARLAND DRAIN : 160 M X 2 M X 1 M CUMULATIVE
4j	Number of settling ponds	ONE	ONE

4k	Specific comments of inspecting officer on waste dump management			RETAINING WALL AND GARLAND DRAIN HAVE BEEN CONSTRUCTED AROUND THE DUMP . METHOD OF DUMPING WAS RETREATING METHOD WITH TWO TERRACE EACH 10 M HEIGHT.
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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.	NO BACK FILLING PROPOSAL	NIL	
5b	Area under backfilling of mined out area	NO	NIL	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	NO	NIL	
5d	Total area fully reclaimed and rehabilitated	NO	NIL	
5e	General remarks of inspecting officers on backfilling and reclamation etc.			MINED OUT AREA NOT MATURED FOR BACK FILLING

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).	YES	ANNUAL REPORT ON PMCP UNDER RULE 23 E (2) HAS BEEN SUBMITTED	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	4096 SQM	EXISTING 6.862 HA OLD DUMP COVERED BY PLANTATION BESIDES PLANTATION OVER 6.32 HA INSIDE LEASE. CUMULATIVE	
6d	No. of saplings planted during the year	1024	PLANTED WITHIN LEASE 10000 NOS, OUTSIDE LEASE 2000 NOS	
6e	Cumulative no .of plants		NOT AVAILABLE	
6f	Any other method of rehabilitation		NO	
6g	Cost incurred on watch and care during the year		NOT AVAILABLE	
6p	Compliance of environmental monitoring (core zone and buffer zone)	PROPOSAL FOR MONITORING OF AMBIENT AIR QUALITY, WATER QUALITY AND NOISE LEVEL SURVEY	NIL	MINING OPERATION IS UNDER SUSPENSION SINCE 08.04.2014
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	RETAINING WALL : 400 M X 1 M X 2 M GARLAND DRAIN : 400 M X 1 M X 2 M	NO WORK	AS THE MINING OPERATION IS UNDER SUSPENSION SINCE 08.04.2014, NO PMCP WORK HAS BEEN CARRIED OUT.

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
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7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM : 1741575 MT SALEABLE: 1139940 MT (+55% FE) SUBGRADE : 284985 MT (45% TO 55% FE)= 1424925 MT	PRODUCTION : NIL GRADE-WISE DESPATCH : LUMP : 62% TO 65% FE : 5002.260 MT , 65% FE & ABOVE : 11619.630 MT FINES : NIL	MINING OPERATION SUSPENDED SINCE 08.04.2014 BY MINING OFFICER, KEONJHAR
7b	Method of grade- wise mineral sorting i.e. manual or mechanical.	MECHANICAL	NO MINING OPERATION SINCE 08.04.2014.	
7c	Different grade of mineral sorted out at mines.	LUMP AND FINES OF FOLLOWING GRADE : BELOW 55% FE, 55% TO 58% , 58% TO 60% , 60% TO 62% , 62% TO 65% AND 65% FE & ABOVE	LUMP : 62% TO 65% FE AND 65% FE & ABOVE.	

7d	Any beneficiation process at mines .	<p>THE BENEFICIATION TEST FOR LOW GRADE ORES INCLUDING THE REJECTED FINES IS UNDER PROCESS IN THE RECOGNIZED LABORATORY. THE SIZE ANALYSIS IS BEING DONE AND THE GRADE FOR DIFFERENT SIZES WOULD BE ANALYSED. AFTER GETTING THE RESULTS SUITABLE BENEFICIATION WET PROCESS SHALL BE ADOPTED AFTER CONSULTATION WITH THE METALLURGICAL EXPERTS.</p>	NIL
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	<p>GENERATION OF SUB-GRADE ORE WAS TO BE 4% OF EXCAVATION DURING THE PAST COURSE OF MINING. THERE FORE, ABOUT 20% OF THE TOTAL EXCAVATION OF MINEABLE ORE FOR IRON TO BE GENERATED AS SUB-GRADE ORE DURING MINING PLAN PERIOD. THE SUB-GRADE IRON ORE IS PROPOSED TO BE STACKED SEPARATELY AND IN FUTURE THESE WILL BE BLENDED WITH HIGH GRADE ORE TO MEET THE BUYERS SPECIFICATION DEPENDING UPON THE MARKET DEMAND.</p>	<p>A 100 TPH CRUSHING UNIT AND WITH SECONDARY CRUSHER CONSISTING OF GYRATORY CRUSHER WITH ASSOCIATED CONE AND JAW CRUSHING UNIT IS PRESENT TO BENEFICIATE THE ROM ORE INTO MARKETABLE ORE BETWEEN +5 TO -18 SIZE ORE AND -5 FINES. THREE NOS OF 200 TPH MOBILE SCREENING PLANTS , SCREEN +10 TO -40 MM SIZED ORES AT THE MINE FACES.</p>

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	NO PROPOSAL	NIL	
8b	Concurrent use or storage of topsoil	NO	NIL	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	SEPARATE DUMP FOR OB / WASTE	NIL	NO WORK SINCE 08.04.2014
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	DUMP NO 1 VOLUME OF WASTE PROPOSED DURING 2014-15: 158325 CUM	NIL CUMULATIVE QUANTITY DISPOSED : 200000 CUM	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	NO	NIL	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	PLANTATION PROPOSED 950 NOS	CUMULATIVE PLANTATION 10000 NOS	
8g	Survival rate		65 %	
8h	Water sprinkling on roads to control airborne dust	PROPOSED	WATER IS BEING SPRINKLED ON ROADS TO CONTROL AIRBORNE DUST.	

8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	AESTHETIC BEAUTY IN AND AROUND THE MINE HAS BEEN ENHANCED BY ADDITIONAL PLANTATION OF 10000 NO OF TREES IN AND AROUND THE MINES.
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Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	YES SUBMITTED	I HAVE INSPECTED THE MINE ON 04.06.2015 MONTHLY RETURN FOR THE MONTH OF APRIL, 2015 SUBMITTED ANNUAL RETURN FOR THE YEAR 2013-14 SUBMITTED.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager		ANNUAL RETURN FOR THE YEAR 2014-15 WAS SCRUTINISED. SHRI S C PANI, MINING ENGINEER AND SHRI S K LENKA, MANAGER WERE APPOINTED	MINING OPERATION IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER, KEONJHAR DUE TO END OF LEASE PERIOD.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.		ANNUAL RETURN 2014-15 SCRUTINISED. LAND USE PATTERN FOR AREA UNDER PITS: 15.160 HA, USED FOR WASTE DISPOSAL : 7.0 HA, OCCUPIED BY ROAD AND BUILDING : 5.067 HA , CONSTRUCTION OF MAGAZINE : 0.209 HA	
9d	Scrutiny of Annual return on afforestation		NO OF TREES PLANTED DURING THE YEAR 2014-15 : 10000 WITHIN LEASE AREA AND 2000 OUT SIDE LEASE AREA.	

9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	MINING OPERATION IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER KEONJHAR DUE TO END OF LEASE PERIOD.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	ANNUAL RETURN 2014-15 : ROM PRODUCTION : NIL, ROM CLOSING STOCK: 312133.186 MT GRADE-WISE STOCK : 62% TO 65% FE : 11562.722 MT, 65% FE & ABOVE: 31858.434 MT (LUMP) BELOW 55% FE: 256870.674 MT, 62% TO 65% FE : 11350.350 MT , 65% FE & ABOVE : 491.006 MT (FINES)	
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	PRODUCTION COST : Rs.3284.32 /- EX-MINE PRICE : 62% TO BELOW 65% FE: Rs.3650.00/-, 65% FE & ABOVE : Rs.3600.00/-	MINE IS UNDER SUSPENSION SINCE 08.04.2014 BY MINING OFFICER, KEONJHAR DUE TO END OF LEASE PERIOD.
9h	Scrutiny of Annual return on fixed assets	Rs.1010520 /-	
9k	Scrutiny of Annual return on mining machineries	FRONT END LOADER 4 NOS. OF CAPACITY 3.0 CUM FRONT END LOADER 1 NO. OF CAPACITY 12.0 CUM TIPPER 20 NOS. OF CAPACITY 20.0 CUM AIR COMPRESSOR 4 NOS. OF CAPACITY 900 CUM/ MN AIR COMPRESSOR 1 NO OF CAPACITY 450 CUM / MN AIR COMPRESSOR 3 NOS OF CAPACITY 100 CUM / MN WATER TANKER 2 NOS OF CAPACITY 10000 LITER	

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
Rule 27(4)	10/07/2015	Rule 27(4)	10/07/2015

Date :**(NARENDRA MOHAN DEY)**

Indian Bureau of Mines