



केंद्रीय भूमि जल बोर्ड

जल संसाधन, नदी विकास और गंगा संरक्षण मंत्रालय

भारत सरकार

Central Ground Water Board

Ministry of Water Resources, River Development and Ganga

Rejuvenation

Government of India

AQUIFER MAPPING REPORT

Parts of Jorhat and Golaghat Districts, Assam

उत्तरी पूर्वी क्षेत्र, गुवाहाटी

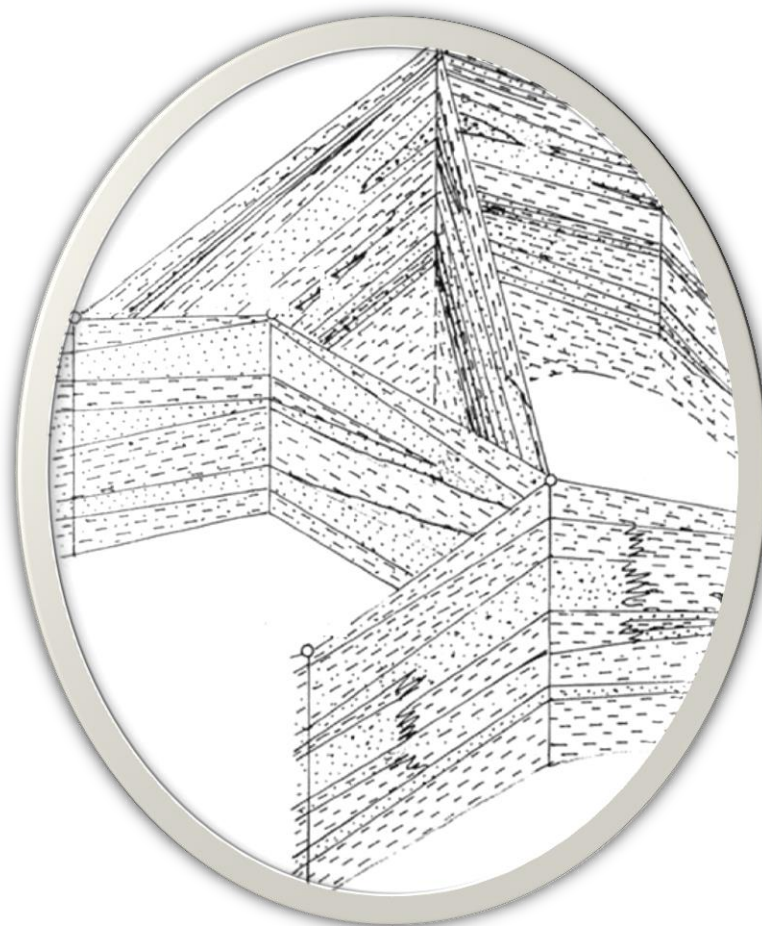
North Eastern Region, Guwahati

Govt. of India

Ministry Of Water Resources, River Development & Ganga Rejuvenation

Central Ground Water Board

**AQUIFER MAPPING
IN PARTS OF JORHAT AND GOLAGHAT DISTRICTS,
ASSAM**



January 2016

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

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1. INTRODUCTION

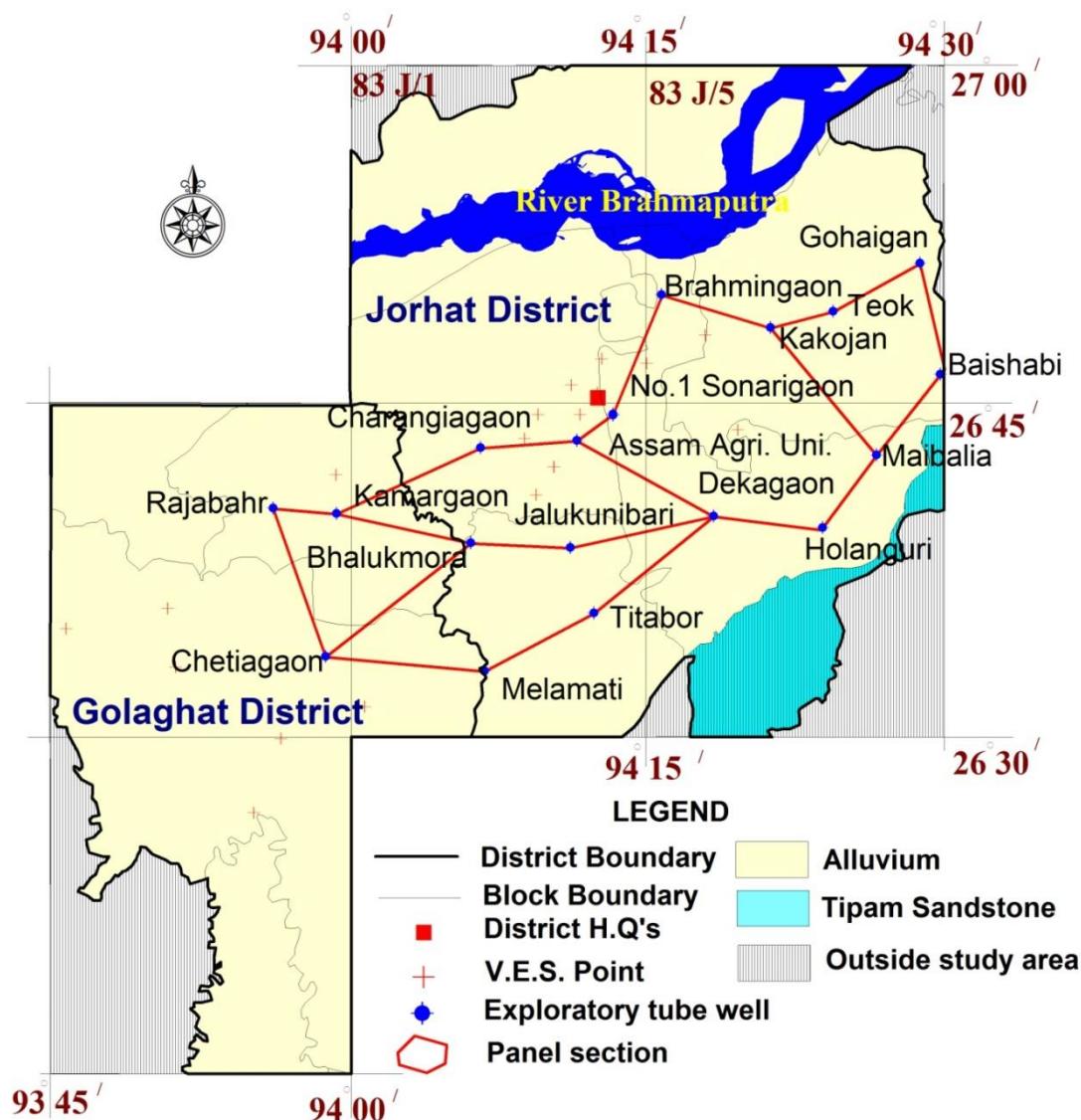
An area of 3100 sq km falling in parts of Jorhat (1860 sq. km) and Golaghat (1240 sq km) districts of Assam was covered under aquifer mapping as per the Annual Action Plan 2012-13 and 2013-14 of Central Ground Water Board, North Eastern Region, Guwahati.

The study area falls under Survey of India toposheets no. 83 J/1, 83 J/2, 83 J/4, 83 J/5, 83F/14, 83F/15 and 83F/16 lies between 25° 26' and 27° North Latitudes and 93° 30' and 94° 15' East longitudes. The study area lies mostly in the southern part of the Brahmaputra River.

As per 2011 census report total population of Jorhat and Golaghat districts are 10, 91,295 and 10, 58,674 respectively. As per 2011 Census total population of the Jorhat and Golaghat districts are 10,91,295 and 10,58,674 respectively. The population densities as per 2011 Census in Jorhat and Golaghat districts are 380 /km² and 305 /km² respectively.

Almost the entire area occupied by the Quaternary sediments of Middle Holocene to present day, except for a small portion in the southeastern part occupied by Tipam Sandstone formation of Tipam Group of Miocene to Pliocene age. The rock types of the Tipam Sandstone formation consist of thick bedded ferruginous sandstone with interbands of siltstone and clay.

The area of study showing geology, exploratory wells and panel section is shown below.



2. MAJOR GROUNDWATER ISSUES IN THE AREA

Major groundwater related issues found in the study area are low stage of development, shallow groundwater level, and meager irrigational infrastructure and in major parts of the study area. Higher concentration of iron throughout the study area with arsenic concentration above permissible limit in the shallow aquifer zone in Titabor block of Jorhat district are the important quality issues. **In 85% of net sown area no irrigation facility is available.** The area under study which covers an agrarian society, where majority of farmers are categorized as marginal and small. Average land holding of marginal farmers is 0.4 ha. Power supply is irregular and in places non-existent.

3. MANIFESTATION AND REASONS OF ISSUES

In the study area depth to water level ranges from 0.73 to 8.80 m bgl during post-monsoon and water level ranges from ranges from 1.21 to 12.9 m bgl during pre-monsoon. Water level fluctuates from 0.45 to 9.49 m bgl. Major part of the area shows fluctuation of ground water level within 4 meter but, maximum fluctuation observed in the south western part of the of the study area. The details of key wells have given in table no-10.

The area enjoys sub-tropical humid climate. About 60 to 65% of the annual precipitation is received during south-west monsoon from June to September. Average annual rainfall in the district is 1415 mm to 1704 mm. Relative humidity varies from 93 to 95% during morning hours and during afternoon hours it varies from 53 to 75%.

Infrastructure for irrigation in the study area is very meager. Out of the total net sown area of 120597ha, only 10% has been brought under irrigation till date. Net sown area with present irrigation and future scope to bring un-irrigated land under irrigation is given in table below:

District (p)	Study area (in Ha)	Net Area Sown (in Ha)	Land under Irrigation (in Ha)	Land which can be brought under Irrigation (in Ha)
Jorhat	186000	66635	35	66600
Golaghat	124000	42152	81	42071
Total area	310000	120597	116	108671

To know the water quality of the study area, water sampling done from both shallow and deeper aquifers. Ground water qualities of both shallow and deeper zones are discussed below.

Water samples collected during the study were analyzed for the different chemical constituents at the Regional chemical laboratory of CGWB, NER Guwahati and result are as given in table-12 format.

The pH of the Ground water varies from 6.5 to 8.5. The value of EC varies from 251 to 1285 $\mu\text{S}/\text{cm}$ at 25⁰ C. As per P.H.E.D., Govt. of Assam, concentration of arsenic in the

shallow aquifer zone in parts of Titabor block of Jorhat district falling in the study area is having concentration beyond permissible limit (10 ppb). Concentration of iron of dug well water samples varies from 0.02 to 13 mg/l and from 0.37 to 3 mg/ lit for deep tube well sample. Location of higher concentration of arsenic and iron in groundwater is depicted in map below. Summary of results of chemical analysis data showing concentration of iron in groundwater is shown in table below.

Table: Summary of chemical analysis data showing concentration of iron in groundwater

Result of Water samples from dug wells				Result of Water samples from deep tube wells	
Sl. No	Fe (mg/l)	No. of samples	% of samples	No. of samples	% of samples
01	0.0 - 0.3	10	22	1	50
02	0.3 -1.00	12	27		
03	>1.00	13	51	1	50

It can be seen from the above table that 78% water samples collected from dug wells are having iron content more than the desirable limit i.e., 0.30 mg/ lit (set by BIS) and 50% water samples collected from deep tube wells are having iron content more than the desirable limit.

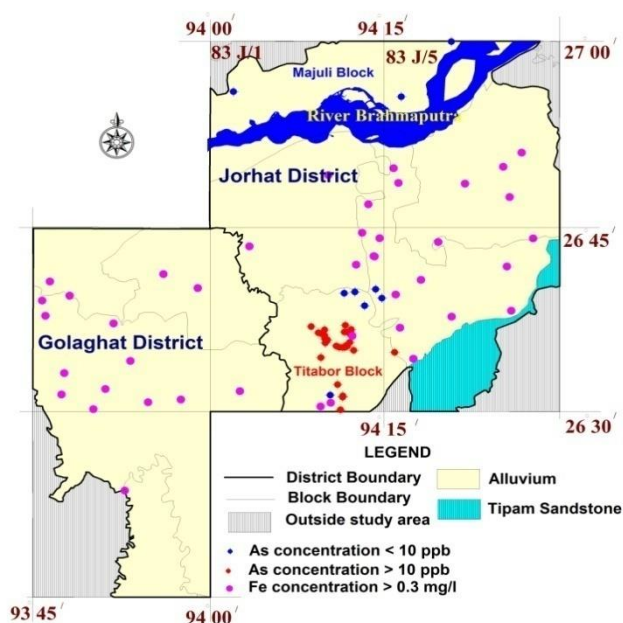


Table: Concentration of Arsenic distribution in groundwater

Block	Aquifer	Level of Contamination (in PPB)
Majuli	Shallow	12 to 90
	Deeper	Arsenic within permissible limit
Titabar	Shallow	31.9 to 337
	Deeper	Arsenic within permissible limit*

Physiographically the area forms a part of Brahmaputra River basin, a part of an alluvial tract covering north and south banks of the Brahmaputra valley. The alluvial plain which occurs on either side of Brahmaputra River is more or less a flat terrain with very gentle slope towards NNW in general. The general elevation of the elevated area is around 100 meters above Mean Sea Level (MSL) and low lying areas show altitude about 75 m above MSL. Maximum height of about 260 m above MSL is observed in the southeastern and southwestern parts of the study area, where it merges with the hills of the Nagaland and as well as Karbi-Anglong district of Assam. The slope of the study area is towards northeast from south.

The Brahmaputra River, the principal drainage and its tributaries Bhogdai River and Kakaodonga River, Dhansiri River and Dayang River are the major drainage in the study area. Kasojan and Saraipani are the main tributaries of the highly meandering Kakadanga River. Rivers of the area represent trellis, dendritic to sub-parallel drainage pattern. These rivers have meandering courses with abandoned channels in the form of bills and ox-bow lakes along their courses.

4. AQUIFER GEOMETRY AND CHARACTERIZATION

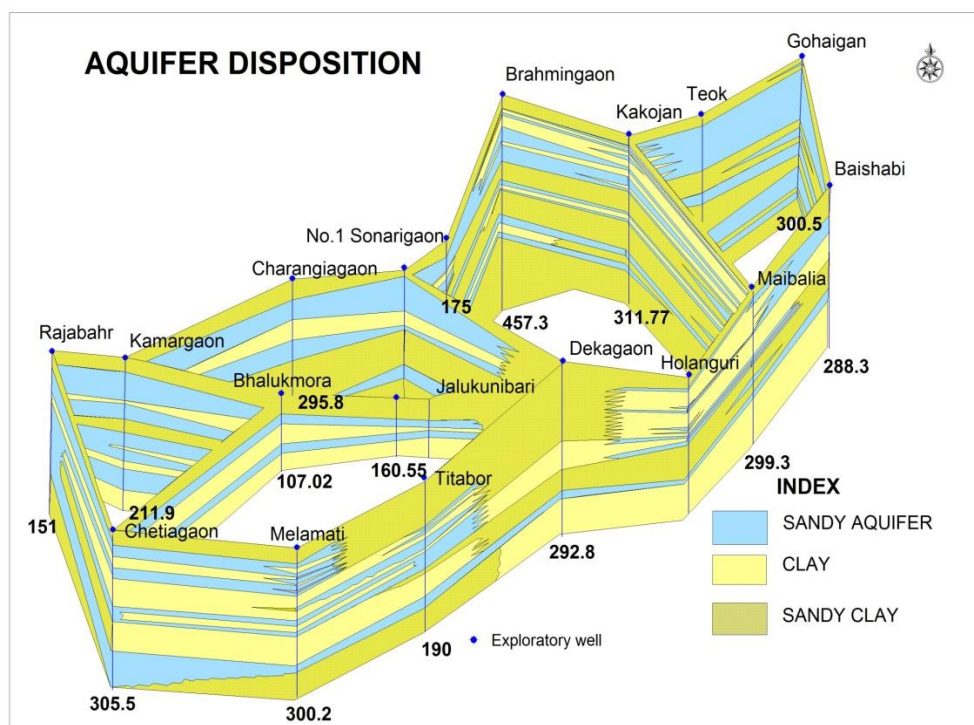
The main objective of the study is to delineate the horizontal and vertical disposition of aquifer as well as to study the aquifer character. In this connection 92 key wells including existing CGWB monitoring stations (Dug well) were monitored in different season. Locations of the monitoring stations are shown in map (annexure). To know the aquifer disposition in the study area, exploratory wells data, VES data available with CGWB and some data of state departments, Govt. of Assam were utilized.

CGWB has drilled 31 EWs within a depth range of 79 to 457 m bgl. The tube wells drilled in alluvial deposits show alternate thick beds of sand, gravel and thin beds of clay.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

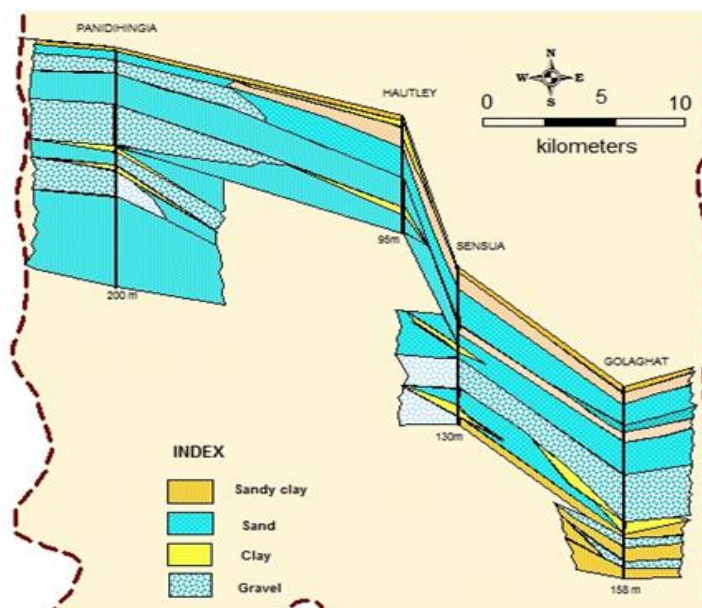
It can be deciphered from the lithologs of different exploratory wells drilled by CGWB that EW show that in regional scale mono aquifer system occur in the area. The aquifer is comprised mainly of medium to coarse sand. This sandy aquifer is having gravel and clay intercalations in places. In some places due to the presence of clay intercalations 2 to 4 granular zones occur in the study area. Separations of two or more granular zones by clay beds often misguide to classify the aquifers into a multiple aquifer system. However, these clay beds are mostly in lensoid shape and they pinches out within a short distance. Thickness of the saturated zone varies from 10 to 100 m within a depth range of 457 m. Deep tube wells constructed by CGWB show yield of 21 to 216 m³/hr for a drawdown of 0.6 to 10 m.

Aquifer	Depth of occurrence (m bgl)	Yield (m ³ /hr)	DD (m)	T (m ² /day)	S
Mono aquifer	Up to 320	21 – 216	3 – 7	821 – 5632	5.8 x 10 ⁻⁴ to 1.02 x 10 ⁻³



AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Groundwater occurs under unconfined condition in the topmost part of the system. Unconfined condition extends down to the depth of 50 to 60 m. In the deeper parts of the system groundwater occurs under semi-confined to confined conditions.



As per the report on dynamic groundwater resources of Assam, 2011 the study area is having a net groundwater availability of 1232 mcm, gross annual draft of 83 mcm and stage of development is 7%.

District (p)	Stage of Ground Water development (%)	Net GW Availability (ham)	Existing Ground Water Draft for Irrigation	Existing Gross Ground Water Draft for All Uses	Provision for Domestic & Industrial requirement for upto 2025	Net GW Availability for Irrigation (ham)	GW Availability for Future Irrigation @ 60% Net GW Availability (ham)	No. of TW feasible as per Resource (Unit draft 3 ham)
Golaghat	6	44842	1846	2602	876	42120	25272	8424
Jorhat	7	86885	4191	5665	1603	81091	48655	16218
Total		131727	6037	8266	2478	123212	73927	24642

5. AQUIFER MANAGEMENT PLAN

MANAGEMENT STRATEGIES

The study area is having meager irrigation facility. Excluding arsenic affected Majuli and Titabor blocks, 80700 ha land can be brought under irrigation using the huge dynamic groundwater resources available in the area. It is proposed to bring 60% of area under paddy and 40% under non-paddy cultivation. Water requirement for paddy cultivation ($\Delta=1.2\text{m}$) would be 581 mcm while that for non-paddy cultivation ($\Delta=0.3\text{ m}$) would be 97 mcm. Total water requirement to bring this entire uncovered area under irrigation is 678 mcm.

As per the report on dynamic groundwater resources of Assam, 2011 the study area is having a balance groundwater availability for future uses in the order of 1232 mcm. If a plan is made to develop 60% of the balance dynamic groundwater resources available (739 mcm) in the area for the irrigation purposes then 24600 nos. of tube wells (considering a unit draft of 3 ham/yr) can be constructed in the area.

CGWB has established that aquifer in the area is a prolific one and this can be sustainably developed to irrigate this vast land. A tube well yielding $36\text{ m}^3/\text{hr}$, runs for 12hrs/day for 150 days will create a draft of 6.5 ham. To meet the water requirement of 678 mcm, 10430 nos. of such tube well will be required (considering a unit draft of 6.5 ham/yr). Tube wells can be designed in the study area within a depth of 100 m, tube wells can be constructed by tapping 30 m of granular zone is expected to yield $36\text{ m}^3/\text{hr}$ for a drawdown of maximum 7 m. Wells may be constructed by using 6" dia casing pipe down to 30m, 6" dia 1 to 1.5 mm slot pipes for 30m and 6" dia 40 m blank pipe.

Though huge GW resource is available but farmers in the area are poor and it may not be possible for them to construct tube wells individually. Community based irrigation schemes through groundwater may be taken up by Govt., which will greatly boost the socio-economic conditions in the area. In view of the grim power situation in the area and since SOLAR PV Pumps would not be able to deliver the amount required - high running cost of diesel pumps are the best available option.

Cost Estimates

One time expenditure to construct 10430 tube wells @ Rs. 4,50,000/= is Rs. 470 crores and installation 5 HP diesel pumps and yearly running cost and maintenance @ Rs. 91,300/= is Rs. 95 crores.

MANAGEMENT PLAN

By providing irrigation facilities to 48400 ha of paddy land 141,000 metric tons of food grains (@ 2900 kg/ha) can be produced. This will boost the economy by providing Rs. 254 crores per annum income (Recent minimum price of common paddy Rs. 1800/Qn). Further by providing irrigation facilities to 32300 ha of non-paddy land 19,000 metric tons of oilseeds or 240,000 metric tons of potato can be produced. This again will generate an income of Rs. 57 to 125 crores per annum (recent minimum price of vegetables Rs. 520/Qn to Rs. 3000/ Qn of oilseeds). Total one time expenditure Rs. 565 crores. Benefit Rs. 311 to 379 crores per annum.

Groundwater in the area is infested with iron, therefore before consumption aeration/ filtering/ installation of Iron Removal Plant is necessary. At present PHED, Assam is supplying treated drinking water in the area. Apart from this, individual houses are using sand filter to remove iron.

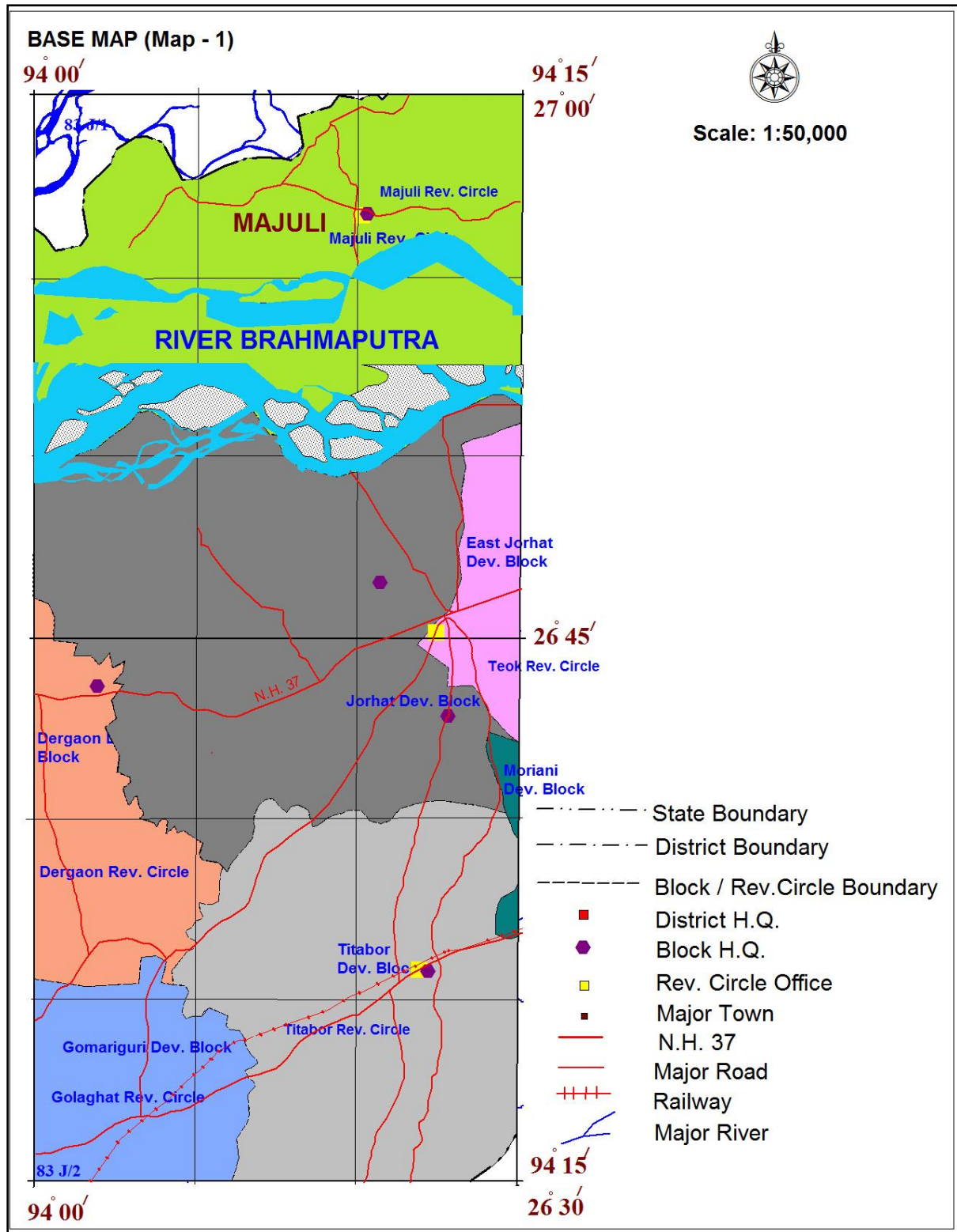
At present, existing dug wells and ponds should be used by individuals for drinking water after proper treatment. Large diameter dug wells and ponds may be constructed for water supply in the villages by State Govt. where surface water sources are far away from the villages.

In deeper aquifer, arsenic in groundwater has not yet been reported, therefore groundwater from deeper aquifer can be utilised.

Farmer's co-operative societies may be formed which will look after maintenances of the tube wells.

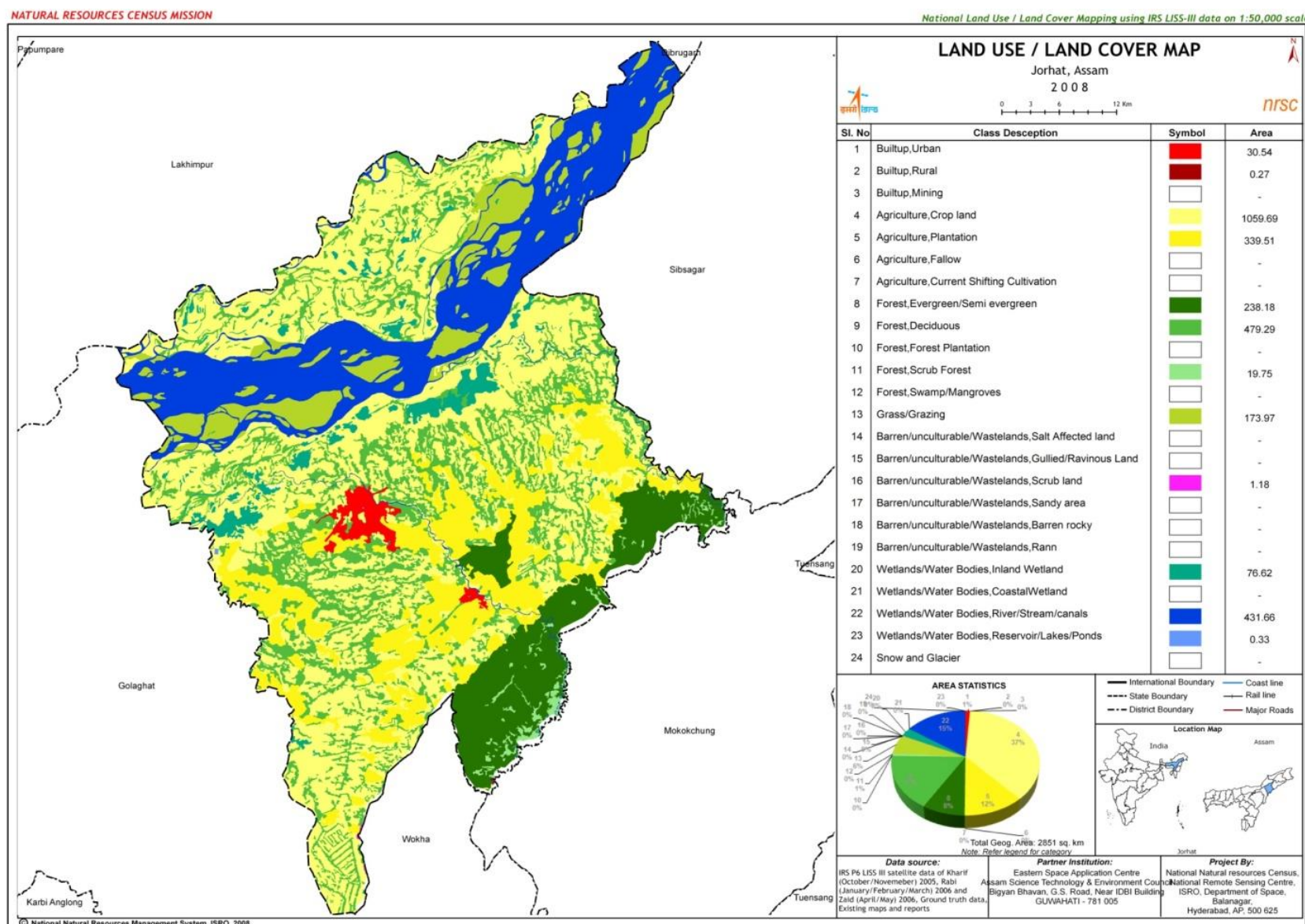
Map.1

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM



AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Map.2



AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Map.3

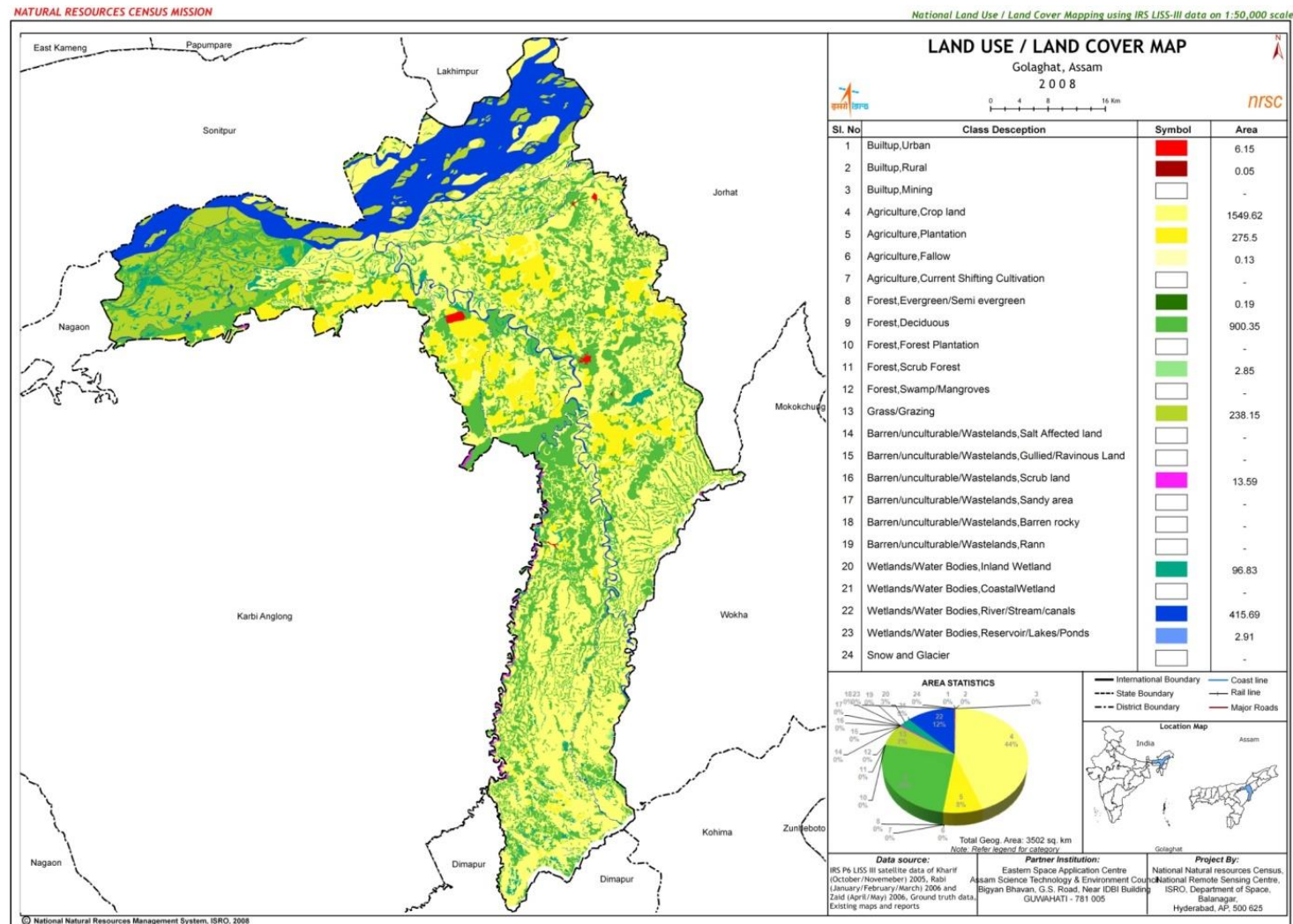
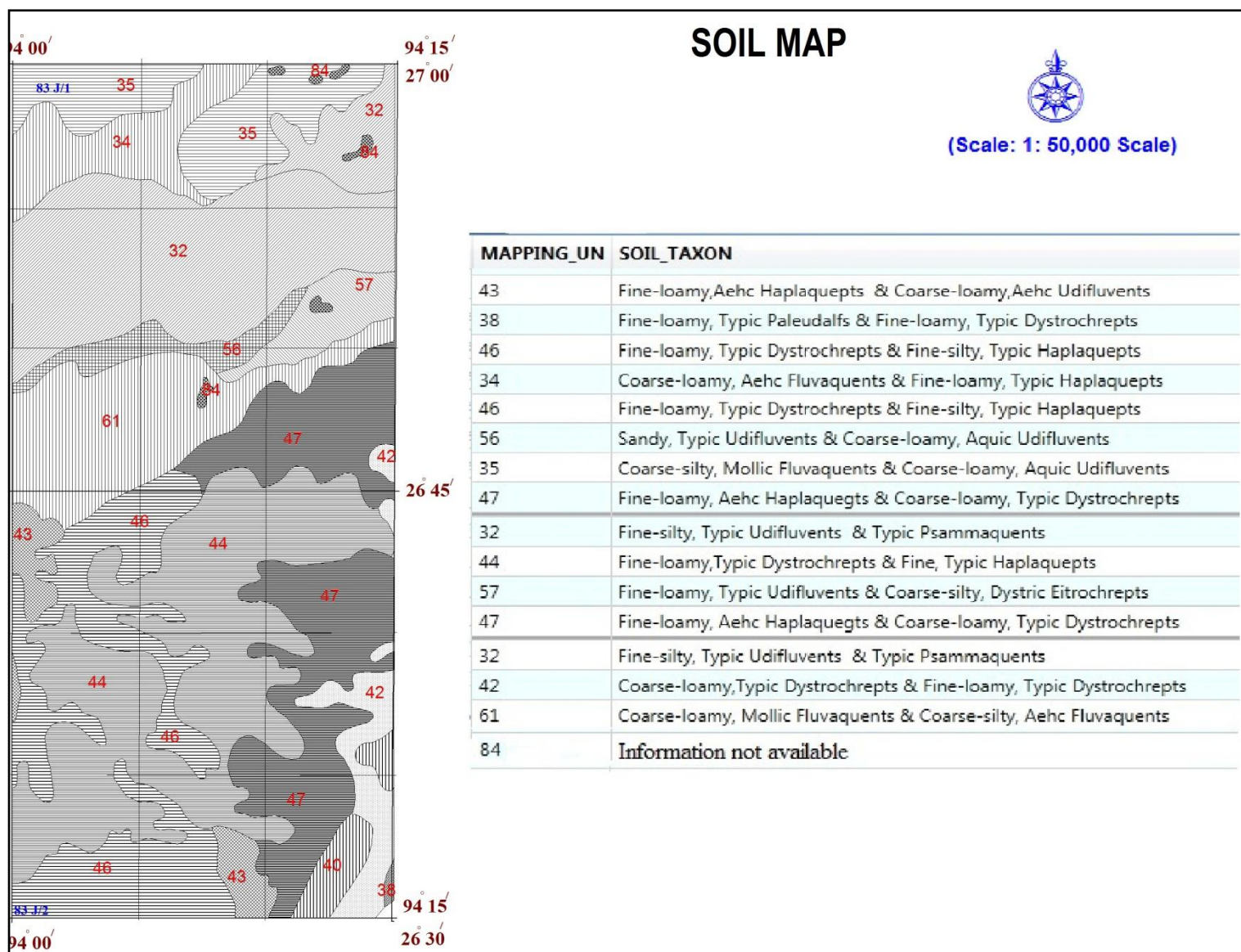
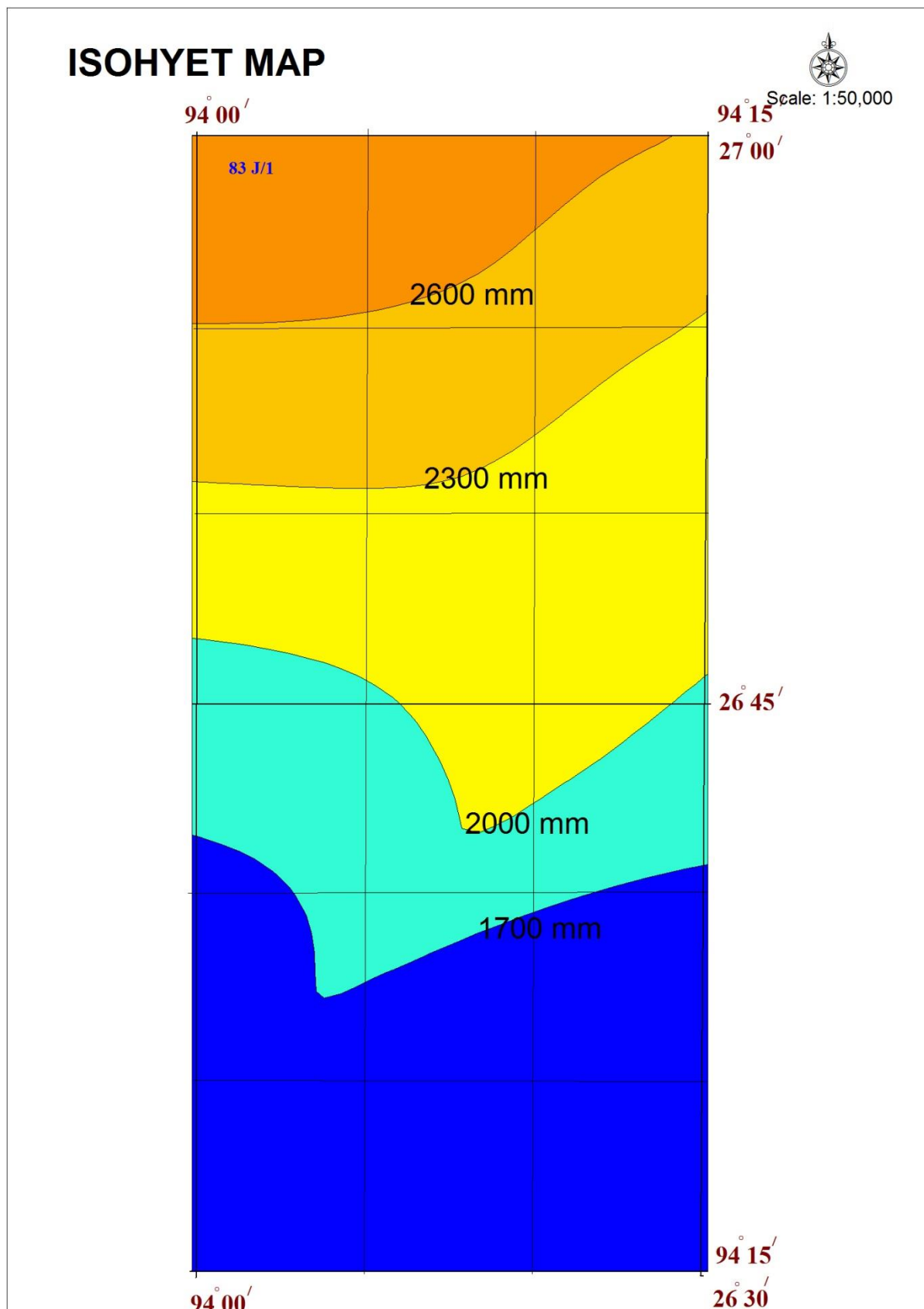


Figure 2

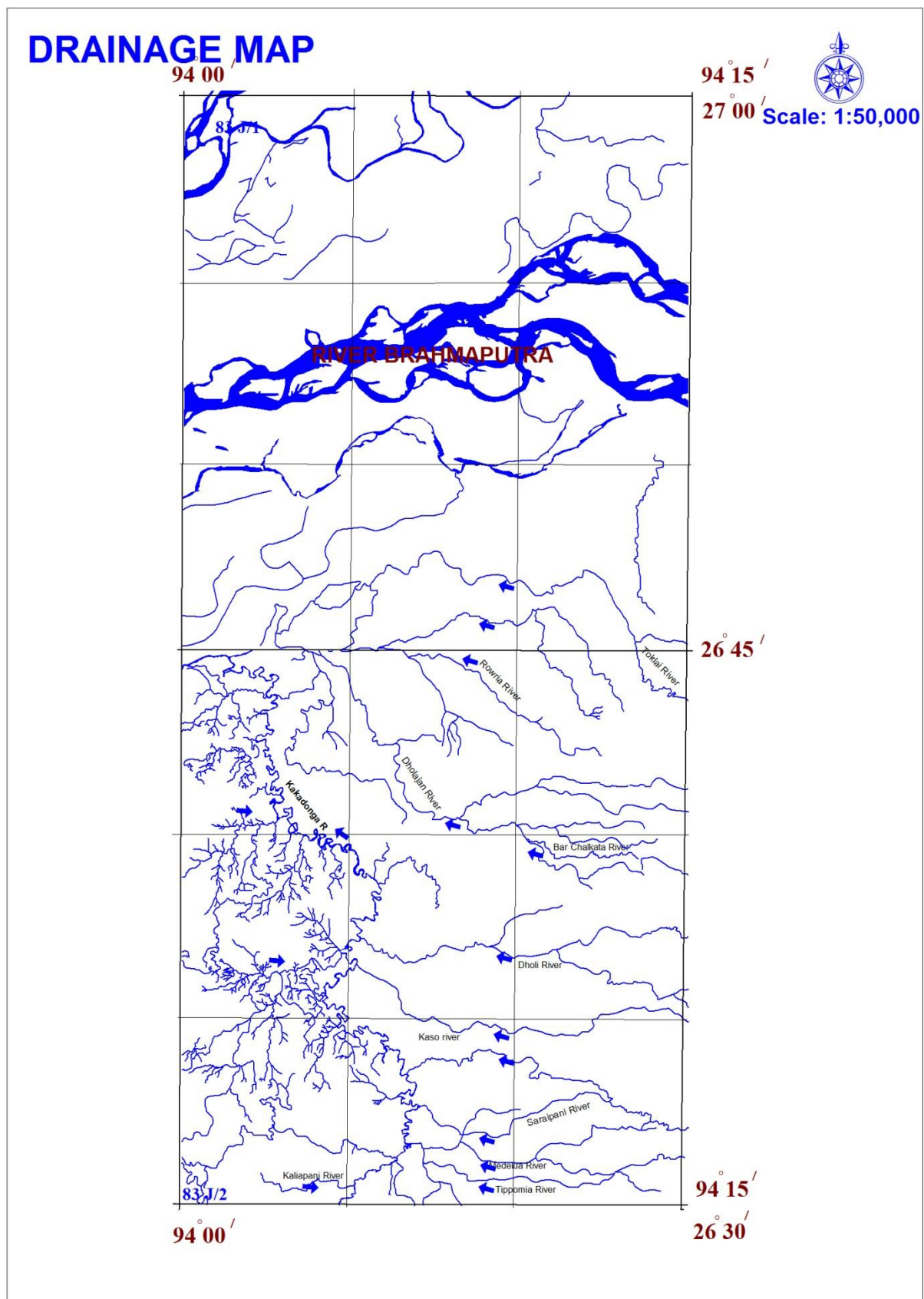
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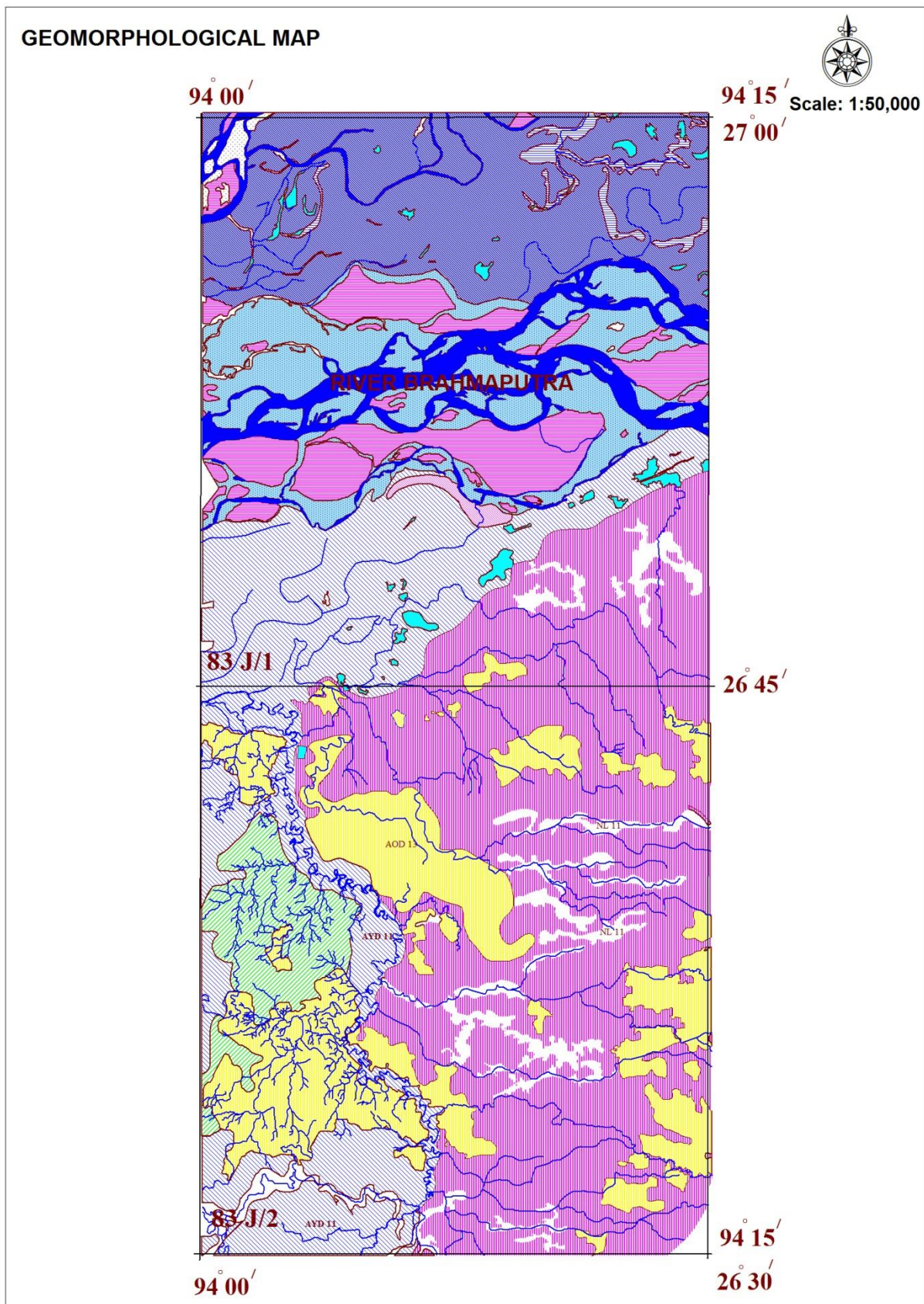
Map.5



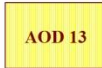
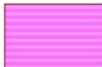
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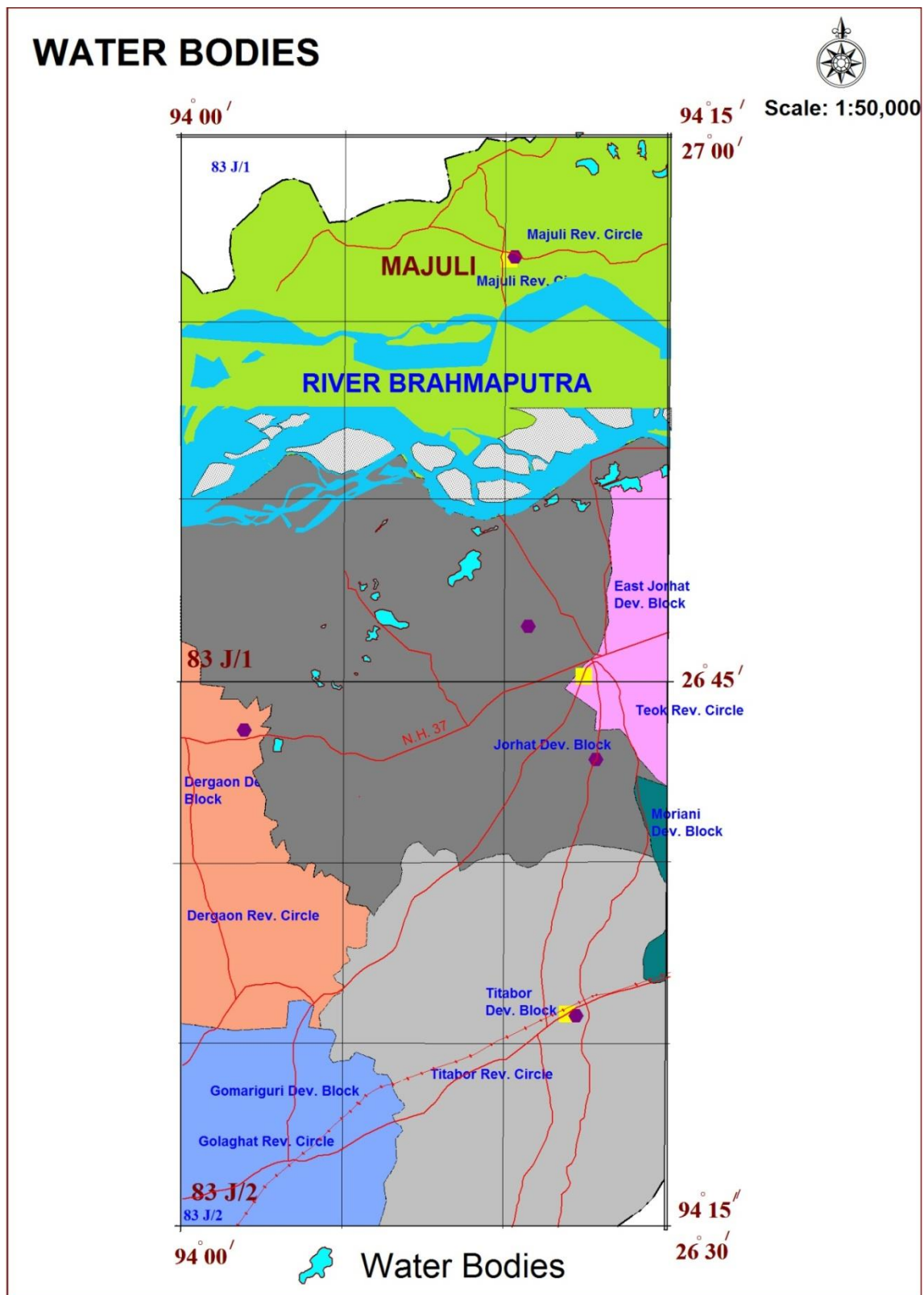
Map.7



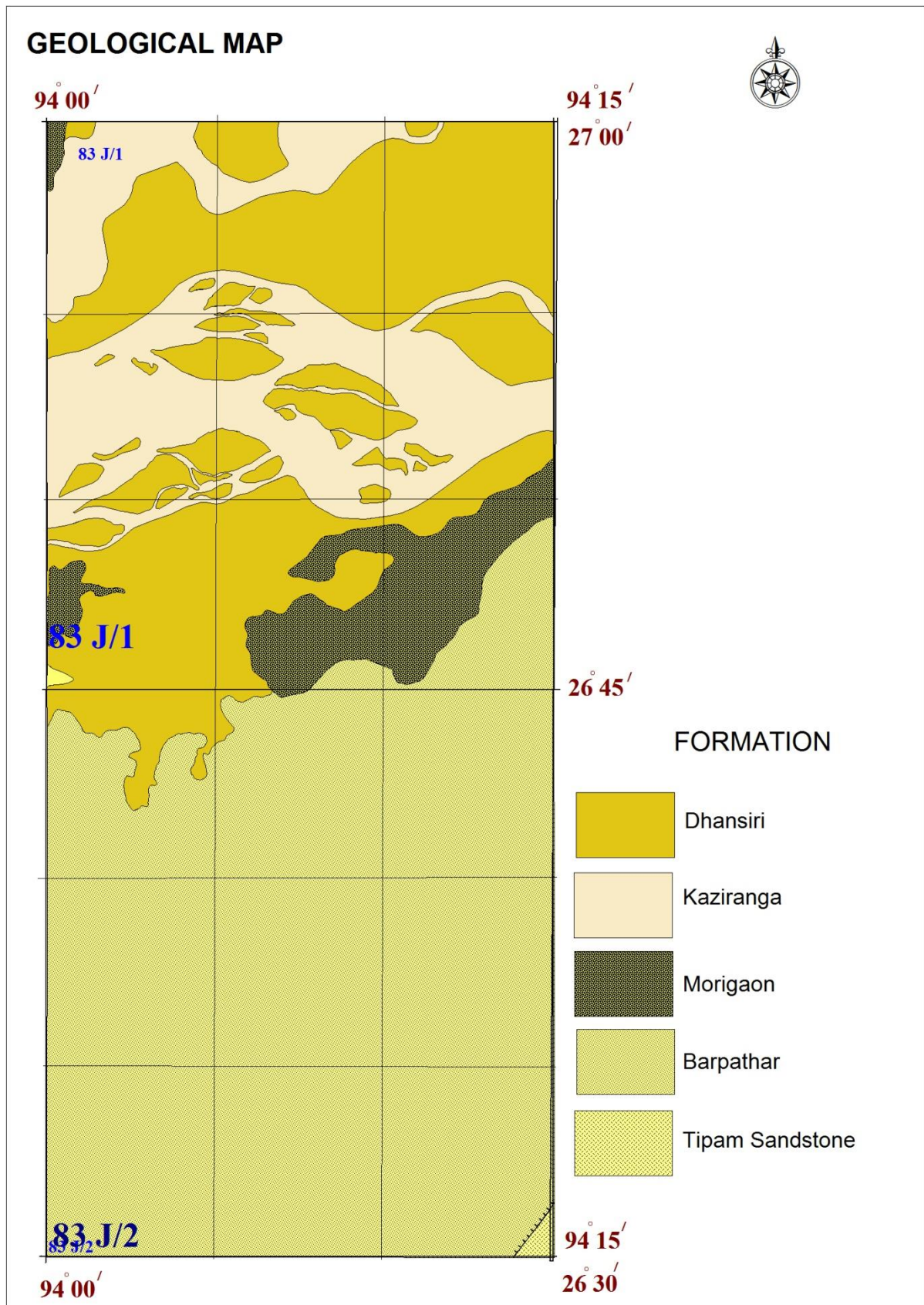
GEOMORPHOLOGICAL MAP LEGEND

MAP UNIT (HYDROGEOMOPHIC UNIT)	GEOLOGICAL SEQUENCE /ROCK TYPE	GEOMORPHIC UNIT/ LAND FORM
 FPD 11	Alluvium, sand and silt dominant	Flood Plain Deep
 AYD 11	Alluvium, sand and silt dominant	Alluvial Plain, Younger Deep
 AYD 13	Alluvium, sand/silt&clay alternating beds	Alluvial Plain, Younger Deep
 AOD 13	Alluvium, sand/silt&clay alternating beds	Alluvial Plain, Older Deep
 AOG 11	Alluvium, sand and silt dominant	Alluvial Plain, Older Gullied
 NL 11	Alluvium, sand and silt dominant	Natural Levee
	Alluvium, sand and silt dominant	Channel Island
	Alluvium, sand and silt dominant	Flood plain Deep

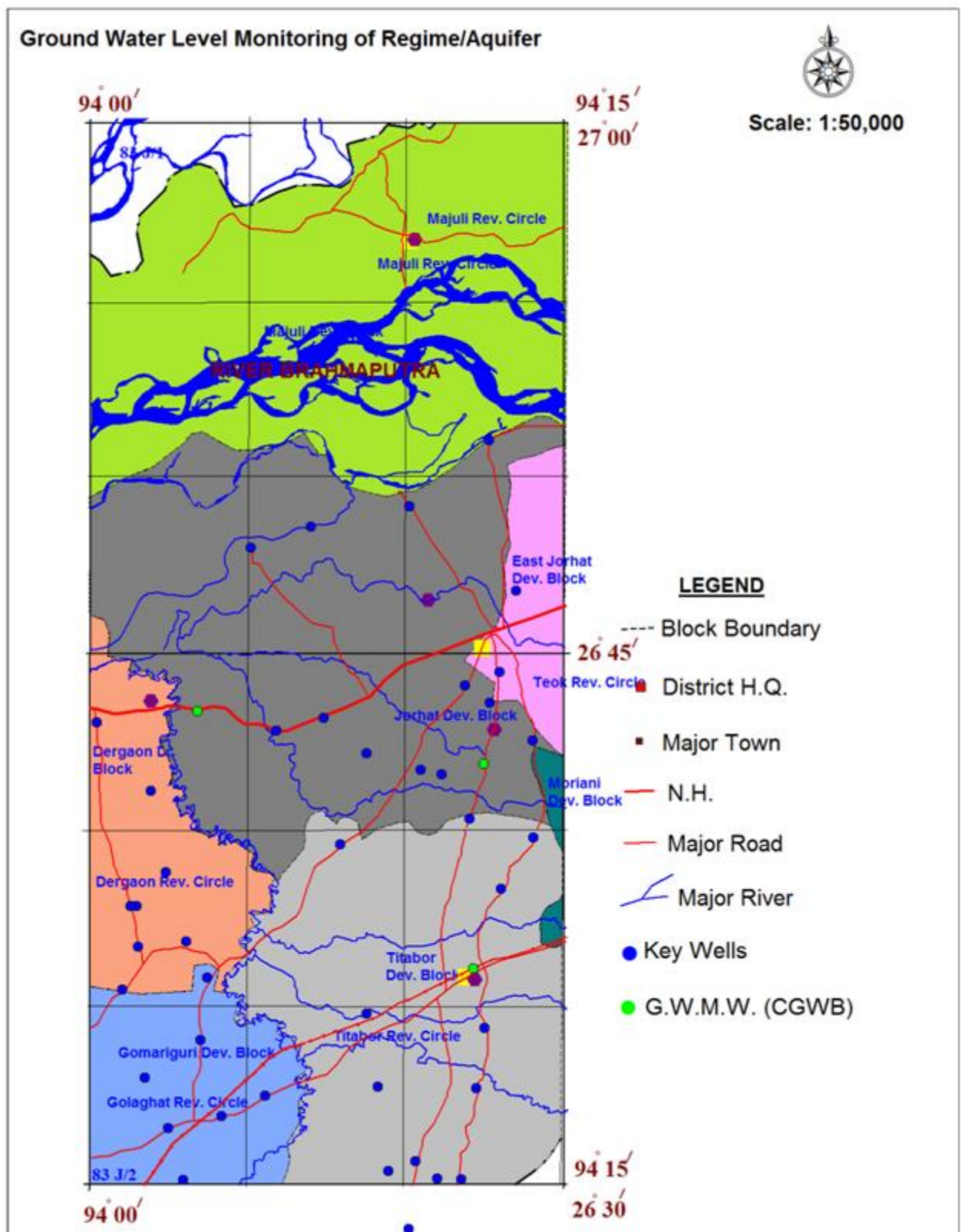
Map.8



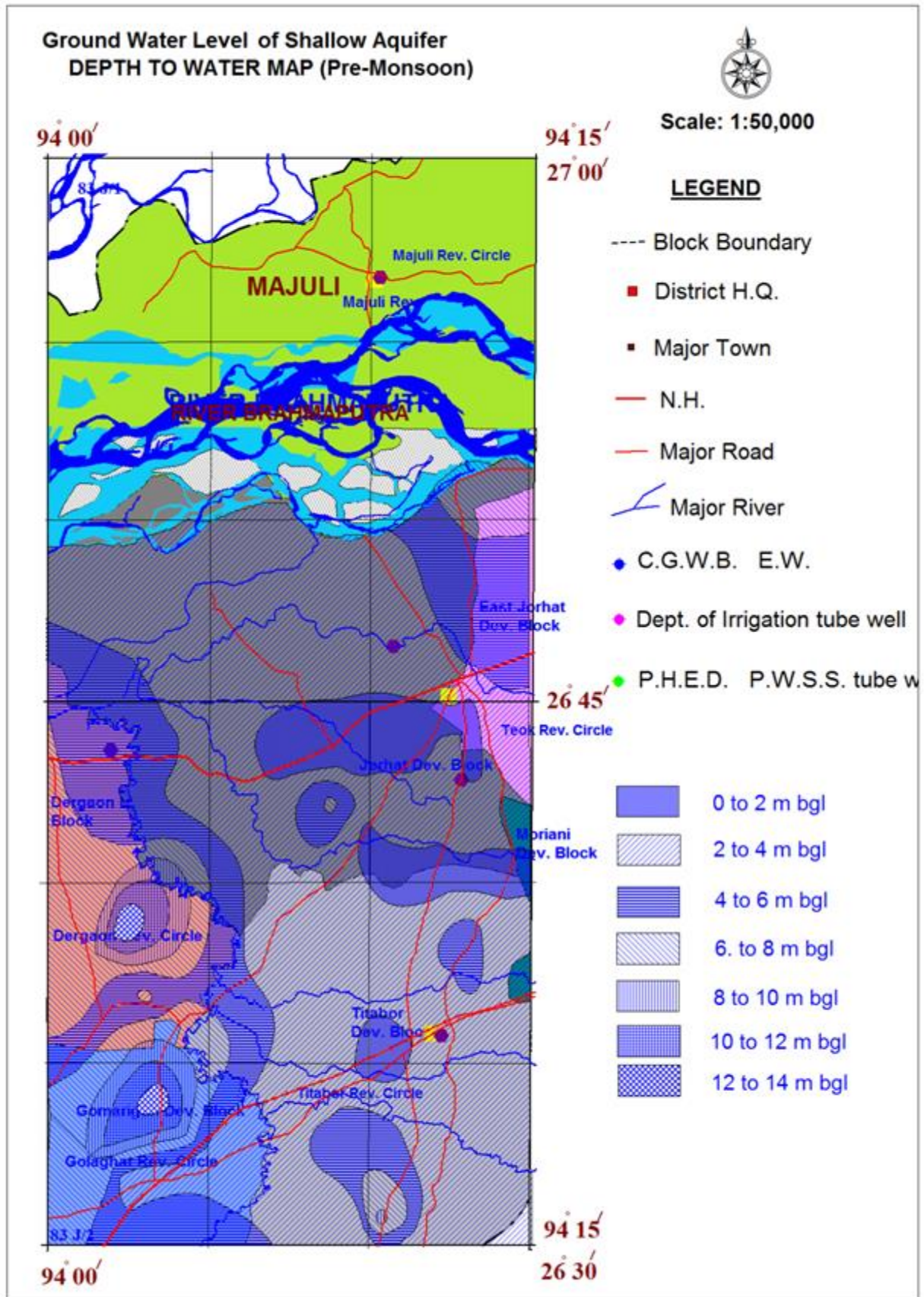
Map. 9



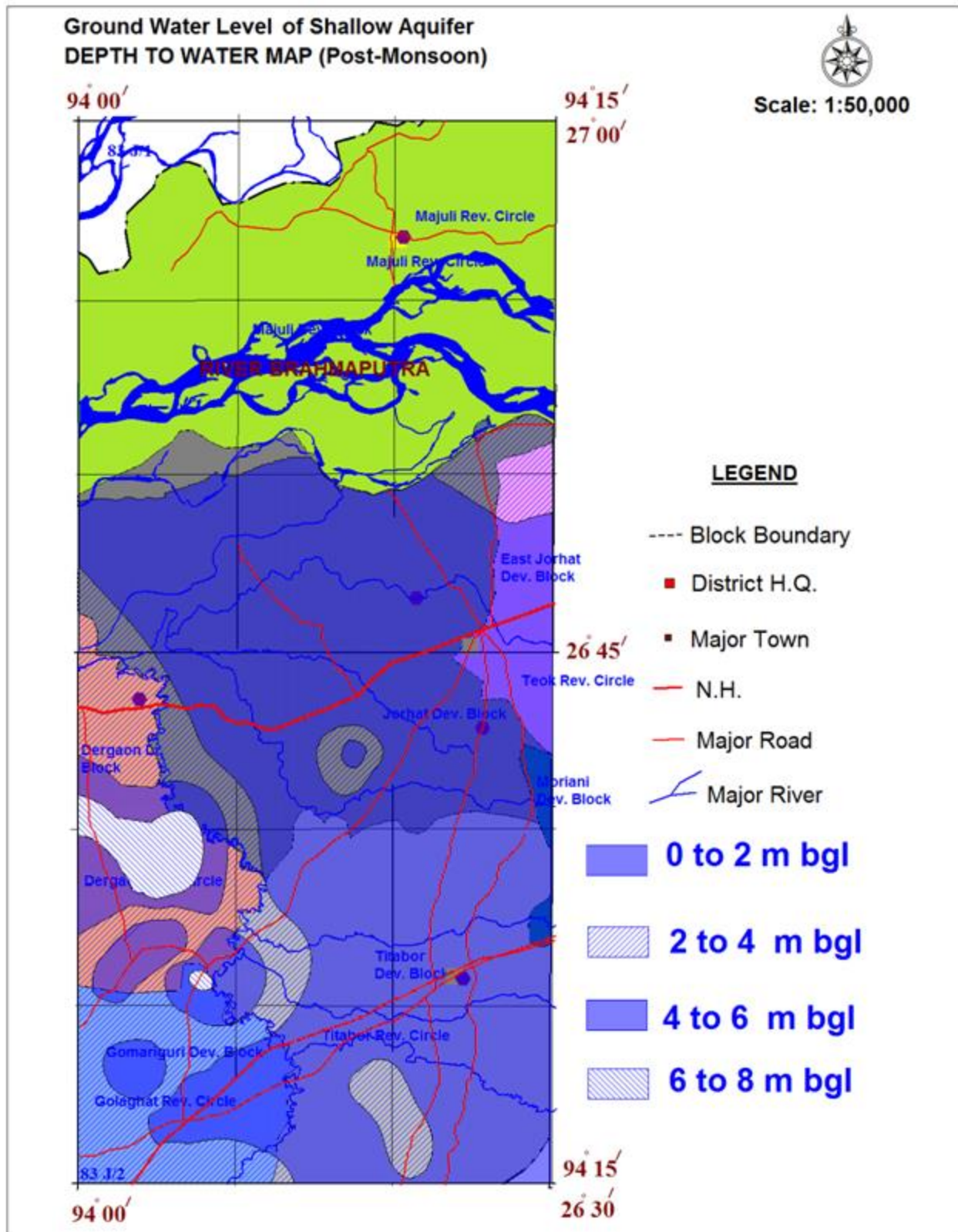
Map.10



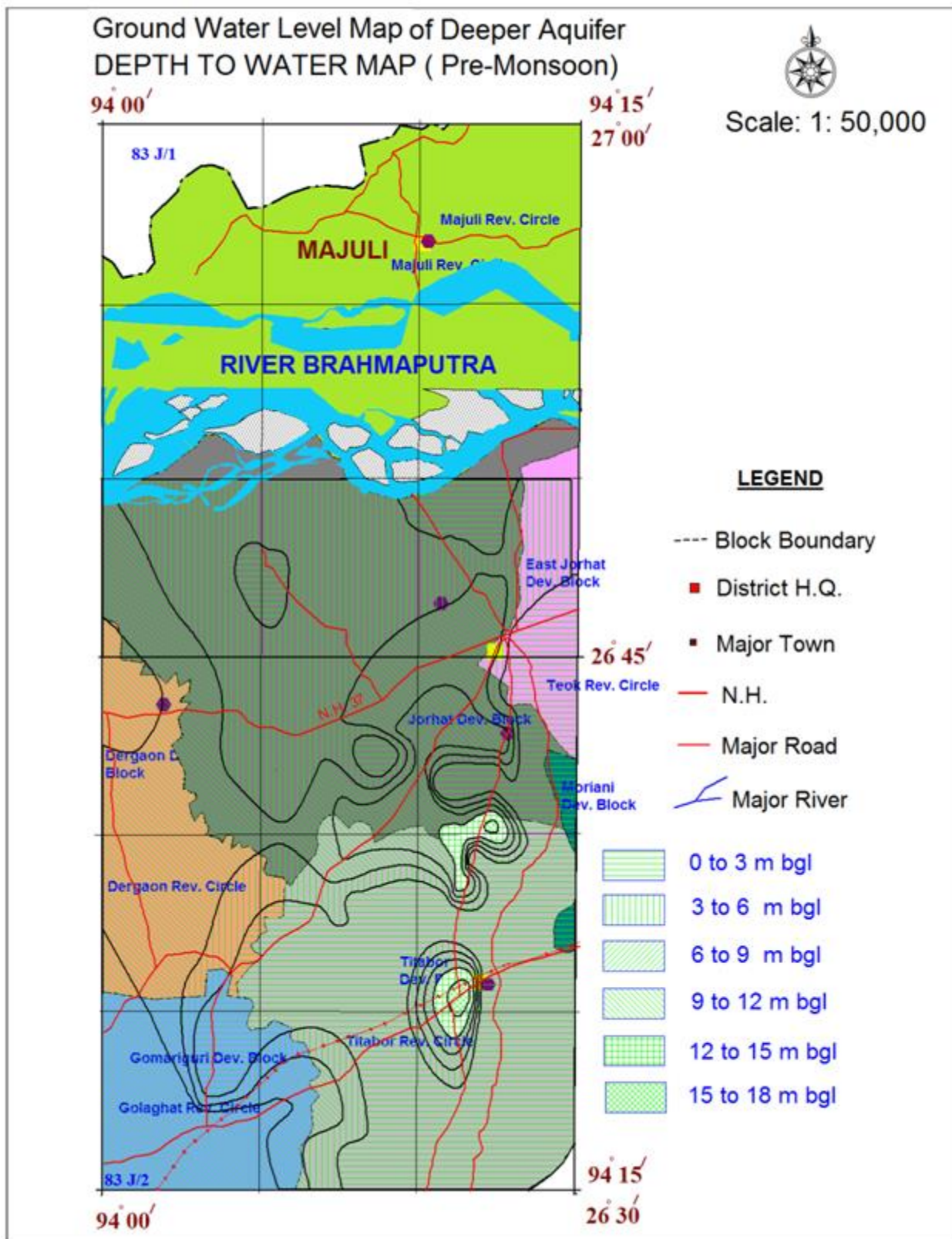
Map.11



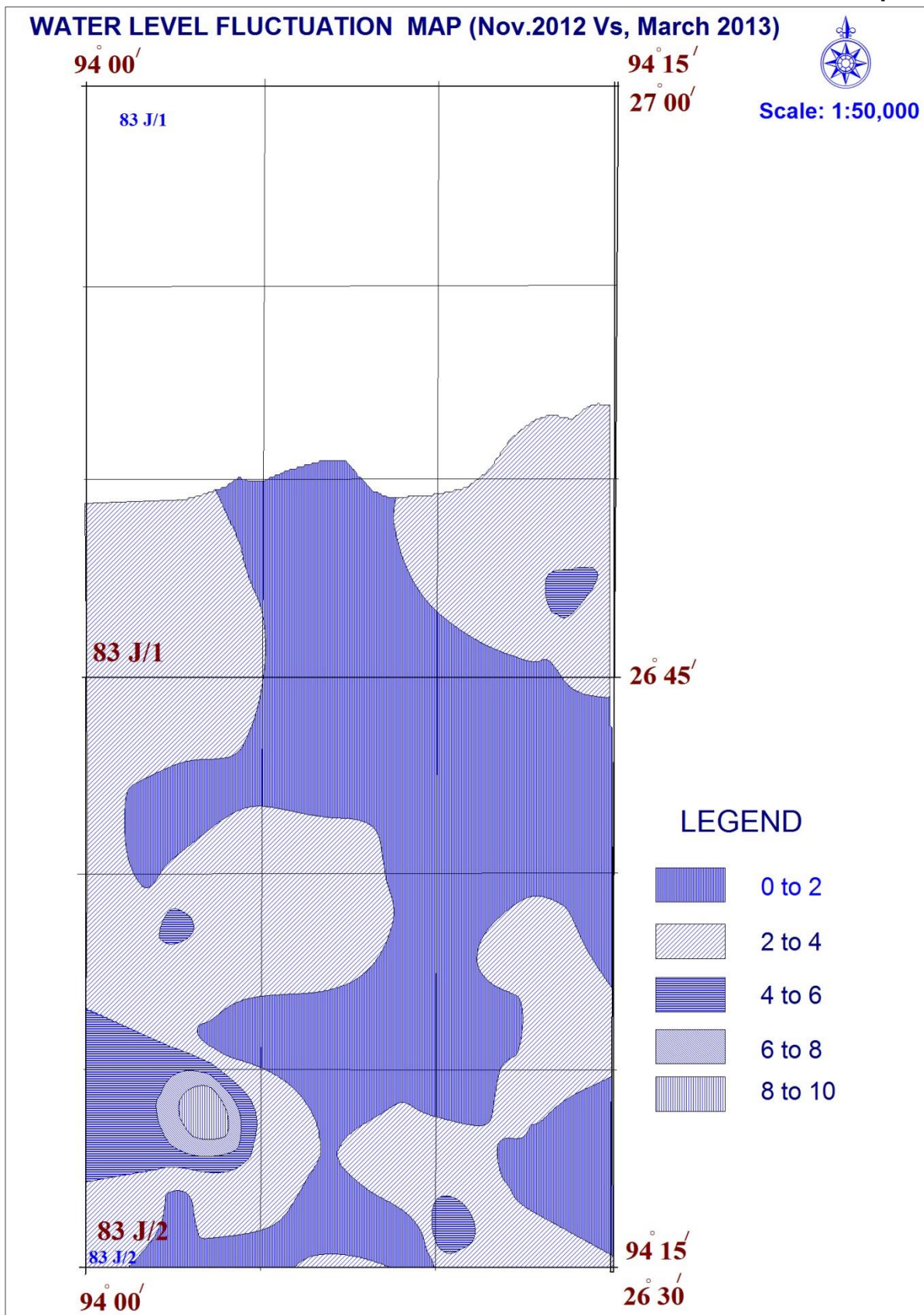
Map.12



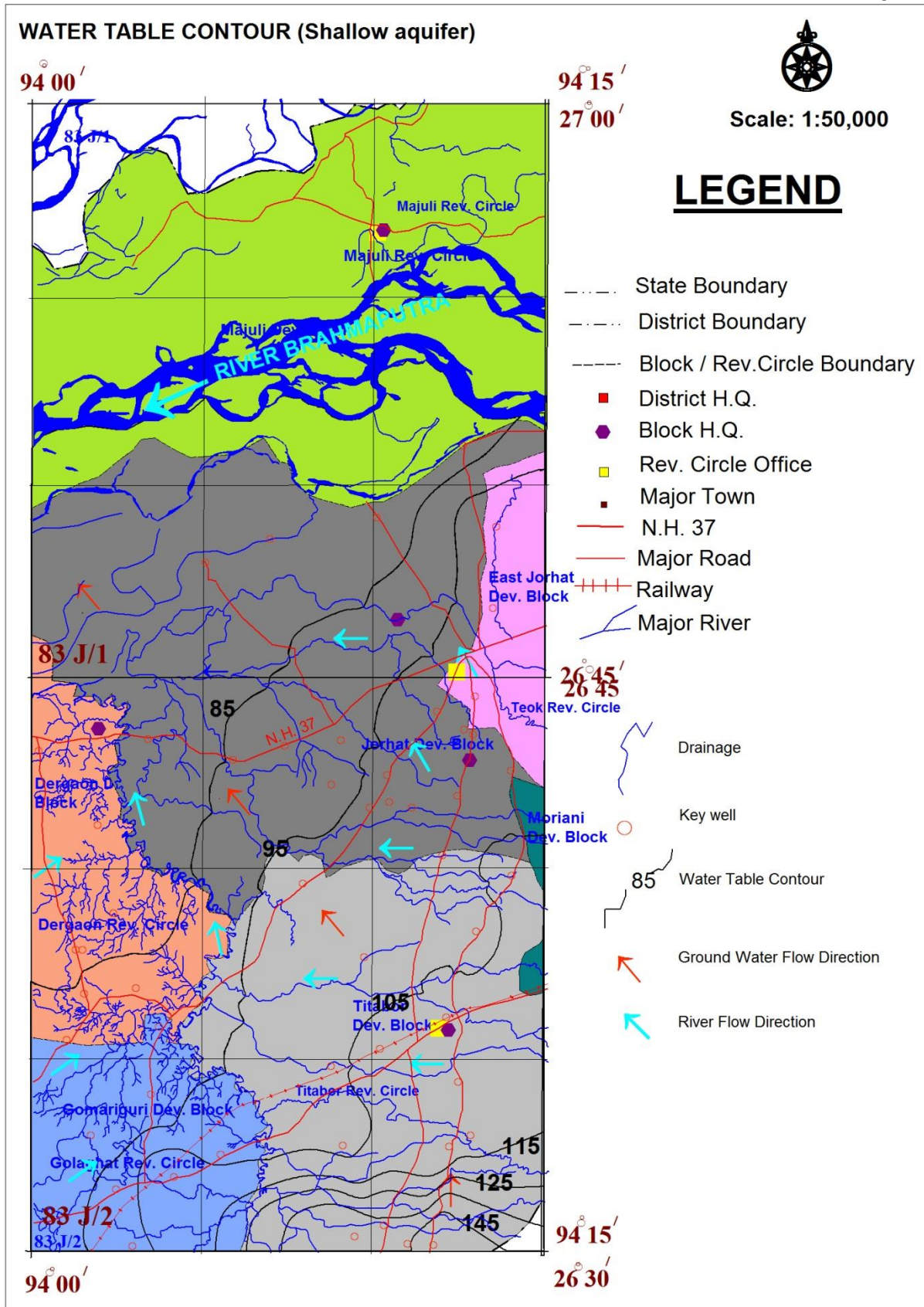
Map.13



Map. 14

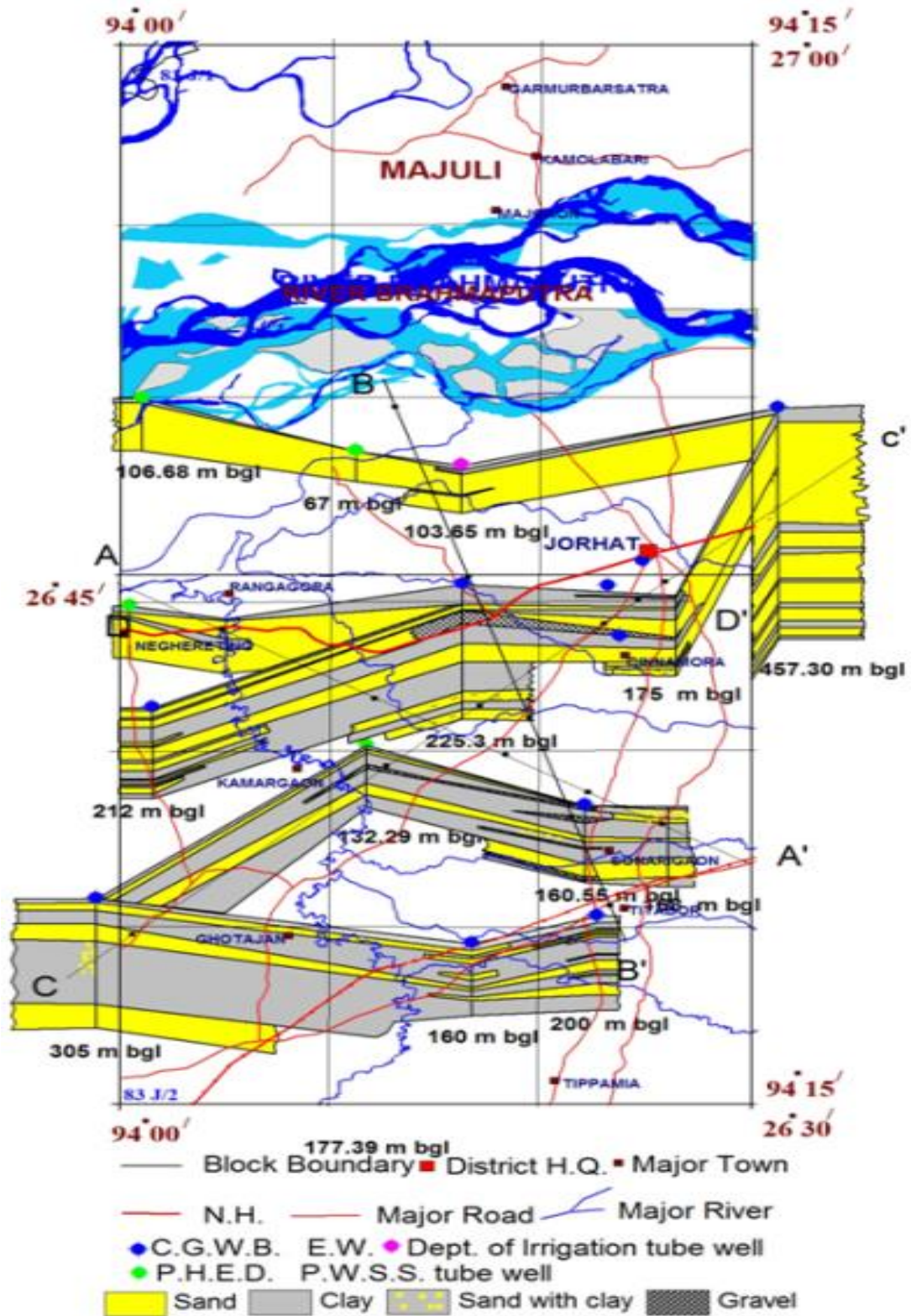


Map.15



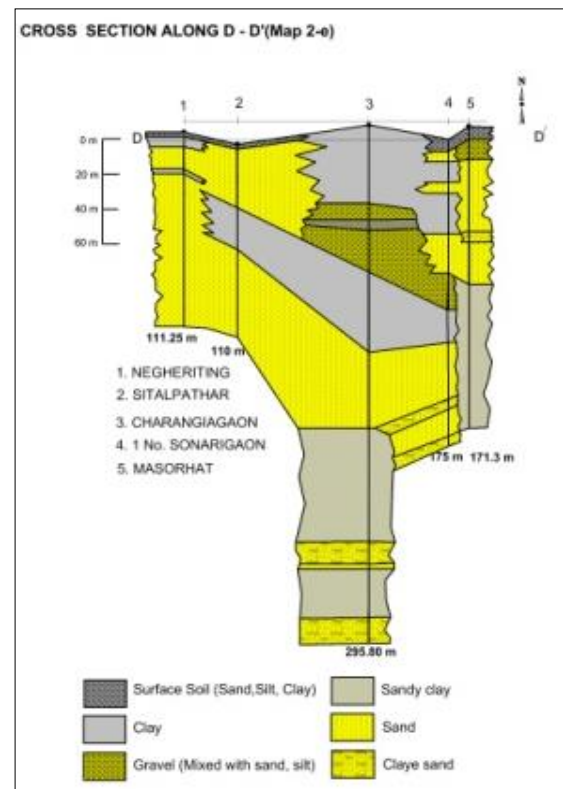
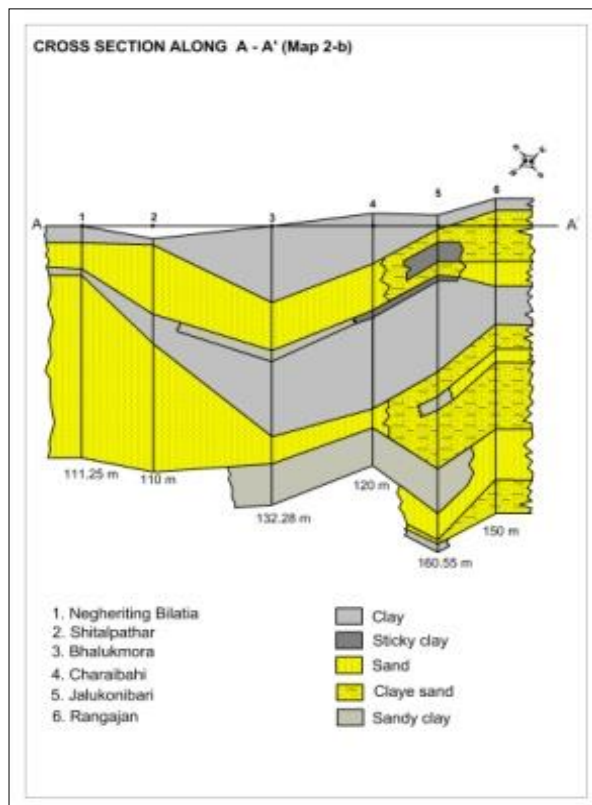
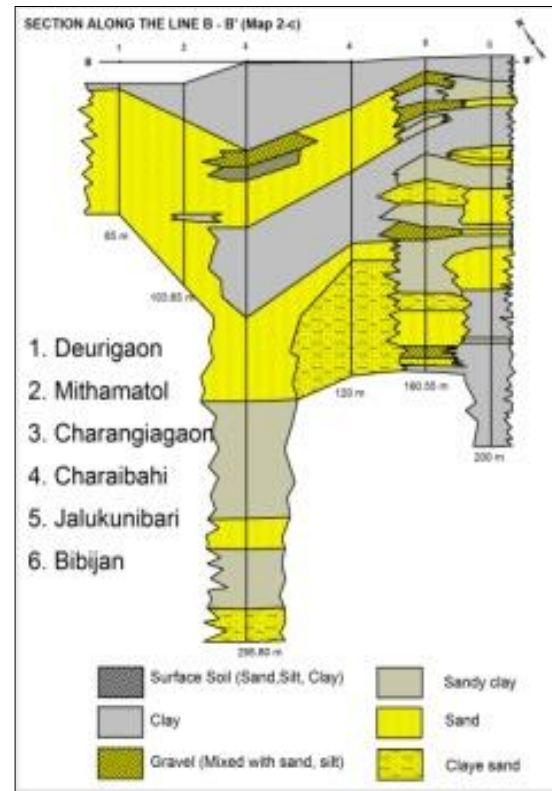
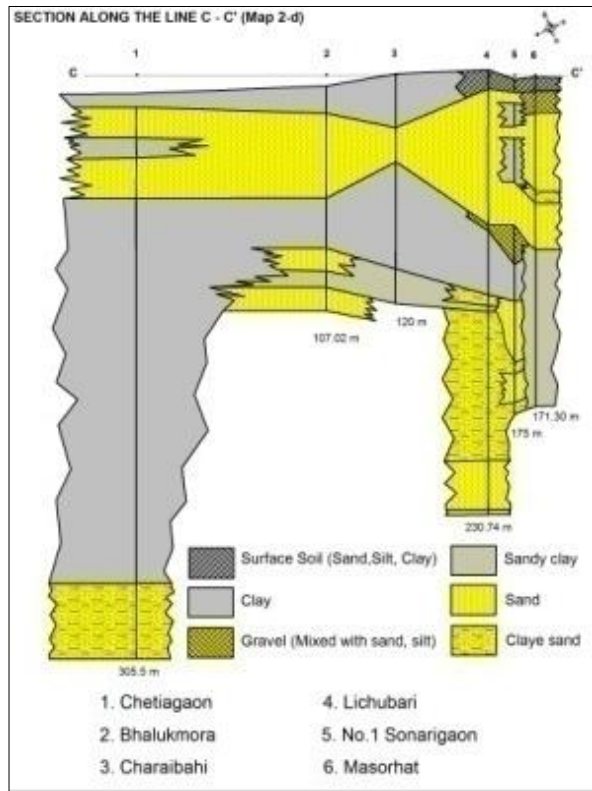
Map.16

Aquifer Geometry

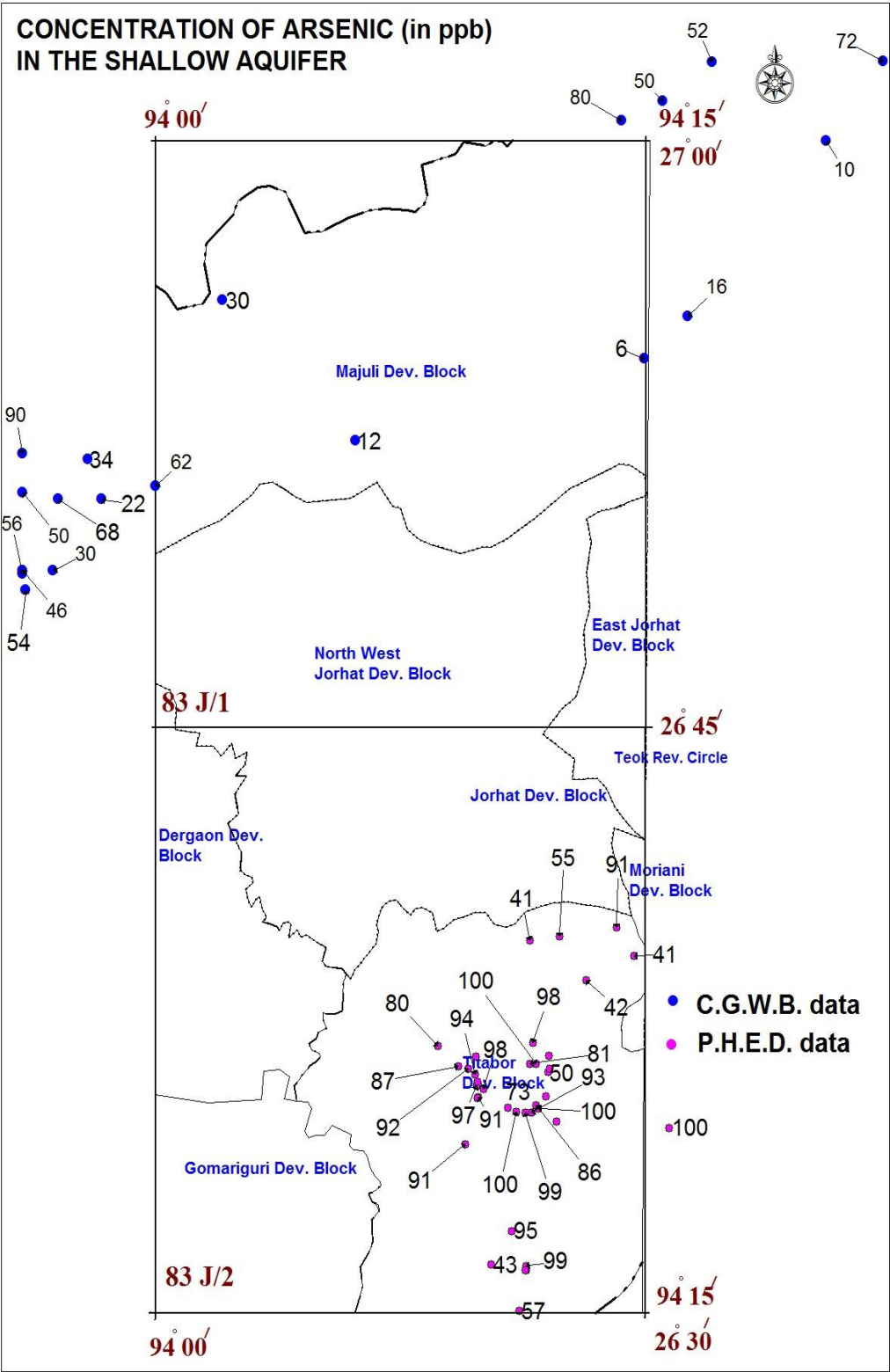


Map.17

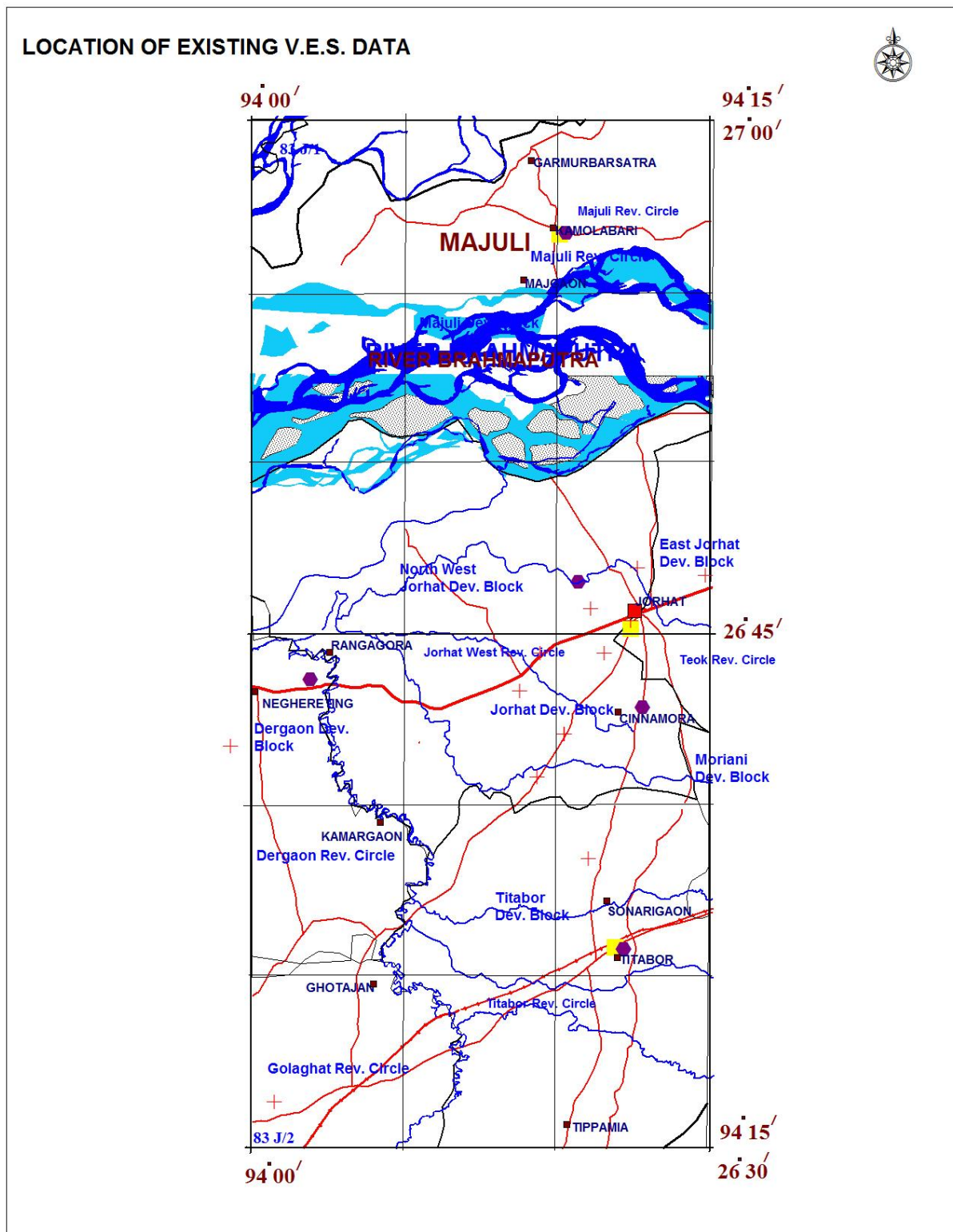
CROSS SECTIONS



Map.18



Map.19



AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 1. Format for litholg

Unique ID	ASM-83J2-1	Depth range (mbgl)		Thicknes s (m)	Litholog
Village	Charingia	From	To		
Taluka/Block	Dergaon	0	44.6	44.6	Clay yellow to dark grey sticky with iron nodules
District	Golaghat	44.6	53.8	9.2	Sand, grey, fine to medium with gravel and little clay
Toposheet No	83J/2	53.8	59.9	6.1	Clay, grey, plastic with fine to medium sand
Latitude	26°40'40"	59.9	81.2	21.3	Sand, grey, fine to medium to with gravel
Longitude	94°17'55"	81.2	84.3	3.1	Sand, grey, fine to medium with gravel and clay
RL (m amsl)	85	84.3	130	45.7	Clay, greenish grey, sticky
Drilled Depth m bgl	295.8	130	172.7	42.7	Sand, grey, fine to medium
Casing (in m)	30	172.7	233.7	61	Clay, grey, sticky with little fine grey sand
SWL (mbgl)	3.065	233.7	246.9	13.2	Sand, grey, fine with clay
Discharge (lps)	58.733	245.9	249	3.1	Sand, grey, fine
Date/year	1978	249	279.5	30.5	Clay, grey with fine to medium sand
		279.5	295.8	16.3	Sand, grey, fine with little clay

Unique ID	ASM-83J2-2	Depth range (mbgl)		Thicknes s (m)	Litholog
Village	Melamati	From	To		
Taluka/Block	Titabor	0	20	20	Clay
District	Jorhat	20	30	10	Sand with clay
Toposheet No	83J/2	30	57	27	Clay with sand
Latitude	26°34'33.9996 "	57	61	4	Sand
Longitude	94°8'20"	61	66	5	Clay
RL (m amsl)	92	66	76	10	Sand
Drilled Depth m bgl	300.2	76	81	5	Clay
Casing (in m)		81	91	10	Sand
SWL (mbgl)	6.5	91	97	6	Clay
Discharge (lps)		97	102	5	Sand
Date/year		102	159	57	Clay
		159	165	6	Sand
		165	182	17	Clay
		182	191	9	Sand
		191	250	59	Clay
		250	266	16	Sand
		266	300.2	34.2	Clay

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-3	Depth range (mbgl)		Thicknes s (m)	Litholog
Village	Bibijan	From	To		
Taluka/Block	Titabor	0	6.6	6.6	Surface clay, brown
District	Jorhat	6.6	18.9	12.3	Sticky clay, grey
Toposheet No	83J/2	18.9	28.2	9.3	Clay with fine sand
Latitude	26°50'8.52"	28.2	31.2	3	Sand, fine to medium grained
Longitude	94°26'42"	31.2	52.8	21.6	Sticky clay, grey
RL (m amsl)	82	52.8	58.95	6.15	Clay with fine sand
Drilled Depth m bgl	200	58.95	61.95	3	Sand, fine to medium grained
Casing (in m)	35	61.95	74.25	12.3	Clay with sand
SWL (mbgl)	11.79	74.25	92.7	18.45	Sand fine to medium grained
Discharge (lps)	23.65	92.7	95.85	3.15	Clay with sand
Date/year	1997	95.85	98.85	3	Sand fine to medium grained
		98.85	105	6.15	Sandy clay
		105	126.6	21.6	Sand fine to medium grained
		126.6	151.2	24.6	Sticky clay, grey
		151.2	154.2	3	Sandy clay
		154.2	200	45.8	Sticky clay, grey

Unique ID	ASM-83F14-4	Depth range (mbgl)		Thicknes s (m)	Litholog
Village	Chetiagaon	From	To		
Taluka/Block	Dergaon	0	44.6	44.6	Clay yellow to dark grey sticky with iron nodules
District	Golaghat	44.6	53.8	9.2	Sand, grey, fine to medium with gravel and little clay
Toposheet No	83F/14	53.8	59.9	6.1	Clay, grey, plastic with fine to medium sand
Latitude	26°35'50"	59.9	81.2	21.3	Sand, grey, fine to medium to with gravel
Longitude	93°59'24"	81.2	84.3	3.1	Sand, grey, fine to medium with gravel and clay
RL (m amsl)	85	84.3	130	45.7	Clay, greenish grey, sticky
Drilled Depth m bgl	305.5	130	172.7	42.7	Sand, grey, fine to medium
Casing (in m)	30	172.7	233.7	61	Clay, grey, sticky with little fine grey sand
SWL (mbgl)	4.61	233.7	246.9	13.2	Sand, grey, fine with clay
Discharge (lps)	23.97	245.9	249	3.1	Sand, grey, fine
Date/year	1978	249	279.5	30.5	Clay, grey with fine to medium sand
		279.5	295.8	16.3	Sand, grey, fine with little clay

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-5
Village	Lichubari
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83J/2
Latitude	26°40'59.88"
Longitude	94°0'10.01"
RL (m amsl)	98
Drilled Depth m bgl	116.8
Casing (in m)	28
SWL (mbgl)	10.7
Discharge (lps)	6.33
Date/year	

Depth range (mbgl)		Thicknes s (m)	Litholog
From	To		
0	3.05	3.05	Clay
3.05	6.1	3.05	Clay
6.1	7.01	0.91	Clay
7.01	10.2	3.19	Clay with sand
10.2	13.26	3.06	Sand
13.26	16.47	3.21	Sand
16.47	19.66	3.19	Sand
19.66	22.86	3.2	Sand
22.86	32.15	9.29	Sand
32.15	38.4	6.25	Sand
38.4	41.45	3.05	Sand
41.45	75.9	34.45	Sand
75.9	78.1	2.2	Sand
78.1	81.15	3.05	Sand
81.15	84.2	3.05	Sand with gravel
84.2	113.8	29.6	Clay
113.8	116.43	2.63	Clay with sand
116.43	122.67	6.24	Clay with sand
122.67	125.67	3	Sand
125.67	199.65	73.98	Clay with sand
199.65	227.69	28.04	Sand
227.69	230.74	3.05	Clay with sand

Unique ID	ASM-83J2-6
Village	Kamargaon
Taluka/Block	Dergaon
District	Golaghat
Toposheet No	83J/2
Latitude	26°31'35"
Longitude	94°4'35"
RL (m amsl)	105
Drilled Depth	211.9
Casing	30.04
SWL (mbgl)	3.17
Discharge (lps)	57.22
Date/year	1977

Depth range (mbgl)		Thicknes s (m)	Litholog
From	To		
0	6.7	6.7	Clay with sand
6.7	24.38	17.68	Sand
24.38	31.92	7.54	Sand with clay
31.92	43.28	11.36	Sand
43.28	44.2	0.92	Sand
44.2	48.77	4.57	Sand
48.77	51.82	3.05	Sand
51.82	56.39	4.57	Sand
56.39	76.2	19.81	Sand
76.2	80.77	4.57	Sand
80.77	82.9	2.13	Sand
82.9	124.96	42.06	Sand
124.96	134.72	9.76	Sand
134.72	148.74	14.02	Sand

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

148.74	149.96	1.22	Clay with sand
149.96	156.97	7.01	Sand
156.97	160.02	3.05	Sand
160.02	163.06	3.04	Sand
163.06	167.03	3.97	Sand
167.03	177.7	10.67	Sand
177.7	184.1	6.4	Clay with sand
184.1	190.8	6.7	Sand
190.8	191.41	0.61	Clay with sand
191.41	204.21	12.8	Sand
204.21	207.87	3.66	Clay with sand
207.87	210.31	2.44	Sand
210.31	211.9	1.59	Clay with sand

Unique ID	ASM-83J2-7
Village	No-1 Sonarigaon
Taluka/Block	Titabor
District	Jorhat
Toposheet No	83J/2
Latitude	26°02'14"
Longitude	94°59'29"
RL (m amsl)	9.3
Drilled Depth	175
Casing	50.5
SWL (mbgl)	8.68
Discharge (lps)	18.86
Date/year	2012

Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	6.80	6.80	Top soil, brownish
6.8	12.95	6.15	Sand, medium grained, grayish white
12.95	25.25	12.30	Clay, grey, plastic
25.25	31.40	6.15	Sand, very fine grained, silty with wood particles
31.4	34.40	3.00	Clay, grey, plastic
34.4	37.55	3.15	Sand, very fine grained, silty with high percentage of mica
37.55	53.00	15.45	Clay, grey, plastic
53	71.45	18.45	Sand, very fine grained, silty with quartz, feldspar and mica
71.45	92.90	21.45	Sand, fine to medium grained, with quartz, feldspar and mica
92.9	99.50	6.60	Sand, gravelly, with angular to sub-angular fragments of ferruginous material
99.5	117.50	18.00	Clay, grey, plastic
117.5	148.25	30.75	Sand, very fine grained, silty
148.25	154.40	6.15	Clay, sandy, gravelly with angular to sub-angular fragments of ferruginous material
154.4	169.85	15.45	Sand, fine to medium grained, with smaller fragments of quartz, feldspar and mica
169.85	175.00	5.15	Clay, sandy, very fine grained.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-8	Depth range (mbgl)		Thickness (m)	Litholog
Village	Jalukunibari	From	To		
Taluka/Block	Titabor	0	6.80	6.80	Sand, medium to fine grained, white
District	Jorhat	6.8	12.95	6.15	Gravelly sand, grayish, mixed with clay, grey
Toposheet No	83J/2	12.95	22.25	9.30	Clay plastic, grey
Latitude	26°38'29"	22.25	28.40	6.15	Gravelly sand, grayish, mixed with clay grey
Longitude	94°11'29"	28.4	31.40	3.00	Clay plastic, blackish
RL (m amsl)	83	31.4	34.40	3.00	Clay, grey, mixed with little sand, fine grained, greyish
Drilled Depth	160.55	34.4	37.55	3.15	Clay, grey, mixed with sand, coarse to fine grained, greyish
Casing	30.5	37.55	49.85	12.30	Clay, grey
SWL (mbgl)	14.55	49.85	62.15	12.30	Clay, grey, mixed with sand, very fine grained, silt
Discharge (lps)	18.9	62.15	68.30	6.15	Sand, grayish, fine to coarse grained, mixed with clay, grey
Date/year	2012	68.3	74.45	6.15	Sand, grayish, coarse grained, mixed with clay, grey
		74.45	86.75	12.30	Clay, grey, mixed with sand, fine grained, greyish
		86.75	92.90	6.15	Gravelly sand, grayish, coarse grained, mixed with clay, grey
		92.9	99.05	6.15	Clay, grey, mixed with sand, very fine grained and silt
		99.05	102.20	3.15	Clay, grey, mixed with sand, coarse to fine grained, greyish
		102.2	120.65	18.45	Clay, grey, mixed with sand, grayish, very fine grained and silt
		120.65	129.50	8.85	Sand, grayish, fine to coarse grained, mixed with clay, grey
		129.8	142.10	12.30	Silt, grey
		142.1	148.25	6.15	Sand, grayish, fine to coarse grained
		148.25	154.40	6.15	Gravelly sand
		154.4	157.55	3.15	Sand, grayish, fine to coarse grained, mixed with clay, grey
		157.55	160.55	3.00	Clay

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-9
Village	Machorhat
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83J/2
Latitude	26°31'35"
Longitude	94°4'35"
RL (m amsl)	94
Drilled Depth	171.3
Casing	30.5
SWL (mbgl)	7.82
Discharge (lps)	
Date/year	2013

Depth range (mbgl)		Thicknes s (m)	Litholog
0	6.8	6.8	Sand
6.8	19.1	12.3	Sand with gravel
19.1	53.1	34	Sand
53.1	59.15	6.05	Sand with clay
59.15	83.75	24.6	Sand
83.75	171.3	87.55	Clay with sand

Unique ID	ASM-83J5-10
Village	Brahmingaon
Taluka/Block	East Jorhat
District	Jorhat
Toposheet No	83J/5
Latitude	26°49'44"
Longitude	94°15'36"
RL (m amsl)	90
Drilled Depth	457.3
Casing	40.5
SWL (mbgl)	4.15
Discharge (lps)	58.73
Date/year	1977

Depth range (mbgl)		Thicknes s (m)	Litholog
0	2.00	2.00	Yellow, surface clay
2	22.36	20.36	Clay, dark grey, sticky with fine to medium grained grey sand
22.36	107.10	84.74	Sand, yellowish grey, fine to medium with admixture of grey clay
107.1	137.16	30.06	Sand, grey fine to medium with gravel
137.16	140.70	3.54	Sand, grey fine to medium with clay
140.7	166.72	26.02	Sand, grey, fine to coarse with little admixture of clay
166.72	167.64	0.92	Clay, grey with fine to medium sand
167.64	173.73	6.09	Sand, grey, fine to medium
173.73	181.35	7.62	Clay, grey with fine to medium sand
181.35	189.55	8.20	Sand, grey, fine to medium
189.55	190.50	0.95	Clay, grey with fine to medium grained sand
190.5	202.60	12.10	Sand , grey, fine to medium
202.6	207.26	4.66	Sand, grey, fine to medium with clay
207.26	239.77	32.51	Sand, grey, fine to medium
239.77	241.40	1.63	Clay, grey, with fine to medium sand
241.4	247.40	6.00	Sand, grey, fine to medium
247.4	266.70	19.30	Sand, grey, fine to medium with little clay
266.7	269.75	3.05	Clay, grey with little fine to medium sand

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

269.75	271.88	2.13	Sand, grey, fine to medium
271.88	274.32	2.44	Clay, grey with fine to medium sand
274.32	289.56	15.24	Sand, grey fine to medium with little clay
289.56	302.30	12.74	Sand, grey fine to medium with clay
302.3	317.50	15.20	Clay, grey with fine to medium sand
317.5	320.60	3.10	Sand, grey, fine to medium grained
320.6	341.70	21.10	Sand, grey fine to medium with clay
341.7	366.30	24.60	Clay, grey with fine to medium sand
366.3	375.50	9.20	Sand, grey fine to medium with clay and chips of sand stone
375.5	457.30	81.80	Clay, grey with little fine to medium sand

Unique ID	ASM-83J2-11
Village	Bhalukmora
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83J/5
Latitude	26°40'10.3836"
Longitude	94°05'49.5312"
RL (m amsl)	90
Drilled Depth	107.02
Casing	30
SWL (mbgl)	
Discharge (lps)	
Date/year	

Depth range (mbgl)		Thicknes s (m)	Litholog
0	14.94	14.94	Clay
14.94	17.99	3.05	Sand
17.99	19.82	1.83	Clay
19.82	50.91	31.09	Sand
50.91	60.06	9.15	Clay
60.06	66.16	6.1	Clay with sand
66.16	75.31	9.15	Clay
75.31	92.99	17.68	Sand
92.99	96.04	3.05	Clay with sand
96.04	102.02	5.98	Sand with clay
102.02	107.02	5	Sand

Unique ID	ASM-83J2-12
Village	Rangajan
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83J/2
Latitude	26°38'21.7248"
Longitude	94°12'59.3964"
RL (m amsl)	103
Drilled Depth	150
Casing	30.46
SWL (mbgl)	
Discharge (lps)	
Date/year	

Depth range (mbgl)		Thicknes s (m)	Litholog
0	6	6	Clay
6	30	24	Clay with sand
30	60	30	Sand
60	72	12	Clay
72	147	75	Sand
147	150	3	Clay with sand

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J1-13
Village	Mithaamtol
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83 J/1
Latitude	26°49'59.9988"
Longitude	94°08'5.208"
RL (m amsl)	85
Drilled Depth	103.65
Casing	30.21
SWL (mbgl)	3
Discharge (lps)	
Date/year	1992

Depth range (mbgl)		Thicknes s (m)	Litholog
0	16.07	16.07	Clay
16.07	19.09	3.02	Sand with clay
19.09	67.41	48.32	Sand
67.41	70.43	3.02	Clay
70.43	103.65	33.22	Sand

Unique ID	ASM-83J1-14
Village	Khalnagaon
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83 J/1
Latitude	26°49'59.9988"
Longitude	94°0'29.9988"
RL (m amsl)	83
Drilled Depth	106.68
Casing	
SWL (mbgl)	
Discharge (lps)	
Date/year	

Depth range (mbgl)		Thicknes s (m)	Litholog
0.00	6.09	6.09	Clay
6.09	106.68	100.59	Sand

Unique ID	ASM-83J2-15
Village	Koronga
Taluka/Block	Jorhat
District	Jorhat
Toposheet No	83 J/2
Latitude	26°41'41.928"
Longitude	94°14'24.972"
RL (m amsl)	105
Drilled Depth	124
Casing	30.04
SWL (mbgl)	
Discharge (lps)	
Date/year	

Depth range (mbgl)		Thicknes s (m)	Litholog
0	42	42	Clay
42	124	82	Sand

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-16	Depth range (mbgl)		Thicknes s (m)	Litholog
Village	Neghereting Bilatia	0.00	9.15	Clay	
Taluka/Block	Dergaon	9.15	21.33	Sand	
District	Golaghat	21.33	24.30	Clay	
Toposheet No	83 J/2	24.30	111.25	Sand	
Latitude	26°44'6.72"				
Longitude	94°0'11.4588"				
RL (m amsl)	91				
Drilled Depth	111.25				
Casing	24.3				
SWL (mbgl)					
Discharge (lps)					
Date/year					

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 2. Format for Aquifer Parameters

Unique ID	Village/ Location	Taluka/ Block	District	Toposh eet No.	Lat	Long	Type of well (DW/BW/T W)	Depth	Dia	Date of pumping Test	Draw down (m)	Transmiss ivity (m ² /day)	Storativity/ S.Yield	Specific Capacity (lpm/m of dd)	Source/ Agency
ASM-83J2-1	Charingia	Dergaon	Golaghat	83J/2	26°40'40"	94°17'55"	TW	295.8	12"		7.39	3990	1.03 X 10 ⁻³	477	CGWB
ASM-83J2-2	Melamati	Titabor	Jorhat	83J/2	26°34'33.99"	94°8'20"	TW	300.2	12"/6"						CGWB
ASM-83J2-3	Bibijan	Titabor	Jorhat	83J/2	26°45'45"	94°12'10"	TW	200	12"/6"		5.55	6.65	5.8 X 10 ⁻⁴	271.8 6	CGWB
ASM-83F14-4	Chetiagaon	Dergaon	Golaghat	83F/14	26°35'50"	93°59'24"	TW	305.5	12"/6"		4.669	821	8 X 10 ⁻⁴	308	CGWB
ASM-83J2-5	Lichubari	Jorhat	Jorhat	83J/2	26°40'59.88"	94°0'10.01"	TW	116.8			3.14	3600			CGWB
ASM-83J2-6	Kamargaon	Dergaon	Golaghat	83J/2	26°31'35"	94°4'35"	TW	211.9	9¾"/7"		6.29				CGWB
ASM-83J2-7	No-1 Sonarigaon	Titabor	Jorhat	83J/2	26°02'14"	94°59'29"	TW	175	8"/6"						CGWB
ASM-83J2-8	Jalukunibari	Titabor	Jorhat	83J/2	26°38'29"	94°11'29"	TW	160.55	8"/6"						CGWB
ASM-83J2-9	Machorhat	Jorhat	Jorhat	83J/2	26°31'35"	94°4'35"	TW	171.3	8"/6"						CGWB
ASM-83J5-10	Brahmingaon	East Jorhat	Jorhat	83J/5	26°49'44"	94°15'36"	TW	457.3	12"/6"		6.08	5632	1.02 X 10 ⁻³	680	CGWB
ASM-83J2-11	Bhalukmora	Jorhat	Jorhat	83J/2	26°40'10.38"	94°05'49.5"	TW	107.02	5"						PHED, Assam
ASM-83J2-12	Rangajan	Jorhat	Jorhat	83J/2	26°38'21.73"	94°12'59.4"	TW	150							PHED, Assam
ASM-83J1-13	Mithaamtol	Jorhat	Jorhat	83J/1	26°49'59.99"	94°08'5.21"	TW	103.65	12"/6"						Irrigation Department, Assam
ASM-83J1-14	Khalnagaon	Jorhat	Jorhat	83J/1	26°49'59.998"	94°0'29.9988"	TW	106.68							PHED, Assam
ASM-83J2-15	Karanga	Moriani	Jorhat	83J/2	26°41'41.928"	94°14'24.972"	TW	124	6"/4"						PHED, Assam
ASM-83J2-16	Neghereting Bilatia	Dergaon	Golaghat	83J/2	26°44'6.72"	94°0'11.4588"	TW	111.25							PHED, Assam

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 3. Format for Aquifer wise Water Quality Data

Unique ID	Village/ Location	Taluka/ Block	District	Toposheet No.	Lat	Long	Aquifer Type	Depth	pH	EC (mS/cm)	Turbidity (NTU)	TDS (mg/L)	TH (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	CO ₃ (mg/L)	HC O ₃ (mg/L)	SO ₄ (mg/L)	NO ₃ (mg/L)	Fe (mg/L)
DEEPER AQUIFER																						
ASM-83J2-1	Charangiagaon	Dergaon	Golaghat	83J/2	26°40'40" N	94°17'55" E	Unconsolidated	295.8	7.1	256			105	24	11			NIL	167			3
ASM-83J5-10	Brahmingaon	East Jorhat	Jorhat	83J/5	26°49'44" N	94°15'36" E	Unconsolidated	457.3	6.85	315			109	24.6	13.4	ND	ND	NIL	200			
ASM-83F14-17	Maibalia	Dergaon	Golaghat	83F/14	26°35'50" N	93°59'24" E	Unconsolidated		6.8	305			106	28	8.3	ND	ND	NIL	178	ND		
ASM-83J2-6	Kamargaon	Dergaon	Golaghat	83J/2	26°31'35" N	94°4'35" E	Unconsolidated	211.9	6.6	251			103	22	12	3	5	NIL	154			
ASM-83F14-4	Chetiagaon	Dergaon	Golaghat	83F/14	26°35'50" N	93°59'24" E	Unconsolidated	305.5	6.7	222			96	22	10			NIL	154			
SHALLOW AQUIFER																						
ASM-83J1-18	Kokilamukh	Jorhat West	Jorhat	83J/1	26°49'07" N	94°10'18" E	Unconsolidated	3.95	8.7	578	0.1	281	156	32	18.45	21.9	9.41	80	152	1.1	3.6	0.16
ASM-83J2-19	Baghmaria	Jorhat West	Jorhat	83J/2	26°40'45" N	94°12'00" E	Unconsolidated	3.94	7.08	136	88		35	12	1.2			NA	61	7		1.41
ASM-83J2-20	Sakelatinga	Jorhat West	Jorhat	83J/2	26°43'12" N	94°03'24" E	Unconsolidated	6.11	7.99	583	379		120	28	15			NA	73	59		0.52
ASM-83J2-21	Titabor	Titabor	Jorhat	83J/2	26°30'00" N	94°05'30" E	Unconsolidated	1.01	8.6	725	0.2	353	220	40	29.13	60	13.3	88	116	30	5.8	0.23
ASM-83J2-22	Dhapkata	Jorhat West	Jorhat	83J/2	26°44'03" N	94°14'25" E	Unconsolidated	3.3	8.07	816	536		210	56	17			0	189	53		BDL
ASM-83J2-23	Tipamia	Titabor	Jorhat	83J/2	26°32'00" N	94°11'00" E	Unconsolidated	7	8.07	684	445		225	62	17			0	183	54		BDL
ASM-83J2-24	Cinemora	East Jorhat	Jorhat	83J/3	26°42'33.8" N	94°13'59.1" E	Unconsolidated)	4.9	8.6	1285	0.2	627	240	40	33.98	82.2	32.5	40	120	23.6	7.8	1.85
ASM-83J2-25	Kolakhawa	East Jorhat	Jorhat	83J/4	26°46'48" N	94°13'27.8" E	Unconsolidated	4.9	8.6	523	0.1	254	172	40	17.48	40.7	6.18	48	68	10.2	2.3	0.93
ASM-83J2-26	Lichubari	East Jorhat	Jorhat	83J/5	26°43'37" N	94°12'37.8" E	Unconsolidated	5.47	8.6	603	0	293	196	64	8.74	39.8	26.3	56	76	51.4	3.1	0.23
ASM-83J2-27	Sodial Kachari Goan	Titabor	Jorhat	83J/6	26°30'23.76" N	94°9'25.38" E	Unconsolidated	4.37	8.6	428	0	208	152	51.2	5.83	18.4	19.5	40	100	23.4	3.7	0.19
ASM-83J2-28	Chandan nagar	East Jorhat	Jorhat	83J/7	26°44'24" N	94°12'56" E	Unconsolidated	5.27	8.3	219	0	106	140	17.6	23.3	21.1	1.96	8	48	1	3.7	0.97

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 10 Water Level Monitoring Data Compilation

Unique ID	Name of village/site	Latitude in degrees decimal	Longitude in degrees decimal	RL (mamsl)	Total depth of Pz/DW (mbgl)	Type (DW/Pz/Spring)	Aquifer group	Measuring point (magl)	Source /Agency	Any other information
SHALLOW AQUIFER										
ASM-83J1-29	Chengal Ati	26.8	94.084306	74	5.02	DW	Mono-aquifer	0.6	CGWB	
ASM-83J1-30	1 No. Elengmara Sonarigaon	26.810167	94.115917	63	6	DW	Mono-aquifer	0.51	CGWB	
ASM-83J2-19	Baghmaria (GWMS)	26.698333	94.20725	98	3.94	DW	Mono-aquifer	0.565	CGWB	
ASM-83J2-31	Kumar Southern	26.693278	94.185028	86	4	DW	Mono-aquifer	0.74	CGWB	
ASM-83J2-32	Buruk Baruah	26.672417	94.199722	86	3.33	DW	Mono-aquifer	0.77	CGWB	
ASM-83J2-33	Gohaingaon	26.503278	94.182667	89	4.33	DW	Mono-aquifer	0.47	CGWB	
ASM-83J2-21	Titabor	26.601972	94.201667	91	1.01	DW	Mono-aquifer	0.62	CGWB	
ASM-83J2-34	Deogharia	26.573917	94.2075	99	5.61	DW	Mono-aquifer	0.85	CGWB	
ASM-83J2-35	Mohimabari	26.545694	94.203139	91	3.09	DW	Mono-aquifer	0.68	CGWB	
ASM-83J2-23	Tipamia	26.511389	94.171111	84	7	DW	Mono-aquifer	0.24	CGWB	
ASM-83J2-36	Begenakhowa Lalungaon	26.502917	94.195417	91	3.46	DW	Mono-aquifer	0.81	CGWB	
ASM-83J2-37	Cinemora	26.709389	94.233083	103	5.97	DW	Mono-aquifer	0.53	CGWB	
ASM-83J2-38	Morangaon No.1	26.663667	94.233528	76	2.125	DW	Mono-aquifer	0.7	CGWB	
ASM-83J2-39	Rongajan Bongalgaon	26.639389	94.21625	78	11.09	DW	Mono-aquifer	0.81	CGWB	
ASM-83J2-40	Birinasayak Goborhola	26.54625	94.15125	80	5.64	DW	Mono-aquifer	0.83	CGWB	
ASM-83J2-41	Komarbandha Kanugaon	26.54225	94.09175	82	6.52	DW	Mono-aquifer	0.92	CGWB	
ASM-83J2-42	Komarbandha	26.532361	94.068917	90	6.4	DW	Mono-aquifer	1.0	CGWB	
ASM-83J2-43	Raidongia	26.527028	94.040639	97	5.04	DW	Mono-aquifer	0.62	CGWB	
ASM-83J2-44	Borjan	26.568444	94.057889	86	7.81	DW	Mono-aquifer	0.89	CGWB	

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

ASM-83J2-45	Rangdhali	26.631361	94.024333	71	3.39	DW	Mono-aquifer	1	CGWB	
ASM-83J2-46	Batiporia	26.63125	94.020944	73	6.48	DW	Mono-aquifer	0.97	CGWB	
ASM-83J2-47	Balibat	26.718028	94.003028	75	6.31	DW	Mono-aquifer	0.2	CGWB	
ASM-83J2-20	Saklatinga	26.723139	94.056306	67	6.11	DW	Mono-aquifer	0.59	CGWB	
ASM-83J2-48	Panichokua	26.713944	94.097722	71	2.79	DW	Mono-aquifer	0.36	CGWB	
ASM-83J2-49	Borveta Jailroad	26.735083	94.197278	124	3.445	DW	Mono-aquifer	0.555	CGWB	
ASM-83J2-50	Gohaingaon	26.695583	94.173861	83	3.65	DW	Mono-aquifer	0.92	CGWB	
ASM-83J2-51	Pokamura Borsaikia	26.703278	94.145611	71	6.12	DW	Mono-aquifer	0.88	CGWB	
ASM-83J2-52	Komarbandha	26.660306	94.131694	64	3.61	DW	Mono-aquifer	1.18	CGWB	
ASM-83J2-53	Chumoni	26.61475	94.050222	74	5.87	DW	Mono-aquifer	0.63	CGWB	
ASM-83J2-54	Borting Naohoia	26.592056	94.016667	81	4.43	DW	Mono-aquifer	0.7	CGWB	
ASM-83J2-55	Rangdhali	26.612361	94.025111	70	7.44	DW	Mono-aquifer	1.13	CGWB	
ASM-83J2-56	Gohainmer	26.64725	94.039417	68	11.88	DW	Mono-aquifer	1.02	CGWB	
ASM-83J2-57	Hapani	26.685778	94.031667	67	4.55	DW	Mono-aquifer	0.64	CGWB	
ASM-83J2-58	Saruhoj	26.720083	94.122917	68	3.73	DW	Mono-aquifer	0.82	CGWB	
ASM-83J2-25	Kolakhowa	26.78	94.224389	75	4.9	DW	Mono-aquifer	0.67	CGWB	
ASM-83J1-59	Puroni Gohaingaon	26.85075	94.21	76	5.49	DW	Mono-aquifer	0.9144	CGWB	
ASM-83J1-18	Kokilamukh	26.819556	94.167833	90	3.95	DW	Mono-aquifer	0.53	CGWB	
ASM-83J2-26	Lichubari	26.727167	94.2105	95	5.47	DW	Mono-aquifer	0.92	CGWB	
ASM-83J2-60	Gohaingaon	26.4794	94.1678	85	5.39	DW	Mono-aquifer	0.63	CGWB	
ASM-83J2-27	Sodial Kachari Gaon	26.5066	94.15705	90	4.37	DW	Mono-aquifer	1.08	CGWB	
ASM-83J2-61	Tekelagaon	26.580566	94.14543	82	3.65	DW	Mono-aquifer	0.95	CGWB	
ASM-83J2-62	Bokotial Gaon	26.502416	94.04875	82	5.9	DW	Mono-aquifer	0.91	CGWB	
ASM-83J2-63	Moidamoni Gaon	26.55066	94.028566	92	11.66	DW	Mono-aquifer	0.84	CGWB	
ASM-83J2-64	Dakhin Hengera Gaon	26.597683	94.061566	84	12.66	DW	Mono-aquifer	0.88	CGWB	
ASM-83J2-28	Chandan Nagar	26.741616	94.21566	98	5.27	DW	Mono-aquifer	0.38	CGWB	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Dynamic Data

Unique ID	Location	DTW (bgl)J uly 2012	DTW (bgl) Augu st 12	DTW (bgl)Sep tember 2012	DTW (bgl)Ocobe r2012	DTW (bgl)Nove mber 2012	DTW (bgl)Dece mber 2012	DTW (bgl)Jan uary 2013	DTW (bgl)M arch 2013	DTW (bgl)Au gust 2013	DTW (bgl)Nove mber 2013	DTW (bgl)M arch 2014	DTW (bgl)Au gust 2014	DTW (bgl)Nove mber 2014	DTW (bgl)Jan uary 2015	DTW (bgl)Au gust 2015	DTW (bgl)Nove mber 2015
ASM-83J1-29	Chengal Ati	1.54	0.82	0.68	0.37	1.01	1.96	2.24	2.97	2.43	1	2.95	2.4	1	2.21	2.39	1.21
ASM-83J1-30	1 No. Elengmara Sonarigaon	2.14	0.84	0.71	0.45	1.93	2.275	2.59	3.13	1.87	3.1	3	1.9	1.8	2.74	1.7	1.88
ASM-83J2-19	Baghmaria (GWMS)	1.5	0.82	0.75	0.695	1.2	1.865	2.155	2.86	0.88	1.21	2.8	0.9	1.11	2	0.84	1.33
ASM-83J2-31	Kumar Southern	1.6	0.53	0.44	0.21	1.1	1.89	2.3	3	0.6	1.21	2.9	0.52	1.32	2.12	0.64	1.32
ASM-83J2-32	Buruk Baruah	1.7	0.495	0.3	0.245	0.67	0.99	1.19	1.43	0.42	0.62	1.4	0.45	0.71	1.21	0.41	0.69
ASM-83J2-33	Gohaingaon	0.42	1.06	1	1.155	1.83	2.05	3.69	4	1.11	1.78	3.9	1.2	1.88	3.59	1.32	1.9
ASM-83J2-21	Titabor	0.87	0.565	0.44	0.3	0.96	1.55	2.155	2.43	2.07	3.12	2.42	2	1	2.21	2.11	1.1
ASM-83J2-34	Deogharia	1.1	0.59	0.47	0.3	0.89	1.58	1.95	3.71	0.6	0.9	3.69	0.58	0.81	1.99	0.67	1.9
ASM-83J2-35	Mohimabari	0.52	1.01	0.89	0.64	1.21	1.719	2.34	3.06	1.1	1.25	3	1.23	1.54	2.41	1.23	1.45
ASM-83J2-23	Tipamia	0.6	0.83	0.72	0.58	3.01	5.32	7	8.2	1.1	2.31	7.9	1	3.21	6.89	1	3.33
ASM-83J2-36	Begenakhowa Lalungaon	0.42	0.66	0.5	0.47	0.99	1.9	2.3	3.5	0.69	0.9	3.4	0.64	1.1	2.18	0.7	1.21
ASM-83J2-37	Cinemora	1.2	1.54	1.5	1.43	1.78	2.68	2.93	2.665	2.44	3.61	2.27	1.59	2.07	3.56	1.61	2
ASM-83J2-38	Morangaon No.1	0.23	0.53	0.43	0.36	0.96	1.24	1.45	1.84	0.45	1	1.88	0.62	0.85	1.55	0.52	0.88
ASM-83J2-39	Rongajan Bongalgaon	0.13	0.6	0.5	0.32	1.05	1.91	1.79	4.65	3.2	3.45	4.52	2.54	1	3.63	1.4	1.2
ASM-83J2-40	Birinasayak Goborhola	0.17	1.32	0.99	0.59	2.2	2.78	3.02	5.07	1.39	2.23	5.21	1.2	2.32	0.1	1.21	2.32
ASM-83J2-41	Komarbandha Kanugaon	0.22	0.495	0.39	0.32	0.88	1.1	1.85	3	0.5	0.8	2.9	0.51	0.9	0.21	0.48	0.9
ASM-83J2-42	Komarbandha	6.27	0.44	0.21	0.185	0.32	0.51	0.65	3.4	0.5	0.35	3.21	0.5	0.3	6.11	0.52	0.35

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AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

ASM-83J2-43	Raidongia	0.86	1.1	0.84	0.75	1.33	1.87	2.06	2.95	1	1.41	3	1.2	1.29	0.88	1.12	1.23
ASM-83J2-44	Borjan	1.25	1.345	1.11	1.28	2.89	4.69	5.809	12.38	1.4	2.81	12.12	1.32	2.88	1.2	1.35	2.9
ASM-83J2-45	Rangdhali	0.8	0.29	0.22	0.2	3.69	4.88	4.44	7.45	0.25	3.55	7.21	0.31	3.58	0.78	0.31	3.8
ASM-83J2-46	Batiporia	0.17	0.87	0.86	0.8	5	7.11	7.39	7.73	0.91	4.9	7.8	0.88	4.9	0.1	0.78	4.8
ASM-83J2-47	Balibat	1.74	1.13	1.1	0.89	3.12	4.97	5.94	6.4	1.12	3	6.23	1.1	3.11	1.5	1.21	3.33
ASM-83J2-20	Saklatinga	1.49	1.48	1.48	1.47	2	3.26	3.64	4.22	1.45	1.9	4.5	1.51	2.2	1.4	1.5	2.12
ASM-83J2-48	Panichokua	0.4	0.35	0.3	0.21	0.77	1.01	1.55	2.5	0.34	0.8	2.55	0.34	0.8	0.45	0.31	0.9
ASM-83J2-49	Borveta Jailroad	2.805	0.335	0.336	0.335	0.65	0.895	2.065	1.715	0.31	0.62	1.82	0.35	0.56	2.9	0.34	0.66
ASM-83J2-50	Gohaingaon	1.56	1.32	1.12	1.01	1.57	2.55	6.34	3.25	1.33	1.61	3.3	1.3	1.47	1.6	1.23	1.54
ASM-83J2-51	Pokamura Borsaikia	6.12	4.605	4.45	4.38	4.5	5.62	6.01	6.16	4.51	4.44	6.1	4	4.1	6.1	4.7	5
ASM-83J2-52	Komarbandha	0.32	0.63	0.51	0.26	0.73	1.81	2.145	2.94	0.69	0.93	3	0.58	0.8	0.35	0.65	0.8
ASM-83J2-53	Chumoni	0.19	0.3	0.22	0.05	0.51	0.94	1.56	3.8	0.35	0.6	3.74	0.29	0.54	0.18	0.23	0.43
ASM-83J2-54	Borting Naohoia	0.36	0.66	0.6	0.45	1.5	3.1	4.43	5.6	0.65	1.48	5.3	0.71	1.65	0.39	0.7	1.55
ASM-83J2-55	Rangdhali	0.92	1.3	1	0.97	2.2	3.01	4.02	5.59	1.23	2.12	5.61	1.23	2.32	1	1.22	2.41
ASM-83J2-56	Gohainmer	1.9	2.4	4.1	8.28	8.8	9.79	11.88	12.9	2.3	9.1	12.8	2.51	9	2.1	2.3	8.7
ASM-83J2-57	Hapani	3.88	4.2	4	3.5	3.82	3.97	4.12	4.5	4	3.74	4.2	4.11	3.87	3.78	4.1	3.78
ASM-83J2-58	Saruhoj	3.43	2.5	1.9	0.4	0.6	0.96	1.17	1.67	1.88	2.21	1.7	1.22	0.98	2.4	1.78	1.8
ASM-83J2-25	Kolakhowa	0.47	0.465	0.45	0.455	0.68	1.21	1.76	4.74	2.87	4.21	2.2	1.87	1.23	4.41	2.3	4
ASM-83J1-59	Puroni Gohaingaon	1.1	1.71	2.34	3.33	4.01	4.98	5.49	6.32	1.68	4	3	1.71	4	4.5	1.6	1.8
ASM-83J1-18	Kokilamukh	0.41	0.42	0.39	0.37	0.77	1.87	2.21	3.55	2.55	1.47	3	1.47	1.24	2.93	2.45	1.4
ASM-83J2-26	Lichubari	1.12	1.17	1.11	1.11	1.51	1.96	2.265	3.47	2.41	3.48	1.2	2.1	0.58	3.82	2.39	3.33
ASM-83J2-60	Gohaingaon	N.A.	0.31	0.28	0.2	0.79	1.99	2.22	3.82	0.35	0.73	3.77	0.4	0.8	2.4	0.56	1
ASM-83J2-27	Sodial Kachari Gaon	N.A.	0.7	0.54	0.41	0.73	1.01	1.68	2.12	0.68	0.8	2.21	0.7	0.81	1.71	0.6	0.74
ASM-83J2-61	Tekelagaon	N.A.	0.7	0.7	0.73	0.86	1.9	2.217	2.67	0.68	0.91	2.7	0.5	1	2.4	0.58	0.89

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AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

ASM-83J2-60	Gohaingaon	N.A.	0.31	0.28	0.2	0.79	1.99	2.22	3.82	0.35	0.73	3.77	0.4	0.8	2.4	0.56	1
ASM-83J2-27	Sodial Kachari Gaon	N.A.	0.7	0.54	0.41	0.73	1.01	1.68	2.12	0.68	0.8	2.21	0.7	0.81	1.71	0.6	0.74
ASM-83J2-61	Tekelagaon	N.A.	0.7	0.7	0.73	0.86	1.9	2.217	2.67	0.68	0.91	2.7	0.5	1	2.4	0.58	0.89
ASM-83J2-62	Bokotial Gaon	N.A.	4.96	3.99	3.57	3.98	4.99	5.55	5.73	4.8	4	5.81	5	5.2	5	4.8	5.32
ASM-83J2-63	Moidamoni Gaon	N.A.	1.36	1.31	1	5.93	8.76	9.86	11.1	1.4	5.8	10.8	1.2	6.1	10	1.4	5.99
ASM-83J2-64	Dakhin Hengera Gaon	N.A.	1.52	1.4	1.385	6.2	8.88	9.82	7.69	1.5	6.8	7.1	1.55	1.63	9.77	1.6	1.77
ASM-83J2-28	Chandan Nagar	N.A.	1.006	1	0.965	1.2	1.33	1.56	1.25	1.6	2.6	1.32	1.2	1.77	2.63	1.58	2.59

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 11 Rainfall Data in mm

Unique ID	Name	Toposheet	Lat	Long	District	Taluka/ Block	Source	Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
ASM-83J2-65	Jorhat	83 J/2			Jorhat	East Jorhat	IMD	2004	36.4	37.6	133.5	305.4	307.2	187.2	326.1	204.5	337.7	229.2	5.4	1.8
ASM-83J2-66	Jorhat	83 J/2			Jorhat	Do	IMD	2005	36.4	24.3	227.9	154.2	219.6	192.1	263.4	281.4	140.9	60.9	14.9	0
ASM-83J2-67	Jorhat	83 J/2			Jorhat	Do	IMD	2006	5.6	105.7	38.8	140.5	155.4	245.4	332	226.2	157.4	73.3	20.1	11.4
ASM-83J2-68	Jorhat	83 J/2			Jorhat	Do	IMD	2007	0.1	76.3	29.4	212.8	189	274.6	300.8	318	355.1	28.5	25.3	17.6
ASM-83J2-69	Jorhat	83 J/2			Jorhat	Do	IMD	2008	27.7	8.3	89.9	181.8	203.3	329.9	357.1	330.5	125	122.5	0	2.1
ASM-83J2-70	Jorhat	83 J/2			Jorhat	Do	IMD	2009	6.6	21.7	26	154	187.8	225	293.4	286.8	101.5	57.8	18.7	0.7
ASM-83J2-71	Jorhat	83 J/2			Jorhat	Do	IMD	2010	N.A.	N.A.	108	325	272.4	328	413.8	290.3	187.1	113.9	27.6	8.8
ASM-83J2-72	Jorhat	83 J/2			Jorhat	Do	IMD	2011	14.7	23.3	76.4	448.3	448.3	247.6	413.1	288.1	167.5	17.8	9.9	14.9
ASM-83J2-73	Jorhat	83 J/2			Jorhat	Do	IMD	2012	9.7	5.2	12.4	133.6	133.6	209.7	394.8	242.9	225.5	63.8	1.1	7.4
ASM-83J2-74	Jorhat	83 J/2			Jorhat	Do	IMD	2013	1.6	9.2	66.7	319.8	319.8	295.7	492.5	359.3	87.9	145.8	0	1.5
ASM-83F14-74	Golaghat	83F/14			Golaghat	Dergaon	IMD	2004	12	17	65.8	389.8	135.8	218.2	348	282.6	179.9	213.6	8.2	0.1
ASM-83F14-75	Golaghat	83F/15			Golaghat	Do	IMD	2005	50.4	21.2	151.3	152	138.9	150.8	271.4	300.2	99.8	88.1	1.8	0
ASM-83F14-76	Golaghat	83F/16			Golaghat	Do	IMD	2006	2.5	65.4	21.4	137.8	143.6	219.3	265.3	145.2	148.1	82.4	20.4	3.3
ASM-83F14-77	Golaghat	83F/17			Golaghat	Do	IMD	2007	8.1	99.9	61.3	79.6	125.8	191.2	223.6	230.7	257.8	50.1	24.1	4.4
ASM-83F14-78	Golaghat	83F/18			Golaghat	Do	IMD	2008	17.2	5.3	81.6	53.3	210.7	278.9	253.2	240.5	132.6	74.6	0	3.1
ASM-83F14-79	Golaghat	83F/19			Golaghat	Do	IMD	2009	0	15.3	40.3	140.9	114.2	163.2	334	187.5	151.7	70.4	6.6	8.3
ASM-83F14-80	Golaghat	83F/20			Golaghat	Do	IMD	2010	N.A.	N.A.	111.1	213.8	305	281	339.4	183.8	175.5	85.7	7.5	1.2
ASM-83F14-81	Golaghat	83F/21			Golaghat	Do	IMD	2011	14.1	3	63.2	61.9	308.3	231.6	490.1	201.9	135.2	29.7	4.1	2.1
ASM-83F14-82	Golaghat	83F/22			Golaghat	Do	IMD	2012	17.8	10.1	10.6	213.7	148	273.4	216.8	254.3	244.4	60.6	0.1	1.5
ASM-83F14-83	Golaghat	83F/23			Golaghat	Do	IMD	2013	0	10.3	76.7	62.6	237.8	137.1	262.7	327.9	124.6	143.3	0	6.7

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Table 12 Geophysical data

Unique ID	ASM-83J1-84	Date/year	
Village	Masorhat	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/1	Depth drilled	
Lattitudes	26 °45' 23° N	Discharge (lps)	
Longitudes	94°12'23" E	Transmissivity (m ² /day)	
RL(m amsl)	88	Storativity	

Unique ID	ASM-83J2-85	Date/year	
Village	Charaibari	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/2	Depth drilled	
Lattitudes	26 °40' 49° N	Discharge (lps)	
Longitudes	94°09'19" E	Transmissivity (m ² /day)	
RL(m amsl)	78	Storativity	

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	5	58	Top soil with clay etc.
5	12.5	102	Clays with sands etc.
12.5	57.5	47	Sands with clays etc.
57.5	98	104	Intercalations of Clays and sands with gravel etc.
98		44	Intercalations of Sands with clays etc.

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	2	200	Top soil with clay etc.
2	36	20	clays with sands etc.
36	59.8	75	Sands with clays with gravel etc.
59.8	123.8	35	Intercalations of Clays and sands etc.
123.8	148	525	Hard soil
148		44	Intercalations of Sands with clays etc.

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-86	Date/year	Nil
Village	Chutiakarigaon	Nearby DW/DCBW/BW Depth	Nil
Talluka/block	Jorhat	Yield/Discharge	Nil
District	Jorhat	Whether BH was drilled at this point? If Yes,	Nil
Toposheet No.	83J/2	Depth drilled	Nil
Lattitudes	26 °42' 04° E	Discharge (lps)	Nil
Longitudes	94°10'13" E	Transmissivity (m ² /day)	Nil
RL(m amsl)	86	Storativity	Nil

Unique ID	ASM-83J2-87	Date/year	
Village	Komargaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Dergaon	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/2	Depth drilled	
Lattitudes	26 °41' 43° N	Discharge (lps)	
Longitudes	93°59'19" E	Transmissivity (m ² /day)	
RL(m amsl)	75	Storativity	

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	2.6	300	Top soil with clay etc.
2.6	20.3	26	Sands with clays etc.
20.3		80	Intercalations of sands with clays and gravels etc.

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	9	50 to 330	Top soil with clay etc.
9	33	135	Hard soil with sand , gravels and clays etc.
33		100	Intercalations of Sands with clays with gravels etc.

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-88	Date/year	Nil
Village	Dergaon	Nearby DW/DCBW/BW Depth	Nil
Talluka/block	Jorhat	Yield/Discharge	Nil
District	Jorhat	Whether BH was drilled at this point? If Yes,	Nil
Toposheet No.	83J/2	Depth drilled	Nil
Lattitudes	26 °42' 04" N	Discharge (lps)	Nil
Longitudes	94°10'13" N	Transmissivity (m ² /day)	Nil
RL(m amsl)		Storativity	Nil

Unique ID	ASM-83J1-89	Date/year	
Village	Sonarigaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/1	Depth drilled	
Lattitudes	26 °44' 25" N	Discharge (lps)	
Longitudes	94°09'25" E	Transmissivity (m ² /day)	
RL(m amsl)	124	Storativity	

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	4.4	110	Top soil with clay etc.
4.4	37	165	clays with sands etc.
37	85	210	Hard soil, Sands with clays etc.
85		76	Intercalations of Sands with clays etc.

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	4.7	86	Top soil with clay etc.
4.7	31	26	clays with sands etc.
31		150	Intercalations of Sands with clays, hard soil etc.

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-90	Date/year	Nil
Village	Lohpohia	Nearby DW/DCBW/BW Depth	Nil
Talluka/block	Jorhat	Yield/Discharge	Nil
District	Jorhat	Whether BH was drilled at this point? If Yes,	Nil
Toposheet No.	83J/2	Depth drilled	Nil
Lattitudes	26 °43'20" N	Discharge (lps)	Nil
Longitudes	94°08'45" E	Transmissivity (m ² /day)	Nil
RL(m amsl)	88	Storativity	Nil

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	9.2	52	Top soil with clay etc.
9.2	29	182	Hard soil with sands, clays etc.
29	261	108	Sands with clays and gravels etc.
261		259	Hard soil with Intercalations of Clays and sands and gravel etc.

Unique ID	ASM-83J1-91	Date/year	Nil
Village	Dhupdoi	Nearby DW/DCBW/BW Depth	Nil
Talluka/block	Jorhat	Yield/Discharge	Nil
District	Jorhat	Whether BH was drilled at this point? If Yes,	Nil
Toposheet No.	83J/1	Depth drilled	Nil
Lattitudes	26 °46' 55" N	Discharge (lps)	Nil
Longitudes	94°12'36" E	Transmissivity (m ² /day)	Nil
RL(m amsl)	75	Storativity	Nil

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	1.6	45	Top soil with clay etc.
1.6	56	112	Hard soil with clays and sands etc.
56		72	Sands with clays etc.

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J2-92	Date/year	
Village	Jalukoni	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	No
Toposheet No.	83J/2	Depth drilled	
Lattitudes	26 °38' 26° N	Discharge (lps)	
Longitudes	94°11'01" E	Transmissivity (m ² /day)	
RL(m amsl)	78	Storativity	

Unique ID	ASM-83J2-93	Date/year	
Village	Sonarigaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	Yes
Toposheet No.	83J/2	Depth drilled	
Lattitudes	26 °44' 25° N	Discharge (lps)	
Longitudes	94°11'31" E	Transmissivity (m ² /day)	
RL(m amsl)	124	Storativity	

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	1.5	330	Top soil with clay etc.
1.5	5.4	50	clay with sand etc.
5.4	43.9	28	Intercalations of Sands with clays etc
43.9	64.4	75	Intercalations of Clays with sands and gravel etc.
64.4		58	Intercalations of Sand with clay etc.

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	6	39-58	Top soil with clay etc.
6	30	164	Hard soil, clays with sands etc.
30	111	72	Sands with clays, gravel etc.
111	171	135	Intercalations of sands and clays with hard soil etc.
171		52	Intercalations of Sands with clays etc.

Continued

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J1-94	Date/year	
Village	Tarajangaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/1	Depth drilled	
Lattitudes	26 °45'44" N	Discharge (lps)	
Longitudes	94°11'05" E	Transmissivity (m ² /day)	
RL(m amsl)		Storativity	

Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	3	110	Top soil with clay etc.
3	66	33	clays with sands etc.
66		70	Sands with clays, gravels etc.

Unique ID	ASM-83J5-95	Date/year	Nil
Village	Kacharihat tinali	Nearby DW/DCBW/BW Depth	Nil
Talluka/block	Gomariguri	Yield/Discharge	Nil
District	Golaghat	Whether BH was drilled at this point? If Yes,	Nil
Toposheet No.	83J/2	Depth drilled	Nil
Lattitudes	26 °31' 20" N	Discharge (lps)	Nil
Longitudes	94°00'45" E	Transmissivity (m ² /day)	Nil
RL(m amsl)	90	Storativity	Nil

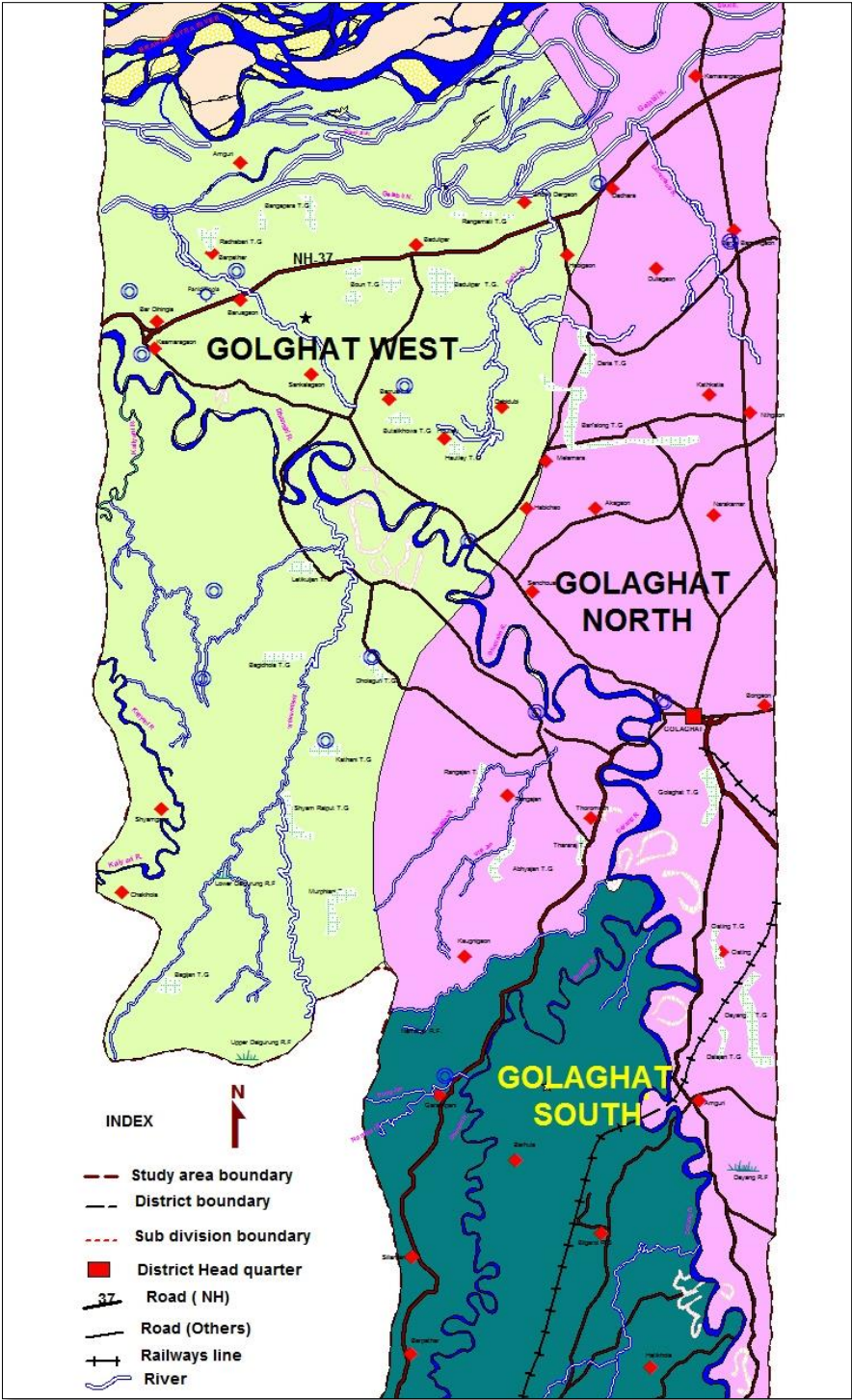
Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	0.85	64	Top soil with clay etc.
0.85	16.1	16	clays with sands etc.
16.1	74	50	Sands with clays etc.
74		28	Intercalations of Clays and sands with etc.

Continued

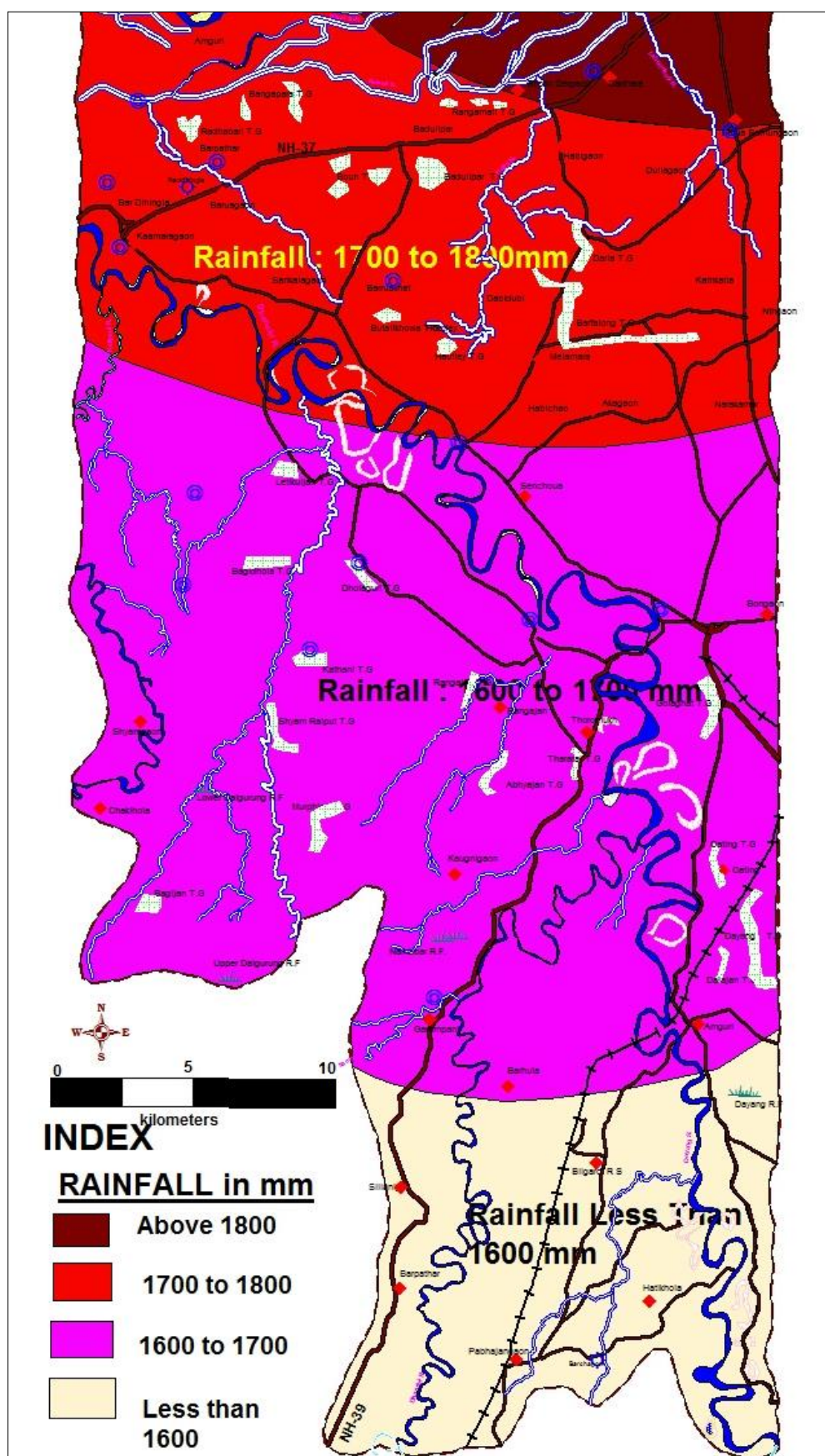
AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	ASM-83J1-96	Date/year	
Village	1 no. Brahmingaon	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/1	Depth drilled	
Lattitudes	26 °46' 42° N	Discharge (lps)	
Longitudes	94°14'50" E	Transmissivity (m ² /day)	
RL(m amsl)	75	Storativity	

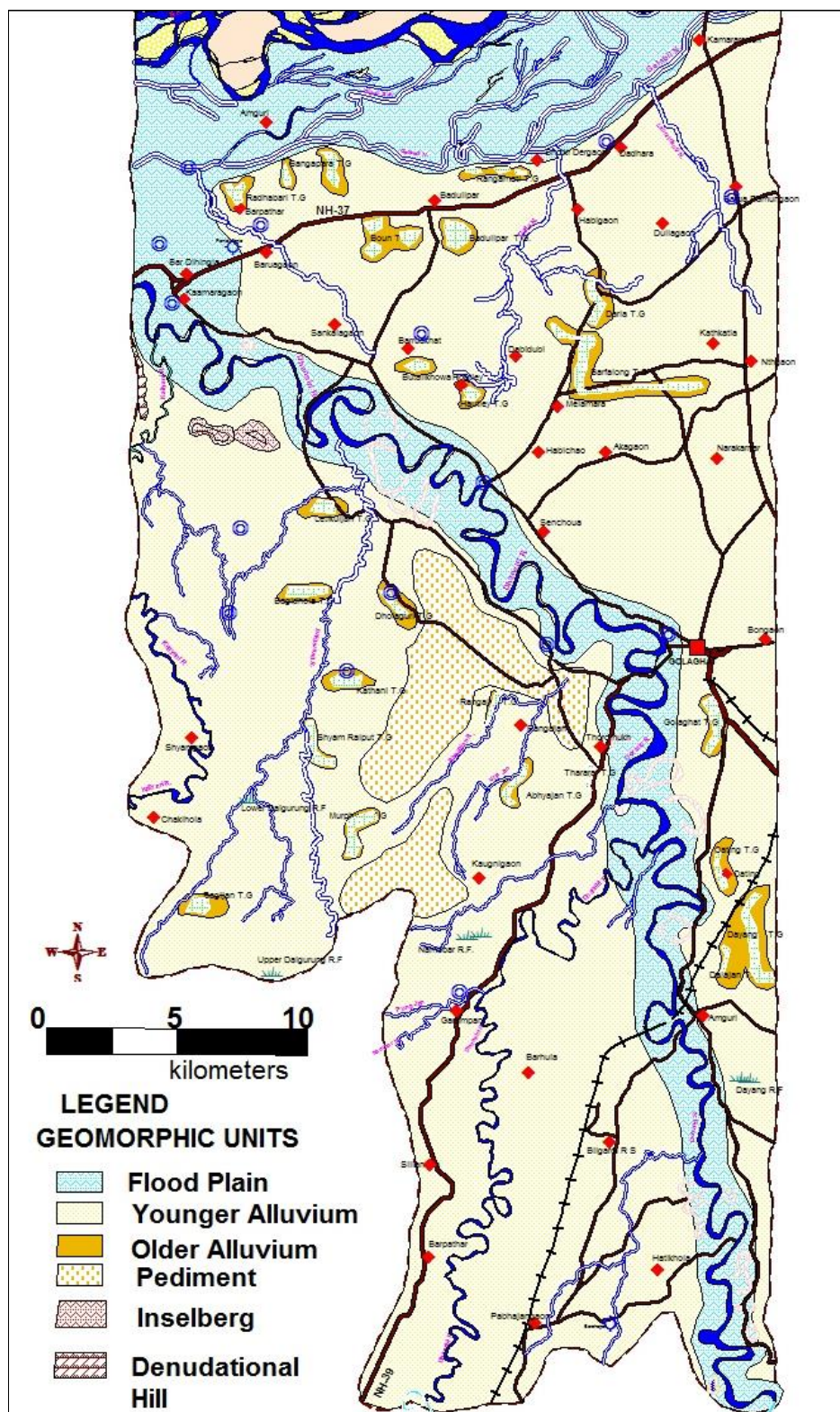
Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
0	11	50	Top soil with clay etc.
11	45	33	clays with sands etc.
45		58	Sands with clays etc.



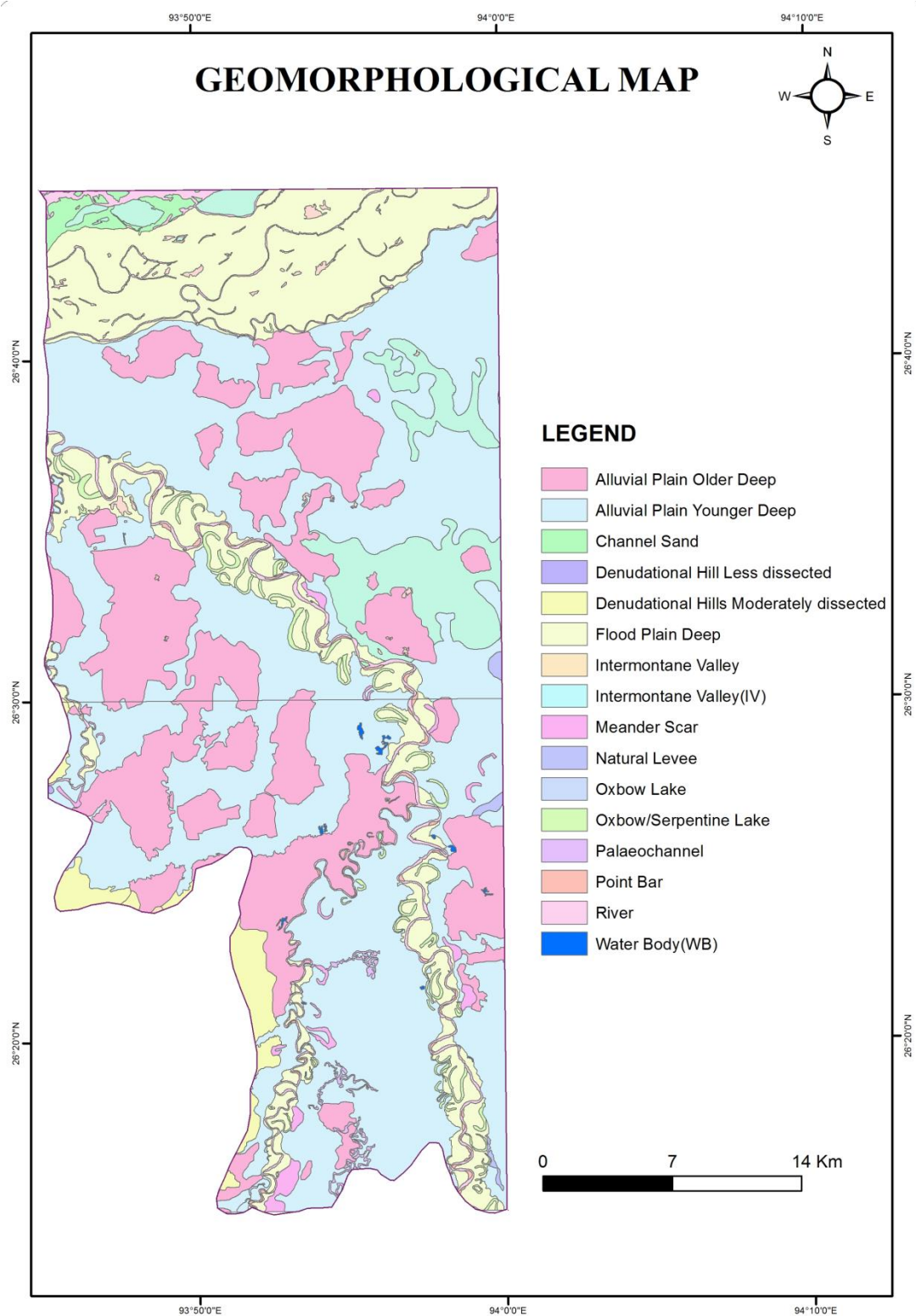
Administrative Divisions in the study area



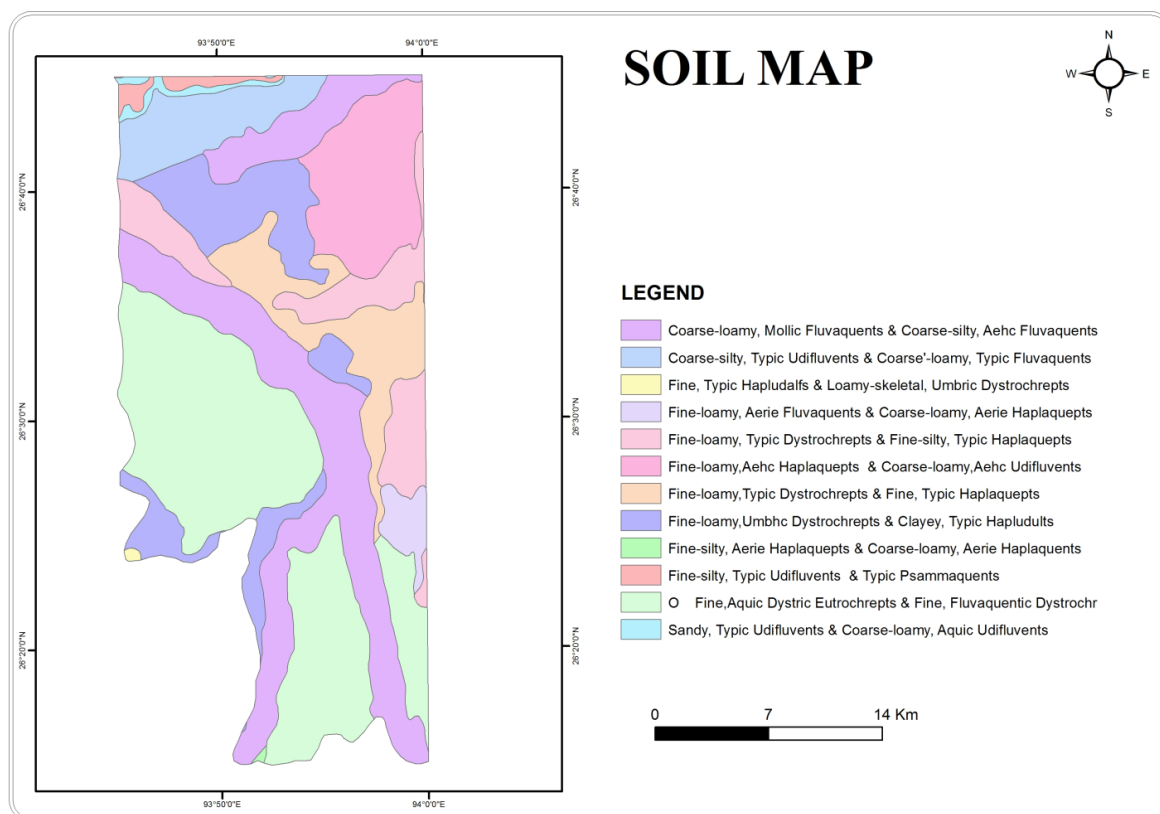
Distribution of rainfall (in mm) in the study area

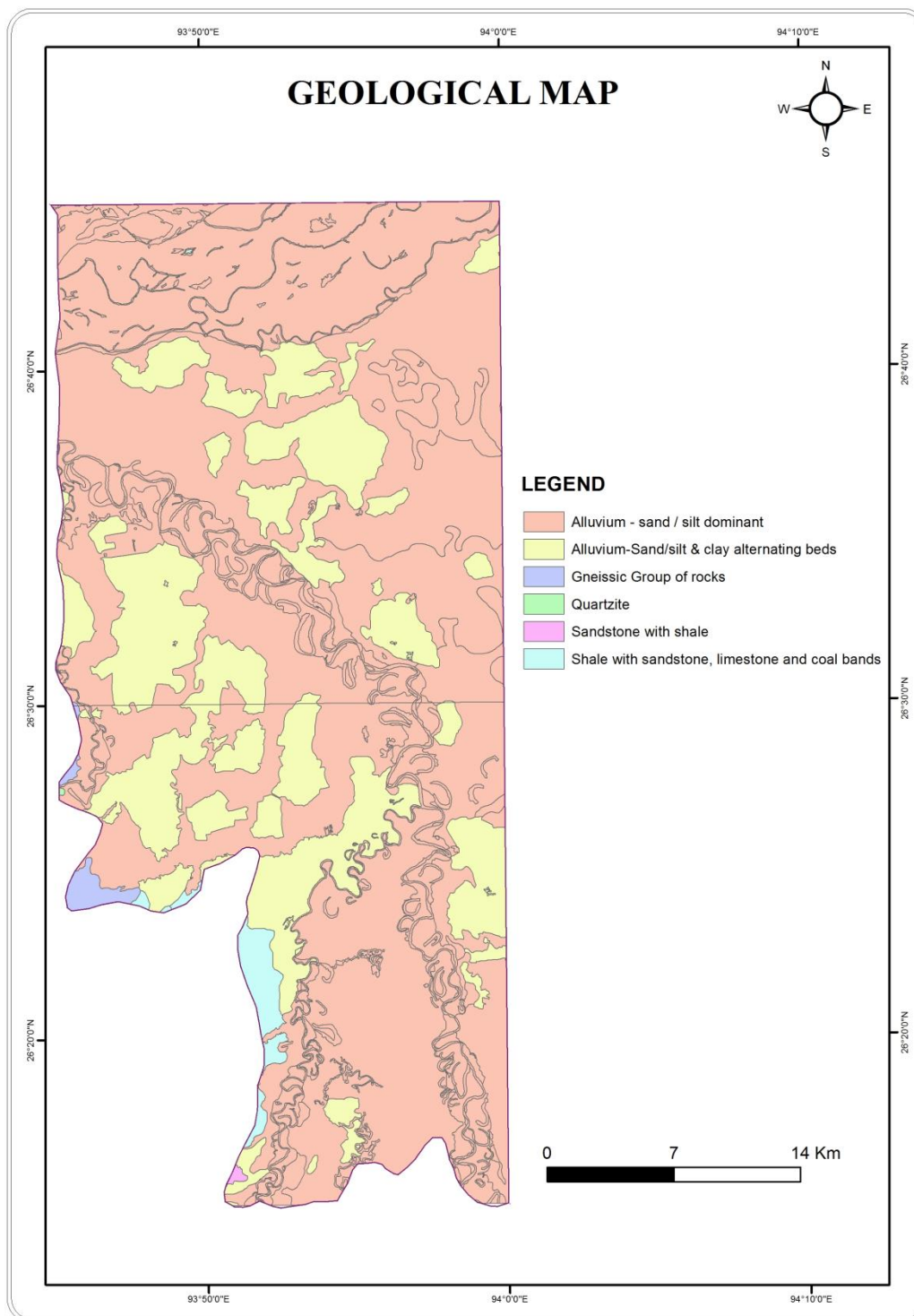


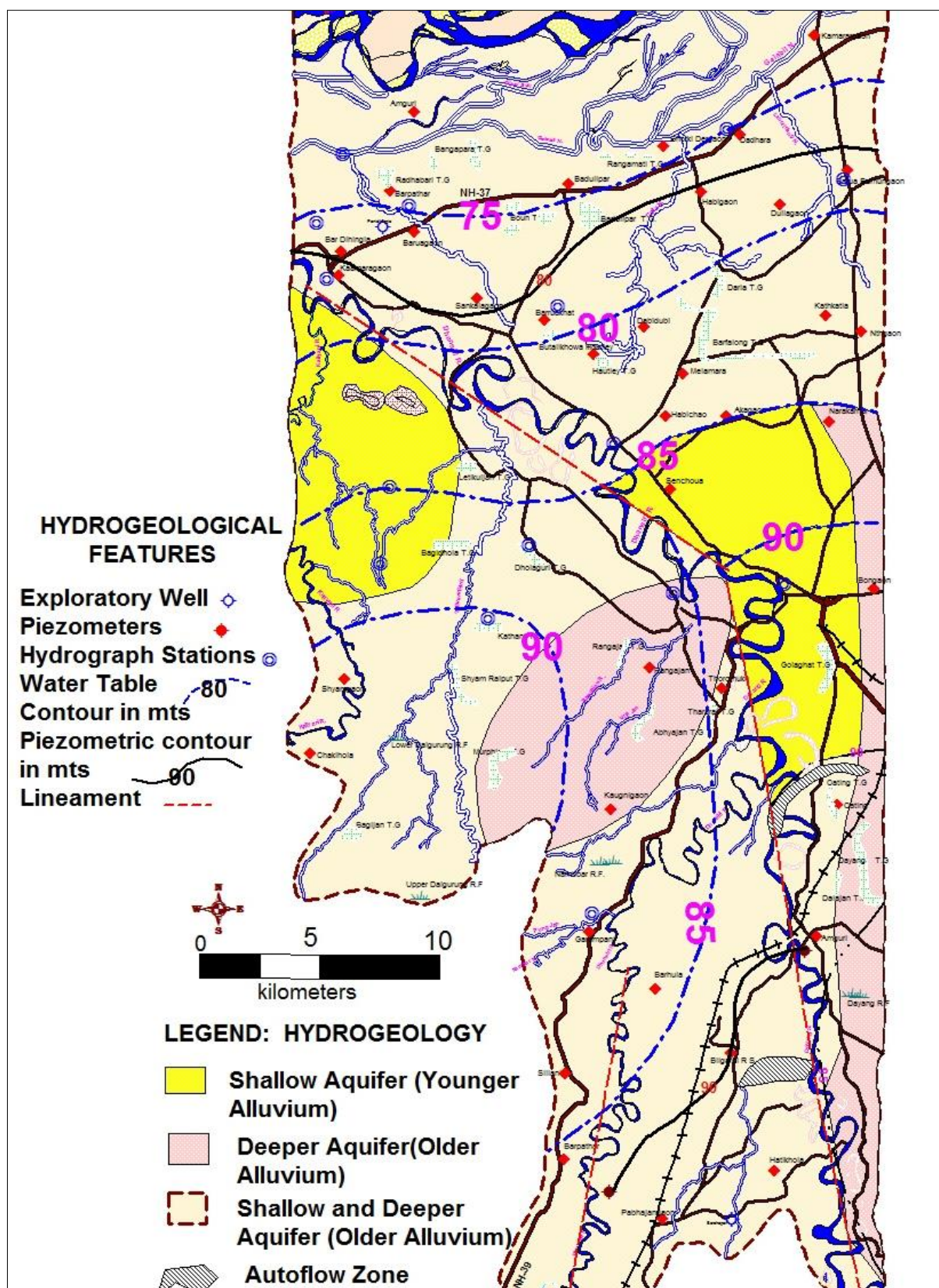
Geomorphic Divisions in the study area

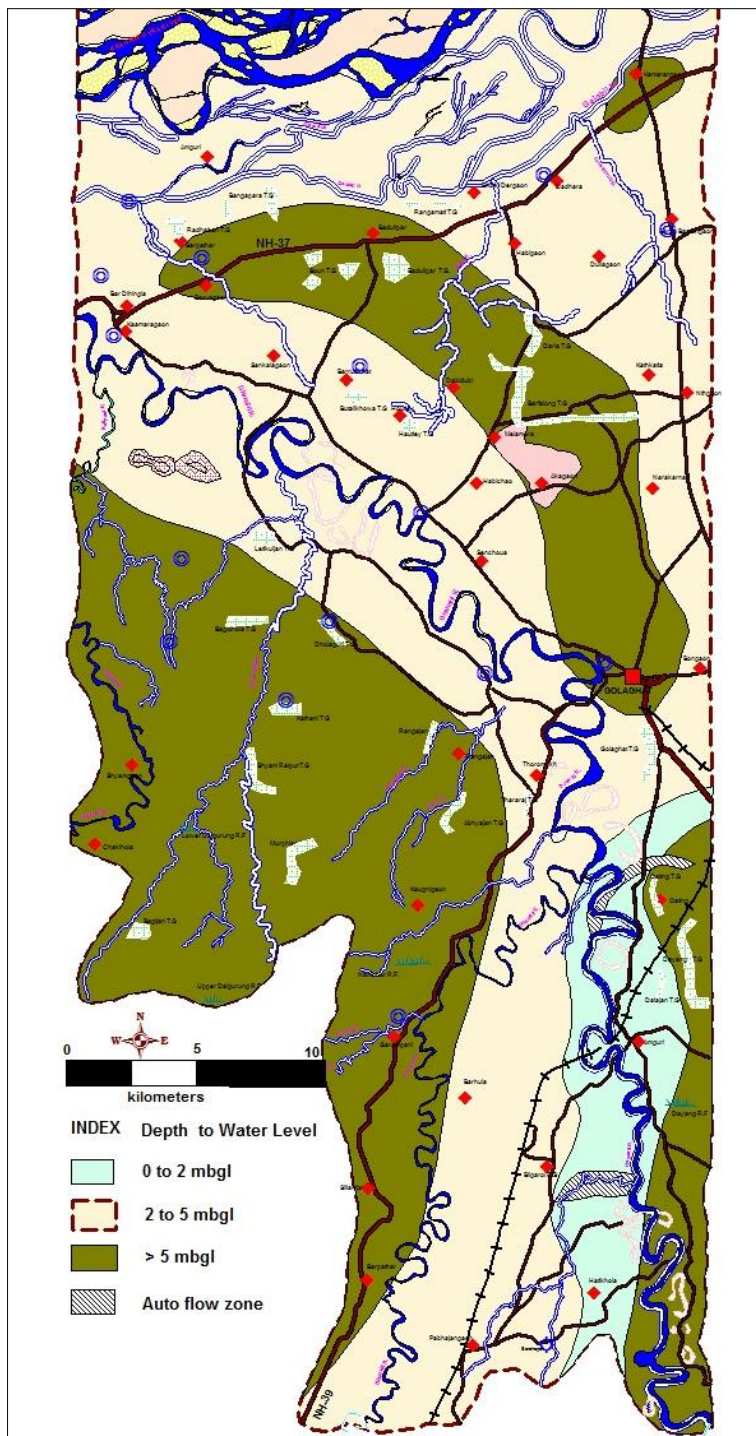


Geomorphology of the study area

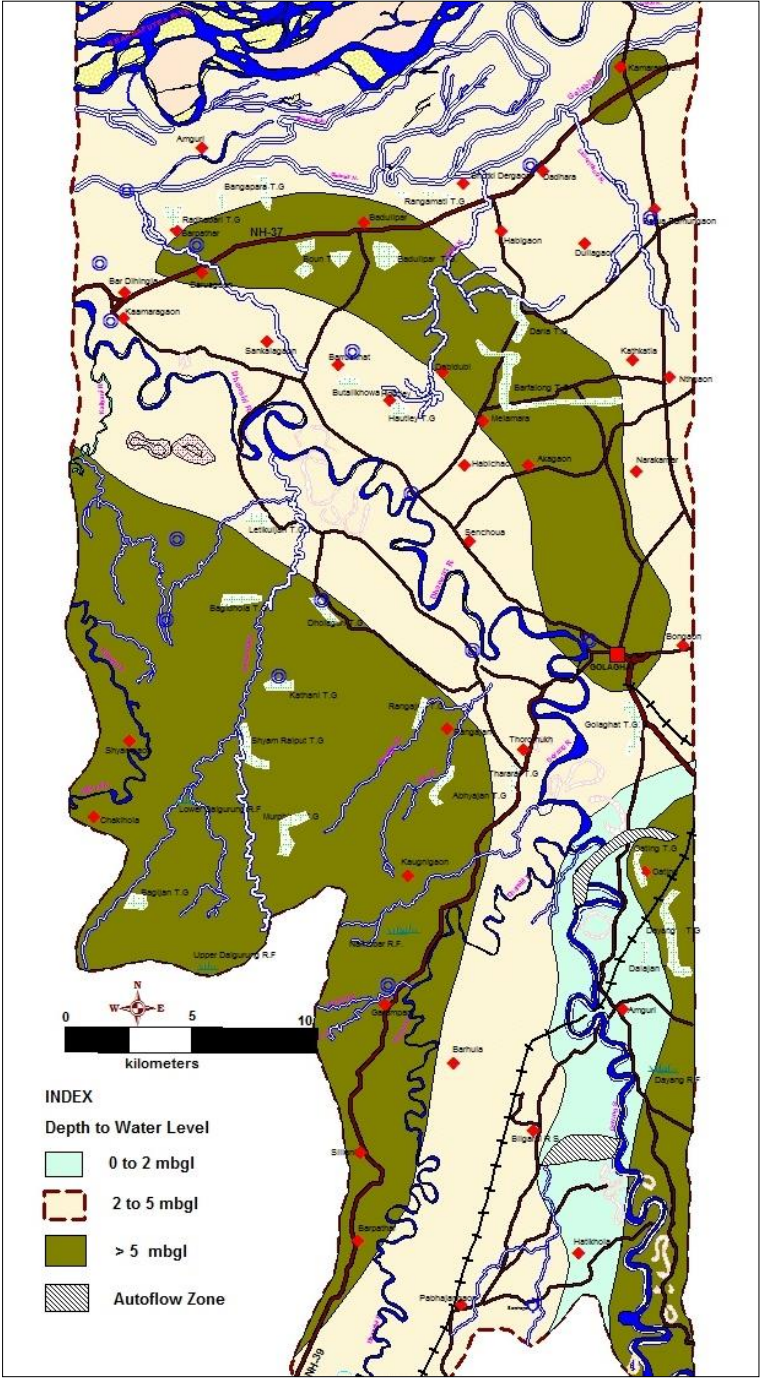




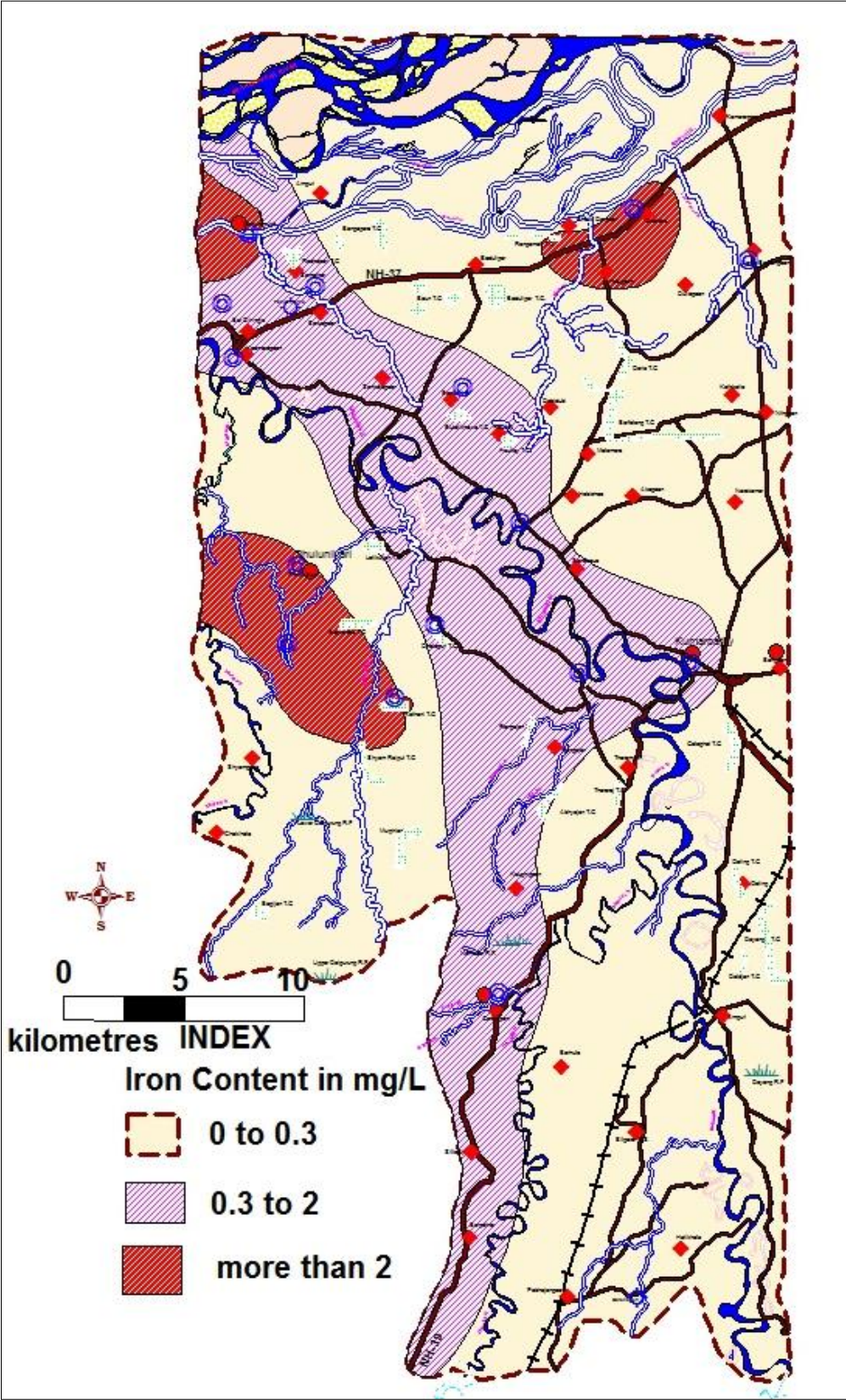




Map showing Pre-monsoon Depth to Water Level



Map showing Post-monsoon Depth to Water Level



Map showing Iron content in ground water of the study area

LITHOLOGY: i). Total exploratory wells: 10 , ii). Data source : CGWB

Unique ID		GOLA_01	
Village		KAMARAGAON	
Taluka/Block		Kakodonga Dev. Block	
District		Golaghat	
Toposheet No		83 F/14	
Latitude		26.62916667	
Longitude		93.76833333	
RL (m amsl)		82	
Drilled Depth (in metre)		204.0	
Casing		121.2	
SWL (mbgl)		3.165	
Discharge (lps)		56.94	
Date/year		AAP	
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	6.7	6.7	Surface soil clay, grey, hard with fine to medium sand
6.7	24.38	17.68	sand yellow to grey fine to medium
24.38	31.92	7.54	sand, grey, yellow fine to medium with clay
31.92	43.28	11.36	sand, grey fine to medium
43.28	44.2	0.92	sand, grey, fine to medium with clay
44.2	48.77	4.57	sand, grey fine to medium
48.77	51.82	3.05	sand, grey, fine to medium with clay
51.82	56.39	4.57	sand, grey fine to medium
56.39	76.2	19.81	sand, grey, fine to medium with clay
76.2	80.77	4.57	sand, grey fine to medium
80.77	82.9	2.13	sand, grey, fine to medium with clay
82.9	124.96	42.06	sand, grey fine to medium
124.96	134.72	9.76	sand, grey, fine to medium with clay
134.72	148.74	14.02	sand, grey fine to medium
148.74	149.96	1.22	clay, yellowish grey with fine to medium sand
149.96	156.97	7.01	sand, grey fine to medium
156.97	160.02	3.05	sand, grey, fine to medium with clay
160.02	163.06	3.04	sand, grey fine to medium
163.06	167.03	3.97	sand, grey, fine to medium with clay
167.03	177.7	10.67	sand, grey fine to medium
177.7	184.1	6.4	clay, grey with fine to medium sand
184.1	190.8	6.7	sand, grey fine to medium
190.8	191.41	0.61	clay, grey with fine to medium sand
191.41	204.21	12.8	sand, grey fine to medium
204.21	207.87	3.66	clay, grey with fine to medium sand
207.87	210.31	2.44	sand, grey fine to medium
210.31	211.9	1.59	clay, grey with fine to medium sand

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID			GOLA_02	
Village			CHETIAGAON	
Taluka/Block			Kakodonga Dev. Block	
District			Golaghat	
Toposheet No			83F/14	
Latitude			26.6861	
Longitude			93.9895	
RL (m amsl)			83	
Drilled Depth (in metre)			305.7	
Casing			55	
SWL (mbgl)			4.61	
Discharge (lps)			23.97	
Date/year			AAP	
Depth range (mbgl)		Thickness (m)	Litholog	
From	To			
0	6.6	6.6	Surface soil, clay, grey hard with iron nodules	
6.6	18.8	12.2	Fine sand with chips of siltstone greenish grey shale and iron nodules	
18.8	21.9	3.1	sand, grey fine to medium	
21.9	31	9.1	Fine to medium with clay grey with chips of grey siltstone	
31	52.4	21.4	sand ,grey fine to medium with cutting of sandstone, siltstone and iron nodules	
52.4	253.7	201.3	clay, yellowish grey to greenish grey with cuttings of siltstone and shale	
253.7	305.5	51.8	sand light grey, veryfine to fine with grey clay	
Unique ID			GOLA_03	
Village			RAJABAHAHAR	
Taluka/Block			Kakodonga Dev Block	
District			Golaghat	
Toposheet No			83F/14	
Latitude			26.6884	
Longitude			93.9664	
RL (m amsl)			83	
Drilled Depth (in metre)			300.0	
Casing			151	
SWL (mbgl)			3.43	
Discharge (lps)			56.94	
Date/year			AAP	
Depth range (mbgl)		Thickness (m)	Litholog	
From	To			
0	2.8	2.8	Surface soil clay, yellowish brown , sticky with fine sand	
2.8	7	4.2	fine to medium sand, yellowish brown	
7	16.2	9.2	fine to medium grey sand with clay	
16.2	28.4	12.2	Medium to coarse sand with clay traces	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

28.4	46.7	18.3	Medium to coarse sand with gravel
46.7	263.2	216.5	fine to medium sand with pieces of sandstone and shale
263.2	300	36.8	fine to medium sand with pieces of sandstone and shale fragments

Unique ID			GOLA_04	
Village			DERGAON	
Taluka/Block			Kakadonga dev Block	
District			Golaghat	
Toposheet No			83F/14	
Latitude			26.7119	
Longitude			93.9762	
RL (m amsl)			83	
Drilled Depth (in metre)			100.0	
Casing			50	
SWL (mbgl)			6.21	
Discharge (lps)				
Date/year			AAP	
Depth range (mbgl)		Thickness (m)	Litholog	
From	To			
0	17.55	17.55	clay, brown sticky	
17.55	26.6	9.05	sand, light yellowish brown, fine to medium grained with mica flakes and mafics	
26.6	65.81	39.21	sand, light grey and brown fine to medium grained with mafics and mica flakes	
65.81	68.84	3.03	sandy clay, light brown	
68.84	100	31.16	sand, light grey and brown, fine to medium grained with mafics	

Unique ID			GOLA_05	
Village			NAOJAN	
Taluka/Block			Golaghat South	
District			Golaghat	
Toposheet No			83 F/12	
Latitude			26o 08' 11 "	
Longitude			93o 50' 33 "	
RL (m amsl)			113	
Drilled Depth (in metre)			205.1	
Casing			151	
SWL (mbgl)			1.8	
Discharge (lps)			23.97	
Date/year			1995-96	
Depth range (mbgl)		Thickness (m)	Litholog	
From	To			

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

0	6.6	6.6	Muddy clay
6.6	77.47	70.87	Clay dark gray, sticky
77.47	86.94	9.47	Sand, fine grained with assorted gravel
86.94	118.9	31.96	Sandy clay, light grey, non-sticky
118.9	128.24	9.34	Sand, fine grained with assorted gravel
128.24	140.73	12.49	Sand, fine grained with clay
140.73	149.83	9.1	Sand, fine grained with gravel
149.83	152.73	2.9	Sand, fine grained with very fine gravel
152.73	165.22	12.49	Sandy clay, light grey, non-sticky
165.22	168.93	3.71	Sand, fine grained with assorted gravel
168.93	205.1	36.17	Sandy clay, light grey, non-sticky

Unique ID			GOLA_06
Village			PANIDIHINGIA
Taluka/Block			Kakadonga Development Block
District			Golaghat
Toposheet No			83 F/14
Latitude			26o 38' 15"
Longitude			93o 47' 30"
RL (m amsl)			80
Drilled Depth (in metre)			200.0
Casing			167
SWL (mbgl)			4.013
Discharge (lps)			7.25
Date/year			AAP1995-96
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	3	3	surface clay, brown, non sticky
3	6.6	3.6	Fine to medium sand with clay
6.6	9.7	3.1	Fine to medium sand , grey
9.7	21.9	12.2	Medium to coarse sand with gravel
21.9	49.3	27.4	Medium to coarse sand
49.3	52.4	3.1	Medium sand with clay
52.4	61.5	9.1	Medium to coarse sand with gravel
61.5	73.7	12.2	Fine to medium sand, grey brown
73.7	82.9	9.2	Fine to medium sand with gravel
82.9	85.9	3	Fine to medium sand with clay
85.9	98.1	12.2	Medium to coarse sand, grey
98.1	101.2	3.1	Fine to medium sand with clay
101.2	113.4	12.2	Medium to coarse sand, grey
113.4	122.5	9.1	Fine to medium sand with clay
122.5	200	77.5	Medium to coarse sand, grey

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID			GOLA_07
Village			BOHIKHOWA
Taluka/Block			Golaghat West
District			Golaghat
Toposheet No			83F/10
Latitude			26o 39' 00"
Longitude			93o 36' 30"
RL (m amsl)			88
Drilled Depth (in metre)			200.0
Casing			154
SWL (mbgl)			3.08
Discharge (lps)			9.05
Date/year			AAP 1995-96
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	3	3	surface clay, brown
3	6	3	Fine sand with clay
6	35	29	Fine to medium sand
35	48	13	Medium to coarse sand
48	57	9	Fine to medium sand
57	62	5	Medium to coarse sand
62	64	2	Fine to medium sand
64	68	4	Medium to coarse sand
68	69	1	Fine to medium sand
69	76	7	Medium to coarse sand
76	84	8	Fine to medium sand
84	93	9	Medium to coarse sand
93	97	4	Fine to medium sand
97	100	3	Medium to coarse sand
100	138	38	Fine to medium sand
138	151	13	Medium to coarse sand
151	200	49	Fine to medium sand

Unique ID		GOLA_08	
Village		RAJABARI GAON	
Taluka/Block		Golaghat West Dev. Block	
District		Golaghat	
Toposheet No		83F/14	
Latitude		26o 39' 00"	
Longitude		93o 36' 30"	
RL (m amsl)		79	
Drilled Depth (in metre)		117.1	
Casing		45	
SWL (mbgl)		6.63	
Discharge (lps)		12.66	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Date/year			AAP 2005-06
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	3	3	surface clay, yellowish brown
3	12.2	9.2	Fine sand with slity clay
12.2	15.2	3	Fine grained sand, brownish
15.2	30.5	15.3	Medium to coarse sand with fragments of K-feldspar
30.5	39.6	9.1	Medium grained sand with fragments of slat
39.6	45.7	6.1	Medium grained sand with weathered fragments of slat
45.7	51.8	6.1	Fine to medium sand with weathered fragments
51.8	61	9.2	Medium grained with fragments of Qtz, mica etc.
61	66.1	5.1	Medium sand with granules of micaceous particles
66.1	75.2	9.1	Sandy clay mixed with weathered shales
75.2	87.4	12.2	Fine grained sand, brownish with micaceous fragments
87.4	96.6	9.2	Sandy clay mixed with weathered shales
96.6	108.8	12.2	Medium sand with granules of micaceous particles
108.8	117.1	8.3	Sand with fragments of shale & Qtz chips

Unique ID			GOLA_09
Village			GOLAGHAT
Taluka/Block			Golaghat Central Dev. Block
District			Golaghat
Toposheet No			83 F/15
Latitude			26o 31' 30"
Longitude			93o 49' 30"
RL (m amsl)			95
Drilled Depth (in metre)			158.0
Casing			154
SWL (mbgl)			10.9
Discharge (lps)			13.75
Date/year			AAP2001-2002
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	6.1	6.1	surface soil, brown
6.1	12	5.9	Sand, silt mixed with clay
12	15	3	Fine grained sand, grey
15	20	5	Clay, yellowish
20	23	3	Fine grained sand, grey
23	26	3	Clay, stcky, grey
26	32	6	Fine grained sand, grey
32	39	7	Clay, sticky, grey
39	46	7	Sand, medium to coarse grained, grey
46	74	28	Sandy clay, brown
74	79	5	Sand, medium to coarse grained, grey
79	85	6	Clay, yellowish
85	91	6	Sand, medium to coarse grained, grey

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

91	105	14	Sandy clay, brown	
105	112	7	Sand, medium to coarse grained, grey	
112	127	15	Clay, sticky, grey	
127	132	5	Sand, medium grained with qtz chips	
132	144	12	Clay, sticky, grey	
144	151	7	Sand, medium grained with qtz chips	
151	158	7	Clay, sticky, grey	

Unique ID			GOLA_10
Village			BARCHAPORI (Barpathar)
Taluka/Block			Golaghat South
District			Golaghat
Toposheet No			83 F/15
Latitude			26.24
Longitude			93.88
RL (m amsl)			111
Drilled Depth (in metre)			200.0
Casing			112
SWL (mbgl)			10.9
Discharge (lps)			13.75
Date/year			AAP 2012-13
Depth range (mbgl)		Thickness (m)	Litholog
From	To		
0	12.5	12.5	surface soil, brown
12.5	15.75	3.25	Surface soil mixed with sand matrix, brown
15.75	28	12.25	Fine grained sand, grey
28	34.5	6.5	Fine grained sand, grey with gravel matrix
34.5	40.75	6.25	Fine to medium sand
40.75	47	6.25	Medium to coarse sand, grey with ferro chips
47	59.5	12.5	Medium to coarse sand gravel fragments
59.5	62.5	3	Fine to medium sand
62.5	72	9.5	Coarse grained sand with gravel
72	84.5	12.5	Fine to medium sand
84.5	93.75	9.25	Fine to medium sand with gravel matrix
93.75	97	3.25	Fine to medium sand mixed with gravel
97	103.25	6.25	Fine grained sand mixed with clay
103.25	109.5	6.25	Medium grained sand
109.5	128.25	18.75	Sand, medium to coarse grained, grey
128.25	134.5	6.25	Coarse grained sand with gravel
134.5	175	40.5	Medium to coarse grained sand mixed with gravel matrix
175	187.5	12.5	Medium to coarse sand
187.5	193.75	6.25	Fine to medium sand with clay & gravel matrix
193.75	200	6.25	Fine sand mixed with clay

12 POINT DATA : AQUIFER PARAMETERS

Unique ID	Village/ Location	Taluka/ Block	District	Topo sheet No.	Lat	Long	Type of well (DW/B W/TW)	Depth (m)	Dia (mm)	Date of pumping Test	Draw down (m)	Transmissivity (m ² /day)	Storativity / S.Yield	Specific Capacity (lpm/m of dd)	Source/ Agency
Gola_01	Kamargaon	Kakodanga	Golaghat	83F/14	26.63	93.77	TW	204 / 121.2	304.8 mm x 35 m 152.4 mm x 87 m	07.05.1997 08.07.1997	6.285	5041	1.5 X 10 ⁻³	546.22	CGWB
Gola_02	Chetiagaon	Kakodanga	Golaghat	83F/14	26.69	93.99	TW	305.7 / 55	203.2 mm x 35 m 152.4 mm x 20 m	07.05.1997 08.07.1997	4.669	734	8 X 10 ⁻⁴	308.06	CGWB
Gola_03	Rajabahr	Kakodanga	Golaghat	83F/14	26.69	93.97	TW	300 / 151	203.2 mm x 35 m 152.4 mm x 116 m	07.05.1997 08.07.1997	4.669	4416	1.8 X 10 ⁻³	741.47	CGWB
Gola_04	Dergaon	Kakodanga	Golaghat	83F/14	26.71 2	93.98	Pz	100 / 50	101.6 mm x 50 m						CGWB
Gola_05	Naojan	Golaghat South	Golaghat	83F/16	26.14	93.84	TW	205.10 / 151	304.8 mm x 35 m 152.4 mm x 116 m	09.05.1996 10.05.1996	10.12	500	4.2 X 10 ⁻⁴	142.09	CGWB
Gola_06	Panidihingia	Kakodanga	Golaghat	83F/14	26.64 9	93.79	TW	200/ 170	203.2 mm x 35 m 152.4 mm x 135 m	18.02.1998 19.02.1998	0.6	1460	5X 10 ⁻³	781	CGWB
Gola_07	Bohikhowa	Golaghat West	Golaghat	83F/10	26.65	93.61	TW	200/154	203.2 mm x 38 m 152.4 mm x 116 m	07.05.1997 08.07.1997	1.34	1460	4.86 X 10 ⁻³	409.56	CGWB
Gola_08	Rajabari Gaon	Golaghat West	Golaghat	83F/14	26.63 6	93.68	TW	117 / 45	203.2 mm x 19 m 152.4 mm x 26 m	07.05.2006 08.07.2006	7.12	850	5.3 X 10 ⁻⁴	346.22	CGWB
Gola_09	Golaghat	Golaghat Central	Golaghat	83F/15	26.52 5	93.68	TW	158/154	203.2mm x 40 m 152.4 mm x 114 m	22.08.2002 24.08.2002	9.04	150.03	6.12 X 10 ⁻⁴	91.26	CGWB
Gola_10	Barchapori	Golaghat South	Golaghat	83F/15	26.24	93.88	TW	200/112	254 mm x 41 m 152.4 mm x 71 m	Yet to be conducted					CGWB

12 POINT DATA : CHEMICAL QUALITY, SAMPLING SITE DETAILS

Unique ID	Village/ Location	Block/Taluka	District	Toposheet No.	Lat	Long	Aquifer Type	Depth
Gola_01	Phulonibari	Golaghat Central	Golaghat	83F/14	26.55	93.80	I-unconsolidated	9.35
Gola_02	Narayanpur	Golaghat Central		83F/14	26.52	93.79	I-unconsolidated	7.50
Gola_03	Kumarpathy	Golaghat Central		83F/14	26.52	93.96	I-unconsolidated	10.30
Gola_04	Bordinga	Golaghat Central		83F/14	26.65	93.76	I-unconsolidated	8.50
Gola_05	Dadhara	Golaghat Central		83F/14	26.69	93.94	I-unconsolidated	6.60
Gola_06	Kathani	Golaghat Central		83F/14	26.50	93.84	I-unconsolidated	11.00
Gola_07	Bongaon	Golaghat West		83F/15	26.66	93.80	I-unconsolidated	8.76
Gola_08	Bokakhat	Golaghat West		83F/15	26.64	93.63	I-unconsolidated	7.00
Gola_09	Halibari NH-37	Golaghat West		83F/14	26.59	93.33	I-unconsolidated	6.70
Gola_10	Barua Bamungaon	Golaghat West		83F/14	26.67	93.98	I-unconsolidated	8.00
Gola_11	Rangajan	Morongini		83F/15	26.51	93.91	I-unconsolidated	10.50
Gola_12	Dhalaguri	Morongini		83F/14	26.53	93.85	I-unconsolidated	6.20
Gola_13	Khumtai	Golaghat Central		83F/14	26.62	93.86	I-unconsolidated	12.00
Gola_14	Kamargaon	Kakodonga		83F/14	26.63	93.77	I-unconsolidated	11.00
Gola_15	Hautley	Golaghat Central		83F/14	26.57	93.89	I-unconsolidated	9.00
Gola_16	Mahuramukh	Golaghat Central		83F/14	26.68	93.77	I-unconsolidated	6.50
Gola_17	Ghourial Dhubi	Gomarriguri		83F/16	26.00	93.77	I-unconsolidated	8.30
Gola_18	Adrakha Tinali	Gomarriguri		83F/15	26.12	93.79	I-unconsolidated	9.00
Gola_19	Saphapani	Golaghat South		83F/15	26.20	93.80	I-unconsolidated	9.14
Gola_20	Garampani NH-39	Golaghat East		83F/15	26.39	93.88	I-unconsolidated	9.14
Gola_21	Gandhibari Namghar	Golaghat Central		83F/15	26.53	94.04	I-unconsolidated	7.62
Gola_22	Sarupathar			83F/15			I-unconsolidated	11.00

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

ANALYTICAL DATA

Unique ID	PH	EC (mS/cm)	TA (mg/L)	TDS (mg/L)	TH (mg/L)	Ca (mg/L)	Mg (mg/L)	Na (mg/L)	K (mg/L)	CO3 (mg/L)	HCO3 (mg/L)	SO4 (mg/L)	NO3 (mg/L)	Cl- (mg/L))	F - (mg/L)	Fe (mg/L)
Gola_01	8	115	128	57.5	156	46.4	9.7	20.4	3.1	32	96	1.62	BDL	16.0	0.85	12.79
Gola_02	8.5	116.2	136	58.1	148	32	16.5	21.08	3.04	16	120	1.77	BDL	16.0	0.76	13.02
Gola_03	8.3	181.3	160	90.8	184	59.2	8.7	17.6	15.4	40	120	1.93	BDL	28.0	0.87	1.26
Gola_05	8.4	352.4	208	176	204	48	20.4	52.8	165	64	144	37.03	1.2	50.0	0.99	11.77
Gola_06	8.09	114.6	160	57.2	160	46.4	10.7	20.2	3.1	24	136	1.62	BDL	16.0	0.59	12.69
Gola_07	8.7	113.2	112	56.6	112	24	12.6	21.3	2.9	16	96	3.50	0.3	24.0	0.51	0.59
Gola_08	8.09	112.1	72	56	72	17.6	6.8	35.9	7.3	16	56	1.77	2.3	32.0	0.89	1.41
Gola_09	9	345.9	220	173	196	46.4	19.4	36.2	102.2	56	164	18.38	2.3	60.0	1.3	0.12
Gola_11	8.7	130.5	108	65.07	116	25.6	12.6	20.3	4.9	40	68	2.87	BDL	20.0	1.45	0.18
Gola_12	8.6	115	116	57.4	100	22.4	10.7	25.38	1.7	32	84	2.40	0.4	24.0	1.09	0.81
Gola_13	8.7	162.3	136	81.1	180	105.6	-20.4	7.8	8.1	32	104	16.66	BDL	18.0	0.72	0.12
Gola_14	8.3	262.5	136	131.1	148	41.6	10.7	103.5	59.1	32	104	1.93	1.2	84.0	0.88	1.6
Gola_15	8.1	95.06	40	48.2	68	8	11.7	27.7	2.5	0	40	3.65	BDL	48.0	0.65	1.38
Gola_16	8.2	112.9	104	56.4	100	24	9.7	23.1	1.9	40	64	1.62	0.2	26.0	1	11.17
Gola_18	8.8	527.7	276	263.9	292	24	56.3	44.8	136.8	96	180	132.61	6.9	74.0	1.48	0.58
Gola_19	7.9	95.02	48	48.5	76	20.8	5.8	16.7	9.2	0	48	3.03	0.3	36.0	0.66	0.62
Gola_20	8.3	148.7	48	74.2	72	14.4	8.7	51.2	5.9	0	48	13.21	2.5	62.0	0.5	1.12

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Gola_21	8.8	185	159	91.1	192	41.6	21.4	18.5	15.6	56	103	9.92	BDL	30.0	0.22	0.27
Gola_22	8.1	138.8	28	69.3	48	8	6.8	54.5	26.2	0	28	2.24	1.2	78.0	0.71	0.02

12 POINT DATA: WATER LEVEL MONITORING

Water Level Monitoring Data Compilation of NAQUIM,2013-14 : Toposheet Nos.83F/14,15 &16 covering 1000 sq km											DTW (Pre-monsoon)		DTW(Post-monsoon)	
											March		March	
Unique ID	Name of village/site	Latitude in degrees decimal	Longitude in degrees decimal	RL (mams l)	Total depth of Pz/DW (mbgl)	Type (DW/Pz /Spring)	Aquifer group	Measuring point (magl)	Source /Agency	Any other information	(mbmp)	(mbgl)	(mbmp)	(mbgl)
Gwlm_01	Garampani NH-39	26.39	93.88	117	9.14	DUG	Unconsolidated (I-Aquifer)	0.75	CGWB		8.12	7.37	7.65	6.90
Gwlm_02	Gandhibari Namghar	26.53	94.04		7.62	DUG	Unconsolidated (I-Aquifer)	0.82	CGWB		3.51	2.69	4.24	3.42
Gwlm_03	Bongaon	26.66	93.80	100	8.76	DUG	Unconsolidated (I-Aquifer)	0.20	CGWB		5.24	5.04	4.68	4.48
Gwlm_04	Bokakhat	26.64	93.63	76	7.00	DUG	Unconsolidated (I-Aquifer)	0.70	CGWB		4.10	3.40	4.22	3.52
Gwlm_05	Halibari NH-37	26.59	93.33		6.70	DUG	Unconsolidated (I-Aquifer)	0.40	CGWB		5.42	5.02	5.44	5.04
Gwlm_06	Barua Bamungaon	26.67	93.98		7.60	DUG	Unconsolidated (I-Aquifer)	0.70	CGWB		6.37	5.67	5.1	4.37
Gwlm_07	Rangajan	26.51	93.91	88	7.80	DUG	Unconsolidated (I-Aquifer)	0.82	CGWB		6.04	5.22	5.7	4.88
Gwlm_08	Dhalaguri	26.53	93.85		6.20	DUG	Unconsolidated (I-Aquifer)	0.72	CGWB		3.55	2.83	5.14	4.42
Gwlm_09	Khumtai	26.62	93.86	93	8.05	DUG	Unconsolidated (I-Aquifer)	0.70	CGWB		5.14	4.44	4.27	3.57
Gwlm_10	Hautley	26.57	93.89	80	7.00	DUG	Unconsolidated (I-Aquifer)	0.90	CGWB		5.62	4.72	4.02	3.12
Gwlm_11	Mahuramukh	26.68	93.77		7.42	DUG	Unconsolidated (I-Aquifer)	0.84	CGWB		3.21	2.37	1.94	1.10
Gwlm_12	Kamargaon	26.63	93.77		8.05	DUG	Unconsolidated (I-Aquifer)	0.75	CGWB		6.4	5.63	6.11	5.36

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Gwlm_1 3	Oating	26.41	93.96	101	12.00	DUG	Unconsolidated (I-Aquifer)	0.90	CGWB		8.38	7.48	6.45	5.55
Gwlm_1 4	Golaghat	26.525	93.825	95	6.00	DUG	Unconsolidated (I-Aquifer)	0.89	CGWB		3.74	2.85	3.44	2.55
Gwlm_1 5	Phulonibari	26.55	93.80		4.66	DUG	Unconsolidated (I-Aquifer)	1.17	CGWB		3.4	2.22	3	1.83
Gwlm_1 6	Narayanpur	26.52	93.79		6.53	DUG	Unconsolidated (I-Aquifer)	0.83	CGWB		5.07	4.24	1.64	0.81
Gwlm_1 7	Kumarpathy	26.52	93.96		5.37	DUG	Unconsolidated (I-Aquifer)	0.69	CGWB		4.37	3.68	3.16	2.47
Gwlm_1 8	Bordinga	26.65	93.76		8.80	DUG	Unconsolidated (I-Aquifer)	0.79	CGWB		6.73	5.94	4.89	4.10
Gwlm_1 9	Dadhara	26.69	93.94		8.36	DUG	Unconsolidated (I-Aquifer)	0.43	CGWB		7.02	6.59	5.59	5.16
Gwlm_2 0	Kathani	26.50	93.84		6.70	DUG	Unconsolidated (I-Aquifer)	0.94	CGWB		4.73	3.79	2.59	1.65
Gwlm_2 1	Pulibor	26.543	93.98		10.02	DUG	Unconsolidated (I-Aquifer)	0.98	CGWB		8.08	7.10	7.22	6.24
Gwlm_2 2	Alubari	26.48	93.8		5.50	DUG	Unconsolidated (I-Aquifer)	0.70	CGWB		4.43	3.73	2.18	1.48
Gwlm_2 3	Bogidhola	26.54	93.82		7.90	DUG	Unconsolidated (I-Aquifer)	0.20	CGWB		7.24	7.04	4.82	4.62
Gwlm_2 4	Chapella	26.52	93.82		6.80	DUG	Unconsolidated (I-Aquifer)	0.58	CGWB		5.51	4.93	4.35	3.77
Gwlm_2 5	Bukial	26.51	93.78		8.10	DUG	Unconsolidated (I-Aquifer)	1.20	CGWB		5.12	3.92	4.3	3.10
Gwlm_2 6	Chinatali	26.58	93.92		10.42	DUG	Unconsolidated (I-Aquifer)	1.18	CGWB		7.59	6.41	2.9	1.76
Gwlm_2 7	Ghouria Dhubi	26.00	93.77		8.30	DUG	Unconsolidated (I-Aquifer)	0.80	CGWB		5	4.20	4.80	4.00
Gwlm_2 8	Adrakha Tinali	26.12	93.79		9.00	DUG	Unconsolidated (I-Aquifer)	0.87	CGWB		4.4	3.53	5.00	4.13
Gwlm_2 9	Saphapani	26.20	93.80		9.14	DUG	Unconsolidated (I-Aquifer)	0.89	CGWB		4.2	3.31	5.54	4.65

RAINFALL DATA: GOLAGHAT

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Grf_04	Agri Office	83F/14	26.51	93.78	Golaghat	Golaghat	State	Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
	Golaghat					Central	Govt	2000	8.7	5.5	27.6	171	190.2	290.8	172	260.4	202	43.5	36.9	2	1410.6
								2001	16.9	46.1	29.3	139.2	177.6	167.6	236.2	247.2	225.1	119.9	18.2	0	1423.3
								2002	10.9	8.5	59.4	177.6	266.4	240.9	334.5	342.5	296.2	55.4	70	16	1878.3
								2003	3.5	62.8	42.2	301.3	212.9	328.6	299.9	360.6	247.4	246.5	19.8	11.6	2137.1
								2004	25.7	30.4	81	237.2	230.5	230.7	493.4	329.4	268.9				1927.2

RAINFALL DATA : GOLAGHAT

RAINFALL DATA (IN mm) in the NAQUIM AREA: TOPO.NO. 14,15 & 16 (1000 SQ.KM.)																					
Unique ID	Name	Toposheet	Lat	Long	District	Taluka/Block	Source	Year	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
GRf_01	Golaghat	83F/15	26.525	93.825	Golaghat	Golaghat Central	IMD, GOI	2004	12	17	65.8	389.8	135.8	218.2	348	282.6	179.9	213.6	8.2	0.1	1871.0
								2005	50.4	21.2	151.3	152	138.9	150.8	271.4	300.2	99.8	88.1	1.8	0	1425.9
								2006	2.5	65.4	21.4	137.8	143.6	219.3	265.3	145.2	148.1	82.4	20.4	3.3	1254.7
								2007	8.1	99.9	61.3	79.6	125.8	191.2	223.6	230.7	257.8	50.1	24.1	4.4	1356.6
								2008	17.2	5.3	81.6	53.3	210.7	278.9	253.2	240.5	132.6	74.6	0	3.1	1351.0
								2009	0	15.3	40.3	140.9	114.2	163.2	334	187.5	151.7	70.4	6.6	8.3	1232.4
								2010	0	0	111.1	213.8	305	281	339.4	183.8	175.5	85.7	7.5	1.2	1704
								2011	14.1	3	63.2	61.9	308.3	231.6	490.1	201.9	135.2	29.7	4.1	2.1	1545.2
								2012	17.8	10.1	10.6	213.7	148	273.4	216.8	254.3	244.4	60.6	0.1	1.5	1451.3
								2013	0	10.3	76.7	62.6	237.8	137.1	262.7	327.9	124.6	143.3	0	6.7	1389.7
								Mean Av.	12.21	24.75	68.33	150.54	186.81	214.47	300.45	235.46	164.96	89.85	7.28	3.07	1458.2
GRf_03	Bukial T.E	83F/14	26.62	93.86	Golaghat	Golaghat Central	Private	Year	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Annual
								1990	23.3	25.5	72.2	207.1	205.2	316.4	241.2	135.4	277.2	166.7	4.1	0.5	1674.8
								1991	17	23	39.4	119.6	203	272.6	181	180.9	272.7	202.4	8.6	41.6	1561.8
								1992	31.7	56.7	9.4	44.9	122	206.4	324.5	288.1	233.2	152.2	11.6	38.8	1519.5
								1993	82.8	116.2	109.7	147.7	402.6	429.3	262.7	350.4	263.7	148	1.3	0	2314.4
								1994	21	25.7	191.1	200.9	141.2	384	417.2	322.8	251.3	151.9	56.1	2.2	2165.4
								1995	1.5	67.6	20.6	221.2	168.8	409.4	367.6	485.9	258.9	85	104.5	9.3	2200.3
								1996	21.3	19.3	144.1	128.6	361.3	220.3	165.4	358.3	256.2	421.2	0	0	2096

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

								1997	40.6	72.3	55.2	65.2	418.6	451.5	444.9	429.8	607.7	45.5	35.4	57.9	2724.6
								1998	23.1	42.6	164.6	391.4	271.8	383.3	457.8	376	173.8	130.5	72.9	0	2487.8
								1999	16.2	0	51.8	150.1	273.1	356.2	400.3	421.7	257.3	162.8	3.3	0.8	2093.6
								2000	8.7	17.6	65.3	164.6	207.7	316.2	186.9	343.7	430.5	66.7	23.8	5	1836.7
								2001	3.11	18.51	79.76	218.13	264.4	400.55	366.21	208.55	376.1 6	219.98	6.09	5.84	2167.29
								2002	19.05	3.81	55.63	213.64	258.79	378.35	584.41	465.28	224.5 4	76.71	70.7 2	11.93	2362.86
								2003	6.13	35.05	23.62	284.69	104.52	210.3	664.31	134.86	377.9 5	336.75	1.27	10.83	2190.28
								2004	24.13	63.5	105.4 1	461	222.5	343.91	258.82	276.08	338.0 7	267.96	5.33	10.66	2377.37
								2005	62.48	32.08	206.3	200.5	169.5	235.7	277.7	259.2	114.7	125	0	0	1683.16

12 POINT DATA GEOPHYSICAL (VES) DATA

Unique ID	Golaghat VES 01 /2013-14	Date/year	15-03-2014
Village	Maliagaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Dergaon	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.		Depth drilled	
Lattitudes	26.60028	Discharge (lps)	
Longitudes	93.99972	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
G.L.	2.80	90.00	Top soil with hard clays
2.80	8.00	9.00	Clays etc.
8.00	34.00	145.00	Sands with hard clays etc.
34.00	65.00	18.00	Clays with sands etc.
65.00	162.00	82.00	Sands with clays etc
162.00	Below 162m	20.00	Bands of Clays with sands etc.

Unique ID	Golaghat VES 02 /2013-14	Date/year	01-06-2013
Village	Rajabari	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat West	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.		Depth drilled	
Lattitudes	26.65	Discharge (lps)	
Longitudes	93.60833	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
G.L.	1.6	230	Top soil with clays etc.
1.6	9.9	46	sands etc.
9.9	39.9	125	Hard Clays with sands etc.
39.9	140	48	Intercalation of sands & clays
140	Below 140	15	Clays with sands

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 03 /2013-14	Date/year	15-03-2014
Village	Khumtai (Sankalagaon)	Nearby DW/DCBW/BW Depth	
Talluka/block	Khumtai	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.		Depth drilled	
Lattitudes	26.6075	Discharge (lps)	
Longitudes	93.84167	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	1.00	179.00	Top soil with hard clays
1.00	14.00	28.00	Clays etc. With sands
14.00	40.00	540.00	Sands with hard clays etc.
40.00	94.00	43.00	sands with clays etc.
94.00	Below 94	2.00	Predominance of Clays etc.

Unique ID	Golaghat VES 04 /2013-14	Date/year	01-06-2013
Village	Sarupathar	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.		Depth drilled	
Lattitudes	26.23917	Discharge (lps)	
Longitudes	93.87556	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)		Layer Resistivity in Ohm m	Inferred subsurface geology
From	To		
G.L	0.8	260	Top soil with clays etc.
0.8	9.9	52	clays etc.
9.9	33	40	Sands with clays
33	Below 33	26	Intercalations of clays with sands etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 05 /2013-14	Date/year	18-03-2014
Village	Dihina	Nearby DW/DCBW/BW Depth	
Talluka/block	Bokajan	Yield/Discharge	
District	Golaghat/Karbi Anglong	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/13	Depth drilled	
Lattitudes	26.31472	Discharge (lps)	
Longitudes	93.87139	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	1.00	30.00	Top soil with clays
1.00	5.00	22.00	Clays etc.
5.00	25.00	98.00	Sands with hard clays etc.
25.00	169.00	27.00	Clays with sands etc.
169.00	Below 169	499.00	Bands of hard Clays with sands etc.

Unique ID	Golaghat VES 06 /2013-14	Date/year	01-06-2013
Village	Kachharihat	Nearby DW/DCBW/BW Depth	
Talluka/block	Padumoni	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.50667	Discharge (lps)	
Longitudes	93.0125	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	13	60	Top soil with clays etc.
13	104	30	sands with clays etc.
104	Below 104	18	Intercalations of clays with sands etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 07 /2013-14	Date/year	18-03-2014
Village	Khakhrajan	Nearby DW/DCBW/BW Depth	
Talluka/block	Bokajan	Yield/Discharge	
District	Golaghat/Karbi anglong	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.60028	Discharge (lps)	
Longitudes	93.99972	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	2	96	Top soil with hard clays
2	12	57	Sands with Clays etc.
12	48	37	clays with sands etc.
48	81	96	Bands of hard Clays with sands etc.
81	Below 162m	20	Clays with sands etc.

Unique ID	Golaghat VES 08 /2013-14	Date/year	01-06-2013
Village	Garampani	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat East	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.39	Discharge (lps)	
Longitudes	93.88	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	4.2	250	Top soil with clay etc.
4.2	12.8	51	sands with clays etc.
12.8	67.8	18	Clays with sands etc. (Decomposed loose formation)
67.8	81	40	Sands with clays
81	130	19	Clays with sands etc. (Decomposed loose formation)
130	Below 144	75	Intercalations of Sands, clays with pebbles etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 09 /2013-14	Date/year	19-03-2014
Village	Raduar	Nearby DW/DCBW/BW Depth	
Talluka/block	Bokakhat	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/10	Depth drilled	
Lattitudes	26.64889	Discharge (lps)	
Longitudes	93.7244	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	1.4	201	Top soil with hard clays
1.4	10.8	71	Clay with sands etc etc.
10.8	86	146	Sands with hard clays etc.
86	Below 86m	17	Bands of Clays with sands etc.

Unique ID	Golaghat VES 10 /2013-14	Date/year	01-06-2013
Village	Tarajan Madhuban	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/16	Depth drilled	
Lattitudes	26.43917	Discharge (lps)	
Longitudes	93.90944	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	5	50	Top soil with clay etc.
5	25	15	clays with sands etc.
25	Below 25	81	Hard soil with Intercalations of Sands and clays etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 11 /2013-14	Date/year	24.10.2013
Village	Barchapori	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.24	Discharge (lps)	
Longitudes	93.88	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	2	230	Top soil with hard clays
2	20.8	46	Clays etc.
20.8	104.4	63	Sands with clays etc.
104.4	Below 104.4	12	sands with clays etc.

Unique ID	Golaghat VES 12 /2013-14	Date/year	01-06-2013
Village	Abhyapuria	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/16	Depth drilled	
Lattitudes	26.44	Discharge (lps)	
Longitudes	93.93	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	4	45	Top soil with clay etc.
4	36	67	Hard soil, clays with sands etc.
36	120	40	Sands with clays etc.
120	Below 120	55	Hard soil with Intercalations of Sands and clays etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 13 /2013-14	Date/year	2013
Village	Mainapur	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat Central	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.5	Discharge (lps)	
Longitudes	93.94	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	4	136	Top soil with clay etc.
4	31	141	Hard soil, clays with sands etc.
31	Below 31m	64	Clays with sands etc.

Unique ID	Golaghat VES 15 /2013-14	Date/year	2013
Village	Oating	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat Central	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.41	Discharge (lps)	
Longitudes	93.96	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	3	110	Top soil with clay etc.
3	66	33	clays with sands etc.
66	Below 66	70	Sands with clays, gravels etc.

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Unique ID	Golaghat VES 16 /2013-14	Date/year	01-06-2013
Village	Tirualgaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat East	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.46	Discharge (lps)	
Longitudes	93.99	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	1.5	70	Top soil with clay etc.
1.5	18.5	46	clays and sands etc.
18.5	52	25	Intercalatyions of Sands with clays etc.
52	Below 52	36	Hard clays withSands etc.

Unique ID	Golaghat VES 17 /2013-14	Date/year	2013
Village	Paikalgaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat Central	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.553	Discharge (lps)	
Longitudes	93.956	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	4.7	62	Top soil with clay etc.
4.7	13.1	93	clays with sands etc.
13.1	41	40	Sands with clays etc.
41	76	125	Intercalations of Clays and sands with gravel etc.
76	Below 77	47	Intercalations of Sands with clays etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Unique ID	Golaghat VES 18 /2013-14	Date/year	01-06-2013
Village	Chakradhara (Farkating)	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat Central	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.475	Discharge (lps)	
Longitudes	93.99	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	1.7	82	Top soil with clay etc.
1.7	61.2	20	Sands with clays etc.
61.2	Below 61	30	Intercalations of Clays , sands etc.

Unique ID	Golaghat VES 19 /2013-14	Date/year	20-10-2013
Village	Dibarnigaon(borpathar)	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/14	Depth drilled	
Lattitudes	26.29667	Discharge (lps)	
Longitudes	93.89	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	1.3	40	Top soil with clay etc.
1.3	3.9	140	hard clays etc.
3.9	21.92	45	Sands with clays etc.
21.92	103.32	38	Clays with sands etc.
103.32	Below103.32	15	Intercalations of Sands with clays etc.

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Unique ID	Golaghat VES 20 /2013-14	Date/year	20-10-2013
Village	Tengani	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/15	Depth drilled	
Lattitudes	26.31	Discharge (lps)	
Longitudes	93.9	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	0.83	50	Top soil with clay etc.
0.83	10.79	15	Clays etc
10.79	69.07	84	Sands with clays etc.
69.07	Below 69.07	25	Intercalations of Clays , sands etc.

Unique ID	Golaghat VES 21 /2013-14	Date/year	22-10-2013
Village	Binatipathar	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat South	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/16	Depth drilled	
Lattitudes	26.19	Discharge (lps)	
Longitudes	93.99	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	1.15	76	Top soil with clay etc.
1.15	4.6	38	hard clays etc.
4.6	34.7	110	Sands with clays etc.
34.7	Below 34.70	27	Clays with sands etc.

Unique ID	Golaghat VES 22 /2013-14	Date/year	23-10-2013
Village	Letkuijan	Nearby DW/DCBW/BW Depth	
Talluka/block	Golaghat Central	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/14	Depth drilled	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Lattitudes	26.58	Discharge (lps)	
Longitudes	93.81	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L.	2.4	620	Top soil with hard clay etc.
2.4	21.84	496	hard Clays etc
21.84	93	147	Sands with hard clays etc.
93	Below 93	75	sands etc. with clay

Unique ID	Golaghat VES 23 /2013-14	Date/year	23-10-2013
Village	Kamargaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Kakodanga	Yield/Discharge	
District	Golaghat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83F/14	Depth drilled	
Lattitudes	26.63	Discharge (lps)	
Longitudes	93.77	Transmissivity	
RL(m)		Storativity	
Depth range (mbgl)			
From	To	Layer Resistivity in Ohm m	Inferred subsurface geology
G.L	0.48	360	Top soil with clay etc.
0.48	6.72	72	Sands etc.
6.72	28.42	28	Clays etc.
28.42	174.42	130	Sands with hard clays, gravel
174.42	Below 174.42	218	Hard Clays with sands etc.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Aquifer parameter

Village/ Location	Block	Distri ct	Toposhee t No.	Lat	Long	Type of well (DW/B W/TW)	Depth	Dia (mm)	Date of pumping Test	Draw down (m)	Transmissivity (m ² /day)	Storativity/ S.Yield	Specific Capacity (lpm/m of dd)
Gohaingaon	Kaliapani	Jorhat	83J/5	26.853	94.475	TW	169 m	305mmx 35 and 105mmx 134	5/4/197 8	5.63	4382.75	1.0 x 10 ⁻³	647.6
Boishahabi	East Jorhat			26.776	94.495		Slim hole	NA	NA	NA	NA	NA	NA
Maibelia			83J/6	26.701	94.44		245 m	300mm x 40,50 & 150mm x 204.5	13-01- 1978	NA	NA	NA	26
Jagduar	Central Jorhat			26.862	94.443		103 m	304.8m mX35.5 m 152.4.4 mmX68 m	16-02- 1997	2.6	2668.19	NA	593.66
Brahmingao n				26.829	94.26		225 m	305mm x 40.5 & 150mm x 184.5	28-02- 1978	6.03	5672.6	1.02 x 10 ⁻³	579.5
Kakojan				26.806	94.361		79.72	101.6m m	PZ, PT not done	NA	NA	NA	NA
Nagajanka			Jorhat	83J/6	26.629		94.361	150 m	203mm x 30.50 & 152.4m m x 119.50	PT awaiting	NA	NA	NA
Dekagaon	83J/5			26.673	94.298		Abun done d	NA	NA	NA	NA	NA	NA

Rainfall:

IMD rainfall data for Jorhat district from 2004 to 2013 in mm

Jorhat	2004	36.4	37.6	133.5	305.4	307.2	187.2	326.1	204.5	337
Jorhat	2005	36.4	24.3	227.9	154.2	219.6	192.1	263.4	281.4	140
Jorhat	2006	5.6	105.7	38.8	140.5	155.4	245.4	332	226.2	157
Jorhat	2007	0.1	76.3	29.4	212.8	189	274.6	300.8	318	355
Jorhat	2008	27.7	8.3	89.9	181.8	203.3	329.9	357.1	330.5	12
Jorhat	2009	6.6	21.7	26	154	187.8	225	293.4	286.8	101
Jorhat	2010	N.A.	N.A.	108	325	272.4	328	413.8	290.3	187
Jorhat	2011	14.7	23.3	76.4	55.1	448.3	247.6	413.1	288.1	167
Jorhat	2012	9.7	5.2	12.4	261.6	133.6	209.7	394.8	242.9	225
Jorhat	2013	1.6	9.2	66.7	125.8	319.8	295.7	492.5	359.3	87.

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

VES data:

Unique ID	VESDR01	Date/year	2013
Village	Deberapar	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	No
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.696	Discharge (lps)	
Longitudes	94.421	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 2.3	200	Top soil with clay etc.	
2.3-28	60	sands , gravels and clays etc.	
Below 28m	25	Intercalations of Sands ,clays etc.	

Unique ID	VESDL02	Date/year	2013
Village	Dangoritol	Nearby DW/DCBW/BW Depth	
Talluka/block	Central Jorhat	Yield/Discharge	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.805	Discharge (lps)	
Longitudes	94.293	Transmissivity	
RL (m)		Storativity	
Depth range (m)	Layer resistivity in Ohm m	Inferred subsurface geology	
G.L.-3	23	Top soil with clay etc.	
3.0-33	35	sands etc. with clays	
33-108	126	Intercalations of Clays (occasionally hard) and sands with gravel etc.	
Below 108 m	120	Intercalations of Clays and sands etc.	

Unique ID	VESCN03	Date/year	2013
Village	Chenijan	Nearby DW/DCBW/BW Depth	
Talluka/block	Central Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.802	Discharge (lps)	
Longitudes	296	Transmissivity	
RL(m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
Depth range (m)			
G.L.- 9	66	Top soil with clay etc.	
9.0-99	40	clays with sands etc.	
Below99m	69	Sands with clays etc.	

Unique ID	VESNI04	Date/year	2013
Village	Nakachari	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.693	Discharge (lps)	
Longitudes	94.399	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 4	130	Top soil with clay etc.	
4-7.2	65	Hard clays with sand etc.	
7.7-96	32	Intercalations of Sands with clays etc	
96-118.5	60	Intercalations of Clays (occasionally hard) with sands and gravel etc.	
118.5-191	39	Intercalations of Sands with clays etc	
Below 191m	76	Intercalations of clays (Occasionally hard) with sands etc.	

Unique ID	VESNI05	Date/year	2013
Village	Nakachari	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.696	Discharge (lps)	
Longitudes	94.399	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred Subsurface geology	
G.L.- 4	130	Top soil with clay etc.	
4-7.2	65	Hard clays with sand etc.	
7.7-96	32	Intercalations of Sands with clays etc	
96-118.5	60	Intercalations of Clays (occasionally hard) with sands and gravel etc.	
118.5-191	39	Intercalations of Sands with clays etc	

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Below 191m	76	Intercalations of clays (Occasionally hard) with sands etc.
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Unique ID	VESNA06	Date/year	2013
Village	APDCL Nagajanka	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.625	Discharge (lps)	
Longitudes	94.324	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 3.2	200	Top soil with clay etc.	
3.2-16.3	40	clays with sands etc.	
16.3-112m	29	Intercalatyions of Sands with clays etc.	
Below 112m	119	Intercalations of clays and sands of varying grades.	

Unique ID	VESDA07	Date/year	2013
Village	Deha	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.779	Discharge (lps)	
Longitudes	94.358	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 3.4	160	Top soil with clay etc.	
304-54	64	clays with sand etc.	

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Below 54 m	51	Intercalations of Sands with clays etc.
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Unique ID	VESHI08	Date/year	16-12-2013
Village	Hemlai	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.735	Discharge (lps)	
Longitudes	94.458	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 4	84	Top soil with clay etc.	
Apr-56	25	clays with sands etc.	
Below 56m	36	Intercalations of Sands with clays etc.	

Unique ID	VESKA13	Date/year	2013
Village	Kaparadhara	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.799	Discharge (lps)	
Longitudes	94.296	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 8	210	Top soil with clays, sands etc.	
Aug-40	63	clays with sands etc.	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

Below 40m	140	Intercalations of Sands with clays (occasionally hard).
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Unique ID	VESST14	Date/year	2014
Village	Selenghat	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.654	Discharge (lps)	
Longitudes	94.408	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 3	700	Top soil with clays etc.	
3-20.3	105	Hard soil, clays with sands etc.	
20.3-159.2	32	Intercalations of sands with clays etc.	
Below 159.2m	224	Hard formation / occasionally weathered with sands/clays etc.	

Unique ID	VESMA15	Date/year	2014
Village	Maibelia	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.691	Discharge (lps)	
Longitudes	94.433	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.-1.7	130	Top soil with clays etc.	
1.7-18	65	clays with sands etc.	

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18-97.8	41	Sands with clays etc.
97.8-185.8	84	sands with clays (occasionally hard).
Below 185.8m	23	clays with sands etc.

Unique ID	VESNN16	Date/year	2013
Village	NaginijanTE	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/5	Depth drilled	
Lattitudes	26.682	Discharge (lps)	
Longitudes	94.45	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 1.8	125	Top soil with clays etc.	
1.8-146	63	Intercalations clays with sands, gravels etc.	
Below 146m	56	Intercalations of sands with clays etc.	

Unique ID	VESBN17	2013	
Village	Bachagaon	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.632	Discharge (lps)	
Longitudes	94.357	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	

AQUIFER MAPPING IN PARTS OF JORHAT – GOLAGHAT DISTRICTS, ASSAM

G.L.- 1	60	Top soil with clays etc.
1-6.8	150	Hard clays.
6.8-156	51	Intercalations of sands with clays etc.
Below 156	22	clays with sands etc.

Unique ID	VESDR18	Date/year	2013
Village	Dihingiapar TE	Nearby DW/DCBW/BW Depth	
Talluka/block	East Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.663	Discharge (lps)	
Longitudes	94.373	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 1.3	51	Top soil with clays etc.	
1.3-5.7	102	Hard soil etc.	
5.7-12.1	34	Sands etc.	
12.1-18.5	168	Hard soil etc.	
18.5-57.6	76	Intercalations of Sands with clays (occasionally hard)	
57.6-93.6	156	Hard clays occasionally with sands.	
Below 93.6 m	51	Intercalations of Sands with clays etc.	

Village	Kathalguri TE	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	

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Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.657	Discharge (lps)	
Longitudes	94.35	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 1.1	49	Top soil with clays etc.	
1.1-3	172	Hard soil.	
3-6.7	21	Sands with clays etc.	
6.7-40	49	Sands with clays etc.	
40-59.5	20	clays occasionally with sand etc.	
59.5-264.7	51	Intercalations of sands with clays etc.	
Below 264.7m	4.7	Clays etc.	

Unique ID	VESBI20	Date/year	2014
Village	Bahoni	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.592	Discharge (lps)	
Longitudes	94.286	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 2.3	110	Top soil with clays etc.	
2.3-18.8	55	Hard soil, clays with sands etc.	
18.8-112.3	34	Sands with clays, gravels etc.	
Below 112.3m	80	Hard soil with sands , clays etc.	

Unique ID	VESBS21	Date/year	
Village	Bandarchaliha	Nearby DW/DCBW/BW	

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		Depth	
Talluka/block	Titabar	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.577	Discharge (lps)	
Longitudes	94.288	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 1.1	82	Top soil with clay etc.	
1.1-2.1	53	Sands with clays etc.	
2.1-3.9	102	Hard soil.	
3.9-61.3	40	Sands with clays, gravels etc.	
Below 61.3m	30	Intercalations of Clays , sands etc.	

Unique ID	VESBJ22	Date/year	2014
Village	Balijan	Nearby DW/DCBW/BW Depth	
Talluka/block	Titabor	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.573	Discharge (lps)	
Longitudes	94.273	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 2.1	135	Top soil with clays etc.	
2.1-19.7	54	sands etc. with clays	
19.7-41.3	16	Clays occasionally with sands etc.	

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Below 41.3m	41	Intercalations of sands with clays etc.
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Unique ID	VESGT23	Date/year	11/12/2013
Village	Gotonga	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	
District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.597	Discharge (lps)	
Longitudes	94.319	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 4.5	96	Top soil with clays etc.	
4.5-17	48	sands with clays etc.	
17-241	36	Intertcalations opf sands with occasional clays	
Below 241m	93	Intercalations of Sands with clays (Occasionally hard) etc.	

Unique ID	VESKB24	Date/year	2014
Village	KatanibariTE	Nearby DW/DCBW/BW Depth	
Talluka/block	Jorhat	Yield/Discharge	

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District	Jorhat	Whether BH was drilled at this point? If Yes,	
Toposheet No.	83J/6	Depth drilled	
Lattitudes	26.665	Discharge (lps)	
Longitudes	94.292	Transmissivity	
RL(m)		Storativity	
Depth range (m)	Layer Resistivity in Ohm m	Inferred subsurface geology	
G.L.- 2.1	120	Top soil with clays etc.	
2.1-15.1	48	sand etc.	
15.1-45.5	80	Intercalations of Sands with hard clays etc	
45.5-130	28	Intercalations of Clays with sands etc.	
Below 130m	180	Intercalations of clays (Occasionally hard) with sands etc.	

