

## MIRAI MR05-02 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-04-11

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: [MR05-02](#)

Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items: Pressure, Temperature, Salinity, Dissolved oxygen

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN  
OCEANS > OCEAN TEMPERATURE > WATER TEMPERATURE  
OCEANS > SALINITY/DENSITY > SALINITY

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR05-02\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR05-02_all.pdf)

### [For Using Data](#)

#### Principal Investigator

Hiroshi Uchida (JAMSTEC)

#### Use Constraints

See [Terms and Conditions](#) about constrain of use.

#### Data Citation

See [Terms and Conditions](#) about data citation.

### Instrument

Instrument:

Water sampling system with CTD (30  
litters \* 24 bottles)



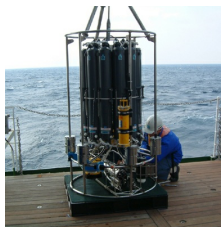
Instrument:

Water sampling system with CTD (12  
litters \* 36 bottles)



Instrument:

Water sampling system with CTD (12  
litters \* 12 bottles)



Instrument:

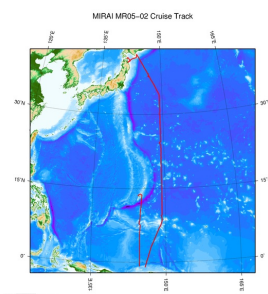
Conductivity temperature depth  
measurements (CTD)



### Overview

Please see the [Data book](#) for details of data.

### Related Information



© 2015 JAMSTEC

[Enlarge Image](#)

#### MR05-02

Ship Name: MIRAI

Period: 2005-05-25 - 2005-07-01

Chief Scientist: Takeshi Kawano (JAMSTEC)

Project Name: [POST-WOCE Hydrography]

### Update History

2017-04-11	An observation data was registerd.
2014-07-25	An observation data was registerd.
2012-11-25	An observation data was registerd.

[Site Policy](#)  
[Privacy Policy](#)  
[Application for Data and Samples](#)  
[Data Policy](#)  
  
**What's New**  
[Update History](#)  
[Feeds](#)

[Publication List](#)  
[Amount of Public Info.](#)  
  
**Data**  
[Map Search](#)  
[Data Tree](#)  
[Detailed Search](#)

[NATSUSHIMA](#)  
[KAIYO](#)  
[YOKOSUKA](#)  
[MIRAI](#)  
[KAIREI](#)  
[CHIKYU](#)  
[KAIMEI](#)  
[SHINSEI MARU](#)  
[HAKUHO MARU](#)

**Submersibles**  
[KAIKO](#)  
[SHINKAI 2000](#)  
[SHINKAI 6500](#)  
[DEEP TOW](#)  
[HYPER-DOLPHIN](#)  
[URASHIMA](#)  
[YOKOSUKA DEEP TOW](#)  
[6K Camera DEEP TOW](#)  
[6K Sonar DEEP TOW](#)  
[KM-ROV](#)  
[POWER GRAB SAMPLER \(SHELL\)](#)  
[POWER GRAB SAMPLER \(CLOW\)](#)  
[BMS](#)

Cruise ID:

Go to a Dive Information

Dive ID:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

## MIRAI MR05-02 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-04-11

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: [MR05-02](#)

Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)

Data Policy: [JAMSTEC](#)

### CTD WOCE-type1

#### Format Description for the Processed (PI) Data

Provided in the Exchange Format of CCHDO (CLIVAR and Carbon Hydrographic Data Office). Please see the following link for details of Exchange Format.

[CCHDO | CLIVAR & Carbon Hydrographic Data Office](#)

Data in following cruise is not expressed with Exchange Format. Please see the site of each cruise for format.

MR02-K05 Leg1

MR04-05

#### Format Description for the QCed Data

Each data file contains one line header (meta data) followed by data lines for each cast.

The number of data lines are recorded in the header.

Header part

No.	Column	Content	Format	Remarks
1	1	Header ID	a1	fixed as '#'
2	3 - 6	Data ID	a4	CTD
3	8 - 22	Cruise ID	a15	MYYY-(K)XX(_legx)
4	24 - 31	Cast name	a8	
5	33 - 40	Date	i8	YYYYMMDD (UTC)
6	42 - 45	Time	i4	hhmm (UTC)
7	47 - 55	Latitude	i2,a1,f5.2,a1	dd-mm.mmN(S)
8	57 - 66	Longitude	i3,a1,f5.2,a1	ddd-mm.mmE(W)
9	68 - 71	Number of data lines	i4	
10	72 - 73	Terminator	-	CR+LF

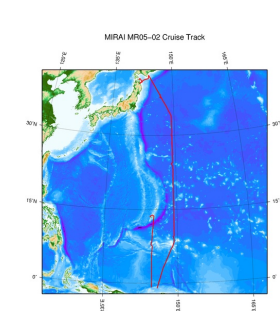
Data part

No.	Column	Content	Unit	Format	Remarks
1	1 - 11	Pressure	dbar	f11.3	
2	12 - 22	Temperature	deg-C	f11.4	ITS-90
3	23 - 33	Salinity	PSU	f11.4	PSS-78
4	34 - 44	Dissolved oxygen	umol/kg	f11.3	
5	45 - 55	Flag	-	i11	1 - 7 : space 8 : flag of pressure 9 : flag of temperature 10 : flag of salinity 11 : flag of dissolved oxygen * reference : <a href="#">Definition of Quality Control Flags</a>
6	56 - 57	Terminator	-	-	CR+LF

Each contents of the data part is stored in 11 bytes.

Missing value is presented by '-5', and error value is presented by '-9'.

### Related Information



[Enlarge Image](#)

#### MR05-02

Ship Name: MIRAI

Period: 2005-05-25 - 2005-07-01

Chief Scientist: Takeshi Kawano (JAMSTEC)

Project Name: [POST-WOCE Hydrography]

### Update History

2017-04-11	An observation data was registerd.
2014-07-25	An observation data was registerd.
2012-11-25	An observation data was registerd.

Update History  
Feeds

SHINSEI MARU  
HAKUHO MARU

YOKOSUKA DEEP TOW  
6K Camera DEEP TOW  
6K Sonar DEEP TOW  
KM-ROV  
POWER GRAB SAMPLER  
(SHELL)  
POWER GRAB SAMPLER  
(CLOW)  
BMS

Copyright 2011 Japan Agency for Marine-Earth Science and  
Technology



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

## MIRAI MR05-02 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-04-11

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: **MR05-02**

Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)

Data Policy: **JAMSTEC**

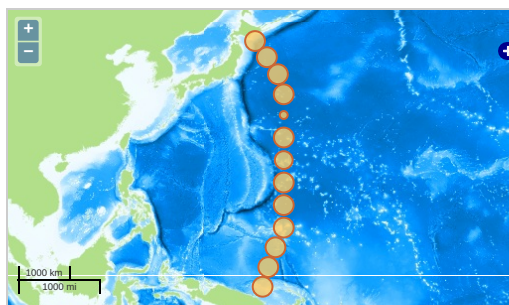
Observation Items: Pressure, Temperature, Salinity, Dissolved oxygen

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN  
OCEANS > OCEAN > WATER  
TEMPERATURE TEMPERATURE  
OCEANS > SALINITY/DENSITY > SALINITY

### Observation Map

1. Clicking the icon displays a balloon with observation information.
2. Then click the observation name, figures will be displayed.



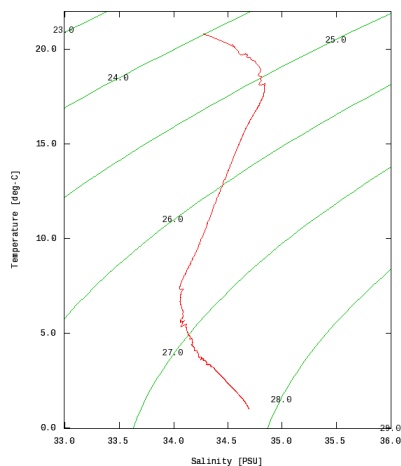
— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

### Figures

P10N\_100\_1\_ct1



MR05-02:P10N\_001\_ct1  
Conductivity-Temperature-Depth Profiler (CTD):Salinity






































### Data List

[Add to Basket](#)

#### File names

<input type="checkbox"/>	P10N_100_1_ct1.csv
<input type="checkbox"/>	P10N_101_1_ct1.csv
<input type="checkbox"/>	P10N_102_1_ct1.csv
<input type="checkbox"/>	P10N_103_1_ct1.csv
<input type="checkbox"/>	P10N_104_1_ct1.csv
<input type="checkbox"/>	P10N_105_1_ct1.csv
<input type="checkbox"/>	P10N_106_1_ct1.csv
<input type="checkbox"/>	P10N_107_1_ct1.csv
<input type="checkbox"/>	P10N_108_1_ct1.csv
<input type="checkbox"/>	P10N_109_1_ct1.csv
<input type="checkbox"/>	P10N_110_1_ct1.csv
<input type="checkbox"/>	P10N_111_1_ct1.csv
<input type="checkbox"/>	P10N_112_2_ct1.csv

	P10N_112_1_ct1.csv
	P10N_114_1_ct1.csv
	P10N_115_1_ct1.csv
	P10N_116_1_ct1.csv
	P10N_117_1_ct1.csv
	P10N_118_1_ct1.csv
	P10N_119_1_ct1.csv
	P10N_120_1_ct1.csv
	P10N_121_1_ct1.csv
	P10N_122_1_ct1.csv
	P10N_123_1_ct1.csv
	P10N_124_1_ct1.csv
	P10N_125_1_ct1.csv
	P10N_126_1_ct1.csv
	P10N_127_1_ct1.csv
	P10N_128_1_ct1.csv
	P10N_129_1_ct1.csv
	P10N_130_1_ct1.csv
	P10N_131_1_ct1.csv
	P10N_132_1_ct1.csv
	P10N_133_1_ct1.csv
	P10N_134_1_ct1.csv
	P10N_135_1_ct1.csv
	P10N_136_1_ct1.csv
	P10N_137_1_ct1.csv
	P10N_138_1_ct1.csv
	P10N_139_1_ct1.csv
	P10N_140_1_ct1.csv
	P10N_141_1_ct1.csv
	P10N_142_2_ct1.csv
	P10N_143_1_ct1.csv
	P10N_95_1_ct1.csv
	P10N_96_1_ct1.csv
	P10N_97_1_ct1.csv
	P10N_98_1_ct1.csv
	P10N_99_1_ct1.csv
	P10N_X02_1_ct1.csv
	P10_10_1_ct1.csv
	P10_11_1_ct1.csv
	P10_12_1_ct1.csv
	P10_13_1_ct1.csv
	P10_14_1_ct1.csv
	P10_15_1_ct1.csv
	P10_16_1_ct1.csv
	P10_17_1_ct1.csv
	P10_18_1_ct1.csv
	P10_19_1_ct1.csv
	P10_1_1_ct1.csv
	P10_20_1_ct1.csv
	P10_21_1_ct1.csv
	P10_22_1_ct1.csv
	P10_23_1_ct1.csv
	P10_24_1_ct1.csv
	P10_25_1_ct1.csv
	P10_26_1_ct1.csv
	P10_27_1_ct1.csv
	P10_28_1_ct1.csv
	P10_29_1_ct1.csv
	P10_2_1_ct1.csv
	P10_30_1_ct1.csv
	P10_31_1_ct1.csv
	P10_32_1_ct1.csv
	P10_33_1_ct1.csv
	P10_34_1_ct1.csv
	P10_35_1_ct1.csv
	P10_36_1_ct1.csv
	P10_37_1_ct1.csv
	P10_38_1_ct1.csv
	P10_39_1_ct1.csv
	P10_3_1_ct1.csv
	P10_40_1_ct1.csv
	P10_41_1_ct1.csv
	P10_42_1_ct1.csv
	P10_44_1_ct1.csv
	P10_45_1_ct1.csv
	P10_46_1_ct1.csv
	P10_47_1_ct1.csv
	P10_48_1_ct1.csv
	P10_49_1_ct1.csv
	P10_4_1_ct1.csv
	P10_50_1_ct1.csv
	P10_51_1_ct1.csv

 File_names.ct1.csv
 P10_53_1_ct1.csv
 P10_54_1_ct1.csv
 P10_55_1_ct1.csv
 P10_56_1_ct1.csv
 P10_56_2_ct1.csv
 P10_57_1_ct1.csv
 P10_58_1_ct1.csv
 P10_58_2_ct1.csv
 P10_59_1_ct1.csv
 P10_5_1_ct1.csv
 P10_60_1_ct1.csv
 P10_60_2_ct1.csv
 P10_61_1_ct1.csv
 P10_62_2_ct1.csv
 P10_63_1_ct1.csv
 P10_64_1_ct1.csv
 P10_65_1_ct1.csv
 P10_66_1_ct1.csv
 P10_67_1_ct1.csv
 P10_68_1_ct1.csv
 P10_69_1_ct1.csv
 P10_6_1_ct1.csv
 P10_70_1_ct1.csv
 P10_71_1_ct1.csv
 P10_72_1_ct1.csv
 P10_73_1_ct1.csv
 P10_7_1_ct1.csv
 P10_8_1_ct1.csv
 P10_9_1_ct1.csv
 P10_X03_1_ct1.csv
 P10_X04_1_ct1.csv

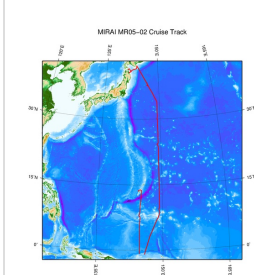
● Observation List  
The list of observation is shown as follows.

Observation	Time and Date	Lat. [°]	Lon. [°]
P10N_100_1_ct1	2005-06-06 10:04	32.1765	149.3178
P10N_101_1_ct1	2005-06-06 04:29	32.4922	149.3343
P10N_102_1_ct1	2005-06-05 22:42	32.8338	149.3525
P10N_103_1_ct1	2005-06-05 17:02	33.1620	149.3507
P10N_104_1_ct1	2005-06-05 10:48	33.4998	149.3477
P10N_105_1_ct1	2005-06-05 05:16	33.7533	149.3383
P10N_106_1_ct1	2005-06-04 23:23	33.9985	149.3200
P10N_107_1_ct1	2005-06-04 17:43	34.2400	149.1738
P10N_108_1_ct1	2005-06-04 11:02	34.4885	149.0283
P10N_109_1_ct1	2005-06-04 05:21	34.7387	148.8795
P10N_110_1_ct1	2005-06-03 23:37	34.9827	148.7332
P10N_111_1_ct1	2005-06-03 18:02	35.2260	148.5857
P10N_112_2_ct1	2005-06-03 12:31	35.4878	148.4270
P10N_113_1_ct1	2005-06-03 02:29	35.7385	148.2943
P10N_114_1_ct1	2005-06-02 20:54	35.9847	148.1602
P10N_115_1_ct1	2005-06-02 15:29	36.2458	147.9920
P10N_116_1_ct1	2005-06-02 09:53	36.4902	147.8202
P10N_117_1_ct1	2005-06-02 04:32	36.7545	147.6358
P10N_118_1_ct1	2005-06-01 22:47	36.9858	147.4755
P10N_119_1_ct1	2005-06-01 17:21	37.2287	147.3132
P10N_120_1_ct1	2005-06-01 11:10	37.4928	147.1523
P10N_121_1_ct1	2005-06-01 05:24	37.7358	146.9788
P10N_122_1_ct1	2005-05-31 07:58	38.0055	146.8250
P10N_123_1_ct1	2005-05-31 02:23	38.2637	146.6385
P10N_124_1_ct1	2005-05-30 14:08	38.5093	146.4813
P10N_125_1_ct1	2005-05-30 08:24	38.7635	146.3325
P10N_126_1_ct1	2005-05-30 02:54	39.0015	146.1460
P10N_127_1_ct1	2005-05-29 21:45	39.2458	145.9682
P10N_128_1_ct1	2005-05-29 16:25	39.5005	145.7835
P10N_129_1_ct1	2005-05-29 10:53	39.7590	145.6023
P10N_130_1_ct1	2005-05-29 04:35	40.0185	145.4277
P10N_131_1_ct1	2005-05-28 22:54	40.2638	145.2532
P10N_132_1_ct1	2005-05-28 16:38	40.5125	145.0667
P10N_133_1_ct1	2005-05-28 10:21	40.7700	144.8852
P10N_134_1_ct1	2005-05-28 04:03	41.0163	144.6995
P10N_135_1_ct1	2005-05-27 22:45	41.2580	144.4978
P10N_136_1_ct1	2005-05-27 18:32	41.5057	144.3127
P10N_137_1_ct1	2005-05-27 14:51	41.6347	144.2257
P10N_138_1_ct1	2005-05-27 11:39	41.7575	144.1290
P10N_139_1_ct1	2005-05-27 09:11	41.8793	144.0305
P10N_140_1_ct1	2005-05-27 06:48	42.0035	143.9308
P10N_141_1_ct1	2005-05-27 04:55	42.0825	143.8673
P10N_142_2_ct1	2005-05-27 03:16	42.1657	143.8093
P10N_143_1_ct1	2005-05-26 23:15	42.2532	143.7380
P10N_95_1_ct1	2005-06-08 01:43	29.1702	149.3275
P10N_96_1_ct1	2005-06-07 18:28	29.8380	149.3275
P10N_97_1_ct1	2005-06-07 06:14	30.5040	149.3275

Observation	Time and Date	Lat. (°)	Long. (°)
P10N_99_1_ct1	2005-06-06 23:05	31.1830	149.3348
P10N_99_1_ct1	2005-06-06 15:59	31.8420	149.3213
P10N_X02_1_ct1	2005-06-07 12:53	29.9918	149.2502
P10_10_1_ct1	2005-06-26 09:04	-1.9978	145.5682
P10_11_1_ct1	2005-06-26 04:44	-1.7468	145.6392
P10_12_1_ct1	2005-06-26 00:06	-1.4942	145.7062
P10_13_1_ct1	2005-06-25 19:39	-1.2463	145.7823
P10_14_1_ct1	2005-06-25 14:59	-0.9965	145.8547
P10_15_1_ct1	2005-06-25 10:12	-0.7443	145.9305
P10_16_1_ct1	2005-06-25 04:57	-0.4703	146.0070
P10_17_1_ct1	2005-06-24 23:13	-0.2412	146.0692
P10_18_1_ct1	2005-06-24 17:37	0.0055	146.1393
P10_19_1_ct1	2005-06-24 12:02	0.2543	146.2117
P10_1_1_ct1	2005-06-28 00:22	-4.0150	144.8117
P10_20_1_ct1	2005-06-23 20:57	0.5022	146.2793
P10_21_1_ct1	2005-06-23 15:41	0.7432	146.3597
P10_22_1_ct1	2005-06-23 10:14	0.9987	146.4293
P10_23_1_ct1	2005-06-23 04:40	1.2452	146.5118
P10_24_1_ct1	2005-06-22 23:10	1.5050	146.5743
P10_25_1_ct1	2005-06-22 17:43	1.7540	146.6470
P10_26_1_ct1	2005-06-22 12:23	1.9963	146.7213
P10_27_1_ct1	2005-06-22 06:41	2.2538	146.7868
P10_28_1_ct1	2005-06-22 01:08	2.4988	146.8680
P10_29_1_ct1	2005-06-21 19:50	2.7522	146.9373
P10_2_1_ct1	2005-06-27 22:06	-3.9808	144.8340
P10_30_1_ct1	2005-06-21 14:35	3.0040	147.0025
P10_31_1_ct1	2005-06-21 08:39	3.5082	147.2133
P10_32_1_ct1	2005-06-21 02:35	4.0065	147.4335
P10_33_1_ct1	2005-06-20 20:59	4.5035	147.6428
P10_34_1_ct1	2005-06-20 15:11	5.0072	147.8520
P10_35_1_ct1	2005-06-20 09:53	5.5035	148.0608
P10_36_1_ct1	2005-06-20 04:23	6.0008	148.2708
P10_37_1_ct1	2005-06-19 23:22	6.5098	148.4795
P10_38_1_ct1	2005-06-19 18:30	6.9983	148.6847
P10_39_1_ct1	2005-06-19 14:19	7.5018	148.9952
P10_3_1_ct1	2005-06-27 17:41	-3.8892	144.8897
P10_40_1_ct1	2005-06-19 09:20	8.0065	149.1608
P10_41_1_ct1	2005-06-19 03:46	8.5088	149.3270
P10_42_1_ct1	2005-06-18 23:20	8.8335	149.3295
P10_44_1_ct1	2005-06-18 11:47	9.7068	149.3302
P10_45_1_ct1	2005-06-18 06:10	10.0050	149.3287
P10_46_1_ct1	2005-06-18 00:05	10.4997	149.3317
P10_47_1_ct1	2005-06-17 16:48	11.1652	149.3227
P10_48_1_ct1	2005-06-17 09:23	11.8418	149.3172
P10_49_1_ct1	2005-06-17 02:02	12.5042	149.3267
P10_4_1_ct1	2005-06-27 12:53	-3.6098	145.0088
P10_50_1_ct1	2005-06-16 18:31	13.1733	149.3247
P10_51_1_ct1	2005-06-16 11:04	13.8413	149.3185
P10_52_1_ct1	2005-06-16 03:57	14.5072	149.3350
P10_53_1_ct1	2005-06-15 20:37	15.1708	149.3323
P10_54_1_ct1	2005-06-15 13:36	15.8417	149.3275
P10_55_1_ct1	2005-06-15 06:17	16.5065	149.3322
P10_56_1_ct1	2005-06-14 20:50	17.1728	149.3250
P10_56_2_ct1	2005-06-15 01:24	17.1737	149.3287
P10_57_1_ct1	2005-06-14 13:20	17.8418	149.3290
P10_58_1_ct1	2005-06-14 04:16	18.5082	149.3302
P10_58_2_ct1	2005-06-14 08:17	18.4985	149.3315
P10_59_1_ct1	2005-06-13 21:17	19.1655	149.3290
P10_5_1_ct1	2005-06-27 07:41	-3.3020	145.1452
P10_60_1_ct1	2005-06-13 12:02	19.8268	149.3253
P10_60_2_ct1	2005-06-13 16:19	19.8353	149.3295
P10_61_1_ct1	2005-06-13 05:46	20.4933	149.3223
P10_62_2_ct1	2005-06-12 22:48	21.1732	149.3282
P10_63_1_ct1	2005-06-11 12:19	21.8315	149.3263
P10_64_1_ct1	2005-06-11 05:28	22.5022	149.3513
P10_65_1_ct1	2005-06-10 22:29	23.1738	149.3633
P10_66_1_ct1	2005-06-10 15:34	23.8240	149.3293
P10_67_1_ct1	2005-06-10 03:19	24.5057	149.3377
P10_68_1_ct1	2005-06-09 19:52	25.1662	149.3295
P10_69_1_ct1	2005-06-09 12:54	25.8307	149.3297
P10_6_1_ct1	2005-06-27 02:35	-2.9978	145.2875
P10_70_1_ct1	2005-06-09 05:56	26.4927	149.3352
P10_71_1_ct1	2005-06-08 22:55	27.1662	149.3445
P10_72_1_ct1	2005-06-08 15:56	27.8308	149.3315
P10_73_1_ct1	2005-06-08 08:50	28.4972	149.3205
P10_7_1_ct1	2005-06-26 21:48	-2.7452	145.3590
P10_8_1_ct1	2005-06-26 17:10	-2.5008	145.4285
P10_9_1_ct1	2005-06-26 12:35	-2.2487	145.5003
P10_X03_1_ct1	2005-06-10 09:12	24.2407	149.0310
P10_X04_1_ct1	2005-06-18 16:51	9.4950	149.1627



#### Related Information



 [Enlarge Image](#)

#### MR05-02

Ship Name: MIRAI  
Period: 2005-05-25 - 2005-07-01  
Chief Scientist: Takeshi Kawano (JAMSTEC)  
Project Name: [POST-WOCE Hydrography]

#### Update History

2017-04-11	An observation data was registered.
2014-07-25	An observation data was registered.
2012-11-25	An observation data was registered.

#### JAMSTEC

[Site Policy](#)  
[Privacy Policy](#)  
[Application for Data and Samples](#)  
[Data Policy](#)  
  
[What's New](#)  
[Update History](#)  
[Feeds](#)

#### Lists

[Publication List](#)  
[Amount of Public Info.](#)  
  
[Data](#)  
[Map Search](#)  
[Data Tree](#)  
[Detailed Search](#)

#### Information of the Ships

[NATSUSHIMA](#)  
[KAIYO](#)  
[YOKOSUKA](#)  
[MIRAI](#)  
[KAIREI](#)  
[CHIKYU](#)  
[KAIMEI](#)  
[SHINSEI MARU](#)  
[HAKUHO MARU](#)

#### Information of the Submersibles

[KAIKO](#)  
[SHINKAI 2000](#)  
[SHINKAI 6500](#)  
[DEEP TOW](#)  
[HYPER-DOLPHIN](#)  
[URASHIMA](#)  
[YOKOSUKA DEEP TOW](#)  
[6K Camera DEEP TOW](#)  
[6K Sonar DEEP TOW](#)  
[KM-ROV](#)  
[POWER GRAB SAMPLER \(SHELL\)](#)  
[POWER GRAB SAMPLER \(CLOW\)](#)  
[BMS](#)

#### Go to a Cruise Information

Cruise ID:

#### Go to a Dive Information

Dive ID:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY