

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MAH/NAG/MN-321/NGP

Mine code : 40MSH14053

- (i) Name of the Inspecting : 204) SNEHANKIT H. CHATTE
Officer and ID No.
- (ii) Designation : Assistant Mining Engineer
- (iii) Accompanying mine : Shri. I. Khan, Chief Manager (Survey), Shri. Debnath
Official with
Designation
- (iv) Date of Inspection : 27-Aug-21
- (v) Prev.inspection date : 22-Jan-21

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : PARSODA (53.75 HA)
- (b) **Registration NO.** : IBM/5711/2011
- (c) **Category** : A Other than Fully Mech.
- (d) **Type of Working** : Opencast
- (e) **Postal address**
- State : MAHARASHTRA
- District : NAGPUR
- Village :
- Taluka :
- Post office :
- Pin Code :
- FAX No. :
- E-mail : mm.ms@moil.nic.in
- Phone : 07114-202127
- (f) **Police Station** : RAMTEK
- (g) **First opening date** : 01-Mar-19
- (h) **Weekly day of rest** : THU
2. **Address for correspondance** : PARSODA MANGANESE MINE
AT & PO- KHAIRI BIJEWADA, TAH- RAMTEK
DISTT.- NAGPUR (MAHARASHTRA)
3. (a) **Lease Number** :
- (b) **Lease area** :
- (c) **Period of lease** :
- (d) **Date of Expiry** :
4. **Mineral worked** : MANGANESE ORE Main

5. Name and Address of the

Lessee : M/S MOIL LIMITED
MOIL BHAWAN, 1-A, KATOL
ROAD CHHAONI NAGPUR NAGPUR
MAHARASHTRA
Phone:
FAX :

Owner : DEEPANKAR SHOME
1-A, MOIL BHAVAN KATOL ROAD
NAGPUR NAGPUR MAHARASHTRA
Phone:
FAX :

Agent : A. V. MASADE
MUNSAR MINE RAMTEK NAGPUR
NAGPUR MAHARASHTRA
Phone:
FAX :

6. Date of approval of Mining Plan/Scheme of Mining : Fresh under rule 22 MCR1960 06-Jul-09
MP review under 17(1) MCR 2016 01-Mar-21

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	Borehole proposals for 1st (2016-17), 2nd(2018-19) and 3rd (2019-20) year as per the approved mining plan were 3, 4, 3 boreholes respectively with meterage of 225 m, 300 m, 225 m.	A total of 13 nos of BHs were drilled during the scheme period of first five years. Form I of all 13 BHs have been submitted by the lessee as per office record.	Lease deed was executed on 22.04.2016 and lease period is 22.04.2016 to 21.04.2066 as per the executed lease deed. Notice of opening was submitted in this office vide lessee's letter dated 20.02.2019 with proposed date of opening as 01.03.2019.
1b	Exploration over lease area for geological axis 1 or 2	G-1, G-2 and G-3	Mining Plan was approved for the area on 06/07/2009 and as per approved mining plan reserves/resources were considered under G-1, G2 and G-3 axis of UNFC. Presently, detailed exploration of potentially mineralized area in underway after which the area shall be re-classified.	GSI has explored the area earlier through 17 boreholes with 2060.95 m drilling and has proved 2 Manganese Bands in the Area: Western Band: Strike Length-75 m upto 248 mRL with average thickness of 2.34 m & Eastern Band: Strike Length- 150 m upto 192 mRL with average thickness of 3.24 m
1c	Exploration Agencies and Expenditure in lakh rupees during the year	MOIL Ltd.	MOIL Ltd. with approximate expenditure of Rs 142.36 Lakhs	NIL

1d	Balance area to be explored to bring Geological axis in 1 or 2	Out of 53.75 ha lease area, 12 ha area has been proved for mineralization. For rest of the area, proposals have been given in Review of Mining Plan approved on 01.03.2021, proposals period for the year 2021-22, 2022-23, 2023-24, 2024-25 & 2025-26 for exploration to cover entire area under G-1 and G-2	As the Review of Mining Plan is approved on 01.03.2021, the exploration will be carried out by the lessee in the given proposal period for proving entire area upto G-1 level.	Proposal for exploration to cover the entire mineralized area in G1 category has been submitted in Review of Mining Plan approved on 01.03.2021.
1e	Balance reserve as on 01/04/20	As per the Review of Mining plan approved on 01.03.2021 the reserve as on 01.04.2020 is furnished as below:- 111-893111 T 122-166670 T 333-286561 T	Reserve as on 01.04.2020 111-893111 T 122-166670 T 333-286561 T	NIL

1f	General remarks of inspecting officers on geology, exploration etc	Not applicable	Not applicable	Geologically, the area has been proved by GSI for having two Manganese bands located in Western and Eastern part in between grids E16800 to E17300 and N12600 to N13400. Average grade of these bands are 45% Mn and 38.39% Mn respectively. Apart from this, pits have exposures of float ore also which is under exploitation. Detailed Exploration is going on in the area and lessee has submitted Form I for drilling of 13 boreholes in the period January'19 to March'20 out of which all 13 BH are completed
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Development :

Sl.No.	Item	Propasals	Actual work	Remarks
2a	Location of development w.r.t.lease area	Proposed development is in form of extension of existing old pit in the area at grid interval E16800 to E17100 & N13100 to N13400	Development has been done as per the proposals and existing pit was extended to exploit float ore occurring in that area.	nil
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	Yes, Benches in Soil, overburden and minerals are proposed to be kept separate.	As per the proposals, Overburden was removed keeping one separate bench of approximately 3 m height and float ore was excavated with one bench of 2 m height.	nil.

2c	Stripping ratio or ore to OB ratio	1:0.8	1:1.23	The lessee has taken Bulk density of OB is 4.0, which needs to be corrected, during inspection, necessary instructions were given to correct the same.
2d	Quantity of topsoil generation in m3	2020-21: 11250 m3	2020-21: 5200 m3	
2e	Quantity of overburden generation in m3	2020-21: 50381m3	2020-21: 7850m3 (up to Oct'20)	The proposed development was low as lease deed executed in year 2016 but mining activity started in March 2019 only so mostly the float ore removed and mining also halted in monsoon season.
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	not applicable	not applicable	Working has just started in the area and is in developing stage. The deposit in the area is having two Manganese Bands- Eastern and Western. Apart from this, float ore is exposed in the old pits available in the area. Presently, only float ore zone has been worked. Further Development of pit may be decided on the basis of outcome of the present exploration schedule.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	One pit	One pit located at E17000 to E17100 and N13000 to N13100	

3b	Quantity of ROM mineral production proposed	ROM proposed for 2020-21: 40000 T	Actual ROM production during 2020-21: 24139 T	Mines started in the March 2019 only so most of the float ore recovered extending old pit
3c	Recovery of sailable/usable mineral from ROM production	Recovery proposed was 60% of ROM	Recovery in 2020-21: 22370 T (92%)	ROM was sorted into two grades - below 25% and 25% to 35% Mn and both the grades were readily saleable.
3d	Quantity of mineral reject generation	2020-21: 7619 T	2020-21: 1769 T	
3e	Grade of mineral rejects generation and threshold value declared.	Grade of the Mineral rejects & Threshold value not specified in the Mining Plan. As on date threshold value is +10% Mn	<10%	
3f	Quantity of sub grade mineral generation.	NIL	NIL	
3g	Grade of sub grade mineral generation	NOT APPLICABLE	NOT APPLICABLE	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual sorting within the lease area	Manual sorting within the lease area	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	Not proposed	NIL	

3j	Provision of drilling and blasting in mineral benches	Yes, drilling is proposed through 3 Nos. of 110 mm dia and 6 Nos. of 32 mm dia drilling machines. Blasting is proposed by using explosived like Indomide and accessories like NONEL and ED.	No drilling and blasting as only float ore working was there and ripper/excavator was used.	
3k	Provision of mining machineries in mineral benches	Yes, deployment of 1 Hydraulic Excavator with 0.9-3.2 cum capacity and around 5 Nos. of Dumpers alongwith other auxilliaryequipments like Water Sprinkler, Dozer etc. is proposed.	1 Excavator (backhoe) with 0.9-1 cum bucket capacity (as and when required) and 1 tipper	
3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	Proposed bench height for working is 6 m as per the occurrence of orebody	Bench height is around 3 m. and 4 m.	
3m	Total area covered under excavation/pits	Total Area covered under Excavation/Pits: Existing Old pits area- 1.75 ha	As per the proposal	
3n	Ore to OB ratio for the pit/mine during the year.	1:0.8	1:1.23	The lessee has taken Bulk Density of OB is 4.0, which needs to be corrected. During the inspection, necessary instructions given to the lessee to correct the same.

3o	Total area put in use under different heads at the end of year	Area under: Excavation/Pit s- 1.75 ha Disposal of waste- 1.25 ha Occupies by Plants/Buildings/Infrastructure and Roads- 0.25 ha	As per the proposal	
3p	Production of ROM mineral during the last five year period as applicable	2017-18- 32000 T 2018-19- 38000 T 2019-20- 40000 T 2020-21- 40000 T 2021-22 - 38000 T	2017-18- Nil 2018-19- 5817 T 2019-20- 31988 T 2020-21- 24139 T 2021-22- 3700 T (UP TO AUGUST 2021)	Lease was executed in 2016-17 but mining started in March 2019 after obtaining all clearance.
3q	General remarks of inspecting officers on method of mining etc.	NOT APPLICABLE	NOT APPLICABLE	Method of mining is mechanised that is suitable for present level of working and manual sorting of excavated ore has been done. Mine has started in March 2019 only and mine is in developing stage.

Solid Waste Management - Dumping:

Sl.No.	Item	Propasals	Actual work	Remarks
4a	Separate dumping of topsoil, OB and mineral rejects (Rule 32,33)	Separate stacking of top soil and mineral rejects alongwith separate dumping of waste/overburden is proposed in the mining scheme/mining plan.	As per the proposal	

4b	Location of topsoil, OB and mineral reject dumps	Top Soil: One stack proposed in between E17200 to E17400 and N13100 to N13200 (NE part of the lease) Overburden: One dump is proposed at E16800 to E17000 and N12600 to N12900 (Southern part of the lease) Mineral rejects: One stack is proposed at E16600 to E16800 and N12800 to N13000 (SW part of the lease)	As per the proposal
4c	Number of dumps within lease area and outside of lease area	One waste dump is proposed within the lease area in the Southern part of the lease area.	As per the proposal.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Dumping is proposed in the Footwall side of the ore body.	As per the proposal
4e	Number of active and alive dumps.	One waste dump	One waste dump
4f	Number of dead dumps.	NIL	NIL
4g	Number of dumps established.	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	YES	Garland drain constructed and retaining wall is being constructed
4i	Length of Retaining wall or garland drain all along dumps	Garland Drain: 200 m & Retaining Wall: 100 m	200 m garland drain constructed along the toe of waste dump and retaining wall will be constructed thereafter

4j	Number of settling ponds	no proposals	Though there were no proposals, One settling tank with 3 compartments having dimensions 10 m L X 4 m W X 2 m D has been constructed to check and arrest siltation in the mine water prior to discharge.	
4k	Specific comments of inspecting officer on waste dump management	Not applicable	Not applicable	Waste generated till date has been dumped as per the proposals. Garland drains are being constructed along the toe of the dump after which retaining wall shall be erected to avoid any wash off. Lessee has also constructed one settling tank to arrest the siltation in discharged water from the lease area. Hence, overall waste dump management in the lease area is satisfactory.

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.	No such proposals	NIL	
5b	Area under backfilling of mined out area	No such proposals	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mineral out area (Rule 32)	No proposals	Nil	

5d	Total area fully reclaimed and rehabilitated	No such proposals	Nil	
5e	General remarks of inspecting officers on backfilling and reclamation etc.	NIL	NIL	There was no such proposal of backfilling as mines is recently come into operation and also not any kind of backfilling done.

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).	Annual report on PMCP is required to be submitted before 1st July every year for preceding year as per Rule 26(2) of MCDR'2017	Annual Report has been submitted by the lessee.	
6b	Area available for rehabilitation (ha) .	NIL	NIL	
6c	afforestation done (ha).	Proposals for of operation: 50 saplings over 0.05 ha area	3000 saplings 1.6 ha	
6d	No. of saplings planted during the year	50	3000	
6e	Cumulative no .of plants			total 7500 saplings have been planted with a survival rate of nearly 80% as mine started in March 2019 only.
6f	Any other method of rehabilitation	No such proposal	NIL	
6g	Cost incurred on watch and care during the year	No such proposal	No specific data is available	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	No such proposal	nil
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	NIL	NIL
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	NIL	NIL
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	NIL	NIL
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	NIL	NIL
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	NIL	NIL
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	NIL
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	NIL	NIL

6p	Compliance of environmental monitoring (core zone and buffer zone)	Environment monitoring in and around mining lease	Environment monitoring done and all the parametres are within limit.	
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	NIL	NIL	Mines have recently started and in developing stage. So not much scope however 7500 saplings planted

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade-wise sorting of ROM within lease area and dispatch	Mineral sorted in two grades below 25% and 25-35 % Mn	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	Manual	Manual	
7c	Different grade of mineral sorted out at mines.	No proposal	Grades sorted out at mines are: (i) Below 25% Mn (ii) 25% to below 35% Mn	
7d	Any beneficiation process at mines .	No such proposals	Nil	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues			Presently complete available mineral has been recovered and graded into readily saleable grade. Thus, mineral conservation aspects are satisfactory.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
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8a	Separate removal and utilization of topsoil (Rule 32)	seperated removal of Top soil proposed	Removed and stacked seperately and used for plantation
8b	Concurrent use or storage of topsoil	For plantation purpose	For plantation purpose
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	separate dumps/stacks are proposed for overburden/Waste and rejects.	As per proposal
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No such proposals	Nil
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	No such proposals	nil
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	Additional plantation proposed is 50 saplings per year over an area of 0.05 ha.	7500 saplings planted.
8g	Survival rate	80% survival rate	It seems correct
8h	Water sprinkling on roads to control airborne dust	Water tanker	Water tanker deployed for sprinkling
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area		Mines have recently started , 7500 plantation are done by mine management. Advised the management to increase the survival rate

Compliance of Rule 45:

Sl.No.	Item	Proposals	Actual work	Remarks
9a	Status of submission of Monthly and Annual returns	Annual Returns are required to be submitted online on or before 30th June of every year for preceding year Monthly returns are required to be submitted online on or before 10th of every month for preceding month	M.R. Submitted upto August 2021 A.R. submitted upto 2020-21	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Mining Engineer: SHRI U Bothra Geologist: SHRI Anil Singh Rajput Manager: SHRI U M Bhujade	found correct	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under: Excavation/Pits- 1.75 ha Disposal of waste- 1.25 ha Occupies by Plants/Buildings/Infrastructure and Roads- 0.25 ha Reclaimed/Rehabilitated - 0.1 ha	It seems correct.	
9d	Scrutiny of Annual return on afforestation	Number of trees planted during the year: 4000 Survival rate in percentage: 79%	It seems correct.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	Mineral reject generation - 1769 T Grade <15%	It seems correct	

9f	Scrutiny of Annual return on ROM stock and/or graded ore	ROM: Opening and closing stocks- Nil, Production - 24139 T Graded Ore: (a) Below 25% Mn: Opening Stock- 4775.82 T, Production- 5644 T, Dispatch- 10172 T, Closing Stock- 247.82 T (b) 25% to below 35% Mn: Opening Stock - 3682.25 T, Production - 16726 T, Dispatch- 19670.900 T, Closing Stock - 737.35 T	Correct information furnished and it is matching with the opening stocks as furnished for the respective grades in the Monthly return filed for Apr'21.	The mine is recently started and in development stage.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Cost of Production- 1717.23 Rs/T, Sale Value & EMP - below 25% Mn - 3227.96 Rs.T & 25-35% Mn- 4883.96 %	It seems correct	
9h	Scrutiny of Annual return on fixed assets	Rs. 79857691		
9k	Scrutiny of Annual return on mining machineries	TIPPER - 1, SHOVEL (HYDRAULIC) - 1, WATER TANKER - 1,	All the machinery were available during inspection in mines	As the mine is opened recently and working as per the proposal, hence no Violation found during the inspection.

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 :

(SNEHANKIT H. CHATTE)

Indian Bureau of Mines