

MCDR INSPECTION REPORT

1.0 GENERAL

| SN | Particulars | Details |
|----|--|--|
| 1 | Name of inspecting office & designation | Rajesh Kumar Das (Sr. Asst. Controller of Mines) & J. S. Hada (AMG) |
| 2 | Date of inspection | 05.07.2018 |
| 3 | Name of the Mine | Paraswani Limestone Mines |
| 4 | Total Lease Area (Ha) with breakup of Non-forest and forest land | 997.355 hect. Non- forest |
| 5 | Mine code | 38MPR28017 |
| 6 | IBM Registration Number under rule 45 of MCDR, 1988 | IBM/441/2011 |
| 7 | Name of the lessee, Address, phone, email and fax number | UltraTech Cement limited Hirmi Cement Works PO – Hirmi, Dist. BalodaBazar- Bhatapara Phone - 07726281217/18/19/20/21 Fax - 07726-281572 |
| 8 | Village | Hirmi |
| 8 | Taluka/Mandal /District | Simga |
| 10 | State | Chhattisgarh |
| 11 | Post office & PIN | Hirmi, 493195 |
| 12 | Nearest police station | Suhela |
| 13 | Nearest Railway station | Tilda |
| 14 | Date of Grant of Mining Lease | 15.12.1992 |
| 15 | Date of Execution | 22.02.1993 |
| 16 | Date of opening of Mine | 01.04.1993 |
| 17 | Date of first Renewal, if applicable and its period & expiry | 22.02.2013 for 30 years and valid up to 21.02.2043 |
| 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 | 09.02.2012 |
| 20 | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment. | Mr. Omprakash Purnamalka Ahura Centre, B Wing, 2nd floor, Mahakali Caves Road Andheri (E) Mumbai 400093. Mobile- 9702474200 Email- ajit.ostwal@adityabirla.com DOA: 18.07.2017 |
| 21 | Name of the Mine Agent with Address, phone, email, fax number and date of appointment | Shri K. C. Jain UltraTech Cement Ltd. Hirmi Cement Works, PO – Hirmi, Dist. BalodaBazar- Bhatapara 09826909505 Phone - 07726281217/18/19/20/21 Fax - 07726-281572 Kushal.jain@adityabirla.com DOA:28.11.2017 |
| 22 | Name of the Mines Manager with Address, | Shri O. R. Khelkar |

| | | |
|----|---|--|
| | phone, email, fax number and date of appointment in mines | UltraTech cement ltd. Hirmi Cement Works, PO – Hirmi, Dist. BalodaBazar- Bhatapara 09826300229 Phone - 07726281217/18/19/20/21 Fax - 07726-281572 omprakash.khelkar@adityabirla.com DOA: 24.01.2014 |
| 23 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Shri O. R. Khelkar B.E. Mining UltraTech cement ltd. Hirmi Cement Works, PO – Hirmi, Dist. BalodaBazar- Bhatapara 09826300229 Phone - 07726281217/18/19/20/21 Fax - 07726-281572 omprakash.khelkar@adityabirla.com DOA: 10.02.2018 |
| 24 | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | Yes |
| 25 | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. | Date of Approval of Review Mining Plan 17.11.2017 and valid up to March 2023. |
| 26 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | Date of Approval of Scheme of Mining 28.08.2008 |
| 27 | Mineral(s) granted in lease and proved for mining | Limestone |
| 28 | Method of Mining(Opencast, Underground) | Opencast |
| 29 | Category (Fully Mechanised, Others or Manual) | Fully mechanised |
| 30 | Captive/Non Captive | Captive mine |

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

| SN | Item | Proposals | Actual work | Remarks |
|----|---|---|------------------------------------|---------|
| 1a | Backlog of previous year | 3 | 3 | |
| 1b | Exploration over lease area for Geological axis 1 or 2. | G1& G2 | G1& G2 | |
| 1c | Exploration Agency & Expenditure in lakh Rupees during the year | NIL | Rs.464775 | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | NA | NA | |
| 1e | Balance reserves as on 01.04.2018 (million tons) | | 219.142 (111) 32.947 (121, 122) | |
| 1f | General remarks of inspecting | The lease area is broadly explored and depthwise below 40 | | |

| | |
|--------------------------------------|--|
| officer on geology, exploration etc. | meter still exploration to be done to delineate the ore body |
|--------------------------------------|--|

2.0 Development

| SN | Item | Proposals (17-18) | Actual work(17-18) | Remarks |
|----|---|---|---|---------|
| 2a | Location of development w.r.t. lease area | North pit X= -242 to 1558 Y= 141 to 1126 286 RL to 242 RL South pit X= 157 to -341Y= -2642 to -3122284 RL to 265 RL | North pit X= -230 to 1498Y= 134 to 1057286 RL to 250 RL South pit X= -90 to -485Y= -2600 to -2965285.5 RL to 268 RL | |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | OB bench- 1 nos Mineral bench-5 Nos | OB bench- 1 nos. Mineral bench-5 Nos. | |
| 2c | Stripping ratio or ore to OB ratio | 1:0.30 | 1:0.28 | |
| 2d | Quantity of topsoil generation in m ³ | 24725 | 19076 | |
| 2e | Quantity of overburden generation in m ³ | 696861 | 525366 | |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc. | The pit is developed broadly as per the proposal and within the proposed limit | | |

3.0 Exploitation

| SN | Item | Proposals | Actual work | Remarks |
|----|---|--|---|---------|
| 3a | Number of pits proposed for production | 02 | 02 | |
| 3b | Quantity of ROM mineral production proposed | 4200000 MT | 2858385MT | |
| 3c | Recovery of salable/usable mineral from ROM production | ---- | ---- | |
| 3d | Quantity of mineral reject generation | 273000 MT | 36868 MT | |
| 3e | Grade of mineral reject generation and threshold value declared | <34% CaO | <32.90 % CaO | |
| 3f | Quantity of sub-grade mineral generation. | | 25400 | |
| 3g | Grade of sub-grade mineral generation. | - | 34-40% CaO | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Mechanised | Mechanised | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | | Regular analysis of sub-grade mineral and reject are being done. | |
| 3j | Provision of drilling & blasting in mineral benches | For preparation of blast hole the primary drilling is done by 150 mm dia crawler | For preparation of blast hole the drilling is done by 115& 150 mm dia crawler | |

| Sr.No | Equipment Description | Nos. | Capacity | Make & model |
|-------|--|---|---|---|
| 1 | Dumper | 5 | 60 MT | Komatsu-HD 465-7 |
| 2 | Dumper | 7 | 60 MT | BEML- BH 50 |
| 3 | Excavator | 3 | 6.5 CUM | Komatsu-PC 1250 |
| 4 | Excavator | 1 | 4.0 CUM | L & T -CK-300 |
| 5 | Drill | 2 | 150 mm | Atlas Copco-IDM-30 |
| 6 | Drill | 1 | 115 mm | DP1100i - Sandvik |
| 7 | Loader | 1 | 3.0 CUM | Komatsu WA 380 |
| 8 | Dozer | 2 | 350 HP | Komatsu-D 155 |
| 9 | Backhoe cum Rock breaker | 1 | 324 HP | L & T CK-300(Excavator) Atlas Copco -HB 4200- |
| 10 | Water Tanker | 1 | 28 KL | BEML WS28 |
| 11 | Water Tanker | 1 | 8 KL | Tata-1612 |
| | | mounted DTH drills. Spacing-6 M. Burden- 4 M. Depth of hole 8.5 M Subgrade- 0.5 M Blasting is done in staggered pattern with SME, ANFO and NONEL. | mounted DTH drills. Spacing: 5-7 M. Burden:3.5-4.5 M. Depth of hole 5-9 M Subgrade- 0.5 M Blasting is done in staggered pattern with SME , ANFO and NONEL . | |
| 3k | Provision of mining machineries in mineral benches. | The details of mining machineries are as under :- | | |
| 3l | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | Yes the height of OB bench- 2-4.5 m Ore bench 6-8 m | Top slicing of mix bench with 3.5 mtr height and OB bench- 2- 4.5 mt. Ore bench 4-8 mt. height has been maintained. | |
| 3m | Total area covered under excavation/pits | 173.30Ha. | 160.580 Ha. | FY 17-18 |
| 3n | Ore to OB ratio for the pit/mine during the year | 1:0.30 | 1:0.28 | FY 17-18 |
| 3o | Total area put in use under different heads at the end of year | Pit-173.30 Ha Waste/reject- 16.297Ha Others- Backfilling 2.2 Ha | Pit- 160.580Ha Waste/reject- 18.2360 Ha Backfilling- 5.01 ha | In-pit temporary dump. |
| 3p | Production of ROM mineral during last five-year period, as applicable (in MT) | 2013-14- 4200000 2014-15-4200000 2015-16-4200000 2016-17- 4200000 2017-18- 4200000 | 3258651 3616205 3083282 3467193 2821517 | Low production is mainly due to low demand of Cement in market. |
| 3q | General remarks of inspecting officer on method of mining etc. | The method of mining is by fully mechanised using | | |

| | | |
|--|--|---|
| | | HEMM. The information of machineries already furnished. The production is less with respect to proposal |
|--|--|---|

4.0 Solid Waste Management-Dumping

| SN | Item | Proposals | Actual work | Remarks |
|-----------|---|--|---|----------------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33) | Concurrent use of top soil and separate dump for OB & mineral reject has been proposed. | Concurrent use of top soil is being done and separate dumping of OB & reject is being done. | |
| 4b | Location of topsoil, OB & mineral reject dumps | Dump X : -172 to -401 Y: -792 to -1088 RL : 270 to 260 Peripheral dumping X : +720 to +1012 Y: -2230 to -2490 RL : 280 to 286 | Dump X : -172 to -401 Y: -821 to -1088 RL : 269 to 260 Peripheral dumping X : +720 to +1012 Y: 2230 to 2490 RL : 280 to 286 | |
| 4c | Number of dumps within lease area and outside lease area | 03 nos within lease area | 03 within lease area. | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Covered in 4b | Covered in 4b | |
| 4e | Number of active & alive dumps | 03 | 03 | |
| 4f | Number of dead dumps | 01 | 01 | |
| 4g | Number of dumps stabilised | 01 | 01 | |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Garland drain provided | Garland drain provided | |
| 4i | Length of Retaining wall or garland drain all along dump | -- | Length of garland drain all along dump is 125 mtr. | |
| 4j | Number of settling ponds | NA | NA | |
| 4k | Specific commends of inspecting officer on waste dump management | The old dump is stabilised and reclaimed and presently the OB dumping is done in excavated pit. | | |

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 | Backfilling has been proposed in mined out area. | Area is premature for back filling. | |
| 5b | Area under backfilling of mined out area | | | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) | yes | yes | Being used for carpeting of dump for |

| | | | | |
|----|---|--------------------------------------|-------|------------|
| | | | | plantation |
| 5d | Total area fully reclaimed & rehabilitated | | 10.93 | |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc | Area is not matured for backfilling. | | |

6.0 Progressive Mine Closure Plan

| SN | Item | Proposals | Actual work | 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 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 | 3.678 1.97 2950 | 0.000 1.97 5000 190986 220000/- | Gap filling |
| 6c | Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means | 363 x 275 X 15 2.06 Ha. Nil | 220 x 175 x 15 0.34 Ha. Nil | |
| 6d | Compliance of Rehabilitation of waste land within lease . i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation | NA Concurrent backfilling and plantation on dump. | Concurrent backfilling and plantation on dump. | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | Enclosed. | Enclosed. | |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive | The PMCP work is done broadly as per proposal | | |

7.0 Mineral Conservation

| SN | Item | Proposals | Actual work | Remarks |
|-----------|--|--|---|----------------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | NA | Based on software & blast hole sampling result different grade material has been marked at site/map/blend plan. | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | NA | NA | |
| 7c | Different grade of mineral sorted out at mines | Based on software different grade material has been marked in slice plan. | Based on software & blasthole sampling result different grade material has been marked at site/map/blend plan. | |
| 7d | Any beneficiation process at mines | As such, limestone beneficiation is not required except for screening the clayey-soil in the top bench | Screening (dry Separation) is being done to separate clayey-soil & shale in the limestone before crushing. By using pet cock the quality requirement of plant was decreases hence screen generation was also decreases during the year. | |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | The ROM is directly feed in Crusher and there is no beneficiation except sizing and screening. | | |

8.0 Environment

| SN | Item | Proposals | Actual work | Remarks |
|-----------|---|------------------|---|----------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Yes | Separate removal and utilization of topsoil is being done | |
| 8b | Concurrent use or storage of topsoil | Yes | concurrent utilization of topsoil is being done | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Planned | Separate dumps for overburden/waste rock and rejects. | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | planned | Part of waste rock, rejects are concurrent being used for restoring the land to its original use and remaining are being at, in pit temporary dump. | |

| | | | | |
|----|---|--|--|--|
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | As per mining plan. | Being done. | |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41) | | Total of 190986 nos. plantation in 58.66 hect. area up to March 2018. | |
| 8g | Survival rate | | 80% | |
| 8h | Water sprinkling on roads to control airborne dust | 28KL and 8KL taker proposed for Water sprinkling on roads | Water sprinkling on roads is being done by 28KL and 8KL tanker to control airborne dust. | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines are | EMP parameters are regularly being monitored. Well developed thick plantation within and outside the lease area. Due to plantation around the mining area aesthetic beauty increased. Regular water sprinkling is done to suppress the dust and wet drilling is report to avoid dust hazard. | | |

9.0 Compliance of Rule 45

| SN | Item | COMMENTS | Remarks |
|----|--|--|---------|
| 9a | Status of submission of Monthly and Annual returns | M.R. Submitted upto – July -2018 A.R. submitted upto- 2017-18 | |

| SN | Item | Details GIVEN in A.R. | Observation of I/Officer | Remarks |
|----|---|--|--|---------|
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Yes | Shri O.P.Khelkar, Mining Engineer & Shri Vijesh Kushwaha, Geologist | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Yes given | Area covered under O/C working-160 ha., 17.836 ha waste disposal, 19.251 ha infrastructure | |
| 9d | Scrutiny of Annual return on afforestation | yes | 5000 nos saplings within lease | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & quantity) | Yes given | 36868 te, CaO<32.9% | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Nil | | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost | Ex.Mine price 244.35 & cost of production rs 226.90. | | |
| 9i | Scrutiny of Annual return on | Not mentioned | | |

| | | | | |
|----|--|-------------------|--|--|
| | fixed assets | | | |
| 9k | Scrutiny of Annual return on mining machineries. | Information given | | |

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out:- The mine was inspected for processing of Modification of Mining plan and Star rating and during inspection no serious violation observed.

(Rajesh Kumar Das, SrACOM, 05.07.2018)