

1. Contract City of Alta Iowa Date 9-6-63
 2. City and State Alta Iowa Driller Jim Soukup
 3. Well No. 7 at test hole No. 1 Well location (attach map) _____

4. Work completed Recess 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 90' 12" 7 S.S. Loynes sluth 7

7. Inner Casing 438' 12" I.D. 15.15 P.P.F. Black Pipe T.R.C.

8. Outer Casing None

9. 110 tons of gravel used in the well. Size for bottom 200' Heavy grade gravel

10. Test of well. Did you use test or permanent pump? Test 10" 75
 Size of Bowl Stages

11. Size of orifice 6" inch by 5" inch. Orifice tube reading 15" inches.

12. Pumping test — measurements from ground level:

TIME	G.P.M.	STATIC	DRAWDOWN	PUMPING LEVEL
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.....				
.....				
.....				
.....				
.....				
.....				

13. Recovery in 5 minutes Full in 20 sec, in 30 minutes _____

14. Did you seal bottom of well? yes Thickness 4" inches, material S.S. Plate

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 _____ feet to _____ feet; from _____ feet to _____ feet; from _____ feet to _____ feet.

17. Depth of well from ground level to top of plug 524' Size of drilled hole 30"

18. Was cement placed around or between any of the casings? yes

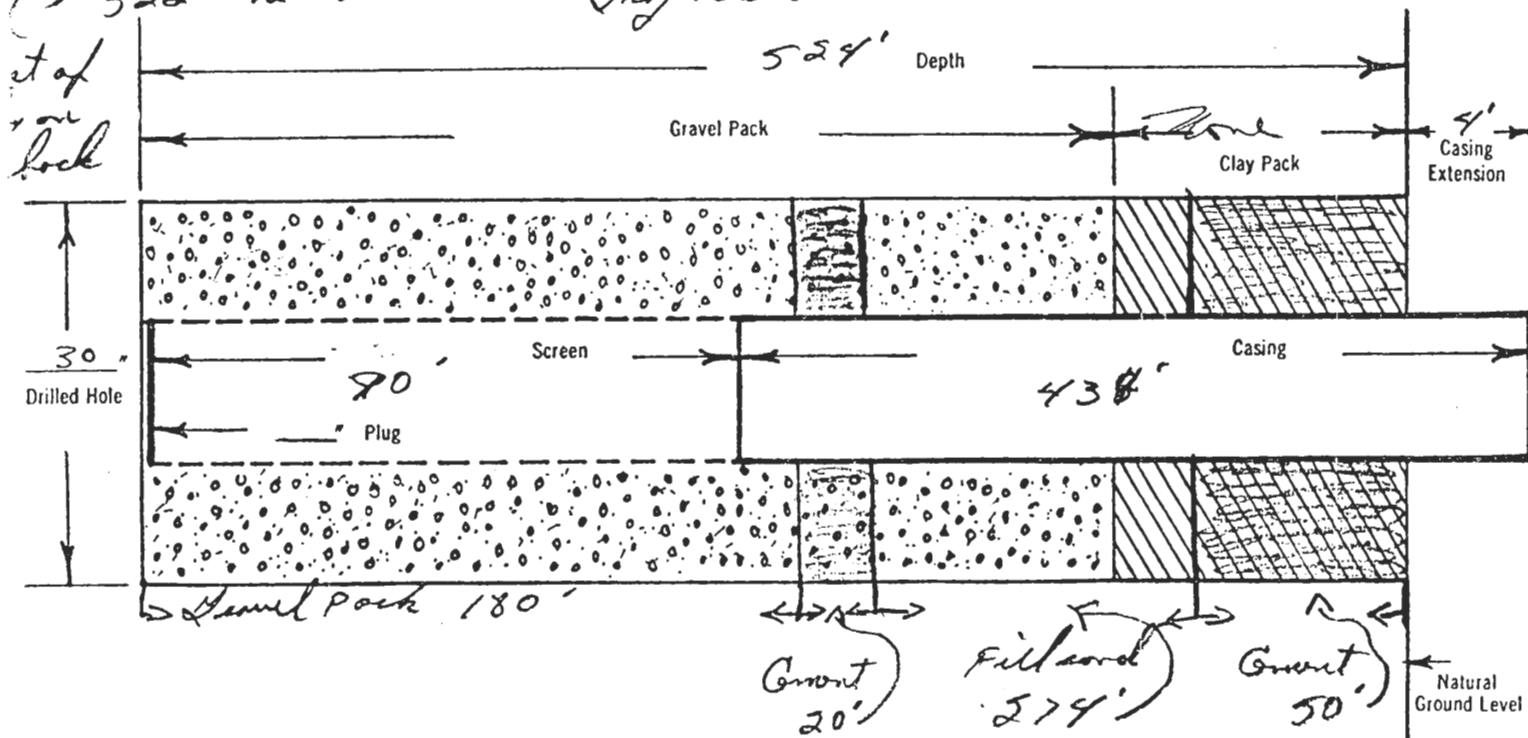
19. If so, state where, how much and method used. 524' to 344' and from 0' to 50'
100 sacks from 324' to 344' 300 sacks from 0' to 50'
Placed in

CONTRACT City of Alta Iowa

Well No. 7

Log of well from ground level:

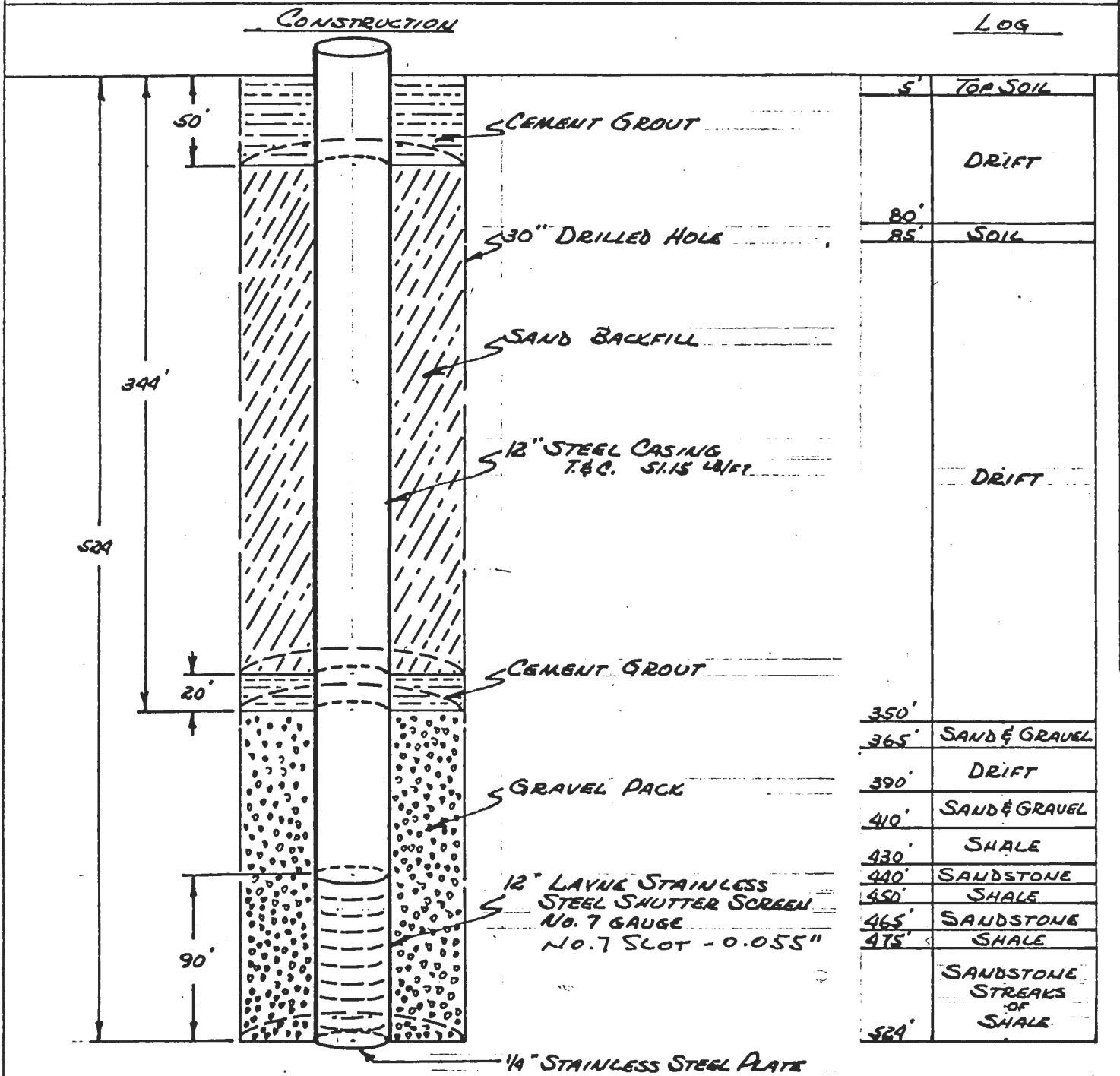
Feet	to	Feet	Formation
0	to	26'	Brown clay + gravel
26'	to	96'	Blue clay gravel + Balch
96'	to	140	Brown clay
140	to	168	Blue clay
168'	to	196'	Brown clay + Balch
196'	to	197'	Gravel sandstone
197'	to	202	Brown clay
202	to	206	Loose gravel
206	to	236	Gray clay
236	to	261	Brown clay
261'	to	406'	Blue clay from Balch
406'	to	409'	Limestone bed
409'	to	422	Sandy blue clay
422	to	510	Med to coarse sandstone bed streak
510	to	514'	Gray shale
514'	to	522	Med sandstone fairly loose
522	to	523	Gray shale



**DETAIL OF WELL CONSTRUCTION
FOR
TOWN OF ALTA, IOWA
WELL No 4**

LAYNE-WESTERN COMPANY, AMES, IOWA

JULY 1963



S.C. - 13.9

STATIC LEVEL 322'	CAPACITY 473 GPM	DRAWDOWN 34'	PUMPING LEVEL 356'
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Town of Alta

A-143

January 25, 1963

1

Alta

Iowa

Jim Anderson

East edge of town along railroad track

NE 26-91N-38W

0	1'6"	Black topsoil
1'6"	11'	Sandy yellow clay, pebbles
11'	16'	Fine to coarse sand and small gravel - brown and yellow clay
16'	32'	Sandy yellow clay and pebbles
32'	106'	Sandy gray clay, pebbles - Harder at 77' and hole bridging
106'	134'	Sandy tan clay
134'	160'	Gray clay
160'	224'	Sandy tan clay - Streaks of light and dark gray clay - Layers of rock at 161'
224	253	Sandy gray clay - boulders at 227-242-245
253	268	Soft sandy tan clay - boulders at 255
268	355	Sandy gray clay
355	382	Very sandy gray clay - lenses of sand
382	388	Lot of sand but still gray clay
388	403	Very sandy gray clay lenses of sand
403	410	Coarse and fine sand - small gravel, gray clay
410	475 1/2	Very sandy shaley gray clay - lenses of sand

Mud Pit Size 4'

8'

4'

Alta Test Hole Log Continued

Drills like sandstone 438' to 440' and
456' to 460'

475'6" 481'6" Void - 1' loss of mud before getting
circulation back

481'6" 507' Sandy shaley gray clay - lenses of sand 9" max
Pulled back to drilldown and lost circulation
and 5" mud.

507' 524' Sandy yellow brown clay

524' 530' Soft shaley gray clay - thin layer of rock
at 524'