	BEARINGS.	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF.	TEMPERATURE BOTM.	SALINITY DEPTH FMS.	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS.	REMARKS
	Off Nantucket, Mass		1883														
1156	Lat. 40° 15'N Long. 70° 29'W		Aug. 23	6:00 A. M.	60	Mud	71	67	45			Deep sea Trawl	fms. botm	min. 30	NW	mile 1.0	
1157	Lat. 40° 14' N Long. 70° 29'W		Aug. 23	6:35 A. M.	62	Soft mud	73	70	45			Deep sea Trawl	botm.	45	NW	1.0	
1158	Lat. 40° 16' N Long. 70° 31' W		Aug. 23	8:00 A. M.	62	Sft.Gn.M	74	67	45			Deep sea Trawl	botm.	45	WXN	1.0	
1159	Lat. 40° 20'N Long. 70° 33' W		Aug. 23	10:15 A.M.	55	Sft. M.	74	67.5	44			Deep sea Trawl	Botm.	30	N	1.0	
1160	Lat. 40° 24' N Long. 70° 35' W		Aug. 23	11:25 A.M.	41	Bk. M.	76	70	43			Deep sea Trawl	Botm.	25	WNW	0.75	
1161	Lat. 40° 28' N Long. 70° 37' W		Aug. 23	12:45 P.M.	45	Bk. M.	77	69	44			Deep sea Trawl	Botm	---	NW X W	1.0	
1162	Lat. 40° 32'N Long. 70° 39'		Aug. 23	2:15 P.M.	445	Blk M.	77	68	46.5			Deep sea Trawl	Botm.	25	N x W	1.0	
1163	Lat. 40° 35' 30" N Long. 70° 41' 00" W		Aug. 23	3:25 P.M.	31	S. and M.	77	71	46			Deep sea Trawl	Botm	20	NWxW	0.75	
1164	Lat. 40° 43' N Long. 70° 45' W		Aug. 23	5:00 P.M.	31	M.	75	70	44			Deep sea Trawl	Botm	20	WNW	0.25	
1165	Lat. 40° 50' N Long. 70° 49' W		Aug 23	6:25 P.M.	32	Gy. S.	73	68	45			Deep sea trawl	Botm.	25	N	0.75	
1166	Lat.																
	Menemsha Bight, Mass.																
1166	Gay Hd. Lt. W¼S 2 mi. N. end Nashawena Is. NxW½W 6 mi.		Aug 27	1:00 P.M.	8	S.	77	66.5	65.6			Deep sea trawl	Botm.	15	NW	0.5	
1	Gay Hd. Lt. W¾S 2½ mi. N. end Nashawena Is. NNW 6 mi.		Aug. 27	1:45 P.M.	9	S.	77	------	----			Beam Trawl	Botm.	16	NWxN	0.5	
118	Gay Hd. Lt. WxS¾S 2½ mi. N. end Nashawena Is. NxW¾W 5½ mi.		Aug. 27	2:00 P.M.	11	S.	76	----	----			Beam Trawl	Botm	14	ENE	0.5	
1184	Gay Hd. Lt. WxS¾S 2¾ mi. N. End Nashawena Is. NNW½W 5¾ mi.		Aug. 27	2:30 P.M.	12	S.	77	66	64.5			Beam Trawl	Botm	18	S	0.5	
1185	Gay Hd. Lt. WxS 2¾ mi. N. End Nashawena Is. NNW 6¼ mi.		Aug. 27	3:00 P. M.	12	S.	77	66	65			Beam Trawl	Botm	22	NNW	0.75	
1186	MARTHAS VINEYARD, MASS Katama Pt. E¼S 1 mi.		Sep. 6	12:05 P.M.	10-4	S.	66	68.5	62			Dr.	Botm	6	W	0.125	
1187																	
															SxE	0.25	

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR	DRIFT DIS	REMARKS
	OFF MARTHAS VINEYARD		1883		fms								fms	min		mile	
1172	Ktama Pt. E½S 1⅛ mi.		Sep. 6	12:15 P.M.	5	S.	66	68	62			Dr.	Botm.	10	W	0.125	
1173	atama Pt. E 2½ mi.		Sep. 6	1:05 P.M.	2.5	S.	66	68	63			Dr.	Botm.	---	W	0.125	
1174	atama Pt. E 3¾ m		Sep. 6	1:43 P.M.	2-5	S.	67	68	63			Dr.	Botm.	---	SxE	0.125	
1175	atama Pt. E½S 3¾ mi.		Sep. 6	2:05 P.M.	5½	S.	67	68	63			Beam Trawl.	Botm	15	S	0.5	
1176	E end No Man's Land xS 7½ mi.		Sep. 6	3:12 P.M.	13	S.	68	67	60			Beam Trawl	Botm	23	SxW	0.5	
			1884														
1177	ff Cape Pogue, near arris Shoal Buoy #4		Aug. 18	12:00 M.	3-7	S.	78	69	---			Beam Trawl	Botm.	---	WxS½S	0.5	
	MENEMSHA BIGHT																
1178	ay Hd. Lt. SW½W 1½ mi. . end Nashawena Is. N 3 mi.		Aug. 25	12:00 M.	13	Hard	72	66	---			Beam Trawl	Botm.	---	NE	---	
1179	ay Hd. Lt. SW ½ mi. end Nashawena Is. E		Aug 25	1:15 P.M.	12.5	Stky.	79	66	---			Beam Trawl	Botm.	---	NE	0.5	
1180	ay Hd. Lt. SW end Nashawena Is. E		Aug. 25	1:45 P.M.	12.5 14	Stky.	79	66	---			Beam Trawl	Botm.	---	WxS	0.5	
	BUZZARDS BAY																
1181	En & Chicken Lt. ~~Shp~~ vessel S½W 3 mi. Pnikese Is. ⁝ 2½ mi.		Sep. 2	1:00 P.M.	12	Rky.	76	68	---			Beam Trawl	Botm.	---	NE	0.25	
1182	En & Chicken Lt. ~~Shp~~ vessel WS 3½ mi. Pnikese Is. ⁝ 2¾ mi.		Sep. 2	1:30 P.M.	9.5	S.	76	68	---			Beam Trawl	Botm.	---	NE	0.25	
1183	Pnikese Is. ⁝SW 3 mi. Dumpling Lt. ⁝ 2¾ mi.		Sep. 2	2:25 P.M.	11	Stky.	76	68	---			Beam Trawl	Botm.	---	N	0.25	
1184	Dumpling Rock Lt. I 3 mi. S end Pasque Is. SxW 2¼ mi.		Sep. 2	2:45 P.M.	10	Stky.	76	68	---			Beam Trawl	Botm.	---	ExS	0.25	
1185	Dumpling Rock Lt. IWxW 3½ mi. N end Pasque Is. SxW 2 mi.		Sep. 2	3:15 P.M.	10	Stky.	78	68	---			Beam Trawl	Botm.	---	ESE	2	
1186	N end Pasque Is. S½S 3 mi.		Sep. 2	4:00 P. M.	8	Stky.	78	68	---			Beam Trawl	Botm.	---	E	3	
	VINEYARD SOUND, MASS.																
1187	Nobsque Lt. SWxW 2 mi. Falmouth Heights NExE 1½ miles		Sep. 8	10:20 A.M.	4.5	H.S.	72	69	---			Beam Trawl	Botm.	---	SxE	0.25	

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF.	TEMPERATURE BOTM.	SALINITY SURF.	SALINITY BOTM	APPARATUS	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR	DRIFT DIS	REMARKS
	VINEYARD SOUND, MASS																
1188	Nobsqua Lt. SWxW 2 mi. Falmouth Heights NExE 1½ mi.		Sep. 8	10:40 A.M.	4-5	H.S.	72	69	---			Beam Trawl	Botm.	---	SxE	0.25	
1189	Nobsqua Lt. SSW 2 mi. Falmouth Heights ENE 2½ mi.		Sep. 8	11:20 A.M.	5	H.S.	72	69	---			Beam Trawl	Botm.	---	NW	0.25	
1190	Nobsqua Lt. WSW 2 mi. Falmouth Heights ExS 3 mi.		Sep 8	11:40 A.M.	6-3	H. Stky.	72	69	---			Rake Dredge	Botm.	---	WNW	0.125	
1191	Edgartown Lt. SxW 3 mi. Cape Poge Lt. SE 3 mi		Sep. 8	12:55 P.M.	6	Shells	78	69	---			Beam Trawl	Botm.	---	NW	0.06	
	MENEMSHA BIGHT, MASS		1886														
1192	Gay Hd. Lt. W 4 mi. Tarpaulin NxE½E 8 mi.		Sep. 4	9:35 A.M.	8.5	Sft.	68	65	69			11' B.T.	Botm.	---	SW	---	
1193	Gay Hd. Lt. WxS 5/8S 4 mi. Tarpaulin Cove Lt. NxE½E 8½ mi.		Sep. 4	10:02 A.M.	10	Sft.	70	65	67			11' B. T.	Botm.	---	NE	---	
1194	Gay Hd. Lt. WxS7/8S 4 mi. Tarpaulin Cove Lt. NxE 1/8 E 8½ mi.		Sep 4	10:28 A.M.	11	Sft.	70	65	66			11' B.T.	Botm.	---	NE	---	
1195	OFF FALMOUTH, MASS																
1195	Nobsqua Lt. WxS¾S 2½ mi. West Chop Lt. SExS 9 mi.		Sep. 4	12:18 P.M.	4.5	H.	71	68	70			11' B.T.	Botm.	---	000	---	
1196	Nobsqua Lt. SExS 2½ mi. West Chop Lt. WxS 1/8 S 9 mi.		Sep. 4	12:34 P.M.	4	H.	72	69	70			11' B. T.	Botm	---	000	---	
			1887														
1197	Nobsqua Lt. SWxW¼W E. Chop Lt. SE¾S		Aug. 9	10:50 A.M.	4.5	Sh. S.	72	72	71.5			11' B.T.	Botm	---	----	---	
1198	Nobsqua Lt. W½S Falmouth Heights NExE		Aug 9	11:05 A.M.	4.5	Sh. S.	70	72	71.5			11' B. T.	Botm.	---	E	0.25	
1199	Nobsqua Lt. SWxW½W 1½ mi. E. Chop Lt. SE 9 mi.		Aug. 9	11:28 A.M.	4	S. Grv. Sh.	70	72	71.5			11' B. T.	Botm.	---	ESE	0.25	
1200	Nobsqua Lt. WxS 2 mi. E. Chop Lt. SExS 8½ mi.		Aug. 9	11:49 A.M.	5¼	S. M. Sh.	70	71	72			11' B. T.	Botm.	---	SxE	0.5	
1201	Nobsqua Lt. SWxW½W 1¼ mi. E. Chop Lt. SExS¾S 9 mi.		Aug. 9	12:20 P.M.	2.5	S. Grv.	71	71	72			11' B. T.	Botm	---	NE	0.25	
1202																	

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF.	TEMPERATURE BOTM	SALINITY SURF.	SALINITY BOTM.	APPARATUS	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS.	REMARKS
	MENEMSHA BIGHT, MASS.		1887		fms								fms	min		mile	
1202	Gay Hd. Lt. W¼S Center Quicks Hole NxW¼W Tarpaulin Cove NNE¼E Lt.		Aug. 9	3:50 P.M.	7	H. S.	69	67	68			11' B. T.	Botm.	---	NW¾N	0.5	
1203	Center Quicks Hole NxW 1/8W Gay Hd. Lt. WxS. Tarpaulin Cove Lt. NNE 5/8 E		Aug. 9	4:07 P.M.	8	H. S.	70	69	67			11' B. T.	Botm.	---	NW¾W	0.25	
1204	Gay Hd. Lt. WSW. Tarpaulin Cove Lt. NExN½N Center Quicks Hole NxW¼W		Aug. 9	4:25 P.M.	9	H.S.	70	69	68			11' B. T.	Botm.	---	N¾W	0.5	
	VINEYARD SOUND, MASS																
1205	Nobsqua Lt. NW¾W. West Chop Lt WxN¾N. East Chop Lt. WxN½N.		Aug 11	10:42 A.M.	10	S. Sh. Rk	73	71	72			Dredge	Botm.	---	WxS	0.25	
1206	Nobsqua Lt. NW¾W 5½ mi. West Chop Lt. WxN¾N East Chop Lt. W 5/8 N		Aug. 11	10:55 A.M.	11	S. Sh. Grv. M.	73	70.5	72			Dredge	Botm.	---	ExS¼S	0.5	
1207	Nobsqua Lt.NWxW½W West Chop Lt. WxN½N East Chop Lt. W 5/8 N		Aug. 11	11:10 A. M.	11.5	S. Grv.	73	71	72			Dredge	Botm.	---	ExS¼S	0.25	
1208	Nobsqua Lt. NW¾W Edgartown Lt. S½W East Chop Lt. WxN¾N		Aug. 11	11:29 A.M.	10	S. Grv. Sh.	73	70.5	72			Dredge	Botm.	---	ExS¼S	0.5	
1209	SE end Marthas Vineyard SW½S. Cape Poge N 5/8 E		Aug. 11	12:50 P.M.	5	S. Sh.	70	69	69.5			11' B. T.	Botm.	---	N	0.25	
1210	SE end Marthas Vineyard SWxS¼S. Muskegat Is. SE½E. Cape Poge N¾W		Aug. 11	1:13 P.M.	3	S.	70.5	70	71			11' B. T.	Botm.	---	N	0.25	
	BUZZARDS BAY, MASS																
1211	Dumpling Rock Lt. W½S Clarks Pt. NWxW¼W Lt. Neds Pt. NxE¼E		Aug. 15	10:18 A.M.	6	bk. M.	70	69.5	71			Dr.	Botm.	---	SE	0.25	
1212	Dumpling Rock Lt. W 1/8 S Clarks Pt. Lt. NWxW Neds Pt. Lt. NxE		Aug. 15	10:25 A.M.	7	Sh.	70	70	71			11' B.T.	Botm.	---	SE	0.25	
1213	Dumpling Rock Lt. W Clarks Pt. Lt. NWxW¼W Neds Pt. Lt. N½E		Aug. 15	10:55 A. M.	7;5	Sh. Sh.	70	70	70.5			11' B. T.	Botm.	---	SE	0.25	
1214	Dumpling Rock Lt. W½S Clarks Pt. Lt. NWxW½W Neds Pt. Lt. N		Aug. 15	11:20 A.M.	7	Sh.	69.5	70	71			11' B. T.	Botm.	---	SSE	0.25	
1215	Dumpling Rock Lt. W 1/8 N Clarks Pt. Lt. NWxW½W Neds Pt. Lt. N½W		Aug. 15	11:44 A. M.	7.5	bk. M.	69.5	70.5	71			Dr.	Botm.	---	SE	0.25	

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE			SALINITY		APPARATUS	TRIAL		DRIFT		REMARKS
							AIR	SURF.	BOTM.	SURF.	BOTM.		DEPTH	DURATION	DIR.	DIS.	
					fms								fms.	min		mile	
	BUZZARDS BAY, MASS		1887														
1216	Dumpling Rock Lt. W½n Clarks Pt. Lt. NWxW¼W Neds Pt. Lt. NxW		Aug. 15	12:03 P.M.	7.5	bk. M.	69	70	71			Dr.	Botm.	---	SE	0.25	
1217	Dumpling Rock Lt. W½N Clarks Pt. Lt. NWxW½W Neds Pt. Lt. NxW½W		Aug. 15	12:25 P.M.	7.5	bk. M.	69	70	71			Dr.	Botm.	---	SE	0.25	
1218	Dumpling Rock Lt. W¾N Clarks Pt. Lt. NWxW¼W Neds Pt. Lt. NxW½W		Aug. 15	12:55 P.M.	8	bk.M.	60	70	71			Dr.	Botm.	---	SE	0.25	
1219	Dumpling Rock Lt. W 5/8 N Clarks Pt. Lt. NWxW5/8W Neds Pt. Lt. NxW¾W		Aug. 15	1:18 P.M.	8	bk. M.	69.5	70	71			Dr.	Botm.	---	SE	0.25	
1220	Dumpling Rock Lt. WxN Clarks Pt. Lt. NWxW¼W Neds Pt. Lt. NxW⅜W		Aug. 15	1:42 P.M.	8.5	bk.M.	69.5	70	72			Dr.	Botm.	---	SE	0.25	
1221	Dumpling Rock Lt. W¾N Clarks Pt. Lt. NWxW3/8W Neds Pt. Lt. NNW		Aug. 15	2:00 P.M.	7.5	bk.M.	69.5	70	72			Dr.	Botm.	---	SE	0.25	
	VINEYARD SOUND, MASS.																
1222	Tarpaulin Cove Lt. W2/8S West Chop Lt. SE½S Nobsqua Ka Lt. NxW½W		Aug. 27	10:08 A.M.	12.5	S. Sh.	67	68	69			Dr.	Botm.	---	W	0.75	
1223	Tarpaulin Cove Lt. W½S West Chop Lt. SE¼E Nobsqua Ka Lt. NWxN 5/8 N		Aug. 27	10:20 A.M.	12	S. Sh.	67	68	68			Dr.	Botm.	---	W	0.75	
1224	Tarpaulin Cove Lt. W3/8S West Chop Lt. SExE⅜E Nobsqua Ka Lt. N 1/8 E		Aug. 27	10:36 A.M.	11.5	S. Sh.	67	68	68			Dr.	Botm.	---	W	0.5	
1225	Tarpaulin Cove Lt. W⅜S West Chop Lt. SExE¼E Nobsqua Ka Lt. NxE½E		Aug. 27	10:55 A.M.	13	S. G.	67	68	68			D.	Botm.	---	W	0.5	
1226	Tarpaulin Cove Lt. W 1/8 S. West Chop Lt. ExS½S. Nobsqua Ka Lt. NNE		Aug. 27	11:14 A.M.	13	S. Sh.	67	68	68			11' B. T.	Botm	---	W	0.25	
1227	Tarpaulin Cove Lt. W 1/8 S. West Chop Lt. ExS 1/8 S. Nobsqua Ka Lt. NE¾N		Aug. 27	11:32 A.M.	13	S. Sh.	67	68	68			11' B. T.	Botm.	---	W	0.25	
1228	Gay Hd. Lt. SE 7/8 S Cuttyhunk Lt. NW 7/8 W Vineyard Sd. Lt. Ship. W Vessel		Aug. 29	10:42 A.M.	18	S.	65	64	61			11' B. T.	Botm.	---	W	0.25	

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH FMS	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS	TRIAL DEPTH fms	TRIAL DURATION min	DRIFT DIR	DRIFT DIS mile	REMARKS
	VINEYARD SOUND, MASS		1887														
1229	Vineyard Sd. Lt. Shp. Vessel W 1/8 S. Cuttyhunk Lt. NW 1/8 N		Aug. 29	11:12 A.M.	15.5	S.	66	64	62			11' B. T.	Botm.	---	W	0.5	
1230	Vineyard Sd. Lt. Shp. Vessel W 5/8 N Cuttyhunk Lt. NxW¾W Gay Hd. Lt. SE½E		Aug. 29	11:47 A.M.	14	S. S.	65	64	61			11' B. T.	Botm.	---	W	0.75	
1231	Vineyard Sd. Lt. Shp Vessel WxN½N Cuttyhunk Lt. NxW¾W Gay Hd. Lt. SE¾E		Aug. 29	12:15 P.M.	16	S.	65	64	62			Dr.	Botm.	---	W	0.5	
1232	Vineyard Sd. Lt. Shp. Vessel WxN 1/8 N Cuttyhunk Lt. NWxN 1/8 N Gay Hd. Lt. SE¼E		Aug 29	1:00 P.M.	13	M. Sh.	65	64	62.5			11' B. T.	Botm.	---	W	0.75	
1233	Vineyard Sd. Lt. Shp. Vessel W 7/8 N Cuttyhunk Lt. W 5/8 N Gay Hd. Lt. SE 1/8 S		Aug. 29	1:27 P.M.	13.5	S. Sh.	65	64	62			11' B. T.	Botm.	---	W	0.5	
1234	Vineyard Sd. Lt. Shp. Vessel W 5/8 N Cuttyhunk Lt. NWxW 1/8 N Gay Hd. Lt. W 5/8 N		Aug 29	1:49 P.M.	13.5	S. Sh.	65	64	62.5			Dr.	Botm.	---	W	0.25	
1235	Vineyard Sd. Lt. Shp. Vessel WxN½N Cuttyhunk Lt. NW 1/8 N Gay Hd. Lt. SExS 1/8 S		Aug 29	2:10 P.M.	12	S. Sh.	65	64	62.5			11' B. T.	Botm.	---	W	0.25	
	BLOCK ISLAND SD. MASS																
1236	Gay Hd. Lt. NExE ½E No Mans Land SExE¾E/8 E Cuttyhunk Lt. ENE		Aug. 30	9:030 A.M.	19.5	hrd½	65	62	60			B. T.	Botm	---	SxE	0.75	
1237	Gay Hd. Lt. ExN No Mans Land SExE 5/8 E Cuttyhunk Lt. NExN		Aug. 30	10:00 A.M.	20	hrd	67	64	58			B. T.	Botm.	---	---	0.75	
1238	Gay Hd. Lt. ExN 1/8 N No Mans Land ESE Cuttyhunk Lt. NExN 1/8 N		Aug. 30	10:45 A.M.	20	S. brk. Sh.	65	64	61			Dr.	Botm.	---	---	0.5	
1239	No Mans Land SE¾E Cuttyhunk Lt. NE Men & Chickens Lt. Shp. Vessel NxE¾E		Aug. 30	11:35 A.M.	16	hrd.	65	62	61			B. T.	Botm.	---	---	0.5	
1240	No Mans Land SSE 1/8 E Gay Hd. Lt. ExS¾S Vineyard Sd. Lt. Shp. Vessel NW½W		Aug. 30	12:44 P.M.	18.5	bl. M.	64	62	60			B. T.	Botm.	---	---	0.5	
	~~VINEYARD SD, MASS~~.																

STATION	BEARINGS	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPARATURE AIR	TEMPARATURE SURF	TEMPARATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR	DRIFT DIS	REMARKS
					fms								fms	min.		mile	
	Vineyard Sound, Mass.		1887														
1241	Bishop & Clerks Lt. E$\frac{3}{4}$N Succonesset Lt. Shp. WxN$\frac{3}{4}$N		Sep. 5	10:27 A. M.	21	S. brk. Sh	70	68	69.5			Dr.	Botm.	---	ESE	0.25	
1242	Bishop & Clerks Lt E$\frac{1}{2}$N Succonesset Lt. Shp. W$\frac{1}{4}$N		Sep. 5	10:50 A.M.	18	S. Sh.	70	68	69			B. T.	Botm.	---	NNW	0.25	
1243	Bishop & Clerks Lt. E$\frac{1}{2}$N Succonesset Lt. Shp. W$\frac{1}{4}$N Lt.		Sep. 5	11:15 A.M.	18	S. Sh. R.	70	68	69.5			Dr.	Botm.	---	NxE	0.25	
1244	Hyannis NExN 1/8 N Bishop & Clerks Lt. E 1/8 N Succonesset Lt. Shp. W$\frac{1}{2}$S		Sep. 5	11:54 A.M.	5.5	S. M. Sh.	70	67	69.5			Dr.	Botm.	---	WxN	0.25	
	OFF HYANNIS, MASS																
1245	Hyannis Lt. NE$\frac{1}{4}$N Bishop & Clerks Lt. ExS$\frac{1}{4}$S Collins Bn. NxW$\frac{3}{4}$W		Sep. 5	12:22 P.M.	4.5	S. Sh.	68	68	69.5			B. T.	Botm.	---	WxN	0.5	
1246	Hyannis Lt. NE$\frac{1}{2}$N Collins Bn. N Succonesset Lt. Shp. SW$\frac{3}{4}$S		Sep. 5	1:00 P.M.	5.5	S.Sh.	68	68	69.5			B. T.	Botm.	---	WxN	0.5	
	South of Marthas Vineyard																
1247	Lat. 41° 00' 45" N Long 71° 00' 05" W		Sep. 6	9:49 A.M.	27	S.	67	65	53.5			B. T.	Botm	---	NE$\frac{1}{2}$N	0.375	
1248	Lat. 41° 02' 00" N Long. 71° 00' 00" W		Sep. 6	10:39 A.M.	26	S.	68	64	55			B. T.	Botm.	---	NE$\frac{1}{2}$N	0.375	
1249	Lat. 41° 04' 00" N Long. 70° 59' 30" W		Sep. 6	11:29 A.M.	22.5	S.	67	64	57			B. T.	Botm.	---	NE$\frac{1}{2}$N	0.375	
1250	Lat. 41° 06' 00" N Long. 70° 59' 15" W		Sep. 6	12:30 P.M.	20	S.	67	64	58.5			B. T.	Botm.	---	NE$\frac{1}{2}$N	0.375	
1251	Lat. 41° 10' 00" N Long. 70 59' 15" W		Sep. 6	1:36 P.M.	17	S.	67	64	60			B. T.	Botm.	---	NE$\frac{1}{2}$N	0.375	
	MENEMSHA BIGHT, MASS		1888														
1252	Gay Hd. Lt. WxN$\frac{1}{2}$N Tarpaulin Cove Lt. NxE 7/8 E Quicks Hole N		Aug. 23	10:50 A.M.	10	S.	69	65	63			B. T.	Botm	---	NNW	0.125	
1253	Gay Hd. Lt. WNW Tarpaulin Cove Lt. NNE 7/8 E Quicks Hole NNW		Aug 23	11:05 A.M.	10	S.	69	64	63			B. T.	Botm.	---	NNW	0.25	
1254	Gay Head Lt. WxN Tarpaulin Cove Lt. NNE 5/8 E Quicks Hole WxW 3/4W		Aug. 23.	11:23 A.M.	9	Sand	68.5	64.5	63			Beam Trawl	Botm.	---	NNW	0.25	

RECORD OF.....INVESTIGATION OF.....L888

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR	DRIFT DIS	REMARKS
	MENEMSHA BIGHT		1888		fms								fms	h m		mi.	
1255	Tarpaulin Cove NNE Gay Hd. Lt. WxN 5⅜8 N Quicks Hole NNW 1/8 W	---	Aug. 23	11:45 A	10	S.	68.5	65	63	--	--	7'6" B.T.	---	---	NNW	0.25	
1256	VINEYARD SOUND W. End No Mans Land S¾E Vineyard Sd. Lt. ~~Shp.~~ vessel NW Gay Hd. Lt. SExS¼S	---	Aug. 23	12:36 P.	16	S. brk Sh.	62	64	61	--	--	D.	---	---	ExN	0.25	
1257	Vineyard Sd. Lt. ~~Shp.~~ vessel ~~N~~xW ½W 1 Cuttyhunk Lt. NxW/W 8 Gay Hd. Lt. SE¾E	---	Aug. 23	1:08 P	14	S. brk Sh.	64	64	59	--	--	7'6" B.T.	---	---	NNE	0.125	
1258	Vineyard Sd. Lt. ~~Shp.~~ vessel WNW Cuttyhunk Lt. NNW ½/8W Gay Hd. Lt. SE 1/8 E	---	Aug. 23	1:26 P	15.5	S.	63.5	64	59	--	--	7'6" B.T.	---	---	NxE	0.375	
1259	Vineyard Lt. ~~Shp.~~ vessel NWxW½W Cuttyhunk Lt. N½W Gay Hd. Lt. E½N	---	Aug. 23	2:00 P	18	S.	64.5	64.5	58.5	--	--	7'6" B. T.	---	---	NExN	0.25	
1260	Vineyard Sd. Lt. ~~Shp.~~ vessel WxN½N Cuttyhunk Lt. NxE Gay Hd. Lt. SE 1/8 E	---	Aug. 23	2:30 P	16	S. M. brk S.	65	64	60	--	--	D.	---	---	WSW	0.25	
1261	Vineyard Sd. Lt. ~~Shp~~ vessel NWxW½W Cuttyhunk Lt. ExN¼N Gay Hd. Lt. NE 1/8 E	---	Aug. 23	3:06 P	14.5	S.	64.5	63	61	--	--	7'6" B.T.	---	---	NE	----	
1262	Falmouth Hts. ~~NE~~ Ka 5/8E Nobsqua Lt. WxS¾S West Chop Lt. SSE5/8E	---	Aug. 28	10:14 A	5	S.	65	67	68	--	--	7'6" B.T.	---	---	NExE	0.125	
1263	Falmouth Hts. ~~NE~~ Ka 5/8E Nobsqua Lt. WxS¼S West Chop Lt. SExS¼S	---	Aug. 28	10:24 A	5	S.	64	67	67	--	--	7'6" B.T.	---	---	NExN	0.125	
1264	Falmouth Hts. ~~N~~xE½E ½ Ka Nobsqua Lt. W¾S West Chop Lt. SxE3/8E	---	Aug. 28	10:48 A	8	S.	66	67	67	--	--	7'6" B.T.	---	---	NExE	0.125	
1265	West Chop Lt. SxE¼E Ka Nobsqua Lt. W5/8N East Chop Lt. SE¼E	---	Aug. 28	11:04 A	10	S.	66	67	68	--	--	7'6" B.T.	---	---	NE	0.125	
1266	Succonesset Lt. ~~Wx~~N1/8N Beacon Collins Bn. N 7/8 E Bishop & Clerk Lt NExE½E and	---	Aug. 28	12:14 P	16.5	S.	67	70	69.5	--	--	7'6" B.T.	---	---	NE	0.---	

STATION	BEARINGS LATITUDE	BEARINGS LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR BOTTOM	DRIFT DISTANCE	REMARKS
	VINEYARD SOUND		[illegible]	1888		fms								fms	h m		mi.	
1267	Succonesset Lt. Shp WxS vessel	Collins Bn. NE 1/8N Beacon	--	Aug. 28	12:45 P	15.5	S. brk. Sh	66	69	69	--	--	D.	--	--	NxE	--	
	Bishop & Clerk Lt. NExE¾E and																	
1268	Succonesset Lt. Shp. vessel WxN½N	Collins Bn. NxE ½N Beacon	--	Aug. 28	12:55 P	17	S.	65	68.5	69	--	--	[illegible] B.T.	--	--	NExN	--	
	Bishop & Clerk Lt. NExE½E and																	
1269	Succonesset Lt. Shp. vessel NWxW 7/8 W	Collins Bn. NNE Beacon	--	Aug. 28	1:18 P	13	S.	64	68.5	69	--	--	D. B. T.	--	--	NNE	0.25	
	Bishop & Clerk Lt NExE½E and																	
1270	Succonesset Lt. Shp. vessel WNW	Collins Bn. NxE 1/8 E Beacon	--	Aug. 28	1:44 P	13	[illegible]	65	68	69	--	--	[illegible] B.T.	--	--	NExE	---	
	Bishop & Clerk Lt. NE½N and																	
1271	Succonesset Lt. Shp. vessel NW 1/8 W	Collins Bn. NxE 5/8 E Beacon	--	Aug. 28	2:10 P	10	S.	64	68	69	--	--	B. T.	--	--	ExN	--	
	Bishop & Clerk Lt. NEXE¾E																	
1272	Gay Hd. Lt. W¾S	Quicks Hole N½W	--	Sep. 3	10:58 A	7	S.	68	66	64	--	--	B.T.	--	--	W½S	0.125	
	Tarpaulin Cove Lt. NE½N																	
1273	Gay Hd. Lt. W 5/8 S	Quicks Hole N 3/8 W	--	Sep. 3	11:15 A	8	S.	68	67.5	64	--	--	B.T.	--	--	W½S	0.125	
	Tarpaulin Cove Lt. NNE																	
1274	Gay Hd. Lt. W 5/8 N	Quicks Hole N¾W	--	Sep. 3	11:35 A	8	S.	68	66.5	64.5	--	--	B.T.	--	--	W½S	0.125	
	Tarpaulin Cove Lt. NxE 7/8 E																	
1275	Gay Hd. Lt. W 5/8 N	Quicks Hole NxW 1/8 W	--	Sep. 3.	11:45 A	7	S.	68	69	64.5	--	--	B.T.	--	--	WSW	0.125	
	Tarpaulin Cove Lt. NxE¾E																	
1276	Gay Hd. Lt. SW¾W vessel	Vineyard Sd. Lt. Shp. WNW	--	Sep. 3	12:27 P	11.5	S. M.	68	67	64.5	--	--	Ch. Bk. D.	--	--	W½S	0.125	
	Tarpaulin Cove Lt. NE 7/8 N																	

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIRECTION	DRIFT DISTANCE	REMARKS
	VINEYARD SOUND, MASS		1888		fm								fm	h m		mi.	
1277	Gay Hd. Lt. SxW 5/8 W Vineyard Sd. Lt. ~~Shp.~~ vessel WxN 5/8 N Tarpaulin Cove Lt. NExE 1/8 N	---	Sep. 3	12:48 P.	12	S. M.	68	65	64	--	--	Ch. Rk. D.	--	--	W½N	0.25	
1278	Gay Hd. Lt. SW¾W Vineyard Sd. Lt. ~~Shp.~~ vessel NWxW½W Tarpaulin Cove Lt. NE½N	---	Sep. 3	1:25 P.	12:5	S.	67	65	64	--	--	B.T.	--	--	NWxW½W	0.125	
1279	Gay Hd. Lt. SW 1/8 S Vineyard Sd. Lt. ~~Shp.~~ vessel WNW Tarpaulin Cove Lt. NExN	---	Sep. 3	1:54 P.	15	S.	67	65	64	--	--	B. T.	--	--	W½N	0.125	
1280	Gay Hd. Lt. SW¾S Vineyard Sd. Lt. ~~Shp.~~ vessel NWxW¾W Tarpaulin Cove Lt. NE¾N	---	Sep. 3	2:15 P.	16	S. Sh.	72	69	63	--	--	B.T.	--	--	SxW 5/8 W	0.125	
1281	Nobska Lt. SWxW½W ~~West~~ Chop Lt. S¼W ~~East~~ Chop Lt. SxE¼E	---	Sep. 5	2:40 P.	3	S.	70	69	70	--	--	B.T.	--	--	SWxW	0.125	
1282	Nobska Lt. W½N ~~West~~ Chop Lt. S 5/8 W ~~East~~ Chop Lt. SxE1/8E	---	Sep. 5.	3:00 P.	5	S.	70	67	68	--	--	B.T.	--	--	SWxW	0.125	
1283	Nobska Lt. W 1/8 S ~~West~~ Chop Lt. SW½S ~~East~~ Chop Lt. SxW¾W	---	Sep. 5	3:38 P.	13	S.	68	69	69	--	--	B.T.	--	--	SExE 5/8 E	0.125	
1284	Nobska Lt. W 1/8 N ~~West~~ Chop Lt. SW ~~East~~ Chop Lt. SWxS½S	---	Sep. 5	4:07 P.	6	S.	68	69	69	--	--	B.T.	--	--	W	0.25	
1285	Gay Hd. Lt. SW 7/8 W ~~West~~ Chop Lt. SE 1/8 S Tarpaulin Cove Lt. WxS 1/8 S	---	Sep. 5	5:00 P.	12	---	69	68	68	--	--	B.T.	--	--	SWxW	0----	
1286	Gay Hd. Lt. W 1/8 S Quicks Hole NNW Tarpaulin Cove Lt. NNE½E	---	Sep. 6.	11:22 A.	9	~~Sand~~ S.	63	63	63	--	--	B.T.	--	--	SxE½E	0.125	
1287	Gay Hd. Lt. W¼S Quick Hole NxW 7/8 W Tarpaulin Cove Lt. NxE½E	---	Sep. 6	11:37 A.	8	S.	62	65	63	--	--	B.T.	--	--	SExE ⅛E	0.125	

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIRECTION	DRIFT DISTANCE	REMARKS
	VINEYARD SOUND, MASS		1888		fm.								fm.	h m		mi.	
1288	Gay Hd. Lt. WxS Quick Hole NNW Tarpaulin Cove Lt. NE¾E	--	Sep. 6	11:53 A.	8	S.	62	65	63	--	--	B.T.	--	--	NNW	--	
	NARRAGANSETT BAY,R.I.																
1289	Warwick Lt. SW½S Allen Rock Bn. E½N Conimicut Lt. NNE 1/8 E	--	Sep. 13	9:55 A.	2.5	gy. S.	65	65	66	--	--	Oys. D.	--	--	--	--	
1290	Warwick Lt. SW½W Allen Rock Beacon ExN½N Conimicut Lt. NxE ¼E	--	Sep. 13	10:10 A.	3	M.	70	66	67	--	--	Oys. D.	--	--	--	--	
1291	Warwick Lt. SWxW½W Allen Rock Beacon ENE Conimicut Lt. NxE¼E	--	Sep. 13	10:30 A	4	M.	70	66.5	66	--	--	Oys. D.	--	--	--	--	
1292	Warwick Lt. WxS½S Allen Rock Beacon NExE½E Conimicut Lt. NxE¼E	--	Sep. 13	10:55 A.	6.5	M.	72	67.5	66	--	--	Oys. D.	--	--	--	--	
1293	Warwick Lt. W 7/8 N Allen Rock Beacon NE Conimicut Lt. N	--	Sep. 13	11:10 A.	4	M.	72	67	67	--	--	Oys. D.	--	--	--	--	
1294	Warwick Lt.W¼S Allen Rock Beacon NE½E Conimicut Lt. N½W	--	Sep. 13	11:33 A	4	M.	72	67	66	--	--	B.T.	--	--	--	--	
1295	Warwick Lt. WxS½S Allen Rock Beacon NExE Conimicut Lt. N¼W	--	Sep. 13	11:52 A.	3.5	M.	71	67	66	--	--	B.T.	--	--	--	--	
1296	Warwick Lt. SWxW¾W Allen Rock Beacon NExE¾E Conimicut Lt. N¼W	--	Sep. 13	12:03 P.	3	M.	72	67.5	66	--	--	B.T.	--	--	--	--	
1297	Warwick Lt. SWxW¼W Allen Rock Beacon ExN½N Conimicut Lt. NxW	--	Sep. 13	12:15 P.	4	M.	72	69	66.5	--	--	B.T.	--	--	--	--	
1298	Warwick Lt. SW½W Allen Rock Beacon E¾N Conimicut Lt. NWxN¾N	--	Sep. 13	12:35 P.	5	M.	72	68.5	66.5	--	--	B.T.	--	--	--	--	
1299	Warwick Lt. SW Allen Rock Beacon ExS Conimicut Lt. NW¾W	--	Sep. 13	1:30 P.	5	M.	69	67	67	--	--	Oys. D.	--	--	--	--	

STATION	BEARINGS LATITUDE**--LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOT	SALINITY DEPTH	SALINITY SAL.	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS	REMARKS
	NARRAGANSETT BAY, R.I.		1888		fm					fm			fm	h.m.		mi.	
1300	Warwick Lt. SW$\frac{3}{4}$W Allen Rock Beacon E$\frac{3}{4}$S Conimicut Lt. WNW	--	Sep. 13	1:54 P.	3.5	M.	72	66.5	66	--	--	Oys. D.	--	--	----	----	
1301	Warwick Lt. SWxW$\frac{1}{2}$W Allen Rock Beacon ExN$\frac{1}{2}$N Conimicut Lt. NW$\frac{1}{2}$W	--	Sep. 13	2:12 P	4	M.	72	66	66	--	--	B. T.	--	--	--	--	
1302	Warwick Lt. WxS$\frac{3}{4}$S Allen Rock BeaconNExE Conimicut Lt. NWxN$\frac{1}{2}$N	--	Sep. 13	2:24 P.	5.5	M.	72	67	65	--	--	B. T.	--	--	--	--	
1303	Warwick Lt. WxS$\frac{1}{2}$S Allen Rock Beacon NE$\frac{1}{2}$E Conimicut Lt. NWxN$\frac{1}{2}$N	--	Sep. 13	2:34 P.	5.5	M.	72	67	65	--	--	B. T.	--	--	--	--	
1304	Warwick Lt. W$\frac{1}{2}$S Allen Rock Beacon NE$\frac{1}{2}$N Conimicut Lt. NxW$\frac{3}{4}$W	--	Sep. 13	2:46 P.	4.5	M.	72	67	65.5	--	--	B. T.	--	--	--	--	
1305	Warwick Lt. WxN Allen Rock Beacon NExN$\frac{1}{2}$N Conimicut Lt. NxW$\frac{1}{4}$W	--	Sep. 13	2:55 P.	5	M.	73.5	67	66	--	--	B. T.	--	--	--	--	
1306	Bullock Pt. Lt. SExS$\frac{3}{4}$S Conimicut Lt. SxE Nayat Pt. ENE	--	Sep. 14	10:05 A.	8	M.	50	69	64	--	--	Oys. D.	--	--	--	--	
1307	Conimicut Lt. SExS$\frac{1}{4}$S Bullock Pt. Lt. SxE$\frac{3}{4}$E Nayat Pt.E	--	Sep. 17.	11:59 A.	7.5	S.	66	64	64	--	--	B. T.	--	--	--	--	
1308	Conimicut Lt. SE$\frac{3}{4}$S Bullock Pt. Lt. NxW Nayat Pt.ExS	--	Sep. 17	12:06 P.	8	M. brk. Sh.	52	64	64.5	--	--	B. T.	--	--	--	--	
1309	Conimicut Lt. SE$\frac{3}{4}$S Bullock Pt. Lt. N$\frac{1}{2}$W Nayat Pt. ExS$\frac{1}{2}$S	--	Sep. 17.	7:49 P.	5	M.	68	66	66	--	--	B. T.	--	--	--	--	
1310	Conimicut Lt. SExS Bullock Pt. Lt. N Nayat Pt. ESE	--	Sep. 17.	7:54 P.	4.5	M.	68	66	66	--	--	B. T.	--	--	--	--	
1311	Conimicut Lt. SE 7/8 S Bullock Pt. Lt. NxE$\frac{1}{2}$E Sabine Pt. Lt. N$\frac{1}{2}$W	--	Sep. 17	7:59mP.	4	M.	68	66	66	--	--	B. T.	--	--	--	--	
1312	Conimictu Lt. SExS Bullock Pt. Lt. NExE$\frac{1}{2}$E Sabine Pt. Lt. N	--	Sep. 17	8:04 P.	5	M.	68	66	66	--	--	B. T.	--	--	--	--	
1313	Conimicut Lt. SExS$\frac{1}{2}$S Bullock Pt, Lt.SExE$\frac{1}{2}$E Sabine Pt. Lt. N.	--	Sep. 17.	8:09 P.	6.5	M.	68.5	66	66	--	--	B. T.	--	--	--	--	
~~1314~~	~~Conimicut Lt. ExS$\frac{1}{2}$S~~ ~~Warwick Lt. Nx~~	~~--~~	~~Sep. 17~~														

STATION NUMBER	BEARINGS LATITUDE---LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY SURF	SALINITY BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS.	REMARKS
			1888		fms								fma	h m		mi.	
1314	Conimicut Lt. NxW½W Warwick Lt. W½N Allen Rock Beacon NExN 1/8 W	—	Sep. 19.	9:58 A.	8	M.	59	64	64	--	--	B. T.	--	--	--	--	
1315	Conimicut Lt. NWxN⅜N Warwick Lt. W½S Allen Rock Beacon NE⅜N	--	Sep. 19	10:22 A.	6	M.	58	64.5	63	--	--	B. T.	--	--	--	--	
1316	Conimicut Lt. NWxN½N Warwick Lt. WxS½S Allen Rock Beacon NE½E	--	Sep. 19	10:50 A.	5	M.	61	65	63	--	--	B. T.	--	--	--	--	
1317	Conimicut Lt. NWxN Warwick Lt. WSW Allen Rock Beacon NExE½E	--	Sep. 19	11:20 A.	6.5	S.	60	64.5	63	--	--	B. T.	--	--	--	--	
1318	Conimicut Lt. NWxW Warwick Lt. SWxW½W Allen Rock Beacon ExN	--	Sep 19	11:35 A.	7	M.	60	65	63	--	--	B. T.	--	--	--	--	
1319	Conimicut Lt. NW⅜N Warwick Lt. SW¼W Allen Rock Beacon E½S	--	Sep. 19	11:50 A.	5	M. Sh.	60	65	63	--	--	B.T.	--	--	--	--	
1320	Conimicut Lt. WxS½S Bullock Pt. Lt. NWxN½N Nayat Pt. NNE	--	Sep. 19	1:45 P.	5	M. Sh.	67	67.5	65.5	--	--	B. T.	--	--	--	--	
1321	Conimicut Lt. S 5/8 E Bullock Pt. Lt. NWxN Nayat Pt. ExS	--	Sep. 19	1:58 P.	6	G. Sh.	67	65.5	65	--	--	B. T.	--	--	--	--	
1322	Conimicut Lt. S½E Bullock Pt. Lt. SE⅜S Nayat Pt. ExS 1/8 S	--	Sep. 19	2:22 P.	5	S. G.	66	65.5	64	--	--	B. T.	--	--	--	--	
1323	Conimicut Lt. SxW 1/8 W Bullock Pt. Lt. NW Nayat Pt. SE¼E	--	Sep. 24	11:15 A	3	hrd. S.	58	64	62.5	-	--	Oys. Dr	--	--	--	--	
1324	Conimicut Lt. S½E Bullock Pt, Lt. NW½N Nayat Pt. SE⅜E	--	Sep. 24	1:15 P.	3	hrd.	58	64.5	63	--	--	Oys. Dr.	--	--	------	--	
1325	Conimicut Lt. S 7/8 E Bullock Pt. Lt. NW 1/8 W Nayat Pt. SE½E	--	Sep. 24	1:35 P.	3.5	hrd.	58	64.5	63	--	--	Oys. Dr	--	--	--	--	
1326	Conimicut Lt. S 7/8 E Bullock Pt. Lt. NW½W Nayat Pt. SE	--	Sep. 24	1:54 P.	2	hrd.	58	64	63	--	--	Oys. Dr	--	-	--	--	
1327	Conimicut Lt. S½E Bullock Pt. Lt. NW⅜W Nayat Pt. SE½S	--	Sep. 24	2:10 P.	1.75	hrd.	58	64.5	64	--	--	Oys. Dr	--	--	--	--	
1328	Conimicut Lt. S 1/8 E Bullock Pt. Lt. NWxW½W Nayat Pt. SExS	--	Sep. 24	2:20 P.	2	S.	58	64.5	64	--	--	Oys. Dr	--	--	--	--	

STATION	BEARINGS LATITUDE*******LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH	SALINITY Salinity BOTM	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIRECTION	DRIFT DISTANCE	REMARKS
			1888		fms					fms			fms	h m		miles	
1329	Conimicut Lt. S Bullock Pt, Lt. NW Nayat Pt. SE½E	--	Sep. 24	2:34 P.	3	S.	58	64.5	64	--	--	Oys. D.	--	--	--	--	
1330	Conimicut Lt. S½W Bullock Pt. Lt. NWxW½W Nayat Pt. SExS½S	--	Sep. 24	3:12 P.	8.5	S.	60	64	64	--	--	Oys. Dr.	--	--	--	--	
1331	Conimicut Lt. S½W Bullock Pt. Lt. NWxW⅜W Nayat Pt. SExS⅜S	--	Sep. 24	3:24 P.	1	S.	60	65	65	--	--	Oys. D.	--	--	--	--	
1332	Conimicut Lt. SxW Bullock Pt. Lt.NWxW 1/8 W Nayat Pt. SExS½S	--	Sep. 24	3:30 P.	0.8	S.	60	65	65.5	--	--	Oys. D.	--	--	--	--	
1333	Conimicut Lt. SxW½W Bullock Pt. Lt. NW 5/8 W Nayat Pt. SExS	--	Sep. 24	3:35 P.	1	S.	60	64.5	64	--	--	Oys. D.	--	--	--	--	
1334	Conimicut Lt. S 7/8 E Bullock Pt. Lt. NWxW Nayat Pt. SE½S	--	Sep. 25	11:30 A.	2.75	hrd.	61	64	65	--	--	Oys. D.	--	--	--	--	
1335	Conimicut Lt. SxE Bullock Pt. Lt. NWxW 1/8 W Nayat Pt. SE½S	--	Sep. 25	11:45 A.	2.75	S.	65	64	64	--	--	Oys. D.	--	--	--	--	
	1336 to 1386 MISSING																
	OFF CAPE FEAR, N. C.		1889														
1387	Lat. 33° 48' 10" N Long.78 04 45 W	--	Jan. 14	11:00 A.	6.5	Co.	54	52	52	0	1.0245	D.	6.5	--	S	--	
				2:45 P.	8	Co.	54	52	52	0	1.0235	D.	8	--	SW	--	
				3:10 P.	7	R.	53	52	--	0	1.0240	D.	7	--	SW	--	
	MENEMSHA BIGHT, MASS.																
1388	Lat. 41 21 19N Long. 70 46 11W	--	July 23	10:50 A.	7	S.	71	67	66	--	--	B. T.	7	--	NW	0.125	
1389	Lat. 41 21 23N Long. 70 46 10W	--	July 23	11:05 A.	7.5	S.	72	67.5	68.5	--	--	B. T.	7.5	--	NW	0.125	
1390	Lat. 41 21 50N Long. 70 47 41W	--	July 23	11:23 A.	9	hrd. S.	71	67	68	--	--	B. T.	9	--	NW	0.25	
1391	Lat. 41 22 21N Long. 70 48 38W	--	July 23	11:37 A.	12	S.	71	66	68	--	--	B. T.	12	--	N	0.125	
1392	Lat. 41 22 40N Long. 70 49 11W	--	July 23	12:00 M.	11	S.	70.5	66	64	--	--	B. T.	11	--	NW	0.125	
1393	Lat. 41 23 34N Long. 70 48 56W	--	July 23	12:30 P.	11.5	M.	71	67	66	--	--	B. T.	11.5	--	W	0.125	
1394	Lat. 41 23 21 N Long. 70 49 12 W	--	July 23	12:50 P.	12.5	S. Sh.	67	71	65.5	--	-	B. T.	12.5	--	W	0.125	
1395	Lat. 41 22 57 N Long. 70 45 42 W	--	July 23	1:30 P	9	M.	71	71	66	--	--	B. T.	9	--	NW	0.125	

STATION	BEARINGS LATITUDE******LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h. m.	DRIFT DIR.	DRIFT DIS. miles	REMARKS
			1889														
	VINEYARD SOUND, MASS.																
1396	Lat. 41 22 00 N Long. 70 47 00 W	--	July 23	1:45 P.	10	M.	71	67	66	--	--	B. T.	10	- -	NE	0.125	
1397	Lat. 41 27 55 N Long. 70 44 06 W	--	Aug. 5	10:13 A.	11	S.	69.5	70	69.5	--	--	B. T.	11	- -	W	0.125	
1398	Lat. 41 27 27 N Long. 70 44 13 W	--	Aug. 5	10:28 A.	15	S.	69	69.5	69	--	--	B. T.	15	- -	W	0.125	
1399	Lat. 41 26 47 N Long. 70 44 57 W	--	Aug. 5	10:55 A.	14	S.	69.5	69	69	--	--	B. T.	14	- -	W	0.125	
1400	OFF NANTUCKET IS. MASS.																
1400	Lat. 41 21 41 N Long 70 07 02 W	--	Aug. 6	1:17 P.	7.5	S.	68	73	--	--	--	B. T.	7.5	- -	SxW	0.25	
1401	Lat. 41 21 14 N Long. 70 06 43 W	--	Aug. 6	1:30 P.	8	S.	74	73	--	--	--	B. T.	8	- -	SxW	0.125	
1402	Lat. 41 22 12 N Long. 70 04 52 W	--	Aug. 6	1:55 P.	6	S.	69	74	--	--	--	B. T.	6	- -	W	0.125	
1403	Lat. 41 20 26 N Long. 70 05 46 W	--	Aug. 6	2:24 P.	8.5	S.	70	74	--	--	--	B. T.	8.5	- -	WNW	0.125	
1404	Lat. 41 25 41 N Long. 70 31 26 W	--	Aug. 7	1:23 P.	5.25	stk.	74	73	--	--	--	B. T.	5.25	- -	W	0.125	
1405	Lat. 41 25 42 N Long. 70 31 41 W	--	Aug. 7	1:30 P.	5.5	stk.	74	72	--	--	--	B. T.	5.5	- -	NW	0.25	
1406	Lat. 41 26 42 N Long. 70 32 28 W	--	Aug. 7	2:00 P.	4.75	stk.	74	72	--	--	--	B. T.	4.75	- -	WxN	0.125	
	VINEYARD SOUND, MASS.																
1407	Lat. 41 27 49 N Long. 70 40 18 W	--	Aug. 7	3:39 P.	17	S. Sh.	72	69	--	--	--	B. T.	17	- -	NE	0.125	
1408	Lat. 41 26 57 N Long. 70 40 41 W	--	Aug. 7	4:01 P.	8	S. Sh.	71	68	--	--	--	B. T.	8	- -	ExN	0.125	
	BLOCK IS. SOUND, R. I.																
1409	Lat. 41 17 49 N Long. 70 56 41 W	--	Aug. 8	11:20 A.	18.5	fne. brk. Sh.	70	69	59	--	--	B. T.	Botm	- -	E	0.125	
1410	Lat. 41 16 36 N Long. 70 56 16 W	--	Aug. 8	11:47 A.	17.5	fne. S. Sh.	74	70	57.5	--	--	B. T.	Botm	- -	E	0.25	
1411	Lat. 41 17 04 N Long. 70 55 03 W	--	Aug. 8	12:14 P.	18	fne. S. Sh.	72	69	59	--	--	B. T.	Botm	- -	N½E	0.125	
1412	Lat. 41 17 42 N Long. 70 53 56 W	--	Aug. 8	12:45 P.	17	M.	72	72.5	60	--	--	B. T.	Botm	- -	ExN	0.125	
1413	Lat. 41 18 05 N Long. 70 53 08 W	--	Aug. 8	1:18 P.	17	M.	72	72.5	60	--	--	B. T.	Botm	- -	N½W	0.25	
	VINEYARD SOUND, MASS																
1414	Lat. 41 21 50 N Long. 70 50 29 W	--	Aug. 8	2:19 P.	11	fne. wh. S.	70	70	67	--	--	B.T.	Botm	- -	N½E	0.125	

STATION	BEARINGS LATITUDE*******LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH	SALINITY SALINITY	APPARATUS USED	TRIAL DEP	TRIAL DURATION	DRIFT DIR.	DRIFT DIS	REMARKS
	VINEYARD SOUND, MASS.		1889		fms					fms			fms	h. m.		miles	
1415	Lat. 41 22 44 N Long. 70 49 33 W	--	Aug. 8	2:47 P.	11	fm wh. S.	72	69	67.5	--	--	B. T.	Botm	- -	NW	0.125	
	LONG ISLAND SOUND																
1416	Lat. 41 01 18 N Long. 73 26 05 W Sheffield Lt. NExN 1¾ mi.	--	Aug. 19	10:12 A.	17	M.	74	71	70	0 bôtm	1.0190 1.0190	Dr.	Botm	- -	SW¼W	0.25	
1417	Lat. 41 00 06 N Long. 73 25 16 W Sheffield Lt. NxE¾E 2½ mi.	--	Aug. 19	10:30 A.	19.5	sft. M.	74	71	70	0 bôtm	1.0190 1.0190	Dr.	Botm	- -	1 NNW/W 8	0.25	
1418	Lat. 40 58 57 N Long 73 24 30 W Sheffield Lt. N¾E 4 mi.	--	Aug. 19	11:00 A.	15.5	sft. M.	74	71	71	0 bôtm	1.0190 1.0190	Dr.	Botm	- -	NNWx¼W	0.25	
1419	Lat. 41 02 11 N Long 73 22 32 W	--	Aug. 30	10:25 A.	9	M.	71	72	71	0 bôtm	1.0194 1.0194	----	---	-	--	--	
1420	Lat 41 03 43 N Long73 20 23 W Sheffield Lt. W¾S 3¾ mi.	--	Aug. 30	11:03 A.	6	hrd.	76	73	71.5	0 bôtm	1.0184 1.0190	B. T.	Botm	- -	SxE¼E	0.375	
1421	Lat 41 03 58 N Long73 19 59 W Sheffield Lt. W¾S 4-1/8 Mi	--	Aug. 30	11:20 A.	6	hrd.	76	73	73	0 bôtm	1.0186 1.0190	B. T.	Botm	-	SWx¼W	0.375	
1422	Lat 41 03 00 N Long73 22 09 W Sheffield Lt. W¾N 2-1/8 Mi	--	Aug. 30	12:50 P.	8	hrd.	72.5	73	72.5	0 bôtm	1.0186 1.0186	B.T.	Botm	-	SWxW	0.25	
1423	Lat. 41 02 05 N Long. 73.21 56 W Sheffield Lt. NWxW½W 2½mi	--	Aug. 30 Aug. 30	1:30 P.	10-5	hrd.	74.5	74	72	0 botm	1.0184 1.0188	B. T.	Botm	-	SWxW7/8W	0.25	
1424	Lat. 41 01 49 N Long. 73 21 51 W Sheffield Lt. NWxW 2¾ mi.	--	Aug. 30	2:01 P.	9.5	sft	75	74	72	0 botm	1.0184 1.0188	B. T.	Botm	-	W	0.06	Trawl torn on rock.
1425	Lat. 41 02 35 N Long. 73 20 08 W Sheffield Lt. WxN½N 3¾ mi	--	Sep. 5	11:53 A.	7.5	M. Sh.	72	75	76	0 botm	1.0190 1.0192	Ch. Rk Dr.	Botm	-	WxS¾S	0.125	
1426	Lat. 41 02 48 N Long. 73 19 57 W Sheffield Lt. WxN 4 mi.	--	Sep. 5	12:26 P.	8	M.	75	75	75	0 botm	1.0190 1.0194	Ch. Rk Dr.	Botm	-	SWxW 1/8W	0.375	
1427	Lat. 41 02 58 N Long. 73 20 08 W Sheffield Lt. WxN 4 mi.	--	Sep. 5	12:45 P.	7.5	M. Sh.	75	72	74.5	0 botm	1.0192 1.0194	B. T.	Botm	-	NWxE½E	0.375	
1428	Lat. 41 02 58 N Long. 73 19 28 W Sheffield Lt. WxN 4½ mi.	--	Sep. 5	1:13 P.	7.5	M. Sh.	77	75	---	0 botm	1.0184 1.0190	B. T.	Botm	-	SExS5/8E	0.375	

STATION	BEARINGS LATITUDE*********LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH	SALINITY SALINITY	APPARATUS USED	TRIAL DEP	TRIAL DURATION	DRIFT DIR.	DRIFT DIS	REMARKS
			1889		fms					fms			fms	h. m		miles	
1429	Lat. 41 02 24 N Long. 73 20 53 W Sheffield Lt. WxN¾N 3¼ mi	--	Sep. 5	1:45 P.	10	s:t. & Sh.	75	77	--	0 botm	1.0188 1.0194	B. T.	botm	-	ExS	0.125	
1430	do	--	do	2:00 P.	10	do	75	77	--	---	--	B.T.	botm	-	B½N	0.25	
1431	Lat. 41 06 35 N Long. 73 11 01 W Penfield Reef Lt. NWxW7/8 W 1¾ mi.	--	Sep. 7	1:20 P.	7.5	sft.	69	74	--	0 botm	1.0192 1.0194	B. T.	botm	-	SSW	0.125	
1432	Lat. 41 06 17 N Long. 73 10 11 W Penfield Reef Lt. NWxW 5/8 W 2½ mi.	--	Sep. 7	1:40 P.	8	sft.	70	74	--	0 botm	1.0192 1.0194	B. T.	botm	-	SSW	0.15	
1433	Lat. 41 05 50 N Long. 73 09 15 W Penfield Reef Lt NWx W½W 3¼ mi.	--	Sep. 7	2:00 P.	8.5	sft.	70	74	--	0 botm	1.0192 1.0194	B. T.	botm	-	SW	0.20	
1434	Lat. 41 05 05 N Long. 73 08 31 W Middle Ground Lt. SE½S 2½ mi.	--	Sep. 7	2:20 P.	11	sft.	70	74	--	0 botm	1.0190 1.0194	B. T.	botm	-	SW	0.25	
1435	Lat. 41 06 58 N Long. 73 07 11 W Stratford Pt. Lt. NExN½N 2¼ mi.	--	Sep. 16	11:05 A.	4.75	hrd.	72	71	66.5	0 botm	1.0180 1.0192	B. T.	botm	-	WxS½S	0.375	
1436	Lat. 41 07 17 N Long. 73 07 01 W Stratford Pt. Lt. NExN½N 2 mi.	--	Sep. 16	11:25 A.	4.5	hrd.	72	71	66.5	0 botm	1.0180 1.0190	B. T.	botm	-	SWxW½W	0.25	
1437	Lat. 41 06 35 N Long. 73.06 38 W Stratford Pt. Lt. NNE 2½ mi	--	Sep. 16	11:50 A.	6	hrd.	72	71	66.5	0 botm	1.0186 1.0192	B. T.	botm	-	WxS½S	0.25	
1438	Lat. 41 06 32 N Long. 73 06 51 W Stratford Pt. Lt. NE¾E 2¾ mi.	--	Sep. 16	12:10 P.	6	hrd.	74	74	66.5	0 botm	1.0184 1.0194	B.T.	botm	-	WxS½S	0.25	
1439	Lat. 41 06 17 N Long. 73 07 07 W Middle Ground Lt. S¾E 2¾ mi.	--	Sep. 16	12:35 P.	6	hrd.	74	74	66.5	0 botm	1.0186 1.0194	B. T.	botm	-	W½N	0.0625	
1440	Lat. 41 06 33 N Long. 73 07 56 W Stratford Pt. Lt. NE¾N 3 mi.	--	Sep. 16	12:45 P.	6	hrd.	74	74	67.5	0 botm	1.0178 1.0192	B. T.	botm	-	W½S	0.50	
14																	
1456	Lat. 41 06 56 N Long. 73 06 51 W Penfield Reef Lt. NW 2½ mi. Lo Mid.	--	Sep. 16	1:30 P.	6.5	hrd.	74	70.5	73	0 botm	1.0190 1.0192	B. T.	botm	-	SW½S	0.50	

STATION	BEARINGS LATITUDE********LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS	REMARKS
			1889		fms					fms			fms	h m		miles	
1442	Lat. 41 06 30 N Long. 73 06 31 W Stratford Pt. Lt. NxE½E 2¾ mi.	--	Sep. 16	1:50 P.	7	hrd.	75	72.5	71.5	0 botm	1.0176 1.0196	B. T.	botm	-	SWxW¾W	0.375	
1443	Lat. 41 07 48 N Long. 73 07 44 W Stratford Pt. Lt. NE¾E 1 ¾ mi.	--	Sep. 16	2:30 P.	4	hrd.	78	72.5	73	0 botm	1.0160 1.0196	B. T.	botm	-	WxS¾S	0.25	
1444	Lat. 41 07 55 N Long. 73 08 05 W Stratford Pt. Lt. NExE½E 1-7/8 mi.	--	Sep. 16	2:50 P.	4.5	hrd.	76	72.5	73	0 botm	1.0162 1.0194	B. T.	botm	-	W	0.25	
1445	Lat. 41 07 51 N Long 73 08 31 W Stratford Pt. Lt. NExE¾E 2¼ mi.	--	Sep. 16	3:07 P.	4.5	hrd.	76	72.5	73	0 botm	1.0172 1.0196	B. T.	botm	-	WxS¼S	0.125	
1446	Off.Bridgeport, Conn.	--	Sep. 17	11:15 A.	6.5	S. & G.	--	72	--	0	1.0190	Oys. Dr.	botm	-	circle	0.30	
1447	----------	--	Sep. 17	11:40 A.	6.5	S. & Sh.	--	72	--	0	1.0190	Oys Dr.	botm	-	circle	0.30	
1448	Stratford Pt. Lt. NExN 2¼ mi.	--	Sep. 19	11:00 A.	5	hrd/	58	69	65	0 botm	1.0194 1.0196	B. T.	botm	-	--	--	
1449	Stratford Pt. Lt. NExN 2¼ mi.	--	Sep. 19	11:20 A.	4.75	hrd.	64	69	64.5	0 botm	1.0190 1.0198	B. T.	botm	-	--	--	
1450	Lat. 41 09 02 N Long. 73 10 38 W Bridgeport Lt. N ½ mi.	--	Sep. 23	10:40 A.	3.75	hrd.	60	66	61.5	0 botm	1.0202 1.0202	B. T.	botm	-	NxW¾W	0.125	
1451	Lat. 41 08 43 N Long. 73 10 17 W Bridgeport Lt. NxW ¾ mi.	--	Sep. 23	10:55 A.	4.5	hrd.	60	65	61.5	0 botm	1.0200 1.0205	B. T.	botm	-	NWxW¾W	0.125	
1452	Lat 41 08 15 N Long73 09 50 W Bridgeport Lt. NxW¾W 1½ mi.	--	Sep. 23	11:10 A.	4.5	hrd.	60	65	62	0 botm	1.0200 1.0200	B. T.	botm	-	NxE½E	0.25	
1453	Lat. 41 08 05 N Long. 73 09 23 W Stratford Pt. Lt. ENE 3 mi.	--	Sep. 23	11:25 A.	5	hrd	61	65	62	0 botm	1.0198 1.0200	B. T.	botm	-	NxE7/8E	0.375	
1454	Lat. 41 06 35 N Long. 73 07 09 W Middle Ground Lt. NxW¾W 2½ mi.	--	Sep. 23	12:30 P.	6	hrd	60	61.5	63	0 botm	1.0192 1.0200	B. T.	botm	-	SW½S	0.25	
1455	Lat. 41 06 00 N Long 73 06 36 W Middle Ground Lt. S 2½ mi.	--	Sep. 23	1:05 P.	6.75	hrd.	60	66	65	0 botm	1.0192 1.0202	B. T.	botm	-	SW¾W	0.25	
1456	Lat 41 06 14 N Long73 05 23 W Middle Ground Lt. SSE 2¾ mi	--	Sep. 23	1:25 P.	9	sft.	63	67	65	0 botm	1.0200 1.0200	B. T.	botm	-	SExE½E	0.25	

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STATION	BEARINGS LATITUDE*******LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h m	DRIFT DIR.	DRIFT DIS miles	REMARKS
			1889														
1457	Lat. 41 06 20 N Long. 73 05 15 W Middle Ground Lt. SSE 3 mi	--	Sep. 23	1:40 P.	9	M.	63	66	64	0 botm	1.0200 1.0200	B. T.	botm	--	NxE½E	0.125	
1458	Lat. 41 06 51 N Long. 73 05 46 W Stratford Pt. Lt. N½E 2½ mi.	--	Sep. 23	2:00 P.	8	sft.	63	66	65	0 botm	1.0200 1.0200	B. T.	botm	--	NxE 1/8E	0.20	
1459	Lat. 41 07 07 N Long. 73 06 16 W Stratford Bt. Lt. NxE 2 mi	--	Sep. 23	2:20 P.	6.75	sft.	63	66	64	0 botm	1.0200 1.0198	B. T.	botm	--	E 1/8 S	0.25	
1460	Lat. 41 07 05 N Long. 73 06 38 W Stratford Pt. Lt. NxE½E 2 mi.	--	Sep. 23	2:40 P.	6	sft.	65	66	66	0 botm	1.0200 1.0200	B. T.	botm	--	NxE½E	0.125	
14 61	Lat. 41 06 33 N Long. 73 06 39 W Stratford Pt, Lt. NxE½E 2½ mi.	--	Sep. 23	3:00 P.	5.25	hrd./	65	66	66	0 botm	1.0200 1.0200	B. T.	botm	--	NxE3/8 E	0.125	
1462	Lat. 41 06 25 N Long. 73 06 13 W Stratford Pt. Lt. NxE 2⅝ mi.	--	Sep. 23	3:15 P.	6	hrd.	65	65	65	0 botm	1.0200 1.0200	B.T.	botm	--	N½E	0.125	
1463	Lat. 41 06 00 N Long. 73 05 58 W Middle Ground Lt. SxE 2½ mi.	--	Sep. 23	3:30 P.	7.5	hrd.	65	66	66	0 botm	1.0200 1.0200	B.T.	botm	--	NxE½E	0.25	
1464	Lat. 41 08 50 N Long. 73 10 53 W Bridgeport Lt. NNE ⅞ mi.	--	Sep. 24	9:42 A.	4.5	sft.	60	65.5	63	0 botm	1.0202 1.0201	B. T.	botm	--	S1/8E	0.125	
1465	Lat. 41 08 40 N Long. 73 11 30 W Bridgeport Lt. N½E 1¼ mi	--	Sep. 24	10:00 A.	5	sft.	60	65.5	63	0 botm	1.0202 1.0200	B. T.	botm	--	NxE½E	0.125	
1466	Lat. 41 07 58 N Long. 73 12 08 W Bridgeport Lt. NE 1-7/8 mi	--	Sep. 24	10:15 A.	5.5	sft.	60	65.5	63	0 botm	1.0200 1.0201	B. T.	botm	--	NNE½E	0.125	
1467	Lat. 41 06 35 N Long. 73 12 08 W Penfield Reef Lt. NNW ½ mi	--	Sep. 24	10:35 A.	11	sft.	60	65.5	64	0 botm	1.0198 1.0200	B. T.	botm	--	SSxE½E	0.125	
1468	Lat. 41 06 17 N Long. 73 15 38 W Penfield Reef Lt. ExN 2 mi	--	Sep. 24	11:00 A.	8	hrd.	60	66	65.5	0 botm	1.0200 1.0200	B. T.	botm	--	ExN½N	0.25	
1469	Lat. 41 06 20 N Long. 73 15 17 W Penfield Reef Lt. ExN½N 1½ mi.	--	Sep. 24	11:12 A.	8	hrd.	60	66	63.5	0 botm	1.0202 1.0201	B. T.	botm	--	SW 1/8S	0.125	

STATION	BEARINGS LATITUDE********LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH	TRIAL DURATION	DRIFT DIR.	DRIFT DIS.	REMARKS
			1889		fms					fms			fms			miles	
1470	Lat, 41 06 45 N Long. 73 16 27 W Penfield Reef Lt. B½S 2½ mi.	--	Sep. 24	11:35 A.	4.5	sft.	60	66.5	65	0 botm	1.0200 1.0202	B. T.	botm	-	S 7/8 E	0.16	
1471	Lat. 41 06 05 N Long. 73 15 43 W Penfield Reef Lt. EbyN½N 2 mi.	--	Sep. 24	11:55 A.	9.75	sft.	60	66	64	0 botm	1.0202 1.0202	B. T.	botm	--	S	0.25	
1472	Lat, 41 05 43 N Long. 73 13 53 W Penfield Reef Lt. NEbyN½N 1-1/8 mi.	--	Sep. 24	12:20 P.	11	sft	60	66.5	65	0 botm	1.0200 1.0202	B. T.	Botm	--	S 1/8 W	0.125	
1473	Lat. 41 05 00 N Long. 73 11 36 W Penfield Reef Lt. NNW 2¼ mi.	--	Sep. 24	12:49 P.	11	sft.	60	67	65	0 botm	1.0200 1.0200	B. T.	botm	--	B½N	0.50	
1474	Lat. 41 04 35 N Long. 73 09 13 W Middle Ground Lt. SEbyE 2½ mi.	--	Sep. 24	1:10 P.	12.5	sft.	60	67	65.5	0 botm	1.0200 1.0200	B. T.	botm	--	SxW3/8W	0.125	
1475	Lat. 41 04 20 N Long 73 08 13 W Middle Ground Lt. SE 1½ mi	--	Sep. 24	1:35 P.	16	sft.	60	67.5	66	0 botm	1.0200 1.0200	B. T.	botm	--	B½S	0.125	
1476	Lat. 41 05 30 N Long. 73 07 13 W Middle Ground Lt. SxE½E	--	Sep. 24	1:55 P:	12	sft.	64	66.5	66	0 botm	1.0200 1.0202	B. T.	Botm	--	E 1/8 N	0.25	
1477	Lat. 41 06 05 N Long 73 06 48 W Middle Ground Lt. S½E 2½ mi.	--	Sep. 24	2:15 P.	6.5	hrd.	64	66.5	67	0 botm	1.0200 1.0200	B. T.	botm	--	E 7/8 S	0.20	
1478	Lat. 41 06 45 N. Long, 73 06 48 W Middle Ground Lt. S ~~xx~~ 3-1/8 mi.	--	Sep. 24	2:30 P.	6	hrd	64	66	65	0 botm	1.0198 1.0200	B. T.	botm	--	E 1/8 S	0.31	
1479	Lat. 41 07 40 N Long. 73 09 25 W Stratford Pt. Lt. ENE 3 mi.	--	Sep. 24	3:10 P.	4.75	hrd.	64	66.5	66	0 botm	1.0198 1.0200	B. T.	botm	--	E½N	0.25	
1480	Lat. 41 06 05 N Long 73 09 08 W Stratford Pt. Lt. EbyN½N 2½ mi.	--	Sep. 24	3:30 P.	3	hrd.	64	66	64	0 botm	1.0206 1.0206	B. T.	botm	--	SExE 7/8 E	0.25	
1481	Lat. 41 10 02 N Long. 73 02 43 W Stratford Pt. Lt. E½N 2½ mi.	--	Sep. 28	1:30 P.	7	hrd.	59	65	65	0 botm	1.0204 1.0206	B. T.	botm	--	SE½E	0.50	

STATION	BEARINGS LATITUDE*****LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h. m.	DRIFT DIR	DRIFT DIS. miles	REMARKS
			1889														
1482	Off Milford Island, Conn. Beardsley & Higby Oyster bed. Stratford Pt. Lt. E3/8N 3½mi	--	Sep. 28	2:00 P.	6.5	sft.	59	65	65	0 botm	1.0205 1.0206	B. T.	botm	-	SE¾E	0.125	
1483	Lat. 41 07 53 N Long. 73 07 23 W Stratford Pt. Lt. NE 1½ mi	--	Oct. 4	10:45 A.	3	hrd.	58	64	64.5	0 botm	1.0205 1.0206	B. T.	botm	-	SE	0.125	
1484	Lat. 41 08 38 N Long. 73 05 58 W Stratford Pt, Lt. N¾E ½ mi.	--	Oct. 4	11:10 A.	3.5	hrd.	64	64	63.5	0 botm	1.0205 1.0204	B. T.	botm	-	SExE/E 7/8	0.20	
1485	Lat. 41 09 21 N Long. 73 04 58 W Stratford Pt. Lt. W 3/8 S 1 mi.	--	Oct. 4	11:25 A.	5	sft. M.	64	63	63	0 botm	1.0204 1.0205	B. T.	botm	-	E	0.125	
1486	Lat. 41 10 14 N Long. 73 04 18 W Stratford Pt. Lt. SWxW½W 2 mi.	--	Oct. 4	11:45 A.	4.75	sft.M.	64	65	64	0 botm	1.0200 1.0205	B. T.	botm	-	SE½E	0.125	
1487	Lat. 41 09 32 N Long. 73 03 15 W Stratford Pt. Lt. W¾S 2½ mi.	--	Oct. 4	12:00 M.	6	sft.M.	64	65	64	0 botm	1.0201 1.0206	B. T.	botm	-	NNE½E	0.20	
1488	Lat. 41 09 13 N Long. 73 00 54 W Stratford Pt. Lt. W5/8N 4 mi.	--	Oct. 4	12:30 P.	8	sft.M.	65	65	65	0 botm	1.0196 1.0210	B. T.	botm	-	ExS½S	0.20	
1489	Lat. 41 10 05 N Long. 73 00 32 W Stratford Pt. Lt. W½S 4½ mi.	--	Oct. 4	12:45 P.	6.5	sft.	65	65.5	65	0 botm	1.0200 1.0208	B. T.	botm	-	SExE/E 7/8E	0.25	
1490	Lat. 41 10 21 N Long. 73 00 40 W Stratford Pt. Lt. W¾S 4-3/8 mi.	--	Oct. 4	1:10 P.	5.5	sft	65	66	65	0 botm	1.0198 1.0207	B. T.	botm	-	SE 1/8E	0.25	
1491	Lat. 41 10 50 N Long. 73 00 45 W Stratford Pt. Lt. WxS1/8S 4½ mi.	--	Oct. 4	1:35 P.	5	sft.	65	66	65	0 botm	1.0200 1.0203	B. T.	botm	-	SExS	0.20	
1492	Lat. 41 11 13 N Long. 72 59 36 W Stratford Pt. Lt. ExS½S 5-3/8 mi.	--	Oct. 4	1:55 P.	6	stk.	65	65	65	0 botm	1.0202 1.0204	B. T.	botm	-	S½W	0.125	
1493	Lat. 41 11 50 N Long. 72 59 24 W Stratford Pt. Lt. WxS½S 5¾ mi.	--	Oct. 4	2:10 P.	6	stk.	65	65	65	0 botm	1.0203 1.0207	B. T.	botm	-	SxW½W	0.125	

STATION	BEARINGS LATITUDE******LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h m	DRIFT DIR	DRIFT DIS miles.	REMARKS
			1889														
1494	Lat. 41 12 15 N Long. 72 59 29 W Southwest Ledge Lt. ExN½N 4 mi.	--	Oct. 4	2:20 P.	5.5	stk M.	65	65	65	0 botm	1.0200 1.0206	B. T.	botm	-	SxE½E	0.25	
1495	Lat. 41 12 49 N Long. 72 58 54 W Southwest Ledge Lt. ExN 3/8 N 4½ mi.	--	Oct. 4	2:30 P.	5	stk.	65	65	64.5	0 botm	1.0202 1.0201	B. T.	botm	-	NE 1/8 N	0.125	
1496	Lat. 41 13 15 N Long. 72 58 09 W Southwest Ledge Lt. ExN 5/8 N 2-5/8 mi.	--	Oct. 4	2:50 P.	5.5	sft.	65	64.5	64	0 botm	1.0200 1.0205	B. T.	botm	-	NE 5/8 N	0.20	
1497	Lat. 41 13 17 N Long. 72 57 02 W Southwest Ledge Lt. ExN½N 2 mi.	--	Oct. 4	3:00 P.	5	sft.	65	64	63.5	0 botm	1.0204 1.0205	B. T.	botm	-	NExN½E	0.125	
			1890														
1498	Plum Is. Lt. SExE½E 5¼ mi. Saybrook Pt. Lt. N½W 4 mi. Horton Pt. Lt. SW¼W 9 mi.	--	July 12	11:15 A.	27	Sh.	72	68	64	0 botm	1.024 * 1.0212	B. T.	botm	-	E	0.125	
1499	Plum Is. Lt. SE½E 5½ mi. Saybrook Pt. Lt. NxW 3 mi Horton Pt, Lt. SW 10 mi.	--	July 12	12:30 P.	5	M. & Sh.	72	68	64	0 botm	1.024 * 1.0212	B. T.	botm	-	E	0.125	
1500	Plum Is. Lt. SE½S 7-5/8 mi Saybrook Pt. Lt. N 1-1/8 mi. Horton Pt. Lt. SWxW 11 mi.	--	July 12	12:30 P.	5	M. & Sh.	72	68	64	0 botm	1.024 * 1.0212	B. T.	botm	-	E	0.125	
1501	Plum Is. Lt. SE½S 6½ mi. Saybrook Pt. Lt. ENE 1 mi. Horton Pt. Lt. SWxS½S 11-1/8 mi.	--	July 18	9:45 A.	4	M.	75	67.5	67.5	0 botm	1.0214 1.0214	B. T.	botm	-	S	0.0625	
1502	Plum Is. Lt. SE 8¼ mi. Saybrook Pt. Lt. NE¾E 1¼ mi Horton Pt. Lt. SWxS½S 10¾ mi.	--	July 18	10:10 A.	4	M.	75	67.5	67.5	0 botm	1.0212 1.0212	B. T.	botm	-	S	0.0625	
1503	Plum Is. Lt. E¾S 5 mi. Saybrook Pt. Lt. N 6 mi. Horton Pt. Lt. SWxW 7½ mi.	--	July 22	--	16	M. & Sh.	76	--	67	0 botm	1.0202 1.0212	B. T.	botm	-	W	--	
1504	Southwest Ledge Lt. E 5/8 S 1/8 mi.	--	July 28	11:00 A.	4	Sh.	84	77	--	0 botm	1.0180 1.0186	7' 1' B. T.	botm	-	S	0.125	
1505	Southwest Ledge Lt. N 7/8 E ¾ mi.	--	July 28	11:20 A.	4.6	Sh.	84	77	76	0 botm	1.0180 1.0186	7' 1' B. T.	botm	-	SxE	0.125	

* Possibly error in recording salinometer reading.

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h m	DRIFT DIR.	DRIFT DIS. miles	REMARKS
			1890														
1506	Southwest Ledge Lt. N 7/8 E 1½ mi.	--	July 28	11:30 A.	7	Sh.	86	78	--	0 botm	1.0172 1.0190	7' B. T.	botm	-	S	0.125	
1507	Southwest Ledge Lt. NWxN½N 2 mi. Branford Beacon E½N 3¾ mi. Middle Ground Lt. SWxW 13 mi.	--,	July 28	11:55 A.	8	M. & Sh.	86	78	70	0 botm	1.0162 1.0194	7' B. T.	botm	-	SxE	0.125	
1508	Southwest Ledge Lt. N½W 3½ mi. Branford Beacon ExN¾N 2½mi. Middle Ground Lt. SWxW½W 14½ mi.	--	July 28	12:05 P.	8.5	M. & Sh.	86	75	70	0 botm	1.0186 1.0196	7' B. T.	botm	-	S	0.125	
1509	Southwest Ledge Lt. NWx¼W 5 mi. Branford Beacon NNE 1¼ mi. Falkner Is. Lt. E½S 7½ mi.	--	July 28	12:25 P.	8	M.	82	75	70	0 botm	1.0190 1.0200	7' B. T.	botm	-	SSW	0.125	
1510	Southwest Ledge Lt. NWxW½W 6¼ mi. Branford Beacon NWxN 1¾ mi. Falkner Is. Lt. E½S 6 mi.	--	July28	12:45 P.	7.5	M.	83	75	72	0 botm	1.0190 1.0200	7' B.T.	botm	-	SW	0.125	
1511	Branford Beacon NW¾W 3 mi. Middle Ground Lt. WxS 3/8 S 18 mi. Falkner Is Lt. E 4½ mi.	--	July 28	1:20 P.	9	M.	83	75	71	0 botm	1.0190 1.0210	7' B. T.	botm	-	SxW	0.125	
1512	Southwest Ledge Lt. NWxW 7¾ mi; Middle Ground Lt. WxS½S 17½ mi. Falkner Is. Lt. ExN 5 mi.	--	July 28	1:45 P.	10.5	M.	80	75	71	0 botm	1.0190 1.0220	7' B. T.	botm	-	S	0.125	
~~1513~~ 1213	Middle Ground Lt. NNW 1-1/8 mi. Penfield Reef Lt. N. W. 7½ mi. Oldfield Pt. Lt. SwxS½S 4½ mi.	--	Aug. 2	5:35 A.	15	M.	74	70	68	0 botm	1.0194 1.0202	11' B. T.	botm	-	E	0.23	
1514	Stratford Pt Lt. N½W 7½ mi. Penfield Reef Lt. NW 8½ mi. Oldfield Pt. Lt. SW½S 3¾ mi.	--	Aug. 2	6:00 A.	21	---	74	70	68	0 botm	1.0192 1.0202	11' B. T.	botm	-	E	0.33	
1515	Stratford Pt. Lt. N½W 7½ mi Penfield Reef Lt. NW 9½ mi. Oldfield Pt. Lt.SWxW 3¾ mi.	--	Aug. 2	-----	17	sft.	74	70	69	0 botm	1.0194 1.0200	11' B. T.	botm	-	N	0.25	
1516	Stratford Pt. Lt.N¾W 9 mi. Penfield Reef Lt. NW½N 10 mi. Oldfield Pt. Lt. WSW 3½ mi.	--	Aug. 2	6:30 A.	15.5	M.	75	71	70	0 botm	1.0190 1.0202	11' B T.	botm	-	N	---	

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h. m.	DRIFT DIR	DRIFT DIS miles.	REMARKS
			1890														
1517	Stratford Pt. Lt. N¾W 10¾ mi. Penfield Reef Lt. NW¾N 11½ mi. Oldfield Pt. Lt. W½N 3½ mi.	--	Aug. 2	7:30 A.	8	R.	75	71	71	0 botm	1.0190 1.0192	11' B. T.	botm	-	N	0.03	
1518	Middle Ground Lt. N¾E 3¾ mi. Penfield Reef Lt. NWxN½N 9 mi. Oldfield Pt. Lt. SW 1½ mi.	--	Aug. 2	8:00 A.	16.5	M.	75	71	71	0 botm	1.0190 1.0194	11' B. T.	botm	-	N	0.125	
1519	Middle Ground Lt. NExN½N 3 mi. Penfield Reef.Lt. NWxN¾N 7¾ mi. Oldfield Pt. Lt. S¼W 2-1/8 mi.	--	Aug. 2	8:50 A.	22	M.	75	71	69	0 botm	1.0190 1.0192	11' B. T.	botm	-	W	0.125	
1520	Middle Ground Lt. NExE¾E 2¼ mi. Penfield Reef Lt. NW½W 5-7/8 mi. Oldfield Pt. Lt. S¾E 4 mi.	--	Aug. 2	9:30 A.	17	M.	76	70	69	0 botm	1.0192 1.0196	11' B. T.	botm	0	W	0.125	
1521	Middle Ground Lt. E½S 2 Penfield Reef Lt, NWxN½N 4½ mi. Stratford Pt. Lt. NExN 6¼ mi.	--	Aug. 2	10:00 A.	13	M.	76	70	69	0 botm	1.0192 1.0196	11' B. T.	botm	-	W	0.125	
1522	Middle Ground Lt. SE½E 3mi. Bridgeport Lt. N¼W 4-3/8 mi. Stratford Pt. Lt. NExN 4¾ mi.	--	Aug. 2	10:45 A.	11	M.	75	68.5	68	0 botm	1.0196 1.0200	11' B. T.	botm	-	W	0.125	
1523	Bridgeport Lt. N3/8E 5/8 mi. Penfield Reef Lt. SWxW 2-5/8 mi. Stratford Pt. Lt. E½S 3½ mi.	--	Sep. 17	10:40 A.	4.5	M.	76	70	71	0 botm	1.0189 1.0196	7' B. T.	botm	-	SSW	0.25	
1524	Bridgeport Lt. N¾E ¾ mi Penfield Reef Lt. SWxW¾W 2½ mi. Stratford Pt. Lt. E. 3½ mi.	--	Sep. 17	10:50 A.	4.5	M. & Sh.	76	70	71	0 botm	1.0184 1.0196	Dr.	botm	-	N½E	0.25	
1525	Bridgeport Lt. N½E 1-1/8 mi. Penfield Reef Lt. SWxW¾W 2-3/8 mi. Stratford Pt. Lt. E¼N 3½ mi.	--	Sep. 18	9:25 A.	4	sft.M.	69	70	70	0 botm	1.0196 1.0200	7' B. T: with B.Dr boat Dr. att.	botm	-	NNE	0.25	
1526	Bridgeport Lt. N¾E 1½ mi. Penfield Reef Lt. WxS½S 2-1/8 mi. Stratford Pt. Lt. E¾N 3¾ mi.	--	Sep. 18	10:10 A.	4.5	sft. M.	69	70	70	0 botm	1.0196 1.0220	7' B.T. with B.Dr.	botm	-	NNE	0.15	

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE SURF	TEMPERATURE BOTM	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h	TRIAL DURATION m	DRIFT DIR.	DRIFT DIS. miles	REMARKS
			1890															
1527	Bridgeport Lt. N$\frac{3}{4}$E 2 mi. Penfield Reef Lt. W 2 mi. Stratford Pt. Lt. ExN$\frac{1}{2}$N 4 mi.	-	Sep. 18	10:25 A.	6	sftM.	77	70	70	0 botm	1.0196 1.0200	7' B. T., B. Dr.	botm	-		NWxN$\frac{3}{4}$N	0.25	
1528	Bridgeport Lt. N$\frac{3}{4}$E 2-5/8 mi. Penfield Reef Lt. WxN$\frac{1}{2}$N 2 mi. Stratford Pt. Lt. NExE$\frac{3}{4}$E 4$\frac{1}{4}$ mi.	-	Sep. 18	10:35 A.	7	sft. M.	74	70	70	0 botm	1.0198 1.0202	7' B.T., B. Dr.	botm	-		WNW$\frac{1}{2}$N	0.25	
1529	Bridgeport Lt. N$\frac{3}{4}$E 3$\frac{1}{4}$ mi. Penfield Reef Lt. NWxW$\frac{1}{2}$W 2 mi. Stratford Pt. Lt. NExE$\frac{1}{2}$E 4$\frac{1}{2}$ mi.	-	Sep. 18	11:40 A.	8.5	sft. M.	78	69	70	0 botm	1.0190 1.0200	7' B.T., B. Dr.	botm	-		SSE	0.25	
1530	Bridgeport Lt. N$\frac{3}{4}$E 3$\frac{3}{4}$ mi. Penfield Reef Lt. NW 2$\frac{1}{2}$ mi. Middle Ground Lt. SE$\frac{1}{2}$E 4 mi.	-	Sep. 18	12:15 P.	8.5	sft. M.	78	72	70.5	Q. botm	1.0188 1.0200	7' B. T.	botm	-		SxE	0.125	
1531	Bridgeport Lt. N$\frac{3}{4}$E 4-3/8 mi. Penfield Reef Lt. NW$\frac{3}{4}$N 2$\frac{3}{4}$ mi. Middle Ground Lt. SExE$\frac{1}{2}$E 3$\frac{3}{4}$ mi.	-	Sep. 18	12:45 P.	11	sft. M.	72	70	70.5	0 botm	1.0188 1.0192	7' B. T.	botm	-		NxW$\frac{1}{4}$W	0.25	
1532	Bridgeport Lt. N$\frac{3}{4}$E 5 mi. Penfield Reef Lt. NWxN$\frac{1}{2}$N 3-3/8 mi. Middle Ground Lt. ESE 3$\frac{1}{2}$ mi.	-	Sep. 18	1:23 P.	12	sft. M.	75	70.	70.5	0 botm	1.0188 1.0120*	7' B. T.	botm	-		ExS$\frac{1}{2}$S	0.25	
1533	Bridgeport Lt. N$\frac{3}{4}$E 5-7/8 mi. Penfield Reef Lt. NNW 4 mi. Middle Ground Lt. ExS 3$\frac{1}{2}$ mi.	-	Sep. 18	2:45 P.	14	sft. M.	79	70	70.5	0 botm	1.0184 1.0120*	7' B. T.	botm	-		W$\frac{3}{4}$N	0.125	

* Probably an error in recording.

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE DEPTH fms	TEMPERATURE TEMP	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURA h m	DRIFT DIR	DRIFT DIS miles
	LONG ISLAND SOUND		1890													
1534	Bridgeport Lt. NWxW½W 1 mi. Penfield Reef Lt. SWxW½W 3 mi. Stratford Pt. Lt. E 3 mi.	--	Sep. 19	9:55 A.	3	hrd.	80	0 bottm	70 70	0 botm	1.0142 1.0180	B. Dr.	--	---	NW½N	0.25
1535	Bridgeport Lt. NxW½W 1½ mi. Penfield Reef Lt. WxS½S 2⅔ mi. Stratford Pt. Lt. B¾N 3-1/8 mi.	--	Sep. 19	10:20 A.	4	hrd.	78	0 botm	71 70.5	0 botm	1.0076 1.0130	7' B. T.	--	--	W½N	0.25
1536	Bridgeport Lt. N½W 1-7/8 mi. Penfield Reef Lt., W½S 2½ mi. Stratford Pt. Lt. ExN ½N 3-3/8 mi.	--	Sep. 19	10:35 A.	5	sft.	75	0 botm	69.5 70	0 botm	1.0188 1.0202	7' B. T.	--	--	W	0.25
1537	Bridgeport Lt. N½W 2½ mi. Penfield Reef Lt. W¾N 2½ mi. Stratford Pt. Lt. NExE¾E 5¾ mi.	--	Sep. 19	11:00 A.	6	sft	75	0 botm	69.5 70	0 botm	1.0160 1.0196	7' B. T.	--	--	WxS	0.25
1538	Bridgeport Lt. N 3 mi. Penfield Reef Lt. WNW 2-5/8 mi. Middle Ground Lt. SE½S 4½ mi.	--	Sep. 19	11:20 A.	7.5	sft.	73.5	0 botm	71.5 70.2	0 botm	1.0182 1.0200	7' B. T.	--	--	W¾N	0.25
1539	Bridgeport Lt. N 3¾ Mi. Penfield Reef Lt. NWxW 2¾ mi. Middle Ground Lt. SE 5¾ mi.	--	Sep. 19	11:55 A.	12	sft	75	0 botm	70 70.5	0 botm	1.0176 1.0200	7' B. T.	--	--	W½S	0.25
1540	Bridgeport Lt. N 1/8 E 4-3/8 mi. Penfield Reef Lt. NW½N 3-1/8 Mi. Middle Ground Lt. SE¾E 3-1/8 mi.	-	Sep 19	12:20 P.	11	sft.	76	0 botm	70.5 70.5	0 botm	1.0186 1.0196	7' B. T.	--	--	SWxW½W	0.25
1541	Bridgeport Lt. N½E 5-3/8 mi, Penfield Reef Lt. NWxN½N 3-7/8 mi. Middle Ground Lt. ESE 3 mi.	-	Sep. 19	12:35 P.	12	sft.	78	0 botm	71.5 70.5	0 botm	1.0186 1.0200	7' B. T.	--	--	W	0.25
1542	Bridgeport Lt. N 5½ mi. Penfield Reef Lt. NWxN 4½ mi. Middle Ground Lt. ExS¾S 2-5/8 mi.	-	Sep. 19	1:18 P.	12.5	sft.	91	0 botm	72 71	0 botm	1.0182 1.0202	7' B. T.	--	--	NExN	0.125

STATION	BEARINGS LATITUDE	BEARINGS LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE DEPTH fms	TEMPERATURE TEMP	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h m	DRIFT DIR	DRIFT DIS miles	REMARKS
	LONG ISLAND SOUND			1890														
1543	Bridgeport Lt. N¼W 4¾ mi. Penfield Reef Lt. NW 3¾ mi Stratford Shoal Lt. SB½E 2¾ mi.		--	Sep. 19	1:22 P.	12	sft.	91	0 botm	73 70.5	0 botm.	1.0116 1.0196	7' B. T.	--	--	NNE½E	0.125	
1544	Bridgeport Lt. N½E 4 mi. Penfield Reef Lt. NWxW 3¼ mi. Stratford Shoal Lt. SE½S 3 mi.		--	Sep. 19	2:12 P.	9.5	sft.	87	0 botm	70.5 70.5	0 botm	1.0184 1.0200	7' B. T.	--	--	SSE	0.125	
1545	Bridgeport Lt. NxW 3-3/8 mi. Penfield Reef Lt. WNW 3-1/8 mi. Stratford Shoal Lt. SExS 3¾ mi.		--	Sep. 19	2:25 P.	8	sft.	84	0 botm	70 70.5	0 botm	1.0188 1.0196	7' B. T.	--	--	SE	0.125	
1546	Bridgeport Lt. NxW½W 2-7/8 mi. Penfield Reef Lt. WxN½N 3 mi. Stratford Shoal Lt. SExS½S 4 mi.		--	Sep. 19	2:45 P.	7	sft.	88	0 botm	70 70.5	0 botm	1.0190 1.0196	7' B. T.	--	--	S	0.125	
1547	Bridgeport Lt. NxW½W 2-3/8 mi. Penfield Reef Lt. W½N 3½ mi. Stratford Pt. Lt. NExE½E 3 mi.		--	Sep. 19	2:57 P.	6	sft	88	0 botm	70 70	0 botm	1.0190 1.0196	7' B. T.	--	--	SE½E	0.25	
1548	Bridgeport Lt. NWxN½N 2 mi. Penfield Reef Lt. W½S 3-1/8 mi. Stratford Pt. Lt. ExN½N 2¾ mi.		--	Sep. 19	3:25 P.	5	hrd.	88	0 botm	70 69.8	0 botm	1.0190 1.0194	7' B. T.	--	--	WxN½N	0.125	
1549	Bridgeport Lt. NW½N 1-5/8 mi. Penfield Reef Lt. WxS 3½ mi. Stratford Pt. Lt. ExN 2½ mi.		--	Sep. 19	3:43 P.	4	hrd.	83	0 botm	70 69.8	0 botm	1.0190 1.0192	7' B. T.	--	--	ESE	0.25	
1550	Bridgeport Lt. NW 1-3/8 mi Penfield Reef Lt. WxS½S 3-3/8 mi. Stratford Pt. Lt. ENE 2½ mi.		--	Sep. 19	4:00 P.	4	hrd.	82	0 botm	70.5 69.8	0 botm	1.0188 1.0190	Dr/	--	--	W	0.25	
1551	Bridgeport Lt. NW½W 2 mi. Penfield Reef Lt. WxS 3-7/8 mi. Stratford Pt. Lt. ExN½N 2 mi.		--	Sep. 22	11:27 A.	2	hrd.	67	0 botm	68.8 68.5	0 botm	1.0192 1.0194	Dr.	--	--	NW	0.125	

STATION	BEARINGS LATITUDE LONGITUDE	CHART	DATE	TIME OF DAY	DEPTH fms	CHARACTER OF BOTTOM	TEMPERATURE AIR	TEMPERATURE DEPTH fms	TEMPERATURE TEMP	SALINITY DEPTH fms	SALINITY SALINITY	APPARATUS USED	TRIAL DEPTH fms	TRIAL DURATION h m	DRIFT DIR	DRIFT DIS miles.	REMARKS
	LONG ISLAND SOUND		1890														
1552	Bridgeport Lt. NW¾N 2¼ mi. Penfield Reef Lt. W¼S 3-5/8 mi. Stratford Pt. Lt. NExE¾E 2-3/8 mi.	--	Sep. 22	11:40 A.	3	hrd.	69	0 botm	69.0 69.0	0 botm	1.0190 1.0198	Dr/	-	-	NExN	0.125	
1553	Bridgeport Lt. NWxN¾N 2¾ mi. Penfield Reef Lt. W½N 3½ mi. Stratford Pt. Lt. NExE 2¾ mi.	--	Sep. 22	11:58 A.	4.5	hrd.	69	0 botm	68.5 68.0	0 botm	1.0188 1.0198	7' B. T.	-	-	NE½N	0.125	
1554	Bridgeport Lt. NNW 3½ mi. Penfield Reef Lt. WxN½N 3¼ mi. Stratford Pt. Lt. NE 3 mi.	--	Sep. 22	12:17 P.	6.5	sft.	66	0 botm	68.8 69.0	0 botm	1.0180 1.0198	7' B. T.	-	-	NE½N	0.125	
1555	Bridgeport Lt. NxW½W 3-5/8 mi. Penfield Reef Lt. WNW 3-5/8 mi. Stratford Shoal Lt. SExS½S 3½ mi.	--	Sep. 25	10:05 A.	8.5	sft.	63.5	0 botm	68 67.5	0 botm	1.0194 1.0200	7' B. T. B. Dr.	-	-	ExN½N	0.25	
1556	Bridgeport Lt. NxW½W 4½ mi. Penfield Reef Lt. NWxW 4 mi Stratford Shoal Lt. SE¾S 2¾ mi.	--	Sep. 25	10:30 A.	10	sft.	65	0 botm	68 68	0 botm	1.0196 1.0198	7' B. T.	-	-	NE	0.25	
1557	Bridgeport Lt. N¾W 5 mi. Penfield Reef Lt. NW 4-3/8 mi. Stratford Shoal Lt. SE¾E 2-1/8 mi.	--	Sep. 25	10:55 A.	12	sft.	65	0 botm	68.5 68.5	0 botm	1.0198 1.0200	7' B. T.	-	-	NExN	0.25	
1558	Bridgeport Lt. N½W 6 mi. Penfield Reef Lt. NW½N 4-7/8 mi. Stratford Shoal Lt. ExS½S 1¾ mi.	--	Sep. 25	11:20 A.	12	sft	66.5	0 botm	68.5 68.5	0 botm	1.0198 1.0200	7' B. T.	-	-	N¾E		

Form 625.

RECORD OF _____ INVESTIGATION BY U. S. S. FISH HAWK [illegible] 1890

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1559	Bridgeport Lt. NxW½W 5½ m. Penfield Reef Lt. NW¾W 6 mi. Middle Ground Lt. SExE 1-5/8 mi.	--	1890 Sep. 25	11:48 A.M.	11.5	sft.	67	0 botm	69 68.5	0 botm	1.0198 1.0200	7' M.T.	botm	--	NE½N	0.25	
1560	Bridgeport Lt. NxW½W 4-7/8 mi. Penfield Reef Lt. NWxW 4½ mi. Middle Ground Lt. SE7/8S 2 mi.	--	Sep. 25	12:15 P.M.	12	sft.	67	0 botm	68.5 --	0 botm	1.0198 1.0200	7' B.T.	botm	--	S½W	0.25	
1561	Bridgeport Lt. NxW⅜W 4½ m. Penfield Reef Lt. NWxW¼W 4-3/8 mi. Middle Ground Lt. SExS⅜S 2-3/8 mi.	--	Sep. 25	12:35 P.M.	10	sft.	70	0 botm	69 68.5	0 botm	1.0198 1.0200	7' B.T.	botm	--	ExN½N	0.25	
1562	Bridgeport Lt. NNW 4 mi. Penfield Reef Lt. WNW 4-1/8 mi. Stratford Pt. Lt. NExN 3½ mi.	--	Sep. 25	1:00 P.M.	8	sft.	72	0 botm	69 68.5	0 botm	1.0196 1.0200	7' B.T.	botm	--	SWxW	0.25	
1563	Bridgeport Lt. NWxN½N 3⅝ mi. Penfield Reef Lt. WxN½N 4-1/8 mi. Stratford Pt. Lt. NE⅜N 3 mi.	--	Sep. 25	1:30 P.M.	5	hrd.	73	0 botm	68.5 67.5	0 botm	1.0196 1.0198	7' B.T.	botm	--	[illegible] S⅜W	0.125	
1564	Bridgeport Lt. NWxN 3½ mi Penfield Reef Lt. WxN 4 mi Stratford Pt. Lt. NE½N 2¾ Mi.	--	Sep. 25	2:10 P.M.	4	hrd.	73.5	0 botm	68.5 68	0 botm	1.0194 1.0196	7' B.T.½B.dr.	botm	--	SSE	0.125	
1565	Bridgeport Lt. NW⅜N 3 mi. Penfield Reef Lt. W½N 4 mi. Stratford Pt. Lt. NE¼E 2¼ mi.	--	Sep. 25	2:25 P.M.	4	hrd.	75.5	0 botm	68 68	0 botm	1.0194 1.0194	7' B.T.	botm	--	SxE½E	0.25	
1566	Bridgeport Lt. NW 2-5/8 mi. Penfield Reef Lt. W 4 mi. Stratford Pt. Lt. NExE½E 2 mi.	--	Sep. 25	2:45 P.M.	3	hrd.	72	0 botm	68.5 76.5	0 botm	1.0192 1.0196	7' B.T.	botm	--	SExS½S	0.25	
1567	Bridgeport Lt. NW¾W 2-3/8 mi. Penfield Reef Lt. WxS 4¼ mi Stratford Pt. Lt. ENE 1-5/8 mi.	--	Sep. 25	3:10 P.M.	2	hrd.	67	0 botm	67.5 67	0 botm	1.0196 1.0200	dr.	botm	--	[illegible] S½W	0.125	

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1890 19 30

11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
			1890														
1568	Bridgeport Lt. NWxW 3 mi Penfield Reef Lt. W½S 4¾ mi. Stratford Pt. Lt. NE¾E 1-1/4 mi.	--	Sep. 25	3:30 P.M.	3.5	hrd.	63	0 botm	67 67	0 botm	1.0194 1.0196	dr.	botm	--	WxN	0.125	
1569	Bridgeport Lt. NW¼W 3-1/8 mi. Penfield Reef Lt. W 4-5/8 mi Middle Ground Lt. S¼E 4¾ mi	--	Sep. 25	3:45 P.M.	3.5	hrd.	69	0 botm	67 67	0 botm	1.0194 1.0178	dr.	botm	--	WxN	0.25	
1570 ~~1570~~	Bridgeport Lt. NW¼N 3½ mi Penfield Reef Lt. W½N 4½ mi. Middle Ground Lt. S½E 3¾ mi.	--	Sep. 26	10:05 A.M.	5.5	hrd.	68	0 botm	67.5 68	0 botm	1.0192 1.0196	7' B.T.,½ B.dr.	botm	--	ExS	0.25	
1571	Bridgeport Lt. NWxN 3¾ mi Penfield Reef Lt. WxN½N 4½ mi. Middle Ground Lt. S¾E 3¼ mi.	--	Sep 26	10:25 A.M.	6	hrd.	68.5	0 botm	67 68	0 botm	1.0190 1.0198	7' B.T., B.dr.	botm	--	NW	0.125	
1572	Bridgeport Lt. NW½N 4 mi. Penfield Reef Lt. WxN¾N 4-5/8 mi. Middle Ground Lt. SxE 2¾ mi.	--	Sep. 26	10:48 A.M.	6.5	hrd.	68.5	0 botm	67.5 68	0 botm	1.0188 1.0198	7' B.¾ T., B. dr.	botm	--	NxW	0.25	
1573	Bridgeport Lt. NWxN 4-5/8 mi. Penfield Reef Lt. NWxW¾W 4¾ mi. Middle Ground Lt. SxB¼E 2½ mi.	--	Sep. 26	11:15 A.M.	6.5	hrd.	68.5	0 botm	67.5 68.0	0 botm	1.0195 1.0220	7' B.T., B. dr.	botm	-	N¾W	o.125	
1574	Bridgeport Lt. NNW 5 mi. Penfield Reef Lt. NWxW 5 mi. Middle Ground Lt. SSE 1¾ mi.	--	Oct. 1	10:23 A.M.	17.	sft.	65.0	0 botm	66.5 67.0	0 botm	1.0200 1.0204	7' B. T.	botm	-	SWxW	0.25	
1575	Bridgeport Lt. NxW¾W 5¾ mi. Penfield Reef Lt. NW½W 5½ mi. Middle Ground Lt. SE½S 1½ mi.	--	Oct. 1	10:45 A.M.	13	sft.	67.0	0 botm	67.0 67.0	0 botm	1.0200 1.0200	7' B. T.	botm	-	SW½S	0.25	
1576	Bridgeport Lt. NxW¼W 6½ mi. Penfield Reef Lt. NW½N 5¾ mi. Middle Gro und Lt. E 3/8 S ¾ mi.	--	Oct. 1	11:23 A.M.	12	sft.	68.0	0 botm	67.5 67.5	0 botm	1.0206 1.020	7' B. T.	botm	-	SxE	0.125	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 1890

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tow. Depth. (fms.)	Tow. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1580	Bridgeport Light NNW	—	1890	9:58 P.M.	3.5	hrd.	73.0	0	67.0	0	1.0194	7' B. T.	botm	-	SW	0.125	
	Penfield Reef Lt. NW½W 5¾ mi.							botm	67.0	botm	1.0194						
	Stratford Pt. Lt. NxE½E 5 mi.																
1577	Bridgeport Lt. NNW 6 mi.	--	Oct. 1	11:50 A.M.	14	sft.	72.5	0	67.5	0	1.0200	7' B. T.	botm	-	SW½W	0.125	
	Penfield Reef Lt. NW½W 5¾ mi.							botm	67.5	botm	1.0200						
	Stratford Pt. Lt. NxE½E 5 mi.																
1578	Bridgeport Lt. NWxN½N 5½ mi.	--	Oct. 1	12:10 P.M.	27.5	sft.	75.0	0	67.5	0	1.020	7' B. T.	botm	-	SSW	0.125	
	Penfield Reef Lt. NWxW½W 5½ mi.							botm	67.0	botm	1.020						
	Stratford Pt. Lt. NxE½E 4½ mi.																
1579	Bridgeport Lt. NWxN½N 5 mi.	--	Oct. 1	12:53 P.M.	8.5	hrd.	71.0	0	67.5	0	1.020	7' B. T.	botm	-	SWxS	0.125	
	Stratford Pt. Lt. NxE½E 3 5/8 mi.							botm	67.5	botm	1.020						
	Middle Ground Lt. S½E 2 mi.																
1580	Bridgeport Lt. NWxN 4 5/8 mi.	—	Oct. 1	1:40 P.M.	7	hrd.	71.0	0	67.5	0	1.0198	7' B. T.	botm	-	---	----	
	Stratford Pt. Lt. NxE½E 3 1/8 mi.							botm	67.0	botm	1.020						
	Middle Ground Lt. S 1/8 E 2½ mi.																
1581	Bridgeport Lt. NW½N 4 3/8 mi.	—	Oct. 1	2:00 P.M.	7	hrd.	71.0	0	67.0	0	1.0198	7' B. T.	botm	-	SxE½E	0.25	
	Stratford Pt. Lt. NxE½E 2 5/8 mi.							botm	67.0	botm	1.0198						
	Middle Ground Lt. S½W 3 mi.																
1582	Bridgeport Lt. NW 3-7/8 mi	--	Oct. 1	2:30 P.M.	7	hrd.	70.0	0	67.5	0	1.0198	7' B.T.	botm	-	E½S	0.25	
	Stratford Pt. Lt. NxE½E 2 mi.							botm	67.0	botm	1.0198						
	Middle Ground Lt. S½W 3½ mi.																
1583	Bridgeport Lt. NW½W 3⅜ mi.	--	Oct. 1	2:45 P.M.	5	hrd.	73	0	67.5	0	1.0196	7' B. T.	botm	-	E½N	0.125	
	Stratford Pt. Lt. NxE½E 1½ mi.							botm	67.5	botm	1.0198						
	Middle Ground Lt. S½W 4 mi.																
1584	Bridgeport Lt. NWxW 3½ mi.	--	Oct. 1	3:15 P.M.	4	hrd.	73.0	0	67.0	0	1.0194	7' B. T., B. dr.	botm	--	SExE½S	0.25	
	Stratford Pt. Lt. NExN½N 1 mi.							botm	67.0	botm	1.0194						
	Middle Ground Lt. S¼W 4 5/8 mi.																

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1890 32

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Theal. Depth. (fms.)	Theal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1585	Bridgeport Light WNW 3½ mi. Stratford Pt. Lt. NE½E 5/8 mi. Middle Ground Lt. S½W 5 mi.	--	Oct. 1	3:35 P.M.	3.5	hrd.	73.0	0 botm	67.8 67.8	0 botm	1.0194 1.0194	dr.	botm	-	SE	0.125	
1586	Penfield Reef Lt. Wx S 6 mi. Stratford Pt. Lt. NW½N ¼ mi. Middle Ground Lt. Sx W 5½ mi.	--	Oct. 2	11:00 A.M.	5.0	hrd.	67.5	0 botm	66.5 66.0	0 botm	1.0198 1.0198	7' B. T., B. dr.	botm	-	SW½S	0.125	
1587	Bridgeport Lt. NWxW¾W 3-7/8 mi. Penfield Reef Lt. W½S 5¾ mi. Stratford Pt. Lt. N¾W ¾ mi.	--	Oct. 2	11:30 A.M.	6.5	sft.	66.0	0 botm	--- 66.8	0 botm	1.0198 1.0198	7' B. T., B. dr.	botm	-	WxS½S	0.125	
1588	Bridgeport Lt. NWxW 4 mi. Penfield Reef Lt. W½N 5¾ mi. Middle Ground Lt. SxW 4 mi.	--	Oct. 2	11:50 A.M.	7.5	sft.	66.0	0 botm	67.0 67.0	0 botm	1.0198 1.020	7' B. T., B. dr.	botm	-	SW	0.125	
1589	Bridgeport Lt. NW½W 4-1/8 mi. Penfield Reef Lt. W½N 5-5/8 mi. Middle Ground Lt. S7/8W 3¾ mi.	--	Oct. 2	12:05 P.M.	8.0	sft.	66.0	0 botm	66.8 67.0	0 botm	1.0196 1.020	7' B. T., B. dr.	botm	-	SWxW½W	0.25	
1590	Bridgeport Lt. NW 4½ mi. Penfield Reef Lt. WxN 5-5/8 mi. Middle Ground Lt. SxW 3¼ mi.	--	Oct. 2	12:25 P.M.	8.0	sft.	66.0	0 botm	66.8 67.0	0 botm	1.0198 1.020	7' B. T., B. dr.	botm	-	SWx½W	0.25	
1591	Bridgeport Lt. NW½N 4⅝ mi. Penfield Reef Lt. WxN½N 5-5/8 mi. Middle Ground Lt. S¾W 2⅝ mi.	--	Oct. 2	12:45 P.M.	7.5	sft.	68.0	0 botm	67.0 67.0	0 botm	1.0198 1.020	7' B. T., B. dr.	botm	-	SWx½W	0.25	
1592	Bridgeport Lt. NW¾N 5-1/8 mi. Stratford Pt. Lt. N½E 3½ mi. Penfield Reef Lt. WNW 5⅜ mi.	--	Oct. 2	1:12 P.M.	8.5	sft.	66.5	0 botm	67.0 67.0	0 botm	1.020 1.020	7' B. T., B. dr.	botm	-	SWx½W	0.125	
1593	Bridgeport Lt. NWxN 5-3/8 mi. Stratford Pt. Lt. N½E 3-5/8 mi. Penfield Reef Lt. NWxW¾W 5-7/8 mi.	--	Oct. 2	1:25 P.M.	10.0	sft.	66.5	0 botm	67.0 67.0	0 botm	1.0198 1.020	7' B. T., B. dr.	botm	-	SW	0.125	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1890. 33

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1594	Bridgeport Lt. NWxN½N 6-1/8 mi. Stratford Pt. Lt. N½E 4½ mi. Penfield Reef Lt. NWxW½W 6½ mi.	--	Oct. 2	1:45 P.M.	11.5	hrd.	66.5	0 botm	67.0 67.0	0 botm	1.020 1.020	7' B. T., B' dr.	botm	-	NxW	0.125	
1595	Bridgeport Lt. NWxN¾N 6-5/8 mi. Stratford Pt. Lt. N½E 5-1/8 mi. Penfield Reef Lt. NW¾W 6½ mi.	--	Oct. 2	2:10 P.M.	6.0	hrd.	66.5	0 botm	67.0 67.0	0 botm	1.020 1.020	7' B. T., B. dr.	botm	-	NExN½N	0.125	
1596	Stratford Pt. Lt. SW½S 1-3/8 mi. Middle Ground Lt. SxW½W 6¾ mi.	--	Oct. 8	10:45 A.M.	3.5	hrd.	60.0	0 botm	64.0 63.5	0 botm	1.020 1.0202	dr.	botm	-	ExN½N	0.125	
1597	Stratford Pt. Lt. SW¾W 7/8 mi. Middle Ground Lt. SxW½W 6¼ mi.	--	Oct. 8	11:03 A.M.	4.0	sft.	60.0	0 botm	61.0 63.5	0 botm	1.0164 1.0204	7' B. T., B. dr.	botm	-	NExN½N	0.125	
1598	Stratford Pt. Lt. W¼S 5/8 mi. Middle Ground Lt. SxW½W 5¾ mi.	--	Oct. 8	11:20 A.M.	5.0	hrd.	60.0	0 botm	63.0 63.5	0 botm	1.018 1.0202	7' B. T., B. dr.	botm	-	ENE	0.125	
1599	Stratford Pt. Lt. NW 7/8 mi. Middle Ground Lt. SxW½W 5¼ mi.	--	Oct. 8	11:35 A.M.	6.0	sft.	60.0	0 botm	62.0 64.0	0 botm	1.0152 1.0202	7'. B. T., B. dr	botm	-	SExE	0.125	
1600	Stratford Pt. Lt. NxW½W 1-5/8 mi. Middle Ground Lt. SxW½W 4½ mi.	--	Oct. 8	12:15 P.M.	7.0	sft.	61.0	0 botm	64.0 65.0	0 botm	1.020 1.0202	7' B. T., B. dr.	botm	-	SE½E	0.25	
1601	Stratford Pt. Lt. NxW 2-3/8 mi. Middle Ground Lt. SxW¾W 3¾ mi.	--	Oct. 8	12:55 P.M.	7.0	sft.	61.0	0 botm	64.0 64.0	0 botm	1.020 1.0202	7'. B. T., B. dr.	botm	-	SE½E	0.125	
1602	Stratford Pt. Lt. N½W 3-1/8 mi. Middle Ground Lt. SSW 2-5/8 mi.	--	Oct. 8	1:52 P.M.	8.5	sft.	61.0	0 botm	65.5 65.5	0 botm	1.020 1.020	7' B. T., B. dr.	botm	-	SxE½E	0.125	
1603	Stratford Pt. Lt. N 4½ mi. Middle Ground Lt. SWxS½S 1½ mi.	--	Oct. 8	2:15 P.M.	13.0	sft.	62.0	0 botm	66.0 66.0	0 botm	1.0202 1.020	7'. B. T., B. dr.	botm	-	E½N	0.125	
1604	Stratford Pt. Lt. N½E 5-1/8 mi. Middle Ground Lt. SWxW ¾ mi.	--	Oct. 8	2:45 P.M.	3.0	hrd.	61.0	0 botm	65.0 65.5	0 botm	1.0202 1.0202	dr.	botm	-	ExN	0.125	

Form 625. 34

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1890.

11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1605	Stratford Pt. Lt. SW$\frac{3}{4}$S 2-3/8 mi. Middle Ground Lt. SxW$\frac{1}{2}$W 7$\frac{3}{4}$ mi.	--	Oct. 9	9:45 A.M.	3.3	hrd.	56.0	0 botm	63.0 62.0	0 botm	1.0202 1.0202	Dr.	botm	-	SExE	0.125	
1606	Stratford Pt. Lt. SW$\frac{1}{4}$W 2 mi. Middle Ground Lt. SxW$\frac{3}{4}$W 7 mi.	--	Oct. 9	10:25 A.M.	4.5	sft.	63.0	0 botm	64.5 64.0	0 botm	1.0202 1.0202	Dr.	botm	-	E$\frac{1}{2}$N	0.125	
1607	Stratford Pt. Lt. SWxW$\frac{1}{4}$W 1-5/8 mi. Middle Ground Lt. SxW$\frac{3}{4}$W 6$\frac{3}{4}$ mi.	--	Oct. 9	10:45 A.M.	5.0	sft,	62.0	0 botm	65.0 65.0	0 botm	1.0202 1.0204	7' B.T., B. dr.	botm	-	NExE	0.125	
1608	Stratford Pt. Lt. WxS$\frac{1}{2}$S 1$\frac{1}{4}$ mi. Middle Ground Lt. SxW$\frac{3}{4}$W 6$\frac{1}{4}$ mi.	--	Oct. 9	11:00 A. M.	5.3	sft.	61.5	0 botm	65.5 65.5	0 botm	1.020 1.0204	7' B. T.; B. dr.	botm	-	NE$\frac{1}{4}$N	0.125	
1609	Stratford Pt. Lt. W$\frac{1}{2}$N 1$\frac{1}{4}$ mi. Middle Ground Lt. SxW$\frac{3}{4}$W 5$\frac{3}{4}$ mi.	--	Oct. 9	11:45 A.M.	6.0	sft.	64.0	0 botm	65.0 66.0	0 botm	1.020 1.0204	7' B.T., B. dr.	botm	-	NE	0.25	
1610	Stratford Pt. Lt. NW 1$\frac{1}{2}$ mi Middle Ground Lt. SSW 4$\frac{3}{4}$ mi.	--	Oct. 9	11 + A.M.	7.3	sft.	63.5	0 botm	65.0 65.5	0 botm	1.020 1.0204	7' B.T., B. dr.	botm	-	NExN	0.25	
1611	Stratford Pt. Lt. NxW$\frac{3}{4}$W 2-5/8 mi. Middle Ground Lt. SWxS$\frac{1}{4}$S 3-3/8 mi.	--	Oct. 9	12:03 P.M.	8.8	sft.	64.0	0 botm	65.0 66.0	0 botm	1.020 1.0204	7' B. T., B. dr.	botm	-	E$\frac{1}{2}$N	0.25	
1612	Stratford Pt. Lt. N$\frac{3}{4}$W 4 mi. Middle Ground Lt. SW$\frac{1}{2}$S 2$\frac{1}{4}$ mi.	--	Oct. 9	12:27 P.M.	15.0	sft.	62.0	0 botm	66.0 66.0	0 botm	1.0198 1.0206	7' B. T., B. dr.	botm	-	NExN$\frac{1}{2}$N	0.125	
1613	Stratford Pt. Lt. N$\frac{1}{2}$W 5 mi. Middle Ground Lt. WSW 1-3/8 mi.	--	Oct. 9	1:20 P.M.	10;3	sft.	66.5	0 botm	66.0 66.0	0 botm	1.0202 1.0202	7' B. T., B. dr.	botm	-	SxE	0.125	
1614	Stratford Pt. Lt. NxW1/8W 4-5/8 mi. Middle Ground Lt. SWxW$\frac{1}{2}$W 2 mi.	--	Oct. 9	1:45 P.M.	13.3	sft.	60.0	0 botm	66.0 66.0	0 botm	1.0202 1.0202	7' B. T., B. dr.	botm	-	SExS	0.125	
1615	Stratford Pt. Lt. NNW 3$\frac{1}{2}$ mi. Middle Ground Lt. SW$\frac{1}{2}$S 3 mi.	--	Oct. 9	2:10 P.M.	10.0	sft.	74.0	0 botm	65.0 66.0	0 botm	1.0202 1.0204	7' B.T., B. dr.	botm	-	SE$\frac{1}{2}$E	0.125	
1616	Stratford Pt. Lt. NW5/8N 2$\frac{1}{2}$ mi. Middle Ground Lt. SWxS$\frac{1}{4}$S 4$\frac{1}{2}$ mi.	--	Oct. 9	2:35 P.M.	8.0	sft.	67.5	0 botm	65.5 65.5	0 botm	1.020 1.0202	7' B.T., B. dr.	botm	-	NE$\frac{1}{2}$E	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1890.

11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1617	Stratford Pt. Lt. WxN½N 1⅔ mi. Middle Ground Lt. SWxS⅔S 5½ mi.	--	Oct. 9	3:00 P.M.	7.0	sft.	63,0	0 botm	65.0 65.5	0 botm	1.0198 1.0202	7' B.T., B. dr.	botm	-	NE	0.125	
1618	Stratford Pt. Lt. WxS 1-7/8 mi. Middle Ground Lt. SWxS⅔S 6½ mi.	--	Oct. 10	10:28 A.M.	6.0	sft.	67.0	0 botm	66.0 65.5	0 botm	1.0202 1.0204	7' B.T., B. dr.	botm	-	W½S	0.125	
1619	Stratford Pt. Lt. SWx½W 2 mi. Middle Ground Lt. SSW 7 mi.	--	Oct. 10	10:45 A.M.	6.0	sft.	67.0	0 botm	65.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	SxE½E	0.125	
1620	Stratford Pt. Lt. SWxW 2-3/8 mi. Middle Ground Lt. SSW 7-3/8 mi.	--	Oct. 10	11:04 A.M.	6.0	sft.	66.0	0 botm	63.0 63.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	SE⅔E	0.125	
1621	Stratford Pt. Lt. SW½W 2-5/8 mi. Middle Ground Lt. SSW 7⅔ mi.	--	Oct. 10	11:25 A.M.	4.3	hrd.	63.0	0 botm	63.0 63.0	0 botm	1.0202 1.0204	Dr.	botm	-	NW⅔N	0.125	
1622	Bridgeport Lt. NxE⅔E 3⅓ mi. Penfield Reef Lt. NW 1-5/8 mi.	--	Oct. 11	11:15 A.M.	9.0	sft.	66.0	0 botm	64.0 65.0	0 botm	1.0198 1.0202	7' B. T., B. dr.	botm	-	E⅔N	0.25	
1623	Bridgeport Lt. NExN½N 4 mi. Penfield Reef Lt, N⅔W 1-3/8 mi.	--	Oct. 11	11:45 A.M.	10.0	sft.	67.0	0 botm	65.0 65.0	0 botm	1.0202 1.0202	7' B. T., B. dr.	botm	-	ExN½N	0.25	
1624	Bridgeport Lt. NExN½N 2-1/8 mi. Penfield Reef Lt. W⅔S 1½ mi.	--	Oct 11	12:20 P.M.	5.6	sft.	65.0	0 botm	64.0 64.0	0 botm	1.019 1.0202	7' B. T., B. dr.	botm	-	ENE	0.25	
1625	Stratford Pt. Lt. SWx½W 3 mi. Middle Ground Lt. SWxS⅔S 7⅔ mi.	--	Oct. 13	10:45 A.M.	5.8	hrd.	62.0	0 botm	63.0 62.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	WxS⅔S	0.125	
1626	Stratford Pt. Lt. WSW 2½ mi. Middle Ground Lt. SWxS½S 7 mi.	--	Oct. 13	11:03 A.M.	6.6	sft.	63.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	NW⅔W	0.125	
1627	Stratford Pt. Lt. W7/8 S 2-3/8 mi. Middle Ground Lt. SWxS½S 6⅔ mi.	--	Oct. 13	11:20 A.M.	7.0	sft.	60.0	0 botm	64.5 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	SSW	0.125	
1628	Stratford Pt. Lt. W½N 2½ mi. Middle Ground Lt. SWxS½S 6½ mi.	--	Oct. 13	11:40 A.M.	7.3	sft.	60.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	ENE	0.125	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1890.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.)	Tidal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1629	Stratford Pt. Lt. WxN½N 2 mi. Middle Ground Lt. SWxS 5¾ mi.	--	Oct. 13	11:5 6 A.M.	6.0	sft.	62.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	NxE½E	0.25	
1630	Stratford Pt. Lt. WxN 2¾ mi. Middle Ground Lt. SW½S 6 mi.	--	Oct. 13	12:12 P.M.	6.3	sft.	64.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7'. B. T., B. dr.	botm	-	NE½E	0.25	
1631	Stratford Pt. Lt. W 2¾ mi. Middle Ground Lt. SWxS 6½ mi.	--	Oct. 13	12:30 P.M.	7.6	sft.	65.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	NNxE½E	0.125	
1632	Stratford Pt. Lt. WxS 2-7/8 mi. Middle Ground Lt. SWxS 7 mi.	--	Oct. 13	1:10 P.M.	7.0	sft.	63.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7'. B. T., B. dr.	botm	-	NxE	0.25	
1633	Stratford Pt. Lt. WxS5/8S 3 mi. Middle Ground Lt. SWxS½S 7½ mi.	--	Oct. 13	1:30 P.M.	5.8	sft.	64.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7'. B. T., B. dr.	botm	-	NNE	0.25	
1634	Stratford Pt. Lt. SWx½W 3½ mi. Middle Ground Lt. SWxS½S 7¾ mi.	--	Oct. 13	1:50 P.M.	5.6	sft.	67.0	0 botm	64.0 63.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	SE½E	0.125	
1635	Stratford Pt. Lt. SW½W 3¾ mi. Middle Ground Lt. SWxS½S 8½ mi.	--	Oct. 13	2:10 P.M.	3.8	hrd.	68.0	0 botm	62.0 62.0	0 botm	1.0202 1.0204	7'. B. T., B. dr.	botm	-	S½E	0.125	
1636	Stratford Pt. Lt. SWx½W 4½ mi. Middle Ground Lt. SWxS½S 9 mi.	--	Oct. 13	2:35 P.M.	4.0	sft.	62.0	0 botm	62.0 62.0	0 botm	1.0202 1.0204	7' B. T. , B. dr.	botm	-	S½E	0.125	
1637	Stratford Pt. Lt. SWx½W 2½ mi. Middle Ground Lt. SWxS 8½ mi.	--	Oct. 13	2:50 P.M.	4.8	hrd.	63.0	0 botm	65.0 65.0	0 botm	1.0202 1.0202	7' B. T., B. dr.	botm	-	NxE	0.125	
1638	Stratford Pt. Lt. WxS½S 2 mi. Middle Ground Lt. SWxS 8 mi.	--	Oct. 13	3:05 P.M.	5.6	sft.	63.0	0 botm	64.0 64.0	0 botm	1.0202 1.0204	7' B. T., B. dr.	botm	-	NNxE	0.125	

RECORD OF WINYAH BAY, SOUTH CAROLINA INVESTIGATION BY FISH HAWK 1891.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1639	½ mile N of wharf on South Island	--	Jan. 3	10:00 A.M.	4.0	hrd. S.	54.0	0 botm	46.0 48.5	0 botm	1.0008 1.0084	7' B. T., Oys. dr.	bot	-	--	--	
1640	do	--	Jan. 3	10:45 A.M.	5.3	crs. br. S.	48.0	0 botm	47.0 50.0	0 botm	1.0012 1.0135	Lrg. & sml. Oys. dr.	bot	-	--	--	
1641	do	--	Jan. 3	11:00 A.M.	4.5	hrd.S. Sh.	46.0	0 botm	47.0 49.5	0 botm	1.0012 1.0115	do.	bot	-	--	--	
1642	400 yds. E. of wharf on South Island	--	Jan. 3	11:30 A.M.	5.0	hrd.	48.0	0 botm	48.0 50.0	0 botm	1.0052 1.0105	do.	bot	-	--	--	
1643	400 yds. SSW of wreck buoy	--	Jan. 3	11:50 A.M.	5.0	hrd. S.	56.0	0 botm	49.0 50.5	0 botm	1.0094 1.0180	do.	bot	-	--	--	
1644	½ mi. N of wharf on South Island	--	Jan. 3	12.00 M.	4.8	hrd.	56.5	0 botm	50.0 51.0	0 botm	1.0082 1.0170	do.	bot	-	--	--	
	COOPER RIVER, S. C.																
1645	½ mi. above mouth. 300 yds. from marsh, S. side	--	Jan. 16	10:05 A.M.	2.6	sft.	62.0	0 botm	49.0 51.0	0 botm	1.0206 1.0209	Oys. dr., B. dr.	bot	-	up stream	0.09	
1646	300 yds above Lt. Ho. wharf, lower entrance	--	Jan. 16	10:16 A.M.	5.0	hrd. C.	64.0	0 botm	50.0 50.0	0 botm	1.0205 1.0207	do.	bot	-	up stream	0.05	
1647	400 yds. off Lt. Ho. wharf	--	Jan. 16	10:20 A.M.	4.6	hrd. C.	58.0	0 botm	51.0 50.0	0 botm	1.0247 1.0247	do.	bot	-	do.	0.05	
	CALIBOGUE SOUND, S.C.																
1648	800 yds. off Lt. Ho. wharf	--	Jan. 16	10:45 A.M.	8.3	sft.	56.0	0 botm	53.0 52.0	0 botm	1.0211 1.0211	Dr.	bot	-	do.	0.06	
1649	Southern Beacon abeam	--	Jan. 16	11:00 A.M.	7.0	sft.	57.0	0 botm	49.5 50.0	0 botm	1.0206 1.0215	Dr.	bot	-	do.	0.05	
1650	Midway and on line between Marsh and Buck Islands	--	Jan. 16	11:30 A.M.	6.6	hrd.	62.0	0 botm	49.5 51.0	0 botm	1.0208 1.0207	Dr.	bot	-	do	0.06	
1651	Off S end of May River	--	Jan. 16	11:43 A.M.	10.0	hrd.	61.0	0 botm	49.5 51.0	0 botm	1.0206 1.0207	Dr.	bot	-	do.	0.06	
	PORT ROYAL SOUND, S.C.																
1652	300 yds. off Seabrook Village	--	Jan. 21	8:50 A.M.	5.0	hrd. gy. C.	56.0	0 botm	50.0 50.1	0 botm	1.0215 1.0216	Dr.	bot	-	----	0.02	
1653	Off Skull Creek.	--	Jan. 21	9:10 A.M.	5.0	hrd.	53.0	0 botm	49.5 49.0	0 botm	1.0225 1.0225	Dr.	bot	-	down stream	0.02	
1654	Chechessee River, off Makay's Creek	--	Jan. 21	9:25 A.M.	4.0	hrd.	52.0	0 botm	49.0 50.0	0 botm	1.0224 1.0227	Dr.	bot	-	do.	0.02	
	~~NORTH EDISTO RIVER~~, S. C.																

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1891. 38

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	NORTH EDISTO RIVER, S. C.																
1655	Off entrance to Russell Creek.	--	Mch. 4	9:15 A.M.	5.3	hrd.	64.0	0 botm	58.0 58.0	0 botm	1.0205 1.0213	Dr.	botm	-	Up stream	0.02	
1656	Off mouth of Leadenwah Creek.	--	Mch. 4	9:30 A.M.	6.8	hrd.	63.0	0 botm	57.0 58.0	0 botm	1.0188 1.0215	Dr.	botm	-	do.	0.02	
	CHARLESTON HARBOR, S. C.																
1657	Charleston Harbor	--	Mch. 13	10:50 A. M.	4.0	sft.	63.0	0 botm	58.0 58.0	0 botm	1.0238 1.0238	7' B. T.	botm	-	do.	0.05	
1658	do.	--	Mch 13	11:10 A.M.	7.0	stk.	63.0	0 botm	58.0 58.0	0 botm	1.0236 1.0236	7' B. T.	botm	-	------	------	
1659	do.	--	Mch. 13	11:30 A.M.	7.8	stk.	62.0	0 botm	57.5 58.0	0 botm	1.0238 1.0238	7' B. T.	botm	-	------	------	
	VINEYARD SOUND, Mass.		1892														
1660	Nobska Lt. NE½E 11 mi. Tarpaulin Cove Lt. NNE 6½ mi.	--	Aug. 20	10:30 A.M.	6.5	hrd.	74.0	0 botm	70.0 70.0	0 botm	1.0234 1.0234	7' B. T.	botm	-	NE	0.25	
1661	Gay Head Lt. WxS 3/8 S 2½ mi. Tarpaulin Cove Lt. NNE 6-1/8 mi.	--	Aug. 20	10:45 A.M.	7.0	hrd.	74.0	0 botm	69.0 69.0	0 botm	1.0236 1.0240	7' B. T.	botm	-	NE	0,25	
1662	Nobska Lt. NExE½E 10 mi. W end Pasque Is. N½W 1-7/8 mi.	--	Aug. 20	11:10 A.M.	10.5	hrd.	74.0	0 botm	69.0 69.0	0 botm	1.0236 1.0238	7' B. T.	botm	-	SW	0.25	
1663	Gay Head Lt. S¾E 2¾mi. W end Nashawena Is. NWxW 2 mi.	--	Aug. 20	11:45 A.M.	13.0	hrd.	74.0	0 botm	70.0 69.0	0 botm	1.0236 1.0238	7' B. T.	botm	-	SW	0.50	
1664	Vineyard Sd. Lt. Shp. W 1/8 S 8¾ mi. Gay Head Lt. S 7/8 E 3¾ mi.	--	Aug. 20	12:45 P.M.	9.5	hrd.	73.0	0 botm	69.0 68.0	0 botm	1.0238 1.0240	7' B. T.	botm	-	SW	3.0	
1665	Vineyard Sd. Lt. Shp. W¾S 8¾ mi. Gay Head Lt. SxW½W 4¾ mi.	--	Aug. 20	1:35 P.M.	10.0	hrd.	72.0	0 botm	69.0 68.0	0 botm	1.0238 1.0240	7' B. T.	botm	-	W	0.125	
1666	Gay Head Lt. ExS¾S 1¾ mi. Cuttyhunk Lt. NWxN 4-7/8 mi.	--	Aug. 22	10:55 A.M.	13.0	hrd.	74.0	0 botm	69,0 68.5	0 botm	1.0238 1.0240	7' B. T.	botm	-	E	0.125	
1667	Gay Head Lt. ExS½S 2½ mi. Cuttyhunk Lt. NWxN½N 4½ mi.	--	Aug. 22	11:35 A.M.	17.0	sft.	73.0	0 botm	69.0 68.0	0 botm	1.0238 1.0240	7' B. T.	botm	-	E	0.125	

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1668	Gay Head Lt. E½S 4¾ mi. Cuttyhunk Lt. N½E 4½ mi.	-	Aug. 22	12:15 P.M.	15.0	sft.	74.0	0 botm	69.0 68.0	0 botm	1.0238 1.0240	7' B. T.	botm	-	E	0.125	
1669	Gay Head Lt. SW½S 1-5/8 mi. W end Pasque Is. N½W 4½ mi.	-	Aug. 22	2:00 P.M.	13.0	hrd;	75.0	0 botm	69.0 68.0	0 botm	1.0240 1.0242	7' B. T.	botm	-	NE	0.25	
1670	Gay Head Lt. W 3/8 S 2-5/8 mi. W end Pasque Is. NxW½W 5-5/8 mi.	-	Aug. 22	2:35 P.M.	4.0	sft.	76.0	0 botm	70.0 69.0	0 botm	1.0234 1.0238	7'. B. T.	botm	-	NE	0.50	
1671	Gay Head Lt. SWxW 7/8 W 2-1/8 mi. W end Pasque Is. NxW½W 5-5/8 mi.	-	Aug. 22	3:00,P.M.	9.0	hrd.	75.0	0 botm	69.0 68.0	0 botm	1.0236 1.0240	7' B. T.	botm	-	SW	0.50	
1672	Cape Poge Lt. ExS½S 3 mi. Buoy 19, Squash Inlet NExN½N 2-1/8 mi.	-	Aug. 23	11:15 A.M.	4.0	hrd. S.	74.0	0 botm	72.0 72.0	0 botm	1.0236 1.0236	7' B. T.	botm	-	SxW	0.125	
1673	Cape Poge Lt. ExS½S 3-1/8 mi. Buoy 19, Squash Inlet NExN 2 mi.	-	Aug. 23	11:30 A.M.	4.0	hrd. S. Sh.	74.0	0 botm	72.0 72.0	0 botm	1.0236 1.0236	7' B. T.	botm	-	SxW	0.125	
1674	Cape Poge Lt. SExE½E 2½ mi. Buoy 19, Squash Inlet NxE½E 2-7/8 mi.	-	Aug. 23	12:00 M.	3.3	hrd;	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	SSW	0.50	
1675	Cape Poge Lt. SExE 5/8 E 2-7/8 mi. East Buoy, Hedge Fence NNE½E 2½ mi.	-	Aug. 23	12:35 P.M.	5.0	hrd.	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	SSW	0.50	
1676	East Chop Lt. WxN½N 4 mi. Edgartown Lt. SSW½W 4¾ mi.	-	Aug. 23	1:20 P.M.	9.0	hrd.	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	W	0.25	
1677	East Chop Lt. WxN½N 5¾ mi. Cape Poge Lt. SxW 2¾ mi.	-	Aug. 23	2:15 P.M.	11.0	hrd.	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	SW	0.25	
1678	East Chop Lt. NWxN½N 2-3/8 mi. Cape Poge Lt. SE½E 4 mi.	-	Aug. 23	2:45 P.M.	5.5	hrd.	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	WSW	0.50	
1679	Cape Poge Lt. SExE 5/8 E 4 mi. Buoy 19, Squash Inlet NExE½E 1 mi.	-	Aug. 23	3:10 P.M.	5.6	hrd.	74.0	0 botm	73.0 73.0	0 botm	1.0232 1.0232	7' B. T.	botm	-	W	0.50	

Form 625.

RECORD OF BUZZARDS BAY, VINEYARD SOUND and LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892 40

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tbsl. Depth. (fms.)	Tbsl. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1680	Bird Is. Lt. NxW¼W 1⅜ mi. Wings Neck Lt. NE½E 2-3/8 mi.	-	Aug. 29	3:20 P.M.	4.5	hrd.	65.0	0 botm	69.0 73.0	0 botm	1.0230 1.0230	7' B. T.	botm	-	S	0.25	
	VINEYARD SOUND																
1681	Nobska Pt. Lt. SW 1/8 W 2 mi. West Chop Lt. S¼E 2½ mi.	-	Sep. 3	10:45 A.M.	3.5	hrd.	66.0	0 botm	68.0 66.0	0 botm	1.0240 1.0240	7' B. T.	botm	-	W	0.25	
1682	Nobska Pt. Lt. SWxW¾W 1¼ mi. West Chop Lt. SxE¾E 2¼ mi.	-	Sep. 3	11:00 A.M.	5.5	hrd.	66.0	0 botm	68.0 68.0	0 botm	1.0240 1.0238	7' B. T.	botm	-	W	0.50	
1683	Nobska Pt. Lt. W 3/8 S 4¾ mi. East Chop Lt. SxW 7/8 W 4 mi.	-	Sep. 3	11:50 A.M.	4.5	hrd.	70.0	0 botm	68.0 68.0	0 botm	1.0240 1.0236	7' B. T.	botm	-	SSW	0.25	
1684	East Chop Lt. WSW 6-3/8 mi. Cape Poge Lt. NxE 6-3/8 mi.	-	Sep. 3	12:50 P.M.	7.0	hrd.	70.0	0 botm	69.0 69.0	0 botm	1.0238 1.0238	7' B. T.	botm	-	SW	0.25	
	LONG ISLAND SOUND																
1685	Falkner Is. Lt. N 3/8 E 1-3/8 mi. Horton Point Lt. SE½S 10¾ mi.	-	Sep. 9	1:10 P.M.	15.0	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0212 1.0212	7' B. T.	botm	-	E S/SE	0.375	
1686	Falkner Is. Lt. N 1-7/8 mi. Branford Beacon NWxW 5/8 W 7½ mi.	-	Sep. 9	1:40 P.M.	16.0	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	ExN½N	0.375	
1687	Falkner Is. Lt. N½E 2-3/8 mi. Branford Beacon NWxW 1/8 W 7¾ mi.	-	Sep. 9	2:05 P.M.	17.0	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	E S/S S	0.375	
1688	Falkner Is. Lt. N 1/8 E 2-7/8 mi. Branford Beacon NWxW 8 mi.	-	Sep. 9	2:35 P.M.	16.5	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	E½N	0.375	
1689	Falkner Is. Lt. N 3½ mi. Branford Beacon NW 5/8 N 8½ mi.	-	Sep. 9	3:00 P.M.	15.5	hrd.	72.0	0 botm	70.0 70.0	0 botm	1.0208 1.0208	7' B. T.	botm	-	E½S	0.50	
1690	Falkner Is. Lt. N 4 mi. Branford Beacon NW 3/8 W 8-5/8 mi.	-	Sep. 9	3:30 P.M.	15.0	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0208 1.0208	7' B. T.	botm	-	E½N	0.50	
1691	Falkner Is. Lt. N 4½ mi. Horton Pt. Lt. SExE½E 9½ mi.	-	Sep. 9	4:00 P.M.	14.9	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0208 1.0208	7' B. T.	botm	-	E½N	0.50	
1692	Falkner Is. Lt. NW 5/8 N 2½ mi. Goose Is. NW¾W 1-7/8 mi.	-	Sep. 10	10:05 A.M.	14.0	hrd.	65.0	0 botm	70.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SE½E	0.50	

Form 625.

RECORD OF ~~LONG ISLAND SOUND~~ INVESTIGATION BY FISH HAWK ~~19~~ 1892.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tbal. Depth. (fms.)	Tbal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1693	Falkner Is. Lt. NE½E 2-3/8 mi. Branford Beacon NW½W 5¾ mi.	-	Sep. 10	10:50 A.M.	14.0	sft.	65.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	WxN½N	0.375	
1694	Falkner Is. Lt. ENE 3/8 E 4⅜ mi. Branford Beacon NW 7/8 W 3¾ mi.	-	Sep. 10	11:30 A.M.	11.0	sft.	65.0	0 botm	70.0 70.0	0 botm	1.0208 1.0210	7' B. T.	botm	-	NxW½W	0.25	
1695	Old Tower N 3/8 E 4⅜ mi. S. W. Ledge Lt. N½W 4 mi.	-	Sep. 16	11:48 A.M.	9.0	sft.	69.0	0 botm	69.0 69.5	0 botm	1.0208 1.0210	7' B. T.	botm	-	SE	0.375	
1696	Falkner Is. Lt. WxN 3/8 N 1¾ MI. Madison Spire NNE 3/8 E 5-7/8 mi.	-	Sep. 17	11:15 A.M.	13.3	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0214 1.0218	7' B. T.	botm	-	E½N	0.375	
1697	Falkner Is. Lt. N½W 2-5/8 mi. Madison Spire NNE½E 6-5/8 mi.	-	Sep. 17	11:45 A.M.	16.0	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0214 1.0216	Ch. Rk. Dr.	botm	-	ExS½S	0.375	
1698	Falkner Is. Lt. N 3/8 W 2⅜ mi. Madison Spire NNE 1/8 E 6⅜ mi.	-	Sep. 17	12:10 P.M.	16.0	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0212 1.0214	Ch. Rk. Dr.	botm	-	SE½E	0.625	
1699	Branford Beacon NW½W 9½ mi. S. W. Ledge Lt. NWxW 1/8 W 13 mi.	-	Sep. 17	12:35 P.M.	15.0	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0212 1.0214	Ch. Rk. Dr.	botm	-	NExN1/8E	0.375	
1700	Falkner Is. Lt. NW½N 2-3/8 mi. Madison Spire NxE½E 5-5/8 mi.	-	Sep. 17	1:15 P.M.	13.3	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0210 1.0214	Ch. Rk. Dr.	botm	-	E 3/8 N	0.25	
1701	Falkner Is. Lt. NWxN 2-7/8 mi. Madison Spire NxE 1/8 E. 6-1/8 mi.	-	Sep. 17	1:30 P.M.	15.5	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0210 1.0214	Ch. Rk. Dr.	botm	-	ENE	0.50	
1702	Cornfield Pt. Lt. Shp. E 7/8 N 10-7/8 mi. Falkner Is. Lt. NNW 5/8 W 3-5/8 mi.	-	Sep. 17	2:00 P.M.	15.0	sft.	69.0	0 botm	70.0 70.0	0 botm	1.0210 1.0214	Ch. Rk/ Dr.	botm	-	E½S	0.375	
1703	Cornfield Pt. Lt. Shp. ENE½E 10⅜ mi. Falkner Is. Lt. NNW½W 4-3/8 mi.	-	Sep. 17	2:25 P.M.	15.0	sft.	69.0	0 botm	70.0 70.0	0 botm	1.0210 1.0214	Ch. Rk. Dr.	botm	-	ExS½S	0.375	

Form 625. 42

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1704	Branford Beacon NNW½W 4-3/8 mi. Falkner Is. Lt. NExE 5/8 E 5 mi.	-	Sep. 17	3:40 P.M.	13.5	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0212 1.0212	Ch. Rk. Dr.	botm	-	SExE/8E	0.125	
1705	Branford Beacon NxE½E 2¾ mi. Falkner Is. Lt. E¾N 7-5/8 mi.	-	Sep. 17	4:15 P.M.	9.6	sft.	68.0	0 botm	70.0 70.0	0 botm	1.0308 1.0212	Ch. Rk. Dr.	botm	-	SE½E	0.125	
1706	Branford Beacon E½N 2¾ mi. S. W. Ledge Lt. NW 5/8 N 2¼ mi.	-	Sep. 20	10:12 A.M.	9.0	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NE7/8E	0.50	
1707	Branford Beacon ExN3/8N 2-7/8 mi. S. W. Ledge Lt. NWxN3/8N 2-3/8 mi.	-	Sep. 20	10:30 A.M.	9.5	sft.	67.0	0 botm	69.0 69.0	0 bomt	1.0210 1.0212	7' B. T.	botm	-	NE5/8N	0.25	
1708	Branford Beacon NExE5/8E 3¼ mi. S. W. Ledge Lt. NW 7/8 N 2-3/8 mi.	-	Sep. 20	10:50 A.M.	9.6	sft.	67.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NE5/8N	0.25	
1709	Branford Beacon NE5/8E 3¾ mi. S. W. Ledge Lt. NWxN3/8N 2-3/8 mi.	-	Sep. 20	11:15 P.M.	10.0	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NE5/8N	0.25	
1710	Branford Beacon NE 1/8N 4¼ mi. S. W. Ledge Lt. NxW½W 4-7/8 mi.	-	Sep. 20	11:35 A.M.	11.6	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NxE½E	0.25	
1711	Branford Beacon NE½N 4½ mi. S. W. Ledge Lt. NxW½W 5-3/8 mi.	-	Sep. 20	12:00 M.	12.3	sft.	67.0	0 botm	69.0 69.0	0 botm	1.0210 1.0214	7' B. T.	botm	-	NNxE½E	0.25	
1712	Branford Beacon NExN 4¾ mi. S. W. Ledge Lt. NxW½W 5-3/8 mi.	-	Sep. 20	12:25 P.M.	13.3	sft.	67.0	0 botm	69.0 69.0	0 botm	1.0210 1.0214	7' B. T.	botm	-	NExE½E	0.25	
1713	Branford Beacon NNE5/8E 5-3/8 mi. S. W. Ledge Lt. NxW 7/8 W 6-1/8 mi.	-	Sep. 20	12:53 P.M.	14.6	sft.	69.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NE	0.375	
1714	Branford Beacon NNE½E 6-5/8 mi. S. W. Ledge Lt. NxW 7/8 W 6½ mi.	-	Sep. 20	1:20 P.M.	15.0	sft.	69.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NNE½E	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1715	Branford Beacon E 1/8 N 1-5/8 mi. S. W. Ledge Lt. NWxW 5/8 W 3½ mi.	-	Sep. 20	2:25 P.M.	7.3	hrd.	69.0	0 botm	69.0 69.0	0 botm	1.0204 1.0210	7' B. T.	botm	-	SExE½E	0.50	
1716	Branford Beacon NExE 1/8 E 1-5/8 mi. S. W. Ledge Lt. NW 5/8 W 4 mi.	-	Sep. 20	2:50 P.M.	7.8	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	Ch. Rk. Dr.	botm	-	NNxE½E	0.375	
1717	Branford Beacon NE½E 2-1/8 mi. S. W. Ledge Lt. NW 4¼ mi.	-	Sep. 20	3:15 P.M.	8.6	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	ExN	0.375	
1718	Branford Beacon NE½N 2¾ mi. S. W. Ledge Lt. NW 5/8 N 4¾ mi.	-	Sep. 20	3:35 P.M.	9.5	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0214	7' B. T.	botm	-	E 7/8 N	0.25	
1719	Branford Beacon NNE½E 3-5/8 mi. S. W. Ledge Lt. NWxN 1/8N 4½ mi.	-	Sep. 20	4:03 P.M.	10.5	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0208 1.0210	7' B. T.	botm	-	NExE½E	0.25	
1720	Branford Beacon NNE 1/8 E 4-3/8 mi. S. W. Ledge Lt. NNW 3/8 W 6-1/8mi.	-	Sep. 20	4:30 P.M.	12.3	sft.	65.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SE 7/8 E	0.375	
1721	Branford Beacon N½E ½ mi. S. W. Ledge Lt. NWxW 7/8 W 5 mi.	-	Sep. 21	8:23 A.M.	8.3	sft.	58.0	0 botm	67.0 67.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	W 7/8 S	0.25	
1722	Branford Beacon N½E 1½ mi. S. W. Ledge Lt. NWxW 1/8 W 5½ mi.	-	Sep. 21	8:35 A.M.	8.6	sft.	58.0	0 botm	67.0 67.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NWxW 3/8W	0.25	
1723	Branford Beacon N½E 2 mi. S. W. Ledge Lt. NW½W 5-5/8 mi.	-	Sep. 21	9:05 A.M.	9.6	sft.	62.0	0 botm	68.0 68.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NW½W	0.25	
1724	Branford Beacon N 7/8 E 1-7/8 mi. S. W. Ledge Lt. NW5/8W 5-5/8 mi.	-	Sep. 21	9:25 A.M.	9.8	sft.	63.0	0 botm	68.0 68.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	W½N	0.25	
1725	Branford Beacon N½E 2-7/8 mi. S.W. Ledge Lt. NW 6-1/8 m.	-	Sep. 21	9:50 A.M.	11.0	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NW 1/8W	0.25	
1726	Branford Beacon N 3/8 E 3-1/8 mi. S.W. Ledge Lt. NW½N 6½ mi.	-	Sep. 21	10:15 A.M.	12.3	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	NW	0.25	
1727	Branford Beacon N½E 3-5/8 mi S. W. Ledge Lt. NW½N 6¾ mi.	-	Sep. 21	10:30 A.M.	18.0	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	NW	0.25	
1728	Branford Beacon N½E 4½ mi. S. W. Ledge Lt. NW 5/8 N 7-1/8 mi.	-	Sep. 21	10:50 A.M.	14.6	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	WxN	0.125	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892. 44

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1729	Branford Beacon N¼W 4 mi. S. W. Ledge Lt. NW 3/8 N 7-3/8 mi.	-	Sep. 21	11:15 A.M.	14.5	sft.	64.0	0 botm	69.0 68.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SxW½W	0.125	
1730	Branford Beacon N 7/8 W 4¼ MI. S. W. Ledge Lt. NW¼N 7¾ mi.	-	Sep. 21	11:40 A.M.	14.6	sft.	70.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	WxN½N	0.125	
1731	Branford Beacon N 7/8 W 3-3/8 mi. S. W. Ledge Lt. NW 1/8 W 7¼ mi.	-	Sep. 21	11:56 A.M.	12.5	sft.	70.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SxE½E	0.125	
1732	Branford Beacon NxW¼W 2¾ mi. S. W. Ledge Lt. NW½W 6-7/8 mi.	-	Sep. 21	12:15 P.M.	11.0	sft.	70.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SE 5/8E	0.125	
1733	Branford Beacon NxW½W 2¼ mi. S. W. Ledge Lt. NW 7/8 W 6½ mi.	-	Sep. 21	12:35 P.M.	10.0	sft.	71.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SSE½E	0.25	
1734	Branford Beacon NNW¾W 1-5/8 mi. S. W. Ledge Lt. NWxW 3/8 W 6-1/8 mi.	-	Sep. 21	12:55 P.M.	8.8	sft.	71.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SE½E	0.25	
1735	Branford Beacon NNW 5/8 W 1 mi. S. W. Ledge Lt. NWxW¾W 5-7/8 mi.	-	Sep. 21	1:20 P.M.	8.0	sft.	71.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SExE½E	0.25	
1736	Branford Beacon NW5/8N 1¼ mi. S. W. Ledge Lt. NWxW7/8W 6 mi.	-	Sep. 21	1:35 P.M.	8.0	sft.	71.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	SE 1/8E	0.25	
1737	Branford Beacon NW 1.8 N 1-5/8 mi. S. W. Ledge Lt. NWxW7/8W 6¼ mi.	-	Sep. 21	1:45 P.M.	8.0	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	ExS7/8S	0.25	
1738	Branford Beacon N 5/8 E 1-7/8 mi. S. W. Ledge Lt. NW5/8W 5-5/8 mi.	-	Sep. 21	2:30 P.M.	9.0	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	E½S	0.25	
1739	Branford Beacon N 1-7/8 mi S. W. Ledge Lt. NW¾W 5¾ mi.	-	Sep. 21	2:50 P.M.	9.0	sft.	72.0	0 botm	70.0 70.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	E	0.25	
1740	Branford Beacon NxE 1¾ mi. S. W. Ledge Lt. NW 5/8 W 5½ mi.	-	Sep. 21	3:10 P.M.	9.0	sft.	71.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	ExS½S	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 1892. 45

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1741	Branford Beacon NNE 1-7/8 mi. S. W. Ledge Lt. NW½W 5 mi.	-	Sep. 21	3:30 P.M.	8.6	sft.	71.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	ExS½S	0.25	
1742	Branford Beacon NNW 7/8 W ½ mi. S. W. Ledge Lt. WxN 7/8 N 5¼ mi.	-	Sep. 22	11:30 A.M.	8.6	sft.	68.0	0 botm	69.0 69.0	0 botm	1.0210 1.0210	7' B. T.	botm	-	WxN 7/8N	0.125	
1743	Branford Beacon NW¼N ½mi. S. W. Ledge Lt. WNW 5-3/8 mi.	-	Sep. 22	11:40 A.M.	8.5	sft.	68.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NWx5/8W	0.125	
1744	Branford Beacon NW 1/8N ¾ mi. S. W. Ledge Lt. WNW 5-5/8 mi.	-	Sep. 22	11:52 A.M.	8.8	sft.	69.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NW 5/8 W	0.125	
1745	Branford Beacon NW½N 1 mi. S. W. Ledge Lt. NWxW 7/8 W 5¾ mi.	-	Sep. 22	12:00 M	8.6	sft.	69.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	E¼N	0.125	
1746	Branford Beacon NNW 1/8 W 1-1/8 mi. S. W. Ledge Lt. NWxW 5/8 W 5-5/8 mi.	-	Sep. 22	12:15 P.M.	8.8	sft/	69.0	0 botm	69.0 69.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NExE5/8E	0.25	
1747	Branford Beacon NxW½W 1½ mi. S. W. Ledge Lt. NWxW3/8W 5-7/8 mi.	-	Sep. 22	12:40 P.M.	9.0	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	ExS	0.375	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892 46

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1748	Branford Beacon N¾E 1-7/8 mi. S. W. Ledge Lt. NW 3/8 W 5-5/8 mi.	-	Sep. 22	1:10 P.M.	9.6	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0212 1.0212	7' B. T.	botm	-	E3/8S	0.25	
1749	Branford Beacon NE¾N 2½ mi. S. W. Ledge Lt. NW3/8N 4¾ mi.	-	Sep. 22	1:45 P.M.	9.6	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	E½S	0.25	
1750	Branford Beacon NNE½E 2-3/8 mi. S. W. Ledge Lt. NW 1/8N 5 mi.	-	Sep. 22	2:07 P.M.	9.6	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	SE¾E	0.25	
1751	Branford Beacon NE3/8E 3¼ mi. S. W. Ledge Lt. NNW½W 4¼ mi.	-	Sep. 22	2:35 P.M.	9.5	sft.	70.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	E 5/8 S	0.25	
1752	Branford Beacon NExE7/8E 3-3/8 mi. S. W. Ledge Lt. NNW3/8W 3¼ mi.	-	Sep. 22	3:00 P.M.	9.0	sft.	69.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	ExS3/8S	0.375	
1753	Branford Beacon W 1/8 N 1-5/8 mi. S. W. Ledge Lt. WxN7/8N 6½ mi.	-	Sep. 23	11:05 A.M.	8.0	sft.	73.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	WSW	0.625	
1754	Branford Beacon WNW¾W 1-5/8 mi. S. W. Ledge Lt. WxN½N 6½ mi.	-	Sep. 23	11:22 A.M.	7.9	sft.	73.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NxW¾W	0.125	
1755	Branford Beacon NWxW5/8W 1-5/8 mi. S. W. Ledge Lt. WxN7/8N 6½ mi.	-	Sep. 23	11:35 A.M.	8.3	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NW 3/8W	0.25	
1756	Branford Beacon NWxW7/8W ¾ mi. S. W. Ledge Lt. WxN7/8N 6¼ mi.	-	Sep. 23	11:45 A.M.	8.3	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0210 1.0212	7' B. T.	botm	-	NW 7/8 W	0.125	
1757	Branford Beacon NW¼N 1¾ Mi. S. W. Ledge Lt. NWxW5/8W 6½ mi.	-	Sep. 23	12:05 P.M.	8.3	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0210 1.0220	7' B. T.	botm	-	N 1/8 E	0.125	
1758	Branford Beacon NW 1¼ mi. S. W. Ledge Lt. NWxW¾W 6-5/8 mi.	-	Sep. 23	12:20 P.M.	8.0	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0212 1.0220	7' B. T.	botm	-	NW 1/8 N	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK FY 1892. 47.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1759	Branford Beacon NNW7/8W 2½ mi. S. W. Ledge Lt. NWxW1/8W 7 mi.	-	Sep. 23	12:40 P.M.	9.6	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0212 1.0220	7' B. T.	botm	-	N 5/8 E	0.25	
1760	Branford Beacon NNW5/8W 2¾ mi. S. W. Ledge Lt. NW½W 7-1/8 mi.	Q	Sep. 23	12:55 P.M.	10.0	sft.	74.0	0 botm	70.0 70.0	0 botm	1.0212 1.0214	7' B. T.	botm	-	N½E	0.125	
1761	Branford Beacon W 3/8 N 2-1/8 mi. S. W. Ledge Lt. WxN¼N 7-1/8 mi.	-	Sep. 29.	10:30 A.M.	6.6	sft.	58.0	0 botm	67.0 66.0	0 botm	1.0214 1.0214	7' B. T.	botm	-	SxW½W	0.125	
1762	Branford Beacon W7/8N 2½ mi. S. W. Ledge Lt. WxN3/8N 7½ mi.	-	Sep. 29	10:45 A.M.	7.0	sft.	60.0	0 botm	67.0 66.0	0 botm	1.0214 1.0214	7' B. T.	botm	-	W 7/8 N	0.25	
1763	Branford Beacon NWxW¾W 2½ mi. S. W. Ledge Lt. WxN7/8N 7½ mi.	-	Sep. 29	11:00 A.M.	7.0	sft.	64.0	0 botm	67.0 66.0	0 botm	1.0214 1.0214	7' B. T.	botm	-	NxE7/8E	0.125	
1764	Branford Beacon NW¾W 2¾ mi. S. W. Ledge Lt. NWxW¾W 7¾ mi.	-	Sep. 29	11:20 A.M.	7.6	sft.	65.0	0 botm	67.0 66.0	0 botm	1.0214 1.0214	7' B. T.	botm	-	W 7/8 N	0.25	
1765	Branford Beacon NW 5/8 N 3 mi. S. W. Ledge Lt. NWxW¼W 7¾ mi.	-	Sep. 29	11:45 A.M.	10.6	sft.	65.0	0 botm	67.0 66.0	0 botm	1.0212 1.0214	7' B. T.	botm	-	NWxW	0.25	
1766	Branford Beacon NNW1/8W 5½ mi. S. W. Ledge Lt. NW 9¾ mi.	-	Sep. 29	12:20 P.M.	16.0	sft.	65.0	0 botm	67.0 67.0	0 botm	1.0214 1.0214	7' B. T.	botm	-	NNW1/8W	0.25	
1767	Branford Beacon NxW 7/8 W 5-7/8 mi. S. W. Ledge Lt. NW 1/8W 9-7/8 mi.	-	Sep. 29	12:55 P.M.	16.0	sft.	65.0	0 botm	67.0 67.0	0 botm	1.0214 1.0216	7' B. T.	botm	-	NW 7/8 W	0.25	
1768	Branford Beacon NxW 5/8 W 6¼ mi. S. W. Ledge Lt. NW 10-7/8 mi.	-	Sep. 29	1:20 P.M.	16.3	sft.	68.0	0 botm	67.0 67.0	0 botm	1.0214 1.0214	7' B. T.	botm	0	W	0.25	
1769	Branford Beacon NNW 3/8 W 6¾ mi. S. W. Ledge Lt. NW 10-7/8 mi.	-	Sep. 29	1:55 P.M.	16.3	sft.	66.0	0 botm	67.0 67.0	0 botm	1.0214 1.0216	7' B. T.	botm	-	W	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 1892.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1770	Falkner Is. Lt. NNE 5/8 E 5-1/8 mi. Branford Beacon NWxN 7½ mi.	-	Sep. 29	2:25 P.M.	16.0	sft.	65.0	0 botm	68.0 68.0	0 botm	1.0214 1.0216	7' B. T.	botm	-	NxW½W	0.125	
1771	Falkner Is. Lt. NxE¾E 4-5/8 mi. Branford Beacon NW 3/8 N 8½ mi.	-	Sep. 29	3:00 P.M.	15.5	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0218 1.0218	7' B. T.	botm	-	W 7/8N	0.25	
1772	Falkner Is. Lt. NNE1/8E 3-3/8 mi. Branford Beacon NW 7½ mi.	-	Sep. 29	3:25 P.M.	16.5	sft.	64.0	0 botm	68.0 68.0	0 botm	1.0218 1.0218	7' B. T.	botm	-	NxW	0.50	
1773	Falkner Is. Lt. NE½N 2-3/8 mi. Branford Beacon NW 1/8N 6-5/8 mi.	-	Sep. 29	4:00 P.M.	17.0	sft.	63.0	0 botm	68.0 68.0	0 botm	1.0218 1.0218	7' B. T.	botm	-	SW	0.50	
1774	Falkner Is. Lt. E½N 4-1/8 mi. Branford Beacon NWxW 3-3/8 mi.	-	Sep. 30	10:20 A.M.	8.5	sft.	63.0	0 botm	67.0 67.0	0 botm	1.0218 1.0218	7' B. T.	botm	0	E½S	0.25	
1775	Falkner Is. Lt. ENE 3/8 E 3¾ mi. Branford Beacon NW 1/8W 4¼ mi.	-	Sep. 30	10:48 A.M.	11.5	sft.	63.0	0 botm	67.0 67.0	0 botm	1.0218 1.0218	7' B. T.	botm	-	ExN1/8N	0.125	
1776	Falkner Is. Lt. NExE½E 4¼ mi. Branford Beacon NW 5/8 N 5¼ mi.	-	Sep. 30	11:15 A.M.	15.0	sft.	65.0	0 botm	67.0 67.0	0 botm	1.0218 1.0220	7' B. T.	botm	-	SExE¾E	0.25	
1777	Falkner Is. Lt. NE 1/8N 4-7/8 mi. Branford Beacon NNW 7/8 W 6¼ mi.	-	Sep. 30	11:40 A.M.	16.0	sft.	65.0	0 botm	67.0 67.0	0 botm	1.0218 1.0220	Ch. Rk. Dr.	botm	0	SExN1/8E	0.25	
1778	Norwalk Lt. NW¾N 2 mi. Eatons Neck Lt. SW¼W 4-7/8 mi.	-	Oct. 10	8:35 A.M.	14.0	sft.	52.0	0 botm	62.0 62.0	0 botm	1.0222 1.0222	7' B. T.	botm	-	SSW½W	0.25	
1779	Norwalk Lt. NNW½W 2¾ mi. Eatons Neck Lt. SxW½W 4 mi.	-	Oct. 10	8:55 A.M.	22.6	sft.	55.0	0 botm	62.0 62.0	0 botm	1.0222 1.0222	7' B. T.	botm	-	W¼S	0.125	
1780	Norwalk Lt. NxW½W 3 mi. Eatons Neck Lt. SxW¾W 3¼ mi.	-	Oct. 10	9:15 A.M.	14.3	sft.	57.0	0 botm	63.0 62.0	0 botm	1.0220 1.0220	7' B. T.	botm	-	WxN5/8N	0.25	

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1781	Norwalk Lt. NWXN½N - 3½ miles. Eatons Neck Lt. SSW¾W - 3⅝ miles		Oct. 10	9:40 a.m.	18½	sft.	56	0 botm.	63 62	0 botm.	1.0220 1.0220	7 ft. B. T.	botm.	-	WXS	0.25	Flood; Wind NW; Force 4; Sky clear.
1782	Norwalk Lt. NW½N - 2¾ miles Eatons Neck Lt. SSW 1/8 W - 4 5/8 miles.		" 10	10:00 a.m.	18-1/6	sft.	55	0 botm.	63 62	0 botm.	1.0218 1.0218	7 ft. B. T.	botm.	-	SW 5/8 W	0.25	Flood; Wind NW; Force 3; Sky clear.
1783	Norwalk Lt. NW - 2½ miles Eatons Neck Lt. SSW - 5 miles		" 10	10:20 a.m.	13-2/3	sft.	59	0 botm.	63 62	0 botm.	1.0218 1.0218	7 ft. B. T.	botm.	-	SWXW½W	0.25	Flood; Wind NW; Force 3; Sky clear.
1784	Norwalk Lt. NW¾W - 2¾ miles Eatons Neck Lt. SSW¼W - 5 1/8 miles		" 10	10:35 a.m.	9-5/6	hd.	55	0 botm.	63 62	0 botm.	1.0218 1.0218	Chester rake dredge			SW 7/8 W	0.125	Flood; Wind NW; Force 3; Sky clear.
1785	Norwalk Lt. NW 1/8 W - 3-1/8 miles; Eatons Neck Lt. SSW¾W - 4-7/8 miles.		" 10	10:55 a.m.	13-1/3	sft.stk.	55	0 botm.	63 62	0 botm.	1.0218 1.0218	Chester rake dredge			W 3/8 S	0.25	Flood; Wind NW; Force 3; Sky clear.
1786	Norwalk Lt. NW½N - 3½ miles Eatons Neck Lt. WSW - 4 1/8 miles.		" 10	11:15 a.m.	27	sft.	55	0 botm.	63 62	0 botm.	1.0218 1.0218	7 ft. B. T.	botm.	-	WXN	0.375	Flood; Wind NW; Force 3; Sky clear.
1787	Norwalk Lt. NW¾N - 3¾ miles Eatons Neck Lt. SW 5/8 S 4 miles		" 10	11:35 a.m.	18	sft.	56	0 botm.	63 62	0 botm.	1.0218 1.0220	7 ft. B. T.	botm.	-	W¼N	0.25	Flood; Wind NW; Force 4; Sky clear.
1788	Norwalk Lt. NW 1/8 N - 4 miles Eatons Neck Lt. SW½S -4½ miles		" 10	12:00 m.	22	sft.	56	0 botm.	63 62	0 botm.	1.0218 1.0220	7 ft. B. T.	botm.	-	WXN½N	0.375	Flood; Wind NW; Force 4; Sky clear.
1789	Norwalk Lt. NW 5/8 W - 4½ miles; Eatons Neck Lt. SW 5/8 S - 5-1/8 miles.		" 10	12:20 p.m.	18-1/6	sft. stk.	56	0 botm.	64 63	0 botm.	1.0218 1.0220	7 ft. B. T.	botm.	-	SXW 7/8 W	0.25	Ebb; Wind NW; Force 4; Sky clear.
1790	Norwalk Lt. NW 7/8 W - 3½ miles; Eatons Neck Lt. SW 7/8 S - 5 3/8 miles.		" 10	12:35 p.m.	14-2/3	sft.	56	0 botm.	64 63	0 botm.	1.0218 1.0220	7 ft. B. T.	botm.	-	SWXS 5/8S	0.25	Ebb; Wind NW; Force 4; Sky clear.
1791	Norwalk Lt. NWXW½W -3 miles Eatons Neck Lt. SWXS¼S - 5 7/8 miles.		" 10	12:55 p.m.	12	sft.	55	0 botm.	64 64	0 botm.	1.0216 1.0218	7 ft. B. T.	botm.	-	SWXS½S	0.25	Ebb; Wind NW; FORCE 4; Sky clear.
1792	Norwalk Lt. NWXW¾W -3½ miles Eatons Neck Lt. SW¾S -6-1/8 miles		" 10	1:10 p.m.	13	sft.	55	0 botm.	64 64	0 botm.	1.0216 1.0218	7 ft. B. T.	botm.	-	S 5/8 E.	0.25	Ebb; Wind NW; Force 4; Sky clear.
1793	Norwalk Lt. NWXW¼W- 4 miles Eatons Neck Lt. SW 1/8 S 5¾ miles.		" 10	1:30 p.m.	17	sft.	55	0 botm.	64 64	0 botm.	1.0214 1.0216	7 ft. B. T.	botm.	-	EXS¾S	0.25	Ebb; Wind NW; Force 4; Sky clear.
1794	Norwalk Lt. NWXW 4¾ miles Eatons Neck Lt. SW½W 5⅝ miles		" 10	1:55 p.m.	23	sft.	55	0 botm.	64 64	0 botm.	1.0214 1.0216	7 ft. B. T.	botm.	-	SE 1/8 E	0.25	Ebb; Wind WSW; Force 4; Sky clear.
1795	Norwalk Lt. NWXW½W 4½ miles Eatons Neck Lt. SW 1/8 W 6 miles.		" 10	2:15 p.m.	16	sft.	56	0 botm.	64 64	0 botm.	1.0214 1.0214	7 ft. B. T.	botm.	-	SE½E	0.25	Ebb; Wind WSW; Force 4; Sky clear.

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1892

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1796	Norwalk Lt. WXN$\frac{3}{4}$N-4$\frac{1}{4}$ miles Eatons Neck Lt. SW 7/8 S 6-5/8 miles		Oct. 10.	2:35 p.m.	10-1/3	sft. stk.	56	0 botm.	64 64	0 botm.	1.0212 1.0212	7 ft. B. T.	botm.	-	SEXE	0.25	Ebb; Wind WSW; Force 4; Sky clear.
1797	Norwalk Lt. WXN 1/8 N-4 miles Eatons Neck Lt. SW 5/8 S-7 miles.		" 10.	3:00 p.m.	10	sft. stk.	62	0 botm.	64 64	0 botm.	1.0212 1.0212	7 ft. B. T.	botm.	-	SE	0.375	Ebb; Wind WSW; Force 4; Sky clear.
1798	Norwalk Lt. WXN$\frac{3}{4}$N-4$\frac{3}{4}$ miles Eatons Neck Lt. SW 1/8 W-7 miles		" 10.	3:15 p.m.	12	sft.	62	0 botm.	64 64	0 botm.	1.0212 1.0212	7 ft. B. T.	botm.	-	SEXE$\frac{3}{4}$E	0.25	Ebb; Wind WSW; Force 4; Sky clear.
1799	Penfield Reef Lt. NEXE$\frac{1}{2}$E-5$\frac{3}{4}$ miles; Norwalk Lt. W$\frac{1}{4}$S-5$\frac{1}{4}$ miles.		" 11.	10:00 a.m.	9-1/3	sft.	60	0 botm.	63 62	0 botm.	1.0220 1.0220	7 ft. B. T.	botm.	-	SEXE$\frac{1}{2}$E	0.25	Flood; Wind WSW; Force 4; Sky clear, hazy on horizon.
1800	Norwalk Lt. W 1/8 N-5$\frac{3}{4}$ miles Penfield Reef Lt. NE$\frac{3}{4}$E - 5$\frac{1}{4}$ miles.		" 12.	8:55 a.m.	9-2/3	sft.	51	0 botm.	62 61	0 botm.	1.0222 1.0226	7 ft. B. T.	botm.	-	NW 7/8 N	0.375	Flood; Wind NE; Force 4; Sky hazy.
1801	Norwalk Lt. W$\frac{1}{2}$N-5$\frac{1}{2}$ miles Penfield Reef Lt. NE$\frac{3}{4}$E - 5 7/8 miles.		" 12.	9:12 a.m.	10	sft.	52	0 botm.	62 61	0 botm.	1.0222 1.0226	7 ft. B. T.	botm.	-	NXW$\frac{3}{4}$W	0.125	Flood; Wind NE; Force 4; Sky very hazy.
1802	Norwalk Lt. W 7/8 N-5$\frac{1}{2}$ miles Penfield Reef Lt. NE 3/8 E - 6-3/8 miles		" 12.	9:30 a.m.	11	sft.	52	0 botm.	62 61	0 botm.	1.0222 1.0226	7 ft. B. T.	botm.	-	NNW$\frac{1}{4}$W	0.25	Flood; Wind NE; Force 4; Sky very hazy.
1803	Norwalk Lt. WXN$\frac{1}{2}$N-5$\frac{1}{2}$ miles Penfield Reef Lt. NE-7 miles		" 12.	9:50 a.m.	12	sft.	53	0 botm.	62 62	0 botm.	1.0222 1.0224	7 ft. B. T.	botm.	-	NNW 1/8 W	0.25	Flood; Wind NE; Force 4; Sky hazy.
1804	Norwalk Lt. WNW-5$\frac{1}{2}$ miles Penfield Reef Lt. NE 1/8 N 7 5/8 miles.		" 12.	10:10 a.m.	15-1/3	sft.	53	0 botm.	63 63	0 botm.	1.0222 1.0224	7 ft. B. T.	botm.	-	NXW$\frac{3}{4}$W	0.25	Flood; Wind NE; Force 4; Sky very hazy.
1805	Norwalk Lt. NWXW 3/8 W-5$\frac{1}{2}$ miles; Penfield Reef Lt. NE$\frac{1}{2}$N-6$\frac{1}{4}$ miles.		" 12.	10:30 a.m.	22	sft.	53	0 botm.	63 63	0 botm.	1.0222 1.0224	7 ft. B. T.	botm.	-	NNW$\frac{1}{2}$W	0.25	Flood; Wind NE; Force 4; Sky very hazy.
1806	Norwalk Lt. NWXW$\frac{3}{4}$W-4$\frac{1}{2}$ miles; Penfield Reef Lt. NE$\frac{3}{4}$E-6$\frac{1}{2}$ miles.		" 12.	11:00 a.m.	12$\frac{1}{2}$	sft.	53	0 botm.	63 63	0 botm.	1.0222 1.0224	7 ft. B. T.	botm.	-	NWXW5/8W	0.25	Flood; Wind NE; Force 4; Sky clear, hazy horizon.
1807	Norwalk Lt. W$\frac{3}{4}$N-5 miles; Penfield Reef Lt. NE$\frac{3}{4}$E - 6$\frac{1}{2}$ miles.		" 12.	11:30 a.m.	10-1/3	sft.	54	0 botm.	63 63	0 botm.	1.0222 1.0222	7 ft. B. T.	botm.	-	NWXW$\frac{1}{4}$W	0.25	Flood; Wind NE; Force 4; Sky clear, hazy on horizon.
1808	Norwalk Lt. W$\frac{1}{2}$N - 5 miles; Penfield Reef Lt. NEXE - 6$\frac{1}{4}$ miles.		" 12.	11:50 a.m.	10	sft.	55	0 botm.	63 63	0 botm.	1.0222 1.0224	7 ft. B. T.	botm.	-	NWXW$\frac{3}{4}$W	0.375	Flood; Wind NE; Force 4; Sky clear, hazy on horizon.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 19 1892.

Station Number.	Bearings. Latitude. Longitude. Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1809	Plantation Lt. SEXE-1¼ miles; Cherrystone Lt. NE¾E-2 1/8 miles.	Nov. 8.	9:25 a.m.	13	stk.	60	0 botm.	53 57	0 botm.	1.0200 1.0220	7' B. T.	botm.	-	EXS	0.125	Flood; Wind SW; Force 3; Sky cloudy.
1810	½ mile SWXW 1/8 W of Red Buoy No. 8.	" 8.	9:45 a.m.	24	hd.	60	0 botm.	54 58	0 botm.	1.0200 1.0216	7' B. T.	botm.	-	SXE	0.125	Flood; Wind SW; Force 3; Sky cloudy.
1811	New Pt. Lt. W 1/8 S-5¼ miles; Wolf Trap Lt. NXW -4-7/8 miles.	" 8.	11:04 a.m.	6	hd.	66	0 botm.	58 58	0 botm.	1.0182 1.0194	7' B. T.	botm.	-	SSW	0.125	Flood; Wind SW; Force 2; Sky cloudy.
1812	½ mile NE 5/8 E of Stingray Pt. Lt.	" 8.	1:00 p.m.	4-5/6	hd.	64	0 botm.	57 59	0 botm.	1.0162 1.0164	7' B. T.	botm.	-	NNW	0.125	Flood; Wind NE; Force 3; Sky cloudy.
1813	1½ miles NEXN of Smiths Pt. Lt.	" 10.	11:30 a.m.	10-1/3	hd.	44	0 botm.	56 54	0 botm.	1.0154 1.0158	7' B. T.	botm.	-	SE	0.25	Flood; Wind NW; Force 4; Sky cloudy and raining.
1814	Cape Henry Lt. SW½S-1¾ miles.	1893. March 20.	11:19 a.m.	13	hd.	52	0	42	0	1.0192	7' B. T.	botm.	-	WSW	0.25	High water; Wind N; Force 2; Sky clear.
1815	Cape Henry Lt. SWXS-1-5/8 miles.	" 20.	11:40 a.m.	13-1/3	hd.	58	0	43	0	1.0192	7' B. T.	botm.	-	SXW½W	0.25	Ebb; Wind N; Force 2; Sky clear.
1816	Cape Henry SSE - 1½ miles.	" 20.	12:13 p.m.	11½	hd.	59	0	43	0	1.0186	7' B. T.	botm.	-	SSE	0.25	Ebb; Wind N; Force 2; Sky clear.
1817	Cape Henry EXS - 3 miles; Lynhaven Bay SSW-1½ miles.	" 20.	12:53 p.m.	4½	hd.	61	0	44	0	1.0174	7' B. T.	botm.	-	SXW	0.25	Ebb; Wind N; Force 2; Sky clear.
1818	Lynhaven Entrance SXE-1½ miles; Cape Henry EXS-6 miles.	" 20.	1:26 p.m.	4½	hd.	63	0	43	0	1.01618	7' B. T.	botm.	-	EXS	0.25	Ebb; Wind N; Force 2; Sky clear.
1819	Fort Wool NWXW¼W - 5¼ miles; Thimble Lt. NNW- 4¼ miles.	" 20.	2:08 p.m.	4.1	stk.	63	0	44	0	1.0166	7' B. T.	botm.	-	SXE	0.25	Ebb; Wind N; Force 2; Sky clear.
1820	Fort Wool NWXW 1/8 W - 4 miles; Thimble Lt. N - 3-3/8 miles.	" 20.	2:50 p.m.	3.2	hd.	63	0	44	0	1.016	7' B. T.	botm.	-	WNW	0.125	Ebb; Wind N; Force 2; Sky clear.
1821	Thimble Lt. N½W- 1½ miles; Fort Wool W½S - 2½ miles.	" 20.	3:18 p.m.	3.4	stk.	62	0	43.5	0	1.016	7' B. T.	botm.	-	SWXS	0.125	Ebb; Wind N; Force 2; Sky clear.
1822	Plantation Flat Lt. EXS½S 1½ miles; Cherrystone Lt. NE½E- 2½ miles.	" 21.	9:56 a.m.	15.1	sft.	59	0	42.5	0	1.0184	7' B. T.	botm.	-	EXS	0.25	Flood; Wind SSE; Force 3; Sky cloudy.
1823	Plantation Flat Lt. SEXE-1-1/8 miles; Cherrystone Lt. NE½E - 2 miles.	" 21.	10:22 a.m.	26	hd.	51	0	41	0	1.0184	7' B. T.	botm.	-	EXS½S	0.25	Flood; Wind SSE; Force 3; Sky cloudy, drizzling rain.
1824	Plantation Flat Lt. SEXE 7/8 mile; Cherrystone Lt. NE - 1-7/8 miles.	" 21.	10:56 a.m.	23	hd.	51	0	41	0	1.0184	7' B. T.	botm.	-	E½N	0.25	Flood; Wind SSE; Force 3; Sky cloudy, drizzling rain.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 19 1893.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1825	Plantation Flat Lt. SE½E 1¼ miles; Cherrystone Lt. NEXE - 2¼ miles.		March 21.	11:33 a.m.	18.3	stk.	51	0	41	0	1.0188	Oyster dredge	botm.	-			Flood; Wind SSW; Force 3; Sky cloudy, drizzling rain.
1826	New Pt. WNW -2-5/8 miles;		" 24.	1:03 p.m.	4.3	hd.	63	0	42	0	1.0156	7 ft. B. T.	botm.	-	EXN	0.25	Flood; Wind S; Force 3.
1827	Stingray Pt. Lt. NW¼W - 3-5/8 miles; Windmill Pt. Lt. NXW 1/8 W - 4-5/8 miles.		" 24.	3:04 p.m.	4.4	stk.	63	0	42	0	1.0140	7 ft. B. T.	botm.	-	EXN	0.125	Flood; Wind S; Force 4; Sky cloudy.
1828	Stingray Pt. Lt. NWXW½W - ½ mile; Windmill Pt. Lt. NNE½E - 2-5/8 miles.		" 24.	3:33 p.m.	4.2	hd.	62	0	42	0	1.0140	7 ft. B. T.	botm.	-	NEXN	0.125	Flood; Wind S; Force 4; Sky cloudy.
MOBJACK BAY																	
1829	New Pt. Comfort SEXE¾E - 2 miles.		April 16.	2:25 p.m.	2-2/3	sft.	54	0	52	0	1.0164	Oyster dredge	botm.	-	NNW	0.125	Flood; Wind N; Force 3; Sky clear.
1830	New Pt. Comfort SEXE½E - 2-5/8 miles.		" 16.	2:35 p.m.	3-1/6	stk.	54	0	54	0	1.0164	Oyster dredge	botm.	-	NW	0.125	Flood; Wind N; Force 3; Sky clear.
1831	New Pt. Comfort SEXE - 3¼ miles.		" 16.	2:46 p.m.	3-1/3	hd.	56	0	55	0	1.0164	Oyster dredge	botm.	-	NW½N	0.125	Flood; Wind N; Force 3; Sky clear.
1832	New Pt. Comfort SEXE - 3¾ miles.		" 16.	2:55 p.m.	2-2/3	hd.	56	0	56	0	1.0164	Oyster dredge	botm.	-	N½W	0.125	Flood; Wind N; Force 3; Sky clear.
1833	New Pt. Comfort SE½E - 4 miles.		" 16.	3:03 p.m.	2-1/3	hd.	56	0	57	0	1.015	Oyster Dredge	botm.	-	W	0.125	Flood; Wind N; Force 3; Sky clear.
1834	New Pt. Comfort SE¾E - 4¼ miles.		" 16.	3:12 p.m.	3	hd.	56	0	57	0	1.015	Oyster dredge	botm.	-	N	0.125	Flood; Wind N; Force 3; Sky clear.
1835	New Pt. Comfort SE 3/8 E - 4-3/8 miles.		" 16.	3:23 p.m.	2½	sft.	54	0	57	0	1.015	Oyster dredge	botm.	-	NEXN	0.125	Flood; Wind N; Force 3; Sky clear.
1836	New Pt. Comfort SE½E - 4-5/8 miles.		" 16.	3:30 p.m.	2½	sft.	52	0	57	0	1.015	Oyster dredge	botm.	-	N½W	0.125	Flood; Wind N; Force 3; Sky clear.
CHESAPEAKE BAY																	
1837	Cape Henry Lt. SXE -1½ miles.		" 24.	11:50 a.m.	11	hd.	53	0	56	0	1.017	7 ft. B. T.	botm.	-	NXW	0.25	Ebb; Wind NNE; Force 3; Sky clear.
1838	Cape Henry Lt. SSE¼E - 1½ miles.		" 24.	12:15 p.m.	10½	hd.	58	0	56	0	1.0168	7 ft. B. T.	botm.	-	NXW	0.25	Ebb; Wind NNE; Force 3; Sky clear.
1839			" 24.	12:48 p.m.	11	hd.	60	0	56	0	1.0166				NNW	0.125	Ebb; Wind E; Force 3; Sky clear.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1893. 53.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1840	Cape Henry Lt. SXW¾W - 2 miles.		April 24.	1:32 p.m.	11½	hd.	59	0	56	0	1.0166	7 ft. B. T.	botm.	-	NEXN½N	0.25	Flood; Wind E; Force 3; Sky clear.
1841	Cape Henry Lt. SXE -1½ miles.		" 24.	1:58 p.m.	12	stk.	54	0	56	0	1.0166	7 ft. B. T.	botm.	-	NEXN½N	0.25	Flood; Wind E; Force 3; Sky clear.
1842	Cape Henry Lt. SE½S - 1 mile.		" 24.	2:23 p.m.	11	hd.	54	0	56	0	1.0166	7 ft. B. T.	botm.	-	ENE	0.25	Flood; Wind E; Force 3; Sky clear.
1843	Cape Henry Lt. SEXE - 2 miles.		" 24.	2:46 p.m.	8	hd.	54	0	56	0	1.0172	7 ft. B. T.	botm.	-	NW½N	0.25	Flood; Wind E; Force 3; Sky clear.
1844	Cape Henry Lt. ESE - 4 miles.		" 24.	3:12 p.m.	6-2/3	hd.	54	0	56	0	1.0172	7 ft. B. T.	botm.	-	NWXW	0.25	Flood; Wind SE; Force 3; Sky clear.
1845	Cape Henry Lt. ESE - 4½ miles.		" 24.	3:24 p.m.	6	stk.	54	0	56	0	1.0172	7 ft. B. T.	botm.	-	NWXW	0.25	Flood; Wind SE; Force 3; Sky clear.
1846	Cherrystone Lt. NEXN - 1½ miles; Old Plantation Flat Lt. SE - 1½ miles.		" 25.	12:50 p.m.	15	hd.	60	0	55	0	1.018	7 ft. B. T.	botm.	-	SXE	0.25	Flood; Wind SW; Force 3; Sky cloudy.
1847	Cherrystone ESE - 2 miles; Plantation Lt. SEXS - 3 miles.		" 27.	12:19 p.m.	17	sft.	59	0	54	0	1.0172	7 ft. B. T.	botm.	-	SXW	0.25	Ebb; Wind S; Force 2; Sky cloudy.
1848	New Point Comfort Lt. WSW 8½ miles.		" 27.	1:34 p.m.	6½	stk.	59	0	55	0	1.0142	7 ft. B. T.	botm.	-	SWXS	0.25	Ebb; Wind S; Force 2; Sky cloudy.
BLOCK ISLAND SOUND.																	
1849	Gay Head Lt. N 1/8 E - 9 miles; Cuttyhunk Lt. NXW½W - 14½ miles.		July 10.	10:10 a.m.	15	hd.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	NEXE	0.25	Flood; Wind N; Force 2; Sky clear.
1850	Gay Head Lt. N½E - 10½ miles; Cuttyhunk Lt. NXW 16 miles.		" 10.	10:34 a.m.	17	hd.	68	0	64	0	1.0242	7 ft. B. T.	botm.	-	NE	0.25	Flood; Wind N; Force 2; Sky clear.
1851	Gay Head Lt. N 7/8 E - 10½ miles; Cuttyhunk Lt. N½W - 15 miles.		" 10.	10:58 a.m.	15½	hd.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	NE	0.25	Flood; Wind N; Force 2; Sky clear.
1852	Gay Head Lt. NXE½E - 10 miles; Cuttyhunk Lt. N½W 14½ miles.		" 10.	11:24 a.m.	13½	hd.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	NE	0.25	Flood; Wind N; Force 2; Sky clear.
1853	Gay Head Lt. NE½N - 5-3/8 miles; Cuttyhunk Lt. N 3/8 W - 9 miles.		" 10.	1:15 p;m.	15	hd.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	NNE	0.25	Flood; Wind WNW; Force 1; Sky clear.
1854	Gay Head Lt. NEXE 1/8 E - 5-3/8 miles; Cuttyhunk Lt. N 1/8 E - 7½ miles.		" 10.	1:40 p.m.	17	M.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	NE	0.25	Flood; Wind WNW; Force 1; Sky clear.

Form 625.

RECORD OF BLOCK ISLAND SOUND INVESTIGATION BY FISH HAWK 19 1893.

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1855	Gay Head Lt. EXN½N - 2½ miles; Cuttyhunk Lt. NXW 5/8 W - 5½ miles.		July 10.	2:40 p.m.	14	hd.	67	0	64	0	1.0242	7 ft. B. T.	botm.	-	N	0.25	Flood; Wind WNW; Force 2; Sky clear.
VINEYARD SOUND																	
1856	Gay Head Lt. SSW - 2-1/8 miles; Cuttyhunk Lt. NWXW 3/8 W - 5½ miles.		" 10.	2:56 p.m.	14	hd.	66	0	64	0	1.024	7 ft. B. T.	botm.	-	NXE	0.25	FLOOD; Wind WNW; Force 2; Sky clear.
1857	Gay Head Lt. SWXW 3/8 W - 2½ miles; Cuttyhunk Lt. NWXW 5/8 W - 6½ miles.		" 10.	3:26 p.m.	13	hd.	66	0	66	0	1.024	7 ft. B. T.	botm.	-	NNE	0.25	Flood; Wind WNW; Force 2; Sky clear.
1858	Gay Head Lt. SXW 5/8 W - 3 miles; Cuttyhunk Lt. WXN¾N - 5-5/8 miles.		" 10.	3:50 p.m.	14-1/3	hd.	66	0	64	0	1.024	7 ft. B. T.	botm.	-	NXE	0.25	Flood; Wind WNW; Force 2; Sky clear.
BUZZARD BAY																	
1859	Nobska Lt. ESE - 5½ miles; Bird Id. Lt. NEXN¾N - 8-3/8 miles.		" 12.	9:15 a.m.	8	stk.	68	0	65	0	1.0234	7 ft. B. T.	botm.	-	NW	0.25	Flood; Wind SW; Force 2; Sky cloudy.
1860	Nobska Lt. SEXE 3/8 E - 5½ miles; B		" 12.	9:40 a.m.	8½	stk.	69	0	65	0	1.0232	7 ft. B. T.	botm.	-	NNW	0.25	Flood; Wind SW; Force 2; Sky cloudy/
EASTPORT HARBOR, ME.																	
1861	Friars Head SXW¾W - 1-1/16 miles; Lubec Narrows Lt. SXW½W - 1⅝ miles.		" 29	2:30 p.m.	18	hd.	63	0 18	51 51	0 18	1.0256 1.0254	7 ft. B. T.	botm.	-			½ flood; Wind SSW; Force 2; Sky cloudy and rainy.
1862	Friars Head SSW¾W - 1-7/8 miles; Lubec Narrows Lt. SW - 2⅝ miles.		" 29.	3:00 p.m.	30	hd.	63	0	50	0	1.0252	7 ft. B. T.	botm.	-			½ flood; Wind SSW; Force 2; SKy cloudy and rainy.
ST. CROIX RIVER, MAINE.																	
1863	Dochet Island Lt. N½W - 5¼ miles; St. ANdrews Lt. EXN½N - 2 miles.		August 9.	11:52 a.m.	13	sft.	70	0	55	0	1.0244	7 ft. B. T.	botm.	-	ESE	0.25	Slack; Wind S; Force 2; Sky clear.
CHESAPEAKE BAY																	
1864	Thimble Lt. WNW - 11-5/8 miles; Cape Henry Lt. SXE 7/8 E - 1½ miles.		Sept. 23.	10:36 a.m.	11½	hd.	79	0	75	0	1.014	7 ft. B. T.	botm.	-	EXS	0.25	Ebb; Wind calm; Sky clear.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1893 55

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1865	Thimble Lt. WNW 12-7/8 miles; Cape Henry Lt. SW½S 1½ miles.		Sept. 23.	10:58 a.m.	10½	hd.	80	0	75	0	1.0136	7 ft. B. T.	botm.	-	EXS	0.25	Ebb; Wind calm; Sky clear.
1866	Thimble Lt. NWXW 7/8 W - 13-5/8 miles; Cape Henry Lt. SWXW 7/8 W - 1½ miles.		" 23.	11:15 a.m.	10	hd.	81	0	75	0	1.0132	7 ft. B. T.	botm.	-	EXS	0.25	Ebb; Wind E; Force 1; Sky clear.
1867	Thimble Lt. WNW -14-5/8 miles; Cape Henry Lt. W 7/8 S - 2-3/8 miles.		" 23.	11:41 a.m.	10	hd.	79	0	75.5	0	1.0138	7 ft. B.T.	botm.	-	EXS	0.25	Ebb; Wind SE; Force 1; Sky clear.
1868	Thimble Lt. NWXW 7/8 W - 15 miles; Cape Henry Lt. W½N - 2½ miles.		" 23.	12:06 p.m.	8½	hd.	79	0	75.5	0	1.0156	7 ft. B. T.	botm:	-	SSE½E	0.25	Ebb; Wind SE; Force 2; Sky clear.
1869	Cherrystone Lt. EXN 7/8 N 1-7/8 miles; Old Plantation Lt. SE¼S - 1-5/8 miles.		" 25.	11:40 a.m.	21	Sh.Co.	82	0	74	0	1.018	7 ft. B. T.	botm.	-	S	0.25	Wind SW; Force 3; Sky clear.
1870	Cherrystone Lt. EXN½N - 1-7/8 miles; Old Plantation Lt. SE¼S - 1¾ miles.		" 25.	12:00 m.	18	sft. M.Sh.	82	0	74	0	1.018	7 ft. B. T.	botm.	-	S	0.25	Wind SW; Force 3; Sky clear.
1871	Smiths Pt. Lt. WXN¾N -3¼ miles; Wicomico Lt. SWXW 7 miles.		Nov. 19.	11:45 a.m.	7-1/3	hd.	48	0	52	0	1.0140	7 ft. B. T.	botm.	-	SW	0.125	Ebb; Wind NNE; Force 5; Sky cloudy.
1872	Smiths Pt. Lt. WXN¾N -3¼ miles; Wicomico Lt. SWXW 7 miles.		" 19.	12:05 p.m.	8	Chard	48	0	52	0	1.0140	oys. dr.	botm.	-	SW	0.125	Ebb; Wind NNE; Force 5; Sky cloudy.
1873	Smiths Pt. Lt. NWXW 7/8 W 3 miles; Wicomico Lt. SWXW 1/8 W - 7½ miles.		" 19.	12:20 p.m.	10	stk.	48	0	52	0	1.0140	oys. dr.	botm.	-	NXW	0.125	Ebb; Wind NNE; Force 5; Sky cloudy.
1874	Smiths Pt. Lt. WNW - 2-1/8 miles; Wicomico Lt. SW½W 7-1/16 miles.		" 19.	12:45 p.m.	15	stk.	48	0	52	0	1.0130	oys. dr.	botm.	-	N	0.125	Flood; Wind NNE; Force 5; Sky cloudy.
			1894.														
1875	Cape Henry Lt. ESE; Thimble Shoal NW.		March 19.	11:50 a.m.	4-1/6	hd. stk.	79	0	52	0	1.0146	7 ft. B. T.	botm.	-	SSE	0.125	Ebb; Wind SSW; Force 3; Sky clear.
1876	Cape Henry Lt. SEXE½E; Thimble Lt. NWXW.		" 19	12:05 p.m.	5	sft. stk.	79	0	52	0	1.0146	7 ft. B. T.	botm.	-	NE	0.125	Ebb; Wind SSW; Force 3; Sky clear.
1877	Cape Henry Lt. bearing S 3/8 E (mag.) - 1½ miles.		" 28.	11:08 a.m.	11	stk.	40	0	47	0	1.0160	7 ft. B. T.	botm.	-	N½W	0.125	Flood; Wind ESE; Force 3; Sky clear.
1878	Cape Henry Lt. bearing S½W (mag.) - 1⅝ miles.		" 28.	11:40 a.m.	11	stk.	40	0	47	0	1.0160	7 ft. B. T.	botm.	-	N½W	0.125	Flood; Wind ESE; Force 3; Sky clear.
1879	Cape Henry Lt. bearing S½E (mag.) - 1½ miles.		" 28.	11:55 a.m.	11-5/6	Chard	46	0	47	0	1.0160	7 ft. B. T.	botm.	-	N½W	0.125	Flood; Wind ESE; Force 3; Sky clear.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 19 1894.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1880	Cape Henry Lt. bearing SEx½E (Mag.) - 2¼ miles.		March 28.	12:30 p.m.	6	Chard	46	0	46	0	1.0150	7 ft. B. T.	botm.	-	NW	0.125	Flood; Wind ESE; Force 3; Sky clear.
1881	Cape Henry Lt. bearing ESE½E - 3¼ miles.		" 28.	12:50 p.m.	4½	Chard	47	0	48	0	1.0146	7 ft. B. T.	botm.	-			Flood; Wind ESE; Force 4; Sky clear.
1882	Back River Lt. to Thimble Shoal Lt. 17-03; Thimble Shoal Lt. to Old Pt. Comfort Lt. 49-49		April 24.	10:15 a.m.	6-1/6	m.	58	0				7 ft. B. T.	botm.	-			½ flood; Wind N; Force 2; Sky clear blue.
1883	Back R. Lt. to Thimble Shoal Lt. 21-55; Thimble Shoal Lt. to Old Pt. Comfort Lt. 27-52.		" 24.	10:45 a.m.	5-1/3	m.	58					7 ft. B. T.	botm.	-			¾ flood; Wind N; Force 2;
CHOLERA BANK																	
1884	ESE 1/8 S from Sandy Hook Lt. Ship - 12 miles.		Aug. 18.	2:00 p.m.	14	crs. G.	75	0	71.5	0	1.0230	7 ft. B. T.	botm.	-			Flood; Wind SSW; Force 4; Sky cloudy.
1885	ESE 1/8 S from Sandy Hook Lt. Ship - 12 miles.		" 18.	2:30 p.m.	12½	gy.S.& bk.Sp.	75	0	71.5	0	1.023	7 ft. B. T.	botm.	-			Wind SSW; Force 4; Sky cloudy.
1886	ESE 1/8 S from Sandy Hook Lt. Ship - 12 miles.		" 18.	2:50 p.m.	14	gy. S.& G.	75	0	71.5	0	1.0230	7 ft. B. T.	botm.	-			Wind SSW; Force 4; Sky cloudy.
1887	ESE 1/8 S from Sandy Hook Lt. Ship - 12 miles.		" 18.	3:25 p.m.	13½	gy. S.& G.	75	0	71	0	1.0230	7 ft. B. T.	botm.	-			Flood; Wind SSW; Force 4; Sky cloudy.
LONG ISLAND SOUND																	
1888	Plum Isld. Lt. to Lynn Pt. Lt. 99°58'; Lynn Pt. Lt. to Cornfield Lt. Ship 34° 48'.		" 23.	11:00 a.m.	17½	gy.S.& P.	69	0 botm.	70 69½	0	1.022	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 3; Sky clear.
1889	Long Beach Bar Lt. to Plum Id. Lt. 79°04'; Plum Id. Lt. to Lynn Pt. Lt. 96°34'.		" 23.	11:25 a.m.	17	gy. S.& P.	69	0	70	0	1.0220	dr.	botm.	-			Ebb; Wind WSW; Force 3; Sky clear.
1890	Long Beach Bar Lt. to Plum Id. Lt. 77°00'; Plum Id. Lt. to Lynn Pt. Lt. 98°47'.		" 23.	11:40 a.m.	18	gy. S.& Sh.	74	0 botm.	70 69½	0	1.022	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 3; Sky clear.
1891	Long beach Bar Lt. to Plum Id. Lt. 77°00'; Plum Id. Lt. to Lyndes Pt.Lt. 98°47'.		" 23.	12:00 m.	18	gy.S.& Sh.	74	0 botm.	70 69	0	1.0220	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 3; Sky clear.
1892	Long beach Bar Lt. to Plum Id. Lt. 76°21'; Plum Id. Lt. to Lyndes Pt. Lt. 102° 02'.		" 23.	12:20 p.m.	19½	gy.S.& Sh.	75	0 botm.	70 69½	0	1.0226	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 2; Sky clear.

Form 625.

RECORD OF LONG ISLAND SOUND INVESTIGATION BY FISH HAWK 1894. 57.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1893	Plum Lt. to New London Lt. 54°50'; New London Lt. to Saybrook Lt. 78°15'.		Aug. 23.	1:35 p.m.	38	gy.S.&bk.Sp.	80	0 botm.	69 70	0	1.022	dr.	botm.	-			Flood; Wind WSW; Force 3; Sky clear.
1894	Plum Gut Beacon to Plum Id. Lt. 42°45'; Plum Id. Lt. to New London Lt. 86°00'.		" 23.	1:50 p.m.	53	M.C.	78	0 botm.	69 67	0	1.022	7 ft. B. T.	botm.	-	W	0.50	Flood; Wind W; Force 3; Sky clear.
1895	Plum Id. to New London Lt. 48°20'; New London to Saybrook Lt. 74°55'.		" 23.	2:30 p.m.	22	gy.S.& P.	78	0 botm.	69 70	0	1.0220	7 ft. B. T.	botm.	-			Flood; Wind W; Force 3; Sky clear.
1896	Plum Id. to Little Gull 20° 26'; Little Gull to Lyndes Pt. 109°35'.		" 23.	3:00 p.m.	19	gy S.&bk.Sp.	79	0 botm.	69 69	0	1.022	7 ft. B. T.	botm.	-			Flood; Wind W; Force 3; Sky clear.
1897	Gardners Id. to Plum Id. 23°43'; Plum Id. to Lyndes Pt. 108°03'.		" 23.	3:15 p.m.	19-2/3	Chard	79	0 botm.	69 79	0	1.022	7 ft. B. T.	botm.	-			Flood; Wind W; Force 4; Sky clear.
1898	Gardners Id. to Plum Id. 23°00'; Plum Id. to Lyndes Pt. 109°25'.		" 23	3:30 p.m.	19	hd.	79	0	69	0	1.022	7 ft. B. T.	botm.	-			Flood; Wind W; Force 4; Sky clear.
VINEYARD SOUND																	
1899	Tarpaulin Cove to Cuttyhunk Lt. 88°55'; Cuttyhunk Lt. to Gay Head 93°11'.		Sept. 1.	12:40 p.m.	10	s.bk.Sp.	70	0 botm.	67 63	0	1.0236	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 1; Sky clear.
1900	Nobska Lt. to Cuttyhunk Lt. 114°26'; Cuttyhunk to Gay Head 119°10'.		" 1.	1:10 p.m.	16	S.& Sh.	73	0 botm.	66 66	0	1.0246	7 ft. B. T.	botm.	-			Ebb; Wind WSW; Force 1; Sky clear.
BUZZARDS BAY, MASS.																	
1901	W. end of Long Neck SXW½W; N. end Hog Id. Pt. SEXE½E.		" 6.	10:15 a.m.	5-1/3	cse. S.	71	0 botm.	69 69	0	1.0230	7 ft. B. T.	botm.	-			Flood; Wind NNE; Force 4; Sky hazy.
1902	Tangent NE end of Hog Id. 77°05' to Wing Neck Lt.; Wing Neck to Bird Id. Lt. 36°17'.		" 6.	10:35 a.m.	5	dk.S.brk.Sh. bk.M.	69.5	0 botm.	69 68	0	1.0230	7 ft. B. T.	botm.	-			Flood; Wind ENE; Force 2; Sky hazy.
1903	N. end Hog Id. to Wing Neck Lt. 48°00'L; W. end of Long Neck to Hog Id. 118°33' R.		" 6.	11:00 a.m.	7½	bl.M.brk.Sh.	70	0	68	0	1.023	7 ft. B.T.	botm.	-			Flood; Wind ENE; Force 2; Sky hazy.
1904	Neds Pt. Lt. to Cormorant Rk. Spindle 39°37'; Cormorand Rk. Spindle to Can buoy #9 -98°30'.		" 7.	9:40 a.m.	4½	fne S.	68	0 botm.	69 69	0	1.0240	7 ft. B. T.	botm.	-			¼ flood; Wind SW; Force 2; Sky hazy.
1905	Bird Id. Lt. to Dumpling Lt. 46°22'; Neds Pt. Lt. to Dumpling Lt. 102°32'.		" 7.	10:00 a.m.	6½	M. & S.	68	0 botm.	68.5 68	0	1.02395	7 ft. B. T.	botm.	-			¼ flood; Wind SW; Force 2; Sky hazy.

Form 625.

10 01 74

RECORD OF BUZZARDS BAY, MASS. INVESTIGATION BY Fish Hawk 19 1894. 58

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1906	Bird Id. Lt. to Neds Pt. Lt. 50°15'; Neds Pt. Lt. to Cormorant Rk. Spindle 121°17'.		Sept. 7.	10:40 a.m.	4½	fne bl. S.	75	0 botm.	68.5 68	0	1.0236	7 ft. B. T.	botm.	-			½ flood; Wind WSW; Force 2; Sky hazy.
VINEYARD SOUND, MASS.																	
1907	W. end of Horse Shoe Shoal Blk. Buoy #9 bears S. mag. ¾ miles.		" 8.	12:05 p.m.	10	G. crs.bn.S.	72	0	68	0	1.0241	7 ft. B. T.	botm.	-			½ flood; Wind SE; Force 3; Sky cloudy.
MENEMSHA BIGHT, MASS.																	
1908	¾ mile NE of Lobster River.		" 14.	9:00 a.m.	6½	fne.gy.S.	72	0	64	0	1.0249	7 ft. B. T.	botm.	-			¼ ebb; Wind SSE; Force 1; Wky cloudy.
1909	1/16 mile NNE from Gay Head Lt.		" 14.	10:15 a.m.	3	wh. S.	72	0	65	0	1.0248	7 ft. B. T.	botm.	-			¼ ebb; Wind SSE; Force 1; Sky cloudy.
VINEYARD SOUND, MASS.																	
1910	Nobska Pt. Lt. to Cuttyhunk Lt. 123°10'; Cuttyhunk Lt. to Gay Head Lt. 99°50'.		" 14.	10:55 a.m.	13½	gy.S.brk.Sh.	73	0	65	0	1.0248	7 ft. B. T.	botm.	-	SSW	0.25	½ ebb; Wind SSW; Force 1; Sky cloudy.
1911	Nobska Pt. Lt. to Cuttyhunk Lt. 113°30'; Cuttyhunk Lt. to Gay Head Lt. 121°13'.		" 14.	12:00 m.	14	S. G. Sh.	76	0	64.5	0	1.0248	7 ft. B. T.	botm.	-			¾ ebb; Wind SSW; Force 2; Sky cloudy.
BUZZARDS BAY, MASS.																	
1912	Bird Id. Lt. to Wings Neck Lt. 89°36'; Wings Neck Lt. to Tangent N. end of Hog Id. 94°02'.		" 19.	2:45 p.m.	3-2/3	gy.S.bk.Sp.	65	0	69.5	0	1.0226	7 ft. B. T.	botm.	-			¾ ebb; Wind ENE; Force 2; Sky cloudy.
1913	Birds Id. Lt. to Wings Neck Lt. 124°26'; Wings Neck Lt. to Tangent N. end of Mashner Id. 58°48'.		" 19.	3:05 p.m.	4-1/3	hd.S.	66	0	69.5	0	1.0226	7 ft. B. T.	botm.	-			¾ ebb; Wind ENE; Force 2; Sky cloudy.
1914	Bird Id. Lt. to Wings Neck Lt. 127°08'; Wings Neck Lt. to Tangent N. end of Mashner Id. 50°27'.		" 19.	3:30 p.m.	4½	hd. S.	66	0	69.5	0	1.0226	7 ft. B. T.	botm.	-			¾ ebb; Wind ENE; Force 3; Sky cloudy.
MENEMSHA BIGHT																	
1915			" 26.	2:10 p.m.	7	S.	64	0	64	0	1.0240	7 ft. B. T.	botm.	-			¼ flood; Wind E; Force 5; Sky partly cloudy.

RECORD OF ..... INVESTIGATION BY FISH HAWK 19/ 1894. 59.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
MENEMSHA BIGHT																	
1916			Sept. 26.	2:30 p.m.	10	sft. M.	65	0	64	0	1.0242	7 ft. B. T.	botm.	-			¼ flood; Wind E; Force 5; Sky partly cloudy.
CHESAPEAKE BAY																	
1917	Butlers Bluff & Plantation Flats Lt. Cherrystone Lt. & Cape Charles City Depot		Oct.12.	7:15 a.m.	22	S. P.	60	0	68	0	1.0174	7 ft. B. T.	botm.	-			¾ flood; Wind NE; Force 2; Sky clear.
1918	Butlers Bluff & Plantation Flats Lt. Cherrystone Lt. & Depot at Cape Charles City		" 12.	7:45 a.m.	20	bl. M.	60	0	68	0	1.0166	7 ft. B. T.	botm.	-			¾ flood; Wind NE; Force 3; Sky clear.
1919	Butlers Bluff & Plantation Flats Lt. Cherrystone Lt. & Depot at Cape Charles City		" 12.	8:45 a.m.	26	bk. M.	68	0	65	0	1.0163	7 ft. B. T.	botm.	-			last of flood; Wind NE; Force 3; Sky clear.
1920	Butlers Bluff & Plantation Flats Lt. Cherrystone Lt. & Depot at Cape Charles City		" 12.	9:10 a.m.	21	bk. M.	68	0	66	0	1.0164	7 ft. B. T.	botm.	-			High Water; Wind NE; Force 3; Sky clear.
			1895														
1921	2½ miles ESE of Great Wicomico Lt.		April 23.	9:50 a.m.	18		59	0	53	0	1.0007	7 ft. B. T.	botm	-			Flood; Wind S; Force 1; Sky clear, hazy over the bay.
1922	2½ miles ESE of Great Wicomico Lt.		" 23.	10:35 a.m.	18		62	0	53	0	1.007	7 ft. B. T.	botm	-			Flood; Wind S; Force 1; Sky clear, hazy over the bay.
1923	4 miles ESE of Great Wicomico Lt. on the eastern side of channel.		" 23.	11:30 a.m.	12	M.	63	0	53	0	1.007	7 ft. B. T.	botm.	-			1st of ebb; Wind S Force 1; Sky clear, hazy over the bay.
1924	2½ miles SEXE of Great Wicomico Lt.		" 23.	12:30 p.m.	11	hd. S.	64	0	53	0	1.00084	7 ft. B. T.	botm.	-			Ebb; Wind S; Force 2; Sky clear, hazy over the bay.
OFF PENSACOLA																	
1925	Pensacola Lt. bearing WNW 24 miles.		Sept. 14.	9:25 a.m.	26	G.S. bk.Sp.	94	0 0. botm. botm.	86 85 78 77	0 0. botm. botm.	1.0222 1.0224 1.0260 1.0260	7 ft. B. T.	botm.				Wind S; Force 1; Sky clear.

Form 625.

RECORD OF OFF PENSACOLA INVESTIGATION BY FISH HAWK 19/ 1895. 60

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1926	Pensacola Lt. bearing NNW 24 miles.		Sept. 14.	10:25 a.m.	29	G.S.& bk.Sp.	91	0	85	0	1.0224	7 ft. B. T.	botm.	-			Wind S; Force 1; Sky clear.
								botm.	77	botm.	1.0260						
1927	Pensacola Lt. bearing NNW 24 miles.		" 14.	11:50 a.m.	23	G.S.bk.Sp.	90	0	86	0	1.0222	7 ft. B. T.	botm.				Wind S; Force 1; Sky clear.
								botm.	78	botm.	1.0260						
NARRAGANSETT BAY, R. I.			1898.		ft.		F		C.								
1928	Whale Rock Lt. SSW¼W - 1-5/8 miles mag.		Oct. 26.	11:40 a.m.	33	S. Sh.	62	0	15.0	0	1.0220	dr.			NW	0.0625	Wind SSE; Force 10; Sky overcast, raining
								botm.	14.5	botm.	1.0222						
PROVIDENCE RIVER, R. I.																	
1929	Sassafras Pt. Lt. SXE .56 mile mag.		" 28.	9:20 a.m.	22½	bk.M.	51	0	12.5	0	1.0170	7 ft. B. T.	botm.	-	S	0.125	Wind NW; Force 2; Sky clear; ebb tide.
								botm.	13.0	botm.	1.0190						
1930	Sassafras Pt. Lt. S¾E .2 mile mag.		" 28.	9:38 a.m.	22½	bk.M.	51	0	13.0	0	1.0110						
								botm.	13.5	botm.	1.0170	7 ft. B. T.	botm.	-	SXE½E	0.625	Wind N; Force 2; Sky clear blue; ebb.
1931	Sassafras Pt. Lt. SWXW½W 300 ft. mag.		" 28.	10:15 a.m.	27	bk.M.	52	0	13.0	0	1.0070	7 ft. B. T.	botm.	-	SXE½E	0.375	Wind N; Force 2; Sky clear blue; ebb.
								botm.	14.0	botm.	1.0170						
1932	Sassafras Pt. Lt. NW½N .28 mile mag.		" 28.	10:40 a.m.	28.5	bk.M.	53	0	13.0	0	1.0080	7 ft. B. T.	botm.	-	SXE½E	0.3	Ebb; Wind N; Force 2; Sky clear blue.
								botm.	13.0	botm.	1.0180						
1933	Sassafras Pt. Lt. NW¼N .42 mile mag.		" 28.	11:10 a.m.	22½	bk.M.	54	0	13.5	0	1.0070	7 ft. B. T.	botm.	-	SE	0.125	Ebb; Wind N; Force 2; Sky clear blue.
								botm.	14.0	botm.	1.0170						
1934	Fullers Rk. Lt. E½N -300 ft. mag.		" 28.	11:35 a.m.	31.5	bk.M.	50	0	14.0	0	1.0080	7 ft. B. T.	botm.	-	SSE	0.1875	Ebb; Wind N; Force 2; Sky clear blue.
								botm.	14.0	botm.	1.0180						
NARRAGANSETT BAY, R. I.					fms.												
1935	Conamicut Pt. Lt. NWXN 1-3/8 miles mag.		" 28.	2:55 p.m.	4-6	M.	57	0	13.5	0	1.0200	7 ft. B. T.	botm.	-	SE	0.125	Flooding; Wind NE; Force 3; Sky cloudy.
								botm.	13.0	botm.	1.0200						
1936	Conamicut Lt. NXW½W -2¼ miles mag.		" 28.	3:55 p.m.	3½-4½	M.	50	0	13.5	0	1.0190	7 ft. B. T.	botm.	-	ESE	0.125	Flooding; Wind NE; Force 3; Sky overcast.
								botm.	13.0	botm.	1.0200						
1937	Beaver Tail Lt. NEXE½E - .75 mile mag.		" 31.	11:00 a.m.	15	M.S.	57	0	12.6	0	1.0220	7 ft. B. T.	botm	-	SXW½W	0.5	Ebbing; Wind NW; Force 4; Sky clear.
								botm.	13.0	botm.	1.0240						
1938	Beaver Tail Lt. NEXE½E - 1.12 miles mag.		" 31.	11:20 a.m.	12	S.	53	0	12.7	0	1.0220	10 ft. B. T.	botm.	-	W¾N	0.125	Ebbing; Wind NW; Force 4; Sky cloudy.
								botm.	13.4	botm.	1.0240						
1939	Beaver Tail bearing NEXE 2.37 miles mag.		" 31.	12:05 p.m.	12	S.	53	0	13.4	0	1.0220	10 ft. B. T.	botm.	-	SW½S	0.375	Ebbing; Wind NW; Force 4; Sky cloudy.
								botm.	13.6	botm.	1.0230						
1940	Beaver Tail Lt. NE½N - 2.7 miles mag.		" 31.	1:35 p.m.	16½	C.stk.S.	56	0	13.0	0	1.0220	10 ft. B. T.	botm.	-	EXN	0.125	Ebbing; Wind WNW; Force 4; Sky cloudy.
								botm.	14.0	botm.	1.0240						

Form 625. 19 01 74

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 1898. 61

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1941	Pt. Judith WXS½S - 3.25 miles mag.		Oct. 31.	2:20 p.m.	19½	stk.s.C.	55	0 botm.	13.1 13.3	0 botm.	1.0220 1.0235	10 ft. B. T.	botm.	-	WSW	0.5	Low water; Wind WNW; Force 4; Sky blue.
1942	Pt. Judith WXS½S - 1.62 miles mag.		" 31.	3:00 p.m.	13½	hd.S.	54	0 botm.	13.0 13.5	0 botm.	1.0220 1.0235	10 ft. B. T.	botm.	-	WSW	0.5	Begin. flood; Wind NW; Force 4; Sky blue - cloudy.
1943	Pt. Judith NW½W - 2 miles mag.		" 31.	3:35 p.m.	14-5/6	hd.S.	54	0 botm.	13.0 13.0	0 botm.	1.0220 1.0240	10 ft. B. T.	botm.	-	SWXW½W	0.625	Flooding; Wind NNW; Force 4; Sky cloudy.
ENTRANCE TO BLOCK ISLAND SOUND																	
1944	Pt. Judith Lt. N½E - 1¾ miles mag.		Nov. 1.	9:15 a.m.	9¼	rky. s.	56	0 botm.	12.8 13.0	0 botm.	1.0230 1.0240	10 ft. B. T.	botm.	-	WXS	0.375	Ebbing; Wind NNW; Force 2; Sky clear.
1945	Pt. Judith lt. NE½E - 2.7 miles mag.		" 1.	9:45 a.m.	13	R. S.	53	0 botm.	12.9 13.1	0 botm.	1.0230 1.0240	7 ft. B. T.	botm.	-	WXN	0.625	Ebbing; Wind NNW; Force 2; Sky clear.
1946	Pt. Judith Lt. NXE½E - 3½ miles mag.		" 1.	10:20 a.m.	13	S.rky.	52	0 botm.	13.0 13.5	0 botm.	1.0230 1.0240	7 ft. B. T.	botm.	-	WNW	0.25	Ebbing; Wind NNW; Force 1; Sky clear.
1947	Pt. Judith Lt. NE½N - 4.7 miles mag.		" 1.	10:50 a.m.	22½	stk.	52	0 botm.	13.7 13.8	0 botm.	1.0230 1.0240	small dr.	botm.	-	S½W	0.25	Ebbing; Wind NNW; Force 1; Sky clear.
1948	Block Id. North Lt. WXS½S 3¾ miles mag.		" 1.	11:45 a.m.	22		55	0 botm.	13.0 13.0	0 botm.	1.0230 1.0240	7 ft. B. T.	botm.	-	SXW	0.25	Ebbing; Wind W; Force 1; Sky clear.
EAST OF BLOCK ISLAND.																	
1949	Block Id. North Lt. WXN½N; 4-3/8 miles mag.		" 1.	1:10 p.m.	22	s. hd.	56	0 botm.	13.1 13.2	0 botm.	1.0230 1.0230	7 ft. B. T.	botm.	-	SWXS	0.5	Ebbing; Wind W; Force 2; Sky light haze.
1950	Block Id. SE Lt. SW¾W - 2¾ miles mag.		" 1.	2:00 p.m.	20	hd.S.	53	0 botm.	13.1 12.7	0 botm.	1.0230 1.0235	7 ft. B. T.	botm.	-	SW½S	1.0	Ebbing; Wind W; Force 2; Sky blue - light haze.
SOUTHEAST OF BLOCK ISLAND.																	
1951	Block Id. S. E. Lt. NW - 1.62 miles mag.		" 1.	2:40 p.m.	16	hd.S.	51	0 botm.	13.0 12.9	0 botm.	1.0230 1.0230	7 ft. B. T.	botm.	-	SW½S	0.75	Low water; Wind W; Force 2; Sky blue - light haze.
SOUTH OF BLOCK ISLAND.																	
1952	Block Id. SE Lt. NE½E - 2.75 miles mag.		" 1.	3:30 p.m.	13	hd. G.	50	0 botm.	13.0 12.7	0 botm.	1.0230 1.0250	7 ft. B. T.	botm.	-	SW¾S	0.75	Flooding; Wind W; Force 2; Sky blue - light haze.
NARRAGANSETT BAY																	
1953	Dutch Id. Lt. SXW - .67 of a mile mag.		" 2.	10:00 a.m.	7½	mussel bed	56	0 botm.	12.7 13.0	0 botm.	1.0220 1.0260	7 ft. B. T.	botm.	-	EXS	0.25	Flooding; Wind SXW; Force 5; Sky cloudy.

Form 625.

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 1898. 62.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1954	Dutch Id. Lt. SWXS½S - 1¼ miles mag.		Nov. 2.	10:18 a.m.	10¼	rky.sh.	56	0 botm.	12.5 13.0	0 botm.	1.0220 1.0220	7 ft. B. T.	botm.	-	EXS	0.5	Ebbing; Wind SW; Force 5; Sky cloudy.
1955	Dutch Id. Lt. SSW - 2.67 miles mag.		" 2.	10:45 a.m.	9	hd. s.	56	0 botm.	12.3 13.0	0 botm.	1.0210 1.0220	7 ft. B. T.	botm.	-	E½N	0.5	Ebbing; Wind SW; Force 6; Sky cloudy.
1956	Conanicut Pt. Lt. NE½E - 1.25 miles mag.		" 2.	11:05 a.m.	7	s.	57	0 botm.	12.3 12.7	0 botm.	1.0210 1.0230	7 ft. B. T.	botm.	-	E½N	0.375	Ebbing; Wind SW; Force 6; Sky cloudy.
1957	Conanicut North Point Lt. SEXE½E - .37 mile mag.		" 2.	11:30 a.m.	5	stk. M.	57	0 botm.	12.2 13.0	0 botm.	1.0210 1.0220	7 ft. B. T.	botm.	-	SEXE½E	0.625	Ebbing; Wind SW; Force 6; Sky cloudy.
1958	Conanicut Id. North Pt. Lt. WXS½S - 1.37 miles mag.		" 2.	1:30 p.m.	5	m.	56	0 botm.	12.1 12.7	0 botm.	1.0200 1.0250	7 ft. B. T.	botm.	-	SEXE½E	0.75	Ebbing; Wind SW; Force 6; Sky cloudy.
1959	Conanicut North Pt. Lt. SW½W 2.37 mile mag.		" 2.	1:50 p.m.	5	m. sh.	56	0 botm.	12.2 12.6	0 botm.	1.0210 1.0240	7 ft. B. T.	botm.	-	EXS	0.50	Ebbing; Wind SW; Force 7; Sky cloudy/
1960	Conanicut North Pt. Lt. NW - 2.67 mile mag.		" 2.	2:25 p.m.	4½	m.	56	0 botm.	12.0 12.5	0 botm.	1.0210 1.0250	7 ft. B. T.	botm.	-	ESE	0.75	Ebbing; Wind SW; Force 7; Sky cloudy.
1961	Norwick Lt. NXW 2.75 mile mag.		" 2.	3:10 p.m.	4½	m.	56	0 botm.	12.1 12.6	0 botm.	1.0210 1.0220	7 ft. B. T.	botm.	-	EXS	0.75	Slack water; Wind SW; Force 7; Sky cloudy.
1962	Gould Id. Lt. SWXS - 1.50 mile mag.		" 2.	4:00 p.m.	8	m.	56	0 botm.	13.0 13.2	0 botm.	1.0210 1.0230	7 ft. B. T.	botm.	-	SE¼S	0;75	Flooding; Wind SW; Force 7; Sky cloudy.
1963	Gould Id. Lt. SW¼S - .50 mile mag.		" 2.	4:20 p.m.	7	m.	56	0 botm.	12.7 13.0	0 botm.	1.0210 1.0230	7 ft. B. T.	botm.	-	SE	0.625	Flooding; Wind SW; Force 4; Sky cloudy.
ENTRANCE TO BLOCK ISLAND SOUND.																	
1964	Block Id. North Lt. S¼E - 2.50 miles mag.		" 3.	9:30 a.m.	18	hd.R. S.	52	0 botm.	13.4 13.6	0 botm.	1.0230 1.0230	7 ft. B. T.	botm.	-	WXN	0.50	NEARLY low water; Wind NNE; Force 3; Sky - light clouds.
BLOCK ISLAND SOUND.																	
1965	Block Id. North Lt. EXS - 1.75 miles mag.		" 3.	10:10 a.m.	19	hd. s.	52	0 botm.	13.6 14.1	0 botm.	1.0230 1.0230	7 ft. B. T.	botm.	-	WXS	0.625	Wind NNE; Force 3; Sky - light clouds.
1966	Block Id. North Lt. NEXE - 3.25 miles mag.		" 3.	10:50 a.m.	20	hd. s.	53	0 botm.	13.3 13.5	0 botm.	1.0230 1.0230	7 ft. B. T.	botm.	-	W½N	0.375	Ebbing; Wind NNE; Force 1; Sky - light clouds.
1967	Block Island North Lt. NE½E - 4.50 miles mag.		" 3.	11:30 a.m.	18	S	53	0 botm.	12.8 13.2	0 botm.	1.0230 1.0240	7 ft. B. T.	botm.	-	S	0.50	Ebbing; Wind NE; Force 2; Sky cloudy.
1968	Block Id. S.E. Lt. E¼N - 3.50 miles mag.		" 3.	12:05 p.m.	7¼	G.	54	0 botm.	13.2 13.0	0 botm.	1.0230 1.023/	7 ft. B. T.	botm.	-	N	0.125	Ebbing; Wind NE; Force 1; Sky cloudy.

Form 625.

RECORD OF NORTH EAST OF BLOCK ISLAND. INVESTIGATION BY FISH HAWK 19 1898

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.)	Tidal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1969	Block Id. N.E. Lt. EXN - 6 miles mag.		Nov. 3.	1:35 p.m.	20½	S. G.	57	0	13.3	0	1.0230	7 ft. B. T.	botm.	-	NEXE	0.50	Ebbing: Wind SSE: Force 1: Sky cloudy.
								botm.	13.2	botm.	1.0230					
1970	Pt. Judith Lt. NW½N - 7.25 miles mag.		" 3.	2:20 p.m.	20	s. G.	57	0	13.1	0	1.0230						
								botm.	13.2	botm.	1.023+	7 ft. B. T.	botm.	-	EXS½S	0.75	Ebbing: Wind SSE: Force 1: Sky cloudy.
1971	Pt. Judith Lt. NWXW½W - 6.50 miles mag.		" 3.	3:10 p.m.	16	hd. S.	56	0	13.3	0	1.0230	7 ft. B. T.	botm.	-	E½N	0.625	Ebbing: Wind SW: Force 2: Sky cloudy.
								botm.	13.7	botm.	1.023+						
1972	Pt. Judith Lt. W½N - 8.50 miles mag.		" 3.	3:55 p.m.	17½	s.	56	0	13.0	0	1.023+	7 ft. B. T.	botm.	-	EXN	0.75	Low water: Wind NNW: Force 2: Sky cloudy.
								botm.	13.2	botm.	1.0240					
SOUTHWEST OF MOUTH OF SAKONNET RIVER																	
1973	Brentons Reef Lt. Ship NW 4.25 miles mag.		" 4.	8:30 a.m.	18	s. sh.	58	0	13.3	0	1.023	7 ft. B. T.	botm.	-	SEXE½E	0.625	Flooding: Wind calm: Sky - blue, hazy.
								botm.	14.0	botm.	1.023+					
1974	Sakonnet Lt. ENE - 2.67 miles mag.		" 4.	9:15 a.m.	14	s.	59	0	13.3	0	1.023	7 ft. B. T.	botm.	-	ENE	0.625	Flooding: Wind calm: Sky - blue , hazy.
								botm.	13.3	botm.	1.024					
1975	Sakonnet Lt. SXE½S - 1.67 miles mag.		" 4.	9:55 a.m.	9½	S. G.	57	0	13.0	0	1.023	7 ft. B. T.	botm.	-	EXE	0.50	Flooding: Wind calm: Sky blue.
								botm.	12.5	botm.	1.023					
SAKONNET RIVER																	
1976	Church Pt. NW½N .75 mile mag.		" 4.	10:30 a.m.	5	G.	60	0	12.0	0	1.022+	7 ft. B. T.	botm.	-	NEXN	0.50	High water: Wind calm: Sky blue.
								botm.	12.1	botm.	1.023					
1977	High Hell Point NE½N - .67 mile mag.		" 4.	11:00 a.m.	4½	rky.	60	0	12.0	0	1.022	7 ft. B. T.	botm.	-	NXW	0.375	High water: Wind SW: Force 1: Sky blue.
								botm.	12.4	botm.	1.023					
1978	Buoy No. 6 SSE - .50 mile mag.		" 4.	11:22 a.m.	5½	rky. G.	61	0	11.8	0	1.022	7 ft. B. T.	botm.	-	NNE	0.50	Begin. ebb: Wind S: Force 2: Sky blue.
								botm.	12.2	botm.	1.022					
1979	Buoy #8 300 yards WXN		" 4.	11:50 a.m.	4	rky. G.	61	0	11.5	0	1.022	7 ft. B. T.	botm.	-	NNE	0.625	Ebbing: Wind S: Force 3: Sky blue.
								botm.	12.0	botm.	1.022					
NARRAGANSETT BAY																	
1980	Dutch Id. Lt. NEXN .75 mile mag.		" 4.	2:30 p.m.	7	Mussel bed.	56	0	13.7	0	1.021+	7 ft. B. T.	botm.	-	S½E	0.625	Ebbing: Wind SW: Force 3: Sky blue.
								botm.	13.8	botm.	1.022+					
1981	Dutch Id. Lt. NXE½E - 1.87 miles mag.		" 4.	2:50 p.m.	7½	rky.	56	0	12.8	0	1.021+	7 ft. B. T.	botm.	-	S½W	0.50	Ebbing: Wind SW: Force 3: Sky blue - hazy.
								botm.	13.7	botm.	1.022					
1982	Beaver Tail Lt. SEXE½E - .67 mile mag.		" 4:	3:15 p.m.	9½	s.	55	0	13.6	0	1.022	7 ft. B. T.	botm.	-	SXW½W	0.375	Ebbing: Wind SW: Force 3: Sky blue - hazy.
								botm.	14.0	botm.	1.023					
1983	Beaver Tail Lt. NXE - .75 mile mag.		" 4.	3:40 p.m.	14½	rky. s.	53	0	13.0	0	1.022	7 ft. B. T.	botm.	-	SW	0.75	Nearly low water: Wind SW: Force 3: Sky blue - hazy.
								botm.	13.3	botm.	1.022					

Form 625.

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 01 74

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 1898. 64

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1984	Castle Hill Lt. B½N - .87 mile mag.		Nov. 4.	4:30 p.m.	17½	rky. s.	51	0	12.5	0	1.021+	7 ft. B. T.	botm.	-	SWXS	0.75	Wind SW: Force 3; Sky hazy.
								botm.	13.0	botm.	1.023					
MT. HOPE BAY																	
1985.	Bristol Ferry Lt. W½S - 2.25 miles mag.		" 9.	11:10 a.m.	4½	m.	58	0	11.3	0	1.019	7 ft. B. T.	botm.	-	NXW	0.625	Flooding; Wind calm; Sky cloudy and hazy.
								botm.	12.7	botm.	1.022+					
1986	Bristol Ferry Lt. SWXW½W - 1.75 miles mag.		" 9.	11:35 a.m.	4½	m. G.	60	0	11.5	0	1.019	7 ft. B. T.	botm.	-	WXS½S	0.50	Flooding; Wind SW; Force 1; Sky cloudy.
								botm.	12.5	botm.	1.021					
1987	Bristol Ferry Lt. WXS .75 mile mag.		" 9.	11:55 a.m.	6½	Mussel bed	62	0	12.0	0	1.019	7 ft. B. T.	botm.	-	SWXW½W	0.625	Flooding; Wind SW; Force 1; Sky cloudy.
								botm.	13.0	botm.	1.020+					
1988			" 9.	1:25 p.m.	14½		60	0	12.5	0	1.020+	7 ft. B. T.	botm.	-	.....		Trawl capsized.
								botm.	14.0	botm.	1.020					
1989	Bristol Ferry Lt. NEXN .50 mile mag.		" 9.	2:00 p.m.	15	s.	62	0	11.9	0	1.021	7 ft. B. T.	botm.	-	SWXW	0.50	Flooding; Wind NW; Force ½; Sky clear.
								botm.	13.6	botm.	1.021					
NARRAGANSETT BAY																	
1990	Hog Id. Lt. Ship NW½W - .25 mile mag.		" 9.	2:40 p.m.	15	sh.	60	0	12.0	0	1.020	7 ft. B. T.	botm.	-	SW½W	0.50	Flooding; Wind NW; Force ½; Sky clear.
								botm.	14.1	botm.	1.021+					
BETWEEN ELISHA LEDGE & EAST ID.																	
1991	Sakonnet Pt. Lt. WXN½N - 1.37 miles mag.		" 12.	10:20 a.m.	8½	rky.	38	0	11.4	0	1.023+	dr.	botm.	-	WXS	0.50	Ebbing; Wind NNW; Force 2; Sky blue.
								botm.	10.8	botm.	1.023					
NEAR SCHUYLER LEDGE																	
1992	Sakonnet Pt. Lt. NEXE½E - 1.25 miles mag.		" 12.	10:35 a.m.	11	rky. s.	38	0	11.8	0	1.023	dr.	botm.	-	SW½W	0.375	Ebbing; Wind NNW; Force 3; Sky blue.
								botm.	12.0	botm.	1.023					
WEST OF SCHUYLER LEDGE																	
1993	Sakonnet Pt. Lt. NXE½E - .75 mile mag.		" 12.	11:00 a.m.	9½	rky. s.	38	0	11.3	0	1.023	dr.	botm.	-	WXN½N	0.25	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	12.0	botm.	1.023+					
MOUTH OF SAKONNET RIVER																	
1994	Sakonnet Pt. Lt. B½N - .75 mile mag.		" 12.	11:20 a.m.	11½	rky.	38	0	11.9	0	1.023	dr.	botm.	-	WXN	0.375	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.2	botm.	1.023					
1995	Sakonnet Pt. Lt. S½E - .75 mile mag.		" 12.	11:45 a.m.	7	rky.	39	0	10.8	0	1.023	7 ft. B. T.	botm.	-	WNW	0.375	Low water; Wind NW; Force 3; Sky blue.
								botm.	11.0	botm.	1.023+					
1996	Sakonnet Pt. Lt. S½W - 2 miles mag.		" 12.	12:05 a.m.	6	rky.	40	0	11.0	0	1.023	7 ft. B. T.	botm.	-	SE½E	0.25	Flooding; Wind NW; Force 3; Sky blue.
								botm.	11.3	botm.	1.023+					

Form 625.

RECORD OF IN SAKONNET River INVESTIGATION BY FISH HAWK 19 01

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RECORD OF IN SAKONNET River INVESTIGATION BY FISH HAWK 19 01 1898. 65.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
1997	Sakonnet Pt. Lt. SXE½E - 2.75 miles mag.		Nov. 12.	1:20 p.m.	5	hd.	44	0 botm.	10.8 11.0	0 botm.	1.023 1.023	dr.	botm.	-	SXE½E	0.25	Flooding; Wind NW; Force 2; Sky blue.
1998	Sakonnet Pt. Lt. SXE½E - 2.37 miles mag.		" 12.	1:30 p.m.	6½	hd.	44	0 botm.	10.8 11.0	0 botm.	1.023 1.023	dr.	botm.	-	S	0.25	Flooding; Wind NW; Force 2; Sky blue.
1999	Sakonnet Pt. Lt. SE½S - 2 miles mag.		" 12.	1:45 p.m.	8¼	S. Sh.	44	0 botm.	11.7 12.0	0 botm.	1.023 1.023+	dr.	botm.	-	SW	0.25	Flooding; Wind NW; Force 3; Sky blue.
6000	Sakonnet Pt. Lt. SEXE - 2½ miles mag.		" 12.	2:00 p.m.	7½	fne. G.Sh.	44	0 botm.	11.8 11.4	0 botm.	1.023 1.023	dr.	botm.	-	WNW	0.375	Flooding; Wind NW; Force 3; Sky blue.
6001	Sakonnet Pt. Lt. SE - 3.25 miles mag.		" 12.	2:25 p.m.	5½	s. rky.	44	0 botm.	11.5 11.1	0 botm.	1.023 1.023+	7 ft. B. T.	botm.	-	NW½W	0.50	Flooding; Wind NW; Force 3; Sky blue.
6002	Sakonnet Pt. Lt. NWXW½W - 3.50 miles mag.		" 12.	2:40 p.m.	8½	hd.	45	0 botm.	11.8 11.7	0 botm.	1.023 1.023	7 ft. B. T.	botm.	-	WXN	0.25	Flooding; Wind NW; Force 3; Sky blue.
6003	Sakonnet Pt. Lt. SEXE½E - 4.25 miles mag.		" 12.	3:00 p.m.	3½	hd.	45	0 botm.	11.8 11.4	0 botm.	1.023 1.023	7 ft. B. T.	botm.	-	WXS⅔S	0.50	Flooding; Wind NW; Force 3; Sky blue.
NEAR DUTCH ISLAND HARBOR.																	
6004	Dutch Id. Harbor Lt. N½E 1 mile mag.		" 14.	10:30 a.m.	7-10	rky. Mussel bed.	52	0 botm.	11.0 11.2	0 botm.	1.022 1.022+	7 ft. B. T.	botm.	-	SXE	0.50	Ebbing; Wind SW; Force very light; Sky overcast, haze.
6005	Dutch Id. Harbor Lt. EXS .25 of mile mag.		" 14.	10:55 a.m.	9½	Mussel bed m.	52	0 botm.	10.8 11.0	0 botm.	1.022 1.022+	7 ft. B. T.	botm.	-	S	0.375	Ebbing; Wind SW; Force light; Sky overcast.
6006	Dutch Id. Harbor Lt. S½E .87 mile mag.		" 14.	11:23 a.m.	7½	rky.	52	0 botm.	10.6 10.8	0 botm.	1.0216 1.022	7 ft. B. T.	botm.	-	S	0.25	Ebbing; Wind SW; Force light; Sky overcast.
NARRAGANSETT BAY																	
6007	Dutch Id. Lt. SSW - 1.75 mile mag.		" 14.	11:45 a.m.	4-6	rky.sh.mussel bed.	51	0 botm.	10.4 10.5	0 botm.	1.022 1.022	7 ft. B. T.	botm.	-	SSW	0.375	Ebbing; Wind SW; Force 1; Sky overcast
6008	Conanicut N. Pt. Lt. NEXE ½E - 2.25 miles mag.		" 14.	1:00 p.m.	5	rky.	52	0 botm.	10.5 10.7	0 botm.	1.021 1.021+	7 ft. B. T.	botm.	-	SXW	0.375	Low water; Wind WXS; Force 1; Sky overcast
6009	Conanicut N. Pt. Lt. EXN½N 1½ miles mag.		" 14.	1:35 p.m.	4	m.	52	0 botm.	10.2 10.7	0 botm.	1.021 1.021+	7 ft. B. T.	botm.	-	SWXS	0.375	Flooding; Wind NW; Force 2; Sky cloudy.
6010	Conanicut N. Pt. Lt. SE½S 1.25 miles mag.		" 14.	2:05 p.m.	3¾	m.	52	0 botm.	10.0 10.1	0 botm.	1.020 1.021	7 ft. B. T.	botm.	-	WXS	0.25	Flooding; Wind NW; Force 2; Sky overcast
6011	Conanicut N. Pt. Lt. S¾E 1.50 miles mag.		" 14.	2:25 p.m.	4¾	m.sh.	52	0 botm.	10.1 10.0	0 botm.	1.020+ 1.0224	7 ft. B. T.	botm.	-	NWXW⅔W	0.50	Flooding; Wind NW; Force 2; Sky overcast

Form 625.

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 01

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11—6014

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 1898. 66.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
6012	Conanicut Pt. N. Lt. S½E - 2.50 miles mag.		Nov. 14.	2:45 p.m.	4½	m. sh.	52	0	10.0	0	1.020	7 ft. B. T.	bottm.	-	NWXW¼W	0.50	Flooding; Wind NW; Force 3; Sky cloudy.
								botm.	10.0	botm.	1.021					
6013	Warwick Lt. NNE - 2.50 miles mag.		" 14.	3:00 p.m.	4½	sh. m.	52	0	10.0	0	1.020	7 ft. B. T.	botm.	-	NW½N	0.375	Flooding; Wind NW; Force 3; Sky overcast
								botm.	9.8	botm.	1.020+					
6014	Rose Id. Lt. SXE - 1.75 miles mag.		" 14.	4:00 p.m.	12½	hd.	48	0	11.0	0	1.022	7 ft. B. T.	botm.	-	SWXS½S	0.50	Flooding; Wind NW; Force 4; Sky overcast
								botm.	10.8	botm.	1.022					
6015	Rose Id. Lt. SXE½E - .75 mile mag.		" 14.	4:20 p.m.	24	hd.	48	0	11.0	0	1.021+	7 ft. B. T.	botm.	-	SWXS	0.50	Flooding; Wind NW; Force 4; Sky overcast
								botm.	10.7	botm.	1.022+					
6016	Rose Id. Lt. NEXN - .50 mile mag.		" 14.	4:45 p.m.	19	hd.	49	0	10.3	0	1.021	7 ft. B. T.	botm.	-	SXW¼W	0.50	Flooding; Wind NW; Force 4; Sky overcast.
								botm.	10.6	botm.	1.021+					
6017	Sakonnet Pt. Lt. EXS⅜S - 4 miles mag.		" 15.	8:40 a.m.	8	rky.	40	0	12.7	0	1.023+	dr.	botm.	-	SW½S	0.375	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.3	botm.	1.024+					
EAST OF BRENTON'S REEF.																	
6018	Brenton's Reef Lt. Ship W½S - .75 mile mag.		" 15.	9:10 a.m.	14	fne.G.rky.s.	40	0	12.0	0	1.023+	dr.	botm.	-	WSW	0.50	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.3	botm.	1.024					
NEAR BRENTON'S REEF.																	
6019	Brenton's Reef Lt. Ship WXN½N - 1.50 miles. mag.		" 15.	9:20 a.m.	12	hd. G.	40	0	12.0	0	1.023+	dr/	botm.	-	WSW	0.125	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.4	botm.	1.023+					
6020	Brenton's Reef Lt. Ship SWXS - .50 mile mag.		" 15.	9:50 a.m.	15½		41	0	11.4	0	1.023+	dr.	botm.	-	NW½N	0.375	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.2	botm.	1.023+					
NEAR ENTRANCE TO NARRAGANSETT BAY																	
6021	Beaver Tail Lt. SE - 1.37 mile mag.		" 15.	10:30 a.m.	6¼	hd. S.	42	0	11.2	0	1.023	dr.	botm.	-	SXW	0.25	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	11.5	botm.	1.023					
WESTERN PASSAGE OF NARRAGANSETT BAY																	
6022	Whale Rock Lt. SXW - .50 mile mag.		" 15.	10:40 a.m.	8¾	hd. sh.	42	0	11.3	0	1.023	dr.	botm.	-	SSW	0.25	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	11.5	botm.	1.023					
NEAR WHALE ROCK LIGHT HOUSE.																	
6023	Whale Rock Lt. NE⅜E - .50 mile mag.		" 15.	10:55 a.m.	10	hd. sh.	44	0	11.2	0	1.023	dr.	botm.	-	SWXS½S	0.375	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	11.8	botm.	1.023+					

Form 625.

RECORD OF NEAR NARRAGANSETT PIER INVESTIGATION BY FISH HAWK 19 1898. 67.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
6024	Whale Rock Lt. NEXE½E - 1 mile mag.		Nov. 15.	11:10 a.m.	7⅜	hd.	43	0	11.2	0	1.022+	7 ft. B. T.	botm.	-	SW	0.375	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	11.8	botm.	1.023+					
6025	Whale Rock Lt. NE½E - 1.75 mile mag.		" 15.	11:20 a.m.	10	hd.	44	0	11.3	0	1.022+	7 ft. B. T.	botm.	-	S½E	0.50	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	12.1	botm.	1.023+					
OFF POINT JUDITH NECK.																	
6026	Pt. Judith Lt. SWXW - 3.37 miles mag.		" 15.	11:35 a.m.	10	hd.	44	0	11.6	0	1.023	7 ft. B. T.	botm.	-	SSW	0.25	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	12.8	botm.	1.023					
6027	Pt. Judith Lt. SW½W - 2.75 miles mag.		" 15.	11:45 a.m.	10½	hd.	44	0	11.6	0	1.023	7 ft. B. T.	botm.	-	SW	0.25	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	12.5	botm.	1.023					
6028	Pt. Judith Lt. SW½W - 2 miles mag.		" 15.	12:00 m.	6½	hd.	45	0	11.5	0	1.023	7 ft. B. T.	botm.	-	SSW	0.375	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	12.0	botm.	1.023					
6029	Pt. Judith Lt. SW½S - 1.63 miles mag.		" 15.	1:05 p.m.	6½	hd. rky.	46	0	11.5	0	1.023	7 ft. B. T.	botm.	-	SW	0.125	Ebbing; Wind NW; Force 5; Sky blue.
								botm.	12.0	botm.	1.023					
6030	Pt. Judith Lt. SWXW - 1.12 mile mag.		" 15.	1:18 p.m.	11	rky.	46	0	12.0	0	1.023	7 ft. B. T.	botm.	-	SXW	0.125	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	12.1	botm.	1.023					
6031	Pt. Judith Lt. EXS - .50 mile mag.		" 15.	1:35 p.m.	9	rky.	46	0	11.5	0	1.023	7 ft. B. T.	botm.	-	SXW½W	0.125	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	12.0	botm.	1.023					
6032	Pt. Judith Lt. NXE - .75 mile mag.		" 15.	1:50 p.m.	6¾	rky.	48	0	11.2	0	1.023	7 ft. B. T.	botm.	-	SWXW½W	0.25	Ebbing; Wind NW; Force 3; Sky blue.
								botm.	11.8	botm.	1.023					
6033	Pt. Judith Lt. ENE - .75 mile mag.		" 15.	2:03 p.m.	5	rky.	49	0	11.0	0	1.023	dr.	botm.	-	WXN½N	0.375	Low water; Wind NW; Force 3; Sky cloudy.
								botm.	11.1	botm.	1.023					
6034	Pt. Judith Lt. EXN - 1.50 miles mag.		" 15.	2:20 p.m.	6¾	G. S	47	0	11.0	0	1.023	dr.	botm.	-	WXS½S	0.25	Flooding; Wind NW; Force 3; Sky cloudy.
								botm.	10.3	botm.	1.023					
6035	Pt. Judith Lt. E½S - 2.25 miles mag.		" 15.	2:40 p.m.	7	G. S.	48	0	11.0	0	1.023	dr.	botm.	-	NWXN	0.25	Flooding; Wind NW; Force 4; Sky cloudy.
								botm.	10.4	botm.	1.023					
6036	Pt. Judith Lt. WXN¾N - 3 miles mag.		" 15.	3:00 p.m.	5¾	G. S.	47	0	10.8	0	1.023	dr.	botm.	-	W½N	0.25	Flooding; Wind NW; Force 4; Sky cloudy.
								botm.	10.1	botm.	1.023					
6037	Pt. Judith Lt. EXS - 3.75 miles mag.		" 15.	3:15 p.m.	5¾	G. S.	47	0	10.7	0	1.023	10 ft. B. T.	botm.	-	WXS	0.50	Flooding; Wind NW; Force 4; Sky cloudy.
								botm.	10.8	botm.	1.023					
6038	Pt. Judith Lt. E¾S - 4.50 miles mag.		" 15.	3:30 p.m.	5	rky.	47	0	11.0	0	1.023	10 ft. B. T.	botm.	-	SW½W	0.375	Flooding; Wind NW; Force 4; Sky cloudy.
								botm.	10.9	botm.	1.023					
NARRAGANSETT BAY.																	
6039	Castle Hill Lt. NNE - 7/10 mile mag.		" 16.	8:55 a.m.	20	hd.	51	0	12.2	0	1.022+	7 ft. B. T.	botm.	-	S¾W	0.375	High water; Wind NW; Force light; Sky hazy.
								botm.	12.0	botm.	1.023					

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RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 1898. 68.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
6040	Castle Hill Lt. SE 3/8 E - .12 mile mag.		Nov. 16.	9:35 a.m.	26	hd.	48	0 botm.	11.2 11.0	0 botm.	1.022+ 1.023+	7 ft. B. T.	botm.	-	SW	0.375	Ebbing; Wind NW; Force light; Sky hazy
6041	Rose Id. Lt. NXR½E - .7 mile mag.		" 16.	10:10 a.m.	23	hd.	58	0 botm.	11.0 12.2	0 botm.	1.022 1.023	7 ft. B. T.	botm.	-	SSE½E	0.375	Ebbing; Wind NW; Force light; Sky hazy
6042	Gould Id. Lt. WSW - 1.28 mile mag.		" 16.	11:00 a.m.	9½	m.sh.	54	0 botm.	10.8 11.0	0 botm.	1.021+ 1.023	7 ft. B. T.	botm.	-	SW 3/8 S	0.26	Ebbing; Wind NW; Force light; Sky cloudy.
6043	N. Pt. Lt. Conanicut Id. WNW 1/8 W - 2.50 miles mag.		" 16.	11:25 a.m.	15	m. sh.	58	0 botm.	10.1 10.5	0 botm.	1.021 1.022+	7 ft. B. T.	botm.	-	SW 5/8 S	0.3	Ebbing; Wind calm; Sky cloudy.
6044	Sand Pt. Lt. NNE 3/8 E.- 1.37 miles mag.		" 16.	11:55 a.m.	18	C.	58	0 botm.	10.1 11.0	0 botm.	1.020 1.022	7 ft. B. T.	botm.	-	SW¾W	0.3	Ebbing; Wind calm; Sky cloudy.
6045	Sand Pt. Lt. NXW 3/8 W - .68 mile mag.		" 16.	1:14 p.m.	13½	sft. - hd.	50	0 botm.	10.2 11.0	0 botm.	1.020 1.022+	7 ft. B. T.	botm.	-	S 7/8 W	0.37	Ebbing; Wind SSE; Force 2; Sky cloudy.
6046	Sand Pt. Lt. SWXW½W - .5 mile mag.		" 16.	1.40 p.m.	15	m. sh.	50	0 botm.	9.8 11.3	0 botm.	1.020 1.021+	7 ft. B. T.	botm.	-	SXW¾W	0.25	Ebbing; Wind SSE; Force 2; Sky cloudy.
6047	Sand Pt. Lt. SW - 1.25 miles mag.		" 16.	1:55 p.m.	11	m. sh.	50	0 botm.	9.8 10.7	0 botm.	1.020 1.023	7 ft. B. T.	botm.	-	SWXW 3/8W	.28	Ebbing; Wind SSE; Force 2; Sky cloudy.
6048	Sand Pt. Lt. SSW - 1.6 miles mag.		" 16.	2:30 p.m.	3¾	sft. M.	49	0 botm.	9.8 10.2	0 botm.	1.020 1.021	7 ft. B. T.	botm.	-	SW 3/8 S	0.25	Ebbing; Wind SSE; Force 2; Sky cloudy.
6049	Sand Pt. Lt. SXW7/8W - 2.15 miles mag.		" 16.	2:50 p.m.	4	m.	49	0 botm.	10.2 11.0	0 botm.	1.020 1.021	7 ft. B. T.	botm.	-	S 7/8 W	0.3	Low water; Wind SSE; Force 2; Sky cloudy.
OFF ENTRANCE SAN JUAN HARBOR			1899														
6050	Old Fort bearing S½W -1¼ miles; Battery on El Boqueron SEXE½E - 3¼ miles mag.		Jan. 13.	10:45 a.m.	91	S. M.	82	0 46 botm.	77 79 79	0 46 botm.	1.023 1.024 1.026	7 ft. B. T.	botm.	-	ENE	1.0	Wind ESE; Force ½; Sky - light clouds.
6051	Old Fort SW½S - 1½ miles; El Boqueron SE½E - 2¾ miles.		" 13.	1:20 p.m.	45	s. M.	84	0 botm.	C 24. 24.	0 botm.	1.023 1.027	Tangle			E¾N	0.75	Wind ENE; Force 2; Sky blue & cloudy.
6052	Old Fort SW¾W - 5¼ miles; Fort on El Bequeron SXW½W 3 miles.		" 13.	3:15 p.m.	310	s. M.	79	0 botm.	26.5 23.0	0 botm.	1.023 1.028	dr.	botm.	-	SEXE¾E	1.50	Wind ENE; Force 2; Sky blue, light clouds
SAN JUAN HARBOR																	
6053	NW angle of Moon Castle ¼ mile.		" 16.	10:30 a.m.	4-7½	fne. S.	77	0 botm.	26.5 26.0	0 botm.	1.023 1.0242	dr.	botm.	-	NXW	0.25	Ebb; Wind E; Force 2; Sky light clouds.
6054	NW angle of Moon Castle 3/8 mile.		" 16.	11:00 a.m.	4½-5½	S. M.	77	0 botm.	25.0 25.2	0 botm.	1.023 1.025	Tangle & dr.	botm.	-	N	0.25	Ebb; Wind E; Force 5; Sky overcast.

Form 625.

RECORD OF OFF AGUADILLA, P. R. INVESTIGATION BY [illegible] 19 01

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom	Temperature. Air. Degrees.	Temperature. Water. Depth (fms.)	Temperature. Water. Degrees.	Salinity. Depth (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth (fms.)	Tidal. Current. Direction.	Tidal. Current. Distance (miles)	Remarks.
6055	SW point of Descocheo Id. WXS½S - 18½ miles; Pt. de Brugueu Lt. House NEXN½N 3½ miles.		Jan. 18.	11:15 a.m.	137	S. M. Sh.	82	0 botm.	26.2 24.0	0 botm.	1.023 1.0248	dr. & Tangle	botm. -	NEE	0.50	Wind E: Force 3: Sky light clouds.
6056	San Carlos Church in Aguidilla SEXE½E - 3 miles; Pt. de Brugueu Lt. House NE½E - 3½ miles.		" 18.	1:20 p.m.	248	S. M. Sh.	87	0 botm.	26.5 24.5	0 botm.	1.023 1.025	dr. & Tangle	botm. -	NEE½E	0.50	Wind E: Force 3: Sky light clouds.
HARBOR OF MAYAGUEZ, P.R.																
6057	Custom House E½N 3/8 mile; Pt. de Algarrobo NWXW½N - 1½ miles.	372	" 19.	2:15 p.m.	4½	m.	83.5	0 botm.	25.0 25.6	0 botm.	1.023 1.028	dr. & Tangle	botm. -	NNEE½E	0.25	Wind SE: Force 3: Sky light clouds.
6058	Custom House EXS - 1½ miles; Pt. de Algarrobo NXW - 1-1/8 miles.	"	" 19.	3:00 p.m.	7½	m.	79	0 botm.	26.0 26.0	0 botm.	1.023 1.025	9 ft. R. T.	botm. -	S½W	0.50	Wind SE: Force 3: Sky light clouds.
6059	Custom House E½S - 2 miles; Pt. del Algarrobo NXE½E - 1-3/8 miles.	"	" 19.	4:00 p.m.	7-10	m.	82	0 botm.	26.0 27.0	0 botm.	1.023 1.027	9 ft. R. T.	botm. -	S	0.625	Wind SE: Force 3: Sky light clouds.
6060	Custom House EXS½S - 2½ miles; Pt. del Algarrobo NE½E - 1-1/8 miles.	"	" 19.	4:20 p.m.	12	m.	84	0 botm.	26.2 27.0	0 botm.	1.023 1.0245	dr.	botm. -	E	0.375	Wind SE: Force 1: Sky light clouds.
6061	Black bouy Entrance Harbor NXW½W - 1/16 mile; Pt. del Algarrobo EXN - 1½ miles.	"	" 20.	9:50 a.m.	18	S. M.	78	0 botm.	26.2 26.0	0 botm.	1.023 1.024	9 ft. R. T.	botm. -	SEE	0.375	Wind SE: Force ½: Sky light clouds.
6062	Black bouy Entrance Harbor NE½E - ½ mile; Red bouy Entrance Harbor ESE ½ mile.		" 20.	10:15 a.m.	25-30	M.S.Sh.	76	0 botm.	26.0 25.0	0 botm.	1.023 1.024	dr.	botm. -	SEE½E	0.50	Wind SE: Force 1: Sky light clouds.
6063	Tangent of Land South about Pt. Melomas S - 14½ miles; Pt. del Algarrobo E -2½ miles.	1001	" 20.	10:45 a.m.	76	rky.Co.S.	78	0 botm.	25.8 20.2	0 botm.	1.0252 1.025	9 ft. R. T.	botm. -	S	1.00	Wind SE: Force 1: Sky cloudy.
6064	Tangent of Land about Pt. Melomas S - 13½ miles; Custom House E½N -4-3/8 miles.	"	" 20.	11:35 a.m.	33½	S. M.	77	0 botm.	25.7 24.7	0 botm.	1.023 1.0243	dr.	botm. -	S	0.50	Wind SE: Force 3: Sky overcast.
6065	Custom House NE½E - 4½ miles; Tangent of land South about Pt. Melomas 11 miles.	"	" 20.	1:30 p.m.	4-6	Co.	80	0 botm.	26.0 20.0	0 botm.	1.0252 1.0236	dr.	botm. -	S	0.25	Wind SSE: Force ½: Sky cloudy.
6066	Pt. Jiguero Lt. N½W - 9 miles; Pt. del Algarrobo E - 4-5/8 miles.	"	" 20.	2:35 p.m.	172	M. S.	78	0 botm.	26.0 23.0	0 botm.	1.023 1.0246	9 ft. R. T.	botm. -	S½E	1.00	Wind SSE: Force ½: Sky light clouds.

Form 625.

INVESTIGATION BY FISH HAWK 19 01

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RECORD OF MAYAGUEZ HARBOR INVESTIGATION BY FISH HAWK 19 1899.

70.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
6067	Pt. Jiguero Lt. N - 10½ miles; Pt. del Algarrobo ENE½N - 5¾ miles.	1001	Jan. 20.	3:40 p.m.	120	Co.	84	0 botm.	26.3 24.0	0 botm.	1.0232 1.025	dr.	botm.	-	SWXS	0.75	Wind SSE; Force ½; Sky light clouds.
6068	Custom House ESE½E - 7½ miles; Pt. Jiguero Lt. N¼E - 8¼ miles.		Jan. 21.	12:55 p.m.	237		84.5	0 botm.	28.0 23.2	0 botm.	1.023 1.0242	9 ft. B. T.	botm.	-	SSE	0.50	Wind SW; Force 1; Sky blue.
6069	Pt. Jiguero Lt. N 1/8 E; 8¼ miles; Custom House ESE½E - 7-7/8 miles.		" 21.	2:10 p.m.	231	M. S.	80	0 botm.	26.6 23.5	0 botm.	1.023 1.0242	dr.	223	-	SXE½E	0.50	Wind SW; Force 1; Sky blue.
6070	Custom Ho. E 5/8 S - 9 miles; Pt. Jiguero N 7/8 E 10 miles.		" 21.	3:15 p.m.	225	rky.	78	0 botm.	26.0 24.6	0 botm.	1.0233 1.0242	9 ft. B. T.	220	-	SWXS	0.625	Wind SW; Force 1; Sky blue.
OUTSIDE HARBOR MAYAGUEZ																	
6071	Custom Ho. E 3/8 N - 9¼ miles; Pt. de Jiguero NXE 11¼ miles.		" 24.	11:50 a.m.	192		84	0 botm.	27.0 25.5	0 botm.	1.023 1.0245	9 ft. beam trawl	163	-	S½W	1.00	Wind SE; Force 2; Sky blue.
OFF PT. MOLINES																	
6072	Cabo Rojo Lt. Ho. SSE - 5¼ miles off Guaniguilla NNE 2½ miles mag.		" 25.	1:20 p.m.	7¼	Co.S.sh.	76	0 botm.	26.0 26.0	0 bottm.	1.0228 1.023	Tangle			N 3/8 E	1.50	Wind SE; Force 4; Sky cloudy, blue.
6073	Atalaya Rock N¼E - 17½ miles Pt. Guaniguilla SXE¾E - 1-1/8 miles.		" 25.	2:05 p.m.	8		80	0 botm.	26.0 27.0	0 botm.	1.023 1.023	dr.			N¼E	0.75	Wind SE; Force 4; Sky blue, light cloud
OFF PUERTO REAL																	
6074	Pt. Guaniguilla S¼E - 2 miles; Pt. Boca-prieta E½N - 1 mile mag.		" 25.	2:35 p.m.	8½	S. Co.	82	0 botm.	26.0 26.0	0 botm.	1.023 1.023	Tangle			ENE	0.50	Wind SE; Force 1½; Sky blue, light cloud
OFF BOCA PRIETA																	
6075	Pt. Guaniguilla SSE - 3¼ miles; Faudneo Cay E - 1¾ miles.		" 25.	3:20 p.m.	8½	S. Co.	80	0 botm.	26.0 25.5	0 botm.	1.0228 1.023	Tangle			W	0.75	Wind SE; Force ½; Sky blue, light rain.

See Porto Rico Report.

Form 625.

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 01

74

RECORD OF NARRAGANSETT BAY INVESTIGATION BY FISH HAWK 19 1899.

71.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7000	Dutch Id. Lt. NEXN - $\frac{1}{2}$ mile.	June 22.	8:10 a.m.	$6\frac{3}{4}$	m.	61	0	12.0	0	1.0225	7 ft. B. T.	botm.	-	S$\frac{1}{2}$E	0.375	1/3 ebb; Wind N; Force 5; Sky blue.
							botm.	12.1	botm.	1.022						
7001	Whale Rock NE 5/8 N - 1 mile.	" 22.	8:40 a.m.	$10\frac{1}{2}$	m.	63	0	11.2	0	1.023	7 ft. B. T.	botm.	-	SXE	0.625	Ebb; Wind N; Force 4; Sky blue.
							botm.	15.0	botm.	1.0234						
7002	Whale Rock N$\frac{3}{4}$E - $2\frac{1}{4}$ miles.	" 22.	9:15 a.m.	16	m.	63	0	11.0	0	1.0232	7 ft. B. T.	botm.	-	SSE	0.50	Ebb; Wind NE; Force 3; Sky blue.
							botm.	11.0	botm.	1.0242						
7003	Beaver Tail NNW - 2 miles.	" 22.	9:55 a.m.	16	m.	62	0	13.0	0	1.023	7 ft. B. T.	botm.	-	NNE	0.50	Ebb; Wind NE; Force 3; Sky blue.
							botm.	12.5	botm.	1.023						
7004	Cape Poge SEXS - 2-3/8 miles.	" 26.	11:00 a.m.	$5\frac{1}{2}$	s.	72	0	20.0	0	1.0225	7 ft. B. T.	botm.	-	SEXE	0.50	2/3 flood; Wind calm Sky light clouds.
							botm.	19.4	botm.	1.023						
VINEYARD SOUND																
7005	Cape Poge S$\frac{3}{4}$W - $2\frac{1}{2}$ miles.	" 26.	11:40 a.m.	11	s.	74	0	20.0	0	1.0226	7 ft. B. T.	botm.	-	ESE	0.50	$\frac{3}{4}$ flood; Wind calm; Sky light clouds.
							botm.	19.4	botm.	1.023						
7006	Cape Poge SE 3-3/8 miles.	" 26.	12:35 p.m.	7	s.	70	0	19.0	0	1.0232	7 ft. B. T.	botm.	-	EXS$\frac{1}{2}$S	0.50	Flood; Wind SSW; Force 1; Sky blue.
							botm.	19.4	botm.	1.0023						
7007	East Chop Lt. NWXW$\frac{1}{2}$W - 1-5/8 miles.	" 26.	1:30 p.m.	$6\frac{3}{4}$	s.	78	0	19.6	0	1.0226	7 ft. B. T.	botm.	-	SE	0.50	High water; Wind SSW Force 2; Sky blue.
							botm.	19.0	botm.	1.023						
7008	East Chop Lt. W$\frac{3}{4}$S - $\frac{3}{4}$ mile.	" 26.	2:00 p.m.	7	s.	68	0	19.0	0	1.023	7 ft. B. T.	botm.	-	NW$\frac{3}{4}$W	0.50	1/8 ebb; Wind SSW; Force 2; Sky blue.
							botm.	19.0	botm.	1.023						
7009	East Chop Lt. S$\frac{1}{2}$E - 5/8 mile.	" 26.	2:20 p.m.	$10\frac{1}{4}$	s.	73	0	19.0	0	1.0226	7 ft. B. T.	botm.	-	WXN$\frac{1}{2}$N	0.50	Ebb; Wind SSW; Force 1; Sky blue.
							botm.	18.6	botm.	1.023						
7010	Gay Head SXW - $3\frac{1}{2}$ miles.	July 7.	10:50 a.m.	12	s.	71	0	18.8	0	1.023	7 ft. B. T.	botm.	-	ENE	0.625	Wind SSW; Force 2; Sky hazy.
							botm.	16.3	botm.	1.0234						
7011	Gay Head SXW$\frac{1}{2}$W - $3\frac{1}{2}$ miles.	" 7.	11:20 a.m.	$12\frac{1}{2}$	s.	71.5	0	18.6	0	1.023	Tangle.	botm.	-	WSW	0.375	Wind SSW; Force 2; Sky hazy.
							botm.	17.0	botm.	1.0234						
7012	Nobska Lt. WXS$\frac{3}{4}$S - $\frac{3}{4}$ mile.	" 7.	1:55 p.m.	5		70	0	21.2	0	1.022	7 ft. B. T.	botm.	-	WSW	0.375	Wind SSW; Force 2; Sky hazy, blue.
							botm.	20.4	botm.	1.0222						
7013	Gay Head SXW - 4 miles.	" 10.	12:45 p.m.	12	s.rky.	70	0	18.2	0	1.0232	7 ft. B. T.	botm.	-	NE	0.50	$\frac{3}{4}$ flood; Wind SW; Force 2; Sky blue.
							botm.	15.3	botm.	1.024						
7014	Gay Head S - 2 miles.	" 10.	1:15 p.m.	$14\frac{1}{2}$	s.rky.	69	0	19.0	0	1.023	7 ft. B. T.	botm.	-	EXS	0.50	Near high water; Wind SW; Force 2; Sky blue, light cloud
							botm.	15.4	botm.	1.0236						
7015	Gay Head SSE - 1-5/8 miles.	" 10.	1:45 p.m.	$14\frac{1}{2}$	mussel bed.	68	0	18.7	0	1.0232	7 ft. B. T.	botm.	-	E$\frac{1}{2}$N	0.50	High water; Wind SW; Force 2; Sky blue.
							botm.	16.4	botm.	1.0238						
7016	Gay Head S$\frac{1}{2}$W - 1-1/8 mile.	" 10.	2:25 p.m.	14	mussel bed. m.	68	0	19.6	0	1.023	7 ft. B. T.	botm.	-	EXN	0.50	$\frac{1}{4}$ ebb; Wind SW; Force 2; Sky blue.
							botm.	16.3	botm.	1.0236						

Form 625.

RECORD OF VINEYARD SOUND — INVESTIGATION BY FISH HAWK 19 01

INVESTIGATION BY FISH HAWK 19 1899.

74 — 268 — 72.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7017	Gay Head S½W - 4½ miles.		July 10.	3:10 p.m.	8½	s.rky.	68	0	19.0	0	1.0234	7 ft. B. T.	botm.	-	ENE	0.625	¼ ebb; Wind SW; Force 1; Sky cloudy.
								botm.	16.0	botm.	1.023					
7018	Muskeget Life Saving Sta. NE½E - 8 miles.		" 11.	10:30 a.m.	17½	s.	69.5	0	19.5	0	1.023	7 ft. B. T.	botm.	-	SW	0.50	½ flood; Wind SW; Force 2; Sky blue.
								botm.	13.7	botm.	1.0242					
7019	Muskeget Life Saving Sta. NE - 10 miles.		" 11.	11:20 a.m.	19	s.	69	0	19.2	0	1.0232	7 ft. B. T.	botm.	-	SSW	0.75	¾ flood; Wind SW; Force 2; Sky blue.
								botm.	13.5	botm.	1.0242					
7020	Muskeget Life Saving Sta. NEXE½E - 9 miles.		" 11.	12:20 p.m.	15	s.	69	0	19.0	0	1.0235	7 ft. B. T.	botm.	-	S	0.50	7/8 flood; Wind SW; Force 3; Sky blue.
								botm.	14.7	botm.	1.0242					
7021	Muskeget Life Saving Sta. EXN - 8¾ miles.		" 11.	1:00 p.m.	5½	s.	69.6	0	20.4	0	1.0224	7 ft. B. T.	botm.	-	SSE	1.25	High water; Wind SW; Force 2; Sky blue.
								botm.	18.6	botm.	1.023					
7022	Gay Head S½W - 4½ miles.		" 12.	11:00 a.m.	12½		75	0	16.0	0	1.023	7 ft. B. T.	botm.	-	NEXN	0.375	½ flood; Wind SW; Force 2; Sky blue.
								botm.	12.5	botm.	1.0233					
7023	Gay Head S½W - 3 miles.		" 12.	11:25 a.m.	14½		73	0	19.0	0	1.023	7 ft. B. T.	botm.	-	ENE	1.00	½ flood; Wind SW; Force 2; Sky blue.
								botm.	17.5	botm.	1.0232					
7024	Gay Head SWXS - 2¾ miles.		" 12.	11:50 a.m.	15		74	0	19.0	0	1.023	7 ft. B. T.	botm.	-	E	0.50	¾ flood; Wind SW; Force 2; Sky blue.
								botm.	17.2	botm.	1.0232					
7025	Gay Head S½W - ¾ mile.		" 12.	12:30 p.m.	15	s.	73	0	18.8	0	1.023	7 ft. B. T.	botm.	-	EXN	0.375	¾ flood; Wind SW; Force 2; Sky blue.
								botm.	17.6	botm.	1.0235					
7026	Nobska Lt. WXS - ¾ mile.		" 12.	3 :40 p.m.	12	rky.	72	0	22.2	0	1.0224	7 ft. B. T.	botm.	-	WSW	0.375	¼ ebb; Wind SW; Force 2; Sky blue.
								botm.	20.5	botm.	1.023					
7027	Nobska WSW - 1 mile		" 12.	4:00 p.m.	6		72	0	21.3	0	1.0224	Tangle	botm.	-	WSW	0.50	½ ebb; Wind SW; Force 2; Sky blue.
								botm.	20.5	botm.	1.023					
7028	Gay Head SEXS½S - 1½ miles.		" 15.	10:55 a.m.	16½	m.	80	0	19.0	0	1.023	7 ft. B. T.	botm.	-	W½S	0.50	½ ebb; Wind SW; Force 2; Sky blue.
								botm.	14.5	botm.	1.0242					
7029	Gay Head SXW½W - 1¼ miles.		" 15.	11:40 a.m.	17½	m.	75	0	20.2	0	1.0222	7 ft. B. T.	botm.	-	WXS	0.50	Wind ENE; Sky blue.
								botm.	13.1	botm.	1.0244					
7030	Gay Head S½W ¾ mile.		" 15.	12:55 p.m.	12	m.	73.5	0	20.6	0	1.022	7 ft. B. T.	botm.	-	EXN	0.50	Wind ENE; Force 2; Sky blue, light clouds
								botm.	15.7	botm.	1.024					
7031	Gay Head SXW - 3½ miles.		" 15.	1:20 p.m.	8	G.	72.5	0	20.6	0	1.022	7 ft. B. T.	botm.	-	ENE	0.50	Wind ENE; Force 2; Sky blue, cloudy.
								botm.	18.0	botm.	1.023					
7032	Gay Head S¾W - 4½ miles.		" 15.	2:15 p.m.	10	G.	74	0	22.0	0	1.0216	7 ft. B. T.	botm.	-	NEXN	0.50	Wind ENE; Force 2; Sky blue, light clouds
								botm.	19.0	botm.	1.0228					
7033	Nobska Pt. WXN ¾ mile.		" 20.	9:50 a.m.	5½	rky. G.	72	0	20.7	0	1.022	7 ft. B. T.	botm.	-	W	0.25	Wind E; Force 2; Sky blue.
								botm.	21.0	botm.	1.0224					
7034	Nobska Pt. WXN - 1 mile.		" 20.	10:20 a.m.	6	G.	72	0	21.0	0	1.022	7 ft. B. T.	botm.	-	W	0.50	Wind E; Force 2; Sky blue.
								botm.	20.6	botm.	1.022					
7035	Gay Head S - 3 miles.		" 20.	2:40 p.m.	15½		68.5	0	19.5	0	1.0226						
								botm.	14.4	botm.	None taken	9 ft. B. T.	botm.	-	NE	0.75	Wind ENE; Force 1; Sky blue.

Form 625.

RECORD OF VINEYARD SOUND INVESTIGATION BY FISH HAWK 19 01

INVESTIGATION BY FISH HAWK 19 1899. 73.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7036	Gay Head S¾W - 2¾ miles.		July 20.	3:10 p.m.	17		69	0 botm.	18.8 16.5	0 botm.	1.023 1.0234	9 ft. B. T.	botm.	-	ENE	1.25	Wind ENE; Force 2; Sky blue.
BUZZARDS BAY																	
7037	Bird Id. Lt. N¾E - 5¾ miles.		" 24.	11:15 a.m.	8	m.	68.5	0 botm.	22.5 21.4	0 botm.	1.0212 1.0218	9 ft. B. T.	botm.	-	EXS	0.625	Wind E; Force 3; Sky hazy.
7038	Bird Id. Lt. N¾E - 3¾ miles.		" 24.	11:45 a.m.	8	m.	70	0 botm.	23.6 22.0	0 botm.	1.021 1.0214	7 ft. B. T.	botm.	-	ESE	0.75	Wind E; Force 3; Sky blue.
7039	Bird Id. Lt. EXN - 1½ miles.		" 24.	12:45 p.m.	3	m.	70	0 botm.	24.0 24.0	0 botm.	1.0204 1.020	7 ft. B. T.	botm.	-	ENE	1.00	Wind E; Force 2; Sky blue.
7040	Bird Id. Lt. NEXE - 2 miles.		" 24.	2:05 p.m.	4	m.	69	0 botm.	23.0 23.0	0 botm.	1.0204 1.0206	dr.	botm.	-	NEXE	0.50	Wind E; Force 4; Sky light clouds.
LONG ISLAND SOUND																	
7041	Eatons Neck Lt. SE - 2 miles.		" 29.	10:00 a.m.	10½	m.	77.8	0 botm.	22.4 21.0	0 botm.	1.018 1.0188	7 ft. B. T.	botm.	-	SSW	0.625	Sky cloudy.
7042	Eatons Neck Lt. W½S - 2¼ miles.		" 29.	11:45 a.m.	9	m.	79	0 botm.	23.5 21.4	0 botm.	1.018 1.0184	7 ft. B. T.: dr.	botm.	-	S	0.50	Sky cloudy.
7043	Eatons Neck Lt. SWXW½W - 6 miles.		" 29.	1:45 p.m.	18½	m.	79	0 botm.	23.5 19.9	0 botm.	1.018 1.0186	7 ft. B. T.; dr.	botm.	-	WSW	1.00	Sky blue; cloudy.
7044	Eatons Neck Lt. SWXS½S - 7¼ miles.		" 29.	2:35 p.m.	7½	m.	77	0 botm.	23.0 22.7	0 botm.	1.018 1.018	7 ft. B. T.; dr.	botm.	-	SXW	0.50	Sky light clouds.
7045	Eatons Neck SXW - 4¾ miles.		" 29.	3:20 p.m.	12	m.	76	0 botm.	23.2 21.4	0 botm.	1.018 1.0194	7 ft. B. T.; dr.	botm.	-	WSW	0.50	Sky; light clouds.
7046	Eatons Neck Lt. SXE½E - 5 miles.		" 29.	4:15 p.m.	13	m.	76	0 botm.	23.0 21.0	0 botm.	1.018 1.0186	Tangle			S¾W	0.50	Sky hazy.
VINEYARD SOUND																	
7047	Gay Head Lt. S½W - 3 miles.		Aug. 4.	11:25 a.m.	11	s.m.	72	0 botm.	21.0 19.0	0 botm.	1.0222 1.023	7 ft. B. T.	botm.	-	ENE	1.25	Sky light clouds.
7048	Gay Head Lt. SWXS - 2 5/8 miles.		" 4.	12:00 m.	15	s.m.	70	0 botm.	20.0 17.0	0 botm.	1.0232 1.0236	7 ft. B. T.; dr.	botm.	-	E	0.50	Sky light clouds.
7049	Gay Head Lt. SW½S - 2¼ miles.		" 4.	12:50 p.m.	13	s. sh.	71	0 botm.	20.2 18.0	0 botm.	1.023 1.0232	7 ft. B. T.; dr.	botm.	-	EXN	0.625	Sky light clouds.

Form 635. RECORD OF ..... INVESTIGATION BY FISH HAWK 19 01

74

11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. F.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift.	Remarks.
7103	Anclote Lt. Bearing NExE dist. 3½ miles		1901 Mar. 8	11.25 A.M.	4	hrd. S.	66	0	14.5			7' Tnr.			SSE1/8Mi.		Wind SE, force 4, Blue sky
								Botm	14.7								
7104	At Johns Pass bear'y East dist. 2½ miles		" 13	9.00 A.M.	3½	" "	70.5	0	17.8			9' B.T.			So.¼ Mi.		Wind SSE, force 2 Overcast sky.
								Btom	17.6								
7105	Same as above dist 5 Mi.		" 13	9.30 "	3½	S.Brk Sh & R	72.	0	17.6			9' B.T.			So.¼ Mi.		Wind SSE, force 2, Overcast sky.
								Botm	17.5								
7106	Anclote Lt. bear'y E7/8 N. Dist. 21½ miles		" 28	10.30 "	12½	R.Cor & S.	71.	0	18.			Dredge			NE ¼ Mi.		Wind SW, force 2, Blue sky.
								Botm	17.2								
7107	Anclote Lt. " E x N Dist. 20½ mi.		" 28	11.40 "	11	Same as above	72.	0	17.8			7' Tnr.			NE ¼ Mi.		Wind SW, force 2, Blue sky.
								Botm.	17.2								
	N. Channel into Tampa Bay.																
7108	Egmont Key Lt. bear'y SE ¾ E dist. 1 mile		" 28	4.45 P.M.	12¾	br. Sh & S.	72.	0	19.7			7' Tnr.			W.3/8 Mi.		Wind calm, force 0 Blue sky.
								Botm	19.1								
	Tampa Bay.																
7109	Beacon H.S. bear'y W ¾ N. dist. 1 1/8 Mi.		" 29	9.00 A.M.	6½	M.	71.	0	20.3			7' Tnr.			ENE¼ Mi.		Wind NNE, force 1, Blue & cloudy.
								Botm	20.5								
	Gasdens Pt. bear'y NxE½E dist. 1½ miles		" "	9.00 "	6½	M.	71.	0	20.3			7' Tnr.			ENE¼ Mi.		Wind NNE, force 1, Blue & cloudy.
								Botm	20.5								
7110	Beacon H.S. br. NxW¾W-D0½Mi		" "	9.40 "	6	M.	71.	0	20.3			7' Tnr.			E ¼ Mi.		Wind NNE, force 1, Blue sky.
	Gadsdens Pt." NE½N -D2½Mi.							Botm.	20.4								
7111	Beacon No. 6 br. NWxW-D2½Mi.		" "	10.30 "	3½	roky	74.	0	20.2			7' Tnr.			NE 3/8 Mi.		Wind NNE, force 1, Blue sky.
	Beacon H.S." NE½N-D. 2Mi.							Botm.	20.5								
7112	Beacon No. 6. Br. WxN-D. 2½Mi.		" "	11.00 "	5¼	M.	75.	0	20.3			7' Tnr.			NExE ¼ Mi.		Wind NNE, force 1, Blue sky.
	" H.S. " NExE-D. 1⅞Mi.							Botm	20.7								
7113	Beacon No. 6 " NW½W-D. 1⅞Mi.		" "	11.30 "	3½	hrd. S&R	76.	0	20.0			7' Tnr.			NExN ½ Mi.		Wind NNE, force 1, Blue sky.
	" H.S. " NE½E-D. 2⅜"							Botm.	20.8								
7114	Beacon No. 6 " NW½W-D. 2¼Mi.		" "	12.45 P.M.	3¼	" "	77.	0	20.2			7' Tnr.			NExN ⅝ Mi.		Wind Calm, force 0, Blue sky.
	" H.S. " NE-D. 2¾ Mi.							Botm.	21.0								
7115	Beacon No. 6 " West-D1⅜Mi		" "	1.30 "	3¾	M.	81.	0	20.0			7' Tnr.			ESE 1/8 Mi.		Wind Calm, force 0, Blue sky.
	" H.S. " ExN-D. 2⅛Mi							Botm.	21.0								
7116	Beacon No. 6 " N¼W-D ½Mi.		" "	2.15 "	3¼	M.	77.	0	20.7			7' Tnr.			WSW ¼ Mi.		Wind NNE, force 2, Blue sky.
	" 6 & 8 on range							Botm	20.5								
7117	Beacon No. 1. Br. N½E-D2⅞Mi		Apr. 1	10.55 A.M.	5	Cor brk Sh.S.	75.	0	22.8			7' Tnr.			East ¼ Mi.		Wind East, force 2, Blue & cloudy.
	" " 5. " NE½N-D3⅞Mi							Botm	23.0								
7118	Beacon No. 5 " N¼E-D. 3⅝Mi		" "	11.40 "	3¼	"	76.	0	22.0			7' Tnr.			ENE5/8Mi.		Wind East, force 2, Blue & cloudy.
	Indian Hill Beacon " NE-D. 5½Mi.		" "			"		Botm	22.2								
7119	Mullet Key Beacon, WSW½W. Dist. 1¾ miles		" "	1.40 P.M.	3½	Br Sh.S	79	0	23.0			7' Tnr.			SW3/8Mi.		Wind Calm, force 0, Blue & cloudy.
								Botm	21.7								
7120	Mullet K. Beacon, N¼E-D2⅞Mi Red Buoy No. 4-S⅛W-D⅝ Mi.		" "	2.05 "	9½	" " "	83	0	22.2			7' Tnr.			WxS ¼Mi.		Wind SSW, force 3, Blue & cloudy.
								Botm.	22.0								
															33/8 Mi.		Blue & cloudy.
								0	19.8								
								Botm	19.0			same as above			WxS ⅜ Mi		same as above.

Dredging Record

Season of 1901 West Coast of Florida.

Number of Station	Date	Time	Locality	Exact Position	Bottom: Depth fms.	Bottom: Nature	Instrument used	Drift	Density: Surface	Density: Bottom	Temperature: Air [Fahr.]	Temperature: Surface	Temperature: Bottom	Barometer	Sky	Wind: Direction	Wind: Force
7103	March 8	11-25 A.M.	Anclote Section	Anclote Lt. bearing NE. x E. dist. 3½ miles	4	hrd S.	7ft. Beam Trl.	SSE. ⅛ mile	1.025	1.026	66°	14.5°	14.7°	30.22°	b.	SE.	4
7104	" 13	9-00 "	Highland Section	⊙ at John's Pass bearg East dist. 2½ miles	3¼	"	9ft "	South ¼	1.026	1.0251	70.5	17.8	17.6	29.94	o.	SSE.	2
7105	" 13	9-30 "	"	" " " "	5	S. & Sh & R	9ft "	" ¼ "	1.026	1.0252	72.	17.6	17.5	29.94	o.	"	2
7106	" 28	10-30 "	Anclote Section	Anclote Lt. E. ⅞ N. " 21½ "	12½	R. Cor & S.	Dredge	NE ¼	1.026	1.0272	71.	18.	17.2	29.90	b.	SW.	2
7107	" 28	11-40 "	"	" E. x N. " 20½ "	11	"	7ft Beam Trawl	" ¼ "	1.0262	1.027	72.	17.8	17.2	29.90	b.	"	2
7108	" 28	4-45 P.M.	N. Channel into Tampa Bay	Egmont Key Lt. bearg SE ¾ E. dist. 1 "	12¾	br. Sh & S	"	West ⅜ "	1.025	1.0252	72.	19.7	19.1	29.87	b.	Calm	0
7109	" 29	9-00 A.M.	Tampa Bay	Beacon H.S. bearing W. ¾ N. " 1⅛ " Gadsden's Pt. " N x E. ½ E. " 1½ "	6½	M.	"	ENE ¼	1.018	1.019	71.	20.3	20.5	29.88	b. c.	NNE	1
7110	" 29	9-40 "	"	Beacon H.S. " N x W ¾ W. " ½ " Gadsdens Pt. " NE. ½ N. " 2½ "	6	"	"	East ¼	1.0198	1.020	71.	20.3	20.4	29.88	b.	"	1
7111	" 29	10-30 "	"	Beacon No. 6 " NW x W " 2½ " Beacon H.S. " NE ½ N " 2 "	3½	rcky	"	NE ⅜ "	1.0212	1.0205	74	20.2	20.5	29.91	b.	"	1
7112	" 29	11-00 "	"	Beacon No. 6 " W x N " 2½ " Beacon H.S. " NE. x E. " 1⅛ "	5¼	M.	"	NE x E ¼	1.0194	1.020	75.	20.3	20.7	29.90	b.	"	1
7113	" 29	11-30 "	"	Beacon No. 6 " NW ½ W. " 1½ " Beacon H.S. " NE. ½ E. " 2¾ "	3½	hrd S & R	"	NE. x N ½	1.020	1.020	76.	20.	20.8	29.90	b	"	1
7114	" 29	12-45 P.M.	"	Beacon No. 6 " NW ½ W. " 2¼ " Beacon H.S. " NE. " 2¾ "	3¼	"	"	" ⅝	1.020	1.0202	77.	20.2	21.	29.90	b	Calm	0
7115	" 29	1-30 "	"	Beacon No. 6 " West " 1⅛ " Beacon H.S. " E. x N. " 2⅛ "	3¾	M.	"	ESE. ⅛ "	1.0196	1.020	81.	20.	21.	29.86	b	"	0
7116	" 29	2-15 "	"	Beacon No. 6 " N ¼ W. " ½ " Beacon Nos. 6 & 8 on range	3¼	"	"	WSW. ¼ "	1.020	1.0205	77.	20.7	20.5	29.85	b	NNE.	2
7117	April 1	10-55 A.M.	"	Beacon No 1 bearg. N ¼ E. dist 2⅛ " Beacon No. 5 " NE ¼ N. " 3¼ "	5.	Cor brk Sh S	"	East ¼ "	1.0224	1.0228	75.	22.8	23.	29.85	b.c.	East	2
7118	" 1	11-40 "	"	Beacon No. 5 " N ¼ E. " 3⅜ " Indian Hill Beacon NE. " 5¼ "	3¼	"	"	ENE ⅝ "	1.0228	1.023	76.	22.	22.2	29.85	b.c.	"	2
7119	" 1	1-10 P.M.	"	Mullet Key Beacon WSW ½ W. " 1¾ "	3½	"	"	SW ⅜ "	1.0225	1.023	79.	23.	21.7	29.82	b.c.	Calm	0
7120	" 1	2-05 "	"	Mullet Key Beacon N ⅛ E. " 2⅛ " Red Buoy No 4 S ⅛ W. " ⅜ "	3½	brk Sh S	"	W x S ¼ "	1.024	1.0243	83.	22.2	22.	29.82	b.c.	SSW	3
7121	" 1	3-00 "	"	S Tangent of Mullet Key NE. " ⅝ " Egmont Key Lt. W. ¾ S. " 1¾ "	6¼	"	"	" ¼ "	1.024	1.0246	78.	22.	21.6	29.81	b.	"	3
7122	" 2	6-00 A.M.	Lat. 26° 35' Long 83° 11'		27½	sandy	Dredge		1.027	1.028	72.	21.	66.0 / 20	29.73	b.	SSE	3
7123	" 2	6-30 "	" 26° 33' " 83° 10		28	"	7ft. Beam Trl		1.027	1.0275	74.	21	66.0 / 19.1	29.75	b.	"	3
7124	" 2	2-40 P.M.	" 25° 50' 15" " 82° 41' 45"		21	"	Dredge		1.0264	1.027	74	22.7	20.	29.77	b.	"	3

Note: For Sections [Anclote & Highland] and location of ⊙ [Signals] see Coast Survey Chart No. 17
Stations 7103 to 7107 shown on Chart 17, from 7108 to 7121 on Chart 177, and from 7122 to 7124 on Chart 16.

Abbreviations

Bottom: Cor. = Coral; M. = Mud; R. = Rock; S. = Sand; Sh. = Shell; brk = broken; hrd = hard; rcky = rocky

Sky: b. = blue; b c = blue & cloudy; o. = overcast

7141	Gayhead Lt. S½W—Dist. 2⅞ Mi. Cuttyh. l.s.sta. " 4 Mi.	" 28	2.10 "	15½ "	76	0 Botm	19.0 19.0		same as above	W½S 3/8 Mi.	Blue & cloudy.
7142	Gayhead Lt. S ⅝ W—Dist. 1 Mi. Cuttyh. L.S. Sta. NWxN 4 M	Aug. 28	2.45 P.M.	14¾ "	76	0 Botm	19.8 19.0		same as above	WxS ⅝ Mi	same as above.

Form 635.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1901 & 2

11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. F	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. [illegible]	Remarks.
7121	S.Tangent of Mullet Key, NE,Dist. 5/8 mile Egmont Key Lt.W¾S-D-1¾Mi.		1901 Apr. 1	3.00 P.M.	6¼	brk.Sh·S.	78	0 Botm	22.0 21.6			7' Tnr.			WxS¼ Mi.		Wind SSW,force 3, Blue sky.
7122	Lat.26°-35',Long.83°-11'		" 2	6.00 A.M.	27½	sandy	72.	0 Bot.(66f)	21.0 20.0			Dredge					Wind SSE,force 3, Blue sky.
7123	Lat·26°-33',Long.83°-10'		" 2	6.30 A.M.	28	sandy	74.	0 Bot.(66f)	21.0 19.1			7' Tnr.					Wind SSE,force 3, Blue sky.
7124	Lat.25°-50'-15"'Long. 82°-41'-45"		" 2	2.40 P.M.	21	sandy	74.	0 Bot.	22.7 20.0			Dredge					Wind SSE,force 3, Blue sky.
7125	Following for Vineyard Sd· Cuttyhunk Life S.Sta,NWxW Distance 3¾ miles GayH.Lt.-S.Dist·2-7/8 Mi.		1901 July 10	3.00 P.M.	14	sdy.	77.5	0 Botm(65f)	18.5			7' Tnr.			NExE¾ Mi.		Wind S,force 2, Cloudy sky.
7126	GayH.Lt·SxW½W-Dist·2 Mi. Cuttyh.L.S.Sta.NW-D.4½ Mi.		" 10	3.30 P.M.	18	sdy.	67.	0 Bot. 62f)	18.6 17.			same as above			NE½N¾ Mi.		Same as above.
7127	GayH.Lt.SSW½W-Dist·2½ Mi. Cuttyh.L.S.Sta.NWxW-D4¾Mi.		" 23	10.40 A.M.	13½	sdy.	73	0 Botm	19.0 18.5			same as above			ENE3/8Mi		Wind (Var?)-F-1-0 Blue sky.
7128	GayH.Lt.SxW½W-Dist.1-3/8Mi. Cuttyh.L.S.St.NW½N-D.4¾Mi.		" 23	11.10 A.M.	13	sdy.	76	0 Botm.	19.0 17.0			same as above			ENE½ Mi.		Wind NW,force 1-0 Blue & cloudy.
7129	Nobska Pt·Lt·WxN-Dist.½ Mi. W.ChopLt·SExS-Dist.3 Mi.		Aug. 9	1.40 P.M.	8	hrd. S.	73	0 Botm.	22.0 21.5			same as above			ExN3/8 M.		Wind SW.,force 3, Blue & cloudy.
7130	Nobska Pt. Lt.WxS½S.D.1 Mi. W.Chop Lt. SSE,Dist.3¼ Mi.		" 9	2.05 P.M.	6½	hrd.S rky.	73	0 Botm.	21.5 22.5			same as above			NE ½ Mi.		Wind SW,force 2, Blue & cloudy.
7131	Nobska Pt.Lt. W¼S-D.1¾ Mi. W.Chop Lt. S½E-Dist.2½ Mi.		" 9	2.20 P.M.	6	sdy.	72	0 Botm	21.0 21.0			same as above			ENE½ Mi.		same as above
7132	Nobska Pt.Lt.W½S-D.2½ Mi. W.Chop Lt· S¾W-D.2-3/8 Mi.		" 9	2.45 P.M.	12	sft.	72	0 Botm	21.5 21.5			same as above			same		Wind SW,force 2, Blue sky.
7133	Nobska Lt.W½S-Dist 2¾ Mi. W.Chop Lt·S¾W-Dist·2 ¼ Mi.		" 9	3.10 P.M.	15	stk	72	0 Botm	21.5 21.0			same as above			same		Wind SW,force 2, Blue sky.
7134	Nobska Pt.Lt·W¼N-D.3 ¾ Mi. East Chop Lt.So.-D.3 ¾ Mi.		" 13	2.15 P.M.	15½	rky	73	0 Botm	22.0 22.0			same as above			SSW3/8 Mi.		Wind SE,force 2, Blue & cloudy.
7135	Nobska Pt.Lt.W¼S.D.3½ Mi. East Chop Lt·S¾W.D.3 ¾ Mi.		" 13	2.55 P.M.	5½ to 15	rky	72	0 Botm	22.0 22.0			same as above			SSW1¼ Mi.		same as above.
7136	Cuttyh.L.S.Sta.NWxW½W-2 ¾ M. Gayh.Lt· South-Dist.4¼ Mi.		" 22	3.00 P.M.	14½	sdy	70	0 Botm	19.5 19.5			same as above			ENE ½ Mi.		Wind SE,force 3, Blue sky.
7137	Cuttyh.L.S.Sta.NWxW½W-3 ¼M Gayhead Lt· S¼W-Dist 3 ¾ Mi.		" 22	3.30 P.M.	12	sdy	68	0 Botm	19.2 19.2			same as above			ENE3/8 Mi.		same as above
7138	Bell Buoy,WxN½N-Dist.1½Mi Gayh.Lt·SSW-Dist.4 ¾ Mi.		" 22	3.55 P.M.	16	sdy	68	0 Botm	19.2 19.2			same as above			NNE ½ Mi. WSW ½ Mi.		same as above Wind East,force 2, Blue & cloudy.
7139	Gayhead Lt·SxE¾E,D.1¾ Mi. Cuttyh·L.S.Sta.NWxN-D.4 Mi.		" 28	1.05 P.M.	18½	S.brk Sh.	75	0 Botm	20.0 19.6			same as above					
7140	Gayhead Lt·S¾E-Dist.1¾ Mi. Cuttyh·L.S.Sta.NWxN-D4½ Mi.		" 28	1.30 P.M.	16½	ditto	75	0 Botm	19.7 19.0			same as above			same		same as above.
7141	Gayhead Lt·S½W-Dist. 2 ¼ Mi. Cuttyh.l.s.sta. " 4 Mi.		" 28	2.10 "	15½	"	76	0 Botm	19.6 19.0			same as above			W½S3/8 Mi.		Wind East,force 1 Blue & cloudy.
7142	Gayhead Lt.S ¾ W-Dist·1 ¼ Mi. Cuttyh. L.S.Sta.NWxN 4 ¼ M		Aug. 28	2.45 P.M.	14¾	"	76	0 Botm	19.8 19.0			same as above			WxS ¾ Mi		same as above.

This space to be left for binding.

Record of Dredgings

Vineyard Sound

U.S.F.C.S. FISHHAWK

Season 1901

Number of Station	Date	Time	Locality	Exact Position Bearings and Distance	Bottom: Depth (fms.)	Bottom: Nature	Instrument used	Drift	Density: Surface	Density: Bottom	Temperature: Air (Fahr)	Temperature: Surface	Temperature: Bottom	Barometer	Sky	Wind: Direction	Wind: Force
7125	July 10	3-00 P.M.	Vineyard Sound	Cuttyhunk Life Sav. Sta. NW x W. 3¾ miles Gay Head Light S. 2⅞ "	14	sdy	7-ft. Trawl	NE x E ¾ mile	1.0232	1.0235	77°5	18.5°	65°(F)	29.94	c	S.	2
7126	" 10	3-30 "	"	Gay Head Light S. x W ½ W. 2 "													
7127	" 23	10-40 A.M.	"	Cuttyhunk Life Sav'g Sta. NW. 4½ " Gay Head Light SSW. ¼ W. 2½ "	18	"	"	NE½N ¾ "	1.0234	1.024	67.	18.6	(62 F. 17 C	29.94	"	"	2
7128	" 23	11-10 "	"	Cuttyhunk Life Sav'g. Sta. NW x W. 4¾ " Gay Head Light S. x W ½ W. 1⅜ "	13½	"	"	ENE ⅜ "	1.0235	1.024	73.	19.	18.50	29.81	b	Var.	0-1
7129	Aug. 9	1-40 PM	"	Cuttyhunk Life Sav'g Sta. NW ½ N. 4¾ " Nobska Point Light W. x N. ½ "	13	"	"	" ½ "	1.0235	1.0242	76.	19	17	29.81	b.c	NW.	0-1
7130	" 9	2-05 "	"	Nobska Point Light W x S. ½ S. 1 " West Chop Light S SE. 3¼ "	8	hrd. S.	"	E x N ⅜ "	1.0228	1.023	73.	22	21.5	29.99	"	SW.	3
7131	" 9	2-20 "	"	Nobska Point Light W ¼ S. 1¾ " West Chop Light S ½ E. 2½ "	6½	hrd. S rky	"	NE. ½ "	1.0222	1.022	73.	21.5	22.5	29.99	"	"	2
7132	" 9	2-45 "	"	Nobska Point Ligt W ½ S. 2½ " West Chop Ligt S ⅜ W. 2⅜ "	6	sdy	"	ENE ½ "	1.0228	1.0224	72.	21.	21.	29.99	"	"	2
7133	" 9	3-10 "	"	Nobska Point Light W ½ S. 2¾ " West Chop Light S ¾ W. 2⅞ "	12	sft.	"	" ½ "	1.0222	1.0222	72.	21.5	21.5	29.99	b	"	2
7134	" 13	2-15 "	"	Nobska Point Light W ¼ N. 3⅛ " East Chop Light South 3⅛ "	15	stk.	"	" ½ "	1.022	1.022	72.	21.5	21.	29.99	"	"	2
7135	" 13	2-55 "	"	Nobska Point Light W ¼ S. 3½ " East Chop Light S ¾ W. 3⅝ "	15½	rky	"	SSW ⅜ "	1.021	1.021	73.	22.	22.	30.04	b.c.	SE.	2
7136	" 22	3-00 "	"	Cuttyhunk Life Sav'g Sta. NW x W. ½ W. 2⅝ " Gay Head Light South 4¼ "	5½ to 15	"	"	" 1¼ "	1.021	1.021	72.	22.	22.	30.04	"	"	2
7137	" 22	3-30 "	"	Cuttyhunk Life Sav'g Sta. NW x W. ½ W. 3⅛ " Gay Head Light S ¼ W. 3⅝ "	14½	sdy	"	ENE. ½ "	1.0218	1.022	70	19.5	19.5	30.10	b	"	3
7138	" 22	3-55 "	"	Bell Buoy W x N. ½ N. 1¼ " Gay Head Light S SW. 4⅝ "	12	"	"	" ⅜ "	1.0218	1.022	68.	19.2	19.2	30.09	"	"	3
7139	" 28	1-05 "	"	Gay Head Light S x E ⅜ E 1¾ " Cuttyhunk Life Sav'g Sta. NW x N. 4 "	16	"	"	NNE. ½ "	1.0218	1.022	68.	19.2	19.2	30.09	"	"	3
7140	" 28	1-30 "	"	Gay Head Light S ¾ E. 1⅜ " Cuttyhunk Life Sav'g. Sta. NW x N. 4½ "	18½	S. brk. Sh	"	WSW ½ "	1.022	1.0225	75.	20	19.6	30.14	b.c	E.	2
7141	" 28	2-10 "	"	Gay Head Light S. ½ W. 2⅛ " Cuttyhunk Life Sav'g Sta. NW. 4 "	16½	"	"	" ½ "	1.0218	1.022	75.	19.7	19.	30.14	"	"	2
7142	" 28	2-45 "	"	Gay Head Light S ⅝ W. 1 " Cuttyhunk Life Sav'g Sta. NW x N. 4⅛ "	15½	"	"	W ½ S. ⅜ "	1.0218	1.022	76.	19.	19.	30.14	"	"	1
					14¾	"	"	W x S. ⅜ "	1.0216	1.022	76.	19.8	19.	30.15	"	"	1

Abbreviations

Bottom:	S. Sand	rky. rocky	Sky	b blue (clear)	
	Sh. Shell	sdy. sandy		c. cloudy	
	brk broken	sft. soft			
	hrd hard	stk. sticky			

7166	" 29° 14' 00"	" 83° 15' 20"						botm	15.5							y.
7169	" 29° 00'15"	" 83° 23'00"	" 27	7.50 "	5	sdy	53	0 botm	15 14.5	same	same	same	Wind NE, force 4, Sky blue & cloudy.
7170	" 29° 08'45"	" 83° 28'00"	" 27	8.35 "	6¼	S.G.	55.2	0 botm	16.2 16.	same	same	same	same as above.

Form 625.

U.S.F.C.S. FISH HAWK

RECORD OF ..... INVESTIGATION BY FISH HAWK 19 01 & 2

76

11—6014

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. F	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
				1901														
	Pepperfish Key																	
7143	Lat.29°33'05",	Long.83°28'05"		Nov. 5	8.50 A.	2¼	S.C.	58.3	0	21.0								
									botm	21.5			7' Tnr.			NE	1/8 Mi.	Wind N,force 1, Sky 0.
7144	" 29°32'10"	" 83°29'50"		" "	9.20 "	3	sdy	58.5	0	21.5								
									botm	21,8			same			same	same	same as above
7145	" 29°30'50"	" 83°31'40"		" "	9.50 "	3¼	sdy	60.	0	21.7								
									botm	22.0			same			N	1/8 Mi.	same as above
7146	" 29°29'30"	" 83°33'25"		" "	10.20 "	4¾	sdy	63	0	21.5								
	Aucilla								botm	21.5			same			NNW	1/4 Mi.	same as above
7147	" 29°52'10"	" 83°51'47"		" 6	12.40 P	3	S.C.	60	0	19.6								
									botm	20.0			same			N	1/4 Mi.	Wind NNE,force 3 Sky blue
7148	" 29°48'10"	" 83°55'15"		" 6	1.25 "	5	"	64	0	20.8								
									botm	21.0			same			same	same	same as above
7149	" 29°45'48"	" 83°57'30"		" 6	2.15 "	7	"	68	0	21.0								
	Deadman's Bay								botm	21.0			same			same	same	same as above
7150	" 29°48'05"	" 83°46'40"		" 7	7.30 A.	4	C.	59	0	19.4								
									botm	19.5			same			NE	1/8 Mi.	Wind E,force 2, Sky blue & cloudy.
7151	" 29°43'40"	" 83°49'45"		" 7	8.35 "	5¼	"	65	0	20.5			7' Tnr. &					
									botm	20.5			Oyster Dredge			same	same	Wind E,force 3, Sky blue & cloudy.
7152	" 29°39'30"	" 83°53'10"		" 7	10.10 "	7½	S.C.	69	0	21.2								
									botm	21,5			Oyster Dredge			ENE	1/4 Mi.	Wind E,force 2, Sky blue & cloudy
7153	" 29°35'20"	" 83°56'00"		" 7	11.10 "	9½	"	70	0	22.0								
									botm	23.0			" "			same	same	
7154	" 29°32'00"	" 83°58'30"		" 7	1.05 P.	10½	C.	62	0	22.0								Wind E,force 1, Sky blue & cloudy.
									botm	22.5			small dredge & 7' Tnr.			same	same	
7155	" 28°58'50"	" 83°54'20"		" 7	2.00 "	10	S.C.	65	0	21.8								
	Pepperfish Key								botm	22.0			7' Tnr.			same	same	Wind E,force 3, Sky cloudy
7156	" 29°26'15"	" 83°37'30"		" 20	1.30 "	6¾	S.	50	0	17.6								
									botm	17.3			Dredge & Trawl			N	1/4 Mi.	Wind N,force 4, Sky 0.
7157	" 29°23'00"	" 83°41'45"		" 20	2.25 "	9	S.C.	49.5	0	18.3								
									botm	18.0			0 Dredge			same	same	same as above
7158	" 29°19'30"	" 83°46'00"		" 20	3.20 "	10	"	51.0	0	19.0								
									botm	18.3			same			same	same	Wind N,force 4, Sky [illegible].hazy.
7159	" 29°23'00"	" 83°27"05"		" 21	9.10 A.	3½	S.G.	50.0	0	15.2								
									botm	16.3			same			NNE	1/4 Mi.	Wind N,force 4, Sky hazy.
7160	" 29°21'00"	" 83°32"00"		" 21	9.55 "	6¾	rky	51.	0	17.0								
									botm	16.7			same			same	same	Wind NNE,force 4, Sky blue.
7161	" 29°18'00"	" 83°37'00"		" 21	10.40 "	8	"	53	0	18.								
									botm	18.			same			same	same	Wind NE,force 4, Sky blue.
7162	" 29°15"00"	" 83°42'30"		" 21	11.40 "	10¼	S.	56.5	0	19.2								
									botm	19.0			same			same	same	Wind Ne,force 3, Sky blue.
7163	" 29°08'15"	" 83°42'00"		" 21	12.50 P.	10	"	55.5	0	19.3								
									botm	19.			same			same	same	same as above
7164	" 29°10'45"	" 83°37'20"		" 21	1.40 "	8¾	"	55.	0	18.5								
									botm	18.			same			W	1/4 Mi.	Wind NE,force 4, Sky blue.
7165	" 29°13'15"	" 83°32'30"		" 21	2.35 "	7¼	rky	56	0	17.6								
									botm	17.2			same			same	same	Wind NE,force 3, Sky blue.
7166	" 29°15'30"	" 83°27'30"		" 21	3.25 "	5½	sdy	57	0	16.5								
									botm	16,2			same			same	same	same as above.
7167	" 29°18'00"	" 83°22'30"		" 21	4.15 "	4	sdy	53	0	15.5								
									botm	15.			same			same	same	same as above.
7168	" 29°14'00"	" 83°18'20"		" 27	7.00 A.	2¾	Sh.S.	49	0	14.								
									botm	13.5			same			N.	1/4 Mi.	Wind NE,force 3, Sky blue & cloudy.
7169	" 29°00'15"	" 83°23'00"		" 27	7.50 "	5	sdy	53	0	15								
									botm	14.5			same			same	same	Wind NE,force 4, Sky blue & cloudy.
7170	" 29°08'45"	" 83°28'00"		" 27	8.35 "	6¼	S.G.	55.2	0	16.2								
									botm	16.			same			same	same	same as above.

This space to be left for binding.

U.S.F.C.S. FISH HAWK.

Season 1901-2

76a

Record of Dredgings on Sponge Investigation, West Coast of Florida from St Mark's to Tampa Bay:

Number of Station	Date 1901	Time	Locality (Sections)	Exact Position		Bottom		Instrument used	Drift	Density		Temperature			Barometer	Sky	Wind	
						Depth fms.	Nature			Surface	Bottom	Air Fahr	Surface	Bottom			Direction	Force
43	Nov. 5	8-50A	Pepperfish Key	Lat 29°33'05"	Long 83°28'03"	2¼	S.C.	7ft. Beam Trl.	NE. ⅛ mile	1.021	1.0218	58.3°	21.°	21.5°	29.83	o.	N.	1
44	" 5	9-20 "	"	" 29 32 10	" 83 29 50	3	sdy	"	" ⅛ "	1.0212	1.021	58.5	21.5	21.8	29.83	"	"	1
45	" 5	9-50 "	"	" 29 30 50	" 83 31 40	3¼	"	"	N. ⅛ "	1.0212	1.0216	60	21.7	22	29.84	"	"	1
46	" 5	10-20 "	"	" 29 29 30	" 83 33 25	4¾	"	"	NNW ¼ "	1.0214	1.022	63	21.5	21.5	29.84	"	"	1
47	" 6	12-40P.	Aucilla	" 29 52 10	" 83 51 47	3	S.C.	"	N. ¼ "	1.0217	1.0218	60.	19.6	20.	30.04	b	NNE	3
48	" 6	1-25 "	"	" 29 48 10	" 83 55 15	5	"	"	" ¼ "	1.0228	1.023	64	20.8	21.	30.04	"	"	3
49	" 6	2-15 "	"	" 29 45 48	" 83 57 30	7	"	"	" ¼ "	1.023	1.0232	68.	21.	21.	30.03	"	"	3
50	" 7	7-30A	Deadman's Bay	" 29 48 05	" 83 46 40	4	C	"	NE ⅛ "	1.0224	1.0224	59.	19.4	19.5	30.10	b.c	E	2
51	" 7	8-35 "	"	" 29 43 40	" 83 49 45	5¼	"	(7ft. B. Trawl Oyster Dredge)	" ⅛ "	1.023	1.0228	65.	20.5	20.5	30.13	"	"	3
52	" 7	10-10 "	"	" 29 39 30	" 83 53 10	7½	S.C.	Oyster Dredge	ENE ¼ "	1.0235	1.0238	69.	21.2	21.5	30.15	"	"	2
53	" 7	11-10 "	"	" 29 35 20	" 83 56 00	9½	"	"	" ¼ "	1.0235	1.0238	70.	22.	23.	30.14	"	"	1
54	" 7	1-05P	"	" 29 32 00	" 83 58 30	10½	C	(Small Dredge & 7ft Trawl	" ¼ "	1.0225	1.0230	62.	22.	22.5	30.10	"	"	3
55	" 7	2-00 "	"	" 28 58 50	" 83 54 20	10	S.C	7ft. Trawl	" ¼ "	1.024	1.0242	65.	21.8	22.	30.09	C.	"	3
56	" 20	1-30 "	Pepperfish Key.	" 29 26 15	" 83 37 30	6¾	S	Dredge & Trawl	N. ¼ "	1.0244	1.0246	50.	17.6	17.3	30.05	o	N.	4
57	" 20	2-25 "	"	" 29 23 00	" 83 41 45	9	S.C.	O. Dredge	" ¼ "	1.0246	1.0247	49.5	18.3	18.	30.05	"	"	4
58	" 20	3-20 "	"	" 29 19 30	" 83 46 00	10	"	"	" ¼ "	1.0246	1.025	51.	19.	18.3	30.05	C.	"	4
59	" 21	9-10A	"	" 29 23 00	" 83 27 05	3½	S.G	"	NNE ¼ "	1.0246	1.0243	50	15.2	16.3	30.20	z	"	4
60	" 21	9-55 "	"	" 29 21 00	" 83 32 00	6¾	rky	"	" ¼ "	1.0246	1.0248	51.	17.	16.7	30.21	b.	NNE	4
61	" 21	10-40 "	"	" 29 18 00	" 83 37 00	8	"	"	" ¼ "	1.0248	1.025	53.	18	18	30.22	"	NE.	4
62	" 21	11-40 "	"	" 29 15 00	" 83 42 30	10¼	S.	"	" ¼ "	1.0248	1.025	56.5	19.2	19.	30.20	"	"	3
63	" 21	12-50P.	"	" 29 08 15	" 83 42 00	10	"	"	" ¼ "	1.0248	1.0248	55.5	19.3	19	30.16	"	"	3
64	" 21	1-40 "	"	" 29 10 45	" 83 37 20	8¾	"	"	W. ¼ "	1.0244	1.0246	55	18.5	18.	30.15	"	"	4
65	" 21	2-35 "	"	" 29 13 15	" 83 32 30	7¼	rky.	"	" ¼ "	1.0243	1.0248	56	17.6	17.2	30.15	"	"	3
66	" 21	3-25 "	"	" 29 15 30	" 83 27 30	5½	sdy	"	" ¼ "	1.0245	1.0246	57.	16.5	16.2	30.12	"	"	3
67	" 21	4-15 "	"	" 29 18 00	" 83 22 30	4	"	"	" ¼ "	1.0245	1.0246	53.	15.5	15.	30.12	"	"	3
68	" 27	7-00A	"	" 29 14 00	" 83 18 20	2¾	Sh.S.	"	N ¼ "	1.0245	1.025	49	14	13.5	30.19	b.c	"	3
69	" 27	7-50 "	"	" 29 00 15	" 83 23 00	5	sdy.	"	" ⅛ "	1.0248	1.025	53.	15.	14.5	30.19	"	"	4
70	" 27	8-35 "	"	" 29 08 45	" 83 28 00	6¼	S.G.	"	" ¼ "	1.025	1.0252	55.2	16.2	16.	30.21	"	"	4
71	" 27	9-20 "	"	" 29 06 15	" 83 33 00	8	rky.	"	" ¼ "	1.025	1.0252	56.5	17.	16.7	30.22	"	"	4
72	" 27	10-05 "	"	" 29 03 45	" 83 38 00	9¾	Sh.S.	"	" ¼ "	1.0253	1.025	57.2	17.	17.5	30.24	"	"	4
73	" 27	10-40 "	"	" 29 02 10	" 83 40 45	10¼	sdy	"	" ¼ "	1.025	1.0252	59	18.	18	30.23	"	"	4
74	" 27	11-35 "	North Key	" 28 57 30	" 83 37 15	11	"	"	W. ¼ "	1.025	1.025	60	18.	17.5	30.18	b.	"	4
75	" 27	12-30P.	"	" 28 59 15	" 83 32 30	9½	(sdy & gr sdy)	"	" ¼ "	1.025	1.025	59	17.2	17.	30.16	"	"	4
76	" 27	1-25 "	"	" 29 02 30	" 83 27 00	7½	sdy.	Trawl & O Dredge	NW. ⅜ "	1.0248	1.025	60	16.5	16.	30.19	"	"	4
77	" 27	2-20 "	"	" 29 05 00	" 83 22 30	5½	sdy, rky C.	"	" ¼ "	1.0245	1.0248	60.	15.7	15.5	30.20	"	"	3
78	" 27	3-15 "	"	" 29 07 30	" 83 17 30	4	sdy.	"	W ¼ "	1.0248	1.0242	61	15.	15.	30.20	"	"	3
79	" 27	3-55 "	"	" 29 08 45	" 83 14 45	3	"	B. Trawl	" ¼ "	1.023	1.0222	59	14.2	14.2	3023	b.c.	NNE.	3
80	" 27	4-30 "	"	Sea Horse Key Lt. bears E. ¼N dist 5 miles		3¼	sdy. rky	"	WNW ¼ "	1.0213	1.0220	57	14.5	14.5	3023	"	"	3
81	" 28	7-45A	"	Lat. 29° 02' 30"	Long 83° 14' 00"	4¼	sdy	O Dredge	NW ¼ "	1.0225	1.0232	53.	14	148	3030	b.	"	3
82	" 28	8-30 "	"	" 29 00 00	" 83 18 45	5¾	rky C.	"	" ¼ "	1.0238	1.024	54.	15.	15.3	3031	"	"	3
83	" 28	9-25 "	"	" 28 52 15	" 83 24 00	7½	R. C.	"	" ¼ "	1.025	1.025	55.2	16.	16.2	30.32	"	"	3

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1901 & 2.

77

11—6014

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7171	Pepperfish Key. Latitude 29°06'15"	Longitude 83° 33'00"		1901-2					0	17.0								
7172	29°03'45"	83° 38'00"		Nov. 27	9.20 A.	8	rky	56.5	botm	16.7			0 Dredge			N	1/4 Mi.	Wind NE, force 4, Sky blue & cloudy
7173	29°02'10"	83° 40'45"		" 27	10.40 "	9¾	Sh.S.	57.2	0	17.								
		North Key				10¼	sdy	59.	botm	17.5			same			same	same	same as above.
7174	28°57'30"	83° 37'15"		" 27	11.35 "	11	sdy	60	0	18.								
									botm	18.			same			same	same	same as above.
7175	28°59'15"	83° 32'30"		" 27	12.30 P.	9½	sdy & grssy.	59	0	17.5								
									botm	17.2			same			W	1/4 Mi.	Wind NE, force 4, Sky blue.
7176	29°02'30"	83° 27'00"		" 27	1.25 "	7½	sdy	60	0	17.								
									botm	16.5			same			same	same	same as above.
7177	29°05'00	83° 22'30"		" 27	2.20 "	5½	sdy, rky C.	60	0	16.								
									botm	15.7			Trawl & 0 Dredge			NW	3/8 Mi.	same as above.
7178	29°07'30"	83° 17'30"		" 27	3.15 "	4	sdy	61	0	15.5								
									botm	15.			Ditto			same	same	Wind NE, force 3, Sky blue.
7179	29°08'45"	83° 14'45"		" 27	3.55 "	3	"	59	0	15.								
									botm	14.2			do			W.	1/4 Mi.	same as above.
7180	Seahorse K.Lt.Br.E¼N.D5 Mi.			" 27	4.30 "	3¼	sdy rky.	57	0	14.2								
									botm	14.5			B. Trawl			same	same	Wind NNE, force 3, Sky blue & cloudy.
7181	29°02'30"	83° 14'00"		" 28	7.45 A.	4¼	sdy	53	0	14.5								
									botm	14.			Ditto			WNW	1/4 Mi.	Wind NNE, force 3, Sky blue & cloudy.
7182	29°00'00"	83° 18'45"		" 28	8.30 "	5¾	rky C.	54	0	14.8								
									botm	15.			0 Dredge			NW	1/4 Mi.	Wind NNE, force 3, Sky blue.
7183	28°52'15"	83° 24'00"		" 28	9.25 "	7½	R.C.	55.2	0	15.3								
		North Key							botm	16.			Ditto			same	same	same as above.
7184	28°55'00"	83° 28'10"		" 28	10.35 "	10½	"	57	0	16.2								
									botm	17.2			do			same	same	same as above.
7185	28°54'00"	83° 30'30"		" 28	11.15 "	11	R.C.S.	59	0	17.								
									botm	17.5			do			same	same	Wind NNW, force 3, Sky blue.
7186	28°47'45"	83° 28'00"		" 28	12.00 P.	11½	R. Sh.	58	0	17.								
									botm	17.8			do			same	same	same as above.
7187	28°50'15"	83° 23'15"		" 28	1.10 "	10	R.C.Sh.	58	0	17.								
									botm	17.			do			same	same	same as above
7188	28°52'45"	83° 18'15"		" 28	2.00 "	8	R. Sh.	59	0	16.2								
									botm	16.			do			same	same	same as above.
7189	28°55'30"	83° 13'15"		" 28	2.45 "	5¾	sdy. Sh.	59.5	0	15.5								Wind NNW, force 4 Sky blue.
									botm	15.5			do			same	same	same as above.
7190	Aucilla St.MarksLt.Ho.bearing NW distance 7¼ mile			Dec. 5	7.00 A.	3¼	R.C.	48	0	14.2								
									botm	13.5			do			S.S.W.	same	Wind NNE, force 2, Sky cloudy.
7191	29°54'00"	84° 06'00"		" 5	7.50 "	4½	R.C.Sh	49	0	14.1								
									botm	14.			do			same	3/8 Mi.	Wind NNE, force 2, Sky blue.
7192	29°49'00"	84° 06'15"		" 5	8.45 "	6	R.C.	52	0	15.2								
									botm	15.			do			N.	¼ Mi.	Wind NNE, force 2, Sky blue & cloudy
7193	29°44'09"	84° 06'30"		" 5	9.35 "	7	"	58.6	0	17.								
									botm	16.5			do			"	¼ Ml.	same as above.
7194	29° 39'00"	84° 07'00"		" 5	10.40 "	8½	R.C.Sh.	58	0	18.2								
									botm	18.			do			"	same	Wind NNE, force 3, Sky blue & cloudy
7195	29° 34'00"	84° 07'20"		" 5	11.45 "	10½	R.C.	58.5	0	17.3								
									botm	17.6			do			"	same	Wind NNE, force 2, Sky blue & cloudy.
7196	29° 38'30"	84° 04'00"		" 5	12.40 P.	9½	"	57.5	0	16.8								
									botm	16.5			do			W	same	same as above.

This space to be left for binding.

Form 625.

RECORD OF U.S.F.C.S. FISH HAWK INVESTIGATION BY FISH HAWK 19 01 & 2.

11—5014

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Aucilla			1901														
	Latitude	Longitude																
7197	29°42'00"	84°01'00"		Dec. 5	1.50 P.	8½	S.	57.5	0	16.8								
									botm	16.6			O. Dredge			NW	1/8 Mi.	Wind NE, force 3, Sky blue & cloudy
	Deadman's Bay																	
7198	29°41'30"	83°40'00"		" 6	9.15 A.	3	"	52.5	0	15.								
									botm	14.6			ditto			same	same	Wind NE, force 3, Sky hazy.
7199	29°39'30"	83°41'45"		" 6	9.40 A.	5	"	58	0	15								
									botm	15			do			NE	¼ Mi.	Wind NE, force 2, Sky blue.
7200	29°36'00"	83°46'00"		" 6	10.25 A	6¾	"	60.8	0	15.5								
									botm	16.			do			same	same	Wind NE, force 2, Sky blue & cloudy.
7201	29°32'30"	83°50'00"		" 6	11.10 A	9	R.C.	59	0	16.5								
									botm	16.6			do			same	same	Wind NE, force 1, Sky blue & cloudy.
7202	29°24'30"	83°49'30"		" 6	12.25 P.	10	"	58	0	17.								
									botm	17.			do			N	¼ Mi.	same as above
7203	29°28'00"	83°45'30"		" 6	1.25 "	8	S.	57.5	0	16.								
									botm	16.			do			SW	same	same as above
7204	29°30'15"	83°41'30"		" 6	2.10 "	5¾	"	58.	0	15.5								
									botm	15.2			do			same	same	same as above
7205	29°35'00"	83°37'30"		" 6	2.55 "	4	"	58.	0	15.2								
									botm	15.			do			same	same	Wind NE, force 1, Sky blue.
7206	29°37'00"	83°35'15"		" 6	3.30 "	3½	S.Grs.	58.	0	15.2								
	North Key								botm	15.0			do			same	same	same as above
7207	28°57'30"	82°58'00"		" 9	6.15 A.	3	rky.	61	0	15.2								
									botm	15.6			do			NW	same	Wind ESE, force 3, Sky cloudy.
7208	28°55'30"	83°02'00"		" 9	6.50 "	4	"	63	0	15.3								
									botm	15.3			do			W.	same	Wind ESE, force 3, Sky blue & cloudy
7209	28°52'45"	83°07'00"		" 9	7.35 "	5¾	"	65	0	16.								
									botm	16.1			do			"	same	same as above
7210	28°50'30"	83°11'45"		" 9	8.35 "	7	sdy stcky.	67	0	16.5								
									botm	16.5			do			E	same	same as above
7211	28°47'55"	83°16'30"		" 9	9.25 "	8	rky grsy.	70.5	0	17.								
									botm	17.			do			"	same	Wind SE, force 3, Sky blue & cloudy.
7212	28°45'15"	83°21'30"		" 9	10.10 "	10½	sdy	73	0	17.								
									botm	17.2			do			SE	same	Wind SE, force 4, Sky blue & cloudy
	St. Martin's			1902														
7213	28°25'15"	82°57'00"		Jan. 15	7.40 A.	2¾	S.Grs.	54	0	12.								
									botm	12.			do			E.	same	Wind ENE, force 2, Sky 0.
7214	28°25'15"	82°57'00"		" 15	8.20 "	5¼	"	55	0	12.								
									botm	12.			do			same	same	Wind ENE, force 2, Sky blue & cloudy.
7215	28°26'00"	83°02'30"		" 15	9.10 "	7½	rky. C	56.5	0	13.								
									botm	13.			do			same	same	same as above
7216	28°26'30"	83°08'00"		" 15	9.55 "	10	sdy.grsy	57	0	13.5								
									botm	13.6			do			same	same	Wind ENE, force 2, Sky cloudy.
7217	28°27'00"	83°13'00"		" 15	10.55 "	11	rky sdy.	62	0	14.								
									botm	14.2			do			same	same	Wind ENE, force 2, Sky blue & cloudy.

This space to be left for binding.

Season 1901-2

U.S.F.C.S. FISH HAWK

78a

Record of Dredgings for Sponge Investigation, West Coast of Florida from St Mark's to Tampa Bay.

Number of Station	Date	Time	Locality (Sections)	Exact Position	Bottom Depth/Feet	Bottom Nature	Instrument used	Drift	Density Surface	Density Bottom	Temperature Air	Temperature Surface	Temperature Bottom	Barometer	Sky	Wind Direction	Wind Force
84	Nov 28	10-35 A	North Key	Lat 28°55'00" Long 83°28'10"	10½	R.C	Oyster Dredge	NW ¼ mile	1.0248	1.025	57	17.2	17	30.32	b	NNW	3
85	" 28	11-15 "	"	" 28 54 00 " 83 30 30	11	R.C.S	"	" " ¼ "	1.025	1.025	59	17.5	17	30.31	"	"	3
86	" 28	12-00 P	"	" 28 47 45 " 83 28 00	11½	R.Sh	"	" " ¼ "	1.025	1.025	58	17.8	17	30.28	"	"	3
87	" 28	1-10 "	"	" 28 50 15 " 83 23 15	10	R.C.Sh	"	" " ¼ "	1.025	1.025	58	17	17	30.27	"	"	3
88	" 28	2-00 "	"	" 28 52 45 " 83 18 15	8	R.Sh	"	" " ¼ "	1.0248	1.025	59	16.2	16	30.26	"	"	4
89	" 28	2-45 "	"	" 28 55 30 " 83 13 15	5¾	sdy Sh	"	" " ¼ "	1.0242	1.0243	59.5	15.5	15.5	30.24	"	"	4
90	Dec 5	7-00 A	Aucilla	St Marks Lt Ho bear's NW dist 7¼ mile	3¼	R.C.	"	SSW ¼ "	1.023	1.0234	48	14.2	13.5	30.00	C	NNE	2
91	" 5	7-50 "	"	Lat 29°54'00" Long 84°06'00"	4½	R.C.Sh	"	" " ⅛ "	1.024	1.024	49	14.1	14	29.99	b	"	2
92	" 5	8-45 "	"	" 29 49 00 " 84 06 15	6	R.C.	"	N ¼ "	1.0242	1.0243	52	15.2	15	29.99	b.c	"	2
93	" 5	9-35 "	"	" 29 44 09 " 84 06 30	7	"	"	" ¼ "	1.0242	1.0243	58.6	17	16.5	30.02	"	"	2
94	" 5	10-40 "	"	" 29 39 00 " 84 07 00	8½	R.C.Sh	"	" ¼ "	1.0246	1.025	58	18.2	18	29.99	"	"	3
95	" 5	11-45 "	"	" 29 34 00 " 84 07 20	10½	R.C.	"	" ¼ "	1.0247	1.025	58.5	17.3	17.6	29.94	"	"	2
96	" 5	12-40 P	"	" 29 38 30 " 84 04 00	9½	"	"	W ¼ "	1.0247	1.0246	57.5	16.1	16.6	29.94	"	"	2
97	" 5	1-50 "	"	" 29 42 00 " 84 01 00	8½	S.	"	NW ⅛ "	1.0244	1.0248	57.5	16.8	16.6	29.94	"	NE	3
98	" 6	9-15 A	Deadman's Bay	" 29 41 30 " 83 40 00	3	"	"	" ⅛ "	1.0238	1.0238	52.5	15.	14.6	30.01	"	"	3
99	" 6	9-40 "	"	" 29 39 30 " 83 41 45	5	"	"	NE ¼ "	1.024	1.024	58	15.	15.	30.11	b	"	2
00	" 6	10-25 "	"	" 29 36 00 " 83 46 00	6¾	"	"	" ¼ "	1.0248	1.025	60.8	15.3	16.	30.13	b.c	"	2
1	" 6	11-10 "	"	" 29 32 30 " 83 50 00	3	R.C.	"	" ¼ "	1.0248	1.025	58	16.3	16.6	30.13	"	"	1
2	" 6	12-25 P	"	" 29 24 30 " 83 49 30	10	"	"	N ¼ "	1.0248	1.025	58	17	17	30.12	"	"	1
3	" 6	1-25 "	"	" 29 28 00 " 83 45 30	8	S.	"	SW ¼ "	1.025	1.025	57.5	16.	16.	30.08	"	"	1
4	" 6	2-10 "	"	" 29 30 15 " 83 41 30	5¾	"	"	" ¼ "	1.024	1.0242	58	15.5	15.2	30.08	"	"	1
5	" 6	2-55 "	"	" 29 35 00 " 83 37 30	4	"	"	" ¼ "	1.0238	1.0238	58	15.2	15.	30.00	b	"	1
6	" 6	3-30 "	"	" 29 37 00 " 83 35 15	3½	S. Grs	"	" ¼ "	1.0238	1.0238	58	15.2	15	30.09	"	"	1
7	" 9	6-15 A	North Key	" 28 37 30 " 82 58 00	3	rky	"	NW ⅛ "	1.0229	1.0229	61.	15.	15.5	29.97	C	ESE	3
8	" 9	6-50 "	"	" 28 55 30 " 83 02 00	4	"	"	W ⅛ "	1.0232	1.0232	63.	15.3	15.3	29.94	b.c	"	3
9	" 9	7-35 "	"	" 28 52 45 " 83 07 00	5¾	"	"	" ⅛ "	1.024	1.0242	65	16	16.1	29.92	"	"	3
10	" 9	8-35 "	"	" 28 50 30 " 83 11 45	7	sdy clshy	"	E ⅛ "	1.0245	1.0245	67	16.5	16.5	29.93	"	"	3
11	" 9	9-25 "	"	" 28 47 55 " 83 16 30	8	rky grey	"	" ⅛ "	1.025	1.025	70.5	17	17	29.94	"	SE	3
12	" 9	10-10 "	"	" 28 45 15 " 83 21 30	10½	sdy	"	SE ¼ "	1.025	1.0252	73	17	17.2	29.92	"	"	4
1902 Jan'y	15	7-40	St Martin's	" 28 25 15 " 82 57 00	2¾	S Grs	"	E ⅛ "	1.024	1.0242	54	12	12	30.03	0	ENE	2
"	15	8-20 "	"	" 28 25 15 " 82 57 00	5¾	"	"	" ⅛ "	1.0245	1.0246	38	12.	12.	30.10	b.c	"	2
"	15	9-10 "	"	" 28 26 00 " 83 02 30	7½	rky C.	"	" ⅛ "	1.025	1.025	36.5	13.	13.	30.10	"	"	2
"	15	9-55 "	"	" 28 26 30 " 83 08 00	10	sdy grey	"	" ⅛ "	1.025	1.028	37	13.5	13.6	30.08	C	"	2
"	15	10-55 "	"	" 28 27 00 " 83 13 00	11	rky sdy	"	" ⅛ "	1.0253	1.0258	62.	14.	14.2	30.02	b.c	"	2
"	15	12-00 P	"	" 28 27 15 " 83 19 00	10½	"	"	NW ⅛ "	1.025	1.0253	61.	14.	14.	30.00	"	"	2
"	15	12-35 "	"	" 28 33 30 " 83 19 00	3	sdy grey	"	" ⅛ "	1.025	1.025	60	13.6	13.6	29.97	"	"	2
"	15	1-40 "	"	" 28 34 30 " 83 15 45	7½	rky sdy	"	W ⅛ "	1.025	1.0272	53	13	13	29.93	"	"	2
"	15	2-35 "	"	" 28 34 45 " 83 08 00	5¾	C.R.Grs	"	NW ⅛ "	1.0243	1.0262	60	12.3	12.5	29.94	C	E	1
"	15	3-35 "	"	" 28 35 30 " 83 02 30	3	sdy grey	"	W ⅛ "	1.024	1.0242	60	12.	12.	29.94	"	ESE	0-1
"	17	12-00 "	"	" 28 36 00 " 82 57 00	3	"	"	NW ¼ "	1.0242	1.025	46	11.2	10.6	30.00	b	W	1
"	17	12-40 "	"	" 28 45 30 " 83 00 00	5	S.S.Sh.Grs	"	SE ¼ "	1.025	1.0252	47	11.7	11.7	30.00	"	"	1

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK 19 01-2

117

91

79

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	St. Martin's			1902														
7218	28°27'15"	83°19'00"		Jan.15	12.00 M	10½	rky sdy.	61	0	14.								
									botm	14.								
7219	28°33'30"	83°19'00"		" 15	12.55 P.	9	sdy grsy	60	0	13.6			O. Dredge			NW	¼ Mi.	Wind ENE,force 2, Sky blue & cloudy.
									botm	13.6								
7220	28°34'30"	83°15'45"		" 15	1.40 "	7½	rky sdy	59	0	13.			ditto			same	same	same as above
									botm	13.								
7221	28°34'45"	83°08'00"		" 15	2.35 "	5¾	C.R.Grs.	60	0	12.3			do			W	same	same as above
									botm	12.5								
7222	28°35'30"	83°02'30"		" 15	3.35 "	3	sdy grsy	60	0	12.			do			NW	same	Wind E,force 1, Sky cloudy.
									botm	12.								
7223	28°36'00"	82°57'00"		" 17	12.00 M	3	same	46	0	11.2			do			W	same	Wind ESE,force 0-1 Sky cloudy.
									botm	11.6								
7224	28°45'30"	83°00'00"		" 17	12.40 P.	5	Sbk Sh Grs	47	0	11.7			do			NW	same	Wind W,force 1, Sky blue
									botm	11.7								
7225	28°42'30"	83°09'45"		" 17	1.27 "	7	S.brkShGrs	47	0	12.			do			SE	same	same as above
									botm	12.2								
7226	28°41'00"	83°15'15"		" 17	2.10 "	8½	rky	48	0	13.			do			same	same	same as above
									botm	13.5								
7227	28°39'15"	83°20'30"		" 17	3.20 "	10	sdy grsy rky	48	0	14.			do			same	same	Wind N,force 1, Sky blue.
	Anclote								botm	13.8								
7228	28°08'00"	82°53'30"		" 23	12.20 "	3	sdy.brk Sh.	60	0	13.			do			same	same	same as above
									botm	13.								
7229	28°08'00"	82°57'00"		" 23	1.05 "	5½	sdy brk Sh	60	0	13.			do			E	1/8 Mi.	Wind calm,force 0, Sky blue.
									botm	13.								
7230	28°08'00"	83°04'30"		" 23	1.50 "	7¾	rky grsy	59	0	13.3			do			SE	¼ mi.	same as above
									botm	13.5								
7231	28°08'30"	83°10'00"		" 23	2.30 "	10	rky C.	59	0	14.			do			same	same	same as above
									botm	13.5								
7232	28°08'30"	83°12'00"		" 23	2.55 "	11	hrd & grs.	59	0	13.8			do			same	same	same as above
									botm	14.								
7233	28°01'30"	83°12'30"		" 23	3.50 "	13	rcky Sh.	54	0	14.			do			E	same	Wind SE,force 2, Sky blue.
									botm	14.								
7234	28°01'30"	83°08'00"		" 23	4.35 "	11	rky.	55	0	13.6			do			NNE	same	same as above
									botm	13.5								
7235	28°01'30"	83°03'00"		" 23	5.15 "	8½	rky C.	53	0	13.			do			same	same	Wind SE,force 3, Sky blue & cloudy.
									botm	13.4								
7236	28°01'30"	82°57'00"		" 23	6.00 "	5½	S.brk Sh.	54	0	13.			do			NW	¼ mi.	same as above.
									botm	13.2								
7237	28°01'30"	82°51'30"		" 23	6.40 "	3½	S.	53	0	13.			do			same	same	Wind SE, force 2, Sky blue & cloudy.
									botm	13.								
7238	28°19'00"	82°55'15"		" 24	8.15 A.	3	S Grs.	55	0	12.			do			same	same	Wind SE,force 1, Sky blue.
									botm	12.								
7239	28°19'30"	83°01'00"		" 24	9.00 "	6¼	rky Grs.	57	0	12.3			do			NNE	¼ mi.	Wind SSE,force 3, Sky blue
									botm	12.5								
7240	28°19'45"	83°05'30"		" 24	9.50 "	8½	rky Grs	60	0	13.			do			N	same	same as above.
									botm	13.								
													do			same	same	same as above.

This space to be left for binding.

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK ..... 19 01 & 2.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Anclote																	
7241	28° 20'15"	83° 12'15"		Jan. 24	10.35 A.	10¼	S. Grs.	61	0	13.3								
									botm	13.5								
7242	28° 14'00"	83° 13'00"		" 24	11.30 "	11	rky C.	61	0	13.6			O. Dredge			N.	¼ Mi.	Wind SSE, force 3, Sky blue.
									botm	13.8								
7243	28° 13'45"	83° 07'30"		" 24	12.15 P.	9¼	S. Grs.	58	0	13.2			ditto			same	same	same as above.
									botm	13.2								
7244	28° 13'30"	83° 04'30"		" 24	12.40 "	6¾	S.brk Sh.	57	0	13.			do			same	same	same as above
									botm	13.								
7245	28° 13'30"	83° 01'45"		" 24	1.10 "	5¼	S.brk Sh.	58	0	13.			do			same	same	same as above
									botm	12.8								
7246	28° 13'15"	82° 56'15"		" 24	2.00 "	4	S. brk Sh.	58	0	13.			do			same	same	same as above
									botm	12.8								
7247	28° 13'15"	82° 54'30"		" 24	2.10 "	3	hrd.S. Grs.	57	0	13.			do			same	same	same as above
	Highland								botm	13.								
7248	1 mile East Highland Buoy			" 28	9.15 A.	4¾	C.R.Grs.	68.5	0	15.			do			SSW	¼ Mi.	same as above
									botm	15.3								
7249	27° 55'30"	82° 51'30"		" 28	10.10 "	3	hrd SbrkSh	70	0	15.5			do			NNE	same	Wind calm, force 0 Sky blue & cloudy.
									botm	15.8								
7250	27° 55'30"	82° 57'00"		" 28	10.55 "	5	hrd S.	69	0	15.5			do			NE	1/8 Mi.	Wind SSE, force 1, Sky blue & cloudy
									botm	15.								
7251	27° 55'30"	83° 02'30"		" 28	11.45 "	7¼	hrd S.	63	0	15.5			do			NE	¼ Mi.	Wind calm, force 0, Sky blue & cloudy.
									botm	15.								
7252	27° 55'30"	83° 08'00"		" 28	12.30 P.	10¼	hrd S.	62	0	13.3			do			same	same	Wind calm, force 0 Sky blue & cloudy.
									botm	15.0								
7253	27° 55'30"	83° 11'30"		" 28	1.05 "	13	C.R.	63	0	15.5			do			same	same	Wind NNE, force 1, Sky blue & cloudy.
									botm	15.2								
7254	27° 49'30"	83° 11'00"		" 28	2.10 "	11¼	hrd S.	67	0	16.			do			same	same	Wind NNE, force 1, Sky blue.
									botm	15.4								
7255	27° 49'30"	83° 05'30"		" 28	3.00 "	9½	S.	63	0	15.			do			N.	same	Wind calm, force 0, Sky blue.
									botm	14.8								
7256	27° 49'30"	83° 02'45"		" 28	3.55 "	7¾	S.	63	0	15.			do			W.	same	Wind NNE, force 1, Sky blue & hazy.
									botm	15.								
7257	27° 49'30"	83° 00'00"		" 28	4.05 "	7	hrd & C.	63	0	15.			do			same	same	same as above.
									botm	14.6								
7258	27° 49'30"	82° 57'15"		" 28	4.35 "	5½	S.brk Sh.	62	0	15.			do			same	same	same as above.
									botm	15.								
7259	27° 49'30"	82° 54'30"		" 28	4.55 "	3¾	S.brk Sh.	61	0	15.			do			same	same	same as above.
									botm	15.								
7260	27° 49'30"	82° 51'30"		" 28	5.20 "	3	rky	60	0	15.8			do			same	1/8 Mi.	same as above.
									botm	16.								
7261	27° 43'30	82° 46'50"		" 29	7.10 A.	3¼	hrd.brk Sh.	59	0	15.3			do			same	same	Wind NNE, force 1, Sky hazy.
									botm	15.5								
7262	27° 43'30"	82° 52'30"		" 29	7.55 "	5¾	hrd, brk Sh.	65	0	15.2			do			NW	¼ Mi.	Wind ESE, force 3, Sky blue.
									botm	15.								
7263	27° 43'30"	82° 58'00"		" 29	8.40 "	6½	S.	72	0	15.8			do			E	same	same as above.
									botm	15.5								
7264	27° 43'30"	83° 03'40"		" 29	9.25 "	10¼	hrd S.	67	0	15.5			do			N	same	same as above.
									botm	15.2								
7265	27° 43'30"	83° 06'30"		" 29	11.30 "	11½	sft. S.	73	0	16.4			do			NE	same	same as above.
									botm	16.0								
													do			same	same	same as above.

This space to be left for binding.

U.S.F.C.S. FISH HAWK.

Season 1901-2

Record of Dredgings on Sponge Investigation, West Coast of Florida from St Marks to Tampa Bay.

Number Station	Date 1902	Time	Locality (Sections)	Exact Position	Bottom Depth (fms)	Bottom Nature	Instrument used	Drift	Density Surface	Density Bottom	Temperature Air (Fahr.)	Temperature Surface	Temperature Bottom	Barometer	Sky	Wind Direction	Wind Force
225	Jany 17	1-27 P.	St. Martin's	Lat 28°42'30" Long. 83°09'45"	7	S. brk Sh. Grs	Oyster Dredge	SE. ¼ mile	1.025	1.026	47°	12°	12.2	29.99	b	W.	1
226	" 17	2-10 "	"	" 28 41 00 " 83 15 15	8½	rky	"	" ¼ "	1.025	1.026	48	13.	13.5	29.98	"	N.	1
227	" 17	3-20 "	"	" 28 39 15 " 83 20 30	10	sdy gray rky	"	" ¼ "	1.025	1.0252	48	14.	13.8	29.98	"	"	1
228	" 23	12-20 "	Anclote	" 28 08 00 " 82 53 30	3	sdy brk Sh.	"	E. ⅛ "	1.0228	1.023	60	13.	13.	29.99	"	Calm	0
229	" 23	1-05 "	"	" 28 08 00 " 82 57 00	5½	"	"	SE. ¼ "	1.024	1.027	60	13.	13.	29.99	"	"	0
230	" 23	1-50 "	"	" 28 08 00 " 83 04 30	7¾	rky. gray	"	" ¼ "	1.0245	1.025	59	13.3	13.5	29.98	"	"	0
231	" 23	2-30 "	"	" 28 08 30 " 83 10 00	10	rky. C	"	" ¼ "	1.025	1.0272	59	14.	13.5	29.97	"	"	0
232	" 23	2-55 "	"	" 28 08 30 " 83 12 00	11	hrd & Grs	"	E. ¼ "	1.0254	1.0273	59	13.8	14.	29.97	"	SE.	2
233	" 23	3-50 "	"	" 28 01 30 " 83 12 30	13	rky. Sh.	"	NNE. ¼ "	1.025	1.027	54	14.	14.	29.96	"	"	3
234	" 23	4-35 "	"	" 28 01 30 " 83 08 00	11	rky.	"	" ¼ "	1.025	1.026	55	13.6	13.5	29.96	b.c.	"	3
235	" 23	5-15 "	"	" 28 01 30 " 83 03 00	8½	rky. C.	"	NW. ¼ "	1.025	1.0253	53	13.	13.4	29.96	"	"	3
236	" 23	6-00 "	"	" 28 01 30 " 82 57 00	5½	S. brk Sh	"	" ¼ "	1.024	1.024	54	13.	13.2	29.96	"	"	2
237	" 23	6-40 "	"	" 28 01 30 " 82 51 30	3½	S.	"	" ¼ "	1.023	1.0233	53	13.	13.	29.96	b.	"	1
238	" 24	8-15 A.	"	" 28 19 00 " 82 55 15	3	S. Grs	"	NNE ¼ "	1.023	1.023	55	12.	12.	30.05	"	SSE.	3
239	" 24	9-00 "	"	" 28 19 30 " 83 01 00	6¼	rky. Grs.	"	N. ¼ "	1.0242	1.0245	57	12.3	12.5	30.05	"	"	3
240	" 24	9-50 "	"	" 28 19 45 " 83 06 30	8½	"	"	" ¼ "	1.0248	1.025	60	13	13	30.05	"	"	3
241	" 24	10-35 "	"	" 28 20 15 " 83 12 15	10¼	S. Grs	"	" ¼ "	1.025	1.025	61	13.3	13.5	30.05	"	"	3
242	" 24	11-30 "	"	" 28 14 00 " 83 13 00	11	rky. C.	"	" ¼	1.020	1.0252	61	13.6	13.8	30.03	"	"	3
243	" 24	12-15 P	"	" 28 13 45 " 83 07 30	9¼	S Grs	"	" ¼ "	1.0252	1.0254	58	13.2	13.2	30.03	"	"	3
244	" 24	12-40 "	"	" 28 13 30 " 83 04 30	6¾	S brk Sh.	"	" ¼ "	1.025	1.025	57	13.	13.	30.00	"	"	3
245	" 24	1-10 "	"	" 28 13 30 " 83 01 45	5¼	"	"	S. ¼	1.0246	1.0248	58	13.	12.8	30.00	"	"	3
246	" 24	2-00 "	"	" 28 13 15 " 82 56 15	4	"	"	" ¼ "	1.0234	1.0236	58	13.	12.8	30.00	"	"	3
247	" 24	2-10 "	"	" 28 13 15 " 82 54 30	3	hrd. S. Grs	"	S.SW. ¼ "	1.022	1.0224	57	13.	13	30.00	"	"	3
248	" 28	9-15 A	Highland	1 mile East of Higland Buoy	4¾	C.R. Grs	"	NNE. ¼ "	1.0238	1.0242	68.5	15.	15.3	30.25	b.c.	Calm	0
249	" 28	10-10 "	"	Lat. 27°55'30" Long. 82°51'30"	3	hrd. S brk Sh	"	NE ⅛ "	1.0234	1.0238	70	15.5	15.8	30.25	"	S-SE	1
250	" 28	10-55 "	"	" 27°55'30" " 82 57 00	5	hrd. S	"	" ¼ "	1.0234	1.0248	69	15.5	15.	30.26	"	Calm	0
251	" 28	11-45 "	"	" 27 55 30 " 83 02 30	7¼	"	"	" ¼ "	1.025	1.025	63	15.5	15.	30.23	"	"	0
252	" 28	12-30 P.	"	" 27 55 30 " 83 08 00	10¼	"	"	" ¼ "	1.025	1.0265	62	13.3	15.	30.20	"	NNE.	1
253	" 28	1-05 "	"	" 27 55 30 " 83 11 30	13	C.R.	"	" ¼ "	1.027	1.027	63	15.5	15.2	30.19	b	"	1
254	" 28	2-10 "	"	" 27 49 30 " 83 11 00	11¼	hrd S	"	N ¼ "	1.025	1.0256	67	16.	15.4	30.17	"	Calm	0
255	" 28	3-00 "	"	" 27 49 30 " 83 05 30	9½	S.	"	W. ¼ "	1.0252	1.026	63	15.	14.8	30.16	b.z	NNE	1
256	" 28	3-55 "	"	" 27 49 30 " 83 02 45	7¾	"	"	" ¼ "	1.025	1.0252	63	15.	15.	30.16	"	"	1
257	" 28	4-05 "	"	" 27 49 30 " 83 00 00	7	hrd & C.	"	" ¼ "	1.0245	1.0248	63	15.	14.6	30.18	"	"	1
258	" 28	4-35 "	"	" 27 49 30 " 82 57 15	5½	S brk Sh	"	" ¼ "	1.0242	1.025	62	15.	15.	30.18	"	"	1
259	" 28	4-55 "	"	" 27 49 30 " 82 54 30	3¾	"	"	" ⅛ "	1.0235	1.024	61	15	15.	30.17	"	"	1
260	" 28	5-20 "	"	" 27 49 30 " 82 51 30	3	rky.	"	" ⅛ "	1.0232	1.0238	60	15.8	16	30.16	z	"	1
261	" 29	7-10 A	"	" 27 43 30 " 82 46 50	3¼	hrd brk Sh	"	NW. ¼ "	1.0238	1.024	59	15.3	15.5	30.21	b	E-SE	3
262	" 29	7-55 "	"	" 27 43 30 " 82 52 30	5¾	"	"	E ¼ "	1.024	1.0248	65	15.2	15.	30.21	"	"	3
263	" 29	8-40 "	"	" 27 43 30 " 82 58 00	6½	S	"	N. ¼ "	1.025	1.025	72	15.8	15.5	30.23	"	"	3
264	" 29	9-25 "	"	" 27 43 30 " 83 03 40	10¼	hrd S	"	NE ¼ "	1.025	1.026	67	15.5	15.2	30.23	"	"	3
265	" 29	11-30 "	"	" 27 43 30 " 83 06 30	11½	sft. S	"	" ¼ "	1.025	1.0264	73	16.4	16.	30.20	"	"	2

Form 625.

RECORD OF _____ INVESTIGATION BY Fish Hawk 1902

117

81

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Water. Depth. (fms.)	Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tides. Depth. (fms.)	Tides. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Highland.			1902														
7266	27°37'30"	83°06'30"		Jan. 29	12.30 P.	11½	sft. S.	66	0	15.6								
									Botm	15.7			O. Dredge			NE	½ Mi.	Wind calm, force 0 Sky blue.
7267	27°37'15"	83°03'15"		" 29	1.00 "	10½	S.	66	0	16.2								
									Botm	15.5			Ditto			NW	same	same as above.
7268	27°37'00"	83°00'30"		" 29	1.25 "	9½	brk Sh.S. dead C.		0	16.								
								67	Botm	15.2			Do			same	same	same as above.
7269	27°37'00"	82°57'45"		" 29	2.00 "	7½	S.	67	0	16.5								
									Botm	15.5			do			N.	same	same as above.
7270	27°37'00"	82°55'00"		" 29	2.25 "	7½	S.brk. Sh.	68	0	17.2								
									Botm	15.5			do			NW	same	same as above.
7271	West channel entr. Key West Midchannel buoy bear'g W x S ½ S. dist. ½ Mile			Feb. 13	9.50 AM	7½	Cor. sand	65.5	0	19.8			7' Tur.			East	3/8 Mi.	Wind North, force 1, Sky blue.
									Botm	20.0								
7272	(Beacon 2 to Sand Key Lt.) 48°20' to Key West Lt. 77°07'			Feb. 13	10.35 AM	7½	Co.s br.Sh.	67.	0	20.0			ditto			NE x N.	same	Wind NNE, force 1, Sky blue.
									Botm	20.2								
7273	(Beacon 2 to Sand Key Lt.) 40°11' to Key West Lt. 119°47'			" 13	11.15 "	7½	same	69.5	0	20.2								
									Botm	20.2			do			same	same	same as above.
7274	(Key West Lt. to NW Passage Lt) Off Key West-Inside the reef			" 13	11.50 "	6½	same	67.	0	19.6								
									both	19.8			do			same	same	same as above
7275	(E. Martello Tower to West Martello Tower) 37°54' to NW Passage Lt. 55°42'			" 13	12.55 PM	6	Co sand	66	0	19.7								
									botm	20.0			7' Tur. and Tow Net.			same	same	same as above
7276	(E. Martello Tower to West Martello Tower) 47°40' to NW Passage Lt. 36°48'			" 13	1.30 "	6	same	66	0	20.0								
									botm	20.0			ditto			same	same	same as above
7277	(E. Martello Tower to Key West Lt. 36°00' to Sand Key Lt. 52°36'			" 13	2.10 "	5½	Co.s Grs.	66	0	20.0								
									botm	20.0			7' Tur.			same	same	same as above
7278	(Key West Lt. to E. Channel Bar Buoy) 71°53' to Beacon "A" 74.46' Gulf Stream off Key West			" 13	2.40 "	5½	same	66	0	20.0								
									both	20.0			same			same	same	same as above
7279	Lat. 24°21'55" Longitude 81°58'25"			" 14	10.40 AM	98	S.	72.0	0	22.0								
									both	55 (F)			same			E ¾ N.	½ Mi.	Wind ENE, force 1 Sky blue
7280	" 24°17'05"	81°58'25"		" 14	12.10 PM	132	S.	78	0	22.0								
									both	52 (F)			same			NE	same	same as above
7281	" 24°13'45"	81°58'15"		" 14	2.30 "	204	S.	70	0	21.7								
									both	52 (F)			same			NE	3/8 Mi.	Wind ENE, force 3 Sky blue & cloudy.
7282	" 24°21'15"	81°52'15"		" 19	8.30 AM	109	S.	72	0	20.7								
									both	54.5 (F)			same			East	½ Mi.	Wind NE, force 3. Sky blue & cloudy.
7283	" 24 17'30"	81°53'30"		" 19	9.50 "	127	S.Gr.	72.5	0	20.7								
									both	53 (F)			same			same	same	Wind SE, force 4. Sky blue & cloudy.
7284	" 24 13'30"	81°53'00"		" 19	11.25 "	245	S.	75	0	21.0								
									both	49 (F)			same			same	same	Wind SE, force 5. sky blue.

81a

Record of Dredgings on Sponge Investigation,

West Coast of Florida

from St Marks to Tampa Bay

U.S.F.C.S. FISH HAWK.

Season 1901-2

Number of Station	Date 1901	Time	Locality (Sections)	Exact Position	Bottom Depth (fms)	Bottom Nature	Instrument used	Drift	Density Surface	Density Bottom	Temperature Air (Fahr.)	Temperature Surface	Temperature Bottom	Barometer	Sky	Wind Direction	Wind Force
7266	Jany 29	12-30 P	Highland	Lat. 27° 37' 30" Long. 83° 06' 30"	11½	sft S	Cyster Dredge	NE ¼ mile	1025	1.026	66	15.5	15.7	30.15	b	Calm	0
7267	" 29	1-00 "	"	" 27 37 15 " 83 03 15	10¼	S	"	NW ¼ "	1025	1025	66	16.2	15.5	30.15	"	"	0
7268	" 29	1-25 "	"	" 27 37 00 " 83 00 30	9¾	brk Sh.S drd C	"	" ¼ "	1.025	1025	67	16	15.2	30.13	"	"	0
7269	" 29	2-00 "	"	" 27 37 00 " 82 57 45	7¼	S	"	N ¼ "	1025	1025	67	16.5	15.5	30.13	"	"	0
7270	" 29	2-25 "	"	" 27 37 00 " 82 55 00	7½	S brk Sh	"	NW ¼ "	1.0242	1.0248	68	17.2	15.5	30.13	"	"	0

Number of dredging stations 128

Number of miles run on lines of dredgings .. 540

Abbreviations

Bottom: C Coral, brk broken, G Gravel, gry gravey, Grs Grass, hrd hard, R Rock, rky rocky, S Sand, sdy sandy, Sh Shell, sft soft, sky stuky.

Sky: b blue(sky), c cloudy, o overcast, z hazy.

		botm 16.0 (C) botm 58.0 (F)	O. Dredge & 7' Tur.	same	2 Mi.	Wind NNE, force 5, Sky blue & cloudy.

Form 625.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1902

82

Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Gulf Stream off Key West																	
7285	24°15'00"	81°47'30"		Feb. 19	1.35 PM	306	S.	72	0	21.0			7' Tnr.			SE	½ Mi.	Wind SE, force 5, Sky blue.
									botm	47.5		(F)						
7286	24°18'00"	81°47'45"		" 19	3.25 "	133	S.	72	0	21.5								
									botm	53.5		(F)	ditto			East	same	same as above.
	Gulf of Mexico of NW channel																	
7287	24°40'45"	81°53'40"		" 24	8.20 AM	6	hd.S.	73	0	19.0								
									botm	19.0		(C)	do			same	same	Wind ESE, force 4, Sky cloudy.
7288	24°42'50"	81°53'38"		" 24	9.00 "	7	Co.	73	0	19.0								
									botm	19.0			do			same	same	Wind ESE, force 4, Sky blue & cloudy.
7289	24°44'50"	81°53'38"		" 24	9,40 "	10	hd.S.	73	0	19.0								
									botm	19.5			O. Dredge			same	same	Wind ESE, force 3, Sky blue & cloudy.
7290	24°46'12"	81°53'30"		" 24	10.17 "	10¼	Co.	74	0	19.0								
									botm	19.0			7' Tnr.			same	same	Wind ESE, force 4, Sky blue.
7291	24°46'40"	81°55'40"		" 24	10.50 "	10½	hd. smooth	71	0	20.0								
									botm	19.5			same			West	½ Mi.	Wind SE, force 4, Sky blue.
7292	24°44'50"	81°55'50"		" 24	11.30 "	10¼	hd. smooth	73	0	19.0								
									botm	19.0			same			same	same	Wind SSE, force 4, Sky blue.
7293	24°42'30"	81°55'52"		" 24	12.10 PM	7¼	Co.	71	0	20.0								
									botm	20.0			same			NW	½ Mi.	Wind SSE, force 4, Sky blue & cloudy.
7294	24°40'25"	81°56'10"		" 24	1.20 "	6 ¾	Co.	72	0	20.0								
									botm	19.5			O. Dredge			West	same	same as above.
7295	24°38'40"	81°56'28"		" 24	1.50 "	5¼	Co.	73	0	20.0								
									botm	19.5			same			same	same	same as above.
	Gulf Stream off Key West																	
7296	24°21'45"	81°47'45"		" 26	8.55 AM	122	Co.	69	0	25.0								
									botm	54.0		(F)	7' Tnr.			NE	1 mile	Wind calm, force 0. Sky blue & cloudy.
7297	24°15'45"	81°41'30"		" 26	10.40 "	146	smooth	66	0	22.0								
									botm	16.5		(C)						
									botm	52.		(F)	same			same	1½ Mi.	Wind NE, force 2, Sky blue & cloudy.
7298	24°19'00"	81°39'45"		" 26	11.53 "	120	Co.	65.	0	21.0								
									botm	18.5		(C)						
									botm	53.5		(F)	same			same	1¾ Mi.	Wind NE, force 4, Sky blue & cloudy.
7299	24°22'00"	81°42'30"		" 26	2.00 PM	109	Co.	70	0	21.o								
									botm	15.o		(C)						
									botm	53.o		(F)	same			East	¾ Mi.	Wind NE, force 2, Sky cloudy.
7300	24°23'40"	81°37'10"		Mar. 4	9.40 AM	104	Co.R	75	0	22.5								
									botm	18.5		(C)						
									botm	56.0		(F)	O. Dredge			NE x E	1¼ Mi.	Wind ENE, force 4, Sky blue & cloudy.
7301	24°18'37"	81°36'50"		" 4	11.10 "	127	reky	78	0	23.0								
									botm	18.0		(C)	O. Dredge &					
									bo tm	58.0		(F)	7' Tnr.			same	2 Mi.	Wind ENE, force 5, Sky blue & cloudy.

This space to be left for binding.

Record of Dredgings

Straits of Florida and Vicinity of Key West Fla,

1902

U. S. F. C. Str. Fish Hawk

Boatswain James A. Smith, U.S.N, Comdg.

82a

No. of Station	Date 1902	Time	Locality	Exact Position - Bearings, Dist. & Angles	Bottom: Depth	Bottom: Nature	Instrument used	Drift	Density: Surface	Density: Bottom	Temperature: Air Fahr	Temperature: Surface	Temperature: Bottom	Barometer	Sky	Wind: Direction	Wind: Force
					Fms												
7271	Febry 13	9-50 AM	W. Channel, Entr to Key West	Midchannel Buoy bear'g W. x S. ¼ S. dist. ½ mile	7¾	Co. sand	7ft. Beam Trawl	East ⅜ mi.	1.025	1.025	65.5	19.8	20.0	30.02	b.	North	1
7272	" 13	10-35 "	" "	{Beacon 2 to Sand Key Lt} 48° 20' to Key West Lt. 77° 07'	7¼	Co.s. br.Sh	"	NE ¼ N. ⅜	1.025	1.025	67.0	20.0	20.2	30.02	"	NNE	1
7273	" 13	11-15 "	" "	{Beacon 2 to Sand Key Lt.} 40° 11' to Key West Lt. 119° 47'	7½	"	"	" ⅜	1.025	1.025	69.5	20.2	20.2	30.00	"	"	1
7274	" 13	11-50 "	" "	{Key West Lt. to NW. Passage Lt} 67°-35' to Beacon 3 103°-20'	6¾	"		" ⅜	1.025	1.025	67.0	19.6	19.8	29.98	"	"	1
7275	" 13	12-55 PM	Off Key West - Inside the Reef	{E. Martello Tower to W. Martello Tower} 37° 54' to NW. Passage Lt 55° 42'	6	Co. sand	7ft. Trawl and Tow Net	" ⅜	1.0248	1.0248	66.0	19.7	20.0	29.97	"	"	1
7276	" 13	1-30 "	" "	{E. Martello Tower to W. Martello Tower} 47° 40' to NW. Passage Lt. 36° 48'	6	"	"	" ⅜	1.0248	1.025	66.0	20.0	20.0	29.95	"	"	1
7277	" 13	2-10 "	" "	{E. Martello Tower to Key West Lt.} 36° 00' to Sand Key Lt. 52° 36'	5¼	Co.s. Grs	7ft Trawl	" ⅜	1.025	1.025	66.0	20.0	20.0	29.93	"	"	1
7278	" 13	2-40 "	" "	{Key West Lt. to E. Channel Bar Buoy} 71° 53' to Beacon "A" 74° 46'	5¼	"	"	" ⅜	1.025	1.025	66.0	20.0	20.0	29.93	"	"	1
7279	" 14	10-40 AM	Gulf Stream off Key West	Lat. 24° 21' 55" Long. 81° 58' 25"	98	S	"	E ¼ N. ½ "	1.0245	Openly	72.0	22.0	55(?)	30.00	"	ENE	1
7280	" 14	12-10 PM	" "	" 24° 17' 05" " 81° 58' 25"	132	"	"	NE ½ "	1.0248	1.0252	78.0	22.0	52.	30.00	"	"	1
7281	" 14	2-30 "	" "	" 24 13 45 " 81 58 15	304	"	"	" ⅜ "	1.025	1.0252	70.0	21.7	52.	29.93	b.c.	"	3
7282	" 19	8-20 AM	" "	" 24 21 15 " 81 52 15	109	"	"	East ½ "	1.025	1.0252	72.0	20.7	54.5	29.92	"	NE	3
7283	" 19	9-50 "	" "	" 24° 17 30 " 81 53 30	127	S. Gr.	"	" ½ "	1.025	1.0252	73.5	20.7	53.	29.93	"	SE	4
7284	" 19	11-25 "	" "	" 24 13 30 " 81 53 00	245	S.	"	" ½ "	1.025	1.025	75.0	21.0	49.	29.91	b.	"	5
7285	" 19	1-35 PM	" "	" 24 15 00 " 81 47 30	306	S	"	SE ½ "	1.025	1.0252	72.0	21.0	47.5	29.87	"	"	5
7286	" 19	3-25 "	" "	" 24 18 00 " 81 47 45	133	"	"	East ½ "	1.025	1.025	72.0	21.5	53.5	29.83	"	"	5
7287	" 24	8-20 AM	Gulf of Mexico off NW. Channel	" 24 40 45 " 81 53 40	6	hd. S	"	" ½ "	1.025	1.024	73.0	19.0	19.(c)	29.85	c.	ESE.	4
7288	" 24	9-00 "	" "	" 24 42 50 " 81 53 38	7	Co.	"	" ½ "	1.024	1.024	73.0	19.0	19.	29.85	b.c.	"	4
7289	" 24	9-40 "	" "	" 24 44 50 " 81 53 38	10	hd S	Oyster Dredge	" ½ "	1.025	1.024	73.0	19.0	19.5	29.85	"	"	3
7290	" 24	10-17 "	" "	" 24 46 12 " 81 53 30	10¼	Co	7ft Trawl	" ½ "	1.024	1.0245	74.0	19.0	19.	29.85	b.	"	4
7291	" 24	10-50 "	" "	" 24 46 40 " 81 55 40	10½	hd smooth	"	West ½ "	1.0234	1.0241	71.0	20.0	19.5	29.85	"	SE	4
7292	" 24	11-30 "	" "	" 24 44 50 " 81 55 50	10¼	"	"	" ½ "	1.0253	1.0254	73.0	19.0	19.	29.83	"	SSE.	4
7293	" 24	12-10 PM.	" "	" 24 42 30 " 81 55 52	7¼	Co	"	NW. ½ "	1.024	1.024	71.0	20.0	20.	29.80	b.c.	"	4
7294	" 24	1-20 "	" "	" 24 40 25 " 81 56 10	6¾	"	Oyster Dredge	West ½ "	1.024	1.0234	72.0	20.0	19.5	29.79	"	"	4
7295	" 24	1-50 "	" "	" 24 38 40 " 81 56 28	5¼	"	"	" ¼ "	1.0234	1.0234	73.0	20.0	19.5	29.78	"	"	4
7296	" 26	8-55 AM	Gulf Stream off Key West	" 24 21 45 " 81 47 45	122	"	7ft. Trawl	NE. 1 "	1.0242	1.025	69.0	25.0	54(?)	29.92	"	Calm	0
7297	" 26	10-40 "	" "	" 24 15 45 " 81 41 30	146	smooth	"	" 1½ "	1.0242	1.025	66.0	22.0	{16.6 C 52 F	29.95	"	NE	2
7298	" 26	11-53 "	" "	" 24 19 00 " 81 39 45	120	Co.	"	" 1¾ "	1.0244	1.0253	65.0	21.0	{18.5 65.5	29.88	"	"	4
7299	" 26	2-00 PM	" "	" 24 22 00 " 81 42 30	109	"	"	East ¾ "	1.025	1.0244	70.0	21.0	{15 59.	29.82	c.	"	2
7300	March 4	9-40 AM	" "	" 24 23 40 " 81 37 10	104	Co. R	Oyster Dredge	NE ¼ E 1¼ "	1.0242	1.0244	75.0	22.5	{13.6 56.	29.89	b.c.	ENE.	4
7301	" 4	11 10 "	" "	" 24 18 37 " 81 36 50	127	roky	{Oyster Dredge & 7ft Trawl}	" 2 "	1.0244	1.0242	78.0	23.0	{15 61	29.89	"	"	5

Abbreviations:- Bottom: Co = Coral, Gr = Gravel, Grs = Grass, R = Rock, S = Sand, Sh = Shell, brk = broken, hd = hard. Sky: c - cloudy, b - blue clear

Form 625.

19 13. 117

RECORD OF ..... INVESTIGATION BY FISH HAWK 1902. 83

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Off Cape Lookout		1902														
7302	Cape Lookout Lt.Ho.bear'g E x N 1/8 N dist 1¾ Mi.		July 24	10.45 A.	7½	hrd. S.	82	0 botm	28 27			7' Tnr.			SE½ S	½ Mi.	Wind ESE,force 3, Sky cloudy.
7303	Cape Lookout Lt.Ho.bear'g NE 1/8 E. dist. 3½ Mi.		" 24	11.45 "	9½	hrd & stky	82	0 botm	28 26			ditto			SE	3/8 Mi.	Wind ESE,force 2, Sky cloudy.
7304	Cape Lookout Lt.Ho.bear'g NNE dist 4¾ Mi.		" 24	12.55 P.	10	blk M.	83	0 botm	28 27			7' Tnr & Boat Dredge			E.	same	same as above.
7305	Cape Lookout Lt.Ho.bear'g E xS ½ S. dist 7 Mi. and Fort Macon bear'g North 2¾ miles.		" 24	2.35 "	9	sft.blk M.	85	0 botm	28.5 29.0			ditto			SE	same	same as above
7306	Cape Lookout Lt.Ho. bear'g ESE dist. 7½ miles and Fort Macon bear'g NW dist. 2 miles		" 24	3.00 "	4½	hrd S.	83	0 botm	28.5 missed			7' Tnr.			SSE	¼ Mi.	Wind ESE,force 3, Sky cloudy.
7307	Cape Lookout Lt.Ho. bear'g N x W ¼ W.dist. 10½ Mi. Latitude 34°24'00" Longitude 76°26'00"		Aug. 14	8.00 A.	6½	hrd S.	79	0 botm	26. missed			same			SSW	same	Wind S,force 2, Sky rainy.
7308			" 14	9.05 "	9½	hrd S.	79	0 botm botm	26. 80.0 (F) 26.5 (C)			same			SSW	½ Mi.	Wind S,force 2, Sky cloudy.
7309	34° 20'00" 76°24'00"		" 14	10.00 "	18	hrd S.brk Sh	78	0 botm botm	26.5 77.0 (F) 26. (C)			same			same	same	Wind SW,force 2, Sky cloudy.
7310	34°15'30" 76°22'00"		" 14	11.00 "	18	gry S.	79	0 botm botm	27. 79. (F) 26. (C)			7' Tnr & boat dredge			same	same	same as above.
7311	34°12'00" 76°19'30"		" 14	12.10 P.	25	crs.S.	78	0 botm botm	27. 79. (F) 26. (C)			ditto			same	same	Wind SW,force 3 Sky cloudy.---
7312	34°07'00" 76°17'30"		" 14	1.15 "	29	blk S.	78	0 botm botm	27. (F) 77 (F) 24. (C)			do			same	same	same as above
7313	34°04'00" 76°15'30"		" 14	2.20 "	69	fne dk S.	79	0 botm botm	27. 66. (F) 22. (C)			do			same	same	Wind SSW,force 2, Sky blue & cloudy.
7314	34°02'30" 76°15'00"		" 14	3.00 "	88	same	80	0 botm	27. 60. (F)			do			same	same	same as above
7315	33°56'00" 76°20'00"		" 21	12.40 "	172	crs.S.brk Sh.	82	0 botm botm	28.5 62. (F) 23.5 (C)			7' Tnr.			NNE	1 mile	Wind East,force 2, Sky blue.
7316	33°57'00" 76°19'30"		" 21	1.40 "	162	yl.S.	89	0 botm botm	29. 62. (F) 23. (C)			same			NE	same	Wind variable, Force 0-1.Sky blue.
7317	34°04'30" 76°23'00"		" 21	3.25 "	27	blk S.sml Sh	88	0 botm botm	28. 82 (F) 27. (C)			7' Tnr and boat dredge			SW	¾ mi.	Wind SW,force 2, Sky blue.

This space to be left for binding.

Form 625.

19 13.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1902.

84

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7318	34° 11'00"	76° 26'00"		1902 Aug. 21	4.55 P.	19½	blk S.brk Sh.	88	0	28.5								
									botm	82. (F)			7' Trr. & boat dredge					
7319	34° 17'15"	76° 29'00"		" 21	6.08 "	17	fne lgt S. blk sp.	86	botm	27. (C)						NW	¾ mi.	Wind SW, force 2, Sky blue.
									0	26.5								
									botm	79. (F)								
7320	34° 24'00"	76° 32'30"		" 22	9.20 A.	13½	dk S.sml Sh	79	botm	25. (C)			ditto			same	¼ mi.	Wind SW, force 2, Sky blue & cloudy
									0	27.								
									botm	81. (F)								
7321	34° 30'30"	76° 36'00"		" 22	10.45 "	11	fne blk S.	78	botm	27. (C)			do			N.	½ Mi.	Wind NW, force 2, Sky blue & cloudy.
									0	26.5								
									botm	79. (F)								
7322	34° 04'00"	76° 10'00"		" 26	12.25 P.	121	hrd S.sml Sh	78	botm	26.5 (C)			do			same	same	Wind NW, force 2, Sky blue & cloudy.
									0	25.5								
									botm	54. (F)								
7323	34° 03'30"	76° 08'30"		" 26	1.30 "	141	hrd fne dk S.brk Sh.	78	botm	16 (C)			do			N x E	1 mi.	Wind NNE, force 4, Sky blue.
									0	54 (F)								
7324	34° 10'30"	76° 13'00"		" 26	3.15 "	23	fne dk s&sh	76	botm	15 (C)			do			same	same	Wind NE, force 4, Sky blue.
									0	27.								
									botm	74. (F)								
7325	34° 17'15"	76° 13'30"		" 26	4.35 "	17	hrd S & Sh	78	botm	23.5 (C)			do			SE	½ mi.	Wind NE, force 3, Sky blue.
									0	27.								
									botm	81 (F)								
7326	34° 24'00"	76° 20'00"		" 26	5.30 "	13	hrd S.brk Sh	78	botm	26. (C)			do			E	1 mi.	same as above
									0	25.5								
									botm	81 (F)								
7327	34° 28'30"	76° 14'30"		" 27	8.25 A	18½	fne blk S.	76	botm	25.5 (C)			do			SE	½ mi.	same as above
									0	25.5								
									botm	79. (F)								
7328	34° 21'00"	76° 11'30"		" 27	9.45 "	19	fne gy S.sml Sh.	78	botm	25.5 (C)			do			E	1 mi.	Wind NNE, force 3, Sky blue.
									0	26.								
									botm	80. (F)								
7329	34° 13'30"	76° 08'00"		" 27	11.05"	34	dr.gyS & Sml Sh.	79	botm	26. (C)			do			NNE	½ mi.	same as above
									0	27.								
									botm	71.5 (F)								
7330	34° 06'30"	76° 05'00"		" 27	12.30 P.	126	hrd S.	80	botm	23. (C)			do			same	same	Wind NNE, force 3, Sky blue & cloudy.
									0	27.								
									botm	53. (F)								
7331	34° 05'15"	76° 03'00"		" 27	1.40 "	154	hrd S & Sh.	79	botm	19.5 (C)			do			same	1¼ mi.	same as above
									0	27.								
									botm	51. (F)								
7332	34° 11'00"	76° 36'00"		Sept. 3	10.30 "	21	same	82	botm	19.5 (C)			do			same	same	Wind NNE, force 4, Sky blue & cloudy.
									0	29.								
									botm	82. (F)								
7333	34° 04'00"	76° 32'45"		" 3	12.00 M.	22	hrd dk gy S. brk Sh.	82	botm	29. (C)			do			NW	½ mi.	Wind SW, force 3, Sky blue & cloudy.
									0	29.								
									botm	80. (F)								
7334	33° 57'30"	76° 28'30"		" 3	1.20 P.	63	crk brk s.and Co.brk Sh.	82	botm	28.5 (C)			do			same	same	Wind SSW, force 3, Sky blue & cloudy
									0	28.								
									botm	64. (F)								
7335	33° 51'30"	76° 25'30"		" 3	2.45 "	151	hrd & rcky	83	botm	19. (C)			do			S.	½ mi.	Wind SSW, force 3, Sky blue &cloudy.
									0	28.								
									botm	53. (F)								
									botm	17. (C)			do			E.	1½ mi.	Wind SSE, force 3, Sky blue & cloudy.

This space to be left for binding.

Record of Dredgings

made by

U. S. F. C. Str. Fish Hawk

James A Smith Boatswain U.S.N. Comdg.

off

Cape Lookout, N.C.

Summer 1902

Number of Station	Date 1902	Time	Locality	Exact Position [Bearings, Lat. & Long.]	Bottom: Depth (fms)	Bottom: Nature	Instrument used	Drift	Density: Surface	Density: Bottom	Temperature: Air (°F)	Temperature: Surface	Temperature: Bottom	Barometer	Sky	Wind: Direction	Wind: Force
7302	July 24	10-45 A	Off Cape Lookout	Cape Lookout Lt. Ho bears E. ¼ N. ⅛ N. dist. 1¾ miles	7½	brd. S	7ft. Beam Trawl	SE. ½ S. ⅛ mile	1.022	1.0221	82°	28°	27°	30.02	c	ESE	3
7303	" 24	11-45	"	" " " " NE. ⅛ E. 3½ "	9½	brd. ¼ sthy	"	SE ⅛ "	1.0226	1.023	82.	28.	26.	30.02	-	-	2
7304	" 24	12-55 P	"	" " " " NNE. 4¾ "	10	blk. M	7ft. Beam Trawl & Boat Dredge	E ⅛ "	1.0226	1.0227	83.	28.	27.	30.01	-	-	2
7305	" 24	2-35 -	"	" " " " E. S. ½ S. 7 "	9	sft. blk. M	-	SE ⅛ "	1.0225	1.0226	85.	28.5	29.	30.01	-	-	2
7306	" 24	3-00 -	"	Fort Macon - North - 2¾ " / Cape Lookout Lt Ho - ESE - 7½ " / Fort Macon - NW - 2 "	4½	brd. S	7 ft. Trawl	SSE ¼ "	1.022	missed	83.	28.5	missed	30.00	-	-	3
7307	Aug. 14	8-00 A	"	Cape Lookout Lt Ho - N. ¼ W. ¼ W. 10½ "	6½	-	-	SSW ¼ "	1.024	-	79.	26.	-	29.96	r	S	2
7308	" 14	9-05 -	"	Lat. 34° 24' 00" Long. 76° 26' 00"	9½	-	-	- ½ "	1.023	1.0239	79.	26.	[80 F 26.66	29.98	c	-	2
7309	" 14	10-00 -	"	" 34 20 00 " 76 24 00	18	brd. S. brk. Sh	-	- ½ "	1.0232	1.023	78.	26.5	[77 26	29.98	-	SW	2
7310	" 14	11-00 -	"	" 34 15 30 " 76 22 00	18	gry S	7ft. Trawl & Boat Dge	" ½ "	1.023	1.0228	79.	27.	[79 26	29.98	-	-	2
7311	" 14	12-10 P	"	" 34 12 00 " 76 19 30	25	crs. S.	-	" ½ "	1.023	1.0224	78.	27.	[79 26	29.97	-	-	3
7312	" 14	1-15 -	"	" 34 07 00 " 76 17 30	29	blk. S.	"	" ½ "	1.023	1.024	78.	27.	[77 26	29.96	-	-	3
7313	" 14	2-20 -	"	" 34 04 00 " 76 15 30	69	fne. dk. S.	"	" ½ "	1.023	1.0233	79.	27.	[80 26	29.95	b.c	SSW	2
7314	" 14	3-00 -	"	" 34 02 30 " 76 15 00	88	-	"	" ½ "	1.0232	missed	80.	27.	60 F	29.91	-	-	2
7315	" 21	12-40 -	"	" 33 56 00 " 76 20 00	172	crs. S. brk. Sh	7ft. Trawl	NNE. 1 "	1023	1.0234	82.	28.5	[82 F 28.88	29.87	b	E	2
7316	" 21	1-40 -	"	" 33 57 00 " 76 19 30	162	yl. S	"	NE. 1 "	1.0231	1.0234	83.	29.	[82 25	29.87	-	variable	0-1
7317	" 21	3-25 -	"	" 34 04 30 " 76 23 00	27	blk. S. and Sh	7ft. Trawl & Boat Dredge	SW ¾ "	1.023	1.0231	88.	28	[82 27	29.83	-	SW	2
7318	" 21	4-55 -	"	" 34 11 00 " 76 26 00	19½	blk. S. brk. Sh	-	NW ¾ "	1.0226	1.023	88.	28.5	[82 27	29.83	-	-	2
7319	" 21	6-08 -	"	" 34 17 15 " 76 29 00	17	fne. lgt. S. blk. Sp	"	" ¾ "	1.023	1.0232	86.	26.5	[79 26	29.99	b.c.	-	2
7320	" 22	9-20 A	"	" 34 24 00 " 76 32 30	13½	dk. S. and Sh	"	N ½ "	1.0232	1.023	73.	27	[81 27	29.97	-	NW	2
7321	" 22	10-45 -	"	" 34 30 30 " 76 36 00	11	fne. blk. S.	"	" ½ "	1.0232	1.0232	78.	26.5	[78 26.6	29.96	-	-	2
7322	" 26	12-25 P	"	" 34 04 00 " 76 10 00	12.1	brd. S. and Sh	"	N. x E. 1 "	1.0236	1.0252	78.	25.5	[84 26	29.94	b	NNE	4
7323	" 26	1-30 -	"	" 34 03 30 " 76 08 30	141	brd. fne. dk. S. brk. Sh	"	" 1 "	1.0236	1.0252	78.	26	[76 26	29.93	-	NE	4
7324	" 26	3-15 "	"	" 34 10 30 " 76 13 00	23	fne. dk. Sh. Sh	"	SE ½ "	1.0234	1.0234	76.	27	[78 26.6	29.90	-	-	3
7325	" 26	4-35 -	"	" 34 17 15 " 76 16 30	17	brd. S. & Sh	"	E. 1 "	1.023	1.0232	78.	27	[81 26	29.90	-	-	3
7326	" 26	5-30 -	"	" 34 24 00 " 76 20 00	13	brd. S. brk. Sh	"	SE ½ "	1.023	1.0232	78.	25.5	[81 26.5	29.90	-	-	3
7327	" 27	8-25 A	"	" 34 28 30 " 76 14 30	18½	fne. blk. S.	"	E. 1 "	1.0236	1.0234	76	25.5	[78 26.5	29.90	-	NNE	3
7328	" 27	9-45 -	"	" 34 21 00 " 76 11 30	19	fne. gy. S. and Sh	"	NNE ½ "	1.0234	1.0232	78.	26.	[80 26	29.91	-	-	3
7329	" 27	11-05 -	"	" 34 13 30 " 76 08 00	34	sft. gy. S. and Sh	"	" ½ "	1.0232	1.0242	79.	27.	[81.4 83	29.91	b.c.	-	3
7330	" 27	12-30 P	"	" 34 06 30 " 76 05 00	128	brd. S.	"	" 1¼ "	1.0234	1.0244	80.	27.	[82 28.5	29.91	-	-	3
7331	" 27	1-40 -	"	" 34 05 15 " 76 03 00	154	brd. S. & Sh	"	" 1¼ "	1.0234	1.0244	79.	27.	[82 28.5	29.89	-	-	4
7332	Sept. 3	10-30 -	"	" 34 11 00 " 76 36 00	21	-	"	NW ½ "	1.0232	1.023	82.	29.	[82 28	29.86	-	SW	3
7333	" 3	12-00 M	"	" 34 04 00 " 76 32 45	22	brd. dk. gy. S. brk. Sh	"	" ½ "	1.0232	1.0234	82.	29.	[80 28.5	29.87	-	SSW	3
7334	" 3	1-20 P	"	" 33 57 30 " 76 28 30	63	fine brn. S. and Co. brk. Sh	"	S. ½ "	1.0232	1.0252	82.	28.	[80 28	29.86	-	-	3
7335	" 3	2-45 -	"	" 33 51 30 " 76 25 30	151	brd. gy.	"	E. 1½ "	1.0232	1.0261	83.	28.	[83 27	29.83	-	SSE	3

Form 625.

RECORD OF ..... INVESTIGATION BY FISH. HAWK 19 02

19 13.

85

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Off Cape Lookout.																	
7336	34° 18'00"	76° 38'45"		Sept. 4	10.10 A.	16½	hrd fne dkS	82	0	27.								
									botm	82. (F)			7' Tnr and					
7337	34°25'00"	76°42'00"		" 4	11.15 "	14	brk Sh.	83	bptm	26.5 (C)			Boat Dredge			S.	½ mi.	Wind SSW, force 3, Sky blue & cloudy
									0	26.								
									botm	81. (F)								
7338	34°32'00"	76°44'45"		" 4	12.40 P.	10	fne dk gy S. brk Sh.	83	botm	26. (C)			ditto			SE	same	Wind SSW, force 2, Sky blue & cloudy
									0	27.								
									botm	81. (F)								
7339	34°31'00"	76° 23'00"		" 8	8.10 A.	10½	hrd brk Sh.	78	botm	27. (C)			do			SSE	same	Wind SSW, force 1, Sky blue & cloudy
									0	25.5								
									botm	80. (F)								
7340	34° 38'00"	76° 26'00"		" 8	9.25 "	7½	fne gy S. & brk Sh.	79	botm	25.5 (C)			do			same	same	Wind East, force 2 Sky cloudy.
									0	26.								
									botm	80. (F)								
7341	34° 44'15"	76° 21'45"		" 8	10.35 "	8	crs.gy.S. & brk Sh.	79	botm	25.5 (C)			do			same	same	same as above
									0	26.								
									botm	79.5 (F)								
7342	34° 37'15"	76° 18'45"		" 8	11.50 "	14	fne.dk.gy.S.	78	botm	25. (C)			do			SSW	½ mi.	Wind East, force 3 Sky cloudy.
									0	27.								
									botm	80. (F)								
									botm	26. (C)			do					
									0	26.								
7343	34° 30'15"	76° 15'45"		" 8	12.55 P.	19½	fne dk.gy S and M.	79	botm	80. (F)						SE	same	same as above
									botm	25.5 (C)			do			SSE	same	Wind SSE, force 4, Sky blue & cloudy
									0	27.								
7344	34°20'45"	76° 49'30"		" 12	11.30 A.	13½	Co·sh.crs.& gy. S.	80	botm	79. (F)								
									botm	26. (C)			do			ESE	same	Wind NNE, force 2, Sky blue & cloudy
									0	26.								
7345	34° 22'00"	76° 51'15"		" 12	12.55 P.	14	dead Co. P. brk.Sh.	81	botm	79. (F)								
									botm	27. (C)			O.Dredge			SE	same	same as above
									0	26.								
7346	34° 21'00"	76° 49'30"		" 12	1.20 "	14	hrd.gy.S.& brk. Sh.	80	botm	78. (F)								
									botm	26.5 (C)			ditto			S.	same	Wind ENE, force 2, Sky blue & cloudy
									0	26.								
7347	34° 21'45"	76° 50'10"		" 12	1.45 "	14½	Co·Sh.fne.yl. sand	80	botm	79. (F)								
									botm	26. (C)			7, Tnr. & Boat Dredge			E	same	Wind ENE, force 1, Sky blue & cloudy
									0	26.								
									botm	79. (F)								
7348	34° 22'10"	76° 50'35"		" 12	2.00 "	14½	crs.yel.S. & dead Sh.brk Co.	80	botm	26. (C)			O. Dredge			SE	same	Wind ENE, force 2, Sky blue & cloudy.

This space to be left for binding.

85a

Record of Dredgings

made by

U.S.F.C. Str. Fish Hawk

James A. Smith Boatswain U.S.N, Comdg,

off

Cape Lookout, N.C.

Summer 1902

Number of Station	Date 1902	Time	Locality	Exact Position [Lat & Long]	Bottom Depth fms.	Bottom Nature	Instrument used	Drift	Density Surface	Density Bottom	Temperature Air (F)	Temperature Surface C.	Temperature Bottom C & F	Barom.	Sky	Wind Direction	Wind Force
7336	Sept 4	10-10 A.	Off Cape Lookout	Lat. 34° 18' 00" Long. 76° 38' 45"	16½	hrd. fne. dk. S.	7 ft. Beam Trawl & Boat Dredge	S. ½ mile	1.0223	1.022	82°	27.°	82° F 26.5 C	29.83	b.c	S.S.W.	3
7337	" 4	11-15 "	"	" 34 25 00 " 76 42 00	14	brk. Sh.	"	S.E. ½ "	1.022	1.0227	83.	26.	81 26	29.83	"	"	2
7338	" 4	12-40 P.	"	" 34 32 00 " 76 44 45	10	fne. dk. gy. S. brk. Sh	"	S.S.E. ½ "	1.0222	1.0224	83.	27.	81 27	29.81	"	"	1
7339	" 8	8-10 A.	"	" 34 31 00 " 76 23 00	10½	hrd. brk. Sh.	"	" ½ "	1.0216	1.0221	78.	25.5	80 25.5	30.03	c	E.	2
7340	" 8	9-25 "	"	" 34 38 00 " 76 26 00	7½	fne. gy. S. brk. Sh.	"	" ½ "	1.0222	1.0221	79.	26.	80 25.5	30.03	"	"	2
7341	" 8	10-35 "	"	" 34 44 15 " 76 21 45	8	crs gy. S. brk. Sh.	"	SSW ½ "	1.0216	1.0213	79.	26.	79.5 25.	30.04	"	"	3
7342	" 8	11-50 "	"	" 34 37 15 " 76 18 45	14	fne. dk. gy. S.	"	S.E. ½ "	1.0224	1.0223	78.	27.	80. 26.	30.03	"	"	3
7343	" 8	12-55 P.	"	" 34 30 15 " 76 15 45	13½	fne. dk. gy. S. & M.	"	S.S.E. ½ "	1.0223	1.0221	79.	26.	80 25.5	30.01	b.c	S.S.E.	4
7344	" 12	11-30 A.	"	" 34 20 45 " 76 49 30	13½	Co. Sh. crs gy. S.	"	E.S.E. ½ "	1.0225	1.0228	80.	27.	79. 26.	30.06	"	N.N.E.	2
7345	" 12	12-55 P.	"	" 34 22 00 " 76 51 15	14	fne. d. Co P. brk. Sh.	Oyster Dredge	S.E. ½ "	1.0223	1.0227	81.	26.	73 27	30.04	"	"	2
7346	" 12	1-20 "	"	" 34 21 00 " 76 49 30	14	hrd. gy. S. brk. Sh.	"	S. ½ "	1.0224	1.0226	80.	26.	78 26.6	30.03	"	E.N.E.	2
7347	" 12	1-45 "	"	" 34 21 45 " 76 50 10	14½	Co. Sh. fne. yel. S.	Al Trawle Boat Dge	E. ½ "	1.0223	1.0225	80.	26.	79. 26	30.01	"	"	1
7348	" 12	2-00 "	"	" 34 22 10 " 76 50 35	14½	crs yel. S. G. dead. Sh. brk. Co.	Oysler Dredge	S.E. ½ "	1.0222	1.0223	80.	26.	78. 26.	30.00	"	"	2

Abbreviations

Bottom: Co Coral; G. Gravel; M. Mud; P Pebbles; S Sand; Sh Shells; Sp Speche; blk black; brk broken; Brn. brown; crs coarse; dk dark; fne fine; gy gray; hrd hard; lgt light; rky rocky; sml. small; stk sticky; yel yellow

Sky: b. blue; c. cloudy; r rain

Force of Wind given as used in Log. from 0 [calm] to 12 [hurricane]
0 calm, 1-light airs, 2-light breeze, 3-gentle breeze, 4-moderate breeze.

Form 625.

RECORD OF OFF CAPE SABLE, FLA. INVESTIGATION BY Fish Hawk 1902.

867

Station Number.	Bearings. Latitude. N	Longitude. W	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7349	Middle Cape signal bears E - 2½ miles.			Dec. 17.	12:05 p.m.	1½ ft.	s.Sh.	75	0	23.5	0	1.0213	oys. dr.	botm.	-	SE	0.125	Wind NNW; Force 4 Sky clear.
7350	25°9'37"	81°15'15"	"	17.	12:38 p.m.	2½	rky. Co.	75	0	23.5	0	1.0214	oys. dr.	botm.	-	SE	0.125	Flood; Wind NNW; Force 4; Sky clear.
7351	25°9'45"	81°18'35"	"	17.	1:15 p.m.	3¼	rky. Co.	74	0 botm.	23.5 23.5	0 botm.	1.0221 1.0221	oys. dr.	botm.	-	SSE	0.125	Flood; Wind NNW; Force 4; Sky clear.
7352	25°9'52"	81°21'53"	"	17.	1:50 p.m.	3¾	gy.S. Sh.	74	0 botm.	23.0 23.5	0 botm.	1.0230 1.0230	oys. dr.	botm.	-	SSE	0.125	Flood; Wind NNW; Force 4; Sky clear.
7353	25°10'00"	81°25'10"	"	17.	2:24 p.m.	4¼	gy.S.brk.Sh.	74	0 botm.	23.0 23.5	0 botm.	1.0231 1.0232	oys. dr.	botm.	-	S	0.125	Flood; Wind NW; Force 4; Sky partly cloudy.
7354	25°10'10"	81°28'30"	"	17.	2:55 p.m.	4¾	gy.S. Sh.	73	0 botm.	23.0 23.5	0 botm.	1.0237 1.0239	oys. dr.	botm.	-	S	0.125	Flood; Wind NW; Force 4; Sky partly cloudy.
7355	2½ miles WXS of Middle Cape signal.		"	18.	9:15 a.m.	9½ ft.	gy.S.fne brk. Sh.	63	0	22.0	0	1.0222	oys. dr.	botm.	-	SE	0.0625	Ebb; Wind N; Force 4; Sky clear.
7356	25°06'30"	81°12'25"	"	18.	9:50 a.m.	11½ ft.	rky.	65	0	22.0	0	1.0229	oys. dr.	botm.	-	SW	0.125	Ebb; Wind N; Force 4; Sky clear.
7357	25°06'37"	81°15'50"	"	18.	10:25 a.m.	2¾	gy.S.brk.Sh.	65	0	23.5	0	1.0232	oys. dr.	botm.	-	S	0.125	Ebb; Wind N; Force 4; Sky clear.
7358	25°06'45"	81°19'07"	"	18.	10:55 a.m.	3	gy.S.brk.Sh.	67	0 botm.	22.5 22.5	0 botm.	1.0228 1.0226	oys. dr.	botm.	-	S	0.125	Ebb; Wind NNE; Force 3; Sky clear.
7359	25°06'52"	81°22'25"	"	18.	11:27 a.m.	4¼	gy.S.brk.Sh.	67	0 botm.	22.5 23.0	0 botm.	1.0229 1.0227	oys. dr.	botm.	-	S	0.125	Ebb; Wind NNE; Force 3; Sky clear.
7360	25°07'05"	81°25'50"	"	18.	12:00 m.	4½	gy.S.	67	0 botm.	22.5 23.0	0 botm.	1.0231 1.0230	oys. dr.	botm.	-	SSE	0.125	¼ flood; Wind NNE; Force 3; Sky clear.
7361	25°07'10"	81°29'00"	"	18.	12:30 p.m.	5	rky. Co.	67	0 botm.	22.0 23.0	0 botm.	1.0242 1.0236	oys. dr.	botm.	-	SW	0.25	¼ flood; Wind NNE; Force 3; Sky clear.
7362	25°04'10"	81°29'15"	"	18.	1:00 p.m.	4¾	rky.	69	0 botm.	22.5 22.5	0 botm.	1.0236 1.0238	oys. dr.	botm.	-	SW	0.25	½ flood; Wind NNE; Force 3; Sky clear.
7363	25°04'00"	81°24'55"	"	18.	1:30 p.m.	3½	rky Co.	69	0 botm.	22.0 22.5	0 botm.	1.0231 1.0235	oys. dr.	botm.	-	N	0.25	½ flood; Wind NNE; Force 3; Sky clear.
7364	25°03'50"	81°20'30"	"	18.	2:00 p.m.	3¼	gy.S.Sh.	70	0 botm.	22.5 22.5	0 botm.	1.0224 1.0223	oys. dr.	botm.	-	W	0.25	½ flood; Wind NNE; Force 3; Sky clear.

Form 625.

RECORD OF OFF CAPE SABLE, FLA. INVESTIGATION BY FISH HAWK 19 02.

Station Number.	Bearings. Latitude. N.	Longitude. W	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7365	25°03'37"	81°16'10".		Dec. 18.	2:32 p.m.	3½	hd.S. Sh.	70	0	22.5	0	1.0226	oys. dr.	botm.	-	SW	0.25	½Flood; Wind NNE; Force 3; Sky clear.
									botm.	22.5	botm.	1.0226						
7366	25°03'30"	81°12'10"		" 18.	3:05 p.m.	2¾		70	0	22.0	0	1.0230	oys. dr.	botm.	-	SW	0.25	¾ Flood; Wind NNE; Force 4; Sky partly cloudy.
7367	25°03'15"	81°08'38"		" 18.	3:43 p.m.	2¼	rky.	70	0	22.0	0	1.0230	oys. dr.	botm.	-	SW	0.125	¾ flood; Wind NNE; Force 4; Sky partly cloudy.
7368	WSW½W - 7½ miles from signal.			" 19.	9:05 a.m.	11 ft.	gy.S.Gr.	65	0	22.0	0	1.0234	oys. dr.	botm.	-	N	0.125	Low; Wind NNE; Force 5; Sky clear.
7369	25°00'30"	81°12'20"		" 19.	9:40 a.m.	11½	" rky.	68	0	22.0	0	1.0245	oys. dr.	botm.	-	NE	0.125	Low; Wind NNE; Force 4; Sky clear.
7370	25°00'40"	81°15'37"		" 19.	10:10 a.m.	2½	rky.	68	0	22.5	0	1.0240	oys. dr.	botm.	-	E	0.125	Low; Wind NNE; Force 4; Sky clear.
7371	25°00'48"	81°18'55"		" 19.	10:40 a.m.	3½	Sp.S Sh.	69	0	22.5	0	1.0239	oys. dr.	botm.	-	NE	0.125	Low; Wind NNE; Force 4; Sky clear.
									botm.	23.0	botm.	1.0236						
7372	25°00'55"	81°22'15"		" 19.	11:10 a.m.	4	rky.	70	0	23.0	0	1.0228	oys. dr.	botm.	-	NE	0.25	¼ flood; Wind NNE; Force 4; Sky clear.
									botm.	22.0	botm;	1.0226						
7373	25°01'00"	81°25'30"		" 19.	11:40 a.m.	4½	Sp.S.Sh.	72	0	22.5	0	1.0228	oys. dr.	botm.	-	NE	0.25	¼ flood; Wind NNE; Force 4; Sky clear.
									botm.	23.0	botm.	1.0226						
7374	25°01'10"	81°27'45"		" 19.	12:00 m.	4¾	rky. Co.	72	0	22.5	0	1.0234	oys. dr.	botm.	-	N	0.25	½ flood; Wind NNE; Force 4; Sky clear.
									botm.	23.0	botm.	1.0232						
7375	24°58'05"	81°28'30"		" 19.	12:30 p.m.	5	rky.	72	0	22.5	0	1.0232	oys. dr.	botm.	-	N	0.125	½ flood; Wind NNE; Force 4; Sky clear.
									botm.	22.0	botm.	1.0232						
7376	24°58'00"	81°24'45"		" 19.	1:00 p.m.	4¾	S.brk.Sh.	72	0	22.0	0	1.0232	oys. dr.	botm.	-	W	0.125	½ flood; Wind NNE; Force 4; Sky clear.
									botm.	22.0	botm.	1.0238						
7377	24°57'50"	81°20'50"		" 19.	1:30 p.m.	3½	hrd.S.Gr.	72	0	22.0	0	1.0242	oys. dr.	botm.	-	NW	0.25	½ flood; Wind NNE; Force 4; Sky clear.
									botm.	22.0	botm.	1.0238						
7378	24°57'43"	81°17'10"		" 19.	2:03 p.m.	3½	gy.S.Gr.	72	0	21.5	0	1.0239	oys. dr.	botm.	-	NW	0.25	½ flood; Wind NNW; Force 4; Sky clear.
									botm.	22.0	botm.	1.0246						
7379	24°57'35"	81°13'25"		" 19.	2:42 p.m.	2¾	S. Gr.	72	0	22.0	0	1.0240	oys. dr.	botm.	-	W	0.25	¾ flood; Wind NNW; Force 4; Sky clear.
7380	24°57'25"	81°09'35"		" 19.	3:43 p.m.	2½	gy.S.Gr.	71	0	21.5	0	1.0242	oys. dr.	botm.	-	W	0.25	¾flood; Wind NNW; Force 4; Sky clear.
7381	24°57'20"	81°06'50"		" 19.	4:10 p.m.	2½	S. Sh.	71	0	21.5	0	1.0238	oys. dr.	botm.	-	W	0.125	¾ flood; Wind NNW; Force 4; Sky clear.

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Form 625.

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RECORD OF OFF CAPE SABLE, FLA. *INVESTIGATION BY* FISH HAWK *19* 02.

88

Station Number.	Bearings. Latitude. N	Longitude. W	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7382	24°54'20"	81°06'52"		Dec. 20.	6:30 a.m.	2	rky.	73	0	21.5	0	1.0247	oys. dr.	botm.	-	NW	0.125	High; Wind ENE; Force 2; Sky partly clear.
7383	24°54'27"	81°10'15"		" 20.	7:00 a.m.	2¼	rky.	73	0	21.5	0	1.0251	oys. dr.	botm.	-	W	0.125	High; Wind ENE; Force 2; Sky partly clear.
7384	24°54'35"	81°13'33"		" 20.	7:30 a.m.	2¼	rky.	73	0	21.5	0	1.0248	oys. dr.	botm.	-	W	0.125	High tide; Wind ENE; Force 2; Sky partly clear.
7385	24°54'42"	81°17'07"		" 20.	8:00 a.m.	2¼	rky.	74	0	21.5	0	1.0242	oys. dr.	botm.	-	W	0.125	¼ ebb; Wind ENE; Force 2; Sky partly clear.
7386	24°54'48"	81°20'25"		" 20.	8:27 a.m.	2¼	hrd.S. Gr.	74	0	22.0	0	1.0244	oys. dr.	botm.	-	ENE	0.125	½ ebb; Wind ENE; Force 2; Sky partly clear.
7387	24°54'55"	81°23'45"		" 20.	9:00 a.m.	3	hrd. S.Gr.	74	0 botm.	22.0 22.5	0 botm.	1.0244 1.0249	oys. dr.	botm.	-	NE	0.25	½ ebb; Wind ENE; Force 2; Sky partly clear.
7388	24°55'05"	81°27'08"		" 20.	9:30 a.m.	4	rky.	75	0 botm.	22.5 22.5	0 botm.	1.0240 1.0236	oys. dr.	botm.	-	E	0.25	½ ebb; Wind ENE; Force 2; Sky partly clear.
7389	24°55'15"	81°30'20"		" 20.	9:58 a.m.	5	rky.	75	0 botm.	22.5 22.5	0 botm.	1.0240 1.0238	oys. dr.	botm.	-	ENE	0.25	½ ebb; Wind ENE; Force 2; Sky partly cloudy.
7390	East end of Sawyer Key bearing S½W - 2½ miles.			" 22.	10:27 a.m.	4¾	rky.	74	0 botm.	22.0 22.5	0 botm.	1.0244 1.0242	oys. dr.	botm.	-	W	0.25	½ ebb; Wind NNE; Force 3; Sky clear.
7391	W. end of Content Key bearing SXE - 2½ miles.			" 22.	11:00 a.m.	4¾	hrd S.Gr.	73	0 botm.	22.5 22.5	0 botm.	1.0240 1.0241	oys. dr.	botm.	-	W	0.25	½ ebb; Wind NNE; Force 3; Sky clear.
7392	24°52'10"	81°30'20"		" 22.	11:30 a.m.	5	rky.	73	0 botm.	22.5 22.5	0 botm	1.0241 1.0240	oys. dr.	botm.	-	SW	0.25	¾ ebb; Wind NNE; Force 3; Sky clear.
7393	24°52'00"	81°27'07"		" 22.	12:10 p.m.	3½	hrd.S.Gr.	73	0 botm.	22.0 22.0	0 botm.	1.0241 1.0240	oys. dr.	botm.	-	W	0.25	¾ ebb; Wind NNE; Force 3; Sky clear.
7394	24°51'52"	81°23'50"		" 22.	12:33 p.m.	2	S. Gr.	73	0	22.0	0	1.0242	oys. dr.	botm.	-	SW	0.125	¾ ebb; Wind NNE; Force 3; Sky clear.
7395	24°51'45"	81°20'52"		" 22.	1:03 p.m.	2	rky.	73	0	22.0	0	1.0244	oys. dr.	botm.	-	W	0.125	Low tide; Wind NNE; Force 3; Sky clear.

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Form 625.

117

RECORD OF Bahia Honda Harbor, Fla. INVESTIGATION BY Fish Hawk 19 13.

89

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7396	Near P. S. bouy			Jan. 5.	12:53 p.m.	15 ft.	rky.sh.	68	0	21.5	0	1.0240	dr.	botm.	-	NW	0.0625	¾ flood; Wind NE; Force 2; Sky partly cloudy.
	BIG SPANISH KEY CHANNEL																	
7397	Between Little Pine Key and No Name Key, Fla.			" 5.	1:21 p.m.	13 "	rky.	70	0	21.0	0	1.0233	dr.; 3 ft. B. T.	botm.	-	NW	0.0625	High Water; Wind NE; Force 2; Sky partly cloudy.
7398	Between Porpoise Key and Grassy Key, Fla.			" 5.	1:48 p.m.	11 "	M.R.	70	0	21.5	0	1.0234	dr.; 3 ft. B. T.	botm.	-	SW	0.0625	High water; Wind NE; Force 2; Sky Partly clear.
	FRIEND KEY LAKE, FLA.																	
7399	Opposite south end of Johnson's Key.			" 5.	3:12 p.m.	13 "	rky.	69	0	21.0	0	1.0241	dr.; 3 ft. B. T.	botm.	-	SW	0.25	¼ ebb; Wind NE; Force 2; Sky partly clear.
7400	Southern end of Friend Key Lake, Fla.			" 5.	3:49 p.m.	11 "	rky.	69	0	21.0	0	1.0243	dr.	botm.	-	SE	0.0625	¼ ebb; Wind NE; Force 2; Sky partly clear.
	MONEY KEY LAKE, FLA.																	
7401	½ mile north of Eastern end of Bahia Honda Key.			" 7.	8:30 a.m.	8 "	rky.	62	0	17.5	0	1.0253	dr.	botm.	-	NE	0.0625	¼ ebb; Wind SSW; Force 1; Sky partly clear.
	PIGEON KEY LAKE, FLA.																	
7402	Nearly 1 mile NNE½E of Money Key.			" 7.	9:02 a.m.	9 "	S. Gr.	64	0	17.5	0	1.0252	dr.	botm.	-	NE	0.0625	¼ ebb; Wind SW; Force 2; Sky partly cloudy.
7403	1 mile SSE of Cocoanut Key.			" 7.	9:40 a.m.	7 "	rky.	64	0	18.5	0	1.0248	dr.	botm.	-	NW	0.0625	½ ebb; Wind SW; Force 2; Sky clear.
7404	1 mile E of East Bahia Honda Key.			" 7.	10:25 a.m.	10½ "	rky.	64	0	19.0	0	1.0244	dr.	botm.	-	NNW	0.0625	¾ ebb; Wind SW; Force 3; Sky clear.
7405	1 mile E of Signal Cocoa			" 7.	10:50 a.m.	10 "	rky.	64	0	17.5	0	1.0242	dr.	botm.	-	E	0.0625	Low water; Wind SW; Force 3; Sky clear.
7406	2½ miles NXE of Pigeon Key to western end of Big Bank.			" 7.	11:20 a.m.	10½ "	rky.	64	0	18.5	0	1.0236	dr.	botm.	-	SW	0.0625	Low water; Wind SW; Force 3; Sky clear.
7407	2⅝ miles NNW of Molasses Key.			" 7.	11:55 a.m.	9½ "	rky.	64	0	18.0	0	1.0248	dr.	botm.	-	SW	0.0625	½ flood; Wind SW; Force 3; Sky clear.

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Form 625.

RECORD OF PIGEON KEY LAKE, FLA. INVESTIGATION BY FISH HAWK 1903

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7408	1½ miles NXE of Pigeon Key.		Jan. 7.	1:20 p.m.	12 ft.	rky.	64	0	18.5	0	1.0240	dr.	botm.	-	NE	0.0625	½ flood; Wind SW; Force 3; Sky partly clear.
7409	1½ miles NW of Knight's Key.		" 7.	3:00 p.m.	10½"	rky.	65	0	18.0	0	1.0248	dr.	botm.	-	NE	0.0625	½ flood; Wind SW; Force 3; Sky partly cloudy.
NORTH OF KNIGHT'S KEY CHANNEL, FLA.																	
7410	½ mile to eastward of middle of Big Bank.		" 8.	8:45 a.m.	9 ft.	rky.	66	0	18.5	0	1.0240	dr.	botm.	-	W	0.0625	½ ebb; Wind NNW; Force 3; Sky clear.
7411	3½ miles EXN of East Bahia Honda Key.		" 22.	8:40 a.m.	10 ft.	rky.	69	0	20.0	0	1.0229	dr.	botm.	-	NW	0.0625	½ flood; Wind NNW; Force 2; Sky cloudy.
7412	3 miles NEXN of East Bahia Honda Key.		" 22.	9:20 a.m.	11 ft.	rky.	70	0	20.0	0	1.0236	dr.	botm.	-	NW	0.0625	½ flood; Wind NNW; Force 1; Sky cloudy.
7413	4¾ miles NNE of West Bahia Honda Key.		" 22.	10:15 a.m.	11½"	S.Gr.bary	71	0	20.0	0	1.0244	dr.	botm.	-	E	0.0625	High water; Wind calm; Sky cloudy.
7414	6 miles NNE½E of East Bahia Honda Key.		" 22.	11:15 a.m.	11 ft.	bary	70	0	20.5	0	1.0237	dr.	botm.	-	SE	0.0625	High water; Wind WNW; Force 1; Sky partly clear.
7415	6 miles NEXE of East Bahia Honda Key.		" 22.	11:25 a.m.	11 ft.	hrd.S.R.	70	0	20.5	0	1.0230	dr.	botm.	-	SE	0.0625	½ Ebb; Wind WNW; Force 1; Sky partly clear.
7416	2¾ miles N. of Basin Bank.		" 22.	1:15 p.m.	10½ "	rky.	68	0	21.0	0	1.0213	dr.	botm.	-	SE	0.0625	½ ebb; Wind WNW; Force 3; Sky partly clear.
7417	2 miles NEXE of Basin Bank.		" 22.	1:50 p.m.	8½ "	rky.	67	0	21.5	0	1.0210	dr.	botm.	-	S	0.0625	½ ebb; Wind WNW; Force 3; Sky partly clear.
7418	½ mile NW of Stirrup Keys.		" 22.	2:20 p.m.	9 ft.	rky.	67	0	22.0	0	1.0210	dr.	botm.	-	SE	0.0625	½ ebb; Wind WNW; Force 3; Sky partly clear.
7419	5/8 mile N½E of Hog Island.		" 22.	2:45 p.m.	7 ft.	rky.	67	0	22.0	0	1.0217	dr.	botm.	-	NW	0.0625	½ ebb; Wind WNW; Force 3; Sky partly clear.
7420	1½ miles NEXN of Knight's Key.		" 22.	3:25 p.m.	7½ "	rky.	67	0	21.0	0	1.0220	dr.	botm.	-	SW	0.0625	¾ ebb; Wind WNW; Force 3; Sky partly clear.
GRASSY KEY LAKE, FLA.																	
7421	¾ mile NEXN of Bamboo Key.		" 23.	10:05 a.m.	9½ ft.	sft.	64	0	21.5	0	1.0221	dr.	botm.	-	NE	0.0625	½ flood; Wind NNE; Force 3; Sky partly cloudy.

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Form 625.

RECORD OF GRASSY KEY LAKE, FLA. INVESTIGATION BY FISH HAWK 1903

91 70

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7422	2¾ miles NNW½W of Bamboo Key.		Jan. 23.	11:25a.m.	9 ft.	rky.	65	0	21.0	0	1.0220	dr.	botm.	-	NE	0.0625	¾ flood; Wind NNE; Force 3; Sky partly clear.
NW OF GRASSY KEY LAKE, FLA.																	
7423	5 miles NWXN of Bamboo Key.		" 23.	12:00 m.	10 ft.	rky.	72	0	21.0	0	1.0222	dr.	botm.	-	NE	0.0625	High water; Wind NNE; Force 3; Sky partly cloudy.
FLORIDA BAY, FLA.																	
7424	7½ miles NW½W of Bamboo Key.		" 23.	1:10 p.m.	10½ ft.	rky.	69	0	21.0	0	1.0230	dr.	botm.	-	NW	0.0625	High water; Wind NNE; Force 3; Sky partly cloudy.
7425	9½ miles NW½N of Bamboo Key.		" 23.	1:35 p.m.	8 ft.	S. Gr.	69	0	20.0	0	1.0231	dr.	botm.	-	NW	0.0625	High water; Wind NNE; Force 3; Sky partly cloudy.
HAWK CHANNEL, FLA.																	
7426	1¾ miles S¾E of Pigeon Key.		" 27.	1:30 p.m.	3	S. Gr.	77	0 botm.	23.5 23.5	0 botm.	1.0230 1.0230	oys. dr.	botm.	-	N	0.125	¼ flood; Wind ESE; Force 2; Sky clear.
7427	3½ miles N¾E of Sombrero Lt.		" 27.	2:15 p.m.	11½ ft.	rky.	77	0	24.5	0	1.0224	oys. dr.	botm.	-	SE	0.125	½ flood; Wind ESE; Force 2; Sky clear.
7428	1 mile NNW½W of East Washerwoman.		" 27.	2:30 p.m.	2¾	rky.	78	0	24.5	0	1.0226	oys. dr.	botm.	-	SEXS	0.0625	½ flood; Wind ESE; Force 3; Sky clear.
7429	½ mile SEXS of SE end of Duck Key.		" 27.	4:15 p.m.	2¼	rky.	76	0	24.5	0	1.0219	oys. dr.	botm.	-	SE	0.0625	¾ flood; Wind E; Force 3; Sky partly cloudy.
GRASSY KEY LAKE, FLA.																	
7430	7/8 mile NNW of East end of Grassy Key.		" 28.	8:40 a.m.	10 ft.	rky.	75	0	24.0	0	1.0224	dr.	botm.	-	NW	0.0625	½ ebb; Wind E; Force 3; Sky cloudy.
7431	3¾ miles NW½N of East end of Grassy Key.		" 28.	10:20 a.m.	8 ft.	rky.	75	0	24.0	0	1.0224	dr., oys.	botm.	-	NE	0.0625	¾ ebb; Wind E; Force 3; Sky cloudy.
FLORIDA BAY, FLA.																	
7432	6¼ miles NWXW of Channel Key.		" 29.	9:10 a.m.	8 ft.	rky.	74	0	23.0	0	1.0218	dr.	botm.	-	NE	0.0625	½ ebb; Wind E; Force 3; Sky clear.
7433	8¾ miles NW¾W of Channel Key.		" 29.	9:50 a.m.	9 ft.	S. Gr.	74	0	23.5	0	1.0219	dr.	botm.	-	NW	0.0625	½ ebb; Wind E; Force 3; Sky partly cloudy.
7434	7¾ miles SXW½W of Sandy Key.		" 29.	10:20 a.m.	10½ "	rky.	75	0	23.0	0	1.0220	dr.	botm.	-	NE	0.0625	½ ebb; Wind E; Force 2; Sky partly cloudy.

This space to be left for binding.

Form 625.

RECORD OF FLORIDA BAY, FLA. INVESTIGATION BY FISH HAWK 1903

92 80

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7435	5 miles S½W of Sandy Key.		Jan. 29.	10:45 a.m.	11½ ft.	S.M.Gr.	75	0	23.0	0	1.0224	dr.	botm.	-	ENE	0.0625	Low water; Wind E; Force 2; Sky clear.
7436	7½ miles SXE of Sandy Key.		" 29.	11:20 a.m.	10 ft.	hrd. S.	76	0	23.5	0	1.0212	dr.	botm.	-	E	0.0625	Low water; Wind E; Force 2; Sky partly cloudy.
UPPER JEWFISH BUSH LAKE, FLA.																	
7437	6¼ miles SEXE of Sandy Key.		" 29.	11:50 a.m.	10 ft.	rky.	76	0	24.0	0	1.0206	dr.	botm.	-	NE	0.0625	¼ flood; Wind E; Force 2; Sky clear.
7438	6¼ miles NWXN of West end of Long Key.		" 29.	1:00 p.m.	8 ft.	bary.	77	0	24.0	0	1.0206	dr.	botm.	-	SE	0.0625	¼ flood; Wind E; Force 2; Sky clear.
FLORIDA BAY, FLA.																	
7439	5½ miles NNW¼W of Channel Key.		" 29.	1:30 p.m.	7 ft.	S.M.Gr.	77	0	24.0	0	1.0209	dr.	botm.	-	W	0.0625	¼ flood; Wind E; Force 2; Sky clear.
GRASSY KEY LAKE, FLA.																	
7440	2⅜ miles N½W of Channel Key.		" 29.	2:25 p.m.	7½ ft.	rky.	77	0	24.5	0	1.0205	dr.	botm.	-	W	0.0625	¼ flood; Wind E; Force 2; Sky clear.
7441	2 miles NWXN of Channel Key.		" 29.	2:45 p.m.	8 ft.	rky.	77	0	24.5	0	1.0207	dr.	botm.	-	SW	0.0625	¼ flood; Wind E; Force 2; Sky clear.
CHANNEL KEY LAKE, FLA.																	
7442	1⅜ miles E of Channel Key.		" 29.	3:15 p.m.	10 ft.	S. GR.R.	77	0	24.5	0	1.0208	dr.	botm.	-	EXS	0.25	½ flood; Wind E; Force 2; Sky clear.
7443	2 miles NNW½W of West end of Long Key.		" 30.	8:35 a.m.	8 ft.	hrd. bary	74	0	24.0	0	1.0202	dr.	botm.	-	NE	0.0625	¼ ebb; Wind NNE; Force 3; Sky clear.
LOWER JEWFISH BUSH LAKE, FLA.																	
7444	3½ miles NXW½W of West end of Long Key.		" 30.	9:00 a.m.	7 ft.	rky.	75	0	23.5	0	1.0204	dr.	botm.	-	NNE	0.0625	¼ ebb; Wind NNE; Force 3; Sky clear.
UPPER JEWFISH BUSH LAKE, FLA.																	
7445	5 miles NW⅔N of West end of Long Key.		" 30.	9:35 a.m.	8½ ft.	bary.	75	0	24.0	0	1.0205	dr.	botm.	-	NW	0.25	½ ebb; Wind NNE; Force 3; Sky clear.

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Form 625.

RECORD OF LOWER JEWFISH BUSH LAKE, FLA. INVESTIGATION BY FISH HAWK 1903. 93

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7446	2¾ miles NW of Jewfish Bush.		Jan. 30.	10:30 a.m.	8 ft.	bary.	76	0	24.0	0	1.0221	dr.	botm.	-	E	0.0625	½ ebb; Wind NNE; Force 3; Sky clear.
7447	2¾ miles NW of West end of Lower Matecumbe Key.		" 30.	11:05 a.m.	8½ "	sft.M.R.	76	0	24.5	0	1.0221	dr.	botm.	-	SE	0.0625	¾ ebb; Wind NNE; Force 2; Sky clear.
7448	1 mile SXW of Southern Little Peters Keys.		" 30.	11:35 a.m.	8 "	bary.	76	0	24.5	0	1.0224	dr.	botm.	-	E	0.0625	¾ ebb; Wind NNE; Force 2; Sky clear.
7449	1¾ miles NEXE of Jewfish Bush.		" 30.	1:35 p.m.	10 "	bary.	78	0	25.0	0	1.0220	dr.	botm.	-	SW	0.0625	Low water; Wind NNE; Force 2; Sky clear.
7450	1 mile NWXN of Jewfish Bush.		" 30.	2:05 p.m.	8 "	bary.	77	0	25.0	0	1.0224	dr.	botm.	-	W	0.0625	Low water; Wind NW; Force 3; Sky clear.
LIGNUM VITAE LAKE, FLA.																	
7451	1½ miles N½W of Northern end of Lignum Vitae Key.		Feb. 4.	8:55 a.m.	8 "	s.	76	0	24.5	0	1.0232	dr.	botm.	-	N	0.0625	¾ ebb; Wind S; Force 4; Sky partly cloudy.
7452	1½ miles SSW½W of the Southern Twin Key.		" 4.	9:25 a.m.	8 "	bary.	76	0	24.5	0	1.0226	dr.	botm.	-	NW	0.0625	¾ ebb; Wind S; Force 4; Sky partly cloudy.
BARNE'S LAKE, FLA.																	
7453	1½ miles NNW of Barne's Key.		" 4.	10:30 a.m.	8 "	bary.	77	0	25.0	0	1.0229	dr.	botm.	-	NW	0.0625	Low water; Wind S; Force 4; Sky clear.
7454	1¾ miles NNE¼E of Little Rabbit Key.		" 4.	11:05 a.m.	6 "	S. Gr.	78	0	25.5	0	1.0225	dr.	botm.	-	NNW	0.0625	Low water; Wind S; Force 3; Sky clear.
7455	1¾ miles NWXN of North Twin Key.		" 4.	11:40 a.m.	7 "	S. Gr.	78	0	25.0	0	1.0234	dr.	botm.	-	SSE	0.0625	Low water; Wind S; Force 3; Sky clear.
LIGNUM VITAE LAKE, FLA.																	
7456	1½ miles ESE of Eagle Nest Key.		" 4.	1:50 p.m.	8½ "	S. Gr.	79	0	25.0	0	1.0222	dr.	botm.	-	NE	0.0625	½ flood; Wind S; Force 3; Sky partly cloudy.
7457	2¾ miles NNW of Shell Key.		" 4.	2:15 p.m.	9	bary.	78	0	25.0	0	1.0217	dr.	botm.	-	SW	0.0625	½ flood; Wind S; Force 3; Sky partly cloudy.
COTTON KEY LAKE, FLA.																	
7458	1-5/8 miles NEXE of Shell Key.		" 5.	8:35 a.m.	8	M.	77	0	25.0	0	1.0224	dr.	botm.	-	NE	0.0625	Low water; Wind SSW; Force 2; Sky partly clear.

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Form 635.

RECORD OF COTTON KEY LAKE, FLA. INVESTIGATION BY FISH HAWK 1903. 94 82.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7459	1 mile SB½S of West Key.		Feb. 5.	9:00 a.m.	5½ ft.	bary.	77	0	25.0	0	1.0224	dr.	botm.	-	N	0.0625	Low water, Wind SSW; Force 2; Sky partly clear.
7460	½ mile SSE½E of East Key.		" 5.	9:45 a.m.	5 ft.	bary.	77	0	25.0	0	1.0210	dr.	botm.	-	NE	0.0625	¼ flood; Wind SSW; Force 2; Sky cloudy.
7461	2 miles EXS½S of East Key.		" 5.	10:05 a.m.	7 ft.	S. R.	78	0	25.0	0	1.0210	dr.	botm.	-	E	0.0625	¼ flood; Wind SSW; Force 2; Sky cloudy.
HAWK CHANNEL, FLA.																	
7462	2 miles SWXW of SE point of Long Key.		" 18.	2:20 p.m.	2½	hrd. S.Gr.	62	0	20.5	0	1.0249	oys. dr.	botm.	-	SW	0.25	½ ebb; Wind NNE; Force 5; Sky cloudy.
7463	1¼ miles SXW of SE point of Long Key.		" 18.	2:40 p.m.	2½	bary.	62	0	21.0	0	1.0249	oys. dr.	botm.	-	SW	0.25	½ ebb; Wind NNE; Force 5; Sky cloudy.
7464	1-1/8 miles EXS of West end of Lower Matecumbe Key		" 18.	3:35 p.m.	3	bary.	65	0 botm.	20.5 20.5	0 botm.	1.0254 1.0250	oys. dr.	botm.	-	SW	0.25	¾ ebb; Wind NE; Force 5; Sky cloudy.
7465	1½ miles SSW½W of Indian Key.		" 18.	4:05 p.m.	2½	hrd.S.Sh.Gr.	65	0	19.5	0	1.0252	oys. dr.	botm.	-	W	0.25	¾ ebb; Wind NE; Force 5; Sky cloudy.
7466	1¼ miles E of Tea Table Key.		" 19.	8:50 a.m.	2½	bary.	61	0	20.5	0	1.0250	oys. dr.	botm.	-	SW	0.50	½ flood; Wind N; Force 4; Sky cloudy.
7467	4¼ miles WXN of Elbow Reef beacon.		" 19.	12:30 p.m.	2¾	bary; S.	70	0	20.5	0	1.0253	oys. dr.	botm.	-	W	0.25	High water; Wind NE; Force 5; Sky cloudy.
7468	2 miles SSW from Basin Hill Beacon.		" 19.	1:00 p.m.	2½	S. Gr.	70	0	20.5	0	1.0253	oys. dr.	botm.	-	W	0.125	High water; Wind NE; Force 5; Sky cloudy.
7469	½ mile SWXS of Basin Hill Beacon.		" 19.	1:20 p.m.	2	S. Gr.	69	0	20.5	0	1.0250	oys. dr.	botm.	-	W	0.125	High water; Wind NE; Force 5; Sky cloudy.
WEST COWPENS, FLA.																	
7470	3½ miles W½S of Pigeon Key.		" 25.	10:30 a.m.	7 ft.	sft. M.	70	0	21.0	0	1.0204						¾ ebb; Wind ENE; Force 4; Sky partly cloudy.
7471	4 miles SWXW½W of Pigeon Key.		" 25.	10:40 a.m.	7½"	sft. M.	70	0	21.0	0	1.0210						¾ ebb; Wind ENE; Force 4; Sky partly cloudy.
EAST COWPENS, FLA.																	
7472	1¾ miles SWXS of Pigeon Key.		" 25.	11:00 a.m.	6½"	sft. M.	71	0	21.0	0	1.0198						Low water; Wind ENE; Force 4; Sky partly cloudy.
7473	½ mile SW of Pigeon Key.		" 25.	11:20 a.m.	7 "	sft. M.	71	0	21.0	0	1.0202						Low water; Wind ENE; Force 4; Sky partly cloudy.

This space to be left for binding.

Form 625.

117

RECORD OF BISCAYNE BAY, FLA. INVESTIGATION BY FISH HAWK 1913.

95

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7474	¾ mile W of Rubicon Key.		March 6.	9:15 a.m.	8 ft.	sft.S.Gr.	75	0	24.5	0	1.0233	dr.	botm.	-	SSW	0.0625	½ flood; Wind E; Force 4; Sky partly cloudy.
7475	1¾ miles NXE of Adams Key.		" 6.	11:50 a.m.	7½"	hrd. S.	76	0	25.0	0	1.0230	dr.	botm.	-	E	0.0625	¾ flood; Wind E; Force 4; Sky partly cloudy.
7476	4 miles ENE of Turkey Point.		" 6.	1:00 p.m.	8½"	hrd. S.	76	0	25.0	0	1.0232	dr.	botm.	-	WNW	0.0625	¾ flood; Wind E; Force 4; Sky cloudy.
7477	1½ miles SWXW of Sands Key.		" 6.	1:45 p.m.	10½"	sft. S.Gr.	76	0	25.0	0	1.0232	dr.	botm.	-	NNE	0.125	High water; Wind E; Force 4; Sky partly cloudy.
7478	1¼ miles S. of Middle of Feather-bed Bank.		" 6.	2:15 p.m.	9½ "	hrd. S.	76	0	25.0	0	1.0232	dr.	botm.	-	W	0.0625	High water; Wind E; Force 4; Sky partly cloudy.
7479	½ mile NWXN of Sands Key.		" 6.	2:45 p.m.	9 "	S. Gr.	76	0	25.0	0	1.0239	dr.	botm.	-	NE	0.0625	High water; Wind E; Force 4; Sky partly cloudy.
7480	1¾ miles WNW½W of N. point of Sands Key.		" 6.	4:00 p.m.	9 "	hrd. S.	75	0	25.0	0	1.0234	dr.	botm.	-	E	0.0625	High water; Wind E; Force 4; Sky partly clear.
7481	1 mile N. of Feather Bed Bank.		" 7.	7:10 a.m.	11 "	S. Gr.	76	0	24.0	0	1.0234	oys. dr.	botm.	-	NW	0.125	¾ ebb; Wind ENE; Force 4; Sky partly clear.
7482	3½ miles SWXW½W of Soldier Key.		" 7.	7:40 a.m.	10½ "	bary.	76	0	23.5	0	1.0236	oys. dr.	botm.	-	W	0.125	¾ ebb; Wind ENE; Force 4; Sky partly clear.
7483	3 miles W¼S of Soldier Key.		" 7.	8:00 a.m.	10 "	S. Gr.	75	0	24.0	0	1.0232	oys. dr.	botm.	-	W	0.125	¾ ebb; Wind ENE; Force 4; Sky partly clear.
7484	4½ miles SW½S of Cape Florida.		" 7/	8:35 a.m.	11½ "	S. Gr.	75	0	24.0	0	1.0224	oys. dr.	botm.	-	W	0.125	¾ ebb; Wind ENE; Force 4; Sky partly clear.
7485	3 miles SWXW of Cape Florida.		" 7.	9:10 a.m.	11½ "	S. Gr.	75	0	24.0	0	1.0212	oys. dr.	botm.	-	NW	0.125	Low water; Wind ENE; Force 4; Sky partly cloudy.
7486	3 miles WXS of Cape Florida.		" 7.	9:30 a.m.	10½ "	S. Gr.	75	0	24.0	0	1.0213	oys. dr.	botm.	-	NW	0.125	Low water; Wind ENE; Force 4; Sky partly cloudy.
7487	1 mile W of Feather bed Bank.		" 10.	7:25 a.m.	11½ "	bary.	74	0	23.0	0	1.0231	dr.	botm.	-	SW	0.0625	¾ ebb; Wind E; Force 4; Sky partly cloudy.

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Form 625.

RECORD OF BISCAYNE BAY, FLA. INVESTIGATION BY FISH HAWK 1913.

117

96 ~~84~~.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7488	2 miles SW of SW end of Feather bed Ban,		March 10.	8:00 a.m.	7½ ft.	bary.	74	0	23.0	0	1.0230	dr.	botm.	-	W	0.0625	¾ ebb; Wind E; Force 4; Sky partly cloudy.
7489	2½ miles NE of Turkey Pt.		" 10.	8:25 a.m.	8 "	hrd. S.	74	0	25.0	0	1.0244	dr.	botm.	-	W	0.0625	¾ ebb; Wind E; Force 4; Sky partly cloudy.
7490	2-1/8 miles E½S of Turkey Point.		" 10.	8:45 a.m.	7 "	bary.	74	0	23.0	0	1.0246	dr.	botm.	-	W	0.0625	¾ ebb; Wind E; Force 4; Sky partly cloudy.
CARD SOUND, FLA.																	
7491	1 mile NXE½E of Pumpkin Key.		" 10.	10:35 a.m.	10½ "	hrd. S.	75	0	24.0	0	1.0222	dr.	botm.	-	W	0.0625	¾ ebb; Wind E; Force 4; Sky partly cloudy.
7492	1½ miles SW½W of Pumpkin Key.		" 10.	11:00 a.m.	11½ "	sft.S. Gr.	75	0	24.0	0	1.0222	dr.	botm.	-	W	0.0625	¾ ebb; Wind E; Force 4; Sky partly clear.
7493	1½ miles N. of Pumpkin Key.		" 10.	11:10 a.m.	10 "	bary.	75	0	24.0	0	1.0222	dr.	botm.	-	W	0.0625	Low water; Wind E; Force 4; Sky partly cloudy.
HAWK CHANNEL.																	
7494	5/8 mile NEXE of Southern end of Sands Key.		" 12.	9:20 a.m.	9 "	hrd.S. Gr.	73	0	23.0	0	1.0252	dr.	botm.	-	E	0.0625	½ ebb; Wind ENE; Force 4; Sky partly cloudy.
7495	5/8 mile EXN of Sothern Ragged Key.		" 12.	9:40 a.m.	12½ "	hrd. S.	73	0	23.0	0	1.0250	dr.	botm.	-	E	0.0625	½ ebb; Wind ENE; Force 4; Sky partly cloudy.
7496	¾ mile EXN of the northern-most of Ragged Keys.		" 12.	9:55 a.m.	13 "	hrd. S.	74	0	23.0	0	1.0249	dr.	botm.	-	E	0.0625	½ ebb; Wind ENE; Force 4; Sky partly cloudy.
SOLDIER KEY LAKE, FLA.																	
7497	2½ miles SW¾W of Soldier Key.		" 12.	10:40 a.m.	9 "	sft.S.Gr.	74	0	22.5	0	1.0250	dr.	botm.	-	NNE	0.0625	½ ebb; Wind ENE; Force 4; Sky partly clear.
7498	1-3/8 miles NNW of Soldier Key.		" 12.	11:00 a.m.	9 "	sft. S.	74	0	23.0	0	1.0240	dr.	botm.	-	ESE	0.0625	½ ebb; Wind ENE; Force 4; Sky cloudy.

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Form 625.

RECORD OF BISCAYNE BAY, FLA. INVESTIGATION BY Fish Hawk 1913.

97 ~~85~~.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7499	1-7/8 miles ENE½E of Shoal Point.		March 12.	1:40 p.m.	12 ft.	hrd.S.	73	0	23.5	0	1.0186	dr.	botm.	-	W	0.0625	Low water; Wind ENE; Force 4; Sky partly cloudy.
7500	2 miles SSE¾E of Shoal Pt.		" 12.	2:00 p.m.	10 "	bary.	73	0	23.5	0	1.0195	dr.	botm.	-	W	0.0625	Low water; Wind ENE; Force 4; Sky partly cloudy.
7501	5/8 mile S. of S. Point of Black Ledge.		" 12.	2:30 p.m.	8 "	sft.S.	73	0	23.0	0	1.0222	dr.	botm.	-	W	0.0625	Low water; Wind ENE; Force 4; Sky partly cloudy.
HAWK CHANNEL, FLA.																	
7502	Hen and Chickens Light bears WSW - 3 miles.			1:00 p.m.	14 "	hrd.	61	0	22.0	0	1.0238						Wind NNE; Force 5; Sky partly cloudy.
7503	Hen and Chickens Light bears W½S - 1½ miles.			1:30 p.m.	16 "	hrd.	61	0	22.0	0	1.0238						Wind NNE; Force 5; Sky partly cloudy.
7504	Hen and Chickens Light bears S - 1½ miles.			8:00 a.m.	15 "	hrd.rky.	74	0	24.5	0	1.0237						Wind ENE; Force 4; Sky partly cloudy.
7505	Hen and Chickens Light bears SSW - 2½ miles.			8:30 a.m.	14 "	hrd. S.	74	0	24.5	0	1.0237						Wind ENE; Force 4; Sky partly cloudy.
7506	East end of Travenier Key bears SWXW - 1½ miles.			8:00 a.m.	10 "	hrd.	70	0	21.0	0	1.0246						Wind ENE; Force 4; Sky partly cloudy.
7507	Dove Key bears NNW - 1¼ miles.			8:30 a.m.	11 "	hrd.	70	0	21.0	0	1.0246						Wind ENE; Force 4; Sky partly cloudy.
7508	Angel fish Key Sponge ground. Old Rhodes Bank beacon bears NE½E - 3¾ miles.			1:00 p.m.	11 "	hrd.S.	76	0	22.0	0	1.0238						Wind E; Force 6; Sky cloudy.
7509	Angel fish Key Sponge ground. Old Rhodes Bank Beacon bears NE½E - 1¾ miles.			1:30 p.m.	12 "	hrd.	76	0	22.0	0	1.0238						Wind E; Force 6; Sky cloudy.
7510	Old Rhodes Key Sponge Ground. Old Rhodes Bank Beacon bears SE½E - 1½ miles.			8:00 a.m.	10 "	hrd.	75	0	23.0	0	1.0240						Wind SE; Force 5; Sky partly cloudy.
GULF STREAM OF CAPE FLORIDA, FLA.																	
7511	2-1/8 miles SSE of Fowey Rocks Light.		March 25.	9:10 a.m.	45	rky.	77	0 botm.	24.6. 21.1	0 botm.	1.0239 1.0253	oys. dr.	botm.	-	N	0.50	Sky cloudy; Wind SW; Force 2.
7512	3-7/8 miles SEXE½E of Fowey Rocks Light.		" 25.	10:15 a.m.	170	sft.	77	0 botm.	25.5 10.5	0 botm.	1.0236 1.0247	7 ft. B. T.	botm.	-	NXE	1.25	Wind SW; Force 2; Sky cloudy.

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Form 625.

INVESTIGATION BY Fish Hawk 1913.

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RECORD OF GULF STREAM OFF CAPE FLORIDA, FLA. INVESTIGATION BY FISH HAWK 1903.

186.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7513	6¼ miles ESE½E of Fowey Rocks Light.		March 25.	11:50 a.m.	200	gy.M.	78	0	26.0	0	1.0236	7 ft. B. T.	-	-	NXE	1.50	Wind SW; Force 2; Sky cloudy.
								botm.	7.7	botm.	1.0248					
7514	6 miles E of Fowey Rocks Light.		" 25.	12:45 p.m.	200	gy.M.	78	0	25.5			7 ft. B. T.	-	-	NXE	1.50	Wind SW; Force 2; Sky cloudy.
								bottm.	8.8	0	1.0236					
										botm.	1.0243						
7515	3½ miles E of Fowey Rock Light.		" 30.	9:15 a.m.	160	fne.gy.S.	72	0	24.5	0	1.0236	7 ft. B. T.	-	-	NXW	1.00	Wind SW; Force 5; Sky clear.
								botm.	9.4	botm.	1.0248					
7516	1 mile E¼N of Fowey Rock Light.		" 30.	10:45 a.m.	50	fne.gy.S.Co.	73	0	25.0	0	1.024	oys. dr.	-	-	N	0.375	Wind W; Force 3; Sky clear.
								botm.	20.5	botm.	---					
7517	2¼ miles NNE of Fowey Rock Light.		" 30.	11:30 a.m.	36	fne.gy.S. brk.Sh.	74	0	25.5	0	1.024	oys. dr.	-	-	N	0.625	Wind W; Force 3; Sky clear.
								botm.	23.3							
7518	4 miles NEXE of Fowey Rock Light.		" 30.	12:25 p.m.	156	gy.S.Sh.	75	0	25.5	0	1.024	7 ft. B. T.	-	-	N	1.00	Wind W; Force 4; Sky clear.
								botm.	8.8							
7519	6¼ miles ENE½E of Fowey Rocks Light.		" 30.	1:35 p.m.	186	fne.gy.S.	76	0	25.0	0	1.024	7 ft. B. T.; dr.	-	-	N	1.50	Wind W; Force 3; Sky clear.
								botm.	21.0	botm.	1.0244					
7520	7½ miles NEXE of Fowey Rocks Light.		" 30.	2:25 p.m.	185	gy.S.	76	0	25.0	0	1.0242	7 ft. B. T.; dr.	-	-	N	1.50	Wind W; Force 3; Sky clear.
								botm.	20.0	botm.	1.0252					
VINEYARD SOUND, MASS.																	
7521	Nobska Point bears NEXN - ½ mile.		July 28.	1:30 p.m.	7½	crs.S.	62	0	19.0	0	1.0230	Rke. dr.	-	-	NEXN	0.125	¾ flood; Wind SW; Force 4; Sky cloudy.
										botm.	1.0225						
7522	Nobska Light bears N½W - 1 mile.		" 28.	2:05 p.m.	10	rky.	62	0	18.5	0	1.0226	Rke. dr.	-	-	SXW	0.125	High water; Wind SW; Force 4; Sky cloudy.
										botm.	1.0230						
7523	Nobska Point bears NNW - 1-5/8 miles.		" 28.	2:30 p.m.	13	rky.	62	0	18.0	0	1.0230	Rke. dr.	-	-	SSW	0.125	High water; Wind SW; Force 4; Sky cloudy.
								botm.	18.0	botm.	1.0232					
7524	Nobska Light bears NNW 1/8 W - 2¼ miles.		" 28.	2:40 p.m.	10	rky.	62	0	18.0	0	1.0230	7 ft. B. T.	-	-	SWXS	0.125	¼ ebb; Wind SW; Force 4; Sky cloudy.
								botm.	18.0	botm.	1.0230					
7525	Nobska Light bears NNW½W 2-5/8 miles.		" 28.	3:15 p.m.	7	s.	62	0	19.0	0	1.0226	7 ft. B. T.	-	-	SW	0.125	¼ ebb; Wind SW; Force 4; Sky cloudy.
								botm.	18.5	botm.	1.0226					
7526	Nobska Light bears N - 2½ miles.		" 28.	3:40 p.m.	7½	s.	62	0	18.5	0	1.0226	7 ft. B. T.	-	-	SWXW	0.125	¼ ebb; Wind SW; Force 5; Sky cloudy.
								botm.	18.0	botm.	1.0224					
7527	West Chop bears SEXE½E; Tarpaulin Cove bears WXS½S.		" 31.	2:00 p.m.	9	s.	72	0	19.5	0	1.0248	Rke. dr.	-	-	NEXE	0.125	½ flood; Wind W; Force 3; Sky cloudy.
								botm.	20.0	botm.	1.0225					
7528	West Chop bears SEXE½E; Nobska Pt. bears NE½E.		" 31.	2:15 p.m.	13	s.	72	0	19.0	0	1.0225	Rke. dr.	-	-	NEXE	0.125	½ flood; Wind W; Force 3; Sky cloudy.
								botm.	19.5	botm.	1.0225					

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Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1903.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7529	West Chop bears EXS½S; Nobska Pt. bears NEXN½N.		July 31.	2:30 p.m.	13	S. G.	72	0 botm.	19.0 19.0	0 botm.	1.0223 1.0230	Rke. dr.	-	-	NEXE	0.125	½ flood; Wind W; Force 3; Sky cloudy.
7530	Nobska Point bears NXE; West Chop bears E⅔S.		" 31.	2:50 p.m.	12	rky.	72	0 botm.	18.0 18.0	0 botm.	1.0226 1.0232	7 ft. B. T.	-	-	NEXE	0.125	⅔ flood; Wind W; Force 3; Sky cloudy.
7531	Tarpaulin Cove bears W½N; Nobska Point bears NE⅔N.		" 31.	3:45 p.m.	8½	s.	68	0 botm.	17.5 17.5	0 botm.	1.0230 1.0234	Rke dr.	-	-	ENE	0.125	⅔ flood; Wind W; Force 2; Sky cloudy.
7532	West Chop bears ESE; Tarpaulin Cove bears WXS½S.		Aug. 3.	2:00 p.m.	10	S. R.	73	0 botm.	20.5 21.1	0 botm.	1.0222 1.0220	Rke. dr.	-	-	E	0.125	Low water; Wind SE; Force 2; Sky partly clear.
7533	Tarpaulin Cove bears WXS; West Chop bears EXS½S.		" 3.	2:20 p.m.	10	s.	72	0 botm.	20.5 20.2	0 botm.	1.0222 1.0220	Rke. dr.	-	-	E	0.125	¼ flood; Wind SE; Force 2; Sky partly clear.
7534	Tarpaulin Cove bears W½S; West Chop bears EXS; Nobska Point bears NE.		" 3.	3:00 p.m.	10½	rky.	73	0 botm.	20.0 20.2	0 botm.	1.0224 1.0223	Rke. dr.	-	-	E	0.125	¼ flood; Wind SE; Force 2; Sky partly clear.
7535	Nobska Point bears NNE; Tarpaulin Cove bears WXN⅔N.		" 3.	3:15 p.m.	10	G.S.	73	0 botm.	19.5 19.4	0 botm.	1.0224 1.0222	Rke. dr.	-	-	NE	0.125	¼ flood; Wind SE; Force 2; Sky cloudy.
7536	Tarpaulin Cove bears WXN½N; Nobska Point bears NXE½E.		" 3.	4:00 p.m.	5½	s.	71	0 botm.	19.0 19.4	0 botm.	1.0225 1.0226	Rke. dr.	-	-	NNE	0.125	½ flood; Wind SE; Force 2; Sky partly clear.
7537	Tarpaulin Cove bears WXS½S; West Chop bears EXS½S.		" 7.	1:45 p.m.	15	crs.G.	65	0 botm.	19.0 19.4	0 botm.	1.0230 1.0225	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky partly cloudy.
7538	Tarpaulin Cove bears W½S; West Chop bears E⅔S; Nobska Point bears NNE½E.		" 7.	2:30 p.m.	10	St.	65	0 botm.	20.0 21.1	0 botm.	1.0223 1.0222	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky clear.
7539	Tarpaulin Cove W⅔N; Nobska Point bears NE½E.		" 7.	3:00 p.m.	13	St.	65	0 botm.	20.0 20.5	0 botm.	1.0234 1.0223	oys. dr.	-	-	SW	0.125	⅔ ebb; Wind SW; Force 3; Sky clear.
7540	Nobska Point bears NE⅔N; Tarpaulin Cove bears EXS½S.		" 7.	3:20 p.m.	5	S.Sh.	64	0 botm.	19.5 20.8	0 botm.	1.0222 1.0222	oys. dr.	-	-	SW	0.125	⅔ ebb; Wind SW; Force 3; Sky clear.
7541	Nobska Point bears NE½E; Tarpaulin Cove bears ESE.		" 7.	3:40 p.m.	13	S. G.	64	0 botm.	20.0 20.5	0 botm.	1.0222 1.0222	oys. dr.	-	-	SW	0.125	⅔ ebb; Wind SW; Force 3; Sky clear.
7542	Nobska Point bears NNE½E; Tarpaulin Cove bears NWXW½W.		" 7.	4:00 p.m.	7	s.	64	0 botm.	19.5 20.5	0 botm.	1.0234 1.0223	7 ft. B. T.	-	-	SW	0.125	⅔ ebb; Wind SW; Force 3; Sky clear.
7543	Gay Head bears SW½S; Nobska Light bears EXN½N.		" 11.	2:10 p.m.	12	crs.G.	73	0 botm.	19.0 19.7	0 botm.	1.0239 1.0220	oys. dr.	-	-	SE	0.125	⅔ ebb; Wind SSW; Force 1; Sky cloudy.
7544	Tarpaulin Cove bears W⅔N; Nobska Light NEXE½E.		" 11.	2:25 p.m.	10½	crs.G.	70	0 botm.	19.0 19.7	0 botm.	1.0231 1.0223	oys. dr.; 7 ft. B. T.	-	-	SE	0.0625	⅔ ebb; Wind SSW; Force 2; Sky cloudy.
7545	Tarpaulin Cove bears NWXW⅔W; Nobska bears NE½E.		" 11.	2:40 p.m.	10½	St.crs.G.	70	0 botm.	18.5 19.7	0 botm.	1.0292 1.0226	oys. dr.	-	-	SSW	0.25	⅔ ebb; Wind SSW; Force 2; Sky cloudy.

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Form 625.

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RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1904

100

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7521a	Nobska Light bears NEXN - ½ mile.		July 14.	1:40 p.m.	7½	crs.S.St.	73	0	20.0	0	1.0224	scrape dr.	-	-	SW	0.25	¾ ebb; Wind SSE; Force 3; Sky clear.
7522a	Nobska Light bears N¼W - 1 mile.		" 14.	2:00 p.m.	14¾	S. St.	73	0	20.0	0	1.0222	7 ft. B. T.	-	-	SW	0.25	¾ ebb; Wind SSE; Force 3; Sky clear.
								botm.	20.0	botm.	1.0224					
7523a	Nobska Light bears NNW - 1-5/8 miles.		" 14.	2:30 p.m.	12	G.	73	0	20.0	0	1.0221	7 ft. B. T.; scrape dr.	-	-	SW	0.25	¾ ebb; Wind SSE; Force 3; Sky clear.
								botm.	20.0	botm.	1.0224					
7524a	Nobska Light bears NNW 1/8 W - 2¼ miles.		" 14.	3:00 p.m.	10	St. Sh.	70	0	19.5	0	1.0222	7 ft. B. T.; 24" scrape dr.	-	-	SW	0.25	¾ ebb; Wind SEXE; Force 2; Sky clear.
								botm.	20.0	botm.	1.0222					
7525a	Nobska Light bears NNW¼W 2-5/8 miles.		" 14.	3:45 p.m.	10	S. Gr.	70	0	20.0	0	1.0222	7 ft. B. T.; 24" scrape dr.; oys. dr.	-	-	SW	0.25	¾ ebb; Wind SXE; Force 2; Sky clear.
								botm.	20.0	botm.	1.0223					
7532a	West Chop bears ESE; Tarpaulin Cove bears WXS½S.		" 18.	2:10 p.m.	9	crs.S. St.	80	0	22.2	0	1.0220	Mce. dr.	-	-	SSW	0.125	High water; Wind SW; Force 2; Sky partly cloudy.
								botm.	21.0	botm.	1.0221					
7533a	Tarpaulin Cove bears WXS; West Chop bears EXS½S.		" 18.	2:30 p.m.	15	crs.S. St.	80	0	20.5	0	1.0222	Mce. dr.	-	-	S	0.125	High water; Wind SW; Force 2; Sky partly cloudy.
								botm.	20.0	botm.	1.0224					
7534a	Tarpaulin Cove bears W½S; West Chop bears EXS; Nobska Light bears NE.		" 18.	2:50 p.m.	12	St.	76	0	19.5	0	1.0224	7 ft. B. T.; scrape dr.	-	-	SW	0.25	High water; Wind SW; Force 2; Sky partly cloudy.
								botm.	19.5	botm.	1.0222					
7535a	Nobska Light bears NNE; Tarpaulin Cove bears WXN¾N.		" 18.	3:20 p.m.	12	St.	77	0	19.0	0	1.0223	7 ft. B. T.; scrape dr.	-	-	SW	0.25	High water; Wind SW Force 2; Sky partly cloudy.
								botm.	19.5	botm.	1.0225					
7536a	Nobska Light bears NXE½E; Tarpaulin Cove bears WXN¾N		" 18.	3:50 p.m.	11½	s.	76	0	18.5	0	1.0225	7 ft. B. T.; scrape dr.	-	-	SW	0.125	¼ ebb; Wind SW; Force 3; Sky partly cloudy.
								botm.	19.0	botm.	1.0225					
7537a	Tarpaulin Cove bears WXS½S; West Chop bears EXS¼S.		" 18.	4:05 p.m.	4½	G. M.	76	0	19.5	0	1.0222	Mce. dr.	-	-	SWXS	0.125	¼ ebb; Wind SW; Force 3; Sky clear.
								botm.	19.5	botm.	1.0226					
7543a	Gay Head bears SW½S; Nobska Light bears EXN¾N.		" 20.	2:30 p.m.	13	s.	82	0	21.0	0	1.0221	7 ft. B. T.	-	-	NE	0.125	½ flood; Wind W; Force 2; Sky partly cloudy.
								botm.	21.0	botm.	1.0221					
7544a	Tarpaulin Cove bears W¾N; Nobska Lt. bears NEXE½E.		" 20.	3:00 p.m.	13	crs. G.	84	0	20.0	0	1.0224	Mce. dr.	-	-	NE	0.25	½ flood; Wind W; Force 2; Sky partly cloudy.
								botm.	20.5	botm.	1.0225					
7545a	Nobska Light bears NE½E; Tarpaulin Cove bears NWXW¾W.		" 20.	3:30 p.m.	12½	S. G.	82	0	19.5	0	1.0223	24" scrape dr.	-	-	NE	0.25	½ flood; Wind W; Force 2; Sky partly cloudy.
								botm.	20.0	botm.	1.0225					
7547a	Nobska Lt. bears NE¾N; Tarpaulin Cove bears NW¾W.		" 20.	4:10 p.m.	13	S.crs.G.	79	0	19.5	0	1.0230	7 ft. B. T.; oys. dr.	-	-	NE¾E	0.25	High water; Wind W; Force 3; Sky partly cloudy.
								botm.	19.5	botm.	1.0225					

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Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1903. 101 88

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7595	Gay Head Lt. bears S; Bell Buoy bears E¼N.		Sept. 1.	10:10 a.m.	7	St. G.	67	0 botm.	18.5 18.5	0 botm.	1.0224 1.0226	oys. dr.	-	-	WSW	0.125	½ ebb; Wind NW; Force 3; Sky partly cloudy.
7596	Gay Head bears S¾W; Nobska Lt. bears NWXN¾E.		" 1.	10:30 a.m.	7	hrd.S.R.	64	0 botm.	18.5 18.0	0 botm.	1.0228 1.0226	oys. dr.; 7 ft. B. T.; scrape dr.	-	-	WSW	0.25	½ ebb; Wind NW; Force 3; Sky clear.
7597	Nobska Lt. bears NEXE½E; Gay Head bears SSW.		" 1.	11:00 a.m.	12	s.	66	0 botm.	18.5 18.0	0 botm.	1.0223 1.0225	7 ft. B. T.; small scrape dr.	-	-	WSW	0.25	½ ebb; Wind NW; Force 3; Sky clear.
7598	Gay Head bears SWXS½S; Nobska Lt. bears NEXE½E.		" 1.	11:25 a.m.	13	s.	66	0 botm.	18.5 18.0	0 botm.	1.0226 1.0225	7 ft. B. T.; oys. dr.	-	-	WSW	0.25	½ ebb; Wind NW; Force 3; Sky clear.
7599	Gay Head bears SW½S; Cuttyhunk Life Saving Sta. bears NWXW.		" 1.	12:45 p.m.	12¾	bk.M.	66	0 botm.	18.0 18.0	0 botm.	1.0224 1.0224	7 ft. B. T.	-	-	WSW	0.25	½ ebb; Wind NW; Force 3; Sky clear.
7600	Gay Head bears SWXW¼W; Tarpaulin Cove bears NEXN½N.		" 1.	1:20 p.m.	10	hrd.S.	68	0 botm.	19.5 18.0	0 botm.	1.0223 1.0224	7 ft. B. T.	-	-	SWXW	0.25	½ ebb; Wind NW; Force 3; Sky partly cloudy.
7601	Gay Head bears WXS; Nobska Lt. bears NE½E.		" 1.	1:35 p.m.	10	m.S.	68	0 botm.	19.5 18.5	0 botm.	1.0220 1.0222	oys. dr.	-	-	SWXW	0.25	Low water; Wind WSW; Force 3; Sky partly cloudy.
7602	Cay Head bears W; Nobska Lt. bears NE½N.		" 1.	1:50 p.m.	7	m.S.	68	0 botm.	19.0 18.0	0 botm.	1.0224 1.0226	small scrape dr.; 7 ft. B. T.	-	-	S	0.125	Low water; Wind WSW; Force 3; Sky partly clear.
CRAB LEDGE OFF CHATHAM, MASS.																	
7603	Chatham Lt. bears WNW - 7 miles.		" 2.	10:15 a.m.	17½	St. G.	61	0 botm.	15.5 11.5	0 botm.	1.0230 1.0244	oys. dr.	-	-	S	0.125	High water; Wind SE; Force 2; Sky cloudy.
7604	Chatham Lt. bears WXN¾N - 7 miles.		" 2.	10:35 a.m.	19	S. G.	61	0 botm.	15.5 11.0	0 botm.	1.0234 1.0242	oys. dr.	-	-	W	0.125	High water; Wind SE; Force 2; Sky cloudy.
7605	Chatham Lt. bears WXN¾N - 7 miles.		" 2.	10:50 a.m.	17	P. G.	61	0 botm.	15.0 11.5	0 botm.	1.0228 1.0242	oys. dr.	-	-	SE	0.125	High water; Wind SE; Force 2; Sky cloudy.
7606	Chatham Lt. bears WXN¾N - 7 miles.		" 2.	11:20 a.m.	16	St. G.	62	0 botm.	14.5 11.5	0 botm.	1.0233 1.0245	oys. dr.	-	-	SE	0.125	¼ ebb; Wind SE; Force 2; Sky cloudy.
7607	Chatham Lt. bears NWXW½W - 7 miles.		" 2.	11:45 a.m.	16¾	St. G.	62	0 botm.	15.5 10.5	0 botm.	1.0230 1.0242	oys. dr.	-	-	WSW	0.125	½ ebb; Wind SE; Force 2; Sky cloudy.
7608	Chatham Lt. bears WNW - 7¾ miles.		" 2.	12:55 p.m.	19¾	G.	62	0 botm.	15.0 11.0	0 botm.	1.0235 1.0244	7 ft. B. T.; oys. dr.; small scrape dr.	-	-	SSW	0.125	½ ebb; Wind SE; Force 2; Sky cloudy.
7609	Chatham Lt. bears W½N - 7½ miles.		" 2.	2:25 p.m.	25	Sh. P.	64	0 botm.	16.5 11.0	0 botm.	1.0233 1.0243	oys. dr.	-	-	SE	0.25	¾ ebb; Wind SSE; Force 2; Sky cloudy.

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Form 625.

117

RECORD OF BUZZARDS BAY, MASS

INVESTIGATION BY Fish Hawk 19 13.

INVESTIGATION BY FISH HAWK 19 04.

102

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7610	S. end of Big Weepecket Id. WXS$\frac{3}{4}$S - 2 miles; Nobska Lt. bears SEXE$\frac{1}{2}$E - 2-1/8 miles.			July 22.	1:45 p.m.	4$\frac{1}{2}$	s.	75	0 botm.	22.5 23.0	0 botm.	1.0222 1.0220	7 ft. B. T.; scrape dr.	-	-	SE	0.125	$\frac{1}{4}$ flood; Wind E; Force 3; Sky cloudy.
7611	Nobska Lt. SE$\frac{1}{2}$E - 3$\frac{1}{2}$ miles; Two small Weepecket - 1$\frac{1}{2}$ miles.			" 22.	2:15 p.m.	7$\frac{1}{2}$	bk.M.	75	0 botm.	22.5 22.0	0 botm.	1.0218 1.0216	7 ft. B. T.; scrape dr.	-	-	E	0.125	$\frac{1}{4}$ flood; Wind E; Force 3; Sky cloudy.
7612	Bird Id. Lt. NNE - 7$\frac{1}{2}$ miles; Stand Pipe Fairhaven NW$\frac{1}{2}$N 7$\frac{3}{4}$ miles.			" 22.	2:45 p.m.	7$\frac{1}{2}$	bk.s.M.	76	0 botm.	22.5 22.5	0 botm.	1.0221 1.0215	7 ft. B. T.; scrape dr.	-	-	ENE	0.125	$\frac{1}{4}$ flood; Wind E; Force 3; Sky cloudy.
7613	Bird Id. Lt. NEXN - 6 miles; Stand Pipe Fairhaven NW$\frac{1}{2}$N 6$\frac{1}{4}$ miles.			" 22.	3:05 p.m.	7	bk.s.M.	75	0 botm.	22.5 22.5	0 botm.	1.0216 1.0216	7 ft. B. T.; scrape dr.	-	-	ENE	0.125	$\frac{1}{4}$ flood; Wind E; Force 3; Sky cloudy.
7614	Stand Pipe Fairhaven NW - 4$\frac{3}{4}$ miles; Angelica and Cormorant Pt. Beacon 5/8 mile.			" 22.	3:30 p.m.	5	bk.m.S.	75	0 botm.	22.5 22.5	0 botm.	1.0218 1.0210	7 ft. B. T.; scrape dr.	-	-	E	0.125	$\frac{1}{2}$ flood; Wind E; Force 3; Sky cloudy.
7615	Bird Id. Lt. NEXE$\frac{3}{4}$E 5$\frac{3}{4}$ miles; Stand Pipe Fairhaven NW$\frac{1}{4}$W 3$\frac{1}{2}$ miles.			" 22.	3:50 p.m.	3$\frac{1}{2}$	bk.m.S.	72	0 botm.	22.5 22.5	0 botm.	1.0222 1.0219	7 ft. B. T.; scrape dr.	-	-	E	0.125	$\frac{1}{2}$ flood; Wind E; Force 3; Sky cloudy.
7616	N. Weepecket Id. WXS$\frac{1}{2}$S 3$\frac{1}{4}$ miles; Pt. of Quamquissett Id. SXE$\frac{1}{2}$E - $\frac{1}{4}$ mile.			" 25.	2:15 p.m.	5$\frac{1}{2}$	m.S.	70	0 botm.	20.0 20.5	0 botm.	1.0223 1.0226	oys. dr.	-	-	E	0.0625	$\frac{3}{4}$ ebb; Wind WNW; Force 4; Sky partly cloudy.
7617	Wings Neck Lt. NNE$\frac{1}{4}$E 7 miles; Mattapoissett Lt. NWXW - 6$\frac{3}{4}$ miles.			" 25.	2:30 p.m.	7$\frac{1}{2}$	bk.M.	70	0 botm.	20.5 20.0	0 botm.	1.0222 1.0220	7 ft. B. T.	-	-	ENE	0.25	$\frac{3}{4}$ ebb; Wind WNW; Force 4; Sky partly cloudy.
7618	Wings Neck Lt. NE$\frac{1}{2}$N 6$\frac{1}{4}$ miles; Mattapoissett Lt. NNW$\frac{1}{2}$W - 4$\frac{3}{4}$ miles.			" 25.	3:00 p.m.	7	sft.bk.M.	69	0 botm.	21.0 20.5	0 botm.	1.0221 1.0219	7 ft. B. T.; scrape dr.	-	-	ENE	0.25	Low water; Wind WSW; Force 5; Sky partly cloudy.
7619	Wings Neck Lt. NEXE$\frac{1}{2}$E 6$\frac{1}{4}$ miles; Mattapoisett Lt. NNW - 2$\frac{3}{4}$ miles.			" 25.	3:40 p.m.	7	sft.bk.M.	69	0 botm.	21.5 21.0	0 botm.	1.0218 1.0219	7 ft. B. T.; scrape dr.	-	-	ENE	0.25	Low water; Wind WSW; Force 5; Sky partly cloudy.
7620	Bird Id. Lt. NEXE$\frac{1}{4}$E; 3$\frac{1}{2}$ miles; Mattapoissett Lt. NWXN$\frac{1}{2}$N - 1$\frac{1}{2}$ miles.			" 25.	4:10 p.m.	4	bk.m.S.	69	0 botm.	21.5 21.5	0 botm.	1.0215 1.0218	oys. dr.	-	-	NE	0.125	$\frac{1}{4}$ flood; Wind WSW; Force 5; Sky partly cloudy.
7621	Wings Neck Lt. N$\frac{3}{4}$E - 6$\frac{1}{4}$ miles; Mattapoissett Lt. NW$\frac{1}{2}$N - 7$\frac{3}{4}$ miles.			" 27.	2:20 p.m.	5$\frac{1}{2}$	crs.S.Sh.	77	0 botm.	23.5 23.0	0 botm.	1.0212 1.0215	oys. dr.	-	-	NNW	0.125	$\frac{1}{2}$ ebb; Wind SW; Force 3; Sky partly cloudy.
7622	Wings Neck Lt. NNE - 5$\frac{1}{2}$ miles; Mattapoissett Lt. NW$\frac{1}{2}$N - 6$\frac{1}{4}$ miles.			" 27.	2:40 p.m.	7	bk.m.S.	75	0 botm.	23.0 22.5	0 botm.	1.0212 1.0218	7 ft. B. T.; scrape dr.	-	-	NE	0.25	$\frac{1}{2}$ ebb; Wind W; Force 4; Sky partly cloudy.
7623	Wings Neck Lt. NE$\frac{3}{4}$N 4$\frac{3}{4}$ miles; Mattapoissett Lt. NW$\frac{1}{4}$W 4$\frac{3}{4}$ miles.			" 27.	3:00 p.m.	7	bk. M.	75	0 botm.	22.5 22.5	0 botm.	1.0219 1.0212	7 ft. B. T.; scrape dr.	-	-	N	0.25	$\frac{3}{4}$ ebb; Wind W; Force 4; Sky partly cloudy.

Form 625.

117

RECORD OF BUZZARDS BAY, MASS. INVESTIGATION BY Fish Hawk 19 13.

103

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air (Degrees.)	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tide. Depth. (fms. f. in.)	Tide. Duration. h. m.	Drift. Direction.	Drift. Distance. (Miles.)	Remarks.
7624	Wings Neck Lt. NEXE - 4½ miles; Mattapoissett Lt. NW½W - 3¼ miles.		July 27.	3:40 p.m.	5½	m.S.Sh.	74	0 botm.	23.0 22.5	0 botm.	1.0213 1.0217	7 ft. B. T.: scrape dr.	-	-	NE	0.25	⅔ ebb; Wind W; Force 4; Sky partly cloudy.
7625	Wings Neck Lt. ENE½N - 4¾ miles; Mattapoissett Lt. NWXW - 2 miles.		" 27.	4:00 p.m.	4¾	m.S.	75	0 botm.	23.0 22.5	0 botm.	1.0214 1.0214	oys. dr.	-	-	SSW	0.25	⅔ ebb; Wind SW; Force 4; Sky partly cloudy.
7626	Wings Neck Lt. NXE - 4 miles; Mattapoissett Lt. NWXW½W - 6½ miles.		" 29.	2:00 p.m.	4¾	m.S. Sh.	76	0 botm.	23.5 23.5	0 botm.	1.0212 1.0212	oys. dr.	-	-	SW	0.125	½ ebb; Wind W; Force 4; Sky partly cloudy.
7627	Wings Neck Lt. NEXE - 3¼ miles; Bird Id. Lt. NXW½W 2⅜ miles.		" 29.	2:30 p.m.	5¼	s.	74	0 botm.	23.0 23.0	0 botm.	1.0211 1.0212	7 ft. B. T.: scrape dr.	-	-	SW	0.25	½ ebb; Wind W; Force 4; Sky partly cloudy.
7628	Wings Neck Lt. NXE½E - 3 miles; Bird Id. Lt. N½W - 1-3/8 miles.		" 29.	3:00 p.m.	4	m.S.Sh.	74	0 botm.	23.0 23.0	0 botm.	1.0211 1.0211	oys. dr.	-	-	SW	0.125	½ ebb; Wind W; Force 4; Sky partly cloudy.
7629	Bird Id. Lt. ENE - ⅔ mile; Black Buoy on Bow Bells SSW¼W - ⅔ mile.		" 29.	3:20 p.m.	4	s.M.	75	0 botm.	23.0 23.0	0 botm.	1.0209 1.0210	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 4; Sky partly cloudy.
7630	Bird Id. Lt. NW¼W - 3 miles; Wings Neck Lt. N½E 2½ miles.		Aug. 1.	2:40 p.m.	4	s.	76	0 botm.	23.5 23.5	0 botm.	1.0209 1.0209	oys. dr.	-	-	SW	0.125	High water; Wind SW; Force 3; Sky cloudy.
7631	Wings Neck Lt. NE½E - 1⅝ miles; Bird Id. Lt. NEXE½W 1⅝ miles.		" 1.	3:00 p.m.	5	bk.M. Sh.	74.5	0 botm.	23.5 23.5	0 botm.	1.0206 1.0207	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky cloudy.
7632	Wings Neck Lt. E½S - 2 miles; Bird Id. Lt. SXE½W - ⅔ mile.		" 1.	3:15 p.m.	3½	M.	73.5	0 botm.	23.0 23.0	0 botm.	1.0212 1.0209	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky cloudy.
7633	Wings Neck Lt. SEXE - 1⅔ miles; Bird Id. Lt. SW½W 1⅔ miles.		" 1.	3:40 p.m.	3½	m.S.	74	0 botm.	23.0 23.0	0 botm.	1.0211 1.0207	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky cloudy.
7634	Wings Neck Lt. SSE - 1½ miles; Bird Id. Lt. SWXW½W 2½ miles.		" 1.	4:00 p.m.	3½	S.Sh.	74	0 botm.	23.5 23.5	0 botm.	1.0206 1.0207	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky cloudy.
7635	Wings Neck Lt. NEXE½E - 5/8 mile; Dry Ledge NXW½W 2 miles.		" 1.	4:15 p.m.	4½	m.S. Sh.	74.5	0 botm.	23.5 23.6	0 botm.	1.0206 1.0201	oys. dr.	-	-	SW	0.125	½ ebb; Wind SW; Force 3; Sky cloudy.
7636	Nobska Lt. NXE - 3⅞ miles; Little Weepecket Id. and Sippoissett Hotel bearing SSE½E; North Weepecket Id. ½ mile.		" 2.	1:45 p.m.	7	rky.ors.S.	80	0 botm.	22.0 22.0	0 botm.	1.0218 1.0218	oys. dr.: scrape dr.	-	-	NW	0.125	⅔ flood; Wind E; Force 2; Sky partly cloudy.

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Form 625.

117

RECORD OF BUZZARDS BAY, MASS. INVESTIGATION BY Fish Hawk 1913.

104

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.)	Tidal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7637	Nobska Lt. ESE - 5 miles; Sippawissett Hotel E$\frac{3}{4}$N - 5$\frac{1}{4}$ miles.			August 3.	2:20 p.m.	8	bk.s.M.	80	0 botm.	23.0 21.0	0 botm.	1.0213 1.0219	7 ft. B. T: oys. and scrape dr.	-	-	E	0.25	$\frac{3}{4}$ flood; Wind E; Force 2; Sky partly cloudy.
7638	Nobska Lt. SEXE$\frac{1}{4}$E - 6$\frac{1}{2}$ miles; Mattapoisett Lt. N$\frac{3}{4}$E - 6 miles.			"	3:15 p.m.	8	bk.s.M.	78	0 botm.	22.5 22.0	0 botm.	1.0218 1.0221	7 ft. B. T.: oys. dr.	-	-	ENE	0.25	High water; Wind E; Force 2; Sky partly cloudy.
7639	Nobska Lt. SEXE - 7$\frac{1}{2}$ miles; Cormorant Rock Spindle NNWXN 2$\frac{1}{2}$ miles.			"	3:40 p.m.	5$\frac{1}{2}$	hrd.S.R.	78	0 botm.	23.0 23.0	0 botm.	1.0214 1.0216	oys. dr.	-	-	ENE	0.25	High water; Wind E; Force 2; Sky partly cloudy.
7640	Large Weepecket Id. NE$\frac{3}{4}$E - 1$\frac{1}{2}$ miles; Clarks Pt. Lt. NWXN 8$\frac{3}{4}$ miles.			"	5:00 p.m.	6	bk.stk.M.	68	0	20.0	0 botm.	1.0220 1.0221	oys. dr.	-	-	NW	0.125	$\frac{1}{2}$ flood; Wind S; Force 3; Sky cloudy.
7641	North Weepecket Id. E$\frac{1}{2}$N - 2$\frac{1}{2}$ miles; Clarks Pt. Lt. NWXN - 7 miles.			"	5:40 p.m.	7$\frac{1}{2}$	bk.stk.M.	68	0	20.0	0 botm.	1.022 1.022	scrape dr.; 7 ft. B. T.	-	-	SSE	0.25	$\frac{1}{2}$ flood; Wind S; Force 3; Sky cloudy.
7642	Sippawissett Hotel E$\frac{3}{4}$N - 7$\frac{1}{2}$ miles; Clarks Pt. Lt. NWXN - 5$\frac{3}{4}$ miles.			"	5:02 p.m.	8	bk.stk.M.	69	0	20.0	0 botm.	1.0222 1.0221	oys. dr.	-	-	SSE	0.25	$\frac{1}{2}$ flood; Wind S; Force 3; Sky cloudy.
7643	Clarks Pt. Lt. NWXN - 4$\frac{1}{4}$ miles; Sippawissett Hotel E$\frac{1}{2}$S - 8 miles.			"	5:30 p.m.	7	m.bk.	72	0 botm.	20.0 20.0	0 botm.	1.0222 1.0222	7 ft. B. T.: oys. dr.	-	-	SSE	0.25	$\frac{1}{2}$ flood; Wind S; Force 3; Sky cloudy.
7644	Dumpling Rock Lt. W$\frac{3}{4}$S - 3$\frac{1}{4}$ miles; Clark Pt. Lt. NWXW - 3 miles.			"	4:25 p.m.	5$\frac{1}{2}$	bk.stk.M.	73	0 botm.	23.0 21.0	0 botm.	1.021 1.021	oys. dr.; scrape dr.; 7 ft. B. T.	-	-	SSE	0.125	High water; Wind S; Force 3; Sky partly cloudy.
7645	Lookout on West Id. E$\frac{3}{4}$S - 2-1/8 miles; Butler's Flat Lt. NWXN - 1 mile.			"	2:45 p.m.	4	m.S.	76	0 botm.	23.0 22.5	0 botm.	1.0205 1.0211	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.
7646	Dumpling Lt. SW$\frac{1}{2}$S - 3 miles; Scouticutt Neck Beacon SEXE$\frac{1}{2}$E - 1$\frac{1}{2}$ miles.			"	3:00 p.m.	5	bk.stk.M.	74	0 botm.	22.5 22.0	0 botm.	1.0209 1.0211	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.
7647	Dumpling Lt. SW$\frac{3}{4}$W - 3 miles; Clarks Pt. Lt. NWXN - 1$\frac{1}{2}$ miles.			"	3:20 p.m.	6	sft.s.M.	72	0 botm.	22.5 22.0	0 botm.	1.0207 1.0210	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.
7648	Clarks Pt. Lt. NXE$\frac{1}{2}$E - 1 mile; Bell & Black Can Buoy SE$\frac{3}{4}$E - 2$\frac{1}{2}$ miles.			"	3:45 p.m.	4$\frac{3}{4}$	s.	75	0 botm.	22.5 22.0	0 botm.	1.0209 1.0211	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.
7649	Dumpling Rock Lt. SW$\frac{3}{4}$W - 7/8 mile; Barekness Rocks Spindle NW$\frac{3}{4}$W - 1 mile.			"	4:10 p.m.	5$\frac{1}{2}$	sft.M.	73	0 botm.	21.5 21.0	0 botm.	1.0211 1.0215	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.
7650	Dumpling Rock Lt. W$\frac{3}{4}$S - 1$\frac{3}{4}$ miles; Clarks Pt. Lt. N$\frac{1}{2}$E 2$\frac{3}{4}$ miles.			"	4:20 p.m.	7	s.M.	72	0 botm.	21.5 21.0	0 botm.	1.0212 1.0219	oys. dr.	-	-	SW	0.125	$\frac{1}{2}$ flood; Wind SW; Force 3; Sky partly clear.

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Form 625.

RECORD OF BUZZARDS BAY, MASS. INVESTIGATION BY FISH HAWK 1904. 185

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7651	North Rock & Tangent of Pasque Id. - 1-3/8 mile; Lone Rock Bell Buoy WXN½N 1-1/8 mile.		August 11.	2:40 p.m.	7½	sft.bk.M.	75	0 botm.	20.5 20.5	0 botm.	1.0218 1.0218	oys. dr.	-	-	NW	0.125	Low water; Wind SW; Force 4; Sky partly clear.
7652	Lone Rock Buoy W½S - 2¾ miles; S end of Big Weepecket Id. NEX½E - 3-1/8 miles.		" 11.	3:00 p.m.	7	sft.s.M.	77	0 botm.	20.5 20.5	0 botm.	1.0217 1.0217	oys. dr.	-	-	NW	0.125	Low water; Wind SW; Force 4; Sky partly clear.
7653	North Weepecket Id. EXN - 4-1/8 miles; Lone Rock Buoy SW½W - 2½ miles.		" 11.	3:25 p.m.	8	bk.s.M.	75	0 botm.	20.5 20.0	0 botm.	1.0217 1.0218	7 ft. B. T.; scrape dr.	-	-	SW	0.25	Low water; Wind SW; Force 4; Sky partly clear.
7654	West end of Penikeese Id. SWXW - 5 miles; Dumpling Rocks Lt. NW¾W - 3¾ miles.		" 11.	3:50 p.m.	9	bk.s.M.	75	0 botm.	21.5 20.0	0 botm.	1.0213 1.0220	scrape dr.; 7 ft. B. T.	-	-	SW	0.25	¼ flood; Wind SW; Force 4; Sky partly clear.
7655	Dumpling Rocks Lt. NWXW¾W 2½ miles; West end of Penekeese Id. SW½S - 5½ miles.		" 11.	4:15 p.m.	7½	bk.s.M.	70	0 botm.	21.0 20.0	0 botm.	1.0216 1.0217	oys. dr.	-	-	SW	0.25	½ flood; Wind SW; Force 5; Sky partly clear.
7656	North end of Penikeese Id. WXS 3½ miles; Dumpling Rocks Lt. NNW¾W - 4¾ miles.		" 12.	10:50 a.m.	8	s.M.	68	0 botm.	20.0 19.5	0 botm.	1.0218 1.0222	scrape dr.; 7 ft. B. T.	-	-	NE	0.125	¼ ebb; Wind N; Force 3; Sky partly clear.
7657	North end of Penikeese Id. SW½W - 3¼ miles; Dumpling Rocks Lt. NNW¾W - 3½ miles.		" 12.	11:20 a.m.	9	s.M.	67	0 botm.	20.5 19.5	0 botm.	1.0215 1.0221	scrape dr.; 7 ft. B. T.	-	-	SW	0.25	½ ebb; Wind NE; Force 4; Sky partly clear.
7658	Hen & Chickens Lt. Ship WSW - 6½ miles; Dumpling Rocks Lt. NNW - 1¾ miles.		" 12.	11:40 a.m.	9	bk.M.	66	0 botm.	20.5 19.5	0 botm.	1.0215 1.0221	oys. dr.	-	-	SW	0.25	½ ebb; Wind NE; Force 4; Sky partly clear.
7659	Mishaum Pt. WSW - 2¼ miles; Dumpling Rocks Lt. NNE - ½ mile.		" 12.	12:00 m.	5¼	rky.G.Sh.	65.5	0 botm.	20.5 20.0	0 botm.	1.0217 1.0217	oys. dr.	-	-	SW	0.125	½ ebb; Wind NE; Force 4; Sky cloudy.
7660	Hen & Chickens Lt. Ship SWXW½W - 4¾ miles; Dumpling Rocks Lt. NNE¼E - 2¼ miles.		" 12.	1:00 p.m.	7½	m.	66	0 botm.	20.5 20.0	0 botm.	1.0216 1.0219	scrape dr.; 7 ft. B. T.	-	-	SW	0.125	¾ ebb; Wind NE; Force 4; Sky cloudy.
7661	Hen & Chickens Lt. Ship WXS - 5⅛ miles; Dumpling Rocks Lt. N¼E - 3½ miles.		" 12.	1:25 p.m.	13½	m.	65	0 botm.	20.0 19.0	0 botm.	1.0216 1.0221	scrape dr.; 7 ft. B. T.	-	-	SW	0.25	¾ ebb; Wind NE; Force 4; Sky cloudy.
7662	Hen & Chickens Lt. Ship W½N - 6 miles; Dumpling Rock Lt. N½W - 4½ miles.		" 12.	1:50 p.m.	10	sft.M.	65	0 botm.	19.5 19.0	0 botm.	1.0221 1.0221	scrape dr.; 7 ft. B. T.	-	-	SW	0.25	¾ ebb; Wind NE; Force 4; Sky cloudy.
7663	Dumpling Rocks Lt. NXW¼W - 6 miles; North Rock EXN½N ½ mile.		" 12.	2:20 p.m.	7	M.Sh.	65	0 botm.	19.5 19.0	0 botm.	1.0218 1.0219	scrape dr.; 7 ft. B. T.	-	-	SW	0.125	Low water; Wind NE; Force 5; Sky cloudy.
7664	Cuttyhunk Lt. E - ¾ mile; Hen & Chickens Lt. Ship NW½N - 3½ miles.		" 15.	11:45 a.m.	12	St.	70.5	0 botm.	18.0 18.0	0 botm.	1.0226 1.0232	oys. dr.	-	-	SW	0.125	½ flood; Wind NW; Force 3; Sky clear.

Form 625.

RECORD OF BUZZARDS BAY, MASS. INVESTIGATION BY FISH HAWK 1904. 106

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7665	Cuttyhunk Lt. SEXE - 1½ miles; Hen & Chickens Lt. Ship NW¾N - 2 miles.		August 15.	12:05 p.m.	11½	rky.s.	70	0 botm.	19.5 18.0	0 botm.	1.0220 1.0228	oys. dr.	-	-	SW	0.125	½ flood; Wind NW; Force 3; Sky clear.
7666	North end of Penikeese Id. E - 4 miles; Hen & Chickens Lt. Ship NW¾N - ¾ mile.	"	15.	12:50 p.m.	11	rky.St.	70	0 botm.	19.5 18.5	0 botm.	1.0224 1.0224	oys. dr.	-	-	SW	0.125	High water; Wind NW; Force 3; Sky clear.
7667	Dumpling Rocks Lt. NEXE - 6¾ miles; Hen & Chickens Lt. Ship SE¾S - ¾ mile.	"	15.	1:15 p.m.	9	St.	70	0 botm.	20.0 19.0	0 botm.	1.0218 1.0225	oys. dr.	-	-	SW	0.125	¼ ebb; Wind NW; Force 3; Sky clear.
7668	Mishaum Pt. NEXE½E - 3½ miles; Cuttyhunk Lt. SSE 5 miles.	"	15.	1:40 p.m.	8	m.S.	70	0 botm.	20.5 19.5	0 botm.	1.0219 1.0222	oys. dr.	-	-	SW	0.125	¼ ebb; Wind NW; Force 3; Sky clear.
7669	Dumpling Rocks Lt. NE - 5½ miles; Cuttyhunk Lt. SXE¾E - 3¼ miles.	"	15.	2:00 p.m.	13	bk.s.M.	70	0 botm.	20.5 19.0	0 botm.	1.0219 1.0224	oys. dr.	-	-	SW	0.125	¼ ebb; Wind NW; Force 3; Sky clear.
7670	Dumpling Rocks Lt. NEXN½N 6 miles; North end of Penikeese Id. E½N - 3¼ miles.	"	15.	2:20 p.m.	19	St.	70	0 botm.	20.0 19.5	0 botm.	1.0219 1.0222	oys. dr.	-	-	SW	0.125	¼ ebb; Wind NW; Force 3; Sky clear.
7671	Cuttyhunk Life Saving Station EXS½S - 1¼ miles; Cuttyhunk Lt. SWXS½S - 1 mile.	"	15.	2:50 p.m.	9	St.m.S.	70	0 botm.	19.0 19.0	0 botm.	1.0222 1.0226	oys. dr.; 7 ft. B. T.	-	-	SW	0.25	½ ebb; Wind NW; Force 3; Sky clear.
7672	Cuttyhunk Lt. SWXS - 2½ miles; Hen & Chickens Lt. Ship W¾N - 4 miles.	"	17.	1:45 p.m.	10	St.S.Sh.	70	0 botm.	19.0 19.0	0 botm.	1.0223 1.0224	oys. dr.	-	-	SW	0.125	¾ flood; Wind SW; Force 4; Sky clear.
7673	Cuttyhunk Lt. S¾W - 3½ miles; Hen & Chickens Lt. Ship WXS - 3¼ miles.	"	17.	2:00 p.m.	17	s.M.St.	70	0 botm.	19.5 19.0	0 botm.	1.0219 1.0222	scrape dr.; 7 ft. B. T.	-	-	SW	0.25	¾ flood; Wind SW; Force 4; Sky clear.
7674	Dumpling Rocks Lt. N½E - 4 miles; Cuttyhunk Life Saving Sta. SEXS½S - 4¾ miles.	"	17.	2:20 p.m.	7	crs.S.M.	70	0 botm.	20.0 20.0	0 botm.	1.0219 1.0219	oys. dr.	-	-	SW	0.25	¾ flood; Wind SW; Force 4; Sky clear.
7675	Mishaum Pt. EXN - 2 miles; Hen & Chickens Lt. Ship SWXS½S - 3¼ miles.	"	17.	2:40 p.m.	6¾	m.S.	70	0 botm.	20.0 20.0	0 botm.	1.0221 1.0221	oys. dr.; 7 ft. B. T.	-	-	SW	0.125	High water; Wind SW; Force 4; Sky clear.
VINEYARD SOUND, MASS.		1905															
7676	Gay Head Lt. SW½S; Prospect Hill bears SEXE½E.	July 17.		3:15 p.m.	9½	hrd.	72	0	22.5	0	1.0222	7 ft. B. T.	-	-	W	0.50	Wind SSW; Force moderate; Sky clear.
7677	Gay Head Lt. SXW½W; Prospect Hill ESE 1/8 E.	"	17.	3:33 p.m. to 3:45 p.m.	11½	hrd.S.	72	0	23.0	0	1.0224	scrape dr.; 7 ft. B. T.	-	-	W	0.50	Wind SSW; Force moderate; Sky clear.

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Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1905. 107 95.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7678	Prospect Hill SEXS; Gay Head Lt. SW¾W.		July 17.	4:18 p.m. to 4:30 p.m.	12½	hrd.	71	0	23.0	0	1.0226	scrape dr.; 7 ft. B. T.	-	-	W	0.50	Wind SSW; Force moderate; Sky clear.
7679	Pasque to Nashawena 40°07'; Nashawena to Cuttyhunk 27° 05'.		" 24.	2:51 p.m.	13½	hrd.S.		0	19.5	0	1.022	scrape dr.; 7 ft. B. T.	-	-	-	-	
7680	Pasque to Nashawena 33°22'; Nashawena to Cuttyhunk 22° 30'.		" 24.	3:10 p.m. to 3:19 p.m.	13½	hrd.S.		0	19.5	0	1.022	scrape dr.; 7 ft. B. T.	-	-	-	-	Wind SW; Force moderate; Sky partly cloudy.
7681	Pasque to Nashawena 35°56'; Nashawena to Cuttyhunk 31° 05'.		" 24.	3:44 p.m. to 3:56 p.m.	13½	hrd.S.	69	0	20.0	0	1.0225	scrape dr.; 7 ft. B. T.	-	-	-	-	Wind SW; Force moderate; Sky partly cloudy.
7682	Pasque to Nashawena 37°40'; Nashawena to Cuttyhunk 19° 07'.		" 24.	4:21 p.m. to 4:30 p.m.	19	hrd.S.	68	0	20.0	0 botm.	1.0226 1.0232	scrape dr.; 7 ft. B. T.	-	-	-	-	Wind SW; Force moderate; Sky cloudy.
7683	Gay Head to Nashawena 127° 48'; Nashawena to Cuttyhunk 61°07'.		" 26.	9:35 a.m. to 9:43 a.m.	19½	hrd.S.	67	0	18.5	0 botm.	1.0228 1.023	scrape dr.;	-	-	-	-	Wind WNW; Force moderate;
7684	Gay Head to Nashawena 105° 43'; Nashawena to Cuttyhunk 59°40'.		" 26.	9:49 a.m. to 9:58 a.m.	13½	hrd.S.	67	0	18.5	0 botm.	1.0225 1.023	19" dr.; 7 ft. B. T.	-	-	-	-	Wind WSW; Sky clear.
7685	Gay Head to Nashawena 129° 44'; Nashawena to Cuttyhunk 75°42'.		" 26.	10:18 a.m. to 10:27 a.m.	17	hrd.S.	68	0	20.0	0 botm.	1.0224 1.0228	7 ft. B. T.	-	-	-	-	Wind WSW; Force moderate; Sky clear.
7686	Gay Head to Nashawena 102° 34'; Nashawena to Cuttyhunk 73°55'.		" 26.	10:38 a.m. to 10:23 a.m.	17½	hrd.S.	68	0	18.0	0 botm.	1.0226 1.023	boat dr.; 7 ft. B. T.	-	-	-	-	Wind WSW; Force stiff; Sky clear.
7687	Gay Head to Nashawena 105° 11'; Nashawena to Cuttyhunk 109°25'.		" 26.	11:06 a.m. to 11:16 a.m.	12	hrd.S.	68	0	19.4	0 botm.	1.0224 1.0224	7 ft. B. T.; boat dr.	-	-	-	-	Wind WSW; Sky clear.
7688	Gay Head to Nashawena 90° 36'; Nashawena to Cutty-hunk 96°36'.		" 26.	11:24 a.m. to 11:39 a.m.	13	hrd.S.	68	0	19.5	0 botm.	1.0222 1.0226	7 ft. B. T.; boat dr.	-	-	-	-	Wind WSW; Force moderate; Sky clear.
7689	Nashawena to L.S.S.Cutty-hunk 92°12'; Nashawena to Cuttyhunk 46°59'.		" 26.	1:19 p.m.	9	hrd.S.R.	75	0	20.0	0 botm.	1.0224 1.0222	oys. dr.	-	-	-	-	Wind WSW; Force moderate; Sky clear.
7690	Gayhead to Nashawena 70° 11'; Nashawena to Cutty-hunk 106°47'.		" 26.	1:38 p.m.	9	rky.	75	0	18.8	0 botm.	1.0224 1.0222	7 ft. B. T.; m.b.	-	-	-	-	Partly cloudy.
7691	Gay Head to Nashawena 69° 46'; Nashawena to Cutty-hunk 119°59'.		" 26.	1:59 p.m.	9	rky.	75	0	18.0	0 botm.	1.0222 1.0226	7 ft. B. T.; m.b.	-	-	-	-	Sky partly clear.

This space to be left for binding.

Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1905.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7692	Gay Head to Nashawena 61° 57'; Nashawena to Cuttyhunk 80°06'.		July 26.	2:18 p.m.	9	rky.	75	0	18.0	0 botm.	1.0224 1.0226	oys. dr.	-	-	-	-	Wind WSW; stiff; sky partly clear.
7693	Gay Head to Nashawena 182° 15'; Nashawena to Cuttyhunk 132°50'.		" 26.	2:38 p.m.	10	hrd.S.	73	0	18.0	0 botm.	1.0222 1.0224	7 ft. B. T.	-	-	-	-	Wind WSW; stiff; Sky partly cloudy.
7694	Naushon SW to Nashawena 46°37'; Nashawena to Cuttyhunk 99°32'.		" 26.	2:59 p.m.	12½	hrd.S.	73	0	19.0	0 botm.	1.0222 1.0226	oys. dr.	-	-	-	-	Wind WSW; Force moderate; Sky clear.
7695	Naushon SW to Pasque 51° 25'; Pasque to Nashawena 90°38'.		" 26.	3:19 p.m.	10½	s.	73	0	19.20	0 botm.	1.0222 1.022	oys. dr.	-	-	-	-	Wind WSW; Sky clear
7696	Naushon SW to Pasque 81° 18'; Pasque to Nashawena 56°28'.		" 26.	3:35 p.m.	10	s.	70	0	19.0	0 botm.	1.0222 1.022	oys. dr.	-	-	-	-	Wind WSW; Force moderate; Sky clear.
7697	Tarpaulin Cove to Naushon SW 36°41'; Naushon SW to Pasque 66°33'.		" 26.	3:54 p.m.	13	hrd.S.	69	0	19.5	0 botm.	1.022 1.0224	7 ft. B. T.	-	-	-	-	Wind SW; Force moderate; Sky partly cloudy.
7698	Nashawena to Gay Head 90° 02'; Gay Head to Prospect 75°27'.		" 28.	9:22 a.m.	12	hrd.S.	70	0	19.0	0 botm.	1.0224 1.0228	9 ft. B. T.	-	-	-	-	Wind SW; Force light; Sky partly cloudy.
7699	Nashawena to Gay Head 87° 35'; Gay Head to Prospect 68°49'.		" 28.	9:47 a.m.	10	S.	70	0 botm.	F. 68 69	0 botm.	1.022 1.0225	9 ft. B. T.	-	-	-	-	Wind SW; Force light; Sky partly cloudy.
7700	Nashawena to Gay Head 92° 20'; Gay Head to Prospect 66°35'.		" 28.	10:06 a.m.	10	hrd.S.	70	0 botm.	69 66	0 botm.	1.022 1.0225	9 ft. B. T.	-	-	-	-	Wind W; Force light; Sky partly cloudy.
7701	Nashawena to Gay Head 101° 35'; Gay Head to Prospect 58°19'.		" 28.	10:29 a.m.	13	hrd.S.	70	0 botm.	67 65	0 botm.	1.0222 1.0224	9 ft. B. T.	-	-	-	-	Wind W; Force light; Sky partly clear.
7702	Nashawena to Gay Head 121° 42'; Gay Head to Prospect 68°43'.		" 28.	11:00 a.m.	13		70	0 botm.	69 65	0 botm.	1.022 1.0225	7 ft. B. T.	-	-	-	-	Wind SW; Force light; Sky cloudy and hazy.
7703	Nashawena to Gay Head 129° 05'; Gay Head to Prospect 55°23'.		" 28.	11:28 a.m.	12	hrd.S.	70	0 botm.	66 67	0 botm.	1.022 1.0225	9 ft. B. T.	-	-	-	-	Wind W; Force light; Sky hazy.
7704	Pasque to Nashawena 72°12'; Nashawena to Cuttyhunk 43° 23'.		" 31.	9:48 a.m.	10½	hrd.S.	69	0 botm.	64 66	0 botm.	1.0225 1.023	9 ft. B. T.; m.b.	-	-	-	-	Wind W; Force light; Sky cloudy.
7705	Pasque to Nashawena 53°47'; Nashawena to Cuttyhunk 43° 55'.		" 31.	10:05 a.m.	7½	hrd.S.	69	0 botm.	65 64	0 botm.	1.0223 1.023	9 ft. B. T.; m.b.	-	-	-	-	Wind W; Force light; Sky cloudy.

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Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY FISH HAWK 1905. 1098

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7706	Pasque to Nashawena 43°33'; Nashawena to Cuttyhunk 38° 13'.		July 31.	10:20 a.m.	13½		70	0	65	0	1.0222	9 ft. B. T.; m.b.	-	-	-	-	
								botm.	63	botm.	1.023						Wind W; Force light Sky cloudy.
7707	Pasque to Cuttyhunk 63°41'; Cuttyhunk to Gay Head 131° 22'.		" 31.	11:00 a.m.	15	hrd.S.	69	0	65	0	1.022	9 ft. B. T.; m.b.	-	-	-	-	
								botm.	62	botm.	1.0228						Wind NNW; Force light; Sky cloudy.
7708	Pasque to Nashawena 30°23'; Nashawena to Cuttyhunk 41° 34'.		" 31.	11:17 a.m.	13½	hrd.S.	69	0	65	0	1.022	9 ft. B. T.;	-	-	-	-	
								botm.	63	botm.	1.0228						Wind NNW; Force moderate; Sky cloudy.
7709	Pasque to Nashawena 33°35' Nashawena to Cuttyhunk 48° 02'.		" 31.	11:32 a.m.	13½		69	0	65	0	1.0222	9 ft. B. T.; m.b.	-	-	-	-	
								botm.	63	botm.	1.0223						Wind NNW; Sky cloudy.
7710	Pasque to Nashawena 30°26'; Nashawena to Cuttyhunk 65° 37'.		" 31.	11:49 a.m.	13½	hrd.S.	69	0	65	0	1.0222	9 ft. B. T.	-	-	-	-	
								botm.	61	botm.	1.023						Wind NNW; Force moderate; Sky cloudy; rain, light.
MUSKEGET CHANNEL																	
7711	Middle of Skiffs Id. SW¾W; Mutton shoal buoy SXW¾W.		Aug. 2.	10:04 a.m.	7½		68	0	63	0	1.0228	7 ft. B. T.; m.b.	-	-	-	-	
								botm.	65	botm.	1.023						Wind SW; Sky clear.
7712	Mutton shoal buoy SSW; Skiffs Id. SWXW¾W.		" 2.	10:23 a.m.	8	hrd.S.	68	0	64	0	1.0228	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	64	botm.	1.0228						WIND SWXW; Sky clear.
7713	Mutton shoal buoy SXW 5/8 W; Skiffs Id. WXN.		" 2.	10:42 a.m.	8	hrd.S.	68	0	64	0	1.0225	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	64	botm.	1.0227						Wind SWXW; Stiff; sky clear.
7714	Muskeget L.S.S. E 3/8 N; Skiffs Island N½E.		" 2.	11:04 a.m.	13½	hrd.S.	68	0	64	0	1.0225	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	64	botm.	1.0228						Wind SWXW; Sky clear.
7715	Muskeget L.S.S. WXN; Mutton shoal buoy NE 5/8 N.		" 2.	11:21 a.m.	7½	hrd.S.	68	0	64	0	1.0226	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	64	botm.	1.0226						Wind WSW; Sky clear.
7716	Skiffs Island NXW¾E; Muskeget L.S.S. ENE¾E.		" 2.	11:41 a.m.	7	hrd.S.	68	0	64	0	1.0224	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	64	botm.	1.0228						Wind WSW; Sky clear.
VINEYARD SOUND, MASS.																	
7717	Naushon SW to Nashawena 45° 16'; Nashawena to Cutty-hunk 52°46'.		" 4.	9:52 a.m.	13½	hrd.S.	68	0	65	0	1.0222		-	-	-	-	
								botm.	61	botm.	1.0228						Sky partly cloudy.
7718	Naushon SW to Nashawena 43° 32'; Nashawena to Cuttyhunk 45°55'.		" 4.	10:13 a.m.	14		68	0	65	0	1.0222	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	61	botm.	1.023						Wind SWXS; Sky partly cloudy.
7719	Naushon SW to Nashawena 43° 01'; Nashawena to Cuttyhunk 40°30'.		" 4.	10:31 a.m.	17	hrd.S.	68	0	63	0	1.0225	7 ft. B.T.; m.b.	-	-	-	-	
								botm.	62	botm.	1.023						Wind SW; Force light; Sky partly cloudy.

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Form 625.

RECORD OF VINEYARD SOUND, MASS. INVESTIGATION BY Fish Hawk 1905. 110 98.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7720	Naushon SW to Nashawena 42°51'; Nashawena to Cuttyhunk 37°31'.		Aug. 4.	10:54 a.m.	13½		68	0	62	0	1.0228	7 ft. B.T.; m.b.	-	-	-	-	Wind SW.
								bottm.	62	bottm.	1.023						
7721	Naushon SW to Nashawena 32°50'; Nashawena to Cuttyhunk 51°13'.		" 4.	11:19 a.m.	13½	hrd.S.R.	68	0	65	0	1.0222	7 ft. B.T.; m.b.	-	-	-	-	Light SW wind; Sky partly cloudy.
								bottm.	59	bottm.	1.023						
7722	Naushon SW to Nashawena 37°27'; Nashawena to Cuttyhunk 40°51'.		" 4.	11:47 a.m.	13	hrd.S.	68	0	66	0	1.0222	7 ft. B.T.; m.b.	-	-	-	-	Wind SSW; Sky hazy.
								bottm.	60	bottm.	1.023						
7723	Cuttyhunk to Gay Head 77° 59'; Gay Head to Prospect 126°35'.		" 4.	1:34 p.m.	13	hrd.S.	75	0	65	0	1.0222	7 ft. B.T.; m.b.	-	-	-	-	Wind WSW; Sky cloudy
								bottm.	64	bottm.	1.0225						
7724	Gay Head to Prospect 141° 44'; Prospect hill to tangent Cedar tree neck 66°58'.		" 8.	9:08 a.m.	10	hrd.S.	73	0	66	0	1.0222	9 ft. B.T.; m.b.	-	-	-	-	Sky cloudy.
								botm.	67	botm.	1.0222						
7725	Gay Head to Prospect 116° 32'; Prospect to tangent Cedar tree neck 75°49'.		" 8.	9:25 a.m.	10	hrd.S.	73	0	65	0	1.0222	9 ft. B.T.; m.b.	-	-	-	-	Wind calm; Sky cloudy.
								botm.	67	botm.	1.0222						
7726	Gay Head to Prospect 105° 24'; Prospect hills to Tarpaulin Cove 110°33'.		" 8.	9:42 a.m.	15		73	0	66	0	1.0222	9 ft. B.T.; m.b.	-	-	-	-	Sky cloudy.
								bottm.	67	botm.	1.0224						
7727	Gay Head to Prospect 93° 07'; Prospect hills to Tarpaulin Cove 103°56'.		" 8.	10:01 a.m.	12	hrd.S.	73	0	65	0	1.0222	9 ft. B.T.; m.b.	-	-	-	-	Wind calm; light rain; Sky cloudy.
								botm.									
7728	Prospect to Pasque 98°45'; Pasque to Gay Head 83°03'. Prospect hills E¼N.		" 8.	10:33 a.m.	8	stk.	73	0	68	0	1.0224	9 ft. B.T.; m.b.	-	-	-	-	Rain light; Sky cloudy.
7729	Prospect to Pasque 116°51'; Pasque to Gay Head 101°01'. Prospect EXS 7/8 S.		" 8.	10:52 a.m.	10½	hrd.S.	73	0	66	0	1.0224	9 ft. B.T.; m.b.	-	-	-	-	Wind SW; light rain; Sky cloudy.
								botm.	67	botm.	1.0226						
7730	Prospect to Nashawena 115° 59'; Nashawena to Gay Head 87°59'; Gay Head WXS 5/8 S.		" 8.	11:14 a.m.	12	hrd.S.	72	0	66	0	1.0224	9 ft. B.T.; m.b.	-	-	-	-	Wind SW; Force moderate; Sky cloudy.
								botm.	66.5	botm.	1.0226						
7731	Naushon SW to Nashawena 43°17'; Nashawena to Cuttyhunk 30°06'; Gay Head SXW¼W.		" 8.	11:38 a.m.	12	hrd.S.	73	0	65	0	1.0224	9 ft. B.T.; m.b.	-	-	-	-	Wind SW; Sky partly cloudy.
								botm.	66	botm.	1.0222						
7732	Naushon to Tarpaulin Cove 59°26'; Tarpaulin Cove to Naushon SW 37°34'.		" 10.	1:26 p.m.	12½			0	72	0	1.0218	9 ft. B.T.; m.b.	-	-	-	-	Wind SW; Sky cloudy.
								botm.	69	botm.	1.022						

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Form 625.

RECORD OF VINEYARD SOUND — INVESTIGATION BY FISH HAWK 1905

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7733	Naushon to Tarpaulin Cove 16°40'; Tarpaulin Cove to Naushon S.W. 67°51'.		Aug. 10.	1:48 p.m.	13	hrd.S.		0 botm.	71 69	0 botm.	1.022 1.022	9 ft. B. T.;m.b.	-	8			
7734	Tarpaulin Cove to Naushon SW 31°18'; Naushon SW to Pasque 52°28.		" 10.	2:14 p.m.	10	hrd.S.	70	botm.	68	0 botm.	1.022 1.022	9 ft. B. T.;m.b.	-	8			Wind SW; Force fresh; Sky cloudy.
7735	Gay Head to Prospect 66°; Prospect to Cape Higgon 43°57.		" 10.	2:36 p.m.	9	hrd.	74	0 botm.	69.5 67	0 botm.	1.0222 1.0224	9 ft. B.T.; m.b.	-	8			Fresh SW wind, Sky cloudy.
7736	Prospect to Cape Higgon 56°20'; Cape Higgon to Tarpaulin Cove 112°03'.		" 10.	2:59 p.m.	13	hrd.S.	74	0 botm.	69 70	0 botm.	1.0222 1.0224	9 ft. B.T.; m.b.	-	7			Fresh SW wind, sky cloudy. Sky cloudy.
7737	Nobska Pt. to Naushon 120° 51'; Naushon to Tarpaulin Cove 32°08'.		" 12.	9:02 a.m.	12	P.	73	0 botm.	68 67	0 botm.	1.0224 1.023	9 ft. B.T.; m.b.	-	8			Fresh SW wind, sky cloudy.
7738	Nobska Pt. to Naushon 85° 18'; Naushon to Tarpaulin Cove 72°44'.		" 12.	9:25 a.m.	12	S.G.	73	0 botm.	68 67	0 botm.	1.0222 1.0224	9 ft. B.T.; m.b.	-	4			Moderate SW wind; sky cloudy.
7739	Nobska Pt. to Naushon 74° 21'; Naushon to Tarpaulin Cove 37°56'.		" 12.	9:42 a.m.	8	hrd.S.G.	73	0 botm.	68 67	0 botm.	1.0222 1.0224	9 ft. B.T.; m.b.	-	9			Fresh SW wind; sky cloudy.
7740	Cape Higgon to Indian 73° 16'; Indian to Nortons Pt. 48°02'.		" 12.	9:57 a.m.	15	hrd.S.G.	73	0 botm.	69 67	0 botm.	1.0224 1.0224	9 ft. B.T.; m.b.	-	8			Fresh SW wind; sky cloudy.
7741	Prospect to Indian 112°23'; Indian to Nortons Pt. 22° 27'.		" 12.	10:25 a.m.	15	hrd.S.SH.	73	0 botm.	69 66	0 botm.	1.0224 1.0224	9 ft. B.T.; m.b.	-	9			Wind SW: Sky cloudy
7742	Nobska to Naushon 101°34'; Naushon to Naushon SW 35° 47'.		" 17.	8:29 a.m.	9½	rky.	67	0 botm.	68 67	0 botm.	1.0222 1.0224	7 ft. B.T.; m.b.	-	-			Wind NE: Sky clear.
7743	Nobska to Naushon 99°40'; Naushon to Naushon SW 37° 44'.		" 17.	8:50 a.m.	10½	rky.	67	0 botm.	69 67	0 botm.	1.0222 1.0222	dys. dr.	-	4			Moderate east wind; Sky clear.
7744	Nobska to Tarpaulin Cove 90°58'; Tarpaulin to Nashawena 31°05'.		" 17.	9:12 a.m.	12½	hrd.S.	67	0 botm.	69 68	0 botm.	1.0222 1.0222	7 ft. B.T.; m.b.	-	6			Wind east; Force 4; Sky clear.
7745	Nobska to Naushon 73°55'; Naushon to Naushon SW 33° 46'.		" 17.	9:33 a.m.	12	hrd.S.	67	0 botm.	70 68	0 botm.	1.022 1.0222	7 ft. B.T.; m.b.	-	7			Sky clear.
7746	Gay Head to Norton Pt. 48° 20'; Norton Pt. to West Chop 78°24'.		" 17.	10:00 a.m.	14	hrd.S.	67	0 botm.	71 69	0 botm.	1.022 1.0224	7 ft. B.T.; m.b.	-	-			Wind ENE: Force 4; Sky clear.

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Form 625.

117

INVESTIGATION BY Fish Hawk 19 13.

RECORD OF VINEYARD SOUND

INVESTIGATION BY FISH HAWK 1905

112

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7747	Gay Head to Indian 23°16'; Indian to West Chop 89° 40'.		Aug. 17.	10:16 a.m.	14	St.	67	0	72	0	1.022	7 ft. B.T.; m.b.	-	8			Wind NE; Sky clear.
								botm.	70	botm.	1.0222						
7748	Observatory to Nobska 82° 37'; Nobska to Tarpaulin Cove 43°55'.		" 17.	10:35 a.m.	13	P.S.	67	0	72	0	1.022	7 ft. B.T.; m.b.	-	-			Sky clear.
								botm.	70	botm.	1.0224						
7749	Observatory to Nobska 59° 30'; Nobska to Tarpaulin Cove 56°10'.		" 17.	10:58 a.m.	10½	hrd.S.	67	0	70	0	1.022	7 ft. B.T.; m.b.	-	-			Wind E; Sky clear.
								botm.	69	botm.	1.022						
7750	Observatory to Nobska 50° 33'; Nobska to Tarpaulin Cove 56°48'.		" 17.	11:16 a.m.		s.	67	0	70	0	1.022	7 ft. B.T.; m.b.	-	4			Wind E; Sky clear.
								botm.	68	botm.	1.0222						
7751	Observatory to Nobska 42° 31'; Nobska to Tarpaulin Cove 69°45'.		" 17.	11:31 a.m.	9½	S.	67	0	70	0	1.022	9 ft. B.T.; m.b.	-	5½			Wind E; Sky clear.
								botm.	68	botm.	1.0222						
7752	Observatory to Nobska 32° 42'; Nobska to Tarpaulin Cove 87°32'.		" 17.	11:50 a.m.	10	S. P.	70	0	70	0	1.022	7 ft. B.T.; m.b.	-	8			Wind E; Sky clear.
								botm.	69	botm.	1.0222						
7753	Naushon SW to Indian 66° 35'; Indian to West Chop 75°22'.		" 17.	1:35 p.m.	13½	P.	69	0	71	0	1.0218	7 ft. B.T.; m.b.	-	-			Wind ESE; Force moderate; Sky clear.
								botm.	70	botm.	1.022						
7754	Indian to West Chop 76°29'; West Chop to Observatory 63°53'.		" 17.	2:01 p.m.	13½	P.S.	70	0	70	0	1.0216	7 ft. B.T.; m.b.	-	-			Wind E; Sky clear.
								botm.	69	botm.	1.0218						
7755	Observatory to Nobska 95° 43'; Nobska to Naushon SW 61°20'.		" 17.	2:30 p.m.	10	S.G.	69	0	70	0	1.0218	7 ft. B.T.; m.b.	-	11½			Wind ESE; Sky clear
								botm.	70	botm.	1.022						
7756	Observatory to Nobska 88° 05'; Nobska to Tarpaulin Cove 53°14'.		" 21.	8:25 a.m.	11½	St. P.	68	0	69.5	0	1.022	9 ft. B.T.; m.b.	-	8			Wind WNW; light; Sky partly clear.
								botm.	70	botm.	1.0222						
7757	Observatory to Nobska 68° 21'; Nobska to Norton's Pt. 78°49'.		" 21.	8:45 a.m.	13	St. Sh.		0	69	0	1.0222	9 ft. B.T.; m.b.	-	8			Wind WNW; Sky partly clear.
								botm.	69	botm.	1.0224						
7758	Observatory to Nobska 62 Nobska to Norton's 69°22' Cut. bouy to Obs. 147°27'.		" 21.	9:09 a.m.	13	St. Sh.	72	0	69	0	1.0222	9 ft. B.T.; m.b.	-	-			Wind W, light; Sky clear.
								botm.	69	botm.	1.0222						
7759	Observatory to Nobska 53°05'; Nobska to Norton's Pt. 61° 15'; Can buoy to E. Chop 78°50'.		" 21.	9:25 a.m.	11½	S.St.	72	0	69	0	1.022	9 ft. B.T.; m.b.	-	8			Wind calm; Sky clear
								botm.	69	botm.	1.0222						
7760	Water tank to W. Chop 61° 28'; W. Chop to E. Chop 113°11'; Cut. Canbuoy in H.F. to E. Chop 125°36'.		" 21.	9:41 a.m.	8½	P.Sh.	72	0	69	0	1.022	9 ft. B.T.; m.b.	-	-			Wind calm.
								botm.	69	botm.	1.022						

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Form 625.

RECORD OF VINEYARD SOUND. INVESTIGATION BY FISH HAWK 1905

117 113 ~~107~~.

11—6014

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7761	Nobska to V. H. Water Tower 72°56'; V. H. Water Tower to E. Chop 86°46'; Cut E. Chop to S. buoy off E. Chop.		Aug. 21.	9:58 a.m.	7	S. Sh.	72	0 botm.	69 69	0 botm.	1.0222 1.022	9 ft. B.T.;m.b.	-	-	-	-	Wind calm; Sky clear
7762	W. Chop to V.H. Water tower 78°13'; Water tower to E. Chop 134°50'; W. Chop to Can buoy off W.Chop 19° 28'.		" 21.	10:15 a.m.	4	M.Sh.	72	0 botm.	70 70	0 botm.	1.0222 1.0222	9 ft. B.T.; m.b.	-	-	-	-	Sky clear.
7763	Nobska to W. Chop 61°01'; W. Chop to E. Chop 72°18'; Cut Canbuoy on H.F. E. Chop 102°22'.		" 21.	10:45 a.m.	13	Sh.P.	72	0 botm.	70 70	0 botm.	1.0222 1.0222	9 ft. B.T.; m.b.	-	-	-	-	Wind ESE; Sky clear.
7764	Nobska to W. Chop 72°31'; W. Chop to E. Chop 45°55'; Fal. water tower to W.Chop 108°20'.		" 21.	11:05 a.m.	6	S.	72	0 botm.	70.5 70	0 botm.	1.022 1.022	9 ft. B.T.; m.b.	-	8	-	-	Wind ESE; Sky clear.
7765	Nobska to W. Chop 81°10'; W. Chop to E. Chop 55°59'; Spar buoy off Falmouth to Nobska 60°18'.		" 21.	11:22 a.m.	13½	rky.	72	0 botm.	71 69.5	0 botm.	1.022 1.022	9 ft. B.T.; m.b.	-	-	-	-	Wind SE; Force moderate; Sky clear.
7766	Nobska to W. Chop 74°03'; W. Chop to E. Chop 31°41'; Spar bouy to W. Chop 100° 48'.		" 21.	11:46 a.m.	5	P.S.	72	0 botm.	70 70	0 botm.	1.022 1.022	9 ft. B.T.; m.b.	-	-	-	-	Wind SE; Sky clear.
7767	Nobska to W. Chop 76°21'; W. Chop to E. Chop 36°35'.		" 23.	1:38 p.m.	10-4	S. P.	81	0 botm.	70 70	0 botm.	1.022 1.0222	9 ft. B.T.; m.b.	-	8	-	-	Wind SW; Sky clear.
7768	Nobska to W. Chop 96°45'; W. Chop to E. Chop 35°47'.		" 23.	2:01 p.m.	10	St.	81	0 botm.	71 69.5	0 botm.	1.0221 1.0222	9 ft. B.T.; m.b.	-	8	-	-	Wind SW, light; Sky clear.
7769	Nobska to W. Chop 93°20'; W. Chop to E. Chop 28°25'.		" 23.	2:19 p.m.	7	P.	81	0 botm.	71 71	0 botm.	1.0221 1.0223	9 ft. B.T.; m.b.	-	8	-	-	Wind SW, light; Sky clear.
7770	Nobska to W. Chop 108°34'; W. Chop to E. Chop 27°53'.		" 23.	2:36 p.m.	10	S. P.	81	0 botm.	71 69.5	0 botm.	1.0219 1.0221	9 ft. B.T.	-	8	-	-	Wind E; Sky clear.
7771	Nobska to W. Chop 102°48'; W. Chop to E. Chop 20°14'.		" 23.	2:56 p.m.	7	S. R.	81	0 botm.	71 69.5	0 botm.	1.0218 1.0218	9 ft. B.T.; m.b.	-	3½	-	-	Wind E; light; Sky clear.
7772	Nobska to W. Chop 115°34'; West Chop to E. Chop 19°19'.		" 23.	3:07 p.m.	6½	S. P.	81	0 botm.	71 69	0 botm.	1.0219 1.0219	9 ft. B.T.; m.b.	-	-	-	-	Wind SE: Sky hazy.
7773	E. Chop to Observatory 109° 41'; Observatory to Nobska 92°52'.		" 23.	3:23 p.m.	11	P. St.	80	0 botm.	71 69	0 botm.	1.0219 1.0222	9 ft. B.T.; m.b.	-	8	-	-	Wind SE: Sky clear.
7774	Water tower to Nobska 80° 58'; Nobska to W. Chop 113°21'.		" 23.	3:43 p.m.	7½	P.	75	0 botm.	70.5 69	0 botm.	1.0221 1.0221	9 ft. B.T.; m.b.	-	8	-	-	Sky clear.

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Form 625.

INVESTIGATION BY Fish Hawk 1913. 117

RECORD OF VINEYARD SOUND

INVESTIGATION BY FISH HAWK 1905 114

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7775	Observatory to Nobska 108 Nobska to Norton's Pt. 87° 33'.		Aug. 23.	3:59 p.m.	9	P. St.	75	0 botm.	70 68.5	0 botm.	1.0221 1.0220	9 ft. B.T.; m.b.	-	8	-	-	Wind SE; Sky clear.
7776	Water tower to Nobska 121° 21'; Nobska to Norton's Pt. 43°15'.		" 23.	4:20 p.m.	7	St.Sh.	75	0 botm.	72 69	0 botm.	1.0218 1.0219	9 ft. B.T.; m.b.	-	12	-	-	Sky clear.
7777	Falmouth Water tank to Nobska 49°03'; Nobska to E. Chop 92°19'; S. H. NE 7/8N - W. Chop S 11° W.		" 26.	8:35 a.m.	5½	S. P.	63	0 botm.	69 70	0 botm.	1.022 1.0224	9 ft. B.T.; m.b.	-	8	-	-	Wind NE; Sky cloudy
7778	Fal. Water Tank to Nobska 59°42'; Nobska to E. chop 88°47'; S. H. NXW 7/8 W W. Chop S 6° W.		" 26.	8:49 a.m.	4	S. P.	63	0 botm.	68 69	0 botm.	1.0222 1.0224	9 ft. B.T.; m.b.	-	-	-	-	Sky partly cloudy.
7779	Fal. water tank to Nobska 46°29'; Nobska to E. Chop 104°21'; S.H. NW¾N E Chop S 9° E.		" 26.	9:17 a.m.	12½	S.	63	0 botm.	69.5 70	0 botm.	1.022 1.0222	9 ft. B.T.; m.b.	-	-	-	-	Wind NE; Sky partly cloudy.
7780	Water tank to Nobska 64° 02'; Nobska to E. Chop 101° 21'; S.H. NWXN½N W Chop S 3° W.		" 26.	9:32 a.m.	7½	S. P.	63	0 botm.	70 70	0 botm.	1.022 1.0222	9 ft. B.T.; m.b.	-	8	-	-	Wind NE; Sky partly cloudy.
7781	Fal. water tank to Nobska 95°20'; Nobska to E. Chop 91°; SH NW½N - W Chop S 8° E.		" 26.	9:46 a.m.	5	crs.S. P.	63	0 botm.	70 69	0 botm.	1.022 1.022	9 ft. B.T.; m.b.	-	-	-	-	Wind NE; Sky partly cloudy.
7782	Fal. water tank to Nobska 60°57'; Nobska to E. Chop 112°47'; S.H. NW 3/8 N - W. Chop S 3° W.		" 26.	10:18 a.m.	10	S. P.	64	0 botm.	70 70	0 botm.	1.022 1.022	9 ft. B.T.; m.b.	-	8	-	-	Wind NE, moderate; Sky partly cloudy.
7783	Fal. water tank to Nobska 94°53'; Nobska to E. Chop 106°38'; S.H. NW½N - W. Chop S 15° E.		" 26.	10:32 a.m.	5	S. P.	65	0 botm.	70 70	0 botm.	1.0218 1.022	9 ft. B.T.; m.b.	-	13½	-	-	Wind NE, moderate; Sky partly cloudy.
7784	94.3 P.L.; Pat log at Noman's land 76.4 Course SXW mag.		" 28.	1:26 p.m.	29		69	0 botm.	61 54	0 botm.	1.0235 1.024	9 ft. B.T.; m.b.	-	16	-	-	Wind NW, light; Sky cloudy.
7785	P. L. 102.2; Course SXW mag.		" 28.	3:06 p.m.	31		69	0 botm.	64 49	0 botm.	1.0236 1.0246	9 ft. B.T.; m.b.	-	20	-	-	Wind NW, light; Sky cloudy.
7786	P. L. 109.5; Course SXW mag.		" 28.	4:25 p.m.	34		68	0 botm.	64 48	0 botm.	1.0238 1.0245	9 ft. B.T.; m.b.	-	23	-	-	Wind NNW, light; Sky partly cloudy.

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Form 625.

RECORD OF Investigating Laboratory Site on So. & West Coasts of Florida INVESTIGATION BY Fish Hawk 1913.

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. surface	Temperature. Water. bot'm	Salinity. ~~Density~~ (Sp. Gr.)	Salinity. Salinity. surface	Salinity. Salinity. bottom	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Remarks.
7787	Sand Key West 8½ miles		1912 Dec. 18	7;30 A.M.	31			77.5	74.5	1.0240			Plankton nets	0	min 40	
													7' 6" B.T.	Bot'm	30	
7788	Knights Bay NNE 1 mile		" 19	8.00 A.M.				74.7	75.0	1.0269			Plankton nets	0	60	
7789	Duck Key NNE 1.5 miles		" "	12.45 P.M.									4' Plankton net	1	60	
7790	Duck Bay n. 1.25 miles		" 20	6.00 A.M.	2¾			75.5		1.0269			Plankton nets	0	60	
XXXX				7.00 "		Co.S.grass	62.5	69.5	69.5	1.0282						
				7.35 "		Co.Sh.							7' 6" B.T.	4	5	
7791	Pigeon Key N 3½ miles		" 20	9.15 "									7' 6" B.T.	Bot.	7	
7792	Rock Pt.Boca Cluca N.W. 1¼ miles		" "	1.00 P.M.				73.5		1.0273			4' Plankton net	0-2½	15	
7793	Key West Harbor		" "	5.00 "									4' Plankton nets	0-1½	30	
				8.00 "				73.5	73.5							
7794	Garden Key, Dry Tortugas WNW 5 to 12¼ miles		" 24	12.55 "									#1,#3,#20	0	165	
			" "	2.00			77.5	75.5		1.0286						
			" 25	6.00 A.M.	3½								12" Plankton nets	0	35	
	Key West Harbor		" 26	7.00 P.M.									Ditto	0	30	
				9.00 "			72.5	73.75	73.5	1.0271			Shore collecting			
			" 27	8.00 A.M.			74.	73.1	73.5	1.0270			12" Plankton nets	0	120	Anchored
			" 28	8.00 "			76.						Ditto	0	30	"
	Sanibel Is.Lt.SSE 12 M.		" 30	6.00 P.M.	5		64.5	70.	70.				#1,#3,#20	0-2½	60	"
			" 31	6.00 A.M.	5		72.	66.5	66	1.0249	1.0248					
				8.00 "			71.	67.5	66.25							
7795	Sanibel Is.Lt. NE 1¼ M.		" "	12.00 M	2								4' Plankton net	0-1	60	
	En Route to St. James City															Anchored
	Off Middle Point		" "	1.30 P.M.				69.5		1.0227						
	Off James Point		" "	1.45 "				68.5		1.0215						
	Off proposed site		" "	2.30 "	2½			68.5		1.0205	1.0204					
	In bay abreast of Lt.Ho.		" "	3.45 "	4			68.75	68.5	1.0236	1.0238					
	At anchorage		" "	5.00 "	2			68.	68.	1.0232	1.0231					
	Ditto		" "	5.15 "									4' Plankton net	0	90	

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Schmidt says these Corrections to 7787 8 fol. entirely omission in photostats. Insert original No 28 in remarks column. Sheets taken to museum to Mr. Schmitt personally 7/7/25 Edwards

These sheets check up with original Lyons 7/15/25

Form 625.

RECORD OF Investigating Laboratory Site on So. & West Coasts of Florida INVESTIGATION BY Fish Hawk 19 13.

INVESTIGATION BY Fish Hawk 19 13

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees f	Temperature. Water. surface	Temperature. Water. bottom	Salinity. surface	Salinity. bot'm	Apparatus Used.	Tmal. Depth. (fms.)	Tmal. Duration. h. m.	Dept. Direction.	Dept. Distance. (miles.)	Remarks.
7795 a	Bell B.off Sanibel Is.Lt. 10 to 2½ M.			1913 Jan. 1	8.00 A.M.	4¾	Sh.wh.M.								mins			
b	Ditto			" 1	8.45 "								7' 6" B.T.-Md.Bg	Botm	20			
c	do			" 1	9.45 "								#1,#3,#20	0	30			
d	do			" 1	10.45 "	6-7	brk.sh.Co.	71.	67.5	67.	1.0246		4' Plankton net #1,#3,#20	1-2 0	30 30			
7796	Boca Grande Lt.NNE 3/8 E 24½ mi.to NE ¼ N.20 mi.			" 2	8.45 "	12.5							4' Plankton net	0-Bot.			Net wrecked	Net wrecked
					9.20 "	12.5			68.25	68.5	1.0251	1.0251	7' 6" B.T.Md.Bg.	Bot.	20			
7797	Boca Grande Lt·NE½N 15½ miles to NE½N 12 miles			" 2	11.00 "		hrd.smooth	72.	68.00	67.75	1.0250	1.0251	7' 6" B.T.Md.Bg.	Bot.	15			
	Near Punta Gorda red Bn. mouth Peace River			" 2	4.20 P.M.	2.							#1,#3,#20	0	40			
				" 3	6.30 A.M.	2.		73	69.00	69.50	1.0178	1.0180	4' Plankton net	3	40		Net lost	Net lost
				"" 4	5.00 P.M.	2.		64.	69.00	69.00	1.0163	1.0163						
					7.00 A.M.	2.		59	68.25	66.75								
7798 a	Gasparilla Lt.W.S.W.¾W 5¼ miles near Red Buoy#6			" 4	10.20 A.M.			55.	65.00	65.50	1.0158	1.0158						
									65.00	65.00	1.0203	1.0203	#1,#3,#20	0	30			
b	Gasparilla Lt.WSW ¼ W. 2¾ miles Near lower buoy			" 4	11.05 A.M.								Closing net	1	30		Closing net bridle parted. Net lost.	
									65.50		1.0231		#1,#3,#20		30			
7799	Gasparilla Lt.ExS 6¼ mi.			" 4	1.10 P.M.	7	hrd.Sbrk Sh.		65.75		1.0245	1.0246	7' 6" B.T.Md·Bg.	Bot	15			
				" 4	1.40 "		hrd.S.Brk.Sh						#1,#3,#20	0	30			
7800	Gasparilla Lt. SE xE 6½Mi.			" 4	2.35 "		hrd.S.BrkSh.		65.5									
					3.10 "		" " " "						7' 6" B.T.Md.Bg.	Bot.	20			
	At anchor off the beach			" "	4.30 "	4							#1,#3,#20	0	35			
7801	Sarasota Pt. NExE 9½ Mi.			" 5	9.35 A.M.				68.50	64.90	1.0242	1.0243						
7802	Longboat Inlet ENE 4½ Mi.			" "	10.15 "		rf. Co.	68.	64.75	65.00	1.0243	1.0243	7' 6" B.T. Md.Bg.	Bot.	19		Trawl torn. Mud. bag carried away.	
					11.45 "		" "						#1,#3,#20	0	30			
	Port Tampa Wharf				2.00 P.M.		S.Brk·Sh.				1.0235		7' 6" B.T. Md.Bg.	Bot.	30			
	Terracoia Pt.Bn.SSE½E ¾ Miles Mouth of Manatee R.			" 7	4.00 "						1.0166						High tide	
				" 8	5.00 "			71.	67.50	67.00	1.0216	1.0220						
				" 9	7.30 A.M.				68.00	68.00	1.0212	1.0215	#3		½	30	High tide	
7803	Egmont Key Lt. E½S 12 Mi.			" "	11.00 "	6½		72.5	67.25	64.85	1.0240	1.0244	7' 6" B.T. Md. Bg.	Bot	30			
7804	Johns Pass Bn·E¾N 9½ Mi.			" "	1.45 P.M.	6							#3,#1,#20	0	30			
	1/3 Mi. S. of Quarantoon Pier at entrance to Tampa Bay			" "	5.00 P.M.	5			67.50		1.0234		#1,#3,#20	0	25			
													7' 6" B.T. Md.Bg	Bot.	20			
								71.	66.50	65.70	1.0224	1.0230	#3	0	45		At anchor	

This space to be left for binding.

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RECORD OF Investigating Laboratory Site on So. & West Coasts of Florida INVESTIGATION BY Fish Hawk 19 13.

11—6014

Sta. Nu.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees F	Temperature. Water. surface	Temperature. Water. botm.	Salinity. surface	Salinity. Botm.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m. mins.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	1/3 Mi. S. of Quaranteen Pier at entrance to Tampa Bay.		Jan. 9	6.40 P.M.	5							#3,#20	0	60			
			" 10	6.45 A.M.	5							#3,#20	0	60			
7805	Johns Pass Bn. B½S 8¼ Mi.		" "	1.35 P.M.		fne gy s.		67.80		1.0231		#1,#3,#20 Dredge	0 botm	15 8			
	Anclote Anchorage NNE ¼ mi.		" 10	4.15 P.M.	3		69	67.00	64.45		1.0216						
7806	Anclote Lt. E 1/8 S.14 Mi.		" 11	7.35 A.M.	8½	Co.	67	65.10	63.95	1.0239	1.0243	Dredge #1,#3,#20 Dredge 7' 6" B.T.	botm 0 botm "	8 30 5 5			Badly torn
7807	Cedar Keys Lt. N¾ E 21¾Mi		" 11	12.30 P.M.	5¾	Co.		63.60	63.45	1.0240	1.0241	#1,#3,#20 dredge	0 botm	30 3			Badly torn
7808	Cedar Keys Lt. NNE ¾ N 11¼ miles		" 11	1.30 P.M.	5½	Co. Sh.		63.60	63.45	1.0241	1.0240	#1,#3,#20 Dredge 7' 6" B.T.	0 botm botm	30 10 10			
	Cedar Keys Lt. NxE 2-3/8 Mi.		" 11	3.30 P.M.	2½		74	64.60	63.20	1.0225	1.0226	Hook & Line	botm				At anchor
	Carrabelle Lt. NW 3/8N 4-¾ miles		" 13	5.40 P.M.	4¼		60	59.10	58.70	1.0221	1.0227	#1,#3	0-1	120			At anchor
			" 14	6.00 A.M.	4¼		51	58.10	58.20	1.0219	1.0226						
	Off Carrabelle Lt. in the Sound		" 14	7.30 A.M.								#3	0	120			At anchor
				10.00 "			59	57.60	57.95	1.0183*	1.0193						
			" 15	7 A.M.			52	56.60	57.70	1.0188*	1.0209	#3	0	30			At anchor
			" "	11. "													
7809	Carrabelle Lt. NW½N 16Mi.		" 16	8.00 A.M.	10¼		60	59.40	60.20	1.0253	1.0255	#1,#3,#20 7' 6" B.T.Md. Bg.	0 botm	20 20			Mud Bg.carried away.
				8.10 "	10¼												
7810	Carrabelle Lt.NxW 14-2/3Mi		" 16	9.10 "	10		60	59.40	60.20	1.0253	1.0255	#1,#3,#20 7' 6" B.T.	0 botm	20 20			At anchor
	St. Josephs Lt. NExE7/8Mi		" 16	4.20 P.M.	4		68	59.80	59.45	1.0235	1.0242	Hook & Line					
			" 17	8.00 A.M.	4		60	59.10	59.20	1.0270	1.0236						
7811	St. Josephs Lt.E3/8N 9-7/8 Miles		" 17	12.20 P.M.	11	S.	64	60.10	60.70	1.0241	1.0246	#1,#3,#20 7' 6" B.T.	0 botm	20 20			
7812	St. Andrews Bell Buoy NE 1/8 N. 6½ miles		" 17	1.50 P.M.	12½	S.	66	60.85	60.45	1.0243	1.0250	#1,#3,#20 7' 6" B.T.	0 botm	20 20			#20 burst
7813	St. Andrews Bell Buoy NE 1/8N 3½ miles		" 17	3.10 P.M.	11½		67	60.60	60.70	1.0226	1.0247	#1,#3,#20 Dredge	0 botm	25 25			
7814	Pensacola Lt.NNW 1/8N 9-3/8 miles		" 18	6.30 A.M.	12	S.	63	59.10	59.70	1.0211	1.0251	#1,#3,#20	0	20			
	At Wharf in Pensacola		" "	10.00 "			60	58.90	59.20	1.0074	1.0191*						

Note * Salinometer not standarized.

Form 625.

RECORD OF GULF OF MEXICO — INVESTIGATION BY FISH HAWK — 1913

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~~103~~.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7900	72¼ miles from Galveston SEXE from Sabine Bank Lt. Dist. 25 miles.		June 22.	4:55 a.m.	9½	hrd.	78	0	80	–	–	Gr. sampler	–	–	W.	0.50	Wind SE; Force 2; Sky clear.
7901	9½ miles EXS from Trinity Shoal Buoy.		" 22.	12:40 p.m.	8	hrd.M.	82	0	80	–	–	Gr.sampler; m.b.	–	–	W.	0.125	Wind SE; Force 2; Sky blue & cloudy.
								botm.	79								
7902	30 miles from Trinity Shoal Buoy, Course EXS½S.		" 22.	5:05 p.m.	10½	hrd.M.	82	0	80	0	1.019	Gr. sampler; m.b.; tow nets.	–	–	N	0.50	Wind SE; Force 2; Sky partly clear.
								botm.	79¼	botm.	1.0205						
7903	17 miles SE¼E from Tembalier Island Lt. 54 miles E 7/8 N from Ship Shoal.		" 23.	5:28 a.m.	17	sft.M.	80	0	82	0	1.0152	Gr. sampler; m.b.; tow nets.	–	–	N	0.50	Wind SE; Force 3; Sky blue and partly clear.
								botm.	74	botm.	1.02425						
7904	Mth. Miss.Riv.(SW Pass) N½E - SW Jetty Lt. NXE½E - SW Jetty Lt. House		" 23.	10:20 a.m.	12	sft.M.	85	0	80½	0 botm.	1.0095	Gr. smp. ; m.b.; tow nets.	–	–	E	1.25	Wind SE; Force 3; Sky partly clear.
7905	Mth. Miss.Riv. (SW Pass) SW Pass Lt. House bearing N¼E; SW Pass Lt. Ship bearing NW.		" 23.	11:15 a.m.	38	sft. M.	87	0	81	0	0.998	Gr. smp.; m.b.; tow nets.	–	–	E	1.25	Wind SE; Force 3; Sky partly clear.
								botm.	72½	botm.	1.021						
7906	Mth. Miss.Riv. (SW Pass) SW Pass Lt. House bearing NXW; SW Pass Lt. Ship bearing NW 5/8 W.		" 23.	12:25 p.m.	59½	sft. M.	86	0	82½	0	1.0132	Gr. smp.; m.b.; B. T.; tow nets.	–	–	E	1.50	Wind SE; Force 3; Sky partly clear.
								botm.	77	botm.	1.0235						
7907	Log reading 32 - 6¾ miles SSE of STA. 7906.		" 23.	2:15 p.m.	97½	sft. M.	83	0	82	0	1.0142	Gr. smp.; m.b.; tow nets.	–	–	E	1.00	Wind SE; Force 3; Sky partly clear.
								botm.	79½	botm.	1.022						
7908	Mth. Miss. Riv.(So. Pass) S. P. Lt. NW¼N outer Jetty Lt. NNW.		" 23.	6:30 p.m.	17	sft. M.	80	0	82½	0	1.0052	Gr. smp.; m.b.; B. T.; tow nets.	–	–	E	1.00	Wind SE; Force 3; Sky partly cloudy.
								botm.	73½	botm.							
7909	Mth. Miss. Riv.(S. Pass) S.P. Lt. NXE; SW Lt. NE.		" 24.	6:40 a.m.	76	sft. M.	80	0	81	0	1.0142	Gr. smp.; m.b.; tow nets.	–	–	E	1.25	Wind SE; Force 3; Sky partly clear.
								botm.	71	botm.	1.0235						
7910	S. Pass Miss. River. S. P. Lt. North; SW Pass Lt. WNW½W.		" 24.	7:35 a.m.	51	sft. M.	80	0	79	0	1.0082	Gr. smp.; m.b.; tow nets.	–	–	E	1.50	Wind SE; Force 3; Sky partly clear.
								botm.	69	botm.	1.021						
7911	Mth. Miss. Riv. S.Pass Buoy NWXN.		" 24.	9:05 a.m.	42	sft. M.	80	0	80	0	1.010	Gr. smp.; m.b.; tow nets.	–	–	E	1.33	Wind SE; Force 3; Sky partly clear.
								botm.	64½	botm.	1.0235						
7912	Mth. Miss. Riv. S. Pass Buoy NW 3/8 W.		" 24.	9:30 a.m.	56	sft. M.	82	0	81	0	1.0135	Gr. smp.; m.b.; B.T.; tow nets.	–	–	W	1.25	Wind NE; Force 3; Sky partly clear.
								botm.	66½	botm.	1.032						
7913	S. Lt. NWXW 2½ mi. SEXE of Sta. No. 7912.		" 24.	10:20 a.m.	122	sft. M.	82	0	81	0	1.0132	Gr. smp.; tow nets.	–	–	E	1.50	Wind NE; Force 3; Sky partly clear.
								botm.	67½	botm.	1.024						
7914	Mth. Miss. Riv. S. Pass Lt. W½N; Jetty Lt. W 3/8 S.		" 24.	10:55 a.m.	48	sft. M.	82	0	82	0	1.0115	Gr. smp.; m.b.; B.T.; tow nets.	–	–	E	1.33	Wind NE; Force 3; Sky partly clear.
								botm.	76½	botm.	1.0225						
7915	Mth. Miss. Riv. N.E.P. Tower NNW½W; S.P.Lt. WXS½S		" 24.	11:40 a.m.	34	sft. M.	82	0	83	0	1.006	Gr. smp.; m.b.; B.T.; tow nets.	–	–	E	1.25	Wind NE; Force 3; Sky partly clear.
								botm.	68½	botm.	1.023						

Form 625.

INVESTIGATION BY Fish Hawk 1922.

RECORD OF GULF OF MEXICO INVESTIGATION BY FISH HAWK 1913.

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7916	N.E.P. Tower - NWXW 7/8 W; Passa Loutre Lt. NWXN.		June 24.	12:25 p.m.	12	sft. M.	84	0 botm.	84½ 72	0 botm.	1.000 1.006	Gr. smp.; B.T.; m.b.; tow nets.	-	-	E	1.33	Wind SE; Force 3; Sky partly clear.
7917	(Mth. Miss. Riv.) N.E. Pass Tower W 5/8 N; Loutre Pass Lt. NW 3/8 N.		" 24.	12:50 p.m.	2¾	sft. M.	84	0 botm.	85 78	0 botm.	0.9985 1.0125	Gr. smp.; m.b.; tow nets.	-	-	E	1.00	Wind SE; Force 3; Sky partly clear.
7918	(Mth. Miss. Riv.) Pass a Loutre Lt. NW 5/8 S; N.E. Tower W 5/8 N.		" 24.	1:15 p.m.	21	sft. M.	84	0 botm.	86 68	0 botm.	1.0000 1.001	Gr. smp.; m.b.; tow nets.	-	-	E	1.25	Wind SE; Force 3; Sky partly clear.
7919	(Mth. Miss. Riv.). Pass a Loutre Lt. NWXW; N.E. Pass Tower WNW 5/8 W.		" 24.	2:05 p.m.	55	sft. M.	82	0 botm.	83 64	0 botm.	1.0092 1.0242	Gr. smp.; m.b.; tow nets; B.T.	-	-	E	1.25	Wind SE; Force 3; Sky partly clear.
7920	Bearing 5 miles SEXE½E of Sta. No. 7919.		" 24.	3:10 p.m.	81	sft. M.	82	0 botm.	82½ 74	0 botm.	1.013 1.021	Gr. smp.; m.b.; tow nets; B. T.	-	-	E	1.33	Wind SE; Force 3; Sky partly clear.
7921	40 miles NEXN of position plotted off Pass a loutre Lt.		" 24.	10:45 p.m.	17	sft. M.	79	0 botm.	82½ 73	0 botm.	1.0142 1.0202	Gr. smp.; m.b.; B.T.; tow nets.	-	-	W	0.33	Wind SE; Force 4; Sky partly clear.
7922	Entrance to Mobile Bay. Between Whistle and bell buoy with light bearing NXW½W.		" 25.	5:15 a.m.	9		80	0 botm.	80½ 74	0 botm.	1.019 1.019	Gr. smp.; m.b.; B.T.; tow nets.	-	-			Wind E; Force 3; Sky partly clear.
BEAUFORT HARBOR, N.C.					ft.												
7928	100 yds. NNW of blk. buoy in channel. 34°42'30" 76°41'		Aug. 25.	9:10 a.m.	30	hrd.S.	85	0	80			B.T.; m.b.	-	-	SW	none	Wind NE; Force 3; Sky partly cloudy; ebb tide.
7929	600 yds. NNW of blk. buoy in channel. 34 42 30 76 41		" 25.	9:45 a.m.	24	hrd.S.	80	0	80			B.T.; m.b.	-	-	SW	"	Wind NE; Force 3; Sky cloudy; ebb tide.
7930	In channel. 34 42 30 76 41.		" 25.	10:50 a.m.	24	S.	84	0	80			m.b.	-	-	SW	"	Wind NE; Force 2; Sky cloudy; ebb tide.
OUTSIDE BEAUFORT HARBOR, N.C.																	
7931	SEXE Bell buoy N½E Moorhead tower.		" 25.	1:30 p.m.	30	hrd.S.	78	0	79			B.T.; m.b.	-	-	SW	50 yds.	Wind NE; Force 2; Sky partly cloudy; flood tide.
7932	SE buoy N½E Moorhead tower 34 41 30 76 44.		" 25.	1:40 p.m.	36	hrd.S.	81	0	80			B.T.; m.b.	-	-	SW	50 yrds.	Wind NE; Force 2; Sky partly cloudy; flood tide.
7933	ESE½E Lookout; NNE⅝E Moorhead tower. 34 40 30 76 43 30		" 25.	2:00 p.m.	24	hrd.S.	81	0	80			B.T.; m.b.	-	-	SW	100 yds.	Wind NE; Force 2; Sky partly cloudy;

Form 625.

RECORD OF OUTSIDE BEAUFORT HARBOR, NC. INVESTIGATION BY FISH HAWK 1913.

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth.	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. yds.	Remarks.
7934	ESE½E Lookout; NE½N Moorhead tower. 34°31' 76°46'		Aug. 25.	2:40 p.m.	38 ft.	Hrd. S.	81	0	77			B.T.	-	-	SW	50	Wind NE; Force 2; Sky partly cloudy.
7935	Off Lookout. Wreck Pt. SE½S; L.O. Lt. E½S. 34 37 22 76 31 29.		" 26.	10:10 a.m.	30	s.	82	0	80			B.T.; m.b.	-	-	SW	none	Wind SE; Force 2; Sky cloudy.
7936	Off Lookout. Lookout E½S; Wreck Pt. SXW 1/8 W. 34 37 22 76 31 29		" 26.	10:50 a.m.	32	S.	84	0	80			B.T.; m.b.	-	-	SW	-	Wind SE; Force 2; Sky cloudy.
7937	Off Lookout. Lookout ESE½E; Wreck Pt. SW 5/8 S. 34 27 22 76 31 29		" 26.	11:00 a.m.	18	S.	84	0	82			Tnr.; m.b.	-	-	SW	-	Wind SE; Force 2; Sky cloudy.
7938	Off Lookout. L.O. ESE½E; Wreck Pt. SW 5/8 S. 34 27 22 76 31 29		" 26.	1:10 p.m.	18	S.	80	0	82			oys. dr.; Tnr.	-	-	SW	-	Wind SE; Force 2; Sky cloudy; slight rain.
7939	Off Lookout. L.O. ESE½E; Wreck Pt. SW 5/8 S. 34 27 22 76 31 29		" 26.	1:30 p.m.	24	S.	80	0	79			B.T.	-	-	SW	-	Wind SE; Force 2; Sky cloudy.
7940	Off Lookout. L.O. ENE¾E; Gas buoy WXN½N. 34 39 76 37		" 26.	2:15 p.m.	30	S.	82	0	80			oys. dr.; B.T.	-	-	-	-	Wind SE; Force 2; Sky cloudy.
7941	Off Fishing Grounds. 20½ miles SSW¼W of Beaufort Gas buoy. 34 21 76 50		" 28.	12:25 p.m.	fm. 14	Sh.	85	0	80			m.b.	-	-	-	-	Wind WSW; Force 1; Sky clear.
7942	Fishing grounds. 21 miles from Beaufort. 34 20 76 50		Sept. 6.	1:35 p.m.	14	crs.S.Sh.	83	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; Flood tide
7943	Fishing grounds. Course East 1 mile. 34 20 76 49		" 6.	2:09 p.m.	13½	Co..S.Sh.	83	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; Flood tide
7944	Course North 1 mile. 34 21 30 76 50 30		" 6.	2:47 p.m.	13¾	Co..S.Sh.	83	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; Flood tide
7945	Course WXN 1 mile. 34 21 76 50 30		" 6.	3:50 p.m.	14	Co.	84	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; Flood tide
7946	Course East 1 mile. 34 21 76 48		" 6.	4:36 p.m.	13½	Hrd.S.	82	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Flood tide.
7947	Course West 1 mile. 34 21 76 48 30		" 6.	4:55 p.m.	13½	Grs.S.brk. Sh.	82	0	80			B.T.; m.b.	-	-	-	-	Wind SE; Force 4; Sky clear; Flood tide

Form 625.

INVESTIGATION BY Fish Hawk

11—6014

RECORD OF OUTSIDE BEAUFORT HARBOR, N.C. INVESTIGATION BY Fish Hawk 1913.

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Station Number.	Bearings. Latitude. N	Longitude. W.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7948	Course WSW. 34 20	76 52		Sept. 7.	8:37 a.m.	14	crs.S.brk. Sh.	82	0	79			B.T.; m.b.; tow nets....(put over)	-	- 8 45	-	-	Wind SE; Force 1; Sky clear.
7949	Course WSW. 34 19 30	76 52 30		" 7.	9:03 a.m.	14¾	crs.brk.Sh.	83	0	79			B.T.; m.b.; tow nets.	-	-	-	-	Wind SE; Force 1; Sky clear. Hauled in t.nets 9:12 a.m. put over at sta. 7948.
7950	SEXE¼E - 1 mile 34 18	76 53		" 7.	9:35 a.m.	15½	crs.brk.Sh.	83	0	79			B.T.; m.b.; tow net..(put over)	-	- 9 35	-	-	Wind SE; Force 1; Sky clear.
7951	Course ESE. 5 miles. 34 17	76 56		" 7.	10:00 a.m.	16	Sh.	84	0	79			B.T. Tow nets (over)	-	- 10 08	- -	0 -	Wind SE; Force 1; Sky clear; T. nets in 10:03 a.m. put over at sta. 7950.
7952	SEXE 34 16	76 56		" 7.	10:42 a.m.	15½	Co.Sh.S.	84	0	80			B.T.	-	-	-	-	Wind SE; Force 1; Sky clear.
7953	East 3½ miles 34 17	76 56		" 7.	10:55 a.m.	16	Sh.	84	0	80			m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; T. net in 10:57 a.m. put over sta. 7951.
7954	NXE 2 miles. 34 18	76 55		" 7.	11:10 a.m.	14⅓	Sh.crs.S.	84	0	80			m.b.; tow net	-	11 10	-	-	Wind SE; Force 1; Sky clear.
7955	Course North 1 mile. 34 19	76 54 30.		" 7.	11:25 a.m.	13¾	Co.	84	0	79			B.T.	-	-	-	-	Wind SE; Force 1; Sky clear; net in 11:35 a.m put over sta. 7954.
7956	Course North ½ mile. 34 21	76 53 30.		" 7.	1:11 p.m.	15	Co.fne.S. Sh.M.	86	0	82			B.T.: m.b.; t.net	-	1 11	-	-	Wind SE; Force 1; Sky clear.
7957	Course North 1½ miles. 34 22	76 53 30.		" 7.	1:58 p.m.	15	Co.	86	0	79			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear.
7958	Course NE. 34 22	76 57		" 7.	2:30 p.m.	12½	Co.	86	0	79			dr.	-	-	-	-	Wind SE; Force 1; Sky clear.
7959	North 2 miles. 34 23	76 57 30		" 7.	3:46 p.m.	13	Co.Sh.	85	0	81			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear.
7960	East. 34 23	76 51 30		" 7.	4:16 p.m.	14½	Co.crs.S.Sh.	85	0	81			B.T.; m.b.	-	-	-	-	Wind SE; Force 1; Sky clear; tow nets in 4:35 p.m.
7961	WSW 3½ miles. 34 18	76 57		" 8.	7:54 a.m.	14½	S.	79	0	79			B.T.; m.b. Tow nets.....	-	- 6	-	-	Wind NW; Force 2; Sky clear.
7962	SSW 3 miles 34 17	77 00 30		" 8.	8:47 a.m.	14	Co.	79	0	79			B.T.; m.b. Tow nets.....	-	- 12	SE	-	Wind NW; Force 2; Sky clear.
7963	West 3½ miles. 34 17	77 04		" 8.	10:40 a.m.	14¾	Co.	80	0	79			Tow nets	-	12	SE	0.50	Wind NW; Force 2; Sky clear.

Form 635.

RECORD OF OUTSIDE BEAUFORT HARBOR, N.C. INVESTIGATION BY Fish Hawk 1913.

122
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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7964	South 1 mile 34 15	77 04		Sept. 8.	11:03 a.m.	15½	fne.gy.Sh.	81	0	80			B.T.; m.b.	-	-	SE	-	Wind NW; Force 2; Sky clear.
7965	South 1 mile 7964. 34 14	77 05		Sept. 8.	11:45 a.m.	14½	Sh.	83	0	80			B.T.; m.b.	-	-	SE	-	Wind NW; Force 3; Sky clear.
7966	NE 34 36	76 45 15		" 8.	3:33 p.m.	9½	G.S.Sh.	86	0	82			B.T.; m.b. Tow nets.....	- -	- 4	-	-	Wind S; Force 3; Sky clear.
LOOKOUT TO CAPE FEAR																		
7967	Course West. 34 21	76 51 30		" 19.	3:36 p.m.	13½	S.Sh.	78	0	76			m.b.....	-	7	-	-	Wind SW; Force 2; Sky cloudy.
7968	Course West. 34 20 30	76 54		" 19.	3:55 p.m.	13½	S.Sh.	78	0	76			m.b.....	-	5	SW	-	Wind SW; Force 2; Sky cloudy.
7969	Course West. 34 20 30	76 57		" 19.	4:20 p.m.	13½	Sh.	78	0	76			m.b.....	-	10	SW	-	Wind SW; Force 2; Sky cloudy.
7970	Course North. 34 21	76 58		" 19.	5:00 p.m.	13½	S. Sh.	79	0	76			m.b.....	-	8	SW	-	Wind SW; Force 2; Sky partly cloudy.
7971	Course North. 34 22 30	76 58 30		" 19.	5:13 p.m.	12½	S. Sh.	78	0	76			B.T.....	-	11	NE	-	Wind SW; Force 2; Sky partly cloudy.
FISHING GROUNDS																		
7972	34 20	76 57		" 22.	1:05 p.m.	14½	Co.	69	0	76			m.b.....	-	10	SE	-	Wind NW; Force 2; Sky clear.
BEAUFORT TO CAPE FEAR																		
7973	Course West 4 miles from 7972. 34 19	76 58		" 22.	2:05 p.m.	14	S. Sh.	69	0	76			B.T.; m.b...	-	-	SE	-	Wind NW; Force 2; Sky clear.
7974	Course SW½S 7 miles from 7973. 34 15	77 03		" 22.	3:30 p.m.	16	gy.S.bk.Sp.	72	0	76			B.T.; m.b.	-	-	SE	-	Wind NW; Force 3; Sky clear.
7975	Course W½S 6 miles from 7974. 34 14	77 14		" 22.	5:55 p.m.	14½	Co.	72	0	76			B.T.; m.b.	-	-	-	-	Wind NW; Force 2; Sky clear.
7976	Course S 5 miles from 7975. 34 09	77 14.		" 22.	7:00 p.m.	14½	Co.	72	0	76			B.T.; m.b.	-	-	SE	-	Wind NW; Force 3; Sky clear.
7977	Course S 5 miles from 7976. 34 04	77 14.		" 22.	8:30 p.m.	17	Sh.	73	0	76			B.T.; m.b.	-	-	SE	-	Wind NW; Force 2; Sky clear.

Form 625.

RECORD OF BEAUFORT TO CAPE FEAR, N.C. INVESTIGATION BY Fish Hawk 1913.

123 ~~108~~

Station Number.	Bearings. Latitude. N	Longitude. W	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7978	WNW 7 miles from Sta.7977. 34 06	77 23 30.		Sept. 23.	7:28 a.m.	14¾	S. Co.Sh.	69	0	76			B.T.; m.b.	-	-	SW	-	Wind NE; Force 5; Sky clear.
7979	S½W 6 miles from STA.7978. 33 59	77 23		" 23.	8:35 a.m.	15½	S.Sh.Co.	75	0	76			B.T.; m.b.	-	-	SW	-	Wind NE; Force 5; Sky clear.
7980	Baldhead Lt. N; Cape Fear NNW½W. 33 48 15.	77 59 15.		" 24.	8:20 a.m.	3½	M.S.	71	0	73			B.T.; m.b.	-	-	S	-	Wind N; Force 2; Sky clear.
7981	Baldhead NE; Cape Fear NEXE. 34 49	78 00 45		" 24.	8:55 a.m.	4	M.S.	71	0	73			B.T.	-	-	-	-	Wind N; Force 3; Sky clear.
7982	Baldhead NE½N; Cape Fear E. 33 50 40	78 01 30.		" 24.	9:38 a.m.	5	M.	70	0	74			B.T.; m.b.; m.smp.	-	-	-	-	Wind N; Force 2; Sky clear.
7983	Baldhead NEXN½E; Cape Fear E. 33 50	78 03 30.		" 24.	10:35 a.m.	5	M.	73	0	74			B.T.; m.b.	-	-	SW	-	Wind NE; Force 2; Sky clear.
7984	Baldhead NXE½E; Cape Fear NEXE½E. 33 48 20	78 01 30.		" 24.	11:10 a.m.	7	M.S.	73	0	74			B.T.	-	-	SW	-	Wind NE; Force 2; Sky clear.
7985	Baldhead NE½E; Cape Fear ENE. 33 50	78 02 40.		" 24.	2:04 p.m.	7½	Sh. Co.	73	0	74			B.T.; m.b.	-	-	-	-	Wind NE; Force 3; Sky clear.
7986	Baldhead NEXE½E; Cape Fear E½N. 33 50	78 04 30.		" 24.	2:34 p.m.	7¼	Sh. Co.	76	0	75			B.T.; m.b.	-	-	-	-	Wind NE; Force 3; Sky clear.
7987	Baldhead E½N; Cape Fear ENE½S. 33 52	78 03 30.		" 24.	3:45 p.m.	5	S.SH.Co.	75	0	75			B.T.; m.smp.	-	-	-	-	Wind NE; Force 2; Sky clear.
7988	Baldhead NNE 1/8 E; Cape Fear NNEXE½E. 33 48 50	78 01 40.		" 24.	4:28 p.m.	4½	M.Sh.	73	0	75			B.T.; m.smp.	-	-	-	-	Wind NE; Force 2; Sky clear.
7989	Frying pan Shoal Lt.Ship, 30 miles ENE½E from 33 45 30	77 16		" 26.	3:39 p.m.	17	S.Sk.	77	0	73			m.b.	-	-	-	-	Wind NE; Force 1; Sky clear.
7990	Cape Lookout ENE½S; Bell buoy ENE. 34 39	76 42		" 27.	6:09 a.m.	9	M.S.Sh.	74	0	73			m.smp.	-	-	-	-	Wind W; Force 1; Sky clear.
7991	L.O. ENE½S; Bell buoy ENE. 34 29	76 42		" 27.	6:19 a.m.	8½	M.S.	74	0	73			m.smp.	-	-	-	-	Wind W; Force 1; Sky clear.
7992	L.O. SEXE½E; Bell buoy WNW½W. 34 39	76 42		" 27.	6:43 a.m.	7¼	M.S.	74	0	73			m.smp.	-	-	-	-	Wind NW; Force 2; Sky clear.

Form 625.

RECORD OF COAST OF NORTH CAROLINA INVESTIGATION BY FISH HAWK 1913.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
7993	Fishing grounds. L.O. Lt. Ship WSW¼W 2 miles - L.O. Buoy W¼S. 34 21 30	76 23		Oct. 17.	1:43 p.m.	14½	S.Sh.	78	0	74			B.T.; m.b.	-	-	-	-	Wind SE; Force 2; Sky clear.
7994	Fishing Grounds. L.O. Lt. WSW¼W 2 miles; Buoy W¼N. 34 22	76 22		" 17.	1:57 p.m.	15	S. Sh.	79	0	74			B.T.	-	-	-	-	Wind SE; Force 2; Sky clear.
7995	Fishing Grounds. L.O. Lt. ship SWbW¼W; Buoy W½S. 34 22 15	76 22 30.		" 17.	2:15 p.m.	14½	S. Sh.	78	0	74			B.T.	-	-	-	-	Wind SE; Force 2; Sky clear.
7996	Fishing Grounds. L.O. Lt. ship SW½W; Buoy WSW½W. 34 22	76 23 30.		" 17.	2:30 p.m.	14½	Co. Grs.	78	0	74			B.T.; m.b.	-	-	-	-	Wind SE; Force 4; Sky clear.
7997	Bogue Inlet NXE 3/8 E; Bear Inlet N. 34 27 30	78 08		" 18.	1:52 p.m.	9½	M.G.S.Sh.	78	0	71			B.T.; m.b.	-	-	-	-	Wind SW; Force 3; Sky clear. Hand line fishing 3:50 to 4:15 p.m.
7998	New River Inlet N½W 1½ mi. 34 28	77 19.		" 18.	4:20 p.m.	6	M.G.S.Sh. wh.P.	75	0	71			B.T.; m.b.	-	-	-	-	Wind SW; Force 3; Sky clear.
7999	New River Inlet NXW ½ W. 34 29 15	77 17 30.		" 18.	5:03 p.m.	6	M.S.Sh.wh. P.	74	0	71			B.T.; m.b.	-	-	NE	-	Wind SW; Force 3; Sky clear.
CHESAPEAKE BAY				1914.														
8000	500 yds. West Thimble Lt. 370	76 14 30.	1222	Jan. 15.	10:00 a.m. to 10:15 a.m.	14	bk.M.Gy.S.	39	0 botm.	3.6 3.65			B.T.	-	-	-	-	Wind SW; Force 5; Sky hazy.
8001	300 yds. SW Thimble Shoal. 37	76 14 30.	"	" 15.	10:25 a.m. to 10:35 a.m.	13							B.T.	-	-	-	-	Wind SW; Force 5; Sky hazy.
8002	400 yds. South Thimble shoal 37	76 14 30.	"	" 15.	10:40 a.m. to 10:50 a.m.	14							B.T.	-	-	-	-	Wind SW; Force 5; Sky hazy.
8003	700 yds. SE Thimble shoal. 37	76 14 30.	"	" 15.	11:20 a.m. to 11:35 a.m.	9-10							8' B.T.	-	-	-	-	Wind W; Force 3; Sky hazy.
8004	800 yds. SW Thimble shoal. 37	76 14 30.	"	" 15.	1:30 p.m. to 1:45 p.m.	10½ to 14	bk.M.	43					8' B.T.	-	-			Wind W; Force 3; Sky hazy.
8005	850 yds. W Thimble shoal. 37	76 14 30.	"	" 15.	2:05 p.m. to 2:15 p.m.	14-12	S.						B.T.	-	-			Wind W; Force 2; Sky hazy.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

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Station Number.	Latitude. N	Bearings.	Longitude. W	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8006	Thimble shoal 800 yds. SE½E 37		76 14 30.	1222	Jan. 15.	2:05 p.m. to 2:15 p.m.	14-12	S.						B.T.					
8007	1 mile SWXW Old Pt. Comfort 36 59 30	"	76 14 24	"	" 15.	4:05 p.m. to 4:14 p.m.	13-14	M. Cinders						B.T.					Wind E; Force 2; Sky hazy; slack tide.
8008	1½ miles SWXW Old Pt. Comfort. 36 59 18	"	76 20.	"	" 15.	4:25 p.m. to 4:40 p.m.		M.						B.T.					Wind E; Force 1; Sky hazy; ebb tide.
8009	3 Miles SW 35 ft. Channel lightship. 37 04 42	"	76 09 18	"	" 16.	9:12 a.m. to 9:30 a.m.	5½-6½	hrd.S.	39	0	4.0			B.T.					Wind E; Force 1; Hazy sky; ebb tide. Trawl carried away while hauling in.
8010	1½ miles due North 35' channel lightship. 37 08 30	"	76 07 18	"	" 16.	10:12 a.m. to 10:20 a.m.	6-6½	gy.S.bk.Sp.	38	0 botm.	4.0 3.9			B.T.			NW	200 yds.	Wind SE; Force 3; Sky partly clear. Flood tide.
8011	2 miles WSW 7/8 W Cherrystone light. 37 15	"	76 04 30	"	" 16.	1:10 p.m. to 1:20 p.m.	15-16	bl.M.S.	41	0 15	3.3 3.7			B.T.			NW N	2 miles	Wind SE; Force 3; Sky partly clear; flood tide.
8012	2 miles NW Old Plantation Light. 37 15	"	76 04 48	"	" 16.	1:25 p.m. to 1:48 p.m.	17½	bl.M.S.	42	0				B.T.			N	0.5 "	Wind SE; Force 4; Sky hazy; ⅔ flood.
8013	3 miles NW Old Plantation Light. 37 15 36	"	76 05 48.	"	" 16.	2:06 p.m. to 2:22 p.m.	19½		44					B.T.			N	500 yds.	Wind SE; Force 4; Sky partly clear; flood tide.
8014	2½ miles WXN Cherrystone Lt. 37 15 54	"	76 05 12.	"	" 16.	2:30 p.m. to 3:12 p.m.	15		46	0	4.5			B.T.			N	300 "	Wind SE; Force 4; Sky partly clear; ⅓ ebb.
8015	1.7 miles W 5/8 N of Cherrystone Lt. 37 15 42	"	76 05 30.	"	" 16.	3:20 p.m. to 3:30 p.m.	19½	sft.bl.S.M.	45	0 botm.	4.8 3.8			B.T.			S		Wind SE; Force 4; Sky cloudy; ½ ebb.
8016	Rappahannock River. ½ mi. due North beacon. 37 35 30	1223	76 19 54.	"	17.	10:05 a.m. to 10:25 a.m.	13½	dk.bl.M.	42	0 12	4.8 3.4			B.T.			E	100 yds.	Wind NW; Force 6; Sky cloudy; tide ½ ebb.
8017.	Rappahannock River. ½ mi. due SW Mosquito Pt. 37 36	"	76 22.	"	" 17.	11:15 a.m. to 11:27 a.m.	12½		42	0	3.6			B.T.			E	150 yds.	Wind NW; Force 6; Sky cloudy; slack tide.
8018	½ mi. SE Tangier Lt. 37 47	"	75 58.	"	" 18.	2:09 p.m. to 2:15 p.m.	12		32					B.T.					Wind NW; Force 6; Sky overcast; Tide ½ flood.
8019	½ mi. E Tangier Sound Lt. 37 47 18	"	75 58	"	" 18.	2:40 p.m. to 2:53 p.m.	13½		32					8' B.T.					Wind NW; Force 6; Sky overcast.
8020	1⅝ mi. NNE⅝E Tangier Sound Lt. 37 48 30	"	75 56 42	"	" 18.	3:20 p.m. to 4:02 p.m.	19		32	0 9 17	1.9 2.5 2.8			B.T.			S½W	1⅝ mi.	Wind NW; Force 5; Sky overcast; flood tide.

Form 625.

RECORD OF CHESAPEAKE BAY *INVESTIGATION BY* FISHHAWK *1914.*

Station Number.	Bearings. Latitude. N	Longitude. W.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8021	Smith Pt. NXW; Gr. Wicomico Riv. WXS½S. 37 50 06	76 10 10.	1223	Jan. 19.	10:17 a.m. to 10:35 a.m.	27½	bl.M.S.	39	0	3.1			B.T.					
									25	3.4								
									10	2.85						N	2.0	Wind S; Force 4; Sky clear. Flood tide.
									15	3.0								
8022	NE½N 1½ miles Smith Pt. 37 54	76 10	"	" 19.	12:30 p.m. to 12:47 p.m.	16½	stk. M.	45	0	3.2								
									10	3.0			B.T.					
									botm.	3.3								Wind S; Force 4; Sky overcast; flood tide.
8023	Potomac R. Mouth Potomac S½W. 37 54	76 09 36.	1224	" 19.	1:05 p.m. to 1:15 p.m.	17½		45					B.T.					
8024	4 mi. SEXE½E Point No Point. 38 06 12	76 12 12.	"	" 19.	2:38 p.m. to 2:52 p.m.	18½		49	0	3.5			B.T.					Wind S; Force 4; Sky cloudy; ¼ ebb tide.
8024 A.	E½S Point No Point. 38 07 42	76 13 42.	"	" 19.	3:18 p.m. to	19	dk.bl.M.	48	0	3.3								Wind S; Force 2; Sky partly clear. ½ ebb tide.
									5	2.6								
									10	3.8								Wind S; Force 2; Sky partly clear; ½ ebb tide; trawl not put over.
									16	3.5								
8025	S½E – 2½ miles off Hooper Light. 36 13	76 14 24.	"	" 20.	9:42 a.m. to 10:00 a.m.	23	hrd.S.	40	0	3.2								
									15	3.5			B.T.					
									21	3.6								Wind S; Force 2; Sky cloudy, heavy mist; ebb tide.
									10	3.0								
									5	2.65								
8026	¾ mi. SW Hooper's Lt. 38 14 42	76 15 30.	"	" 20.	11:19 a.m. to 11:46 a.m.	23	bl.M.	45	0	3.4								
									10	3.0			B.T.					
									15	3.5								Wind S; Force 2; Sky overcast, hazy; ebb tide.
									21	3.6								
									5	2.6								
8027	¼ mile WSW Spar buoy No.16D. 38 20 18	76 18	"	" 20.	1:05 p.m. to 1:36 p.m.	29	bk. M.	42	0	3.4								
									10	2.9			B.T.			NW		
									15	3.4								Wind SE; Force 2; Sky overcast; ebb tide.
									27	3.55								
									5	3.63								
8028	SE½E Spar Buoy No. 16. 38 22	76 19 18.	"	" 20.	2:05 p.m. to 2:20 p.m.	22		42	0				B.T.			NW		Wind SE; Force 2; Sky overcast; ebb tide.
8029	Cove Pt. WXS about 2 mi. 38 22	76 20 18.	1225	" 20.	3:00 p.m. to 3:22 p.m.	19	bk. M.	44	0	3.5			B.T.			NW		Wind SE; Force 2; Sky overcast; ebb tide.
									5	2.6								
									10	3.5								
									18	3.7								
8030	Cove Pt. Lt. S½W – 4½ mi. 38 22 36	76 23 12.	"	" 20.	4:12 p.m. to 4:30 p.m.	15½		46					B.T.			NW		Wind SE; Force 2; Sky overcast; ebb;

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

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11—6014

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8031	Sharps Id. Lt. NXE½E; Gas buoy No. 18 NW 3/8 W.		1225	Jan. 21.	8:15 a.m. to 8:29 a.m.	16¾	bk.M.	44	0	3.2			B.T.			E		Wind NW; Force 1; Sky overcast; flood tide.
	38 32 18	76 25 36.							15	3.2								
									10	2.95								
									5	2.3								
8032	Sharps Id. Lt. NE¾E; Gas buoy E¾S.		"	"	9:50 a.m. to 10:10 a.m.	18	bk.M.	44	0	3.0			B.T.			SE		Wind NW; Force 4; Sky cloudy; ½ ebb.
	38 36 30	76 25 12.							16	3.8								
									10	2.6								
									5	2.2								
8033	Spar No. 1 E 1/8 N; Sharps Id. Lt. SE 3/8 S.		"	"	11:47 a.m. to 12:03 p.m.	21		42	0	3.0			B.T.			SE		Wind NW; Force 4; Sky partly clear. Ebb tide.
	38 40 36	76 25 30.							5	2.15								
									10	2.85								
									15	3.2								
									20	4.0								
8034	Buoy N20 NE 1/8 N; Hooper Id. Lt. NNE 1/8 E.		"	"	1:13 p.m. to 1:25 p.m.	21		46					B.T.			SE		Wind NW; Force 8-10; Sky overcast; ½ ebb.
	38 45 12	76 25 30.																
8035	Bloody Pt. Lt. NE; Thomas Pt. Lt. N¾W.		"	"	8:55 a.m. to 9:16 a.m.	26	hrd.S.	34	0	2.0			B.T.			S		Wind NW; Force 2; Sky hazy; ebb.
	38 48 42	76 24 24.							5	2.3								
									10	3.45								
									15	3.7								
									25	3.9								
8036	Bloody Pt. Lt. SXE; Thomas Lt. NNW½W.		"	"	9:45 a.m. to 10:15 a.m.	17		34					B.T.			SE		Wind NW; Force 2; Sky hazy; ebb tide.
	38 51 36	76 24 12.																
8037	Severn R. Between Buoys #20B and 20C.		"	"	11:30 a.m. to 11:52 a.m.	22		30	0	1.6			B.T.					Wind NW; Force 3; Sky hazy; flood tide
	38 55 12.	76 23 15.							5	2.2								
									10	3.1								
									15	3.6								
									20	3.7								
8038	Severn R. Between buoys 20B and 20C.		"	Feb. 17.	9:38 a.m. to 10:13 a.m.	25	m.	4.C	0	4.0			B.T.			SW	1 mile	Wind SW; Force 5; Sky partly clear; flood tide.
	38 56 15	76 23 24.							5	4.0								
									15	4.0								
									10	3.9								
									20	4.1								
									25	4.1								
8039	Bloody Pt. Lt. N 1/8 E; Thomas Pt. Lt. NE 5/8 N.		"	"	11:27 a.m. to 11:35 a.m.	27		3.C					B.T.			SXW	1½ "	Wind SW; Force 4; Sky hazy; flood tide
	38 52 18	76 23 42.																
8040	Bloody Pt. NNE½E; Thomas Pt. North.		"	"	1:25 p.m. to 1:50 p.m.	17½		1.0	0	5.0			B.T.			SXW	¾ "	Wind SW; Force 4; Sky overcast; flood.
	38 46 54	76 25 12.							5	8.0								
									10	4.3								
									14	4.5								
8041	Spar #1 E¾S; Bell 20A N1/8E		"	"	3:15 p.m. to 3:35 p.m.	21	M.	3.0	0	0.7			B.T.			ESE		Wind SW; Force 5; Sky partly clear; Ebb tide.
	38 41	76 25 30.							5	0.65								
									10	4.3								
									15	4.55								
									20	4.6								

Form 625.

INVESTIGATION BY Fish Hawk

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

128

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8042	Buoy #18 SSE 1/4 E; Bell 18A S 5/8 W. 38 37 30 76 25 12.	1225	Feb. 17.	4:35 p.m. to 4:50 p.m.	15½	hrd.S.	9.5					B.T.			S¼W	0.50	Wind S: Force 4; Sky partly clear. Ebb tide.
8043	James Pt. NEXN½N; Cove Pt. Lt. S½W 38 27 42 76 23.	"	" 18.	9:20 a.m. to 9:37 a.m.	19	sft.M.	1.5	0 5 10 15 19	0.85 1.2 2.55 3.8 4.15			B.T.			SXE	0.75	Wind NE: Force 1; Sky overcast; flood tide.
8044	Cove Pt. SWXW½W; Barren Id. SSE. 38 24 30 76 20 30.	"	" 18.	10:58 a.m. to 11:32 a.m.	19½	sft.M.	4.5	0 5 10 15 17	1.05 1.48 2.15 3.8 3.9			B.T.			SXE		Wind SE: Force 1; Sky overcast; Ebb tide.
8045	Drum Pt. Lt. SWXW; Cove Pt. Lt. NXN 3/8 N. 38 22 30 76 20	"	" 18.	12:50 p.m. to 1:07 p.m.	18½		4.5	0				30' Otter trawl			NXW		Ebb tide; sky part-ly clear.
8046	Cove Pt. W½S; Drum Pt. SW½W. 38 23 20 76 20	"	" 18.	1:12 p.m. to 1:28 p.m.	18		7.25					30' Otter trawl			SXE		Wind SE; Force 1; Sky partly clear; ebb tide.
8047	Spar #21 SSW½W; Cove Pt. NW 5/8 W. 38 22 30 76 20 24.	"	" 18.	1:45 p.m. to 2:02 p.m.	7½		9.0	0 5 7	1.8 1.3 1.45			B.T.			NXW		Wind SE; Force 1; Sky partly clear; ebb tide.
8048	Abeam Spar buoy 16D.	1224	" 18.	2:45 p.m. to 3:07 p.m.	25	sft.M.	4.5	0 5 10 15 20 25	1.7 1.45 2.45 3.5 3.7 3.8			B.T.			SXE		SE wind; Force 2; Sky overcast; ebb tide.
8049	Barren Id. Spar buoy 16D NXE½E.	"	" 18.	3:42 p.m. to 4:00 p.m.	25	hrd.	3.0					B.T.			SXE½E		Wind SE; Force 2; Sky overcast; ebb tide.
8050	Cedar Pt. WNW½W; Hooper Id. Lt. SE¾S.	"	" 19.	8:35 p.m. to 8:53 p.m.	20	hrd.M.	8.5					B.T.			SXE½E		Wind SE; Force 3; sky overcast, rain; flood tide.
8051	Cedar Pt. NW 7/8 W; Hooper Id. E 5/8 S.	"	" 19.	9:00 a.m. to 9:12 a.m.	21		8.0					B.T.			NXW		Wind SE; Force 3; Sky overcast, rain; flood tide.
8052	Hooper Id. Lt. East; Spar #16A NE¾N.	"	" 19.	9:55 a.m. to 10:10 a.m.	21	sft.bl.M.	5.0					B.T.			SXE		Wind SE; Force 3; Sky overcast, rain; flood tide.
8053	Hooper Lt. bears N 1/8 W.	"	" 19.	11:35 a.m. to 11:45 a.m.	24	sft.bk.M.	6.5	0 5 10 15 20 25	1.9 1.75 2.14 2.6 3.0 3.08			B.T.			SXE		Wind SE; Force 2; Sky overcast, rain; flood tide.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

129

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift dredge. Direction.	Drift dredge. Distance. (miles.)	Remarks.
8054	Pt. No. Pt. Lt. WNW½W;		1224	Feb. 19.	1:45 p.m. to 2:16 p.m.	20½		7.5					B. T.			SXE		Wind SE; Force 2; Sky overcast, rain; ebbing tide.
8055	Smith Pt. Lt. SSW; Buoy W½N.		"	" 21.	9:56 a.m. to 10:17 a.m.	18¾		2.5					B. T.			SSE		Wind N; Force 5; Sky clear; tide ebb.
8056	Smith Pt. Lt. NNW 1/8 W; Buoy NXW.		"	" 21.	10:53 a.m.	25	sft.bk.M.	3.0	0 5 10 15 20 25	2.05 2.0 1.98 2.38 2.45 2.45			B.T.			S½E		Wind N; Force 5; Sky clear; tide ebb; water samples taken at 11:45. Lost weight off sample machine.
8057	Smith Pt. Lt. SWXW¾W; Wicomico Lt. WXN½W.		"	" 21.	1:16 p.m. to 1:35 p.m.	28	hrd.	2.0					B.T.			S		Wind N; Force 5; Sky clear; ebb tide.
8058	Wicomico Lt. W¾S; Smith Pt. Lt. NW¾N.		"	" 21.	2:10 p.m. to 2:36 p.m.	7½	hrd.	1.0	0 5	1.8 1.8			B.T.			S		Wind N; Force 5; sky clear; ebb tide. water samples 6½ fm. 2 p.m.
8059	Smith Pt. Lt. NXW 5/8 W; Wicomico Lt. WSW.		"	" 21.	2:55 p.m. to 3:14 p.m.	27½		1.0					30' Otter trawl			NXE½E		Wind N; Force 5; sky clear; ebb tide.
8060	Lookout Lt. E 3/8 S; Gas buoy W 1/8 S.		557	" 22.	8:12 a.m. to 8:38 a.m.	13		1.0					B.T.			SE 7/8 E		Wind SW; Force 3; sky partly clear; tide flood.
8061	Piney Pt. N½W; St. George Id. E 7/8 S.		"	" 22.	10:11 a.m. to 10:27 a.m.	15		3.0	0 5 10 14	1.15 1.45 2.2 2.38			B.T.			NNW½W		Wind SW; Force 2; sky clear; ebb tide. water samples at 9:58
8062	Ragged Pt. Lt. NWXW 1/8 W; Piney Pt. E 3/8 N.		558	" 22.	10:34 a.m. to 10:49 a.m.	15		4.0					B.T.			NW		Wind SW; Force 2; Sky clear; ebb tide.
8063	Blackistone Lt. NWXN½W; red beacon NXE.		"	" 22.	1:37 p.m. to 1:47 p.m.	10		7.5	0 5 7 9	1.3 1.62 1.8 1.7			B.T.			W		WIND SW; Force 1; sky clear; tide ebb. Trawl carried away, line parting (recovered).
8064	Cobb Bar Lt. NXE 7/8 E; Cobb Pt. Beacon NNW½W.		"	" 22.	2:55 p.m. to 3:11 p.m.	7½	m.	8.0					B.T.			NWXW 3/8W		Wind SW; Force 2; sky clear. ebb tide.
8065	Persimmon Pt. N 3/8 W; Spindle N 3/8 E - Can WXS 7/8 S.		559	" 23.	8:26 a.m. to 9:13 A.M.	16		5.0	0 5 9 13	0.4 0.5 0.58 1.6			B.T.			N½W		Wind NE; Force 5; sky overcast; ebb tide. Water samples at 9:40.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

130

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Dairy dredge. Direction.	Dairy dredge. Distance. (miles.)	Remarks.
8066	Persimmon Pt. Beacon S 7/8 W	Mathias Pt. Lt. WNW¼W.	559	Feb. 23.	10:45 a.m. to 10:59 a.m.			6.0					B. T.			NW		Wind NE; Force 5; sky overcast (snow); ebb tide.
8067	Upper Cedar Pt. W 7/8 S;	Mathias Lt. SW¾W.	"	" 23.	11:40 a.m. to 11:51 a.m.	20		6.0	0 5 10 15 18	.05 .22 .35 .4 .4			B.T.			W		Wind NE; Force 5; sky overcast (snowy); slack tide.
8068	Maryland Lt. SW 1/8 W;	Somerset Rock SE¾E.	"	" 23.	1:25 p.m. to 1:36 p.m.	8½		6.0					B.T.			SWXW½W		Wind NE; Force 5; sky overcast (snowy); flood tide.
8069	Liverpool Lt. dock SSE;	buoy SE¾S.	"	" 23.	2:36 p.m. to 2:56 p.m.	6½		6.0					B.T.			N		Wind NE; Force 5; sky overcast (snow); flood tide.
8070	Sandy Pt. N¾E; Thomas Pt.	SWXW.	1225	March 18.	10:41 a.m. to 11:02 a.m.	19		48					B.T.			S 3/8 W.		Wind W; Force 6; Sky overcast & cloud tide flood.
8071	Bloody Pt. S 5/8 W; Thom-	as Pt. SWXW 3/8 W.	"	" 19.	4:10 p.m. to 4:23 p.m.	19½		38	0 5 10 15 20	2.5 2.0 1.1 1.15 1.1			30' Otter trawl			S½W		Wind W; Force 4; sky partly clear; ebb tide.
8072	Thomas Pt. Lt. NWXN;	Bloody Lt. S.	"	" 19.	4:56 p.m. to 5:18 p.m.	26		35					B.T.			SXW½W		Wind W; Force 5; sky overcast; ebb tide.
8073	Bloody Lt. NNE½E;	Herring Bay Beacon WXS.	"	" 21.	7:45 a.m. to 8:06 a.m.	17		24					B. T.			SW¼W		Wind NW; Force 3; sky partly clear; ebb tide.
8074	Bloody Lt. NXE½E;	Sharps Id. SE¾S.	"	" 21.	9:33 a.m. to 9:56 a.m.	21		32	0 5 10 15	1.25 1.75 1.6 1.6			B.T.			SXE¾E		Wind NW; Force 2; sky clear; ebb tide.
8075	Sharps Lt. EXN½N;	Buoy #18 - SEXS.	"	" 21.	10:23 a.m. to 10:31 a.m.	18		32	0				B.T.			S½E		Wind NW; Force 2; sky clear; ebb tide.
8076	Sharps Lt. NNE½E;	Buoy #18A N½E.	"	" 21.	11:28 a.m. to 11:39 a.m.	11½		36	0 5 9½	1.65 1.6 1.8			B.T.			S¾E		Wind NW; Force 2; sky clear; ebb tide.
8077	Cove Pt. Lt. S½W;	Sharps Id. Lt. N 7/8 E.	"	" 21.	12:40 p.m. to 12:49 p.m.	19½		34	0 5 10 15 18	2.2 1.7 1.9 1.9 1.9			B.T.			S¾E		Wind NW; Force 2; sky clear;

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 1914.

131 ~~116~~

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift dredge. Direction.	Drift dredge. Distance. (miles.)	Remarks.
8078	Sharps Lt. N; Cove Pt. Lt. SWXN½W.		1224	March 21.	2:25 p.m. to 2:47 p.m.			36	0 5 10 15	2.5 1.91 1.98 1.98			B. T.			S¼W		Wind NW; Force 2; sky overcast.
8079	Cove Pt. Lt. SW¼W; James Pt. NXE 3/8 E.		"	" 21.	3:40 p.m. to 3:51 p.m.	9	M.	36	0 5 8	2.1 1.7 1.75			B. T.			S½W		Wind NW; Force 3; sky overcast; ebb tide.
8080	Cedar Pt. Lt. NW½W; Buoy #16E ENE½E.		"	" 21.	4:20 p.m. to 4:42 p.m.	25		34	0 5 10 15 20 25	2.1 2.0 1.9 2.0 2.0 2.0			B. T.			SW 5/8 S.		Wind NW; Force 3; sky overcast; ebb tide.
8081	Cove Pt. Lt. NNE⅝E; Hoopers Id. Lt. SE⅝S.		"	" 22.	1:35 p.m. to 1:45 p.m.	20½	hrd.	30					8' B. T.			SXE½E		Wind NE; Force 2; sky partly clear.; ebb tide.
8082	Cedar Pt. Lt. NWXW¼W; Hoopers Id. Lt. SEXE½E.		"	" 22.	1:55 p.m. to 2:11 p.m.	21½		30					B. T.			SXW		Wind NE; Force 2; sky partly clear; ebb tide.
8083	Pt. No Pt. SWXS; Hoopers Id Lt. N 5/8 W.		"	" 22.	2:55 p.m. to 3:06 p.m.	20		30	0 5 10 15 20	2.15 2.0 2.02 2.02 2.05			B. T.			S¼W		Wind NE; Force 2; sky partly clear; ebb tide.
8084	Holland Id. Bar Lt. EXS; Pt. No Pt. WXN.		"	" 22.	4:00 p.m. to 4:12 p.m.	20		32	0 5 10 15 18	2.32 2.05 2.22 2.10 2.10			B. T.			S 5/8 E.		Wind NE; Force 2; sky clear; ebb tide.
8085	Pt. No Pt. NNW; Pt. Lookout WSW.		1223	" 22.	4:40 p.m. to 4:51 p.m.	8		31	0 5	2.15 2.0			B. T.			WSW		Wind NE; Force 2; sky partly clear; tide slack.
8086	Wicomico Lt. SWXW½W; Smith Pt. NW½N.		"	" 23.	8:03 a.m. to 8:20 a.m.	22½		34	0				B. T.			S⅜E		Wind SSW; Force 3; sky partly clear; flood tide.
8087	Wicomico Lt. WSW¼W; Smith Pt. Lt. NXW.		"	" 23.	9:22 a.m. to 9:35 a.m.	23⅜		35	0 5 10 15 20 24	2.21 2.3 2.88 2.86 2.5 2.4			30' Otter trawl			SXW		Wind SSW; Force 3; sky partly clear; flood tide.
8088	Wicomico Lt. WXS 1/8 S; Smith Pt. Lt. N⅝W.		"	" 23.	9:45 a.m. to 9:56 a.m.	24⅜		35					4' hoop net			NXE		Wind SSW; Force 3; sky partly clear; flood tide.

Form 625.

RECORD OF CHESAPEAKE BAY. INVESTIGATION BY FISH HAWK 1914.

132

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8089	Pt. Lookout NEXE 5/8 E; Wreck buoy EXT.		557	March 23.	12:01 p.m. to 12:24 p.m.			42					B. T.			NNXW		Trawl fouled. Wind S; Force 1; Sky clear; flood tide.
8090	Pt. Lookout E 7/8 N; Smith Creek Beacon NXW 1/8 W.		"	" 23.	1:06 p.m. to 1:19 p.m.			50					B. T.			WSW		Wind S; Force 1; flood tide.
8091	St. George Pt. E 3/8 S; Piney Pt. Lt. N 5/8 W.		"	" 23.	2:56 p.m. to 3:11 p.m.	16		4.8 C.	0 5 10 13½	4.1 2.1 2.12 1.95			B. T.			NNW		Wind SW; Force 3; sky clear;
8092	Piney Pt. Lt. N¼W; St. George Pt. SEXE 5/8 E.		"	" 23.	3:25 p.m. to 3:33 p.m.	10		4.8					Hoop net			SEXS		Wind SW; Force 3; sky clear. Net carried away.
8093	Piney Pt. Lt. SEXE½E; Ragged Pt. Lt. WNW.		558	" 23.	4:10 p.m. to 4:17 p.m.	13		4.8					B. T.; m.b.			NXW½W		Wind SW; Force 3; sky clear; ebb tide.
8094	Blackistone Lt. N½E; Black Beacon NXE.		"	" 23.	5:39 p.m. to 5:45 p.m.	10½		4.8	0 5 6	3.81 2.2 2.1			B. T.					Wind SW; Force 2; sky clear; ebb tide.
8095	Cobb Pt. Lt. NNW 5/8 W; Gas Buoy #9A S 3/8 W.		"	" 24.	7:55 a.m. to 8:08 a.m.	5½		3.8					B. T.			In circle.		Wind N; Force 2; sky clear; ebb tide.
8096	Can SW; Lower Cedar Pt. N 7/8 W.		"	" 24.	9:40 a.m. to 9:55 a.m.	17		4.0	0 5 10 16	3.6 2.4 2.4 2.4			B. T.			NXW		Wind N; Force 2; sky clear; ebb tide.
8097	Persimmon Pt. Beacon SXW; Buoy S24 - NE½E.		559	" 24.	10:57 a.m. to 11:10 a.m.	17		4.2					B.T.			NW½N		Wind N; Force 2; sky clear; ebb tide.
8098	Upper Cedar Pt. WXS; Mathias Lt. SW 5/8 S.		"	" 24.	11:25 a.m.			4.2	0 5 10 17	3.6 2.75 2.55 2.45								Wind N; Force 2; sky clear.
8099	Somerset Dock SE 7/8 E; Maryland Pt. Lt. SW½W.		"	" 24.	12:36 p.m. to 12:43 p.m.	7½		4.2	0 5 7	4.3 4.3 4.3			B. T.					Wind N; Force 1; sky clear; ebb tide.
8100	Buoy #27 N½W; Liverpool Dock S 5/8 E.		"	" 24.	2:10 p.m.	5¾		5.0	0 5	4.5 4.4								Flood tide.
8101	Off Gaumont.		"	" 24.	3:20 p.m.			5.1	0 5 10	4.9 4.6 4.58								Ebb tide.
8102	Piscataway Creek.		560	" 24.	4:15 p.m.				0 5 6	5.0 4.8 4.8								

Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY FISH HAWK — 1914.

133

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8103	Bloody Pt. Lt. S 7/8 W; Thomas Pt. SWXW.	1225	April 16.	1:30 p.m.	14	Sh.hrd.M.	50										
8104	Thomas Lt. NNW 7/8 W; Bloody Pt. S.	"	" 16.	2:05 p.m. to 2:30 p.m.		hrd.S.	52	0 5 10 15 20 25	8.25 5.86 4.18 4.11 4.11 4.11			B. T.; #5. B. T.; Str. net.-	0		SXW SXE		Wind NW; Force 3; Sky cloudy; ebb tide. Wind NW; Force 3; sky cloudy; ebb tide.
8105	Bloody Pt. Lt. SE 7/8 E; Thomas Pt. SXE 5/8 E.	"	" 16.	3:25 p.m. to 3:41 p.m.	22		56					Otter trawl					
8106	Thomas Lt. SWXW¾W; Sandy Pt. N 5/8 E.	"	" 16.	4:33 p.m. to 4:51 p.m.	19		55	0 5 10 15 18	8.46 5.5 4.0 3.71 3.71			B. T.					Wind NW; Force 3; sky cloudy; ebb tide. Wind NW; Force 3; sky cloudy; ebb tide.
8107	Bloody Pt. NNE½E; Bell buoy #20A SSW¾W.	"	" 17.	8:31 a.m. to 8:56 a.m.	17		50	0 5 6 7 8 9 10 15	8.1 7.11 6.9 5.6 4.68 4.55 4.5 4.3			B. T. #5					Wind SSW; Force 2; sky partly clear; ebb tide.
8108	Gas Buoy NEXE½E; Nun 20 NEXE¾E.	"	" 18.	8:21 a.m. to 8:31 a.m.	8	hrd.S.	61					B. T. #5.					Wind S; Force 2; sky clear.
8109	Sp. #1 E½N; Sharp Id. Lt. SE½S.	"	" 18.	10:00 a.m. to 10:10 a.m.	21	M.	59	0 5 7 10 15 20	8.47 7.38 6.19 5.0 4.82 4.71			B. T.					Wind SE; Force 2; sky clear.
8110	Nun B18 - SXE 1/8 E; Sharps Id. Lt. E 1/8 N.	"	" 18.	10:27 a.m. to 10:37 a.m.	14	hrd.	60					B. T.					Wind SE; Force 3; sky clear.
8111	Gas Buoy 18A South; Spar 16F ESE½E.	"	" 18.	11:48 a.m. to 11:58 a.m.	10¾	M.	61	0 5 7 9	9.38 7.6 6.76 5.98			B. T.					Wind SE; Force 3; sky clear.
8112	Gas Buoy 18A - NE; Spar 16F - E½N.	"	" 18.	12:46 p.m.			60	0 1 2 3 4 5 6	10.0 9.86 9.8 8.32 8.32 8.1 5.64								Wind SE; Force 3; sky clear.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1914.

133

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8103	Bloody Pt. Lt. S 7/8 W; Thomas Pt. SWXW.	1225	April 16.	1:30 p.m.	14	Sh.hrd.M.	50					B. T.; #5.			SXW		Wind NW; Force 3; Sky cloudy; ebb tide.
8104	Thomas Lt. NNW 7/8 W; Bloody Pt. S.	"	" 16.	2:05 p.m. to 2:30 p.m.		hrd.S.	52	0 5 10 15 20 25	8.25 5.86 4.18 4.11 4.11 4.11			B. T.; Str. net.	0		SXE		Wind NW; Force 3; sky cloudy; ebb tide.
8105	Bloody Pt. Lt. SE 7/8 E; Thomas Pt. SXE 5/8 E.	"	" 16.	3:25 p.m. to 3:41 p.m.	22		56					Otter trawl					
8106	Thomas Lt. SWXW½W; Sandy Pt. N 5/8 E.	"	" 16.	4:33 p.m. to 4:51 p.m.	19		55	0 5 10 15 18	8.46 5.5 4.0 3.71 3.71			B. T.					Wind NW; Force 3; sky cloudy; ebb tide.
8107	Bloody Pt. NNE½E; Bell buoy #20A SSW½W.	"	" 17.	8:31 a.m. to 8:56 a.m.	17		50	0 5 6 7 8 9 10 15	8.1 7.11 6.9 5.6 4.68 4.55 4.5 4.3			B. T. #5					Wind SSW; Force 2; sky partly clear; ebb tide.
8108	Gas Buoy NEXE½E; Nun 20 NEXE½E.	"	" 18.	8:21 a.m. to 8:31 a.m.	8	hrd.S.	61					B. T. #5.					Wind S; Force 2; sky clear.
8109	Sp. #1 E½N; Sharp Id. Lt. SE½S.	"	" 18.	10:00 a.m. to 10:10 a.m.	21	M.	59	0 5 7 10 15 20	8.47 7.38 6.19 5.0 4.82 4.71			B. T.					Wind SE; Force 2; sky clear.
8110	Nun B18 - SXE 1/8 E; Sharps Id. Lt. E 1/8 N.	"	" 18.	10:27 a.m. to 10:37 a.m.	14	hrd.	60					B. T.					Wind SE; Force 3; sky clear.
8111	Gas Buoy 18A South; Spar 16F ESE¼E.	"	" 18.	11:48 a.m. to 11:58 a.m.	10¾	M.	61	0 5 7 9	9.38 7.6 6.76 5.98			B. T.					Wind SE; Force 3; sky clear.
8112	Gas Buoy 18A - NE; Spar 16F - E½N.	"	" 18.	12:46 p.m.			60	0 1 2 3 4 5 6	10.0 9.86 9.8 8.32 8.32 8.1 5.64								Wind SE; Force 3; sky clear.

Form 625.

RECORD OF Chesapeake Bay INVESTIGATION BY Fish Hawk 1914.

268 134

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8113	Bloody Pt. Lt. S 5/8 W; Thomas Lt. WSW½W.		1225	April 27.	1:47 p.m.	22		60	0	12.95								
									2½	9.5			Otter trawl			S		
									5	8.35								Wind NE; force 3; sky clear; ebb tide.
									7	5.6								
									10	5.55								
									15	5.7								
									20	5.83								
8114	Thomas Pt. NXW½W; Bloody Pt. SW 5/8 S.		"	"	27. 2:30 p.m.	28		62	0	12.48								
									2½	10.55								
									5	7.77								Wind NE; Force 3; sky clear;
									10	6.85								
									15	5.92								
									20	5.95								
									25	5.98								
8115	Num B20 - ENE½E; Gas Buoy 20A - SW.		"	"	27. 3:45 p.m.	18		64	0	11.55								
									5	9.48								
									6	7.14								Wind NE; Force 2; sky clear; ebb tide.
									7	6.4								
									10	6.08								
									15	6.4								
									17	6.45								
8116	Sharps Lt. NEXE 5/8 E; Buoy SE 5/8 E.		"	"	27. 5:15 p.m.	17½		70	0	12.5								
									2½	10.82								
									5	8.71								Wind NE; Force 2; sky clear.
									10	6.42								
									15	6.35								
									7	6.73								
8117	Buoy 16F - ENE; Bell 18A North.		"	"	27. 6:30 p.m.	10½		61	0	13.05								
									2½	11.1								
									5	9.0								Wind NE; Force 2; sky clear.
									10	7.3								
8118	Cove Pt. NW; Cedar Pt. SWXW½W.		1224	"	27. 8:35 p.m.	27½		57	0	12.0								
									2½	10.68								
									5	7.25								Wind NE; Force 2; sky clear; ebb tide.
									10	7.82								
									15	8.3								
									20	8.38								
									25	8.4								
8119	Cove Pt. NW; Cedar Pt. SWXW 3/8 W.		"	"	28. 8:57 a.m. to 9:13 a.m.	25		60					B. T.			NWXW		Wind NNW; Force 2; sky cloudy.
8120	Hooper Id. Lt. SE½E; Cedar Pt. NWXW 3/8 W.		"	"	28. 9:50 a.m. to 10:15 a.m.	23		62					B. T.			SSE		Wind NNW; Force 1; sky cloudy.
8121	Hooper Id. Lt. NE 3/8 N; Spar 16A - N½E.		"	"	28. 11:07 a.m.	20		62	0	12.0			B. T.			S 3/8 E.		Wind NNW; Force 1; sky partly clear; ebb tide.
									3	10.56								
									5	8.82								
									10	8.12								
									15	8.79								
									18	8.8								

Form 625.

INVESTIGATION BY Fish Hawk 1922.

RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1914.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Water. Depth. (fms.)	Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8122	Pt. No Pt. SW¼W; Hooper Lt. N 3/8 W.		1224	April 28.	11:55 a.m. to 12:05 p.m.	19½		62					B. T.			S¼W		Wind NNE; Force 2; sky clear; ebb tide.
8123	Pt. No Pt. WNW¾W; Buoy 16 SXE½E.		"	" 28.	12:30 p.m.	20		66	0 1 2 3 4 5 6 7 10 15 19½	13.4 12.45 11.3 11.05 10.5 9.55 8.8 8.63 8.92 9.02 9.02			B. T.; Otter trawl.					Wind NNE; Force 2; sky clear.
8124	Smith Pt. S¾W; Buoy #14 SXW½W.		"	" 28.	3:35 p.m.	15		67	0 1 2 3 4 5 10 14½	14.24 13.75 12.6 10.9 10.4 10.45 9.45 9.32			B. T.			SSE		Wind NNE; Force 2; sky clear.
8125	S.P. light N 7/8 W; Wicomico Lt. WSW½W.		"	28.	5:10 p.m.	25			0 3 5 10 15 20 24	13.55 12.25 11.55 9.88 9.52 9.36 9.2			B. T.			N½W		Wind SE; Force 2; sky clear.
8126	Smith Pt. NXW 3/8 W; Buoy #19 N¼W.		May 2.		8:45 a.m.	25	hrd.M.	54	0 5 10 15 20	13.10 12.19. 10.76 10.30 9.92			8' B. T.					Wind E; Force 2; sky clear; flood tide
FISHING BANK OFF BEAUFORT, N.C.																		
8197	21 miles SXW 7/8 W of bell buoy. 34 19 76 48.		Aug. 1.		11:20 a.m. to 11:35 a.m.	15½	hrd.						8' B. T.; surf.net	14½				Wind SSW; Force 2; sky partly clear; Sea, lt. swell; surf.-net carried away.
8198	Buoy bears end of run EXS 2 miles.		"	1.	12:45 p.m. to 1:00 p.m.	14½	hrd.						8' B. T.; surf. net.	14½ 0	8 8			Wind SSW; Force 2; sky partly clear; Sea: light swell.
8199	Buoy bears end of run ESE 3 miles.		"	1.	1:21 p.m. to 1:33 p.m.	15	hrd.						8' B. T.; surf. net.	14½ 0	14 12			Wind SSW; Force 2; sky partly clear; Sea: light swell.
8200	Course from buoy due East. Buoy bears at end of run due West ½ mile.		"	1.	3:14 p.m. to 3:26 p.m.	16½	smth.						8' B. T.	14½	12			Wind SW; Force 2; sky partly clear; Sea: light swell.

Form 625.

RECORD OF FISHING BANKS OFF BEAUFORT, N.C. INVESTIGATION BY FISH HAWK 1914.

136 ~~227~~

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8201	Running due east from buoy 1½ miles.			Aug. 10.	11:15 a.m. to 11:42 a.m.	14½	rough						3 surf. nets. m.b.	0 14½	25 25	E of buoy	1½	Wind SW; Force 3; sky partly clear; Sea gentle swell.
8202	Running due South from buoy 3½ miles.			" 10.	1:12 p.m. to 2:14 p.m.	14½							3 surf. nets. m.b.	0 14½	1 12 1 12	S of buoy	3½	Wind SW to S; Force 3-5; Sky partly clear Sea: Gentle swell; at end of run fishing lines put over.
8203	Course due North.			" 10.	2:40 p.m. to 2:46 p.m.	15½	smooth						8' B. T.	16	6	due N.		Wind S; Force 3; sky partly clear; Sea gentle swell.
8204	Buoy bears due North - dist. of 1 mile. at start of dredge.			" 10.	3:26 p.m. to 3:31 p.m.	14½							8' B. T.; m.b.	14½	5			m.b. torn; Wind S; Force 3; Sky overcast rain; Gentle sea.
8205	Course due West from buoy.			" 10.	3:46 p.m. to 5:02 p.m.	14½							3 surf. nets. m.b.	0 14½	1 16 1 16	W	3	Wind S; Force 5; sky overcast (rain); Gentle swell.
8206	Course due North from buoy.			" 11.	8:06 a.m. to 8:45 a.m.	14½	smooth						3 surf. nets. m.b.	0 14½	39 39	N	2	Wind S; Force 2; sky clear; gentle swell; lay at fishing from 8:45 to 9:15
8207	Course due South to buoy.			" 11.	9:15 a.m. to 9:21 a.m.	14	scattered Co.						8' B. T.: m.b. 3 surf nets.	14 0	6 7	S		Wind S; Force 2; sky clear; gentle swell; fishing with lines from 9:25 to 9:50 a.m. caught 61.
8208	Course from buoy NE.			" 11.	10:23 a.m. to 10:43 a.m.	14½	Sh.						m.b. 2 surf. nets.	14½ 0	20 29	NE	1	Wind S; Force 3; sky clear; gentle swell; hand line fishing at 10:43 a.m.
8209	Course from Buoy SE.			" 11.	11:00 a.m. to 1:35 p.m.	14½	smooth; Co.						m.b. 2 surf. nets. Triangle dr.	14½ 0 14½	11 25 42	SE	3	m.b. fouled; Wind S Force 3; Sky clear; gentle sea; H.L. fishing.
8210	Course NWXW - toward buoy.			" 11.	2:02 p.m. to 2:07 p.m.	14½	hrd.						8' B. T.; m.b. 2 surf. nets.	14½ 0	5 2	NWXW		Wind SW; Sky clear; gentle swell.
8211	Course NWXW - toward buoy.			" 11.	2:30 p.m. to 2:37 p.m.	15	rough						8' B. T.; m.b. 2 surf. nets.	15 0	7 4	NWXW		trawl fouled, 1½ miles SE of buoy. Wind SW-2; Sky clear; gentle swell. H.L. fishing at end of trawling. Most distant point in this direction blackfish have been taken.

Form 625.

INVESTIGATION BY Fish Hawk 1922.

268

RECORD OF FISHING BANKS OFF BEAUFORT, N.C. INVESTIGATION BY FISH HAWK 1914.

137 ~~126~~

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8212	Course NW toward buoy (distance about 1 mile).			Aug. 11.	3:06 p.m. to 3:16 p.m.	14¾	rough.						8' B. T.; m.b. 2 surf. nets.	14¾ 0	10 1			Wind SW; Force 2; sky clear; gentle swell; H.L. fishing excellent.
8213	Course NW from buoy.			" 11. " 12.	4:10 p.m. to 8:27 a.m.	14½	hrd.						triangle dr. 2 surf. nets.	14½ 0	27 12			Wind SW-2, Aug.11; SW-4 Aug.12; sky clea gentle swell; H.L. fishing; anchored over night; total distance run 4½ mi.
8214	4½ mi. NW of Can buoy.			" 12.	8:55 a.m. to 9:10 a.m.	13½							8' B. T.; m.b. 2 surf. nets	13½ 0	15 35			Wind SW; Force 4; sky partly clear; gentle swell; H. L. fishing.
8215	1½ miles NW of Buoy.			" 12.	9:42 a.m. to 9:53 a.m.	13½	rough.						8' B. T.; m.b. 2 surf. nets.	13½ 0	11 11			Wind SW; Force 3; sky partly clear; gentle swell; 15 min. H. L. fishing.
8216	Course SW from can buoy.			" 12.	10:20 a.m. to 11:00 a.m.	14½	smooth, hrd.						Toothed triangle 2 surf. nets.	14½ 0	40 38	SW	2	Wind SW-3; Sky partly clear; gentle swell H. L. fishing.
8217	Course NE from buoy.1 mile.			" 12.	11:10 a.m. to 11:21 a.m.	15½	smooth						8' B. T.	15½	11			Wind SW-3; Sky partly clear; gentle swell a
8218	Course NE ½ mile from buoy.			" 12.	11:31 a.m. to 11:40 a.m.	14¾	smooth						8' B. T. 2 surf. nets.	14¾ 0	9 9			Wind SW; Force 3; Sky partly clear; gentle swell.
8219	Course ENE; Can buoy abeam at conclusion of run.			" 12.	1:18 p.m. to 2:02 p.m.	14½							Toothed triangle 2 surf. nets.	14½ 0	44 44			Wind SW; Force 4; sky partly clear; gentle swell.
8220	¼ mile NNE of can buoy.			" 12.	2:10 p.m. to 2:20 p.m.	14½	rough.						8' B. T.	14½	10			Wind SW; Force 4; sky partly clear; gentle swell.
8221	Course SSE from buoy.			" 12.	2:40 p.m. to 3:41 p.m.	14	hrd.						Toothed triangle 2 surf. nets.	14 0	1 01 1 00		4	Wind SW-4; Sky partly clear; gentle sea; H.L. fishing, 8 min.
OFF BROWN'S INLET, N.C.																		
8222	Course SEXS; 1¾ mi. from Brown's Inlet at start.			" 18.	12:53 p.m. to 1:12 p.m.	5¾							Toothed triangle Tow net	5¾ 0	19 8		1	Wind SW-3; Sky clear very gentle swell.

Remarks.

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Form 625.

RECORD OF OFF BROWN'S INLET, N.C. INVESTIGATION BY FISH HAWK 1914.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift/dredge. Direction.	Drift/dredge. Distance. (miles.)	Remarks.
8223	Course NWXN from buoy. Note: small boat anchored to be called buoy. Buoy was advanced 2½ miles SE 7/8 S of the mouth of Brown's Inlet.			Aug. 18.	1:34 p.m. to 1:51 p.m.	6½	hrd.						8' B. T. Tow net	6½ 0	17 16		1½	Wind SE; Force 3; sky clear; gentle swell; 1 blackfish caught on hand line.
8224	Course due South from buoy.			" 18.	2:14 p.m. to 2:31 p.m.	7	S.											
8225	Course due E. of buoy.			" 18.	4:10 p.m. to 4:40 p.m.	7½	hrd.						Toothed triangle Tow net	7 0	17 15		1	Wind SE; Force 3; sky clear; gentle swell; h.l. fishing.
8226	Course due W. to buoy. 1½ miles East of buoy.			" 18.	4:48 p.m. to 5:02 p.m.	7½							Toothed triangle Tow net.	7½ 0	30 20		1½	Wind SE; Force 3; sky clear; gentle swell; good fishing.
8227	Course West from buoy.			" 19.	8:10 a.m. to 8:31 a.m.	6½							8' B. T.; m.b.	7½	14		1	Wind SE-3; Sky partly clear; gentle swell.
8228	Course North from buoy.			" 19.	8:55 a.m. to 9:30 a.m.	6½							Toothed triangle Tow net.	6½ 0	21 21		1½	Wind W-2; Sky clear sea smooth.
8229	Course NE from buoy.			" 19.	10:29 a.m. to 10:36 a.m.	6½							Toothed triangle Tow net.	6½ 0	43 43		1½	Wind W-2; Sky partly clear; sea smooth;
8230	Course NW from buoy.			" 19.	10:49 a.m. to 10:53 a.m.	6½							Toothed triangle	6½	7		½	Wind W-3; Sky partly clear; sea smooth no success at h.l. fishing.
8231	Course SE from buoy.			" 19.	11:05 a.m. to 11:35 a.m.	6½							Toothed triangle	6½	4		3/8	Wind W-2; Sky partly clear; sea smooth 1 small black fish taken h.l.fishing (7 minutes).
8232	Course SW from buoy.			" 19.	12:03 p.m. to 12:19 p.m.	6½							Toothed triangle	6½	30		1½	Hand line fishing good.
8233	¾ mile SE of New River Inlet Courses ESE; SE; E; S.			" 19.	3:25 p.m. to 5:10 p.m.	5-4½							Drag iron	6½			7/8	Wind S; Sky clear; sea smooth.
8234	1¾ mile SE of New River Inlet.			" 20.	8:06 a.m. to 8:40 a.m.	4½-7							Toothed triangle	5	1 45		2½	Intermittant h.l. fishing and dragging.
													Triangle dr. Tow net.	4½ 0	33 20	S	1½	Wind SW; Force 1; sky partly clear; sea smooth; h.l. fishing, caught 1 black fish.

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Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF OFF NEW RIVER INLET, N.C. INVESTIGATION BY FISH HAWK 1914.

139

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. dredge. Direction.	Drift. dredge. Distance. (miles.)	Remarks.
8235	1¾ mile SE of NEW River. Course due East of buoy.			Aug. 20.	9:10 a.m. to 10:17 a.m.	4½-5							Triangle dr. T. nets.	4½ 0	45 1 5	E	1½	Wind SE-2; Sky partly clear; sea smooth; h.l.fishing.
8236	1¾ miles SE off New River Inlet. Course SE from buoy.			" 20.	11:22 a.m. to 12:32 p.m.	4¾	rky.						Triangle dr.	4¾	8	SE	3½	Wind SW-3; Sky partly clear; gentle swell
8237	3 miles SW of Bear Inlet. Course NE.			" 20.	1:03 p.m. to 1:45 p.m.	6½-7	S.Sh.						Triangle drag.	7	42	NE	2½	Wind SW-2; ground swell; ran out to 7½ fm. tried h.l.fishing without success.
8238	Off Bougue Inlet buoy 1 mile NE. Course NE to buoy.			" 20.	2:40 p.m. to 3:03 p.m.	6¾-7	S.						Triangle dr.	7½ 6½	14 3	NE	1	Wind S-3; fishing 2:55 to 2:59 no fish.
8239	Off Bougue Inlet, N.C. Course SExS from buoy.			" 20.	3:05 p.m. to 3:12 p.m.	5½-7	S.						T. dr.	5½	7	SEXS	500 yd.	
8240	23 miles East off Lookout Light Ship. 34 05 37	76 15.		Sept. 1.	11:10 a.m. to 11:50 a.m.	62		0 25 50	84.8 83.6 81.8				Bk. bot.; NZ; 8' B. T. Tow net.	62 0	15 15	SSE½E		Wind E-3; Sky partly clear; sea moderate.
GULF STREAM																		
8241	34 10 00	76 09 15.		" 1.	1:10 p.m. to 2:30 p.m.	194		0 0 10 10 50 50 100 100 150 175	84.5 16.3* 85.0 14.6* 79.0 14.58* 65.0 14.6 63.6 60.8				8' B. T. Dalghren tow net small tow net Bk. bot.; NZ.; S.V.	194 0 0	23 24 24	N3/8 E	1	* Correction 29.7 * " 29.2 * " 26.0
8242	34 06 30	76 09 00.		" 1.	3:45 p.m. to 4:52 p.m.	90		0 10 50 75	85.3 85.0 78.0 68.4				8' B. T. Dalghren tow net 2 tow nets Bk. bot.; NZ.	90 0 0	20 27 27	E		Wind E-3; Sky partly clear; sea moderate. Wind E-3; Sky partly clear; sea gentle.
8243	34 12 35	76 01 23.		" 1.	6:30 p.m. to 7:10 p.m;	168		0 0 10 10 50 50 100 100 150 150	84.8 85.1 84.1 85.0 78.4 79.0 66.6 67.0 61.8 62.2				NZ#80479 NZ#98267 4' tow net Bk. bot.; #5 net; 3 surf. nets.			SW		Wind SE-3; Sky partly clear; sea moderate. 4' tow net in 25 fms at 7:20 p.m.
8244	34 21 00	75 51 40.		" 2.	1:25 p.m. to 2:35 p.m.	66		0 0 10 10 50 50	85.0 85.4 85.0 85.4 69.9 70.2				NZ#80479; Bk. bot. NZ#98267 8' B. T. 3 tow nets	66 0	25 50	SE½S.		Wind SE-3; Sky partly clear; sea moderate.

Form 625.

RECORD OF _____ INVESTIGATION BY Fish Hawk 19 14.

Station Number.	Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.)	Tidal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8245	34 24 00	75 48 20.		Sept. 2.	3:00 p.m. to 4:00 p.m.	100			0	84.3			M/80479; Dr.bot.					Wind E-3; Sky p
									0	84.8			M/98267					ly clear; Sea mod
									10	83.9			6' S. T.					erate; Depth at end of
									10	84.3			3 tow nets	100	25 S			run 111 fathoms.
									50	72.6				0	30			
									50	73.0								
									75	66.7								
									75	67.0								
									100	65.5								
									100	65.9								
8246	34 17 46	75 53 10.		" 2.	5:56 p.m. to 7:00 p.m.	158			0	84.0			M/80479; Dr.bot.					Wind W-3; Sky
									0	84.5			M/98267					ly clear; Sea mod
									50	72.5			6' S. T.					erate; Depth at end
									50	73.0			3 tow nets	158	20 W			run 151 fathoms.
									75	67.5				0	35			
									75	68.0								
									100	64.6								
									100	65.0								
									150	61.0								
									150	61.6								
8247	34 11 05	75 58 00.		" 3.	9:25 a.m. to 10:30 a.m.	98			0	85.6			M/80479; Dr. bot.					Wind W-3; Sky
									10	83.0								partly cloudy; Sea
									10	85.6			M/98267					moderate; Depth at
									50	71.0			6' S. T.					end of run 13
									50	71.4			3 tow nets.	98	30 WSW			
									75	66.2				0	40			
									75	66.6								
									98	62.2								
									98	62.7								
8248	34 12 52	76 01 56.		" 3.	10:45 a.m. to 12:10 p.m.	157			0	85.5			M/80479; Dr.bot.					
									0	84.0			M/98267					Wind W-4;
									50	70.8			6' S. T.					partly cloudy;
									50	71.2			2 tow nets.	208	25 SE			water; Depth a
									100	63.4				0	40			of run 208 fat
									100	63.8								
									150	57.2								
									150	57.5								
8249	34 12 00	76 04 56.		" 3.	1:55 p.m. to 2:10 p.m.	47			0	82.0			M/80479; Dr. bot.					Wind W-3; Sky
									0	83.7			M/98267					partly cloudy; Sea
									10	82.8			6' S. T.					moderate; Depth a
									10	83.2			2 tow nets	47	15 WSW			end of run 50 fat
									50	67.8				0	15			
									50	68.2								
BOCA GRANDE, Fla., just inside of Pass. 8250 "				1915. April 26.	9:30 p.m. to 10:00 p.m.	8½	hrd.						8- 1' tow nets.	0	30			Ship anchored.
													1- 4' " "	0	30			Wind SE; Force 5;
													1-8' " "	0	30			Sky clear; sea mod
													1- Nahlsen "	0	30			strong ebb tide.

This space to be left for binding.

Form 625.

RECORD OF BOCA GRANDE, FLA. INVESTIGATION BY FISH HAWK 1915. 141 ~~126~~

INVESTIGATION BY Fish Hawk 1922. 268

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift/Current. Direction.	Drift/Current. Distance. (miles.)	Remarks.
8251	Just inside of Pass.				April 27.	9:00 a.m. 5-1/8 hrd.								3-1' tow nets	0		Ship anchored.		Flood tide.
						10:00 a.m.								1 - Dahlgren net		30			Wind NE; Sky clear; h.
						11:00 a.m.								Current meter	5½	10	SW		sea mod.; ~~xxxxxxxx~~
						12:00 n.									"	10	SW		Current meter used
						1:00 p.m.									"	10	SW		200 yds. from ship;
						2:00 p.m.									"	10	NEXE		operated from whale- h.
						3:00 p.m.									"	10	N		boat. Ebb tide.
8252					" "	4:00 p.m. 5-1/8hrd.S.									"	10	NNW		" "
															"	10	N		" "
																			" "
														1-4' tow net	0				
														1-3' " "	0				Wind NW-3; Sky
														1 Dahlgren "	0				clear; sea calm
														3-1' nets.	0				
						5:00 p.m.								Current meter	5½				
						6:00 p.m.									"	10	NEXE		
						7:00 p.m.									"	10	NEXE		Ebb tide.
						8:00 p.m.									"	10	NE		" "
						9:00 p.m.									"	10	SWXW		" "
						10:00 p.m.									"	10	SWXW		Flood tide.
8253					" "	11:00 p.m. 5-1/8 hrd.									"	10	SWXW		" "
															"	10	SSW		" "
																			" "
														Current meter	15'	10	SWXS		
						12:00 m.									"	"	WXS		Flood tide. Meter op-
						1:00 a.m.									"	"	SEXS		erated from side ship
						2:00 a.m.									"	"	NE		Flood tide.
						3:00 a.m.									"	"	N		Ebb tide.
						4:00 a.m.									"	"	N		" "
						5:00 a.m.									"	"	NXW		" "
8254					" 28.	6:00 a.m. 5-1/8 hrd.S.													" " Sky clear;
						7:00 a.m.								Current meter	15'	10	SW		sea smooth.
						8:00 a.m.									"	"	SW		
						9:00 a.m.									"	"	SE		Flood tide.
															"	"	N		" "
GULF OF MEXICO.																			" "
8255	25 49 (begin)		82 08 30		" 28.	7:00 p.m.													" "
	25 46 (end)		82 07 30			to			0	22.0.	0	1.0245		3-1' tow nets	0	1 00			
						8:00 p.m.								1-4' " "	0	1 00			Wind N-4; Sky part
														1-3' " "	0	1 00			ly clear; sea mod.
														1-Dahlgren	0	1 00			speed 2.1 knots per hr
8256	Hawk Channel, Fla., off Alligator Reef Lt. House.				" 30.	7:00 p.m. 18' hrd.													
						to			0	24.5	0	1.0244		fish lines					Used successfully.
						9:00 p.m.			18'	24.5	18'	1.0244		dip nets					The "herring" were
																			very abundant about
																			the overhanging light
8257	Atlantic Ocean near Hillsboro Lighthouse, Fla. 3½ miles off shore.				May 1.	6:45 p.m.													Wind S-2; Sky clear;
						to			0	25.0	0	1.0236		1-4' tow net	0	45			sea smooth; no tidal
						7:30 p.m.								1-3' Dahlgren	0	45			current. Anchored.
														1 Dahlgren	0	45			
														3-1' nets	0	45			Wind S-2; Sky part-e.
																			ly clear; sea mod.
																			slow speed.

Form 605.

RECORD OF ..... INVESTIGATION BY FISH HAWK 1915.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Direct dredge. Direction.	Direct dredge. Distance. (miles.)	Remarks.
8258	Atlantic Ocean near Mosquito Inlet L.H. 6 mi. off Daytona, Fla.			May 2.	7:00 p.m. to 8:00 p.m.				0	24.0	0	1.0233	1-4' tow net 1-3' " " 1 Dahlgren 3-1' tow nets.	0 1 0 1 0 1 0 1				Towing speed slow. Sky partly cloudy; sea smooth.
8259	Atlantic Ocean 16 mi. off Sapelo Island Lighthouse, Ga.			" 3.	8:00 p.m. to 9:00 p.m.				0	23.0	0	1.0214	1-4' tow net 1-3' " " 1-Dahlgren 3-1' nets	0 1 0 1 0 1 0 1				Towing speed, 1 knoth. Wind SW; Force 3; sky clear; sea smooth.
8260	6 mi. off Beaufort, N.C.			" 6.	3:15 p.m. to 3:35 p.m.				0	19.0	0	1.023	1-4' tow net 1-3' " " 1-Dahlgren 3-1' nets	0 20 0 20 0 20 0 20				Towing speed, 1 knot Sky clear; sea mod.
8261	In Beaufort Harbor, off Beaufort Laboratory.			" 6.	7:15 p.m. to 9:00 p.m.				0	24.0	0	1.020	1-4' tow net 1-Dahlgren 1-1' net	0 0 0				Towing speed, slow. Sky clear; Wind SE, light breeze; sea sm.
8262	In Adams Creek near Neuse River, N.C.			" 8.	8:00 p.m. to 9:00 p.m.				0	22.0	0	1.008	2-1' tow nets	0 1				Ship aground; Wind SW; Force 7; sky cloudy; sea rough.
8263	Pamlico Sound, N.C. 15 mi. SW of Long Shore Light.			" 9.	8:00 p.m. to 9:00 p.m.				0	22.0	0	1.0104	2-1' tow nets	0 1				Ship anchored; Wind SW-4; Sky partly cloudy; sea mod.
8264	1 mi. SW of fishing buoy. 34 19	76 52.		July 6.	2:52 p.m. to 3:34 p.m.	14½	S.Co.						8' B.T.; m.b.	14½ 33				m.b. lost. 15½ fms. sea at end of run. Wind E-2; Sky partly clear sea mod.
8265	Onslow Bay. 34 14 45	76 50 30.		" 6.	4:20 p.m. to 4:50 p.m.	16	Rough* S. brk.Sh.G.						8' B. T.	16 23				*smooth after 5' run Wind SE-2; sky partly clear; Sea mod.
8266	34 06 45	77 04		" 6.	6:25 p.m. to 6:45 p.m.	16½	S.Co.						8' B. T.; m.b.	16½ 20	SWXW½S.			Wind SE-1; Sky partly cloudy; sea mod.
MURRYAN BAY, S.C. 8267	33 13 22	79 11 07.		" 9.		5	hrd.S.						2-4' stramen nets	15				7:05 to 7:20 p.m.
8268	33 13 22	79 11 07.		" 10.	8:35 a.m. to 9:20 a.m.	5	hrd.S.		0 0	27.C. 26½ C.			4' stramen SV#9384; Bk. bot. SV#541	1 37				Fished thru flood tide. Wind NE-5; sky partly clear.
8269	33 13 22	79 11 07.		" 10.	10:15 a.m. to 10:45 a.m.	5	hrd.S.		0 5	82.0 80.5			8' B. T. NZ#7277 8' B. T.; m.b.	5½ 25 5 15				Wind NE-5; Sky partly clear; sea smooth.
8270	33 13 22	79 11 07.		" 10.	11:25 a.m. to 11:45 a.m.	4½	hrd.S.		0 5	81.5 80.5			NZ#7277 Otter trawl	4½ 20				Towing speed, 2½ Kt. Wind NE-5; Sky partly cloudy; sea smooth
																		Towing speed, 4 Kt. 45 f. wire on otter trawl. Tore trawl on bottom losing fish.

Form 625.

INVESTIGATION BY Fish Hawk 1922.

268

RECORD OF KINYAN BAY, S.C. INVESTIGATION BY FISH HAWK 1915.

143

128

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift x dredge. Direction.	Drift x dredge. Distance. (miles.)	Remarks.
8271	33 11 27		79 11 07.		July 10.	1:25 p.m. to 1:35 p.m.	5	hrd.						8' B. T.	5	10			Towing speed, 2 kts. Wind NE-5; Sky partly cloudy; sea smooth
8272	33 13 22		79 11 07.		" 10.	1:47 p.m. to 2:15 p.m.	5	hrd.		0 5	82.5 81.0			NZ#7277 8' B. T.	5	19	NXW		Towing speed, 2 kts.
8273	33 13 22		79 11 07.		" 10.	2:55 p.m. to 3:15 p.m.	5½	hrd.						Otter trawl	5½	20			Towing speed, 2 kts.
8274	33 13 22		79 11 07.		" 10.	3:20 p.m. to 3:30 p.m.	5	hrd.						Otter trawl	5	15			Wind SE-3; Sky partly cloudy; sea smooth.
8275	33 49 45		78 04 00.		" 12.	2:25 p.m. to 2:55 p.m.	7	hrd.		0 8	83.0 80.5			NZ#7277 8' B. T. 4' stramen	7 "	25 15	SXE¾E.		Towing speed, 2 kts. Depth at end of run 7½ fms. Wind SW-4; sky partly clear; sea moderate.
8276	33 50 45		78 03 30.		" 12.	3:35 p.m. to 3:55 p.m.	7½	hrd.S.						8' B. T.; m.b.	7½	17	NXE¾E		Towing speed, 2 kts. Depth at end of haul 6 fm. bot. sft. M.
8277	Cape Fear River. 33 57 00.		78 03 30.		" 13.	8:15 a.m. to 8:30 a.m.	6	sft.M.						8' B. T.	6	10	SSE		Depth at end of haul 7½ fm. bot. hrd. Wind W-2; Sky partly clear; sea smooth.
8278	Mouth Cape Fear River. 33 51 00		78 04 45.		" 13.	9:00 a.m. to 9:40 a.m.	6	hrd.S.		0 7	83.0 81.0			NZ#7277 8' B. T.	6	30	SWXW		1st sounding 6½ fm. sft.bk.M. 2nd.- 6¼ - S; 3d 7¼ - S.bk.Sh.; 4th - 7½ - ditto; 5th -7 - bk.Co 6th ditto.
8279	Off Cape Fear River. 33 49 30		78 03 00.		" 13.	10:32 a.m. to 10:50 a.m.	7	sft.		0 6	83.0 80.5			NZ#7277 8' B. T.	7	15	EXN		1st Sdg. 7 fm; bk.Sft. M. 2d Sdg. 6¾ " ditto. 3d " 6¾ " " 4th and 5th sdg. " Heavy ground swell.
8280	Off Mouth Cape Fear River. 33 51 00		78 03 30.		" 13.	11:15 a.m. to 11:30 a.m.	6	sft.		0 5	84.0 80.5			NZ#7277 8' B. T.	6	15	NW		Ebb tide. 1st Sdg. 6 fm. bk.M.; 2d " 6 fm. S; 3d Sdg. 6 fm. bk.M; 4th " 5¼ " bk.M.

Form 635. 11—6014

RECORD OF COAST OF NORTH CAROLINA — INVESTIGATION BY Fish Hawk — 1922.

268

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift/dredge. Direction.	Drift/dredge. Distance. (miles.)	Remarks.
8281	33 48 04 Off frying Shoal Light Ship.	77 48 49.		July 13.	2:47 p.m. to 3:15 p.m.	12¾	hrd.		0 5 10 13	84.0 80.5 77.0 75.5			NZ#7277 8' B. T.; oys.dr.	12¾	20	S		Wind SW-3; Sky partly cloudy; sea smooth 1st sdg. 12¾ G. S. 2nd " 13 " " 3d " 13½ " " 4th " 13¾ " " 5th " 14 " "
8282	33 58 to 34 02	77 19 30 to 77 16.		" 13.	8:00 p.m. to 9:00 p.m.	16	hrd.S.G.						4' Stramen net	0	1 00		3	Wind W-2; Sky overcast; sea smooth.
8283	34 20 15 Off fishing buoy.	76 49 00.		" 14.	10:47 a.m. to 11:10 a.m.	16	hrd.						8' B. T.; m.b.	16	15	NW		Wind N-2; sea smoot with light ground swell.
8284	34 20 15	76 49 00.		" 14.	12:45 p.m. to 2:30 p.m.	16½	G.S.bk.Co.						Bottom feeler " " " " " "	16½ 16½ 16½ 16¾	10 15 20 15	SW		Wind NW-1; Sky pt. clear; sea lt.swell. h.l. fishing.
8285	34 37 40 Off Bogue Inlet.	77 06 15.		" 19.	10:53 a.m. to 11:10 a.m.	7	hrd.		botm. 0	81.5 83.5			NZ#7277 Botm. feeler; tangle	7	12	SWXW¼W		Wind SW-2; Sky pt. clear; sea smooth, lt. swell; h.l.fishir
8286	34 37 40	77 06 15.		" 19.	11:16 a.m. to 11:40 a.m.	7½	hrd.		botm. 0	81.5 83.5			NZ#7277 8' B. T.; m.b.		15	NNE		Hand line fishing no success.
8287	34 35 45	77 08 45.		" 19.	12:30 p.m. to 12:50 p.m.	8½	hrd.		botm. 0	79.5 84.0			NZ#7277 8' B. T.; m.b.	8	15	SW to W.		Wind SW-3, squally; sky partly clear; h.l.fishing-nosuccess
8288	34 34 28 Off Brown's Inlet.	77 12 00.		" 19.	1:05 p.m. to 1:30 p.m.	7¼	hrd. wh.S.		botm. 0	79.5 83.0			NZ#7277 8' B. T.; m.b.	7½	20	SW		Wind SW; Force 3; sky cloudy, lt.swell. h.l.fishing at end of run.
8289	34 34 20	77 12.		" 19.	2:05 p.m. to 2:30 p.m.	6¾	hrd. yl.S.	82	botm. 0	79.5 82.5			NZ#7277 8' B. T.; m.b.	6¾	17	SW		Wind W-3; Sky cloudy; sea choppy; excellent h.l.fishing.
8290	34 31 20 Off New River Inlet.	77 17 30.		" 19.	3:58 p.m. to 4:08 p.m.	4½	rough.	85	0 5½	84.0 82.5			NZ#7277 8' B. T.; m.b.	4½	10	SW		Wind calm; sea smooth; sky cloudy. 10 lizard fish - h.l. fishing.
8291	34 31 20	77 17 30.		" 19.	4:20 p.m. to 4:37 p.m.	5	hrd.	85					Botm feeler & tangle	5	17	W¼N		Wind sw, light, sea calm; sky cloudy.

Form 625.

RECORD OF COAST NORTH CAROLINA INVESTIGATION BY FISH HAWK 1915.

268

145 ~~130~~

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
6292	34 25 50	77 03 30.		July 19.	6:25 p.m. to 7:10 p.m.	11	S.brk.Sh.	84	0	83.5			NZ; 8' B.T.	11	18	SE		Towing speed, 2 kts.
	10 mi. SEXE½E from New River Inlet, N.C.								5	83.0			2 bob nets	0	27			Wind NW-3; Sky cloudy
									10	79.0			1-4' stramen	0	30			Sea choppy.
6293	34 19 05	76 48.00.		" 20.	11:43 a.m. to 11:55 a.m.	16½	hrd.						8' B. T.; m.b.	16½	10	SXE		Towing speed, 2 kts.
	Fishing Grounds, ¼ mile SE of buoy.																	Wind SW-4; Sky partly clear; sea rough.
6294	33 58 10	76 22 45.		" 28.	2:45 p.m. to 3:35 p.m.	56	S.		0	86.0			NZ⅔7277					
	Gulf Stream - 24 miles due South of Cape Lookout.								5	83.5			8' B. T.					
									10	80.5				56	30	S¾W		Wind SW; Force 2.
									15	75.5								
									25	69.5								
									65	61.0								
6295	33 50 30	76 23 15.		" 28.	3:40 p.m. to 4:50 p.m.	101	S.		0	84.5			NZ⅔7277					
	Gulf Stream.								5	83.0								
									10	81.5			8' B. T.; m.b.	101	39	S¾W		Cable out 400 fms.
									15	74.5			2 tow nets		41			
									25	67.5			1-4' stramen		41			Wind SW; Force 2; sky partly clear; sea smooth.
									50	63.0								
									75	58.0								
									101	52.5								
6296	33 48 50	76 24 00.		" 28.	5:00 p.m. to 6:40 p.m.	112			0	84.5								
									5	83.5			NZ; 8' B. T.; m.b.	112	42	SSW		Cable out 330 fms.
									10	83.0			2 tow nets		40			
									15	73.0			1 stramen		42			Wind SW; Force 2; sky partly clear; sea smooth.
									30	66.0								
									50	62.5								
									70	59.0								
									90	56.0								
									111	51.0								
6297	33 50 00	76 28 00.		" 28.	7:00 p.m. to 8:00 p.m.	127 to 117	S. Sh.						1-4' stramen	1 00				Towing speed, 2 kts.
													1 tow net	1 00				caught five black fish weighing 10 lbs
6298	33 50 00	76 28 00.		" 29.	1:28 p.m. to 1:55 p.m.	15	fne.gy.S.brk. Sh.		0	82.5								
	2½ miles NE of Lookout Lt. Ship.								5	81.0			NZ; 8' B.T.; m.b.	15	15	SW		Wind SW-3; Sky clear sea choppy.
									10	80.0								
									15	78.5								
6299	34 10 30	76 22 30.		" 29.	1:58 p.m. to 2:00 p.m.	14½	fne.gy.S. brk.Sh.						8' B. T.; m.b.	14½		EXN		At 2: p.m. lost beam trawl and wire.
	2½ mi. ENE of Lookout Lt. Ship.																	
6300	34 38 00	76 35 00.		Aug. 7.	9:40 a.m. to 10:02 a.m.	7½	sft.M.						Otter trawl	7½	22	ESE½E		Wind NE-1; Sky cloudy; sea smooth.
	Off Shackleford Bank.																	

Form 635.

INVESTIGATION BY Fish Hawk 1922.

268

RECORD OF COAST OF NORTH CAROLINA INVESTIGATION BY FISH HAWK 1915.

146 ~~137~~

11—6014

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift dredge. Direction.	Drift dredge. Distance. (miles.)	Remarks.
8301	34 38 00 Lookout Bight.	76 33 00.		Aug. 7.	10:20 a.m. to 10:30 a.m.	7½	sft. M.						Otter trawl	7½	10	SEXE½E		Wind NE-1; Sky cloudy; sea smooth.
8302	34 20 30 Off Fishing Buoy.	76 48 00.		" 8.	9:40 a.m. to 9:55 a.m.	16	hrd.S.Co. Sh.	0 10 15		84.0 82.5 80.0			8' B. T. NZ	16	12	SSW		
8303	34 20 30	76 48 00.		" 8.	10:28 a.m. to 10:45 a.m.	16	hrd.S.bk. Sh.	0 5 10 15		83.5 82.5 81.0 79.5			8' B. T.; m.b. NZ	16	10	NW		Wind NW-1; Sky cloudy; sea smooth.
8304	34 17 00	75 44 00.		" 8.	11:38 a.m. to 11:50 p.m.	18½	hrd.wh.S. brk.Sh.						Botm. feeler	18½	12	SE		1 sea fan taken from botm. feeler.
8305	34 16 30	76 43 30.		" 8.	12:28 p.m. to 12:48 p.m.	18½	hrd.S.Sh.						8' B. T.	18½	20	NW		Wind SW-1; lost bottom of trawl and net.
8306	34 18 15	76 46 30.		" 8.	1:05 p.m. to 1:15 p.m.	16	crs.S.brk. sh. Co.	5 10 15		83.5 81.5 79.5			NZ; 8' B. T.	16	10	NW		Lost bottom of B.T.
8307	41 25 50 700 yds ENE of Gt. Pt. Shoal Gas Buoy.	69 51 00.	111.	Sept. 17.	11:20 a.m. to 11:30 a.m.	10 to 6½	brk.Sh.fne. wh.S.						Wire tangle.	10	10	ENE DRIFT	.35	Wind WSW; Force 3 to 4; Sky clear; sea moderate.
8308	41 27 47	69 59 45.	111	" 17.	11:50 a.m. to 12:00 n.	5½	fne.wh.S.						Wire tangle.	5½	10	E	.25	
8309	41 28 47	70 01 35.	111	" 17.	12:35 p.m. to 12:45 p.m.	6½-7½	fne.wh.S.						Wire tangle.	6½	10	NNE	2.00	
8310	41 27 45	70 11 46.	111	" 17.	2:30 p.m. to 2:40 p.m.	7-7½	fne.gy.S.						Wire tangle	7	10			Course West.
8311	41 27 05	70 40 30.	111	" 17.	3:16 p.m. to 3:26 p.m.	9-10½	brk.Sh.gy. S.						Wire tangle	9	10			" W½S
8312	41 27 35	70 15 50.	111	" 17.	3:37 p.m. to 3:47 p.m.	9-10½	gy.S.G.						Wire tangle	9	10			
8313	41 26 30	70 29 40.	112	" 18.	9:12 a.m. to 9:22 a.m.	4¾-6½	Crs.yl.S.						Wire tangle	4¾	10	WNW		Wind NE-3; Sky pt. clear; Sea moderate.
8314	41 27 20	70 30 10.	112	" 18.	9:26 a.m. to 9:36 a.m.	7-8	fne.gy.S.						Wire tangle	7	10			

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Form 625.

RECORD OF _____ INVESTIGATION BY Fish Hawk 1922.

268

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8315	41 28 00	70 29 45.	112	Sept. 16.	9:43 a.m. to 9:53 a.m.	9¾-10½	fne.gy.S.						Wire tangle	9¾	10			Wind NE-3; Sky pt. clear; Sea moderate.
8316	41 28 35	70 33 28.	1211	"	10:15 a.m. to 10:35 a.m.	6¾-6	fne.gy.S.						Wire tangle	6¾	20			
8317	41 29 50	70 36 25.	112	"	11:08 a.m. to 11:18 a.m.	15-12½	R.						Wire tangle	15	10			
8318	41 25 24	70 11 00.	113	"	3:00 p.m. to 3:15 p.m.	9¾-12	G.						Wire tangle	9¾	15			Wind W-2-3; sky partly clear; sea smooth.
8319	41 26 20	71 12 55.	113	"	3:35 p.m. to 3:45 p.m.	12½	fne.gy.S.						Wire tangle	12½	10			Course W½S.
8320	41 14 50	71 32 10.	1211	"	11:12 a.m. to 11:22 a.m.	14¾-16¾	fine.gy.S.						Wire tangle	14¾	10			Wind WNW-1-2; sky clear; sea smooth.
8321	41 14 55	71 33 30.	1211	"	11:48 a.m. to 12:08 p.m.	16½-18	crs.yl.S.						Wire tangle & b.	16½	20			Course NW.
8322	41 16 50	71 35 50.	1211	"	1:38 p.m. to 1:48 p.m.	14-22	fne.yl.S.						Wire tangle & b.	14	10			Course NNW.
8323	41 13 55	71 35 00.	1211	"	2:10 p.m. to 2:20 p.m.	14-15½	fne.gy.S.						Wire tangle & b.	14	10			Wind W-1-2. Course SSE.
8324	41 21 30	70 30 55.	1211	"	3:30 p.m. to 3:40 p.m.	4¾	fne.yl.S.						Wire tangle & b.	4¾	10			Course SWxS.
8325	41 17 22	72 02 00.	1211	"	9:15 a.m. to 9:25 a.m.	7¾-10½	G.brk.Sh.						2 wire tangles	7¾	10			Wind WSW-3; SKY partly clear; sea moderate; Course SWxW.
8326	41 16 00	72 02 55.	1211	"	9:35 a.m. to 9:45 a.m.	7¾-10½	fne.gy.S. brk.Sh.						2 wire tangles	7¾	10			Course SWxW.
8327	41 14 55	72 00 20.	1211	"	10:30 a.m. to 10:40 a.m.	17-16¾	S.gy.brk.Sh.						2 wire tangles	17	10			Course NW.

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Form 625.

RECORD OF _____ INVESTIGATION BY FISH HAWK 1915.

Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8328	41 15 35	71 50 50.	1211	Sept. 24.	10:55 a.m. to 11:05 a.m.	11 - 12½	crs.S.G.						Wire tangle	11	10			Wind WSW-3; Sky pt. clear; sea moderate; course WNW.
8329	41 11 00	71 49 30.	1211	" 24.	12:30 p.m. to 12:40 p.m.	20-18	fne.gy.S.						Wire tangle	20	10			Wind W-3; Sky pt. clear; sea moderate; course NNW.
8330	41 11 05	71 45 40.	1211	" 24.	12:55 p.m. to 1:05 p.m.	16½ - 14½	fne.gy.S.						Wire tangle	16½	10			Course NNW.
8331	41 14 15	72 50 43.	261	" 28.	2:49 p.m. to 2:59 p.m.	4½	fne.gy.S.						oys. dr.	4½	10			Wind WNW-4-5; sky pt. clear; sea choppy. Course WNW.
8332	41 14 16	72 46 08.	260	" 28.	3:25 p.m. to 3:35 p.m.	8	R.						Wire tangle	8	10			Course NNW.
8333	41 04 55	73 06 10.		" 29.	4:23 p.m. to 4:33 p.m.	12-11½	fne.gy.S.						Wire tangle	12	10			Wind W-3; Sky pt. clear; sea choppy. Course WNW.
8334	41 04 00	73 05 00.		" 30.	11:45 a.m. to 11:55 a.m.	10½ - 11	sft.M.						Wire tangle & b.	10½	10			Wind SW-1-2; sky pt clear; sea smooth.
8335	41 02 50	73 06 05.		" 30.	12:21 p.m. to 12:31 p.m.	13- 14½	crs.S.						Wire tangle	13	10			
CHESAPEAKE BAY																		
8336	37 12 00 Back River Lt. NW; Thimble Lt. West; buoy SSW½W.	76 10 05.		Oct. 22.	8:30 a.m. to 9:55 a.m.	4	fne.gy.S.	0 21'	68.0 68.0				NZ: Bk. bot.: 1 mtr. net #5, #20 silk 8' B. T.: m.b.	18' 0 4 fm.	15 15 05			Wind NNW; force 3-4; sky slightly overcast; sea moderately smooth. Course N.
8337	37 06 35 ¾ mi. WNW½W off 35 ft. channel Lt. Ship.	76 07 30.		" 22.	10:40 a.m. to 11:12 a.m.	8½	gy.M.fne.gy.S.	0 6	68.0 68.0				NZ: Bk.bot.: #20, #5 silk 8' B. T.: m.b.	0 6½	11 10			Course NNW.
8338	37 09 15 5 mi. NNEXE½E from 35' Lt. Ship.	76 01 55.		" 22.	1:00 p.m. to 1:45 p.m.	3½	gn.M.fne.gy.S.	0 3½	68.7 68.7				NZ: Bk.bot.: mtr. net #20, #5 silk m.b.	18-0 0 bottm.	15 15 05			Course NNW.
8339	37 15 05 2¼ mi. W½S from Cherrystone Lt.	76 04 40.		" 22.	3:00 p.m. to 4:43 p.m.	25	Sh.S.sft. gn.M.	0 5 10 15 20 25	68.0 67.0 68.0 67.8 68.0 68.2				NZ: Bk.bot.: 8' B. T.: m.b. #20, #5 silk mtr. net	25 0 12-0	15 15 19			Course NNW.
8340	37 18 55 5½ mi. NNXW½W from Cherrystone Lt.	76 07 25.		" 22.	5:20 p.m. to 5:30 p.m.	7½		0 5	68.0 66.8				NZ: Bk. bot.					

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Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 1922.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tmal. Depth. (fms.)	Tmal. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8341	37 22 12	76 10 25. 1¼ mi. SSE off Wolf Trap Lt.		Oct. 22.	7:15 a.m. to 8:55 a.m.	9½	sft.gn.M.S.		0 5	65.6 66.0			NZ; Bk. bot. mtr. net #5, #20 silk 8' B. T.; m.b.	8-0 0 9½	15 15 15			Wind NW; Force 4; sky clear overhead with hazy horizon; sea moderate; course NE (towing); SW (dredging.
8342	37 35 25	76 11 20. 1 mi. NE off Bell buoy Rappahannock Spit.		" 23.	10:40 a.m. to 11:37 a.m.	7½	sft.gn.M.S.		0 5	65.8 66.0			NZ; Bk. bot. 8' B. T.; m.b.	7½-8½	17			Course (dredging) not SW; towing SW.
8343	37 38 50	76 05 20. 7⅝ mi. ENE¼N off Windmill Pt. Lt. House.		" 23.	1:00 p.m. to 2:00 p.m.	7	hrd.gn.marl S.		0 5 7	65.6 65.5 65.3			mtr. net. #5, #20 silk NZ; Bk. bot. mtr. net #5, #20 silk 8' B. T.; m.b. #20 silk	6½-36-0 0 7-7½ 0 7-7½ 0	15 17 15 15 15 15			Wind NW; Force 4; sky clear, smoky horizon; sea moderate; Course SWXW. mtr.net torn, no catch.
8344	37 41 12	76 00 40. Tangier Island Lt. bearing NNE; St. Marcus Wreck NW¼W.		" 23.	3:00 p.m. to 3:33 p.m.	9	hrd.gn.marl S.		0 5	65.5 66.5			8' B. T.; m.b. NZ; Bk. bot. #5, #20 silk	6-9 0	15 15			Wind NW-S; Sky clear; Sea moderate. Course SWXW.
8345	37 48 50	75 58 05. Tangier Island Sound, 200 yds E of Spar buoy 1A.		" 23.	5:00 p.m. to 5:15 p.m.	11	sft.fne.gy. s.gy.marl.						m.b.		11 05			
8346	37 52 00	76 10 00. ⅜ mi. SSE Smiths Pt. can buoy.		" 24.	10:30 a.m. to 12:02 p.m.	22	gn.marl hrd. S.	0 5 10 15 20	64.3 64.2 65.9 66.7 66.0				vert. net (½ mtr) 8' B. T.; m.b. mtr. stramen net #5, #20 silk NZ; Bk. bot.	22 23-24½ 12½ 0	02 20 15 15			Wind NW-S-W; Sky clear, hazy horizon; sea moderate; Course SSW.
8347	37 54 03	76 06 20. 4½ mi. ENE¼N from Smiths Pt. Light.		" 24.	1:00 p.m. to 2:05 p.m.	6¾	fne.gy.s.	0 4	64.0 64.0				NZ; mtr. stramen net #5, #20 silk m.b.	3 0 6½-6½	15 15 05			Wind NW-S: Sky clear; sea moderate; Course SSW.
8348	38 01 12	76 21 32. 2 mi. WSW from Pt. Lookout Lt.		" 24.	4:15 p.m. to 4:41 p.m.	14	sft.bk.M.	0 5 10	63.6 64.8 64.0				NZ; Bk. bot. #5, #20 silk 8' B. T.; m.b.	0 12½-10	10 10			
8349	38 05 55	76 17 00. 1⅔ mi South off Pt. No Pt. Lt. House.		" 25.	7:55 a.m. to 8:48 a.m.	6½	sft.bk.M.	0 5	63.5 63.8				NZ; Bk. bot. 8' B. T.; m.b. #5, #20 silk mtr. stramen net	6½-6 0 6	15 15 15			Wind SE; Force 2; Sky clear; Sea smooth

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Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY FISH HAWK — 1915.

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8350	38 07 15	76 13 30.	Pt. No Pt. Lt. bearing WXN Hooper Id. Lt. N¾W; Holland Id. Bar Lt. SEXE; Pt. Lookout Lt. SWX¾W.		October 25.	9:49 a.m. to 10:38 a.m.	20	hrd.S.		0 5 10 15 20	68.5 68.2 66.0 66.0 66.0			NZ; Bk. bot. vert. ½ mtr. 8' B. T.; m.b. #5, #20 silk nets mtr. stramen	18-0 16¾-17 0 6 1/3	02 15 15 15			Wind calm; sky clear hazy horizon; sea smooth; Course N.
8351	38 09 20	76 09 06.	Pt. No Pt. WXS; Hooper Id. Lt. NWXN; Holland Id. bar Lt. SSE.		" 25.	11:10 a.m. to 11:57 a.m.	4	hrd.fne gy. S.		0 4	62.7 63.7			NZ: Bk. bot. 8' B. T.; m.b. mtr. stramen #5, #20 silk	4-4 3-0 0	10 15 15			Dredging course N. Meter net " SSW.
8352	38 15 12	76 16 00.	½ mi. SWXW ½ mi. W. Hooper Id. Lt. House.		" 25.	1:02 p.m. to 1:10 p.m.	25	sft.bk.M.		0 5 10 15 20	62.4 64.0 65.8 66.0 66.7			NZ; Bk. bot.					
8353	38 20 25	76 18 15.	1/3 mi. W. of Barren Id. Spar.		" 25.	1:50 p.m. to 3:08 p.m.	25	hrd.gy.S.		0 5 10 15 20	63.1 62.2 66.0 66.0 66.0			NZ; Bk. bot. vert. ½ mtr. #5, #20 silk mtr. stramen 8' B.T.; m.b.	25 0 20-0 16½-21½	02 15 15 15			Wind SE; force 2-3; sky clear-hazy horizon; sea moderate; Course NXW.
8354	38 21 00	76 21 35.	2¼ mi. SE½S Cove Pt. Lt.		" 25.	3:35 p.m. to 4:01 p.m.	8½	sft.gn.marl		25	66.5								
8355	38 33 24	76 26 06.	⅜ mi. W. of Bell Buoy #18A.		" 26.	7:55 a.m. to 9:33 a.m.	13	sft.gn.marl		0 5 8	63.2 62.7 65.0			NZ; Bk. bot. 8' B. T.; m.b. #5, #20 silk	8½ 0	15 15			
8356	38 40 12	76 25 00.	2 mi. WXS spar buoy #1 on S. end Tilghiman's Island.		" 26.	11:14 a.m. to 12:15 p.m.	19½	sft.bk.M. marl		0 3 8 12	62.1 62.3 65.2 65.7			NZ; Bk. bot. 8' B. T.; m.b. mtr. stramen #5, #20 silk	10-7 6 0	15 17 17			Wind NW-W; Sky clear hazy horizon; sea moderate.
8357	38 41 48	76 29 36.	1⅜ mi. E of Chesapeake Beach Wharf		" 26.	12:55 p.m. to 1:46 p.m.	6	sft.bk.M. marl		0 5 10 16 19	63.0 62.0 65.5 65.5 65.5			NZ; Bk. bot. 8' B. T.; m.b. mtr. stramen #5, #20 silk	19-18 10 0	05 10 10			Course (dredging) S3°.
8358	38 50 00	76 27 18.	400 yds. E of can buoy - off Horse Shoe Pt.		" 26.	2:52 p.m. to 3:15 p.m.	6	sft. bk.M. marl		0 5	63.0 64.2			NZ; Bk. bot. 8' B. T.; m.b. mtr. stramen #5, #20 silk	6-6½ 2½-0 0	15 15 15			Wind NW-N; Sky clear hazy hor.; sea mod.
8359	38 50 24	76 24 00.	Bloody Pt. Bar. Lt. House bearing SEXS; Kent Pt. ESE		" 26.	3:48 p.m. to 4:48 p.m.	27	sft.bk.M. marl		0 5 10 15 20 24	62.2 62.0 66.2 66.2 65.8 65.8			NZ; Bk. bot. 8' B. T.; m.b. #5, #20 silk	6-6½ 0	07 07			Course (dredging) E.
														NZ; Bk. bot. vert. ½ mtr. 8' B. T.; m.b.	25-0 27½-15	02 27			

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Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1915.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8360	38 55 42	76 25 30.		Oct. 27.	6:30 a.m. to 6:53 a.m.	4	sft. bk.M.		0	62.2			NZ; Ek. bot.					
	½ mi. SSE Tolley Pt. Shoal Buoy.								4	63.1			8' B. T.; m.b. #5, #20 silk	5-7	15			Wind SW-1; Sky clear hazy hor.; sea calm.
8361	38 55 09	76 23 12.		" 27.	7:20 a.m. to 8:48 a.m.	23	hrd.bk.M.		0	62.2				0	15			
	2¾ mi. ENE Thomas Pt. Shoal Lt. House.								5	62.5			NZ; Ek. bot.					
									10	65.0			8' B. T.; m.b.	25-17	10			
									15	66.0			#5; #20 silk	0	15			
									20	65.5			mtr. stramen	6-0	15			
8362	39 01 18	76 22 42.		" 27.	9:54 a.m. to 10:15 a.m.	10½	sft.bk.M.		-				8' B. T.; m.b.	10½-10	10			not ick essity Baltimore
	700 yds. NE¾E from Sandy Pt. Lt. House.												#5, #20 silk	0	10			Dredging course NX½W.
8363	39 01 40	76 20 36.		" 27.	10:47 a.m. to 11:30 a.m.	13	sft.bk.M.		0	61.5			NZ; Ek. bot.					
	2-1/8 mi. EXN from Sandy Pt. Lt. House.								5	61.9								
									10	66.0			8' B. T.; m.b.	13-14	10			
									13	65.6			mtr. stramen	6-0	15			Dredging course NXW.
8364	39 07 55	76 19 36.		" 27.	12:22 p.m. to 1:14 p.m.	7¾	sft. & hrd. bk.M.gy.marl C.						#5, #20 silk	0	15.			
	2-1/8 mi. W½S from SWAN Pt.												8' B. T.; m.b.	7-4½	10			
8365	39 08 00.	76 20 55.		" 27.	1:22 p.m. to 1:30 p.m.	3¾	sft.bk.M.		0	62.6			#5, #20 silk	0	08			Wind NW-1; Sky clear hazy hor.; sea mod. Dredging course WNW.
	3½ mi. W½ S from SWAN Pt.								3	62.0			NZ; Ek. bot.					
8366	37 00 40	76 14 55.		Dec. 2.	1:03 p.m. to 1:13 p.m.	16	sft.gn.bk. M.		Meters 0	47.8								Wind NW-2; sky clear hazy hor.; sea mod.
	½ mi. WXS from Thimble Shoal Lighthouse.								10	46.1			NZ; G-B bot.					
									17	50.0			8' B.T.; m.b.	14-10	15			
									26	53.0			#5, #20 silk	0	15			Wind NNE-2; Sky clear smoky horizon; sea smooth; Dredging course EsN.
8367	36 58 40	76 07 30.		" 3.	7:05 a.m. to 7:15 a.m.	6	sft.bk.M.		0	49.3								
	3/10 mi. E 3/8 S from #5 dredged channel buoy.								5	50.0			NZ; G-B bot.					
									10	51.2								Wind NXW-5; Sky clear; sea moderate.
8368	36 57 10	76 00 18.		" 3.	8:08 a.m. to 8:20 a.m.	12	sft.bk.M.		0	50.1								
	1.5 mi. N¾E from Cape Henry Lighthouse.								9	52.2			NZ; GB bot.					
									16	54.0			½ mtr vert. net	12fm. -0	03			
									21	54.0								
8369	36 59 55 -	76 00 42.		" 3.	8:56 a.m. to 9:10 a.m.	7½	hrd.fne.gy. S.		0	50.8								
	½ mi. NXW from Tail of Horseshoe lightship.								5	51.2			NZ; GB bot.					
									9	52.0			8' B. T.; m.b.	7½-8	15			Wind N-5; Sky clear; sea moderate; course NW (dredging).
									15	53.4			#5, #20 silk	0	15			
8370	37 01 24	75 59 40.		" 3.	10:18 a.m. to 10:29 a.m.	4½	hrd.fne.gy. S.		0	48.0								
	2.6 miles NXE½E from Tail of Horseshoe lightship.								4	49.5			NZ; GB bot.					
									7	49.0								
8371	37 03 18	75 58 12.		" 3.	11:19 a.m. to 11:26 a.m.	7½	sft.fneS. bkn. Sh.		0	46.0								
	3/10 mi. WXS¾S from #4 buoy Nautilus Shoal								7	48.9			NZ; GB bot.					
									13	48.5			8' B. T.; m.b.	9-6½	24			
									9	48.5			botn. nt.	6-4	10			botm. net carried away at frame while dredging. Course NWXW (dredging).
													#5, #20 silk	0	09			

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Form 625.

RECORD OF CHINCOTEAGUE BAY INVESTIGATION BY Fish Hawk 1912.

266

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperatures. Air. Degrees.	Temperatures. Water. Depth. (fms.)	Temperatures. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Time. Depth. (fms.)	Time. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8372	37 13 12	76 04 30.	2 miles W½S from Cherrystone Light.		Dec. 3.	2:25 p.m. to 2:52 p.m.	18	hrd;seaweed fne.gy.s.		0	48.5			KI: 03 bot.					
										9	49.2			½ mtr.vert. net	18-0	01			
										11	49.8			8' B. T.; m.b.	18-8	15			Wind W-3; SKY clear; sea smooth; Course NNW (dredging)
										21.5	50.3			botm. net.	8-8	10			
										22	49.3			#6, #30 silk	0	10			
										5	49.2								
8373	37 13 24	76 08 00.	5-8/10 miles W½N from Cherrystone Lt.		" 3.	3:51 p.m. to 4:06 p.m.	6½	hrd.fne.gy.s.		0	47.9								
										4	48.1			KI: 03 bot.					
										8	49.1								
										9	49.5								
										11	49.7								
8374	37 17 12	76 14 12.	2½ mi. SEX½E from New Pt. Comfort L.H.		" 4.	8:44 a.m. to 8:50 a.m.	4½	hrd.fne.gy.s.		0	47.8								
										7	48.5			KI: 03 bot.					
8375	37 16 20	76 11 42.	4½ mi. SEX½E from New Pt. Comfort L.H.		" 4.	9:06 a.m. to 9:13 a.m.	7	sft.gy.bk.M.		0	46.3								Wind W-4; SKY clear; Sea smooth.
										4	49.5			KI: 03 bot.					
										8	49.0			B. T.; m.b.	7½-7	10			Dredging - NNW.
										12	49.6			#6, #30 silk	0	12			
8376	37 36 20	76 11 00.	2½ mi. EX½S from Windmill Pt. L. H.		" 4.	12:15 p.m. to 12:25 p.m.	7½	sft.gn.bk.M.		0	47.1								
										4	47.2			KI: 03 bot.					
										8	50.0			B. T.; m.b.	7½-8	15			Dredging - NNW.
										12	50.2			botm. net	7-9½	10			
8377	37 36 18	76 07 42.	5-1/5 mi. E of Windmill Pt. L. H.		" 4.	1:47 p.m. to 2:00 p.m.	7	sft.bl.M.		0	46.8			#6, #30 silk	0	11			
										6	48.9			KI; 03 bot.					
										11	50.0								
8378	37 38 24	76 06 30.	4.9 mi. S½E from San Marcos Wreck.		" 4.	2:28 p.m. to 2:40 p.m.	8	sft.gn.bl.M.		0	47.0								
										7	49.0			KI: 03 bot.					
										9	49.0			B. T.; m.b.	8-9½	15			Dredging NNW.
										18	49.8								
8379	37 39 18	76 02 12.	4½ mi. SSE from San Marcos Wreck.		" 4.	3:37 p.m. to 4:06 p.m.	9	sft.gn.bl.M.		0	46.4								
										8	47.5			KI: 03 bot.					
										16	50.2			½ mtr. vert. net	17-0	01			Dredging NNW.
														B. T.; m.b.	9-9½	10			
														#6, #30 silk	0	10			
8380	37 41 12 -	75 58 00.	5½ mi. SEX½E from San Marcos wreck.		" 4.	4:55 p.m. to 5:01 p.m.	4½	sft.bk.M.		0	46.1								
										7	47.0			KI: 03 bot.					
8381	37 05 55	76 10 00.	1½ mi. SSE Smith Pt. L.H.		" 5.	7:48 a.m. to 8:18 a.m.	25	sft.Gy.bl.M.		0	48.2								
										9	47.7			KI: 03 bot.					Dredging NW.
										18	49.7			½ mtr. vert.	25-0	08			Wind S-2; Sky partly clear; sea smooth.
										27	50.6			B. T.; m.b.	12-13	15			
										37	50.6			botm. net.	12-13	11			
										43	50.9			#6, #30 silk	0	13			
8382	37 52 30	76 07 24.	2.9 mi. E 5/8 S from Smith Pt. Lighthouse		" 5.	9:57 a.m. to 10:15 a.m.	7½	sft.bk.M.		0	48.6								
										5	47.0			KI: 03 bot.					
										9	48.1								
										18	48.5								

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Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1922.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. Meters.	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8383	37 53 00	76 05 30.		Dec. 5.	10:30 a.m. to 11:00 a.m.	6	sft. fne. SY. S.		0	46.6								
	4.5 mi. E¼S from Smith Pt. Lighthouse.								5	47.2								
									9	48.5			NZ; GB bot.					
8384	37 59 36	76 21 30.		" 5.	12:45 p.m. to 1:25 p.m.	7	hrd. SY. S.		0	44.7			8' B. T.; m.b. #5, #20 silk	6½-6 0	15 10			Wind N-2; Sky clear sea smooth.
	3-1/5 mi. SW¾S from Pt. Lookout L.H.								5	45.6			NZ; GB bot.					
									11	48.0			8' B. T.; m.b. #5, #20 silk	7-5½ 0	10 08			Wind N-2; Sky partly cloudy, sm. hor.; sea smooth.
8385	38 01 24	76 21 36.		" 5.	2:09 p.m. to 2:57 p.m.	12½	sft. bk. M.		0	45.0								
	2 mi. WSW from Pt. Lookout L. H.								4	46.0			NZ; GB bot. ½ mtr. vert. net	12½-0	01			Wind NW-3; Sky cloudy, haz. hor.; sea smooth; Dredging - W.
									8	47.0								
									9	47.2			8' B. T.; m.b. #5, #20 silk	13-10½ 0	05 04			
									17	47.6								
8386	38 02 30	76 20 36.		" 5.	3:18 p.m. to 3:24 p.m.	5	sft. bk. M.		18	47.2								
	1.1 mi. WXN½N from Pt. Lookout L.H.								22	47.2								
									0	45.9								
8387	38 07 06	76 17 00.		" 6.	8:18 a.m. to 8:35 a.m.	6¾	sft. bk. M.		4	46.6			NZ; GB bot.					
	¾ mi. SWXS from Pt. No Pt. L. H.								7½	47.1								Wind WXW-2; partly cloudy and hazy; sea smooth.
									0	45.5								
8388	38 07 12	76 13 30.		" 6.	9:01 a.m. to 10:05 a.m.	21	hrd; seaweed brk. sh.		6	46.0			NZ; GB bot.					
	3-1/5 mi. EXS from Pt. No Pt. L. H.								9	46.7								Wind N-6; Sky cloudy; sea moderate.
									12	46.4								
									0	45.5								
									5	46.3			NZ; GB bot.					
									10	46.8			¾ mtr. vert. net.	21-0	02			Wind N-6; sky cloudy; sea short choppy.
									17	48.2			8' B. T.; m.b. #5, #20 silk	21-11 0	10 11			
									26	50.0								
									35	52.2								
8389	38 07 03	76 09 30.		" 6.	10:25 a.m. to 10:40 a.m.	4	sft. bk. M.		0	45.8								
	4.1 mi. NW3/8N from Holland Id. Bar L. H.								3	46.4			NZ; GB bot.					
									6	46.5								
8390	38 14 42	76 15 42.		" 6.	11:47 a.m. to 12:08 p.m.	23	sft. SY. bk. M.		0	45.6								
	4/5 mi. SW 1/8 S from Hooper Id. L. H.								5	46.2			NZ; GB bot.					
									10	46.2								
									18	48.1								
									27	50.0								
									37	50.8								
8391	38 18 40	76 25 50.		" 7.	8:30 a.m. to 8:49 a.m.	10¾	sft. bk. M.		0	44.0								
	¾ mi. SW from Drum Pt. L.H.								4	44.9			NZ; GB bot.					
									9	44.6			8' B. T.; m.b. #5, #20 silk	10½-11 0	06 07			Wind NW-2; Sky cloudy; sea smooth.
									16	44.8								
8392	38 19 18.	76 22 20.		" 7.	9:15 a.m. to 9:23 a.m.	5	sft. bk. M.		0	45.5								
	1-2/5 mi. N from Cedar Pt.								4	44.0			NZ; GB bot.					
									8	44.0								Wind N-4; Sky cloudy; sea moderate.
8393	38 19 45	76 20 06.		" 7.	9:48 a.m. to 9:56 a.m.	6¼	sft. bk. M.		0	45.8								
	2.1 mi. NE from Cedar Pt. Lighthouse								5	45.0			NZ; GB bot.					
									9	44.0								Wind NW-4; Sky cloudy; sea moderate.
									15	46.8								

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Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1915.

154

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8394	38 20 12	76 17 54. 3/10 mile SXE½E from Spar buoy 16D, off Barren Id.		Dec. 7.	10:25 a.m. to 10:50 a.m.	27	sft. bk.M.		0	44.8			NZ; GB. bot.					Tide slack ebb about 11:30 a.m.
									6	45.6								
									11	45.8								
									18	46.8								
									27	49.6								
									37	49.2								
					11:57 a.m.				46	49.1								
					to 12:20 p.m.				0	44.4								
									6	45.0								
									11	45.4								
									18	46.1								
									27	48.8								
									37	49.0								
					1:37 p.m.				46	49.1								
					to 1:50 p.m.				0	44.6								
									6	45.1								
									11	45.0								
									18	45.8								
									27	46.1								
									37	49.0								
					2:55 p.m.				46	49.8								
					to 3:16 p.m.				0	45.0								
									6	45.8								
									11	45.7								
									18	45.9								
									27	46.5								
									37	49.0								
					4:30 p.m.				46	49.6								
					to 4:50 p.m.				0	44.3								
									6	45.1								
									11	48.6								
									18	46.0								
									27	47.6								
									37	48.5								
					6:05 p.m.				46	49.5								
					to 6:25 p.m.				0	43.7								
									6	45.1								
									11	45.0								
									18	45.9								
									27	46.1								
									37	48.5								
					7:30 p.m.				46	49.5								
					to 7:45 p.m.				0	43.6								
									6	45.1								
									11	45.0								
									18	45.9								
									27	46.2								
									37	48.3								
					9:00 p.m.				46	49.1								
					to 9:30 p.m.				0	41.5								
									6	45.5								
									11	45.7								
									18	46.1								
									27	47.6								
									37	48.8								
									46	49.4								

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Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY Fish Hawk — 1922.

268

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8394	(Continued)				Dec. 7.	10:30 p.m. to 10:55 p.m.				0	43.5								
										6	45.0								
										11	44.6								
										18	46.8								
										27	48.8								
										37	49.0								
										46	49.0								
					" 8.	12:00 m. to 12:15 a.m.				0	43.5								
										6	43.8								
										11	45.6								
										18	46.5								
										27	49.0								
										37	49.0								
										46	48.9								
						1:20 a.m. to 1:35 a.m.				0	43.8								
										6	45.0								
										11	---								
										18	46.5								
										27	48.2								
										37	49.0								
										46	49.4								
						2:55 a.m. to 3:10 a.m.				0	44.0								
										6	45.0								
										11	45.0								
										18	46.9								
										27	48.2								
										37	48.5								
										46	49.2								
						4:25 a.m. to 4:40 a.m.				0	43.8								
										6	---								
										11	44.2								
										18	46.7								
										27	48.0								
										37	48.2								
										46	48.9								
						5:59 a.m. to 6:35 a.m.				0	43.5								
										6	44.0								
										11	44.2								
										18	46.9								
										27	48.5								
										37	48.6								
										46	49.0								
						7:28 a.m. to 7:50 a.m.				0	43.7								
										6	44.1								
										11	44.3								
										18	47.5								
										27	46.8								
										37	48.8								
										46	49.0								
						9:00 a.m. to 9:18 a.m.				0	43.6								
										6	44.7								
										11	44.4								
										18	45.0								
										27	48.6								
										37	49.0								
										46	49.5								

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Station Number.	Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8394	(Continued)			Dec. 7.	10:56 a.m.													
					11:15 a.m.													
					11:33 a.m.								Bk. mtr.	0	4'55"	S		
					11:44 a.m.									10	5' 0	SSE		
					1:58 p.m.									25	5' 0	SSW		
					2:09 p.m.									40	5' 0	SSE		
					2:19 p.m.									0	5' 0	SSW - S		
					2:30 p.m.									10	5' 0	S		
					3:19 p.m.									25	3'30"	SSW		
					3:39 p.m.									40	5' 0	SSE		
					3:52 p.m.									0	5' 0	SSW		
					4:01 p.m.									10	5' 1"	SSE		
					6:29 p.m.									25	5' 0	SSW		
					6:38 p.m.									40	5' 0	SSW		
					6:47 p.m.									0	5' 0	SSW		
					6:57 p.m.									10	5' 0	SSW		
					7:52 p.m.									25	5' 0	S		
					9:33 p.m.									40	5' 0	SSE		
					10:58 p.m.									40	5' 0	S		
				" 8.	8:24 a.m.									40	5' 0	SSW		
					8:38 a.m.									40	5' 0	SW		
														40	5' 0	S		
8395	38 31 18	76 24 54.	1225	" 8.	11:30 a.m.	11½	hrd; gy.s. bk. seaweed	Meters.					½ mtr. vert. net.	7ms. 27-0	0 2'			
	Bell buoy 18A bearing N½W. Spar buoy 16F bearing NXW 5/8 N.							0		42.8			6' B. T.: m.b.	27-26	12'			
								4		43.2			#8, #20 silk	0	12'			
								10		45.0			NE: GB bot.					
								18		50.0			6' B. T.: m.b.	11-12	10			Wind S-4; Sky O.C. F.H.; sea moderate.
								9		45.0			#8, #20 silk	0	10			
8396	38 40 18	76 25 06.		" 9.	11:12 a.m. to 12:05 p.m.	21	hrd.gy.s. bk.seaweed.	0		42.3			NE: GB bot.					
	Sharp's Id. Lt. bearing SD½S - 2-7/10 miles.							5		42.8			½ mtr. vert. net.	21-0	0 2'			Wind NNW-4; Sky clear; sea moderate; SW½S (Course dredging).
								11		47.0			6' B. T.: m.b.	21-12½	15			
								18		50.0			#8, #20 silk	0	15			
								27		50.2								
								36		50.9								
8397	38 49 24	76 27 12.		" 9.	1:28 p.m. to 1:56 p.m.	5½	sft.bk.M. dk.seaweed.	0		42.8			NE: GB bot.					
	¾ mile SEXS½S from Can buoy 27.							5		43.2			6' B. T.: m.b.	5½	10			Wind NW-6; Sky partly cloudy; sea moderate.
								9		47.0			#8, #20 silk	0	10			
8398	38 00 06	76 25 42.		" 9.	2:15 p.m. to 2:30 p.m.	7½	sft. bk.M.	0		43.3			NE: GB bot.					
	1⅝ mi. W½N from Bloody Pt. Bar Lt. House; Thomas Pt. Lt. N 1° E.							7		43.9								
								10		44.0								
								18		44.5								
8399	38 50 20	76 24 00;		" 9.	2:53 p.m. to 3:58 p.m.	23	hrd.bk.Sh.	0		42.5			NE: GB bot.					
	½ mile NWXN from Bloody Pt. Bar lighthouse							9		43.2			½ mtr. vert. net	23-0	0 2'			
								10		45.0			6' B. T.: m.b.	23½-16	15			
								12		46.8			#8, #20 silk	0	15			
								18		49.5								
								27		51.0								
								37		51.0								

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Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1915.

157

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8400	38 55 12	76 23 12.		Dec. 10.	7:24 a.m. to 7:42 a.m.	18	hrd.bk.Sh.		0	56.2			8' B. T.; m.b.	18-11½	15			Wind NW-4; sky clear; sea moderate.
	2-5/8 mi. ENE from Thomas Pt. Lt.; Bloody Pt. bar lt. bearing S$\frac{3}{4}$W.								8	56.0								
8401	39 01 12	76 22 30.		" 10.	8:40 a.m. to 9:25 a.m.	9½	hrd.bk.Sh.		0	41.1			NZ; GB bot.					
	½ mile ENE from Sandy Pt. Lt.								5	42.0			8' B. T.; m.b.	9½-9¾	08			
									10	43.9			#5, #20 silk	0	08			
									15	49.8								
									12.5	50.2								
8402	39 01 36	76 20 35.		" 10.	9:45 a.m. to 10:25 a.m.	14¼	hrd.bk.Sh.		0	41.2			NZ; GB bot.					
	Sandy Pt. Lt. bearing WXS; Baltimore Lt. bearing NW.								8	42.0			8' B. T.; m.b.	14	06			
									11	50.0								
									14	50.0								
									20	51.0								
									9.5	49.2								
8403	37 00 35	76 15 15.	1222	1916. Jan. 16.	12:54 p.m. to 2:52 p.m.	15	sft.bk.M. seaweed.		0	39.5			NZ; GB bot.					
	8 miles WSW from Thimble Shoal Lt.								9	41.8			B. T.	15½-12¾	20			Wind SW-2; sky clear, foggy horizon; sea smooth; ¼ ebb. Dredging Course, WSW.
									18	42.0			#5, #20 silk	0	20			
									26	41.5			botm. net.	15½-9¾	20			
8404	36 58 12	76 07 33.	"	" 16.	3:17 p.m. to 3:27 p.m.	6	sft. bk.M.		0	39.5			NZ; GB bot.					Wind W-1; Sky partly cloudy, foggy horizon; sea smooth; tide ebbing.
	.3 mile SEXS from #4 Channel Buoy.								5	41.9								
									9	42.5								
8405	36 56 24	76 00 05.	"	" 16.	4:15 p.m. to 4:55 p.m.	13	sft. bk.M.		0	39.4			NZ; GB bot.					Tide ¾ ebb; Dredging course NW½N.
	1.5 miles NXE¾E from Cape Henry Lighthouse.								8	40.8			½ mtr. vert.	13-0	01			
									9	42.0			B. T.	14-12½	10			
									17	42.5			#5, #20 silk	0	11			
									18	42.6								
									22	42.9								
8406	36 59 24	76 00 43.	"	" 17.	10:28 a.m. to 10:40 a.m.	6	sft.bk.M.		0	40.0			NZ; GB.bot.					Wind NW-6; Sky cloudy; sea moderate; tide ebbing.
	.6 mile NXW½W from Tail of Horseshoe lightship.								9	40.5								
8407	37 01 06	75 59 50.	"	" 17.	11:30 a.m. to 11:40 a.m.	4½	hrd.fne.S.		0	38.8			NZ; GB.bot					Wind N-5; sky cloudy; sea moderate ¾ ebb tide.
	SXW½W from Tail of Horseshoe Lightship; Nautilus Shoal Buoy #2 NEXE½E.								6	39.8								
8408	37 02 00	75 58 15.	"	" 17.	12:30 p.m. to 12:45 p.m.	8	sft.bk.M.		0	38.2			NZ; GB bot.					Wind NW-6; Sky cloudy; sea moderate tide ebbing.
	.3 mile W from #4 Buoy on West end of Nautilus Shoal.								6	38.8								
									9	39.2								
									14	39.5								
8409	37 15 24	76 04 50.	"	" 17.	3:05 p.m. to 4:42 p.m.	20	hrd.; seaweed.		0	38.0			NZ; GB bot.					Wind N-4; Sky partly clear; sea moderate; dredging course NNXW; tide ebbing.
	Cherrystone Lt. E½N; Old Plantation Lt. SE½S.								9	39.0			½ mtr. vert.	20	01			
									18	39.5			B T	20-9¾	20			
									27	39.5			#5, #20 silk	0	20			
									22	39.5			botm. net	9¾-7½	15			
									32	39.6								
									39	39.8								

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8410	37 15 06	76 14 18.	1222	Jan. 18.	7:02 a.m. to 7:11 a.m.	4½	hrd.fne sy. S.		0	36.2			NZ; GB bot.					Wind N-2; Sky clear, hazy horizon; sea smooth; tide flooding.
	120 yds. E½S of #9 Can buoy off New Point Comfort.								8	38.0								
8411	36 16 12	76 11 24.	"	" 18.	7:40 a.m. to 8:15 a.m.	7	sft.bk.M.		0	36.2			NZ; GB bot.					Wind ENE-2; sky clear, smoky hor.; sea smooth; tide flooding dredging course ENE to SW.
	1 mile ENE¼E from Buoy C7.								6	37.5			#5, #20 silk	0	12			
									11	39.0			botm. net	7	10			
8412	36 15 40	76 07 24.	"	" 18.	8:39 a.m. to 8:53 a.m.	7	sft.bk.M.		0	37.4			NZ; GB bot.					
	York Spit Lt. bearing WSW; New Pt. Comfort Lt. WNW.								6	38.0								
									12	38.9								
8413	37 35 45	76 10 55.	1223	" 18.	10:58 a.m. to 11:45 a.m.	7¼	sft.bk.M.		0	36.3			NZ; GB bot.					Wind S-2; Sky cloudy; sea smooth; tide flooding; course dredging (SSW).
	Windmill Pt. Lt. W¾N; Rappahannock Spit Bell buoy SW½W .9 mile.								6	36.7			B.T.	7¼-8	10			
									12	38.1			#5, #20 silk	0	11			
													botm. net	8-7½	10			
8414	37 34 42	76 07 00.	"	" 18.	12:18 p.m. to 12:30 p.m.	7	sft.bk.M.		0	36.3			NZ; GB bot.					Wind SW-2; Sky clear; sea smooth; tide ebbing.
	Windmill Pt. Lt. WXN½N; Stingray Lt. bearing W¼S								6	37.9								
									9	38.5								
									12	39.1								
8415	37 34 05	76 02 30.	"	" 18.	1:03 p.m. to 2:00 p.m.	9½	sft.yl.M.		0	36.5			NZ; GB bot.					Wind SW-3; Sky clear; sea smooth; tide ebbing; dredging course SXW.
	4.9 miles WXN from Sandy Pt.								8	37.5			B. T.	9½-8½	15			
									9	37.5			#5, #20 silk	0	16			
									16	39.2			botm. net	9½-8½	10			
8416	37 34 00	75 59 00.	"	" 18.	2:35 p.m. to 2:45 p.m.	4½	hrd.fne.gy. S.		0	36.8			NZ; GB bot.					
	1.1 miles NW½N from Buoy C-1								7	37.8								
8417	37 52 08	76 10 12.	"	" 19.	6:58 a.m. to 9:04 a.m.	24½	sft.gy.M.S.		0	34.5			NZ; GB bot.					Wind W-3; Sky clear; sea smooth; tide ebbing; dredging course S½W.
	9 mi. SE½S from Smith Pt. L.H.								9	36.8			½ meter net	24-0	02			
									18	38.2			B. T.	24-15	26			
									27	38.5			#5, #20 silk	0	26			
									27	38.5			botm. net	18-22	15			
									36	39.0								
									42	39.2								
8418	37 52 30	76 08 00.	"	" 19.	9:31 a.m. to 9:42 a.m.	8	sft.		0	34.2			NZ; GB bot.					
	E¾S from Smith's Pt. L.H. 2¾ miles.								6	36.0								
									12	38.0								
									9	37.8								
8419	37 52 50	76 05 36.	"	" 19.	10:02 a.m. to 10:10 a.m.	4½	sft.		0	34.8			NZ; GB bot.					Wind W-3; Sky clear; sea smooth.
	E½S - 4.3 mi. from Smith's Pt. L.H.								5	35.6								
									6	36.1								
8420	37 59 36	76 22 45.	1224	" 19.	11:55 a.m. to 12:10 p.m.	6½	hrd.fne.gy. S.		0	34.9			NZ; GB bot.					Tide flooding.
	3.8 mi. SW½W from Pt. Lookout L.H.								5	35.2								
									9	36.0								
									10	36.0								

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8421	38 01 18 Pt. Lookout Lt. ENE from #2 buoy - E.	76 21 30.	1224	Jan. 19.	1:12 p.m. to 2:03 p.m.	13	sft.bk.M.		0	34.8			NZ; GB bot.					
									8	35.9			½ mtr. net	13-0	01			Wind W-2; Sky clear; sea smooth; tide flooding; dredging course NWW.
									16	36.2			B. T.	13-11½	08			
									22	37.0			#5, #20 silk	0	10			
													botm. net	13-11½	10			
8422	38 02 30 1 mi. WXN½N Pt. Lookout L.H.	76 20 30.	"	" 19.	2:20 p.m. to 2:28 p.m.	6	sft.bk.M.		0	34.8			NZ; GB bot.					
									5	35.2								
									10	35.1								
8423	38 05 30 Pt. No Pt. Lt. N½E; Pt. Lookout Lt. SWXS.	76 17 30.	"	" 19.	3:23 p.m. to 3:32 p.m.	6	sft.		0	35.1			NZ; GB bot.					
									5	35.5								
									10	35.0								Wind SE-2; Sky clear sea smooth; tide high water, slack.
8424	38 07 30 2⅜ mi. B½S from Pt. No Pt. Lt. Ho.	76 14 00.	"	" 19.	4:21 p.m. to 5:30 p.m.	18	hrd.		0	35.3			NZ; GB bot.					
									5	35.2			½ mtr. net	18-0	02			Wind SE-2; Sky clear; sea smooth; high water, slack; dredging course N.
									10	36.0			B. T.	19-18	20			
									17	37.0			#5, #20	0	22			
									25	38.0			botm. net	19	15			
									31	38.2								
8425	38 07 30 Pt. No Pt. W¾N; Holland Id. Bar. SE½S; Pt. Lookout SWX ½W.	76 09 55.	"	" 19.	6:40 p.m. to 6:50 p.m.		sft.bk.M.		0	34.2			NZ; GB bot.					
									8	35.0								Wind SE-2; Sky clear; sea smooth; tide ebbing.
8426	38 14 40 .9 mi. SSW from Hooper Id. Lt.	76 15 42.	"	" 20.	7:45 a.m. to 9:55 a.m.	20	sft.bk.M. seaweed		0	34.2			NZ; GB bot.					
									5	35.0			B. T.	20-15	20			
									9	34.8			#5, #20 silk	0	20			Wind S-2; Sky clear partly; sea smooth; tide ebbing; dredging course SXB½E.
									17	37.5			botm. net	15½-16	10			
									26	38.5			B. T.	15½-13	20			
8427	38 20 00 .6 mi. SWXW½W from Spar buoy 16D - Barren Id.; Cove Pt. Lt. NW 1/8 N; Tar Bay Front Lt. NEXE½E.	76 18 24.	"	" 20.	10:48 a.m. to 12:15 p.m.	21	sft.bk.M. seaweed		0	33.9			NZ; GB bot.					
									5	34.1			½ mtr.	21-0	01			
									9	36.0			B. T.	20-15	20			
									18	38.1			#5, #20	0	20			Wind S-3; Sky O. & hazy hor.; sea smooth tide flooding; course dredging SXE½E.
									27	38.5			botm. net	27-14	15			
									36	38.8								
8428	38 30 54 Cedar Pt. SWXS½S; Cove Pt. NWXN	76 20 36.	"	" 20.	12:45 p.m. to 12:58 p.m.	8	sft.bk.M.		0	34.3			NZ; GB bot.					
									3	35.0								Wind S-4; Sky cloudy sea smooth; tide flooding.
									7	34.5								
									13	37.2								
									9	34.8								
8429	38 21 18 Cove Pt. N 5/8 W - Drum Pt. SWX½W	76 22 24.	"	" 20.	1:15 p.m. to 1:23 p.m.	4½	hrd.fne.gy. S.		0	34.5			NZ; GB bot.					
									3	35.0								Wind S-3; Sky cloudy Sea smooth; tide flooding.
									6	35.1								
8430	38 27 45 Cove Pt. S½W; N. end of Taylor Id. NE½E.	76 22 55.	1225	" 20	2:10 p.m. to 3:30 p.m.	19½	sft.bl.M.		0	34.0			NZ; GB bot.					
									5	34.1			B. T.	12-14	20			
									9	35.2			#5, #20 silk	0	19			Wind S-3; Sky cloudy sea smooth; flooding tide; dredging course NWX.
									17	36.0			botm. net	13-12	08			
									26	38.0								
									34	38.6								

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8431	38 39 54	76 25 48.	1225	Jan. 20.	3:55 p.m. to 4:05 p.m.	12	sft.bk.M.		0	35.9			NZ; GB bot.					
	1.5 mi. SX½W buoy #18A Bell Sharp's Id. Lt. NEXN½N.								6	34.6								
									11	36.9								
									21	38.2								
8432	38 33 00	76 27 24.	"	" 20.	4:25 p.m. to 4:35 p.m.	6	sft.bk.M.		0	34.2								Wind S-3; sky cloudy sea smooth; tide flooding.
	Bell buoy #18A EX 5/8 N Sharp's Id. Lt. N½W.								5	34.8			NZ; GB bot.					
									9	36.9								
8433	38 40 18	76 25 06.	"	" 21.	7:36 a.m. to 8:25 a.m.	20	sft.bl.M. seaweed		0	33.4								Wind S-2; Sky overcast & raining; sea smooth; tide flooding.
	Sharp's Id. Lt. SE½S.								6	33.9			NZ; GB bot.					
									10	35.2			B. T.	20½-10	11			
									18	38.4			#5, #20 silk	0	11			Wind S-2; Sky clear; sea smooth; tide flooding; dredging course S.
									26	38.8								
									35	38.5								
									14	37.8								
8434	38 47 42	76 25 00.	"	" 21.	9:55 a.m. to 10:10 a.m.	20	sft.						B. T.	14-17½	15			Wind S-1; Sky clear; sea smooth; tide flooding; dredging course NEXN.
	Bloody Pt. Bar. Lt. NNE 5/8 E; N. Tangent of Poplar Id. SE 7/8 E.																	
8435	38 50 40	76 24 00.	"	" 21.	11:16 a.m. to 12:27 p.m.	23	sft.		0	33.8			½ meter net	23-0	01			
	Thomas Pt. NXW½W; Bloody Pt. Lt. SEXS.								5	34.0			NZ; GB bot.					Wind SE-2; Sky clear sea smooth; tide flooding; course dredging, NXE½E.
									9	37.5			B. T.	16-20	24			
									14	38.1			#5, #20 silk	0	24			
									18	38.9								
									28	38.5								
									39	39.0								
8436	38 51 00	76 25 36.	"	" 21.	1:02 p.m. to 1:11 p.m.	6½	sft.		0	33.9			NZ; GB bot.					
	Thomas Pt. Lt. bearing N. Bloody Pt. Lt. bearing SE ½E.								5	34.1								Wind S-2; Sky clear; sea smooth; tide flooding.
									10	37.0								
									8	34.5								
8437	38 51 16	76 27 36.	"	" 21.	1:30 p.m. to 1:40 p.m.	4½	sft.		0	34.2			NZ; GB bot.					
	Thomas Pt. Lt. bearing NNE½E; Bloody Pt. Lt. bearing SEXE½E.								4	34.6								
									7.5	34.3								
8438	38 55 10 -	76 23 06.	"	" 21.	2:40 p.m. to 3:12 p.m.	19	sft.bk.M.						B. T.	16-19	14			Wind S-2; Sky clear; sea smooth; tide flooding; dredging course NXE½E.
	1 mi. W of Kent Id.; Thomas Pt. Lt. bearing WSW.												botm. net	19-19	07			
8439	39 01 30.	76 23 36.	1226	" 21.	3:50 p.m. to 4:11 p.m.	9½	sft.bk.M.		0	32.9			NZ; GB bot.					Wind S-1; sky clear & hazy hor.; sea smooth; tide flooding
	Sandy Pt. Lt. bear. SW 1/8 S Balto. Lt. bearing NXW½W.								5	33.5								
									8	34.0								
									10	34.1								
									15	37.9								
									12.5	37.0								
8440	39 01 36	76 20 34.	"	" 21.	4:43 p.m. to 5:00 p.m.	13½	hrd.brk.Sh. seaweed		0	34.1			NZ; GB bot.					
	Sandy Pt. Lt. WXS; Balto. Lt. bearing NW.								7	33.5			B. T.	12½-11	06			Wind Calm-0; sky clear-hazy hor.; sea smooth; tide flooding dredging course NXE½E
									9	34.6								
									15	38.9								
									22	38.5								
									11	38.0								

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF CHESAPEAKE BAY

INVESTIGATION BY BUREAU 1916.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8441	39 07 30 1.8 mi. SWxW from Swan Pt.	76 18 55.	1226	Jan. 22.	7:35 a.m. to 8:05 a.m.	9	sft.bk.M.C.		0	33.0			NZ; GZ bot.					
									4	33.2			B.T.					
									9	35.9			#5, #20 silk	5½-6½	06			Wind S-S: Sky cloud; and foggy: sea smooth; tide flooding; dredging course swept.
									15	37.5				0	05			
8442	36 55 45 Buoy NEXN 3/8 N; C.H. W 1/8 S - 3 miles.	75 57 00.		" 27.	8:40 a.m. to 9:22am.	Meters 19	fne.GY.S.		0	43				M				
									11	44			NZ; GZ bot.					
									17	44			net towed at	15	15			Wind calm-0; sea smooth; sky light clouded. By U.S.F.S ROOSEVELT
													½ mtr.vert. net	19-0				
													" towed at	11				
8443	36 57 30	75 36 00.		" 27.	11:30 a.m. to 12:30 p.m.	19	fne.GY.S.bk. Sp.		0	45								
									9	44.5			½ mtr.vert.net towed at					
									18	44.8			"	9				
													"	0				
													"	19-0				
8444	36 57 5/8	75 11 30.		" 27.	2:40 p.m.	38	fne.GY.S.bk. Sh.		0	47								
									18	46.2			½ mtr.vert towed	18				
									33	46.4			"	0				
8445	36 58	74 41 30.		" 27.	5:45 p.m.	131	fne.S.M.		0	52.5								
									27.5	52.			½ mtr.vert. towed	18				
									55	52.5			"	0				
									131	54.2								
8446	36 56 15	74 36 45.		" 28.	11:05 a.m.	479	M.		0	54.								
									55	53.2			½ mtr.vert. towed	18				
									110	55.			½ mtr.vert. net	479-0				Wind SWxW-4; Sky light clouded; sea moderate swell. Set trawl Lat. N. 37 30'; Long. 74 42½. By Roosevelt
									183	52.			"	0				
									238	50.3								
									478	42.6								
8447	37 21 15	74 27 30.		" 28.	6:25 p.m. to 7:50 p.m.	415			0	50								
									55	51			½ mtr. vert.towed	15				
									110	54.6			½ mtr. vert. net	415-0				Wind calm-0; sea smooth; sky clear. By Roosevelt
									183	53			½ mtr. vert. towed	0				
									238	51								
									414	46								
8448	37 21 1/8	74 32 7/8		" 28.	8:45 p.m.	94	M.fne3.brk. Sh.		0	50.5								
									27.5	51			½ mtr. vert. net	94-0				Handline from deck- no fish. By Roosevelt
									55	51			½ mtr. vert. net towed at	18				
									92	54			"	0				
8449	37 22	74 40 5/8		" 28.	10:25 p.m.	59			0	46.5								
									27.5	48.8			½ mtr. vert. net	59-0				Wind NE-E; Sky cloudy; sea moderate By Roosvelt
									57.5	51.2			½ mtr. vert. net towed at	18				
													"	0				
8450	37 22½	75 14 7/8		" 28.	8:00 p.m. to 8:45 a.m.	28	fne.GY.S.		0	44.5								
									11	45			½ mtr. vert. net towed at	14				Wind NE-E; sky cloudy; sea moderated
									26	44.6			"	0				
													½ mtr. vert. net	28-0				
8451	37 22	75 24		" 28.	10:50 a.m. to 11:15 a.m.	13	fne.GY.S.bk. Sh.		0	42.5			½ mtr. vert. net	13-0				Wind NE-E; sky moderate.
									12	43.2			½ mtr. vert net towed at	0				

Form 625.

RECORD OF _____ INVESTIGATION BY FISH HAWK 1916.

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.) Meters	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) Meters	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8452	36 35 30	75 44 00.			Jan. 31.	10:40 a.m. to 11:05 a.m.	20	fne.S.M.		0	45.2								
										19	46.2			½ mtr. vert. net towed at	9				Wind SSW-2; Sea moderate; handline from deck. 2 dogfish.
8453	36 36 45	75 18 1/8			" 31.	2:05 p.m. to 2:35 p.m.	26	fne.SW.S.		0	47.								
										11	47.8			½ mtr. vert. net towed at	18				Wind SSW-3; Sea moderate; handline from deck. one dogfish.
										22	47.4			½ mtr. vert. net	26-0				
8454	36 36 5/8	74 58			" 31.	4:50 p.m. to 5:15 p.m.	38	crs.yl.S.						" towed at	0				
										0	48								
										18	49.2			½ mtr. vert. net towed at	18				Wind SSW-3; sea moderate; handline from deck. One dogfish.
8455	36 37	74 42 5/8			" 31.	9:20 p.m. to 9:50 p.m.	60	fne.S.M.		37	50			½ mtr. vert. net	38-0				
										0	48.8								
										18	52			½ mtr. vert. (?)	0				Wind SSW-4; sea moderate; handline from deck; 2 dogfish.
8456	36 37	74 40 30.			" 31.	6:40 p.m. to 7:50 p.m.	340	M.		55	52.5			"	60-0				
										0	54								
										55	54			½ mtr. vert. net towed at	18				Wind SSW-4; sea moderate; handline from deck; 2 dogfish.
										110	54.8								
										183	54.5			½ mtr. vert. net	340-0				
										238	53.4			½ mtr. vert. net towed at	0				
										293	51.								
										337	50.2								
8457	38 21	73 38			FEB. 1.	12:20 p.m. to 1:15 p.m.	125	fne.SW.S.M. G.		0	54.5								
										20	51.5			½ mtr. vert. net towed at	18				Wind SW-4; Sky clouded; sea choppy; handline from deck, 2 dogfish; end of work by U.S.F.S. Roosevelt.
										55	52.			½ mtr. vert. net(?)	0				
										124	52			½ mtr. net	125-0				
							Fathoms												
8458	37 00 36 Thimble Shoal Lt. ENE¾E; Bell Buoy SE¾E.	76 13 20.			March 6.	12:25 p.m. to 1:55 p.m.	11	hrd. bk.M. sea grass		0	38.4								
										13	38.3			6' B. T.	15-11½	20			Wind SE-3; Sky cloudy - hazy hor.; sea smooth; tide ebbing; dredging course WNW to ENE.
										20	38.2			#5, #20 silk nets	0	20			
										5	39.0			botm. net	12½-7½	15			
										10	38.5								
8459	36 58 43 #4 buoy NWXN½N; #5 buoy WXS.	76 07 48.			" 6.	2:30 p.m. to 2:37 p.m.	5½	hrd.bk.M.		0	38.5								
										5	38.7			GB bot.					
										9	38.8								
8460	36 56 44 Cape Henry Lt.Ho. SXW; Lt. Ship N½E.	76 00 02.			" 6.	3:25 p.m. to 4:30 p.m.	12½	hrd.fne.SY. S; seaweed.		0	38.6								
										8	38.9			GB bot.					Wind E-3; sky overcast; sea smooth; tide ebbing.
										9	38.8			6' B. T.	12½	15			
										15	38.3			#5, #20 silk	0	15			Wind E-3; sky partly cloudy; sea smooth; tide ebbing; course; dredging W.
										18	38.2			botm. net	11½-10	10			
										22	38.4								
8461	36 59 20 Lt. Ship bear. S; buoy SWXS.	76 00 30.			" 6.	4:47 p.m. to 4:55 p.m.	7	hrd.bk.M.		0	38.7								
										7	38.5			GB bot.					
										12	38.5								Wind E-3; sky partlyed clear; smoky horizon; sea choppy; tide ebbing.
8462	37 01 06 Lt. Ship SWXS¾S; Bell buoy #4 SE½E.	75 59 19.			" 6.	5:16 p.m. to 5:24 p.m.	4½	bk.M.		0	38.2			GB bot.					
										6	38.4								Tide slack water.

Remarks.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8463	37 03 24		75 58 24.		March 7.	6:35 a.m. to 7:10 a.m.	9¾	hrd.fne.sy. S.		0	38.1			GB bot.; 6' B. T.	9-8¾	10			Wind SW-5; Sky cloudy and hazy horizon; sea choppy; tide ebbing; dredging course NW.
	.3 mi. W of #4 buoy; Ho. on Fisherman's Id. bearing N 1/8 W.									5	38.6								
										10	38.1								
										15	38.5								
8464	37 15 03		76 04 46.		" 7.	9:07 a.m. to 10:40 a.m.	25	bl. M. seaweed		0	37.7			GB bot.					Wind W-2; sky overcast & foggy horizon; sea smooth; tide ebbing; dredging course SWTS.
	Cherrystone Lt. E 7/8 N; Plantation Lt. SE; Buoy #10 N.									9	38.0			½ mtr. ver.	23-0	01			
										18	37.8			6' B. T.		20			
										27	38.0			#5, #20 silk		20			
										20	38.0			botm. net		06			
										30	37.9								
										40	38.1								
8465	37 15 50		76 07 42.		" 7.	11:05 a.m. to 11:15 a.m.	7	sft.bk.M.		4	38.0								
	Est position; no cuts on account of hazy atmosphere									9	38.0								
										0	37.8			GB bot.					
										6	36.0								
8466	37 15 48		76 11 38.		" 7.	11:33 a.m. to 11:55 a.m.	7	sft.bk.M.		9	37.8								Wind W-3; Sky overcast and hazy horizon sea smooth; tide near low water.
	Est position: no cuts on account of hazy atmosphere.									12	38.0								
										0	37.9			GB bot.					
										6	37.9			botm. net	7-6¾	10			
8467	37 17 12		76 14 06.		" 7.	12:13 p.m. to 12:18 p.m.	4½	sft.bk.M.		11	38.0								Tide: low water slack dredging course SSE.
	New Pt. Lt. bear. NWXW½W ½ mi. from Can buoy #9.									0	37.9			GB bot.					
										5.5	38.0								
8468	37 35 47		76 10 24.		" 7.	2:40 p.m. to 3:30 p.m.	7	sft.gy.M.		0	37.1			GB bot.					Tide ebbing; dredging course S.
	Rap. Spit Buoy SWXW½W; Windmill Lt. W½N.									4	37.6			6' B. T.	7	20			Wind SW-3; Sky overcast-raining; sea smooth; tide flooding dredging course NNW - SSE.
										10	37.0			#5, #20 silk	0	20			
										13	37.5			botm. net	7	10			
8469	37 35 28		76 20 00.		" 7.	4:40 p.m. to 4:55 p.m.	9¾	sft.bl.M.		0	38.0			GB bot.					Wind W-2; Sky partly clear; sea smooth; tide flooding; dredging course W½N.
	Sturgeon Shoal Beacon SSE. ¼ mi.									7	37.9			6' B. T.	9¾-8	02			
										15	37.8								
8470	37 35 06		76 07 00.		" 9.	9:07 a.m. to 9:15 a.m.	6¾	sft.bl.M.		0	36.2			GB bot.					Wind W-4; Sky clear; sea moderate; tide ebbing.
	Windmill Pt. Lt. WXN 1/8 N Stingray Lt. W½S.									6	36.5								
										11	37.2								
8471	37 33 54		75 59 06.		" 9.	10:32 a.m. to 10:45 a.m.	4½	hrd.		0	36.3								
	Sandy Pt. Can Buoy SE½E. 1 mile.									3	36.6								
										7	36.5								
8472	37 33 06		76 02 24.		" 9.	11:00 a.m. to 11:40 a.m.	10	sft.bl.M.		0	36.6			6' B. T.	10-9	13			Tide ebbing; dredging course S.
	3.4 mi. W½N from Sandy Pt. Can buoy									3	37.3			#5, #20 silk	0	13			
										7	37.0								
										16	37.2								
8473	37 51 36		76 09 45.		" 9.	2:30 p.m. to 4:05 p.m.	20	sft.gy.M.		0	36.1			GB bot.					Tide ebbing; dredging course S.
	Smith's Pt. Lt. NW½N, Can buoy NWXN½N									5	36.1			½ mtr. vert.	20-0	01			
										9	36.2			6' B. T.	19-14	20			
										18	37.1			#5, #20 silk	0	20			
										15	37.1			botm. net	11-16	12			
										24	36.5								
										34	36.8								

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8474	37 52 28		76 07 35.		March 9.	4:35 p.m. to 4:45 p.m.	6¾	hrd.S.		0	36.4								
	Smith's Pt. Lt. WXN¼N; Great Wicomico Lt. WSW½S.									5	36.8			GB bot.					
										11	36.1								
8475	37 52 36		76 05 24.		" 9.	4:50 p.m. to 5:00 p.m.	5½	hrd.fnegy. S.		0	35.8								Wind NW-3; Sky clear; sea smooth; tide ebbing.
	Smith's Pt. Lt. W¾N; San Marcos wreck S¼W.									4	36.3			GB bot.					
										9	36.1								
8476	38 02 08		76 20 18.		" 10.	6:40 a.m. to 6:55 a.m.	6	hrd.fne.gy. S.		0	35.4								
	Pt. Lookout E½N; Pt. L.O. creek entrance NXE½E.									5	36.0								
										10	35.9								Wind SW-4; overcast sea choppy; tide ebbing.
8477	38 01 18		76 21 54.		" 10.	7:30 a.m. to 9:00 a.m.	13	sft.bk.M.		0	35.4								
	Fish buoy #11 SW½W; Pt. Lookout Lt. EXN¾N.									5	35.6			6' B. T.	12½-10½	11			
										9	35.6			#5, #20 silk	0	11			
										12	36.0			botm. net	10½-10	10			Wind SW-5; partly cloudy; sea choppy; tide ebbing; dredging course SWXS.
8478	38 00 12		76 23 00.		" 10.	9:26 a.m. to 9:36 a.m.	6¾	sft.bl.M.		18	36.0								
	Pt. Lookout Lt. NNXE½E; buoy "W-11" bear. WNW½W.									0	35.6								
										5	35.9								
										10	36.1								Wind SW-5; partly cloudy; sea choppy; tide ebbing.
8479	38 05 35		76 17 30.		" 10.	10:35 am to 10:45 a.m.	5½	sft.bk.M.		0	35.5								
	Pt. No Pt. Lt. N¾E; Pt. Lookout Lt. SWXS¾S.									4	35.8			GB bot.					
										8	36.0								
8480	38 07 00		76 13 24.		" 10.	11:37 a.m. to 1:06 p.m.	20½	sft.bk.M. brk.Sh.		0	35.2								
	Pt. No Pt. Lt. WXN½N; Hooper Id. Lt. N¾W; Holland Id. Bar Lt. SEXE¾E.									5	35.8			GB bot.					
										9	35.2			½ mtr. vert.	20½-0	01			
										18	36.5			6' B. T.	20-13	20			Wind SW-4; partly clear; sea moderate; tide ebbing; dredging course S.
										27	36.5			#5, #20 silk	0	20			
										35	36.9			botm. net	21-0	23			
8481	38 07 18		76 09 34.		" 10.	1:36 p.m. to 1:46 p.m.	4¾	sft.bk.M.		0	35.1								
	Holland Id. Bar Lt. bear. SE½S.									3	36.1			GB bot.					
										7	35.6								Wind SW-4; overcast sea choppy; tide flooding.
8482	38 12 55		76 14 06.		" 10.	2:40 p.m. to 3:05 p.m.	25	sft.bl.M. grass						6' B. T.	25-11	18			
	Hooper Id. Bar Lt. NXW; Pt. No Pt. Lt. SWXS - 1°S.																		Wind SW-3; overcast sea moderate; tide flooding; dredging course NNW - SXW.
8483	38 15 05		76 15 24.		" 10.	3:30 p.m. to 4:30 p.m.	22	sft.bk.M.		0	35.2								
	Hooper Id. Lt. EXN 3/8 N.									5	36.0			GB bot.					
										9	35.4			6' B. T.	18½-21	20			
										18	36.0			#5, #20 silk	0	20			Wind SW-3; overcast sea moderate; tide flooding; dredging course SSE.
										27	37.0								
										36	36.5								
8484	38 20 10		76 17 54.		" 10-11.	5:18 p.m.	26½	sft.gy.M.		0	34.9			GB bot.					
	Buoy #16 E - N¾W; Cove Pt. Lt. NW 1/8 W; Cedar Pt. Lt. SWXW½W; Hooper Island Lt. SXE¾E.									5	35.2								Tide flooding.
										9	35.6								
										18	36.2								
										26	36.5								
										36	37.0								
										44	37.0								Filled with mud. No. water sample.

Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY FISH HAWK — 1916.

INVESTIGATION BY Fish Hawk 1922.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8485	38 20 10		76 17 54		March 11.	6:45 a.m. to 7:05 a.m.	12	sft.gy.bk. M.						6' B. T.	12-10	19			Wind NNW-6; sea choppy; sky clearing; dredging course WSW.
	Buoy #16 E - N¼W; Cove Pt. Lt. NW 1/8 W; Cedar Pt. Lt. SWXW½W; Hooper Id. Lt. SXE¾E																		
8486	39 08 10		76 18 36.		" 11.	3:05 p.m. to 3:30 p.m.	10½	sft.bk.M.		0	34.5								
	Balto. Lt. Ho. SWXW; Love Pt. Lt. Ho. SXE 3/8 E; North Pt. NW¾N.									5	34.0			GB bot.					
										9	35.5			6' B. T.	10½-6	07			Wind N-1; sky clear; sea smooth; tide ebbing; dredging course SXW.
										17	35.7			#5, #20 silk	0	07			
8487	39 01 54		76 20 36.		" 11.	4:05 p.m. to 6:30 p.m.	12	sft.bk.M.		0	34.2								
	Sandy Pt. Lt. Bear. WXS; Balto. Lt. NW½W.									6	35.0			GB bot.					
										14	36.0			6' B. T.	12½	*			*B.T. fouled in propeller at 4:41 p.m. in 10½ fms. of water. Wind 0; tide ebbing.
										21	36.0								
8488	39 01 05		76 22 24.		" 11.	6:45 p.m. to 6:55 p.m.	9	sft.M.		0	33.9								
	Sandy Pt. Lt. bear. W 5/8 S Balto. Lt. bear. NXW 5/8 W.									4	34.5			GB bot.					
										9	35.0								
										16	36.0								
8489	38 55 18		76 23 24.		" 12.	6:40 a.m. to 7:00 a.m.	17	sft.bk.M.		0				6' B. T.	17-16	15			Wind calm; sky clear; sea calm; tide ebbing
	Range buoy B-20 to C-20.																		
8490	38 50 22		76 23 54.		" 12.	8:10 a.m. to 10:30 a.m.	23	sft.bk. M.		0	34.0								
	½ mi. NWXN from Bloody Pt. Bar Lt. House.									5	34.6			GB bot.					
										9	34.9			6' B. T.	22	23			Wind W-1; sky cloudy and hazy; sea smooth; tide flooding.
										18	36.3			½ mtr. vertical	22½-0	01			
										27	36.2			#5, #20 silk	0	23			
										37	36.2			botm. net	21-17½	10			
														6' B.T. lowered without landing	21	30			
8491	38 50 00		76 25 38.		" 12.	11:20 a.m. to 11:30 a.m.	7	sft.bk.M.		0	34.1								
	1¾ mi. W½N ffom Bloody Pt. Bar Lt.									5	34.6			GB bot.					
										10	34.8								
8492	38 50 06		76 27 24.		" 12.	11:41 a.m. to 11:50 a.m.	5	sft.bk.M.		0	33.9								
	E 5/8 N from buoy #27 - 600 yds.									4.5	34.0			GB bot.					
										8.5	35.0								
8493	38 40 04		76 25 18.		" 12.	1:52 p.m. to 2:35 p.m.	20	sft.bk.M.		0	34.5								
	2⅜ mi. NW from Sharp's Id. Lt. House.									5	35.0			GB bot.					
										9	35.2			6' B. T.	12-20	12			Wind SSE-3; Sky clear; sea moderate; tide flooding; dredging course NXE½E.
										16	35.9			#5, #20 silk	0	12			
										25	35.9								
										32	36.4								
8494	38 31 20		76 25 00.		" 12.	3:40 p.m. to 3:50 p.m.	11	sft.bk.M.		0	35.1								
	Bellbuoy #18A bear. N 1/8 E; buoy #16F bear. NXW 7/8 N.									6	36.0			GB bot.					
										13	35.1								Wind SSE-4; sky clear; sea choppy; tide flooding.
										20	36.7								
8495	38 30 28		76 28 36.		" 12.	4:10 p.m. to 4:19 p.m.	6			0	35.2								
	Governors Run wharf bear. W 7/8 S; Cove Pt. SSE.									5	35.5			GB bot.					
										10	35.1								Wind SSE-5; sky cloudy; sea choppy; tide flooding.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 1922.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredging course. Direction.	Drift. Dredging course. Distance. (miles.)	Remarks.
8496	38 27 54		76 23 55. Cove Pt. Lt. bear. S 5/8 W N end Taylor Id. NE½E.		March 12.	5:00 p.m. to 5:20 p.m.	8½	sft.bk.M.						6' B. T. #5, #20 silk	20-18 0	13 13			
8497	37 00 33		76 15 25. Thimble Lt. ENE½E; Bell buoy #15 SE 1/8 E.	1222	April 21.	10:45 a.m.	15½	hrd.		0 3 5 10 15 18 26	57.0 54.9 54.0 54.0 51.8 51.1 47.8			B. T.; m.b. #5, #20 silk	Fms. 15 0	15	SE½E		Wind SSE-5; sky overcast; sea choppy tide ebbing; dredging course SSE½E. Wind SW 3-4; sky clear; sea smooth;
8498	36 58 38		76 07 14. #4 buoy NXW 3/8 W; #5 buoy W½N.	"	" 21.	3:40 p.m. to 4:10 p.m.	5½	hrd.brk.Sh.		0 3 6 9	54.3 55.0 50.1 46.2			B. T.; m.b. #5, #20 silk	5½-5½ 0	08 08	SEtE		Wind S-4; sky clear & smoky horizon; sea moderate; tide flooding.
8499	36 57 06		75 59 56. Cape Henry Lt. SWX3/8S; Lightship N½W.	"	" 22.	6:38 a.m. to 7:20 a.m.	12½	hrd.fne.S. brk.Sh.		0 7 9 15 18 22	52.0 51.0 49.1 45.5 44.5 43.9			½ mtr. vert. B. T.; m.b. #5, #20 silk	13-0 13-11½ 0	01 10 10	ENE to SE		m.b. carried away; Wind E-2; sky clear; sea gentle swell; tide flooding.
8500	36 59 45		76 00 34. Lightship S 3/8 E; Cape Henry Lt. S½W; Whistling Buoy SWXW½W.	"	" 22.	8:00 a.m. to 8:50 a.m.	9	hrd.brk.Sh.		0 3 5 9 13	53.9 52.9 47.9 46.3 47.0			B. T.m.b. #5, #20 silk	9½-8½ 0	08 08	SXE½E		Wind WW-2; Sky clear sea gentle swell; tide flooding.
8501	37 01 09		75 59 20. Buoy 4A WXN½N; Bell buoy #4 SE 3/8 E; Lightship SS½W.	"	" 22.	9:09 a.m. to 9:30 a.m.	4½	hrd.brk.Sh.		0 3 7	51.8 53.2 49.0			m.b.	4½	05	EXE to N.		Wind NE-1; gentle swell; sky clear; tide flooding.
8502	37 03 24		75 58 20. Cape Charles Lt. NE; Buoy E 1/8 S; Lt. Ship SWXS3S.	"	" 22.	10:00 a.m. to 10:35 a.m.	10	hrd.Sh.fne. GY.S.		0 5 10 16	51.5 50.9 51.5 50.3			B. T.; m.b. #5, #20 silk	8½-9 0	10 10	WXW		Wind E-2; sky clear; gentle swell; tide flooding.
8503	37 15 21		76 04 40. Plantation Lt. SE 3/8 S; Buoy #10 N½E; Cherrystone Lt. E 3/8 N.	"	" 22.	12:00 n. to 2:00 p.m.	25	hrd.brk.Sh.		0 9 18 27 25 34 41	52.6 50.5 51.2 50.9 50.6 52.0 51.6			B. T.; m.b. #5, #20 silk ½ mtr. vert. botm. net	24-16 0 25-0 19½-30	20 20 01 15	SXES		Wind E-2; sky partly cloudy; sea smooth tide flooding.
8504	37 15 54		76 07 42. Plantation Lt. SEXE; #10 Buoy EXN 5/8 N; Buoy #15 SXE 1/8 E.	"	" 22.	2:18 p.m. to 2:33 p.m.	7	sft. fne.Gy. S. M.		0 7 12	56.0 50.2 49.4			#5, #20 silk nets m.b.	0 7	05 05	E to S.		Wind E-1; sky cloud y; sea smooth; tide flooding.

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredging course. Direction.	Drift. Dredging course. Distance. (miles.)	Remarks.
8505	37 15 58 New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. Ho. SW½W; Buoy C7 West.	76 10 54.	1222	April 22.	2:48 p.m. to 3:10 p.m.	6	hrd.fne.S. M., marine growth.		0 5 10	56.0 49.4 49.8			B. T.; m.b.	6	08	SXE		Wind W-1; Sky cloudy sea smooth; tide flooding.
8506	37 16 50 Buoy C9, NWXN½N; New Pt. Comfort Lt. NW½W; York Spit Lt. SW½W.	76 14 27.	1222	" 22.	3:40 p.m. to 4:00 p.m.	5½	hrd.fne.S.M. marine growth		0 5 10	54.2 53.9 50.3			B.T.; m.b. #5, #20 silk	5½-5 0	05 05	SE		Wind W-4; sky cloudy sea choppy; tide flooding.
8507	37 23 24 Wolf Trap Lt. W½N; Plantation Lt. S½E.	76 05 08.	"	" 22.	5:30 p.m. to 5:50 p.m.	13	hrd.Sh.; marine growth.		0 6 13 21	55.0 53.9 49.9 50.2			m.b.	12½-9½	05	ENE		Wind N-4; Sky overcast; sea choppy; tide flooding.
8508	37 34 00 Can Buoy #1 bearing SE½E - 1 mile.	75 59 07.	1223	" 23.	6:24 a.m. to 6:55 a.m.	4½	hrd.Sh.;marine growth.		0 2.5 6.5	53.3 54.0 51.5			B.T.; m.b. #5, #20 silk	5½-5½ 0	10 10	SSW		Wind SSW-2; Sky cloudy; sea smooth; tide ebbing.
8509	37 33 10 Can buoy #1 bore E 3/8 S; approximate distance 3½ mi.	76 02 25.	"	" 23.	7:13 a.m. to 7:30 a.m.	8	sft.stk.M.		0 4 8 14	53.8 54.1 50.5 49.6								
8510	37 35 08 Windmill Pt. Lt. Ho. WXN½N; Bell buoy W 3/8 N.	76 07 06.	"	" 23.	8:02 a.m. to 8:30 a.m.	7	sft.bk.M.		0 4.5 11.5 8	52.2 52.9 49.1 48.8			B. T.; m.b.	7	10	SXW		Wind SSW-2; sky partly cloudy; sea smooth tide ebbing.
8511	37 35 48 Windmill Pt. Lt. W½N; Bell buoy SWXW½W.	76 10 24.	"	" 23.	9:00 a.m. to 9:35 a.m.	7	hrd.thin layer bk.M.		0 2 4 6 8 10 12	51.0 52.9 53.1 48.3 48.0 48.0 48.8			B. T.; m.b. #5, #20 silk	7½ 0	10 10	SWXS		Wind SW-2; Sky cloudy; sea smooth; tide ebbing.
8512	37 51 38 Smith Pt. Lt. NWXN; Buoy NNW	76 09 44.	"	" 23.	12:25 p.m. to 2:10 p.m.	24	hrd.fne.Sy. S. M.		0 6 9 16 18 25 27 34 42	53.7 52.0 47.3 47.2 48.0 47.1 47.8 48.2 48.0			½ mtr. vert. B. T.; m.b. #5, #20 silk botm. net	24-0 9-24½ 0 15-17½	01 25 25 10	SWXS		Wind N-4; Sky partly clear; sea moderat tide ebbing.
8513	37 52 46 Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.	76 07 30.	"	" 23.	2:57 p.m. to 3:05 p.m.	7	sft.bk.M.		0 5.5 12.5	52.3 54.5 47.8								Wind N-4; sky partly cloudy; sea choppy tide ebbing.
8514	37 52 30 Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.	76 05 15.	"	" 23.	3:25 p.m. to 3:50 p.m.	5¾	hrd.; marine growth		0 5 9	50.8 49.9 47.4			B. T.; m.b.	5¾	08	SSW		Wind N-4; Sky partly cloudy; sea choppy tide ebbing.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

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Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredging. Direction.	Drift. Dredging. Distance. (miles.)	Remarks.
8515	Off Port Abello Point, opposite St. Marys. St. Mary's River.			1224	April 24.	11:40 a.m. to 11:50 a.m.	19ft.	hrd.M.						m.b.	ft. 19-17	05	SWXS		Wind W-2; Sky clear; sea smooth; tide ebbing.
8516	Fish buoy bearing WSW - 175 yds. bell buoy NW 7/8 W. 38 00 30	76 22 38.	"	"	24.	1:07 p.m. to 1:38 p.m.	6	sft.bk.M.		0 5 10	52.4 53.5 50.9			B. T.; m.b. #5, #20 silk	fms. 6½ 0	10 10	SEXS		Wind NNW-2; Sky clear; sea smooth; tide ebbing.
8517	38 01 20	76 21 18.	"	"	24.	2:00 p.m. to 2:38 p.m.	12¾	sft.bk.M.		0 5 11 21	52.2 51.6 51.0 47.2			botm. net m.b.	12¾-9 9	12 05	SE		Wind NNW-2; Sky clear; sea smooth; tide ebbing.
8518	38 02 30 Pt. Lookout Lt. NXS¼S; Pt. Lookout buoy SE¾S.	76 20 32.	"	"	24.	2:55 p.m. to 3:05 p.m.	5¾	sft.bk.M.		0 4 8	52.4 50.8 49.8								Wind NW-1; sky clear sea smooth; tide slackwater low.
8519	38 07 03 Pt. No Pt. Lt. NWXN½N; Pt. Lookout Lt. SWXS¼S.	76 16 54.	"	"	24.	4:10 p.m. to 4:35 p.m.	7	sft.bk.M. Sh.		0 5 11	50.5 52.0 51.1			B. T.; m.b.	7	08	E		Wind E-1; sky hazy; sea smooth; tide flooding.
8520	38 07 12 Point No Point Lt. WXN½N; Point Lookout Lt. SW 3/8 W.	76 13 45.	"	"	24.	4:56 p.m. to 6:15 p.m.	20	sft.bk.M.		0 5 9 17 26 36	51.7 49.4 49.0 47.1 48.0 47.5			½ mtr. vert. B. T.; m.b. botm. net	20-0 20-16 18-18½	01 20 10	N		Wind calm; sky hazy; sea smooth tide flooding.
8521	38 08 10 Point No Point Lt. W 1/8 N; Hooper strait Lt. NE.	76 10 00.	"	"	24.	6:40 p.m. to 6:50 p.m.	4	hrd.fne.gy. S. Sh.		0 2.5 6.5	54.2 54.9 49.9								Wind calm; sky hazy; sea smooth; tide flooding.
8522	38 14 42 Hooper Id. Lt. NE; buoy N½E.	76 15 36.	"	"	25.	6:50 a.m. to 7:25 a.m.	20	sft.bk.M.		0 5 9 18 26 35	50.9 50.5 48.0 47.5 48.0 46.0			B. T.; m.b.	19-19½	10	NNW		Wind SE-1; sky overcast, rainy; hazy; sea smooth; tide flooding.
8523	38 20 24 Barren Id. Buoy #16D bearing by compass, NEXN - about 200 yds.	76 18 14.	"	"	25.	8:06 a.m. to 9:50 a.m.	26	sft.bk.M. marine growth		0 5 10 18 27 37 46	50.8 50.1 49.1 46.6 46.8 45.9 45.0			½ mtr.vert. B. T.; m.b. botm. net	26-0 26-25½ 15-16	01 15 06	NNW		Wind SE-4; sky overcast, rainy, hazy; sea moderate; tide flooding.
8524	38 21 03 Cove Pt. Lt. N 7/8 E; Buoy #21 NEXE¾E.	76 22 10.	1225	"	25.	10:02 a.m. to 10:30 a.m.	4	hrd. brk.Sh.		0 3.5 6.5	51.1 52.6 51.9			B. T.; m.b.	3¾-6	06	N to E		Wind SE-4; sky overcast, rainy, hazy; sea choppy; tide flooding.

Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY FISH HAWK — 1916.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters.	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8525	38 31 09	76 25 00.	1225	April 25.	11:39 a.m. to 11:50 a.m.	12½	sft.bk.M.		0	49.9								
	N. end of James Id. E½N; Bell buoy 18A N½E.								7	48.9								
									15	46.1								
									22	45.1								
8526	38 30 15	76 28 45.	"	" 25.	12:35 p.m. to 1:00 p.m.	5	hrd.brk.Sh.		0	50.5								Wind E-4; sky overcast; sea choppy; tide flooding.
	Governors Run Wharf bearing W½S, approx. dist. 7/8 mi.								3	52.1			m.b.	5½-5½	07	NNE		
									7	51.5								
8527	38 40 15	76 25 09.	"	" 25.	2:20 p.m. to 2:55 p.m.	20	hrd.gy.marl M.		0	49.2								Wind NE-4; sky overcast; sea choppy; tide ebbing.
	Sharps Id. Lt. SE½S; Black Walnut Pt. E 7/8 S.								5	50.3			B. T.; m.b. #5, #20 silk	20-19½ 0	12 12	NXW		
									9	46.0								Wind NE-4; sky overcast, rainy; sea moderate; tide ebbing.
									18	44.9								
									26	45.2								
									35	44.9								
8528	38 47 30	76 25 06.	"	" 25.	4:10 p.m. to 4:30 p.m.	20	sft.bk.M.		0									
	Bloody Pt. Lt. NNE½E; North end Poplar Id. SEXE½E.												B. T.; m.b.	20-17	10	SSW		Wind NW-2; sky overcast; sea smooth; tide ebbing.
8529	38 50 15	76 27 16.	"	" 26.	6:30 a.m. to 6:55 a.m.	5	hrd.S.brk. Sh.		0	49.0								
	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.								4	50.5			m.b.	5-5½	07	S to SW		
									8	51.0								Wind W-1; sky clear hazy horizon; sea smooth; tide ebbing.
8530	38 50 12	76 25 54.	"	" 26.	7:03 a.m. to 7:10 a.m.	5½	hrd.brk.Sh.		0	49.0								
	Thomas Pt. Lt. N½E; Bloody Pt. Lt. EXS.								6	49.5								
									10	50.0								Wind W-2; Sky clear sea smooth; tide ebbing.
8531	38 23 30	76 50 12.	"	" 26.	7:25 a.m. to 9:15 a.m.	29	hrd;thin coat sft.bk. M.		0	48.9								
	Bloody Pt. Lt. bore SEXS½E; about 300 yds. Thomas Pt. Lt. NXW½W.								6	46.7			½ mtr. vert.	29-0	01	SXW		
									12	44.1			B. T.; m.b.	17-25	20			
									20	44.4			#5, #20 silk	0	20			
									30	44.8			botm. net	24-16	15			
									40	44.2								
									50	43.9								
8532	38 56 24	76 23 12.	"	" 26.	10:05 a.m. to 10:28 a.m.	18	hrd; thin coat sft.bk. M.						B. T.; m.b.	18-19½	15	SXW		Wind W-1; sky clear hazy horison; sea smooth; tide ebbing.
	Thomas Pt. Lt. SW½W; Greenbury Pt. Lt. NWXW.																	
8533	39 02 21	76 22 30.	1226	" 26.	11:15 a.m. to 11:30 a.m.	7	sft.M.		0	52.0			m.b.	7	06	S to SW		Wind W-1; sky clear sea smooth; tide ebbing.
	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW½N.								6	47.9								
									12	44.2								
8534	39 02 24	76 20 24.	"	" 26.	11:48 a.m. to 12:10 p.m.	12	sft.bk.M.		0	50.2			B. T.; m.b.	12	06	NXE½E		Wind W-1; sky clear sea smooth; tide ebbing.
	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.								3	50.9								
									9	47.8								
									19	48.0								
8535	39 07 00	76 18 34.	"	" 26.	12:45 p.m. to 1:10 p.m.	11	sft.rd.C. marl, M.		0	49.0			B. T.; m.b.	11-7	05	S to W		Wind W-1; sky clear sea smooth; tide ebbing.
	Bell buoy SE 3/8 E; White spar buoy W.								2	49.9			#5, #20 silk	0	05			
									9	45.2								
									17	44.1								

Form 625.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY Fish Hawk — 1916.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8536	38 50 08	76 23 56.	1225	May 22.	1:15 p.m. to 2:00 p.m.	18	hrd; thin coat sft.bk. M.		0 8 15				M. Hydr'd. drag " #5, #20 silk	20-15 10-14 0	10 10 10	SxW		Wind S-4; sky cloudy; sea choppy; tide slack water low; water samples taken at anchorage in 16 fms.
8537	38 40 15	76 25 06.		" 22.	3:15 p.m. to 3:56 p.m.	20	hrd; thin coat M.		0				M.Hydr's drag Endcliffe drag	19½-9 19½-20	10 10	SSE		Wind S-4; sky cloudy; sea choppy; tide flooding;
8538	Between two buoys off Barren Island.			" 23.	8:00 a.m.	17			0 8 17 25	61.3 62.0 57.5 55.5								Wind S-4; Sky overcast, rainy; sea choppy.
8539	38 20 00	76 29 11.		" 24.	8:50 a.m. to 9:04 a.m.	16	hrd.Sh.; marine growth.						botm. feeler	16-8	08	N		Wind N-4; sky overcast, rainy, foggy; sea moderate; tide ebbing.
8540	38 24 15	76 26 30.		" 24.	9:27 a.m. to 9:48 a.m.	10	S.Sh.M.		0				Botm. feeler}tan- oys.dr. }dem.	10-9 10-9	05 05	WNW		Wind N-4; sky overcast, rainy, foggy, sea moderate; tide ebbing.
8541	38 21 36	76 18 48.		" 24.	10:50 a.m. to 11:00 a.m.	22	sft.bk.M.						botm. feeler oys.dr.	20-22	06	NNW		}Tandem. Wind NW-2; sky cloudy; sea smooth; tide ebbing.
8542	38 20 24	76 18 14.		" 24.	11:15 a.m. to 12:35 p.m.	25	sft.bl.M.oys. Sh.						8' R. c. botm. feeler oys. dr. M. hydr'd. drag botm. feeler, oys. dr.	21-25 25 25 17-14	15 03 10 10	NNW		}Tandem. Wind NE; sky cloudy; sea smooth; tide ebbing.
8543	38 13 08	76 14 40.		" 24.	1:50 p.m. to 3:30 p.m.	19	sft.						botm.feeler; M. Hydr'd drag botm.feeler; M. hydr'd drag botm. feeler; M. hydr'd drag botm. feeler; M. hydr'd drag botm. feeler; M. hydr'd drag; two boat grapnels	19-22 20½-19 19½-21 21-20 19½-16	10 06 10 12 10	NNW		Wind NNE-3; sky cloudy; sea smooth; tide ebbing.
8544	38 07 14	76 13 36.		" 24.	4:40 p.m. to 5:25 p.m.	20							botm.feeler; two boat grapnels; M. hydr'd drag botm.feeler; two boat grapnels; M. hydr'd drag.	20-18 17½-16½	10 10	NNE		Wind NNE-2; Sky cloudy; sea smooth; tide ebbing.

RECORD OF CHESAPEAKE BAY — INVESTIGATION BY [illegible] 19[illegible].

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Time. Depth. (fms.)	Time. Duration. H. M.	Direction.	Distance. (miles)	Remarks.
8545	38 06 45	75 58 30.	N. end of Little Id. NEXE; Sharp's fin Lt. N.		May 25.	8:30 a.m. to 8:45 a.m.	14½	sft.						botm. feeler: H. hydr'd drag	14½-12	06	S		Wind S-E; sky cloudy; sea smooth; tide ebbing.
8546	38 00 00	75 54 37.	400 yds. E of Spar buoy #3: James Id. Lt. SXW.		" 25.	9:35 a.m. to 9:55 a.m.								botm. feeler: hydr'd drag	18½-14½	10	SW		Wind NW-N; sky clear; tide ebbing; sea smooth.
8547	37 53 54	75 57 12.	Big tree on Fox Id. EXS: James Id. Lt. NEXE 3/8 N.		" 25.	10:35 a.m. to 10:55 a.m.								botm. feeler: hydr'd drag	16½-12	10	SE		Wind SW-S; sky clear sea smooth; tide ebbing.
8548	37 48 09	75 57 50.	Watt's Id. Lt. SEXE; Tangier Id. Lt. S.		" 26.	10:00 a.m. to 10:12 a.m.	21	sft.						botm. feeler: hydroid drag	15-21-17	12	SSW		Wind S-E; sky clear sea smooth; tide ebbing.
8549	From buoy #5 to Buoy #3. Dredged channel.				" 29.	11:15 a.m. to 11:35 a.m.	6	hrd.						botm. net fl. #20 silk		15	SSE		Wind SW-S; sky clear sea smooth; tide ebbing.
8550	Between buoy #3 and #5.				June 2.	7:24 to 7:39								botm. net fl. #20 silk		15	SSW		Wind S-E; sky clear sea smooth; tide flooding.
8551	37 00 36	76 15 24.	Thimble Shoal Lt. NEXE: Bell buoy 3E.	1222	" 9.	4:35 p.m. to 4:58 p.m.	14½	hrd; marine growth.	0 8 16 25 12	70.7 66.1 60.0 58.0 64.0				8' B. T. OZ bot. fl. #20 silk	16-8	08	SSE to SW.		Wind S-E; sky clear sea smooth; tide flooding.
8552	36 58 36	76 06 54.	400 yds. NEE from Buoy #5.		" 9.	5:52 p.m. to 6:22 p.m.	5½	hrd.fne.SY. S.	0 5 9 3	70.2 67.8 65.6 67.0				botm. net fl. #20 silk	5½-4 0	10 10	E		Wind E-S; Sky clear sea smooth tide flooding.
8553	37 00 00	76 00 25.	Cape Henry SW; Lt. Ship NE.		" 9.	7:02 a.m. to 7:36 a.m.	12½	hrd.	0 6 9 12 18 22	68.9 64.8 62.1 61.9 61.3 61.3				½ mtr. vert. 8' B. T. fl. #20 silk	12½-0 12½-12½ 0	01 12 12			Wind E-S; sky clear sea smooth; tide ebbing.
8554	36 59 55	76 00 64.	Cape Henry Lt. 3 1/8 W: Buoy #2 SW 3/8 W.		" 10.	5:44 a.m. to 6:12 a.m.	6½	hrd.	0 4 8 15	66.0 64.4 66.0 66.6				8' B. T. fl. #20 silk	6½-5 0	10 10			Wind SE-S; sky part ly cloudy; sea smooth tide ebbing.
8555	37 01 25	75 59 56.	Bell buoy #4 SE: Cape Henry SW; Cape Henry Lt. NE 3/8 E.		" 10.	6:31 a.m. to 6:40 a.m.	4½	hrd.	0 3 7	64.0 62.8 62.1									
8556	37 03 10	75 58 15.	Cape Charles Lt. NE 3/8 N: Buoy #4 NEE: Cape Henry Lt. SW.		" 11.	7:07 a.m. to 7:28 a.m.	10	hrd.	0 3 8 14	63.1 64.3 64.0 62.0				8' B. T. fl. #20 silk	10-4½ 0	12 12	NNW to W.		Wind E-S; sky clear sea smooth; tide ebbing.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8557	37 15 00 Buoy #10 N 1/8 W; Old Plantation Lt. SE; Cherrystone Lt. EXN.	76 04 42.	1222	June 10.	9:00 a.m. to 11:15 a.m.	25	sft.		0	67.8			½ mtr. vert.	25-0	02	SE to NXE		Wind SE-3; Sky clear sea smooth; tide ebbing.
									4	67.9			8' B. T.	19-10				
									9	63.8				21	20			
									18	61.7			#1, #20 silk	0	20			
									27	61.2			botm. net	22-10½	15			
									37	61.8								
8558	37 15 50 Buoy #10 ENE; Wolf Trap Lt. NXW¾W; Old Plantation Lt. SEXE.	76 07 40.		" 10.	11:23 a.m. to 11:40 a.m.	7	sft.		0	68.9								
									5	68.9			8' B. T.	7	07	N½W		Wind SE-2; Sky clear sea smooth; tide ebbing.
									9	66.0			#1, #20 silk					
									13	62.2								
8559	37 16 02 York Spit SW; New Pt. Comfort NWXW 1/8 W; Wolf Trap N 5/8 E.	76 11 48.		" 10.	12:05 p.m. to 12:15 p.m.	7	hrd.		0	69.9								
									5.5	70.0								Wind S-1; sky clear sea smooth; tide ebbing.
									11.5	62.5								
8560	37 17 12 New Pt. Comfort Lt. NWXW; Wolf Trap Lt. NNE½E; York Spit Lt. SXW¾W.	76 14 16.		" 10.	12:22 p.m. to 12:55 p.m.	4¾	hrd.		0	69.8								
									3	70.2			botm. net	4-5¾	10	ESE		Wind S-1; sky clear; sea smooth; tide ebbing.
									7	69.0			#1, #20 silk	0	10			
8561	37 23 15 Wolf Trap Lt. W¾N; Cherrystone Lt. SXE; New Pt. Comfort Lt. WXS½S.	76 04 50.		" 10.	2:32 p.m. to 2:55 p.m.	13¾	sft.		0	70.9								
									6	68.9			8' B. T.	13-12¾	10	NbE		Wind SE-1; sky clear; sea smooth tide flooding.
									14	64.0			#1, #20 silk	0	10			
									24	62.1								
8562	37 35 12 Bell buoy W½S; Windmill Pt. Lt. WXN½N.	76 10 26.		" 10.	4:20 p.m. to 4:40 p.m.	7½	sft.		0	70.1								
									6	69.1			8' B. T.	8-7½	10	E		Wind SE-3; Sky clear; sea smooth tide flooding.
									13	67.3			#1, #20 silk	0	10			
8563	37 34 18 Windmill Pt. Lt. WNW; San Marcos wreck buoy NXE¾E.	76 07 52.		" 10.	5:02 p.m. to 5:10 p.m.	7	sft.		0	71.0								
									6	69.0								Wind SE-4; sky clear sea smooth; tide flooding.
									12	67.3								
8564	37 34 26 San Marcos wreck N 3/8 W; Windmill Pt. Lt. WXN½N.	76 02 56.		" 10.	5:35 p.m. to 5:58 p.m.	9	sft.		0	70.7								
									7	68.1			8' B. T.	9-6	10	E		Wind SE-4; sky clear; sea smooth; tide flooding.
									15	65.9			#1, #20 silk	0	10			
8565	37 33 32 Sandy Pt. E½S; Can buoy SXXS½S.	75 58 12.		" 10.	6:28 p.m. to 6:35 p.m.	4	hrd.		0	68.9								
									3	70.1								Wind SE-4; sky clear sea smooth; tide flooding.
									7	69.0								
8566	37 51 32 Smith's Pt. Lt. NWXN; Buoy #19 NNW¾W; Great Wicomico Lt. SWXW¾W.	76 09 46.		" 11.	7:15 a.m. to 8:55 a.m.	22	sft.		0	68.2			½ mtr. vert.	22-0	01	SbE		Wind SW-3; Sky partly cloudy; sea smooth tide flooding.
									8	67.5			8' B. T.	15-24	24			
									15	67.0			#1, #20 silk	0	08			
									18	67.0								
									25	67.0								
									27	66.4								
									35	66.5								
8567	37 52 24 Tangier Sd. Lt. SE; San Marcos S½E; Smith's Pt. Lt. WXN¾N.	76 06 35.		" 11.	9:27 a.m. to 9:37 a.m.	8	sft.		0	68.7								
									8	68.6								Wind SW-2; sky clear sea smooth; tide flooding.
									14	66.9								

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8568	37 52 58	76 04 10. Smith's Pt. Lt. W¼N; Tangier Id. Lt. SWXS.		June 11.	9:52 a.m. to 10:12 a.m.	3	hrd.		0 4.5	69.1 70.0			GB bot; 8' B. T. #1 & #20 silk	3½-3½ 0	08 08	SWXS		Wind SW-2; sky clear sea smooth; tide flooding.
8569	38 00 16	76 22 48. Pt. Lookout NXE½E; Bell buoy #5 NW 5/8 W.		" 11.	12:12 p.m. to 1:00 p.m.	6½	hrd.		0 5 11	70.1 69.7 66.8			GB bot.; 8' B. T. #1, #20 silk	6¾-7 0	10 10	NWXN		Wind N-2; sky clear sea smooth; tide ebbing.
8570	38 01 26	76 21 35. Bell buoy #5 1/4N; Pt. Lookout Lt. NXW 7/8 N; Fish buoy SW¾W.		" 11.	1:18 p.m. to 1:55 p.m.	12½	sft.		0 5 9 13 18 21	70.2 69.5 68.5 65.2 65.0 65.5			GB bot.; 8' B. T. #1, #20 silk	12¾-11½ 0	10 10	NW½W		Wind N-2; sky clear sea smooth; tide ebbing.
8571	38 02 39	76 20 30. Pt. Lookout Lt. ESE; Cornfield Pt. NNW 5/8 W; Red Buoy SWXS.		" 11.	2:03 p.m. to 2:09 p.m.	5½	sft.		0 7	70.6 68.8			GB bot.					Wind N-2; sky clear sea smooth; tide ebbing.
8572	38 06 30	76 17 34. Holland Id. Bar Lt. NXE⅜S; Pt. No Pt. N½E; Hooper Id. Lt. NXE½E.		" 11.	3:20 p.m. to 3:40 p.m.	5½	sft.		0 4 9	69.2 69.9 69.8			GB bot. botm. net #1, #20 silk	5½-6 0	12 12	SSE to SSW		Wind N-2; Sky clear sea smooth; tide ebbing.
8573	38 07 42	76 13 46. Pt. No. Pt. W½N; Hooper Id. Lt. N¼W.		" 11.	4:34 p.m. to 5:25 p.m.	19½	sft.bk.M.		0 9 14 18 23 27 33	71.1 69.0 66.0 65.8 65.5 65.3 65.9			GB bot. 8' B. T.: #1, #20 silk botm. feeler ½ meter net	19½-11 0 19½-11 19½-0	20 20 20 01	S		Wind N-2; sky clear sea smooth; tide ebbing.
8574	38 07 25	76 09 55. Holland Id. Bar. Lt. SE½S; Hooper Id. Lt. NXW 5/8 W; Pt. No Pt. Lt. W 5/8 N.		" 11.	5:52 p.m. to 5:59 p.m.	4	hrd.		0 6	70.5 68.0								Wind NNE-2; sky clear; sea smooth; tide ebbing.
8575	38 13 06	76 14 18. Pt. No Pt. Lt. SWXS½S; Hooper Id. Lt. N¾W; Cedar Pt. Lt. NW 1/8 W.		" 11.	7:06 p.m. to 7:22 p.m.	20	sft.bk.M.		0				8' B. T. #6-#20 silk nets botm. feeler	20-10 0 20-10	08 08 08	NNW		Wind calm; sky cloudy; sea smooth; tide slackwater low.
8576	38 15 12	76 16 00. Hooper Id. Lt. E 7/8 N; Spar buoy NE½N; Cedar Pt. NW 7/8 W; Pt. No Pt. SXW.		" 12.	5:40 a.m. to 5:55 a.m.	20	sft.bk.M.						8' B. T. botm. feeler #6, #20 silk	20-16½ " 0	05 05	NNW		Wind N-1; sky partly cloudy; sea smooth tide ebbing.
8577	38 20 08	76 17 54. Barren Id. beacon E 7/8 N; Hooper Id. Lt. SXE½E; Drum Pt. Lt. W½S.		" 12.	6:43 a.m. to 7:50 a.m.	24	sft.bk.M.		0 9 18 21 27 31 41	68.5 66.7 63.9 63.7 62.9 62.6 63.0			GB bot. ½ mtr. vert. 8' B. T. #6, #20 silk botm. feeler botm. net	24-0 25-20½ 0 25-20½ 16-15	01 15 15 15 05	NWXN		Wind N-1; sky clear sea smooth; tide ebbing.

Form 625.

INVESTIGATION BY Fish Hawk 1922.

268

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

175 174 ~~159~~ 157.

Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8578	38 21 00	76 21 30. Drum Pt. Lt. SWXW 5/8 W; Cedar Pt. Lt. SXW 3/8 W; Cove Pt. Lt. NNW 1/8 W.		June 12.	8:02 a.m. to 8:35 a.m.	7½	hrd.		0 6 13	68.9 69.8 63.5			GB bot.; 8' B. T. #6, #20 silk	7½-4½ 0	15 15	SWXW		Wind NW-1; sky clear; sea smooth; tide ebbing.
8579	38 31 32	76 24 44. Sharp's Id. Lt. NXE½E; Bell buoy #18A N 5/8 W; 16F spar buoy EXN.		" 12.	10:01 a.m. to 10:25 a.m.	11	sft.		0 9 18	68.0 67.7 60.8			GB bot.; 8' B. T.	11	10	NNW		Wind NW-2; sky clear; sea smooth; tide ebbing.
8580	38 31 22	76 28 18. End of Dare Dock NWXN½N; Governor Run Dock SW½W; Bell buoy #18A NEXE.		" 12.	10:45 a.m. to 11:10 a.m.				0 4 9	68.0 68.8 68.6			8' B. T. #6, #20 silk	6½-5½ 0	15 15	NNW½W		Wind NW-2; sky clear; sea smooth; tide ebbing.
8581	38 40 16	76 25 07. Black Walnut Pt. E¾S; Sharp's Id. Lt. SE½S.		" 12.	12:28 p.m. to 1:00 p.m.	20½	sft.		0 8 16 26 36	67.9 66.8 60.3 59.9 59.8			GB bot.; 8' B. T.; botm. feeler #6, #20 silk	20½-17 0	10 10	N½W		Wind calm; sea smooth; sky clear; tide flooding.
8582	38 50 05	76 27 24. Thomas Pt. Lt. NXE¾E; Bloody Pt. Lt. E 1/8 S; Can buoy #27 W 1/8 S.		" 12.	2:02 p.m. to 2:25 p.m.	5	hrd.		0 3 8	69.8 67.1 64.3			GB bot.; 8' B. T. #6, #20 silk	5-4½ 0	11 11	NXE½E		Wind NE-1; sky clear sea smooth; tide flooding.
8583	38 49 55	76 25 55. Thomas Pt. Lt. N½E; Bloody Pt. Lt. E½S.		" 12.	2:44 p.m. to 2:50 p.m.	6¾	hrd.		0 6 11	68.5 67.0 60.1			GB bot.;					Wind NE-1; sky clear sea smooth; tide flooding.
8584	38 50 22	76 24 00. Thomas Pt. Lt. NXW 5/8 W. Bloody Pt. Lt. SE 7/8 E.		" 12.	3:03 p.m. to 4:25 p.m.	30	hrd.		0 6 13 22 32 42 51	66.5 67.0 61.5 59.0 59.0 59.0 59.7			GB bot.; ¼ mtr. vert. 8' B. T. botm. feeler #6, #20 silk botm. net	30-0 29-17 29-17 0 0	01 15 15 15 20	N½E		Wind SW-1; sky clear sea smooth; tide flooding.
8585	38 55 14	76 23 37. Thomas Pt. Lt. SWXW 5/8 W; Greenbury Pt. Shoal Lt. NW½N; Sandy Pt. Lt. N 7/8 E.		" 12.	4:35 p.m. to 4:55 p.m.	12½	sft.						8' B. T. botm. feeler	12½-14 12½-14	16 16	NXE½E		Wind calm; sky clear sea smooth; tide flooding.
8586	39 01 41	76 22 36. Sandy Pt. SWXS½S; Baltimore Lt. NXW¾W.		" 12.	5:45 p.m. to 5:55 p.m.	9	sft.		0 7 15	68.1 63.6 58.9								Wind SE-1; sky clear hazy horizon; sea smooth; tide flooding
8587	39 01 37	76 20 30. Sandy Pt. WXS; Baltimore Lt. NW 1/8 N; Love Pt. NEXE¾E.		" 12.	6:00 p.m. to 6:21 p.m.	13	sft.		0 5 12 20	67.9 66.5 58.6 58.1			#6, #20 silk	0	10	NNE		Wind SE-1; sky clear hazy horizon; sea smooth; tide flooding

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916. 175 ~~160~~.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Water. Depth. (fms.) meters	Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Dumpy Dredge. Direction.	Dumpy Dredge. Distance. (miles.)	Remarks.
8588	39 07 10	76 18 28. Love Pt. Lt. S 7/8 E; Baltimore Lt. SWXW 1/8 W.		June 12.	7:03 p.m. to 7:30 p.m.	11	sft.		0 3.5 8.5 16.5	68.2 66.4 61.5 60.6			#6, #20 silk	0	10	SSW½W		Wind calm; sky clear sea smooth; tide flooding.
8589				July 17.	9:00 a.m. to 9:30 a.m.	5-6½	hrd.S.						botm. net	5-6½	30	NEXE		Wind SW-1; sky clear sea smooth tide flooding.
8590	36 47 47	75 55 57. Dam Neck, Mill's L.S.Sta. WSW; Tank, Va. Beach NW½W.		" 17.	11:35 a.m. to 1:50 p.m.	5	hrd.						8' B. T.; m.b. 8' B. T. botm. net 8' B. T. botm. net m.b.; ½ mtr.	5 5 4½ 4 4 4	10 20 20 20 15 05	N NXW½W		Wind SSE-3; sky clear; sea moderate; tide flooding.
8591	36 56 38	75 58 13. Cape Henry Lt.Ho. WSW; Lt. Ship NWXN.		" 18.	4:10 p.m. to 4:22 p.m.	7½	sft.m.S.						B. T.; m.b. ½ mtr. #20 silk	7½-7 0 0	12 12 12	NW X SE		Wind E-2; sky clear sea moderate; tide ebbing.
8592	36 56 37	75 58 38. Cape Henry Lt. SWXW½W; Lt. Ship NWXN½N.		" 18.	4:35 p.m. to 4:48 p.m.	10½	hrd.crs.S. G.Sh.						B. T.; m.b. #20 silk ½ mtr	10½-10 0 0	13 13 13	NW WXS		Wind E-2; sky clear sea moderate; tide ebbing.
8593	37 00 40	76 15 12. Thimble Shoal Lt. ENE; Gas buoy SSE½E; Old Pt. Comfort Lt. W 5/8 S.		" 25.	6:55 a.m. to 8:20 a.m.	9½	hrd.S. marine growth.		0 8 15	75.8 76.2 74.0			GB bot. B.T.; m.b. #5, #20 silk botm. net	6¾-7 0 8½-11-14¾	13 13 05	E½S		Wind S-3; sky cloudy sea smooth; tide ebbing.
8594	36 58 45	76 07 48. Cape Henry Lt. SEXE; Buoy #4 W½N		" 25.	10:06 a.m. to 10:40 a.m.	5	hrd.S.		0 5 9	75.6 72.0 72.1			GB bot. B. T.; m.b. #5, #20 silk	5½-5¾ 0	15 15	SEXE½E		Wind S-3; sky cloudy sea moderate; tide low water slack.
8595	36 57 02	76 00 26. Cape Henry Lt. S 5/8 W; Lt. Ship N 3/8 E; Can buoy C-1 W½S.		" 25.	11:17 a.m. to 12:15 p.m.	12	hrd.		0 7 15 21 3	74.3 71.9 69.5 69.8 74.3			GB, Ek. bot. B.T.; m.b. #5, #20 silk botm. net	12-12½ 0 12¾	15 15 10	EXS		Wind SSE-2; sky over cast and raining sea moderate; tide ebbing.
8596	36 58 53	76 00 22. Tail of Horseshoe Lt.Ship SW 3/8 S; Cape Henry Lt. S½W; Yellow can buoy WNW.		" 25.	12:36 p.m. to 1:25 p.m.	7½	hrd.S.		0 5 11	73.5 74.4 71.7			GB, Ek. bot. B. T.; m.b. #5, #20 silk	7-6½ 0	15 15	SEXE		Wind S-2; sky overcast; sea moderate; tide ebbing.
8597	37 00 58	75 58 45. Cape Charles Lt. NNXN; Bell buoy #4 SE½S.		" 25.	1:43 p.m. to 2:15 p.m.	4½	hrd.		0 5.5	75.0 74.9			GB bot. B. T.; m.b. #5, #20 silk	4 0	20 20	NE		Wind SSE-4; sky cloudy; sea choppy; tide ebbing.
8598	37 03 27	75 58 19. Buoy #4 ESE; Cape Charles Lt. NE; Lt. Ship SW.		" 25.	2:38 p.m. to 3:42 p.m.	9½	hrd.		0 8 15	75.0 75.6 75.0			GB, Ek. bot. B. T.; m.b. #5, #20 silk botm. net	6½-7¼ 0 7¼-7	20 20 10	SEXS½S		Wind S-4; sky cloudy; sea choppy; tide flood.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

176

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature: Air. Degrees.	Temperature: Water. Depth. (fms.) meters	Temperature: Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Haul Dredge. Direction.	Haul Dredge. Distance. (miles.)	Remarks.
8599	37 15 07	76 04 44.	Cherrystone Lt. E¾N; Plantation Lt. SE¼S; Nun buoy N¼W.		July 26.	9:00 a.m. to 11:15 a.m.	25	sft.bk.M.		0 6 11 22 32 42	75.8 77.0 76.1 75.2 75.0 75.6			GB, Ek bot. ½ mtr. vert. B. T.; m.b.* #5, #20 silk botm. net B. T.; m.b.	25-0 17-22 0 15-14 14-24	01 20 20 11 15	SE¼S SSW		*Lashings on trawl carried away, trawl came to surface empty at 10.00 a.m. Wind S-3; sky cloudy; sea choppy; tide flooding.
8600	37 15 18	76 07 38.	New Pt. Comfort Lt. NWXW½W Old Plantation Lt. SEXE½E.		" 26.	11:50 a.m. to 12:15 p.m.	8.5	sft.M.		0 5 12	76.5 78.0 75.9			GB bot. m.b.	7-6¾	10	SW		Wind S-5; sky overcast and raining, sea choppy; tide flooding.
8601	37 15 59	76 11 51.	York Spit Lt. SW; New Pt. Comfort Lt. NWXW.		" 26.	12:48 p.m. to 12:56 p.m.	7½	sft.bk.M.		0 5 10	76.8 77.0 76.8			GB., Ek. bot.					Wind S-2; sky partly cloudy; sea smooth tide flooding.
8602	37 17 01	76 14 14.	Wolfe Trap Lt. NNW½W; New Pt. Comfort Lt. NWXW; York Spit Lt. SXW½W.		" 26.	1:17 p.m. to 1:35 p.m.		yl.S.M.		0 6	77.4 77.9			GB bot. m.b.	5½-6	07	NE to SE		Wind S-2; sky partly cloudy; sea smooth; tide flooding.
8603	37 23 30	76 04 50.	Cherrystone Lt. S 7/8 E; New Pt. Comfort Lt. SWXW 7/8 W; Wolfe Trap Lt. W½N.		" 26.	4:15 p.m. to 5:15 p.m.	13	hrd.		0 6 13 22	77.3 78.6 76.9 75.9			GB, Ek. bot. B. T.; m.b. #5, #20 silk botm. net	13-12½ 0 13-7½	15 15 15	S to W to N		Wind SSE-4-5; sky partly cloudy; sea choppy; tide
8604	37 35 24	76 11 24.	Windmill Pt. Lt. WXN½N; Stingray Pt. Lt. WXS 5/8 S.		" 27.	7:00 a.m. to 8:15 a.m.	7¾	sft.bk.M.		0 6 13	77.2 78.4 78.6			GB, Ek. bot. B. T.; m.b. #5, #20 silk botm. net	8½-7½ 0 7½-7	15 15 10	SXE		Wind S-3; sky partly cloudy; sea choppy; tide flooding.
8605	37 34 20	76 07 54.	Stingray Pt. Lt. W; Windmill Pt. Lt. WNW.		" 27.	8:40 a.m. to 9:00 a.m.	7	sft.bk.M.		0 9	77.2 79.0			m.b.	7	08	WSW½S		Wind SW-3; sky partly cloudy; sea choppy tide flooding.
8606	37 33 07	76 02 34.	San Marcos wreck N 3/8 W; Maps Creek Pt. ENE.		" 27.	9:33 a.m. to 10:25 a.m.	10½	sft.bk.M. marine growth		0 5 10 17	77.8 78.9 78.0 77.3			GB, Ek. bot. B. T.; m.b. #5, #20 silk botm. net	10½-9 0 8¾-8½	15 15 05	S½E		Wind SW-4; sky partly cloudy; sea choppy tide flooding.
8607	37 33 19	75 58 21.	500 yds. NWXW½W from can buoy #1.		" 27.	10:45 a.m. to 11:20 a.m.	3	hrd.		0 4	77.8 79.0			GB bot. Otter trawl B. T.; m.b. #5, #20 silk	0 4¾-3 0	02 08 08	ENE		Wind SW-3; sky clear sea choppy; tide flooding.
8608	37 52 05	76 09 39.	Gt. Wicomico Lt. SWXW½W; Smith's Pt. Lt. NNW½W.		" 27.	2:02 p.m. to 3:38 p.m.	23	sft.		0 9 18 20 30 40	78.5 78.5 77.5 77.7 77.6 78.0			G-B, Ek. bot. ½ mtr. vertical B. T.; m.b. #5, #20 silk botm. net	23-0 20¾-25 0 26-24	01 20 20 15	SXW		Wind SW-3; sky partly clear; sea smooth; tide ebbing.

Form 625.

RECORD OF Chesapeake Bay INVESTIGATION BY Fish Hawk 1916.

177

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) metare	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8609	Too thick to take any bearings.			July 27.	4:15 p.m. to 4:25 p.m.	7	sft.		0	78.5								
									5	79.0			GB, Ex. Bot.					
									11	78.8								
8610	37 52 24	76 04 59.		" 27.	4:50 p.m. to 5:36 p.m.	3	hrd.		0	78.2								
	Smith's Pt. Lt. W 7/8 N; San Marcos wreck S 3/8 W; Tangier Id. Lt. S½E.								4	79.0			GB bot.					
													B. T.; m.b. #5, #20 silk	4½-5½ 0	10 10	SSE		Wind NW-1; sky overcast, raining; sea smooth; tide ebbing.
8611	38 00 27	76 22 54.		" 28.	5:42 a.m. to 6:42 a.m.	6	sft.		0	78.8								
	Bell Buoy NW¾W; Pt. Lookout Lt. NEX½E; Fish buoy NW¾W 100 yds. distant.								6	79.1			GB bot.					
									11	78.7			B. T.; m.b. #5, #20 silk	6-6½	16 16	W½W		Wind W-3; sky clear sea smooth; tide ebbing.
													Otter trawl	5½-4½	07			
8612	38 01 20	76 21 02.		" 28.	7:12 a.m. to 7:38 a.m.	12½	sft.		0	78.8								
	Pt. Lookout Lt. NEXE½E; Bell buoy WXN¼N.								6	79.6			G-B, Ex. bot.					
									13	78.0			m.b.	12½-13½	08	WXN		Wind W-3; sky clear sea smooth; tide ebbing.
									22	82.8								
8613	38 02 44	76 20 43.		" 28.	7:55 a.m. to 8:40 a.m.	4½	sft.		0	78.8								
	Pt. Lookout Lt. SEXE 5/8 E; Cornfield Pt. NW¼N.								8	79.0			G-B bot.					
													B. T.; m.b. #5, #20 silk	5-6½ 0	15 15	WNW		Wind WNW-2; sky clear; sea smooth; tide ebbing.
													botm. net	6⅝-8½	06			
8614	38 06 06	76 17 20.		" 28.	9:51 a.m. to 10:15 a.m.	6½	sft.		0	78.4								
	Pt. No Pt. Lt. N 3/8 E; Holland Id. Bar Lt. NXE 5/8 S.								9	79.0			G-B bot.					
													B. T.; m.b. #5, #20 silk	6½-5 0	15 15	NNE		Wind WNW-2; sky overcast; sea smooth; tide ebbing.
8615	Approx. position (too thick for any observations). 38 06 55	76 13 12.		" 28.	11:09 to 11:30	18			0	78.2								
									6	79.1			G-B, Ek. bot.					
									12	79.0			½ mtr. vertical	16⅝	01			Wind NE; sky overcast, raining; sea smooth; tide ebbing.
									22	75.2								
									32	76.0								
8616	38 13 44	76 15 35.		" 29.	10:25 a.m. to 11:50 a.m.	20	sft.bk.M.		0									
	Pt. No Pt. Lt. SXW¾W; Cedar Pt. Lt. NW 1° W; Hooper Id. Lt. NXE¾E.												B. T.; m.b. #5, #20 silk	16½ 0	07 07	NXW½W		Wind NE-3; sky clear; sea smooth; tide ebbing.
													Ledvinka's dr.	20-19	10			
													B. T.; m.b.	19-20	10			
8617	38 16 28	76 16 38.		" 29.	12:00 n.				0	77.4								
	Hooper Id. Lt. SE; Cedar Pt. Lt. NWXW 5/8 W; Pt. No Pt. Lt. S 7/8 W.								8	78.0			G-B, Ek. bot.					
									15	78.0								
									24	76.9								
									33	78.5								
					1:30 p.m.				0	77.8								
									8	78.0								
									15	77.5								
									24	77.0								
									33	77.1								
					3:00 p.m.				0	78.5								
									8	78.1								
									15	77.8								
									24	77.0								
									33	77.2								
					4:30 p.m.				0	78.0								
									8	78.0								
									15	77.9								
									24	77.0								
									33	77.2								

Form 625.

RECORD OF CHESAPEAKE BAY

INVESTIGATION BY FISH HAWK 1916.

178
~~165~~

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) meters	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8617 Continued				July 29.	6:00 p.m.				0	78.1								
									8	78.8								
									15	77.3								
									24	77.0								
					7:30 p.m.				33	77.2								
									0	77.6								
									8	78.1								
									15	77.0								
									24	77.0								
					9:00 p.m.				33	77.1								
									0	77.2								
									8	78.0								
									15	77.0								
									24	77.0								
					10:30 p.m.				33	77.1								
									0	77.0								
									8	78.0								
									15	77.0								
									24	77.0								
					12:00 m.				33	77.1								
									0	77.0								
									8	78.0								
									15	77.0								
									24	77.0								
				" 30.	1:30 a.m.				33	77.1								
				" 30.					0	76.8								
									8	78.2								
									15	77.3								
									24	77.0								
					3:00 a.m.				33	77.3								
									0	76.8								
									8	78.2								
									15	77.6								
									24	77.0								
					4:30 a.m.				33	77.5								
									0	77.0								
									8	78.0								
									15	77.3								
									24	77.0								
					6:00 a.m.				33	77.7								
									0	76.5								
									8	78.0								
									15	77.5								
									24	77.0								
					7:30 a.m.				33	77.8								
									0	76.5								
									8	78.0								
									15	77.6								
									24	77.0								
					9:00 a.m.				33	77.5								
									0	77.8								
									8	77.9								
									15	77.8								
									24	77.0								
									33	77.8								
					10:30 a.m.				0	78.3								
									8	77.8								
									15	77.6								
									24	77.0								
									33	77.5								

Form 625. 11—6014

INVESTIGATION BY Fish Hawk 1922.

268

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

179
164.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift Current. Direction.	Drift Current. Distance. (miles.)	Remarks.
8617 Continued				July 30.	12:00 n.				meters 0	78.8								
									8	78.0								
									15	77.1								
									24	77.0								
									33	77.3								
				" 29.	2:10 p.m.													
					2:01 p.m.								Ek. mtr.	5	5	S		
					1:49 p.m.									15	5	NE		
					3:24 p.m.									25	5	NEXE		
					3:15 p.m.									5	5-1/6	ENE		
					3:06 p.m.									15	5	NNW		
					4:50 p.m.									25	5	ENE		
					4:42 p.m.									5	6	ESE		
					4:34 p.m.									15	5	SSE		
					6:25 p.m.									25	5½	SSE		
					6:16 p.m.									5	5	ENE		
					6:06 p.m.									15	5	NNW		
					7:51 p.m.									25	5	ESE		
					7:43 p.m.									5	5	ENE		
					7:35 p.m.									15	5	NNW		
					9:41 p.m.									25	5	NNW		
					9:32 p.m.									5	5	NW		
					9:22 p.m.									15	5	WNW		
					10:55 p.m.									25	5	ENE		
					10:46 p.m.									5	5	SSE		
				" 30.	10:36 p.m.									15	5	SSW		
					12:22 a.m.									25	5	S		
					12:13 a.m.									5	5	SXW		
					12:03 a.m.									15	5	SXE		
					2:05 a.m.									25	5	S		
					1:57 a.m.									5	5	SSW		
					1:47 a.m.									15	5	S		
					3:28 a.m.									25	5	SXW		
					3:20 a.m.									5	5	SWXS		High water slack.
					3:12 a.m.									15	5	S		
					4:56 a.m.									25	5	SXW		
					4:48 a.m.									5	5	-		
					4:40 a.m.									15	5	SXE		
					6:44 a.m.									25	5	SXW		
					6:33 a.m.									5	5	NWXN		
					6:25 a.m.									15	5	NXW		
					8:00 a.m.									25	5	N		
					7:52 a.m.									5	5	NWXN		
					7:44 a.m.									15	5	NW		
					9:20 a.m.									25	5	NXE		
					9:13 a.m.									5	5	NW		
					9:05 a.m.									15	5	NWXN		
					10:52 a.m.									25	5	NXE		
					10:45 a.m.									5	5	NW		
					10:38 a.m.									15	5	NXE		
					12:00 n.									25	5	-		
					12:04 p.m.									5	5	WXS		
					11:57 a.m.									15	5	-		
														25	5	SE		

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

180
165

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air: Degrees.	Water: Depth. (fms.) meters	Water: Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift Dredge. Direction.	Drift Dredge. Distance. (miles.)	Remarks.
8618	37 20 30		76 18 12. Hooper Id. Lt. SXE 7/8 E; Buoy 16D E¾S.	1224	July 30.	1:35 p.m. to 3:50 p.m.	25½	sft.bk.M.		0	77.4			G-B, Ek bot.					
										8	78.0			½ mtr. vertical	25-0	05			Wind S-1; sky clear; sea smooth; tide flooding.
										16	77.5			B. T.; m.dr.	20-21¼	15	SSE		
										26	76.1			#5, #20 silk	0	15			
										36	76.9			Ledvinka dr.	22	07			
										46	77.3			botm. feeler	23½-24	08			
														botm. feeler	24	09			
8619	38 21 16		76 22 00. Buoy #21 NEXN 3/8 N; Drum Pt. Lt. SWXW 1/8 W; Cove Pt. Lt. NXW 3/8 W; Cedar Pt. Lt. S 5/8 W.	"	" 30.	4:20 p.m. to 4:25 p.m.	4½			0	78.1			G-B bot.					
										6	79.5								Wind S-3; sky overcast; sea smooth; tide flooding.
8620	38 31 54		76 25 10. Buoy 18A North; Buoy 16F E¾S.	1225	" 30.	5:55 p.m. to 6:05 p.m.	11½	sft.		0	78.8								
										9	78.5			G-B, Ek. bot.					
										19	76.0								Wind SSW-3; sky overcast; sea smooth; tide flooding.
8621	38 30 35		76 29 56. Fish buoy 2B-N 3/8 E; Governor Run Wharf WSW.	"	" 30.	6:30 p.m. to 6:35 p.m.	5½	sft.		0	78.5								
										9	79.1			G-B bot.					
8622	38 40 21		76 25 12. Sharp's Id. Lt. SE 3/8 S; Buoy #1 - E¾N.	"	" 31.	6:13 a.m. to 6:50 a.m.	20½	sft.M.		0	77.2								Wind W-1; sky overcast; sea smooth; tide flooding.
										8	78.1			G-B, Ek. bot.					
										15	76.8			B. T.; hydroid dr.	20½-16½	15	S¾W		Wind W-3; sky overcast; sea choppy; tide flooding.
										25	75.1			#5, #20 silk	0	15			
										35	75.2								
8623	38 49 42		76 27 24. Bloody Pt. Lt. E; Can buoy #27 NW¾N.	"	" 31.	8:20 a.m. to 9:05 a.m.	5	sft.		0	77.8								
										3	78.9			G-b, Ek. bot.					
										8	78.5			B. T.; m.b.	5½-5½	15	SXW½W		Wind W-1; sky clear; hazy horizon; sea smooth; tide high water slack.
														#5, #20 silk	0	15			
														hydroid dr.	5-5½	05	SWXS		
8624	38 49 36		76 25 42. Thomas Pt. Lt. N 1/8 E; Bloody Pt. Lt. E¾N.	"	" 31.	9:20 a.m. to 9:30 a.m.	7	sft.		0	77.5								
										5	78.5			G-B, Ek. bot.					
										11	78.0								Wind W-2; sky clear hazy hor.; sea smooth tide ebbing.
8625	38 50 10		76 23 44. Bloody Pt. Lt. SE 7/8 E; Thomas Pt. Lt. NXW 7/8 W.	"	" 31.	9:42 a.m. to 11:00 a.m.	23	sft.bk.M.		0	77.4								
										6	78.5			G-B, Ek. bot.					
										13	77.1			½ mtr.	23-0	01			
										22	75.1			B. T.; L.H.feeler	16-18¾	18	SXW		Wind W-2; sky clear hazy hor.; sea smooth tide ebbing.
										32	74.5			#5, #20 silk	0	18			
										42	75.0			botm. net	22-17¾	05			
8626	39 01 28		76 22 31. Sandy Pt. Lt. SW¼W; Baltimore Lt. NXW 7/8 W; Love Pt. Lt. EXN 5/8 N.	1226	" 31.	12:47 p.m. to 12:56 p.m.	9	sft.		0	78.9								
										7	78.8			Ek. bot.					
										15	77.6								Wind W-2; sky clear hazy hor.; sea smooth
8627	39 01 30		76 20 34. Sandy Pt. Lt. W 7/8 S; Baltimore Lt. NW; Love Pt.	"	" 31.	1:18 p.m. to 1:28 p.m.	12¾	sft.		0	78.8								
										5	79.5			G-B bot.; Ek. bot.					
										13	76.9								Wind W-1; sky clear; hazy hor.; sea smooth
										22	74.8								

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8628	38 52 09 Bloody Pt. region.	76 24 00.		Aug. 30.	1:42 p.m. to 4:20 p.m.	17½	sft.						hydroid dr. botm. feeler	17½-16½	12	S½W		Wind S-2; sky clear sea smooth; dredge fouled on botm. at 2:32 p.m. - 7 hauls.
													hydroid dr. botm. feeler	18-21	05			
													hydroid dr. botm. feeler	22½-27½	33			
													hydroid dr. botm. feeler	19-18	10	SSW		
													hydroid dr. botm. feeler	17-11	03			
													hydroid dr. botm. feeler	17½-9½	10			
8629	38 45 22 Off Poplar Id.	76 25 55.	"	30.	4:40 p.m. to 5:00 p.m.	14½	sft.						hydroid dr. botm. feeler	10-11	10			
8630	38 39 50 Above Sharp's Id.	76 25 18.	"	30.	5:45 p.m. to 6:02 p.m.	16	sft.						hydroid dr. botm. feeler	14	10	SSW½W		Wind S-1; sky clear sea smooth.
8631	38 38 46 Choptank R. below Tilghman.	76 19 08.	"	31.	7:22 a.m. to 8:00 a.m.	9	hrd.						hydroid dr. botm. feeler	16-16½	10	SW½W		Wind S-1; sky clear, sea smooth.
8632	38 34 08 Mouth Choptank R.	76 23 27.	"	31.	9:00 a.m. to 9:50 a.m.	18½	sft.						hydroid dr. botm. feeler	9-10	15	WNW		Wind WSW-3; sky clear; sea smooth.
													hydroid dr. botm. feeler	11-7	07			
8633	38 28 20 James Id.	76 23 30.	"	31.	10:24 a.m. to 10:48 a.m.	18	sft.						hydroid dr. botm. feeler	18½-14½	15	SSW		Wind WSW-3; sky clear; sea smooth;
													hydroid dr. botm. feeler	13-12	12			
8634	38 27 45 Off Taylor Id.	76 23 28.	"	31.	10:54 a.m. to 11:40 a.m.	14.5	sft.						hydroid dr. botm. feeler	16-10	14			Wind WSW-2; sky clear; sea smooth.
													hydroid dr. botm. feeler	14	12	SSW½W		Wind WSW-2; sky clear; sea smooth.
													hydroid dr. botm. feeler	15-16	12	SSW		
8635	38 21 24 Off Barren Id.	76 19 09.	"	31.	12:05 p.m. to 12:50 p.m.	21	m.						hydroid dr. botm. feeler	21	12	SSW		Wind WSW-3; sky clear; sea smooth.
													hydroid dr. botm. feeler	14-16	12			
8636	38 17 58 Below Barren Id.	76 17 06.	"	31.	12:58 p.m. to 1:15 p.m.	21	m.						hydroid dr. botm. feeler	21-17	15	SSW		Wind WSW-2; sky clear; sea smooth.
8637	38 15 38 Hooper Id. region	76 16 08.	"	31.	1:55 p.m. to 2:40 p.m.	21	m.						hydroid dr. botm. feeler	21-20	12	SSW		Wind SSW-2; sky clear; sea smooth;
													hydroid dr. botm feeler	20-20½	15	SSW		

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8638	38 13 36 Below Hooper Id.	76 14 46.		Aug. 31.	2:55 p.m. to 3:50 p.m.	9	m.						hydroid dr.) botm. feeler)	7-10	15	SXE		Wind SSE-2; sky clear; sea smooth.
													hydroid dr.) botm. feeler)	11-13	26	SSE		
8639	38 07 52 Off Point No Point.	76 13 36.		" 31.	4:36 p.m. to 5:20 p.m.	19	m.							20				
													hydroid dr.) botm. feeler)	19	15	S½E		Wind S-3-4; sky clear; sea smooth.
8640	38 11 16 Upper end Tangier Sound.	75 58 30.		Sept. 1.	9:00 a.m. to 9:15 a.m.	10	sft.						hydroid dr.) botm. feeler)	17-12	15	S½E		
8641	38 08 02	75 58 39.	1224	" 1.	9:35 a.m. to 9:55 a.m.	12½	sft.						hydroid dr.) botm. feeler)	10-9	10	S½W		Wind SW-3; sky clear sea smooth.
8642	38 02 38	75 57 12.	"	" 1.	10:50 a.m. to 11:15 a.m.	13	sft.						hydroid dr.) botm. feeler)	12½-10½	15	S½W.		Wind SW-3; sky clear sea smooth.
8643	38 00 00	75 54 36.	"	" 1.	11:30 a.m. to 11:50 a.m.	17	sft.stk.M.						hydroid dr.) botm. feeler)	13-9½	15	SE		Wind SW-2; sky clear sea smooth.
8644	37 56 27	75 57 30.	"	" 1.	12:23 p.m. to 12:40 p.m.	10½	sft.						hydroid dr. botm. feeler	17	14	SSE to SSW		Wind SW-2; sky clear sea smooth.
8645	37 54 36	75 57 36.	"	" 1.	1:20 p.m. to 1:40 p.m.	16							hydroid dr.) botm. feeler)	10-9	15	SSW		Wind SW-2; sky clear sea smooth.
8646	37 48 03	75 57 42.	1223	" 1.	2:47 p.m. to 3:25 p.m.	15 22½	hrd.oys.Sh. sft.						hydroid dr.) botm. feeler)	15½-17	15	SXE		Wind S-2; sky clear; sea smooth.
													hydroid. dr.) botm. feeler)	15½-9½	13	S½W		Wind SSW-2; sky clear; sea smooth.
													hydroid dr.) botm. feeler)	22½-19	10	SSW		
8647	37 49 36	75 49 43.	"	" 1.	5:45 p.m. to 6:05 p.m.	12.5	hrd.						hydroid dr.) botm. feeler)	12½-15	15	SSW		Wind SW-3; sky clear sea smooth.
8648	37 44 24	75 54 00.	"	" 2.	6:30 a.m. to 6:55 a.m.	9	hrd.						hydroid dr.) botm. feeler)	9½-8½	08	NNE		Wind NW-4; sky clear sea moderate.
8649	37 42 18	75 58 36.	"	" 2.	7:40 a.m. to 8:00 a.m.	11	sft.stk.M.						hydroid dr.) botm. feeler)	11-13	10	NW½W		Wind N-4; sky clear; sea moderate.
8650	37 51 28	76 10 12.	"	" 2.	11:00 a.m. to 11:30 a.m.	25	sft.						hydroid dr.) botm. feeler)	24½-23½	15	NNE		Wind NW; sky cloudy; sea smooth.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1922.

183

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Water. Depth. (fms.)	Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8651	39 07 06	76 18 31. Love Pt. Lt. SXE; Baltimore Lt. SWXW; 7 ft. Knoll NWXW; Upper Lt. NW 7/8 N.	1226	Sept. 8.	1:48 p.m. to 2:00 p.m.	12.5 m.			0 8 16	76.1 76.1 76.3			G-B bot.					Wind S-2; sky clear; sea smooth;
8652	39 01 30	76 20 32. Sandy Pt. Lt. WXS; Baltimore Lt. NW; Love Pt. Lt. NE.	1225	" 8.	3:05 p.m. to 3:24 p.m.	13 m.			0 7 14 22	76.0 75.5 76.7 76.7			G-B, Dk. bot.					Wind W-3; sky cloudy sea smooth.
8653	39 02 00	76 22 30. Sandy Pt. Lt. SSW 7/8 W; Baltimore Lt. NNW½W; Love Pt. Lt. ENE.	"	" 8.	3:40 p.m. to 4:10 p.m.	9 m.			0 5.5 13.5	76.1 75.8 76.5			G-B, Dk. bot. #20 silk; ½ mtr. surf.	0	10			Wind E-2; sky cloudy and rain; sea smooth.
8654	38 56 06	76 23 19. Thomas Pt. Lt. SW 5/8 W; Greensboro Pt. Lt. NNW.	"	" 8.	5:12 p.m. to 5:50 p.m.	18 m.			0				8' B. T. #20 silk; ½ mtr.	18-20 0	14 14			Wind SW-1; sky cloudy, rainy; sea smooth
8655	38 50 00	76 27 19. Thomas Pt. Lt. NXE 5/8 E; Buoy C-27 WXN.	"	" 9.	6:25 a.m. to 7:00 a.m.	5 hrd.			0 6	75.8 76.0			G-B bot. hydroid dr. #20; ½ mtr. silk	5 0	10 10	SW		Wind S-3; sky cloudy sea choppy.
8656	38 49 54	76 26 00. Thomas Pt. Lt. N 3/8 E; Bloody Pt. Lt. E; Buoy C27 WXN.	"	" 9.	7:20 a.m. to 7:30 a.m.	6.5 m.			0 5 10	74.7 75.8 76.3			G-B, Dk. bot.					Wind E-4; sky clear sea choppy.
8657	38 58 15	76 24 00. Thomas Pt. Lt. NXW½W; Bloody Pt. Lt. SXW.	"	" 9.	8:05 a.m. to 9:06 a.m.	20 m.			0 7 14 24 34	75.0 76.8 77.0 76.7 76.6			G-B; Dk. bot. ½ mtr. vertical botm. net #20; ½ mtr. silk	34-0 15½-17 0	02 15 15	SSW½W		Wind E-2; sky clear sea choppy.
8658	38 47 37	76 25 00. Bloody Pt. Lt. NEXN 1/8 N; North end Poplar Id. SEXE.	"	" 9.	9:20 a.m. to 9:32 a.m.	20 sft.							hydroid dr.	20-17	12	SSW½W		Wind N-3; sky clear sea choppy.
8659	38 40 12	76 25 00. Sharp's Id. Lt. SSE3; Black Walnut Pt. E 1/8 S.	"	" 9.	10:30 a.m. to 10:45 a.m.	19 m.			0 7 14 24 34	74.5 76.4 77.0 76.7 76.5			G-B; Dk. bot. ½ mtr. vertical	34-0	M. 1			Wind E-4; sky clear sea choppy.
8660	38 41 32	76 25 18. Buoy #18A N 3/8 E; Buoy C16 E.	"	" 9.	11:56 a.m. to 1:06 p.m.	12.5 m.			0 10 20	75.0 75.9 75.6			G-B; Dk. bot. hydroid dr.	18½	10	NNW		Wind NXE-4; sky clear; sea choppy.
8661	38 30 32	76 28 36. Governor's Run Wharf SXW ½W; Cove Pt. Lt. SSW½E; Sharp's Id. Lt. NE½N.	"	" 9.	1:00 p.m. to 2:05 p.m.	6 m.			0 9	74.9 76.2			G-B bot. #20; ½ mtr. silk	6 0	10 10	NXE		Wind NXE-4; sky clear; sea choppy.
8662	38 21 06	76 21 48. Cove Pt. Lt. NXW½W; Buoy S-21; NXW- 100 yds.	1224	" 9.	3:20 p.m. to 3:35 p.m.	4.5 hrd.			0 7	75.1			G-B bot.					Wind E-4; sky clear sea choppy.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 1922.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8663	38 20 05	76 17 58.	1224	Sept. 9.	4:00 p.m. to 4:58 p.m.	25½	sft.		0 7 15 25 35 45	75.4 76.7 77.0 77.0 76.7 76.6			G-B; Mk. bot. #20; ½ mtr. silk ½ mtr. vert. (M) botm. net	0 45-0 25½-25	12 02 12	NNW		Wind N-4; sky clear; sea choppy.
8664	38 14 30	76 15 24.	"	" 9.	5:45 p.m. to 6:10 p.m.	19½	m.		0 7 15 25 35	75.2 76.5 77.0 76.5 76.5			G-B; Ek. bot.					Wind NNW-3; sky clear; sea choppy.
8665	38 06 52	76 17 36.	"	" 10.	6:15 a.m. to 6:30 a.m.	5	brd.		0 7.5	74.5 75.9			G-B bot.					Wind NE-4; sky clear; sea choppy.
8666	38 07 06	76 13 24.	"	" 10.	6:55 a.m. to 7:35 a.m.	20	m.		0 7 14 24 34	74.2 76.2 77.0 76.5 76.5			G-B; Mk. bot. botm. stramen #20; ½ mtr. silk ½ mtr. vertical (M)	18-14 0 34-0	10 10 01	NNW		Wind NE-4; sky clear; sea choppy.
8667	38 07 42	76 10 21.	"	" 10.	8:05 a.m. to 8:30 a.m.	4.5	brd.		0 5	74.5 75.8			G-B bot. 8' B. T. ½ mtr.; #20 silk	4½-4¾ 0	12 12	NNE		Wind NE-4; sky clear; sea choppy.
8668	38 01 16	76 21 30.	"	" 10.	10:05 a.m. to 10:40 a.m.	12	m.		0 6 14 22	74.8 76.2 76.6 76.6			G-B; Ek. bot. hydroid dr. ½ mtr. vertical ½ mtr.; #20 silk	11½-12½ 22-0 0	10 02 10	NW		Wind NE-4; sky clear; sea choppy.
8669	38 02 54	76 21 07.	"	" 10.	11:00 a.m. to 11:30 a.m.	5	sft.		0 8	75.0 76.1			G-B bot. 8' B. T. #20; ½ mtr silk.	5 0	10 10	WNW½N		Wind NNE-4; sky clear; sea choppy.
8670	38 00 24	76 23 00.	"	" 10.	11:50 a.m. to 11:55 a.m.	6½	m.		0 4.5 10.5	75.2 76.1 76.9			G-B; Ek. bot.					Wind NE-4; sky clear; sea choppy.
8671	37 51 55	76 10 06.	1223	" 10.	2:15 p.m. to 3:30 p.m.	23	m.		0 5 10 17 27 37	75.3 77.0 76.4 76.2 76.2 76.2			G-B; Ek. bot. ½ mtr. vert. (M) 8' B. T. #20; ½ mtr. silk botm. stramen	37-0 16-13-11 0 13-18-20	02 20 20 10	NNE NNE½E		Wind ENE-4; sky clear; sea choppy.
8672	37 52 56	76 07 24.	"	" 10.	3:40 p.m. to 3:45 p.m.	7	brd.		0 4 12	75.1 76.5 76.7			G-B; Ek. bot.					Wind ENE-4; sky clear; sea choppy.

INVESTIGATION BY Fish Hawk 1922.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Dredge. Direction.	Drift. Dredge. Distance. (miles.)	Remarks.
8663	38 20 05	76 17 58.	1224	Sept. 9.	4:00 p.m. to 4:58 p.m.	25½	sft.		0 7 15 25 35 45	75.4 76.7 77.0 77.0 76.7 76.6			G-B; Mk. bot. #20; ½ mtr. silk ½ mtr. vert. (M) botm. net	0 45-0 25½-25	12 02 12	NNW		Wind N-4; sky clear; sea choppy.
8664	38 14 30	76 15 24.	"	" 9.	5:45 p.m. to 6:10 p.m.	19½	m.		0 7 15 25 35	75.2 76.5 77.0 76.5 76.5			G-B; Ek. bot.					Wind NNW-3; sky clear; sea choppy.
8665	38 06 52	76 17 36.	"	" 10.	6:15 a.m. to 6:30 a.m.	5	brd.		0 7.5	74.5 75.9			G-B bot.					Wind NE-4; sky clear; sea choppy.
8666	38 07 06	76 13 24.	"	" 10.	6:55 a.m. to 7:35 a.m.	20	m.		0 7 14 24 34	74.2 76.2 77.0 76.5 76.5			G-B; Mk. bot. botm. stramen #20; ½ mtr. silk ½ mtr. vertical (M)	18-14 0 34-0	10 10 01	NNW		Wind NE-4; sky clear; sea choppy.
8667	38 07 42	76 10 21.	"	" 10.	8:05 a.m. to 8:30 a.m.	4.5	brd.		0 5	74.5 75.8			G-B bot. 8' B. T. ½ mtr.; #20 silk	4½-4¾ 0	12 12	NNE		Wind NE-4; sky clear; sea choppy.
8668	38 01 16	76 21 30.	"	" 10.	10:05 a.m. to 10:40 a.m.	12	m.		0 6 14 22	74.8 76.2 76.6 76.6			G-B; Ek. bot. hydroid dr. ½ mtr. vertical ½ mtr.; #20 silk	11½-12½ 22-0 0	10 02 10	NW		Wind NE-4; sky clear; sea choppy.
8669	38 02 54	76 21 07.	"	" 10.	11:00 a.m. to 11:30 a.m.	5	sft.		0 8	75.0 76.1			G-B bot. 8' B. T. #20; ½ mtr silk.	5 0	10 10	WNW½N		Wind NNE-4; sky clear; sea choppy.
8670	38 00 24	76 23 00.	"	" 10.	11:50 a.m. to 11:55 a.m.	6½	m.		0 4.5 10.5	75.2 76.1 76.9			G-B; Ek. bot.					Wind NE-4; sky clear; sea choppy.
8671	37 51 55	76 10 06.	1223	" 10.	2:15 p.m. to 3:30 p.m.	23	m.		0 5 10 17 27 37	75.3 77.0 76.4 76.2 76.2 76.2			G-B; Ek. bot. ½ mtr. vert. (M) 8' B. T. #20; ½ mtr. silk botm. stramen	37-0 16-13-11 0 13-18-20	02 20 20 10	NNE NNE½E		Wind ENE-4; sky clear; sea choppy.
8672	37 52 56	76 07 24.	"	" 10.	3:40 p.m. to 3:45 p.m.	7	brd.		0 4 12	75.1 76.5 76.7			G-B; Ek. bot.					Wind ENE-4; sky clear; sea choppy.

Form 625.

INVESTIGATION BY Fish Hawk 1922.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916.

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
8673	37 52 08	76 05 30.	San Marcos wrk. S 1/8 W; Tangier Lt. SE; Smith's Pt. Lt. WNW½N.	1223	Sept. 10.	4:02 p.m. to 4:20 p.m.	5	hrd.		0 8	75.3 76.5			G-B bot. 8' B. T. #20; ½ mtr. silk	5½-6½ 0	10 10	NNW		Wind ENE-4; sky clear; sea choppy.
8674	37 15 18	76 11 33.	San Marcos wrk. NE½N; Windmill WXN 5/8 N; Bell buoy 17 - SSW½W; Stingray Pt. WXS½S.	"	" 11	6:40 a.m. to 7:15 a.m.	8	m.		0 6 12	73.9 75.1 76.5			G-B; Ek. bot. 8' B. T. #20; ½ mtr. silk	8 0	10 10	NNW½W		Wind ENE-4; sky clear; sea choppy.
8675	37 34 18	76 08 45.	San Marcos wrk. NNE½E; Windmill NWXW½W.	"	" 11.	7:45 a.m. to 7:50 a.m.	7	m.		0 5 11	74.0 75.1 76.2			G-B; Ek. bot.					Wind NE-4; sky clear; sea choppy.
8676	37 34 00	76 02 33.	San Marcos N½W; Katahdin WNW½N.	"	" 11.	8:50 a.m. to 9:15 a.m.	9	hrd.		0 6 14	74.2 75.6 76.2			8' B. T. #20; ½ mtr. silk	10-9½ 0	10 10	NNW		Wind ENE; sky clear; sea choppy.
8677	37 33 32	75 58 16.	Buoy C1 SSE½E; San Marcos NNW½W; Wooded Pt. EXS 3/8 E.	"	" 11.	10:00 a.m. to 10:05 a.m.	4½	m.		0 7	73.9 75.4			Ek. bot.					Wind ENE-4; sky clear; sea choppy.
8678	37 23 27	76 04 48.	Wolf Trap Lt. W½N; Cherrystone Lt. SXE.	1222	" 11.	12:10 p.m. to 2:10 p.m.	12	hrd.		0 5 12 21	74.4 75.5 75.5 75.8			G-B; Ek. bot. 8' B. T. #20; ½ mtr. silk	12-10 0	10 10	N½W		Wind NE-4; sky clear; sea choppy.
8679	37 17 02	76 14 24.	New Pt. Comfort NW 7/8 W; York Spit Lt. SXW 3/8 W; Wolf Trap Lt. NE½E.	"	" 11.	2:30 p.m. to 3:00 p.m.	6	hrd.		0 6	73.9 75.0			8' B. T. #20; ½ mtr. silk	5½-6 0	09 09	SW		Wind ENE-4; sky clear; sea choppy.
8680	37 16 31	76 11 43.	New Pt. Lt. NWXW 5/8 W; Wolf Trap Lt. N 5/8 E.	"	" 11.	3:30 p.m. to 3:40 p.m.	7	hrd.		0 5 11	74.0 75.1 75.0			G-B; Ek. bot.					Wind ENE-4; sky clear; sea choppy.
8681	37 15 32	76 07 06.	Plantation Lt. SEXE; N-buoy 10 - NEXE 3/8 E; York Spit Lt. WXS⅝S; New Pt. Lt. WNW; Cherrystone Lt. E 3/8 S.	"	" 11.	4:25 p.m. to 4:35 p.m.	7½	m.		0 6 12	74.0 75.2 75.1			G-B; Ek. bot.					Wind ENE-4; sky clear; sea choppy.
8682	37 14 45	76 04 36.	Cherrystone Lt. EXN½N; Plantation Lt. SE½E; Nbuoy #10 N 3/8 W.	"	" 11.	4:55 p.m. to 5:50 p.m.	24½	hrd.		0 7 14 22 32 42	74.1 76.0 75.0 75.4 74.5 74.1			G-B; Ek. bot. ½ mtr. vert. (M) 8' B. T. botm. stramen #20; ½ mtr. silk	43-0 24-16 12-0 0	02 12 10 10	NNW NNW		Wind NE-4; sky clear; sea choppy.
8683	37 03 33	75 58 42.	Cape Charles Lt. NE½E; Fisherman's Id. Lt. N½E.	"	" 12.	7:15 a.m. to 8:05 a.m.	10	sft.		0 8 16	70.7 72.0 72.0			G-B; Ek. bot. #20; ½ mtr. silk 8' B. T.	0 10-9	10 10			Wind ENE-4; sky clear; sea rough.

This space to be left for binding.

Form 625.

RECORD OF CHESAPEAKE BAY INVESTIGATION BY FISH HAWK 1916. 186

Station Number.	Latitude.	Longitude.	Bearings.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) meters.	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Direct Bearing. Direction.	Distance. (miles.)	Remarks.
8684	36 59 58	76 01 00.	Cape Henry Lt. S; Lt. Ship SXE½E; Cape Charles Lt. N½E.	1222	Sept. 12.	11:12 a.m. to 11:30 a.m.	8¾	sft.		0	72.5			G-B; Ek. bot.					
										6	73.2								
										13	73.0								Wind NE-4; sky clear; sea rough.
8685	36 48 43	76 07 45.	Buoy #4 NW¼W; Buoy #5 - W.	"	"	12. 12:10 p.m. to 12:15 p.m.	5½	hrd.		0	73.0			G-B bot.					
										8	74.0								Wind NE-4; sky clear; sea rough.
8686	37 00 38	76 14 42.	Old Pt. Lt. W¼S; Thimble Lt. NE½E; Back Bay N 5/8 W.	"	"	12. 1:20 p.m. to 1:35 p.m.	14½	hrd.		0	72.8			G-B; Ek. bot.					
										4	74.0			½ mtr. vert. (M)	18-0	02			
										9	73.3			S'B. T.	14½-15½	10	W		Wind NE-4; sky clear; sea rough.
										17	73.3			#20; ½ mtr.silk	0	10			
8687	37 51 10	76 09 54.	Below Smith's Pt. Lt. Smith's Pt. Lt. NWXN.	1223	Dec. 16.	2:52 p.m. to 3:38 p.m.	16	sft.						hydroid dr.	16-12½- 15	43	SW to WSW		Wind WNW-5; sky clear; sea choppy.
8688	38 07 18	76 14 12.	Pt. Lookout Lt. SW¼W; Pt. No Pt. Lt. WXN½N; Holland Bar Lt. SEXE 1/8 E.	1224	"	17. 8:34 a.m. to 8:50 a.m.	16-18 12½	hrd.						hydroid dr.	16-16 12½	16	WSW to SSW		Wind SW-3-4; sky overcast; sea choppy
8689	38 12 45	76 14 18.	Hooper Id. Lt. N¾W; Hooper Strts. E; Pt. No Pt. SWXS 3/8 S.	"	"	17. 10:18 a.m. to 10:40 a.m.	20½ 13							hydroid dr.	20½-13	22	S½E		Wind NW-3-4; sky overcast; sea choppy
8690	38 21 12	76 18 47.	Cedar Pt. SW; Cove Pt. NW 7/8 W.	1224	"	17. 12:20 p.m. to 12:35 p.m.	22½ 19½							hydroid dr.	22½-19½	15	SSE		Wind NW-3-4; sky overcast; sea smooth
8691	38 31 40	76 24 20.	Spar buoy EXN 3/8 N; Bell buoy NXW 5/8 W.	1225	"	17. 2:26 p.m. to 2:40 p.m.	10	sft.						hydroid dr.*	10	05			*Hung up- no drag.
														" "	10	05			Wind NW-3-4; sky overcast; sea smooth

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk 19 20

INVESTIGATION BY Fish Hawk 19 22.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m. Min.	Drift Current. Direction. Mag.	Drift Current. Velocity. (miles) per hour	Remarks.
8707	Thimble Lt. ENE¾E; Can Buoy No. 15 SE 3/8 E.	1222	Jan. 10.	3:30 p.m. to 5:10 p.m.	15	bk. M.	6.1	0 15	2.7 2.7	0 15	21.33 23.78	#20, #5..... botm. net (50 fm.) " " (25 ") G B bot.; Queen "B"	0 botm.	10 10			Begin. to ebb; Wind NNXN; Force 1; sea smooth; sky clear.
8708	Cape Henry SWXS¾S; Lt. Ship N¾W.	"	" 11.	7:50 a.m. to 9:12 a.m.	13	bk.S.Sh.	1.6	0 13	3.4 3.4	0 13	28.19 31.11	G B bot.; Queen "B" botm. net ..... #20, #5..... 8' Tnr..m.b.....	botm. 0 13	10 10 12			Slack ebb; Wind SWXS; Force 1-2; sea smooth; sky clear.
8709	Light Ship S 3/8 E; Cape Henry Lt. S¼W; Whistling Buoy SWXW¼W.	"	" "	9:45 a.m. to 10:46 a.m.	8½	gn. S.	7.2	0 8	2.4 2.4	0 8	25.61 30.88	G B bot.; Queen "B" botm. net..... #20, #5..... 8' Tnr. (35 fm.)	8 0 8	12 10 12			Begin. flood; Wind SW; force 3; Sea smooth; Sky light clouds.
8710	Cape Charles Lt. NE; BUOY E 1/8 S; Lt. Ship SWXS¾S.	"	" "	11:45 a.m. to 12:22 a.m.	9½	gy.S.	5.0	0 9	3.2 3.2	0 9	29.42 30.90	G B bot.; Queen "B" botm. net..... #20, #5.....	9-0 0	12 10			½ flood; Wind SW; Force 2; Sea smooth; Sky light clouds.
8711	No. 4 Buoy NXW 3/8 W; No. 2 Buoy SW 1/8 S.	"	" "	2:05 p.m. to 3:19 p.m.	4¾	gy.S.	7.2	0 4	2.4 2.4	0 4	24.79 25.89	8' Tnr. (35 fm) botm. net (35 fm) #20, #5..... G B bot.; Queen "B"	4¾ " 0	10 10 10			Slack flood; Wind SW; Force 1; Sea smooth; Sky cloudy.
8712	Plantation Light SE 3/8 S; Buoy 10 N¼E; Cherrystone Light E 3/8 N.	"	" 11&12	5:25 p.m. to 6:10 p.m.	22	sy.S.	5.0	0 21	1.9 1.9	0 21	23.32 29.34	botm. net..... 8' Tnr. (75 fm) vert. net..... #20, #5 ..... G B bot.; Queen "B"	21 " 19-0 0	10 10 10	.....	Towed Jan. 12.	Tide slack ebb; Wind SW; Force 1; Sea smooth; Sky cloudy.
8713	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.	"	" 12.	2:40 p.m. to 3:30 p.m.	7	sy.M.	6.6	0 7	1.7 1.7	0 7	20.34 24.33	8' Tnr. (30 fm.) botm net..... vert. net..... #20, #5..... G B bot.; Queen "B"	7 " 5 0	10 10 10			Beg. flood; Wind NE; Force 1; Sea smooth; Sky clear.
8714	New Point Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 West.	"	" "	4:00 p.m. to 4:45 p.m.	6¾	sy.M.S.	5.5	0 6¾	1.7 1.7	0 6¾	19.34 22.60	8' Tnr. (25 fm).. botm. net..... vert. net..... #20, #5..... G B bot.; Queen "B"	6¾ " 4¾ 0	10 10 10			Beg. of flood; Wind NE; Force 1; Sea smooth; Sky clear.
8715	Buoy C9 NWXN½N; New Point Comfort Lt. NW¾W; York Spit Lt. SXW½W.	"	" "	5:38 p.m. to 6:30 p.m.	5½	sy. S.	1.6	0 5½	1.7 1.7	0 5½	19.74 21.90	8' Tnr. (25 fm.) botm. net..... vert. net..... #20, #5..... G B bot.; Queen "B"	5½ " 3½ 0	10 10 10			½ flood; Wind NE; Force 1; sea smooth; Sky clear.
8716	Cherrystone Lt. S 7/8 E; New Point Lt. SWXW 7/8 W; Wolfe Trap Lt. W½N.	"	" 13.	9:01 a.m. to 10:05 a.m.	12	sy.S.	2.2	0 12	1.7 1.7	0 12	20.26 23.84	8' Tnr. (40 fms.) botm. net..... #20, #5..... vert. net..... G B bot.; Queen "B"	12 " 0 12	10 10 10 10	.....	Got caught under shi	½ ebb; Wind SW; Force 2; Sea choppy; Sky cloudy.

Form 825.

INVESTIGATION BY Fish Hawk 1922.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. oC	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. oC	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
8717	Can Buoy #1 E 3/8 S, 3½ miles; Buoy 10C NXE½E off Sandy Pt.		1223	Jan. 13.	11:50 a.m. to 12:40 p.m.	8	gy.S.	6.6	0 8	1.4 1.4	0 8	18.05 23.55	8' Tnr. (30 fm.) botm. net..... vert. net..... #20, #5..... G B bot. Queen "A"	8 " 8 0	10 10 10			¾ ebb; Wind W; Force 2; Sea smooth; Sky clear.
8718	Can Buoy #1 SE½E; 1 mile; Buoy 10 C NWXW 1/8 W, off Sandy Pt.		"	"	1:20 p.m. to 2:10 p.m.	4¼	yl. S.	11.6	0 4¼	0.6 0.7	0 4¼	18.83 20.08	8' Tnr. (15 fm.) botm. net..... vert. net..... #20, #5..... G B bot. Queen "A"	4¼ " " 0	10 10 10			Full ebb; Wind W; Force 2; Sea smooth; Sky clear.
8719	Windmill Pt. Lt. WXN½N; Bell Buoy W 3/8 N off Rappahannock Spit.		"	"	3:25 p.m. to 4:10 p.m.	7	bl.M., bn.M.	8.8	0 7	0.7 0.7	0 7	16.48 23.27	8' Tnr. (25 fm.) botm. net..... vert. net..... #20, #5..... G B bot. Queen "A"	7 " " 0	10 10 10			½ flood; Wind W; Force 2; Sea smooth; Sky clear.
8720	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	"	4:48 p.m. to 5:34 p.m.	7	bl.M.	6.1	0 7	0.7 0.7	0 7	16.85 22.26	8' Tnr. (25 fm.) botm. net..... vert. net..... #20, #5..... G B bot.; Queen "A"	7 " " 0	10 10 10			Full Flood; Wind W; Force 1; Sea smooth; Sky clear.
8721	Smith Pt. Lt. NWXN; Buoy NNW.		"	" 14	8:50 a.m. to 10:00 a.m.	23	bl.M.	2.2	0 23	0.4 0.4	0 23	14.85 21.78	8' Tnr. (75 fm.) botm. net..... vert. net..... #20, #5..... G B bot.; Queen "A"	23 " " 0	10 10 10			Begin. of ebb; Wind; NNW; Force 3; Sea choppy; Sky clear.
8722	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	"	10:30 a.m. to 11:30 a.m.	7	yl. S.	1.1	0 7	0.9 0.9	0 7	16.13 19.37	8' Tnr. (25 fm.) botm. net..... #20, #5..... vert. net..... G B bot.; Queen "A"	7 " 0 7	10 10 10 			½ flood; Wind NNW; Force 3; Sea choppy; Sky clear.
8723	Pt. Lookout Lt. NEXE½E; #5 Bell Buoy NW½N; "S 11 W" NNE.		1224	" 15	8:15 a.m. to 9:00 a.m.	6½	gy. M.	-2.2	0 6½	0.0 0.0	0 6½	13.74 13.96	8' Tnr.;.botm. net #20, #5..... vert. net..... G B bot.; Queen "A"	6½ 0 6½	10 10 			¾ ebb; Wind calm; Force 0; Sea smooth; Sky cloudy.
8724	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy #N2 E½S.		"	"	9:57 a.m. to 10:35 a.m.	5¾	bl.M.	0.0	0 5¾	0.7 0.7	0 5¾	14.63 14.71	8' Tnr..... botm. net..... #20, #5..... vert. net..... G B bot.; Queen "A"	5¾ " 0 5¾	..... 10 10 			No haul. Ebb; Wind calm; Force 0; Sea smooth; Sky cloudy.
8725	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	"	11:13 a.m. to 11:45 a.m.	11½	bl.M.	2.2	0 11½	0.9 0.7	0 11½	13.88 14.76	botm. net.(45 fm) #20, #5..... vert. net..... G B bot.; Queen "A"	11½ 0 11½	10 10 			Begin. flood; Wind calm; Force 0; Sea smooth; Sky cloudy.
8726	Pt. No Pt. Lt. NWXN½N; Pt. Lookout Lt. SWXS½S.		"	"	12:52 p.m. to 1:21 p.m.	7	bl.M.	5.5	0 7	0.9 0.7	0 7	14.18 14.49	botm. net.(25 fm) #20, #5..... vert. net..... G B bot.; Queen "A"	7 0 7	10 10 			½ flood; Wind calm; Force 0; Sea smooth; Sky partly cloudy.

Form 635.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C°	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
8727	Pt. No Point Lt. WXN½N; Pt. Lookout Lt. SW 3/8 W.	1224	Jan. 15.	2:09 p.m. to 3:02 p.m.	22	bl.M.	3.8	0 22	0.7 0.7	0 22	14.74 20.28	8' Tnr. (70 fm) botm. net. (70 fm) vert. net..... #20, #5..... G B bot.; Queen "A"	22 " " 0	10 10 10			Full flood; Wind ESE; Force 1; Sea smooth; Sky clear.
8728	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.	"	"	3:44 p.m. to 4:30 p.m.	4	yl. S.	2.2	0 4	0.7 0.7	0 4	15.04 15.10	botm. net(15 fm) vert. net..... #20, #5..... G B bot.;Queen "A" Otter trawl.....30.....	4 " 0	10 10			Slack; Wind ESE; Force 1; Sea slightly choppy; Sky cloudy 7' trawl made on board ship; towed about ½ hour on course from this station to Hooper Id., brought up 1 flounder, 2 oysters.
8729	Hooper Id. Lt. SE; Cedar Pt. Lt. NWXW 5/8 W; Pt. No Pt. S 7/8 W.	"	" 16.	7:55 a.m. to 9:29 a.m.	21	bl.M.	-2.7	0 21	0.4 -0.3	0 21	15.02 20.78	8' Tnr. (65 fm.) botm. net..... vert. net..... #20, #5..... G B bot.; Queen "A"	21 " " 0	10 10 10			¾ ebb; Wind ENE; Force 3; Sea slightly choppy; Sky cloudy
8730	Barren Id. Buoy 16D NEXN, 200 yards.	"	" "	9:46 a.m. to 10:24 a.m.	24	bl.M.	-3.8	0 22	-0.8 -0.8	0 22	14.87 20.00	botm. net.(75 fm). vert. net..... #20, #5..... G B bot.; Queen "A"	22 " 0	10 10			Tide ½ ebb; Wind NE; Force 3; Sea slightly choppy; Sky cloudy - snowing.
8731	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE¾E.	"	" "	11:29 a.m. to 12:06 p.m.	4	yl. S.	-5.0	0 4	0.4 0.4	0 4	14.10 —	botm. net.(15 fm) vert. net..... #20, #5..... G B bot.; Queen "C"	4 " 0	11 			Ebb; Wind NE; Force 2; Sea choppy; Sky cloudy.
8732	Governor's Run Wharf W½S, 7/8 mile; Spar Buoy S"2B" N¾W.	1225	" "	1:49 p.m. to 2:15 p.m.	5½	bl.M.	-4.4	0 5½	0.2 0.1	0 5½	— 13.51	#20, #5..... vert. net..... G B bot.; Queen "C"	0 5½	10			¾ ebb; Wind NE; Force 2; Sea choppy; Sky cloudy.
8733	N. end of James Id. E½N; Bell Buoy 18A N½E.	"	" "	2:40 p.m. to 3:30 p.m.	12½	bl. M.	-3.8	0 12½	0.1 0.6	0 12½	14.13 18.59	8' Tnr.; m.b. (40 fms.) vert. net..... #20, #5..... G B bot.; Queen "C"	12½ " 0	10 10			¾ ebb; Wind NE; Force 2; Sea choppy: Sky clouded.
8734	Bloody Pt. Lt. E½N, ½ mile.	"	" 17.	8:47 a.m. to 9:36 a.m.	13¾	bl.M.	-2.7	0 13¾	-0.1 0.6	0 13¾	13.57 18.14	#20, #5..... vert. net..... G B bot.; Queen "C"	0 13¾	10			Slack; Wind SW; Force 1; Sea slightly choppy; Sky cloudy

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1922.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. C°	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m. Min	Current. Direction. Mag.	Current. (miles) per hour	Remarks.
8735	Bloody Pt. Lt. EXS about 1¾ miles.			1225	Jan. 17.	9:57 a.m. to 10:35 a.m.	7	bl. M.	-1.6	0 7	-0.1 0.1	0 7	12.98 14.48	#20, #5, Vert. net. G B bot. Queen "C."	0 7	10			Tide ¼ flood; Wind, W; Force, 1; Sky, clear.
8736	Sandy Pt. Lt. SWXS½S; Balto. Lt. NW¾N.			1226	"	2:30 p.m. to 3:57 p.m.	7½	bl.M., bn.M	-0.5	0 7½	0.9 0.9	0 7½	12.01 17.16	#20, #5, Vert. net. G B bot. Queen "C"	0 7½	11			Tide ½ flood; Wind, NW; Force, 4; Sea; Choppy; Sky, cloudy. Heavy flows of ice around station.
8737	Sandy Pt. Lt. SWXW¼W; Balto. Lt. NWXW.			"	"	4:17 p.m. to 4:55 p.m.	11	bl.M. bn. M.	-0.5	0 11	-0.1 0.9	0 11	12.28 17.37	#20, #5, Vert. net G B bot. Queen "C"	0 11	10			Tide ¾ flood; Wind, NW; Force, 4; Sea, Choppy; sky, cloudy. Heavy flows of ice around station.
8738	7 Foot Knoll Lt. WXN½N; Craighill Channel Lt. NW.			"	March 6&7.	24 hour station 10:15 a.m. to 1:15 a.m.	30 ft.	bl.gy.M.	-2.7	0 ft. 10 " 20 " 30 "	0.0 -1.3 -1.3 0.0	0 ft 10 ft 20 " 30 "	10.46 * 10.91 11.29	Tycos G B bot. Thr. "D" Queen "A"					* Bottle failed. Density, 1.00875 10:15 a.m.
						11:45 a.m.				0 " 10 " 20 " 30 "	0.0 -0.3 2.7 0.7	0 " 10 " 20 " 30 "	10.35 10.32 11.73 10.86					Density, 1.00826
						1:15 p.m.				0 " 10 " 20 " 30 "	0.45 0.0 2.0 2.7	0 " 10 " 20 " 30 "	10.05 10.11 10.17 10.71					Density, 1.00868 " 1.00804 " 1.00815
						2:45 p.m.				0 " 10 " 20 " 30 "	0.2 0.0 -0.3 1.67	0 " 10 " 20 " 30 "	9.51 9.76 9.41 10.52					" 1.00761 " 1.00750
						4:15 p.m.				0 " 10 " 20 " 30 "	0.0 2.7 2.7 3.7	0 " 10 " 20 " 30 "	10.45 10.42 10.44 11.87					" 1.00835 " 1.00946
						5:45 p.m.				0 " 10 " 20 " 30 "	2.2 0.7 0.0 0.2	0 " 10 " 20 " 30 "	10.91 10.96 10.91 10.88					" 1.00877 " 1.00822
						7:15 p.m.				0 " 10 " 20 " 30 "	0.2 -0.5 0.2 0.55	0" 10 " 20 " 30 "	10.05 10.07 10.46 11.01					" 1.00806 " 1.00839
						8:45 p.m.				0 " 10 " 20 " 30 "	0.0 -0.3 1.67 -0.3	0 " 10 " 20 " 30 "	9.72 9.96 11.33 14.23					" 1.00797 " 1.01411
						10:15 p.m.				0 " 10 " 20 " 30 "	-0.3 -0.5 -0.3 1.67	0 " 10 " 20 " 30 "	9.79 10.00 9.71 15.70					" 1.00783 " 1.00777
						11:45 p.m.				0 " 10 " 20 " 30 "	0.55 -0.3 4.44 -0.3	0 " 10 " 20 " 30 "	10.58 10.68 10.66 12.45					" 1.00855 " 1.01005
					" 7	1:15 a.m.				0 " 10 " 20 " 30 "	-1.3 1.67								Quit on account of ice.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) Ft.	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Distance. Miles per hour	Remarks.
8738 (cont.)					March 6	10:58 a.m.	30												
						11:07½ "								Ek. mtr.	10	5	NEXN	.50	Stiff wind.
						11:17 "									20	5	NEXE	.56	
						12:03½ p.m.									30	5	N	.29	
						12:12 1/3									10	5	N	.27	
						12:20 1/3									20	5 1/3	NXE	.08	
						1:41½ p.m.									30	5	NXW	.33	
						1:50 "									10	5	?	.18	
						2:00½ "									20	6½	NXE	.52	
						3:04 1/3									30	5	SWXS	.51	
						3:13 p.m.									10	5	NWXN	.59	
						3:21½ p.m.									20	5	SXW	.68	
						4:29 1/3									30	5	NXW	.75	
						4:38 p.m.									10	5	S	.51	Begin. of flood
						4:46 1/3									20	5	S	.96	
						6:00½ p.m.									30	5	SXE	.81	
						6:09 2/3									10	5½	SXW	.64	
						6:18 1/3									20	5	S	.78	
						7:31 p.m.									30	5	SXW	.94	
						7:38 2/3									10	5	S	.17	
						7:46 2/3									20	5	S	.85	
						8:59 2/3									30	5	SEXS	.62	
						9:07 2/3									10	5	SXE	.56	Wind moderated.
						9:15½ p.m.									20	5	SEXS	.61	
						10:33 p.m.									30	5	S	.18	End of flood.
						10:41 p.m.									10	5	NWXW	.32	Begin of ebb.
						10:49 p.m.									20	5	NW	.13	
						11:58 p.m.									30	5	NWXW	.36	
					" 7	12:05½ a.m.									10	5	NWXN	.30	For this station the "direction" is magnetic and that from which current flows; "distance" is velocity of current in miles per hour.
						12:12 2/3									20	5	NNW	.33	
															30	5	NWXN	.34	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1922.

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Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) Meters	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Drift (miles) per hour	Remarks.
8739	Sandy Pt. Lt. SW; Balto. Lt. W.		1226	March 7.	9:50 a.m. to 11:21 a.m.	13.7	bl. M.	-5.5	0	3.8	0	11.63	G B bot. Tycos "p", Queen "A"					Density at 10M 1.01016 " Bottom 1.01216
									5	0.0	5	11.55						
									10	-0.3	10	12.65						
									13.7	-0.3	Bottom	15.13						
									40	0.2			#20, #5	0	10			No Q. plankton samples.
									47½	-0.2			botm. net	botm.	10			Tide, slack flood;
													vert. net	13.7				Wind, WNW; Force 2;
8740	Sandy Pt. Lt. SWXS½S; Balto. Lt. NW¾N.		"	"	12:44 p.m. to 1:13 p.m.	12.8	bl. M.	-2.2	0	-0.0	0	12.43	G B bot. Tycos "p", Queen "A"					Sea, slightly choppy; Sky, cloudy.
									5	1.1	5	13.00						Density at 10M-1.01063
									10	-0.3	10	13.26						No Q. plankton samples.
									12.8	-0.2	Bottom	14.78						Had to haul in on account of ice.
8741	Thomas Pt. Lt. NXE½E; Pt. Lt. E7/8 S.	Bloody	1225	"	2:46 p.m. to 3:09 p.m.	9.1	bl.gy.M.	-1.1	0	0.0	0	13.77	G B bot. Tycos "p"					No. sample. #5 lost
									9.1	-0.5	9.1	14.12	#20, #5	0	10			¼ ebb; Wind WNW; force, 1; Sea, choppy; Sky, cloudy
													oys. dr					No Q. plank. samp.
													botm. net	botm.	10			Small oysters. few preserved.
													vert. net	9.1				¼ ebb; Wind W; Force, 1; Sea, slightly choppy; Sky, cloudy.
8742	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.		"	"	3:49 p.m. to 4:30 p.m.	13.	bl. M.	-2.2	0	-0.2	0	13.67	vert. net	botm.				
									5	-0.3	5	13.70	botm. net	"	10			¾ ebb; Wind W;
									10	1.5	10	14.40	#20, #5 Tycos	0	10			Force 2; Sea slightly choppy; Sky, cloudy.
									13	-0.3	13	14.81	G B bot. Tycos "p" Queen "A".					Density at 5M-1.00999 " " 13 - 1.01189
8743	Bloody Pt. Lt. E½N about ½ mile.		"	"	4:53 p.m. to 5:45 p.m.	25	bl. M.	-2.7	0	-0.2	0	13.77	vert. net	botm.				
									10	-0.3	10	14.58	botm. net	"	10			Slack ebb; Wind W;
									20	1.5	20	15.58	#20, #5 Tycos	0	10			Force 2; Sea slightly choppy; Sky, cloudy.
									25	0.0	25	15.68	G B bot. Tycos "p" Queen "A".					Density at 10M-1.01169 " " 25 - 1.01257
8744	N. end James Id. E½N; Bell Buoy 18A N¼E.		"	"	6:36 a.m. to 7:14 a.m.	22.9	gy. M.	-4.4	0	-1.1	0	13.87	vert. net	botm.				
									10	-0.3	10	15.57	botm. net	"	10			¼ flood; Wind NWXW;
									20	1.1	20	15.80	#20, #5 Tycos	0	10			Force 2; Sea choppy; Sky clear.
									22.9	-0.3	22.9	15.58	G B bot. Tycos "p" Queen "A".					Density at 10M-1.01249 " " 22½-1.01250
8745	Governor's Run Wharf W¼S; 7/8 mile; Spar Buoy S2B N¾W.		"	"	8:49 a.m. to 9:08 a.m.	10.	gy. M.	5.0	0	-0.3	0	14.98	vert. net	botm.				
									10	-1.1	10	16.03	botm. net	"	10			Slack; Wind calm; Force 0; slightly
													#20, #5 Tycos	0	10			choppy; sky clear.
													G B bot. Tycos "p" Queen "A"					Density at surface, 1.01201
8746	Cove Point Lt. N 7/8 W; Buoy #21 NEXE¾E.		1224	"	9:29 a.m. to 9:51 a.m.	7 1/3	yl. S.	1.6	0	0.2	0	15.56	vert net	botm.				
									7 1/3	0.5	7⅓	15.62	botm. net	"	10			Beg of ebb; Wind, calm; Force 0;
													#20, #5 Tycos	0	10			Sea slightly choppy; sky clear.
													G B bot. Tycos "p" Queen "A".					Density at surface, 1.01249

INVESTIGATION BY Fish Hawk 1920.

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Form 625.

INVESTIGATION BY Fish Hawk 1922. 266

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay

INVESTIGATION BY Fish Hawk 1920 195 193

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) Meters	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) Meters	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
8747	Barren Id. Buoy 16D NEXN 200 yds.		1224	March 8.	10:23 a.m. to 11:12 a.m.	47½	bl.bk.gy.M.	-0.5	0	0.4	0	15.90						
									10	0.0	10	16.09						
									20	0.2	20	16.10						Density, 1.01276
									30	0.0	30	16.06						" 1.01292
									40	0.2	40	16.13						" 1.01295
									47½	-0.2	47½	16.13						
													vert. net. .....botm.					
													botm. net..... "	10				Ebb; Wind Calm;
8748	Hooper Id. Lt. SE; Cedar Pt. Lt. NWXW 5/8 W.		"	"	12:00 M to 12:43 p.m.	35	gy.M, Sh.	-1.1	0	0.5	0	16.11	#20, #5..... 0	10				Force 0; Sea,
									10	0.7	10	16.14	G B bot. Tycos					choppy; Sky clear.
									20	0.5	20	16.14	Queen "A".					
									30	0.7	30	16.16						Density, 1.01295
									35	0.5	35	16.22						" 1.01297
													vert. net.....botm.					
													botm. net..... "	10				Slack; Wind Calm;
8749	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.		"	"	2:10 p.m. to 2:25 p.m.	7 1/3	yl. S.	2.7	0	1.4	0	16.10	#20, #5 0	10				Force 0; Sea,
									7 1/3	1.1	7 1/3	16.16	G B bot. Tycos					slightly choppy;
													Queen "A".					Sky clear.
																		Density, 1.01291
													vert. net.....botm.					
													botm. net..... "	10				½ ebb; Wind SXE;
8750	Point No Point Lt. WXN½N; Pt. Lookout Lt. SW 3/8 W.		"	"	3:08 p.m. to 3:52½ "	35.7	gy. M.	6.6	0	0.7	0	15.87	#20, #5..... 0	10				Force 2; Sea,
									10	0.0	10	15.86	G B bot. Tycos					slightly choppy;
									20	0.7	20	15.87	Queen "A".					Sky clear.
									30	0.0	30	16.15						Density, 1.01274
									35.7	0.4	35.7	16.36						" 1.01274
																		" 1.01313
													vert. net. .....botm.					
													botm. net..... "	10				½ ebb; Wind SXE;
8751	Point No Point Lt. NWXN½N; Pt. Lookout Lt. SWXS½S.		"	"	4:35 p.m. to 5:00 p.m.	12.8	gy. M.	2.2	0	0.2	0	15.82	#20, #5..... 0	10				Force 3; Sea,
									10	-0.3	10	15.79	G B bot. Tycos					slightly choppy;
									12.8	0.00	12.8	15.77	Queen "A".					Sky Hazy.
																		Density, 1.01268
													vert. net.....botm.					
													botm. net..... "	10				¾ ebb; Wind SSE;
8752	Pt. Lookout Lt. NEXE½E; Bell Buoy NW½N.		"	"	16:33 a.m. to 6:56 a.m.	10	gy. M.	-0.5	0	0.2	0	11.22	#20, #5..... 0	10				Force 3; Sea choppy; Sky cloudy.
									5	0.0	5	12.74	G B bot. Tycos					
									10	0.7	10	15.74	Queen "A".					
																		Density, 1.00900
																		" 1.01263
													vert. net.....botm.					
													botm. net..... "	10				Slack; Wind SSW;
													#20, #5 0	10				Force 1; Sea Calm;
													G B bot. Tycos					Sky clear.
													Queen A.					

Form 625.

INVESTIGATION BY Fish Hawk 19 22.

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RECORD OF Hydrographic & Dredging stations in Chesapeake Bay

INVESTIGATION BY Fish Hawk 19 20

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) Meters	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) Meters	Temperature. Water. Degrees C	Salinity. Depth. (fms.) Meters	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) Meters	Trial. Duration. h. m. Min	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8753	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E¼S.		1224	March 9	7:25 a.m. to 8:03 a.m.	21.9	bl. M.	0.0	0	0.4	0	12.13						
									10	0.7	10	15.93						
									21.9	0.2	21.9	15.91						
																		Density, 1.00974
																		" 1.01278
													vert. net.....botm.					
													botm. net..... "	10				Ph. Nos. ; Surf. 10 and 21.9 meters, 7.6.
													#20, #5..... 0	10				Begin. ebb; Wind, SSW; Force 1; Sea, calm; sky clear.
													G B bot.; Tycos; Queen "A".					
8754	Pt. Lookout Lt. EXS¼S; Pt. Lookout Buoy SE½S.	"	"	"	8:35 a.m. to 9:03 a.m.	10.5	yl. S., Sh.	3.8	0	0.4	0	12.63						
									5	0.2	5	14.52						
									10.5	0.7	10.5	15.90						
																		Density, 1.01276
													vert. net.....botm.					
													botm. net..... "	10				Ph. Nos.; : Surf. 5 and 10.5 meters, 7.6
													#20, #5..... 0	10				Ebb, ½; Wind SSW; Force 1; Sea smooth; Sky clear.
													G B bot.; Tycos; Queen "A"					
8755	Smith Pt. Lt. W¾N; Tangier Id. Lt. SE 3/8 S.	"	1223	"	10:56½ a.m. to 11:22 a.m.	10.97	yl. S.	5.0	0	0.5	0	14.21						
									5	0.5	5	14.86						
									10	0.7	10	15.77						
																		Density, 1.01265
													vert. net.....botm.					
													botm.net..... "	10				Ph. Nos.; Surf. 5 and 10 meters, 7.6.
													#20, #5..... 0	10				¾ ebb; Wind SXW; Force 1; Sea, slightly choppy; sky clear.
													G B bot.; Tycos; Queen "A".					
8756	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW.	"	"	"	11:48 a.m. to 12:21 p.m.	12.8	yl. S; bk.Sp.	4.4	0	1.0	0	14.58						
									5	0.7	5	13.80						
									10	0.9	10	15.97						
									12.8	0.7	12.8	16.55						
																		Density, 1.01169
																		" 1.01280
													vert. net.....botm.					
													botm. net..... "	10				Ph. Nos.; : Surf. 5, 10 and 12.8 meters, 7.6.
													#20, #5..... 0	10				Slack; Wind S; Force 1; Sea slightly choppy; sky clear
													G B bot.; Tycos; Queen "A".					
8757	Smith Pt. Lt. NWXN; Buoy NNW.	"	"	"	1:02 p.m. to 2:00 p.m.	44.3	gy. M.	5.0	0	0.2	0	13.00						
									10	-0.3	10	15.58						
									20	1.0	20	16.88						
									30	0.5	30	17.31						
									40	0.7	40	17.36						
									44.3	0.5	44.3	17.53						
																		Density, 1.01250
																		" 1.01393
													vert. net.....botm.					
													botm. net..... "	10				Ph. Nos.; : Surf. 10, 20, 30, 40, and 44.3 meters 7.6
													#20, #5..... 0	10				Beg. of flood; Wind SXE; Force 2; Sea slightly choppy; Sky clear.
													G B bot.; Tycos; Queen "A".					

Form 635.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1920

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) Meters	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
8758	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W.		1223	March 9	4:06 p.m. to 4:38 p.m.	12.8	bl.M.	6.1	0	1.1	0	16.22						
									5	1.3	5	16.23	.....					Density, 1.01301
									10	1.2	10	16.34	.....					" 1.01310
									12.8	1.1	12.8	17.38	.....					Ph. Nos.: Surf. 5, 10 and 12.8 meters 7.6
													vert. net.....botm. botm.net..... " 10 #20, #5..... 0 10 G B bot.; Tycos; Queen "A".					½ flood; Wind SXE; Force 3; Sea choppy; Sky clear.
8759	Windmill Pt. Lt. WXN¼N; Bell Buoy W 3/8 N.		"	"	4:55 p.m. to 5:27 p.m.	12.8	bl. M.	7.2	0	1.3	0	16.62						
									5	1.45	5	16.70	.....					1.01340, Density.
									10	1.45	10	16.73	.....					1.01342, "
									12.8	1.1	12.8	17.88	.....					Ph. Nos.: Surf. 5, 10 and 12.8 meters 7.6
													vert. net.....botm. botm. net..... " 10 #20, #5..... 0 10 G B bot.; Tycos; Queen "A".					¾ flood; Wind SXE; Force 3; Sea choppy; Sky clear.
8760	Buoy 10C NNE 3/8 E; 1 7/8 miles.		"	"	9&10 6:45 p.m.	14.6	bl.M.....		0	1.7			G B bot.; Queen "A" and "B".					Flood at beginning of work; Wind SXE; Force 3; Sea choppy; Sky clear.
									5	1.7								
									10	1.45								
									14.6	1.7								
					8:16 p.m.				0	1.7								
									5	1.7								
									10	1.45								
									14.6	1.7								
					9:46 p.m.				0	1.7								
									5	1.7								
									10	1.7								
									14.6	1.7								
				March 9	11:19 p.m.				0	1.7								
									5	1.7								
									10	1.7								
									14.6	1.7								
				" 10	12:46 a.m.				0	1.45	0	17.23	.....					Density, 1.01381
									5	1.45	5	17.25	.....					" 1.01382
									10	1.45	10	18.01	.....					" 1.01444
									14.6	1.45	14.6	19.92	.....					" 1.01593
					2:16 a.m.				0	1.7	0	17.69	.....					" 1.01467
									5	1.7	5	17.82	.....					" 1.01436
									10	1.45	10	17.66	.....					" 1.01416
									14.6	1.7	14.6	17.72	.....					" 1.01419
					3:46 a.m.				0	1.7	0	17.50	.....					" 1.01402
									5	1.7	5	17.65	.....					" 1.01416
									10	1.7	10	19.17	.....					" 1.01537
									14.6	1.7	14.6	19.94	.....					" 1.01599
					5:16 a.m.				0	1.7	0	17.60	.....					" 1.01409
									5	1.45	5	17.90	.....					" 1.01436
									10	1.45	10	18.94	.....					" 1.01518
									14.6	1.45	14.6	19.74	.....					" 1.01584
					6:46 a.m.				0	1.45	0	17.56	.....					" 1.01407
									5	1.45	5	17.58	.....					" 1.01408
									10	1.45	10	1907	.....					" 1.01530
									14.6	1.45	14.6	19.57	.....					" 1.01567

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current Direction. Mag.	Current Distance. Nautical miles per hour.	Remarks.
8760 (cont.)				March 10	8:16 a.m.				0	1.7	0	17.52						
									5	1.7	5	17.58						Density, 1.01403
									10	1.7	10	18.63						" 1.01406
					9:46 a.m.				14.6	1.7	14.6	18.69						" 1.01491
									0	1.7	0	17.50						" 1.01491
									5	1.7	5	17.55						" 1.01402
									10	1.7	10	17.58						" 1.01404
					11:16 a.m.				14.6	1.7	14.6	18.36						" 1.01406
									0	1.95	0	17.39						" 1.01469
									5	1.95	5	17.35						" 1.01392
									10	1.7	10	17.87						" 1.01390
					12:46 p.m.				14.6	1.7	14.6	19.16						" 1.01440
									0	2.03	0	17.38						" 1.01537
									5	2.03	5	17.79						" 1.01391
									10	1.7	10	18.80						" 1.01424
					2:16 p.m.				14.6	1.7	14.6	19.55						" 1.01502
									0	3.0	0	17.38						" 1.01565
									5	2.45	5	17.94						" 1.01388
									10	2.2	10	18.22						" 1.01434
					3:46 p.m.				14.6	2.2	14.6	19.56						" 1.01458
									0	3.0	0	17.52						" 1.01563
									5	2.7	5	17.86						" 1.01397
									10	2.7	10	18.55						" 1.01434
					5:16 p.m.				14.6	2.7	14.6	19.57						" 1.01480
									0	2.7	0	17.60						" 1.01561
									5	2.2	5	17.96						" 1.01405
									10	3.2	10	17.95						" 1.01436
					6:46 p.m.				14.6	2.7	14.6	17.80						" 1.01430
									0	1.7	0	17.71						" 1.01433
									5	1.7	5	18.01						" 1.01419
									10	1.7	10	18.56						" 1.01442
				March 9	9:02 p.m.				14.6	1.7	14.6	19.49						" 1.01487
					9:10½ p.m.								Ek. mtr.	5	5	N	.16	" 1.01561
					9:25 2/3									10	5	NE	.15	For this station the "direction" is magnetic and that from which current flows; "distance" is velocity of current in miles per hour.
					9:59 p.m.									14.6	5 1/3	?	.06	
					10:06 p.m.									5	5	NW	.03	
					10:14 p.m.									10	5	?	.03	
					11:53 p.m.									14.6	5	SW	.31	
					11:45½ p.m.									5	5	SWXS	.76	
					11:37 p.m.									10	5	SXW	.68	
				" 10	1:00 a.m.									14.6	5	SXW	.59	
					1:07½ a.m.									5	5	SW	.96	
					1:15½ a.m.									10	5	SW	1.04	
					2:50 2/3									14.6	5	SXE	.60	
					2:42 2/3									5	5	SW	1.07	
					2:34½ a.m.									10	5	SXW	1.10	
					3:59½ a.m.									14.6	5	SXE	.55	
					4:07 a.m.									5	5	SW	.64	
					4:15 a.m.									10	5	S	.56	
					5:30 a.m.									14.6	5	SEXE	.25	
					5:37 a.m.									5	5	WXN	.23	
					5:44½ a.m.									10	5	WXN	.05	
					6:59½ a.m.									14.6	5	NEXE	.29	
					7:07 a.m.									5	5	NXW	.42	
					7:15 a.m.									10	5	NEXN	.37	
					8:31 a.m.									14.6	5	NEXN	.58	
					8:39½ a.m.									5	5	N	.68	
					8:47½ a.m.									10	5	NXE	.63	
					9:57 a.m.									14.6	5	NXE	.52	
														5	5	N	.71	

* Exact bearings not determined owing to thick weather, but depth of water indicates approximate correctness of location.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour.	Remarks.
8760 (cont.)					March 10	10:04½ a.m.									10	5	NEXN	.38	
						10:12 a.m.									14.6	5	NXW	.28	
						11:27 a.m.									5	5	NXE	.27	
						11:34 a.m.									10	5	NXE	.12	
						11:41½ a.m.									14.6	5	W	.30	
						1:00 p.m.									5	5	SWXS	.45	
						1:08 2/3									10	5	SSW	.06	
						1:22 p.m.									14.6	5	SW	.30	
						2:25 p.m.									5	5	SSW	.63	
						2:31½ p.m.									10	5½	SWXS	.71	
						2:39 p.m.									14.6	5	?	.04	
						2:47½ p.m.									14.6	5	?	.04	
						3:56½ p.m.									5	5	SSW	.40	
						4:04 p.m.									10	5	SW	.38	
						4:19 p.m.									14.6	5½	NXE	.21	
						5:55 p.m.									5	5	?	.04	
						5:46 2/3									10	5	NNE	.61	
						5:39 p.m.									14.6	5	NNE	.43	
						6:57¾ p.m.									5	5	NNE	.65	
						7:05 p.m.									10	5	NNE	.75	
						7:13 p.m.									14.6	5	NXE	.44	
8761	*Cherrystone Lt. S 7/8 E; New Pt. Lt. SWXW 7/8 W; Wolf Trap Lt. W½N.			1222	" 11	9:04 a.m. to 10:06 a.m.	23.7	bl.gy. M.	7.7	0	2.7	0	18.17						Density. 1.01451
										10	2.7	10	19.34						" 1.01543
										20	2.45	20	21.48						" 1.01719
										23.7	2.45	23.7	22.51						" 1.01796
														vert. net.....botm.					Ebb; Wind SXW; Force 3; Sea slightly choppy; Sky cloudy. Contents of G B bot. for plankton samples.
														botm. net..... " 10					
														#20, #5..... 0 10					
														Tnr., 7 ft.....23.7 10					
														G B bot.: Queen "A" and "B".					
8762	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW½W; York Spit Lt. SXW½W.	"	"	"	"	11:35 a.m. to 12:24 p.m.	10	yl.S.	10.5	0	2.7	0	18.48						Density. 1.01475
										5	2.7	5	18.23						" 1.01455
										10	2.7	10	18.96						" 1.01524
														vert. net.....botm.					Begin. flood; Wind, SSW; Force 2; Sea, slightly choppy; sky cloudy.
														#5, #20 ..... 0 10					
														botm. net.....botm. 10					
														7 ft. Tnr..... " 10					
8763	New Point Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 West.	"	"	"	"	1:00 p.m. to 1:49 p.m.	12.8	gy.M.	10.0	0	2.7	0	16.44						Density. 1.01472
										5	2.7	5	18.48						" 1.01475
										10	2.7	10	19.36						" 1.01544
										12.8	2.7	12.8	19.64						" 1.01566
														7' Tnr.....12.8 10					No catch. Speed of vessel too great. ½ flood; Wind SXXS; Force 1; Sea slightly choppy; Sky cloudy.
														vert. net.....botm.					
														botm. net..... " 10					
														#20, #5..... 0 10					
														G B bot.: Queen "A".					

* Exact bearings not determined owing to thick weather, but depth of water indicates approximate correctness of location.

FORM 1020.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920 197a 182

Station No.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.) M	Tidal. Duration. h. m.	Current. Direction. Mag.	Current. Velocity. Knots per hour.	Remarks.
8760 (cont.)			March 10	10:04½ a.m.									10	5	NEXN	.38	
				10:12 a.m.									14.6	5	NXW	.28	
				11:27 a.m.									5	5	NXE	.27	
				11:34 a.m.									10	5	NXE	.12	
				11:41½ a.m.									14.6	5	W	.30	
				1:00 p.m.									5	5	SWXS	.45	
				1:08 2/3									10	5	SSW	.08	
				1:22 p.m.									14.6	5	SW	.20	
				2:25 p.m.									5	5	SSW	.63	
				2:31½ p.m.									10	5½	SWXS	.71	
				2:39 p.m.									14.6	5	?	.04	
				2:47½ p.m.									14.6	5	?	.04	
				3:56½ p.m.									5	5	SSW	.40	
				4:04 p.m.									10	5	SW	.38	
				4:19 p.m.									14.6	5½	NXE	.21	
				5:55 p.m.									5	5	?	.04	
				5:46 2/3									10	5	NNE	.61	
				5:39 p.m.									14.6	5	NNE	.43	
				6:57½ p.m.									5	5	NNE	.65	
				7:05 p.m.									10	5	NNE	.75	
				7:13 p.m.									14.6	5	NXE	.44	
8761	*Cherrystone Lt. S 7/8 E; New Pt. Lt. SWXW 7/8 W; Wolf Trap Lt. W½N.	1222	" 11	9:04 a.m. to 10:06 a.m.	23.7	bl.SY. M.	7.7	0 10 20 23.7	2.7 2.7 2.45 2.45	0 10 20 23.7	18.17 19.34 21.48 22.61	vert. net.....botm. botm. net..... " #20, #5..... 0 Tnr., 7 ft.....23.7 G B bot.: Queen "A" and "B".					Density, 1.01451 " 1.01543 " 1.01719 " 1.01796 Ebb; Wind SXW; Force 3; Sea slightly choppy; Sky cloudy. Contents of G B bot. for plankton samples.
8762	Buoy C9 NWXN½W; New Pt. Comfort Lt. NW½W; York Spit Lt. SXW½W.	"	" "	11:35 a.m. to 12:24 p.m.	10	yl.S.	10.5	0 5 10	2.7 2.7 2.7	0 5 10	18.48 18.23 18.96	vert. net.....botm. #5, #20 ..... 0 botm. net.....botm. 7 ft. Tnr..... "					Density, 1.01475 " 1.01455 " 1.01524 Begin. flood; Wind, SSW; Force 2; Sea, slightly choppy; Sky cloudy.
8763	New Point Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 West.	"	" "	1:00 p.m. to 1:49 p.m.	12.8	GY.M.	10.0	0 5 10 12.8	2.7 2.7 2.7 2.7	0 5 10 12.8	16.44 18.48 19.36 19.64	7' Tnr.....12.8 vert. net.....botm. botm. net..... " #20, #5..... 0 G B bot.: Queen "A".					Density, 1.01472 " 1.01475 " 1.01544 " 1.01566 No catch. Speed of vessel too great. ½ flood; Wind SEXS; Force 1; Sea slightly choppy; Sky cloudy.

* Exact bearings not determined owing to thick weather, but depth of water indicates approximate correctness of location.

This space to be left for binding.

Form 625.

RECORD OF Dredging & Hydrographic stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1920

198 185

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8764	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.		1222	March 11.	2:53 p.m. to 3:46 p.m.	13.25	gy.M.	13.3	0	3.2	0	18.54						
									5	2.95	5	18.97						Density, 1.01476
									10	2.95	10	19.73						" 1.01513
									13.25	2.95	13.25	20.31						" 1.01573
													7' Tnr.	botm.	10			" 1.01619
													vert. net.	"				No catch. Speed of vessel more than usual. Cable out three times depth.
													botm. net.	"	10			¾ flood; Wind SEXS
													#20, #5	0				Force 1; Sea smooth;
													G B bot.; Queen "A" and "B".					Sky clear.
8765	Plantation Lt. SE 3/8 S; Buoy 10 N¼E; Cherrystone Lt. E 3/8 N.		"	" "	4:42½ p.m. to 5:29½ p.m.	42.9	gy.M.	4.4	0	3.45	0	18.70						
									10	3.20	10	19.62						Density, 1.01489
									20	3.20	20	20.13						" 1.01563
									30	3.20	30	20.81						" 1.01603
									40	2.95	40	22.94						" 1.01661
									42.9	2.95	42.9	23.09						" 1.01826
																		" 1.01839
													7' Tnr.	42.9	10			Slow on both engines. No catch.
													vert. net.	"				Flood; Wind SEXS;
													botm. net.	"	10			Force 2; Sea almost
													#20, #5	0	10			smooth; Sky clear.
													G B bot.; Queen "A" and "B".					
8766	Buoy N4 East about ½ mile- Foggy.		"	" 12	8:35 a.m. to 9:37½ "	16.5	wh.S.	11.6	0	3.7	0	24.53						
									10	3.7	10	27.34						Density, 1.01947
									16.5	3.45	16.5	29.80						" 1.02168
																		" 1.02363
													7' Tnr.	16.5	10			½ ebb; Wind SWXS;
													vert. net.	"				Force 3; Sea choppy;
													botm. net.	"	10			Sky cloudy.
													#20, #5	0	10			Ph. Nos.: Surf.
													G B bot.; Queen "A" and "B"					10 and 16.5 meters, 7.8 (almost).
8767	Lt. Ship S 3/8 E; Cape Henry Lt. S 1/4 W; Whistling Buoy SWXW½W.		"	" "	10:28 a.m. to 11:09½ "	15.5	wh.S.	17.2	0	4.45	0	21.72						
									10	4.45	10	30.29						Density, 1.01717
									15.5	4.45	15.5	30.30						" 1.02394
																		" 1.02395
													G B bot.; Queen "A" and "B".					No quant. plankton samples taken.
													7' Tnr.	15.5	10			Full ebb; Wind
													vert. net.	"				SSW; Force 5; Sea
													botm. net.	"	10			choppy; Sky cloudy.
													#20, #5	0	10			
8768	Cape Henry Lt. SWXS⅔S; Lt. Ship N⅔W.		"	" "	11:46 a.m. to 12:45 p.m.	23.7	wh.S.Sh.	19.4	0	4.7	0	20.64						
									10	4.7	10	30.38						Density, 1.01632
									20	4.45	20	30.70						" 1.02398
									23.7	4.45	23.7	30.74						" 1.02426
																		" 1.02429
													G B bot.; Queen "A" and "B".					Slack; Wind SW;
													vert. net.	23.7				Force 5; Sea choppy;
													botm. net.	"	10			Sky cloudy.
													7' Tnr.	"	10			
													#20, #5	0	10			

Form 622.

RECORD OF Dredging & Hydrographic stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth (fms) M	Character of Bottom.	Temperature. Air. Degrees °C	Temperature. Water. Depth (fms) M	Temperature. Water. Degrees °C	Salinity. Depth (fms) M	Salinity. Salinity.	Apparatus Used.	Tidal. Depth (fms) M	Tidal. Duration. hr. & m.	Direction.	Velocity (miles) per hour.	Remarks.
8764	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.			1222	March 11.	2:53 p.m. to 3:46 p.m.	13.25	SY.M.	13.3	0	3.2	0	18.54						
										5	2.95	5	18.97						
										10	2.95	10	19.73						
										13.25	2.96	13.25	20.31						
														7' Tnr.		bottom.	10		No catch. Speed of vessel more than usual. Cable out three times depth. Density, 1.01478
																			" 1.01513
																			" 1.01573
																			" 1.01619
														vert. net.		"			½ flood: Wind SEXE
														botm. net.		"	10		Force 1; Sea smooth;
														#20, #5.		0			Sky clear.
														G B bot.: Queen "A" and "B".					
8765	Plantation Lt. SE 3/8 S; Buoy 10 N½E; Cherrystone Lt. E 3/8 N.	"	"	"	"	4:42½ p.m. to 5:29½ p.m.	42.9	SY.M.	4.4	0	3.45	0	18.70						
										10	3.20	10	19.62						
										20	3.20	20	20.13						
										30	3.20	30	20.81						
										40	2.95	40	22.94						
										42.9	2.95	42.9	23.09						
														7' Tnr.	42.9	10			Density, 1.01489
																			" 1.01563
																			" 1.01603
																			" 1.01661
																			" 1.01826
																			" 1.01839
														vert. net.		"			Slow on both engines. No catch.
														botm. net.		"	10		Flood; Wind SEXE;
														#20, #5.		0	10		Force 2; Sea almost
														G B bot.: Queen "A" and "B".					smooth; Sky clear.
8766	Buoy N4 East about ½ mile- Foggy.	"	"	12		8:35 a.m. to 9:37½ "	16.5	wh.S.	11.6	0	3.7	0	24.53						
										10	3.7	10	27.34						
										16.5	3.45	16.5	29.80						
														7' Tnr.	16.5	10			Density, 1.01947
																			" 1.02116
																			" 1.02262
														vert. net.		"			½ ebb; Wind SEXE;
														botm. net.		"	10		Force 3; Sea choppy;
														#20, #5.		0	10		Sky cloudy.
														G B bot.: Queen "A" and "B".					
8767	Lt. Ship S 3/8 E; Cape Henry Lt. S 1/4 W; Whistling Buoy SWXB½W.	"	"	"		10:28 a.m. to 11:09½ "	15.5	wh.S.	17.2	0	4.45	0	21.72						
										10	4.45	10	30.29						
										15.5	4.45	15.5	30.30						
														7' Tnr.	15.5	10			Density, 1.01717
																			" 1.02394
																			" 1.02398
														vert. net.		"			No quant. plankton samples taken.
														botm. net.		"	10		Full ebb; Wind SE; Force 5; Sea
														#20, #5.		0	10		choppy; Sky cloudy.
														G B bot.: Queen "A" and "B".					
8768	Cape Henry Lt. SWXS½S; Lt. Ship N½W.	"	"	"		11:46 a.m. to 12:45 p.m.	23.7	wh.S.Sh.	19.4	0	4.7	0	20.64						
										10	4.7	10	30.38						
										20	4.45	20	30.70						
										23.7	4.45	23.7	30.74						
														7' Tnr.	23.7	10			Density, 1.01632
																			" 1.02398
																			" 1.02426
																			" 1.02429
														vert. net.		23.7			Slack; Wind SE;
														botm. net.		"	10		Force 5; Sea choppy;
														#20, #5.		0	10		Sky cloudy.
														G B bot.: Queen "A" and "B".					
	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.					to 8:48 a.m.	13.18		13.6	5	13.6	5							Force 3; Sea partly choppy; Sky clear.
										10	13.8	10	22.37	7' Tnr.	13.18	10			
										13.18	13.6	13.18	19.22	vert. net.		"			
														botm. net.		"	10		
														#5, #20.		0	10		

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Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current Direction. Mag.	Current (miles.) per hour.	Remarks.
8769	Thimble Lt. ENE¾E; Can Buoy No. 15 SE1/8E.	1222	March 12.	2:39 p.m. to 3:20 p.m.	28.8	bl.M.	12.7	0	4.7	0	17.73						
								10	4.7	10	18.22						Density, 1.01402
								20	4.7	20	21.78						" 1.01686
								28.8	4.7	28.8	28.81						" 1.01721
												G B bot.; Queen "A" and "B".					" 1.02274
												7' Tnr.	28.8	10			No quantative plankton samples taken
												botm. net.	"	10			Beg. of flood;
												vert. net.	"				Wind SW; Force 4;
												#20, #5.	0	10			Sea choppy; Sky cloudy - rain.
8770	Thimble Lt. ENE¾E; Bell buoy #15 SE 1/8 E.	"	May 1.	10:53 a.m. to 12:54 p.m.	27.99	bl.gy.M.	15.5	0	14.8	0	16.34						
								10	14.6	10	19.82	G B bot.; Queen "A" and "B".					
								20	14.8	20	24.54	vert. net.	27.99				
								27.99	14.6	27.99	25.78	7' Tnr.	"	10			½ ebb; Wind NNW; Force 3; Sea choppy; Sky partly clear.
												botm. net.	"	10			
												#5, #20.	0	10			
8771	Cape Henry Lt. SWXS¾S; Lt. Ship N¾W.	"	" "	2:02 p.m. to 3:03 p.m.	24.09	St.	15.5	0	14.3	0	19.26						
								10	14.1	10	20.02	G B bot.; Queen "A" and "B".					
								20	13.6	20	25.31	7' Tnr.	24.09	10			Slack ebb; Wind NNW; Force 3; Sea choppy; Sky partly clear.
								24.09	13.8	24.09	25.77	vert. net.	"				
												botm. net.	"	10			
												#5, #20.	0	10			
8772	Lt. Ship S 3/8 E; Cape Henry Lt. S½W; Whistling Buoy SWXW¼W.	"	" "	3:55 p.m. to 4:55 p.m.	15.9	gy.M.	17.7	0	13.8	0	25.40						
								5	13.6	5	27.72	G B bot.; Queen "A" and "B".					
								10	13.8	10	26.34	7' Tnr.	15.9	10			¼ flood; Wind NNW; Force 3; Sea choppy; Sky partly clear.
								15.9	13.6	15.9	28.58	vert. net.	"				
												botm. net.	"	12½			
												#5, #20.	0	12½			
8773	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Lt. Ship SWXS¾S.	"	" "	5:32 p.m. to 6:34 p.m.	18.18	S.	21.1	0	14.0	0	20.00						
								5	13.8	5	20.02	G B bot.; Queen "A" and "B".					
								10	13.8	10	23.34	7' Tnr.	18.18	10			Flood; Wind NNW; Force 3; Sea choppy; Sky partly clear.
								18.18	13.6	18.18	22.60	vert. net.	"				
												botm. net.	"	10			
												#5, #20.	0	10			
8774	Plantation Lt. SE 3/8S; Buoy 10 N½E; Cherrystone Lt. E 3/8 N.	"	" 5	5:50 a.m. to 7:16 a.m.	42.72	gy.M.	11.1	0	13.8	0	20.87						
								10	13.6	10	23.40	G B bot.; Queen "A" and "B".					
								20	13.6	20	23.75	7' Tnr.	42.72	10			¾ ebb; Wind E; 2; Sea partly choppy; Sky partly cloudy.
								30	14.5	30		vert. net.	"				
								40	13.5	40	25.32	botm. net.	"	10			
								42.72	13.5	42.72	24.63	#5, #20.	0	10			
8775	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.	"	" "	7:48 a.m. to 8:48 a.m.	13.18	gy.S.M.	12.7	0	13.8	0	16.07						
								5	13.6	5		G B bot.; Queen "A" and "B".					
								10	13.8	10	22.37	7' Tnr.	13.18	10			¼ ebb; Wind ENN; Force 3; Sea partly choppy; Sky clear.
								13.18	13.6	13.18	19.22	vert. net.	"				
												botm. net.	"	10			
												#5, #20.	0	10			

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Direction. Mag.	Remarks.
8776	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW¼W; Buoy C7 West.		1222	May 5.	9:22 a.m. to 10:03 a.m.	12.73	gy.S. M.	15.	0 12.73	13.3 13.6	0 12.73	14.53 20.65	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	12.73 " " 0	10 10 10		½ ebb; Wind EXN; Force 3; Sea partly choppy; Sky partly cloudy.
8777	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW¾W; York Spit Lt. SXW½W.		"	" "	10:27 a.m. to 11:12 a.m.	10.	yl. S.	20.	0 10	13.8 13.6	0 10	13.95 16.25	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	10 " " 0	10 10 10		½ ebb; Wind EXN; Force 3; Sea partly choppy; Sky partly cloudy.
8778	Cherrystone Lt. S 7/8 E; New Pt. Lt. SWXW 7/8 W; Wolf Trap Lt. W½N.		"	" "	12:49 p.m. to 1:50 p.m.	23.63	gy.M.S.	21.1	0 10 20 23.63	14.0 13.8 13.8 14.0	0 10 20 23.63	15.54 23.06 24.73 24.91	G B bot.; Queen "A" and "B". botm. net..... 7' Tnr..... vert. net..... #5, #20..... Alb. smp.....	23.63 " " 0 23.63	10 10 10 	Contents lost.	½ ebb; Wind EXN; Force2; Sea partly choppy; Sky, cloudy. Unsuccessful.
8779	Bell Buoy #1 SE½E 1 mile; Buoy 10C NWXW¼W; of Sandy Point.		1223	" "	3:20 p.m. to 3:54 p.m.	7.72	gy. S.	19.4	0 7.72	14.3 14.3	0 7.72	17.72 18.27	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	7.72 " " 0	10 10 10		Slack ebb; Wind ESE; Force 3; Sea partly choppy; Sky cloudy.
8780	Bell Buoy #1 E 3/8 S 3½ miles; off Sandy Pt.; Buoy #10C NXE½E.		"	" "	4:22 p.m. to 5:05 p.m.	14.54	gy. M.	11.6	0 10 14.54	14.3 14.5 14.3	0 10 14.54	14.66 20.55 21.04	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	14.54 " " 0	10 10 10		½ flood; Wind ESE: Force 3; Sea partly choppy; Sky partly cloudy. Part of contents of #5 lost.
8781	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	" "	6:14 p.m. to 6:56 p.m.	13.18	sft.gy.M.	12.2	0 13.18	13.8 13.6	0 13.18	11.95	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	13.18 " " 0	10 10 10		½ flood; Wind EXN: Force 4; Sea choppy; Sky partly cloudy.
8782	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	" 6	5:00 a.m. to 5:51 a.m.	12.73	oys.Sh.	7.2	0 12.73	12.6 12.8	0 12.73	9.71 13.62	7' Tnr..... G B bot.; Queen "A" and "B". vert. net..... botm. net..... #5, #20.....	12.73 " " 0	10 10 10	Net fouled.	½ ebb; Wind W; Force 1; Sea choppy: Sky partly cloudy.
8783	Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.		"	" "	6:15 a.m. to 7:08 a.m.	10.	yl. S.	11.6	0 5 10	12.8 12.6 12.8	0 5 10	11.15 12.34 13.09	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	10 " " 0	10 10 10		½ ebb; Wind W: Force 1; Sea choppy: Sky partly cloudy.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920.

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Direction. Mag.	Remarks.
8776	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW¼W; Buoy C7 West.		1222	May 5.	9:22 a.m. to 10:03 a.m.	12.73	gy.S. M.	15.	0 12.73	13.3 13.6	0 12.73	14.53 20.65	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	12.73 " " 0	10 10 10		½ ebb; Wind EXN; Force 3; Sea partly choppy; Sky partly cloudy.
8777	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW¾W; York Spit Lt. SXW½W.		"	" "	10:27 a.m. to 11:12 a.m.	10.	yl. S.	20.	0 10	13.8 13.6	0 10	13.95 16.25	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	10 " " 0	10 10 10		½ ebb; Wind EXN; Force 3; Sea partly choppy; Sky partly cloudy.
8778	Cherrystone Lt. S 7/8 E; New Pt. Lt. SWXW 7/8 W; Wolf Trap Lt. W½N.		"	" "	12:49 p.m. to 1:50 p.m.	23.63	gy.M.S.	21.1	0 10 20 23.63	14.0 13.8 13.8 14.0	0 10 20 23.63	15.54 23.06 24.73 24.91	G B bot.; Queen "A" and "B". botm. net..... 7' Tnr..... vert. net..... #5, #20..... Alb. smp.....	23.63 " " 0 23.63	10 10 10 	Contents lost.	½ ebb; Wind EXN; Force2; Sea partly choppy; Sky, cloudy. Unsuccessful.
8779	Bell Buoy #1 SE½E 1 mile; Buoy 10C NWXW¼W; of Sandy Point.		1223	" "	3:20 p.m. to 3:54 p.m.	7.72	gy. S.	19.4	0 7.72	14.3 14.3	0 7.72	17.72 18.27	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	7.72 " " 0	10 10 10		Slack ebb; Wind ESE; Force 3; Sea partly choppy; Sky cloudy.
8780	Bell Buoy #1 E 3/8 S 3½ miles; off Sandy Pt.; Buoy #10C NXE½E.		"	" "	4:22 p.m. to 5:05 p.m.	14.54	gy. M.	11.6	0 10 14.54	14.3 14.5 14.3	0 10 14.54	14.66 20.55 21.04	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	14.54 " " 0	10 10 10		½ flood; Wind ESE: Force 3; Sea partly choppy; Sky partly cloudy. Part of contents of #5 lost.
8781	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	" "	6:14 p.m. to 6:56 p.m.	13.18	sft.gy.M.	12.2	0 13.18	13.8 13.6	0 13.18	11.95	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	13.18 " " 0	10 10 10		½ flood; Wind EXN: Force 4; Sea choppy; Sky partly cloudy.
8782	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	" 6	5:00 a.m. to 5:51 a.m.	12.73	oys.Sh.	7.2	0 12.73	12.6 12.8	0 12.73	9.71 13.62	7' Tnr..... G B bot.; Queen "A" and "B". vert. net..... botm. net..... #5, #20.....	12.73 " " 0	10 10 10	Net fouled.	½ ebb; Wind W; Force 1; Sea choppy: Sky partly cloudy.
8783	Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.		"	" "	6:15 a.m. to 7:08 a.m.	10.	yl. S.	11.6	0 5 10	12.8 12.6 12.8	0 5 10	11.15 12.34 13.09	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	10 " " 0	10 10 10		½ ebb; Wind W: Force 1; Sea choppy: Sky partly cloudy.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (Corr.) M	Character of Bottom.	Temperatures. Air. Degrees C	Temperatures. Water. Depth. (Corr.) M	Temperatures. Water. Degrees C	Salinity. Depth. (Corr.) M	Salinity. Salinity.	Apparatus Used.	Tows. Depth. (Corr.) M	Tows. Duration. h. m.	Direction. Eng.	Tows. [miles] per hour.	Remarks.
8784	Smith Pt. Lt. NWXN; Buoy NNW.		1223	May 6.	8:19 a.m. to 9:26 a.m.	44.09	sy.M. S.	12.7	0	13.3	0	9.97	G B bot.: Queen "A" and "B".					¾ ebb; Wind NNW: Force 2; Sea partly choppy: Sky hazy.
									10	13.1	10	15.76						
									20	13.3	20	18.15	7' Tur.	44.09	12			
									30	13.1	30	18.98	vert. net	"				
									40	13.1	40	19.08	botm. net	"	10			
									44.09	13.3	44.09	19.59	#5, #20	0	10			
8785	Pt. Lookout Lt. NEXS½E; Bell buoy NW½N; Buoy S11W NNE.		1224	" "	11:28 a.m. to 12:15 p.m.	10.91	sft. sy.M.	18.8	0	13.8	0	6.76	7' Tur.	10.91	10			No catch.
									10.91	13.6	10.91	8.73	G B bot.: Queen "A" and "B".					1/8 flood; Wind E: Force 1; Sea partly choppy: Sky hazy.
													vert. net	"				
													botm. net	"	10			
													#5, and #20	0	10			
8786	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E½S.		"	" "	12:45 p.m. to 1:28 p.m.	21.81	sft. sy.M.	19.4	0	13.8	0	7.22	G B bot.: Queen "A" and "B".					½ flood; Wind ENE: Force 3; Sea partly choppy: Sky hazy.
									10	13.8	10	21.21						
									21.81	13.6	21.81	13.03	7' Tur.	21.81	10			
													vert. net	"				
													botm. net	"				No sample.
													#5, #20	0	10			
													Alb. sup.					
8787	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	" "	1:43 p.m. to 2:24 p.m.	10	sft. M.	21.1	0	13.8	0	7.22	#5, #20	0	10			Part of contents of #5 lost.
									10	13.1	10	9.56						½ flood; Wind SE: Force 3; Sea partly choppy: Sky hazy.
													G B bot.: Queen "A" and "B".					
													vert. net	10				
													botm. net	"	10			
8788	Point No Point Lt. NWXN½N; Pt. Lookout Lt. SWXS½S.		"	" "	3:45 p.m. to 4:28 p.m.	12.72	sy.M.	18.8	0	13.1	0	7.28	G B bot.: Queen "A" and "B".					½ flood; Wind SE: Force 3; Sea partly choppy: Sky hazy.
									10	13.1	10	8.70						
									12.72	13.3	12.72	13.75	vert. net	12.72				
													botm. net	"	10			
													#5, #20	0	10			
													Alb. sup.					
8789	Point No Point. Lt. WXN½N; Pt. Lookout Lt. SW 3/8 S.		"	" "	5:10 p.m. to 5:53 p.m.	38.16	M.	22.2	0	13.1	0	7.30	G B bot.: Queen "A" and "B".					Flood; Wind S: Force 4; Sea choppy: Sky partly cloudy.
									20	13.3	20	13.28						
									38.16	13.1	38.16	18.09	vert. net	38.16				
													botm. net	"	10			Filled with mud.
													#5, #20	0	10			
													Alb. sup.					
8790	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.		"	" "	6:24 p.m. to 6:45 p.m.	7.27	S.	15.5	0	12.8	0	7.32	G B bot.: Queen "A" and "B".					¼ ebb; Wind S: Force 4; Sea choppy: Sky partly cloudy.
									7.27	12.6	7.27	9.42						
													vert. net	7.27				
													botm. net	"	10			
													#5, #20	0	10			
													Alb. sup.					
8791	Barren Id. Buoy 16D NEXN 200 yds.		"	" 7	5:34 a.m. to 6:23½ "	47.27	bk.M.	11.1	0	12.6	0	7.12	botm. net	47.27	10			No Sample. Filled with mud.
									20	12.8	20	7.13						
									47.27	12.6	47.27	17.80	vert. net	"				½ flood; Wind S: Force 3; Sea choppy.
													#5, #20	0	10			
													G B bot.: Queen "A" and "B".					

This space to be left for binding.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Drift. Direction. Mag.	Drift. Velocity (miles.) per hour	Remarks.
8792	Cove Pt. Lt. N 7/8 W; Buoy #21 NEKE E.		1224	May 7.	7:00 a.m. to 7:53 a.m.	7.27		11.1	0 7.27	12.8 12.6	0 7.27	6.96 7.30	7' Tnr..... vert. net..... botm. net..... #5, #20..... G B bot.; Queen "A" and "B".	7.27	10 " " 10 0 10	.....		No catch. Flood; Wind S; Force 2; Sea partly choppy;
8793	Governors Run Wharf W S, 7/8 mile; Spar Buoy S"2B" N W.		1225	" "	9:10 a.m. to 9:52 a.m.	9.54	bl.gy.M.	12.7	0 9.54	12.8 12.6	0 9.54	6.29 11.88	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20..... Alb. smp.....	9.54	10 " " 10 0 10			Flood; Wind S; Force 2; Sea partly choppy.
8794	N. end of James Id. E N; Bell buoy 18A N E.		"	" "	10:12 a.m. to 10:50 "	22.72	gy.M.	14.4	0 22.72	12.8 12.6	0 22.72	6.85 15.91	Alb. smp..... 7' Tnr..... vert. net..... botm. net..... #5, #20..... G B bot.; Queen "A" "B".	22.72	10 " " 10 0 10	.....		Sample lost. Flood; Wind S; Force 2; Sea partly choppy.
8795	Bloody Pt. Lt. E N about ½ mile.		"	" "	1:18 p.m. to 2:03 p.m.	25.32	S.sft.M.	13.3	0 25.32	12.5 12.3	0 25.32	5.81 15.66	botm. net..... 7' Tnr..... vert. net..... #5, #20..... G B bot.; Queen "A" and "B".	25.32	10 " " 0 10	.....		Sample full of mud. Begin. ebb; Wind SSW; Force 3; Sea choppy.
8796	Thomas Pt. Lt. NXE E; Bloody Pt. Lt. E 7/8 S.		"	" "	2:30 p.m. to 3:10 p.m.	9.54		13.8	0 9.54	12.8 12.6	0 9.54	6.42 8.83	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... #5, #20.....	9.54	10 " " 10 0 10			½ ebb; Wind SSW; Force 2; Sea choppy.
8797	Sandy Pt. Lt. SWXS S; Baltimore Lt. NW N.		1226	" "	4:47 p.m. to 5:32 p.m.	13.18	bl.M.	14.4	0 13.18	12.8 12.8	0 13.18	4.01 5.76	vert.net..... vert. net..... botm. net..... 7' Tnr..... #5, #20..... G B bot.; Queen "A" and "B".	13.18	" " 10 10 0 10	.....		No sample. Ebb; Wind SXW; Force 2; Sea choppy.
8798	Sandy Pt. Lt. SWXW W; Baltimore Lt. NWXW 3/8 W.		"	" "	6:09 p.m. to 7:06 p.m.	19.55	bl.M.	14.4	0 19.55	12.6 12.8	0 19.55	4.35 7.16	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... #5, #20.....	19.55	10 " 0 10			Bottom net not used too muddy. Slack ebb; Wind S; Force 2; Sea choppy.
8799	7' Knoll WXN N; Craighill Channel Lt. NW.		"	" 8	6:30 a.m. to 7:14 a.m.	11.37	bl.M.		0 11.37	12.8 12.6	0 11.37	2.26 6.54	G B bot.; Queen "A" and "B". 7' Tnr..... vert. net..... botm. net..... # 5, #20.....	11.37	10 " " 10 0 10			Flood; Sea almost smooth; Sky cloudy.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. ~~Velocity~~ (miles) per hour.	Remarks.
8800	7' Knoll WXN½N; outer Craighill Lt. NW.	1226	July 3-4.	12:40 p.m.	12.5	bk. M.	27.7	12.5	23.6	12.5	12.32	7' Tmr. m.b.	12.5	10			Tmr. no sample. ½ ebb; Wind W; Force 2; Sea partly choppy; Sky partly cloudy and hazy at beginning of work.
								0	24.6	0	7.47	vert. net	"				
								5	23.6	5	11.40						
								10	22.6	10	12.09	botm. net	"	10			
								12.5	23.9	12.5	12.40	#6, #20	0	10			
												Alb. smp					
			" 3.	2:20 p.m.				0	25.?	0	6.97	C B bot.: NZ; Queen.					
								5	24.2	5	7.15						
								10	20.5	10	11.79						
								12.5	21.0	12.5	11.10						
				3:50 p.m.				0	24.9	0	6.20						
								5	24.6	5	8.60						
								10	24.6	10	12.78						
								12.5	24.6	12.5	11.54						
				5:28 p.m.				0	24.8	0	5.93						
								5	24.9	5	8.64						
								10	24.6	10	9.52						
								12.5	24.9	12.5	13.12						
				6:58 p.m.				0	24.9	0	6.32						
								5	24.9	5	8.75						
								10	24.1	10	13.48						
								12.5	24.4	12.5	13.52						
				8:28 p.m.				0	24.6	0	6.36						
								5	24.6	5	10.20						
								10	24.1	10	13.30						
								12.5	23.9	12.5	13.35						
				9:58 p.m.				0	24.1	0	6.72						
								5	24.2	5	9.54						
								10	23.9	10	11.80						
								12.5	24.1	12.5	12.83						
				11:28 p.m.				0	24.1	0	6.80						
								5	23.9	5	8.49						
								10	23.9	10	12.24						
								12.5	23.9	12.5	13.31						
			" 4	12:58 a.m.				0	23.9	0	6.90						
								5	23.6	5	7.32						
								10	23.6	10	11.05						
								12.5	23.9	12.5	13.02						
				2:28 a.m.				0	23.6	0	7.14						
								5	23.9	5	9.05						
								10	23.6	10	10.87						
								12.5	23.6	12.5	12.14						
				3:58 a.m.				0	23.9	0	6.91						
								5	23.6	5	6.98						
								10	23.6	10	11.08						
								12.5	22.9	12.5	12.44						
				5:28 a.m.				0	23.6	0	6.71						
								5	23.9	5	7.18						
								10	23.4	10	9.64						
								12.5	23.6	12.5	12.60						
				6:58 a.m.				0	23.9	0	6.74						
								5	23.6	5	7.66						
								10	23.6	10	11.15						
								12.5	23.9	12.5	12.79						
				8:28 a.m.				0	23.6	0	7.20						
								5	23.9	5	7.55						
								10	23.4	10	11.41						
								12.5	23.6	12.5	12.46						
				9:58 a.m.				0	23.9	0	7.45						
								5	23.6	5	8.82						
								10	23.4	10	11.65						

Form 625.

RECORD OF Hydrographic & Dredging stations in CHESAPEAKE BAY INVESTIGATION BY Fish Hawk 19 20

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (fms.) M	Tidal. Duration. H. m.	Direction.	Velocity. Knots per hour.	Remarks.
8600 (cont.)						11:28 a.m.				12.5	23.6	12.5	12.33						
										0	24.6	0	7.47						
										5	23.6	5	11.40						
										10	23.6	10	12.09						
										12.5	23.9	12.5	12.40						
						12:58 p.m.				0	23.6	0	7.47						
										5	23.9	5	9.06						
										10	23.9	10	10.87						
					July 3.	3:12 p.m.				12.5	23.9	12.5							
						3:21 p.m.								Bk. mtr.	0	5	NNW	1.38	
						3:31 p.m.									5	5	NNW	1.96	
						3:39 p.m.									10	5½	NW	.98	
						4:21 p.m.									12.5	5	NE	.96	
						4:27 p.m.									0	5	NW ?	.84	
						4:35 p.m.									5	5	NNE	.86	
						4:43½ "									10	5	E	.81	
						5:41½ "									12.5	5	SE	.61	
						5:46 p.m.									0	5	?	.06	
						5:55½ "									5	5	S	.53	
						6:02 p.m.									10	5	S	.82	
						7:12 p.m.									12.5	5	S	.96	
						7:20 p.m.									0	5	NNW ?	.18	
						7:27 p.m.									5	5	S	.68	
						7:34 p.m.									10	5	?	.09	
						8:46 p.m.									12.5	5	SW	.16	
						8:53 p.m.									0	5	?	.12	
						9:02 p.m.									5	5	?	.67	
						9:10 p.m.									5	5	SSE	.68	
						9:18 p.m.									10	5	SSW	.53	
						10:15 p.m.									12.5	5	SW	.22	
						10:22 p.m.									0	5	W	.96	
						10:29 p.m.									5	5	SSE?	.87	
						10:37 p.m.									10	5	NNE	.19	
						11:43 p.m.									12.5	5	NNW	.83	
						11:49 p.m.									0	5	NNE	.55	
						11:56 p.m.									5	5	E	.11	
					July 4	12:04 a.m.									10	5	E	.34	
						1:06 a.m.									12.5	5	NNE	.08	
						1:14 a.m.									0	5	NW	.25	
						1:20 a.m.									5	5	N	.39	
						1:26½ "									10	5	NNW	.14	
						2:37 a.m.									12.5	5	NNW	.11	
						2:43½ "									0	5	NNW	.15	
						2:49½ "									5	5	NNE	.09	
						2:56½ "									10	5	—		
						4:08 a.m.									12.5	5	—		
						4:14 a.m.									0	5	?	.07	
						4:20½ "									5	5	NNE	.09	
						4:27 a.m.									10	5	S	.36	
						5:37 2/3									12.5	5	S	.45	
						5:43½									0	5	NNW	.13	
						5:49½									5	5	S	.78	
						5:56 a.m.									10	5	S	.66	
						7:09 a.m.									12.5	5	?	.04	
						7:15 a.m.									0	5	NNE	.45	
						7:21 a.m.									5	5	SSW	.71	
						7:27 a.m.									10	5	SW	.14	
						8:38 a.m.									12.5	5	SW	.11	
															0	5	?	.34	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Tetal. Depth. (fms.) M	Tetal. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour.	Remarks.
8800 (cont.)				8:45½ a.m.													
				8:53 a.m.													
				9:00 a.m.													
				10:15 a.m.													
				10:21½ a.m.													
				10:27½ a.m.													
				10:34 a.m.													
				11:40½ a.m.													
				11:47 a.m.													
				11:53½ a.m.													
				12:00 M.													
				1:06 p.m.													
				1:11½ p.m.													
				1:17½ p.m.													
				1:23½ p.m.													
8801	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.	1226	July 4	2:45 p.m. to 3:36 p.m.	20.44	bk.M.	25.5	0 10 20.44	23.9 23.9 23.9	0 10 20.44	7.89 8.70 15.44	7' Tnr. m.b. vert. net botm. net #6, #20 Alb. smp. G B bot.; Queen.	20.44 " " 0	10 10 10			No catch. ½ ebb; Wind NW; Force 3; Sea partly choppy; Sky partly cloudy.
8802	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW¾N.	"	"	4:00 p.m. to 4:47 p.m.	12.71	Sh.C.	25.5	0 10 12.71	23.6 23.6 23.4	0 10 12.71	8.58 8.78 8.89	G B bot.; Queen 7' Tnr. m.b.; botm net. vert. net #6, #20 Alb. smp.	 12.71 " 0	 10 10			½ ebb; Wind NW; Force 3; Sea partly choppy; Sky partly cloudy.
8803	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	1225	"	6:20 p.m. to 6:56 p.m.	10	sft. bk.M.	23.8	0 10	23.4 23.6	0 10	9.75 10.08	G B bot.; Queen. 7' Tnr.; m.b.; botm. net vert. net #6, #20 Alb. smp.	 10 " 0	 10 10			Begin. flood; Wind NW; Force 3; Sea almost smooth; Sky partly cloudy.
8804	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.	"	" 5	6:05 a.m. to 7:04 a.m.	12.5	gy.M.	18.3	0 5 10 12.5	21.9 22.6 22.6 22.9	0 5 10 12.5	9.02 9.42 9.57 16.22	G B bot.; Queen. 7' Tnr.; m.b.; botm. net vert. net Alb. smp. #6, #20	 12.5 " 0	 10 10			½ ebb; Wind NNW; Force 3; Sea partly choppy; Sky partly cloudy.
8805	Bloody Pt. Lt. E½N, about ½ mile.	"	"	7:15 a.m. to 8:05 a.m.	27.2	gy. M.	18.3	0 5 10 27.2 20.	21.9 22.1 22.1 22.1 22.4	0 5 10 20 27.2	9.40 11.22 14.10 16.89 17.49	G B bot.; Queen. 7' Tnr.; m.b.; botm. net vert. net #6, #20 Alb. smp.	 27.2 " 0	 10 10			½ ebb; Wind NNW; Force 2; Sea partly choppy; Sky partly cloudy and hazy.
8806	N. end of James Id. E½N; Bell Buoy 18A N½E.	"	"	12:18 p.m. to 1:38 p.m.	22.87	gy.M.	25.5	0 10 20 22.87	23.8 23.6 23.1 23.6	0 10 20 22.87	11.44 11.62 16.61 16.95	G B bot.; Queen. 7' Tnr. vert. net #6, #20 Alb. smp.	 22.87 " 0	 10 10			Fouled in mud. ½ flood; Wind calm; Force 0; Sea light swell; sky partly cloudy and hazy.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
8807	Governors Run Wharf W½S, 7/8 mile; Spar Buoy S2E N¾W.	1225	July 5.	2:00 p.m. to 3:12 p.m.	9.15		31.1	0	24.6	0	11.30	7' Tnr.: m.b.	9.15	10			
								5	24.3	5	11.36	7' Tnr.	"	"			2nd. haul, no catch.
								9.15	24.4	9.15	11.69	vert. net.	"				Begin ebb; Wind E; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
												botm. net	"	10			
												#6, #20	0	10			
												Alb. sup.					
												G B bot.; Queen.					
8808	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE½E.	1224	" "	4:40 p.m. to 5:35 p.m.	7.32		28.3	0	24.1	0	11.46	botm. net	7.32	10			
								7.32	23.9	7.32	19.68	" "	"	10			Bottle lost off net
												7' Tnr.; m.b.	"	10			Begin. ebb; Wind S; Force 1; Sea almost smooth; Sky partly cloudy.
												vert. net	"				
												#6, #20	0	10			
												Alb. sup.					
												G B bot.; Queen.					
8809	Barren Id. Buoy 16D NEXN 200 yards.	"	" "	6:05 p.m. to 7:18 p.m.	46.37		33.8	0	24.1	0	11.09	G B bot.; Queen.					
								10	23.4	10	15.44	7' Tnr.; m.b.	46.37	10			½ ebb; Wind calm; Force 0; Sea smooth; Sky partly cloudy.
								20	23.6	20	14.99	vert. net	"				
								30	23.4	30	19.12	botm. net	"	10			
								40	22.1	40	19.37	#6, #20	0	10			
								46.37	22.4	46.37	19.38	Alb. sup.					
8810	Pt. No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.	"	" 6	4:55 a.m. to 5:46 a.m.	7.3	hrd.	21.6	0	24.4	0	13.26	G B bot.; Queen.					
								7.3	23.1	7.3	13.24	7' Tnr. ; m.b.	7.3	10			Slack ebb; Wind SW; Force 2; Sea partly choppy; Sky partly cloudy and hazy.
												vert. net	"				
												botm. net	"	10			
												#6, #20	0	10			
												Alb. sup.					
8811	Point No Point Lt. WXN½N; Pt. Lookout Lt. SW 3/8 W.	"	" "&7.	7:00 a.m.	36.60		23.3										
				7:19 a.m.				0	23.8	0	12.75	G B bot.; Queen; NS.					¾ flood; Wind S; Force 3; Sea partly choppy; Sky partly cloudy and hazy at beginning of work.
								10	23.4	10	12.75						
								20	23.2	20	20/22						
								30	23.6	30	19.70						
								36.60	23.9	36.60	20.22						
				8:49 a.m.				0	22.8	0	12.76						
								10	22.8	10	14.68						
								20	22.0	20	19.11						
								30	22.0	30	20.26						
								36.60	22.0	36.60	20.22						
				10:19 a.m.				0	23.0	0	12.50						
								10	23.3	10	14.66						
								20	22.2	20	19.72						
								30	22.1	30	20.20						
								36.60	22.0	36.60	20.22						
				11:49 a.m.				0	23.2	0	12.56						
								10	23.7	10	14.96						
								20	22.1	20	19.60						
								30	22.1	30	20.04						
								36.60	22.1	36.60	20.25						
				1:19 p.m.				0	24.0	0	12.57						
								10	23.1	10	15.63						
								20	22.0	20	19.64						
								30	22.0	30	19.98						
								36.60	22.1	36.60	20.10						
				2:49 p.m.				0	25.3	0	12.53						
								10	23.3	10	12.82						
								20	22.6	20	18.40						
								30	22.5	30	20.10						
								36.60	22.2	36.60	20.19						

Form 611.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time or Dist.	Depths.	Character of Bottom.	Temperature Air.	Temperature Water. Depth.	Temperature Water. Temperature	Salinity. Depth.	Salinity. Salinity.	Average Time.	Tides. Depth.	Tides. Time.	Current. Direction.	Current. Velocity.	Remarks.
8811 (cont.).					July 6.	10:05 a.m.													
						11:01 a.m.									36.60	S	NNW	.50	
						11:08½ "									0	S	NNW	.10	
						11:16 a.m.									10	S	NNNW	.45	
						11:24 a.m.									20	S	NW	.42	
						11:33 a.m.									30	S	NNW	.40	
						12:06 p.m.									36.60	S	NNW	.48	
						12:11½ p.m.									0	S	—		
						12:17½ p.m.									10	S	—		
						12:23½ p.m.									20	S	NNNW	.32	
						12:30 p.m.									30	S	NW	.35	
						1:43½ p.m.									36.60	S	WNW	.35	
						1:49 p.m.									0	S	WNW	.11	
						1:56 p.m.									10	S	NW	.08	
						2:03 1/3									20	S	WNW	.36	
						2:11 p.m.									30	S	SW	.27	
						3:26½ p.m.									36.60	S	NW	.16	
						3:42½ p.m.									0	S	SSW	.09	
						3:50½ p.m.									10	S	SSW	.32	
						3:58½ p.m.									20	S	SSW	.37	
						4:06 p.m.									30	S	S	.30	
						4:46 p.m.									36.60	S	SSW	.35	
						4:58½ p.m.									0	S	SW	.74	
						5:13½ p.m.									10	S	S	.24	
						5:06 p.m.									20	S	SSW	.30	
						5:21 p.m.									30	S	SSW	.21	
						6:17 p.m.									36.60	S	SSSW	.34	
						6:23½ p.m.									0	S	SWSW	.42	
						6:30 p.m.									10	S	SSW	.27	
						6:37½ p.m.									20	S	S	.28	
						6:45 p.m.									30	S	SW	.23	
						7:34½ p.m.									36.6	S	WSW	.27	
						7:40½ p.m.									0	S	SSW	.43	
						7:47 1/3									10	S	SW	.19	
						7:54½ p.m.									20	S	SSW	.36	
						8:02½ p.m.									30	S	S	.39	
						9:07½ p.m.									36.6	S	SW	.33	
						9:14 p.m.									0	S	WSW	.37	
						9:20 p.m.									10	S	SSW	.34	
						9:26 p.m.									20	S	NNNW	.31	
						9:34 p.m.									30	S	NNW	.34	
						10:40 p.m.									36.6	S	NNNW	.49	
						11:09 p.m.									0	S	NNW	.42	
						11:01½ p.m.									10	S	—		
						10:55 p.m.									20	7	N	.30	
						10:47 p.m.									30	S	NNNW	.30	
					7.	1:40 a.m.									36.6	S	NNW	.30	
						1:46 a.m.									0	S	NNNW	.45	
						1:53 a.m.									10	S	NNW	.45	
						2:00 a.m.									20	S	NNNW	.54	
						2:07 a.m.									30	S	N	.45	
						2:16 a.m.									36.6	S	NNW	.50	
						3:10 a.m.									0	S	SW	.71	
						3:17 a.m.									10	S	SSSW	.59	
						3:24 a.m.									20	S	NNW	.45	
						3:32½ a.m.									30	S	W	.47	
						3:41½ a.m.									36.6	S	SSW	.33	
						4:37 a.m.									0	S	SSSW	.64	
						4:44 a.m.									10	S	SSW	.32	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1920

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. ~~Knots~~ per hour.	Remarks.
8811 (Cont.)					July 6.	4:19 p.m.				0	24.8	0	12.60						
										10	23.3	10	12.74						
										20	23.1	20	16.25						
										30	22.5	30	20.00						
										36.60	22.7	36.60	20.16						
						5:49 p.m.				0	23.5	0	12.68						
										10	23.1	10	14.90						
										20	24.4	20	16.01						
										30	22.6	30	20.10						
										36.60	22.2	36.60	20.19						
						7:19 p.m.				0	24.4	0	12.68						
										10	23.5	10	13.01						
										20	22.8	20	17.77						
										30	22.5	30	20.04						
										36.60	22.0	36.60	20.16						
						8:49 p.m.				0	23.7	0	12.66						
										10	23.2	10	15.12						
										20	22.0	20	19.70						
										30	22.1	30	20.00						
										36.60	22.0	36.60	20.20						
						10:19 p.m.				0	23.6	0	12.58						
										10	22.8	10	12.72						
										20	22.4	20	19.08						
										30	22.0	30	19.68						
										36.60		36.60	19.91						
						11:49 p.m.				0	23.6	0	12.68						Thermometer failed to register.
										10	22.6	10	15.20						
										20	21.9	20	17.30						
										30	22.0	30	19.68						
					" 7.	1:19 a.m.				36.60	22.4	36.60	20.02						
										0	23.8	0	12.68						
										10	23.4	10	13.12						
										20	22.9	20	19.18						
										30	22.0	30	20.06						
										36.60	22.0	36.60	20.02						
						2:49 a.m.				0	23.8	0	12.73						
										10	24.8	10	12.77						
										20	21.9	20	19.22						
										30	22.0	30	20.02						
										36.60	21.6	36.60	20.08						
						4:19 a.m.				0	23.8	0	12.76						
										10	23.8	10	12.99						
										20	22.8	20	12.95						
										30	22.0	30	19.18						
										36.60	21.9	36.60	19.98						
						5:49 a.m.				0	23.7	0	12.40						
										10	23.8	10	12.93						
										20	22.0	20	16.63						
										30	22.0	30	20.01						
										36.60	21.8	36.60	20.00						
					" 6.	7:32½ a.m.								Bk. mtr.	0	5	WXW	.21	
						7:41 a.m.									10	5	EXN	.37	
						7:48½ a.m.									20	5	—		
						7:59 a.m.									30	5	EXN	.14	
						8:07 a.m.									36.60	5	NXW	.33	
						9:29 a.m.									0	5	—		
						9:40½ a.m.									10	5	NEXN	1.16	
						9:51½ a.m.									20	5	N	.33	
						9:57 a.m.									30	5	NWXW	.66	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour.	Remarks.
8811 (cont.)				July 7.	4:50½ a.m.									20	5	N	.76	
					4:57¾ a.m.									30	6¾	NXE	.80	
					5:07 a.m.									36.6	5	NNW	.30	
					6:14½ a.m.									0	5	SWXW	.55	
					6:21¼ a.m.									10	5	WXS	.47	
					6:27 a.m.									20	5	SXE	.94	
					6:34 a.m.									30	5	N	.87	
					6:41½ a.m.									36.6	5	NW	.53	
8812	Point No Point Lt. NWXN¼N; Pt. Lookout Lt. SWXS½S.	1224	"	"	7:45 to 8:42 a.m.	12.81		23.3	0 12.81	23.7 23.5	0 12.81	12.27 17.27	G B bot.; NZ. 7' Tnr.; m.b. botm. net vert. net #6, #20 Alb. smp.	12.81	10 10			Slack ebb; Wind S; Force 3; Sea partly choppy; Sky partly cloudy and hazy.
8813	Pt. Lookout Lt. NEXE½E; Bell Buoy NW½N; S11W NNE.		"	"	9:58 to 10:20 a.m.	10.98		26.6	0 10.98	24.3 21.8	0 10.98	12.87 15.67	G B bot.; NZ vert. net #6, #20 Alb. smp.	10.98	0 10			½ flood; Wind S; Force 3; Sea partly choppy; Sky partly cloudy and hazy.
8814	Pt. Lookout Lt. NEXE 5/8 E; Pt Lookout Buoy N2 E¼S.		"	"	10:37 to 11:08 a.m.	22.88		29.4	0 10 22.88	24.4 23.1 22.9	0 10 22.88	11.38 15.14 17.62	G B bot.; NZ vert. net #6, #20 Alb. smp.	22.88	0 10			½ flood; Wind S; Force 3; Sea partly choppy; Sky partly cloudy and hazy.
8815	Pt. Lookout Lt. EXS¼S; Pt. Lookout Buoy SE½S.		"	"	11:40 to 2:06 a.m. p.m.	9.65		30.5	0 9.65	24.5 24.1	0 9.65	11.47 13.26	G B bot.; NZ vert. net #6, #20	9.65	0 10			¾ flood; Wind SE-S; Sea choppy; Sky partly cloudy and hazy.
													300' Seine					Ashore near Pt. Lookout Lt.
8816	Smith Pt. Lt. W¾N; Tangier Id. Lt. SE 3/8 S.	1223	"	"	4:10 to 4:53 p.m.	10		31.6	0 10	24.5 24.4	0 10	14.71 14.79	G B bot.; NZ. 7' Tnr.; m.b. Alb. smp. botm. net vert. net #6, #20	10	10 10			No. catch in 7' Tnr. No sample.
8817	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	"	5:04 to 5:52 p.m.	12.81	R	31.1	0 12.81	22.5 23.2	0 12.81	14.70 18.47	Alb. smp. 7' Tnr.; m.b. G B bot.; NZ. botm. net vert. net #6, #20	12.81	10 10			¾ flood; Wind SE-S; Sea choppy; Sky partly cloudy. Unable to operate. Fouled on rocks. ¾ flood; Wind SE; Force 3; Sea partly choppy; Sky partly cloudy.
8818	Smith Pt. Lt. NWXN; Buoy NNW.		"	"	6:25 to 7:11 p.m.	43.92		26.6	0 43.92	24.7 22.4	0 43.92	14.56 19.82	G B bot.; NZ. 7' Tnr. vert. net botm. net #6, #20	43.92	10 10 10			Flood; Wind S; Force 3; Sea light swell; Sky partly cloudy.

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1920

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Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. hr. Min.	Current. Direction. Mag.	Current. (miles) per hour	Remarks.
8819	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.	1223	July 8	5:25 a.m. to 6:19 a.m.	12.81		24.4	0 12.81	24.3 24.2	0 12.81	15.57 21.55	G B bot.; NZ. 7' Tnr. vert. net botm. net Alb. smp. #6, #20	12.81 " " 0	10 10 10			¾ sbb; Wind SSW; Force 2; Sea partly choppy.
8820	Bell Buoy #1 E 3/8 S, 3½ miles; Buoy #10C NXE½E; off Sandy Point. Wicomico R, Va.	"	" "	7:20 a.m. to 8:15 a.m.	14.64		25.0	0 14.64	24.8 22.5	0 14.64	16.70 21.76	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	14.64 " " 0	10 10 10			Slack ebb; Wind W; Force 2; Sea partly choppy.
8821	Bell Buoy #1 SE½E, 1 mile; Buoy #10C NWXW 1/8 W; off Sandy Point.	"	" "	8:45 a.m. to 9:25 a.m.	7.77		30.0	0 7.77	24.8 24.8	0 7.77	17.72 17.70	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	7.77 " " 0	10 10 10			¼ flood; Wind W; Force 2; Sea light swell.
8822	Cherrystone Lt. S 7/8 E; New Pt. Lt. SWXW 7/8 W; Wolfe Trap Lt. W½N.	1222	" "	10:30 a.m. to 11:25 a.m.	23.79	bl.M.	29.4	0 23.79	24.9 24.8	0 23.79	17.72 21.99	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	23.79 " " 0	10 10 10			¾ flood; Wind calm; Force 0; Sea almost smooth.
8823	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW¾W; York Spit Lt. SXW½W.	"	" "	12:30 p.m. to 1:15 p.m.	10.18		30.5	0 10.18	25.3 24.2	0 10.18	17.28 22.06	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	10.18 " " 0	10 10 10			Slack; Wind Calm; Force 0; Sea calm.
8824	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 W.	"	" "	1:38 p.m. to 2:22 p.m.	12.81		30.5	0 12.81	25.8 22.0	0 12.81	19.37 22.49	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	12.81 " " 0	10 10 10			¾ ebb; Wind NE; Force 1; Sea calm.
8825	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.	"	" "	2:50 p.m. to 3:34 p.m.	12.81		31.1	0 12.81	24.8 22.1	0 12.81	18.88 23.06	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	12.81 " " 0	10 10 10			¾ ebb; Wind NE; Force 1; Sea almost calm.
8826	Plantation Lt. SE 3/8 S; Buoy 10 N½E; Cherrystone Lt. EXN.	"	" "	4:45 p.m. to 5:31 p.m.	45.75		26.6	0 45.75	24.2 21.9	0 45.75	21.72 25.23	G B bot.; NZ. 7' Tnr.; m.b. vert. net botm. net #6, #20	45.75 " " 0	10 10 10			7/8 ebb; Wind SSE; Force 2; Sea partly choppy.
8827	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Lt. Ship SWXS¾S.	"	" 9	6:07 a.m. to 6:58 a.m.	18.3		26.6	0 18.3	22.4 18.2	0 18.3	29.78 25.40	7' Tnr.; m.b. G B bot.; NZ. vert. net botm. net #6, #20	18.3 " " 0	10 12 12			m.b. carried away. ¼ flood; Wind calm; Force 0; Sea light swell;
8828	Lt. Ship S 3/8 E; Cape Henry Lt. S¾W; Whistling Buoy SWXW½W.	"	" "	7:48 a.m. to 8:40 a.m.	16.47		28.8	0 16.47	23.6 18.8	0 16.47	21.26 28.08	G B bot.; NZ. 7' Tnr.; botm. net vert. net #6, #20	16.47 " 0	10 10			¼ flood; Wind calm; Force 0; Sea almost calm;

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. oC	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. oC	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Velocity. (miles.) per hour.	Remarks.
8829	Cape Henry Lt. SWXS 3/4 S; Lt. Ship N 3/4 W.		1222	July 9.	9:02 a.m. to 10:14 a.m.	23.79		29.4	0	24.2	0	20.54	G B bot.; NZ.					
									23.79	*	23.79	30.39	7' Tnr.	23.79	10			*NZ out of order, no record.
													vert. net.	"				No temp. of water or water samples taken during rest of cruise.
													botm. net.	"	10			#20 net torn.
													#6, #20.	0	10			1/2 flood; Wind calm; Force 0; Sea almost calm.
8830	#2B Buoy NXW 3/8 W; #3B Buoy W 1/2 N;		"	"	12:38 p.m. to 1:05 p.m.	11.44		29.4					7' Tnr.	11.44	10			
													vert. net.	"				3/4 flood; Wind SE; Force 1; Sea almost calm.
													botm. net.	"	10			
													#6, #20.	0	10			
8831	Thimble Lt. NNE 3/4 E; Bell Buoy #15 SE 1/8 E.		"	"	1:48 p.m. to 2:25 p.m.	27.91		23.8					7' Tnr.	27.91	10			
													botm. net.	"	10			Flood; Wind W; Force 2; Sea almost calm.
													#6, #20.	0	10			
8832	100 Fathom Curve on line extending from Whistling Buoy off Cape Henry, E 5/8 S.			Aug. 21	5:13 p.m. to 6:15 p.m.	fathoms 118		28.3	fathoms 0	25.00	fathoms 0	33.84	G B bot.; NZ.	fathoms				
									20	10.5	20	29.78	botm. net.	118	30			1/4 flood; Wind SW; Force 1; Sea rolling; Sky partly cloudy and hazy.
									40	11.13	40	35.78	#10.	0	30			
									60	11.33	60	38.41						
									80	11.41	80	38.45						
									118	10.7	118	35.01						
8833	60 Fathom Curve on line extending from Whistling Buoy off Cape Henry, E 5/8 S.		"	"	7:00 p.m. to 7:55 p.m.	67		23.8	0	24.6	0	29.76	G B bot.; NZ.					
									20	10.4	20	33.65	botm. net.	67	30			1/2 fld.; Wind SW-1; Sea rolling; Sky part-ly cloudy and hazy.
									40	10.5	40	34.13	#10	0	30			Net torn.
									67	10.8	67	34.45						
8834	40 Fathom Curve on line extending from Whistling Buoy off Cape Henry E 5/8 S.		"	"	8:40 p.m. to 9:28 p.m.	43		23.3	0	24.1	0	29.91	G B bot.; NZ					
									20	17.8	20	33.26	botm. net.	43	30			3/4 flood; Wind SW; Force 1; Sea rolling; Sky cloudy and hazy.
									43	8.5	43	33.29	#18 (12")	0	30			
8835	20 Fathom Curve on line extending from Whistling Buoy off Cape Henry E 5/8 S.		"	"	11:05 p.m. to 11:45 p.m.	20		22.7	0	25.3	0	29.74	G B bot.; NZ.					
									20	8.9	20	33.58	botm. net.	20	30			Slack flood; Wind SW; Force 1; Sea rolling; Sky cloudy and hazy.
													#10.	0	30			
8836	10 Fathom Curve on line extending from Whistling Buoy off Cape Henry E 5/8 S.		"	22	5:48 a.m. to 6:27 a.m.	10		23.8	0	21.7	0	32.55	G B bot.; NZ.					
									10	11.0	10	30.66	botm. net.	10	30			3/4 ebb; Wind SW; Force 1; Sea almost calm; Sky partly cloudy and hazy.
													#18	0	30			
8837	Cape Henry Lt. SWXS 3/4 S; Lt. Ship N 3/4 W.		1222	"	10:13 a.m. to 11:19 a.m.	Meters 23.6		33.8	Meters 0	27.0	Meters 0	22.73	G B bot.; NZ.	M				
									10	20.2	10	29.05	7' Tnr.	23.6	10			1/2 ebb; Wind ESE; Force 1; Sea rolling; Sky partly cloudy and hazy.
									20	17.20	20	31.26	botm. net.	"	10			
									23.6	15.5	23.6	31.74	#6, #10.	0	10			
8838	Light Ship S 3/8 E; Cape Henry Lt. S 1/4 W; Whistling Buoy SWXW 1/2 W.		"	"	11:56 a.m. to 12:24 p.m.	16.4	Sh. S.	29.4	0	26.0	0	23.18	G B bot.; NZ.					
									10	19.4	10	29.09	botm. net.	16.4	11			Full ebb; Wind ESE; Force 1; Sky partly cloudy and hazy.
									16.4	17.3	16.4	31.08	#6, #10.	0	11			
													o.p.dr.					

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8839	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Lt. Ship SWXS⅜S.		1222	Aug. 22.	1:12 p.m. to 1:40 p.m.	18.3	Sh.S.	30.5	0	22.2	0	28.94	G B bot.; NZ.					
									10	21.5	10	29.73	botm. net.....	18.3	10			Slack ebb; Wind ESE;
									18.3	20.9	18.3	30.60	#6, #18.....	0	10			Force 1; Sky partly
													o. p. dr.....					cloudy and hazy.
8840	Plantation Lt. SE 3/8 S; Buoy 10 N½E; Cherrystone Lt. EXN.		"	"	3:10 p.m. to 3:40 p.m.	45.75	Sh.S.	27.2	0	27.0	0	22.36	botm. net.....	45.75	10	.....		Torn.
									10	23.0	10	26.94	#6, #18.....	0	10			½ flood; Wind SXW;
									20	22.2	20	27.43	o. p. dr.....					Force 2; Sky partly
									30	21.3	30	28.09	G B bot.; NZ.					cloudy & hazy.
									40	21.2	40	28.19						
									45.75	21.3	45.75	28.46						
8841	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.		"	"	4:16 p.m. to 4:38 p.m.	12.8	stk.bk.M.	26.1	0	27.5	0	19.20	G B bot.; NZ.					
									10	25.1	10	24.00	botm. net.....	12.8	10			½ flood; Wind SXW;
									12.8	25.0	12.8	24.34	#6, #18.....	0	10			Force 3; Sky overcast
													o. p. dr.....					hazy -- thunder &
8842	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 West.		"	"	5:05 p.m. to 5:24 p.m.	12.8	bl. M.	25.5	0	27.0	0	19.27	G B bot.; NZ.					lightning & heavy rain
									10	25.5	10	20.99	botm. net.....	12.8				¾ flood; Wind SSE;
									12.8	22.2	12.8	...	#6, #18.....	0				Force 3; Sky overcast
																		hazy - rain.
8843	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW½W; York Spit Lt. SXW½W.		"	" 23.	5:40 a.m. to 6:05 a.m.	10.06	S.	22.7	0	26.0	0	19.48	botm. net.....	10.06	10	.....		Net torn.
									5	25.5	5	20.79	#6, #18.....	0	10			½ flood; Wind NW;
									10.06	24.0	10.06	24.20	G B bot.; NZ.					Force 3; Sea choppy;
																		Sky overcast & hazy.
8844	Bell Buoy #1 SE½E, 1 mile; Buoy 10C NWXW 1/8 W; off Sandy Pt.		1223	"	10:50 a.m. to 11:06 a.m.	8.23	S.	21.1	0	26.5	0	19.41	G B bot.; NZ.					
									8.23	25.3	8.23	21.66	botm. net.....	8.23	10			½ ebb; Wind NNE;
													#6, #18.....	0	10			Force 3; Sea choppy;
																		Sky overcast & hazy.
8845	Bell Buoy #1 E 3/8 S, 3½ miles; Buoy 10C NXE½E; off Sandy Point.		"	"	11:44 a.m. to 11:59 a.m.	10.98	bl.M.	21.1	0	26.0	0	18.94	G B bot.; NZ.					
									10.98	24.0	10.98	24.98	botm. net.....	10.98	10			½ ebb; Wind NNE;
													#6, #18.....	0	10			Force 3; Sea choppy;
													o. p. dr.....					Sky overcast & hazy,
																		drizzling rain.
8846	Windmill Pt. Lt. WXN½N; Bell Buoy W 3/8 N; off Rappahannock Spit.		"	"	12:50 p.m. to 1:05 p.m.	12.81	bl.C.	21.1	0	26.0	0	18.71	G B bot.; NZ.					
									12.81	25.1	12.81	20.48	botm. net.....	12.81	10			2/3 ebb; Wind NNE;
													#6, #18.....	0	10			Force 3; Sea choppy;
													o. p. dr.....					Sky overcast & hazy,
																		drizzling rain.
8847	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	"	1:38 p.m. to 1:54 p.m.	12.81	bl.C.	21.1	0	26.0	0	16.45	G B bot.; NZ.					
									12.81	26.0	12.81	17.33	botm. net.....	12.81	10			¾ ebb; Wind NNE;
													#6, #18.....	0	10			Force 2; Sea choppy;
													o. p. dr.....					Sky overcast & hazy,
																		drizzling rain.
8848	Smith Pt. Lt. NWXN; Buoy NNW.		"	"	4:35 p.m. to 5:05 p.m.	44	bl.M.Sh.	21.1	0	26.0	0	14.03	botm. net.....	44	10	.....		Net torn.
									10	26.0	10	13.97	#6, #18.....	0	10			Slack ebb; Wind N;
									20	26.0	20	13.89	G B bot.; NZ.....					Force 3; Sea choppy;
									30	25.2	30	17.76						Sky overcast & hazy,
									44	24.8	44	21.83						drizzling rain.
8849	Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.		"	"	5:45 p.m. to 6:02 p.m.	10.06	bl.M.	20.5	0	26.0	0	14.73	G B bot.; NZ.					
									10.06	25.3	10.06	17.64	7' Tnr.....	10.06	10			½ flood; Wind N;
																		Force 2; Sea choppy;
																		Sky overcast & hazy.

Form 615.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920.

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles) per hour.	Remarks.
6850	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		1223	Aug. 23.	6:11 p.m. to 6:29 p.m.	12.8	R. M.	20.0	0	25.5	0	14.40	G B bot.; NZ.					½ flood; Wind N; Force 2; Sea choppy; Sky overcast & hazy.
									12.8	25.2	12.8	19.11	#6, #18.....	0	10			
6851	Pt. Lookout Lt. NEXE½E; Bell Buoy NW½N; Sll W - NNE.		1224	" 24.	5:50 a.m. to 6:15 a.m.	10.98	bl. C.	21.1	0	25.3	0	12.27	G B bot.; NZ.					¾ ebb; Wind NXE; Force 2; Sea slightly choppy; Sky overcast and hazy.
									10.98	25.3	10.98	12.44	#6, #18.....	0	10			
													Alb. smp.....					
													o. p. dr.....					
6852	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E½S.		"	" "	6:33 a.m. to 6:59 a.m.	21.96	bl. M.	21.1	0	26.0	0	13.19	G B bot.; NZ.					¾ ebb; Wind NXE; Force 2; Sea partly choppy; Sky overcast & hazy - driz. rain.
									10	25.5	10	15.02	#6, #18.....	0	10			
									21.96	24.8	21.96	14.25	Alb. smp.....					
6853	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	" "	7:18 a.m. to 7:38 a.m.	10.63	bl. M. C.	21.1	0	26.0	0	13.56	G B bot.; NZ.					Slack ebb; Wind NXE; Force 2; Sea almost smooth; Sky overcast.
									10.63	25.5	10.63	13.60	#6, #18.....	0	10			
													Alb. smp.....					
6854	Point No Point Lt. NWXN½N, ½ mile; no bearing on Pt. Lookout Lt. (fog).		"	" "	8:59 a.m. to 9:25 a.m.	12.08	bl. M.	21.1	0	25.8	0	13.35	G B bot.; NZ.					¼ flood; Wind NXE; Force 2; Sea choppy; Sky overcast, rain.
									12.08	25.6	12.08	13.31	#6, #18.....	0	10			
													o. p. dr.....					
6855	Point No Point Lt. WXN½N; Pt. Lookout Lt. SW 3/8 W.		"	" " to " 25	10:43 a.m. to 10:43 a.m.	37.1		20.5	0	25.5	0	14.18	G B bot.; NZ.					Tide flood; Wind NXE; Force 2; Sea almost smooth; Sky overcast foggy with drizzling rain at beginning of observations.
									10	25.8	10	14.01						
									20	24.8	20	18.70						
									30	25.0	30	20.30						
									37.1	24.8	37.1	20.49						
				" 24	12:15 p.m.....				0	25.6	0	13.95						
									10	25.3	10	13.89						
									20	25.5	20	13.91						
									30	25.5	30	15.14						
									37.1	25.0	37.1	20.47						
					1:45 p.m.....				0	25.5	0	13.69						
									10	25.7	10	13.70						
									20	25.6	20	13.72						
									30	25.5	30	13.73						
									37.1	24.8	37.1	20.39						
					3:15 p.m.....				0	25.5	0	13.62						
									10	25.5	10	13.63						
									20	25.2	20	17.54						
									30	24.8	30	20.08						
									37.1	24.8	37.1	20.57						
					4:45 p.m.....				0	25.5	0	13.72						
									10	25.5	10	13.72						
									20	25.5	20	13.77						
									30	25.0	30	19.76						
									37.1	24.8	37.1	20.50						
					6:15 p.m.....				0	25.6	0	13.75						
									10	25.5	10	13.79						
									20	25.1	20	17.97						
									30	24.9	30	20.09						
									37.1	24.8	37.1	20.56						
					7:45 p.m.....				0	25.6	0	13.67						
									10	25.4	10	13.75						
									20	25.3	20	17.24						
									30	25.0	30	19.16						
									37.1	24.8	37.1	20.37						
					9:15 p.m.....				0	25.5	0	13.75						
									10	25.3	10	14.25						
									20	25.6	20	17.28						

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Velocity. Knots per hour	Remarks.
8855 Cont.					August 24	3:40:00 p.m.				30	25.4	30	17.31						
						3:47				37.1	25.4	37.1	17.73						
						10:45 p.m.				0	25.4	0	13.63						
						6:02:10 p.m.				10	25.2	10	14.27						
						6:01:55 p.m.				20	25.5	20	16.61						
						6:09:50 p.m.				30	25.4	30	17.06						
						5:17:45 p.m.				37.1	25.2	37.1	18.83						
					" 25	12:15 a.m.				0	25.5	0	13.77						
						6:20 p.m.				10	25.02	10	14.27						
						6:30 p.m.				20	25.0	20	14.18						
						6:36 p.m.				30	25.3	30	18.33						
						6:42:30 p.m.				37.1	25.0	37.1	19.28						
						1:45 a.m.				0	25.0	0	13.83						
						6:56:20 p.m.				10	25.02	10	14.13						
						7:57:30 p.m.				20	25.0	20	14.36						
						8:03:45 p.m.				30	25.2	30	17.66						
						8:10:30 p.m.				37.1	25.0	37.1	19.21						
						3:15 a.m.				0	25.0	0	13.76						
						8:24:20 p.m.				10	25.0	10	13.77						
						9:39: p.m.				20	24.6	20	13.93						
						9:45 p.m.				30	25.2	30	16.50						
						9:52 p.m.				37.1	25.1	37.1	16.86						
						4:45 a.m.				0	24.8	0	13.78						
						10:08:20 p.m.				10	25.0	10	13.78						
						11:06 p.m.				20	25.4	20	16.47						
						11:30:45 p.m.				30	25.2	30	18.79						
						11:37:30 p.m.				37.1	25.1	37.1	19.18						
						6:15 a.m.				0	24.8	0	13.85						
					" 25	11:42 p.m.				10	25.0	10	13.87						
						12:81 a.m.				20	25.0	20	16.37						
						12:37:50 a.m.				30	25.1	30	18.81						
						12:45:05 a.m.				37.1	25.1	37.1	18.99						
						7:45 a.m.				0	24.8	0	13.93						
						1:01:10 a.m.				10	24.9	10	14.04						
						3:56: a.m.				20	25.2	20	17.66						
						3:44:25 a.m.				30	25.1	30	19.05						
						3:51 a.m.				37.1	25.1	37.1	19.13						
						9:15 a.m.				0	24.8	0	13.84						
						4:06:40 a.m.				10	24.8	10	14.06						
						5:02:10 a.m.				20	25.2	20	15.46						
						5:06:30 a.m.				30	25.2	30	19.17						
						5:14:50 a.m.				37.1	25.2	37.1	...						
					" 24	11:05:50 a.m.								Ek. mtr.	37.1	5	?		
						11:13:25 a.m.									37.1	5	SE	.53	
						11:21:30 a.m.									30	5	SXE	.57	
						11:28:50 a.m.									20	5	EXN	.23	
						11:35:35 a.m.									10	5	ESE	.44	
						11:42 a.m.									0	5	NWXN	.16	
						12:55:15 p.m.									0	5	NWXN	.34	
						1:02:25 p.m.									10	5	NNE	.36	
						1:11:30 p.m.									20	5	SXW	.89	
						1:20:15 p.m.									30	5	NEXE	.15	
						1:29:15 p.m.									37.1	5	SWXS	.31	
						2:05 p.m.									0	5	NWXW	.47	
						2:12:05 p.m.									10	5	NWXW	.43	
						2:20: p.m.									20	5	NEXE	.52	
						2:27:35 p.m.									30	5	SSE	.30	
						2:35:30 p.m.									37.1	5	NE	.22	
						3:33 p.m.									0	5	NWXN	.42	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Distance. Knots per hour	Remarks.
8855 Cont.					Aug. 24.	3:40:00 p.m.									10	5	NW	.40	
						3:47 p.m.									20	5	NEXN	.29	
						3:54:20 p.m.									30	5	SSE	.57	
						4:02:10 p.m.									37.1	5	SE	.16	
						5:01:35 p.m.									0	5	NWXN	.33	
						5:09:50 p.m.									10	5	NEXN	.32	
						5:17:45 p.m.									20	5	S	.51	
						5:25 p.m.									30	5	S	.98	
						5:32:20 p.m.									37.1	5	SSE	.66	
						6:30 p.m.									0	5	E	.08	
						6:36 p.m.									10	5	SXE	.36	
						6:42:30 p.m.									20	5	SE	1.13	
						6:49:30 p.m.									30	5	SEXS	.83	
						6:56:25 p.m.									37.1	5	SEXS	.87	
						7:57:30 p.m.									0	5	WSW	.14	
						8:03:45 p.m.									10	5	SXW	.44	
						8:10:30 p.m.									20	5	SSE	.30	
						8:17:25 p.m.									30	5	SSE	1.04	
						8:24:20 p.m.									37.1	5	SSE	.85	
						9:39: p.m.									0	5	SXE	.46	
						9:45 p.m.									10	5	SXE	.47	
						9:52 p.m.									20	5	E	1.43	
						9:59 p.m.									30	5	SSE	1.33	
						10:06:20 p.m.									37.1	5	SSE	1.33	
						11:06 p.m.									0	5	?		
						11:20:45 p.m.									10	5	SWXS	.53	
						11:27:30 p.m.									20	5	SEXS	1.10	
						11:35 p.m.									30	5	SSE	1.01	
						11:42 p.m.									37.1	5	SSE	.85	
					" 25.	12:31 a.m.									0	5	NXW	.14	
						12:37:50 a.m.									10	5	W	.23	
						12:45:05 a.m.									20	5	ENE	.61	
						12:52:40 a.m.									30	5	SSE	.91	
						1:01:10 a.m.									37.1	5	SE	.68	
						3:38: a.m.									0	5	NXW	.21	
						3:44:25 a.m.									10	5	NXW	.63	
						3:51 a.m.									20	5	NW	.46	
						3:57:45 a.m.									30	5	ENE	.66	
						4:04:40 a.m.									37.1	5	SEXS	.91	
						5:02:10 a.m.									0	5	NNE	.57	
						5:08:20 a.m.									10	5	NXE	.56	
						5:14:50 a.m.									20	5	W	.50	
						5:31:10 a.m.									30	5	S	.78	
						5:38:55 a.m.									37.1	5	SSE	.55	
						6:29 a.m.									0	5	NW	.38	
						6:35 a.m.									10	5	NWXN	.35	
						6:42 a.m.									20	5	EXS	.54	
						6:49 a.m.									30	5	SE	.94	
						6:56 a.m.									37.1	5	SEXS	.78	
						8:02:30 a.m.									0	5	WNW	.20	
						8:09 a.m.									10	5	SXE	.20	
						8:15 a.m.									20	5	WXN	.27	
						8:22 a.m.									30	5	SSE	.61	
						8:29:20 a.m.									37.1	5	SE	.91	
						9:32 a.m.									0	5	WNW	.17	
						9:41 a.m.									10	5	SWXW	.25	
						9:48 a.m.									20	5	S	.56	
						9:54:30 a.m.									30	5	SSE	1.28	
						10:03 a.m.									37.1	5	SSE	1.07	

Form 625.

RECORD OF Hydrographic & Dredging stations in Chesapeake Bay — INVESTIGATION BY Fish Hawk — 1920

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Direct Current. Direction. Mag.	Direct Current. [miles] per hour	Remarks.
8856	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.	1224	Aug. 25.	11:37 a.m. to 12:01 p.m.	7.32	Sh.	21.1	0 7.32	24.8 24.7	0 7.32	13.61 13.63	G B bot.; NZ. botm. net..... #6, #18.....	 7.32 0	 10 10			Full flood; Wind NXE; FORCE 2, Sea almost smooth; Sky overcast and hazy.
8857	Barren Id. Buoy 16D NEXN 200 yards.	"	" "	2:30 p.m. to 3:18 p.m.	45.75	bl.M.	23.3	0 45.75	24.2 23.9	0 45.75	12.83 19.70	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.	45.75 " 0	10 10 10	....		No catch. Net torn. ¼ ebb; Wind NXE; Force 2; Sea almost smooth; Sky partly cloudy to overcast.
8858	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE¾E.	"	" "	4:00 p.m. to 4:30 p.m.	7.32	M.S.Sh.	22.2	0 7.32	24.0 23.9	0 7.32	10.67 12.64	G B bot.; NZ. 7' Tnr..... botm. net..... #6, #18.....	 7.32 " 0	 10 10 10			½ ebb; Wind NXE; Force 2; Sea almost smooth; Sky overcast and hazy.
8859	Governor's Run Wharf W¼S; 7/8 mile; Spar Buoy "S2B" N¾W.	1225	" "	6:15 p.m. to 6:31 p.m.	9.15	bk. Oz.	21.6	0 9.15	24.0 24.0	0 9.15	9.86 9.87	G B bot.; NZ. 7' Tnr..... #6, #18..... o. p. dr.....	 9.15 0	 10 10			¾ ebb; Wind NXE; Force 1, Sea almost smooth; Sky overcast and hazy.
8860	N. end of James Id. E½N; Bell Buoy 18A N½E.	"	" "	6:59 p.m. to 7:16 p.m.	22.74		22.2	0 22.74	24.1 24.2	0 22.74	18.79	7' Tnr..... #6, #18..... o.p. dr..... G B bot.; NZ.	22.74 0	10 10	.....		No catch. ¾ ebb; Wind NXE; Force 1, Sea almost smooth; overcast.
8861	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	"	" 26.	5:40 a.m. to 5:58 a.m.	10	bl. M.	20.5	0 10	23.2 24.2	0 10	8.67 13.41	7' Tnr..... #6, #18..... o. p. dr..... G B bot.; NZ.	10 0	10 10	.....		About 150 soles. Full ebb; Wind ENE; Force 1, Sea almost smooth.
8862	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.	"	" "	6:13 a.m. to 6:33 a.m.	12.81	bl. M.	21.1	0 12.81	23.2 23.6	0 12.81	9.54 10.17	7' Tnr..... #6, #18..... o. p. dr..... G B bot.; NZ.	12.81 0	10 10	.....		No catch. Slack ebb; Wind ENE Force 1; Sea almost smooth.
8863	Bloody Pt. Lt. E½N; about ½ mile.	"	" "	7:05 a.m. to 7:24 a.m.	27.45	bl. M.	21.1	0 27.45	23.7 24.0	0 27.45	10.65 18.74	7' Tnr..... #6, #18..... o. p. dr..... G B bot.; NZ.....	27.45 0	10 10	....		No catch. Slack ebb; Wind ENE Force 1, Sea almost smooth.
8864	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW½N.	1226	" "	9:30 a.m. to 9:48 a.m.	12.81	M. Sh.	22.7	0 12.81	23.2 24.1	0 12.81	8.11 17.69	G B bot.; NZ. 7' Tnr..... #6, #18..... o. p. dr.....	 12.81 0	 11 11			¾ ebb; Wind NE; Force 1; Sea almost smooth.
8865	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.	"	" "	10:05 a.m. to 10:23 a.m.	19.68	M.	23.3	0 19.68	23.5 24.1	0 19.68	9.46 17.67	7' Tnr..... #6, #18..... o. p. dr..... G B bot.; NZ.	19.68 0	10 10	.....		No catch. ¾ ebb; Wind NE; Force 1; Sea almost smooth.

Form 625.

RECORD OF Hydrographic and Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. per hour.	Remarks.
3866	7 foot Knoll WXN½N; Outer Craighill Lt. NW.		1226	Aug. 26	12: noon	11		23.8	0	23.5	0	4.75	G B bot.; NZ.					
									5	24.4	5	14.21						
									11	24.2	11	15.21						
					1:30 p.m.				0	24.0	0	4.91						
									5	24.4	5	15.21						
									11	24.4	11	14.69						
					3:00 p.m.				0	24.0	0	5.75						
									5	24.1	5	11.93						
									11	24.2	11	16.11						
					4:30 p.m.				0	23.9	0	5.86						
									5	24.0	5	12.24						
									11	24.2	11	15.70						
					6:00 p.m.				0	23.7	0	6.05						
									5	24.8	5	10.77						
									11	24.2	11	16.03						
					7:30 p.m.				0	23.6	0	6.12						
									5	24.2	5	11.86						
									11	24.2	11	16.20						
					9:00 p.m.				0	23.4	0	5.69						
									5	24.1	5	13.09						
									11	24.2	11	15.41						
					10:30 p.m.				0	23.8	0	5.68						
									5	23.4	5	13.86						
									11	24.4	11	14.79						
					12:00 M.				0	23.5	0	6.14						
									5	23.5	5	13.79						
									11	24.2	11	15.80						
				" 27.	1:30 a.m.				0	23.4	0	6.05						
									5	24.2	5	14.38						
									11	24.2	11	16.02						
					3:00 a.m.				0	23.4	0	6.15						
									5	23.1	5	11.70						
									11	24.2	11	16.11						
					4:30 a.m.				0	24.3	0	6.51						
									5	24.0	5	11.78						
									11	24.2	11	15.94						
					6:00 a.m.				0	23.1	0	7.04						
									5	24.0	5	10.74						
									11	24.2	11	15.69						
					7:30 a.m.				0	24.8	0	7.22						
									5	24.9	5	9.37						
									11	24.2	11	14.11						
					9:00 a.m.				0	23.2	0	6.48						
									5	24.0	5	11.80						
									11	24.2	11	14.90						
					10:30 a.m.				0	23.6	0	5.62						
									5	24.1	5	12.86						
									11	24.3	11	15.72						
				" 26.	12:36 p.m.								Ek. mtr.	0	5	NWXW	.78	½ flood; Wind NE: Force 1; sea almost smooth at beginning of work.
					12:43 p.m.									5	5	WSW	.28	
					12:59 p.m.									11	5	SWXS	.45	
					1 :41 p.m.									0	5	W	.26	
					1:48 p.m.									5	5	N	.39	
					1:54:30									11	5	EXN	.46	
					3:13:30									0	5	SSW	.23	
					3:21 p.m.									5	5	NEXN	.35	
					4:08 p.m.									11	5	SE	.81	
					4:41:30									0	5	SW	.10	
					4:48:30									5	5	NNW	.68	
					5:00 p.m.									11	5	ESE	.65	

Form 625.

RECORD OF Hydrographic and Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour.	Remarks.
8866 (Cont.)					Aug. 26.	6:10 p.m.									0	5	NEXN	.05	
						6:18 p.m.									5	5	NNW	.06	
						6:33 p.m.									11	5	NE	.02	
						7:45 p.m.									0	5	O	.03	
						7:51 p.m.									5	5	O		
						8:07 p.m.									11	5	NE	.62	
						9:13 p.m.									0	5	NE	.47	
						9:19:30									5	5	N	.49	
						9:26:15									11	5	NXW	.40	
						10:42 p.m.									0	5	NNW	.68	
						10:48:30									5	5	NNW	.20	
						10:55:20									11	5	--	.02	
					" 27.	12:07:10									0	5	NW	.12	
						12:13 a.m.									5	5	O	.02	
						12:27:40									11	5	O		
						1:38:20									0	5	O	.06	
						1:44:40									5	5	O	.50	
						2:05:45									11	5	EXN	.42	
						2:24:30									5	5	SXW	.80	
						2:31 a.m.									0	5	SWXW	.28	
						3:10:10									0	5	E	.07	
						3:15:15									5	5	SWXS	.91	
						3:21:25									11	5	SEXE	.52	
						4:35:10									5	5	SEXE	.68	
						4:47:20									11	5	EXN	.37	
						4:53:40									0	5	SEXS	.28	
						6:07 a.m.									0	5	N	.06	
						6:13:10									5	5	NEXE	.66	
						6:20 a.m.									11	5	SSW	.22	
					" 28.	7:44:25									0	5	NNW	.66	
						7:51 a.m.									5	5	NW	.41	
						7:57 a.m.									11	5	NE	.16	
						9:10 a.m.									0	5	NEXN	1.13	
						9:16 a.m.									5	5	WNW	.60	
						9:22:30									11	5	N	.62	
						10:41 a.m.									0	5	NXW	.68	
						10:47 a.m.									5	5	WXN	.49	
						10:53:30									11	5	N	.68	
														#6, #18.	0	10			
8867	7 ft. Knoll WXN½N; Outer Craighill Lt. NXW 1/8 W.			1226	Oct. 15.	8:20 p.m.	11.44		20.0	0	19.8	0	9.25	G B bot.; NZ.					
										5	20.0	5	12.48						
										11.44	19.9	11.44	13.51						
						9:50 p.m.				0	19.6	0	9.81						
										5	19.3	5	11.62						
										11		11.44	13.97						
						11:20 p.m.						0	8.43						
												5	12.55						
												11.44	13.96						
					" 16.	12:50					18.7	0	8.07						
											19.2	5	10.77						
										.44	20.		14.01						
										0			9.23						
													9.67						
													13.65						
													8.75						
												5	12.64						
												11	.05						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

233 219 205

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8867 (Cont.)					Oct. 16.	5:20 a.m.				0	19.3	0	9.72						
										5	19.0	5	10.18						
										11.44	19.9	11.44	13.26						
						6:50 a.m.				0	19.5	0	11.10						
										5	19.9	5	13.43						
										11.44	20.4	11.44	14.24						
						8:20 a.m.				0	18.9	0	10.00						
										5	19.2	5	10.77						
										11.44	23.9	11.44	15.14						
						9:50 a.m.				0	19.5	0	10.07						
										5	19.6	5	12.42						
										11.44	20.4	11.44	15.03						
						11:20 a.m.				0	19.8	0	8.88						
										5	19.7	5	11.27						
										11.44	20.3	11.44	14.24						
						12:50 p.m.				0	20.1	0	19.66						
										5	19.6	5	10.39						
										11.44	20.2	11.44	14.59						
						2:20 p.m.				0	20.1	0	9.49						
										5	19.5	5	11.80						
										11.44	20.0	11.44	14.78						
						3:50 p.m.				0	19.9	0	9.60						
										5	19.7	5	12.38						
										11.44	20.2	11.44	14.10						
						5:20 p.m.				0	20.3	0	8.69						
										5	19.8	5	11.89						
										11.44	20.1	11.44	14.05						
						6:50 p.m.				0	20.3	0	9.12						
										5	19.7	5	10.86						
										11.44	20.5	11.44	15.05						
					" 15.	9:04 p.m.			Bk. mtr.						0	5			
						8:58 p.m.									5	5			
						8:51 p.m.									11.44	5			
						10:07 p.m.									0	7	SWXW	.49	
						10:15:30									5	5	SW	.67	
						10:23 p.m.									11.44	5			
						11:34 p.m.									0	5		.03	
						11:40 p.m.									5	5		.03	
						11:46 p.m.									11.44	5	NXW	.30	
					" 16.	1:12 a.m.									0	5	NE	.69	
						1:19 a.m.									5	5	NE	.67	
						1:26:30									11.44	5	NXE	.50	
						2:33:30									0	5		.06	
						2:48 a.m.									5	5	SXE	.72	
						2:56 a.m.									11.44	5	NNE	.67	
						4:03 a.m.									0	5			
						4:10 a.m.									5	5	ESE	.87	
						4:18 a.m.									11.44	5			
						5:34 a.m.									0	5			
						5:41 a.m.									5	5	WXN	.16	
						5:47:30									11.44	5	SWXS	.30	
						7:03:30									0	7	SW	.39	
						7:12 a.m.									5	5	WXS	.66	
						7:19 a.m.									11.44	5	SW	.68	
						8:36 a.m.									0	5	SW	.76	
						8:42 a.m.									5	5	SW	.72	
						8:49 a.m.									11.44	5	SSW	.67	
						9:59 a.m.									0	5	SWXW	.52	
						10:05 a.m.									5	5	SW	.63	
						10:11:30									11.44	5	W	.31	

Form 625.

RECORD OF Hydrographic and Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Direct Current. Direction. Mag.	Direct Current. Velocity. Miles per hour.	Remarks.
8867 (Cont.)					Oct. 16.	11:30 a.m.													
						11:36 a.m.									0	5	SW	.18	
						11:42:30									5	5	NWXW	.02	
						12:59:30									11.44	5		.03	
						1:06 p.m.									0	5		.12	
						1:12 p.m.									5	5	SSE	.22	
						2:29:30									11.44	5	NNE	.50	
						2:47 p.m.									0	5	SE	.30	
						2:55:30									5	5	NEXN	.66	
						4:03:30									11.44	5	N	.28	
						4:09:30									0	5	SEXS	.06	
						4:15:30									5	5	S	.19	
						5:36 p.m.									11.44	5	S	.26	
						5:42 p.m.									0	5	SWXW	.21	
						5:48 p.m.									5	5	SW	.19	
						7:02 p.m.									11.44	5	SW	.39	
						7:21 p.m.									0	5	SW	.62	
						7:27:30									5	5	SWXW	.69	
															11.44	5	SWXS	.59	
8868	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.			1226	Oct. 17.	6:34 a.m. to 7:22 a.m.	20.62	bl. M.	17.7	0 20.62	19.2 21.1	0 20.62	16.03	7' Tnr..... botm. net..... #6, #18..... F. H. S..... G B bot.; NZ.	20.62 " 0	10 10 10			Beg. ebb; Wind N; Force 1; Sea almost smooth; Sky blue and hazy.
8869	Sandy Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	"	"	"	"	7:40 a.m. to 8:20 a.m.	12.81	bl. M.	20.0	0 5 12.81	19.5 19.2 20.6	0 5 12.81	10.42 10.61 15.30	7' Tnr..... botm. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10 10			¼ flood; Wind N; Force 1; Sea almost smooth; Sky blue and hazy.
8870	Bloody Pt. Lt. B½N; about ½ mile.			1225	"	10:05 a.m. to 11:07½ a.m.	27.45	bl. M. S.	20.5	0 10 20 27.45	19.4 19.9 20.2	0 10 20 27.45	13.70 14.46 16.00 16.50	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	27.45 " 0	10 10			¾ flood; Wind NNE; Force 2; Sea almost smooth; Sky blue and hazy.
8871	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.	"	"	"	"	11:20 a.m. to 11:48 a.m.	12.81	bl. M.	21.1	0 12.81	19.9 20.0	0 12.81	12.22 15.62	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10			Beg. ebb; Wind NNE Force 2; Sea almost smooth; Sky blue and hazy.
8872	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	"	"	"	"	12:05 p.m. to 12:27 p.m.	10	bl. M.	21.6	0 10	20.0 19.8	0 10	11.81 14.97	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	10 " 0	10 10			¼ ebb; Wind NNE; Force 2; Sea almost smooth; Sky partly cloudy and hazy.
8873	Governors Run Wharf W½S; 7/8 mi; Spar Buoy S2B N½W.	"	"	"	"	3:20 p.m. to 3:36 p.m.	9.15	bl. M. S.	22.2	0 9.15	19.4 19.4	0 9.15	12.99 13.03	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	9.15 " 0	10 10			Beg. flood; Wind NNE; Force 1; Sea almost smooth; Sky partly cloudy and hazy.

Form 633.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 19 20

221 206

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Drift (miles.) per hour.	Remarks.
6874	N. end of James Id. B½N; Bell Buoy 18A N½E.		1225	Oct. 17.	4:15 p.m. to 4:49 p.m.	22.74		22.2	0	20.2	0	13.72	botm. net.....	22.74	10			½ flood; Wind N; Force 1; Sea almost smooth; Sky blue and hazy.
									10	19.4	10	14.73	vert. net.....	"				
									22.74	20.3	22.74	17.44	#6, #18.....	0	10			
													G B bot.; NZ.					
6875	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE⅜E.		1224	" 18.	6:00 a.m. to 6:19 a.m.	7.32	bl. M. S.	20.0	0	19.5	0	13.77	botm. net.....	7.32	10			½ flood; Wind NE; Force 2; Sea almost smooth; Sky blue and hazy.
									7.32	19.2	7.32	13.77	vert. net.....	"				
													#6, #18.....	0	10			
													F. H. S.....					
													G B bot.; NZ.					
6876	Barren Id. Buoy 16D NEXN 200 yards.		"	" "	6:50 a.m. to 7:38 a.m.	47.58		17.7	0	19.5	0	14.36	botm. net.....	47.58	10	.....		Net torn. no sample. ¾ flood; Wind NNE; Force 2; Sea almost smooth; Sky overcast and hazy.
									10	19.5	10	15.08	vert. net.....	"				
									20	20.1	20	15.37	#6, #18.....	0	10			
									30	19.6	30	17.08	F. H. S.....					
									40	20.0	40	26.08	G B bot.; NZ.					
									47.58	19.4	47.58	20.04						
6877	Point No Point Lt. WXN½N; Pt. Lookout Lt. SW 3/8 W.		"	" "	10:30 a.m.	37.10	bl. M. S.	20.5	0	19.7	0	15.90	G B bot.; NZ.					
									10	19.7	10	16.75						
									20	19.5	20	20.57						
									30	19.3	30	22.30						
									37.10	19.7	37.10	22.24						
					12:00 noon				0	19.7	0	15.89						
									10	19.6	10	15.90						
									20	19.5	20	20.20						
									30	19.3	30	22.24						
									37.10	19.7	37.10	22.34						
					1:30 p.m.				0	19.7	0	15.90						
									10	19.6	10	15.90						
									20	19.6	20	16.04						
									30	19.3	30	22.34						
									37.10	19.3	37.10	22.32						
					3:00 p.m.				0	19.6	0	15.86						
									10	19.6	10	15.90						
									20	19.4	20	21.24						
									30	19.3	30	22.32						
									37.10	19.3	37.10	22.42						
					4:30 p.m.				0	19.9	0	15.95						
									10	19.8	10	15.90						
									20	19.7	20	20.85						
									30	19.6	30	22.22						
									37.10	19.7	37.10	22.37						
					6:00 p.m.				0	19.6	0	15.98						
									10	19.7	10	16.05						
									20	19.6	20	16.06						
									30	19.4	30	21.35						
									37.10	19.6	37.10	21.83						
					7:30 p.m.				0	19.6	0	15.92						
									10	19.6	10	15.91						
									20	19.6	20	17.59						
									30	19.4	30	21.85						
									37.10	19.6	37.10	22.21						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

233 222 207

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M.	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
6877 (Cont.)					Oct. 18.	9:00 p.m.				0	19.6	0	15.92						
										10	19.5	10	15.90						
										20	19.7	20	16.78						
										30	19.8	30	21.93						
										37.10	19.6	37.10	22.02						
						10:30 p.m.				0	19.7	0	15.85						
										10	19.6	10	16.00						
										20	19.5	20	20.68						
										30	19.4	30	21.92						
										37.10	19.7	37.10	22.03						
						12:00 m.m.				0	19.6	0	15.38						
										10	19.9	10	15.96						
										20	19.7	20	20.93						
										30	19.3	30	22.04						
					" 19.	1:30 a.m.				37.10	19.4	37.10	22.14						
										0	19.8	0	15.79						
										10	19.5	10	15.80						
										20	19.9	20	20.89						
										30	19.3	30	21.88						
										37.10	19.3	37.10	22.14						
						3:00 a.m.				0	19.9	0	15.77						
										10	19.5	10	15.80						
										20	19.7	20	20.72						
										30	19.3	30	21.82						
										37.10	19.3	37.10	22.03						
						4:30 a.m.				0	19.8	0	15.68						
										10	19.4	10	15.72						
										20	19.7	20	20.48						
										30	19.3	30	21.75						
										37.10	19.3	37.10	22.05						
					" 19.	6:00 a.m.				0	19.4	0	15.76						
										10	19.9	10	15.75						
										20	19.6	20	20.85						
										30	19.8	30	21.61						
										37.10	19.4	37.10	21.86						
						7:30 a.m.				0	19.6	0	15.71						
										10	19.8	10	15.76						
										20	20.1	20	18.40						
										30	19.4	30	21.99						
										37.10	19.5	37.10	21.95						
						9:00 a.m.				0	19.6	0	15.81						
										10	19.9	10	15.75						
										20	19.9	20	20.89						
										30	19.4	30	21.87						
										37.10	19.5	37.10	21.94						
					" 18.	11:20:30								Ek. mtr	0	5	NNW	.42	
						11:14:a.m									10	5	N	.31	
						11:08 a.m									20	5	NE	.44	
						11:01:30									30	5	E	.35	
						10:54 a.m									37.10	5	S	.16	
						12:14 p.m									0	5	N	.45	
						12:21 p.m									10	5	N	.47	
						12:27 p.m									20	5	NXW	.17	
						12:33 p.m									30	5	SEXS	.44	
						12:40:20									37.10	5	S	.49	
						1:55 p.m									0	5	N	.23	
						2:01 p.m									10	5	N	.14	
						2:07:30									20	5	ENE	.43	
						2:14:30									30	5	SE	.54	
						2:21:30									37.10	5	SSE	.83	

Remarks.

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

233 223 208

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8877 (Cont.).					Oct. 18.	3:22 p.m.									0	5	NWbN	.11	
						3:29 p.m.									10	5	NE	.17	
						3:35:30									20	5	SSE	1.33	
						3:44 p.m.									30	5	SSE	.33	
						3:51 p.m.									37.10	5			
						4:51 p.m.									0	5		.17	
						4:57 p.m.									10	5	NNW	.30	
						5:05:30									20	5	NNW	.19	
						5:11 p.m.									30	5	SSE	.21	
						5:54:30									37.10	5	SSE	.89	
						6:19 p.m.									0	5	NEbN	.20	
						6:24:45									10	5	NEbN	.39	
						6:31 p.m.									20	5	SSE	1.07	
						6:38:30									30	5	SSE	.98	
						6:45:30									37.10	5	SSE	.91	
						7:43 p.m.									0	5	W	.50	
						7:49:30									10	5	SSW	.46	
						7:55:30									20	5	SW	.16	
						8:02 p.m.									30	5	SE	.81	
						8:09 p.m.									37.10	5	SSE	.74	
						9:11:45									0	5	SSW	.41	
						9:44 p.m.									10	5	SSW	.29	
						9:50:15									20	5	SEbS	.74	
						9:57:15									30	5	SE	.62	
						10:05 p.m.									37.10	5	SE	.43	
						10:47 p.m.									0	5	NWbW	.35	
						10:53 p.m.									10	5	NE	.27	
						10:59 p.m.									20	5	NEbE	.66	
						11:06 p.m.									30	5	SEbS	.33	
						11:12:30									37.10	5	ESE	.26	
					" 19.	12:17 a.m.									0	6	W	.38	
						12:24:20									10	5	NEbN	.25	
						12:30:30									20	5	ENE	.29	
						12:37 a.m.									30	6	SSEbE	.19	
						12:45:40									37.10	5	SEbS	.06	
						1:50 a.m.									0	7	W	.23	
						1:58:30									10	5	NNE	.22	
						2:04:30									20	5	N	.27	
						2:11 a.m.									30	5	S	.50	
						2:18:20									37.10	5	SSE	.25	
						3:13:40									0	5	NW	.18	
						3:19 a.m.									10	5	NW	.15	
						3:25 a.m.									20	5	NWbW	.28	
						3:31 a.m.									30	5	SSE	.80	
						3:37 a.m.									37.10	5	SE	.52	
						4:53 a.m.									0	3		.17	
						5:42 a.m.									10	5	SSW	.25	
						5:48:30									20	5	NNE	.17	
						5:54:20									30	5	SSE	.78	
						6:02 a.m.									37.10	5	SSE	1.13	
						6:27:30									0	5	S	.18	
						6:33:40									10	5	NEbN	.24	
						6:39:30									20	5	NWbN	.22	
						6:46:30									30	5	S	.55	
						6:55 a.m.									37.10	5	SSE	.72	
						7:46 a.m.									0	5		.02	
						7:51:30									10	5		.03	
						7:59 a.m.									20	5	SEbS	.18	
						8:06 a.m.									30	5	SSE	.38	
						8:13 a.m.									37.10	5	SE	.20	
						9:14:45									0	5	NEbN	.61	
						9:21 a.m.									10	5	N	.32	
						9:28 a.m.									20	5	NWbW	.23	
						9:34:30									30	5			

Remarks.

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920.

233 224 ~~209~~

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C°	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C°	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour.	Remarks.
8877 (Cont.)																		
8878	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.		1224	Oct. 19.	9:43:30 a.m.									37.10	5	EXS	.23	
				Oct. 19.	11:25 a.m. to 11:44 a.m.	7.76	S.C.M.	21.6	0 7.76	19.6 19.7	0 7.76	15.15 16.60	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	7.76 " 0	10 10			½ ebb; Wind W; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
8879	Point No Point Lt. NWXN½N; Pt. Lookout Lt. SWXS½S.		"	"	12:28 p.m. to 12:48 p.m.	12.81	gy.M. S.	23.8	0 12.81	20.0 19.7	0 12.81	15.71	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10			⅔ ebb; Wind WSW; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
8880	Pt. Lookout Lt. NEXE½E; Bell Buoy NW½N; S11W NNE.		"	"	2:05 p.m. to 2:26 p.m.	10.98	bl. M. S.	23.8	0 10.98	20.9 19.7	0 10.98	15.00	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	10.98 " 0	10 10			Full ebb; Wind NNW Force 4; Sea rolling; Sky partly cloudy and hazy.
8881	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E¼S.		"	"	2:51 p.m. to 3:19 p.m.	21.96	gy. M.	26.1	0 10 21.96	20.4 19.7 19.7	0 10 21.96	14.99 15.32 15.92	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	21.96 " 0	10 10			Slack ebb; Wind NNW; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
8882	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	"	3:38 p.m. to 3:59 p.m.	10.98	gy. M.	24.4	0 10.98	19.9 20.0	0 10.98	15.39	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	10.98 " 0	10 10			Beg. flood; Wind NW; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
8883	Smith Pt. Lt. W½N; (Tangier Id. Lt. SE 3/8 S)(bearing uncertain).		1223	"	20. 6:08 a.m. to 6:29 a.m.	10.06	gy. S.	17.7	0 10.06	20.3 19.8	0 10.06	15.08 17.14	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	10.06 " 0	10 10			⅔ flood; Wind calm; Force 0; Sea smooth; sky blue and hazy.
8884	Smith Pt. Lt. W½N; (Great Wicomico Lt. SWXW½W, bearing uncertain).		"	"	7:04 a.m. to 7:26 a.m.	12.81	gy. S. M.	18.3	0 12.81	19.6 20.2	0 12.81	17.68 19.33	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10			⅔ flood; Wind NW; Force 1; Sea almost smooth; Sky blue and hazy.
8885	Smith Pt. Lt. NWXN; Buoy NNW.		"	"	8:10 a.m. to 8:47 a.m.	43.92	gy. S. M.	23.3	0 10 20 30 40 43.92	20.0 19.8 19.3 19.5 19.1 19.2	0 10 20 30 40 43.92	14.87 18.27 22.80 23.66 23.79	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	43.92 " 0	10 10	.....	Net torn.	Slack Flood; Wind NW; Force 1; Sea almost smooth; Sky partly cloudy and foggy.
8886	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	"	10:45 a.m. to 11:06 a.m.	12.81	gy. M.	22.2	0 12.81	19.8 20.1	0 12.81	16.74 18.90	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10			1/3 ebb; Wind calm; Force 0; Sea smooth; Sky partly cloudy and foggy.
8887	Windmill Pt. Lt. WXN½N; Bell buoy W 3/8 N; off Rappahannock Spit.		"	"	11:25 a.m. to 11:45 a.m.	12.81	gy. C. S.	23.8	0 12.81	20.1 19.2	0 12.81	17.90 25.21	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.; NZ.	12.81 " 0	10 10			⅓ ebb; Wind calm; Force 0; Sea smooth; Sky partly cloudy and foggy.

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (Fms.)	Character of Bottom.	Temperature. Air. Degrees °C	Temperature. Water. Depth. (Fms.)	Temperature. Water. Degrees °C	Salinity. Depth. (Fms.)	Salinity. Salinity.	Apparatus Used.	Tows. Depth. (Fms.)	Tows. Duration. h. m. Min.	Tows. Direction. Mag.	Tows. Distance. (miles) per hour	Remarks.
8888	Bell Buoy #1 SE½E - 1 mile; Buoy 10C NWXW 1/8 W; off Sandy Pt.	1223	Oct. 20.	12:54 p.m. to 1:13 p.m.	7.78	sy. S.	24.4	0 7.78	20.6 19.7	0 7.78	17.20 20.99	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	7.78 " 0	10 10			½ ebb: Wind WNW; Force 1: Sea almost smooth: Sky blue and hazy.
8889	Bell Buoy #1 E 3/8 S - 3½ miles; Buoy 10C NXE½E off Sandy Pt.	"	" "	1:35 p.m. to 1:56 p.m.	14.64	sy. S.	24.4	0 14.64	20.3 19.7	0 14.64	17.90 25.12	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	14.64 " 0	10 10			Full ebb: Wind NNW Force 1: Sea almost smooth: Sky blue and hazy.
8890	Buoy C9 NWXN½; New Comfort Lt. NW½W; York Spit Lt. SXW½W.	1222	" "	4:42 p.m. to 5:02 p.m.	10.06		22.2	0 10.06	21.3 19.6	0 10.06	17.81 24.53	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	10.06 " 0	10 10			1/2 flood: Wind NE: Force 1: Sea almost smooth : Sky partly cloudy and hazy.
8891	New Pt. Comfort Lt. NEXN 3/8 W; York Spit Lt. SW½W; Buoy C7 West.	"	" "	5:25 p.m. to 5:54 p.m.	12.66	bk.M.S.S.	21.1	0 12.66	20.3 19.8	0 12.66	17.14 26.44	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	12.66 " 0	10 10			½ flood: Wind NE: Force 1: Sea almost smooth: Sky partly cloudy and hazy.
8892	Plantation Lt. SEXE; Buoy 10 ENE; Buoy 15 SEXS 3/8 S 7/8 of a mile from usual station SWXW½W.	"	" 21.	6:56 a.m. to 7:26 a.m.	12.56	sy. M. S.	18.3	0 12.56	19.9 20.0	0 12.56	18.96 25.87	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	12.56 " 0	10 10			Begin. ebb; Wind calm; Force 0; Sea smooth:
8893	Plantation Lt. SE 3/8 S; Buoy 10 N½E; Cherrystone Lt. EXN.	"	" "	10:00 a.m. to 10:39 a.m.	44.83	sy.bk.M.S.	25.0	0 10 20 30 40 44.83	20.4 20.1 20.0 19.4 19.3 19.3	0 10 20 30 40 44.83	21.99 24.64 26.18 27.03 27.08 27.06	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	44.83 " 0	10 10			½ ebb: Wind calm; Force 0; Sea smooth; Sky clear above; fog sy below. Bearing doubtful on account of fog, which lifted a little upon leaving station, showing position to be aff not more than 200 yd
8894	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Light Ship SWXS½S.	"	" "	12:43 p.m. to 1:10 p.m.	18.30	M. S.	22.7	0 10 18.30	20.4 20.0 19.8	0 10 18.30	20.22 29.49 30.38	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	18.30 " 0	10 10			½ ebb: Wind SE: Force 1: Sea slightly rolling.
8895	Light Ship S 3/8 E; Cape Henry Lt. S½W; Whistling Buoy SWXW½W.	"	" "	1:49 p.m. to 2:12 p.m.	16.47	M. S.	23.3	0 10 16.47	20.4 19.9 20.3	0 10 16.47	21.30 29.50 29.81	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	16.47 " 0	10 10			Begin. flood: Wind SE: Force 1: Sea rolling:
8896	Cape Henry Lt. SWXS½S; Light Ship N½W.	"	" "	2:39 p.m. to 3:02 p.m.	22.87	S. M.	23.8	0 10 22.87	20.4 19.9 19.7	0 10 22.87	20.28 28.18 30.97	botm. net..... vert. net..... #6, #18..... F. H. S..... G B bot.: Mt.	22.87 " 0	10 10			½ flood: Wind SE: Force 1: Sea rolling

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

233 226 ~~211~~

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. H. m.	Drift Current. Direction. Mag.	Drift Current. Drift. (miles.) per hour	Remarks.
8897	Old Point Lt. NNE; Buoy 17 EXN.		1222	Dec. 4.	10:55 a.m. to 11:40 a.m.	10		12.2					o. p. dr.					Several hauls were made the last being made at a position S½E, 200 yds. from Buoy #17. ¾ ebb; Wind WSW; Force 1; Sea almost smooth; Sky partly cloudy and hazy.
8898	Thimble Lt. ENE⅝E; Bell buoy #15 SE 1/8 E.		"	"	11:55 a.m. to 1:00 p.m.	28.08	M.S.C.Sh.	13.3	0 10 20 28.08	9.6 9.6 10.0 10.1*	0 10 20 28.08	14.78 18.01 22.69	botm. net..... vert. net..... 7' Tnr..... #6, #18..... F. H. S..... o. p. dr..... G B bot.; NZ.	28.08 " " 0	10 10 10			Full ebb; Wind SW; Force 1; Sea almost smooth; Sky partly cloudy and hazy. *Bottom water and diatom samples lost.
8899	#2 Bell Buoy NXW 3/8 W; #3 Bell Buoy W½N.		"	"	2:04 p.m. to 3:24 p.m.	11.44	M.	13.3	0 11.44	10.0 10.9	0 11.44	20.64 28.30	botm. net..... vert. net..... 7' Tnr..... #6, #18..... F.H.S.; o.p.dr... G B bot.; NZ.	11.44 " " 0	10 10 10			½ flood; Wind SSW; Force 1; Sea almost smooth; Sky overcast and hazy.
8900	Cape Henry Lt. SWXS⅜S; Light Ship N⅜W.		"	"	4:25 p.m. to 5:12 p.m.	22.87	bk. M. S.	12.2	0 10 20 22.87	10.5 10.8 11.3 11.6	0 10 20 22.87	25.20 26.76 30.22 30.96	botm. net..... vert. net..... 7' Tnr..... #6, #18..... F.H.S.; o.p.dr... G Bbot.; NZ.	22.87 " " 0	10 10 10			⅜ flood; Wind SE; Force 2; Sea slight roll; Sky partly cloudy and hazy.
8901	Light Ship S 3/8 E; Cape Henry Lt. S¼W; Whistling Buoy SWXW¼W.		"	"	5:38 p.m. to 6:24 p.m.	16.1	gy.S. bl.M.	11.1	0 10 16.1	10.6 10.6 11.0	0 10 16.1	25.29 27.44 27.78	botm. net..... vert. net..... 7' Tnr..... #6, #18..... F.H.S.; o.p.dr... G B bot.; NZ.	16.1 " " 0	10 10 10			Full flood; Wind SE Force 2; Sea slightly rolling; Sky partly cloudy and hazy.
8902	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Light Ship SWXS⅜S.		"	" 5.	7:30 a.m. to 7:45 a.m.	18.30	gy. S.	12.2	0 10 18.30	11.5 11.2 11.2	0 10 18.30	28.77 28.86	vert. net..... F.H.S..... G B bot.; NZ.	18.3				Full ebb; Wind SWXS; Force 3; Sea rolling; Sky partly cloudy and hazy.
8903	Plantation Lt. SE 3/8 S; Buoy 10 N⅛E; Cherrystone Lt. EXN.		"	"	10:20 a.m. to 10:58 a.m.	45.75	gy.bl.M.S.	12.7	0 10 20 30 40 45.75	10.3 10.3 10.2 10.2 10.2 10.2	0 10 20 30 40 45.75	22.78 22.88 22.89 22.86 22.88 23.96	botm. net..... vert. net..... #6, #18..... F.H.S..... G B bot.; NZ.	45.75 " 0	10 10			¼ flood; Wind W; Force 4; Sea rolling; Sky partly cloudy and hazy.
8904	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.		"	"	12:34 p.m. to 12:51 p.m.	12.81	gy. M. S.	12.7	0 12.81	10.2 10.4	0 12.81	22.43 22.50	#6, #18..... F.H.S..... G B bot.; NZ.	0	10			½ flood; Wind W; Force 5; Sea rolling; Sky partly cloudy and hazy.

Form 625.

RECORD OF Hydrographic and dragging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

233 227

Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. °C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. °C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8905	New Point Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy C7 West.	1222	Dec. 5.	1:26 p.m. to 1:46 p.m.	12.81	gy.M.S.	13.8	0 12.81	10.4 10.2	0 12.81	22.21 21.95	vert. net..... #6, #18..... F.H.S..... G B bot.; NZ.	12.81 0	10			¾ flood; Wind W; Force 5; Sea rolling Sky partly cloudy and hazy.
8906	Buoy C9 NWXN¼N; New Point Comfort Lt. NW¾W; York Spit Lt. SXW½W.	"	"	2:20 p.m. to 2:40½ p.m.	11.99	gy. M. S.	13.8	0 11.99	10.4 10.2	0 11.99	21.51 21.51	vert. net..... #6, #18..... G B bot.; NZ.	11.99 0	10			¾ flood; Wind W; Force 5; Sea rolling; Sky partly cloudy and hazy.
8907	Bell Buoy #1 E 3/8 S - 3½ miles; Buoy 10C NXE¼E off Sandy Pt.	1223	" 6.	7:05 a.m. to 7:33 a.m.	14.64	gy. M. S.	6.1	0 14.64	9.8 9.8	0 14.64	20.58	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	14.64 " 0	10 10			½ flood; Wind WNW; Force 3; Sea choppy; Sky blue and hazy.
8908	Bell Buoy #1 SE½E - 1 mile; Buoy 10C NWXW 1/8 W; off Sandy Pt.	"	"	8:05 a.m. to 8:29 a.m.	7.78	gy. S.	6.6	0 7.78	9.6 9.6	0 7.78	20.95 20.91	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	7.78 " 0	10 10			1/3 flood; Wind WNW; Force 3; Sea choppy; Sky partly cloudy and hazy.
8909	Windmill Pt. Lt. WXN¼N; Bell Buoy W 3/8 N off Rappahannock Spit.	"	"	9:37 a.m. to 10:00 a.m.	12.81	gy. M. S.	8.8	0 10 12.81	9.5 9.5 9.6	0 10 12.81	19.24 19.43 19.66	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	12.81 " 0	10 10			½ flood; Wind NWXN; Force 3; Sea choppy; Sky partly cloudy and hazy.
8910	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit	"	"	10:25 a.m. to 10:58 a.m.	12.81	gy.S. C.	9.4	0 12.81	9.5 9.5	0 12.81	18.25 18.88	7' Tnr..... #6, #18..... vert. net..... botm. net..... G B bot.; NZ.	12.81 0 12.81 "	10 10 10	....		Net fouled. #18 fouled. Towed about 6 minutes. ¾ flood; Wind NWXN; Force 3; Sea broken; sky partly cloudy.
8911	Smith Pt. Lt. NWXN; Buoy NNW.	"	"	1:47 p.m. to 2:49 p.m.	43.92	G. Sh.	8.8	0 10 20 30 40 43.92	9.5 9.5 9.7 10.0 10.0 10.0	0 10 20 30 40 43.92	16.62 16.65 16.25 20.53 20.97 21.10	7' Tnr..... botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	43.92 " " 0	10 10 10			¼ ebb; Wind NW; Force 4; Sea broken; Sky partly cloudy and hazy.
8912	Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.	"	"	3:21 p.m. to 3:59 p.m.	10.53	gy. S.	9.4	0 10.53	9.4 9.3	0 10.53	16.99 16.96	7' Tnr..... botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	10.53 " " 0	10 10 10			¼ ebb; Wind NNW; Force 4; Sea broken; Sky partly cloudy and hazy.
8913	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.	"	"	4:18 p.m. to 4:38 p.m.	12.81		9.4	0 12.81	9.5 9.5	0 12.81	16.90 16.76	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	12.81 " 0	10 10			¾ ebb; Wind NNW; Force 4, Sea Choppy; Sky partly cloudy and hazy.
8914	Pt. Lookout Lt. NEXE¼E; Bell Buoy NW½N; S11W -NNE	1224	" 7	7:05 a.m. to 7:30 a.m.	10.98	gy.M. S.	6.1	0 10.98	8.8 8.8	0 10.98	14.56 14.65	botm. net..... vert. net..... #6, #18..... G B bot.; NZ.	10.98 " 0	10 10			Slack ebb; Wind NNW Force 3; Sea moderate Sky blue and hazy.

Form 625.

RECORD OF Hydrographic and dragging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8915	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy NE½S.		1224	Dec. 7.	8:00 a.m. to 8:28 a.m.	21.96	gy. M.	6.1	0	8.9	0	15.36	botm. net.....	21.96	10			Begin flood; Wind NNW; Force 3; Sea moderate; Sky partly cloudy and hazy.
									10	8.9	10	15.34	vert. net.....	"				
									21.96	8.9	21.96	15.37	#6, #18.....	0	10			
													G B bot.; NZ.					
8916	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	"	8:39 a.m. to 8:56 a.m.	10.53	bl. M.	5.5	0	8.9	0	15.61	botm. net.....	10.53	10			¼ flood; Wind NW; Force 3; Sea moderate; Sky partly cloudy and hazy.
									10.53	8.9	10.53	15.61	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ.					
8917	Point No Point Lt. NWXN½N; Point Lookout Lt. SWXS½S.		"	"	10:04 a.m. to 10:25 a.m.	12.81	bl.gy.M.	7.2	0	8.7	0	15.03	botm. net.....	12.81	10			½ flood; Wind NW; Force 2; Sea moderate; Sky partly cloudy and hazy.
									12.81	8.7	12.81	15.00	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ.					
8918	Point No Point Lt. WXN½N; Point Lookout Lt. SW 3/8 W.		"	"	11:30 a.m.	37.51			0	8.7	0	15.14	7' Tmr.....	37.51	5			¾ flood; Wind NW; Force 2; Sea moderate Sky partly cloudy and hazy at beginning of work.
									10	8.7	10	15.34	G B bot.; NZ.					
									20	10.1	20	19.51						
									30	10.1	30	20.10						
									37.51	10.1	37.51	20.28						
					1:00 p.m.				0	8.8	0	15.20						
									10	8.6	10	15.22						
									20	10.0	20	19.85						
									30	10.0	30	19.19						
									37.51	10.1	37.51	20.21						
					2:30 p.m.				0	8.7	0	15.33						
									10	8.6	10	15.31						
									20	9.9	20	16.69						
									30	10.1	30	20.20						
									37.51	9.9	37.51	20.29						
					4:00 p.m.				0	8.7	0	15.03						
									10	8.6	10	15.21						
									20	10.0	20	20.01						
									30	10.1	30	20.13						
									37.51	10.1	37.51	20.21						
					5:30 p.m.				0	8.7	0	15.16						
									10	8.6	10	15.24						
									20	9.9	20	19.90						
									30	10.0	30	15.36						
									37.51	10.1	37.51	20.17						
					7:00 p.m.				0	8.7	0	15.37						
									10	8.7	10	15.37						
									20	10.0	20	19.88						
									30	10.0	30	20.17						
									37.51	10.1	37.51	20.24						
					8:30 p.m.				0	8.5	0	15.24						
									10	8.6	10	15.26						
									20	10.3	20	19.82						
									30	10.0	30	20.08						
									37.51	10.0	37.51	20.28						
					10:00 p.m.				0	8.6	0	15.31						
									10	8.6	10	15.31						
									20	10.0	20	19.90						
									30	9.8	30	20.11						
									37.51	10.0	37.51	20.36						
					11:30 p.m.				0	8.5	0	15.12						
									10	8.6	10	15.14						
									20	10.2	20	19.62						
									30	9.9	30							
									37.51	9.8	37.51	20.10						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots Per hour	Remarks.
8918 (Cont.)					Dec. 8.	1:00 a.m.				0	8.5	0	15.30						
										10	8.8	10	15.32						
										20	8.6	20	15.40						
										30	9.8	30	18.53						
										37.51	10.2	37.51	19.78						
						2:30 a.m.				0	8.4	0							
										10	8.6	10	15.40						
										20	8.6	20	15.42						
										30	9.0	30	16.20						
										37.51	9.8	37.51	19.65						
						4:00 a.m.				0	8.4	0	15.38						
										10	8.5	10	15.37						
										20	8.6	20	14.63						
										30	9.1	30	15.76						
										37.51	9.8	37.51	19.08						
						5:30 a.m.				0	8.3	0	15.33						
										10	8.4	10	15.30						
										20	8.4	20	15.36						
										30	8.6	30	15.42						
										37.51	9.4	37.51	16.86						
						7:00 a.m.				0	8.3	0	15.41						
										10	8.4	10	15.42						
										20	8.4	20							
										30	8.8	30	15.43						
										37.51	9.7	37.51	19.33						
						8:30 a.m.				0	9.5	0	15.37						
										10	8.7	10	15.38						
										20	9.8	20	18.92						
										30	9.9	30	20.21						
										37.51	9.8	37.51	20.19						
						10:00 a.m.				0	8.3	0	15.44						
										10	8.4	10	15.44						
										20	8.6	20	15.41						
										30	9.2	30	15.44						
										37.51	9.7	37.51	15.45						
					" 7.	12:25 p.m.								Ek. mtr.	0	5	SSE	.33	
						12:17 p.m.									10	5	E	.24	
						12:10 p.m.									20	5	SEXS	1.24	
						12:03 p.m.									30	5	SEXS	1.13	
						11:55 a.m.									37.51	5	SEXS	1.01	
						1:25 p.m.									0	5	SSE	.22	
						1:31 p.m.									10	5	SEXS	.32	
						1:38 p.m.									20	5	SSE	1.16	
						1:46 p.m.									30	5	SEXS	1.01	
						1:53 p.m.									37.51	5	SEXS	.76	
						2:47 p.m.									0	5		.03	
						2:53 p.m.									10	5	NXE	.21	
						3:00 p.m.									20	5	SSE	.80	
						3:07 p.m.									30	5	SEXS	.85	
						3:15 p.m.									37.51	5	SEXS	.78	
						4:17 p.m.									0	5	NW	.27	
						4:24 p.m.									10	5		.06	
						4:30 p.m.									20	5	S	.63	
						4:37 p.m.									30	5	SE	.51	
						4:44 p.m.									37.51	5	SSE	.60	
						5:48 p.m.									0	5	NWXW	.30	
						5:55 p.m.									10	5	NXE	.31	
						6:02 p.m.									20	5	ENE	.07	
						6:09 p.m.									30	5	SSE	.56	
						6:17 p.m.									37.51	5	SE	.51	

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1920

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Index Current. Direction. Mag.	Index Current. Knots per hour	Remarks.
8918 (Cont.)					Dec. 7.	7:18 p.m.													
						7:25 p.m.									0	5	NW	.28	
						7:32 p.m.									10	5	NW	.27	
						7:40 p.m.									20	5	SXW	.78	
						7:47 p.m.									30	5	SE	.76	
						8:48 p.m.									37.51	5	SSE	.75	
						8:54 p.m.									0	5		.06	
						9:01 p.m.									10	5	SWXW	.12	
						9:08 p.m.									20	5	SSW	.46	
						9:16 p.m.									30	5	S	1.04	
						10:19 p.m.									37.51	5	SEXS	.75	
						10:25 p.m.									0	5		.03	
						10:32 p.m.									10	5	NXE	.25	
						10:40 p.m.									20	5	S	1.04	
						10:48 p.m.									30	5	SEXS	.96	
						11:49 p.m.									37.51	5	SEXS	.98	
						11:56 p.m.									0	5	SEXS	.13	
					" 8.	12:03 a.m.									10	5	SWXS	.07	
						12:11 a.m.									20	5	SE	1.20	
						12:19 a.m.									30	5	SEXS	1.10	
						1:20 a.m.									37.51	5	SEXS	.78	
						1:27:30									0	5	NW	.23	
						1:34 a.m.									10	5	NE	.15	
						1:40:30									20	5	WXS	.14	
						1:47:30									30	5	SEXE	1.01	
						2:42:30									37.51	5	SXE	.63	
						2:48:30									0	5	NWXW	.20	
						2:54:30									10	5	NWXW	.15	
						3:01 a.m.									20	5	NE	.24	
						3:07:30									30	5	NE	.56	
						4:16:30									37.51	5	NE	.63	
						4:22:30									0	5	NW	.43	
						4:28:30									10	5	N	.46	
						4:35 a.m.									20	5	NXE	.30	
						4:41 a.m.									30	5	SE	.63	
						5:44 a.m.									37.51	5	SW	.81	
						5:49:45									0	5	NW	.36	
						5:55:30									10	5	N	.34	
						6:01:30									20	5	NXE	.17	
						6:07:45									30	5	E	.85	
						7:15 a.m.									37.51	5	SXE	.63	
						7:21 a.m.									0	5	NWXN	.18	
						7:27 a.m.									10	5	NEXN	.55	
						7:33 a.m.									20	5	NW	.32	
						7:39 a.m.									30	5	SEXS	1.01	
						8:46:15									37.51	5	EXS	.96	
						8:52:30									0	5	NWXN	.16	
						8:59 a.m.									10	5	WXN	.45	
						9:08 a.m.									20	5	W	1.04	
						9:15:45									30	5	S	1.07	
						10:20:30									37.51	5	SSE	.94	
						10:26 a.m.									0	5	E	.18	
						10:33 a.m.									10	5	NXW	.53	
						10:40 a.m.									20	5	SSW	.89	
						10:47 a.m.									30	5	SSE	1.33	
															37.51	5	SSE	.81	

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8919	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.	1224	Dec. 8.	12:03 p.m. to 12:24 p.m.	7.32	S. G. Sh.	6.1	0	8.5	0	15.23	botm. net.....	7.32	10			¾ flood; Wind NE; Force 4; Sea choppy; Sky partly cloudy and hazy.
								7.32	8.2	7.32	15.34	vert. net.....	"				
												#6, #18.....	0	10			
												G B bot.; NZ.					
8920	Barren Id. Buoy 16D NEXN 200 yards.	"	"	2:33 p.m. to 3:25 p.m.	47.58	gy. M. S.	5.0	0	8.6	0	14.93	7' Tnr.....	47.58	10			¾ flood; Wind NE; Force 4; Sea choppy; Sky partly cloudy and hazy.
								10	8.2	10	15.01	botm. net.....	"	10			
								20	9.5	20	18.35	vert. net.....	"				
								30	9.9	30	19.68	# 6, #18.....	0	10			
								40	9.9	40	19.75	G B bot.; NZ.					
								47.58	9.9	47.58	19.85						
8921	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE½E.	"	"	3:58 p.m. to 4:16 p.m.	7.32	gy. S. M.	5.0	0	8.2	0	14.56	botm. net..... (?)	7.32	10			Full flood; Wind ENE; Force 4; Sea moderate; Sky overcast and hazy.
								7.32	8.4	7.32	14.52	vert. net.....	"				
												#6, #18.....	0	10			
												G B bot.; NZ.					
8922	N. end of James Id. EXN; Bell Buoy 18A N 1/8 E.	1225	"	6:54 a.m. to 7:05 a.m.	21.96	S.	3.8	0	7.8	0	14.69	G B bot; NZ.					½ ebb; Wind N; Force 7; Sea rolling; Sky overcast and hazy.
								10	7.9	10	14.57						
								21.96	7.9	21.96	15.80						
8923	Bloody Pt. Lt. E½N - about ½ mile.	"	"	11:50 a.m. to 12:43 p.m.	27.45	bk. M.	4.4	0	7.9	0	12.42	7' Tnr.....	27.45	10			Full ebb; Wind N; Force 6; Sea broken; Sky overcast and hazy.
								10	8.3	10	12.68	botm. net.....	"	10			
								20	8.8	20	12.84	vert. net.....	"				
								27.45	8.1	27.45	12.33	#6, #18.....	0	10			
												G B bot.; NZ.					
8924	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.	"	"	12:57 p.m. to 1:27 p.m.	12.81	gy. M.	4.4	0	7.2	0	10.42	7' Tnr.....	12.81	5			Slack ebb; Wind N; Force 5; Sea broken; Sky overcast and hazy.
								12.81	7.4	12.81	12.55	botm. net.....	"	5			
												vert. net.....	"				
												#6, #18.....	0	5			
												G B bot.; NZ.					
8925	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	"	"	1:40 p.m. to 2:13 p.m.	10.06	bk. M.	4.4	0	7.2	0		7' Tnr.....	10.06	10			Begin flood; Wind N; Force 5; Sea broken; Sky overcast and hazy.
								10.06	7.2	10.06		botm. net.....	"	10			
												vert. net.....	"				
												#6, #18.....	0	10			
												G B bot.; NZ.					
8926	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW½N.	1226.	"	4:18 p.m. to 4:51 p.m.	12.81	bk. M.	3.3	0	7.2	0	9.14	7' Tnr.....	12.81	10			½ flood; Wind N; Force 5; Sea broken; Sky overcast and hazy.
								12.81	10.3	12.81	16.78	botm. net.....	"	10			
												vert. net.....	"				
												#6, #18.....	0	10			
												G B bot.; NZ.					
8927	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.	"	"	5:24 p.m. to 5:52 p.m.	20.13	bk. M.	3.3	0	7.4	0	10.64	botm. net.....	20.13	10			Lost. ½ flood; Wind N; Force 4; Sea broken; Sky overcast and hazy.
								10	9.6	10	16.68	vert. net.....	"				
								20.13	10.0	20.13	17.65	#6, #18.....	0	10			
												G B bot.; NZ.					

Form 625.

INVESTIGATION BY Fish Hawk 1922.

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RECORD OF Hydrographic and dredging Stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1920

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. Knots (miles) per hour	Remarks.
6928	7 foot Knoll WXN½N; Outer Craighill Lt. NW.		1226	Dec. 10.	7:30 a.m.	11.43		3.8	0	7.0	0	9.13	G B bot.; NZ.					
									5	8.8	5	13.85						
					9:00 a.m.				11.43	9.9	11.43	17.23						Full flood; Wind NW; Force 2; Sea moderate; Sky at beginning of work.
									0	6.4	0	6.92						
									5	8.6	5	13.06						
					10:30 a.m.				11.43	9.9	11.43	16.30						
									0	5.6	0	4.65						
									5	8.1	5	12.50						
					12:00 M.				11.43	10.4	11.43	16.98						
									0	5.4	0	3.84						
									5	8.7	5	12.21						
					1:30 p.m.				11.43	10.2	11.43	16.98						
									0	6.0	0	4.94						
									5	8.5	5	13.48						
					3:00 p.m.				11.43	8.3	11.43	11.76						
									0	5.7	0	4.09						
									5	7.3	5	10.50						
					4:30 p.m.				11.43	10.0	11.43	16.26						
									0	5.4	0	3.77						
									5	8.4	5	13.95						
					6:00 p.m.				11.43	10.1	11.43	16.93						
									0	5.8	0	4.59						
									5	8.9	5	14.27						
					7:30 p.m.				11.43	10.3	11.43	17.38						
									0	5.8	0	6.16						
									5	8.1	5	12.67						
					9:00 p.m.				11.43	10.0	11.43	16.40						
									0	5.9	0	5.21						
									5	7.8	5	12.24						
					10:30 p.m.				11.43	8.7	11.43	13.85						
									0	5.9	0	5.93						
									5	7.3	5	8.42						
					12:00 m.n.				11.43	9.2	11.43	15.42						
									0	5.8	0	5.70						
									5	5.9	5	6.02						
"	11.	1:30 a.m.							11.43	9.0	11.43	14.02						
									0	5.4	0	4.35						
									5	5.3	5	4.38						
					3:00 a.m.				11.43	8.4	11.43	13.11						
									0	5.4	0	4.35						
									5	5.4	5	4.45						
					4:30 a.m.				11.43	8.7	11.43	13.25						
									0	5.4	0	3.85						
									5	8.2	5	13.17						
					6:00 a.m.				11.43	8.8	11.43	13.52						
									0	5.4	0	3.90						
									5	6.3	5	4.74						
									11.43	9.2	11.43	14.80						
"	10.	7:58 a.m.											Ek. mtr.	0	5	NNW	.09	
		8:04 a.m.												5	5	S	.60	
		8:10:30												11.43	5	WNW	.16	
		9:14 a.m.												0	5	NNW	.68	
		9:20:30												5	5	NE	.10	
		9:27 a.m.												11.43	5	NE	.46	

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INVESTIGATION BY Fish Hawk 19 22.

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Form 625.

RECORD OF Hydrographic and dragging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 20

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11—6014

No.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Drift. Direction. Mag.	Drift. Knots per hour	Remarks.
18 (Cont.)				Dec. 10.	10:40 a.m.									0	5	NW	.85	
					10:46 a.m.									5	5	WNXW	.60	
					10:52 a.m.									11.43	5	NNE	.43	
					12:09 p.m.									0	5	WXN	.66	
					12:15:30									5	5	WNW	.72	
					12:22 p.m.									11.43	5	NXW	.22	
					1:40 p.m.									0	5	NWXN	.38	
					1:46:15									5	5	NW	.47	
					1:52:45									11.43	5	EXS	.17	
					3:08 p.m.									0	5	SSW	.08	
					3:15 p.m.									5	5	NEXE	.24	
					3:21 p.m.									11.43	5	SSW	.67	
					4:36 p.m.									0	5	SW	.81	
					4:42 p.m.									5	5	SW	1.04	
					4:48 p.m.									11.43	5	SSW	1.13	
					6:05 p.m.									0	5	SWXW	.63	
					6:10:30									5	5	SWXS	.75	
					6:16 p.m.									11.43	5	SXW	.98	
					7:34:30									0	5	SWXW	.68	
					7:40 p.m.									5	5	SWXS	.61	
					7:45:15									11.43	5	S	.61	
					9:03:30									0	5	W	.74	
					9:09 p.m.									5	5	S	.33	
					9:14:45									11.43	5	NEXN	.57	
					10:41 p.m.									0	5	NEXN	1.04	
					10:46:30									5	5	NW	.98	
					10:52:30									11.43	5	N	.81	
				" 11.	12:04 a.m.									0	5	WXN	1.24	
					12:10 a.m.									5	5	NWXN	1.13	
					12:16 a.m.									11.43	5	NXW	1.13	
					1:40 a.m.									0	5	NWXW	1.16	
					1:46:30									5	5	WNW	1.07	
					1:53 a.m.									11.43	5	NW	1.13	
					3:12 a.m.									0	5	NWXW	.40	
					3:19 a.m.									5	5	NXW	.39	
					3:25:30									11.43	5	W	.31	
					5:43 a.m.									0	5		.06	
					5:49 a.m.									5	5	W	.05	
					6:00 a.m.									11.43	5	W	.07	
					6:31 a.m.									0	5	NWXW	.09	
					6:40 a.m.									5	5		.03	
					6:48 a.m.									11.43	5	NXW	.04	

Form 625.

RECORD OF Hydrographic and Dredging Stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1922.

Jan. 1921

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M.	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M.	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity.	Apparatus Used.	Trial. Depth. (fms.) M.	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Velocity. (miles) per hour.	Remarks.
8929	Thimble Lt. ENE¾E; Bell Buoy #15 SE 1/8 E.			1222	Jan. 22	11:02 a.m. to 11:54 a.m.	27.91	bl. M.	11.1	0	4.8		1775	7' Tnr.	27.91	10			¾ ebb; Wind SW; Force 1; Sea smooth; Sky partly cloudy and hazy.
										10	4.4		1882	botm. net.	"	10			
										20	4.4		19.46	vert. net.	"				
										27.91	4.4		21.20	#6, #18, str. net G B bot.: NZ.	0	10			
8930	Cape Henry Lt. SWXS⅜S; Light Ship N¾W.			"	"	1:24 p.m. to 2:07 p.m.	22.87	bl. M.Gy.S.	11.6	0	5.9		1922	7' Tnr.	22.87	10			¾ ebb; Wind SW; Force 1; Sea smooth; Sky partly cloudy and hazy.
										10	6.0		28.29	botm. net.	"	10			
										20	6.0		2810	vert. net.	"				
										22.87	6.9		28.76	#6, #18; str. net G B bot.: NZ.	0	10			
8931	Light ship S 3/8 E; Cape Henry Lt. S¼W; Whistling Buoy SWXW¼W.			"	"	2:54 p.m. to 3:37 p.m.	15.99	gy.S. M.	11.1	0	5.5		157	7' Tnr.	15.99	10			¾ ebb; Wind W; Force 1; Sea smooth; Sky partly cloudy and hazy.
										10	5.4		26.52	botm. net.	"	10			
										11.1	5.2		27.43	vert. net.	"				
														#6, #18; str. net G B bot.: NZ.	0	10			
8932	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Light Ship SWXS⅜S.			"	"	4:23 p.m. to 5:04 p.m.	18.30	S. Sh.	10.0	0	5.1		2858						
										10	5.0		2829	botm. net.	18.30	10			Net fouled.
										18.30	5.5		29.98	7' Tnr.	"	10			Slack ebb; Wind WSW; Force 1; Sea smooth; Sky partly cloudy and hazy.
														vert. net.	"				
														#6, #18; str. net. G B bot.: NZ.	0	10			
8933	Plantation Lt. SE 3/8 S; Buoy 10 N¼E; Cherrystone Lt. EXN			"	"	8:20 a.m. to 9:26 a.m.	45.75	gy. S. Sh.	7.7	0	4.9		1834						
										10	4.8		22.83	botm. net.	45.75	10			Net fouled.
										20	4.9		24.61	7' Tnr.	"	10			¾ flood; Wind SW; Force 2; Sea smooth; Sky partly cloudy and hazy.
										30	4.8		18.79	vert. net.	"				
										40	4.9		26.07	#6, #18; str. net. G B bot.: NZ.	0	10			
										45.75	4.9		25.92						
8934	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.			"	"	10:10 a.m. to 10:45 a.m.	12.81	Gy. M. S.	8.3	0	5.0		18.18	7' Tnr.	12.81	10			¾ flood; Wind W; Force 2; Sea smooth; Sky partly cloudy and hazy.
										12.81	5.0		2453	botm. net.	"	10			
														vert. net.	"				
														#6, #18; str. net. G B bot.: NZ.	0	10			
8935	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW¾W; Buoy C7 West.			"	"	11:17 a.m. to 11:52 a.m.	12.81	Gy. M. S.	10.5	0	4.9		19.02	7' Tnr.	12.81	10			Begin ebb; Wind W; Force 2; Sea smooth; Sky partly cloudy and hazy.
										12.81	5.0		24.56	botm. net.	"	10			
														vert. net.	"				
														#6, #18; str. net. G B bot.: NZ.	0	10			
8936	Buoy C9 NWXN½N; New Pt. Comfort Lt. NW¾W; York Spit Lt. SXW½W.			"	"	12:27 p.m. to 1:00 p.m.	10.07	Gy. M. S.	13.3	0	5.4		18.73	7' Tnr.	10.07	10			¾ ebb; Wind W; Force 2; Sea Tide ripe; Sky partly cloudy and hazy.
										10.07	4.8		23.39	botm. net.	"	10			
														vert. net.	"				
														#6, #18. G B bot.: NZ.	0	10			
8937	Bell Buoy #1 SE½E - 1 mile; Buoy 10C NWXW 1/8 W; off Sandy Point.			1223	"	4:29 p.m. to 5:03 p.m.	7.78	Gy. S.	12.2	0	5.3		1895						
										7.78	4.6		1858	botm. net.	7.78	10			No sample.
														7' Tnr.	"	10			¾ ebb; Wind NNW; Force 1; Sea smooth; Sky partly cloudy and hazy.
														vert. net.	"				
														#6, #18; str. net. G B bot.: NZ.	0	10			

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1921

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour.	Remarks.
8938	Bell Buoy #1 E 3/8 S - 3½ miles; Buoy 10C - NXE½E off Sandy Point.		1223	Jan. 23.	5:23 p.m. to 6:02 p.m.	14.64		11.1	0	5.4	0	1621	7' Tnr.	14.64	10			¾ ebb; Wind W; Force 1; Sea choppy; Sky partly cloudy and hazy.
									10	4.6	10	1620	botm. net.	"	10			
									14.64	4.2	14.64	2159	vert. net.	"				
													#6, #18; str. net G B bot.; NZ.	0	10			
8939	Windmill Pt. Lt. WXN½N; Bell Buoy W 3/8 N off Rappahannock Spit.		"	"	7:00 a.m. to 7:45 a.m.	12.81	bl. M.	5.0	0	4.2	0	1766	7' Tnr.	12.81	10			Full ebb; Wind N; Force 2; Sea broken; Sky partly cloudy and hazy.
									12.81	4.0	12.81	1793	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net G B bot.; NZ.	0	10			
8940	Windmill Pt. Lt. W½N; Bell buoy SWXW½W off Rappahannock Spit.		"	"	8:10 a.m. to 8:47 a.m.	12.81	bl.gy. M.	4.4	0	3.7	0	1469	7' Tnr.	12.81	10			Slack ebb; Wind N; Force 3; Sea broken; Sky partly cloudy and hazy.
									12.81	3.7	12.81	1472	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net. G B bot.; NZ.	0	10			
8941	Smith Pt. Lt. NWXN; Buoy NNW.		"	"	11:17 a.m. to 12:08 p.m.	43.01	gy. M.	5.0	0	3.9	0	1312	botm. net.	43.01	10			12" stramen. ½ flood; Wind N; Force 2; Sea broken; Sky partly cloudy and hazy.
									10	4.6	10	1354	7' Tnr.	"	10			
									20	3.9	20	1751	vert. net.	"				
									30	4.0	30	1803	#6, #18.	0	10			
									40	4.1	40	1865	G B bot.; NZ.					
									43.01	4.0	43.01	1872						
8942	Smith Pt. Lt. W¾N; Tangier Id. Lt. SE 3/8 S.		"	"	12:43 p.m. to 1:17 p.m.	10.53	gy. S.	6.1	0	3.9	0	1547	7' Tnr.	10.53	10			No catch. 2/3 flood; Wind NNW; Force 3; Sea choppy; Sky partly cloudy and hazy.
									10.53	3.9	10.53	1534	botm. net. (str.)	"	10			
													vert. net.	"				
													#6, #18.	0	10			
													G B bot.; NZ.					
8943	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	"	1:28 p.m. to 2:05 p.m.	11.90	gy. M. S.	6.6	0	3.8	0	1445	#6, #18; str. net	0	10			Contents #18 lost. ¾ flood; Wind NNW; Force 3; Sea choppy; Sky partly cloudy and hazy.
									11.90	3.8	11.90	1722	7' Tnr.	11.90	10			
													botm. net.	"	10			
													vert. net.	"				
													G B bot.; NZ.					
8944	Pt. Lookout Lt. NEXE½E; Bell Buoy NW½N; S11W - NNE.		1224	"	4:24 p.m. to 4:52 p.m.	11.44	bl. gy. M.	5.5	0	3.5	0	1191	7' Tnr.	11.44	10			¼ ebb; Wind NNW; Force 3; Sea choppy; Sky partly cloudy and hazy.
									11.44	3.4	11.44	1319	vert. net.	"				
													#6, #18; str. net G B bot.; NZ.	0	10			
8945	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E½S.		"	"	5:22 p.m. to 5:44 p.m.	21.96	bl. M.	5.0	0	4.0	0	1360	7' Tnr.	21.96	10			No catch. (Mud) 1/3 ebb; Wind NNW; Force 3; Sea choppy; Sky partly cloudy and hazy.
									10	3.6	10	1361	vert. net.	"				
									21.96	3.6	21.96	1415	#6, #18; str. net G B bot.; NZ.	0	10			
8946	Pt. Lookout Lt. EXS½S; Pt. Lookout Buoy SE½S.		"	"	7:10 a.m. to 7:30 a.m.	10.98	gy. S.	-3.8	0	2.9	0	1395	7' Tnr.	10.98	10			¾ ebb; Wind NNE; Force 2; Sea choppy; Sky blue and hazy.
									10.98	2.9	10.98	1396	vert. net.	"				
													#6, #18; str. net G B bot.; NZ.	0	10			

INVESTIGATION BY Fish Hawk 19 22. 268

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 21 236 227

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Direction. Mag.	Wind. (miles per hour)	Remarks.
8947	Point No Point Lt. NWXN¼N; Pt. Lookout Lt. SWXS½S.		1224	Jan. 25	8:43 a.m. to 9:19 a.m.	12.81	bl.sy. C.	-3.3	0	2.9	0	13.28	7' Tnr.	12.81	10			No catch. Full ebb; Wind NNE; Force 4; Sea choppy; Sky partly cloudy and hazy.
									12.81	2.9	12.81	13.31	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net	0	10			
8948	Point No Point Lt. WXN¾N; Pt. Lookout Lt. SW½W.		"	"	10:30 a.m.	33.85		-4.4	0	3.1	0	13.64	G B bot.; NZ.					Wind NNE, Force 4; Sea rolling; Sky partly cloudy and hazy at beginning of work.
									10	3.0	10	13.72						
									20	3.0	20	13.80						
									30	3.7	30	16.80						
									33.85	3.8	33.85	17.95						
					noon				0	3.2	0	13.64						
									10	3.0	10	13.72						
									20	3.2	20	14.53						
									30	3.2	30	15.34						
									33.85	3.7	33.85	17.18						
					1:30 p.m.				0	3.0	0	13.97						
									10	3.1	10	14.05						
									20	3.2	20	14.97						
									30	3.5	30	16.12						
									33.85	3.9	33.85	17.62						
					3:00 p.m.				0	3.1	0	14.13						
									10	3.1	10	14.23						
									20	3.1	20	14.64						
									30	3.0	30	14.87						
									33.85	4.1	33.85	18.13						
					4:30 p.m.				0	3.1	0	14.52						
									10	3.1	10	14.75						
									20	3.0	20	14.77						
									30	3.0	30	14.87						
									33.85	4.0	33.85	18.07						
					6:00 p.m.				0	3.5	0	14.65						
									10	2.9	10	14.75						
									20	3.1	20	14.66						
									30	3.4	30	14.63						
									33.85	3.1	33.85	15.13						
					7:35 p.m.				0	3.0	0	14.26						
									10	3.0	10	14.26						
									20	2.9	20	14.34						
									30	3.0	30	14.64						
									33.85	3.3	33.85	14.78						
					9:00 p.m.				0	3.0	0	14.21						
									10	3.0	10	14.25						
									20	2.9	20	14.48						
									30	3.1	30	15.21						
									33.85	3.3	33.85	15.02						
					10:30 p.m.				0	3.0	0	14.20						
									10	2.9	10	14.23						
									20	3.1	20	14.34						
									30	2.9	30	14.36						
									33.85	3.1	33.85	14.38						
				" 26.	midnight				0	2.9	0	14.32						
									10	2.8	10	14.34						
									20	3.3	20	14.52						
									30	3.3	30	15.54						
									33.85	3.1	33.85	14.52						
					1:30 a.m.				0	4.0	0	14.42						
									10	2.8	10	14.46						
									20	3.9	20	14.44						
									30	2.7	30	14.48						
									33.85	3.1	33.85	14.54						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Trial. Current Direction.	Trial. Current Knots per hour	Remarks.
6948 (Cont.)					Jan. 26.	3:00 a.m.				0	3.9	0	14.59						
										10	2.7	10	1456						
										20	2.9	20	1459						
										30	2.7	30	1459						
										33.85	2.9	33.85	1461						
						4:30 a.m.				0	3.0	0	17.38						
										10	2.8	10	1436						
										20	3.0	20	1444						
										30	3.2	30	1487						
										33.85	3.2	33.85	1501						
					" 26.	6:00 a.m.				0	2.8	0	1444						
										10	2.7	10	1442						
										20	2.7	20	1429						
										30	2.9	30	1458						
										33.85	3.1	33.85	17.68						
						7:30 a.m.				0	3.5	0	14.48						
										10	3.9	10	1461						
										20	2.9	20	1464						
										30	2.9	30	1453						
										33.85	2.8	33.85	1466						
						9:00 a.m.				0	3.8	0	14.20						
										10	3.6	10	14.26						
										20	3.8	20	14.26						
										30	2.9	30	1434						
										33.85	2.8	33.85	1462						
					" 25.	10:41 a.m.													
						10:47 a.m.								Ek. Mtr.	0	5	NWXW	.69	
						10:53 a.m.									10	5	NW	.67	
						10:59 a.m.									20	5	NXE	.60	
						11:07 a.m.									30	6½	WXS	.67	
						12:21 p.m.									33.85	5	NW	1.01	
						12:27 p.m.									0	5	NWXW	.38	
						12:33 p.m.									10	5	NW	.40	
						12:39 p.m.									20	5	W	1.13	
						12:46 p.m.									30	5	NEXN	1.70	
						1:41 p.m.									33.85	5	NEXN	1.32	
						1:47 p.m.									0	5	NNW	.35	
						1:53 p.m.									10	5	NNE	.23	
						2:00 p.m.									20	5	WXN	.55	
						2:07 p.m.									30	5	SWXW	1.49	
						3:15 p.m.									33.85	5	NXE	1.20	
						3:21 p.m.									0	5		.16	
						3:27 p.m.									10	5	NNW	.30	
						3:33 p.m.									20	5	W	.53	
						3:40 p.m.									30	5½	NE	.65	
						4:43 p.m.									33.85	5	WXN	.72	
						4:49 p.m.									0	5	NNE	.14	
						4:55 p.m.									10	5	WNW	.52	
						5:01 p.m.									20	5	N	.55	
						5:08 p.m.									30	5	NNW	.51	
						6:52 p.m.									33.85	5			No reading.
						6:59 p.m.									0	5	NW	.46	
						7:05 p.m.									10	5	NW	.69	
						7:21 p.m.									20	5	NWXN	.62	
						7:28 p.m.									30	5	NXW	.17	
						7:50 p.m.									33.85	5	NWXW	.20	
						7:56 p.m.									0	5	WNW	.75	
						8:02 p.m.									10	5	NWXN	.65	
						8:08 p.m.									20	5	NW	.55	
						8:15 p.m.									30	5	NXW	.35	
															33.85	5	NXW	.36	

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921 238 225

11—6014

Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Drift or Current. Direction. Mag.	Drift or Current. Knots per hour	Remarks.
8948 (Cont.)			Jan. 25.	9:16 p.m.													
				9:22 p.m.									0	5	NWXN	.81	
				9:28 p.m.									10	5	NXW	.62	
				9:34 p.m.									20	5	NXW	.60	
				9:41 p.m.									30	5	NNE	.42	
				10:43 p.m.									33.85	5	NNE	.23	
				10:49 p.m.									0	5	WNW	.35	
				10:55 p.m.									10	5	NNW	.45	
				11:02 p.m.									20	5	NEXN	.45	
				11:09 p.m.									30	5	NXW	.45	
			" 26.	12:22 a.m.									33.85	5	WNW	.94	
				12:28 a.m.									0	5	W	.22	
				12:34 a.m.									10	5	W	.36	
				12:40 a.m.									20	5	W	.43	
				12:47 a.m.									30	5	WNW	.47	
				1:40 a.m.									33.85	5	SWXW	.85	
				1:46 a.m.									0	5	NEXN	.63	
				1:52 a.m.									10	5	W	.67	
				1:58 a.m.									20	5	SWXW	.75	
				2:04 a.m.									30	5	SWXW	.83	
				3:07 a.m.									33.85	5	SWXS	.89	
				3:13 a.m.									0	5	NWXN	.50	
				3:19 a.m.									10	5	NXE	.65	
				3:25 a.m.									20	5	NWXW	.60	
				3:31:30									30	5	WXS	1.01	
				4:51 a.m.									33.85	5	SWXW	.78	
				4:57:30									0	5	NEXN	.35	
				5:04 a.m.									10	5	W	.69	
													20	5	WXS	1.04	
													30				Last two depths not tried owing to anchor line fouling the gear
													33.85				
				6:16 a.m.									0	5	N	.30	
				6:22:30									10	5	NWXN	.36	
				6:29 a.m.									20	5	NXE	.52	
				6:35 a.m.									30	5	NWXW	.59	
				6:41:30									33.85	5	NXW	.38	
				7:41:30									0	5	NWXN	.33	
				7:47:30									10	5	NXE	.36	
				7:53:30									20	5	N	.30	
				8:00 a.m.									30	5	NWXN	.55	
				8:06:30									33.85	5	N	.30	
				9:14 a.m.									0	5	NWXN	.36	
				9:20:30									10	5	NWXN	.58	
				9:27 a.m.									20	5	NWXN	.52	
				9:33 a.m.									30	5	NXW	.51	
				9:40 a.m.									33.85	5	NXW	.24	

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

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Station Number	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Current. Duration. h. m. Min.	Current. Direction. Mag.	Current. Velocity. (miles.) per hour	Remarks.
8949	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.		1224	Jan. 26.	10:50 a.m. to 11:22 a.m.	7.78	S. Sh.	-2.2	0	2.0	0	14.49	7' Tnr.	7.78	10			Slack ebb; Wind NNE; Force 2; Sea broken; Sky partly cloudy and hazy.
									7.78	2.6	7.78	14.63	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					
8950	Barren Id. Buoy 16D NEXN 200 yards.		"	"	1:28 p.m. to 2:22 p.m.	47.58	sft.bk.M.	-0.5	0	2.6	0	14.44	7' Tnr.	47.58	10			¼ flood; Wind N; Force 2; Sea moderate Sky partly cloudy and hazy.
									10	3.2	10	14.78	botm. net.	"	10			
									20	3.4	20	14.59	vert. net.	"				
									30	3.7	30	17.46	#6, #18; str. net.	0	10			
									40	3.8	40	——	G B bot.; NZ.					
									47.58	3.9	47.58	17.70						
8951	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE½E.		"	"	2:52 p.m. to 3:24 p.m.	7.32	gy. S. M.	0.0	0	2.3	0	13.11	7' Tnr.	7.32	10			½ flood; Wind N; Force 2; Sea moderate Sky partly cloudy and hazy.
									7.32	2.3	7.32	13.12	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					
8952	Governors Run Wharf W½S - 7/8 mile; Spar Buoy S "2B" N½W.		1225	"	4:50 p.m. to 5:22 p.m.	9.15	gy. M. S.	1.1	0	2.3	0	12.44	7' Tnr.	9.15	10			½ flood; Wind NNE; Force 2; Sea moderate Sky partly cloudy and hazy.
									9.15	2.2	9.15	12.40	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					
8953	N. end of James Id. E½N; Bell Buoy 18A N½E.		"	"	5:50 p.m. to 6:32 p.m.	22.42	bl. M.	0.0	0	2.7	0	13.04	#6, #18; str. net.	0	10	.....		Str. net lost.
									10	2.6	10	12.95	7' Tnr.	22.42	10			¾ flood; Wind NNE; Force 2; Sea moderate Sky partly cloudy and hazy.
									22.42	3.4	22.42	13.73	botm. net.	"	10			
													vert. net.	"				
													G B bot.; NZ.					
8954	Thomas Pt. Lt. [illegible]NXE½E Bloody Pt. Lt. E 7/8 S.		"	"	7:10 a.m. to 7:39 a.m.	10.07	bl. M.	-2.2	0	1.3	0	11.13	botm. net.	10.07	10	.....		Bottle lost.
									10.07	1.3	10.07	11.14	7' Tnr.	"	10			½ flood; Wind NE; Force 2; Sea moderate Sky partly cloudy and hazy.
													vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					
8955	Bloody Pt. Lt. EXS; THOMAS Pt. Lt. N 1/8 E.		"	"	7:53 a.m. to 8:30 a.m.	12.81	sft. bk. M.	-1.6	0	1.8	0	11.38	7' Tnr.	12.81	10			¾ flood; Wind NE; Force 2; Sea moderate Sky partly cloudy and hazy.
									12.81	1.9	12.81	11.39	botm. net.	"	11¼			
													vert. net.	"				
													#6, #18; str. net.	0	11¼			
													G B bot.; NZ.					
8956	Bloody Pt. Lt. E½N; about ½ mile.		"	"	8:50 a.m. to 9:33 a.m.	27.45		-3.3	0	2.0	0	12.14	7' Tnr.	27.45	10			¾ flood; Wind NE; Force 2; Sea moderate Sky partly cloudy and hazy.
									10	2.0	10	12.23	botm. net.	"	10			
									20	2.1	20	12.36	vert. net.	"				
									27.45	2.4	27.45	13.27	#6, #18, str. net.	0	10			
													G B bot.; NZ.					
8957	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW¾N.		1226	"	11:30 a.m. to 12:05 p.m.	12.81	sft. bk. M.	-1.1	0	1.2	0	10.43	7' Tnr.	12.81	10			Begin ebb; Wind NE; Force 3; Sea choppy; Sky partly cloudy and hazy.
									12.81	3.7	12.81	14.25	botm. net.	"	10			
													vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					

Form 625.

INVESTIGATION BY Fish Hawk 19 22.

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RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 19 21

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8958	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.		1226	Jan. 27.	12:20 p.m. to 1:02 p.m.	20.13	bk. M.	2.7	0	1.6	0	10.88	7' Tnr.	20.13	10			¼ ebb; Wind NE; Force 2; Sea moderate Sky partly cloudy and hazy.
									10	2.0	10	11.97	botm. net.	"	10			
									20.13	3.8	20.13	14.46	vert. net.	"				
													#6, #18; str. net.	0	10			
													G B bot.; NZ.					
8959	7' Knoll WXN½N; Outer Craighill Lt. NW.		"	"	2:35 p.m.	11.89		6.6	0	1.0	0	7.08	G B bot.; NZ.					1/2 ebb; Wind NE; Force 1; Sea tide rips; Sky partly cloudy and hazy at beginning of work No plankton samples
									5	0.5	5	7.24						
									11.89	3.7	11.89							
					4:05 p.m.				0	1.1	0	6.44						
									5	1.6	5	7.51						
									11.89	3.6	11.89	14.17						
					5:35 p.m.				0	1.2	0	6.91						
									5	1.7	5	9.70						
									11.89	1.8	11.89	14.10						
					7:05 p.m.				0	0.9	0	7.22						
									5	2.6	5	12.05						
									11.89	3.7	11.89	14.20						
					8:35 p.m.				0	0.8	0	8.49						
									5	1.9	5	11.02						
									11.89	3.7	11.89	14.23						
					10:05 p.m.				0	0.6	0	8.27						
									5	1.8	5	11.29						
									11.89	3.7	11.89	14.01						
					11:35 p.m.				0	0.8	0	8.53						
									5	1.2	5							
									11.89	3.3	11.89							
				" 28.	1:05 a.m.				0	0.4	0	7.64						
									5	3.2	5	13.63						
									11.89	3.7	11.89	13.97						
					2:35 a.m.				0	0.3	0	6.92						
									5	1.5	5	6.91						
									11.89	3.6	11.89	13.80						
					4:05 a.m.				0	2.1	0	6.23						
									5	2.9	5	13.13						
									11.89	3.5	11.89	13.95						
					5:35 a.m.				0	0.3	0	5.99						
									5	1.6	5	8.59						
									11.89	0.9	11.89	8.70						
					7:05 a.m.													Work discontinued. Ice flows endangered ship and gear.
				" 27.	2:52 p.m.								Ek. mtr.	0	5	NE	.12	
					3:01:30									5	5	NW	1.33	
					3:08 p.m.									11.89	5	NNE	.20	
					4:22 p.m.									0	5	S	2.07	
					4:28 p.m.									5	5	NWXN	2.06	
					4:35 p.m.									11.89	5	NWXN	.16	
					5:42 p.m.									0	5	NEXN	.27	
					5:50 p.m.									5	5	SW	.18	
					5:56:30									11.89	5	NWXW	.50	
					7:14:30									0	5	NXE	.50	
					7:21 p.m.									5	5	NE	.85	
					7:27 p.m.									11.89	5	WXS	.55	
					8:42 p.m.									0	5	W	.81	
					8:48:30									5	5	W	.87	
					8:55 p.m.									11.89	5	WXS	.69	
					10:11 p.m.									0	5	EXN	.23	
					10:17 p.m.									5	5	NWXW	.71	
					10:23 p.m.									11.89	5	W	.62	

Form 625.

RECORD OF Hydrographic and dragging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

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Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8959 (Cont.)				Jan. 27.	11:43 p.m.									0	5½	NEXN	.23	
					11:49:30									5	5	NXE	.30	
					11:55:30									11.89	5	—	--	
				" 28.	1:16 a.m.									0	5	NWXN	.75	
					1:23 a.m.									5	5	NE	.47	
					1:30 a.m.									11.89	5	NXE	.30	
					2:49 a.m.									0	5	SXW	1.24	
					2:56 a.m.									5	5	SSW	.50	
					3:02 a.m.									11.89	5	N	.41	
					4:25 a.m.									0	5	W	1.24	
					4:31 a.m.									5	4	NXW	1.17	
					4:37 a.m.									11.89	5	NE	.31	
					6:16:30									0	5	NWXN	.55	
					6:25 a.m.									5	5	W	.14	
					6:31 a.m.									11.89	5	SWXS	.33	
8960	Craighill Channel range (So. Lt. 315°; 7 ft. Knoll Lt. 283°.)			March 26.	7:30 p.m.	7		0	10.2	0	2.45		G B bot.; NZ.					
								5	9.7	5	7.06							
								7	9.4	7	7.18							
					9:00 p.m.			0	10.4	0	4.02							
								5	10.5	5	[illegible]							
								7	9.3	7	6.46							
					10:30 p.m.			0	None	0	5.39							
								7	10.0	7	7.69							
					12 m.n.			0	9.3	0	3.71							
								7	10.8	7	7.89							
				" 27.	1:30 a.m.			0	9.3	0	3.10							
								7	12.0	7	8.23							
					3:00 a.m.			0	9.4	0	3.62							
								7	10.9	7	6.49							
					4:30 a.m.			0	11.0	0	5.43							
								7	10.7	7	7.22							
					6:00 a.m.			0	9.8	0	3.70							
								7	11.0	7	8.02							
					7:30 a.m.			0	9.4	0	3.10							
								7	11.1	7	6.52							
					9:00 a.m.			0	10.4	0	3.36							
								7	11.7	7	7.89							
					10:30 a.m.			0	9.3	0	3.60							
								7	12.1	7	8.33							
					12:00 n.			0	9.4	0	3.63							
								7	11.0	7	9.76							
					1:30 p.m.			0	9.1	0	3.71							
								7	13.7	7	7.75							
					3:00 p.m.			0	9.9	0	3.35							
								7	12.2	7	7.56							
					4:30 p.m.			0	9.9	0	3.61							
								7	12.7	7	5.92							
					6:00 p.m.			0	10.4	0	—							
								7	13.3	7	—							
				" 26.	8:00 p.m.				10.5				Bk. mtr.	0	5	SSE	.36	
					8:11 p.m.									5	5	SE	.46	
					8:20 p.m.									7	5	SEXE	.19	
					9:19 p.m.									0	5	SW	.04	
					9:43:30									7	5	EXN	.22	
					10:52 p.m.									0	5	WXN	.43	
					11:00 p.m.									7	5	NXW	.28	
				" 27.	12:10 a.m.									0	5	NNW	.75	
					12:19 a.m.									7	5	NWXN	.59	
					1:44 a.m.									0	5	WNW	1.10	

March Cruise

5 Meter depth discontinued.

Observations not a/c thick weather & necessity making Baltimore

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 19 21

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8960 (Cont.)					March 27.	1:53 a.m.									7	5	NWXN	.55	
						3:08 a.m.									0	5	SEXE	.75	
						3:19 a.m.									7	5	SE	.31	
						4:40 a.m.									0	5	EXS	.12	
						4:50 a.m.									7	5	E	.35	
						6:08 a.m.									0	5	NWXN	.12	
						6:16 a.m.									7	5	ENE	.51	
						7:35 a.m.									0	5	NE	.49	
						7:43 a.m.									7	5	SW	.32	
						9:12 a.m.									0	5	SWXW	.23	
						9:20 a.m.									7	5	NXW	.32	
						10:38 a.m.									0	5	—	—	
						10:50 a.m.									7	5	EXS	.23	
						12¹10 p.m.									0	5	NEXE	.35	
						12:17:30									7	5	SEXE	.34	
						1:37:30									0	5	WNW	.76	
						1:45 p.m.									7	5	NXW	.72	
						3:15 p.m.									0	5	NWXN	1.01	
						3:23 p.m.									7	5	NW	.81	
						4:47 p.m.									0	5	NWXN	.57	
						4:54 p.m.									7	5	SWXW	.28	
						6:10 p.m.									0	5	SWXS	.21	
						6:18 p.m.									7	5	N	.67	
						10:00 a.m. to 11:00 a.m.	19		2.7	0 10 20	10.8 10.5 8.4	0 10 20	1097 1173 1035	7' Tnr. bobn net. #6, #18. 2 B bot.; N.	19 10	10			
						2:y.m. to 3:17 p.m.	19	bl. M.	2.7	0 10 19	10.8 10.6 7.5	0 10 19	1097 1113 1618	7' Tnr. bobn net. #6, #18. 2 B bot.; N.	19 10	10			
						3:50 p.m. to 4:30 p.m.	10	bl. M. S.	4.4	0 10	10.7 9.9	0 10	— 11.50	7' Tnr. botm. net. #6, #18. 2 B bot.; N.	10 10	10			
						6:00 p.m. to 6:21 p.m.	7	yl. S.	6.6	0 7	10.6 10.9	0 7	1140 1184	7' Tnr. botm. net. #6, #18. vert. net. 6 B bot.; N.	7 10	15			
						8:10 a.m. to 9:28 a.m.	46		7.2	0 20 44	10.2 10.4 10.2	0 20 44	1394 1426 1660	7' Tnr. botm. net. vert. net. #6, #18. 6 B bot.; N.	44 10	10			
						11:40 a.m. to 1:10 p.m. to 2:40 p.m.	24		11.6	0 10 24	11.4 11.0 10.9	0 10 24	1426 1446 1586	6 B bot.; N.					
										0 10 24	11.4 10.9 10.8	0 10 24	1415 1559 1582						
										0 10 24	11.4 10.9 10.7	0 10 24	1413 1412 1577						

INVESTIGATION BY Fish Hawk 19 22.

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Remarks.

vations not
a/c thick
er & necessity
making Baltimore

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M.	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8961	Baltimore Lt. 294° ; Love Pt. Lt. 65°; Sandy Pt. Lt. 239°.		1226	March 28.	7:00 a.m. to 9:11 a.m.	18	bk. M.	16.1	0	12.6	0	5.26	7' Tnr.....	18	10			Flood; Wind SW; Force 2; Sea smooth; Sky clear.
									10	8.9	10	10.21	botm. net.....	"	10			
									18	7.7	18	12.99	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ.					
8962	Baltimore Lt. 324° ; Sandy Pt. 208°; Love Pt. 70°.		"	"	9:50 a.m. to 11:25 a.m.	15	bl. bk. M.	16.6	0	11.8	0	6.00	7' Tnr.....	15	10			Begin to ebb; Wind SW; Force 2; Sea smooth; Sky clear.
									10	5.4	10	11.97	botm. net.....	"	10			
									15	8.1	15	12.41	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ..					
8963	Bloody Pt. 99° ; Thomas Pt. Lt. 15°.		1225	"	1:25 p.m. to 2:42 p.m.	9	Sh.	18.8	0	14.0	0	8.11	7' Tnr.....	9	10			Ebbing; Wind SWXS; Force 3; Sea choppy; Sky hazy.
									9	15.8	9	9.16	botm. net.....	"	10			
													vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ.....					
8964	Bloody Pt. Lt. 104° ; Thomas Pt. Lt. 354° .		"	"	3:03 p.m. to 4:05 p.m.	14	bk. M.	21.1	0	10.0	0	8.37	7' Tnr.....	14	10			Flood; Wind SWXS; Force 3; Sea choppy; Sky hazy.
									14	9.6	14	11.32	vert. net.....	"				
													#6, #18.....	0	5			
													G B bot.; NZ.....					
8965	Bloody Pt. Lt. 75° ; Thomas Pt. Lt. 338°.		"	"	29. 11:10 a.m. to 11:35 a.m.	30	bl. M.	3.3	0	10.5	0	7.43	G B bot.; NZ.....					Ebb; Wind NNE; Force 3; Sea Choppy; Sky hazy.
									10	10.5	10	8.29						
									20	9.9	20	10.38						
									30	8.4	30	13.53						
8966	James Pt. 85° ; Buoy 18A 05° ; Sharp Id. Lt. 19°.		"	"	2:p.m. to 3:17 p.m.	19	bl. M.	2.7	0	10.8	0	10.87	7' Tnr.....	19	10			Ebb; Wind NNE; Force 2; Sea choppy; Sky clear.
									10	11.6	10	11.13	botm net.....	"	10			
									19	7.5	19	16.18	#6, #18.....	0	10			
													G B bot.; NZ.....					
8967	E. end Governors Run Wharf 278° ; Buoy 18A 37°.		"	"	3:50 p.m. to 4:30 p.m.	10	bl. M. S.	4.4	0	10.7	0	—	7' Tnr.....	10	10			Flood; Wind NNE; Force 2; Sea choppy; Sky clear.
									10	9.9	10	11.50	botm. net.....	"	10			
													#6, #18.....	0	10			
													G B bot.; NZ.....					
8968	Cove Pt. Lt. 341° ; Cedar Pt. Lt. 180° ; Drum Pt. Lt. 233°.		1224	"	6:00 p.m. to 6:21 p.m.	7	yl. S.	6.6	0	10.6	0	11.40	7' Tnr*.....	7	10			*Towed 3/30/21, 7:30 a.m. Flood; Wind NNE; Force 1; Sea smooth; Sky clear 3/29/21.
									7	10.8	7	11.84	botm. net*.....	"	15			
													#6, #18*.....	0	15			
													vert. net.....	7				
													G B bot.; NZ.....					
8969	Hooper Id. Lt. 153° ; Cedar Pt. Lt. 233°.		"	"	30 8:20 a.m. to 9:28 a.m.	46		7.2	0	10.2	0	13.94	7' Tnr.....	46	10			Ebb; Wind SE; Force 2; Sea Choppy; Sky clear.
									20	10.7	20	14.20	botm. net.....	"	10			
									46	10.2	46	16.60	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.; NZ.					
8970	Pt. Lookout Lt. 224° ; Pt. No Point Lt. 283° 30'.		"	"	11:40 a.m.	24		11.6	0	11.4	0	14.26	G B bot.; NZ.					Ebbing; Wind SE; Force 1; Sea choppy; Sky hazy at beginning of work. Surface net down 1 1/2 hours.
									10	11.0	10	14.46						
									24	10.8	24	15.86						
					1:10 p.m.				0	11.4	0	14.15						
									10	10.9	10	14.49						
									24	10.8	24	15.82						
					2:40 p.m.				0	11.6	0	14.13						
									10	11.3	10	14.12						
									24	10.7	24	15.77						

Form 855.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration.	Drift. Direction.	Drift. Knots & Hundredths per hour	Remarks.
4970 (Cont.)				1776	March 30.	4:10 p.m.				0	10.7	0	14.15						
										10	10.2	10	14.05						
										24	11.0	24	14.63						
						5:40 p.m.				0	11.6	0	14.30						
										10	11.3	10	1440						
										24	10.5	24	16.76						
						7:10 p.m.				0	10.9	0	14.34						
										10	11.5	10	1441						
										24	10.9	24	15.42						
						8:40 p.m.				0	11.3	0	1433						
										10	10.2	10	1458						
										24	10.5	24	1516						
						10:10 p.m.				0	11.2	0	1440						
										10	11.1	10	1468						
										24	10.4	24	1583						
						11:40 p.m.				0	11.2	0	1440						
										10	11.1	10	1466						
										24	10.5	24	1448						
					" 31.	1:10 a.m.				0	11.2	0	1440						
										10	11.0	10	1435						
										24	11.0	24	1479						
						2:40 a.m.				0	11.1	0	1422						
										10	11.1	10	1435						
										24	11.4	24	1475						
						4:10 a.m.				0	11.3	0	1371						
										10	10.6	10	1434						
										24	11.1	24	1514						
						5:40 a.m.				0	10.9	0	1364						
										10	10.2	10	1448						
										24	10.9	24	1415						
						7:10 a.m.				0	11.0	0	1405						
										10	11.3	10	1455						
										24	11.3	24	1491						
						8:40 a.m.				0	11.0	0	1361						
										10	11.4	10	1494						
										24	11.2	24	1584						
						10:10 a.m.				0	11.4	0	1431						
										10	11.4	10	1465						
										24	11.2	24	1483						
					" 30.	11:47:30								Bk. mtr.	0	5	SWXS	.33	
						11:58 a.m.									10	5	SXW	.26	
						12:18 p.m.									24	5	--	--	
						1:21:30									0	5	SSW	.17	
						1:28 p.m.									10	4	SWXS	.24	
						1:35 p.m.									24	5	--	--	
						2:44 p.m.									0	5	SW	.30	
						2:57 p.m.									10	5	WXS	.16	
						3:04 p.m.									24	5	W	.25	
						4:21 p.m.									0	5	SWXS	.17	
						4:27 p.m.									10	5	SWXS	.33	
						4:35:30									24	5	SWXW	.45	
						5:48 p.m.									0	5	SW	.31	
						5:55 p.m.									10	5	SW	.25	
						6:02 p.m.									24	5	--	--	
						7:25 p.m.									0	5	WXW	.30	
						7:33 p.m.									10	5	SWXW	.25	
						7:41 p.m.									24	5	SWXS	.29	
						8:52 p.m.									0	5	WXS	.18	
						9:14 p.m.									10	5	SWXS	.16	
						9:23:30									24	5	WXW	.22	

Form 635.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1921

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
8970 (Cont.)					March 30.	10:19 p.m.													
						10:27 p.m.									0	5	SWXS	.19	
						10:35 p.m.									10	5	NWXN	.32	
						11:51 p.m.									24	5	--	--	
					" 31.	12:07 a.m.									0	5	NEXN	.35	
						12:14:30									10	5	SEXS	.31	
						1:22 a.m.									24	5	NNW	.30	
						1:31 a.m.									0	7	SWXW	.15	
						1:40 a.m.									10	5	W	.22	
						2:50:30									24	5	SXE	.21	
						2:59 a.m.									0	5	SXW	.20	
						3:08 a.m.									10	5	ENE	.02	
						4:26:30									24	5	SXW	.04	
						4:34 a.m.									0	5	SSW	.07	
						4:41 a.m.									10	5	WNW	.03	
						5:48 a.m.									24	5	W	.55	
						5:55 a.m.									0	5	NNW	.03	
						6:02 a.m.									10	5	SWXS	.27	
						7:19:30									24	5	SSW	.28	
						7:26 a.m.									0	5	SSW	.04	
						7:33 a.m.									10	5	SXW	.35	
						8:44 a.m.									24	5	SXW	.46	
						8:58 a.m.									0	6	W	.07	
						9:05:30									10	5	WNW	.08	
						10:20 a.m.									24	5	--	--	
						10:27:30									0	5	SXW	.09	
						10:34:30									10	5	--	--	
															24	5	--	--	
						8:26 p.m. to 8:32 p.m.	14.64		8.8	0 10 14.64	10.4 11.2 11.2	0 14.64	16.48 1708	G & bot.; Mc.					
						8:42 p.m. to 8:48 p.m.	12.81		9.4	0 12.81	11.0 11.3	0 12.81	1714 1742	G & bot.; Mc.					
						9:35 p.m. to 9:45 p.m.	13.6		10.0	0 13.6	11.2 11.0	0 13.5	2164	G & bot.; Mc.					
						10:16 p.m. to 10:27 p.m.	12.81		10.0	0 12.81	11.3 11.2	0 12.81	1747 1749	G & bot.; Mc.					
						9:46 a.m. to 9:52 a.m.	8		11.6	0 8	11.4 11.3	0 8	2164 2443	G & bot.; Mc.					
						9:48 a.m. to 9:50 a.m.	11.89		11.6	0 11.5	11.4 11.2	0 11.5	2164 2440	G & bot.; Mc.					

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1921 246 ~~257~~

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles) per hour	Remarks.
8971	Point No Point Lt. 324° ; Pt. Lookout 202° 30'.	1224	March 31.	12:55 p.m. to 1:00 p.m.	12.81		16.6	0 16.6	11.1 10.8	0 16.6	13.09 14.05	G B bot.; NZ.....					Ebb; Wind S; Force 2; Sea choppy; Sky hazy.
8972	Pt. Lookout 96°; Buoy N2 133°.	"	"	2:12 p.m. to 2:57 p.m.	12		17.2	0 12	12.0 11.0	0 12	1293 1459	G B bot.; NZ.....					Flood; Wind S; Force 3; Sea choppy; Sky hazy.
8973	Pt. Lookout 58° ; Buoy #N2 89°.	"	"	3:20 p.m. to 3:30 p.m.	14.64	gy. M.	18.3	0 10 14.64	12.4 10.9 11.0	0 10 14.64	1309 1415 1481	7' Tnr..... G B bot.; NZ.....	14.64	10			Flood; Wind S; Force 4; Sea choppy; Sky hazy.
8974	Pt. Lookout 54° ; Bell Buoy Lt. #5 314°.	"	"	3:55 p.m. to 4:08 p.m.	11.89		18.3	0 11.89	12.1 11.2	0 11.89	1328 1321	G B bot.; NZ.....					Flood; Wind S; Force 4; Sea choppy; Sky hazy.
8975	Smith Pt. Lt. 270° ; Great Wicomico Lt. 236°.	1223	"	6:30 p.m. to 6:50 p.m.	12.81		16.1	0 12.81	11.5 11.0	0 12.81	1508 1648	7' Tnr..... G B bot.; NZ.....	12.81	10			Flood; Wind S; Force 3; Sea choppy; Sky hazy.
8976	Smith Pt. Lt. 273° ; Tangier Id. 132° 30'.	"	April 1.	5:30 p.m. to 5:35 p.m.	12.8		7.7	0 12.8	11.2 11.0	0 12.8	1517 1526	G B bot.; NZ.....					Flood; Wind N; Force 5; Sea choppy; Sky hazy, cloudy.
8977	Great Wicomico 236° ; Smith Pt. Lt. 320°.	"	"	6:30 p.m. to 6:40 p.m.	26		8.8	0 10 26	10.9 10.9 11.2	0 10 26	1430 1439 1684	G B bot.; NZ.....					Flood; Wind N; Force 3; Sea choppy; Sky hazy, cloudy.
8978	Windmill Pt. Lt. 272°; "o.c.c.w." black spar Buoy #17 204° ; Stingray Pt. 242° 30'.	"	"	8:26 p.m. to 8:32 p.m.	14.64		8.8	0 10 14.64	11.1 11.2 11.2	0 10 14.64	1648 17.08 —	G B bot.; NZ.....					Ebb; Wind N; Force 1; Sea choppy; Sky hazy, cloudy.
8979	Windmill Pt. Lt. 279°; Tangier Pt. Lt. 254°	"	"	8:42 p.m. to 8:48 p.m.	12.81		9.4	0 12.81	11.0 11.3	0 12.81	1714 1742	G B bot.; NZ.....					Ebb; Wind N; Force 1; Sea choppy; Sky hazy, cloudy.
8980	Spar o.c.c.w. 10C 290°; Spar o.c.c.w. 10B 22°.	"	"	9:35 p.m. to 9:45 p.m.	13.5		10.0	0 13.5	11.4 11.6	0 13.5	— 2164	G B bot.; NZ.....					Ebb; Wind N; Force 1; Sea choppy; Sky hazy, cloudy.
8981	Spar o.c.c.w. 10C 20°; Spar o.c.c.w. 10B 344°.	"	"	10:18 p.m. to 10:27 p.m.	12.81		10.0	0 12.81	11.3 11.4	0 12.81	1949 1967	G B bot.; NZ.....					Ebb; Wind N; Force 1; Sea choppy; Sky hazy, cloudy.
8982	New Pt. Comfort Lt. 296°; York Spit Lt. 8°.	1222	"	8:46 a.m. to 9:23 a.m.	8		11.6	0 8	11.4 11.1	0 8	2114 2123	7' Tnr..... G B bot.; NZ.....	8	15			Ebb; Wind NNE; Force 1; Sea smooth; Sky hazy, cloudy.
8983	New Pt. Comfort Lt. 289°; York Spit 226°.	"	"	9:43 a.m. to 9:50 a.m.	11.89		11.6	0 11.6	11.3 11.2	0 11.6	2234 2301	G B bot.; NZ.....					Ebb; Wind NNE; Force 1; Sea smooth; Sky hazy, cloudy.

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1921. 247 232

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour	Remarks.
8984	New Pt. Comfort Lt. 282°; York Spit Lt. 238°.		1222	April 2.	10:04 a.m. to 10:15 a.m.	12.81		11.6	0 12.81	11.3 11.1	0 12.81	22.72 2338	G B bot.; NZ.....					Ebb; Wind NNE; Force 1; Sea smooth; Sky cloudy, hazy.
8985	York Spit 252° ; Old Plantation Lt. 308°.		"	"	10:37 a.m. to 11:14 a.m.	42.5	bk. M.	11.6	0 10 20 30 42.5	12.1 11.2 11.3 11.4 11.5	0 10 20 30 42.5	2156 2347 2462 2823 2827	7' Tnr.....	42.5	10			Ebb; Wind NNE; Force 1; Sea smooth; Sky cloudy, hazy.
8986	Cape Charles Lt. 33°; Cape Henry Lt. 177°.		"	"	1:22 p.m. to 1:35 p.m.	14.64		11.6	0 14.64	11.4 10.1	0 14.64	2907 2901	G B bot.; NZ.					Flood; Wind NNE; Force 1; Sea smooth; Sky blue hazy.
8987	Cape Henry Lt. 200°; Spar Buoy FIR 24 284°.		"	"	1:45 p.m. to 1:57 p.m.	23		12.2	0 10 23	12.1 10.0 9.9	0 10 23	2774 3115 3133	G B bot.; NZ.					Flood; Wind SE; Force 1; Sea smooth; Sky Blue cloudy hazy.
8988	Thimble Shoal Lt. 71° 30'; Bell Buoy #15 128°.		"	"	3:30 p.m. to 3:50 p.m.	23		13.3	0 10 23	13.4 11.6 11.4	0 10 23	2630 2538 3122	7' Tnr..... G B bot.; NZ.	23	10			Flood; Wind SE; Force 1; Sea smooth; Sky blue and hazy.
8989	Thimble Lt. ENE½E; Bell Buoy #15 SE 1/8 E.		"	May	30. 10:49 a.m. to 12:40 p.m.	27.81	bl. M.	18.8	0 10 20 27.81	19.7 19.6 19.9 16.5	0 10 20 27.81	1869 1952 2744 2914	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	27.81 " 0	10 10 10			¾ ebb; Wind NNE; Force 3; Sea choppy; Sky overcast and hazy PH Nos.: Surface, 10, 20 and 27.81 meters, 8.1
8990	Cape Henry Lt. SWXS⅜S; Light Ship N⅜W.		"	"	2:00 p.m. to 2:43 p.m.	22.88	Sh.	18.8	0 10 22.88	19.0 19.4 16.2	0 10 22.88	2198 1978 2201	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	22.88 " 0	10 10 10			½ flood; Wind ENE; Force 3; Sea choppy; Sky overcast & hazy. PH Nos.: Surf., 10 and 22.88 meters, 8.2
8991	Light Ship S 3/8 E; Cape Henry Light S½W; Whistling Buoy SWXW½W.		"	"	3:07 p.m. to 3:17 p.m.	15.56		18.3	0 10 15.56	18.4 16.5 16.5	0 10 15.56	2408 — 2889	G B bot.; NZ.....					½ flood; Wind ENE; Force 4; Sea choppy; Sky overcast, rain.
8992	Cape Charles Lt. NE; Buoy (N4) E 1/8 S; Light Ship SWXS⅜S.		"	"	4:09 p.m. to 4:47 p.m.	18.30	Gy. S. Sh.	17.7	0 10 18.30	17.1 17.0 16.8	0 10 18.30	3040 3030 3040	vert. net..... G B bot.; NZ.....	18.30				2/3 flood; Wind NE; Force 4; Sea choppy; Sky overcast, rain.
8993	Plantation Lt. SE 3/8 S; Buoy 10 N½E; Cherrystone Lt. EXN.		"	"	31. 5:32 a.m. to 7:46 a.m.	43.92	Gy. M.	16.6	0 10 20 30 43.92	18.7 18.1 18.0 17.1 17.1	0 10 20 30 43.92	2018 2330 2620 2692 2685	vert. net..... botm. net..... 7' Tnr..... #6, #18..... G B bot.; NZ.....	43.92 " " 0	10 10 10			No catch. Catch full of mud. 2/3 flood; Wind NNE Force 3; Sea choppy; Sky overcast and hazy PH. Nos.: Surf. 8.1
8994	Plantation Lt. SEXE; Buoy 10 EXN 5/8 N; Buoy 15 SXE 1/8 E.		"	"	8:22 a.m. to 9:00 a.m.	12.81	bk. M.	18.3	0 12.81	18.9 16.9	0 12.81	— 2698	7' Tnr..... botm. net..... vert. net..... #6, #18..... G B bot.; NZ.....	12.81 " " 0	10 10 10			Full flood; Wind NNE; Force 3; Sea choppy; Sky overcast and hazy.

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M.	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M.	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles) per hour	Remarks.
8995	New Pt. Comfort Lt. NWXW 3/8 W; York Spit Lt. SW½W; Buoy (C7) W.		1222	May 31.	9:30 a.m. to 9:36 a.m.	12.61		18.8	0	19.0	0	—	G B bot.: NZ.					Slack flood; Wind NNE; Force 3; Sea Choppy; Sky overcast and hazy.
									12.61	19.0	12.61	17.73						
8996	Buoy (C9) NWXN½N; New Pt. Comfort Lt. NW½W; York Spit Lt. SXW½W.		"	" "	10:12 a.m. to 10:16 a.m.	9.15		19.4	0	19.5	0	1610	G B bot.: NZ.					Begin ebb; Wind NNE; Force 3; Sea choppy; Sky overcast and hazy
									9.15	19.1	9.15	1710						
8997	Bell Buoy #1 SE½E; 1 mile; Buoy (10C) NWXW 1/8 W off Sandy Pt.		1223	" "	2:00 p.m. to 2:36 p.m.	8.24	S.	24.4	0	19.4	0	1892	vert. net.....	8.24	.....			No catch.
									8.24	17.6	8.24	24.92	7' Tnr.....	"	10			¼ ebb; Wind NNE; Force 2; Sea moderate Sky partly cloudy and hazy. PH. Surf. 8.1
													botm. net.....	"	10			
													#6, #18.....	0	10			
													G B bot.: NZ.....					
8998	Bell Buoy #1 E 3/8 S, 3½ miles; Buoy (10C) NXE½E off Sandy Pt.		"	" "	2:55 p.m. to 3:40 p.m.	15.61	gy. M.	25.0	0	19.0	0	1885	botm. net.....	15.61	10			Bottle broken.
									10	18.5	10	1954	7' Tnr.....	"	10			¼ ebb; Wind NNE; Force 2; Sea moderate Sky partly cloudy and hazy.
									15.61	17.6	15.61	2502	vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.: NZ.....					
8999	Windmill Pt. Lt. WXN½N; Bell Buoy W 3/8 N off Rappahannock Spit.		"	" "	4:20 p.m. to 4:25 p.m.	12.81		25.5	0	20.0	0	1261	G B bot.: NZ.....					Full ebb; Wind ENE; Force 2; Sea Rolling; Sky partly cloudy and hazy.
									12.81	19.8	12.81	13.86						
9000	Windmill Pt. Lt. W½N; Bell Buoy SWXW½W off Rappahannock Spit.		"	" "	4:40 p.m. to 5:20 p.m.	13.17	gy. M.	25.5	0	20.0	0	1327	7' Tnr.....	13.17	10			Slack ebb; Wind ENE; Force 1; Sea rolling; Sky partly cloudy and hazy.
									13.17	19.1	13.17	1508	botm. net.....	"	10			
													vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.: NZ....					
9001	Smith Pt. Lt. NWXN; Buoy NNW.		"	June 1.	5:25 a.m. to 6:36 a.m.	43.92		20.0	0	19.6	0	11.25	7' Tnr.....	43.92	10			½ flood; Wind calm; Force 0; Sea smooth; Sky partly cloudy and hazy. PH. Nos.; Surf. 8.1; bottom, 7.9.
									10	18.8	10	13.85	botm. net.....	"	10			
									20	17.7	20	1898	vert. net.....	"				
									30	17.5	30	1965	#6, #18.....	0	10			
									40	17.8	40	2085	G B bot.: NZ....					
									43.92	17.7	43.92	—						
9002	Smith Pt. Lt. W½N; Great Wicomico Lt. SWXW½W.		"	" "	7:00 a.m. to 7:40 a.m.	12.61	S.	20.0	0	19.8	0	9.10	7' Tnr.....	12.61	10			½ flood; Wind NNE; Force 1; Sea smooth; Sky partly cloudy and hazy. Ph. Nos.; Surf. and Bottom, 8.1
									12.61	18.9	12.61	1377	botm. net.....	"	10			
													vert. net.....	"				
													#6, #18.....	0	10			
													G B bot.: NZ....					
9003	Smith Pt. Lt. W½N; Tangier Id. Lt. SE 3/8 S.		"	" "	7:53 a.m. to 8:32 a.m.	10.62	S.	20.0	0	19.9	0	1142	7' Tnr.....	10.62	10	.....		No Catch.
									10.62	18.5	10.62	1470	botm. net.....	"	10			2/3 flood; Wind NNE; Force 1; Sea smooth; Sky partly cloudy and hazy. PH. Nos. Surf. and bottom, 8.1.
													#6, #18.....	0	10			
													G B bot.: NZ.					
9004	Pt. Lookout Lt. NEKE½E; Bell Buoy NW½N; S11W - NNE.		1224	" "	10:55 a.m. to 11:30 a.m.	10.98	gy. M.	31.6	0	20.5	0	747	7' Tnr.....	10.98	10			Begin ebb; Wind calm Force 0; Sea smooth; Sky partly cloudy and hazy. Ph. Nos.; Surf and bottom, 8.1
									10.98	19.0	10.98	1282	#6, #18.....	0	10			
													G B bot.: NZ....					

INVESTIGATION BY Fish Hawk 1922.

Form 625. REMARKS.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921. 249 234

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Drift Current. Direction. Mag.	Drift Current. Distance. (miles.) per hour	Remarks.
9005	Pt. Lookout Lt. NEXE 5/8 E; Pt. Lookout Buoy N2 E1/4S.		1224	June 1.	11:47 a.m. to 12:13 p.m.	21.96	bl.bk. M.	31.1	0	22.2	0	7.17	7' Tnr.	21.96	10			1/2 ebb; Wind Calm; Sea smooth; Sky partly cloudy and hazy.
									10	19.1	10	12.59	#6, #18.	0	10			
									21.96	18.6	21.96	14.58	G B bot.; NZ.					
9006	Pt. Lookout Lt. EXS1/4S; Pt. Lookout Buoy SE1/2S.		"	"	12:25 p.m. to 12:45 p.m.	10.5		30.0	0	20.3	0	11.67	7' Tnr.	10.5	10			1/3 ebb; Wind ENE; Force 1; Sea smooth; Sky partly cloudy and hazy.
									10.5	17.3	10.5	14.10	#6, #18.	0	10			
													G B bot.; NZ.					
9007	Point No Point NWXN1/4N; Pt. Lookout Lt. SWXS1/2S.		"	"	1:40 p.m. to 2:14 p.m.	12.81	sy. M.	31.6	0	22.5	0	12.20	7' Tnr.	12.81	10			1/2 ebb; Wind calm; Sea smooth; Sky partly cloudy and hazy.
									12.81	19.1	12.81	13.19	botm. net.	"	10			
													#6, #18.	0	10			
													G B bot.; NZ.					
9008	Point No Point WXN1/2N; Pt. Lookout Lt. SW 3/8 W.		"	"	3:20 p.m.	40.26		32.2	0	20.4	0	12.07	G B bot.; NZ.					Ph. 8.1
									10	17.6	10	17.18						7.8
									20	17.2	20	18.77						7.8
									30	17.5	30	16.44						7.7
									40.26	17.2	40.26	19.25						7.8
					4:50 p.m.				0	21.5	0	11.94						8.1
									10	19.0	10	12.98						8.1
									20	19.0	20	19.20						7.8
									30	16.9	30	19.17						7.8
									40.26	16.9	40.26	19.27						7.8
					6:20 p.m.				0	20.9	0	12.05						8.3
									10	18.4	10	13.81						8.1
									20	17.1	20	19.18						7.9
									30	17.8	30	17.34						7.9
									40.26	17.3	40.26	18.98						7.8
					7:50 p.m.				0	21.1	0	12.11						8.1
									10	18.8	10	18.91						7.8
									20	17.1	20	13.36						8.1
									30	17.7	30	18.62						7.8
									40.26	17.1	40.26	18.99						7.7
					9:20 p.m.				0	20.8	0	12.03						8.1
									10	17.6	10	18.17						7.7
									20	17.2	20	19.07						7.7
									30	18.9	30	13.02						8.0
									40.26	17.4	40.26	18.84						7.7
					10.50 p.m.				0	21.1	0	11.85						8.1
									10	18.8	10	13.12						8.1
									20	17.3	20	18.88						7.6
									30	18.6	30							7.9
									40.26	17.2	40.26	1893						7.7
				"	2. 12:20 a.m.				0	20.3	0	1185						8.1
									10	18.0	10	1403						7.8
									20	17.2	20	18.87						7.6
									30	17.9	30	1913						7.6
									40.26	17.1	40.26	1944						7.5
					1:50 a.m.				0	19.6	0	1207						8.2
									10	18.3	10	1311						8.1
									20	17.2	20	1899						7.6
									30	17.0	30	1917						7.6
									40.26	17.1	40.26	1922						7.7
					3:20 a.m.				0	19.8	0	1207						8.2
									10	18.2	10	1499						8.0
									20	17.1	20	1898						7.7
									30	17.2	30	1922						7.7
									40.26	17.1	40.26	1927						7.7

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921

250 235

Station Number.	Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
9008	(Cont.)			June 2.	4:50 a.m.				0	19.5	0	12.28						
									10	19.4	10	12.48						Ph. 8.2
									20	17.3	20	18.99						8.2
									30	17.1	30	19.05						7.8
									40.26	17.1	40.26	19.25						7.8
					6:20 a.m.				0	19.5	0	12.44						7.8
									10	19.2	10	12.52						8.4
									20	17.3	20	18.73						8.2
									30	17.1	30	19.05						7.8
									40.26	17.2	40.26	19.12						7.7
					7:50 a.m.				0	19.4	0	12.48						7.8
									10	19.1	10	12.87						8.2
									20	17.3	20	18.94						8.2
									30	17.2	30	19.20						8.0
									40.26	17.1	40.26	19.22						7.8
					9:20 a.m.				0	19.5	0	12.62						7.8
									10	19.3	10	12.70						8.2
									20	17.3	20	18.58						8.2
									30	17.3	30	18.90						7.8
									40.26	17.1	40.26	19.13						7.7
					10:50 a.m.				0	19.2	0	12.79						7.6
									10	19.2	10	12.82						8.2
									20	17.1	20	18.84						8.1
									30	17.1	30	19.05						7.8
									40.26	17.1	40.26	19.37						7.8
					12:20 p.m.				0	19.2	0	12.62						7.8
									10	19.3	10	12.79						8.2
									20	17.1	20	18.92						8.2
									30	17.2	30	19.11						7.8
									40.26	17.2	40.26	19.25						7.8
					1:50 p.m.				0	19.8	0	12.58						7.8
									10	19.5	10	12.71						8.2
									20	17.1	20	19.26						8.2
									30	17.0	30	19.30						7.8
									40.26	16.6	40.26	19.40						7.7
																		7.6
				" 1.	4:05 p.m.								Dr. mtr.	0	5	NNXN	.24	Slight breeze.
					4:12 p.m.									10	5	NW	.49	Wind NW-l.
					3:59 p.m.									20	5	—	—	
					3:52 p.m.									30	5	—	—	
					3:45 p.m.									40.26	5	E	.17	
					5:30 p.m.									0	5	ENE	.06	
					5:36 p.m.									10	5	NE	.21	
					5:42 p.m.									20	5	N	.50	
					5:49 p.m.									30	5	—	—	
					5:56 p.m.									40.26	5	SW	.39	
					6:44 p.m.									0	5	—	.06	
					6:51 p.m.									10	5	NNXN	.28	
					6:58 p.m.									20	5	ENE	.60	
					7:05 p.m.									30	5	NXE	.50	
					7:12 p.m.									40.26	5	SSW	.74	
					8:06 p.m.									0	5	—	.09	
					8:13 p.m.									10	5	NNXN	.44	
					8:20 p.m.									20	5	S	.85	
					8:27 p.m.									30	5	NXE	.75	
					8:34:30									40.26	5	E	.83	

Form 625.

RECORD OF Hydrographic and Dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 21 257 ~~256~~

11—6014

Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees. C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. Knots Distance per hour	Remarks.
9008	(Cont.)				June 1.	9:35 p.m.													
						9:41 p.m.									0	5	SW	.34	
						9:47:30									10	5	NE	.38	
						9:54:30									20	5	SWXS	.76	
						10:02 p.m.									30	5	SSW	.50	
						11:11 p.m.									40.26	5	SXW	.40	
						11:22 p.m.									0	5	--	.03	
						11:29 p.m.									10	5	SXE	.30	
						11:36:30									20	5			
						11:44 p.m.									30	5	W	.36	
					" 2.	12:47 a.m.									40.26	5	W	.16	
						12:53 a.m.									0	5	NW	.24	
						1:00 a.m.									10	5	NW	.14	
						1:07 a.m.									20	5	WXN	.32	Wind NE-2.
						1:14 a.m.									30	5	EXN	.17	
						2:19 a.m.									40.26	5		.02	
						2:52:30									0	5	NWXN	.35	
						3:00 a.m.									10	5	E	.07	
						3:05 a.m.									20	5	NNE	.15	
						3:14:30									30	5	EXS	.09	
						3:38:30									40.26	5	NE	.05	
						3:45 a.m.									0	5	NXW	.42	
						3:51 a.m.									10	5	NNW	.46	
						3:58 a.m.									20	5	N	.42	
						4:11 a.m.									30	5	NE	.31	
						5:06 a.m.									40.26	5			
						5:12:30									0	5	NXW	.40	
						5:24 a.m.									10	5	NNE	.38	
						5:31 a.m.									20	5		.45	
						5:46 a.m.									30	5		.29	
						6:35 a.m.									40.26	5	N	.45	
						6:41:30									0	5	SXW	.16	
						6:48 a.m.									10	5	NE	.14	
						6:55 a.m.									20	5	WSW	.30	
						7:08 a.m.									30	5	SSE	.49	
						8:05 a.m.									40.26	5	WXN	.30	Wind NNE-2.
						8:14 a.m.									0	5	NE	.22	
						8:21:30									10	5	N	.23	
						8:29 a.m.									20	5	S	.78	
						8:36:30									30	5	SSW	.65	
						9:41 a.m.									40.26	5	WNW	.62	
						9:47:30									0	5	S	.22	
						9:53:30									10	5	SXW	.24	
						10:00 a.m.									20	5	S	.71	
						10:07 a.m.									30	5	SE	.64	
						11:11:30									40.26	5	SW	.44	
						11:18 a.m.									0	5	WNW	.32	
						11:25 a.m.									10	5	SEXS	.32	
						11:32 a.m.									20	5	SWXS	.19	
						11:40 a.m.									30	5	SW	.27	
						12:35 p.m.									40.26	5	SE	.25	
						12:41 p.m.									0	5	ENE	.27	
						12:48 p.m.									10	5	S	.32	
						12:56 p.m.									20	5	WSW	.06	
						1 :05 p.m.									30	5	SEXS	.04	
															40.26	5	NEXE	.12	

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921 252 ~~237~~

STATION NUMBER.	BEARINGS. Latitude.	Longitude.	CHART.	DATE.	TIME OF DAY.	DEPTH. (fms.) M	CHARACTER OF BOTTOM.	TEMPERATURE. Air. Degrees. C.	TEMPERATURE. Water. Depth. (fms.) M	TEMPERATURE. Water. Degrees. C.	SALINITY. Depth. (fms.) M	SALINITY. Salinity.	APPARATUS USED.	TRIAL. Depth. (fms.) M	TRIAL. Duration. h. m. Min.	Current. Direction. Mag.	Current. Knots per hour	REMARKS.
3008	(Cont.)			June 2.	2:04 p.m.													
					2:11 p.m.									0	5	SE	.26	
					2:18 p.m.									10	5	SSE	.34	
					2:25:30									20	5	NNE	.17	
					2:33 p.m.									30	5	N	.27	
														40.26	5	N	.08	
													7' Tur.	"	10			2/3 ebb; wind NW; Force 1; Sea tide ripples; Sky partly cloudy and hazy at beginning of work.
													botm. net	"	10			
													#6, #18	0	10			
	Governors Pun Wharf 95S; 7/8 mile; Spar buoy SSE 2SE.	"	"	"	6:52 a.m. to 7:05 a.m.	9.15	Sh.bk.M.	78.0	0 9.15	20.6 16.7	0 9.15	10.63 18.26	7' Tur. botm. net #6, #18 3 B bot.; M	9.15	10 " 0			
	Thomas Pt. Lt. NNE3E; Bloody Pt. Lt. S 7/8 E.	"	"	"	10:55 a.m. to 11:29 p.m.	10.06	Bk. M.	87.7	0 10.06	20.4 16.0	0 10.06	7.29 15.36	7' Tur. botm. net #6, #18 3 B bot.; M	10.06	10 " 0			
	Bloody Pt. Lt. NE3; Thomas Pt. Lt. N 1/2 E.	"	"	"	11:51 a.m. to 12:12 p.m.	12.81		82.2	0 12.81	21.1 15.8	0 12.81	6.09 15.84	7' Tur. botm. net #6, #18 3 B bot.; M	12.81	10 " 0			
	Bloody Pt. Lt. ESE; about 2 mile.	"	"	"	12:54 p.m. to 1:20 p.m.	27.41		82.2	0 10 20 27.41	21.1 18.8 16.2 15.0	0 10 20 27.41	5.36 9.65 13.74 16.69	7' Tur. botm. net #6, #18 3 B bot.; M	27.41	10 " 0			

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1921.

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Station Number.	Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Min.	Current. Direction. Mag.	Current. (miles.) per hour	Remarks.
009	Point No Point Lt. W 7/8 N; Holland Bar Lt. SE½S.	1224	June 2.	3:55 p.m. to 4:14 p.m.	8.23	sy. S.	26.6	0 8.23	19.9 19.5	0 8.23	1253 1283	7' Tnr..... #6, #18..... G B bot.; NZ.....	8.23 0	10 10			½ ebb; Wind E; Force 3; Sea moderate; Sky blue and hazy. Ph. Nos.: Surf. & bottom, 8.2
010	Barren Id. Buoy (16D) NEXN 200 yards.	"	" "	6:30 p.m. to 7:17 p.m.	47.58	bk.sft.M.	21.6	0 10 20 30 40 47.58	20.0 20.0 15.5 15.3 15.3 15.1	0 10 20 30 40 47.58	11.20 11.68 1942 1966 1980 1978	7' Tnr..... #6, #18..... G B bot.; NZ.....	47.58 0	10 10			¾ ebb; Wind E; Force 3; Sea moderate; Sky partly cloudy and hazy. Ph. Nos.; Surf. and 10 meters, 8.3; 20 and 30 meters, 7.5; 40 meters, 7.4; bottom 7.3
011	Cove Pt. Lt. N 7/8 W; Buoy #21 NEXE½E.	"	" "	7:45 p.m. to 8:02 p.m.	7.32	S.bk.M.Sh.	18.8	0 7.32	20.8 20.7	0 7.32	9.97 11 02	botm. net..... #6, #18..... G B bot.; NZ.....	7.32 0	10 10			5/8 ebb; Wind E; Force 2; Sea moderate; Sky partly cloudy and hazy.
012	N. End James Id. E½N; Bell Buoy 18A N½E.	1225	" 3	5:15 a.m. to 5:59 a.m.	22.41	sy. M.	14.4	0 10 22.41	19.4 19.3 15.3	0 10 22.41	1058 1062 1893	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	22.41 " 0	10 10 10	.....		No catch. ¼ ebb; Wind calm; Sea smooth; Sky blue and hazy. Ph. Nos.; Surf. 8.4; 10 M. 8.2; bottom 7.6
013	Governors Run Wharf W½S; 7/8 mile; Spar buoy S2B N½W.	"	" "	6:31½ a.m. to 7:06 a.m.	9.15	Sh.bk.M.	15.0	0 9.15	20.6 16.7	0 9.15	1063 14.28	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	9.15 " 0	10 10 10			1/3 ebb; Wind calm; Sea smooth; Sky blue and hazy. Ph. Nos.:
014	Thomas Pt. Lt. NXE½E; Bloody Pt. Lt. E 7/8 S.	"	" "	10:55 a.m. to 11:29 a.m.	10.06	bk. M.	22.7	0 10.06	20.4 16.0	0 10.06	729 1536	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	10.06 " 0	10 10 10			full ebb; Wind S; Force 1; Sea smooth; Sky blue and hazy. Ph. Nos.; Surf.7.9; bottom 7.3.
015	Bloody Pt. Lt. EXS; Thomas Pt. Lt. N 1/8 E.	"	" "	11:31 a.m. to 12:12 p.m.	12.81		22.2	0 12.81	21.1 15.8	0 12.81	609 15.86	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	12.81 " 0	10 10 10			*Top, 0-xx; bottom 6-xx. Beg. flood; Wind S Force 1; Sea smooth; Sky blue and hazy. Ph. Nos.; Surf.7.8 bottom 7.3
016	Bloody Pt. Lt. E½N; about ½ mile.	"	" "	12:34 p.m. to 1:20 p.m.	27.45		22.2	0 10 20 27.45	21.1 18.8 15.2 15.0	0 10 20 27.45	8.36 12.05 1796 1864	7' Tnr..... botm. net..... #6, #18..... G B bot.; NZ.....	27.45 " 0	10 10 10			¼ flood; Wind S; Force 1; Sea smooth; Sky blue and hazy. Ph. nos.; Surf. 7.9; 10 M. 7.6; 20 M. and bottom 7.3

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay. INVESTIGATION BY Fish Hawk 1921.

INVESTIGATION BY Fish Hawk 1922.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C.	Salinity. Depth. (fms.) M	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Current. Direction. Mag.	Current. Knots per hour	Remarks.
9017	Sandy Pt. Lt. SWXS½S; Baltimore Lt. NW¾N.	1226	June 3.	2:50 p.m. to 3:23 p.m.	12.81		23.3	0	21.3	0	5.75	7' Tnr.	12.81	10			½ flood; Wind S: Force 1; Sea smooth; Sky blue and hazy. Ph. Nos.: Surf. 7.7; Bottom 7.1
								12.81	15.6	12.81	16.16	botm. net.	"	10			
												#6, #18; Helgo. net.	0	10			
												G B bot.; NE.					
9018	Sandy Pt. Lt. SWXW½W; Baltimore Lt. NWXW 3/8 W.	"	"	3:37 p.m. to 4:20 p.m.	20.13		22.7	0	20.8	0	5.85	botm. net.	20.13	10			Fouled. No catch. ½ flood; Wind S: Force 1; Sea smooth; Sky blue and hazy. Ph. Nos.Surf. 7.8; 10 M. 7.3; Bottom 7.2
								10	18.1	10	11.91	7' Tnr.	"	10			
								22.7	14.9	22.7	19.66	#6, #18.	0	10			
												Helgo. net.	0	10			
												G B bot.; NE.					
9019	7 ft. Knoll WXN½N; Outer Craighill Lt. NW.	"	"	5:07 p.m.	10.98	gy. M.	23.8	0	21.0	0	6.13	G B bot.; NE.					Ph. 7.8
								5	18.0	5	11.91						7.3
								10.98	15.7	10.98	15.80						7.4
				7:20 p.m.				0	21.0	0	6.06						7.9
								5	16.5	5	14.30						7.2
								10.98	15.7	10.98	15.78						7.2
				8:50 p.m.				0	21.1	0	5.68						7.8
								5	19.7	5	8.09						7.5
								10.98	16.3	10.98	14.46						7.2
				10:20 p.m.				0	20.7	0	6.45						7.6
								5	20.7	5	3.53						7.6
								10.98	16.6	10.98	14.97						7.2
				11:50 p.m.				0	20.6	0	5.72						7.6
								5	20.6	5	6.04						7.5
								10.98	16.6	10.98	13.95						7.3
" 4.				1:20 a.m.				0	20.5	0	5.55						7.6
								5	18.8	5	7.01						7.1
								10.98	16.0	10.98	9.87						7.3
				2:50 a.m.				0	20.2	0	6.14						7.6
								5	19.5	5	9.87						7.5
								10.98	15.7	10.98	15.92						7.2
				4:20 a.m.				0	20.4	0	7.15						7.6
								5	18.0	5	11.91						7.3
								10.98	15.5	10.98	16.00						7.2
				5:50 a.m.				0	20.5	0	6.57						7.8
								5	19.7	5	9.74						7.8
								10.98	15.9	10.98	14.31						7.2
				7:20 a.m.				0	20.6	0	6.42						7.8
								5	19.6	5	9.32						7.6
								10.98	15.9	10.98	15.07						6.8
				8:50 a.m.				0	20.6	0	6.66						7.6
								5	19.2	5	8.05						7.0
								10.98	18.4	10.98	10.74						7.0
				10:20 a.m.				0	21.1	0	6.42						7.6
								5	20.4	5	7.44						7.6
								10.98	20.1	10.98	12.37						7.2
				11:50 a.m.				0	21.1	0	5.57						7.4
								5	21.0	5	9.15						7.4
								10.98	19.3	10.98	5.66						7.6
				1:20 p.m.				0	21.3	0							7.5
								5	20.7	5	6.36						7.5
								10.98	19.4	10.98	8.46						7.4
				2:50 p.m.				0	21.3	0	6.24						7.6
								5	20.9	5	6.36						7.6
								10.98	19.5	10.98	8.54						7.4

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 22. 255 268

Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Tidal. Depth. (ft.)	Tidal. Duration. hr.	Tidal. Duration. min.	Direct. Current. Direction. Mag.	Direct. Current. Knots per hour	Remarks.
19 (Continued)			June 4.	4:30 p.m.				0	21.5	0	729							Th. 7.4
								5	20.3	5	731							7.4
								10.98	19.3	10.98	783							7.5
			" 3.	5:08 p.m.								Kelgo. net	0	10				¾ flood: Wind S: Force 1: Sea smooth: Sky blue and hazy at beginning of sets.
												botm. net	10.98	10				
												#6, #18	0	10				
				5:58:30								Mr. str.	0	5	ST		.22	
				6:10:30									5	5	WSW		.37	
				6:17 p.m.									10.98	5	W		.32	
				7:32 p.m.									0	5	W		.03	
				7:39 p.m.									5	5	WNW		.76	
				7:47 p.m.									10.98	5	WNW		.43	Wind S: Force 1.
				8:56 p.m.									0	5	NW		.19	
				9:04:30									5	5	W		.56	
				9:12 p.m.									10.98	5	WNW		.83	
				10:30 p.m.									0	5	WNW		.68	
				10:37 p.m.									5	5	E		.55	
				10:44 p.m.									10.98	5	ENE		.45	Wind S: Force 2.
				11:59:15									0	5	NW		.16	
			" 4.	12:06 a.m.									5	5	SE		.89	
				12:13 a.m.									10.98	5	NNE		.38	
				1:32 a.m.									0	5	WSW		.68	
				1:38:30									5	5	WSW		.64	
				1:45 a.m.									10.98	5	SSW		.30	
				3:02 a.m.									0	5	SSW	1.10		
				3:09:30									5	5	SW	1.10		
				3:16:30									10.98	5	SW		.42	
				4:28 a.m.									0	5	WSW		.98	
				4:36 a.m.									5	5	SSE		.72	
				4:52:30									10.98	5			.09	Wind S: Force 1.
				6:00 a.m.									0	5	ESE		.32	" W " 1.
				6:06 a.m.									5	5	SSW		.58	
				6:12:30									10.98	5	W		.46	
				7:29 a.m.									0	5	WSW		.09	
				7:36 a.m.									5	5	ESE		.45	
				7:43:30									10.98	5	ESE		.91	Wind E: Force 1.
				8:58 a.m.									0	5	WSW		.76	
				9:06 a.m.									5	5	E		.72	
				9:13 a.m.									10.98	5	ESE		.94	
				10:27 a.m.									0	5	ENE	1.45		
				10:34 a.m.									5	5	ENE	1.01		
				10:40:15									10.98	5	NW		.91	
				11:55:30									0	5	NW		.96	
				12:03:30									5	5	ENE	1.01		
				12:10 p.m.									10.98	5			.07	
				1:25 p.m.									0	5	E		.87	Wind NNE: Force 2.
				1:31:30									5	5	WSW		.85	
				1:38:30									10.98	5	WSW		.52	
				2:56 p.m.									0	5	NNW		.85	Wind W: Force 1.
				3:02 p.m.									5	5	ENE		.55	
				3:08 p.m.									10.98	5	ENE		.52	
				4:29 p.m.									0	5	E		.18	Wind E: Force 2.
				4:35 p.m.									5	5	E		.40	
				4:42:30									10.98	5	SW		.44	

Remarks

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making Baltimore

Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth.	Character of Bottom.	Temperature. Air. Degrees. C	Water. Depth. (fms.) M	Water. Degrees. C	Salinity. Depth. (fms.)	Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles)	Remarks.
Thimble Lt.ENE 3/4 E. Bell Buoy No.15, SE 1/8 E.			Jan.21	11.45 A.M. 12.30 P.M.	27.90	Bl.gy. mud	13.33	0	8.9		20.15	Bottom & vertical nets,#6,#18 nets at surface,7' Tnr. G.B. botls.; N.Z			Density @ Temp. 1.01560		Surprising temperature data. Possibly due to WSW wind, force 1, tide ½ flood, cloudy, choppy.
								10	4.2		20.99				1.01571		
								20	9.4		22.65				1.01746		
								27.90	4.2		23.75				1.01889		
Cape Henry Lt. SW x S 3/4 S. Lightship N 3/4 W.			"	2 P.M. 2.41 P.M.	23.79	"	14.44	0	12.9		23.91				1.01789		Surprising temp.data. Tide 1/4 flood, wind direct SSW, force 2, cloudy, choppy sea.
								10	5.1		27.40				1.02169		
								20	5.9		29.15				1.02298		
								23.79	5.6		29.26	Same as above			1.02321		
Lightship S 3/8 E., Cape Henry Lt. S 1/4 W, Whistling Buoy SW x W 1/4 W.			"	3.00 P.M. 3.38 P.M.	15.55		13.89	0	9.5		29.04				Sal. + Dens. 1.02246		Surprising temp.data. Wind direct N., force 2, tide ½ flood, cloudy, sea choppy.
								10	11.5		27.44				1.02086		
								15.55	5.6		24.16	Same as above			1.01908		
Cape Charles Lt. NE Buoy (N-4) E 1/8 S Lt.Ship SW x S3/4S			"	4.20 P.M. 5.00 P.M.	18.30		7.22	0	4.6		28.88				1.02291		Wind direct NNE, force 3, tide 3/4 ebb flood, overcast and rain, sea smooth.
								10	4.9		30.35				1.02404		
								18.30	5.0		31.26	Same as above			1.02405		
Plantation Lt. SE 3/8 S Buoy (10-N) 1/4 E Cherrystone Lt. ExN			Jan.22	7.52 A.M. 8.48 A.M.	44.83		3.33	0	4.4		23.96				1.01903		Wind NNW, force 1, tide full flood, partly cloudy & hazy, moderate sea.
								10	4.0		25.21				1.02006		
								20	4.5		25.71				1.02040		
								30	4.1		25.89	Same as above			1.02058		
								44.83	4.2		25.88				1.02056		
Plantation Lt.SExE, Buoy 10E x N 5/8 N. Buoy 15 S x E 1/8 E.			"	9.13 A.M. 9.45 A.M.	12.81		5.56	0	3.8		21.08				1.01679		Wind direct NW, force 1, tide 1/4 ebb, partly cloudy & hazy, heavy swell.
								12.81	4.8		28.50	Same as above			1.02259		
New Pt.Comfort Lt., NW x W 3/8 W; York Spit Lt.S W ½ W., Buoy (C-7) W.			"	10.15 A.M. 10.46 A.M.	12.81		7.22	0	3.6		19.67	Vertical net, 7' Tnr. G.B. bots.; NZ.			1.01569		Wind direct NW, force 1, tide 1/3 ebb, partly cloudy & haxy, moderate sea.
								12.81	4.5		24.03				1.01907		
Buoy(C-9) NW x N 1/4 N; New Pt.Comfort Lt. NW3/4W; York Spit Lt. SxW ½ W.			"	11.15 A.M. 11.45 A.M.	10.06		7.78	0	4.1		20.06	Bottom & vertical nets,#6,#20 nets at surface,7' Tnr. G.B. bots.; NZ.			1.01606		Wind direct NW, force 1, tide ½ ebb, partly cloudy & haxy, light swell.
								10.06	4.3		20.53				1.01633		
Bell Buoy No.1, SE ½ E-1 mi. Buoy (10-C) NW x W 1/8 W off Sandy Pt.			"	2.55 P.M. 3.26 P.M.	8.24	Gy.sd.	12.22	0	4.5		20.56				1.01635		Wind calm, force 0, tide 3/4 ebb, partly cloudy & haxy, sea calm.
								8.24	4.9		22.53	Same as above			1.01887		
Bell Buoy No.1, E 3/8 S, 3½ mi. Buoy (10-C) NxE 1/4 E off Sandy Pt.			"	3.50 P.M. 4.26 P.M.	15.55		12.22	0	3.9		21.46				1.01731		Wind calm, force 0, partly cloudy & haxy, sea calm, full ebb tide.
								10	4.9		23.47				1.01861		
								15.55	3.9		24.45	Same as above			1.01996		
Windmill Pt.Lt., WxN 1/4 N., Bell Buoy W 3/8 N off Rappahonnock Spit.			"	5.00 P.M.	12.81		10.00	0	3.2		18.19	Vertical net, 7' Tnr. G.B. bots; NZ.			1.01454		Wind calm, force 0, tide beg.flood, partly cloudy & haxy, sea calm.
								12.81	3.8		22.99				1.01831		
Windmill Pt.Lt., W½N Bell Buoy SW x W½W off Rappahannock Spit.			"	5.40 p.m.	12.81		8.89	0	3.5		22.33	Bottom & vertical nets,#6,#20 nets at surface,7' Tnr.; G.B. bots.; NZ.			1.01781		Wind calm, force 0, tide beg.flood, partly cloudy & haxy, sea calm.
								12.81	3.8		17.04				1.01360		

INVESTIGATION BY Fish Hawk 1922.

RECORD OF Hydrographic & dredging stations in Chesapeake Bay

INVESTIGATION BY Fish Hawk 1922

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Latitude. Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth.	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (Feet)	Temperature. Water. Degrees C	Salinity. Depth. (Feet)	Salinity. Salinity.	Apparatus Used.	Tides. Depth. (Feet)	Tides. Duration. h. m.	Drift. Direction.	Drift. Distance. (Miles)	Remarks.
Smith Pt. Lt.NW x N.:Buoy NNW.	1223	Jan. 23	7.30 A.M.			2.22										
			8.38 "	48.92			0	3.4		15.96	Bottom net					
							10	3.0		15.23	Vertical net					Vis1.4Stat VI.
							20	3.2		15.99	#4, #18 on surf'e					force 6,Tide ½
							30	3.7		16.01	Kl.					flood,partly
							40	3.8		16.00						cloudy & hazy,
							45.92	3.8		18.27						Sea rolling.
Smith Pt. Lt.W½ N.:Great Wicomico Lt.SW x W½W	"	" "	9.00 A.M.			2.22					Bottom net					
			9.37 "	12.81			0	2.9		18.19	Vertical net					Vis1.VII,force 4,
							12.81	2.6		18.73	#4, #18 on surface					Tide ½ flood.
											7' Tur.					Partly cloudy &
											S.D. bot.: Kl					hazy,rolling sea.
Smith Pt. Lt.W.½ N.; Tangier Is. Lt.SE 5/8 S.	"	" "	9.55 A.M.			2.22	0	2.8		18.10	Bottom net,					
			10.27 "	12.83	Wh. sd.		12.83	2.7		19.18	#4, #18 on surface					Vis1.VII,force 4,
											7' Tur.					Tide ½ flood,Overcast & hazy,moderate sea.
											S.D. bot: Kl.					
Point Lookout Lt.NNE½E, Bell Buoy NW½N;S11W-3NM	1224	" "	12.55 P.M.			1.67	0	2.7		13.90	Vertical net,					
			12.55 "	10.98			10.98	2.4		14.26	#4, #18 on surface					Vis1.VII,force 4,
											Kl.					Tide beg. ebb.,
																Partly cloudy &
																hazy,seiners swell.
Pt. Lookout Lt.NE x E 5/8 E.	"	" "	1.30 P.M.			1.67	0	2.9		14.62						
Pt.Lookout Buoy,N2-E½ E.			1.42 "	21.96			10	2.7		15.37	Same as above					Vis1.VII,force 5,
							21.96			15.98						Tide ½ ebb,partly
																cloudy & hazy.
							0	2.7		15.85	Vertical net,					Slight sea.
Pt.Lookout Lt.ENE ½ E.;Pt. Lookout Buoy NE ½ E.	"	" "	1.55 P.M.	10.88		1.67	10.88	2.7		15.81	#4, #18 on surface					Vis1.VII,force 5,
											7' Tur.: Kl					Tide ½ ebb,partly
																cloudy,seiners
																sea. Hazy.
Pt. No. Pt. Lt.NNW½W½ N.: Pt.Lookout Lt.SSW½ ½ S.	"	" "	2.23 P.M.			1.11	0	2.8		15.22	Bottom net					Vis1.VII,force 5,
			2.56 "	12.81			12.81	2.3		15.37	Vertical net,					Tide ½ ebb,partly
											#4, #18 on surface					cloudy & hazy,
											7' Tur.					seiners sea.
											S.D. bot.: Kl.					
Pt.No.Pt.Lt.NxW ½ W.;Pt. Lookout Lt. SW 5/8 W.	"	Jan.23 & 24. (24hr) station.	4.50 P.M.			1.11					7' Tur.;Kl.					Vis1.VII,force 4,
			4.44 "													Tide beg. flood.
		Jan. 23	6.30 P.M.	24.60												Partly cloudy &
							0	2.6		15.37						hazy,seiners sea.
							10	2.6		15.38						
							20	2.7		18.22						
							30	2.8		16.56						
							24.60	2.7		19.60						
			6.30 P.M.				0	2.3		15.45						
							10	2.4		16.31						
							20	2.6		18.99						
							30	2.8		20.94						
							24.60	2.8		20.94						
			7.30 P.M.				0	2.6		15.96						
							10	2.5		16.40						
							20	2.6		20.21						
							24.60	2.8		20.96						
			9.30 P.M.				continued next sheet.			20.31						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station No.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
	Continued.				Jan.23	9.20 P.M.				0	2.4		15.47				DENSITY.		
										10	2.2		15.85				1.01242		
										20	3.2		18.64				1.01271		
										30	2.8		20.03				1.01489		
										36.60	2.8		20.01				1.01602		
						10.50 P.M.				0	2.2		15.46				1.01600		
										10	2.2		15.91				1.01241		
										20	3.3		19.94				1.01277		
										30	2.8		20.12				1.01597		
										36.60	2.8		20.15				1.01613		
					Jan.24	12.20 A.M.				0	2.7		16.37				1.01616		
										10	2.3		15.47				1.01307		
										20	2.6		15.42				1.01241		
										30	3.1		17.08				1.01238		
										36.60	2.8		19.94				1.01366		
						1.50 A.M.				0	2.3		15.39				1.01596		
										10	2.2		15.74				1.01235		
										20	2.8		16.34				1.01262		
										30	2.5		16.20				1.01307		
										36.60	3.2		20.47				1.01299		
						3.20 A.M.				0	2.9		15.24				1.01636		
										10	2.2		15.40				1.01222		
										20	2.5		15.98				1.01234		
										30	2.9		16.43				1.01280		
										36.60	2.8		18.01				1.01317		
						4.50 A.M.				0	2.5		15.22				1.01441		
										10	2.0		15.16				1.01220		
										20	2.8		16.43				1.01217		
										30	2.0		15.23				1.01317		
										36.60	3.0		17.35				1.01223		
						6.20 A.M.				0	2.7		15.14				1.01389		
										10	2.2		15.05				1.01214		
										20	2.6		16.23				1.01207		
										30	3.0		16.48				1.01302		
										36.60	2.8		19.79				1.01320		
						7.50 A.M.				0	2.2		15.14				1.01583		
										10	3.3		15.15				1.01214		
										20	3.3		20.61				1.01212		
										30	3.5		20.85				1.01650		
										36.60	3.0		20.95				1.01669		
						9.20 A.M.				0	2.2		15.15				1.01675		
										10	2.2						1.01215		
										20	3.2		15.24				1.01220		
										30	2.9		20.85				1.01667		
										36.60	2.8		21.01				1.01682		
						10.50 A.M.				0	2.5		15.20				1.01222		
										10	2.2		15.58				1.01244		
										20	2.4		20.61				1.01649		
										30	3.0		21.05				1.01979		
										36.60	4.3		20.14				1.01602		
						12.20 P.M.				0	2.2		15.30				1.01228		
										10	2.2		15.58				1.01250		
										20	2.4								
										30	2.5		17.71				1.01419		
										36.60	3.2		20.63				1.01651		

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 19 22.

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Station Number.	Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (M)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction. DENSITY	Drift. Distance. (miles) MILES PER HOUR	Remarks.
259 Continued.				Jan. 24	1.50 P.M.				0	2.4		15.16				1.01216		H-Ion concentration
									10	2.3		16.32				1.01308		
									20	2.4		17.55				1.01416		
									30	2.0		16.39				1.01314		
									36.60	2.4		19.81				1.01586		
					3.20 P.M.				0	2.5		15.15				1.01216		
									10	2.5		16.14				1.01293		
									20	2.6		17.94				1.01436		
									30	2.2		16.43				1.01318		
									36.60	2.4		17.91				1.01435		
				Jan. 23	5.18 PM.								Ek. mtr.	0	5	W ...67...	7.3	
					5.25.30 "									10	5	NNW ...34...	7.5	
					5.32.30 "									20	5	N ...18...	7.5	
					5.48.30 "									30	5	S ...61...	7.5	
					5.59 "									36.60	5	SE ...54...	7.6	
					7.00.30 "									0	5	NNE ...73...	7.6	
					7.08.30 "									10	5	SW ...89...	7.6	
					7.19 "									20	5	no shot...04...	7.6	
					7.31 "									30	5	SxW ...54...	7.6	
					7.40 "									36.60	5	SExE ...47...	7.6	
					8.19 "									0	5	SW ...85...	7.6	
					8.26 "									10	5	SWxS ...14...	7.6	
					8.34 "									20	5	SxW ...17...	7.6	
					8.42 "									30	5	no shot...56...	7.6	
					8.51 "									36.60	5	S ...61...	7.6	
					9.43.30 "									0	5	NxE ...10...	7.6	
					9.50 "									10	5	ExS ...17...	7.6	
					9.57 "									20	5	SxW ...87...	7.6	
					10.05.30 "									30	5	SSW ...81...	7.6	
					10.13.30 "									36.60	5	SWxS ...77...	7.6	
					11.09 "									0	5	NxE ...16...	7.6	
					11.15.30 "									10	5	NxE ...11...	7.6	
					11.23 "									20	5	SxE ...79...	7.6	
					11.31 "									30	5	SxE ...74...	7.6	
					11.38.30 "									36.60	5	SExS ...63...	7.6	
				Jan. 24	12.34 AM.									0	5	N ...11...	7.6	
					12.40.30 "									10	5	N ...61...	7.6	
					12.46.45 "									20	5	NxE ...90...	7.6	
					12.54 "									30	5	SW ...77...	7.6	
					1.00 "									36.60	5	SE ...74...	7.6	
					2.00 "									0	5	NE ...11...	7.6	
					2.06 "									10	5	NxW ...14...	7.3	
					2.11.30 "									20	5	NxW ...11...	7.4	
					2.17 "									30	5	SxW ...81...	7.6	
					2.23.20 "									36.60	5	NxW ...11...	7.6	
					3.28.45 "									0	5	NW ...11...	7.6	
					3.33.20 "									10	5	NWxN ...11...	7.6	
					3.39.05 "									20	5	NxE ...11...	7.6	
					3.45.55 "									30	5	NW ...11...	7.6	
					3.51.55 "									36.60	5	SExE ...11...	7.6	
					5.08.45 "									0	5	NWxN ...11...	7.8	
					5.13.30 "									10	5	NW ...11...	7.6	
					5.19.10 "									20	5	N ...11...	7.8	
					5.25 "									30	5	NxE ...11...	7.7	
					5.31 "									36.60	5	NExE ...11...	7.8	

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

No.	Bearings.	Latitude.	Longitude.	Date	Time of Day	Chart Nos.	Depth. (fms.) M.	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m. Mins	Drift. Direction.	Drift. Distance (miles)	Remarks.
39	Continued.			Jan.24	6.30 AM.														H-Ion Concentration
					6.35.05"									Ek. mtr.	0	5	NWxN	.39	7.6
					6.41.45"										10	5	NW	.38	7.6
					6.46.30"										20	5	NWxN	.31	7.7
					6.52.15"										30	5	NWxN	.36	7.6
					8.15 "										36.60	5	SWxS	.38	7.6
					8.21.30"										0	5	NW	.17	7.8
					8.28 "										10	5	no shot		7.8
					8.33.30"										20	5	NE	.03	7.8
					9.00 "										30	5	SE	.26	7.8
					9.37 "										36.60	5	SE	.45	7.6
					9.43.30"										0	5	no shot	.09	7.8
					9.50 "										10	5	no shot		7.8
					10.02.15										20	5	NWxW	.04	7.8
					10.10 "										30	5	SSW	.78	7.8
					11.05.15"										36.60	5	S	.55	7.8
					11.12.15"										0	4¾	ESE	.38	7.8
					11.19 "										10	5	SExE	.06	7.8
					11.26.30"										20	5	SSE	.04	7.8
					11.32.45"										30	5	SxE	.02	7.8
					12.39 PM.										36.60	4¾	SxE	.54	7.8
					12.44.30"										0	4¾	no shot	.17	7.8
					1.05 "										10	5	NNW	.07	7.8
					1.11.15"										20	5	NWxN	.28	7.8
					1.18 "										30	5	NNW	.91	7.8
					2.02.30"										36.60	5	NNW	.97	7.8
					2.08.30"										0	5	no shot	.56	7.8
					2.15.00"										10	5	NxW	.34	7.8
					2.21.00"										20	5	NExN	.60	7.8
					2.27.00"										30	5	NExN	.41	7.8
					3.47.00"										36.60	5	NE	.30	7.8
					3.54.30										0	5	NxW	.46	7.8
					4.00.30"										10	5	SxE	.73	7.8
					4.07.00"										20	5	SWx S	.35	7.8
					4.13.30"										30	5	S	.71	7.8
															36.60	5	SE	.55	7.8
																		DENSITY.	
40	Pt.No.Pt.Lt.W 7/8N; Holland Bar Lt. SE½S	Jan.24			5.14 P.M.	Chart No. 1224	9.15		-3.88	0	2.5	15.05	Bottom net					1.01207	Wind NNE, force 4,
										9.15	2.3	16.08	#6,#20 on surface					1.01289	Tide ¾ ebb, Partly
													7' tnr.						cloudy & hazy,
													GB. bot.; NZ						choppy.
41	Barren Is. Buoy (16D)NExN 200 yards.	"	25		7.45 A.M.	"	47.50		-7.77	0	1.4	1581	Bottom net,					1.01262	Wind direct N, force 4,
					8.14 "					10	2.2	16.53	#6,#18 on surface					1.01325	Tide full ebb, Partly
										20	2.7	19.54	7' Tnr.					1.01564	cloudy & hazy, choppy.
										30	2.5	19.86	G.B. bots.; NZ					1.01590	
										40	3.2	20.43						1.01631	
										47.50	2.9	20.63						1.01645	
42	Cove Pt. Lt.N 7/8W, Buoy #21, NExE ¾ E.	"	"		8.40 P.M.	"	7.32		-3.88	0	1.1	13.82						1.01109	Wind NxE, force 4,
					9.15 "					7.32	.9	13.83	Bottom net					1.01111	Tide slack ebb, Blue
													Vertical net						& hazy, (No clouds)
													#6,#18 on surface						Choppy.
													7' Tnr.						
													G.B. Bots.; NZ.						

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Date	Time of Day	Chart Nos.	Depth. (fms.) M.	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. Mins	Drift. Direction.	Drift. Distance. (miles)	Remarks.
9039	Continued.		Jan.24	6.30 AM.														
				6.35.05"									Bk. mtr.	0	5	NWxN	.33	H-Ion Concentration
				6.41.45"										10	5	NW	.44	7.6
				6.46.30"										20	5	NWxN	.44	7.6
				6.52.15"										30	5	NWxN	.33	7.7
				8.15 "										36.60	5	NWxN	.33	7.6
				8.21.30"										0	5	NW	.33	7.6
				8.28 "										10	5	no shot	.44	7.8
				8.33.30"										20	5	NE	.33	7.8
				9.00 "										30	5	SE	.33	7.8
				9.37 "										36.60	5	SE	.33	7.6
				9.43.30"										0	5	no shot	.33	7.8
				9.50 "										10	5	no shot	.33	7.8
				10.02.15										20	5	NWxW	.33	7.8
				10.10 "										30	5	SSW	.33	7.8
				11.05.15"										36.60	5	S	.33	7.8
				11.12.15"										0	4½	ESE	.33	7.8
				11.19 "										10	5	SExE	.33	7.8
				11.26.30"										20	5	SSE	.33	7.8
				11.32.45"										30	5	SxE	.33	7.8
				12.39 PM.										36.60	4½	SxE	.33	7.8
				12.44.30?										0	4½	no shot	.33	7.8
				1.05 "										10	5	NNW	.33	7.8
				1.11.15"										20	5	NWxN	.33	7.8
				1.18 "										30	5	NNW	.33	7.8
				2.02.30"										36.60	5	NNW	.33	7.8
				2.08.30"										0	5	no shot	.33	7.8
				2.15.00"										10	5	ExW	.33	7.8
				2.21.00"										20	5	NExN	.33	7.8
				2.27.00"										30	5	NExN	.33	7.8
				3.47.00"										36.60	5	NE	.33	7.8
				3.54.30										0	5	ExW	.33	7.8
				4.00.30"										10	5	SxE	.33	7.8
				4.07.00"										20	5	SWx S	.33	7.8
				4.13.30"										30	5	S	.33	7.8
														36.60	5	SE	.33	7.8
9040	Pt.No.Pt.Lt.W 7/8N; Holland Bar Lt. SE½S		Jan.24	5.14 P.M.	Chart No. 1224	9.15		-3.88	0	2.5			Bottom net #6,#20 on surface 7' tmr. GB. bot.; NZ				DENSITY. 15.85 16.08	1.01207 1.01289	Wind NNE,force 4, Tide ⅔ ebb,Partly cloudy & hazy, choppy.
									9.15	2.3								
9041	Barren Is. Buoy (16D)NExN 200 yards.	"	25	7.45 A.M.	"			-7.77	0	1.4			Bottom net, #6,#18 on surface 7' Tmr. G.B. bots.; NZ				15.81	1.01262	
				8.14 "	"	47.50			10	2.2							16.53	1.01325	Wind direct N,force4, Tide full ebb,Partly cloudy & hazy,choppy.
									20	2.7							19.54	1.01564
									30	2.5							19.86	1.01590
									40	3.2							20.43	1.01631
									47.50	2.9							20.63	1.01645
9042	Cove Pt. Lt.N 7/8W,Buoy #21,NExE ¾ E.	"	"	8.40 P.M.	"			-3.88										
				9.15 "		7.32			0	1.1							13.82	1.01109	Wind NxE,force 4, Tide slack ebb, Blue & hazy,(No clouds) Choppy.
									7.32	.9			Bottom net Vertical net #6,#18 on surface 7' Tmr. G.B. Bots.;NZ.				13.83	1.01111

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Form 625. RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.)	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Drift. Duration. h. m.	Drift. DENSITY	Drift. Distance. (miles.)	Remarks.
43	North End James Is. E½N; Bell Buoy 17AN½E.		1225	Jan. 25	10.55 A.M. 11.38 "	21.96		-1.11	0 10 21.96	1.7 1.6 2.6		13.17 13.53 19.76	Vertical net Bottom net #6,#18 on surface 7' tnr. G.B. bots.; NZ			1.01057 1.01086 1.01573		Wind NxE,force 4 Tide ¼ flood, Blue & hazy, Choppy.
44	Governor's Run Whf. W½S 7/8 Mi.; Spar BuoyS2B-N⅔W		"	" "	12.05 P.M. 12.41 "	9.15		1.11	0 9.15	0.7 0.8		13.03 13.14	Same as above			1.01045 1.01056		Wind NxE,force 3, Tide ½ flood, Partly cloudy & hazy,moderate sea.
45	Thomas Pt.Lt. NxE½E,Bloody Pt. Lt. E 7/8 S.		"	" "	3.15 P.M. 3.45 "	10.06		-1.11	0 10.06	0.9 1.3		11.34 12.06	Vertical net [illegible] 7' Tnr. G.B. bots.; NZ			1.00910 1.00969		Wind NxE,force 2, Tide ¾ flood, Partly cloudy & hazy,moderate sea.
46	Bloody Pt. Lt. ExS,Thomas Pt. Lt. N.1/8 E.		"	" "	3.58 P.M. 4.30 "	12.81		-3.33	0 12.81	0.4 2.5		11.59	Bottom net [illegible] #6,#18 on surface G.B. Bots.; NZ.			1.00931		Wind NxE,force 3, Tide ¾ flood, Partly cloudy & hazy,moderate sea.
47	Bloody Pt. Lt. E½N about ½ mile		"	" "	4.50 P.M. 5.30 "	27.90		-4.44	0 10 20 27.90	0.8 1.9 3.2 2.5		13.26 15.97 18.95 18.36	Vertical net 7' Tnr. G.B. bots.;NZ			1.01064 1.01281 1.01514 1.01471		Wind NxE,force 2, Tide full flood, Partly cl. & hazy Moderate sea.
48	Thimble Lt. ENE ¾ E.,; Bell Buoy #15,SE 1/8 E.		1222	Mar. 25	10.18 A.M. 11.29 "	27.45		14.44	0 10 20 27.45	7.8 5.6 6.6 6.4		18.38 26.25 27.21 27.19	Vertical net Bottom net #6,#18 on surface 7' Tnr. G.B. bots.; NZ			1.01434 1.02073 1.02138 1.02138		Wind WSW,force 1, Tide ¾ ebb,Partly cloudy & hazy, Smooth sea.
49	Cape Henry Lt. SWxS ¾ S. Lightship N ¾ W.		"	" "	12.40 P.M. 1.24 "	24.00		17.78	0 10 24.00	8.9 6.6 6.5		18.36 30.65 31.10	Same as above			1.01420 1.02407 1.02445		Wind direct North, force 1,Tide ¾ ebb, Partly cl.& hazy, Smooth sea.
50	Lightship S 3/8 E.;Cape Henry Lt.S½W,Whistling Buoy SW xW¼ W.		"	" "	2.00 P.M. 2.34 "	15.00		20.00	0 10 15.00	8.3 6.5 6.4		19.42 30.15 30.68	Same as above			1.01511 1.02370 1.02408		Wind direct E,force 1,Tide ¾ ebb,Partly cloudy & hazy, Smooth sea.
51	Cape Charles Lt. NE Buoy (N-4) E1/8S;Lightship SWx S ¾ S.		"	" "	3.33 P.M. 4.15 "	16.00		17.78	0 10 16.00	8.0 7.0 7.1		24.22 26.69 25.06	Same as above			1.01886 1.02092 1.01963		Wind SE,force 1, Tide beg.flood, Partly cl.& hazy, Smooth sea.
52	Plantation Lt. SE 3/8 S. Buoy 10-N ¼ E. Cherrystone Lt. E 1/8 N.		"	" "	6.17 P.M 7.20 "	41.00		15.00	0 10 20 30 41.00	7.3 7.7 7.0 6.7 6.8		19.33 21.09 23.91 25.10 25.37	Same as above			1.01512 1.01646 1.01874 1.01971 1.01991		Wind SE,force 1, Tide ¼ flood,Partly cloudy & hazy, Smooth sea.

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth (fms)	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Distance. (miles.)	Remarks.
9043	North End James Is. B½N; Bell Buoy 17AN½E.			1225	Jan. 25	10.55 A.M. 11.36 "	21.96		-1.11	0 10 21.96	1.7 1.6 2.6		13.17 13.53 19.76	Vertical net Bottom net #6,#18 on surface 7' Tnr. G.B. bots.; NZ	DENSITY 1.01057 1.01086 1.01573			Wind NxE,force 4 Tide ½ flood, Blue & hazy, Choppy.
9044	Governor's Run Whf. W½ S. 7/8 Mi.; Spar BuoyS2E-N½W		"	"	"	12.05 P.M. 12.41 "	9.15		1.11	0 9.15	0.7 0.8		13.03 13.14	Same as above	1.01045 1.01056			Wind NxE,force 3, Tide ½ flood, Partly cloudy & hazy,moderate sea.
9045	Thomas Pt.Lt. NxE½E,Bloody Pt. Lt. E 7/8 S.		"	"	"	3.15 P.M. 3.45 "	10.06		-1.11	0 10.06	0.9 1.3		11.34 12.06	Vertical net [illegible] 7' Tnr. G.B. bots.; NZ	1.00910 1.00967			Wind NxE,force 2, Tide ¾ flood, Partly cloudy & hazy,moderate sea.
9046	Bloody Pt. Lt. ExS,Thomas Pt. Lt. N.1/8 E.		"	"	"	3.56 P.M. 4.30 "	12.81		-3.33	0 12.81	0.4 2.5		11.59	Bottom net [illegible] #6,#18 on surface G.B. Bots.; NZ.	1.00931			Wind NxE,force 3, Tide ¾ flood, Partly cloudy & hazy,moderate sea.
9047	Bloody Pt. Lt.E¾N about ½ mile		"	"	"	4.50 P.M. 5.30 "	27.90		-4.44	0 10 20 27.90	0.8 1.9 3.2 2.5		13.26 15.97 18.95 18.36	Vertical net 7' Tnr. G.B. bots.;NZ	1.01064 1.01281 1.01514 1.01471			Wind NxE,force 2, Tide full flood, Partly cl. & hazy Moderate sea.
9048	Thimble Lt. ENE ¾ E.; Bell Buoy #15,SE 1/8 E.	1222			Mar. 25	10.18 A.M. 11.29 "	27.45		14.44	0 10 20 27.45	7.8 5.6 6.6 6.4		18.38 26.25 27.21 27.19	Vertical net Bottom net #6,#18 on surface 7' Tnr. G.B. bots.; NZ	1.01434 1.02073 1.02138 1.02138			Wind WSW,force 1, Tide ¾ ebb,Partly cloudy & hazy, Smooth sea.
9049	Cape Henry Lt. SWxS ¾ S. Lightship N ¾ W.		"	"	"	12.40 P.M. 1.24 "	24.00		17.78	0 10 24.00	8.9 6.6 6.5		18.36 30.65 31.10	Same as above	1.01420 1.02407 1.02445			Wind direct North, force 1,Tide ¾ ebb, Partly cl.& hazy, Smooth sea.
9050	Lightship S 3/8 E.;Cape Henry Lt.S½W,Whistling Buoy SW xW½ W.		"	"	"	2.00 P.M. 2.34 "	15.00		20.00	0 10 15.00	8.3 6.5 6.4		19.42 30.15 30.68	Same as above	1.01511 1.02370 1.02408			Wind direct E,force 1,Tide ¾ ebb,Partly cloudy & hazy, Smooth sea.
9051	Cape Charles Lt. NE Buoy (N-4) E1/8S;Lightship SWx S ¾ S.		"	"	"	3.33 P.M. 4.15 "	16.00		17.78	0 10 16.00	8.0 7.0 7.1		24.22 26.69 25.06	Same as above	1.01886 1.02072 1.01943			Wind SE,force 1, Tide beg.flood, Partly cl.& hazy, Smooth sea.
9052	Plantation Lt. SE 3/8 S. Buoy 10-N ½ E. Cherrystone Lt. E 1/8 N.		"	"	"	6.17 P.M 7.20 "	41.00		15.00	0 10 20 30 41.00	7.3 7.7 7.0 6.7 6.8		17.33 21.09 23.91 25.10 25.37	Same as above	1.01512 1.01646 1.01874 1.01971 1.01991			Wind SE,force 1, Tide ½ flood,Partly cloudy & hazy, Smooth sea.
9064	Pt.Lookout Lt.NExE 5/8E., Pt.Lookout Buoy N2E½ S.		"	"	"	9.30 A.M. 12.06 P.M.	21.0		11.11	0 10 21.0	8.7 6.0 7.8		10.39 13.31 15.32	Same as above	1.00801 1.01053 1.01194			hazy,Smooth sea. Wind SE,force 1, Tide beg.flood, Partly cloudy & hazy, Smooth sea.

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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11—6014

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M.	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
053	Plantation Lt. SE x E.; Buoy 10ExN 5/8 N.Buoy 15 SxE 1/8 E.	1222	Mar.26	6.56 A.M. 7.38 "	13.0		9.44	0 13.0	7.8 6.9		16.65 22.26	Bottom net Vertical net #6,#18 on surface 7' Tnr. G.B. bots.; NZ			DENSITY. 1.01297 1.01744		Wind SW,force 1, Tide slack ebb, (No clouds) Blue & hazy, smooth sea.
054	New Pt.Comfort Lt.NWxW 3/8 W;York Spit Lt. SW½W, Buoy (C-7) W.	"	" "	7.59 A.M. 8.34 "	13.0		12.22	0 13.0	7.6 7.6		17.42 23.74	Same as above.			1.01360 1.01855		Wind SW,force 1, Tide beg. flood, Blue & hazy,smooth sea.
055	Buoy (C-9) NWxN½N-New Pt. Comfort Lt. NW½W;York Spit Lt. SXW ½W.	"	" "	8.55 A.M. 9.35 "	8.0		13.33	0 8.0	7.8 7.4		17.83 18.82	Same as above			1.01390 1.01473		Wind SW,force 1, Tide ¼ flood,Blue & hazy,smooth sea.
056	Bell Buoy No.1,SE½E-1 Mi. Buoy (C-10)NxE;NWxW 1/8W, off Sandy Pt.	1223	" "	11.37 A.M. 12.12 P.M.	8.23		14.44	0 8.23	8.2 7.6		17.61 18.00	Same as above			1.01369 1.01406		Wind SW,force 1, Tide ¾ flood,Blue & hazy,smooth sea.
057	Bell Buoy No.1 E3/8 S.; 3½ Mi. Buoy (10-C)NxE¼ E, off Sandy Pt.	"	" "	12.35 A.M. 1.22 P.M.	16.5		15.00	0 10 16.5	8.2 6.9 6.8		15.69 18.82 19.44	Same as above			1.01219 1.01477 1.01527		Wind SW,force 1, Tide full flood, Blue & hazy,Slight
058	Wind Mill Pt. Lt.WxN½N, Bell Buoy W3/8N off Rappahannock Spit.	"	" "	1.55 P.M. 2.38 "	13.0		15.00	0 13.0	7.8 6.8		15.40 18.85	Same as above			1.01201 1.01480		Wind direct S, force 1,Tide beg. ebb,Blue & hazy, Slight.
059	Wind Mill Pt.Lt.W½N,Bell Buoy SWxW½W off Rappahannock Spit.	"	" "	2.49 P.M. 3.23 "	13.0		15.00	0 13.0	9.3 7.0		14.28 18.18	Same as above			1.01098 1.01427		Wind direct S, force 1,Tide ¼ ebb, Blue & hazy, Slight.
060	Smith Pt. Light NW x N., Buoy NNW	"	" "	5.21 P.M. 6.15 "	43.0		12.22	0 10 20 30 40 43.0	8.1 6.2 6.2 6.5 6.2 6.6		11.62 17.10 17.89 18.26 18.34	Same as above			1.00905 1.01348 1.01410 1.01438 1.01447		Wind direct S, force 2, Tide ¾ ebb, Partly cloudy and hazy, moderate sea.
061	Smith Pt. Lt. W½N; Great Wicomico Lt.SW x W½ W.	"	" "	6.31 P.M. 7.09 "	12.81		9.44	0 12.81	8.0 6.7		11.55 16.60	Same as above			1.00898 1.01305		Wind SxE,force 2, Tide full ebb,Partly cloudy & hazy, Moderate sea.
062	Smith Pt. Lt.W¾N, Tangier Is. Lt.SE 3/8 S.	"	" "	6.10 A.M. 6.46 "	13.0		10.00	0 13.0	7.7 6.0		15.65 12.09	Bottom net, #6,#20 on surface 7' Tnr. G.B. bots.;NZ			1.01223 1.00956		Wind SSW,force 1, Tide ¾ ebb, Blue & hazy,Smooth sea.
063	Pt. Lookout Lt.NExE½E, Bell Buoy NW½N-S¼W NNE	1224	" 27	8.45 A.M. 9.15 "	12.0		11.11	0 12.0	9.0 5.8		11.01 13.17	#6,#18on surface 7' Tnr. G.B. bots.;NZ.			1.00846 1.01044		Wind SW,force 1, Tide slack ebb, Partly cloudy & hazy,Smooth sea.
064	Pt.Lookout Lt.NExE 5/8E., Pt.Lookout Buoy N2E½ S.	"	" "	9.30 A.M. 12.06 P.M.	21.0		11.11	0 10 21.0	8.7 6.0 7.8		10.39 13.31 15.32	Same as above			1.00801 1.01053 1.01194		Wind SE,force 1, Tide beg.flood, Partly cloudy & hazy, Smooth sea.

Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. M. (fms.)	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
																DENSITY.		
9065	Pt.Lookout Lt.ExS $\frac{1}{4}$ S; Pt. Lookout Buoy S E $\frac{1}{2}$ S.		1224	Mar. 27	10.18 A.M.			11.11	0	7.8		11.76	Bottom net				1.00916	
					11.00 "	10.0			10.0	7.1		13.40	#6,#18 on surface				1.01050	Wind SE,force 1, Tide $\frac{1}{4}$ flood, Partly cloudy & hazy, Smooth sea.
													Oyster Dredge					
													7' Tnr.					
													G.B. bots. ; NZ					
9066	Pt.No.Pt.Lt. NWxN $\frac{1}{4}$ N.,Pt. Lookout Lt. SWxS $\frac{1}{2}$ S.		"	" "	12.06 P.M.			12.22	0	6.9		12.43	Bottom net				1.00976	
					12.38 "	12.0			12.0	5.7		13.63	Vertical net				1.01070	Wind SE, force 1, Tide 1/3 flood, Partly cloudy & hazy, Smooth sea.
													#6,#18 on surface					
													7' Tnr.					
													G.B. bots.;NZ.					
9067	Pt.No.Pt.Lt. WxN $\frac{1}{2}$ N.;Pt. Lookout Lt. SW 3/8 W.		"	Mar.27 &	1.43 P.M.				0	6.2		12.22					1.00965	
				Mar 28.--	1.47 "	40.0			10	5.6		15.10	7' Tnr.; NZ.				1.01196	Wind SE,force 1, Tide $\frac{1}{4}$ flood, Partly cloudy & hazy, Smooth sea.
				24 hr. sta.					20	5.9		13.43					1.01064	
				Mar. 27	1.43 P.M.				30	failed		16.77						
									40.0	6.8		13.68					1.01075	
					3.13 P.M.				0	7.2		15.54					1.01219	
									10	5.6		12.11					1.00961	
									20	5.4		13.89					1.01174	
									30	5.9		13.14					1.01040	
									40.0	6.0		15.67					1.01238	
					4.43 P.M.				0	7.2		12.21					1.00957	
									10	5.8		14.54					1.01152	
									20	5.7		16.95					1.01342	
									30	5.6		17.12					1.01355	
									40.0	5.4		17.22					1.01366	
					6.13 P.M.				0	7.2		12.15					1.00953	
									10	5.6		14.16					1.01122	
									20	5.8		17.06					1.01350	
									30	5.7		17.18					1.01359	
									40.0	5.5		17.25					1.01366	1.00948
					7.43 P.M.				0	7.0		12.08					1.01168	
									10	5.5		14.71					1.01325	
									20	5.8		16.75					1.01353	
									30	5.7		17.10					1.01353	
									40.0	5.5		17.18					1.01361	
					9.13 P.M.				0	7.0		12.21					1.00959	
									10	5.5		14.31					1.01135	
									20	5.7		16.51					1.01306	
									30	5.4		17.12					1.01357	
									40.0	5.5		17.25					1.01366	
					10.43 P.M.				0	7.1		12.30					1.00965	
									10	5.6		13.82					1.01095	
									20	5.7		15.95					1.01263	
									30	5.6		17.00					1.01346	
									40.0	5.3		17.30					1.01372	
				Mar. 28	12.13 A.M.				0	7.0		12.32					1.00968	
									10	6.0		13.52					1.01069	
									20	5.8		16.83					1.01331	
									30	5.6		17.35					1.01374	
									40.0	5.4		17.16					1.01359	
					1.43 A.M.				0	7.6		12.30					1.00961	
									10	5.6		16.04					1.01269	
									20	5.5		17.10					1.01354	
									30	5.6		17.18					1.01361	
									40.0	5.4		17.34					1.01374	

Form 625. RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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11—6014

STATION NUMBER.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. M (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth.	Trial. Duration. m mins	Drift. ~~Direction.~~ DENSITY.	Drift. ~~Distance. (miles)~~ MILES PER HOUR.	Remarks.
1067	Continued			Mar. 28	3.13 A.M.	40.0			0	7.2		14.07				1.01102		H-Ion Concentration.
									10	5.8		16.17				1.01278		
									20	5.6		16.86				1.01335		
									30	5.7		16.92				1.01338		
									40.0	5.5		17.11				1.01355		
					4.43 A.M.				0	7.3		12.36				1.00968		
									10	7.0		13.76				1.01080		
									20	5.5		16.81				1.01331		
									30	5.8		17.12				1.01354		
									40.0	5.6		17.31				1.01371		
					6.13 A.M.				0	7.1		12.30				1.00966		
									10	6.6		13.42				1.01056		
									20	5.7		—				—		
									30	5.5		16.91				1.01338		
									40.0	5.6		17.18				1.01360		
					7.43 A.M.				0	7.2		12.28				1.00962		
									10	6.0		13.62				1.01076		
									20	5.5		16.56				1.01311		
									30	5.6		17.05				1.01349		
									40.0	5.5		—				—		
					9.13 A.M.				0	7.2		12.26				1.00960		
									10	7.1		13.42				1.01052		
									20	5.7		16.50				1.01304		
									30	5.4	17.93					1.01419		
									40.0	5.4		17.18				1.01361		
					10.43 A.M.				0	7.3		12.17				1.00953		
									10	5.9		12.25				1.00970		
									20	5.7		16.07				1.01271		
									30	5.8		16.97				1.01341		
									40.0	5.4		17.08				1.01352		
					12.13 P.M.				0	7.6		11.18				1.00863		
									10	2.6	15.91					1.01276		
									20	5.4		17.06				1.01351		
									30	5.6		17.15				1.01357		
									40.0	5.4		17.20				1.01361		
				Mar 27	2.06.45.PM		Fg. mtr.							0	5	SW	.16	7.8
					2.14 "									10	5	NxE	.03	7.6
					2.21 "									20	5	0	.00	7.6
					2.30;45 "									30	5	0	.10	7.6
					2.38;30 "									40.0	5	0	.00	7.6
					3.30;45 "									0	5	0	.00	7.6
					3.36;45 "									10	5	NNE	.43	7.6
					3.43;30 "									20	5	NNW	.43	7.6
					3.51 "									30	5	N	.78	7.6
					3.58;15 "									40.0	5	0	.04	7.6
					4.57 "									0	5	0	.00	7.6
					5.03 "									10	5	0	.04	7.6
					5.09;20 "									20	5	NxE	.64	7.6
					5.16;30 "									30	5	NxW	.74	7.6
					5.25 "									40.0	5	NNW	.15	7.6
					6.28;15 "									0	5	Nx E	.19	7.6
					6.35 "									10	5	NE	.47	7.6
					6.55;30 "									20	5	NxW	.15	7.6
					7.02 "									30	5	NxW	.47	7.6
					6.21 "									40.0	5	NxW	.79	7.5

Form 635. RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922. 249

Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. M (fms)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth.	Trial. Duration.	Drift. Direction.	Drift. Distance. (miles) DENSITY. MILES PER HOUR	Remarks.
9067	Continued			Mar. 28	3.13 A.M.	40.0			0	7.2		14.07			m mins		1.01102	H-Ion Concentration.
									10	5.8		16.17					1.01278	
									20	5.6		16.86					1.01335	
									30	5.7		16.92					1.01338	
									40.0	5.5		17.11					1.01365	
					4.43 A.M.				0	7.3		12.36					1.00968	
									10	7.0		13.76					1.01080	
									20	5.5		16.81					1.01331	
									30	5.8		17.12					1.01354	
									40.0	5.6		17.31					1.01371	
					6.13 A.M.				0	7.1		12.30					1.00966	
									10	6.6		13.42					1.01056	
									20	5.7		—					—	
									30	5.5		16.91					1.01338	
									40.0	5.6		17.18					1.01360	
					7.43 A.M.				0	7.2		12.28					1.00962	
									10	6.0		13.62					1.01076	
									20	5.5		16.56					1.01311	
									30	5.6		17.05					1.01349	
									40.0	5.5		—					—	
					9.13 A.M.				0	7.2		12.26					1.00960	
									10	7.1		13.42					1.01052	
									20	5.7		16.50					1.01304	
									30	5.4	17.93						1.01419	
									40.0	5.4		17.18					1.01361	
					10.43 A.M.				0	7.3		12.17					1.00953	
									10	5.9		12.25					1.00970	
									20	5.7		16.07					1.01271	
									30	5.8		16.97					1.01341	
									40.0	5.4		17.08					1.01352	
					12.13 P.M.				0	7.6		11.18					1.00863	
									10	2.6	15.91						1.01276	
									20	5.4		17.06					1.01351	
									30	5.6		17.15					1.01357	
									40.0	5.4		17.20					1.01361	
Mar 27	2.06.45.PM.							Pr. wire	0	5						SW		7.8
	2.14 "								10	5						NxE		7.6
	2.21 "								20	5						0		7.6
	2.30;45 "								30	5						0		7.6
	2.38;30 "								40.0	5						0		7.6
	3.30;45 "								0	5						0		7.6
	3.36;45 "								10	5						NNE		7.6
	3.43;30 "								20	5						NNW		7.6
	3.51 "								30	5						N		7.6
	3.58;15 "								40.0	5						0		7.6
	4.57 "								0	5						0		7.6
	5.03 "								10	5						0		7.6
	5.09;20 "								20	5						NxE		7.6
	5.16;30 "								30	5						NxW		7.6
	5.25 "								40.0	5						NNW		7.6
	6.28;15 "								0	5						NxE		7.6
	6.35 "								10	5						NE		7.6
	6.55;30 "								20	5						NxW		7.6
	7.02 "								30	5						NxW		7.6
	6.21 "								40.0	5						NxW		7.6

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Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. (M)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. (fms.)	Temperature. Water. Degrees.	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. ~~Distance (miles)~~ MILES PER HOUR	Remarks.
067	Continued.			Mar. 27	7.55 PM	40.0							Ek. Mtr.					H-Ion Concentration.
					8.01 "									0	5	NE	.08	7.5
					8.07;45"									10	5	E	.03	7.5
					8;14 "									20	5	O	.00	7.4
					8.21 "									30	5	NW	.04	7.4
					9.48 "									40.0	5	NxW	.08	7.4
					9.54;30"									0	5	Out of order	.08	
														10		do	.03	
														20		do		
														30		do		
														40.0		do		
					10.59 PM									0	5	SWxW	.21	7.5
					11.05 "									10	5	SWxW	.27	7.5
					11.11;15"									20	5	SWxS	.30	7.4
					11.18 "									30	5	SxE	.14	7.5
					11.25 "									40.0	5	S	.25	7.4
				Mar. 28	12.33;30AM									0	5	WxS	.51	7.5
					12.42;15									10	5	SWxS	.57	7.5
					12.49;30									20	5	SW	.53	7.4
					12.56;45									30	5	SxE	.51	7.4
					1.05									40.0	5	SSE	.44	7.4
					1.57;45									0	5	SWxW	.57	7.8
					2.04;15									10	5	SxW	.58	7.4
					2.11									20	5	SxW	.10	7.5
					2.18									30	5	SxE	.25	7.4
					2.25;15									40.0	5	ExS	.54	7.5
					3.26									0	5	SW	.20	7.6
					3.32									10	5	SxW	.47	7.4
					3.38;30									20	5	W	.26	7.4
					3.45;30									30	5	W	.15	7.4
					3.53									40.0	5	NxW	.23	7.5
					4.57;30									0	5	O	.00	7.6
					5.03;45									10	5	O	.01	7.6
					5.10									20	5	NxW	.54	7.5
					5.17;30									30	5	NW	.44	7.5
					5.25									40.0	5	O	.00	7.4
					6.25;15									0	5	ExN	.15	7.6
					6.31									10	5	ExN	.16	7.6
					6.37;45									20	5	NxE	.63	7.4
					6.44									30	5	NxW	.74	7.5
					7.06									40.0	5	NxW	.68	7.5
					7.54;15									0	5	O	.08	7.6
					8.00									10	5	NxE	.71	7.6
					8.07									20	5	SxW	.76	7.5
					8.13;30									30	5	SW	.57	7.4
					8.20;30									40.0	5	SW	.57	7.5
					9.23;30									0	5	W	.24	7.7
					9.29;15									10	5	NxE	.27	7.7
					9.35;30									20	5	NxE	.38	7.6
					9.41;45									30	5	NxW	.36	7.5
					9.48									40.0	5	NxW	.44	7.5

Remarks.

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...a a/c thick
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...making Baltimore

Form 625.

RECORD OF Hydrographic and dragging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day.	Depth (fms.)	Character of Bottom.	Temperature: Air. Degrees.	Temperature: Water. Depth. (fms.)	Temperature: Water. Degrees.	Salinity. Depth (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Direction.	Drift. Distance. (miles.)	Remarks.
9067	Continued.				Mar. 27	7.55 PM	40.0												
						8.01 "													
						8.07;45"								Ek. Mtr.					
						8;14 "									0	5	NE	.09	H-Ion Concentration.
						8.21 "									10	5	E	.13	7.5
						9.48 "									20	5	O	.00	7.5
						9.54;30"									30	5	NW	.04	7.4
															40.0	5	NxW	.08	7.4
															0	5	Out of order	.01	7.4
						10.59 PM									10		do	.02	
						11.05 "									20		do		
						11.11;15"									30		do		
						11.18 "									40.0		do		
						11.25 "									0	5	SWxW	.21	
					Mar. 28	12.33;30AM									10	5	SWxW	.33	7.5
						12.42;15									20	5	SWxS	.28	7.5
						12.49;30									30	5	SxE	.14	7.4
						12.56;45									40.0	5	S	.25	7.5
						1.05									0	5	WxS	.51	7.4
						1.57;45									10	5	SWxS	.57	7.5
						2.04;15									20	5	SW	.23	7.5
						2.11									30	5	SxE	.51	7.4
						2.18									40.0	5	SSE	.44	7.4
						2.25;15									0	5	SWxW	.57	7.4
						3.26									10	5	SxW	.58	7.8
						3.32									20	5	SxW	.10	7.4
						3.38;30									30	5	SxE	.32	7.5
						3.45;30									40.0	5	ExS	.54	7.4
						3.53									0	5	SW	.32	7.5
						4.57;30									10	5	SxW	.47	7.6
						5.03;45									20	5	W	.36	7.4
						5.10									30	5	W	.15	7.4
						5.17;30									40.0	5	NxW	.23	7.4
						5.25									0	5	O	.00	7.5
						6.25;15									10	5	O	.01	7.6
						6.31									20	5	NxW	.54	7.6
						6.37;45									30	5	NW	.44	7.5
						6.44									40.0	5	O	.00	7.5
						7.06									0	5	ExN	.15	7.4
						7.54;15									10	5	ExN	.16	7.6
						8.00									20	5	NxE	.63	7.6
						8.07									30	5	NxW	.74	7.4
						8.13;30									40.0	5	NxW	.68	7.8
						8.20;30									0	5	O	.08	7.5
						9.23;30									10	5	NxE	.39	7.6
						9.29;15									20	5	SxW	.76	7.6
						9.35;30									30	5	SW	.57	7.5
						9.41;45									40.0	5	SW	.57	7.4
						9.48									0	5	W	.24	7.5
															10	5	NxE	.32	7.7
															20	5	NxE	.38	7.7
															30	5	NxW	.36	7.6
															40.0	5	NxW	.24	7.5
																			7.5

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...ions in Chesapeake Bay ... INVESTIGATION BY Fish Hawk 1922. 268

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...rvations not
...n a/c thick
...her & necessity
...making Baltimore

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

Station Number.	Bearings. Latitude. Longitude.	Chart.	Date.	Time of Day.	Depth. (Ms.)	Character of Bottom.	Temperature. Air. Degrees. C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.) M	Trial. Duration. h. m.	Drift. Direction.	Drift. ~~Distance.~~ (miles.) MILES PER HOUR	Remarks.
9067	Continued.		Mar. 28	10.56 A.M. 11.01;45 11.07;30 11.16 12.23 P.M. 12.37;30 12.44 12.50;30 12.59;30 1.06;30	40.0								0 10 20 30 40.0 0 10 20 30 40.0	5 5 5 5 5 5 5 5½ 4½ - -	SW SWxS S SWxS SExE SSW SxW 0 W x N S DENSITY.	.10 .16 .17 .17 .19 .10 .04 .03 .10 .06	H-Ion Concentration 7.6 7.6 7.5 foggy 7.5 7.5 7.6 7.5 7.4 7.5 7.4	rvations not m a/c thick ther & necessity making Baltimore
9068	Pt.No.Pt.Lt. W 7/8 N. Holland Bar Lt. SE ½ S.	1224	" "	2.15 P.M. 2.50 "	9.15		12.22	0 9.15	8.3 7.4		12.74 13.63	Bottom net #6,#18 on surface 7' Tnr. G.B. bots; NZ. Hosking's sampler.					1.00987 1.01066	Wind SSE, force 2, Tide full flood, Overcast & hazy, Sea moderate.	
9069	Barren Is. Buoy (16d) N E x N. 200 yds.	"	" "	5.23 P.M. 6.17 "	47.55		11.11	0 10 20 30 40 47.55	7.7 7.2 4.9 5.2 4.9 4.6		11.88 11.90 15.42 11.81 13.67 16.93	Bottom net Vertical net #6, #18 on surface 7' Tnr. G.B. bots.;NZ.					1.00926 1.00932 1.01225 1.00937 1.01087 1.01267	Wind direct S, force 3,Tide slack ebb,Overcast & hazy, moderate sea.	
9070	Cove Pt.Lt.N 7/8 W.;Buoy No.12,NE x E½ E.	"	" 29	6.07 A.M. 6.42 "	7.00		8.89	0 7.00	7.3 5.7		12.34 13.71	Bottom net Vertical net 7' Tnr.; NZ. #6,#18 on surface					1.00965 1.01086	Wind calm,Force 0, Tide full flood, Partly cloudy & hazy, Smooth sea.	
9071	N.End James Is. B½N, Bell Buoy 18a N ½ E.	1225	" "	7.58 A.M. 8.40 "	22.00		10.00	0 10 22.00	7.3 6.3 4.6		11.89 12.87 16.89	Bottom net Vertical net #6,#18 on surface 7' Tnr. G.B. bots.; NZ.					1.00930 1.01016 1.01342	Wind NW,force 1, Tide slack flood, Partly cloudy & hazy, Smooth sea.	
9072	Governor's Run Whf.W¼ S., 7/8 Mile Spar Buoy S2b N 2/4 W.	"	" "	9.10 A.M. 9.44 "	9.14		12.22	0 9.14	6.4 5.6		11.91 13.23	Bottom net Vertical net 7' Tnr. #6,#18,on surface G.B. bots.; NZ.					1.00938 1.01049	Wind NW, force 2, Tide ¼ ebb, Partly cloudy & hazy, Smooth sea.	
9073	Thomas Pt.Lt.N xB½E; Bloody Pt.Lt. E 7/8 S.	"	" "	12.28 P.M. 1.02 P.M.	9.60		18.33	0 9.60	8.5 7.3		9.75 10.19	Bottom net Vertical net #6,#18 on surface 7' Tnr. G.B. bots. ; NZ					1.00753 1.00797	Wind NW,force 2, Tide ¾ ebb, Partly cloudy & hazy, Smooth sea.	
9074	Bloody Pt.Lt. E xS.,Thomas Pt.Lt. N 1/8 E.	"	" "	1.19 P.M. 1.54 "	12.00		18.33	0 12.00	8.4 5.8		9.76 11.09	Bottom net Vertical net #6,#18 on surface 7' Tnr. G.B. bots.;NZ.					1.00754 1.00879	Wind NW, force 2, Tide ¾ ebb,Partly cloudy & hazy, Smooth sea.	

Form 625.

RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Bearings. Longitude.	Chart.	Date.	Time of Day.	Depth. (fms.) M	Character of Bottom.	Temperature. Air. Degrees C	Temperature. Water. Depth. (fms.) M	Temperature. Water. Degrees C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Trial. Depth. (fms.)	Trial. Duration. h. m.	Drift. Density.	Drift. Distance. (miles.)	Remarks.
9075	Bloody Pt.Lt. E½N about ½ mile		1225	Mar.29	2.13 P.M.													
					2.56 "	26.5		14.44	0	8.2		9.84	Bottom net			1.00761		Wind North,force 2,
									10	7.2		11.00	Vertical net			1.00861		Tide full ebb,
									20	4.5		15.26	#6,#18 on surface			1.01216		Partly cloudy &
									26.5	4.0	16.79	~~15.28~~	7' Tnr. G.B. bots.;NZ.			1.01340		hazy, Moderate sea.
9076	Sandy Pt.Lt. SW x S½ S., Balti. Lt. NW ⅝ N.		1226	" "	4.30 P.M.													
					5.06 "	12.8		14.44	0	9.1		5.28	Bottom net			1.00399		
									12.8	5.3		11.46	Vertical net #6,#18 on surfce 7' Tnr. G.B. bots. NZ.			1.00910		Wind North,force 0 Tide ¼ flood,Partly cloudy & hazy, Smooth sea.
9077	Sandy Pt.Lt.SWxW½W,Balti Lt. NW xW 3/8 W.		"	" "	5.27 P.M.													
					6.02 "	20.0		Not given in rough log	0	9.2		5.65	Bottom net			1.00426		
									10	6.0		10.30	Vertical net			1.00815		Wind North,Force 1,
									20.0	5.2		15.79	#6,#18 on surface 7' Tnr. ; NZ.			1.01263		Tide ½ flood, Partly cloudy & hazy, Smooth sea.
9078	Seven Ft. Knoll,W x N¼N Outer Craighill Lt.NW.		"	Mar 29	7.00 P.M.	11.0		10.00	0	8.6		4.77				1.00362		
				Mar 30	5.30 "	11.0			5	6.3		7.75				1.00613		Wind N.,force 2,
					24 hr. sta.				11.0	4.8		3.80				1.00356		Tide ⅔ flood
				Mar 29	7.00 P.M.	11.0												Partly cloudy &
				29	8.30 "		.....		0	9.0		5.22				1.00394		hazy, Moderate sea.
									5	6.4		8.22				1.00650		
									11.0	5.0		1033				1.00822		
				"	10.00 "		.....		0	8.3		4.86				1.00369		
									5	6.4		8.02				1.00633		
									11.0	4.8		11.18				1.00987		
					11.30 "		.....		0	8.0		4.50				1.00347		
									5	6.0		9.58				1.00758		
									11.0	4.9		11.70				1.00933		
				Mar 30	1.00 A.M.		.....		0	Out		8.89						
									5	of order		6.06						
									11.0	or 4.7		11.75				1.00936		
					2.30 "		.....		0	8.2		3.94				1.00360		
									5	8.0		4.66				1.00368		
									11.0	4.9		10.69				1.00852		
					4.00 "		.....		0	8.2		11.50				1.00892		
									5	8.0		4.09				1.00314		
									11.0	4.8		3.80				1.00306		
					5.30 "		.....		0	8.0		4.30				1.00330		
									5	8.0		4.42				1.00356		
									11.0	5.4		11.69				1.00929		
					7.00 "		.....		0	8.1		4.44				1.00330		
									5	7.5		11.18				1.00864		
									11.0	5.4		4.85				1.00386		
					8.30 "		.....		0	7.8		4.89				1.00377		
									5	7.7		5.71				1.00444		
									11.0	5.0		12.45				1.00990		
					10.00 "		.....		0	8.0		5.20				1.00401		
									5	7.0		6.73				1.00528		
									11.0	4.6		8.03				1.00641		

Observations not taken a/c thick weather & necessity for making Baltimore

Form 625. RECORD OF Hydrographic and dredging stations in Chesapeake Bay INVESTIGATION BY Fish Hawk 1922.

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Station Number.	Bearings. Latitude.	Longitude.	Chart.	Date.	Time of Day.	Depth. M (fms.)	Character of Bottom.	Temperature. Air. Degrees.	Temperature. Water. Depth. M	Temperature. Water. Degrees. C	Salinity. Depth. (fms.)	Salinity. Salinity.	Apparatus Used.	Twist. Depth.	Twist. Duration. Mins	Drift. Direction. DENSITY.	Drift. Distance. Miles. Fire Hawk.	Remarks.
9078	Continued			Mar 30	11.30 A.M.	11.0	.....		0	7.9		5.69				1.00441		N-Ion Concentration
									5	7.4		7.68				1.00490		
									11.0	4.5		14.20				1.01132		
					1.00 P.M.		.....		0	7.7		5.18				1.00482		
									5	6.8		9.13				1.00717		
									11.0	4.6		14.13				1.01125		
					2.30 "		.....		0	7.9		4.71				1.00364		
									5	7.4		7.04				1.00647		
									11.0	5.0		12.48				1.00993		
					4.00 "		.....		0	7.8		4.67				1.00359		
									5	7.8		5.20				1.00403		
									11.0	4.8		13.90				1.01107		
					5.30 "		Observations not taken a/c thick weather & necessity for making Baltimore.											
				Mar. 29	7.32;45PM									0	5	0	.13	Observations not taken a/c thick weather & necessity for making Baltimore
					7.40									5	5	0	.19	
					7.59									11.0	5	--		
					8.44;30									0	5	0	.21	
					8.51									5	5	0	.24	
					8.57									11.0	5	SWX	.23	
					---									0	5	E	.23	
					10.02									5	5	ENE	.24	
					10.14									11.0	5	SWXW	.32	
					12.38;5									0	5	WSW	.27	
					11.45;15									5	5	NNE	.32	
					11.52;30									11.0	5	NNE	.34	
					1.11									0	5	SSEX	.22	
					1.18									5	5	SSES	.17	
					1.25									11.0	5	ENE	.19	
					1.37									0	5	WNW	.27	
					2.43;30									5	5	WNWX	.23	
					2.50;30									11.0	5	SWXS	.21	
					4.06									0	5	SSEX	.24	
					4.12									5	5	SSES	.17	
					4.18									11.0	5	SWW	.24	
					5.44;30									0	5	SWXS	.23	
					5.50;30									5	5	SWW	.22	
					5.57									11.0	5	S	.30	
					7.06;30									0	5	S	.19	
					7.12;30									5	5	SWW	.24	
					7.19									11.0	5	S	.23	
					8.37									0	10	SW	.21	
					8.48;30									5	5	WSW	.23	
					8.55									11.0	5	SSW	.24	
					10.03									0	5	0	.16	
					10.09									5	5	WSW	.34	
					10.15;15									11.0	5	S	.42	

RECORD OF Hydrographic INVESTIGATION BY Fish Hawk 19 22.

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Latitude.	Bearings.	Longitude.	Chart.	Date.	Time of Day	Salinity. Depth. (fms.)	Salinity.	Apparatus Used.	Tmal. Depth. (fms.)	Tmal. Duration. h. m.	Drift. Direction.	Drift. Distance (miles)	Remarks.
									M	Mins			H-Ion Concentration
Continued				Mar.29	11.34 PM				0	5	WNW	.10	
					11.40;45"				5	5	SW	.22	Observations not
					11.47 "				11.0	4	E	.11	taken a/c thick
				Mar.30	1.06 AM				0	5	ENE	.46	weather & necessity
					1.12;5				5	5	W	.65	for making Baltimore
					1.19				11.0	5	NW	.37	
					2.34				0	5	ENE	.51	
					2.40;5				5	5	W	.49	
					2.47				11.0	5	SW	.36	
					4.06				0	5	0	.00	
					4.12;30				5	5	SE	.07	
					4.19				11.0	5	SSW	.65	