



MINE PROFILE / DATA DOSSIER OF WIRUR U/G MINE

1.0 GENERAL INFORMATION

1.1 LOCATION OF THE MINE

Wirur U/G Mine is located in Rajura Tahsil of Chandrapur District of Maharashtra State. This mine is located in Wirur-Chincholi Geological Block which is the southernmost area with coal bearing strata in Wardha Valley Coalfield. This mine is under the administrative control of Ballarpur Area of WCL, in Chandrapur District of Maharashtra State.

The present leasehold area of Wirur U/G Mine Boundary is 262.07 hectares and the area proposed for mining by MDO will be within the lease hold area itself. The Wirur U/G Mine falls in Wirur-Chincholi Geological Block in Wardha Valley Coalfield.

The proposed Wirur U/G Mine covers 4 sectors i.e., Sector-A (part), Sector-B, Sector-C & Sector-D of the explored Geological Block. The Wirur U/G Mine boundary delineated on the plans appended with this profile is as follows:

North : Arbitrary Line corresponding to approximately nearby to borehole CMWW 50, and Mining Lease hold boundary nearly to Wirur Nala and corresponding approximately nearby to boreholes CMWW 28

South : Fault F₆-F₆ and Mining Lease hold boundary corresponding approximately nearby to boreholes CMWW 4 & CMWW 6

East : An arbitrary line corresponding to Mining Lease hold boundary on the eastern side approximately nearby to boreholes WR 26, CMWW 41, CMWW 45 A, CMWW 38 & CMWW 54

West : Fault F₁-F₁ and Mining Lease hold boundary near to the inclines and on the western side corresponding approximately nearby to boreholes CMWW 6, CMWW 37, CMWW 70, CMWW 15, CMWW 18, CMWW 20, CMWW 29 & CMWW 55

1.2 MINE ACCESSIBILITY

Nearest Airport : Nagpur at a distance of about 210 km

Nearest Railway Station : Wirur Railway Station at a distance of around 1 - 2 km

Approach by Road : 30 km from Ballarpur Area Office and 1 km from Wirur Village

Nearest Seaport : Vishakhapatnam and Mumbai at a distance of approximately 700 km and 860 km respectively.

1.3 HISTORY OF THE MINE / PROJECT

1.3.1 History of mining, mine operators and date of abandonment: -

A Project Report for Wirur Underground Mine was prepared in March 1987 with a target production capacity of 0.32 Mty. This report was approved in July 1995 and the work was started in May 1997. The approved report proposed to enter both Chincholi Seam and Wirur Seam by three mine entries i.e., three inclines. As per the Project Report, the length, cross-section and gradient of Incline No. 1 and 2 (Intake inclines) were proposed as 370m, 4.8m x 2.4m and 1 in 4.5 respectively. The length, cross-section and gradient of Incline No. 3 (Return incline) was proposed as 250m, 4.8m x 2.4m and 1 in 3.0 respectively.

Wirur U/G Mine is having two workable seams namely Chincholi Seam (Upper Seam) and Wirur Seam (Lower Seam) having a thickness range of 0.18m - 3.25m and 0.12m - 2.33m respectively.

Bord & Pillar method of mining with caving was proposed in the approved project report and the mine had produced approximately 22000 tonnes from development of main trunk roadways in Chincholi Seam till its discontinuance. Rest of the property in Chincholi Seam and full property of Wirur Seam are virgin. Date of stoppage of work and abandonment in the mine is July 1999 and April 2000 respectively.

1.3.2 Reasons of discontinuity:

Due to heavy losses, uneconomic and adverse geo-mining conditions, the workings of Wirur U/G Mine were discontinued in July 1999 and abandoned in April 2000.

1.4 COMMUNICATION FACILITIES AVAILABLE:

The block is well connected by both road and rail. The mine is approachable from Wirur Village (about 1 km) and Ballarpur Area Office (about 30 kms) and in turn is connected to Nagpur via Ballarshah, Chandrapur and Warora. Wirur Railway Station is at a distance of about 1 - 2 kms under South central Railway.

1.5 CLIMATE

The area is characterized by semi-arid Climate. The day temperature during summer months (lasting from April to May) rises to as high as 48° C or even higher but winters (November to February) are generally pleasant with minimum temperatures going down to 10° C. The annual rainfall in the area varies between 1000mm to 1500 mm.

1.6 TOPOGRAPHY AND DRAINAGE:

The block is a part of vast plain country in the influence zone of Wardha River. The altitude of the area varies between 166.88m to 191.78m above MSL. The general slope of the ground is towards east. A large hill range with a NW – SE trend is located at about 8 km west of the block. Small seasonal nallas including a little bigger Wirur Nala originating from the hill range run through the block and join into Wardha River, which flows from north to south at a distance of nearly 4 kms from the eastern limit of the block. Wirur Nala is located adjacent to the northern part of the block.

Nearly 40% of the mine area is covered by Chincholi Reserve Forest. Rest 60% of the land is covered by Government Revenue Land, Tenancy Land of Wirur and Dhanora Villages.

1.7 STATUS OF MINING LEASE

1.7.1 Lease-hold area :-

The present leasehold of Wirur U/G Mine is 262.07 hectares approximately.

1.7.2 Land use pattern:-

The land acquisition status under different heads in the Leasehold Area is given as follows:

Sl. No.	Land notified U/s	Tenancy Land (ha.)	Government Land (ha.)	Forest Land (ha.)	Total (ha.)
1	All Rights	24.01	7.41	-	31.42
2	Mining Rights	143.62	38.81	48.22	230.65
3	Surface Rights	-	-	-	-
	TOTAL	167.63	46.22	48.22	262.07

2.0 GEOLOGY

2.1 GEOLOGY OF THE COALFIELD

The general geological sequence of the Wardha Valley Coalfield is given in the following table:

Age	Formations	Lithology
Recent	Detrital Mantle	Black cotton soil, Sandy soil, Kankar etc.
Upper Cretaceous to Eccene	Deccan Traps	Basalts
UNCONFORMITY		
Cretaceous	Lametas	Cherty Limestone, chert, silicified sandstone
UNCONFORMITY		
Upper Permian	Kamthis	Red, brown & variegated sandstone with clay and shale bands
UNCONFORMITY		
Lower Permian	Barakars	Light grey to white sandstone with shale and coal seams
Upper Carboniferous	Talchirs	Greenish to grey coloured sandstone, siltstone and shale
UNCONFORMITY		
Pre-cambrian	Vindhyan	Sandstone and Limestone
UNCONFORMITY		
Archeans	Metamorphics	Gneisses and Schists

2.2 GEOLOGICAL SETUP OF WIRUR MINE

The Wirur-Chincholi block is the known coal bearing area in a stretch of land of unknown potential between Wardha Valley Coalfield in the north and Singareni Coalfield in the south.

The southernmost block of Wardha Valley Coalfield i.e., Sasti-Gouri Block is about 20 kms from northern part of Wirur Block whereas northernmost potential block of Singareni Coalfield is about 60 kms from Chincholi.

A narrow NNW-SSE trending barakars strip (dipping towards East), conformably overlying the Talchirs and unconformably underlying the Kamthi formation, is the general geological set up of Wirur Mine.

The mine area is mostly covered by soil mantle and hence borehole data has revealed the sub-surface geology. The following table furnishes the summarized range thickness of different formations:

Formation	Lithology	Range of thickness (m)	
		Min. (B.H.)	Max. (B.H.)
Soil	Soil & Sandy Shale	Nil (CMWW-6,18)	6.10 (WR-26)
Kamthis	Sandstone, Shale & Clay	10.67 (WR-26)	38.56 (CMWW-26)
Barakar	Sandstone, Shale, Sandy shale, Clay, intercalation of Shale & Sandstone, Carb shale & Coal seams	32.45 (CMWW-55)	150.55 (CMWW-41)
Talchir	Shale, Sandy shale, Fine Grained Sandstone	Not encountered in any borehole	

2.3 DESCRIPTION OF FORMATIONS

The individual formations are described as below:

a) SOIL

The soil mantle in the area is generally sandy soil or reddish soil. At places it is black soil. The range of thickness of soil in Wirur Mine is Nil to 6.10m.

b) KAMTHIS

The Kamthi formation consist of friable medium to vey coarse grained ferruginous, occasionally gritty sandstone with interbedded and intercalated variegated clays. The thickness range variation of this formation for proposed Wirur Mine is 10.67m to 38.56m.

c) BARAKARS

Unlike main Wardha Valley Coalfield, the Wirur-Chincholi block contains 10 correlatable coal horizons distributed over a thickness of about 200m of Barakar strata. These 10 coal horizons are unevenly developed over the area with wide variation in thickness of coal horizons and also parting between them.

The Barakar formation is unconformably overlain by the Kamthi formation. The Barakar formation mostly consists of fine grained to coarse grained sandstone with occasional bands of shale, shaly sandstone and alternate shale and sandstone. The range of thickness of Barakar formation in Wirur Mine area is 32.45m to 150.55m.

d) TALCHIRS

Talchirs have not been intersected in Wirur Mine area. However, in the adjoining property of this mine called Chincholi block, Talchir formation has been intersected. The formation generally consists of greyish green sandstone and olive green shales.

2.4 EXPLORATION STATUS

The area was initially explored by Directorate of Geology & Mining (Maharashtra State). DGM (MS) during the field season from 1967 to 1970 drilled 29 boreholes (WR-1 to WR-29) covering a total meterage of 4343m in an area of 4.31 sq.km. Out of these boreholes, only one borehole (WR-26) falls in the Wirur Mine area.

CMPDI undertook detailed exploration in the block, started drilling operations in June 1982 and completed in November 1984 after drilling 8344.35m in 72 boreholes in an area of 12 sq.km. including 4.31 sq.km. area covered by DGM (MS). Number of boreholes drilled with meterage in Wirur Mine is as follows:

Agency	No. of Boreholes	Metres
CMPDI	28	3486.66
DGM (MS)	1	159.41
TOTAL	29	3646.07

2.5 DIP AND STRIKE

The Wirur-Chincholi Block is apparently a part of the eastern limb of Wardha Valley Coalfield. The strike of formation in this block is generally NNW-SSE and swings to NW-SE with gradient varying from 1 in 7 to 1 in 13 towards east.

2.6 INCROP / OUTCROP OF COAL SEAM (S)

As per the available plans and data, no coal seam incrop / subcrop in the proposed leasehold boundary.

2.7 COAL SEAMS

Unlike main Wardha Valley Coalfield, the Wirur-Chincholi block contains 10 correlatable coal horizons distributed over a thickness of about 200m of Barakar strata. These coal horizons are unevenly developed over the area with wide variations of thickness of coal horizons and parting between them. For a scientific nomenclature of coal horizons, CMPDI adopted numbering of the 10 coal horizons encountered in the drilling from bottom upwards i.e., Seam-I to Seam-X.

The following table furnishes the thickness range of different coal horizons and parting in between along with their thicknesses as encountered in boreholes:

Seam / Seam section	Seam / Parting Thickness (m)	Average UHV (k.Cal./kg)	Average Grade	Remarks
Seam - X	0.07	-	-	Unworkable
Parting	22.84	-	-	
Seam - IX	0.44 - 0.55	-	-	Unworkable
Parting	15.38	-	-	
Seam - VIII	0.10	-	-	Unworkable
Parting	22.38	-	-	
Seam - VII	0.22 - 1.24	-	-	Unworkable
Parting	15.81 - 29.83	-	-	
Seam - VI	0.07 - 0.72	-	-	Unworkable
Parting	19.11 - 27.38	-	-	
Seam - V	0.06 - 2.27	-	-	Unworkable
Parting	31.36 - 46.28	-	-	
Seam – IV (Chincholi Seam)	0.18 - 3.25	4498	D	Workable
Parting	2.43 - 6.52	-	-	
Seam – III (Wirur Seam)	0.12 - 2.33	4553	D	Workable
Parting	12.36 - 16.27	-	-	
Seam - II	0.13 - 1.13	-	-	Unworkable
Parting	19.81 - 20.90	-	-	
Seam - I	0.09 - 0.33	-	-	Unworkable

2.7.1 Description of Workable Coal Seams in the Mining Area

The mining area in Wirur U/G Mine is having ten coal horizons / seams namely Seam-X, Seam-IX, Seam-VIII, Seam-VII, Seam-VI, Seam-V, Seam-IV (Chincholi Seam), Seam-III (Wirur Seam), Seam-II and Seam-I out of which only Coal Seam Horizon-IV (Chincholi Seam) and Coal Seam Horizon (Wirur Seam) are workable and rest eight coal seam horizons are unworkable due to very less thickness and reserves.

Coal Seam Horizon-IV (Chincholi Seam) is having a thickness range of 0.18m to 3.25m. The average thickness is about 2.00m. The seam has been proved between depths from 41.20m to 162.70m. The seam is separated from Wirur Seam by a parting varying from 2.43m to 6.52m. The seam was encountered in all 29 boreholes but has attained workable thickness in few boreholes only. The seam is generally clean in nature however, one or two dirt bands are present and the thickness of obvious dirt band is 0.05m in only one borehole.

In Chincholi Seam, very few pillars in the main trunk roadways have been developed. The rest of the property in this seam is virgin. The depillaring reserves have been estimated in the pillars which are standing in the main trunk roadways of this seam. Leaving aside the developed pillars, panels have been drawn in the virgin area of Chincholi Seam where thickness is more than 1.5m and parting between Chincholi and Wirur Seams is more than 3.0m and then development and depillaring reserves have been estimated.

Coal Seam Horizon-III (Wirur Seam) is having a thickness range of 0.12m to 2.33m with an average thickness of about 1.60m. The seam has been proved between depths 46.33m to 168.85m. The seam was encountered in 25 boreholes but workable thickness is in few boreholes only. The incrop of seam is cut off by a fault F_1-F_1 over the major part of the area. The seam is generally free from obvious dirt bands, however the dirt bands are present in only one borehole.

In Wirur Seam, the whole property is lying virgin. Panels have been drawn in the virgin area of Wirur Seam where thickness is more than 1.5m and parting between Wirur and Chincholi Seams is more than 3.0m and then development and depillaring reserves have been estimated.

2.8 FAULTS

The Wirur U/G Mine area is characterized by about 6 no. of faults (4 no. of dip faults and 2 no. of strike faults) in Geological Block and 5 no. of faults in Mine lease hold boundary. The six faults in Geological Block are Faults F₁-F₁, F₂-F₂, F₃-F₃, F₄-F₄, F₅-F₅ and F₆-F₆. Fault F₂-F₂ is missing in the mine lease hold boundary. Many faults which are minor in nature with a throw upto 5m which may not have been intersected during exploration may encounter during development period in the mine. The details of the six faults as per geological block are given in the following table:

Fault No.	Trend	Direction & Amount of throw	Evidenced by
F ₁ -F ₁	NNW - SSE in western part and N - S in southern part	Easterly, amount of throw is not ascertained	No coal in the upthrown side of this fault
F ₂ -F ₂	E - W	South, amount of throw is not ascertained	Coal seam is not encountered in the boreholes drilled in upthrown side of this fault in boreholes CMWW-51, 52, 53, 48 & 49
F ₃ -F ₃	ENE - WSW	NNW, 10m - 30m	Level difference in the floor of coal seams in BHs CMWW-30 & 28 in the upthrown block and BHs CMWW-50, 32 & 31 in the down thrown block
F ₄ -F ₄	NNW - SSE	WSW, 10m	Level difference in the floor of coal seams in BHs CMWW-54 & 38 in the upthrown block and BHs CMWW-28, 27, 25 & 22 in the down thrown block
F ₅ -F ₅	ENE - WSW	SSE, 2 - 35m	Level difference in the floor of coal seams in BHs CMWW-22 in the upthrown block and BHs CMWW-60, 57 in the down thrown block
F ₆ -F ₆	ENE - WSW	NNW, 18 - 20m	Level difference in the floor of coal seams in BHs CMWW-40 & 58 in the upthrown block and BHs CMWW-6 & 4 in the down thrown block

2.9 INTRUSIVES

No data is available with respect to igneous intrusives.

2.10 OTHER GEOLOGICAL DISTURBANCES

Occurrence of minor faults and other geological disturbances cannot be ruled out.

2.11 IMMEDIATE ROOF AND FLOOR OF COAL SEAM (S)

Immediate Roof and Floor status of Chincholi Seam and Wirur Seam in Wirur U/G Mine area is as below:

CHNCHOLI SEAM:

- a) Roof : The roof of the seam is generally composed of Shale and occasionally of Carbonaceous Shale with alternate Shale and Sandstone.
- b) Floor : The floor of the seam is constituted by the parting with Wirur Seam and is mainly composed of Shale. However, in some cases, alternating Shale and Sandstone are also found to constitute floor of the seam.

WIRUR SEAM:

- a) Roof : The roof of the seam is generally composed of Shale and occasionally composed of Shaly Sandstone, Carbonaceous Shale or alternating Shale and Sandstone and constitutes the parting with Chincholi Seam.
- b) Floor : The floor of the seam is generally composed of Shale and Carbonaceous Shale.

2.12 PHYSICO-MECHANICAL PROPERTIES

The Physico-Mechanical properties are not available for this mine

2.13 QUALITY OF WORKABLE SEAMS

The quality parameters on 60% R.H. and at 40° C basis and calculated on equilibrated analysis of workable section of Chincholi and Wirur Seams are given in the following table:

Name of Seam	Thickness (m)	Moisture (%)	Ash (%)	U.H.V. (k. Cal./kg)	Grade Range
Chincholi Seam	1.37 - 3.25	6.2 - 7.5	21.9 - 34.4	3297 - 4843	'D' to 'F'
Wirur Seam	1.22 - 2.33	5.9 - 7.0	18.7 - 32.0	3670 - 5353	'C' to 'E'

2.14 OTHER TEST AND ANALYSIS

The ash fusion temperature range of the workable section is available for one borehole for both Chincholi and Wirur seams which has been furnished in the following table:

Name of Seam (B.H. No.)	Depth (m)		Ash Fusion Temperature Range			Remarks
	From	To	I.D. Temp (°C)	Hemispherical Temp (°C)	Flow Temp (°C)	
Chincholi Seam (CMWW-3)	84.65	87.29	1160	1360	1390	Including 0.07m and 0.06m carb. shale bands
Wirur Seam (CMWW-13)	71.30	72.88	1150	1380	1400	Free of bands

3.0 COAL RESERVES

The minimum balance Extractable Reserves in the Two Workable Seams i.e., Chincholi Seam [Standing on Pillars + Virgin Area] and Wirur Seam [Virgin Area] works out to approximately 3.15 Mt.

4.0 GEO-MINING CHARACTERISTICS

4.1 Gassiness of coal seam(s)

Degree of gassiness of all the workable seams is Degree - I.

4.2 Water regime

The hydrogeological investigation has not been carried out in Wirur U/G Mine.

4.3 Incubation period of coal seam(s)

In Wirur U/G Mine, only few pillars in main trunk roadways of Chincholi Seam were developed and rest of the property is virgin. The whole area of Wirur Seam is totally virgin. As the mine workings are discontinued in July 1999 and depillaring was not done in Wirur Mine, therefore the incubation period is not available for this mine.

4.4 Cavability of coal seams

In Wirur U/G Mine, only a few pillars in main trunk roadways were developed in Chincholi Seam and rest of the property is virgin. The whole area of Wirur Seam is totally virgin. As the mine workings are discontinued in July 1999, therefore data of cavability characteristics of coal seams is not available for Wirur Mine.

4.5 Important surface features

Wirur U/G Mine was discontinued in July 1999 and no service buildings, inclines and any other surface infrastructure are visible and exists on the surface.

- a. Incline No. 1 & 2 – Sealed and buried under soil
- b. Service Buildings – Dismantled and don't exist on surface
- c. 220 kV & 11 kV HT Line
- d. Wirur Nala on the north side beyond mine lease
- e. Kumbar Bodi Nala along with its HFL
- f. Unmetalled Roads & PWD Road
- g. Wirur Village
- h. Reserve Forest etc

5.0 MAJOR CONSTRAINTS

a) Surface Constraints

1. No major surface constraints as all the surface infrastructure including service buildings are dismantled and doesn't exist on the surface.
2. PWD Road, Internal roads, 220 kV/11 kV Power Line, Wirur and Kumbar Bodi Nala along with its HFL, Reserve Forest etc are passing through the Mine area.

b) Underground Constraints

1. Both the workable seams are geologically disturbed with many number of faults crisscrossing the area.
2. The few pillars which were developed in main trunk roadways of Chincholi Seam are standing since long may be water logged and in very bad condition.
3. The panels have been drawn where thickness of both the workable seams is more than 1.5m and the parting between them is more than 3m.

6.0 PRESENT STATUS

6.1 MINE ENTRIES

Wirur U/G Mine is having two mine entries i.e., two inclines (completed) and an airshaft (completed) which are completely sealed and lying beneath the soil.

Only concrete portion of the roof of the inclines is visible on the surface and the rest portion of the inclines is completely buried under debris. If these mine entries are to be used in future, then they may have to be revived, dewatered and re-supported after completely removing thorny cactus bushes and excavating the soil.

6.2 MINING METHOD

In Chincholi Seam (upper seam), a few pillars have been developed by Blasting-off-Solids in the main trunk roadways by Semi-Mechanised Bord & Pillar method of mining. Wirur Seam is totally virgin.

6.3 STATUS OF MINING

Date of administrative approval, starting of work, stoppage of work, discontinuance and abandonment of Wirur U/G Mine is July 1995, May 1997, July 1999 and April 2000 respectively. Reasons for stoppage of the mine is said to be unsafe, uneconomic and unfavourable geo-mining conditions. The status (development & depillaring) of workable seams are mentioned in the below given table:

SI. No.	Name of Seam	Status
1	Chincholi Seam	In Chincholi Seam, very few pillars in the main trunk roadways have been developed. The rest of the property in this seam is virgin.
2	Wirur Seam	In Wirur Seam, the whole property is lying virgin.

6.4 INFRASTRUCTURE AVAILABLE

6.4.1 Land

The leasehold area of Wirur U/G Mine is 262.07 hectares. The land acquisition status in the Leasehold Area is furnished in the following table:

SI. No.	Land notified U/s	Tenancy Land (ha.)	Government Land (ha.)	Forest Land (ha.)	Total (ha.)
1	All Rights	24.01	7.41	-	31.42
2	Mining Rights	143.62	38.81	48.22	230.65
3	Surface Rights	-	-	-	-
	TOTAL	167.63	46.22	48.22	262.07

6.4.2 Roads and culverts

The Wirur U/G Mine is located nearly 1 - 2 km from Wirur Village and about 30 km from Ballarpur Area Office. The PWD Road from Main highway is a pucca metalled road but internal roads and culverts are kutcha roads.

6.4.3 Plants and machinery

No Plant & Machinery exists in the abandoned/discontinued Wirur U/G Mine.

No Belts and Haulages along with trackline and signaling system are available on the surface or underground in Wirur U/G Mine.

Pumps and pipe lines are not available in this mine.

Main Mechanical Ventilator is not available in this mine.

6.4.4 Power supply and distribution

The source of power supply to Wirur U/G Mine is 11 kV feeder of MSEB Sub-station which is about 1.0 km - 1.5 km from the mine. Presently there is no power supply and supply is disconnected to the mine. No surface and underground sub-station exists in Wirur U/G Mine.

6.4.5 Coal Handling Plant

Presently there is no CHP facility near Wirur U/G Mine.

6.4.6 Water supply and sewerage

No pumping system is available in this mine presently and therefore water supply and sewerage are totally dismantled.

6.4.7 Service and Residential Buildings

Presently, all the service buildings are dismantled and doesn't exist on the surface in Wirur U/G Mine. Residential buildings are in existence under the head of Chincholi U/G Mine. Presently, these residential buildings are occupied by the employees working in the other mines of Ballarpur Area.

6.4.8 Railway siding

Railway Siding doesn't exist in Wirur U/G Mine.

6.4.9 Present Pumping System

Pumping system is not there at present in Wirur U/G Mine.

6.4.10 Present Magazine Details

The portable magazine is presently dismantled as the mine is discontinued / abandoned.

6.4.11 Present Manpower Details

Presently, there is no manpower in Wirur U/G Mine.

6.4.12 Production from Wirur U/G Mine

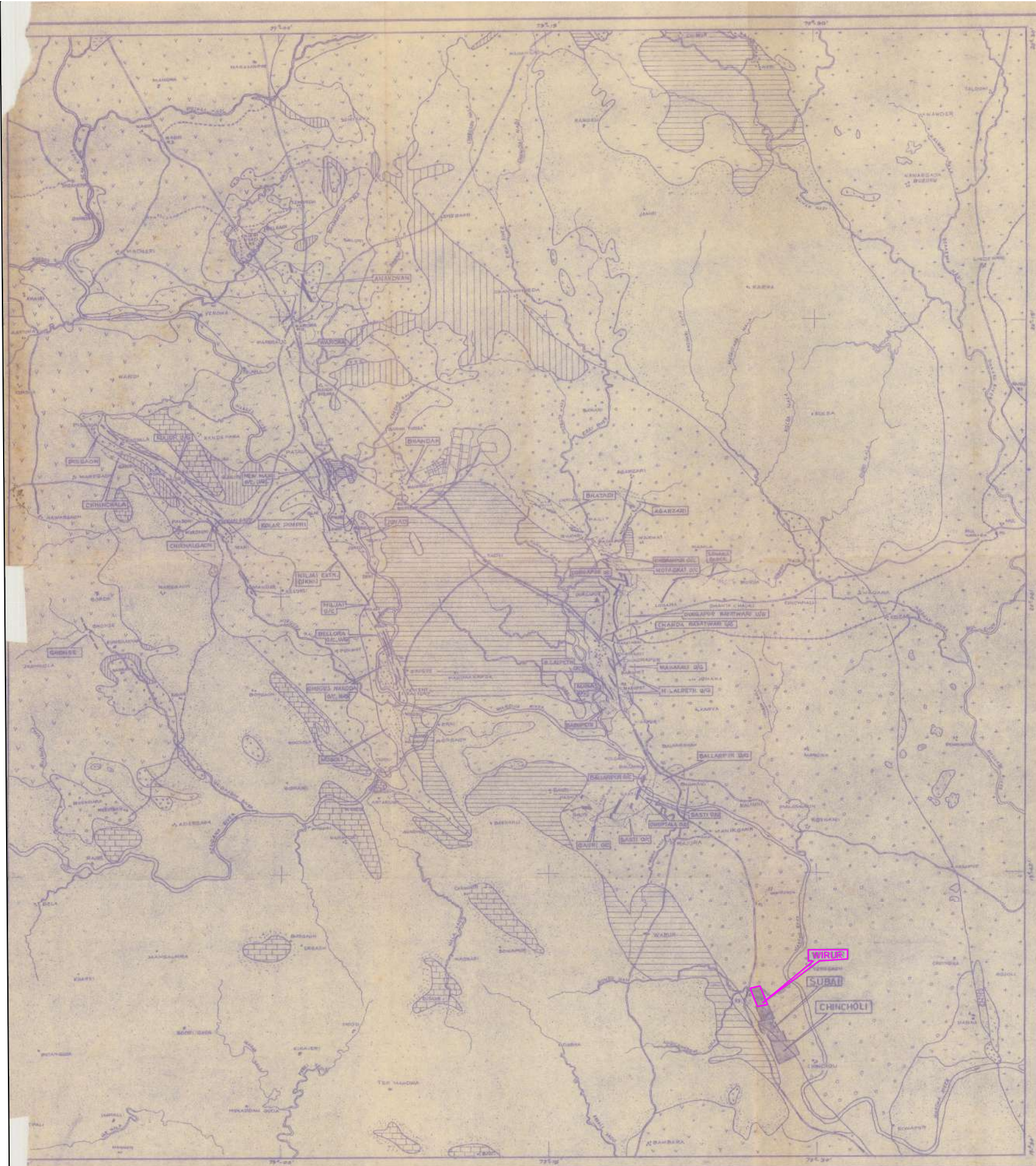
The work in Wirur U/G Mine was started in May 1997 and was stopped in July 1999. Ultimately this mine was abandoned on 01.04.2000. The production from May 1997 to July 1999 is approximately 22000 tonnes before closing of Wirur U/G Mine.

6.4.13 Average Grade of Coal

The average grade of coal seams of abandoned / discontinued Wirur U/G Mine before closing is 'D'.

7.0 PLANS

Sl. No.	Description	Scale/R.F.
1	Location & Geological Plan	N.T.S.
2	Borehole Lithologs	1 : 500
3	Working Plan of Chicholi Seam Showing workings and surface features	1 : 2000
4	Seam Folio and Panel Layout Plan of Chincholi Seam	1 : 5000
5	Seam Folio and Panel Layout Plan of Wirur Seam	1 : 5000
6	Khasra Plan	8" = 1 Mile

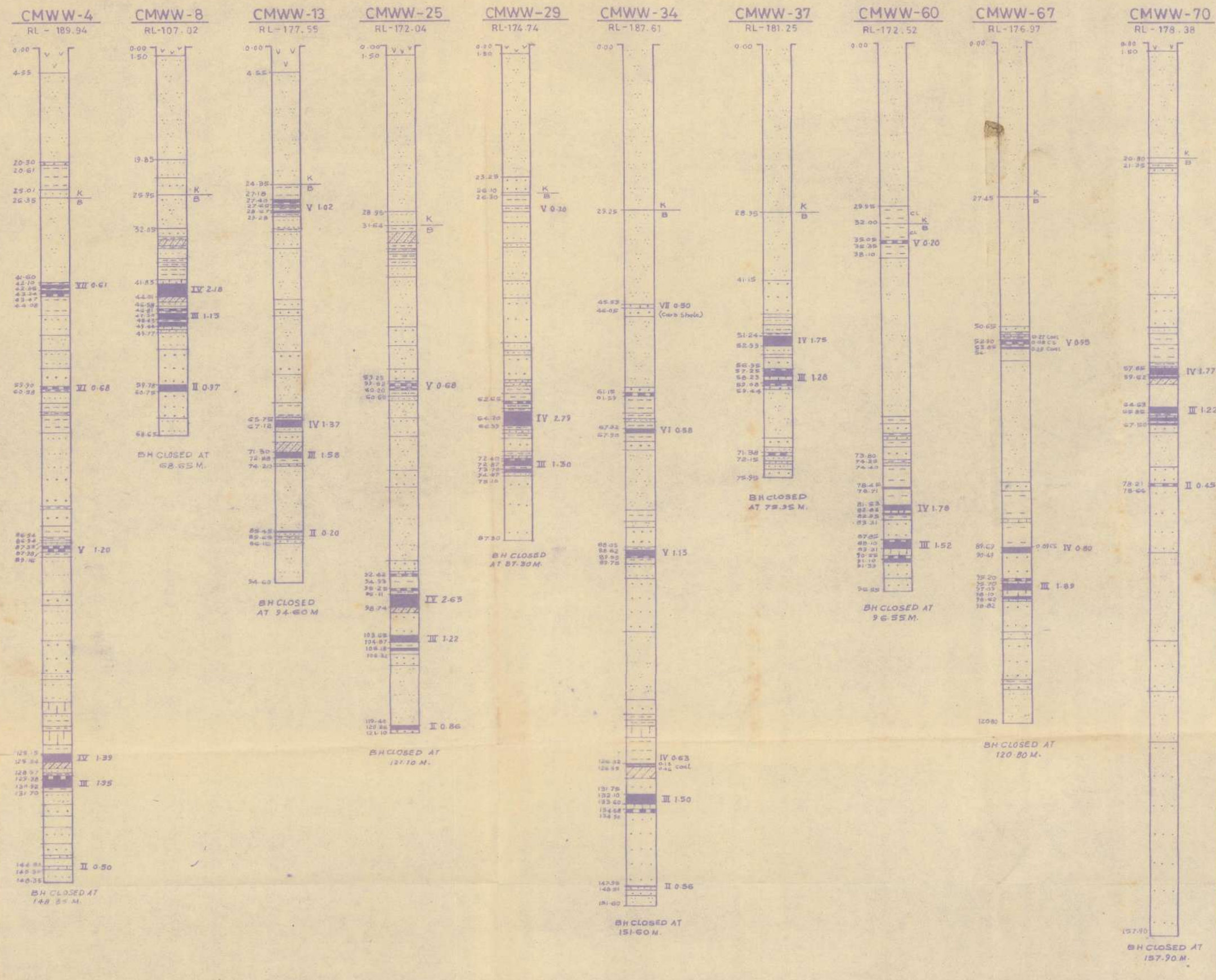


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- THERMAL POWER STATION
- FAULTS
- INCROP OF COAL SEAM
- RIVER/NALA
- RLY LINE
- ROAD

**Central Mine Planning & Design Institute Ltd
NAGPUR**

Project	code
WIRUR, SUBAI & CHINCHOLI MINE	
Subject	Customer
LOCATION & GEOLOGICAL PLAN	W.C.L.
	Area
	WARCHA VALLEY
	Supervised by
 B. S. NAG Dy. C.M.E.	 S. B. SINGH Dy. C.M.E.
 V. S. TAMHANE Dy. S.O.	 D. K. THAKUR Sr. D'Ingr.
Superseded by	
Superseded	
SCALE - 1CM = 2KM	DATE - 9 - 86
DRG No - NS-00481	



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 - SHALY COAL
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NOTE - TRACED FROM DRG No. G.D./1370, 11371, 11372.

Central Mine Planning & Design Institute Ltd NAGPUR			
Project	WIRUR MINE		Code
Subject	BORE HOLES LITHOLOG		Customer W.C.L.
B.S. NAG Dy. C.M.E.		S.B. SINGH Supdt of Mines	V.S. TAMHANE Dy. S.G.
D.K. THAKUR Sr. D'man		superseded by	
SCALE - 1 : 500		DATE - -7-86	DRG No - NS-00480

WESTERN COAL FIELDS LIMITED
BALLARPUR AREA
WIRUR SUB AREA
WIRUR UNDER GROUND MINE

- INDEX:-
- 1) BOUNDARY OF LEASE HOLD / MINE BOUNDARY SHOWN THUS - [Red dashed line] 262.27 Ha
 - 2) LAND ACQUIRED UNDER ALL RIGHTS (Surface & Mining both) SHOWN THUS - [Orange shaded area]
 - 3) TENANCY LAND SHOWN THUS - [Blue shaded area] 24.01 Ha
 - 4) GOVT. LAND SHOWN THUS - [Yellow shaded area] 7.41 Ha
 - 5) LAND ACQUIRED UNDER MINING RIGHT (Only) SHOWN THUS - [Light orange shaded area]
 - 6) TENANCY LAND - [Light blue shaded area] 143.82 Ha
 - 7) GOVT. LAND - [Light yellow shaded area] 113.85 + 20 = 133.85 Ha
 - 8) FOREST LAND - [Green shaded area] 48.22 Ha



**WESTERN COAL FIELDS LIMITED
BALLARPUR AREA
MOUZA PLAN
WIRUR MINE & CHINCHOLI MINE**

SCALE - 8 INCH = 1 MILE
R.F. = 1:7920

- INDEX:-
- 1) AREA ACQUIRED FOR MINING RIGHT
 - 2) AREA ACQUIRED FOR ALL RIGHTS
 - 3) FOREST AREA COVERED UNDER MINING RIGHT
 - 4) VILLAGE BOUNDARY
 - 5) MINING LEASE HOLD BOUNDARY
 - 6) TENANCY LAND
 - 7) GOVT. LAND
 - 8) FOREST LAND
 - 9) OUTER EDGE OF UNDER GROUND WORKING

NOTE:- 1) THIS PLAN HAS BEEN TRACED FROM PLAN NO:- C/J C/WIRUR/15-09-1983
2) OUTER EDGE OF UNDER GROUND WORKINGS OF WIRUR MINE TAKEN FROM PLAN NO:- W/D/K DT 01-04-1958
3) OUTER EDGE OF UNDER GROUND WORKINGS OF CHINCHOLI MINE TAKEN FROM PLAN NO:- APP/DT 30-05-1995 AND PLAN NO:- C/U/A/DT 26-05-2000

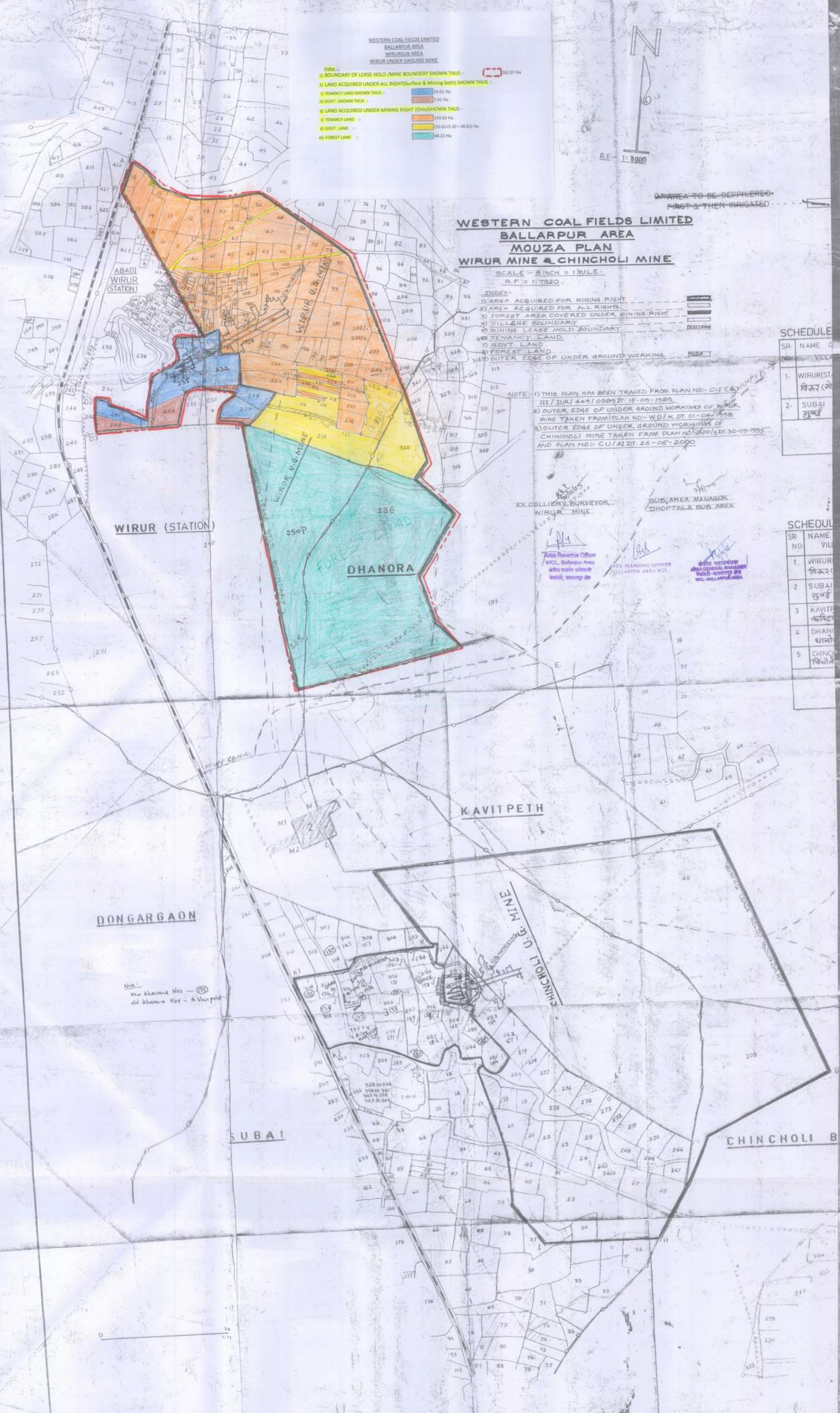
SCHEDULE

SR. NO.	NAME OF VILLAGE
1.	WIRUR (STATION)
2.	SUBAI

SCHEDULE

SR. NO.	NAME OF VILLAGE
1.	WIRUR (STATION)
2.	SUBAI
3.	KAVITPETH
4.	DHANORA
5.	CHINCHOLI B

EX. COLLIER & SURVEYOR, WIRUR MINE
SUB AREA MANAGER, DHOPTALA SUB AREA
Area Revenue Officer, WCL, Ballarpur Area
Area Planning Officer, Ballarpur Area WCL
Sub Area Manager, Ballarpur Area WCL



WIRUR (STATION)

DHANORA

KAVITPETH

DONGARGAON

SUBAI

CHINCHOLI B

Note:-
New Khanna Nos - 155
old Khanna Nos - A blue print