

## MCDR INSPECTION REPORT

### 1.0

#### GENERAL

SN	Particulars	Details
1	Name of inspecting office & designation	Shri Rajesh Kumar Das, Sr. ACoM, IBM Raipur
2	Accompany with Mine Officials	Ritesh Kaimal, Head & Manager (Mines) Ajay Pratap Singh, Geologist
3	Date of inspection	01/01/2021
4	Name of the Mine	Arasmeta Limestone Mine
5	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest: NIL Non-Forest: 499.987 Ha. Total Lease Area: 499.987 Ha.
6	Mine Code	38MPR06003
7	IBM Registration Number under rule 45 of MCDR, 1988	IBM/378/2011
8	Name of the lessee, Address, phone, email and fax number	M/s Nuvoco Vistas Corporation Limited Equinox Business Park, Tower 3, East Wing, 4th Floor, LBS Road, Kurla (West), Mumbai – 400 070 Phone: +91 (0) 22- 67692500 Fax:+91 (0) 22 – 66306510 Email: <a href="mailto:jayakumar.krishnaswamy@nuvoco.com">jayakumar.krishnaswamy@nuvoco.com</a>
9	Village	Arasmeta
10	Taluka / Mandal / District	Tehsil Akaltara, District Janjgir Champa
11	State	Chhattisgarh
12	Post office & PIN	Gopalnagar, Pin Code: 495 663
13	Nearest police station	Mulmula
14	Nearest Railway station	Akaltara
15	Date of Grant of Mining Lease	31/05/1979 to 30/05/1999 (20 years)
16	Date of Execution	31/05/1979
17	Date of opening of Mine	17/09/1979
18	Date of first Renewal, if applicable and its period & expiry	31/05/1999 to 30/05/2019 (20 years) dated 15/01/2001 Initially Mining Lease has been granted to M/s Raymond Limited, Ratnagiri Maharashtra.  Later on Mining lease has been transferred to M/s Lafarge India Limited, Mumbai dated 17/01/2001  Thereafter addendum to mining lease agreement from M/s Lafarge India Limited to M/s Nuvoco Vistas Corporation Limited dated 30/11/2017
19	Date of second Renewal, if applicable and its period & expiry	31/05/2019 to 31/03/2030 (11 Years) As per section 8A of MMDR Amendment Act, 2015, Mining Lease Period has been extended for 50 years. (For Captive Lease) i.e. extended up to 31/03/2030  <b>Supplementary lease agreement for extended period has been made on 13/04/2017</b>

20	Date of submission of renewal application if Mining Operations are continuing under deemed extension	Not applicable.
21	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri Jaya Kumar Krishnaswamy, Managing Director M/s Nuvoco Vistas Corporation Limited Equinox Business Park, Tower 3, East Wing, 4th Floor, LBS Road, Kurla (West), Mumbai – 400 070 Phone: +91 (0) 22- 66306510 Fax:+91 (0) 22 – 67692595 Email: <a href="mailto:jayakumar.krishnaswamy@nuvoco.com">jayakumar.krishnaswamy@nuvoco.com</a> Date of Appointment: 01/11/2018
22	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri Raghavendra Rao Jahagirdar, SVP and Plant Head Arasmeta Cement Plant M/s Nuvoco Vistas Corporation Limited P.O-Gopalnagar, Tehsil- Akaltra, District- Janjgir Champa, Chhattisgarh - 495663 Phone: +91 (0) 7817-233234, Fax: +91 (0) 7817-234237,234286 Email: <a href="mailto:raghavendrarao.jahagirdar@nuvoco.com">raghavendrarao.jahagirdar@nuvoco.com</a> Date of Appointment: 01/07/2020
23	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri Ritesh Kaimal, DGM (Mines) Arasmeta Cement Plant M/s Nuvoco Vistas Corporation Limited P.O-Gopalnagar, Tehsil- Akaltra, District- Janjgir Champa, Chhattisgarh - 495663 Phone: +91 (0) 7817-233234, Mobile: +91 (0) 9893019619 Fax: +91 (0) 7817-234237,234286 Email: <a href="mailto:ritesh.kaimal@nuvoco.com">ritesh.kaimal@nuvoco.com</a> Date of Appointment: 16/05/2016
24	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Yes, appointed. Shri Moradhawaj Giriya, Manager, Qualification: B. E. in mining Experience: +18 Years Arasmeta Cement Plant M/s Nuvoco Vistas Corporation Limited, P.O-Gopalnagar, Tehsil- Akaltra, District- Janjgir Champa, Chhattisgarh - 495663 Phone: +91 (0) 7817-233234, Mobile: +91 (0) 9893124516 Fax: +91 (0) 7817-234237,234286 Email: <a href="mailto:moradhawaj.giriya@nuvoco.com">moradhawaj.giriya@nuvoco.com</a> Date of Appointment: 01/06/2020
25	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 55 & carrying out their duties as per rule 56 & 57.	Yes, appointed. Shri Ajay Pratap Singh, Sr. Manager- Geology Qualification: M. Sc. & P.hD in Geology, Experience: +16 Years, Arasmeta Cement Plant M/s Nuvoco Vistas Corporation Limited P.O-Gopalnagar, Tehsil- Akaltra, District- Janjgir Champa, Chhattisgarh - 495663 Phone: +91 (0) 7817-233234, Mobile: +91 (0) 7898900524 Fax: +91 (0) 7817-234237,234286 Email: <a href="mailto:ajay01.singh@nuvoco.com">ajay01.singh@nuvoco.com</a> Date of Appointment: 02/01/2012

26	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	<p><b>Mining Plan</b> approved vide letter no. 314(3)/2000-MCCM(C)/MP-20 Nagpur dated 12/01/2001 Proposal Period: 2001-02 to 2005-06 (5 Years)</p> <p><b>Mining Plan</b> approved vide letter no. 314(3)-2001-MCCM(C)/MP-07 Nagpur dated 02/09/2002 Proposal Period: 2001-02 to 2005-06</p> <p><b>Modified Mining Plan</b> approved vide letter no. 314(3)-2005-MCCM(CZ)/MP-35 Nagpur dated 23/08/2006 Proposal Period: 2001-02 to 2005-06</p> <p><b>Part Surrender Final Mine Closure Plan</b> approved vide letter no. 314(3)/2005/MCCM(CZ)/PMCP-09 Nagpur dated 17/03/2008 (For 18.07 Ha.)</p> <p><b>Mining Plan</b> approved vide letter no. 314(3)/2007-MS/PMCP-22 Nagpur dated 17/03/2008 Proposal Period: 2006-07 to 2010-11</p> <p><b>Part Surrender Final Mine Closure Plan</b> approved vide letter no. 314(3)/2011/MCCM(CZ)/FMCP-02 Nagpur dated 20/12/2011 (For 3.83 Ha.)</p> <p><b>Modified Mining Plan</b> approved vide letter no. BLS/LST/MPLN-80/NGP/2015/22-RPR Raipur dated 09/08/2016 Proposal Period: 2016-17 to 2020-21</p>
27	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	<p><b>Scheme of Mining</b> approved vide letter no. 314(3)/2007/MS/PMCP-28 Nagpur dated 18/03/2008 Proposal Period: 2006-07 to 2010-11</p> <p><b>Scheme of Mining</b> approved vide letter no. 314(3)/2012/MS-23 Nagpur dated 06/03/2013 Proposal Period: 2011-12 to 2015-16</p>
28	Mineral(s) granted in lease and proved for mining	Limestone
29	Method of Mining(Opencast, Underground)	Opencast
30	Category (Fully Mechanised, Others or Manual)	Category 'A' Fully Mechanised
31	Captive/Non Captive	Captive
32	Existing EC Limit and validity	Limestone 27,00,000.00 Metric Tonnes Obtained from Ministry of Environment and Forest, Government of India, New Delhi dated 18/07/2005 vide letter no. J-11015/64/2003-IA-II(M) New Delhi Dated 18/07/2005
33	Status of Financial Assurance as per rule 27 of MCDR, 2017	Rs. 59,42,700/- vide BG no. 1637616BG0000102 dated 09/02/2016, Validity: 01/04/2016 to 31/03/2021 Rs. 6,53,69,700/- vide BG no. 1637617BG0000247 dated 22/03/2017 Validity: 22/03/2017 to 31/03/2021 (Total Amount Rs. 7,13,12,400/-)

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

### **1.0 Exploration**

SN	Item	Proposals	Actual work	Remarks
----	------	-----------	-------------	---------

1a	Backlog of previous year	No exploration has been proposed in the approved document during F.Y. 2019-20.	Not applicable	
1b	Exploration over lease area for Geological axis 1 or 2.	-do-	-do-	-
1c	Exploration Agency & Expenditure in lakh Rupees during the year	-do-	-do-	-
1d	Balance area to be explored to bring Geological axis in 1 or 2	No exploration has been proposed in the approved document during MMP period.	As per the approved document G1: 360.35 Ha. G3: 36.82 Ha. Non-Mineralised: 102.817 Ha.	-
1e	Balance reserves as on 01.04.2020 (in Million Tonnes)		Under (111): 25.39 Million Tonnes Under (211): 11.202 Million Tonnes Under (331): 1.18 Million Tonnes Under (333): 9.98 Million Tonnes	
1f	General remarks of inspecting officer on geology, exploration etc.	NIL		

## **2.0 Development**

SN	Item	Proposals	Actual work	Remarks
2a	Location of development w.r.t. lease area (Range in UTM/Local Coordinate/Plot No./Location)	<b>2019-20:</b> In between local co-ordinates <b>Block A:</b> <b>Pit No 1 (i)</b> N2428750 to N2429640 E637740 to E639130 <b>(ii)</b> N2428394 to N2429294 and E639110 to E639980 <b>BlockB:</b> N2428146 to N2429090 and	<b>2019-20:</b> In between local co-ordinates Broadly working is done with in proposed area.	No major deviation

		E636873 to E637924		
2b	Separate benches in topsoil, overburden and mineral (Rule 13)	Topsoil/OB: 01 no. Ore/Mineral: 04 nos.	Topsoil/OB: 01 no. Ore/Mineral: 04 nos.	-
2c	Stripping ratio or ore to OB Ratio (tones)	1:0.284	1:0.246	-
2d	Quantity of topsoil generation in m3	160669.00 CuM	102257 CuM	-do-
2e	Quantity of overburden generation in m3	333666 CuM	113488.4 CuM	-do-
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	The development is in lower side w.r.t proposal given.		

### **3.0 Exploitation**

SN	Item	Proposals	Actual work	Remarks
3a	Number of pits proposed for production	03 no.	03 nos.	
3b	Quantity of ROM mineral production proposed	2021128 Metric Tonnes	1775537 Metric tonnes	
3c	Recovery of salable/usable mineral from ROM production	100%	100%	
3d	Quantity of mineral reject generation	No mineral reject will be generated during MMP Period.	Not applicable.	
3e	Grade of mineral reject generation and threshold value declared	Not mentioned in the approved document	Not applicable.	
3f	Quantity of sub-grade mineral generation	No mineral sub-grade will be generated during MMP Period.	Not applicable.	
3g	Grade of sub-grade mineral generation	Not mentioned in the approved document	Not applicable.	
3h	Manual / Mechanised method adopted for segregating from ROM	Mechanised crushing and screening has been proposed in the approved document.	As per proposal	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	No beneficiation study has been proposed in the approved document during MMP period.	NA	

3j	Provision of drilling & blasting in mineral benches	Dia.: 102mm to 115 mm Spacing: 4.5 m to 5.0 m Burden: 2.5 m to 3.0 m Depth: 6.0 m to 8.0 m	Dia.: 115 mm Spacing: 4.5 m to 5.0 m Burden: 2.5 m to 3.0 m Depth: 6.0 m to 8.0 m	-do-
3k	Provision of mining machineries in mineral benches	1. Drill Machine 03 nos. With 102 mm to 115 mm dia capacity 2. Hydraulic Excavator 04 no. with 4.0 CuM bucket capacity 3. Dozer 02 no. With 10.4 Metric Tonne blade capacity 4. Dumpers 10 nos. with 30 Metric Tonnes (08 nos.) to 35 Metric Tonnes (02 nos.) capacity	1. Drill Machine 03 nos. with 115 mm dia capacity 2. Hydraulic Excavator 04 no. with 4.0 CuM (03 nos.) and 4.2 CuM (01 nos.) bucket capacity 3. Dozer 02 no. With 10.4 Metric Tonne blade capacity 4. Dumpers 09 nos. with 30 Metric Tonnes (07 nos.) to 35 Metric Tonnes (02 nos.) capacity 5. Rock Breaker/Terminator 02 no.	-do-
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Height Topsoil/OB: 2.0 m to 3.3 m Ore/Mineral: 3.0 to 8.0 m Width: Topsoil/OB: 12.0 m Ore/Mineral: 21.0 m	Topsoil/OB: 2.0 m to 3.3 m Ore/Mineral: 3.0 to 8.0 m Width: Topsoil/OB: 12.0 m Ore/Mineral: 21.0 m	-do-
3m	Total area covered under excavation/pits	186.068 Ha. up to end of MMP period including backfilling area .	179.213 Ha. up to end of F.Y. 2019-20 including backfilling area	-do-
3n	Ore to OB ratio for the pit/mine during the year	1:0.284	1:0.246	-
3o	Total area put in use under different heads at the end of year	Pit- 186.068 Ha. Including backfilling area other 51.64 Ha	Pit- 179.213 Ha. Including 21.48 ha backfilling area, other 58.496 Ha	
3p	Production of ROM mineral during last five-year period, as applicable (in Metric Tonnes)	Yr- 2015-16: 2209080.00 Metric Tonnes Yr- 2016-17: 2043985.00 Metric Tonnes	Yr- 2015-16: 1654875.75 Metric Tonnes Yr- 2016-17: 1813006.00 Metric Tonnes	

		Yr- 2017-18: 2011985.00 Metric Tonnes	Yr- 2017-18: 2011532.00 Metric Tonnes
		Yr- 2018-19: 2047019.00	Yr- 2018-19: 1691857.00 Metric Tonnes
		Yr- 2019-20 2021128 Metric Tonnes	Yr- 2019-20: 1775537 Metric Tonnes
3q	General remarks of inspecting officer on method of mining etc.	The method of mining is broadly as per proposal using shovel Dumper combination. The production and development is in lower side w.r.t. proposal given in approved document.	

#### **4.0 Solid Waste Management-Dumping**

SN	Item	Proposals	Actual work	Remarks
4a	Separate dumping of topsoil, OB & mineral reject (Rule 36, 37)	Proposal for separate dumping of Topsoil, Overburden, Mineral, Mineral Sub-grade and Mineral reject have been given in the approved document.	Being done as per proposal.	
4b	Location of topsoil, OB & mineral reject dumps (Range in UTM/Local Coordinate/Plot No./Location)	In between UTM co-ordinates <b>Block A:</b> <b>Waste:</b> (i) N2429010 to N2429134 and E638319 to E638634 <b>Top Soil</b> (i) N2428979 to N2429079 and E637820 to E637979	Broadly as per proposal	
4c	Number of dumps within lease area and outside lease area	<u>Within Lease Area:</u> Topsoil/OB/Waste: 03 no. Mineral Sub-grade: nil	<u>Within Lease Area:</u> Topsoil/OB/Waste: 03 no. Mineral Sub-grade: nil	-
4d	Location of dumps w.r.t. ultimate pit limit (Rule 14)	Proposed beyond ultimate pit limit.	Being done as per proposal.	
4e	Number of active & alive dumps	03 nos.	03 nos.	
4f	Number of dead dumps	02	Old dump is rehandled for advancement of benches.	

4g	Number of dumps stabilised	Proposal has been given in the approved document for 01 no of dump stabilization in block A.	Proposed area has been reclaimed and plantation over waste dump has been done for dump stabilization.	-
4h	Whether Retaining wall or garland drain all along dumps are there	Proposal has been given in the approved document for construction of garland drain and retaining/boulder wall around waste dump to prevent surface run off.	Garland drain and retaining wall have been constructed around waste dumps near lease boundary.	-
4i	Length of Retaining wall or garland drain all along dump	Length has not been mentioned in the approved document.	Garland drain: Approx 1863.0 Meters Retaining/Boulder Wall: Approx 815.0 Meters	
4j	Number of settling ponds	Proposal has not been given in the approved document for construction of settling ponds around waste dump to prevent surface run off.	Garland drain has been constructed around waste dumps near lease boundary to prevent surface run off.	
4k	Specific comments of inspecting officer on waste dump management.	NIL		

### **5.0 Solid Waste Management-Backfilling**

SN	Item	Proposals	Actual work	Remarks
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Proposal for full extraction of mineral from mined out area before starting backfilling has been given in the approved document. In-between UTM Co-ordinates <b>Block A:</b> <b>Waste:</b> (i)N2429010 to N2429134 and E638319 to E638634 <b>Top Soil</b> (i)N2428979 to N2429079 and E637820 to E637992	Being done as per proposal given in the approved document	



5b	Area under backfilling of mined out area	-do-	-do-	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 36)	Proposal has been given in the approved document for concurrent use of topsoil for restoration of the ground.	Being done as per proposal given in the approved document.	
5d	Total area fully reclaimed & rehabilitated	Proposal for Reclamation and Rehabilitation has been given in the approved document in worked out benches. 1.5 Ha. area will be reclaimed and rehabilitated during plan period.	Being done as per proposal. Approx 1.45Ha. area has been backfilled and reclaimed up to end of F. Y. 2019-20	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Broadly as per proposal		

### **6.0 Progressive Mine Closure Plan**

SN	Item	Proposals	Actual work	Remarks
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23. Details should be given in the format as given in Annexure-20.	Submitted on time.	The given Information has been cross verified.	-
6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (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 & care during the year	NIL 0 nos.  600 nos.  By Plantation  Rs. 1,85,000/-	NIL 0nos.  600 nos.  By Plantation  .	-
6c	Compliance on reclamation and rehabilitation by backfilling Voids available for backfilling (L X B X D) Void filled by waste/tailings  Afforestation on the backfilled area	1.50 Ha.  437106 Waste, topsoil  CuM including	1.45  215745 Waste, topsoil 3173 nos.  CuM including	

	iv) Rehabilitation by making water reservoir v) Any other specific means	Not Proposed.  Not Given in the approved document	Not applicable.  Not applicable.	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	2000 nos. 1.00 Ha. By plantation.	2000 nos. 1.00 Ha. By plantation.	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Proposal has been in the approved document for regular monitoring of environmental parameters at core and buffer zone.	Being done as per proposal.	All the parameters are within the prescribed limit.
6f	General remarks of inspecting officer on PMCP compliance & progressive	NIL		

### **7.0 Mineral Conservation**

SN	Item	Proposals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	ROM Mineral will directly be dispatched from the lease area to the captive plant after mechanised crushing and screening.	Being done as per proposal.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Mechanised crushing and screening.	-do-	
7c	Different grade of mineral sorted out at mines	Mechanised sorting has been proposed in the approved document before dispatch of the ROM to the captive plant.	The limestone of different grade from different face excavated and blend to get the desire grade	
7d	Any beneficiation process at mines	No beneficiation process has been proposed in the approved document during plan period.	NA	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	The ROM is directly feed into crusher and no beneficiation done.		

### **8.0 Environment**

SN	Item	Proposals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule36)	Yes given	Being done as per proposal.	

8b	Concurrent use or storage of topsoil	Proposal has been given in the approved document for concurrent use of topsoil.	Being done as per proposal.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 37)	Separate dumping of Topsoil, Overburden, Mineral, Mineral Sub-grade and Mineral reject have been proposed in the approved document.	Being done as per proposal.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such Proposal	NA	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Proposal for reclamation in 1.5 ha. area yearly has been given in the approved document in the mined out area.	Being done as per proposal.	
8f	Baseline information on existence of plantation & additional plantation done (Rule 44)	2019-20: 5000 nos. saplings will be planted.	2019-20 5173 nos. saplings have been planted over the reclaimed area.	
8g	Survival rate	Not mentioned in the approved document.	Approx 70%	
8h	Water sprinkling on roads to control airborne dust	Proposal has been given in the approved document for water sprinkling on roads through water tanker.	Being done as per proposal.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	NIL		

### **9.0 Compliance of Rule 45**

S. N.	Item	COMMENTS		Remarks
	Status of submission of Monthly and Annual returns	M.R. Submitted upto – Nov 2020 A.R. submitted upto- F.Y. 2019-20		NIL
S. N.	Item	Details GIVEN in A.R.	Observation of I/Officer	Remarks
9b	Scrutiny of Annual return for information on Mining	<b>Mining Engineer:</b> Shri Rajesh Kumar Rathore	<b>Mining Engineer:</b> Shri Moradhwaj Giriya	New appointment on 1/06/2020
	Engineer, Geologist and Manager	<b>Geologist:</b> Ajay Pratap Singh <b>Manager:</b> Ritesh Kaimal	<b>Geologist:</b> Ajay Pratap Singh <b>Manager:</b> Ritesh Kaimal	

9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Pit- 186.068 Ha. Including backfilling area other 51.64 Ha	Pit- 179.213 Ha. Including 21.48 ha backfilling area, other 58.496 Ha	
9d	Scrutiny of Annual return on Afforestation	Within lease area: 5173 nos.	Within lease area: Approx 5000 nos.	
9e	Scrutiny of Annual return on mineral reject generation (Grade & quantity)	NA	.NA	
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Closing Stock: ROM: NIL Graded Ore: NIL	Closing Stock: ROM: NIL Graded Ore: NIL	
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production cost	<b>Sale Value:</b> Captive <b>Ex-Mine Price:</b> 242.77 Per Metric Tonne <b>Cost of Production:</b> 242.77 Per Metric Tonne	<b>Ex-Mine Price:</b> 242.77 Per Metric Tonne <b>Cost of Production:</b> 242.77 Per Metric Tonne	
9i	Scrutiny of Annual return on fixed assets	Rs. 371261196		
9k	Scrutiny of Annual return on mining machineries	Given in the annual returns.		

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

The earlier violations pointed out taken compliance and the present inspection is carried out for processing of Review of Mining Plan and no serious violations found.

Rajesh Kumar Das,  
Sr. ACoM,  
Indian Bureau of Mines, Raipur  
Date of inspection: 01/01/2020