

MCDR INSPECTION REPORT

1.0 GENERAL

Sl.N	PARTICULARS	DETAILS
1	File No.	CHG/DNT/TIN-5/60CHG03003
2	Name & Designation of the inspecting officer	Shri D.Dash, Senior Mining Geologist
3	Date of Inspection	25.08.2021 (MCDR)
4	Accompanying mine personnel	Shri. Vimal Luniya (Director)
5	Date of Last Inspection & Officer	05.11.2019, Shri Rudra narayan Mishra, Senior Mining Geologist
6	Name of the Mine	Bade Bacheli Tin Ore Mine
7	Total Lease Area (Ha) with breakup of Non-forest and forest land	Forest Land: Nil. Non-forest land: 17.087 Ha Total land: 17.0877 Ha
8	Mine code	60CHG03003
9	IBM Registration Number under rule 45 of MCDR, 2017	IBM/9859/2011
10	Name of the lessee, Address, phone, email and fax number	M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh Phone: 07782-228555 Email: pmsl10@rediffmail.com, pmsl10@hotmail.com
	Village	Bade Bacheli
	Taluka/Mandal	Bade Bacheli
	District	Dantewada
	Pincode	494553
	State	Chhattisgarh
	Post office	Bacheli
11	Nearest police station	Bacheli
12	Nearest Railway station	Kirandul
13	Date of Grant of Mining Lease	30/09/2003 to 29/09/2023 for (twenty years) for lease period extension application submitted to the State Govt.
14	Date of Execution	30/09/2003
15	Date of opening of Mine	19/04/2007
16	Date of first Renewal, if applicable and its period & expiry	NA
17	Date of Second Renewal, if applicable and its period & expiry	NA
18	Date of submission of renewal application if Mining Operations are continuing under deemed	NA

	extension	
19	Name of the Nominated Owner with Address, phone, email, fax number and date of appointment	Shri. Vimal Luniya (Director) M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh
20	Name of the Mine Agent with Address, phone, email, fax number and date of appointment	Shri. Vimal Luniya (Director) M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh
21	Name of the Mines Manager with Address, phone, email, fax number and date of appointment in mines	Shri. Urban Das Banjare, B.E. Mining, M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh Mob:7697155494 Date of appointment: 21/02/2018
22	Name of the Mining Engineer, Qualification and total experience with Address, phone, email, fax number and date of appointment in mine	Shri. Urban Das Banjare, B.E. Mining, M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh Mob:7697155494 Email: pmsl10@rediffmail.com Date of appointment: 21/02/2018
23	Whether Geologist and Mining Engineer appointed in mines satisfy the rule 42 & carrying out their duties as per rule 43 & 44.	Geologist Shri K.V. Krishna Rao M/s Precious Minerals and Smelting Ltd. Semi Urban Industrial Area, Frezerpur, P.O.- Jagdalpur, Distt- Bastar Pin code-494001, Chhattisgarh Phone: 07782-228555 Email: pmsl10@rediffmail.com Date of appointment: 18/03/2017
24	Date of Approval of Mining Plan/Modified Mining Plan with five-year period and specific condition in approval letter, if any.	Review of Mining Plan Approval letter no.& Date: Dnt/Tin/MPLN-1140/2017, Raipur, 05/04/2018. Proposal period: 2018-19 to 2022-23
25	Date of Approval of Scheme of Mining/Modified Scheme of Mining with five-year period and specific condition in approval letter, if any.	NA
26	Mineral(s) granted in lease and proved for mining	TIN

27	Method of Mining (Opencast, Underground)	Opencast
28	Category (Fully Mechanized, Others or Manual)	Others
29	Captive/Non-Captive	Captive
30	EC for ROM Prod:	1500 TPA dated 11/04/2007
31	FA amount Rs Valid up to:	Rs. 18,00,000.00, Valid up to: 31/03/2023

Scientific Mining: Compliance of proposals of approved mining plan/scheme of mining. –

1.0 EXPLORATION

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
1a	Backlog of previous year	02	02	Violation of 11(1) of MCDR, 2017 was pointed out for non-compliance of proposal of drilling 02 boreholes during the year 2019-20.
1b	Exploration over lease area for Geological axis 1 or 2.	Nil	Nil	
1c	Exploration Agency & Expenditure in lakh Rupees during the year	NA	Nil	
1d	Balance area to be explored to bring Geological axis in 1 or 2	660 m of potential strike length of ore body needs to be explored under G1 Category		
1e	Balance reserves as 01.04.2021	Under111 category: 524.1 Tones Under221 &222 category: 313.20 Tones		
1f	General remarks of inspecting officer on geology, exploration etc.	The Tin ore deposit of the mining lease area belong to Begpal series of archean period. The Bengpal series consist of Pegmatite reef (Tin ore bearing) and Amphibolites Sericite Schist. The pegmatite comprises mainly of large crystal of Quartz feldspar with mica, tourmaline etc within which tin ore is found in shape of cubic crystals/ small lenses. The pegmatites are deposited along the NW-SE trends. The major individual pegmatite range from less than 1 meters to 25 meters in width and 200 to 1500m in length 25 to 50 m in depth or more. The pegmatites are coarse and granular. Tin ore deposit belongs to deposit II as UNFC under MEMC Rules, 2015. About 660 m of strike length of ore body needs to be explored through borehole drilling at grid interval of 25-50m to cover the entire Lease area under G1 Category.		

2.0 DEVELOPMENT

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
2a	Location of development w.r.t. lease area	Pit 1 W -000 to E 100 N200 to N 300 Pit 3W -100 to E 100 N400 to N 600	Pit 1 W -100 to E 100 N300 to N 400	The development of quarry is lagging behind against proposal due to Covid 19 and adverse law and order situation. Therefore, no violation is pointed out.
2b	Separate benches in topsoil, overburden and mineral (Rule 15)	Yes	Yes	
2c	Stripping ratio or ore to OB ratio	1:719	1:001	
2d	Quantity of topsoil generation in m ³	450	Nil	
2e	Quantity of overburden generation in m ³	2246.25	1200	
2f	General remarks of inspecting officer on development of pit w.r.t. type of deposit etc.	Development is restricted due to covid 19 and adverse field condition which permitted limited mining operations. No violation is pointed out considering the field condition.		

3.0 EXPLOITATION

S.N.	ITEM	PROPOSAL (2020-21)	ACTUAL WORK (2020-21)	REMARK
3a	Number of pits proposed for production	1	1	
3b	Quantity of Tin production proposed	11.25 Tonne	1.671 Tonne	
3c	Recovery of saleable/usable mineral from Tin production	11.25 Tonne	1.671 Tonne	
3d	Quantity of mineral reject generation	Nil	Nil	
3e	Grade of mineral reject generation and threshold value declared	Nil,	Nil	
3f	Quantity of sub-grade mineral generation	Nil	Nil	
3g	Grade of sub-grade mineral generation	Nil	Nil	
3h	Manual / Mechanised method adopted for segregating from ROM	Manual method adopted for segregating	Manual method adopted for segregating	
3i	Any analysis or beneficiation study proposed & carried out for sub-grade mineral and reject	Not Applicable	Not Applicable	
3j	Provision of drilling & blasting in	No	No	

	mineral benches			
3k	Provision of mining machineries in mineral benches	yes	yes	
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	Not given in proposal year wise	Area under mining: 2.524 ha Waste dump site: 2.889 ha, Roads: 0.265 ha, Others (Penning pond): 0.021 ha	
3n	Ore to OB ratio for the pit/mine during the year	1:719	1:0.001	
3o	Total area put in use under different heads at the end of year	No year-wise proposal given in approved document.	Area under mining: 2.344 ha Waste dump site: 2.889 ha, Roads: 0.265 ha, Others (Penning pond): 0.021 ha	Plans and sections are not updated within 12 months. Violation of rule 45(5) (c) is pointed out.
3p	Production of Tin during last Five -year period, as applicable	2016-17	1.928 T	
		2017-18	0.859 T	
		2018-19	0.992 T	
		2019-20	2.737	
		2020-21	1.671	
3q	General remarks of inspecting officer on method of mining etc.	Method of mining is Open cast Semi Mechanised mining. Ore segregation is done manually. Production is on very low scale against the proposal due to covid-19 and adverse law and order situation in the area.		

4.0 SOLID WASTE MANAGEMENT-DUMPING

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
4a	Separate dumping of topsoil, OB & mineral reject (Rule 32, 33)	yes	yes	
b	Location of topsoil, OB & mineral reject dumps	Southern Part of the Lease	Southern Part of the Lease	
4c	Number of dumps within lease area and outside lease area	Within Lease: 1 Outside Lease: Nil	Within Lease: 1 Outside Lease: Nil	
4d	Location of dumps w.r.t. ultimate pit limit (Rule 16)	Out side UPL	Out side UPL	

4e	Number of active & alive dumps	1	1	
4f	Number of dead dumps	Nil	Nil	
4g	Number of dumps stabilized	Nil	Nil	
4h	Whether Retaining wall or garland drain all along dumps are there	Nil	Nil	
4i	Length of Retaining wall or garland drain all along dump	Garland drainage proposed although not year specific.	Not observed in field.	Violation of 11(1) of MCDR, 2017 pointed out.
4j	Number of settling ponds	Not Applicable	Not Applicable	
4k	Specific comments of inspecting officer	Waste is properly handled.		

5.0 SOLID WASTE MANAGEMENT-BACKFILLING

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
5a	Status on part or full extraction of mineral from mined out area before starting backfilling	Nil	Nil	Area is not matured for Back filling.
5b	Area under backfilling of mined out area	Nil	Nil	
5c	Concurrent use of topsoil for restoration or rehabilitation of mined out area (Rule 32)	Nil	Nil	
5d	Total area fully reclaimed & rehabilitated	Nil	Nil	
5e	General remarks of inspecting officer on backfilling, reclamation etc	Area is not matured for Back filling.		

6.0 PROGRESSIVE MINE CLOSURE PLAN

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
6a	Whether Annual report on PMCP submitted on time and correctly - Rule 23E (2). Details should be given in the format as given in Annexure-20.	Yes	Yes	

6b	Management of worked/mined out benches i) Area available for rehabilitation (ha) ii) Afforestation done (ha) iii) No. of saplings planted during the year iv) Cumulative no. of plants v) Any other specific method of rehabilitation vi) Cost incurred on watch & care during the year	Nil	Nil	
6c	Compliance on reclamation and rehabilitation by backfilling i) Voids available for backfilling (L X B X D) ii) Void filled by waste/tailings iii) Afforestation on the backfilled area iv) Rehabilitation by making water reservoir v) Any other specific means	i) NA ii) NA iii) Nil iv) Nil v) Nil	i) NA ii) NA iii) Nil iv) Nil v) Nil	
6d	Compliance of Rehabilitation of waste land within lease i) Afforestation ii) Area rehabilitated (ha) iii) Method of rehabilitation	i) 200 nos ii) 0 Ha iii) Nil	i) 200nos ii) 0 Ha iii) Nil	
6e	Compliance of Environmental monitoring (core zone & buffer zone)	Yes	Yes	
6f	General remarks of inspecting officer on PMCP compliance & progressive	Implementation of PMCP is done properly		

7.0 MINERAL CONSERVATION

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
7a	ROM Mineral dispatch or grade-wise sorting within lease area	yes	Manual sorting	
7b	Method of grade-wise mineral sorting i.e. manual or mechanical	Manual sorting	Manual sorting	
7c	Different grade of mineral sorted out at mines	yes	Manual sorting	
7d	Any beneficiation process at mines	Only Panning	Only Panning	
7e	General remarks of inspecting officer on Mineral conservation & beneficiation issues	By panning tin ore collected.		

8.0 ENVIRONMENT

SN	ITEM	PROPOSALS (2020-21)	ACTUAL WORK (2020-21)	REMARKS
8a	Separate removal and utilization of topsoil (Rule 32)	Yes	Separate removal and utilization of top soil is being done.	
8b	Concurrent use or storage of topsoil	Yes	Concurrent utilization of top soil being done.	
8c	Separate dumps for overburden, waste rock, rejects and fines (Rule 33)	Planned	Separate dumps for overburden/waste rock and rejects.	
8d	Use of overburden, waste rock, rejects and fines dumps for restoring the land to its original use	No proposal	Not done.	No area is matured for backfilling.
8e	Phased restoration, reclamation and rehabilitation of lands affected by mining operations (Pits, dumps etc)	As per Mining Plan	Being done	
8f	Baseline information on existence of plantation & additional plantation done (Rule 41)	Planned	200 saplings	
8g	Survival rate	85%	60%	
8h	Water sprinkling on roads to control airborne dust	Yes	Water sprinkling on roads is being done water tanker to control air borne dust.	
8i	General remarks of inspecting officer on aesthetic beauty in and around mines are	EMP parameters are monitored regularly for control.		

9.0 COMPLIANCE OF RULE 45

S. N.	Item	Comments	Remarks
9a	Status of submission of monthly and Annual returns	M.R. Submitted up to–August, 2021 A.R. submitted up to- 2020-21,	Violation of Rule 45 (5) (c) of MCDR, 2017 is pointed out for incorrect information on land use, mineral reserves and
9b	Scrutiny of Annual return for information on Mining Engineer, Geologist and Manager	Yes	
9c	Scrutiny of Annual return on land use pattern for area under pits, reclaimed area, dumps etc.	Area under mining: 0.59 ha Waste dump site: 0.53 ha,	
9d	Scrutiny of Annual return on	Within Lease area: 200 nos.	

	afforestation	Outside Lease area: 00 nos.		recovery quantity.
9e	Scrutiny of Annual return on mineral reject generation (Grade & Quantity)	Nil		
9f	Scrutiny of Annual return on ROM stock and/or grade ore	Production: 0.992 T, Opening Stock: 0.411 T, Closing stock: 0.182 T		
9g	Scrutiny of Annual return on sale value, Ex. Mine price & production costs	Rs. 821 per Kg ex-mine price and cost of production: Rs. 821.00 per kg		
9i	Scrutiny of Annual return on Fixed assets	Rs. 0.00 (Mentioned in Annual Return)		
9k	Scrutiny of Annual return on mining Machineries	Type of Machinery	Capacity of each Unit	No. of Unit
		Pumps	5.00L/MN	01
		Others like JCB	15.00	03

10- Details of violations observed during current inspection and compliance position of earlier violation pointed out: -

Violation of Rules 11 (1), 45(5) (c) and 48 of MCDR, 2017 were pointed out vide this office letter dated 09.09.2021 based on inspection and scrutiny of annual returns.

Violation of Rule 35(4) of MCDR, 2017 was pointed by Shri R.N.Mishra, SMG of this office vide letter dated 28.05.2021 for star rating of below 3 star. The lessee has not responded.

Star rating for year 2020-21 has been examined and found to be 3 star . Accordingly, vetted.

Date:

(D.Dash)

Senior Mining Geologist