

**DREDGING STATIONS OF THE UNITED STATES FISH COMMISSION  
STEAMER FISH HAWK, LIEUT. Z. L. TANNER COMMANDING, FOR  
1880, 1881, AND 1882, WITH TEMPERATURE AND OTHER OBSERVA-  
TIONS.**

*Arranged for publication*

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In the summer of 1880, the headquarters of the United States Fish Commission were established at Newport, R. I., and the steamer Fish Hawk, then newly constructed, made its dredging and trawling trips from there, whenever the weather permitted. The field of explorations for the summer included Narragansett Bay, Sakonnet River, and the regions to the northward, eastward, and southward of Block Island. In September and the first part of October, three trips were made by the Fish Hawk to the inner edge of the Gulf Stream slope, between latitudes  $40^{\circ} 05' 42''$  N. and  $39^{\circ} 46'$  N., and longitudes  $70^{\circ} 22' 06''$  W. and  $71^{\circ} 10'$  W., in depths of 64 to 487 fathoms, resulting in the discovery of a new and exceedingly rich fauna, both as regards fish and marine invertebrates. On her passage to Washington in November, the Fish Hawk also trawled off the mouth of Chesapeake Bay, in depths of 18 to 300 fathoms.

During the summers of 1881 and 1882, the headquarters of the Commission were at Wood's Holl, Mass. As the shallow waters of this region had been quite fully explored by the Commission in 1871 and 1875, very little time was expended in work near land; but advantage was taken of all pleasant weather to still further investigate the rich faunal region of the Gulf Stream slope, discovered the previous year. Seven trips were made to this region, in 1881, between latitudes  $39^{\circ} 40'$  N. and  $40^{\circ} 22'$  N., and longitudes  $69^{\circ} 15'$  W. and  $71^{\circ} 32'$  W., in depths of 43 to 782 fathoms. A line of dredgings and trawlings, at intervals of about four miles, was made from off Noman's Land to the Gulf Stream slope, in order to connect the inshore with the offshore stations; and a few trips were also made in Vineyard Sound, Buzzard's Bay, and off Chatham, Cape Cod, on, and in the vicinity of, Crab Ledge. Cod trawl-lines were set on most of the outside trips, for the purpose of catching fish that would not enter the beam-trawl.

In 1882, five deep-water trips, were made to the same region, extending the area of dredgings considerably beyond its former eastern and western limits. A few hauls of the dredge and beam-trawl were taken in Vineyard Sound, and one trip was made to the one-hundred fathom line, off the eastern side of Cape Cod. The most eastern haul on the Gulf Stream slope for 1882, was in latitude  $40^{\circ} 08'$  N. and longitude  $68^{\circ} 45'$  W.; and the most western in latitude  $39^{\circ} 31'$  N. and longitude  $72^{\circ} 06'$  W.; the deepest haul was in 787 fathoms. Cod-trawls were set on two of the trips only.

The temperatures of the air were taken, in part, with a Jas. Green, in part with a Signal Service, thermometer; the temperatures of the bottom and surface waters were obtained by means of Negretti and Zambra deep-sea thermometers. The bearings are all magnetic. As the bearings and latitudes and longitudes indicate only the points at which the dredge or trawl was lowered upon the bottom, the direction of the drift of the vessel and the distance gone over in dredging and trawling have been given in most cases, to show the extent of the hauls. The figures in the column of "Drift" indicate the distance of the drift in miles. The abbreviations in the column of "Apparatus used" have the following significations: D., dredge; R. D., rake-dredge; O. D., oyster-dredge; T., trawl; O. T., otter-trawl; B. T., Blake-trawl; Tan., tangles; C. T., cod-trawl.

The New York fishing schooner, Josie Reeves, Capt. F. M. Redmond, employed by the Fish Commission to look for the tile fish (*Lopholatilus chamaeleonticeps*) in the neighborhood of the one-hundred fathom line, south of Martha's Vineyard, made five stations in that region, which for convenience sake have been given numbers in the regular series from 1145 to 1149, inclusive. She used cod trawl-lines and lobster-pots.

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882.

Serial num-ber.	Date.	Hour.	Latitude N.	Longi-tude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Surf.	Bot-om.	
	1880.		o " o "		Narragansett Bay:							
770	Aug. 6	10 a. m.			Beaver Tail Light, SE. by S. $\frac{1}{2}$ mile		81	Sand and shells	68.0	66.5	62.5	D.
771	Aug. 6	10.30			Beaver Tail Light, SE. $\frac{1}{2}$ S. $\frac{1}{2}$ mile		82	do	68.0	66.5	62.5	D.
772	Aug. 6	11.35			Beaver Tail Light, S. by E. $1\frac{1}{2}$ miles		82	do	72.0	69.5	67.0	T.
773	Aug. 6	11.45			Beaver Tail Light, S. by E. $1\frac{1}{2}$ miles		80	do	72.0	69.5	67.0	T.
774	Aug. 6	1 p. m.			North end Dutch Island, south $\frac{1}{2}$ mile		10 $\frac{1}{2}$	Sand, mud, shells	72.0	72.0	69.0	D.
775	Aug. 6	1.35			North end Dutch Island, south $\frac{1}{2}$ mile		11	Gravel, sand, mud	79.0	72.0	68.0	T.
776	Aug. 7	9.45 a. m.			Fort Dumpling, N.W. by W. $\frac{1}{2}$ W., $\frac{1}{2}$ mile		27 $\frac{1}{2}$	Sand, shells	72.0	67.5	58.5	D.
777	Aug. 7	10.30			Fort Dumpling, N.W. by W. $\frac{1}{2}$ W., $\frac{1}{2}$ mile		27 $\frac{1}{2}$	Sand, shells, gravel	72.0	67.5	58.5	T.
778	Aug. 7	10.40			Fort Dumpling, N. $\frac{3}{4}$ E., 800 yards		26	Gravel, sand, broken shells	76.0	70.0	58.5	T.
779	Aug. 7	11.05			Fort Dumpling, N.E., $1\frac{1}{2}$ miles		22 $\frac{1}{2}$	Gravel, sand, shells	78.0	68.0	57.5	D.
780	Aug. 7	11.30			Beaver Tail Light, west $1$ mile		18	do	79.0	69.0	57.5	T.
781	Aug. 7	12 m.			Beaver Tail Light, W. N.W., $1$ mile		16	Sand	75.0	69.0	57.0	D.
782	Aug. 12	9.30 a. m.			Beaver Tail Light, W. $\frac{1}{2}$ N., $1\frac{1}{2}$ miles		16	Sand, gravel, broken shells	68.0	70.0	60.0	T.
783	Aug. 12	10.15			Off Newport, R. I.: Brenton's Reef Light-ship, N. by E., $1$ mile.		17 $\frac{1}{2}$	do	70.0	70.0	55.0	T.
784	Aug. 12	10.50			Point Judith, W. $\frac{1}{2}$ S., $4\frac{1}{2}$ miles		20	Fine sand and broken shells	71.5	71.0	53.5	D.
785	Aug. 12	11.30			Brenton's Reef Light-ship, N. $\frac{1}{2}$ W., $2\frac{1}{2}$ miles.		19 $\frac{1}{2}$	Sand	72.0	71.0	54.5	T.
786	Aug. 12	2.35 p. m.			Brenton's Reef Light-ship, N.W. $\frac{1}{2}$ W., $\frac{1}{2}$ miles.		19	Mud and fine sand	74.0	71.0	53.5	D.
787	Aug. 12	3			Brenton's Reef Light-ship, N. N.W. $\frac{1}{2}$ W., $4$ miles.		19	do	74.0	71.0	53.5	T.
788	Aug. 13	10.40 a. m.			Brenton's Reef Light-ship, N. N.W. $\frac{1}{2}$ W., $6$ miles.		18	Fine sandy mud	70.0	71.0	54.0	D.
789	Aug. 13	11.05			Brenton's Reef Light-ship, N. N.W. $\frac{1}{2}$ W., $5\frac{1}{2}$ miles.		17 $\frac{1}{2}$	Sand and scallops	70.0	71.0	54.0	O. T.
790	Aug. 13	11.55			Point Judith, W. N.W. $\frac{1}{2}$ W., $8\frac{1}{2}$ miles		16	Fine sand	70.0	71.0	54.5	T.
791	Aug. 13	1.10 p. m.			Point Judith, W. N.W., $12\frac{1}{2}$ miles		20	Fine sandy mud	72.0	71.0	60.0	D.
792	Aug. 13	1.50			Point Judith, W. N.W., $12$ miles		18	do	72.0	71.0	54.0	D.
793	Aug. 14	9 a. m.			Point Judith, W. N.W. $\frac{1}{2}$ W., $6$ miles		19	Sand and broken shells	71.0	69.0	63.0	D.
794	Aug. 14	9.45			Point Judith, W. N.W. $\frac{1}{2}$ W., $5$ miles		19	Sand	70.0	69.0	53.0	T.
795	Aug. 14	10.25			Point Judith, W. N.W. $\frac{1}{2}$ W., $4$ miles		19	Fine sandy mud	71.0	69.0	53.0	D.
796	Aug. 14	11.00			Point Judith, W. N.W., $3\frac{1}{2}$ miles		19	do	70.0	69.0	53.0	T.
797	Aug. 14	11.40			Point Judith, N.W. by W. $\frac{1}{2}$ W., $2\frac{1}{2}$ miles		16	Soft mud and coarse sand	70.0	68.5	55.0	D.
798	Aug. 14	12.10 p. m.			Point Judith, N.W. by W. $\frac{1}{2}$ W., $1\frac{1}{2}$ miles		12 $\frac{1}{2}$	Sand, gravel, few large stones	71.0	66.0	59.0	D.
799	Aug. 14	12.30			Point Judith, W. $\frac{1}{2}$ N., $1\frac{1}{2}$ miles		13	do	70.0	67.0	61.0	D.
800	Aug. 16	11.35 a. m.			Narragansett Bay: Poplar Point Lights, N. N.W. $\frac{3}{4}$ W., $2\frac{1}{2}$ miles.		4	Sand	63.0	70.0	69.5	T.

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882—Continued.

Serial num- ber.	Date.	Hour.	Latitude N.	Longi- tude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Surf.	Bot- tom.	
	1880.		o ' "	o "	Narragansett Bay:							
801	Aug. 16	12.20 p. m.	.....	.....	Poplar Point Lights, W. by N., 2 $\frac{1}{4}$ miles.....	.....	4 $\frac{1}{2}$	Mud.....	65.0	71.0	68.0	T.
802	Aug. 16	2.15	.....	.....	Halfway Rock, W. $\frac{1}{2}$ of a mile.....	.....	12 $\frac{1}{2}$	do.....	68.0	70.5	62.0	T.
803	Aug. 16	3.25	.....	.....	Halfway Rock, N. by E. $\frac{1}{2}$ E., 2 $\frac{1}{8}$ miles.....	.....	20	Fine sandy mud.....	67.0	69.0	60.0	D.
					Off Newport, R. I. (Brown's Ledge):							
804	Aug. 17	11.15 a. m.	.....	.....	Cuttyhunk Light, NE. by E., 8 $\frac{1}{2}$ miles.....	NW. by W., $\frac{1}{2}$	11 $\frac{1}{2}$	Rocks and sand.....	68.0	66.0	59.0	D.
805	Aug. 17	.....	.....	.....	Close to No. 804.....	mile.....	11 $\frac{1}{2}$	Fine gravel.....	.....	.....	.....	D.
806	Aug. 17	12.00 m.	.....	.....	Cuttyhunk Light, E. NE., 7 $\frac{1}{2}$ miles.....	W. SW., $\frac{1}{2}$ mile.....	14	do.....	69.0	67.0	56.0	Tan.
807	Aug. 17	12.50 p. m.	.....	.....	Cuttyhunk Light, NE. by E., $\frac{1}{2}$ E., 7 $\frac{1}{2}$ miles.....	SW. by S., $\frac{1}{2}$ mile.....	12 $\frac{1}{2}$	Fine gravel and stones.....	70.0	67.0	60.0	D.
808	Aug. 17	1.20	.....	.....	Cuttyhunk Light, NE. by E. $\frac{1}{2}$ E., 8 miles.....	SW. by S. $\frac{1}{2}$ S., $\frac{1}{2}$	13	do.....	70.0	67.0	60.0	D.
809	Aug. 17	1.55	.....	.....	Off Newport, R. I.; SW. of Brown's Ledge:	mile.....						
810	Aug. 17	2.15	.....	.....	Cuttyhunk Light, NE. by E., 12 miles.....	W. $\frac{1}{2}$ S., $\frac{1}{2}$ mile.....	21 $\frac{1}{2}$	Fine sand.....	70.0	67.0	52.0	D.
					Cuttyhunk Light, NE. by E., 12 $\frac{1}{2}$ miles.....	W. NW., $\frac{1}{2}$ mile.....	21	Fine sand and gravel.....	70.0	67.0	52.0	T.
					Off Newport, R. I.; W. of Brown's Ledge:							
811	Aug. 17	2.20	.....	.....	Cuttyhunk Light, NE. by E., 12 $\frac{1}{2}$ miles.....	SW., $\frac{1}{2}$ mile.....	19 $\frac{1}{2}$	Fine sandy mud.....	69.0	67.0	53.0	D.
					Off Block Island:							
812	Aug. 18	11.30 a. m.	.....	.....	Block Island Light, N. NW. $\frac{1}{2}$ W., 20 miles.....	NW., $\frac{1}{2}$ mile.....	28 $\frac{1}{2}$	Sand.....	70.0	66.0	46.0	D.
813	Aug. 18	11.55	.....	.....	Block Island Light, N. NW. $\frac{1}{2}$ W., 20 miles.....	SE., $\frac{1}{2}$ mile.....	28 $\frac{1}{2}$	do.....	70.0	67.0	46.0	T.
814	Aug. 18	1.00 p. m.	.....	.....	Block Island Light, N. NW. $\frac{1}{2}$ W., 18 miles.....	SW., $\frac{1}{2}$ mile.....	27 $\frac{1}{2}$	Sand and gravel.....	72.0	72.0	46.0	T.
815	Aug. 18	2.15	.....	.....	Block Island Light, NW. by N., 17 miles.....	SW., $\frac{1}{2}$ mile.....	29	Fine sand.....	72.0	72.0	48.0	R. D.
					Narragansett Bay:							
816	Aug. 23	10.25 a. m.	.....	.....	Brenton's Reef Light-ship, E. $\frac{1}{2}$ S., 2 $\frac{1}{2}$ miles.....	SE., $\frac{1}{2}$ mile.....	8 $\frac{1}{2}$	Sand and broken shells.....	71.0	69.0	66.0	D.
817	Aug. 23	11.00	.....	.....	Brenton's Reef Light-ship, E. $\frac{1}{2}$ N., 3 miles.....	SE., $\frac{1}{2}$ mile.....	10	do.....	72.0	68.0	63.0	D.
818	Aug. 23	11.20	.....	.....	Brenton's Reef Light-ship, E. $\frac{1}{2}$ N., 3 $\frac{1}{2}$ miles.....	SE., $\frac{1}{2}$ mile.....	9 $\frac{1}{2}$	do.....	72.0	68.0	65.0	D.
819	Aug. 23	1.00 p. m.	.....	.....	South end Hope Island, SE. by E. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.....	W. SW., $\frac{1}{2}$ mile.....	6	Mud and broken shells.....	74.0	73.0	70.0	T.
820	Aug. 23	1.40	.....	.....	South end Hope Island, N. NE., $\frac{1}{2}$ mile.....	W. by S., $\frac{1}{2}$ mile.....	5 $\frac{1}{2}$	do.....	76.0	72.0	70.0	T.
821	Aug. 23	2.15	.....	.....	South end Hope Island, N. by E., $\frac{1}{2}$ mile.....	SW., $\frac{1}{2}$ mile.....	5	do.....	78.0	72.0	70.0	T.
822	Aug. 23	3.00	.....	.....	South end Hope Island, NE., $\frac{1}{2}$ mile.....	W., $\frac{1}{2}$ mile.....	4 $\frac{1}{2}$	do.....	78.0	71.0	70.0	T.
					North of Block Island:							
823	Aug. 24	12.35	.....	.....	North Light of Block Island, W. $\frac{1}{2}$ S., 1 $\frac{1}{2}$ miles.....	NW., $\frac{1}{2}$ mile.....	15 $\frac{1}{2}$	Sand.....	74.0	65.0	60.0	D.
824	Aug. 24	12.50	.....	.....	North Light of Block Island, SW. $\frac{1}{2}$ W., 1 mile.....	NW., $\frac{1}{2}$ mile.....	13	do.....	74.0	65.0	67.0	T.

825	Aug. 24	1.30	.....	North Light of Block Island, W. SW. $\frac{1}{2}$ W., $1\frac{1}{2}$ miles.	NW., $\frac{1}{2}$ mile.....	13	do .....	73.0	67.0	60.0	O. T.
826	Aug. 24	2.40	.....	North Light of Block Island, W. NW. $\frac{1}{2}$ W., $2\frac{1}{2}$ miles.	S. SW., $\frac{1}{2}$ mile .....	22	do .....	73.0	67.0	57.0	D.
827	Aug. 24	3.05	.....	North Light of Block Island, W. NW. $\frac{1}{2}$ W., $2\frac{1}{2}$ miles.	.....	20 $\frac{1}{2}$	do .....	71.0	67.0	57.0	B. T.
828	Aug. 25	12.40	.....	North Light of Block Island, SW. by W. $\frac{1}{2}$ W., $2\frac{1}{2}$ miles.	E. NE., $\frac{1}{2}$ mile .....	15	do .....	70.0	66.0	60.0	D.
829	Aug. 27	10.45 a. m.	.....	Mouth of Sakonnet River, R. I.:	.....	9	Gravel and stones.....	63.0	66.0	65.0	D.
830	Aug. 27	11.15	.....	Cormorant Rock, NW. by N., $\frac{1}{2}$ mile .....	S. by E., $\frac{1}{2}$ mile.....	10 $\frac{1}{2}$	Sand and gravel.....	64.0	66.0	65.0	D.
831	Aug. 27	12.30 p. m.	.....	West Island, SE. by E. $\frac{1}{2}$ E., $\frac{1}{2}$ mile .....	NE. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.....	6	Dark, soft fetid mud .....	68.0	71.0	71.0	D.
832	Aug. 27	12.45	.....	Sakonnet River, R. I.:	.....	9	do .....	70.0	71.0	71.0	D.
836	Aug. 27	1.00	.....	North end of Gould Island, SW. $\frac{1}{2}$ W., 350 yards.	S., $\frac{1}{2}$ mile.....	6 $\frac{1}{2}$	do .....	70.0	71.0	71.0	R. D.
834	Aug. 27	1.30	.....	North end of Gould Island, W., 150 yards.	S., $\frac{1}{2}$ mile.....	11	do .....	63.0	73.0	71.0	R. D.
835	Aug. 27	1.50	.....	South end of Gould Island, W., 100 yards.	S., $\frac{1}{2}$ mile.....	3 $\frac{1}{2}$	Soft mud and broken shells.....	68.0	73.0	71.0	R. D.
836	Aug. 27	2.25	.....	McCurry's Point, W. SW., $\frac{1}{2}$ mile .....	N. by E., $\frac{1}{2}$ mile.....	5	Sand.....	66.0	71.0	71.0	R. D.
837	Aug. 27	2.45	.....	McCurry's Point, N. $\frac{1}{2}$ E., $1\frac{1}{2}$ miles .....	N., $\frac{1}{2}$ mile.....	5	do .....	69.0	71.0	71.0	T.
838	Aug. 27	3.15	.....	Black Point, W. $\frac{1}{2}$ N., $\frac{1}{2}$ mile .....	S. SW., $\frac{1}{2}$ mile.....	5 $\frac{1}{2}$	do .....	66.0	70.0	68.0	T.
839	Aug. 31	9.50 a. m.	.....	Black Point, NW. by W. $\frac{1}{2}$ W., $\frac{1}{2}$ mile .....	S. by E., $\frac{1}{2}$ mile.....	27 $\frac{1}{2}$	Gravel and sand .....	67.0	67.0	61.0	D.
840	Aug. 31	10.05	.....	Wood's Castle, W. by N., 1 mile .....	S. by E., $\frac{1}{2}$ mile.....	20 $\frac{1}{2}$	do .....	67.0	67.0	61.0	D.
841	Aug. 31	10.45	.....	Narragansett Bay:	.....	21	Mud, sand, large stones .....	68.0	67.0	60.0	D.
842	Aug. 31	11.00	.....	Dumplings, NW. $\frac{1}{2}$ N., 300 yards.....	SW., $\frac{1}{2}$ mile .....	8	Sand.....	69.0	67.0	67.0	D.
843	Aug. 31	12.00 m.	.....	Dumplings, N. by W. $\frac{1}{2}$ W., 100 yards.....	SW., $\frac{1}{2}$ mile .....	14 $\frac{1}{2}$	do .....	69.0	69.0	63.0	T.
844	Aug. 31	12.30 p. m.	.....	Goat Island Light, NE. by E. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.	S., $\frac{1}{2}$ mile .....	11 $\frac{1}{2}$	do .....	70.0	69.0	63.0	T.
845	Aug. 31	1.00	.....	Goat Island Light, E. NE. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.	.....	14 $\frac{1}{2}$	Gravel .....	70.0	69.0	64.0	T.
846	Aug. 31	1.35	.....	North end Dyer's Island, NE. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.	N., $\frac{1}{2}$ mile .....	14 $\frac{1}{2}$	Sandy mud and broken shells .....	70.0	68.0	63.0	R. D.
847	Aug. 31	2.15	.....	North end Dyer's Island, SE. $\frac{1}{2}$ E., $\frac{1}{2}$ mile.	W. SW., $\frac{1}{2}$ mile.....	12 $\frac{1}{2}$	Mud .....	70.0	68.0	62.0	T.
848	Aug. 31	3.00	.....	Prudence Light, N. $\frac{1}{2}$ W., $\frac{1}{2}$ mile .....	E. NE., $\frac{1}{2}$ mile .....	15 $\frac{1}{2}$	Mud .....	69.0	68.0	62.0	T.
849	Sept. 1	9.20 a. m.	.....	Prudence Light, N. by E. $\frac{1}{2}$ E., $1\frac{1}{2}$ miles .....	N. NE., $\frac{1}{2}$ mile .....	20	Sand, gravel, stones .....	67.0	67.0	63.0	R. D.
850	Sept. 1	9.40	.....	Half-Way Rock, N. $\frac{1}{2}$ W., 1 mile .....	N., $\frac{1}{2}$ mile .....	14 $\frac{1}{2}$	Sand and shells .....	67.0	67.0	63.0	R. D.
851	Sept. 1	10.00	.....	Bishop's Rocks, E. $\frac{1}{2}$ mile .....	SW., $\frac{1}{2}$ .....	12 $\frac{1}{2}$	Sand and gravel .....	66.0	67.0	66.0	R. D.
852	Sept. 1	10.35	.....	Fort Dumping, W. NW. $\frac{1}{2}$ W., $\frac{1}{2}$ mile .....	S. SW., $\frac{1}{2}$ .....	2 $\frac{1}{2}$	Sand .....	67.0	67.0	66.0	T.
853	Sept. 1	10.50	.....	Fort Dumping, E. NE. $\frac{1}{2}$ E., $\frac{1}{2}$ mile .....	S., $\frac{1}{2}$ .....	4 $\frac{1}{2}$	Sand .....	68.0	67.0	67.0	T.
854	Sept. 1	11.10	.....	Beaver Tail Light, SW. $\frac{1}{2}$ W., $1\frac{1}{2}$ miles .....	S., $\frac{1}{2}$ .....	6	Sand .....	69.0	67.0	67.0	T.
855	Sept. 1	11.40	.....	Beaver Tail Light, S. SW. $\frac{1}{2}$ W., 2 $\frac{1}{2}$ miles .....	S., $\frac{1}{2}$ .....	3 $\frac{1}{2}$	Sand .....	70.0	68.0	68.0	T.
856	Sept. 1	12.05 p. m.	.....	Beaver Tail Light, SW. by S., 2 miles .....	S., $\frac{1}{2}$ .....	11	Sand, gravel, shells .....	69.0	68.0	67.0	R. D.
857	Sept. 1	12.35	.....	Beaver Tail Light, SW. $\frac{1}{2}$ W., $1\frac{1}{2}$ miles .....	S. SE., $\frac{1}{2}$ .....	19	Sand .....	69.0	63.0	66.0	R. D.
858	Sept. 1	1.05	.....	Beaver Tail Light, SW. by S., $\frac{3}{4}$ miles .....	S. SE., $\frac{1}{2}$ .....	14	Coarse sand, broken shells .....	69.0	63.0	66.0	R. D.
859	Sept. 3	11.20 a. m.	.....	Beaver Tail Light, W. SW. $\frac{1}{2}$ W., $\frac{5}{8}$ mile .....	E., $\frac{1}{2}$ .....	17 $\frac{1}{2}$	Sand and mud .....	68.0	66.0	63.0	R. D.
860	Sept. 3	11.55	.....	Beaver Tail Light, W. NW. $\frac{1}{2}$ W., $\frac{1}{2}$ mile .....	W., $\frac{1}{2}$ .....	17 $\frac{1}{2}$	do .....	70.0	66.0	64.0	R. D.
861	Sept. 3	12.20 p. m.	.....	Vineyard Sound:	.....	17	Sand .....	69.0	66.0	61.0	T.
862	Sept. 3	12.55	.....	Cuttyhunk Light, N. $\frac{1}{2}$ W., 3 miles .....	W., $\frac{1}{2}$ .....	17	do .....	68.0	66.0	64.0	T.
863	Sept. 3	1.40	.....	Cuttyhunk Light, N. $\frac{1}{2}$ W., $3\frac{1}{2}$ miles .....	S., $\frac{1}{2}$ .....	18	Sand and mud .....	70.0	67.0	65.0	R. D.
864	Sept. 3	3.00	.....	Cuttyhunk Light, N., 4 miles .....	W., $\frac{1}{2}$ .....	18	Sand and broken shells .....	70.0	67.0	61.0	D.
			.....	Cuttyhunk Light, N. $\frac{1}{2}$ E., $3\frac{1}{2}$ miles .....	S., $\frac{1}{2}$ .....						
			.....	Gay Head Light, S. SW., $\frac{1}{2}$ W., $5\frac{1}{8}$ miles .....	S., $\frac{1}{2}$ .....						

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882—Continued.

Serial num- ber.	Date.	Hour.	Latitude N.	Longi- tude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Surf.	Bot- tom.	
	1880.		° ' "	° ' "	Atlantic Ocean:							
865	Sept. 4	5.40 a. m.	40 05	70 23	Off Martha's Vineyard.....	E.N.E., $\frac{1}{2}$ .....	65	Compact fine sand and mud.	71.0	73.0	68.	T.
866	Sept. 4	6.30	40 05 18	70 22 18	.....do.....	NE. by E., $\frac{1}{4}$ .....	65	Fine sand and mud .....	73.0	73.0	68.5	T.
867	Sept. 4	7.04	40 05 42	70 22 06	.....do.....	E.S.E., $\frac{1}{2}$ .....	64	Compact hard sand and broken shells.	75.0	73.0	53.0	R. D.
868	Sept. 4	8.23	40 01 42	70 22 30	.....do.....	N.W., $\frac{1}{2}$ .....	162	Fine sand and black specks.	75.0	75.0	47.0	T.
869	Sept. 4	9.27	40 02 18	70 23 06	.....do.....	N.N.E., $\frac{1}{2}$ .....	192	Fine sand .....	80.0	76.0	50.0	T.
870	Sept. 4	10.50	40 02 36	70 22 58	.....do.....	W. by N., 1 .....	155	Mud and fine sand .....	80.0	77.0	.....	T.
871	Sept. 4	11.40	40 02 54	70 23 40	.....do.....	N.N.W., $\frac{1}{2}$ .....	115	Mud and fine sand .....	84.0	76.5	49.0	T.
872	Sept. 4	12.45 p. m.	40 05 39	70 23 52	.....do.....	N.W. by N., $\frac{1}{4}$ .....	86	Sand, gravel, shells, and spongo.	81.0	77.0	50.5	T.
873	Sept. 13	5.36 a. m.	40 02	70 57	.....do.....	N.W. by N., $\frac{1}{4}$ .....	100	Soft sticky mud .....	68.0	69.5	51.0	T.
874	Sept. 13	6.26	40 00 00	70 57 00	.....do.....	N.W., $\frac{1}{4}$ mile .....	85	.....do.....	70.0	70.0	51.0	T.
875	Sept. 13	7.51	39 57 00	70 57 30	.....do.....	NE., $\frac{1}{2}$ mile .....	126	.....do.....	70.0	70.0	53.0	T.
876	Sept. 13	8.45	39 57 00	70 56 00	.....do.....	N., $\frac{1}{2}$ mile .....	120	.....do.....	68.0	70.0	53.0	T.
877	Sept. 13	9.40	39 56 00	70 54 18	.....do.....	N.N.W., $\frac{1}{2}$ mile .....	126	.....do.....	71.0	71.0	57.0	T.
878	Sept. 13	11.00	39 55 00	70 54 15	.....do.....	N.W., $\frac{1}{2}$ mile .....	142 $\frac{1}{2}$	Mud .....	72.0	71.0	52.0	T.
879	Sept. 13	1.20 p. m.	39 49 30	70 54 00	.....do.....	N. by W., $\frac{1}{2}$ mile .....	225	Sand and blue mud .....	73.0	71.5	42.0	T.
880	Sept. 13	3.12	39 48 30	70 54 00	.....do.....	W. by N., $\frac{1}{2}$ mile .....	232 $\frac{1}{2}$	Mud .....	74.0	71.5	43.0	T.
881	Sept. 13	5.00	39 46 30	70 54 00	.....do.....	W.N.W., $\frac{1}{2}$ mile .....	325	.....do.....	70.0	71.0	42.0	T.
					Narragansett Bay:							
882	Sept. 17	10.56 a. m.			Halfway Rock, N. NE. $\frac{1}{2}$ E., 2 $\frac{1}{2}$ miles	SW., $\frac{1}{2}$ mile .....	12 $\frac{1}{2}$	Mud .....	68.0	65.0	67.0	T.
883	Sept. 17	11.35			Halfway Rock, NE. by N., 2 $\frac{1}{2}$ miles	SW., $\frac{1}{2}$ mile .....	13	.....do.....	70.0	65.0	63.5	T.
884	Sept. 17	2.10 p. m.			Hope Island, N.E. $\frac{1}{2}$ E., 200 yards	SW., $\frac{1}{2}$ mile .....	5	.....do.....	72.0	65.0	63.5	R. D.
885	Sept. 17	3.15			Gould Island, N. by E. $\frac{1}{2}$ E., $\frac{1}{2}$ mile	S., $\frac{1}{2}$ mile .....	16	Mud and shells .....	71.0	69.0	65.0	O. T.
					Off Block Island:							
886	Sept. 21	12.49			South Light of Block Island, N. $\frac{1}{2}$ E., 5 $\frac{1}{2}$ miles.	N., $\frac{1}{2}$ mile .....	19	Shells and coarse gravel .....	67.0	64.0	62.0	D.
887	Sept. 21	1.30			South Light of Block Island, N. $\frac{1}{2}$ W., 5 $\frac{1}{2}$ miles.	W., $\frac{1}{2}$ mile .....	19	.....do.....	67.0	64.0	62.0	T.
888	Sept. 21	2.00			South Light of Block Island, N. by E., 6 miles.	W., 1 $\frac{1}{2}$ miles.....	19	.....do.....	68.0	64.0	62.0	T.
889	Sept. 21	3.50			South Light of Block Island, W. $\frac{1}{2}$ S., 5 miles.	W.S.W., $\frac{1}{2}$ mile ..	11	Hard sand and rocks .....	68.0	64.0	61.5	D.
890	Sept. 21	4.15			South Light of Block Island, W. $\frac{1}{2}$ S., 4 $\frac{1}{2}$ miles.	W.S.W., $\frac{1}{2}$ mile ..	11	.....do.....	68.0	64.0	61.5	D.
891	Oct. 2	6.00 a. m.	39 46 00	71 10 00	Atlantic Ocean, off Martha's Vineyard .....	N., $\frac{1}{2}$ mile .....	480?	Soft, brown mud .....	60.0	67.0	.....	T.
892	Oct. 2	8.46	39 46 00	71 05 00	.....do.....	N.N.E., 2 miles ..	487	Soft, brown mud and small stone.	64.0	65.0	.....	T.
893	Oct. 2	11.23	39 52 20	70 58 00	.....do.....	N., 1 mile .....	372	.....do.....	63.0	64.0	40.0	T.
894	Oct. 2	1.10 p. m.	39 53 00	70 58 30	.....do.....	N., 2 miles .....	365	.....do.....	63.0	64.0	40.0	T.

895	Oct. 2	3.17	39 56 30	70 59 45	.....do.....	N., 1½ miles.....	238	Soft mud.....	62.0	65.0	42.0	T.
896	Nov. 16	9.20 a. m.	37 26 00	74 19 00	Atlantic Ocean, off mouth of Chesapeake Bay.	W.N.W., ½ mile..	56	Sand, shells.....	52.0	62.0	55.0	T.
897	Nov. 16	10.10	37 25 00	74 18 00	.....do.....	W., 1 mile.....	157½	Sand, mud.....	62.0	67.0	48.0	T.
898	Nov. 16	11.25	37 24 00	74 17 00	.....do.....	W., 1 mile.....	300	Mud.....	60.0	62.0	44.0	T.
899	Nov. 16	1.55 p. m.	37 22 00	74 29 00	.....do.....	SW., ½ mile.....	57½	Sand.....	58.0	61.0	54.0	T.
900	Nov. 16	4.00	37 19 00	74 41 00	.....do.....	W., ½ mile.....	31	Sand.....	55.0	59.0	56.0	T.
901	Nov. 16	7.15	37 10 00	75 08 00	.....do.....	W., ½ mile.....	18	.....do.....	53.0	60.0	.....	T.
902	}				Shallow water dredgings on the oyster beds, off Point Lookout, Potomac River, Virginia, by the Fish Hawk.							
916												
1881.												
917	July 16	4.10 a. m.	40 22 00	70 42 00	Atlantic Ocean, off Martha's Vineyard.....	NE., ¾ mile.....	44	Green mud.....	66.0	63.0	42.0	T.
918	July 16	5.33	40 20 24	70 41 30	.....do.....	N.N.E., 1 mile.....	46	.....do.....	67.0	63.0	42.0	T.
919	July 16	7.00	40 16 18	70 41 18	.....do.....	NE., 1 mile.....	53	.....do.....	70.0	66.0	42.5	T.
920	July 16	8.20	40 13 00	70 41 54	.....do.....	W. by S., 1 mile.....	63	.....do.....	72.0	66.0	49.0	T.
921	July 16	9.40	40 07 48	70 43 54	.....do.....	W., 1 mile.....	67	.....do.....	75.0	70.0	52.0	T.
922	July 16	10.57	40 03 48	70 45 54	.....do.....	N. by W., 1 mile.....	71	Green mud and sand.....	76.0	72.0	52.0	T.
923	July 16	12.27 p. m.	40 01 24	70 46 00	.....do.....	W. N.W., 1½ miles.....	98	Sand.....	74.5	72.0	52.0	T.
924	July 16	1.52	39 57 30	70 46 00	.....do.....	N.W., 2 miles.....	164	.....do.....	74.5	71.0	44.5	T.
925	July 16	3.35	39 55 00	70 47 00	.....do.....	N.W. by W., 1½ miles.....	229	Sand and mud.....	74.0	71.0	42.0	T.
926	July 16	5.24	39 56 00	70 46 00	.....do.....	NW. ¾ N., 2½ miles.....	199	.....do.....	74.0	71.0	44.0	T.
Vineyard Sound:												
927	July 20	10.47 a. m.	.....	.....	Menemsha Bight; Gay Head Light, W. by S. ¼ S., 2½ miles.....	W. N.W., ¾ mile.....	11	Sand.....	68.0	62.0	59.0	T.
928	July 20	11.30	.....	.....	Gay Head Light, W. ¾ S., 2½ miles.....	W. by N., ¾ mile.....	10	.....do.....	69.0	62.5	60.0	T.
929	July 20	12.35 p. m.	.....	.....	Off Quick's Hole; Gay Head Light, S. by W., 4½ miles.....	SE. by S., ½ mile.....	10	.....do.....	66.0	63.0	62.0	D.
930	July 20	1.10	.....	.....	Gay Head Light, S. by W., 4½ miles.....	S. ¼ E., ½ mile.....	12	Sand and shells.....	65.0	63.0	62.0	D.
931	July 20	1.42	.....	.....	Off Robinson's Hole; Gay Head Light, SW. by S. ¼ S., 5½ miles.....	S. ¼ W., ½ mile.....	16	.....do.....	65.0	63.0	62.0	D.
932	July 20	2.43	.....	.....	Off Lackey's Bay; Tarpaulin Cove Light, W. by S. ¼ S., 3 miles.....	NW. by W., ½ mile.....	14	Rock.....	67.0	66.0	66.0	D.
933	July 20	3.30	.....	.....	West Chop Light, S. ¾ E., ¾ mile.....	E.N.E., 2½ miles.....	14	Stones.....	68.0	65.0	64.0	D.
934	July 20	4.10	.....	.....	Nobska Light, W. ¾ S., 1½ miles.....	N.N.W., 1 mile.....	9	Sand and gravel.....	68.0	67.0	67.0	T.
Atlantic Ocean:												
935	Aug. 4	8.14 a. m.	39 45 00	69 44 45	Off Martha's Vineyard.....	NW. ¼ N., 2½ miles.....	782	Green mud and sand.....	72.0	70.0	39.5	T.
936	Aug. 4	10.43	39 46 30	69 47 00	.....do.....	NW. ¾ W., 2 miles.....	716	Green mud.....	78.0	71.0	39.5	T.
937	Aug. 4	12.45 p. m.	39 49 25	69 49 00	.....do.....	N., 2½ miles.....	618	Green mud and sand, with lumps of clay.....	75.0	72.0	40.5	T.
938	Aug. 4	2.44	39 51 00	69 49 15	.....do.....	N.N.W., 2 miles.....	317	Green mud and sand.....	80.0	72.5	42.0	T.
939	Aug. 4	4.25	39 53 00	69 50 30	.....do.....	N.N.W., 1½ miles.....	264	.....do.....	78.0	73.0	47.0	T.
940	Aug. 4	5.30	39 54 00	69 51 30	.....do.....	N.N.W. ¼ W., 2 miles.....	134	Hard sand and sponges.....	76.0	72.0	52.0	T.
941	Aug. 4	7.45	40 01 00	69 56 00	.....do.....	W. N.W., 1½ miles.....	79	Hard sand and mud.....	74.0	71.0	52.0	T.
942	Aug. 9	6.15 a. m.	40 01 00	71 12 30	.....do.....	SW. by W., 2 miles.....	138	.....do.....	72.0	69.0	50.0	D.
943	Aug. 9	7.10	40 00 00	71 14 30	.....do.....	NW. by N., 2½ miles.....	157	Mud, sand, and shells.....	76.0	70.0	49.0	D.

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882—Continued.

Serial num- ber.	Date.	Hour.	Latitude N.	Longi- tude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Surf.	Bot- tom.	
944	1881 Aug. 9	8.27 a. m.	40 01 00	71 14 30	Atlantic Ocean: Off Martha's Vineyard .....	NW. by N., 1½ miles.	128	Mud, sand, and shells .....	78.0	70.0	51.0	T.
945	Aug. 9	12.05 p. m.	39 58 00	71 13 00	do .....	NW. by N., 2 miles.	207	Green mud and sand .....	75.0	71.0	44.0	T.
946	Aug. 9	2.00	39 55 30	71 14 00	do .....	NW. by W., 1½ miles.	247	do .....	75.5	71.0	47.0	T.
947	Aug. 9	4.00	39 53 30	71 13 30	do .....	W.N.W., 3 miles.	319	Sand and mud .....	75.0	70.0	44.0	T.
948	Aug. 13	5.20			Buzzard's Bay: Penikese Island east, 2 miles.....	W.S.W., 1 mile..	7	Black mud and shells .....	76.0	67.0	66.0	T.
949	Aug. 23	4.20 a. m.	40 03 00	70 31 00	Atlantic Ocean: Off Martha's Vineyard.....	N.N.W., 2 miles.	100	Yellow mud .....	68.0	66.0	52.0	R.D.
950	Aug. 23	5.50	40 07 00	70 32 00	do .....	N.N.W., 1½ miles.	71	Sand, shells, and mud .....	69.0	65.0	52.0	T.
951	Aug. 23	9.40	39 57 00	70 31 30	do .....	N., 1½ miles .....	225	Mud .....	78.0	67.5	41.0	T.
952	Aug. 23	11.28	39 55 00	70 28 00	do .....	NE. by N., 1½ miles.	396	Yellow mud and sand .....	82.0	68.0	40.0	T.
953	Aug. 23	2.30 p. m.	39 52 30	70 17 30	do .....	N.N.W., 1½ miles.	724	Mud .....	77.0	68.0	39.5	T.
954	Aug. 23	4.50	39 53 00	70 18 30	do .....	N.N.W., 2 miles.	651	Sand and mud .....	74.5	68.0	39.5	T.
955	Aug. 26	10.50 a. m.			Buzzard's Bay: Nye's Neck, E. by S., ½ mile .....	W. by S. ½ S., ½ mile.	7	Sand .....	69.0	67.5	68.0	T.
956	Aug. 26	11.26			Nye's Neck, S.S.E. ¾ E., ½ mile .....	W. by S., ½ mile.	5½	do .....	71.0	69.0	68.0	T.
957	Aug. 26	11.45			Nye's Neck, S.S.E. ¾ E., ½ mile .....	W. ¾ N., ½ mile .....	6	Sand and stones .....	73.0	69.5	68.0	T.
958	Aug. 26	12.20 p. m.			Nye's Neck, S. by E. ½ E., ½ mile .....	W.S.W., ½ mile .....	5	Sand, stones, shells .....	75.0	70.0	68.0	T.
959	Aug. 26	12.40			Nye's Neck, S., ½ mile .....	West, ½ mile .....	5	do .....	72.0	69.0	68.0	T.
960	Aug. 26	1.10			Nye's Neck, S. ¾ E., ½ mile .....	SW. by W., ½ mile.	4½	do .....	72.5	69.5	68.0	T.
961	Aug. 26	1.52			Nye's Neck, NE. ¾ E., 2½ miles .....	W. by S., ¾ mile.	8	Black mud .....	71.5	69.0	68.0	T.
962	Aug. 26	3.10			Woopecket Island, NE. ¼ E., 1½ miles .....	W.N.W., ¾ mile .....	8	Black mud, sand .....	71.0	68.0	66.0	T.
963	Aug. 26	3.40			Woopecket Island, SE. ¼ S., 1 mile .....	W.S.W., ¾ mile .....	8½	Brown mud .....	70.0	68.0	66.0	D.
964	Aug. 30	7.50 a. m.			Off Chatham, Cape Cod (Crab Ledge): Chatham Lights, NW. ¼ W., 5 miles .....	S.S.E., ½ mile .....	10	Sand, gravel .....	65.0	61.0	55.0	D.
965	Aug. 30	8.15			Chatham Lights, NW. by W., 6 miles .....	SE. by E., ½ mile .....	15	do .....	65.0	61.0	53.0	D.
966	Aug. 30	8.40			Chatham Lights, NW. by W. ¼ W., 6½ miles .....	SE., ½ mile .....	16	Sand, small stones .....	65.0	61.0	52.0	D.
967	Aug. 30	8.50			Chatham Lights, NW. by W. ¼ W., 6½ miles .....	SE., ½ mile .....	16	Sand, gravel .....	66.0	61.0	52.0	D.
968	Aug. 30	9.00			Chatham Lights, NW. by W. ¼ W., 7½ miles.	NW. by W., ½ mile.	18	Gravel .....	66.0	61.5	50.5	D.
969	Aug. 30	9.10			Chatham Lights, NW. by W. ¼ W., 7 miles.	SE., ½ mile .....	18	Sand, pebbles .....	66.0	61.5	51.0	D.
970	Aug. 30	9.43			Chatham Lights, W.N.W. ¾ W., 6 miles .....	W.N.W., ½ mile .....	13	do .....	67.0	61.0	54.0	D.
971	Aug. 30	10.05			Chatham Lights, W. ¾ N., 4½ miles .....	S.S.E., ¼ mile .....	11	Sand, gravel, pebbles .....	67.0	61.5	54.0	D.



972	Aug. 30	10.48			Chatham Lights, NW. by W. $\frac{1}{2}$ W., $7\frac{1}{2}$ miles.	NE., $\frac{1}{2}$ mile	16	Sand, gravel, stones	67.0	62.0	52.0	D.
973	Aug. 30	11.10			Chatham Lights, W.N.W., $6\frac{1}{2}$ miles	W.S.W., $\frac{1}{2}$ mile	17	do	67.0	62.0	51.0	D.
974	Aug. 30	11.30			Chatham Lights, W.N.W. $\frac{1}{2}$ W., $6\frac{1}{2}$ miles	W.S.W., $\frac{1}{2}$ mile	16	do	67.0	62.0	51.0	D.
975	Aug. 30	11.45			Chatham Lights, W.N.W. $\frac{1}{2}$ W., $6\frac{1}{2}$ miles	S., $\frac{1}{2}$ mile	16	do	68.0	63.0	52.0	D.
976	Aug. 30	12.00 m.			Chatham Lights, W.N.W., $6\frac{1}{2}$ miles	S. S.W., $\frac{1}{2}$ mile	16	do	69.0	63.0	52.0	D.
977	Aug. 30	12.20 p. m.			Chatham Lights, W.N.W., $6\frac{1}{2}$ miles	W. by N., $\frac{1}{2}$ mile	17	do	70.0	64.0	52.0	D.
978	Aug. 30	12.30			Chatham Lights, W.N.W., $6\frac{1}{2}$ miles	W. by N., $\frac{1}{2}$ mile	17	do	70.0	64.0	52.0	D.
979	Aug. 30	12.40			Chatham Lights, W.N.W. $\frac{1}{2}$ W., $6\frac{1}{2}$ miles	W. by N., $\frac{1}{2}$ mile	16	Sand	70.0	64.0	52.0	D.
980	Aug. 30	1.00			Chatham Lights, NW. by W. $\frac{1}{2}$ W., $5\frac{1}{2}$ miles.	SW., $\frac{1}{2}$ mile	14	Sand, stones, pebbles	70.0	62.0	53.0	D.
981	Aug. 30	2.10			Chatham Lights, W.N.W., 16 miles	S. $\frac{1}{2}$ W., $1\frac{1}{2}$ miles	43	Sand, gravel	65.0	63.5	49.0	T.
982	Aug. 30	2.45	41 36	69 35	Off Chatham, Cape Cod	S.S.W., $1\frac{1}{2}$ miles	42	do	65.0	63.5	41.5	T.
983	Aug. 30	3.23	41 33	69 32	do	S. by E., $\frac{1}{2}$ mile	36	Sand	64.5	64.0	42.0	T.
984	Aug. 30	4.07	41 31	69 28	do	S. $\frac{1}{2}$ W., $\frac{1}{2}$ mile	33	Mud and sand	64.0	63.5	41.5	T.
Atlantic Ocean:												
985	Sept. 7	12.55 p. m.	41	70 49	Off Martha's Vineyard	SW. by S., $1\frac{1}{2}$ miles.	26	Sand	73.0	66.0	50.0	T.
986	Sept. 7	2.00	40 55	70 48	do	S. $\frac{1}{2}$ W., 1 mile	28	do	73.0	67.0	49.0	T.
987	Sept. 7	2.23	40 54	70 48 30	do	S., $\frac{1}{2}$ mile	28	do	73.0	67.0	49.0	R.D.
988	Sept. 7	3.30	40 49 30	70 47	do	S., $\frac{1}{2}$ mile	30	do	73.0	67.0	49.5	R.D.
989	Sept. 7	4.00	40 49	70 47	do	S., $\frac{1}{2}$ mile	30	do	73.0	67.0	49.5	T.
990	Sept. 7	5.08	40 44	70 47	do	S. $\frac{1}{2}$ W., $\frac{1}{2}$ mile	34	Green mud and sand	71.5	66.0	47.0	T.
991	Sept. 7	6.05	40 39	70 46	do	S. $\frac{1}{2}$ W., $\frac{1}{2}$ mile	34	do	70.0	66.0	47.5	T.
992	Sept. 7	7.30	40 33	70 45	do	S., $\frac{1}{2}$ mile	36	do	69.0	65.0	48.0	T.
993	Sept. 7	8.20	40 28	70 44	do	S., $\frac{1}{2}$ mile	39	Mud	69.0	65.0	46.5	T.
994	Sept. 8	4.50 a. m.	39 40	71 30	do	W.N.W., 2 miles.	368	do	72.0	68.0	40.5	T.
995	Sept. 8	6.32	39 40 30	71 31	do	W.N.W., $\frac{1}{2}$ mile	358	Yellow mud and sand	72.0	68.0	40.5	T.
996	Sept. 8	7.35	39 41	71 31 37	do	N.W., $\frac{1}{2}$ mile	346	do	75.0	67.5	40.0	R.D.
997	Sept. 8	9.03	39 42	71 32	do	N. by W., 1 mile.	335	Yellow mud	75.0	67.5	40.0	T.
998	Sept. 8	10.34	39 43	71 32	do	N., $1\frac{1}{2}$ miles.	302	Green mud	74.0	68.0	40.0	T.
999	Sept. 8	11.48	39 45 13	71 30	do	N. N.W., $\frac{1}{2}$ mile.	266	do	73.0	68.0		R.D.
1000)					(Dredgings by steamer Lookout. Nos. 1006							
1024)					to 1013, close off Gay Head; 1014 N. of							
					Lucas Shoal, Vineyard Sound.)							
Atlantic Ocean:												
1025	Sept. 8	1.05 p. m.	39 49	71 25	Off Martha's Vineyard	N. $\frac{1}{2}$ E., 1 mile	216	do	71.0	69.0	45.0	T.
1026	Sept. 8	2.55	39 50 30	71 23	do	N. by E., $1\frac{1}{2}$ miles	182	Green mud, sand	69.0	69.0	47.5	T.
1027	Sept. 14	7.23 a. m.	40 00	69 19	do	N., $\frac{1}{2}$ mile	93	Fine sand	61.0	65.0	48.5	T.
1028	Sept. 14	9.01	39 57	69 17	do	N. N.E., $\frac{1}{2}$ mile	410	Yellow mud	66.5	66.0	41.0	T.
1029	Sept. 14	12.13 p. m.	39 57.06	69 16	do	N.E. by N., 1 mile.	458	Yellow mud, sand	72.0	68.0	40.0	T.
1030	Sept. 14	1.52	39 58 30	69 15	do	N. by W., $1\frac{1}{2}$ miles.	337	Yellow mud	65.0	66.0	41.0	R.D.
1031	Sept. 14	2.54	39 57	69 19	do	N.W. by N., $1\frac{1}{2}$ miles.	255	do	64.0	65.0	46.0	T.
1032	Sept. 14	4.00	39 56	69 22	do	N.W., $\frac{1}{2}$ mile	208	do	65.0	65.0	46.0	T.
1033	Sept. 14	4.55	39 56	69 24	do	N. N.W., 2 miles	183	Sand, gravel	66.0	63.0		T.
1034	Sept. 14	5.55	39 56	69 26	do	N. N.W., $\frac{1}{2}$ mile	146	Sand and yellow mud	68.0	62.0	46.5	T.
1035	Sept. 14	6.56	39 57	69 28	do	N., $\frac{1}{2}$ mile	120	Sand	65.0	62.0	47.0	T.
1036	Sept. 14	7.54	39 58	69 30	do	N. N.W., $1\frac{1}{2}$ miles	94	do	62.0	61.5	51.0	R.D.

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882—Continued.

Serial num- ber.	Date.	Hour.	Latitude N.	Longi- tude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Suff.	Bot- tom.	
1037	1881. Sept. 15	8.00 a. m.	o ' "	o ' "	Off Gay Head, Martha's Vineyard: Gay Head Light, NE. $\frac{1}{4}$ N., 4 miles.....		16	Sand.....				T.
1038	Sept. 21	6.55	39 58	70 06	Atlantic Ocean: Off Martha's Vineyard.....	N. by E., 1 mile.	146	Sand and shells.....	67.0	67.0	47.0	T.
1039	Sept. 21	9.35	39 59	70 06	do.....	N. by E., 2 miles	130	do.....	66.5	67.0	50.0	T.
1040	Sept. 21	10.43	40 00	70 06	do.....	N. by E., 2 miles	93	do.....	64.0	68.0	66.0	D.
1041	Sept. 22	12.35 p. m.			Vineyard Sound, Mass.: West Chop Light, E. $\frac{1}{2}$ N., 1 $\frac{1}{2}$ miles.....	W. SW., $\frac{1}{2}$ mile.	9	Sand and gravel.....	63.5	65.0	65.0	T.
1042	Sept. 22	1.17			West Chop Light, E. $\frac{1}{4}$ N., 1 $\frac{1}{2}$ miles.....	W. by N., $\frac{1}{2}$ mile.	6	do.....	63.5	65.0	65.0	T.
1043	Oct. 10	7.17 a. m.	38 39	73 11	Atlantic Ocean: Off the Capes of Delaware.....	NW. by N., 1 $\frac{1}{2}$ miles.	130	Sand.....	63.5	65.5	49.0	T.
1044	Oct. 10	8.15	38 37	73 12	do.....	W. NW., $\frac{1}{2}$ mile.	224	Gray mud.....	65.0	66.0	42.5	T.
1045	Oct. 10	9.32	38 35	73 13	do.....	W. $\frac{1}{2}$ N., $\frac{1}{2}$ mile.	312	do.....	67.0	66.0	40.0	T.
1046	Oct. 10	11.14	38 33	73 18	do.....	W. NW., $\frac{1}{2}$ mile.	104	Sand.....	66.0	66.0	51.0	T.
1047	Oct. 10	12.15 p. m.	38 31	73 21	do.....	NW., 1 $\frac{1}{2}$ miles	156	do.....	69.0	66.0	49.0	T.
1048	Oct. 10	1.55	38 29	73 21	do.....	W., 2 miles	435	Mud.....	71.0	66.0	40.0	T.
1049	Oct. 10	3.30	38 28	73 22	do.....	N. NW., 2 miles.	435	do.....	68.0	66.0	40.0	T.
1050	1882. Feb. 27	2.00 p. m.			Chesapeake Bay: Point No Point, N. NE., 1 $\frac{1}{2}$ miles.....		3 $\frac{1}{2}$	Mud, shells, gravel.....	50.0	41.0	.....	O. D.
1051	Feb. 27	2.15			Point No Point, N. by E., 1 mile.....		2	Mud, grass.....	50.0	41.0	40.0	O. D.
1052	Feb. 27	2.30			Point No Point, N. NE., $\frac{1}{2}$ mile.....		1 $\frac{1}{2}$	do.....	50.0	41.0	40.0	O. D.
1053	Feb. 27	2.45			Point No Point, N. by E., 1 $\frac{1}{2}$ miles.....		2 $\frac{1}{2}$	Mud, shells, oysters.....	50.0	41.0	40.0	O. D.
1054	Feb. 27	2.50			Point No Point, N. by E., 1 $\frac{1}{2}$ miles.....		2 $\frac{1}{2}$	do.....	50.0	41.0	40.0	O. D.
1055	Feb. 28	10.40 a. m.			Patuxent River, Maryland: Drum Point, NE., $\frac{1}{2}$ mile.....		6	Brown mud, shells.....	46.0	40.0	.....	D.
1056	Feb. 28	10.55			Drum Point, N. NE., $\frac{1}{2}$ mile.....		6	do.....	46.0	40.0	.....	R. D.
1057	Feb. 28	12.00 m.			Chesapeake Bay: South end Barren Island, E. by S., 1 $\frac{1}{2}$ miles.....	W. NW., $\frac{1}{2}$ mile.	17-20	Brown mud.....	49.0	40.0	40.0	T.
1058	Feb. 28	12.10 p. m.			South end Barren Island, SE. by E. $\frac{1}{2}$ E., 2 miles.....	W. NW., $\frac{1}{2}$ mile.	3-25	do.....	49.0	40.0	40.0	T.
1059	Feb. 28	12.30			South end Barren Island, SE. $\frac{1}{2}$ E., 2 miles.....	W. NW., $\frac{1}{2}$ mile.	2 $\frac{1}{2}$ -25	do.....	49.0	40.0	40.0	T.
1060	Feb. 28	4.40			Smith's Point, S. SW., 2 miles.....	SE. by S., $\frac{1}{2}$ mile	7	Brown mud, shells.....	46.0	41.0	40.5	T.
1061	Mar. 2	11.20 a. m.			Smith's Point Light, S. by W., 1 $\frac{1}{2}$ miles.....	S., $\frac{1}{2}$ mile	11-16	do.....	48.0	41.5	41.5	D.
1062	Mar. 2	11.40			Smith's Point Light, SW. $\frac{1}{2}$ S., 1 $\frac{1}{2}$ miles.....	S. by W., 1 mile.	16-9 $\frac{1}{2}$	do.....	48.0	41.5	41.5	T.
1063	Mar. 2	1.35 p. m.			South point Tangier Island, N. by E. $\frac{1}{2}$ E., 2 $\frac{1}{2}$ miles.....	NE. by E., $\frac{1}{2}$ mile.	10	do.....	50.0	44.0	42.0	R. D.
1064	Mar. 2	2.17			South point Tangier Island, N. NW., 1 mile.....	NE. by E., $\frac{1}{2}$ mile.	20-9 $\frac{1}{2}$	do.....	50.0	42.0	42.0	R. D.

1065	Mar. 6	9.00 a. m.			Cherrystone Light, E. by N., 2 miles	25-12	Sand	56.0	45.0	46.5	T.	
1066	Mar. 6	9.20			Cherrystone Light, E. by S., 3 miles	12-25	do	56.0	45.0	45.0	T.	
1067	Mar. 6	9.40			Cherrystone Light, SE. by E. $\frac{1}{2}$ E., 3 miles	12-20	do	56.0	45.0	47.0	T.	
1068	Mar. 11	9.50 a. m.			Thomas Point Light, W. SW. $\frac{1}{2}$ W., 2 miles	14-9	Black mud	49.0	42.0	41.0	T.	
1069	Mar. 11	10.20			Thomas Point Light; SW. by W. $\frac{3}{4}$ W., 2 $\frac{1}{2}$ miles.	18	do	51.0	42.0	40.0	T.	
1070	Mar. 11	10.45			Thomas Point Light, W. by S., 2 miles	15-10	do	45.0	42.0	42.0	T.	
1071	Mar. 11	11.22			Thomas Point Light, W. NW. $\frac{1}{2}$ W., 2 $\frac{1}{2}$ miles.	14-13	do	49.0	42.0	40.0	T.	
1072	Mar. 11	12.00 m.			Thomas Point Light, NW. 2 $\frac{1}{2}$ miles	16	do	50.0	42.0	42.0	R.D.	
1073	Mar. 11	12.25 p. m.			Thomas Point Light, NW. by N., 2 $\frac{1}{2}$ miles	13	Black mud, shells	50.0	42.0	42.0	R.D.	
1074	Mar. 11	1.10			Thomas Point Light, N. by W. $\frac{1}{2}$ W., 4 $\frac{1}{2}$ miles.	18-11	Black mud	51.0	43.0	41.0	T.	
1075	Mar. 13	9.45 a. m.			Sandy Point Light, N. by W. $\frac{1}{4}$ W., 3 $\frac{1}{2}$ miles.	14-11	Mud	45.0	43.0	40.0	T.	
1076	Mar. 13	10.15			Sandy Point Light, N. by W. $\frac{1}{4}$ W., 3 $\frac{1}{2}$ miles.	15	do	45.0	43.0	40.0	T.	
1077	Mar. 13	10.55			Sandy Point Light, NW. $\frac{1}{4}$ W., 2 $\frac{1}{2}$ miles.	11-12	do	49.0	43.0	40.0	T.	
1078	Aug. 2	7.30 a. m.			Off Cape Cod: Nausett Lights, NW. $\frac{1}{2}$ N., 10 miles	S. by W., $\frac{1}{2}$ mile	55	Green mud, fine sand	72.0	63.0	37.0	T.
1079	Aug. 2	8.40			Nausett Lights, NW. by W. $\frac{1}{2}$ W., 8 $\frac{1}{2}$ miles	E. SE., 1 mile	61 $\frac{1}{2}$	Fine sand	69.0	63.5	37.0	T.
1080	Aug. 2	9.40			Nausett Lights, NW. by W. $\frac{1}{2}$ W., 6 $\frac{1}{2}$ miles	W. NW., 1 mile	55	do	69.0	61.5	37.0	T.
1081	Aug. 2	10.50			Nausett Lights, W. by S., 5 $\frac{1}{2}$ miles	NW. by N., 1 mile.	33 $\frac{1}{2}$	Coarse gravel and pebbles	69.0	59.0	39.0	T.
1082	Aug. 2	11.45			Cape Cod Light, NW. $\frac{1}{2}$ N., 11 $\frac{1}{2}$ miles	NW. by N., $\frac{1}{2}$ mile.	28	Coarse gravel	70.0	59.0	40.0	T.
1083	Aug. 2	12.45 p. m.			Cape Cod Light, W. by N., 15 miles	W. SW., $\frac{1}{2}$ mile	83 $\frac{1}{2}$	do	77.0	64.0	38.0	T.
1084	Aug. 2	2.20			Cape Cod Light, W. NW. $\frac{1}{2}$ W., 8 miles	W. SW., 1 mile	37 $\frac{1}{2}$	Coarse sand	78.0	62.5	38.0	T.
1085	Aug. 3	6.15 a. m.			Race Point Light, S. 23° E., 2 miles	S. by E., 1 mile	34 $\frac{1}{2}$	Fine sand, green mud	67.0	64.0	39.0	T.
1086	Aug. 3	7.00			Race Point Light, S. 20° W., 2 $\frac{1}{2}$ miles	S. $\frac{1}{2}$ mile	34	Fine sand	74.0	64.0	39.5	T.
1087	Aug. 3	8.30			Cape Cod Light, S. SW. 7 miles	W. SW. $\frac{1}{2}$ mile	44	Gray sand	84.0	62.5	39.0	T.
1088	Aug. 3	9.50			Cape Cod Light, SW. $\frac{1}{2}$ W., 9 $\frac{1}{2}$ miles	NW., 1 $\frac{1}{2}$ miles	90	Coarse sand	82.5	62.0	38.0	T.
1089	Aug. 3	11.10			Cape Cod Light, SW. $\frac{1}{2}$ W., 14 miles	NW. by W., $\frac{1}{2}$ mile.	110	Gray mud	78.0	63.0	38.5	T.
1090	Aug. 3	11.50			Cape Cod Light, SW. $\frac{1}{2}$ W., 13 $\frac{1}{2}$ miles	W. SW., 1 mile	110	do	81.5	62.0	38.5	T.
1091	Aug. 11	5.30 a. m.	40 03	69 44	Atlantic Ocean: Off Martha's Vineyard	NW. by W., $\frac{1}{2}$ mile.	65	Gray sand, broken shells	77.0	75.0	46.0	T.
1092	Aug. 11	6.54	39 58	69 42	do	N. NW., $\frac{1}{2}$ mile	202	Gray sand	79.0	75.0	41.0	T.
1093	Aug. 11	8.35	39 56	69 45	do	N. NW., 1 mile	349	Blue mud, sand	82.0	75.0	40.0	T.
1094	Aug. 11	10.10	39 57	69 47	do	NW. by N., 1 mile.	301	Blue mud	84.0	76.0	40.0	T.
1095	Aug. 11	11.55	39 55 23	69 47	do	N. N. W. $\frac{1}{2}$ W., $\frac{1}{2}$ mile.	321	Soft green mud	82.0	76.0	40.0	T.
1096	Aug. 11	1.29 p. m.	39 53	69 47	do	NW. $\frac{1}{2}$ N., $\frac{1}{2}$ mile	317	do	78.0	75.5	40.0	T.
1097	Aug. 11	3.10	39 54	69 44	do	N. $\frac{1}{2}$ W., $\frac{1}{2}$ mile	158	Fine sand	76.0	75.5	45.0	T.
1098	Aug. 11	4.35	39 53	69 43	do	N. by E., $\frac{1}{2}$ mile	156	do	78.0	75.0	43.5	T.
1099	Aug. 18	11.06 a. m.			Vineyard Sound: Nobska Point Light, W. SW. $\frac{1}{2}$ W., 1 $\frac{1}{2}$ miles.	NE. by N., $\frac{1}{2}$ mile	6	Sand, gravel	76.0	72.0	71.5	T.
1100	Aug. 18	11.47			Nobska Point Light, W. SW. $\frac{1}{2}$ W., 1 $\frac{1}{2}$ miles.	NE. by N., $\frac{1}{2}$ mile	4 $\frac{1}{2}$	Sand, gravel, shells	77.0	72.0	71.5	T.

Dredging stations of the steamer Fish Hawk for 1880, 1881, and 1882—Continued.

Serial number.	Date.	Hour.	Latitude N.	Longitude W.	Locality.	Drift.	Depth in fathoms.	Nature of bottom.	Temperatures.			Apparatus used.
									Air.	Surf.	Bottom.	
	1882.		o / "	o / "	Vineyard Sound:							
1101	Aug. 18	12. 15 p. m.			Nobska Point Light, W. by S. 1½ miles	NE., 1 mile	5	Sand, gravel, shells	78.0	72.0	71.0	T.
1102	Aug. 18	1. 10			East Chop Light, NW. ¾ W., 2¼ miles	E. by S., ½ mile	5	Coarse sand	73.0	70.0	69.0	T.
1103	Aug. 18	1. 42			East Chop Light, NW. by W., 2¼ miles	E. by S., ½ mile	5	do	71.0	70.0	69.0	T.
1104	Aug. 18	2. 12			East Chop Light, W. NW. ¾ W., 4 miles	N. by W. ¾ W., ¾ mile.	8½	Shells	79.0	70.0	69.0	T.
1105	Aug. 18	3. 00			Cape Poge Light, S. by W., 4 miles	NE. by E. ½ E., 2 miles.	10	Coarse sand	80.0	72.0	71.0	T.
1106	Aug. 18	3. 35			Cape Poge Light, S. by W. ½ W., 5½ miles	NE. by N., ¼ mile	5	Sand, shells	80.0	72.5	72.0	T.
					Atlantic Ocean:							
1107	Aug. 22	6. 00 a. m.	49 02	70 35	Off Martha's Vineyard	NW., 1 mile	116	Gray mud	69.5	71.0	48.0	T.
1108	Aug. 22	6. 55	40 02	70 37 30	do	N. W. ¼ mile	101	Gray mud, fine sand.	69.5	71.0	48.0	T.
1109	Aug. 22	7. 55	40 03	70 38	do	N. NW., 1 mile.	89	Gray sand	70.5	71.0	49.0	T.
1110	Aug. 22	9. 16	40 02	70 35	do	N. by W. ¾ W., 1 mile.	160	Green mud, fine sand	75.0	72.0	47.0	T.
1111	Aug. 22	10. 45	40 01 33	70 35	do	N. NE. ½ E., 1 mile.	124	Fine sand	76.0	72.0	47.0	T.
1112	Aug. 22	12. 43 p. m.	39 56	70 35	do	NW. by N., 1 mile.	245	Green mud, sand	72.0	72.0	43.0	T.
1113	Aug. 22	1. 45	39 57	70 37	do	N., 1 mile.	192	Green mud	75.0	72.0	43.0	T.
1114	Aug. 22	2. 40	39 58	70 38	do	N. by W., 1 mile	171	do	74.0	72.0	43.0	T.
1115	Aug. 22	3. 28	39 59	70 41	do	W. by N., ¾ mile	146	Green mud, sand	75.0	72.5	45.0	R. D.
1116	Aug. 22	4. 20	29 59	70 44	do	NW. by W., 1 mile.	141	do	77.0	72.0	46.0	T.
1117	Aug. 22	5. 30	40 02	70 45	do	N. by E., 1 mile	89	Fine sand	78.0	72.0	48.0	T.
1118	Aug. 22	6. 20	40 03	70 45	do	N. NW., ¾ mile.	90	do	74.0	72.0	49.0	T.
1119	Aug. 26	6. 32 a. m.	40 08	68 45	do	NE. ½ N., ¾ mile.	77	Sand, broken shells	68.0	65.0	48.0	T.
1120	Aug. 26	7. 41	40 05	68 48	do	NW., 1½ miles	194	Fine sand, stones	69.0	65.0	43.5	T.
1121	Aug. 26	9. 05	40 04	68 49	do	N. W. W., 1 mile.	234	do	65.0	65.0	41.5	T.
1122	Aug. 26	10. 28	40 02	68 50	do	NW., 1 mile	351	do	70.0	67.0	40.5	T.
1123	Aug. 26	12. 00 m.	39 59 45	68 54	do	N. NW., 1 mile.	787	Fine sand, green mud	70.0	69.0	39.0	T.
1124	Aug. 26	4. 01 p. m.	40 01	68 54	do	NW. by N., 1 mile	640	Fine sand, green mud, limestone nodules.	65.0	65.0	39.0	T.
1125	Aug. 26	5. 45	40 03	68 56	do	NW. by W., 1 mile.	291	Sand, mud	65.0	64.0	40.0	T.
					Vineyard Sound, Menemsha Bight:							
1126	Aug. 28	1. 46 p. m.			Gay Head Light-house, W. SW., 2¼ miles	SE. by E., ¾ mile.	14	Sand, black mud	72.0	66.0	63.5	T.
1127	Aug. 28	2. 30			Gay Head Light-house, W. by S., 3 miles.	E. SE., ½ mile	10	Gray sand, mud	66.0		64.0	T.
1128	Aug. 28	3. 10			Gay Head Light-house, W. ¾ S., 2¼ miles.	S. by E., ¼ mile.	9	do	69.0	66.0	65.0	D.
					North of Noman's Land:							
1129	Sept. 2	2. 00			Fishing Village, S., ½ mile	NE. by E., ½ mile.	4	Sand, stones	72.0	65.0	62.0	D.
1130	Sept. 2	2. 13			Fishing Village S. ½ E., ½ mile	NW. by N., ½ mile	4	do	72.0	65.0	62.0	D.
1131	Sept. 2	2. 29			Fishing Village, SE. by E., ½ mile	E. by N., ¼ mile.	4	do	72.0	65.0	63.0	D.

1132	Sept. 2	2.45			Fishing Village, SE. by E., $\frac{1}{2}$ mile.....	N. N. E., $\frac{1}{2}$ mile..	4	do .....	72.0	65.0	62.0	D.
1133	Sept. 2	3.10			Fishing Village, SE., $\frac{3}{4}$ mile.....	E. by S., $\frac{3}{4}$ mile..	4	do .....	72.0	65.0	62.0	D.
					Vineyard Sound, Meuenasha Bight:							
1134	Sept. 6	1.26 p. m.			Gay Head Light., W. S. W. $\frac{3}{4}$ W., 2 $\frac{3}{4}$ miles..	N. W. by N., $\frac{1}{2}$ mile	9 $\frac{1}{2}$	Sand, mud .....	76.0	66.0	64.0	T.
1155	Sept. 6	2.20			Gay Head Light., W. $\frac{3}{4}$ S., 3 miles.....	N. E., $\frac{1}{2}$ mile .....	7 $\frac{1}{2}$	do .....	71.0	66.0	64.0	T.
1136	Sept. 6	3.50			Gay Head Light., W. S. W. $\frac{1}{2}$ W., 3 miles..	N. E., $\frac{1}{2}$ mile .....	10	Mud .....	70.0	66.0	63.0	D.
					Atlantic Ocean:							
1137	Sept. 8	6.00 a. m.	39 40	71 52	Off Martha's Vineyard.....	N. N. W., $\frac{1}{2}$ mile ..	173	Fine sand, pebbles.....	68.0	70.0	46.0	T.
1138	Sept. 8	7.24	39 39	71 54	do .....	N. W., 1 mile .....	168	do .....	72.0	71.0	46.0	T.
1139	Sept. 8	8.48	39 37	71 55	do .....	N. W. by W., 1 $\frac{1}{2}$ miles.	291	Mud .....	74.0	72.0	44.0	T.
1140	Sept. 8	10.35	39 34	71 56	do .....	N., 1 mile.....	374	Fine sand, soft mud, pebbles.	78.0	73.0	40.0	T.
1141	Sept. 8	12.27 p. m.	39 32	71 57	do .....	W. by N., $\frac{1}{2}$ N., 1 mile.	389	Sand and mud .....	80.0	74.0	40.0	T.
1142	Sept. 8	1.52	39 32	72 00	do .....	W. by S., $\frac{3}{4}$ mile.	322	Mud, with sand and pebbles.	80.0	74.0	41.0	T.
1143	Sept. 8	3.36	39 29	72 01	do .....	N. W., 2 miles .....	452	Soft mud .....	80.0	74.0	40.0	T.
1144	Sept. 8	6.00	39 31	72 06	do .....	N., 1 mile .....	386	do .....	75.0	74.0	41.0	T.
1145*	Sept. 21		40 03	70 28	do .....		135-160					C. T.
1146	Sept. 21		40 02	70 41	do .....		130-150					C. T.
1147	Sept. 22		40 01	71 02	do .....		125					C. T.
1148	Sept. 23		39 54	71 22	do .....		100-125					C. T.
1149	Sept. 23		39 50	71 25	do .....		110					C. T.
1150	Oct. 4	6.35 a. m.	39 58	70 37	do .....	E., $\frac{1}{2}$ mile .....	140	Sand .....	65.0	62.0	47.0	T.
1151	Oct. 4	7.45	39 58 30	70 37	do .....	E., 2 miles .....	125	do .....	66.0	62.0	48.0	T.
1152	Oct. 4	8.42	39 58	70 35	do .....	E., $\frac{1}{2}$ miles .....	115	do .....	68.0	62.0	48.0	T.
1153	Oct. 4	10.45	39 54	70 37	do .....	N., $\frac{3}{8}$ W., 1 $\frac{1}{2}$ miles	225	Sand and mud .....	70.0	62.5	44.0	T.
1154	Oct. 4	12.10 p. m.	39 55 31	70 39	do .....	N. by W., 1 $\frac{1}{2}$ miles	193	do .....	62.0	62.5		T.
1155	Oct. 4	4.06	39 52	70 30	do .....	N. N. W., $\frac{1}{2}$ mile..	554	Soft mud.....	64.0	63.0	40.0	T.

\* Nos. 1145-1149 indicate the stations of the fishing schooner Josie Reeves, using cod trawl-lines.