

**Marathwada Shikshan Prasarak Mandal's  
DEOGIRI COLLEGE, AURANGABAD**



**Extension Activity: Water Management**

---

## Index

<b>Sr. No.</b>	<b>Particulars</b>
1	Detail Report of the Activity
2	Photo Gallery Related to Water Management Work
3	Photographs Related to Sample Report of Water Management of Shirala Village
4	Detail Reports of Water Management Work of twenty different Villages.



**M. S. P. Mandal's**  
**Deogiri College, Aurangabad**  
**Department of Geology**  
**Extension Activities Related to Water Management**

**Detail Report of the Activity**

To get permanent solution on drought condition, we need to concentrate on scientific ways of water harvesting and irrigation. Scientific method will give a permanent solution on drought and improving water level in our region as well as in India and world. Such scientific method of artificial recharge of recycling of water will definitely improvise the water scarcity in drought area and provide potable water in all season of years i.e. villages will become Tanker free.

Every country's environment, temperature and rainfall are depending on the geographical condition of region on the earth. Few countries get natural gift of geographical and geological boon such as good rainfall (average rainfall of more than 1,000 mm), fertile soil, and temperatures between 10<sup>0</sup>C to 30<sup>0</sup>C, rainfall season two to three times in a year, abundant mineral wealth, and long coastline. Such country with the help of natural boon, country does excel in their progress and become developed country. And some country with unhealthy condition makes progresses with the help of science and technology in the last 100 years. E.g. although earthquakes occur daily in Japan (an average of three hundred of earthquake per year), by using advance technology, they built a network of

earthquake-proof multi-story houses, underground roads, subways, and over bridges. And now Japan became one of the well developed countries in the world.

With less than 300 mm of rainfall in Israel, they developed modern agriculture. Norway developed into one of the richest and most developed nations in the world, despite temperatures below zero degrees for few months of the year. Many such examples can be given.

Due to limited water resources in the Deccan Plateau of central India, this region has become a water scarcity region in the last thirty years. To overcome this, the state government has implemented various irrigation and agricultural departmental schemes after independence. As a result, surface water reserves increased; but in comparison, the groundwater level went deep due to high yielding and the non-recharge of groundwater. Basalt rock is occurs in 82% area of Maharashtra. Basalt is hard; compact and having very low porosity. Many measures like watershed development, soil conservation, construction of major and minor dam. Nalabadding farms, Shivkalin Yojana (Planning) to today's water-rich Shivar have been implemented for groundwater augmentation. After implementing such scheme, Maharashtra is also the state where the numbers of tanker paid villages are increasing every year due to the non-availability of drinking water. Therefore, the question arises that even after implementing so many irrigation schemes, why we have not been able to increase the expected groundwater potential in Maharashtra? In the last four decades, due to the schemes of the Irrigation Department, surface water resources have increased and so have irrigation and bores increased every year to yield ground water. In the past few years, dug wells and millions of boreholes up to 1000 feet deep were drilled. Due to all these conditions, the topography of Maharashtra became dry. If there is an average rainfall today, then also water scarcity increases and if the rainfall is ten to thirty percent above the

average fall, then there is a drought that does not bring the expected success in reducing the water problem and its intensity? However, other countries have solved such questions because of science. You know that due to growing population won't solve such problem all at once, but we have to take care that its severity does not increase and they do not become horrible and we have to take measures accordingly.

The geological condition is different in Maharashtra as compare to other state of India. So like other states, in the Maharashtra such harvesting policies are not possible to implement. The same method of water harvesting scheme cannot be implemented for the whole of Maharashtra as the geo-hydraulic properties change at short distances and the expected recharge will take place only when the suitable geological formation present.

Basalt rocks have very low porosity and permeability. This rock is formed by the cooling of volcanic lava flows in Maharashtra; these rocks are found underground in horizontal layers. The thickness of basalt rock is highest in the Bhusawal area and decreases towards west. Such topography, even if a layer of basalt rock under the ground is impermeable, stops the whole process of water leakage. Different geo-hydrologic properties (porosity and practicability) are observed in the middle and lower parts of the single layer of thick basalt flows. Therefore, wells in one village have good water on one side and also that wells are dry on the other side. This layer also stops water from seeping deeper. So if red soil is found in a well or a bore, water is obtained. Overall, such a geological condition stop drawn water percolation in Maharashtra. So getting a deep well or bore well is a waste of money. This is because in a rainy season such a deep recharge does not take place and the boreholes become dry. Rarely, due to the specific geographical location, deep boreholes also get the passage of water from distant areas and in such places

deep boreholes also have long lasting ground water. Even so, the disease seems to be wasting hundreds of deep bores every day in Maharashtra.

In many percolation dams in Maharashtra there is no percolation taken place today, if that site is not suitable for recharge, the water trapped in such dams is wasted only by evaporation. Some NGOs are satisfied with the work done by taking photos of the stagnant water; but in fact, it is imperative to see how much groundwater in the wells and boreholes along the attachment area has been increased after the watershed development in next year.

Recharge of ground water in basalt rocks is not as easy as it may seem. Because in basaltic rocks area; flows are horizontal; hence it single flow is impermeable; it will stop downward percolation of water. Recharge of ground water became 100% success after preparing litholog of that area only.

In Maharashtra average rainfall is 1400 mm western part of Maharashtra [kolan region] average rainfall is 3000 mm in eastern part [Vidharbha region] average rainfall is 1400 to 1600 mm and in central [Marathwada region] average rainfall is 750mm. In Twenty eight Tahashil of Maharashtra there are very short rainfall that is only between 250mm to 350mm only; hence this region face water scarcity problem every year; not only for irrigation but drinking purpose also. Where water is provided by tankers.

To minimize the problem of water scarcity of drought area in Maharashtra region, firstly we have identified eight Tahashil of Marathwada. By using scientific method to solve water scarcity in low rainfall area .firstly we have carried villages to geological, geohydrological; well inventory survey of such villages. Involving Students of Geology Department then the thematic of this map is prepared by using remote sensing image of this area. Maps, like drainage, counter, dam, and litho log

is prepared. After preparing litholog and above map suitable sites are selected for water shed development or to store water surface structure.

If suitable site is not available then artificial recharge technique implement by taking artificial recharge bore well in that area to peculate groundwater.

By using advance tools like GIS and geological survey, suitable site is selected in every villages of Ashti Tahashil of Beed District. If suitable site is not found of recharge of rain water then in same area artificial recharge structure is constructed. With the help of NSO NAAM foundation and CSIR funds watershed development programme, geological survey and artificial recharge work carried out in twenty four villages of Ashti Tahashil in last three years[2018 to 2021]

In this scientific project, twenty five students of Geology Department are involved in work under the guidance of Prof. Ashok Tejankar.

This project is one of the successful watershed development programmes in Maharashtra where ground water is increased after implementation of this programme.

#### **About NGO NAAM:**

NAAM Foundation is a movement that was initiated by famous actor Nana Patekar and Makarand Anaspure in September 2015. It was a response to the devastating drought conditions and the crises facing by the farmers in Maharashtra. NAAM has undertaken the task of water conservation across entire Maharashtra, by finding long-term remedies to mitigate the effects of drought. NAAM has evolved from being an organisation into a movement, empowering the human spirit and rural development.

Following is the list of the villages where the work related to water conservation has been done by Prof. A. V. Tejankar and his students in collaboration with NAAM foundation:

<b>Sr. No.</b>	<b>Name of the Villages</b>
1	Bhawarwadi
2	Chinchala Village
3	Dadegaon Village
4	Devlali
5	Dongargan Village
6	Gangewadi
7	Imangaon
8	Kada Village
9	Khadkat
10	Khanapur
11	Kinhi
12	Lokhandwadi
13	Mangrul
14	Matkuli Village
15	Pandhari Village
16	Pimpri Ghata
17	Ruti Village
18	Shirala Village
19	Surudi Village
20	Takalsing Village

**Achievements:**

These initiatives have increased the ground water and surface water storage that results into increase in ground water level. In each village near about 10 to 25 billion of water is stored on and below the surface. The surrounding villages now have sufficient water for irrigation, throughout the year. Due to this agricultural



production of the region increased which results into increase in per capita income and increase in standard of living of the peoples of these villages.



Prof. Ashok V. Tejankar



**Principal**  
**Deogiri College,**  
**Aurangabad.**

Head Department of Geology,

Deogiri College, Aurangabad

**Attachment:**

**1) Supporting Documents.**



Photographs of Prof. A. V. Tejankar while discussing work related to Water Management with well known actor Nana Pater & team members of NAAM NGO



Photographs of Prof. A. V. Tejankar while discussing work related to Water Management with well known actor Nana Pater & team members of NAAM NGO





Photographs of Prof. A. V. Tejankar while discussing work related to Water Management with Smt. Supriya Sule (Member of Parliament)



Photographs of Prof. A. V. Tejankar while presenting his book related to Water Management to Smt. Supriya Sule (Member of Parliament)





Photographs of Prof. A. V. Tejankar during on site visit to village



Photographs of Prof. A. V. Tejankar during on site visit to village





Deeping & Widening of Nala at Pandhri Village



Artificial Recharge Pit for Ground Water Percolation upto Permeable Strata





Deeping & Widening of Nala at Pandhri Village



Deeping & Widening of Nala at Pandhri Village





Deeping & Widening of Nala at Pandhri Village



Water Management Work at Rui-Imangaon



# ग्रामपंचायत कार्यालय, धानोरा

ता. आष्टी, जि. बीड, महाराष्ट्र

श्री. उदावंत देविदास हरिश्चंद्र

\* सरपंच \*

मो. ९९२२२८२६९९

श्री. सय्यद यूनुस उस्मान

\* उपसरपंच \*

मो. ९६५७८९९०४७

श्री. शिंदे यु. बी.

\* ग्रामसेवक \*

मो. ८२७५५२९४५६

ग्रा.पं. सदस्य

शेळडे राम दिगांबर

काळे वेंशाली कैलास

मोरे मल्हारी दगडु

शिंदे संभाजी शिवाजी

गायकवाड मनिषा ज्ञानदेव

शेळके आजिनाथ वामन

गायकवाड किसनाबाई भगवान

शेळके चंद्रकला विठ्ठल

चव्हाण सखिता दादासाहेब

सय्यद परविन खालेद

जा. क्र.

दि. : ०९/११/२०२१

प्रती,

मा. प्रा. डॉ. अशोकजी तेजनकर,  
भूशास्त्र विभाग प्रमुख,  
देवगिरी महाविद्यालय औरंगाबाद.

विषय :- धानोरा गावाचे भूशास्त्रीय सर्वेक्षण करणे बाबत.

महोदय,

उपरोक्त विषयी आपणास विनंती करण्यात येते की, सन २०२०-२१ मध्ये आष्टी तालुक्यातील काही गावांमध्ये आपण भूशास्त्रीय अभ्यासानुसार पाणलोट विकासाची कामे तसेच नदी व ओढ्याचे रुंदीकरण व खोलीकरण करून पुनर्भरण चे कामे तसेच तलावातील गाळ काढण्याचे कामे नाम फाउंडेशन मार्फत आपल्या मार्गदर्शनाखाली आष्टी तालुक्यामध्ये पूर्ण झाले आहेत. तसेच पाणलोट विकासाची कामे पूर्ण झाल्यामुळे गावातील पाण्याची पातळी वाढली असून शेतीचा व पिण्याचा पाण्याचा प्रश्न कायमस्वरूपी या गावांचा दूर झाला आहे. तलावातील गाळ काढल्यामुळे तलावातील पाण्याची साठवण क्षमता वाढली आहे व तलावातील गाळ शेतीत टाकल्यामुळे शेतीही सुपीक झाली आहे.

भूशास्त्रीय अभ्यासानुसार आमच्या गावचे सर्वेक्षण करून आमच्या गावाचे पाणलोट विकासाची कामे नाम फाउंडेशनच्या व आपल्या सहकार्याने भूशास्त्रीय सर्वेक्षण करून व्हावीत जेणेकरून आमच्या गावची पाण्याची पातळी, शेतीच्या पाण्याचा प्रश्न, पिण्याच्या पाण्याचा प्रश्न मार्गी लागेल.

आपला

*Handwritten signature and text: Enoo dept*

*Handwritten signature*  
ग्रामसेवक

ग्रामपंचायत कार्यालय  
धानोरा, ता. आष्टी, जि. बीड

*Handwritten signature*  
सरपंच

ग्रामपंचायत कार्यालय  
धानोरा, ता. आष्टी, जि. बीड





“ ग्रामपंचायत हा लोकशाहीचा पाया आहे ”



# ग्रामपंचायत कार्यालय रुई नालकोल

ता. आष्टी, जि. बीड.

श्री. संजय भाऊसाहेब नालकोल

सरपंच  
मो. 9767357755

श्री. पांडूळे एस. डी.

ग्रामसेवक  
मो. 8788201949

श्री. अनिल मारुती गजघाट

उपसरपंच  
मो. 9764885872

जा.क्र.

दिनांक 20/11/2021



प्रती,

मा. प्रा. डॉ. अशोकजी तेजनकर,  
भूशास्त्र विभाग प्रमुख,  
देवगिरी महाविद्यालय औरंगाबाद.

विषय :- रुई नालकोल गावाचे भूशास्त्रीय सर्वेक्षण करणे बाबत.

महोदय,

उपरोक्त विषयी आपणास विनंती करण्यात येते की, सन 2020-21 मध्ये आष्टी तालुक्यातील काही गावांमध्ये आपण भूशास्त्रीय अभ्यासानुसार पाणलोट विकासाची कामे तसेच नदी व ओढ्याचे रुंदीकरण व खोलीकरण करून पुनर्भरण चे कामे तसेच तलावातील गाळ काढण्याचे कामे नाम फाउंडेशन मार्फत आपल्या मार्गदर्शनाखाली आष्टी तालुक्यामध्ये पूर्ण झाले आहेत. तसेच पाणलोट विकासाची कामे पूर्ण झाल्यामुळे गावातील पाण्याची पातळी वाढली असून शेतीचा व पिण्याचा पाण्याचा प्रश्न कायमस्वरूपी या गावांचा दूर झाला आहे. तलावातील गाळ काढल्यामुळे तलावातील पाण्याची साठवण क्षमता वाढली आहे व तलावातील गाळ शेतीत टाकल्यामुळे शेतीही सुपीक झाली आहे.

भूशास्त्रीय अभ्यासानुसार आमच्या गावचे सर्वेक्षण करून आमच्या गावाचे पाणलोट विकासाची कामे नाम फाउंडेशनच्या व आपल्या सहकार्याने भूशास्त्रीय सर्वेक्षण करून व्हावीत जेणेकरून आमच्या गावची पाण्याची पातळी, शेतीच्या पाण्याचा प्रश्न, पिण्याच्या पाण्याचा प्रश्न मार्गी लागेल.

*(Handwritten signature)*  
Geo dept

आपला

*(Handwritten signature)*  
ग्रामसेवक  
ग्रामपंचायत रुई (ना.)  
ता. आष्टी, जि. बीड

*(Handwritten signature)*  
सरपंच  
ग्रामपंचायत रुई (ना.)  
ता. आष्टी जि. बीड

“ ग्रामपंचायत हा लोकराहीचा पादा आहे ”



# ग्रामपंचायत कार्यालय पारगांव (जो.) बळेवाडी

ता.आष्टी, जि.बीड.

सौ.वैशालीताई तात्यासाहेब कदम श्री.बाबासाहेब गंगाराम शिंदे श्री.आण्णासाहेब दादासाहेब भीपळे

सरपंच  
मो. 9689797777

ग्रामविकास अधिकारी

उपसरपंच



दिनांक 10 / 9 / 2021

प्रती,  
मा. प्रा. डॉ. अशोकजी तेजनकर,  
भूशास्त्र विभाग प्रमुख,  
देवगिरी महाविद्यालय औरंगाबाद.

विषय :- पारगाव (जो.) बळेवाडी गावाचे भूशास्त्रीय सर्वेक्षण करणे बाबत.

महोदय,

उपरोक्त विषयी आपणास विनंती करण्यात येते की, सन 2020-21 मध्ये आष्टी तालुक्यातील काही गावांमध्ये आपण भूशास्त्रीय अभ्यासानुसार पाणलोट विकासाची कामे तसेच नदी व ओढ्यांचे रुंदीकरण व खोलीकरण करून पुनर्भरण चे कामे तसेच तलावातील गाळ काढण्याचे कामे नाम फाउंडेशन मार्फत आपल्या मार्गदर्शनाखाली आष्टी तालुक्यामध्ये पूर्ण झाले आहेत. तसेच पाणलोट विकासाची कामे पूर्ण झाल्यामुळे गावातील पाण्याची पातळी वाढली असून शेतीचा व पिण्याचा पाण्याचा प्रश्न कायमस्वरूपी या गावांचा दूर झाला आहे. तलावातील गाळ काढल्यामुळे तलावातील पाण्याची साठवण क्षमता वाढली आहे व तलावातील गाळ शेतीत टाकल्यामुळे शेतीही सुपीक झाली आहे.

भूशास्त्रीय अभ्यासानुसार आमच्या गावचे सर्वेक्षण करून आमच्या गावाचे पाणलोट विकासाची कामे नाम फाउंडेशनच्या व आपल्या सहकार्याने भूशास्त्रीय सर्वेक्षण व्हावीत जेणेकरून आमच्या गावची पाण्याची पातळी, शेतीच्या पाण्याचा प्रश्न, पिण्याच्या पाण्याचा प्रश्न मार्गी लागेल.

आपला  
Kadamb V.T.  
सौ.वैशाली तात्यासाहेब कदम

सरपंच  
ग्रा.पं.कार्यालय पारगांव (जो.) ता.आष्टी





Prof. A. V. Tejankar addressing the meeting regarding Watersheds Management with Sarpanch from Ashti Tehsil & NAAM Officers

# खडकांच्या भूजलधारण क्षमतेनुसार राबवाव्या लागतील जलसंवर्धन योजना

डॉ. अशोक तेजनकर यांचे प्रतिपादन : महाअॅग्री-२०१६

औरंगाबाद, ता. २५ : महाराष्ट्रातील विविध विभागांमध्ये पाणीटंचाईचा प्रश्न सोडविण्यासाठी त्या ठिकाणची जमीन व खडक रचनेचा विचार करून जलसंवर्धन योजना राबवाव्या लागतील, असे प्रतिपादन डॉ. अशोक तेजनकर यांनी केले.

महा अॅग्री-२०१६ या कृषी प्रदर्शनात 'पाणी आणि माती नियोजन' या विषयावर मार्गदर्शन करताना शनिवारी (ता. २५) ते बोलत होते.

पुढे बोलताना ते म्हणाले, की जमिनीवर उभे राहून त्याखाली असलेल्या खडकाची पाणीधारण क्षमता ओळखणे तितकेसे सोपे काम नाही. रिमोट सेन्सिंग नकाशांना अनेक मर्यादा आहेत. त्यामुळे फक्त प्रयोगशाळेंतील नकाशांच्या आधारावर

जलसंवर्धन योजना न राबवता प्रत्यक्ष भूवैज्ञानिकांनी भेटी देऊन योजना तयार कराव्या. त्यासोबत खडकांचा उभा छेद दर्शविणारा नकाशा तयार करून त्यानुसार बंधारा किंवा पाझर तलावातून पाणी पाझरत नसल्यास भूशास्त्रीय खोलीप्रमाणे जलसाठ्यात बोअर घेऊन भूजल जमिनीखाली सोडून पाण्याची पातळी वाढवावी लागेल. देशातील इतर राज्यांच्या तुलनेत महाराष्ट्रातील खडक कठीण असल्याने लाव्हारसाचे आडवे थरावर थर थंड झाल्यामुळे निर्माण झालेले आहेत. या खडकाचे पाणी साठविण्याचे विओ हायड्रॉलॉजिकल गुणधर्म थोड्याथोड्या अंतरावर बदलत असल्यामुळे एका तालुक्यात यशस्वी झालेला जलसंवर्धनाचा प्रयोग दुसरीकडे राबविल्यास यशस्वी होणार

नाही.

राज्यातील ८३ टक्के भाग काळा पाषाण असलेल्या खडका पाणी धारण करण्याची क्षमता स ते १३ टक्के इतकी आहे. हे गृह धरून योजना राबवाव्या लागतील त्यामुळे सहा महिने अथवा एका वर्षात जलसंवर्धन योजना यशस्वी होण्या अपेक्षा चुकीची आहे.

चर्चासत्राच्या अध्यक्षीय भाषण डॉ. एस. बी. वऱ्हाडे म्हणाले, दरहेक्टरी उत्पन्न वाढविण्यास मातीचे संवर्धन करून आपण जपावे लागेल. आतापर्यंत दुर्लभ असलेला भूस्तर विषयावर आता काम होण्याची आवश्यकता उ विजयअण्णा बोराडे, त्र्यंबक पाश्रीकर, अॅड. वसंतराव देशपांडे, औरंगाबाद उपस्थित होते.

# आपण जलसाक्षर कधी होणार?

प्रयोगचक्र

सुप्रसिद्ध विदेशी लेखक जॉर्ज ऑरवेल यांचा '१९८४' हा उपरोक्त मुद्द्यावर लिहिलेला उपरोक्त पुस्तक आता भारतातही प्रसिद्ध झाले आहे. या पुस्तकात जॉर्ज ऑरवेल यांनी '१९८४' या वर्षात भारत हा देश कसा सत्तावादाच्या तानाशाहीच्या तानाशाहीतून जाईल असा प्रश्न उपस्थित केला आहे.

जॉर्ज ऑरवेल यांनी '१९८४' या पुस्तकात '१९८४' या वर्षात भारत हा देश कसा सत्तावादाच्या तानाशाहीच्या तानाशाहीतून जाईल असा प्रश्न उपस्थित केला आहे.

आपल्या घाणा किती प्रकारे झाले? घुसपती मारुतळी व घुसपतीचे मुक्त किती इच्छा आहे? त्यामुळे पिण्यासाठी, शक्ति व उद्योगासाठी आणखी पाण्याचा वित्तिय कळ्याच्या वारसा काढता येतो का? की भूकड ही सांख्यिकी अर्थी अभावामागी आपण ही व्यक्तिगत करण्यासाठी असुराभावी वापरून भारी पिण्या व पुरवठा पध्दतीच्या संकटात कि दडकणार, हा प्रश्न आहे.



मुंबईतून आलेले शुद्ध व स्वच्छ पाणी ही एक सुखाची गोष्ट आहे. ती आपण आजही घेऊ शकतो. ती आपण आजही घेऊ शकतो. ती आपण आजही घेऊ शकतो.

पिकासाठी जमीनही जलसाक्षर आहे.

**COSTAL AREA**, म्हणजे जमीन, पाणी व सवणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ.

सामान्यतः जमीन ही सवणी व पाणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ.

सर्वोच्च जास्त यामे, सिंचन प्रकल्प यामुळे जमीन ही सवणी व पाणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ.

जमीन ही सवणी व पाणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ. यामध्ये जमीन, पाणी व सवणी यांचा एकत्रित अर्थ.

Newspaper article of Prof. A. V. Tejankar









हे. महाराष्ट्र टाइम्स दि. 10-1-2016

94231493

विशेष

### डॉ. अण्णा के तदनका

डॉ. अण्णा के तदनका पून-विस्तार का प्रस्ताव सरकार के आगे रखे जाने के बाद देश के अनेक शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।

पूना के अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।



# दुष्काळावरील उपायच सदोष!

पाणीटंचाईवर कायस्थकायची तो ह्या जादाभ्यास असेल तर, लक्षापुनर्भरण योजनेच शाश्वती अध्यासाची जोड घ्याची लागल असे केल्यास पाणीटंचाईच प्रश्न चुकील काही तर्पांत कायमचा सोडवला जाऊ शकतो.

प्रत्येक देशात सुटकार घडतो. हे आपणच नमूद करू शकतो. अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।

असतत तरीक्या अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।

पूनात दुष्काळ होतो हे पाहून शहरात काही कायमचे उपाययोजना कराव्यात हे दिसून येत आहे. अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।

शहरात दुष्काळ होतो हे पाहून शहरात काही कायमचे उपाययोजना कराव्यात हे दिसून येत आहे. अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है। अण्णा के तदनका का मतलब है कि शहरों में अण्णा के तदनका के नाम से चर्चा शुरू हो गई है।

श्री. अशोक तेजकर

# भूजल कायद्याकडे दुर्लक्ष



सर्वसामान्य नागरीक जलसंपदासंबंधित उदासीन असल्याने महाराष्ट्रात भूजल अतिनियम कायद्याची अंमलबजावणी सरकारी व खासगी क्षेत्रात होत नाही त्यामुळे गंभीर भ्रम निर्माण झाले आहेत.

जल संपदा ही एक अतिसीमित व अविभाज्य संपदा आहे. ती कोणीही व्यक्ती किंवा कोणीही देशाला स्वतःची संपत्ती म्हणून घेतली जाऊ शकत नाही. ती संपूर्ण मानवांच्यासाठी आहे. म्हणून ती समानतेने वाटपली जाणे आवश्यक आहे. मात्र, अनेक देशांत जल संपदाचे अतिनियम कायदा आहेत. त्यांच्या अंतर्गत अनेक तरतुदा आहेत. त्यांच्या अंतर्गत अनेक तरतुदा आहेत. त्यांच्या अंतर्गत अनेक तरतुदा आहेत.

Newspaper article of Prof. A. V. Tejankar



# भूजलाचे संवर्धन, वापर ही काळाची गरज

डॉ. ए. व्ही. तेजकार

भूजलाचे संवर्धन ही गरज आहे. त्यासाठी पाण्याचे वापरही योग्य असावा. पाण्याची संधि जास्त नाही. त्यामुळे पाण्याची गरज जास्त आहे. पाण्याचे संवर्धन ही गरज आहे. त्यासाठी पाण्याचे वापरही योग्य असावा. पाण्याची संधि जास्त नाही. त्यामुळे पाण्याची गरज जास्त आहे. पाण्याचे संवर्धन ही गरज आहे. त्यासाठी पाण्याचे वापरही योग्य असावा. पाण्याची संधि जास्त नाही. त्यामुळे पाण्याची गरज जास्त आहे.



पाण्याचे वापर : ग्रामीण क्षेत्रात अनेक ठिकाणी पाण्याची गरज जास्त असते. त्यासाठी पाण्याचे संवर्धन ही गरज आहे. त्यासाठी पाण्याचे वापरही योग्य असावा. पाण्याची संधि जास्त नाही. त्यामुळे पाण्याची गरज जास्त आहे.

Newspaper article of Prof. A. V. Tejankar





Newspaper article of Prof. A. V. Tejankar



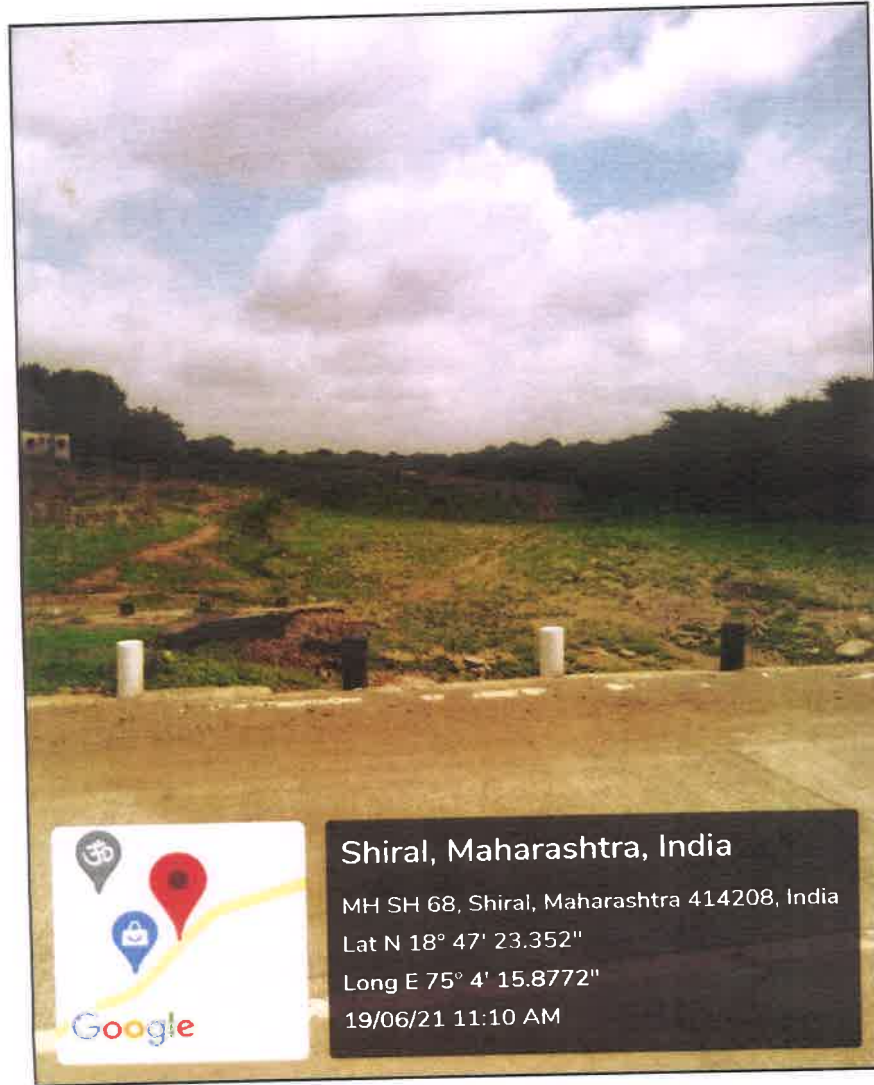
# भू-सर्वेक्षण करून काम केलेल्या गावाची माहिती

गावाचे नाव	शिराळ
तालुका	आष्टी
जिल्हा	बीड
इंगलेले काम	33,43,384.69 चौ. मी.
पाण्याची साठवण क्षमता	37,14,87,000.00 लिटर





**BEFORE**



**AFTER**

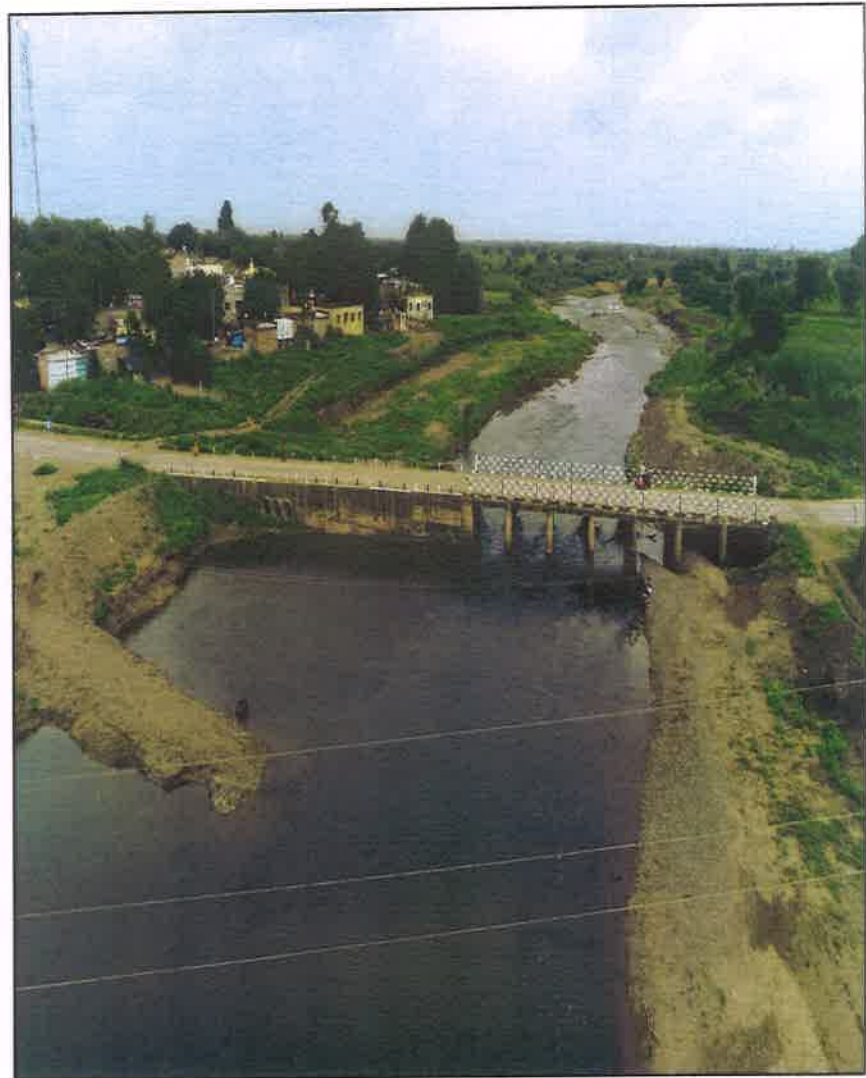




**BEFORE**



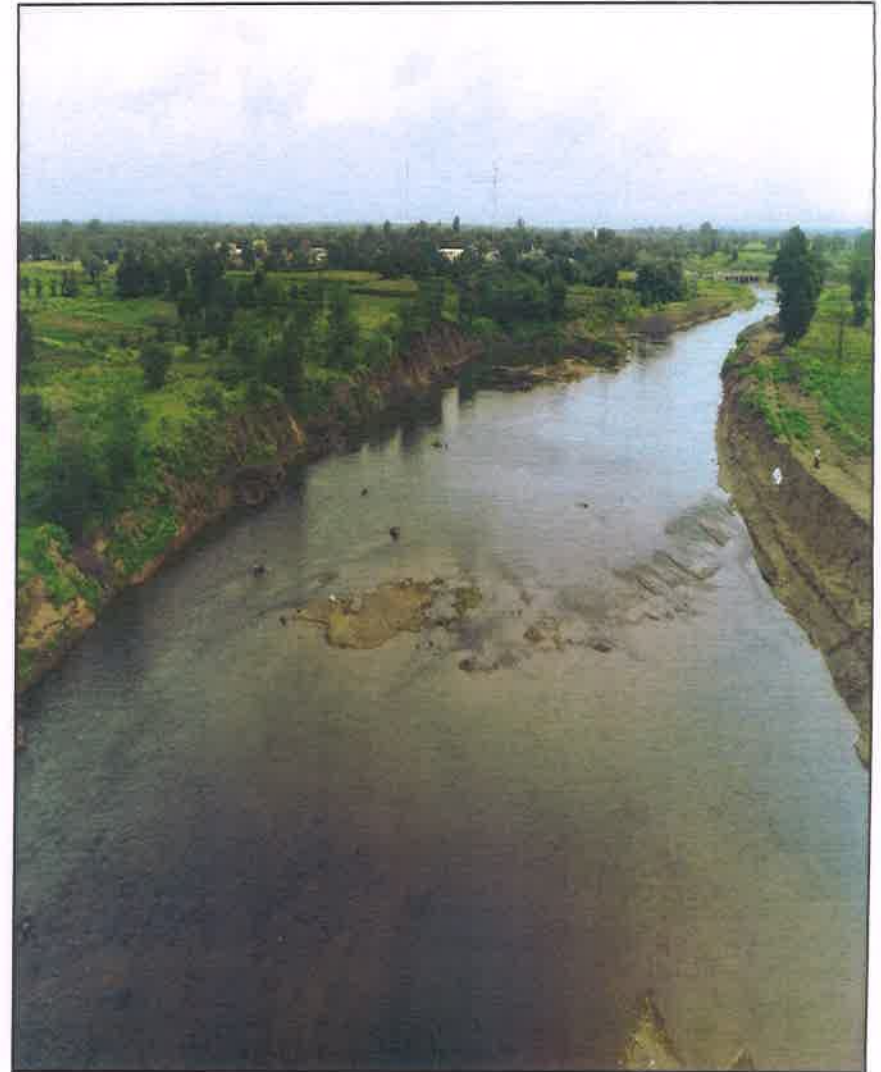
**AFTER**



**BEFORE**



**AFTER**





**BEFORE**



**AFTER**



**BEFORE**



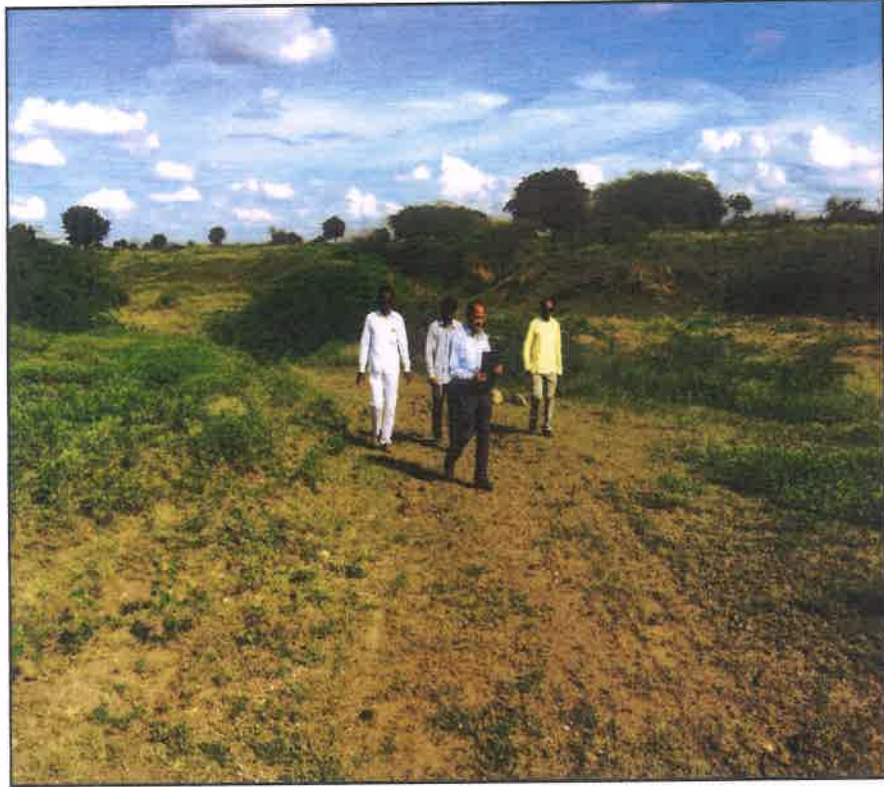
**AFTER**







# नदी सर्वेक्षण











नदी खोलीकरण व सरळीकरण कामाची पाहणी करताना जलतज्ञ डॉ. अशोक तेजनकर व स्थानिक आमदास बाळासाहेब आजबे,  
समन्वयक औदुंबर खिलारे, स्थानिक सरपंच केशव आजबे तसेच ग्रामस्थ



नदी खोलीकरण व सरळीकरण कामाची पाहणी करताना जलतज्ञ डॉ. अशोक तेजनकर,  
समन्वयक औदुंबर खिलारे, स्थानिक उपसरपंच सीमा आजबे तसेच ग्रामस्थ



## **Bhawarwadi Village**

Bhawarwadi is a small Village/hamlet in Ashti Taluka in Beed District of Maharashtra State, India. It comes under Bhawarwadi Panchayath. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 79 KM towards west from District headquarters Beed. 280 KM from State capital Mumbai, Bhawarwadi is surrounded by Jamkhed Taluka towards South, Pathardi Taluka towards North, Patoda Taluka towards East, Karjat Taluka towards South.

## Dug-Well Inventory

- 1 m-1
- \* भूखण्ड \*  
\* पाणीपातकी - पावसाळा - विहिरीची पाणी पातकी जास्त असते  
Dugwell - विवाळ - 3 ते 4 तास पुर्चोदना  
उदाळा - डग्यु.
- \* Greenbelt - मार्ग महीव्यापारून विहिरी पूर्णपणे  
कोरल्या जातात.  
- अचानक उन्हाळ्यामध्ये हँड करणे पाणी  
खर्च होतो.  
- विहिरींना 10 ते 15 ft Paraphat झाडलेले
- \* पानलोट कामे - काही भागात झालेली आहे.  
- नदीचे (नाल्याचे) खोलीकरण करणे  
आवश्यक आहे
- \* Artificial Recharge - Amagolidal Basalt  
असल्यामुळे अचानक काही भागात Artificial  
Recharge केल्यात पाणी पातकीत वाढ होण्याची  
शक्यता आहे



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 53' 60" N  
 Long - 75° 09' 83" E

Attitude - 622 m

Date - 12/06/19

Village सुपरवाडी

Gut No. .... Name of the Farmer नरमन बाळू कल्याणराव Well No. D48

In Village Location ..... User  Personal  Community/.....

Location of the well along the canal  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2007, Construction year 12 yr, If yes type.....

Parapet Ht. 2.2 ft Shape Circular Diameter of well 22 ft  
 (Whether water from other sources brought to this well if yes source and hrs of pumping.....)

Total Depth 35 ft, Water level from ground level..... m.  
 In rainy season 10 ft, in winter 6 ft, summer 7 ft..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction Length..... m and its vertical borehole ..... Location as per bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 5 ..... Acre  
 Winter Season 5 ..... Acre  
 Summer Season 0 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump ..... HP 5 HP

Dia of outlet pipe 2.5 ..... cm. Inch.....

Quantity of withdrawals :- Daily..... Hrs. Seasonal..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 24 Hrs; winter 4 Hrs, Summer 0 Hrs)

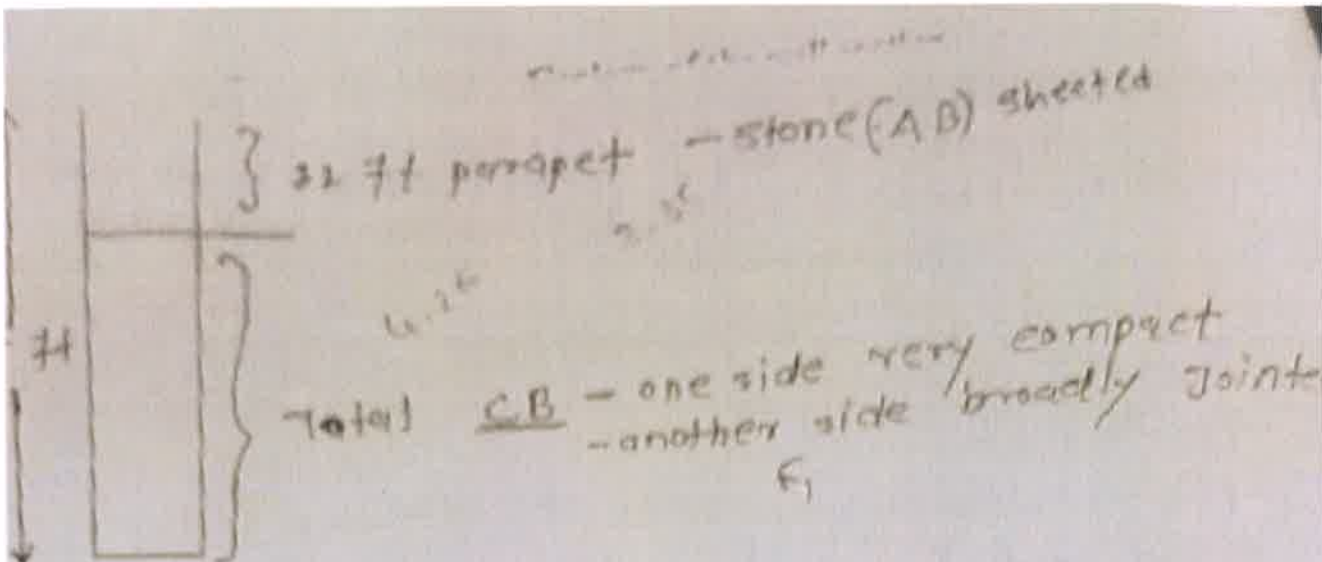
Any other information .....

J. A. Mhaske

Name of the Surveyor

[Signature]

Signature



- a) Lining stone - circular.
- b) Soil - Black / Yellow / Sandy Black loamy
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
no watershed upstream side lake present towards N side
- d) Effect of existing structures on water table.  
water is added by box - another source for store water.
- e) Geological / Geographical effect on groundwater.  
very poor condition for GWT yield.
- f) Compact basalt very compact CB - hard massive
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt NA
- i) Tachylitic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.  
Nearby surrounded area covered by loamy soil.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form Lat - 18° 53' 63" N  
 Long - 75° 9' 30" E  
 A.H. 621

Date - 12/06/19

Village Mahad

Out No. .... Name of the Farmer Shri. D. D. Patil Well No. 043

In Village Location ..... User... Personal/Community/.....

Location of the well along the canal (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1979 Construction year 40 yr If yes type.....

Perpet Mt. 14 ft Shape-Circular/Square, Diameter of well 28 ft  
 (Whether water from other sources brought to this well if yes source and how of pumping.....)

Total Depth 45 Water level from ground level 8 ft  
 In rainy season 34 In winter 2 ft summer 8 ft

Percolation from Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Direction here is taken in Direction, Length... ft and the vertical borehole... Location in the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....

Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP 3 HP

Dia of outlet pipe 2 in gal. inch .....  
 Quantity of withdrawal :- Daily 3 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs. winter 4 Hrs. Summer 0 Hrs.)

Any other information .....

J. A. Mhaske  
 Name of the Surveyor

[Signature]  
 Signature



14 ft - stone.  
AB shelled

10 ft - CB - Broadly Jointed.  
F2

21 ft - F1

a) Lining

stone - circular.

b) Soil - Black / Yellow Sandy

Black - loamy

c) Existing watershed structure/ Precipitation dam in neighboring region.

upstream side. Kint lake are present

d) Effect of existing structures on water table.

water seepage by base /  4 - Horizontal bore takes

e) Geological / Geographical data on groundwater.

In rainy season

f) Compact basalt

broadly jointed.

g) Amygdaloidal Basalt

AB - Hydrothermal!

h) Vesicular Basalt

NA

River North side

i) Tachyitic basalt

NA

j) Flow contact



k) Dyke rock

NA

l) Any remark about geological formation.

upstream RIVER present along the well.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 53' 63" N  
 Long - 75° 03' 73" E  
 Altitude - 620

Village भक्तवडी

Date - 12/06/19

Gut No. .... Name of the Farmer शरद शिंदे Well No. DSO

In Village Location ..... User...  Personal/Community/.....

Location of the well ..... along river  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2007 Construction year..... If yes type.....

Parapet Ht. 18 ft Shape  Circular/Square, Diameter of well 25 ft  
 (Whether water from other sources brought in this well if yes source and hrs of pumping.....)

Total Depth 32 ft Water level from ground level.....m.  
 In rainy season .....m, winter..... summer.....m.

Percolation from :  Bottom /  Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length .....m, and for vertical borehole..... Location at the bottom)

Use :- Drinking ...., Irrigation....., Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.....  HP 5 HP

Dia of outlet pipe 5 in. / inch .....  
 Quantity of withdrawals - Daily 5 Hrs. Seasonal ..... cc meter / day

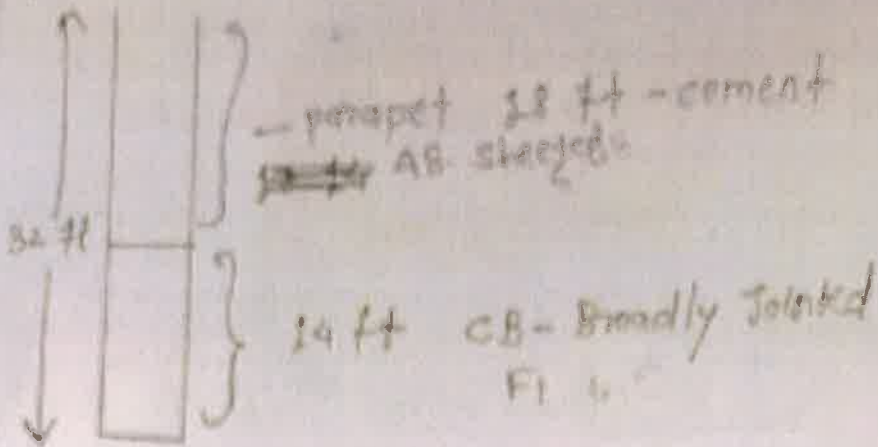
Time require for a full recharge / recuperation :  
 (Rainy season 2-4 Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information .....

S. R. Wadhankar

Name of the Surveyor

Signature



a) Lining Cement

b) Soil - Black / Yellow / Sandy Black

c) Existing water table structure / Proclamation etc in neighboring region.  
upstream side mini lake present at Abrishtia

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

poor permeability of wastes

f) Compact basalt

Broadly Compact Basalt

g) Amygdaloidal Basalt

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat -  $18^{\circ} 53' 62'' N$

Long -  $75^{\circ} 3' 77'' E$

Altitude - 621 m

Date - 12/06/2019

Village - भकरवाडी

Gut No. .... Name of the Farmer विठ्ठल चिन्तामण शिर Well No. 031

In Village Location ..... User... Personal/Community/.....

Location of the well along the River  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1647 Construction year 2003 If yes type.....

Parapet Ht. 1.1 ft Shape-Circular/Square, Diameter of well 2.5 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 35 ft Water level from ground level 0 ft  
 In rainy season 20 ft winter 10 ft summer ..... m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... and the vertical borehole..... Location at the bottom)

Use :- Drinking .... Irrigation ..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical  Diesel Pump  3 HP  
 Dia of outlet pipe 2 inch  
 Quantity of withdrawals :- Daily 5 Hrs Seasonal ..... cc meter / day

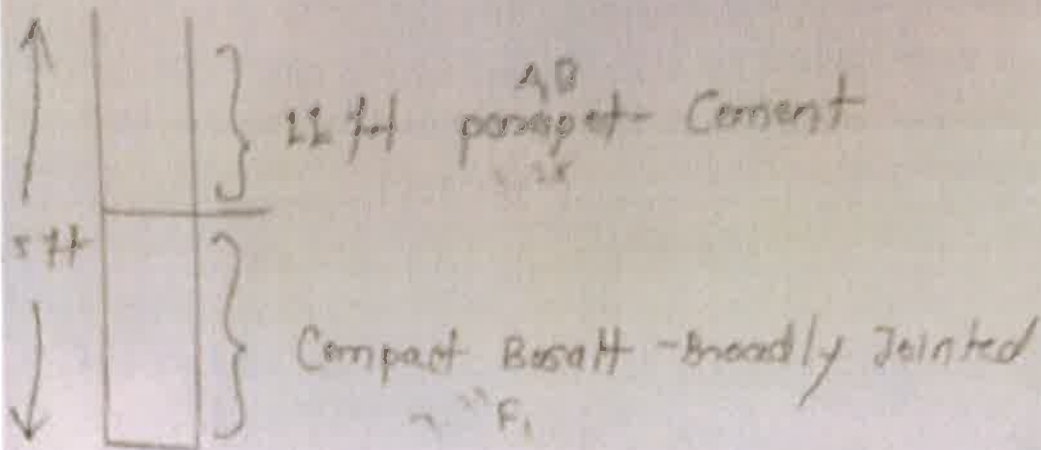
Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

S R Wadhankar

Name of the Surveyor

Signature



a) Lining

Cement

b) Soil - Black / Yellow sandy

Black loamy soil

c) Existing watercourse structure / Proclamation dam in neighboring region.

upstream side, line present towards North side

d) Effect of existing structures on water table.

Leaky added during Rainy season.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed CB.

g) Amphiboloid Basalt

Absent

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Lat - 18° 38' 55" N  
 Long - 75° 9' 66" E  
 Altitude - 621 m  
 Date - 12/10/19

Village भोखोडा

Cut No. .... Name of the Farmer शिव बरसे Well No. 052

In Village Location Along River Use:  Personal  Community

Location of the well 60' from Bank of Nala, In the Nala, Riverbank

Year of the Digging 7 Yrs Construction year 2012 If yes type .....

Parapet Ht. 10 ft Shape Circular, Diameter of well 2.5 ft  
(Whether water from other sources brought in this well if yes how and for what purpose)

Total Depth 21.7 ft Water level from ground level 0 ft  
 In rainy season 12 ft in winter 10 ft summer .....

Percolation from: Bottom / Lateral Direction (in the case of lateral direction .....) (if the horizontal bore is taken in ....., Direction, Length ....., and the vertical bore is ....., Location of the bore .....)

Use :- Drinking  Irrigation  Acres, Horticulture ....., etc. ....  
 Rainy Season 0.5 Acre  
 Winter Season 0 Acre  
 Summer Season 0 Acre

Type of withdrawal/Pump Out :- Electrical motor  Diesel Pump  HP .....  
 Dia of outlet pipe ....., cm, inch .....  
 Quantity of withdrawals :- Daily  Hrs. Seasonal ....., cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 2-4 Hrs; winter 0 Hrs; Summer 0 Hrs)

Any other information .....

R. D. Peeki

Name of the Surveyor

Signature

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 52' 56" N

Long - 75° 3' 55" E

Altitude - 522m

Date - 12/05/13

Village शहादपुर

शहादपुर

Well No. 233

Cut No. .... Name of the Farmer .....

In Village Location ..... User... Personal/Community/.....

Location of the well ..... 2008 along small canal  
 (Paraboli, Bank of Nala, In the Nala, Elsewhere).....

Year of the Digging ..... Construction year..... If yes type.....  
2008 11 year

Parapot Ht. 42 ft Shape-Circular/Square, Diameter of well..... 5 1/2 ft  
 (Whether water from other sources brought to this well if not source and use of pumping.....)

Total Depth 42 ft Water level from ground level... 10 ft - added by tanker water  
 In rainy season 30 ft winter... 20 ft Summer... 15 ft

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... 20 Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical Water ..... Diesel Pump..... TD

Dia of outlet pipe..... in. Inch .....  
 Quantity of withdrawal :- Daily 24 Hrs. Seasonal..... cc. meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs. winter... 24 Hrs. Summer..... 24 Hrs.)

Any other information.....

R. D. Keli

Name of the Surveyor

Signature





SWAB 5 m

perpet wall  
 structure are hidden by cement-linings  
 CB behind para. 1  
 Broadly Jointed

a) Lining

Cement

b) Soil - Black / Yellow / Sandy

c) Existing waterbeds structures: Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

well totally covered by cement perpet

f) Compact basalt

g) Amygdaloidal Basalt

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.

The nearby surrounded region shows CB.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat = 18° 53' 00" N  
 Long = 75° 24' 20" E  
 Alt = 629  
 Date = 12/08/2019  
 Well No. D57

Village ..... .....

Cut No. .... Name of the Farmer .....

In Village Location ..... Use  Personal  Community

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed)

Year of the Digging 1995 Construction year 2019 If yes type .....

Parapet Ht. 2.4 Shape Circular Diameter of well 2.2  
 (Whether water from other sources brought in this well if yes source and Hrs of pumping .....

Total Depth 3.5 Water level from ground level ..... m.  
 In rainy season 3.0 m. winter 3.0 m. 4 m. 15 m.

Percolation from: Bottom / Lateral Direction (In the case of lateral direction .....) Location in the bottom  
 (If the Horizontal bore is taken in ..... Direction Length ..... m. and for vertical borehole ..... Location in the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.....  
 Rainy Season ..... 2 ..... Acre  
 Winter Season ..... 0 ..... Acre  
 Summer Season ..... 0 ..... Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP ..... 5 HP  
 Dia of outlet pipe ..... 2 ..... 5 ..... Inch

Quantity of withdrawals :- Daily 12 ..... Hrs. Seasonal ..... cc/meter / day

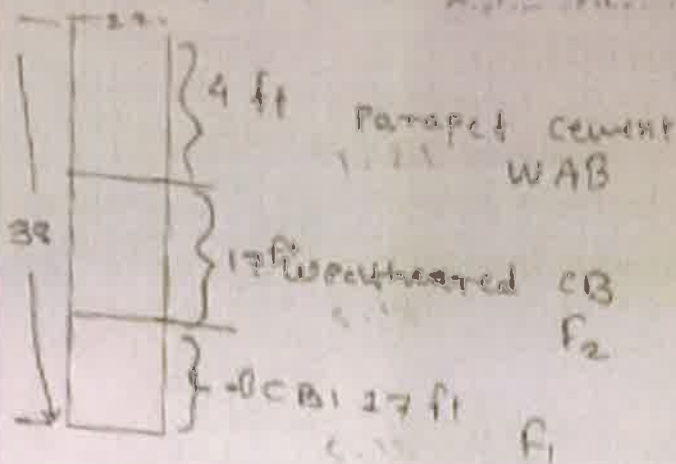
Time require for a full recharge / recuperation :  
 (Rainy season 2-4 Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

S.P. Wadhavkar

Name of the Surveyor

Signature



a) Lining

Cement - Concrete

b) Soil - Black / Yellow / Sandy

loamy soil

c) Existing watershed structure / Proclamation data in neighboring regions

Kint lake are present at upstream side

d) Effect of existing structures on watershed

Weathered CB helps to recharge limited water

e) Geological / Geographical effect on groundwater

f) Compact basalt

C. A. (Weathered)

g) Amorphoidal basalt

NA

h) Vesicular basalt

NA

i) Tachytic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 5

Well Inventory Form

Lat. - 19° 53' 30" N

Long. - 75° 9' 30" E

Altitude - 620m

Date - 12/06/2019

Village - जिंदगाडी

Out No. .... Name of the Farmer बबन अंबोजी Well No. DSB

In Village Location ..... User... Personal/Community/.....

Location of the well ..... (Parallel, Bank of Nala, In the Nala, Rhyarbed).....

Year of the Digging 1979 Construction year 49 If yes type.....

Parapet Ht. 2.1 Shape Circular Square. Diameter of well 2.6

Total Depth 30 Water level from ground level.....  
 In rainy season 20 In winter 30 In summer.....

Percolation from: Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If any other source of water brought to this well by any means and type of irrigation.....)

Use: Drinking .... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electric  Hand  Diesel Pump HP 3 HP

Dia of outer pipe 2 1 inch  
 Quantity of withdrawals - Daily 7 1 liter/Seasonal..... cc/liter/day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs. winter ..... Hrs. Summer ..... Hrs.)

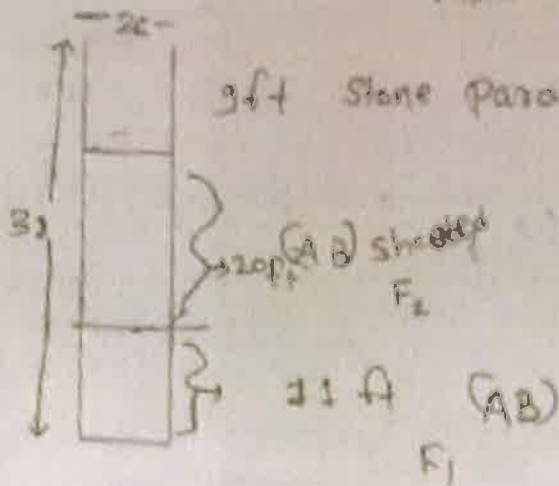
Any other information.....

S. A. Mhale

Name of the Surveyor

[Signature]

Signature



a) Lining

Stone - circular.

b) Soil - Black / Yellow / Sandy

Lamy - Black soil.

c) Existing watershed structure/ Proclamation dam in neighboring region.

kind watershed present NE direction from well.

d) Effect of existing structures on water table.

water table help to added by through A+B

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed AB

g) Anagdaloid Basalt

shreted AB

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

-

k) Dyke rock

NA

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 52' 53"

Long - 75° 9' 92"

Alt. - 626 m

Date - 12/06/2016

Village - श. त. र. व. 15

Gut No. .... Name of the Farmer मिर्जाद लसीराव Well No. DSJ

In Village Location ..... User:  Personal  Community

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed)

Year of the Digging 2016, Construction year 3 ..... If yes type

Parapet Ht. 2.2 ft. Shape Circular Square, Diameter of well 2.2 ft  
(Whether water from other sources brought to this well if yes source and hrs of pumping)

Total Depth 20 ft. Water level from ground level ..... m.  
 In rainy season 20 ft. winter 10 ft. summer 10 m.

Percolation from: Bottom / Lateral Direction (in the case of lateral direction .....)  
(If the horizontal bore is taken in ..... Direction, Length ..... m and for vertical borehole ..... Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.....  
 Rainy Season 5 ..... Acre  
 Winter Season 2 ..... Acre  
 Summer Season 6 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump - 5 HP

Dia of outlet pipe 2.5 ..... In. Inch .....  
 Quantity of withdrawals :- Daily 8 ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 2.9 ..... Hrs. winter 8 ..... Hrs. Summer 0 ..... Hrs.)

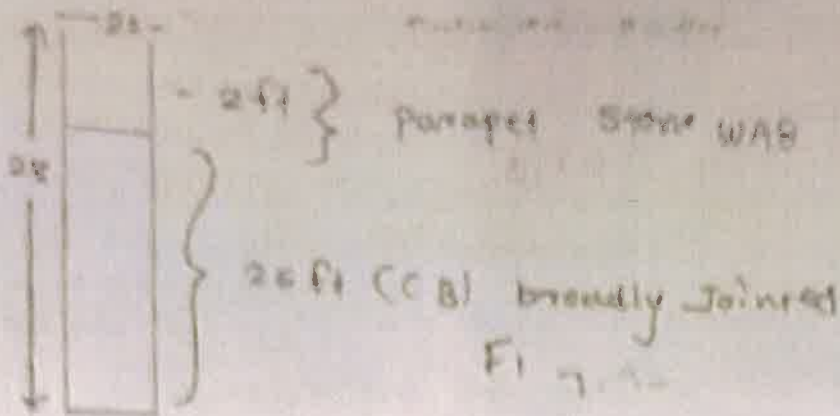
Any other information

R. D. Puri

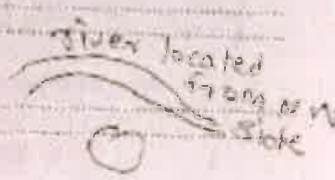
Name of the Surveyor

Signature





- a) Lining Stone @ Construction
- b) Soil - Black / Yellow Sandy Black Soil
- c) Existing waterbodies structure / Proclamation dam in neighboring region Mini water lake present at upstream side towards E side
- d) Effect of existing structures on waterbodies Seasonally water added by rain
- e) Geological / Geographical effect on groundwater
- f) Compact basalt Broadly Jointed (CB)
- g) Amygdaloidal Basalt NA
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.



## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Bhawarwadi , Ta- Ashti , Dist-Beed

2. Date of Survey: 12/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Navnath Bhawar

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Dadasaheb Bhawar
- b. Kailash Bhawar
- c. Vibhishan Bhawar
- d. Popat Bhawar
- e. Kakasaheb Bagal
- f. Babasaheb Bhawar

7. Total No of Well surveyed:

13 dugwells in the field + 16 dugwells through Satellite imagery Survey  
= Total 29 dugwells

8. Total map prepared:

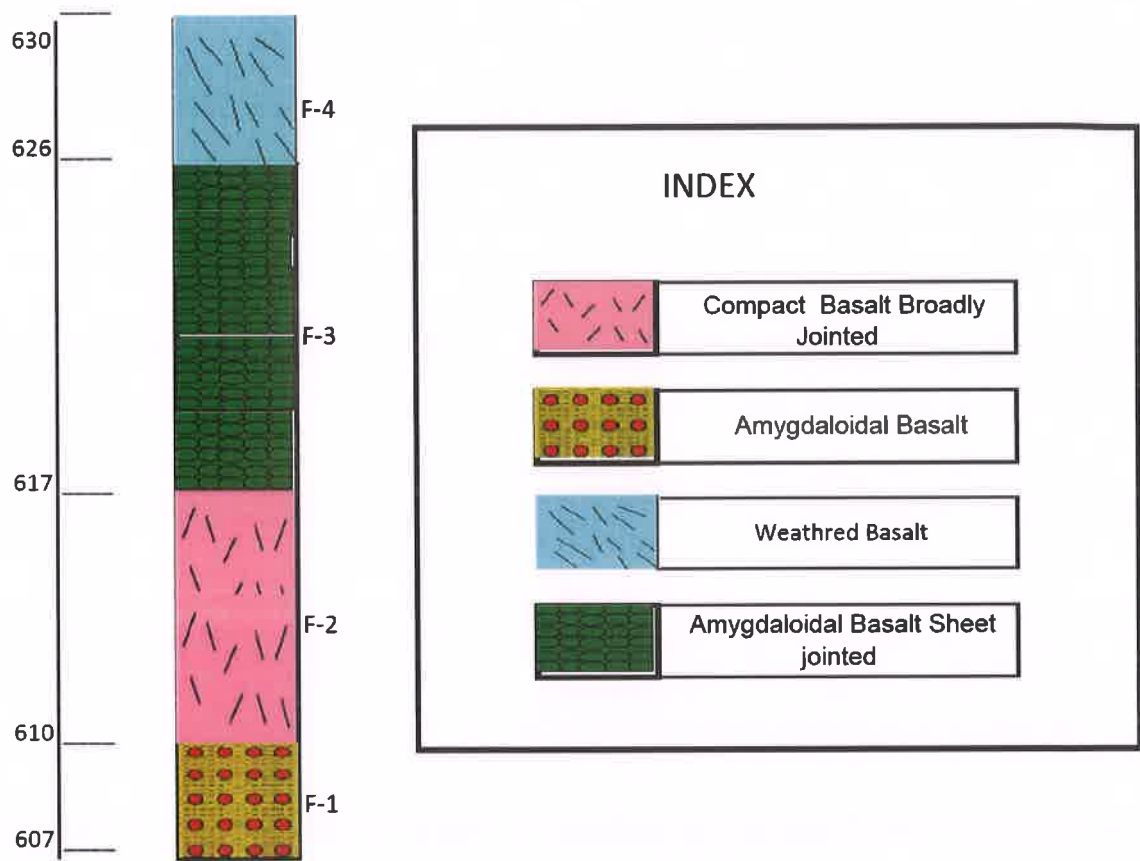
- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

a. For Artificial Recharge suitable/ Unsuitable:-----

b. Structure for watershed development programme:-----

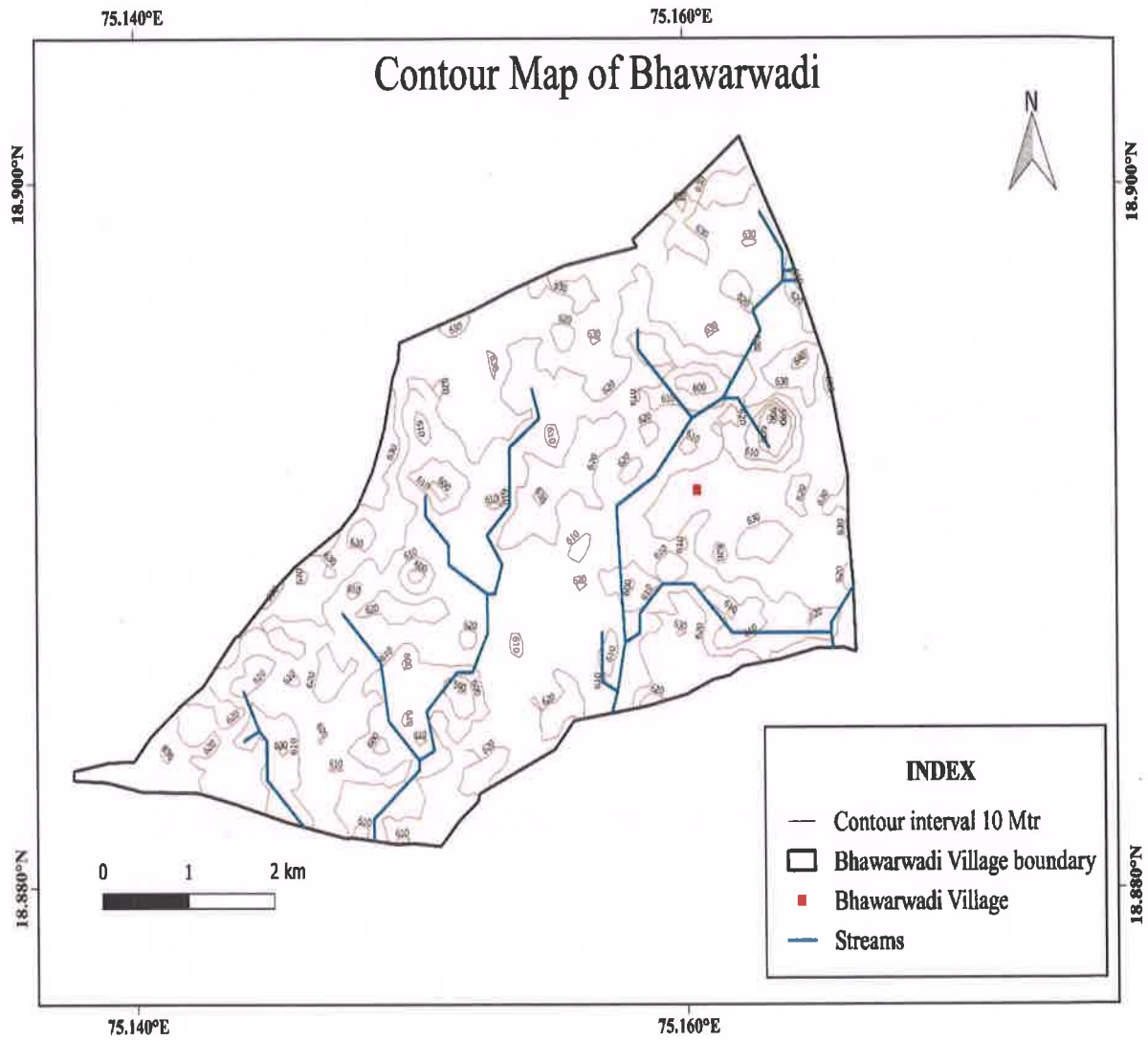
## Litholog of Bhawarwadi Village



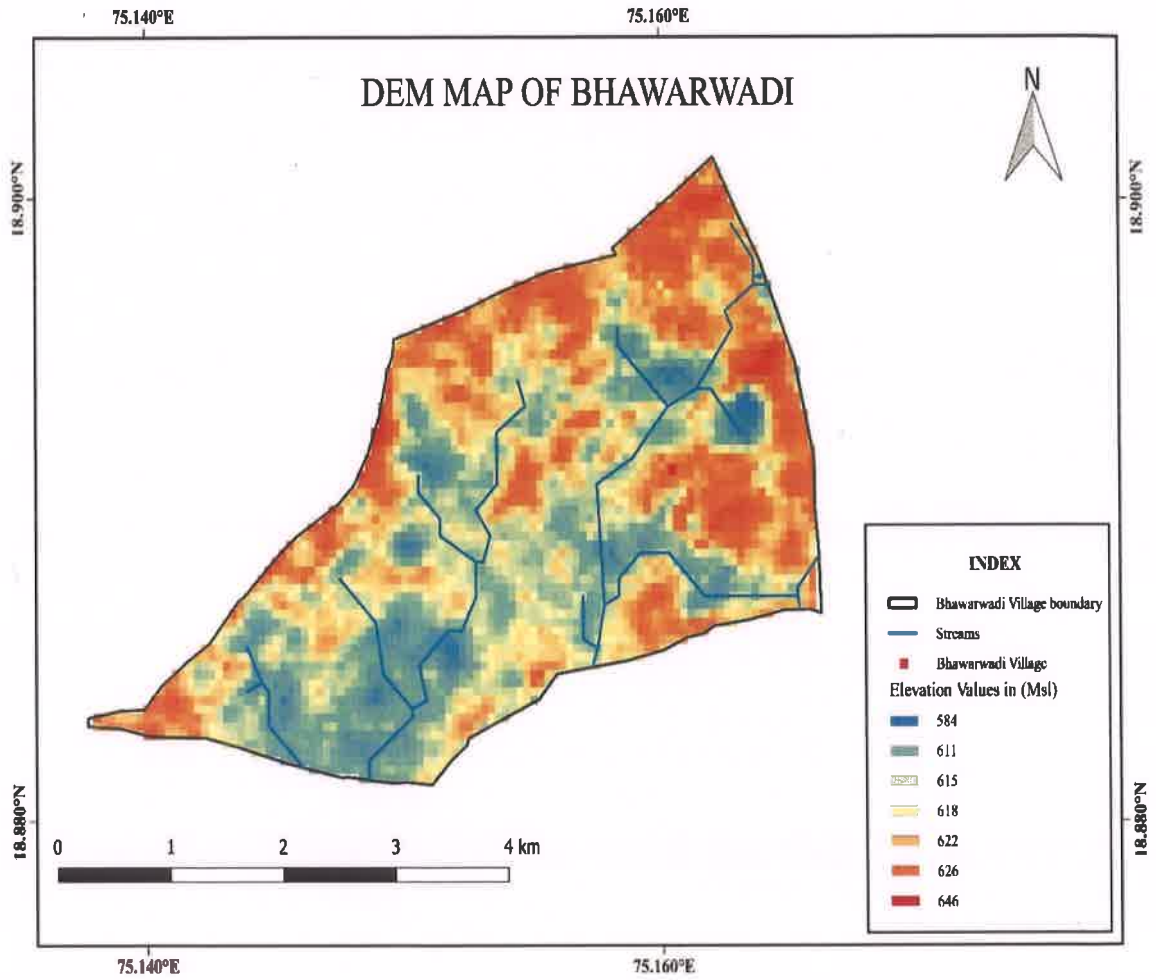
Litholog of Bhawarwadi Village



# Contour Map of Bhawarwadi



# DEM Map of Bhawarwadi





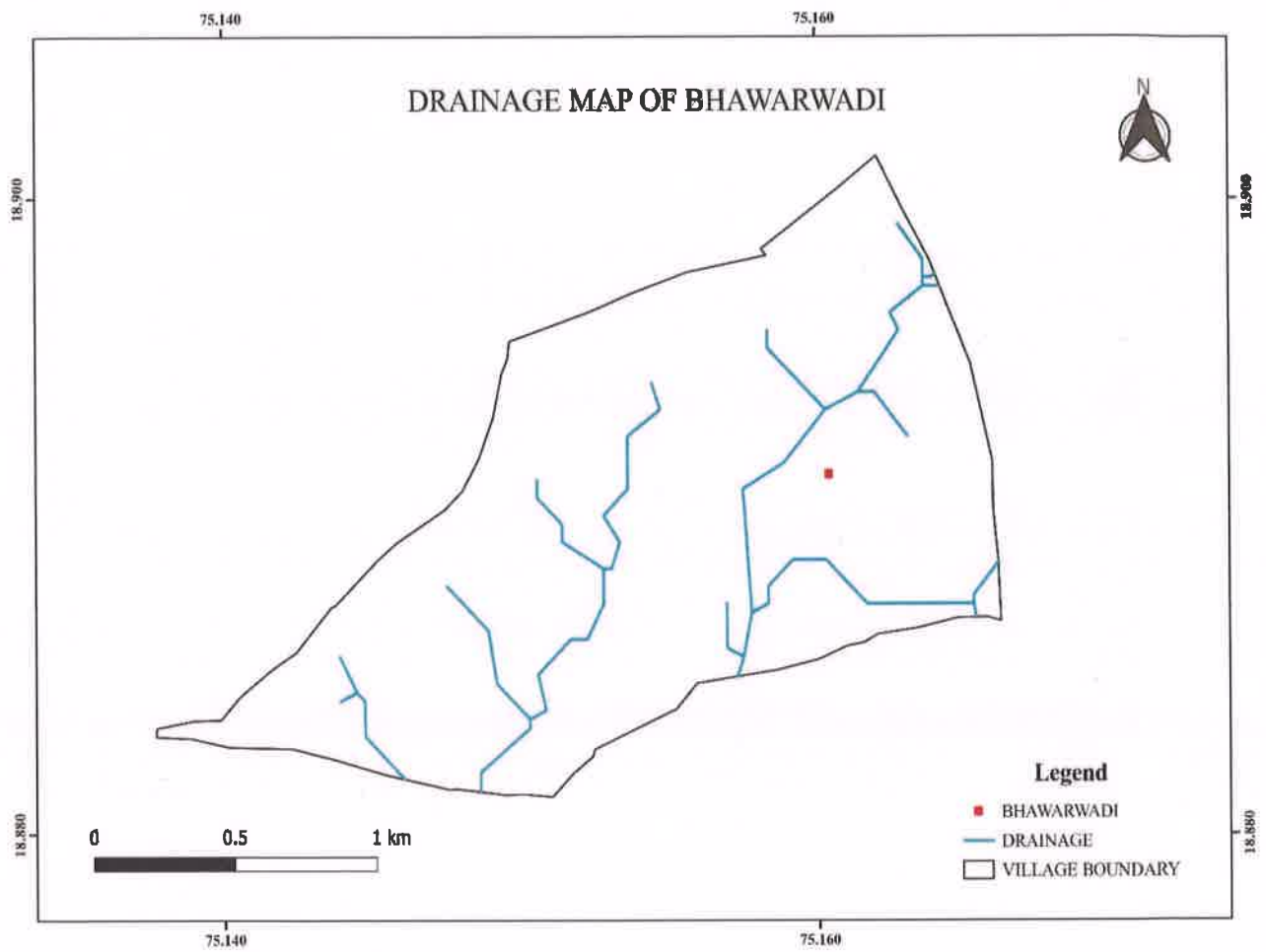
Photographs showing watersheds management at Bhawarwadi Village.





Photographs showing Increase in Ground water level at Bhawarwadi Village.

## Drainage Map of Bhawarwadi



*[Handwritten Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Chinchala Village**

Chinchala is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 72 KM towards west from District headquarters Beed. 7 KM from Ashti. 287 KM from State capital Mumbai. Desur (4 KM), Kasari (4 KM), Gangadevi (5 KM), Ashta (hn) (5 KM), Mahinda (5 KM) are the nearby Villages to Chinchala. Chinchala is surrounded by Jamkhed Taluka towards South, Patoda Taluka towards East, Pathardi Taluka towards North, Shirur (Ka) Taluka towards East.



## भुशास्त्रीय सर्वेक्षण चिंचाळा, ता. आष्टी, जि. बीड

चिंचाळा गावपरिसरामध्ये Well Inventory, GIS & Remote Sensing Technique, भुशास्त्रीय सर्वेक्षण, ह्याभागात पडणारा सरासरी पाऊस व पाण्याची माघणी इत्यादी बाबींचा आढावा घेवून या गावातील भुजल विकासासंबंधी खालील भुजल विकासाची कामे करणे आवश्यक आहे.

- 1) गावामध्ये पाणी फाऊंडेशन सोबत पाणलोट विकासाचे अनेक बंधारे व तलाव बांधण्यात आले आहेत. त्यामुळे आहे त्या तलाव व बंधारांच्याचे दुरुस्तीचे काम करणे.

उदा. तलावाचे पिंचीग, गाळा काढणे व दुरुस्तीचे काम इत्यादी.

- 2) चिंचाळा गावाच्या परिसरामध्ये 150 फुट खोलीपर्यंत बेसाल्ट खडकाचे मुख्य सात थर आढळत असून, त्यामध्ये काळा पाषाण थर क्र. 1 व 3 मधुन पाणी खाली जात नसल्यामुळे भूशास्त्रीय सर्वेक्षण नुसार तयार केलेल्या लिथोलॉग मध्ये त्या परिसरात काळा पाषाण खडक थर क्र. 1 आणि क्र. 3 मधुन पाणी पाझरत नसल्यामुळे गाव परिसरातील भुजल साठे पुर्नभरण होत नसल्यामुळे परिसरातील तलाव व बंधाऱ्यामध्ये (Artificial recharge pit) पुर्नभरण बोअर घेऊन जमीनीवरील पाणी भुजलामध्ये सोडून भूजल पातळी वाढविता येईल.

**Geohydrological survey for Selection of Site for Watershed  
development and Artificial Recharge ,Tahasil-Ashti, Dist-Beed by  
NAAM Foundation and CSGSS, Aurangabad**

---

**Village Name : Chinchala**

**Introduction:**

The Village Chinchala is situated in Ashti tahasil area, District-Beed of Marathwada region in Maharashtra. The village is distributed in wadi-vasti and located at North latitude  $18^{\circ}50'19''$  and East longitude  $75^{\circ}12' 26.60''$  with an altitude of 650 m above mean sea level. It is located near catchment of Shekapur reservoir project. The seasonal groundwater condition in rainy season is moderate to good while, village is facing water scarcity problem in the summer season of every year. The projected area of survey is falling in MDP (Moderately Dissected Plateau) to SDP (Slightly Dissected Plateau) geomorphological unit based on the contour map of Chinchala village. The detail geological hydrological condition of the area is mentioned below.

**Geology of the area:**

The major part of the project area constitutes a sequence of basaltic lava flows (Deccan Trap) while alluvium occupies a small portion along the river channels. The Deccan Trap formation is very thick and comprises of multiple lava flows. The compact basaltic lava flows and amygdaloidal basalt lava flows are the major lava flow unit observed in the project area. The small unit of red bole patches also observed within two massive lava flows. The upper lava flows mostly affected by differential weathering processes. So that, sheet jointing, spheroidal weathering are the index features of upper lava flows. Along river channels paleochannels are being observed in the dugwell vertical section. In some of the other wells those are away from the main channels also reported with paleochannels which is indicate that, there has been great migration of river channels in the previous history. The detailed graphical representation of lava flows are indicated in litholog map of Chinchala village.

### **Hydrogeology of the area:**

Groundwater occurrence and movement in the area is influenced by its hard rock formations. Groundwater potentially depends upon porosity and permeability (both primary and secondary) of rock formations. The drainage network of streams from project area shows dendritic to sub-dendritic, radial to sub-radial drainage pattern. The development of dendritic to subdendritic drainage in area it indicates the area of massive to hard rock types and gently sloping terrain.

### **Suggestion for the artificial recharge:**

The litholog of the study area is indicating top Flow No. F-7 and F-6 affected by weathering processes rather than underlying amygdaloidal basalt lava flow (Flow No. F-5) demarcated shallow aquifer system. While, Flow No. F-4 is compact basalt with closely jointed and Flow No. F-3 is compact basalt (unjointed) which is underlying by Flow No. F-2 amygdaloidal basalt and below that, Flow No. 1 is again occupied by compact basalt flow. The middle Flow No F-4 and F-5 are impermeable and does not allowed groundwater to percolate downward. So that, in the project area the groundwater is not available in shallow aquifer during summer season so that, mostly all borewells and dugwells become dry during summer season hence water is supplied by tanker for drinking purpose. In summer season mostly all borewells and dugwells become dry while groundwater potential in shallow aquifer is good but underlying Flow No. F-4 which is impermeable and do not allow groundwater to percolate downward. Hence, to recharge deeper aquifer channel, creation of artificial openings in middle impermeable layers are required in the project area by implementing artificial recharge methods.

For watershed development programme following site are being selected in the watershed according to dipping and lithology survey:

1. Shekapur Dam
2. Bhawani Aai Talav
3. Chinchala Village Dam

**Hydrogeologist**  
**CSGVSS, Aurangabad**



# Dug-Well Inventory

Geohydrogeological mapping of Dahli Tahsil District  
 Beed undertaken by NAAM Foundation and Chhatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

## Well Inventory Form

D-1

Dam - 21 - 5072

Village Fizal

Date - 29/06/19

Gut No. .... Name of the Farmer श्री. अशोक उवाडे Well No. 1

In Village Location ..... User... Personal/Community/.....

Location of the well.. South side - 40 m. (Farmland, Bank of Nala, In the Nala, Riverbed) उत्तर दिशे

Year of the Digging 2009, Construction year....., If yes type..... cerce

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 2 m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12 m, Water level from ground level..... 10 m. lat = 18 50 16  
 In rainy season ..... m, winter..... 6 m, summer..... DEP m. long = 75 11 15  
overflow EN = 626 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (if the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical bore..... m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

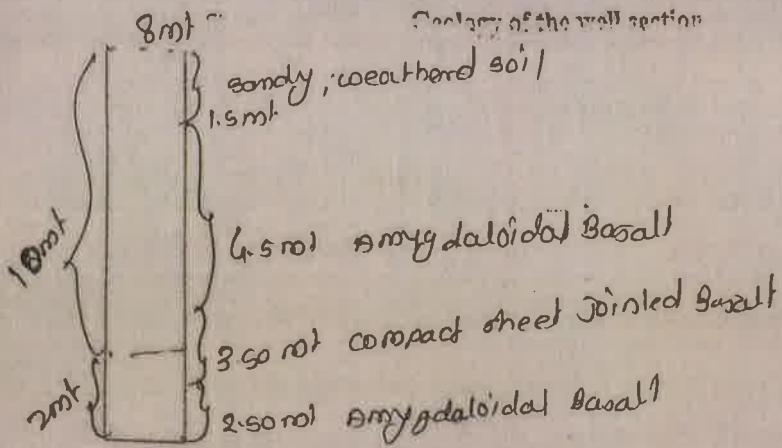
Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP .....  
 Dia of outlet pipe..... cm/inch.....  
 Quantity of withdrawals :- Daily ..... Hrs; Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 4 Hrs; Summer DEP Hrs)  
overflow 24

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Korde  
 Signature



a) Lining

NO.

b) Soil - Black / Yellow / Sandy

Black and yellow soil

c) Raising watersheds structure/ Proclamation dam in neighboring region —

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

3.50 mt compact basalt flow.

g) Amygdaloidal Basalt

Alternate amygdaloidal basalt flow are present

h) Vesicular Basalt

NO.

i) Tachylitic basalt

NO.

j) Flow contact

NO.

k) Dyke rock

NO.

l) Any remark about geological formation.

Geohydrogeological mapping of Dist...... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

0-4

Welding  
East 2 Road  
Trach

Village फेदलोट

Date - 29/06/19

Gut No. .... Name of the Farmer ..... Well No. 4

In Village Location ..... User... Personal/Community/.....

Location of the well East, (Farmland, Bank of Nala, In the Nala, Riverbed) उत्तर नदी

Year of the Digging 2002, Construction year....., If yes type cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 8mt  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 15 m, Water level from ground level 13 m. lat 1850 30 m  
 In rainy season overflow m, winter 2, summer DEY m. long 75 11 20  
FN: - 634 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking , Irrigation , Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor , Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5 cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

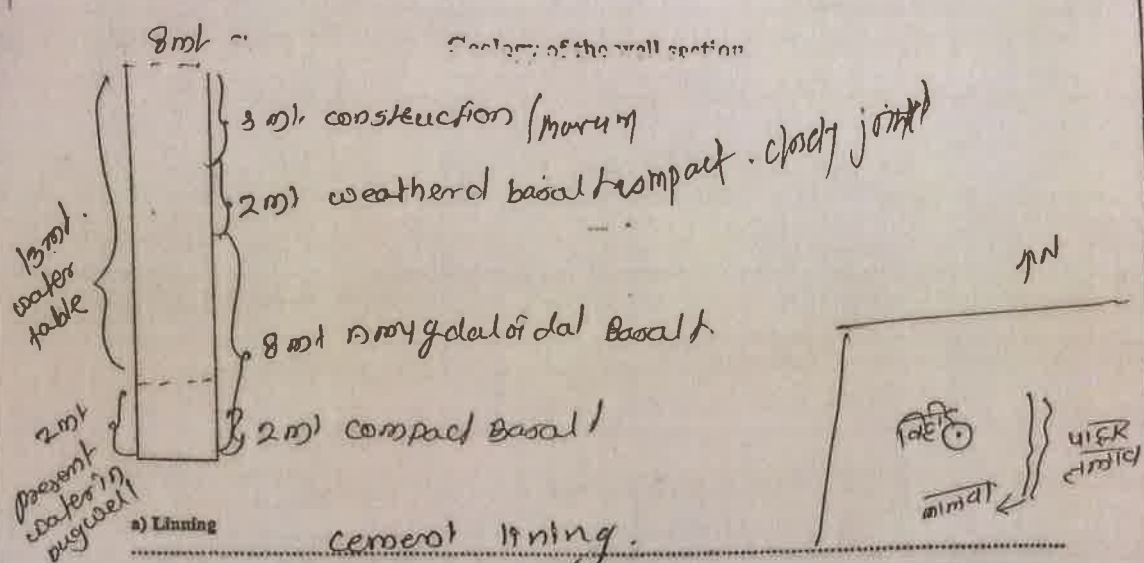
Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 2 Hrs; Summer DEY Hrs.)  
overflow

Any other information .....

Korde Tukaram  
 Name of the Surveyor

[Signature]  
 Signature





- a) Lining cement lining.
- b) Soil - Black / Yellow / Sandy Black soil on the surface.
- c) Existing watershed structure / Proclamation dam in neighboring region. —
- d) Effect of existing structures on watertable. —
- e) Geological / Geographical effect on groundwater. —
- f) Compact basalt 2m. compact basalt. flow present.
- g) Amygdaloidal Basalt 8m amygdaloidal basalt flow present.
- h) Vesicular Basalt NO.
- i) Tachyitic basalt NO.
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation.

Geohydrogeological mapping of Ashli..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

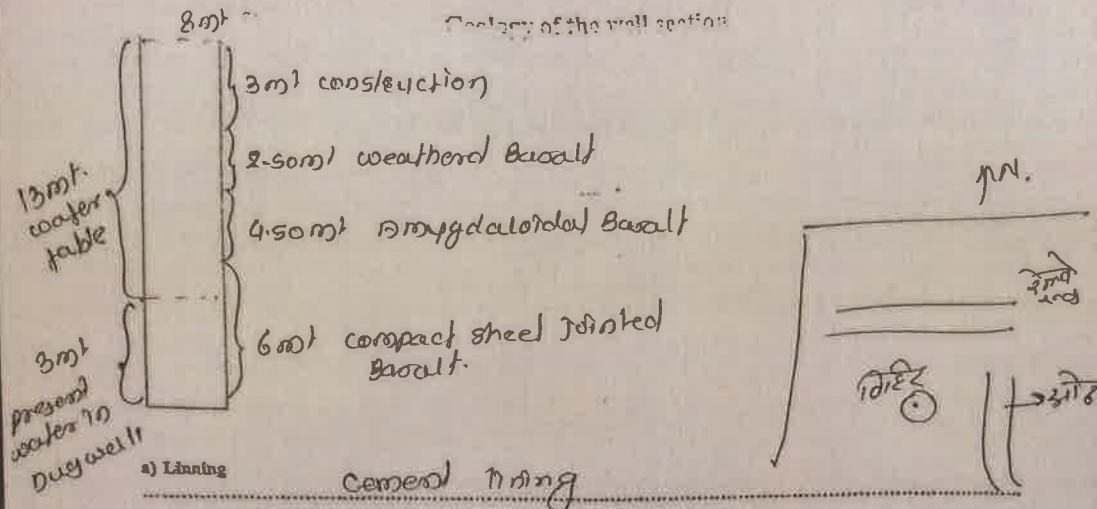
Well Inventory Form

D-10

Village पिचोली..... Date - 29/06/19  
 Gut No. .... Name of the Farmer शरन माहारे पांचवें Well No. 10.....  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well North side and East side -> शोरा Relway Pule + शोरा  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2015, Construction year..... If yes type..... Cement.....  
 Paraper Ht..... Shape-Cicular/Square, Diameter of well 8 mt  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 16 mt..... Water level from ground level 1.8..... m. lat :- 185042  
 In rainy season full..... m, winter..... summer..... m. long :- 751140  
DEY..... EN :- 626 mt  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)  
 Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season ..... 8..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5..... cm. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... Hrs; Summer DEY..... Hrs.)  
 Any other information .....

Korde Pankarao Ji.  
 Name of the Surveyor

[Signature]  
 Signature



- a) Lining Cement lining
- b) Soil - Black / Yellow / Sandy Black soil - on the surface
- c) Existing watershed structure/ Proclamation dam in neighboring region. \_\_\_\_\_
- d) Effect of existing structures on watertable. \_\_\_\_\_
- e) Geological / Geographical effect on groundwater. \_\_\_\_\_
- f) Compact basalt 6m compact Basalt flow present
- g) Amygdaloidal Basalt 4.50 mt Amygdaloidal Basalt flow present
- h) Vesicular Basalt No
- i) Tachylytic basalt No.
- j) Flow contact No
- k) Dyke rock No
- l) Any remark about geological formation. \_\_\_\_\_



Geohydrogeological mapping of Ashi Tahsil District  
 Reel undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form D-13

Village पिडाळ Date - 29/06/19

Gut No. .... Name of the Farmer बाबू रामशिरोजी जोरडे Well No. 13

In Village Location ..... User... Personal/Community/.....

Location of the well. North side (Farmland, Bank of Nala, In the Nala, Riverbed) शेत

Year of the Digging ..... Construction year ..... If yes type No. concrete

Parapet Ht. .... Shape - Circular/Square, Diameter of well 2m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth 1.4m, Water level from ground level ..... m. lat: 185036  
 In rainy season overflow m, winter 0, summer dry m. long: 751117  
 EW: 62

Percolation from: Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture ..... etc .....  
 Rainy Season 2 Acre  
 Winter Season 1 Acre  
 Summer Season 1 Acre

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP

Dia of outlet pipe ..... 2.5 cm. /inch

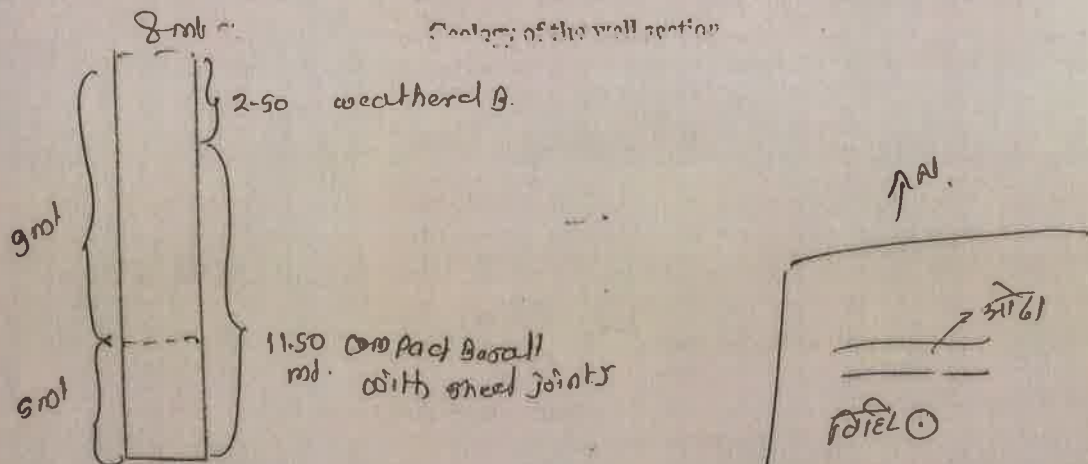
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 4 Hrs; Summer dry Hrs.)

Any other information .....

Korde Tukarom  
 Name of the Surveyor

Korde  
 Signature



- a) Lining NO construction
- b) Soil - Black / Yellow / Sandy Black soil on the surface.
- c) Existing watershed structure / Proclamation dam in neighboring region.
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt 11.50 m compact basalt with sheet joints.
- g) Amygdaloidal Basalt absent
- h) Vesicular Basalt NO.
- i) Tachylytic basalt NO
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation.

Geohydrogeological mapping of Ashli..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

0-22

Village पेजली

Date - 29/06/19

Gut No. .... Name of the Farmer शिव उतेबडे Well No. 22

In Village Location ..... User... Personal/Community/.....

Location of the well. North, (Farmland, Bank of Nala, In the Nala, Riverbed)..... उत्तर तीरा

Year of the Digging 2014, Construction year..... If yes type cercon

Parapet Ht. .... Shape-Circular/Square, Diameter of well 9m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14m, Water level from ground level 12m m. lat 185029  
 In rainy season ..... m, winter ..... m, summer DEY m. long 75034  
EW :- 64m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)

Use :- Drinking  ..... Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor  ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5 ..... cm. / inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

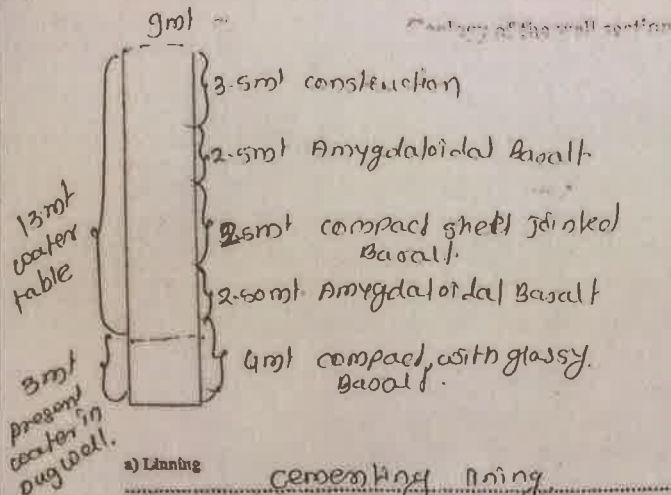
Time require for a full recharge / recuperation :  
 (Rainy season 24 ..... Hrs; winter 8 ..... Hrs; Summer DEY ..... Hrs.)

Any other information .....

Koraj Tukaram Ji  
 Name of the Surveyor

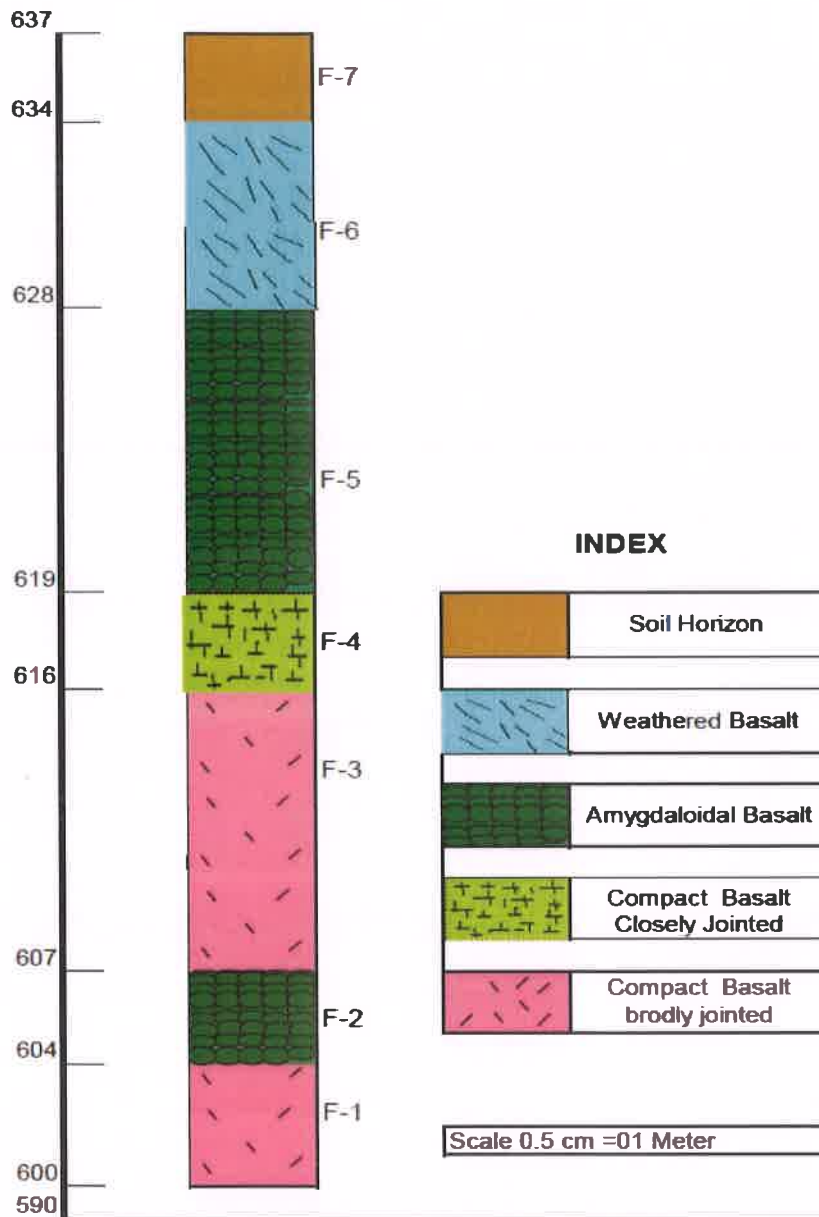
Koraj  
 Signature





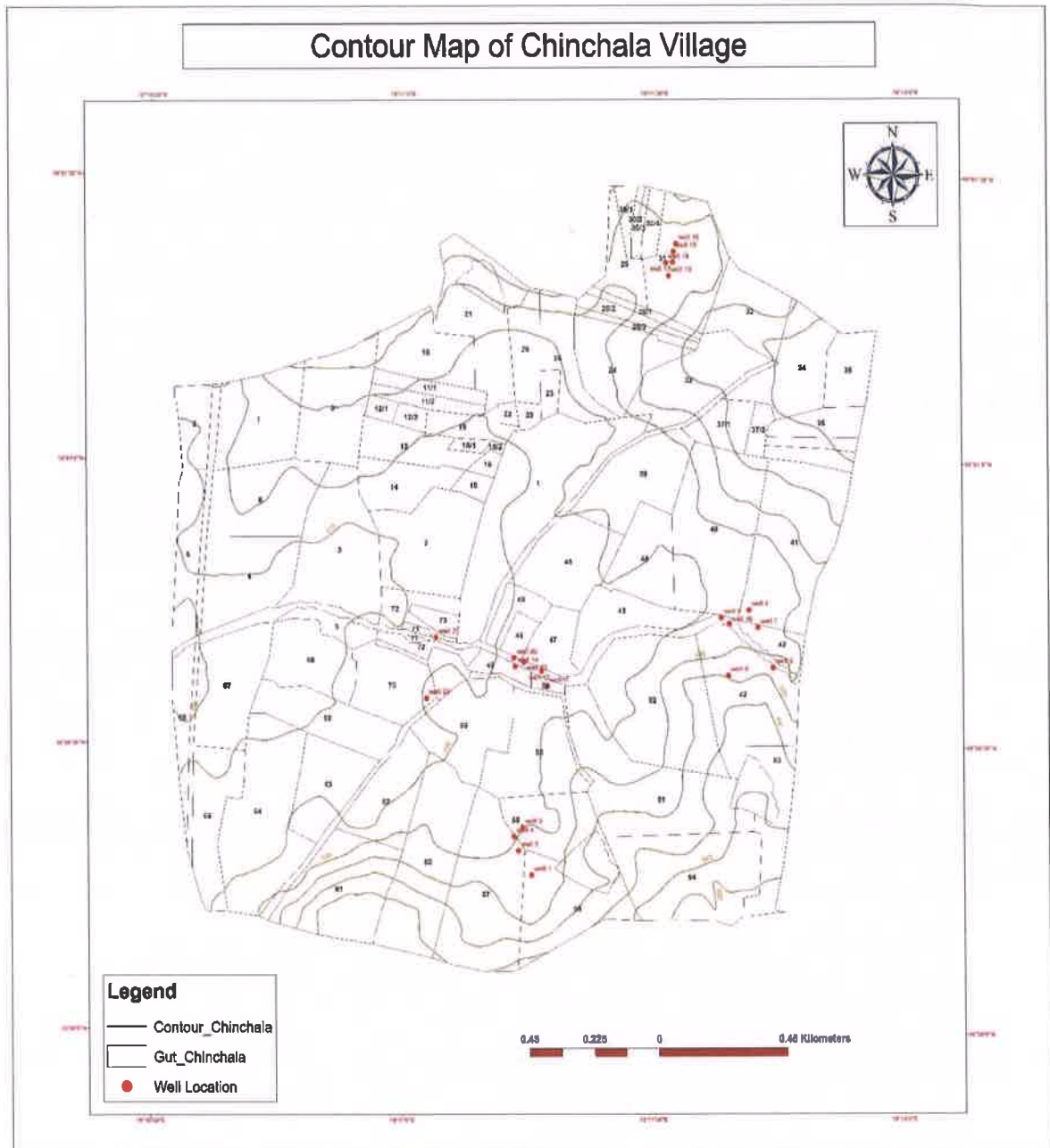
- a) Lining cementing lining
- b) Soil - Black / Yellow / Sandy black
- c) Existing watershed structure / Proclamation dam in neighboring region Near the well, percolation dam is present
- d) Effect of existing structures on watertable due to this dam the water table increases in some season & less in summer
- e) Geological / Geographical effect on groundwater Due to compact basalt and Amygdaloidal basalt, percolation easily take place in this sheet of compact basalt present
- g) Amygdaloidal Basalt present
- h) Vesicular Basalt Ab
- i) Tachylytic basalt Ab
- j) Flow contact present
- k) Dyke rock Ab
- l) Any remark about geological formation.

## Litholog of Chinchala Village



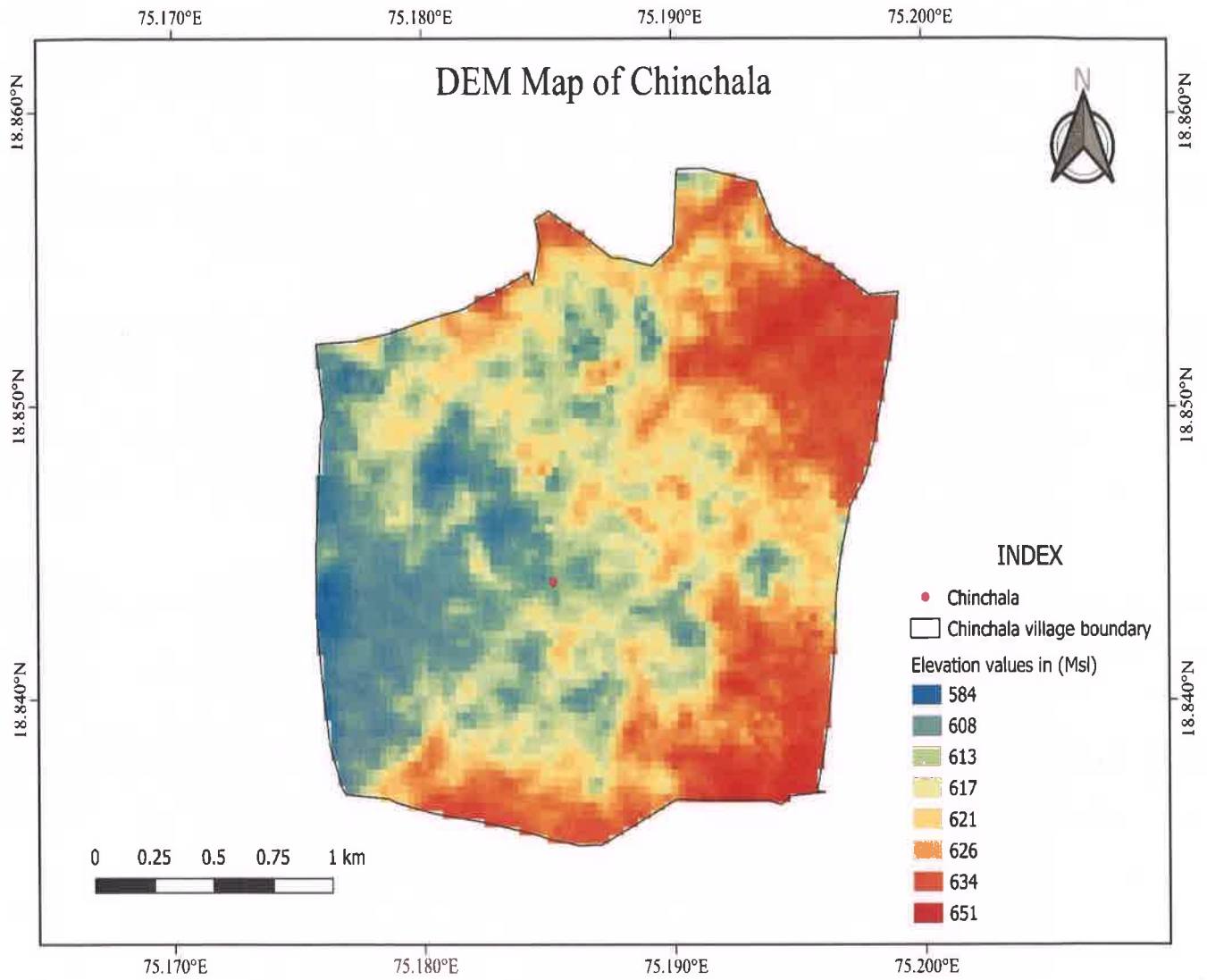
Litholog of Chinchala Village

## Contour Map of Chinchala Village

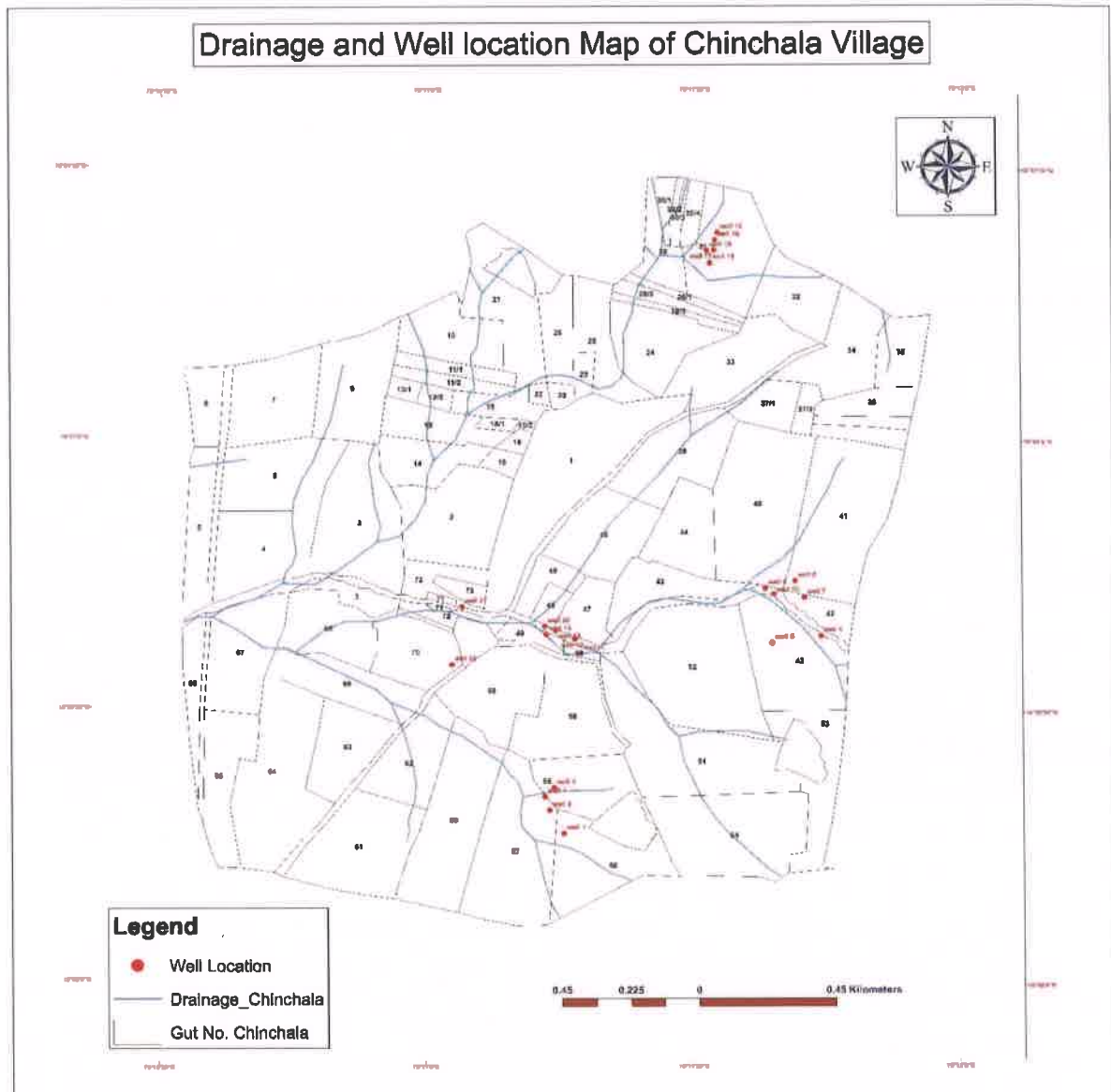




# DEM Map of Chinchala



## Drainage and Well location Map of Chinchala Village



## **Field Photos**



**Geologist surveying on field**





**Weathered Compact Basalt Flow with Kanker Deposit**



**Weathered Compact Basalt Flow with some fractures**





**Fractured Compact Basalt in which percolation of water can be seen**






Photograph showing watersheds from Chinchala Village




Photograph showing increase in Water levels of the well from Chinchala Village



**Geologist surveying on Nala site**

  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

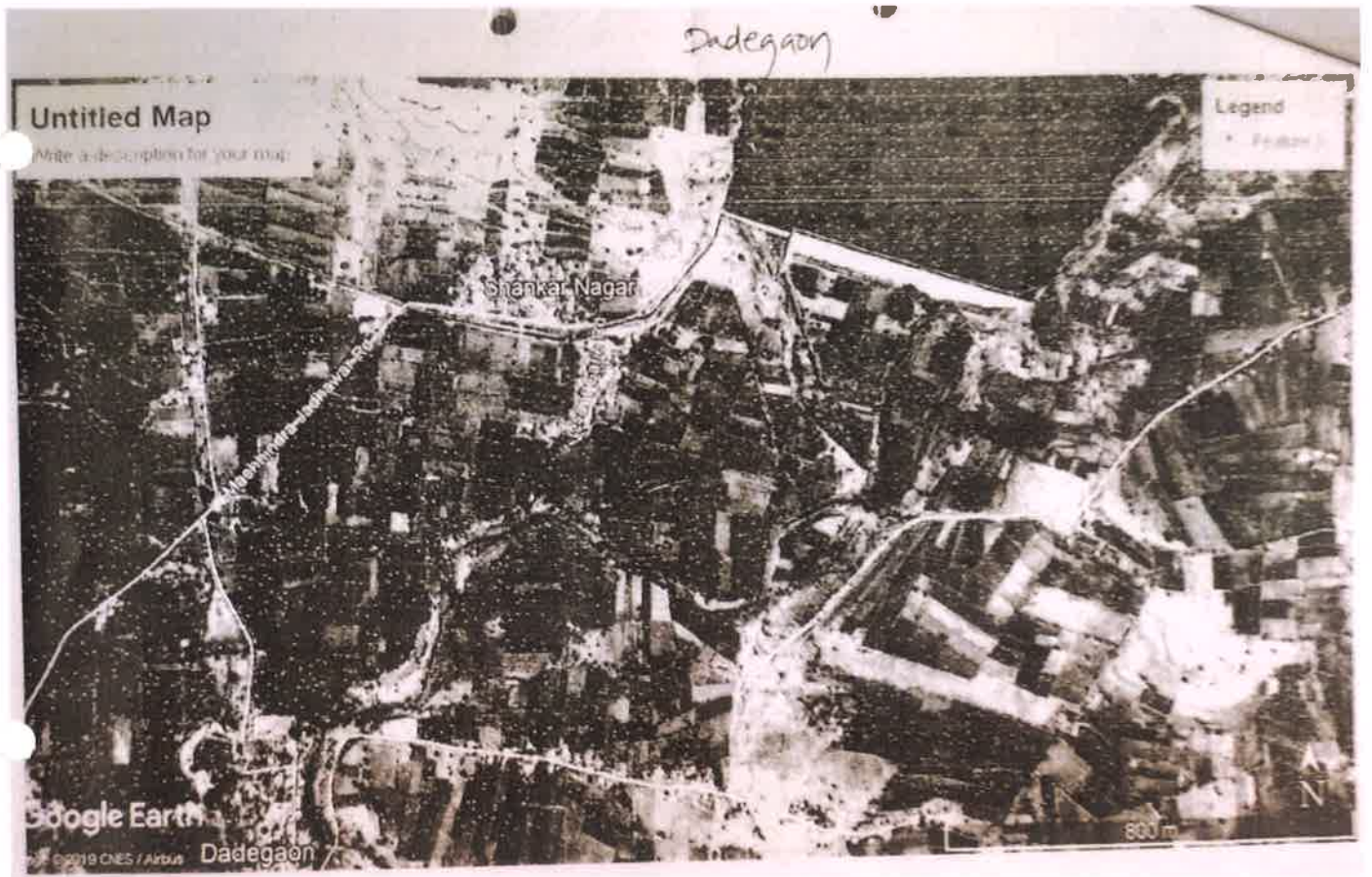




## **Dadegaon Village**

Dadegaon is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 82 KM towards west from District headquarters Beed. 14 KM from Ashti. 274 KM from State capital Mumbai. Devinimgaon (6 KM), Dhamangaon (6 KM), Limbodi (6 KM), Khilad (7 KM), Deolali (7 KM) are the nearby Villages to Dadegaon. Dadegaon is surrounded by Pathardi Taluka towards North, Nagar Taluka towards west, Ahmednagar Taluka towards west, Patoda Taluka towards East.

## Google Earth image of Dadegaon Village



## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Dadegaon, Ta- Ashti , Dist-Beed

2. Date of Survey: 10/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Prof. Ashok Tejankar
- b. Ganesh Gaikwad
- c. Shantanu Wadhankar
- d. Rushikesh Puri
- e. Jayesh Mhaske
- f. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Ramesh Dandge

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Lakshman Padhare
- b. Bandale Sanjay
- c. Bhagirath Vidhate
- d. bhilaji Gaikwad

7. Total No of Well surveyed:

08 dugwells in the field + 21 dugwells through Satellite imagery Survey  
= Total 29 dugwells

8. Total map prepared:

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

a. For Artificial Recharge suitable/ Unsuitable:-----

b. Structure for watershed development programme:-----



**Geohydrological Mapping & Site Selection for Artificial Recharge of  
Water in Watershed Development Programme, Undertaken By  
NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad**

**1. Village Name** : Dadegaon, Ta- Ashti , Dist-Beed

**2. Date of Survey:** 11/06/2019

**3. Name of Geologist and Hydrogeologist for Survey in the field:**

- a. Mr. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

**4. Name of the Members for assist to survey in the field:**

- a. Shri Khillare
- b. Traymbak Pote

**5. NAAM Pratinidhi:** Shri Rajebhau Shelake

**6. Local villagers/ Farmer:**

- a. Nathabapu Sawan
- b. Vinay Sawant
- c. Santosh Bandhal
- d. Dhondiram Bandhal
- e. Dnyandev Gilche

**7. Total No of Well surveyed:**

06 dugwell in the field + 13 dugwell through Satellite imagery Survey  
= Total 19 dugwell

**8. Total map prepared:**

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

**9. Recommendation and Conclusion:**

a. For Artificial Recharge suitable/ Unsuitable:-----  
-----

b. Structure for watershed development programme:-----  
-----

# Survey by Prof. Ashok Tejanekar

निष्कर्ष

- 21191-2411 आर जी जे
- 21191-2411 आर डी ए
- एरॉसिव फिल्टर (Percolation) को नष्ट
- एरॉसिव ग न-90 को नष्ट
- एरॉसिव को नष्ट करने के लिए नुकसान को नष्ट
- एरॉसिव को नष्ट करने के लिए Artificial recharge structure बनाने के लिए lower aquifer recharge को नष्ट करने के लिए।
- एरॉसिव को नष्ट करने के लिए Artificial recharge or natural recharge के लिए।
- F-2 flow sheet - 3 feet - sheet
- F-1 - comp. sheet - original (Recharge require)

**Geohydrogeological mapping of ..... Tahsil District 1  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village 5143119 Date - 10-6-19

Gut No. .... Name of the Farmer (25710) 02 X 461 Well No. D-29

In Village Location North of village User... Personal/Community/... Personal

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017, Construction year....., If yes type.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ....., Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..1.2 koro Acre  
 Winter Season ..1.0 koro Acre  
 Summer Season... Nil Acre (Feb - 1/2 ton)

Type of withdrawals/Pump Out :- Electrical motor...3...Diesel Pump...3...HP...✓  
 Dia of outlet pipe.....cm. /inch .....,  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season .....Hrs; winter..... Hrs; Summer .....Hrs.)

Any other information .....

[Signature]  
 Name of the Surveyor

Signature



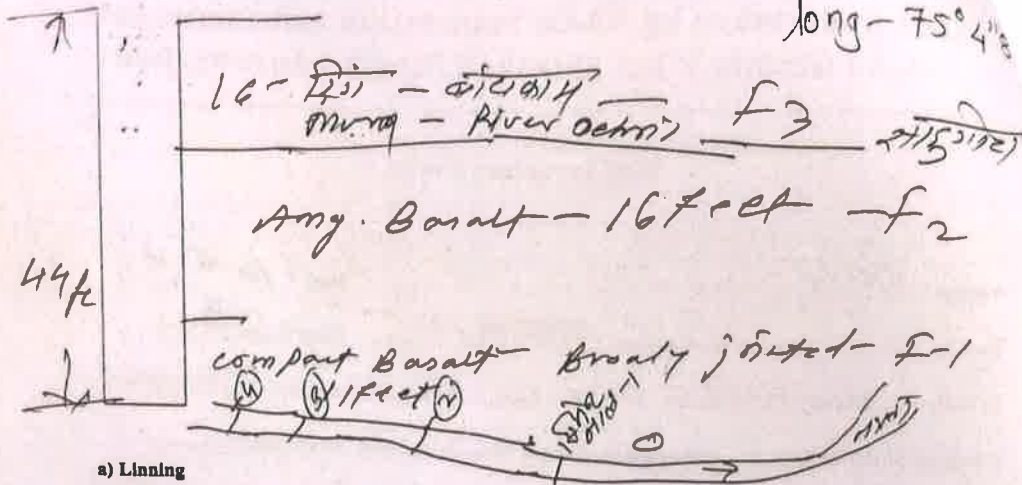
Altitude 525m

Lat - 18° 58'

Geohydrog  
Beed ur  
Sha'

Geology of the well section

long - 75° 41'



a) Lining

b) Soil - Black / Yellow / Sandy

215-11-2 - 1.5 ft

c) Existing watersheds structure / Proclamation dam in neighboring region.

रिहाल

d) Effect of existing structures on watertable.

215-11-2 - 1.5 ft

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly jointed - f1 - Impermeable

g) Amygdaloidal Basalt

Sheet jointed - f2 - porous & permeable - main water source

h) Vesicular Basalt

Remnant

i) Tachylitic basalt

N/A

Slope towards south  
6 ft 192 ft 312 ft 45 ft  
- 500 ft 312 ft

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 57' 77" N  
 Long - 75° 04' 55" E  
 Altitude - \_\_\_\_\_

Village .. Dadegoan

Date - 11/06/19

Cut No. 186 Name of the Farmer संवक शिब पोटे Well No. D20 D20

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1998 Construction year 217m, If yes type.....

Parapet Ht. 1.5 Shape-Cicular/Square, Diameter of well 26 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth 47 ft, Water level from ground level 2 ft m.  
 In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length....., and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 24 hr Acre  
 Winter Season 24 hr Acre  
 Summer Season 0 hr Acre

Type of withdrawals/Pump Out :- Electrical motor Diesel Pump HP 3HP

Dia of outlet pipe .....cm. inch

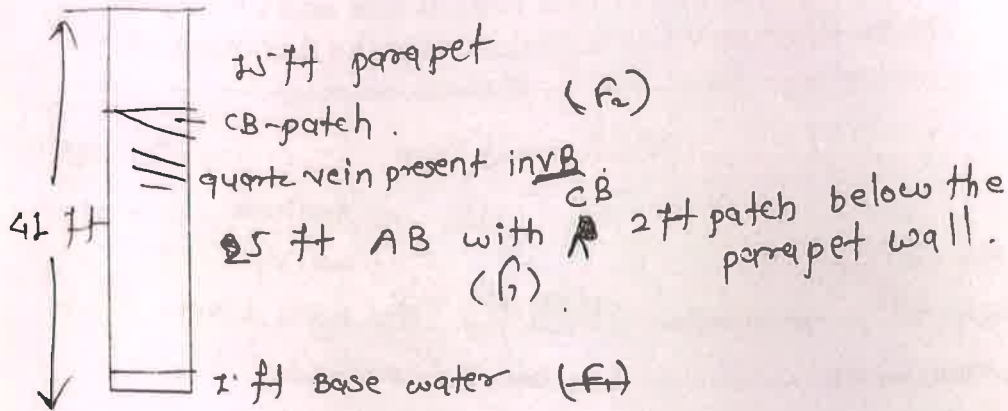
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

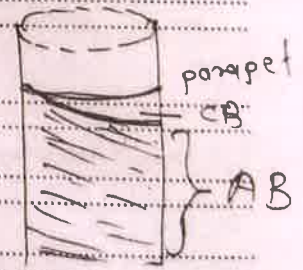
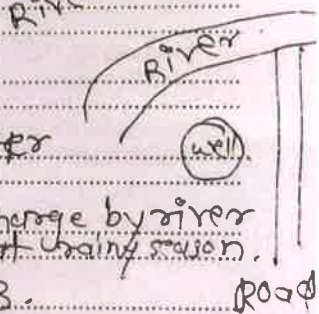
(Rainy season 24 Hrs; winter 24 Hrs; Summer 0 - dry almost - Hrs.)

Any other information .....

Section of the well section



- a) Lining cement - circular
- b) Soil - Black / Yellow / Sandy sandy soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. River at SW of
- d) Effect of existing structures on watertable. Due to porous & permeable AB, water percolate in rainy season.
- e) Geological / Geographical effect on groundwater. River along the well. <sup>well</sup> recharge by river at rainy season.
- f) Compact basalt small oblique patch of CB.
- g) Amygdaloidal Basalt sheeted AB. will full porous and permeable.
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation. AB section full at rainy ~~season~~ season





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 7' 72" N  
 Long - 75° 4' 56" E  
 Altitude - 560

Village Dadegaon.

Date - 11/06/19

Gut No. 181 Name of the Farmer विजय रत्नराय सावंत Well No. D-22 D-22

In Village Location ..... User...  Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2019 Construction year..... If yes type..... 2 month only.

Parapet Ht. 9 ft Shape-Cicular/Square, Dlameter of well..... 32 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 43....., Water level from ground level.....m.  
 In rainy season .....m. winter....., summer.....m.

Percolation from :  Bottom /  Lateral Direction (in the case of lateral direction... ..)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre no due to no conc.  
 Winter Season ..... Acre  
 Summer Season..... Acre

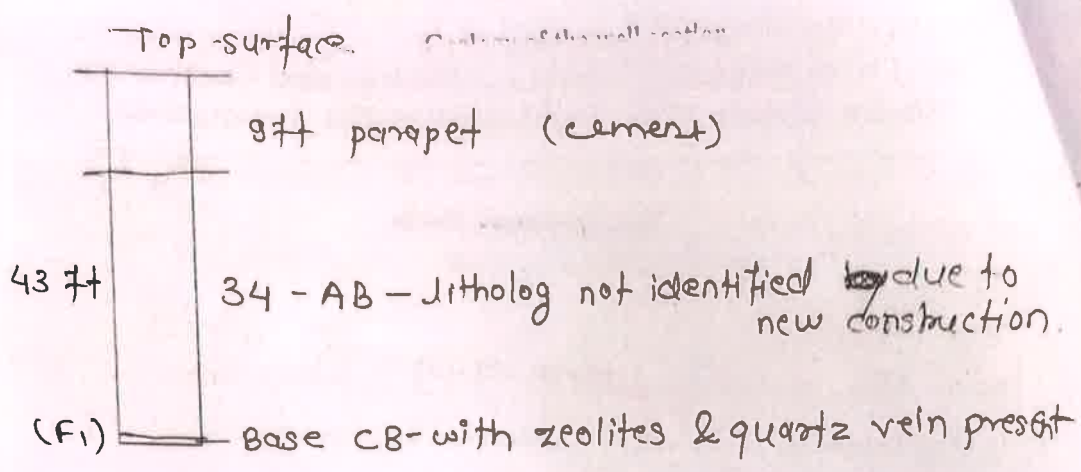
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP... NA

Dia of outlet pipe..... cm. /inch .....

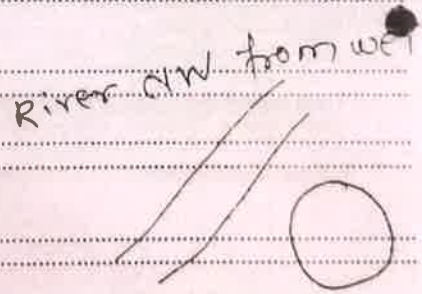
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... Hrs; Summer ..... Hrs.)

Any other information .....



- a) Lining Cement.
- b) Soil - Black / Yellow / Sandy Sandy.
- c) Existing watersheds structure / Proclamation dam in neighboring region.  
AB flow very thick to help percolate with through outside river.
- d) Effect of existing structures on watertable.  
AB - porous in nature.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt CB. with zeolites & quartz vein.
- g) Amygdaloidal Basalt Present.
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA.



l) Any remark about geological formation.  
Highly jointed nearby area of surrounded by massive rock (Basalt) and Hydrothermal attended AB.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati (A)  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 57' 65" N  
 Long - 75° 4' 64" E  
 Altitude - 557 m

Village Dadegaon.

Date - 11/06/19

Gut No. 151 Name of the Farmer सतोष शिवाजी कायल Well No. D.23 D-23

In Village Location ..... User... Personal/Community/26 Sona

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1982 Construction year 37 yr. If yes type.....

Parapet Ht. 15 ft Shape-Cicular/Square, Diameter of well 22 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 38 ft, Water level from ground level 1 ft m.  
 In rainy season ..... m, winter....., summer..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and/or vertical borehole..... m. Location at the bottom)

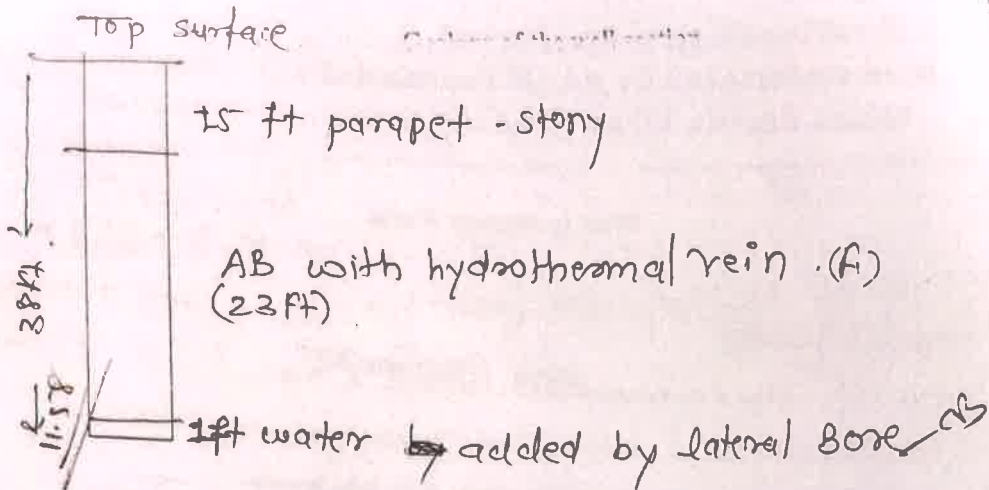
Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 24 Acre  
 Winter Season 15 Acre  
 Summer Season 0 Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5 HP  
 Dia of outlet pipe..... cm. inch.....  
 Quantity of withdrawals :- Daily..... Hrs. Seasonal..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 15 Hrs; Summer 0 Hrs.)

Any other information .....





a) Lining ..... stone - circular

b) Soil - Black / Yellow / Sandy ..... Sandy Black

c) Existing watersheds structure/ Proclamation dam in neighboring region. .... River along the river, good GW potential

d) Effect of existing structures on watertable. .... lateral bore recharge the well at the bottom

e) Geological / Geographical effect on groundwater. .... river is present east side of the well

f) Compact basalt ..... NA

g) Amygdaloidal Basalt ..... AB with hydrothermal vein

h) Vesicular Basalt ..... NA

i) Tachylytic basalt ..... NA

j) Flow contact ..... NA

k) Dyke rock ..... NA

l) Any remark about geological formation. .... nearby area of well is surrounded by massive Basalt and Hydrothermal attended A.

CC  
same as D22

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad (5)

Well Inventory Form

Lat - 18° 57' 67" N

long - 75° 4' 59" E

Altitude - 558 m

Date - 11/06/19

Village Dodegoan.

Gut No. 151 Name of the Farmer वीस्रिम विसत वावत Well No. 024 D-24

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1985 Construction year 34 yr, If yes type.....

Parapet Ht. 21 ft. Shape-Cicular/Square, Diameter of well 25 ft.  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 38 ft., Water level from ground level 5 ft. m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

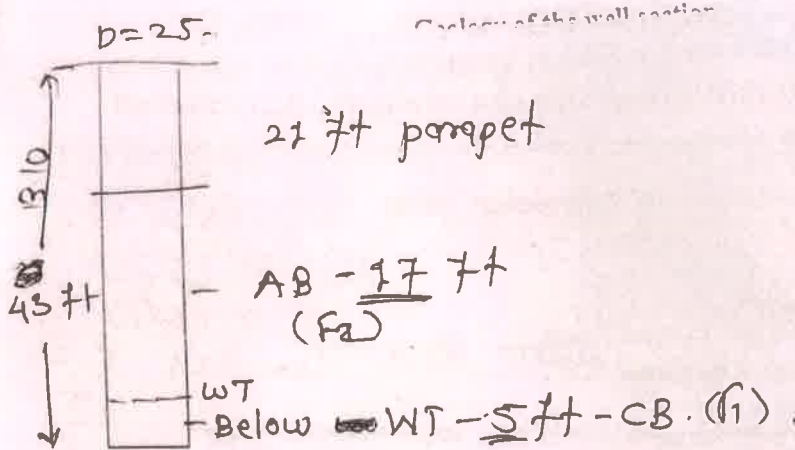
Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertic. l borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticultur: ....., etc.....  
 Rainy Season ..... 24.5 Acre  
 Winter Season ..... 5 Acre  
 Summer Season ..... 2 Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP 5 HP  
 Dia of outlet pipe ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ... 24 Hrs; winter ... 24 Hrs; Summer ... 5 Hrs.)

Any other information .....



a) Lining Stony Construction

b) Soil - Black / Yellow / Sandy loamy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

River present so water table get high

d) Effect of existing structures on watertable.

No any effects.

e) Geological / Geographical effect on groundwater.

f) Compact basalt Below Water Table

g) Amygdaloidal Basalt sheeted

h) Vesicular Basalt NA.

i) Tachylitic basalt NA.

j) Flow contact NA.

k) Dyke rock NA.

l) Any remark about geological formation.

due to the river along the well water table get high so water is present





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad (6)

Well Inventory Form  
 Lat -  $18^{\circ} 57' 78''$  N  
 Long -  $75^{\circ} 4' 51''$  E  
 Altitude = 564 m

Village Dodegoan

Date - 11/06/2019

Gut No. 182 Name of the Farmer मानदेव श्रीधर गिरी Well No. D-25

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017 Construction year 2018 If yes type.....

Parapet Ht. 13 ft Shape-Cicular/Square, Diameter of well 26 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 65 ft Water level from ground level 3 ft m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

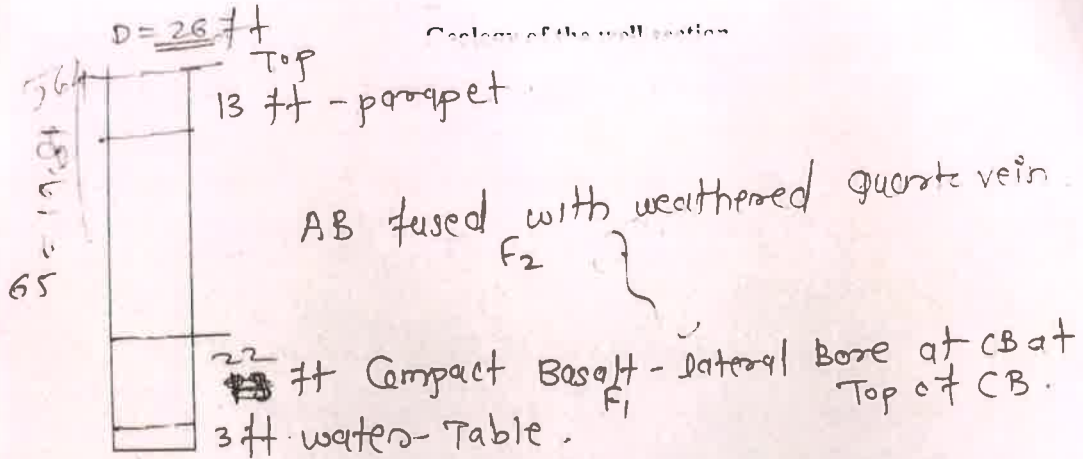
Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and /or vertical borehole ..... m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 24 hr Acre  
 Winter Season 1.5 hr Acre  
 Summer Season 1 hr Acre

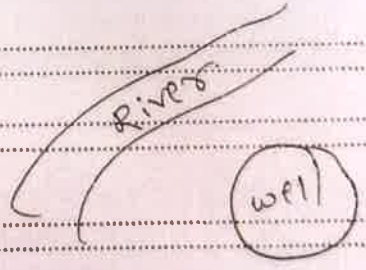
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5 HP.  
 Dia of outlet pipe..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 1.5 Hrs; Summer 1 Hrs.)

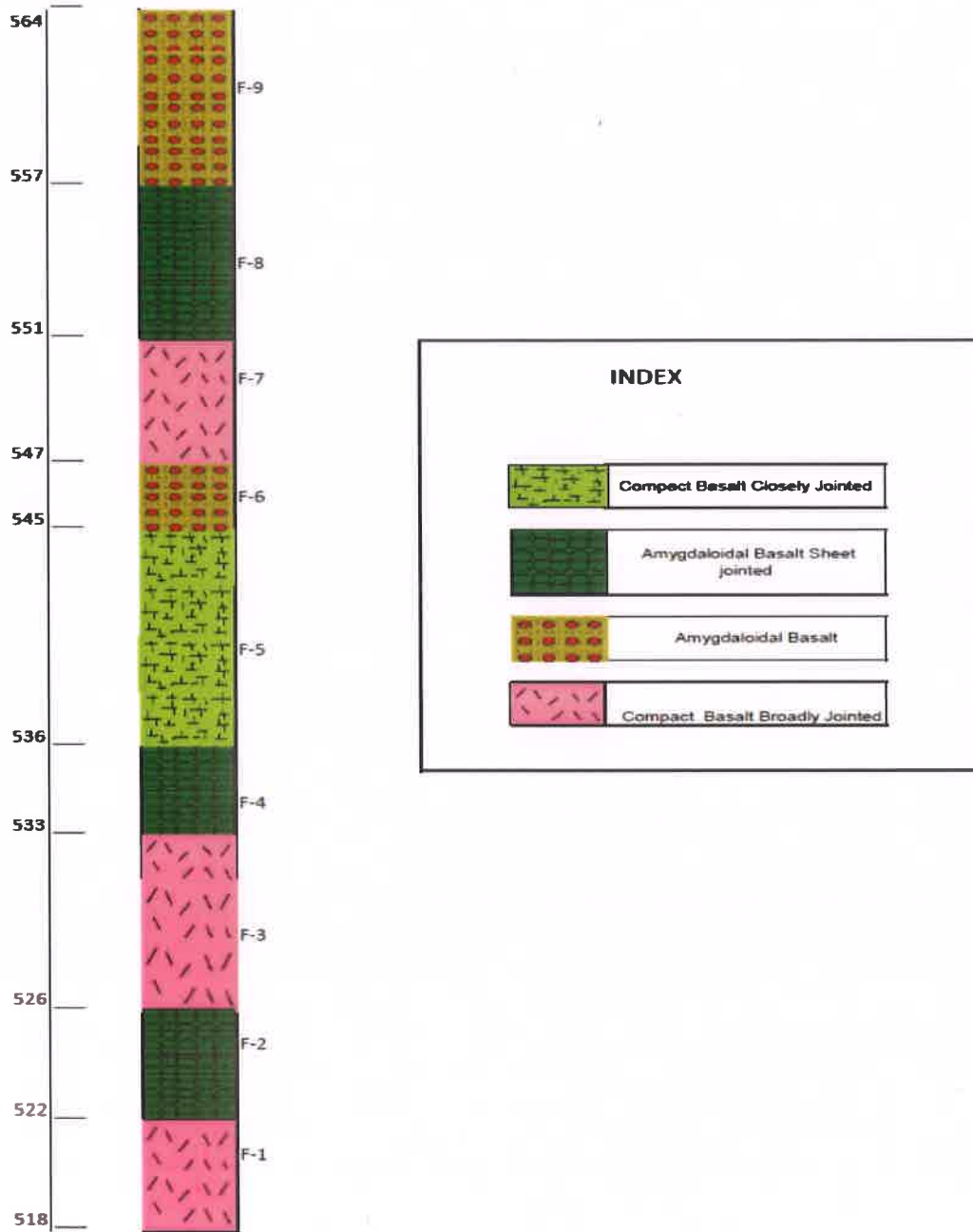
Any other information .....



- a) Lining cement.
- b) Soil - Black / Yellow / Sandy  
 Black
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
 River along the well.
- d) Effect of existing structures on water table.  
 porosity is present.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt  
 CB at Bottom. well SW from the river.
- g) Amygdaloidal Basalt  
 fused AB
- h) Vesicular Basalt  
 NA
- i) Tachylytic basalt  
 NA.
- j) Flow contact  
 NA.
- k) Dyke rock  
 NA.
- l) Any remark about geological formation.  
 well present along the river. so water get in from the patch.



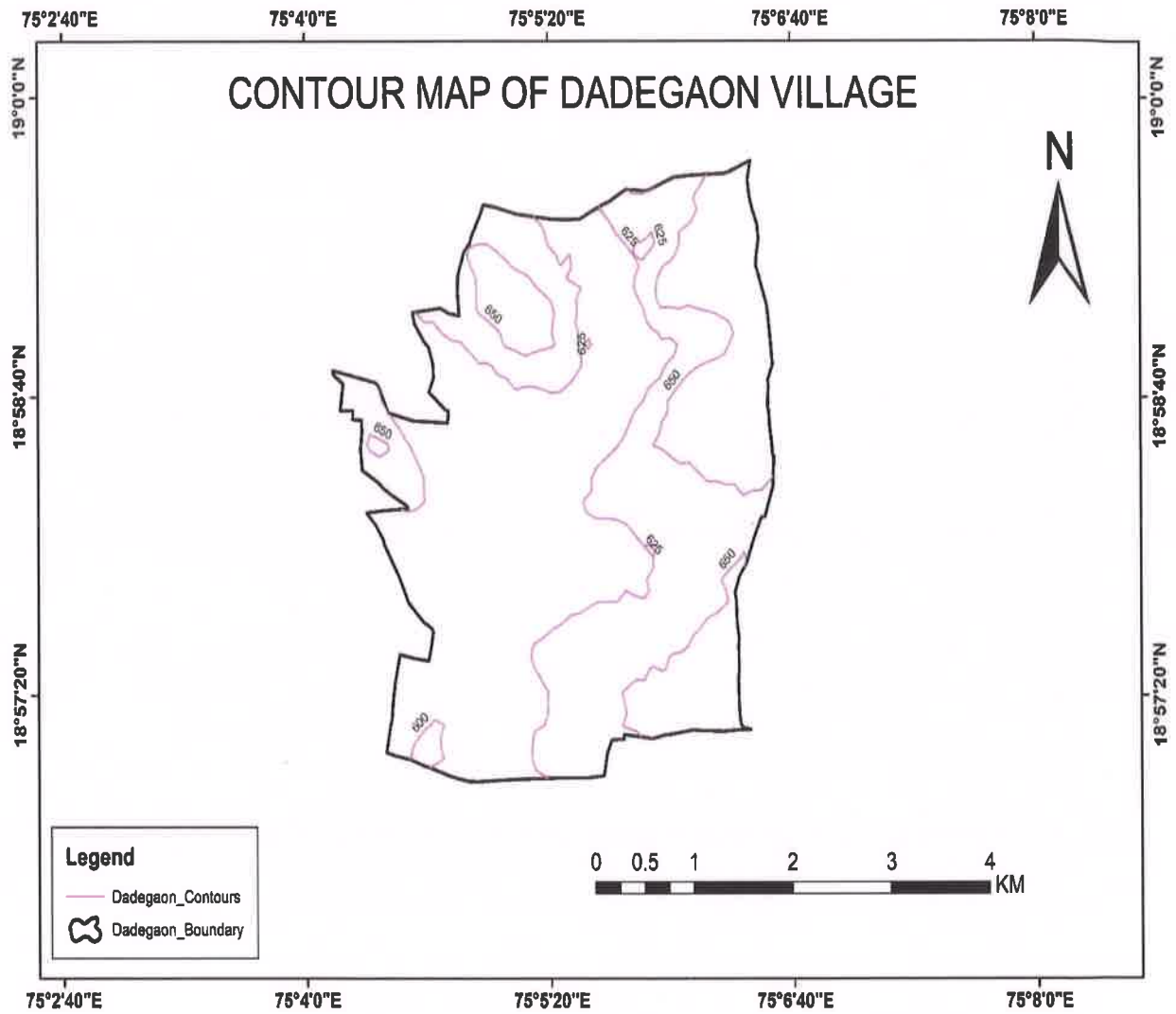
## Litholog of Dadegaon Village



Litholog of Dadegao Village

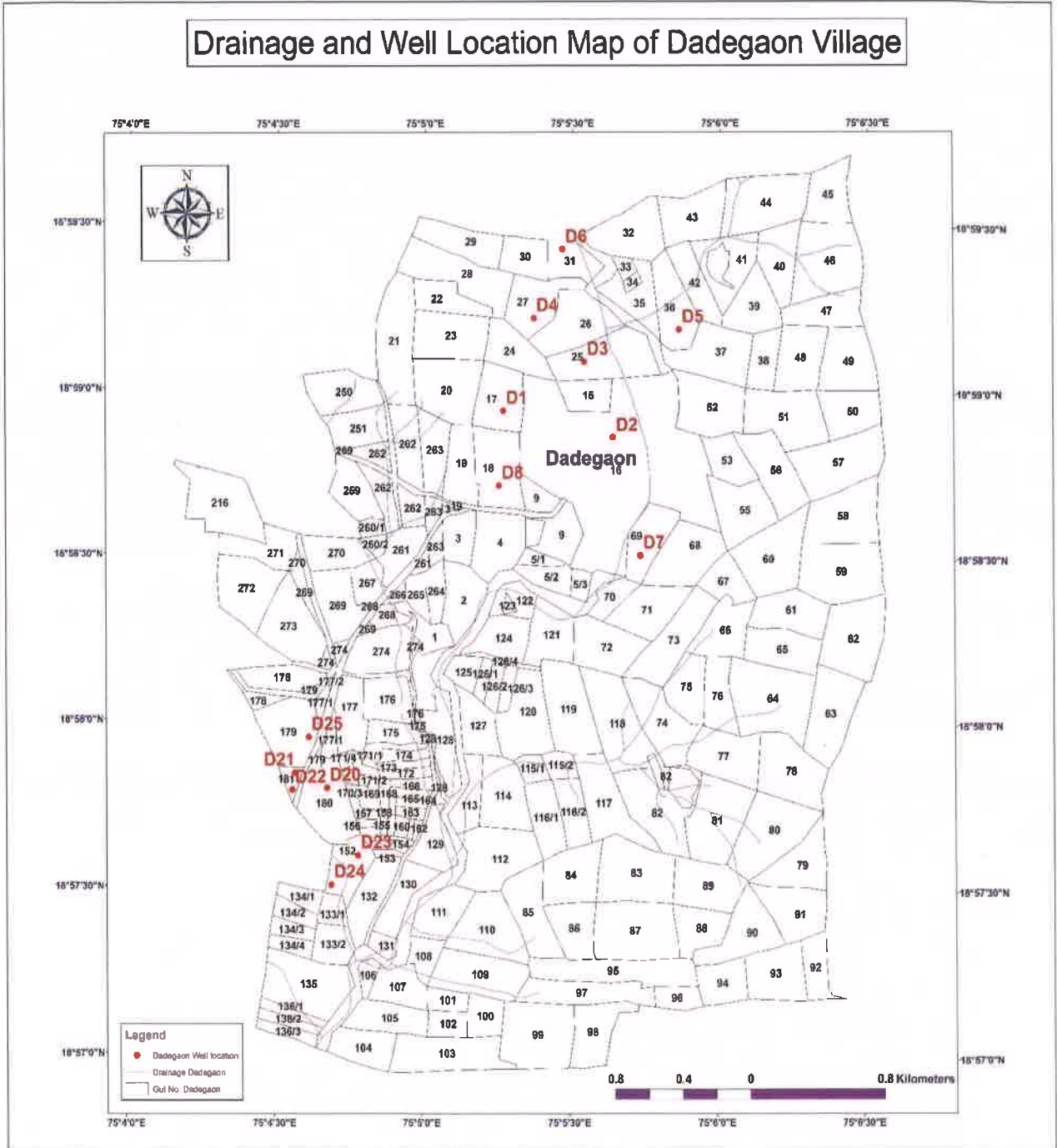


# Contour Map of Dadegaon Village

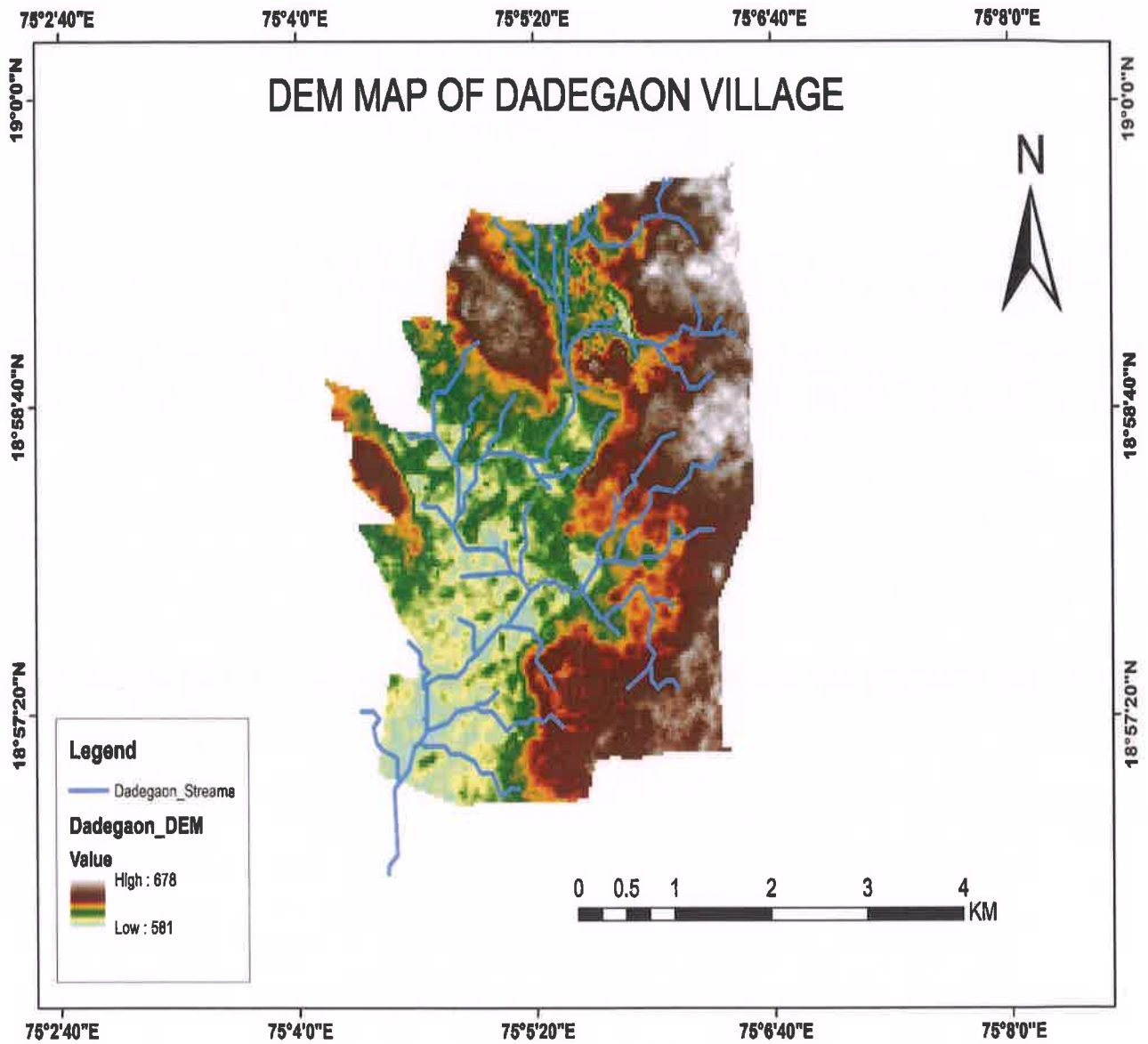


# Drainage and well location map of Dadegaon Village

## Drainage and Well Location Map of Dadegaon Village



# DEM Map of Dadegaon Village

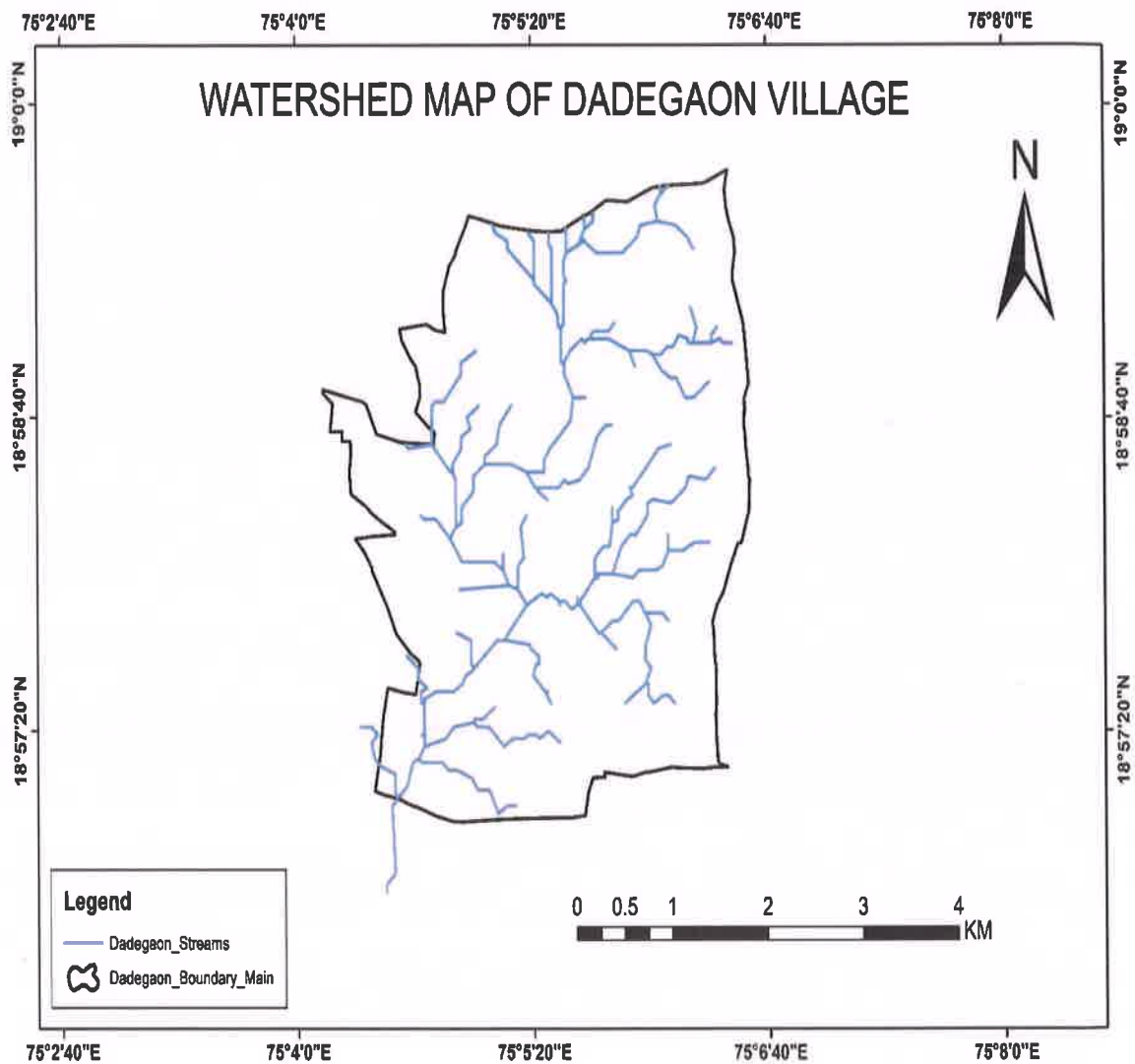






Photographs showing watersheds management at Dadegaon Village.

## Watershed Map of Dadegaon Village



**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Devlali**

### **Introduction**

Deolali is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region . It belongs to Aurangabad Division . It is located 81 KM towards west from District head quarters Beed. 21 KM from Ashti. 275 KM from State capital Mumbai Dhamangaon ( 7 KM ) , Dadegaon ( 7 KM ) , Suleman Deola ( 10 KM ) , Khilad ( 12 KM ) , Dongargan ( 12 KM ) are the nearby Villages to Deolali. Deolali is surrounded by Ashti Taluka towards South , Nagar Taluka towards west , Ahmednagar Taluka towards west , Shirur ( Ka ) Taluka towards East .



## Dug well Inventory Form of Devlali Village

m-2

देवली

पाणी पातळी : पावसाळा - विहीर जवळपास पूर्ण भरते  
दुग् well : हिवाळा - 2 ते 3 लाख यंत्रांद्वारे  
उष्णकाळ - विहीर उष्णकाळात कोरडी पडते

Green Belt - नदी भागात वारंवार माहेने हिचक वाहते  
परंतु हिचक्यात थोडी कमी होतो व नदीत  
उष्णकाळामध्ये जवळपास नाहीसा होते.

विस्थापित - गावातील विहीरींना जवळपास 20-25  
फूट आढळते

नदी : गावाच्या NE side ला नदी आहे.

● नाले : नदीवर काही ठिकाणी बांधारे बांधता येतील  
नदी सीलिंग करून काही भागात बसलेले आहे.  
काही बांधारे टुकेट करून घ्यायची आवश्यकता  
आहे.

उष्णकाळामध्ये गावात टांकने पाणी पुरवठा होतो.  
Artificial recharge :  
काही भागात कसे करणे आहे.

Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad ①

Well Inventory Form

Lat - 19° 2' 04" N  
Long - 75° 4' 84" E  
Altitude - 645 m

Village देवळली

Date - 11/06/19

Gut No. .... Name of the Farmer प्रमोद मुरलीधर कुलकर्णी Well No. D33

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1981, Construction year....., If yes type.....

Parapet Ht. 16 ft Shape  Circular/Square, Diameter of well 25 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth 37 ft, Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and 'or vertical borehole .....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 3 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season ..... 0 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump..... HP 5 HP  
Dia of outlet pipe..... cm /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

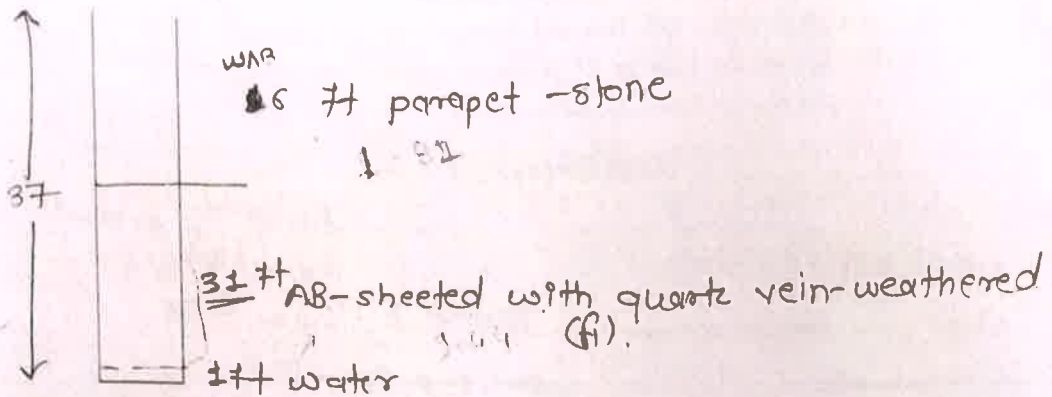
Time require for a full recharge / recuperation :  
(Rainy season ... 18 ..... Hrs; winter ... 5 ..... Hrs; Summer ... day ..... Hrs.)

Any other information .....

Rushikesh D. Patil  
Name of the Surveyor

Rushikesh D. Patil  
Signature

Geology of the well section



- a) Lining ..... stone - circular
- b) Soil - Black / Yellow / Sandy ..... Black
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... NO (NO any geological watershed present)
- d) Effect of existing structures on water table. .... Not identified any effects
- e) Geological / Geographical effect on groundwater. .... Due to AB poor groundwater yield
- f) Compact basalt ..... -
- g) Amygdaloidal Basalt ..... sheeted AB
- h) Vesicular Basalt ..... -
- i) Tachylitic basalt ..... -
- j) Flow contact ..... -
- k) Dyke rock ..... -
- l) Any remark about geological formation. .... Due to the presence of AB the groundwater potential is poor in rainy.



②

**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Lat - 19° 2' 60" N

Long - 75° 4' 80" E

Altitude - 640

Village देवळाली

Gut No. .... Name of the Farmer नवनाथ रामराव शेकळे Well No. D34

Date - 11/06/19

In Village Location ..... User...  Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017, Construction year 2 yrs, If yes type.....

Parapet Ht. 11 ft, Shape-Cicular/Square, Diameter of well 22 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 48 ft, Water level from ground level.....m.  
In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season 0.5 Acre Depend upon Rain,  
Winter Season .....Acre  
Summer Season.....Acre

Type of withdrawals/Pump Out :-  Electrical motor..... Diesel Pump..... HP 5 HP

Dia of outlet pipe .....cm. inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 15 Hrs; winter 0 Hrs; Summer 0 Hrs.)

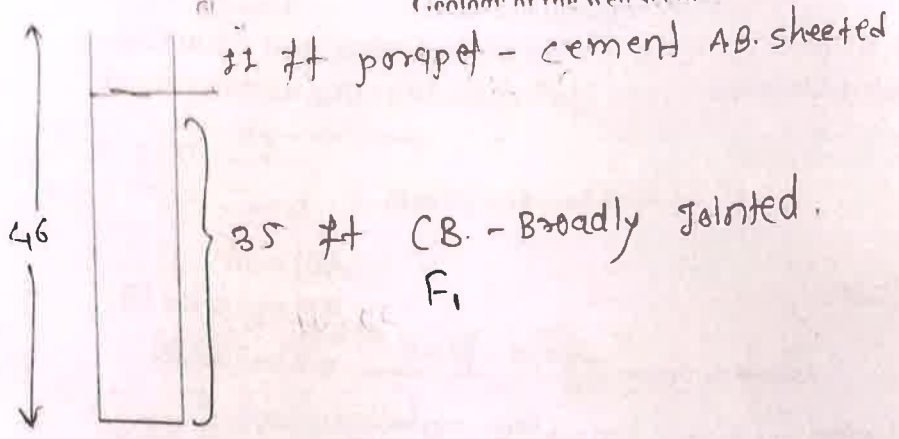
- almost dry because of CB present

Any other information .....

Rushikesh D. Puri  
Name of the Surveyor

[Signature]  
Signature

Geology of the well section



a) Lining

Cement lining

b) Soil - Black / Yellow / Sandy

Black

c) Existing watershed structure/ Proclamation dam in neighboring region

No near any watershed structure.

d) Effect of existing structures on watertable.

~~No near any~~ presence of CB no chance for percolate water.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly jointed from bottom of parapet wall to middle then continued CB without crack.

g) Amygdaloidal Basalt

NA.

h) Vesicular Basalt

NA.

i) Tachylytic basalt

NA.

j) Flow contact

-

k) Dyke rock

NA.

l) Any remark about geological formation.

The nearby are surrounded by loamy soil and Broadly jointed massive Basalt. — very poor condition for GW yield / potential.

Geohydrogeological mapping of ..... Tahsil District <sup>(B)</sup>  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat = 19° 2' 10" N

Long = 75° 5' 20" E

Altitude = 635 m

Village देवठाली

Date - 11/06/19

Gut No. 165 Name of the Farmer महेश्वर मोलजी बोर Well No. D35

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017, Construction year 2018, If yes type.....

Parapet Ht. 14 ft. Shape-Circular/Square, Diameter of well 25 ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 55 ft., Water level from ground level 1 ft. m.  
In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 4 ..... Acre  
Winter Season ..... 1 ..... Acre  
Summer Season ..... 00 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump..... HP 3 HP

Dia of outlet pipe..... cm. Inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ... 2.4 ..... Hrs; winter ... 10 ..... Hrs; Summer ... 00 ..... Hrs.)

Any other information .....

Rushikesh D. Prisi  
Name of the Surveyor

[Signature]  
Signature



Geology of the well section



4 1/2 ft perimet Cement C.B. Broadly  
4.76

AB = 5 1/2 ft - weathered.

F<sub>1</sub>  
10.24  
9 ft - C.B. BJ

a) Lining

cement

b) Soil - Black / Yellow / Sandy

Black Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

No identified

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

5 Horizontal Bore are taken

f) Compact basalt

g) Amygdaloidal Basalt

weathered A.B.

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.

porosity are present due to AB

Geohydrogeological mapping of ..... Tahsil District (A)  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat-19°1'40"N

Long-75°5'60"E

Altitude = 688m

Village देवळाली

Gut No. 165 Name of the Farmer देवीदास करीनाथ श्याम Date - Well No. D36

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2018 Construction year 6 month only. If yes type.....

Parapet Ht. 8.5ft Shape-Cicular/Square, Diameter of well 20ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 52ft Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

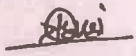
Use :- Drinking ..... Irrigation ..... Acres, Horticulture....., etc.....  
Rainy Season 2.4 Acre  
Winter Season 1 Acre  
Summer Season 2 Acre

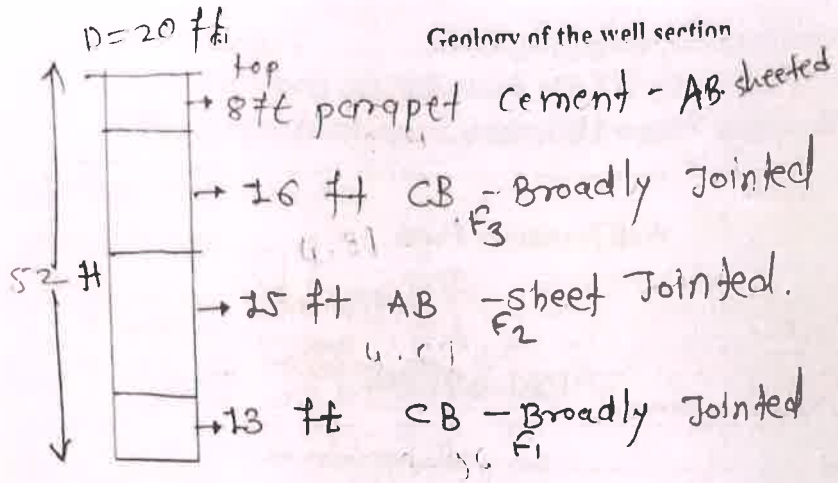
Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump.....HP 5 HP  
Dia of outlet pipe.....cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ... 24 Hrs; winter... 4 Hrs; Summer ... 2 Hrs.)

Any other information .....

Rushikesh D. Puri  
Name of the Surveyor

  
Signature



- a) Lining Cement - Circulars
- b) Soil - Black / Yellow / Sandy Loamy Soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable.  
water table recharge between A.B which are covered by two C.B
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Broadly Jointed
- g) Amygdaloidal Basalt sheet jointed - small
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock A.B are present between two C.B flow
- l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati <sup>(3)</sup>  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

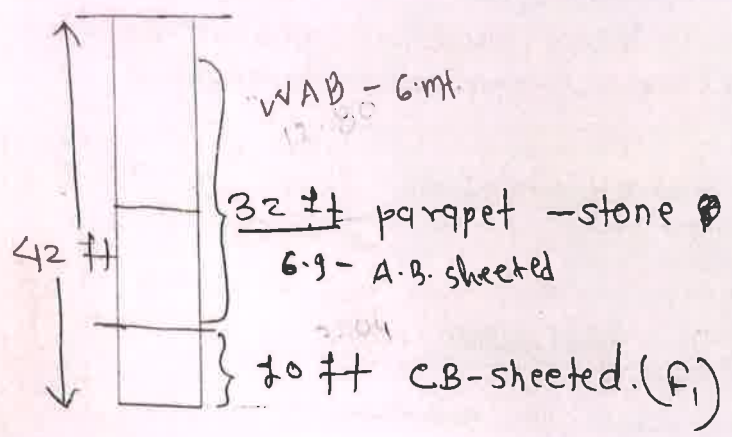
Alti:- 640

Village देवळाली Date -  
Gut No. .... Name of the Farmer शिवजी गटनिय वडे Well No. D37  
In Village Location ..... User... Personal/Community/.....  
Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
Year of the Digging 2009, Construction year 10 yrs, If yes type.....  
Parapet Ht. 10 ft Shape  Circular/Square, Diameter of well 22 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping .....)  
Total Depth 45 ft, Water level from ground level 1 ft  
In rainy season .....m, winter .....m, summer .....m.  
Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length .....m. and for vertical borehole .....m, Location at the bottom)  
Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 5 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season ..... 2 ..... Acre  
Type of withdrawals/Pump Out :-  Electrical motor ..... Diesel Pump ..... HP 5HP  
Dia of outlet pipe ..... cm /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
Time require for a full recharge / recuperation :  
(Rainy season ..... 20 ..... Hrs; winter ..... 8 ..... Hrs; Summer ..... 01 ..... Hrs.)  
Any other information .....

Kushikesh D. Puri  
Name of the Surveyor

(Signature)  
Signature

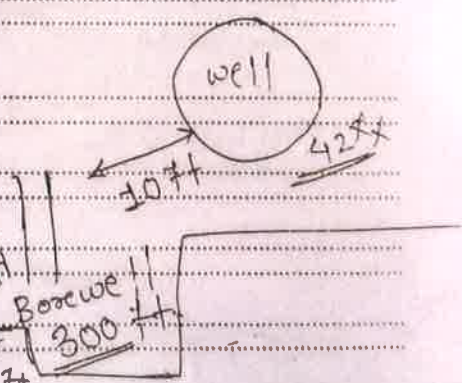
Geology of the well section



- a) Lining stone - circular
- b) Soil - Black / Yellow Sandy loamy soil
- c) Existing watersheds structure / Proclamation dam in neighboring region. No watershed structure are present -
- d) Effect of existing structures on watertable. NO effect of existing structure because of CB present -
- e) Geological / Geographical effect on groundwater. CB present -
- f) Compact basalt CB-sheeted
- g) Amygdaloidal Basalt N.A.
- h) Vesicular Basalt NA.
- i) Tachylytic basalt NA.
- j) Flow contact
- k) Dyke rock NA.

l) Any remark about geological formation.

This is old well so this is made by parapet only 10 ft is available but it also made from CB. so this



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 2' 79" N

Long - 75° 5' 48" E

Altitude - 646 m

Village देवताली

Date - 11/06/19

Gut No. 228 Name of the Farmer शंभुदास कशीनाथ लखरे Well No. D39

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1939, Construction year 80 या., If yes type.....

Parapet Ht. 30 ft, Shape  Circular/Square, Diameter of well 12 ft  
 (Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 32 ft, Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and/or vertical borehole.....m. Location at the bottom)

Use :- Drinking . . ., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :-  Electrical motor ..... Diesel Pump.....HP... 5 HP  
 Dia of outlet pipe.....cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 2.4 Hrs; winter 10 Hrs; Summer 9 Hrs.)

Any other information .....

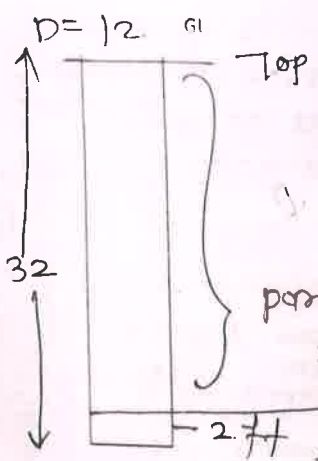
Rushikesh D. Pradi  
 Name of the Surveyor

[Signature]  
 Signature



Geo 2

Geology of the well section



propriet - 30 ft - due to 80 yr old well stone. (A.B. sheeted)

- a) Lining stone - circular.
- b) Soil - Black / Yellow / Sandy Black - loamy soil.
- c) Existing watersheds structure/ Proclamation dam in neighboring region. No. identified.
- d) Effect of existing structures on watertable. No any watertable identified.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Broadly jointed CB.
- g) Amygdaloidal Basalt NA
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact
- k) Dyke rock NA.
- l) Any remark about geological formation. It is old so all well covered by pscatit.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 8

Well Inventory Form

Lat - 19° 2' 68" N  
 Long - 75° 5' 60" E  
 Altitude - 652 m

Village देवदोली

Date - 11/06/19

Gut No. .... Name of the Farmer रावकर Well No. D40

In Village Location ..... User...  Personal/ Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1940, Construction year 7171, If yes type.....

Parapet Ht. 0.1 ft Shape  Circular/ Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 0.9 ft, Water level from ground level..... m.  
 In rainy season ..... m, winter ..... m, summer..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole..... m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump..... HP.....  
 Dia of outlet pipe ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

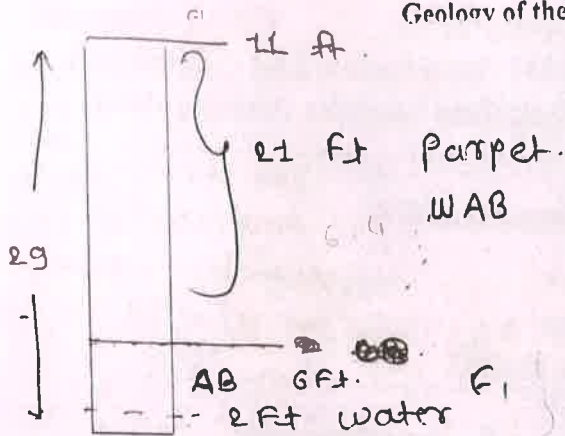
Time require for a full recharge / recuperation :  
 (Rainy season ..24..... Hrs; winter.....5..... Hrs; Summer..... Hrs.)

Any other information .....

Rudhikesh D. Patil  
 Name of the Surveyor

[Signature]  
 Signature

Geology of the well section



- a) Lining stony construction
- b) Soil - Black / Yellow / Sandy Black Soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
NO watershed structure
- d) Effect of existing structures on watertable.  
watertable is increasing in the rainy seasons
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Broadly Jointed C.B.
- g) Amygdaloidal Basalt NA
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact
- k) Dyke rock NA
- l) Any remark about geological formation.  
Old well so there is no any water get inside the well.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

lat: 19°11'66"N  
 long: 75°5'190'E

Village देवळाली

Date - Atti → 644 m

Gut No. 53

Name of the Farmer गानेरा खाडे

Well No. D-42

In Village Location ..... User...  Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1939, Construction year 80 yr, If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well (if yes source and Hrs of pumping.....))

Total Depth 30, Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 7 ..... Acre  
 Winter Season ..... 3 ..... Acre  
 Summer Season ..... 0 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
 Dia of outlet pipe..... cm. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

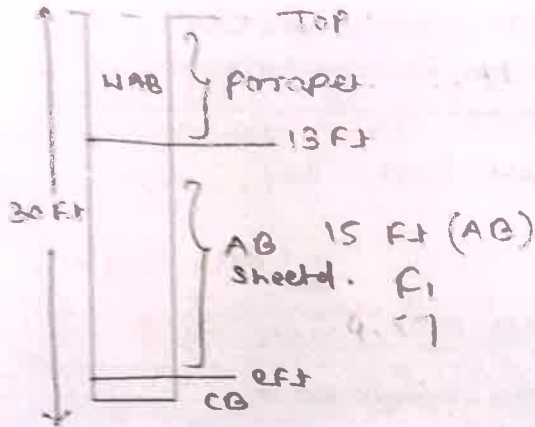
Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter ..... 8 ..... Hrs; Summer ..... 0 ..... Hrs.)

Any other information .....

Rushikesh D Puri  
 Name of the Surveyor

(Signature)  
 Signature

Contour of the well casing



a) Lining

Stone lining

b) Soil - Black / Yellow / Sandy

Black Soil

c) Existing watershed structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

due to river water get inside the river

e) Geological / Geographical effect on groundwater.

No identified.

f) Compact basalt

NA

g) Amygdaloidal Basalt

Sheeted AB.

well NE from river

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

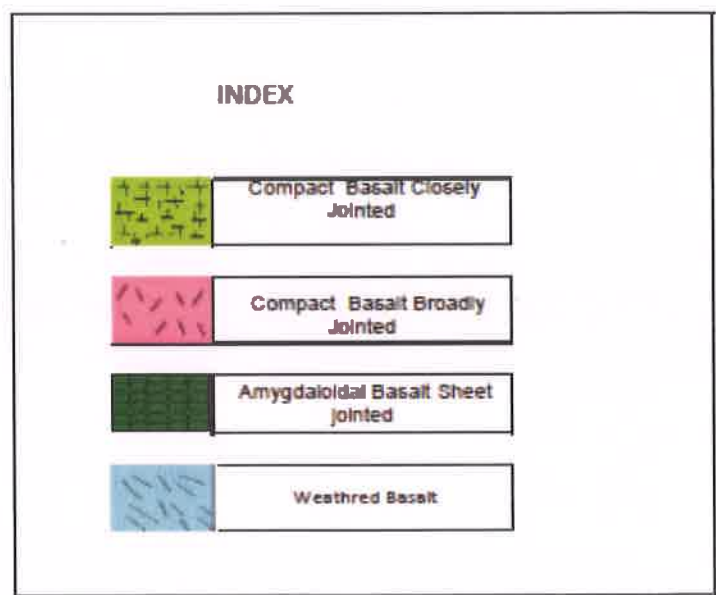
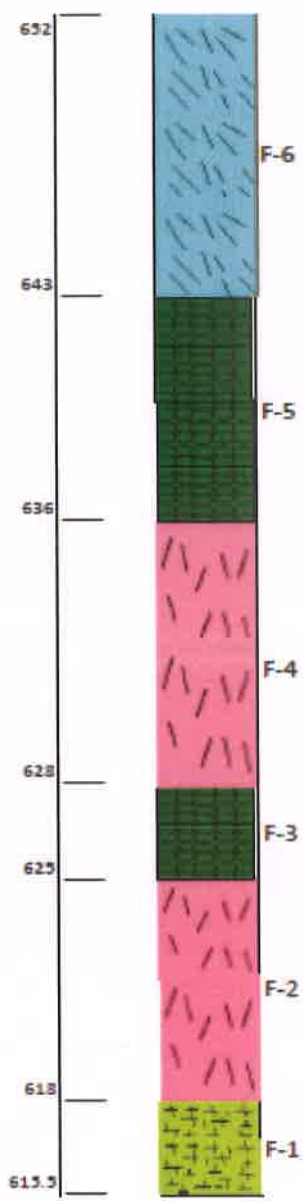
k) Dyke rock

NA

l) Any remark about geological formation.

due to large patch of AB water get inside from the river side.

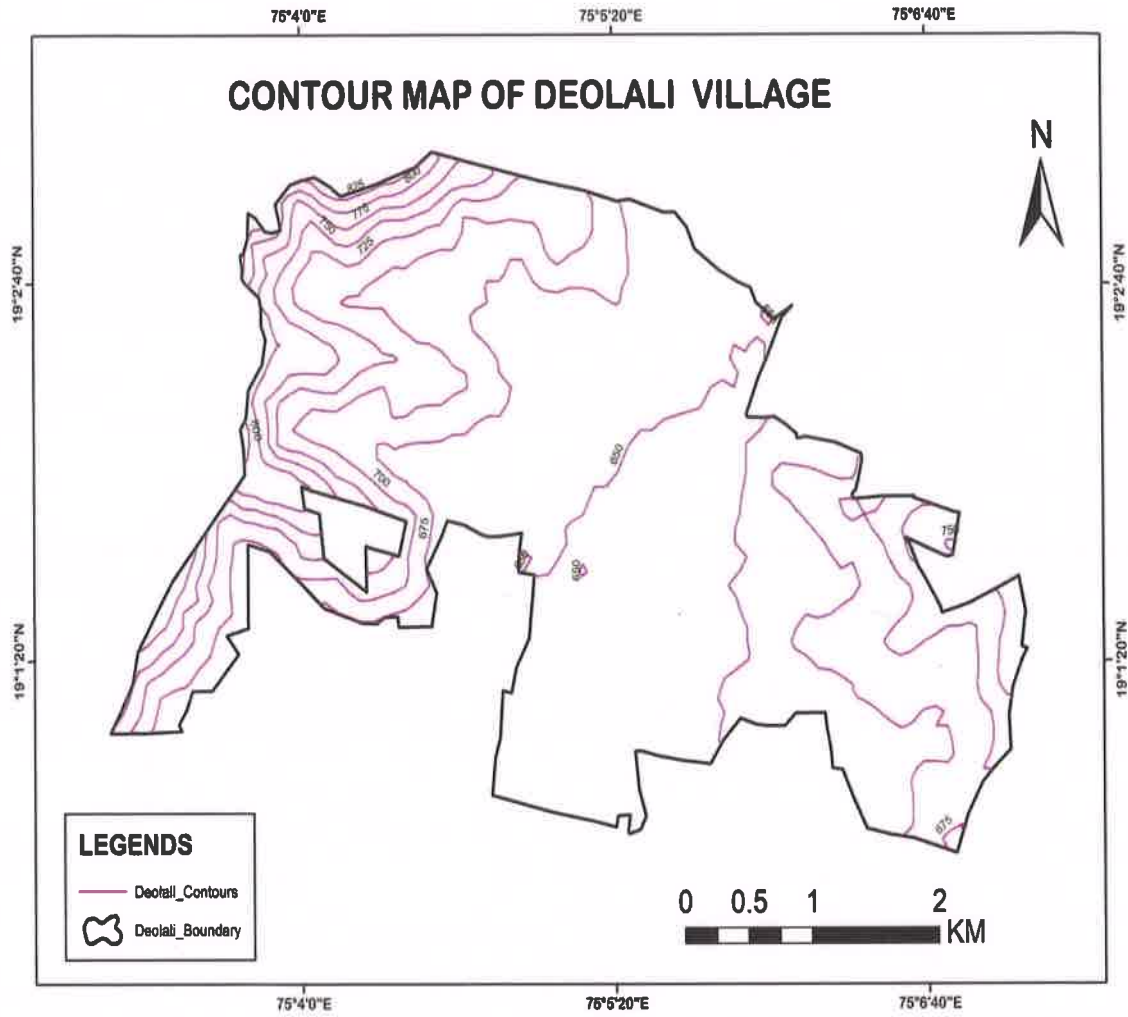
# Litholog of Devlali Village



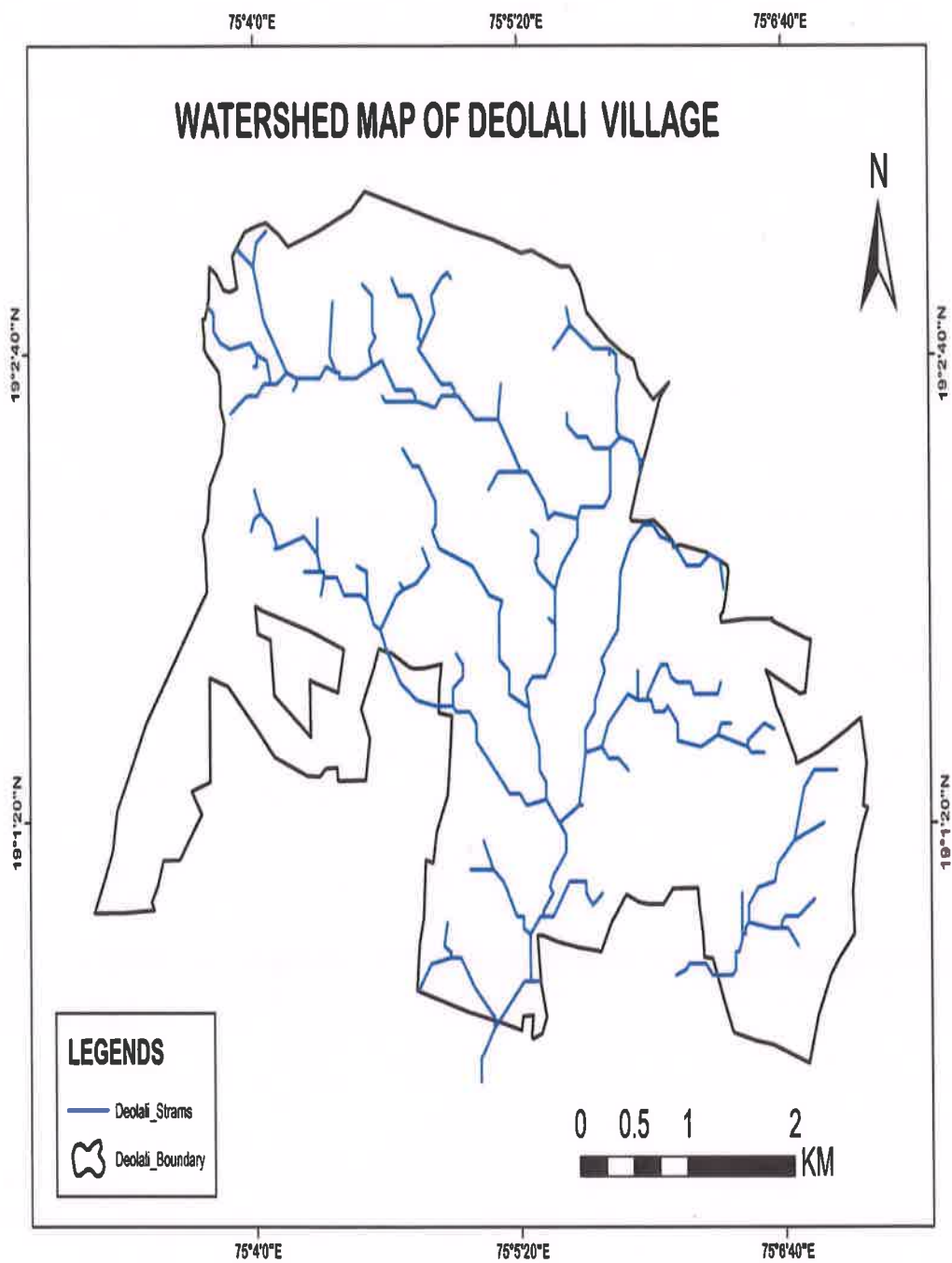
Litholog of Deolali Village



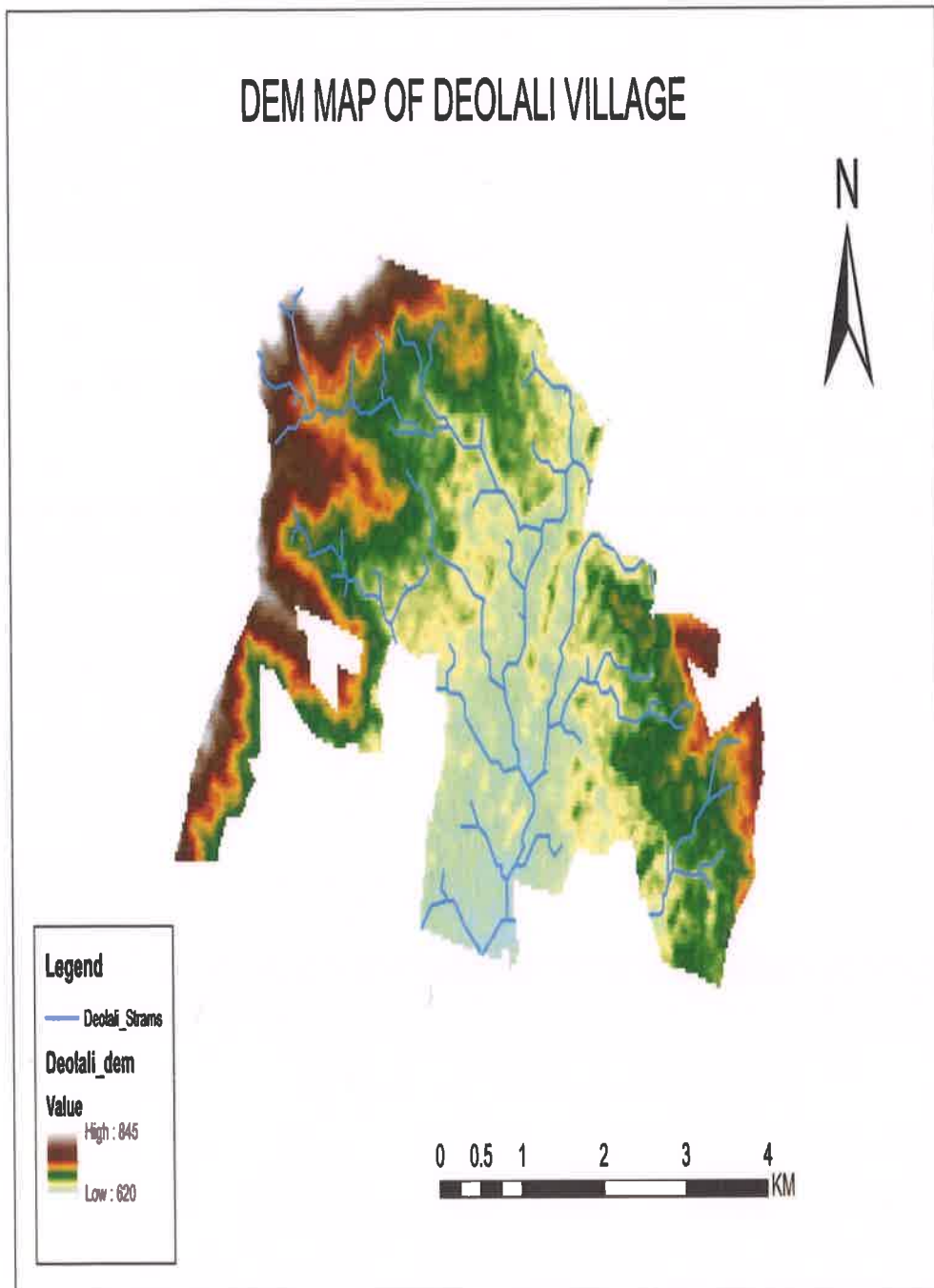
# Map of Deolali village



# Watershed Map of Devlai Villages



## DEM Map of Devlai Village







Photographs showing Increase in water level at Devlai.



Photographs showing watersheds management at Devlali.

## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Devlali, Ta- Ashti , Dist-Beed

2. Date of Survey: 11/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Pramod Kulkarni

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Navnath Shelke
- b. Gahininath bholaji bade
- c. Devidas Khade
- d. Shivaji Bade
- e. Baban Talekar
- f. Ramdas Talekar
- g. Dadasheb Khade

7. Total No of Well surveyed:

10 dugwells in the field + 18 dugwells through Satellite imagery Survey  
= Total 28 dugwells

8. Total map prepared:

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

a. For Artificial Recharge suitable/ Unsuitable: \_\_\_\_\_

b. Structure for watershed development programme: \_\_\_\_\_



PRINCIPAL  
Deogiri College  
Aurangabad.



## **Dongargan Village**

Dongargan is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 85 KM towards west from District headquarters Beed. 11 KM from Ashti. 272 KM from State capital Mumbai. Dadegaon (4 KM), Kada (5 KM), Sabalkhed (5 KM), Limbodi (7 KM), Dhanora (7 KM) are the nearby Villages to Dongargan. Dongargan is surrounded by Pathardi Taluka towards North, Nagar Taluka towards west, Jamkhed Taluka towards South, Ahmednagar Taluka towards west.

## Name of Surveyor

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Dongargaon, Ta- Ashti , Dist-Beed

2. Date of Survey: 11/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Mr. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Sharad Chavhan

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Dnyandev Chavan
- b. Baban Chavan
- c. Rajaram Chavan
- d. Dattatray Chavan
- e. Shankar Chavhan
- f. Sitaram Pawar

7. Total No of Well surveyed:

11 dugwell in the field + 23 dugwell through Satellite imagery Survey  
= Total 34 dugwell

8. Total map prepared:

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

a. For Artificial Recharge suitable/ Unsuitable:-----

b. Structure for watershed development programme:-----

## भूशास्त्रीय सर्वेक्षण डोंगरगण, ता. आष्टी, जी. बीड

डोंगरगण गावपरिसरामध्ये Well Inventory, GIS & Remote Sensing Technique, भूशास्त्रीय सर्वेक्षण, हयाभागात पडणारा सरासरी पाऊस तसेच शेती; पिण्यासाठी व इतर कामासाठी पाण्याची मागणी इत्यादी बाबीचा आढावा घेऊन या भागातील पाणी टंचाई कमी करण्यासाठी खालील कामे करण्याची शिफारस करण्यात येत आहे.

१) डोंगरगण गावाच्या परिसरामध्ये साधारणतः ७० मीटर खोलीपर्यंत बेसाल्ट खडकाचे मुख्य १३ थर आढळत असून, त्यामध्ये काळा पाषाण थर क्र. ३ व १० मधून पाणी खाली जात नसल्यामुळे गावाच्या उत्तरेकडून दक्षिणेकडे वाहणाऱ्या नदी तलावामध्ये कृत्रिम पुनर्भरण (Artificial Recharge Structure) घेतल्यास परिसराची भूजल पातळी वाढण्यास मदत होईल त्यासाठी डोंगरगण गाव शिवारातील नदीमध्ये कमीत कमी ~~५०~~ ३० पुनर्भरण पिट्टेस घेण्यात यावे.

२) गाव परिसरातील नदी पात्रामध्ये नवीन तीन बंधारे बांधणे.

३) गाव परिसरामध्ये नदीपात्र भागात साधारणतः ३० फूट खोली पर्यंत भूजल वहणास उपयुक्त खडक रचना असल्यामुळे गाव परिसरामध्ये जास्तीत जास्त बंधारे बांधल्यास पावसाच्या पाण्याचे पुनर्भरण मोठ्या प्रमाणात होऊन परिसरातील भूजल पातळी वाढेल.

दक्षिणेकडे वाहणाऱ्या नदीमध्ये कमीत कमी ३० पुनर्भरण पिट्टेस घेण्यात यावे.  
उत्तरेकडून दक्षिणेकडे वाहणाऱ्या नदीमध्ये कमीत कमी ३० पुनर्भरण पिट्टेस घेण्यात यावे.  
१२ नदी बंधारे बांधणे & उभारणे (१००० मध्ये)





Estimate. Shields  
Cement Badhara.

Area = 40 ft length  $\times$  6 ft height  $\times$

found<sup>n</sup> - 3 ft

$$50,000/\text{ft} = 200 \text{ ft} \times 50,000 \\ = 1,00,00,000$$

Standard Specification R.C.C. Badhara.

1 ft length  $\times$  6 ft height  $\times$  2.5 ft width  
Rs. 50,000.

Recharge Pit =

अनुमानित

$$1500 \text{ length m.} \times 3 \text{ m height} \times 20 \text{ m width} \\ = 4 \times 90,000 \text{ cu. m.}$$

## Dug-Well Inventory

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

---

Well Inventory Form  
 Lat - 18°56'59" N  
 Long - 75°4'49" E  
 Altitude - 525 m

Village Dongargan Date - 11/06/2019

Gut No. 158 Name of the Farmer शरद महादेव खेले Well No. D10

In Village Location SE from well User...  Personal/Community/.....

Location of the well SW from village  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1969 Construction year 1969, If yes type.....

Parapet Ht. 33 ft Shape Circular/Square, Diameter of well 32 ft  
 (Whether water from other sources brought to this well if yes source and Hrs. of pumping.....)

Total Depth 42 ft, Water level from ground level..... m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is to be in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)

Use :- Drinking .... Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 24 hr.... Acre - July to September  
 Winter Season 5 hr.... Acre  
 Summer Season Dry.... Acre - माफस्य वर्षी दुष्कूल शल्यागुळ विहिरीतले पाणी आले

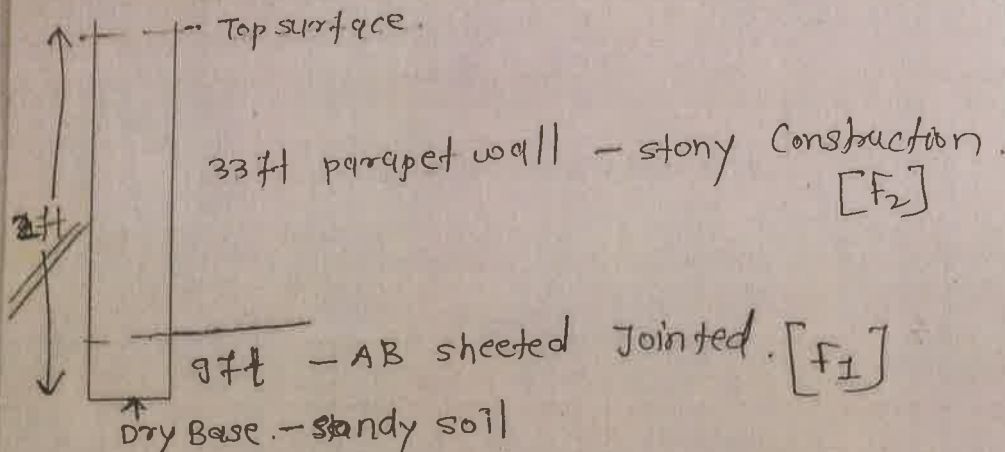
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
 Dia of outlet pipe..... cm. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ... 24... Hrs; winter ... 5... Hrs; Summer ... Dry... Hrs.)

Any other information .....



Analysis of the wall section



a) Lining - stone construction

b) Soil - Black / Yellow / Sandy sandy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable. Along the river a well present - positive

e) Geological / Geographical effect on groundwater.

f) Compact basalt poor GW potential

g) Amygdaloidal Basalt sheeted A.B.

h) Vesicular Basalt

i) Tachylytic basalt

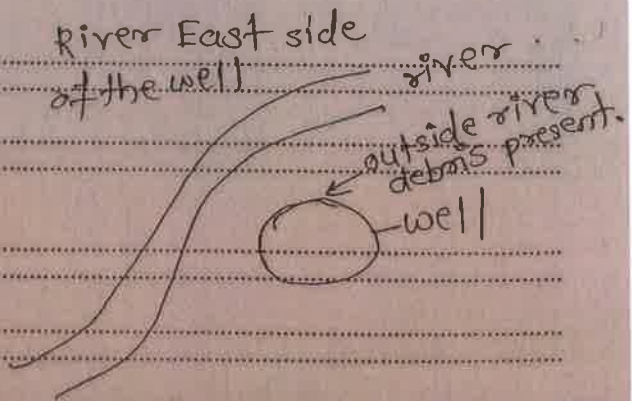
j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

par lining build up by compact Basalt

outside by river loamy soil are present at form



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat -  $18^{\circ} 56' 61''$  N  
Long -  $75^{\circ} 4' 59''$  E

Altitude - 525m  
Date -

Village Dongar...

Gut No. 182 Name of the Farmer ... Well No. D18

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1970, Construction year 50 yr, If yes type.....

Parapet Ht. 7 Shape  Circular/Square, Diameter of well 16 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 36 ft 10.8 m, Water level from ground level.....m.  
In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 3 ..... Acre  
Winter Season ..... 3 ..... Acre  
Summer Season ..... 2 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump ..... HP 5HP

Dia of outlet pipe ..... cm. /inch .....

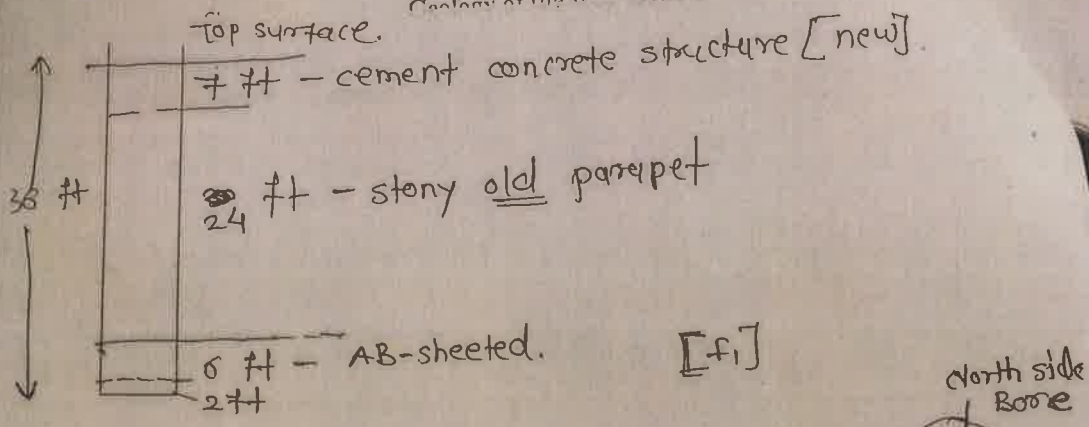
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

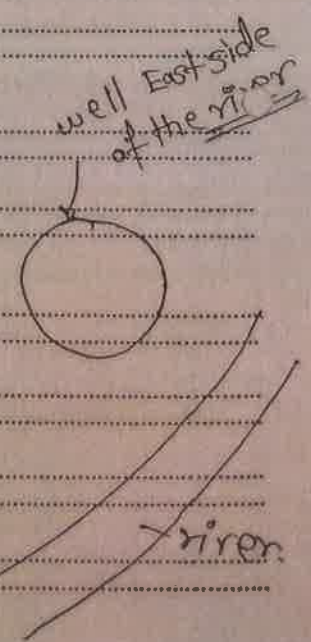
(Rainy season ... 24 ..... Hrs; winter ... 18 ..... Hrs; Summer ... 3 hr ..... Hrs.)

Any other information .....

Geology of the well section



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil below water table.
- c) Existing watersheds structure/ Proclamation dam in neighboring region. no.
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater. due to the river groundwater get high.
- f) Compact basalt NA
- g) Amygdaloidal Basalt sheeted AB.
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA.
- j) Flow contact NA.
- k) Dyke rock NA.
- l) Any remark about geological formation. outside AB are present.





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat = 18° 56' 78" N  
 Long = 75° 3' 02" E  
 Altitude - 552 m

Village Dongargan

Date - 21/06/2019

Gut No. 63/ब Name of the Farmer शंकर पवार Well No. D15

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1999, Construction year 2019, If yes type.....

Parapet Ht. 11 ft Shape-Circular/Square, Diameter of well 22 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 55 ft, Water level from ground level 6 ft m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., e'c.....

Rainy Season ..... 5 ..... Acre

Winter Season ..... 5 ..... Acre

Summer Season ..... 5 ..... Acre

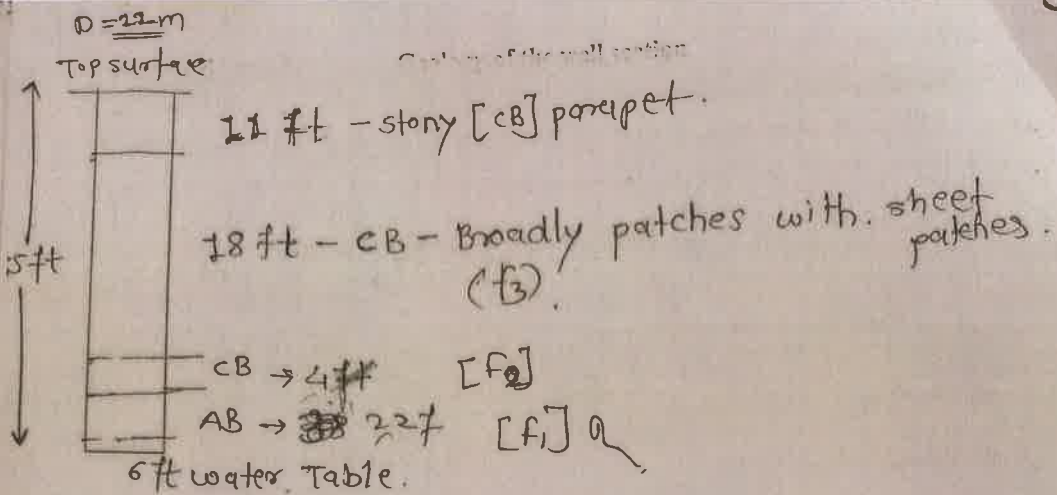
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5 HP

Dia of outlet pipe ..... cm. /inch .....

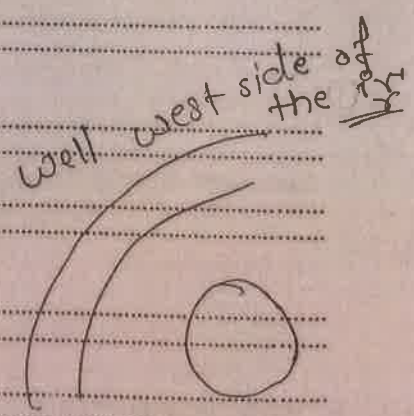
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ... 24 ... Hrs; winter ... 24 ... Hrs; Summer ... 24 ... Hrs.)

Any other information .....



- a) Lining stony lining - circular.
- b) Soil - Black / Yellow / Sandy Black sandy.
- c) Existing watersheds structure/ Proclamation dam in neighboring region. NA
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater. Well Recharge through bottom because of AB present at bottom. पासर तलाव परियम क्षिरोल
- f) Compact basalt Broadly jointed.
- g) Amygdaloidal Basalt sheeted jointed.
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation. River are present along the west side from the well.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 56' 08" N  
 Long - 75° 04' 21" E  
 Altitude - 548 m

Village Dongargaon

Date - 11/06/19

Gut No. 1 Name of the Farmer Government well Well No. D13

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht. 18 ft Shape-Cicular/Square, Diameter of well... 11 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 27 ft, Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken n ..... Direction, Length.....m. and /or vertical borehole.....m, Location at the bottom)

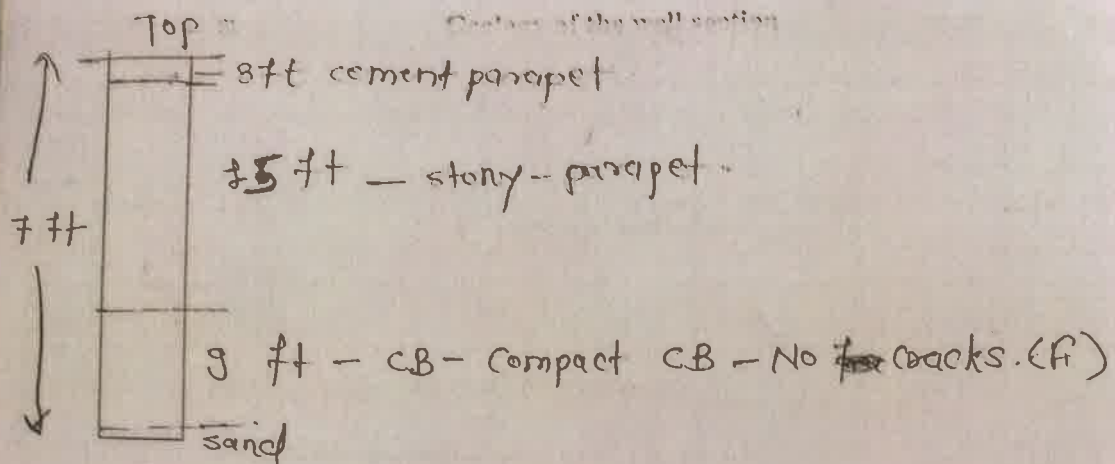
Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 5 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season..... 0 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
 Dia of outlet pipe..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 15 ..... Hrs; winter..... 5 ..... Hrs; Summer..... day ..... Hrs.)

Any other information .....





a) Lining stone - circular

b) Soil - Black / Yellow / Sandy Sandy Black

c) Existing watersheds structure/ Proclamation dam in neighboring region. Water Recharge by Lateral Bore.

d) Effect of existing structures on watertable. porosity and permeability absent because of CB are present.

e) Geological / Geographical effect on groundwater. well is present SW side of the river

f) Compact basalt Compact CB

g) Amygdaloidal Basalt NA

h) Vesicular Basalt NA

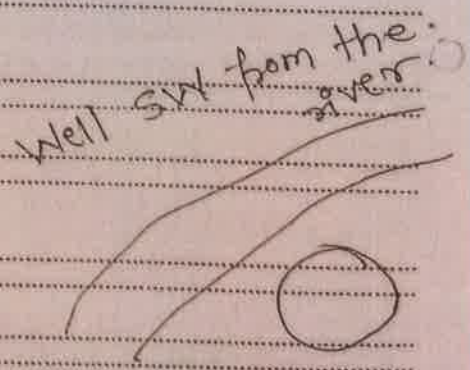
i) Tachylitic basalt NA

j) Flow contact NA

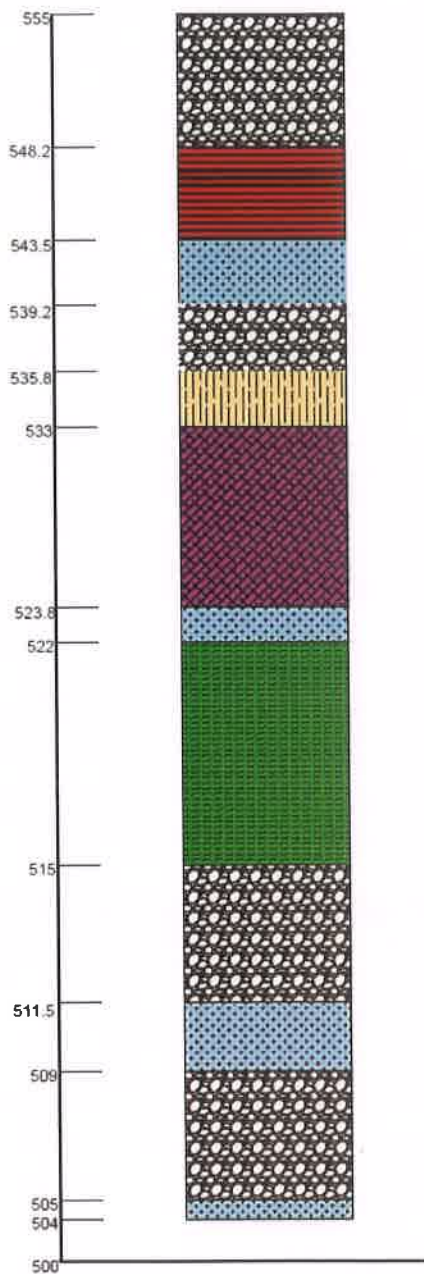
k) Dyke rock NA

l) Any remark about geological formation.







The nearby area of well is surrounded by massive basalt. so bad condition.



## Litholog of Dongargan Village



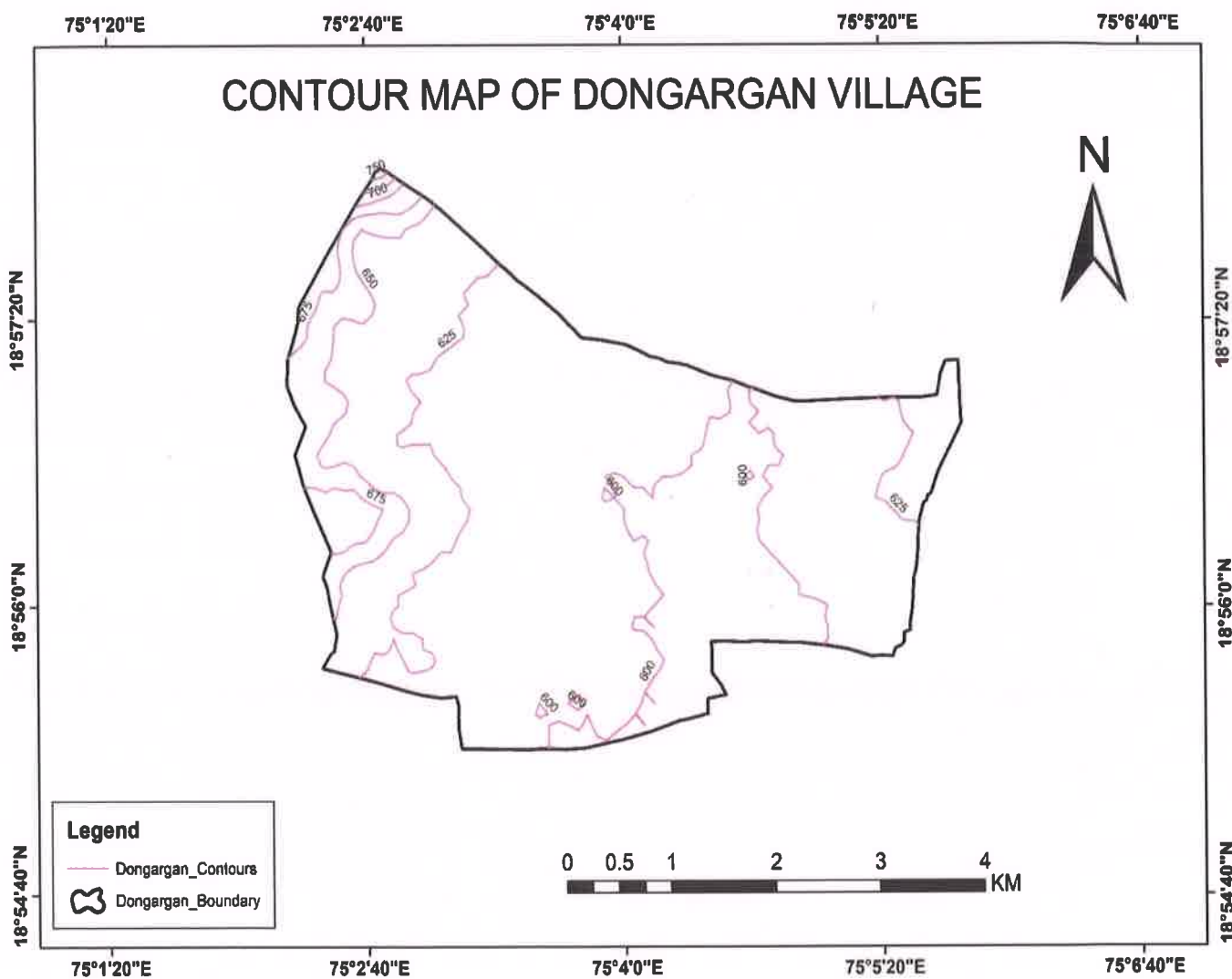
### LEGENDS

	Compact Basalt Jointed
	Compact Basalt
	Amygdaloidal Basalt
	Wethered Basalt
	Sheet Jointed Amygdaloidal Basalt
	Weathered Compact Basalt

Scale: 1CM = 1 M

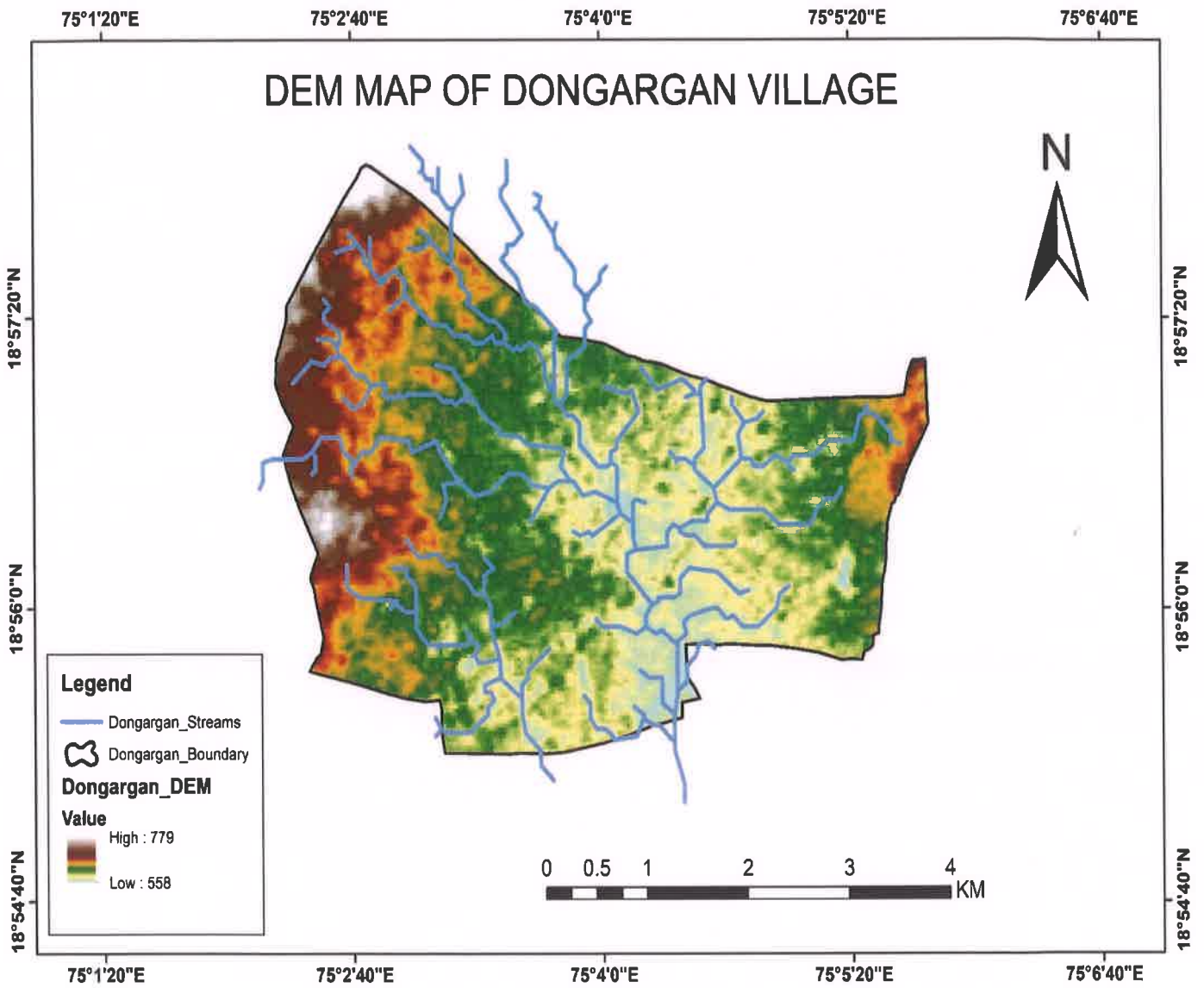
Litholog Of Dongargan Village

# Contour Map of Dongargan Village





# DEM Map of Dongargan Village





Photographs showing watersheds management at Dongargan Village.





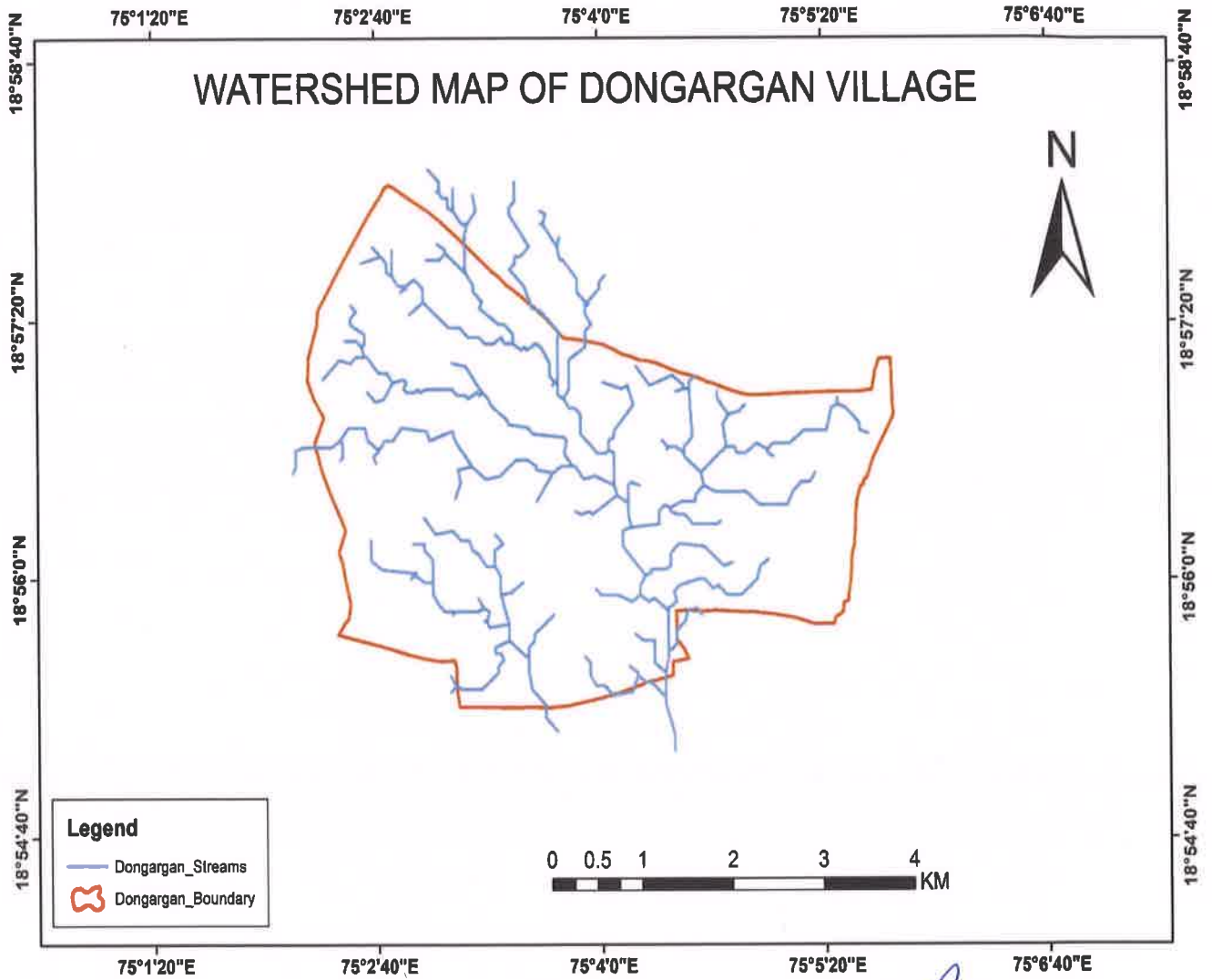
Photographs showing watersheds management at Dongargan Village.





**Broadly spaced jointed Compact Basalt Flow can be seen in the outcrop**

# Watershed Map of Dongargan Village



*[Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

# **Gangewadi**

## **Introduction**

Gangewadi is a small Village in Karjat Taluka in Ahmednagar District of Maharashtra State, India. It comes under Mahi Panchayath. It is on the border of Marathwada region of Maharashtra. It is located 71 KM towards South from District head quarters Ahmednagar. 20 KM from Karjat. 278 KM from State capital Mumbai. Gangewadi is surrounded by Ashti Taluka towards North, Jamkhed Taluka towards East, Karmala Taluka towards South, Patoda Taluka towards East.



## Dug Well Inventory Form

1 मी

गंडी दांडी

पाणी पावतो : पध्दती - नदीसुद्धे विद्यतीता सुध्द पाणी उभते  
दिवळी - वेध्दपध्दत कमी सेते

dug well : उदळी - काही भागाध्दये पाणी पातळी नसिकी  
सेते.

Green Belt :- काही गावांय्या तुलनेत या गावाध्दये  
सुध्द कमी आहे.

- नदीय्या वागुय्या भागात Pale संरध्दय्ये से  
अवशोष आढळतात.

पावतोटे कामे :- नदीवर वंधारे बांधलेले आहेत.  
पंतू नदीध्दये सोणीकरा करणे  
गवजेचे आहे.

Artificial Recharge :-  
गावांय्या काही भागाध्दये करणे गवजेचे  
आहे.

18

Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 23" N  
Long - 75° 13' 66" E  
Altitude - 675 m

Village शिवोबाजी

Gut No. .... Name of the Farmer शाशिकेव लक्ष्मण

Date - 12/06/19  
मोटरक 090  
Well No. ....

In Village Location ..... User...  Personal  Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2006 ..... Construction year 12 yr. ..... If yes type.....

Parapet Ht. 7 ft Shape-Cicular/Square, Diameter of well, 25 ft  
(Whether water from other sources brought to this well if yes name and Htz of pumping)

Total Depth 60 ft Water level from ground level 28 ft  
In rainy season 45 ft winter 30 ft summer .....

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
(If the Horizontal bore is taken in ..... Direction Length ..... m. and its vertical borehole ..... Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....  
Rainy Season ..... 5 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season ..... 1 ..... Acre

Type of withdrawal Pump Out :-  Electrical motor .....  Diesel Pump ..... HP 5 HP

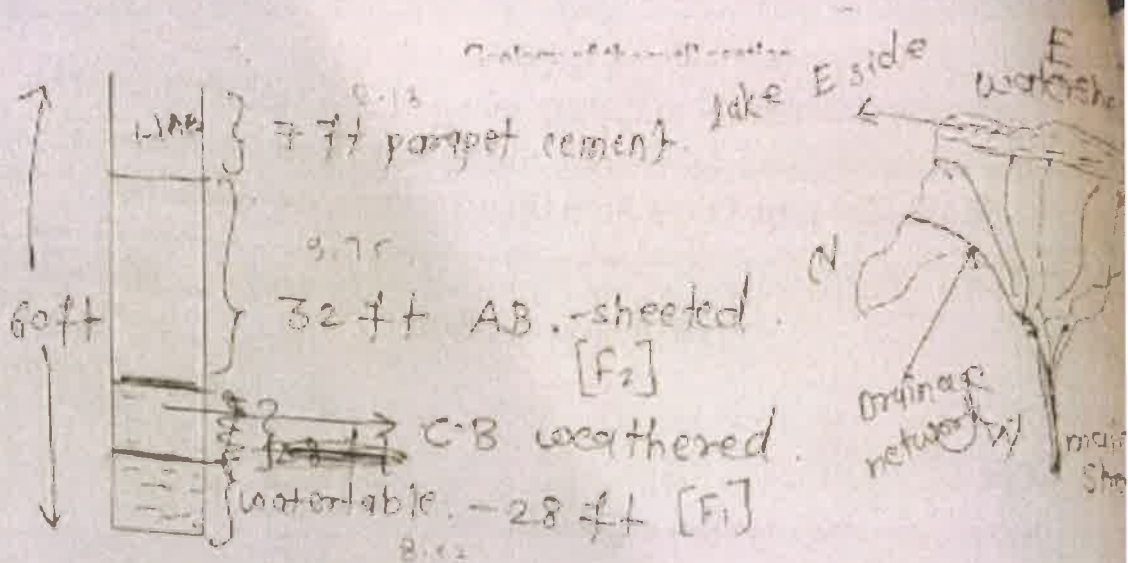
Dia of outlet pipe 2.5 ..... In / inch .....  
Quantity of withdrawals - Daily 8 ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs; winter 24 Hrs; Summer 24 Hrs.)

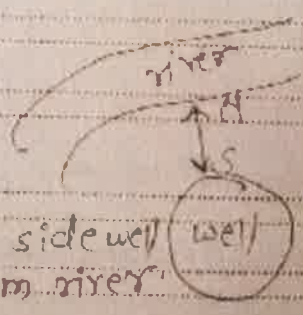
Any other information .....

S. R. Wadhankar  
Name of the Surveyor

  
Signature



- a) Lining cement
- b) Soil - Black / Yellow / Sandy loamy - black
- c) Existing watershed structure: Proclamation dam in neighboring region.  
River recharged the well / lateral recharge
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater.  
Good percolation / good civil potential
- f) Compact basalt
- g) Amygdaloidal Basalt sheeted A.B.
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA South side well from river
- k) Dyke rock NA
- l) Any remark about geological formation.  
clayey surrounded area loamy soil





18

Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 23" N  
Long - 75° 13' 66" E  
Altitude - 675 m

Village शिवोबाजी

Gut No. .... Name of the Farmer शशिदेव लक्ष्मण

Date - 12/06/19  
मकर 090  
Well No. ....

In Village Location ..... User... Personal/Community? .....

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed) .....

Year of the Digging 2006 ..... Construction year 12 yr. ..... If yes type .....

Parapet Ht. 7.5 ft. Shape Circular Diameter of well 2.5 ft.  
(Whether water from other sources brought to this well if yes source and fit of pumping)

Total Depth 60 ft. Water level from ground level 28 ft.  
In rainy season 45 ft. winter 30 ft. summer .....

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
(If the Horizontal bore is taken in ..... Direction Length ..... and in vertical borehole ..... Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc. ....  
Rainy Season ..... 5 ..... Acres  
Winter Season ..... 2 ..... Acres  
Summer Season ..... 1 ..... Acres

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP 5 HP

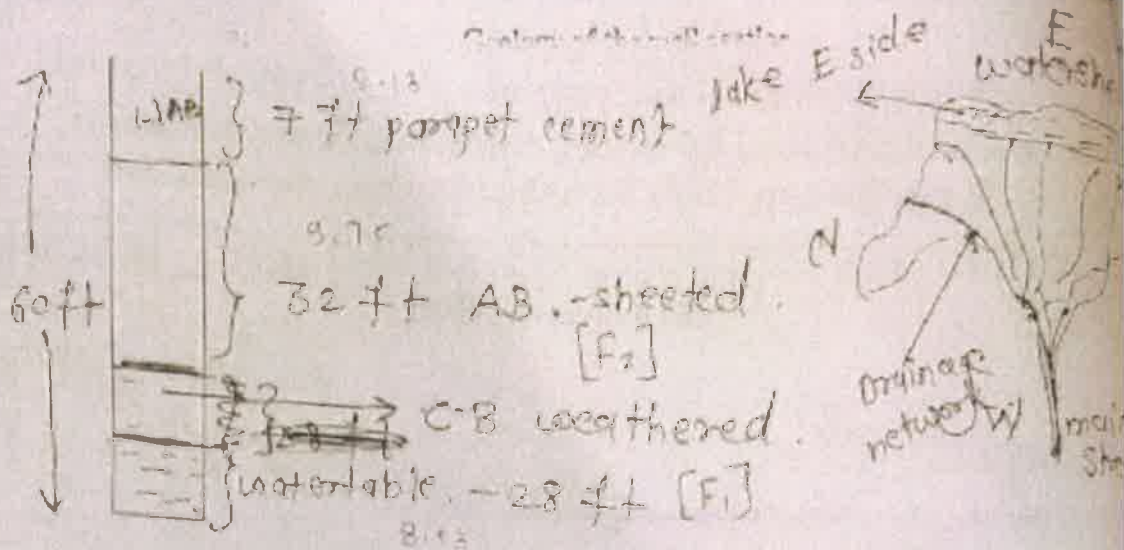
Dia of outlet pipe 2.5 inch .....  
Quantity of withdrawals - Daily 8 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs. winter 24 Hrs. Summer 24 Hrs.)

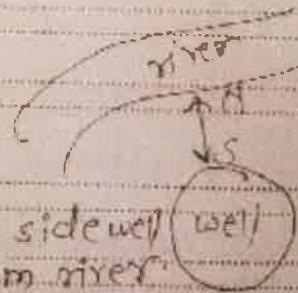
Any other information .....

S. R. Wachhanke  
Name of the Surveyor

(Signature)  
Signature



- a) Lining: cement
- b) Soil: Black / Yellow / Sandy: loamy - black
- c) Existing watershed structure: Proclamation dam in neighboring region.  
River recharged the well / lateral recharge
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater: Good percolation / good GW potential
- f) Compact basalt
- g) Amygdaloidal Basalt: sheeted A.B.
- h) Vesicular Basalt: NA
- i) Tachylitic basalt: NA
- j) Flow contact: NA South side well from river
- k) Dyke rock: NA
- l) Any remark about geological formation: clenny surrounded area loamy soil



19

# Geohydrogeological mapping of ..... Tahsil District Beed undertaken by NAAM Foundation and Chatrapati Shahu Gramin Vikas Shikshan Sanstha Aurangabad

## Well Inventory Form

Lat - 18°50'28" N  
Long - 75°13'67" E  
Altitude - 576 m  
Date - 12/06/19

Village शिवो वडी

Gut No. .... Name of the Farmer राजे Well No. D.11

In Village Location ..... User  Personal  Community/.....

Location of the well..... (Farmland, Bank of Nala, in the Nala, Riverbed).....

Year of the Digging 2005 Construction year 14 Yr If yes type.....

Parapet Ht. 10 ft Shape  Circular/Square, Diameter of well 20 ft  
(Whether water from other sources brought to this well if just source and Hrs of pumping)

Total Depth 45 ft Water level from ground level 35 ft  
In rainy season 35 ft In winter 25 ft In summer .....

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
(If the flow from top to bottom in ..... Direction, length ..... and for percolate towards ..... location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.....  
Rainy Season ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season ..... 1 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump ..... HP 5 HP

Dia of water pipe 2.5 inch  
Quantity of withdrawals :- Daily 10 Hrs, Seasonal ..... cc meter / day

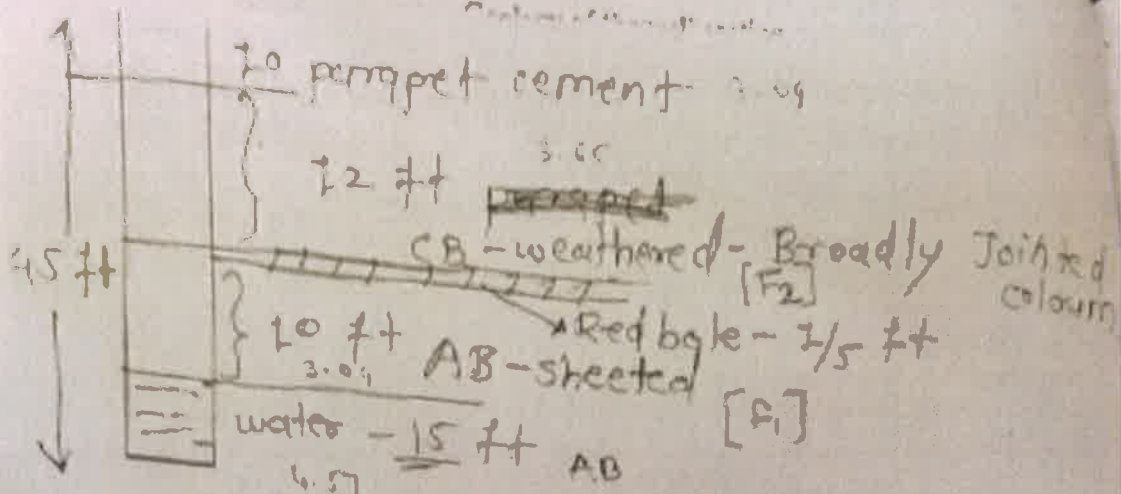
Time require for a full recharge / recuperation :  
Rainy season 24 Hrs, winter 24 Hrs, Summer ..... 24 Hrs.)

Any other information .....

S. R. Wadhankar  
Name of the Surveyor

[Signature]  
Signature





a) Lining

cement - circular

b) Soil - Black / Yellow / Sandy

Black loamy soil

c) Existing water table structures / Problems due to them in neighboring region.

Along the river well are present

d) Effect of existing structures on water table

AB percolate water

e) Geological / Geographical effect on groundwater.

Good GW cond<sup>n</sup> / potential though only AB

f) Compact basalt

weathered CB present

g) Amygdaloidal basalt

sheeted / hard AB present

h) Vesicular basalt

NA

i) Tachyitic basalt

NA

j) Flow contact

Red bole present

k) Dyke rock

NA

l) Any remark about geological formation.

NA



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 53" N  
Long - 75° 13' 74"  
Altitude - 691 m

Village गंगोबाडी

Date - 12/06/19

Gut No. 30

Name of the Farmer अरवि अमन रामराव

Well No. D82

In Village Location ..... User  Personal  Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2008 Construction year 10 Yr If yes type.....

Parapet Ht. 15 ft Shape  Circular  Square. Diameter of well.....  
*(Whether cover from other sources provided to this well if yes source and Hrs of covering)*

Total Depth 42 ft Water level from ground level 3/2 ft  
In rainy season 3 ft winter 2.5 ft summer.....

Percolation from: Bottom / Lateral Direction (in the case of lateral direction.....)  
*(If the horizontal bore is taken in Direction Length m and for percolation Location at the bottom)*

Use: Drinking ..... Irrigation..... Acres. Horticulture..... etc.....  
Rainy Season 7 Acre  
Winter Season 2 Acre  
Summer Season 3 Acre

Type of withdrawal/Pump Out: Electrical motor..... Diesel Pump HP 5 HP

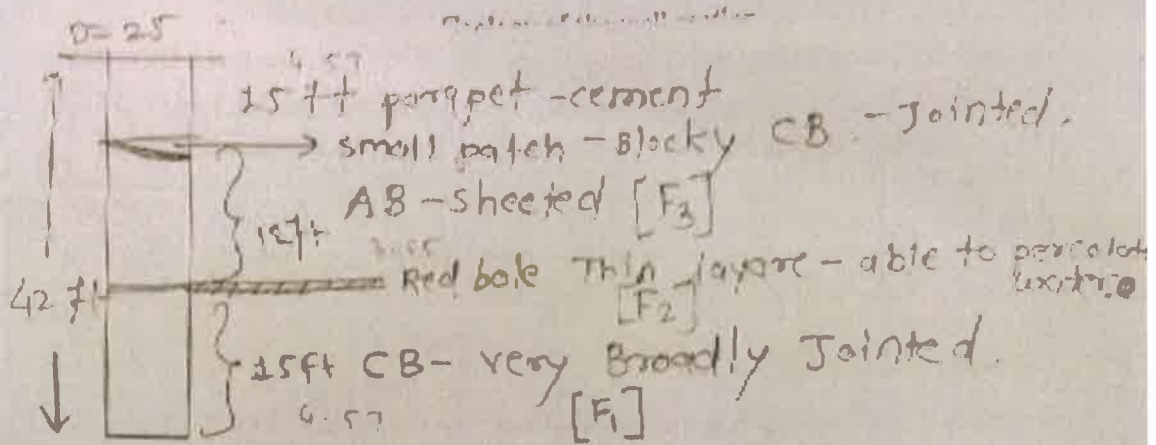
Dia of outlet pipe 9-5 inch.....  
Quantity of withdrawal: Daily 10 Hrs. Seasonal..... cc meter / day

Time require for a full recharge / recuperation:  
(Rainy season..... Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information.....

J. A. Mhaske  
Name of the Surveyor

[Signature]  
Signature



Q Lining

cement

b) Soil - Black / Yellow Sandy

Black soil

c) Existing waterbodies structure/ Proclamation dam in neighboring region.

River N-side of the well

d) Effect of existing structures on watertable.

Water Recharge through A.B

e) Geological / Geographical effect on groundwater.

Good percolation through A.B

f) Compact basal

g) Amygdaloidal Basalt

h) Vesicular Basalt

i) Tachyitic basalt

j) Flow contact

k) Dyke rock

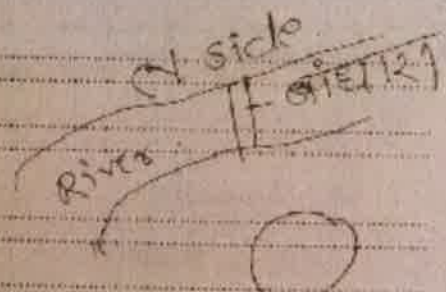
दीवार - 66 ft लंबी

- 3 ft चौड़ी

l) Any remark about geological formation.

- 7 ft - upstream side

9 ft - downstream side





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat -  $18^{\circ} 59' 30'' N$   
 Long -  $75^{\circ} 13' 78'' E$   
 Altitude - 687 m

Village मानगे वाडी

Date - 12/06/19

Gut No. 29

Name of the Farmer बाबू महाराज मानगे

Well No. D93

In Village Location ..... User...  Personal/Community/.....

Location of the well ..... (Farmland Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2012 Construction year 7 year If yes type.....

Parapet Ht. .... Shape  Circular/Square, Diameter of well 12 ft  
(If water comes from other source brought to this well by any source and line of pumping)

Total Depth 30 ft Water level from ground level ..... m.  
 in rainy season 25 ft winter 15 ft summer ..... m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
(If the horizontal bore is used in ..... Direction Length ..... m. and for vertical borehole ..... Location at the bottom)

Use :-  Drinking .....  Irrigation ..... Acres, Horticulture ..... etc.....  
 Rainy Season 06 Acre  
 Winter Season 05 Acre  
 Summer Season 5 Acre

Type of withdrawal/Pump Out :-  Electrical motor .....  Diesel Pump ..... HP 3 HP

Dia of outlet pipe 2 inch

Quantity of withdrawal :- Daily 2/5 ltrs Seasonal ..... cc meter / day

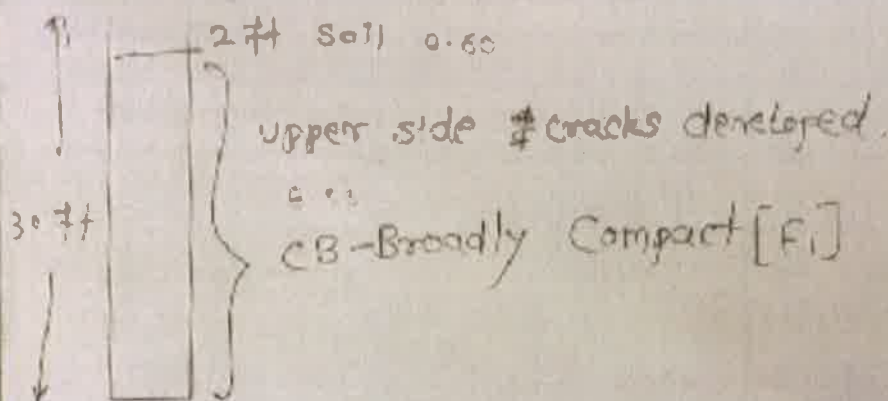
Time require for a full recharge / recuperation :  
 (Rainy season 24 hrs, winter 5 hrs, Summer 1 hrs)

Any other information .....

J. A. Mhawke

Name of the Surveyor

[Signature]  
 Signature



a) Lining

~~soil~~ soil - lining

b) Soil - Black / Yellow / Sandy

Black-soil

c) Existing waterbeds structure / Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on ground water.

poor GW condition.

f) Compact basalt

Broadly Compact CB.

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow zones et

NA

k) Dolerite

NA

l) Any remark about geological formation.

1/10/1

## गंजो वडी

पानी पान्ती :- पलसका - नदीमध्ये विविधतां मूळ पानी उभरते  
दिवकी - बोझा पमावत कामी होते  
उत्तरी - काही भागांमध्ये पानी पान्ती नसिली  
होते.

गुड्डा वडी :- काही गावांच्या तुलावेत या गावांमध्ये  
मूळ कामी आहे.

- नदीच्या काठीच्या भागात पारु गुड्डा वडी  
अवरोध आढळतात.

पानो जोड काम :- नदीवर वंझारे बांधलेले आहेत.  
पुढे नदीमध्ये जोडीकरण करणे  
गंजो वडी आहे.

Artificial Recharge :-

गावांच्या काही भागांमध्ये करणे गंजो वडी  
आहे.



## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Gangewadi , Ta- Ashti , Dist-Beed

2. Date of Survey: 12/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Namdev Moharkar

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Shankar Gange
- b. Baban Karande
- c. Bappu Ganage

7. Total No of Well surveyed:

04 dugwells in the field + 07 dugwells through Satellite imagery Survey  
= Total 11 dugwells

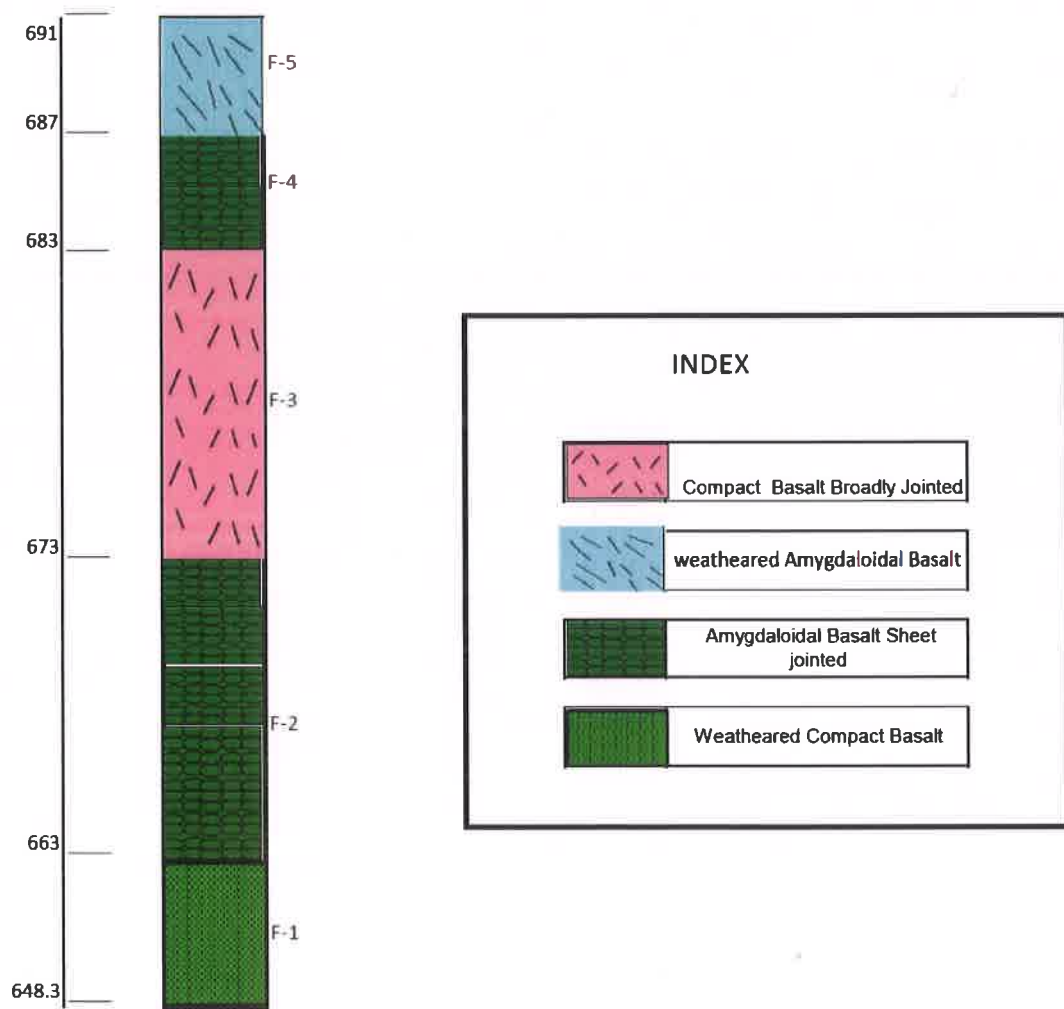
8. Total map prepared:

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

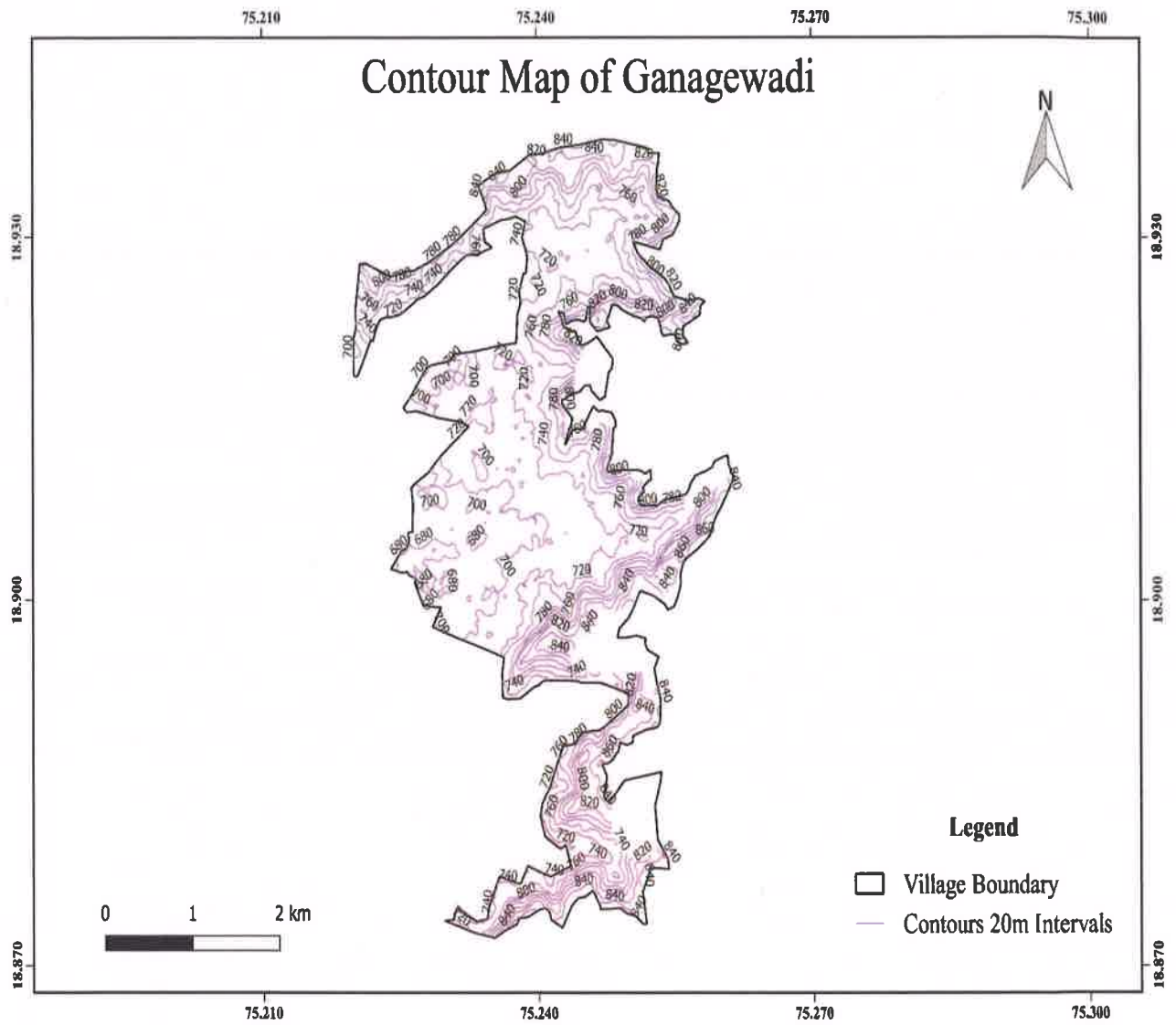
- a. For Artificial Recharge suitable/ Unsuitable: \_\_\_\_\_  
\_\_\_\_\_
- b. Structure for watershed development programme: \_\_\_\_\_  
\_\_\_\_\_

# Litholog of Gangewadi Village



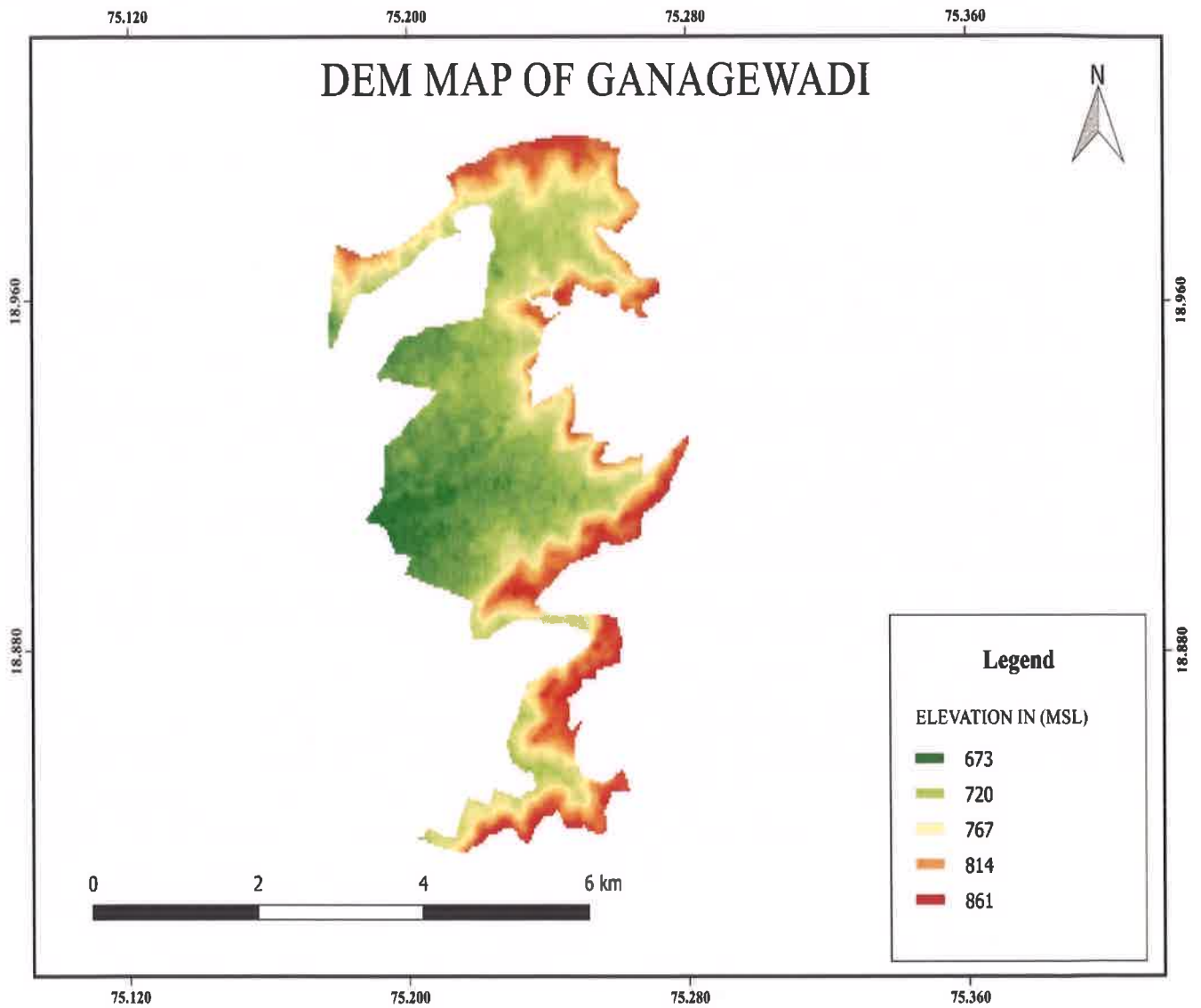
Litholog of Gangewadi Village

## Contour Map of Gangewadi

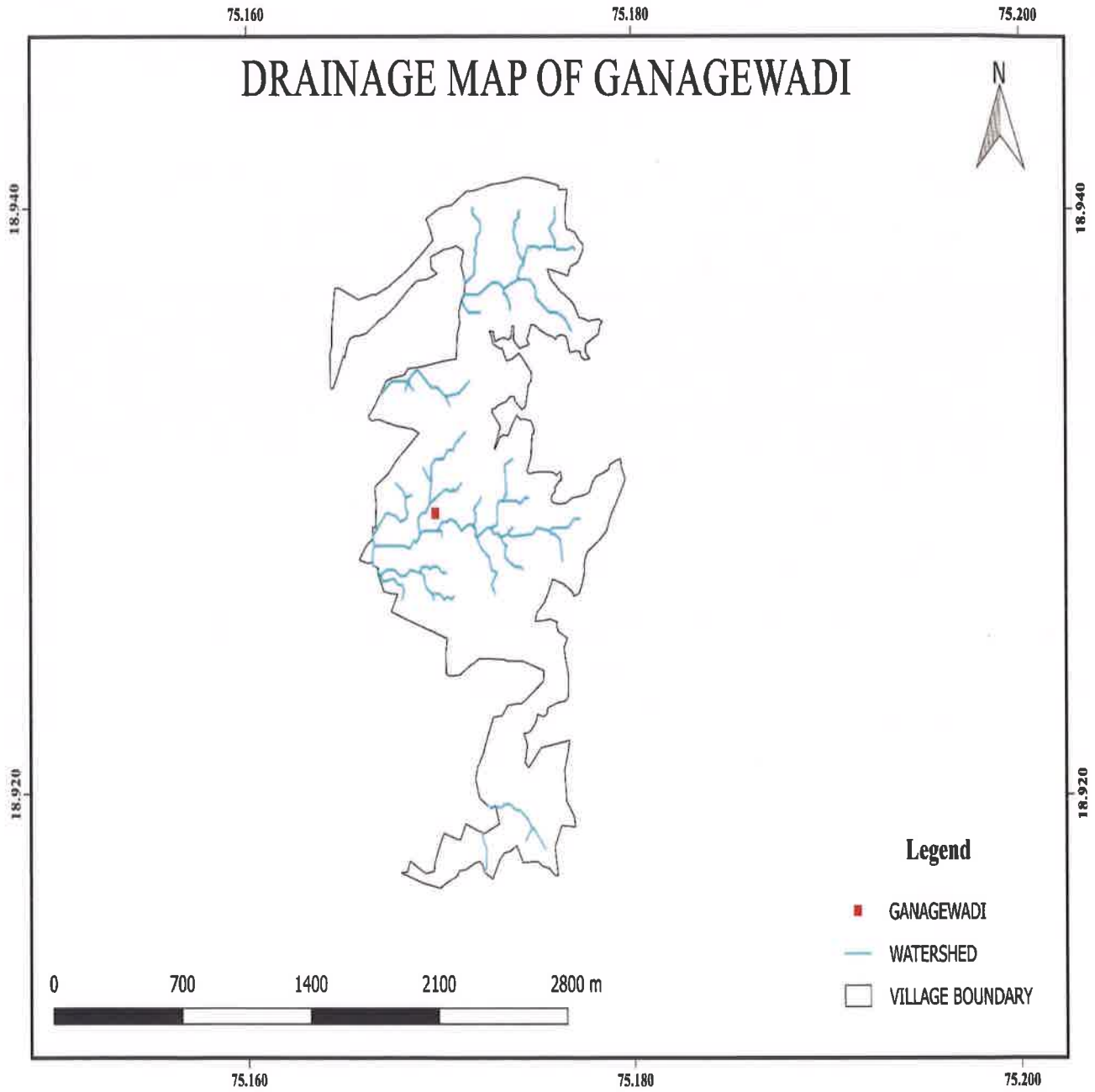




## DEM Map of Gangewadi



## Drainage Map of Gangewadi



## Gundewadi

### Well Inventory Form

1 \* गुंडेवाडी \*

- गावाच्या उत्तरेस टेकड्या आहेत.
- नदी उत्तरेकडून दक्षिणेकडे वाहते.

पाणी पारकी - ७ पावसाचा स्थिर पूर्णतः भरले  
कुण्डिका - ०२५  
शिळा - उते ५ सप्त yearling

पाताळोह कामे - पाताळोवणी कामे कधी ठिकानी  
झालेली आहेत.  
- नदीचे खोलीकरण करताना त्यावर  
बंधारे बांधणे आवश्यक आहे.

Artificial Recharge - compact Basalt - जि  
thickness ज्ञान असल्यामुळे लीचे खोलीकरण  
करणे coastly पडेन. त्यामुळे खोलीकरण ऐवजी  
hydrofracturing करता येऊ शकते.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form  
 Lat - 18° 55' 34" N  
 Long - 75° 14' 01" E  
 Altitude - 599 m

Village शिव विसी

Date 12/06/19

Gut No. .... Name of the Farmer शरदे राव सोडकराव Well No. D94

In Village Location ..... User... Personal/Community/.....

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2003 Construction year 10yr If yes type.....

Parapet Ht. 14 ft Shape-Circular/Square, Diameter of well 25 ft  
 (Whether water from other sources brought to this well if yes source and hrs of pumping.....)

Total Depth 76 ft Water level from ground level..... m.  
 In rainy season ..... m, winter ..... m, Summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole, ..... Location in the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

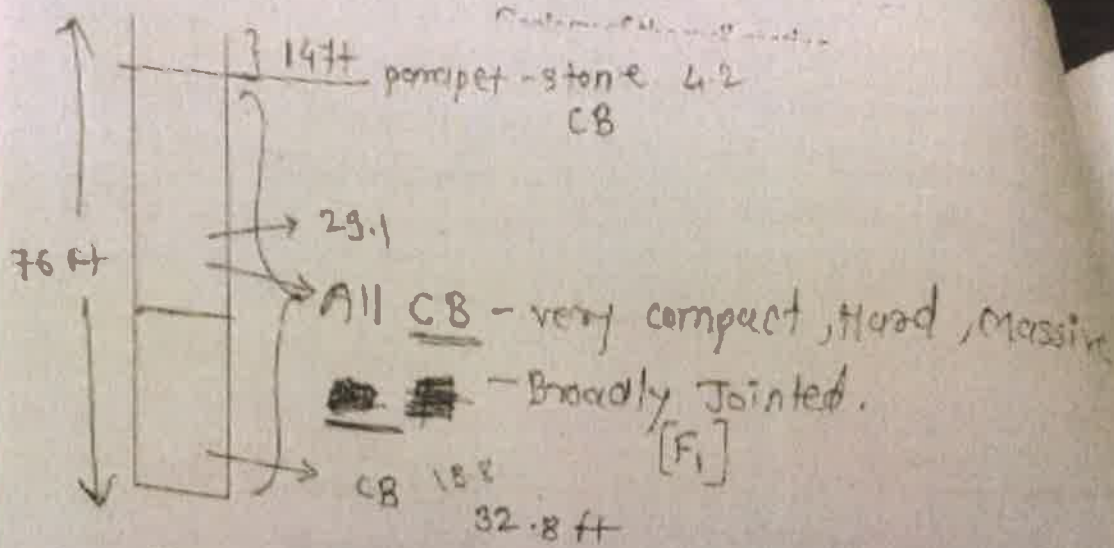
Type of withdrawals: Pump Out :-  Electrical motor.....  Diesel Pump.....  HP 5 HP  
 Dia of outlet pipe ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 5 Hrs; Summer 0 Hrs)

Any other information .....

J. A. Mhaske  
 Name of the Surveyor  
J. A. Mhaske

Signature



a) Lining

stone - circular

b) Soil - Black / Yellow / Sandy

black loamy

c) Existing watershed structure/ Proclamation dam in neighboring region.

watershed present at N side / help to recharge

d) Effect of existing structures on water table.

only Rainy season help to recharge water.

e) Geological / Geographical effect on groundwater.

Watershed help to recharge water

f) Compact basalt

Very broadly CB.

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachyitic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.

Nearby area hilly region present

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 17° 55' 59" N  
 Long - 75° 14' 15" E  
 Altitude - 705 m

Village उसवारी

Date - 12/06/19

Gut No. .... Name of the Farmer महादेव नानाजी शेठ

Well No. D96

In Village Location ..... Use: Personal/Community

Location of the well along Nala  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1999 Construction year 20/00 If yes type.....

Parapet Ht. .... Shape-Circular/Square, Diameter of well 25 ft  
 (Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 23 ft Water level from ground level..... m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from: Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m and for vertical borehole ..... Location at the bottom?)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... 1/2 Acre  
 Summer Season ..... 0 Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP 2  
 Dia of outlet pipe ..... inch  
 Quantity of withdrawals :- Daily ..... Hrs, Seasonal ..... cc meter / day

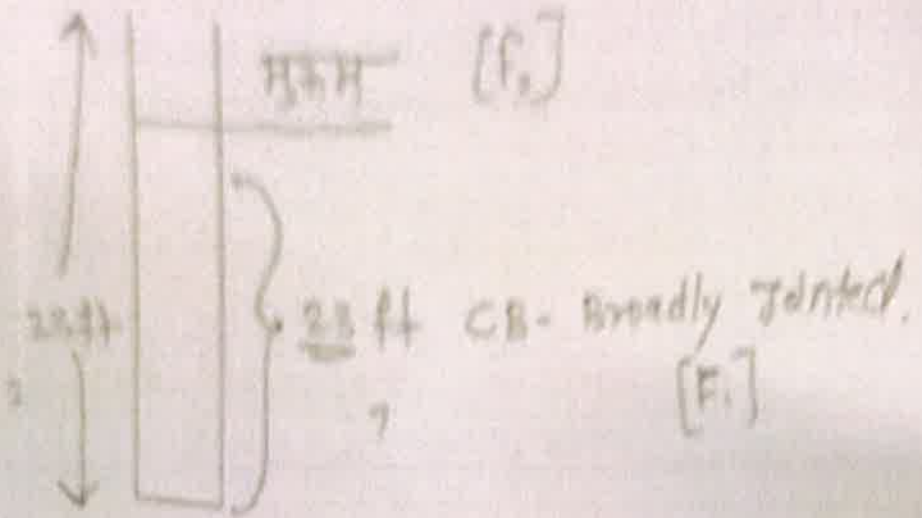
Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs, winter ..... Hrs, Summer ..... Hrs.)

Any other information .....

S.P.W  
 Name of the Surveyor

[Signature]  
 Signature

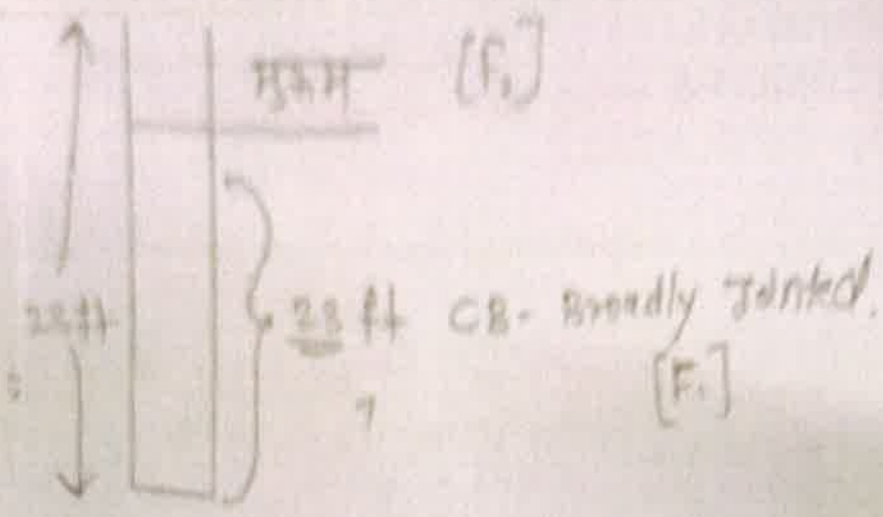




- a) Lining
- b) Soil - Black / Yellow Sandy sandy soil
- c) Existing watershed structure / Proclamation due to neighboring region workshipped drainage along the well
- d) Effect of existing structures on water table Along the river
- e) Geological / topographical effect on groundwater Good and condn at rainy season only
- f) Compact basalt CB - Broadly Jointed
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.



Field notes



- a) Location \_\_\_\_\_
- b) Soil - Black / Yellow Sandy sandy-soll
- c) Existing waterbody structure / Proclamation due to neighboring region water shed drainage along the well
- d) Effect of existing structure on water table Along the river
- e) Geological / Geographical effect on ground-water Good GW condn at rainy season, only
- f) Compact layer CB - Broadly jointed
- g) Amygdaloidal Basalt absent
- h) Vesicular Basalt NA
- i) Tachyitic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 55' 58" N  
 Long - 75° 14' 16" E  
 Altitude - 704 m

Village पुसेवास

Date - 12/05/13

Gut No. .... Name of the Farmer शेताई हरिदास शेठे Well No. D97

In Village Location ..... User  Personal  Community

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed) .....

Year of the Digging 1983 Construction year 30 Yr If you type .....

Parapet Ht. .... Shape  Circular  Square Diameter of well 25 H

Total Depth 30 H Water level from ground level ..... m.  
 In rainy season ..... m. winter ..... m. summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m. and for vertical bore ..... Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP .....

Dia of outlet pipe ..... cm / inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... ce meter / day

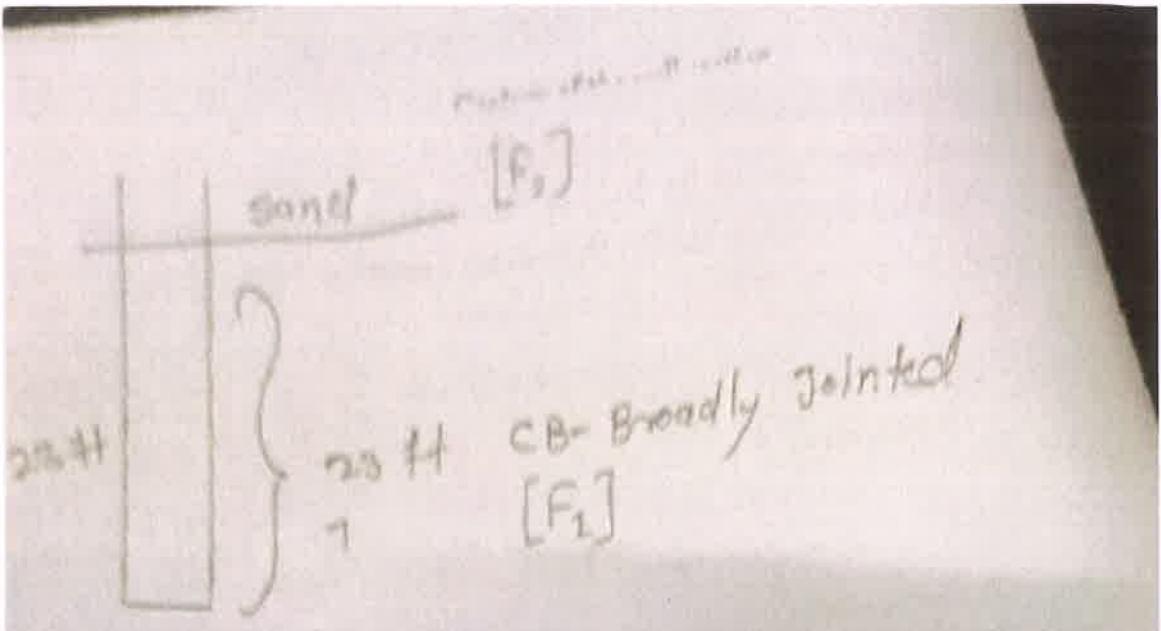
Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs)

Any other information .....

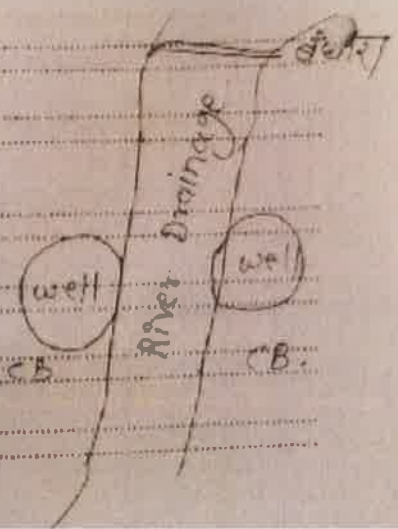
S. R. Wadhonkar  
 Name of the Surveyor

Harish  
 Signature





- a) Lining
- b) Soil - Black - Yellow (Sandy) Black - sandy soil
- c) Existing waterbodies structures? Proximity to dam in neighboring region.  
Along the river - Rivers sand present.
- d) Effect of existing structures on water table.  
over low canal / good canal only rainy season
- e) Geomorph / Geographical effect on groundwater.  
Seasonable river / undulation topography.
- f) Compact basalt  
Broadly jointed
- g) Amygdaloidal Basalt
- h) Vesicular Basalt
- i) Tachylytic basalt
- j) Flow contact
- k) Dyke rock
- l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat -  $18^{\circ}55'48''N$   
 Long -  $75^{\circ}14'13''E$   
 Altitude - 711 m

Village गुडवाडी

Gut No. 246

Name of the Farmer महाराज शिंदे

Date - 12/06/13

Well No. D98

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
1277

Year of the Digging 2007 Construction year..... If yes type.....

Parapet Ht. 11 ft Shape-Circular/Square, Diameter of well..... 25 ft  
 (Whether water from other sources brought to this well if yes nature and type of pumping.....)

Total Depth 50 ft Water level from ground level..... m.  
 In rainy season ..... m, winter..... m

Percolation from: Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the horizontal flow is taken in ..... Direction, Length ..... m, and the vertical borehole ..... Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... 4 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season..... ..... Acre

Type of withdravals/Pump Out :- Electrical motor..... Diesel Pump..... HP..... 5HP  
 Dia of outlet pipe..... cm, inch.....

Quantity of withdravals :- Daily ..... Hrs, Seasonal..... ce meter / day

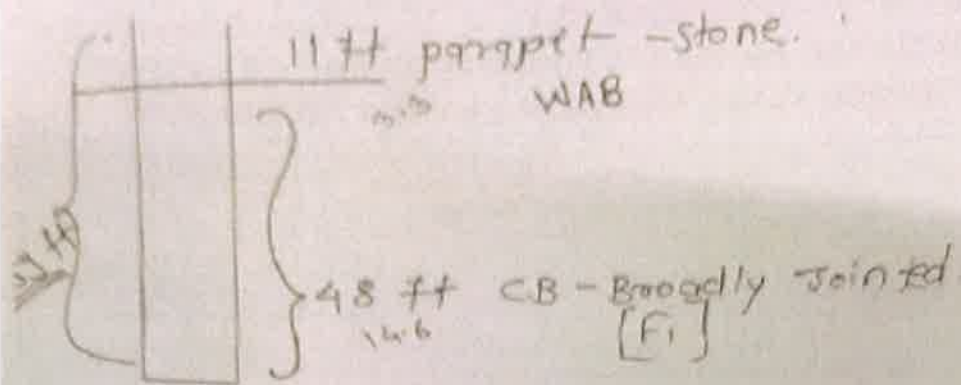
Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs, winter..... Hrs, Summer..... Hrs.)

Any other information .....

S. P. Wadhavkar  
 Name of the Surveyor

(Signature)  
 Signature

Proclamation of P.A. in 1958



a) Lining

stone

b) Soil - Black / Yellow / Sandy

Sandy - Black

c) Existing watershed structure / Proclamation dam in neighboring region.

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

poor GW potential / yield

f) Compact basalt

Broadly Jointed

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

NA

i) Tachylitic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 33' 65" N  
 Long - 75° 4' 3" E  
 Altitude - 712

Village शंभु वस्ती

Date: 12/06/19

Gut No. 256

Name of the Farmer शंभु वस्ती

Well No. D.100

In Village Location ..... User...  Personal/Community/.....

Location of the well along the river (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2007 Construction year..... If yes type.....

Parapet Ht. 11 ft. Shape-Circular (Square, Diameter of well.....) 22 ft

Total Depth 41 ft. Water level from ground level..... ft.  
 In rainy season ..... In winter.....

Percolation from: Bottom (Lateral Direction) (In the case of lateral direction.....)  
 (If the theoretical bore is tested in ..... Direction, length..... and is vertical for tests..... Caution at the bottom)

Use - Drifting ..... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawal/Pump Out -  Electrical motor .....  Diesel Pump..... HP 5 HP

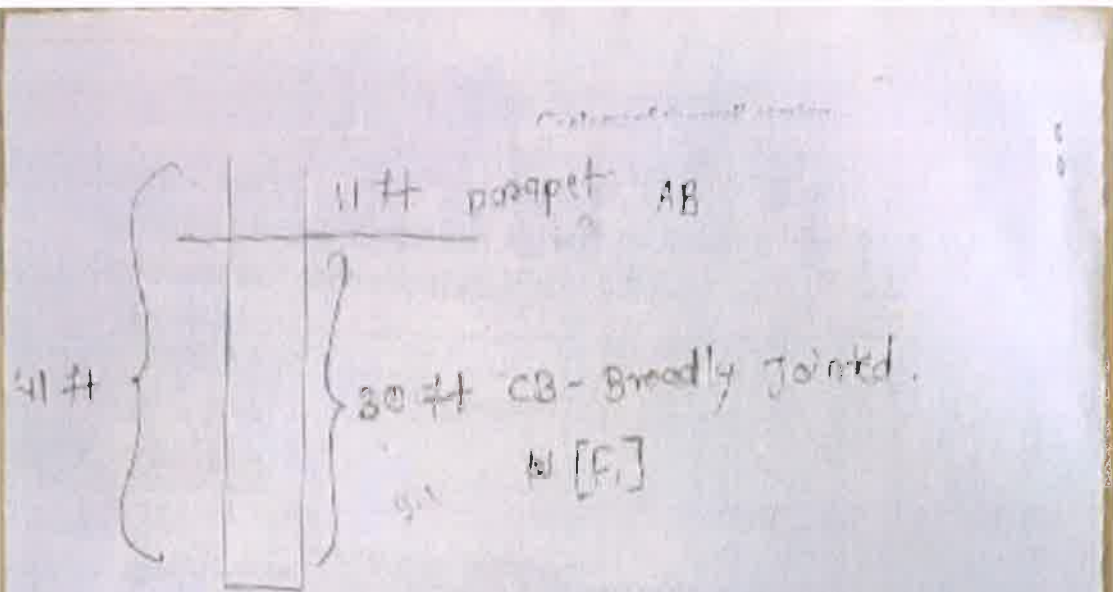
Qty. of outlet pipe ..... in. inch .....  
 Quantity of withdrawal - Daily ..... (hrs) Seasonal ..... to meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... hrs; winter ..... hrs; Summer..... hrs)

Any other information .....

S. R. Wadhawan  
 Name of the Surveyor

  
 Signature



a) Lining

stone-circular

b) Soil - Black / Yellow Sandy

Black - loamy soil

c) Existing water table structure / Production data in adjoining edge.

water table present N-side / river present at south side.

d) Effect of existing structures on water table

3 - lateral bore 2 - oblique bore

e) Geological / Geographical effect on ground water

f) Com. int. base

Broadly Jointed

g) Any glacial drift

Absent

h) Vegetation Base

Absent

i) Tachytic base

NA

j) Flow character

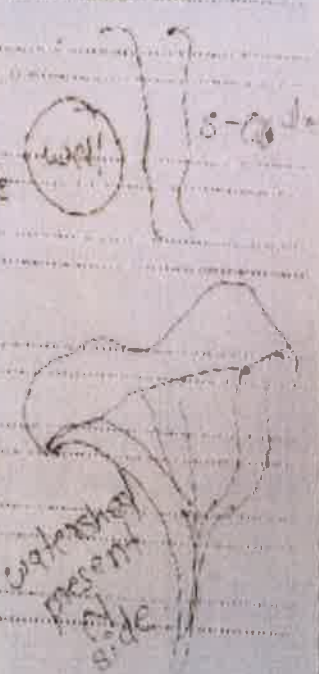
NA

k) Dyke rock

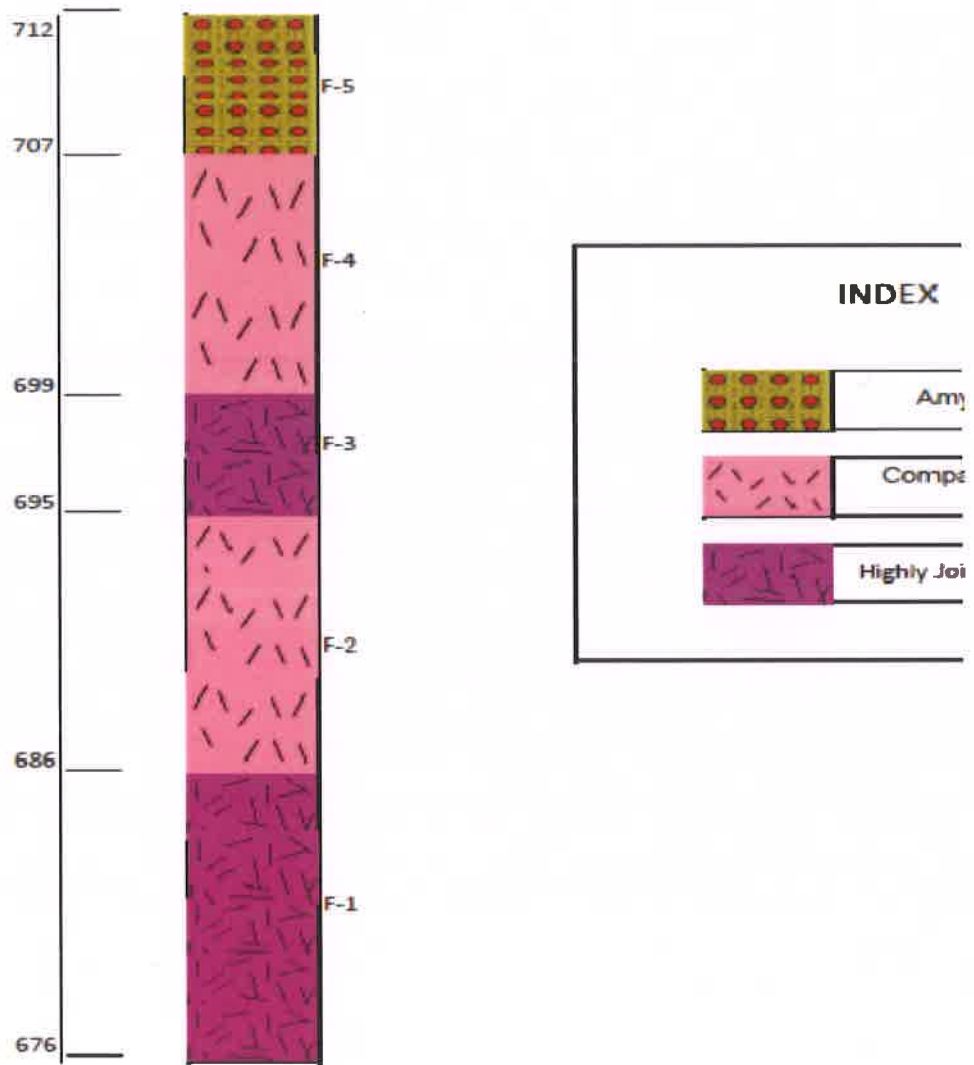
NA

l) Any remark about geological formation.

water table present N-side



# Litholog Of Gundewadi Village



Litholog of Gundewadi Village





**Dry dug well without any lining in which weathered Basalt flow is exposed**

**Geohydrological Mapping & Site Selection for Artificial Recharge of  
Water in Watershed Development Programme, Undertaken By  
NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad**

**1. Village Name** : Gundewadi , Ta- Aashti , Dist-Beed

**2. Date of Survey:** 12/06/2019

**3. Name of Geologist and Hydrogeologist for Survey in the field:**

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

**4. Name of the Members for assist to survey in the field:**

- c. Shri Khillare
- d. Sarderao Dhanve

**5. NAAM Pratinidhi:** Shri Rajebhau Shelake

**6. Local villagers/ Farmer:**

- a. Baluram Ghuge
- b. Mahadev Zedhe
- c. Gahininath Ghuge
- d. Rama Ghuge
- e. Dnyandev Zedhe

**7. Total No of Well surveyed:**

07 dugwells in the field + 11 dugwells through Satellite imagery Survey  
= Total 19 dugwells

**8. Total map prepared:**

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

**9. Recommendation and Conclusion:**

c. For Artificial Recharge suitable/ Unsuitable:-----

d. Structure for watershed development programme:-----



  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Imangaon**

### **Introduction**

Imangaon is a small Village/hamlet in Ashti Taluka in Beed District of Maharashtra State, India. It comes under Imangaon Panchayath. It belongs to Marathwada region . It belongs to Aurangabad Division . It is located 83 KM towards west from District head quarters Beed. 10 KM from Ashti. 279 KM from State capital Mumbai Kelsangavi ( 4 KM ) , Dhirdi ( 4 KM ) , Shiral ( 5 KM ) , Takalsing ( 6 KM ) , Jalgaon ( 6 KM ) are the nearby Villages to Imangaon. Imangaon is surrounded by Jamkhed Taluka towards East , Karjat Taluka towards South , Patoda Taluka towards East , Pathardi Taluka towards North .



### Google earth Image of Imangaon





**Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village ... विनागमाव ..... Date - 21/07/2019

Cut No. .... Name of the Farmer ... वसिंत केश ..... Well No. ... 21 .....

In Village Location ... श.व.न.ता.खिल ..... User ... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging .2015..., Construction year .2015..., If yes type.. Hand .....

Parapet Ht..... Shape-Circular/Square, Diameter of well... 1m.....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....) Lat 18°40'31" N

Total Depth ... 17....., Water level from ground level.. dry.....m.  
 In rainy season 2 m, winter 10....., summer .....m. Long 75.06 19 E  
 elevation 571

Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
(If the Horizontal bore is taken in ....Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 5..... Acre  
 Winter Season ..... 2..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe..... 2..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 5..... Hrs; winter..... 12..... Hrs; Summer..... dry..... Hrs.)

Any other information .....

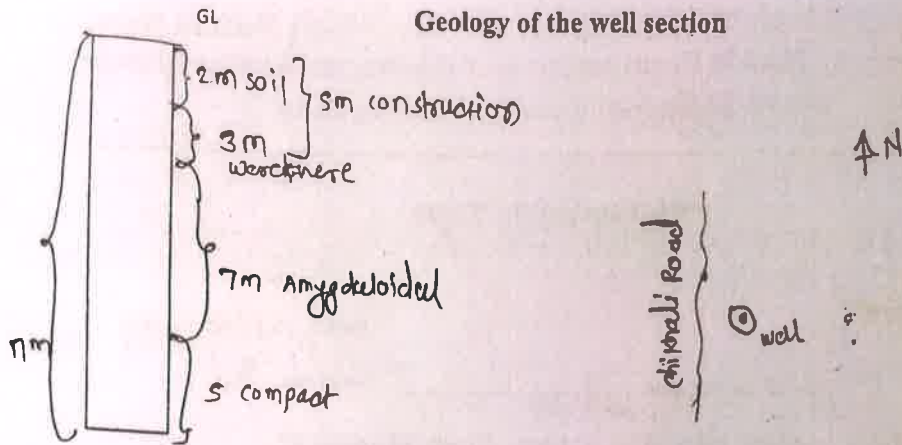
Name of the Surveyor

S. M. Tarde

Shirazi  
Signature



Geohydroge  
undertaken



- a) Lining ..... cementing material
- b) Soil - Black / Yellow / Sandy ..... Black soil is present 4m
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... There is no any structure
- d) Effect of existing structures on watertable. .... No effect
- e) Geological / Geographical effect on groundwater. ....
- f) Compact basalt ..... compact basalt is 5m
- g) Amygdaloidal Basalt ..... amygdaloidal is 7m
- h) Vesicular Basalt ..... Absent
- i) Tachylytic basalt ..... Absent
- j) Flow contact ..... Absent
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. ....

Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village विशंगगाव.....

Date - 21/07/2019

Gut No. 7.6..... Name of the Farmer शिव दत्त साठे..... Well No. 2.....

In Village Location South to village User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2019....., Construction year 20....., If yes type NO.....

Parapet Ht..... Shape Circular/Square, Diameter of well 7..... Lat 18 47 03 N  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....) Long 75 06 19 E  
Total Depth 15....., Water level from ground level dry.....m. Elevation 572m  
In rainy season overflow.....m, winter 10....., summer dry.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season ..... Acre  
Winter Season 2.5..... Acre  
Summer Season 0..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3..HP.....  
Dia of outlet pipe 2.....cm. /inch.....  
Quantity of withdrawals :- Daily 0..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 4.....Hrs; winter 1.2..... Hrs; Summer dry.....Hrs.)

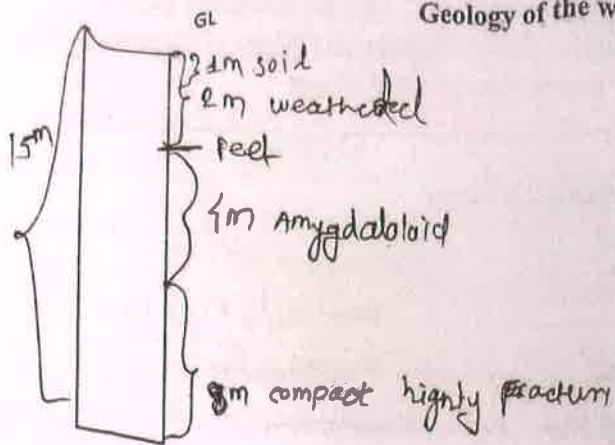
Any other information .....

Name of the Surveyor

S. M. Patil

Sheikher  
Signature

Geology of the well section



- a) Lining Absent
- b) Soil - Black / Yellow / Sandy 1 m soil is present
- c) Existing watershed structure/ Proclamation dam in neighboring region. There is no any watershed structure.
- d) Effect of existing structures on watertable. No effect
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Basalt compact basalt is at base of dug well
- g) Amygdaloidal Basalt Amygdaloid is 1 m
- h) Vesicular Basalt
- i) Tachylitic basalt No Tachylitic basalt at 2 m depth
- j) Flow contact flow contact bet<sup>n</sup> A B and weathered compact 6 m
- k) Dyke rock
- l) Any remark about geological formation.

Geohydro  
under



Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village - विमनगाव Date - 20/7/2019

Gut No. .... Name of the Farmer मनोहर बोर Well No. 03 .....

In Village Location South side village User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2015, Construction year....., If yes type.....

Parapet Ht..... Shape-Circular/Square, Diameter of well... 10.....  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping.....))  
Total Depth 16....., Water level from ground level... dry.....m.  
In rainy season overflow.....m, winter... 5m....., summer... dry.....m.  
lat 18 47 06 N  
long 75 06 19 E  
elevation 571m

Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
(If the Horizontal bore is taken in 2 Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  , Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season 12..... Acre  
Winter Season 6..... Acre  
Summer Season NO..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump... 3 HP.....  
Dia of outlet pipe..... 2..... cm. / inch .....  
Quantity of withdrawals :- Daily ..... 24..... Hrs. Seasonal ..... 24/24..... cc meter / day

Time require for a full recharge / recuperation :  
Rainy season ..... 8..... Hrs; winter... 12-14 Hrs; Summer... dry..... Hrs.)

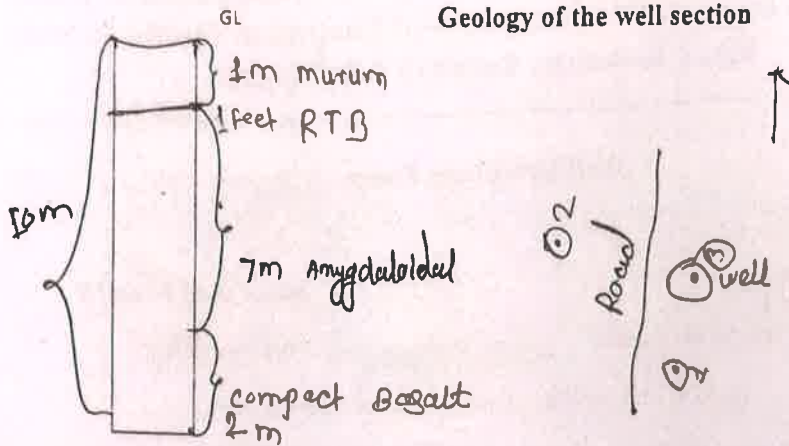
Any other information .....

Name of the Surveyor  
S. M Tarpe

(Signature)  
Signature

Geohydro  
undertak

### Geology of the well section



- a) Lining Absent
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
no any structure of watershed there is established
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt compact (ready joint) at base of well
- g) Amygdaloidal Basalt 7m amygdaloidal
- h) Vesicular Basalt Absent
- i) Tachylytic basalt At 1m from surface RTB present
- j) Flow contact
- k) Dyke rock Absent
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ... विमनगाव ...

Date - 21/07/2014

Gut No. .... Name of the Farmer ... सामकर तावटे ... Well No. 4 .....

In Village Location ... South to village .. User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging .2013, Construction year....2013., If yes type...Cement concrete

Parapet Ht.....Shape-Cicular/Square, Diameter of well.....8.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Lat 18 47 13 N  
 Long 75 06 16 E  
 Elevation 573

Total Depth ....1.2....., Water level from ground level...dry...m.  
 In rainy season overflow m, winter.....7....., summer.....dry.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... Acre  
 Winter Season .....4.2..... Acre  
 Summer Season.....dry..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe.....2.5.....cm. /inch .....

Quantity of withdrawals :- Daily .....1.2..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season .....overflow Hrs; winter.....1.2..... Hrs; Summer.....dry..... Hrs.)

Any other information .....

Name of the Surveyor

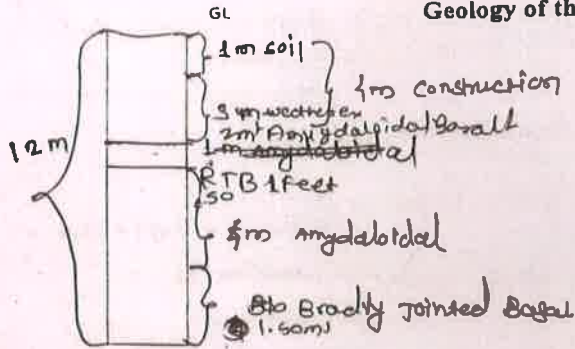
S. M. Tarfe

Shehzei  
 Signature



Ge under

### Geology of the well section



- a) Lining cement lining
- b) Soil - Black / Yellow / Sandy 1 m Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. existing water shed structure There no
- d) Effect of existing structures on watertable. no effect
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt A compact basalt is at base of dug well
- g) Amygdaloidal Basalt amygdaloidal are two flow
- h) Vesicular Basalt absent
- i) Tachylytic basalt RTB is at 5 m from surface.
- j) Flow contact
- k) Dyke rock no
- l) Any remark about geological formation. RTB is present in this area

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... विमानघाट ..... Date - 20/7/2019

Gut No. ...63... Name of the Farmer ...अश्विन प्रसोद जोडे... Well No. ...05...

In Village Location ..... West to village .. User... Personal/Community/.....

Location of the well. .... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..1995.., Construction year...1995.., If yes type..cement lining

Parapet Ht.....Shape-Cicular/Square, Diameter of well..... Lat 18 47 08 N  
*(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)*

Total Depth ...17....., Water level from ground level...30 dry fm. Long 75 05 57 E  
*In rainy season ...one of two m. winter.....1.5....., summer.....dry.....m. elevation 572*

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
*(If the Horizontal bore is taken in ..... Direction. Length ..... m. and for vertical borehole.....m. Location at the bottom)*

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 10 ..... Acre  
 Winter Season ..... 10 ..... Acre  
 Summer Season ..... dry ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2 ..... cm. inch .....  
 Quantity of withdrawals :- Daily ..... 1.2 ..... Hrs. Seasonal ..... cc meter / day

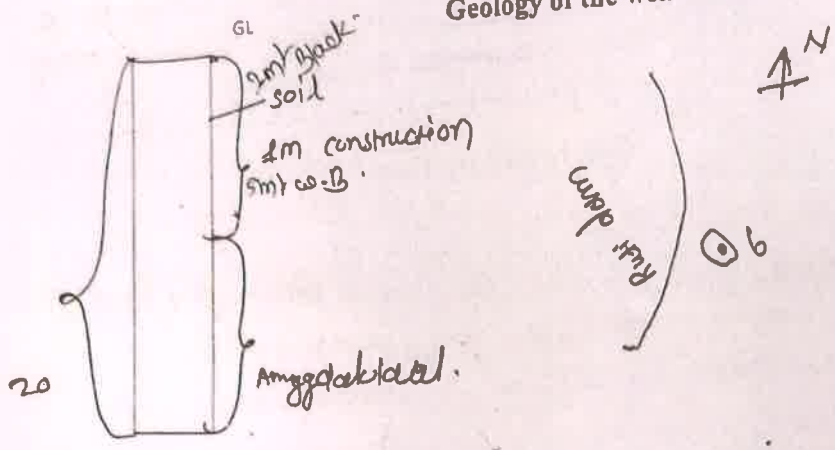
Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs. winter ..... 1.2 ..... Hrs; Summer..... dry ..... Hrs.)

Any other information .....

Name of the Surveyor  
S. M. Jate

Sheikhaei  
 Signature

Geology of the well section



- a) Lining cement lining 2m
- b) Soil - Black / Yellow / Sandy black soil 10m
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable. is present west side of dug well  
water percolation from Ruti dam
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt compact at base
- g) Amygdaloidal Basalt amygdaloidal above the compact
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact flow contact at 10m from surface
- k) Dyke rock Absent
- l) Any remark about geological formation. Ruti dam will stop the flow



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

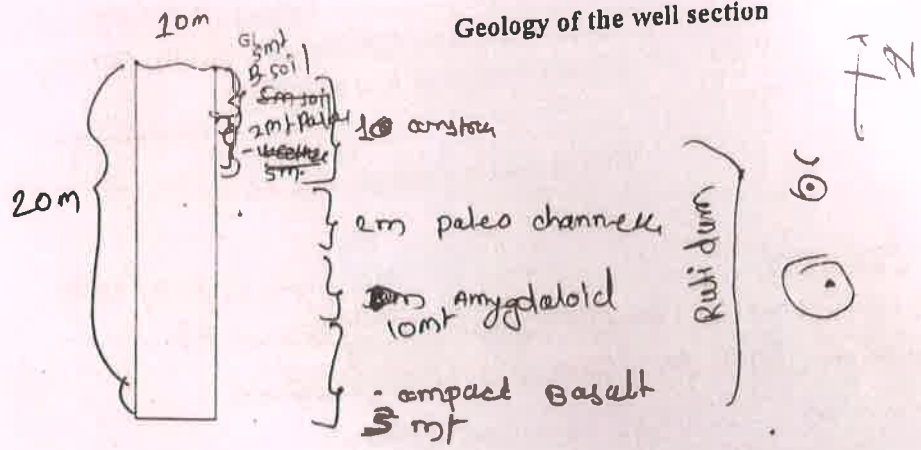
Well Inventory Form

Village इमानगाव Date - 21/07/2019  
 Gut No. .... Name of the Farmer paaregabai chanchakant Well No. 07  
 In Village Location East to village User... Personal/Community/.....  
 Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2015 Construction year. 2015..., If yes type. Cement.....  
 Parapet Ht. .... Shape-Cicular/Square, Diameter of well... 1.0m Lat: 18 47 38 N  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....) Long 75 06 50 E  
 Total Depth .. 2.0..... Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m. elevation - 566  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ... Direction, Length .....m. and for vartical borehole .....m, Location at the bottom)  
 Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season ..... 10 ..... Acre  
 Winter Season ..... 2-3 ..... Acre  
 Summer Season ..... day ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 7.5 HP.....  
 Dia of outlet pipe... 2.5 ..... cm / inch .....  
 Quantity of withdrawals :- Daily ... 4-6 ..... Hrs. Seasonal ..... cc meter / day.  
 Time require for a full recharge / recuperation :  
 (Rainy season ... 2-4 ..... Hrs, winter ... 18 ..... Hrs; Summer... day ..... Hrs.)  
 Any other information 2m palaeochannel layer present across in post. Eves/Nala flow in HSS point

Name of the Surveyor  
Abdul Subhan

Subhan  
 Signature

Geology of the well section



- a) Lining cement lining
- b) Soil - Black / Yellow / Sandy Black soil 5m
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Rubi dam west side of well
- d) Effect of existing structures on watertable. Water percolated from out dam
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Compact Basalt at base
- g) Amygdaloidal Basalt amygdaloidal Basalt
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact flow contact of 15m between paleo channel and AB
- k) Dyke rock Absent
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village इमानगाव Date - 24/07/2019

Gut No. .... Name of the Farmer शिवाम्नी भाबुदास शिंदे Well No. .... 08

In Village Location East to village User... Personal/Community/.....

Location of the well... 1475, (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1900 Construction year... 2008, If yes type.. stone.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 10..... Lat 18 47 38 N  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....) Long 75 06 37 E

Total Depth 1.5....., Water level from ground level.....m.  
 In rainy season 0.7....., winter....., summer.....

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction. Length .....m. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season 10..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump 5 HP.....

Dia of outlet pipe..... 2..... cm. /inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs, winter..... Hrs; Summer..... Hrs.)

Any other information .....

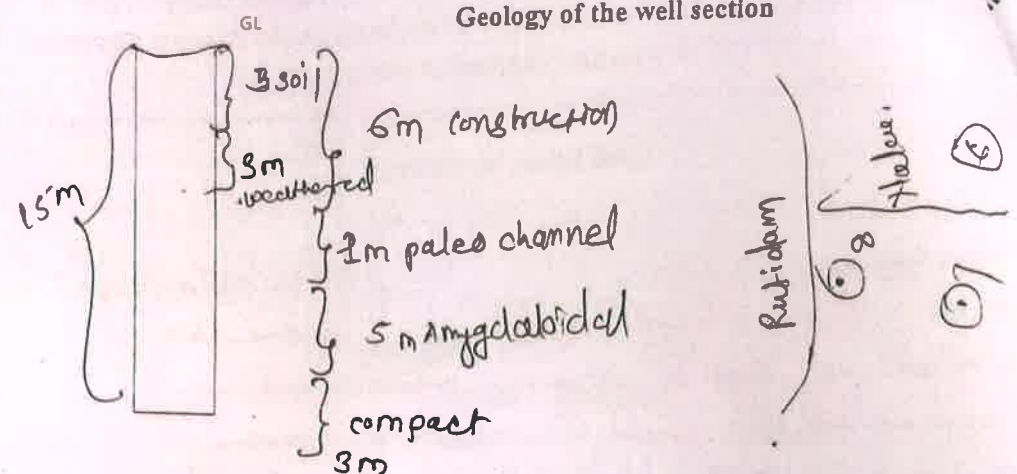
Name of the Surveyor  
S. M. Jadhav

Shivamni  
 Signature



hydrogeology undertaken by

Geology of the well section



- a) Lining stone lining
- b) Soil - Black / Yellow / Sandy Black soil 3m
- c) Existing watershed structure / Proclamation dam in neighboring region. west of dug well Rusti dam
- d) Effect of existing structures on watertable. flow percolation from through
- e) Geological / Geographical effect on groundwater. flow contact also dam
- f) Compact basalt compact at base
- g) Amygdaloidal Basalt amygdaloidal paleo channel bet<sup>n</sup>
- h) Vesicular Basalt 3m paleo channel and compact
- i) Tachylytic basalt Absent
- j) Flow contact bet<sup>n</sup> flow contact at 12m
- k) Dyke rock Absent
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

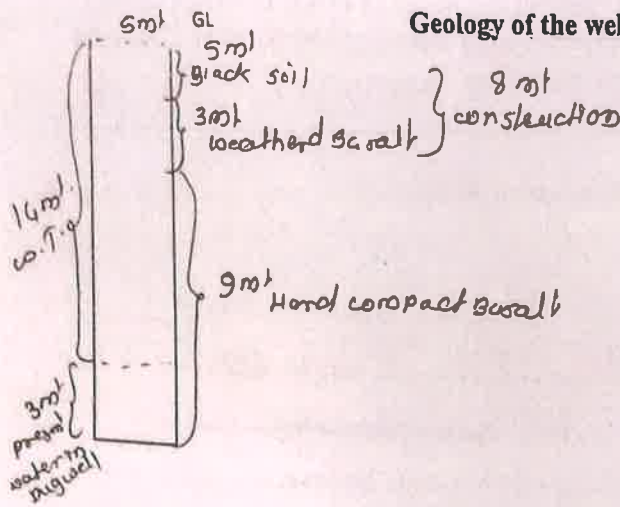
Well Inventory Form

Village इमनागाव Date - 21/07/19  
 Gut No. .... Name of the Farmer पंडित गोवर्धनाथ नाथ Well No. 09  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 1985, Construction year....., If yes type... stone lining  
 Parapet Ht..... Shape-Cicular/Square, Diameter of well... 5m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....  
 Total Depth 17.01, Water level from ground level... 1.4.....m. 1st - 184734  
 In rainy season उत्प्लव.....m, winter... 8.10.....m summer... ND.....m. 10ng - 750612  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)  
 Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 2..... Acre  
 Winter Season ..... 2..... Acre  
 Summer Season..... ND..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5.....cm, inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... 2.5..... Hrs; Summer..... ND..... Hrs.)  
 Any other information .....

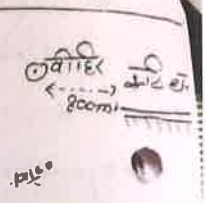
Varde Jukaram  
 Name of the Surveyor

Varde  
 Signature

**Geology of the well section**

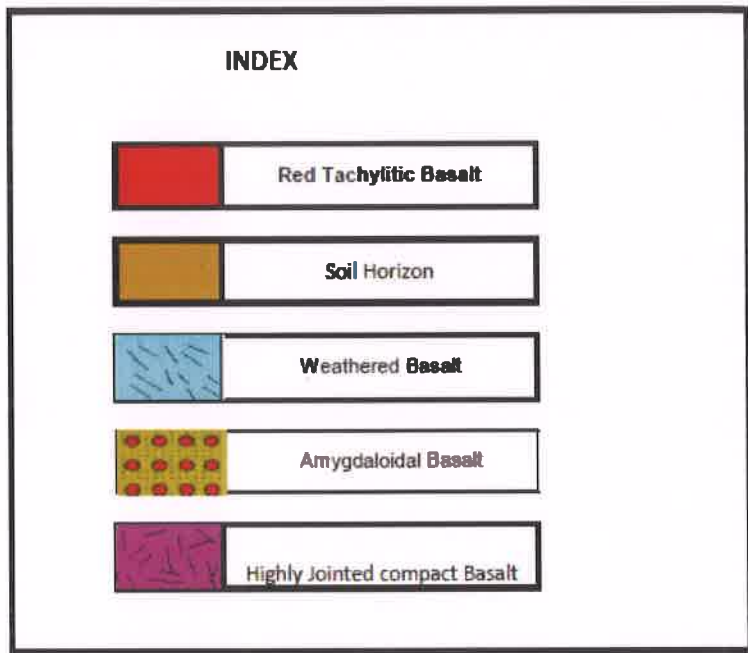
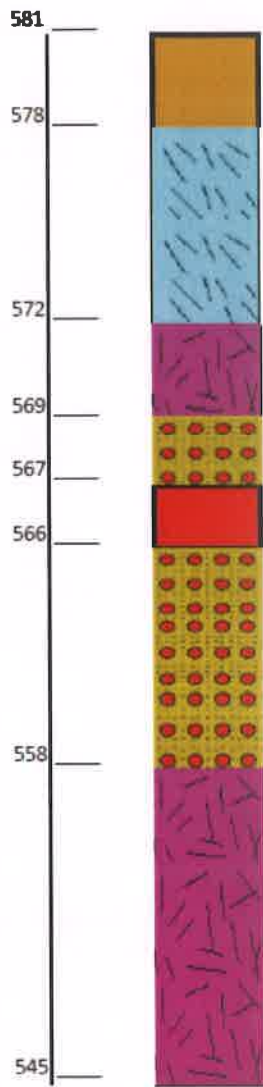


- a) Lining Stone lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. distance in East side Near RHT dam 800m
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater. In rainy season and winter time water table increase
- f) Compact basalt water percolate in this hard part  
9m Hard compact basalt How present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt absent
- i) Tachyitic basalt Absent
- j) Flow contact weathered basalt and compact basalt
- k) Dyke rock Absent
- l) Any remark about geological formation. plain area flow direction west to east side



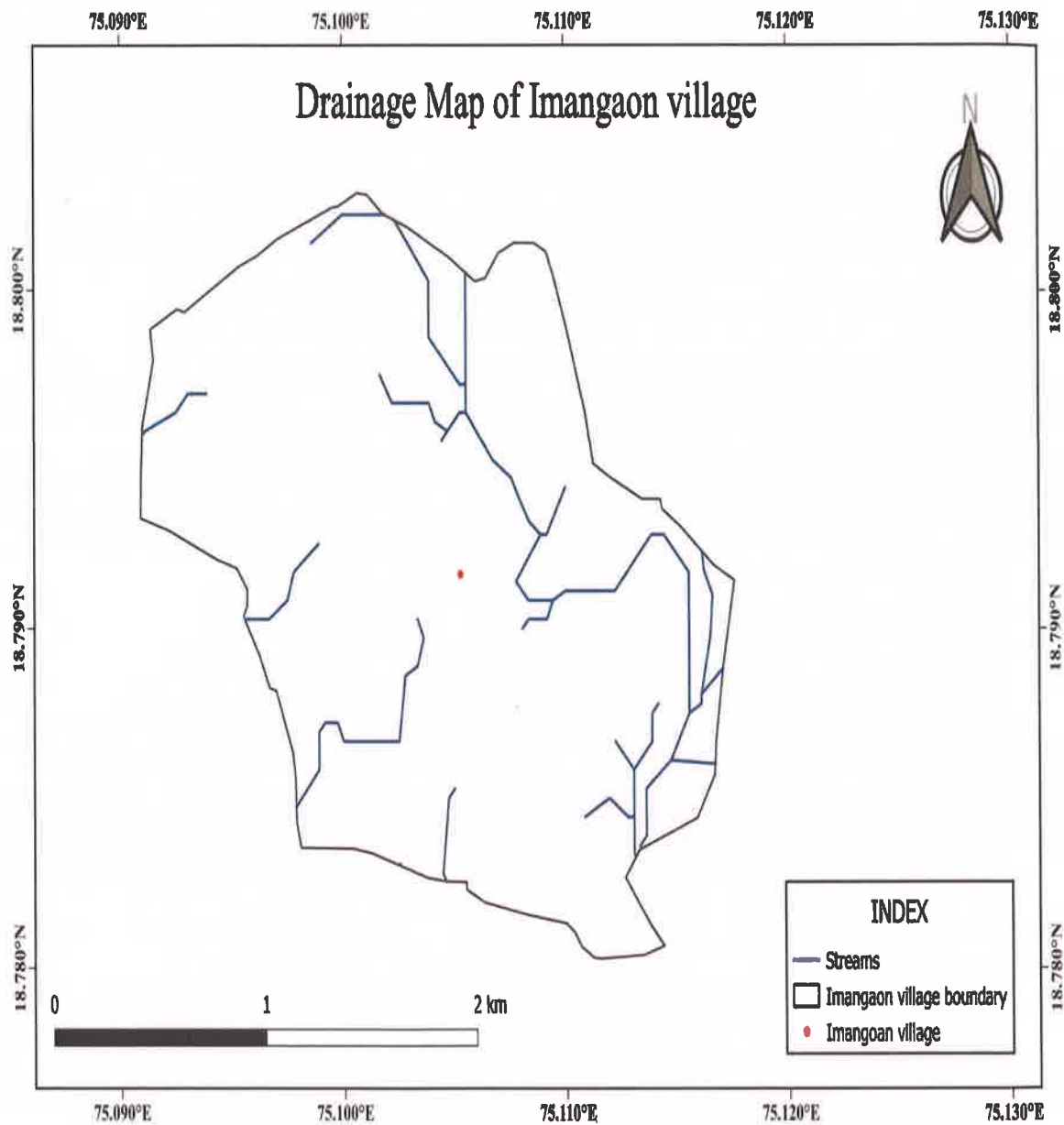


# Litholog of Imangao Village

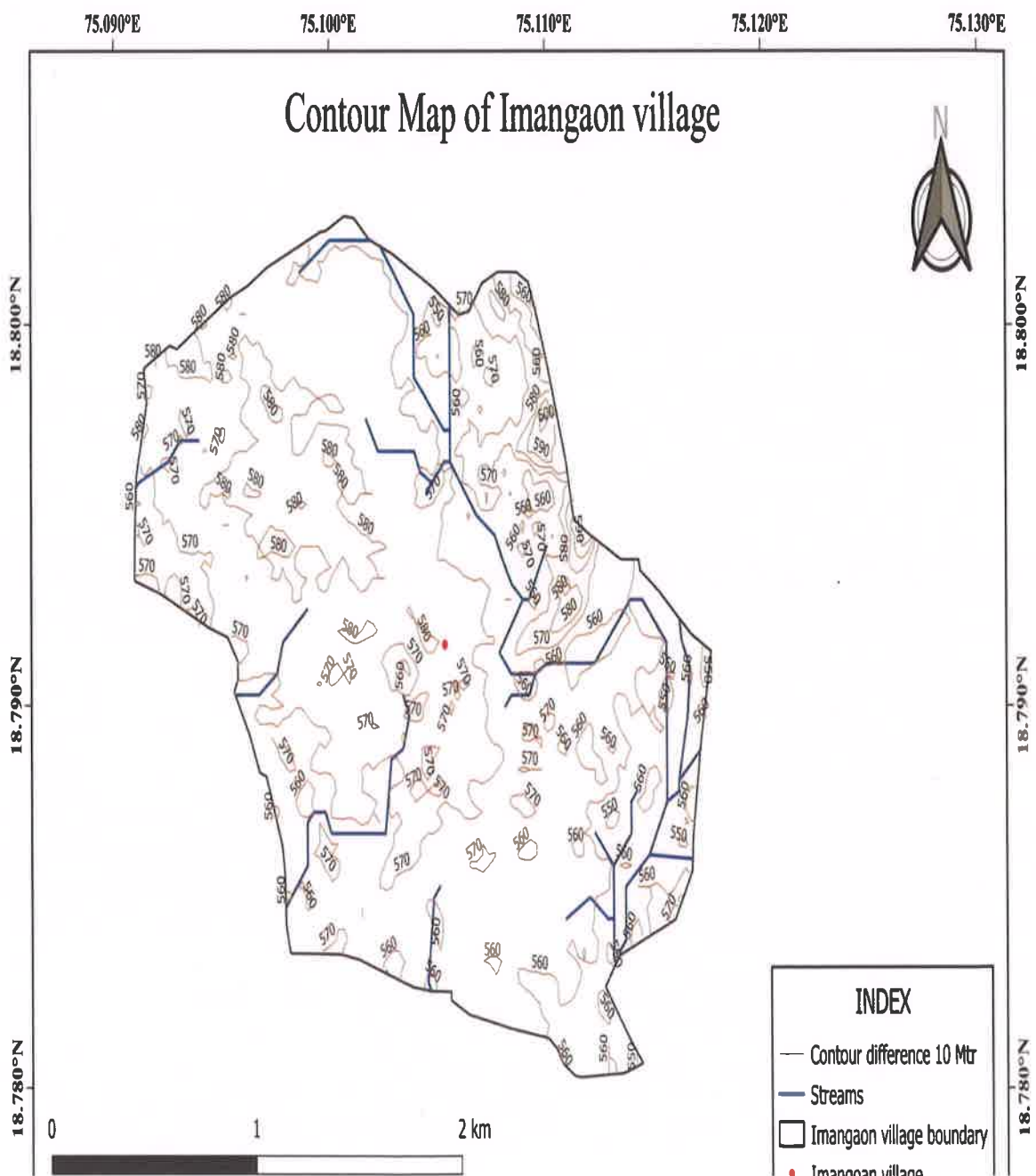


Litholog of Emangaon Village

# Drainage Map of Village



# Contour map of Imangaon village







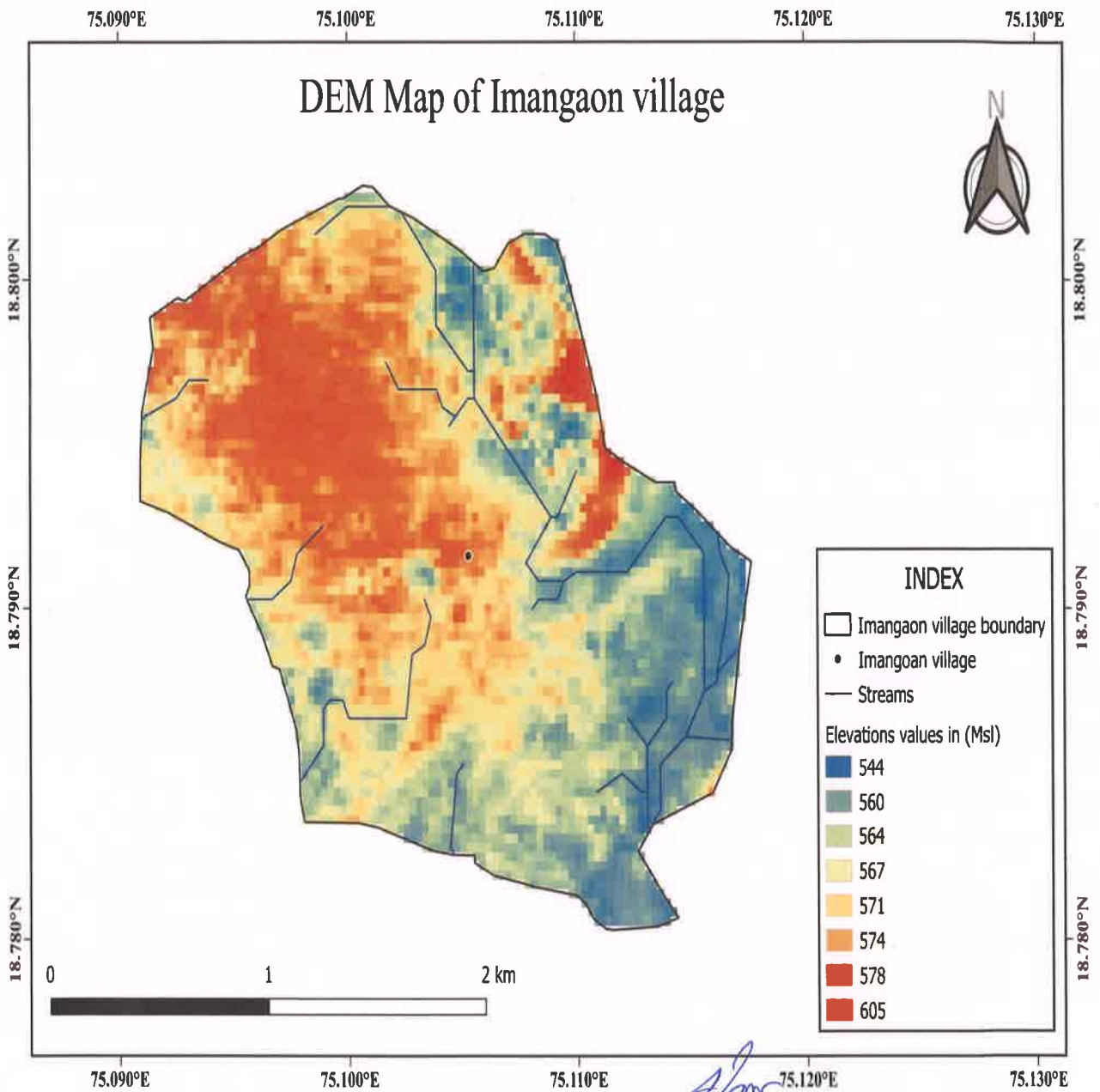
**Moderately Fractured Basalt Flow can be seen in exposed outcrop**



Photographs showing Increase in water level at Imangaon Village.



# DEM Map of Imangaon Village



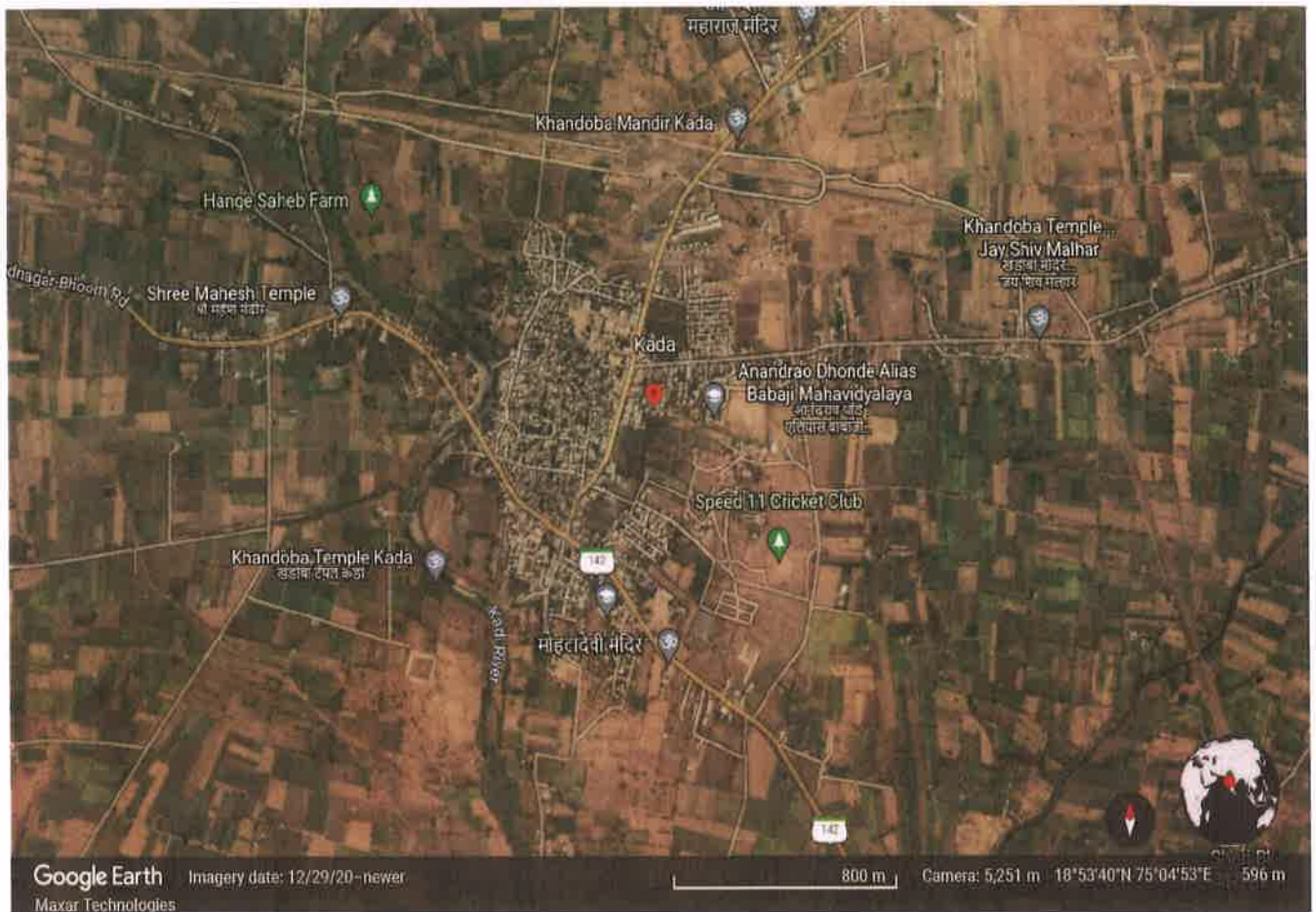
*[Signature]*  
**PRINCIPAL**  
Deogiri College  
Aurangabad.



## **Kada Village**

Kada is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 83 KM towards west from District headquarters Beed. 6 KM from Ashti. 274 KM from State capital Mumbai. Dongargan (5 KM), Kerul (5 KM), Sabalkhed (5 KM), Watanwadi (6 KM), Limbodi (7 KM) are the nearby Villages to Kada. Kada is surrounded by Pathardi Taluka towards North, Jamkhed Taluka towards South , Karjat Taluka towards South , Nagar Taluka towards west .

## Google Earth Image of Kada Village



**Geohydrological survey for Selection of Site for Watershed  
development and Artificial Recharge, Tahasil-Ashti, Dist-Beed by  
NAAM Foundation and CSGSS, Aurangabad**

---

**Village Name : Kada**

**Introduction:**

The Village Kada is situated in Ashti tahasil area, District-Beed of Marathwada region in Maharashtra. The village is distributed in wadi-vasti and located at North latitude  $18^{\circ}53'49.56''$  and East longitude  $75^{\circ} 04' 46.60''$  with an altitude of 593 m above mean sea level. It is located on Beed –Ahemadnagar highway. The seasonal groundwater condition in rainy season is moderate to good while, village is facing water scarcity problem in the summer season of every year. The projected area of survey is falling in MDP (Moderately Dissected Plateau) to SDP (Slightly Dissected Plateau) geomorphological unit based on the contour map of Kada village. The detail geological hydrological condition of the area is mentioned below.

**Geology of the area:**

The major part of the project area constitutes a sequence of basaltic lava flows (Deccan Trap) of Upper Cretaceous to Lower Eocene age. The sediments of recent to quaternary age are reported along the natural drainage system. The Deccan Trap formation is very thick and it comprises of different horizontal lava flows. The compact basaltic lava flows and amygdaloidal basalt lava flows are the major lava flow unit observed in the project area. The small unit of red bole patches also observed within two massive lava flows. The upper lava flows mostly by differential weathering processes. So that, sheet jointing, spheroidal weathering are the index features of upper lava flows. Along river channels paleochannels are being observed in the dugwell vertical section. In some of the other wells those are away from the main channels also reported with paleochannels which is indicate that, there has been great migration of river channels in the previous history. The detailed graphical representation of lava flows are indicated in litholog map of Kada- village.



### **Hydrogeology of the area:**

Groundwater occurrence and movement in the area is influenced by its hard rock formations. Groundwater potentially depends upon porosity and permeability (both primary and secondary) of rock formations. The drainage network of streams from project area shows dendritic to sub-dendritic drainage pattern. The development of dendritic to subdendritic drainage in area it indicates the area of massive to hard rock types and gently sloping terrain.

### **Suggestion for the artificial recharge:**

The litholog of the study area is indicating top Flow No. F-8 of compact basalt showing closely jointed pattern (Murmatic zones) and it is quite affected by weathering processes those are exposed on the surface. The lava Flow No. F-7 i.e. underlying amygdaloidal basalt lava flow, demarcated shallow aquifer system which is showing sheet jointed characteristics in upper zone. While, Flow No. F-6 is compact basalt with closely jointed and observed as moderately permeable. The Flow No. F-5 and F-4 are amygdaloidal basalt lava flows where flow no F-4 is hydrothermally altered and sheet jointed. The Flow No. F-3 is again occupied by compact basalt flow which is impermeable in nature and does not allow groundwater to Flow No. F-2 which is occupied by Amygdaloidal basalt flow with highly zeolitic matrix and sheet jointing. So that, in the project area the groundwater is not available in shallow aquifer during summer season so that, mostly all borewells and dugwells become dry during summer season. In summer season mostly all borewells and dugwells become dry while groundwater potential in shallow aquifer is good but underlying Flow No. F-1 which broadly jointed in top portion but, it is highly impermeable in middle and lower part and do not allow groundwater to percolate downward. Hence, to recharge deeper aquifer channel, creation of artificial openings in such impermeable layers are required by implementing artificial recharge techniques.

**Hydrogeologist**  
**CSGVSS, Aurangabad**

28/06/19.

कडा

तलाव : ① तलावडे - दोघळे वस्ती तलाव

कडा  
गाव

Lat :- 184819

Long :- 751009

EN :- 607 मी

NOT :- तलावाचे खोलीकरण झालेले आहे, सत्रोवलाची Amynyalorolal Basal असून तलावामध्ये (संभाव्यतेने) पाणी साठू शकते आहे. double pitching करणे आवश्यक आहे. (आवाच्या 500 मी पुर्वेस हा तलाव आहे) तसेच (शेजरे रुढाच्या दक्षिणेस हा तलाव आहे)

बंधारा :- ② कडे कडे नदिवर

Lat :- 185355

Long :- 750424

EN :- 981 मी

NOT :- हा बंधारा कडे नदिवर बांधलेला आहे (पूर्वे पात्र-पेमेकरु) पुर्वेकडे वाहते) व त्याच्याचे रुंदीकरण करणे व गाळ काढणे गरजेचे आहे.

पात्र तलाव - ③ तळेवस्ती

Lat :- 185333

Long :- 750323

EN :- 600 मी

हा तलाव तळेवस्तीच्या इतर दिशेला 100 मी आंतरावर आहे.  
या तलावाची खोलीकरण करणे व रुंदीकरण करणे आवश्यक आहे

(4) पाक्षर  
तलाव

Lat :- 185336

long :- 750301

हाय :- 603 मी

लेवस्ली तलाव नं. 2 हा तलाव लेवस्लीच्या पश्चिम दिशेला आहे  
(500 मी. आलरावर)  
या तलावाचे खोलीकरण करणे आवश्यक आहे, वेदीकरण करणे  
आवश्यक आहे.

\* या लेवस्ली मध्ये लहान ते तलाव आहेत.  
वेदीकरण व खोलीकरण करणे आवश्यक आहे



# Dug-Well Inventory

## Geohydrogeological mapping of Ashi Tahsil District Beed undertaken by NAAM Foundation and Chatrapati Shahu Gramin Vikas Shikshan Sanstha Aurangabad

### Well Inventory Form D-1

Village कोडी

Date - 28/06/19

Gut No. २०१२०१३

Name of the Farmer श्याम ठोसिमिह रेडके

Well No. ....

In Village Location ..... User... Personal/Community/.....

Location of the well कोडी (Farmland, Bank of Nala, In the Nala, Riverbed) पुस्तक तालीज

Year of the Digging २०१५, Construction year ....., If yes type cement

Parapet Ht. .... Shape-Cicular/Square, Diameter of well १.५० मी  
(Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth १५ मी, Water level from ground level..... m. Lat:- 184819

In rainy season full m, winter ..... m, summer ६५% m. Long:- 7510 09  
FN:- 606 मी

Percolation from : Bottom / Lateral Direction (in the case of lateral direction 11.५० मी)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)

Use :- Drinking , Irrigation  Acres, Horticulture....., etc.....

Rainy Season 2 Acre

Winter Season ..... Acre

Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump  HP.....

Dia of outlet pipe १.५ cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

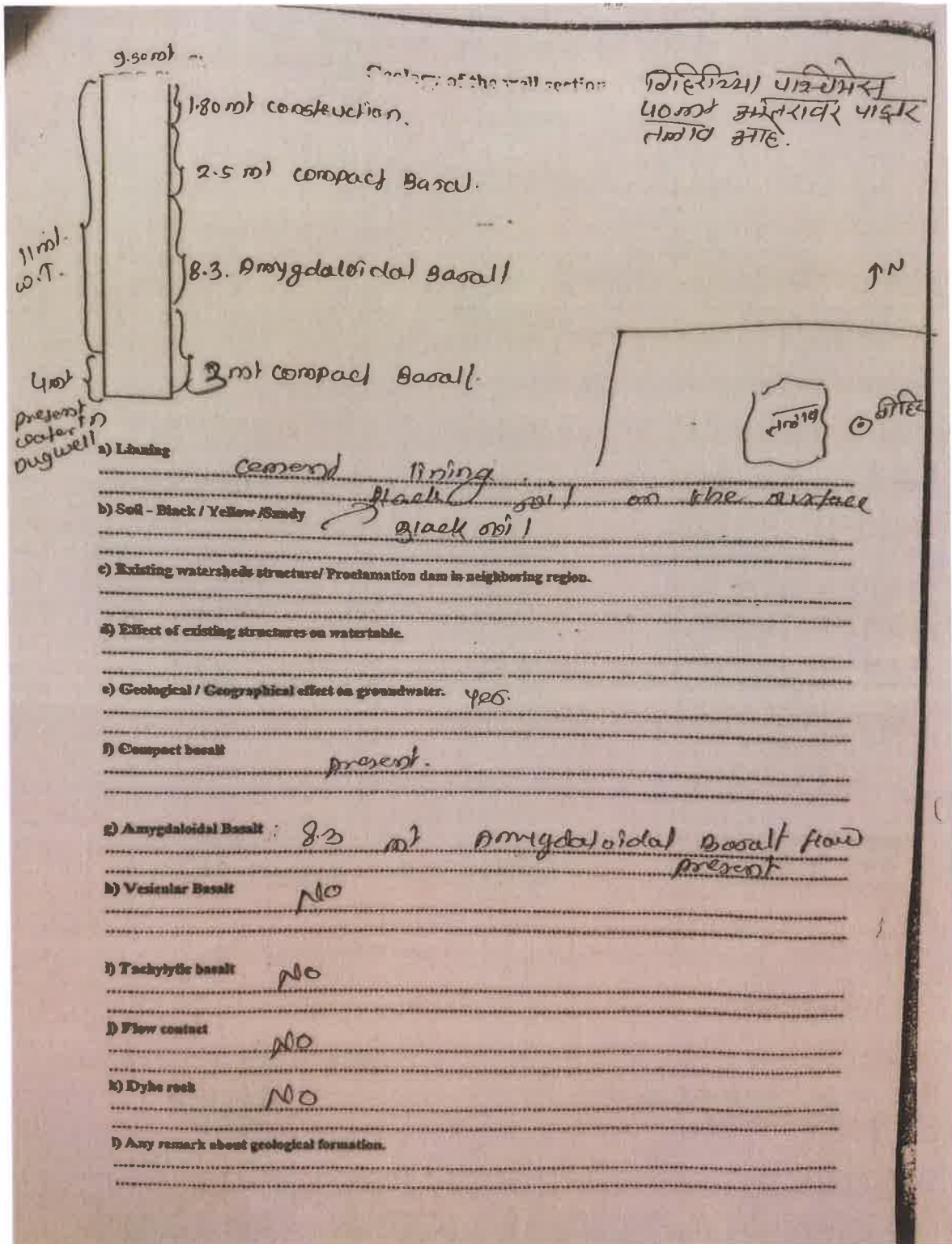
Time require for a full recharge / recuperation :

(Rainy season full Hrs; winter 2 Hrs; Summer dry Hrs.)

Any other information .....

Korde Tukaram  
Name of the Surveyor

Korde  
Signature



**Geohydrogeological mapping of ..Ashli..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form D-5**

Village शुभ.....

Date - 28/06/19

Gut No. 158/2 Name of the Farmer होशियार शेठे Well No. 5

In Village Location ..... User... Personal/Community/.....

Location of the well कृषि क्षेत्रासोरी नदी काठे  
(Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1998, Construction year....., If yes type Cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 2m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 13m, Water level from ground level 1.1.....m

In rainy season overflow m, winter....., summer dry.....m

lat: 18°53'40  
long: 75°05'21  
BN: 59m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....

Rainy Season ..... Acre

Winter Season ..... Acre

Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....

Dia of outlet pipe..... 2.5.....cm, inch.....

Quantity of withdrawals :- Daily..... Hrs. Seasonal..... cc meter / day

Time require for a full recharge / recuperation :

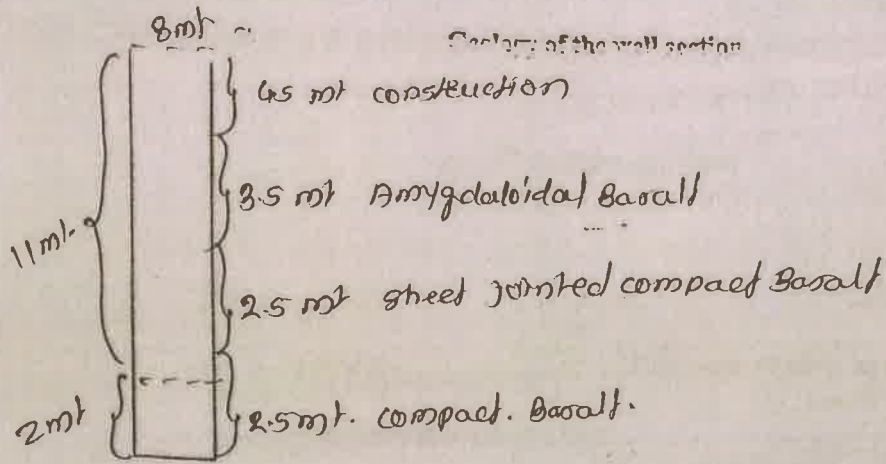
(Rainy season full.....Hrs; winter..... Hrs; Summer 2-4.....Hrs.)

Any other information .....

Korde Tukaram Ji.  
Name of the Surveyor

[Signature]  
Signature





- a) Lining cement lining
- b) Soil - Black / Yellow / Sandy Black Soil.
- c) Existing watershed structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt sheet jointed compact flow present in this section
- g) Amygdaloidal Basalt no amygdaloidal basalt flow present
- h) Vesicular Basalt NO.
- i) Tachylytic basalt NO
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation.

Geohydrogeological mapping of ....Ashti.... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D-10

Village अष्ट.....

Date - 28/06/19

Gut No. 222 Name of the Farmer गोरी Well No. 10

In Village Location ..... User... Personal/Community/.....

Location of the well East side (Farmland, Bank of Nala, In the Nala, Riverbed)..... River

Year of the Digging 1995 Construction year..... If yes type stone lining

Parapet Ht..... Shape-Cicular/Square, Diameter of well 2m

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 17m Water level from ground level 12 m. lat: 185208

In rainy season overflow m, winter..... summer dry m. long: 750418  
 lat: 58401

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 12 Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP.....

Dia of outlet pipe..... 2.5 cm. inch .....

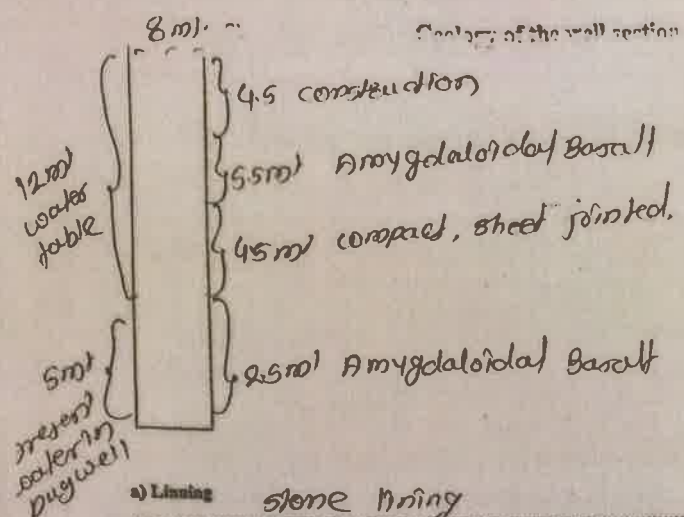
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... Hrs; Summer dry Hrs.)  
overflow

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Korde  
 Signature



- a) Lining stone lining
- b) Soil - Black / Yellow / Sandy sandy and black soil composition
- c) Existing watersheds structure/ Proclamation dam in neighboring region. \_\_\_\_\_
- d) Effect of existing structures on water table. \_\_\_\_\_
- e) Geological / Geographical effect on groundwater. \_\_\_\_\_
- f) Compact basalt 4.5m compact sheet jointed basalt present
- g) Amygdaloidal Basalt Alternated flow of Amygdaloidal Basalt present
- h) Vesicular Basalt NO
- i) Tachytidic basalt NO
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation. \_\_\_\_\_



Geohydrogeological mapping of Ashti Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D-14

Village Ashti

Date - 28/06/19

Gut No. .... Name of the Farmer श. काशि Well No. 14

In Village Location ..... User... Personal/Community/.....

Location of the well south side river (Farmland, Bank of Nala, In the Nala, Riverbed) River - Bank

Year of the Digging 2001, Construction year..... If yes type cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 4  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14 m, Water level from ground level.....m.  
 In rainy season .....m, winter 4, summer dry.....m.  
overflow

lat:- 18 54 48  
 long:- 75 04 12  
 GNZ 58504

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking , Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season 1.2 Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor Electric Diesel Pump 5 HP.....

Dia of outlet pipe 2.5 cm/ inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season overflow Hrs; winter 3 Hrs; Summer dry Hrs.)

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Record  
 Signature



Geohydrogeological mapping of Nashik..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

0-28

Village वसि (सावर वरली) कुडा भुवना दक्षिण दिशेला 1km शिखार  
से वरली भाडे Date - 28/06/19

Gut No. .... Name of the Farmer राजकुमार भुजाजी सावंत Well No. 28

In Village Location सावर वरली User... Personal/Community/.....

Location of the well..... (Farm/land, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1991, Construction year....., If yes type stone lining

Parapet Ht..... Shape-Cicular/Square, Diameter of well 8 mt.  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 24.75m Water level from ground level.....m. 1st - 185309  
 In rainy season overflow m, winter....., summer..... DEY m. long - 750434  
EN - 578.00

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 1.2 Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5 inch..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

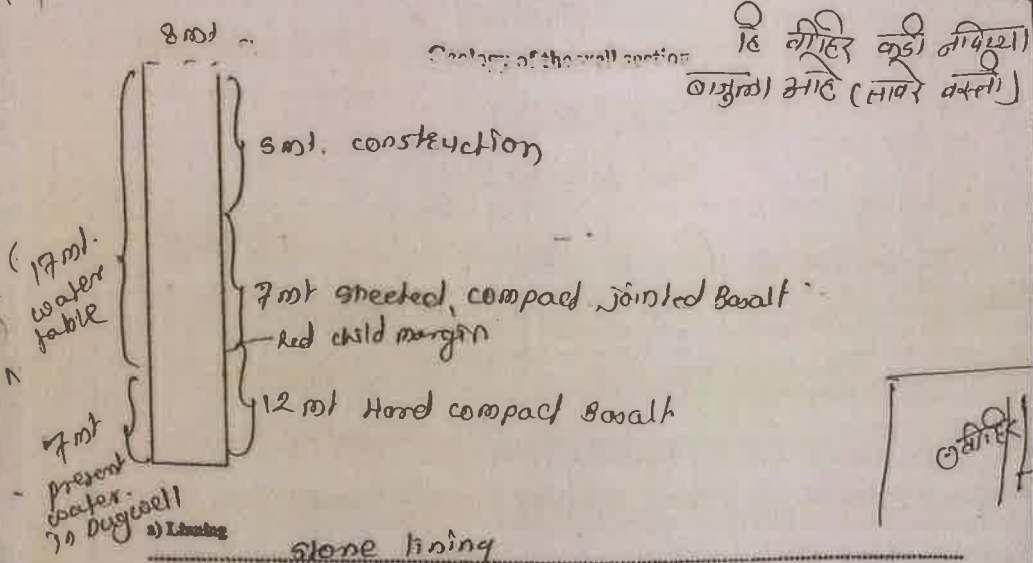
Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 6 Hrs; Summer DEY Hrs.)  
overflow

Any other information .....

Kerde Tukarao  
 Name of the Surveyor

Rodp  
 Signature

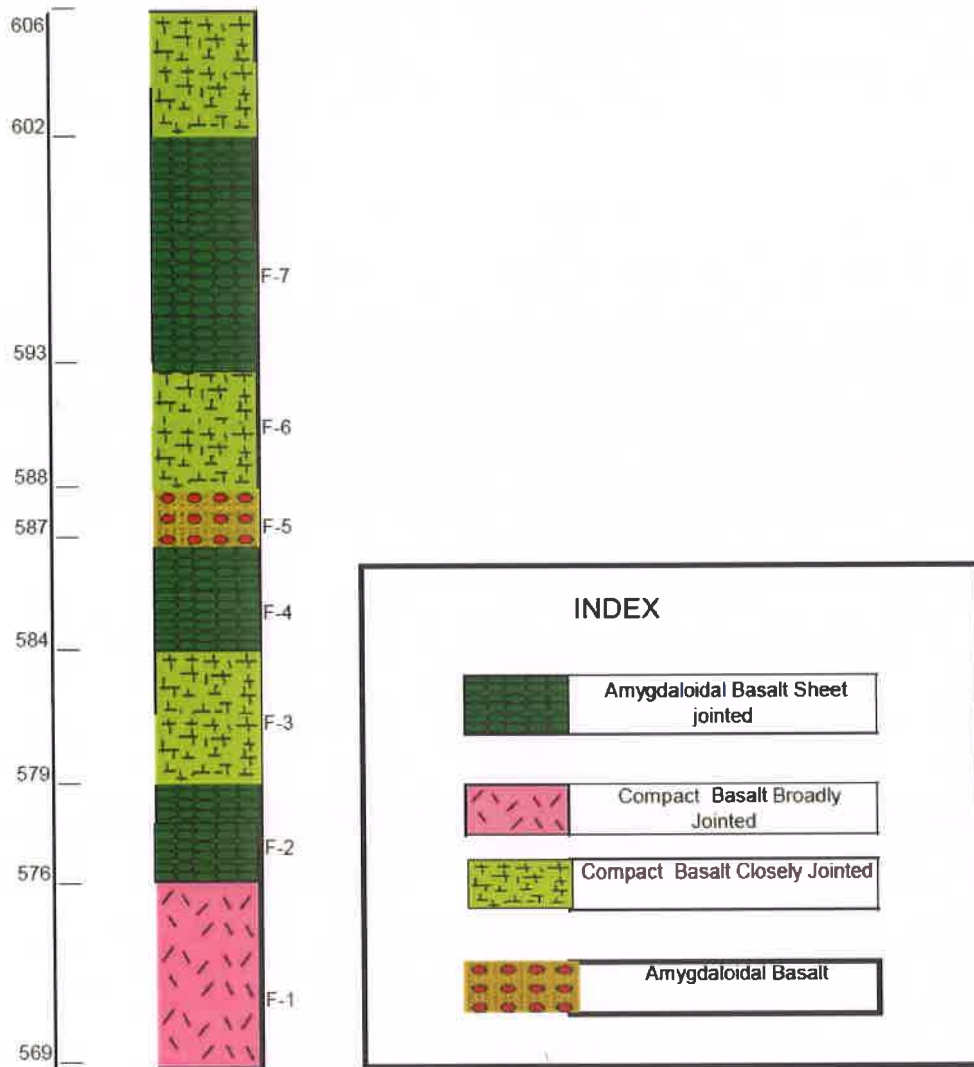




Geology of the well section  
 16 मीटर (16 मीटर) (16 मीटर)  
 5 मीटर (5 मीटर) (5 मीटर)

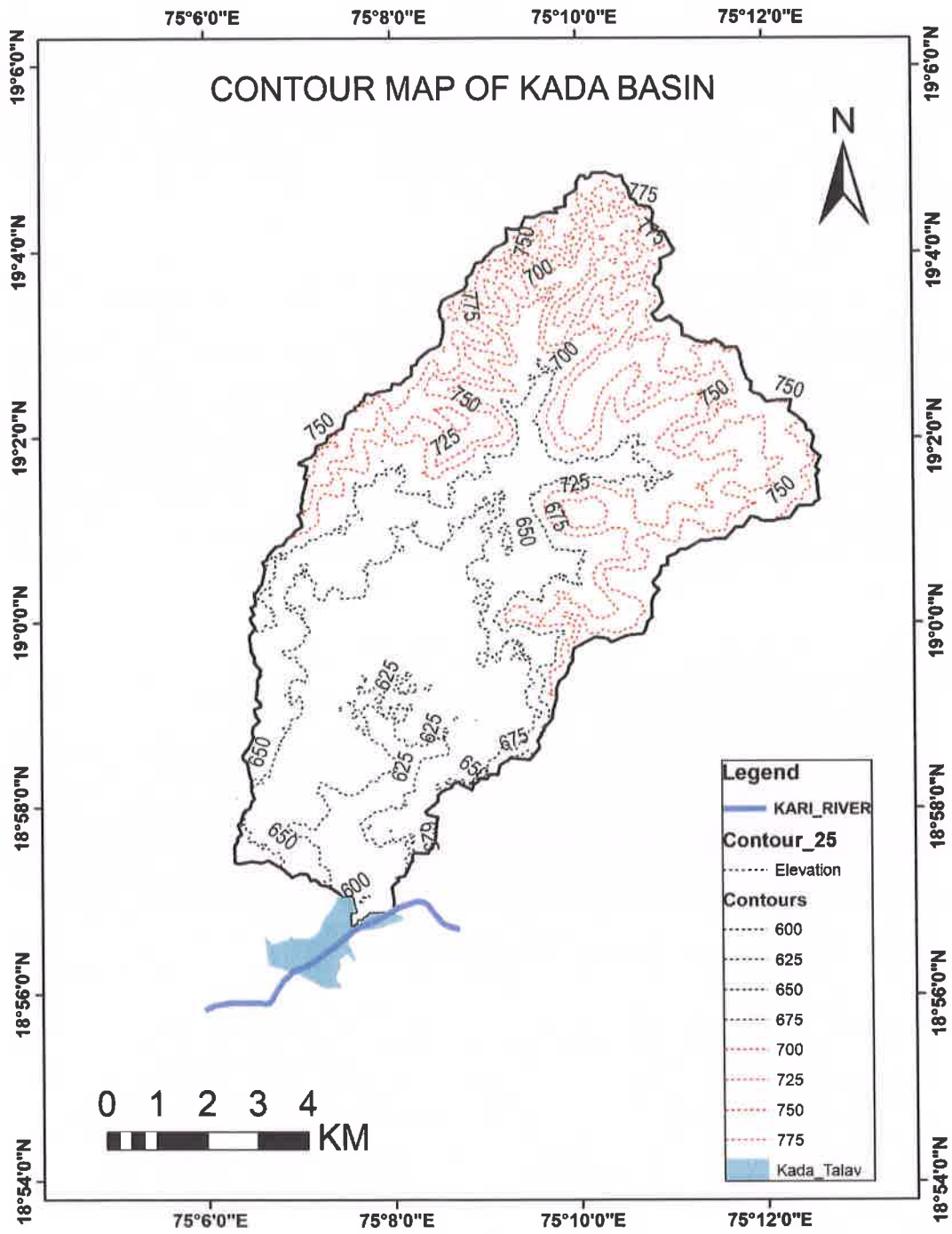
- a) Lining stone lining
- b) Soil - Black / Yellow Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt part of compact basalt flow occurred in this dugwell section.
- g) Amygdaloidal Basalt No.
- h) Vesicular Basalt No.
- i) Tachyitic basalt no
- j) Flow contact Red child margin are present
- k) Dyke rock no
- l) Any remark about geological formation this dugwell present in the even side. Rising water in the dugwell because of percolation of water.

# Litholog of Kada Village



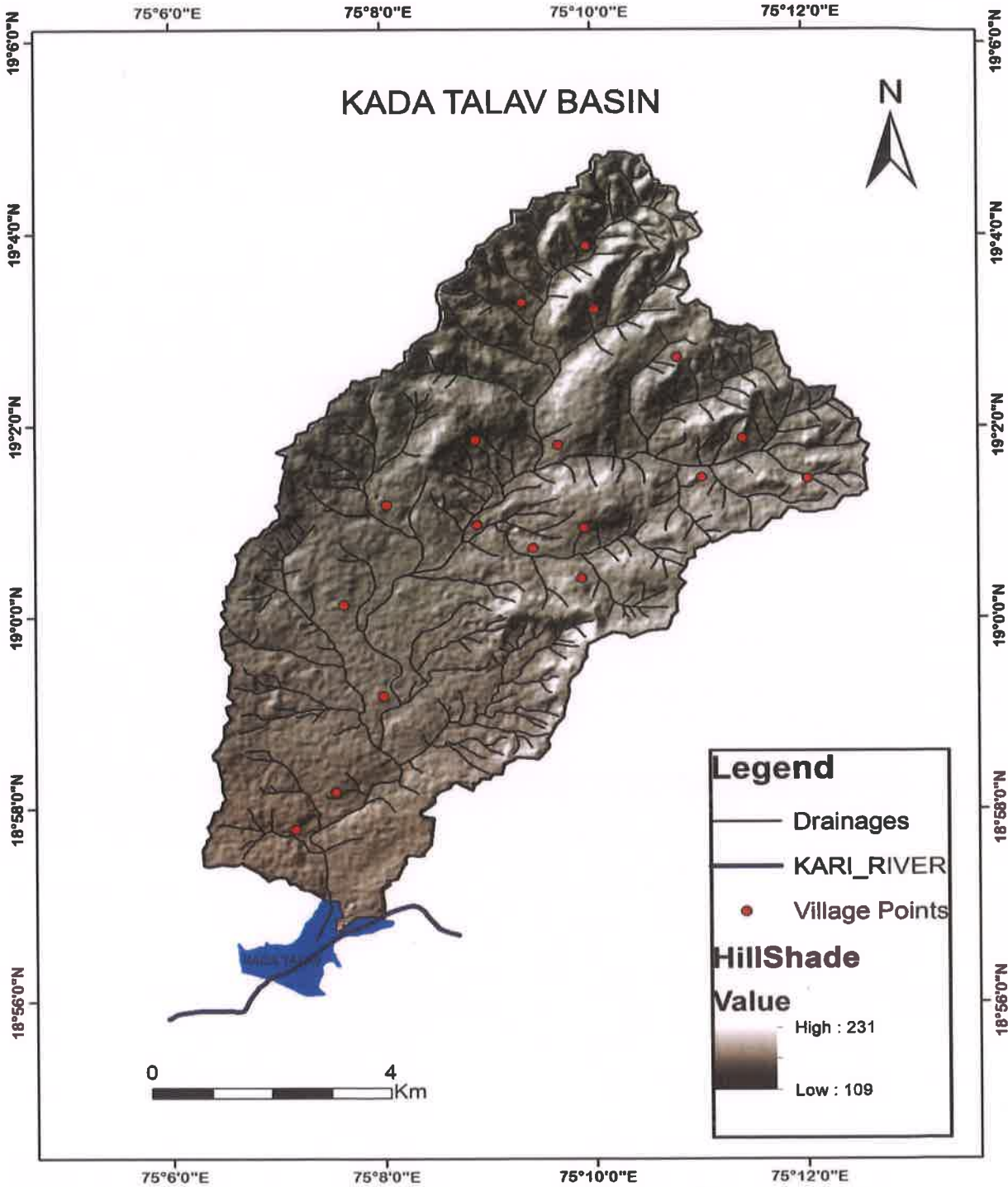
Litholog of Kada Village

# Contour Map of Kada Village

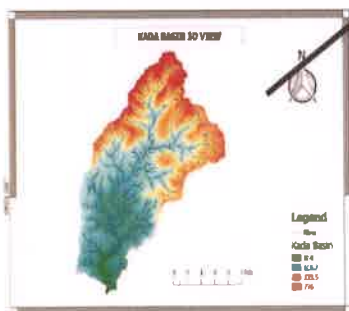
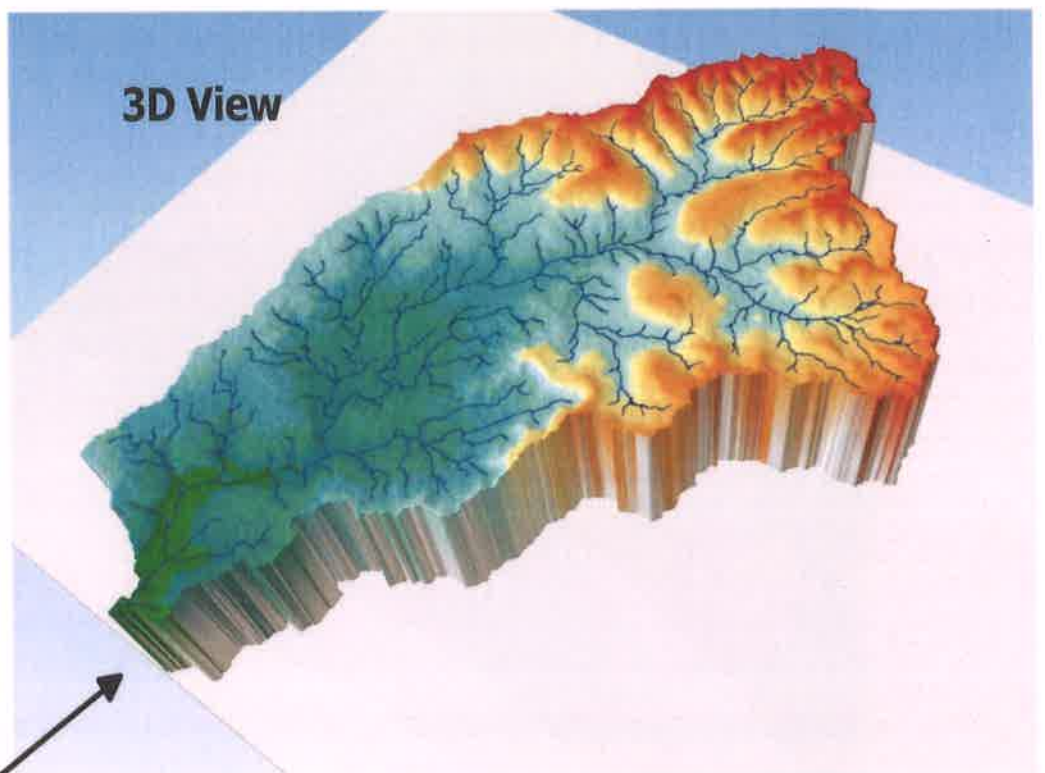




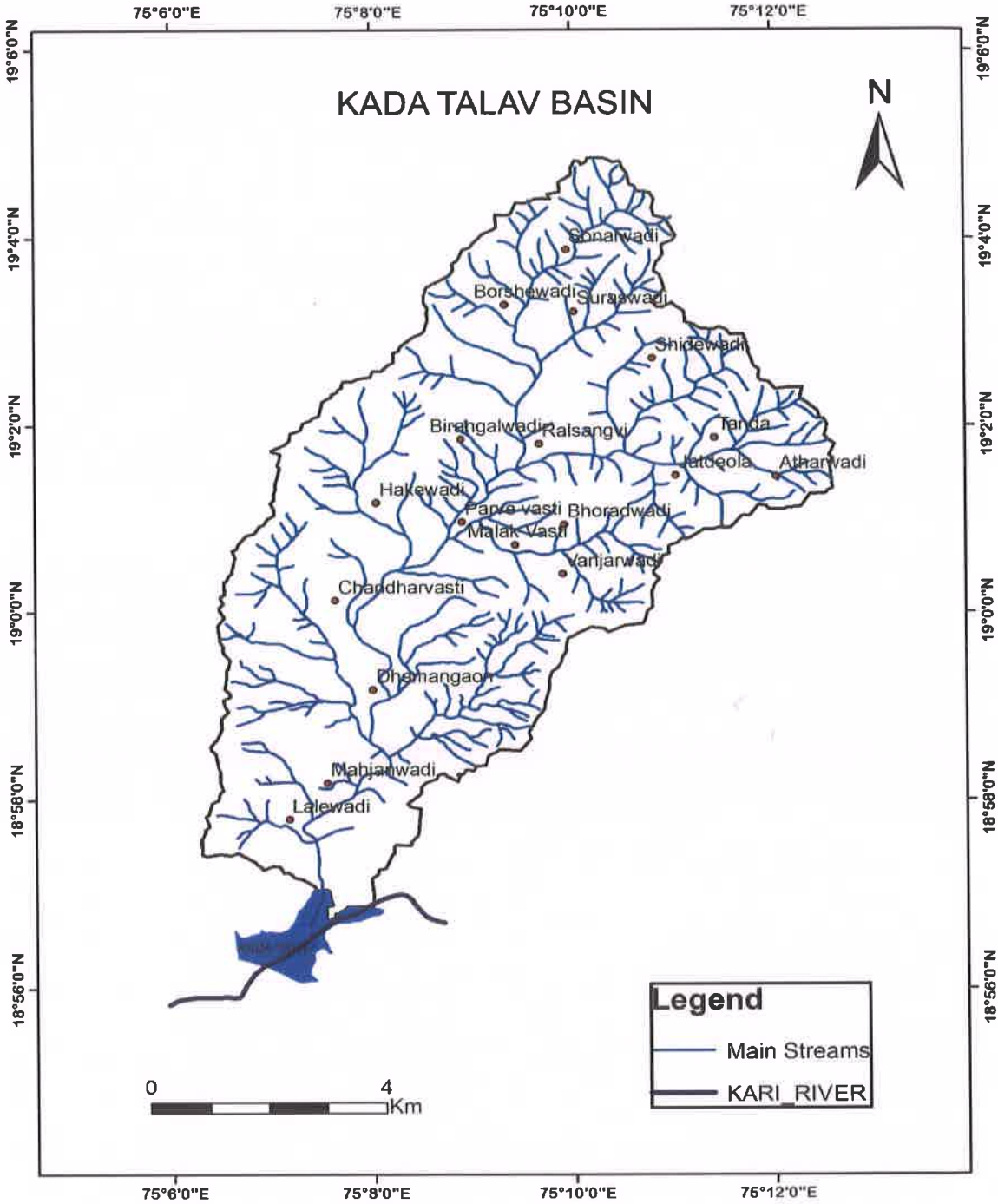
# Hillshade Map of Kada Village



## 3D View of Kada Village



# Drainage Map of Kada Village





## EXCAVATION AREA DETAILS IN VILLAGE KADA

VILLAGE NAME	KADA
TAHSIL	ASHTI
DISTRICT	BEED

EXCAVATION PLACES	AREA (METER)
1. NALA DEEPENING...TALE VASTI	1500 m length x 6 m. breadth x 2 m deep
2. NALA DEEPENING...DHOBLE VASTI	1500 m length x 30 m breadth x 3 m deep
3. CEMENT BANDHARA	1500 m length x 1.5 m breadth x 1.5 m deep



## EXCAVATION ESTIMATE...TENATIVE FIGURE

2. NALA  
DEEPENING...DHOBLE  
VASTI

1500 m length x 30 m  
breadth x 3 m deep  
= 1,35,000 Cubic Mtr

DETAILS OF WORK	TOTAL WORK	TOTAL AMOUNT (RS)
1.Excavation Machine	1688 Hrs	13,50,000
2.Diesel Required	18568 Liters	12,99,760
	TOTAL	26,49,760

### Above Calculation Details

1. Excavation Machine: 1 Hr Work = 80 Cu. Mtr.  
 $1,35,000/80=1688$  Hours  
Rate per Hour = Rs.800 =  $1688 \times 800 = 13,50,000$

2. Diesel Required: 11 ltrs per hour  
 $1688 \text{ Hrs} \times 11 \text{ ltrs} = 12,99,760$  rupees



## EXCAVATION ESTIMATE...TENATIVE FIGURE

3. CEMENT  
STRUCTURE..R C C TYPE 45 Cubic Meter

DETAILS OF WORK	TOTAL WORK	TOTAL AMOUNT (RS)
1.R C C Structure	45 Cu.Mtr	3,37,500
2. Steel Required	50	50,000
	TOTAL	3,87,500

### Above Calculation Details

1. R C C Structure Rate= Rs. 7500 per Cu.Mtr  
 $45 \times 7500 = 3,37,500$  rupees

2. Steel Required Rate= Rs. 1,000 per kilogram  
 $50 \times 1000 = 50,000$  rupees

## EXCAVATION ESTIMATION.....TENTATIVE FIGURE

SR NO	EXCAVATION PLACES	TOTAL EXPENSE (RS)
1	Nalah Deepening..Tale Vasti	3,53,250
2	Nalah Deepening..Dhoble Vasti	26,49,760
3	Cement RCC Structure	3,87,500
4	Admin Charges (10%)	3,39,051
	<b>Total Expenses</b>	<b>37,29,561</b>

**Total Expense (In Words): Thirty Seven Lakhs Twenty Nine Thousand Five Hundred and Sixty One Only.**

**Note: The above estimate may deviate according to rate at the time execution of a project with respect to the area of excavation as well.**

**Field Photos**



**Highly Fractured Basalt Flow can be seen with percolation of water in the dug well**





**Lake view in Kada Village**



**Geologist surveyor in the field**





**Fractured Basalt Flow below which weathered Compact Basalt Flow is exposed**





**Percolation of water can be seen from the cracks and fractures of the  
Basalt Flow**











**Drone shot of the field**



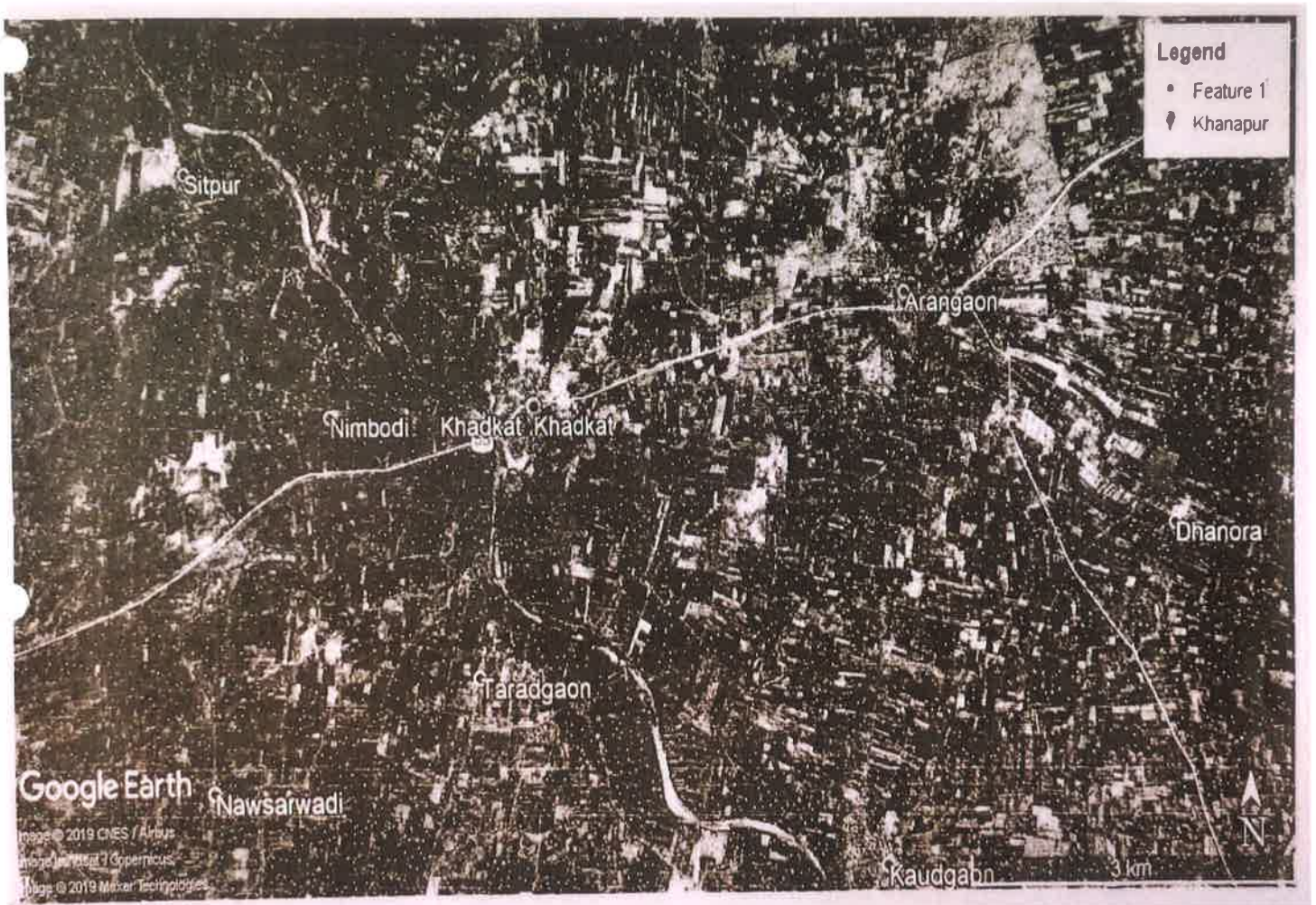
  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Khadkat**

Khadkat is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 86 KM towards west from District headquarters Beed. 26 KM from Ashti. 285 KM from State capital Mumbai. Takalsing (10 KM), Walunj (11 KM), Jamgaon (13 KM), Hanumantgaon (14 KM) are the nearby Villages to Khadkat. Khadkat is surrounded by Karjat Taluka towards west, Ashti Taluka towards North, Karmala Taluka towards South, Patoda Taluka towards East.



## Google Earth image of Khadkat Village





## Dug-Well Inventory

गावची तांबड्या नदीस दक्षिणे वरील सर्वोत्तम वेवरेचे गाव. सिगा  
 नदिच्या काठावर वसलेले. गावामध्ये - ७ गावामध्ये पावसाचे पाणी  
 २ गावाच्या काठुला आणि कुठून येणारी नदि (तांबडा)

गाव :- खडकल सिगा नदिया मिळते.  
 तालुका :- आळी  
 जिल्हा :- बिड  
 लक्ष्मण विहिरी :- 12  
 लक्ष्मण पंझरतलाव :- 05  
 जायसीत जायस उंची :- 541 मी.  
 मीनेत काम उंची :- 534 मी.

निष्कर्ष - गावचा नदिचा काठावर वसलेल्या  
 गावाच्या उत्तरेवरील गावातील नदिची  
 काठावरून येणारी नदी.  
 गावचा गावे नदीच्या व नदीच्या  
 व खडकल गावाच्या दक्षिणेवरील काठावरून  
 येणारी नदी.  
 सिगा नदिच्या काठुला वसलेल्या विहिरीसुद्धा  
 उंचावरून येणारी नदी. हिचाच तात फक्त दोन  
 मीटर उंचीत गावाच्या वरून  
 Best impermeable soil. आणि  
 गावच्या Artificial Recharge str. च्या  
 वरून येणारी.

**बोरो खडकल**

lat :- 1839 50  
long :- 7507 46  
GN :-

Location → पोचळ कुकराच नदी  
→ निवृत्ती नदी

नवीन cement वेवारा बांधण्यासाठी ही जगाची खालील आहे  
( लखवार नदी → उत्तरेकडून दक्षिणेकडे ) या लखवार नदीचे खोलीकरण  
करणे cement वरचा खर्च वाचवणे आवश्यक आहे litholog

- black soil
- Palaeochannel
- weathered sand
- sheet jointed
- compact sand

② धरण → वेवेवाडीचा लखार (तब)

lat :- 182648 184026

long :- 750907

GN :- 540 m

कामत कमी - 5/5 m

नारिंगी जाडी - 550 m

आपत्केंद्री :- आवाजिल पुर्व पश्चिम बोरी - 2.5 km.  
उत्तर - दक्षिण बोरी 3 km.

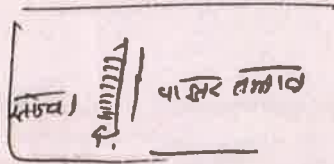
या धरणाला देवघुवाण, जात्रगांव, वेवेवाडी सीखेवाडी वरून येणाऱ्या लखा  
व ओढी यांचे पाणी येऊन मिळते लखार नदी येऊन मिळते  
(सर्व उत्तरेकडून दक्षिणेकडे वाहतात)

③

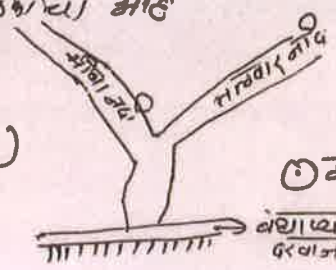
lat :- 184010

long :- 750900

GN :- 540 m



हा पाझर लखार आजही मानकीय आहे



④ ध्वारा → कोन्हापुरी - (खडकल 1 नं.)

lat :- 1839 55

long :- 7508 23

GN :- 535 m

बांधणी वर्ष :- 1995

या कोन्हापुरी ध्वारा खडकल बांधण्या पश्चीमेला 200 मी वही भोत्कावर आहे  
या वेवेवाडी वही आणि लखार नद्या उत्तर दिशेला 300 मी वही भोत्कावर  
येऊन मिळतात

वेवेवाडी दरवाजे दुरुस्ती करणे, खोलीकरण, रुंदीकरण करणे आवश्यक  
शे ध्वारा वरून उपशासकी प्रयोजन झाला आहे ( पाणी सोबत नसते )

5) बंगला - कोल्हापुरी (अवकाश 2 नं)

वर्ष: 1985-89

लम्बाई: 750854

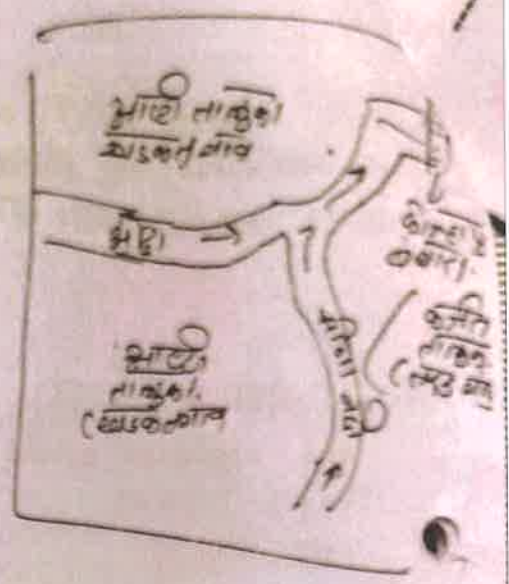
चौड़ाई: 539 मी.

construction year: 1998-1999

हा कोल्हापुरी बंगला अवकाश बांधण्याची विलंबित  
 झाली व सुनील लाडूबाबांच्या हजेरीमध्ये येता.  
 या बंगलाचा लोकार्पण शुभसमी कृती भावश्या  
 आहे.

N

Geohydro  
 undertaken





Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

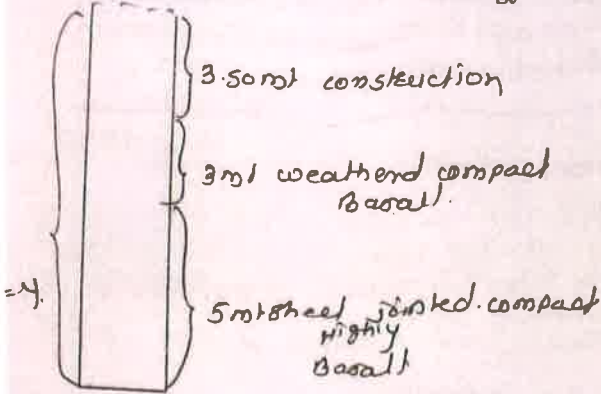
Village खंडोरी ..... Date - 18/07/19  
 Gut No. 217 ..... Name of the Farmer विनायक दामोदर ..... Well No. 1 .....  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well East (Farmland, Bank of Nala, In the Nala, Riverbed) River .....  
 Year of the Digging 1992 ..... Construction year ..... If yes type stone lining .....  
 Parapet Ht. .... Shape Circular/Square, Diameter of well 2.50m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....)  
 Total Depth 11.50m Water level from ground level ..... m. 1st - 183956  
 In rainy season overflow m, winter 6.00 m, summer dry m. long - 750751  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom)  
 Use :- Drinking ..... Irrigation ..... Acres, Horticulture .....; etc .....  
 Rainy Season ..... 2 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season ..... NO ..... Acre  
 Type of withdrawals/Pump Out :-  Electrical motor ..... Diesel Pump 5 HP .....  
 Dia of outlet pipe ..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... 24 ..... Hrs. Seasonal ..... 2 Hrs/day ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 2 ..... Hrs; Summer dry ..... Hrs.)  
 Any other information .....

Konde Tukaram  
 Name of the Surveyor

Deordy  
 Signature

8.50m hgt

### Geology of the well section



हि चिह्न तमबा  
50m आलावर आहे  
उत्तरेकडून दक्षिणेकडे

hydrog  
undertaker

a) Lining

stone lining

b) Soil - Black / Yellow / Sandy

black soil and sandy soil.

c) Existing watersheds structure/ Proclamation dam in neighboring region.

2km distance balevadi dam present in north side

d) Effect of existing structures on watertable.

no effect

e) Geological / Geographical effect on groundwater.

उत्तरेकडून दक्षिणेकडे पाणी उतरते. उत्तरेकडे बाळवडी बांधलेला बांध आहे. उत्तरेकडे पाणी उतरते.

f) Compact basalt

sheet jointed compact basalt flow present (very fine grain compact basalt).

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachyitic basalt

Absent

j) Flow contact

←

k) Dyke rock

Absent

l) Any remark about geological formation.

उत्तरेकडून दक्षिणेकडे पाणी उतरते. उत्तरेकडे बाळवडी बांधलेला बांध आहे. उत्तरेकडे पाणी उतरते.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village बोडवड Date - 18/07/19

Gut No. .... Name of the Farmer नामदेव निवृत्ती शेठ Well No... 2.....

In Village Location ..... User... Personal/Community/.....

Location of the well.. East....., (Farmland, Bank of Nala, In the Nala, Riverbed)..... सखपास ४० मी अंतरावर नदी आहे  
River.

Year of the Digging 1995., Construction year....., If yes type... stone.....

Parapet Ht.....Shape-Circular/Square, Diameter of well... 9m.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12-30m!, Water level from ground level... DEP...m. lat :- 183966.  
 In rainy season .....m, winter..... 6....., summer.....m. long :- 750749  
overflow. DEP. EN :- 536m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season .....: 4..... Acre  
 Winter Season .....: ..... Acre  
 Summer Season.....: DEP..... Acre

Type of withdrawals/Pump Out :- Electrical motor.....Diesel Pump 5 HP.....  
 Dia of outlet pipe.....2.5.....cm. /inch .....  
 Quantity of withdrawals :- Daily .....2.4..... Hrs. Seasonal .....4 Hrs. daily.....  
 cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season .....Hrs; winter... 6..... Hrs; Summer... DEP.....Hrs.)  
overflow.

Any other information .. विहिरीच्या नवंबर ४० मी अंतरावर तळवळ नदी आहे  
फेब्रु या महिन्या काहीच effect या विहिरीच्या पाणी पालकीवर  
होत नाही

Name of the Surveyor  
Korde Tukaram

Signature  
Korde



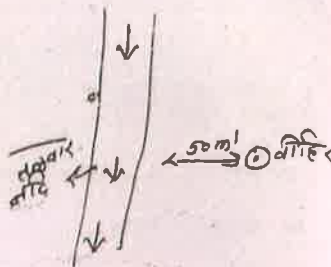
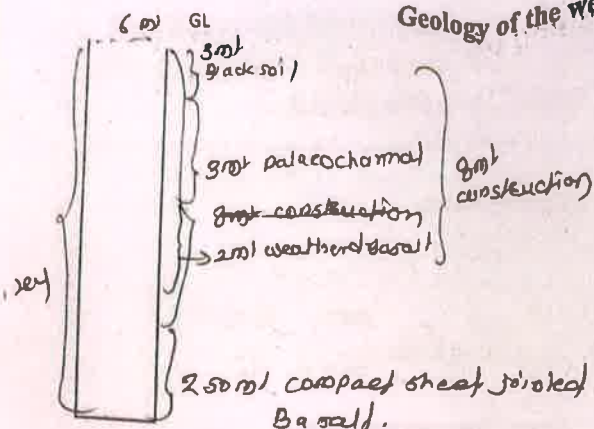


Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ... असुर ..... Date - 18/07/19  
 Gut No. .... Name of the Farmer राम बाबुराव सुर्वे ..... Well No. 03 .....  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well... बेत (Farmland, Bank of Nala, In the Nala, Riverbed)..... River .....  
 Year of the Digging 1994....., Construction year....., If yes type..... stone lining .....  
 Parapet Ht..... Shape-Cicular/Square, Diameter of well..... 6ft .....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 10.50 m....., Water level from ground level.....m. 1012-1833 40  
 In rainy season .....m, winter..... 4.00....., summer..... 12.5.....m. long 1-750738  
over 1000..... ENL-535m .....  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)  
East..... 100m .....  
 Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 2..... Acre  
 Winter Season ..... 3..... Acre  
 Summer Season..... 10..... Acre  
 Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump..... 3 HP.....  
 Dia of outlet pipe..... 2.5..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... 2.4..... Hrs. Seasonal ..... cc meter / day.  
6 Hr / day .....  
 Time require for a full recharge / recuperation :  
 (Rainy season .....Hrs; winter..... 4..... Hrs; Summer..... 12.5.....Hrs.)  
over 1000 .....  
 Any other information ..... या वीहिरीपासुठ 50 म् म्मलराक सुर्वेग्रेला लळवार नदि  
म् पश्चिमेकच 800 म् आत्कावर सीला नदि म्म .....  
 Name of the Surveyor ..... Signature .....  
Konde Tukarrao ..... Konde .....

# Geology of the well section



hydrogeology undertaken by

a) Lining

stone lining

b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

North to south direction. Talwar river flow from

d) Effect of existing structures on watertable.

No percolation

e) Geological / Geographical effect on groundwater.

In rainy season water

f) Compact basalt

2.5m compact sheet jointed basalt flow present

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

No flow contact

k) Dyke rock

Absent

l) Any remark about geological formation.

staged 50m आंतराल समान नदि के साथ  
या नदियाँ क्विचि कुचोरा या विरिवा रोम नदि



2

2  
Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 2015/2017 Date - 18/07/17

Gut No. .... Name of the Farmer ..... Well No. 04

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed) No

Year of the Digging 2017, Construction year....., If yes type concrete

Parapet Ht. 1m Shape-Cicular/Square, Diameter of well 8m  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping.....))

Total Depth 16.50, Water level from ground level 12.50 m. bt-184020  
In rainy season overhead m, winter 6.00 m, summer dry m. long 750904  
BT-1-599m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture.....; etc.....  
Rainy Season 9 Acre  
Winter Season 2 Acre  
Summer Season 12 Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
Dia of outlet pipe 4.5 cm. /inch .....  
Quantity of withdrawals :- Daily 2.4 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 2.4 Hrs; winter 6 Hrs; Summer dry Hrs.)

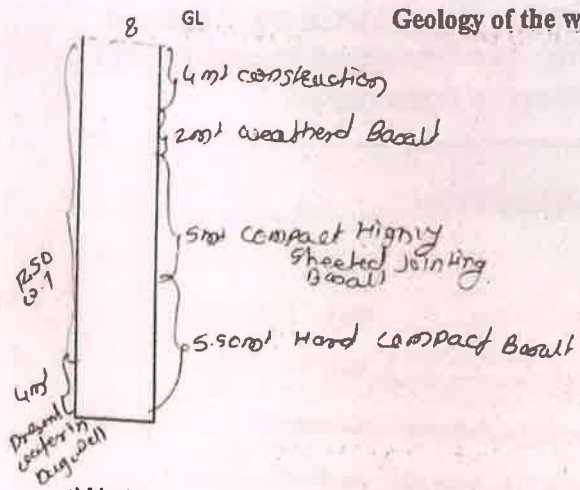
Any other information .....

Korde Tukaram  
Name of the Surveyor

Korde  
Signature

hydro  
undertaken

### Geology of the well section



- a) Lining ..... cement lining
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... Near NO watershed structure
- d) Effect of existing structures on watertable. .... water table to rise in monsoon season
- e) Geological / Geographical effect on groundwater. .... monsoon time, water level increase
- f) Compact basalt ..... 5 m and 5.50 m two floor present
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachyitic basalt ..... Absent
- j) Flow contact ..... NO
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... High land area And direction North to south

hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 2015207.....

Date - 18/07/19

Gut No. .... Name of the Farmer निवृत्ती सुर्वी Well No. 05

In Village Location ..... User... विविध उपयोग सोळा आहे  
 Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed)..... 200 mt distance

Year of the Digging 2014 Construction year....., If yes type..... cerconk

Parapet Ht. 1.0 mt Shape-Cicular/Square, Diameter of well... 2 mt  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 10.50 m, Water level from ground level... 4.50 m. Lat - 184026  
 In rainy season ..... m, winter 4 mt, summer ..... Dej m. Long - 750907  
overflow BN - 540 mt

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 3 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season ..... N.B ..... Acre

Type of withdrawals/Pump Out :- Electrical  motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... 24 ..... Hrs. Seasonal ..... cc meter / day  
2 Hr/day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... 3 ..... Hrs; Summer ..... Dej ..... Hrs.)  
overflow

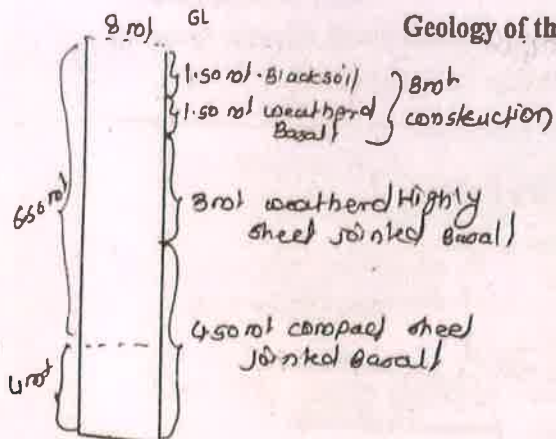
Any other information .....

Korde Pukarao  
 Name of the Surveyor

Ronde  
 Signature

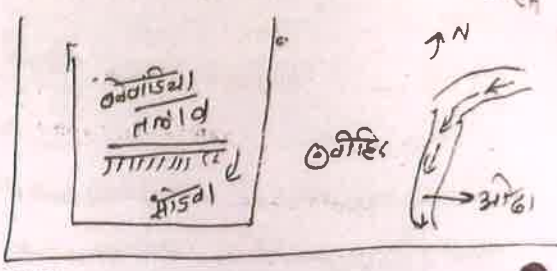


### Geology of the well section



Geohydrogeologic  
undertaken by

विहरीया  
वा फुवला मोदी  
पु फुवला मोदी 600  
विवेकानंद मनीष  
आहे जवळच Recharge  
structure (आहे पाणी  
साठी आहे वाढवणे आहे)



- a) Lining cement lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. 200 मी मोठ्याच मोदी मोदी
- d) Effect of existing structures on watertable. Percolation dams (Balevadi dams)
- e) Geological / Geographical effect on groundwater. कुर्वेकडुवा पाण्याचे जरे जास्त प्रमाणात आहेत
- f) Compact basalt total sheet jointed and compact Basalt flow
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact -
- k) Dyke rock Absent
- l) Any remark about geological formation. पुर्वीक पाझर वा विहरीया पावसाळ्या पावसाळी दिवाळ्या  
बाद सार पाझर बंद होताने

19/10/19  
2008  
19/10/19

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village कोरडे ..... Date - 18/07/19

Gut No. 247 Name of the Farmer गणेश तुकाराम कोरडे Well No. 06

In Village Location ..... User... Personal/Community/.....

Location of the well... 200m, (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2008 Construction year....., If yes type..... NO

Parapet Ht. .... NO Shape-Cicular/Square, Diameter of well... 4.20m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 16m, Water level from ground level... 10.50m lat 184012  
 In rainy season overflow m, winter 5m, summer dry m. long 750902  
 E/W 541m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m, and/or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 4 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season..... dry ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....

Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 2 ..... Hrs; Summer dry ..... Hrs.)

Any other information ..... या विहिरीच्या 1 किमी मालरावर लक्षवार नदी  
 आहे परंतु या नदिवर 4 किमी मालरापर्यंत कुठल्याही प्रकारचे पाझर तळार  
 व आवय structure नाहीत;  
 Name of the Surveyor ..... Signature Korde

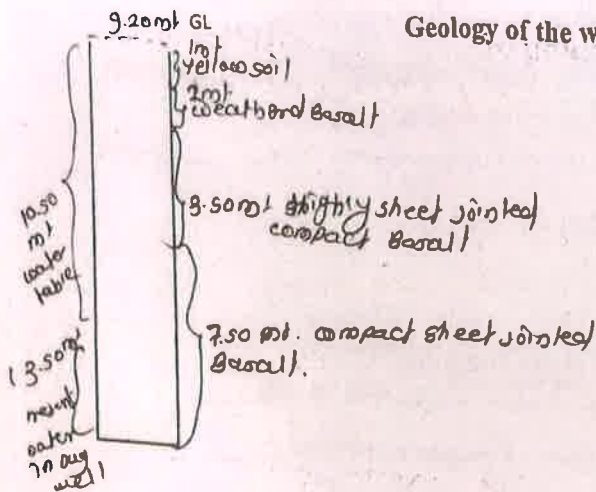
Korde Tukaram



Geology of the well section

दक्षिणोन्मुख 200 मी  
पात्र लम्बाई है  
- विद्यमान है

hydrogeo-  
indertaken by N



a) Lining

NO construction

b) Soil - Black / Yellow / Sandy

Yellow soil / weathered soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

200 m. झीलसदर. 200 मी पात्र लम्बाई है

d) Effect of existing structures on watertable.

10.50 मी. झीलसदर. पात्रसदर. 2. विद्यमान है. 3. विद्यमान है. 4. विद्यमान है. 5. विद्यमान है.

e) Geological / Geographical effect on groundwater.

Basalt and compact Basalt of sheet jointed compact flow of water percolate

f) Compact basalt

7.50 m compact Basalt flow and 3.50 m. also present

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

Absent

k) Dyke rock

Absent

l) Any remark about geological formation.

नदी है उत्तरेकरी दक्षिणोन्मुख 200 मी झीलसदर लम्बाई



hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 2915007

Date -

Gut No. .... Name of the Farmer ..... Well No. 98

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed) NO

Year of the Digging 2009, Construction year....., If yes type Cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 8.50m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14.50m, Water level from ground level.....m. 1st 184012  
 In rainy season over flow m, winter 6 ft, summer dry m. Long 750904  
2nd 54m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole.....m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season 5 Acre  
 Winter Season 3 Acre  
 Summer Season NO Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....

Dia of outlet pipe 2.5 cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

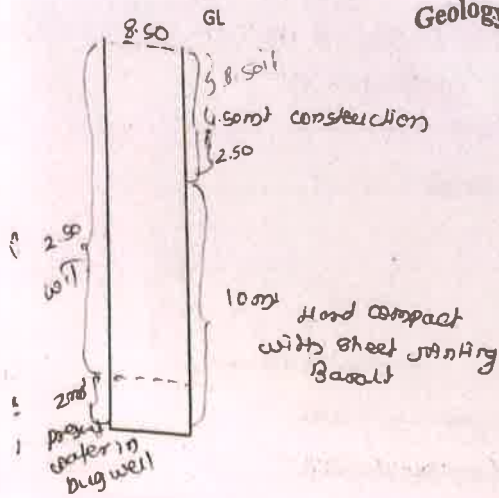
Time require for a full recharge / recuperation :  
 (Rainy season overflow Hrs; winter 4 Hrs; Summer dry Hrs.)

Any other information .....

Korde Jukaram  
 Name of the Surveyor

[Signature]  
 Signature

## Geology of the well section



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. structure near NO watershed
- d) Effect of existing structures on watertable. water table increase in rainy season (monsoon)
- e) Geological / Geographical effect on groundwater. In monsoon period water level increase
- f) Compact basalt 10m compact Basalt flow
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact -
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area find direction south to north

hydrogeological  
undertaken by N. V.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 201501.....

Date - 18/07/19

Gut No. .... Name of the Farmer 2001 ..... Well No. 09.....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2014, Construction year....., If yes type..... convent

Parapet Ht..... Shape-Circular/Square, Diameter of well..... 6m.....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 15m....., Water level from ground level.....m. lat 1- 180858  
 In rainy season .....m, winter 6m, summer DEY.....m. long 750851  
overflow lat 1- 534m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture.....; etc.....

Rainy Season ..... 12 ..... Acre

Winter Season ..... 6 ..... Acre

Summer Season..... N.D. ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....

Dia of outlet pipe..... 2.5 .....cm. /inch .....

Quantity of withdrawals :- Daily ..... 24 ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :

(Rainy season 24 ..... Hrs; winter ..... 6 ..... Hrs; Summer..... DEY ..... Hrs.)

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Korde  
 Signature





11/7/2019  
 11/7/2019  
 11/7/2019

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... 2050971 ..... Date - 18/07/19

Gut No. .... Name of the Farmer ..... Well No. 10 .....

In Village Location ..... User... Personal/Community/.....

Location of the well... South → river, (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2008, Construction year....., If yes type..... stone lining

Parapet Ht..... Shape-Cicular/Square, Diameter of well 7.50m

Total Depth 12 m, Water level from ground level 10 m. 1st - 183857  
 In rainy season ..... m, winter 5.00, summer ..... m. 1st - 750849  
 2nd - 935 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m. Location at the bottom)

Use :- Drinking, Irrigation, Acres, Horticulture, etc.....  
 Rainy Season ..... 2 ..... Acre  
 Winter Season ..... 3 ..... Acre  
 Summer Season ..... N.D. .... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 3.5 HP

Dia of outlet pipe 2.5 cm. inch ..... 6 Hr/day  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 24/day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter ..... 4 ..... Hrs; Summer ..... DEY ..... Hrs.)

Any other information .....  
 हीथी नदिनीय पानी हे वीटिड आहे, मात्र 200 रुंद  
 आहे जाळणी 300-400 मी रुंद आहे.

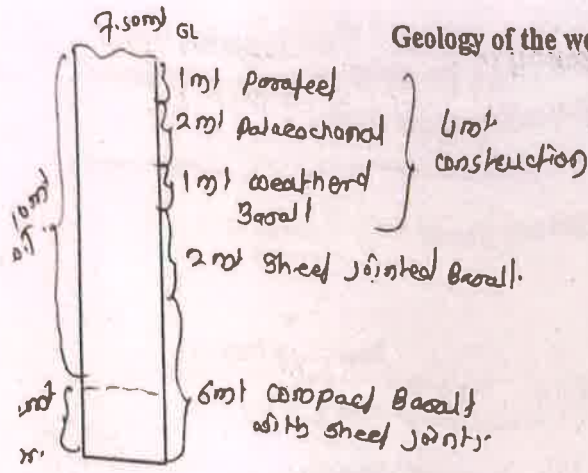
Korde Tukaram  
 Name of the Surveyor

Signature  
 Korde



Geohydro-undertaker

Geology of the well section



हे विहित सीमा नवीच्या पत्राल आहे.

नीम नदी विहित

- a) Lining stone lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. कोल्हापूर वंछारा 400 मीच्या झोलावर झोलाय (NE) दिशेला आहे
- d) Effect of existing structures on watertable. दिव्हा रते नवीमळे गावा कासेल तोपयंत या विहित गावा
- e) Geological / Geographical effect on groundwater. घारमळे रते पावसाळ व दिवाळी जाण्याची जलवा
- f) Compact basalt sheet jointed and compact basalt flow present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact Small white lime and red chold remaining present
- k) Dyke rock Absent
- l) Any remark about geological formation.



07/07/2011

Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 2015071 Date - 18/07/19

Gut No. .... Name of the Farmer ..... Well No. 11

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2010, Construction year....., If yes type cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 7.50m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12.50m, Water level from ground level 9.50 m. 1st 183852  
In rainy season 6.00 m, winter 6.00 m, summer day m. 10m - 750845  
or 575m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....in. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season 10 Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe 2.5 ..... cm. /inch .....,  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... Hrs; winter 6 Hrs; Summer day Hrs.)

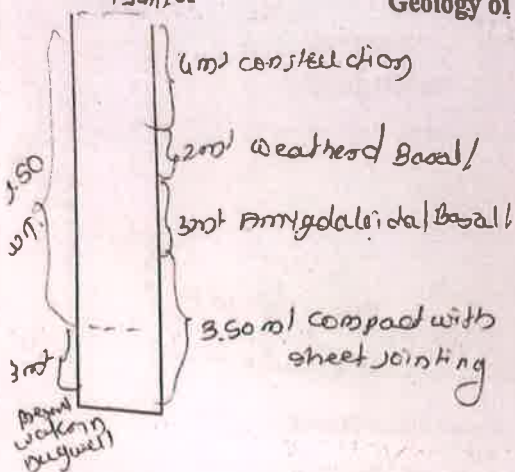
Any other information .....

Konde Jukaram  
Name of the Surveyor

[Signature]  
Signature

7.50m GL

Geology of the well section



a) Lining

Cement

b) Soil - Black / Yellow / Sandy

Black soil on the surface

c) Existing watershed structure / Proclamation dam in neighboring region.

Near H.O watershed structure

d) Effect of existing structures on watertable.

water table increase in monsoon period

e) Geological / Geographical effect on groundwater.

f) Compact basalt

3.50 compact basalt with sheet joints

g) Amygdaloidal Basalt

3m amygdaloidal basalt flow present

h) Vesicular Basalt

Absent

i) Tachylitic basalt

Absent

j) Flow contact

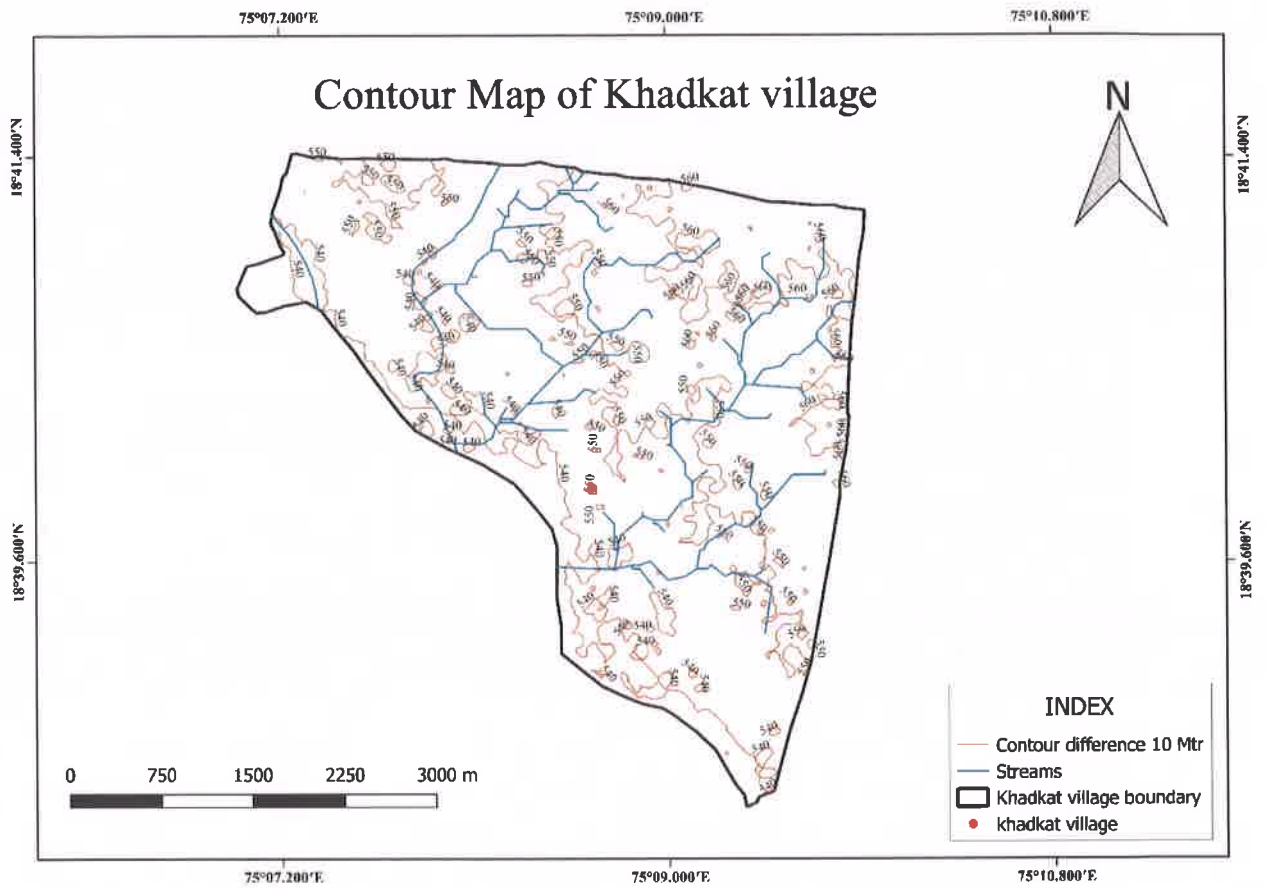
contact at 9m up to surface

k) Dyke rock

Absent

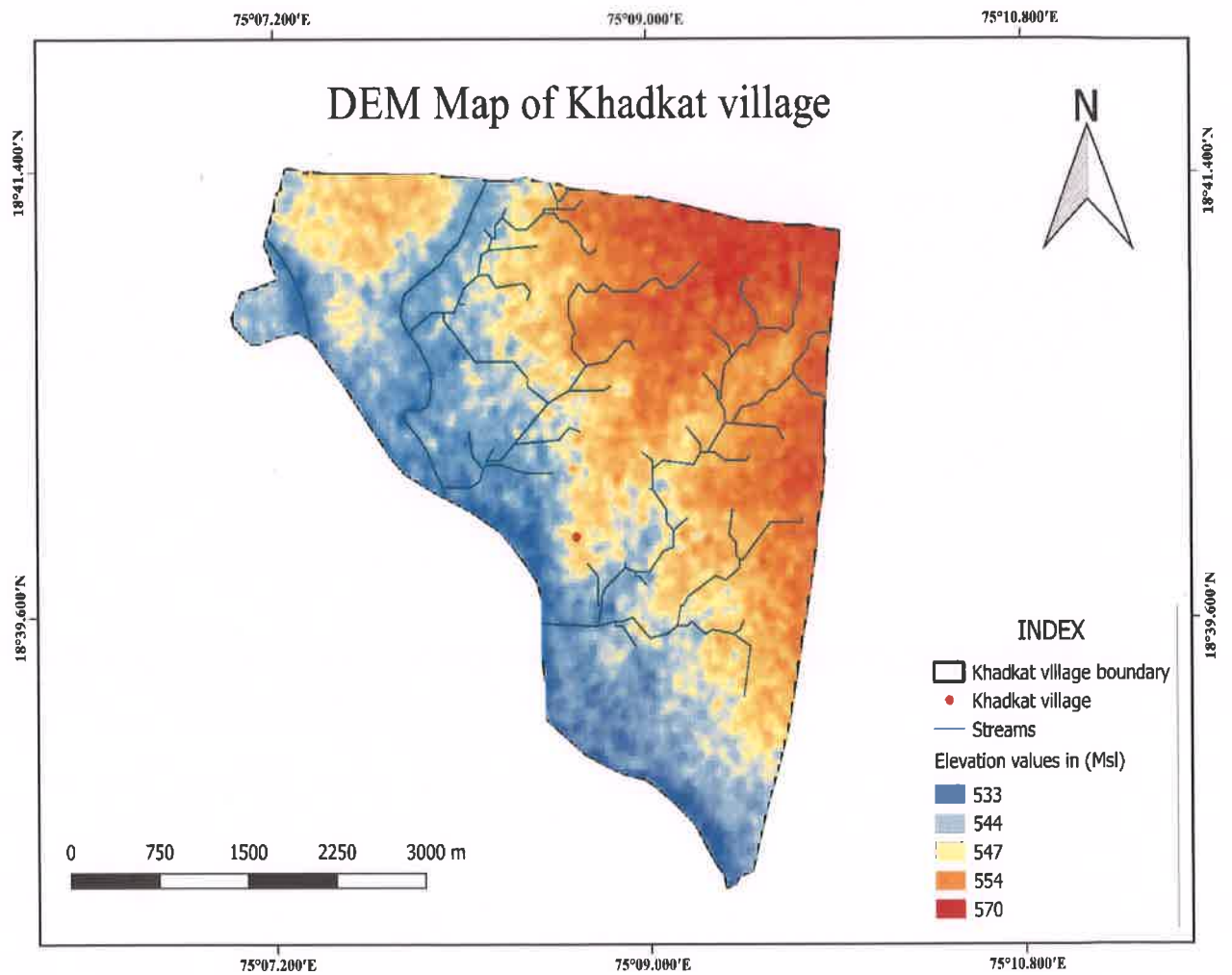
l) Any remark about geological formation.

# Contour Map of Khadkat Village

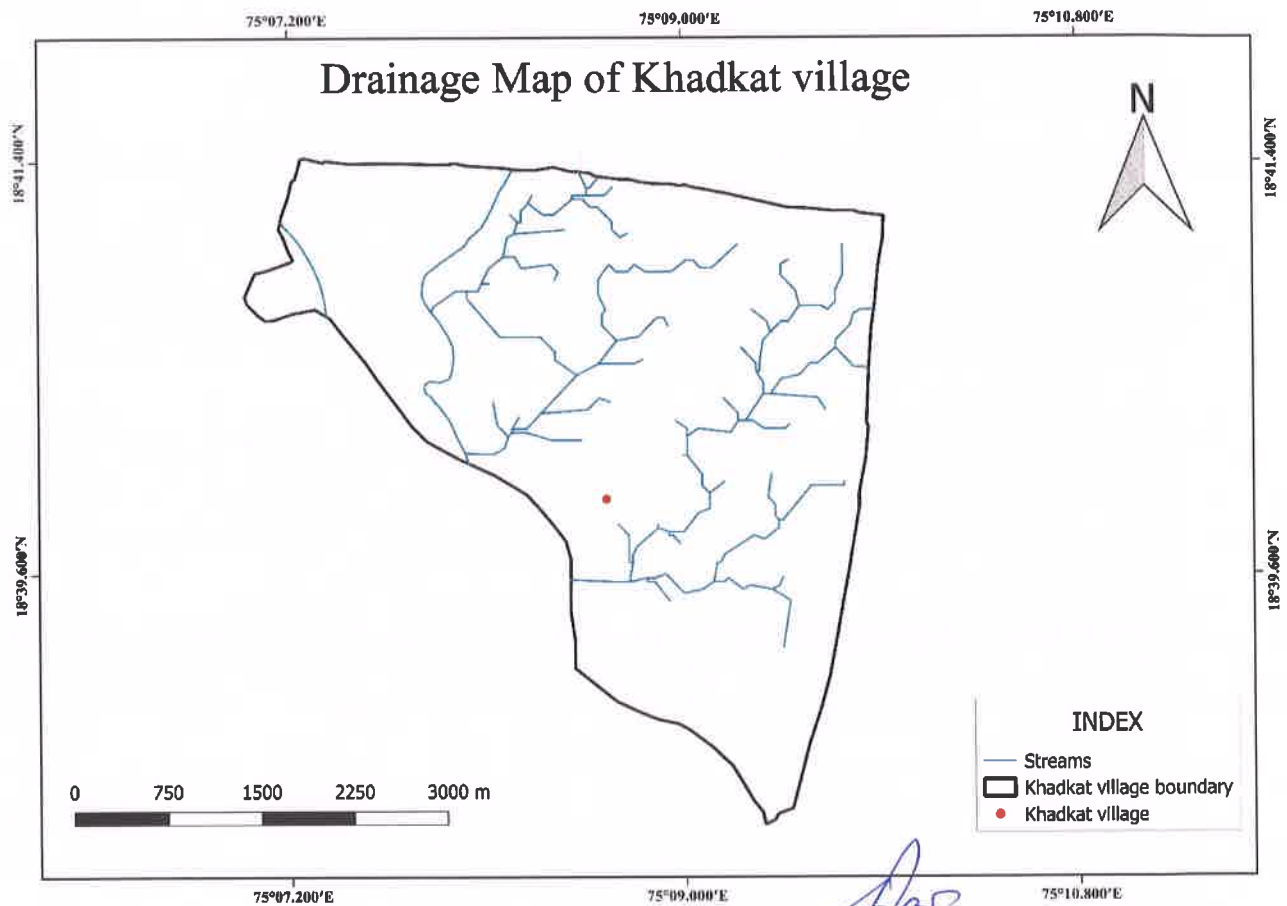




## DEM Map of Khadkat Village



# Drainage Map of Khadkat Village



*[Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## Kansewadi

### Dug well inventory

17-2

\* कंसेवाडी \*

पाली चालकी - पावसाळा - full overflow

Dugwell -  
हिवळा - 6 ते 10 तास yielding  
उन्हाळा - 1 ते 2 तास yielding

● Greenbelt - Very good, as compare to other village.

- सर्व विहीरींना जवळपास 10 ते 12 ft. parapet आढळते.

नदी - गावाच्या जवळ छोटी पात्र असलेली नदी आढळते.

● पानमेढ कामे - झालेली नाहीत आहे

- Artificial Recharge कधी विकाशी करणे आवश्यक आहे.



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 86" N

Long - 75° 13' 45" E

Altitude - 685 m

Date - 12/06/19

Village कैसे वाडी

Gut No. 281

Name of the Farmer संदीप ज्ञानदेव कनारे

Well No. D101

In Village Location ..... User...  Personal/Community/.....

Location of the well..... along River westside  
(Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2015..... Construction year 4 years..... If yes type.....

Parapet Ht. 17 ft..... Shape-Circular/Square, Diameter of well 20 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 24 ft..... Water level from ground level..... m.  
In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... Location at the bottom)

Use :- Drinking , Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump..... HP 3 HP

Dia of outlet pipe..... cm. /inch.....

Quantity of withdrawals :- Daily..... Hrs. Seasonal..... cc meter / day

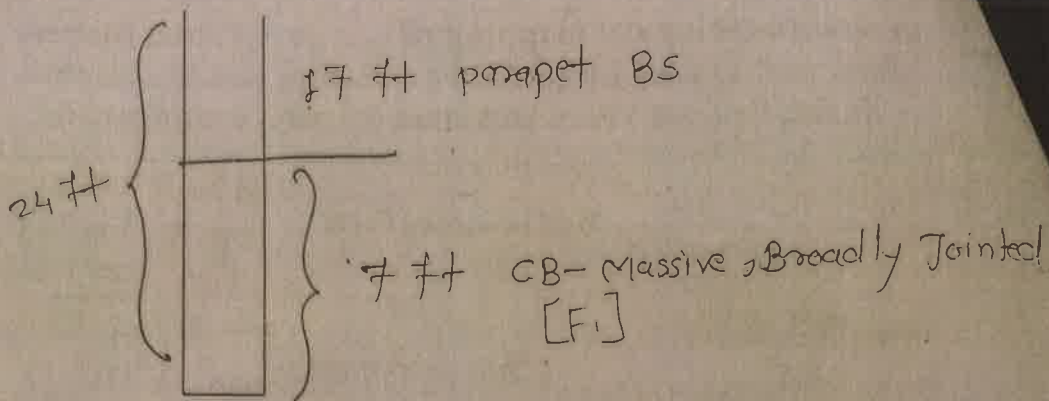
Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information .....

J. A. Mhaske

Name of the Surveyor

Signature



a) Lining

Cement - circular

b) Soil - Black / Yellow / Sandy

sandy - Black soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

watershed present at NW side

d) Effect of existing structures on watertable.

seasonable water

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

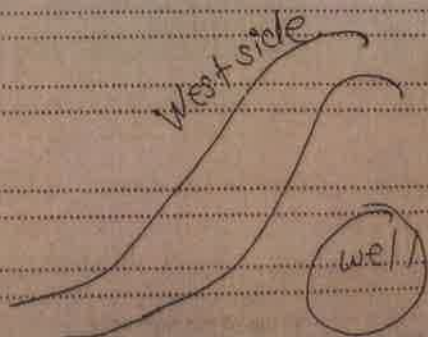
NA

k) Dyke rock

NA

l) Any remark about geological formation.

well Eastside from  
river



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat-18° 54' 85" N

Long-75° 13' 42" E

Altitude-680m

Date-12/06/19.

Village अजसे वडी

Gut No. 282/281 Name of the Farmer प्रकारा राव साहेब पाटकोरे Well No. D102

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2010, Construction year 3 year, If yes type.....

Parapet Ht. 1.0 ft. Shape-Cicular/Square, Diameter of well... 2.5 ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 28 ft., Water level from ground level.....m.  
In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP..... 3 HP  
Dia of outlet pipe.....cm, /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information .....

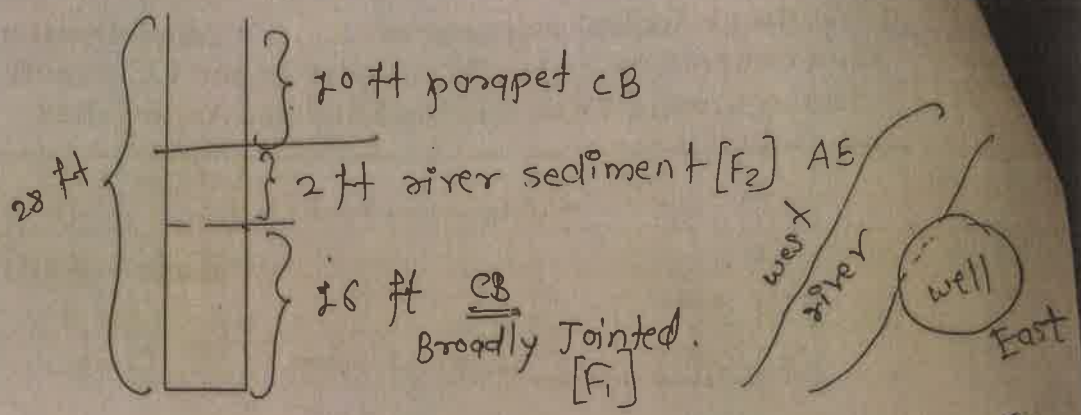
S.R. Wachankar

Name of the Surveyor

(Signature)  
Signature



Geology of the well section



- a) Lining Cement
- b) Soil - Black / Yellow / Sandy sandy Black
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
River along the river - sand River present
- d) Effect of existing structures on watertable.  
River water
- e) Geological / Geographical effect on groundwater.  
Recharge from west side of river
- f) Compact basalt  
Broadly Jointed
- g) Amygdaloidal Basalt  
NA
- h) Vesicular Basalt  
NA
- i) Tachylytic basalt  
NA
- j) Flow contact  
NA
- k) Dyke rock  
NA
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 85" N  
 Long - 75° 19' 39" E  
 Altitude - 687 m  
 Date - 12/06/19

Village कनसे वाडी

Gut No. 234 Name of the Farmer नामदेव रामभाऊ बावणे Well No. D103

In Village Location ..... User... Personal/Community/.....

Location of the well along the river west side (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2019 Construction year 6 month If yes type.....

Parapet Ht. .... Shape-Cicular/Square, Diameter of well 2.5 ft (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 4.6 ft., Water level from ground level 5.7 ft. m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump.. ..HP.....  
 Dia of outlet pipe ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

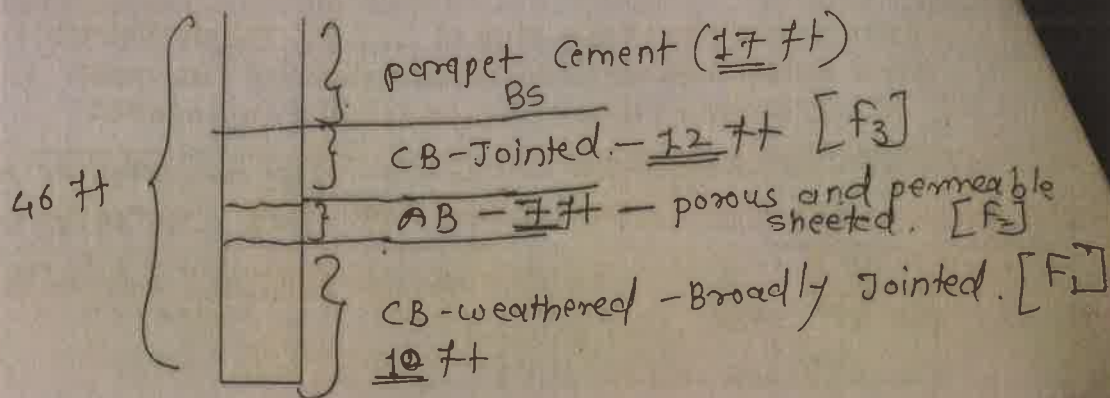
Time require for a full recharge / recuperation :  
 (Rainy season ... 24 ... Hrs; winter ... 24 ... Hrs; Summer ... 24 ... Hrs.)

Any other information .....

S. P. Wadhankar

Name of the Surveyor

  
 Signature



a) Lining

cement circular

b) Soil - Black / Yellow / Sandy

sandy black

c) Existing watershed structure / Proclamation dam in neighboring region.

River along the ~~west~~ side.

d) Effect of existing structures on water table.

East

sheeted AB help to recharge water

e) Geological / Geographical effect on groundwater.

well constructed along river / good percolation

f) Compact basalt

present broadly jointed

g) Amygdaloidal Basalt

AB - rechargeable / good yield through A

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

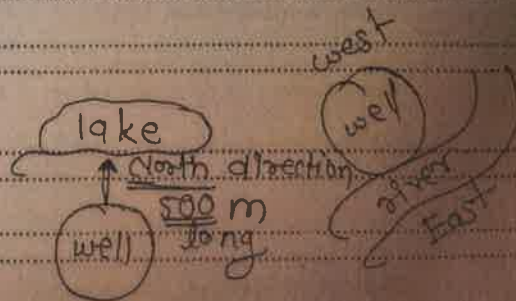
NA

k) Dyke rock

NA

l) Any remark about geological formation.

surrounded and covered by CB and AB





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 82" N

Long - 75° 13' 39" E

Altitude - 677 m

Date - 12/06/19.

Village कोरसे वडी

Gut No. 282

Name of the Farmer श्री. वसंत कोरसे

Well No. D.104

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2005 Construction year 14 yr, If yes type.....

Parapet Ht. 11 ft Shape-Cicular/Square, Diameter of well 20 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 32 ft, Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 2 ..... Acre  
 Winter Season 3 ..... Acre  
 Summer Season 1 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump.. ..HP... S. HP  
 Dia of outlet pipe.....cm. /inch .....  
 Quantity of withdrawals :- Daily 2 ..... Hrs. Seasonal ..... cc meter / day

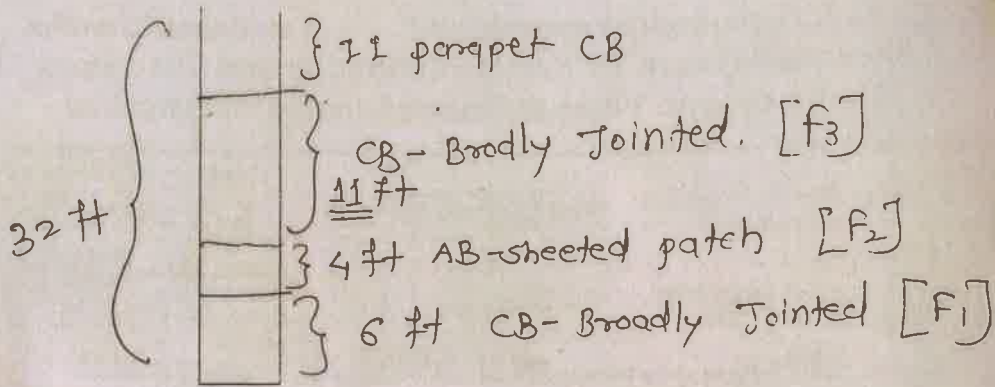
Time require for a full recharge / recuperation :  
 (Rainy season 24 ..... Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information .....

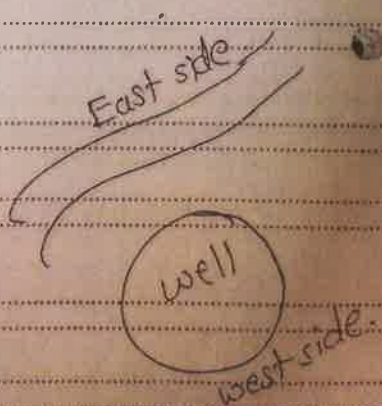
S. R. wadhankar

Name of the Surveyor

(Signature)  
 Signature



- a) Lining stone
- b) Soil - Black / Yellow / Sandy Black - sandy
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
watershed present on North side / lake
- d) Effect of existing structures on watertable.  
recharge in rainy season only, also present N side
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Broadly Jointed.
- g) Amygdaloidal Basalt NA
- h) Vesicular Basalt NA
- i) Tachylitic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat -  $18^{\circ}54'74''N$   
 Long -  $75^{\circ}13'34''E$   
 Altitude - 682  
 Date 12/06/19

Village बनसे वाडी

Gut No. 282

Name of the Farmer बाळ देवराव कवडे

Well No. D105

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1998 Construction year 20 year, If yes type.....

Parapet Ht. 20 ft Shape  Circular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 28 ft, Water level from ground level 5 ft m.  
 In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP..... 5 HP

Dia of outlet pipe..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs, Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 24 Hrs; Summer 0 Hrs.)

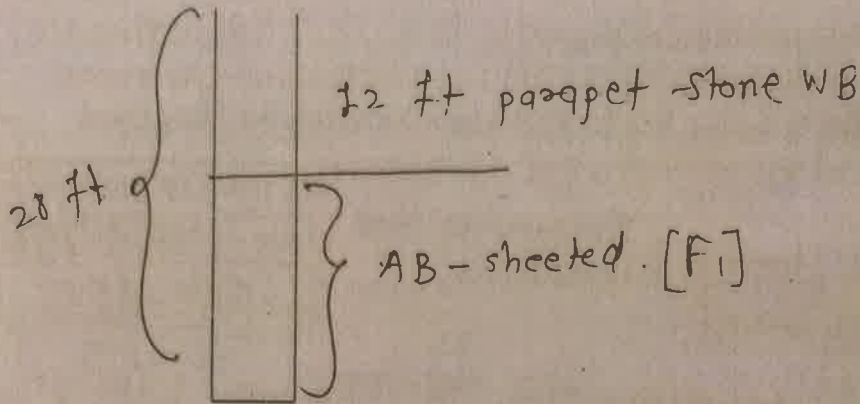
Any other information .....

S. R. wadhankar

Name of the Surveyor

[Signature]  
 Signature





a) Lining

stone.

b) Soil - Black / Yellow / Sandy

Black loamy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

watershed N-side.

d) Effect of existing structures on watertable.

S - Horizontal Bore All side N-E-S-W

e) Geological / Geographical effect on groundwater.

Good GW Cond<sup>n</sup> through AB only

f) Compact basalt

NA

g) Amygdaloidal Basalt

AB-sheeted - porous & permeable

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

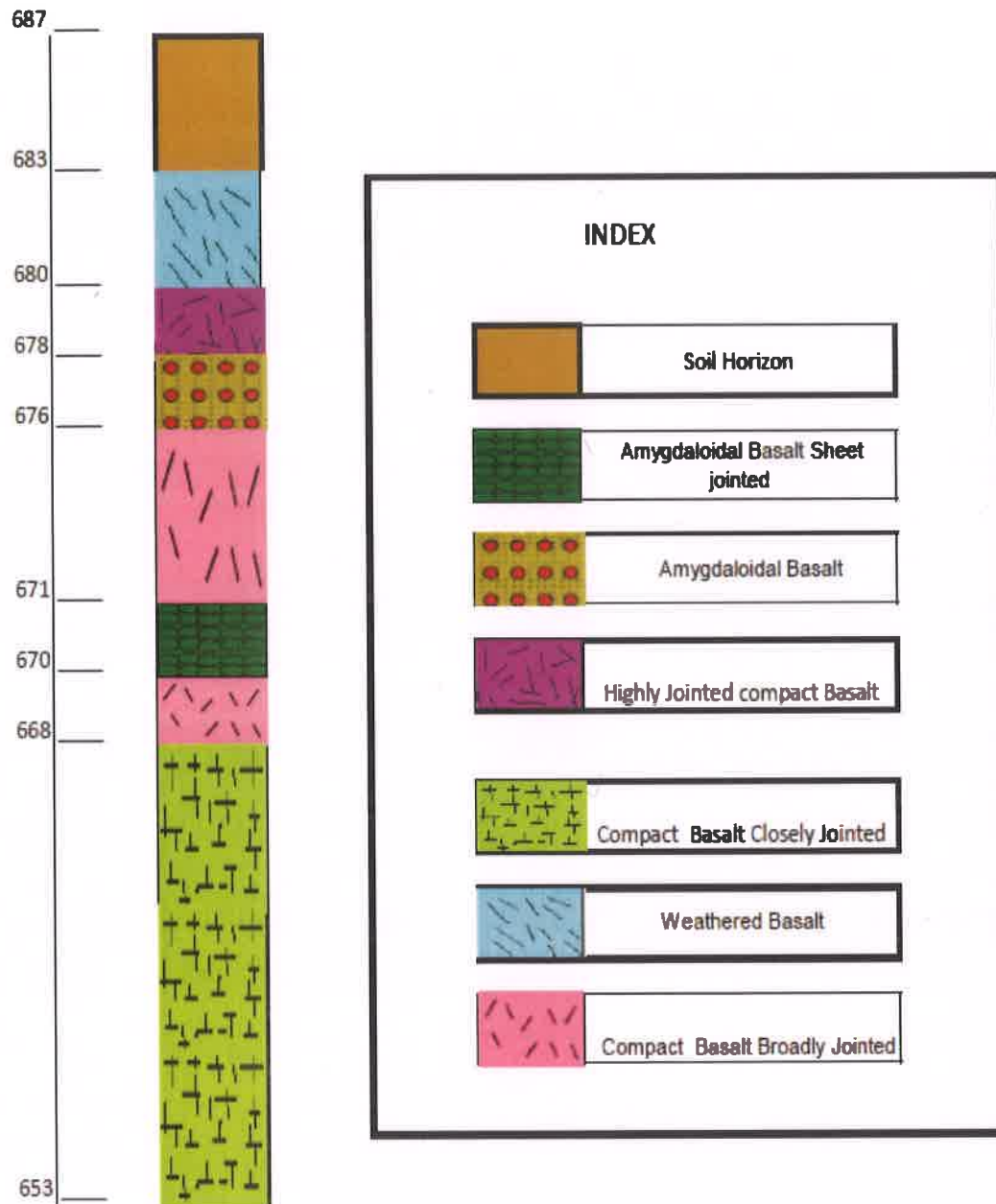
NA

k) Dyke rock

NA

l) Any remark about geological formation.

## Litholog Of Kansewadi village



Litholog of Kansewadi Village



**Broadly Spaced Jointing of Compact Basalt flow can be seen**



## **Khanapur**

Khanapur is a small Village/hamlet in Ashti Taluka in Beed District of Maharashtra State, India. It comes under Khanapur Panchayath. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 79 KM towards west from District headquarters Beed. 280 KM from State capital Mumbai. Khanapur is surrounded by Jamkhed Taluka towards South, Pathardi Taluka towards North, Patoda Taluka towards East, Karjat Taluka towards South. Pathardi, Ahmednagar, Shrigonda, Daund are the nearby Cities to Khanapur.

Google Earth image of Khanapur Village







Dug-Well Inventory

नक्शा क्र. 12  
 जायलगा गाव. खालापूर  
 ता. आशी  
 जि. सि.

कायदा क्र. 4  
 मालीत नंबर उंची: 571 म  
 रकमीत जमी खेती: 562 म

खालापूर हे गाव वेळी नदिया खेव समुन जावळ्या  
 पश्चिमेव रुही पसर तकाव ओह रुही तकावाय Lat 18°17'30"  
 Long. 75°05'35"E हे ठिगान ओह ह तकाव सुभल सुभेक  
 पूर्वे जाकेला जपता. था तकावान जव्या मालीनी  
 म ओहला आहे. था तकावाला गाव कादल तर था  
 तकावाली साडेका दजत वाडेक आशी. तकावाले पली  
 पासकन विहेली पावली पावली वाड देते.  
 वेळी नदिया वीरुकरा आशी

रुहीगाव कळत गाव वांधरा वांधवासी ओम डिठव  
 आहे.

→ पसर तकावाच्या आशिल  
 वाजुवा गिरीली पावली पावली जस आहे  
 पव तकावाला वरुवा वाजुका जेव्या  
 आहेत.

→ तकावाला वरुवा वाजुका CCA के  
 काम केके तर पावली वाडेक

① Due to fluctuation of ground water level  
 ② surface of groundwater in rainy season  
 and dug well become dry in winter and during  
 summer season

गाँव :- खानापुर  
 ताकूको :- भाँटी  
 निम्न :- ठीठ  
 एकुल विहरी :- 12

नामतीत जम्स उंची :- 571 मी  
 जमित कामे उंची :- 562 मी

~~Artificial recharge has been done at depth of 6 to  
 8 m in Khampar village. Hence~~

Artificial Recharge require along Potha  
 river on both north & south side of  
 Khampar village. Hence

Recharge structure require to increase  
 recharge of groundwater  
 of water. Artificial recharge structure  
 require in Reoti Dam also require  
 to increase groundwater potential  
 of Khampar village.

Q.7 Due to fluctuation of ground potentiality  
the number of water table in rainy season  
and dry season become dry in winter and summer  
seasons.

गाँव :- खारपुर  
तालुका :- बुंदेली  
जिला :- लखीमपुर

● लक्ष्य विहारी :- 12

समयीय जल उंची :- 571 मी

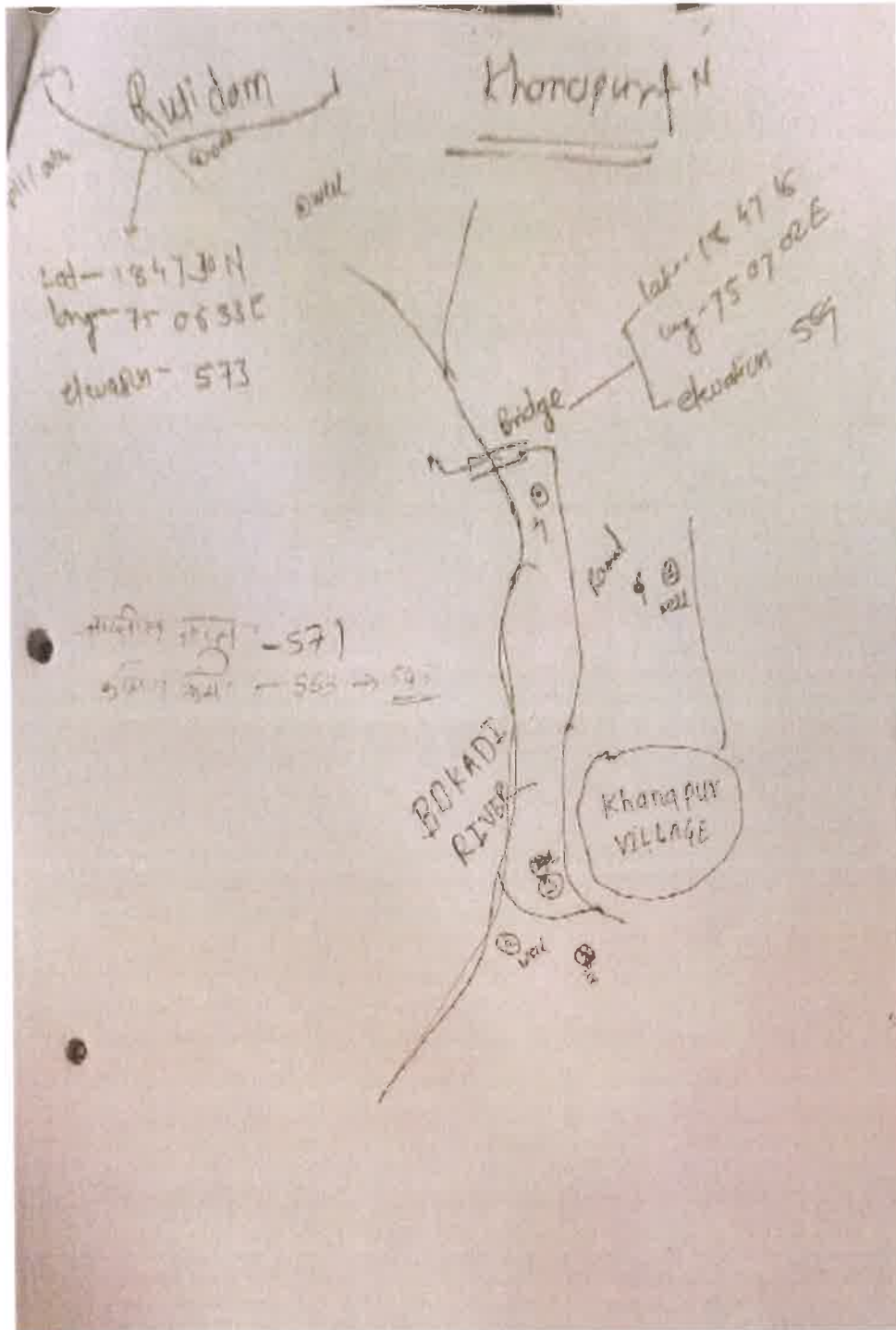
समयिक जल उंची :- 562 मी

~~सूक्ष्म जल संचयन कार्य प्रारंभ करने के लिए 6 से 8 मी की गहराई पर खारपुर गाँव में~~

Artificial Recharge require along both  
sides on both north & south side of  
village. minimum ~~10~~ 15 m  
recharge structure require to increase

recharge of groundwater  
of water. Artificial recharge structure  
require in Rathi Dam also require  
to increase groundwater potential  
of Kharpur village.



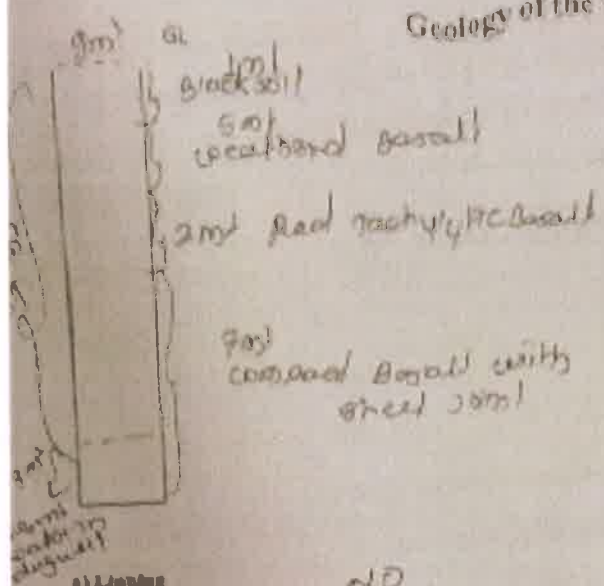


Geohydrogeological mapping of ..... Tehsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village .....  
 Date - 20/07/19  
 Cut No. .... Name of the Farmer ..... Well No. 01.....  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging ..... Construction year... NO, If yes type.....  
 Perapet Ht..... Shape-Circular/Square, Diameter of well... 9m.....  
 Total Depth ... 15m ..... Water level from ground level... 12m .....  
 In rainy season ..... In winter .....  
 Percolation from : Bottom / Lateral Direction (In the case of lateral direction .....)  
 Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 14 ..... Acre  
 Winter Season ..... 6 ..... Acre  
 Summer Season ..... MS ..... Acre  
 Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP.....  
 Dia of outlet pipe ..... 2.5 ..... cm, Inch .....  
 Quantity of withdrawal :- Daily ..... Hrs Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter ..... Hrs; Summer ..... NO ..... Hrs)  
 Any other information .....  
 Name of the Surveyor .....  
 Signature .....

# Geology of the well section



200m 2km SW  
 200m 2km SE

- a) Lithology NO
- b) Soil - Black / Yellow / Sandy black soil
- c) Existing watershed structure / Proclamation dam in neighboring region. near place present
- d) Effect of existing structure on water table. increasing water table
- e) Geological / Geographical effect on groundwater. near stream / stream / precipitation
- f) Compact basalt 7m compact basalt / NO present
- g) Amygdaloidal Basalt absent
- h) Vesicular Basalt absent
- i) Tachylytic basalt 2m red soil or Tachylytic basalt present
- j) Flow contact small quartz vein present
- k) Dyke rock absent
- l) Any remark about geological formation. placid area



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramini  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ... KHANAPUR

Date - 20/7/2017

Gut No. ... 7 Name of the Farmer ... Siddhi Dada Well No. ... 10

In Village Location ... 500 feet to village User ... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2010 Construction year 2010 If yes type... concrete lining

Parapet Ht..... Shape-Circular/Square, Diameter of well... 8m 100 x 40 cm  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping)..... 100 x 750052 E

Total Depth ... 15m Water level from ground level... 7.5m m.  
 In rainy season on 10/10/15 m, winter... 1.5 m, summer... 2.5 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 2 HP.....  
 Dia of outlet pipe..... cm. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs)

Any other information ..... slope of direction Ratio to well

Name of the Surveyor  
G. M. Patil

[Signature]  
 Signature

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanatha Aurangabad

Well Inventory Form

Village .. KHANIAPUR ..... Date - 20/7/2017

Gut No. 7 ..... Name of the Farmer .. गोमय तावरे ..... Well No. 10

In Village Location .. To west to village User .. Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 2010

Year of the Digging 2010, Construction year 2010, If yes type .. cement lining

Parapet Ht..... Shape-Circular/Square, Diameter of well 8 m' Sub 12 240 500  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping) .. 100 750 52 E

Total Depth 15 m, Water level from ground level 7.5 m, .. 500 500 m  
 In rainy season .. 10 m, winter .. 1.5 m, summer .. 6.5 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction ..)  
 (If the horizontal bore is taken in .. Direction Length .. m, and for vertical bore hole .. m, Location at the bottom)

Use :- Drinking .., Irrigation .. Acres, Horticulture .., etc ..  
 Rainy Season .. Acre  
 Winter Season .. 5 .. Acre  
 Summer Season .. 6.5 .. Acre

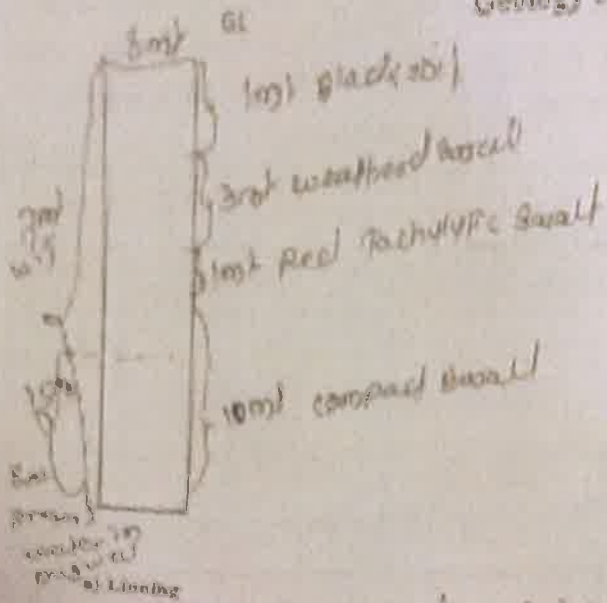
Type of withdrawals/Pump Out :- Electrical motor .. Diesel Pump 2 HP ..  
 Dia of outlet pipe .. cm. /Inch ..  
 Quantity of withdrawals :- Daily .. Hrs. Seasonal .. cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season .. Hrs. winter .. Hrs. Summer .. 4.5 .. Hrs.)

Any other information .. slope .. of .. direction .. East to west

Name of the Surveyor .. G. M. Patil ..  
 Signature ..

# Geology of the well section



- (common) being
- a) Soil - Black / Yellow Sandy black soil
  - b) Existing watershed structure / Proclamation dam in neighbouring region. near west side Bokadi
  - c) Effect of existing structures on water table. river present and there is some NSE side RUP dam
  - d) Geological / Geographical effect on groundwater. water penetration high
  - e) Compact basalt. in west water level and water table
  - f) Any doleritic Basalt. 10m part of compact basalt present
  - g) Vesicular Basalt. absent
  - h) Tachylytic basalt. 10m Red soil present
  - i) Flow contact. white lime soil
  - j) Dyke rock. absent
  - k) Any remark about geological formation. plain area flow direction East to West



Geohydrogeological mapping of ..... Tahsil District Beed  
 Undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village kalimay Date 22/07/19  
 Cut No. 7 Name of the Farmer श. H. गुरव Well No. 03  
 In Village Location ..... User... Personal/Community/  
 Location of the well 7 ..... (Farmland, Bank of Nala, In the Nala, Riverbed) .....  
 Year of the Digging 2009, Construction year ..... If yes type Hand dug  
 Parapet Ht. 2.0 Shape-Circular/Square, Diameter of well 2.5 inch  
 (Whether water from other source brought to this well if yes source and Hrs of pumping) kal - 18 6659  
 Total Depth 17 m, Water level from ground level 1.5 m long - 750 655  
 In rainy season 17 m, winter 8.5 m, summer 2.0 m EN - 562 rot  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom) .....  
 Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc .....  
 Rainy Season 12 Acre  
 Winter Season 4 Acre  
 Summer Season 10 Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....  
 Dia of outlet pipe 2.5 cm / inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 12 Hrs; winter 2-12 Hrs; Summer 20-45 Hrs)  
 Any other information .....

Konde Gurus  
 Name of the Surveyor

Record  
 Signature

Geohydrogeological mapping of ..... Tahsil District Beed  
 Undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

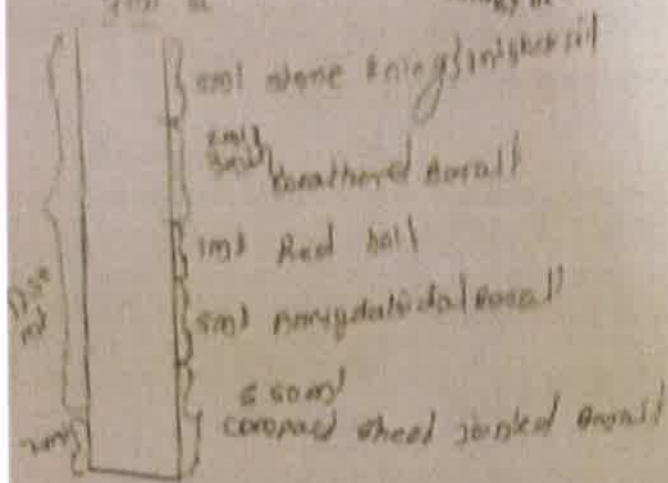
Village 241114K  
 Gut No. 101 Name of the Farmer डिगोर तिवरे Well No. 04 Date 20/07/19  
 In Village Location ..... User ... Personal/Community! .....  
 Location of the well 100 (Farmland, Bank of Nala, In the Nala, Riverbed) River  
 Year of the Digging 2001 Construction year ..... If yes type stone lining  
 Parapet Ht. 1.21 Shape-Circular/Square, Diameter of well 2m  
 (Whether water from other sources brought in this well if yes source and Hrs of pumping .....)  
 Total Depth 10.50m Water level from ground level 12.50 m. lat 180715  
 In rainy season every flow m. winter 8 summer no m. long 750202  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the horizontal here is taken in Direction Length ..... and for vertical here is Location of the bottom)  
 Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc .....  
 Rainy Season 14 Acre  
 Winter Season 6 Acre  
 Summer Season 10 Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....  
 Dia of outlet pipe 2.5 cm. inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 1-4 Hrs. winter 6 Hrs; Summer NO Hrs.)  
 Any other information .....

Korke Anasari  
 Name of the Surveyor

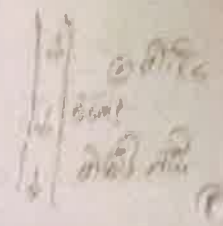
Boordp  
 Signature

7m a

### Geology of the well section



Handwritten notes in Hindi:   
 1. 2m1 zone lining  
 2. 2m1 weathered basalt  
 3. 1m1 Red ball  
 4. 5m1 amygdaloidal basalt  
 5. 5.50m1 coronal sheet jointed basalt



a) Lining

zone lining

b) Soil - Black / Yellow Sandy

Black soil

c) Existing watershed structure / Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

5.50 m1 coronal basalt flow present

g) Amygdaloidal Basalt

5m1 amygdaloidal basalt flow present

h) Vesicular Basalt

Absent

i) Tachylitic basalt

1m1 Red ball or tachylitic basalt flow or gap present

j) Flow contact

Red ball region

k) Dyke rock

Absent

l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanatha Aurangabad

Well Inventory Form

Village Phanapur

Date - 20/07/2024

Cut No. .... Name of the Farmer ..... Well No. 5

In Village Location North to village User... Personal/Community

Location of the well In River (Farmland, Bank of Nala, In the Nala, River bed)

Year of the Digging 2008 Construction year 2008 If yes type Concrete lining

Parapet Ht. 1m Shape-Circular/Square, Diameter of well 10

(Whether water from other sources brought to this well if yes source and hrs of pumping)

Total Depth 13.12 m, Water level from ground level day m, Lat - 16°47'22" N  
 In rainy season over flow m, winter 2-60 m, summer 2-20 m, Long - 74°05'58" E  
 Elevation - 564 m

Percolation from : Bottom / Lateral Direction (In the case of lateral direction) (If the Horizontal bore is taken in Direction, Length m, and for vertical borehole m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture  etc.  
 Rainy Season 2 Acre  
 Winter Season 5 Acre  
 Summer Season 12-24 Acre

Type of withdrawals/Pump Out :- Electrical motor Diesel Pump 3 HP

Dia of outlet pipe 2 cm, inch  
 Quantity of withdrawals :- Daily 2000 Hrs, Seasonal 5 cc meter / day

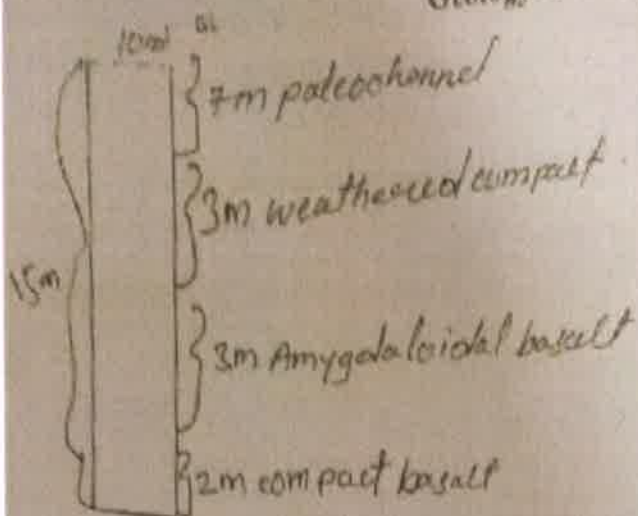
Time require for a full recharge / recuperation :  
 (Rainy season 2-5 Hrs; winter 12-24 Hrs; Summer day Hrs.)

Any other information

Name of the Surveyor  
Abdul Subhan

[Signature]  
 Signature

## Geology of the well section



a) Lining

concrete lining

b) Soil - Black / Yellow Sandy

Black soil paleochannel

c) Existing watershed structure / Reclamation dam in neighboring region.

percolation dam is present in the west side of dug well

d) Effect of existing structures on recharge.

percolation from flow contact because of dam

e) Geological / Geographical effect on groundwater

North-south flow direction from north west to south

f) Compact basalt

2 m of compact basalt at base

g) Amygdaloidal Basalt

Amygdaloidal basalt of 10 m after paleochannel & weathered compact basalt

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

Flow contact of weathered compact & Amygdal at 10 m

k) Dyke rock

l) Any remark about geological formation.

hydrogeological mapping of ..... Tahsil District Beed  
 Undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... पिंपरी ..... Date ..... 20/07/19

Gut No. 22 ..... Name of the Farmer ..... Well No. 119

In Village Location ..... well to village ..... User ..... Personal/Community/.....

Location of the well ..... Road side ..... (Farmland, Bank of Nala, In the Nala, Riverbank).....

Year of the Digging ..... 1972 ..... Construction year ..... 1972 ..... If yes type ..... Hand dug

Parapet Ht. .... Shape-Circular/Square, Diameter of well ..... 1.2 ..... 1.2 1.2

(Whether water from other sources brought to this well by any means and the of perching).....

Total Depth ..... 11 ..... Water level from ground level ..... 1.2 ..... 1.2 1.2

In rainy season ..... 5.2 ..... m, winter ..... 0.4 ..... summer ..... 1.2 ..... m

Percolation from : Bottom / Lateral Direction (In the case of lateral direction).....

(If the horizontal bore is taken in ..... Direction, Length ..... m and for various borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... 1.2 ..... 1.2 ..... 1.2

Rainy Season ..... 1.2 ..... Acres

Winter Season ..... 1.2 ..... Acres

Summer Season ..... 1.2 ..... Acres

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... 1.2 ..... HP.....

Dia of outlet pipe ..... 2.5 ..... cm. Anch ..... 1.2

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... 1.2 ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ..... Hrs; winter ..... 1.2 ..... Hrs; Summer ..... 1.2 ..... Hrs)

Any other information .....

Name of the Surveyor  
S. M. Patil

S. M. Patil  
 Signature



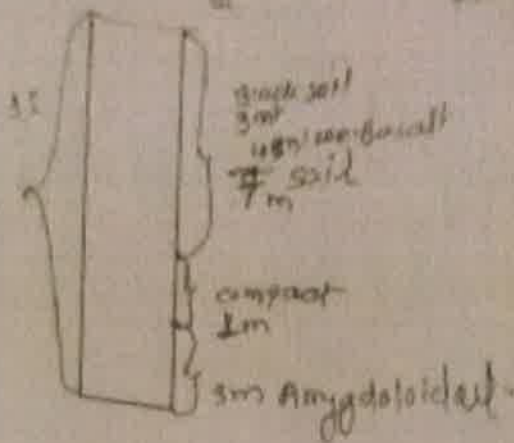
Hydrogeological mapping of ..... Tahsil District Beed  
 Undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... शिरासरी ..... Date - 20/07/19  
 Gut No. 21 ..... Name of the Farmer ..... Well No. ....  
 In Village Location ..... west to village ..... User... Personal/Community/.....  
 Location of the well ..... Road side .....  
 Year of the Digging ..... 1972 ..... Construction year ..... 1972 ..... If yes type .....  
 Perapet Ht. .... Shape-Circular/Square, Diameter of well ..... 1.2m .....  
 Total Depth ..... 11 ..... Water level from ground level ..... 0.5 .....  
 In rainy season ..... 5.75 m. winter ..... 0.4 ..... summer ..... 0.2 m.  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 Use :- Drinking ..... Irrigation ..... Acres, Horticulture .....  
 Rainy Season ..... 7 ..... Acres  
 Winter Season ..... 4 ..... Acres  
 Summer Season ..... N.D. Acres  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP .....  
 Dia of outlet pipe ..... 2.5 ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal .....  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... 2 ..... Hrs; Summer ..... 2 ..... Hrs.)  
 Any other information .....

Name of the Surveyor ..... S. M. Patil .....  
 Signature .....

Geology of the well section



- a) Lining  
stone lining
- b) Soil - Black / Yellow sandy  
of black soil 7m
- c) Existing watershed structure/ Proclamation dam in neighboring region.  
is present west of well for Put' dam
- d) Effect of existing structures on water table.  
Put' dam water percolation form
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt  
compact basalt 1m
- g) Amygdaloidal Basalt  
amygdaloidal 3m
- h) Vesicular Basalt  
Absent
- i) Tachylitic basalt  
Absent
- j) Flow contact  
A flow contact is at 7m
- k) Dyke rock
- l) Any remark about geological formation.  
This well is exact base of Put' dam

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

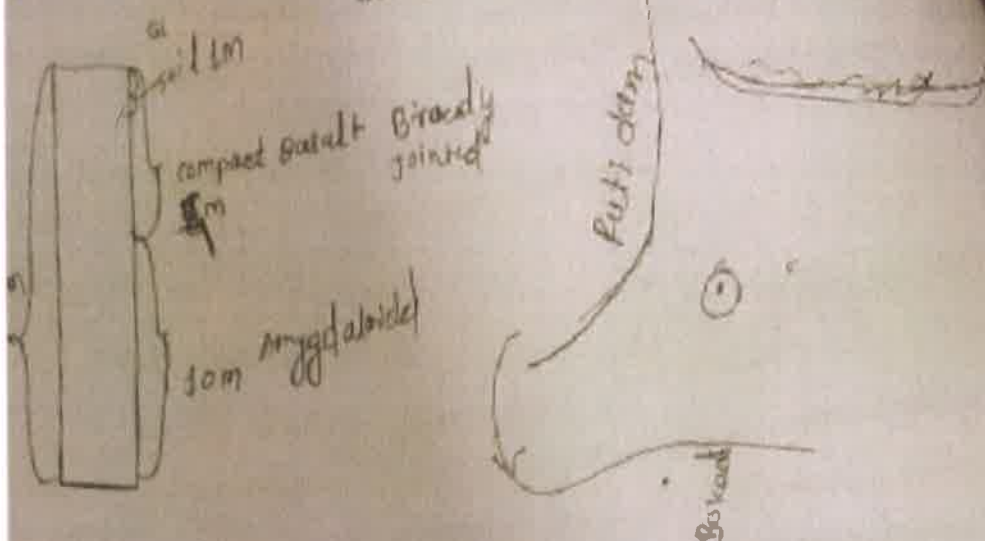
Village विहाडी 2016/17 Date - 20/7/2019  
 Gut No. 13 Name of the Farmer रजनी शिवाजी Well No. 7  
 In Village Location East to village User Personal/Community  
 Location of the well dom (Farmland, Bank of Nala, In the Nala, Riverbed) जमीन पर डबो 2016  
 Year of the Digging 2015 Construction year 2015 If yes type concrete/brick  
 Parapet Ht. 10 Shape Circular Diameter of well 7m Lat 14 47 27 N  
 Total Depth 15 Water level from ground level 2.4 Long 75 05 42 E  
 In rainy season 10 m. water 1.02 summer 2.4 m. elevation 567  
 Percolation from: Bottom / Lateral Direction (In the case of lateral direction.....)  
 Use :- Drinking 3 Irrigation 3 Acres, Horticulture.....; etc.....  
 Rainy Season 3 Acre  
 Winter Season 3 Acre  
 Summer Season 3 Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump HP  
 Dia of outlet pipe 2.5 cm. inch  
 Quantity of withdrawals :- Daily 12 ltrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter ..... Hrs; Summer ..... Hrs.)  
 Any other information .....

Name of the Surveyor  
S. M. Jadhav

Shirish  
 Signature



Geology of the well



- a) Lining no
- b) Soil - Black / Yellow / Sandy 2m soil is present
- c) Existing watershed structure / Proclamation dam in neighboring region Puti dam is present west of dug well
- d) Effect of existing structures on water table. Puti dam water reservoir present
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt compact basalt is present on surface
- g) Amygdaloidal basalt amygdaloidal is below the
- h) Vesicular basalt compact absent
- i) Tachylytic basalt absent
- j) Flow contact contact flow is at 5m from surface
- k) Dyke rock
- l) Any remark about geological formation. well west side of Puti dam present

Hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

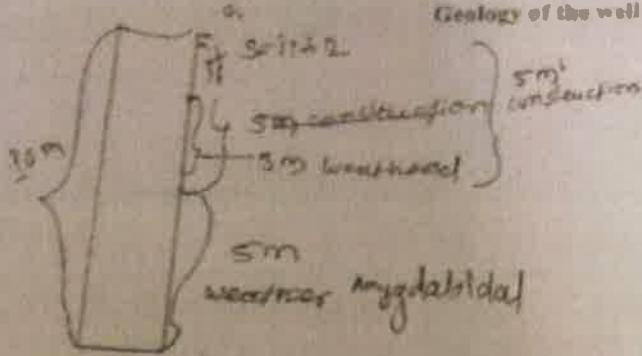
Well Inventory Form

Village ..... Patilwadi / Patilwadi ..... Date - 2017/2019  
 Gut No. .... Name of the Farmer ..... Well No. 2  
 In Village Location ..... User ...  Personal /  Community / .....  
 Location of the well ..... East of village ..... (Farmland, bank of Nala, In the Nala, Riverbed) .....  
 Year of the Digging ..... 1995 ..... Construction year ..... 1995 ..... If yes type ..... stone .....  
 Parapet Ht. .... Shape -  Circular /  Square, Diameter of well ..... 7m .....  
(Whether water from other sources brought to this well if yes source and type of pumping)  
 Total Depth ..... 10 ..... Water level from ground level ..... 0.7 ..... m. Lat 16 47 25 N  
 In rainy season ..... 0.2 m, winter ..... 0.7 ..... m. Long 75 06 45 E  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....  
(If the horizontal bore is taken in ..... Direction Length ..... m. and for vertical bore hole ..... m. Location at the bottom)  
 Use :-  Drinking .....  Irrigation ..... Acres, Horticulture ..... etc .....  
 Rainy Season ..... Acre  
 Winter Season ..... 5 ..... Acre  
 Summer Season ..... 7 ..... Acre  
 Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump ..... 3 HP .....  
 Dia of outlet pipe ..... 2 ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... 4 ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs, winter ..... 6 ..... Hrs, Summer ..... 0.5 ..... Hrs.)  
 Any other information .....

Name of the Surveyor  
S. M. Joshi

[Signature]  
 Signature

Geology of the well section



- a) Lining No slope lining
- b) Soil - Black / Yellow Sandy Black soil
- c) Existing watershed structure: Proclamation dam in neighboring region. No near structure  
but near river are present
- d) Effect of existing structures on water table. Increase water level
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Absent
- g) Amygdaloidal Basalt 5m Amygdaloidal Basalt now present
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact in between weathered basalt and amygdaloidal basalt
- k) Dyke rock Absent
- l) Any remark about geological formation. \_\_\_\_\_



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village 2010113

Date - 20/03/19

Gut No. .... Name of the Farmer मोदी मोदी Well No. 3

In Village Location ..... User... Personal/Community/.....

Location of the well पश्चिम (Farmland, Bank of Nala, In the Nala, Riverbed) Protected

Year of the Digging 2014, Construction year....., If yes type.....

Parapet Ht. 1.17 Shape-Circular/Square, Diameter of well 2.1  
(Whether water from other sources brought to this well if yes source and Hrs of pumps)

Total Depth 13.50 m, Water level from ground level 12.21 m  
 In rainy season ..... m, winter ..... m, summer ..... m  
 lat - 184721  
 long - 750702  
 elev - 96500

Percolation from : Bottom / Lateral Direction (In the case of lateral direction .....)  
(If the horizontal bore is taken in Direction Length ..... m and for vertical bore depth ..... m. Location of the bore)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 12 Acre  
 Winter Season 4 Acre  
 Summer Season N.D. Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 cm. inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

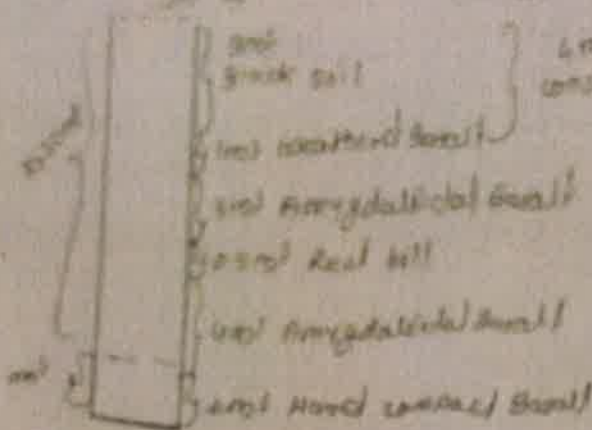
Time require for a full recharge / recuperation :  
 (Rainy season 6/7/10/12 Hrs; winter ..... Hrs; Summer 4/5/7 Hrs)

Any other information .....

मोदी सुकान्त  
 Name of the Surveyor

Barid  
 Signature

## Geology of the well section



- a) Lining: cement
- b) Soil - Black / Yellow Sandy: Black soil
- c) Existing waterhole structure / Proclamation dam in neighboring region: Distance full dam and 100m distance near well site
- d) Effect of existing structures on water table: distance 100m no effect on ground water table
- e) Geological / Geographical effect on groundwater: increase water level
- f) Compact basalt: 2m Basalt hard compact Basalt flow present
- g) Amygdaloidal Basalt: 3m and 1m alternate are present
- h) Venticular Basalt: Absent
- i) Tachyitic basalt: 0.30 to 0.30m Red soil present
- j) Flow contact: total flow present
- k) Dyke rock: Absent
- l) Any remark about geological formation: Flow and no hole and direction East to west

hydrogeological mapping of ..... Tehsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

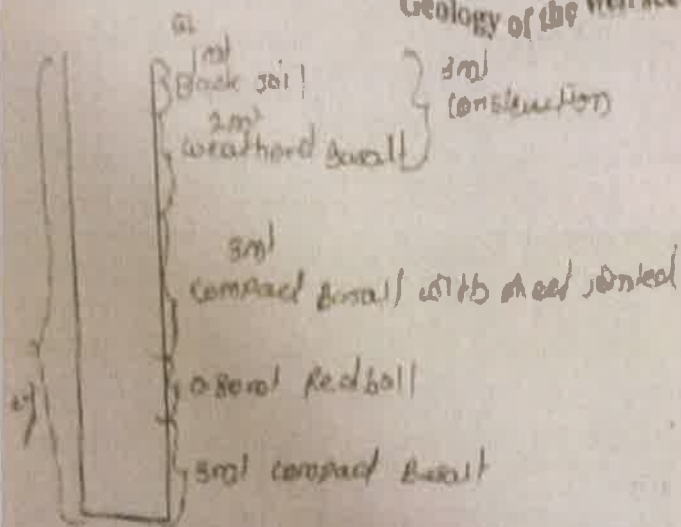
No. ....  
 Date - 20/07/19  
 Name of the Farmer ..... Well No. 10  
 Village Location ..... User... Persons/Community/  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed)  
 Year of the Digging 2009 Construction year..... If yes type cement  
 Parapet Ht. NO Shape-Circular/Square, Diameter of well 1000  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping)  
 Total Depth 225.00 Water level from ground level 184.727  
 In rainy season 27.70 winter 4.00 summer 25.40 EW = 566 rot  
 Percolation from : Bottom / Lateral Direction (In the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... Location at the bottom)  
 Use :- Drinking .... Irrigation ..... Acres, Horticulture.....; etc.....  
 Rainy Season 4 Acres  
 Winter Season 1 Acres  
 Summer Season N.D. Acres  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP  
 Dia of outlet pipe 2.2 cm. / inch  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 2.4 Hrs; winter 4 Hrs; Summer 12.5 Hrs)  
 Any other information .....

KandE Tukarao  
 Name of the Surveyor

Signature



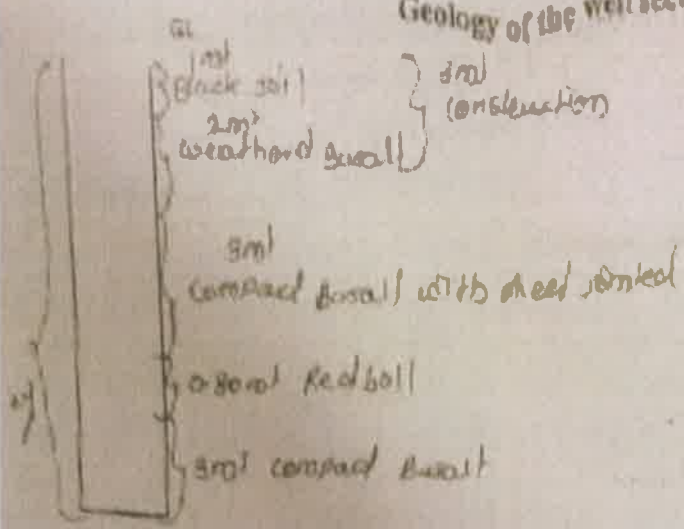
# Geology of the well section



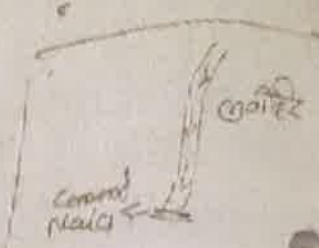
वैशु 1km के  
 लिए खोले गए हैं  
 और जोड़े के अंतर्गत  
 के अंतर्गत के 0.8-1  
 (मैकेनिकल-प्रोसेसिंग  
 के लिए)

- a) Lining Cement plaster
- b) Soil - Black / Yellow Sandy Black soil
- c) Existing watershed structure/ Proclamation dam in neighboring region Near 1km distance
- d) Effect of existing structures on water table Not clear present
- e) Geological / Geographical effect on groundwater not suitable for water
- f) Compact basalt 3m compact basalt (flow present)
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylitic basalt 0.80m Red soil present
- j) Flow contact small white vein or line with present
- k) Dyke rock Absent
- l) Any remark about geological formation Plain area

# Geology of the well section



व्यावसायिक क्षेत्र में जल स्रोत के अभाव में यह क्षेत्र में कुएँ का निर्माण किया गया है। (यहाँ संकेंद्रित-बेसाल्ट है।)



- a) Lining Covered lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watershed structure / Proclamation dam in neighboring region. Near 1 km distance
- d) Effect of existing structures on water table. Well dam present
- e) Geological / Geographical effect on groundwater. contaminated water
- f) Compact basalt 3 m compact basalt flow present
- g) Amygdaloidal Basalt absent
- h) Vesicular Basalt absent
- i) Tachylitic basalt 0.20 m red soil present
- j) Flow contact small lime white vein contact with present
- k) Dyke rock absent
- l) Any remark about geological formation. rain area

hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village खोली

Gut No. .... Name of the Farmer जयराज मोरगे Date 20/07/19

In Village Location ..... Well No. ....

User .. Personal/Community? .....  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2006 Construction year..... If yes type.....

Parapet Ht. 10 Shape-Circular/Square, Diameter of well 10m  
 (Whether water from other source brought to this well if yes source and Hrs of pumping.....)

Total Depth 12 Water level from ground level 10m m. 10/2 1847 00  
 In rainy season 0.5m winter 1.5m summer 2.5m m. Eng: 950708

Percolation from: Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in Direction, Length in and its vertical borehole in Location at the bottom)

Use :- Drinking .... Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season 15 Acres  
 Winter Season 4 Acres  
 Summer Season N.C. Acres

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 cm. inch  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 2-4 Hrs; winter 2 Hrs; Summer 2-3 Hrs.)

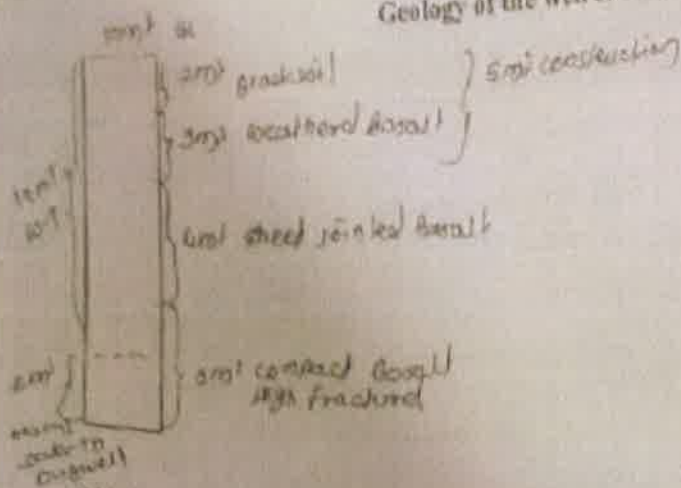
Any other information विवरण: खोली येथील या वेलच्या बाबतचे सर्व माहिती

Parde Tukaram  
 Name of the Surveyor

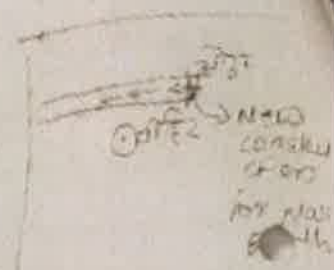
Parde  
 Signature



### Geology of the well section



Joint structure  
 0.2m to 0.5m  
 0.1m to 0.2m  
 0.1m



- a) Lithology compact
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watershed structure / Proclamation dam in neighboring region 100 m to 1 km
- d) Effect of existing structures on watertable water table
- e) Geological / Geographical effect on groundwater in soil side high permeability
- f) Compact basalt 2m compact basalt high fractured
- g) Amygdaloidal Basalt absent
- h) Vesicular Basalt absent
- i) Tachylytic basalt absent
- j) Flow contact good permeability between two flow
- k) Dyke rock sheet jointed 8 and 10
- l) Any remark about geological formation main area

Geological mapping of ..... Tahsil District Beed  
 taken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

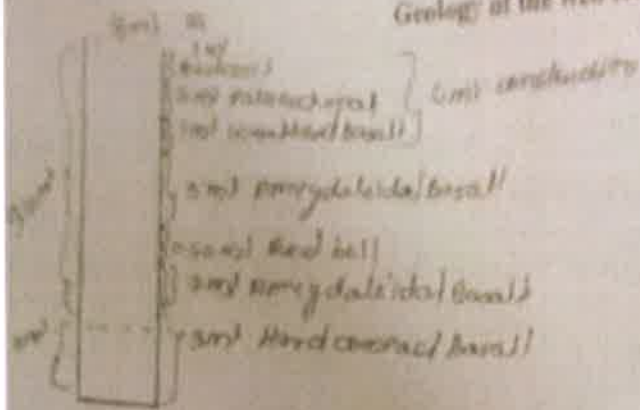
**Well Inventory Form**

Village 20/07/19  
 Gut No. .... Name of the Farmer ..... Date - 20/07/19  
 In Village Location ..... Well No. 12  
 Location of the well ..... User... Personal/Community!  
 (Farmland, Bank of Nala, In the Nala, Riverbed)  
 Year of the Digging 2017, Construction year ..... If yes type Common  
 Parapet Ht. .... Shape-Circular/Square, Diameter of well 8.50  
 (Whether water from other source brought to this well if yes source and Hrs of pumping)  
 Total Depth 12.50 m. Water level from ground level 2.50 m. 184720  
 In rainy season 8.10 m. winter 6.20 m. summer 0.50 m. 1029 750700  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction) 56571  
 (If the Horizontal bore is taken in Direction, Length in and for vertical borehole m. Location at the bottom)  
 Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.  
 Rainy Season 11 Acre  
 Winter Season 6 Acre  
 Summer Season N/A Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....  
 Dia of outlet pipe 2.5 cm. / inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 2.5 Hrs; winter 6.8 Hrs; Summer N/A Hrs.)  
 Any other information .....

Konde Tukaram  
 Name of the Surveyor

[Signature]  
 Signature

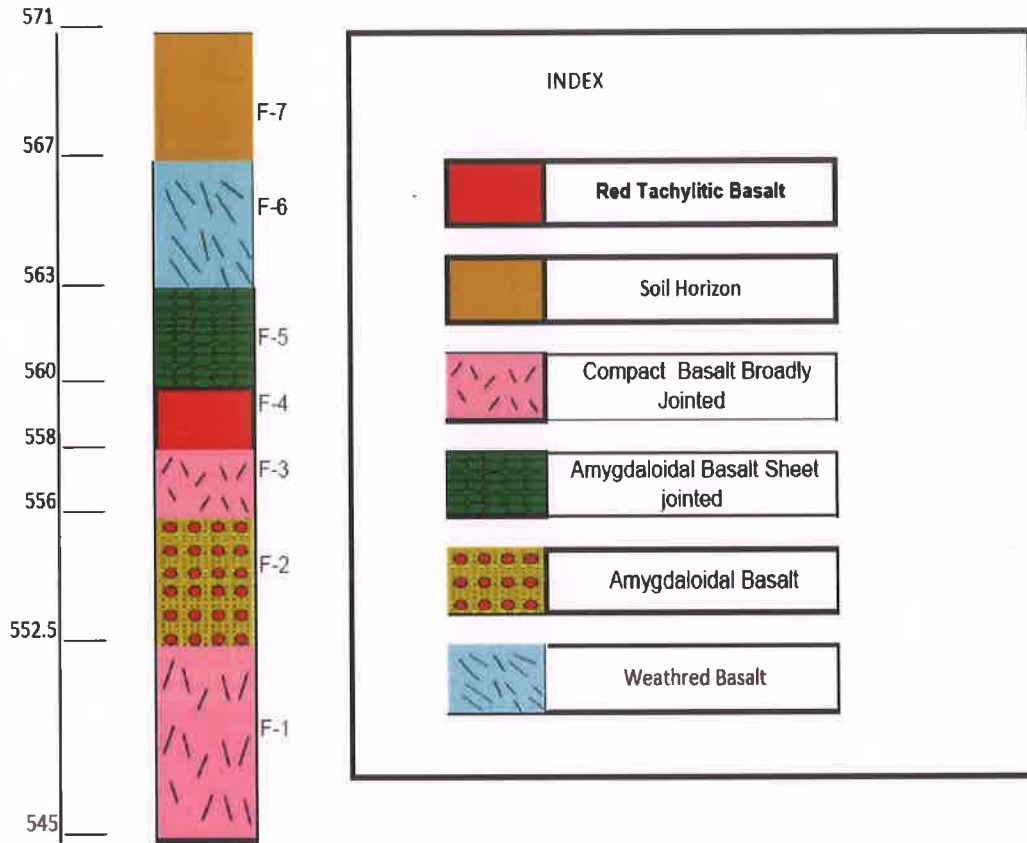
### Geology of the well section



- a) Lining concrete
- b) Soil - Black / Yellow Sandy Black soil
- c) Existing watershed structures / Proclamation dam in neighboring region. Near by dam distance.
- d) Effect of existing structures on water table. Rift dam present. water table increase in nearby stream.
- e) Geological / Geographical effect on groundwater. increase water level
- f) Compact basalt bottom flow 3m compact basalt for 1m
- g) Amygdaloidal basalt Alternate flow amygdaloidal basalt
- h) Vesicular basalt total 2 flow one is 2m and another one is 2m
- i) Tachytitic basalt 0-50 cm red soil present
- j) Flow contact detected 4 flow contact present
- k) Dyke rock Absent
- l) Any remark about geological formation.

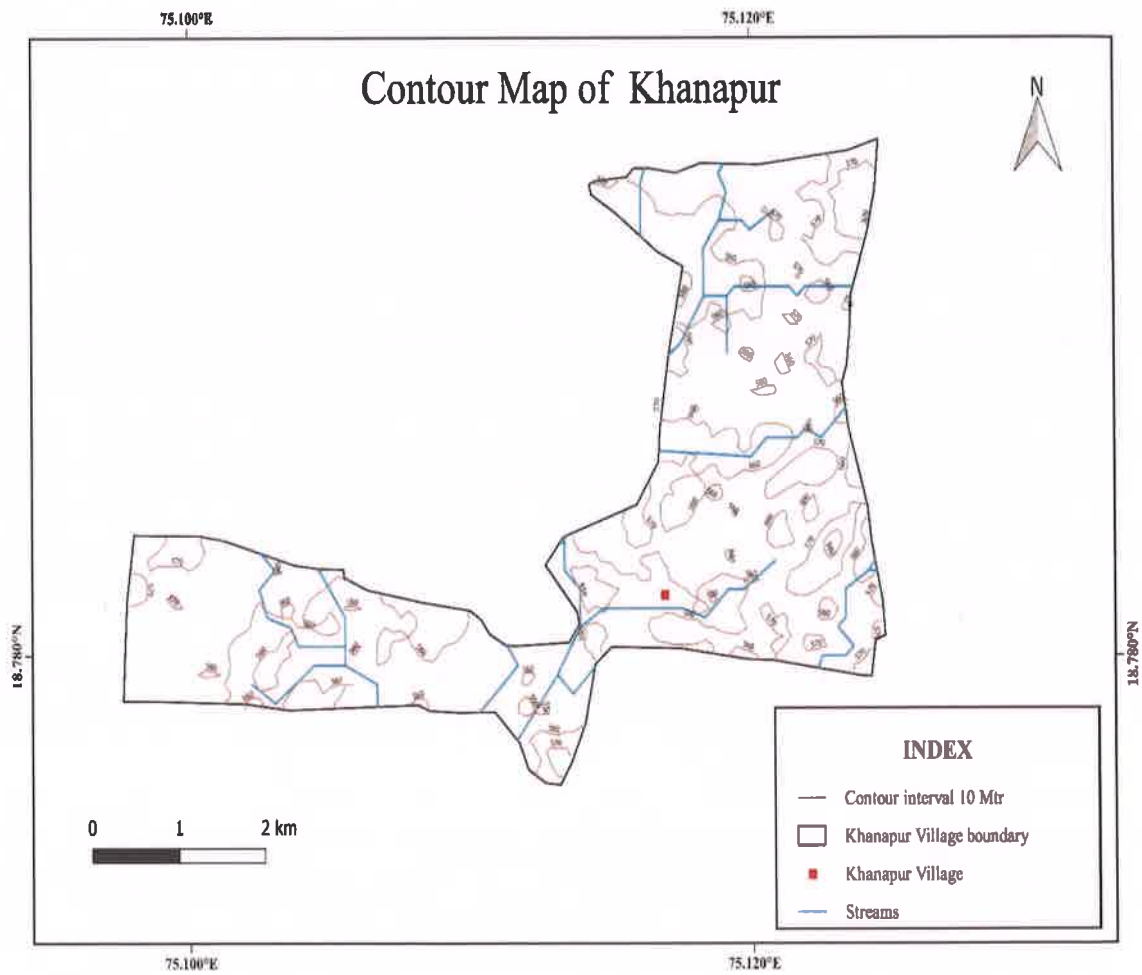


## Litholog of Khanapur Village

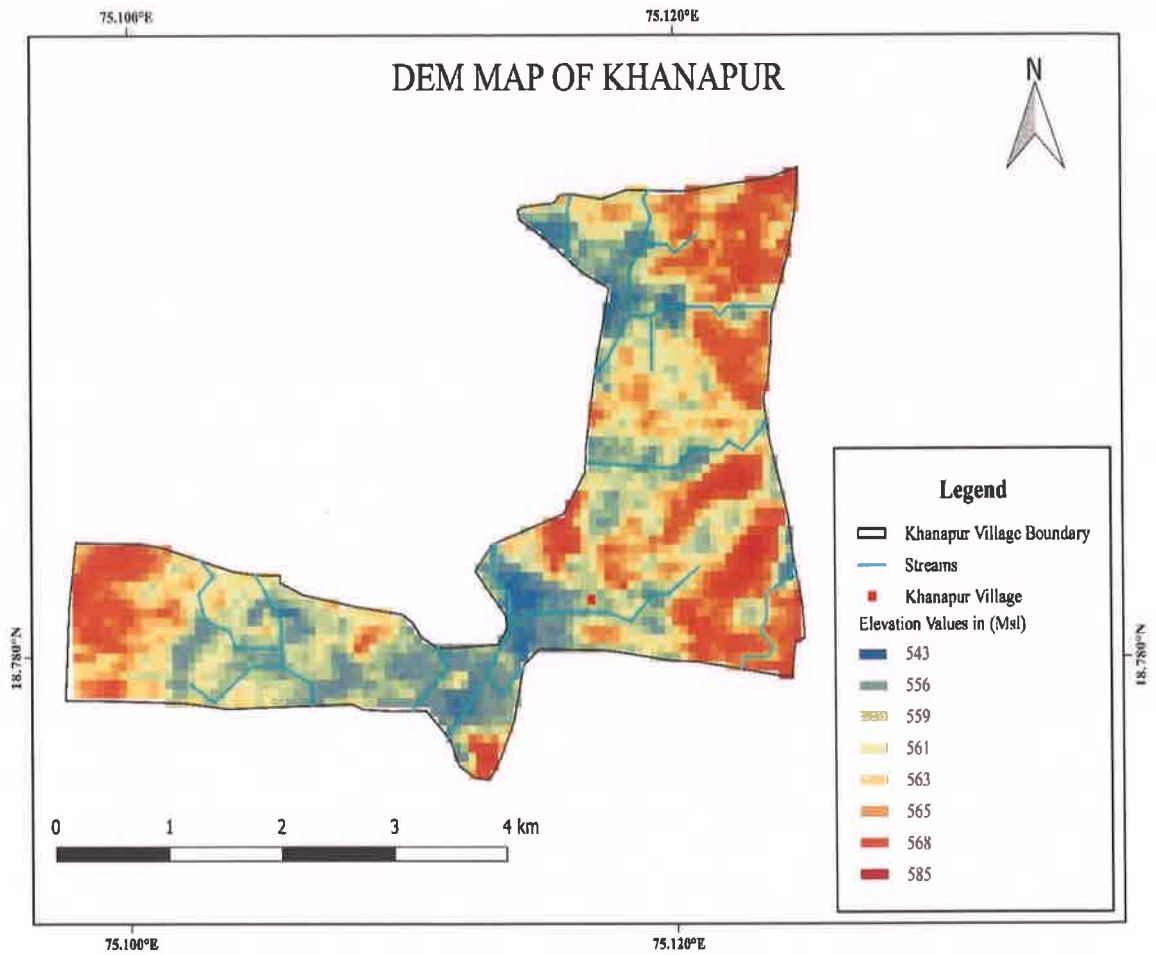


Litholog of Khanapur Village

## Contour Map of Khanapur Village

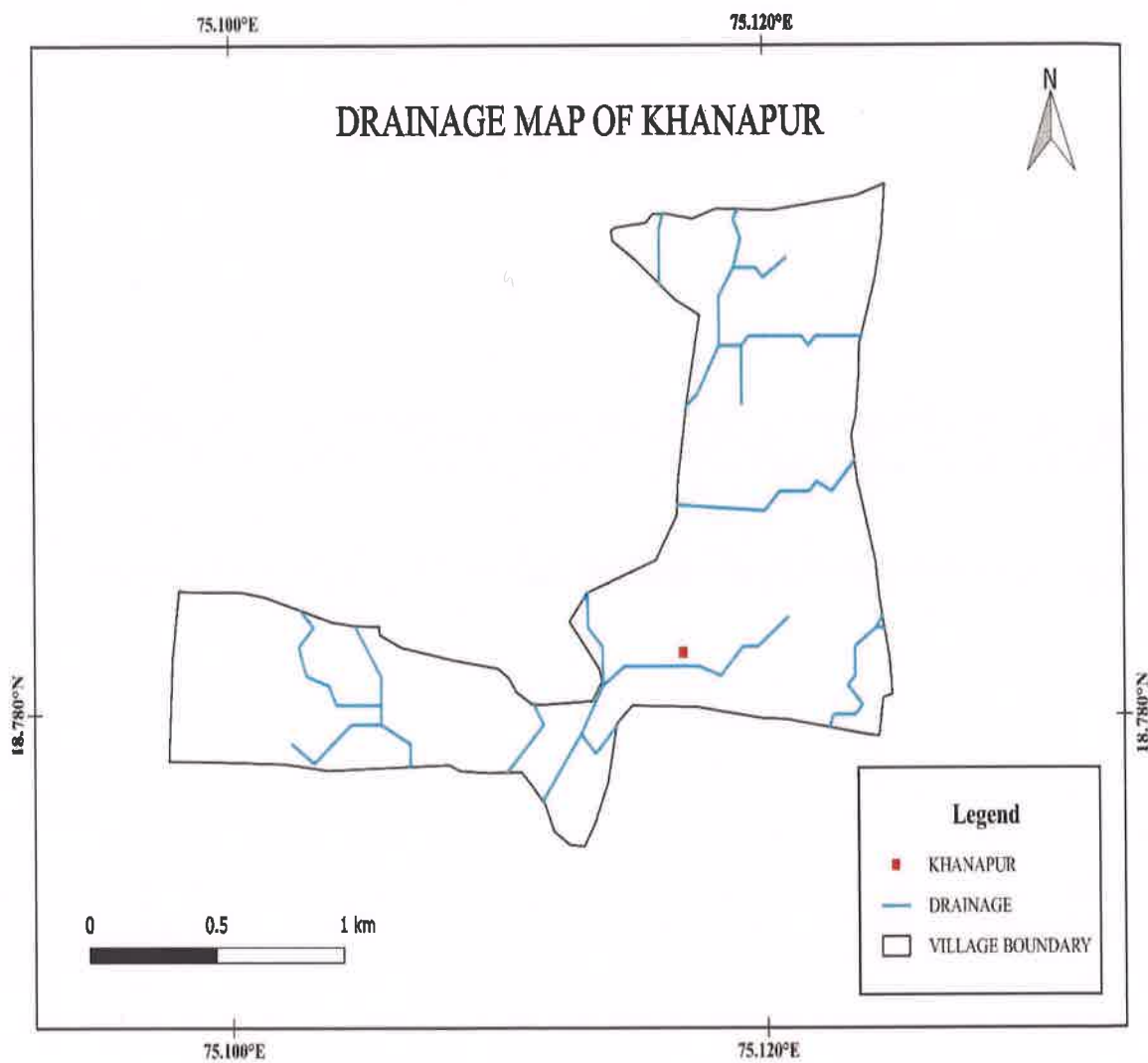


## DEM Map of Khanapur Village





## Drainage Map of Khanapur Village



**Field Photos of Khanapur Village**



**Weathered Basalt below which fractured Basalt flow in exposed**



**Weathered Compact Basalt Flow can be seen below the stone lining**





**Compact Basalt Flow below which fractured**



A handwritten signature in blue ink, appearing to be "Jawar".

**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Kinhi Village**

Kinhi is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 71 KM towards west from District headquarters Beed. 8 KM from Ashti. 286 KM from State capital Mumbai, Desur (6 KM), Kerul (6 KM), Khilad (7 KM), Chinchala (7 KM), Limbodi (7 KM) are the nearby Villages to Kinhi. Kinhi is surrounded by Pathardi Taluka towards North, Patoda Taluka towards East, Jamkhed Taluka towards South, Shirur (Ka) Taluka towards East.



## Dug-Well Inventory

### किती

गावाच्या उत्तरेला किती जागांचा तलाव आहे.  
गावाच्या NE side वरून किती वाहत येते.

पाणी पातळी :- पावसाळ - पूर्ण हिशब असते  
dug well :- हिशब - 6-7 हे yieldिंग  
आवडी - जवळपास दृश्य.

● Green Belt :- किती व तलाव असल्यामुळे आसपास  
च्या गावांच्या तुलनेत असे जास्त  
आढळते.

पावसाचे काम :- गावामध्ये व-सापेकी पावसाचे काम  
आलेली आहे तरी काही ठिकाणी तलाव  
व वडी मध्ये कोणीकरण करणे गरजेचे  
आहे.

● Paper :- पूर्ण गावामध्ये जवळपास 8-10 फी आहे.

Artificial Recharge :-

व-सात भागातमध्ये CB असल्यामुळे  
कोणीकरण करणे सोयीचे 620112 नाही त्यामुळे  
hydro fracture केल्यास उपयुक्त ठरेल.

**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Lat = 18°53'38" N  
Long = 75°10'1" E  
Altitude = 633 m

Village ..... kini ..... (किनी)

Date - 12/06/19

Gut No. ... 309 ... Name of the Farmer ... तारोती सोबराव भवत ... Well No. ... D61 ...

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ... 2014 ... Construction year ... 5 yr ... If yes type.....

Parapet Ht. ... 8 ft ... Shape -  Circular/Square, Diameter of well ... 1.5 ft ...  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping.....)

Total Depth ... 23 ft ... Water level from ground level.....m.  
In rainy season ... 15 ft ... winter ... 10 ft ... summer ... 20 ft ...m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and /or vertical borehole.... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 10 ..... Acre  
Winter Season ..... 5 ..... Acre  
Summer Season ..... 0 ..... Acre

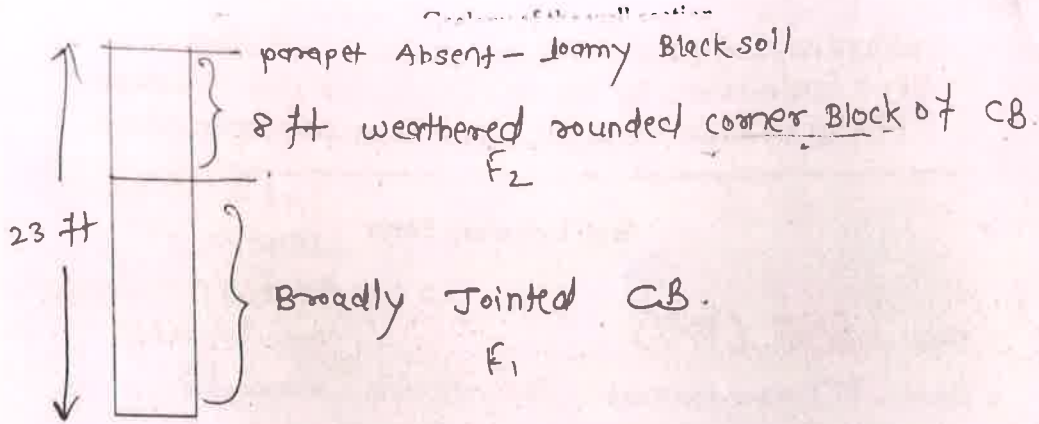
Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP... 3 HP  
Dia of outlet pipe..... 2 ..... in. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ... 24 ... Hrs; winter ... 0 ... Hrs; Summer ... 0 ... Hrs.)

Any other information .....

S. R. Wadhankar  
Name of the Surveyor

  
Signature



a) Lining

Absent

b) Soil - Black / Yellow / Sandy

Black - loamy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

upstream side of kuni towards N/E side

d) Effect of existing structures on watertable.

seasonally water present

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed at bottom  
upper side weathered CB.

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

—

k) Dyke rock

NA

l) Any remark about geological formation.



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 53' 41" N  
long - 75° 10' 05" E  
Altitude - 630 m

Village ..... कीर्ती .....

Date - 12/06/19

Gut No. 309 Name of the Farmer बाजिराव भास्करराव मंगर Well No. D62

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013 Construction year 6yr, If yes type.....

Parapet Ht. 3 ft. Shape-Circular/Square, Diameter of well 25 ft  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 26 ft., Water level from ground level 7 m.  
In rainy season 15 m, winter 8 m, summer 0 m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole..... Location at the bottom)

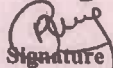
Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season 3 Acre  
Winter Season 1 Acre  
Summer Season 1 Acre

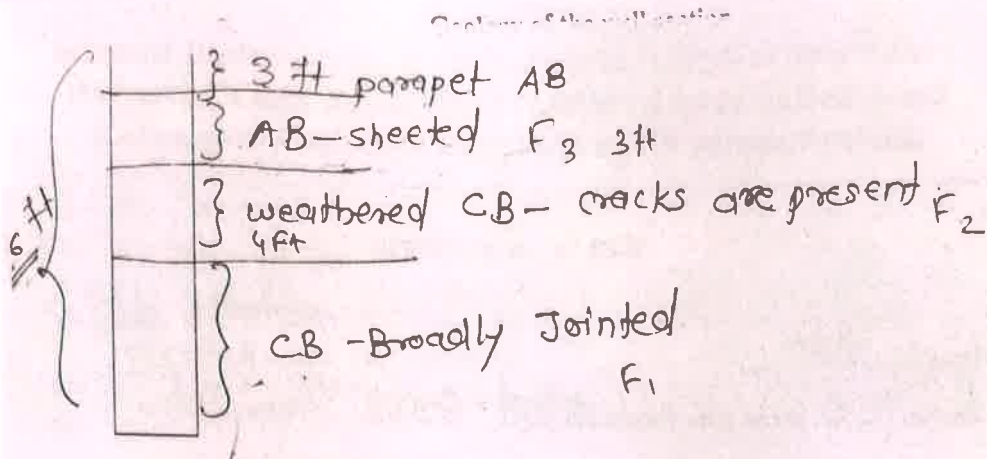
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump.. HP. 3HP  
Dia of outlet pipe 2 inch  
Quantity of withdrawals :- Daily 3 Hrs. Seasonal 2 cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs; winter 0 Hrs; Summer 0 Hrs.)

Any other information .....

S. R. Wadhankar  
Name of the Surveyor

  
Signature



a) Lining

stone - cement

b) Soil - Black / Yellow / Sandy

Black loamy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

upstream side lake recharge the well through only A-B

d) Effect of existing structures on watertable.

CB - cracks are help to recharge well in rainy season

e) Geological / Geographical effect on groundwater.

Good GW porosity & permeability through A-B

f) Compact basalt

Broadly CB at bottom  
middle part weathered CB

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 53' 66" N  
 Long - 75° 10' 59" E  
 Altitude - 643 m

Village ..... किर्गि .....

Date - 12/06/19

Gut No. 249 Name of the Farmer ..... Well No. D63

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... 1993 ..... Construction year..... 26 yrs. ...., If yes type.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well..... 2.5 ft

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ..... 47 ft ..... Water level from ground level..... 10 ft

In rainy season ..... 35 ..... m, winter..... 20 ..... m, summer ..... 10 ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... 5 ..... Acre

Winter Season ..... 1 ..... Acre

Summer Season..... 0 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump... HP... 5 HP

Dia of outlet pipe..... 2 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... 4 ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

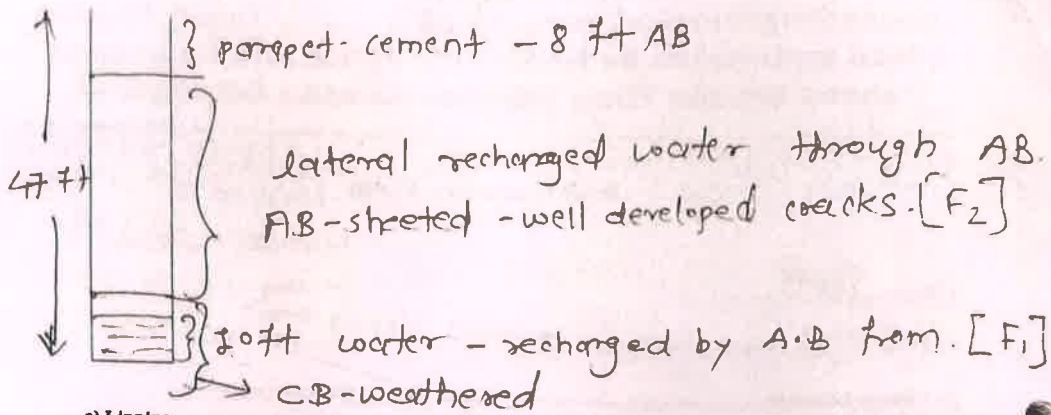
(Rainy season ... 24 ... Hrs; winter..... 24 ... Hrs; Summer..... 24 ... Hrs.)

Any other information .....

S. R. Wadhankar  
 Name of the Surveyor

Rij  
 Signature





a) Lining

Cement

b) Soil - Black / Yellow / Sandy

Black

c) Existing watersheds structure/ Proclamation dam in neighboring region.

North side ~~for~~ flow of water below ground surface

d) Effect of existing structures on watertable.

Recharged by A-B ~~from~~ by Horizontal from N side.

e) Geological / Geographical effect on groundwater.

Good yield of GW / potential

f) Compact basalt

At Bottom weather / CB present.

g) Amygdaloidal Basalt

100% sheeted AB. - Recharge from AB from North side.

h) Vesicular Basalt

i) Tachylytic basalt

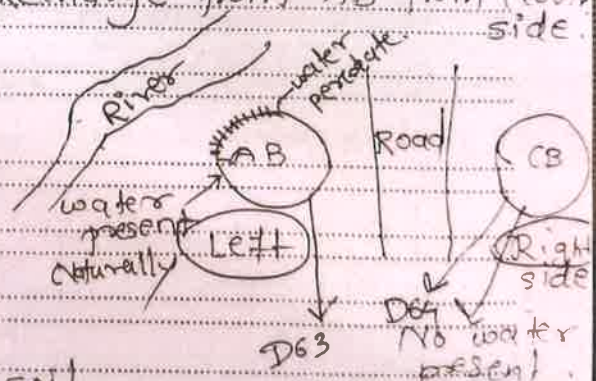
j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

Black loamy soil

Kini lake upstream side. at south side.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 7

Well Inventory Form

Lat - 18° 53' 65" N

Long - 75° 10' 02" E

Alti - 627 m

Date - 12/06/2019

Village ..... किराही

Gut No. 310 Name of the Farmer ..... संतोष मोहनदास काफडे Well No. D64

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2012, Construction year 6, If yes type.....

Parapet Ht. 7.1 ft Shape-Cicular/Square, Diameter of well 2.6 ft  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 30, Water level from ground level m.  
 In rainy season 20 m, winter 18 ft, summer 20.4 m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 4 Acre  
 Winter Season 2 Acre  
 Summer Season 0 Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump.. HP 5 HP

Dia of outlet pipe 3 in. /inch

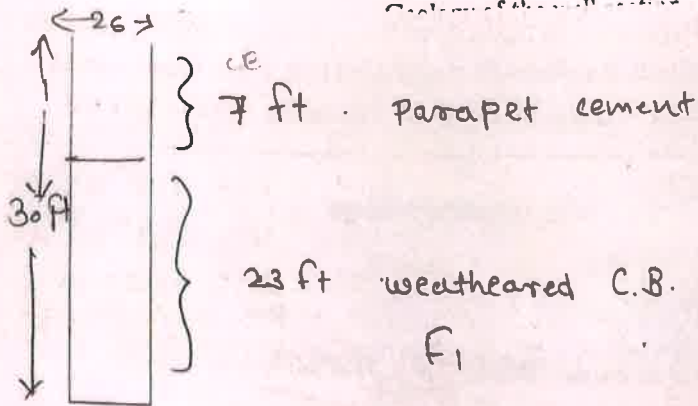
Quantity of withdrawals :- Daily 5 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 3 Hrs; Summer 0 Hrs.)

Any other information .....

S-R. Wadhankar  
 Name of the Surveyor

  
 Signature



a) Lining cement Construction

b) Soil - Black / Yellow / Sandy loamy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

Shi lake present at upstream NW side

d) Effect of existing structures on watertable.

No water present because of massive C.B.

e) Geological / Geographical effect on groundwater.

f) Compact basalt massive weathered C.B.

g) Amygdaloidal Basalt N.A.

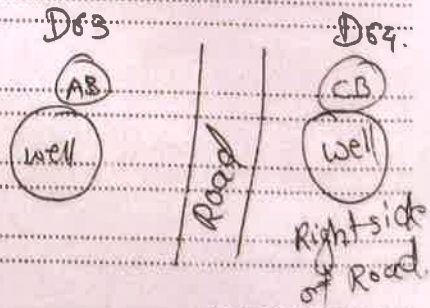
h) Vesicular Basalt N.A.

i) Tachylitic basalt N.A.

j) Flow contact

k) Dyke rock N.A.

l) Any remark about geological formation.





**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad ३**

**Well Inventory Form**

Lat - 18° 53' 70" N  
Long - 75° 10' 57" E  
Altitude - 639 m  
Date - 12/06/2019  
D65

Village ..... किरी

Gut No. 251 Name of the Farmer रविंद्र अप्पासाहेब काकडे Well No. ....

In Village Location ..... User...  Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2005, Construction year...14....., If yes type.....

Parapet Ht. 5 ft. Shape- Circular/Square, Diameter of well...24  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 48 ft., Water level from ground level...1 ft....m.  
In rainy season 40 ft.m, winter...25 ft. summer...3 ft....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season .....5..... Acre  
Winter Season .....1..... Acre  
Summer Season .....0..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP...5HP  
Dia of outlet pipe.....3.....cm. /inch .....  
Quantity of withdrawals :- Daily .....1..... Hrs. Seasonal .....200 cc meter / day

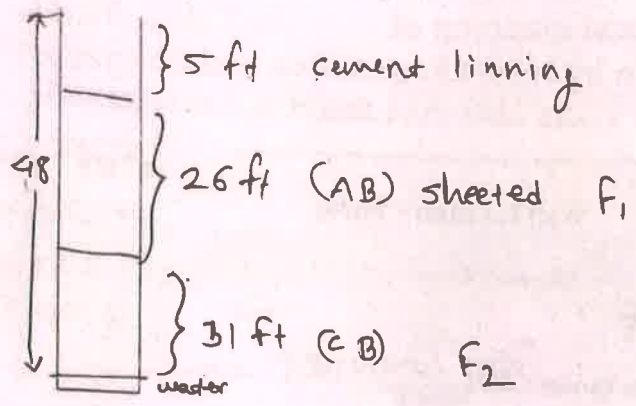
Time require for a full recharge / recuperation :  
(Rainy season ...24...Hrs; winter...5... Hrs; Summer.....2.....Hrs.)

Any other information .....

S. R. Wadhankar  
Name of the Surveyor

[Signature]  
Signature

Diagram of the well section



- a) Lining ..... Cement construction
- b) Soil - Black / Yellow / Sandy ..... Black Soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... Lake are present at NW side
- d) Effect of existing structures on watertable. .... Good GW potential / yield / water percolate through AB.
- e) Geological / Geographical effect on groundwater
- f) Compact basalt ..... Broadly Jointed CB
- g) Amygdaloidal Basalt ..... sheeted AB
- h) Vesicular Basalt ..... NA
- i) Tachylytic basalt ..... NA
- j) Flow contact ..... -
- k) Dyke rock ..... NA
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 19

Well Inventory Form  
 Lat. - 18° 54' 68" N  
 Long. - 75° 10' 84" E  
 A.H.I. - 517 m  
 Date - 12/05/2019  
 DSS

Village किरी

Gut No. 56 Name of the Farmer नामदेव भर्गेराव Well No. काकड

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1970, Construction year 49....., If yes type.....

Parapet Ht. NA Shape-Circular/Square, Diameter of well 26.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 30 ft., Water level from ground level.....m.  
 In rainy season 20 ft., winter 10 ft., summer 15 ft......m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 5..... Acre  
 Winter Season 2..... Acre  
 Summer Season 0..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP 3 HP  
 Dia of outlet pipe 1.5.....in. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

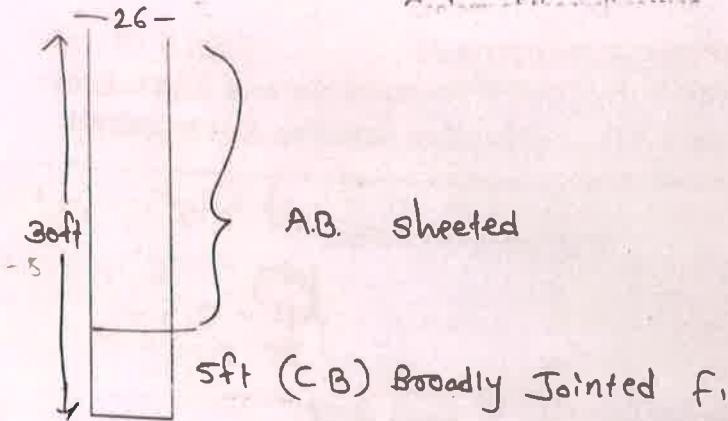
Time require for a full recharge / recuperation :  
 (Rainy season 24.....Hrs; winter 10..... Hrs; Summer 0..... Hrs.)

Any other information .....

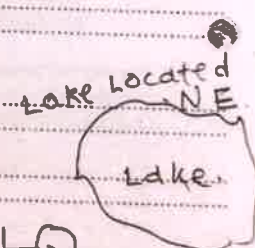
S. R. Wadhankar  
 Name of the Surveyor

[Signature]  
 Signature





- a) Lining ..... NA
- b) Soil - Black / Yellow / Sandy ..... Black soil - loamy
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
..... upstream side kini lake are present towards  
..... downslope.
- d) Effect of existing structures on watertable.  
..... Good porosity through A.B. so help to recharge
- e) Geological / Geographical effect on groundwater.  
.....
- f) Compact basalt ..... Broadly Jointed
- g) Amygdaloidal Basalt ..... sheeted A.B
- h) Vesicular Basalt ..... NA
- i) Tachylytic basalt ..... NA
- j) Flow contact ..... -
- k) Dyke rock ..... NA
- l) Any remark about geological formation.  
.....  
.....



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 20

Well Inventory Form

Lat - 18° 54' 77" N  
 Long - 75° 10' 92" E  
 Alt. - 639  
 Date - 12/06/2019

Village विठोरी.....

Gut No. 60 Name of the Farmer अमराजी कुंभकार Well No. D67  
काकडे

In Village Location ..... User...  Personal/ Community/.....

Location of the well along the river  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2001, Construction year 18....., If yes type.....

Parapet Ht. N/A..... Shape-Circular/Square, Diameter of well 24.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 35 ft., Water level from ground level 1 ft. m.  
 In rainy season 30 ft. m, winter 20 ft. m, summer 1 ft. m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 7..... Acre  
 Winter Season 3..... Acre  
 Summer Season 0..... Acre

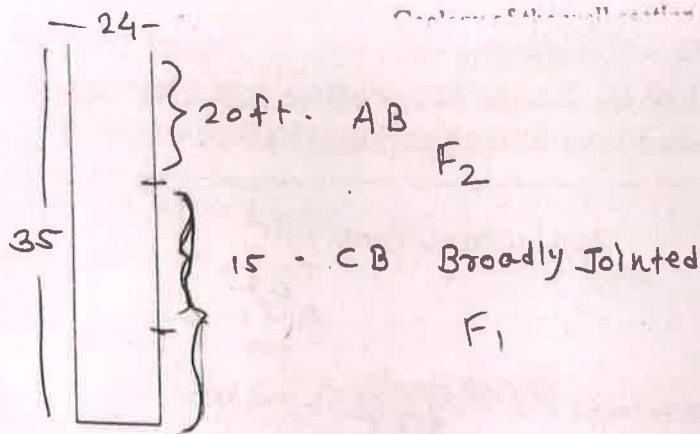
Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP... 5 HP  
 Dia of outlet pipe 3..... in. /inch .....  
 Quantity of withdrawals :- Daily 5..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 2-4..... Hrs; winter 3..... Hrs; Summer 0..... Hrs.)

Any other information .....

S. R. Wadhankar  
 Name of the Surveyor

[Signature]  
 Signature



a) Lining

NA

b) Soil - Black / Yellow / Sandy

Black loamy-soil.

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable.

soft layer of A+B / porous & permeable

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed C.B

g) Amygdaloidal Basalt

Sheeted AB

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

NA-

k) Dyke rock

NA.

l) Any remark about geological formation.





Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad 21

Well Inventory Form

Lat - 18° 54' 82" N

Long - 75° 11' 00" E

Altitude - 644 m

Date -

Village ..... किनी .....

Gut No. 52 Name of the Farmer चांगदेव भाऊसाहेब Well No. D68

In Village Location ..... User... Personal/Community/.....

Location of the well ..... along lake. (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2014, Construction year 6/7, If yes type.....

Parapet Ht. NA, Shape Circular/Square, Diameter of well 28  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 31 ft, Water level from ground level ..... m.  
In rainy season 20 ft, winter ..... m, summer ..... m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length ..... m, and /or vertical borehole..... Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP 5 HP  
Dia of outlet pipe 2.5 cm /inch .....  
Quantity of withdrawals :- Daily 6 Hrs. Seasonal ..... cc meter / day

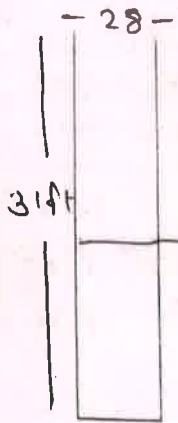
Time require for a full recharge / recuperation :  
(Rainy season 24 Hrs; winter 10 Hrs; Summer 0 Hrs.)

Any other information .....

S. R. Wadhankar  
Name of the Surveyor

Signature

Diagram of the well location



15 ft AB sheeted

16 ft C.B Broadly Jointed

a) Lining

NA

b) Soil - Black / Yellow / Sandy

black

c) Existing watersheds structure/ Proclamation dam in neighboring region.

lake help to recharge

d) Effect of existing structures on watertable.

watertable recharge through lake water

e) Geological / Geographical effect on groundwater.

f) Compact basalt

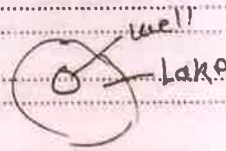
Broadly Jointed

g) Amygdaloidal Basalt

sheeted AB

h) Vesicular Basalt

NA



i) Tachylytic basalt

NA

j) Flow contact

k) Dyke rock

NA

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad <sup>22</sup>

Well Inventory Form

Lat - 18° 54' 50" N

Long - 75° 10' 67" E

Alt - 634 m

Date -

Village ..... डोड .....

Gut No. 383 Name of the Farmer श.दाजी अ.दाजी Well No. D69

In Village Location ..... User... Personal/Community/.....

Location of the well along the river  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1999, Construction year 20, If yes type.....

Parapet Ht. 11 Shape-Cicular/Square, Diameter of well 28  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 37 ft, Water level from ground level.....m.  
 In rainy season 25 ft, winter 15 ft summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ... Direction, Length.....m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... 6 ..... Acre

Winter Season ..... 2 ..... Acre

Summer Season ..... 9 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP... 5 HP

Dia of outlet pipe 2.5 cm / inch .....

Quantity of withdrawals :- Daily 8 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 24 Hrs; winter 16 Hrs; Summer 20 Hrs.)

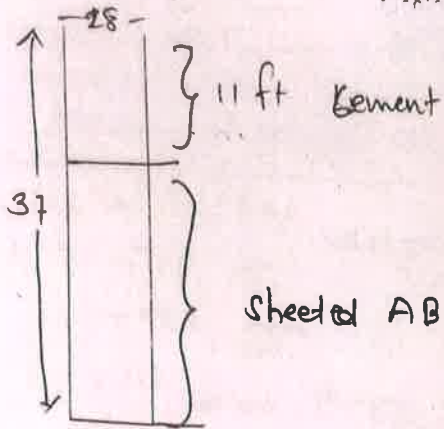
Any other information .....

S. R. Wadhankar  
 Name of the Surveyor

[Signature]  
 Signature



Diagram of the well section



- a) Lining Cement
- b) Soil - Black / Yellow / Sandy Black
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable.  
AB helps to recharge full fill watertable in rainy season.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt NA
- g) Amygdaloidal Basalt Sheeted AB
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact
- k) Dyke rock NA
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 18° 54' 41" N  
 Long - 75° 10' 72" E  
 Alt. 638 m  
 Date - 12/06/2019

Village ..... किरी .....

Gut No. 387 Name of the Farmer वजनाथ दत्तात्रय काकडे Well No. D70

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1980, Construction year 89....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 35 ft Water level from ground level.....m.  
 In rainy season 25 ft winter 15 ft summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 5 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season..... 0 ..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump.. ..HP 5 HP  
 Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... 5 ..... Hrs. Seasonal ..... cc meter / day

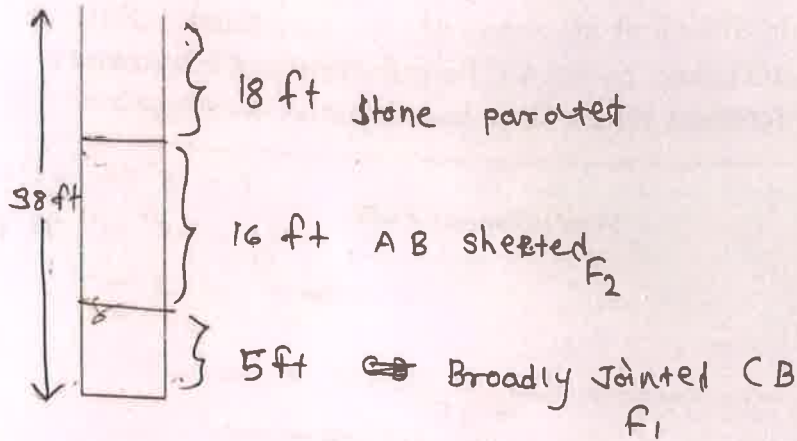
Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter..... 18 ..... Hrs; Summer... 8 ..... Hrs.)

Any other information .....

S. R. Wadhankar  
 Name of the Surveyor

[Signature]  
 Signature

Section of the well section



a) Lining

Stone lining

b) Soil - Black / Yellow / Sandy

Black loamy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

small canal recharge water.

d) Effect of existing structures on watertable.

Middle layer of AB helps to recharge water.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly Jointed

g) Amygdaloidal Basalt

sheeted AB.

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

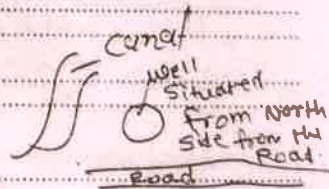
j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.





Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad <sup>24</sup>

Well Inventory Form

Lat - 18°54'45" N

Long - 75°10'79" E

Alt. - 644 m

Date - 12/06/2019

Village विठ्ठी

Gut No. 390 Name of the Farmer सुबीर सजेश्वर काकडे Well No. D71

In Village Location ..... User  Personal/Community/.....

Location of the well along the farmland (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009 Construction year 10 yr If yes type.....

Parapet Ht. N.A. Shape  Circular/Square, Diameter of well 22  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 30 ft Water level from ground level 7 m.  
 In rainy season 20 ft winter 15 ft summer - m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m, and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 5 Acre  
 Winter Season 2 Acre  
 Summer Season 0 Acre

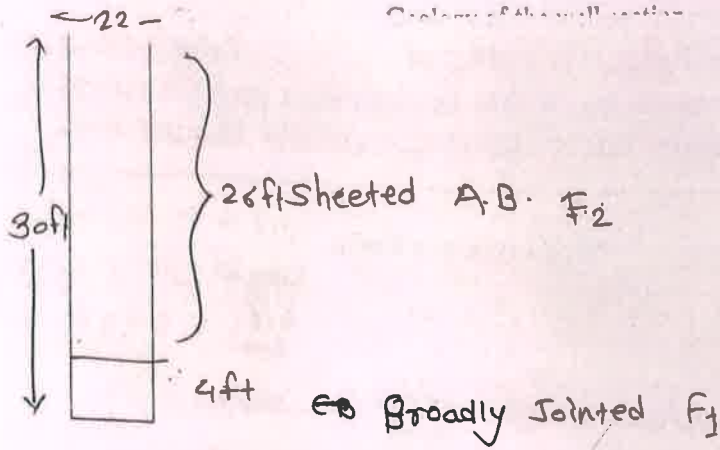
Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump..  HP...  S.H  
 Dia of outlet pipe 2 1/2 inch.....  
 Quantity of withdrawals :- Daily 5 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 16 Hrs; Summer 0 Hrs.)

Any other information .....

S. R. Wadhankar  
 Name of the Surveyor

  
 Signature



- a) Lining NA
- b) Soil - Black / Yellow / Sandy Black - loamy soil
- c) Existing watersheds structure / Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater. Upper AB recharge well at rainy season
- f) Compact basalt Broadly Jointed
- g) Amygdaloidal Basalt Sheeted A.B.
- h) Vesicular Basalt NA
- i) Tachylitic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.

Well situated from Road East side of Road

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad 25

Well Inventory Form

Lat. - 18° 54" 12 N  
 Long. - 75° 10" 87 E

Altitude - 643  
 Date - 12/06/2019

Village Abseel

Gut No. .... Name of the Farmer शालादीन Well No. D72

In Village Location ..... User...  Personal/ Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1919, Construction year...100....., If yes type.....

Parapet Ht..... Shape- Circular/ Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 48 ft. Water level from ground level.....m.  
 In rainy season 40 ft. winter 25 ft. summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole..... Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump... HP...5 HP  
 Dia of outlet pipe..... 2 x 5 ..... in /inch .....  
 Quantity of withdrawals :- Daily 5 ..... Hrs Seasonal ..... cc meter / day

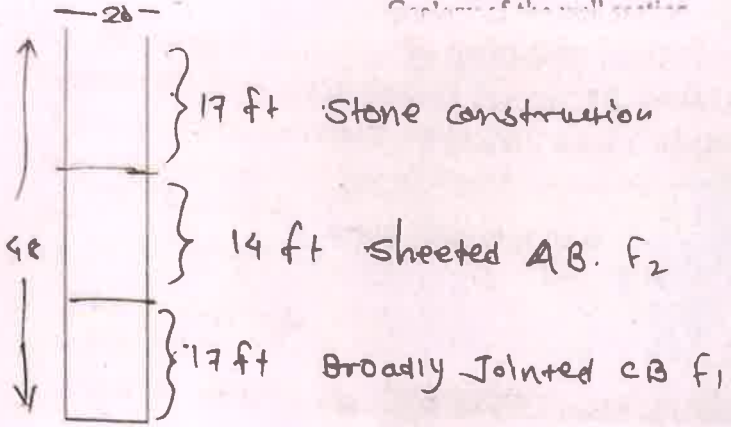
Time require for a full recharge / recuperation :  
 (Rainy season 24 ..... Hrs; winter.....8 ..... Hrs; Summer.....0 ..... Hrs.)

Any other information .....

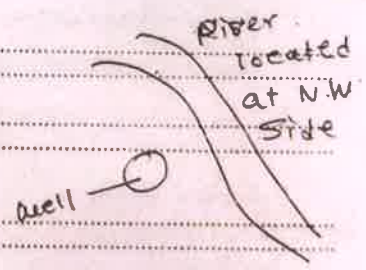
S. R. Wadhankar  
 Name of the Surveyor

[Signature]  
 Signature





- a) Lining Stone construction
- b) Soil - Black / Yellow / Sandy Sandy soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable. water table recharge by water flow from River
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Broadly Jointed CB
- g) Amygdaloidal Basalt Sheeted A.B
- b) Vesicular Basalt NA
- D) Tachylytic basalt NA
- J) Flow contact
- k) Dyke rock NA
- l) Any remark about geological formation.



## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Kinhi , Ta- Ashti , Dist-Bead

2. Date of Survey: 12/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Maroti Bhawar

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Bajirao Bahwar
- b. Tatyakakde
- c. Santosh Kakde
- d. Ravindra Kakde
- e. Namdev Kakde
- f. Ashruji Kakde
- g. Changdev kakde

7. Total No of Well surveyed:

12 dugwells in the field + 16 dugwells through Satellite Imagery Survey  
= Total 28 dugwells

8. Total map prepared:

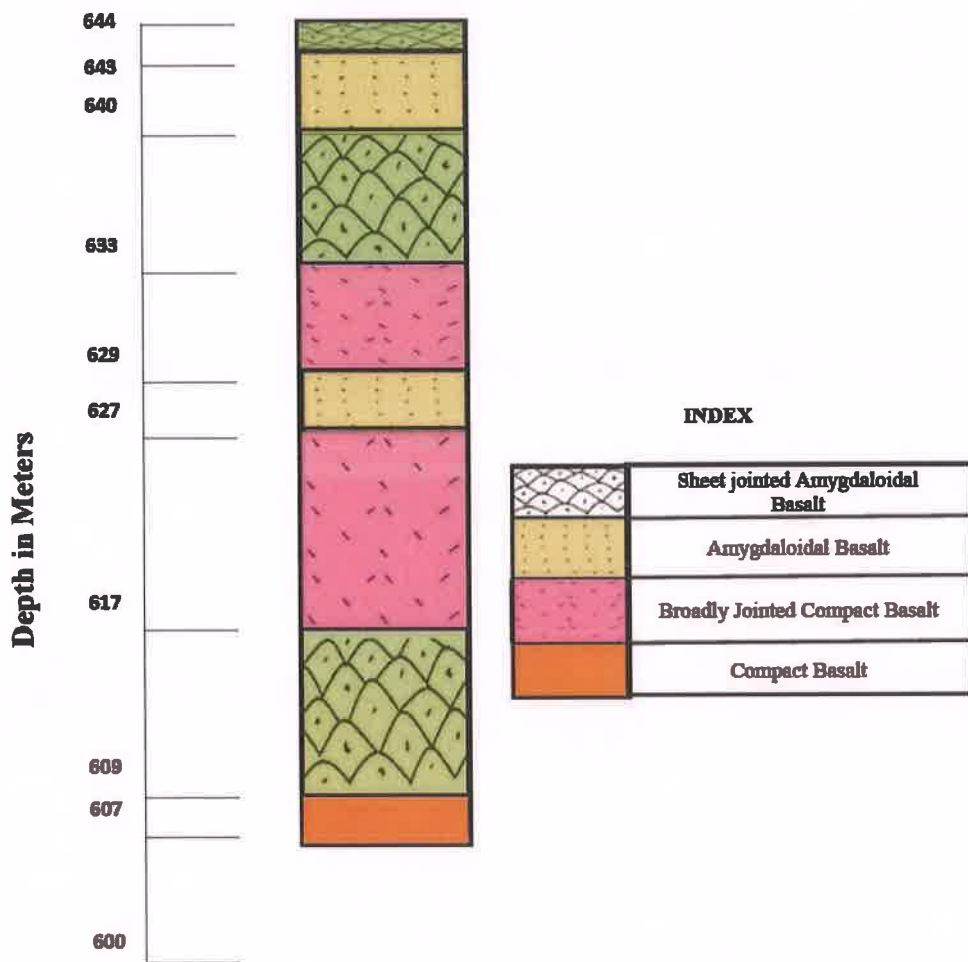
- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

a. For Artificial Recharge suitable/ Unsuitable:-----  
-----

b. Structure for watershed development programme:-----  
-----

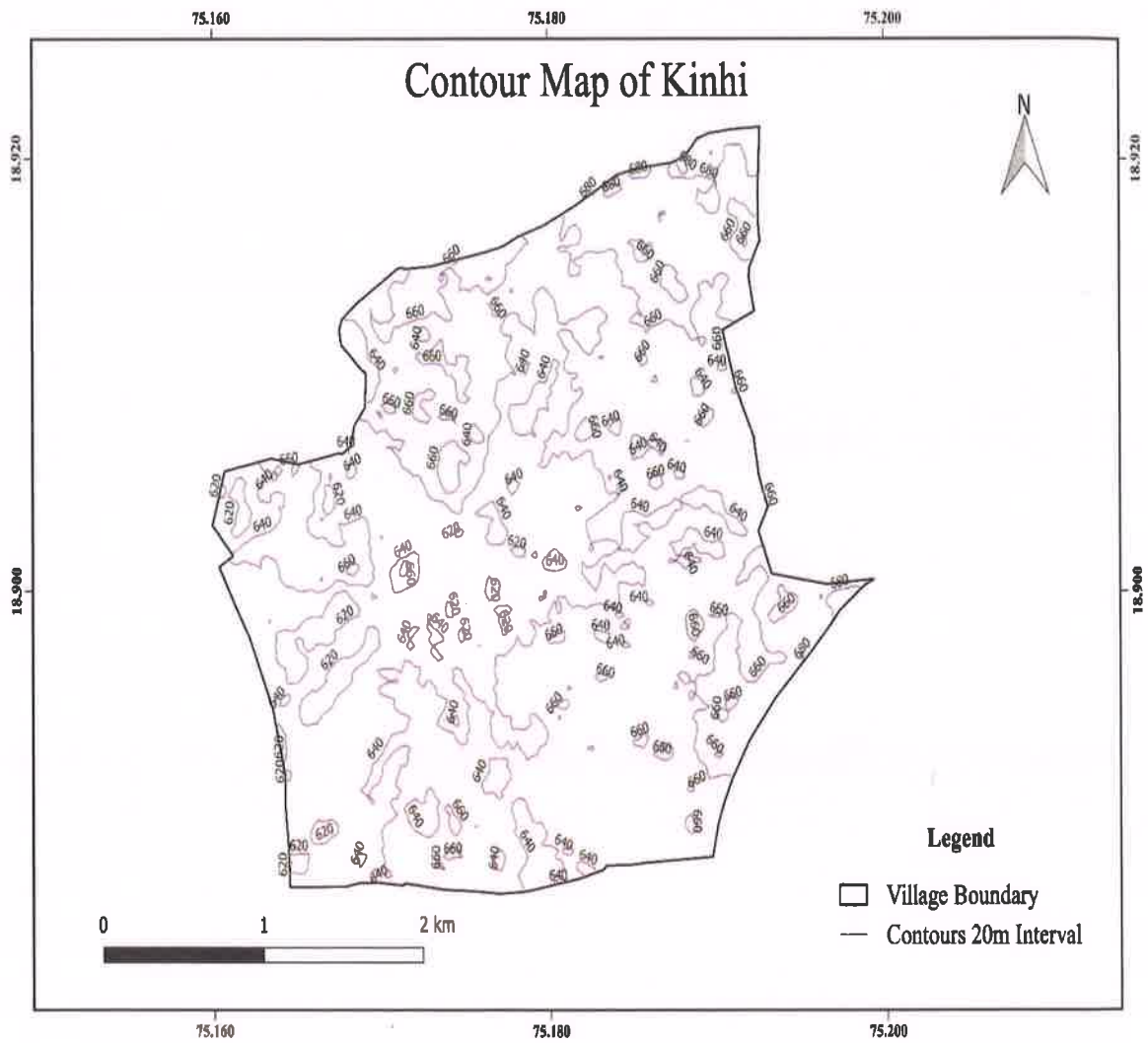
# Litholog of Kinhi Village



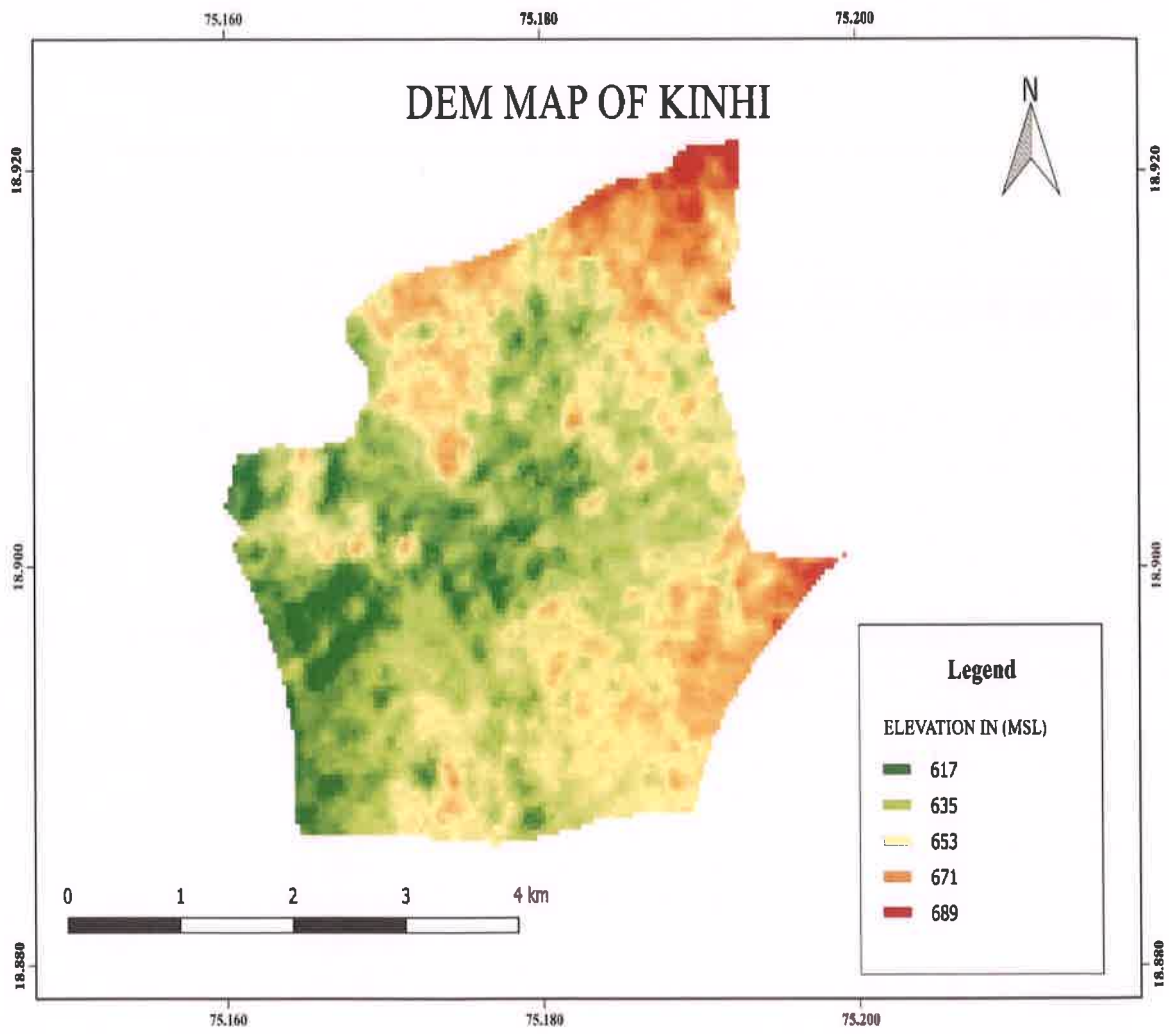
LITHOLOG OF KINHI VILLAGE



# Contour Map of Kinhi Village



# DEM Map of Kinhi Village





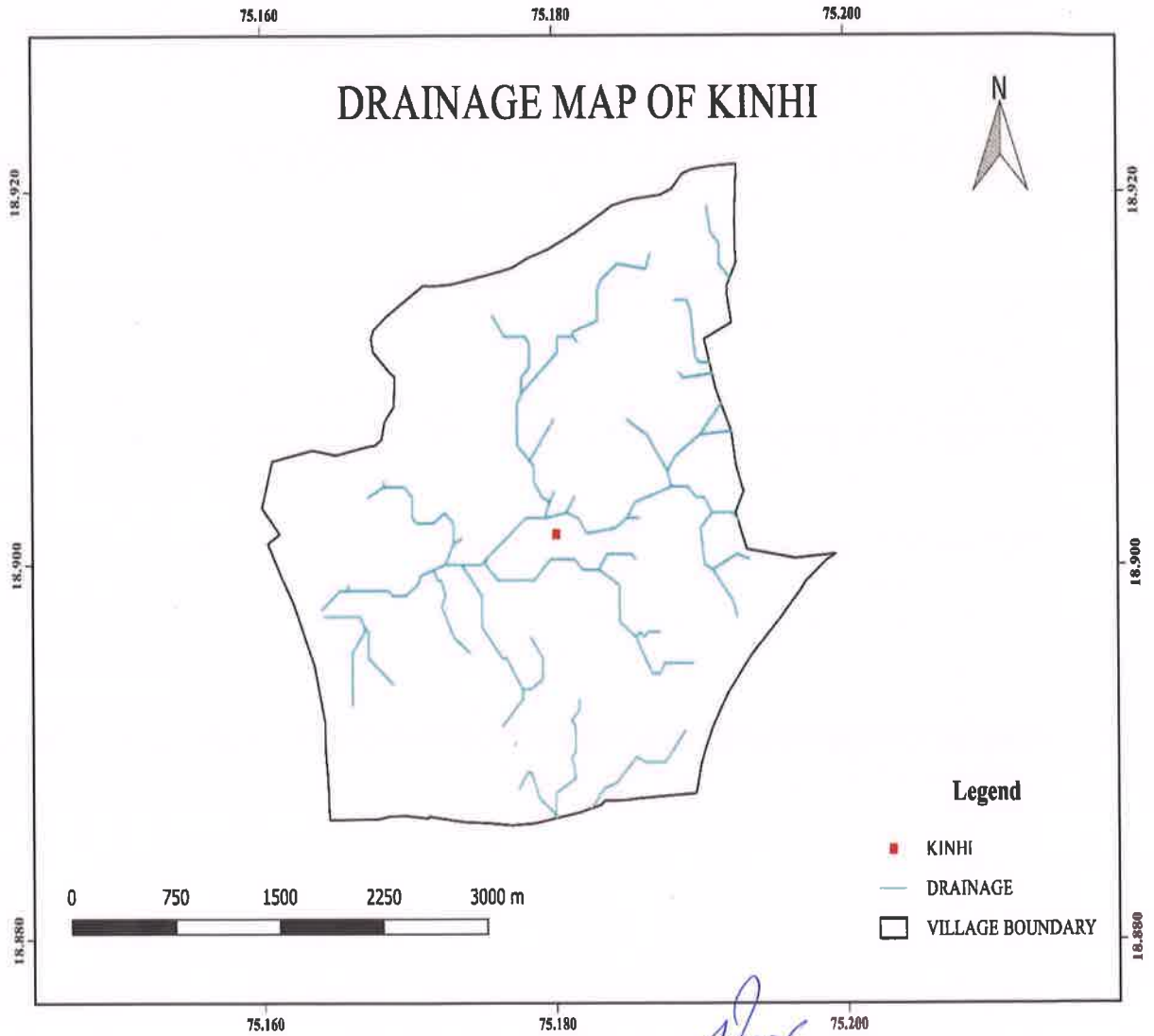
**Fractured Basalt Flows exposed in the outcrop**





Photographs showing increase in water level at Kinhi village due to watersheds management work.

# Drainage Map of Kinhi Village



*[Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Lokhandwadi Village**

Lokhandwadi is a small Village/hamlet in Ashti Taluka in Beed District of Maharashtra State, India. It comes under Lokhandwadi Panchayath. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 85 KM towards west from District headquarters Beed. 21 KM from Ashti. 271 KM from State capital Mumbai. Suleman Deola (6 KM), Dadegaon (6 KM), Dhamangaon (9 KM), Dongargan (11 KM), Ambhora (11 KM) are the nearby Villages to Lokhandwadi. Lokhandwadi is surrounded by Pathardi Taluka towards North, Nagar Taluka towards west, Ahmednagar Taluka towards west, Shirur (Ka) Taluka towards East.



## Dug-Well Inventory

म-1 लखडवाडा.

1 गावामध्ये दारुण बांधलेला आहे. तसेच गावाच्या शेवट  
ला लक्षी आहेत.

पाणी पातळी : पावसाळा - विहीरी पूर्ण भरलेली  
हिलोळी - 14-15 म्हा खोलीत  
dug well : उरलेली - दृश्य असलेली.

Green Belt : लक्षीमुळे व दारुण असल्यामुळे  
पावसाळा व हिलोळ्यामध्ये हिरवेले असते.

पावसाळी कामे : गावामध्ये खूप पावसाळी कामे झालेली  
आहेत.  
जंदा-याची कामे करणे आवश्यक आहेत.

तलाव : गावाच्या बाजूला तलाव आहेत

Artificial Recharge :-

गावाच्या काही भागांमध्ये व विहीरीमध्ये  
कमी गरजेचे आहेत.

**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Lat - 19°01'04" N

Long - 75°4'18" E

Altitude - 656m

Date - 11/06/19

Village ता. व. सोलापूर

Gut No. 187 Name of the Farmer बा. व. दास देव शेरत Well No. 029

In Village Location ..... User...  Personal/ Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year..... If yes type.....

Parapet Ht. 5.7 ft. Shape-Circular/Square, Diameter of well... 2.2 ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 23 ft. Water level from ground level.....m.  
In rainy season .....m. winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location : the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 8 ..... Acre  
Winter Season ..... 5 ..... Acre  
Summer Season ..... 2 ..... Acre

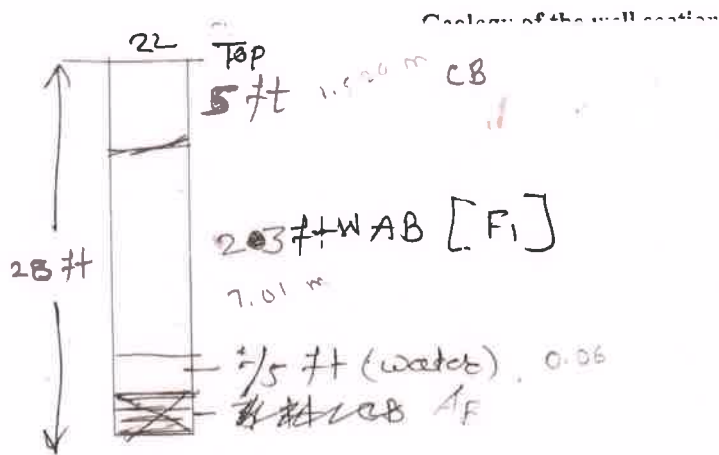
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5 HP  
Dia of outlet pipe 2.1/2 ..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ... 24 Hrs; winter..... 15 Hrs; Summer..... 5 Hrs.)

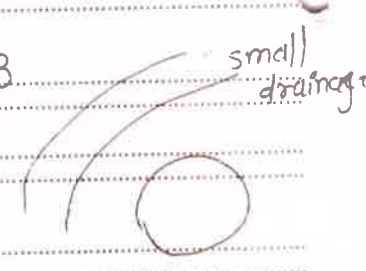
Any other information .....

Name of the Surveyor  
Jayesh Mhaskar

G. S. K.  
Signature



- a) Lining stone - circular
- b) Soil - Black / Yellow / Sandy Black sandy soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
Water upstream side dam are present.
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater.  
small drainage are present in west side
- f) Compact basalt NA - Because of low depth
- g) Amygdaloidal Basalt whole well covered by AB
- h) Vesicular Basalt AB - fused
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation.  
The nearby area is surrounded by highly jointed massive basalt present, poor GW potential.





Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat =  $19^{\circ} 01' 06''$  N  
Long =  $75^{\circ} 04' 21''$  E  
Altitude = 649 m

Village लोखंडवाडी

Date -

Gut No. 187 Name of the Farmer दुर्गाबाई भांडवळ Well No. D30

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ....., Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well 25 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 25 ft, Water level from ground level 3 ft m.  
In rainy season ..... m, winter....., summer..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 4 ..... Acre  
Winter Season ..... 3 ..... Acre  
Summer Season..... 0 ..... Acre

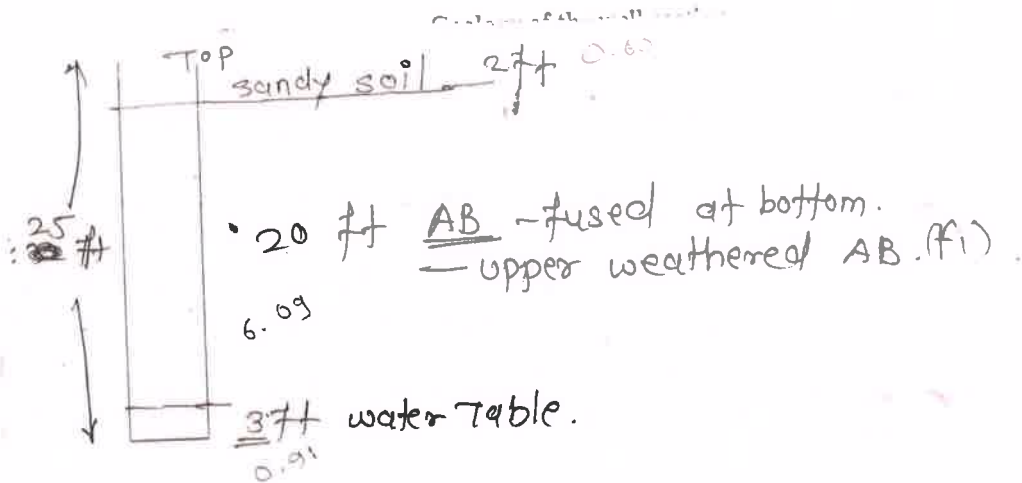
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP... 5HP  
Dia of outlet pipe..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... 20 ..... Hrs; winter..... 5 ..... Hrs; Summer..... 4-5 ..... Hrs.)

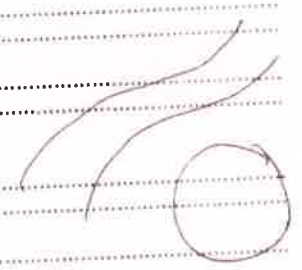
Any other information .....

Name of the Surveyor  
Jayesh Mhaske

[Signature]  
Signature



- a) Lining NA
- b) Soil - Black / Yellow / Sandy Sandy
- c) Existing watersheds structure Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable. upstream side lake are present.
- e) Geological / Geographical effect on groundwater. Rivers are present along the well. Good GW potential.
- f) Compact basalt fract is present
- g) Amygdaloidal Basalt fused AB
- h) Vesicular Basalt NA
- i) Tachylytic basalt NA
- j) Flow contact NA
- k) Dyke rock NA
- l) Any remark about geological formation. Debris are present & surrounded the river.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas, Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 01' 09" N  
 Long - 75° 4' 40" E

Alt - 646 m

Village ... लारवडवाडी ...

Date -

Gut No. 185 Name of the Farmer मुक्ताजी सोनजी पवार Well No. D31

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2004 Construction year 15/yr, If yes type.....

Parapet Ht. 10 ft Shape Circular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 28 ft, Water level from ground level.....m.  
 In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Latera' Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m and/or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5 HP  
 Dia of outlet pipe 2 1/2..... cpi. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 5 Hrs; Summer 8 Hrs.)

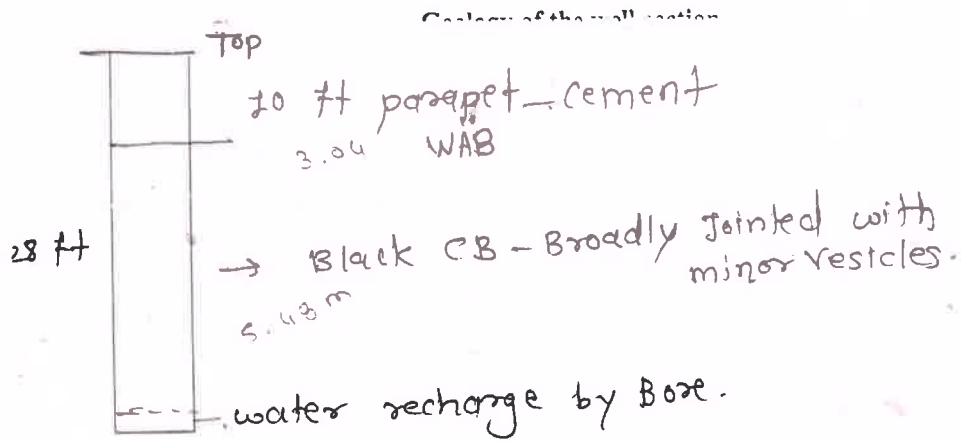
Any other information Depend only rainy water.

Name of the Surveyor

Jayesh Mhaske

Mhaske  
 Signature





a) Lining

Cement

b) Soil - Black / Yellow / Sandy

Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

No any structure of watershed

d) Effect of existing structures on water table.

due to CB, no water percolate, due to lack of porosity & permeability

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Broadly jointed CB with minor vesicles present

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NA

i) Tachylitic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

Nearby outside well CB present  
poor groundwater condition.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas, Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 01' 39" N  
 Long - 75° 4' 30" E  
 Altitude - 652 m

Village ... लोखंडवाडी (देवळाली)

Date - 11/06/19

Gut No. 183 Name of the Farmer शंकर कोडीक राजने Well No. D32

In Village Location ..... User... Personal/Community/.....

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1986 Construction year 25/10, If yes type.....

Parapet Ht. 17 Shape-Circular/Square, Diameter of well 17 ft  
 (Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 33 ft, Water level from ground level.....m.  
 In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in Direction, Length .....m. and /or vertical borehole .....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 5 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season ..... 0 ..... Acre

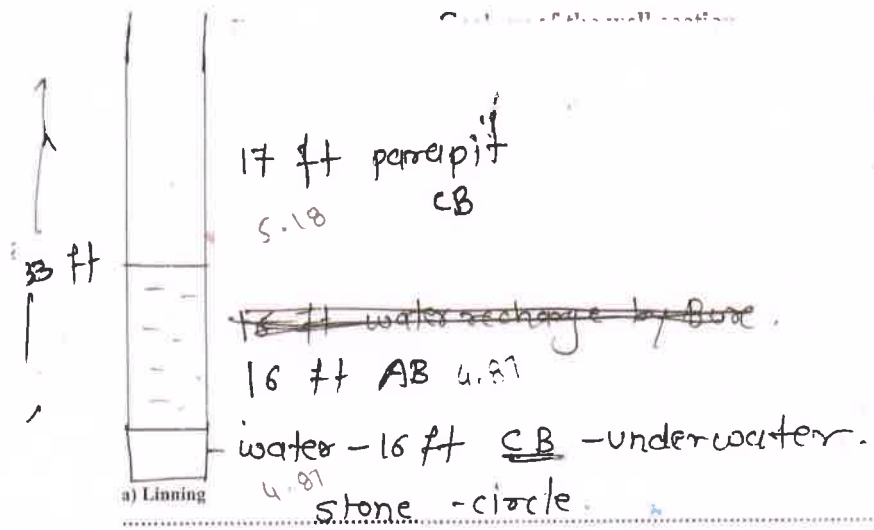
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 5  
 Dia of outlet pipe ..... 2 1/2 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter ..... 10 ..... Hrs; Summer ..... 2 ..... Hrs.)

Any other information .....

Name of the Surveyor  
 Jayesh Mhaske

Signature



a) Lining

b) Soil - Black / Yellow / Sandy  
sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

NO

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

Due to AA poor groundwater yield

f) Compact basalt

Due to CA bad groundwater yield.

g) Amygdaloidal Basalt

shed jointed AB

h) Vesicular Basalt

NA

i) Tachylytic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

The upper part is identified as a impermeable  
Horizon. So poor groundwater potential.



**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Lat - 19°02'18" N  
Long - 75°03'80" E  
Altitude - 661 m

Village ~~D... ..~~ लोखंडवाडी

Gut No. .... Name of the Farmer कंदलीक विश्वनाथ जगदाळ Well No. D26

In Village Location ..... User...  Personal/ Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well 15 ft  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 32 ft, Water level from ground level 5 ft m.  
In rainy season ..... m, winter ..... summer ..... m.

Percolation from :  Bottom /  Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length ..... m. and /or vertical borehole..... m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season 2.4 Acre  
Winter Season ..... Acre  
Summer Season ..... Acre

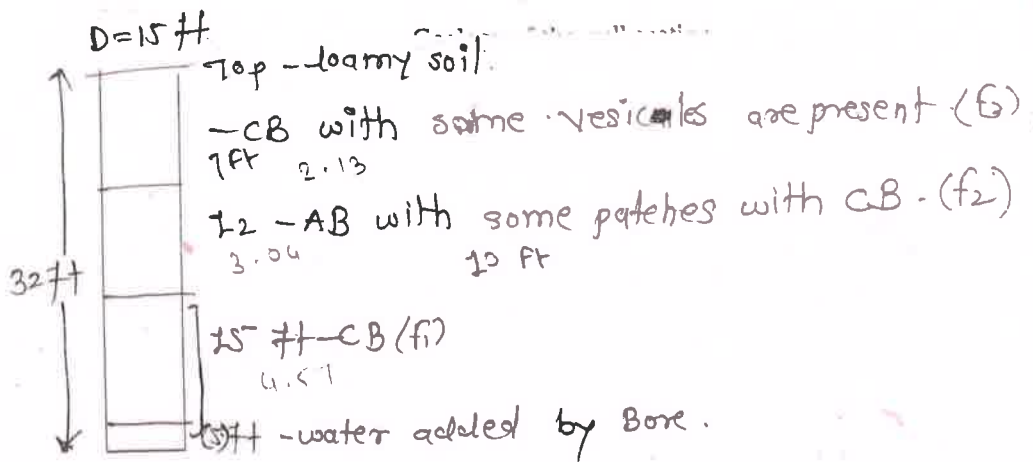
Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump..... HP SHP  
Dia of outlet pipe 2 1/2 cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 2.4 Hrs; winter 10 Hrs; Summer day Hrs.)

Any other information .....

Name of the Surveyor  
Jayesh Mhaske

Mhaske  
Signature



a) Lining not present

b) Soil - Black / Yellow / Sandy black loamy soil.

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable. well present in the lake. debris material present.

e) Geological / Geographical effect on groundwater. water is recharge during rainy season through AB.

f) Compact basalt lake is present NE side of a well. CB with minor vesicles.

g) Amygdaloidal Basalt AB with some patches with CB

h) Vesicular Basalt NA

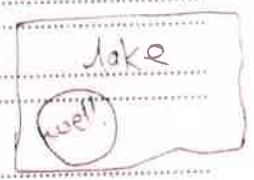
i) Tachylytic basalt NA

j) Flow contact NA

k) Dyke rock NA

l) Any remark about geological formation.

this well present in lake so unsorted sediments are present outside river. Good Q&A potential.



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 01' 07" N  
Long - 75° 03' 84" E  
Altitude - 655 m

Village लोखंडवाडी (धक्काली)

Date - 11/06/19

Gut No. 189 Name of the Farmer अन्ना शंकर मुजब Well No. D.7

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2012 Construction year - 7 yrs. If yes type.....

Parapet Ht. 24 ft. Shape-Cicular/Square, Diameter of well... 22.....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth 56 ft., Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length .....m. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 6..... Acre  
Winter Season ..... 2..... Acre  
Summer Season ..... 0..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP. 2 HP  
Dia of outlet pipe.....cm. /inch .....,  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

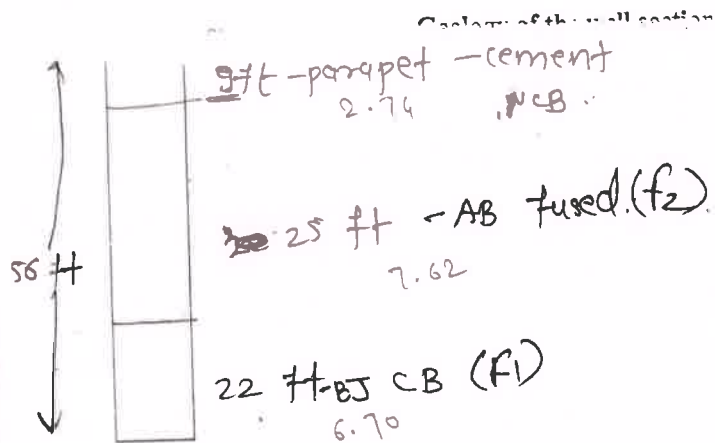
Time require for a full recharge / recuperation :  
(Rainy season ..... 24 ..... Hrs; winter..... 8 ..... Hrs; Summer ..... 48 ..... Hrs.)

Any other information .....

Name of the Surveyor  
Joyesh Mhalke

Signature





a) Lining

cement

b) Soil - Black / Yellow / Sandy

Sandy Black

c) Existing watersheds structure/ Proclamation dam in neighboring region.

upstream side Dam are present.

d) Effect of existing structures on watertable.

4 lateral Bore through bottom CB to percolate water.

e) Geological / Geographical effect on groundwater.

Water percolate through AB

f) Compact basalt

CB

g) Amygdaloidal Basalt

AB fused

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

NA

k) Dyke rock

NA

l) Any remark about geological formation.

The nearby area shown the AOB & C.B sample outside the wells & average GW potential.

## Details of Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. Village Name : Lokhandwadi, Ta- Ashti , Dist-Beed

2. Date of Survey: 11/06/2019

3. Name of Geologist and Hydrogeologist for Survey in the field:

- a. Mr. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. Name of the Members for assist to survey in the field:

- a. Shri Khillare
- b. Kundlik Jagdale

5. NAAM Pratinidhi: Shri Rajebhau Shelake

6. Local villagers/ Farmer:

- a. Bhanudas Thorat
- b. Tulshidas Thorat
- c. Muktaji Pawar
- d. Shankar Ranjane

7. Total No of Well surveyed:

06 dugwell in the field + 15 dugwell through Satellite imagery Survey  
= Total 21 dugwell

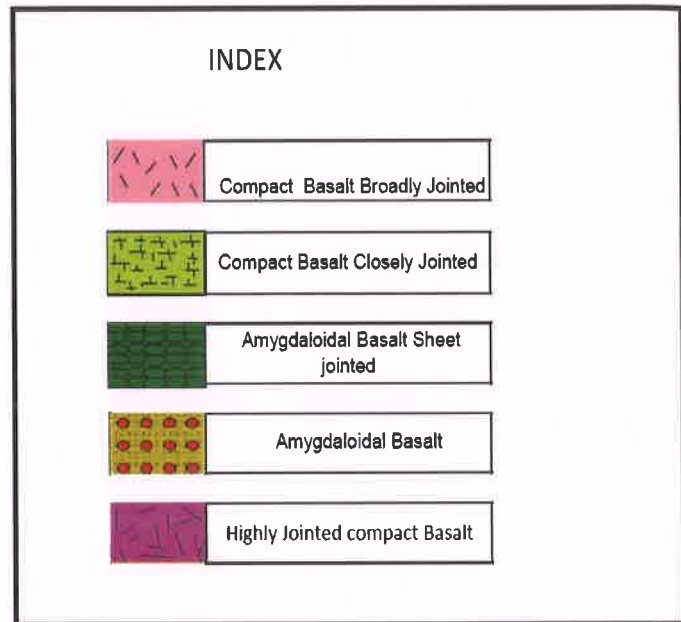
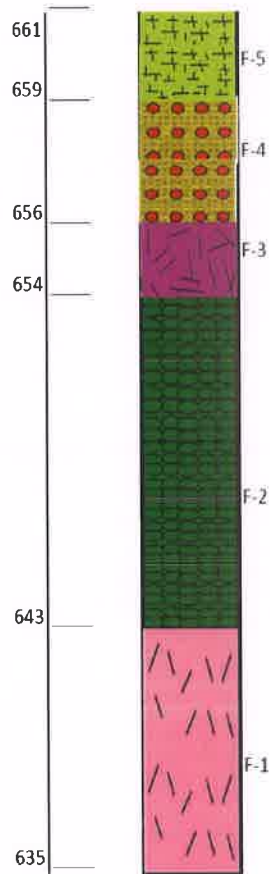
8. Total map prepared:

- a. Contour map of Village:
- b. Drainage map of Village:
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

9. Recommendation and Conclusion:

- a. For Artificial Recharge suitable/ Unsuitable:-----  
-----
- b. Structure for watershed development programme:-----  
-----

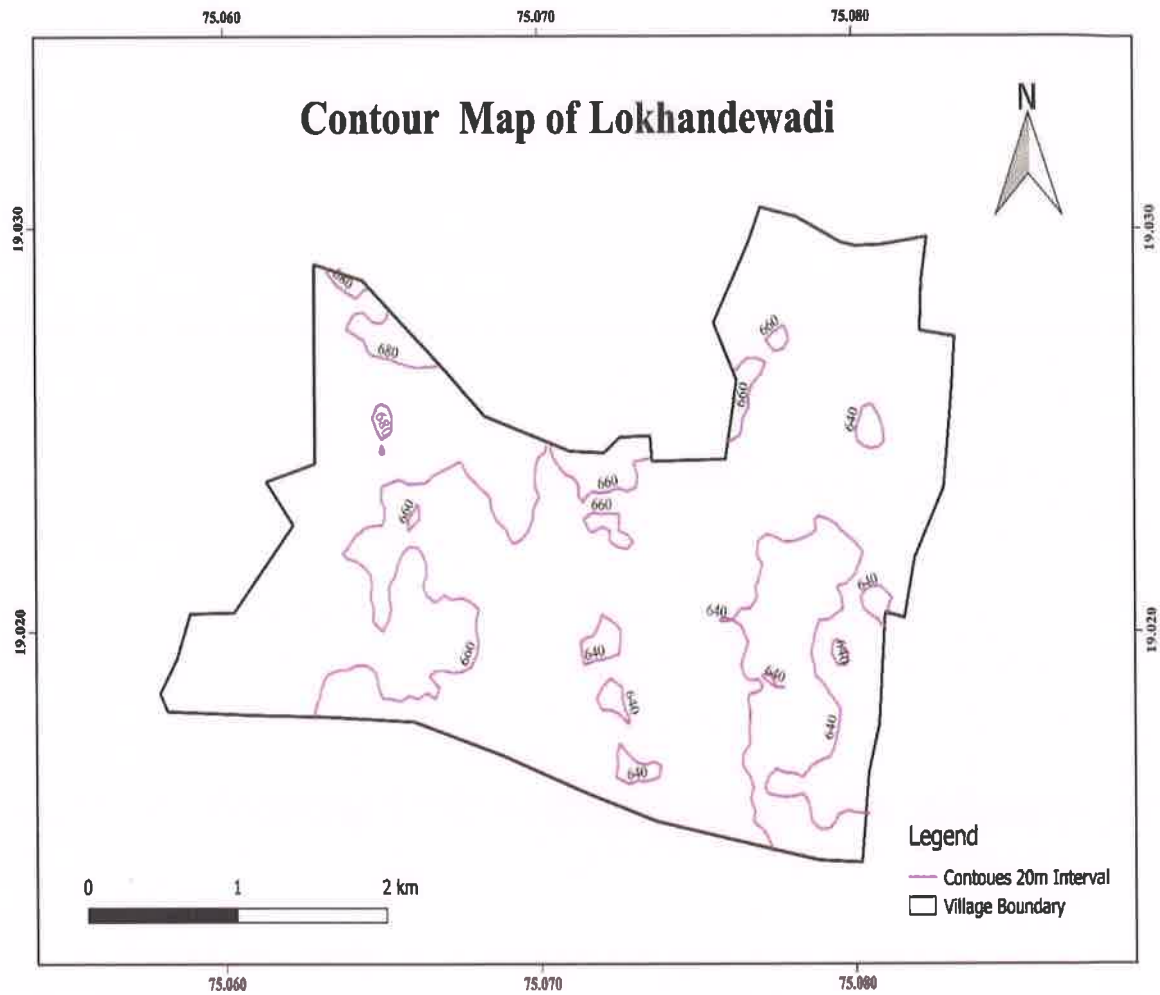
## Litholog of Lokhandwadi



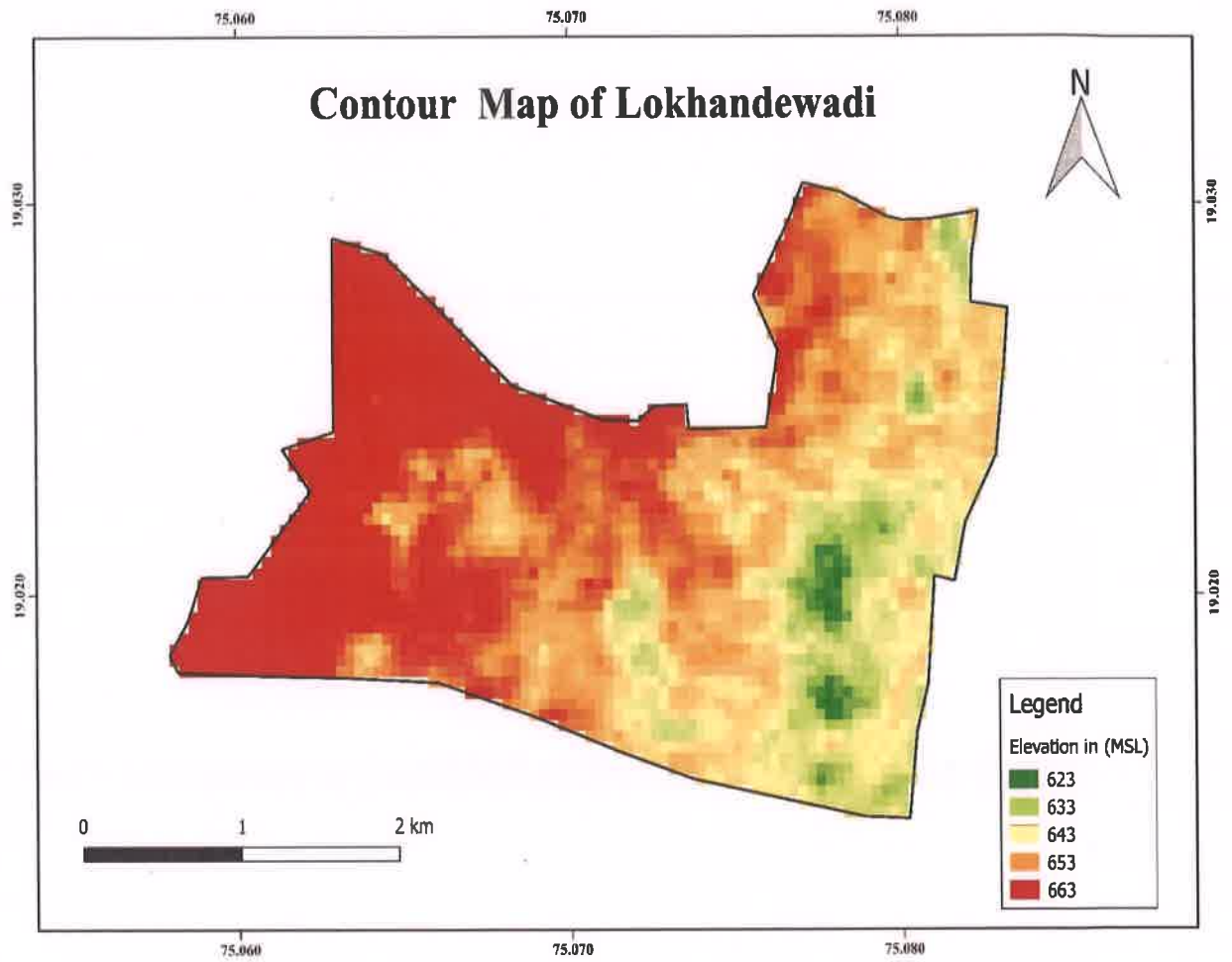
Litholog of Lokhandwala Village



# Contour Map of Lokhandwadi Village



## Contour Map of Lokhandwadi

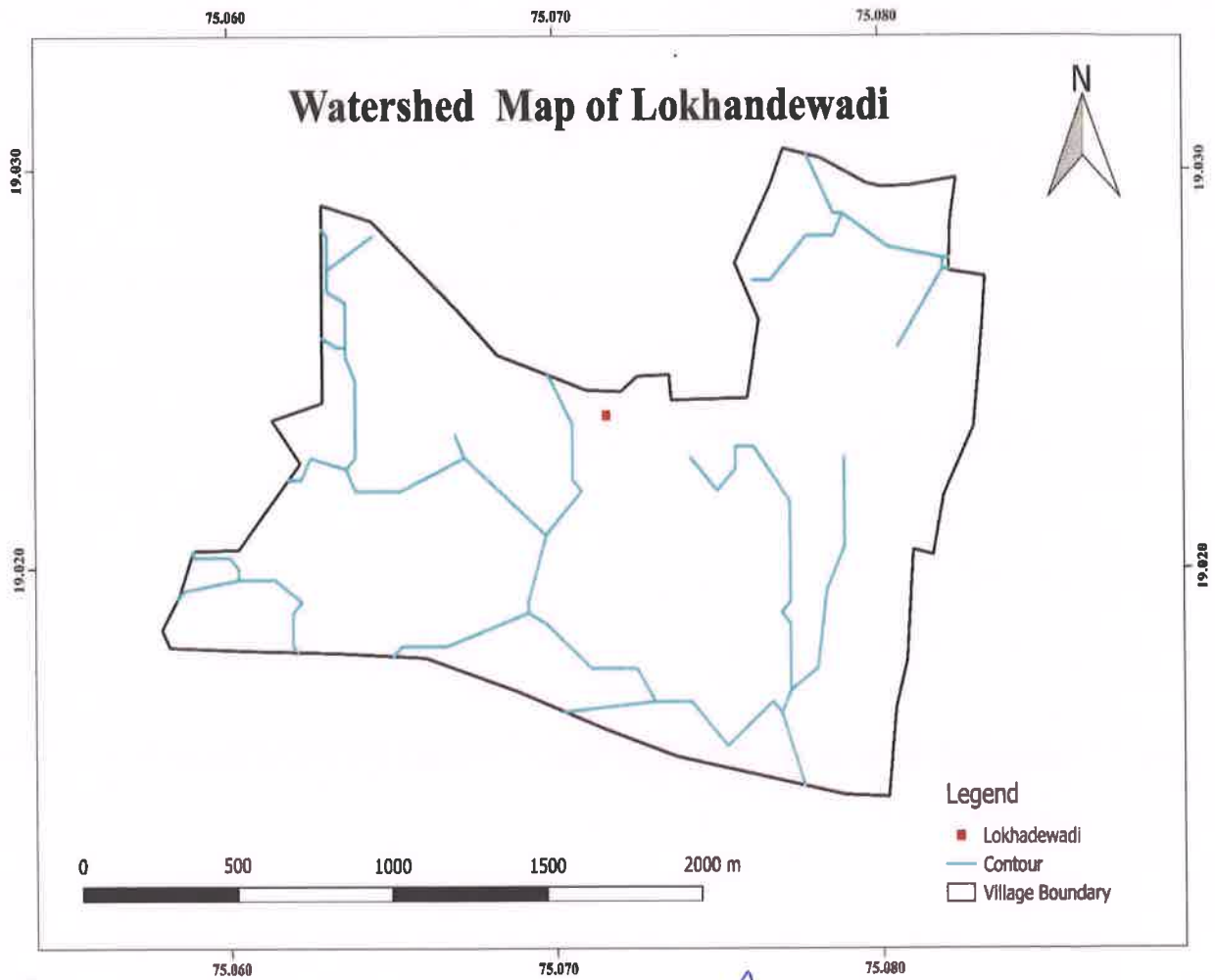




Photographs showing watersheds management at Lokhandwadi Village.



## Watershed Map of Lokhandewadi



**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Mangrul Village**

Mangrul is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 79 KM towards west from District headquarters Beed. 280 KM from State capital Mumbai. Mangrool is surrounded by Jamkhed Taluka towards South, Pathardi Taluka towards North, Patoda Taluka towards East, Karjat Taluka towards South.

**Google Earth image of Mangrul Village**





**Geohydrological survey for Selection of Site for Watershed  
development and Artificial Recharge ,Tahasil-Ashti, Dist-Beed by  
NAAM Foundation and CSGSS, Aurangabad**

---

**Village Name : Mangrul**

**Introduction:**

The Village Mangrul is situated in Ashti tahasil area, District-Beed of Marathwada region in Maharashtra. The village is distributed in wadi-vasti and located at North latitude  $18^{\circ} 47'06''$  and East longitude  $75^{\circ}08' 04''$  with an altitude of 578 m above mean sea level. It is located near Mangrul percolation tank project. The seasonal groundwater condition in rainy season is moderate to good while, village is facing water scarcity problem in the summer season of every year. The projected area of survey is falling in MDP (Moderately Dissected Plateau) to SDP (Slightly Dissected Plateau) geomorphological unit based on the contour map of Mangrul village. The detail geological hydrological condition of the area is mentioned below.

**Geology of the area:**

The major part of the project area constitutes a sequence of basaltic lava flows (Deccan Trap) while alluvium occupies a small portion along the river channels. The Deccan Trap formation is very thick and comprises of multiple lava flows. The compact basaltic lava flows and amygdaloidal basalt lava flows are the major lava flow unit observed in the project area. The small unit of Yellowish patches of weathered soil horizon between two sandwiched lava flows. The upper lava flows mostly affected by differential weathering processes. So that, sheet jointing, spheroidal weathering are the index features of upper lava flows. Along river channels paleochannels are being observed in the dugwell vertical section. In some of the other wells those are away from the main channels also reported with paleochannels which is indicate that, there has been great migration of river channels in the previous history. The detailed graphical representation of lava flows are indicated in litholog map of Mangrul village.

### **Hydrogeology of the area:**

The groundwater occurrence and movement in the area is influenced by its hard rock formations. Groundwater potentially depends upon porosity and permeability (both primary and secondary) of rock formations. The drainage network of streams from project area shows dendritic to sub-dendritic, radial to sub-radial drainage pattern. The development of dendritic to subdendritic drainage in area it indicates that area of massive to hard rock types and gently sloping terrain.

### **Suggestion for the artificial recharge:**

The litholog of the study area is indicating top Flow No. F-9 , F-8 and F-7 are affected by intense weathering processes rather than underlying highly jointed compact lava flows (Flow no. F-6) and sheet jointed amygdaloidal basalt lava flow (Flow No. F-5) demarcated shallow aquifer system. While, Flow No. F-4 is unjointed amygdaloidal basalt which restricts the primary porosity and Flow No. F-3 is compact basalt which is broadly jointed underlying by Flow No. F-2 which is weathered basalt and below that, Flow No. 1 is again occupied by compact basalt flow. The middle Flow No F-4 and F-3 are impermeable and does not allowed groundwater to percolate downward. So that, in the project area the groundwater is not available in shallow aquifer during summer season so that, mostly all borewells and dugwells become dry during summer season hence water is supplied by tanker for drinking purpose. In summer season mostly all borewells and dugwells become dry while groundwater potential in shallow aquifer is good but underlying Flow No. F-4 which is impermeable and do not allow groundwater to percolate downward. Hence, to recharge deeper aquifer channel, creation of artificial openings in middle impermeable layers are required in the project area by implementing artificial recharge methods.

For watershed development programme following site are being selected in the watershed according to dipping and lithology survey:

1. Percolation tank-1 (N 18° 47' 10" , E 75° 08' 48" )

- Widening and Deepening are required

2. Todkar Vasti Talav-2 (N 18° 46' 44", E 75° 08' 42" ):

- Widening and Deepening are required
- Spillway repairing required

3. Percolation tank-3 (N 18° 46' 44", E 75° 08' 24" ):

- Widening and Deepening are required
- Spillway repairing required

New Cement Nala bund (CNB) are suggested along Todkar vasti nala. And Widening and deepening of channel are also required.

**Hydrogeologist**  
**CSGVSS, Aurangabad**



गांव :- म्हासूळ

तालुका :- भाळी

जिल्हा :- बिड

लक्ष्मण विहिरी :- 12

जारीत जमीन उंची :- 594 मी.

कामिल जमीन उंची :- 568 मी.

लक्ष्मण पाझर तलाव :- 07

गांव मारवळ

20/07/19

पाझर तलाव :-

lat :- 184710  
long :- 750848  
Elev :- 586m

विहीर 2.10 रु.  
पाझर तलाव

सारणीत जागत - 596 - 800  
कामिलकामि - 568 - 513

या पाझर तलावाचे खोलीकरण, रेंदीकरण करणे गरजेचे आहे  
या पाझर तलावाला पुर्वेकडुन येणारा ओढा मिळतो.

② पाझर तलाव → लोडकर वस्ती चिखली रोड

lat :- 184654  
long :- 750842 इ जागे पाझर तलाव 2  
Elev :- 587m.

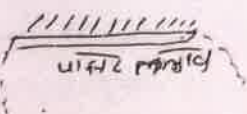


तलावाला तलाव-या तलावाचे खोलीकरण, रेंदीकरण करणे आवश्यक आहे व ओढ्याची दुरुस्ती करणे आवश्यक आहे. या तलावाला दोन ओढे येऊन मिळतात एक पश्चिमेकडुन येणारा आहे तर एक पुर्वेकडुन पश्चिमेकडुन येणारा या पाझर तलावाला येऊन मिळतात.

③ पाझर तलाव :-

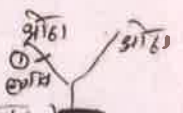
lat :- 184644  
long :- 750824  
Elev :- 586 m.

या पाझर तलावाचे रेंदीकरण, खोलीकरण करणे व ओढ्याची दुरुस्ती करणे आवश्यक आहे.



④ lat :- 184706  
long :- 750804

Elev :- 578.  
Location :- Todkar वस्ती (खोली सारणी वस्ती)  
New available site for construction cement nala  
या ओढ्याचे खोलीकरण व रेंदीकरण करणे गरजेचे आहे.



⑤ lat :- 184716  
long :- 750757  
Elev :- 574m.

(ओढा cement nala New consked  
(शाळाच्या दक्षिणे दिशेकडे) 200मी आंतरावर)

lat :- 184717  
long :- 750750  
Elev :- 574m.

7

lat :- 184722  
long :- 750739  
Elev :- 571m



Geohydro  
undert-

अध्यायी वाहण्याची दिशा पुढील  
पार्लिमेण्ट ; खोलीकरणी रूपांतरण व समान बांध.

→ खोलीकरणी

✓ lat :- 184656  
long :- 750709  
Elev :- 566.

पार्लिमेण्ट लावणे वस्ती



पि.व.



**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village होशनाबाद Date - 20/02/19  
 Gut No. 283 Name of the Farmer जि.स.राव / यशविजय लोखरे Well No. 01

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1993, Construction year....., If yes type... slomp lining

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 7.71  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 13.10 m., Water level from ground level... Deft m. lat - 184645  
 In rainy season ..... m, winter 6.72 m., summer ..... Deft m. long - 750849  
0180160 EIV - 590m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... in. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking , Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 7 ..... Acre  
 Winter Season ..... 3 ..... Acre  
 Summer Season..... N.R. ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....

Dia of outlet pipe ..... 2.5 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 2.4 Hrs; winter 6 Hrs; Summer..... NO. Deft Hrs.)

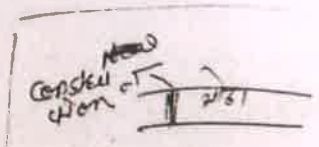
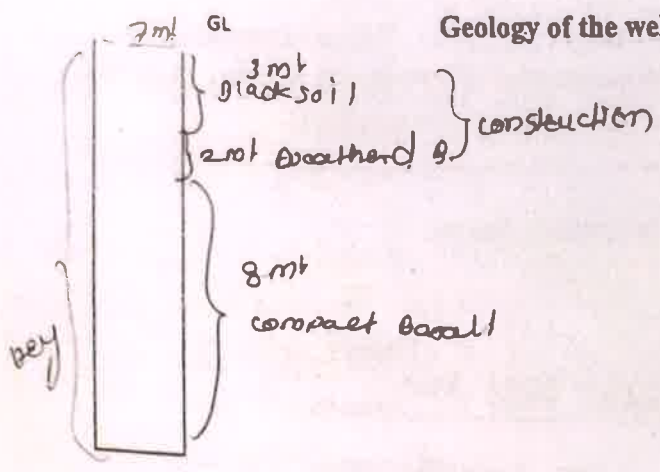
Any other information .....

Korde Jitendra  
 Name of the Surveyor

Beed  
 Signature

Geohydrology undertaker

### Geology of the well section



○ नीहरे

- a) Lining ..... Stone lining
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. ..... 300 ft नीहरे 300 ft नीहरे
- d) Effect of existing structures on watertable. .... Increase water table in nearby section also in corner.
- e) Geological / Geographical effect on groundwater. .... Increase water level
- f) Compact basalt ..... 8 m compact basalt flow present
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachyitic basalt ..... Absent
- j) Flow contact ..... Absent
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... this dyke is present in the road area and flow East to west direction

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... हावस .....

Date - 20/07/19

Gut No. 222 Name of the Farmer ..... श्रीमान तोडकर ..... Well No. 02 .....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009, Construction year....., If yes type..... NO

Parapet Ht. .... NO ..... Shape-Cicular/Square, Diameter of well... 7.00.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 11.00 m, Water level from ground level... 8.00 m. 1st 184701  
 In rainy season 8.00 m, winter 2.00 m, summer 8.00 m. Eng- 750858  
BN- 5940

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking , Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 5 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season..... NO ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....

Dia of outlet pipe..... 2.5 ..... cm. Inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 24 Hrs; winter 3 Hrs; Summer..... NO Hrs.)

Any other information .....

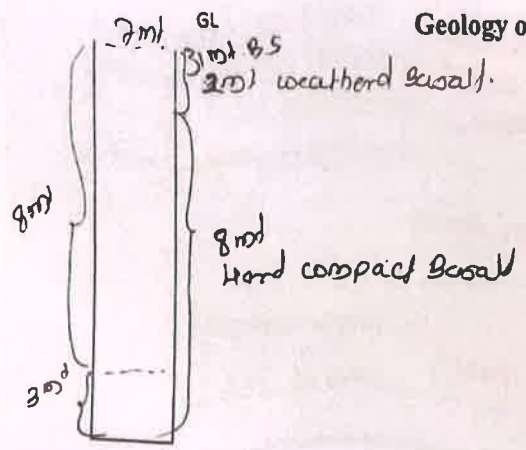
Korde Pankarao  
 Name of the Surveyor

Korde  
 Signature



Geohydrologist  
undertaker

Geology of the well section



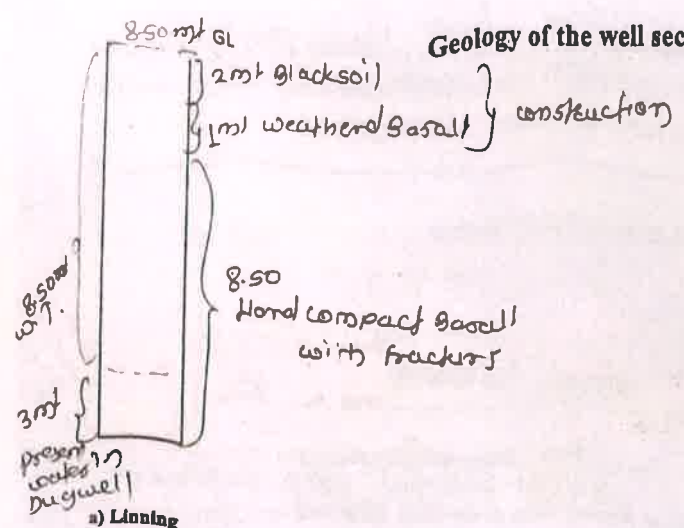
- a) Lining ..... NO
- b) Soil - Black / Yellow / Sandy ..... Black / yellow soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... South side Peartacy dam (उपर तल)
- d) Effect of existing structures on watertable. .... percolation High in rainy season and winter season
- e) Geological / Geographical effect on groundwater. .... increase water table in rainy season
- f) Compact basalt ..... 8 m compact basalt flow present!
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachylytic basalt ..... Absent
- j) Flow contact ..... NO
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... this dugwell present in high land area and flow direction east to west



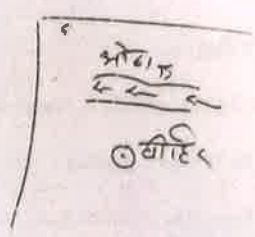


Geohydro  
undertake

Geology of the well section



श्री विहिरीय  
नवीन पाकर लकावामे  
सुिाबल site आर  
500 मी आंतरावर पाइपलाइन  
छोटा पाकर लकाव आर



- a) Lining Cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Recharge dam and 600 m distance
- d) Effect of existing structures on watertable. Near 500 m distance and 600 m distance. High in rainy season and winter.
- e) Geological / Geographical effect on groundwater. In mountain. High and winter time water table increase.
- f) Compact basalt 8.50 m Hard compact Basalt with fractures present.
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area flow direction East to west

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... हारासो .....

Date - 20/07/19

Gut No. .... Name of the Farmer पांडुरंग अठे ..... Well No. 04 .....

In Village Location ..... User... Personal/Community/.....

Location of the well South (Farmland, Bank of Nala, In the Nala, Riverbed)..... Near Nala South side

Year of the Digging 2011....., Construction year....., If yes type... Cement .....

Parapet Ht..... Shape-Cicular/Square, Diameter of well 2.50m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 10m....., Water level from ground level... 8m.....m. lot - 184713  
 In rainy season .....m, winter 2....., summer Dry.....m. 10mg - 750852  
over flow EM - 587mt

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 6..... Acre  
 Winter Season ..... 2..... Acre  
 Summer Season..... N/A..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe ..... 2.5..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ... 24..... Hrs; winter ... 2..... Hrs; Summer ... Dry..... Hrs.)

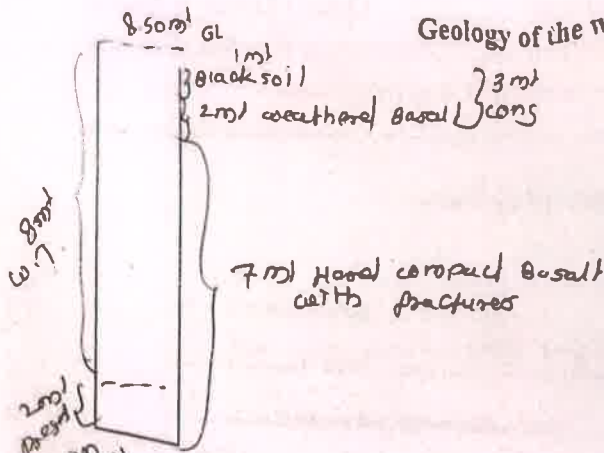
Any other information ..... येथे कोठासाठी नुसतं घेतला पाणी काढण्यासाठी कामे सारलेली नाहीत.

Konde Tukaramo.  
 Name of the Surveyor

[Signature]  
 Signature



Geology of the well section



Geologic undertake

100m ...  
30m ...

ଓଡ଼ିଶା

ଓଡ଼ିଶା

- a) Lining Cerement lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Nala present, Near 100 m distance
- d) Effect of existing structures on watertable. In comparison time increase noticeable
- e) Geological / Geographical effect on groundwater. East side and south High percolation
- f) Compact basalt 7m Hard compact basalt with High fractures present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact In between weathered basalt flow and Hard compact Basalt flow
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area flow direction East to west



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... होतार ..... Date - 20/07/19

Gut No. .... Name of the Farmer मोनाबाय विठोब लोडकर ..... Well No. 05

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013, Construction year....., If yes type..... N.O.

Parapet Ht..... Shape-Cicular/Square, Diameter of well 7 m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 10 m, Water level from ground level 7 m m. 1001-184653  
 In rainy season overflow m, winter 3.00 summer dry m. 1001-750844  
6141-587 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 5 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season ..... N.O. ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 ..... cm. Inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter overflow ..... Hrs; Summer dry ..... Hrs.)

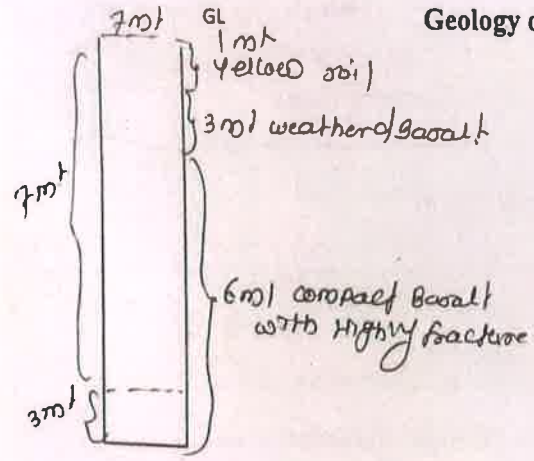
Any other information ..... या विहिरीचा पत्र्यामिळवुवा पावसाचा व दिवाळ्याला राहता.

Konde Tukaram  
 Name of the Surveyor

Reedy  
 Signature

Geohydro  
undertak

Geology of the well section



10m  
300m  
400m  
500m

- a) Lining NO.
- b) Soil - Black / Yellow / Sandy Yellow soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Near North side 400m distance Reaching dam and west side 500m distance Nala present
- d) Effect of existing structures on watertable. water percolation High in monsoon time
- e) Geological / Geographical effect on groundwater. Increase water table
- f) Compact basalt 6m highly fractured compact basalt present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact weathered basalt and compact basalt contact present
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area north to south direction flow

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... होतरा ..... Date - 20/07/19

Gut No. .... Name of the Farmer ..... महाशुभ आठवाहाडे लोखंड ..... Well No. .... 06 .....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2008, Construction year....., If yes type... N/A.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well... 7m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12m, Water level from ground level... DEY .....m. tal 184657  
 In rainy season .....m, winter.....8m, summer.....DEY.....m. long 750835  
overflow FN: - 985m

Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking , Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season .....5..... Acre  
 Winter Season .....2..... Acre  
 Summer Season.....N/A..... Acre

Type of withdrawals/Pump Out :- Electrical motor.....Diesel Pump.....5HP.....  
 Dia of outlet pipe.....2.5.....cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 24.....Hrs; winter.....2..... Hrs; Summer.....DEY.....Hrs.)

Any other information .....

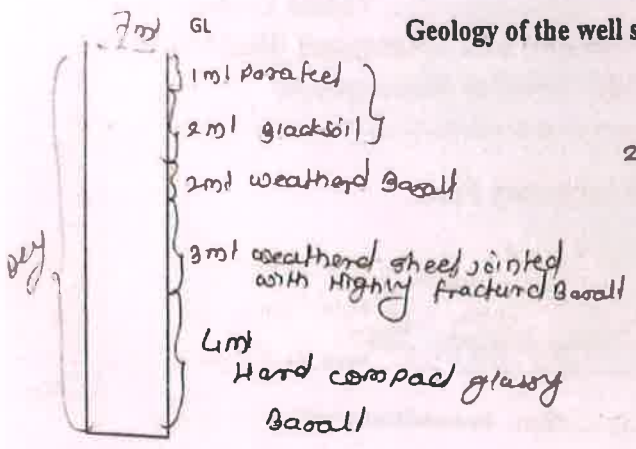
Konde Pukaram  
 Name of the Surveyor

Konde  
 Signature

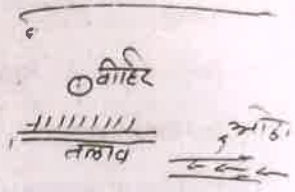


Geohydro  
undertake

Geology of the well section



विलीनित। दक्षिण दिशि  
10 मी आंतरावर तलाव आहे  
पुढील तलाव आहे व पुढे  
20 मी आंतरावर आहे आहे



- a) Lining cement
- b) Soil - Black / Yellow / Sandy
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Recharge dam present near 10 m distance
- d) Effect of existing structures on watertable. water percolate in south side because of south side percolation tank / dam
- e) Geological / Geographical effect on groundwater. to increase ground water table
- f) Compact basalt 3m and 4m highly fractured sheet jointed compact basalt field present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact
- k) Dyke rock Absent
- l) Any remark about geological formation.

Low land area flow east to west side



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

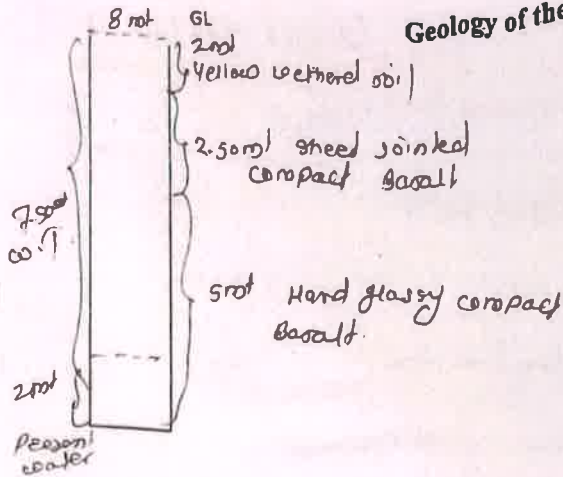
Well Inventory Form

Village ..... हसिना .....  
 Date - 20/07/19  
 Gut No. 225 Name of the Farmer शिवराज शिंदे Well No. 07  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2018, Construction year....., If yes type..... NO.....  
 Parapet Ht..... Shape-Cicular/Square, Diameter of well 8.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 9.50 m, Water level from ground level 7.50 m lat. - 184626  
 In rainy season 2.00 m, winter 2.00 m, summer 2.00 m long - 750835  
 Eht - 985 m  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)  
 Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 4 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season ..... NO ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5 ..... cm. inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter..... 2 ..... Hrs; Summer..... NO ..... Hrs.)  
 Any other information .....

Korde Jukarao  
 Name of the Surveyor

Korde  
 Signature

### Geology of the well section



या विद्यालय  
100 मी आंतराल  
मि. (चौखर्बा वा  
मि.)

Geohydro-  
undertaker

० मीटर  
मि. ० मीटर  
पश्चिम दिशि

a) Lining

NO

b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

in south side Recharge dam present. Near 100 m distance

d) Effect of existing structures on watertable.

in south side percolation High in monsoon period.

e) Geological / Geographical effect on groundwater.

increase water table

f) Compact basalt

5m and 2.50 sheet jointed compact Basalt flow is present

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

450 m distance up to surface flow change

k) Dyke rock

Absent

l) Any remark about geological formation.

Low land area flow direction west to East

18/12/19  
10/12/19

Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... होतानो ..... Date - 20/07/19

Gut No. .... Name of the Farmer ..... दिग्विजय लोडर ..... Well No. .... 08 .....

In Village Location ..... User... गोठल लोडर वस्ती आहे Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 20/4..., Construction year....., If yes type.....

Parapet Ht. .... N/A ..... Shape-Cicular/Square, Diameter of well... 2m .....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ... 4:50m ... Water level from ground level... 2.5 ... m. lat 184652  
In rainy season EXTRA m, winter ... 3:40 .., summer ... 2.5 ... m. long: -750812  
BN: -581m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season ..... 4 ..... Acre  
Winter Season ..... 1 ..... Acre  
Summer Season ..... N/A ..... Acre

Type of withdrawals/Pump Out :- Electrical motor....., Diesel Pump.....HP.....  
Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... over/100 Hrs; winter ..... 3 ..... Hrs; Summer ..... 0.2 ..... Hrs.)

Any other information .....

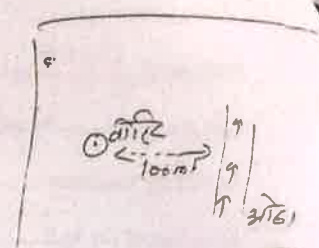
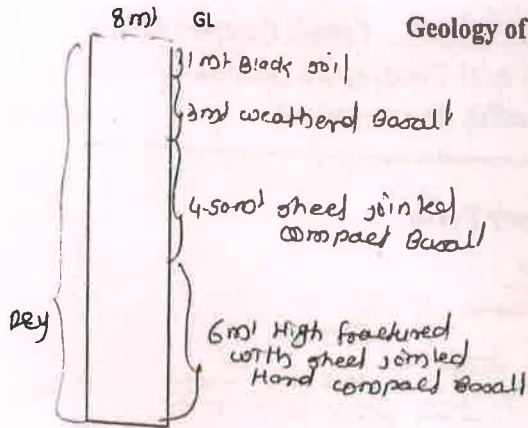
Konde Jaganard  
Name of the Surveyor

Boody  
Signature



Geology  
undertake

8m) GL Geology of the well section



- a) Lining ..... NO (construction absent)
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... distance Nala flow south to North direction
- d) Effect of existing structures on watertable. .... increase water level
- e) Geological / Geographical effect on groundwater. .... increase in monsoon period
- f) Compact basalt ..... 4-50 m and 6m Hard sheet jointed compact Basalt is present
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachytitic basalt ..... Absent
- j) Flow contact ..... +
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... High land area.



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village जोराब Date - 20/07/19

Gut No. .... Name of the Farmer जाधव जोराब Well No. 69

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2000, Construction year....., If yes type... common

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 2 mt  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 10 m, Water level from ground level. dry m.  
 In rainy season over flow m, winter 2.00 m, summer..... m. dry m. 1012 184709  
long:- 750802  
BN:- 577001

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 3 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season... 100 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor.....Diesel Pump 5 HP.....

Dia of outlet pipe..... 2-5 .....cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ..... 2-4 .....Hrs; winter..... 1 ..... Hrs; Summer..... dry .....Hrs.)

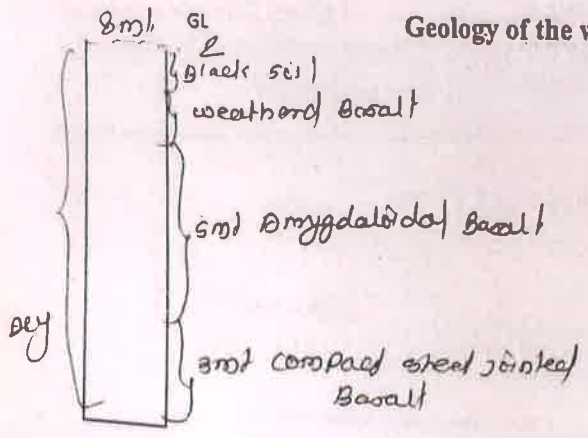
Any other information .....

Korde Tukaram  
 Name of the Surveyor

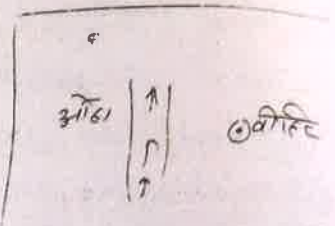
Goody  
 Signature

Geohydro  
undert

Geology of the well section



↑ N  
100m



- a) Lining NO (construction absent)
- b) Soil - Black / Yellow / Sandy black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. distance nearly 100m
- d) Effect of existing structures on watertable. water percolation increase water table
- e) Geological / Geographical effect on groundwater. increase water level
- f) Compact basalt 3m compact basalt flow
- g) Amygdaloidal Basalt 5m amygdaloidal basalt flow
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact flow contact in 10 to 7m up to surface AB and CD
- k) Dyke rock Absent
- l) Any remark about geological formation. pld.p. correct

7/11  
D  
3/11

Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... होताद .....

Date - 20/07/19

Gut No. .... Name of the Farmer ..... होताद Well No. .... 10 .....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013..., Construction year....., If yes type..... NO .....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.... 8m .....

(Whether water from other sources brought to this well (Yes source and Hrs of pumping.....)

Total Depth ... 12m ..., Water level from ground level.... 2m .....

In rainy season ... 6m winter... 6m summer... ..m. latd - 1847 25  
long - 7507 40  
EN - 572 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length .....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season ..... 7 ..... Acre  
Winter Season ..... 3 ..... Acre  
Summer Season..... NO ... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump... 5 HP .....

Dia of outlet pipe..... 2.5 .....cm. Inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ... 24 .....Hrs; winter... 2 ..... Hrs; Summer..... NO .....Hrs.)

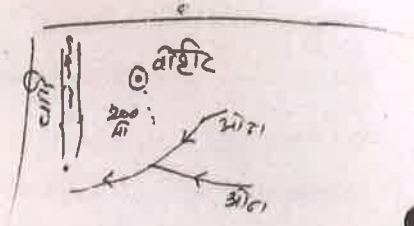
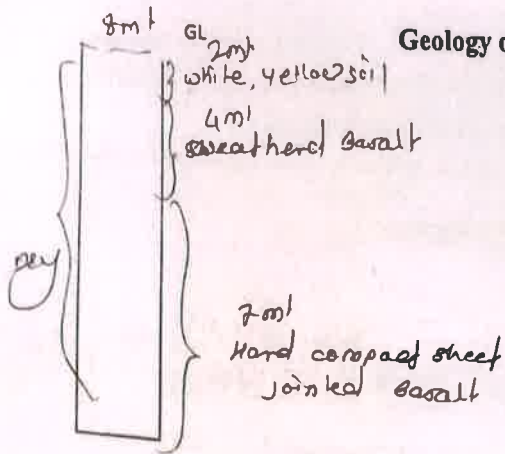
Any other information .....

Konde Tukaram  
Name of the Surveyor

[Signature]  
Signature



Geology of the well section



- a) Lining ..... NO
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. ....  
 डीएम डैम 10 मी प्रमाणित
- d) Effect of existing structures on watertable. ....  
 Increasing water table
- e) Geological / Geographical effect on groundwater. ....  
 Rainy season and winter season increasing water table
- f) Compact basalt .....  
 7m compact basalt flow present
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachylitic basalt ..... Absent
- j) Flow contact .....  
 small quartz vein present
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. ....  
 plain area

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village हातब .....

Date - 20/07/19

Gut No. .... Name of the Farmer हितोज गजब Well No. 11 .....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2015, Construction year....., If yes type... Cement .....

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 9m.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 11m....., Water level from ground level... 2m.....  
 In rainy season .....m, winter 6m..... summer .....m. lat = 184710  
overflow ENG = 750725  
EW = 56800

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 5..... Acre  
 Winter Season ..... 5..... Acre  
 Summer Season ..... ND..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump... 9 HP.....  
 Dia of outlet pipe..... 2.5..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

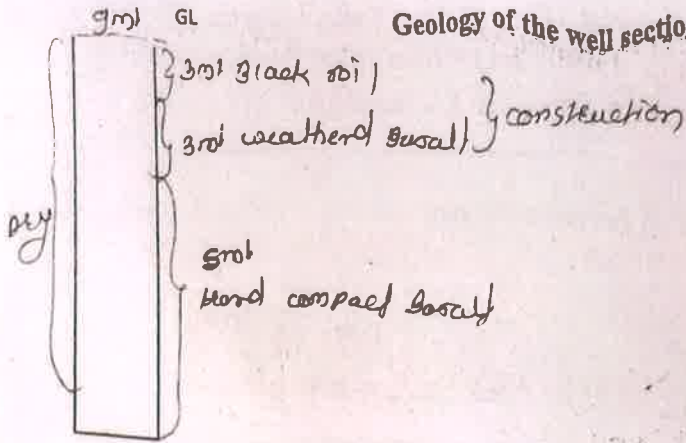
Time require for a full recharge / recuperation :  
 (Rainy season ... 2d..... Hrs; winter ..... 6..... Hrs; Summer..... ND..... Hrs.)

Any other information .....

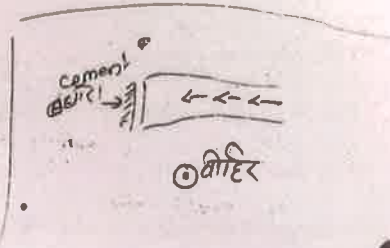
Korde Tukaram  
 Name of the Surveyor

[Signature]  
 Signature

### Geology of the well section



જાણ્ય સોમી સી.ન.  
 ગાંધી વિદ્યાલય (સેન્ટ્રલ) ડાહ્યા  
 ગાંધી



- a) Lining ..... cement
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watershed structure/ Proclamation dam in neighboring region. .... north side cement bandh present
- d) Effect of existing structures on watertable. .... in rainy season and winter season water table increase
- e) Geological / Geographical effect on groundwater. .... water percolate in two flow
- f) Compact basalt ..... 5m compact basalt flow present
- g) Amygdaloidal Basalt ..... Absent
- h) Vesicular Basalt ..... Absent
- i) Tachylytic basalt ..... Absent
- j) Flow contact ..... Absent
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... plain area



10/10/19

Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... Kal. P. B. ..... Date - 20/07/19

Gut No. .... Name of the Farmer ..... Well No. 12 .....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017, Construction year....., If yes type..... NO .....

Parapet Ht. NO Shape-Cicular/Square, Diameter of well..... 8m .....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 13m....., Water level from ground level..... 11m.....m. Lat 184910  
In rainy season 6m, winter 6.5m, summer Day.....m. Long 750849  
AVL 586m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season ..... 8 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season..... NO ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump S HP.....  
Dia of outlet pipe..... 2.5 .....cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

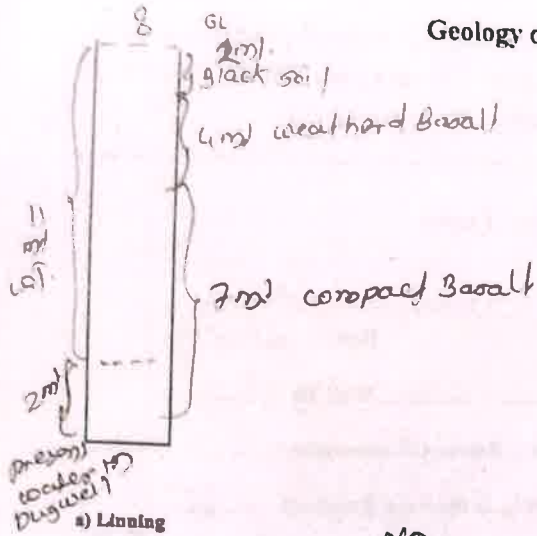
Time require for a full recharge / recuperation :  
(Rainy season .... 24 .....Hrs; winter..... 2 ..... Hrs; Summer..... Day .....Hrs.)

Any other information .....

Konde Nakanaro  
Name of the Surveyor

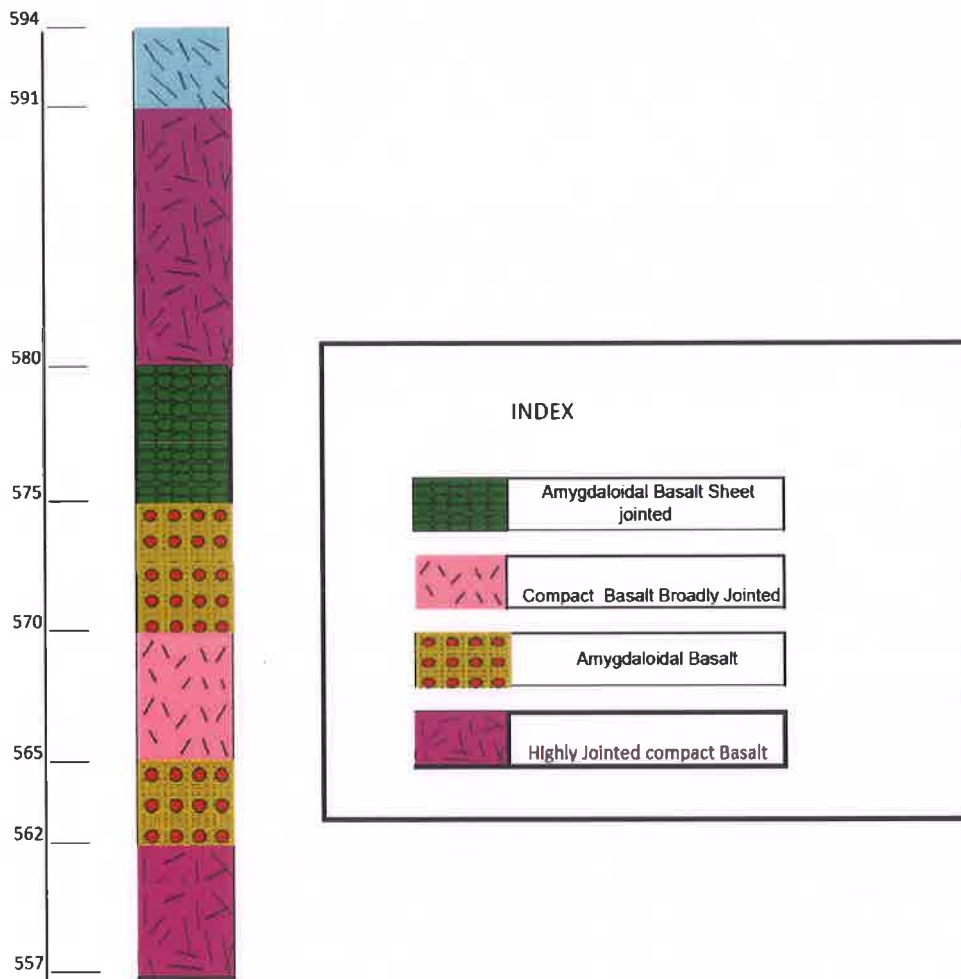
[Signature]  
Signature

### Geology of the well section



- a) Lining NO
- b) Soil - Black / Yellow / Sandy Black soil.
- c) Existing watersheds structure/ Proclamation dam in neighboring region. NO NO NEAR structure
- d) Effect of existing structures on watertable. No effect
- e) Geological / Geographical effect on groundwater. NO NO NEAR REACHABLE structure  
नयन्यामुळे groundwater वर effect ईत आहे
- f) Compact basalt 7m compact Basalt flow present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachytitic basalt Absent
- j) Flow contact
- k) Dyke rock Absent
- l) Any remark about geological formation.

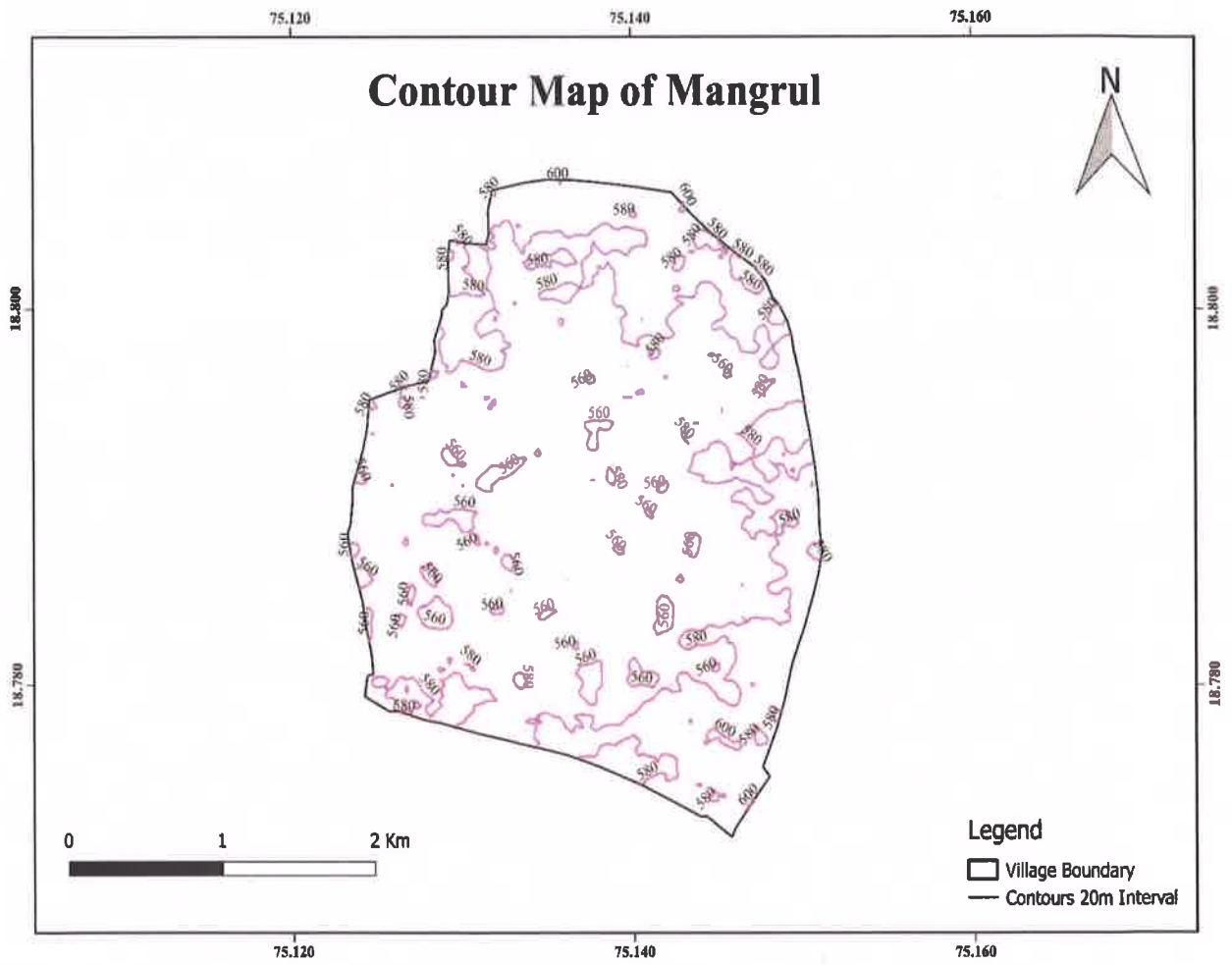
## Litholog of Mangrul Village



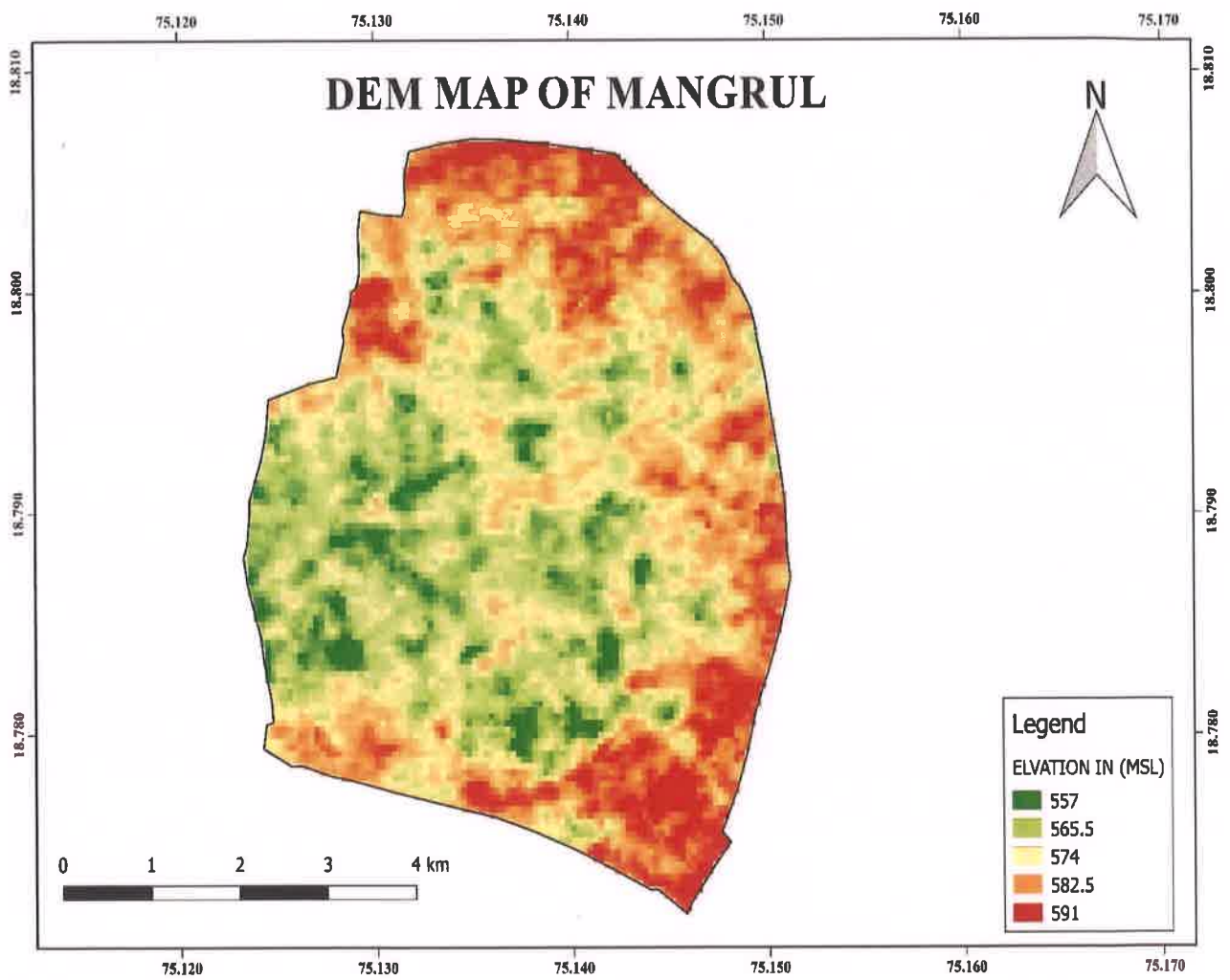
Litholog of Mangrul Village



# Contour Map of Mangrul



# DEM Map of Mangrul Village

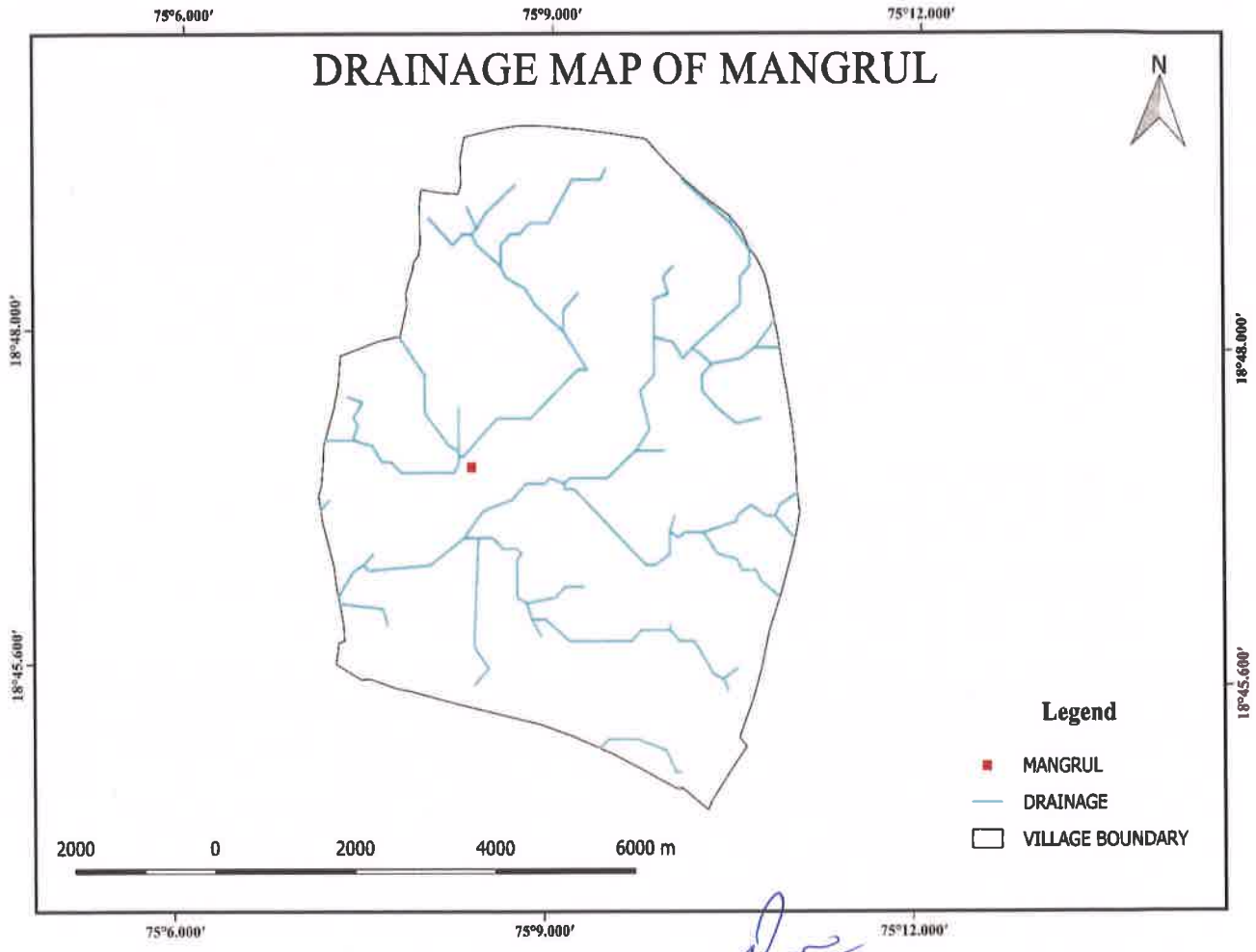




Photographs showing increase in water level at Mangrul village due to watersheds management work.



# Drainage Map of Mangrul Village



**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Matkuli Village**

Matkuli is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 62 KM towards west from District headquarters Beed. 23 KM from Ashti. 301 KM from State capital Mumbai. Karhewadgaon (3 KM), Pandhari (6 KM), Bhatodi (7 KM), Karanji (7 KM), Sakat (8 KM) are the nearby Villages to Matkuli. Matkuli is surrounded by Ashti Taluka towards west, Patoda Taluka towards East, Shirur (Ka) Taluka towards North, Karjat Taluka towards west.

## भूशास्त्रीय सर्वेक्षण मातकुळी, ता.आष्टी, जी. बीड

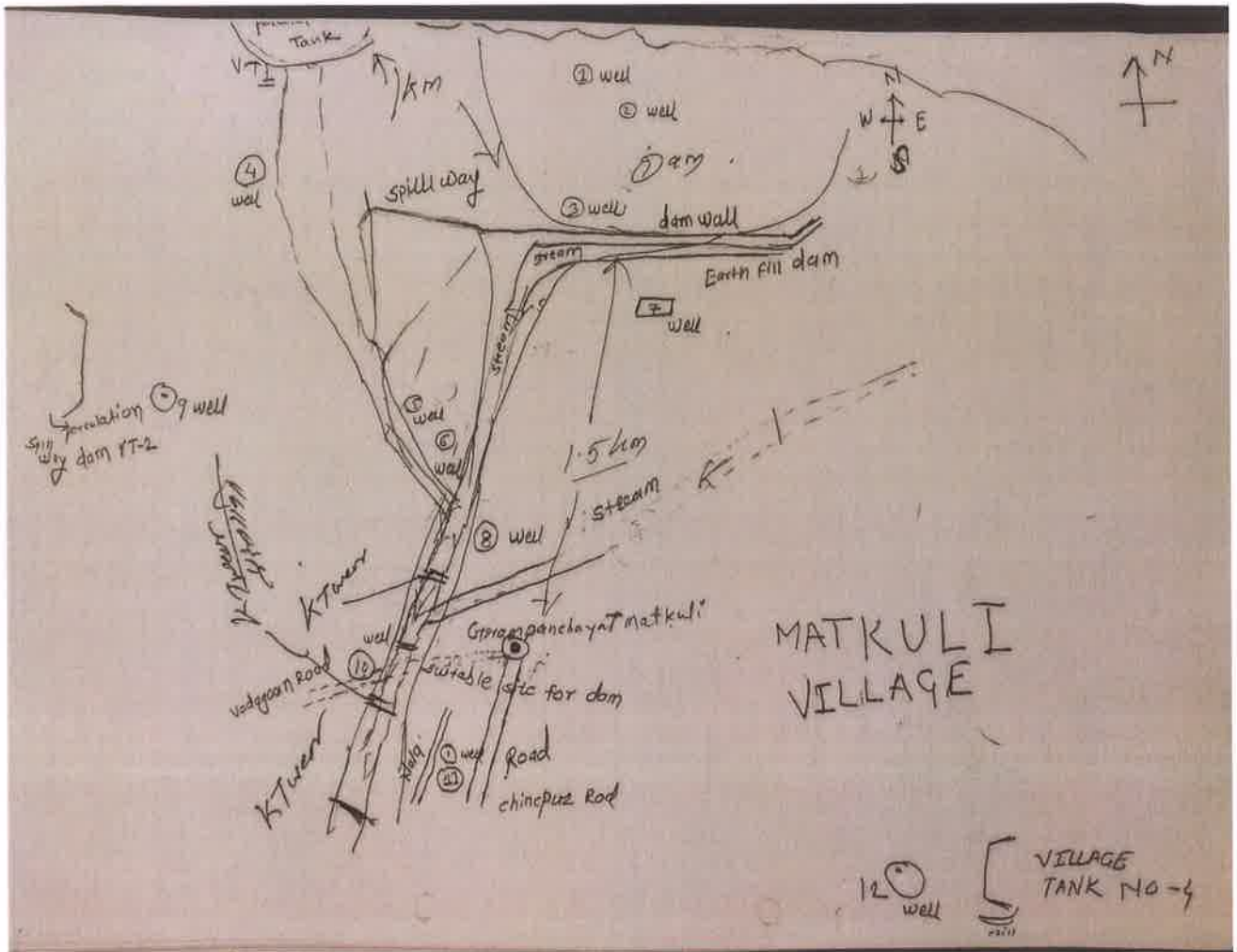
मातकुळी गावपरिसरामध्ये Well Inventory, GIS & Remote Sensing Technique, भूशास्त्रीय सर्वेक्षण, ह्याभागात पडणारा सरासरी पाऊस तसेच शेती; पिण्यासाठी व इतर कामासाठी पाण्याची मागणी इत्यादी बाबींचा आढावा घेऊन या भागातील पाणी टंचाई कमी करण्यासाठी खालील कामे करण्याची शिफारस करण्यात येत आहे.

१) मातकुळी गावाच्या परिसरामध्ये अंदाजे ७० मीटर खोलीपर्यंत बेसाल्ट खडकाचे मुख्य अकरा थर आढळत असून, त्यामध्ये काळा पाषाण थर क्र. २, ५ व ६ मधून पाणी खाली कमी जात असल्यामुळे गावाच्या उत्तर भागाकडून येणाऱ्या नदीवर कृत्रिम पुनर्भरण ( Artificial Recharge Structure ) पिट्स कमीत कमी ७० घेणे.

२) गाव परिसरामध्ये लहान मोठे नऊ तलाव असून ह्या तलावातील गाळ काढणे आवश्यक आहे.

३) गावाच्या उत्तरेकडील मुख्य मोठ्या तलावातील गाळ काढणे तसेच सांडव्याची दुरुस्ती करणे आवश्यक आहे.





Geohydrogeological mapping of Ashli Taluk District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

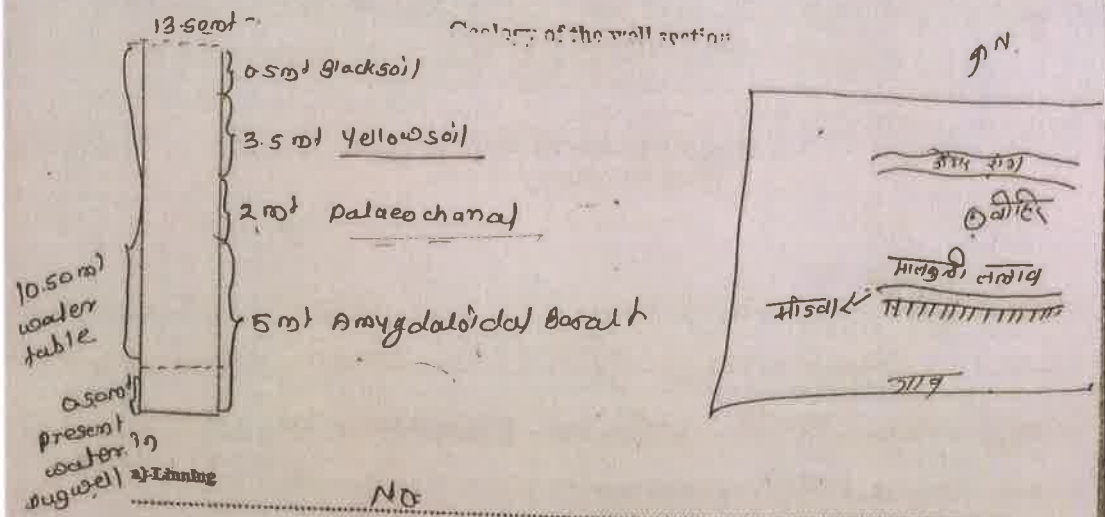
Well Inventory Form

Village १ हिरण्मठ Date - 17/07/19  
 Gut No. .... Name of the Farmer शिरण्मठ शिरण्मठ Well No. ०१  
 In Village Location South side User... Personal/Community/.....  
 Location of the well North (Farmland, Bank of Nala, In the Nala, Riverbed) Arwad (Dam)  
 Year of the Digging Current Construction year NO If yes type NO  
 Parapet Ht. NO Shape-Circular/Square, Diameter of well 13.50m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 11 m, Water level from ground level..... m. 1st - 184759  
 In rainy season ..... m, winter 8 summer DEY m. Long - 751740  
overflow EM - 631 rot.  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m, and for vertical bore hole..... m, Location at the bottom)  
 Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season 8 Acre  
 Winter Season 2 Acre - up to April - 1/2 hours  
 Summer Season DEY Acre - in month  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 cm. /inch.....  
 Quantity of withdrawals :- Daily 24 Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 2 Hrs; Summer DEY Hrs.)  
 Any other information overflow  
Dug well in Dam catchment area  
१) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात  
२) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात  
३) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात

Name of the Surveyor Korde Tukaram

Signature Korde

- १) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात
- २) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात
- ३) शिरण्मठ तालुकातील हिरण्मठ गाव व त्याच्या आसपासच्या भागात



- a) Soil - Black / Yellow / Sandy on the surface Black soil or Boulders present (Palaeochannel)
- b) Existing watershed structure / Proclamation dam in neighboring region. this dug well present in Mahaburi dam.
- c) Effect of existing structures on water table. water percolate the flow contact and palaeochannel contact.
- d) Geological / Geographical effect on groundwater. खनिज युक्त चमोड़ अमरगुडी गाँव पश्चिम दिश है।
- e) Compact basalt NO.
- f) Amygdaloidal Basalt The given dug well Amygdaloidal basalt flow present.
- g) Vesicular Basalt Absent.
- h) Tschylytic basalt Absent.
- i) Flow contact Real small chinal margin.
- j) Dyke rock NO.
- k) Any remark about geological formation. The given area well present in dam, north side hilly region.

(विदिरेय) कुल्लेरा हॉरिवाडो होंग रास) माडे, माओ 16 विदिरे  
 मालगुडी चमोड़ पश्चिम दिश है।

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

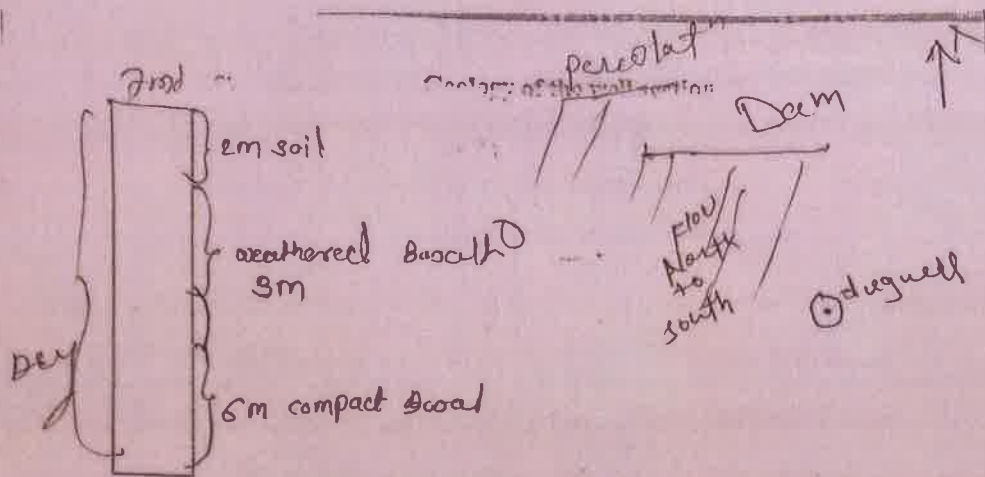
Village सातकुळी Date - 17/7/2019  
 Gut No. .... Name of the Farmer निंबू रंगनाथ डोळे Well No. 05  
 In Village Location South side User... Personal/Community/P  
 Location of the well.. North, (Farmland, Bank of Nala, In the Nala, Riverbed): DAW  
 Year of the Digging 2018, Construction year....., If yes type..... NO  
 Parapet Ht..... Shape-Cicular/Square, Diameter of well 7m Lat 184731 N  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....) long 751722 E  
 Total Depth 11m, Water level from ground level.....m. Elevation 628m  
 In rainy season 0.5m, winter 0.5m, summer Dry.....m.  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)  
 Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 0.5m Acre  
 Winter Season 3 Acre  
 Summer Season 0.5 Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....  
 Dia of outlet pipe..... 2 inch .....cm. /inch D.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 0.5m Hrs; winter 0.5m Hrs; Summer Dry..... Hrs.)  
 Any other information .....

Name of the Surveyor

Tarte . S M

Shilpa  
 Signature





a) Leaking NO

b) Soil - Black / Yellow / Sandy Black soil is present 2m

c) Existing watershed structure / Proclamation dam in neighboring region. dam is present North side

d) Effect of existing structures on water table. dam

e) Geological / Geographical effect on groundwater.

f) Compact basalt A compact basalt is present 5m and weathered 5m

g) Amygdaloidal Basalt

h) Vesicular Basalt NO

i) Tachytitic basalt NO

j) Flow contact NO

k) Dyke rock NO

l) Any remark about geological formation.

The dug well is present to the left of the outflow of dam

**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village सासकठी Date - 17/7/2019

Gut No. .... Name of the Farmer परशुराम विमा डोंगरे Well No... 10.....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed)..... ✓ good side river

Year of the Digging 2010..., Construction year 201....., If yes type cement concrete

Parapet Ht... 1 m... Shape-Cicular/Square, Diameter of well... 7 m... Lat 18° 74' 07" N  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 11.50 m... Water level from ground level... 11.50 m... long - 75° 17' 23" E  
In rainy season over flow m, winter 6 m..., summer dry m. elevation 522

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....in. and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ✓ ....., Irrigation ✓..... Acres, Horticulture.....; etc.....  
Rainy Season 8..... Acre  
Winter Season 5..... Acre  
Summer Season 1..... Acre

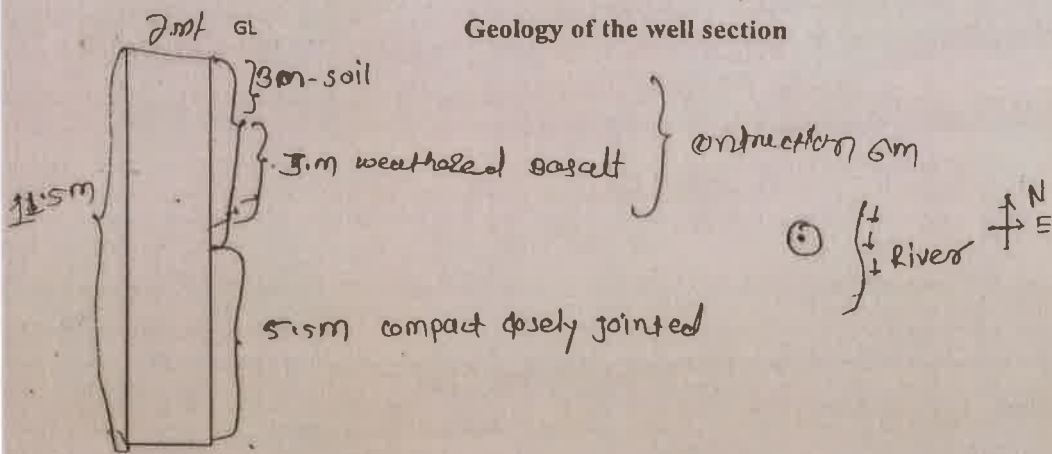
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....  
Dia of outlet pipe..... 2..... cm. /inch .....,  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 30 Hrs; winter 3..... Hrs; Summer dry..... Hrs.)

Any other information .....

Name of the Surveyor  
Abdul Suboor

S. H.  
Signature



- a) Lining cementing concrete 5m
- b) Soil- Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. River flow East side of dug well
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater. River from Recharge
- f) Compact basalt jointed 5.5m compact Basalt closely
- g) Amygdaloidal Basalt NO
- h) Vesicular Basalt NO
- i) Tachylytic basalt NO
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation.

**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village हिचडो Date - 17/07/19

Gut No. 318 Name of the Farmer मनो/रमेश/शर Well No. 14

In Village Location ..... User... 50 Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed)..... फारमलंड मी 360 मी 31/1/19

Year of the Digging 2014, Construction year....., If yes type..... cement

Parapet Ht.....Shape-Cicular/Square, Diameter of well... 11.20 m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 21.50 m, Water level from ground level... 18.....m. lat - 184760  
In rainy season .....m, winter..... 8 m / summer..... 1 m.....m. long - 75858  
overflow DEY 652 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and/or vertical borehole.....m. Location at the bottom)  
East - 2 30 or 40

Use :- Drinking , Irrigation  Acres, Horticulture.....; etc.....  
Rainy Season ..... 2..... Acre  
Winter Season ..... 4..... Acre  
Summer Season... DEY..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
Dia of outlet pipe..... 2.5.....cm. /inch.....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season .... 24.....Hrs; winter..... 4..... Hrs; Summer..... DEY.....Hrs.)

Any other information sheet jointed weak compact basal flow and  
Anguloidal basal flow water percolation high.

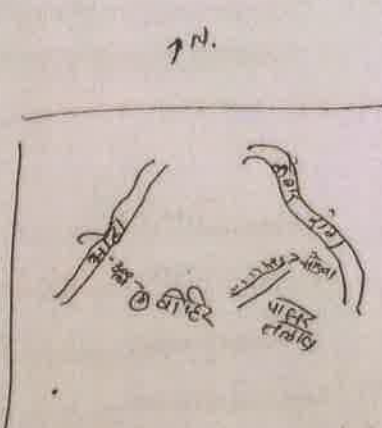
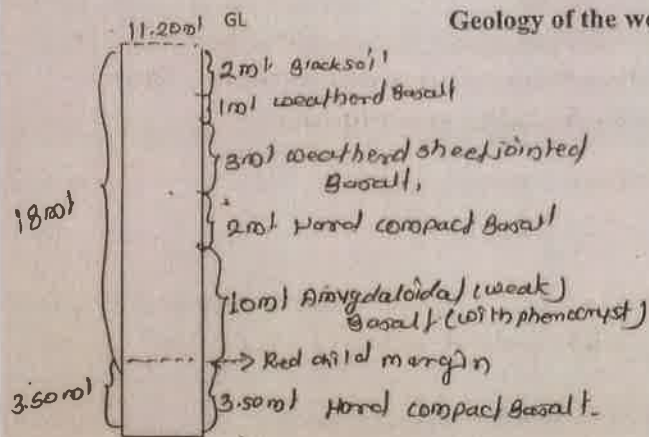
Name of the Surveyor Korde Tukaram

Signature Korde

percolation high sheet jointed B.  
Ang. B.



Geology of the well section



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. Near 100 mt odha (3000) present. (East side 300 mt. dam)
- d) Effect of existing structures on watertable. The contact of sheet jointed weak compact Basalt and Amygdaloidal Basalt flow percolate water.
- e) Geological / Geographical effect on groundwater. (Handwritten notes in Hindi describing groundwater flow and recharge areas)
- f) Compact basalt Highly sheet jointed compact Basalt flow present
- g) Amygdaloidal Basalt Alternat Amygdaloidal Basalt flow present
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact small Red chid margin present
- k) Dyke rock
- l) Any remark about geological formation. (Handwritten notes in Hindi about geological formations and distances)

**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village हिनडुळी Date - 17/07/19

Gut No. .... Name of the Farmer श्रीपती प्रमोदी जरे Well No. 19

In Village Location ..... User Personal/Community/.....

Location of the well....., (विहिरीच्या उत्तरेस 50 म आगराव आडा आडे, (Farmland, Bank of Nala, In the Nala, Riverbed).....)

Year of the Digging ..... Construction year....., If yes type..... N.D......

Parapet Ht. N.D. Shape-Circular/Square, Diameter of well 9 म.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12 म. Water level from ground level 10 म. Lat. 18 46 38  
In rainy season over flow m, winter 7.00 m, summer Deft. m. Long. 75 17 48  
Deft. m. Deft. m. Deft. m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m. Location at the bottom)

Use :-  Drinking .....  Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 6 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season..... Deft. Acre

Type of withdrawals/Pump Out :-  Electrical motor.....  Diesel Pump 5 HP.....  
Dia of outlet pipe..... 2.5 ..... cm. /inch .....

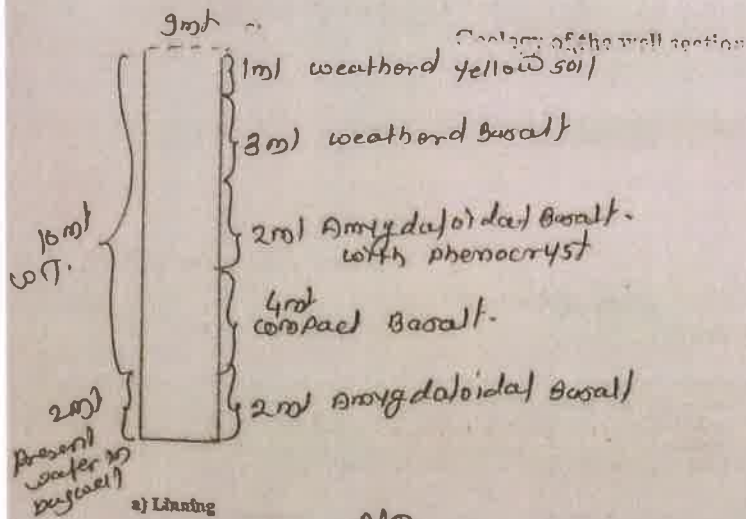
Quantity of withdrawals :- Daily Deft. ..... Hrs. Seasonal ..... cc meter / day  
Deft. ..... Deft. ..... Deft. .....  
Deft. ..... Deft. ..... Deft. .....  
winter season - 2 Hrs / day

Time require for a full recharge / recuperation :  
(Rainy season ..... Hrs; winter 4 ..... Hrs; Summer ..... Deft. ..... Hrs.)  
Deft. ..... Deft. ..... Deft. .....

Any other information .....

Konde Tukaram  
Name of the Surveyor

Reedy  
Signature



a) Lining

NO

b) Soil - Black / Yellow / Sandy

weathered yellow and black soil

c) Existing watersheds structure / Proclamation dam in neighboring region.

Absent

d) Effect of existing structures on watertable.

जगदल मोडल अस्तित्वात वीर flow cell  
contact हेतु जल पावलाचे वर वीरिरी मरल अहित

e) Geological / Geographical effect on groundwater.

Highline area near small  
hill semi distance

f) Compact basalt

Alternate highly compact basalt present

g) Amygdaloidal Basalt

Alternate weathered Amygdaloidal Basalt  
seen arrangement

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

small Red chid margin

k) Dyke rock

Absent

l) Any remark about geological formation.

विरिरीया उलेसु वीर 50 m  
अंतरावर आसुन तो पुर्वकडुन पावलाचे वर वीरिरी मरल अहित



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village मातंगडी

Date - 17/07/19

Gut No. .... Name of the Farmer दत्तत्रय विर. Well No. 24

In Village Location ..... User... Personal/Community/.....

Location of the well North, (Farmland, Bank of Nala, In the Nala, Riverbed) दाहिणेस - नाला ओर

Year of the Digging 2011, Construction year..... If yes type Cement

Parapet Ht. Circular Shape-Cicular/Square, Diameter of well 12.4m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14.20 m, Water level from ground level..... m. 10d: - 1847.21  
 In rainy season overflow m, winter 6 m, summer DEJ m. 10ng: - 75-1754  
627 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length, ..... m. and for vertical borehole ..... m. Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture..... etc.....  
 Rainy Season 8 Acre  
 Winter Season 2 Acre  
 Summer Season DEJ Acre

Type of withdrawals/Pump Out :- Electrical  Diesel Pump 5 HP

Dia of outlet pipe 2.5 cm. / inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 8 Hrs; Summer DEJ Hrs.)  
overflow

Any other information या विहिरीच्या (ठोक) अंतरीवर वीव ओढा  
अथवा) घेतो या अंत्याच) पाहून या विहिरीमध्ये विहिरी भरण्यासाठी

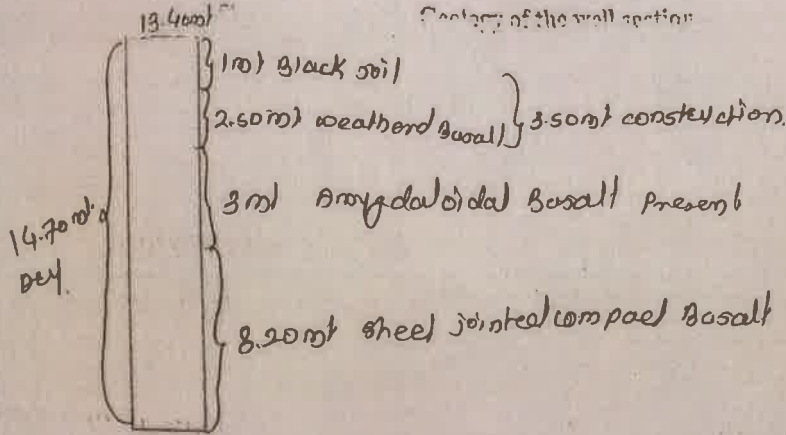
Name of the Surveyor  
Konde Tukaram

Signature  
Konde



विहिरीच्या दक्षिणेस 100 मी अंतरावर ओढा असून पुर्वेस वाजिया साठवण तलाव 500 मी अंतरावर आहे

Geology of the well section



a) Lining Cement

b) Soil - Black / Yellow / Sandy Black soil

c) Existing watershed structure / Proclamation dam in neighboring region. Near 500m distance Rechar dam and south side 100m distance adhar dam

d) Effect of existing structures on watertable. प्रस्तावित बांधणीच्या आसपास विहिरीच्या पातळीत वाढ होईल

e) Geological / Geographical effect on groundwater. This dug well present in BLD DNE area and also Basin area

f) Compact basalt 8.20 m compact sheet jointed Basalt

g) Amygdaloidal Basalt 3 m Amygdaloidal Basalt present

h) Vesicular Basalt Absent

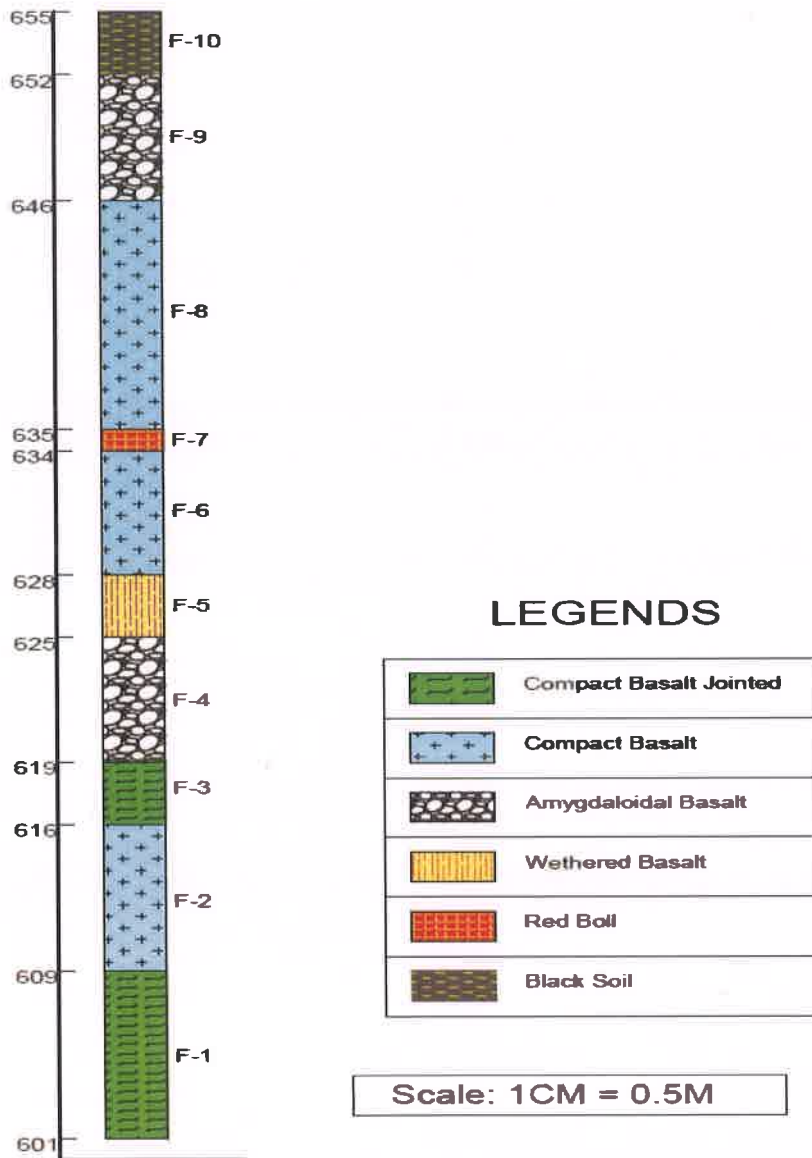
i) Tachylytic basalt Absent

j) Flow contact AB and CB highly water percolate

k) Dyke rock Absent

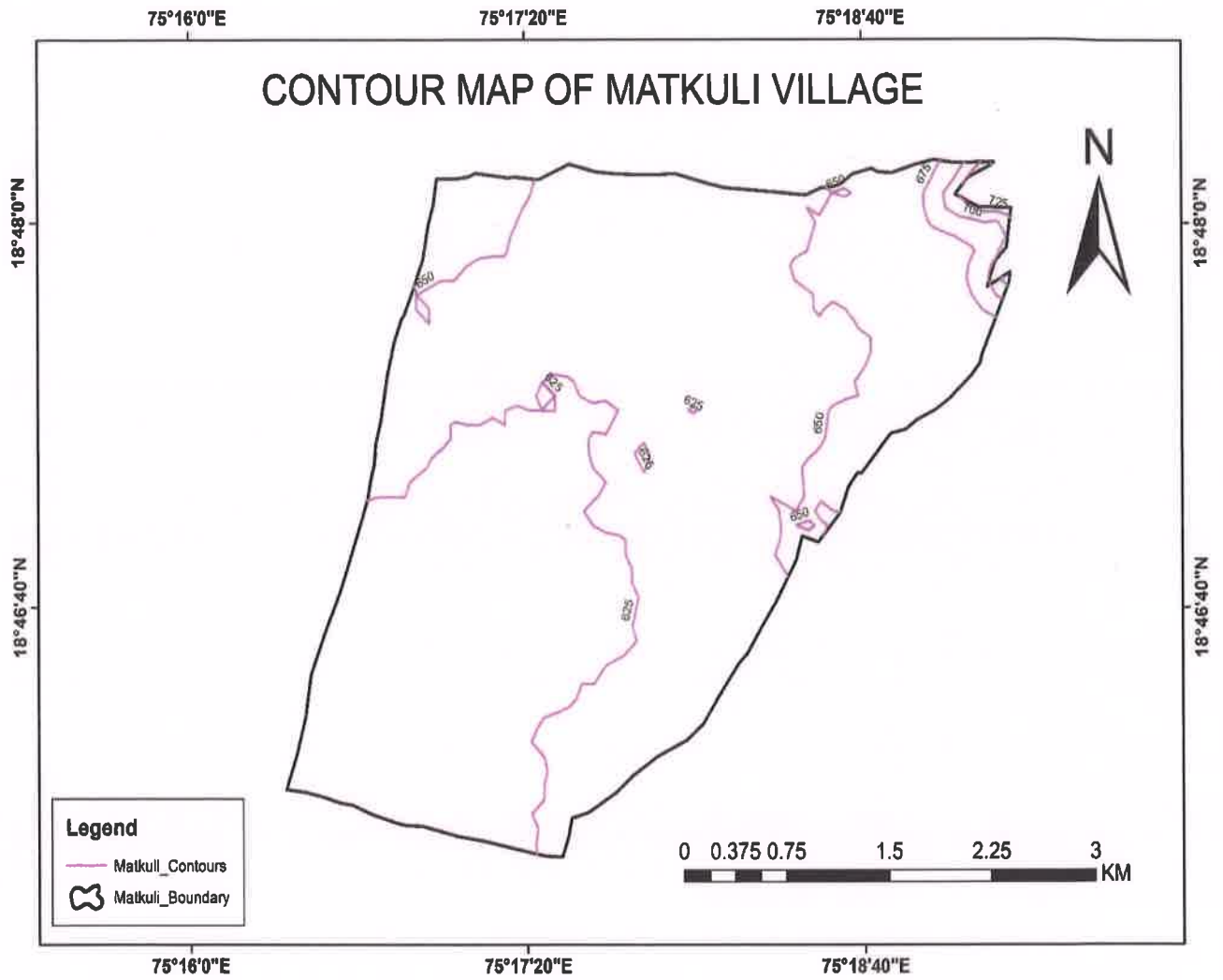
l) Any remark about geological formation. Phenocrystal are present near junction keros Hill erect present

## Litholog of Matkuli Village

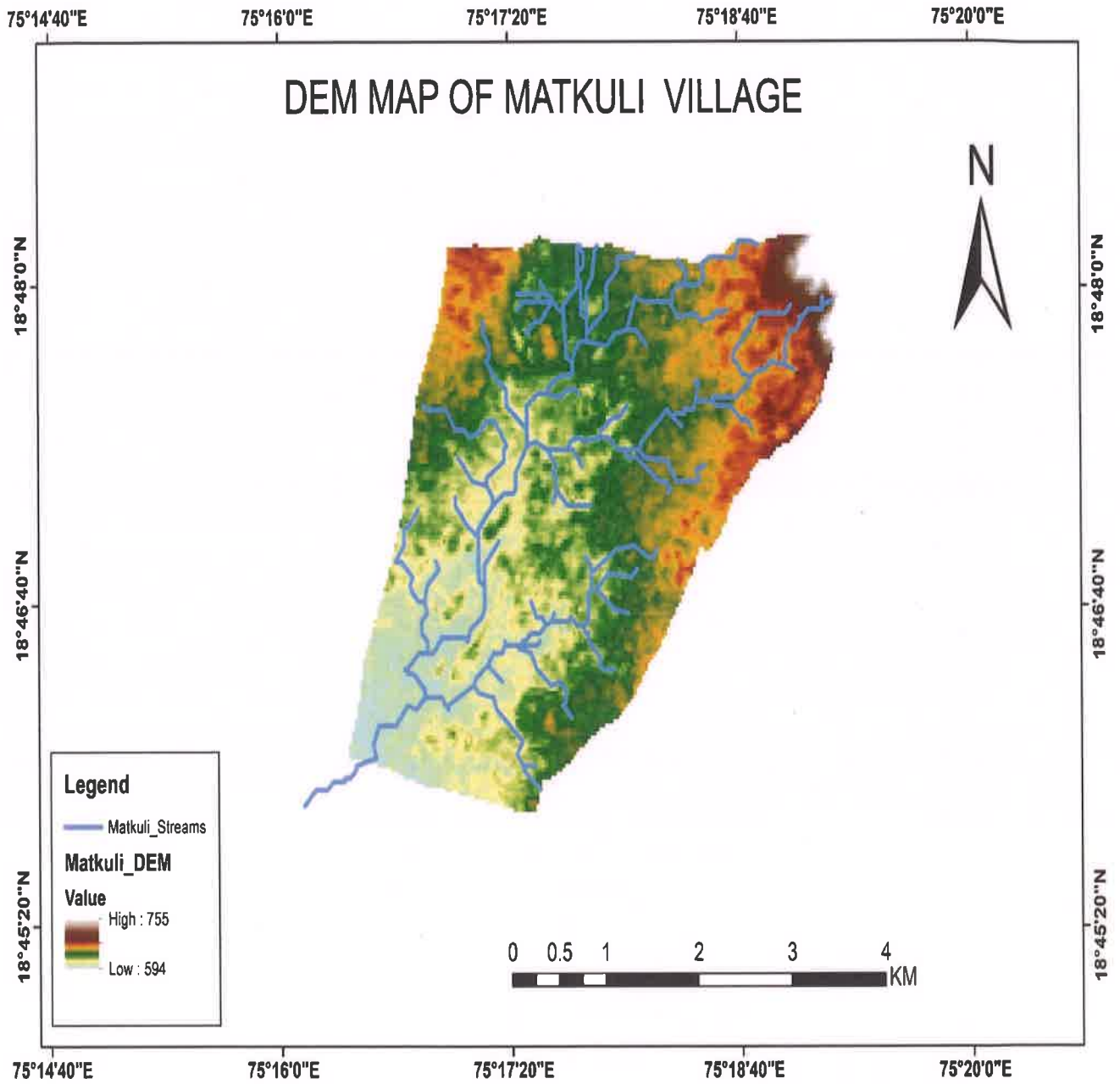


Litholog Of Mathkuli Village

# Contour Map of Matkuli Village



# DEM Map of Matkuli Village





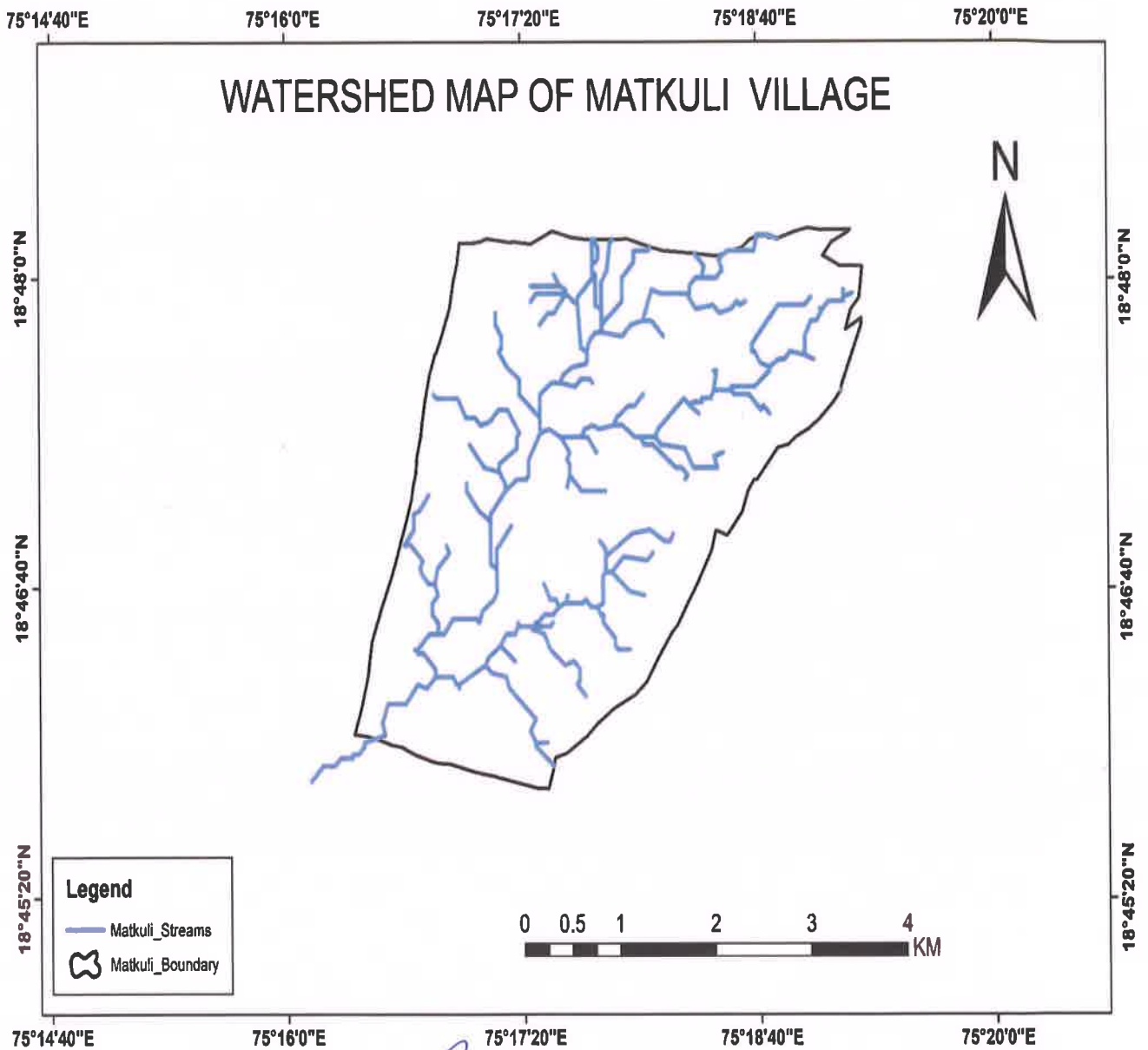


**Weathered Compact Basalt can be seen in dug well**



Photographs showing increase in water level at Matkuli village due to watersheds management work.

## Watershed Map of Matkuli Village



**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Pandhari Village**

Pandhari is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 68 KM towards west from District headquarters Beed. 18 KM from Ashti. 295 KM from State capital Mumbai. Karanji (3 KM), Hajipur (4 KM), Jamgaon (5 KM), Bhatodi (6 KM), Matkuli (6 KM) are the nearby Villages to Pandhari. Pandhari is surrounded by Ashti Taluka towards west, Patoda Taluka towards East, Shirur (Ka) Taluka towards North, Karjat Taluka towards west.

The Village Pandhari is situated in Ashti tahasil, District-Beed of Marathwada region in Maharashtra. The village is at North latitude 18° 47' 37.69'' and East longitude 75° 12' 17.30'' with an altitude of 602 m above mean sea level. It is located in catchment area of Kadi river. The groundwater condition in rainy season is moderate to good while, village is facing water scarcity problem in the summer season of every year. The small area of project is falling in MDP (Moderately Dissected Plateau) geomorphological unit based on the contour map of Pandhari Village.



## भुशास्त्रीय सर्वेक्षण पांढरी, ता. आष्टी, जि. बीड

पांढरी गावपरिसरामध्ये Well Inventory, GIS & Remote Sensing Technique, भुशास्त्रीय सर्वेक्षण, ह्याभागात पडणारा सरासरी पाऊस व पाण्याची माघणी इत्यादी बाबींचा आढावा घेवुन या गावातील भुजल विकासासंबंधी खालील भुजल विकासाची कामे करणे आवश्यक आहे.

- 1) पांढरी गावाच्या परिसरामध्ये 150 फुट खोलीपर्यंत बेसाल्ट खडकाचे मुख्य पाच थर आढळत असुन, त्यामध्ये काळा पाषाण थर क्र. 1 व 3 मधुन पाणी खाली जात नसल्यामुळे गावाच्या उत्तर-पुर्वे भागाकडुन येणाऱ्या नदीवर कृत्रिम पुर्नभरण (Artificial Recharge Structure) घेणे, दोन पिट्स मधील अंतर 100 मिटर ठेवणे व गावाच्या वरिल भागात तीन बंधारे व गावातील खालील भागात (SW) नदिवर दोन बंधारे बाधणे.
- 2) गाव परिसरातील तलावाच्या साडव्याचे पिचिंग व दुरुस्ती करणे.
- 3) गावाच्या दक्षिण भागात असणाऱ्या ओढ्यावर खोलीकरण व शक्य असेल त्या ठिकाणी रुंदीकरण करणे.

**Geohydrological survey for Selection of Site for Watershed  
development and Artificial Recharge ,Tahasil-Ashti, Dist-Beed by  
NAAM Foundation and CSGSS, Aurangabad**

**Village Name : Pandhari**

**Introduction:**

The village Pandhari is situated in Ashti tahasil area, District-Beed of Marathwad region in Maharashtra. The village is located at North latitude  $18^{\circ} 47'37.69''$  and East longitude  $75^{\circ} 12' 17.30''$  with an altitude of 602 m above mean sea level. It is on Beed –Ahemadnagar highway and towards East of the Ashti-tahasil headquarter. The seasonal groundwater condition in rainy season is moderate to good while, village facing water scarcity problem in the summer season of every year. The small area of project is falling in MDP (Moderately Dissected Plateau) and most of the area is covered by SDP (Slightly Dissected Plateau) geomorphological unit based on the contour map of Pandhari village. The detail geological hydrological condition of the area is mentioned below.

**Geology of the area:**

The major part of the project area constitutes a sequence of basaltic lava flow (Deccan Trap) of Upper Cretaceous to Lower Eocene age. The sediments of recent to quaternary age are reported along the river which is subtributary of Talvar river now join in Devigavhan Talav (Reservoir) which is constructed on downstream channel area of the river near Devigavhan village. The Deccan Trap formation is very thick and it comprises of different horizontal lava flows. The compact basaltic lava flow and amygdaloidal basalt lava flows are the major lava flow unit observed in the project area. The small unit of red bole patches also observed within two massive lava flows. The upper lava flows mostly by differential weathering processes. So that, sheet jointing, spheroidal weathering are the index features of upper lava flows. Along river channels paleochannels are being observed in the dugwell vertical section in the northern part of the village area. In some of the other wells those are away from the

main channels also reported with paleochannels in northern region. The detailed graphical representation of lava flows are indicated in litholog map of Pandhari-village.

#### **Hydrogeology of the area:**

Groundwater occurrence and movement in the area is influenced by its hard rock formations. Groundwater potentially depends upon porosity and permeability (both primary and secondary) of rock formations. The drainage network of streams from project area shows dendritic to sub-dendritic drainage pattern. The development of dendritic to subdendritic drainage in area it indicates the area of massive to hard rock types and gently sloping terrain.

#### **Suggestion for the artificial recharge:**

The litholog of the study area is indicating top Flow No. F-5 which is highly weathered with overlying by sandy to calcaritic soil cover. The Flow No. F-4 is occupied by amygdaloidal basalt which is sheet jointed in top portion and fuse jointed in middle and bottom portion. so that, it is impermeable in nature. The underlying flow i.e. Flow No. F-3 of compact basalt is weathered and jointed whereas, bottom Flow No. F-2 of amygdaloidal basalt is sheet jointed and basement flow i.e. Flow No. F-1 of compact basalt is observed with short and fuse joints those are not inter connected so that, flow is impermeable in nature. Where, the above mentioned impermeable lava flows does not allow to recharge lower aquifer, hence only in shallow aquifer rainwater recharge and during summer season this shallow aquifer become dry. To recharge lower aquifer artificial recharge techniques we have to use in existing percolation tank which help to recharge lower aquifer and water remain available in summer season also.

**Hydrogeologist**  
**CSGVSS, Aurangabad**



# Dug-Well Inventory

Geohydrogeological mapping of Ashahi Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

1057 - 610  
587 Well Inventory Form D-1  
32  
73.3 =

Village विठरी Date - 27/06/2019

Gut No. 587 Name of the Farmer राजु लक्ष्मण शिंदे Well No. 21

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013, Construction year....., If yes type.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....) Lat 184733

Total Depth 2.8 mt, Water level from ground level 1.2 m. lon. 75 12 19  
 In rainy season full m, winter DEJ, summer DEJ m. EN:- 602 mt.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)

Use :- Drinking , Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor 3HP Diesel Pump.....HP.....  
 Dia of outlet pipe 2 inch ..... cm, inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

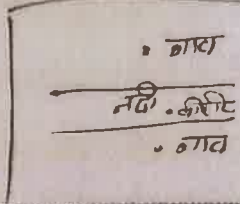
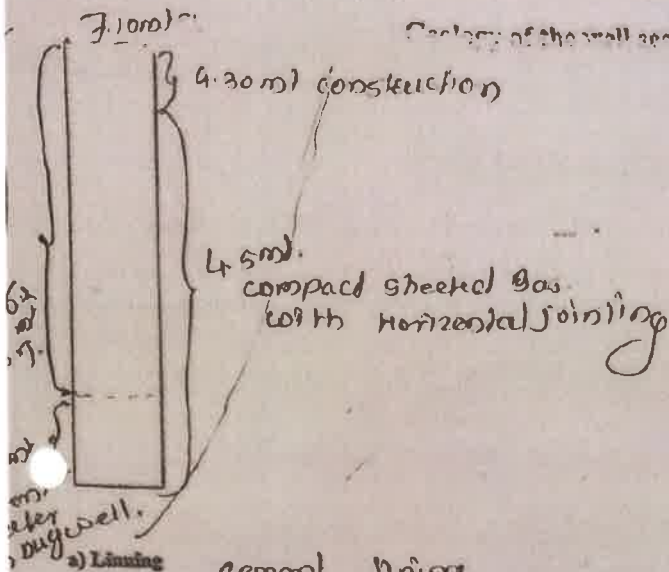
Any other information .....

Name of the Surveyor  
A.S. Bhosale

Ashahi  
 Signature



Geology of the well section



a) Lining

Cement lining

b) Soil - Black / Yellow / Sandy

Black soil, 1 m.

c) Existing watershed structure / Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

present. compact, sheet jointed, basalt.

g) Amygdaloidal Basalt

amygdaloidal Basalt goes in the construction.

h) Vesicular Basalt

Absent.

i) Tachytic basalt

- NO.

j) Flow contact

Horizontal sheeted flow

k) Dyke rock

l) Any remark about geological formation.

Geohydrogeological mapping of Ashi Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

0-06

Village पांढरी

Date - 27/06/19

Gut No. .... Name of the Farmer परमेश्वर चांगराव शेंकोळे Well No. 06

In Village Location ..... User... Personal/Community/.....

Location of the well Southside पांढरी नाली  
 (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 13.5m, Water level from ground level.....m.  
 In rainy season full.....m, winter dry..... summer dry.....m.

lat - 18 46 22  
 long - 75 12 10  
 BN - 599 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season 5 Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump, Out :- Electrical motor..... Diesel Pump 5 HP.....

Dia of outlet pipe.....cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

Rainy season full.....Hrs; winter..... Hrs; Summer dry.....Hrs)

Any other information .....

Name of the Surveyor

A.S. Bhosale

[Signature]  
 Signature

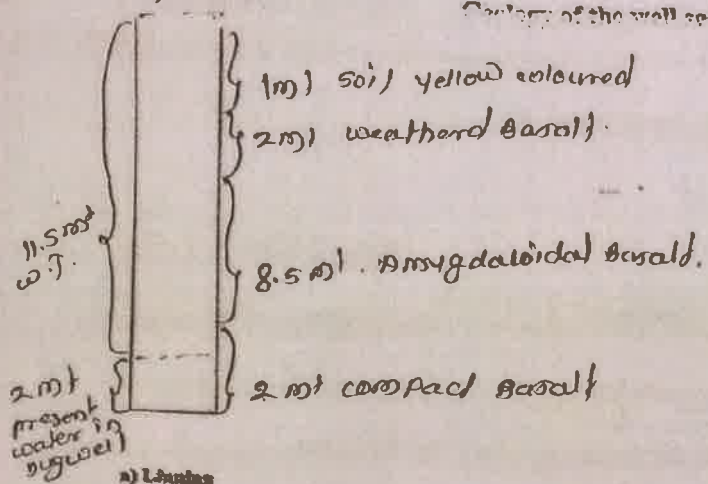
या पिडीरीच्या (नवकर) पांढरी तलाव भाग (या) पांढरी तलावाची  
 गोळा करणे करणे आवश्यक आहे

[ lat - 18 46 24  
 long - 75 12 02  
 BN - 598 m ] पांढरी तलाव

7. m. ...

विदिश्या 100 m अक्षा

Location of the well section: विश्वविद्यालय (48°10'N)



- a) Lenses
- b) Soil - Black / Yellow / Sandy black soil and yellow sandy soil etc
- c) Existing watersheds structure / Proclamation dam in neighboring region.
- d) Effect of existing structures on water table.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt 2 m compact basalt flow present
- g) Amygdaloidal Basalt 8.5 m amygdaloidal basalt present
- h) Vesicular Basalt NO
- i) Tachylitic basalt NO
- j) Flow contact NO
- k) Dyke rock NO
- l) Any remark about geological formation. observed



Geohydrogeological mapping of ...Ashti... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

तासलीवाली विहीर  
 ① and ②  
D-8

Village पिहरी

Date - 27/06/19

Well No. .... Name of the Farmer श्रीलक्ष्मीबाई गोरे Well No. 8

Village Location ..... User... Personal/Community/.....

Location of the well... North (Farmland, Bank of Nala, In the Nala, Riverbed)... New Bandh

Year of the Digging 2009, Construction year..... If yes type.....

Well Depth..... Shape-Circular/Square, Diameter of well.....

Water level from ground level..... 14 1/2 mt 184708  
 rainy season overflow m, winter....., summer 2.4.....m. long:- 751246  
EW:- 606m

Direction from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 The Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ..... Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season ..... 4-6 ..... Acre ②  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical Diesel Pump 5 HP EW:- 606 m

Size of outlet pipe..... 2 inch..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc water / day

Time require for a full recharge / recuperation :  
 rainy season 14-15 Hrs; winter..... Hrs; Summer..... 20-25 Hrs.)

Other information .....  
विहीर वापर तलाव मध्ये असतो. तलावाचे क्षेत्र 50 हेक्टर एवढे असतो. याचे काम चुकीच्या पध्दतीने झालेले असते. त्यामुळे पाणी सोबत जाते. पिण्याचे उरोे आलस्येक आहे. तलावाची खोली करणे आवश्यक आहे.

Name of the Surveyor  
S. Ghosale

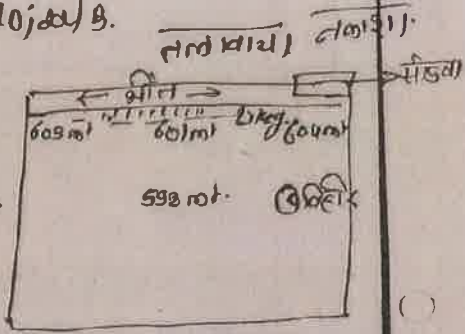
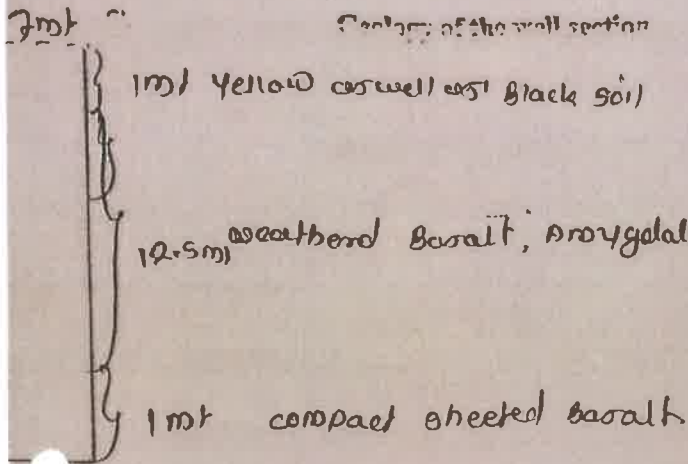
CABLE  
 Signature

विहीर वापर तलाव मध्ये असतो. तलावाचे क्षेत्र 50 हेक्टर एवढे असतो. याचे काम चुकीच्या पध्दतीने झालेले असते. त्यामुळे पाणी सोबत जाते. पिण्याचे उरोे आलस्येक आहे. तलावाची खोली करणे आवश्यक आहे.



9N

Geology of the wall section



- 1) Lining NO
- 2) Soil - Black / Yellow / Sandy yellow. or black soil.
- 3) Existing watershed structure / Proclamation dam in neighboring region. —
- 4) Effect of existing structures on watertable. —
- 5) Geological / Geographical effect on groundwater. —
- 6) Compact basalt present
- 7) Amygdaloidal Basalt present
- 8) Vesicular Basalt NO
- 9) Tachylytic basalt NO
- 10) Flow contact NO
- 11) Dyke rock NO
- 12) Any remark about geological formation. —

Geohydrogeological mapping of Ashli Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

0-13

Village पुढरा

Date - 27/06/19

Gut No. .... Name of the Farmer अशिक शिकणे Well No. 13

Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013....., Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 17 m....., Water level from ground level..... m. lat :- 18 47 49  
 In rainy season overflow m, winter 1 Hrs....., summer 10 minutes m. long :- 75 124)  
 or DEN. EN :- 603 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m. Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season 5..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 1/2 HP.....

Dia of outlet pipe..... cm. /inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

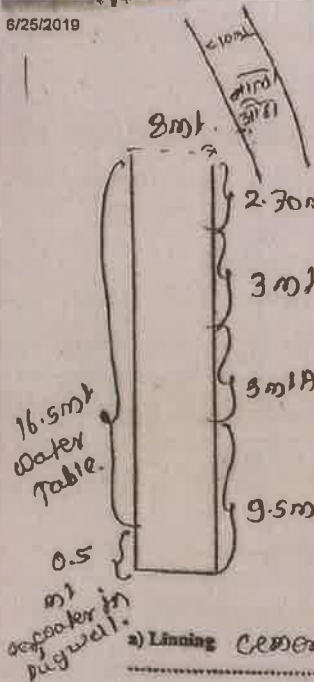
Time require for a full recharge / recuperation :  
 (Rainy season full..... Hrs; winter 6-8..... Hrs; Summer DEN..... Hrs.)

Any other information .....

Name of the Surveyor

A. S. Bhosale

ASB  
 Signature



Geology of the well section

\* 18 नदी ओरियन प्रवाह आहे.

700m अंतरावर कलक वर।  
पाकिस्तानी आहे  
काल दिशेने।

- 2.70m construction
- 3m weathered basalt
- 3m Amygdaloidal basalt
- 9.5m compact, sheeted, basalt

a) Lining cementing lining

b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watershed structure / Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

4.5m bottom flow compact basalt present

g) Amygdaloidal basalt

3m amygdaloidal basalt flow present

h) Vesicular basalt

NO.

i) Tachyitic basalt

NO

j) Flow contact

NO

k) Dyke rock

NO

l) Any remark about geological formation.

sharada 1.11



Geohydrogeological mapping of Ashi Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D-17

Village पिंपरी

Date - 27/06/19

Gut No. .... Name of the Farmer महादेव वारे Well No. 12

Well Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2011, Construction year....., If yes type.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well.....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 19m, Water level from ground level.....m.

In rainy season 5 m, winter DEY m, summer DEY m.

Lat:- 18°48'14" N  
 Long:- 75°13'04" E  
 PIN:- 431001

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)

(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....

Rainy Season 5 Acre

Winter Season ..... Acre

Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor.....Diesel Pump.....HP.....

Dia of outlet pipe.....cm, inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season full Hrs; winter 4 Hrs; Summer DEY Hrs.)

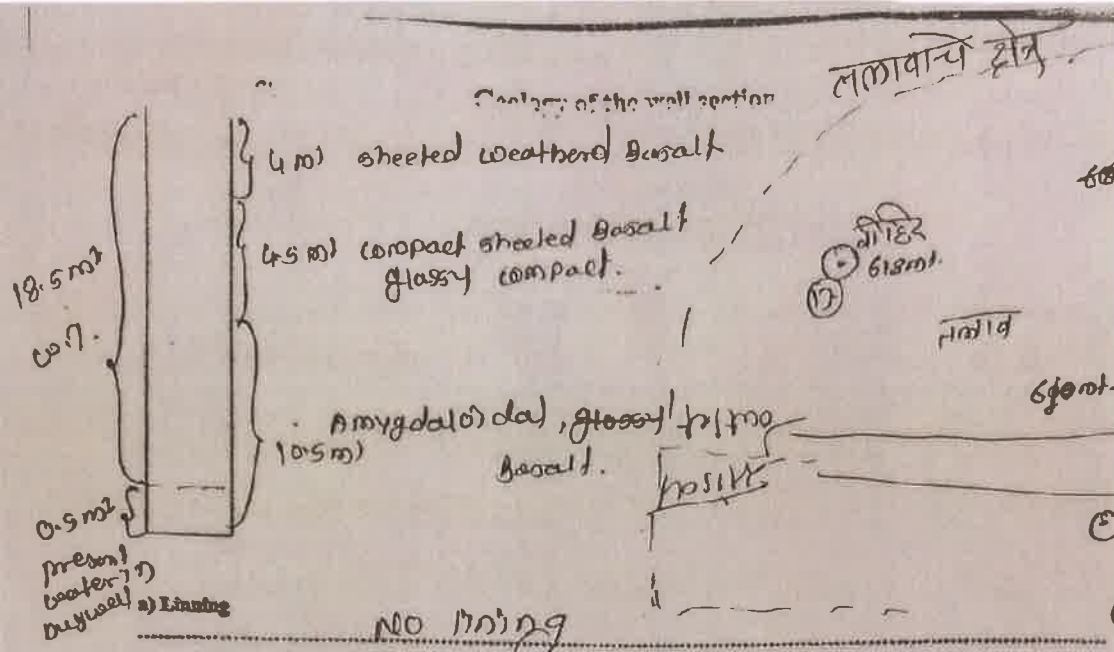
Any other information .....

Name of the Surveyor

S. Bhosale

AShU  
 Signature





b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watershed structure / Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

compact with glass present. Basalt / are present

g) Amygdaloidal Basalt

10.5m Amygdaloidal Basalt present

h) Vesicular Basalt

- NO

i) Tachylytic basalt

NO

j) Flow contact

NO.

k) Dyke rock

NO

l) Any remark about geological formation.

Basalt

**Geohydrogeological mapping of ..Ashhi..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

0-19

Village जिंदरी.....

Date- 27/06/19

Gut No. .... Name of the Farmer महेर हांडे ..... Well No. 19.....

In Village Location ..... User... Personal/Community/.....

Location of the well West, (Farmland, Bank of Nala, In the Nala, Riverbed). Bank of nala

Year of the Digging 2012, Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14m Water level from ground level..... m. 141 - 184748  
In rainy season 10.5 m, winter... 1 HR..., summer... 10.5 m. 10mg - 751157  
EM - 60000

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in .... Direction, Length..... m, and for vertical borehole..... m, Location at the bottom)

Use :- Drinking ....., Irrigation  Acres, Horticulture....., etc.....  
Rainy Season ..... 8 ..... Acre  
Winter Season ..... Acre  
Summer Season..... Acre

5+5+5 3 pumps

Type of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP.....

Dia of outlet pipe..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 10 Hrs; winter 5 Hrs; Summer ..... DEU Hrs.)

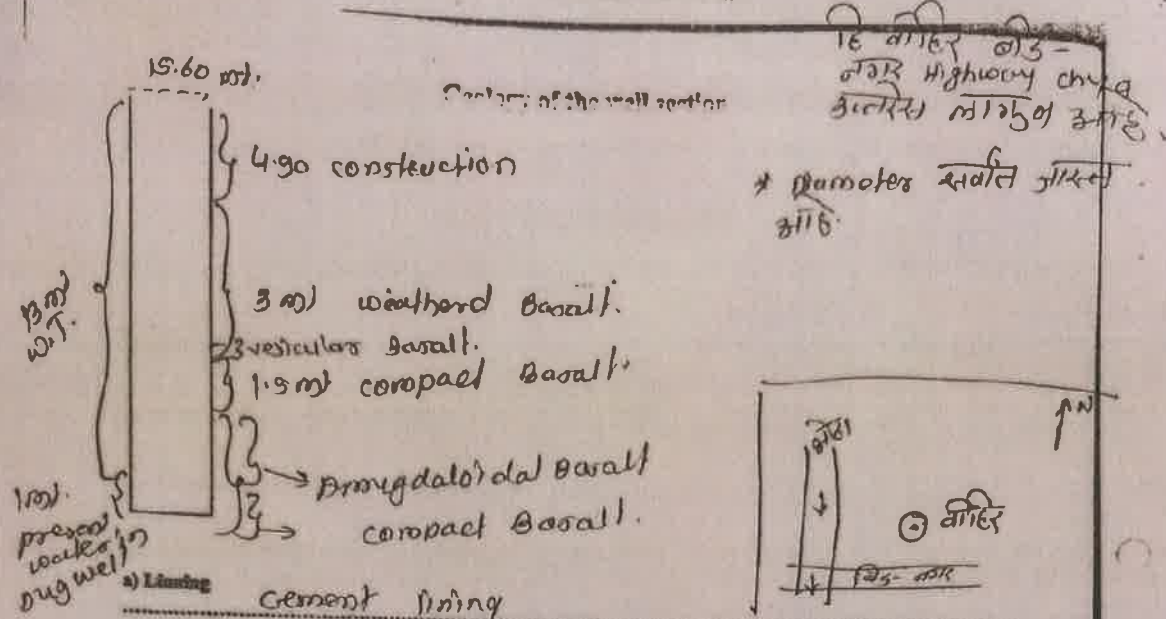
Any other information .....

Name of the Surveyor

A.S. Dhosale

ABH  
Signature

[ या विहिरीमध्ये 5 motor pump आहेत पंपाची 5 HP. ]



a) Lining

Cement lining

b) Soil - Black / Yellow Sandy

black soil and yellow soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

alternat flow chng compact basalt

g) Amygdaloidal Basalt

Amygdaloidal basalt present in this dug - well

h) Vesicular Basalt

i) Tachyitic basalt

j) Flow contact

Red chid margin (flow chng - vesicular basalt present)

k) Dyke rock

l) Any remark about geological formation.

Star Highway



Geohydrogeological mapping of ...Nahli... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D-22

Village उहिर ..... Date - 27/06/19

Gut No. .... Name of the Farmer रुतिका शिंदे ..... Well No. 22 .....

Village Location ..... User... Personal/Community/.....

Location of the well East ..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2005....., Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
 Whether water from other sources brought to this well if yes source and Hrs of pumping.....

Total Depth 16..... Water level from ground level..... m. 10d: 184756  
 In rainy season at or flow m, winter 1. H.E......, summer DEY..... m. 10ng: 751139  
EIV: 605 mt

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m, Location at the bottom)

Use :- Drinking  Irrigation  Acres, Horticulture....., etc.....  
 Rainy Season 1.2..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

of withdrawals/Pump Out :- Electrical motor  Diesel Pump 5 HP.....  
 Dia of outlet pipe 3..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

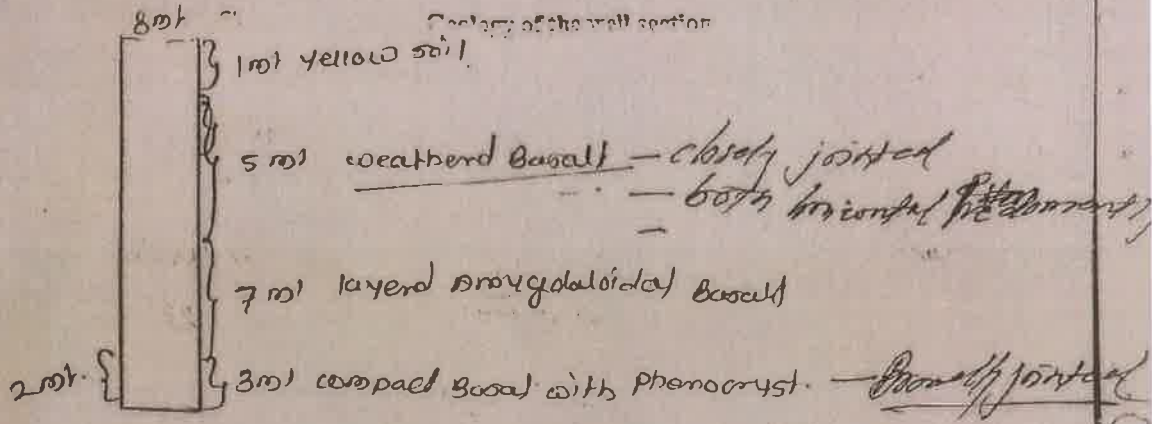
Time require for a full recharge / recuperation :  
 Rainy season full..... Hrs; winter 5 H.E..... Hrs; Summer DEY..... Hrs.)  
any time

any other information .....

Name of the Surveyor  
Bhiman S. Bhasale

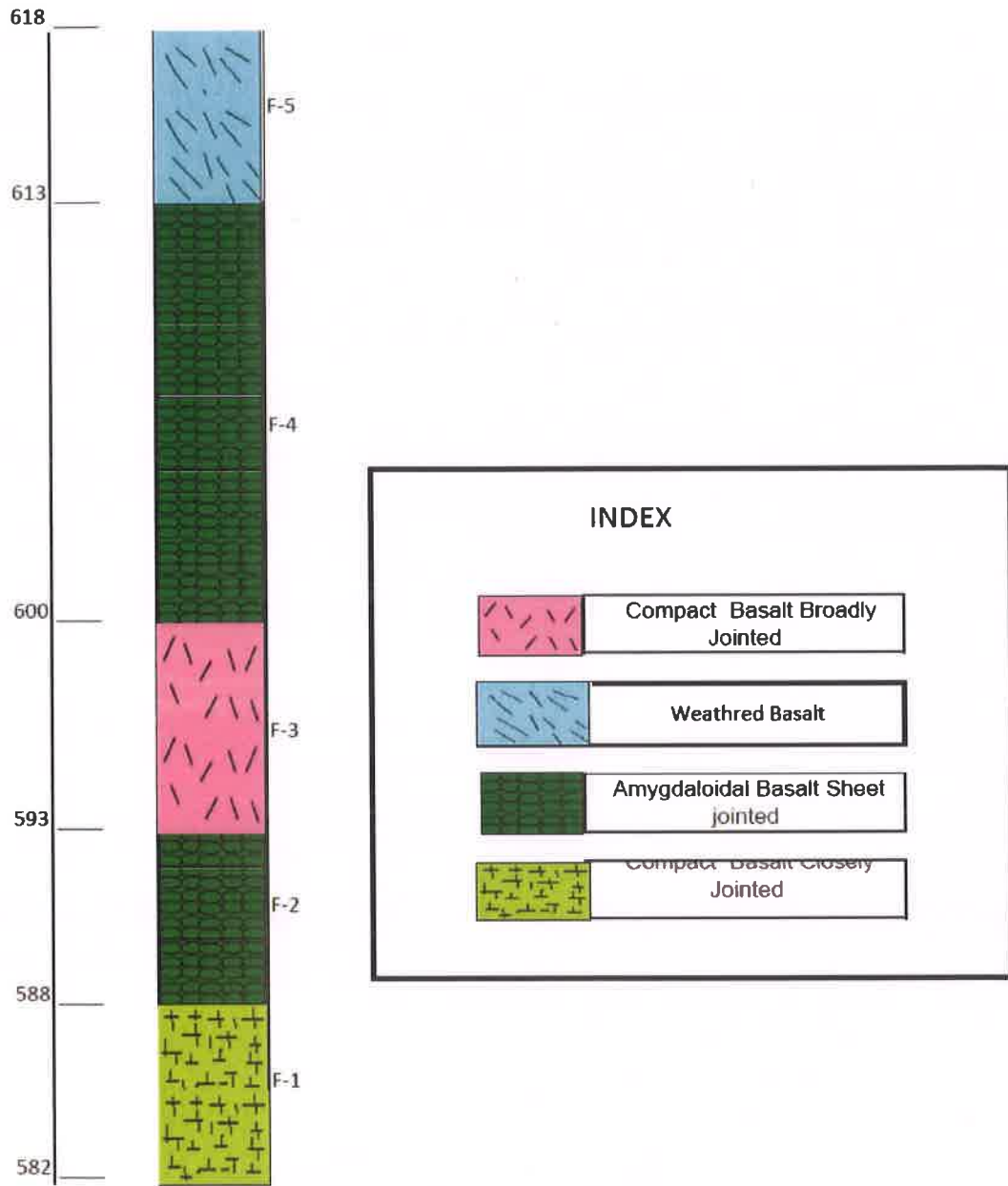
(Signature)  
 Signature





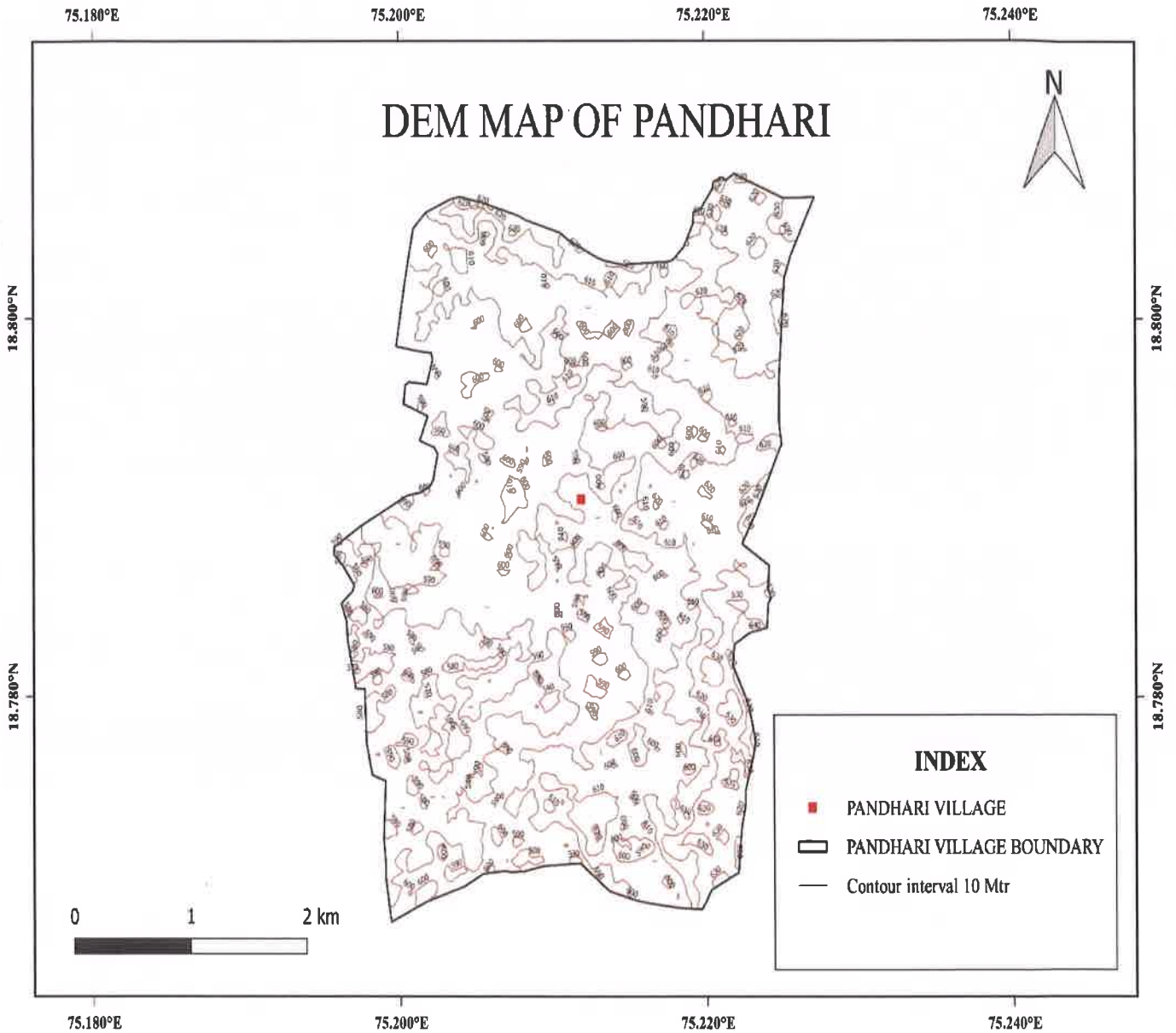
- a) Lining 1m stone lining
- b) Soil - Black / Yellow Sandy on the surface yellow soil present
- c) Existing watershed structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on watertable.
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt The bottom layer 3m. flow of compact B
- g) Amygdaloidal Basalt Near 7m flow. amygdaloidal basalt flow.
- h) Vesicular Basalt
- i) Tachyitic basalt
- j) Flow contact chidroogin vein type structure of 100 flow.
- k) Dyke rock NO
- l) Any remark about geological formation

# Litholog of Pandhari Village



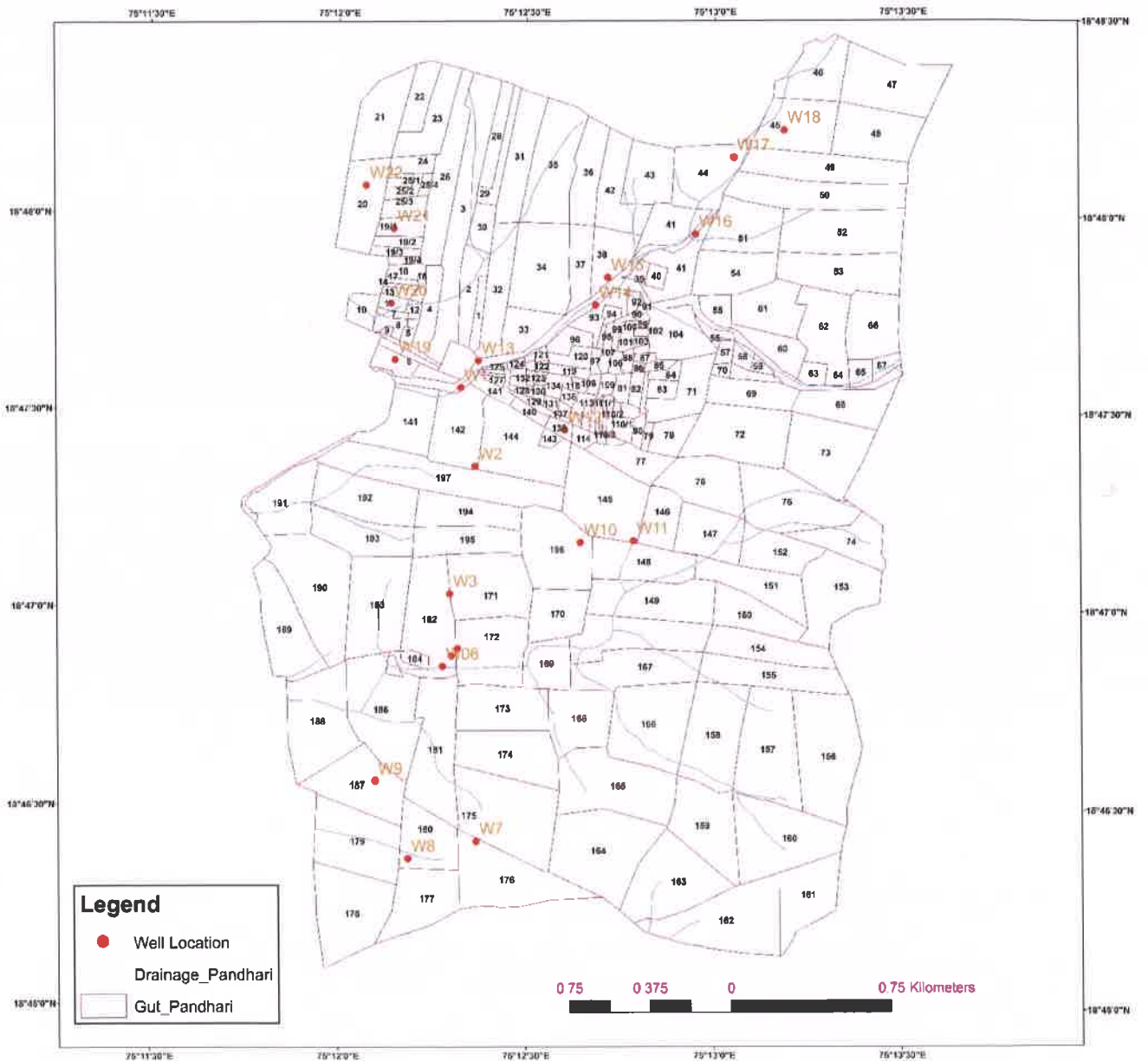
Litholog of Pandhari Village

# DEM Map of Pandhari Village



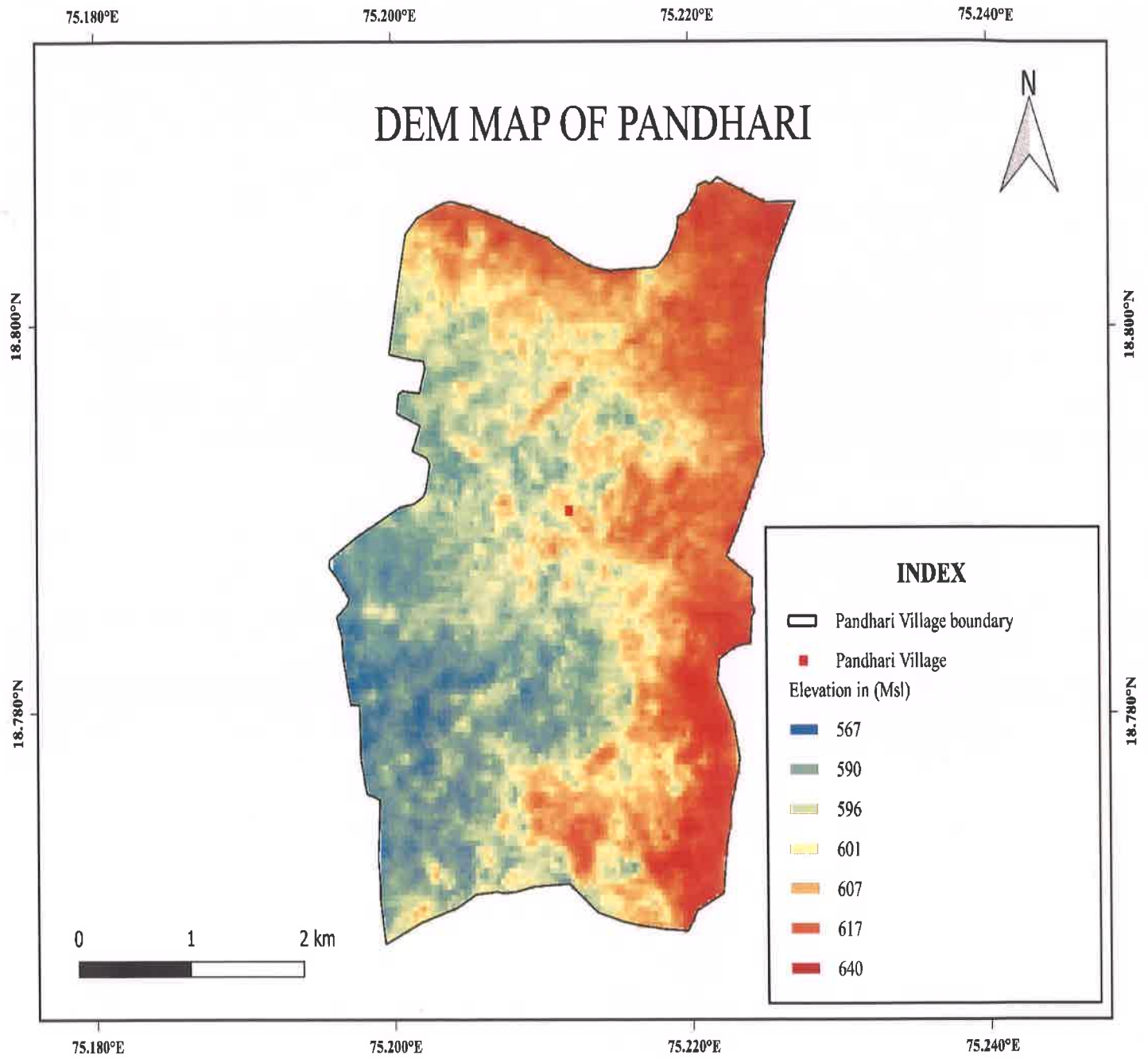
# Drainage and well location map of Pandhari Village

## Drainage and well Location Map of Pandhari Village





# DEM Map of Pandhari Village



## Suggestion for Artificial Recharge

The lithology of the study area is indicating top flow No. F-5, which is highly weathered with overlying by sandy to calcaritic soil cover. The Flow No F-4 is occupied by amygdaloidal basalt which is sheet jointed in top portion and fuse jointed in middle and bottom portion.

The underlying flow i.e. Flow No F-3 of compact basalt is broadly spaced jointing which is impermeable in nature. There is no chances of percolation from flow no 03, so opening of the flow is required. Flow No- F-2 of amygdaloidal basalt is sheet jointed and basement flow. Flow No. F-1 of compact basalt is observed with short and fused joints those are not interconnected, this flow is impermeable in nature.

Where the above mentioned impermeable lava flow does not allow to recharge lower aquifer, hence only in shallow aquifer rainwater recharge and during summer season this shallow aquifer becomes dry. We have to use artificial recharge technique to recharge lower aquifer . Water remains available in summer season also.

## **SOLUTIONS**

### **CONSTRUCTION OF RECHARGE PITS**

#### **SOLUTION ONE**

##### **CONSTRUCTION OF RECHARGE PIT IN MAIN RIVER**

- A. Deepening of area: 8-10 mt width x 100 mt length x 2 mt deep.**
- B. Take a bore in the middle of the area of 100- 150 ft deep.**

#### **SOLUTION TWO**

##### **CONSTRUCTION OF RECHARGE PIT IN CHANNELS CONNECTING TO MAIN RIVER**

- A. Deepening of small round area around bore well ( 2m wide and 2-3 m depth ). Filling up that area with stones.**
- B. Take a bore well (100-150 ft deep )in the middle.**
- C. Cover the constructed area with sheet**

## Details of Work in Pandhari

Sr. No	Area	No of Pits
A	Old Pond Area	05
B	South Area of Channel	05
C	North East Area Near River	10



## Work Estimate

Sr No	Work Details	Total Work	Total Amt (Rs)
A,B & C	Recharge Pit Includes 1. Excavation Work	20 nos. x Rs.40,000 per recharge pit	8,00,000
	2. Brick Work		
	3. Side Construction		
	4. Bore (6 Inch)		
	5. Cover		
D	Excavation in Main River (Related to Recharge Pit)	20,000 Cu. Mt x Rs. 20	4,00,000
	Administrative Charges		1,20,000
	<b>Total Estimate</b>		<b>13,20,000</b>

In Words: Thirteen Lakh Twenty Thousand Only

Note: Estimated Expense may deviate at the time of actual work

**Field Photos**



**Fractured Compact Basalt can be seen in dug well**



**Closely Jointed Basalt Flow exposed in out crop**





**Weathered Basalt Flow can be seen**






**Nala Channel on field survey**



**Amygdaloidal Basalt Flow exposed in the outcrop**



  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**



## **Pimpri Ghata**

Pimpri (ghata) is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 79 KM towards west from District headquarters Beed. 280 KM from State capital Mumbai. Pimpri (ghata) is surrounded by Jamkhed Taluka towards South, Pathardi Taluka towards North, Patoda Taluka towards East, Karjat Taluka towards South.

## \* घाटापिंपरी

- पानी पातळी - पावसाळी - पूर्ण भरते  
Dugwell - हिवाळा - 2-3 Hr. yielding  
उन्हाळा - Dry
- Greenbelt - फार कमी प्रमाणात आढळतो
- Near Dugwell - pebbles and sand located
- विहीरिना 15 ते 20 मी. पासपैत आहे.
- नदीचे खोलीकरण करणे आवश्यक आहे.
- बंधारे वांधल्यास खाली पाणी सिरपू शकते. त्यामुळे पाणी पातळी वाढण्यास मदत होईल.
- गावाल - सत्ताक आढळता नाही.
- गावाल पाणलोट कामे सुद्धा झालेली नाही.
- उन्हाळ्यात गावाल टँकरने पाणी पुरवठा होतो.



## Dug-Well Inventory

Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

### Well Inventory Form

lat = 19° 0' 38" N  
long = 75° 5' 37" E  
Alti = 623 m

Village घाटा विपरी Date -  
Gut No. 1 Name of the Farmer सरकारी Well No. D-43

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1950, Construction year 6.9.77 If yes type.....

Parapet Ht. 25 Ft Shape-Cicular/Square, Diameter of well 12 Ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 33 Ft, Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 6 ..... Acre  
Winter Season ..... 3 ..... Acre  
Summer Season ..... 0 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP NA.  
Dia of outlet pipe ..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season 24 ..... Hrs; winter 10 ..... Hrs; Summer 0 ..... Hrs.)

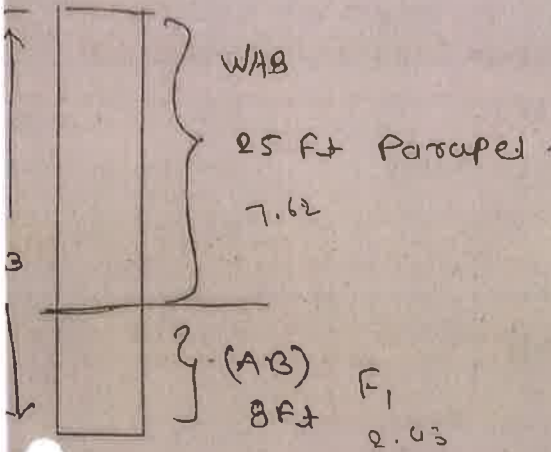
Any other information .....

S. A. Wadhwan Kat

Name of the Surveyor

  
Signature

Geology of the well section



a) Lining

गोदी

b) Soil - Black / Yellow / Sandy

Black Soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

River outside the well.

d) Effect of existing structures on watertable.

watertable recharge through A.B only.

e) Geological / Geographical effect on groundwater.

Most of the river height covered by parapet wall: i.e stony  
 so water percolate through A.B.

f) Compact basalt

N.A.

g) Amygdaloidal Basalt

Sheeted A.B.

h) Vesicular Basalt

N.A.

i) Tachylytic basalt

N.A.

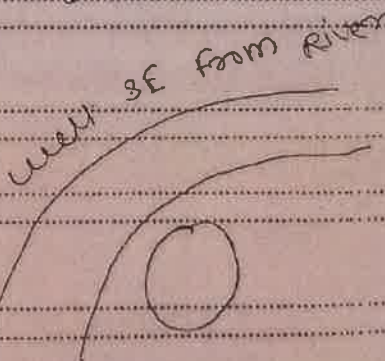
j) Flow contact

k) Dyke rock

N.A.

l) Any remark about geological formation.

A.B are present outside.



Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat - 19° 01' 36" N  
 Long 75° 51' 36" E  
 Alt - 603 m

Village ..... धाठा पिंपरी ..... Date - .....

Well No. 83 ..... Name of the Farmer ठावाठावा ..... Well No. 0-44

Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1979, Construction year.....49....., If yes type.....

Water Table Ht. 40 ..... Shape-Circular/Square, Diameter of well.....5 ft.....  
 Whether water from other sources brought to this well if yes source and Hrs of pumping.....

Total Depth 40 ft, Water level from ground level.....m.  
 rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (the Horizontal bore is taken in ..... Direction, Length .....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season .....5..... Acre  
 Winter Season .....3..... Acre  
 Summer Season.....0..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
 Dia of outlet pipe .....cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

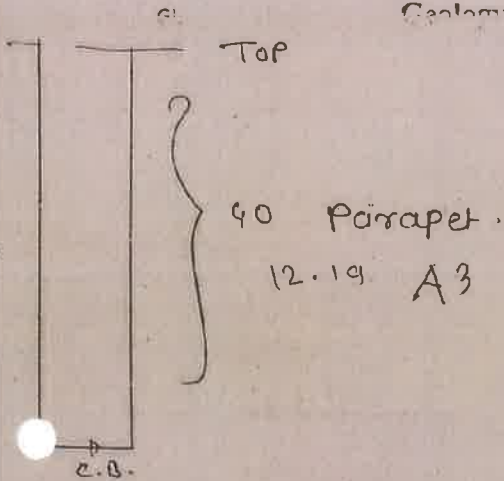
Time require for a full recharge / recuperation :  
 Rainy season .....2.4..... Hrs; winter.....1.2..... Hrs; Summer.....0.0..... Hrs.)

Any other information .....

R. D. Puri  
 Name of the Surveyor

  
 Signature

Geology of the well section



a) Lining

cement

b) Soil - Black / Yellow / Sandy

loamy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

No any watershed

d) Effect of existing structures on watertable.

No any effect

e) Geological / Geographical effect on groundwater.

f) Compact basalt

base c.B.

g) Amygdaloidal Basalt

N.A.

h) Vesicular Basalt

N.A.

i) Tachyitic basalt

N.A.

j) Flow contact

k) Dyke rock

N.A.

l) Any remark about geological formation.

old well so water can get in one go  
down because of parapet and basemat +3



Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Lat  $\approx 19^{\circ} 0' 84'' N$   
Long  $\approx 75^{\circ} 5' 34'' E$   
Altitude 610 m.

Village ग्राम पिंपरी

Date -

Gr. No. 83 Name of the Farmer श्रीगणेश लोकर Well No. D-45

In Village Location ..... User...  Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht. 19 ft Shape  Circular/Square, Diameter of well 12.....  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 30 ft, Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 5 ..... Acre  
Winter Season ..... 3 ..... Acre  
Summer Season ..... 0 ..... Acre

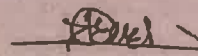
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump.....HP.....  
Dia of outlet pipe.....cm. /inch.....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... 24 ..... Hrs; winter ..... 12 ..... Hrs; Summer ..... 0 ..... Hrs.)

Any other information .....

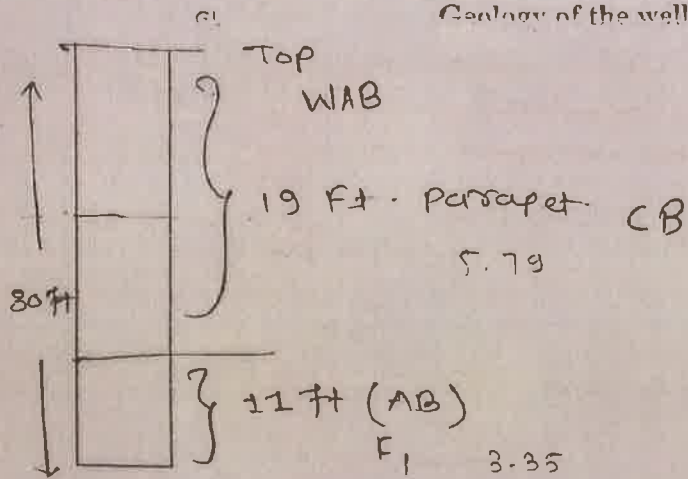
R.D. Puti

Name of the Surveyor



Signature

Geology of the well section



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. No proclamation dam
- d) Effect of existing structures on watertable. water get increasing
- e) Geological / Geographical effect on groundwater. No any effect
- f) Compact basalt N.A
- g) Amygdaloidal Basalt Sheeted AB
- h) Vesicular Basalt N.A
- i) Tachylytic basalt N.A
- j) Flow contact -
- k) Dyke rock N.A
- l) Any remark about geological formation. The bottom is made by the AB so water get inside.

Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

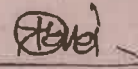
Well Inventory Form

Lat -  $19^{\circ}01'49''$  N  
Long -  $75^{\circ}51'53''$  E  
Alt - 619 m

Village घाटी पिंपरी Date -  
Gut No. 3 Name of the Farmer बाळू लोकर Well No. D-46  
In Village Location ..... User...  Personal/Community/.....  
Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....  
Year of the Digging 2004, Construction year 15, If yes type.....  
Parapet Ht. 6 ft. Shape  Circular/Square, Diameter of well 2.6 ft.  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
Total Depth 34 ft., Water level from ground level.....m.  
In rainy season .....m, winter....., summer.....m.  
Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)  
Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... 5 ..... Acre  
Winter Season ..... 2 ..... Acre  
Summer Season ..... 0 ..... Acre  
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
Dia of outlet pipe..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
Time require for a full recharge / recuperation :  
(Rainy season ... 24 ..... Hrs; winter ... 2 ..... Hrs; Summer ..... 0 ..... Hrs.)  
Any other information .....

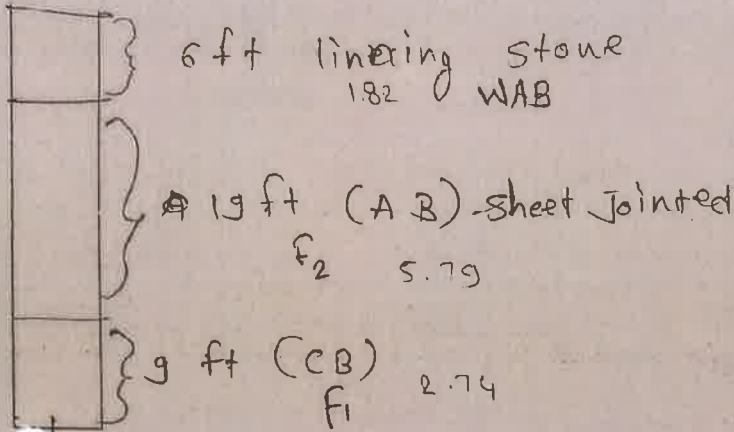
R.D. Puri

Name of the Surveyor



Signature

Geology of the well section



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. NA
- d) Effect of existing structures on watertable. watertable recharge by lateral ~~recharge~~ flow of water through
- e) Geological / Geographical effect on groundwater. A.B
- f) Compact basalt Broadly Jointed F.B
- g) Amygdaloidal Basalt Sheet Jointed A.B
- h) Vesicular Basalt NA
- i) Tachytic basalt NA
- j) Flow contact -
- k) Dyke rock NA
- l) Any remark about geological formation. CB are present surrounding area of well



Soil/ hydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Alt - 521 m

Lat. - 19° 0' 54" N

Long - 75° 5' 60" E

Village ... धाटा पिपरी

Date - 11/06/2019

Gut No. .... 4 ..... Name of the Farmer श्री. व. दा. दा. सुभाष Well No. .... 247 ...  
नरवडे

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1969, Construction year.... 50...., If yes type.....

Parapet Ht. .... 11 ft Shape-Circular/Square, Diameter of well... 2.6....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ... 38 ft..., Water level from ground level.....m.

In rainy season .....m, winter .....m, summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bo : ts taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking, ....., Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... 5 ..... Acre

Winter Season ..... 3 ..... Acre

Summer Season..... 0 ..... Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP.....

Dia of outlet pipe ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ..... 2.4 ..... Hrs; winter ..... 1.2 ..... Hrs; Summer ..... 0.0 ..... Hrs.)

Any other information .....

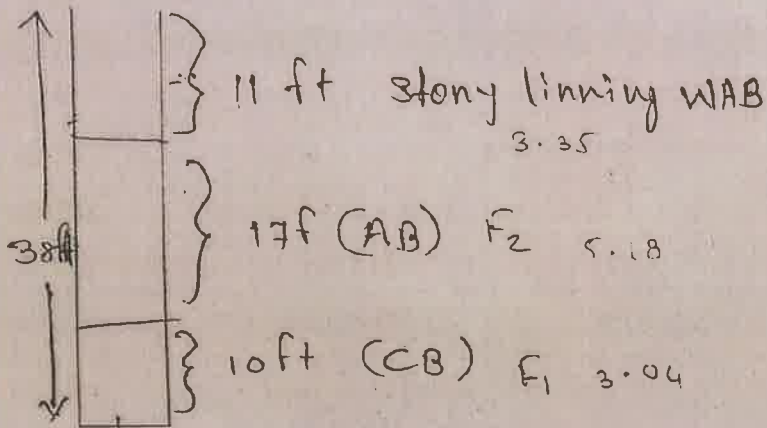
R. D. Puri

Name of the Surveyor

[Signature]

Signature

Geology of the well section



5 meter

a) Lining

stone cement

b) Soil - Black / Yellow / Sandy

loamy soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

NO identified.

d) Effect of existing structures on watertable.

NO watertable having NO effect due to the C.B. at bottom.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

broadly jointed C.B.

g) Amygdaloidal Basalt

sheeted A.B.

h) Vesicular Basalt

NA

i) Tachylytic basalt

NA

j) Flow contact

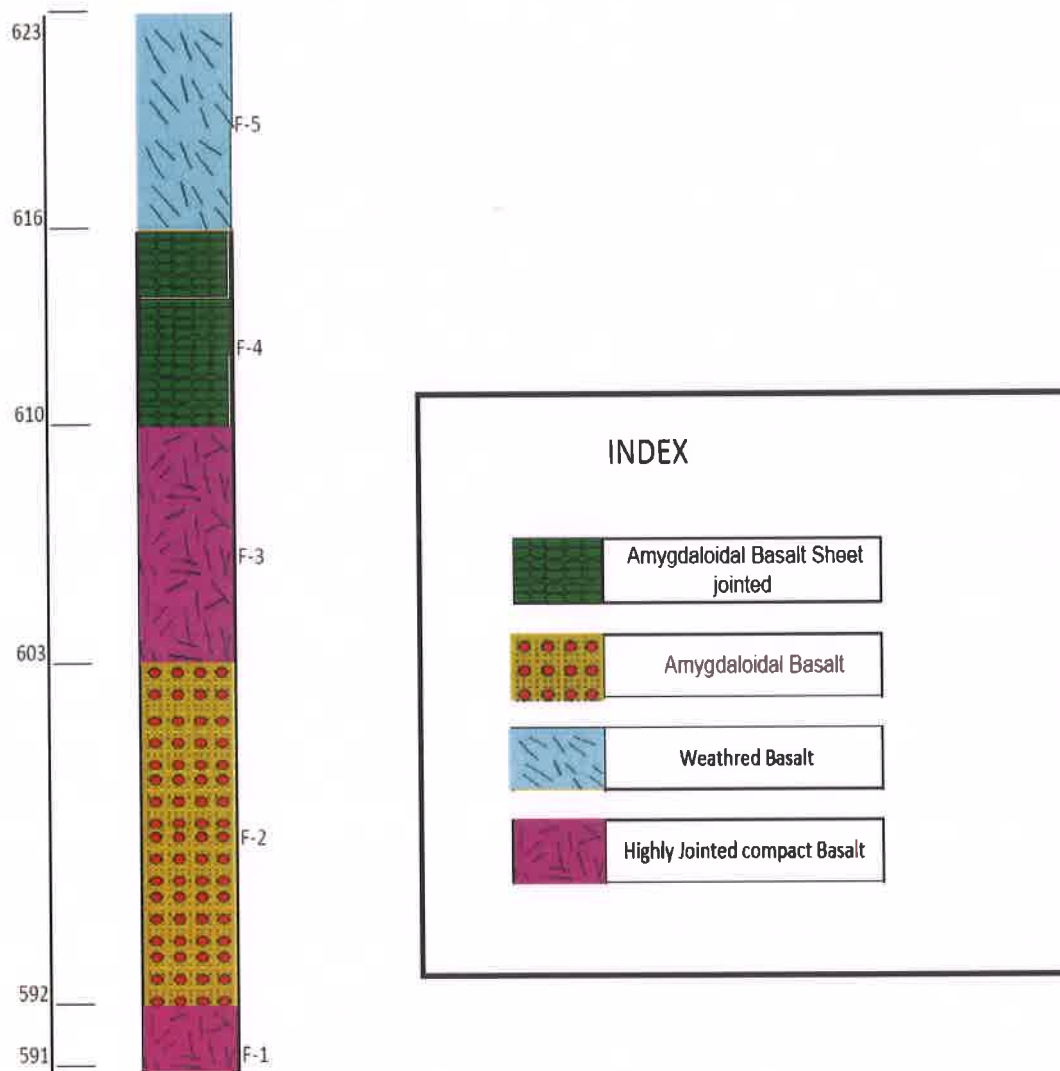
k) Dyke rock

NA

l) Any remark about geological formation.

due to C.B. at bottom NO any watertable get effected.

## Litholog of Pimpri Ghata Village



Litholog of Pimpri Ghata Village

## Details of the Survey

### Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad

1. **Village Name** : Ghata Pimpari , Ta- Ashti , Dist-Beed

2. **Date of Survey:** 11/06/2019

3. **Name of Geologist and Hydrogeologist for Survey in the field:**

- a. Shantanu Wadhankar
- b. Rushikesh Puri
- c. Jayesh Mhaske
- d. Kshitij Sontakke

4. **Name of the Members for assist to survey in the field:**

- a. Shri Khillare
- b. Bhagwan Talekar

5. **NAAM Pratinidhi:** Shri Rajebhau Shelake

6. **Local villagers/ Farmer:**

- a. Balu Talekar
- b. Draupadabai Narwade
- c. Lilabai Sable

7. **Total No of Well surveyed:**

06 dugwells in the field + 13 dugwells through Satellite imagery Survey  
= Total 19 dugwells

8. **Total map prepared:**

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

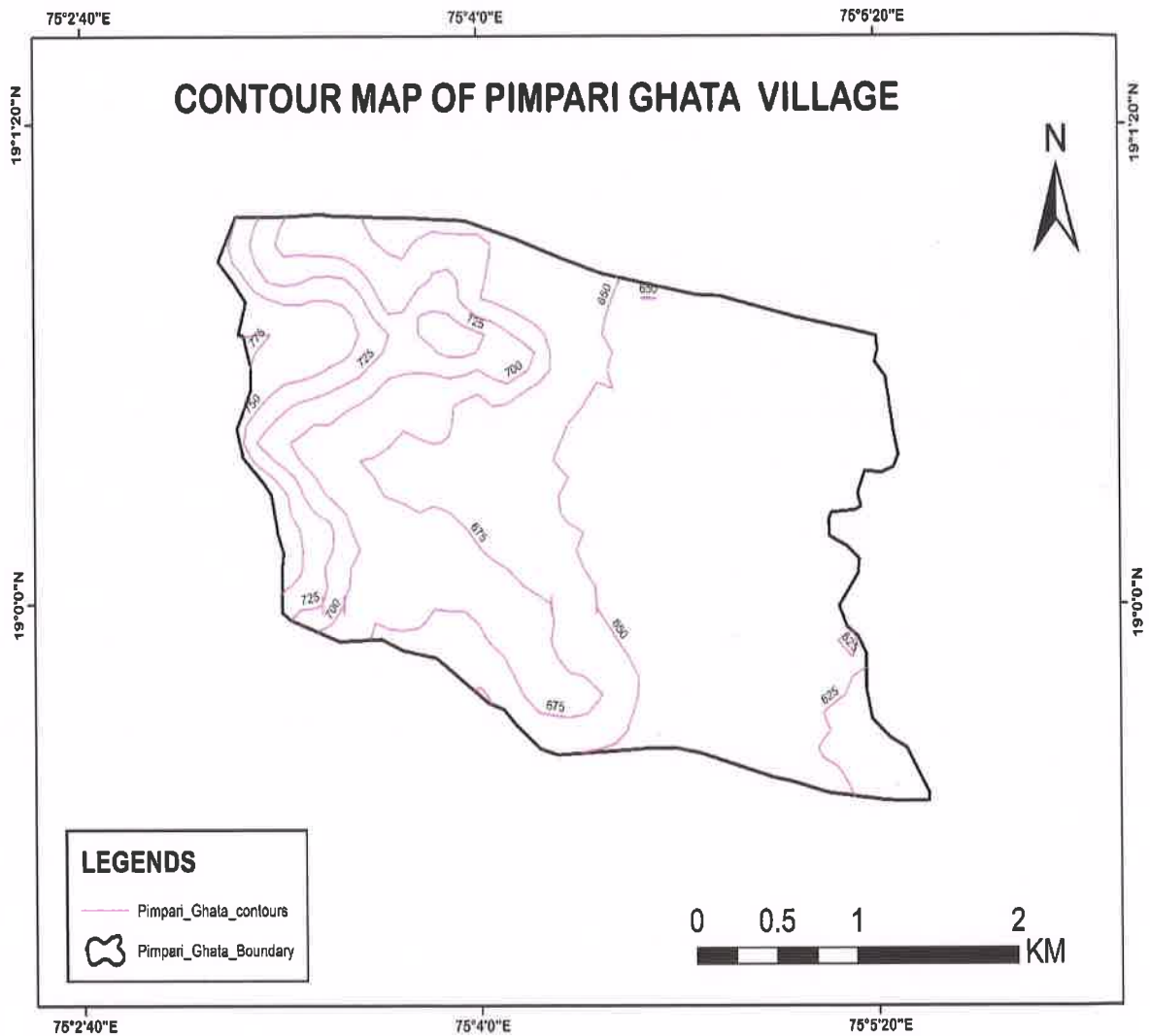
9. **Recommendation and Conclusion:**

c. **For Artificial Recharge suitable/ Unsuitable:** \_\_\_\_\_

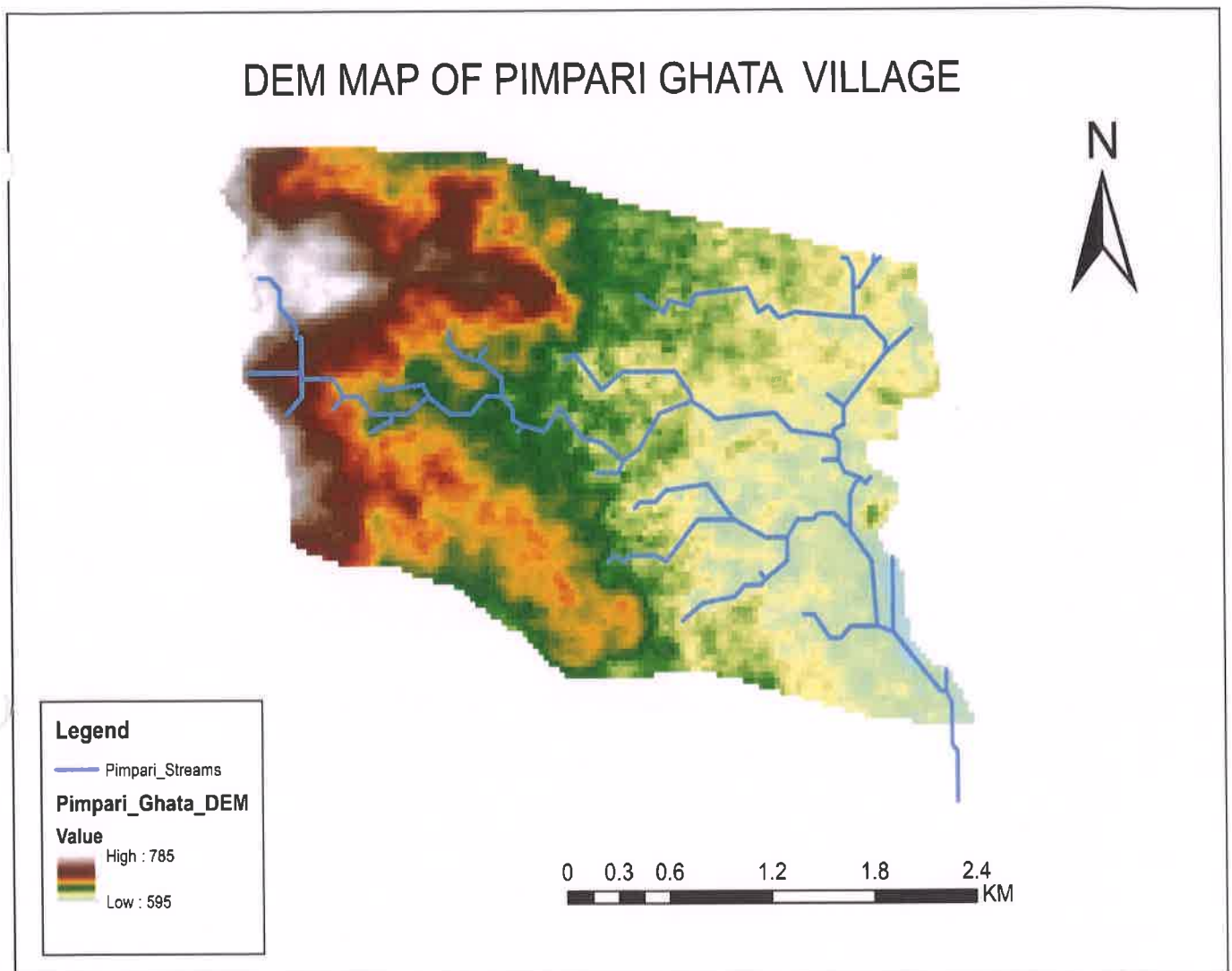
d. **Structure for watershed development programme:** \_\_\_\_\_



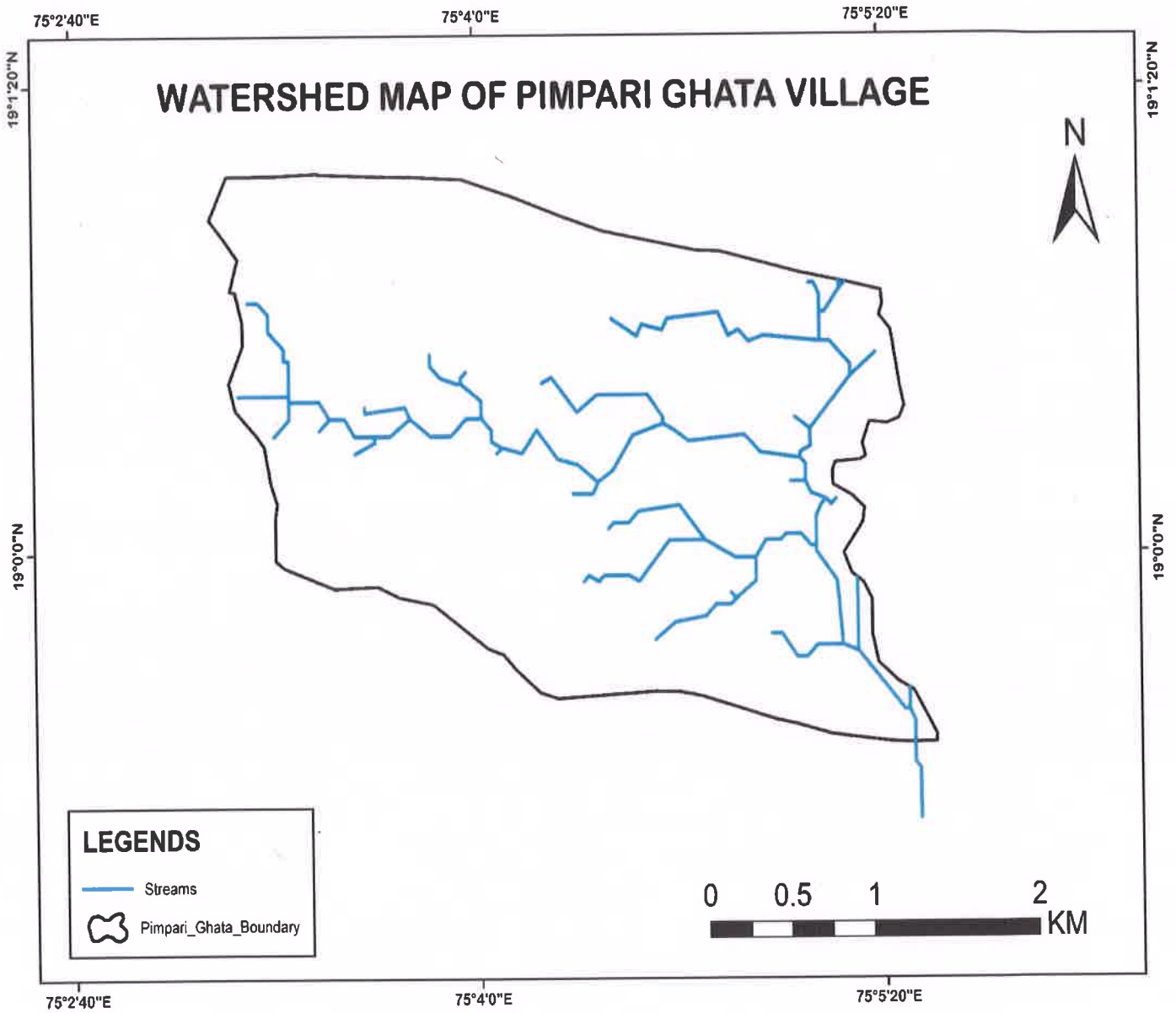
# Contour Map of Pimpri Ghata Village



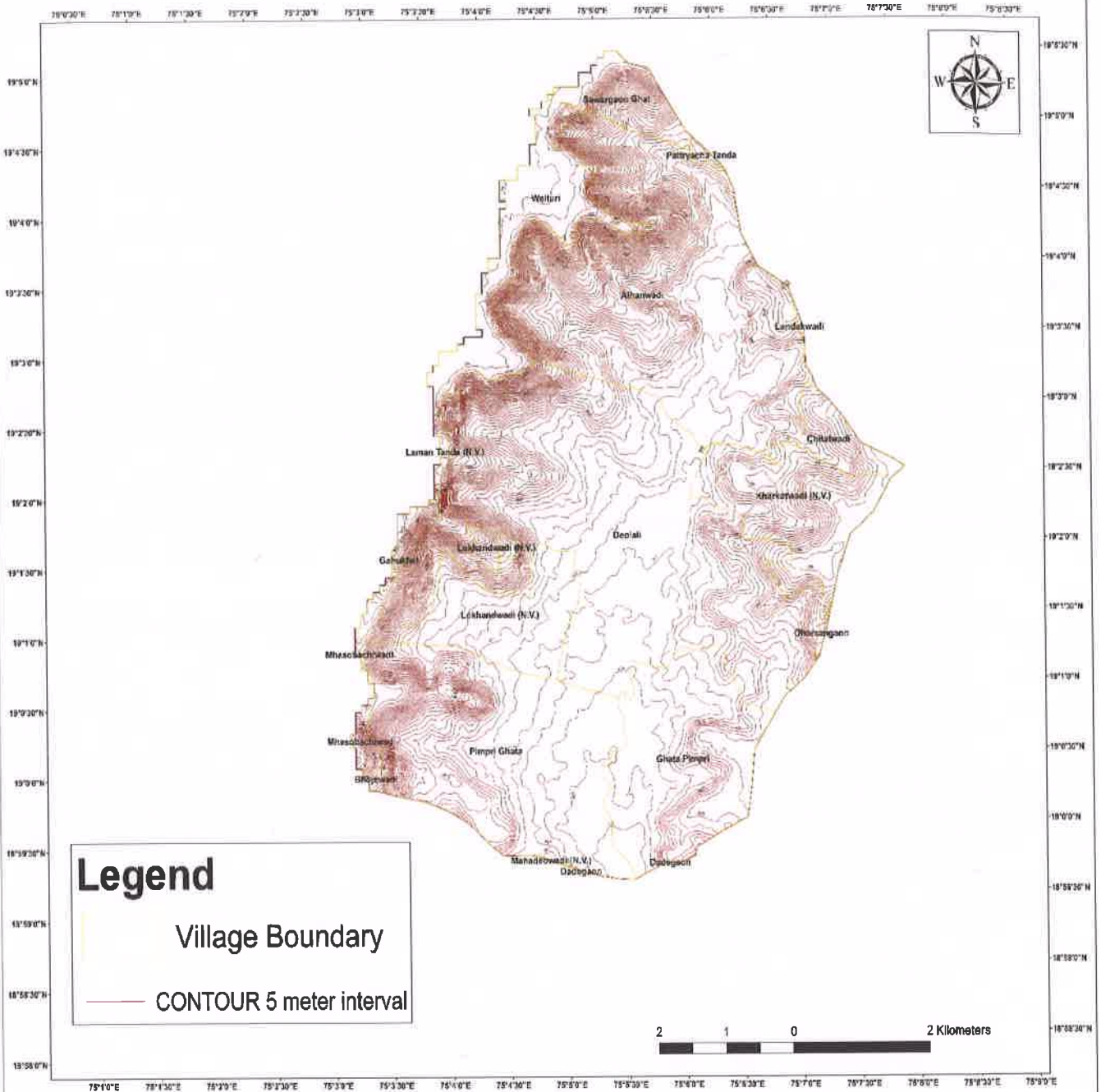
## DEM Map of Pimpri Ghata Village



# Watershed Map of Pimpri Ghata Village

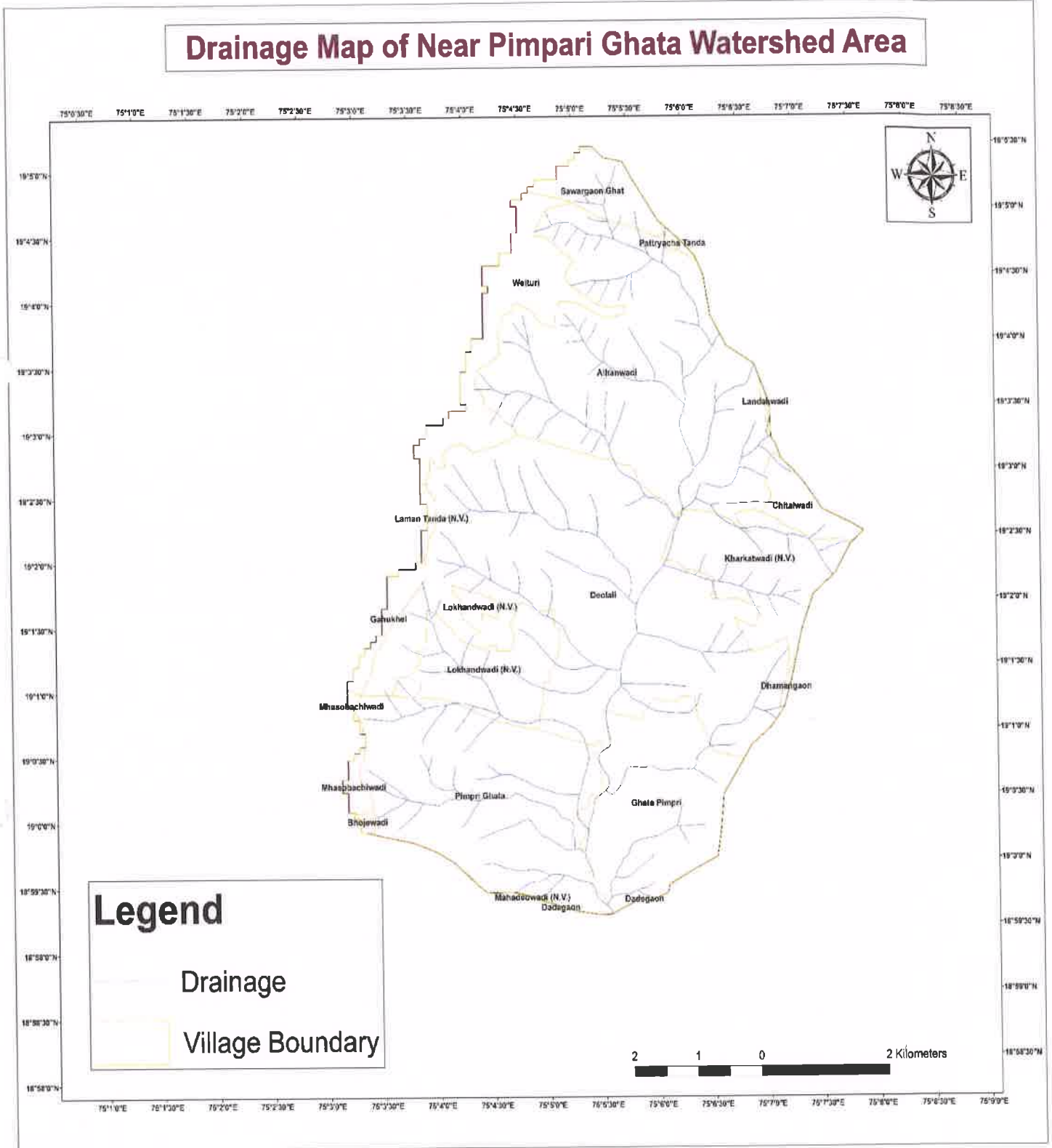


# Contour Map of Near Pimpri Ghata Watershed Area





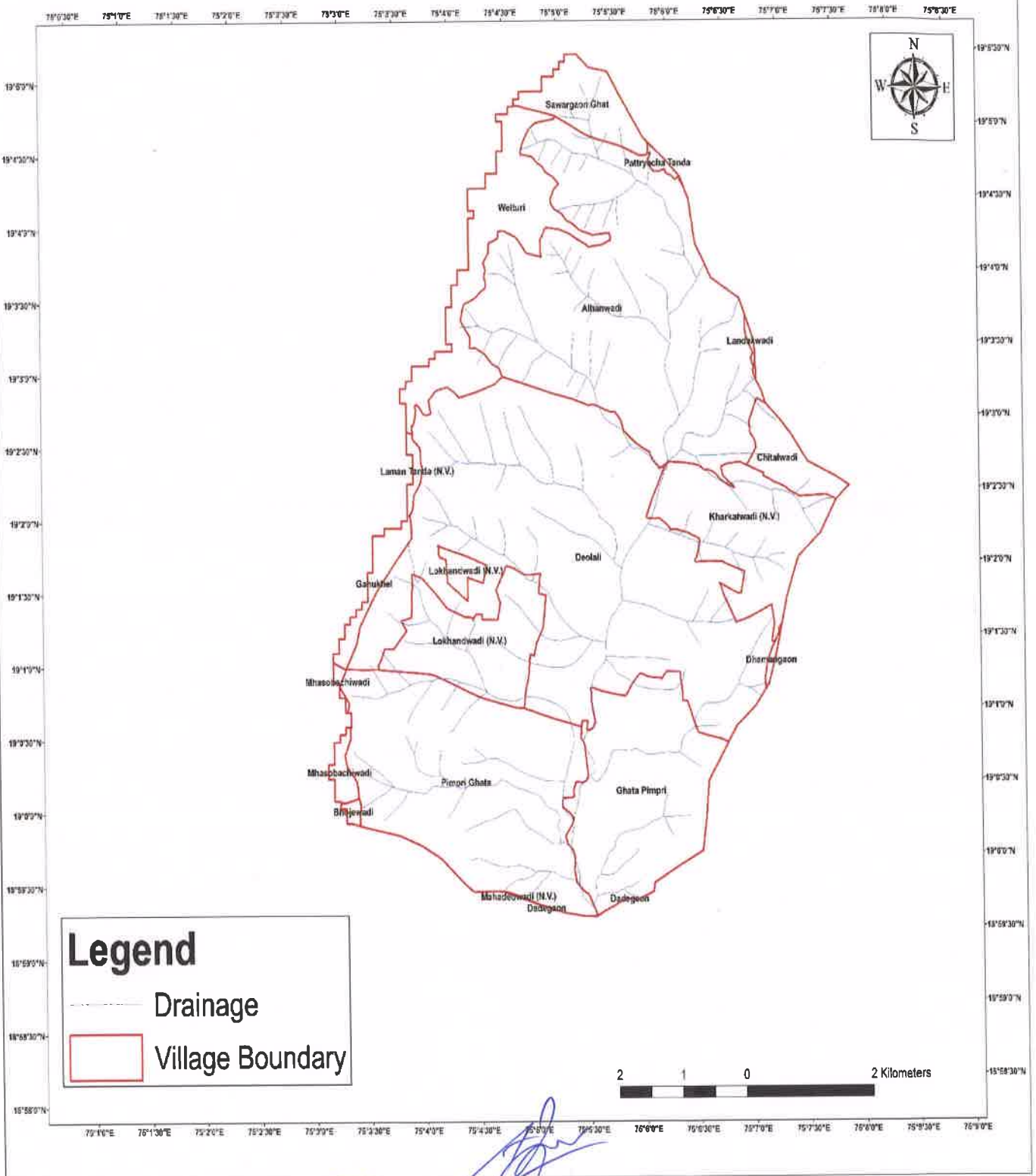
# Drainage Map of Near Pimpri Ghata Watershed Area





Photographs showing watersheds management at Pimpri Village.

# Drainage Map of Near Pimpri Ghata Watershed Area



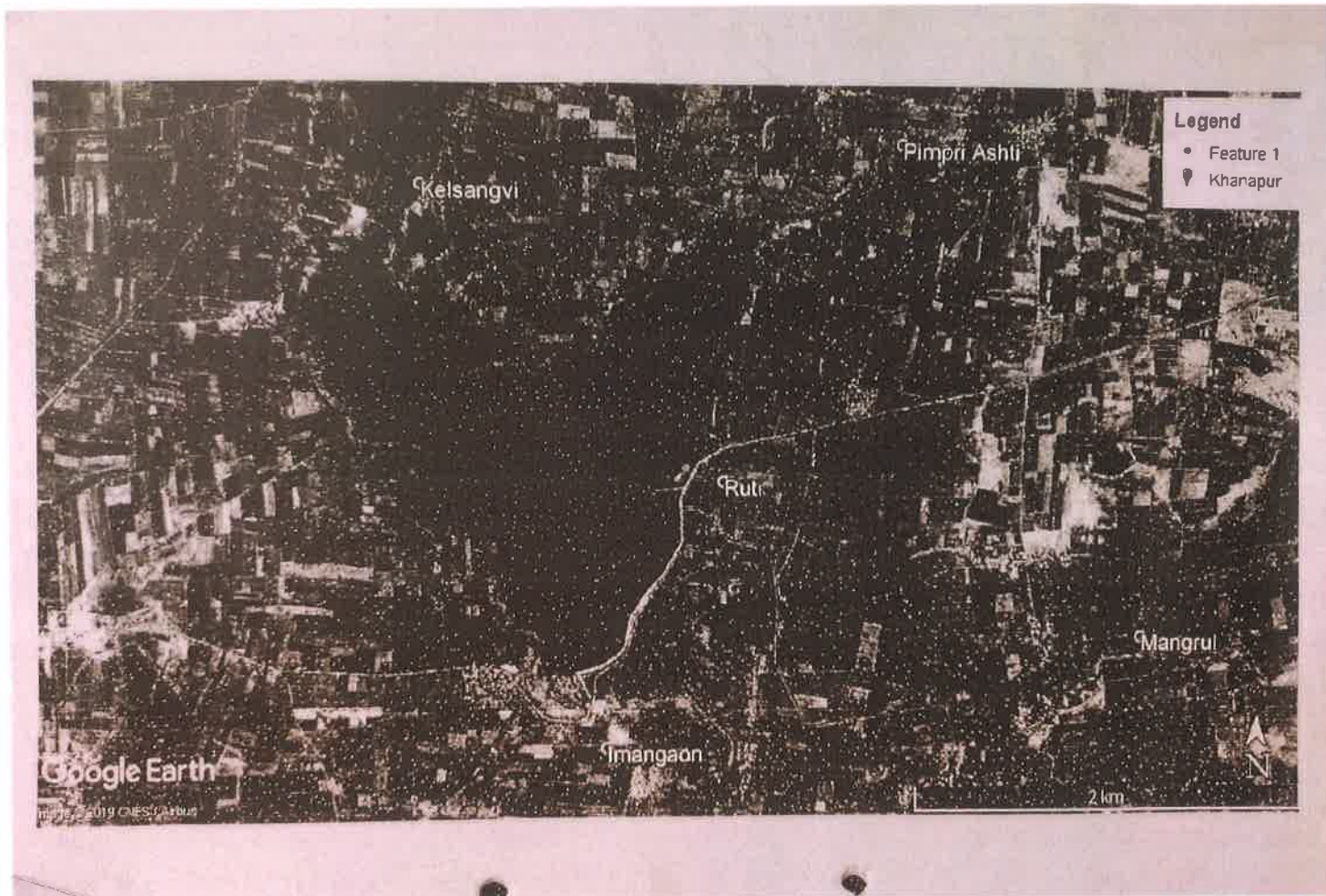
*[Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Ruti Village**

Ruti is a small Village/hamlet in Ashti Taluka in Beed District of Maharashtra State, India. It comes under Ruti Panchayath. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 82 KM towards west from District headquarters Beed. 8 KM from Ashti. 279 KM from State capital Mumbai. Dhirdi(4KM), Hanumantgaon(4KM), Jalgaon (5KM), Shiral(6KM), Ashti (6KM) are the nearby Villages to Ruti. Ruti is surrounded by Jamkhed Taluka towards East, Karjat Taluka towards South, Patoda Taluka towards East, Pathardi Taluka towards North.



## Google Earth image of Ruti village



Survey by - Tukaram Korde

गांव :- कान्हेगांव (कोट थरान)  
 तालुका :- भाली  
 जिल्हा :- ठाड  
 लकूम विहिरी :- 13  
 लकूम पाझर तालुका :- 02 (1+1) 1 मोठ थरान + पाझर तालुका.  
 नारलील नारली उंची :- 589 मी.  
 कमिल काम उंची :- 570 मी

- अशाच उदाहरणात काही इतर का ?
- थरानाच्या किंती रचनेत विहिरी सुद्धा उदाहरणार्थ dry
- असे विहिरी उदाहरणार्थ कोठ्या.
- असे विहिरी विद्यालय मध्ये 10 ते 20 गांव मोठी गाळे
- teleochanel: jointed basalt's; sheet jointed
- any basalt's - विद्यालय पाणी साठवण
- Broadly jointed or unjointed compact basalt's
- उदाहरणार्थ deeper aquifer recharge नसते.

work to be done -

- 1) Artificial recharge in riverbed & dam
- 2) water shed structure construction - (उदा)
- 3) water shed str. बांधणे ~~उदा~~ विहिरी पाणी साठवणे
- 4) नाल / नाली उपाय (जे पुढे द्यात व त्यात पाणी साठवणे)
- 5) नाली मधील निविडपण सुद्धा उदाहरण/विद्यालय पाणी नसते.  
 percolation होत नाही. Artificial Recharge str. बांधणे  
 उदाहरण/विद्यालय

# Dug-Well Inventory

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

## Well Inventory Form

Village रुनि गोव Date - 21/07/19  
 Gut No. .... Name of the Farmer तात्या सावंल Well No. 01  
 In Village Location East to village User... Personal/Community/.....  
 Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed) No  
 Year of the Digging 2014, Construction year....., If yes type cement  
 Parapet Ht. 1m, Shape Cicular/Square, Diameter of well 6m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 15m, Water level from ground level 6.11m Lat 184820  
 In rainy season overflow, winter 6m, summer dry long 750746  
BN 2-589 m  
 Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
(If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)  
 Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season 12 Acre  
 Winter Season 4 Acre  
 Summer Season No Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....  
 Dia of outlet pipe 2.5 cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 6 Hrs; Summer dry Hrs.)  
 Any other information .....

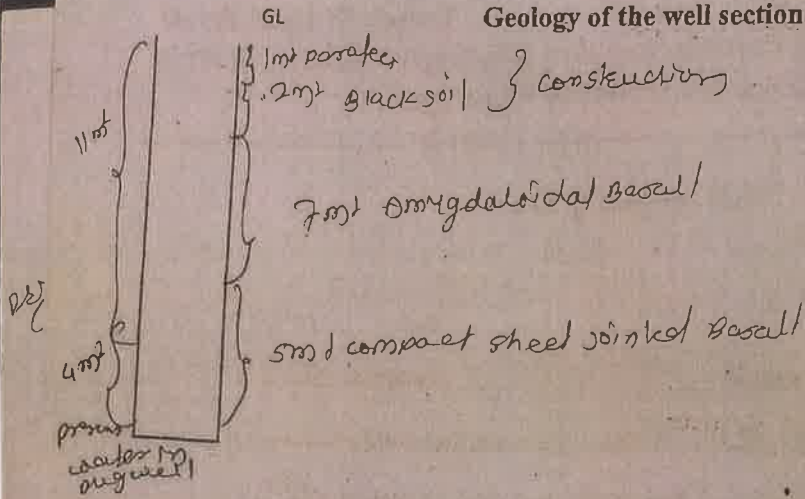
Konde Tukarao  
 Name of the Surveyor

Konde  
 Signature

High EW - 589 - 595m  
 low EW - 580 550m



## Geology of the well section



विलेखित  
 2 km Highland

- a) Lining cement lining
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watershed structure / Proclamation dam in neighboring region. Near 2 km distance
- d) Effect of existing structures on watertable. No effect because this dug well present in Highland area
- e) Geological / Geographical effect on groundwater. No increase water level (Recharge only during season)
- f) Compact basalt 5 m compact basalt flow present
- g) Amygdaloidal Basalt 7 m Amygdaloidal Basalt flow present
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact flow contact goes up to surface
- k) Dyke rock Absent
- l) Any remark about geological formation. High land flow direction south to north



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village कोरडे गाव Date - 21/07/19

Gut No. .... Name of the Farmer विजय गोमर Well No. 02

In Village Location ..... User... Personal/Community/.....

Location of the well West to village (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2014, Construction year....., If yes type cement

Parapet Ht. 5m Shape-Cicular/Square, Diameter of well 7m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 17m, Water level from ground level 13m lat 184815  
 In rainy season overflow m, winter....., summer..... m. long 7507  
 Eht 587m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and /or vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season 2 Acre  
 Winter Season 4 Acre  
 Summer Season NA Acre

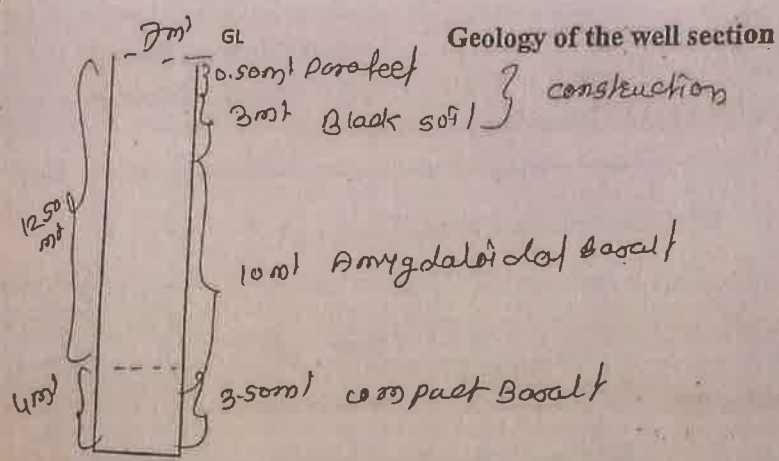
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump S HP.....  
 Dia of outlet pipe 2.5 cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :  
 (Rainy season 24 Hrs; winter 6 Hrs; Summer DEY Hrs.)

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Korde  
 Signature



अवधि (50) मी पाइप 200 मी भौल रावक आदि



- a) Lining ..... cement
- b) Soil - Black / Yellow / Sandy ..... Black soil on the surface
- c) Existing watershed structure/ Proclamation dam in neighboring region. .... Near 2 km Ruti dam and 50-200m distance
- d) Effect of existing structures on watertable. .... percolation dam water table increase
- e) Geological / Geographical effect on groundwater. .... increase water level
- f) Compact basalt ..... 3.50 mt compact Basalt flow present
- g) Amygdaloidal Basalt ..... 10 mt Amygdaloidal Basalt flow present
- h) Vesicular Basalt ..... Absent
- i) Tachylitic basalt ..... Absent
- j) Flow contact ..... flow contacted into 13.50 mt up to surface
- k) Dyke rock ..... AB and CB flow
- l) Any remark about geological formation. .... High land used flow obstruction East to west

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village कोरडे गांव Date - 21/07/19

Gut No. .... Name of the Farmer श्री विनायक बाबाजी कुठारे Well No. 03

In Village Location ..... User... Personal/Community/.....

Location of the well. South, (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2013, Construction year....., If yes type concrete

Parapet Ht. 1.1 m, Shape-Circular/Square, Diameter of well 8 m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 18 m, Water level from ground level 13 m Lab - 184803  
 In rainy season overhead m, winter 10 m, summer day m. long - 750708  
 G.M. - 578 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 10 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season..... N.D. Acre

Type of withdrawals/Pump Out :- Electrical motor....., Diesel Pump 5 HP.....

Dia of outlet pipe 2.5 ..... cm. /inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :

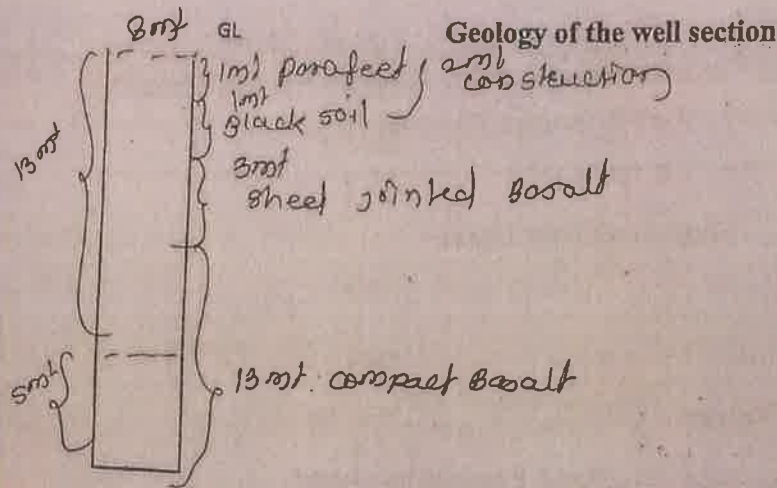
(Rainy season 24 Hrs; winter 6 Hrs; Summer day Hrs.)

Any other information .....

Korde Jukarao  
 Name of the Surveyor

Boodp  
 Signature





विश्वीय प्रतिष्ठान  
 व प्रलयनी मंडल  
 500 मी आंतरिक मंडल



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. None west and north side of dug well
- d) Effect of existing structures on watertable. present
- e) Geological / Geographical effect on groundwater. water table increase
- f) Compact basalt 13 m compact basalt, 3 m sheet jointed basalt
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact present
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area north to south direction



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ~~शुक्रगिरी~~ श्री १० गाव Date - ~~11/11/19~~ 21/07/19

Gut No. .... Name of the Farmer श्रीमंजरी धवळे Well No. 1004

In Village Location ..... User... Personal/Community/.....

Location of the well... North (Farmland, Bank of Nala, In the Nala, Riverbed) Near Nala

Year of the Digging 2009, Construction year....., If yes type... cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 3.00...  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 16.50, Water level from ground level... 1.5 m. (lat: 184749)  
 In rainy season overflow m. winter... 6.8 mt, summer... 1.5 m. (long) - 750657  
 GN: 97202

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... 1.5 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season..... N/A ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....

Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

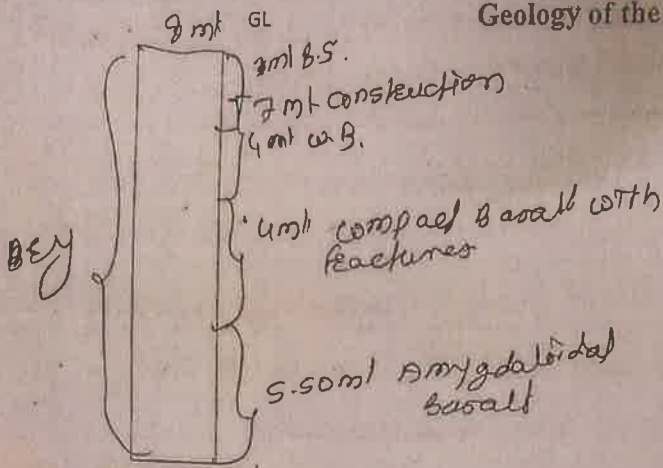
Time require for a full recharge / recuperation :  
 (Rainy season ... 24 .....Hrs; winter... 6.8 ..... Hrs; Summer..... very .....Hrs.)

Any other information .....

Koode Tukaram  
 Name of the Surveyor

Beed  
 Signature

Geology of the well section



विहिरीच्या परिसरामध्ये  
 मि मालखार खाटे वरून अ  
 ३०० मी. १० मि मालखार  
 भागात आहे शिवाय पश्चिमेकडून  
 पुढेकडे दिशेने

- a) Lining ..... cement
- b) Soil - Black / Yellow / Sandy ..... Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. .... In 200 m. Near Path dam distance west side.
- d) Effect of existing structures on watertable. .... flow flow increase water table in below contact
- e) Geological / Geographical effect on groundwater. .... increase water level
- f) Compact basalt ..... 4 m compact basalt flow present
- g) Amygdaloidal Basalt ..... 5.50 m amygdaloidal basalt flow present
- h) Vesicular Basalt ..... Absent
- i) Tachylytic basalt ..... Absent
- j) Flow contact ..... flow contact to to 11 m upto surface
- k) Dyke rock ..... Absent
- l) Any remark about geological formation. .... flow direction west to east

**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village शिव अिद Date - 21/7/19

Gut No. .... Name of the Farmer ..... Well No. 05

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2017, Construction year....., If yes type Cement

Parapet Ht. 1 m Shape-Cicular/Square, Diameter of well 8m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 14 m, Water level from ground level Day 18 4749 m.  
In rainy season Overflow m, winter 6.0 m, summer Day m. long 2-75-0653  
BIN 1-57401

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
Rainy Season 8 Acre  
Winter Season 3 Acre  
Summer Season N/D Acre

Type of withdrawals/Pump Out :-  Electrical motor .....  Diesel Pump 3 HP.....

Dia of outlet pipe 2.5 cm. /inch .....

Quantity of withdrawals :- Daily 24 Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 24 Hrs; winter 6 Hrs; Summer Day Hrs.)

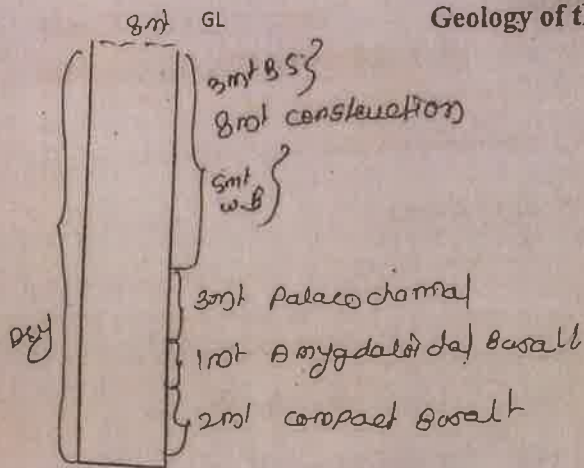
Any other information .....

Korde Nikaram  
Name of the Surveyor

[Signature]  
Signature



## Geology of the well section



4/27/2017  
3:15 PM

- a) Lining Cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. west side Reft dam Near 20m distance
- d) Effect of existing structures on watertable. High water percolation of 10 between  
two flow as AB and CB
- e) Geological / Geographical effect on groundwater. increase water level.
- f) Compact basalt 2m compact basalt flow present
- g) Amygdaloidal Basalt 1m Amygdaloidal basalt flow present
- h) Vesicular Basalt Absent
- i) Tachytic basalt Absent
- j) Flow contact 10 between 1m AB and 2m CB flow contact  
present
- k) Dyke rock Absent
- l) Any remark about geological formation. plant ore



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village कोरडे ठाणे Date .....

Gut No. .... Name of the Farmer विशव) श्रीरव) Well No. 06 .....

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2010, Construction year....., If yes type concrete.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well 10 m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 20 m, Water level from ground level 7 m m. lat 184747  
 In rainy season 12 m, winter 12 m, summer 12 m m. long 750652  
lat - 574 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m, and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 18 Acre  
 Winter Season ..... 6 Acre  
 Summer Season ..... 18 Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe ..... 2.5 cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

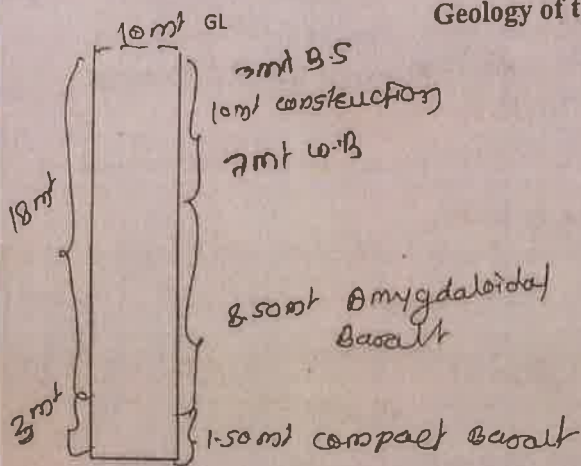
Time require for a full recharge / recuperation :  
 (Rainy season 2.5 Hrs; winter 6 Hrs; Summer 12 Hrs.)

Any other information .....

Korde Tukaram  
 Name of the Surveyor

Rosale  
 Signature

## Geology of the well section



विशेष 200 मी  
शुद्ध 200 मी

a) Lining

cement

b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watersheds structure/ Proclamation dam in neighboring region.

Near dam in west side 200 m distance

d) Effect of existing structures on watertable.

flow contact at AB and bottom of better percolation High because

e) Geological / Geographical effect on groundwater.

increases water table or water level

f) Compact basalt

bottom 1.50 m compact basalt flow present

g) Amygdaloidal Basalt

8.50 m Amygdaloidal Basalt flow present

h) Vesicular Basalt

Absent

i) Tachylitic basalt

Absent

j) Flow contact

flow contact at 18.50 m AB and bottom compact basalt

k) Dyke rock

Absent

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village शुद्धी गाँव Date - 21/07/19

Gut No. .... Name of the Farmer मनिनाथ चव्हाण Well No. 07

In Village Location ..... User... Personal/Community/.....

Location of the well... Foot (Farmland, Bank of Nala, In the Nala, Riverbed) In the nala

Year of the Digging 2010, Construction year....., If yes type.....

Parapet Ht. 1m Shape-Circular/Square, Diameter of well... 7m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 15m Water level from ground level... 14m alt - 184750  
 In rainy season 10m, winter... 6m, summer... dry long - 750707  
BN - 57200

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 13 ..... Acre  
 Winter Season ..... 6 ..... Acre  
 Summer Season ..... NO ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....  
 Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 ..... Hrs; winter..... 2 ..... Hrs; Summer ..... dry ..... Hrs.)

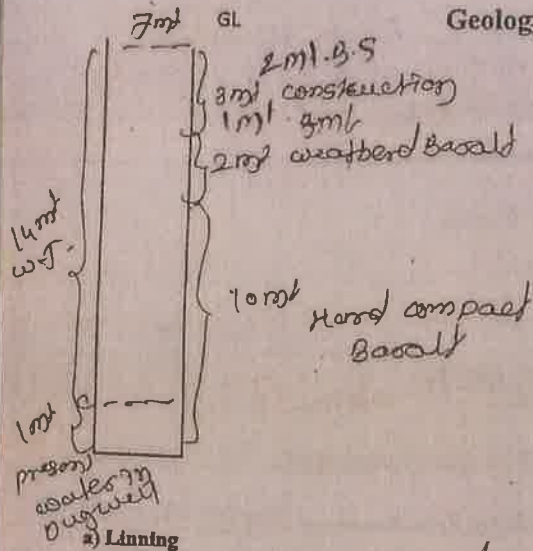
Any other information .....

Korde Nikaram  
 Name of the Surveyor

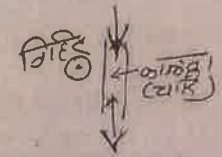
[Signature]  
 Signature



Geology of the well section



दीर्घिका) बाश्चम वि...  
 1 km आलराव...  
 शक्य 10 मी आलराव...  
 केरि धरणातुं गीद्याने...  
 डावा काळा आहे



- a) Lining cement
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. near 1 km Ruti dam
- d) Effect of existing structures on watertable. increase water table because percolates
- e) Geological / Geographical effect on groundwater. increase water level
- f) Compact basalt 10m Hard compact basalt flow present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylitic basalt Absent
- j) Flow contact
- k) Dyke rock Absent
- l) Any remark about geological formation. flow area flow direction west to East



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village श्री १११ Date - 24/07/19  
 Gut No. .... Name of the Farmer Government Well No. 08

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009, Construction year....., If yes type.... concrete

Parapet Ht. 2.10 Shape-Cicular/Square, Diameter of well 8.00  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 17.00 m, Water level from ground level 10.00 m. 1st - 18480  
 In rainy season 10.00 m, winter 10.00 m, summer 2.00 m. long - 750649  
dia - 570 mm

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in Direction, Length.....m and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season 19 Acre  
 Winter Season 6 Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 cm. / inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation ;  
 (Rainy season 2.4 Hrs; winter 6 Hrs; Summer.....).....Hrs.)

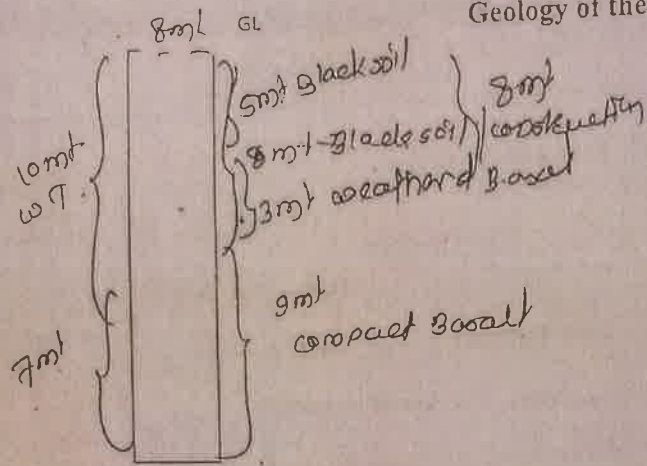
Any other information .....

Konde Purnima  
 Name of the Surveyor

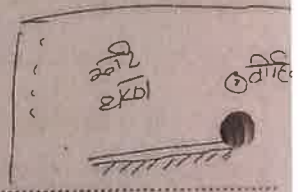
Government ची श्री १११ परेक श्री १११ अर्थ  
प्राप्ति शिल्ल्यासाठी दिएक

Konde  
 Signature

Geology of the well section



हि बाहिर अति  
अरुण हेरि सिद्ध  
अति



a) Lining

cement lining

b) Soil - Black / Yellow / Sandy

Black soil

c) Existing watershed structure / Proclamation dam in neighboring region.

Near Auri dam

d) Effect of existing structures on watertable.

10m distance

Increase water table in  
seasonal period

e) Geological / Geographical effect on groundwater.

High percolation, increase water level

f) Compact basalt

9m compact basalt flow present

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

-

k) Dyke rock

Absent

l) Any remark about geological formation.

**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

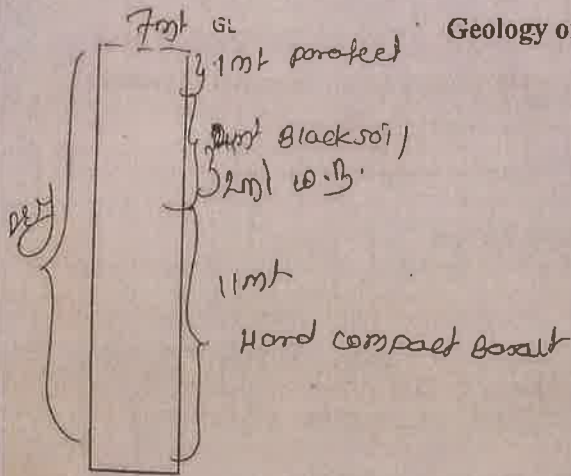
Village शारदा गाव Date - 21/07/19  
 Gut No. .... Name of the Farmer साहेबराव/सिमराव Well No. 09  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2013, Construction year....., If yes type cement  
 Parapet Ht.....Shape-Cicular/Square, Diameter of well. 7.00  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)  
 Total Depth 16m, Water level from ground level dry m. 184808  
 In rainy season 0.20 m, winter....., summer..... m. long d - 750658  
0.20 m 575m  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .....Direction, Length.....in. and for vertical borehole.....m, Location at the bottom)  
 Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 12 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season..... N/A ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe..... 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... 6 ..... Hrs; Summer..... dry ..... Hrs.)  
overflow  
 Any other information .....

Jeerde Tukaram  
Name of the Surveyor

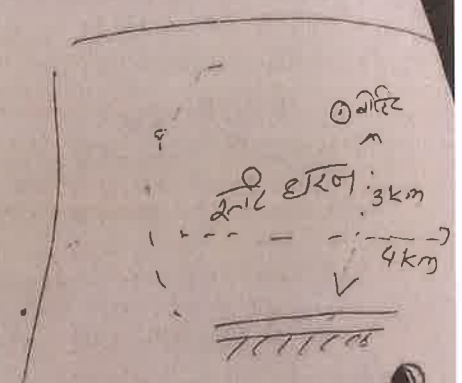
[Signature]  
Signature



# Geology of the well section



पे गीर 2.12  
ग्रे



- a) Lining cement lining.
- b) Soil - Black / Yellow / Sandy black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. this dug well present in Buti dam.
- d) Effect of existing structures on watertable. the layer of black soil and hard compact basalt water percolation is seasonal
- e) Geological / Geographical effect on groundwater. increase in water level in monsoon and winter
- f) Compact basalt 11mt compact basalt flow present
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact -
- k) Dyke rock Absent
- l) Any remark about geological formation. पे गीर 2.12 ग्रे percolation गीर



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... रुपिगाँव ..... Date - 21/07/19

Gut No. .... Name of the Farmer ..... राधेश्वर सुने ..... Well No. 10

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009., Construction year....., If yes type..... NO

Parapet Ht..... Shape-Cicular/Square, Diameter of well... 7m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ..... 13m ....., Water level from ground level... DEY .....m. lat = 18 48 15  
 In rainy season over flow m, winter 4.00 m, summer DEY m. long = 75 06 53  
lat = 57 8 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 9 ..... Acre  
 Winter Season ..... 1 ..... Acre  
 Summer Season..... NO Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....  
 Dia of outlet pipe ..... 2-8 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

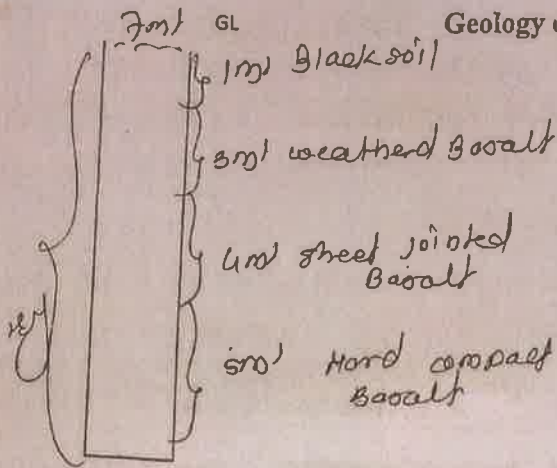
Time require for a full recharge / recuperation :  
 (Rainy season ..... 24 Hrs; winter ..... 2 ..... Hrs; Summer ..... DEY ..... Hrs.)

Any other information .....

Konde Dukarao  
 Name of the Surveyor

Konde  
 Signature

Geology of the well section



हे वीही करी को  
 आहे पणु या विहीला  
 कोमलाहे प्रकारा पसर  
 नाहे करी हे विही  
 उलकं जागेवर आहे

- a) Lining NO
- b) Soil - Black / Yellow / Sandy Black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. This dugwell present in RWTI dam
- d) Effect of existing structures on watertable. NO percolation
- e) Geological / Geographical effect on groundwater. NO recharge
- f) Compact basalt 5m compact basalt and 4m sheet jointed basalt
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact total 2 flow contact present w.s and sheet jointed basalt, sheet jointed B and compact basalt
- k) Dyke rock Absent
- l) Any remark about geological formation. High land area flow direction north to south direction

**Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village ताळे ओढा Date 2/07/19

Gut No. .... Name of the Farmer Government Well No. 11

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009, Construction year....., If yes type cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 10m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 15.50m, Water level from ground level 14.50m 1002-184811  
 In rainy season 0.1 or 1.00 m, winter 6.00 m, summer 14.50 m. 1009-750647  
6M1-573m

Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... 8 ..... Acre  
 Winter Season ..... 4 ..... Acre  
 Summer Season ..... N.D. ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.55 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :  
 (Rainy season 2.4 ..... Hrs; winter 6 ..... Hrs; Summer 14.5 ..... Hrs.)

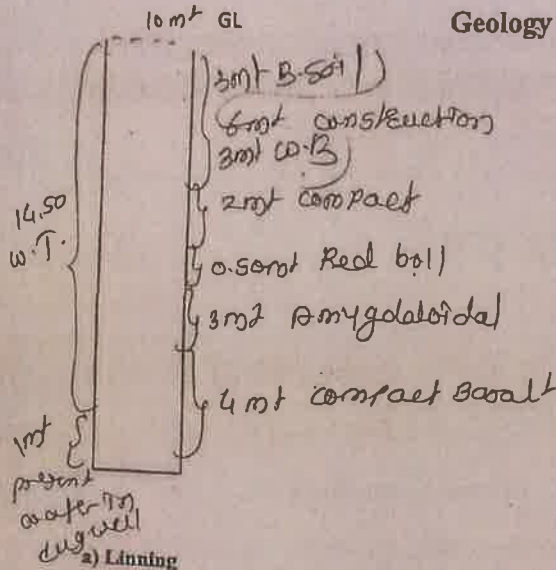
Any other information .....

Korde Pankaraj  
 Name of the Surveyor

Beedy  
 Signature



## Geology of the well section



पे. वी. के. सो. एको. अडे

- a) Lining  
cement
- b) Soil - Black / Yellow / Sandy  
black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region.  
this dug well present in Ruti dam
- d) Effect of existing structures on watertable.  
This dug well present in Ruti dam. Any time considerable increase
- e) Geological / Geographical effect on groundwater.  
increase groundwater level
- f) Compact basalt  
upper 2m and and bottom 4m compact Basalt flow present
- g) Amygdaloidal Basalt  
3m Amygdaloidal Basalt flow present
- h) Vesicular Basalt  
Absent
- i) Tachylytic basalt  
0-50 m tachylytic Basalt flow present
- j) Flow contact  
total 4 flow contact present one is w.B and CB =, CB and RB, RB and AB, and last one
- k) Dyke rock  
75 AB and CB.
- l) Any remark about geological formation.  
Low land area

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village अनि अिग

Date - 21/07/19

Gut No. .... Name of the Farmer (अकोल अिग) Well No. 12

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2014, Construction year....., If yes type Cement

Parapet Ht..... Shape-Cicular/Square, Diameter of well 9m

(Whether water from other sources brought to this well, if yes source and Hrs of pumping.....)

Total Depth 16.50 m, Water level from ground level..... m.

In rainy season वर्षा m, winter 8m, summer दर m.

lat - 18 48 11 N  
 long - 75 06 47 E  
 BK - SB

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m, and /or vertical borehole.....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture.....; etc.....

Rainy Season 12 Acre  
 Winter Season 3 Acre  
 Summer Season N/A Acre

Type of withdrawals/Pump Out :- Electrical motor....., Diesel Pump 2.5 HP.....

Dia of outlet pipe 2.5 cm /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :

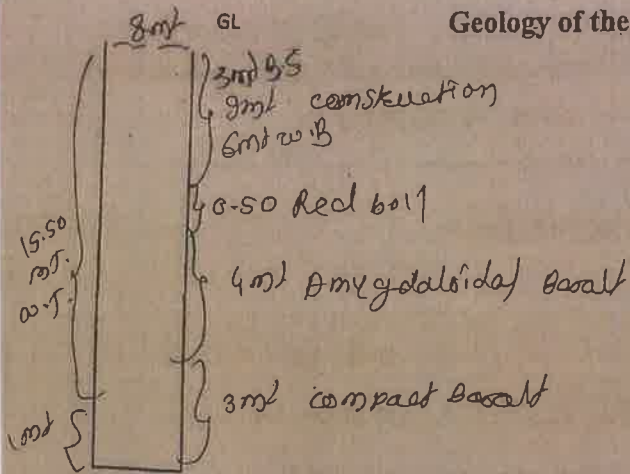
(Rainy season 24 Hrs; winter 2 Hrs; Summer दर Hrs.)

Any other information .....

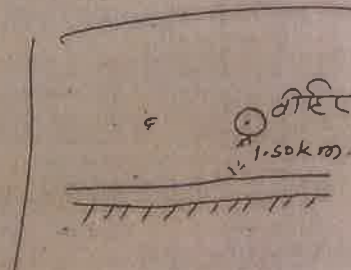
Konde Nkaram  
 Name of the Surveyor

Konde  
 Signature

## Geology of the well section



15.50 m  
 0.50 m  
 1 m



- a) Lining cement
- b) Soil - Black / Yellow / Sandy black soil
- c) Existing watersheds structure/ Proclamation dam in neighboring region. this dugwell present in
- d) Effect of existing structures on watertable. this dam
- e) Geological / Geographical effect on groundwater. any time water percolate in dugwell
- f) Compact basalt increase water table
- g) Amygdaloidal Basalt 3 m compact basalt fluid present
- h) Vesicular Basalt 4 m amygdaloidal basalt fluid present
- i) Tachylitic basalt absent
- j) Flow contact 0.50 m red ball present at 9 m up to
- k) Dyke rock absent
- l) Any remark about geological formation. low land area



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village कोरडे गांव Date - 21/07/19

Gut No. 17 Name of the Farmer अरु सुखे / वासुदेव Well No. 13

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1990, Construction year....., If yes type..... NO

Parapet Ht. NO Shape-Cicular/Square, Diameter of well..... 9m

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12m, Water level from ground level..... DEP m. lat = 184829  
 In rainy season over flow m, winter..... NO m, summer..... DEP m. long = 750728  
90m EIR = 984

Percolation from : Bottom / Lateral Direction (In the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... 7 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season..... NO ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ....., Diesel Pump 5 HP.....

Dia of outlet pipe..... 2.5 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day.

Time require for a full recharge / recuperation :

(Rainy season ... 24 ..... Hrs; winter..... 2 ..... Hrs; Summer..... DEP ..... Hrs.)

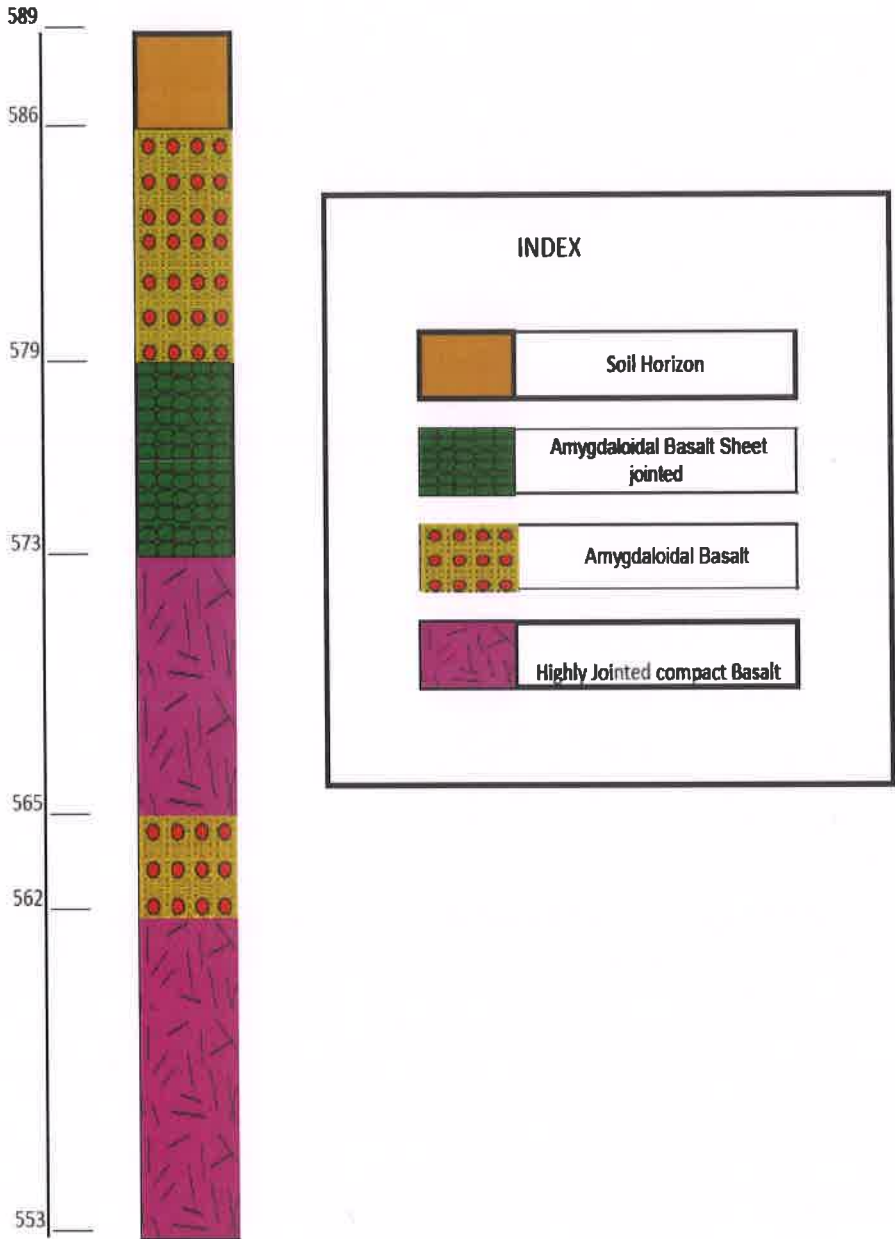
Any other information .....

Korde Manoj  
 Name of the Surveyor

Korde  
 Signature



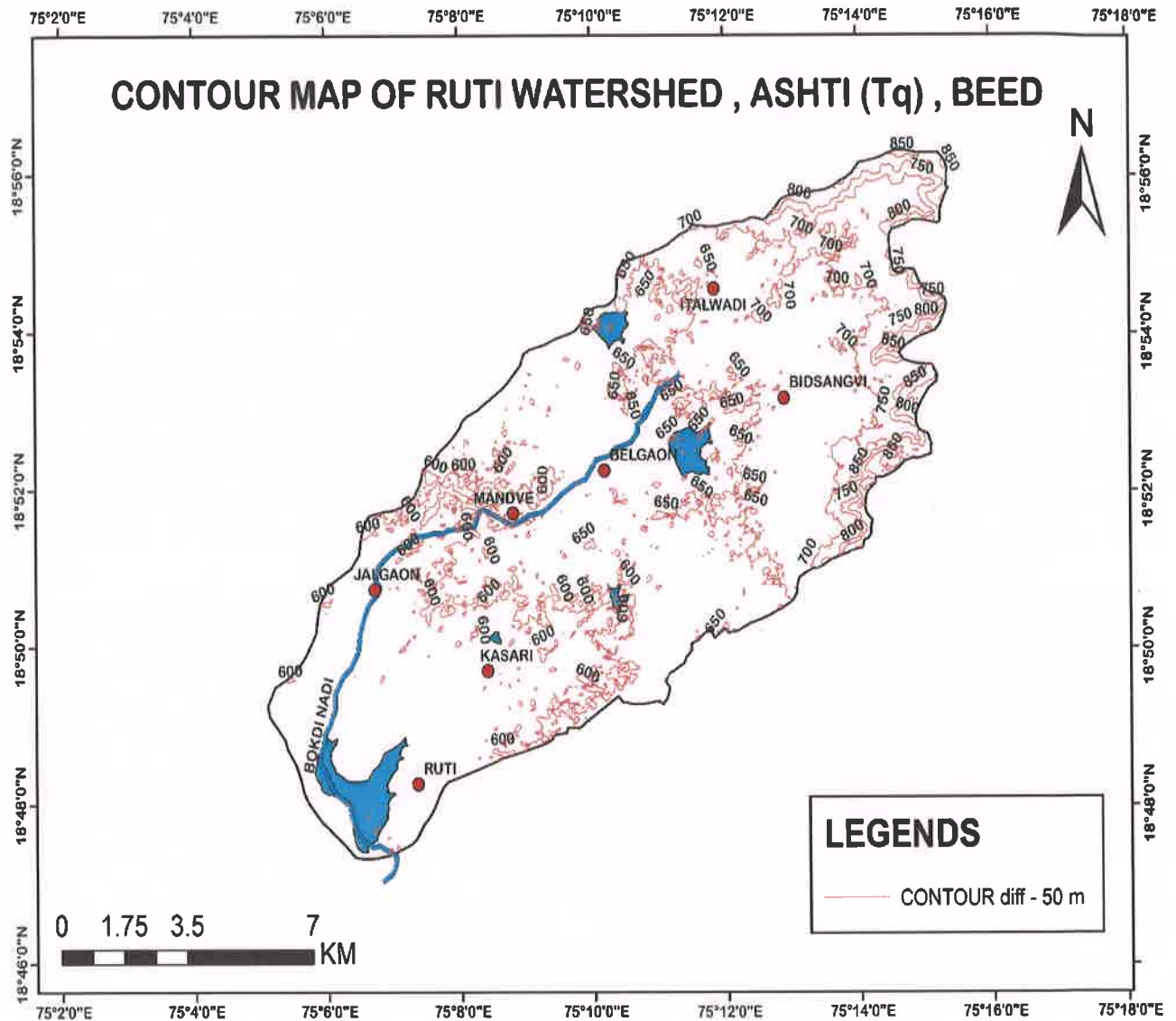
# Litholog of Ruti Village



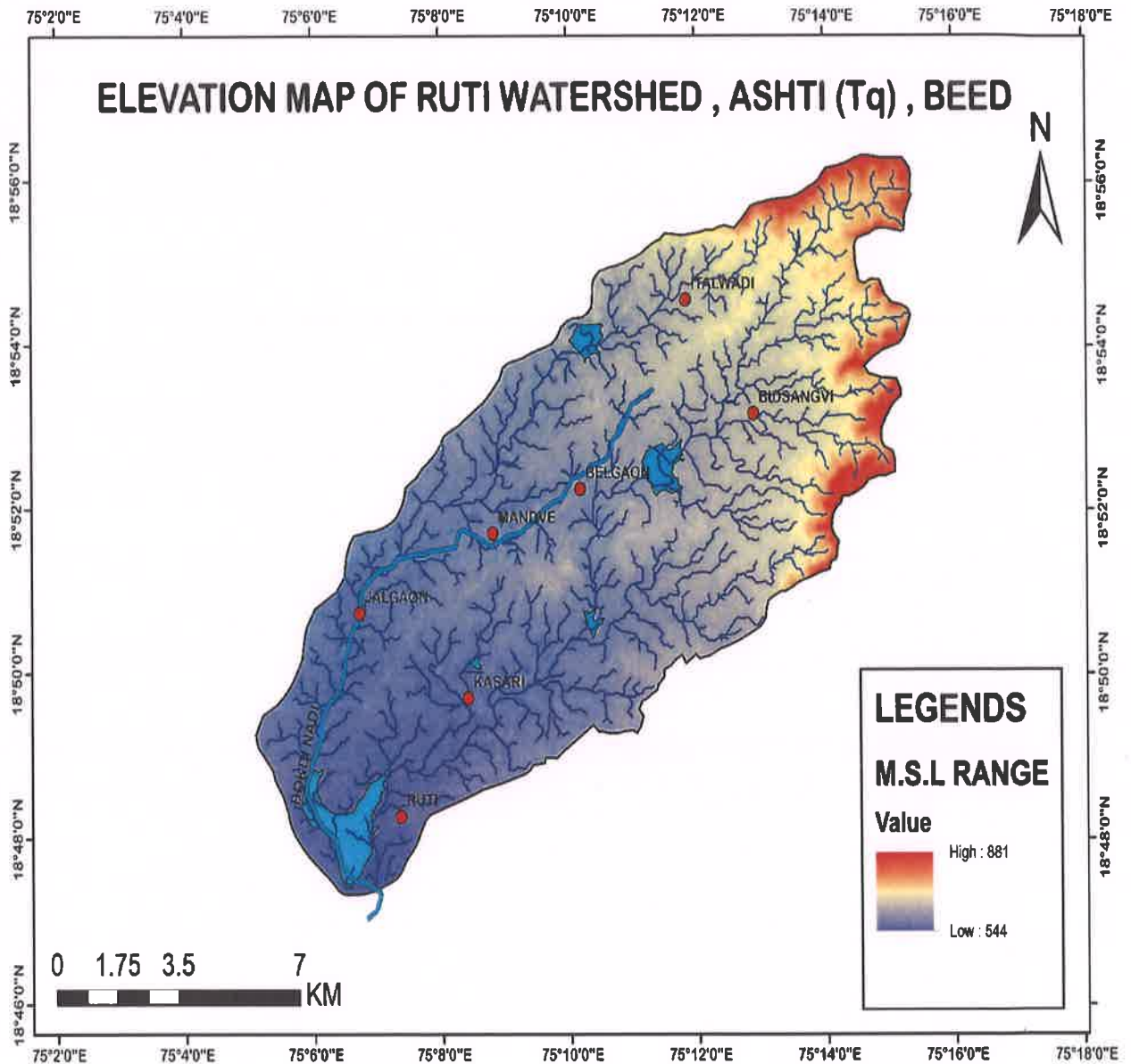
Litholog of Ruthigaon Village



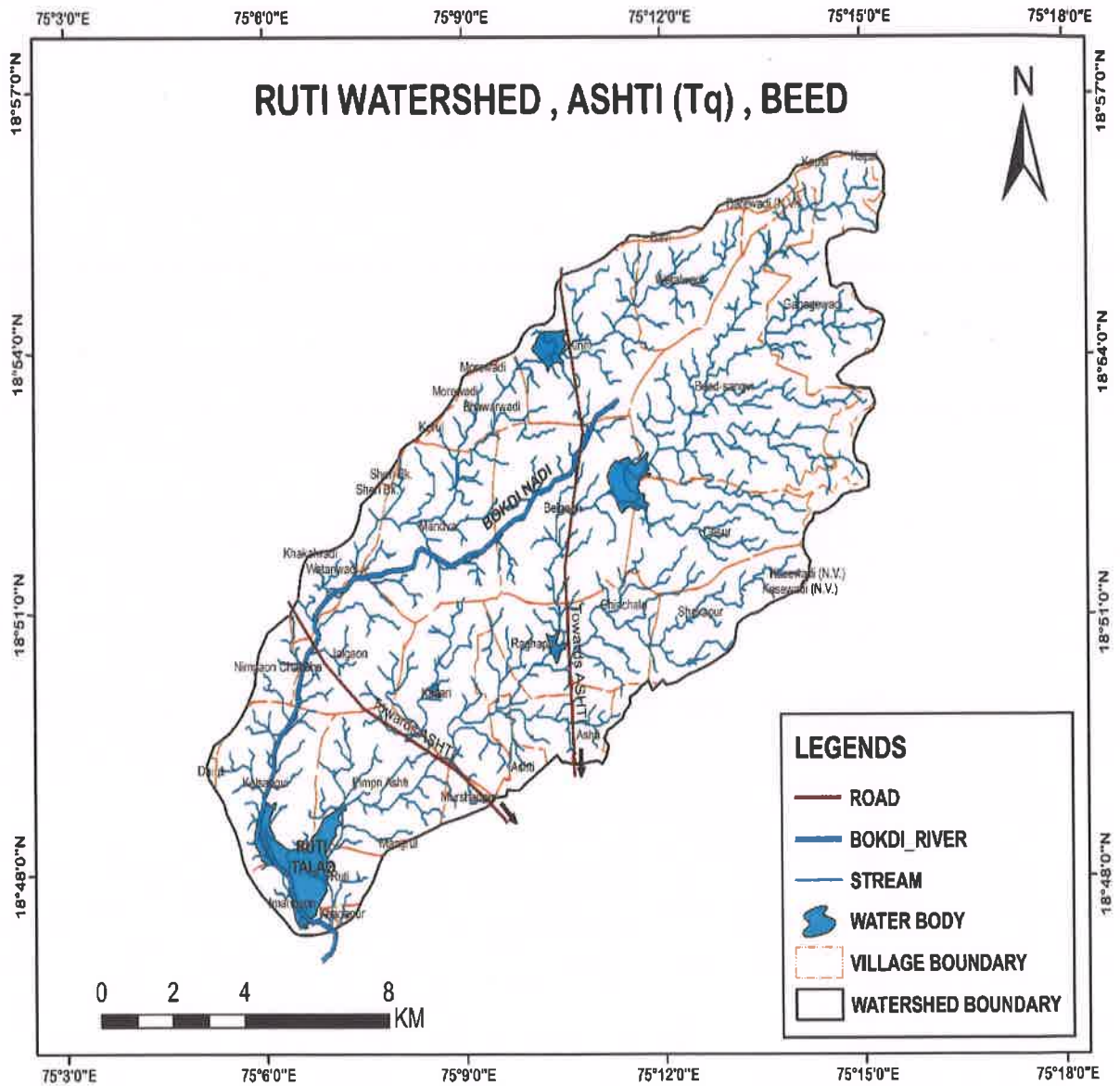
# Contour Map of Ruti Village



# DEM Map of Ruti Village



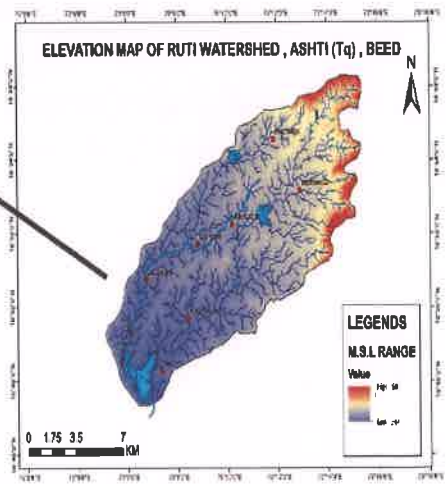
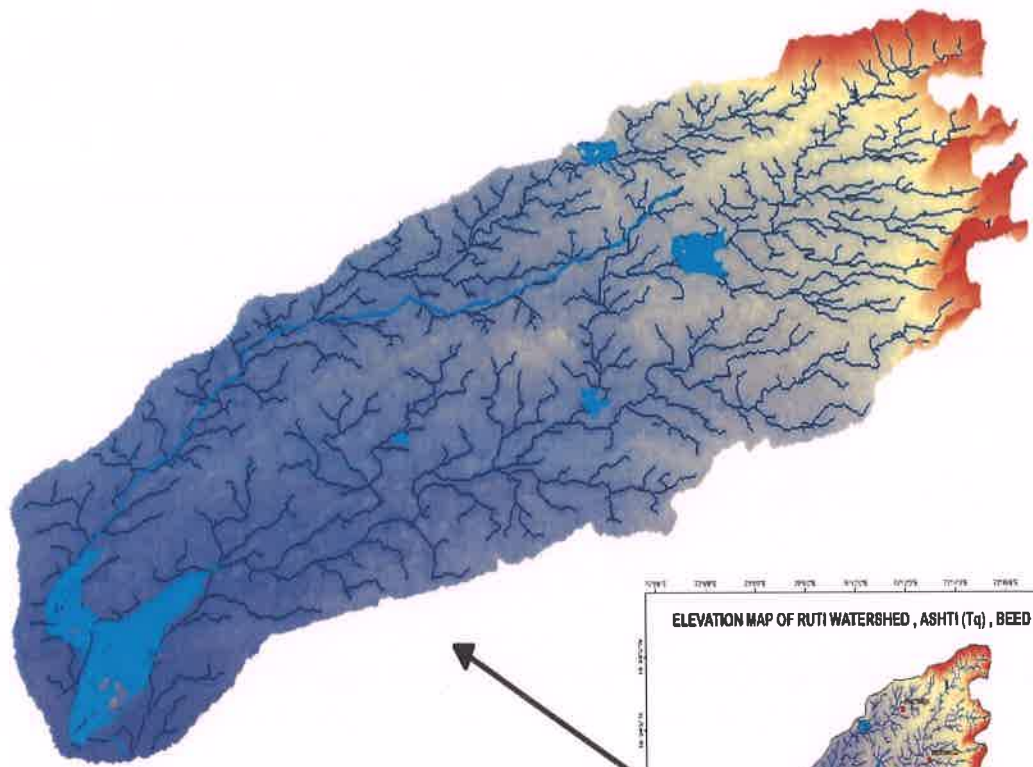
# Watershed Map of Ruti Village





# Watershed 3D Map of Ruti Village

## Ruti Watershed 3-D view



**Field Photos**



**Weathered Compact Basalt is exposed in the dug well**





**Highly fractured Compact Basalt can be seen in the dug well**





**Red bole flow exposed between two basalt flows**



**Broadly spaced jointing in basalt flow exposed in the outcrop**



A handwritten signature in blue ink, appearing to be "A. S. J.", written over the printed name of the Principal.

**PRINCIPAL  
Deogiri College  
Aurangabad.**

## **Shirala Village**

Shiral is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 88 KM towards west from District headquarters Beed. 12 KM from Ashti. 273 KM from State capital Mumbai. Dhirdi (3 KM), Nanda (4 KM), Hanumantgaon (5 KM), Kelsangavi (5 KM), Pimpri (ashti) (8 KM) are the nearby Villages to Shiral. Shiral is surrounded by Karjat Taluka towards South, Jamkhed Taluka towards East, Patoda Taluka towards East, Pathardi Taluka towards North.



## भुशास्त्रीय सर्वेक्षण शिराळ, ता. आष्टी, जि. बीड

शिराळ गावपरिसरामध्ये Well Inventory, GIS & Remote Sensing Technique, भुशास्त्रीय सर्वेक्षण, ह्याभागात पडणारा सरासरी पाऊस व पाण्याची माघणी इत्यादी बाबींचा आढावा घेवून या गावातील भुजल विकासासंबंधी खालील भुजल विकासाची कामे करणे आवश्यक आहे.

- 1) गावपरिसरातील मेहेकरी नदितील गाळ काढणे (मुख्यतः गावाच्या उत्तरेकडील भागात काम करणे आवश्यक आहे) *Recharge pit*
- 2) मेहेकरी नदिवर गावाच्या उत्तरेकडील भागात दोन सिमेंट बंधारे बांधणे. (Govt)
- 3) मेहेकरी नदिवर गावाच्या दक्षिणेकडील भागात एक सिमेंट बंधारा बांधणे (गावाच्या शिवारातील भागात) (Govt)
- 4) शिराळ गावाच्या परिसरामध्ये 150 फुट खोलीपर्यंत बेसाल्ट खडकाचे मुख्य सात थर आढळत असून, त्यामध्ये काळा पाषाण थर क्र. 1 व 3 मधुन पाणी खाली जात नसल्यामुळे गावाच्या मेहेकरी नदिवर उत्तर व दक्षिण दोन्हीभागात प्रत्येक बंधान्यामध्ये चार कुत्रिम पूर्णभरण पिट्स (Artificial Recharge Structure) घेणे. *3/21/19 मध्ये Artificial Recharge pit*

① गावाच्या उत्तरेकडील भागात उत्तरेकडील गावाच्या उत्तरेकडील भागात  
Recharge pit घेणे - गावाच्या उत्तरेकडील भागात  
गोठेबाग व पु. विद्यालय पिट. 19.

Geohydrogeological mapping of ASHI Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

DL

Village Shival

Date - 26/06/2019

Gut No. 229 Name of the Farmer Balasaheb Well No. 51

S-40  
 In Village Location near home User Personal ✓ Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging..... Construction year..... If yes type.....

Parapet Ht..... Shape Circular/Square, Diameter of well..... 8.40 m  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 21 m Water level from ground level... 21 m  
 In rainy season 21 m, winter 21 m, summer 21 m

Percolation from: Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in .. Direction, Length .. m and for vertical borehole .. m, Location at the bottom)

Use :- Drinking X, Irrigation X, Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

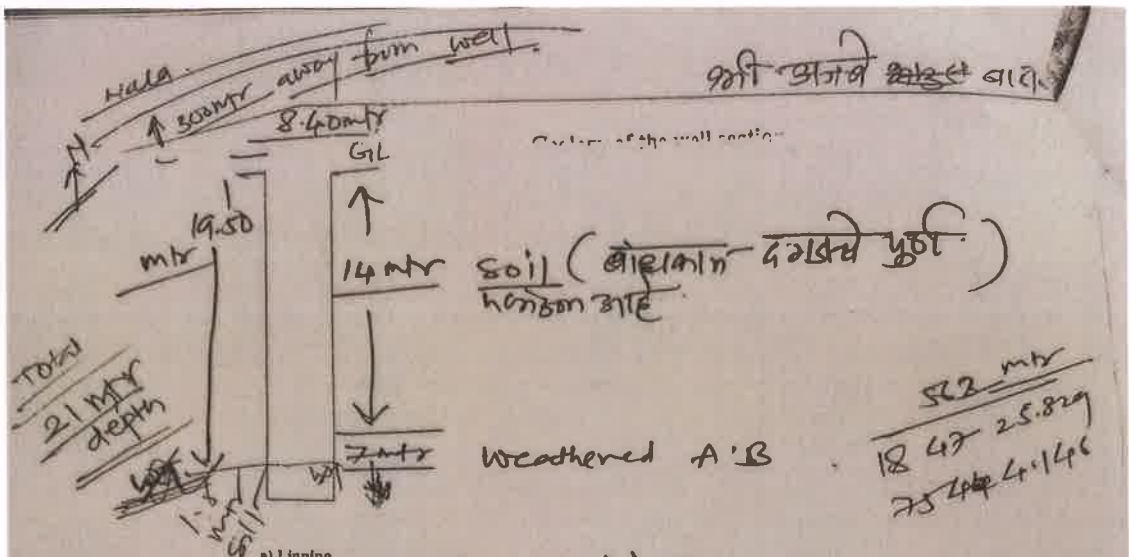
Type of withdrawals/Pump Out :- Electrical motor Diesel Pump 05 HP  
 Dia of outlet pipe..... cm. inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter..... Hrs; Summer..... Hrs.)

Any other information .....

Ganesh Patil  
 Name of the Surveyor

[Signature]  
 Signature



- a) Lining stone lining
- b) Soil - Black / Yellow / Sandy B.C. (Sandy)
- c) Existing watersheds structure/ Proclamation dam in neighboring region Hala away from 800 mtr.
- d) Effect of existing structures on watertable. किसी निस तिवे सा गाळको पावणे वेळीचे  
व (वेळीचे) पावणे वेळीचे
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt NA
- g) Amygdaloidal Basalt W. A.B
- h) Vesicular Basalt
- i) Tachylytic basalt
- j) Flow contact
- k) Dyke rock
- l) Any remark about geological formation

weathered A.B. - soil - no contact  
नसत पाळको वेळे वेळीचे वेळीचे



Geohydrogeological mapping of Ashti..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D.3

Village शिराड Date - 28/06/2019

Gut No. 63 Name of the Farmer देहीदास लीलाबाबाताप Well No. 07

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
(Whether water from other sources brought to this well if yes sources and Hrs of pumping.....)

Total Depth 15.9 m Water level from ground level 14.9 m  
In rainy season ..... m, winter ..... m, summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season..... Acre

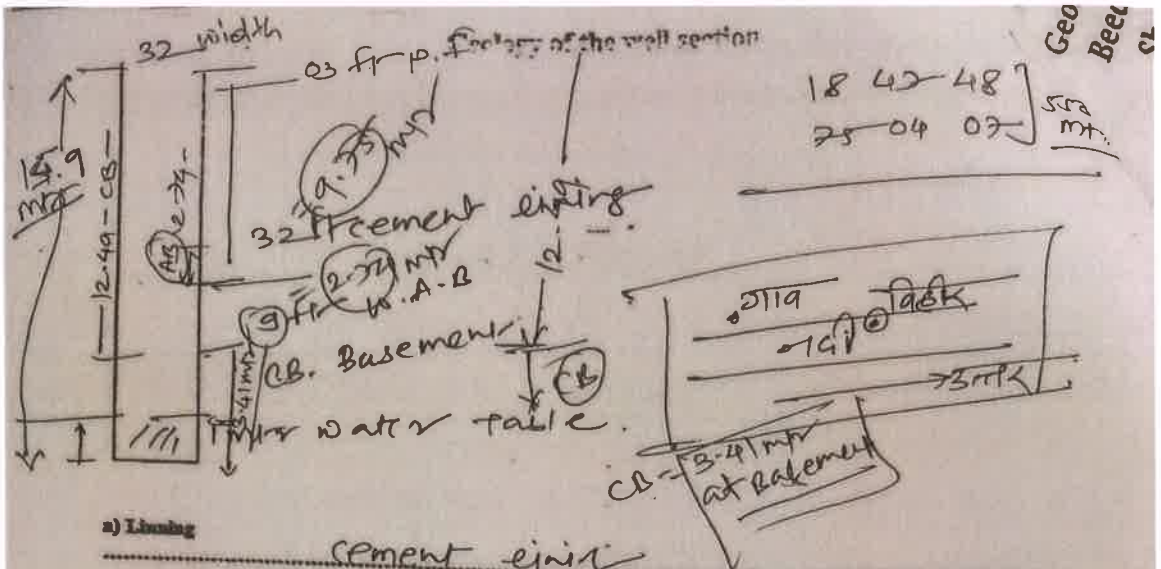
Type of withdrawals/Pump Out :- Electric motor..... Diesel Pump..... HP 05  
Dia of outlet pipe..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... Hrs; winter ..... Hrs; Summer..... Hrs.)

Any other information .....

Prakash D. Patil  
Name of the Surveyor

[Signature]  
Signature



a) Lining

Cement lining

b) Soil - Black / Yellow / Sandy

B-C

c) Existing watershed structure / Proclamation dam in neighboring region.

no dam / structure

d) Effect of existing structures on water table

no structure

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Basement

g) Amygdaloidal Basalt

W.A.B above C.B. Basement

h) Vesicular Basalt

i) Tachylitic basalt

j) Flow contact

W.A.B. & C.B.

k) Dyke rock

l) Any remark about geological formation

W.A.B. horizon is the good for water bearing formation and it allows to percolate downward than C.B. flow to basement

Geohydrogeological mapping of Ashti Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

D1φ

Village 2218

Date - 26/06/2019

Gut No. 65 Name of the Farmer श्री. अशोक शिंदे Well No. ....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12 m, Water level from ground level 14 m

In rainy season ..... m, winter ..... m, summer ..... m.

T8 4256  
 75 0412  
 560 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m. and for vertical borehole.....m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 05

Dia of outlet pipe..... cm. Inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

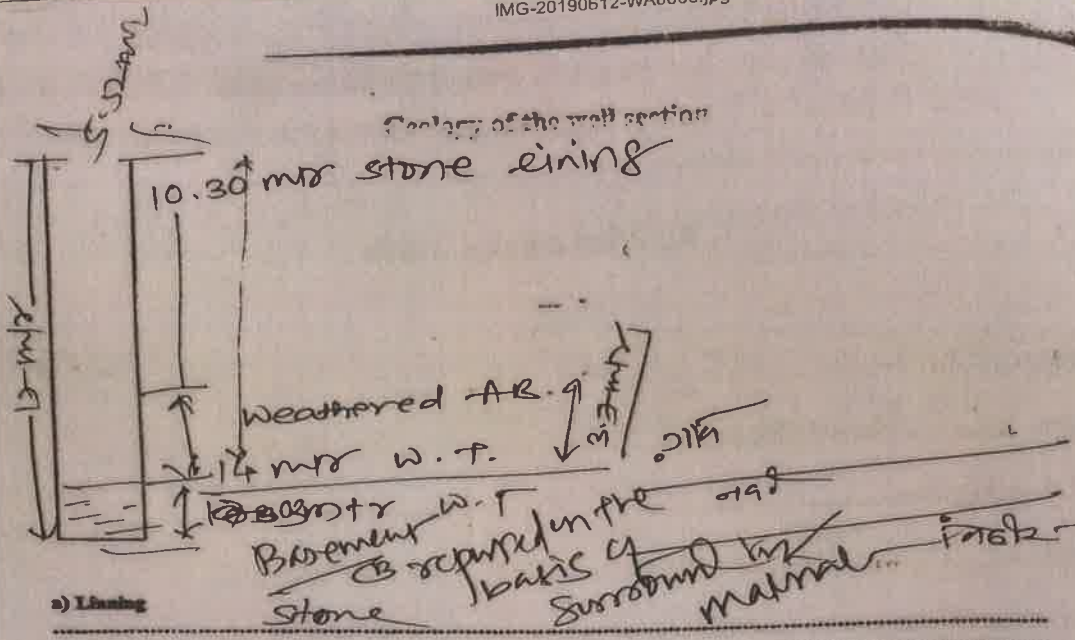
(Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

Amish D. Patil  
 Name of the Surveyor

[Signature]  
 Signature





a) Lining

b) Soil - Black / Yellow / Sandy

B.C. Clayey

c) Existing watershed structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

g) Amygdaloidal Basalt

Weathered A.R.

h) Vesicular Basalt

i) Tachylytic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

Weathered A.R. thick horizon upto 1.4m.

**Geohydrogeological mapping of Ashti Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

D-16

Village Ashti Date - 26/08/2019

Gut No. 2 Name of the Farmer श्रीमती लीला शिंदे Well No. 18  
श्रीमती लीला शिंदे

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year 25 years If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 11.2 Water level from ground level..... m 561  
In rainy season ..... m, winter ..... m, summer ..... m. 18 48 01  
75 04 10

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length..... m. and for vertical borehole..... m. Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season..... Acre

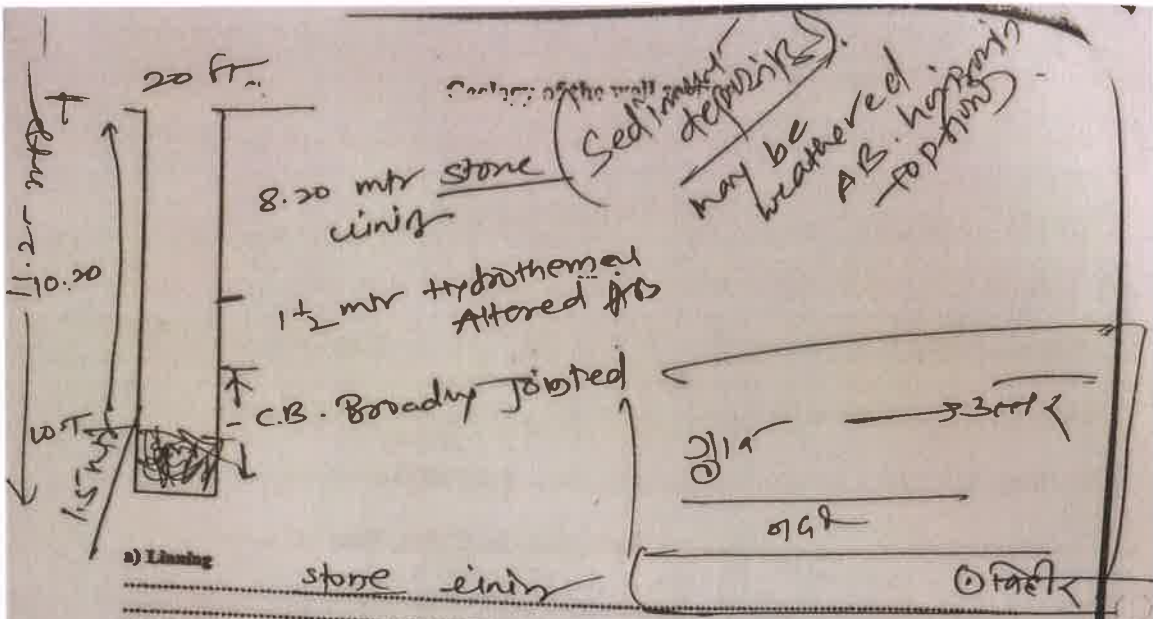
Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP 05  
Dia of outlet pipe..... cm. /inch .....  
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

Mr. Ganesh D. Patil  
Name of the Surveyor

[Signature]  
Signature



- a) Lining stone lining
- b) Soil - Black / Yellow / Sandy Sandy Soil (base)
- c) Existing watersheds structure / Proclamation dam in neighboring region.
- d) Effect of existing structures on water table perched water table zone demarcated in AB zone
- e) Geological / Geographical effect on groundwater. the grad g.w. potential origin being from paleochannels
- f) Compact basalt C.B. - Jointed
- g) Amygdaloidal Basalt Hydrothermal Altered underlain by C.B.
- h) Vesicular Basalt
- i) Tachyitic basalt
- j) Flow contact
- k) Dyke rock
- l) Any remark about geological formation. Hard Compact Basement.



**Geohydrogeological mapping of Beed Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

D-12

Village शिरास

Date - 26/06/19

Gut No. .... Name of the Farmer गणेशजी कापालीस Well No. 12

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed),.....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht.....Shape-Circular/Square, Diameter of well.....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth 12.9 m, Water level from ground level 10.9 m.

In rainy season ..... m, winter ..... m, summer ..... m.

ST 18 48 CB  
WMS 75 04 12

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)

(If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture....., etc.....

Rainy Season ..... Acre

Winter Season ..... Acre

Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP.....

Dia of outlet pipe ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

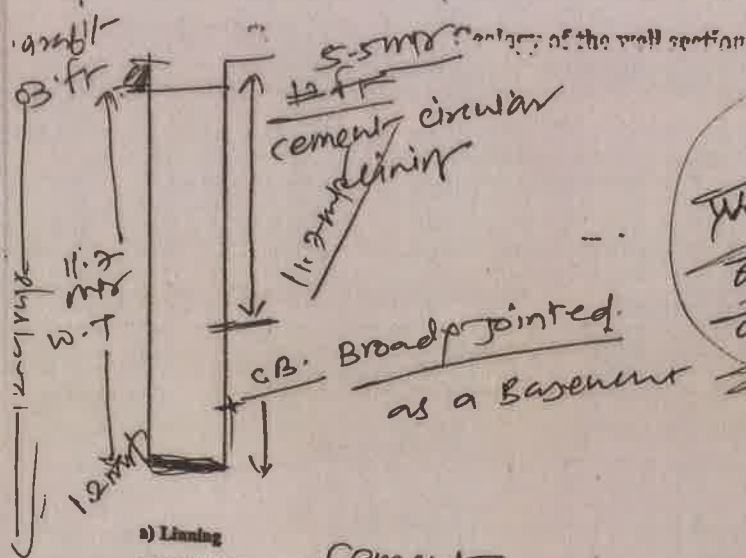
Time require for a full recharge / recuperation :

(Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

Spesh Chaiwad  
Name of the Surveyor

[Signature]  
Signature



a) Lining

Cement

b) Soil - Black / Yellow / Sandy

Black - Sandy

c) Existing watershed structure / Proclamation dam in neighboring region.

Proposed Bund is sanctioned near

d) Effect of existing structures on water table.

this well

e) Geological / Geographical effect on groundwater.

Water present only in rainy season.

f) Compact basalt

Groundwater percolate through fracture and C.B. contact

C.B. Basement

g) Amygdaloidal Basalt

NA

h) Vesicular Basalt

NO

i) Tachylytic basalt

NA

j) Flow contact

NA

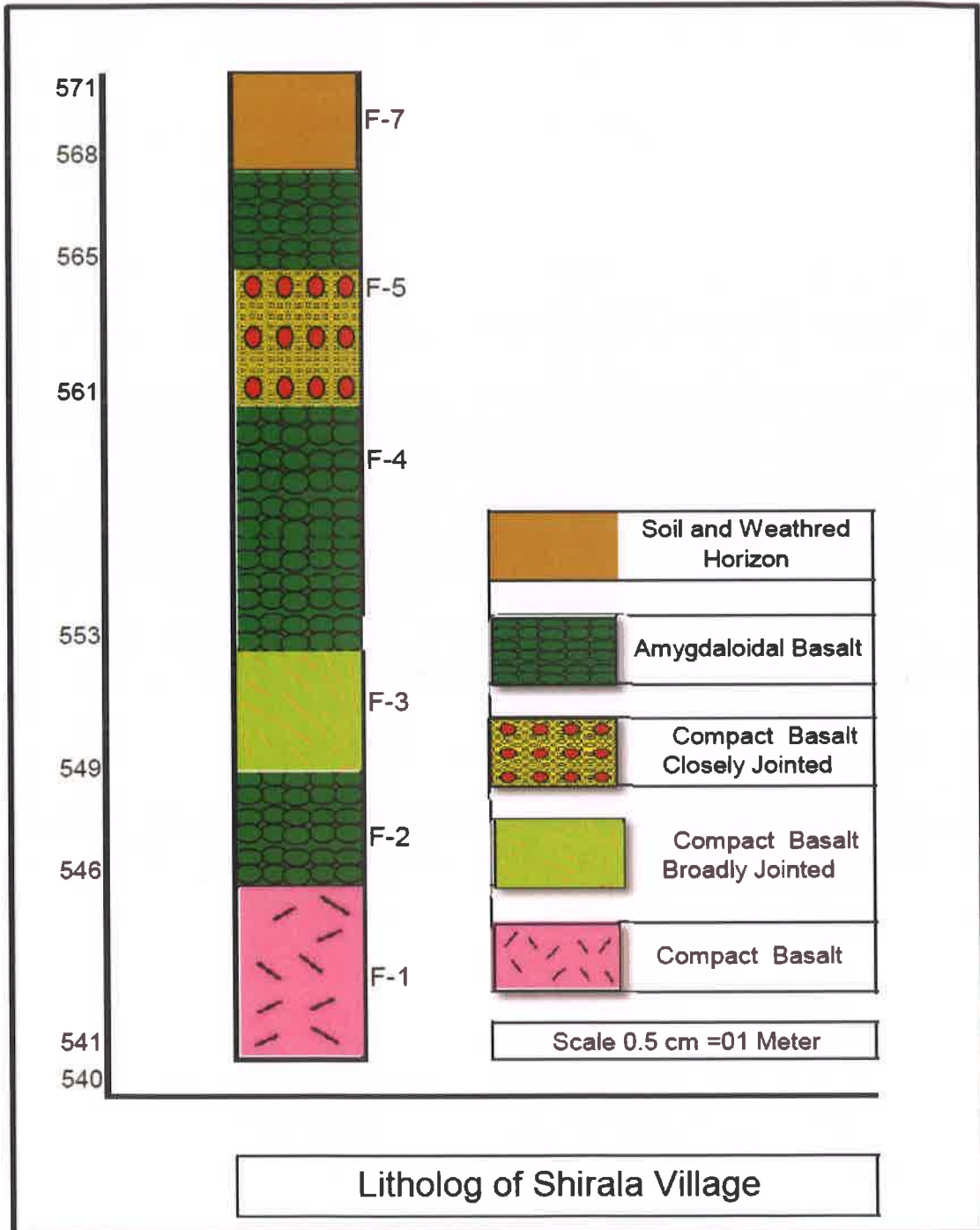
k) Dyke rock

NO

l) Any remark about geological formation

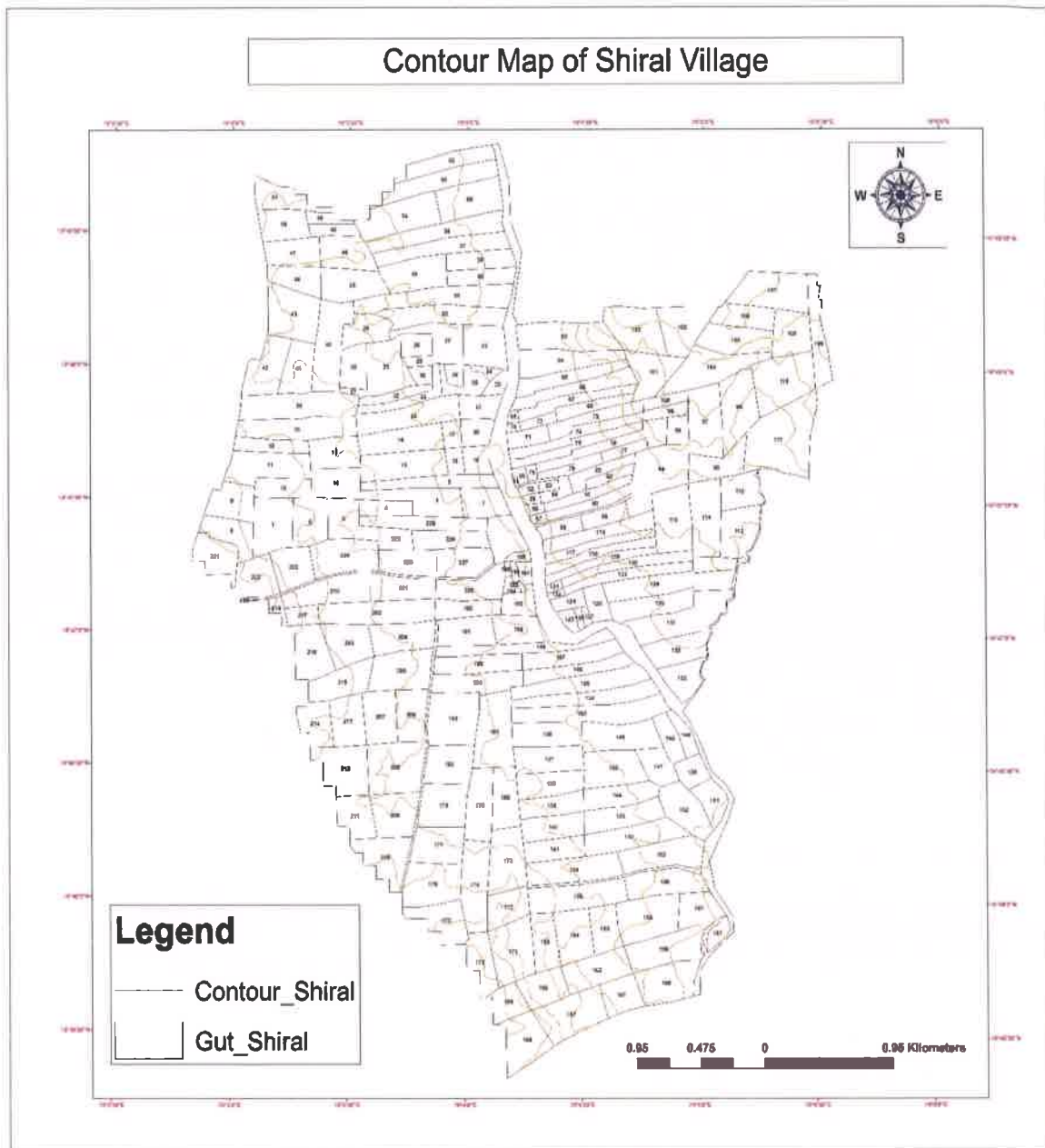
The Hard Basement are found in and around the well.

## Litholog of Shirala Village

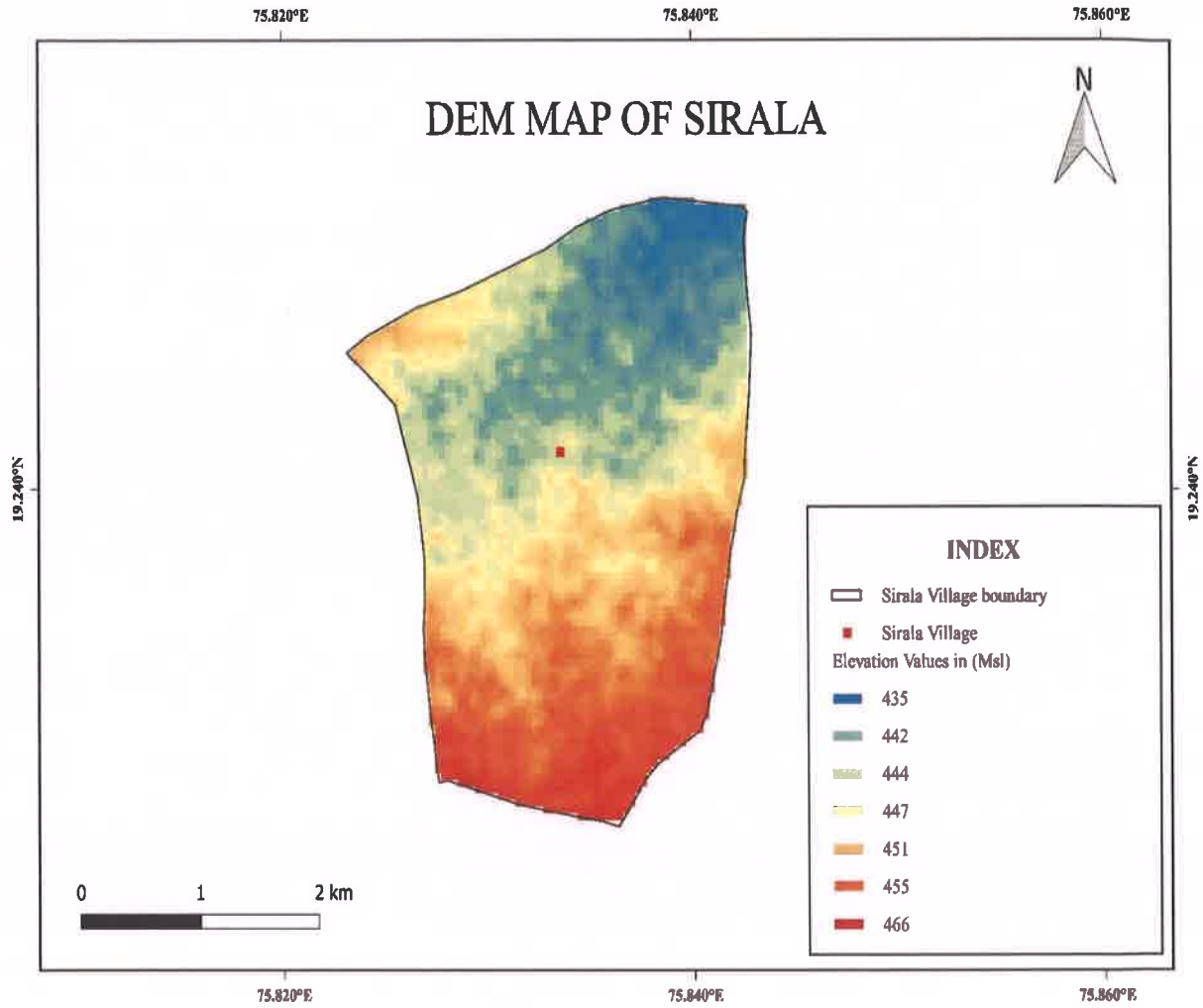




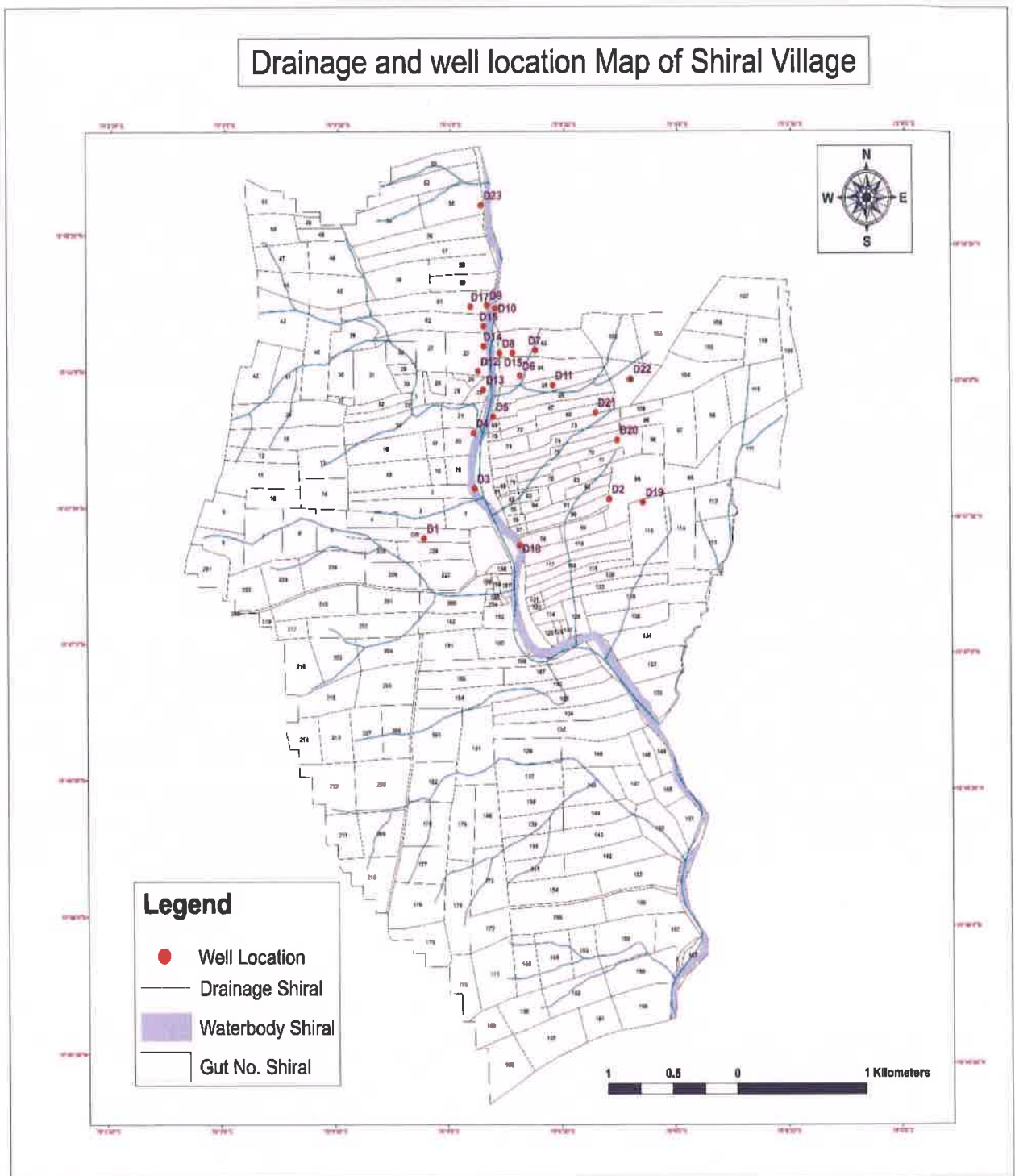
## Contour Map of Shirala Village



# DEM Map of Shirala Village



## Drainage and well location map of Shirala Village





## Field Photos



Unnamed Road, Shiral, Maharashtra 414208, India

Type	Degree	DMS
Latitude	18.7816192	18°46'54" N
Longitude	75.0708722	75°4'15" E

26-Jun-2019, 11:36 am

**Fractured Compact Basalt Flow exposed in dug well**



Shiral, Maharashtra, India

Type	Degree	DMS
Latitude	18.7634052	18°45'48" N
Longitude	75.0832823	75°5'0" E

26-Jun-2019, 12:05 pm





Kada - Mirajgoan Road, Shiral, Maharashtra 414208, India



Type	Degree	DMS
Latitude	18.7861619	18°47'10" N
Longitude	75.0667419	75°4'0" E

26-Jun-2019, 01:18 pm

**Amygdaloidal Basalt Flow exposed in the outcrop**





Waki, Maharashtra, India

Type	Degree	DMS
Latitude	18.7776155	18°46'39" N
Longitude	75.0509681	75°3'3" E

26-Jun-2019, 03:46 pm

**Amygdaloidal Basalt Flow below which Compact Basalt Flow can be seen**



Unnamed Road, Shiral, Maharashtra 414208, India

Type	Degree	DMS
Latitude	18.7825461	18°46'57" N
Longitude	75.0837944	75°5'2" E

26-Jun-2019, 04:31 pm

**Highly Fractured Compact Basalt Flow exposed in the dug well**



*[Signature]*  
**PRINCIPAL**  
Deogiri College  
Aurangabad.

## **Surudi Village**

Surudi is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 79 KM towards west from District headquarters Beed. 280 KM from State capital Mumbai. Surdi is surrounded by Jamkhed Taluka towards South, Pathardi Taluka towards North, Patoda Taluka towards East, Karjat Taluka towards South.



## Details of the Survey

### **Geohydrological Mapping & Site Selection for Artificial Recharge of Water in Watershed Development Programme, Undertaken By NAAM Foundation, Mumbai and CGVS Sansta, Aurangabad**

**1. Village Name** : Surudi, Ta- Aashti , Dist-Beed

**2. Date of Survey:** 12/06/2019

**3. Name of Geologist and Hydrogeologist for Survey in the field:**

- c. Ganesh Gaikwad
- d. Dr. Pramod Pathrikar

**4. Name of the Members for assist to survey in the field:**

- c. Shri Khillare
- d. Dr. Tarate

**5. NAAM Pratinidhi:** Shri Rajebhau Shelake

**6. Local villagers/ Farmer:**

- a. Gahininath Saruk
- b. Pandurang Garaje

**7. Total No of Well surveyed:**

07 dugwells in the field + 14 dugwells through Satellite imagery Survey  
= Total 21 dugwells

**8. Total map prepared:**

- a. Contour map of Village
- b. Drainage map of Village
- c. Dem map of Village
- d. Litholog of Village
- e. Geology map of Village

**9. Recommendation and Conclusion:**

a. For Artificial Recharge suitable/ Unsuitable:-----

b. Structure for watershed development programme:-----

## उत्पत्ति

हे गाव उत्तमवस्ती - विस लामचे गाव असून. उत्तरी  
पर्वतमाथे उत्तरी उत्पत्तीस निगाळता गाव आहे.  
गावाच्या दक्षिण भागात गाव देवळा असून. पूर्वे उत्तरी  
पर्वतमाथे गाव देवळा असून. उत्तरी उत्पत्तीस आहे.  
~~पर्वतमाथे गाव देवळा असून.~~  
गाव उत्तरी भागात उत्तरी उत्पत्तीस (गिरिकान्ठे Hills)  
पर्वतमाथे उत्तरी आहे. विलेनी उत्तरी उत्पत्तीस  
होगा पर्वत उत्तरी पर्वत उत्तरी आहे.

### - निष्कर्ष

- गावाच्या उत्तरी भागात उत्तरी उत्पत्तीस उत्तरी  
पर्वतमाथे उत्तरी पर्वतमाथे उत्तरी उत्पत्तीस  
उत्तरी आहे.
- गावाच्या दक्षिण भागात उत्तरी उत्पत्तीस  
उत्तरी आहे. उत्तरी उत्पत्तीस उत्तरी पर्वतमाथे  
पर्वतमाथे Recharge उत्तरी उत्तरी पर्वतमाथे  
व उत्तरी उत्तरी उत्तरी पर्वतमाथे.
- उत्तरी उत्तरी deeper Aquifer व उत्तरी  
उत्तरी. पर्वत shallow Aquifer recharge  
उत्तरी उत्तरी व उत्तरी str. किंवा Artificial  
Recharge str. उत्तरी आहे.

Google Earth image of Surudi Village





# Dug-well Inventory

Geohydrogeological mapping of <sup>DEVA</sup> ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

## Well Inventory Form



Village Surudi (सुरडी गाव देवा) Date -  
पुणेचा शहर  
गावाजवळ  
 Gut No. .... Name of the Farmer ..... Well No.....

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year..... If yes type.....

Parapet Ht.....Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumpup)

Total Depth ..... Water level from ground level.....m.  
 In rainy season .....m, winter ..... summer .....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length.....m and for vertical borehole .....m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor.....Diesel Pump.....HP.....  
 Dia of outlet pipe.....cm. /inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

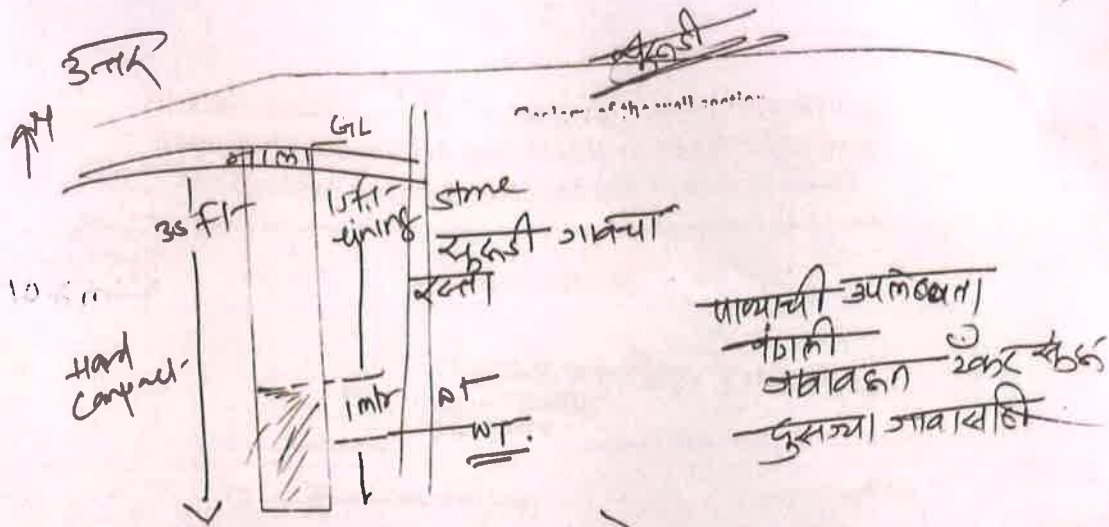
Time require for a full recharge / recuperation :  
 (Rainy season .....Hrs, winter ..... Hrs: Summer.....Hrs.)

Any other information .....

GD S  
 Name of the Surveyor

[Signature]  
 Signature

584 m  
18 59 4.2  
75 14 24.6



a) Lining

Stone (loose)

b) Soil - Black / Yellow / Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Hard Compact Basalt

g) Amygdaloidal Basalt

b) Vesicular Basalt

d) Tachylitic basalt

f) Flow contact

k) Dyke rock

Q Any remark about geological formation

Upper horizon is demarcated with some vesicular patches  
Compact basalt overlain by weathered basalt zone

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village सुकडी Date - 12/08/2019  
 Gut No. .... Name of the Farmer ठाहीनिनाथ दशरथसाहूक Well No. ....  
सुकडी गावच्या 3 नं. - पुढे नदीप शागात  
 In Village Location ..... Uter... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year..... If yes type.....

Parapet Ht..... Shape-Cicular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....

Total Depth ..... Water level from ground level..... m.  
 In rainy season ..... m, winter ..... summer..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump.....HP.....  
 Dia of outlet pipe..... cm, inch .....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs, winter ..... Hrs; Summer ..... Hrs.)

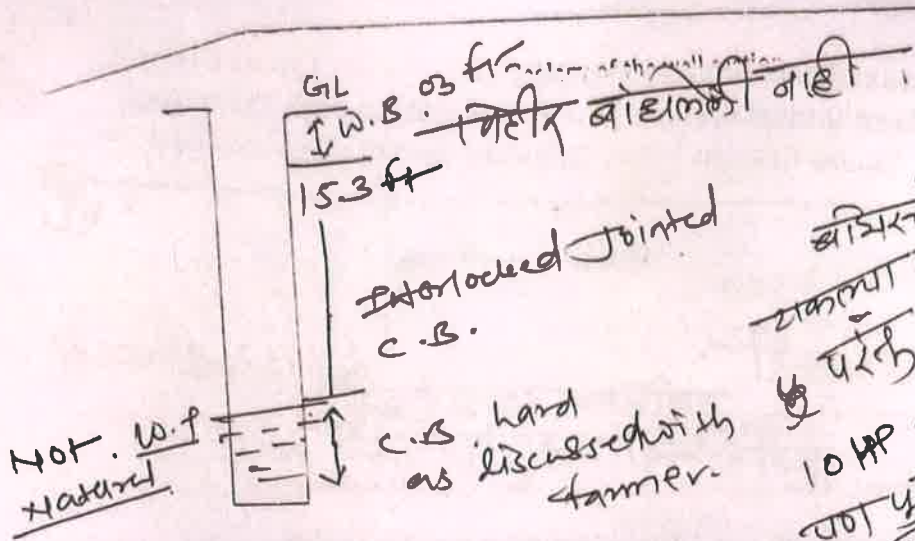
Any other information .....

GDM  
 Name of the Surveyor

[Signature]  
 Signature

594  
 18 59 24:3  
 75-14 53.9





0.3 ft  
 G.L.  
 W.B.  
 15.3 ft  
 Interlocked Jointed  
 C.B.  
 NOT. W.P. Material  
 C.B. hand as discussed with farmer.

बाकिरचे पाणी  
 टाकण्या जाते.  
 परंतु पावसाळ्यात  
 10 HP चा मोटरने  
 पाण्याची पाणी  
 झुपडी होत नाही.

प्रकृशा कधीच  
 काढले तर नक्की  
 काय होई.

a) Lining

b) Soil - Black / Yellow / Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

f) Compact basalt  
 Basement Impact

g) Amygdaloidal Basalt

h) Vesicular Basalt

i) Tachylitic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

**Geohydrogeological mapping of ..... Tahsil District  
Beed undertaken by NAAM Foundation and Chatrapati  
Shahu Gramin Vikas Shikshan Sanstha Aurangabad**

59

**Well Inventory Form**

Village ..... शुद्धी (शुद्धी) ताताळी युवरी ..... Date - .....

Gut No. .... Name of the Farmer ..... Well No. ....

In Village Location ..... User... Personal/Community/.....

Location of the well....., (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year....., If yes type.....

Parapet Ht.....Shape-Circular/Square, Diameter of well.....  
*(Whether water from other sources brought to this well if yes source and Hrs of pumping ..)*

Total Depth ..... Water level from ground level..... m.  
In rainy season ..... m, winter ..... summer ..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
*(If the Horizontal bore is taken in ... Direction, Length... m. and for vertical borehole ... m, Location at the bottom)*

Use :- Drinking ...., Irrigation..... Acres, Horticulture....., etc.....  
Rainy Season ..... Acre  
Winter Season ..... Acre  
Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... HP.....

Dia of outlet pipe ..... cm. /inch .....

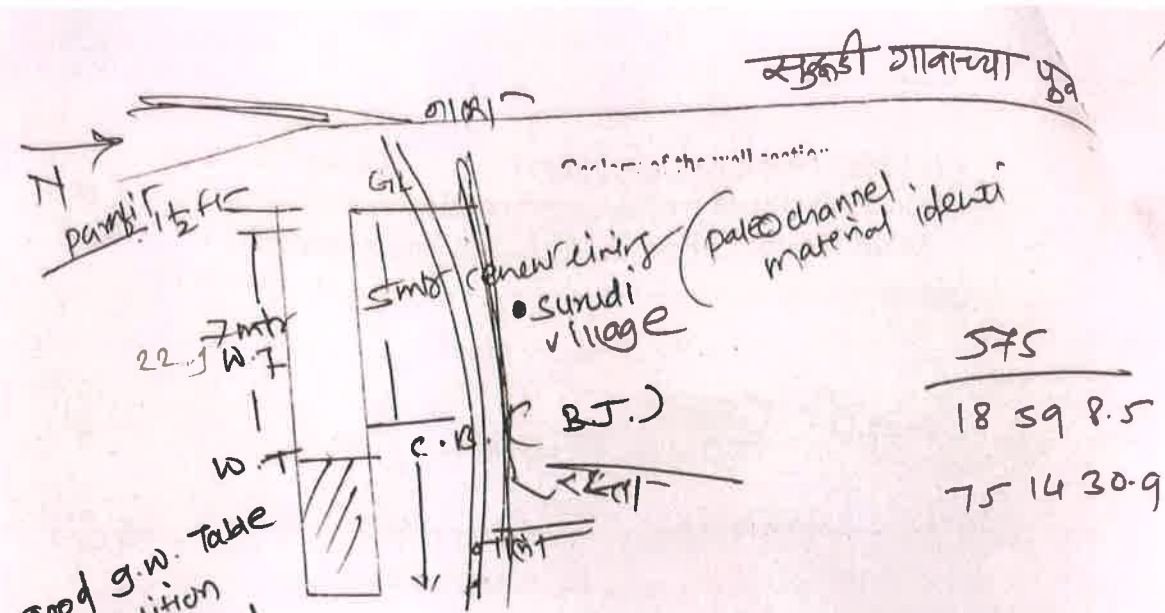
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
(Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

Any other information .....

ADG  
Name of the Surveyor

[Signature]  
Signature



Good g.w. Table  
condition  
Tanker filled  
from  
well.

575  
-----  
18 59 8.5  
75 14 30.9

a) Lining

Cement

b) Soil - Black / Yellow / Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

d) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

f) Compact basalt

Brachy crystalline Compact basalt

g) Amygdaloidal Basalt

h) Vesicular Basalt

i) Tachylitic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.



Geohydrogeological mapping of Ashti Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad



Well Inventory Form

Village Surudi पांडुरंग गळे Date - 12/06/2019

Gut No. .... Name of the Farmer ..... Well No. ....

In Village Location ..... User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

594

Year of the Digging ..... Construction year..... If yes type.....

Parapet Ht.....Shape-Circular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....

18 59 23.2  
75 14 54.3

Total Depth ..... Water level from ground level.....m.  
 In rainy season ..... m, winter ..... summer..... m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction ..... )  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump.....HP.....

Dia of outlet pipe..... cm. /inch .....

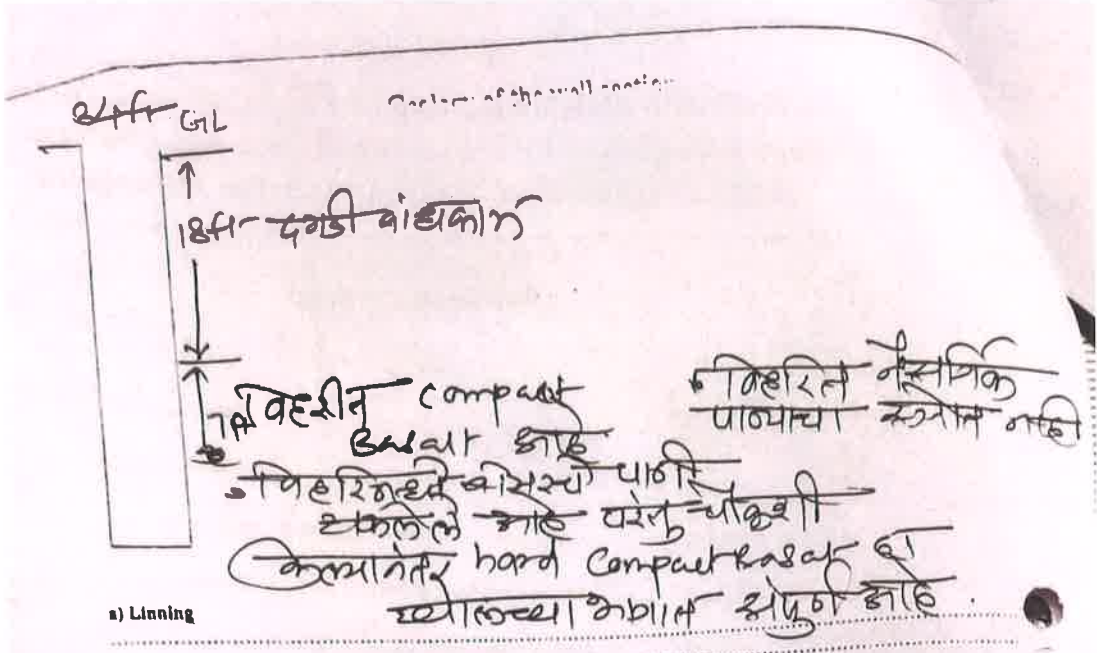
Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer..... Hrs.)

Any other information .....

ADK  
 Name of the Surveyor

[Signature]  
 Signature



- a) Lining
- b) Soil - Black / Yellow / Sandy
- c) Existing watersheds structure/ Proclamation dam in neighboring region.
- d) Effect of existing structures on water table
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt
- g) Amygdaloidal Basalt
- h) Vesicular Basalt
- i) Tachylytic basalt
- j) Flow contact
- k) Dyke rock
- l) Any remark about geological formation.

Geohydrogeological mapping of ASHI... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

(11)

Well Inventory Form

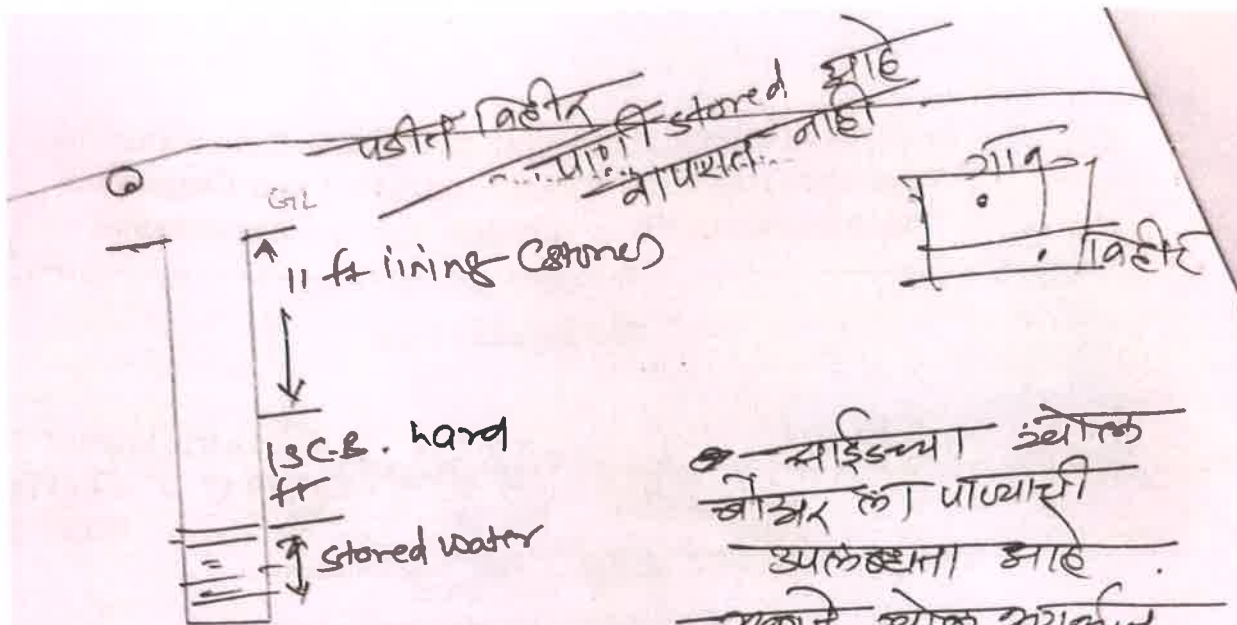
Village Surudi Date - 12/06/2019  
 Gut No. पाटुरंग 12 Name of the Farmer श्री. मंगेश शेतकरी Well No. विहीर क्र. 13  
पतीले विहीर  
 In Village Location पाटुरंग User... Personal/Community/.....  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging ..... Construction year....., If yes type.....  
 Parapet Ht..... Shape-Circular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping .....)  
 Total Depth ..... Water level from ground level.....m.  
 In rainy season ..... m, winter ..... summer..... m  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction ..... )  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom)  
 Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump..... HP.....  
 Dia of outlet pipe.....cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer..... Hrs.)  
 Any other information .....

594  
 18 59 24  
 75 14 51

G.D.H.  
 Name of the Surveyor

[Signature]  
 Signature





~~सड़िया खोल~~  
~~कोर ल पावारी~~  
~~अलब्धता है~~  
~~एकजे खोल भूगर्भ~~  
~~अनुही पाणी सहा~~  
~~इपलब्ध है~~

a) Lining Cement

b) Soil - Black / Yellow / Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region.

e) Effect of existing structures on watertable.

e) Geological / Geographical effect on groundwater.

f) Compact basalt Hard Compact Basalt

g) Amygdaloidal Basalt

h) Vesicular Basalt

i) Tachylytic basalt

j) Flow contact

k) Dyke rock

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District  
 Beed undertaken by NAAM Foundation and Chatrapati  
 Shahu Gramin Vikas Shikshan Sanstha Aurangabad

(12)

Well Inventory Form

Handwritten: तात्या राजेंद्र  
 गावठाण नं. ०२  
 Date - 12/06/2019

Village अहोरा  
 Gut No. .... Name of the Farmer तात्या राजेंद्र Well No. ....

In Village Location ..... User... Personal/Community/.....  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year..... If yes type.....

Parapet Ht..... Shape-Circular/Square, Diameter of well.....  
 (Whether water from other sources brought to this well if yes source and Hrs of pumping)

Total Depth ..... Water level from ground level.....m.  
 In rainy season .....m, winter ..... summer.....m.

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump.....HP.....  
 Dia of outlet pipe.....cm. /inch.....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

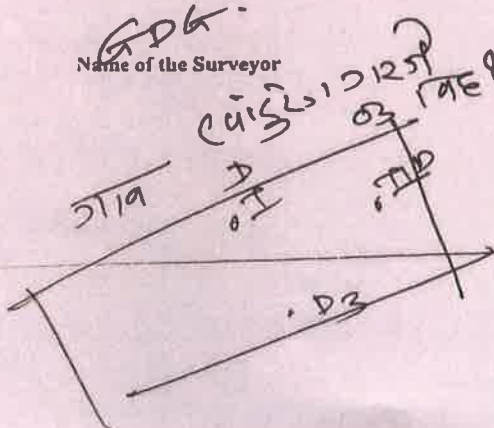
Any other information .....

592
185820.3
751452.2

Handwritten: 603  
 185920.9  
 751452.6

Name of the Surveyor GDG  
राजेंद्र तात्या  
गावठाण नं. ०२

Signature  
तात्या राजेंद्र  
गावठाण नं. ०२  
अहोरा





सूखी  
 पतुली... जुरनी... मांची दुयरी  
 विहारिया पाणरि नदी  
 परंतु माईडवा बोडरला  
 पाणी आहे.  
 खोल सुकानि अजुगही  
 पाणी सहा उपलब्ध आहे  
 जवळील बोडर वहा टेंकर  
 अरव्या- जीतात. सुकाने-पंजाब  
 कान्हा सीरा. खाली उपलब्ध  
 खोखोर. डाह  
 परव्या- कान्हा बंधार बाडाल तर  
 फायदा नक्की  
 होईल.

b) Soil - Black / Yellow / Sandy

c) Existing watersheds structure/ Proclamation dam in neighboring region

d) Effect of existing structures on water table.

e) Geological / Geographical effect on groundwater.

Compact basalt  
 Hard Compact Basement of Compact

a) Amygdaloidal Basalt

b) Vesicular Basalt

c) Tachylytic basalt

d) Flow contact

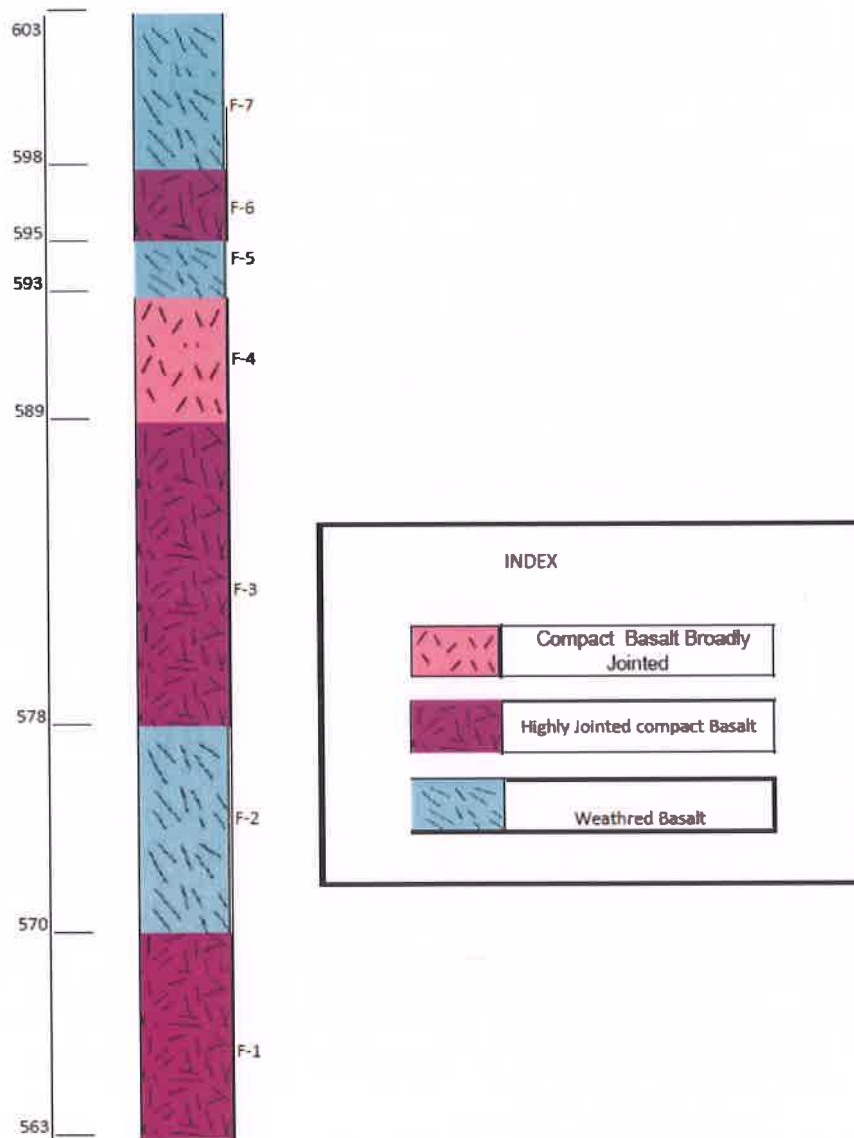
e) Dyke rock

f) Any remark about geological formation.

The upper horizon is weathered but  
 Basement of the igneous is Compact  
 hard rock.

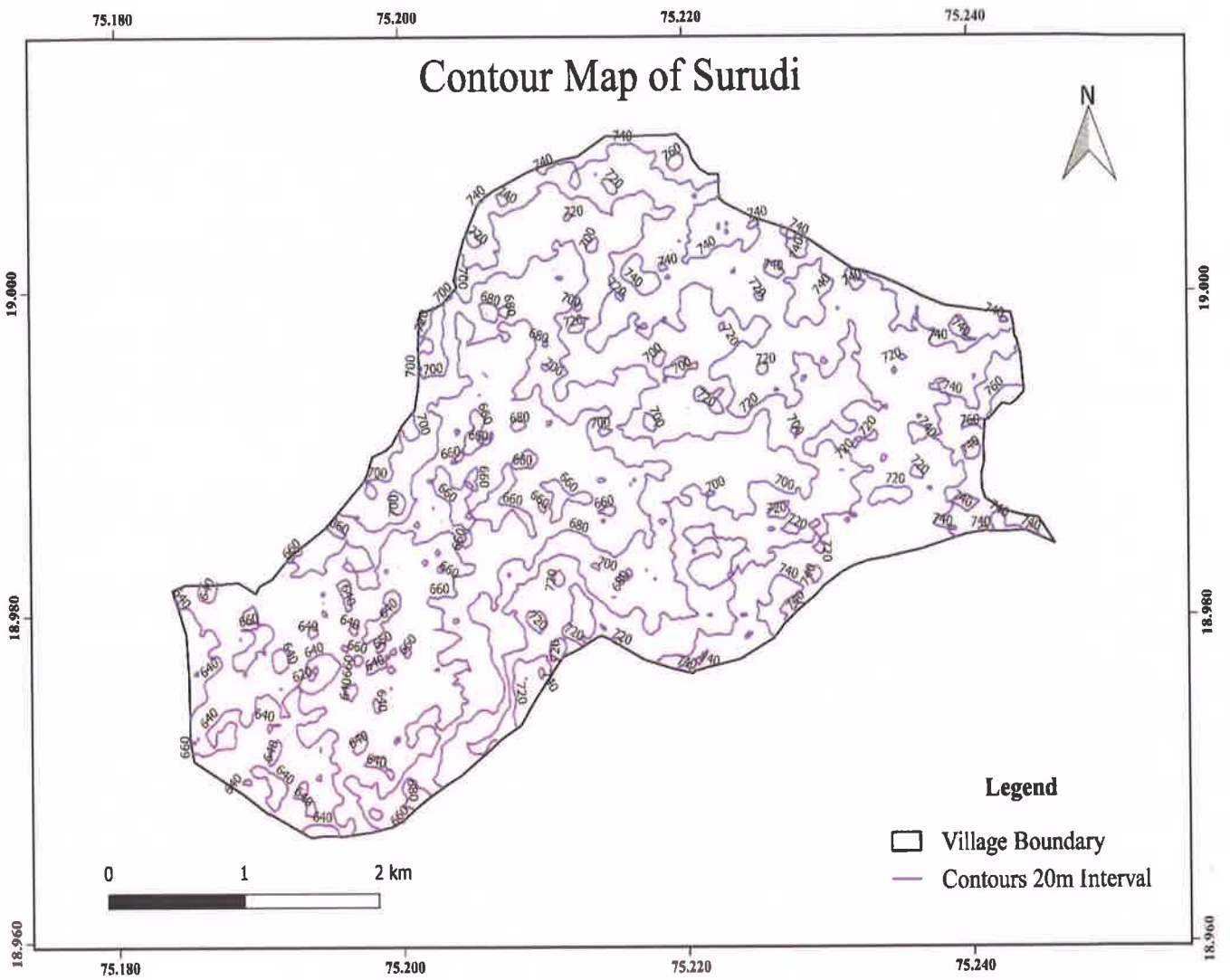


## Litholog of Surdi Village

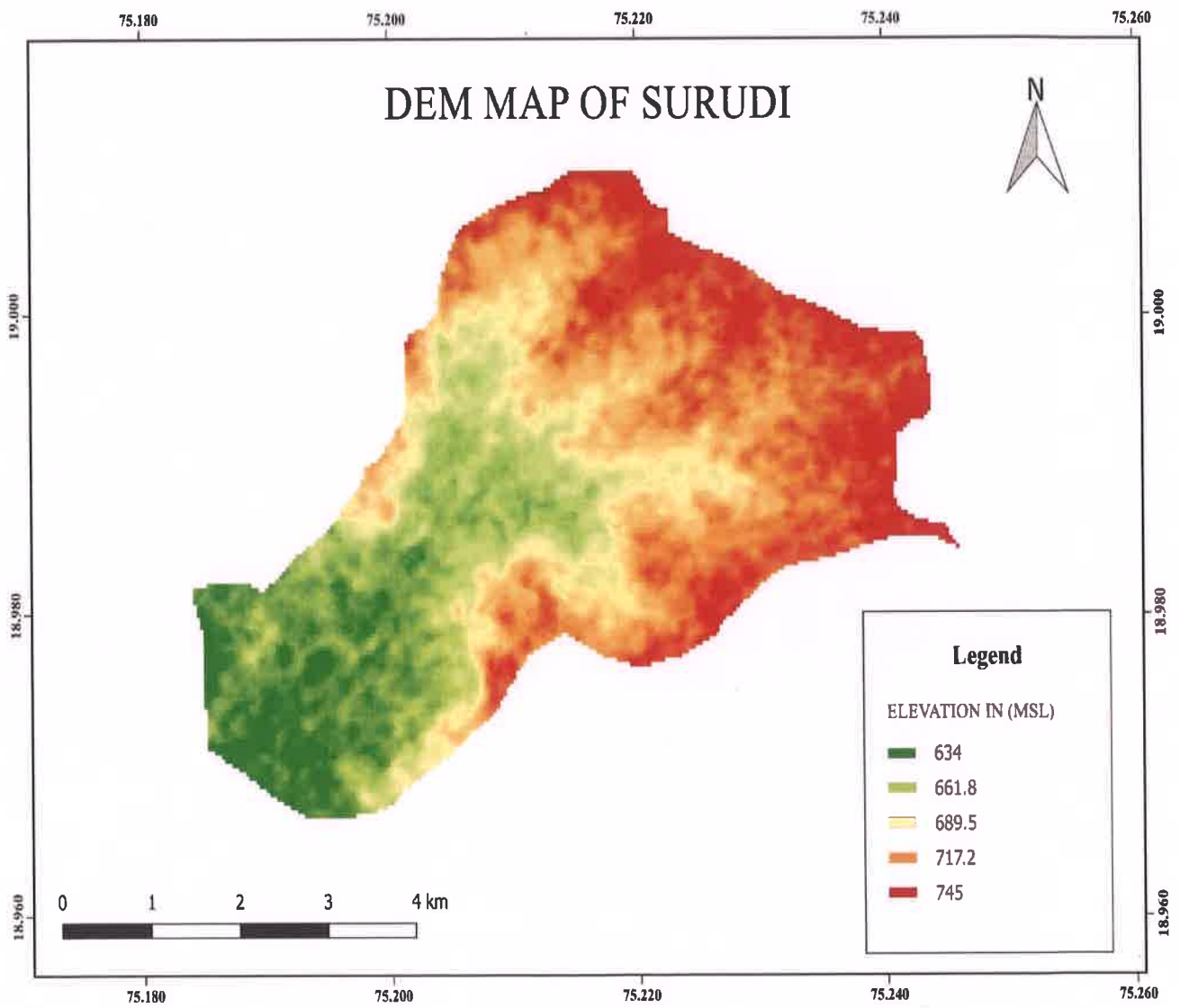


Litholog of Surudi Village

# Contour Map of Surudi



# DEM Map of Surudi Village





**Field Photos**



**Weathered basalt exposed in dug well below the stone lining**



Photographs showing watersheds management at Surudi Village.

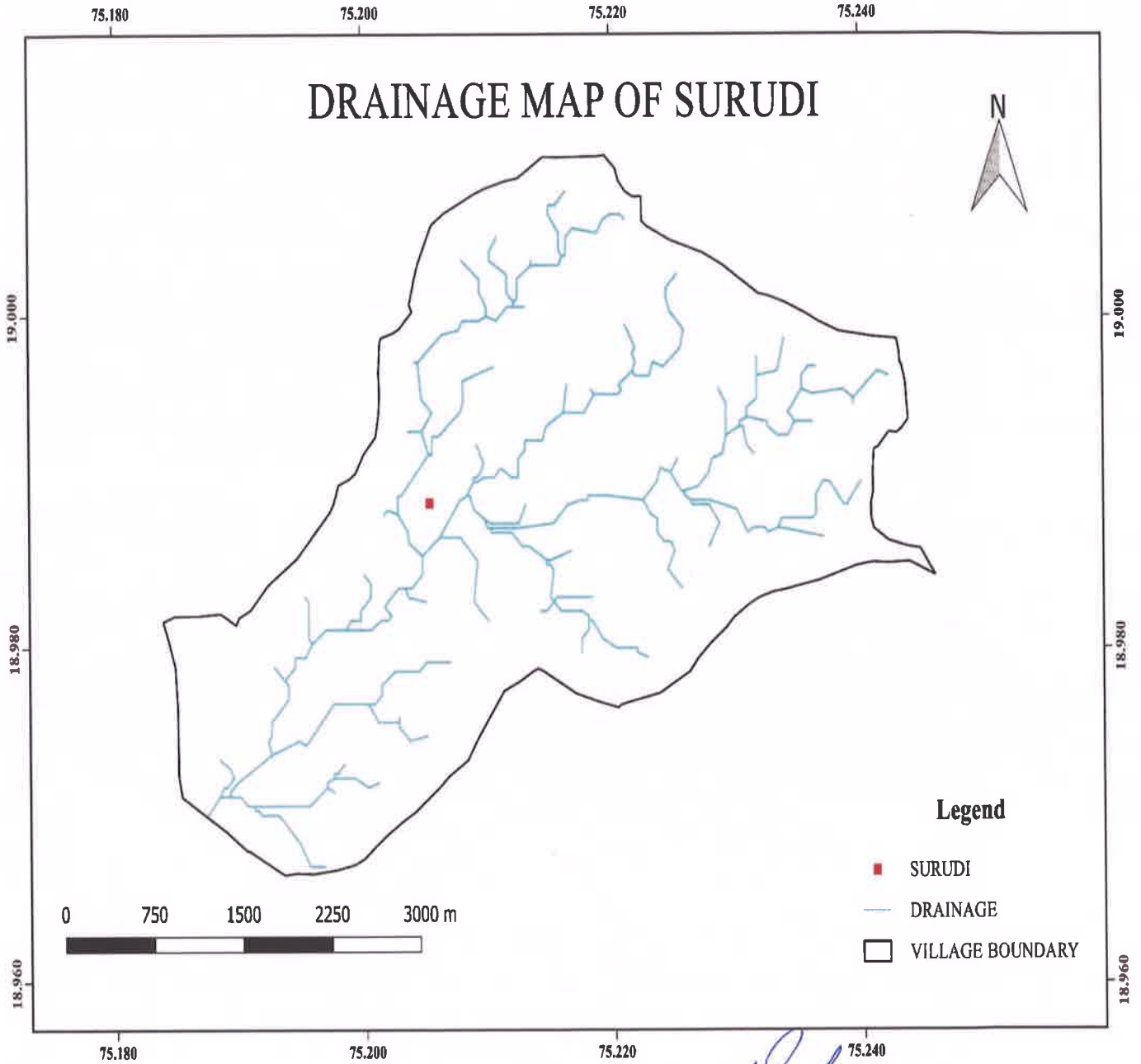




Photographs showing increase in water level at Surudi village due to watersheds management work.



# Drainage Map of Surudi Village

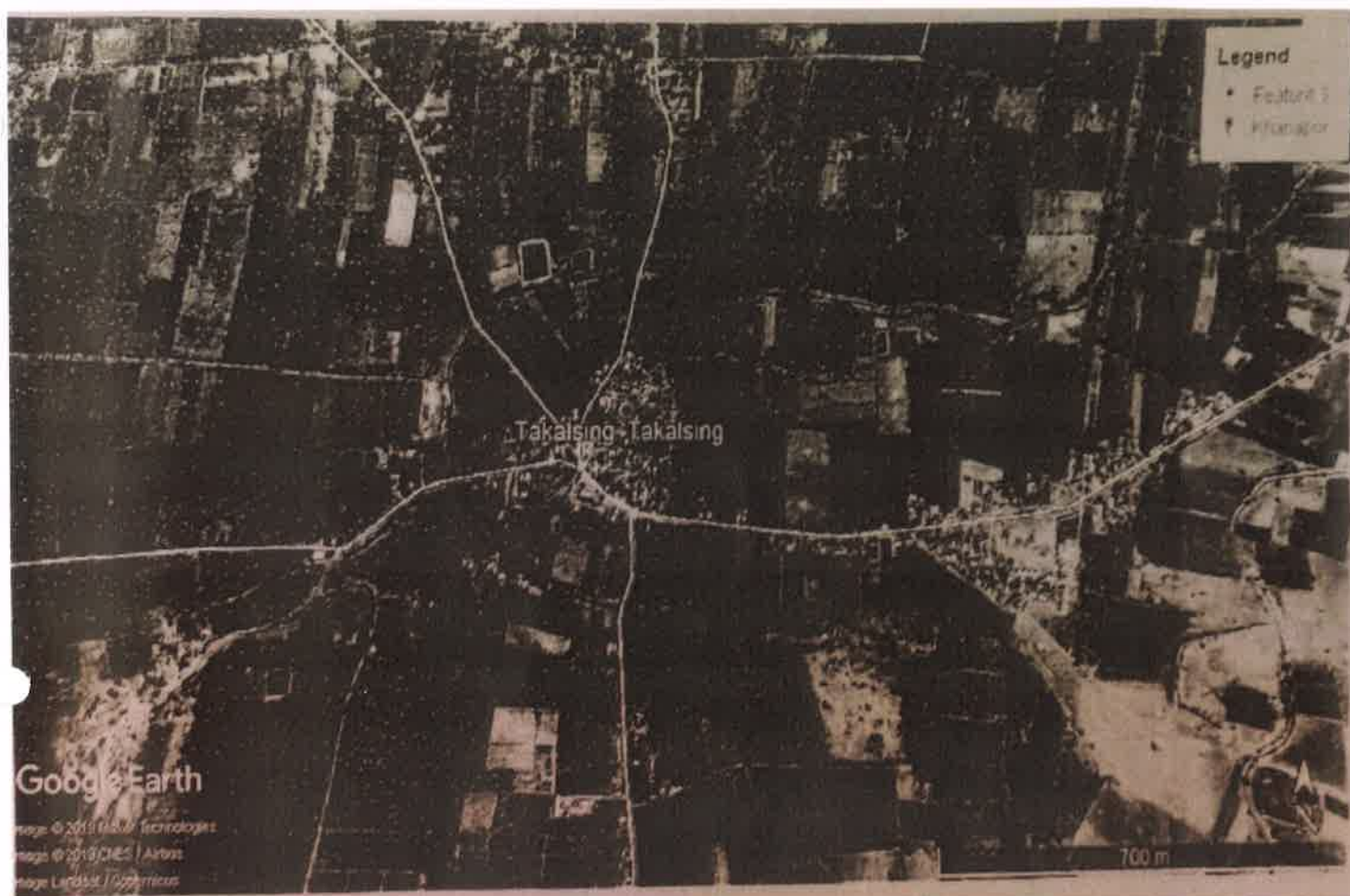


*[Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**

## **Takalsing Village**

Takalsing is a Village in Ashti Taluka in Beed District of Maharashtra State, India. It belongs to Marathwada region. It belongs to Aurangabad Division. It is located 85 KM towards west from District headquarters Beed. 16 KM from Ashti. 280 KM from State capital Mumbai. Walunj (5 KM), Balewadi (6 KM), Shiral (8 KM), Dhirdi (9 KM), Pimpri (ashti) (9 KM) are the nearby Villages to Takalsing. Takalsing is surrounded by Jamkhed Taluka towards East, Karjat Taluka towards South, Patoda Taluka towards East, Karmala Taluka towards South.

**Google Earth image of Takalsing Village**





Dug-Well Inventory

गावाचे नाव : ताळबशींग

ता: शाही  
 सि. विड

दुब्या पासत तळव: ०२  
 दुब्या विधी १५  
 गावीत तळव: ५७५ मी  
 जमीन मी: ५५१

ताळबशींग वा गावामध्ये लहान दोन पायल तळव असून  
 त्यांपैकी कोणी जमनात तळवाची बाळकेले असून त्यांची दुरुस्ती  
 ● व कोळीकर करण आवश्यक आहे. जर या दोन तळवांचे  
 कोळीकर केले तर, या तळवांच्या आकळा बाजूला विधीची  
 पाण्याची पातळी वाढू शकते.

ताळबशींगी वा गावाच्या परिसर  
 मधील दक्षिण वा वायव्य दोन नाले आहेत या बाब्यावर  
 वेदान्याची आवश्यकता आहे.

● गावाच्या पूर्वेला दोन पायल  
 तळव आहेत आणि त्यांची  
 बाळ केलेले आवश्यक आहे.  
 → जर तळवाची कोळीकर  
 करत आणि पायलला विधीची  
 पाण्याची पातळी वाढेल.

गांव :- एकलेश्वर  
 तालुका :- अकोटा  
 जिल्हा :- बिड  
 एम्बेड विहिरी :- 15  
 एकूण पाऊस नकार :- 02  
 अंशकित जमीन उंची :- 575 मी  
 कमिल काम उंची :- 551 मी

Right place of compact & long basalt  
 exposure in the study area. in which flow  
 is of compact basalt which is broadly  
 jointed ~~at top~~ ~~at top~~ in middle  
 part and bottom part. each  
 flow is covered at its top part  
 which affect on the surface of top  
 downward penetration of water  
~~downward~~ ~~downward~~ ~~downward~~  
 hence there is simulation for penetration  
 in groundwater due to unjointed compact  
 basalt. flow no. 1, 3 & 4 are  
 porous, permeable & jointed, so  
 there is change in permeability  
 layer can be constructed with  
 materials.

Page Number: TAXALSHING

Geohydrological mapping

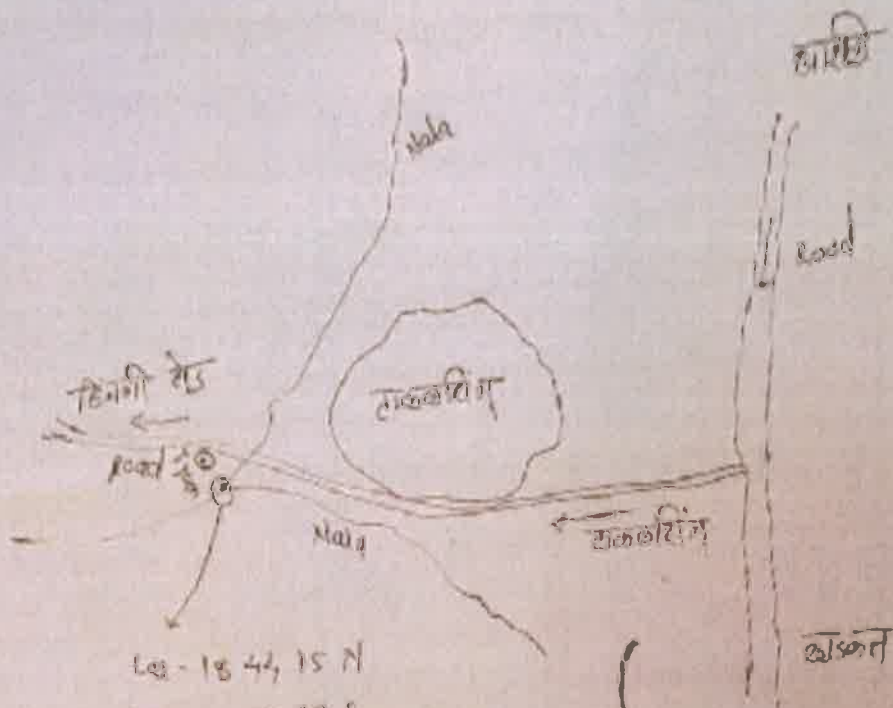
WELL Inventory  
20/07/19

TOTAL WELL: 15

TALUKA: ASHTI

DIST: BEED

TOTAL DAM-2



Lat - 18 44 15 N

Long 75 06 29 E

Elevation 554 M



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ताळोळशिर्डी Date - 20/07/2019

Gut No. 855 Name of the Farmer मोहम्मद अशफाक मेहे Well No. 1

In Village Location वडा नं ४३ उजवे User... Personal/Community/.....

Location of the well, in..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1990, Construction year 1990, If yes type stone lining

Parapet Ht. 1.0 Shape-Circular/Square, Diameter of well 9.....  
 (Whether water from other sources brought in this well if yes source and Hrs of pumping.....) Lat 18 44 5 N

Total Depth 12..... Water level from ground level 2.5..... m. Long 75 06 29 E  
 in rainy season 13.00 m. winter 6..... summer 10.5..... m. elevation - 554

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the horizontal bore is taken in ..... Direction, Length..... m. and for vertical bore hole..... m. Location at the bottom.....)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture.....; etc.....

Rainy Season ..... Acre  
 Winter Season 2.5 Acre  
 Summer Season 0.5 Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....

Dia of outlet pipe..... 2..... cm. inch.....

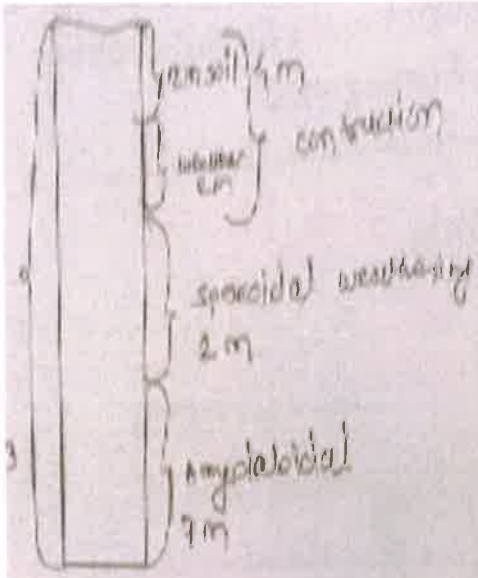
Quantity of withdrawals :- Daily ..... 1..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 Rainy season 4..... Hrs; winter 1.5..... Hrs; Summer ..... 0.5..... Hrs.)

Any other information .....

Name of the Surveyor S. D. Jadhav

Signature Shiradi



- a) Lining: lime and concrete
- b) Soil - Black / Yellow / Sandy: Black soil is present 8m
- c) Existing waterbody structure / Proclamation dam in neighboring region: Local aquifer at 50m. Nala is present
- d) Effect of existing structures on water table: water penetration from intake
- e) Geological / Geographical effect on groundwater:
- f) Compact basalt: compact basalt is present at bottom
- g) Amygdaloidal Basalt: amygdaloidal is present at 5m
- h) Vesicular Basalt: absent
- i) Tachylytic basalt: absent
- j) Flow contact: absent flow contact at 2m, between impact and amygdaloidal
- k) Dyke rock: no
- l) Any remark about geological formation:

**Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village ..... चिखोडी ..... Date - 20/7/2017

Gut No. 695 Name of the Farmer बापू भाई Well No. 02

In Village Location ... well ... to village ..... User... Personal/Community/.....

Location of the well. in TRR, (Farmland, Bank of Nala, In the Nala, Riverbed)... dam

Year of the Digging 2014, Construction year... 2014... If yes type... cement concrete

Parapet Ht. 1.5 Shape-Circular/Square, Diameter of well..... Lat 18 48 57 N  
(Whether water from other sources brought to this well if yes source and Hrs of pumping ..... Long 75 06 15 E

Total Depth 22, Water level from ground level... 7 m.  
 In rainy season 19 m. winter 19 m. summer 5 m. Ele 552 m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(if the Horizontal bore is taken in ..... Direction, Length ..... m and for vertical borehole, ..... w. Location at the bottom)

Use :- Drinking .... Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season 0.5 Acre  
 Winter Season 0 Acre  
 Summer Season 0.5 Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 7 HP.....  
 Dia of outlet pipe..... 3 ..... cm. / inch .....  
 Quantity of withdrawals :- Daily ..... 0 ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season 0 Hrs; winter 12 Hrs; Summer 0 Hrs.)

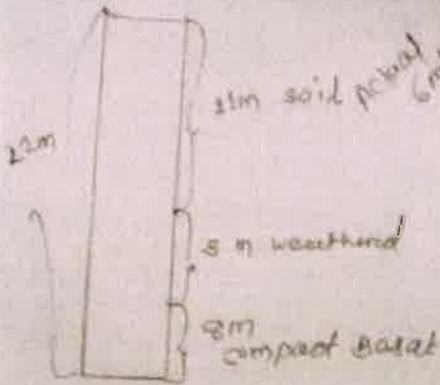
Any other information .....

Name of the Surveyor  
S. M. Pursh

S. M. Pursh  
 Signature

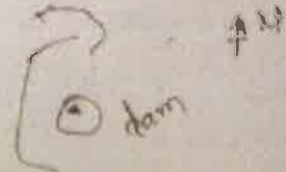


Geology of the well section



Actual  
Emulsion  
of  
sub-weathered  
Basalt

पारस मरुत  
योजना के अंतर्गत



- a) Lining concretely lining
- b) Soil - Black / Yellow Sand Black sand
- c) Existing subsurface structure / Penetration dam in neighboring region  
is in the dam This well
- d) Effect of existing structures on water table  
Contact B.E.T. water percolate from weather and compact
- e) Geological / Geographical effect on groundwater
- f) Compact basalt compact is at base
- g) Amygdales Basalt Amygdales is mid portion of clay
- h) Vesicular Basalt Absent
- i) Tachylytic basalt Absent
- j) Flow contact Flow contact is present here
- k) Dyke rock Amygdaloidal and vesicular
- l) Any remark about geological formation.  
Absent Hydrothermal altered basalt B

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village जवरी Date 20/07/2019

Gut No. .... Name of the Farmer सतिशाय अशोबन जगत Well No. 03

In Village Location well to village User... Personal/Community/.....

Location of the well well (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2009 Construction year 2009 If yes type cement (1) brick

Parapet Ht. 1.10 Shape-Circular/Square, Diameter of well 1.1 m  
(Whether water from other sources brought to this well if yes source and Hrs of pumping)

Total Depth 17 Water level from ground level 16  
 In rainy season 10 m, winter 10 summer 10  
 Elevation 551

Percolation from : Bottoms / Lateral Direction (in the case of lateral direction .....)  
(If the horizontal bore is taken in ..... Direction, Length ..... m and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ...., Irrigation ..... Acres, Horticulture .....; etc.....  
 Rainy Season 01.5 Acre  
 Winter Season 5 Acre  
 Summer Season dry Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 7.5 cm, inch  
 Quantity of withdrawals :- Daily 5 Hrs, Seasonal ..... cc meter / day

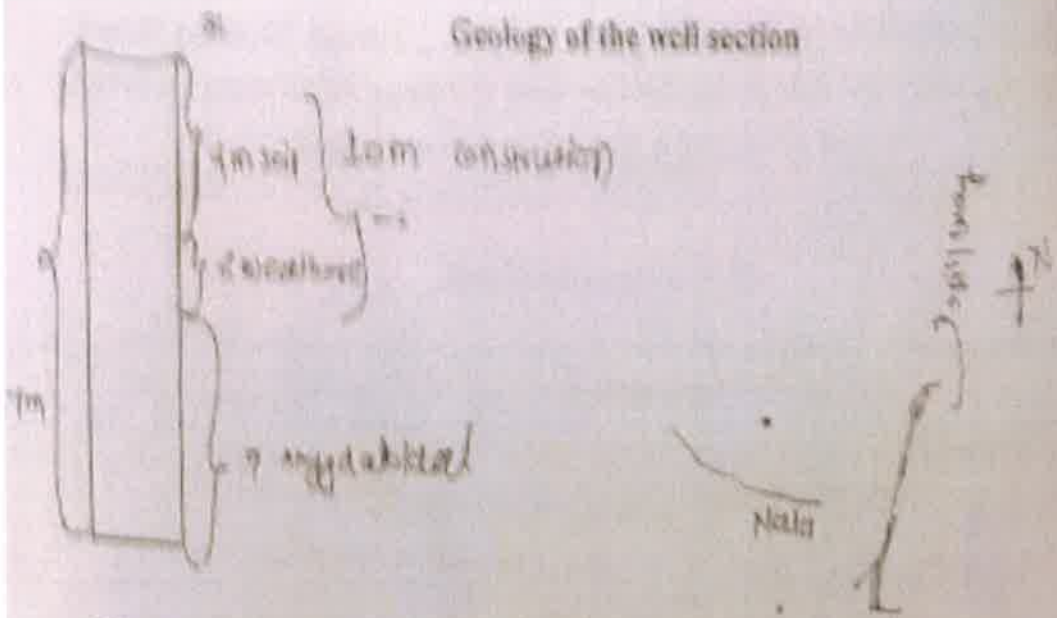
Time require for a full recharge / recuperation :  
 (Rainy season 4 Hrs, winter 4 Hrs, Summer dry Hrs.)

Any other information .....

Name of the Surveyor  
 S. M. Tembe

*Shilpi*  
 Signature

## Geology of the well section



a) Lining

concrete lining

b) Soil - Black / Yellow Sandy

soil back

c) Existing watershed structures / Proclamation dam in neighbouring region.

A reservoir built side of well permeation dam

d) Effect of existing structures on water table.

to dam water table increase due

e) Geological / Geographical effect on groundwater.

due to plane of flow

f) Compact basalt

Basalt is present at bottom of

g) Amygdaloidal Basalt

amygdaloid is 7m

h) Vesicular Basalt

absent

i) Tachylitic basalt

absent

j) Flow contact

absent

k) Dyke rock

absent

l) Any remarks about geological formation.



**Geohydrogeological mapping of ..... Tahsil District Boed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village ..... Chandoli ..... Date - 20/07/2019

Gut No. .... Name of the Farmer ..... Harish Bhat ..... Well No. 24

In Village Location ..... West to village ..... User... Personal/Community/.....

Location of the well ..... Farmland, Bank of Naita, In the Naita Riverbed.....

Year of the Digging ..... 2011 ..... Construction year... 2011 ..... If yes type... concrete

Farapet Ht. .... 1m ..... Shape-Circular/Square, Diameter of well..... Lat-16°33' 52"E  
(Whether water from other sources brought in this well if yes source and Hrs of pumping.....) Long 75°06'10"E

Total Depth ..... 20 ..... Water level from ground level... 10 ..... m.  
In rainy season ..... 10 ..... m, winter ..... 10 ..... summer ..... 10 ..... m Devastan 552

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
of the Percolated base is subsoil ..... Direction, length ..... m, and its vertical strata ..... Location at the bottom

Use :- Drinking ..... Irrigation ..... Acres, Horticulture... 1.5 ..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... SAT .....  
 Dia of outlet pipe ..... 2 ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... 5 ..... Hrs. Seasonal ..... 7 ..... cc meter / day

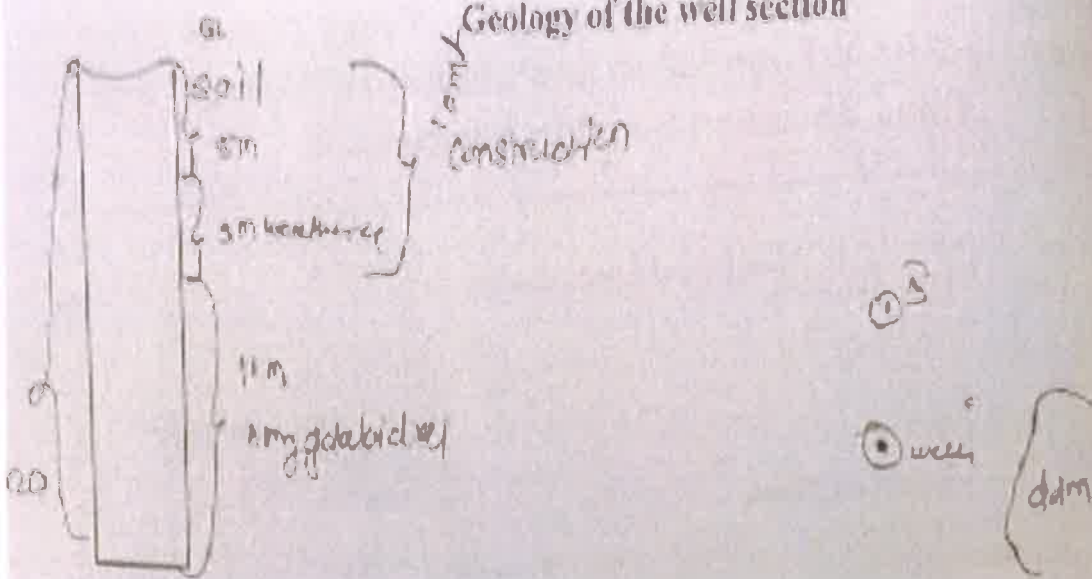
Time require for a full recharge / recuperation :  
 (Rainy season ..... 1 ..... Hrs. winter ..... 10 ..... Hrs. Summer ..... 10 ..... Hrs.)

Any other information .....

Signature \*  


Name of the Surveyor  
S. M. Purohit

# Geology of the well section



- a) Lining *cement lining*
- b) Soil - Black / Yellow / Sandy *Black soil*
- c) Existing watershed structure / Proclamation dam in neighboring region. *dam percolation*
- d) Effect of existing structures on water table. *present of water percolation due to dam*
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt *Absent*
- g) Amygdaloidal Basalt *Amygdaloidal is present*
- h) Vesicular Basalt *Absent*
- i) Tachylytic basalt *Absent*
- j) Flow contact *Others*
- k) Dyke rock
- l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... Date - 20/07/19

Cut No. 673 Name of the Farmer ..... Well No. 05

In Village Location ..... User... Personal/Community/.....

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 1980, Construction year 1980, If yes type.....

Parapet Ht. .... Shape Circular/Square, Diameter of well 7.....  
(Whether water from other sources brought to this well (if yes source and Hrs of pumping).....)

Total Depth 17.00 m, Water level from ground level ..... m.  
 In rainy season ..... m, winter ..... m, summer ..... m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length ..... m and by vertical borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 3 HP.....

Dia of outlet pipe ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)

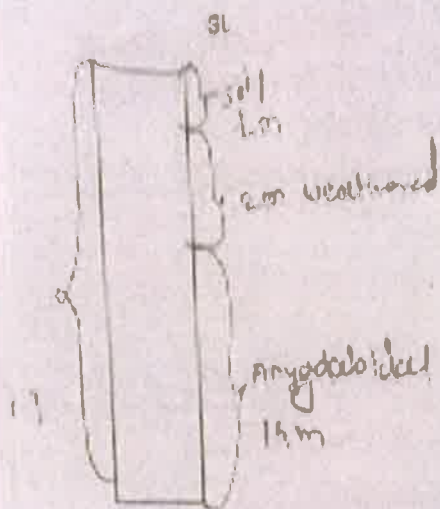
Any other information .....

Name of the Surveyor  
S. M. ...

.....  
 Signature



# Geology of the well section



- a) Lining No
- b) Soil - Black / Yellow / Sandy Black / Reddish
- c) Existing watershed structure / Proclamation dam in neighboring region. The dam is present to the south of here
- d) Effect of existing structures on water table. No effect on water table
- e) Geological / Geographical effect on groundwater.
- f) Compact basalt Absent
- g) Amygdaloidal Basalt Amygdaloidal is present
- h) Vesicular Basalt Absent
- i) Tachyoid basalt Absent
- j) Flow contact Absent
- k) Dyke rock Absent
- l) Any remark about geological formation.

**Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village खैराबाद Date - 20/7/2019

Gut No. 222 Name of the Farmer श्री. श्री. गज. शिंदे Well No. 86

In Village Location way to village User Personal/Community

Location of the well ... (Farm land, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2007, Construction year 2007, If yes type Concrete

Parapet Ht. .... Shape-Circular/Square, Diameter of well 7m lat-18 34 11 N  
(Whether water from other source brought to this well, if yes source and Hrs of pumping ..... long 75 06 14 E

Total Depth 17, Water level from ground level dry m.  
 In rainy season 5 m, winter 5, summer dry m. elevation 554

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ✓, Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season 5 Acre  
 Winter Season 5 Acre  
 Summer Season 5 Acre

Type of withdrawal: Pump Out :- Electrical motor..... Diesel Pump BIP.....  
 Dia of outlet pipe 2 cm / inch.....  
 Quantity of withdrawal :- Daily 1 Hrs. Seasonal 2 cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter 12 Hrs; Summer dry Hrs.)

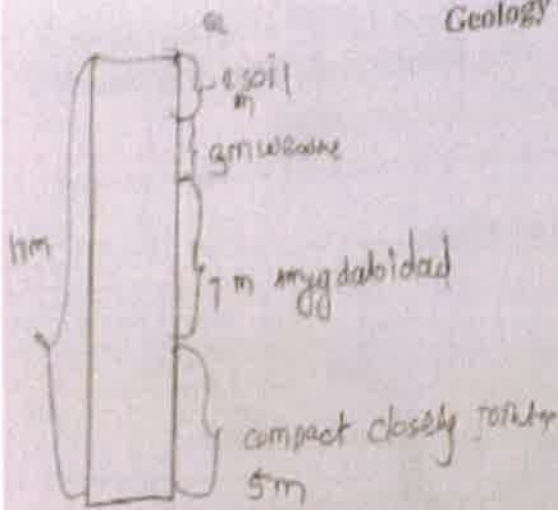
Any other information .....

Name of the Surveyor

S. M. Jadhav

Shinde  
Signature

# Geology of the well section



- a) Lining: Cement lining construction
- b) Soil - Black / Yellow Sandy: Black soil and Red soil is present
- c) Existing watershed structures: Proclamation dam in neighboring region
- d) Effect of existing structures on watertable: Absent
- e) Geological / Geographical effect on groundwater: Absent
- f) Compact basalt: Basalt is at base of slope toward east north to
- g) Amygdaloidal Basalt: Amygdaloidal is best weathered and compact basalt
- h) Vesicular Basalt: Absent
- i) Tachylitic basalt: Absent
- j) Flow contact: Absent
- k) Dyke rock: Absent
- l) Any remark about geological formation:



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Date - 20/02/2019

Village - Ambarli

Gut No. .... Name of the Farmer ..... Well No. 07

In Village Location ..... User... Personal/Community/.....

Location of the well... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year..... If you type.....

Parapet Ht. .... Shape-Circular/Square, Diameter of well... 1m.....

Total Depth 17m..... Water level from ground level... 1m.....  
 In rainy season ..... winter ..... summer ..... day.....

Percolation from : Bottom / Lateral Direction (In the case of lateral direction .....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m and the vertical bore ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture .....; etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... 5 ..... Acre  
 Summer Season ..... Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump ..... HP

Dia of outlet pipe ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs)

Any other information .....

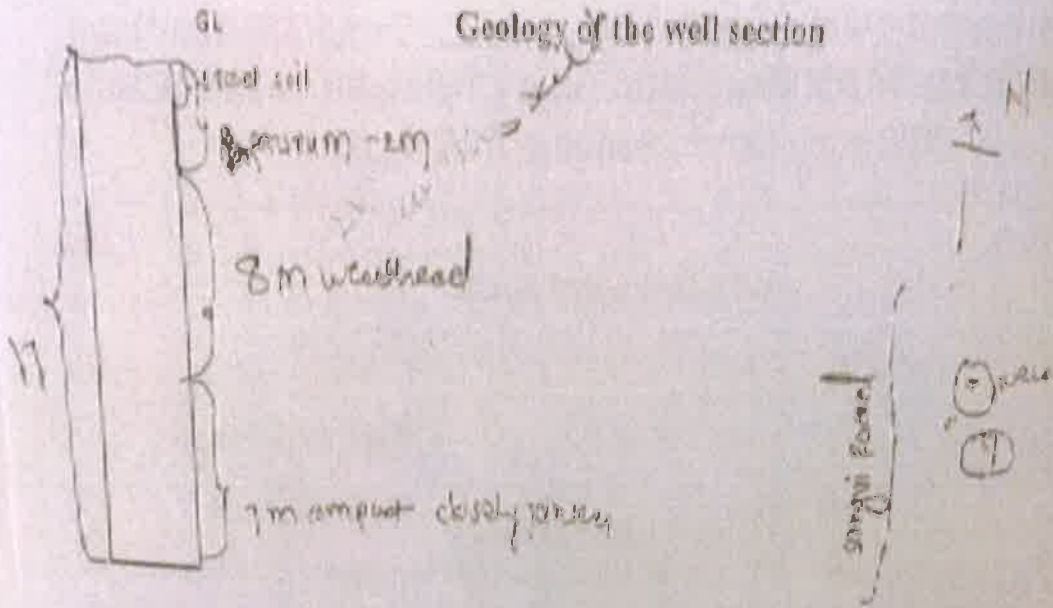
Name of the Surveyor

S. M. Patil

Patil  
 Signature

lat 18 25 17 N  
 long 75 05 37 E  
 559 m

# Geology of the well section



a) Lining

NO

b) Soil - Black / Yellow / Sandy

NO soil

c) Existing watersheds structure / Proclamation Dam in neighboring region.

NO

any structure

There is

d) Effect of existing structures on water table.

NO

e) Geological / Geographical effect on groundwater.

f) Compact basalt

SOIL

NO

NO

is compact basalt at base

g) Amygdaloidal Basalt

Amygdaloid at 10m

h) Vesicular Basalt

NO

i) Tachyitic basalt

NO

j) Flow contact

Absent

k) Dyke rock

l) Any remark about geological formation.

**Geohydrogeological mapping of ..... Tahsil District Beed  
undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
Vikas Shikshan Sanstha Aurangabad**

**Well Inventory Form**

Village ..... .....

Date - 20/07/2019

Gut No. .... Name of the Farmer ..... Well No. 08

In Village Location ..... ..... Village. User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ..... Construction year ..... If yes type.....

Parapet Ht. ..... Shape-Circular/Square, Diameter of well .....

(Whether water from other sources brought to this well if yes source and Hrs of pumping.....)

Total Depth ..... Water level from ground level .....

In rainy season ..... m, winter ..... m, summer ..... m

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)

(If the horizontal bore is taken in ..... Direction; Length ..... m, and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation..... Acres, Horticulture.....; etc.....

Rainy Season ..... Acre

Winter Season ..... Acre

Summer Season ..... Acre

Type of withdrawal/Pump Out :- Electrical motor..... Diesel Pump ..... HP.....

Dia of outlet pipe..... cm. Inch.....

Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day

Time require for a full recharge / recuperation :

(Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs)

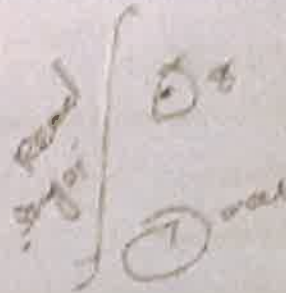
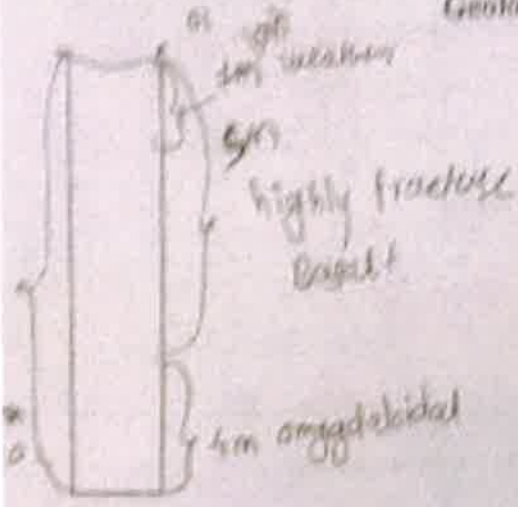
Any other information .....

Name of the Surveyor

.....  
Signature



# Geology of the well section



- a) Lithology Basalt
- b) Soil - Black / Yellow / Sandy redish soil is present
- c) Existing waterbeds structure / Penetration from neighboring region. Penetration from phreatic to east of dug well
- d) Effect of existing structures on water table. due to high water permeability from amygdaloidal basalt
- e) Confined / Geographical effect on groundwater absent
- f) Compact basalt highly fractured basalt at surface
- g) Amygdaloidal Basalt amygdaloidal is at 6m
- h) Vesicular Basalt absent
- i) Tachyphylic Basalt absent
- j) Flow content flow content at 0m depth
- k) Other remarks compact and amygdaloidal.
- l) Any remarks about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... महाराष्ट्र ..... Date - 20/12/2019

Plot No. 424 ..... Name of the Farmer ..... शे. श्री. श्री. जे. पी. दे ..... Well No. 09 .....

In Village Location ..... South to village ..... User... Personal/Community? .....

Location of the well ..... dam ..... (Farmland, Bank of Nala, In the Nala, Riverbed) .....

Year of the Digging 2011 ..... Construction year ..... 2010 ..... If yes type .....

Parapet Ht. .... Shape-Circular/Square, Diameter of well ..... 8.00 ..... Lat 18 43 45 N  
(If water comes from other source brought to this well by pipe source and the of pumping ..... Long 75 06 34

Total Depth ..... 13 ..... Water level from ground level ..... 2.00 ..... m.  
In rainy season ..... 0.50 ..... m, winter ..... 6.20 ..... m, summer ..... dry ..... m. Relativity 564

Percolation from : Bottom / Lateral Direction (In the case of lateral direction ..... )  
If the horizontal line is taken in ..... Direction Length ..... m. and for vertical borehole ..... m, Location at the bottom)

Use :- Drinking ..... Irrigation ..... Acres, Horticulture ..... ; etc. ....  
 Rainy Season ..... 4 ..... Acre  
 Winter Season ..... 2 ..... Acre  
 Summer Season ..... 1.1 ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump ..... 5-HP .....

Dia of outlet pipe ..... 2 ..... cm. /inch .....

Quantity of withdrawals :- Daily ..... 2 ..... Hrs. Seasonal ..... 20 ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... 7 ..... Hrs; winter ..... 12 ..... Hrs; Summer ..... dry ..... Hrs)

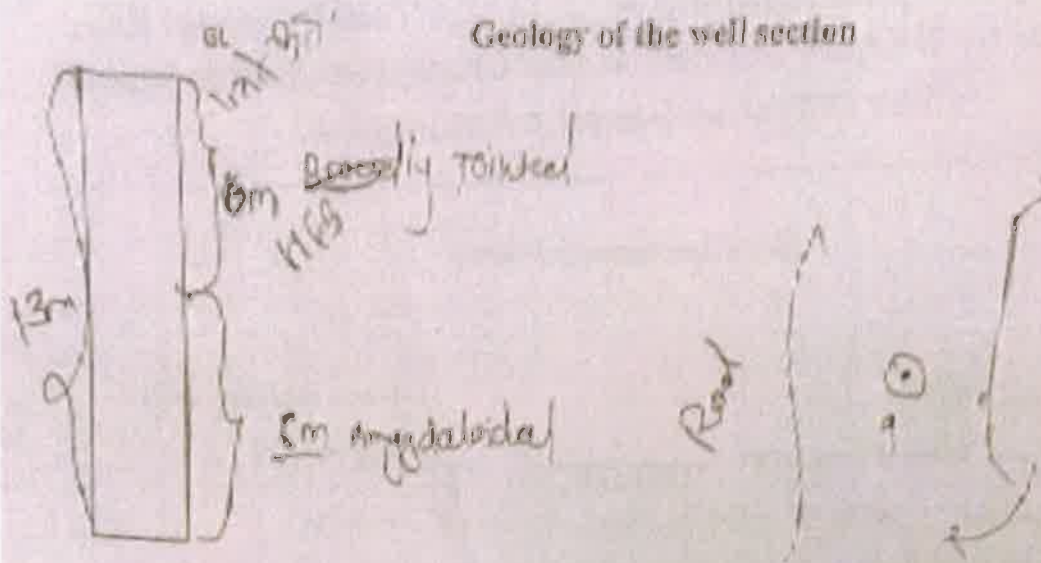
Any other information .....

Name of the Surveyor

S. M. Torke

Shilpi  
 Signature

# Geology of the well section



a) Limestog

NO

b) Soil - Black / Yellow Sandy

10 feet soil (Black)

c) Existing water table structure / Potentiometer data in neighboring region.

0m is related to East of well

d) Effect of existing structures on water table.

potentiometer from clay

e) Geological / Geographical effect on groundwater.

f) Compound basalt

Compound broadly jointed at surface

g) Angydaoidal Basalt

Angydaoidal from 7m to 10m of clay well.

h) Vesicular Basalt

Absent

i) Tachylytic basalt

Absent

j) Flow contact

flow contact at 7m

k) Dyke rock

flow contact with dyke rock

l) Any remark about geological formation.

Map of direction East to West



Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village .....  
 Date - 20/7/2019  
 Gut No. .... Name of the Farmer ..... Well No. 10  
 In Village Location ..... User... Personal/Community/.....  
 Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2013, Construction year..... If yes type.....  
 Parapet Ht..... Shape-Circular/Square, Diameter of well 6m  
 (Whether water from other sources brought to this well (if yes source and Htz of pumping).....  
 Total Depth 15m, Water level from ground level 7m  
 in rainy season ..... m, winter ..... m, summer ..... m  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the Horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location at the bottom)  
 Use :- Drinking ..... Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... Acre  
 Summer Season ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 3 HP  
 Dia of outlet pipe ..... cm / inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... Hrs; Summer ..... Hrs.)  
 Any other information .....

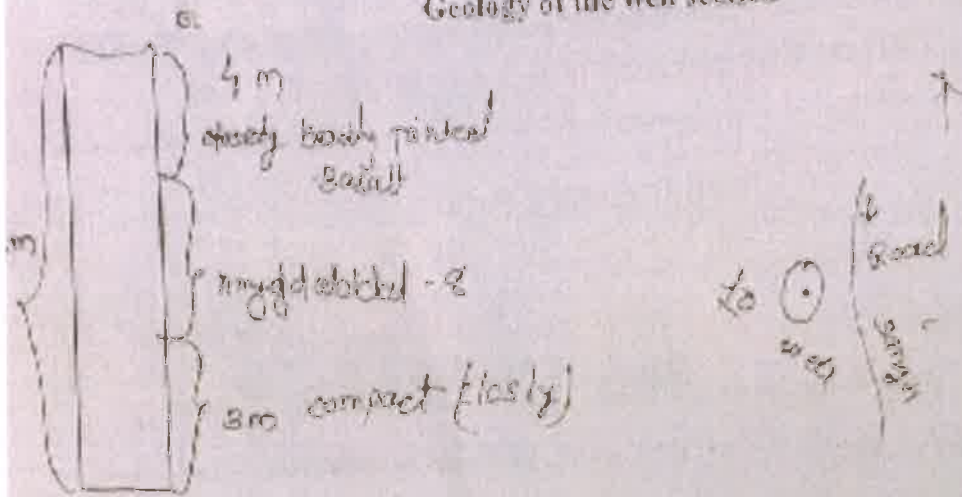
Lat - 18 43 55 N  
 Long 75 06 48 E  
 Elevation 564

Name of the Surveyor

G. V. Patil

Signature

## Geology of the well section



a) Lithology

No

b) Soil - Black / Yellow Sandy

soil absent

c) Existing waterbeds (structure) Proclamation Dam in neighboring region.

waterbed structure. There no any

d) Effect of existing structures on water table.

structure. No effect of any

e) Geological / Geographical effect on groundwater.

f) Compact basalt

compact basalt 2 3 10<sup>m</sup> at base

g) Amygdaloidal Basalt

basalt amygdaloidal 10<sup>m</sup> compact

h) Vesicular Basalt

Absent

i) Tachylitic basalt

Absent

j) Flow contact

Absent

k) Dyke rock

l) Any remark about geological formation.

Geohydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... Chasoli .....

Date - 20/07/2019

Gut No. ....

Name of the Farmer Pravin Panchayat

Well No. 11

In Village Location South to village User Personal/Community

Location of the well ..... (Farmland, Bank of Nala, In the Nala, Riverbed) .....

Year of the Digging 1970, Construction year 1970 If yes type stone

Parapet Ht. 2m Shape Circular, Diameter of well 4

(Whether water from other sources brought to this well if yes source and Hrs of pumping)

Lat 18 44'N

Long 75 05' E

Total Depth 10, Water level from ground level dry m.

In rainy season 10 m, winter 4 m, summer dry m

Percolation from: Bottom / Lateral Direction (In the case of lateral direction .....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole ..... m, Location of the bottom)

Use :- Drinking ✓, Irrigation ✓, Acres, Horticulture ..... etc.

Rainy Season 2 Acre

Winter Season 2 Acre

Summer Season N/A Acre

Type of withdrawal/Pump Out :- Electrical motor ..... Diesel Pump 3 HP

Dia of outlet pipe 2 cm. Inch

Quantity of withdrawals :- Daily 2 Hrs, Seasonal dry cc meter / day

Time require for a full recharge / recuperation :

(Rainy season 1 Hrs; winter 2 Hrs; Summer dry Hrs)

Any other information .....

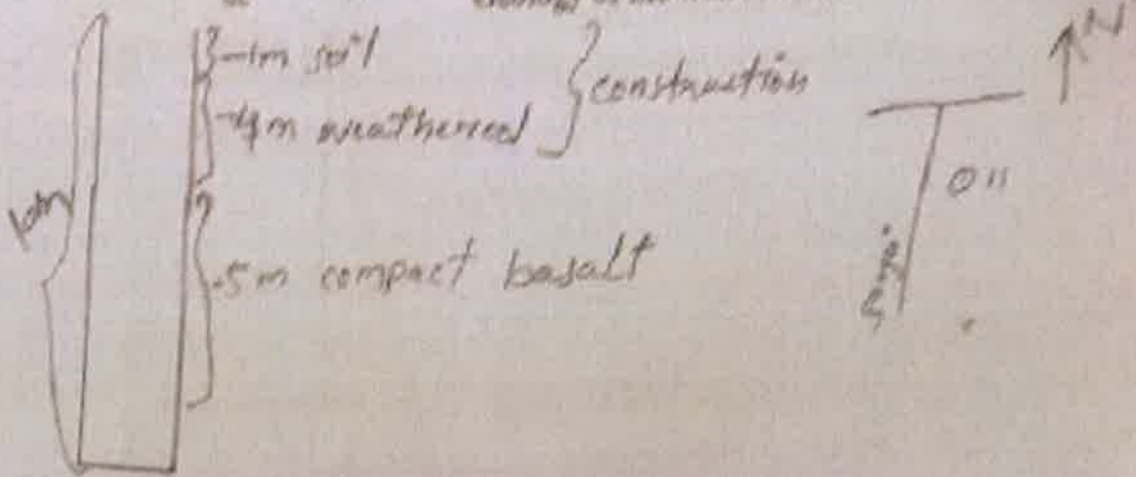
Name of the Surveyor

Abdul Subhan

Signature



## Geology of the well section



a) Lining

stone lining

b) Soil - Black / Yellow clay

Black soil is present 1m

c) Existing water table structure / Fractures etc. due to neighboring region.

d) Effect of existing structure on water table

There is no effect on water table

e) Geological / Geographical effect on groundwater

Absent

f) Compact basalt

Compact basalt at base

g) Amygdaloidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachylitic basalt

Absent

j) Flow contact

Absent

k) Dyke rock

Absent

l) Any remarks about geological formation.

hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... साठगाडी .....

Date - 20/07/2014

Gut No. 295 Name of the Farmer ..... माहूदास महेश नानव ..... Well No. 22 .....

In Village Location East to village User...  Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging 2012, Construction year... NO ....., If yes type.....

Parapet Ht. .... Shape Circular/Square, Diameter of well... 7 m ..... Lat 18 24 24 N  
(Whether water from other sources brought to this well if you source and lift of pumping.....) Long 75 09 25 E

Total Depth 13 ..... Water level from ground level..... m.  
 In rainy season dry ..... m. winter dry ..... m. summer dry ..... m. Elevation 557

Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
(If the lithological core is taken in ..... Direction Length ..... m. and for vertical borehole..... m. Location at the bottom)

Use :- Drinking ...., Irrigation..... Acres, Horticulture..... etc.....  
 Rainy Season ..... Acre  
 Winter Season 5 ..... Acre  
 Summer Season dry ..... Acre

Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 5 HP.....  
 Dia of outlet pipe 2.5 ..... cm. /inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal dry ..... cc meter / day

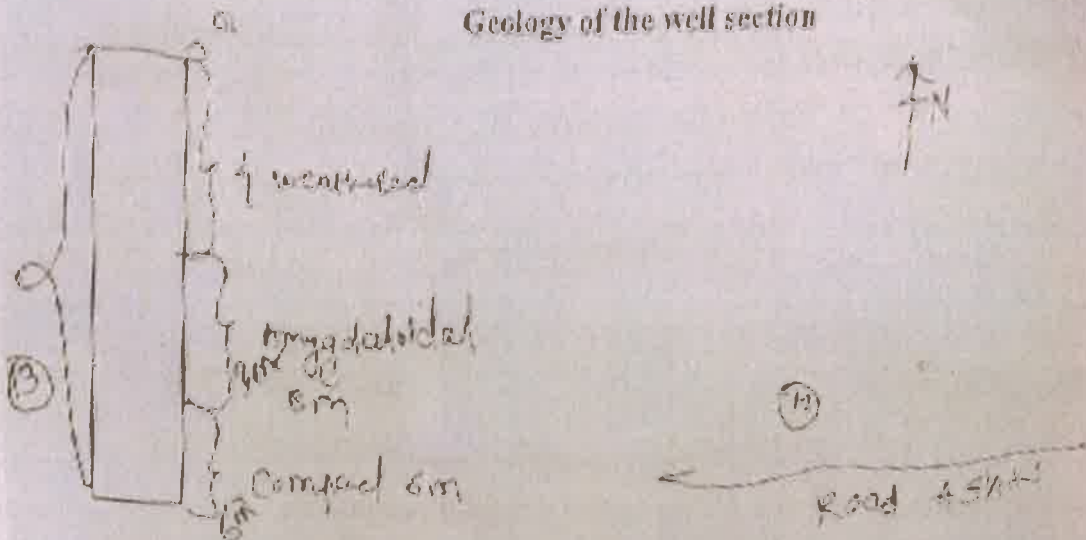
Time require for a full recharge / recuperation :  
 (Rainy season dry ..... Hrs; winter dry ..... Hrs; Summer dry ..... Hrs)

Any other information .....

Name of the Surveyor  
S. m. Tarkar

Dish  
 Signature

## Geology of the well section



- a) Lining NO
- b) Soil - Black / Yellow / Sandy Black soil absent
- c) Existing watershed structure / Proclamation dam in neighboring region. percolation dam
- d) Effect of existing structures on water table. percolation dam east to well at 100m
- e) Geological / Geographical effect on groundwater. percolation dam percolation due to
- f) Compact basalt Compact basalt at base
- g) Amygdaloidal Basalt amygdaloidal is 8m compact and washed compact basalt
- h) Vesicular Basalt
- i) Tachylytic basalt absent
- j) Flow contact absent but flow is present
- k) Dyke rock
- l) Any remark about geological formation.



Geohydrological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

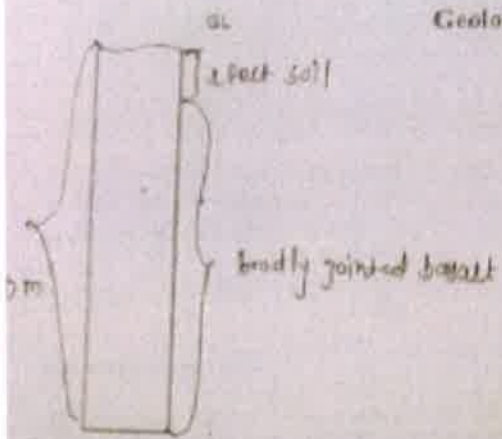
Well Inventory Form

Village ..... शुद्धी ..... Date - 20/07/19  
 Cut No. .... Name of the Farmer खैराबाई फारुख अली Well No. 13 .....  
 In Village Location ..... East of Vill ..... User ... Personal/Community/.....  
 Location of the well ..... (Farmland, Bank of Nala, In the Nala Riverbed) .....  
 Year of the Digging 2015 ..... Construction year 2015 ..... If yes type .....  
 Perimeter W. .... Shape-Circular/Square, Diameter of well 7 ..... well 18 44 26 11  
(Whether water from other sources brought to this well from source and lift of pumping) ..... Aug 75 07 36  
 Total Depth 10 ..... Water level from ground level dry ..... m.  
In rainy season over 10m ..... winter 5m ..... summer dry ..... m. class 589  
 Percolation from : Bottom / Lateral Direction (In the case of lateral direction .....)  
If the direction here is taken in ..... Direction Length ..... and the vertical direction ..... Location at the bottom)  
 Use : Drinking  ..... Irrigation ..... Acres, Horticulture ..... etc .....  
Rainy Season ..... Acres  
Winter Season ..... Acres  
Summer Season dry ..... Acres  
 Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 3HP .....  
 Dia of outlet pipe ..... 2 ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... 4 ..... ltrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
(Rainy season 3 ..... Hrs. winter 2-4 ..... Hrs. Summer dry ..... Hrs.)  
 Any other information .....

Subho  
 Signature

Name of the Surveyor  
Abdul Subhan

Geology of the well section



- a) Lining absent
- b) Soil - Black / Yellow / Sandy black soil is present
- c) Existing watershed structure/ Proclamation dam in neighboring region. is present at 500 m to east side of dam
- d) Effect of existing structures on watertable. There is no effect due to dam total compact basalt
- e) Geological / Geographical effect on groundwater. There is no effect due to dam total compact basalt
- f) Compact basalt Compact
- g) Amygdaloidal Basalt Absent
- h) Vesicular Basalt Absent
- i) Tachyitic basalt Absent
- j) Flow contact Absent
- k) Dyke rock Absent
- l) Any remark about geological formation. There is no permeation from dam

Hydrogeological mapping of ..... Tahsil District Beed  
 undertaken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

Well Inventory Form

Village ..... Shirgaon .....

Date - 20/7/2019

Plot No. .... Name of the Farmer ..... Prata Rajendra Patil Well No. 14 .....

In Village Location ..... East to village .. User... Personal/Community/.....

Location of the well..... (Farmland, Bank of Nala, In the Nala, Riverbed).....

Year of the Digging ... 2015 .., Construction year... 2015 .., If yes type... concrete .....

Parapet Ht..... Shape-Circular/Square, Diameter of well... 2 .....

(If water comes from other sources brought to the well if you source and Hrs of pumping.....)

Total Depth 10 ....., Water level from ground level..... m.  
 In rainy season ..... m, winter..... m, summer..... m

Lat - 18 44 31 N  
 Long - 75 07 45 E  
 Elevation 570

Percolation from : Bottom / Lateral Direction (in the case of lateral direction .....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m, and for vertical bore hole ..... m, Location at the bottom)

Use :- Drinking ....., Irrigation..... Acres, Horticulture....., etc.....  
 Rainy Season ..... Acre  
 Winter Season 15 ..... Acre  
 Summer Season dry ..... Acre

Type of withdrawals/Pump Out :- Electrical motor ..... Diesel Pump 5 HP .....

Dia of outlet pipe ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal dry ..... cc meter / day

Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs, winter 12 ..... Hrs, Summer dry ..... Hrs.)

Any other information .....

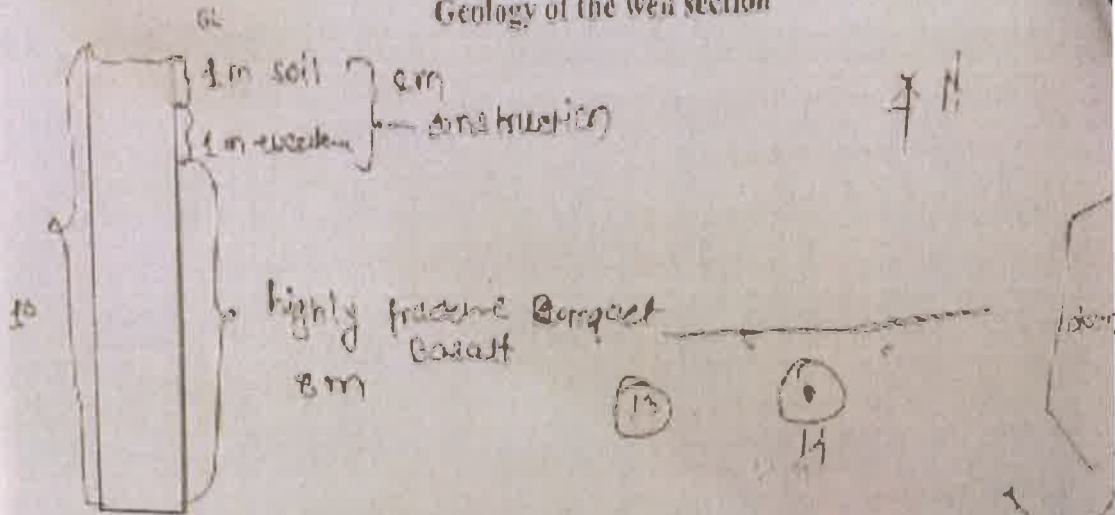
Name of the Surveyor

S.M. Patil

Shilpa  
 Signature



## Geology of the well section



a) Lining

1m cement lining

b) Soil - Black / Yellow / Sandy

Black soil 1m

c) Existing watershed structure / Proclamation dam in neighboring region.

dam is present to prevent percolation of dug well

d) Effect of existing structures on water table.

weathered rock from dam

e) Geological / Geographical effect on groundwater.

f) Compact basalt

total compact is present in this well

g) Amygdalesoidal Basalt

Absent

h) Vesicular Basalt

Absent

i) Tachyitic basalt

Absent

j) Flow contact

Absent compact and weathered rock

k) Dyke rock

l) Any remark about geological formation.

This well is higher elevation as compare to the all well

hydrogeological mapping of ..... Tahsil District Beed  
 taken by NAAM Foundation and Chatrapati Shahu Gramin  
 Vikas Shikshan Sanstha Aurangabad

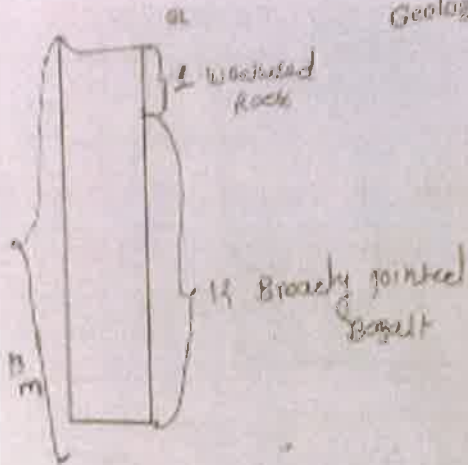
Well Inventory Form

Village .....  
 Date - 20/07/20  
 Gut No. 317 Name of the Farmer ..... Well No. 15  
 In Village Location ..... East ..... User... Personal/Community/  
 Location of the well..... (Farm/land, Bank of Nala, In the Nala, Riverbed).....  
 Year of the Digging 2015, Construction year....., If yes type.....  
 Parapet Ht..... Shape-Circular/Square, Diameter of well... 5 m... (at 18 44 39 N  
 (Whether water from other sources brought to this well (Yes source and Hrs of pumping.....) long 75 07 57 E  
 Total Depth ..... 13 ..... Water level from ground level..... m. Deviation 975  
 In rainy season ..... 200 ft m, winter ..... 7 ..... summer ..... dry ..... m.  
 Percolation from : Bottom / Lateral Direction (in the case of lateral direction.....)  
 (If the horizontal bore is taken in ..... Direction, Length ..... m, and for vertical borehole..... m, Location at the bottom)  
 Use :- Drinking ..... Irrigation..... Acres, Horticulture.....; etc.....  
 Rainy Season ..... Acre  
 Winter Season ..... 3 ..... Acre  
 Summer Season ..... dry ..... Acre  
 Type of withdrawals/Pump Out :- Electrical motor..... Diesel Pump 3 HP.....  
 Dia of outlet pipe..... 2.5 ..... cm. Inch .....  
 Quantity of withdrawals :- Daily ..... Hrs. Seasonal ..... cc meter / day  
 Time require for a full recharge / recuperation :  
 (Rainy season ..... Hrs; winter ..... 2 ..... Hrs; Summer ..... dry ..... Hrs)  
 Any other information .....

Name of the Surveyor  
 S. M. Tusk

Signature

Geology of the well section



a) Lining

NO

b) Soil - Black / Yellow Sandy

no soil is absent

c) Existing watershed structures / Proclamation dam in neighboring region

There no

d) Effect of existing structures on water table

No effect

e) Geological / Geographical effect on groundwater.

f) Compact basalt

total compact Basalt

g) Amygdaloidal basalt

NO

h) Vesicular basalt

Absent

i) Tachylitic basalt

Absent

j) Flow contact

Absent

k) Dyke rock

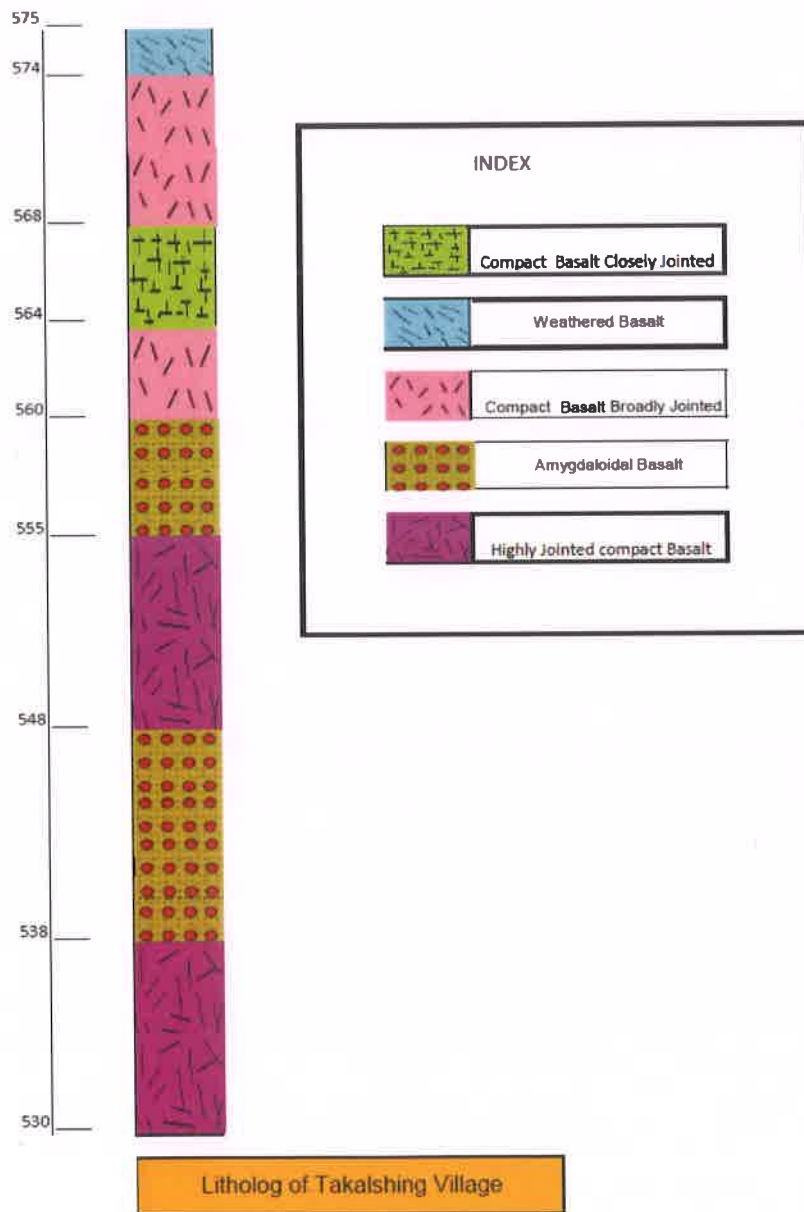
Absent

l) Any remark about geological formation.

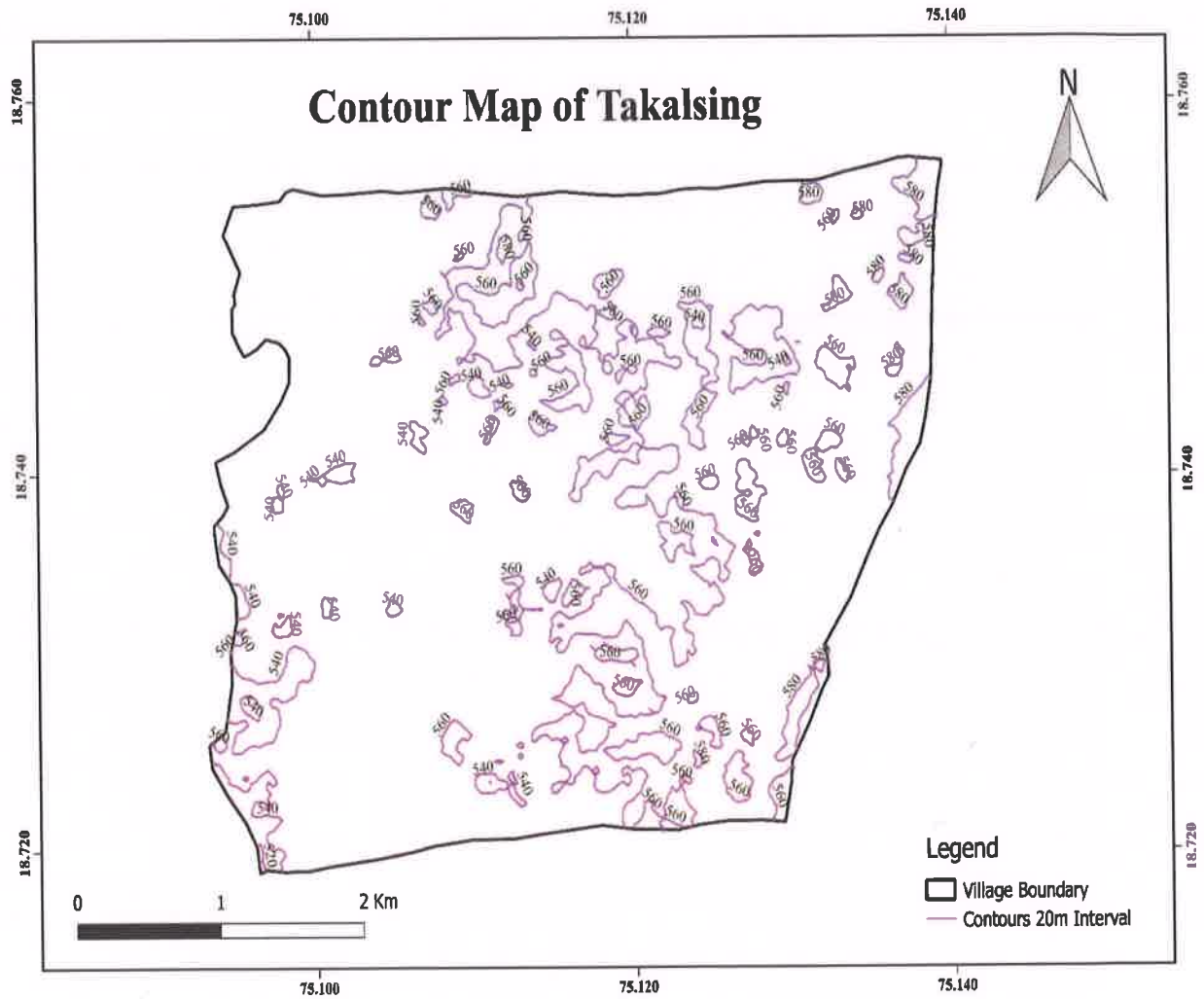
Basalt more time required to recharge due to total compact



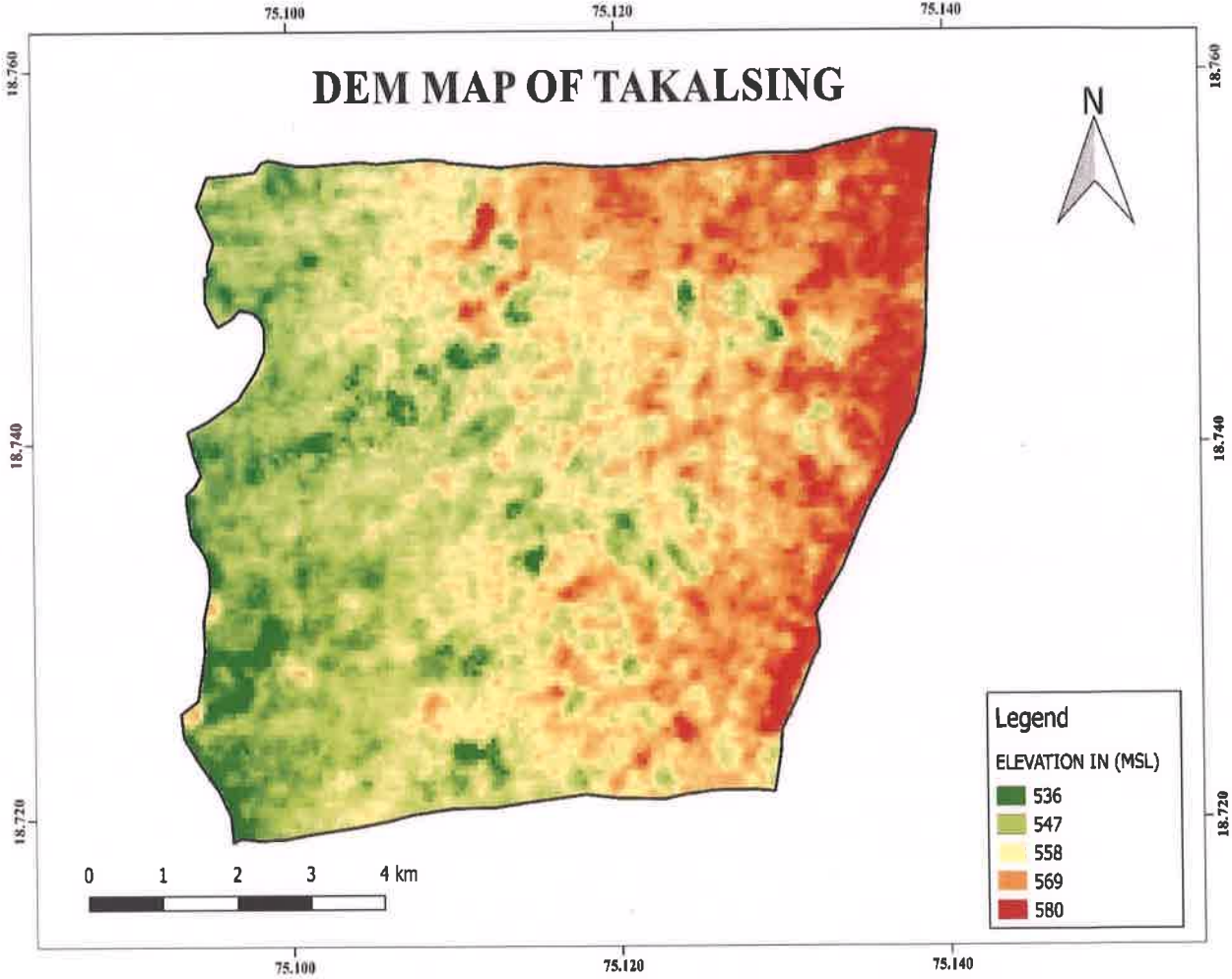
# Litholog of Takalsing Village



# Contour Map of Takalsing

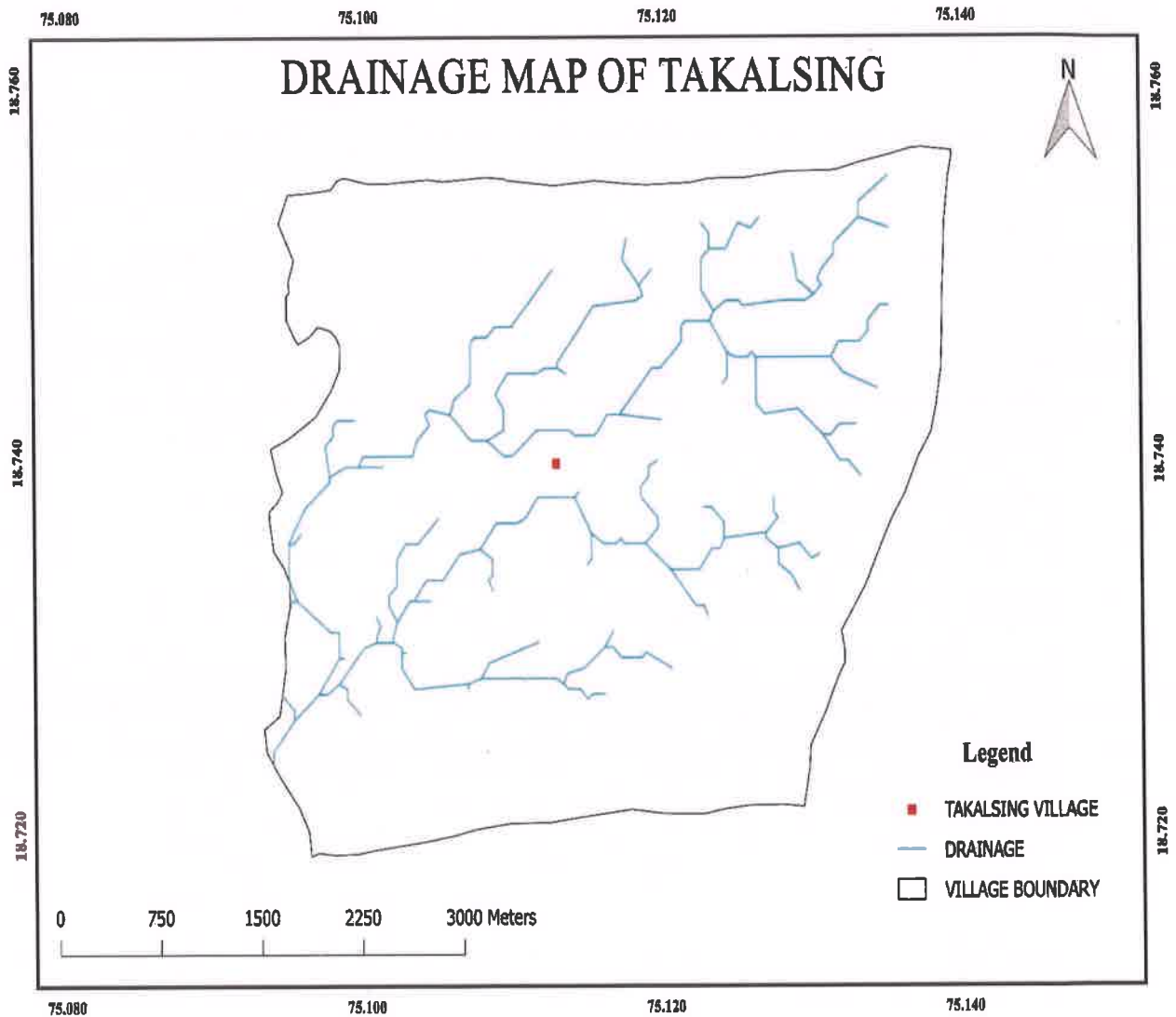


# DEM Map of Takalsing Village





# Drainage Map of Takalsing Village





Photographs showing watersheds management at Takalsing Village.



Photographs showing increase in water level at Takalsing village due to watersheds management work.





**Fractured Compact Basalt Flow with broadly spaced jointing pattern**



*[Handwritten Signature]*  
**PRINCIPAL**  
**Deogiri College**  
**Aurangabad.**