

## For Using Data

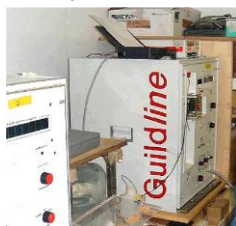
Data Policy	JAMSTEC
Principal Investigator	Hiroshi UCHIDA (JAMSTEC)
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

## Quality

PI-Processed

## Instrument

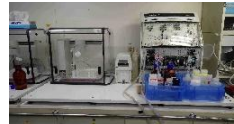
Salinity measurement system



Titrator for DO Dissolved oxygen titration equipment (MR11-06 - )



Nutrient analyzer (MR21-04 - )



Fluorometer (TURNER DESIGNS)



Total dissolved inorganic carbon measurement system (MR11-05 - )



Titrator for total alkalinity (MR14-03 - )

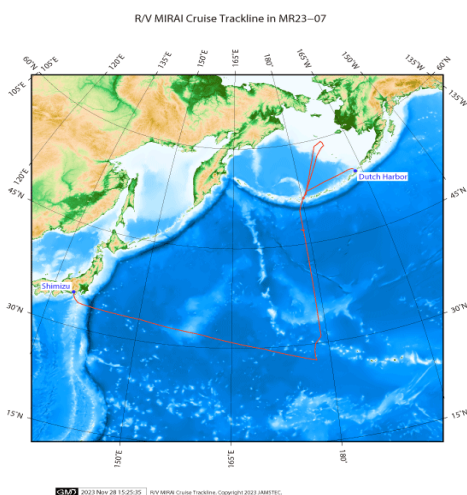


## About this data

For details about observation data and sensors, please refer to the Cruise report (DOI : 10.17596/0003832) and the Data book "WHP P14N REVISIT IN 2023 DATABOOK" (DOI : 10.17596/0004015).

## Related Information

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### MR23-07

Ship Name:	MIRAI
Period:	2023/10/06 - 2023/11/08
Chief Scientist:	Katsuro Katsumata (JAMSTEC)
Proposal:	Quantitative observation experiment in the North Pacific subarctic gyre — GO-SHIP Observation P14
	Organic alkalinity
	Float Deployments with GO-BGC
	Biology Observation with GO-SHIP
	Distribution of Iodine and Iodites in the North Pacific Ocean
	Biogeography of Plankton in the North Pacific Ocean
	Vertical mixing and transport of heat and material in the North Pacific Ocean and Bering Sea
	Float Deployments to Capture Environmental Changes in the North Pacific Ocean
	Polycyclic Aromatic Hydrocarbons, Radium, Cesium
	Multifaceted Observation of Cloud and Rain System in the North Pacific
	Speciation of Iodine, Ammonia, Nitrite in the North Pacific Ocean
	Deployment of EM-APEX floats as part of US Partnership Project
	Experiment on DFMC SBASS from QZSS

## Bottle Sampling Water Chemical Analysis

No.	Content	Unit	Remarks
1	EXPOCODE		ExpoCode
2	SECT		Section ID
3	STNNBR		Station Number
4	CASTNO		Cast Number
5	SAMPNO		Sample Number
6	BTLNBR		Bottle Number (S/N fixed to the sampling device)
7	BTLNBR_FLAG_W		Bottle quality flags
8	DATE		Cast date
9	TIME	UTC	Cast time
10	LATITUDE	DEG	Latitude
11	LONGITUDE	DEG	Longitude
12	DEPTH	METERS	Bottom depth
13	CTDPRS	DBAR	Pressure
14	CTDPRS_FLAG_W		Quality flags for CTD data
15	CTDTMP	ITS-90	Temperature
16	CTDTMP_FLAG_W		Quality flags for CTD data
17	REFTMP	ITS-90	Temperature from Deep Ocean Standards Thermometer (SBE35)
18	REFTMP_FLAG_W		Quality flags for CTD data
19	CTDSAL	PSS-78	CTD-Salinity
20	CTDSAL_FLAG_W		Quality flags for CTD data
21	SALNTY	PSS-78	Salinity
22	SALNTY_FLAG_W		Quality flags for water samples
23	DNSSAL	G/KG	Density salinity
24	DNSSAL_FLAG_W		Quality flags for water samples
25	CTDOXY	UMOL/KG	CTD-oxygen
26	CTDOXY_FLAG_W		Quality flags for CTD data
27	OXYGEN	UMOL/KG	Oxygen
28	OXYGEN_FLAG_W		Quality flags for water samples
29	CTDXMISS	%TRANS	Transmission
30	CTDBEAMCP	/METER	Beam attenuation coefficient
31	CTDXMISS_FLAG_W		Quality flags for CTD data
32	CTDFLUOR	MG/M^3	Fluorescence
33	CTDFLUOR_FLAG_W		Quality flags for CTD data
34	CHLORA	UG/L	Chlorophyll a
35	CHLORA_FLAG_W		Quality flags for water samples
36	CTDTURB	FTU	Turbidity
37	CTDTURB_FLAG_W		Quality flags for CTD data
38	CTDCDOM	RU	Colored dissolved organic matter
39	CTDCDOM_FLAG_W		Quality flags for CTD data
40	FDOM	RU	Fluorescent dissolved organic matter
41	FDOM_FLAG_W		Quality flags for water samples
42	PAR	UMOL/M^2/SEC	Photosynthetically available radiation
43	PAR_FLAG_W		Quality flags for CTD data
44	SILCAT	UMOL/KG	Silicate
45	SILCAT_FLAG_W		Quality flags for water samples
46	SILUNC	UMOL/KG	Uncertainty of Silicate data
47	NITRAT	UMOL/KG	Nitrate
48	NITRAT_FLAG_W		Quality flags for water samples
49	NRAUNC	UMOL/KG	Uncertainty of Nitrate data
50	NITRIT	UMOL/KG	Nitrite
51	NITRIT_FLAG_W		Quality flags for water samples
52	NRIUNC	UMOL/KG	Uncertainty of Nitrite data
53	PHSPHT	UMOL/KG	Phosphate
54	PHSPHT_FLAG_W		Quality flags for water samples

55	PHPUNC	UMOL/KG	Uncertainty of Phosphate data
56	NH4	UMOL/KG	Ammonia
57	NH4_FLAG_W		Quality flags for water samples
58	NH4UNC	UMOL/KG	Uncertainty of Ammonium data
59	CFC-11	PMOL/KG	Freon-11
60	CFC-11_FLAG_W		Quality flags for water samples
61	CFC-12	PMOL/KG	Freon-12
62	CFC-12_FLAG_W		Quality flags for water samples
63	CFC113	PMOL/KG	Freon-113
64	CFC113_FLAG_W		Quality flags for water samples
65	SF6	FMOL/KG	Sulfur hexafluoride
66	SF6_FLAG_W		Quality flags for water samples
67	TCARB	UMOL/KG	Total carbon
68	TCARB_FLAG_W		Quality flags for water samples
69	ALKALI	UMOL/KG	Total alkalinity
70	ALKALI_FLAG_W		Quality flags for water samples
71	PH_TOT		pH
72	PH_TMP	DEG C	Temperature to be reported if pH is reported
73	PH_TOT_FLAG_W		Quality flags for water samples
74	DOC	UMOL/KG	Dissolved organic carbon
75	DOC_FLAG_W		Quality flags for water samples
76	DELC13	/MILLE	13Carbon
77	DELC13_FLAG_W		Quality flags for water samples
78	C13ERR	/MILLE	Delta C13 Error
79	DELC14	/MILLE	14Carbon
80	DELC14_FLAG_W		Quality flags for water samples
81	C14ERR	/MILLE	Delta C14 Error
82	CDOM300	/METER	Colored dissolved organic matter
83	CDOM300_FLAG_W		Quality flags for water samples
84	CDOM325	/METER	Colored dissolved organic matter
85	CDOM325_FLAG_W		Quality flags for water samples
86	CDOM443	/METER	Colored dissolved organic matter
87	CDOM443_FLAG_W		Quality flags for water samples

## Definition of Quality Control Flags for Bottle Data

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### 1. Bottle quality flags

#### Exchange

1 = Bottle information unavailable.
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2 = No problems noted.
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3 = Leaking.
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4 = Did not trip correctly.
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5 = Not reported.
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7 = Unknown problem.
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9 = Samples not drawn from this bottle.
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### 2. Quality flags for water samples

#### Exchange

1 = Sample for this measurement was drawn from water bottle but analysis not received.
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2 = Acceptable measurement.
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3 = Questionable measurement.
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4 = Bad measurement.
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5 = Not reported.
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6 = Mean of replicate measurements.
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9 = Sample not drawn for this measurement from this bottle.
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### 3. Quality flags definitions for CTD data

#### Exchange

1 = Not calibrated.
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2 = Acceptable measurement.
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3 = Questionable measurement.
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4 = Bad measurement.
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5 = Not reported.
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6 = Interpolated over >1 dbar interval.
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7 = Despiked.
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9 = Not sampled.
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