W-4321

IOWA GEOLOGICAL SURVEY
In Cooperation with U. S. Geological Survey

RECORD OF WELL

Location:

Town: Dubuque (N E) (S W): County Dubuque

NWSE sec. 35 T. 88 N., R. 1 E W. Twp.

Well name and number New Melleray Abbey

Owner _____ Address _____

Tenant _____ Address _____

Contractor Varner Well Co. Address Dubuque

Drillers _____

Drilling dates 8-10-49 to 2-3-50

Well data:

Elevations: Drilling curb _____ feet: Land surface 1012 feet

Determined by _____

Topographic position _____

Total depth: Reported 1501 feet, Measured _____ feet

Drilling method _____

Hole and casing data 19" hole from surface to 308'; 15" hole from 308' to 1319; 12" hole from 1319 to 1501'
24' of 20" pipe from surface to 24'; 127' of 16" O.D. liner, bottom at 308'; 85' of 12" I.D. liner from 1234' to 1319'

Original depth to water 276 ft. ~~above~~ below _____ Date Oct 1950

Original elevation of water level _____ ft.; Source of data _____

Sources of water: Principal _____; Others _____

Production data: Date _____

Static depth to water 276 Measuring point _____
Pumping level 354 at 740 g.p.m.
363 860

Specific capacity _____ g.p.m. per ft. drawdown; Temperature _____ °F.

Pump data: Type pump _____ Column Dia. _____ Length _____
Cylinder or bowls: Dia. _____ Length _____ Suction pipe _____
Power _____ Airline _____
Estimated rate or productions: _____ g.p.m. for _____ hrs. a day
Use of water _____

WATER ANALYSES (in parts per million)

Date samples				
Samples by				
Total solids				
Insoluble matter				
Alkalinity (Meo)				
Alkalinity (Phn)				
pH				
$Fe_2O_3 + Mn_2O_3 + Al_2O_3$				
Alkali as sodium				
Calcium				
Magnesium				
Iron (unfiltered)				
Manganese				
Nitrate				
Flucride				
Chloride				
Sulfate				
Bicarbonate				
Hardness (ppm)				
Hardness (gpg)				

Remarks _____

Laboratory data: Sample storage location CH 3-93-10 CH 44-42

Sample range 0 1495 No. spls. 295 No. dupls. & cond. 294 - Foin

Spls. prepared by JFH, RPC, VLM Washed range 0 - 1495 by JFH, RPC & VLM 7/25/50

Driller's log and cond. _____

Insoluble residues: Prepared by _____ Studied by _____ Strip log _____

Microscopic study _____ strip log SEPT. 1951

Gen. log _____ Correl. by NORTHUP

DATE STARTED 8-10-49 DATE COMPLETED 2-3-50

DEPTH 1501'

DIAMETER 19" hole from surface to 308'; 15" hole from 308' to 1319'; 12" hole from 1319' to 1501'.

CASING RECORD 24' of 20" pipe from surface to 24'; 127' of 16" O.D. Liner bottom at 308'; 85' of 12" I.D. liner from 1284' to 1319'.

STRATA DEPTH RECORD:

From	To	Thickness	Description of Beds
0	24'	24'	Rock, broken yellow lime.
24	40	16	Brown limestone
40	90	50	Yellow lime
90	110	20	Yellow & white lime
110	120	10	Hard gray lime
120	123	3	Gray & white lime
123	139	16	Brown & white lime, softer, better drilling.
139	183	44	Gray lime, fine
183	306	123	Shale
306	308	2	Gray & brown rock
308	313	5	No description
313	355	42	Brown shale; considerable rock in this
355	422	67	Gray lime
422	462	40	Brown lime, fine & hard
462	473	11	Lime & dolomite
473	491	18	Brown & gray lime
491	499	8	Brown fine lime
499	505	6	Gray lime
505	525	20	Brown & gray sandy lime
525	532	7	Gray lime
532	537	5	Brown & gray lime
537	550	13	Brown lime
550	570	20	Gray lime
570	581	11	Gray sandy lime
581	585	4	Brown & gray lime
585	589	4	Gray lime
589	608	9	Brown & gray sandy lime, shale streaks
698	613	5	Shale, green
613	629	16	Gray lime
629	645	16	Gray & bluish lime

New Melleray Abbey Dubuque, Iowa

Varner Well Drilling Company

Telephone 3691 INCORPORATED P. O. Box 237

Turbine Pumps • Turbine Pump Service

905 American Trust Bldg.

DUBUQUE, IOWA,

From	To	Thickness	Description of Beds
645'	653'	8'	Gray, fine lime; hard on bits
653	661	8	Gray & bluish lime
661	672	11	Gray lime
672	676	4	Gray lime & shale
676	721	55	Gray sand, hard drilling, wears bits
721	722	1	Shale & sand
722	732	10	Gray sand, shale cavings
732	740	8	Shale
740	743	3	Gray & brown lime & sand
743	776	23	Gray sandy shale, shale caving
776	781	5	Gray lime
781	785	4	Gray lime & dolomite
785	796	11	Gray lime
796	803	7	Gray lime & dolomite
803	808	5	Gray lime, shale cavings
808	811	3	Sand & lime " "
811	824	13	Gray lime, caving shale, no gain
824	841	17	Sand & gray lime
841	851	10	White lime
851	865	14	Gray lime & sand
865	874	9	Lime & dolomite
874	879	5	Gray lime & sand
879	885	6	Gray sand
885	891	6	Gray lime
891	921	24	Gray lime & dolomite
921	979	58	Gray sandy lime
979	990	11	Gray & brown lime, some sand
990	997	7	Gray lime, red dolomite
997	1015	18	Gray sandy lime
1015	1018	3	Sand, some lime
1018	1029	11	Gray sandy lime
1029	1036	7	Gray sand
1036	1038	2	White sand
1038	1047	9	Sand & dolomite
1047	1060	13	White sand
1060	1082	22	White sand
1082	1091	9	White sand, greenish shale
1091	1103	12	White sand, some brown lime
1103	1121	18	Gray sandy lime
1121	1136	15	Gray sandy lime
1136	1209	73	Gray lime
1209	1220	11	Pink lime
1220	1223	3	Red lime
1223	1228	5	Redish brown lime

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DUBUQUE, IOWA,

From	to	Thickness	Description of Beds
1228'	1239'	11'	Brown & gray sandy lime
1239	1249	10	Grey sandy shale
1249	1300	51	Green sandy shale
1300	1313	13	Gray sandy shale
1313	1401	88	Gray sand, hard
1401	1418	17	White sand
1418	1439	21	Gray sand
1439	1470	31	Very fine white sand, hard
1470	1485	15	Gray sand, some lime
1485	1501	16	Sandy gray shale

STATIC WATER LEVEL

From		to		
From	Surface	to	199' -	None
"	199'	to	626' -	44'
"	626'	to	637' -	45'
"	637'	to	651' -	44'
"	651'	to	676' -	49'
"	676'	to	685' -	48'6"
"	685'	to	713' -	49'
"	713'	to	740' -	45'
"	740'	to	750' -	50'
"	750'	to	765' -	49'
"	765'	to	785' -	50'
"	785'	to	803' -	49'
"	803'	to	851' -	50'
"	851'	to	874' -	51'
"	874'	to	897' -	52'
"	897'	to	919' -	53'
"	919'	to	1501' -	Approx. 300'