

MCDR INSPECTION REPORT

General

S.N.	Particulars	Details
1	Name of the Mine Date of Inspection: Name of Inspecting Officer	Bodai Daldali Mine 12/10/2017 Shri R K Das (Sr ACOM) Rudra N. Mishra (SMG)
2	Total Lease Area (Ha) with breakup of Non-forest and forest land	Lease area –626.117ha Govt and Private Lands– 592.551 ha, Govt Revenue Van Nistar Land – 3.56ha.
3	Mine code	07CHG09002
4	IBM Registration Number under rule 45 of MCDR,2017	IBM/602/2011
5	Name of the Lease, Address, Phone, email and fax number	M/s Bharat Aluminium Company Ltd. (BALCO) Po: Balco Township Balco Nagar, Dist: Korba Phone /Fax- 07759-242139
6	Village	Mundadadar, Keshmarda, Rabda & Samseta
7	Taluka/Mandal	P.O : Baijalpur, Tahsil : Bodla
8	District	Kabirdham
9	Pincode	491995
10	State	Chhattisgarh
11	Post Office	Baijalpur
12	Nearest Police Station	Bodla
13	Nearest Railway Station	Kargi Road
14	Date of Grant of Mining Lease	07 th Oct 1996 (Letter no 3-31/92/12/3)
15	Date of Execution	27 th March 1997
16	Date of opening of Mine	31 st March 2004
17	Date of First Renewal, if applicable and its period & expiry	25 th March 2017 Execute supplementary Lease deed
18	Date of Second Renewal, if applicable and its period & expiry	NA
19	Date of submission of renewal application if Mining Operations are continuing under deemed extension	NA
20	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	ShriVikas Sharma (CEO & WTD) CEO office, Comprehensive Building Balco Nagar, Korba Email : Vikas.SharmaCSC@vedanta.co.in Phone /Fax- 07759 – 242015 Date of Appointment : 18.03.2017
21	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Rajesh Mishra(Agent of Mines) Mines and Geology Deptt. Engineering Building Balco Nagar, Korba. Phone /Fax- 07759-242139

		Mobile-09755000987 Email : rajesh.mishra@vedanta.co.in Date of Appointment: 01.02.2016
22	Name of the Mine Manager with Address, phone, email, fax number and date of appointment in mines	ShriPankajKumar Mahanta Mines Manager Bodai-Daldali Bauxite Mines. P.O.:- Baijalpur, Tehsil : Bodla, District : Kawardha Phone /Fax- 07759-242139 Mobile : 9981995991 Email : Pankaj.Mahanta@vedanta.co.in Date of Appointment: 01.02.2016
23	Name of the Mining Engineer, Qualification and total experience with address, phone, email, fax number and date of appointment in the mine	Shri. PankajKumar Mahanta Mining Engineer, B.TechMining , Exp:- 12+ yrs Bodai-Daldali Bauxite Mines. P.O.:- Baijalpur, Tehsil : Bodla, District : Kawardha Phone /Fax- 07759-242139 Mobile : 9981995991 Email : Pankaj.Mahanta@vedanta.co.in Date of Appointment: 01.12.2016
24	Whether Geologist and Mining Engineer appointment in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Yes, Shri Pravasa Ranjan Chinara
25	Date of Approval of Mine Plan/Modified Mine Plan with five- year period and specific condition in approval letter, if any.	RNG/BX/MPLN-396/NGP, Dated: 02/06/1995
26	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	11.04.2017 (2017-18 to 2021-21) KBD/BX/MPLN/-1121/2017-RPR
27	Mineral(s) granted in lease and approved for Mining	Bauxite
28	Method of Mining (Opencast, Underground)	Opencast
29	Category (Fully Mechanised, Others or Manual)	Fully Mechanised
30	Captive/Non-Captive	Captive mine

Exploration

S.N.	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
1a	Backlog of previous year	NIL	Nil	Entire Lease area explored in G1 Category
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	370hect.12516mtr Bore Hole: 725	
1c	Exploration Agency & Expenditure in Lakh Rupees during the year	Nil	APC Drilling 3.75 crore	

1d	Balance area to be explored to bring Geological axis in 1 or 2.	Nil	Nil	
1e	Balance reserves as on 01.04.2017	3.39 million tonnes minable		
1f	General remarks of Inspecting officer on geology, exploration etc.	The Bauxite bearing laterite capping is found on the top of the basaltic plateau (Deccan traps). The lease area constitutes central part of the extensive laterite-capped plateau of the Maikal Range hills. The Bauxite characteristics of this area is massive, sometimes pisolitic hard and compact, denser than the laterite vesicular and pitted, displays shades of light grey to pink colour. Entire Lease area explored in G1 Category.		

Development

S.N	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
2a	Location of Development w.r.t. lease area	N 700 TO N 850 & E 1650 TO 1750 N 1100 TO N 1350 & E 1400 TO 1700 N 2350 TO N 2550 & E 250 TO E 750 N 3175 TO N 3250 & E1600 TO E 1800 N 3450 TO N 3725 & E 1050 TO E 2100 N 4375 TO N 4450 & E 1650 TO E 1850 N 5400 TO N 5700 & E 2050 TO E2150 N 6200 TO N 6600 & E 1500 TO 2550 N 7750 TO N 8100 & E 1150 TO E 1950	Work Done No Work Work Done Work Done Work Done Work Done Work Done N 6400 TO N 6600 & E 2250 TO E 2550 (Partly Work Done) N 7750 TO N 7800 & E 1150 TO E 1250 (Partly Work Done)	
2b	Separate benches in topsoil overburden and mineral (Rule 15)	03 meter	03 meter	
2c	Stripping ratio or ore to OB ratio	1:1.76	1:1.45	
2d	Quantity of topsoil generation in m ³	209870 m ³	183320 m ³	
2e	Quantity of overburden generation in m ³	1471362 m ³	1228450 m ³	
2f	General remarks of Inspecting officer on development of pit w.r.t type of deposit etc.	Development is in order.		

Exploitation

S.N	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
3a	Number of pits proposed for production	9 pits	9 pits	
3b	Quantity of ROM mineral production proposed (2016-17)	1922695 ton	1571300 ton	
3c	Recovery of Salable/usable mineral from ROM production	65%	67%	
3d	Quantity of mineral reject generation	672924 ton	506000 ton	
3e	Grade of mineral reject generation and threshold value declared	Below 30% alumina Above (+) 5% Reactive silica	Below 30% alumina & more than to 6 % of reactive silica	
3f	Quantity of sub-grade mineral generation	192269 ton	44100 ton	
3g	Grade of sub-grade mineral generation	+30% Al ₂ O ₃ to (-) 38% Al ₂ O ₃	+30% Al ₂ O ₃ to (-) 38% Al ₂ O ₃	
3h	Manual/Mechanized method adopted for segregation from ROM	Manual	Manual	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Nil	Nil	
3j	Provision of drilling & blasting in mineral benches	DTH	DTH	
3k	Provision of mining machineries in mineral benches	Yes	Yes	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Yes	Yes	
3m	Total area covered under excavation /pits	52.47 ha	45.83ha	
3n	Ore to OB ratio for the pit/mine during the year	1:1.76	1:1.45	
3o	Total area put in use under different heads at the end of year	Pit- 422.79ha Waste/reject- nil Others- nil	Pit -347.90ha Waste/reject- nil,Others- nil	
3p	Production of ROM mineral during last five-years period, as Applicable(Tons)	2012-13	1923063	1062394
		2013-14	1807931	689630
		2014-15	1921855	1263600
		2015-16	1922940	1539900
		2016-17	1922695	1571300
3q	General remarks of inspecting officer on method of mining etc	Working are being carried out as per approved documents.		

Solid Waste Management-Dumping

S.N.	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32,33)	NA	Simultaneous Back filling	
4b	Location of topsoil, OB & mineral reject dumps	NA	On Back filled area	
4c	Number of Dumps within lease area and outside lease area	NA	Nil	
4d	Location of Dumps w.r.t. ultimate pit limit (Rule 16)	NA	Nil	
4e	Number of Active & Alive dumps	NA	None	
4f	Number of deed dumps	NA	None	
4g	Number of dumps established	NA	None	
4h	Whether Retaining wall or garland drain all along dumps are there	NA	None	
4i	Length of Retaining wall or garland drain all along dump	NA	None	
4j	Number of settling ponds	NA	Nil	
4k	Specific commends of inspecting officer on waste dump management	Waste is being back filled in Mined out Area.		

Solid Waste Management-Backfilling

S.N.	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	52.00 ha	45.24 ha	
5b	Area under backfilling of mined out area	404.78ha	330.78 ha	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Spread over backfilled area	Spread over backfilled area	
5d	Total area fully reclaimed & rehabilitated	270.24ha	190.24 ha	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Its a shallow depth mining. 190.24 ha area is mined out, backfilled and reclamaed.		

Progressive Mine Closer Plan

S. N.	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly-Rule 23E (2). Details should be given in the format as given in Annexure-20	Yes	Yes	
6b	Management of worked/mined out benches	In Hect	In Hect	
	Area available for rehabilitation (Ha)	60.00 hect	6.1 Hect	
	Afforestation done (ha)	60.00hect.	6.1 hect.	
	No.of saplings planted during the year	12000 nos	12027 nos	
	Cumulative no. of plants	Nil	736909	
	Any other specific method of rehabilitation	None	None	
	Cost incurred on watch & care during the year	NA	NA	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L*B*D) ii) Void filled by waste/tailings iii) Afforestation on the backfilling iv) Rehabilitation by making water reservoir v) Any other specific means	ii) 52.00 hect iii) 60.00hect iv) 0.00 hect	ii) 45.42 hect iii) 6.1hect iv) 0.00 hect	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitation iii) Method of rehabilitation	Nil	Nil	
6e	Compliance of Environment monitoring (core zone & buffer zone)	Proper Monitoring	Done in core-zone & buffer zone	
6f	General remarks of inspecting officer on PMCP compliance & progressive closer operations	PMCP report submitted and implementation is in order.		

Mineral Conservation

S.N.	Item	Proposals (2016-17)	Actual Work (2016-17)	Remarks
7a	ROM mineral dispatch or grade wise sorting within lease area	Manual	Manual	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual	Manual	
7c	Different grade of mineral sort out at mine	NA	Nil	
7d	Any beneficiation process at mines	NA	Nil	

7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	Screening of small size ore is required.
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Environment

S.N.	Item	Proposals	Actual Work	Remarks
8a	Separate removal and utilization of topsoil (Rule32)	Nil	Top soil Spread the concurrent back filled area	
8b	Concurrent use or storage of topsoil	Top soil Spread the concurrent back filled area	Top soil Spread the concurrent back filled area	
8c	Separate dumps for overburden waste rock, rejects and fines (Rule 33)	Nil	Nil	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	2216140CuM	2216140CuM	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposed	Being Carried out	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Yes	Yes	
8g	Survival rate	80%	70%	
8h	Water sprinkling on roads to control airborne dust	Nil	Proper Water sprinkling on Haul road	
8i	General remarks of inspecting officer on aesthetic beauty in and around mine area	EMP parameters are regularly being monitored.Top Soil spread the concurrent back filled area.		

Compliance of Rule 45

S. N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	M.R. Submitted upto–September -2017 A.R. submitted upto- 2016-17	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes, Mining Engineer & Manager : Pankaj Kumar Mahanta Geologist : Pravasa Ranjan Chinara	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Open Cast Mining: 299.070ha Area Under current working pit:9.80 ha Reclaimed area: 284.540ha Occupied by plant, building residential, welfare building and roads:8.1ha Other purpose: 4.73ha	
9d	Scrutiny of Annual return on afforestation	37500 nos ,Survival Rate: 86.15%	
9e	Scrutiny of Annual return on	397423 tone, Grade: Al2O3- 24.12 SiO2	

	mineral reject generation (Grade & Quantity)	- 19.28		
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Opening Stock: 4567.00 tone ROM Production: 1539900.00 tone Closing Stock: 4467.00 tone		
9g	Scrutiny of Annual return on sale value, Ex.Mine price & production costs	Ex- Mine Price i) 40% to below 45% Al2O3: Rs 666.00 ii) 45% to below 50% Al2O: Rs 647.49 Cost of Production: Rs 680.80		
9i	Scrutiny of Annual return on Fixed assets	Given		
9k	Scrutiny of Annual return on mining Machinerries	Equipment	Nos	Capacity
Scrutiny of Annual return on mining Machinerries		Dumper	20	176.000 Tonne
		Backhoe	15	147.000 CUM
		Air Compressor	7	450.000 CUM

Details of Validations observed during current inspection and compliance position of earlier violation pointed out:-

No serious Violation observed and earlier Violation has been considered as complied.

Date: 01/12/2017

Name: Shri R. K. Das & Rudra N Mishra
Designation: SrACOM & SMG