

Northway Well and Pump Co.

4895 8th Avenue
Marion, Iowa 52302
Phone 319/377-6339

Drilled for Water Works at Hiawatha, Iowa

Well is located _____ miles N-E-S-W and _____ miles N-E-S-W from _____

in the _____ $\frac{1}{4}$ _____ $\frac{1}{4}$ Section _____ Township _____ Range _____

Drilling started April 1 19 97 Completed April 24 19 97

Well No. 7 Kind of Well Rotary drilled Depth 505' Size hole started 20 in

Finish 12" G. P. M. 500 Static Head 75' Pumping level from surface 195'

Water was first encountered at 225 in _____ Approx. Amt. 20 Temp 52 degrees

Remarks Grout Cement Shoe was used for a full length grout.

(GIVE DETAILS OF PERFORATED PIPE AND SEALS)

RECORD OF PERMANENT PIPE					TEMPORARY PIPE	
SIZE PIPE	AMOUNT OF PIPE	DEPTH TO BOTTOM OF PIPE	DEPTH TO TOP OF PIPE	MAKE OF PIPE	SIZE PIPE	AMOUNT
12"	227'	225'		Steel	20"	20'

Driller Rick Freese From Surface to 505 feet

Driller _____ From _____ feet to _____ feet

Driller _____ From _____ feet to _____ feet

AMOUNT IN FEET	KIND OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
15	Sand	15
40	Fractured limestone (red)	55
20	Gray limestone	75
5	Brown limestone	80
4	Gray limestone	84
12	Brown limestone	96

AMOUNT FEET	KINDS OF SOIL OR FORMATION (BE SPECIFIC)	TOTAL DEPTH FEET
2	Gray shale	98
2	Brown limestone	100
8	Gray limestone with white limestone	108
7	Gray limestone soft	115
5	Gray limestone hard	120
2	Gray limestone soft	122
3	Brown limestone soft	125
5	Light brown limestone hard	130
2	Brown limestone soft	132
15	Light brown limestone	147
28	Gray limestone hard	175
5	Gray limestone with blue shale streaks	180
8	Light brown limestone	188
2	Gray limestone	200
3	Fractured limestone (gray)	203
17	Brown shale	220
2	Gray limestone with black shale	222
46	Dark gray limestone	268
52	Light gray limestone	320
4	Gray and white limestone	324
81	Brown limestone	405
100	Gray and tan limestone	505
1	Blue shale	506

WELL TEST DATA REPORT

NORTHWAY WELL AND PUMP COMPANY

4895- 8th Avenue, Marion, IA 52302
319-377-6339

100 North 6th Street, Waukee, IA 50263
515-987-4575

Customer Water Works Dept. City Hiawatha Location East of street dept. bldg.

Well No. 7 Size of Casing 12" Total Depth 505 Construction Steel

Pump Make Crown Model No. 8L 600 No. of Stages 5 Diameter 8"

Total Setting 235' Air Line Length 235' Meter Used 6" prop. Static Level 75'

DATE	TIME	GPM	P.L.	D.D.	S.C.	PSI	DISCHARGE DESCRIPTION
5-21-97	9:50 am	680	185'	110'	6.1		Cloudy
	10:05	530	170'	95'	5.5		"
	10:20	500	170'	95'	5.2		"
	10:35	500	180'	105'	4.7		"
	10:50	500	181'	106'	4.7		Clearing
	11:05	500	183'	108'	4.6		"
	11:20	500	185'	110'	4.5		Clear
	11:35	500	186'	111'	4.5		Clear
	11:50	500	185'	120'	4.1		Clear
	12:20	500	195'	120'	4.1		Clear
	12:50	500	195'	120'	4.1		Clear
	1:20 pm	500	195'	120'	4.1		Clear
	1:50	500	195'	120'	4.1		Clear
	2:50	500	195'	120'	4.1		Clear
	3:50	500	195'	120'	4.1		Clear

DATE	TIME	GPM		D.D.	S.C.	PSI	DISCHARGE DESCRIPTION
			RECOVERY				
	4:10			110'			
	4:11		130'	110'			
	4:12		130'	110'			
	4:13		130'	110'			
	4:14		130'	115'			
	4:15		120'				
	4:16		120'				
	4:17		120'				
	4:18		120'				
	4:19		120'				
	4:20		120'				
	4:21		115'				
	4:22		115'				
	4:23		115'				
	4:24		115'				
	4:25		115'				
	4:40		110'				
	4:55		100'				
	5:10		95'				
	5:25		91'				
	5:40		86'				