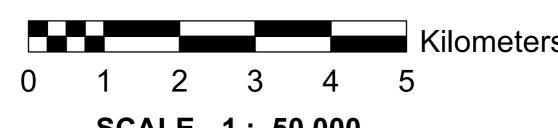
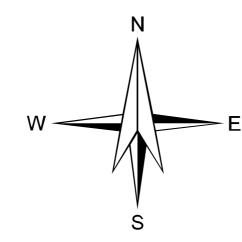
GROUND WATER PROSPECTS MAP

(PREPARED FROM SATELLITE IMAGE INTERPRETATION WITH LIMITED FIELD CHECKS)





SCALE - 1: 50,000 MAP SHEET NO. 79B/1 NRSC (ISRO), DEPT. OF SPACE, GOVT. OF INDIA DATA USED: IRS - P6 LISS III FCC dated September 2005-February 2006, GROUND TRUTH & WELL OBSERVATION during March-June, 2012 & Oct 2012-Jan 2013, Published Geological maps & Literatures. Designed & Developed by Hydrogeology Division, NRSC, ISRO L E G E N D

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MAP UNIT	GEOLOGICAL SEQUENCE / ROCK TYPE		GEOMORPHIC UNIT / LANDFORM	DEPTH TO WATER LEVEL	RECHARGE CONDITIONS	GROUND WATER PROSPECTS					RECHARGE STRUCTURES			
(HYDROGEOMORPHIC UNIT) REPRESENTED IN THE MAP WITH ALPHANUMERIC CODE (COLOUR INDICATES YIELD RANGE AND HATCHING INDICATE DEPTH RANGE)		(REPRESENTED IN THE MAP WITH NUMERIC CODE)	(REPRESENTED IN THE MAP WITH ALPHABETIC CODE)	PRE / POST- MONSOON (AVERAGE IN METERS) NO. OF WELLS OBSERVED	BASED ON AVAILABILITY OF WATER (RAINFALL & OTHER SOURCES)	AQUIFER MATERIAL LS = LOOSE SEDIMENTS PR = PERMEABLE ROCK FIR = FISSURED ROCK FR = FRACTURED ROCK WR /= WEATHERED ROCK / WM WEATHERED MATERIAL IR = IMPERIVIOUS ROCK	TYPE OF WELLS SUITABLE DW = DUG WELL RW = RING WELL BW = BORE WELL TW = TUBE WELL DBW / = DUG CUM-BORE WELL / DTW DUG CUM-TUBE WELL	DEPTH RANGE OF WELLS (SUGGESTED) MIN - MAX (IN METERS)	YIELD RANGE OF WELLS (EXPECTED) (in LPM or m / day)	HOMOGENEITY IN THE UNIT & SUCCESS RATE OF WELLS (PROBABILITY) VERY HIGH HIGH MODERATE LOW	QUALITY OF WATER POTABLE (P) NON - POTABLE (NP) (INDICATE REASONS IF NON POTABLE)	GROUND WATER IRRIGATED AREA (APPROX . RANGE IN PERCENTAGE)	SUITABLE & PRIORITY PT = PERCOLATION TANK CD = CHECK DAM NB = NALA BUND RW = RECHARGE WELL DT = DESILTING OF TANK RP = RECHARGE PIT SD = SUBSURFACE DYKE RS = RECHARGE SHAFT ST = STORAGE TANK SCM = SOIL CONSERVATION MEASURES	REMARKS (PROBLEMS / LIMITATIONS)
	ura/Katwa/Basudebpur Holocene)	Alluvium (Sand and Silt) (113)	Alluvial Plain Younger (APY)	10 / 6 84	Good	LS	TW	>150 m	400-500 LPM		NP (As&Fe) (At shallow depth)	99.9	RW Low	Areas with high Arsenic and Iron concentration.Potable water available at depth range above 150 m. Recharge of shallow aquifer recomended.
	Panskura/Arambagh/Chinsı (Early to Late	Alluvium (Sand,Silt & Clay) (13)	Abandoned Channel (AC)	No well observed	Very Good	LS	RW	10-15 m	250-300 LPM	Very High	P	8.77	Not Required	Areas of very high groundwater potential at shallow depth.Most suitable for extraction of groundwa
F// — D/QQ	/ <u>P</u> F	These are dykes, o	quartz reefs and pegmatite	e veins, which generally unit because of certain i	act as barriers for gr	ound water movement.	e clearly observed / infer	red from the satellit	e image are indica	ated on the map. Th	vere could be some	obscured fractur	onfirmed by detailed ground surve	ound water prospects.

GROUND WATER PROSPECTS INFORMATION	HYDROLOGICAL INFORMATION	STRUCTURAL INFORMATION	BASE MAP INFORMATION	LOCATION INFORMATION		
YIELD COLOUR DEPTH RANGE OF WELLS	DESCRIPTION SYMBOL	DIPS BEDDING SCHISTOSITY/ FOLIATION	SYMBOL DESCRIPTION	STATE INDEX DISTRICT INDEX		
RANGE CODE SHALLOW MODERATE DEEP OF WELLS < 30 METERS 30 - 80 METERS > 80 METERS	CANAL / TANK IRRIGATED AREA	GENTLE (<15)	NH - 2 NATIONAL HIGHWAY	A-BIRBHUM B-BARDDHAMAN		
SU METERS SU-OU METERS SOUNDETERS	GROUND WATER IRRIGATED AREA	MODERATE (15 - 45)		C-PURULIYA D-BANKURA E-PASCHIM MEDINIPUR		
> 800 LPM VIOLET	RIVER / STREAM (with sand)	STEEP (45 - 80)	SH - 9 STATE HIGHWAY	F-PURBA MEDINIPUR G-SOUTH 24 PARGANAS		
	WATER BODY / SPRING	SUB - VERTICAL TO VERTICAL (> 80)	METALLED ROAD	H-HOWRAH I- KOLKATA J-N24 PARGANAS		
400 - 800 LPM INDIGO	CANAL	ANTICLINE / ANTIFORM ←←	OTUED BOAD	INDIA		
	RAIN GUAGE STATION (With average annual rainfall in mm)		OTHER ROAD	C D		
200 - 400 LPM BLUE	PERCOLATION TANK CHECK DAM	SYNCLINE / SYNFORM	RAILWAY	WEST E H		
	NALA BUND RECHARGE WELL	TREND LINE		BENGAL K-HUGLI		
100 - 200 LPM GREEN	SUBSURFACE DYKE	2 1	CITY / VILLAGE	M-MURSHIDABAD N-MALDA		
	MEASURES STORAGE TANK	ESCARPMENT	HABITATIONS : NON - COVERED (NC)			
50 - 100 LPM YELLOW	WELLS OBSERVED DURING FIELD VISIT YIELD RANGE BORE / YIELD RANGE DUG WELL / IN LPM TUBE WELL IN m³/day RING WELL	LITHOLOGY / GEOMORPHIC UNIT BOUNDARY	PARTIALLY COVERED (PC)			
	> 800 LPM	MINOR MAJOR	BOUNDARY:	BLOCK INDEX MAPSHEET INDEX		
30 - 50 LPM ORANGE	400 - 800 LPM	FAULT F F F F F F F F F F F F F F F F F F F	INTERNATIONAL	73M16 79A04 79A		
	200 - 400 LPM	THRUST T T T	STATE	К6		
20 - 30 LPM BROWN	50 - 100 LPM	FRACTURE / LINEAMENT	DISTRICT			
	30 - 50 LPM	(Inferred)	BLOCK	73N13 79B01 79E		
10 - 20 LPM PINK	20 - 30 LPM	SHEAR ZONE (Confirmed / Inferred) S S/S S/S S/S	OTHER INFORMATION	K9		
Prospects	10 - 20 LPM	DYKE (Confirmed / Inferred)		73N14 79B02 79B		
limited to valley portions only (Hills, Plateaus	< 10 LPM	QUARTZ REEF (Confirmed / Inferred)	Rainfall: 1477 mm	K9-HARIPAL K13-PANDUA		
etc.) RED	hand side of well indicate the depth to water level and depth of well in meters DUG - CUM- BORE WELL HAND PUMP WELL	PEGMATITIE VEIN (Confirmed / Inferred)	(Source IMD)	K10-JANGIPARA K14-POLBA & DADPUR K3-CHANDITALA I K17-SINGUR K4-CHANDITALA K18-TAREKESWAR		
Run-off zone/ Barrier for G.W. movement (Inselberg / Ridge / Dyke etc.)	ARTESIAN WELL OBSERVATION WELL OF G.W DEPT. / C.G.W.B.	Lithologic contacts are inferred at places & Geomorphic boundaries are gradational	(Source IMD)	K6-DHANIAKHALI B1-JAMALPUR		
PREPARED BY	TECHNICAL GUIDANCE & QUALITY CHECK	PARTICIPATING ORGANIZATIONS	METHODOLOGY & PROJECT EXECUTION	SPONSORED BY		
GEOINFORMATICS & REMOTE SENSING CELL	इसरो ंड्राच		इसरो । डान्च	RAJIV GANDHI NATIONAL DRINKING WATER MISS (PHASE IV) DEPARTMENT OF DRINKING WATER SUPPLY (DD MINISTRY OF DRINKING WATER & SANITATION GOVERNMENT OF INDIA		
B. STATE COUNCIL OF SCIENCE AND TECHNOLOGY	NATIONAL REMOTE SENSING CENTRE	SURVEY OF INDIA GEOLOGICAL SURVEY OF INDIA	NATIONAL REMOTE SENSING CENTRE			
DEPARTMENT OF SCIENCE AND TECHNOLOGY GOVERNMENT OF WEST BENGAL	INDIAN SPACE RESEARCH ORGANISATION (ISRO)	PHED, GOVT. OF WEST BENGAL	INDIAN SPACE RESEARCH ORGANISATION (ISRO)			
4TH FLOOR, BIKASH BHAVAN	DEPT. OF SPACE, GOVT. OF INDIA	STATE WATER INVESTIGATION DIRECTORATE, GOWB	DEPT. OF SPACE, GOVT. OF INDIA			
SALT LAKE, KOLKATA 700 091	BALANAGAR, HYDERABAD - 500 625	P.S.MAPS (LAND RECORD), GOVT OF WEST BENGAL	BALANAGAR, HYDERABAD - 500 625	NEW DELHI		