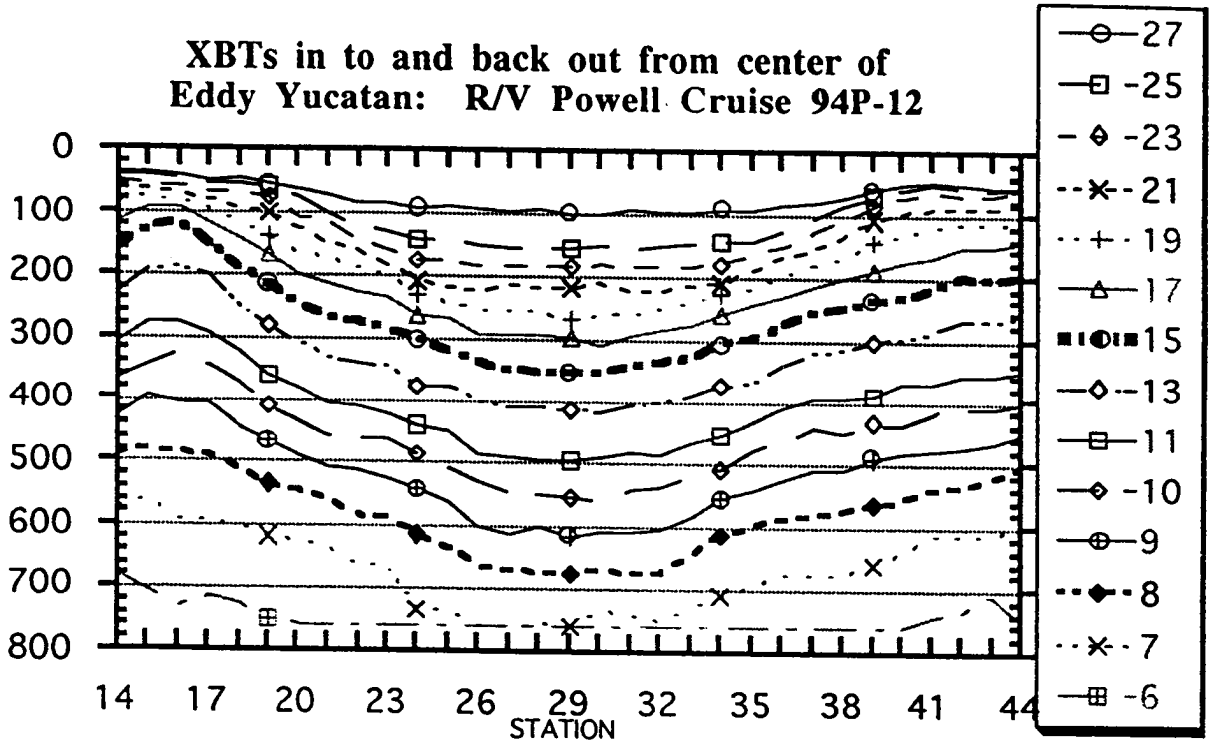
HYDROGRAPHIC SURVEYS OF EDDY YUCATAN AND OF THE ADJACENT CONTINENTAL MARGIN OF THE NORTHERN GULF OF MEXICO, 9-14 OCTOBER AND 19-24 NOVEMBER 1994



Technical Report 95-02-T of the Department of Oceanography
of Texas A&M University, College Station, TX 77843

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D.C. Biggs, Technical Editor

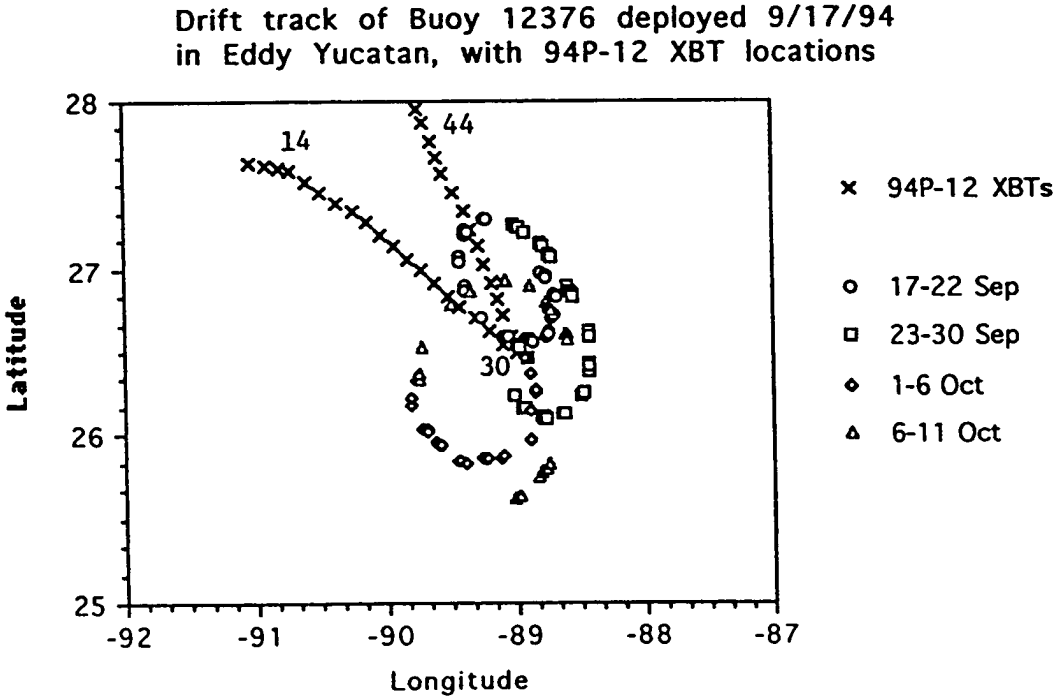
CONTENTS

SYNOPSIS

The Loop Current shed an anticyclonic eddy named "Eddy Yucatan" in late summer 1994. In mid September 1994, during an XBT survey of this new warm-core ring by the Eddy Joint Industry Program (EJIP), it was marked with an Argos-tracked drifter (#12376). Data from this drifter, which were posted once each week by the LATEX Eddy program to Omnet's GULF.MEX bulletin board, allowed the location of eddy center to be tracked. TAMU Tech Support Services Group was afforded the opportunity to sample its northern perimeter in mid October and again in mid November 1994:

JW Powell Cruise 94P-12: Mr. Jerry Morgan, TAMU-GERG, Chief Scientist

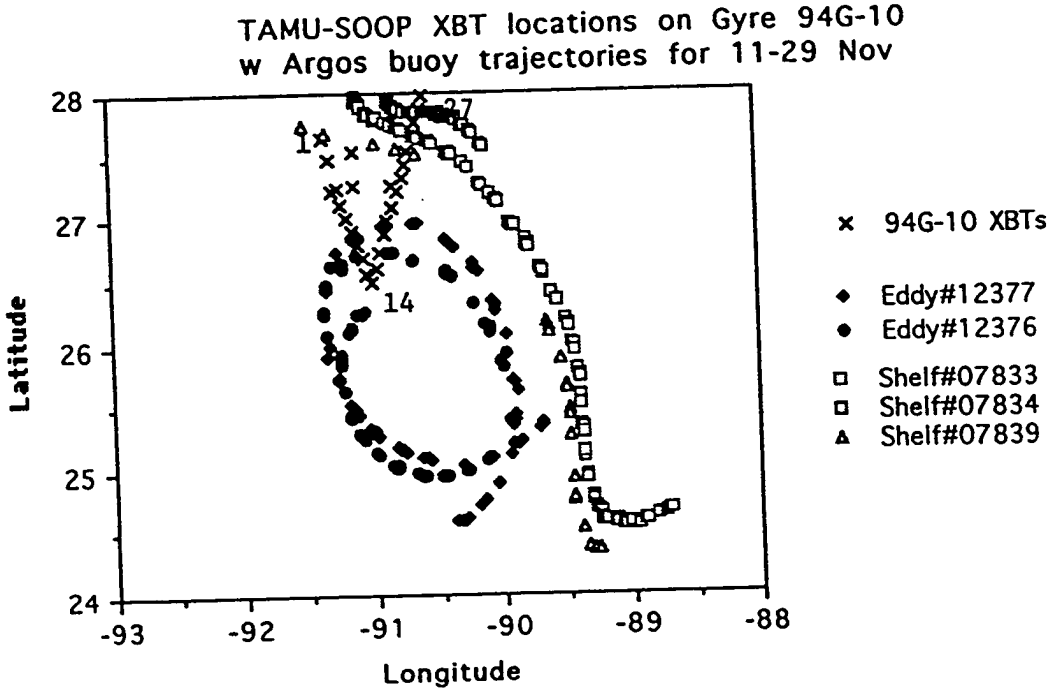
XBTs provided by the Eddy Joint Industry Project, the LATEX.Eddy program, Texaco, and by the GulfCet program were dropped at 90 locations in and around Eddy Yucatan during a piston coring program fielded by R/V *JW Powell* from Galveston, TX, to Key West, FL. Near 90°W, piston coring was interrupted for 24 hours so that *Powell* could make a radial section of closely-spaced XBTs in to and another section back out from center of Eddy Yucatan. A SeaBird "Seacat" CTD cast to 1000 m was made near the center of Eddy Y on 11 October, immediately followed by the release of an Argos drifter that was provided by the LATEX.Eddy program (#12377). This XBT survey of Eddy Y was done in close cooperation with Mr. Frank Kelly (GERG), Dr. Tom Mitchell (Texaco), and Dr. Robert Leben (CCAR). Kelly arranged for the collection of underway ADCP data on 94P-12, Mitchell shared drifter trajectory data from several additional buoys that EJIP had dropped into Eddy Y, and Leben provided dynamic height maps of Eddy Y and the rest of the Gulf that CCAR computes from Topex/Posiedon altimetry.



SYNOPSIS (continued)

Gyre Cruise 94G-10: Mr. Hugh Barnett, TAMU-GERG, Chief Scientist

XBTs provided by the LATEX.Eddy program were dropped as opportunity allowed during a 10 day piston coring cruise, 17-26 November 1994. Near 91°W, piston coring was interrupted for 16 hours so that *Gyre* could run south to drop XBTs in the northern perimeter of Eddy Yucatan. While this Ship Of Opportunity Program hydrographic survey did not reach eddy center, the very close spacing of XBTs in to and back out from the high velocity margin afforded a high resolution look at the dynamic topography.



The data which follow are organized into 4 sections:

Part One:	XBTs of Opportunity and Seacat CTD data, R/V *Powell* cruise 94P-12
Part Two:	XBTs of Opportunity, R/V *Gyre* cruise 94G-10
Part Three:	Calculated Dynamic Height and Geostrophic Transport
Part Four:	15°C vs Dynamic Height relationships, July-Nov 94

XBTs of Opportunity

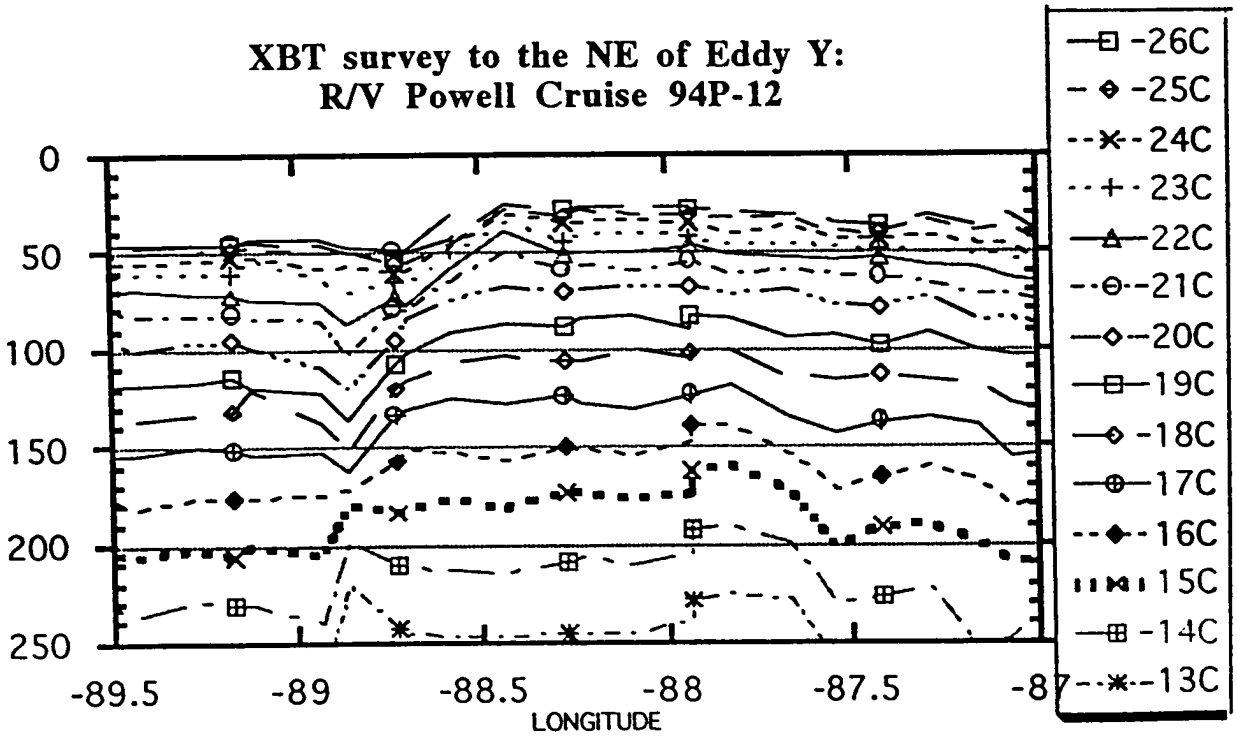
JW Powell cruise 94P-12

Three cases of Sippican T-7 XBTs were provided by the LATEX Eddy program, another 3 cases of Sippican T-7 XBTs were contributed by the Eddy Joint Industry Program, and 2 cases of. Sparton T-7 XBTs remaining from those purchased by the GulfCet program for their 1993-94 fieldwork were contributed by Giulietta Fargion.

These XBTs of opportunity were dropped a) during piston coring of the outer shelf and slope between 27°50'N and 27°35'N, moving eastward from 93°42'W to 90°43'W (XBTs 1-13); b) on what we judged should be a radial section from the NW periphery in to the estimated position of the center of Eddy Yucatan (XBTs 14-30) and back out along a second radial section heading NNW (XBTs 31-44); c) during piston coring of the continental slope, from the Mississippi Trough to the DeSoto Canyon area (XBTs 45-63); d) along a deadhead track heading SE from DeSoto Canyon to 26°N, 84.5°W, at the edge of the West Florida shelf (XBTs 64-90).

Two tables that follow summarize: 1) Date, Latitude, Longitude, and serial number/mfgr for XBTs; 2) Depth of Isotherms (27-6°C), temperature at bottom of cast (XBT Temp at z = 760 m), temperature at the surface (XBT Temp at z = 3 m), and salinity at the surface (analyzed post-cruise from bottle samples drawn from the ship's pumped surface sampling system, at approx z = 1.5 m). Also included are T vs Z plots of each Raw Data File (RDF).

In this section of the report, no corrections to temperature or to drop rate have been made in the data tables which follow. However, the raw data depths which are calculated by the manufacturer's software are corrected by [1.05*z - 3] before the XBT data are used for dynamic height and other geostrophic calculations.



XBTs of Opportunity: JW Powell cruise 94P-12

XBT	Date	GMT	Latitude	Longitude	XBT s/n	XBT mfgr
1	9 Oct	18:47	27 50	93 42	827278	Sippican
2	"	19:50	27 43	93 37	827279	"
3	"	23:28	27 34	93 29	827282	"
4	10 Oct	01:10	27 36	93 27	827283	"
5	"	19:37	27 52.8	91 59.0	851979	"
6	"	22:48	27 38.6	91 40.5	851980	"
7	11 Oct	00:28	27 38.0	91 32.1	851982	"
8	"	01:46	27 37.0	91 25.9	851983	"
9	"	03:27	27 37.4	91 17.7	851985	"
10	"	04:08	27 38.1	91 10.9	851988	"
11	"	08:05	27 37.7	91 03.0	851989	"
12	"	09:31	27 37.2	90 55.1	852843	"
13	"	11:00	27 35.8	90 48.7	852844	"
14	"	12:10	27 35.4	90 43.0	852845	"
15	"	13:50	27 30.9	90 36.2	852846	"
16	"	14:32	27 27.3	90 29.5	852847	"
17	"	15:15	27 24.0	90 22.2	852848	"
18	"	15:57	27 20.6	90 15.0	852849	"
19	"	16:36	27 17.0	90 08.3	852850	"
20	"	17:16	27 12.7	90 02.2	852851	"
21	"	17:55	27 08.3	89 56.0	852852	"
22	"	18:35	27 03.7	89 49.7	852853	"
23	"	19:14	26 59.3	89 43.9	852854	"
24	"	19:55	26 54.7	89 37.7	841074	"
25	"	20:33	26 50.3	89 31.7	841075	"
26	"	21:12	26 46.0	89 25.5	841076	"
27	"	21:50	26 41.9	89 19.3	841077	"
28	"	22:31	26 37.4	89 12.8	841078	"
29	"	23:12	26 33.2	89 06.3	841079	"
30	"	23:45	26 30.2	89 00.6	841080	"
31	12 Oct	01:17	26 35.7	89 02.9	841081	"
32	"	02:06	26 43.2	89 05.9	841082	"
33	"	02:53	26 48.9	89 08.9	841083	"
34	"	03:40	26 55.4	89 11.6	841084	"
35	"	04:27	27 02.0	89 14.1	841085	"
36	"	05:13	27 08.2	89 17.4	840990	"
37	"	06:02	27 14.5	89 21.0	840991	"
38	"	06:48	27 20.7	89 24.2	840992	"
39	"	07:36	27 26.9	89 27.9	837494	"
40	"	08:31	27 34.0	89 33.5	840995	"
41	"	09:09	27 39.5	89 36.1	840996	"
42	"	09:50	27 45.4	89 39.2	840997	"
43	"	10:36	27 52.3	89 42.6	841001	"
44	"	11:06	27 56.7	89 44.4	840999	"
45	"	15:04	28 04.5	89 37.3	841000	"
46	"	15:54	28 09.1	89 30.3	840966	"
47	"	22:24	28 06.1	89 26.3	840967	"
48	"	23:32	28 12.7	89 15.9	840968	"
49	"	23:38	28 13.2	89 15.1	840969	"
50	13 Oct	00:32	28 18.0	89 07.4	840970	"
51	"	01:30	28 24.0	88 59.6	840971	"
52	"	02:30	28 29.8	88 51.8	840972	"
53	"	03:29	28 35.5	88 43.6	840973	"
54	"	03:35	28 36.1	88 42.8	840974	"
55	"	03:40	28 36.7	88 42.0	840975	"
56	"	04:32	28 41.3	88 34.6	840976	"
57	"	05:31	28 46.4	88 26.0	840977	"
58	"	06:42	28 52.6	88 16.5	841806	"

XBTs of Opportunity: JW Powell cruise 94P-12

XBT	Date	GMT	Latitude	Longitude	XBT s/n	XBT mfgr
59	"	06:58	28 54.3	88 13.8	841807	"
60	"	07:57	28 59.1	88 05.4	841808	"
61	"	08:55	29 03.0	87 56.6	841809	"
62	"	11:44	29 07.3	87 56.4	841810	"
63	"	13:38	29 11.1	87 50.0	841811	"
64	"	17:03	29 07.9	87 40.0	841812	"
65	"	18:04	29 00.7	87 32.6	841813	"
66	"	19:03	28 53.8	87 25.3	841814	"
67	"	20:04	28 46.7	87 17.5	841815	"
68	"	21:03	28 40.0	87 09.8	841816	"
69	"	22:03	28 32.1	87 04.0	841817	"
70	"	22:22	28 30.4	87 00.8	18875	Sparton
71	"	23:04	28 24.7	86 55.3	18876	"
72	14 Oct	00:04	28 16.9	86 47.9	18877	"
73	"	01:03	28 09.4	86 40.8	18878	"
74	"	02:02	28 02.2	86 33.7	18879	"
75	"	03:03	27 54.8	86 26.6	18880	"
76	"	04:03	27 47.5	86 19.7	18881	"
77	"	05:07	27 39.6	86 12.6	18883	"
78	"	06:03	27 32.8	86 05.7	18884	"
79	"	07:02	27 26.0	85 58.3	5073	"
80	"	08:03	27 19.1	85 50.6	18886	"
81	"	09:02	27 11.9	85 42.3	5074	"
82	"	10:02	27 05.3	85 35.6	5075	"
83	"	11:03	26 57.8	85 28.3	5076	"
84	"	12:02	26 50.1	85 20.8	5077	"
85	"	13:02	26 42.3	85 12.6	5078	"
86	"	14:04	26 34.3	85 03.4	5079	"
87	"	15:03	26 26.1	84 54.1	5080	"
88	"	16:04	26 17.8	84 45.4	5081	"
89	"	17:04	26 09.6	84 37.3	5082	"
90	"	18:05	26 01.3	84 29.8	5083	"

XBT	Date	GMT	Latitude	Longitude	sfc Temp	sfc Salin	28 C Depth	27 C Depth	26 C Depth	25 C Depth
1	9 Oct 94	18:47	27 50	93 42	27.9	36.01		42	44	46
2	"	19:50	27 43	93 37	27.7	36.10		52	53	54
3	"	23:27	23 27	27 34	27.8	35.95		51	52	56
4	10 Oct 94	01:10	27 34	93 27	27.7	35.78		50	52	56
5	"	19:35	27 36	93 27	27.0	34.80		25	26	33
6	"	22:47	27 38.6	91 40.5	27.4	36.18		34	36	38
7	11 Oct 94	00:28	27 38.0	91 32.1	27.4	36.10		31	33	35
8	"	01:45	27 37.0	91 25.9	27.4	36.11		35	36	39
9	"	03:25	27 37.4	91 17.7	27.5	36.13		37	38	39
10	"	04:08	27 38.1	91 10.9	27.4	36.10		36	38	39
11	"	08:05	27 37.7	91 03.0	27.3	36.08		32	34	35
12	"	09:31	27 37.2	90 55.1	27.4	35.90		34	39	41
13	"	11:01	27 35.7	90 48.7	27.6	35.87		37	39	41
14	"	12:09	27 35.4	90 43.0	27.4	35.82		36	37	41
15	"	13:52	27 30.9	90 36.2	27.4	36.06		37	40	43
16	"	14:31	27 27.3	90 29.5	27.3	36.07		41	43	48
17	"	15:14	27 24.0	90 22.2	27.4	35.53		48	51	53
18	"	15:56	27 20.6	90 15.0	27.7	35.51		46	50	54
19	"	16:35	27 17.0	90 08.3	27.8	35.87	58	54	55	59
20	"	17:16	27 12.7	90 02.2	28.3	36.10	58	61	64	74
21	"	17:55	27 08.3	89 56.0	28.1	36.29	61	70	90	102
22	"	18:35	27 03.7	89 49.7	28.2	36.30	63	81	101	118
23	"	19:14	26 59.3	89 43.9	28.1	36.29	65	82	107	129
24	"	19:54	26 54.7	89 37.7	28.3	36.30	74	91	122	143
25	"	20:32	26 50.3	89 31.7	28.1	36.39	66	86	117	142
26	"	21:12	26 46.0	89 25.5	28.1	36.38	70	91	126	151
27	"	21:48	26 41.9	89 19.3	28.1	36.29	73	96	129	153
28	"	22:29	26 37.4	89 12.8	28.1	36.20	72	93	136	155
29	"	23:10	26 33.1	89 06.3	28.2	36.19	76	98	136	153
30	"	23:43	26 30.2	89 00.6	28.2	36.29	76	100	127	152
31	12 Oct	01:16	26 35.8	89 02.9	28.1	36.29	75	93	132	153
32	"	02:06	26 42.3	89 05.9	28.1	36.30	73	94	131	152
33	"	02:51	26 48.9	89 08.9	28.2	36.29	70	94	128	146
34	"	03:38	26 55.4	89 11.6	28.1	36.30	71	90	122	143
35	"	04:25	27 02.0	89 14.1	28.1	36.28	67	90	116	141
36	"	05:11	27 08.2	89 17.4	28.1		71	85	108	124
37	"	06:00	27 14.5	89 21.0	28.1	36.27	65	79	95	103
38	"	06:47	27 20.7	89 24.2	28.1	36.24	68	71	80	85
39	"	07:34	27 26.9	89 27.9	28.2	36.08	58	59	62	68
40	"	08:30	27 34.0	89 33.5	28.0	35.99	47	49	52	56
41	"	09:07	27 39.5	89 36.1	28.0	36.09	43	45	47	50
42	"	09:48	27 45.4	89 39.2	27.9	36.07		50	52	56
	"	10:35	27 52.3	89 42.6	27.9	35.99		55	56	58
							48	52	53	55

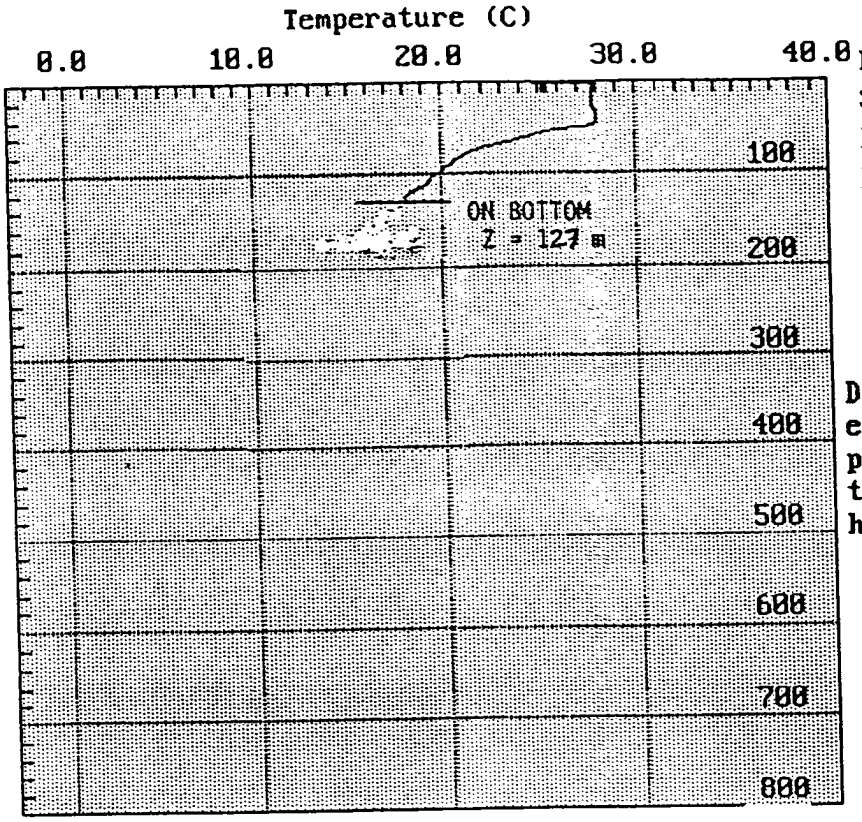
XBT									
1	50	57	64	71	86	93	111	122	(on bottom @ 127 m)
2	57	60	67	72	86	100	109	127	146 168
3	60	69	79	86	97	111	124	142	159 180
4	63	68	72	81	97	112	125	141	161 (on bottom @ 170 r
5	34	36	44	50	64	77	93	118	157 (wire broke @ 165 r
6	42	50	59	70	79	90	101	127	149 175
7	44	52	59	66	88	99	116	132	157 185
8	45	52	60	69	78	93	116	131	160 190
9	44	49	55	64	90	106	120	141	167 193
10	41	48	55	68	77	98	122	144	160 189
11	38	44	57	68	78	95	118	137	161 186
12	47	55	57	66	81	91	110	139	152 176
13	48	54	62	70	81	92	106	126	148 169
14	45	50	56	62	70	82	94	113	128 158
15	50	54	58	62	66	74	82	93	107 127
16	53	59	64	70	74	80	86	92	103 118
17	58	65	73	78	85	94	103	116	131 151
18	60	65	72	91	100	116	127	143	164 188
19	66	75	85	100	115	138	152	166	193 214
20	88	106	116	125	138	164	180	199	223 246
21	112	116	136	148	160	172	194	215	237 269
22	132	143	155	159	171	188	203	225	250 274
23	141	160	171	183	191	199	216	236	256 286
24	161	176	195	207	219	230	243	265	286 303
25	160	178	197	218	237	243	253	269	296 319
26	167	183	197	223	237	254	266	291	313 339
27	167	182	195	214	241	255	272	294	324 350
28	173	186	196	218	242	258	274	291	319 352
29	172	183	197	219	241	268	280	297	327 355
30	168	181	197	210	239	261	289	310	329 355
31	172	184	202	222	246	261	276	294	316 342
32	169	185	202	223	237	250	267	284	308 336
33	163	182	200	212	230	240	260	278	309 329
34	162	178	191	209	216	226	240	259	280 306
35	150	164	174	188	200	215	228	244	263 298
36	141	150	155	168	181	196	210	231	254 278
37	107	126	144	153	161	180	195	214	233 257
38	98	108	116	132	144	170	184	202	228 251
39	77	85	94	106	121	141	158	187	209 237
40	61	69	82	94	107	131	147	174	204 233
41	57	64	76	88	101	120	132	165	190 218
42	60	65	77	87	99	112	130	151	173 200
43	61	67	74	86	102	114	131	148	169 203
44	57	61	64	83	91	108	122	142	165 200
45	55	63	75	80	90	110	132	152	173 199

XBT	14 C Depth	13 C Depth	12 C Depth	11 C Depth	10 C Depth	9 C Depth	8 C Depth	7 C Depth	6 C Depth	T@z = 760m
1	(on bottom @ 127 m)									
2	195	231	(on bottom @ 252 m)							
3	203	231	281	(on bottom @ 305 m)						
4	(on bottom @ 170 m)									
5	(wire broke @ 165 m)									
6	201	238	277	307	355	411	477	561	734	5.86
7	217	250	284	325	375	433	490	526	732	5.91
8	219	255	291	333	376	431	482	570	718	5.94
9	220	245	277	328	371	424	494	573	710	5.77
10	214	240	274	319	374	433	487	556	742	5.86
11	215	247	286	330	386	426	509	582	718	5.83
12	207	248	291	329	388	441	493	575	688	5.72
13	200	229	271	322	365	425	492	574	716	5.71
14	188	226	273	305	366	429	487	572	680	5.59
15	161	194	227	277	342	395	481	560	706	5.55
16	149	188	227	277	325	407	485	591	727	5.82
17	177	200	242	291	344	406	490	590	714	5.72
18	218	249	282	323	371	442	511	598	726	5.79
19	250	282	316	360	411	466	534	618	749	5.92
20	272	306	341	381	436	488	545	624	758	5.96
21	301	330	372	407	457	508	560	635	759	5.99
22	307	339	376	410	460	513	583	663		6.06
23	314	344	381	423	460	522	585	665		6.12
24	341	376	408	441	485	541	614	732		6.78
25	347	376	410	449	506	560	634	734		6.74
26	366	400	439	487	528	598	665	757		6.95
27	374	409	452	492	544	610	668	760		7.00
28	380	411	451	494	547	601	673	756		6.99
29	381	415	453	494	553	615	675	758		6.89
30	379	418	452	491	558	606	667	732		6.79
31	374	408	445	482	542	607	676	740		6.79
32	366	400	443	484	538	602	673	749		6.88
33	356	390	424	464	516	581	644	728		6.63
34	336	372	408	453	505	554	612	708		6.43
35	332	369	398	433	476	539	596	694		6.41
36	308	337	369	410	462	523	585	673		6.29
37	287	319	359	395	441	508	581	673		6.17
38	276	315	357	395	450	508	571	674		6.17
39	267	302	339	388	433	489	562	657	(wire broke @ 728 m)	
40	262	296	329	367	435	481	557	640	759	5.99
41	252	285	328	369	418	476	539	612	741	5.88
42	231	269	308	358	408	474	536	613	733	5.81
43	234	269	304	356	410	465	520	612	707	5.74
						446	505	588	749	5.98

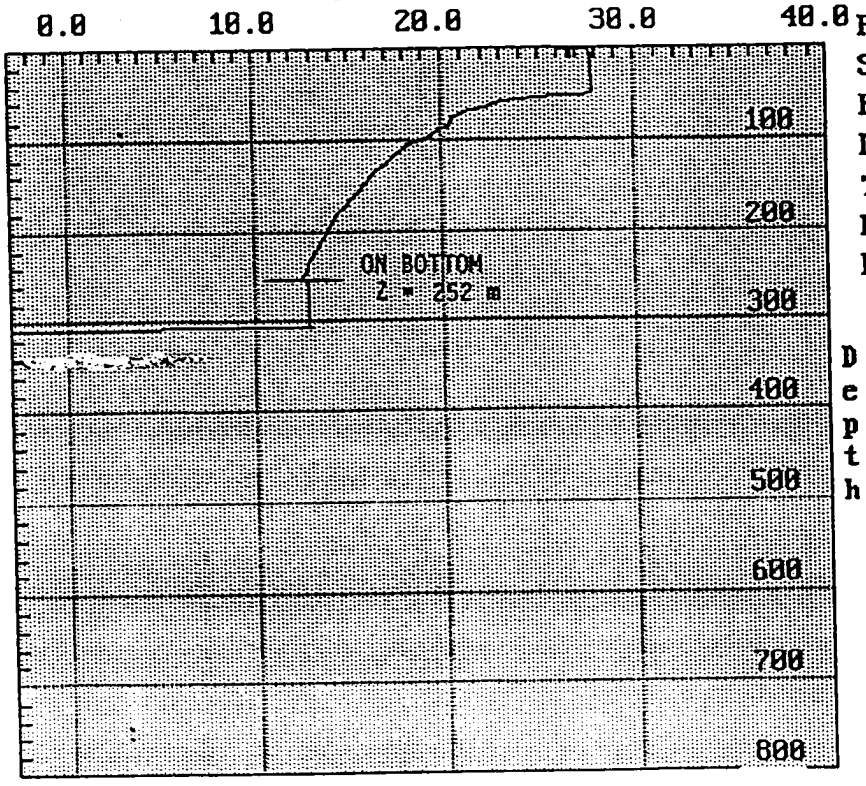
XBT	Date	GMT	Latitude	Longitude	Sfc Temp	Sfc Salin	20°C Depth	17°C Depth	15°C Depth	13°C Depth
46	12 Oct	15:54	28 09.1	89 30.3	27.5	36.05		46	48	52
47	"	22:24	28 06.1	89 26.3	27.7	36.03		45	47	50
48	"	23:32	28 12.7	89 15.9	27.5			45	46	49
49	"	23:38	28 13.2	89 15.1	27.6	36.12		45	46	48
50	13 Oct	00:32	28 18.0	89 07.4	27.7	36.27		43	44	47
51	"	01:30	28 24.0	88 59.6	27.7	36.19		43	46	50
52	"	02:30	28 29.8	88 51.8	27.7	36.26		47	49	50
53	"	03:29	28 35.5	88 43.6	27.7			48	53	55
54	"	03:35	28 36.0	88 42.6	(no data: XBT-54 was a bad probe: isothermal 0-760m)					
55	"	03:40	28 36.7	88 42.0	27.4	35.88		48	49	55
56	"	04:32	28 41.3	88 34.6	26.3	34.48		30	43	45
57	"	05:31	28 46.4	88 26.0	26.3	33.36			25	28
58	"	06:42	28 52.6	88 16.5	26.2				28	31
59	"	06:58	28 54.3	88 13.8	26.3	35.23			26	28
60	"	07:57	28 59.1	88 05.4	26.4	35.00			26	30
61	"	08:55	29 03.0	87 56.6	26.4	34.97			26	31
62	"	11:44	29 07.3	87 56.4	26.3	35.08			27	31
63	"	13:38	29 11.1	87 50.0	25.9	35.44			29	32
64	"	17:03	29 07.9	87 40.0	26.3	35.82			30	32
65	"	18:04	29 00.7	87 32.6	26.4				34	39
66	"	19:03	28 53.8	87 25.3	26.4	35.74			36	40
67	"	20:04	28 46.7	87 17.5	26.5				30	33
68	"	21:03	28 40.0	87 09.8	26.5	35.06			36	39
69	"	22:03	28 32.1	87 04.0	26.9				30	36
70	"	22:22	28 30.4	87 00.8	26.7				37	43
71	"	23:04	28 24.7	86 55.3	26.8	35.83			33	39
72	14 Oct	00:04	28 16.9	86 47.9	26.9			20	28	35
73	"	01:03	28 09.4	86 40.8	26.8	35.48			41	46
74	"	02:02	28 02.2	86 33.7	27.0			37	41	45
75	"	03:03	27 54.8	86 26.6	26.9	35.26			41	43
76	"	04:03	27 47.5	86 19.7	26.8				41	44
77	"	05:07	27 39.6	86 12.6	26.7	35.29			41	45
78	"	06:03	27 32.8	86 05.7	26.8				35	39
79	"	07:02	27 26.0	85 58.3	26.8	35.20		27	32	37
80	"	08:03	27 19.1	85 50.6	27.2			32	34	36
81	"	09:02	27 11.9	85 42.3	27.1	35.22		31	34	37
82	"	10:02	27 05.3	85 35.6	27.0			32	35	38
83	"	11:03	26 57.8	85 28.3	27.3	35.16		31	34	37
84	"	12:02	26 50.1	85 20.8	27.0			30	33	37
85	"	13:02	26 42.3	85 12.6	27.6	35.94		33	36	40
86	"	14:04	26 34.3	85 03.4	27.8			36	40	44
87	"	15:03	26 26.1	84 54.1	28.0	35.99		37	45	50
88	"	16:04	26 17.8	84 45.4	27.9			37	43	47
89	"	17:04	26 09.6	84 37.3	27.9	35.89		33	39	47
90	"	18:05	26 01.3	84 29.8	28.1			34	39	45

XBT	24 C Depth	23 C Depth	22 C Depth	21 C Depth	20 C Depth	19 C Depth	18 C Depth	17 C Depth	16 C Depth	15 C Depth
46	55	62	70	79	94	118	133	153	176	205
47	55	60	69	82	100	118	136	153	181	206
48	54	61	71	82	96	117	133	149	175	202
49	52	61	72	82	95	114	131	151	175	206
50	52	53	74	83	99	119	121	153	175	200
51	58	63	75	85	109	122	137	152	174	206
52	57	70	86	102	120	136	151	162	171	180
53	60	65	3	79	95	107	120	133	157	183
54										
55	59	66	77	80	84	102	115	130	151	182
56	47	52	58	64	74	91	107	125	152	177
57	30	34	39	49	67	87	103	127	157	181
58	34	44	51	59	70	88	106	124	149	173
59	34	41	50	56	68	84	106	127	151	174
60	33	39	49	59	67	82	99	130	154	176
61	35	41	47	55	67	89	104	124	147	174
62	35	42	45	54	67	82	102	123	139	162
63	40	46	51	61	71	84	100	118	139	160
64	36	45	52	59	69	93	114	134	153	173
65	42	47	53	61	77	92	115	142	171	202
66	43	48	52	63	78	97	113	137	165	191
67	41	49	57	65	72	91	115	134	159	190
68	45	51	58	72	85	100	118	138	167	199
69	46	52	63	72	84	103	127	155	180	209
70	52	57	65	74	86	103	130	153	178	208
71	45	51	59	70	81	109	130	152	169	190
72	39	51	58	72	86	120	138	162	183	212
73	51	57	67	86	102	117	136	158	184	214
74	52	62	68	82	93	107	127	158	192	216
75	50	58	66	81	94	104	122	146	176	208
76	52	57	64	77	97	105	118	138	171	199
77	49	55	63	70	82	100	120	143	160	200
78	42	47	52	61	71	91	106	121	143	172
79	46	50	59	68	82	90	99	110	124	149
80	40	45	53	60	66	79	99	118	131	155
81	40	47	55	62	70	79	93	116	136	156
82	42	47	52	62	72	78	95	110	131	159
83	42	47	53	62	69	83	101	119	138	169
84	43	50	56	62	70	88	105	121	139	166
85	44	49	55	64	82	93	112	127	153	174
86	46	50	56	67	79	90	109	136	171	207
87	55	59	64	73	82	96	117	153	181	219
				78	91	106	128	160	196	229
									191	213

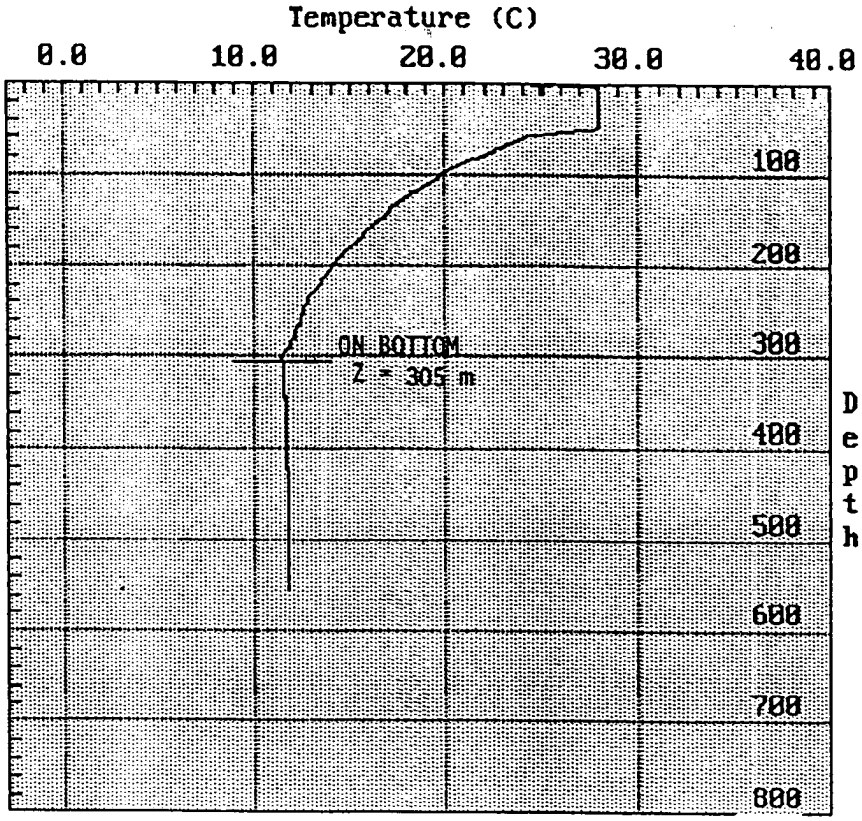
XBT	14 C Depth	13 C Depth	12 C Depth								
46	230	266	298	352	404	458	529	633	759	5.98	
47	236	264	304	348	425	484	550	628	746	5.94	
48	228	266	(wire broke @ 290 m)								
49	230	262	296	348	404	471	545	610	729	5.80	
50	230	272	303	354	399	450	522	600		6.01	
51	240	268	301	338	386	432	487	585	739	5.89	
52	197	220	252	287	347	402	498	573	709	5.75	
53	210	242	284	329	387	443	512	590	710	(wire broke @ 719	
54											
55	211	245	283	327	379	442	502	579	726	5.67	
56	213	247	297	347	397	452	515	602	728	5.77	
57	214	247	291	338	393	451	513	582	715	5.76	
58	208	245	283	337	391	438	510	588	(wire broke @ 695 m)		
59	206	245	286	329	390	438	506	591	723	5.80	
60	210	245	289	341	393	445	525	601	736	5.88	
61	204	238	278	323	372	433	522	620	758	5.99	
62	192	228	263	310	373	439	522	612	751	5.96	
63	190	225	257	313	367	442	514	604	760	6.00	
64	199	228	274	323	397	473	553	638		6.11	
65	230	262	303	354	405	465	541	641		6.09	
66	226	262	299	356	401	461	524	616	759	5.99	
67	221	257	308	354	404	453	524	600	743	5.88	
68	254	281	319	363	402	471	538	611	725	5.75	
69	246	284	335	(wire broke @ 372 m)							
70	240	283	335	388	434	492	552	623	735	5.80	
71	216	282	361	422	477	521	560	643	747	5.92	
72	235	274	328	384	447	521	570	643	738	5.89	
73	250	287	332	371	420	478	547	640	725	5.82	
74	251	279	323	366	421	470	538	615	730	5.89	
75	242	267	307	338	399	469	533	612	721	5.85	
76	225	264	308	348	413	458	528	627	736	5.84	
77	233	266	296	346	408	466	556	(wire broke @ 590 m)			
78	201	243	276	310	370	436	528	612		6.03	
79	177	212	270	302	359	425	510	610	733	5.85	
80	189	223	261	309	369	421	486	587	727	5.69	
81	191	226	269	309	380	427	507	584	718	5.72	
82	190	228	264	299	345	410	525	644	744	5.82	
83	195	224	260	304	364	429	514	(wire broke @ 540 m)			
84	192	227	264	303	358	431	496	592	726	5.86	
85	201	241	276	322	369	439	506	597	734	5.84	
86	234	269	305	341	390	436	507	609	744	5.90	
87	246	282	316	366	409	479	551	657		6.10	
88	257	292	346	399	454	532	(on bottom @ 545 m)				
89	(on bottom @ 238 m)										
90	(on bottom @ 217 m)										



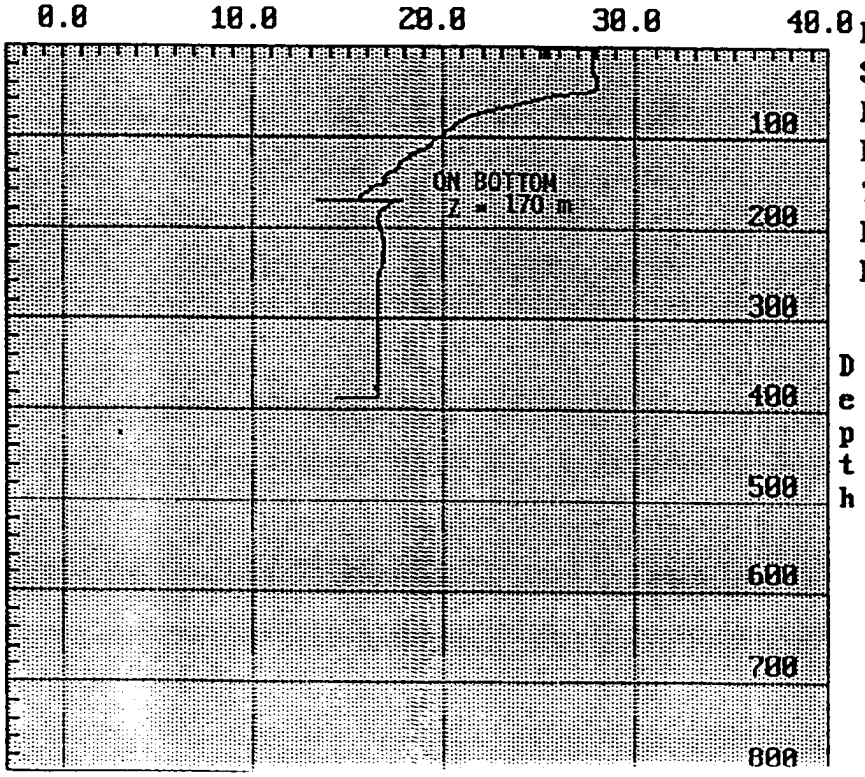
Probe : T-7
Serial # : 827278
Filename : T7$00001.RDF
Date : 10/09/94
Time : 18:47:03
Latitude : 27 50 N
Longitude: 93 42 W



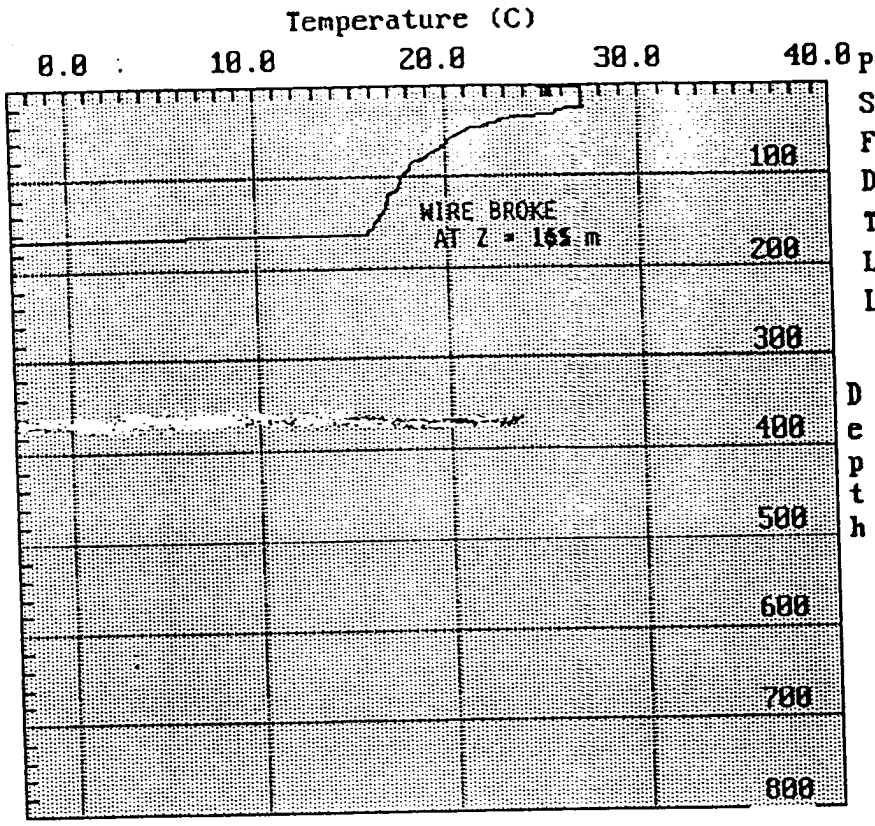
Probe : T-7
Serial # : 827279
Filename : T7$00002.RDF
Date : 10/09/94
Time : 19:49:31
Latitude : 27 43 N
Longitude: 93 37 W



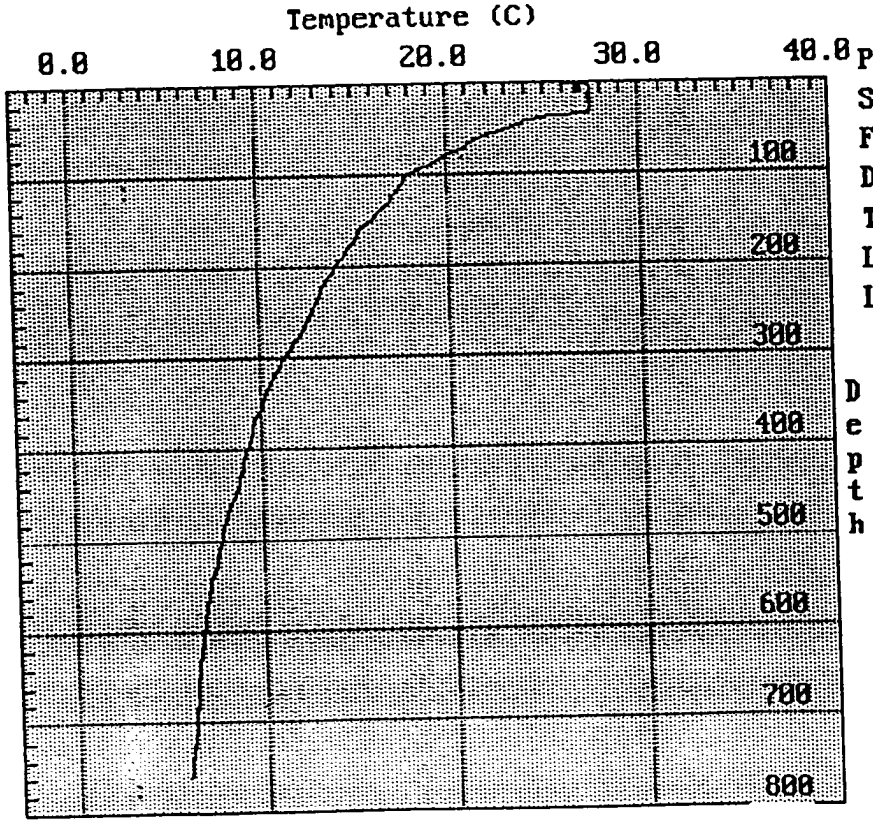
Probe : T-7
Serial # : 827282
Filename : T7$00003.RDF
Date : 10/09/94
Time : 23:27:48
Latitude : 27 34 N
Longitude: 93 29 W



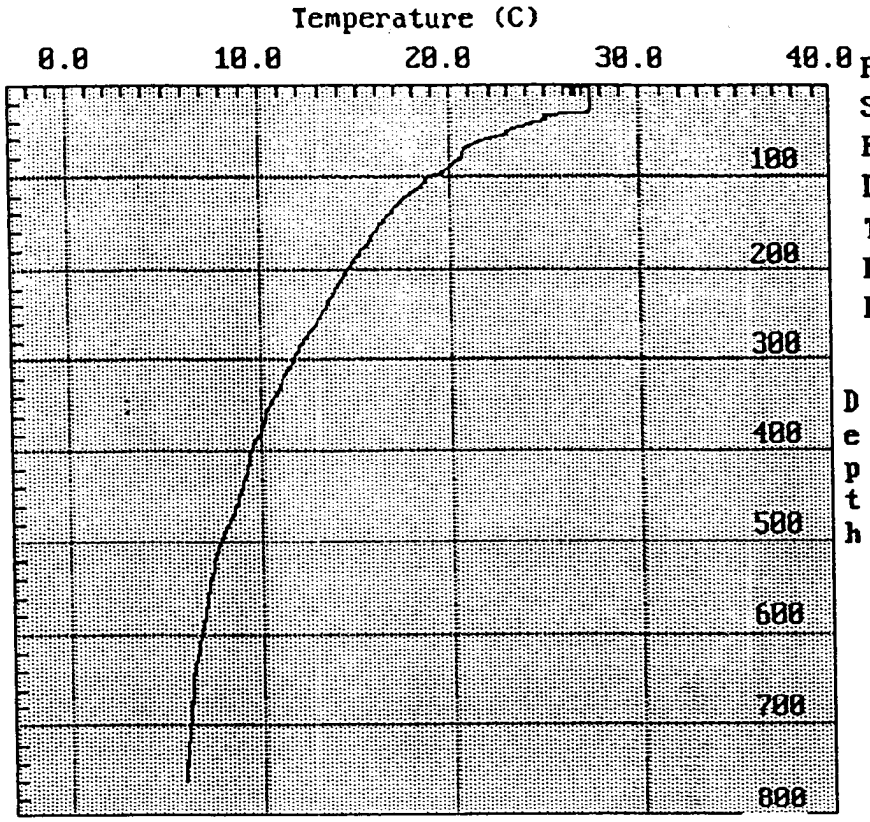
Probe : T-7
Serial # : 827283
Filename : T7$00004.RDF
Date : 10/10/94
Time : 01:10:03
Latitude : 27 36 N
Longitude: 93 27 W



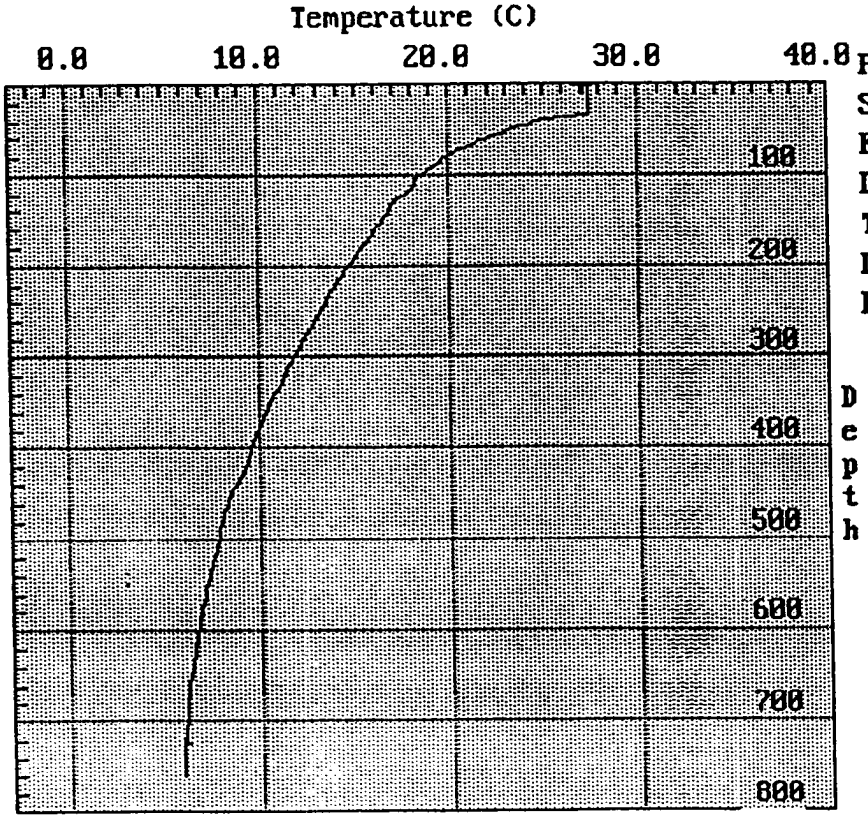
Probe : T-7
Serial # : 851979
Filename : T7$00005.RDI
Date : 10/10/94
Time : 19:36:43
Latitude : 27 52.8 N
Longitude: 91 59.0 W



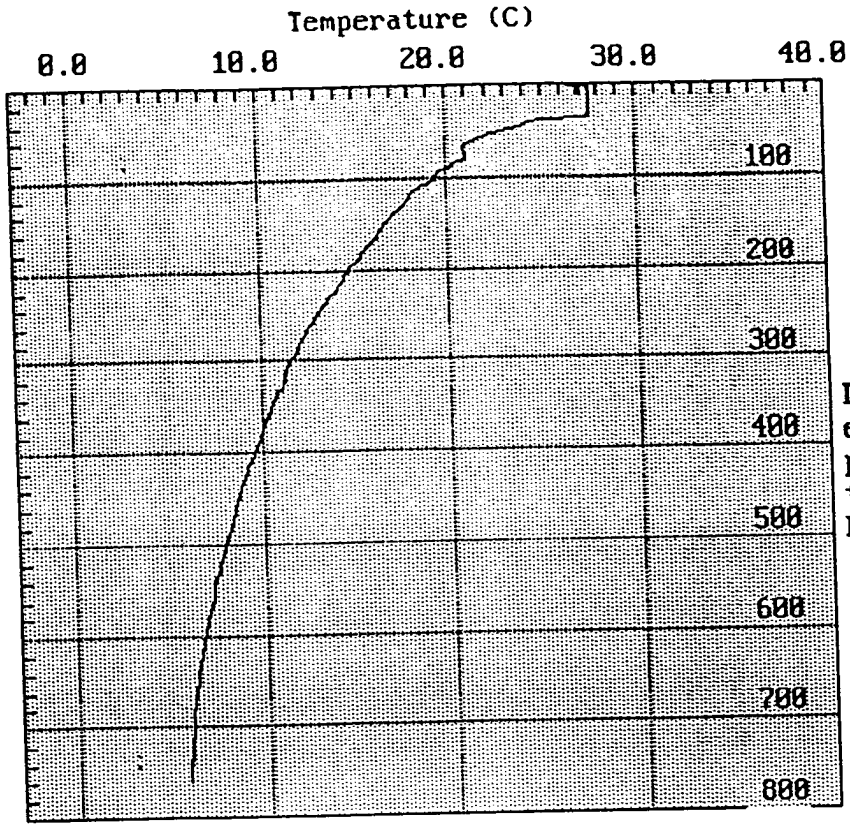
Probe : T-7
Serial # : 851980
Filename : T7$00006.R
Date : 10/10/94
Time : 22:48:05
Latitude : 27 38.6 N
Longitude: 91 40.5 W



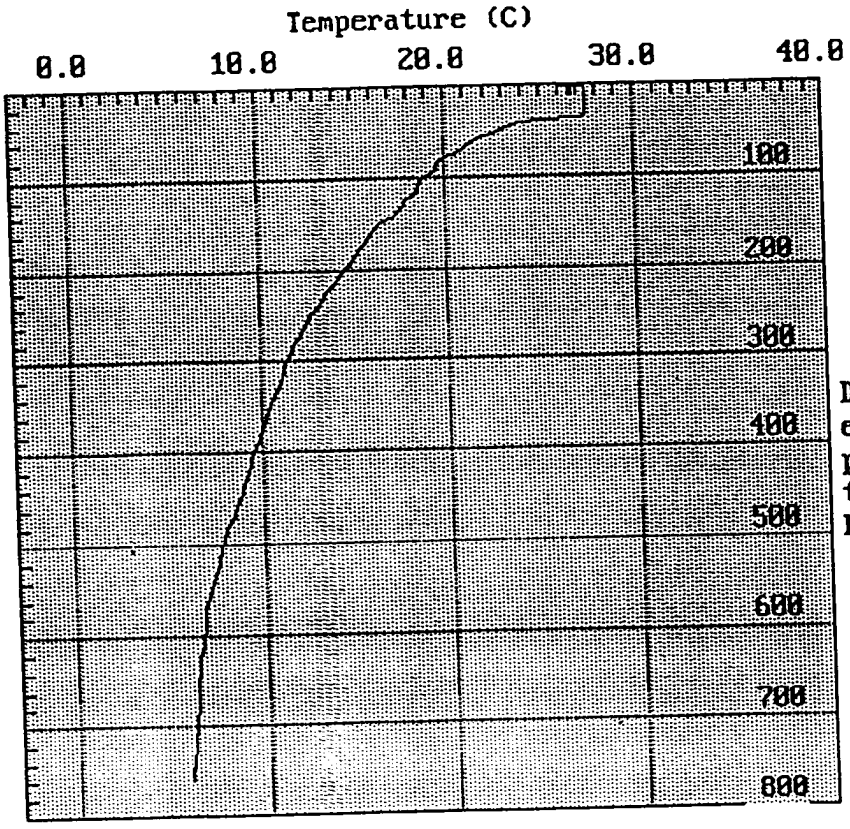
Probe : T-7
Serial # : 851982
Filename : T7$00007.RDF
Date : 10/11/94
Time : 00:28:27
Latitude : 27 38.0 N
Longitude: 91 32.1 W



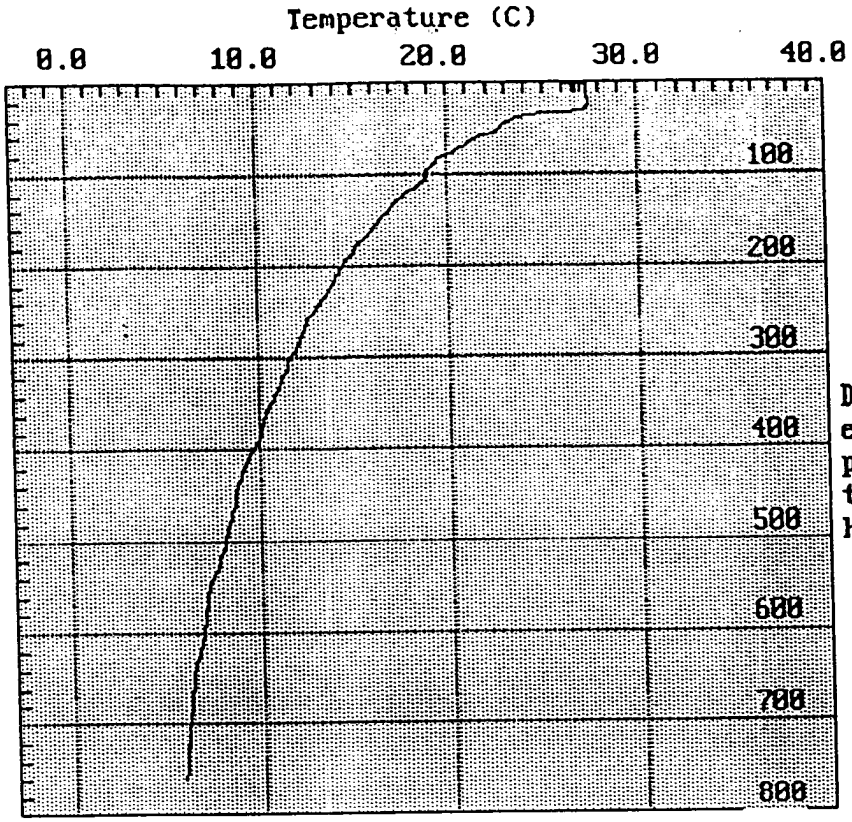
Probe : T-7
Serial # : 851983
Filename : T7$00008.RDF
Date : 10/11/94
Time : 01:45:33
Latitude : 27 37.0 N
Longitude: 91 25.9 W



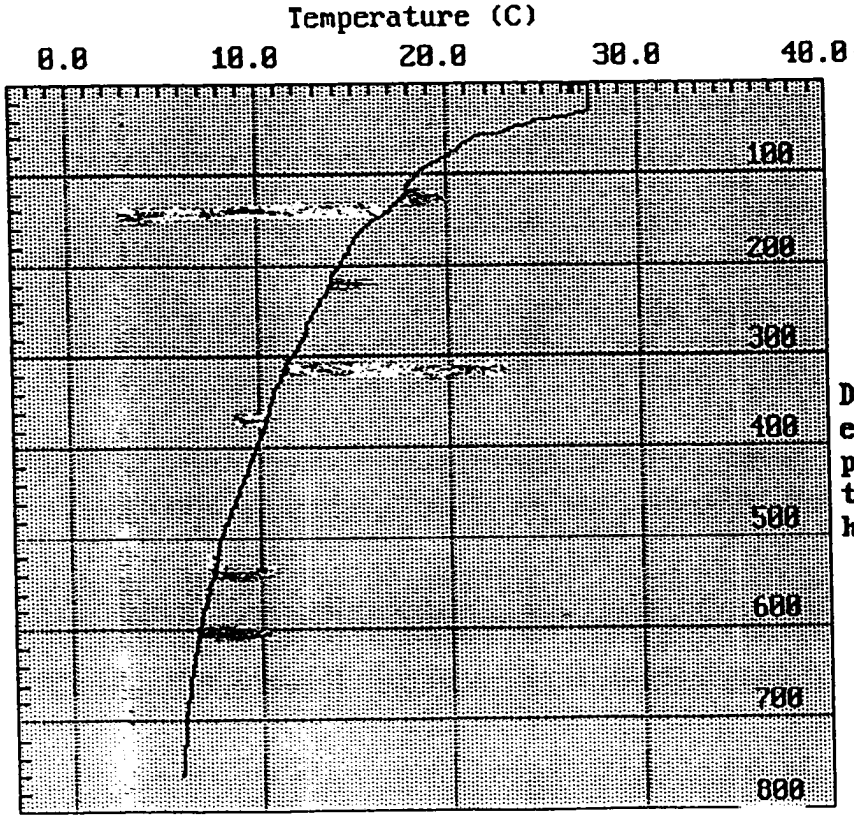
Probe : T-7
Serial # : 051985
Filename : T7$00009.RDF
Date : 10/11/94
Time : 03:26:30
Latitude : 27 37.4 N
Longitude: 91 17.7 W



Probe : T-7
Serial # : 051988
Filename : T7$00010.RDF
Date : 10/11/94
Time : 04:07:55
Latitude : 27 38.1N
Longitude: 91 10.9W

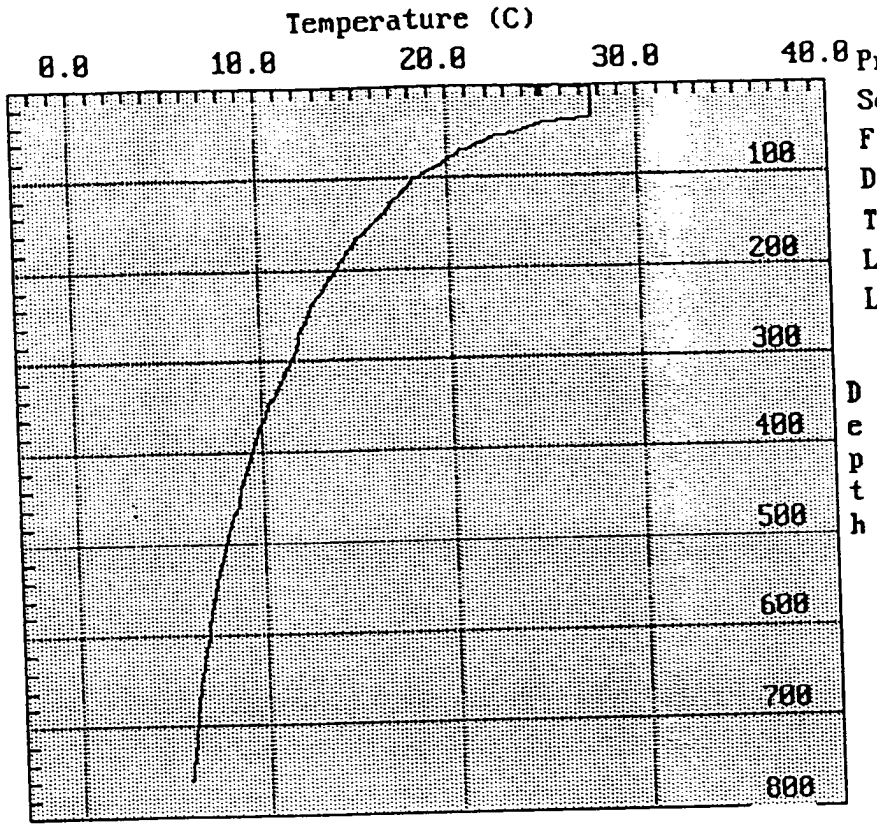


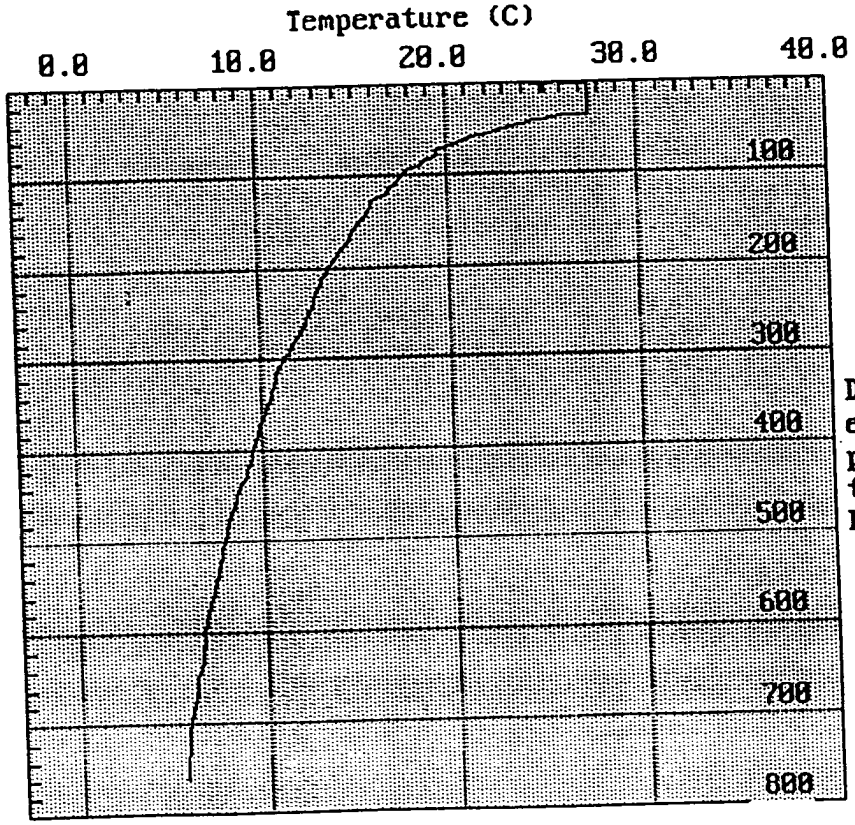
Probe : T-7
Serial # : 851989
Filename : T7$00011.RDF
Date : 10/11/94
Time : 08:05:06
Latitude : 27 37.7 N
Longitude: 91 03.8 W

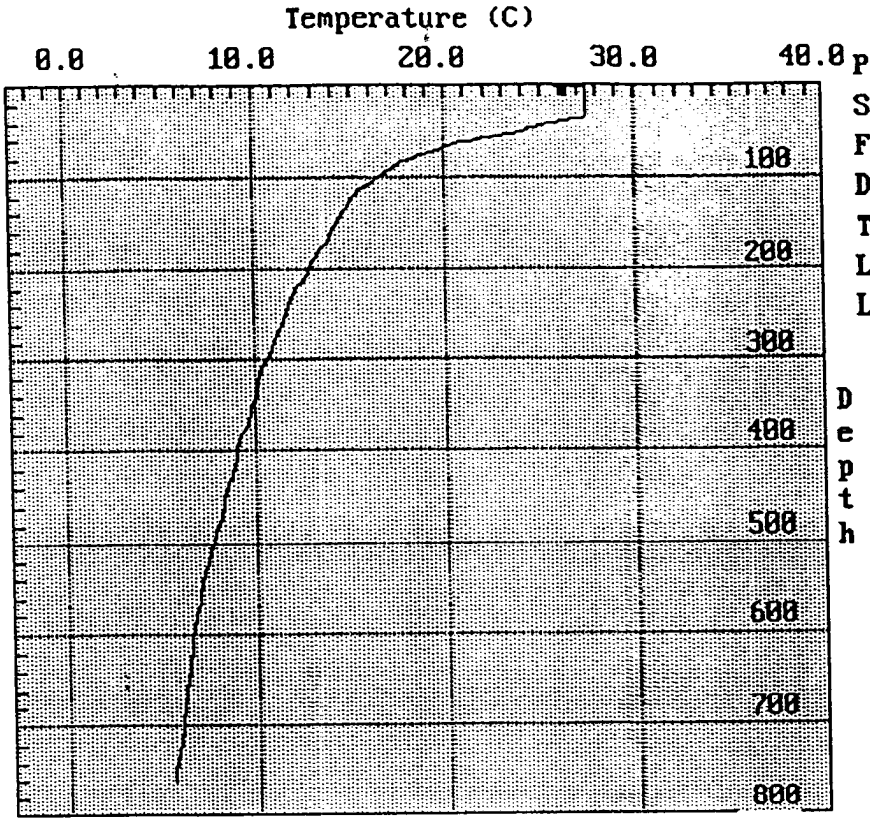


Probe : T-7
Serial # : 852843
Filename : T7$00012.RDF
Date : 10/11/94
Time : 09:31:23
Latitude : 27 37.2 N
Longitude: 90 55.1 W

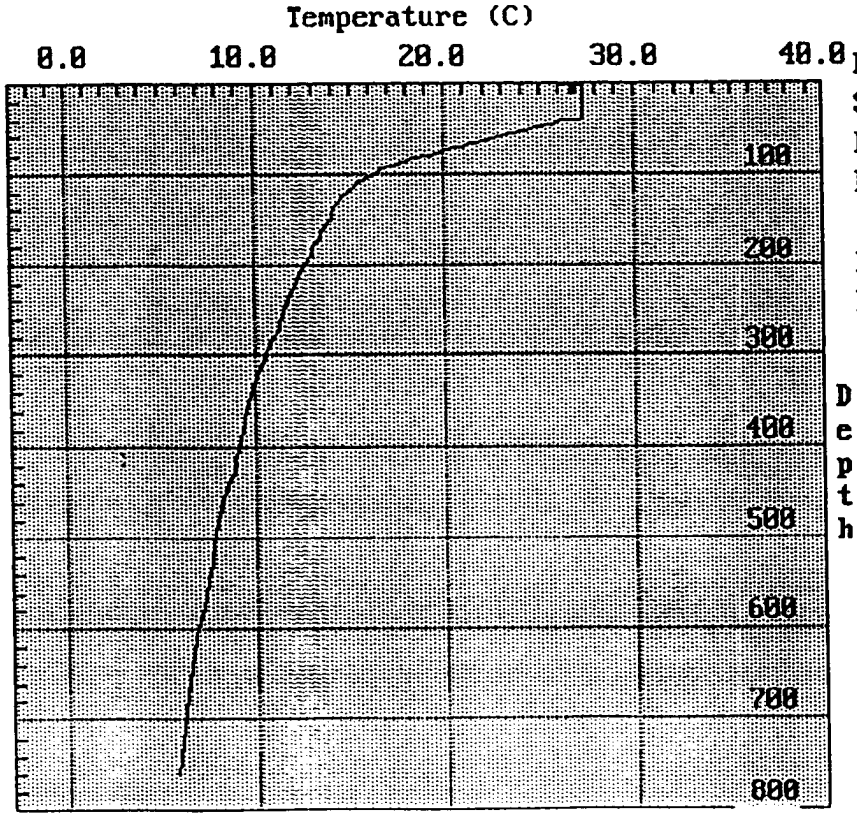
TEMPERATURE ARTIFACTS (SHARP HORIZONTAL SPIKES) WHICH OCCUR AT 7 DEPTHS IN THE RAW DATA FILE HAVE BEEN MASKED


Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
Depth
Probe : T-7
Serial # : 852844
Filename : T7$00013.RD
Date : 10/11/94
Time : 11:00:25
Latitude : 27 35.8 N
Longitude: 90 48.7 W

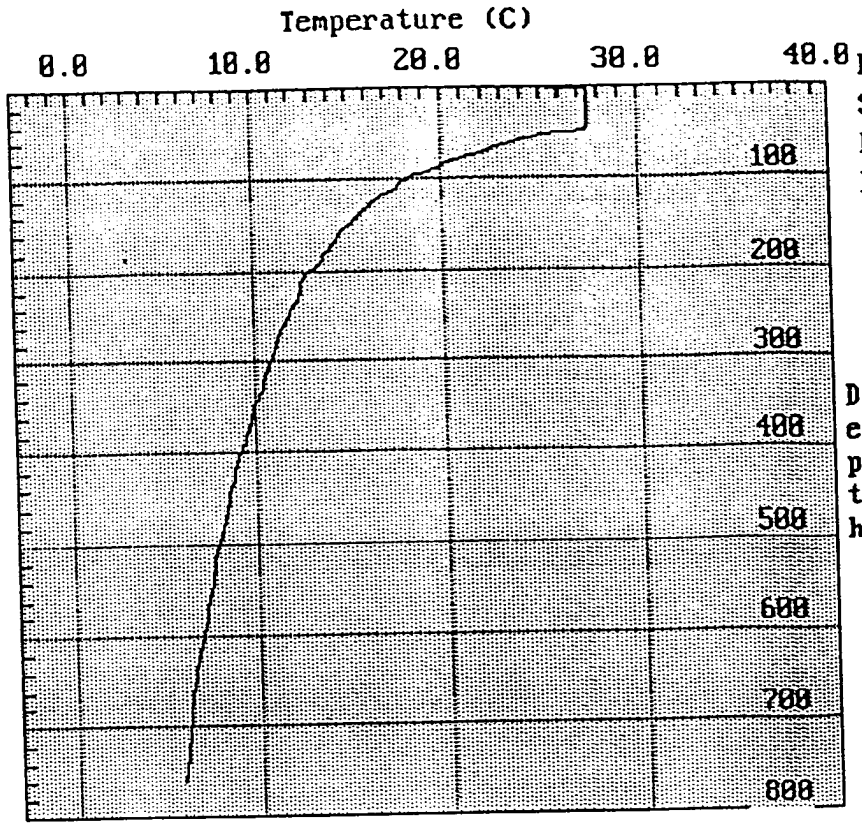

Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
Depth
Probe : T-7
Serial # : 852845
Filename : T7$00014.
Date : 10/11/94
Time : 12:09:48
Latitude : 27 35.4 N
Longitude: 90 43.0 W



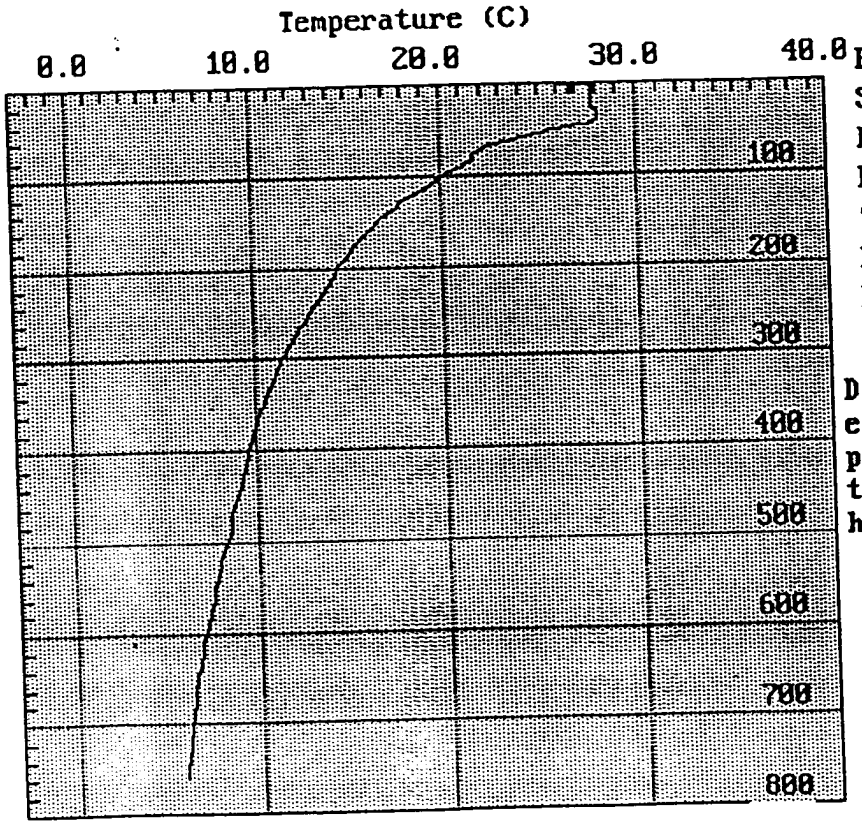
Probe : T-7
Serial # : 852846
Filename : T7$00015.RDF
Date : 10/11/94
Time : 13:49:41
Latitude : 27 30.9 N
Longitude: 90 36.2 W



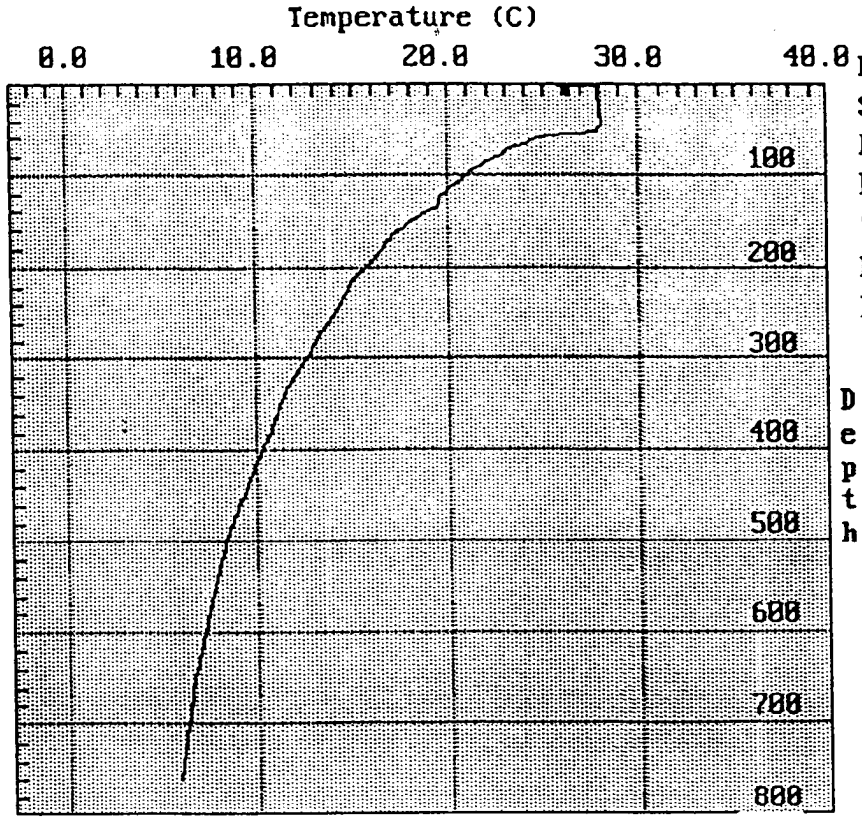
Probe : T-7
Serial # : 852847
Filename : T7$00016.RDF
Date : 10/11/94
Time : 14:31:58
Latitude : 27 27.3 N
Longitude: 90 29.5 W



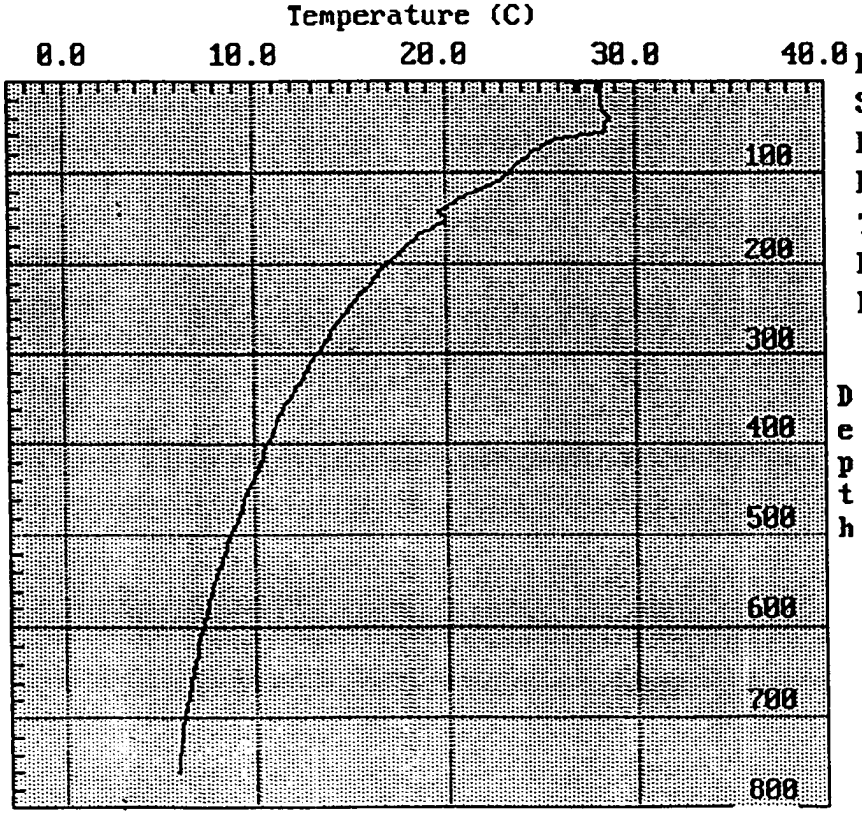
Probe : T-7
Serial # : 852848
Filename : T7$00017.RDF
Date : 10/11/94
Time : 15:15:00
Latitude : 27 24.0 N
Longitude: 90 22.2 W



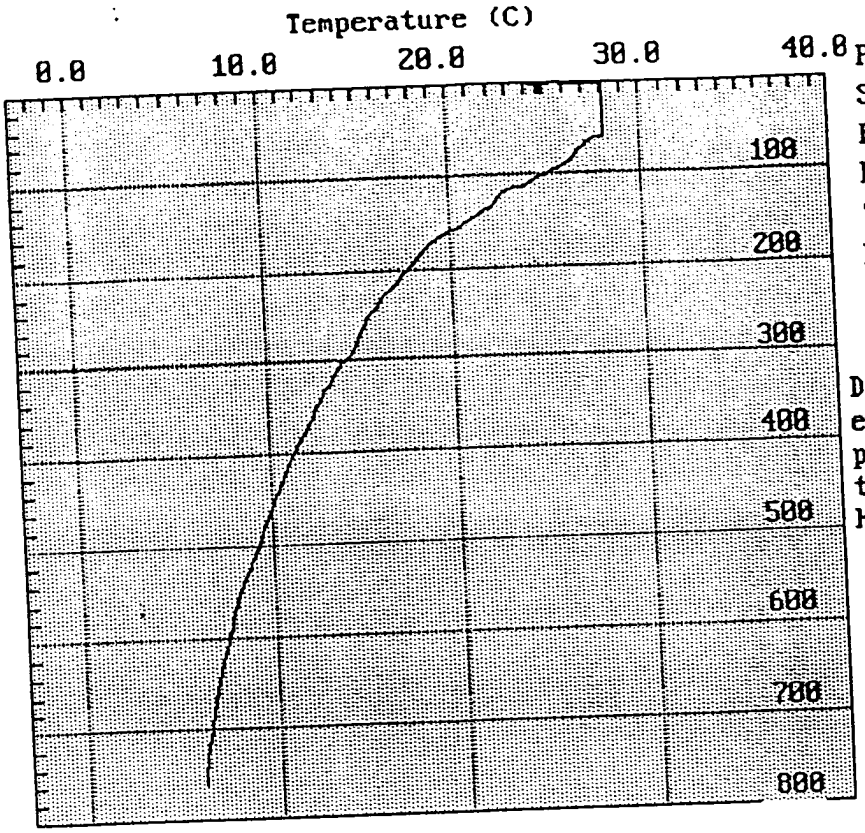
Probe : T-7
Serial # : 852849
Filename : T7$00018.RI
Date : 10/11/94
Time : 15:56:39
Latitude : 27 20.6 N
Longitude: 90 15.0 W



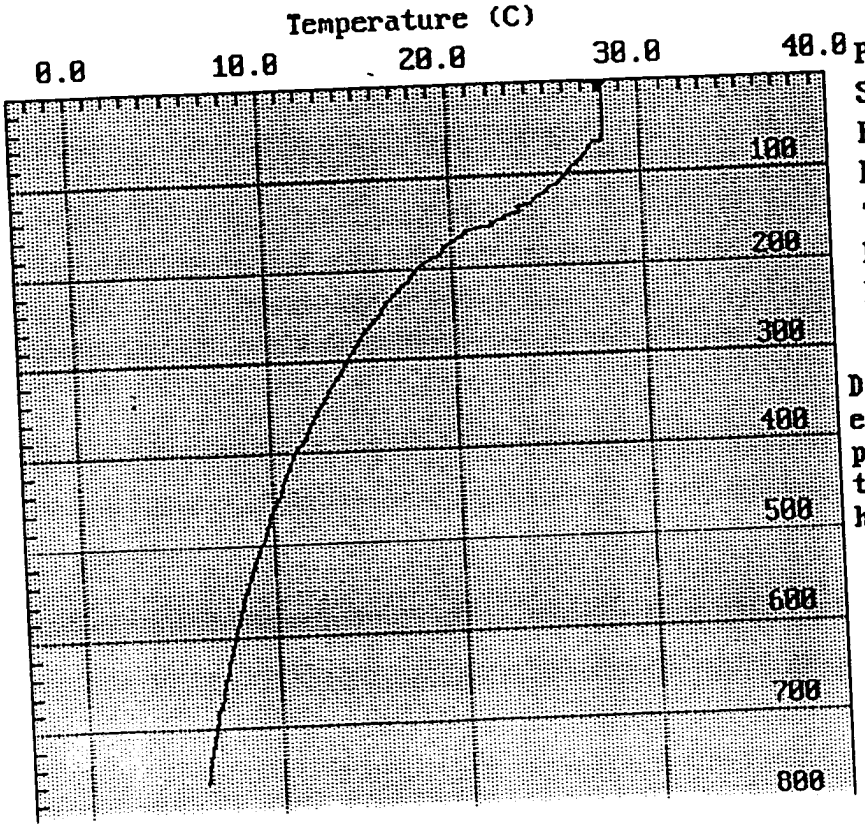
Probe : T-7
Serial # : 852858
Filename : T7$00019.RDF
Date : 10/11/94
Time : 16:35:56
Latitude : 27 17.0 N
Longitude: 90 08.3 W



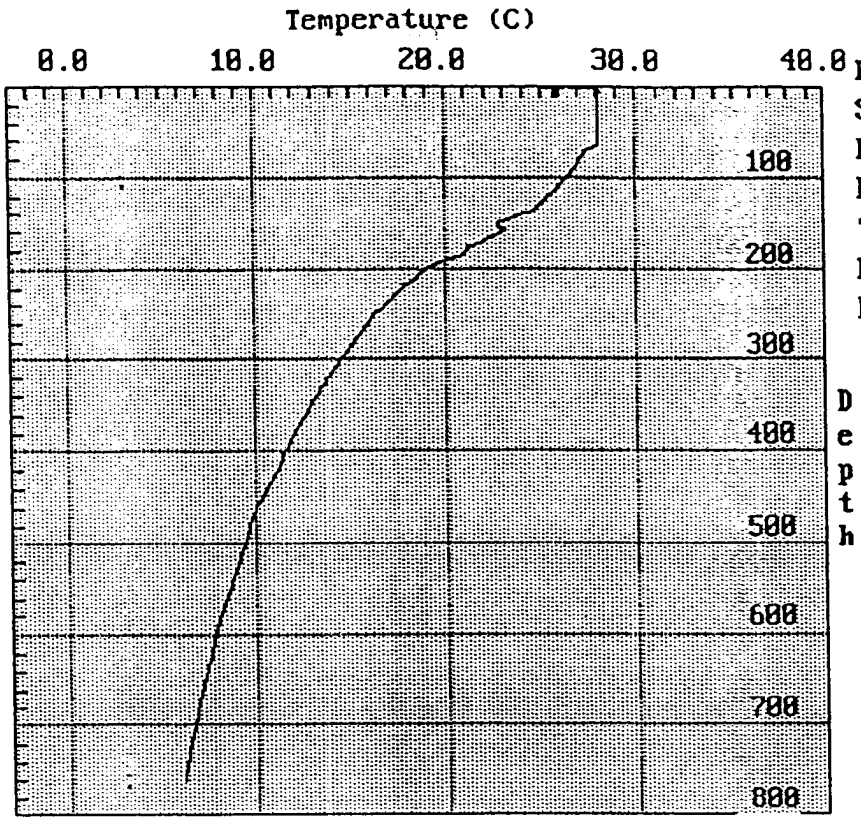
Probe : T-7
Serial # : 852851
Filename : T7$00020.RDF
Date : 10/11/94
Time : 17:16:22
Latitude : 27 12.7 N
Longitude: 90 02.2 W



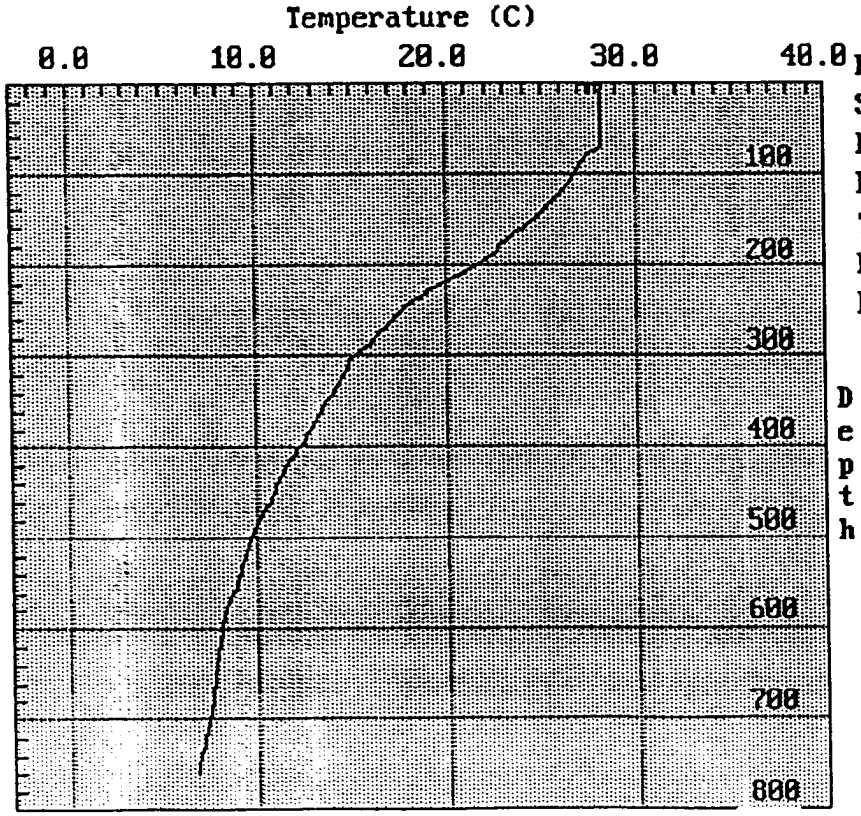
Probe : T-7
Serial # : 852852
Filename : T7$00021.RDF
Date : 10/11/94
Time : 17:55:23
Latitude : 27 08.3 N
Longitude: 89 56.0 W



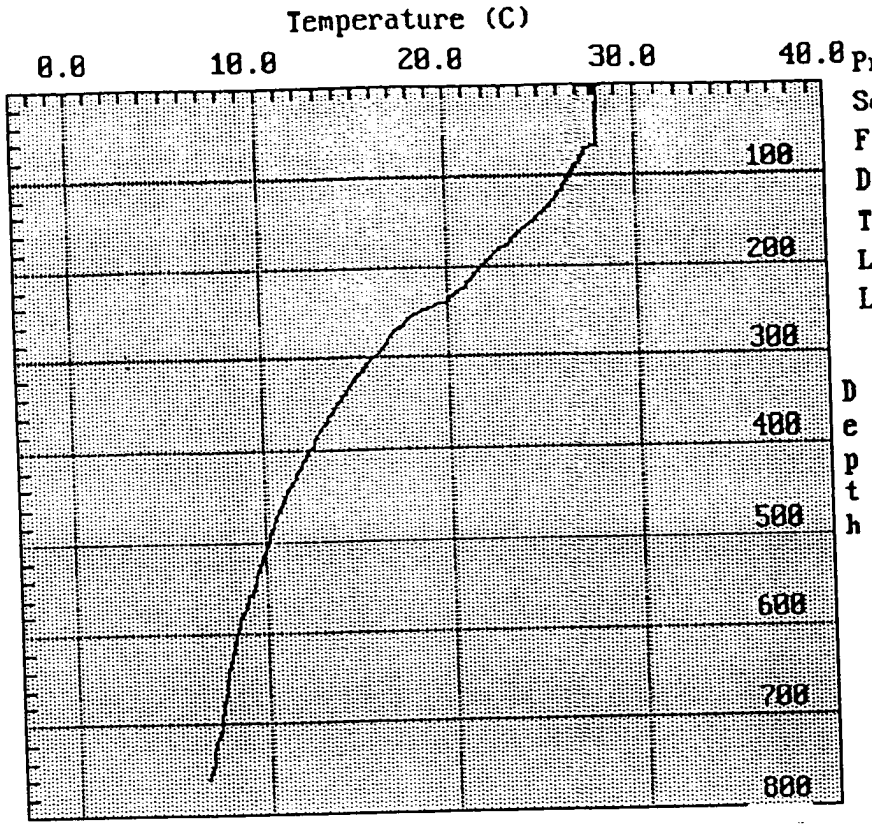
Probe : T-7
Serial # : 852853
Filename : T7$00022.R
Date : 10/11/94
Time : 18:35:09
Latitude : 27 03.7 N
Longitude: 89 49.7 W



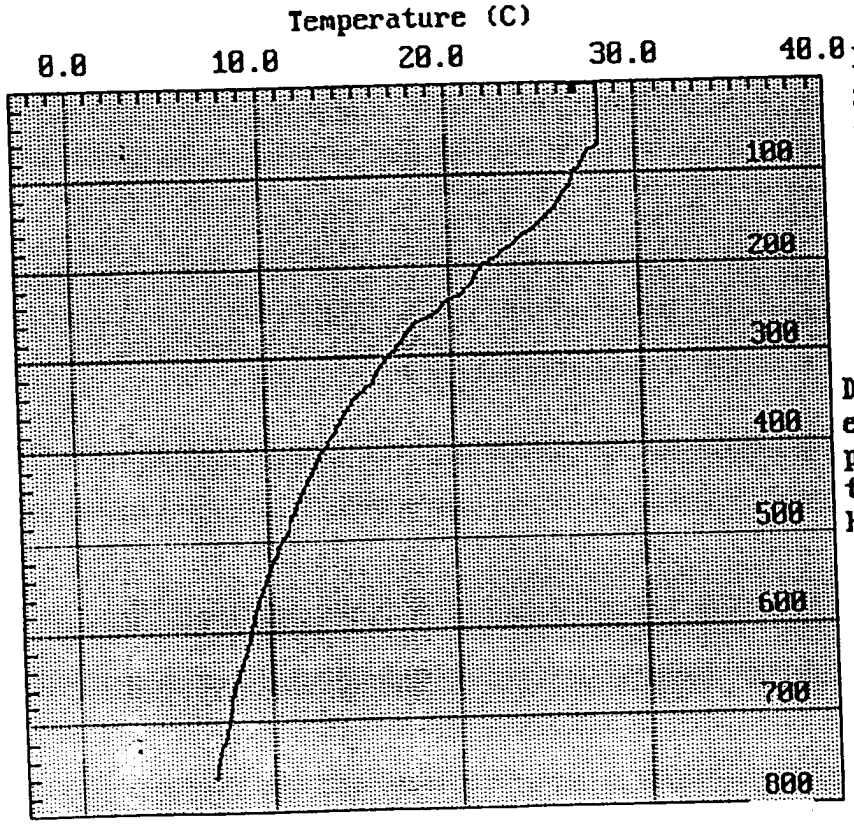
Probe : T-7
Serial # : 852854
Filename : T7$00023.RDF
Date : 10/11/94
Time : 19:14:07
Latitude : 26 59.3 N
Longitude: 89 43.9 N



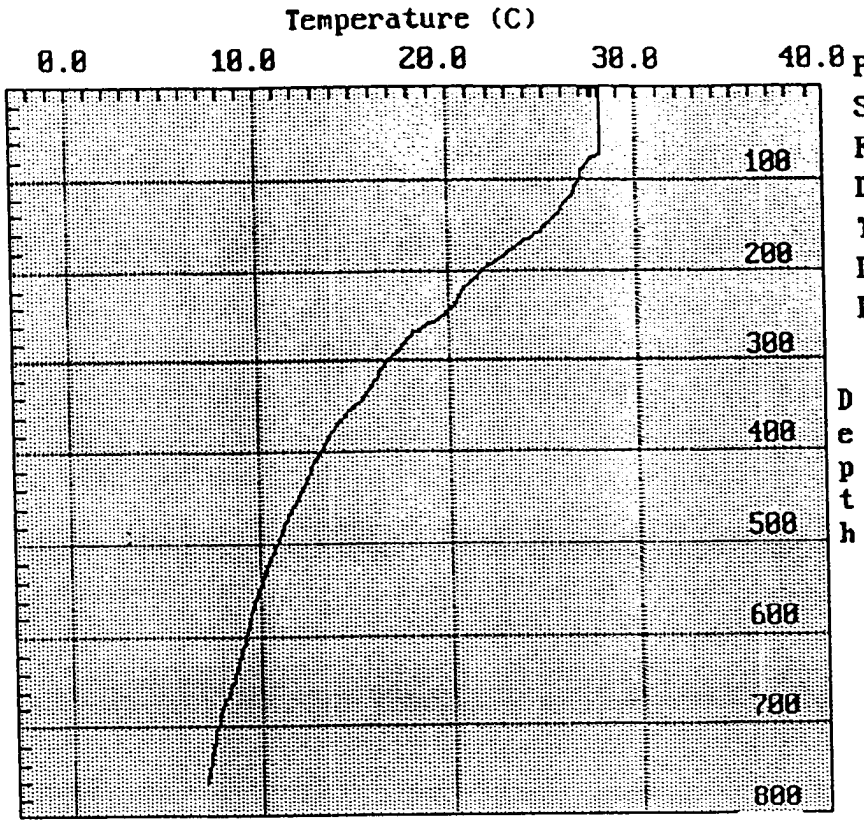
Probe : T-7
Serial # : 841074
Filename : T7$00024.RDF
Date : 10/11/94
Time : 19:54:36
Latitude : 26 54.7 N
Longitude: 89 37.7 W



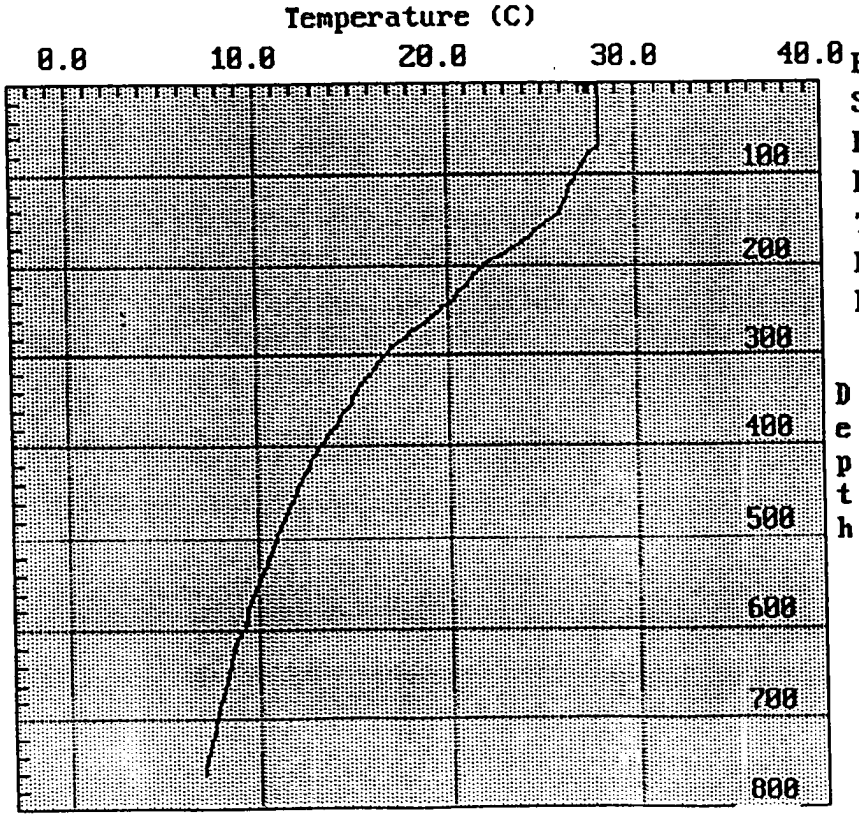
Probe : T-7
Serial # : 841075
Filename : T7$00025.RDI
Date : 10/11/94
Time : 20:33:12
Latitude : 26 50.3 N
Longitude: 89 31.7 W



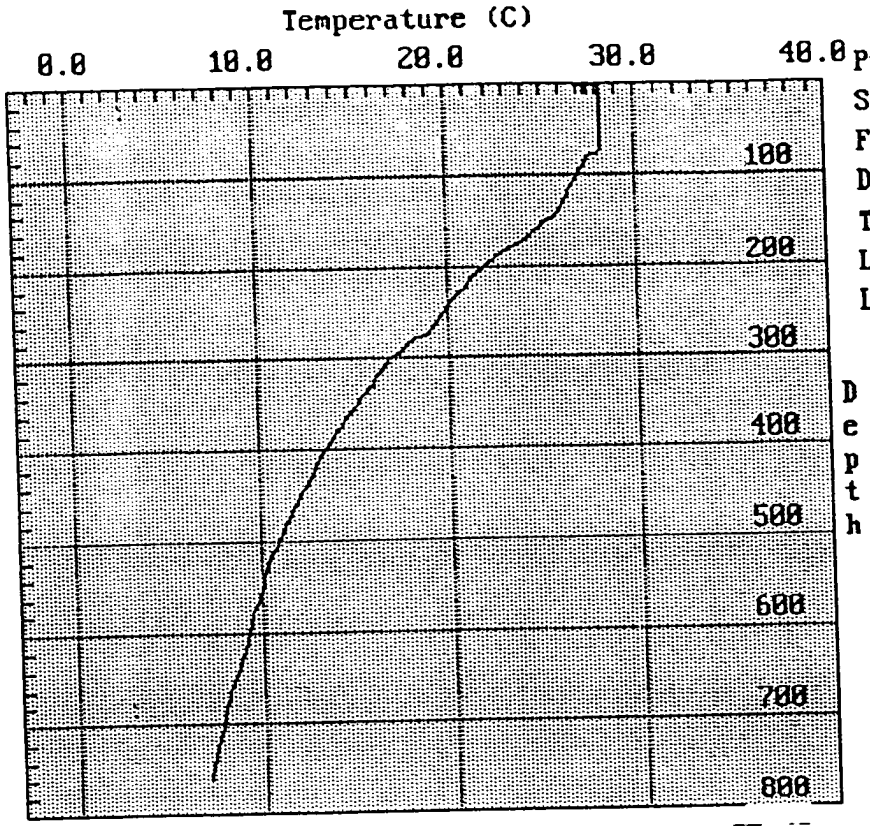
Probe : T-7
Serial # : 841076
Filename : T7$00026.F
Date : 10/11/94
Time : 21:12:15
Latitude : 26 46.0 N
Longitude: 89 25.5 W



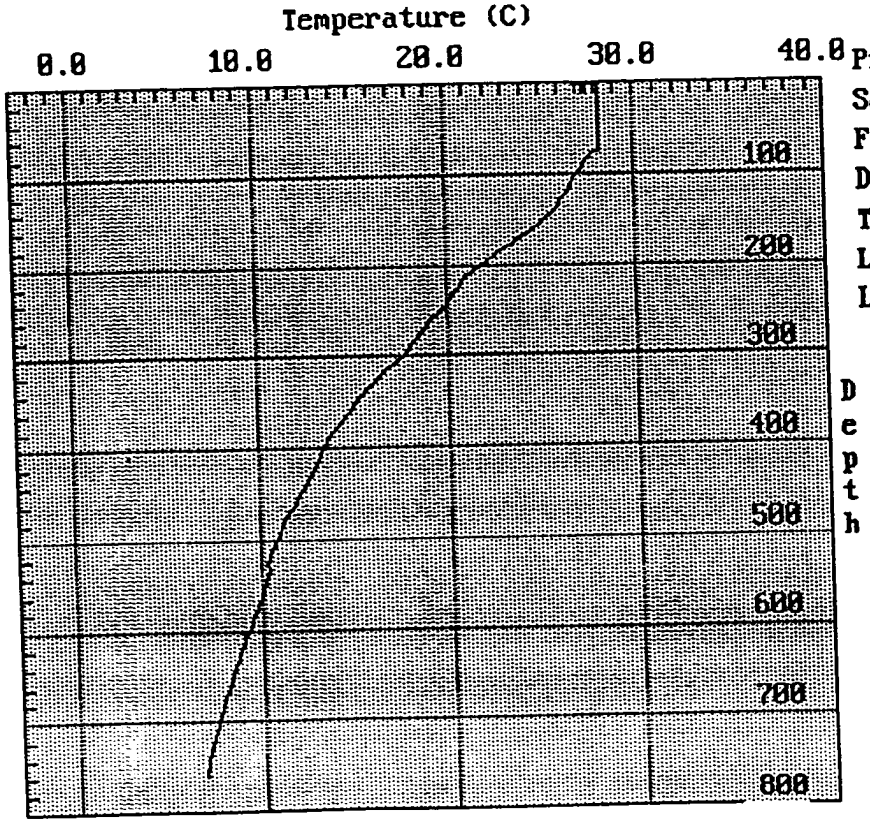
Probe : T-7
Serial # : 841077
Filename : T7$00027.RDF
Date : 10/11/94
Time : 21:49:56
Latitude : 26 41.9 N
Longitude: 89 19.3 W



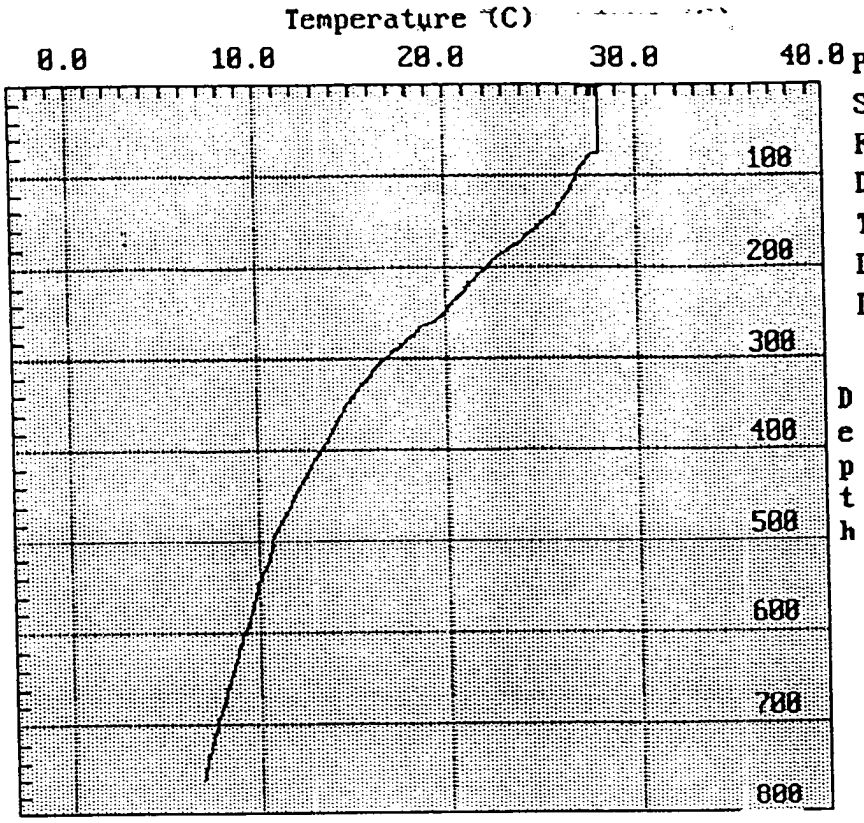
Probe : T-7
Serial # : 841078
Filename : T7$00028.RDF
Date : 10/11/94
Time : 22:38:54
Latitude : 26 37.4 N
Longitude: 89 12.8 W



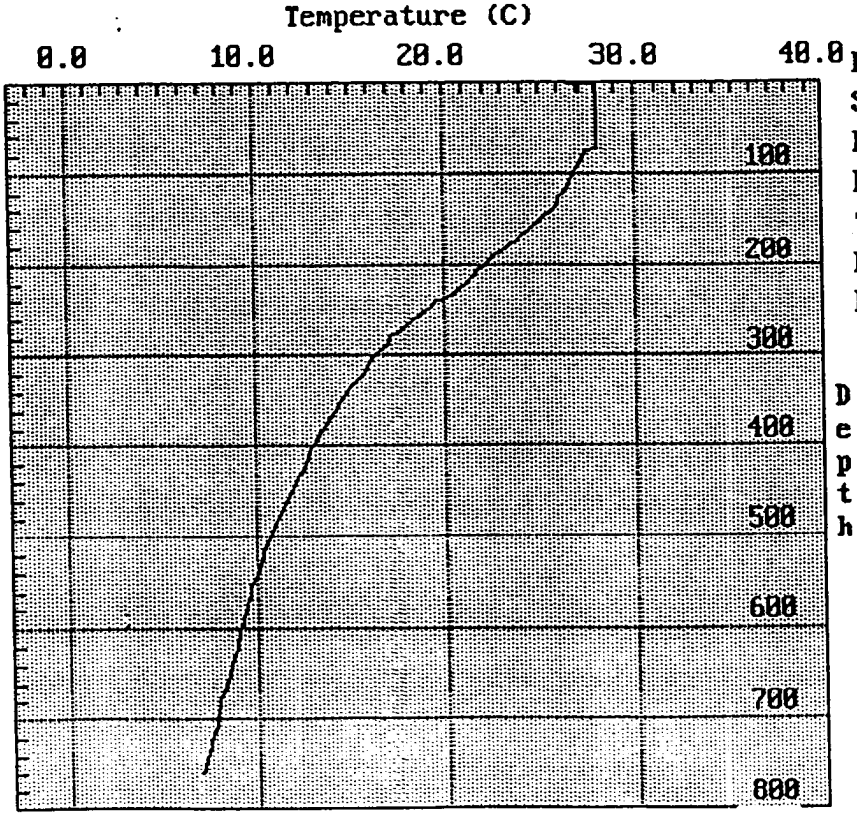
Probe : T-7
Serial # : 041079
Filename : T7$00029.RDI
Date : 10/11/94
Time : 23:11:31
Latitude : 26 33.2 N
Longitude: 89 06.3 W



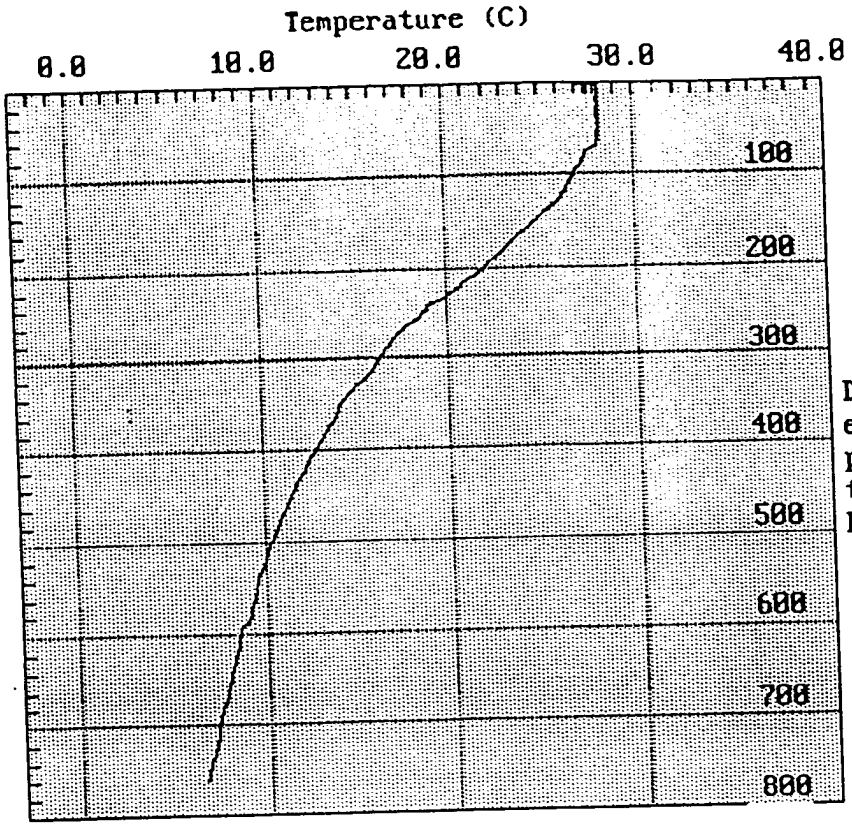
Probe : T-7
Serial # : 041080
Filename : T7$00030.R
Date : 10/11/94
Time : 23:44:47
Latitude : 26 30.2 N
Longitude: 89 00.6 W



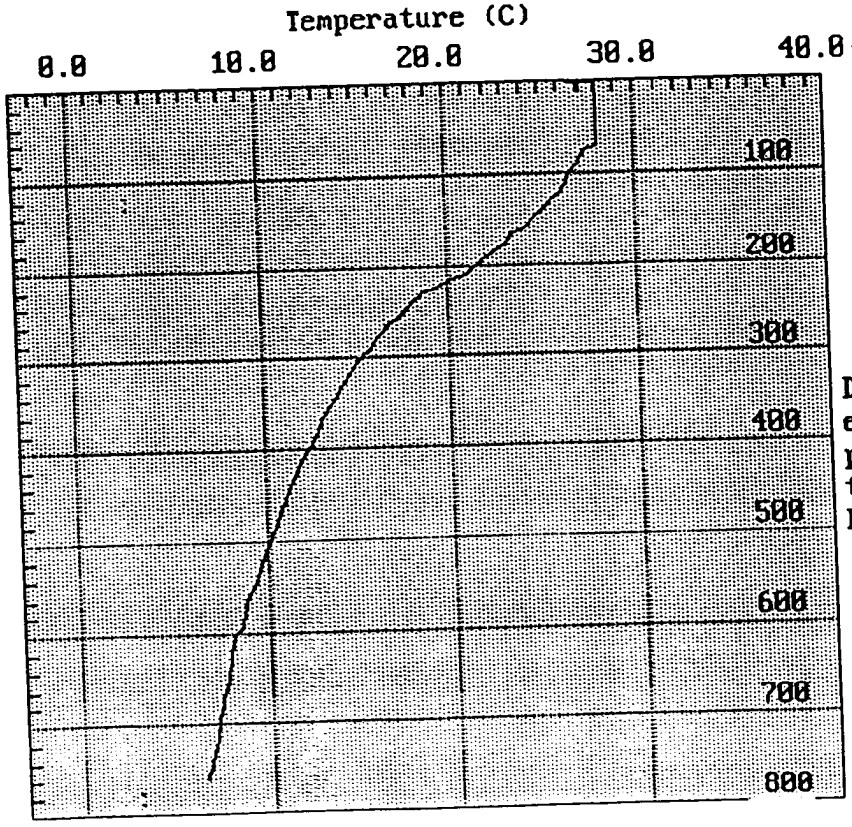
Probe : T-7
Serial # : 841081
Filename : T7$00031.RDF
Date : 10/12/94
Time : 01:17:19
Latitude : 26 35.7 N
Longitude: 89 02.9 W



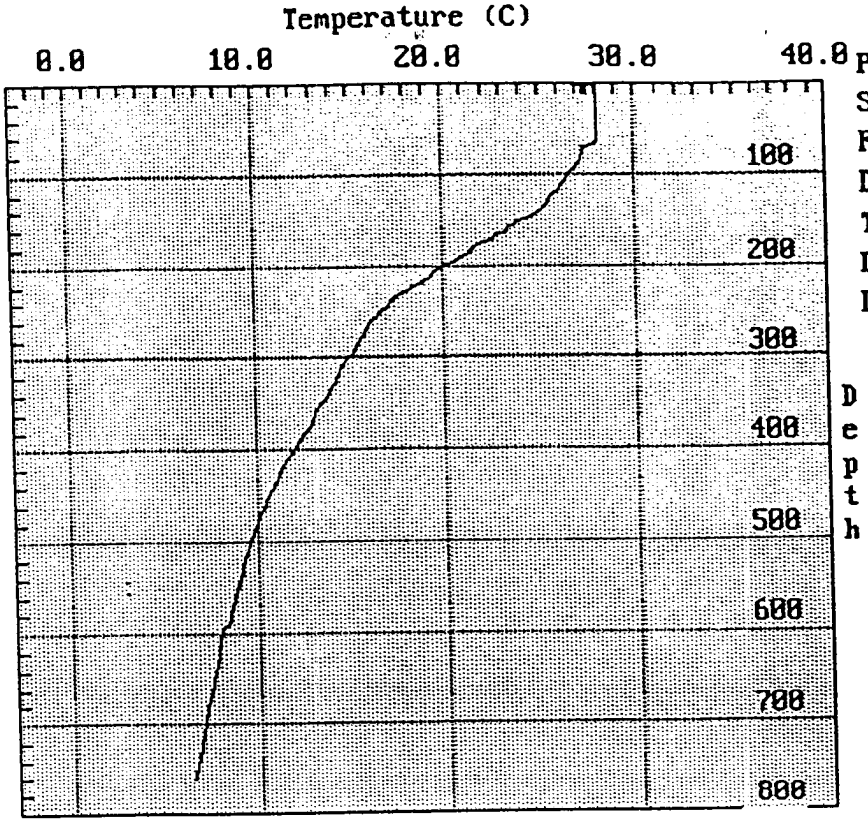
Probe : T-7
Serial # : 841082
Filename : T7$00032.RDF
Date : 10/12/94
Time : 02:06:00
Latitude : 26 43.2 N
Longitude: 89 05.9 W



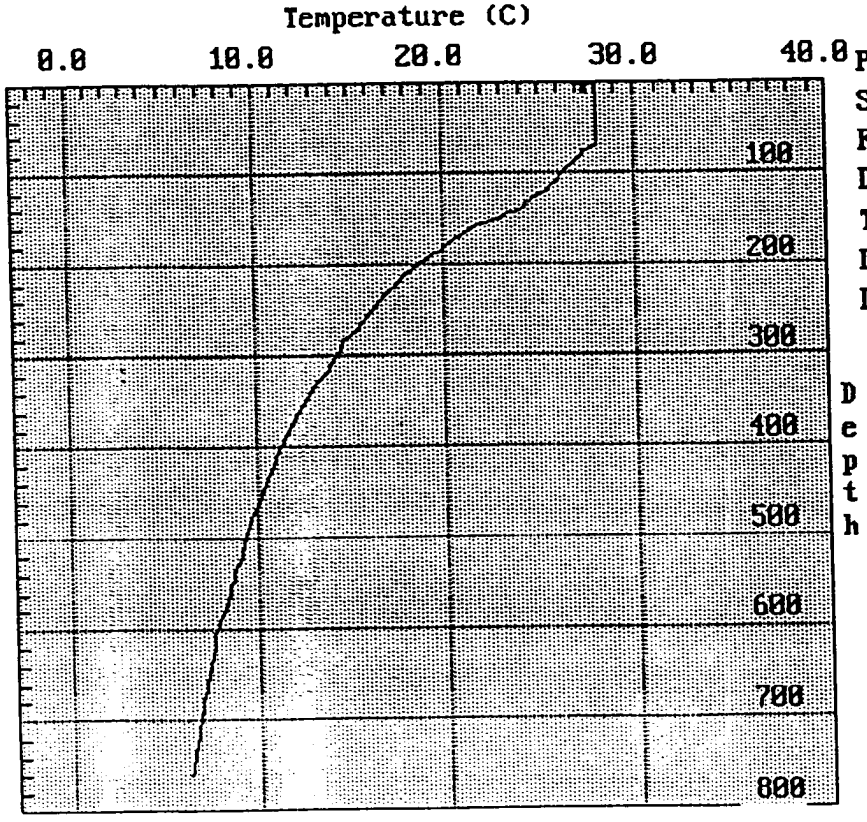
Probe : T-7
Serial # : 041083
Filename : T7$00033.RDI
Date : 10/12/94
Time : 02:53:18
Latitude : 26 48.9 N
Longitude: 89 08.9 W



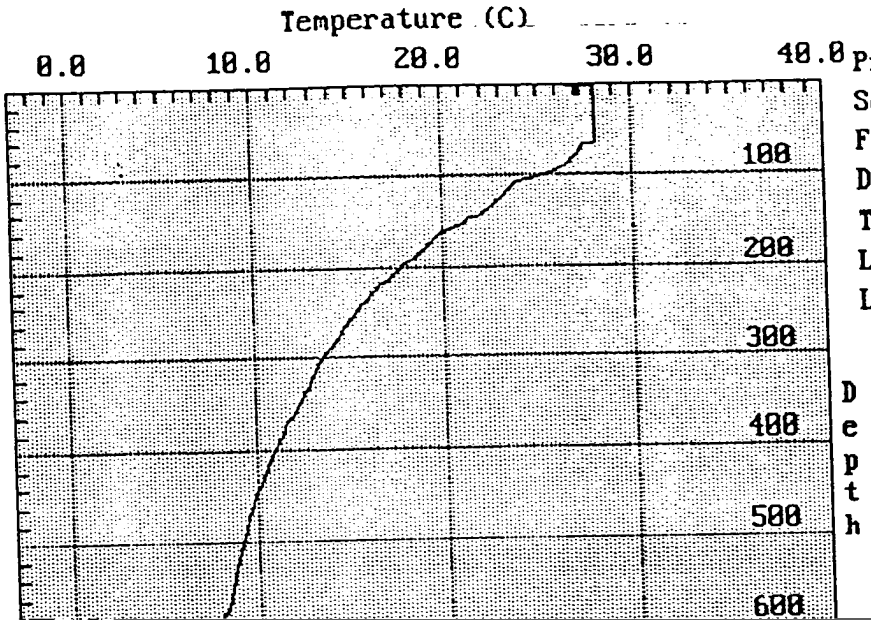
Probe : T-7
Serial # : 041084
Filename : T7$00034.I
Date : 10/12/94
Time : 03:39:47
Latitude : 26 55.4 N
Longitude: 89 11.6 W



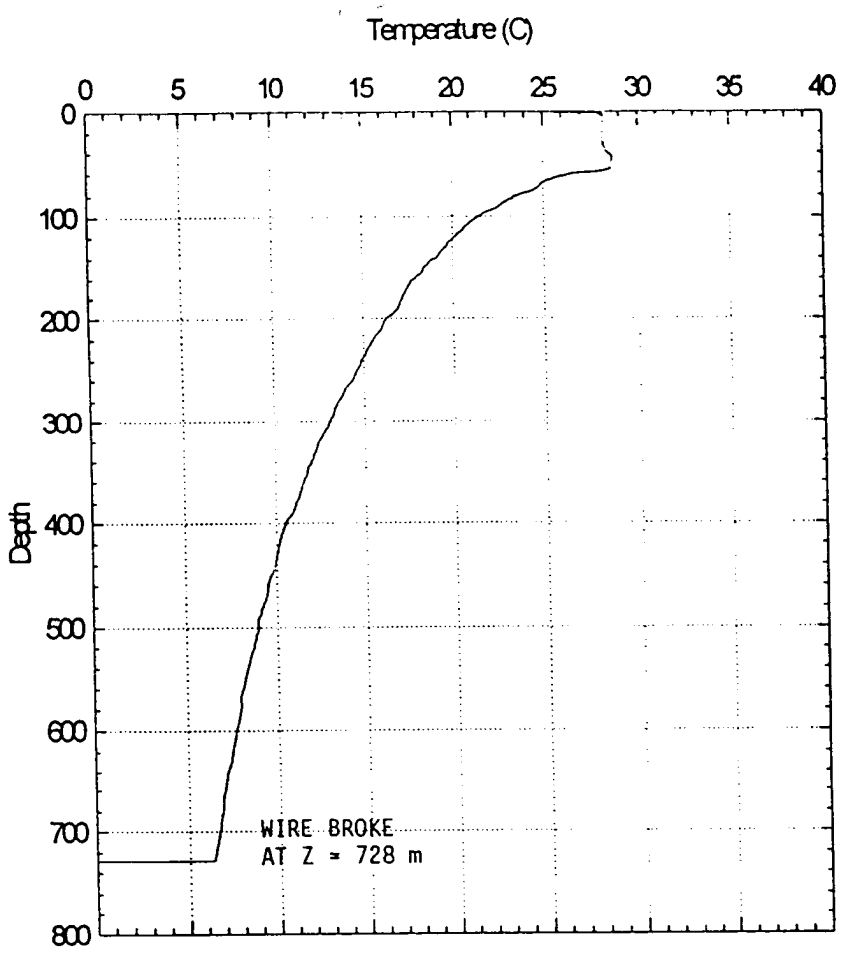
Probe : T-7
Serial # : 841085
Filename : T7$00035.RDF
Date : 10/12/94
Time : 04:26:32
Latitude : 27 02.0 N
Longitude: 89 14.1 W



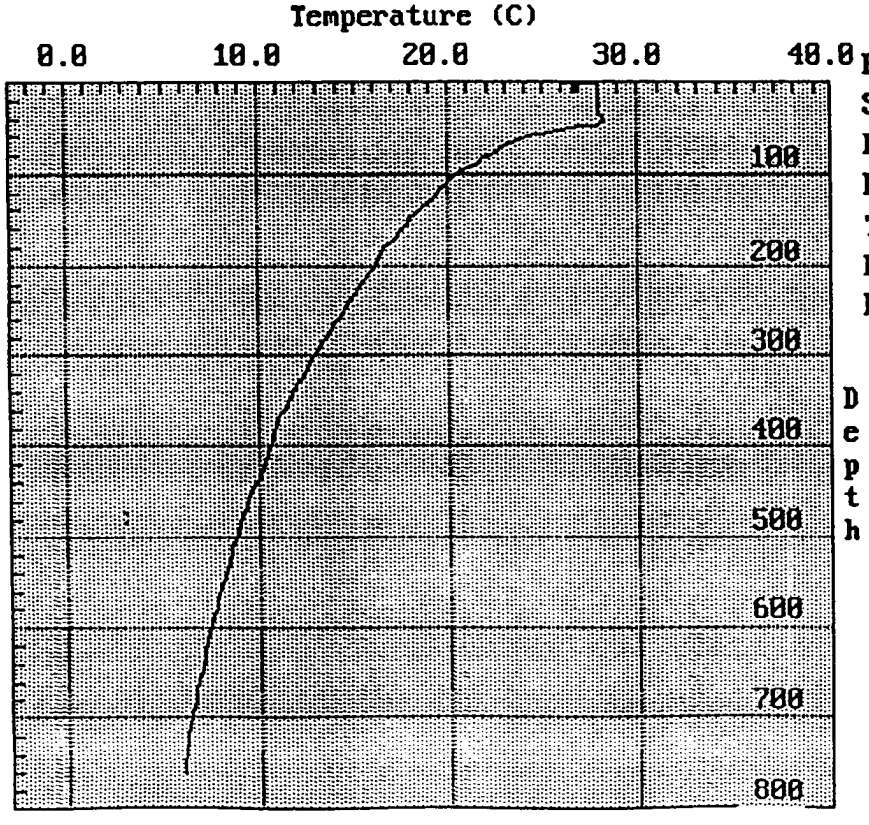
Probe : T-7
Serial # : 840990
Filename : T7$00036.RDF
Date : 10/12/94
Time : 05:13:11
Latitude : 27 08.2 N
Longitude: 89 17.4 W



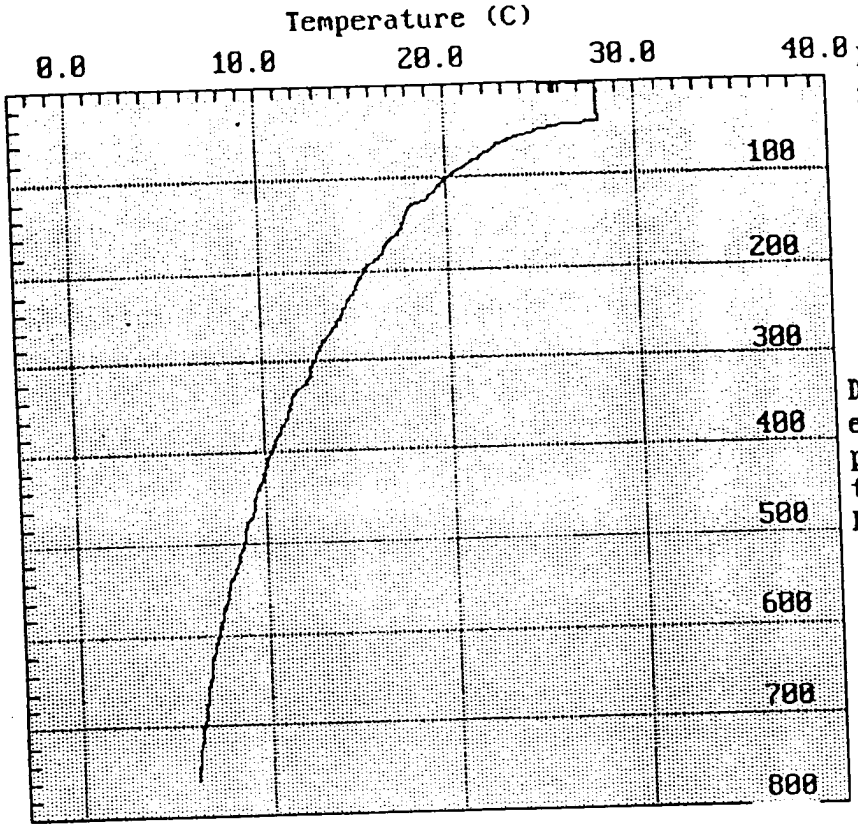
Probe : T-7
Serial # : 040991
Filename : T7$00037.RDI
Date : 10/12/94
Time : 06:01:33
Latitude : 27 14.5 N
Longitude: 89 21.0 W



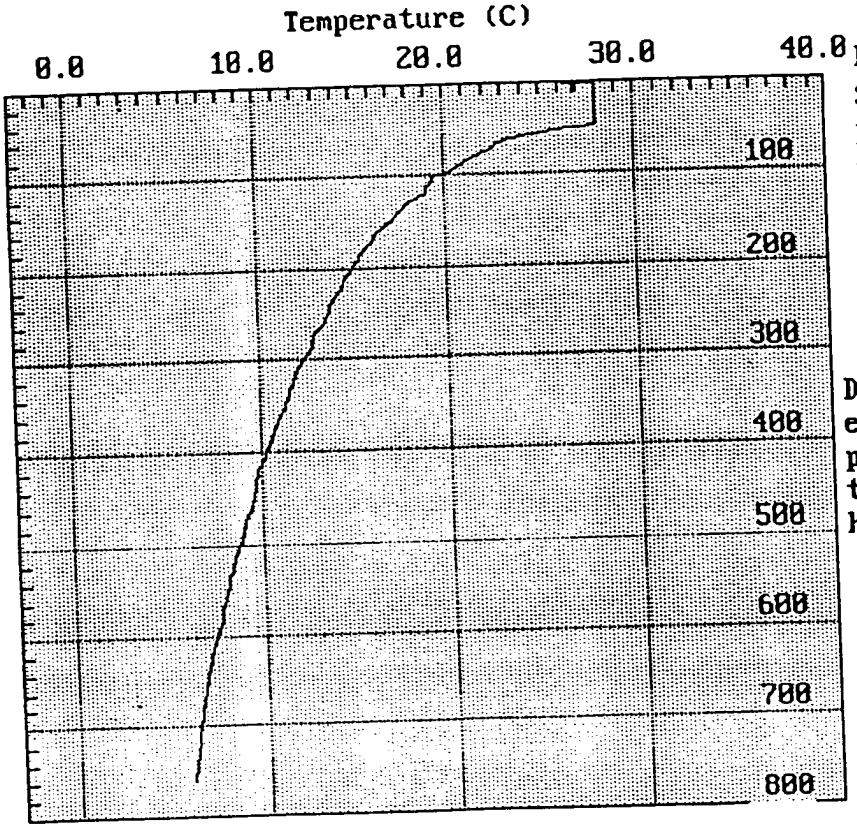
Probe Type : T-7
Serial # : 837494
Filename :
T7$00039.RDF
Date: 10/12/94
Time: 07:35:40 GMT
Lat.: 27 26.9000 N
Lon.: 89 27.9000 W



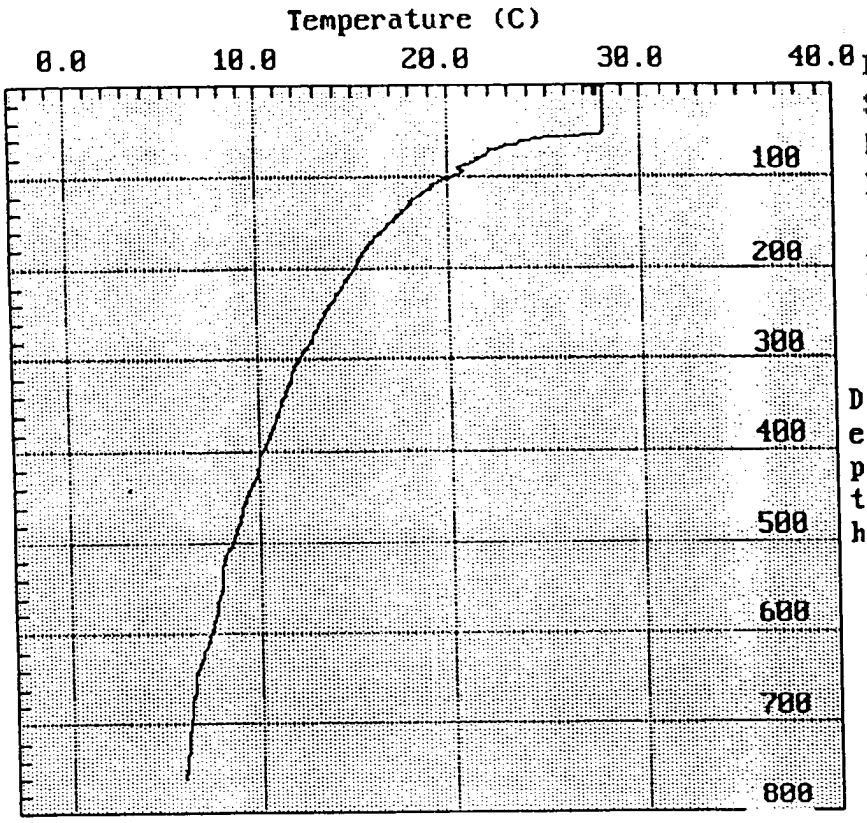
Probe : T-7
Serial # : 040995
Filename : T7$00040.RDF
Date : 10/12/94
Time : 08:31:06
Latitude : 27 34.0 N
Longitude: 89 33.5 W



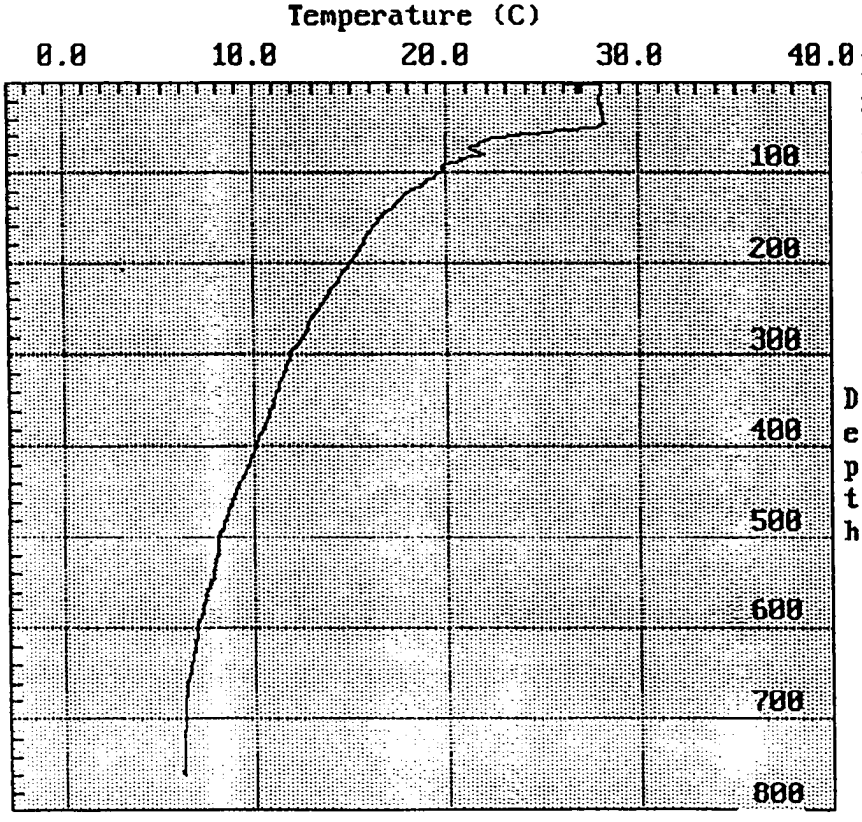
Probe : T-7
Serial # : 840996
Filename : T7$00041.RDF
Date : 10/12/94
Time : 09:09:11
Latitude : 27 39.5 N
Longitude: 89 36.1 W



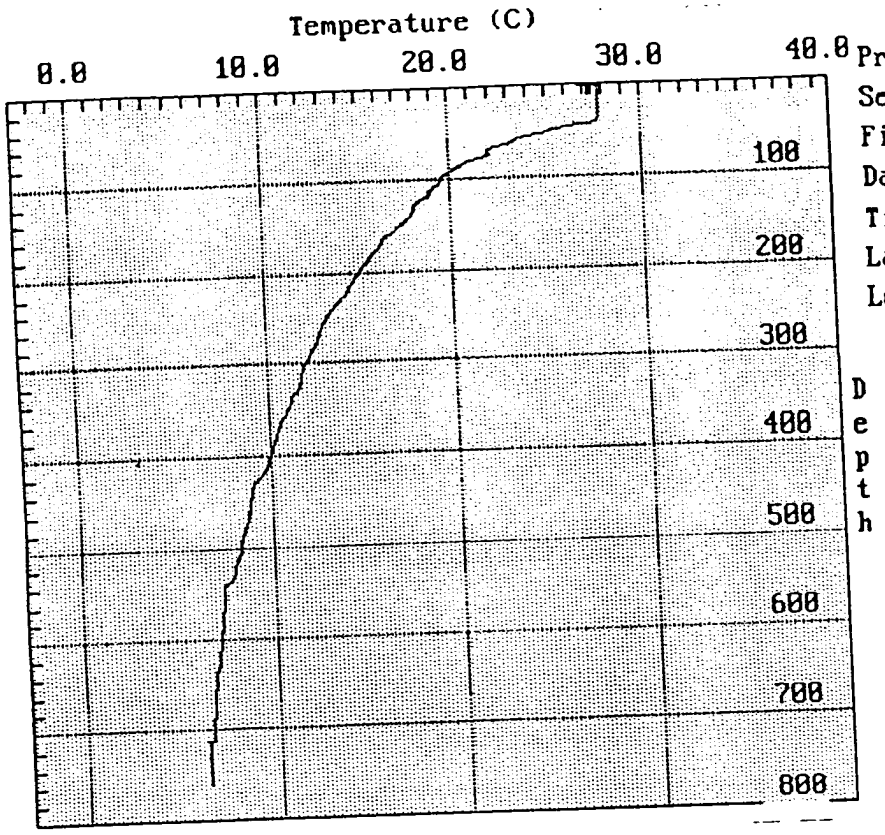
Probe : T-7
Serial # : 840997
Filename : T7$00042.RDF
Date : 10/12/94
Time : 09:50:00
Latitude : 27 45.4 N
Longitude: 89 39.2 W



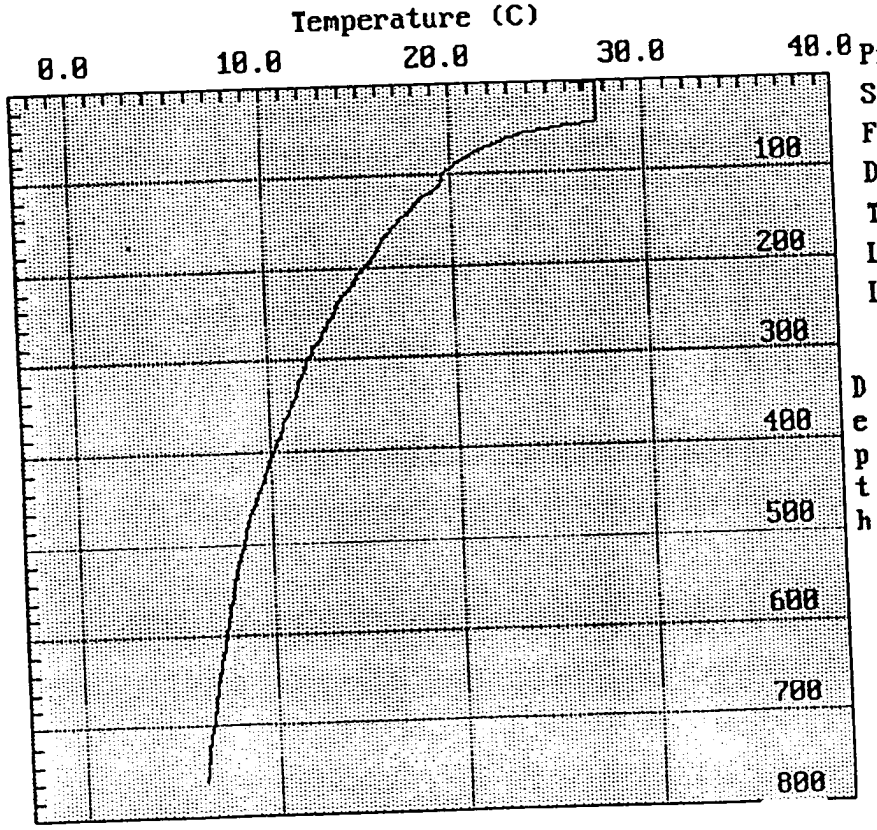
Probe : T-7
Serial # : 841001
Filename : T7$00043.RDF
Date : 10/12/94
Time : 10:36:28
Latitude : 27 52.3 N
Longitude: 89 42.6 W



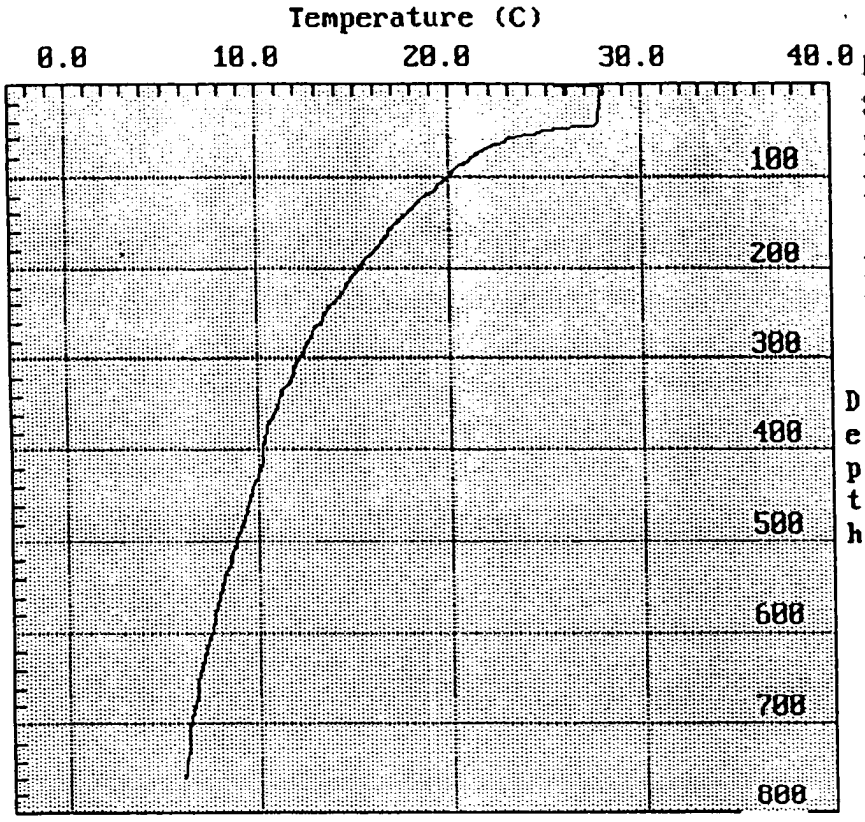
Probe : T-7
Serial # : 840999
Filename : T7$00044.RDF
Date : 10/12/94
Time : 11:05:53
Latitude : 27 56.7 N
Longitude: 89 44.4 W



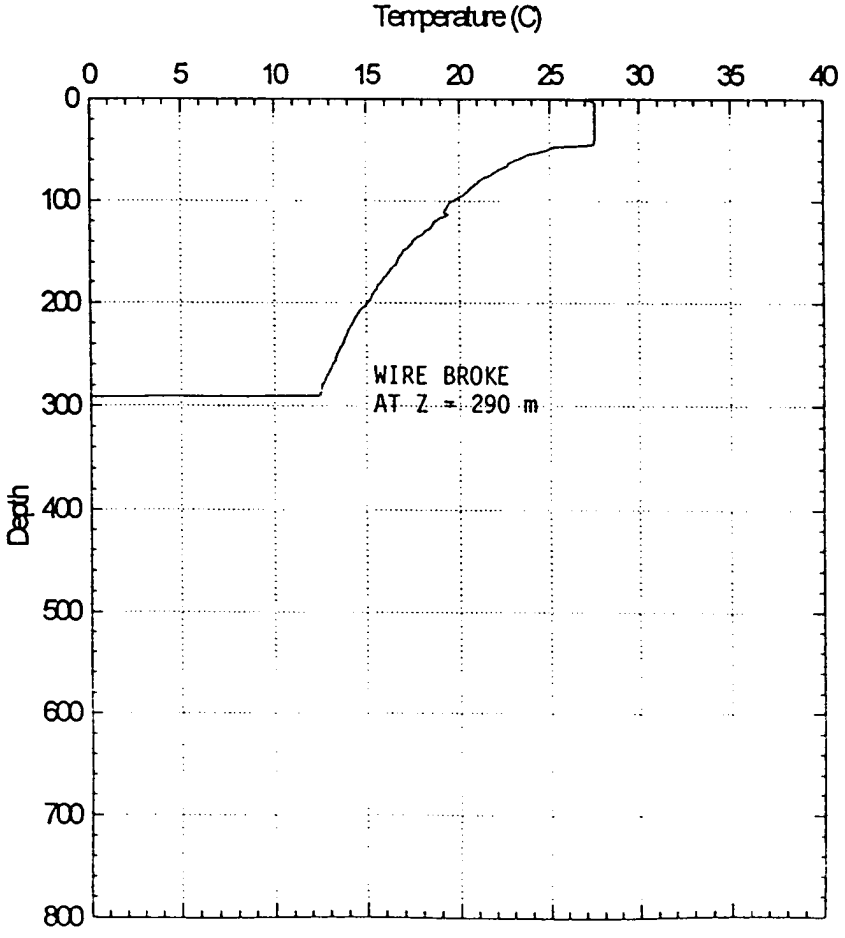
Probe : T-7
Serial # : 041000
Filename : T7$00045.RDF
Date : 10/12/94
Time : 15:04:24
Latitude : 28 04.5 N
Longitude: 89 37.3 W



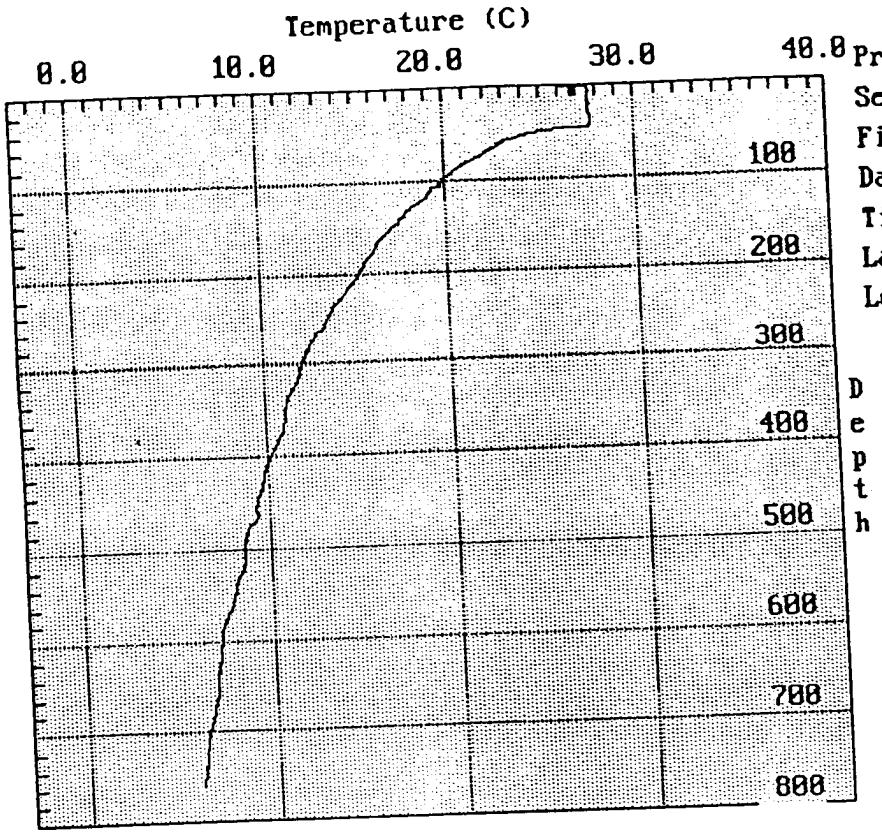
Probe : T-7
Serial # : 040966
Filename : T7$00046.RDF
Date : 10/12/94
Time : 15:53:37
Latitude : 28 09.1 N
Longitude: 89 30.3 W



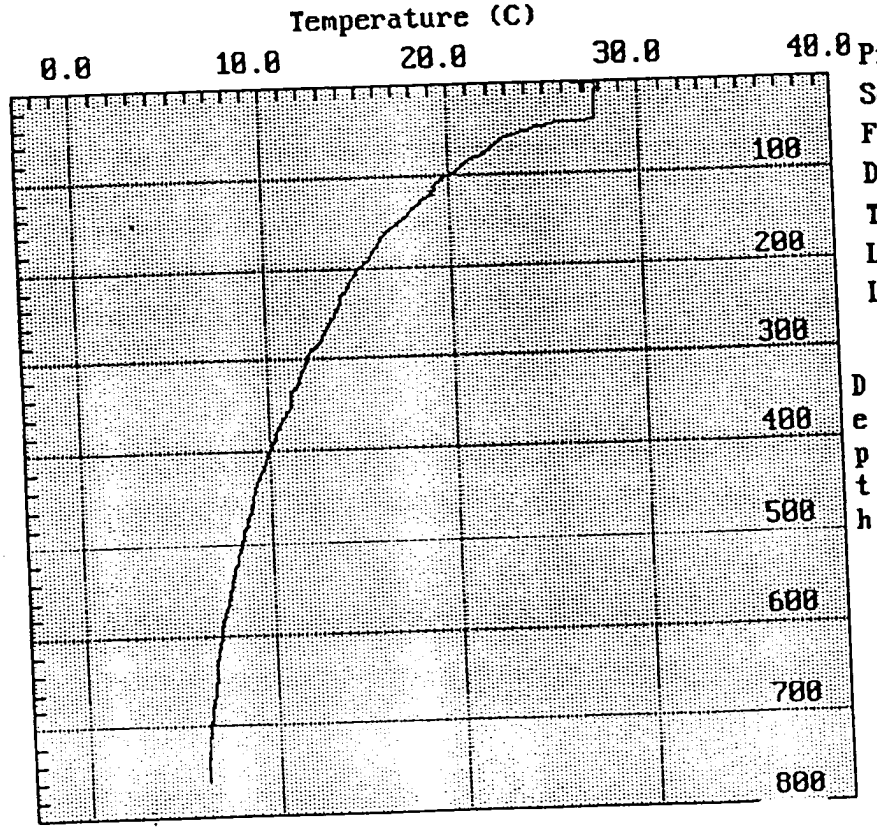
Probe : T-7
Serial # : 840967
Filename : T7$00047.RDF
Date : 10/12/94
Time : 22:24:23
Latitude : 28 06.1N
Longitude: 89 26.3W



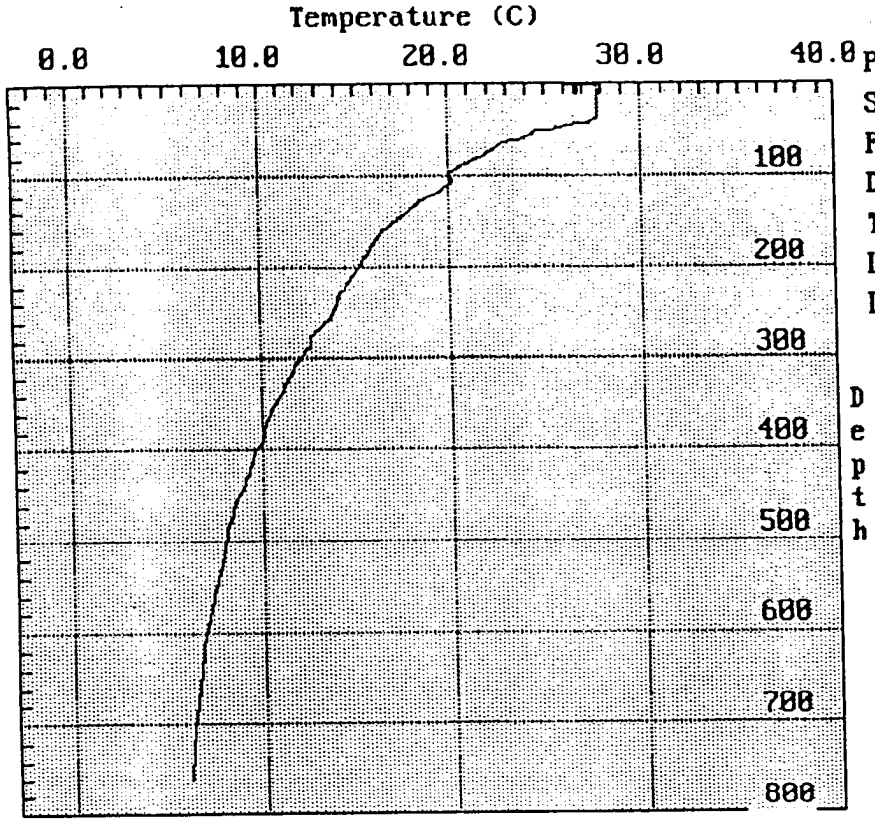
Probe Type : T-7
Serial # : 840968
Filename :
T7$00048.RDF
Date: 10/12/94
Time: 23:32:06 GMT
Lat.: 28 12.7000 N
Lon.: 89 15.9000 W



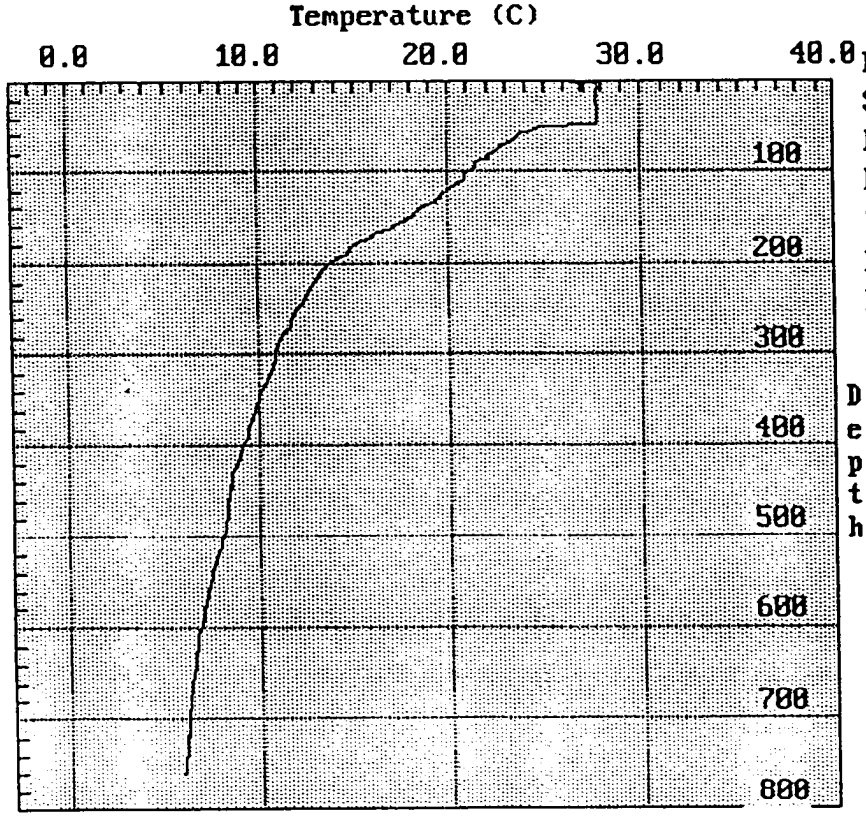
Probe : T-7
Serial # : 040969
Filename : T7$00049.RDF
Date : 10/12/94
Time : 23:38:09
Latitude : 28 13.2 N
Longitude: 89 15.1 W



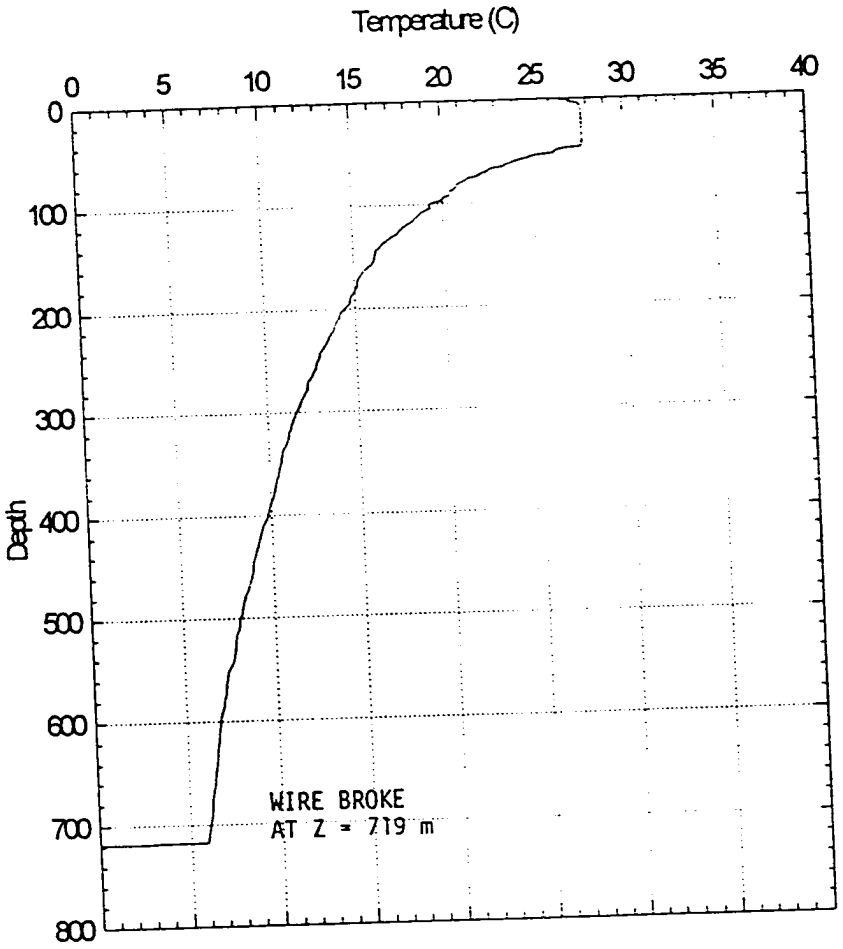
Probe : T-7
Serial # : 040970
Filename : T7$00050.RDF
Date : 10/13/94
Time : 00:31:45
Latitude : 28 18.0 N
Longitude: 89 07.4 W



Probe : T-7
Serial # : 040971
Filename : T7$00051.RDF
Date : 10/13/94
Time : 01:30:19
Latitude : 28 24.0 N
Longitude: 88 59.6 W

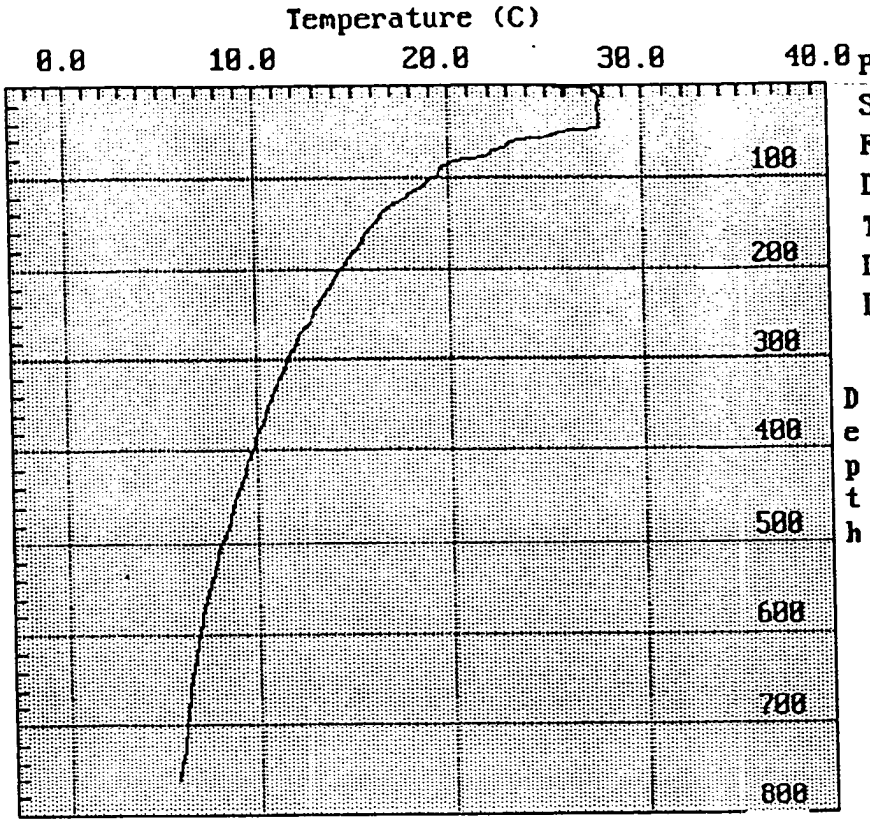


Probe : T-7
Serial # : 040972
Filename : T7$00052.RDF
Date : 10/13/94
Time : 02:29:37
Latitude : 28 29.8 N
Longitude: 88 51.8 W

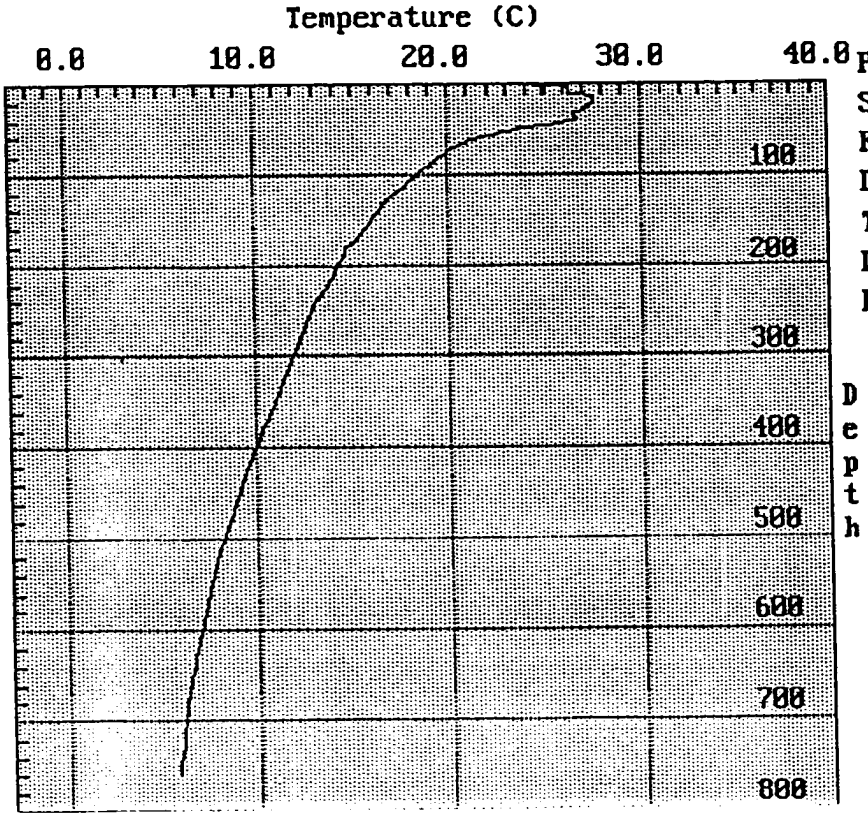


Probe Type : T-7
Serial # : 840973
Filename :
T7S00053.RDF
Date: 10/13/94
Time: 03:29:24 GM
Lat.: 28 35.5000 N
Lon.: 88 43.6000 W

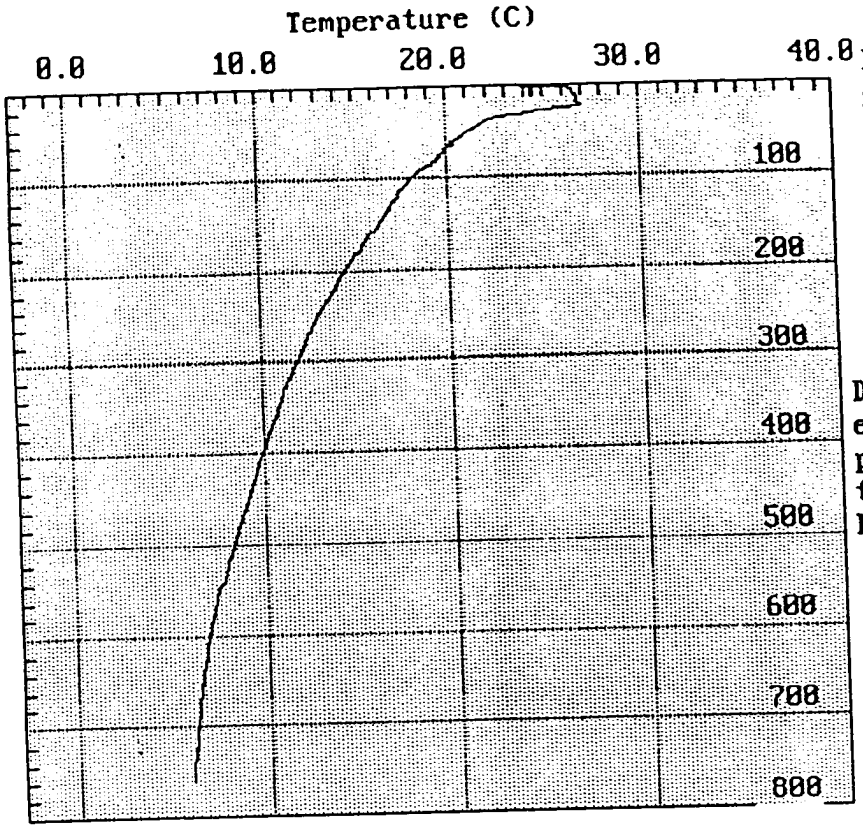
THERE ARE NO DATA FOR
XBT 54
(BAD PROBE: ISOTHERMAL)



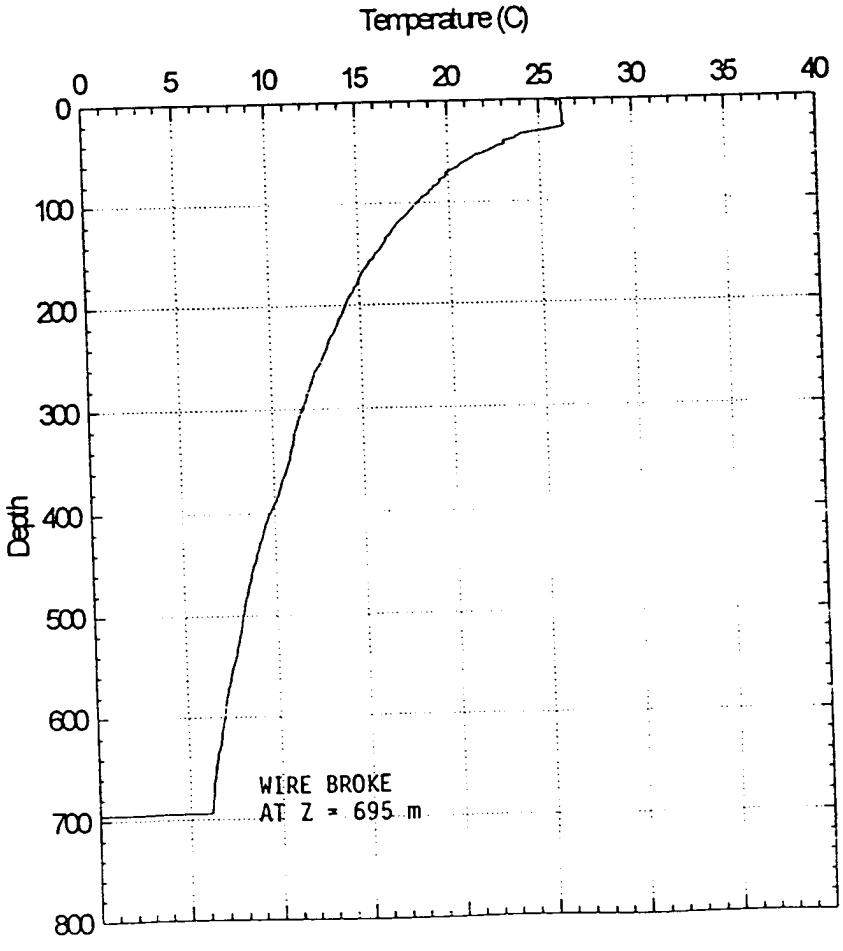
Probe : T-7
Serial # : 840975
Filename : T7$00055.RDF
Date : 10/13/94
Time : 03:39:56
Latitude : 28 36.7 N
Longitude: 88 42.0 W



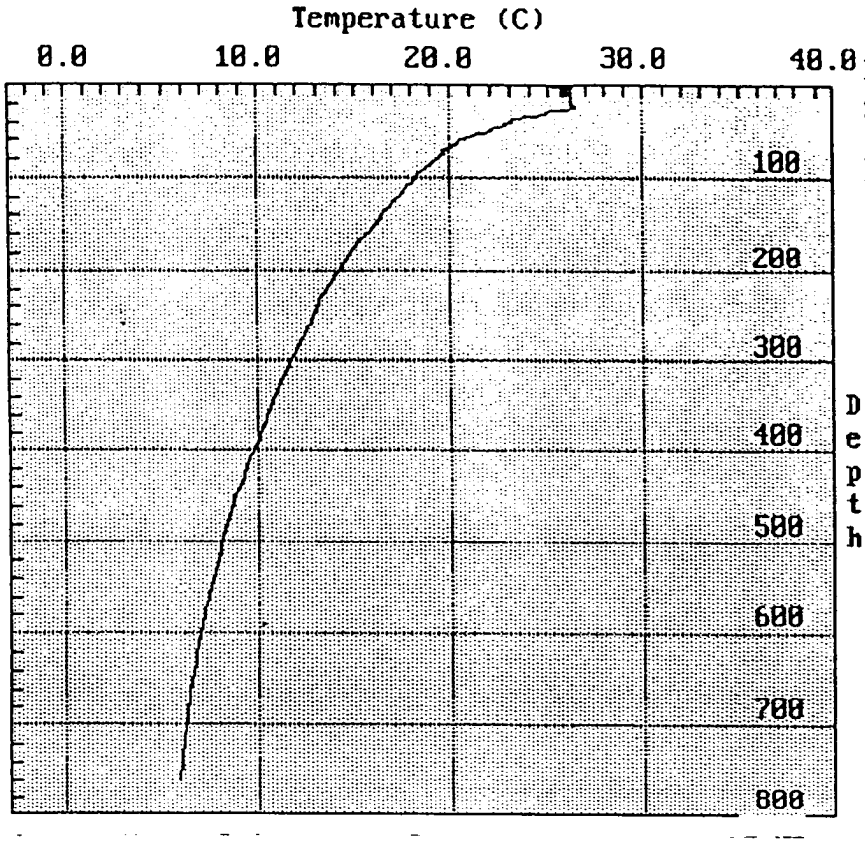
Probe : T-7
Serial # : 840976
Filename : T7$00056.RDF
Date : 10/13/94
Time : 04:31:39
Latitude : 28 41.3 N
Longitude: 88 34.6 W



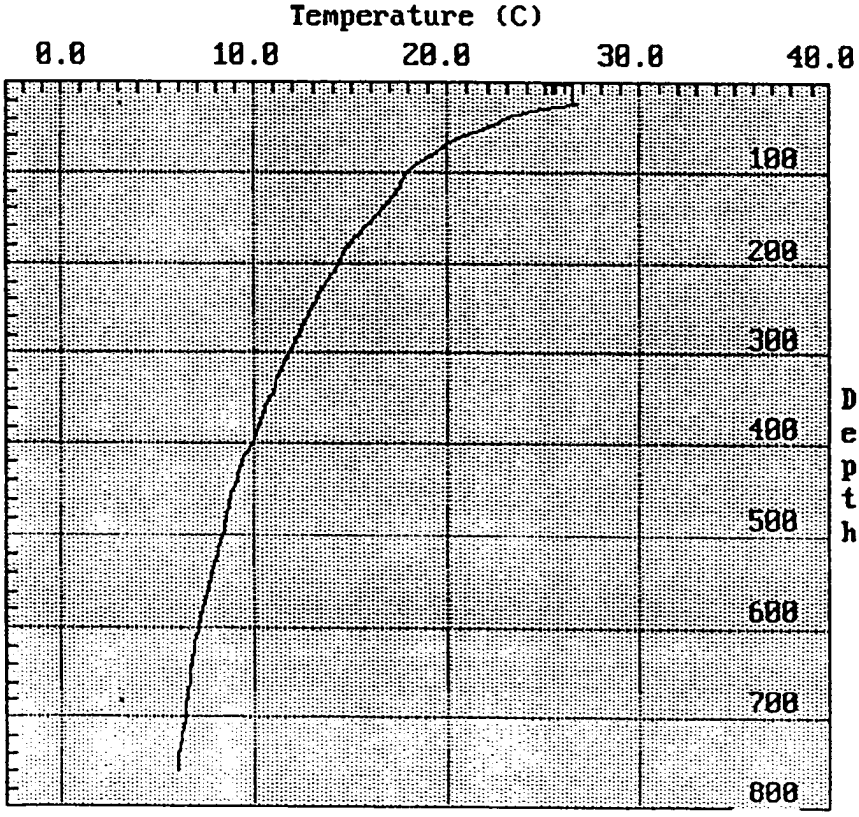
Probe : T-7
Serial # : 840977
Filename : T7$00057.RDF
Date : 10/13/94
Time : 05:31:09
Latitude : 28 46.4 N
Longitude: 88 26.0 W



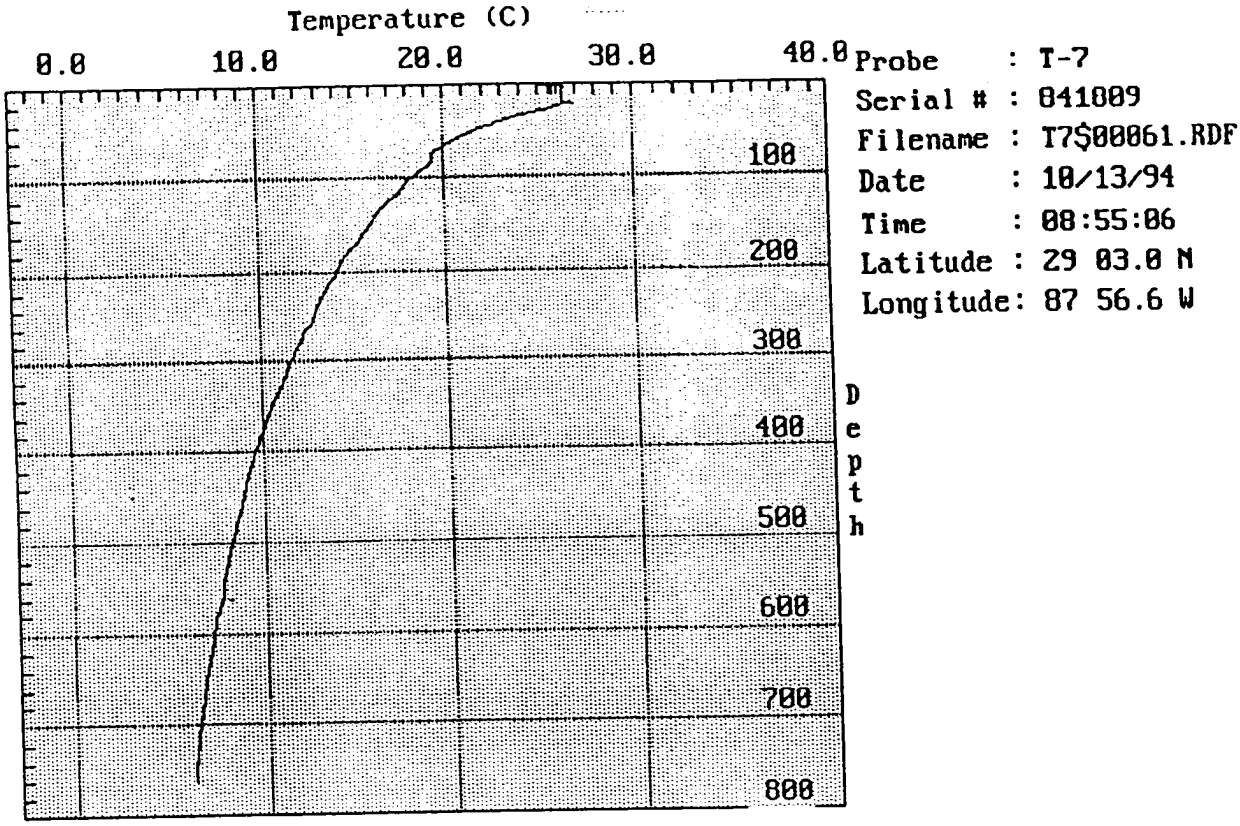
Probe Type : T-7
Serial # : 841806
Filename :
T7$00058.RDF
Date: 10/13/94
Time: 06:41:56 GMT
Lat.: 28 52.6000 N
Lon.: 88 16.5000 W

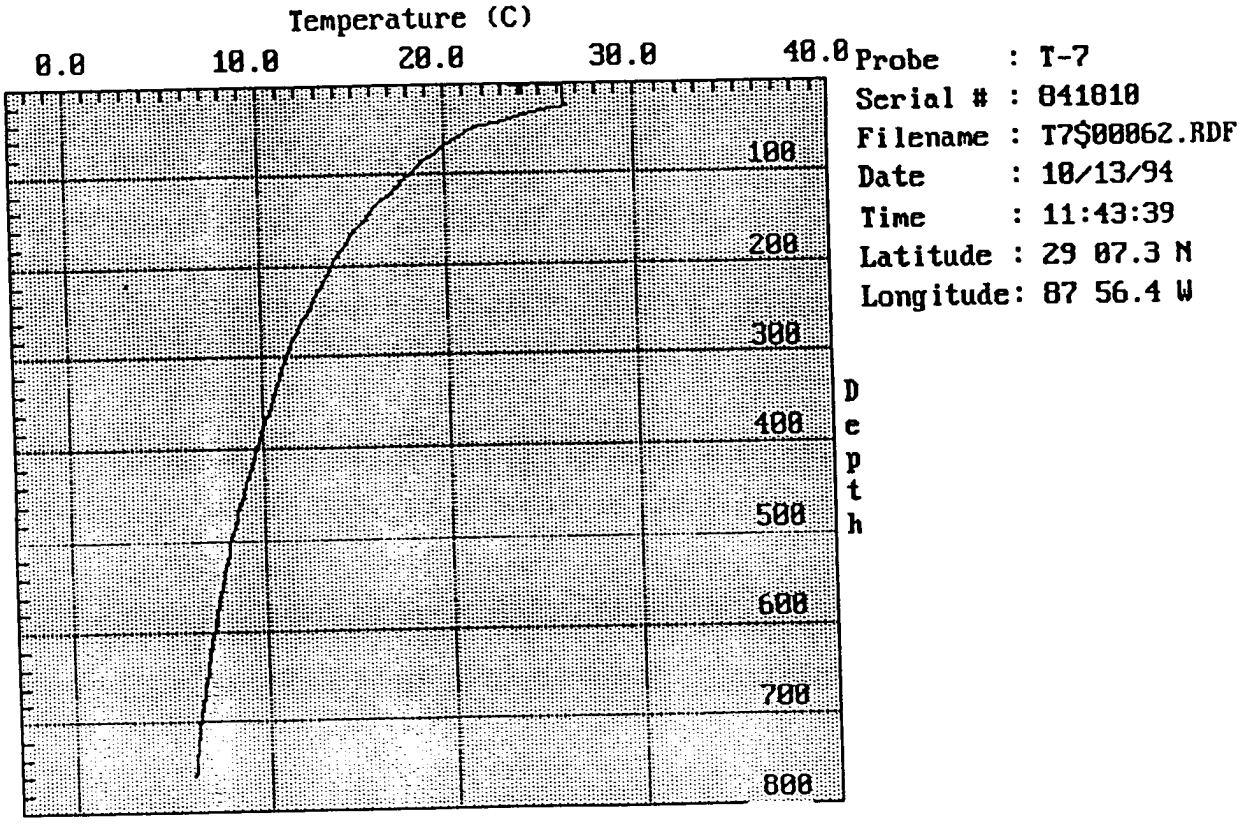


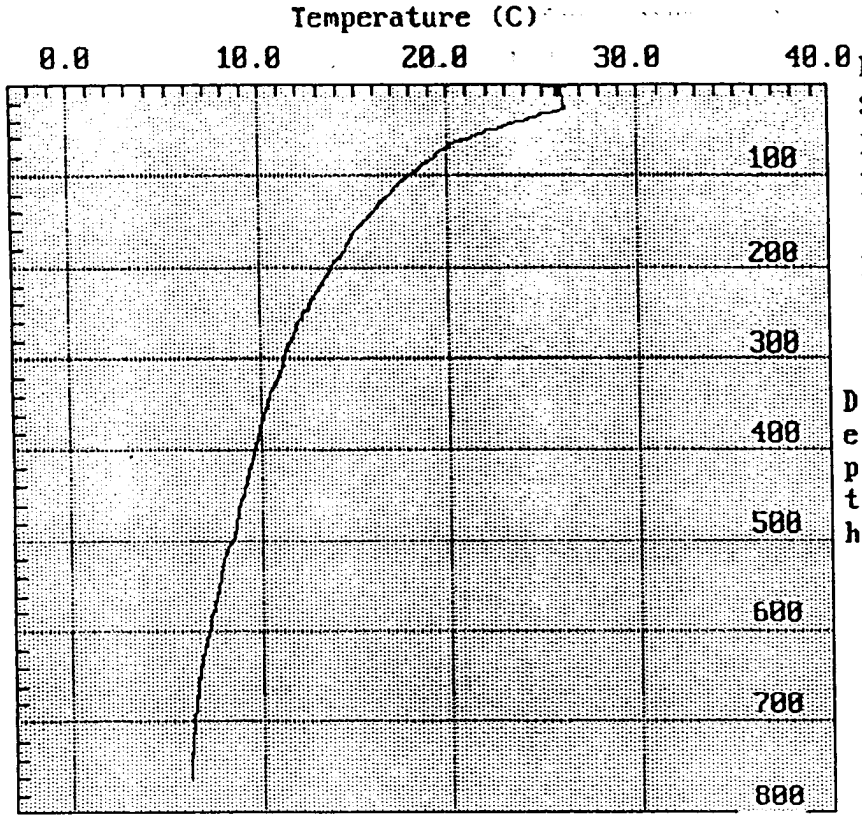
Probe : T-7
Serial # : 041007
Filename : T7$00059.RDF
Date : 10/13/94
Time : 06:58:23
Latitude : 28 54.3 N
Longitude: 88 13.8 W



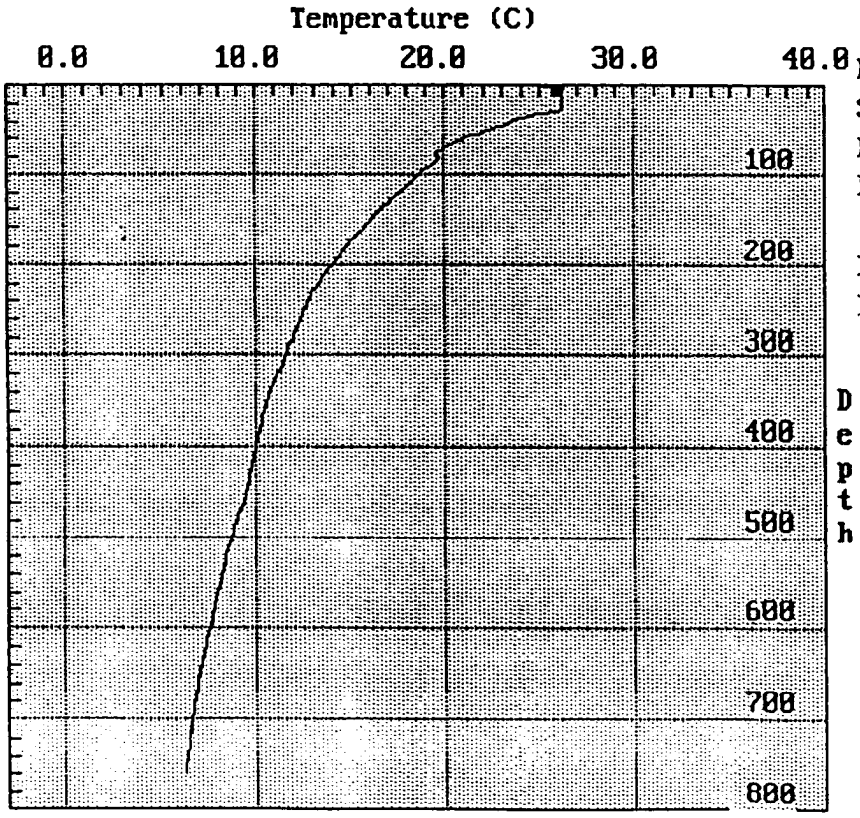
Probe : T-7
Serial # : 041008
Filename : T7$00060.RDF
Date : 10/13/94
Time : 07:57:05
Latitude : 28 59.1 N
Longitude: 88 05.4 W


Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
Depth
Probe : T-7
Serial # : 041009
Filename : T7$00061.RDF
Date : 10/13/94
Time : 08:55:06
Latitude : 29 03.0 N
Longitude: 87 56.6 W

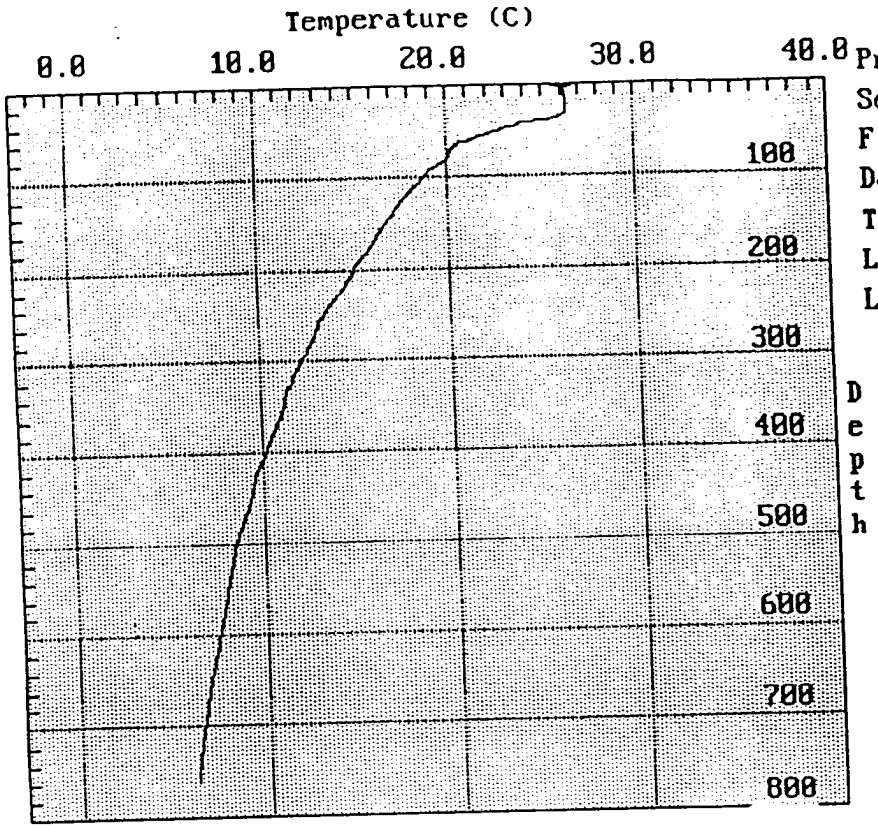

Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
Depth
Probe : T-7
Serial # : 041010
Filename : T7$00062.RDF
Date : 10/13/94
Time : 11:43:39
Latitude : 29 07.3 N
Longitude: 87 56.4 W



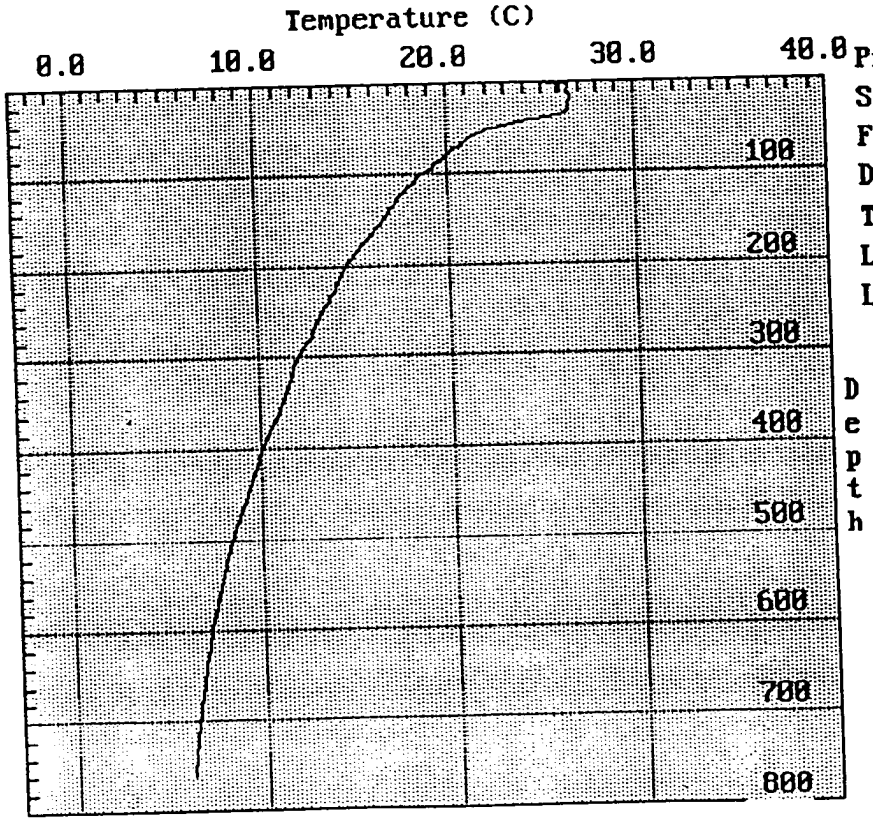
Probe : T-7
Serial # : 041011
Filename : T7$00063.RDF
Date : 10/13/94
Time : 13:38:16
Latitude : 29 11.1 N
Longitude: 87 50.0 W



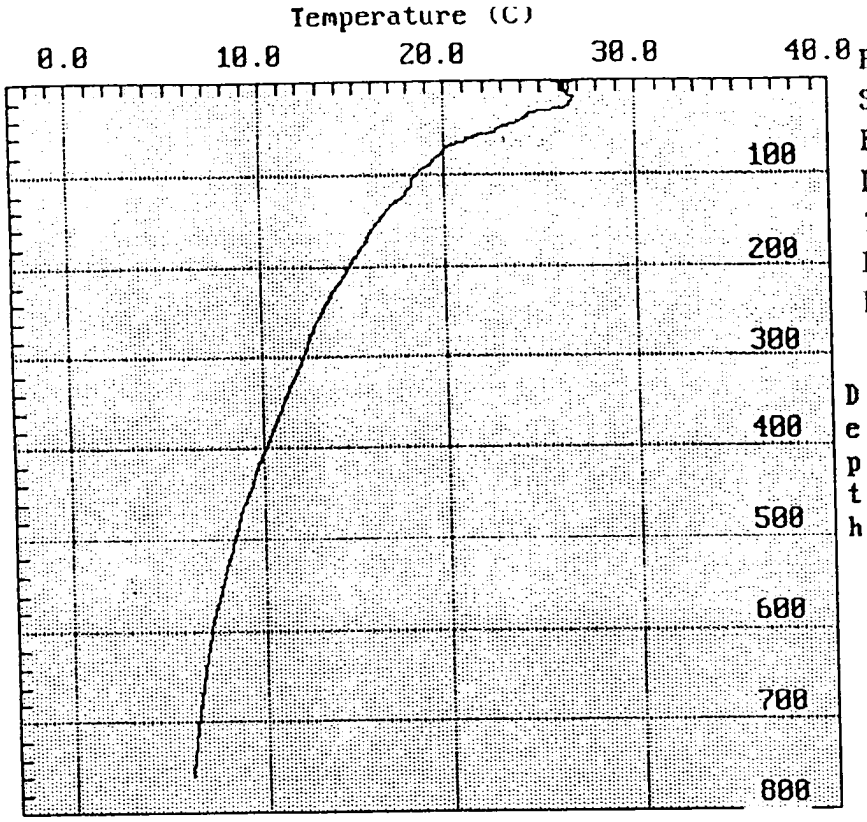
Probe : T-7
Serial # : 041012
Filename : T7$00064.RDF
Date : 10/13/94
Time : 17:02:45
Latitude : 29 07.9 N
Longitude: 87 40.0 W



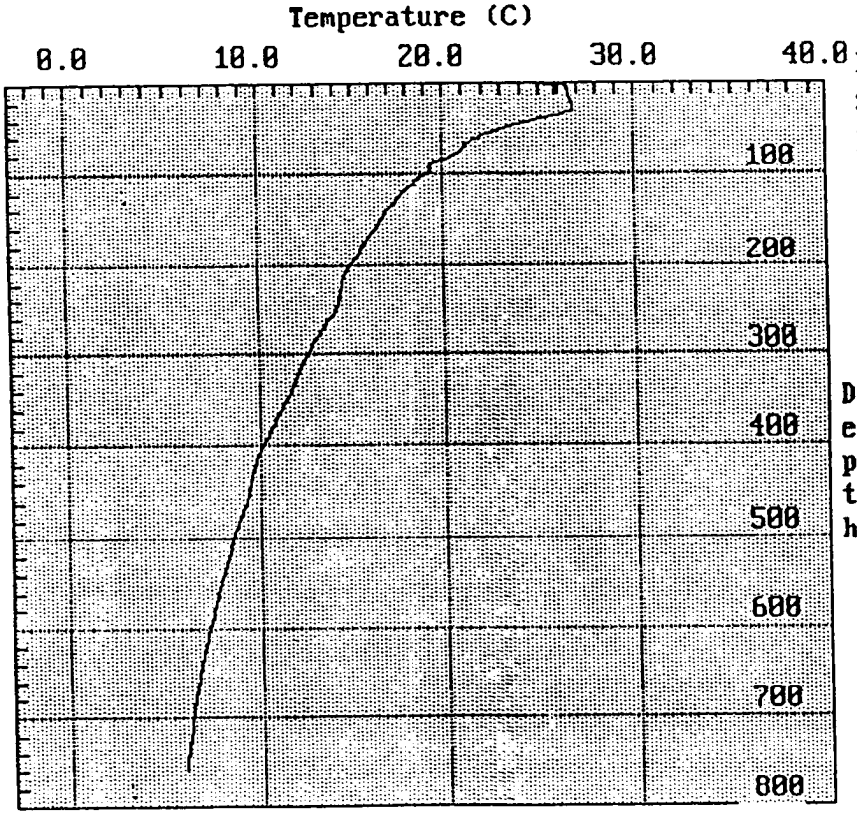
Probe : T-7
Serial # : 841813
Filename : T7$00065.RDF
Date : 10/13/94
Time : 18:03:37
Latitude : 29 00.7 N
Longitude: 87 32.6 W



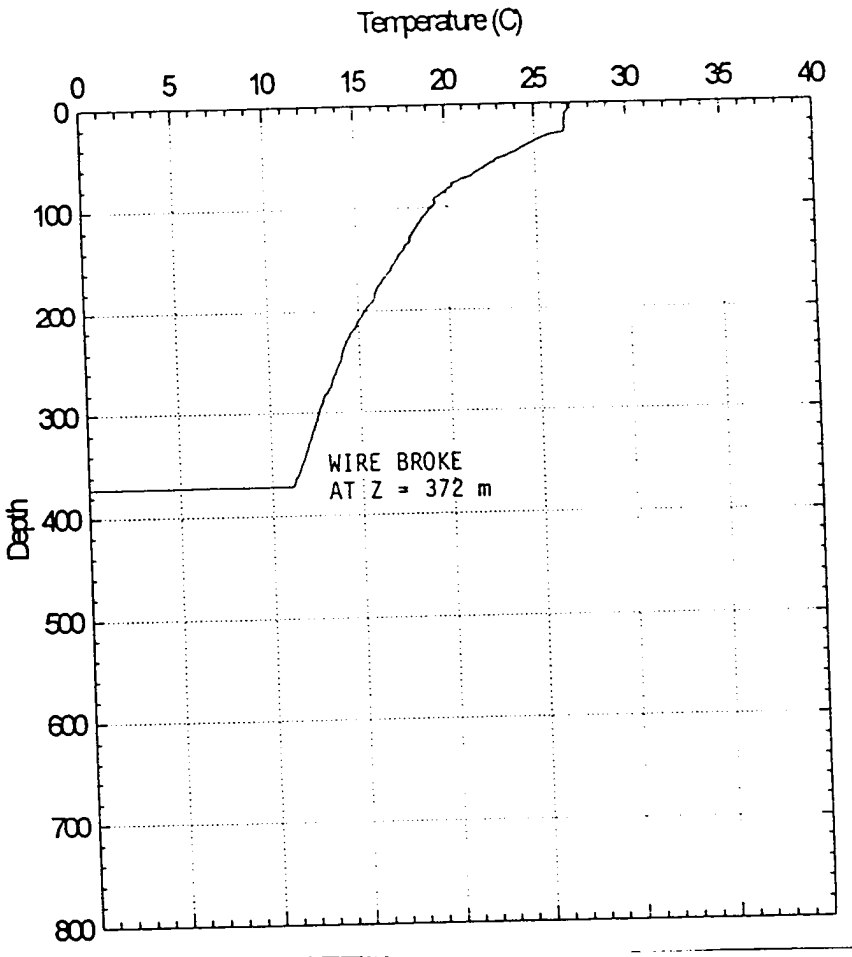
Probe : T-7
Serial # : 841814
Filename : T7$00066.RDF
Date : 10/13/94
Time : 19:02:42
Latitude : 28 53.8 N
Longitude: 87 25.3 W



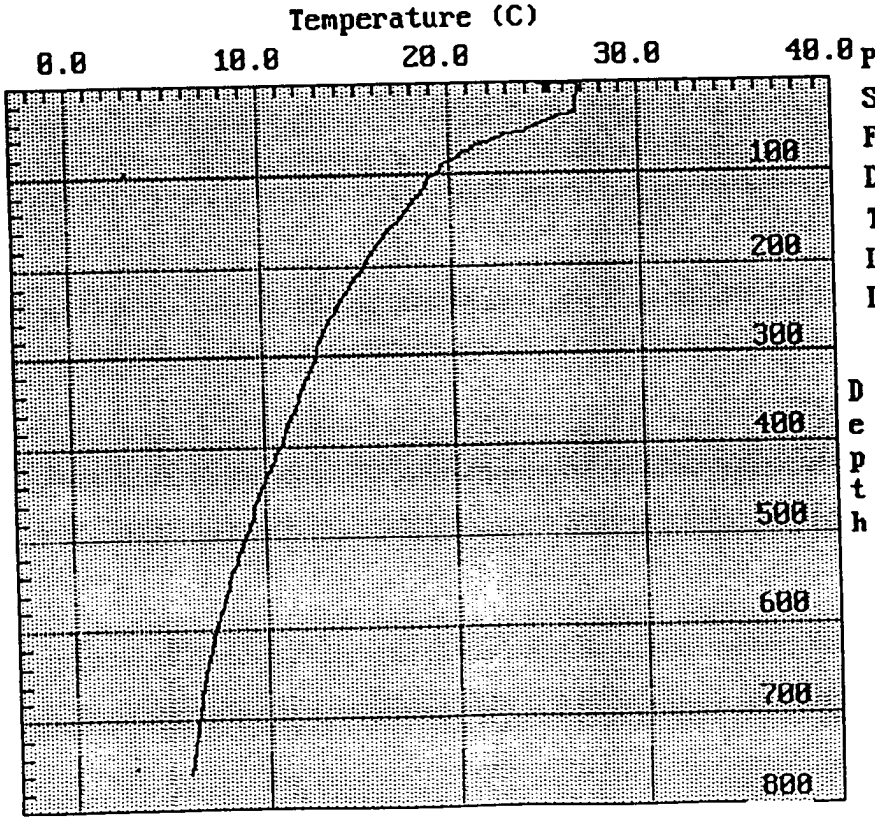
Probe : T-7
Serial # : 041015
Filename : T7$00067.RDF
Date : 10/13/94
Time : 20:04:14
Latitude : 28 46.7 N
Longitude: 87 17.5 W



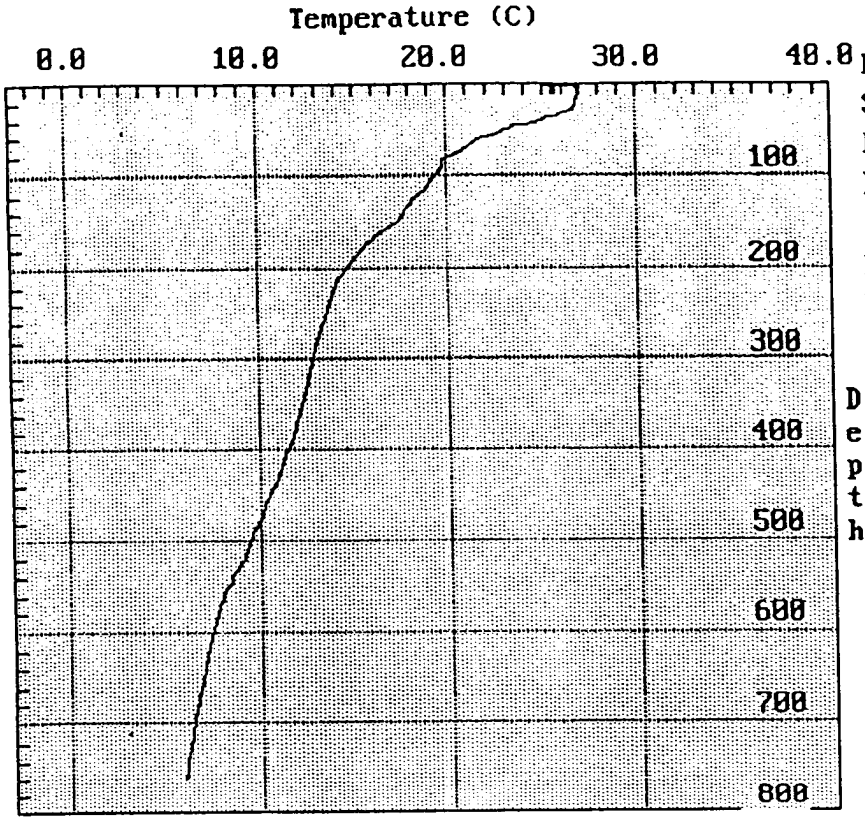
Probe : T-7
Serial # : 041016
Filename : T7$00068.RDF
Date : 10/13/94
Time : 21:02:49
Latitude : 28 40.0 N
Longitude: 87 09.8 W



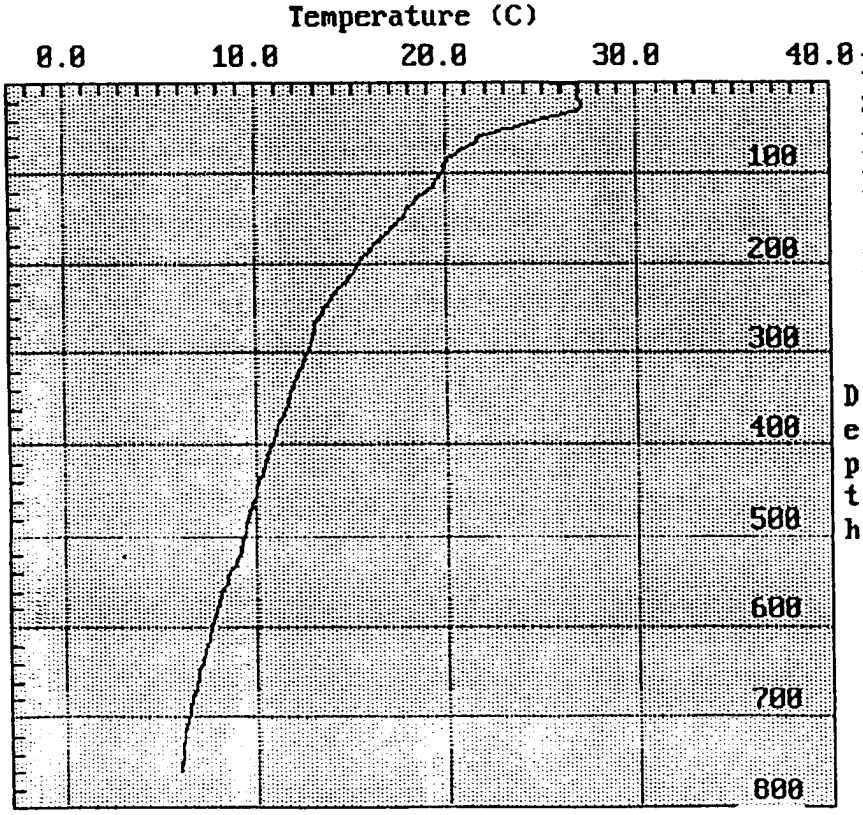
Probe Type : T-7
Serial # : 841817
Filename :
T7$00069.RDF
Date: 10/13/94
Time: 22:02:52 GMT
Lat.: 28 32.1000 N
Lon.: 87 04.0000 W



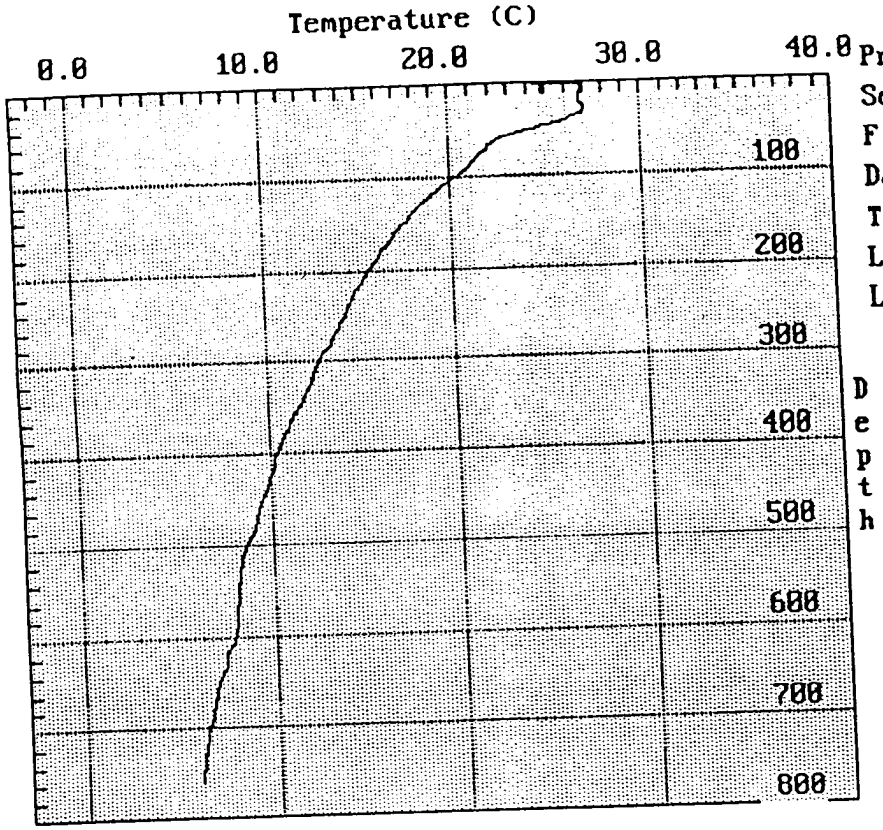
Probe : T-7
Serial # : 010075
Filename : T7$00070.RDF
Date : 10/13/94
Time : 22:21:38
Latitude : 28 30.4 N
Longitude: 87 00.8 W



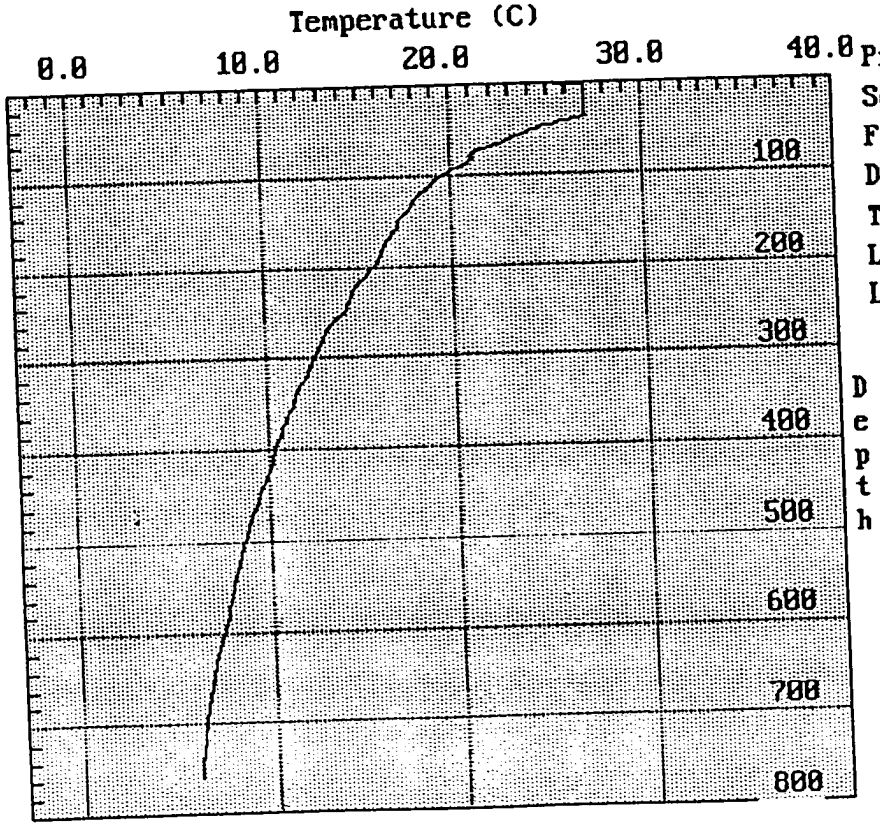
Probe : T-7
Serial # : 018076
Filename : T7$00071.RDF
Date : 10/13/94
Time : 23:03:44
Latitude : 28 24.7 N
Longitude: 86 55.3 W



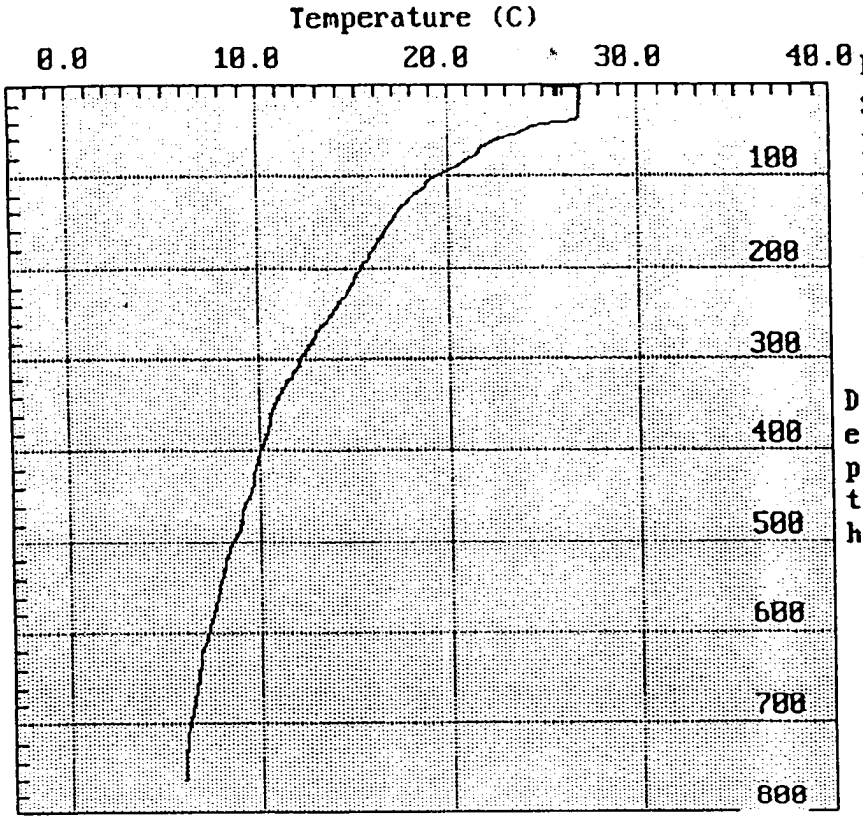
Probe : T-7
Serial # : 018077
Filename : T7$00072.RDF
Date : 10/14/94
Time : 00:03:51
Latitude : 28 16.9 N
Longitude: 86 47.9 W



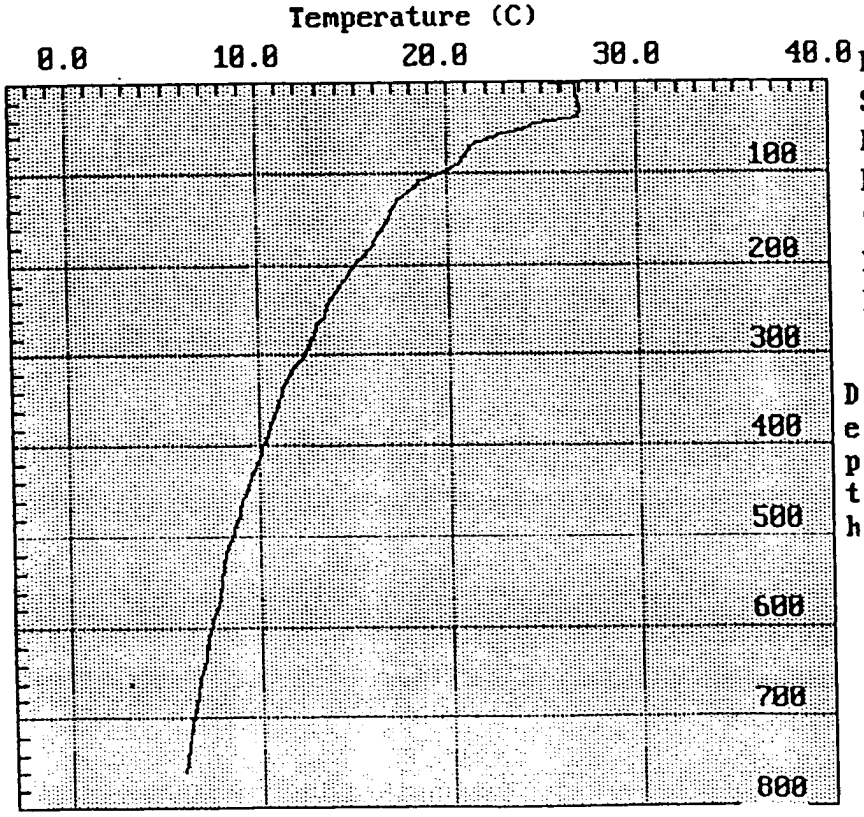
Probe : T-7
Serial # : 018078
Filename : T7$00073.RDF
Date : 10/14/94
Time : 01:02:46
Latitude : 28 09.4 N
Longitude: 86 40.8 W



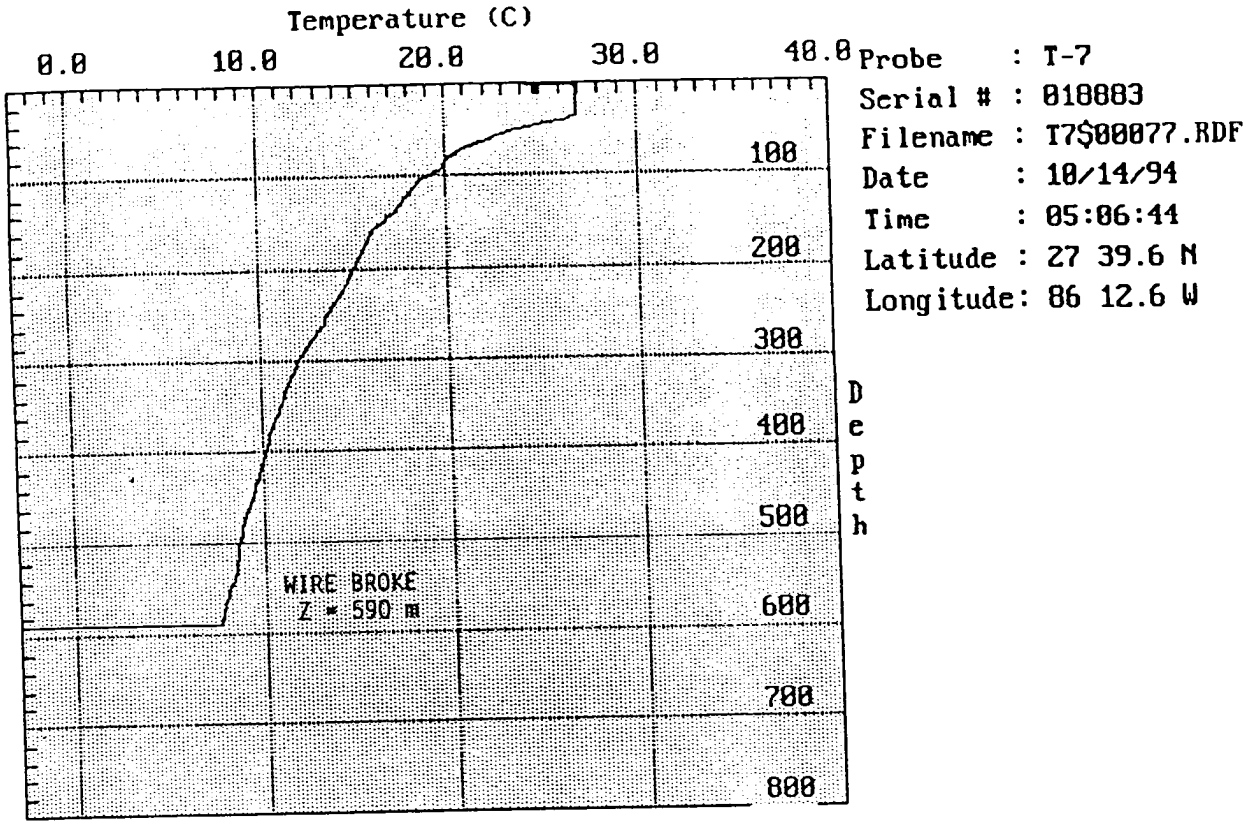
Probe : T-7
Serial # : 018079
Filename : T7$00074.RDF
Date : 10/14/94
Time : 02:02:07
Latitude : 28 02.2 N
Longitude: 86 33.7 W

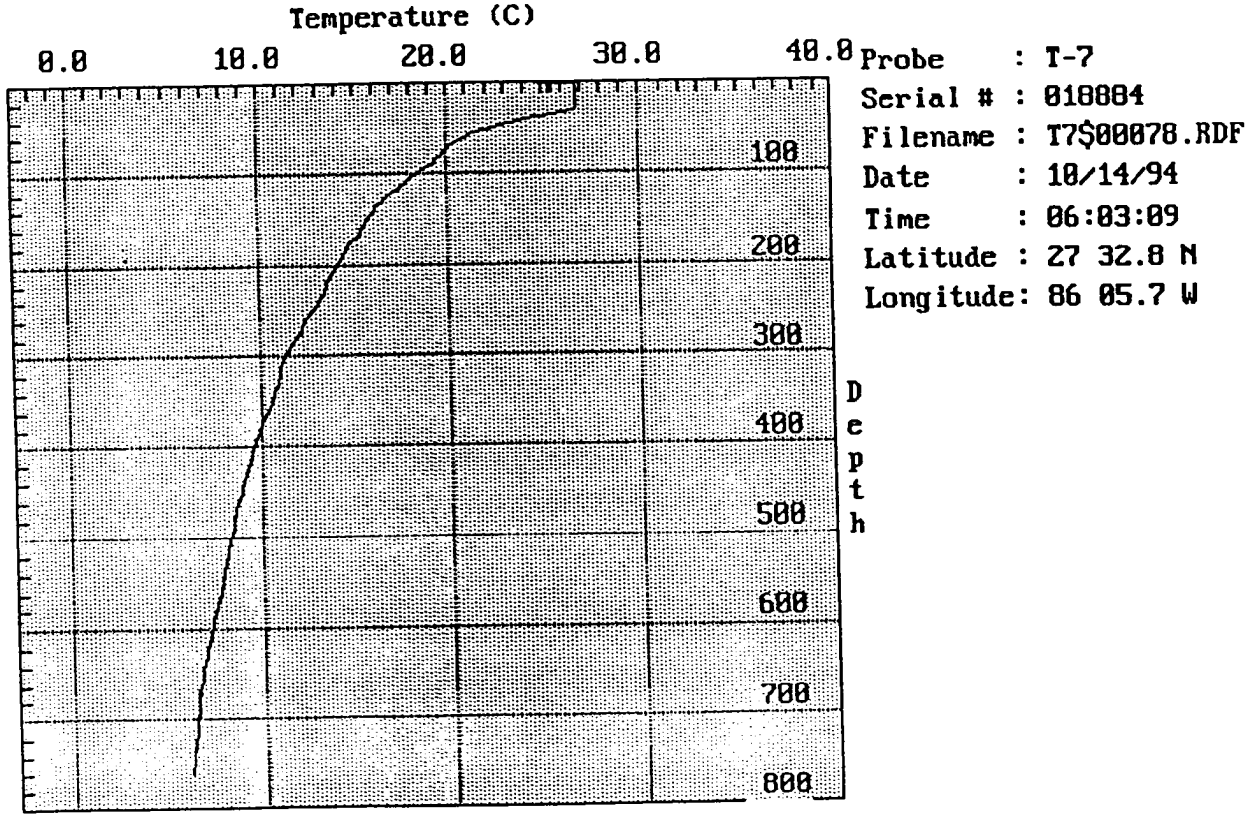


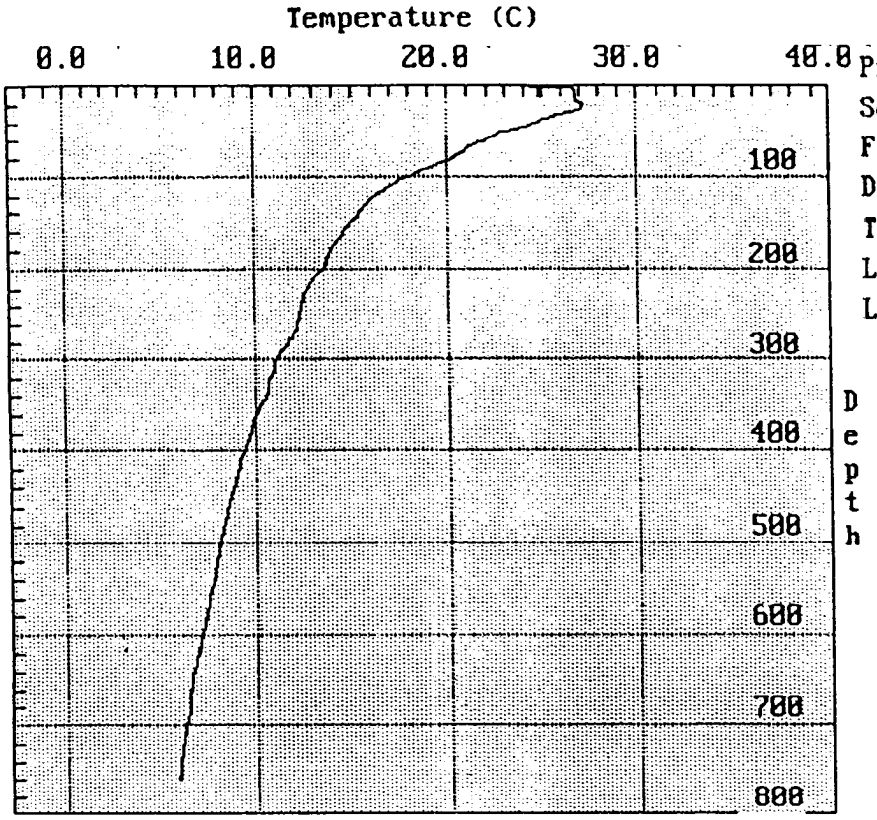
Probe : T-7
Serial # : 010080
Filename : T7$00075.RDF
Date : 10/14/94
Time : 03:03:06
Latitude : 27 54.8 N
Longitude: 86 26.6 W



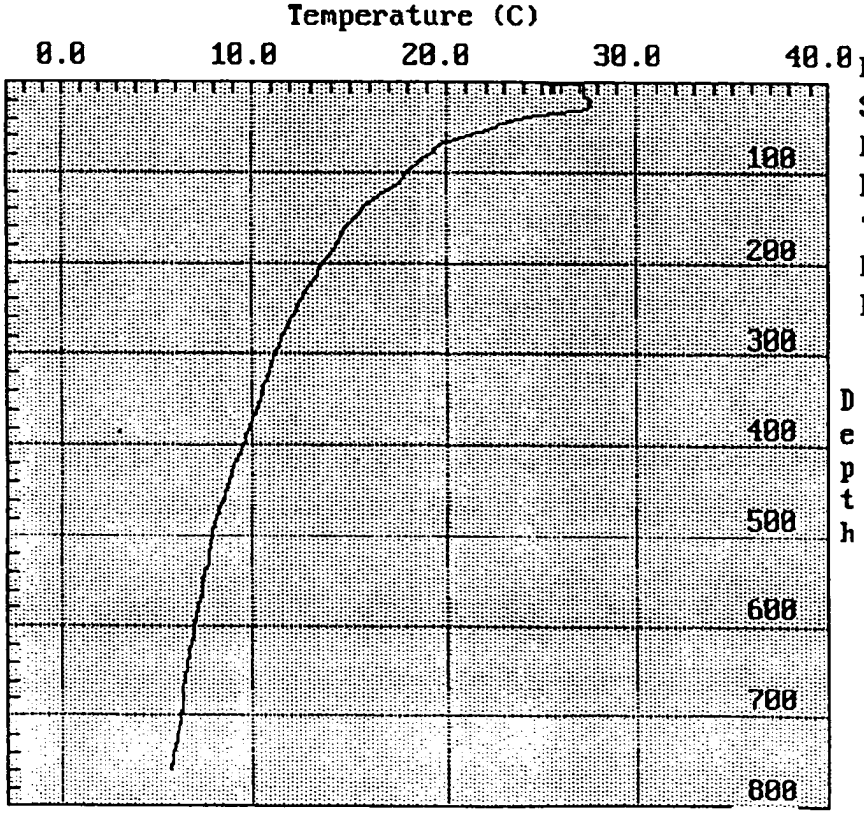
Probe : T-7
Serial # : 010081
Filename : T7$00076.RDF
Date : 10/14/94
Time : 04:03:05
Latitude : 27 47.5 N
Longitude: 86 19.7 W


Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
WIRE BROKE
Z = 590 m
Depth
Probe : T-7
Serial # : 018883
Filename : T7$00077.RDF
Date : 10/14/94
Time : 05:06:44
Latitude : 27 39.6 N
Longitude: 86 12.6 W

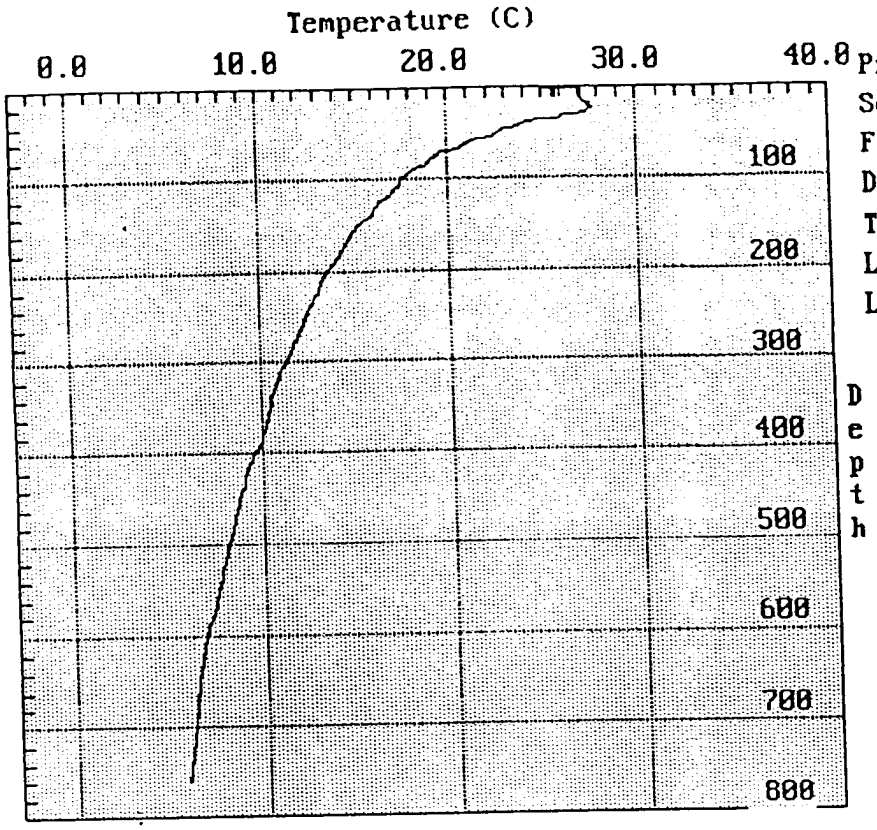

Temperature (C)
0.0
10.0
20.0
30.0
40.0
100
200
300
400
500
600
700
800
Depth
Probe : T-7
Serial # : 018884
Filename : T7$00078.RDF
Date : 10/14/94
Time : 06:03:09
Latitude : 27 32.8 N
Longitude: 86 05.7 W



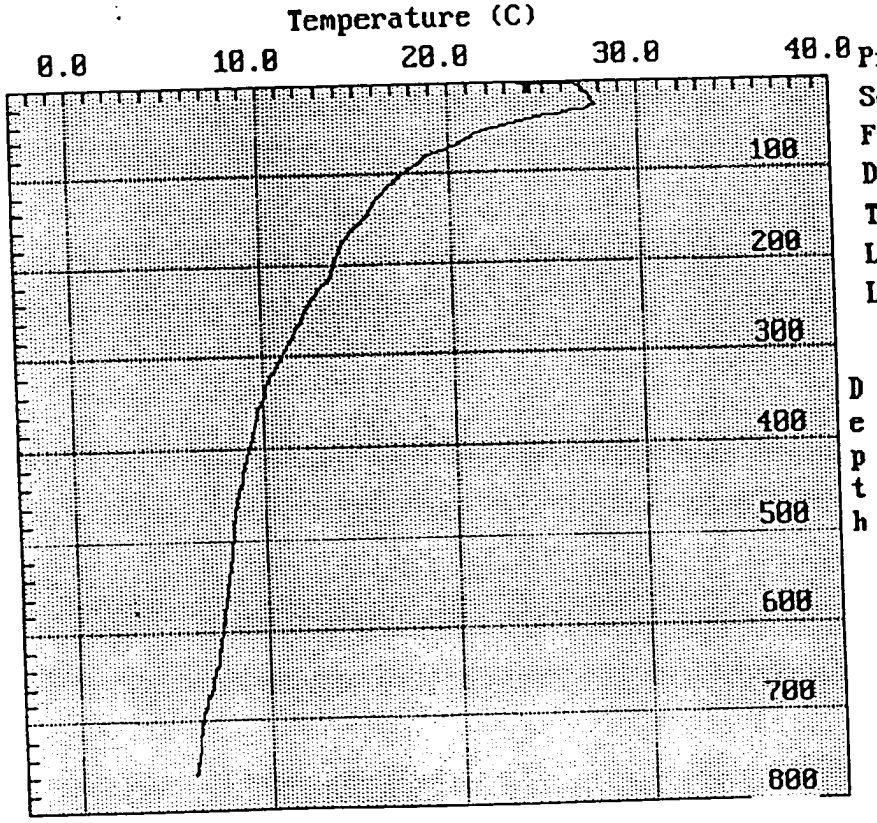
Probe : T-7
Serial # : 005073
Filename : T7$00079.RDF
Date : 10/14/94
Time : 07:02:00
Latitude : 27 26.0 N
Longitude: 85 58.3 W



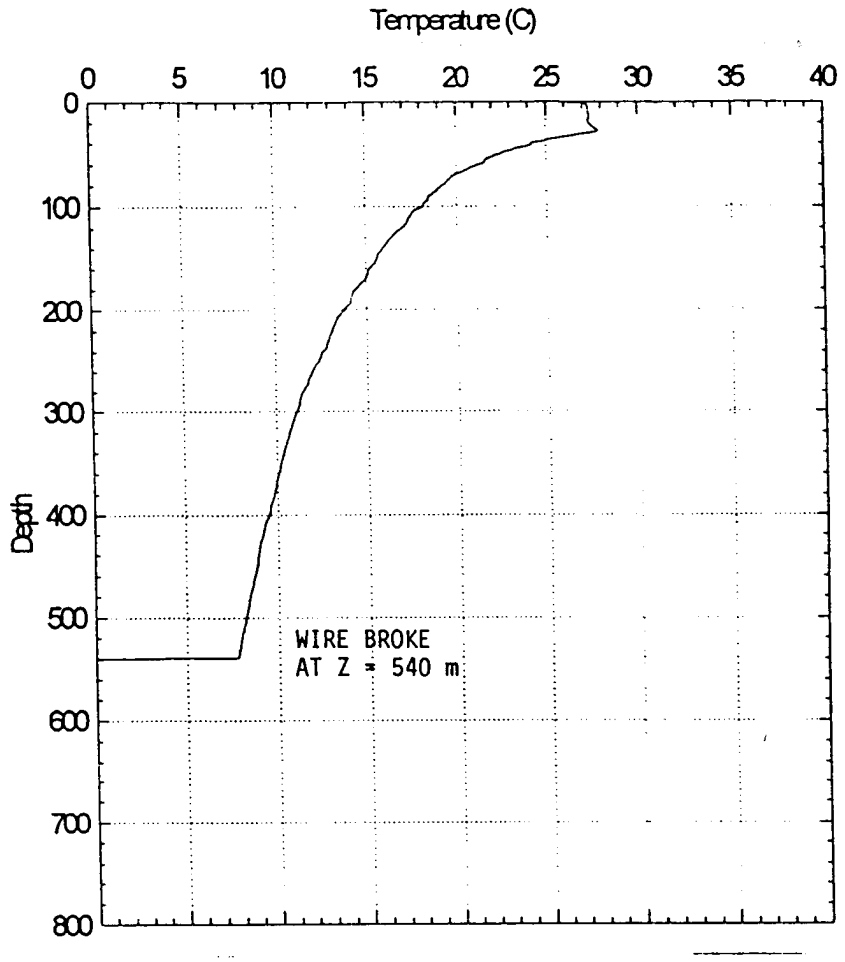
Probe : T-7
Serial # : 010886
Filename : T7$00080.RDF
Date : 10/14/94
Time : 08:02:49
Latitude : 27 19.1 N
Longitude: 85 50.6 W



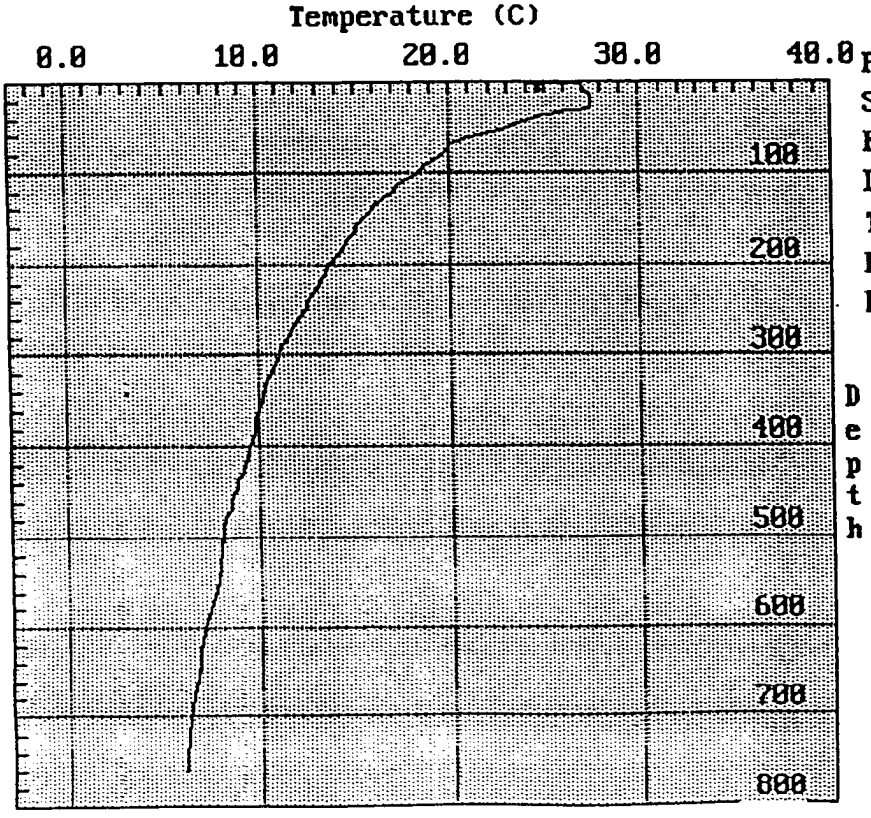
Probe : T-7
Serial # : 005074
Filename : T7$00001.RDF
Date : 10/14/94
Time : 09:02:05
Latitude : 27 11.9 N
Longitude: 85 42.3 W



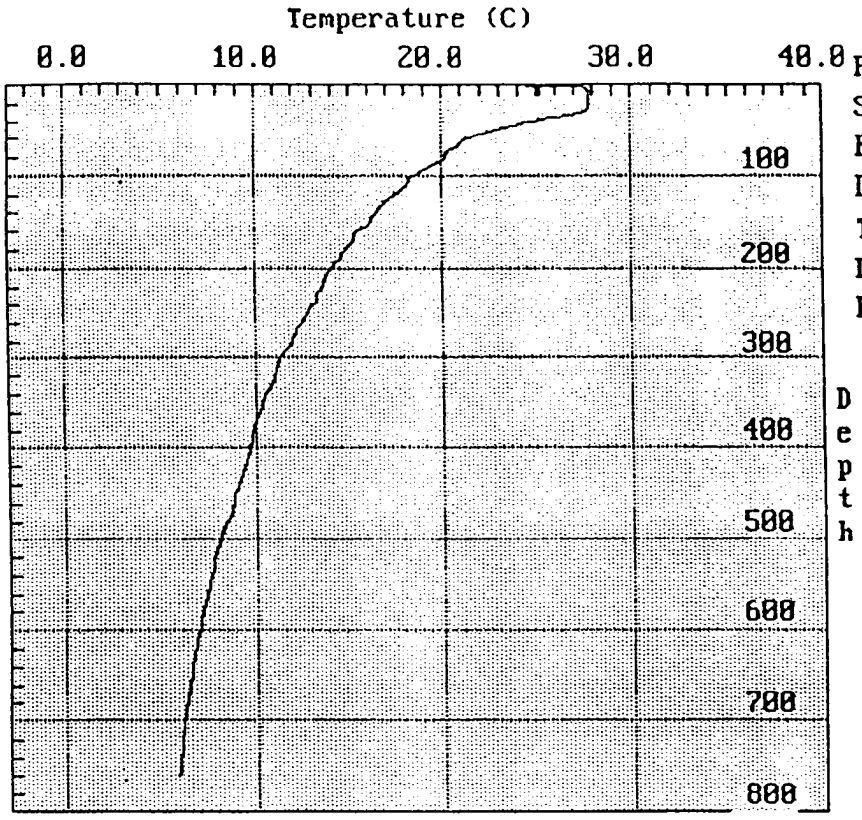
Probe : T-7
Serial # : 005075
Filename : T7$00002.RDF
Date : 10/14/94
Time : 10:02:13
Latitude : 27 05.3 N
Longitude: 85 35.6 W



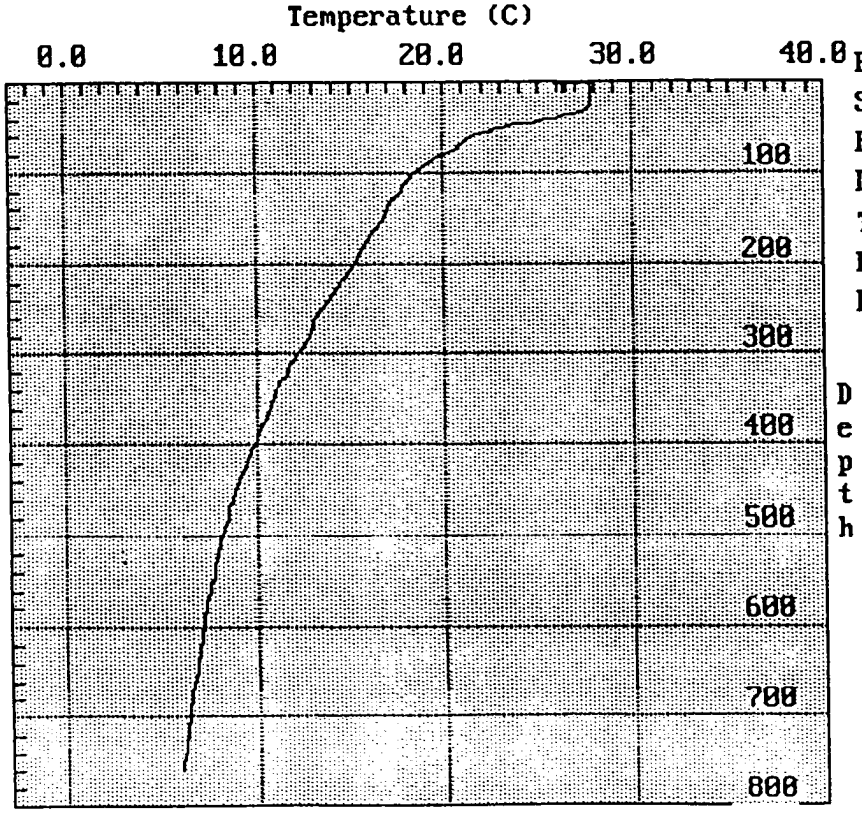
Probe Type : T-7
Serial # : 005076
Filename :
T7$00083.RDF
Date: 10/14/94
Time: 11:02:40 GMT
Lat.: 26 57.8000 N
Lon.: 85 28.3000 W



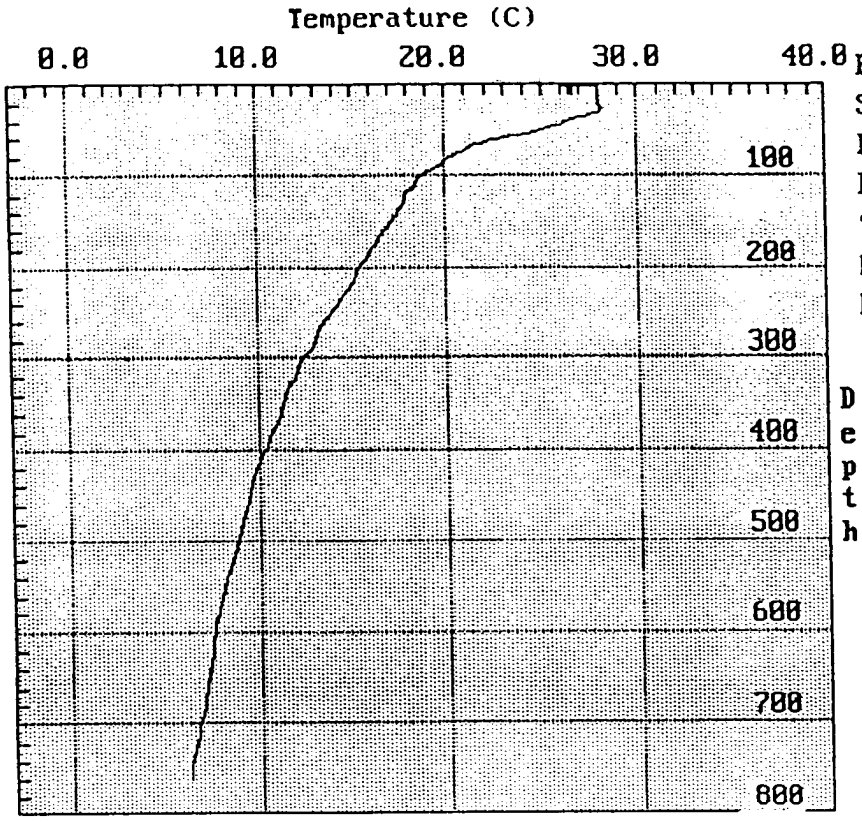
Probe : T-7
Serial # : 005077
Filename : T7$00084.RDF
Date : 10/14/94
Time : 12:02:21
Latitude : 26 50.1 N
Longitude: 85 20.8 W



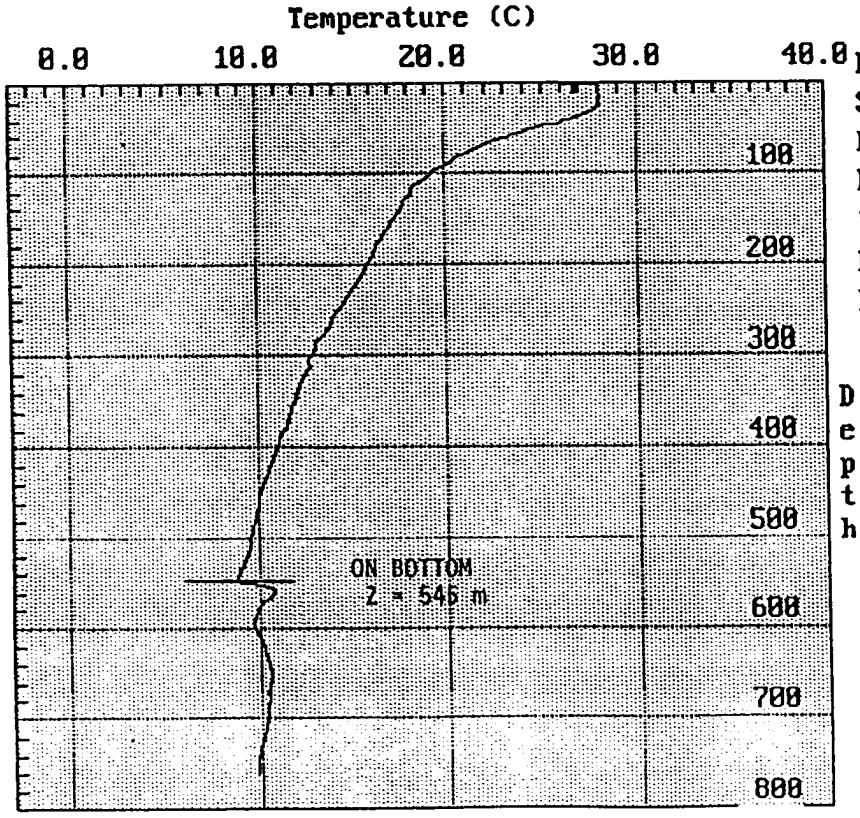
Probe : T-7
Serial # : 005078
Filename : T7$00085.RDF
Date : 10/14/94
Time : 13:02:22
Latitude : 26 42.3 N
Longitude: 85 12.6 W



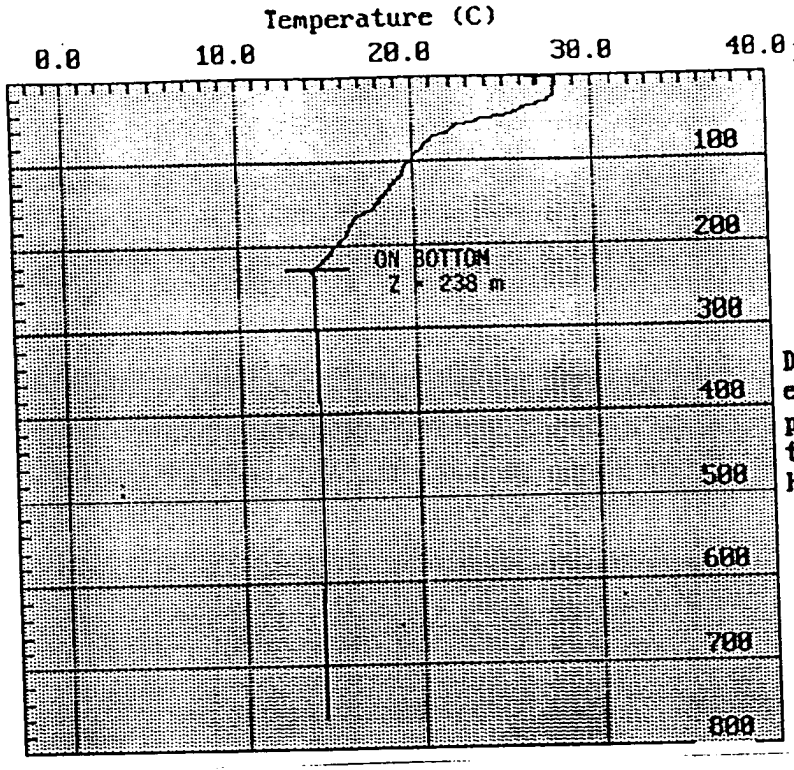
Probe : T-7
Serial # : 005079
Filename : T7$00086.RDF
Date : 10/14/94
Time : 14:04:10
Latitude : 26 34.3 N
Longitude: 85 03.4 W



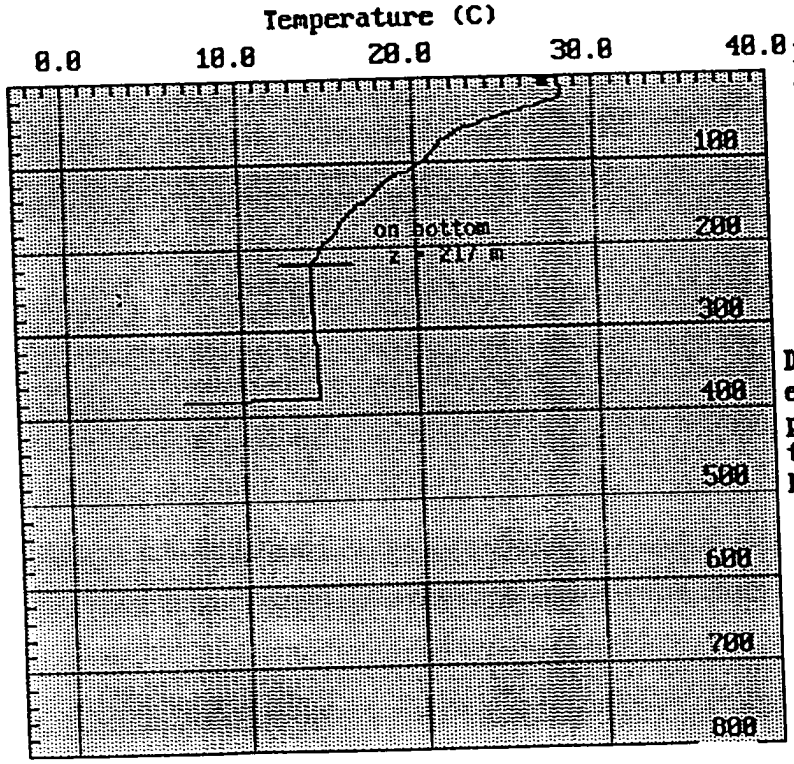
Probe : T-7
Serial # : 005008
Filename : T7$00007.RDF
Date : 10/14/94
Time : 15:03:27
Latitude : 26 26.1 N
Longitude: 84 54.1 W



Probe : T-7
Serial # : 005001
Filename : T7$00008.RDF
Date : 10/14/94
Time : 16:03:49
Latitude : 26 17.8 N
Longitude: 84 45.4 W



Probe : T-7
Serial # : 005082
Filename : T7$00089.RI
Date : 10/14/94
Time : 17:04:22
Latitude : 26 09.6 N
Longitude: 84 37.3 W

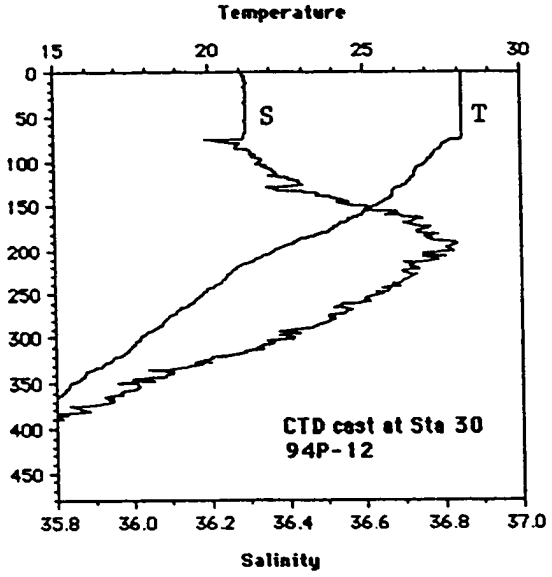


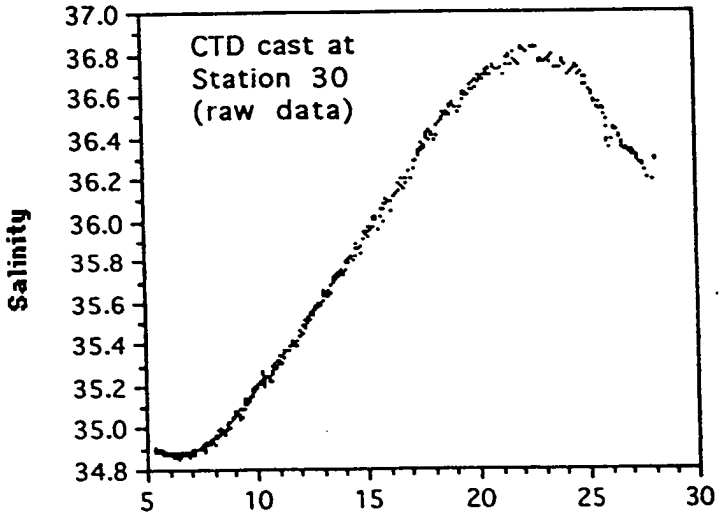
Probe : T-7
Serial # : 005083
Filename : T7$00090.
Date : 10/14/94
Time : 18:05:23
Latitude : 26 01.3N
Longitude: 84 29.8 W

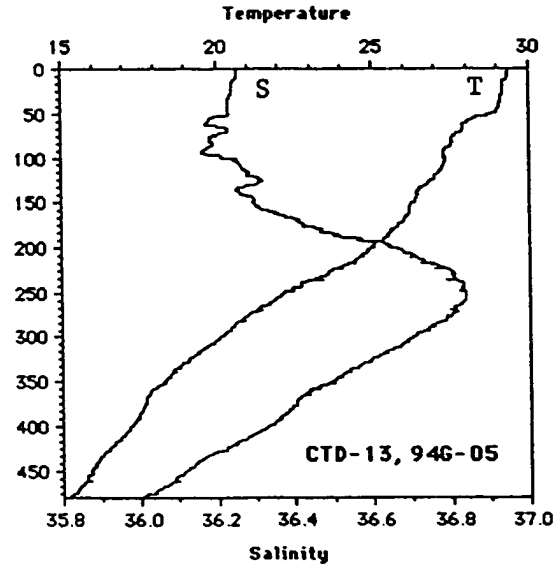
CTD DATA

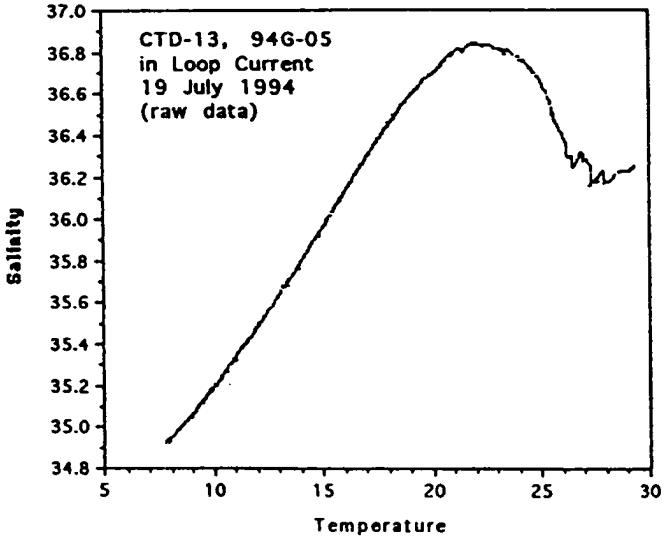
At the southernmost XBT station on the transect that was done 11 October 94 from the NW edge of Eddy Yucatan in to the eddy interior (XBT 30: 26.5°N, 89°W), R/V *Powell* stopped to make a CTD cast to 1000m with a SeaBird model SBE-19 "Seacat" CTD and to deploy an Argos drifter (#12377) that was provided by the LATEX Eddy program.

The plots below, and the table which follows, present the downcast raw data. Note that salinity reached 36.83 in the subsurface salinity maximum that was present 150-260 m. The T/S plot for this SeaCat CTD cast, when compared with that for CTD-13 from R/V *Gyre* cruise 94G-05 that transected the Loop Current in mid July 1994, shows that relatively little dilution of its thermostad of Caribbean Underwater has occurred in the 2 months since Eddy Yucatan was shed by the Loop Current:









NOTE: The CTD-13 data are from TAMU Tech Report 94-03-T (R/V *Gyre* cruise 94G-05), issued 31 August 1995.

SeaCat CTD @ Sta 30

Depth	Temp	Salinity
1.4	28.12	36.29
2.3	28.12	36.29
3.2	28.12	36.29
4.1	28.12	36.29
5.0	28.12	36.30
5.9	28.12	36.30
6.8	28.12	36.29
7.7	28.12	36.29
8.5	28.12	36.29
9.4	28.11	36.29
11.2	28.11	36.29
12.1	28.11	36.30
13.0	28.11	36.30
13.9	28.12	36.30
14.8	28.13	36.29
14.8	28.13	36.30
16.6	28.13	36.29
17.5	28.12	36.30
18.4	28.12	36.30
19.3	28.12	36.30
19.3	28.12	36.30
19.3	28.12	36.30
21.0	28.13	36.30
22.8	28.13	36.30
24.6	28.13	36.30
25.5	28.13	36.30
26.4	28.13	36.29
28.2	28.12	36.30
29.1	28.12	36.30
31.8	28.12	36.29
33.6	28.12	36.29
34.4	28.12	36.29
36.2	28.12	36.30
37.1	28.12	36.30
38.0	28.12	36.30
39.8	28.12	36.30
39.8	28.12	36.30
40.7	28.12	36.30
41.6	28.12	36.29
42.5	28.12	36.30
43.4	28.12	36.29
44.3	28.12	36.30
46.1	28.12	36.30
47.8	28.12	36.30
49.6	28.12	36.30
50.5	28.12	36.29
51.4	28.12	36.29
53.2	28.12	36.30
55.0	28.12	36.29
55.9	28.12	36.30
57.7	28.12	36.29
58.6	28.12	36.30
60.3	28.12	36.29
61.2	28.12	36.29
62.1	28.12	36.30
63.9	28.12	36.29
65.7	28.12	36.29
67.5	28.12	36.29
68.4	28.12	36.29
70.2	28.12	36.29
71.1	28.12	36.29
72.8	28.11	36.29
75.5	28.09	36.28
76.4	28.01	36.19
76.4	27.79	36.21
78.2	27.66	36.23
80.0	27.58	36.27
80.9	27.53	36.28
83.6	27.48	36.27
85.3	27.41	36.27
86.2	27.37	36.29
87.1	27.32	36.30
88.0	27.29	36.31
88.9	27.28	36.30
89.8	27.25	36.31
91.6	27.23	36.31
93.4	27.19	36.32
95.2	27.15	36.31
96.1	27.10	36.33
97.8	27.07	36.33
97.8	27.06	36.34
99.6	27.03	36.33
101.4	27.00	36.33
103.2	26.95	36.32
104.1	26.89	36.33
105.0	26.85	36.35
105.9	26.76	36.33
107.7	26.69	36.35
109.4	26.66	36.36
111.2	26.65	36.37
113.0	26.64	36.38
114.8	26.63	36.38
115.7	26.60	36.36
117.5	26.55	36.39
118.4	26.53	36.40
119.3	26.52	36.41
121.0	26.50	36.41
121.9	26.45	36.43
123.7	26.39	36.43
125.5	26.33	36.44
126.4	26.29	36.44
127.3	26.24	36.43
128.2	26.17	36.39
129.1	26.07	36.35
130.0	25.97	36.37
131.8	25.91	36.38
133.5	25.89	36.44
134.4	25.90	36.45
135.3	25.90	36.48
136.2	25.91	36.48
138.0	25.90	36.48
139.8	25.87	36.50
141.6	25.82	36.52
143.4	25.68	36.54
145.1	25.62	36.56
146.0	25.60	36.53

Depth	Temp	Salinity
146.9	25.49	36.54
148.7	25.40	36.57
148.7	25.34	36.58
150.5	25.28	36.60
152.3	25.23	36.61
153.2	25.18	36.60
155.9	25.10	36.63
156.7	25.04	36.65
156.7	24.98	36.68
158.5	24.95	36.69
159.4	24.93	36.65
160.3	24.84	36.69
161.2	24.78	36.71
162.1	24.70	36.70
163.0	24.63	36.73
163.9	24.58	36.75
163.9	24.53	36.74
164.8	24.48	36.74
166.6	24.43	36.73
167.5	24.33	36.71
169.2	24.20	36.70
171.9	24.07	36.74
172.8	23.99	36.77
173.7	23.97	36.76
174.6	23.92	36.76
176.4	23.85	36.73
178.2	23.71	36.74
180.0	23.59	36.73
180.8	23.48	36.79
181.7	23.41	36.78
182.6	23.33	36.76
183.5	23.21	36.77
184.4	23.14	36.76
185.3	23.05	36.77
186.2	22.95	36.76
188.0	22.85	36.77
188.9	22.78	36.83
189.8	22.74	36.83
190.7	22.69	36.83
190.7	22.64	36.83
192.4	22.58	36.83
196.0	22.28	36.81
197.8	22.19	36.82
198.7	22.13	36.82
199.6	22.09	36.83
200.5	22.06	36.82
203.1	22.01	36.75
204.0	21.89	36.75
204.9	21.77	36.77
205.8	21.71	36.81
206.7	21.66	36.75
207.6	21.56	36.78
209.4	21.50	36.79
211.2	21.45	36.79
212.1	21.38	36.75
213.0	21.30	36.70
213.9	21.18	36.73
214.7	21.08	36.72

	Depth	Temp	Salinity
175	216.5	21.00	36.72
176	217.4	20.94	36.73
177	219.2	20.89	36.72
178	219.2	20.84	36.74
179	220.1	20.81	36.74
180	221.0	20.78	36.73
181	223.7	20.74	36.70
182	224.6	20.64	36.70
183	226.3	20.58	36.73
184	227.2	20.55	36.73
185	228.1	20.54	36.73
186	229.9	20.52	36.72
187	231.7	20.49	36.72
188	233.5	20.45	36.71
189	234.4	20.41	36.70
190	235.3	20.37	36.70
191	237.1	20.33	36.69
192	237.9	20.29	36.67
193	239.7	20.23	36.69
194	240.6	20.19	36.67
195	241.5	20.14	36.69
196	242.4	20.11	36.66
197	243.3	20.05	36.64
198	245.1	19.97	36.67
199	245.1	19.93	36.66
200	246.0	19.91	36.66
201	247.8	19.88	36.66
202	247.8	19.84	36.63
203	249.5	19.78	36.65
204	251.3	19.75	36.65
205	252.2	19.72	36.62
206	254.9	19.65	36.60
207	255.8	19.58	36.61
208	256.7	19.51	36.60
209	258.5	19.47	36.61
210	259.4	19.44	36.60
211	261.1	19.40	36.58
212	262.0	19.35	36.54
213	263.8	19.26	36.54
214	264.7	19.14	36.52
215	265.6	19.06	36.54
216	266.5	19.01	36.57
217	268.3	18.98	36.56
218	269.2	18.94	36.55
219	270.1	18.92	36.55
220	270.9	18.89	36.55
221	271.8	18.86	36.54
222	272.7	18.80	36.51
223	274.5	18.75	36.52
224	275.4	18.70	36.50
225	276.3	18.65	36.51
226	277.2	18.62	36.52
227	278.1	18.59	36.52
228	279.0	18.57	36.51
229	279.9	18.54	36.51
230	282.5	18.52	36.50
231	283.4	18.47	36.48
232	286.1	18.42	36.47

Depth	Temp	Salinity
287.0	18.37	36.47
287.0	18.35	36.47
288.8	18.30	36.46
290.6	18.22	36.41
292.4	18.13	36.38
293.2	18.03	36.42
293.2	17.99	36.40
295.0	17.95	36.43
295.9	17.90	36.38
297.7	17.84	36.39
298.6	17.80	36.40
299.5	17.78	36.42
300.4	17.77	36.41
301.3	17.76	36.40
302.2	17.71	36.35
303.9	17.66	36.36
304.8	17.62	36.35
305.7	17.58	36.37
306.6	17.57	36.35
306.6	17.55	36.35
307.5	17.51	36.34
309.3	17.48	36.33
311.1	17.44	36.31
312.0	17.39	36.33
313.8	17.36	36.29
314.6	17.30	36.29
315.5	17.26	36.29
316.4	17.22	36.29
318.2	17.15	36.25
319.1	17.07	36.20
320.0	16.98	36.24
320.9	16.92	36.21
321.8	16.87	36.21
324.5	16.82	36.18
325.3	16.74	36.15
326.2	16.66	36.20
327.1	16.60	36.17
328.0	16.55	36.18
329.8	16.50	36.14
331.6	16.45	36.13
332.5	16.39	36.13
333.4	16.29	36.12
334.3	16.22	36.09
335.2	16.12	36.04
336.0	16.02	36.09
336.9	15.97	36.10
338.7	15.95	36.10
340.5	15.92	36.08
342.3	15.88	36.08
343.2	15.85	36.08
344.1	15.82	36.05
345.0	15.79	36.00
346.7	15.69	36.05
347.6	15.65	36.02
349.4	15.57	35.96
350.3	15.49	36.00
351.2	15.45	36.02
353.0	15.42	36.02
353.9	15.40	36.02
354.8	15.38	36.01
356.5	15.35	36.01
356.5	15.33	36.01
357.4	15.30	35.97
359.2	15.26	35.96
360.1	15.21	35.96
361.9	15.18	35.97
361.9	15.15	35.97
362.8	15.13	35.95
363.7	15.09	35.93
364.6	15.03	35.95
367.2	14.99	35.93
368.1	14.96	35.95
369.9	14.94	35.94
370.8	14.93	35.94
372.6	14.91	35.91
373.5	14.85	35.91
374.4	14.81	35.88
375.3	14.75	35.83
376.2	14.65	35.86
377.9	14.61	35.86
378.8	14.56	35.87
380.6	14.53	35.89
382.4	14.51	35.82
383.3	14.44	35.80
385.1	14.35	35.83
386.0	14.31	35.82
386.9	14.24	35.80
387.7	14.18	35.79
388.6	14.14	35.81
389.5	14.12	35.80
389.5	14.08	35.76
391.3	14.01	35.79
393.1	13.99	35.75
393.1	13.92	35.73
395.8	13.86	35.74
397.6	13.79	35.75
397.6	13.77	35.74
399.3	13.73	35.74
400.2	13.70	35.72
401.1	13.65	35.71
402.9	13.61	35.72
404.7	13.59	35.73
404.7	13.57	35.73
407.4	13.56	35.72
408.2	13.54	35.71
409.1	13.52	35.72
410.0	13.50	35.71
410.9	13.49	35.72
412.7	13.48	35.72
413.6	13.47	35.70
414.5	13.44	35.69
415.4	13.40	35.68
417.2	13.34	35.65
418.1	13.27	35.63
418.1	13.22	35.65
419.8	13.19	35.64

Depth	Temp	Salinity
419.8	13.14	35.63
421.6	13.11	35.65
423.4	13.08	35.64
425.2	13.05	35.64
426.1	13.03	35.65
427.9	13.03	35.64
428.7	13.01	35.63
429.6	12.99	35.61
431.4	12.95	35.60
431.4	12.91	35.59
433.2	12.86	35.60
433.2	12.83	35.59
435.0	12.79	35.58
435.9	12.76	35.57
437.7	12.71	35.59
439.4	12.68	35.59
440.3	12.67	35.59
441.2	12.66	35.59
442.1	12.65	35.58
443.0	12.64	35.58
444.8	12.63	35.56
445.7	12.59	35.54
447.5	12.55	35.56
447.5	12.53	35.57
448.4	12.52	35.56
449.2	12.50	35.56
449.2	12.48	35.55
451.0	12.46	35.55
451.9	12.45	35.54
454.6	12.42	35.51
455.5	12.38	35.52
456.4	12.35	35.52
457.3	12.33	35.51
459.0	12.30	35.50
459.9	12.27	35.50
460.8	12.25	35.52
462.6	12.23	35.49
464.4	12.20	35.48
465.3	12.15	35.49
466.2	12.11	35.49
468.0	12.08	35.45
468.8	12.02	35.46
469.7	11.99	35.47
470.6	11.98	35.47
471.5	11.96	35.44
472.4	11.89	35.39
473.3	11.83	35.41
474.2	11.76	35.39
476.0	11.70	35.41
476.9	11.66	35.40
477.8	11.63	35.40
478.6	11.60	35.41
480.4	11.57	35.39
483.1	11.54	35.39
484.0	11.50	35.39
484.9	11.49	35.39
486.7	11.47	35.37
488.4	11.42	35.37
490.2	11.39	35.36
492.0	11.36	35.37
492.9	11.34	35.37
494.7	11.33	35.37
494.7	11.32	35.37
494.7	11.30	35.35
496.5	11.27	35.36
497.4	11.25	35.34
498.2	11.20	35.31
498.2	11.14	35.34
499.1	11.13	35.35
500.9	11.12	35.35
501.8	11.11	35.35
502.7	11.10	35.35
503.6	11.10	35.34
504.5	11.09	35.32
505.4	11.06	35.31
506.3	11.02	35.32
507.2	11.01	35.33
509.8	10.99	35.32
511.6	10.98	35.32
511.6	10.97	35.29
513.4	10.91	35.28
514.3	10.87	35.30
516.9	10.86	35.30
516.9	10.84	35.31
518.7	10.83	35.29
519.6	10.80	35.29
521.4	10.78	35.30
522.3	10.77	35.30
524.1	10.76	35.29
524.1	10.75	35.29
525.9	10.74	35.27
526.7	10.70	35.26
527.6	10.66	35.23
528.5	10.60	35.25
529.4	10.57	35.24
530.3	10.53	35.22
532.1	10.49	35.24
533.0	10.46	35.25
533.0	10.45	35.25
533.9	10.44	35.25
535.7	10.43	35.25
536.5	10.43	35.25
539.2	10.42	35.24
540.1	10.40	35.21
541.9	10.36	35.22
542.8	10.34	35.22
544.6	10.31	35.22
544.6	10.29	35.20
545.5	10.25	35.22
547.2	10.25	35.28
547.2	10.29	35.26
549.0	10.29	35.25
550.8	10.29	35.24
551.7	10.29	35.27
553.5	10.30	35.25
554.4	10.29	35.23

Depth	Temp	Salinity
555.2	10.26	35.22
556.1	10.24	35.23
557.9	10.22	35.23
558.8	10.20	35.21
560.6	10.15	35.21
561.5	10.13	35.22
562.4	10.11	35.22
563.3	10.08	35.21
564.2	10.06	35.22
565.0	10.05	35.21
567.7	10.04	35.20
568.6	10.01	35.20
570.4	9.99	35.20
571.3	9.97	35.21
572.2	9.97	35.20
573.1	9.94	35.19
574.8	9.92	35.20
576.6	9.92	35.19
577.5	9.90	35.18
578.4	9.87	35.19
580.2	9.86	35.19
581.1	9.86	35.19
582.0	9.85	35.18
582.9	9.83	35.17
583.7	9.82	35.18
583.7	9.81	35.18
584.6	9.80	35.18
585.5	9.78	35.16
586.4	9.76	35.16
587.3	9.73	35.17
589.1	9.71	35.15
589.1	9.70	35.14
590.0	9.68	35.12
590.0	9.63	35.13
590.9	9.61	35.15
592.6	9.58	35.13
594.4	9.56	35.14
596.2	9.53	35.12
597.1	9.49	35.11
598.9	9.45	35.12
599.8	9.43	35.13
600.7	9.42	35.13
601.5	9.42	35.13
603.3	9.42	35.13
604.2	9.41	35.12
605.1	9.40	35.13
605.1	9.39	35.12
607.8	9.37	35.09
609.6	9.34	35.09
611.3	9.30	35.06
612.2	9.24	35.07
613.1	9.18	35.05
614.0	9.15	35.09
614.9	9.13	35.04
615.8	9.08	35.07
616.7	9.06	35.07
617.6	9.03	35.07
618.5	9.02	35.08
619.4	9.01	35.07
620.2	9.00	35.06
621.1	8.98	35.07
622.9	8.96	35.05
624.7	8.93	35.07
626.5	8.92	35.05
627.4	8.90	35.05
629.1	8.89	35.06
630.0	8.88	35.06
631.8	8.86	35.05
632.7	8.84	35.05
633.6	8.81	35.04
634.5	8.79	35.04
636.3	8.78	35.03
637.2	8.75	35.02
638.9	8.71	35.01
639.8	8.68	35.03
640.7	8.66	35.03
640.7	8.65	35.03
642.5	8.64	35.01
642.5	8.61	34.99
644.3	8.57	35.02
645.2	8.55	35.02
647.0	8.52	34.99
647.0	8.48	34.99
648.7	8.45	34.97
649.6	8.40	35.00
651.4	8.38	34.99
653.2	8.37	34.99
655.0	8.34	34.99
656.7	8.33	34.99
657.6	8.30	34.98
659.4	8.28	34.97
661.2	8.24	34.98
662.1	8.22	34.98
663.9	8.20	34.98
663.9	8.19	34.99
665.6	8.19	35.00
667.4	8.20	35.00
669.2	8.21	35.01
670.1	8.21	35.00
671.0	8.21	35.00
671.9	8.20	35.00
673.7	8.20	34.99
675.4	8.18	34.96
675.4	8.14	34.97
677.2	8.11	34.97
678.1	8.08	34.96
679.9	8.05	34.97
681.7	8.04	34.92
683.4	7.95	34.94
685.2	7.91	34.95
687.0	7.89	34.93
687.0	7.86	34.95
688.8	7.85	34.94
690.6	7.81	34.93
692.3	7.79	34.94
694.1	7.78	34.93

Depth	Temp	Salinity
695.0	7.76	34.94
695.9	7.75	34.93
697.7	7.74	34.93
697.7	7.72	34.93
699.5	7.70	34.93
701.2	7.67	34.92
701.2	7.65	34.94
703.0	7.64	34.93
703.9	7.64	34.93
704.8	7.63	34.92
706.6	7.61	34.91
707.5	7.59	34.92
709.2	7.57	34.93
711.0	7.57	34.93
712.8	7.56	34.89
714.6	7.51	34.88
715.5	7.47	34.90
716.4	7.46	34.92
718.1	7.45	34.90
718.1	7.43	34.91
719.9	7.42	34.92
721.7	7.42	34.91
723.5	7.41	34.90
725.3	7.37	34.90
726.2	7.35	34.90
727.9	7.33	34.91
728.8	7.32	34.90
729.7	7.31	34.91
731.5	7.30	34.90
732.4	7.29	34.91
733.3	7.28	34.89
734.2	7.25	34.90
735.1	7.23	34.90
736.8	7.21	34.89
738.6	7.19	34.90
739.5	7.19	34.90
740.4	7.18	34.89
742.2	7.17	34.89
743.1	7.16	34.89
744.8	7.14	34.89
745.7	7.12	34.87
747.5	7.09	34.89
749.3	7.07	34.90
750.2	7.07	34.89
751.1	7.06	34.89
752.8	7.05	34.89
754.6	7.04	34.88
754.6	7.02	34.89
755.5	7.01	34.89
756.4	7.00	34.89
758.2	6.99	34.88
760.0	6.95	34.87
760.0	6.93	34.89
760.9	6.90	34.86
762.6	6.86	34.87
763.5	6.85	34.89
764.4	6.84	34.88
767.1	6.83	34.89
768.0	6.83	34.89
768.9	6.82	34.88
769.7	6.81	34.88
771.5	6.80	34.86
772.4	6.78	34.88
774.2	6.77	34.89
775.1	6.77	34.89
776.0	6.77	34.89
776.0	6.76	34.89
777.8	6.76	34.89
779.5	6.76	34.88
780.4	6.75	34.88
782.2	6.74	34.88
782.2	6.73	34.88
783.1	6.73	34.89
784.9	6.73	34.88
786.6	6.72	34.87
787.5	6.71	34.88
789.3	6.70	34.88
789.3	6.70	34.88
790.2	6.69	34.88
791.1	6.68	34.88
792.0	6.67	34.88
793.8	6.67	34.88
796.4	6.66	34.88
797.3	6.65	34.88
798.2	6.64	34.88
798.2	6.63	34.88
800.0	6.62	34.88
801.8	6.61	34.88
802.7	6.60	34.88
804.4	6.59	34.88
805.3	6.58	34.88
808.0	6.57	34.88
808.0	6.56	34.88
808.9	6.55	34.89
810.7	6.55	34.88
811.6	6.54	34.88
812.4	6.54	34.88
813.3	6.53	34.88
814.2	6.52	34.89
815.1	6.52	34.88
816.9	6.51	34.88
817.8	6.50	34.87
817.8	6.48	34.87
819.6	6.46	34.87
820.4	6.45	34.88
823.1	6.44	34.88
824.9	6.43	34.88
825.8	6.42	34.87
826.7	6.41	34.88
828.4	6.40	34.88
829.3	6.40	34.88
830.2	6.39	34.88
831.1	6.38	34.88
832.9	6.37	34.88
832.9	6.36	34.87
835.6	6.35	34.85

Depth	Temp	Salinity
836.5	6.32	34.86
837.3	6.30	34.87
840.0	6.29	34.88
840.9	6.28	34.88
841.8	6.28	34.88
842.7	6.28	34.88
843.6	6.27	34.88
844.5	6.27	34.88
845.3	6.26	34.87
847.1	6.23	34.87
847.1	6.21	34.88
848.0	6.20	34.88
849.8	6.20	34.88
851.6	6.19	34.87
853.3	6.17	34.88
855.1	6.16	34.87
856.9	6.15	34.88
857.8	6.15	34.88
858.7	6.14	34.88
860.5	6.13	34.86
861.3	6.11	34.88
863.1	6.10	34.87
864.9	6.09	34.88
864.9	6.08	34.88
866.7	6.08	34.88
868.5	6.07	34.87
868.5	6.06	34.88
870.2	6.06	34.88
871.1	6.06	34.88
872.0	6.06	34.88
872.9	6.06	34.88
874.7	6.06	34.88
874.7	6.05	34.88
876.5	6.05	34.88
877.4	6.04	34.88
878.2	6.04	34.87
880.0	6.02	34.87
881.8	6.01	34.88
882.7	6.00	34.88
884.5	6.00	34.88
885.4	5.99	34.88
886.2	5.99	34.88
887.1	5.99	34.88
888.9	5.98	34.88
888.9	5.97	34.88
889.8	5.97	34.88
891.6	5.96	34.88
892.5	5.96	34.88
895.1	5.96	34.88
895.1	5.95	34.88
896.9	5.95	34.87
896.9	5.94	34.88
898.7	5.93	34.87
900.5	5.92	34.88
901.4	5.91	34.87
902.2	5.90	34.88
903.1	5.89	34.87
904.0	5.87	34.88
904.9	5.87	34.89
906.7	5.87	34.89
908.5	5.86	34.89
910.2	5.87	34.88
912.0	5.86	34.88
912.9	5.86	34.88
913.8	5.86	34.88
914.7	5.86	34.88
916.5	5.85	34.88
919.1	5.84	34.88
920.0	5.84	34.88
920.9	5.83	34.88
921.8	5.82	34.88
923.6	5.82	34.89
923.6	5.81	34.89
925.4	5.81	34.88
925.4	5.80	34.88
927.1	5.79	34.88
928.9	5.78	34.89
929.8	5.77	34.89
930.7	5.77	34.89
931.6	5.77	34.88
932.5	5.76	34.88
933.4	5.75	34.88
935.1	5.74	34.89
936.9	5.74	34.88
938.7	5.74	34.89
939.6	5.74	34.89
940.5	5.73	34.88
942.2	5.72	34.88
944.0	5.71	34.89
945.8	5.70	34.89
947.6	5.70	34.89
949.3	5.70	34.89
949.3	5.69	34.89
950.2	5.69	34.89
951.1	5.69	34.89
952.0	5.69	34.89
952.9	5.69	34.89
954.7	5.69	34.88
954.7	5.68	34.88
955.6	5.67	34.89
957.3	5.66	34.89
958.2	5.66	34.89
960.0	5.66	34.89
960.0	5.65	34.89
960.9	5.64	34.88
962.7	5.63	34.89
963.6	5.62	34.88
965.3	5.62	34.89
966.2	5.61	34.89
968.0	5.60	34.89
969.8	5.60	34.89
969.8	5.60	34.89
971.6	5.59	34.89
973.3	5.59	34.89
974.2	5.58	34.89
976.0	5.58	34.89

Depth	Temp	Salinity
976.9	5.57	34.89
978.7	5.56	34.89
979.6	5.55	34.89
980.5	5.54	34.89
981.3	5.54	34.88
982.2	5.52	34.89
983.1	5.51	34.89
984.9	5.50	34.90
985.8	5.50	34.89
986.7	5.50	34.89
987.6	5.50	34.89
989.3	5.49	34.89
989.3	5.49	34.90
991.1	5.49	34.90
992.0	5.49	34.90
994.7	5.48	34.89
994.7	5.48	34.89
996.4	5.47	34.89
998.2	5.46	34.89
999.1	5.46	34.90
1000.0	5.45	34.89
1001.8	5.45	34.90
1002.7	5.45	34.90
1003.6	5.45	34.90
1005.3	5.44	34.90
1005.3	5.44	34.89
1007.1	5.43	34.90
1008.9	5.43	34.90
1009.8	5.43	34.90
1010.7	5.42	34.89
1011.5	5.42	34.90
1012.4	5.41	34.90
1014.2	5.41	34.89
1016.0	5.40	34.89
1016.9	5.38	34.89
1017.8	5.36	34.89
1018.7	5.35	34.91
1018.7	5.35	34.90
1020.4	5.35	34.90
1022.2	5.34	34.90
1023.1	5.33	34.90
1024.9	5.33	34.90
1025.8	5.33	34.90
1026.7	5.32	34.90
1027.5	5.33	34.90

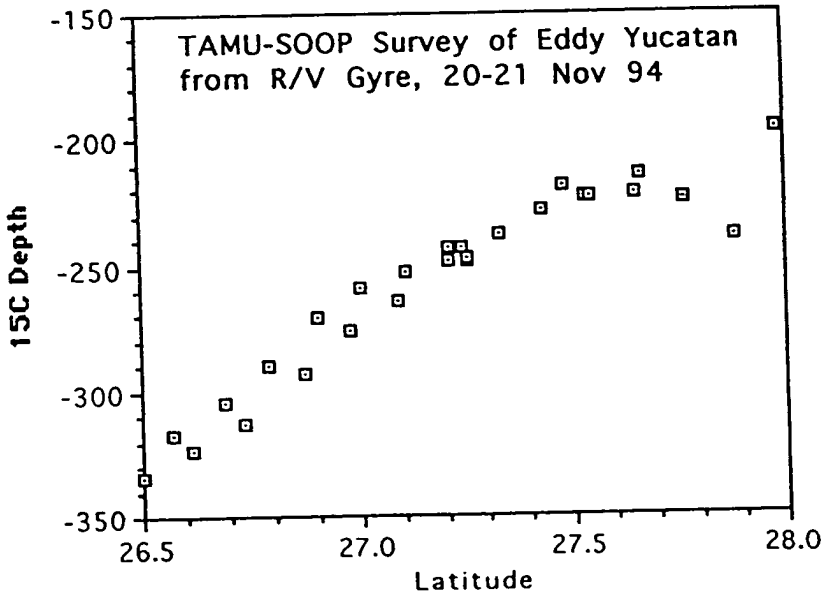
XBTs of Opportunity

Gyre cruise 94G-10

Three cases of Sippican T-7 XBTs were provided by the LATEX Eddy program. These XBTs of opportunity were dropped a) during piston coring of the Texas-Louisiana continental margin between 27°40'N and 27°15'N, between 91°30'W and 90°45'W (XBTs 1-6); b) on what we judged should be a NW-SE tangential section across the perimeter region of highest current velocity of Eddy Yucatan (XBTs 7-14) and back out along a second heading NNE (XBTs 15-27); c) during piston coring of the north central slope of the Gulf of Mexico, east of 90°W (XBTs 28-33).

Two tables that follow summarize: 1) Date, Latitude, Longitude, and serial number/mfgr for XBTs; 2) Depth of Isotherms (27-6°C), temperature at bottom of cast (XBT Temp at z = 760 m), temperature at the surface (XBT Temp at z = 3 m), and salinity at the surface (analyzed post-cruise from bottle samples drawn from the ship's pumped surface sampling system, at approx z = 3.5 m). Also included are 3 representative vertical temperature profiles, to illustrate mixed layer depths in the westernmost, southernmost, and northernmost (easternmost) regions visited by the cruise, as well as a 4th vertical temperature profile showing the presense of cooler Mississippi River outflow water at Station 28.

As was true for the XBT data collected on Powell cruise 94P-12, no corrections to temperature or to drop rate have been made in the data tables which follow. However, the raw data depths which are calculated by the manufacturer's software are corrected by [1.05*z - 3] before these XBT data are used for dynamic height and other geostrophic calculations.



XBT	Date	GMT	Latitude	Longitude	XBT s/n	XBT mfgr
1	19 Nov	20:29	27 39.2	91 20.8	840871	Sippican
2	"	23:10	27 32.0	91 06.4	840872	"
3	20 Nov	01:28	27 29.1	91 17.8	840873	"
4	"	14:59	27 14.7	90 49.6	840875	"
5	"	18:30	27 14.8	91 07.5	840876	"
6	"	20:39	27 14.7	91 15.1	840877	"
7	"	22:09	27 12.8	91 16.6	840878	"
8	21 Nov	00:01	27 06.5	91 13.6	840879	"
9	"	00:45	27 00.3	91 10.6	840880	"
10	"	01:31	26 53.8	91 07.8	840881	"
11	"	02:16	26 47.5	91 05.6	841159	"
12	"	02:57	26 41.5	91 03.7	841160	"
13	"	03:46	26 34.5	91 01.6	841161	"
14	"	04:17	26 30.0	91 00.0	841162	"
15	"	05:04	26 36.8	90 57.6	841163	"
16	"	05:48	26 43.9	90 55.8	841164	"
17	"	06:41	26 52.3	90 53.4	841165	"
18	"	07:23	26 58.8	90 51.3	841166	"
19	"	08:04	27 05.2	90 49.3	841167	"
20	"	08:55	27 12.8	90 46.9	841168	"
21	"	09:43	27 20.2	90 45.0	841169	"
22	"	10:19	27 25.7	90 43.7	841062	"
23	"	11:05	27 32.7	90 41.9	841063	"
24	"	11:54	27 40.0	90 39.8	841064	"
25	"	12:34	27 45.5	90 38.0	841065	"
26	"	13:21	27 52.4	90 36.3	841066	"
27	"	14:03	27 58.8	90 34.9	841067	"
28	22 Nov	16:32	28 15.4	89 21.1	841068	"
29	23 Nov	00:21	28 54.0	88 20.5	841069	"
30	"	03:02	28 47.9	88 38.3	841076	"
31	"	07:10	28 49.9	88 53.8	841071	"
32	"	10:50	28 43.6	89 02.8	841072	"
33	24 Nov	16:13	28 27.0	89 37.2	841073	"

Table of isotherm depths: R/V GYRE 94G-10

XBT	Date	GMT	Latitude	Longitude	sfc Temp	sfc Salin	28 C Depth	27 C Depth	26 C Depth	25 C Depth
1	19 Nov	20:29	27 39.2	91 20.8	27.02	36.44		9	63	65
2	"	23:10	27 32.0	91 06.4	26.99	36.42		66	68	69
3	20 Nov	01:28	27 29.1	91 17.8	26.92	36.41			61	63
4	"	14:59	27 14.7	90 49.6	26.97	36.37		65	69	71
5	"	18:30	27 14.8	91 07.5	27.15	36.46		70	71	72
6	"	20:39	27 14.7	91 15.1	27.10	36.44		69	70	71
7	"	22:09	27 12.8	91 16.6	27.16	36.54		70	71	72
8	21 Nov	00:01	27 06.5	91 13.6	27.06	36.56		75	76	78
9	"	00:45	27 00.3	91 10.6	26.90	36.30			85	90
10	"	01:31	26 53.8	91 07.8	26.92	36.35			96	109
11	"	02:16	26 47.5	91 05.6	27.03	36.36		94	104	117
12	"	02:57	26 41.5	91 03.7	27.02	36.33		95	113	127
13	"	03:46	26 34.5	91 01.6	27.05	36.33		96	114	133
14	"	04:17	26 30.0	91 00.0	27.00	36.35		100	116	136
15	"	05:04	26 36.8	90 57.6	27.00	36.33		5	115	133
16	"	05:48	26 43.9	90 55.8	27.05	36.35		96	113	129
17	"	06:41	26 52.3	90 53.4	27.11	36.39		95	100	118
18	"	07:23	26 58.8	90 51.3	27.00	36.37		85	91	101
19	"	08:04	27 05.2	90 49.3	26.85	36.29			86	88
20	"	08:55	27 12.8	90 46.9	27.12	36.57		71	73	75
21	"	09:43	27 20.2	90 45.0	27.01	36.52		70	71	73
22	"	10:19	27 25.7	90 43.7	26.94	36.44			65	67
23	"	11:05	27 32.7	90 41.9	26.69	36.34			63	65
24	"	11:54	27 40.0	90 39.8	26.64	36.34			62	63
25	"	12:34	27 45.5	90 38.0	26.69	36.39			56	57
26	"	13:21	27 52.4	90 36.3	26.02	36.17			51	52
27	"	14:03	27 58.8	90 34.9	26.05	36.18			46	49
28	22 Nov	16:32	28 15.4	89 21.1	24.04	33.90	For XBT 28, sfc Temp <25C but increased w depth: to a max = 25.38 at z = 38m			44
29	23 Nov	00:21	28 54.0	88 20.5	24.44	35.80				53
30	"	03:02	28 47.9	88 38.3	25.31	36.15				48
31	"	07:10	28 49.9	88 53.8	24.98	35.96				
32	"	10:50	28 43.6	89 02.8	24.78	35.89	For XBT 31 and XBT 33, sfc Temp <25C but increased w depth: to a max = 25.13 at z = 46m(X-31) to a max = 25.06 at z = 43m(X-33)			45
33	24 Nov	16:13	28 27.0	89 37.2	24.28	35.16				

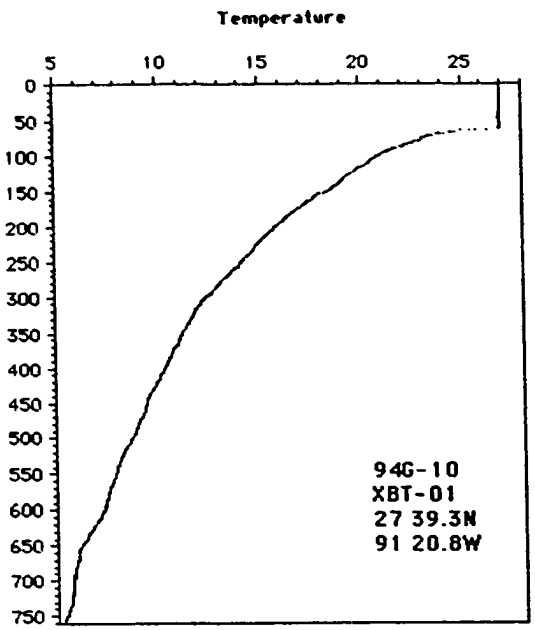
Table of isotherm depths : R/V GYRE 94G-10

XBT	24 C Depth	23 C Depth	22 C Depth	21 C Depth	20 C Depth	19 C Depth	18 C Depth	17 C Depth	16 C Depth	15 C Depth
1	69	79	88	98	116	137	152	173	194	222
2	78	90	102	111	124	139	156	173	196	223
3	74	88	94	117	131	144	165	181	193	219
4	83	99	120	129	143	154	177	197	224	247
5	81	94	109	135	145	157	176	198	219	248
6	80	97	106	129	140	150	164	190	215	243
7	82	94	108	126	144	160	172	195	217	244
8	86	103	123	136	158	176	188	204	226	254
9	100	111	129	144	168	179	194	212	232	259
10	115	134	142	163	176	194	209	226	243	271
11	128	134	159	167	188	204	222	243	266	290
12	143	155	166	178	191	214	230	251	280	305
13	147	163	177	188	197	224	251	276	300	318
14	150	168	179	199	207	228	252	283	309	334
15	144	158	175	185	197	219	251	272	295	325
16	138	157	165	178	190	213	235	255	281	313
17	123	135	157	170	185	200	221	244	265	293
18	115	122	135	145	160	180	201	225	251	276
19	97	113	138	148	154	170	192	212	241	264
20	84	99	117	141	149	162	178	201	223	248
21	81	92	113	123	130	156	172	189	211	239
22	77	91	99	121	135	142	158	183	201	228
23	72	80	95	104	116	134	153	171	193	223
24	65	73	83	97	111	127	143	168	190	215
25	58	64	73	89	100	116	132	148	185	225
26	54	63	69	76	89	100	123	132	166	240
27	52	58	63	70	84	94	106	136	168	197
28	50	56	63	72	83	95	121	142	163	188
29	47	54	65	74	88	98	118	138	167	192
30	55	59	67	79	88	104	116	138	164	193
31	50	57	64	71	79	91	110	123	160	189
32	48	53	59	63	73	88	106	125	152	176
33	51	54	60	62	70	92	111	128	155	181

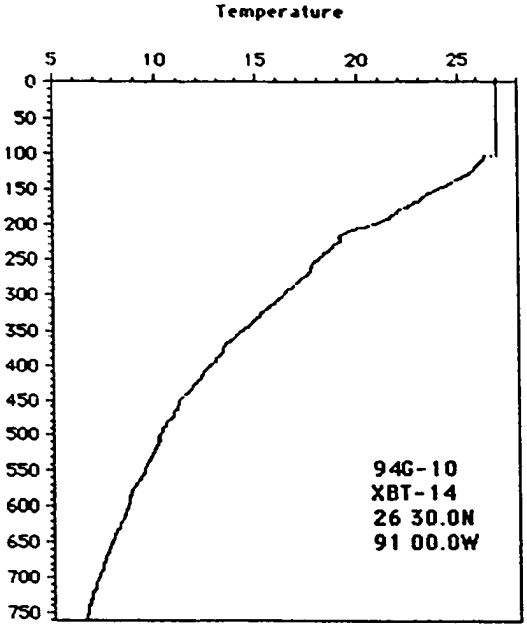
Table of isotherm depths: R/V GYRE 94G-10

XBT	14 C Depth	13 C Depth	12 C Depth	11 C Depth	10 C Depth	9 C Depth	8 C Depth	7 C Depth	6 C Depth	T@z = 760 m
										(on bottom @ 758
1	254	282	312	363	418	479	538	614	665	= 5.26C)
2	255	292	329	377	422	466	531	689		6.04
3	248	288	339	378	435	497	562	659		6.14
4	281	316	347	395	458	517	591	(data bad for z > 626m = 7.62C)		
5	275	314	342	386	457	537	609	679		6.13
6	272	301	335	373	442	525	606	684		6.23
7	273	310	346	388	449	535	(data bad for z > 601m = 8.21C)			
8	283	307	348	402	460	519	595	690		6.35
9	294	323	363	408	463	529	603	688		6.39
10	298	331	369	406	465	530	592	692		6.43
11	320	352	398	440	486	553	621	722		6.69
12	331	361	397	444	490	551	621	715		6.54
13	344	378	410	454	510	572	636	728		6.54
14	357	389	424	463	517	571	638	715		6.56
15	346	384	424	465	520	575	642	707		6.53
16	340	379	407	458	511	579	647	731		6.74
17	319	352	394	446	500	565	637	712		6.54
18	308	342	380	437	489	553	627	718		6.47
19	291	327	363	407	477	551	626	702		6.38
20	278	320	355	411	463	529	589	678		6.24
21	276	308	346	397	446	499	573	655		6.12
22	260	299	343	389	441	491	561	646	753	5.96
23	257	291	332	368	426	485	572	645	759	5.98
24	247	286	324	371	426	478	565	626	723	5.75
25	253	300	343	379	429	487	523	589	695	5.57
26	272	306	353	376	393	427	485	533	(on bottom @ 560m = 6.66C)	
27	231	263	296	318	(on bottom @ 332m = 10.78C)					
28	206	242	272	318	363	444	524	599	713	5.82
29	222	259	300	349	393	455	537	634	(on bottom @ 708m = 6.32C)	
30	220	254	301	348	408	463	530	620	(wire broke 678m = 6.59C)	
31	221	252	291	331	385	451	(on bottom @ 487m = 8.52C)			
32	208	253	286	341	387	449	(on bottom @ 469m = 8.80C)			
33	222	260	296	337	384	429	519	687	(on bottom @ 710m = 6.31C)	

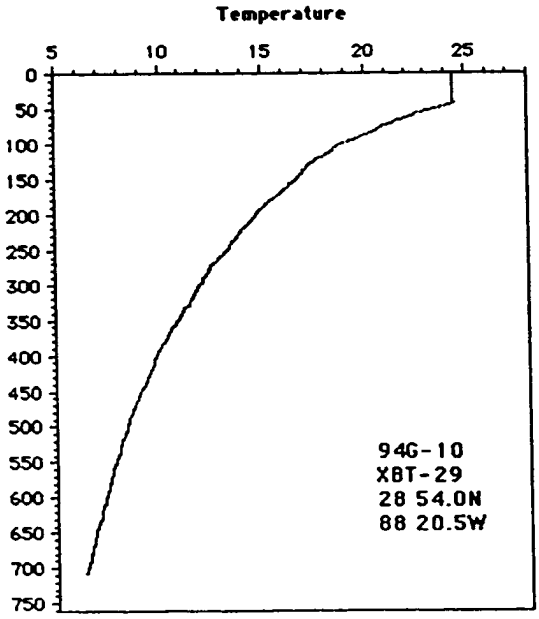
Four of the 33 vertical profiles of temperature, 0-760 m, collected by XBTs dropped on R/V *Gyre* cruise 94G-10 are shown as examples:



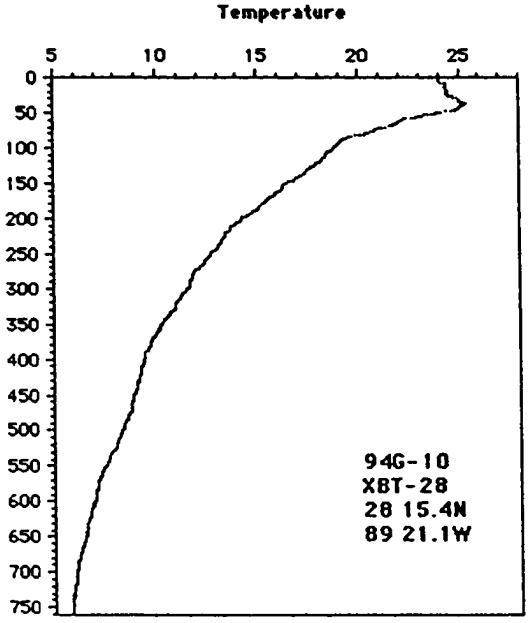
Westernmost XBT: Mixed layer was deep (>60 m) and temperature decreased rapidly with depth to reach 15C at z = 222 m



Southernmost XBT: Mixed layer was 100 m deep at this location in the northern part of Eddy Yucatan; 15C depth was not reached until z = 334



Easternmost (and northernmost) XBT: mixed layer was shallower (isothermal to 41 m, then temperature increased to 24.54C at z = 41 m, before it decreased rapidly with depth to reach 15C at z = 192 m



XBT in Mississippi River outflow: cold, fresh water in the upper 10 m with a zone of increasing temperature (to 25.54C at z = 43 m) before it decreased rapidly with depth to reach 15C at z = 188 m

DYNAMIC HEIGHT AND TRANSPORT

A salinity spline was carried out as described by Biggs (1992: JGR 97: 2143-2154) to allow calculation of the dynamic height (as dyn cm relative to 800 m) at each of the XBT locations within and adjacent to Eddy Yucatan. Transport (in Sverdrups relative to 800 m) was then calculated at the midpoints between locations, along with the mean geostrophic velocity (as cm/sec) in the uppermost 20 m .

XBTs outside the northern perimeter of Eddy Yucatan were splined using CTD-7 from R/V Gyre cruise 94G-07; those inside were splined with the SeaCat CTD done at Station 30 on cruise 94P-12:

XBT 08-18 from 94P-12: splined with CTD-7 from 94G-07
XBT 19-40 from 94P-12: splined with Seacat CTD from 94P-12
XBT 41-49 from 94P-12: splined with CTD-7 from 94G-07

XBT 01-07 from 94G-10: splined with CTD-7 from 94G-07
XBT 08-23 from 94G-10: splined with Seacat CTD from 94P-12
XBT 24-27 from 94G-10: splined with CTD-7 from 94G-07

Default conditions for these splines were Salinity = Sfc (bottle) Salinity, if T > 27C. There was good agreement between dynamic height computed for XBT-30 and the SeaCat CTD done at the same location on 94P-12: the former was 157.2 dyn cm, while the latter was 158.6 dyn cm.

In October, the dynamic height over the continental margin of the northern Gulf of Mexico outside Eddy Yucatan averaged 112 $\pm$ 2 dyn cm (mean of XBT 41, 42, 43, 44, 45, 46, 47, and 49 from 94P-12). Thus, the Sea Surface Height anomaly of this warm core ring, relative to 112 cm, ranged from -14 cm (at XBT 15, within a region of cyclonic circulation just NW of Eddy Yucatan) to + 48 dyn cm (at XBT 29-31, in the interior of Eddy Yucatan). Transports of 18 x 10^6 m^3 sec^{-1} were calculated for the two radial sections, which measured 130 km and 177 km; maximum surface velocities reached 2 knots (102-105 cm sec^{-1}) within the NW-SE radial section, and 1.5 knots (79 cm sec^{-1}) within the SSE-NNW radial section.

In November, the dynamic height over the continental margin of the northern Gulf of Mexico also averaged 112 dyn cm (mean of XBT 1 and XBT 25). The SSH anomaly of Eddy Yucatan was at least 35 dyn cm. Transports of 13 and 16 x x 10^6 m^3 sec^{-1} were calculated for 133 km and 170 km sections across the northern periphery; maximum surface velocity was less than 1.5 knots (to 64 cm sec^{-1} between XBTs 10-11 and to 62 cm sec^{-1} between XBTs 16-17).

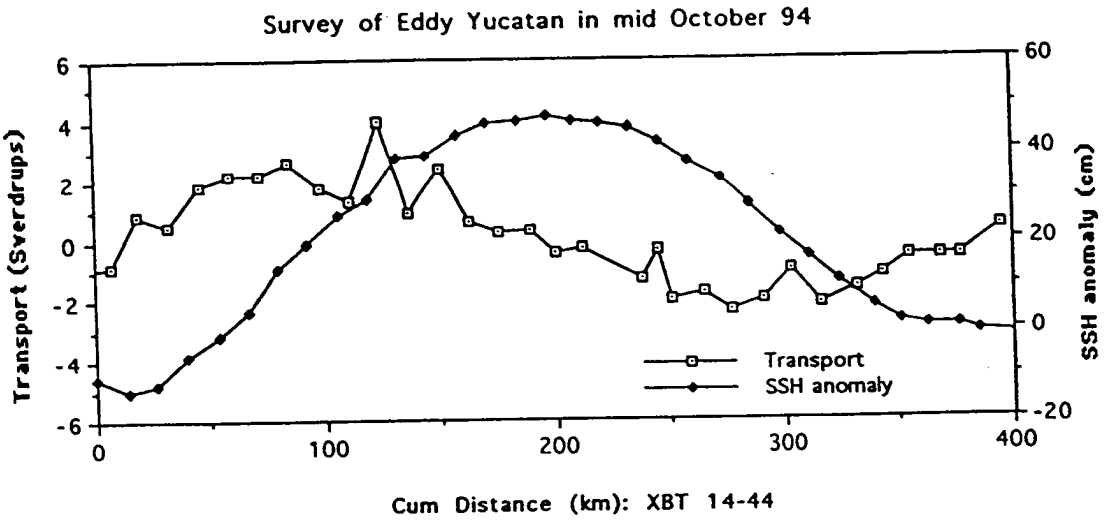
Powell cruise 94P-12 transport

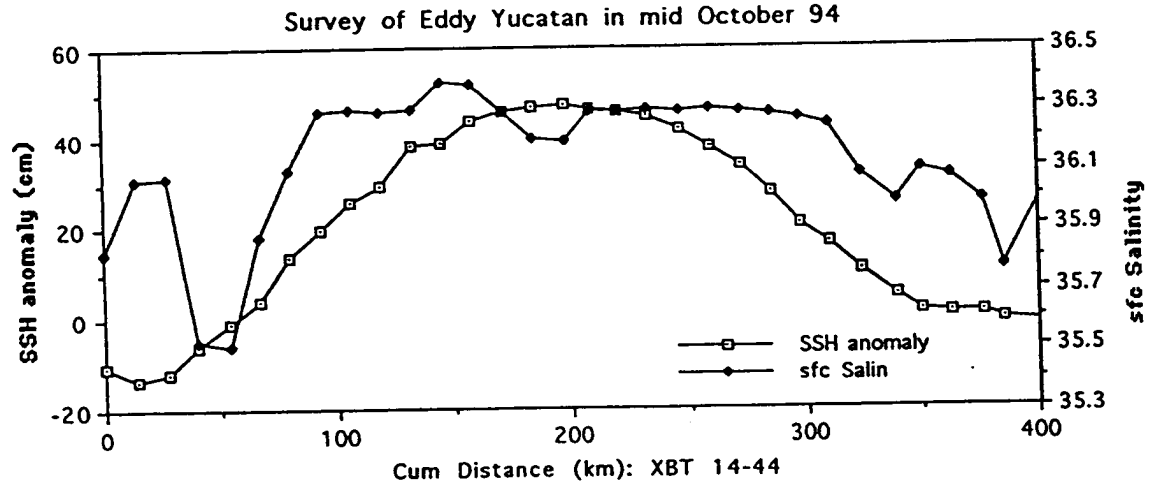
XBT	Dyn Cm	Cum Distance	Transport	Velocity	SSH anomaly	sfc Salin
13	104.2	-9.4			-8	35.87
		-4.7	-0.9	-45.0		
14	101.4	0.0			-11	35.82
		7.0	-0.8	-33.0		
15	98.3	14.0			-14	36.06
		19.0	0.8	21.0		
16	100.1	26.9			-12	36.07
		32.5	0.5	68.5		
17	106.3	40.4			-6	35.53
		45.9	1.8	65.3		
18	110.9	53.8			-1	35.51
		58.8	2.2	65.2		
19	116.4	66.7			4	35.87
		71.6	2.2	101.5		
20	125.9	79.5			14	36.09
		84.7	2.7	56.8		
21	131.5	92.6			20	36.29
		98.2	1.8	63.2		
22	137.7	106.1			26	36.29
		110.8	1.3	49.0		
23	141.2	118.7			29	36.28
		124.1	4.0	104.6		
24	150.4	132.0			38	36.30
		137.0	0.9	8.1		
25	151.1	144.9			39	36.39
		150.0	2.4	55.5		
26	155.8	157.9			44	36.38
		162.8	0.6	24.9		
27	157.9	170.7			46	36.29
		176.4	0.2	9.0		
28	158.7	184.3			47	36.20
		189.9	0.3	9.9		
29	159.6	197.7			48	36.19
		200.7	-0.4	-14.8		
30	158.6	208.6			47	36.29
		211.8	-0.2	-8.2		
31	158.0	219.7			46	36.29
		244.9	-0.4	-13.1		
32	156.9	232.8			45	36.30
		238.1	-1.3	-33.4		
33	154.0	246.0			42	36.29
		251.0	-2.0	-50.0		
34	149.7	258.9			38	36.30
		263.9	-1.8	-47.0		
35	145.7	271.8			34	36.29
		276.6	-2.3	-69.0		
36	139.9	284.5			28	36.28
		289.7	-2.0	-78.6		
37	133.0	297.6			21	36.27
		302.4	-1.0	-53.0		
38	128.5	310.3			16	36.24
		315.4	-2.1	-63.7		
39	122.6	323.3			11	36.08
		331.5	-1.6	-50.9		
40	117.2	339.4			5	35.99
		342.6	-1.1	-48.3		
41	113.7	350.5			2	36.09
		354.7	-0.5	-8.7		
42	113.1	362.6			1	36.07
		368.7	-0.6	-0.3		
43	113.1	376.6			1	35.99
		377.4	-0.5	-26.6		
44	111.5	385.3			-0	35.77
		394.6	0.4	-11.0		
45	110.1	403.9			-1	36.04

Σ = 18.6 Sverdrups

Σ = 17.8 Sverdrups

Reference depth for dynamic height (Dyn Cm) is z = 800 m; Station separation in km; transport in Sverdrups (10^6 m^3 sec^{-1}); mean geostrophic velocity (0-20 m) in cm sec^{-1}





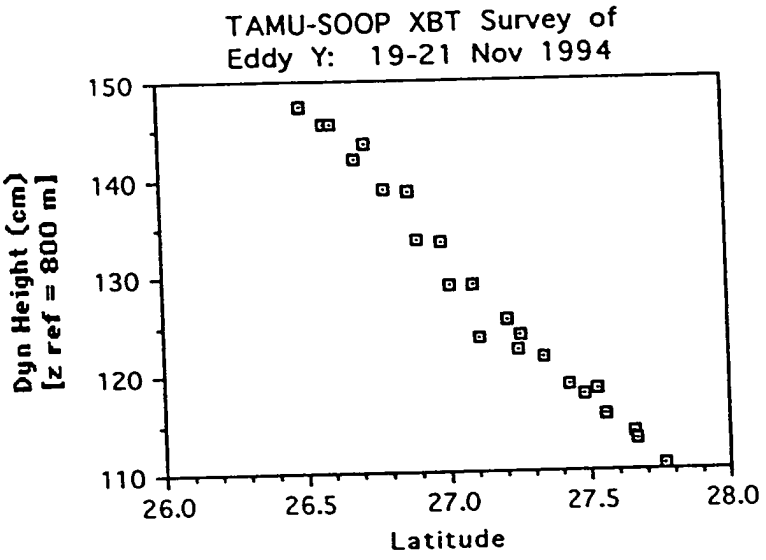
Locally low surface salinity (< 35.7) was encountered at the NW perimeter of Eddy Yucatan (cum distance 40-60 km). Surface salinity along its north side ranged 35.7 - 36.1 (cum distance = 325-400 km).

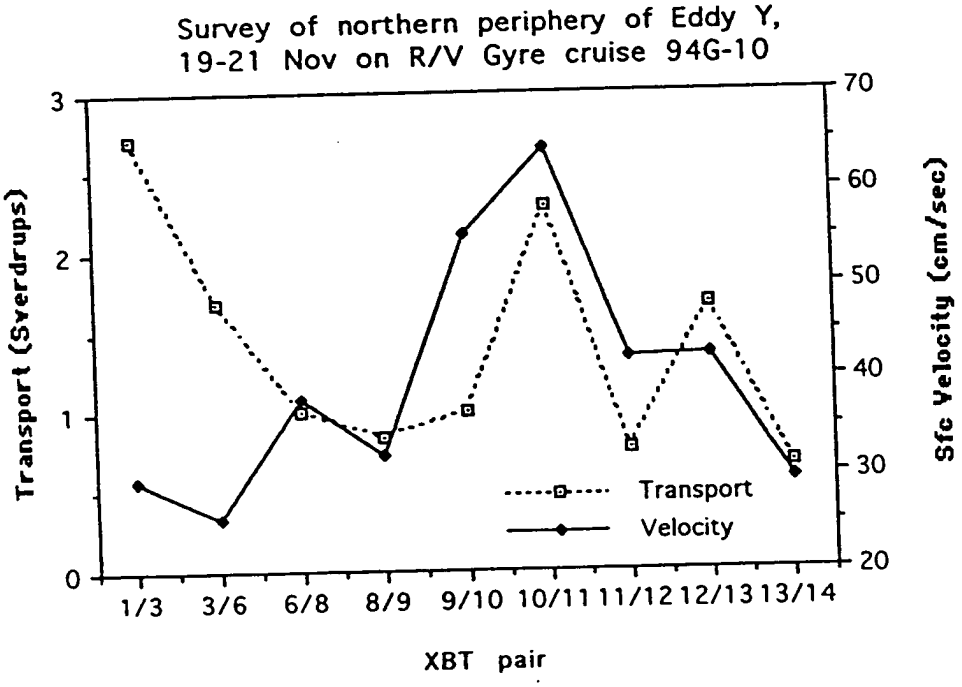
Gyre cruise 94-10 geovel data table

XBT	Latitude	Longitude	Dyn Cm	Sta Separation	Transport	Velocity	SSH anomaly
1	27.66	91.35	113.9				1.9
	27.57	91.32		19.6	2.7	29.5	
3	27.49	91.30	117.8				5.8
	27.36	91.27		27.1	1.7	25.5	
6	27.25	91.25	122.5				10.5
	27.18	91.24		15.4	1.0	37.9	
8	27.11	91.23	123.6				11.6
	27.06	91.20		12.5 Σ = 133	0.8 Σ = 12.7	32.1	
9	27.00	91.18	129.0				17.0
	26.95	91.15		12.9 km	1.0 Sverdrups	55.2	
10	26.90	91.13	133.7				21.7
	26.84	91.11		12.2	2.3	64.2	
11	26.79	91.09	138.9				26.9
	26.74	91.08		11.6	0.8	42.2	
12	26.69	91.06	142.1				30.1
	26.64	91.04		12.7	1.7	42.4	
13 •	26.58	91.03	145.6				33.6
	26.54	91.01		9.5	0.7	29.5	
14	26.50	91.00	147.4				35.4
	26.56	90.98		13.2	-0.5	-21.7	
15	26.61	90.96	145.5				33.5
	26.67	90.94		13.3	-0.6	-22.2	
16	26.73	90.93	143.6				31.6
	26.80	90.91		16.3	-1.8	-45.9	
17	26.87	90.89	138.7				26.7
	26.93	90.87		12.6	-1.5	-62.5	
18	26.98	90.86	133.5				21.5
	27.03	90.84		12.3	-1.4	-51.8	
19	27.09	90.82	129.2				17.2
	27.15	90.80		14.6 Σ = 170	-1.5 Σ = 16.0	-40.4	
20	27.21	90.78	125.4				13.4
	27.27	90.77		14.1 km	-1.5 Sverdrups	-38.8	
21	27.34	90.75	121.7				9.7
	27.38	90.74		10.5	-1.0	-39.5	
22	27.43	90.73	118.9				6.9
	27.49	90.71		13.3	-0.6	-34.3	
23	27.55	90.70	115.7				3.7
	27.60	90.68		13.4	-1.1	-27.9	
24	27.66	90.66	113.2				1.2
	27.71	90.65		11.2	-1.2	-36.1	
25	27.76	90.63	110.5				-1.5
	27.82	90.62		13.1	-1.1	-35.7	(ref = 582 m)
26	27.87	90.61	90.8				
	27.93	90.59		12.1	-0.7	-33.6	(ref = 344 m)
27	27.98	90.58	64.7				

Reference depth for dynamic height (Dyn Cm) is z = 800 m, for all station pairs except 25/26 and 26/27, where reference depth is shallowest common depth (582 m and 344 m, respectively).

Station separation in km; transport in Sverdrups (10^6 m^3 sec^{-1}); mean geostrophic velocity (0-20 m) in cm sec^{-1}

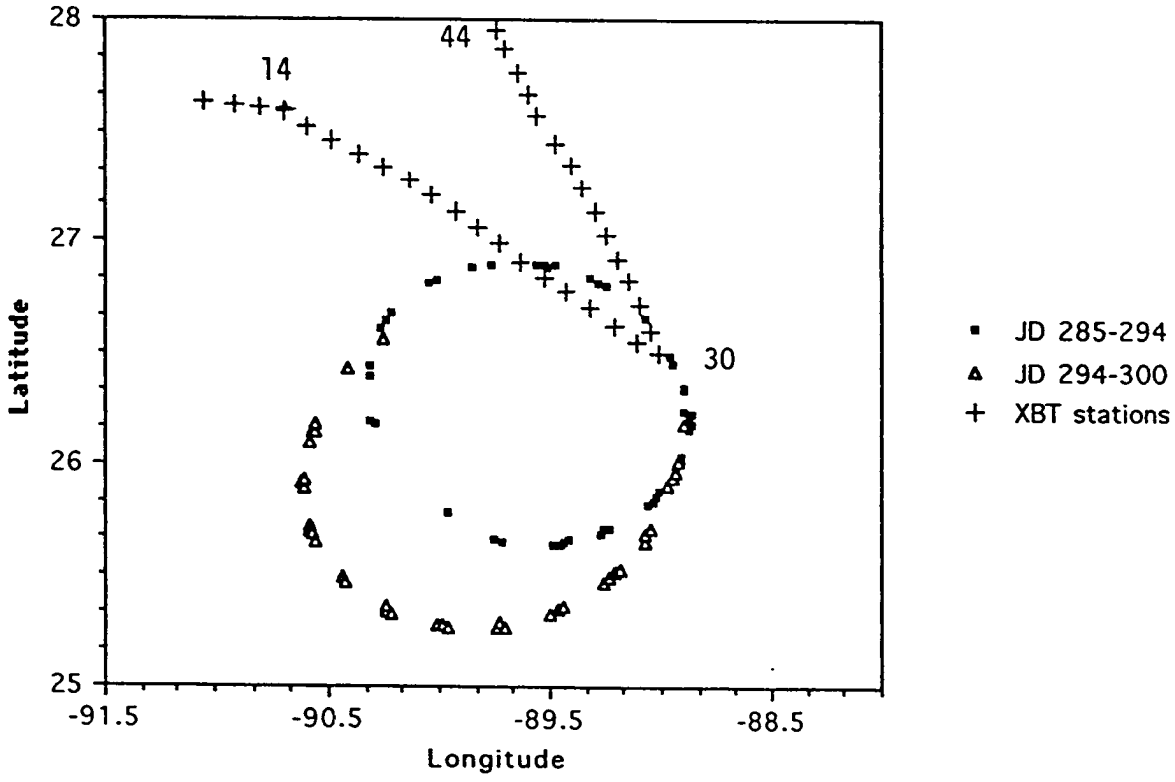

TAMU-SOOP XBT Survey of
Eddy Y: 19-21 Nov 1994
Dyn Height (cm)
[z ref = 800 m]
150
140
130
120
110
26.0
26.5
27.0
27.5
28.0
Latitude


Survey of northern periphery of Eddy Y,
19-21 Nov on R/V Gyre cruise 94G-10
Transport (Sverdrups)
Sfc Velocity (cm/sec)
3
2
1
0
70
60
50
40
30
20
Transport
Velocity
1/3
3/6
6/8
8/9
9/10
10/11
11/12
12/13
13/14
XBT pair

DEPLOYMENT OF ARGOS DRIFTER

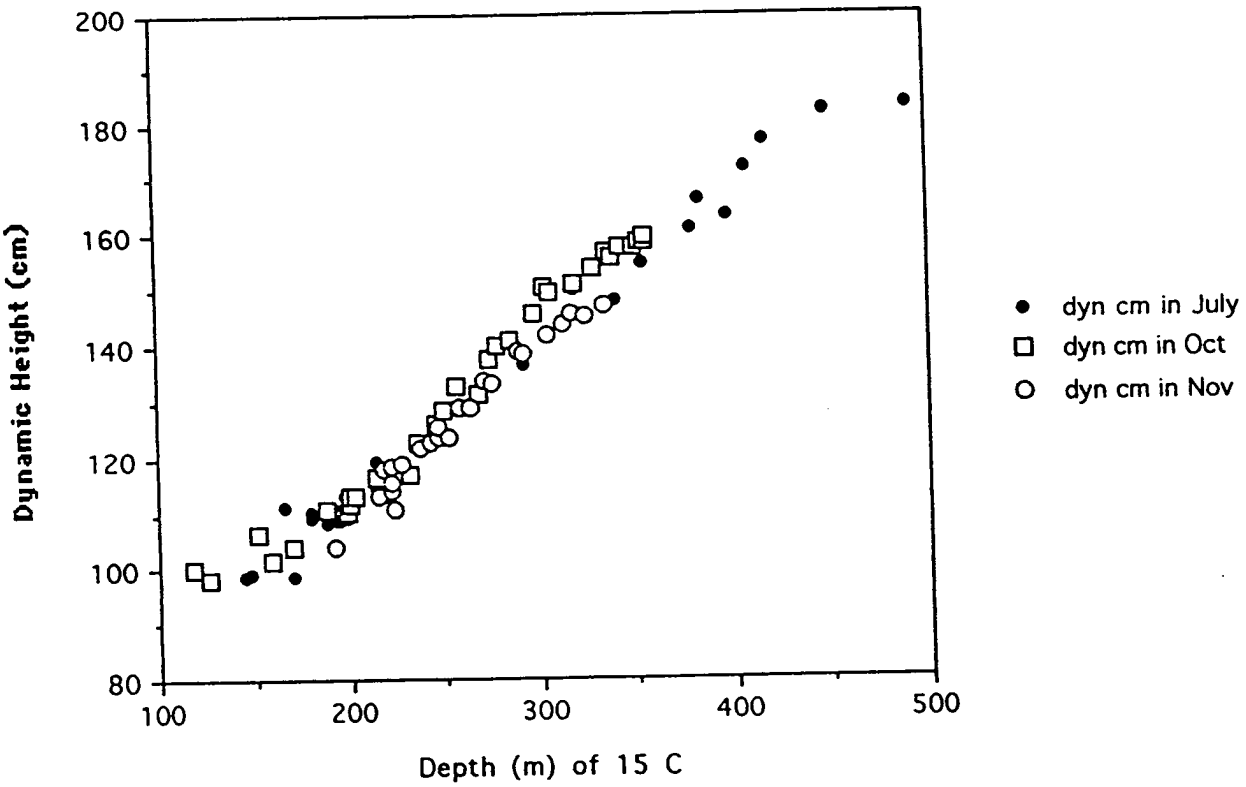
Argos drifter #12377 that was provided by the LATEX Eddy program was deployed at 00:27 GMT on 12 October at 26°29.6'N, 88°59.7'W, just after the CTD cast was completed at Station 30. Data posted to Omnet's GULF.MEX bulletin board by the LATEX Eddy program show that it made 1 1/2 anticyclonic revolutions within Eddy Yucatan in the 2 week period that followed (12-27 October). During this second half of October, the center of Eddy Yucatan appears to have translated about 50 nautical miles to the SW:

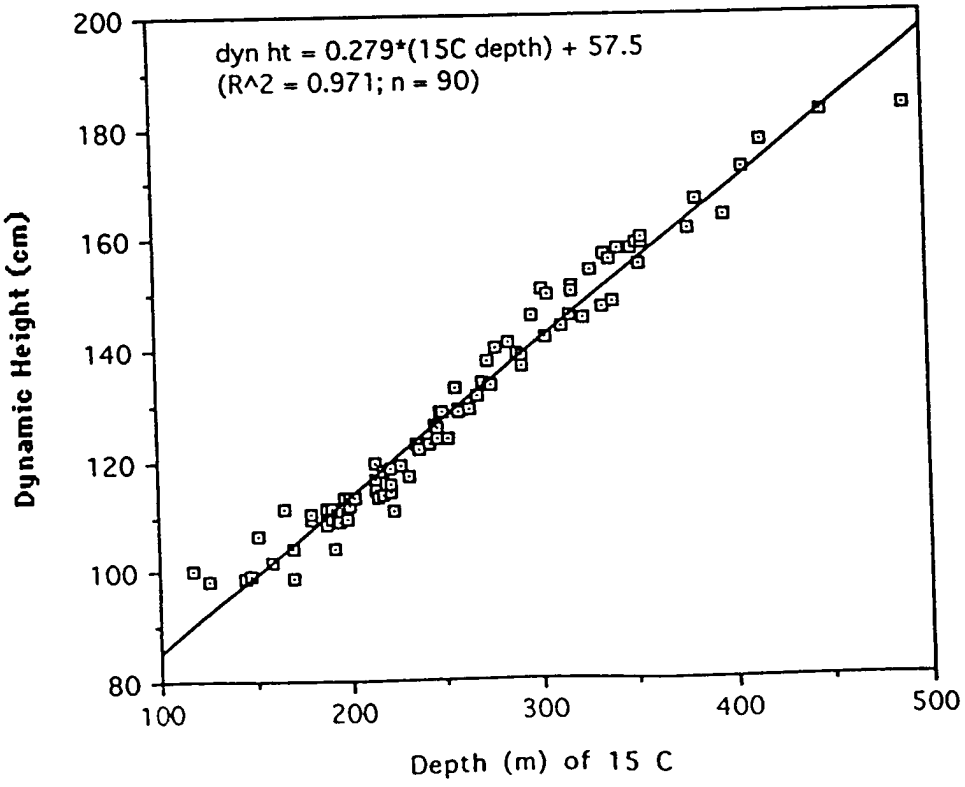
Drift track of Buoy 12377 deployed 10/12 at XBT Station 30 in Eddy Yucatan



COMPARATIVE HYDROGRAPHY

A strong first order relationship between the depth of the 15°C isotherm and the dynamic height relative to 800 m characterized a transect of the Loop Current in July 94 (R/V *Gyre* cruise 94G-05), which was made about 45 days before Eddy Yucatan was shed. Though the maximum depth of the 15°C isotherm was shallower in Eddy Y than in the Loop Current, the first order fit to this relationship was not significantly different:





ACKNOWLEDGMENTS

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Mark Spears and Doug Biggs piggybacked the XBT and CTD data collection on *Powell* cruise 94P-12, and Luiz Fernandes piggybacked the XBT work on *Gyre* cruise 94G-10. We appreciate the support of Jim Brooks, Bernie Bernard, Norm Guinasso, and Roger Fay of GERG for allowing the piston coring work to be interrupted on both cruises so that Eddy Yucatan could be sampled.

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The Department of the Interior Mission

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The Minerals Management Service Mission

As a bureau of the Department of the Interior, the Minerals Management Service's (MMS) primary responsibilities are to manage the mineral resources located on the Nation's Outer Continental Shelf (OCS), collect revenue from the Federal OCS and onshore Federal and Indian lands, and distribute those revenues.

Moreover, in working to meet its responsibilities, the **Offshore Minerals Management Program** administers the OCS competitive leasing program and oversees the safe and environmentally sound exploration and production of our Nation's offshore natural gas, oil and other mineral resources. The MMS **Minerals Revenue Management** meets its responsibilities by ensuring the efficient, timely and accurate collection and disbursement of revenue from mineral leasing and production due to Indian tribes and allottees, States and the U.S. Treasury.

The MMS strives to fulfill its responsibilities through the general guiding principles of: (1) being responsive to the public's concerns and interests by maintaining a dialogue with all potentially affected parties and (2) carrying out its programs with an emphasis on working to enhance the quality of life for all Americans by lending MMS assistance and expertise to economic development and environmental protection.