COMPREHENSIVE EVALUATION
OF
GROUNDWATER RESOURCES

DOUGLAS, MASSACHUSETTS

June, 1986

Geologic Services Corporation
14 Main Street, Suite 5
Hudson, Massachusetts 01749
(617) 568-8740

Routes 6A & 28
P.O. Box 684
Orleans, Massachusetts 02653
(617) 240-0404

J. N. - 851008

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1.0 INTRODUCTION

In 1985, Douglas, Massachusetts established an Aquifer Study Committee composed of the following members:

Eben Chesebrough, Chairman
Clifford Ballou, Town of Douglas Health Officer
Joseph J. Saster, Water Department Superintendent
Pamela K. Schwartz, Conservation Commission Chairman
Kathy E. Tucker, Resident

The Committee was formed in response to the need for the Town to inventory, evaluate and protect its existing water supply sources. Also, increased residential development within the Town has applied an additional burden to the present supply of water in the Town, and it was felt that new sources should be identified.

In October of 1985, the study Committee hired Geologic Services Corporation to assist them with their established goals. These goals include: 1) to conduct a comprehensive groundwater resources evaluation for the entire town, 2) to develop a protection plan for these resources, and 3) to find and develop new potential well sites within the town.

At the present time, the Douglas Water Department supplies water to approximately 50% of the Town, primarily in the East Douglas area. The remaining households rely on private domestic wells. The Water District obtains its water from two groundwater well sites, both of which are located off West Street in East Douglas. These sites include a single gravel packed well and a tubular well field.

2.0 SOURCES OF DATA

Many different resources were utilized to evaluate Douglas's groundwater resources. Test well logs from previous water search drilling programs conducted by the Town and private well logs from domestic wells throughout the Town supplied many bedrock and water table elevations. Pertinent information was obtained from various soil boring logs received from the Massachusetts Turnpike Authority and the Department of Public Works. U.S. Geological Survey reports and U.S.D.A. Soil Conservation Service provided surficial geologic information and soils maps respectively.

3.0 EVALUATION OF GROUNDWATER RESOURCES

The evaluation of the groundwater resources was accomplished through the development of a series of six (6) maps. Each map delineates a particular portion of the overall evaluation.

The base map used in all preparations is taken from the four U.S.G.S. topographic quadrangles which encompass the study area. These are entitled Worcester South, Grafton, Oxford, and Uxbridge, Massachusetts. The scale was increased to one inch equals 1,000 feet for more detail in the study area.

The following is a brief description of the types of information found on each of the six maps.

3.1 DATA POINTS

All data points used in the groundwater resource evaluation are shown on Plate 1. The clear circles represent domestic wells, test wells and soil borings. The red circles indicate the existing production wells. A total of 107 data points are plotted.

The amount and type of information obtained varied greatly from well log to well log. Basic data potentially available from each well log includes surface elevation, water table elevation, bedrock elevation, and types of soil materials. In addition to a tabulation of this information, a copy of each available well log is included in the Appendix.

3.2 SURFICIAL GEOLOGY

The term "Surficial Geology" relates to the nature of those unconsolidated or "soil" materials overlying bedrock or "ledge" as it is commonly called in New England.

The surficial geology map of Douglas, Plate 2, was prepared from field investigations, U.S. Geological Survey reports and U.S.D.A. Soil Conservation maps, along with data from test wells and soil borings.

The ground surface topography and surficial deposits found in Douglas reflect the dynamic process of glaciation. Not only did glaciers scour and erode the land surface, but they also deposited material which had been carried along within the ice and in the subsequent meltwaters.

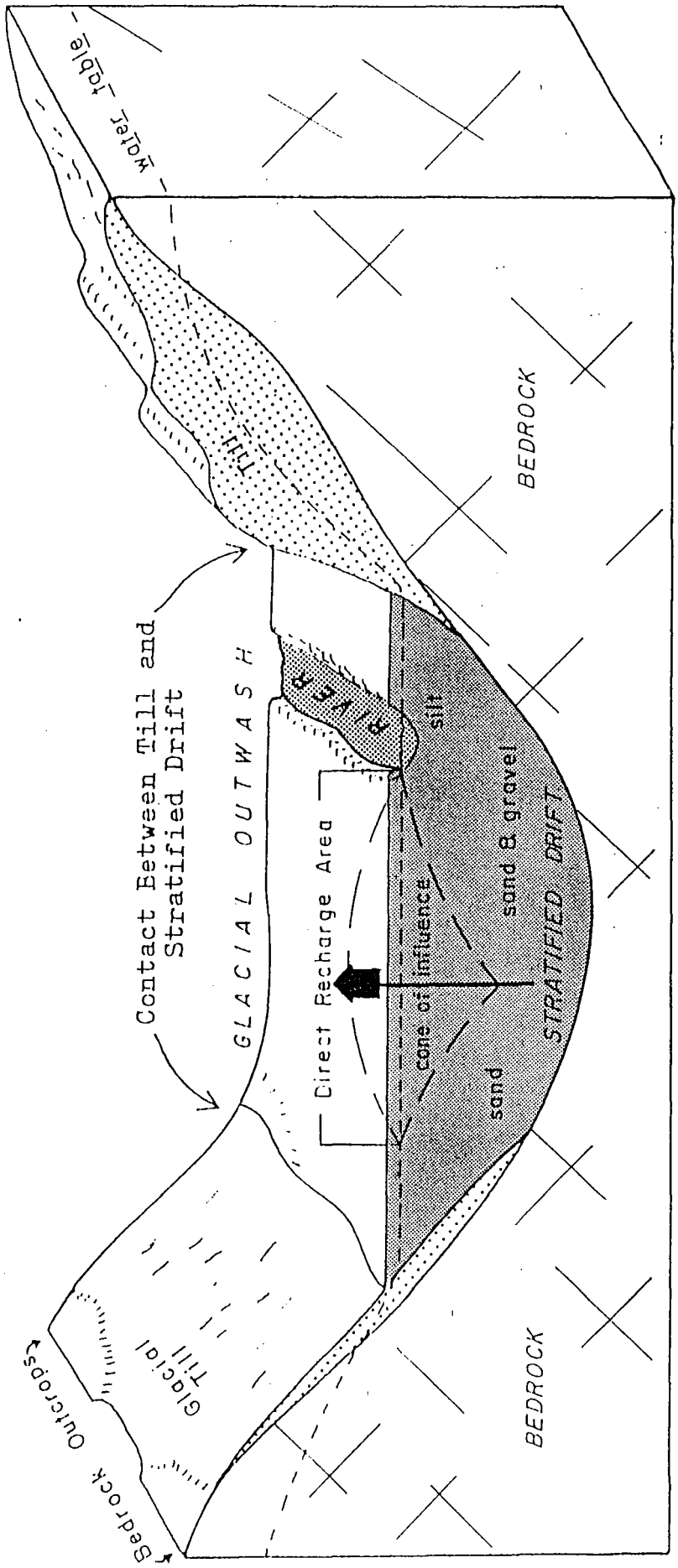
For the purposes of this report, the glacial deposits are

classified into two broad categories, glacial till and stratified drift.

Glacial Till:

Glacial till, commonly called hardpan, is deposited in direct contact with glacial ice without any sorting action from meltwater. It is the first unit deposited over the glacially modified bedrock surface (Figure 1). Till may be deposited in two ways, either beneath the glacier where it is literally plastered onto the bedrock surface, or left behind as the glacier melts and recedes. In either event, till is an unsorted to poorly sorted, unstratified mixture of boulders, cobbles, gravel, sand, silt and clay size particles. The heterogeneity of till makes it tight and relatively impermeable, with low percolation and infiltration rates, hence the common name of "hardpan". Till areas are unfavorable for municipal water supply development because of their low permeabilities. However, although their permeabilities and infiltration capacities are limited, they are often capable of producing the small quantities of groundwater suitable for private household supplies. In addition, when till deposits are upgradient of more permeable, stratified drift aquifers, they do provide limited recharge to the groundwater in those aquifers.

Glacial till forms a veneer over bedrock across much of the Town. The thickness of the deposits vary greatly, generally ranging from five to twenty feet in the lower elevations, but they may reach over 100 feet thick in streamlined hills known as


Water Table
Till
BEDROCK
Contact Between Till and Stratified Drift
GLACIAL OUTWASH
Esker
silt
sand & gravel
Direct Recharge Area
cone of influence
sand
STRATIFIED DRIFT
Glacial Till
Bedrock Outcrops
BEDROCK

drumlins. Typical of such a drumlin would be the hill that the water tank is situated on located off Common Street.

Stratified Drift:

Stratified drift is material which was transported and eventually deposited by glacial meltwater in fluvial (stream) or lacustrine (lake) environments. Due to its deposition by water, these deposits are generally clean, well sorted and well stratified (layered) silts, sands, and gravels.

In Douglas, stratified drift is primarily confined to limited sections in the eastern portion of the Town (Plate 2). The depths of these deposits range from a few tens of feet upwards to over 70 feet. The clean, well sorted and highly permeable nature of these deposits make them potential aquifers for installation of large volume water wells. As can be seen from a comparison of Plates 1 and 2, these deposits have been utilized for the Douglas Water Department's current water supply wells.

The same characteristics which give these deposits high porosities and permeabilities, also make them particularly susceptable to contamination. Water and/or contamination is easily transported through the porous medium with little attenuation or retardation. Therefore, a significant degree of groundwater quality protection is required in the aquifer areas.

3.3 BEDROCK TOPOGRAPHY

Bedrock surface elevations shown in Plate 3 were analyzed to determine possible groundwater flow restrictions which are not obvious from the ground surface.

Bedrock, or ledge, is exposed in many hilltops in Town. As would be expected, the rock surface more or less reflects the same topography as the ground surface. The rock surface is the highest in the west and east-central portions of Douglas and is lowest in the north and southeast portions of the Town. Generally, most of the bedrock in New England is not thought capable of providing a major source of water for municipal use because of its low permeability, low porosity and correspondingly low storage capacity.

Bedrock also provides a much smaller amount of groundwater filtration than does a sand and gravel aquifer. However, despite the low permeability and porosity of crystalline bedrock, where significant faulting has occurred, water moving through the fractures or cracks in the rock may produce considerable quantities of water. In most cases, bedrock wells would be suitable for low yield individual domestic water supplies when municipal water distribution was unavailable.

The bedrock that underlies Douglas is primarily composed of the Scituate Granite Gneiss and the Ponaganset Gneiss formations.

3.4 GROUNDWATER ELEVATIONS AND FLOW DIRECTIONS

The water table elevation map, Plate 4, shows the configuration of the groundwater surface. Beneath this surface, all the spaces between soil grains and cracks in the bedrock are filled with water (ie: the soil and rock are considered saturated). Water table elevations were obtained from existing data points and known surface water elevations. Since water levels were taken at various times of the year and, in some cases many years apart, this map is to be used only as a generalized estimate of direction and gradient of regional groundwater flow. Although the water table fluctuates a few feet seasonally, the contour lines could be looked upon as representing the average annual water table elevation.

The contour lines connect points of equal water table elevation, with arrows depicting the generalized direction of flow. Groundwater moves from areas of high elevation to low, in a manner similar to the rivers and streams on the ground surface.

The rate of groundwater movement is partially determined by the gradient of the water table. Areas with closely spaced contour lines have steep gradients which would tend to cause the groundwater to travel more rapidly here than through areas of equal permeability but more widely spaced contour lines (indicating a more gentle gradient). Although bedrock and till areas generally have steeper groundwater gradients than areas underlain by stratified drift, the latter has much higher permeabilities which in turn allows generally higher flow rates.

From Plate 4, it is possible to determine what areas are

upgradient of existing and potential water supplies. These areas have a greater influence upon water supply recharge. Therefore contamination of the groundwaters in these areas will have a significant impact on the water quality in the Town wells.

3.5 AQUIFERS AND AQUIFER RECHARGE AREAS

On the basis of the information discussed above, aquifers and aquifer recharge areas were designated as seen in Plate 5.

For the purposes of this report, an aquifer is any area consisting of stratified sands and gravels laid down by glacial meltwaters or recent bodies of water. These aquifers may or may not presently contain an existing or identified potential public water supply well. However, it is felt that each of the aquifers identified might be capable of providing usable quantities of water. An aquifer recharge area, is any area which is a source of water to an active municipal well or aquifer that contains a municipal well.

When a public supply well is pumping, groundwater flow changes direction in a portion of its watershed. Instead of moving toward the natural discharge area such as a stream or pond, the groundwater within the influence of the pump flows toward the well from every direction. The pumping well creates an artificial discharge area by drawing down the water table around the well. This area of drawdown is called the cone of depression or the cone of influence (see Figure 2).

For aquifer protection purposes, three zones are distinguished within the watersheds that contain existing

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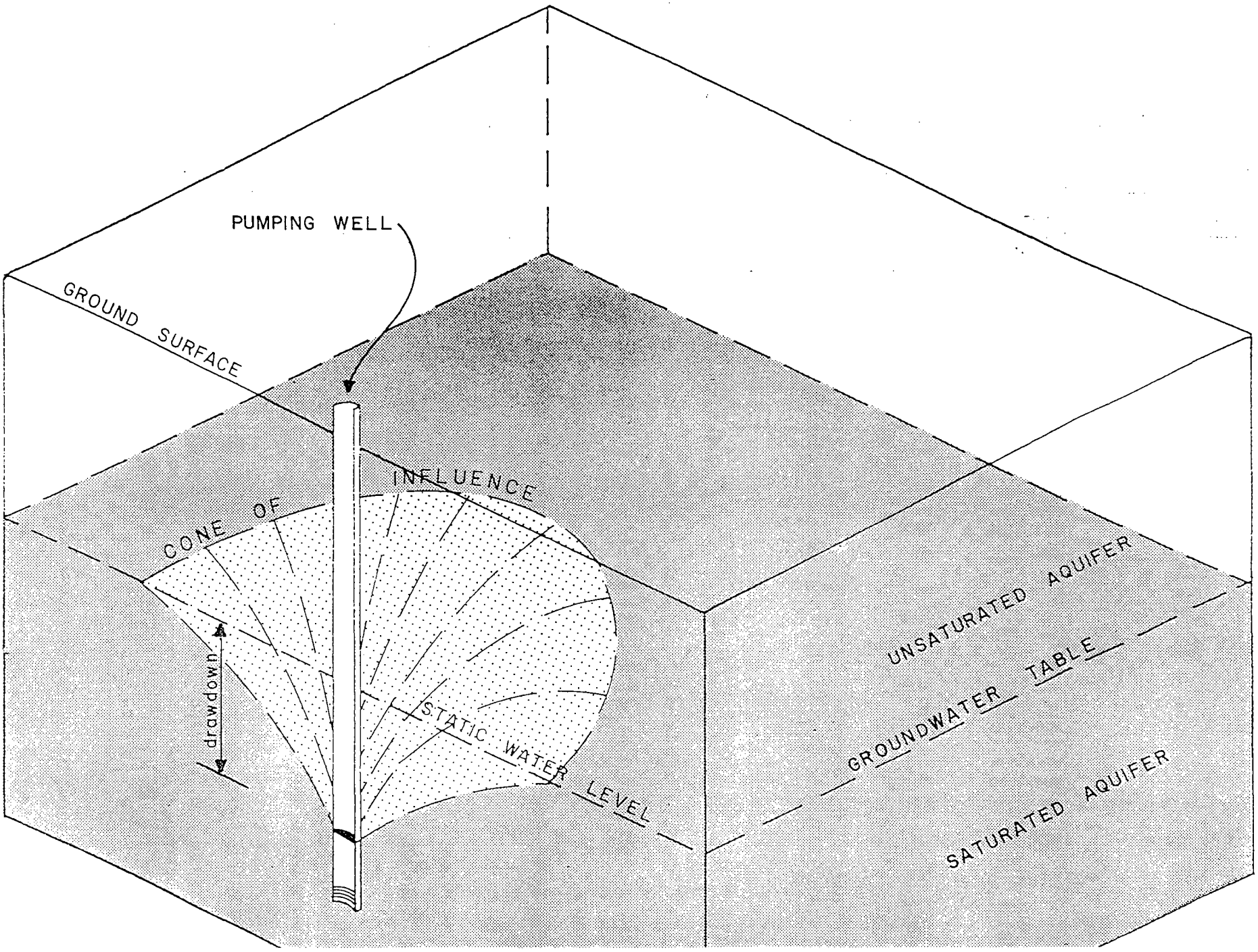
FIGURE 2



municipal wells. These three recharge zones are as follows:

Primary (Direct) Recharge Zone:

Those areas immediately overlying a designated aquifer which are affected by a projected cone of influence that would be developed by pumping a given water supply well continuously (24 hours a day) for 180 days.

Secondary Recharge Zone:

Those areas of stratified drift outside, but upgradient of the projected 180-day cone of influence. The water contained therein will eventually intersect and flow into the cone of influence thereby providing secondary recharge to the well.

Tertiary Recharge Zone:

The areas of adjacent and upgradient glacial till which supply groundwater to the stratified drift deposits identified in the Primary and Secondary Recharge Areas.

As recharge zones to municipal water supply wells, these three types of areas require significant water quality protection measures. The primary and secondary recharge areas require more stringent protection measures than do the tertiary because of the volume and speed of recharge they provide. However, the tertiary recharge areas are definitely significant contributors to the water withdrawn from the wells and therefore do require some degree of protection.

3.6 POTENTIAL WELL EXPLORATION AREAS

Based upon the available information, eleven (11) areas were designated which appear to have potential for future test well exploration. These areas are all within aquifers as mapped in Plate 5. They were selected and given priority ratings based upon their perceived hydrogeologic characteristics only. Proximity to existing distribution systems or other man made features (such as landfills, salt storage piles, industry, etc.) was not taken into account. As a result, the Aquifer Study Committee should take these factors into account when selecting their order of exploration in the test well exploration phase of the Aquifer Study.

APPENDIX

WELL LOG DATA

DOUGLAS DOMESTIC WELL DATA

DOMESTIC WELL NUMBER	DRILLER'S NUMBER	DATE OF INSTAL-LATION	GROUND ELEVATION (MSL) (FT)	W.T. ELEVATION (MSL) (FT)	BEDROCK ELEVATION (MSL) (FT)	SATURATED THICKNESS (FT)	DRILL LOG AVAILABLE
1	DUW 37	2/03/84	720		710		Y
2	DUW 38	3/00/84	645	590	641		Y
3	DUW 40	2/06/84	575	535	545		Y
4	DUW 42	2/06/84	621		611		Y
5	DUW 45	2/06/84	690	670	621	49	Y
6	DUW 46	2/06/84	505	481	480	1	Y
7	DUW 48	2/06/84	582	579	562	17	Y
8	DUW 50	2/06/84	728	683	706		Y
9	DUW 53	2/07/84	620	580	610		Y
10	DUW 55	2/07/84	600	585	590		Y
11	DUW 56	2/07/84	617	602	607		Y
12	DUW 57	2/07/84	610	600			N
13	DUW 58	2/07/84	560	530	550		Y
14	DUW 60	2/07/84	655		610		Y
15	DUW 61	2/07/84	650		593		Y
16	DUW 62	2/07/84	700		690		Y
17	DUW 65	2/07/84	635	612	563	49	Y
18	DUW 66	2/07/84	670	645	648		Y
19	DUW 67	2/07/84	690		665		Y
20	DUW 68	2/07/84	468	446			N
21	DUW 70	2/08/84	555	535	545		Y
22	DUW 71	2/08/84	638	623			N
23	DUW 72	2/08/84	465	435	455		Y
24	DUW 76	2/08/84	605	603	583	20	Y
25	DUW 78	2/08/84	630	612	555	57	Y
26	DUW 80	2/09/84	625	590	405	185	Y
27	DUW 81	2/09/84	611	586	564	22	Y
28	DUW 83	2/09/84	638	613	624		Y
29	DUW 87	3/00/84	515	495	490	5	Y
30	DUW 88	3/00/84	685	655.5	626	29.5	Y
31	DUW 89	3/00/84	490		464		Y
32	DUW 90	3/00/84	505		495		Y
33	DUW 91	3/00/84	510		496		Y
34	DUW 93	3/00/84	610		600		Y
35	DUW 94	3/00/84	440		410		Y
36	DUW 95	3/00/84	520		510		Y
37	DUW 96	3/00/84	440		423		Y
38	DUW 97	3/00/84	660		649		Y
39	DUW 99	3/00/84	550		546		Y
40	DUW 100	3/00/84	550		535		Y
41	DUW 101	3/00/84	580		526		Y
42		3/29/85	732	707	722		Y
43		9/25/79	725	680	703	23	Y
44		10/18/85	470	452	465	13	Y
45		4/26/83	560	557	540	17	Y
46			520		510		Y
47		6/30/83	640	625	603	22	N
48		8/19/83	660	620	648		Y

DOUGLAS DOMESTIC WELL DATA

DOMESTIC WELL NUMBER	DRILLER'S NUMBER	DATE OF INSTAL-LATION	GROUND ELEVATION (MSL)(FT)	W.T. ELEVATION (MSL)(FT)	BEDROCK ELEVATION (MSL)(FT)	SATURATED THICKNESS (FT)	DRILL LO AVAILABL
49	17712	7/31/85	550		542		N
50		8/25/83	441		433		N
51		8/02/83	512		495		N
52		8/04/83	449		432		N
53		5/20/83	645		637		N
54	HB141C	6/07/73	468	448			Y
55	HB142C	6/08/73	385	369			Y
56	TP-36	5/30/73	367				Y
57	TP-37	5/30/73	361				Y
58	HB143C	7/02/73	340				Y
59	HB145F	7/02/73	328				Y
60	HB146F	6/08/73	328	328	314	14	Y
61	1-76	1/05/76	510	505	473	32	Y
62	2-76	1/06/76	520	515	482	33	Y
63	3-76	1/06/76	525		502		Y
64	4-76	1/07/76	517		500		Y
65	5-76	1/07/76	522	513	493	20	Y
66	1-82	2/22/82	350				Y
67	2-82	2/22/82	350	344	319	25	Y
68	3-82	2/23/82	350		340		Y
69	4-82	2/23/82	350	345	317	28	Y
70	5-82	2/24/82	335	308	273	35	Y
71	6-82	2/03/82	360	335	296	39	Y
72	7-82	3/08/82	340	312	269	43	Y
73	8-82	3/09/82	335	305	281	24	Y
74	9-82	4/30/82	350	324	304	20	Y
75	10-82	5/03/82	350	325	310	15	Y
76	8"-TW	6/22/82	340	313			Y
77	1-73	7/05/73	340	333	282	51	Y
78	1A-73	7/06/73	340	333			Y
79	3-73	7/09/73	342	338	304	34	Y
80	3A-73	7/10/73	341	337	310	27	Y
81	4-73	7/12/73	345	342	302	40	Y
82	5-73	7/12/73	337	334	293	41	Y
83	7-74	7/17/73	345	338	292	46	Y
84	9-73	10/03/73	330	326			Y
85	10-73	10/04/73	338	337	282	55	Y
86	11-73	10/05/73	333	330			Y
87	8"-TW	11/05/73	340		280		Y
88	1-75	11/12/75	382	374	338	36	Y
89	2-75	11/13/75	383		325		Y
90	3-75	11/14/75	386	379			Y
91	4-75	11/14/75	386	379			Y
92	5-75	11/17/75	380	375			Y
93	6-75	11/17/75	390	385	332	53	Y
94	7-75	12/23/75	402	390			Y
95	8-75	12/24/75	384				Y
96	9-75	12/29/75	392	389	371	18	Y

DOUGLAS DOMESTIC WELL DATA

DOMESTIC WELL NUMBER	DRILLER'S NUMBER	DATE OF INSTAL-LATION	GROUND ELEVATION (MSL)(FT)	W.T. ELEVATION (MSL)(FT)	BEDROCK ELEVATION (MSL)(FT)	SATURATED THICKNESS (FT)	DRILL LOG AVAILABLE
97	10-75	12/30/75	403	391			Y
98	11-75	12/31/75	403	391			Y
99	1-76	1/08/76	392	388			Y
100	2-76	1/09/76	392	388			Y
101	1-76 8"TW	1/15/76	392	388			Y
102	1-76 GPW	9/29/76	392		337		Y
103	1-56	5/10/56	383	380	350	30	Y
104	2-56	5/11/56	382	375	326	49	Y
105	3-56	5/11/56	382		333		Y
106	4-56	5/15/56	381	372			Y
107	5-56	5/15/56	381	372			Y

WELL NUMBER 1
DUW 37
Wallum Pond Rd.
0 - 10' Gravel

10 - 120 Ledge

WELL NUMBER 2
DUW 38
Yew Street
0 - 4' Gravel

4 - 237 Ledge

WELL NUMBER 3
DUW 40
West Street
0 - 30' Soil

30 - 500 Ledge

WELL NUMBER 4
DUW 42
Southeast Main
0 - 10' Gravel

10 - 320 Ledge

WELL NUMBER 5
DUW 45
Reid Rd.
0 - 69' Till

69 - 450 Granite

WELL NUMBER 6
DUW 46
Northeast Main
0 - 25' Gravel & Boulders

25 - 330 Ledge

WELL NUMBER 7
DUW 48
Perry Road
0 - 20' Gravel

20 - 355 Ledge

WELL NUMBER 8
DUW 50
High Street
0 - 22' Gravel

22 - 332 Ledge

WELL NUMBER 9
DUW 53
Fairfax Road
0 - 10' Gravel

10 - 320 Ledge

WELL NUMBER 10
DUW 55
Fairfax Road
0 - 10' Gravel

10 - 205 Ledge

WELL NUMBER 11
DUW 56
Fairfax Road
0 - 10' Gravel

10 - 185 Ledge

WELL NUMBER 13
DUW 58
Southeast Main
0 - 10' Gravel

10 - 260 Ledge

WELL NUMBER 14
DUW 60
Cedar Street
0 - 10' Sand
10 - 45 Sand & Gravel
45 - 600 Ledge

WELL NUMBER 15
DUW 61
Cedar Street
0 - 10' Sand
10 - 57 Gravel
57 - 500 Ledge

WELL NUMBER 16
DUW 62
Northeast Main
0 - 10' Gravel

10 - 162 Ledge

WELL NUMBER 17
DUW 65
Wallis Street
0 - 72' Gravel & Boulders
72 - 320 Ledge

WELL NUMBER 18
DUW 66
Wallis Street
0 - 22' Gravel

22 - 350 Ledge

WELL NUMBER 19
DUW 67
Northwest Main
0 - 25' Till

25 - ? Ledge

WELL NUMBER 21
DUW 70
Southeast Main
0 - 10' Gravely soil
10 - 260 Ledge

WELL NUMBER 23
DUW 72
South Street
0 - 10' Gravel
10 - 300 Ledge

WELL NUMBER 24
DUW 76
Ridge Trail Rd.
0 - 22' Gravel
22 - 162 Ledge

WELL NUMBER 25
DUW 78
Birch Street
0 - 14' Sand & Gravel
14 - 75 Till
75 - 225 Ledge

WELL NUMBER 26
DUW 80
Northwest Main
0 - 220' Boulders Gravel & Cobble
220 - 285 Ledge

WELL NUMBER 27
DUW 81
Bald Hill Farm
0 - 47' Till
47 - 237 Ledge

WELL NUMBER 28
DUW 83
Northwest Main
0 - 14' Gravel
14 - 360 Ledge

WELL NUMBER 29
DUW 87
Glenn Street
0 - 25' Gravel
25 - 115 Ledge

WELL NUMBER 30
DUW 88
Wallum Lake Road
0 - 59' Sand & Gravel
59 - 190 Ledge

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 26. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = ROUTE #96 DOUGLAS *

311 # 2 * | 185 = 223 SOUTH STREET DOUGLAS *

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } sand
26 } bedrock
220

8 gpm

#31

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 10. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = A D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = CHESTNUT STREET LOT 33 DOUGLAS '*

311 # 2 * | 185 = DOUGLAS '*

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

109

0 } gravel
10
} bedrock
280

5gpm

9D

#32

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 12. * | Depth to Bottom 92 = . *

93 = DRIFT * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = 2 LOT #32 CHESTNUT STREET DOUGLAS *

311 # 2 * | 185 = 147 PUTNAM HILL ROAD MANCHAUG *

476-2856

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } HARD pan
14 } Ledge
300

6 gpm

~~90~~

91

~~33~~

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 8. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = A D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = ELM STREET LOT 4 DOUGLAS '*

311 # 2 * | 185 = DOUGLAS '*

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } gravel
10 } bedrock
100

5gpm

#34

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 30. * | Depth to Bottom 92 = *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = * | Depth to Bottom 92 = *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = A D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = ROUTE #96 SOUTH STREET DOUGLAS *

311 # 2 * | 185 = 222 SOUTH STREET EAST DOUGLAS *

476-2165

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } gravel
30 } bedrock
120

5 gpm

94

95

#35

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 10. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = 'LOT #31 CHESTNUT STREET DOUGLAS '*

311 # 2 * | 185 = '247 ELM STREET BLACKSTONE '*

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

10 } bedrock 320

3 gpm

~~96~~

#36

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 17. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = 'PINE STREET SOUTH DOUGLAS '*

311 # 2 * | 185 = '189 SOUTH STREET EAST DOUGLAS '*

476-2495

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

24gpm

0 } gravel
17 } bedrock
30

97

96

#37

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 11. * | Depth to Bottom 92 = . *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = 'SOUTHWEST MAIN STREET EAST DOUGLAS '*

311 # 2 * | 185 = 'THOMPSON ROAD EAST DOUGLAS '*

476-7363

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } gravel
11 }
240 } bedrock

.05 gpm

98

#38

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = (A) D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 4. * | Depth to Bottom 92 = *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = (A) D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = MANCHAUG POND EAST DOUGLAS *

311 # 2 * | 185 = 155 MILK STREET WESTBORO *

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } gravel
4 } bedrock
235

5gpm

99

#39

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 15. * | Depth to Bottom 92 = . *

93 = [illegible] * Unit Identifier | 304 = P * Contributing Unit | 96 = * Lithology | 97 = * Lithologic Modifier

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = . * | Depth to Bottom 92 = . *

93 = * Unit Identifier | 304 = * Contributing Unit | 96 = * Lithology | 97 = * Lithologic Modifier

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = . * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = A D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = 'WALNUT STREET DOUGLAS' *

311 # 2 * | 185 = 'ARCH EAST DOUGLAS' *

476-7767

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } gravel
15
} bedrock
250

1 gpm

100

#40

U.S. GOVERNMENT PRINTING OFFICE : 1981 O - 343-632

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # 1 * | Depth to Top 91 = 54 * | Depth to Bottom 92 = *

93 = BEDROCK * (Unit Identifier) | 304 = P * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = * | % Water Contributed 132 = *

GEOHYDROLOGIC UNIT DESCRIPTIONS (1)

R = 90 * | T = A D M * (add, delete, modify) | Entry No 256 # * | Depth to Top 91 = * | Depth to Bottom 92 = *

93 = * (Unit Identifier) | 304 = * (Contributing Unit) | 96 = * (Lithology) | 97 = * (Lithologic Modifier)

AQUIFER DATA (2)

R = 94 * | T = A D M * (add, delete, modify) | Geohydrologic Unit Entry No 256 # *

Date 95 # / / * (month day year) | Water Level 126 = * | % Water Contributed 132 = *

PERTINENT REMARKS

R = 183 * | T = A D M * (add, delete, modify) | New Card Same R&T

Remark No. 311 # 1 * | 185 = SOUTH STREET EAST DOUGLAS *

311 # 2 * | 185 = SOUTH STREET EAST DOUGLAS *

476-7385

① Contributing Unit Codes

P	S	N	U
primary contributing	secondary contributing	non-contributing	unknown

0 } Sand, gravel
54 } bedrock
230

8 gpm

101

#41

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Wallum Lake Road
City/Town: E. Douglass
G.S. Quadrangle Map:
Grid Location:
Owner: Skip Kibbe
Address: S. E. Main St, Douglas, Ma.

WELL USE

Domestic [X] Public [ ] Industrial [ ]
Other:

Method Drilled: Air Percussion
Date Drilled: 3-29-85

CASING

Length: 20' Diameter: 6 5/8" OD
Type: Steel

STATIC WATER LEVEL

Feet below land surface: 25'
Date measured: 3-29-85

GRAVEL PACK WELL

Yes [ ] No [X]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock: Granite
Water-bearing Zones
1) From 30' To 90'
2) From 105' To 115'
3) From 130' To 160'
4) From 180' To 210'
Depth to Bedrock: 210'

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine [ ] medium [ ] coarse [ ]
Gravel: fine [ ] medium [ ] coarse [ ]
Screen:
Slot #____ length____ from____ to____
Split Screen *(or 2nd screen)*
Slot #____ length____ from____ to____
Depth To Bedrock:

PUMP TEST

Drawdown 215 feet after pumping____ days 4 hours at 5 GPM.
How measured: Air Lift Recovery 195 feet after 2 1/2 hours.

LOG of FORMATIONS

Materials	From	To
Overburden	0	10'
Granite	10'	220'

COMMENTS: *(On well or water)*

DRILLER

Firm: Toutant Well Drilling
Address: Rte 193, P.O. Box 30
City: Thompson, Ct
Registration No.: 288

Russ Schumann
Operator's Signature

office use only

Please print firmly

CUSTOMER COPY

15M-2 84-176471

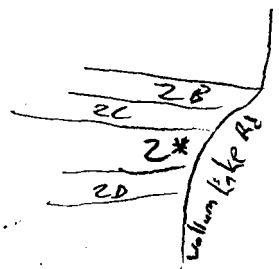
DW 42

elev = 752

25
722

48 / either: Lots 2, 2D, 2B

all pretty close – I picked lot 2, the one in the middle.



Massachusetts Water Resources Commission / Division of Water Resources

WATER WELL COMPLETION REPORT

Tokue

WELL LOCATION

Address High Street

City/Town Douglas, Ma

G.S. Quadrangle Map

Grid Location

Owner Paul R. LeBoeuf

Address 6 Sutton Rd. Millbury, Mass.01527

N W E S

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other

METHOD DRILLED

Rotary (type) Percussion/pnuematic Cable ☐

Other

CASING

Length 32' Diameter 6x6 5/8"

Type steel water well

STATIC WATER LEVEL

Feet below land surface 45'

Date measured 9/25/79

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock LIGHT BARR ROV

Water-bearing Zones NONE BEFORE

1) From 225' To 232'

2) From To

3) From To

4) From To

Depth to Bedrock 221 (cased 321)

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

NOT A...PUMP TEST down-hole est.

Drawdown feet after pumping days 2 hours at 10 GPM.

How measured Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
~~OVERBURDEN~~	~~0~~	~~221~~
~~LIGHT BARR~~		
LEDGE	221	232

COMMENTS: *(On well or water)*

~~clear~~

DRILLER

~~McKinstryArtesianWellService,Inc.~~

Address ~~413 Main St~~

City ~~Oxford, Mass. 01540~~

Registration No. ~~50~~

Operator's Signature

office use only

Please print firmly

10M-9-78-150519

Dw43

elev = 725

45/703

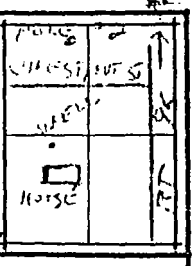
(already there as water level of 50')

Department of Environmental Management/Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address Pole # 2, Chestnut St.
City/Town Douglas, Mass.
G.S. Quadrangle Map
Grid Location Front- middle of house
Owner Mrs. Lynn Sawyer
Address 25 Chaplain St., Blackstone, Ma.



WELL USE

Domestic ☒ Public ☐ Industrial ☐
Other

Method Drilled air percussion
Date Drilled 10/18/85

CASING

Length 20 ft Diameter 6"
Type steel

STATIC WATER LEVEL

Feet below land surface 18
Date measured 10/18/85

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☒

CONSOLIDATED WELL

Type of Water-bearing Rock gray granite
Water-bearing Zones
1) From 160 To 185
2) From To
3) From To
4) From To
Depth to Bedrock 5 ft

UNCONSOLIDATED WELL

Water-bearing Materials
Sand: fine ☐ medium ☐ coarse ☐
Gravel: fine ☐ medium ☐ coarse ☐
Screen:
Slot # length from to
Split Screen *(or 2nd screen)*
Slot # length from to
Depth To Bedrock

PUMP TEST

Drawdown 20 feet after pumping days 4 hours at 5 GPM.
How measured pumped Recovery 20 feet after 1 hours.

LOG of FORMATIONS

Materials	From	To
sub-soil	0	3
hard pan	3	5
gray granite	5	185

COMMENTS: *(On well or water)*

DRILLER

Firm A & J Well Co. Inc.
Address P.O. Box 698
City Slatersville, R.I.
Registration No. 19

[signature]
Operator's Signature

office use only

Please print firmly

BOARD OF HEALTH COPY

15M-2 84-176471

DW

elev : est 470

18
465

Massachusetts Water Resources Commission / Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: DERRY ROAD LOT # 1

City/Town: DOUGLAS, MASS

G.S. Quadrangle Map:

Grid Location:

Owner: GEORGE GRIFFIN

Address: BOX 101 NO UXBRIDGE MA 01538

WELL USE

Domestic [XX] Public [ ] Industrial [ ]

Other:

METHOD DRILLED

Rotary (type): pneumatic percussion Cable [ ]

Other:

CASING

Length: 30' Diameter: 6"x6 5/8"

Type: steel water well

STATIC WATER LEVEL

Feet below land surface: 3'

Date measured: 4-26-83

GRAVEL PACK WELL

Yes [ ] No [ ]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock:

Water-bearing Zones

1) From 50 To 75

2) From 325 To 325

3) From 150 To 325

4) From To

Depth to Bedrock: 15' (cased 30')

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock:

PUMP TEST not a (down-hole air press)

Drawdown feet after pumping days 2 hours at 21 GPM.

How measured Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
SAND	0	20
LEDGE	20	325

COMMENTS: *(On well or water)*

clear

DRILLER

Firm: McKinstry Artesian Well Service Inc

Address: #13 Main Street

City: Oxford, MA 01540

Registration No. 50

Paul R. [illegible]

Operator's Signature

office use only

Please print firmly

10M-9-78-150519

D045

elev = 560

3/540

Massachusetts Water Resources Commission / Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address: Lot #31, Chestnut St.

City/Town: Douglas, MA

G.S. Quadrangle Map:

Grid Location:

Owner: Luc E. Gelinas

Address: 2/07 [illegible] St., Blackstone, MA

already there

WELL USE

Domestic ☐ Public ☐ Industrial ☐

Other:

METHOD DRILLED

Rotary *(type)* xxx Cable ☐

Other:

CASING

Length 23' Diameter 6"

Type steel

STATIC WATER LEVEL

Feet below land surface:

Date measured:

GRAVEL PACK WELL

Yes ☐ No ☒

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock: granite

Water-bearing Zones

1) From ____ To ____

2) From ____ To ____

3) From ____ To ____

4) From ____ To ____

Depth to Bedrock: 10'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # ____ length ____ from ____ to ____

Split Screen *(or 2nd screen)*

Slot # ____ length ____ from ____ to ____

Depth To Bedrock:

D0346

PUMP TEST

Drawdown ____ feet after pumping ____ days ____ hours at 3 GPM.

How measured ____ Recovery ____ feet after ____ hours.

LOG of FORMATIONS

Materials	From	To
rock	10'	320

COMMENTS: *(On well or water)*

DRILLER

Firm: [illegible] Water Well Co.

Address: P.O. Box 568

City: Woonsocket, RI 02895

Registration No.: 10

[signature]

Operator's Signature

office use only

Please print firmly

10M-8/81-164843

elev = 320

320

Massachusetts Water Resources Commission / Division of Water Resources

WATER WELL COMPLETION REPORT

53-83

WELL LOCATION

Address CORNER YEW AND ELM

City/Town DOUGLAS, MA

G.S. Quadrangle Map

Grid Location

Owner BRIAN LACEY

Address 19 LAKE STREET, LINWOOD, MA 01525

WELL USE

Domestic ☒ Public ☐ Industrial ☐

Other

METHOD DRILLED

Rotary *(type)* pnuematic/percussion Cable ☐

Other

CASING

Length 47' Diameter 6 5/8

Type steel water well

STATIC WATER LEVEL

Feet below land surface 15'

Date measured 6/30/82

GRAVEL PACK WELL

Yes ☐ No ☐

WATER QUALITY TESTS MADE

Chemical ☐ Biological ☐

CONSOLIDATED WELL

Type of Water-bearing Rock

Water-bearing Zones

1) From To

2) From To

3) From To

4) From To

Depth to Bedrock 37' (cased 47')

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine ☐ medium ☐ coarse ☐

Gravel: fine ☐ medium ☐ coarse ☐

Screen:

Slot # length from to

Split Screen *(or 2nd screen)*

Slot # length from to

Depth To Bedrock

PUMP TEST

not a..... down-hole air press

Drawdown feet after pumping days 2 hours at 3 GPM.

How measured Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
	0	

COMMENTS: *(On well or water)*

clear

DRILLER

Firm McFinstryArtesianWellServiceIn

Address 413 Main St

City Oxford, MA 01540

Registration No. 50

Operator's Signature

Please print firmly

office use only

10M-8/81-164843

D047

elev = 640

15/603

Massachusetts Water Resources Commission / Division of Water Resources

WATER WELL COMPLETION REPORT

WELL LOCATION

Address OFF NORTHWEST MAIN ST

City/Town DOUGLAS MA.

G.S. Quadrangle Map

Grid Location

Owner William W JOHNSON

Address 635 CENTRAL PIKE SUTTON

WELL USE

Domestic [X] Public [ ] Industrial [ ]

Other

METHOD DRILLED

Rotary (type) HAMMER Cable [ ]

Other

CASING

Length 22' Diameter 6"

Type 17LB STEEL

STATIC WATER LEVEL

Feet below land surface 40 FT

Date measured 8-19-83

GRAVEL PACK WELL

Yes [ ] No [X]

WATER QUALITY TESTS MADE

Chemical [ ] Biological [ ]

CONSOLIDATED WELL

Type of Water-bearing Rock KNICE

Water-bearing Zones

1) From 100' To 115'

2) From To

3) From To

4) From To

Depth to Bedrock 12'

UNCONSOLIDATED WELL

Water-bearing Materials

Sand: fine [ ] medium [ ] coarse [ ]

Gravel: fine [ ] medium [ ] coarse [ ]

Screen:

Slot # length from to

Split Screen (for 2nd screen)

Slot # length from to

Depth To Bedrock

PUMP TEST

Drawdown feet after pumping days 4 hours at 20 GPM.

How measured DRILL RIG Recovery feet after hours.

LOG of FORMATIONS

Materials	From	To
GRAVEL	0	12
ROCK	12	115

COMMENTS: (On well or water)

GOOD WATER

DRILLER

Firm CHARLTON well Co

Address MUGGET HILL RD

City CHARLTON MA.

Registration No. #56

Peter W Vicent

Operator's Signature

office use only

Please print firmly

10M-8/81-164843

DW48

elev = 660

40/648

WELL DRILLING
DOMESTIC & INDUSTRIAL

COMPLETE WATER SYSTEMS
WATER CONDITIONING EQUIPMENT

EST. 1930
Post Office Box 568
WOONSOCKET, RHODE ISLAND 02895
(401) 762-1649 — (800) 637-3500
Specialty Drilling For Construction

14555
Job No. .....
Contract No. #17712

CUSTOMER'S ORDER NO.	SALESMAN	INVOICE DUE AND PAYABLE UPON RECEIPT	DATE
	DT LaBarre		7/31/85

SOLD TO:
Kenneth Temple
36 Hazel Street
Uxbridge, Mass. 01569

LOCATION:
South East Main Street
Douglas, Mass.

87

For well drilled at the above location		
350' of drilling @ $7.00/ft.		$ 2450.00
20' of 6" steel casing @ $7.00/ft.		140.00
		$ 2590.00
	Drive Shoe	50.00
		$ 2640.00
	Mass. Tax	9.50
		$ 2649.50
Well Log:		
Bedrock 8 ft.		
Cased 20 ft.		
Drilled 350 ft.		
Well made 30+ gpm.		

A FINANCE CHARGE of 1½% per month will be applied after 30 days.

CIP-87-5 NP-14806 Reynolds+Reynolds CELINA, OHIO - DALLAS, TEX - TULARE, CALIF LITHO IN U.S.A.

ORIGINAL

DW49

8723 ·359

Knap 51 / lot 5A

elev ~ 550

542

TEL. 401 / 766-2632

COMPLETE
WATER SYSTEMS

A & J WELL CO.

P. O. BOX 698
SLATERSVILLE, RHODE ISLAND 02876

August 25, 1983

Mr. Mrs. Joseph Sweeney

B & G Builders Inc.
3 Dawes St.
SOLD TO Blackstone, Mass. 01504

Job; Maple St., Douglas, Mass.

Well Log;

Bedrock	8	Ft.
Caseing	21	Ft.
Depth	275	Ft.
Well produced	30	GPM

TERMS: NET 10 DAYS

ATTENTION: INTEREST AT THE RATE OF 1½% PER MONTH WILL BE CHARGED ON ALL PAST DUE ACCOUNTS. ALL MATERIAL REMAINS PROPERTY OF A & J WELL COMPANY UNTIL PAID FOR.

COLLECTION COST CHA. BUYER.

MAP 38 / lot 54

DW50

433

WATER SYSTEMS

A & J WELL CO.

P. O. BOX 698
SLATERSVILLE, RHODE ISLAND 02876

Auguat 2, 1983

SOLD TO Hutnak Const. Co., Inc.
P.O. Box 419
Douglas, Mass. 01516

Well report for Town of Douglas

Lot# 3 South Street, Douglasm

Bedrock 17ft.
Casing 30ft.
Depth 215ft.
Well produced 5 GPM

TERMS: NET 10 DAYS

ATTENTION: INTEREST AT THE RATE OF 1½% PER MONTH WILL BE CHARGED ON ALL PAST DUE ACCOUNTS. ALL MATERIAL REMAINS PROPERTY OF A & J WELL COMPANY UNTIL PAID FOR.

COLLECTION COST CHARGEABLE TO BUYER.

map 50 / using H. Const Co Inc lot 4

DW51

elev 512

495

COMPLETE
WATER SYSTEMS

Stockwell

A & J WELL CO.

P. O. BOX 698
SLATERSVILLE, RHODE ISLAND 02876

August 4, 1983

Hutnak Const. Co., Inc.
P.O. 419
Douglas, Mass. 01516

SOLD TO

Well report for the Town of Douglas

Lot # 7 Hemlock Street, Douglas, Ma.

Bedrock 17'
Caseing 21'
Depth 155'
Well produced 9GPM

TERMS: NET 10 DAYS

ATTENTION: INTEREST AT THE RATE OF 1½% PER MONTH WILL BE CHARGED ON ALL PAST DUE ACCOUNTS. ALL MATERIAL REMAINS PROPERTY OF A & J WELL COMPANY UNTIL PAID FOR.

COLLECTION COST CHARGEABLE TO BUYER.

elev ≈ 449

432

DW57

TEL. 401 / 766-2832

COMPLETE
WATER SYSTEMS

A & J WELL CO.

P. O. BOX 698
SLATERSVILLE, RHODE ISLAND 02876

Bldg. Permit
43-83

May 20, 1983

SOLD TO Hutnank Const. Co. Inc.
Lackey Dam Rd.
Douglas, Mass.

Well report for town of Douglas

Lot# 2 Yew St., Douglas, Mass.

Bedrock 8 ft.
Caseing 21 ft.
Depth 678 ft.
Well produced 80 GPM

TERMS: NET 10 DAYS

ATTENTION: INTEREST AT THE RATE OF 1½% PER MONTH WILL BE CHARGED ON ALL PAST DUE ACCOUNTS. ALL MATERIAL REMAINS PROPERTY OF A & J WELL COMPANY UNTIL PAID FOR.

COLLECTION COST CHARGEABLE TO BUYER.

ele ≈ 645

32/ lot 4C

DW 53

637

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS, DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGINEER & BRIDGE ENGINEER DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIVISION VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

BORING NO. HB-141C

LINE & STATION: 366 + 80 OFFSET: 293' RT. ELEVATION: 468.0'

DEPTH		BLOWS	ELEVATION
0.0			468.0'
1.0'	MOIST, LOOSE, BROWN TOPSOIL	6	
	DRY, DENSE, GRAY BROWN FINE TO MEDIUM SAND, SOME FINE TO COARSE GRAVEL	31	
8.0'			460.0'
	DRY, MEDIUM DENSE, BROWN FINE SAND, TRACE OF INORGANIC SILT	20	
			452.0'
	@20' BECOMES WET & DENSE	31	
			444.0'
	@30' BECOMES WET & MEDIUM DENSE	25	
			436.0'
40.0'			428.0'
	WET, MEDIUM DENSE, BROWN FINE TO COARSE SAND, TRACE OF INORGANIC SILT & FINE GRAVEL	23	
			420.0'
50.0'			
	(PUSHED COBBLE FROM 50' TO 55')	27 (NO REC.)	
	WET, DENSE, BROWN FINE SAND, TRACE OF INORGANIC SILT & COBBLES	23 (NO REC.)	
		44	412.0'
	@57' BECOMES WET & VERY DENSE	55	
58.0'			

BOTTOM OF BORING: 58.0' BOTTOM ELEVATION: 410.0'

WATER: NONE STARTED: 6/6/73 -2:30PM FINISHED: 6/7/73 12 NOON

DRILLER: K. ALLEN INSPECTOR: O. TIVNAN

404.0'

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR FT. IN HRS. NONE FT. IN 1/4 HRS. FT. IN HRS. FT. IN HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH 140 #WT. FALLING 30 " TO DRIVE SAMPLER 12 INCHES

CASING DIA. BW INCHES, LENGTH FEET. 2"OD SAMPLER DIA. 1-3/8"ID INCHES, TYPE SPLIT SPOON

+ = MUD LOST IN THIS LAYER OF SOIL. FOOTAGE OF BORING THIS SHEET 58.0' "

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY KA & HJC JOB NO. 3-41

#54

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGINEER & BRIDGE ENGINEER DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIV. VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

ELEVATION

DEPTH

BORING NO. HB-142C

LINE & STATION: 1 + 70
OFFSET: 105' RT

ELEVATION: 385.7'

#55

Depth	Description	Blows	Elevation
0.0'			386.0'
1.0'	MOIST LOOSE, BROWN TOPSOIL	2	
	MOIST LOOSE, BROWN F-M SAND, TRACE OF ROOT MATTER & LOAM	4	
4.0'			
	MOIST MEDIUM DENSE, BROWN FINE SAND, TRACE OF INORGANIC SILT	11	
7.5'			378.0'
	MOIST DENSE, BROWN FINE TO MEDIUM SAND, SOME FINE TO COARSE GRAVEL, TRACE OF INORGANIC SILT, COBBLES	43	
			370.0'
	AT 16' BECOMES WET VERY DENSE	56	
18.0'			
		60	
	DRY VERY DENSE, BROWN FINE SAND, TRACE OF INORGANIC SILT		362.0'
26.5'		104	
			354.0'

BOTTOM OF BORING: 26.5'
BOTTOM ELEVATION: 359.2'

WATER: NONE

STARTED: 6/7/73 - 2:15 PM
FINISHED: 6/8/73 - 9:15 AM

DRILLER: C. PHILLIPS
INSPECTOR: E. GABRIEL

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR FT. IN HRS. NONE FT. IN 24 HRS. FT. IN HRS. FT. IN HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH 140 #WT. FALLING 30 " TO DRIVE SAMPLER 12 INCHES

CASING DIA. BW INCHES, LENGTH FEET. 2" OD SAMPLER DIA. 1 3/8"ID INCHES, TYPE SPLIT SPOON

+ = MUD LOST IN THIS LAYER OF SOIL. FOOTAGE OF BORING THIS SHEET 26.5 ' "

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY CP & HJC JOB NO. 3-414

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESERCH & MATERIALS ENGINEER & BRIDGE ENGINEER DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIV. VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

DEPTH ELEVATION

TEST PIT NO. TP-36

LINE & STATION: 6 + 10
OFFSET: 110' RT

ELEVATION: 367.5'

#56

Depth	Description	Elevation
0.0'		368.0'
0.5'	~~BROWN TOPSOIL~~	
	BROWN FINE TO COARSE SAND & GRAVEL, SOME INORGANIC SILT, BOULDERS	
		360.0'
8.5'	1 BAG	
		352.0'

BOTTOM OF TEST PIT: 8.5'
BOTTOM ELEVATION: 359.0'

WATER: NONE

STARTED: 5/30/73
FINISHED: 5/30/73

DRILLER: G. FLOWERS
INSPECTOR: J. HAYES

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR ....FT. IN....HRS. NONE FT. IN....HRS. ....FT. IN....HRS. ....FT. IN....HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH ....#WT. FALLING ...." TO DRIVE SAMPLER 12 INCHES

CASING DIA. ....INCHES, LENGTH....FEET. ....SAMPLER DIA....INCHES, TYPE BACKHOE

+ = MUD LOST IN THIS LAYER OF SOIL. ....FOOTAGE OF BORING THIS SHEET 8.5

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY GF JOB NO. 3-414

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGINEER & BRIDGE ENGINEER DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIV. VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

DEPTH ELEVATION

TEST PIT NO. TP-37

LINE & STATION: 9 + 00
OFFSET: 110' RT

ELEVATION: 361.5'

#57

Depth	Description	Sample	Elevation
0.0'			362.0'
0.67'	BROWN TOPSOIL		
	BROWN FINE TO COARSE SAND, SOME COARSE GRAVEL, TRACE OF INORGANIC SILT, BOULDERS	1 BAG	
5.5'			

BOTTOM OF TEST PIT: 5.5' 354.0'
BOTTOM ELEVATION: 356.0'

WATER: NONE

STARTED: 5/30/73
FINISHED: 5/30/73

DRILLER: G. FLOWERS
INSPECTOR: J. HAYES

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR ..... FT. IN..... HRS. NONE FT. IN..... HRS. ..... FT. IN..... HRS. ..... FT. IN..... HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH ..... #WT. FALLING ..... " TO DRIVE SAMPLER 12 INCHES

CASING DIA. ..... INCHES, LENGTH ..... FEET. ..... SAMPLER DIA. ..... INCHES, TYPE BACKHOE

+ = MUD LOST IN THIS LAYER OF SOIL. ..... FOOTAGE OF BORING THIS SHEET ..... ' ..... "

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY GF JOB NO. 3-41

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS, DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146- SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGR. & BRIDGE ENGR. DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIVISION VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

DEPTH | ELEVATION

BORING NO. HB-143-F

LINE & STATION: 12 + 20
OFFSET: 108' RT

ELEVATION: 340.4'

Depth	Description	Blows	Elevation
0.0'			
1.0'	MOIST, LOOSE, BR. TOPSOIL, LITTLE F. SAND	3	340.0'
	MOIST, MEDIUM DENSE, BROWN FINE TO	17	
4.5'	MEDIUM SAND, SOME FINE CS. GRVL., TR. OF		
W 5.0'	INORGANIC SILT // WET, VERY DENSE,		
	GRAY-BROWN FINE TO COARSE SAND & FINE	110	
7.0'	TO COARSE GRAVEL, SOME DECOMPOSED COBBLES, SOME INORGANIC SILT		332.0'

#56

BOTTOM OF BORING: 7.0'
BOTTOM ELEVATION: 333.4'

WATER: 5.0' 324.0'

STARTED: 7/2/73 10:00AM
FINISHED: 7/2/73 10:20AM

DRILLER: C. PHILLIPS
INSPECTOR: E. J. GABRIEL

RECEIVED JUL 10 1973

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR FT. IN. HRS. 5' FT. IN. 1/4 HRS. FT. IN. HRS. FT. IN. HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH 140 #WT. FALLING 30 " TO DRIVE SAMPLER 12 INCHES

CASING DIA. BW INCHES, LENGTH FEET. 2"OD SAMPLER DIA. 1-3/8"ID INCHES, TYPE SPLIT SPOON

+ = MUD LOST IN THIS LAYER OF SOIL. FOOTAGE OF BORING THIS SHEET 7.0' '

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION CP & HJC JOB 3N414

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS, DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGR. & BRIDGE ENGR. DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIVISION VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

DEPTH | ELEVATION

BORING NO. HB-145-F

LINE & STATION: 0 + 40
OFFSET: 123' RT

ELEVATION: 328.5'

W 0.0'			328.0'
2.5'	WET, SOFT, BROWN PEAT, TRACE VERY FINE SAND	PUSHED	
5.5'	WET, LOOSE, BROWN FINE TO MEDIUM SAND TRACE CS. SAND, FINE GRAVEL & INORG. SILT	7	
8.0'	WET, MEDIUM DENSE, BROWN FINE TO CS. SAND, SOME FINE TO COARSE GRAVEL, SOME INORGANIC SILT	19	320.0'

#59

BOTTOM OF BORING: 8.0'
BOTTOM ELEVATION: 320.5'

WATER: TOP OF GROUND

STARTED: 7/2/73 9:05AM
FINISHED: 7/2/73 9:40AM

DRILLER: C. PHILLIPS
INSPECTOR: E. J. GABRIEL

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR ....FT. IN....HRS. TOP/GROUND FT. IN 1/4 HRS. ....FT. IN....HRS. ....FT. IN....HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH 140 #WT. FALLING 30 " TO DRIVE SAMPLER 12 INCHES

CASING DIA. BW INCHES, LENGTH FEET. 2"OD SAMPLER DIA. 1-3/8"ID INCHES, TYPE SPLIT SPOON

+ = MUD LOST IN THIS LAYER OF SOIL. FOOTAGE OF BORING THIS SHEET 8.0' ' "

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY CP & HJC JOB NO. 3-414

BORING REPORT **AMERICAN DRILLING & BORING CO., INC.** 100 WATER STREET EAST PROVIDENCE, R. I.

TO COMMONWEALTH OF MASSACHUSETTS, DPW ADDRESS WELLESLEY, MASS.

SITE LOCATION ROUTE 146 - SUTTON TO UXBRIDGE, MASS.

REPORT SENT TO RESEARCH & MATERIALS ENGINEER & BRIDGE ENGINEER DATE

SAMPLES SENT TO RESEARCH & MATERIALS DIVISION VIA DATE

SCALE 1" = 8 FT. REFERENCE DATUM

DEPTH ELEVATION

BORING NO. HB-146-F

LINE & STATION: 0 + 40
OFFSET: 40' RT

ELEVATION: 328.1'

W 0.0'	WET, SOFT, BROWN PEAT, SOME GRAY FINE TO COARSE SAND, TRACE FINE-COARSE GRAVEL	PUSHED	328.0'
4.0'	WET, LOOSE, GRAY-BROWN FINE SAND, SOME INORGANIC SILT, TR. CS. SAND & PEAT	PUSHED	
6.67'	WET, LOOSE, GRAY-BROWN FINE SAND, TRACE MEDIUM SAND & INORGANIC SILT	8	320.0'
12.0'	WET, VERY DENSE, GRAY FINE TO COARSE SAND & GRAVEL, TRACE INORGANIC SILT	120	
14.0'	REFUSAL 14.0' - NO PENETRATION		312.0'

#60

BOTTOM OF BORING: 14.0'
BOTTOM ELEVATION: 314.1'

WATER: TOP OF GROUND

STARTED: 6/8/73 10:15AM
FINISHED: 6/8/73 11:45AM

DRILLER: C. PHILLIPS
INSPECTOR: E. J. GABRIEL

W = WATER SURFACE BELOW STARTING GRADE IN FEET AT COMPLETION OF BORING.

OR ....FT. IN....HRS. TOP OF GROUND 1/4 HRS. ....FT. IN....HRS. ....FT. IN....HRS.

FIGURES IN LOG COLUMN, UNLESS EXCEPTED = BLOWS WITH 140 #WT. FALLING 30 " TO DRIVE SAMPLER 12 INCHES

CASING DIA. BW INCHES, LENGTH FEET. 2"OD SAMPLER DIA. 1-3/8"ID INCHES, TYPE SPLIT SPOON

+ = MUD LOST IN THIS LAYER OF SOIL. FOOTAGE OF BORING THIS SHEET 14.0' '

SHEET 1 OF 1 FOREMAN J. RIVARD CLASSIFICATION BY CP &HJC JOB NO. 3-414

#63

R. E. CHAPMAN CO. 1/12
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass Bixton prop conservation comm.
Date Jan 6 1976 Hole No. 3-76
Started Jan 6 1976 Finished Jan 6 1976

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in inches
0"	10'	Sand Clay & Boulders		
10'	15'	fine med brn sand on sharp gravel		
15'	20'	fine silty Brn sand		
20'	23'	fine silty Brn & grey sand		
		Refusal 23 ft		

Used ..... ft. ..... inches of casing
Well rated at ..... G.P.M. ..... " Vacuum
Water level is ..... ft. below ground level
Remarks no material hole pulled out

Foreman E. L. Slaunwhite

#62

R. E. CHAPMAN CO. 1/12
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass Water Dept Bixton Prop. Conservation Comm.
Date Jan 6 - 1976 Hole No. 2-76
Started Jan 6 - 1976 Finished Jan 6 - 1976

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in inches
0"	5'	fine med brn sand		
5'	10'	fine med brn sand		
10'	15'	fine silty med brn sand		
15'	20'	fine med silty brn sand		
20'	25'	fine med silty brn sand		
25'	30'	fine med silty brn sand		
30'	35'	fine med silty sand some small gravel		
35'	38'	fine silty grey & brn sand		
		Refusal 38 ft		

Used ..... ft. ..... inches of casing
Well rated at 1/2 G.P.M. 27 " Vacuum
Water level is 5 ft. below ground level
Remarks Set 5 ft 20 slot screen 30'-35' Pumped very little circulation poor hole pulled out

Foreman E. L. Slaunwhite

#61

R. E. CHAPMAN CO. 1/12
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass Water Dept. Bixton Farm prop. Conservation comm.
Date Jan 5 - 1976 Hole No. 1-76
Started Jan 5 - 1976 Finished Jan 5 - 197

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	5'	fine sand & sm gravel	
5'	10'	fine med Brn sand	
10'	15'	very fine to med Brn sand	
15'	20'	fine silty sand	
20'	25'	fine silty sand some sm gravel	
25	30'	fine med silty sand & some sm gra	
30'	37'-6"	fine med silty sand & sm char dirty gravel	
		Refusal 37'-6"	

Used ..... ft. ..... inches of casing
Well rated at 3 G.P.M. 26 " Va
Water level is 5' ft. below ground
Remarks Set 5 ft 20 slot screen 31'-36' pumped 1 gal per minute bas from 25' to 30' pumped tight would not clear up pulled out

Foreman E. L. Slaunwhite

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas Mass Water Dept Bolton Pump Station Common

Date Jan 5-1976 Hole No. 1-76

Started Jan 5-1976 Finished Jan 5-1976

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
		and coarse gravel		
		med Brown sand		
		to mid Brown		
		silty sand		
		sand some coarse		
		silty sand some gravel		
		silty sand some clay		
		76"		

t casing
26 ..... " Vacuum
below ground level
3 1/2 - 36

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass Bolton Pump. Common

Date Jan 7-1976 Hole No. 5-76

Started Jan 7-1976 Finished Jan 7-1976

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	10'	fine med brown sand and small gravel		
10'	15'	fine med brown and small gravel		
15'	20'	fine med brown sand and small gravel		
20'	25	fine med brown sand		
25'	30'	fine silty brown sand		
30'	35'	fine silty brown to grey sand		
		Refusal 35 ft		

Used ..... ft. ..... inches of casing

Well rated at 2 G.P.M. 16 " Vacuum

Water level is 9'-8½ ft. below ground level

Remarks Set 5 ft screen 15-20'. Pumped little hole pulled out

Foreman E. L. Slaunwhite

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass Bolton pump. Common

Date Jan 7-1976 Hole No. 4-76

Started Jan 7-1976 Finished Jan 7-1976

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	5'	med packed brown sand and gravel	Chu
5'	10'	hard packed brown sand and gravel	
10'	15'	hard packed brown sand and gravel	
15'	17'	fine grey & brn sand	
		Refusal 17 ft	

Used ..... ft. ..... inches of casing

Well rated at ..... G.P.M. ..... " Va

Water level is ..... ft. below ground

Remarks no material hole stayed open casing pulled out

Foreman E. L. Slaunwhite

GEOLOGIC SERVICES CORP.
Hydrogeologists & Environmental Scientists
15 Bonazzoli Avenue
HUDSON, MASSACHUSETTS 01749
(978) 568-8740

DATE 11/19/02

TO Bill Cundiff, Town Engineer
29 Depot St.
Douglas, MA 01516

SUBJECT Comprehensive Evaluation of Groundwater Resources Report.

Dear Bill -

Enclosed please find a copy of the referenced report. Feel free to call w/ any questions

thanks

SIGNED Jack Watts
JACK WATTS

☐ PLEASE REPLY ☐ NO REPLY NECESSARY

#6d

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller STEVE SULLIVAN Names of Helpers NILS LANGE

Job: Name & Location HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started 2-22-82 Date Finished 2-22-82

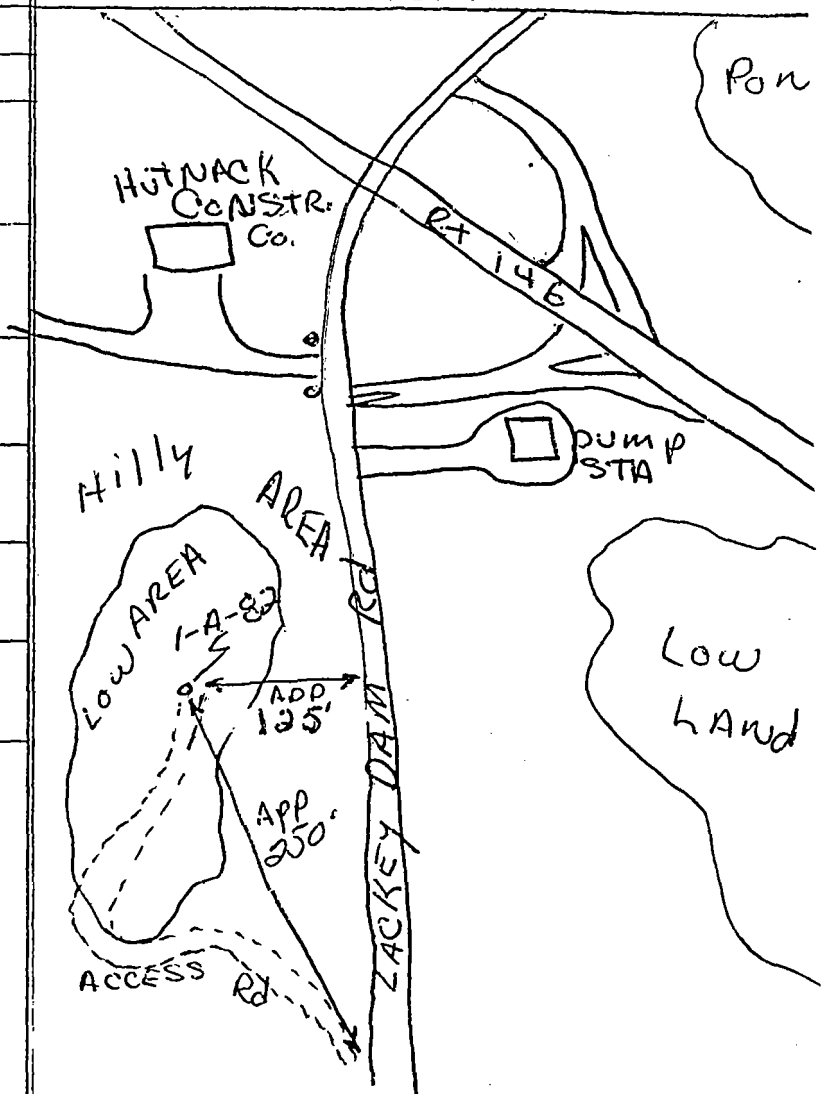
Hole No. 1-82 2½ TESTWELL

Depth From	Depth To	Classification of Material	
0	6	B/ CLAY	Feet of Screen Exposed
6	10	B/ COARSE SAND + GRAVEL	Size of Screen & Slot
10	21	B/ COARSE SAND + GRAVEL	Screen Left in
21	27	B/ FINE MED SAND + COARSE GRAVEL + BOULDER	Screen Pulled Out
27	30	B/ MED SAND + COARSE GRAVEL	Pipe Left in
			Pipe Pulled Out 23' OF 2½

Remarks

Pulled OUT

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

PIPE BENT BETWEEN 23FT TO 30FT
PIPE BROKE OFF AT 23FT
HOLE pulled OUT

#67

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS.

Date Started: 2-22-82 Date Finished: 2-23-82

Hole No.: 2-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
0	6	B/CLAY
6	10	B/COARSE SAND + GRAVEL
10	21	B/COARSE SAND + GRAVEL + BOULDERS
21	31	B/MED SAND + COARSE GRAVEL + BOULDERS
31		REFUSAL

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5 60SLOT 3'EXT

Screen Left in:

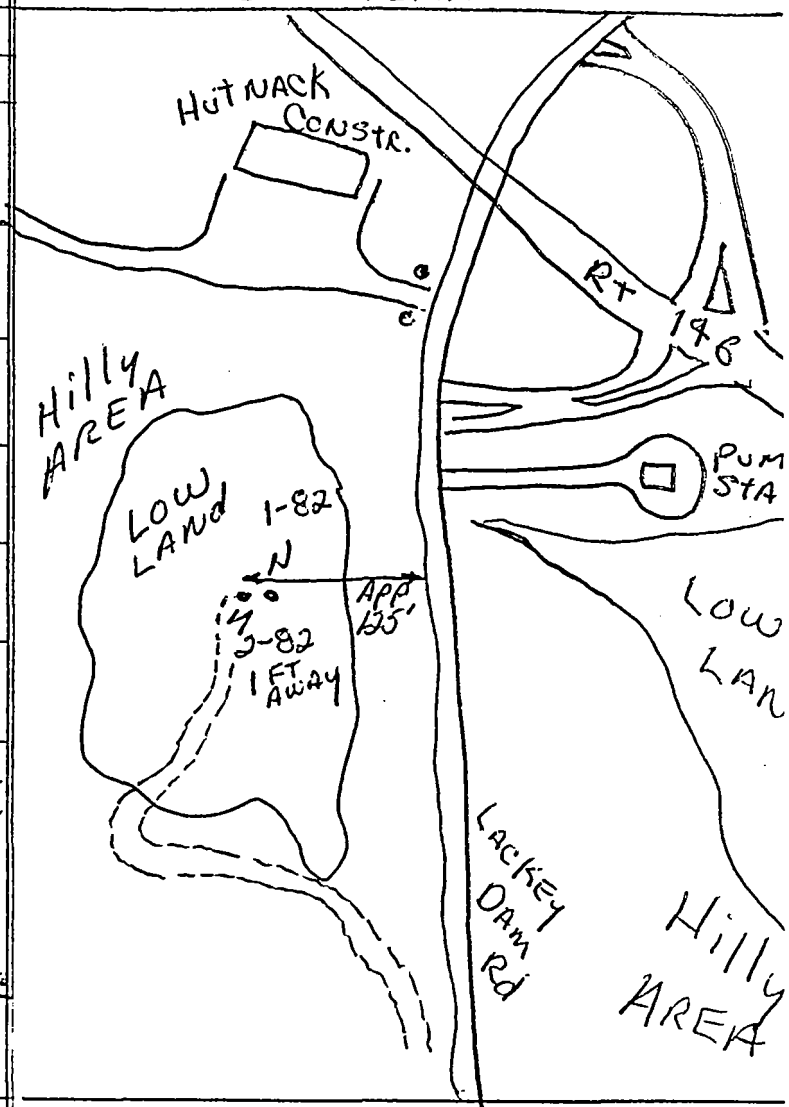
Screen Pulled Out:

Pipe Left in: 26' OF 2½

Pipe Pulled Out:

Remarks: STATIC 6'-4½ AG. 1'-9" DEPTH 31FT GPM 25 WITH 23" UAG

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5 60SLOT SCREEN AT 31 F pumping 25GPM FOR 1HR. WATER TOOK APP. 20min TO CLEAR UP.

#68

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 2-23-82 Date Finished: 2-23-82

Hole No.: 3-82 2½ TESTWELL

Depth From	Depth To	Classification of Material
3	7	PEAT & Boulders
7	10	B/COARSE SAND + GRAVEL BOULDERS
10		REFUSAL

Feet of Screen Exposed:

Size of Screen & Slot:

Screen Left in:

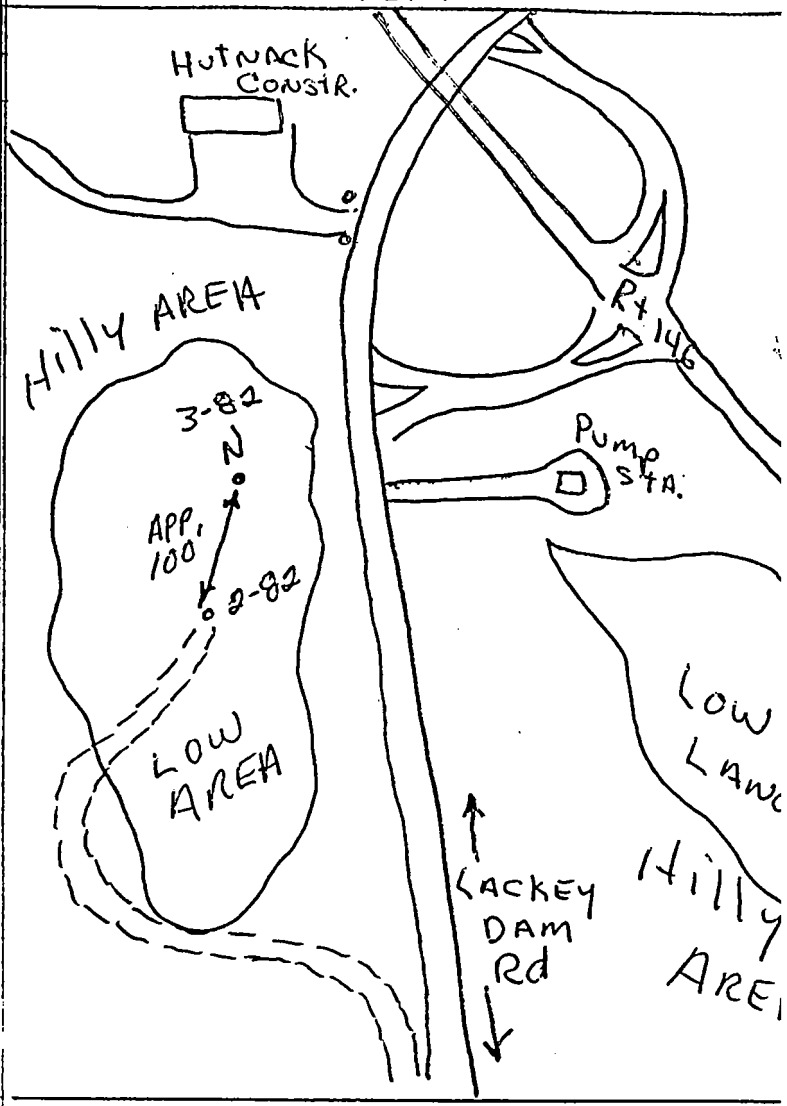
Screen Pulled Out:

Pipe Left in:

Pipe Pulled Out: 10' OF 2½

Remarks: PULLED OUT

SITE PLAN



REMARKS

REFUSAL ON BOULDERS

Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

#69

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 2-23-82 Date Finished: 2-24-82

Hole No.: 4-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
3	7	PEAT + BOULDERS
7	15	B/COARSE SAND + GRAVEL + BOULDERS
15	20	B/COARSE SAND + GRAVEL + BOULDERS
20	30	B/MED COARSE SAND + GRAVEL
30	33	B/MED COARSE SAND + GRAVEL
33		REFUSAL

Feet of Screen Exposed: 5

Size of Screen & Slot: 5' 60SLOT 3' EXT

Screen Left in:

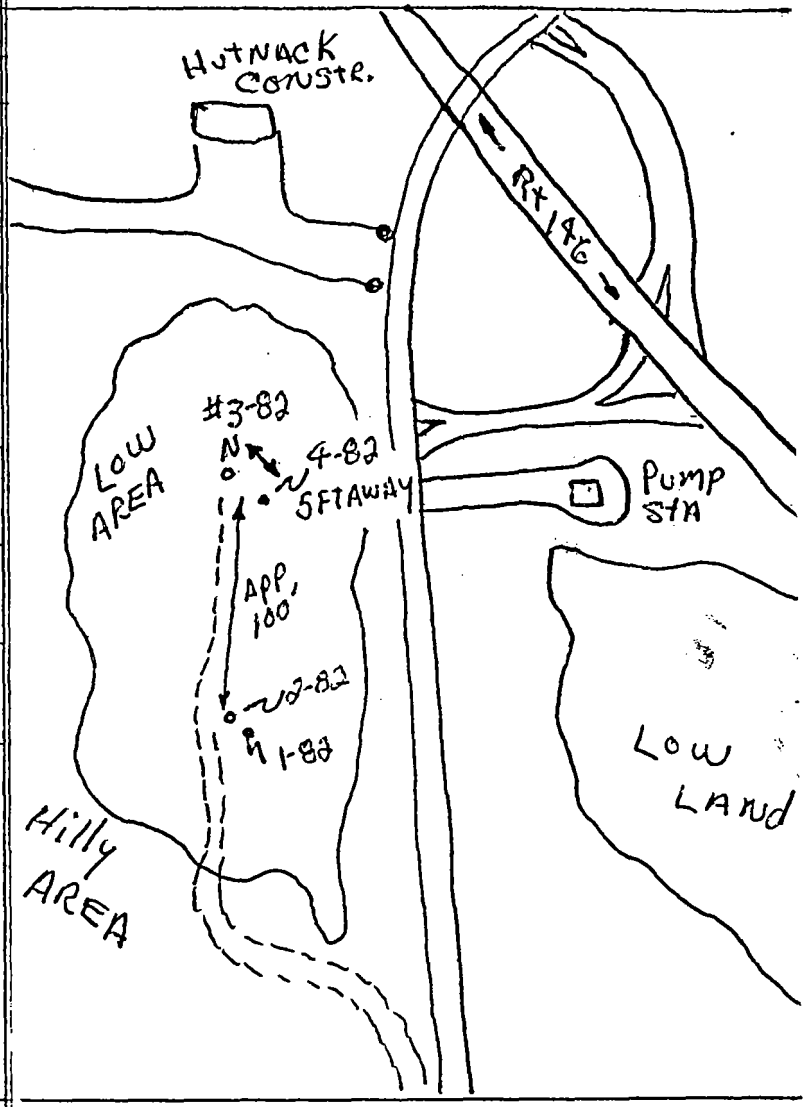
Screen Pulled Out:

Pipe Left in: 31' OF 2½

Pipe Pulled Out:

Remarks:
STATIC 5'-0
A.G. 3'-0
DEPTH 33' FT
GPM 18
WITH 22" VAC

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5 60SLOT SCREEN AT 33 FT
PUMPING 18 GPM 22" VAC FOR 1 HR.

#10

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 2-24-82 Date Finished: 2-26-82

Hole No.: 5-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
0	2	FILL
2	10	B/ MED COARSE SAND + GRAVEL
10	20	B/ MED COARSE SAND + GRAVEL
20	32	B/ MED SAND + GRAVEL
32	40	B/ MED SAND
40	48	B/ FINE MED SAND
48	67	B/ MED SAND + COARSE GRAVEL
67		REFUSAL

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5' 60SLOT 2' EXT

Screen Left in:

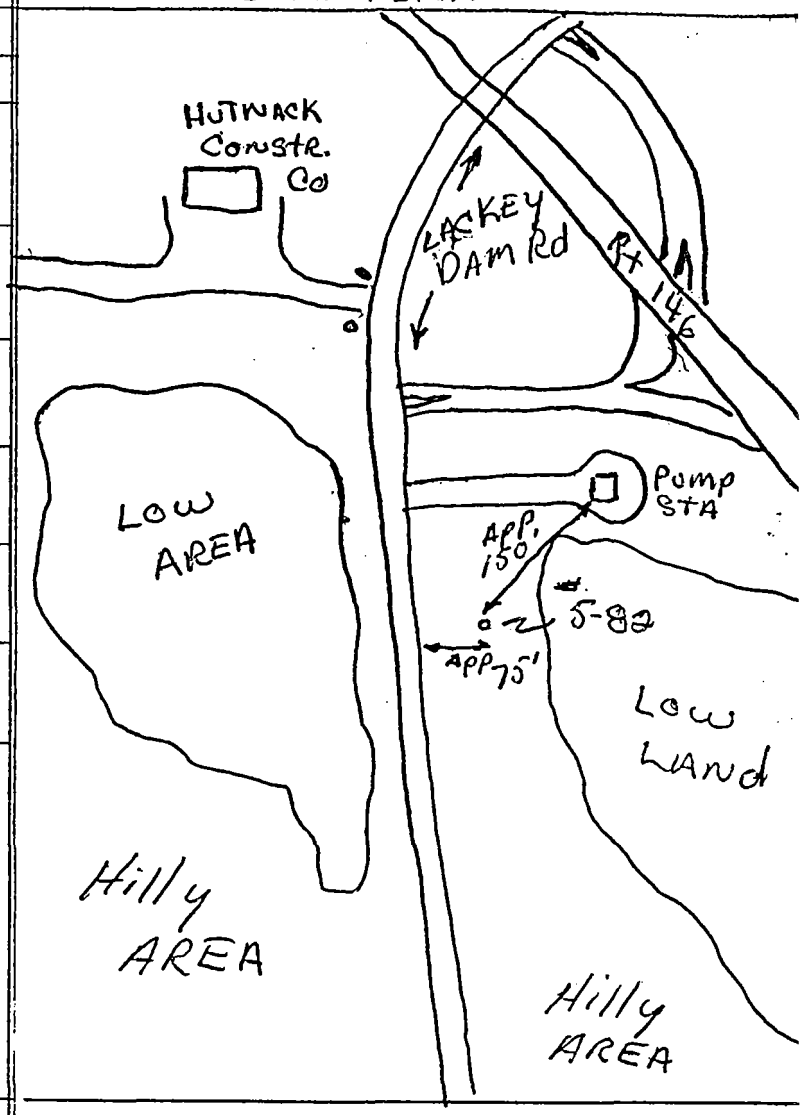
Screen Pulled Out:

Pipe Left in: 63' OF 2½

Pipe Pulled Out:

Remarks: STATIC 27'-0 DEPTH 67FT GPM 20 WITH 24" VAC

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5' 60SLOT SCREEN AT 67FT pumping 20GPM FOR 1HR.

#71

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller STEVE SULLIVAN Names of Helpers NILS LANGE

Job: Name & Location HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started 2-3-82 Date Finished 2-4-82

Hole No. 6-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
0	10	B/ MED SAND + GRAVEL
10	20	B/ MED SAND + COARSE GRAVEL
20	30	B/ FINE SAND + COARSE GRAVEL
30	39	B/ FINE SAND + COARSE GRAVEL
39	50	B/ MED SAND + GRAVEL
50	64	B/ MED SAND + GRAVEL
64		REFUSAL

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5' 60 SLOT 5' EXT

Screen Left in:

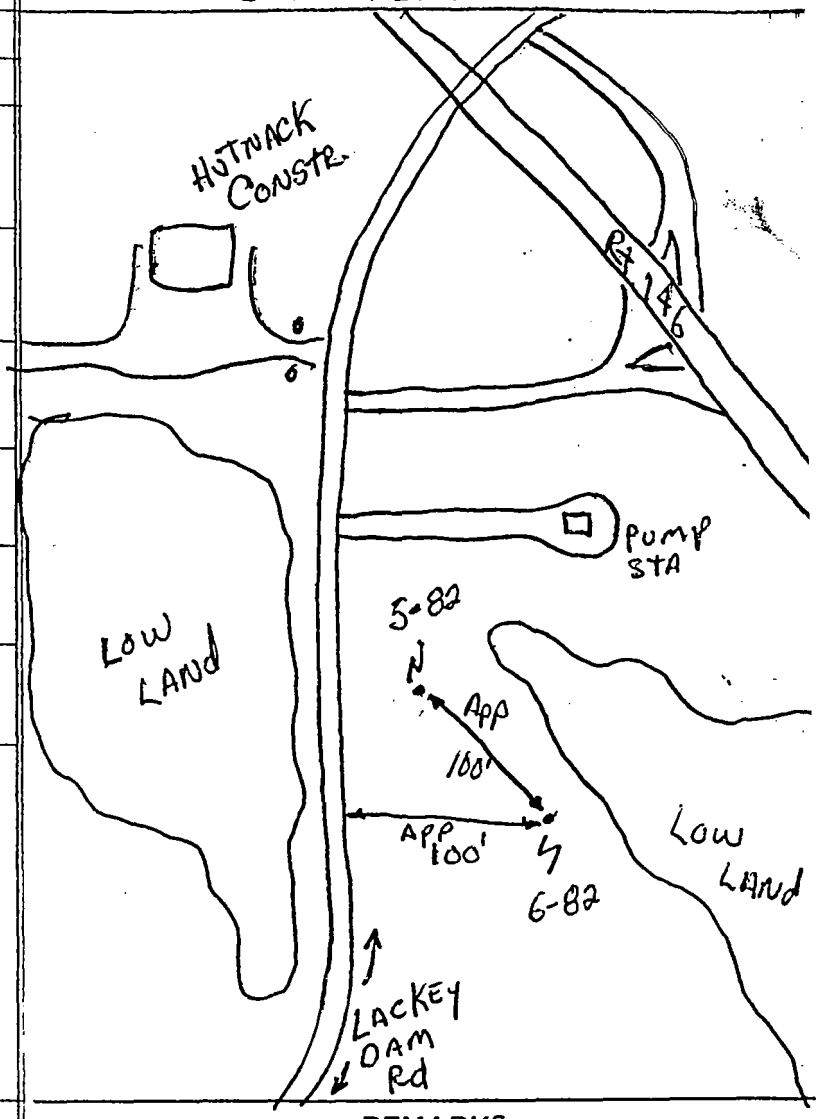
Screen Pulled Out:

Pipe Left in: 58' OF 2½

Pipe Pulled Out:

Remarks: STATIC 25'-8½ A.G. 7" DEPTH 64 FT GPM 25 WITH 23" VAC

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5' 60 SLOT SCREEN AT 64 FT pumping 25 GPM FOR 1 HR.

#12

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers:

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 3-8-82 Date Finished: 3-9-82

Hole No.: 7-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
0	10	B/ FINE SAND + GRAVEL
10	20	B/ MED COARSE SAND + GRAVEL
10	30	B/ MED COARSE SAND + GRAVEL
30	40	B/ MED SAND + GRAVEL
40	48	B/ MED SAND
48	60	B/ MED SAND + COARSE GRAVEL
60	71	B/ MED SAND + COARSE GRAVEL
71		REFUSAL

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5' 60 SLOT 2' EXT

Screen Left in:

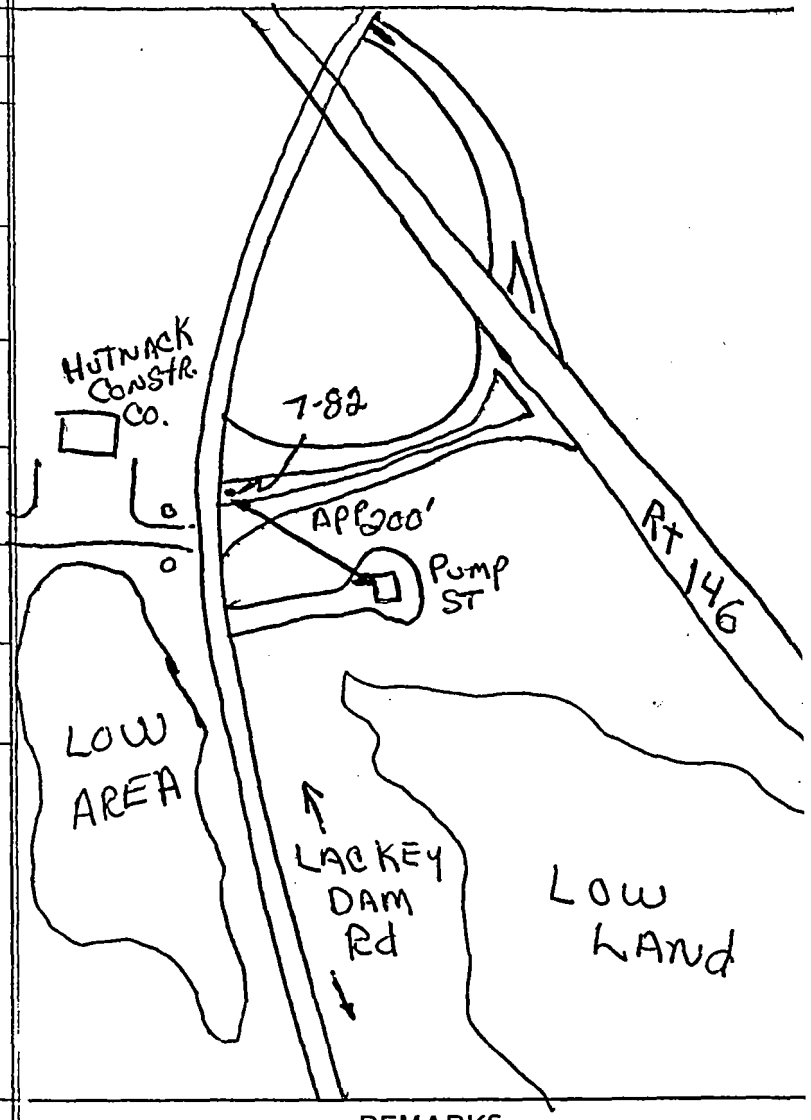
Screen Pulled Out:

Pipe Left in: 66' OF 2½

Pipe Pulled Out:

Remarks:
STATIC 27'-10"
AG. 10"
DEPTH 71 FT
GPM 18
WITH 25" VAC

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5' 60 SLOT SCREEN AT 71 FT
pumping 18 GPM FOR 1 HR.
SAMPLE TAKEN

SAMPLE TAKEN FROM #5-82 ALSO
3-9-82

#13

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers:

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS.

Date Started: 3-9-82 Date Finished: 3-10-82

Hole No.: 8-82 2½ TEST WELL

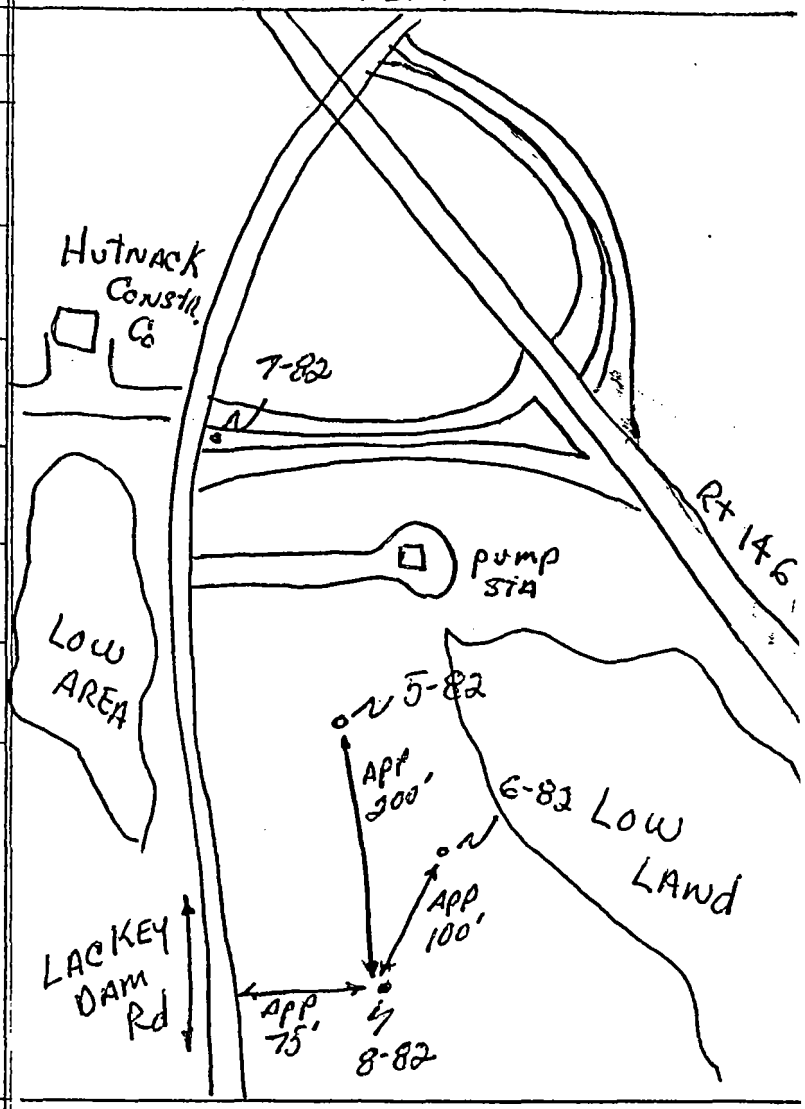
Depth From	Depth To	Classification of Material	Feet of Screen Exposed	Size of Screen & Slot	Screen Left in	Screen Pulled Out	Pipe Left in	Pipe Pulled Out
5	10	B/ MED SAND + GRAVEL		NO SCREEN			56' OF 2½	
10	20	B/ MED SAND + GRAVEL						
20	30	B/ FINE SAND + COARSE GRAVEL						
30	40	B/ FINE SAND + GRAVEL						
40	54	B/ MED SAND + COARSE GRAVEL						
54		REFUSAL						

Remarks:
STATIC 30'-6"
A.G. 2'-4
DEPTH 54 FT
GPM 10

Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

SITE PLAN



REMARKS

HOLE pumping OPEN END
10 GPM FOR 1 HR.
NO. SCREEN

74

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN
Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 4-30-82 Date Finished: 5-3-82

Hole No.: 9-82 2½ TEST WELL

Depth From	Depth To	Classification of Material
0	8	B/ MED SAND + GRAVEL
8	20	B/ FINE MED SAND + GRAVEL + BOULDERS
20	30	B/ FINE SAND + GRAVEL
30	40	B/ FINE SAND + GRAVEL
40	46	B/ FINE MED SAND + GRAVEL
46		REFUSAL

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5' 50 SLOT 2' EXT

Screen Left in:

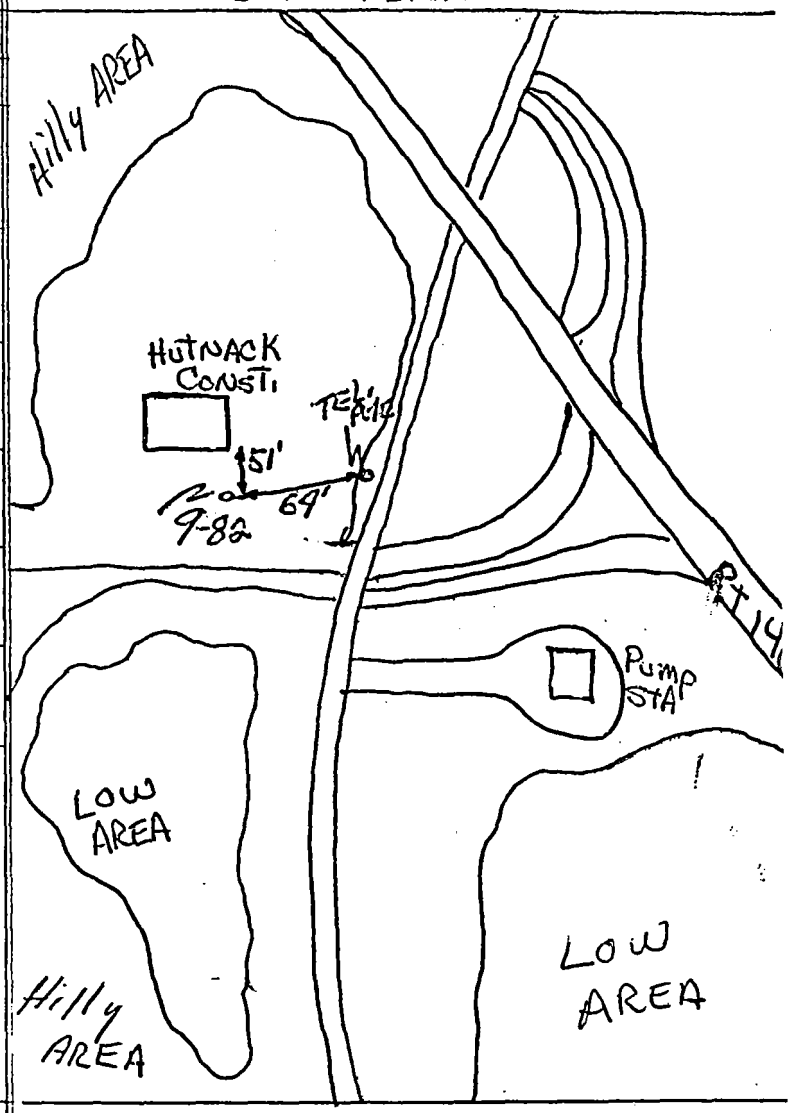
Screen Pulled Out:

Pipe Left in: 41' OF 2½

Pipe Pulled Out:

Remarks:
STATIC 26'-3½
AG. 3"
GPM 10
DEPTH 46FT

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5' 50 SLOT SCREEN AT 46 FT.
PUMPING 10 GPM 22" VAC FOR 2 HRS

#15

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: STEVE SULLIVAN Names of Helpers: NILS LANGE

Job: Name & Location: HAYWARD SCHUSTER MILLS DOUGLAS MASS

Date Started: 5-3-82 Date Finished: 5-4-82

Hole No.: 10-82 2½ TEST WELL

Depth From	Depth To	Classification of Material	
0	7	FINE SAND + GRAVEL + BOULDERS	
7	10	B/ FINE SAND + GRAVEL	
10	20	B/ FINE MED SAND + GRAVEL	
20	30	B/ MED SAND + GRAVEL	
30	40	B/ MED SAND + GRAVEL	
40		REFUSAL	

Feet of Screen Exposed: 5'

Size of Screen & Slot: 5' 50 SLOT 2' EXT

Screen Left in:

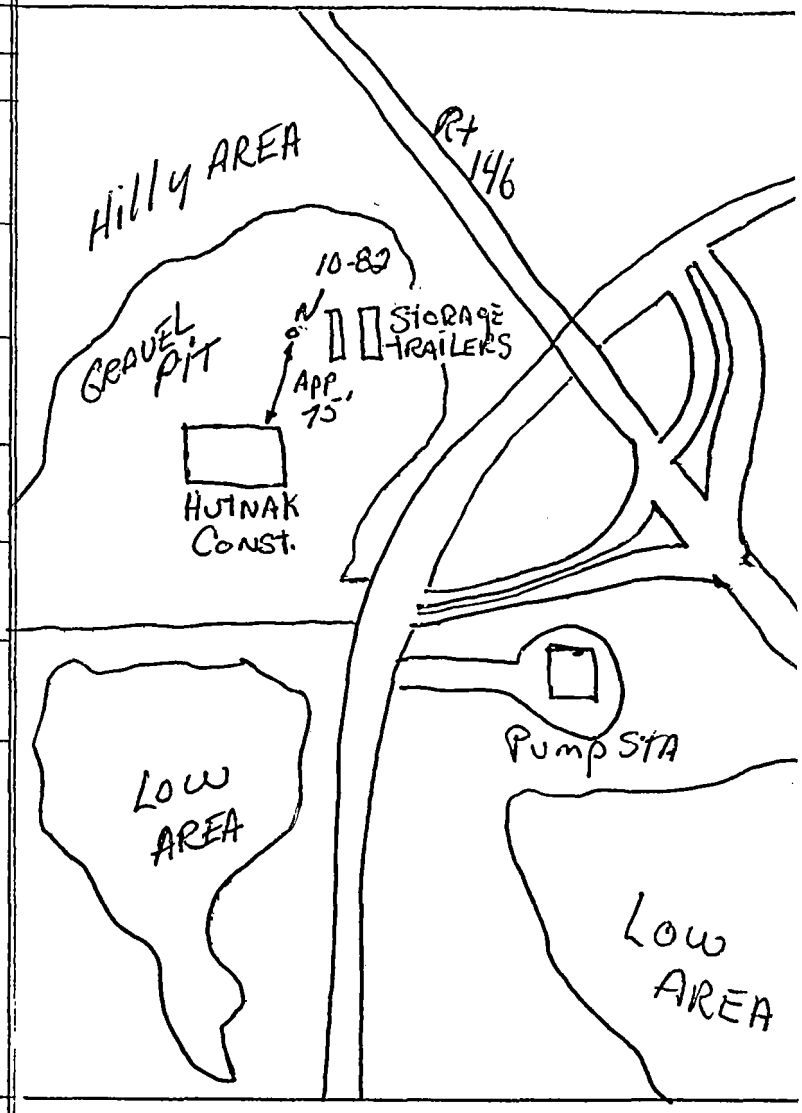
Screen Pulled Out:

Pipe Left in: 36' OF 2½

Pipe Pulled Out:

Remarks: STATIC 25'-2" A.G. 6" DEPTH 40FT GPM 10 WITH 22" VAC

SITE PLAN



Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

REMARKS

SET 5' 50 SLOT AT 40' pumping 10 GPM FOR 1 HR.

76

F. G. SULLIVAN DRILLING CO.
Lancaster, Mass. 01523

Name of Driller: FRANK SULLIVAN SR. Names of Helpers: TODD SULLIVAN

Job: Name & Location: HAYWARD - SCHUSTER WOOLEN MILLS E. DOUGLAS, MASS.

Date Started: 22 JUNE 82 Date Finished:

Hole No.: 8" TEST WELL @ 2½" TEST SITE #7-82

Depth From	Depth To	Classification of Material
0'	10'	BROWN/COURSE GRAVEL
10'	20'	BROWN/MED + COURSE GRAVEL
20'	30'	BROWN MED GRAVEL
0'	36'	BROWN/MED GRAVEL
36'	42'	BROWN/MED SAND
42'	50'	BROWN/COURSE SAND + MED GRAVEL
50'	55'	BROWN/HARD PACKED MED GRAVEL
55'	60'	BROWN/HARD PACKED COURSE GRAVEL
60'	65'	BROWN/MED + COURSE GRAVEL
65'	71'	BROWN/MED GRAVEL
71'		

Feet of Screen Exposed: 10' OF 110 SLOT

Size of Screen & Slot: 8" TELESCOPE SIZE 110 SLOT

Screen Left in: 10' OF 8" - 110 SLOT

Screen Pulled Out: ——

Pipe Left in:

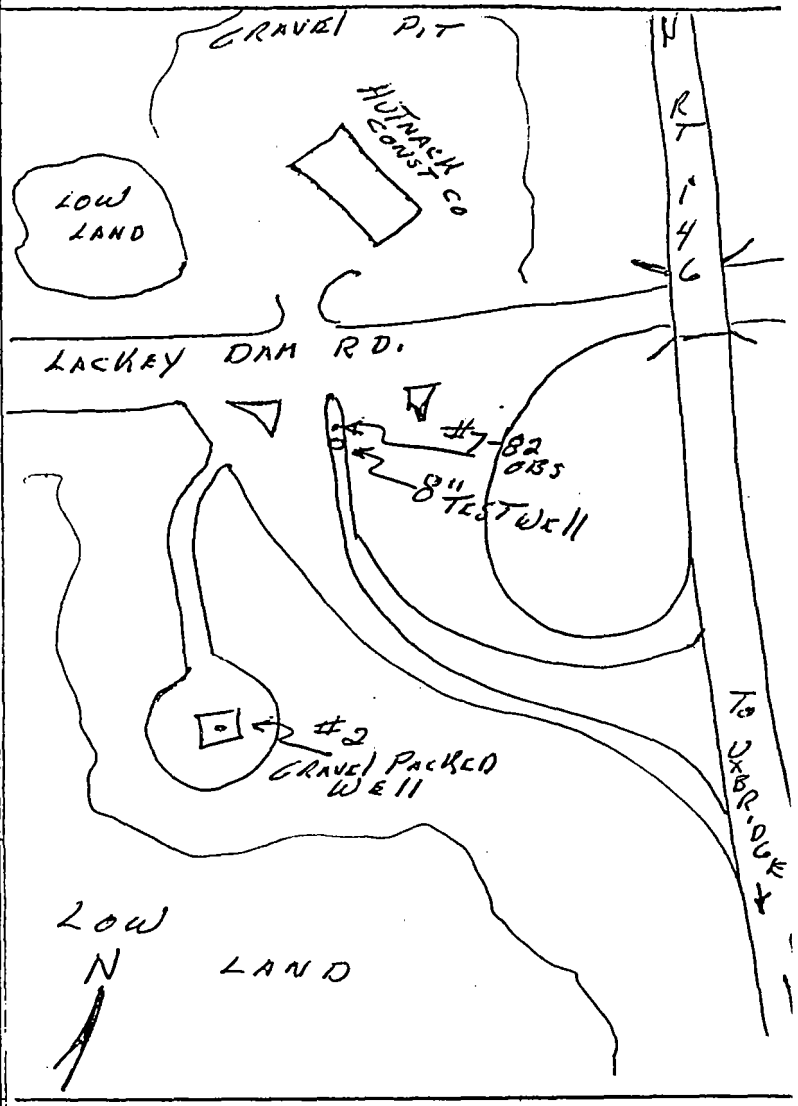
Pipe Pulled Out:

Remarks: DEPTH = 71.0'

STATIC WATER LEVEL = 27.40' FROM TOP OF PIPE

PIPE ABOVE GRD. 0.4'

SITE PLAN



REMARKS

Pump Test on Hole No.

Date	Time	Dr. Down	G.P.M.	Static and Other Info.

not used

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS JUL 25 1973
DIAL 835-3727 — 835-3221

Job Location East Douglas Mass

Date July 9, 1973 Hole No. 2-(73)

Started ..... Finished .....

in pit beside road LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	4'	Brown sand & gravel		
4'	11'	Very hard packed hard pan		
11'	20'	Brown sand & gravel.		
20'	30'	Brown sand, gravel & clay.		
30'	36'	Hard pan.		
		Refusal at	36'	

Used ..... ft. ..... inches of casing

Well rated at — G.P.M. ..... " Vacuum

Water level is 6'-2" ft. below ground level

Remarks Pulled out

Foreman George Irvine

#77

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS JUL 25 1973
DIAL 835-3727 — 835-3221

Job Location East Douglas, Mass

Date July 5, 1973 Hole No. 1 (73)

Started ..... Finished .....

in woods of Douglas LOG OF HOLE 200' off Rt. #146

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	20'	Fine brown sand.		
20'	35'	Fine brown + gray sand.		
35'	51'	Fine brown sand and small gravel		
51'	58'	Fine brown sand, small sharp gravel + traces of clay		
		Refusal at	58'	

Used 46 ft. ..... inches of casing

Well rated at 30 G.P.M. 25 " Vacuum

Water level is 7'-6" ft. below ground level

Remarks set 10' of 20 slot screen from 56'-46'
51'-56' pumped 6 gpm 56'-46' pumped 30 gpm
1 Ron .01 Mug 00.

Left in

Foreman George Irvine

146 146

#78

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221 JUL 25

Job Location East Douglas Mass.

Date July 6, 1973 Hole No. 1-A (73)

Started ..... Finished .....

2' off #1 LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	20'	Fine brown sand.	
20'	35'	Fine brown & gray sand.	
35'	51'	Fine brown sand & small gravel.	
		Stopped at	51'

Used 42' ft. ..... inches of casing

Well rated at 30 G.P.M. 25 " Vac

Water level is 7'-6" ft. below ground l

Remarks set 10' of 20 slot screen from 51
1 Ron .01 Mug 00

Left in

Foreman George Irvine

#81 146

R. E. CHAPMAN CO. JUL 25 1973
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas Mass.
Date July 12, 1973 Hole No. 4(73)
Started ..... Finished .....
250' southeast of #3 LOG OF HOLE

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in inches
0"	2'	Peat.		
2'	8'	Hard pan.		
8'	20'	Brown angular sand & gravel.		
20'	26'	Brown medium sand & angular gravel.		
26'	35'	Fine brown sand, gravel & clay.		
35'	43'	Hard pan.		
		Refusal at	43'	

Used 28' ft. ..... inches of casing
Well rated at 15 G.P.M. 22 " Vacuum
Water level is 3" ft. ~~below~~ above ground level
Remarks set 10' of 30 slot screen from 35'-28'.
Left in
Foreman George Irwin

#80 146

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221 JUL 25 1973

Job Location East Douglas Mass.
Date July 11, 1973 Hole No. 3-A(73)
Started ..... Finished .....
2' off #3(73) LOG OF HOLE

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in inches
0"	1'6"	Peat		
1'6"	3'6"	Fine brown sand & clay.		
3'6"	8'	Hard pan		
8'	19'	Medium brown sand.		
19'	31'	Brown sand & gravel.		
		Hit boulder.		
		Refusal at	31'	

Used 33' ft. ..... inches of casing
Well rated at 50 G.P.M. 6 " Vacuum
Water level is 4'-0" ft. ~~below~~ above ground level
Remarks left in open end.
Foreman George Irwin

146 #79

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS JUL 25 1973
DIAL 835-3727 — 835-3221

Job Location East Douglas Mass.
Date July 10, 1973 Hole No. 3(73)
Started ..... Finished .....
400' north of #1 cross LOG OF HOLE swamp.

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in inches
0"	1'6"	Peat		
1'6"	3'6"	Fine brown sand & clay.		
3'6"	8'	Hard pan.		
8'	19'	Medium brown sand.		
19'	33'	Brown sand & gravel.		
33'	38'	Brown sand, gravel & little of clay.		
		Refusal at	38'	

Used 28 ft. ..... inches of casing
Well rated at 40 G.P.M. 20 " Vac
Water level is 4 ft. ~~below~~ above ground
Remarks set 10' of 60 slot screen from 37'-
Left in
Foreman George Irwin

#83

9

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

JUL 25 1973

Job Location East Douglas, Mass
Date July 17 1973 Hole No. 7 (73)
Started ..... Finished .....
125' off road & 60' off screen plant. LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	6'	Fill		
6'	25'	Fine brown sand & medium gravel		
25'	40'	Brown sand, gravel & clay.		
40'	45'	Red & brown sand & gravel.		
45'	53'	Fine brown sand & clay.		
		Refusal at	53'	

Used — ft. ..... inches of casing
Well rated at 25 G.P.M. 20 " Vacuum
Water level is 7'-7½" ft. below ground level
Remarks Set 5' of 60 slot screen from 45'-40'
Pulled out
Foreman George Irvine

not used

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

JUL 25 1973

Job Location East Douglas Mass
Date July 16, 1973 Hole No. 6 (73)
Started ..... Finished .....
in gravel pit off road. LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	10'	Brown sand & gravel.		
10'	22'	Medium brown sand & gravel.		
22'	24'-6"	Hard pan.		
		Refusal at	24'-6"	

Used ..... ft. ..... inches of casing
Well rated at 40 G.P.M. 16 " Vacuum
Water level is 2'-3" ft. below ground level
Remarks Pumped open end.
Pulled out
Foreman George Irvine

146

#82

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

JUL 25 19

Job Location East Douglas Mass.
Date July 12, 1973 Hole No. 5 (73)
Started ..... Finished .....
100' South of #3 (73) LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	3'	Peat	
3'	9'	Hard pan.	
9'	20'	Brown sand & gravel.	
20'	30'	Brown sand & gravel.	
30'	40'	Very fine brown sand & angular gravel.	
40'	42'	Medium brown sand.	
42'	44'	Hard pan.	
		Refusal at	44'

Used 35 ft. ..... inches of casing
Well rated at 40 G.P.M. 18 " Vac
Water level is 2'-9 ft. above below ground
Remarks Set 10' of 60 slot screen from
Left in
Foreman George Irvine

#86 146

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas, Mass
Date Oct. 5, 1973 Hole No. 11 (73)
Started ..... Finished .....

40' off #1 into swamp LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	2'	Peat & muck.		
2'	20'	Light brown sand & small sharp gravel.		
20'	38'	Dark brown sand & small gravel		
38'	50'	Dark brown sand & gravel.		
		Stopped at	50'	

Used 42 ft. ..... inches of casing
Well rated at 35 G.P.M. 26 " Vacuum
Water level is 3'-4" ft. below ground level
Remarks set 10' of 30 slot screen from 50'-40'
IRON 0.02 Mug .00

Left in

Foreman George Irwine

#85 146

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas, Mass
Date Oct 4, 1973 Hole No. 10 (73)
Started ..... Finished .....

80' into swamp from #1 LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	9'	Peat & muck.		
9'	20'	Light brown sand & small gravel.		
20'	40'	Fine dark brown sand		
40'	50'	Sharp brown sand & gravel.		
50'	56'	Dirty brown sand & sharp small gravel with a trace of clay.		
		Refusal at	56'	

Used 42 ft. ..... inches of casing
Well rated at 35 G.P.M. 23 " Vacuum
Water level is 1'-1" ft. below ground level
Remarks set 10' of 60 slot screen from 50'-40'
IRON 0.02 Mug .00

Left in

Foreman George Irwine

#84 146

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas, Mass
Date Oct 3, 1973 Hole No. 9 (73)
Started ..... Finished .....

200' South of #1 (73) LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration
0"	5'	Brown sand, gravel & boulders.		
5'	22'	Hard pan		
22'	28'	Sharp brown sand & gravel.		
		Stopped at	28'	

Used 28 ft. ..... inches of casing
Well rated at 5 G.P.M. 26 " Vac
Water level is 3'-9½" ft. below ground l
Remarks set 5' of 30 slot screen from 28
Left in

Foreman George Irwine

sing ..... " Vacuum
t. below ground level
from 51'-41'

R. E. CHAPMAN CO.

OAKDALE, MASS.

#87

Name of Driller Wm Cummings Names of Helpers Eddy Cislak

Job: Name & Location East Douglas

Date Started 11/5/73 Date Finished 11/15/73

Hole No. 1 8" test Well 2' Lim 2½" 1+1-A

Depth From	Depth To	Classification of Material
0'	10	Silty Sand
10'	20	" "
20'	30'	Fine Sand
30'	40'	Fine Sand
40'	50	Fine Sand
50'	56	" "
56'	58	Sharp Gravel
58'	60'	" "
	60'	Ledge

Feet of Screen Exposed 15'-0"

Size of Screen & Slot
8" Screen
10' 10 Slot Top
10' 10 Slot Bottom

Screen Left in

Screen Pulled Out ✓

Pipe Left in

Pipe Pulled Out ✓

Remarks
These screens are stainless in an 8" test well.

Date Started Date Finished

Hole No.

Depth From	Depth To	Classification of Material

Feet of Screen Exposed

Size of Screen & Slot

Screen Left in

Screen Pulled Out

Pipe Left in

Pipe Pulled Out

Remarks

Pump Test on Hole No.

Date	Time	Dr. Down	G. P. M.	Static and Other Info.
				Pump test on
				regular Pump chart.
				No Pump test hole was
				no good Hole pulled
				out machine moved to
				Oakdale

Pump Test on Hole No.

Date	Time	Dr. Down	G. P. M.	Static and Other Info.

1-11 (75)

#90

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

12/11

Job Location Douglas mass water Dept
Date Nov 13-1975 Hole No. 3-75
Started Nov. 13-1975 Finished Nov 14-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0'	2'	Sandy loam		
2'	10'	Brn sand & gravel		
10'	19'	Brn & gray clay		
19'	28'	Gray clay		
28'	35'	grey clay		
35'	38'	grey clay		
38'	44'	Brn sand & gravel		

No Refusal

Used 40 ft. 5 inches of casing
Well rated at 60 G.P.M. 17 " Vacuum
Water level is 6'-8½" ft. below ground level
Remarks Set 5 ft 60 slot screen
39'-44' + +-5'-1¼"
EXTENSION

Foreman E. L. Slavenwhite

left

#89

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

12/11

Job Location Douglas mass water Dept
Date November 12 1975 Hole No. 2-75
Started November 12-1975 Finished Nov. 13-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0'	2'	Sandy top soil		
2'	7'	Brn sand & gravel		
7'	14'	Fine Brn sand & clay		
14'	21'	Brn sand & clay		
21'	28'	Brn & gray clay		
28'	35'	Gray clay & Boulders		
35'	40'	dirty lefty sand small sharp gravel with hard pan		
40	45'	Sand gravel & hard pan		
45	50'	Brn hard pan		
50'	55'	Brn hard pan		
55	58	Hard pan		
		Refusal 58 ft.		

Used ft. inches of casing
Well rated at G.P.M. " Vacuum
Water level is ft. below ground level
Remarks no material no circulation
hole pulled out

Foreman E. L. Slavenwhite

Pulled

#88

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

12/11

Job Location Douglas mass water Dept
Date Nov. 10-1975 Hole No. 1-75
Started Nov. 10-1975 Finished Nov. 12-19

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0	2'	Sandy top soil	
2'	7'	Brn sand & small gravel	
7'	14'	Brn clay	
14'	21'	Brn & gray clay	
21	28'	Brn & grey clay	
28'	35'	Fine gray sand & gray clay	
35'	38'	Fine gray brn sand & clay	
38'	44'	dirty sand & gravel	
		Refusal (44) ft	

Used ft. inches of casing
Well rated at 20 G.P.M. 28 " Va
Water level is 8'-3¾" ft. below ground
Remarks Pumped ~~[illegible]~~ tight
water would not clear up
hole pulled out

Foreman E. L. Slavenwhite

pulled

#93

R. E. CHAPMAN CO. 12/1
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass water Dept
Date Nov 17-1975 Hole No. 6-75
Started Nov 17-1975 Finished Nov 17-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	2'	Top Soil		
2'	12'	med coarse brn sand sm gravel		
12	28'	fine sand & brn clay		
28'	35'	gray clay		
35'	45'	gray clay.		
45'	51	fine med dirty brn sand & small sharp gravel & clay		
51'	54'	fine coarse dirty sand sharp gravel		
54'	58'-6"	hard pan		
		Refusal 58' 6"		

Used 45 ft. 9 inches of casing
Well rated at 12 G.P.M. 28 " Vacuum
Water level is 5'-4½" ft. below ground level
Remarks Set 5ft 30' slot screen 5'-1¼" EXTENSION
Screen setting 50'-55'
Pumped to ft
Foreman E. L. Slavenwhite

1 ft

#92

R. E. CHAPMAN CO. 12/1
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas Mass Water Dept.
Date Nov 17-1975 Hole No. 5-75
Started Nov 17-1975 Finished Nov 17-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	2'	Sandy Top soil		
2'	10'	fine med dk brn sand small gravel		
10'	20'	Grey & Brn clay.		
20'	30'	fine sand & grey brn clay.		
30'	36'	fine med brn sand & clay		
36'	40'	fine med dirty brn sand small sharp gravel with hard pan.		

Used 34 ft. 2 inches of casing
Well rated at 20 G.P.M. 27 " Vacuum
Water level is 4'-11" ft. below ground level
Remarks Set 5 ft 30 Slot screen 35'-40' & 5' 1¼" EXT.
Foreman E. L. Slavenwhite

1 ft

#91

R. E. CHAPMAN CO. 12/
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas mass water Dept
Date Nov 14-1975 Hole No. 4-75
Started Nov 14-1975 Finished Nov 14-19

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	2'	Sandy loam	
2'	10'	Brn sand & gravel	
10'	19'	Brn & gray clay	
19	25'	gray clay	
25'	30'	gray clay	
30'	38'	gray clay	
38'	44'	Brn sand & gravel	

Used 40 ft. inches of casing
Well rated at 60 G.P.M. 17 " Va
Water level is 6'-8½" ft. below ground
Remarks Set 5 ft screen 39'-44
Screen exposed 5 ft + 5 ft 1¼
EXTENSION
Foreman E. L. Slavenwhite

1 ft

#96

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

1/12/76

Job Location Town of East Douglas mass
Date Dec 29-1975 Hole No. 9-75
Started Dec 29-1975 Finished Dec 29-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	2'	peat		
2'	10'	Sand clay & Boulders		
10'	15'	Sand gravel clay		
15'	21'-5"	Sand fine sharp gravel trace of clay.		
		Refusal 21'-5"		

Used ..... ft. ..... inches of casing
Well rated at 5 G.P.M. 22 " Vacuum
Water level is 3 ft. below ground level
Remarks Pumped little circulation poor Set 5 ft screen 16'-5" To 21'-5" hole pulled out.
Foreman E. L. Slavenwhite

pulled

#95

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

1/12/76

Job Location East Douglas mass water dept
Date Dec 23-1975 Hole No. 8-75
Started Dec 23-1975 Finished Dec 24-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	2'	Sandy topsoil.		
2'	10'	fine med brn sand & sm. gravel		
10'	15'	Br clay		
15'	20'	Brn clay.		
20'	25'	Br clay		
25'	30'	Brn & gray clay		
30	35'	gray clay		
35'	40'	gray clay.		
40'	45'	gray & Brn clay.		
45'	48'	fine sand & Brn clay.		
48'	53'	fine sand sm sharp gravel traces of hardpan		

Used ..... ft. ..... inches of casing
Well rated at ..... G.P.M. ..... " Vacuum
Water level is ..... ft. below ground level
Remarks no material no Circulation hole pulled out.
Foreman E. L. Slavenwhite

pulled

#94

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

1/12

Job Location East Douglas mass water D
Date Dec 22-1975 Hole No. 7-75
Started Dec 22-1975 Finished Dec 23, 1

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon
0"	5'	brn sand & small gravel	
5'	20'	fine brn sand & clay	
20'	25'	Brn clay.	
25'	30	Brn clay.	
30'	45'	Blue & gray clay.	
45'	50'	Brn & gray clay.	
50	55'	fine dk brn sand & clay	
55	61	fine dk brn sand & clay	
61	65'	fine dirty brn sand & sm g	
65	71'	fine dirty brn sand sm gra	

Used ..... ft. ..... inches of casing
Well rated at 4 G.P.M. 28 " V
Water level is 11'-9 1/2" ft. below groun
Remarks Set 5 ft 30 slot screen + 4 x 1 1/4" EXTENSION WATER W NOT CLEAR UP. Pumped Tight Hole pulled out.
Foreman E. L. Slavenwhite

Pulled.

1/12

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Town East Douglas mass
Date January 5-1975 Hole No. 11-75 OBS
Started January 5-1975 Finished January 5-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 140# blows on spoon	Penetration of Spoon in Inches
		Pulled out #11-75-OBS well		

Used ft. inches of casing
Well rated at G.P.M. " Vacuum
Water level is ft. below ground level
Remarks pulled

Foreman E. L. Shaumbite

pulled

go to R2 GPW

#98

1/12

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Town of East Douglas mass
Date Dec. 31-1975 Hole No. 11-75 OBS well
Started Dec. 30-1975 Finished Dec. 31-1975

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 140# blows on spoon	Penetration of Spoon in Inches
0"	2'	Sandy top soil		
2'	10'	Sand & small gravel		
10'	15'	Sand small gravel trace of clay		
15'	20'	fine medium and large gravel clay		
20'	25'	fine medium and clay		
25'	30	fine medium and small gravel & clay		
30	35	fine sand & clay		
35'	43'	very fine sand & hard clay		
43'	50'	fine coarse fine sand & some gravel		
50	56'	fine coarse hard sand & some gravel		

Used ft. inches of casing
Well rated at 35 G.P.M. 24 " Vacuum
Water level is 12'-3" ft. below ground level
Remarks

Foreman E. L. Shaumbite

left

#97

1/12

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Town of East Douglas mass
Date Dec. 29-1975 Hole No. 10-75
Started Dec. 29-1975 Finished Dec. 30-19

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 140# blows on spoon
0"	2'	Sandy top soil	
2'	10'	fine & med. large sand & gravel	
10'	15'	sand & some large gravel trace of clay	
15'	20'	fine med. large sand & small gravel	
20'	25	fine med. large sand & hard clay	
25'	30'	fine med. hard sand & gravel	
30	35'	fine sand & clay	
35'	43	fine sand & clay.	
43'	50'	fine to coarse hard sand & clay	
50'	56'	fine coarse hard sand & small large gra	

Used 45 ft. 3 inches of casing
Well rated at 35 G.P.M. 24 " V
Water level is 12'-3" ft. below groun
Remarks set 10 ft 30 slot screen 46'7
+ 3' x 1½" EXTENSION

Foreman E. L. Shaumbite

left

#99

R. E. CHAPMAN CO. 1/12
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location Douglas Mass Water Dept.
Date Nov 10 - 1975 Hole No. EXISTING 2½" TEST WELL
Started Nov 10 - 1975 Finished Nov. 12 - 1975

LOG OF HOLE

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
		Washed out well not pump		
		open end. Set exposed 2ft		
		screen pumped 20 GPM 28" VAC		
		Pulled screen redrove hole &		
		washed well not pump again and		
		set 5ft 60 slot screen diaphragm		
		pump (Ex. pet or contrifugal)		
		pumped 60 gal per minute to		
		19" VAC. Pump fine sand & clay		
		Raw data in #1-75 work		
		7ft - Old well collapsed		
		around screen & shut off.		
		Writes.		

Used ft. inches of casing
Well rated at G.P.M. " Vacuum
Water level is ft. below ground level
Remarks

Foreman E. L. Shaumsbile

#100

R. E. CHAPMAN CO. 1/12 13-
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas Mass Water Dept
Date Jan 7 - 1976 Hole No. 2 - 76 QC
Started Jan 7 - 1976 Finished Jan 9 - 19

LOG OF HOLE

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	1'	Sandy top soil		
1'	5'	Brn sand & small gravel		
5'	10'	Brn sand & small gravel		
10'	15'	Brn sand & small gravel trace of clay		
15'	20'	Fine medium sand & gravel trace clay		
20'	25'	Fine medium sand trace of clay		
25'	30'	Fine medium sand & gravel		
30'	33	Fine coarse gray brn sand & gravel		
33'	40'	Fine coarse sand & gravel		
40'	48'	Fine coarse brn sand & gravel boulders		
		Stopped at 48ft large boulders		

Used 38 ft. inches of casing
Well rated at G.P.M. " V
Water level is 4'-3" ft. below groun
Remarks Set 5ft 60 slot screen well used for observation wh Pumping #1 well

Foreman E. L. Shaumsbile

#101

R. E. CHAPMAN CO. 1/12
OAKDALE, MASSACHUSETTS
DIAL 835-3727 — 835-3221

Job Location East Douglas Mass Water Dept
Date Jan 8 - 1976 Hole No. 1 - 76
Started Jan 8 - 1976 Finished Jan 8 - 1976

LOG OF HOLE

Depth From (Ground Surface)	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0"	1'	Sandy top soil		
1'	5'	Brn sand & small gravel		
5'	10'	Brn sand & small gravel		
10'	15'	Brn sand & small gravel trace of clay		
15'	20'	Fine medium sand & gravel trace of clay		
20'	25'	Fine medium sand trace of clay		
25'	30'	Fine med brn sand & gravel		
30	33	Fine med brn sand & gravel		
33	40	Fine coarse gray brn sand & gravel		
40	45	Fine coarse gray brn sand & gravel		
45	50	Fine coarse gray brn sand & gravel		
50'	55'	Fine coarse brn sand & gravel		

Used 45 ft. 4 inches of casing
Well rated at 56 G.P.M. 17 " Vacuum
Water level is 4'-3" ft. below ground level
Remarks Set 10ft 3 of 3 slot screen 45' to 55' + 5 X 1¼" CSX T.

Foreman E. L. Shaumsbile

R. E. CHAPMAN CO.

OAKDALE, MASS.

#101

RHWhite

Name of Driller H. J. Wile Names of Helpers D. Swift

Job: Name & Location Town of E. Douglas Mass.

Date Started 1-15-76	Date Finished 1-23-76	Date Started	Date Finished
Hole No. 1- 8" Test well @ #11. 1-76		Hole No.	

Depth From	Depth To	Classification of Material (55')	Feet of Screen Exposed	Depth From	Depth To	Classification of Material	Feet of Screen Exposed
0	10	Course Red Gravel	13'				
10	20	Course Gr. SAND	Size of Screen & Slot				Size of Screen & Slot
20	30	Med. G.r. SAND	8" # 160				
30	35	" " "	Screen Left in				Screen Left in
35	40	Course Br. Gravel					
40	45	" " "					
45	50	" " "	Screen Pulled Out				Screen Pulled Out
50	55	" " "					
			Pipe Left in				Pipe Left in
			Pipe Pulled Out				Pipe Pulled Out
			Remarks				Remarks

Remarks:
Expose 13' Scr.
W.L. 3'-4" T.O.P.
Pipe 3" A.G.
Pump 260 G.P.M.
W/17' D.D.

Pump Test on Hole No.

Date	Time	Dr. Down	G. P. M.	Static and Other Info.
				Surged
				1-26-76 - 4 hrs
				1-27-76 - 7 hrs.

Pump Test on Hole No.

Date	Time	Dr. Down	G. P. M.	Static and Other Info.

#105

R. E. CHAPMAN CO.

OAKDALE, MASS.

RH White

Name of Driller Wm Cummings Names of Helpers Eddy Pilak

Job: Name & Location Town of East Douglas

Date Started 9/29/76	Date Finished	Date Started	Date Finished
Hole No. 1 30" x 24" x 12" Gravel Packs		Hole No. at Well Site #1-76	

Depth From	Depth To	Classification of Material	Feet of Screen Exposed	Depth From	Depth To	Classification of Material	Feet of Screen Exposed
0'	10'	Med. Gravel	10'-0"				
10'	20'	" "	Size of Screen & Slot			Concrete seal	Size of Screen & Slot
20'	28'	" "	12" Screen 160 Slot			20'- in depth	
28'	38'	Fine Sand	Screen Left In			30" to 24"	Screen Left In
38'	42'	Med. Gravel	Yes				
42'	53'	Coarse Gravel	Screen Pulled Out			30" Casing	Screen Pulled Out
53'	55'	Fine Sand.				removed.	
	55'	Refusal.	Pipe Left In Yes				Pipe Left In
						Packs between	
		total depth	Pipe Pulled Out			24" x 12" to	Pipe Pulled Out
		of Well				grounds level.	
		54'-0" from	Remarks				Remarks
		grounds level.	24" 42'-0"				
			12" 45'-0"				
			Left in place				

Pump Test on Hole No.					Pump Test on Hole No.				
Date	Time	Dr. Down	G. P. M.	Static and Other Info.	Date	Time	Dr. Down	G. P. M.	Static and Other Info.
				Pump Test on					
				regular Pump Charts.					

500' from wellfield
(What wellfield) old wellfield.

1-56 → 13-56
+ 7A

3532/56

#103

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass.
Date 5/10/56 Hole No. #1 test hole
Started 100 ft down stream from wellfield Finished

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0	12	sand & gravel.		
12	25.	fine sand.		
25	28.	soft clay.		
28.	33.	fine sand.		
		refusal at 33. ft		

Used 33. ft — inches of casing
Well rated at — G.P.M. — " Vacuum
Water level is 3.2" ft. below ground level
Remarks Casing pulled
Foreman J. McWard

#104

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass.
Date 5/11/56 Hole No. #2
Started 50 ft from #1 Finished

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0	21.	fine sand		
21	27.	sand & gravel.		
27.	44.	fine to medium sand		
		& sharp gravel		
44.	56.	silty sand.		
		refusal at 56. ft		
		at 24. ft		

Used 56. ft — inches of casing
Well rated at 10 G.P.M. 15" " Vacuum
Water level is 7.3" ft. below ground level
Remarks Casing pulled.
Foreman J. McWard

#105

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass.
Date 5/11/56 Hole No. #3
Started 700 ft from #2 Finished

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0	20.	sand & gravel.		
2	41.	sandy grey clay.		
41.		sand & gravel.		
		to be continued		

Used 41. ft. inches of casing
Well rated at G.P.M. " Vacuum
Water level is ft. below ground level
Remarks
Foreman J. McWard

Drilled: 1, 2, 3, 4, 5 (2 ft)

Drilled 7A 2' from well

Three more of wells 1-13 & 2 wells

#105 cont.

#106

3532/56

#107

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass.
Date 5/14/56 Hole No. #3
Started ____ Finished ____

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
		Continued from	41	ft
46.	49.	sand & gravel,		
		fine sand, sharp		
		gravel & clay.		
		refusal at 49. ft		
		broke casing pulling back to 44. ft		
		jumped free at 44 ft		

Used 49. ft — inches of casing
Well rated at — G.P.M. — " Vacuum
Water level is ____ ft. below ground level
Remarks last 16. ft of casing.
Foreman J. M. Ward

R. E. CHAPMAN CO.
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass
Date 5/15/56 Hole No. #4
Started 46 ft from #3 Finished ____

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0	18.	fine sand & gravel.		
18.	38.	soft grey clay.		
38.	44.	medium sand, gravel		
		boulders & traces of		
		clay.		
		hit boulder at 44. ft		

Used 44. ft — inches of casing
Well rated at 5.5 G.P.M. .15" " Vacuum
Water level is 8.16" ft. below ground level
Remarks 44. ft of casing to be left in hole.
Foreman J. M. Ward

R. E. CHAPMAN CO. 6/6/56
OAKDALE, MASSACHUSETTS
Tel. West Boylston 5-3727 — 5-3221

Job Location East Douglas Mass
Date 5/15/56 Hole No. #5
Started 2 ft from #4 Finished ____

LOG OF HOLE

Depth From Ground Surface	Depth To	CLASSIFICATION of MATERIALS	No. of 30" blows on spoon	Penetration of Spoon in Inches
0	18.	fine sand & gravel,		
18.	38.	soft grey clay,		
38.	47.	medium sand, gravel,		
		boulders & traces of		
		clay.		
		hit boulder at 47. ft		
		pulled back to 46. ft		
		at 46. ft		

Used 47. ft — inches of casing
Well rated at 46 G.P.M. .15" " Vacuum
Water level is 8.16" ft. below ground level
Remarks Casing pulled
Foreman J. M. Ward

Only one left in ground.

This well became the "old" test well referred to in 1975-1976 Explorations.