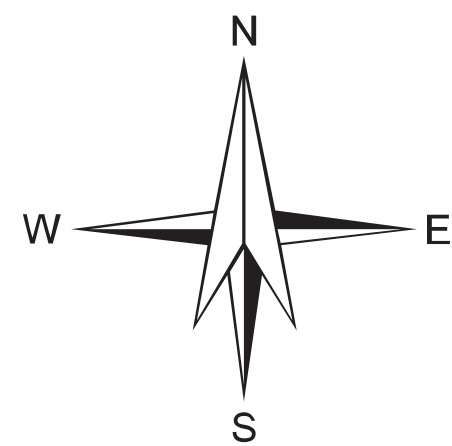
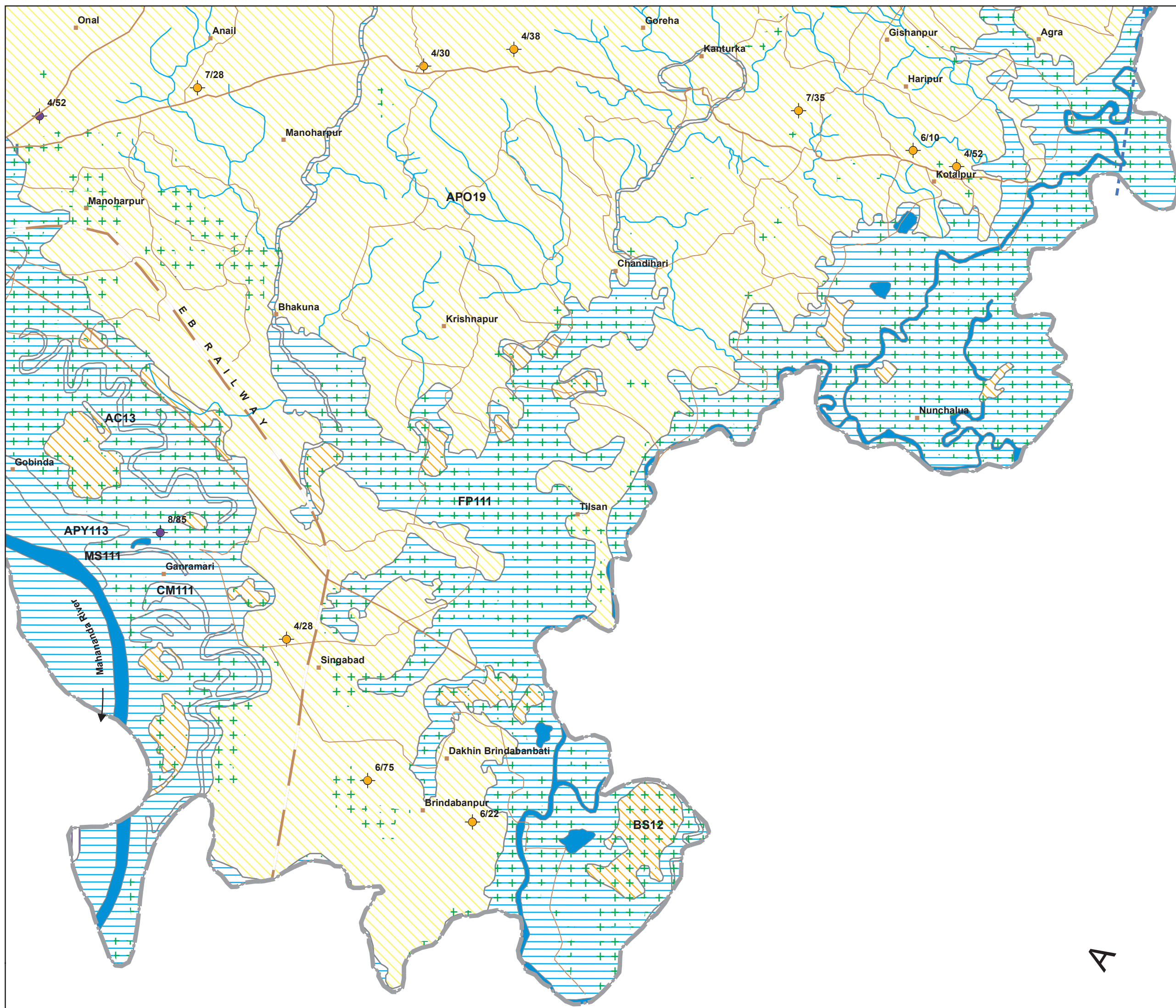


(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)



MAP SHEET NO. 78D/5



MALDA DISTRICT, WEST BENGAL

MAP UNIT (HYDROGEO MORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHABETIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)	GEOLOGICAL SEQUENCE / ROCK TYPE (REPRESENTED IN THE MAP WITH NUMERIC CODE)	GEOMORPHIC UNIT / LANDFORM (REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	DEPTH TO WATER LEVEL PRE / POST-MONSOON (AVERAGE IN METERS) NO. OF WELLS OBSERVED	RECHARGE CONDITIONS BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	GROUND WATER PROSPECTS							RECHARGE STRUCTURES SUITABLE & PRIORITY PT = PERCOLATION TANK CS = CHECK DAM NS = NALA BARRI DW = DISCHARGE WELL ST = STORAGE TANK ST = STORAGE TANK DWM = DUG CONSERVATION MEASURES	RE MARKS (PROBLEMS / LIMITATIONS)	
					AQUIFER MATERIAL LS = LOOSE SEDIMENTS PS = POROUS ROCK FR = FRACTURED ROCK PR = PRACTURED ROCK WR = WEATHERED ROCK MR = METAMORPHIC MATERIAL R = IMPERVIOUS ROCK	TYPE OF WELLS SUITABLE DW = DUG WELL MW = MINI WELL SW = SLOPE WELL TW = TUBE WELL DWM = DUG CONSERVATION WELL DWM = DUG CONSERVATION WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m ³ / HR)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY) VERY HIGH HIGH MODERATE LOW	QUALITY OF WATER (NON - POTABLE INF) (FRESH RECHARGE NON POTABLE)	GROUND WATER BRIGATED AREA (APPROX. RANGE IN PERCENTAGE)			
	Shallow Formation (Present Day) (Present Day)	Cut-off Meander (CM)	No Well Observed	Very Good	LS	RW TW	10-20 m	300-400 LPM	Very High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge.	
		Alluvium (Sand Dominant) (111)	Meander Scar (MS)	No Well Observed	Very Good	LS	RW TW	10-15 m	200-250 LPM	High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge.
		Flood Plain (FP)	$\frac{10 / 7}{1}$	Very Good	LS	TW	<30 m	250-350 LPM	Very High	P	98	Not Required	Receives good recharge and forms shallow aquifer. Overall quality of the water is potable.	
	Maids/Jalpaigur / Ganga - Kosi Formation (Early Pleistocene to Holocene)	Alluvium (Clay Dominant) (12)	Back Swamp (BS)	No Well Observed	Poor	LS	TW	60-70 m	40-50 LPM	Low to Moderate	P	75	Not Required	Areas of low groundwater potential. Better potential at greater depths.
		Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	No Well Observed	Good	LS	TW	25-30 m	200-250 LPM	High	P	98	Not Required	Highly productive aquifer at shlow depth with good recharge.
		Alluvium (Sand/Silt & Clay) (13)	Abandoned Channel (AC)	No Well Observed	Excellent to Very Good	LS	RW TW	10-15 m	250-300 LPM	Very High	P	Nil	Not Required	Highly productive shallow aquifers with good recharge from base flow.
	Barind Formation (Late Pleistocene to Holocene)	Alluvium (Silt Dominant) (Caliche & Fe-Nodules Bearing) (19)	Alluvial Plain Older (APO)	$\frac{6 / 3}{10}$	Moderate	LS	TW	50-60 m	75 - 100 LPM	Moderate	P	25	Not Required	Shallow aquifers form due to clayey sediments. Aquifers occur at greater depth.
F --- F / --- / --- These are fault / fracture zones, which generally act as conduits for movement of ground water in hard rocks. Along these zones, the yields are significantly higher and wells are likely to be sustainable for longer duration. However, the inferred fractures need to be confirmed by detailed ground surveys.														
D --- D / Q --- Q / P --- P D --- D / Q --- Q / P --- P These are dykes, quartz reefs and pegmatite veins, which generally act as barriers for ground water movement.														
N.B. The depth range and yield range of wells may vary within the unit because of certain inhomogeneities. Fractures/lineaments which are clearly observed / inferred from the satellite image are indicated on the map. There could be some obscured fractures which also influence the ground water prospects. Locations of the recharge structures shown in the map are tentative. This map is useful for narrowing down the target zones, and exact location on the ground for wells and recharge structures should be identified based on follow-up ground hydrogeological/geophysical surveys.														

F. ____ F. ____ / ____ - - -

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