

Regional office: Gandhinagar

File no: GUJ/KUTCH/ BXT-001

MCDR INSPECTION REPORT

Inspecting officer: Dr. N K Mathur, AMG, Gandhinagar

Inspection date: 11.01.2018, Type of Inspection: Star rating

1.0 GENERAL

| SN | Particulars | Details |
|----|--|---|
| 1 | Name of the Mine | WANDH-I BAUXITE MINE |
| 2 | Total Lease Area (Ha) with breakup of Non-forest and forest land | 73.34 Hect (NON-FOREST LAND) |
| 3 | Mine code | 07GUJ10012 |
| 4 | IBM Registration Number under rule 45 of MCDR, 1988 | IBM/246/2011 |
| 5 | Name of the lessee, Address, phone, email and fax number | Gujarat Mineral Development corporation Ltd |
| 6 | Village | Wandh |
| 7 | Taluka/Mandal | Mandvi |
| 8 | District | Kutch |
| 9 | Pincode | 370445 |
| 10 | State | Gujarat |
| 11 | Post office | Wandh |
| 12 | Nearest police station | |
| 13 | Nearest Railway station | Bhuj |
| 14 | Date of Grant of Mining Lease | 03.09.1966 |
| 15 | Date of Execution | 12/06/1967 |
| 16 | Date of opening of Mine | 1968-69 |
| 17 | Date of first Renewal, if applicable and its period & expiry | 13.01.1994 |
| 18 | Date of second Renewal, if applicable and its period & expiry | 11.06.1997 |
| 19 | Date of submission of renewal application if Mining Operations are continuing under deemed extension | 19.01.2015 |
| 20 | Name of the Nominated Owner with Address, phone, email, fax number and date of appointment | Shri Arun Kumar Solanki (I A S) GMDC Ltd Khanij Bhavan, 132 feet Ring Road University Ground, Vastrapur Ahmedabad (Gujarat) |
| 21 | Name of the Mine Agent with Address, phone, email, fax number and date of appointment | Shri S G Patel C B Project, Gadhsisa, GMDC Ltd Village-Post-Gadhsisa Taluka- Mandvi (Kutch)-370445 9727792510 |
| 22 | Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines | Shri V K Singh C B Project, Gadhsisa, GMDC Ltd Village-Post-Gadhsisa Taluka- Mandvi (Kutch)-370445 (9727792850) |

| | | |
|----|---|---|
| 23 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Shri S R Rathore C B Project, Gadhsisa, GMDC Ltd Village-Post-Gadhsisa Taluka- Mandvi (Kutch)-370445 |
| 24 | Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | Shri V K Sumera C B Project, Gadhsisa, GMDC Ltd Village-Post-Gadhsisa Taluka- Mandvi (Kutch)-370445 |
| 25 | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. | 682(23) (52)/88-MCCM (N) UDP-dt. 20.08.1991 |
| 26 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any. | 682 (23)(NS-210)/2003 MCCM(N)UDP-dt.11.02.2013 684 (4)(1)/MP-112/2018-GNR-dt. 26.04.2018 |
| 27 | Mineral(s) granted in lease and proved for mining | Bauxite |
| 28 | Method of Mining(Open cast, Underground) | Open cast Working |
| 29 | Category (Fully Mechanised, Others or Manual) | Other than fully mechanised (OTFM) |
| 30 | Captive/Non Captive | Captive |

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

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|--|---------------------|-----------------------|---------|
| 1a | Backlog of previous year | | | |
| 1b | Exploration over lease area for Geological axis 1 or 2. | 4 (100m) | 4 (529m) | |
| 1c | Exploration Agency & Expenditure in lakh Rupees during the year | -- | Khanna Associate | |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | -- | -- | |
| 1e | Balance reserves as on 01.04.2016 | -- | 1.384 Lac MT | |
| 1f | General remarks of inspecting officer on geology, exploration etc. | Nil | | |

2.0 Development

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|---|---------------------|---|---------|
| 2a | Location of development w.r.t. lease area | Pit-1, 2 & 3 | In Pit No 2 (23° 0'31.47"N 69°23'39.57"E) | |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | YES | As per Proposal | |
| 2c | Stripping ratio or ore to OB ratio | 1:0.063 | Nil | |

| | | | | |
|----|---|-----|-----|--|
| 2d | Quantity of topsoil generation in m3 | Nil | Nil | |
| 2e | Quantity of overburden generation in m3 | Nil | Nil | |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc. | Nil | | |

3.0 Exploitation

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|--|---|---|---------|
| 3a | Number of pits proposed for production | 3 | 1 | |
| 3b | Quantity of ROM mineral production proposed | 102683 | 102329 | |
| 3c | Recovery of saleable/usable mineral from ROM production | 90% | 90% | |
| 3d | Quantity of mineral reject generation | No Proposal | Not produced | |
| 3e | Grade of mineral reject generation and threshold value declared | Threshold value= $Al_2O_3 \geq 40\%$ and $SiO_2 \leq 5\%$ | NIL | |
| 3f | Quantity of sub-grade mineral generation | 1591 | 5776 | |
| 3g | Grade of sub-grade mineral generation | $Al_2O_3 \leq 40\%$ | $Al_2O_3 \leq 40\%$ | |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Semi Mechanised | Semi Mechanised | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject | No Proposal | Not applicable | |
| 3j | Provision of drilling & blasting in mineral benches | Jack hammer drilling (RH 658/42 One compressor-One | NA | |
| 3k | Provision of mining machineries in mineral benches | Excavator-01 Tipper-04 | Excavator-01 Tipper-03 | |
| 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 | 12.31 | 12.81 | |
| 3n | Ore to OB ratio for the pit/mine during the year | 1:0.60 | NA | |
| 3o | Total area put in use under different heads at the end of year | 29.49 | 21.35 | |
| 3p | Production of ROM mineral during last five-year period, as applicable | 2013-14- 95166 2014-15- 101377 2015-16- 102621 2016-17- 102683 | 45132.545 39389.058 0.000 102329.252 | |
| 3q | General remarks of inspecting officer on method of mining etc. | NA | | |

4.0 Solid Waste Management-Dumping

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|---|---------------------|--|---------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33) | 0.95 | Nil | |
| 4b | Location of topsoil, OB & mineral reject dumps | Not in Proposal | NA | |
| 4c | Number of dumps within lease area and outside lease area | Old Dump | 4 | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Old Dump | 1. Northern side of Pit No-1 2. Northern side in pit dump in pit no 1 3. Northern side of Pit no 2 4. Backfilled in Southside of pit no 3 | |
| 4e | Number of active & alive dumps | Old Dump | 3 | |
| 4f | Number of dead dumps | Old Dump | 1 | |
| 4g | Number of dumps stabilised | Old Dump | 1 | |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Old Dump | No | |
| 4i | Length of Retaining wall or garland drain all along dump | Old Dump | NA | |
| 4j | Number of settling ponds | Old Dump | 0 | |
| 4k | Specific comments of inspecting officer | NA | | |

5.0 Solid Waste Management-Backfilling

| SN | 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 | Full extraction of Mineral | Full extraction of Minerals done | |
| 5b | Area under backfilling of mined out area | 0.2554 | 0.3 | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) | Not Proposal | NA | |
| 5d | Total area fully reclaimed & rehabilitated | NA | NA | |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc | | | |

6.0 Progressive Mine Closure Plan

| SN | 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 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 | Yes | Yes | |
| 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 (Fencing) | 0.2 Ha 300 | 0.3Ha 500 | |

| | | | | |
|----|---|---------------------------------|---------------------------------|--|
| 6d | Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation | 300 0.2 Ha Manual | 500 0.3Ha Manual | |
| 6e | Compliance of Environmental monitoring (core zone & buffer zone) | Air- 02 Water-01 Noise-02 | Air- 02 Water-01 Noise-02 | |
| 6f | General remarks of inspecting officer on PMCP compliance & progressive | In order as per plan. | | |

7.0 Mineral Conservation

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|--|---|---|---------|
| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Proposal made for manual sorting and sizing | Manual sorting and sizing is done | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | Manual | Manual sorting is done for obtaining the grade of bauxite | |
| 7c | Different grade of mineral sorted out at mines | High grade (refractory & abrasive grade) | High grade (refractory & abrasive grade) | |

| | | | | |
|----|--|---------------------------------|---------------------------------|--|
| | | &Low grade. | &Low grade are done. | |
| 7d | Any beneficiation process at mines | Only manual sorting and sizing. | Only manual sorting and sizing. | |
| 7e | General remarks of inspecting officer on Mineral conservation & beneficiation issues | In order as per plan | In order as per plan | |

8.0 Environment

| SN | Item | Proposals (2016-17) | Actual work (2016-17) | Remarks |
|----|---|--|---|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Proposal made for the separate removal and use | Separate removal of top soil is done and use wherever it's available. | |
| 8b | Concurrent use or storage of topsoil | In approved MP soil was proposed to spread on backfilled area. | Yes backfilled area is covered with available top soil and plantation is done | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | Proposed | As per Proposal | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | Proposal made for the backfilling of overburden/waste rock into the mined out pit. | Work of backfilled is carried out as proposed | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Part of the mineral exhausted pit to be backfilled and remaining part to be converted into water reservoir | NA | |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41) | Plantation will be done | Local species has been planted | |
| 8g | Survival rate | -- | 65% | |

| | | | | |
|----|---|--|--|--|
| 8h | Water sprinkling on roads to control airborne dust | Water to be sprinkled on the haul road to suppress the dust being getting airborne | Mobile and Fixed water Spraying arrangement for the purpose. | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines are | Environment control parameters are under control | | |

9.0 Compliance of Rule 45

| S. N. | Item | COMMENTS | Remarks |
|-------|--|---|---------|
| 9a | Status of submission of Monthly and Annual returns | M.R. Submitted up to – Dec-2017 A.R. submitted up to- Year 2016-2017 | |

| S. N. | 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 | Check & found in order | |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Yes | Check & found in order | |
| 9d | Scrutiny of Annual return on afforestation | Yes | Check & found in order | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & quantity) | Yes | Check & found in order | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | Yes | Check & found in order | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost | Yes | Check & found in order | |
| 9i | Scrutiny of Annual return on fixed assets | | Check & found in order | |
| 9k | Scrutiny of Annual return on mining machineries | Yes | Check & found in order | |

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

Place Gandhinagarr
Date 10-07-2018

Name: Dr N. K. Mathur
Designation: AMG

Signature