



EXPLANATION

Seismic shot point

Direction of seismic traverse

PRELIMINARY REPORT ON THE SEISMIC INVESTIGATIONS
in the
HARWICH AND DENNIS QUADRANGLES, MASSACHUSETTS
by
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Work done in cooperation with the Massachusetts Department of Public Works.

Shot point as shown on figs. 1.	Field Designation	Shot point written on field as in main section	Traverse	Seismic velocities in thousands of feet per second				Thickness of layers in feet			Approximate thickness of soft part of shaft per sec.	Refraction depth in feet	Borehole in flow meter depth	Date borehole made	Location of seismic Traverse	
				first layer	Second layer	Third layer	Fourth layer	First layer	Second layer	Third layer					Town	Site
A	A	50	A--R	2.4*	4.8	21.0		33	289		20.7	332	-282	3/7/47	Dennis	East-West Dennis Rd.
R	B	52	B--A	2.4*	4.8	20.4		19	324		20.7	343	-291	9/7/47	"	"
C	A	18	C--D	5.0	13.5	18.5		344	66		18.0	410	-392	9/11/47	Dennis	Shad Hole Rd.
D	B	8	D--C	5.0	13.0	17.5		298	34		18.0	332	-324	9/11/47	"	"
K	C	70	K--L	2.0	4.8	7.2	18.0	33	60	175	18.6	288	-198	9/10/48	Dennis	East-West Dennis Rd.
L	D	65	K--H	1.6	4.4	5.6	19.2	33	105	104	18.6	242	-177	9/10/48	"	"
M	H	9	M--N	4.4	5.2	13.6	17.6	27	208		17.4	235	-228	9/14/48	Dennis	Cove Rd.
N	G	18	N--M	4.8	5.6	17.2		84	104		17.4	188	-170	9/14/48	"	"
Q	K	40	O--P	4.8	8.6	18.0		216	16		18.0	232	-192	9/15/48	Dennis	Groat Western Rd.
P	L	29	P--O	4.0	7.6	18.0		162	70		18.0	232	-202	5/15/48	"	"
S	A	30	S--T	5.0	13.0			279			17.2	279	-245	9/5/51	Yarmouth	West Yarmouth Rd.
T	B	45	T--S	5.3	25.3			306			17.2	306	-261	9/5/51	"	"
U	D	55	U--T	5.6	19.0			345			345	-290	9/6/51	"	"	
V	E	50	V--W	2.5	5.6	24.0		17	333		21.2	350	-300	9/7/51	"	"
W	F	48	W--V	5.3	18.9			315			21.2	315	-287	9/7/51	"	"
X	G	48	W--R ¹	2.2	5.4	17.4		23	292		17.2	315	-267	9/10/51	"	"
R ¹	H	48	R ¹ --W	3.4	5.1	17.0		30	256		17.2	296	-238	9/10/51	"	"
G ¹	O	21	G ¹ --A ¹	5.4	17.7			309			20.7	302	-278	9/10/51	"	"
A ¹	P	22	A ¹ --G ¹	5.2	25.0			304			20.7	304	-282	9/10/51	"	"
R ¹	I	48	R ¹ --G ¹	5.6	18.7			296			17.3	236	-248	9/11/51	"	"
G ¹	J	24	G ¹ --R ¹	5.1	20.0			334			19.3	334	-310	9/11/51	"	"
D ¹	K	24	D ¹ --R ¹	5.3	25.0			305			18.5	305	-281	9/11/51	"	"
R ¹	L	25	R ¹ --D ¹	5.4	16.0			293			16.5	293	-268	9/11/51	"	"
F ¹	M	12	F ¹ --G ¹	5.2	17.5			310			18.6	310	-290	9/12/51	"	"
G ¹	N	21	G ¹ --F ¹	5.3	19.3			319			18.5	310	-269	9/12/51	"	"
H ¹	Q	30		5.8	24.0			300			270	-240	9/12/51	"	"	"
I ¹	U	50	I ¹ --J ¹	5.1	20.0			294			17.8	204	-254	10/4/51	Yarmouth	no name
J ¹	Y	61	J ¹ --I ¹	2.6	6.1	16.0		70	211		17.8	281	-220	10/4/51	"	"
Y ¹	AA	40	Y ¹ --J ¹	5.0	13.5			340			15.3	340	-330	10/5/51	Dennis	no name
Z ¹	CC	42	Z ¹ --Y ¹	5.2	20.7			305			16.3	305	-263	10/5/51	"	"
E ¹	W	5	E ¹ --Z ¹	3.2	5.5	19.0		45	229		17.1	314	-309	5/62	Dennis	Nahcussat Beach
F ¹	X	5	F ¹ --E ¹	5.7	15.6			227			17.1	327	-322	5/62	"	"
G ¹	Y	5	G ¹ --F ¹	5.0	17.3			250			16.7	250	-245	5/62	"	"
H ¹	Z	5	H ¹ --G ¹	5.2	16.0			276			16.7	276	-274	5/62	"	"
I ¹	X	5	I ¹ --H ¹	5.5	16.8			391			15.2	391	-386	5/62	Dennis	West Dennis Beach
J ¹	L	5	J ¹ --I ¹	5.5	15.0			302			15.9	356	-351	5/62	"	"
K ¹	M	60	K ¹ --J ¹	5.2	15.8			308			16.5	308	-248	5/62	Yarmouth	MidCape Highway
L ¹	Y	42	L ¹ --K ¹	5.1	17.2			343			16.5	342	-300	5/62	"	"

Shw. plane as shown in figure 1.	Field designation	Shw. plane at base of each zone in feet below surface	Trough	Seismic velocities in thousands of feet per second				Thickness of layers in feet			Approximate time delay in sec.	Approximate depth in feet	Depth to top of each zone in feet	Date of survey made	Location of Seismic Trough	
				first layer	Second layer	Third layer	Fourth layer	First layer	Second layer	Third layer					Town	Site
E	A	30	E--F	5.0	10.0	16.0		301	173		21.0	474	-444	9/12/47	Harwich	Oreat Western Rd.
F	B	15	F--E	5.0	11.0	30.5		413	129		21.0	542	-527	9/13/47	"	"
G	A	40	G--H	2.0*	5.0	9.0	19.0	20	225	58	18.7	303	-263	9/13/47	Brewster	no name
H	B	48	H--G	2.0*	4.8	14.0	18.5	16	236	53	18.7	332	-284	9/13/47	"	"
I	A	60	I--J	2.0*	5.2	11.0	28.0	39	270	222	19.1	531	-471	9/16/47	Harwich	Old County Rd.
J	B	70	J--I	2.0*	5.0	6.0	14.5	30	148	175	19.1	353	-283	9/16/47	"	"
Q	M	50	Q--R	4.8	18.2			342			16.1	342	-292	9/16/48	Harwich	Queep Ann Rd.
R	N	50	R--Q	5.6	14.4			396			16.1	396	-346	9/16/48	"	"
K'	A	(50)	K'--L'	2.1	4.9	10.0	20.0	(46)	(233)	(386)	28.6	(665)	(-615)	9/9/52	Harwich	Berkshire Rd.
L'	R	(50)	L'--K'	2.3	5.2	9.7	50.0	(46)	(233)	(386)	28.6	(665)	(-615)	9/9/52	"	"
M'	C	(52)	M'--N'	2.4	4.9	9.0	23.0	(38)	(252)	(382)	31.5	(672)	(-620)	9/10/52	Brewster	Run Hill Rd.
N'	D	(52)	N'--M'	2.4	5.0	12.5	50.0	(38)	(252)	(382)	31.5	(672)	(-620)	9/10/52	"	"
O'	E	(60)	O'--P'	1.7	5.2	22.0		(41)	(228)	(248)	23.4	(515)	(-455)	9/11/52	Brewster	Run Hill Rd.
P'	F	(60)	P'--O'	1.7*	5.1	5.6	25.6	(41)	(228)	(248)	23.4	(515)	(-455)	9/11/52	"	"
Q'	G	(58)	Q'--R'	1.7*	5.2	5.3	15.0	(29)	(243)	(311)	17.5	(583)	(-525)	9/11/52	Brewster	Run Hill Rd.
R'	H	(58)	R'--Q'	1.7	5.2	8.7	22.4	(29)	(243)	(311)	17.5	(583)	(-525)	9/11/52	"	"
S'	I	(7)	S'--T'	5.0	9.0	17.0		(245)	(292)		15.5	(537)	(-530)	9/12/52	Harwich	Lathrop Rd.
T'	J	(7)	T'--S'	5.2	9.0	14.3		(245)	(292)		15.5	(537)	(-530)	9/12/52	"	"
U'	K	(60)	U'--V'	5.0	14.4			(481)			17.4	(481)	(-421)	9/12/52	Harwich	Brewster Rd.
V'	L	(60)	V'--U'	5.1	22.0			(481)			17.4	(481)	(-421)	9/12/52	"	"
W'	M	(64)	W'--X'	5.5	11.0			(464)			16.5	(464)	(-400)	9/15/52	Harwich	no name
X'	N	(64)	X'--W'	5.0	33.0			(464)			16.5	(464)	(-400)	9/15/52	"	"
Y'	Q	(109)	Y'--Z'	1.4*	4.8	16.5		(86)	(268)		18.2	(354)	(-245)	9/15/52	Brewster	South Orleans Rd.
Z'	P	(109)	Z'--Y'	1.4	5.8	20.0		(86)	(268)		18.2	(354)	(-245)	9/15/52	"	"
A ²	Q	(124)	A ² --P ²	1.4	5.5	16.5		(97)	(362)		23.7	(455)	(-332)	9/17/52	Brewster	Gideon Rd.

Massachusetts (Harwich and Dennis quads). Seismic. 1:48,000. 1962.
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