MCDR INSPECTION REPORT

| 1) Name of Inspecting officer: | Rajani kanta Rautaray |
|--|------------------------------------|
| 2) Designation | Assistant Mining Engineer |
| 3) Accompanying mine official with designation | Sumanta Sahu, AGM (Geology), IDCOL |
| 4) Date of Inspection | 16.10.2022 |

Part-I: General

| S. | Particulars | Details |
|-----------|--|---|
| N. | Name of the Mine | Ampavalli Limestone Mines, of IDC, Ampavalli |
| 2 | | 280.771 Hectares |
| | · · · · · · · · · · · · · · · · · · · | Forest land- NIL |
| 3 | Mine code | 38ORI09006 |
| | IBM Registration Number under rule 45 of | 4421 |
| | Name of the lessee, Address, phone, email and fax number | IDCOL, IDCOL House, Unit – II, Ashok Nagar, Bhubaneswar – 751009. Phone No: 06742530976 e-mail: idcmining@yahoo.com |
| 6 | Village | Ampavalli |
| 7 | Taluka/Mandal | Pottangi |
| 8 | District | Koraput |
| 9 | Pin code | 764039 |
| 10 | State | Odisha |
| 11 | Post office | Pottangi |
| 12 | Nearest police station | Sunki |
| 13 | Nearest Railway station | Bobbili |
| | Date of Grant of Mining Lease | 16/08/1993 |
| 15 | Date of Execution | 16/08/1993 |
| 16 | Date of Re-opening of Mine | 26/12/2014 |
| 17 | Date of first Renewal, if applicable and its period | 16/08/2013 |
| | Date of second Renewal, if applicable and its period & expiry | 15/08/2043 |
| 19 | Date of submission of renewal application of Mining Operations are continuing under deemed extension | 24/01/2014 |
| 20 | phone, email, fax number and date of appointment | Shri Balwant Singh, IAS Managing Director IDC of Odisha Ltd., IDCOL HOUSE, Ashok Nagar, Unit-II, PB.No.78, Bhubaneswar-1 Phone:0674-2530898,2535824 Date of Appointment- 11.06.2021 |
| 21 | Name of the Mine Agent with Address, phone, email, fax number and date of appointment | Mr. Abhimanyu Behuria Ph. No:(0) 8249490644 Ampavalli Limestone Mines, of I D C of Odisha Ltd. Ampavalli – 764039, Pottangi Tahsil, Koraput (Dist.), Odisha. Date of Appointment-15.03.2022 |

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| 22 | Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines | Himanchala Acharya Ampavalli Limestone Mines, of I D C of Odisha Ltd. Ampavalli – 764039, Pottangi Tahsil, Koraput (Dist.), Odisha. D.O.A: 5/4/2017 |
|----|---|--|
| 23 | Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine | Himanchala Acharya Ampavalli Limestone Mines, of I D C of Odisha Ltd. Ampavalli – 764039, Pottangi Tahsil, Koraput (Dist.), Odisha D.O.A: 25/11/2018 |
| 24 | Whether Geologist and Mining Engineer | Sumanta Sahu, Msc Geology |
| | appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44. | Date of Appointment: 10.10.2022 |
| 25 | Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any. | 15/11/2017 |
| 26 | Date of Approval of Scheme of Mining/Modified Scheme of Mining with five- year period and specific condition in approval letter, if any. | NA |
| 27 | Mineral(s) granted in lease and proved for mining | Limestone |
| 28 | Method of Mining(Opencast, Underground) | Opencast |
| 29 | Category (Fully Mechanized, Others or Manual) | A- OTFM |
| 30 | Captive/Non Captive | Non Captive |

Details about Mining Plan/ Mining Scheme

| 2 00000 000 000 0000 000000000000000000 | | |
|--|---|--------------------------------|
| a) Letter No. and date of approval of mining | : | MPM/OTFM/19-ORI/BHU/2017-18 & |
| plan | | 15.11.2017 |
| b) Letter No. and date of approval of mining | : | NA |
| scheme. | | |
| | | |
| c) Condition while approving the MP/ MS/ | : | Nil |
| modification | | |
| d) Period of mining plan/ mining scheme in | : | 5 Years, Valid upto 31/03/2023 |
| force: | | _ |
| | | |

PART II-TECHNICAL DETAILS

Exploration:

| LAPIO | auon. | | | |
|-------|---|-------------------------------------|--|--|
| S.N. | Item | Proposals | Actual work | Remarks |
| 1a | Backlog of previous year (2021-22) | 18 nos | 04 | Three Nos. of bore holes have been drilled for the year 2020-21 during the exploration programmed carried out in the year 2018-19 and 2019-20. |
| 1b | Exploration over lease area for Geological axis 1 or 2. | Geological axis 1 | Geological axis 1 | |
| 1c | Exploration Agency & Expenditure in lakh Rupees during the year | M/s Earth and Environm ent | Rs 345600/+ GST- for 128 mt drilling. | |

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| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | 18 hector | 4 hector | Total lease area- 280.771 hectors Exploration G1 axis-110 hectors as on 31 st March 2022. But in this current financial year ie 2022-23 as on date 16.10.2022 (thirty number of hole have been completed.) |
|----|---|----------------------------|----------|---|
| 1e | Balance reserves as on 21.08.2017 | 66.801 Million Tonne | | |
| 1f | General remarks of inspecting officer on geology, exploration | | | Violation letter has been issued under rule MCDR, 2017 |

<u>1.</u> <u>Development (2021-22):</u>

| S.N. | Item | Proposals | Actual work | Remarks |
|------|---|---|---|---|
| 2a | Location of development w.r.t. lease area | Quarry -2 E/W: -1047, -1303 N/S: -1333, -1449 | Quarry -2 E/W: -1047, -1303 N/S: -1333, -1449 | |
| 2b | Separate benches in topsoil, overburden and mineral (Rule 15) | E/W: -1574, -1602 N/S: -1140, -1200 | E/W: -1574, -1602 N/S: -1140, -1200 | |
| 2c | Stripping ratio or ore to OB ratio | 1:0.03 | 1:0.038 | |
| 2d | Quantity of topsoil generation in m ³ | 7000 cum | 200 cum | As per availability. |
| 2e | Quantity of overburden generation in m ³ | No proposal | NIL | No provision in approved Mining plan, |
| 2f | General remarks of inspecting officer on development of pit w.r.t. type of deposit etc. | | | |

2. Exploitation (2021-22)

| S.N. | Item | Proposals | Actual work | Remarks |
|------|---|-------------|-------------|---------|
| 3a | Number of pits proposed for production | Quarry No-2 | Quarry No-2 | |
| 3b | Quantity of ROM mineral production proposed | 336127 MT | 183528 MT | |

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| 3c | Recovery of salable/usable mineral from ROM | 336127 MT | 181794 MT | 1734MT of subgrade generated and stacked in subgrade dump. |
|----|---|--|--|--|
| 3d | Quantity of mineral reject generation | No such proposal | 640 cum | Blended with mineral |
| 3e | Grade of mineral reject generation and threshold value declared | -35% CaO | -35% CaO | |
| 3f | Quantity of sub- grade mineral | No such proposal | 640 cum | |
| 3g | Grade of sub-grade mineral generation | -35% CaO | -35% CaO | Blended with mineral |
| 3h | Manual / Mechanized method adopted for segregating from | Mechanized | Mechanized | |
| 3i | Any analysis or beneficiation study proposed & carried out for sub-grade | No proposal | Nil | No proposal in Mining Plan. |
| 3j | Provision of drilling & blasting in mineral benches | The combination of deep hole drilling and blasting is to be done for ROM | As per proposal. | |
| 3k | Provision of mining machineries in mineral benches | Excavator- 2 nos Tippes- 6 nos | Excavator-2 nos Tippes- 6 nos | |
| 31 | Whether height of benches in overburden and mineral suitable for method of mining | Yes Height – 6 m (Maximum) Width- 12m(Minimum) | Height- 6 m Widhth-12 m | |
| 3m | Total area covered under | 14.632 | 14.0260 | |
| 3n | Ore to OB ratio for the pit/mine during | 1:0.03 | 1:0.05 | |
| 30 | Total area put in use under different heads at the end of year | Mining- 0.370 hect Top soil- 0.234 hect Mineral reject- 0.172 hect | 1.Mining-0.270 hect 2. Top Soil- 0.1hect 3. Mineral Reject- Nil 4. Plantation- 0.5 | |

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| 3p | Production of ROM | 2018-19 to | 2018-19: 139425 | Production from 2018-19 to |
|----|-----------------------|------------|--------------------------|----------------------------|
| | mineral during the | 2021-22 | 2019-20: 167190 | 2022-23 |
| | last five year period | (350132 t) | 2020-21: 172345 | |
| | as applicable. (t) | | 2021-22: 183528 | |
| | | | 22-23(July | |
| 3q | General remarks of | | 21 st).14016 | |
| 39 | | | | |
| | inspecting officer | | | |
| | on method of | | | |

3. Solid Waste Management-Dumping(2021-22)

| S.N. | Item | Proposals | Actual work | Remarks |
|------|---|--|--|----------------------|
| 4a | Separate dumping of topsoil, OB & mineral reject (Rule 32, 33) | Top soil: 7000 cum OB: Nil | Top soil- 200 cum OB: Nil | As per availability. |
| 4b | Location of topsoil, OB & mineral reject | E/W: -1574, -1602 N/S: -1140, -1200 | E/W: -1574, -1602 N/S: -1140, -1200 | |
| 4c | Number of dumps within lease area and outside lease area | 01 | 01 | |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | E/W: -1574, -1602 N/S: -1140, -1200 | E/W: -1574, -1602 N/S: -1140, -1200 | |
| 4e | Number of active & alive dumps | 01 | 01 | |
| 4f | Number of dead | Nil | Nil | |
| 4g | Number of dumps stabilized | No such proposal | Nil | |
| 4h | Whether Retaining wall or garland drain all along dumps are there | Yes | Yes | |
| 4i | Length of Retaining wall or garland drain all along dump | Maintenance and desilting | Being complied | |
| 4j | Number of settling ponds | Maintenance and desilting | Being complied | |
| 4k | Specific comments of inspecting officer on waste dump | | | |

4. Solid Waste Management-Backfilling:

| S.N. | Item | Proposals | Actual work | Remarks |
|------|--|---------------------|-------------|---------|
| 5a | Status on part or full extraction of mineral from mined out area before starting backfilling | No such proposal | Nil | |
| 5b | Area under backfilling of mined out area | No such proposal | Nil | |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32) | No such proposal | Nil | |
| 5d | Total area fully reclaimed & rehabilitated | No such proposal | Nil | |
| 5e | General remarks of inspecting officer on backfilling, reclamation etc | | | |

5. Progressive Mine Closure Plan:

| S.N. | Item | Proposals | Actual work | Remarks |
|------|---|------------|---|---------|
| ба | Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure- | Yes | Annual report on PMCP has been submitted under 26(2) of MCDR, 2017 in time. | |
| 6b | Area available for rehabilitation (ha) | Nil | Nil | |
| 6c | Afforestation done (ha) | 0.5 | 0.5 | |
| 6d | No. of saplings planted during the year(2021-22) (2020-21) | 800 800 | 800 800 | |
| 6e | Cumulative no. of plants- 2 Years | 1600 | 1600 | |
| 6f | Any other specific method of rehabilitation | Nil | NA | |
| 6g | Cost incurred on watch & care during the year | Proposed | Not maintained | |

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| 6h | Compliance on reclamation and rehabilitation by backfilling (i)Voids available for | No provision in Mining plan. | Nil | |
|----|--|--|---|---|
| 6i | Compliance on reclamation and rehabilitation by backfilling | No provision in Mining plan. | Nil | |
| 6ј | Compliance on reclamation and rehabilitation by backfilling (iii) Afforestation on the | No provision in Mining plan. | Nil | |
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making | No provision in Mining plan. | Nil | |
| 6l | Compliance on reclamation and rehabilitation by backfilling | No provision in Mining plan. | Nil | |
| 6m | Compliance of Rehabilitation of waste land within lease (i)Afforestation | 0.5 hectots | 0.5 hectors | Plantation |
| бп | Compliance of Rehabilitation of waste land within lease (ii) Area rehabilitated (ha) Method of rehabilitation | 0.5 hectots | 0.5 hectors | Plantation |
| 60 | Compliance of Rehabilitation of waste land within lease (iii) Method of rehabilitation | | | |
| бр | Compliance of Environmental monitoring (core zone & buffer zone) | Quarterly Monitoring should be done. | Quarterly Monitoring of environmental parameters have been done by third party. | SV Enviro Labs & Consultants, Vishakhapatnam |
| 6q | General remarks of inspecting officer on PMCP compliance & progressive closure | | | Violation letter has been issued under rule MCDR, |

<u>6. Mineral Conservation:</u>

| S.N. | Item | Proposals | Actual work | Remarks |
|------|--|---------------------------------|-------------------------------|---|
| 7a | ROM Mineral dispatch or gradewise sorting within lease area | ROM production: 350132 (t) | ROM production: 183528 (t) | |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical | Mechanical | Mechanical | |
| 7c | Different grade of mineral sorted out at mines | CaO: Waste/ OB 35% to 42 % Cao: | Cao: Sub Grade | Cement grade and Sub grade are segregated from ROM and made Stack separately. |

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| | 7d | Any beneficiation process at | | |
|---|----|---------------------------------|--|--|
| ŀ | | mines | | |
| | 7e | General remarks of inspecting | | |
| | | officer on Mineral conservation | | |
| | | & beneficiation issues | | |

7. Environment:

| S.N. | Item | Proposals | Actual work | Remarks |
|------|--|--|---|--------------------------------------|
| 8a | Separate removal and utilization of topsoil (Rule 32) | 7000 cum | 200 cum | 420 cum used for plantation purpose. |
| 8b | Concurrent use or storage of topsoil | Top soil dump should be maintained | Being complied. | |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | No proposal of O.B. Excavation in Mining plan. | No proposal of O.B. Excavation in Mining plan. | |
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original | No proposal in Mining Plan. | Nil. | |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | No proposal in Mining Plan. | Nil | |
| 8f | Baseline information on existence of plantation & additional plantation done (Rule 41) | 800 nos of saplings to be planted within ML area. | 800 nos of sapling has been planted inside ML area. | |
| 8g | Survival rate | | 80 % | |
| 8h | Water sprinkling on roads to control airborne dust | Regular water sprinkling at haul road has been proposed to suppress the dust | water sprinkling at haul road is being done to suppress the dust pollution. | |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | | | |

8. Compliance of Rule 45 (2020-21)

| S.N. | Item | Proposals | Actual work | Remarks |
|------|---|--|--|---------|
| 9a | Status of submission of Monthly and Annual returns | Monthly return(F1) and annual return (H8) should be submitted in time. | Monthly return(F1) and annual return (H8) has been submitted in time. | |

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| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | Information of Mining Engineer and Geologist have been shown in annual return FY 2021-22. | Found in order. | |
|----|---|---|---|--------------------|
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | 1.Mining- 0.370 hect 2.Top soil- 0.234 hect 3.Mineral reject- 0.172 hect 4. Plantation- 0.5 hectors | 1.Mining- 0.270 hect 2.Top soil- 0.1 hect 3.Mineral reject- Nil 4. Plantation- 0.5 hectors | Less production |
| 9d | Scrutiny of Annual return on Afforestation | Plantation: 800 Sapling | Found in order. | |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade & quantity) | No proposal | 640 cum | |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | ROM opening Stock : Nil ROM Production : 183528 T | Found in order. | |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price & production cost etc. | Ex Mine price: Rs 300 | Mining cost: 129.40 Exploration cost: 0.6 Over head cost: 64 Royalty: 80 DMF and NMET: 26 Total: Rs 300/ Tonne of production. | |
| 9h | Scrutiny of Annual return on fixed assets | NA | 10 lakhs (VFD room, urinal, Rest shelter etc) | |
| 9i | Scrutiny of Annual return on mining machineries | Excavator- 02 nos Tippers- 06 nos | Excavator- 02 nos Tippers- 06 nos | |

Details of violations observed during current inspection and compliance position of earlier violation pointed

out:- Violation letter has been issued under rule 11(1), 48 & 54(c) of MCDR, 2017

Date: 06.12.2022 Signature