

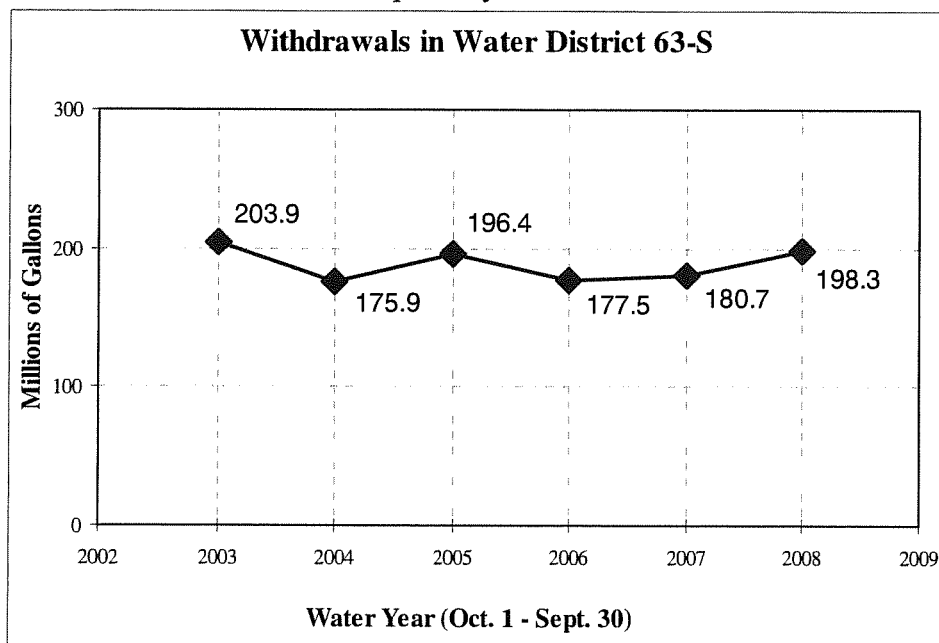
# Watermaster's Report

## Ground Water District 63-S (Stewart Gulch)

### March 1, 2008 to March 1, 2009

#### Summary of Watermaster Activities

The total withdrawal of low temperature geothermal water in Ground Water District 63-S (GWD63-S) in Water Year 2008 (WY08) was 198.3 million gallons (mgal) (Figure 1). This total was 17.6 mgal more than the total withdrawal in Water Year 2007 (WY07) (Table 1). This change was a 10% increase from WY07 to WY08. Overall, the withdrawal from the Stewart Gulch aquifer system was 609 acre feet.



**Figure 1.** Low-temperature geothermal ground water withdrawals in Ground Water District 63-S for Water Years 2003-2007.

#### Water Levels

All of the wells in GWD63-S showed overall downward trends in water levels in WY08 (Figures 2-9). These trends are consistent with the increase in total withdrawal in the District. As it has observed and documented in the past, the aquifer pressures/water levels in GWD63-S respond quickly to changes in withdrawal.

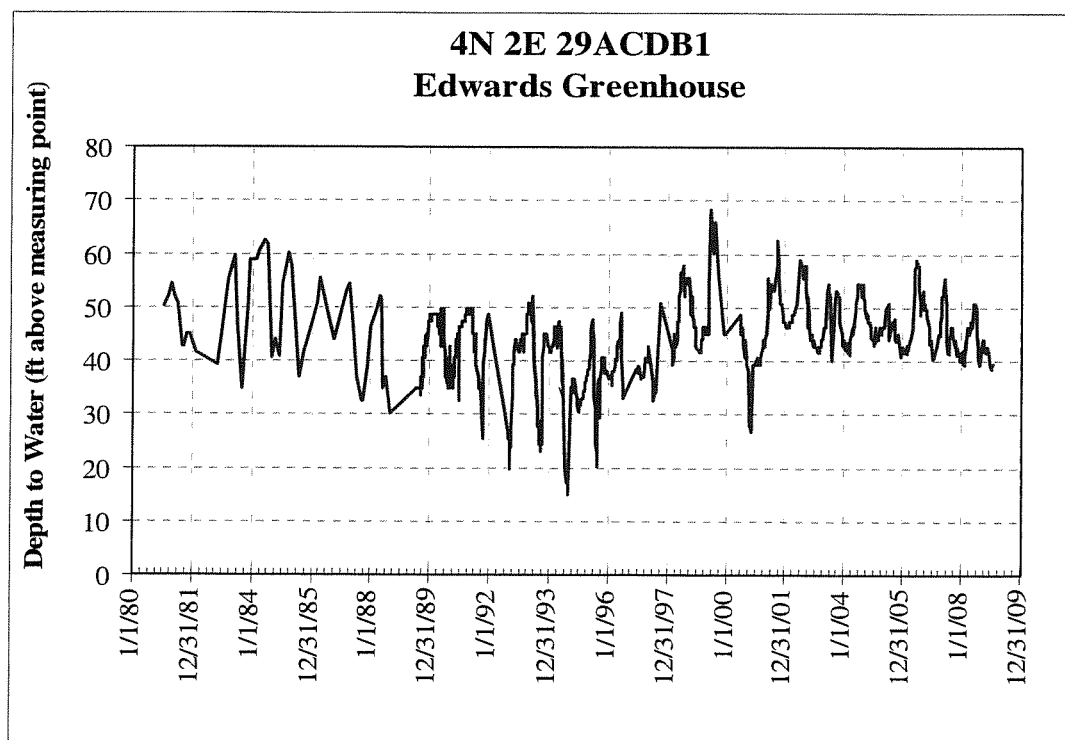
The Edwards well had a decrease in the maximum water level from WY07 to WY08 of about five feet (Figure 2); however, the minimum level decreased only slightly. The TTCI Tiegs (Triangle), House (Office), and Silkey (Shed) wells had greater declines in minimum water levels than the Edwards well (Figures 3-5), but these three wells showed less decline in their maximum water levels than the Edwards well. The Quail Hollow wells showed very slight declines in the maximum water levels (Figure 6 and 7). The minimum water level for the Quail Hollow Lower (Nibbler) well declined a small

amount, while the minimum level for the Upper well actually was a bit higher in WY08. The water levels in the Terteling Ranch Windsock well do not appear to have changed significantly with the exception of one suspect reading that was quite a bit lower than any other previous readings on record (Figure 8). The maximum and minimum levels in the Terteling Ranch Pool well were both lower in WY08 (Figure 9).

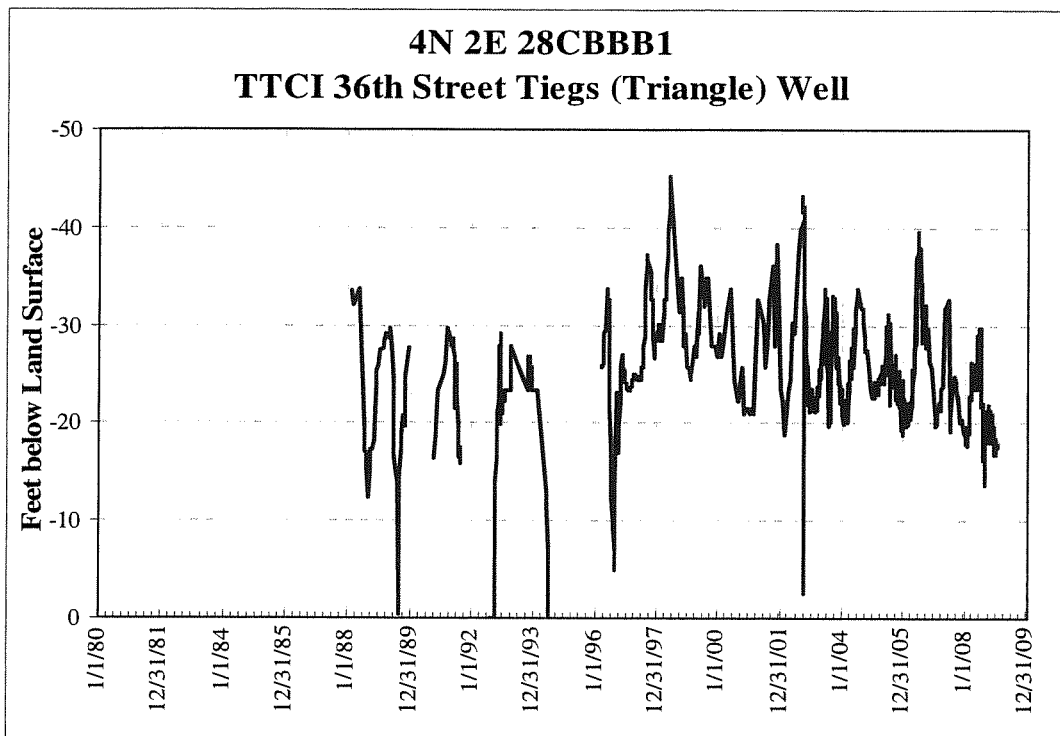
**Table 1.** Withdrawals<sup>1</sup> from Ground Water District 63-S low-temperature geothermal wells for Water Year 2008 (October 1, 2007 through September 30, 2008).

Well	Withdrawals in WY08 (millions of gallons)	Change from WY07 (millions of gallons)
TTCI Ties (Triangle)	0	0
TTCI Silkey (Shed)	5.0	-3.6
TTCI House (Office)	0.6	+0.6
Edwards Greenhouse	60.0	+4.8
Terteling Ranch Windsock	105.7	+28.8
Terteling Ranch Pool	13.1	-6.3
Quail Hollow (Tee Ltd) Upper	9.8	-4.6
Quail Hollow (Nibbler) Lower	+<0.1	-2.1
Whitehead	4.1	+<0.1
<b>Total</b>	<b>198.3</b>	<b>+17.6</b>

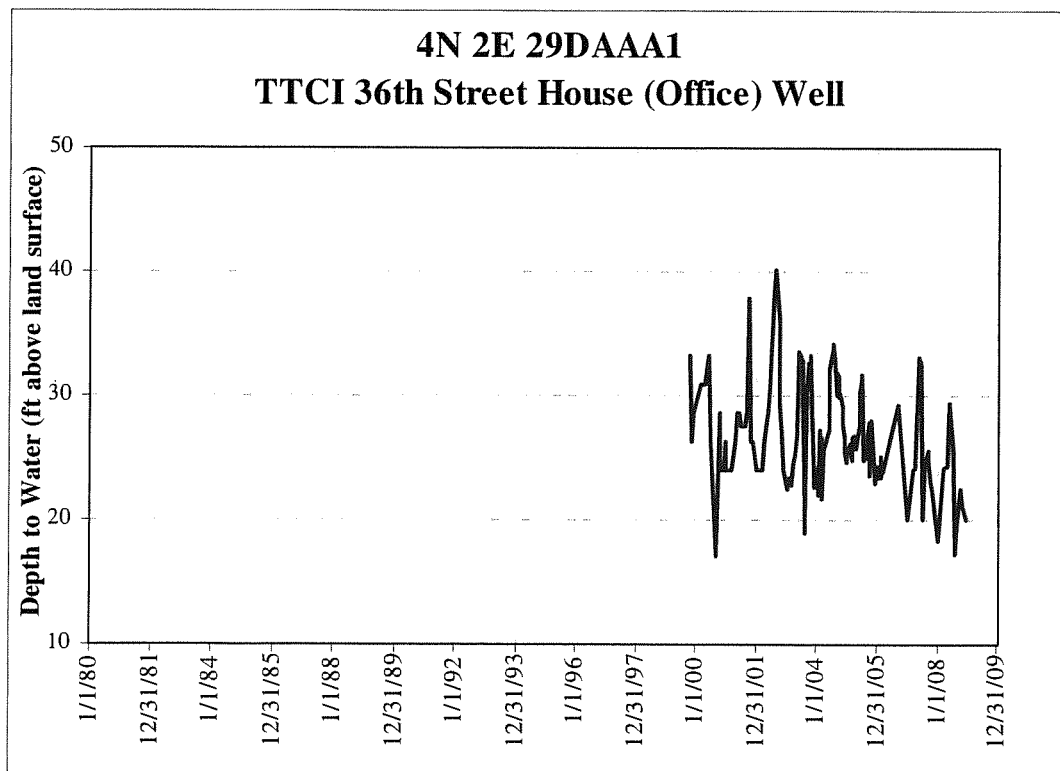
<sup>1</sup>These numbers contain some degree of uncertainty which is typically associated with measurement equipment and methods. Therefore, the amounts are being reported in millions with one decimal place.



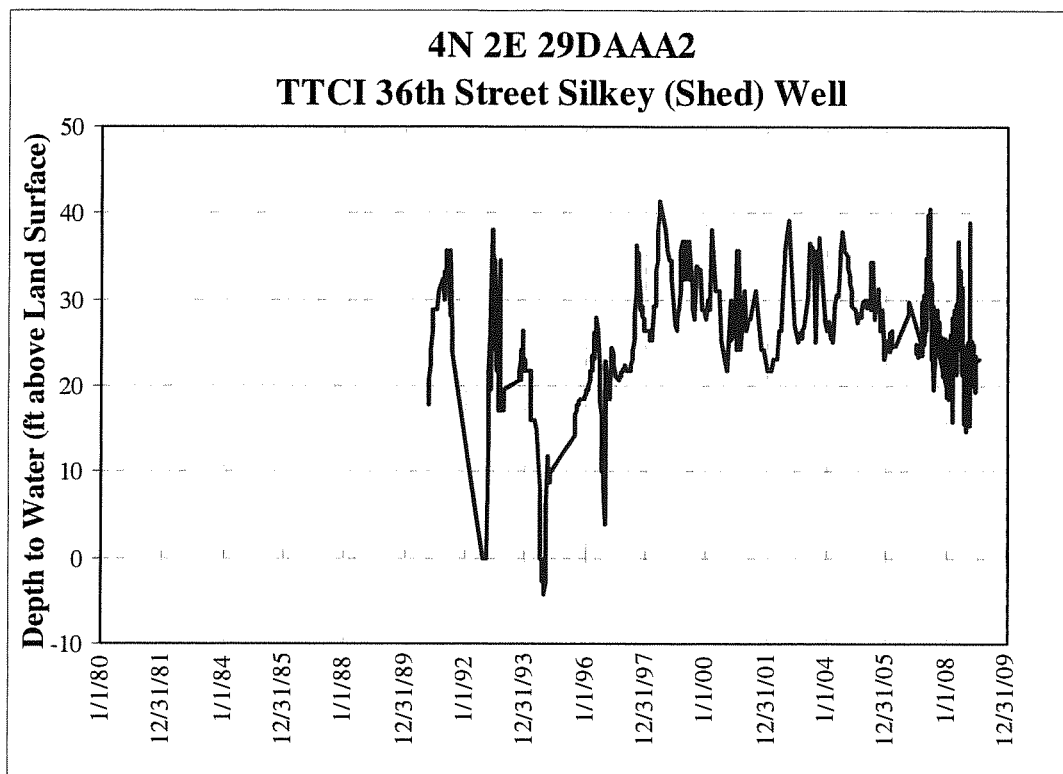
**Figure 2.** Water level hydrograph for the Edwards Greenhouse well.



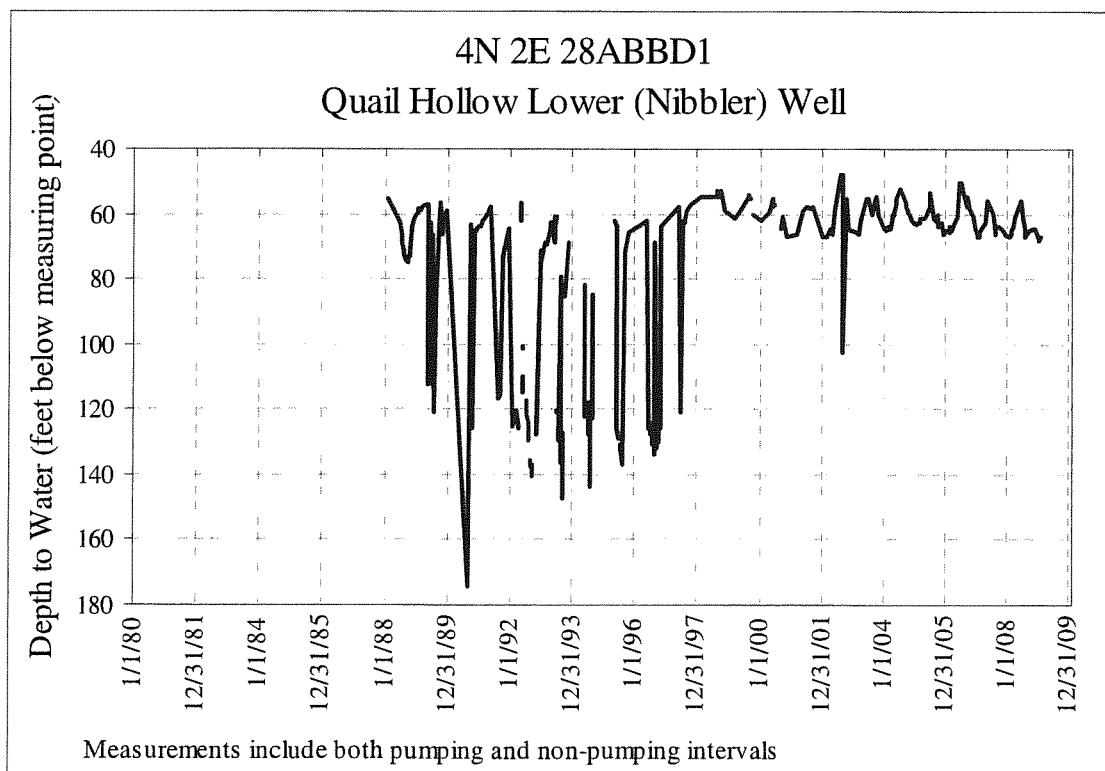
**Figure 3.** Water level hydrograph for the TTCI 36<sup>th</sup> Street Tieg's (Triangle) well.



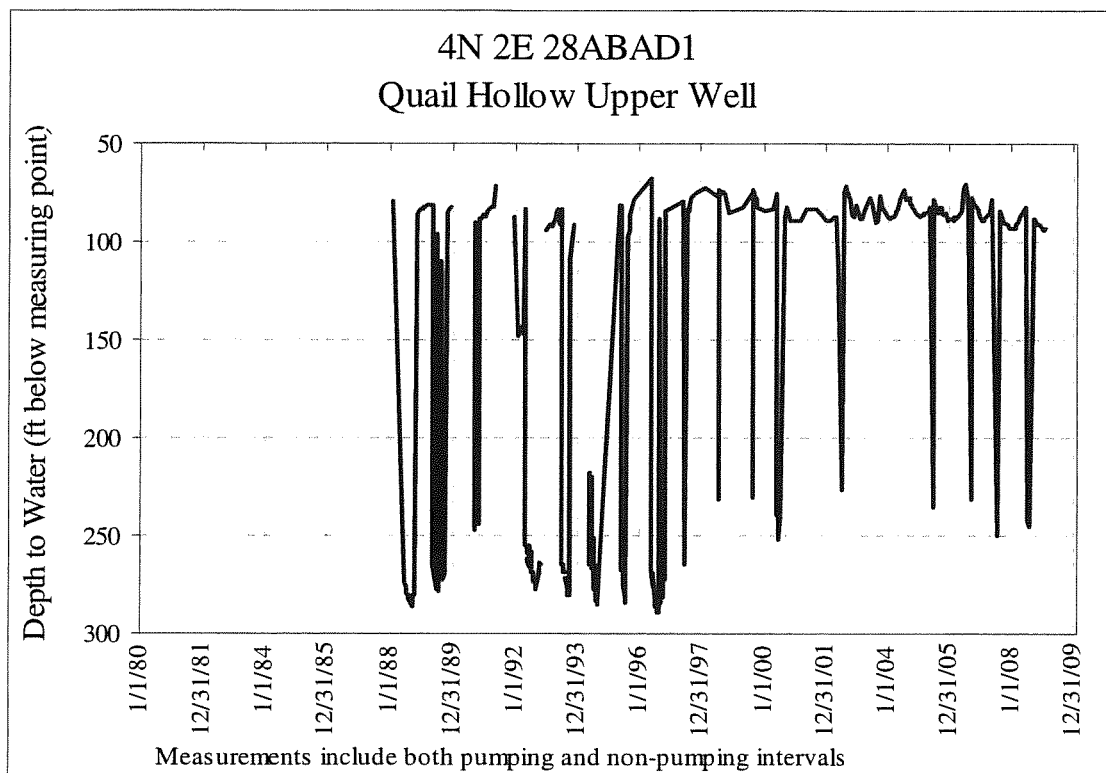
**Figure 4.** Water level hydrograph for the TTCI 36<sup>th</sup> Street House (Office) well.



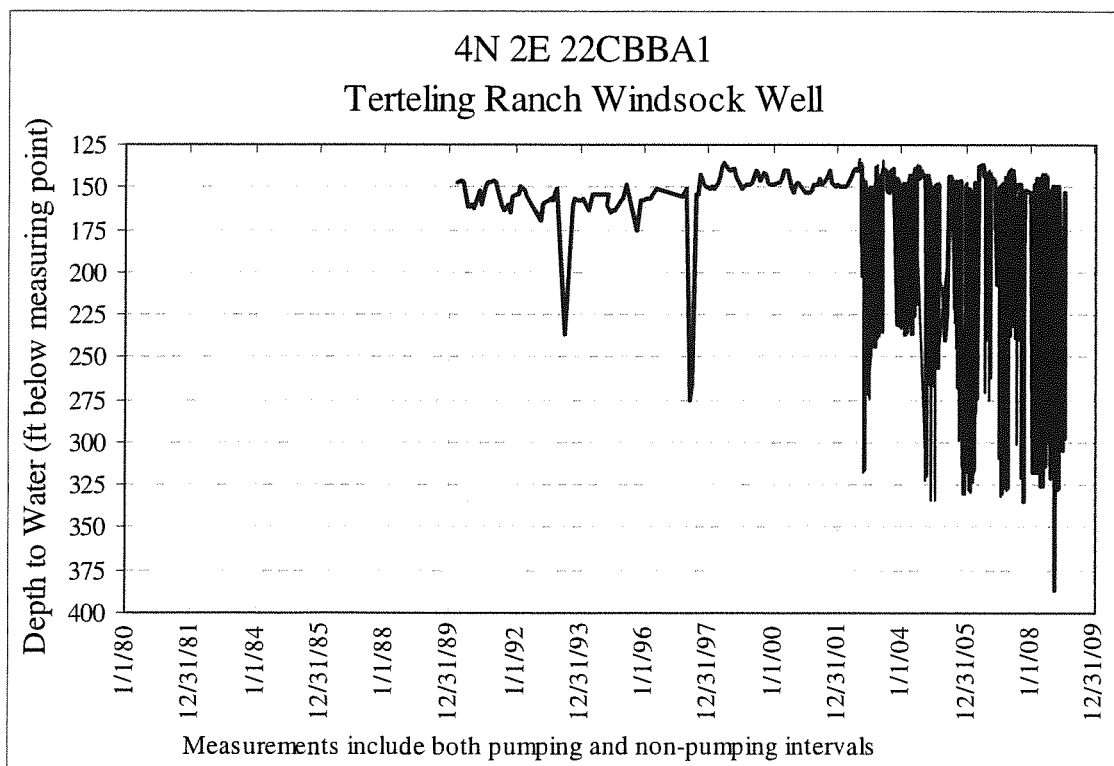
**Figure 5.** Water level hydrograph for the TTCI 36<sup>th</sup> Street Silkey (Shed) well.



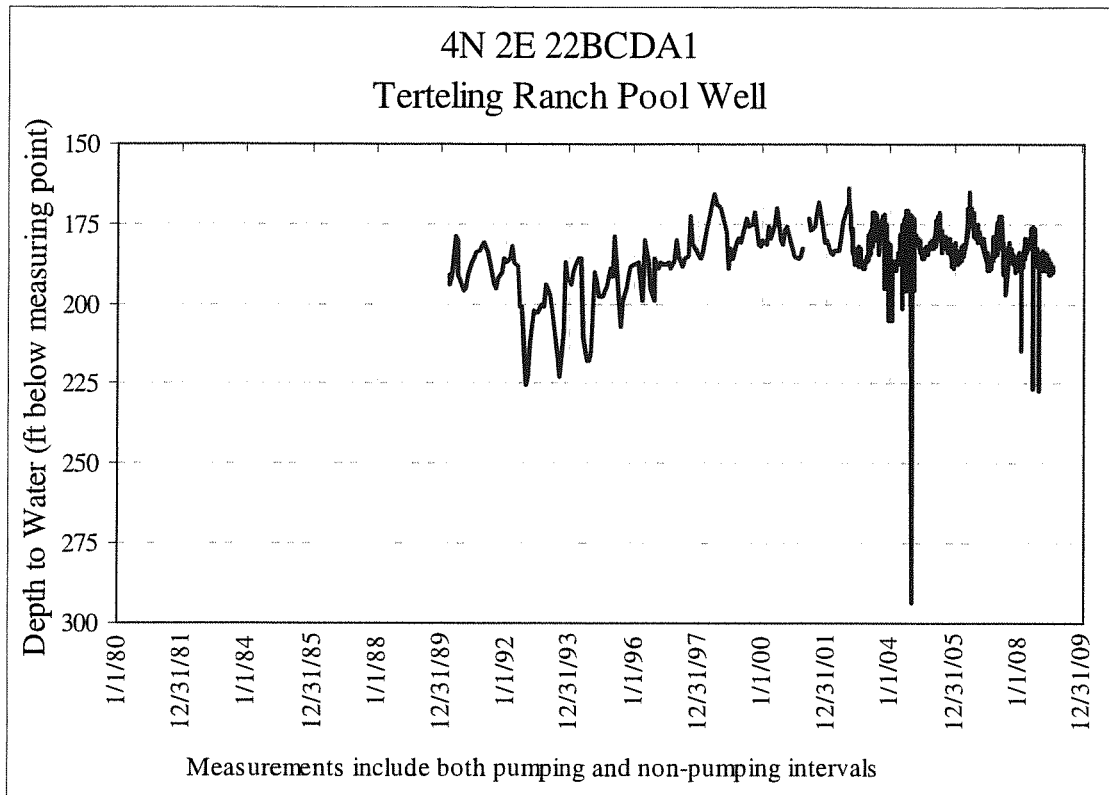
**Figure 6.** Water level hydrograph for the Quail Hollow Nibbler (Lower) well.



**Figure 7.** Water level hydrograph for the Quail Hollow Tee Ltd (Upper) well.



**Figure 8.** Water level hydrograph for the Terteling Ranch Windsock well.



**Figure 9.** Water level hydrograph for the Terteling Ranch Pool well.

## Watermaster Expenses

The Watermaster worked 39.9 hours in the time period from March 1, 2008 to February 28, 2009. The billing for these services is as follows:

Salary	\$1,080.31
Fringe	\$ 423.44
Supplies	\$ 2.04
<u>Indirect</u>	<u>\$ 581.95</u>

Total	\$2,087.74
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**Table 3.** Assessment for Watermaster's expenses for Water District 63S for March 1, 2008 through March 1, 2009.

Owner	Name	Percentage <sup>1</sup>	Assessment <sup>2</sup>
Terteling Company	Flora Tiegs	0.000	\$0.00
Terteling Company	Flora Silkey	20.723	\$432.64
Terteling Company	Flora House	1.566	\$32.69
Edwards Greenhouses	Edwards	22.864	\$477.34
Terteling Company	Terteling Windsock	36.147	\$754.66
Terteling Company	Terteling Pool	9.714	\$202.80
Quail Hollow Golf Course	Quail Hollow Upper	6.562	\$137.00
Quail Hollow Golf Course	Quail Hollow Lower	2.444	\$51.02
Rose and Mary Ryan	Ryan	-	\$10.00
David Niznik	Whitehead	-	-
	<b>Total</b>	<b>100</b>	<b>\$2098.15</b>

<sup>1</sup>Percentages as determined at the 2004 Annual Meeting.

<sup>2</sup>Based on percentages in Column 3 times the Watermaster's Fees for this time period (\$2087.74).

TTC 1422.19 67.10%  
QH 186.02 8.9%

Respectfully submitted,

*Kenneth Neely*

Kenneth Neely, Watermaster