

## MIRAI MR13-01 Bottle Sampling Water Chemical Analysis

Last Modified: 2016-04-07

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

Cruise ID: [MR13-01](#)

Bottle Sampling Water Chemical Analysis : Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

Observation Items: Temperature,Salinity,Dissolved oxygen,Fluorescence,Potential temperature,Density

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN  
OCEANS > OCEAN CHEMISTRY > SALINITY  
OCEANS > OCEAN TEMPERATURE > WATER TEMPERATURE  
OCEANS > SALINITY/DENSITY > SALINITY  
OCEANS > OCEAN OPTICS > FLUORESCENCE  
OCEANS > OCEAN TEMPERATURE > POTENTIAL TEMPERATURE

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR13-01\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR13-01_all.pdf)

#### For Using Data

##### Principal Investigator

CTDTMP:Yuji Kashino (JAMSTEC)  
CTDSAL:Yuji Kashino (JAMSTEC)  
SALNTY:Yuji Kashino (JAMSTEC)  
CTDOXY:Yuji Kashino (JAMSTEC)  
FLUOR:Yuji Kashino (JAMSTEC)

JAMSTEC / BPPT joint cruise in the Indonesian waters.

##### Use Constraints

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

##### Data Citation

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

#### Instrument

Instrument:

Salinity measurement system



#### Information on CTD data

##### (1)Pressure sensor

Model : SBE9plus, Sea-Bird Electronics, Inc.  
Measurement range : 0 to 10500 m  
Accuracy :  $\pm 0.015\%$  of full scale range  
Resolution : 0.001% of full scale

##### (2)Temperature sensor

Model : SBE3, Sea-Bird Electronics, Inc.  
Measurement range : -5 to +35 °C  
Accuracy :  $\pm 0.001$  °C  
Resolution : 0.0002 °C

##### (3)Salinity sensor

Model : SBE4, Sea-Bird Electronics, Inc.  
Measurement range : 0 to 7 S/m  
Accuracy :  $\pm 0.0003$  S/m  
Resolution : 0.00004 S/m

##### (4)DO sensor

Model : SBE43, Sea-Bird Electronics, Inc.  
Measurement range : 120% of surface saturation  
Accuracy :  $\pm 2\%$  of saturation

##### (5)Fluorometer

Model : Seapoint Sensors, Inc.  
Measurement range : 0 - 5  $\mu\text{g/l}$   
Resolution : 0.02  $\mu\text{g/l}$

#### Information on Chemical and Biological data

##### 1. Salinity

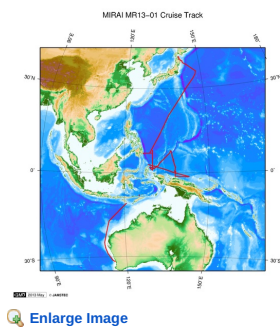
(1) Instruments : Autosal salinometer model 8400B (Guildline Instruments Ltd.)

(2) Methods : -

(3) Precision : The average and the standard deviation of absolute difference among 43 pairs of replicate samples were 0.0001 and 0.00008 in salinity

(4) Reference Material/Calibration : IAPSO Standard Sea Water batch P154

#### Related Information



**MR13-01**  
Ship Name: MIRAI  
Period: 2013-02-18 - 2013-03-28  
Chief Scientist: Yuji Kashino (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS)]

#### Update History

2016-04-07	An observation data was registered.
2015-06-30	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

## MIRAI MR13-01 Bottle Sampling Water Chemical Analysis

Last Modified: 2016-04-07

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

Cruise ID: [MR13-01](#)

Bottle Sampling Water Chemical Analysis: Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

### Exchange Format

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](#)

Format Information

Column No.	Column Heading Mnemonic	Units Mnemonic	Reporting Precision FORTRAN Format	Comments
1	EXPCODE		A14	ExpoCode
2	SECT_ID		A6	Section ID
3	STNNBR		A6	Station Number
4	CASTNO		I3	Cast Number
5	SAMPNO		A7	Sample Number
6	BTLNBR		A7	Bottle Number
7	BTLNBR_FLAG_W		I1	Flag of the data on the left column
8	DATE		I8	Cast date
9	TIME	UTC	A4	Cast time
10	LATITUDE	DEG	F8.4	-
11	LONGITUDE	DEG	F9.4	-
12	DEPTH	METERS	I5	Bottom depth
13	CTDDPT	METERS	F9.1	Depth
14	CTDDPT_FLAG_W		I1	Flag of the data on the left column
15	CTDPRS	DBAR	F9.1	Pressure
16	CTDPRS_FLAG_W		I1	Flag of the data on the left column
17	CTDTMP	ITS-90	F9.4	Temperature
18	CTDTMP_FLAG_W		I1	Flag of the data on the left column
19	CTDTMP_1	ITS-90	F9.4	Temperature (secondary sensor)
20	CTDTMP_1_FLAG_W		I1	Flag of the data on the left column
21	CTDSAL	PSS-78	F9.4	Salinity
22	CTDSAL_FLAG_W		I1	Flag of the data on the left column
23	CTDSAL_1	PSS-78	F9.4	Salinity (secondary sensor)
24	CTDSAL_1_FLAG_W		I1	Flag of the data on the left column
25	SALNTY	PSS-78	F9.4	Bottle Salinity
26	SALNTY_FLAG_W		I1	Flag of the data on the left column
27	SALNTY_1	PSS-78	F9.4	Bottle Salinity (duplicate)
28	SALNTY_1_FLAG_W		I1	Flag of the data on the left column
29	CTDOXY	UMOL/KG	F9.2	Oxygen_CTD
30	CTDOXY_FLAG_W		I1	Flag of the data on the left column
31	FLUOR	MG/CUM	F9.3	Fluorescence
32	FLUOR_FLAG_W		I1	Flag of the data on the left column
33	THETA	DEG C	F9.4	Potential temperature
34	THETA_1	DEG C	F9.4	Potential temperature (secondary)
35	SIG0	KG/CUM	F9.4	Density
36	SIG0_1	KG/CUM	F9.4	Density (secondary)

### ODV Format

Please see the following link for details of ODV Format and ODV Software.

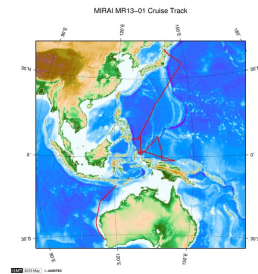
[Ocean Data View \(ODV\)](#)

Format Information

Column No.	Column Heading	Comments
1	Cruise	Cruise Label
2	Station	Station number_Cast number
3	Type	Station type
4	mon/day/yr	Cast date
5	hh:mm	Cast time
6	Latitude [degrees_north]	-
7	Longitude [degrees_east]	-
8	Bot. Depth [METERS]	Bottom depth
9	CTDDPT[METERS]	Depth
10	QF	Flag of the data on the left column
11	CTDPRS[DBAR]	Pressure
12	QF	Flag of the data on the left column
13	CTDTMP[ITS-90]	Temperature
14	QF	Flag of the data on the left column
15	CTDTMP_1[ITS-90]	Temperature (secondary sensor)
16	QF	Flag of the data on the left column
17	CTDSAL[PSS-78]	Salinity
18	QF	Flag of the data on the left column
19	CTDSAL_1[PSS-78]	Salinity (secondary sensor)
20	QF	Flag of the data on the left column
21	SALNTY[PSS-78]	Bottle Salinity
22	QF	Flag of the data on the left column
23	SALNTY_1[PSS-78]	Bottle Salinity (duplicate)

Column No.	Column Heading	Comments
24	QF	Flag of the data on the left colum
25	CTDOXY[UMOL/KG]	Oxygen_CTD
26	QF	Flag of the data on the left colum
27	FLUOR[MG/CUM]	Fluorescence
28	QF	Flag of the data on the left colum
29	THETA[DEG C]	Potential temperature
30	QF	Flag of the data on the left colum
31	THETA_1[DEG C]	Potential temperature (secondary)
32	QF	Flag of the data on the left colum
33	SIG0[KG/CUM]	Density
34	QF	Flag of the data on the left colum
35	SIG0_1[KG/CUM]	Density (secondary)
36	QF	Flag of the data on the left colum
37	SAMPNO	Sample Number
38	QF	Flag of the data on the left colum

#### Related Information



[Enlarge Image](#)

#### MR13-01

Ship Name: MIRAI  
Period: 2013-02-18 - 2013-03-28  
Chief Scientist: Yuji Kashino (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS)]

#### Update History

2016-04-07	An observation data was registered.
2015-06-30	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**  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

国立研究開発法人  
海洋研究開発機構

## MIRAI MR13-01 Bottle Sampling Water Chemical Analysis

Last Modified: 2016-04-07

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

Cruise ID: [MR13-01](#)

Bottle Sampling Water Chemical Analysis: Processed (DMO)-QCed

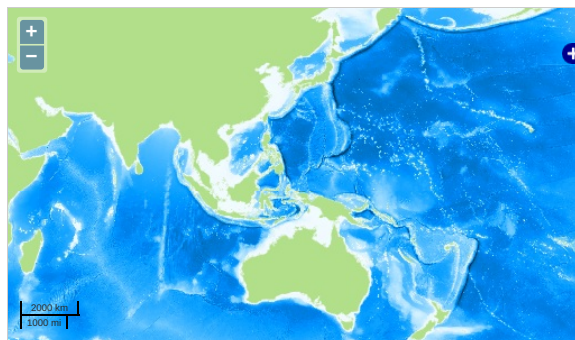
Data Policy: [JAMSTEC](#)

Observation Items: Temperature, Salinity, Dissolved oxygen, Fluorescence, Potential temperature, Density

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN  
OCEANS > OCEAN CHEMISTRY > SALINITY  
OCEANS > OCEAN TEMPERATURE > WATER TEMPERATURE  
OCEANS > SALINITY/DENSITY > SALINITY  
OCEANS > OCEAN OPTICS > FLUORESCENCE  
OCEANS > OCEAN TEMPERATURE > POTENTIAL TEMPERATURE

### Observation Map



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

Imagery reproduced from ...

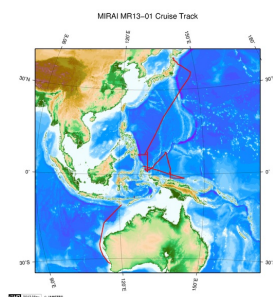
### Data List

☐ File names

☐ MR130100\_ex\_bot.csv

☐ MR130100\_odv\_bot.txt

### Related Information



[Enlarge Image](#)

#### MR13-01

Ship Name: MIRAI

Period: 2013-02-18 - 2013-03-28

Chief Scientist: Yuji Kashino (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

### Update History

2016-04-07	An observation data was registered.
2015-06-30	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  
KAIO  
YOKOSUKA  
MIRAI  
KAIREI  
CHIKYU  
KAIMEI  
SHINSEI MARU  
HAKUHO MARU

Information of the Submersibles  
KAIO  
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:

