

H

Bill Koehler

From: Bill Gustavson [bgustavson@lsce.com]
Sent: Thursday, August 28, 2014 12:02 PM
To: gmrvcwd@pacific.net
Cc: bgustavson@lsce.com
Subject: Redwood MW Discussion
Attachments: East Road Monitoring Well.pdf

Bill,

Based on the samples and geophysical logs that we have obtained from the test hole, we believe that the sand and gravel formations identified have the potential to produce water, i.e. they are permeable enough to transmit water *if* it is present. This information is enough to move forward with the next step of the investigation; construction of a multiple completion monitoring well. The monitoring well serves several purposes including the ability to collect zone specific water quality samples, water levels, and the ability to collect water levels over extended periods of time. A well that produces water that requires treatment may be of no use at all. Zone specific monitoring wells allows us to determine the wq of individual zones so that it can be determined if particular zones can be targeted for production or if it should be excluded from the final well design. Zone specific static water levels are used to determine if the individual zones are connected and to get a general sense of groundwater conditions. Of particular concern in your area is the connection of aquifer zones to the river and the need to prove that targeted zones are not connected or influenced by river under flow. One monitoring well will be constructed shallow, in the zone thought to be influenced by the river, so that river stage and water levels in all monitoring wells can be compared. All the information from the test hole and monitoring wells will them be used to determine if a well can be constructed, and allows monitoring to ascertain potential impacts.

To update you, the monitoring well construction is underway and should be completed tomorrow. (Profile is attached)

The monitoring well(s) cannot however tell us how much water a well will make. We can may some estimates based on the thickness and nature of the targeted formation, performance of other wells in the area, and if the monitoring well(s) even makes water during the monitoring well development process. For this site, at this time, the only information we have that may give us a clue to yield is the thickness and nature of the formations. Estimates of potential well yield based on existing wells in the area is unreliable due to the highly variable and inconsistent well performance and construction information of those wells which is only made more difficult by the geology of the area.

We cannot simply put a pump in the hole and see what we get in terms of yield at this point. First, some type of well structure would have to be installed and the well would have developed before installing a pump. Additionally, without zone specific information any yield information or wq, developed as part of this would be suspect.

Based on what little formation we have at this point from the test hole, I think that a well constructed at this site may yield between 100 and 300 gpm. That being said, the only way to determine what a well will yield is to construct a full diameter well and test it with a pump of sufficient size to stress the formations. Other information that is developed by testing which is vital to the final pump selection is the static water level, pumping water level, long term specific capacity, and recovery rate

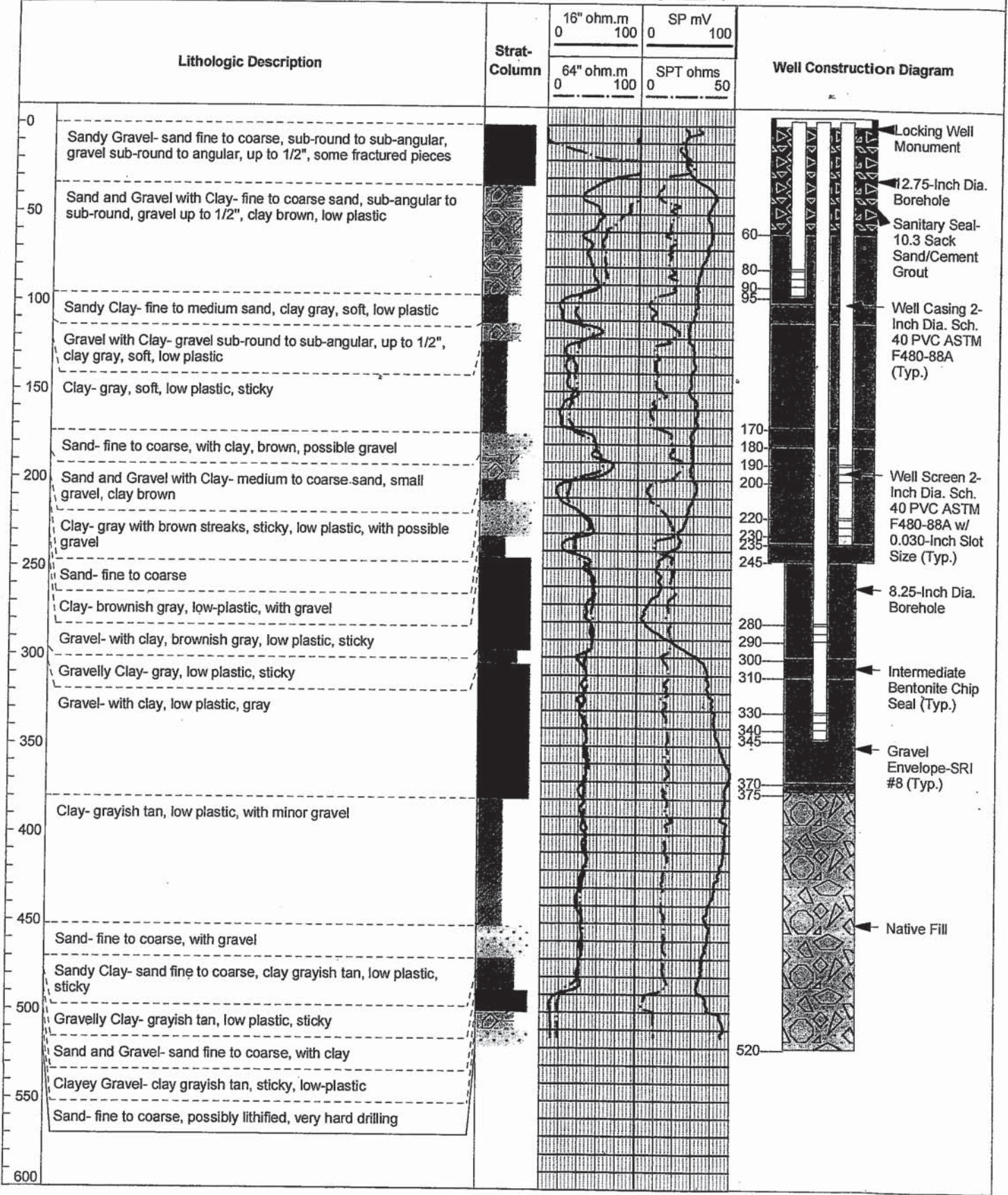
In terms of cost, we are aware that none of this is inexpensive and that we all have to justify costs to someone. However, through hundreds of similar projects, we have found that this process is necessary to avoid costly surprises down the road and is the same process laid out in our proposal. We would be happy to meet with you and/or your board to explain the investigation process, findings, and next steps.

Regards,

Scott

Client: Redwood Valley Co. W.D.
 Project Name: East Road Monitoring Well
 LSCE #: 14-5-052
 Location: Ukiah, CA
 Geologist: C. Jenkins

Lat/Long: 39.24551/-123.19768
 GSE (ft-msl) 730
 Drill Date: 2/18/2014
 Drilling Method: Direct Rotary
 Driller: Roadrunner Drilling & Pump





Redwood Valley County Water District

Post Office Box 399 • Redwood Valley, CA 95470 • (707) 485-0679

Agricultural Water
Delivery/Purchase Agreement

This agreement, entered into this 17th day of July, 2014, by and between Redwood Valley Cellars, L.P., hereinafter referred to as RVC, and Redwood Valley County Water District, hereinafter referred to as RVCWD, state as follows:

PREAMBLE: RVC has entered into a Uniform Water Supply Agreement with Mendocino County Russian River Flood Control and Water Conservation Improvement District (RRFC) which provides for the purchase of up to 47 ac-ft of project water per year. RVC currently receives agricultural water via a RVCWD meter located along East Road in Redwood Valley.

WHEREAS, THE PARTIES AGREE AS FOLLOWS:

1. RVCWD shall deliver/wheel RRFC project water to RVC through the existing meter located along East Road.
2. In compensation for the delivery of project water to RVC, RVC shall pay RVCWD a monthly meter fee equal to the current rates then in effect, plus a minimum annual usage charge, along with charges for water used in excess of the minimum. The rate used to determine the minimum and excess usage charges shall be:

$$\$/\text{ac-ft} = \text{Current RVCWD AG Rate} - \text{Current RRFC Project Water Rate}$$

3. RVC shall be responsible for paying RRFC directly for the cost of project water delivered by RVCWD.
4. RVC shall not be limited, restricted, or penalized by RVCWD for using project water in any given year. Restrictions on the use/availability of project water by RVC shall be governed by RRFC and Uniform Water Supply Agreement.
5. Nothing in this agreement invalidates the existing right held by RVC, as a district customer/property owner, to purchase water directly from RVCWD. RVC shall give 30 days written notice to RVCWD if it desires to terminate this agreement, and revert back to purchasing water directly from RVCWD.
6. This agreement shall continue for one year, and will automatically renew for successive one year terms, unless amended by both parties, or cancelled in writing by RVC with 30 days written notice.

REDWOOD VALLEY CELLARS, LP

By Shawn P. Harmon
Shawn P. Harmon, General Manager

REDWOOD VALLEY COUNTY WATER DISTRICT

By Granville Pool
Granville Pool, President

BOARD OF DIRECTORS

Granville Pool
Pamela Ricetti
Ken Todd
Jeff Basll



Redwood Valley County Water District

Post Office Box 399 • Redwood Valley, CA 95470 • (707) 485-0679

Water Delivery/Purchase Agreement Amendment

This amendment entered into this 18th day of September, 2014, by and between Redwood Valley Cellars, L.P., hereinafter referred to as RVC, and Redwood Valley County Water District, hereinafter referred to as RVCWD, states as follows:

PREAMBLE: RVC has entered into a Uniform Water Supply Agreement with the Mendocino County Russian River Flood Control and Water Conservation Improvement District (RRFC) which provides up to 40 ac-ft of project water per year. RVC currently receives agricultural water via a RVCWD meter located along East Road in Redwood Valley. Due to drought conditions during calendar year 2014 RVC is restricted to a maximum of 30 ac-ft under the agreement with RRFC. RVC requests that the agreement between RVC and RVCWD to deliver the contracted water be amended to include domestic water as well as agricultural water to an amount not to exceed the maximum amount for calendar year 2014.

WHEREAS, THE PARTIES AGREE AS FOLLOWS:

1. RVCWD shall deliver/wheel RRFC project water to RVC through the existing meter located along East Road (agricultural water).
2. RVCWD shall deliver/wheel RRFC project water to RVC through the existing meter located along North State Street (domestic water).
3. All other conditions included in the Agricultural Water Delivery/Purchase Agreement entered into on the 17th day of July, 2014 shall remain in effect.

REDWOOD VALLEY CELLARS, LP

REDWOOD VALLEY COUNTY WATER DISTRICT

By: _____

By: _____

Shawn P. Harmon, General Manager

Granville Pool, President

BOARD OF DIRECTORS
Granville Pool
Pamela Ricetti
Ken Todd
Jeff Basili