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IDENTIFICATION OF GROUNDWATER VEINS USING GROUNDWATER DETECTOR

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ABSTRACT:

Groundwater is the principle wellspring of water system in larger part ranges of Maharashtra. The investigation of ground-water is for the most part through borewells, because borewell require less time and land. The costs for borewells are additionally less when contrasted with dugwells. Selection of borewell site is vital. The 100% outcome for aquifer ID is outlandish, yet solid groundwater concentrate on surrenders result to 90 %. The yield of groundwater through borewell relies on how much water veins cut amid penetrating of borewell. Henceforth, site choice of borewell is critical element.

Key Words: aquifer identification , Groundwater , permeability.

INTRODUCTION

At present, the vast majority of the hydrologist utilizes the resistivity meter, seismic clock instrument for site choice

of dugwell and borewell. This instrument gives the data of plausible shake sorts, porosity and porousness, with this information reasonable locales were chosen. Consequently, the achievement rates are exceptionally constrained, in light of the fact that in this strategy we can not discover Water veins. Prior the ground water veins can't be recognized by instruments. The yield of aquifer relies on the event of water veins amid penetrating the borewell; Recently , one propelled instrument came in the market, to be specific , FRESH RESULT, long fury water locator stream 1 and 2 demonstrate. This instrument identifies the great aquifer zone, number of water veins with their likely profundity. The paper uncovers the ID of water veins with their likely depth. This concentrate likewise comprehend aquifer conditions in the zone.

OBJECTIVES:-

1. Identification of aquifer zones in the zone.
2. Priority astute site choice for borewell.
3. Identification of number of water veins in chose destinations.
4. Determine likely profundity of water veins.
5. Final choice of bore well site considering high return and least profundity .

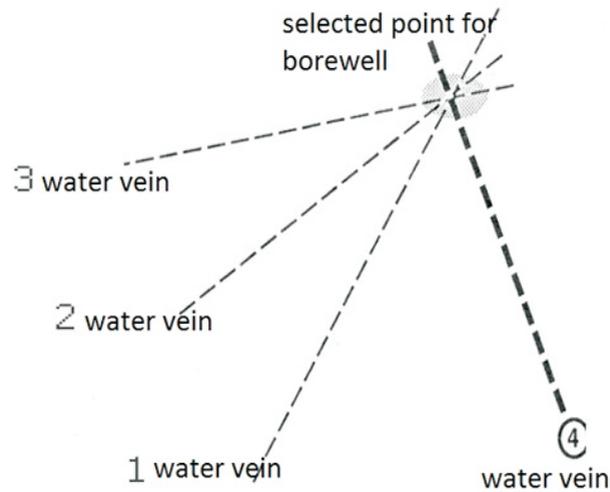
METHODOLOGY:-

The aquifer zones were recognized in solapur, Osmanabad and Latur areas in Maharashtra, India by utilizing water identifier stream 1 model (GER-German made). The aquifer areas were chosen considering parameters of most extreme yield of ground water veins & extension of water



veins etc. For accomplishing this goal, following techniques have been embraced.

- 1) In each site, Area of examination was chosen considering the enthusiasm of proprietor, deterrent of electric, phone lines, trees, and so forth.
- 2) Aquifer Points were chosen considering yield of Aquifer and their profundity. The area of the fact of the matter were chosen by utilizing water locator, the total pivot shows ideal focuses
- 3) All these focuses were numbered by value of yield of ground water & their profundity.
- 4) The water veins were distinguished from the chose borewell focuses. This water veins recognized by utilizing water indicator by entire upset around the chose point, keeping four feet remove, least two and most extreme four water veins distinguished.





Aquifer occurrence of selected location

- 5) The profundity of distinguished water veins were resolved according to the methodology recommended by GER organization. The strategy embraced is as strolling from chose point on the way of water veins. At one phase the reception apparatus of instrument returns 180 and starting there, separation was measured in feet. This separation duplicated by 15 is the plausible profundity of water vein. The profundity of residual water veins were figured.
- 6) The profundity of bore all around assessed, considering the high profundity water vein. Around 50 feet additional profundity included for weathering material, collapsible material and so on.

Observations:- The number of water veins and their depth were calculated in different localities are as follows.

Sr no	Locations	w.v.I depth in ft.	w.v.II depth in ft.	w.v.III depth in ft.	w.v.IV depth in ft.	Expected depth of bore well	Yield in inch	Remarks
1	Bembliosmanabad	220	340	422	-	472	0.75	Less than expected
2	Patasosmanabad	180	240	310	410	460	2.50	Greater than expected
3	Loharaosmanabad	210	260	350	-	400	2.00	As expected
4	Beed	80	190	280	350	400	1.50	As expected
5	Yermala	290	310	480	-	530	1.50	As expected
6	Pandharpuraadiv	220	240	360	-	410	0.75	Less than expected
7	Solapur manidhari1	190	230	382	-	432	1.50	As expected
8	Solapur manidhari2	110	280	360	410	460	0.75	Less than expected

9	Solapur manidhari3	210	260	290	-	340	3.50	Greater than expected
10	Solapurjule area	215	298	315	-	365	1.50	As expected
11	Solapurjule area	170	282	314	390	440	2.0	As expected
12	Latur city1	160	198	390	422	472	2.25	As expected
13	Latur city2	142	195	290	-	340	2.00	As expected
14	Latur city3	188	197	340	-	390	1.5	As expected
15	Wadala N.solapur1	98	210	390	-	440	2.25	As expected
16	Wadala N.solapur2	113	220	320	380	430	2.00	As expected
17	Mardi N.solapur	140	240	380	410	460	1.5	As expected

CONCLUSION-

The great aquifer zones were happened simply after ID of veins & their profundity. This is the main instrument which recognize ground water veins and their profundity. The point by point investigation of Aquifer, lessens the fizzle bore well costs. The best possible choice of bore well areas expands water system and such areas are extremely reasonable for rain water reaping.

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