

**INDIAN BUREAU OF MINES
MINERALS DEVELOPMENT AND REGULATION DIVISION**

Review and updation of Mining Plan REPORT

Jabalpur regional office

Mine file No : MP/JBP/LAT-36

Mine code : 40MPR18002

- (i) Name of the Inspecting : **NQ06**) **P.NAHAR**
Officer and ID No.
- (ii) Designation : Assistant Mining Geologis
- (iii) Accompanying mine :
Official with
Designation
- (iv) Date of Inspection : 08-JUN-21
- (v) Prev.inspection date :

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **GANDHIGRAM (5.80HA)**
- (b) **Registration NO.** :
- (c) Category : B Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : JABALPUR
Village : GANDHIGRAM
Taluka : SIHORA
Post office : GANDHIGRAM
Pin Code : 483222
FAX No. : NA
E-mail : NA
Phone : NA
- (f) Police Station : GOSALPUR
- (g) First opening date : 28-NOV-07
- (h) Weekly day of rest :
2. Address for : SHRI GAJRAJ SINGH
correspondance VILL. GANDHIGRAM, TAH. SIHORA,
DIST. JABALPUR (M.P.)
3. (a) Lease Number : MPR2193
- (b) Lease area : 5.8
- (c) Period of lease : 20
- (d) Date of Expiry : 23-JUL-27
4. Mineral worked : MANGANESE ORE Main
OCHRE Associated
IRON ORE Associated
LATERITE Associated

5. Name and Address of the

Lessee : GAJRAJ SINGH
VILL.& POST GANDHIGRAM
TAH.SIHORA,DIST JABALPUR
JABALPUR MADHYA PRADESH
Phone:NA
FAX :NA

Owner : GAJRAJ SINGH
VILL. GANDHIGRAM, TAH.
SIHORA, DIST. JABALPUR
(M.P.) JABALPUR MADHYA
PRADESH
Phone:
FAX :

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|-------------------------------|---|--------------------------------|-----------|
| 6. Date of approval of Mining | : | Fresh under rule 22 MCR1960 | 22-MAY-07 |
| Plan/Scheme of Mining | : | Modif.of approved Mining Plan | 02-FEB-09 |
| | : | Mining Scheme rule 12 MCDR1988 | 13-SEP-12 |

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|--|
| 1a | Backlog of previous year | 5 DTH BH each having depth of 30m during 2012-13. | 3 DTH BH each having depth of 20m and spacing 100m. | In the draft RMP 6 NXBH have been proposed in the grid as per MEMC-2015 during 2020-21. |
| 1b | Exploration over lease area for geological axis 1 or 2 | G1 | G1 | ----Do--- |
| 1c | Exploration Agencies and Expenditure in lakh rupees during the year | Lessee. | Lessee. | Drilling contract was given to M/s Balaji Borewell, Jabalpur. |
| 1d | Balance area to be explored to bring Geological axis in 1 or 2 | Entire area to be covered under G1 level. | 3.0Ha area has been covered under G1 level. | ----- |
| 1e | Balance reserve as on 01/04/20 | ---- | Limonic(Goethic ore)- 0.097MT(Code 122) Iron ore fines- 0.659MT(code 122) Limonic(Goethic ore)- 0.081MT(Code 222) Iron ore fines- 0.558MT(Code 222) | ---- |
| 1f | General remarks of inspecting officers on geology, exploration etc | ----- | Alternate bands of Phyllite and Iron Ore having strike EW dipping with 65o dipping towards south direction are occur in the lease area. These are overlain by Laterite capping in which pieces of Goethite are present in good quantity. | Against the proposal of 5 DTH bore holes 3 DTH bore holes each having depth of 20m have been made. In the RMP approved recently fresh proposals of exploration under MEMC rules 2015 have been made. |

Development :

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
|--------|------|-----------|-------------|---------|

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|----|---|--|--|---|
| 2a | Location of development w.r.t.lease area | Central and Southern part of the ML area. | Central and Southern part of the ML area. | ---- |
| 2b | Separate benches in topsoil, overburden and minerals (Rule 15) | No top soil cover. Laterite 3 benches.Ht.4-6m,width-10 to 50m,Length-120m Ore-One bench of 3 to 4m hieght. | Any top soil cover not noticed. Laterite 3 benches Length-80 to 150m Width-10m to 30m Ht-2m to 6m Ore- One bench of 3m to 5m . Bottom was waterlogged. | ---- |
| 2c | Stripping ratio or ore to OB ratio | Nil | Not noticed as the mine was closed due to want of approval of RMP. | Entire Laterite waste is saleable as minor mineral. |
| 2d | Quantity of topsoil generation in m3 | Not anticipated. | Nil | There is no top soil cover in the lease area. |
| 2e | Quantity of overburden generation in m3 | Not antiapiated. | Phyllite waste in very littile quantity. | ---- |
| 2f | General remarks of inspecting officers on development of pit w.r.t. type of deposit etc | ---- | Iron ore deposit of the area is Bedded ,Stratiform and Tabualr Deposit of Irregular Habit and peices of Goethite having 42% to 55% are found withinn the Laterite capping, which comes under Float and Placer deposit, | seperate benches have been formed in Laterite and Iron ore. |

Exploitation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|---------------------------------------|-----------|----------------------------------|---------|
| 3a | Number of pit proposed for production | One | One (and 4 old Pits of Laterite) | ---- |

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|----|---|--|---|--|
| 3b | Quantity of ROM mineral production proposed | 16-17-96402T 17-18-Lapsed Period. 18-19-Lapsed period. 19-20-Lapsed period. 20-21-Lapsed period. | 16-17-700T 17-18-Nil. 18-19-Nil 19-20-Nil 20-21-Nil | ---- |
| 3c | Recovery of sailable/usable mineral from ROM production | 50% to 95% | In Iron ore- 95%. In Laterite capping-50%. | ---- |
| 3d | Quantity of mineral reject generation | Not anticipated. | Nil | ---- |
| 3e | Grade of mineral rejects generation and threshold value declared. | Not applicable. | Not applicable. | ---- |
| 3f | Quantity of sub grade mineral generation. | Not anticiapted. | Nil | ---- |
| 3g | Grade of sub grade mineral generation | Not applicable. | Not applicable. | ---- |
| 3h | Manual / Mechanised method adopted for segregating from ROM | A-OTFM | A-OTFM | ---- |
| 3i | Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects. | Neither subgrade nor Mineral reject found .Hence not proposed. | Not applicable. | ---- |
| 3j | Provision of drilling and blasting in mineral benches | Not proposed. | Not noticed as mining operation was temporarily discontinued. | As informed by the lessee mineral is soft in nature hence drilling and blasting is not required. |
| 3k | Provision of mining machineries in mineral benches | Deployment of HEMM is proposed. | Not noticed as the mine was closed since long. | HEMM noticed in standing condition since long. |

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|----|--|--|---|---|
| 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 | 3.5478Ha. | 3.53Ha. | ---- |
| 3n | Ore to OB ratio for the pit/mine during the year. | Any generation of waste not anticipated. | Not noticed as the mine was closed. | ---- |
| 3o | Total area put in use under different heads at the end of year | 4.0034Ha | 4.372Ha. | Fresh FA has been submitted. |
| 3p | Production of ROM mineral during the last five year period as applicable | 16-17-96402T 17-18-Lapsed period. 18-19-Lapsed period. 19-20-Lapsed period. 20-21-Lapsed period. | 16-17-700T 17-18-Nil. 18-19-Nil 19-20-Nil 20-21-Nil | ---- |
| 3q | General remarks of inspecting officers on method of mining etc. | ---- | ---- | Mining was proposed by open cast method deploying HEMM. Same could not be verified as mine was closed due to expiry of proposal period. |

Solid Waste Management - Dumping:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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|----|--|---|--|--|
| 4a | Separate dumping of topsoil, OB and mineral rejects (Rule 32,33) | No top soil generation was anticipated. Waste for backfilling of Pit No. 4 and mined out barrier zone in NW and Eastern boundary. | Only one very small phyllite dump was noticed. | ---- |
| 4b | Location of topsoil, OB and mineral reject dumps | No top soil generation. OB for backfilling. No mineral reject generation anticipated. | Any Top soil and mineral reject not noticed. One very small ob dump noticed north of Pit -1. | ---- |
| 4c | Number of dumps within lease area and outside of lease area | None. | One within ML. Phyllite dump. | Size-20x10x5m approx. Rest are laterite stacks. |
| 4d | Location of dumps w.r.t. ultimate pit limit (Rule 16) | Any separate dumping was not proposed. | One within UPL. | ---- |
| 4e | Number of active and alive dumps. | Any dumping not proposed. | One active and alive dump very small in size. | ---- |
| 4f | Number of dead dumps. | None. | Nil. | All are laterite stack which are saleble as minor mineral and sorting of Iron ore. |
| 4g | Number of dumps established. | Not proposed. | None. | ---- |
| 4h | Whether Retaining wall or garland drain all along dumps are there. | Not proposed. | None. | Garland drain has been made all along the NH-7 within the lease area. |
| 4i | Length of Retaining wall or garland drain all along dumps | Not proposed. | Nil. | 80m Garland drain on the Western boundary along the NH-7. |
| 4j | Number of settling ponds | Not proposed. | None. | ---- |

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| 4k | Specific comments of inspecting officer on waste dump management | Laterite was considered as waste which is sold as minor mineral.Laterite is included in the lease deed.Phyllite was proposed to be used for reclamation and rehabilitation of mined out barrier zone.This has a size of 20mx10mx5m size. | ---- |
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Solid Waste Management - Backfilling:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|---|---|--|---|
| 5a | Status of part or full extraction of mineral from mined out area before starting backfilling. | Part extraction.Backfilling of mined out barrier zone and Pit No. 4. | Extraction is continued depthwise.Backfilling was proposed for Reclamation and Rehabilitation of mined out barrier zone.Presently no matured pit for backfilling except above. | ---- |
| 5b | Area under backfilling of mined out area | 0.3326ha.Pit No.-4 and mined out barrier zone in NW and Eastern boundary. | Any backfilling not done. | Inadequate waste generation is the reason. |
| 5c | Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32) | Any top soil generation not proposed. | Neither Top soil generated not utilized. | ---- |
| 5d | Total area fully reclaimed and rehabilitated | 0.3326Ha. | Nil.Yet to be reclaimed. | Inadequate Waste generation. |
| 5e | General remarks of inspecting officers on backfilling and reclamation etc. | ----- | Reclamation and rehabilitation of mined out barrier zone and Pit No. 4 were proposed . | Same has not been carried out due to inadequate waste generation. |

Progressive Mine Clousre Plan:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|--|---------------|----------------------|------------------------------|
| 6a | Whether Annual report on PMCP submitted on time and correctly. Rule 23 E(2). | ---- | Submitted. | ---- |
| 6b | Area available for rehabilitation (ha) . | 0.338Ha | Nil | Inadequate waste generation. |
| 6c | afforestation done (ha). | 0.926Ha | 1.0Ha | ---- |
| 6d | No. of saplings planted during the year | 105No. | 1400No. Cummulative. | ---- |
| 6e | Cumulative no .of plants | 105No. | 1400No. | ---- |
| 6f | Any other method of rehabilitation | Not proposed. | None. | ---- |
| 6g | Cost incurred on watch and care during the year | Not proposed. | Not available. | ---- |
| 6h | Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D | 0.338Ha | Nil | ---- |
| 6i | Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings | Not proposed. | Nil | ---- |
| 6j | Compliance on reclamation and rehabilitation by backfilling (iii)Afforestati on on backfilled area | Proposed. | Nil | Inadequate waste generation. |

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|----|--|---------------|---|-----------------------------------|
| 6k | Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir | Not proposed. | Nil | ---- |
| 6l | Compliance on reclamation and rehabilitation by backfilling (v) any other specific means. | Not proposed. | Nil | ---- |
| 6m | Compliance of rehabilitation of waste land within lease (i) afforestation | 0.9Ha | 1.0Ha | ---- |
| 6n | Compliance of rehabilitation of waste land within lease (ii) Area rehabilitation (ha) | Not proposed. | Nil | ---- |
| 6o | Compliance of rehabilitation of waste land within lease (iii) Method of rehabilitation | Not proposed. | Nil | ---- |
| 6p | Compliance of environmental monitoring (core zone and buffer zone) | Not proposed. | Nil | ---- |
| 6q | General remarks of inspecting officers on PMCP compliance and progressive closure operations etc. | ---- | Presently, there is no matued land for reclamtion and rehabilitation. About 1400 nos. of saplings were planted which are showing good growth. | PMCP cmplaine are under progress. |

Mineral Conservation:

| Sl.No. | Item | Propasals | Actual work | Remarks |
|--------|------|-----------|-------------|---------|
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| 7a | ROM Mineral dispatch or grade-wise sorting within lease area | Both. | Not noticed as the mine was closed due to expiry of SoM period. | ---- |
| 7b | Method of grade-wise mineral sorting i.e. manual or mechanical. | Both Manual and Mechanical. | Not noticed as mining operation was discontinued. | One mechanical crusher noticed in the lease area. |
| 7c | Different grade of mineral sorted out at mines. | Cement and Steel. | Not noticed as the mine was closed. | ---- |
| 7d | Any beneficiation process at mines . | Not proposed. | Not noticed as the mine was closed. | ---- |
| 7e | General remarks of inspecting officer on Mineral conservation and beneficiation issues | ---- | As on date of inspection the mine was closed due to want of mining plan approval. | Hence this activity was not noticed. However one mechanical grader was noticed at the mine site. |

Environment:

| Sl.No. | Item | Proposals | Actual work | Remarks |
|--------|--|--|--|---|
| 8a | Separate removal and utilization of topsoil (Rule 32) | Not planned. | None. | Soil cover not found in the lease area. |
| 8b | Concurrent use or storage of topsoil | Not planned | Not applicable. | ---Do-- |
| 8c | Separate dumps for overburden, waste rock, rejects and fines (Rule 33) | No mineral reject generation. Was te for reclamation and rehabilitation of mined out barrier zone and Pit No. 4. | There was no mineral reject generation. Waste generation was negligible, which has been temporarily stacked. | ---- |

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|----|---|---------------------------|--|---|
| 8d | Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use | --Do-- | --Do-- | ---- |
| 8e | Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc) | Yes proposed in last SoM. | Not done due to inadequate waste generation. | ---- |
| 8f | Baseline information on existence of plantation and additional plantation done (Rule 41) | | About 10 naturally grown trees were present. About 1400 Nos. of saplings were planted which are showing good growth. | ---- |
| 8g | Survival rate | ---- | 90% | ---- |
| 8h | Water sprinkling on roads to control airborne dust | Proposed in last SoM. | Done. | ---- |
| 8i | General remarks of inspecting officer on aesthetic beauty in and around mines area | ---- | ---- | Entire area is disturbed by mining and occupied by mineral stacks. This give bed aesthetic look. To compensate this about 1400 Nos. of saplings planted all around the lease boundray have been planted to given better aesthetic look. |

Compliance of Rule 45:

| Sl.No. | Item | Propasals | Actual work | Remarks |
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| 9a | Status of submission of Monthly and Annual returns | MR-May 2021 AR-19-20 | | |
| 9b | Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager | None. | Mining Engineer- Shri Shailesh Singh, BE (Mining) Geologist None. | Mine closed. |
| 9c | Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc. | Area already exploited- 0.213Ha Area covered under current mining-3.215Ha Area reclaimed and rehabilitated- 0.116Ha Area used for waste dumping- 0.410Ha Area occupied by building- 0.060Ha Area occupied by green belt- 0.060Ha | Area already exploited- Nil Area covered under current mining-3.53Ha Area reclaimed and rehabilitated- Nil Area used for waste dumping-0.012Ha Area occupied by building- Nil Area occupied by green belt-1.0Ha | ---- |
| 9d | Scrutiny of Annual return on afforestation | Nil | 1400Nos. | ---- |
| 9e | Scrutiny of Annual return on mineral reject generation (Grade and quantity) | None. | None. | ---- |
| 9f | Scrutiny of Annual return on ROM stock and/or graded ore | 29171.928T | Stack in scattered fprm noticed. | ---- |
| 9g | Scrutiny of Annual return on sale value, Ex. Mine price and production cost | Not given. | Mine closed due to want of RMP. | ---- |

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|----|---|----------------|--|-----------------------|
| 9h | Scrutiny of Annual return on fixed assets | Not mentioned. | Water pump- About one lakh. | ---- |
| 9k | Scrutiny of Annual return on mining machineries | None. | JCB-01 Shovel-02 Mobile crusher-01 Grader-01 Dumper-02Nos. | All not in operation. |

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

| Violation observed | | | Show cause position | | |
|--------------------|-----------|---------------|---------------------|-----------|---------------|
| Rule NO. | Issued on | Compliance on | Rule NO. | Issued on | Compliance on |

Date :

(P.NAHAR)

Indian Bureau of Mines