

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

MCDR INSPECTION REPORT

Nagpur regional office

Mine file No : MP/JHB/RPT- 1/NGP

Mine code : 46MPR19001

- (i) Name of the Inspecting : **P030**) **MITHELESH PUROHIT**
Officer and ID No.
- (ii) Designation : Assistant Controller Mine
- (iii) Accompanying mine : SK Dwivedi, Manager, Burhanuddin dalal, Assistant Man
Official with
Designation
- (iv) Date of Inspection : 02-JUN-18
- (v) Prev.inspection date : 27-JUL-10

PART-I : GENERAL INFORMATION

1. (a) **Mine Name** : **KACHALDARA**
- (b) **Registration NO.** :
- (c) Category : A Manual
- (d) Type of Working : Opencast
- (e) Postal address
State : MADHYA PRADESH
District : JHABUA
Village : KACHALDARA
Taluka : MEGH NAGAR
Post office : KACHALDARA
Pin Code : 457779
FAX No. : 07390- 84453
E-mail :
Phone : 07390- 84453, 84403
- (f) Police Station :
- (g) First opening date : 27-APR-99
- (h) Weekly day of rest : MON
2. Address for : JHABUA ROCK PHOSPHATE MINE,
correspondance THE M.P. STATE MINING CORPN. LTD., MEGHNAGAR,
DISTT. JHABUA (M.P) 457779.
3. (a) Lease Number : MPR2056
- (b) Lease area : 2.2
- (c) Period of lease : 20
- (d) Date of Expiry : 27-SEP-23
4. Mineral worked : ROCK PHOSPHATE Main

5. Name and Address of the

Lessee : M/S M. P. STATE MINING CORPN. LTD.
 PARYAWAS BHAVAN, BLOCK NO.
 1, 2ND FLOOR, JAIL ROAD,
 BHOPAL (MP) BALAGHAT MADHYA
 PRADESH
 Phone:
 FAX :

Owner : S K MISHRA
 MPSC, AREA HILLS, JAIL
 ROAD BHOPAL MADHYA
 PRADESH
 Phone:
 FAX :

Agent : S K DUBE
 MPSC, AREA HILLS, JAIL
 ROAD BHOPAL MADHYA
 PRADESH
 Phone:
 FAX :

Mining Engineer

Name : Shri P.S.Yadav, Full Time
 Qualification : B.E.Mining
 Appointment/ :
 Termination date

6. Date of approval of Mining	:	Mining Scheme rule 12 MCDR1988	15-OCT-04
Plan/Scheme of Mining	:	Fresh under rule 22 MCR1960	28-AUG-08
	:	Mining Scheme rule 12 MCDR1988	11-JUN-13

PART - II : OBSERVATION/COMMENTS OF INSPECTING OFFICERS

Exploration :

Sl.No.	Item	Proposals	Actual work	Remarks
1a	Backlog of previous year	nil	nil	
1b	Exploration over lease area for geological axis 1 or 2	As per the approved document the exploration in the lease area is under G1 category.	No exploration done in the plan period.	The lease is an old mine which is operational since 1974.
1c	Exploration Agencies and Expenditure in lakh rupees during the year	None proposed.	No exploration done during the plan period.	
1d	Balance area to be explored to bring Geological axis in 1 or 2	None proposed.	NA	Elongated pits exists in the in lease from north to south of the lease. Need of exploration is evident in the lease area due to variation in the grade of Phosphate ore in the mining.
1e	Balance reserve as on 01/04/20	Balance Reserve as on 1.4.2018 is 3.31 MT	Actual Reserve as on 1.4.2018 is 3.75 MT	
1f	General remarks of inspecting officers on geology, exploration etc			The mine is an old mine existing from 1974. Elongated pits exists in the in lease from north to south of the lease. Need of exploration is evident in the lease area due to variation in the grade of Phosphate ore in the mining.

Development :

Sl.No.	Item	Proposals	Actual work	Remarks
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2a	Location of development w.r.t.lease area	Development was proposed in the kelkua quarry located in the north of the mining lease.	Development has been done in the kelkua quarry.	The systematic development of
2b	Separate benches in topsoil, overburden and minerals (Rule 15)	No proposal for separate benching.	Seperate benches are seen in overburden and Mineral.	
2c	Stripping ratio or ore to OB ratio	Proposed stripping for the year 2017-18 1:0.46	Actual stripping ratio for the year 2017-18 1:1.4 (tone to tonne)	
2d	Quantity of topsoil generation in m3	NIL	None reported.	
2e	Quantity of overburden generation in m3	Proposed during the year 2017-18 265721 tonnes.	Actual during the year 2017-18 54000 tonnes.	
2f	General remarks of inspecting officers on development of pit w.r.t. type of deposit etc	--	The development of pit is in form of two pits , one in north and one in south. The development in the pits is lagging and OB handling on the higher side is to be taken up in next plan period for the systematic development of the Pits.	The development of pit is in form of two pits , one in north and one in south. The development in the pits is lagging and OB handling on the higher side is to be taken up in next plan period for the systematic development of the Pits.

Exploitation:

Sl.No.	Item	Propasals	Actual work	Remarks
3a	Number of pit proposed for production	Production was proposed from the north side pit of kelkua.	The mineral production has been north pit.	

3b	Quantity of ROM mineral production proposed	Proposed ROM during the year 2017-18 150800 tonnes.	Actual 38419 tonnes for the year 2017-18	The said 38419 is the actual saleable mineral. The total ROM handling from the excavation and dumpworking combined is 92419 tonnes. 70000 tonnes of dump has been rehandled. The recovery from the dump is 16000 tonnes of phosphorite ore.
3c	Recovery of sailable/usable mineral from ROM production	Not Proposed	The actual recovery is aproxx 70%	
3d	Quantity of mineral reject generation	None proposed.	NIL	
3e	Grade of mineral rejects generation and threshold value declared.	NA	NA	
3f	Quantity of sub grade mineral generation.	NIL	NIL	
3g	Grade of sub grade mineral generation	NA	NA	
3h	Manual / Mechanised method adopted for segregating from ROM	NA	NA	
3i	Any analysis or beneficiation study proposed and carried out for sub grade mineral and rejects.	None proposed.	The Mineral is dispatched to the beneficiation plants.	
3j	Provision of drilling and blasting in mineral benches	Proposed.	Done.	
3k	Provision of mining machineries in mineral benches	Proposed.	Machinery deployed.	

3l	Whether height of benches in overburden and mineral suitable for method of mining proposed in MP/SOM	As per MP/SOM	The height and width is as per the excavator deployed.	The Height at some places is more than the height proposed in the approved SOM/MP.
3m	Total area covered under excavation/pits	During the Plan period 18.35 hecc	Actual as on date of inspection aproxx 16 hecets.	
3n	Ore to OB ratio for the pit/mine during the year.	Propsoed 1:0.46	Actual 1:1.4	The pit needs to be systematically developed by removal of OB on higher side for shaping of benches in the next plan period.
3o	Total area put in use under different heads at the end of year	Proposed 35.82 hect	Actual aproxx 34 hect.	
3p	Production of ROM mineral during the last five year period as applicable	Proposed for the year 2013-14, 2014-15, 2015-16, 2016-17 and 2017-18 is 148000tonnes., 1485000 tonnes, 151200 tonnes,149600 tonnes and 150800 tonnes respectively.	Actual for the year 2013-14, 2014-15, 2015-16, 2016-17 and 2017-18 is 131464tonnes, 19598 tonnes, NIL, 2523 tonnes, 38419 tonnes. respectively.	
3q	General remarks of inspecting officers on method of mining etc.	-	Selective Mining has been done in the past due to which the development of the pit is lagging. The stripping ratio of the pit needs to be increased for systematic development of the benches in the pit.	

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)	It was proposed to backfill the generated OB in the north of khatamba quarry.	No backfilling observed for the year 2017-18
4b	Location of topsoil, OB and mineral reject dumps	Not proposed.	OB has been dumped in the north of the lease.
4c	Number of dumps within lease area and outside of lease area	Total dumps in the lease area are 34	As many as 25-30 still exists in the lease area.
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Both within and outside pit limit.	Both within and outside pit limit.
4e	Number of active and alive dumps.	NIL	Two dumps seem to be active. Rest dumps are Mineralized dumps and OB dumps.
4f	Number of dead dumps.	NIL	NIL. Mineralized dumps have been rehandled for recovery of Mineral.
4g	Number of dumps established.	NIL	NIL
4h	Whether Retaining wall or garland drain all along dumps are there.	None proposed.	Retaining wall has been made in majority of the dumps.
4i	Length of Retaining wall or garland drain all along dumps	Not proposed.	No information available with the lessee.
4j	Number of settling ponds	NIL	None observed.
4k	Specific comments of inspecting officer on waste dump management	Backfilling in the north of khatamba block was proposed.	Backfilling has not been done during the plan period. Dumping has been done.

Solid Waste Management - Backfilling:

Sl.No.	Item	Propasals	Actual work	Remarks
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5a	Status of part or full extraction of mineral from mined out area before starting backfilling.	Backfilling	No backfilling done during the year 2017-18
5b	Area under backfilling of mined out area	During the plan period it was proposed to backfill approx 1.6 hect of area in the north of khatamba pit.	No backfilling done during the plan period. Only approx 0.3hect is backfilled of the previous plan period.

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).	Proposed to be submitteed.	Not submitted.	Violation of rule 26(2) issued.
6b	Area available for rehabilitation (ha) .	None propoosed.	None done inside the lease area.	
6c	afforestation done (ha).	It was proposed to plan 500 trees during the year 2016-117	Planted outside lease area.	
6d	No. of saplings planted during the year	500	500	
6e	Cumulative no .of plants	NA	No information avilable with the lessee.	
6f	Any other method of rehabilitation	NIL	NIL	
6g	Cost incurred on watch and care during the year	9.35 lac	Not avilable with lessee	

6h	Compliance on reclamation and rehabilitation by backfilling (i) Voids available for backfilling (Lx B x D	1.6 hect to be backfilled.	No backfilling done during the plan period.
6i	Compliance on reclamation and rehabilitation by backfilling (ii) Voids filled by waste / tailings	Backfilling proposed.	Not done.
6j	Compliance on reclamation and rehabilitation by backfilling (iii)Afforestation on on backfilled area	None proposed	Not done.
6k	Compliance on reclamation and rehabilitation by backfilling (iv) Rehabilitation by making water reservoir	None proposed.	None done.
6l	Compliance on reclamation and rehabilitation by backfilling (v)any other specific means.	None proposed.	None done.
6m	Compliance of rehabilitation of waste land within lease (i)afforestation	Afforestation proposed outside the lease.	Afforestation done outside the lease.
6n	Compliance of rehabilitation of waste land within lease (ii)Area rehabilitation (ha)	NIL	None rehabilitated.
6o	Compliance of rehabilitation of waste land within lease (iii)Method of rehabilitation	None proposed.	None done.

6p	Compliance of environmental monitoring (core zone and buffer zone)	Proposed.	Done.
6q	General remarks of inspecting officers on PMCP compliance and progressive closure operations etc.	Backfilling was proposed.	No backfilling was observed for the year 2017-18

Mineral Conservation:

Sl.No.	Item	Propasals	Actual work	Remarks
7a	ROM Mineral dispatch or grade-wise sorting within lease area	Grade wise sorting proposed.	Grade wise sorting is done.	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical.	none proposed.	Both mechanical and manual.	
7c	Different grade of mineral sorted out at mines.	12-18%	14-16%	
7d	Any beneficiation process at mines	None proposed.	None done at mine site.	
7e	General remarks of inspecting officer on Mineral conservation and beneficiation issues	--	The phosphate occurring in the lease area is of low grade. After blending saleable grade of 14-16% is prepared and sold to local beneficiation plants for further beneficiation.	The phosphate occurring in the lease area is of low grade. After blending saleable grade of 14-16% is prepared and sold to local beneficiation plants for further beneficiation. Old Mineral dumps are also rehandled for recovery of mineral in the lease area.

Environment:

Sl.No.	Item	Propasals	Actual work	Remarks
8a	Separate removal and utilization of topsoil (Rule 32)	None proposed.	None done.	
8b	Concurrent use or storage of topsoil	None proposed.	None done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Backfilling was proposed.	No backfiling done. Overburden dumping has been done.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	Backfilling proposed.	None done.	
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	Backfilling proposed.	None done.	
8f	Baseline information on existence of plantation and additional plantation done (Rule 41)	NA	None avilable with the lessee.	
8g	Survival rate	70%	70%	
8h	Water sprinkling on roads to control airborne dust	Proposed.	Mining operations closed as on date of inspection.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines area	The asthetic beauty of the lease area is fair.	The asthetic beauty of the lease area is fair.	The asthetic beauty of the lease area is fair.

Compliance of Rule 45:

Sl.No.	Item	Propasals	Actual work	Remarks
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9a	Status of submission of Monthly and Annual returns	AR and MR are filed online	AR and MR are filed online.	
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Manager Shri S.K. Dwivedi Mining Engineer in charge Shri S.K. Dwivedi Geologist in charge Nil	As per return	Violation of rule 55(1)(3) of MCDR issued.
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	aproxx 34 hect	aproxx 34 hect.	
9d	Scrutiny of Annual return on afforestation	200 inside lease and 500 outside lease area.	Plantation observed outside lease area.	
9e	Scrutiny of Annual return on mineral reject generation (Grade and quantity)	NIL	Old mineralized dumps in large quantum are lying in the lease area. It was observed during the inspection that rehandling of the mineralized dumps has been done for mineral recovery. However the same has not been depicted in the submitted returns.	Violation of rule 45(5)(c) of MCDR 2017 issued.
9f	Scrutiny of Annual return on ROM stock and/or graded ore	Production from open cast 22419.8 tonne Dump working production 70000 tonne	The Grade wise production 38419.8 tonnes has been reported.	Violation of rule 45(5)(c) for depiction of mineralized dump stack in the return is issued.
9g	Scrutiny of Annual return on sale value, Ex. Mine price and production cost	Ex mine price 1088.95 Rs/tonne.	--	
9h	Scrutiny of Annual return on fixed assets	NIL	--	

9k Scrutiny of BACK HOE 1.000 Mining operations closed
Annual return on CUM 1 Non during the inspection.
mining Electrical
machineries Opencast
 TIPPER 6.500
 CUM 3 Non
 Electrical
 Opencast
 FRONT END
 LOADER 1.000
 CUM 1 Non
 Electrical
 Opencast

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

Violation observed			Show couse position		
Rule NO.	Issued on	Compliance on	Rule NO.	Issued on	Compliance on
MCDR17	Rule 26(2)	15-JUN-18			
MCDR17	Rule 33	15-JUN-18			
MCDR17	Rule 45(5)(c	15-JUN-18			
MCDR17	Rule 55(1)(3)	15-JUN-18			

Date :

(MITHELESH PUROHIT)

Indian Bureau of Mines