Table 1.2 CTD stations

Major Stations in red

ctds station	ID	type*		day doy	date	time GMT	latitude dec deg N	longitude dec deg E	lat deg S	lat min	lon deg	lon min	PES m	max pres	altr m	comments
		s stainless CTD cast														
bold		**s stainless deep cast**														
italics		*t titanium cast*														
bold italics		***sTh Thorium cast***														
15486		t	be	310	5/11/04	755	-37.05363	26.89170	37	3.22	26	53.50	2979			
			bo	310	5/11/04	814	-37.05117	26.89329	37	3.07	26	53.60	??	1011		trial to 1000m
			en	310	5/11/04	841	-37.04715	26.89787	37	2.83	26	53.87	2897			
15487		s	be	310	5/11/04	1131	-37.13036	27.19161	37	7.82	27	11.50	3222			
			bo	310	5/11/04	1154	-37.12221	27.19390	37	7.33	27	11.63	3224	1000		trial to 1000m
			en	310	5/11/04	1227	-37.11845	27.19408	37	7.11	27	11.64	3220			
15489	J	s	be	314	9/11/04	1106	-42.00553	48.01119	42	0.33	48	0.67	3294			
			bo	**314**	**9/11/04**	**1209**	**-42.00200**	**48.02094**	**42**	**0.12**	**48**	**1.26**	**3264**	**3286**	**17**	
			en	314	9/11/04	1354	-41.99815	48.01771	41	59.89	48	1.06	??			time from ctd start+time in water
15490	**M1**	s	be	316	11/11/04	1036	-43.87797	50.24623	43	52.68	50	14.77	3108			
			bo	**316**	**11/11/04**	**1137**	**-43.88370**	**50.24646**	**43**	**53.02**	**50**	**14.79**	**3109**	**3118**	**0**	**touched bottom**
			en	316	11/11/04	1310	-43.89188	50.25054	43	53.51	50	15.03	??			time from ctd start+time in water
15491	**M1**	t	be	316	11/11/04	1411	-43.89823	50.25842	43	53.89	50	15.51	3104			
			bo	*316*	*11/11/04*	*1733*	*-43.92049*	*50.26742*	*43*	*55.23*	*50*	*16.05*	*3106*	*3118*	*0*	*altimeter uncertain - touchdown?*
			en	316	11/11/04	1914	-43.92515	50.26108	43	55.51	50	15.66	3107			scrolling gear failure at 800m
15492	**M1**	sTh	be	316	11/11/04	1953	-43.92616	50.25964	43	55.57	50	15.58	3107			
			bo	***316***	***11/11/04***	***2018***	***-43.92688***	***50.25728***	***43***	***55.61***	***50***	***15.44***	***3106***	***1017***		
			en	316	11/11/04	2104	-43.92514	50.24976	43	55.51	50	14.99	3103			
15493	M4	s	be	317	12/11/04	653	-44.50003	51.25354	44	30.00	51	15.21	3263			
			bo	**317**	**12/11/04**	**752**	**-44.49690**	**51.25691**	**44**	**29.81**	**51**	**15.41**	**3222**	**3269**	**15**	**failed at 100m on up**
			en	317	12/11/04	933	-44.50297	51.24803	44	30.18	51	14.88	??			time from ctd start+time in water
15494	**M3**	s	be	318	13/11/04	28	-46.05642	51.78834	46	3.39	51	47.30	2377			
			bo	**318**	**13/11/04**	**116**	**-46.05766**	**51.78060**	**46**	**3.46**	**51**	**46.84**	**2398**	**2402**	**14**	**pre mooring**
			en	318	13/11/04	228	-46.06278	51.77306	46	3.77	51	46.38	2339			
15495	**M3**	sTh	be	318	13/11/04	955	-46.05668	51.79179	46	3.40	51	47.51	2355			
			bo	***318***	***13/11/04***	***1019***	***-46.05698***	***51.79213***	***46***	***3.42***	***51***	***47.53***	***2353***	***1011***		***added par***
			en	318	13/11/04	1104	-46.05499	51.79068	46	3.30	51	47.44	2369			
15496	**M3**	t	be	318	13/11/04	1507	-46.05942	51.79007	46	3.57	51	47.40	2355			
			bo	*318*	*13/11/04*	*1551*	*-46.06809*	*51.78529*	*46*	*4.09*	*51*	*47.12*	*2304*	*2287*	*~25*	
			en	318	13/11/04	1706	-46.07652	51.78405	46	4.59	51	47.04	2289			
15498	**M3**	***sTh***	be	323	18/11/04	1739	-46.05319	51.79430	46	3.19	51	47.66	2368			***also Thorium cast***
			bo	**323**	**18/11/04**	**1830**	**-46.04243**	**51.80026**	**46**	**2.55**	**51**	**48.02**	**2437**	**2396**	**15**	
			en	323	18/11/04	1937	-46.03221	51.81001	46	1.93	51	48.60	2515			
15499	**M3**	t	be	323	18/11/04	2103	-46.02751	51.80976	46	1.65	51	48.59	2552			
			bo	*323*	*18/11/04*	*2112*	*-46.02559*	*51.81050*	*46*	*1.54*	*51*	*48.63*	*2563*	*305*		
			en	323	18/11/04	2141	-46.02139	51.80606	46	1.28	51	48.36	2547			
15500		s	be	324	19/11/04	1153	-47.13679	52.33839	47	8.21	52	20.30	3436			
			bo	**324**	**19/11/04**	**1254**	**-47.13850**	**52.35403**	**47**	**40.62**	**52**	**55.66**	**3422**	**3428**	**20**	**N of M2**
			en	324	19/11/04	1428	-47.13500	52.37243	46	22.47	53	2.27	3444			altimeter uncertain
15502	**M2**	t	be	324	19/11/04	2021	-47.79924	52.85540	46	42.49	53	0.58	3857			
			bo	*324*	*19/11/04*	*2140*	*-47.79537*	*52.86216*	*46*	*47.27*	*53*	*0.17*	*NA*	*3870*	*NA*	
			en	325	20/11/04	8	-47.79309	52.85485	46	55.97	52	59.44	3857			
15503	**M2**	sTh	be	325	20/11/04	122	-47.79482	52.85587	47	0.11	52	59.09	3857			
			bo	***325***	***20/11/04***	***133***	***-47.79552***	***52.85540***	***47***	***0.81***	***52***	***59.03***	***3857***	***507***		
			en	325	20/11/04	159	-47.79663	52.85384	47	2.74	52	58.87	3857			
15504	**M2**	s	be	325	20/11/04	542	-47.76572	52.88210	47	15.11	52	57.82	3856			
			bo	**325**	**20/11/04**	**654**	**-47.77291**	**52.88365**	**47**	**19.61**	**52**	**57.44**	**3859**	**3879**	**12**	
			en	325	20/11/04	915	-47.78290	52.89307	47	27.95	52	56.73	3847			
15506		s	be	325	20/11/04	1718	-48.19607	52.40869	48	11.76	52	24.52	3872			
			bo	**325**	**20/11/04**	**1828**	**-48.19150**	**52.41306**	**48**	**11.49**	**52**	**24.78**	**3869**	**3896**	**10**	**S of M2**
			en	325	20/11/04	2032	-48.18507	52.42438	48	11.10	52	25.46	3861			
15507	**M6**	s	be	326	21/11/04	1530	-49.00442	51.49066	49	0.27	51	29.44	4199			
			bo	**326**	**21/11/04**	**1647**	**-49.00333**	**51.49086**	**49**	**0.20**	**51**	**29.45**	**4206**	**4246**	**15**	**altimeter approximate**
			en	326	21/11/04	1848	-49.00235	51.47790	49	0.14	51	28.67	4202			
15511	**M6**	t	be	327	22/11/04	2205	-49.00079	51.49824	49	0.05	51	29.89	4227			
			bo	*327*	*22/11/04*	*2327*	*-49.00557*	*51.50046*	*49*	*0.33*	*51*	*30.03*		*4275*	*3*	*T2 failed on down*
			en	328	23/11/04	138	-49.01080	51.49200	49	0.65	51	29.52	4220			
15512	**M6**	sTh	be	328	23/11/04	252	-49.01502	51.47633	49	0.90	51	28.58	4226			
			bo	***328***	***23/11/04***	***314***	***-49.01547***	***51.47307***	***49***	***0.93***	***51***	***28.38***	***4222***	***1014***		
			en	328	23/11/04	352	-49.01627	51.47536	49	0.98	51	28.52	??			time from ctd start+time in water
15513		s	be	328	23/11/04	753	-48.59949	51.95161	48	35.97	51	57.10	??			
			bo	**328**	**23/11/04**	**906**	**-48.59614**	**51.94782**	**48**	**35.77**	**51**	**56.87**	**3962**	**3986**	**15**	**N 0f M6**
			en	328	23/11/04	1137	-48.60148	51.94330	48	36.09	51	56.60	3973			altimeter approximate
15516	**M3**	t	be	330	25/11/04	42	-46.05881	51.79332	46	3.53	51	47.60	2350			
			bo	*330*	*25/11/04*	*54*	*-46.05961*	*51.79093*	*46*	*3.58*	*51*	*47.46*	*2353*	*507*		
			en	330	25/11/04	116	-46.06175	51.78563	46	3.71	51	47.14	2346			
15517	**M3**	sTh	be	330	25/11/04	215	-46.06868	51.77442	46	4.12	51	46.47	2344			
			bo	***330***	***25/11/04***	***223***	***-46.07007***	***51.77153***	***46***	***4.20***	***51***	***46.29***	***2331***	***309***		
			en	330	25/11/04	252	-46.07499	51.76243	46	4.50	51	45.75	2284			
15518	**M3**	s	be	330	25/11/04	625	-46.06952	51.77662	46	4.17	51	46.60	2350			
			bo	**330**	**25/11/04**	**713**	**-46.07895**	**51.76161**	**46**	**4.74**	**51**	**45.70**	**2278**	**2308**	**15**	**restart CTD at bottom**
			en	330	25/11/04	900	-46.09805	51.73410	46	5.88	51	44.05	??			altimeter approximate
15520		s	be	331	26/11/04	535	-45.39915	52.24220	45	23.95	52	14.53	3116			
			bo	**331**	**26/11/04**	**633**	**-45.39553**	**52.24041**	**45**	**23.73**	**52**	**14.42**	**3117**	**3118**	**15**	
			en	331	26/11/04	821	-45.39091	52.24922	45	23.45	52	14.95	3120			
15523	**M7**	sTh	be	332	27/11/04	1450	-45.50314	48.98932	45	30.19	48	59.36	2748			
			bo	***332***	***27/11/04***	***1500***	***-45.50486***	***48.98661***	***45***	***30.29***	***48***	***59.20***	***2749***	***304***		
			en	332	27/11/04	1527	-45.50767	48.98400	45	30.46	48	59.04	2749			
15524	**M7**	t	be	332	27/11/04	1839	-45.49943	49.00242	45	29.97	49	0.15	2747			
			bo	*332*	*27/11/04*	*1849*	*-45.49893*	*49.00171*	*45*	*29.94*	*49*	*0.10*	*2747*	*508*		
			en	332	27/11/04	1927	-45.49705	49.00281	45	29.82	49	0.17	2747			
15525	**M7**	s	be	332	27/11/04	2237	-45.48504	48.99591	45	29.10	48	59.75	2752			
			bo	**332**	**27/11/04**	**2331**	**-45.48650**	**48.99757**	**45**	**29.19**	**48**	**59.85**	**??**	**2747**		
			en	333	28/11/04	103	-45.48915	48.98316	45	29.35	48	58.99	??			
15526	**M7**	t	be	333	28/11/04	234	-45.49018	48.95978	45	29.41	48	57.59	2755			
			bo	*333*	*28/11/04*	*326*	*-45.49089*	*48.94548*	*45*	*29.45*	*48*	*56.73*	*2758*	*2743*	*15*	*estimate altimeter*
			en	333	28/11/04	503	-45.50035	48.93090	45	30.02	48	55.85	2760			
15527		s	be	333	28/11/04	1003	-45.49971	48.33358	45	29.98	48	20.01	2898			
			bo	**333**	**28/11/04**	**1102**	**-45.49853**	**48.33416**	**45**	**29.91**	**48**	**20.05**	**2898**	**2908**	**0**	**hit bottom?**

			en	333	28/11/04	1252	-45.50001	48.32829	45	30.00	48	19.70	2905					
15528		s	be	334	29/11/04	41	-45.49133	47.64150	45	29.48	47	38.49	2435					
			bo	**334**	**29/11/04**	**126**	**-45.48963**	**47.63362**	**45**	**29.38**	**47**	**38.02**	**2410**	**2419**	**10**		**10-15 altimeter**
			en	334	29/11/04	241	-45.48477	47.63071	45	29.09	47	37.84	2394					
15531	**M8E**	t	be	334	29/11/04	2354	-44.92030	49.90447	44	55.22	49	54.27	2750					
			bo	*334*	*29/11/04*	*2359*	*-44.92019*	*49.90487*	*44*	*55.21*	*49*	*54.29*	*2750*	*n/a*				
			en	335	30/11/04	13	-44.91779	49.90411	44	55.07	49	54.25	??					
15532	**M8E**	s	be	335	30/11/04	40	-44.91612	49.90391	44	54.97	49	54.23	2752					
			bo	**335**	**30/11/04**	**132**	**-44.91659**	**49.90688**	**44**	**55.00**	**49**	**54.41**	**2752**	**2747**	**14**			
			en	335	30/11/04	249	-44.91238	49.90820	44	54.74	49	54.49	2754					
15533	**M8E**	sTh	be	335	30/11/04	539	-44.95826	49.94000	44	57.50	49	56.40	2712					
			bo	***335***	***30/11/04***	***601***	***-44.95355***	***49.94103***	***44***	***57.21***	***49***	***56.46***	***2715***	***1014***			***1000m***	
			en	335	30/11/04	643	-44.95416	49.94818	44	57.25	49	56.89	??				time from start +ctd time	
15534	**M8E**	t	be	335	30/11/04	1005	-44.94729	49.96007	44	56.84	49	57.60	2723					
			bo	*335*	*30/11/04*	*1047*	*-44.94709*	*49.96695*	*44*	*56.83*	*49*	*58.02*	*2724*	*1004*				
			en	335	30/11/04	1156	-44.94579	49.96894	44	56.75	49	58.14	2728					
15537	**M8W**	t	be	336	1/12/04	2233	-44.87014	49.65785	44	52.21	49	39.47	2818					
			bo	*336*	*1/12/04*	*2324*	*-44.86585*	*49.66330*	*44*	*51.95*	*49*	*39.80*	*2808*	*2811*	*7.7*			
			en	337	2/12/04	43	-44.85744	49.65953	44	51.45	49	39.57	??					
15538	**M8W**	s	be	337	2/12/04	120	-44.85551	49.65783	44	51.33	49	39.47	2818					
			bo	**337**	**2/12/04**	**215**	**-44.85659**	**49.65218**	**44**	**51.40**	**49**	**39.13**	**2816**	**2801**	**25**		**altimeter uncertain**	
			en	337	2/12/04	340	-44.85666	49.64303	44	51.40	49	38.58	2817					
15539	**M8W**	sTh	be	337	2/12/04	614	-44.87125	49.64893	44	52.28	49	38.94	2808					
			bo	***337***	***2/12/04***	***627***	***-44.87236***	***49.64711***	***44***	***52.34***	***49***	***38.83***	***2805***	***505***			***500m***	
			en	337	2/12/04	705	-44.87030	49.64731	44	52.22	49	38.84	2808				time from start+ctd time	
15540	M8W	s	be	337	2/12/04	1605	-44.90975	49.63175	44	54.59	49	37.90	2779					
			bo	**337**	**2/12/04**	**1617**	**-44.91140**	**49.62931**	**44**	**54.68**	**49**	**37.76**	**2778**	**404**			**for SeaSoar calibration**	
			en	337	2/12/04	1649	-44.91444	49.62176	44	54.87	49	37.31	2776					
15542	**M9**	sTh	be	338	3/12/04	2036	-43.11771	47.18484	43	7.06	47	11.09	2911					
			bo	***338***	***3/12/04***	***2053***	***-43.11760***	***47.18493***	***43***	***7.06***	***47***	***11.10***	***2911***	***507***				
			en	338	3/12/04	2135	-43.11676	47.18552	43	7.01	47	11.13	2917					
15543	**M9**	t	be	338	3/12/04	2245	-43.11720	47.18450	43	7.03	47	11.07	2912					
			bo	*338*	*3/12/04*	*2341*	*-43.11740*	*47.18411*	*43*	*7.04*	*47*	*11.05*	*2912*	*2918*	*11*			
			en	339	4/12/04	113	-43.12147	47.18059	43	7.29	47	10.84	2900					
15544	**M9**	s	be	339	4/12/04	453	-43.11719	47.18383	43	7.03	47	11.03	2913					
			bo	**339**	**4/12/04**	**546**	**-43.11593**	**47.18615**	**43**	**6.96**	**47**	**11.17**	**2918**	**2916**	**15**		**approximate altimeter**	
			en	339	4/12/04	738	-43.11653	47.18400	43	6.99	47	11.04	2914					
15545		s	be	339	4/12/04	1332	-42.83607	46.38926	42	50.16	46	23.36	3269					
			bo	**339**	**4/12/04**	**1432**	**-42.83344**	**46.39160**	**42**	**50.01**	**46**	**23.50**	**3247**	**3257**	**11**			
			en	339	4/12/04	1604	-42.83344	46.39871	42	50.01	46	23.92	3222					
15546			be	339	4/12/04	2138	-42.56021	45.59336	42	33.61	45	35.60	3385					
			bo	**339**	**4/12/04**	**2241**	**-42.55980**	**45.59644**	**42**	**33.59**	**45**	**35.79**	**3370**	**3399**				
			en	340	5/12/04	26	-42.55576	45.59531	42	33.35	45	35.72	3380					
15547			be	340	5/12/04	605	-42.27947	44.74844	42	16.77	44	44.91	3349					
			bo	**340**	**5/12/04**	**711**	**-42.27615**	**44.75162**	**42**	**16.57**	**44**	**45.10**	**3381**	**3421**	**20**		**altimeter approximate**	
			en	340	5/12/04	915	-42.27749	44.75238	42	16.65	44	45.14	??					
15548	K	sTh	be	340	5/12/04	1412	-42.00298	43.99468	42	0.18	43	59.68	3134					***also thorium cast***
			bo	**340**	**5/12/04**	**1432**	**-42.00822**	**43.99335**	**42**	**0.49**	**43**	**59.60**	**3175**	**1008**				
			en	340	5/12/04	1518	-42.01628	43.99008	42	0.98	43	59.40	3200					
15549		s	be	351	16/12/04	1028	-38.74784	38.78815	38	44.87	38	47.29	5474				test to 200m	
			bo	351	16/12/04	1033	-38.74662	38.78830	38	44.80	38	47.30	5474	205				
			en	351	16/12/04	1108	-38.73685	38.79127	38	44.21	38	47.48	5474					
15550		s	be	352	17/12/04	515	-40.29562	41.24607	40	17.74	41	14.76	2874				calibration cast start of SeaSoar	
			bo	352	17/12/04	529	-40.29531	41.24745	40	17.72	41	14.85	2872	509				
			en	352	17/12/04	556	-40.29811	41.24620	40	17.89	41	14.77	2863					
15552	**M9**	t	be	353	18/12/04	1808	-42.99798	47.00177	42	59.88	47	0.11	3245					
			bo	*353*	*18/12/04*	*1908*	*-42.99845*	*47.00386*	*42*	*59.91*	*47*	*0.23*	*3242*	*3248*	*10*			
			en	353	18/12/04	2041	-42.99478	47.01842	42	59.69	47	1.11	na					
15553	**M9**	s	be	354	19/12/04	314	-43.00175	46.99978	43	0.10	46	59.99	3233					
			bo	**354**	**19/12/04**	**412**	**-43.00291**	**47.00285**	**43**	**0.17**	**47**	**0.17**	**3228**	**3242**				
			en	354	19/12/04	551	-43.00195	47.00273	43	0.12	47	0.16	3233					
15554	**M9**	sTh	be	354	19/12/04	847	-42.99700	47.02032	42	59.82	47	1.22	3204					
			bo	***354***	***19/12/04***	***859***	***-42.99510***	***47.02378***	***42***	***59.71***	***47***	***1.43***	***na***	***507***				
			en	354	19/12/04	939	-42.99510	47.02865	42	59.71	47	1.72	na					
15555		s	be	354	19/12/04	1515	-43.49971	47.99924	43	29.98	47	59.95	2463	-			aborted at 1535 for par removal	
15556		s	be	354	19/12/04	1544	-43.49874	47.99946	43	29.92	47	59.97	2464					
			bo	**354**	**19/12/04**	**1632**	**-43.49914**	**47.99899**	**43**	**29.95**	**47**	**59.94**	**2451**	**2442**	**14**			
			en	354	19/12/04	1755	-43.50154	47.99132	43	30.09	47	59.48	2460					
15557		s	be	355	20/12/04	19	-44.00028	49.00187	44	0.02	49	0.11	2891					
			bo	**355**	**20/12/04**	**112**	**-43.99919**	**49.00103**	**43**	**59.95**	**49**	**0.06**	**2892**	**2893**				
			en	355	20/12/04	240	-44.00223	48.99945	44	0.13	48	59.97	2895					
15560	**M10**	sTh	be	355	20/12/04	1521	-44.51835	49.99419	44	31.10	49	59.65	2956					
			bo	***355***	***20/12/04***	***1533***	***-44.51829***	***49.99248***	***44***	***31.10***	***49***	***59.55***	***2956***	***507***				
			en	355	20/12/04	1609	-44.51871	49.98894	44	31.12	49	59.34	na					
15561	**M10**	t	be	355	20/12/04	1848	-44.52419	49.96866	44	31.45	49	58.12	2945					
			bo	*355*	*20/12/04*	*1859*	*-44.52436*	*49.96880*	*44*	*31.46*	*49*	*58.13*	*2948*	*508*				
			en	355	20/12/04	1933	-44.52628	49.96353	44	31.58	49	57.81	2945					
15562	**M10**	s	be	355	20/12/04	2001	-44.52843	49.95948	44	31.71	49	57.57	2944					
			bo	**355**	**20/12/04**	**2058**	**-44.52786**	**49.96032**	**44**	**31.67**	**49**	**57.62**	**2944**	**2943**				
			en	355	20/12/04	2228	-44.52841	49.96093	44	31.70	49	57.66	2944					
15563	**M10**	t	be	355	20/12/04	2327	-44.52740	49.96212	44	31.64	49	57.73	2945					
			bo	*356*	*21/12/04*	*20*	*-44.52528*	*49.96059*	*44*	*31.52*	*49*	*57.64*	*2946*	*2943*				
			en	356	21/12/04	139	-44.52226	49.96102	44	31.34	49	57.66	2948					
15564	**M10**	s	be	356	21/12/04	245	-44.51784	49.96608	44	31.07	49	57.96	2950					
			bo	**356**	**21/12/04**	**340**	**-44.51310**	**49.96920**	**44**	**30.79**	**49**	**58.15**	**2955**	**2953**			**all water for radium / neodynium**	
			en	356	21/12/04	448	-44.50957	49.96962	44	30.57	49	58.18	2952					
15565		s	be	356	21/12/04	1600	-45.13632	51.19208	45	8.18	51	11.52	3066					
			bo	**356**	**21/12/04**	**1658**	**-45.13870**	**51.19627**	**45**	**8.32**	**51**	**11.78**	**3060**	**3062**	**10**			
			en	356	21/12/04	1824	-45.13634	51.19668	45	8.18	51	11.80	3063					
15566	**BA**	s	be	357	22/12/04	740	-46.37047	51.82960	46	22.23	51	49.78	99				aborted at bottom because ship	
			bo	**357**	**22/12/04**	**749**	**-46.37013**	**51.82767**	**46**	**22.21**	**51**	**49.66**	**na**	**89**			**drifting, so few bottles fired**	
			en	357	22/12/04	757	-46.36930	51.82922	46	22.16	51	49.75	105				radium samples collected	
15567	**BA**	t	be	357	22/12/04	959	-46.36865	51.82688	46	22.12	51	49.61	95					
			bo	*357*	*22/12/04*	*1002*	*-46.36854*	*51.82754*	*46*	*22.11*	*51*	*49.65*	*103*	*83*				
			en	357	22/12/04	1015	-46.36791	51.82967	46	22.07	51	49.78	105					
15568		t	be	357	22/12/04	1303	-46.32223	51.89694	46	19.33	51	53.82	405					
			bo	*357*	*22/12/04*	*1314*	*-46.32332*	*51.89459*	*46*	*19.40*	*51*	*53.68*	*395*	*379*				
			en	357	22/12/04	1338	-46.32481	51.88826	46	19.49	51	53.30	420					
15569		t	be	357	22/12/04	1514	-46.27009	51.97679	46	16.21	51	58.61	1557					
			bo	*357*	*22/12/04*	*1549*	*-46.26997*	*51.97083*	*46*	*16.20*	*51*	*58.25*	*1565*	*1491*				

			en	357	22/12/04	1637	-46.26914	51.96399	46	16.15	51	57.84	1300						
15570		s	be	357	22/12/04	1710	-46.26677	51.96055	46	16.01	51	57.63	1284						
			bo	**357**	**22/12/04**	**1742**	**-46.26472**	**51.95772**	**46**	**15.88**	**51**	**57.46**	**1354**	**1387**	**10**				
			en	357	22/12/04	1836	-46.26340	51.95475	46	15.80	51	57.29	1425						
15572	**M3**	t	be	357	22/12/04	2127	-46.06290	51.78260	46	3.77	51	46.96	2385						
			bo	*357*	*22/12/04*	*2138*	*-46.06223*	*51.78169*	*46*	*3.73*	*51*	*46.90*	*2375*	*508*					
			en	357	22/12/04	2216	-46.06425	51.77791	46	3.86	51	46.67	2354						
15573	**M3**	s	be	357	22/12/04	2239	-46.06579	51.77614	46	3.95	51	46.57	2351						
			bo	**357**	**22/12/04**	**2322**	**-46.06834**	**51.77819**	**46**	**4.10**	**51**	**46.69**	**2363**	**2348**					
			en	358	23/12/04	39	-46.07176	51.77847	46	4.31	51	46.71	2345						
15574	**M3**	sTh	be	358	23/12/04	344	-46.08085	51.78279	46	4.85	51	46.97	2263						
			bo	***358***	***23/12/04***	***354***	***-46.08142***	***51.78237***	***46***	***4.89***	***51***	***46.94***	***2256***	***409***					
			en	358	23/12/04	423	-46.08388	51.78502	46	5.03	51	47.10	2267						
15576		s	be	359	24/12/04	1252	-45.98752	56.42929	45	59.25	56	25.76	4238						
			bo	**359**	**24/12/04**	**1421**	**-45.99679**	**56.43891**	**45**	**59.81**	**56**	**26.33**	**4250**	**4278**					
			en	359	24/12/04	1602	-46.00431	56.45611	46	0.26	56	27.37	4254						
15580	**M5**	sTh	be	362	27/12/04	1458	-45.99661	56.15275	45	59.80	56	9.16	4272						
			bo	***362***	***27/12/04***	***1510***	***-45.99740***	***56.15210***	***45***	***59.84***	***56***	***9.13***	***4271***	***508***					
			en	362	27/12/04	1539	-45.99949	56.15202	45	59.97	56	9.12	4269						
15581	**M5**	t	be	362	27/12/04	1852	-46.00104	56.15407	46	0.06	56	9.24	4268						
			bo	*362*	*27/12/04*	*2010*	*-46.00057*	*56.15122*	*46*	*0.03*	*56*	*9.07*	*4268*	*4304*	*10*				
			en	362	27/12/04	2211	-46.00196	56.15052	46	0.12	56	9.03	4267						
15582	**M5**	s	be	362	27/12/04	2256	-46.00245	56.15153	46	0.15	56	9.09	4267						
			bo	**363**	**28/12/04**	**10**	**-46.00005**	**56.15157**	**46**	**0.00**	**56**	**9.09**	**4269**	**4310**					
			en	363	28/12/04	202	-45.99897	56.14809	45	59.94	56	8.89	4269						
15584		s	be	364	29/12/04	1903	-45.99950	55.01140	45	59.97	55	0.68	3955						
			bo	**364**	**29/12/04**	**2014**	**-45.99770**	**55.01050**	**45**	**59.86**	**55**	**0.63**	**3957**	**3990**					
			en	364	29/12/04	2209	-45.99847	55.00369	45	59.91	55	0.22	3949						
15585		s	be	365	30/12/04	510	-46.00043	54.00148	46	0.03	54	0.09	3462						
			bo	**365**	**30/12/04**	**613**	**-46.00461**	**54.00371**	**46**	**0.28**	**54**	**0.22**	**3433**	**3475**					
			en	365	30/12/04	738	-46.01109	53.99814	46	0.67	53	59.89	3456						
15586		s	be	365	30/12/04	1214	-45.99852	53.26045	45	59.91	53	15.63	3458						
			bo	**365**	**30/12/04**	**1316**	**-45.99915**	**53.26655**	**45**	**59.95**	**53**	**15.99**	**3456**	**3462**					
			en	365	30/12/04	1441	-45.99651	53.26953	45	59.79	53	16.17	3454						
15587		s	be	365	30/12/04	1912	-45.99879	52.52650	45	59.93	52	31.59	3119						
			bo	**365**	**30/12/04**	**2011**	**-45.99112**	**52.52283**	**45**	**59.47**	**52**	**31.37**	**3163**	**3146**					
			en	365	30/12/04	2136	-45.97872	52.51634	45	58.72	52	30.98	3184						
15589	**M3**	s	be	366	31/12/04	404	-46.06451	51.78105	46	3.87	51	46.86	2356						
			bo	**366**	**31/12/04**	**448**	**-46.06441**	**51.78068**	**46**	**3.86**	**51**	**46.84**	**2358**	**2365**					
			en	366	31/12/04	555	-46.06546	51.77471	46	3.93	51	46.48	2343						
15590	**M3**	sTh	be	366	31/12/04	710	-46.06343	51.77814	46	3.81	51	46.69	2365						
			bo	***366***	***31/12/04***	***723***	***-46.06256***	***51.77720***	***46***	***3.75***	***51***	***46.63***	***2359***	***509***					
			en	366	31/12/04	748	-46.06193	51.77686	46	3.72	51	46.61	2358						
15591	**M3**	s	be	366	31/12/04	1128	-46.04512	51.77813	46	2.71	51	46.69	2409						
			bo	**366**	**31/12/04**	**1211**	**-46.04319**	**51.77791**	**46**	**2.59**	**51**	**46.67**	**2411**	**2397**	**10**				
			en	366	31/12/04	1258	-46.04878	51.77563	46	2.93	51	46.54	na						
15592	**M3**	t	be	366	31/12/04	1411	-46.05161	51.77661	46	3.10	51	46.60	2406						
			bo	*366*	*31/12/04*	*1417*	*-46.05134*	*51.77591*	*46*	*3.08*	*51*	*46.55*	*2404*	*204*					
			en	366	31/12/04	1436	-46.04928	51.77393	46	2.96	51	46.44	2402						
15595	**M6**	sTh	be	3	3/1/05	1816	-48.99862	51.54057	48	59.92	51	32.43	4207						
			bo	***3***	***3/1/05***	***1828***	***-48.99897***	***51.53799***	***48***	***59.94***	***51***	***32.28***	***4214***	***510***					
			en	3	3/1/05	1853	-48.99909	51.53798	48	59.95	51	32.28	na						
15596	**M6**	s	be	3	3/1/05	2210	-49.00020	51.53423	49	0.01	51	32.05	4215						
			bo	**3**	**3/1/05**	**2324**	**-48.99956**	**51.53338**	**48**	**59.97**	**51**	**32.00**	**4214**	**4249**					
			en	3	4/1/05	100	-49.07550	51.68815	49	4.53	51	41.29	4213						
15598	**M6**	t	be	4	4/1/05	1855	-48.99964	51.53791	48	59.98	51	32.27	4214						
			bo	*4*	*4/1/05*	*2011*	*-49.00158*	*51.53467*	*49*	*0.09*	*51*	*32.08*	*4214*	*4253*					
			en	4	4/1/05	2146	-49.00038	51.53375	49	0.02	51	32.02	4214						
15600	**M6**	s	be	5	5/1/05	2303	-48.99720	51.34048	48	59.83	51	20.43	4222						
			bo	5	5/1/05	2312	-48.99718	51.33912	48	59.83	51	20.35	4225	403.8		water for experiments			
			en	5	5/1/05	2329	-48.99713	51.33730	48	59.83	51	20.24	4223						
15602	**M2**	t	be	6	6/1/05	1621	-47.79787	52.85606	47	47.87	52	51.36	3858						
			bo	*6*	*6/1/05*	*1627*	*-47.79815*	*52.85535*	*47*	*47.89*	*52*	*51.32*	*3057*	*205*					
			en	6	6/1/05	1641	-47.79857	52.85403	47	47.91	52	51.24	na						
15603	**M2**	sTh	be	6	6/1/05	1701	-47.79917	52.85209	47	47.95	52	51.13		3 misfires, redo					
			bo	6	6/1/05	1712	-47.79919	52.85154	47	47.95	52	51.09		506					
			en	6	6/1/05	1738	-47.79990	52.84954	47	47.99	52	50.97							
15604	**M2**	sTh	be	6	6/1/05	1804	-47.80026	52.84835	47	48.02	52	50.90	3858						
			bo	***6***	***6/1/05***	***1809***	***-47.80029***	***52.84838***	***47***	***48.02***	***52***	***50.90***	***3858***	***205***					
			en	6	6/1/05	1823	-47.80039	52.84811	47	48.02	52	50.89	na						
15605	**M2**	t	be	6	6/1/05	2109	-47.80076	52.85049	47	48.05	52	51.03	3857						
			bo	*6*	*6/1/05*	*2217*	*-47.80111*	*52.84952*	*47*	*48.07*	*52*	*50.97*	*3857*	*3883*					
			en	6	6/1/05	2340	-47.80152	52.84844	47	48.09	52	50.91	3857						
15606	**M2**	s	be	7	7/1/05	43	-47.80214	52.85087	47	48.13	52	51.05	3856						
			bo	**7**	**7/1/05**	**152**	**-47.80385**	**52.84979**	**47**	**48.23**	**52**	**50.99**	**3852**	**3879**					
			en	7	7/1/05	323	-47.80895	52.84782	47	48.54	52	50.87	3853						
15612	**aM3**	t	be	8	8/1/05	2250	-46.14772	51.85818	46	8.86	51	51.49	1999						
			bo	*8*	*8/1/05*	*2302*	*-46.14647*	*51.85978*	*46*	*8.79*	*51*	*51.59*	*2039*	*507*					
			en	8	8/1/05	2331	-46.14501	51.85822	46	8.70	51	51.49	1974						
15613	**aM3**	sTh	be	8	8/1/05	2357	-46.14371	51.85809	46	8.62	51	51.49	2029						
			bo	***9***	***9/1/05***	***12***	***-46.14298***	***51.85775***	***46***	***8.58***	***51***	***51.47***	***2031***	***507***					
			en	9	9/1/05	43	-46.14131	51.85367	46	8.48	51	51.22	1817						
15614	**aM3**	s	be	9	9/1/05	446	-46.15461	51.85443	46	9.28	51	51.27	1975						
			bo	**9**	**9/1/05**	**522**	**-46.15475**	**51.85215**	**46**	**9.28**	**51**	**51.13**	**1969**	**1982**					
			en	9	9/1/05	629	-46.16132	51.84533	46	9.68	51	50.72	1927						
15615		s	be	9	9/1/05	2215	-46.28319	51.08446	46	16.99	51	5.07	1264						
			bo	**9**	**9/1/05**	**2226**	**-46.28323**	**51.08436**	**46**	**16.99**	**51**	**5.06**	**1264**	**507**		**not deep**		
			en	9	9/1/05	2303	-46.28377	51.08434	46	17.03	51	5.06	1253						
15616		s	be	10	10/1/05	44	-46.28773	51.33500	46	17.26	51	20.10	1155						
			bo	**10**	**10/1/05**	**57**	**-46.29182**	**51.33359**	**46**	**17.51**	**51**	**20.02**	**1092**	**505**		**not deep**		
			en	10	10/1/05	134	-46.29978	51.32779	46	17.99	51	19.67	1141						
15617		s	be	10	10/1/05	257	-46.28545	51.57752	46	17.13	51	34.65	718						
			bo	**10**	**10/1/05**	**310**	**-46.28629**	**51.58034**	**46**	**17.18**	**51**	**34.82**	**718**	**505**		**not deep**		
			en	10	10/1/05	349	-46.28682	51.57622	46	17.21	51	34.57	682						
15618		s	be	10	10/1/05	511	-46.28550	51.83866	46	17.13	51	50.32	1081						
			bo	**10**	**10/1/05**	**522**	**-46.28509**	**51.84014**	**46**	**17.11**	**51**	**50.41**	**1102**	**508**		**not deep**		
			en	10	10/1/05	543	-46.28319	51.84057	46	16.99	51	50.43	1111						
15619		s	be	10	10/1/05	744	-46.28505	52.25486	46	17.10	52	15.29	1521						
			bo	**10**	**10/1/05**	**755**	**-46.28425**	**52.25631**	**46**	**17.06**	**52**	**15.38**	**1524**	**507**		**not deep**		
			en	10	10/1/05	831	-46.28409	52.25150	46	17.05	52	15.09	na						

15620	***bM3***	sTh	be	10	10/1/05	1633	-46.03230	51.86957	46	1.94	51	52.17	2320				
			bo	***10***	***10/1/05***	***1645***	***-46.03230***	***51.87041***	***46***	***1.94***	***51***	***52.22***	***2320***	***509***		***no deep ss cast taken***
			en	10	10/1/05	1728	-46.03316	51.87081	46	1.99	51	52.25	na				
15621	***bM3***	t	be	10	10/1/05	1816	-46.03252	51.86615	46	1.95	51	51.97	2320				
			bo	*10*	*10/1/05*	*1827*	*-46.03267*	*51.86606*	*46*	*1.96*	*51*	*51.96*	*2440*	*508*			
			en	10	10/1/05	1848	-46.03325	51.86531	46	1.99	51	51.92	2335				
15622	***bM3***	t	be	10	10/1/05	2224	-46.03347	51.86723	46	2.01	51	52.03	2306				
			bo	*10*	*10/1/05*	*2308*	*-46.03412*	*51.86656*	*46*	*2.05*	*51*	*51.99*	*2300*	*2322*			
			en	11	11/1/05	5	-46.03366	51.86811	46	2.02	51	52.09	2313				
15623	cM3	s	be	11	11/1/05	706	-45.99120	51.67599	45	59.47	51	40.56	2497				
			bo	**11**	**11/1/05**	**719**	**-45.99009**	**51.67869**	**45**	**59.41**	**51**	**40.72**	**2506**	**507**		**not deep**	
			en	11	11/1/05	744	-45.98778	51.67911	45	59.27	51	40.75	2515				
15627	***dM3***	sTh	be	12	12/1/05	1900	-46.04172	51.96239	46	2.50	51	57.74	2520				
			bo	***12***	***12/1/05***	***1914***	***-46.04223***	***51.96235***	***46***	***2.53***	***51***	***57.74***	***2529***	***508***			
			en	12	12/1/05	1945	-46.04268	51.95929	46	2.56	51	57.56	2545				
15628	***dM3***	s	be	12	12/1/05	2250	-46.04096	51.96064	46	2.46	51	57.64	2542				
			bo	**12**	**12/1/05**	**2343**	**-46.04089**	**51.96060**	**46**	**2.45**	**51**	**57.64**	**2514**	**2529**			
			en	13	13/1/05	52	-46.04265	51.95761	46	2.56	51	57.46	2532				
15629	***dM3***	t	be	13	13/1/05	121	-46.04511	51.95849	46	2.71	51	57.51	2382				
			bo	*13*	*13/1/05*	*134*	*-46.04566*	*51.95920*	*46*	*2.74*	*51*	*57.55*	*2382*	*504*			
			en	13	13/1/05	203	-46.04797	51.95825	46	2.88	51	57.50	2352				
15632	***M10***	sTh	be	15	15/1/05	425	-44.50190	49.98677	44	30.11	49	59.21	2965				
			bo	***15***	***15/1/05***	***446***	***-44.50151***	***49.98558***	***44***	***30.09***	***49***	***59.13***	***2965***	***1013***		***not deep***	
			en	15	15/1/05	525	-44.50269	49.98596	44	30.16	49	59.16	2964				
15634	***M10***	s	be	15	15/1/05	2059	-44.52447	49.99822	44	31.47	49	59.89	2955				
			bo	**15**	**15/1/05**	**2150**	**-44.52456**	**49.99827**	**44**	**31.47**	**49**	**59.90**	**2972**	**2947**			
			en	15	15/1/05	2252	-44.52490	49.99964	44	31.49	49	59.98	na				