INDIAN BUREAU OF MINES MINERALS DEVELOPMENT AND REGULATION DIVISION

MCDR inspection REPORT

Bangalore regional office

| | Mine d | file No : KRL/KOTT/LIM | ESI | HELL/7/BNG Mine code : 37KRL05006 |
|----|--------------------------|--|-----|--|
| | (i) | Name of the Inspecting Officer and ID No. | : | SQ11) K.SRINIVAS |
| | (ii) | Designation | : | Assistant Mining Geologis |
| | (iii) | Accompaning mine Official with Designation | : | Sri Vinoi, President of the Society |
| | (iv) | Date of Inspection | : | 06/12/2017 |
| | (v) | Prev.inspection date | : | 11/12/2015 |
| | | PAF | ۲۲- | I : GENERAL INFORMATION |
| 1. | (a) | Mine Name | : | VEBANADU LAKE(94.5H) |
| | (b) | Registration NO. | : | IBM/6531/2011 |
| | (c) (d) (e) | Category Type of Working Postal address State District Village Taluka Post office Pin Code FAX No. E-mail Phone | : | B Manual Opencast KERALA KOTTAYAM VAIKOM VAIKOM PALLIPPURATHUSSERY 686606 lscs3145@gmail.com 04829-210465 (0), 9446375: |
| | (f) | Police Station | : | Vaikom |
| | (g) | First opening date | : | 04/01/1996 |
| | (h) | Weekly day of rest | : | SUN |
| 2. | | ess for espondance | | M/s The Vaikom Lime Shell Co-Operative Society, # 3145, PALLIPURATHUSSERY POST, VAIKOM -686606 ,KOTTAYAM Distt., KERALA State. |
| 3. | (a) (b) (c) (d) | Lease Number Lease area Period of lease Date of Expiry | : | KRL0059 94.5 5 04/01/2001 |
| 4. | Miner | ral worked | : | LIMESHELL Main |

| 5. | Name and Address of | the | | |
|----|---------------------|--------|-----------------------------------|------------|
| | Lessee | : | VAIKOM LIMESHELL CO-OP SOCIETY | |
| | | | PALLIPURATHUSSERY [PO], | |
| | | | VAIKOM, KOTTAYAM, KOTTAYAM | |
| | | | KERALA | |
| | | | Phone:04829 210465 | |
| | | | FAX : | |
| | | | | |
| | Owner | : | VAIKOM LIMESHEL COOP.SOCIETY LTD | |
| | | | #3145, PALLIPURATHUSSERY | |
| | | | VAIKOM KOTTAYAM KERALA | |
| | | | Phone: 04829 210465 | |
| | | | FAX : | |
| 6. | Date of approval of | E Mini | .ng : Fresh under rule 22 MCR1960 | 12/04/1990 |

Date of approval of Mining: Fresh under rule 22 MCR196012/04/1990Plan/Scheme of MiningMining Scheme rule 12 MCDR198816/10/2015

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|-----------|----------------|---|
| la | Backlog of previous year | Nil | Nil | - |
| 1b | Exploration over lease area for geological axis 1 or 2 | pits | Two trial pits | The deposit is lake floor under water. The pits are not visualised since they are under water. |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | - | Lessee | - |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | - | Not specified | - |
| le | Balance reserve as on 01/04/20 | - | - | Reserves as on 1.4.2017 is 70,205 tonnes. |
| lf | General remarks of inspecting officers on geology, exploration etc | - | - | No specific remarks on exploration. |

Development :

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---------------|---|------------------------------|
| 2a | Location of development w.r.t.lease area | Not specified | No specific area, but within the lease area. | - |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | No Proposals | Nil | No top soil generated. |
| 2c | Stripping ratio or ore to OB ratio | 1:0 | 1:0 | - |
| 2d | Quantity of topsoil generation in m3 | No proposals | nil | - |
| 2e | Quantity of overburden generation in m3 | No proposals | Nil | No generation of overburden. |

2f General remarks of inspecting officers on development of pit w.r.t. type of deposit etc Collection of limeshell from the lake floor does not leave any pit to develop.

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--------------------------|-------------------------------------|--|
| 3a | Number of pit proposed for production | No specific proposals | Not specified. | The collection of limeshell is carried out anywhere in the lease area leaving no pits |
| 3b | Quantity of ROM mineral production proposed | 4340 tonnes | 2963 tonnes for the year 2016-17 | - |
| 3с | Recovery of sailable/usable mineral from ROM production | 100% | 100% | - |
| 3d | Quantity of mineral reject generation | No proposals | nil | - |
| 3e | Grade of mineral rejects generation and threshold value declared. | No proposals | nil | - |
| 3f | Quantity of sub grade mineral generation. | No proposals | nil | No generation of sub grade mineral. |
| 3g | Grade of sub grade mineral generation | No proposals | nil | - |
| 3h | Manual / Mechanised method adopted for segregating from ROM | Manual | Manual | _ |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | No proposals | nil | - |

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| 3ј | Provision of drilling and blasting in mineral benches | No proposals | nil | - |
|----|--|--|---|---|
| 3k | Provision of mining machineries in mineral benches | No proposals | nil | - |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM | No proposals | nil | - |
| 3m | Total area covered under excavation/pits | 14.82ha | 14.82ha | - |
| 3n | Ore to OB ratio for the pit/mine during the year. | 1:0 | 1:0 | - |
| 30 | Total area put in use under different heads at the end of year | 14.82 HA | 14.82НА | - |
| 3р | Production of ROM mineral during the last five year period as applicable | 2012-13: nil 2013-14: nil 2014-15:nil 2015-16: 4340t 2016- 17: 4340t | 2012-13: 3006t 2013-14: 4120t 2014-15:6520t 2015-16: 3537t 2016-17: 2963t | - |
| 3q | General remarks of inspecting officers on method of mining etc. | - | - | The method of mining is being carried out as per the approved document. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--------------|-------------|---------|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No proposals | nil | _ |
| 4b | Location of topsoil, OB and mineral reject dumps | No proposals | nil | _ |

| 4c | Number of dumps within lease area and outside of lease area | No proposals | nil | - |
|----|--|--------------|-----|--|
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | No proposals | nil | - |
| 4e | Number of active and alive dumps. | No proposals | nil | - |
| 4f | Number of dead dumps. | No proposals | nil | - |
| 4g | Number of dumps established. | No proposals | nil | |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | No proposals | nil | - |
| 4i | Length of Retaining wall or garland drain all along dumps | No proposals | nil | - |
| 4j | Number of settling ponds | No proposals | nil | - |
| 4k | Specific comments of inspecting officer on waste dump management | - | - | The dump management is not applicable. |

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 proposals | nil | _ |
| 5b | Area under backfilling of mined out area | No proposals | nil | - |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | No proposals | nil | _ |

5d Total area No proposals nil
fully reclaimed
and
rehabilitated
5e General remarks - of inspecting
officers on
backfilling and
reclamation etc.

No proposals for backfilling and recalamation.

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Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---|--------------|-------------|---------|
| ба | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | - | submitted | - |
| 6b | Area available for rehabilitation (ha) . | No proposals | nil | - |
| бс | afforestation done (ha). | No proposals | nil | - |
| 6d | No. of saplings planted during the year | No proposals | nil | - |
| 6e | Cumulative no .of plants | No proposals | nil | - |
| 6f | Any other method of rehabilitation | No proposals | nil | - |
| бд | Cost incurred on watch and care during the year | No proposals | nil | - |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | No proposals | nil | _ |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | No proposals | nil | _ |

| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | No proposals | nil | - |
|----|--|--------------|-----|---|
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | No proposals | nil | - |
| 61 | Compliance on reclamation and rehabilitation by backfilling (v)any other specific means. | No proposals | nil | - |
| 6m | Compliance of rehabilitation of waste land within lease (i)afforestation | No proposals | nil | - |
| бn | Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha) | No proposals | nil | - |
| 60 | Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation | No proposals | nil | - |
| бр | Compliance of environmental monitoring (core zone and buffer zone) | No proposals | nil | - |
| бq | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | - | _ | There are no specific proposals for PMCP. |

Mineral Conservation:

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| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | No specific proposals | Sorting being outside the lease area. | The entire lease area is under water. |
|----|--|--------------------------|--|--|
| 7b | Method of grade- wise mineral sorting i.e. manual or mechanical. | Manual | Manual | - |
| 7c | Different grade of mineral sorted out at mines. | - | - | - |
| 7d | Any beneficiation process at mines | | nil | - |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | - | _ | No specific remarks on mineral conservation. |

Environment:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|--------------|-------------|---------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | No proposals | nil | - |
| 8b | Concurrent use or storage of topsoil | No proposals | nil | - |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | No proposals | nil | - |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | No proposals | nil | - |

| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposals | nil | _ |
|----|--|--------------|-----|---|
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | No proposals | nil | - |
| 8g | Survival rate | No proposals | nil | - |
| 8h | Water sprinkling on roads to control airborne dust | | nil | - |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | _ | - | There is no change in aesthetic beauty in and around the area. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---|-------------|---------|
| 9a | Status of submission of Monthly and Annual returns | Monthly returns submitted upto November, 2017. Annual return submitted for the year 2016- 17. | - | - |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Given | - | - |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | given | - | _ |

| 9d | Scrutiny of Annual return on afforestation | given | - | - |
|----|--|-------|--|---|
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | Given | _ | - |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | given | _ | - |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | given | Ex- mine price value is less than the cost of production due to lack of demand. | - |
| 9h | Scrutiny of Annual return on fixed assets | given | - | - |
| 9k | Scrutiny of Annual return on mining machineries | given | - | - |

| Details of violations observed during current inspection and compliance position of violation pointed out | | | | | | | |
|---|--------------------|------------|---------------|----------|-------------------------|--|--|
| | Violation observed | | | | Show couse position | | |
| Rule 1 | NO. | Issued on | Compliance on | Rule NO. | Issued on Compliance on | | |
| MCDR17 | Rule 27(2) | 26/12/2017 | | | | | |
| MCDR17 | Rule 35(1) | 26/12/2017 | | | | | |

Date :

(K.SRINIVAS)

Indian Bureau of Mines