Mailed 1/9/14

COUNTY OF SONOMA
PERMIT AND RESOURCE MANAGEMENT DEPARTMENT

2550 Ventura Avenue, Santa Rosa, CA 95403-2829
(707) 565-1900 FAX (707) 565-1399

CERTIFICATION OF WATER YIELD IN WATER SCARCE AREAS

The Permit and Resource Management Department shall be notified 24 hours in advance of this test

Water Yield # WEL13-0443 Well Permit # WEL13-0431

I. Individual performing test: Gary Wilson

II. Type of license/registration, number and expiration date: # 747799 Exp "4-30-14"

III. Location of well:
Address: 5150 "I" ST (PETALUMA) A.P. #: 019-250-015

IV. Type and model of test pump: 3 HP SUB

V. Test pump setting depth: ~~500'~~ 480'

VI. Maximum reported yield for this pump type at this setting: 14 GPM

VII. Type of discharge measurement method: METER

VIII. Type and model of flow meter (or provide an accurate description of weir or orifice plate):

1 1/4" Brass "SENSUS"

Geographic coordinates (Plane Coordinate Method or distance from fixed landmarks): 38° 11' 7.31"
122 37' 51.76"

IX. Estimated elevation of well head: 2'

X. Initial static water level (include measuring points such as top of casing, surface seal, access port):

46' BELOW ACCESS PONT

XI. Date & time of initial static water level measurement: ~~11/1/13 8:30 (a.m.)/p.m.~~
01-01-14 7:31 AM

A. Discharge Rate: 8
B. Dynamic Water Level: 480'
C. Specific Capacity: 0.0183
D. Pump Test duration: ~~8-Hrs (+)~~
12-Hrs

XII. Immediately after the test take the following measurements:

A. Dynamic water level: 480'
B. Final discharge rate: 8 GPM

XIII. Post - Test Measurement:

A. Dynamic water level: ~~480'~~ 44'
B. Static water level: 44'
C. Percentage of recovery of final static level: 100%

Testing performed by (signature): Mary D W

Date: ~~11-7-13~~ 01-01-14 Company: NORCAL PUMP WORK Phone Number: 707-765-2323 ~~707-525-0415~~

Approved ✓ Denied _____ Specialist _____ Date 1-9-14

S:\Handouts\WL S\WL S 010 Certification of Water Yield in Water Scarce Areas.wpd

pump test method for systems of 3 or 4 connections if, after 4 hours of pumping, the specific capacity is greater than 0.05. While conducting the alternative sixteen-hour pump test the dynamic water level and discharge rate are to be recorded in accordance with the time intervals specified in Section C above.

F. Post Test Measurement

1. Measure and record the static level in the well seventy-two (72) hours after the final dynamic water level measurement.

G. Calculate the Well Recovery

1. Determine the water level draw down by subtracting the initial static water level measurement from the stabilized dynamic pumping level. Record this result as the well draw down.

2. Next determine the water level recovery by subtracting the post test (72 hour) static water level from the stabilized dynamic pumping level. Record this result as the well recovery.

3. Next determine the percent recovery of the well. Divide the water level recovery by the water level draw down and multiply by 100. Record this result as the percent well recovery.

Example:

a. Initial static water level: 42' (Measured value)

b. *Post test static water level: 42' (Measured value)

c. **Stabilized Pumping level: 480' (Measured value)

d. Draw down: 438' (Calculate by subtracting A from C)

e. Recovery: 438' (Calculate by subtracting B from C)

f. Percent recovery: 100% (Calculate by dividing E by D and multiplying the results by 100)

Well percent recovery (F) must be 90% or greater within a 72 hour period.

* The static water level after 72 hours or less post pump test.
** Kleinfelder refers to this as the dynamic pumping level.

WELL REPORT (lower well)

Date	Time	Interval	SWL	GPM	Comments
01/01/14	07:31 AM	1-Min	42'	14	Start test...
01/01/14	07:32 AM	1-Min	50'	14	
01/01/14	07:33 AM	1-Min	58'	14	
01/01/14	07:34 AM	1-Min	65'	14	
01/01/14	07:35 AM	1-Min	72'	14	
01/01/14	07:40 AM	5-Min	85'	14	
01/01/14	07:45 AM	5-Min	98'	14	
01/01/14	07:50 AM	5-Min	112'	14	
01/01/14	07:55 AM	5-Min	127'	14	
01/01/14	08:00 AM	5-Min	143'	14	
01/01/14	08:05 AM	5-Min	158'	14	
01/01/14	08:10 AM	5-Min	171'	14	
01/01/14	08:15 AM	5-Min	183'	14	
01/01/14	08:20 AM	5-Min	193'	14	
01/01/14	08:25 AM	5-Min	201'	14	
01/01/14	08:30 AM	5-Min	212'	13	
01/01/14	08:35 AM	5-Min	224'	13	
01/01/14	08:55 AM	20-Min	251'	13	
01/01/14	09:15 AM	20-Min	287'	13	
01/01/14	09:35 AM	20-Min	320'	13	
01/01/14	10:05 AM	30-Min	344'	13	
01/01/14	10:35 AM	30-Min	366'	13	
01/01/14	11:05 AM	30-Min	390'	13	
01/01/14	11:35 AM	30-Min	412'	13	
01/01/14	12:05 AM	30-Min	436'	13	
01/01/14	12:35 AM	30-Min	457'	13	
01/01/14	01:05 PM	30-Min	480'	9	Pump broke suction...
01/01/14	01:35 PM	30-Min	480'	8	Throttled pump to 8 gpm...
01/01/14	02:05 PM	30-Min	480'	8	
01/01/14	02:35 PM	30-Min	480'	8	
01/01/14	03:05 PM	30-Min	480'	8	
01/01/14	03:35 PM	30-Min	480'	8	
01/01/14	04:05 PM	30-Min	480'	8	
01/01/14	04:35 PM	30-Min	480'	3	
01/01/14	05:05 PM	30-Min	480'	8	
01/01/14	05:35 PM	30-Min	480'	8	
01/01/14	06:05 PM	30-Min	480'	8	
01/01/14	06:35 PM	30-Min	480'	8	
01/01/14	07:05 PM	30-Min	480'	8	
01/01/14	07:35 PM	30-Min	480'	8	
01/01/14	**07:40 PM**	**30-Min**	**480'**	**8-gpm**	End test...

Date	Time	SWL	Percent Recovery (72-hours)	
01/03/14	08:40 AM	42'	100%	(37-hours)