

# Layne-Western

A Division of Layne Christensen Company  
 4601 N. 252nd Street, PO Box 597  
 Valley, Nebraska 68064  
 (402) 359-2042

63141

## WELL INFORMATION

1. Contact: Regional Water Date: 05/16/2002  
 2. City and State: Avoca, IA Driller: Mark Leslie  
 3. Well No. 2002-16 at test hole No. 16 Well location (attach map) \_\_\_\_\_

4. Work completed: \_\_\_\_\_ Number of man-hours as charged to job on daily report: \_\_\_\_\_

5. Materials:

Length	Diameter	Gauge or Wall Thickness	Material	Type	Number of Openings
5'	12"	.375	Stainless Steel	Houston	.075
26'	12"	.375	Carbon Steel	Livingston	

6. Screen: \_\_\_\_\_  
 7. Inner Casing: \_\_\_\_\_  
 8. Outer Casing: \_\_\_\_\_  
 9. 2 tons of gravel used in the well. Size: Luther Maddox "A" pack  
 10. Well Test. Did you use test or permanent pump? Test Bowl Size: \_\_\_\_\_ Stages: \_\_\_\_\_  
 11. Size of orifice: \_\_\_\_\_ inch by \_\_\_\_\_ inch. Orifice tube reading: \_\_\_\_\_ inches.

12. Pumping test (measurements from ground-level):

Time	Gallons Per Minute (GPM)	Static	Drawdown	Pumping Level
	SEE	ATTACHED	SHEET	

13. Recovery in 5-minutes: \_\_\_\_\_, in 30-minutes: \_\_\_\_\_  
 14. Did you seal bottom of well? Yes Thickness: .375 inches. Material: Stainless Steel  
 15. Well under-reamed? NO From \_\_\_\_\_ feet to \_\_\_\_\_ feet, \_\_\_\_\_ feet to \_\_\_\_\_ feet.  
 16. If all screen was not placed at bottom, state how it was spaced.  
 From \_\_\_\_\_ feet to \_\_\_\_\_ feet; from \_\_\_\_\_ feet to \_\_\_\_\_ feet; from \_\_\_\_\_ feet to \_\_\_\_\_ feet.  
 17. Depth of well from ground level to top of plug 31' Size of drilled hole: 24 inches.  
 18. Was cement placed around or between any of the casings? Yes If so, state where, how much 1 yard  
 and method used: through tremie pipe



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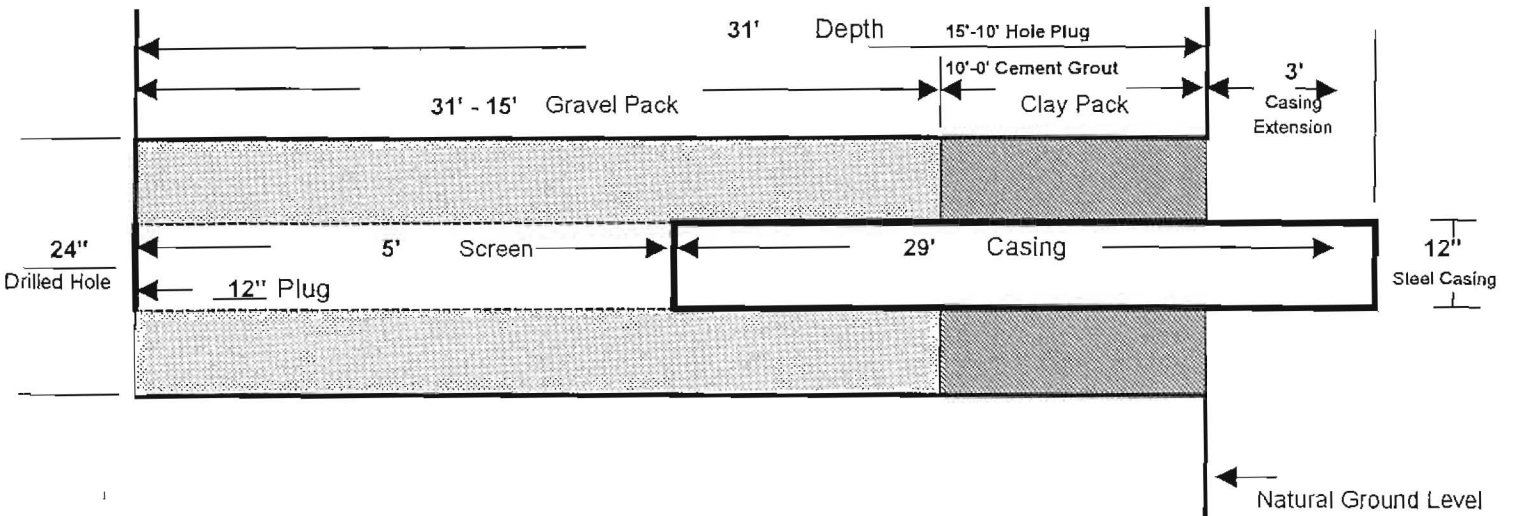
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## WELL INFORMATION

CONTRACT Regional Water WELL No. 2002-16  
 DATE 05/16/2002

Log of well from ground level:

Feet		Feet	Formation
0	to	13	Dark Clay
13	to	23	Fine - Coarse Sand & Gravel
23	to	34	Coarse Gravel & Cobbles
	to		
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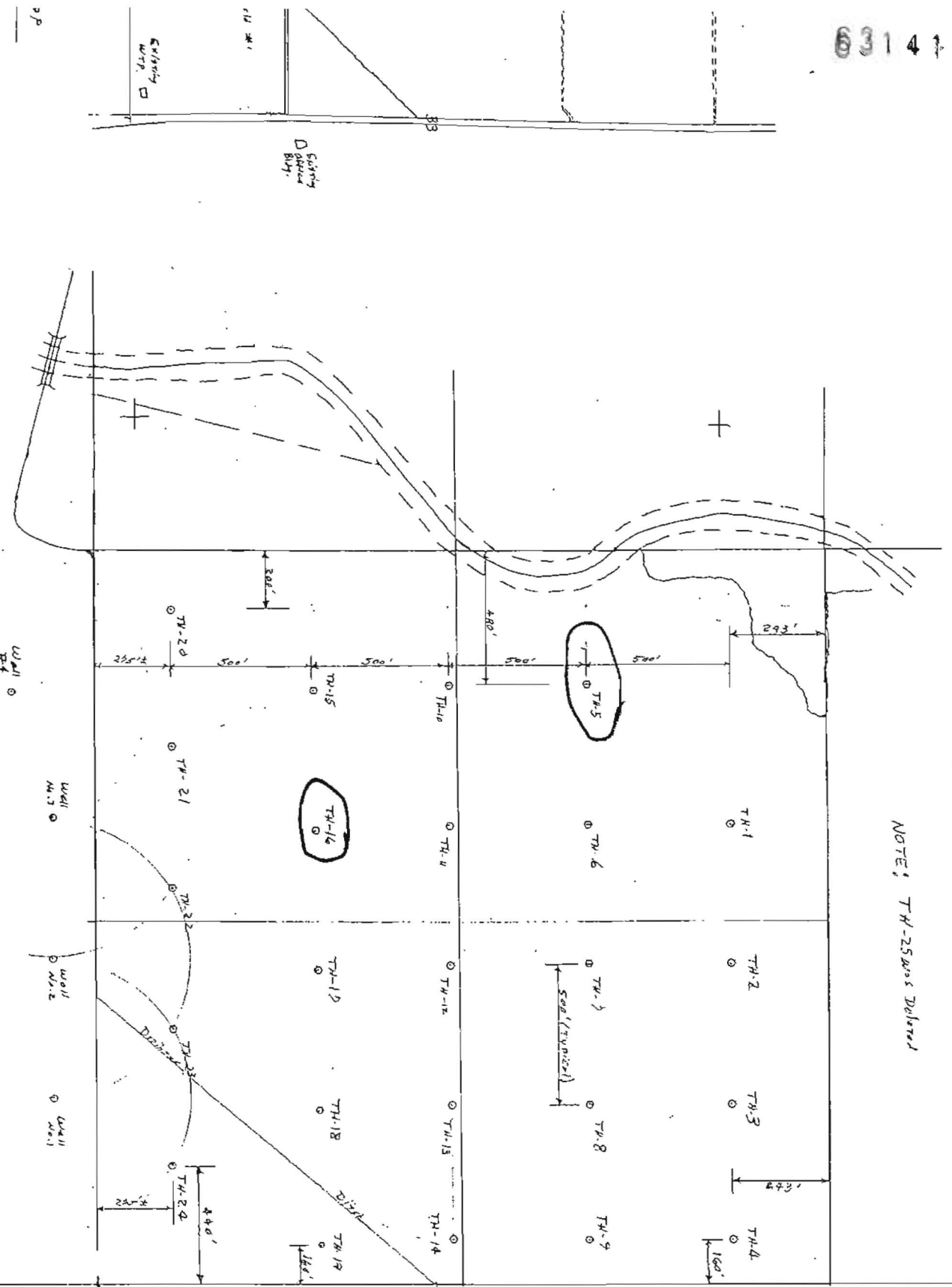
## WELL INFORMATION

Job	Regional Water	Well No.	2002-16	Date Tested	05/23/2002
Location	Avoca, IA			Tested By	Jim Kneifl
Diameter of Well	12"			Driver	Generator
Depth of Well	34' TOC	Pump Use	Test	Column & Shaf	3" column
Length of Airline	Electric Probe			Bowls	
Non-Pumping Level	18' 3 1/2"			Manufacturer	Grundfos
Orifice Size	4 x 2 1/2			Serial No.	

Time	Piezometer Reading (in.)	G.P.M.	Specific Capacity	Pumping Level	Drawdown	Disch. Pressure		Total Pumping Head	Orifice
						Lbs.	Feet		
	<b>TH - 1</b>		<b>TH - 2</b>	<b>New Well</b>	0	80			
6:30	17' 6"	0	18' 6"	18' 3 1/2"	4' 2 1/2"	80			
6:30:30				22' 1"	4'	80			
6:31				22' 6"	4'	80			
6:31:30				22' 8"	5'	80			
6:32				23'	5'	80			
6:32:30				23'	5'	80			
6:33				23'	5'	80			
6:33:30				23'	5'	80			
6:34				23' 1/2"	4' 10"	80			
6:34:30				23' 1/2"	4' 10"	80			
6:35	18' 1"	116.4	18' 8"	23' 1"	4' 10"	80	22"		
6:40	18' 1"	117.7	18' 8"	23' 1"	4' 11"	80	22 1/2"		
6:45	18' 3"	119	18' 8"	23' 2"	5'	80	23"		
6:50	18' 3"	119	18' 8"	23' 3"	5' 1"	80	23"		
6:55	18' 3"	119	18' 8"	23' 4"	5' 3"	80	23"		
7:00	18' 3 1/2"	119	18' 8"	23' 6"	5' 3"	80	23"		
7:05	18' 3 1/2"	119	18' 8"	23' 6"	5' 3"	80	23"		
7:10	18' 5"	119	18' 8"	23' 6"	5' 3"	80	23"		
7:15	18' 5"	119	18' 8"	23' 6"	5' 3"	80	23"		
7:20	18' 5"	119	18' 8"	23' 6"	5' 3"	80	23"		23.8
7:25	18' 5"	119	18' 8"	23' 6"	5' 3"	80	23"		23.8
7:30	18' 5"	119	18' 8"	23' 6"	5' 3"	80	23"		23.8
7:50	18' 6"	119	18' 9"	23' 7"	5' 4"	80	23"		
8:10	18' 6"	119	18' 9"	23' 7"	5' 4"	80	23"		
8:30	18' 6"	119	18' 9"	23' 8"	5' 5"	80	23"		
8:50	18' 6"	119	18' 9"	23' 8"	5' 5"	80	23"		21.63
9:10	18' 6"	119	18' 9"	23' 9"	5' 5"	80	23"		21.63
9:30	18' 6"	119	18' 9"	23' 9"	5' 5"	80	23"		21.63



NOTE: TH-25 WAS DULFORD



SITE PLAN

Revised: 11-14-01

SEE ALSO DRAWING 11-14-01