



Layne-Western Company, Inc.

WATER SUPPLY CONTRACTORS

705 SO. DUFF AVE.

AMES, IOWA 50010

Phone 515 232-3563

Name of Job _____ City of Alta _____ Date 12/09/87 _____
 City or Village _____ Alta _____ State Iowa _____
 Well No.: 5 _____ Drillers: Wade Stockton, Jerry Watkins, Dennis Auld, Dean Heldt _____
 Well Location: _____ ft. (_____) and _____ ft. (_____) of the _____ corner of
 Section _____, Twp. _____ (_____), Range _____ (_____) _____ County.
 Otherwise located as approximately 200' W. of old well, 1st and Lake Street _____

Work Began: _____ Work Completed: 11/30/87 _____ Well Depth: 563' _____
 All measurements made from existing ground level at time well was drilled.

Casing Record:

Amount	Dia.	Wt. or Thickness	Material
465.5	12"	.375	steel with weld joints from +2.5' to 463'
_____	_____	_____	with _____ joints from _____ to _____

Screen Record: Type shutter

Amount	Dia.	Opening	Material
100'	12	.040	stainless steel with weld joints from 463 to 563
_____	_____	_____	with _____ joints from _____ to _____

Type of Seal at Bottom welded stainless steel plate

Hole Record:

34"	inch from	0	to	9
30"	inch from	9	to	565

Gravel Pack Record:

Amount	Size	Source	From	To
32T	#1	Northern Gravel	420'	565'

Cementing Record: 4,000# mix from 0 to 26' 7 yds.

Backfill Record: 5' Bentonite seal from 415-420, clay and Bentonite from 26' to 415'

WELL LOG

Feet	Feet	Description
0	1	Parking lot surface
1	398	Blue and brown, yellow clays, some sand and gravel, some boulders and cobbles. See driller's notebook
398	405	Sandstone and shale streaks
405	408	Shaly sandstone
408	421	Broken rock and sandstone
421	422	Rock
422	432	Whitish gray shale
432	438	Buff sandstone
438	442	Shale
442	454	Rusty Sandstone
454	457	Hard sandstone
457	458	Shale and sandstone
458	470	Grayish sandstone
470	476	Shale and sandstone
476	481	Buff sandstone
481	493	Grayish sandstone
493	502	Rusty buff sandstone
502	526	Sandstone and some shale
526	540	Grayish sandstone
540	550	Sandstone, trace of shale
550	563	Grayish medium sandstone
563	565	Shale and sandstone, (bottom of hole)

Well Test Data: Static Level 329; pumping level 373 after 20 hours pumping at 557 g.p.m.

Length of test 24 hrs. See Well Test Data Sheet Dated 12/08/87 - 12/09/87

REMARKS:

Throttled pump back to 431 g.p.m. after pumping 20 hours