



Date: March 5, 2020
To: LOCSD Board of Directors
From: Ron Munds, General Manager
Subject: Agenda Item #4D General Manager Activity for February 2020

GENERAL ACTIVITIES

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- The District received some favorable publicity regarding the Dog Park Conceptual Plan from a KSBY story. The results were about 25 people went to the District's website and commented on the plan. Comments and other general input on the conceptual plan will be presented at the next Parks and Recreation meeting scheduled for March 17th. The general public is encouraged to attend.

- The Los Osos Middle School test well work was completed on January 20th with disappointing results. Cleath-Harris Geologist has compiled a report that details the issues that were encountered (attached). In basic terms, the geology of the area was found to be not suitable for a community water supply wellsite. The General Manager has been meeting with District's Engineer and Cleath-Harris Geologist to discuss the options moving forward regarding locating a Program C well. It is anticipated that the plan or at minimum, a conceptual plan will be presented at the April Board meeting.

- The General Manager attended a staff level Basin Management Committee meeting February 27th. The purpose of these meeting are to compile information to assist the committee members in their decision making process at the Basin Management Committee meetings. This meeting focused on the upcoming year's budget, annual report preparation and the agenda for the March BMC meeting.

- The General Manager attended Santa Barbara/SLO Counties joint meeting of water conservation professionals on February 25th in Santa Maria. The meeting provided valuable information on new state water conservation measures, outreach efforts for water efficient landscape programs and a Flow Meter Pilot Program being implemented by a northern California utility EBMUD.

- Just a reminder that the District's new ENews Online newsletter is available. Community Members can subscribe to the newsletter on the District's website and the newsletter is also made available on the Los Osos Community Services District Facebook page. The newsletter is a way for the District to connect with the residents and inform them of interesting content about things happening in the District and the community. The newsletter is published on monthly basis so go check out what's new!

Attachment



Date: February 10, 2020

From: Spencer Harris, HG 633

To: Rob Miller, P.E., District Engineer
Los Osos Community Services District

SUBJECT: Test hole results for Program C Expansion Well Site A (Los Osos Middle School), Los Osos Groundwater Basin.

Dear Mr. Miller:

Cleath-Harris Geologists (CHG) staff observed test hole drilling on January 20, 2020, at the proposed Program C Expansion Well Site A adjacent to the Los Osos Middle School soccer field. Evaluation of test hole results indicates the location would not be suitable for a community water supply well. This memorandum summarizes the expectations and results of the test hole.

Background

Program C is an infrastructure program in the Los Osos Basin Plan that includes Expansion Wells for shifting municipal groundwater production within the Lower Aquifer from the Western Area to the Central Area of the Los Osos Groundwater Basin. Implementation of Program C would have a direct, beneficial impact on mitigating seawater intrusion.

Three Expansion Wells were originally planned under the existing population scenario, the first of which was completed by GSWC at Los Olivos Avenue (Expansion Well No. 1). Subsequent evaluation of Program C using updated water use estimates for existing conditions recommended a reduction to two Expansion Wells, which would mean only one more well was needed (CHG, 2018 Adaptive Management TM prepared for the Los Osos Basin Management Committee).

Four sites (Site A through Site D) have been under consideration for Expansion Well No. 2 (Figure 1). Site A was the northernmost site, and closest to the edge of the Basin. A test well was recommended to establish the suitability of the location for a community water supply well.

The process of drilling a well involves an initial test hole from which information is obtained to evaluate actual subsurface conditions and assist in final well design. If subsurface conditions observed in the test hole do not match expectations and it is apparent that the minimum objectives for the well would not be met, then the construction process is stopped prior to casing the well.



Test Hole Results

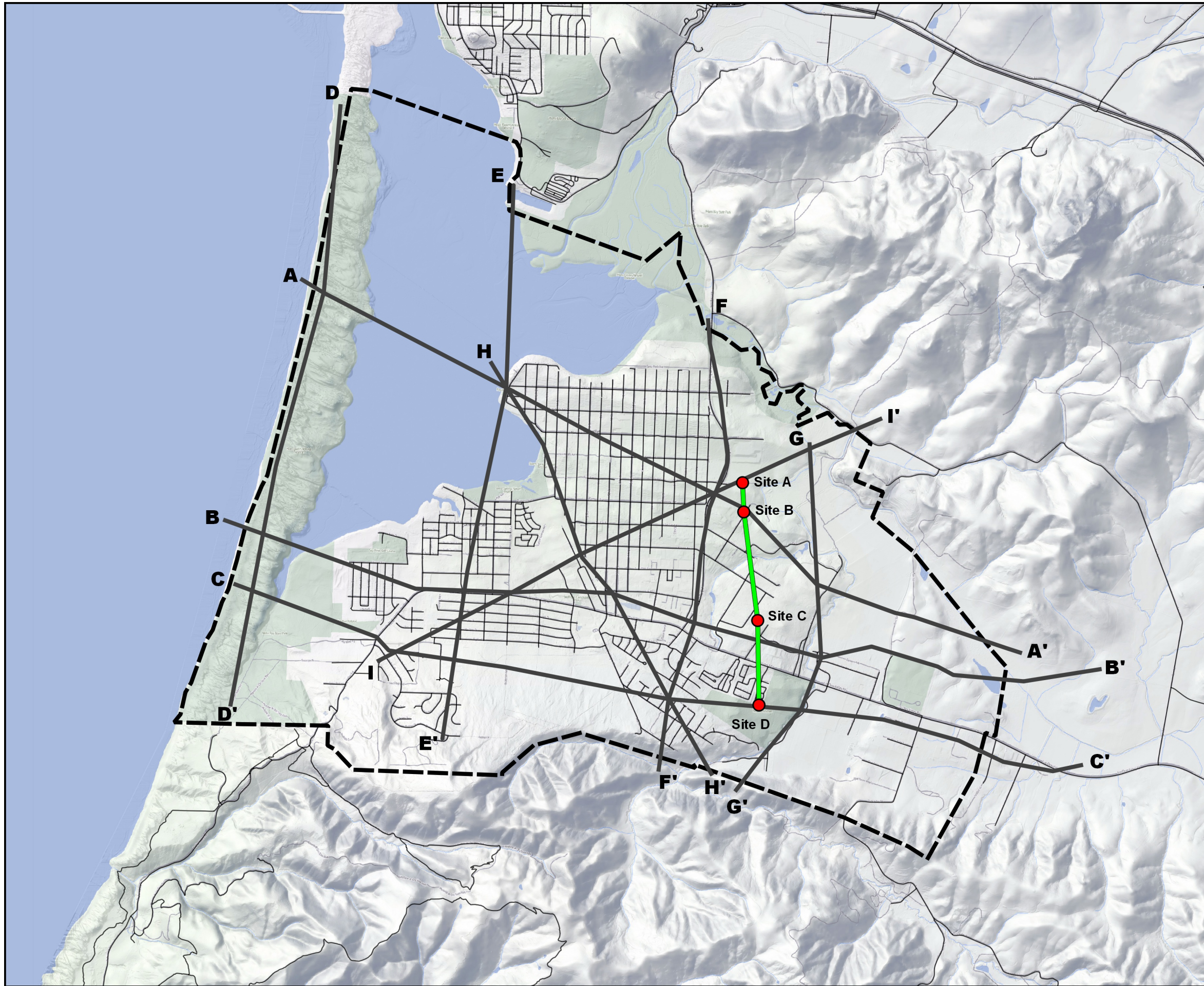
Basin hydrogeology at the location of Site A, based on test hole drilling, consists of Upper Aquifer (Zone C) sediments from surface to 75 feet depth, the regional aquitard (AT2 Clay) from 75 to 115 feet depth, and Lower Aquifer Zone D from 115 to 190 feet depth, although only 20 feet of productive sands and gravels were present in Zone D from approximately 115 to 135 feet depth. Zone E is not present. Bedrock was logged beginning at 190 feet depth and consisted of Franciscan Assemblage sandstone. A summary lithologic log is attached.

The expected Basin depth at Site A was 300 feet, based on a linear projection of the base of permeable sediments between the A-A'/F-F' Basin cross-section intersect and mapped bedrock along Los Osos Creek. Results of the test hole show that bedrock does not rise uniformly toward the creek as projected but rises sharply between the A-A'/F-F' intersect and Site A (Figure 2).




Comparison between the Site A test hole results and the irrigation well at Site B (Sage Avenue; Figure 1) indicates that there would be insufficient production capacity at Site A to provide a minimum 100 gallons per minute (gpm) discharge rate. The Site B irrigation well taps close to 70 feet of Zone D sands and gravels beginning at 165 feet depth, and produced 150 gpm with 120 feet of water level drawdown when constructed in 1997. Adjusting for the reduced aquifer thickness at Site A, along with shallower aquifer depth (less available drawdown), a Lower Aquifer well at Site A would be expected to produce a nominal 25 gpm. Therefore, no test well was constructed at Site A and the test hole has been backfilled in accordance with State and County water well standards.

Contractor Cost Savings

Filipponi & Thompson Drilling bid \$54,500 to complete the test well. Contractor costs incurred for drilling the test hole are \$32,290 (includes site restoration). The cost savings from not continuing with casing a well and testing at Site A are \$22,210.



Explanation

-  Adjudicated Plan Area
-  Basin Cross-section Line
-  Expansion Well Cross-section

NOTE: Cross-section I-I' is shown in Figure 2

SOURCE: June 20, 2018 Staff Report, Agenda Item 7b for BMC meeting.

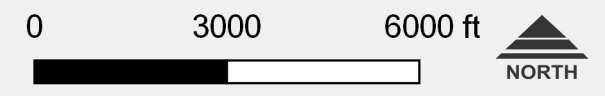
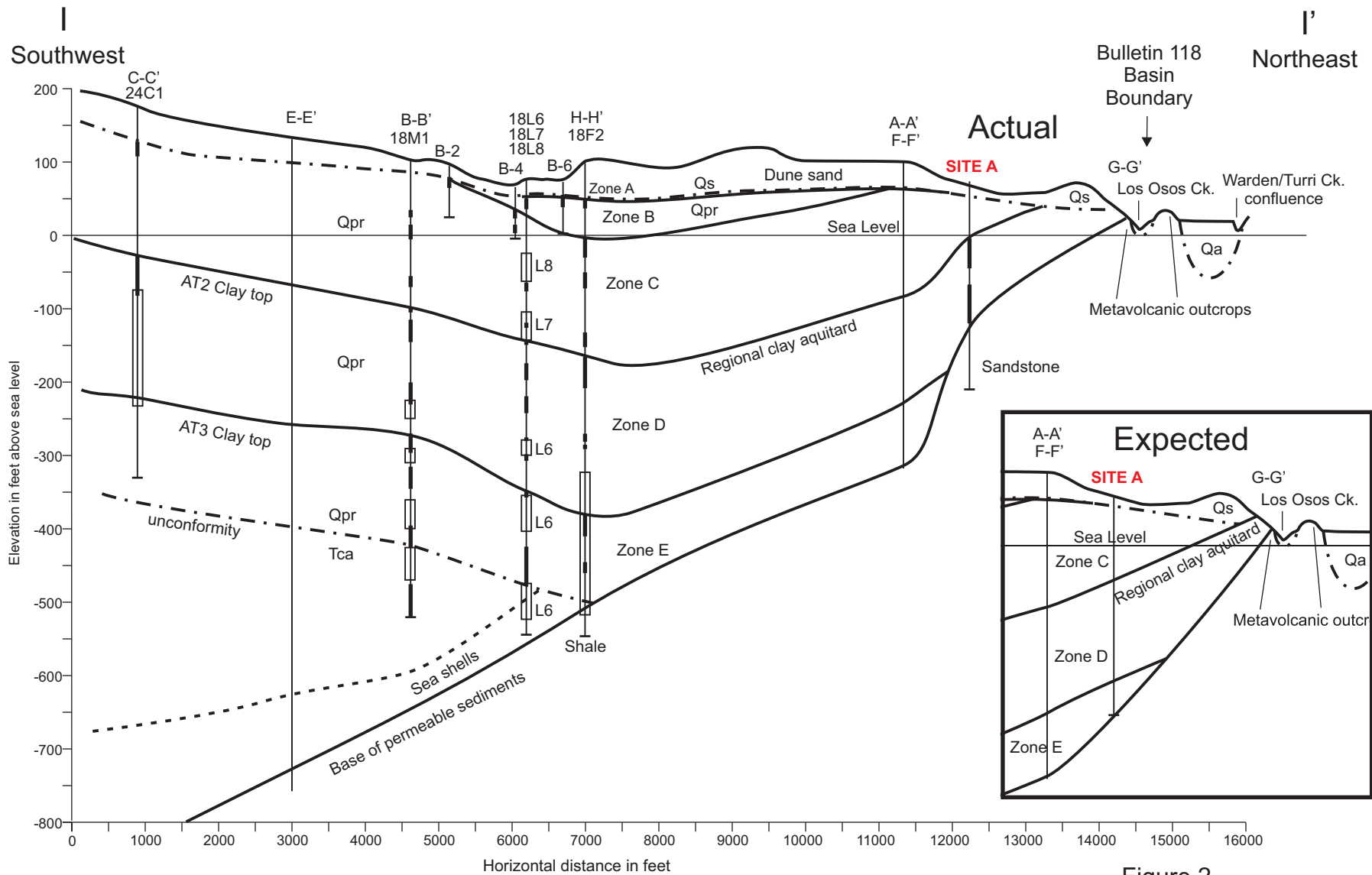


Figure 1
Geologic Cross-sections -
Expansion Well Sites

Los Osos Groundwater Basin

Los Osos BMC

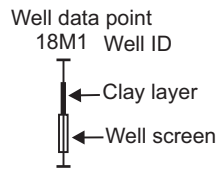
Cleath-Harris Geologists



Cross-section alignment in Figure 1

Figure 2
 Cross-Section I-I'
 Los Osos Valley
 Groundwater Basin
 January 2020 Revision
 Cleath-Harris Geologists

- Aquifer Zones:
 Zone A - Perched Aquifer
 Zone B - Transitional Aquifer
 Zone C - Upper Aquifer
 Zone D - Lower Aquifer (shallow)
 Zone E - Lower Aquifer (deep)



- Formation:
 Qa - alluvium
 Qs - dune sand
 Qpr - Paso Robles Formation
 Tca - Careaga Formation

**LOS OSOS COMMUNITY SERVICES
EXPANSION WELL SITE A TEST HOLE**

Date: January 20, 2020

Location: East end of Pismo Avenue, Los Osos Middle School

Elevation: Approximately 70 feet above mean sea level

Latitude: 35.32239°; Longitude: 120.81980°

Geologist: Andrea Berge, Cleath-Harris Geologists

Drilling company: Filipponi & Thompson, Inc.

Drilling method: Mud Rotary

Lithologic Log

Depth to top and bottom in feet

<u>Top</u>	<u>Bottom</u>	<u>Thickness</u>	<u>Description</u>
0	75	75	Sand with Gravel and Clay; yellowish brown; mostly subangular to subrounded fine to medium quartz sand; with firm, sandy clay lenses and fine chert gravel.
75	115	40	Clay; grayish brown; very firm to hard, plastic; trace fine sand.
115	135	20	Gravelly Sand with Clay; yellowish brown; fine to coarse quartz sand; sandstone and chert gravel to 1/4-inch; with firm clay lens.
135	190	55	Clay; dark grayish brown; firm, plastic clay with trace sand and fine gravel.
190	280	90	Franciscan Assemblage (bedrock); very dark gray to blue-gray; hard angular fragments of metamorphic sandstone, trace chert/metavolcanics; with soft, green-gray clay.

Total Depth: 280 feet