Layne-Western Company, Inc.

Well Information

Omaha, Nebraska

1. Contract: Harlan Utilities Date: 12-12-78
2. City and State: Harlan, Iowa Driller: Harold Statz
3. Well No. 19 at test hole No. ..... Well location (attach map) .....
4. Work completed ..... No of man hours as charged to job on time sheet .....
5. MATERIAL:

	LENGTH	DIA.	GAUGE OR WALL THICKNESS	MATERIAL	TYPE	NO. OF OPENINGS
6. Screen	10'	10"		S.S.	Wire wrap.	.050
7. Inner Casing	32	10"	.365	Steel	Welded	
8. Outer Casing						

9. ..... tons of gravel used in the well. Size #2 Northern
10. Test of well. Did you use test or permanent pump? Test 10 (Size of Bowl) 4 (Stages)
11. Size of orifice 4 inch by 2½ inch. Orifice tube reading 10 inches.
12. Pumping test — measurements from ground level: Hose length = ~~34~~ 35 ft.

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL
4 hours	62	19'	5	24

13. Recovery in 5 minutes full, in 30 minutes full
14. Did you seal bottom of well? yes Thickness 3/16 inches, material S.S.
15. Well underreamed? No From ..... feet to ..... feet, ... feet to ..... feet.
16. If all screen was not placed at bottom, state how it was spaced.

    From 27 feet to 37 feet; from ..... feet to ..... feet; from ..... feet to ..... feet.
17. Depth of well from ground level to top of plug 37' Size of drilled hole 28"
18. Was cement placed around or between any of the casings? yes
19. If so, state where, how much and method used. 1½ yds. 17' - 7'

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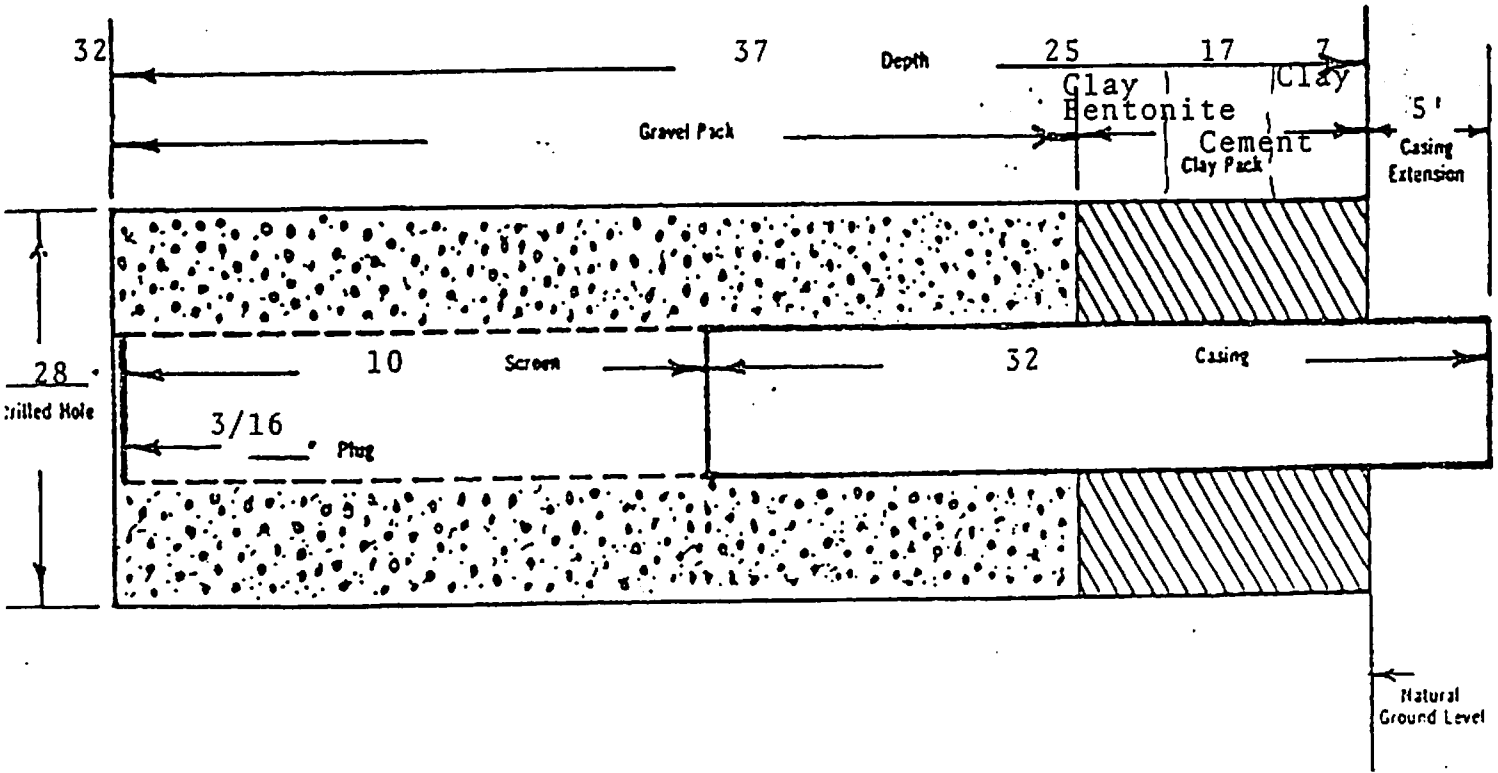
CONTRACT Harlan, Iowa Well No. 19

Log of well from ground level:

Feet		Feet	Formation
0	to	2	Top soil
2	to	13	Brown clay
13	to	16	Yellow clay
16	to	23	Gravel, coarse sand
23	to	25	Gravel, boulders
25	to	35	Coarse sand, gravel, fine sand
35	to	37	Gravel, boulders
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