



**GOVERNMENT OF TELANGANA
GROUND WATER DEPARTMENT
REPORT ON FEASIBILITY OF GROUNDWATER STRUCTURES UNDER TSWALTA FOR
DOMESTIC WATER PURPOSE**

**OFFICE OF THE DISTRICT GROUND WATER OFFICER,
GROUND WATER DEPARTMENT, MEDCHAL DISTRICT.**

I GENERAL

- 1 Investigation conducted by : Dr.G.Deepa Reddy
- 2 Date and duration of investigation : 18.01.2021
- 3 Name of the beneficiary/ Organisation : Sri.S.Sambeshwar Rao
- 4 Purpose of investigation and requirement of water : Domestic Purpose
- 5 Location: :
House No. : Plot.No.Open Plot
Locality & Colony Name : Pocharam (V)
Mandal : Ghatkesar
District : Medchal -Malkajgiri
Survey No. if available : 27
Extent of plot area (Sq.Yards) : 6195.2 Sq.Yards
Coordinates : Latitude / Longitude : N 17° 25' 58.0", E 78° 38' 42.6"

II PHYSIOGRAPHY AND DRAINAGE

- 1 Topography : Undulating and Sloping towards East
- 2 Soil type and thickness : Red Sandy Soil 0.5-1.5m
- 3 Drainage pattern : Sub dendritic
- 4 Elevation (MSL) in m. : 459m
- 5 Sub-basin name, categorisation and stage of development in the basin : MdcI_D_47_Ghatkesar
- 6 Average annual rainfall in mm. : 748.4mm
- 7 Tanks/Reservoirs/ canals. : NIL
- 8 Proximity to surface water bodies : NIL
- 9 stream / River [specify the nature: influent/effluent] : NIL
- 10 Command/Non-Command : Non-Command

III HYDROGEOLOGICAL CONDITIONS

- 1 Geology of the area [Rock type and texture] : Archean Granites. Medium Grained
- 2 Average thickness of weathered zone / Fracture Zone : 0-12m(Weathered)/12-20m(Semi Weathered)/20-50m(Fractured/jointed)
- 3 Structural controls if any : NIL
- 4 Depth range of wells in the area in m. :
1] Dug well : NIL
2] Bore wells : 100-120m
- 5 Yield range of wells :
1] Dug well {lpd} : NIL
2] Bore wells {lph} : 30-40 lpm
- 7 Location of nearest piezometer, depth to water level in the piezometer and water level trend. : Ghatkesar dtwl 3.48 m,Trend is falling

IV Hydrogeological Evidence:

Well inventory in surrounding area

S.No	Type of well	Name of the owner	Survey No.	Dia and depth of well in m(Reported)	SWL in m.bgl (Report ed)	Mode of lift with HP	Yield in lph and hours of pumping (Reported)	Cropping pattern and area irrigated in ha. Kharif/Rabi	Remarks
1	Bore well	Sadbhavana		165mm dia	5.0m	E.M.	30 lpm	Domestic purpose	
2	Bore well	Pocharam Municipal Office		165mm dia	5.3m	E.M.	40 lpm	Domestic purpose	

V RESULTS OF GEOPHYSICAL INVESTIGATIONS:

VES No.	P ₁	H ₁	P ₂	H ₂	P ₃	H ₃	P ₄	H ₄		H
		Geophysical Investigations Could not be carried out due to limited extent of the area , existing surrounding buildings and roads								

Geophysical inferences:

VI QUALITY OF GROUNDWATER : Suitable

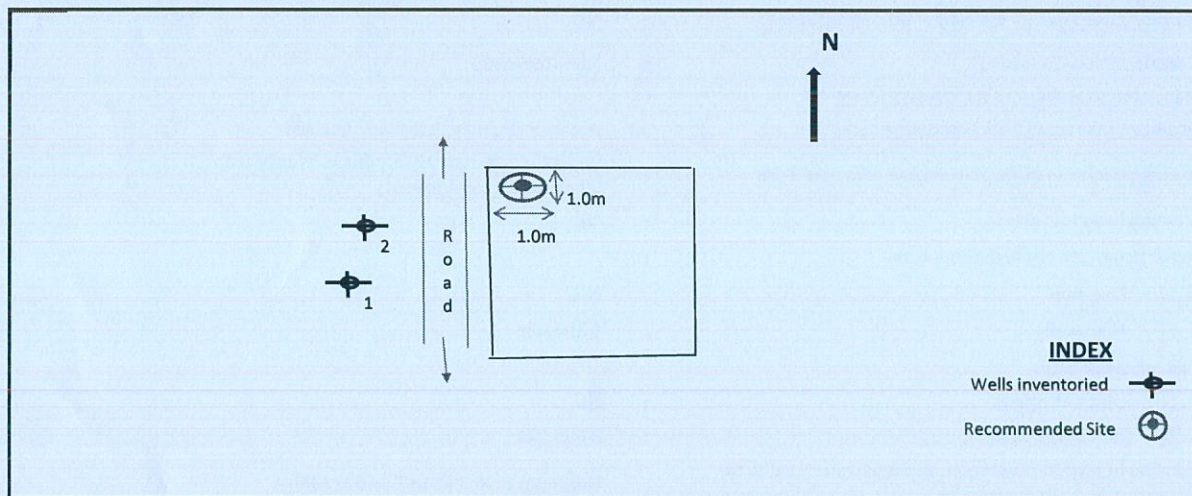
VII SUGGESTIONS FOR IMPROVING RECHARGE TO GROUND WATER :

Ground Water Recharge pit of size 311.40 Cu.m (4mx4mx4m) is suggested in Northwest corner of the plot to augment ground water regime for sustained functioning of bore well

VIII CONCLUSIONS AND RECOMMENDATIONS

- 1 Justification for Recommending / Rejecting the site : Hydrogeological investigations reveal that the investigated area is favorable for construction of borewell for Domestic purpose.
- 2 Justification for Recommending / Rejecting the site :
- a) Type of Well : Borewell
- b) Distance of nearest well : Not Applicable
- c) a) Depth in Meters : 100m
- d) b) Dimensions in Meters / mm. 114mm(4 1/2 inches)
- e) Expected Yield. : 30-40 lpm
- 3 Date of submission of report : 19.01.2021

IX SKETCH OF THE AREA (Not to Scale) :



D2024
19/1/2021
SIGNATURE OF THE INVESTIGATING OFFICER

Approved By
K. Rasthi
20/01/2021
DISTRICT GROUND WATER OFFICER