

OCEANOGRAPHICAL STATION LIST

VOLUME 66

TEMPERATURE AND SALINITY OBSERVATIONS FROM
AUSTRALIAN TUNA FISHING VESSELS IN 1963

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1968

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CSIRO Aust. Oceanogr. Stn List 66.

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VOLUME 66

Temperature and Salinity Observations from Australian Tuna Fishing Vessels in 1963

I. INTRODUCTION

In 1961 a programme for the systematic measurement of seawater temperatures from fishing vessels was begun by CSIRO (CSIRO Aust. 1961; Vaux 1961). The data presented in this volume are the result of such measurements made from fishing vessels during the course of their normal fishing operations on the South Australian and Eastern Australian tuna fishing grounds during 1963. Data were also collected in Western Australian waters by F.V. Estelle Star.

II. METHODS

Temperature.—Fishermen were issued with surface thermometers and instructions for their use (Vaux 1961). Thermometers were graduated in whole degrees over the range 30–120 degF with an accuracy of ± 0.5 degF. Temperatures were taken in degF and converted to degC (nearest tenth) before listing. Temperatures listed in this volume are considered accurate to about ± 0.5 degC although on some vessels a higher accuracy was probably achieved.

Salinity.—Water samples for subsequent salinity analysis were taken by several vessels. The samples were analysed at either Cronulla or Port Lincoln using a chlorinity-temperature meter of the conductivity type (Hamon 1956) and converting from chlorinity to salinity by the relation -

$$\text{Salinity} = 0.03 + 1.805 \times \text{Chlorinity}$$

Salinities are considered accurate to about $\pm 0.05\%$.

Accuracy of Positions.—For reporting the position of sampling, fishermen used a grid reference system (Kesteven and Williams 1962) consisting of rectangles of approximately 6 x 5 nautical miles (actually 6 x 6 minutes of latitude and longitude). A fisherman's position wrong by one grid rectangle could be in error, therefore, by up to 6 miles. South Australian positions may be in error by twice this amount as vessels operate for longer periods out of sight of land. Errors greater than this are considered to be infrequent. Grid references were converted to latitude and longitude by computer before listing.

REFERENCES

- CSIRO AUST. (1961).—Tuna search programme. Southern Pelagic Project Special Report No. 1 (Mimeogr.) (CSIRO : Cronulla.)
- HAMON, B.V. (1956).—A portable temperature-chlorinity bridge for estuarine investigations and seawater analysis. J. scient. Instrum. 33, 329-33.
- KESTEVEN, G.L., and WILLIAMS, G.R. (1962).—Fishermen and scientists work together. Aust. Fish. Newsl. 21(5), 21-4.
- U.S. NAVY HYDROGRAPHIC OFFICE (1955).—Instruction manual for oceanographic observations. Publ. No. 607.
- VAUX, D. (1961).—Measurement of sea water temperatures by fishermen. Aust. Fish. Newsl. 20(11), 19.

III. ACKNOWLEDGEMENTS

Thanks are due to the skippers, owners, and crew of the vessels from which the observations listed in this volume were made.

IV. DATA

The data were subjected to various quality control checks before listing by C.D.C. 3600 Computer. Speeds between successive positions were calculated, and finding of impossible values led to the amendment or rejection of the suspect data. An explanation of the headings used is given at the beginning of the listing.

A.D. Crooks wrote the computer programmes, and D. Vaux had the overall responsibility for the collection, processing, and compilation of the observations.

DATA
TEMPERATURES AND SALINITIES

EXPLANATION OF HEADINGS

VESSEL	A code number is given for each vessel:
	17 <u>Estelle Star</u> U5 <u>Mirrabooka</u>
	T1 <u>Favorite</u> U7 <u>Pelamis</u>
	T2 <u>Degei</u> U8 <u>St Michelle</u>
	T3 <u>Huon</u> U9 <u>Bin Tang Terang</u>
	T5 <u>Hermay</u> W1 <u>Ibex</u>
	T6 <u>Two Freddies</u> W4 <u>ImLay</u>
	T7 <u>Tacoma</u> W5 <u>Smada</u>
	T8 <u>Catriona B</u> W8 <u>Mary Anne Simms</u>
	T9 <u>Cape Byron</u> X1 <u>Enfield</u>
	U1 <u>Mameena</u> X7 <u>Petoni</u>
	U2 <u>Loch Lomond</u>
CRUISE STATION NUMBER	Generally assigned only when a member of CSIRO staff accompanied the cruise
TIME Z	In eastern Australian waters, times are given in Eastern Australian Standard Time, GMT +10 hr; in South Australian waters, times are given in Central Australian Stan- dard Time, GMT +9½ hr, Code J, and in Western Australian waters, Western Austral- ian Standard Time, GMT +8 hr, Code H
LATITUDE LONGITUDE	Given in degrees and minutes
TEMP.	Sea surface temperatures recorded in °C
SALINITY	Given parts per thousand
WIND DN. AMT.	Wind direction and speed are coded using Tables 8 and 9 in U.S. Navy Hydrogr. Office (1955)
SEA DN. AMT.	Sea direction and amount are coded using Tables 5 and 8 in U.S. Navy Hydrogr. Office (1955)
SWELL DN. AMT.	Sea swell direction and amount are coded using Tables 6 and 8 in U.S. Navy Hydrogr. Office (1955)
WEA.	Weather is coded using Table 1 in U.S. Navy Hydrogr. Office (1955)

VIS. Visibility is coded using Table 4 in U.S. Navy Hydrogr. Office (1955)

SAMPLING METHOD 1 indicates surface temperature and salinity were taken from seawater sampled in a plastic bucket

A blank indicates no data available

VESSE- CRUISE STATION YR, MTH, DAY TIME & LATITUDE LONGITUDE TEMP, SALINITY WIND DN, AMT, DN, AMT, SEA SWELL DN, AMT, HEA, VIS, BAROM, SAMPLING METHOD

VESSE	CRUISE	STATION	YR	MTH	DAY	TIME	&	LATITUDE	LONGITUDE	TEMP	SALINITY	WIND	SEA	SWELL	DN,	AMT,	DN,	AMT,	HEA,	VIS,	BAROM,	SAMPLING	METHOD
17	1	1	63	5	2	0745	J	34	50 S	136	00 E	16.5	36.09										1
17	1	2	63	5	2	1000	J	35	08 S	136	02 E	16.9	35.95										1
17	1	3	63	5	2	1200	J	35	09 S	135	50 E	17.3	36.00										1
17	1	4	63	5	2	1400	J	35	13 S	135	41 E	17.5	35.99										1
17	1	5	63	5	2	1500	J	35	16 S	135	48 E	17.5	35.97										1
17	1	6	63	5	2	1500	J	35	16 S	136	00 E	17.4	35.93										1
17	1	7	63	5	2	1940	J	35	20 S	136	07 E	16.9	35.95										1
17	1	8	63	5	3	0840	J	35	27 S	136	02 E	16.7	35.81										1
17	1	9	63	5	3	0940	J	35	21 S	136	04 E	17.0	35.99										1
17	1	10	63	5	3	1030	J	35	15 S	136	03 E	17.1	35.99										1
17	1	11	63	5	3	0900	J	34	34 S	134	32 E	17.2	36.00	08	4	08	4	18	2	03	8	03	1
17	2	12	63	5	28	1200	J	34	27 S	134	05 E	17.5	36.06	08	5	08	4	18	2	03	7	03	1
17	2	13	63	5	28	1500	J	34	18 S	133	32 E	17.9	36.04	07	4	08	4	18	2	18	6	06	1
17	2	14	63	5	28	1800	J	34	08 S	133	00 E	19.0	36.02	08	5	08	4	15	4	18	6	06	1
17	2	15	63	5	28	2100	J	33	59 S	132	32 E	18.3	36.04	03	4	99	4	15	4	18	6	06	1
17	2	16	63	5	29	0001	J	33	30 S	132	29 E	18.2	36.00										1
17	2	17	63	5	29	0300	J	33	03 S	132	25 E	18.4	36.11										1
17	2	18	63	5	29	0600	J	32	35 S	132	22 E	17.7	35.97										1
17	2	19	63	5	29	0900	J	32	14 S	132	09 E	17.4	35.88	31	2	31	2	19	2	03	8	03	1
17	2	20	63	5	29	1200	J	32	17 S	131	36 E	17.7	35.97	29	3	29	2	19	2	02	8	02	1
17	2	21	63	5	29	1500	J	32	15 S	131	06 E	18.1	36.04	30	3	30	3	19	2	01	8	01	1
17	2	22	63	5	29	1800	J	32	14 S	130	35 E	18.4	36.20	30	1	30	1	19	2	01	8	01	1
17	2	23	63	5	29	2100	J	32	13 S	130	00 E	18.4	36.33	34	2	34	1	19	2	02	8	02	1
17	2	24	63	5	30	0000	J	32	11 S	129	26 E	18.5	36.38										1
17	2	25	63	5	30	0300	J	32	10 S	128	53 E	18.5	36.53										1
17	2	26	63	5	30	0600	J	32	11 S	128	20 E	18.5	36.50										1
17	2	27	63	5	30	0900	J	32	15 S	127	50 E	18.0	36.73	30	4	30	2	19	2	02	8	02	1
17	2	28	63	5	30	1200	J	32	19 S	127	20 E	17.8	36.82	26	4	27	3	19	2	51	6	51	1
17	2	29	63	5	30	1500	J	32	23 S	126	46 E	17.7	36.67	28	3	28	2	99	0	02	8	02	1
17	2	30	63	5	30	1800	J	32	30 S	126	20 E	18.1	36.49	27	1	27	1	21	1	01	8	01	1
17	2	31	63	5	30	2100	J	32	35 S	125	53 E	18.2	36.31	28	2	28	2	21	1	01	8	01	1
17	2	32	63	5	31	0001	J	32	50 S	125	37 E	18.4	36.31										1
17	2	33	63	5	31	0300	J	33	06 S	125	18 E	18.4	36.04										1
17	2	34	63	5	31	0600	J	33	21 S	124	59 E	18.4	36.00										1
17	2	35	63	5	31	0900	J	33	31 S	124	40 E	18.2	36.00	31	5	31	4	99	1	02	6	02	1
17	2	36	63	5	31	1200	J	33	39 S	124	10 E	18.3	36.00	32	6	29	4	99	1	02	7	02	1
17	2	37	63	5	31	1500	J	33	51 S	123	48 E	18.0	36.02	27	6	27	4	99	1	02	5	02	1
17	2	38	63	6	2	1500	H	34	04 S	121	37 E	18.7	36.02	23	1	23	1	99	0	03	8	03	1
17	2	39	63	6	2	1800	H	34	13 S	121	06 E	19.3	36.04	35	3	35	1	21	1	02	8	02	1
17	2	40	63	6	2	2100	H	34	22 S	120	35 E	19.1	36.00	35	3	35	1	21	1	02	8	02	1

VESSE - CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND DN. AMT. SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

17	41	63	6	3	0001	H	34	29	S	120	08	E	20.1	36.11	5	22	4	99	1	03	8	1
17	42	63	6	3	0300	H	34	35	S	119	42	E	19.4	35.97	22	5	22	4	99	1	02	8
17	43	63	6	3	0600	H	34	41	S	119	18	E	19.8	35.88	22	5	22	4	99	1	02	8
17	44	63	6	3	0900	H	34	47	S	118	54	E	20.2	35.97	22	5	22	4	99	1	02	8
17	45	63	6	3	1200	H	34	53	S	118	30	E	20.2	36.04	22	5	22	4	99	1	02	8
17	46	63	6	3	1435	H	35	02	S	118	11	E	20.1	36.20	22	5	22	4	99	1	02	8
17	47	63	6	4	0900	H	35	08	S	117	59	E	20.2	35.34	33	2	33	1	13	2	03	8
17	48	63	6	4	0910	H	35	08	S	118	01	E	20.2		33	2	33	1	13	2	03	8
17	49	63	6	4	0930	H	35	05	S	118	04	E	20.0		33	2	33	1	13	2	03	8
17	50	63	6	4	0950	H	35	05	S	118	04	E	20.0		33	2	33	1	13	2	03	8
17	51	63	6	4	1040	H	35	05	S	118	06	E	20.0		00	0	00	1	13	2	03	8
17	52	63	6	4	1055	H	35	05	S	118	06	E	20.0		00	0	00	1	13	2	03	8
17	53	63	6	4	1100	H	35	05	S	118	06	E	20.0		00	0	00	1	13	2	03	8
17	54	63	6	4	1130	H	35	05	S	118	06	E	20.0		03	1	03	1	13	2	03	8
17	55	63	6	4	1145	H	35	05	S	118	06	E	20.0		03	1	03	1	13	2	03	8
17	56	63	6	4	1230	H	35	04	S	118	06	E	20.0		03	1	03	1	13	2	03	8
17	57	63	6	4	1250	H	35	04	S	118	06	E	20.0		03	1	03	1	13	2	03	8
17	58	63	6	4	1330	H	35	04	S	118	04	E	20.3		03	1	03	1	13	2	03	8
17	59	63	6	4	1345	H	35	05	S	118	04	E	20.0		03	1	03	1	13	2	03	8
17	60	63	6	4	1410	H	35	06	S	118	03	E	20.0		03	2	03	1	13	2	03	8
17	61	63	6	4	1450	H	35	06	S	118	01	E	20.0		03	4	03	2	13	2	03	8
17	62	63	6	5	0950	H	35	06	S	118	01	E	20.0		34	4	34	1	21	1	18	6
17	63	63	6	5	1200	H	35	06	S	118	01	E	19.9		34	4	34	1	21	1	18	6
17	64	63	6	6	0900	H	35	06	S	118	01	E	19.2		21	8	21	4	21	2	01	7
17	65	63	6	6	0900	H	35	06	S	118	03	E	19.8	36.38	21	4	31	2	21	2	01	7
17	66	63	6	10	0900	H	35	06	S	118	03	E	19.8	36.53	31	4	31	2	21	2	03	7
17	67	63	6	10	1500	H	35	08	S	117	57	E	19.9	35.43	32	5	32	3	21	6	01	7
17	68	63	6	11	1200	H	35	06	S	118	01	E	19.6	35.43	31	6	32	3	21	6	03	8
17	69	63	6	11	1500	H	35	06	S	118	03	E	19.6	35.43	34	5	34	2	22	4	02	8
17	70	63	6	13	0900	H	35	06	S	118	03	E	19.5	35.06	34	5	34	3	22	4	03	8
17	71	63	6	13	2045	H	35	05	S	117	58	E	17.4	35.35	31	3	31	1	21	4	52	7
17	72	63	6	14	1200	H	35	06	S	118	01	E	19.7	36.31	28	4	28	1	99	0	52	7
17	73	63	6	15	1200	H	35	06	S	118	03	E	19.7	36.04	20	6	20	3	21	4	52	7
17	74	63	6	16	0900	H	35	04	S	118	06	E	19.6	36.00	18	1	18	2	20	2	50	6
17	75	63	6	17	1500	H	35	08	S	117	57	E	19.4	36.00	31	1	31	1	18	5	50	6
17	76	63	6	18	0900	H	35	08	S	118	01	E	19.5	36.00	00	0	00	0	18	4	02	8
17	77	63	6	19	1200	H	35	05	S	118	04	E	19.4	36.00	32	2	32	1	20	4	00	7
17	78	63	6	20	0900	H	35	06	S	118	04	E	19.2	36.02	00	0	00	0	18	4	03	7
17	79	63	6	21	1200	H	35	06	S	118	04	E	19.1	35.32	04	3	04	2	20	1	03	7
17	80	63	6	22	0900	H	35	06	S	118	04	E	19.1	35.32	35	4	35	3	20	1	03	6
17			6	22	0900	H	35	06	S	118	04	E	19.1	35.32	29	4	29	2	20	1	01	7

VESSE - CRUISE STATION YR. MTH. DAY TIME & LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

11	63	2	5	1200	34	51 S	134	39 E	17.8	1
11	63	2	5	1300	34	51 S	134	39 E	18.1	1
11	63	2	5	1900	34	51 S	134	39 E	18.1	1
11	63	2	5	2000	34	45 S	134	39 E	18.2	1
11	63	2	6	0900	34	33 S	134	45 E	15.6	1
11	63	2	6	1000	34	45 S	134	39 E	17.8	1
11	63	2	6	2000	34	51 S	134	39 E	18.1	1
11	63	2	6	2200	34	51 S	134	57 E	17.8	1
11	63	2	6	2300	34	51 S	135	3 E	20.6	1
11	63	2	6	2400	34	51 S	135	9 E	18.3	1
11	63	2	17	0700	34	51 S	135	3 E	17.8	1
11	63	2	17	0800	34	51 S	134	45 E	17.8	1
11	63	2	17	0900	34	51 S	134	39 E	18.1	1
11	63	2	17	2015	34	39 S	134	45 E	16.4	1
11	63	2	18	0700	34	39 S	134	45 E	16.7	1
11	63	2	18	0800	34	51 S	134	39 E	17.8	1
11	63	2	18	1200	34	51 S	134	39 E	17.8	1
11	63	2	18	1700	34	51 S	134	39 E	17.8	1
11	63	2	18	1900	34	33 S	134	57 E	15.6	1
11	63	2	18	2100	34	33 S	134	51 E	16.1	1
11	63	2	18	2200	34	27 S	135	15 E	16.1	1
11	63	2	19	0800	34	27 S	135	3 E	15.6	1
11	63	2	19	0900	34	33 S	134	51 E	15.6	1
11	63	2	19	1000	34	39 S	134	45 E	17.7	1
11	63	2	19	1200	34	51 S	134	39 E	17.5	1
11	63	2	19	2000	35	3 S	134	15 E	18.6	1
11	63	2	19	2045	35	9 S	134	21 E	18.6	1
11	63	2	20	0900	35	9 S	134	21 E	18.6	1
11	63	2	20	1000	35	15 S	134	15 E	18.6	1
11	63	2	20	1200	35	15 S	134	15 E	18.6	1
11	63	2	20	1300	35	15 S	134	15 E	18.9	1
11	63	2	24	0800	35	39 S	135	15 E	17.8	1
11	63	2	24	0900	35	45 S	135	9 E	17.8	1
11	63	2	24	1000	35	39 S	135	9 E	17.8	1
11	63	2	24	1100	35	39 S	135	9 E	18.1	1
11	63	2	24	1200	35	39 S	135	9 E	18.1	1
11	63	2	24	1300	35	39 S	135	9 E	18.1	1
11	63	2	24	1400	35	39 S	135	9 E	18.3	1
11	63	2	24	1500	35	39 S	135	9 E	18.3	1

VESSE - CRUISE STATION YR. MTH. DAY TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SMELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
11	63	2	24	1600	35	39 S	135	9 E	18.3			1
11	63	2	24	1700	35	39 S	135	9 E	18.3			1
11	63	2	24	1800	35	39 S	135	9 E	18.3			1
11	63	2	25	0600	35	39 S	135	9 E	17.8			1
11	63	2	25	0900	35	39 S	135	15 E	17.8			1
11	63	2	25	1000	35	39 S	135	15 E	18.1			1
11	63	2	25	1100	35	39 S	135	15 E	17.8			1
11	63	2	25	1200	35	45 S	135	15 E	18.1			1
11	63	2	25	1300	35	45 S	135	15 E	18.1			1
11	63	2	25	1400	35	45 S	135	15 E	18.1			1
11	63	2	25	1500	35	39 S	135	21 E	18.1			1
11	63	2	25	1600	35	39 S	135	21 E	18.1			1
11	63	2	25	1700	35	39 S	135	21 E	18.1			1
11	63	2	25	1800	35	33 S	135	21 E	18.1			1
11	63	2	27	0900	35	21 S	135	3 E	18.3			1
11	63	2	27	1000	35	15 S	134	51 E	18.1			1
11	63	3	3	0800	34	51 S	136	3 E	20.3			1
11	63	3	3	0900	34	57 S	136	3 E	19.2			1
11	63	3	3	1000	35	9 S	136	9 E	16.7			1
11	63	3	3	1100	35	9 S	136	21 E	18.3			1
11	63	3	3	1200	35	9 S	136	21 E	18.3			1
11	63	3	3	1300	35	9 S	136	21 E	18.3			1
11	63	3	3	1400	35	15 S	136	3 E	18.9			1
11	63	3	3	1600	35	15 S	136	3 E	18.9			1
11	63	3	4	0800	35	39 S	135	39 E	18.3			1
11	63	3	4	0900	35	51 S	135	39 E	18.3			1
11	63	3	4	1000	35	57 S	135	39 E	18.9			1
11	63	3	4	1100	35	51 S	135	33 E	18.9			1
11	63	3	4	1200	35	51 S	135	27 E	18.9			1
11	63	3	4	1435	35	51 S	135	27 E	18.9			1
11	63	3	4	2015	35	51 S	135	27 E	18.9			1
11	63	3	5	0900	35	51 S	135	27 E	18.9			1
11	63	3	5	1205	35	51 S	135	33 E	18.9			1
11	63	3	5	1600	35	51 S	135	33 E	18.9			1
11	63	3	5	1700	35	51 S	135	39 E	18.3			1
11	63	3	5	2000	35	45 S	136	3 E	18.1			1
11	63	3	5	2200	35	39 S	136	27 E	17.8			1
11	63	3	5	2400	35	33 S	136	45 E	19.2			1
11	63	3	5	0600	35	15 S	135	57 E	17.5			1
11	63	3	12	1000	35	21 S	135	51 E	17.8			1

VESSE - CRUISE STATION YR, MTH, DAY TIME & LATITUDE LONGITUDE TEMP, SALINITY WIND HIND SEA SWELL WEA, VIS, BAROM, SAMPLING METHOD

11	63	3	12	1200	35	45	S	135	39	E	18.6	1
11	63	3	12	1400	35	51	S	135	39	E	18.6	1
11	63	3	12	1600	35	45	S	135	27	E	18.9	1
11	63	3	12	1900	35	39	S	135	27	E	18.3	1
11	63	3	13	1000	35	51	S	135	27	E	18.6	1
11	63	3	13	1200	35	39	S	135	3	E	18.9	1
11	63	3	13	1400	35	33	S	134	57	E	18.9	1
11	63	3	13	1600	35	39	S	135	9	E	19.2	1
11	63	3	13	1900	35	45	S	135	15	E	19.4	1
11	63	3	14	0800	35	45	S	135	15	E	18.9	1
11	63	3	14	1000	35	45	S	135	15	E	18.9	1
11	63	3	14	1200	35	45	S	135	9	E	18.9	1
11	63	3	14	1500	35	39	S	135	15	E	18.6	1
11	63	3	15	0700	35	15	S	137	3	E	17.8	1
11	63	3	15	0900	36	15	S	137	15	E	17.8	1
11	63	3	15	1000	36	21	S	137	15	E	17.8	1
11	63	3	15	1100	36	27	S	137	9	E	17.8	1
11	63	3	15	1200	36	33	S	137	9	E	17.8	1
11	63	3	15	1300	36	45	S	136	57	E	17.8	1
11	63	3	15	1400	36	45	S	136	51	E	17.8	1
11	63	3	15	1500	36	39	S	136	45	E	17.8	1
11	63	3	15	1600	36	33	S	136	33	E	17.8	1
11	63	3	15	1700	36	27	S	136	21	E	17.8	1
11	63	3	15	1800	36	21	S	136	21	E	17.8	1
11	63	3	15	1900	36	9	S	136	21	E	17.8	1
11	63	3	15	2000	36	3	S	136	15	E	17.8	1
11	63	3	16	0800	35	21	S	136	9	E	17.8	1
11	63	3	16	0900	35	15	S	136	3	E	17.5	1
11	63	3	20	1100	35	33	S	135	27	E	18.1	1
11	63	3	21	0800	35	45	S	135	3	E	18.3	1
11	63	3	21	0900	35	45	S	135	9	E	18.6	1
11	63	3	21	1000	35	51	S	135	15	E	18.9	1
11	63	3	21	1100	35	45	S	135	21	E	18.3	1
11	63	3	21	1200	35	39	S	135	15	E	18.9	1
11	63	3	21	1400	35	39	S	135	9	E	19.4	1
11	63	3	21	1700	35	39	S	135	3	E	19.4	1
11	63	3	22	0800	35	39	S	135	3	E	18.9	1
11	63	3	22	1000	35	27	S	134	57	E	18.6	1
11	63	3	22	1200	35	21	S	135	15	E	18.3	1
11	63	3	22	1500	35	3	S	135	39	E	17.8	1

VESSE- CRUISE STATION YA, MTH, DAY TIME & LATITUDE LONGITUDE TEMP, SALINITY WIND SEA SWELL MEA, VIS, BAROM, SAMPLING METHOD

11	63	3	4	0800	35	39 S	135	57 E	16.7	1
11	63	5	4	0900	35	45 S	135	57 E	16.7	1
11	63	5	4	1000	35	51 S	135	57 E	16.9	1
11	63	5	4	1100	35	45 S	135	57 E	16.7	1
11	63	5	4	1200	35	45 S	135	57 E	16.7	1
11	63	5	4	1300	35	45 S	135	57 E	16.7	1
11	63	5	4	1400	35	45 S	135	57 E	16.7	1
11	63	5	4	1500	35	39 S	135	57 E	16.9	1
11	63	5	4	1600	35	33 S	136	3 E	17.2	1
11	63	5	4	1700	35	33 S	136	3 E	17.2	1
11	63	5	4	1730	35	33 S	136	3 E	17.2	1
11	63	5	5	0900	35	33 S	136	3 E	16.7	1
11	63	5	5	1000	35	33 S	136	3 E	16.7	1
11	63	5	5	1100	35	33 S	136	3 E	16.7	1
11	63	5	5	1200	35	33 S	136	9 E	16.7	1
11	63	5	5	1300	35	39 S	135	57 E	16.7	1
11	63	5	5	1400	35	45 S	135	57 E	17.2	1
11	63	5	5	1500	35	39 S	135	57 E	16.9	1
11	63	5	7	0800	34	57 S	135	27 E	16.7	1
11	63	5	7	0900	34	57 S	135	21 E	16.7	1
11	63	5	7	1000	35	3 S	135	27 E	16.7	1
11	63	5	7	1100	35	3 S	135	27 E	17.2	1
11	63	5	7	1200	34	51 S	135	9 E	17.2	1
11	63	5	7	1300	34	51 S	135	3 E	17.2	1
11	63	5	7	1400	34	51 S	135	3 E	17.2	1
11	63	5	7	1500	34	51 S	135	3 E	17.2	1
11	63	5	7	1600	34	51 S	135	9 E	17.2	1
11	63	5	7	1700	34	57 S	135	21 E	17.2	1
11	63	5	7	1800	34	57 S	135	21 E	17.2	1
11	63	5	8	0800	34	51 S	135	21 E	16.9	1
11	63	5	8	0900	34	57 S	135	21 E	17.2	1
11	63	5	8	1000	35	3 S	135	27 E	17.2	1
11	63	5	8	1100	34	51 S	135	21 E	17.2	1
11	63	5	8	1200	34	51 S	135	27 E	17.2	1
11	63	5	8	1300	35	3 S	135	45 E	16.7	1
11	63	5	13	0800	35	15 S	135	57 E	16.7	1
11	63	5	13	0900	35	21 S	135	57 E	16.7	1
11	63	5	13	1000	35	27 S	135	57 E	17.2	1
11	63	5	13	1100	35	39 S	135	57 E	17.5	1
11	63	5	13	1200	35	45 S	135	45 E	17.8	1

VESSE- CRUISE STATION NUMBER	YR.	MIH.	DAY	TIME	4	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN, AMT.	SEA DN, AMT.	SWELL DN, AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
11	63	5	13	1300	35	45 S	135	45 E	17.8							1
11	63	5	13	1800	35	39 S	135	45 E	17.8							1
11	63	5	14	0800	35	39 S	135	45 E	17.8							1
11	63	5	14	0900	35	39 S	135	45 E	17.8							1
11	63	5	14	1000	35	45 S	135	45 E	17.2							1
11	63	5	14	1100	35	45 S	135	39 E	17.2							1
11	63	5	14	1200	35	39 S	135	39 E	17.8							1
11	63	5	14	1600	35	39 S	135	33 E	17.8							1
11	63	5	14	1730	35	39 S	135	33 E	17.8							1
11	63	5	15	0900	35	39 S	135	39 E	17.8							1
11	63	5	15	1000	35	39 S	135	33 E	17.8							1
11	63	5	15	1100	35	39 S	135	33 E	17.8							1
11	63	5	15	1200	35	39 S	135	33 E	17.8							1
11	63	5	15	1300	35	39 S	135	33 E	17.8							1
11	63	5	15	1400	35	39 S	135	33 E	17.8							1
11	63	5	15	1500	35	33 S	135	33 E	17.8							1
11	63	5	15	1600	35	33 S	135	39 E	17.8							1
11	63	5	15	1700	35	27 S	135	45 E	17.8							1
11	63	5	15	1800	35	21 S	135	45 E	17.8							1
11	63	5	16	0900	35	33 S	135	39 E	17.8							1
11	63	5	16	1000	35	33 S	135	39 E	17.5							1
11	63	5	16	1100	35	33 S	135	39 E	17.8							1
11	63	5	16	1200	35	33 S	135	39 E	17.8							1
11	63	5	16	1300	35	33 S	135	45 E	17.8							1
11	63	5	16	1400	35	33 S	135	45 E	17.8							1
11	63	5	16	1500	35	33 S	135	45 E	17.8							1
11	63	5	16	1600	35	33 S	135	39 E	17.8							1
11	63	5	16	1730	35	33 S	135	39 E	17.8							1
11	63	5	17	0800	35	33 S	135	33 E	17.8							1
11	63	5	17	0900	35	33 S	135	39 E	17.8							1
11	63	5	17	1000	35	33 S	135	39 E	17.8							1
11	63	5	17	1100	35	33 S	135	39 E	17.8							1
11	63	5	17	1200	35	33 S	135	45 E	17.8							1
11	63	8	17	1000	34	3 S	151	21 E	17.2							1
11	63	8	17	1100	34	15 S	151	27 E	17.8							1
11	63	8	17	1200	34	27 S	151	15 E	17.8							1
11	63	8	17	1400	34	39 S	151	15 E	17.9							1
11	63	8	17	1500	34	45 S	151	3 E	16.7							1
11	63	8	19	0800	35	5 S	151	3 E	17.2							1
11	63	8	19	1000	34	45 S	151	9 E	17.8							1

VESSEL	CRUISE STATION NUMBER	YR.	MO.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN.	SEA DN.	SMELL DN.	VIS.	BAROM.	SAMPLING METHOD
11	63	9	8	0700	35	3 S 150	51 E 16.1							1
11	63	9	8	0800	35	9 S 150	57 E 17.2							1
11	63	9	8	0900	35	9 S 151	3 E 17.5	35.55						1
11	63	9	8	1000	35	3 S 151	9 E 17.2							1
11	63	9	8	1100	34	57 S 151	9 E 17.5							1
11	63	9	8	1200	34	51 S 151	15 E 17.5	35.61						1
11	63	9	8	1300	34	51 S 151	21 E 16.7							1
11	63	9	8	1400	34	57 S 151	21 E 16.9							1
11	63	9	8	1500	35	3 S 151	15 E 17.7	35.64						1
11	63	9	8	1600	35	3 S 151	3 E 17.8							1
11	63	9	8	1700	35	3 S 150	57 E 17.2							1
11	63	9	8	0800	35	9 S 150	51 E 16.7							1
11	63	9	9	0900	35	15 S 150	51 E 17.4	35.62						1
11	63	9	9	0940	35	15 S 150	57 E 17.2							1
11	63	9	9	1000	35	15 S 150	51 E 17.2							1
11	63	9	9	1100	35	9 S 150	45 E 17.1							1
11	63	9	9	1200	35	3 S 150	45 E 15.0							1
11	63	9	10	0700	35	3 S 150	57 E 16.6							1
11	63	9	10	0800	35	9 S 150	51 E 17.1							1
11	63	9	10	0900	35	15 S 150	57 E 17.2	35.59						1
11	63	9	10	1000	35	15 S 150	57 E 16.7							1
11	63	9	10	1100	35	21 S 150	57 E 16.7	35.59						1
11	63	9	10	1200	35	27 S 150	45 E 17.5							1
11	63	9	10	1300	35	33 S 150	39 E 16.9							1
11	63	9	10	1400	34	57 S 151	9 E 17.1							1
11	63	9	10	1500	35	33 S 150	33 E 15.6	35.53						1
11	63	9	10	1600	35	27 S 150	33 E 16.1							1
11	63	9	10	1700	35	15 S 150	39 E 15.6							1
11	63	9	11	0800	35	9 S 150	45 E 16.1							1
11	63	9	11	0900	35	9 S 150	45 E 15.8							1
11	63	9	12	0900	35	15 S 150	51 E 15.6	35.59						1
11	63	9	12	1000	35	21 S 150	51 E 16.8							1
11	63	9	12	1100	35	33 S 150	39 E 16.9							1
11	63	9	12	1200	35	39 S 150	33 E 17.2	35.61						1
11	63	9	12	1300	35	51 S 150	27 E 17.2							1
11	63	9	12	1400	36	3 S 150	15 E 16.8							1
11	63	9	12	1500	36	9 S 150	9 E 13.9	35.48						1
11	63	9	12	1600	36	15 S 150	9 E 13.9							1

VESSE- CRUISE STATION NUMBER	YR.	MIN.	DAY	TIME	←	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SHELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
11	63	10	6	1200	34	39 S	151	21 E	16.4							1
11	63	10	6	1300	34	33 S	151	15 E	17.2							1
11	63	10	6	1400	34	45 S	151	9 E	16.7							1
11	63	10	6	1500	34	51 S	151	9 E	16.7							1
11	63	10	6	1600	34	57 S	151	3 E	16.6							1
11	63	10	6	1700	35	3 S	150	57 E	16.7							1
11	63	10	7	0700	35	3 S	150	51 E	15.7							1
11	63	10	7	0800	35	3 S	151	3 E	16.0							1
11	63	10	7	0900	35	3 S	151	9 E	16.2							1
11	63	10	7	1000	35	9 S	151	3 E	17.2							1
11	63	10	7	1005	35	9 S	151	3 E	17.6							1
11	63	10	7	1100	35	15 S	150	57 E	17.5							1
11	63	10	7	1200	35	9 S	151	3 E	17.6							1
11	63	10	7	1300	35	3 S	151	15 E	17.8							1
11	63	10	7	1315	35	3 S	151	15 E	18.2							1
11	63	10	7	1400	35	3 S	151	15 E	17.8							1
11	63	10	7	1500	35	3 S	151	21 E	18.3							1
11	63	10	7	1600	34	57 S	151	21 E	17.2							1
11	63	10	7	1700	35	9 S	151	27 E	18.1							1
11	63	10	7	1800	35	9 S	151	9 E	17.8							1
11	63	10	7	1900	35	3 S	150	51 E	16.4							1
11	63	10	8	0600	35	9 S	150	51 E	16.1							1
11	63	10	8	0700	35	9 S	151	3 E	16.7							1
11	63	10	8	0800	35	9 S	151	9 E	17.5							1
11	63	10	8	0900	35	9 S	151	9 E	17.8							1
11	63	10	8	1000	35	9 S	151	9 E	16.9							1
11	63	10	8	1100	35	9 S	151	15 E	17.8							1
11	63	10	8	1200	35	9 S	151	15 E	17.7							1
11	63	10	8	1300	35	3 S	151	9 E	17.8							1
11	63	10	8	1400	35	9 S	151	9 E	17.5							1
11	63	10	8	1500	35	3 S	151	15 E	17.5							1
11	63	10	8	1600	35	9 S	151	21 E	17.8							1
11	63	10	8	1700	35	9 S	151	27 E	17.8							1
11	63	10	8	1800	35	15 S	151	3 E	17.7							1
11	63	10	8	1900	35	9 S	150	51 E	16.1							1
11	63	10	9	0700	35	9 S	150	51 E	17.2							1
11	63	10	9	0800	35	15 S	150	57 E	16.9							1
11	63	10	9	0900	35	9 S	151	3 E	17.4							1
11	63	10	9	1000	35	3 S	151	9 E	16.7							1
11	63	10	9	1100	34	57 S	151	9 E	16.7							1

VESSE- CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND DN. AMT. SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

11	63	10	9	1200	34	51	S	151	9	E	17.3	35.61	1
11	63	10	9	1300	34	45	S	151	9	E	17.8		1
11	63	10	9	1400	34	45	S	151	9	E	18.3		1
11	63	10	9	1500	34	45	S	151	15	E	18.3	35.66	1
11	63	10	9	1700	34	57	S	151	9	E	17.2		1
11	63	10	9	1800	34	57	S	150	57	E	16.7		1
11	63	10	10	0700	35	3	S	150	57	E	16.3		1
11	63	10	10	0800	35	3	S	151	9	E	16.6		1
11	63	10	10	0900	34	51	S	151	9	E	17.1		1
11	63	10	10	1000	34	51	S	151	9	E	17.2		1
11	63	10	10	1100	34	45	S	151	15	E	17.5		1
11	63	10	10	1200	34	51	S	151	9	E	17.3		1
11	63	10	10	1300	34	57	S	151	9	E	17.1		1
11	63	10	10	1400	35	3	S	151	9	E	17.4		1
11	63	10	10	1500	35	3	S	150	57	E	17.2	35.53	1
11	63	10	11	0700	35	9	S	150	45	E	16.4	35.43	1
11	63	10	11	0800	35	15	S	150	51	E	16.8		1
11	63	10	11	0900	35	21	S	150	51	E	17.2	35.59	1
11	63	10	11	1000	35	33	S	150	51	E	17.0		1
11	63	10	11	1100	35	45	S	150	51	E	17.3	35.59	1
11	63	10	11	1200	35	51	S	150	39	E	17.1		1
11	63	10	11	1300	36	3	S	150	33	E	17.4	35.61	1
11	63	10	11	1400	36	9	S	150	27	E	17.1		1
11	63	10	11	1500	36	21	S	150	21	E	17.4	35.57	1
11	63	10	11	1600	36	27	S	150	15	E	16.4		1
11	63	10	11	1700	36	39	S	150	9	E	15.8	35.39	1
11	63	10	11	1800	36	51	S	150	3	E	15.8		1
11	63	10	11	1900	37	3	S	149	57	E	15.3		1
11	63	10	10	0600	37	3	S	149	57	E	14.7		1
11	63	10	10	0700	36	57	S	150	9	E	15.8	35.46	1
11	63	10	10	0800	36	51	S	150	15	E	16.4		1
11	63	10	10	0900	36	45	S	150	21	E	16.7	35.57	1
11	63	10	10	1000	36	45	S	150	27	E	16.8		1
11	63	10	10	1100	36	33	S	150	27	E	16.8	35.46	1
11	63	10	10	1200	36	27	S	150	33	E	17.1		1
11	63	10	10	1300	36	21	S	150	33	E	17.3	35.59	1
11	63	10	10	1400	36	15	S	150	27	E	16.9		1
11	63	10	10	1500	36	15	S	150	33	E	17.2	35.46	1
11	63	10	10	1600	36	9	S	150	27	E	16.7		1
11	63	10	10	1700	36	15	S	150	21	E	17.3	35.59	1

VESSE - CRUISE STATION YR. M.H. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SMELL WEA. VIS. BAROM. SAMPLING METHOD

VESSE	CRUISE	STATION	YR.	M.H.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SMELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
11	63	10	16	1800	36	15	S	150	15	E	16.8								1
11	63	10	17	0600	36	15	S	150	15	E	16.7								1
11	63	10	17	0700	36	15	S	150	21	E	16.7	35.55							1
11	63	10	17	0800	36	15	S	150	27	E	16.7								1
11	63	10	17	0900	36	15	S	150	39	E	17.1	35.59							1
11	63	10	17	1000	36	15	S	150	45	E	17.2								1
11	63	10	17	1100	36	9	S	150	39	E	17.3	35.61							1
11	63	10	17	1200	36	9	S	150	33	E	16.8								1
11	63	10	17	1300	36	9	S	150	27	E	16.7	35.50							1
11	63	10	17	1400	36	21	S	150	27	E	16.9								1
11	63	10	17	1500	36	33	S	150	21	E	17.2	35.48							1
11	63	10	17	1600	36	39	S	150	21	E	17.1								1
11	63	10	17	1700	36	51	S	150	9	E	17.2	35.59							1
11	63	10	17	1800	37	3	S	150	3	E	16.7	35.43							1
11	63	10	18	0700	37	3	S	149	57	E	15.9								1
11	63	10	18	0800	37	3	S	150	9	E	16.6								1
11	63	10	18	0900	37	3	S	150	21	E	17.1	35.48							1
11	63	10	18	1000	37	15	S	150	21	E	17.2								1
11	63	10	18	1100	37	9	S	150	27	E	17.6	35.61							1
11	63	10	18	1200	37	3	S	150	27	E	17.6								1
11	63	10	18	1300	36	57	S	150	27	E	17.7	35.61							1
11	63	10	18	1400	36	57	S	150	21	E	17.5								1
11	63	10	18	1500	36	57	S	150	15	E	17.6	35.61							1
11	63	10	18	1600	36	57	S	150	15	E	17.2								1
11	63	10	18	1700	37	3	S	150	9	E	16.9	35.41							1
11	63	10	18	1800	37	3	S	149	57	E	16.7								1
11	63	10	19	0800	37	3	S	149	57	E	16.1	35.30							1
11	63	10	19	0900	37	3	S	150	9	E	17.2								1
11	63	10	19	1000	36	57	S	150	21	E	17.1	35.50							1
11	63	10	19	1100	37	9	S	150	21	E	17.4								1
11	63	10	19	1200	37	3	S	150	27	E	17.7	35.59							1
11	63	10	19	1300	37	9	S	150	21	E	17.6								1
11	63	10	19	1400	37	9	S	150	21	E	17.8	35.59							1
11	63	10	19	1500	37	3	S	150	9	E	17.3								1
11	63	10	19	1600	37	3	S	150	3	E	16.7	35.50							1
11	63	10	21	0800	37	3	S	149	57	E	16.7	35.32							1
11	63	10	21	0900	37	9	S	150	3	E	16.6								1
11	63	10	21	1000	37	9	S	150	9	E	17.2	35.57							1
11	63	10	21	1100	37	9	S	150	27	E	17.6								1
11	63	10	21	1200	37	9	S	150	33	E	17.8	35.62							1

VESSE-	CRUISE	STATION	YR.	MIN.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
11		63	12	2	1600	36	57	S	150	15	E	19.7							1
11		63	12	2	1700	37	3	S	150	9	E	18.3							1
11		63	12	3	0700	37	3	S	150	3	E	17.1							1
11		63	12	3	0800	37	3	S	150	15	E	18.3							1
11		63	12	3	0900	37	9	S	150	21	E	19.7	35.59						1
11		63	12	3	0945	37	9	S	150	21	E	19.6	35.57						1
11		63	12	3	1000	37	9	S	150	21	E	20.0							1
11		63	12	3	1100	37	15	S	150	21	E	20.0							1
11		63	12	3	1150	37	21	S	150	21	E	19.4	35.53						1
11		63	12	3	1200	37	21	S	150	21	E	19.4							1
11		63	12	3	1300	37	21	S	150	21	E	20.0							1
11		63	12	3	1350	37	21	S	150	27	E	20.0	35.43						1
11		63	12	3	1400	37	21	S	150	27	E	20.0							1
11		63	12	3	1413	37	21	S	150	27	E	20.1	35.57						1
11		63	12	3	1500	37	27	S	150	27	E	20.0							1
11		63	12	3	1525	37	27	S	150	27	E	20.0	35.66						1
11		63	12	3	1600	37	21	S	150	21	E	20.1	35.61						1
11		63	12	3	1700	37	15	S	150	15	E	19.2							1
11		63	12	3	1800	37	15	S	150	9	E	19.2	35.61						1
11		63	12	3	1900	37	9	S	150	3	E	17.2							1
11		63	12	4	0800	37	9	S	150	3	E	17.1							1
11		63	12	4	0900	37	15	S	150	15	E	17.8							1
11		63	12	4	0920	37	15	S	150	15	E	19.0	35.53						1
11		63	12	4	1000	37	21	S	150	21	E	18.9							1
11		63	12	4	1100	37	21	S	150	21	E	19.4							1
11		63	12	4	1200	37	21	S	150	15	E	19.5	35.55						1
11		63	12	4	1300	37	15	S	150	9	E	17.2							1
11		63	12	4	1400	37	9	S	150	3	E	17.4							1
11		63	12	4	1500	37	9	S	149	57	E	17.7	35.41						1
11		63	12	6	0800	37	3	S	149	57	E	17.1							1
11		63	12	6	0900	37	9	S	150	9	E	17.2							1
11		63	12	6	0925	37	9	S	150	9	E	17.7	35.34						1
11		63	12	6	1000	37	15	S	150	15	E	17.3							1
11		63	12	6	1100	37	15	S	150	21	E	16.9							1
11		63	12	6	1105	37	15	S	150	21	E	16.3							1
11		63	12	6	1200	37	21	S	150	27	E	19.5	35.59						1
11		63	12	6	1300	37	27	S	150	27	E	18.2							1
11		63	12	6	1400	37	27	S	150	9	E	18.6							1
11		63	12	6	1500	37	21	S	150	21	E	19.5	35.39						1
11		63	12	6	1600	37	15	S	150	15	E	17.2							1

VESSEL	CRUISE NUMBER	STATION NUMBER	YR.	MIN.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SWELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
11	63	12	6	1700	37	9	S	150	3	E	17.8							1
11	63	12	6	1800	37	3	S	149	57	E	16.7							1
11	63	12	10	0700	37	3	S	150	3	E	17.8							1
11	63	12	10	0800	37	3	S	150	9	E	16.9							1
11	63	12	10	0900	37	9	S	150	15	E	19.2							1
11	63	12	10	1000	37	15	S	150	21	E	19.6							1
11	63	12	10	1105	37	21	S	150	21	E	20.1							1
11	63	12	10	1335	37	21	S	150	21	E	20.2							1
11	63	12	10	1500	37	21	S	150	21	E	20.4							1
11	63	12	10	1800	37	27	S	150	27	E	20.6							1
11	63	12	10	1805	37	27	S	150	27	E	20.4							1
11	63	12	10	1820	37	27	S	150	27	E	20.4							1
11	63	12	10	2100	37	15	S	150	9	E	19.6							1
11	63	12	11	0700	37	3	S	150	3	E	18.3							1
11	63	12	11	0800	37	15	S	150	3	E	18.3							1
11	63	12	11	0900	37	15	S	150	9	E	19.0							1
11	63	12	11	1000	37	21	S	150	21	E	19.2							1
11	63	12	11	1100	37	27	S	150	21	E	19.2							1
11	63	12	11	1200	37	27	S	150	21	E	19.0							1
11	63	12	11	1300	37	27	S	150	21	E	19.7							1
11	63	12	11	1400	37	27	S	150	15	E	19.1							1
11	63	12	11	1500	37	21	S	150	21	E	18.8							1
11	63	12	11	1600	37	21	S	150	9	E	18.9							1
11	63	12	11	1700	37	15	S	150	3	E	18.9							1
11	63	12	11	1800	37	15	S	150	3	E	18.8							1
11	63	12	12	0700	37	9	S	150	3	E	17.8							1
11	63	12	12	0800	37	15	S	150	9	E	18.7							1
11	63	12	12	0900	37	21	S	150	21	E	18.8							1
11	63	12	12	1000	37	21	S	150	21	E	20.0							1
11	63	12	12	1100	37	27	S	150	21	E	19.8							1
11	63	12	12	1200	37	27	S	150	33	E	20.2							1
11	63	12	12	1300	37	33	S	150	33	E	20.4							1
11	63	12	12	1400	37	27	S	150	27	E	20.0							1
11	63	12	12	1500	37	21	S	150	21	E	19.6							1
11	63	12	12	1600	37	21	S	150	15	E	18.7							1
11	63	12	12	1700	37	15	S	150	9	E	18.3							1
11	63	12	12	1800	37	9	S	150	3	E	18.2							1
11	63	12	13	0700	37	3	S	150	3	E	17.8							1
11	63	12	13	0800	37	9	S	150	9	E	18.9							1
11	63	12	13	0900	37	15	S	150	15	E	19.8							1

VESSE-	CRUISE	STATION	YR.	MTH.	DAY	TIME	∠	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER										DN. AMT.	DN. AMT.	DN. AMT.					
12		63	3	9	1700	36	15	S	135	57	E	17.8							1
12		63	3	9	1845	36	15	S	135	57	E	18.2							1
12		63	3	10	0730	36	15	S	135	57	E	18.3							1
12		63	3	10	0955	36	15	S	135	57	E	17.8							1
12		63	3	10	1100	36	15	S	136	3	E	17.8							1
12		63	3	10	1330	36	21	S	136	9	E	17.8							1
12		63	3	10	1440	36	21	S	136	3	E	17.8							1
12		63	3	10	1600	36	33	S	136	21	E	18.1							1
12		63	3	10	1800	36	21	S	136	9	E	17.8							1
12		63	3	10	1900	36	15	S	135	57	E	17.8							1
12		63	3	11	0916	36	15	S	135	57	E	17.8							1
12		63	3	11	1100	36	3	S	135	45	E	17.8							1
12		63	3	11	1300	35	51	S	135	39	E	17.8							1
12		63	3	11	1345	35	51	S	135	39	E	18.3							1
12		63	3	11	1430	35	51	S	135	33	E	18.3							1
12		63	3	11	1600	35	39	S	135	21	E	18.6							1
12		63	3	11	1635	35	39	S	135	21	E	18.2							1
12		63	3	11	1800	35	39	S	135	15	E	18.3							1
12		63	3	11	1845	35	39	S	135	15	E	18.3							1
12		63	3	13	0900	36	3	S	136	3	E	18.9							1
12		63	3	13	1500	35	39	S	135	9	E	19.4							1
12		63	3	13	1700	35	33	S	134	57	E	19.4							1
12		63	3	13	1710	35	33	S	134	57	E	19.4							1
12		63	3	13	1900	35	39	S	135	9	E	19.4							1
12		63	3	14	0800	35	39	S	135	9	E	18.9							1
12		63	3	14	1000	35	57	S	135	21	E	18.9							1
12		63	3	14	1200	35	51	S	135	39	E	18.9							1
12		63	3	14	1320	35	57	S	135	45	E	18.9							1
12		63	3	14	1340	35	57	S	135	45	E	18.9							1
12		63	3	14	1600	36	9	S	135	51	E	18.6							1
12		63	3	14	1800	36	15	S	135	57	E	18.6							1
12		63	3	15	0800	36	27	S	136	21	E	18.9							1
12		63	3	15	0900	36	27	S	136	21	E	18.9							1
12		63	3	15	1100	36	33	S	136	33	E	18.9							1
12		63	3	15	1300	36	27	S	136	27	E	18.9							1
12		63	3	15	1400	36	27	S	136	21	E	18.9							1
12		63	3	21	0800	35	39	S	135	21	E	18.9							1
12		63	3	21	0920	35	39	S	135	21	E	18.5							1
12		63	3	21	0940	35	39	S	135	21	E	18.8							1
12		63	3	21	1100	35	45	S	135	33	E	18.9							1

VESSEL - CRUISE STATION Yr. Mth. Day Time L Latitude Longitude Temp. Salinity Wind HIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

12	63	9	27	1400	37	9	S	150	57	E	15.6	1
12	63	9	27	1500	37	9	S	151	3	E	15.6	1
12	63	9	27	1600	37	9	S	151	9	E	16.1	1
12	63	9	27	1700	37	9	S	151	15	E	16.4	1
12	63	9	27	1800	37	9	S	151	27	E	16.4	1
12	63	9	27	1900	37	9	S	151	27	E	16.7	1
12	63	9	27	2000	37	15	S	151	27	E	16.7	1
12	63	9	27	2100	37	15	S	151	27	E	16.4	1
12	63	9	27	2200	37	21	S	151	27	E	16.7	1
12	63	9	27	2300	37	27	S	151	27	E	16.7	1
12	63	9	27	2400	37	27	S	151	27	E	16.4	1
12	63	9	28	0300	37	39	S	151	27	E	15.8	1
12	63	9	28	0600	37	51	S	151	27	E	16.1	1
12	63	9	28	0800	37	57	S	151	39	E	14.2	1
12	63	9	28	1000	37	51	S	151	57	E	14.4	1
12	63	9	28	1200	37	53	S	152	9	E	14.7	1
12	63	9	28	1400	37	9	S	152	21	E	15.3	1
12	63	9	28	1500	37	3	S	152	21	E	15.5	1
12	63	9	28	1700	36	51	S	152	27	E	16.1	1
12	63	9	28	1900	36	33	S	152	33	E	15.8	1
12	63	9	28	2100	36	21	S	152	39	E	16.4	1
12	63	9	28	2300	36	9	S	152	15	E	16.5	1
12	63	9	28	2400	36	3	S	152	3	E	16.7	1
12	63	9	29	0200	35	57	S	151	45	E	16.7	1
12	63	9	29	0400	35	51	S	151	21	E	16.7	1
12	63	9	29	0600	35	39	S	151	3	E	17.1	1
12	63	9	29	0800	35	21	S	151	3	E	16.4	1
12	63	9	29	0900	35	15	S	151	3	E	16.1	1
12	63	9	29	1000	35	15	S	151	3	E	16.4	1
12	63	9	29	1100	35	15	S	151	9	E	16.7	1
12	63	9	29	1200	35	9	S	151	15	E	16.0	1
12	63	9	29	1400	35	3	S	150	57	E	16.5	1
12	63	9	29	1500	35	9	S	150	45	E	16.7	1
12	63	9	29	1600	35	9	S	150	45	E	16.1	1
12	63	9	30	0800	35	3	S	150	51	E	15.6	1
12	63	9	30	0900	35	3	S	150	57	E	16.4	1
12	63	9	30	1000	34	57	S	151	3	E	16.6	1
12	63	9	30	1100	34	51	S	151	9	E	16.4	1
12	63	9	30	1200	34	45	S	151	15	E	16.4	1
12	63	9	30	1300	34	33	S	151	27	E	16.7	1

VESSE -	CRUISE	STATION	Y.A.	MTH.	DAY	TIME	▲	LAITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM,	SAMPLING	METHOD
12		63	10	28	1000	36	39	S	150	21	E	17.6							1
12		63	10	28	1100	36	33	S	150	21	E	17.8							1
12		63	10	28	1200	36	27	S	150	21	E	17.2	35.50						1
12		63	10	28	1300	36	27	S	150	21	E	17.2							1
12		63	10	28	1400	36	21	S	150	21	E	17.7							1
12		63	10	28	1500	36	15	S	150	21	E	17.7	35.50						1
12		63	10	28	1600	36	9	S	150	15	E	17.3							1
12		63	10	28	1700	36	15	S	150	15	E	16.4							1
12		63	10	28	1730	36	15	S	150	21	E	17.7							1
12		63	10	29	0800	36	15	S	150	27	E	17.8							1
12		63	10	29	0900	36	21	S	150	27	E	17.9							1
12		63	10	29	1000	36	27	S	150	21	E	17.4							1
12		63	10	29	1100	36	39	S	150	21	E	17.4							1
12		63	10	29	1200	36	45	S	150	21	E	17.3							1
12		63	10	29	1300	36	57	S	150	21	E	17.6							1
12		63	10	29	1400	37	3	S	150	21	E	18.1							1
12		63	10	29	1500	37	3	S	150	9	E	17.4	35.53						1
12		63	10	29	1600	37	3	S	149	57	E	16.5							1
12		63	11	2	0700	37	3	S	149	57	E	15.6							1
12		63	11	2	0800	37	3	S	150	9	E	16.8							1
12		63	11	2	0900	37	3	S	150	21	E	18.3	35.34						1
12		63	11	2	1000	36	57	S	150	21	E	18.3							1
12		63	11	2	1100	36	51	S	150	21	E	19.0							1
12		63	11	2	1200	36	45	S	150	21	E	18.9							1
12		63	11	2	1300	36	39	S	150	21	E	19.2							1
12		63	11	2	1400	36	33	S	150	21	E	18.6							1
12		63	11	2	1500	36	39	S	150	21	E	18.5							1
12		63	11	2	1600	36	45	S	150	15	E	17.9							1
12		63	11	2	1700	36	51	S	150	9	E	16.6							1
12		63	11	5	0800	37	3	S	150	3	E	15.2							1
12		63	11	6	0700	37	9	S	149	57	E	14.8							1
12		63	11	6	0800	37	9	S	150	3	E	15.8	35.73						1
12		63	11	6	0820	37	9	S	150	3	E	16.0							1
12		63	11	6	0900	37	9	S	149	57	E	16.0							1
12		63	11	7	0800	37	3	S	149	57	E	15.3							1
12		63	11	7	0900	37	3	S	150	3	E	15.4							1
12		63	11	7	1000	37	3	S	150	15	E	17.5							1
12		63	11	7	1100	37	3	S	150	21	E	18.4							1
12		63	11	7	1200	37	3	S	150	15	E	16.8	35.50						1
12		63	11	7	1300	37	3	S	150	3	E	15.3							1

VESSE- CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL HEA. VIS. BAROM. SAMPLING METHOD

DN. AMT. DN. AMT. DN. AMT. DN. AMT.

12	63	11	10	0800	37	3 S	149	57 E	17.4	35.59	1
12	63	11	10	0900	37	3 S	150	9 E	17.4		1
12	63	11	10	1000	36	57 S	150	21 E	18.3		1
12	63	11	10	1100	36	45 S	150	27 E	18.5		1
12	63	11	10	1200	36	45 S	150	21 E	18.4	35.62	1
12	63	11	10	1300	36	57 S	150	21 E	18.4		1
12	63	11	10	1400	37	3 S	150	21 E	18.6		1
12	63	11	10	1500	37	9 S	150	21 E	17.7	35.66	1
12	63	11	10	1600	37	15 S	150	21 E	18.5		1
12	63	11	10	1625	37	15 S	150	21 E	18.3	35.57	1
12	63	11	10	1700	37	9 S	150	15 E	18.1		1
12	63	11	10	1800	37	9 S	150	15 E	18.4	35.66	1
12	63	11	11	0600	37	3 S	150	9 E	16.5	35.50	1
12	63	11	11	0700	37	9 S	150	21 E	18.1		1
12	63	11	11	0800	37	9 S	150	21 E	18.2		1
12	63	11	11	0805	37	9 S	150	21 E	18.2		1
12	63	11	11	0900	37	15 S	150	21 E	18.3	35.64	1
12	63	11	11	1000	37	21 S	150	21 E	18.6		1
12	63	11	11	1100	37	27 S	150	15 E	18.4		1
12	63	11	11	1200	37	21 S	150	21 E	18.7	35.57	1
12	63	11	11	1300	37	15 S	150	21 E	18.7		1
12	63	11	11	1400	37	9 S	150	21 E	18.6		1
12	63	11	11	1500	37	3 S	150	21 E	17.7	35.70	1
12	63	11	11	1600	36	57 S	150	21 E	18.7		1
12	63	11	11	1700	36	51 S	150	27 E	18.6		1
12	63	11	11	1800	36	57 S	150	9 E	17.7	35.50	1
12	63	11	12	0600	37	3 S	149	57 E	16.8	35.14	1
12	63	11	12	0700	37	3 S	150	3 E	17.8		1
12	63	11	12	0800	36	57 S	150	15 E	18.3	35.82	1
12	63	11	12	0900	36	51 S	150	21 E	18.6		1
12	63	11	12	1000	36	45 S	150	21 E	18.7		1
12	63	11	12	1100	36	39 S	150	21 E	18.5		1
12	63	11	12	1200	36	33 S	150	21 E	18.6	35.64	1
12	63	11	12	1215	36	33 S	150	21 E	18.9		1
12	63	11	12	1300	36	39 S	150	21 E	18.8		1
12	63	11	12	1400	36	45 S	150	21 E	18.9		1
12	63	11	12	1500	36	57 S	150	21 E	19.1	35.57	1
12	63	11	12	1600	36	57 S	150	15 E	18.7		1
12	63	11	12	1700	37	3 S	150	9 E	18.6		1
12	63	11	12	1800	37	3 S	149	57 E	16.6	35.14	1

VESSE -	CRUISE	STATION	YR.	MO.	DAY	TIME	▲	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SHELL	WEA.	VIS.	BAROM.	SAMPLING
NUMBER		NUMBER										DN.	DN.	DN.	DN.	DN.	DN.	METHOD
12	63	12	10	1350	37	27	S	150	45	E	20.0							1
12	63	12	10	1750	37	21	S	150	21	E	19.7							1
12	63	12	12	0600	37	9	S	150	3	E	17.2							1
12	63	12	12	0700	37	9	S	150	9	E	17.2							1
12	63	12	12	0800	37	15	S	150	21	E	19.2							1
12	63	12	12	0900	37	15	S	150	27	E	19.7							1
12	63	12	12	1000	37	21	S	150	21	E	19.8							1
12	63	12	12	1100	37	27	S	150	21	E	19.2							1
12	63	12	12	1200	37	27	S	150	21	E	18.9							1
12	63	12	12	1300	37	21	S	150	21	E	19.1							1
12	63	12	12	1400	37	15	S	150	15	E	19.1							1
12	63	12	12	1500	37	9	S	150	9	E	19.2							1
12	63	12	13	0700	37	3	S	150	3	E	17.8							1
12	63	12	13	0800	37	3	S	150	3	E	17.8							1
12	63	12	13	0900	37	9	S	150	9	E	18.8							1
12	63	12	13	1000	37	15	S	150	21	E	19.2							1
12	63	12	13	1100	37	21	S	150	15	E	18.9							1
12	63	12	13	1200	37	27	S	150	15	E	19.1							1
12	63	12	13	1300	37	27	S	150	15	E	19.0							1
12	63	12	13	1400	37	27	S	150	15	E	19.0							1
12	63	12	13	1500	37	33	S	150	9	E	19.3							1
12	63	12	13	1600	37	39	S	150	3	E	19.7							1
12	63	12	13	1700	37	57	S	149	57	E	19.8							1
12	63	12	13	1700	37	51	S	149	51	E	19.9							1
12	63	12	14	0700	37	39	S	149	45	E	16.4							1
12	63	12	14	0800	37	39	S	149	57	E	17.8							1
12	63	12	14	0900	37	33	S	150	3	E	19.0							1

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
13		63	1	9	2300	34	45	S	135	57	E	22.2					1
13		63	1	10	0830	34	45	S	134	39	E	18.3					1
13		63	1	10	1800	34	15	S	135	9	E	19.4					1
13		63	1	10	2000	34	15	S	135	9	E	19.4					1
13		63	1	19	0730	34	45	S	135	57	E	20.0					1
13		63	1	19	1215	34	57	S	135	45	E	18.9					1
13		63	1	19	1330	34	57	S	135	45	E	19.2					1
13		63	1	19	1415	34	57	S	135	45	E	19.2					1
13		63	1	19	1500	34	57	S	135	45	E	19.2					1
13		63	1	19	1700	34	57	S	135	45	E	19.2					1
13		63	1	19	2330	34	45	S	135	57	E	20.0					1
13		63	1	20	0830	34	45	S	135	57	E	21.1					1
13		63	1	20	1730	34	45	S	135	9	E	19.7					1
13		63	1	20	1800	34	45	S	135	9	E	19.7					1
13		63	1	20	2000	34	45	S	135	9	E	19.7					1
13		63	1	21	0715	34	45	S	135	57	E	21.1					1
13		63	1	25	0430	34	45	S	135	57	E	20.6					1
13		63	1	25	1200	34	51	S	135	15	E	18.9					1
13		63	1	25	1530	34	51	S	134	39	E	20.0					1
13		63	1	25	1600	34	51	S	134	39	E	20.0					1
13		63	1	25	1900	34	51	S	134	39	E	19.4					1
13		63	1	25	2100	34	39	S	134	45	E	19.4					1
13		63	1	26	0800	34	51	S	134	39	E	20.0					1
13		63	1	26	1100	34	51	S	134	39	E	20.0					1
13		63	2	3	0915	34	45	S	135	57	E	20.0					1
13		63	2	3	1400	35	9	S	135	45	E	18.3					1
13		63	2	3	1630	34	57	S	136	3	E	17.8					1
13		63	2	5	0915	34	57	S	136	3	E	18.1					1
13		63	2	5	1300	35	9	S	135	27	E	18.3					1
13		63	2	5	1600	35	9	S	135	27	E	18.3					1
13		63	2	6	0600	34	51	S	134	39	E	18.3					1
13		63	2	6	0630	34	51	S	134	39	E	18.9					1
13		63	2	6	0700	34	51	S	134	39	E	18.3					1
13		63	2	6	0930	34	51	S	134	39	E	18.9					1
13		63	2	6	1300	34	51	S	134	39	E	18.9					1
13		63	2	6	1800	34	51	S	134	39	E	18.9					1
13		63	2	17	0700	34	45	S	135	57	E	20.0					1
13		63	2	17	1200	35	9	S	135	39	E	18.3					1
13		63	2	17	1230	35	9	S	135	45	E	18.6					1
13		63	2	17	1600	35	9	S	135	45	E	18.6					1

VESSE - CRUISE STATION YR. MIN. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND MIND SEA SWELL BAROM. SAMPLING METHOD

13	63	2	17	1800	35	9 S	135	45 E	18.6	1
13	63	2	17	2100	34	57 S	136	3 E	17.8	1
13	63	2	18	0100	34	57 S	136	3 E	17.8	1
13	63	2	18	0800	34	51 S	134	39 E	17.5	1
13	63	2	18	1000	34	51 S	134	39 E	17.5	1
13	63	2	18	1500	34	27 S	135	9 E	16.7	1
13	63	2	20	0830	34	27 S	135	9 E	15.8	1
13	63	2	20	1230	34	51 S	134	39 E	17.8	1
13	63	2	20	1430	34	51 S	134	39 E	18.1	1
13	63	2	23	0500	34	45 S	135	57 E	18.9	1
13	63	2	23	1215	35	9 S	135	27 E	18.3	1
13	63	2	23	1830	34	39 S	134	45 E	17.8	1
13	63	2	24	0600	34	39 S	134	45 E	17.8	1
13	63	2	24	0800	34	51 S	134	39 E	17.8	1
13	63	2	24	1100	34	51 S	134	39 E	18.1	1
13	63	2	24	1230	34	51 S	134	39 E	18.1	1
13	63	2	24	1800	34	21 S	135	9 E	16.1	1
13	63	2	25	0300	34	27 S	135	15 E	16.1	1
13	63	2	25	0700	34	51 S	134	39 E	17.8	1
13	63	2	25	0730	34	51 S	134	39 E	17.8	1
13	63	2	25	0900	34	51 S	134	39 E	18.1	1
13	63	2	25	1900	34	51 S	134	39 E	18.9	1
13	63	2	26	0600	34	51 S	134	39 E	18.9	1
13	63	2	26	1800	34	51 S	134	45 E	19.4	1
13	63	3	4	0615	34	45 S	135	57 E	20.6	1
13	63	3	4	1200	35	3 S	135	39 E	18.3	1
13	63	3	4	1730	34	45 S	135	3 E	18.1	1
13	63	3	4	1800	34	45 S	135	3 E	18.1	1
13	63	3	4	2200	34	27 S	135	9 E	16.7	1
13	63	3	5	0400	34	27 S	135	9 E	16.7	1
13	63	3	5	0800	34	51 S	134	39 E	18.3	1
13	63	3	5	0830	34	51 S	134	39 E	18.3	1
13	63	3	5	1730	34	51 S	134	39 E	18.3	1
13	63	3	5	1800	34	51 S	134	39 E	18.3	1
13	63	3	9	0330	34	21 S	135	9 E	16.7	1
13	63	3	9	0730	34	51 S	134	39 E	18.3	1
13	63	3	9	1045	34	57 S	134	45 E	18.3	1
13	63	3	9	1215	34	51 S	134	39 E	18.3	1
13	63	3	13	0630	35	51 S	135	27 E	18.3	1
13	63	3	13	1130	35	57 S	135	15 E	19.2	1

VESSEL- CRUISE STATION YR. MIN. DAY TIME / LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

13	63	11	25	0900	38	27	S	151	33	E	15.4	35.77	1
13	63	11	25	1000	38	21	S	151	39	E	15.7		1
13	63	11	26	0800	38	27	S	151	51	E	15.8		1
13	63	11	26	0900	38	27	S	151	51	E	16.1	35.91	1
13	63	11	26	1000	38	33	S	152	3	E	15.4		1
13	63	11	26	1100	38	33	S	152	3	E	16.2		1
13	63	11	26	1200	38	33	S	152	3	E	16.4	35.82	1
13	63	11	26	1300	38	33	S	152	3	E	16.2		1
13	63	11	26	1400	38	33	S	152	3	E	16.0		1
13	63	11	26	1500	38	33	S	152	3	E	16.4	35.82	1
13	63	11	26	1600	38	27	S	151	51	E	16.4		1
13	63	11	26	1700	38	21	S	151	39	E	16.6		1
13	63	11	26	1800	38	21	S	151	39	E	15.8		1
13	63	11	27	0630	38	21	S	151	39	E	15.8		1
13	63	11	27	0700	38	27	S	151	39	E	16.4		1
13	63	11	27	0800	38	33	S	151	45	E	16.2		1
13	63	11	27	0900	38	39	S	151	51	E	16.1	35.79	1
13	63	11	27	1000	38	45	S	151	57	E	16.0		1
13	63	11	27	1045	38	45	S	151	57	E	16.1		1
13	63	11	27	1100	38	51	S	152	3	E	15.7		1
13	63	11	27	1200	38	57	S	152	9	E	15.6	35.62	1
13	63	11	27	1300	39	3	S	152	15	E	15.6		1
13	63	11	27	1400	38	57	S	152	21	E	15.6		1
13	63	11	27	1500	38	51	S	152	15	E	16.4	35.73	1
13	63	11	27	1600	38	45	S	152	9	E	16.4		1
13	63	11	27	1700	38	39	S	152	3	E	16.6		1
13	63	11	27	1800	38	33	S	151	57	E	16.9	35.81	1
13	63	11	27	1900	38	27	S	151	45	E	17.1		1
13	63	11	27	1930	38	21	S	151	39	E	16.9		1
13	63	12	1	0800	38	21	S	151	39	E	16.1		1
13	63	12	1	0900	38	27	S	151	39	E	15.3	35.61	1
13	63	12	1	1000	38	33	S	151	39	E	15.4		1
13	63	12	1	1100	38	39	S	151	33	E	15.3		1
13	63	12	1	1200	38	33	S	151	39	E	15.6	35.62	1
13	63	12	1	1300	38	27	S	151	39	E	15.7		1
13	63	12	1	1400	38	27	S	151	39	E	15.8		1
13	63	12	1	1500	38	21	S	151	39	E	16.4	35.81	1
13	63	12	2	0640	38	21	S	151	39	E	15.7		1
13	63	12	2	0700	38	21	S	151	39	E	15.7		1
13	63	12	2	0800	38	27	S	151	45	E	15.8		1

VESSE-	CRUISE	STATION	YR.	MIN.	DAY	TIME	◊	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER										DN, AMT,	DN, AMT,	DN, AMT,					
13		63	12	18	1000		38	27	S	151	39	E	16.1						1
13		63	12	18	1100		38	27	S	151	33	E	16.0						1
13		63	12	18	1300		38	21	S	151	15	E	15.3						1
13		63	12	18	1400		38	15	S	151	3	E	15.8						1
13		63	12	18	1500		38	15	S	150	57	E	15.0						1
13		63	12	18	1600		38	15	S	150	45	E	13.9						1
13		63	12	18	1700		38	9	S	150	33	E	13.9						1
13		63	12	18	1800		38	9	S	150	27	E	13.3						1
13		63	12	18	1900		38	3	S	150	15	E	12.8						1
13		63	12	19	0600		36	21	S	148	45	E	13.9						1
13		63	12	19	0700		36	15	S	148	39	E	14.4						1
13		63	12	19	0800		36	9	S	148	33	E	14.9						1
13		63	12	19	0900		36	3	S	148	27	E	15.7						1
13		63	12	19	1000		35	57	S	148	21	E	16.0						1
13		63	12	19	1100		35	51	S	148	15	E	16.2						1
13		63	12	19	1200		35	45	S	148	9	E	17.8						1
13		63	12	19	1300		35	39	S	148	3	E	17.2						1
13		63	12	19	1400		35	39	S	147	57	E	17.6						1
13		63	12	19	1500		35	39	S	147	51	E	17.6						1
13		63	12	19	1600		35	33	S	147	39	E	18.3						1
13		63	12	19	1700		35	33	S	147	27	E	18.4						1
13		63	12	19	1800		35	27	S	147	21	E	18.3						1
13		63	12	19	1900		35	27	S	147	15	E	18.3						1
13		63	12	19	2000		35	27	S	147	3	E	18.3						1

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	HEA.	VIS.	BAROM.	SAMPLING	
		NUMBER					°			DN. AMT.	DN. AMT.	DN. AMT.				METHOD	
15		63	3	24	1000	34	51 S	134	39 E								1
15		63	5	14	0700	34	51 S	134	39 E								1
15		63	5	14	1500	34	45 S	135	3 E								1
15		63	5	16	1300	35	15 S	135	33 E								1
15		63	5	17	1200	35	15 S	135	33 E								1

VESSE-	CRUISE STATION NUMBER	YR.	MO.	DAY	TIME	✓	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	SEA SWELL DN.	VIS.	BAROM.	SAMPLING METHOD
16	63	3	28	1100	35	39	S	135	3	E	19.2	1			
16	63	3	28	1400	35	39	S	135	9	E	19.2	1			
16	63	3	28	1500	35	39	S	135	9	E	19.2	1			
16	63	3	28	1600	35	39	S	135	27	E	16.7	1			
16	63	5	2	0645	35	9	S	135	27	E	16.7	1			
16	63	5	2	0745	35	15	S	135	33	E	17.2	1			
16	63	5	2	0945	35	15	S	135	39	E	17.2	1			
16	63	5	2	1100	35	15	S	135	51	E	17.2	1			
16	63	5	2	1300	35	15	S	135	3	E	16.4	1			
16	63	5	3	1100	36	21	S	137	3	E	16.4	1			
16	63	5	3	1300	36	21	S	137	9	E	16.7	1			
16	63	5	3	1400	36	21	S	137	15	E	16.7	1			
16	63	5	3	1600	36	27	S	137	21	E	16.9	1			
16	63	5	3	1700	36	21	S	137	27	E	16.7	1			
16	63	5	3	1800	36	21	S	137	27	E	16.7	1			
16	63	5	6	1000	34	57	S	136	3	E	16.7	1			
16	63	5	6	1300	35	3	S	135	45	E	16.9	1			
16	63	5	6	1400	35	3	S	135	39	E	16.9	1			
16	63	5	6	1500	34	57	S	135	45	E	16.7	1			
16	63	5	8	0700	34	57	S	135	39	E	16.7	1			
16	63	5	8	0800	35	3	S	135	39	E	16.7	1			
16	63	5	8	0900	35	9	S	135	39	E	16.9	1			
16	63	5	8	1000	35	15	S	135	39	E	16.9	1			
16	63	5	8	1100	35	15	S	135	45	E	17.1	1			
16	63	5	8	1200	35	15	S	135	51	E	17.4	1			
16	63	5	8	1300	35	15	S	135	51	E	17.4	1			
16	63	5	8	1400	35	21	S	135	57	E	17.5	1			
16	63	5	8	1500	35	21	S	136	3	E	16.9	1			
16	63	5	8	1600	35	21	S	136	9	E	16.7	1			
16	63	5	10	0800	35	33	S	136	3	E	17.5	1			
16	63	5	10	0900	35	39	S	136	3	E	17.7	1			
16	63	5	10	1000	35	39	S	135	57	E	17.7	1			
16	63	5	10	1100	35	39	S	135	57	E	17.7	1			
16	63	5	10	1200	35	39	S	136	3	E	17.7	1			
16	63	5	10	1300	35	45	S	135	57	E	17.7	1			
16	63	5	10	1400	35	45	S	135	5	E	17.7	1			
16	63	5	10	1500	35	39	S	136	3	E	17.7	1			
16	63	5	10	1600	35	39	S	136	3	E	17.7	1			
16	63	5	13	0800	35	33	S	135	57	E	17.5	1			

VESSE - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND DN. AMT. SEA SWELL MEA. VIS. BAROM. SAMPLING METHOD

16	63	5	13	0900	35	39 S	135	57 E	17.5	1
16	63	5	13	1000	35	45 S	135	57 E	17.7	1
16	63	5	13	1100	35	45 S	135	57 E	17.7	1
16	63	5	13	1200	35	51 S	135	57 E	17.7	1
16	63	5	13	1300	35	45 S	135	57 E	17.7	1
16	63	5	13	1400	35	45 S	135	51 E	17.8	1
16	63	5	13	1500	35	39 S	135	51 E	17.8	1
16	63	5	13	1600	35	39 S	135	51 E	17.8	1
16	63	5	13	1700	35	39 S	135	57 E	17.8	1
16	63	5	14	0750	35	33 S	135	57 E	17.5	1
16	63	5	14	0900	35	33 S	135	57 E	17.8	1
16	63	5	14	1000	35	33 S	135	51 E	17.8	1
16	63	5	14	1600	35	33 S	135	57 E	17.8	1
16	63	5	14	1700	35	33 S	135	57 E	17.8	1
16	63	5	16	0800	35	39 S	136	3 E	17.5	1
16	63	5	16	0900	35	45 S	136	3 E	17.5	1
16	63	5	16	1000	35	51 S	136	3 E	17.7	1
16	63	5	16	1100	35	45 S	136	9 E	17.7	1
16	63	5	16	1200	35	45 S	136	3 E	17.7	1
16	63	5	16	1300	35	45 S	136	3 E	17.7	1
16	63	5	16	1400	35	39 S	135	57 E	17.7	1
16	63	5	16	1500	35	45 S	136	3 E	17.7	1
16	63	5	16	1600	35	45 S	136	9 E	17.7	1
16	63	5	16	1700	35	45 S	136	15 E	17.7	1
16	63	5	16	1733	35	45 S	136	15 E	17.7	1
16	63	5	17	0800	35	51 S	136	3 E	17.5	1
16	63	5	17	0900	35	51 S	136	3 E	17.5	1
16	63	5	17	1000	35	51 S	135	57 E	17.5	1
16	63	5	17	1100	35	45 S	135	57 E	17.8	1
16	63	5	17	1200	35	39 S	135	51 E	17.9	1
16	63	5	17	1300	35	39 S	135	57 E	17.8	1
16	63	5	17	1400	35	51 S	135	57 E	17.8	1
16	63	5	17	1500	35	51 S	135	57 E	17.8	1
16	63	5	17	1600	35	51 S	136	3 E	17.5	1
16	63	5	17	1700	35	45 S	136	3 E	17.7	1
16	63	5	17	1800	35	45 S	136	3 E	17.5	1
16	63	5	19	1200	35	9 S	135	45 E	16.4	1
16	63	5	19	1300	35	9 S	135	39 E	16.9	1

VESSEL - CRUISE STATION YR. MIN. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND DN, AMT, DN, AMT, SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

16	63	5	19	1400	35	15 S	135	39 E	17.5	1
16	63	5	19	1500	35	21 S	135	45 E	17.5	1
16	63	5	19	1600	35	15 S	135	39 E	17.5	1
16	63	5	19	1630	35	15 S	135	39 E	17.5	1
16	63	5	19	1700	35	15 S	135	39 E	17.5	1
16	63	5	19	1730	35	15 S	135	45 E	17.5	1
16	63	5	20	0800	35	15 S	135	45 E	17.5	1
16	63	5	20	0900	35	15 S	135	39 E	17.5	1
16	63	5	20	1000	35	15 S	135	39 E	17.5	1
16	63	5	20	1100	35	15 S	135	39 E	17.5	1
16	63	5	20	1110	35	15 S	135	39 E	17.5	1
16	63	5	20	1300	35	15 S	135	45 E	17.5	1
16	63	5	20	1400	35	15 S	135	51 E	17.5	1
16	63	5	20	1500	35	15 S	135	51 E	17.5	1
16	63	5	30	1200	35	15 S	135	45 E	16.9	1
16	63	5	30	1300	35	15 S	135	39 E	16.9	1
16	63	5	30	1330	35	15 S	135	33 E	16.9	1
16	63	5	30	1400	35	21 S	135	33 E	16.9	1
16	63	5	30	1500	35	15 S	135	39 E	16.9	1
16	63	5	30	1530	35	15 S	135	39 E	16.9	1
16	63	5	30	1600	35	9 S	135	45 E	16.9	1
16	63	5	30	1700	35	3 S	135	45 E	16.9	1
16	63	6	1	0900	35	21 S	136	9 E	16.9	1
16	63	6	1	1000	35	39 S	136	9 E	16.7	1
16	63	6	1	1100	35	39 S	136	3 E	16.9	1
16	63	6	1	1200	35	45 S	136	3 E	17.1	1
16	63	6	1	1300	35	39 S	135	57 E	17.1	1
16	63	6	1	1400	35	27 S	135	57 E	16.9	1
16	63	6	1	1500	35	21 S	135	51 E	16.9	1
16	63	6	1	1600	35	15 S	135	45 E	16.9	1
16	63	6	1	1700	35	21 S	135	39 E	16.9	1
16	63	9	19	0600	36	57 S	150	9 E	14.4	1
16	63	9	20	0900	37	3 S	150	9 E	13.8	1
16	63	9	20	1100	37	3 S	150	9 E	13.8	1
16	63	9	22	0900	37	15 S	150	9 E	13.9	1
16	63	10	19	0600	36	57 S	149	57 E	16.4	1
16	63	10	19	0700	36	51 S	150	3 E	16.7	1
16	63	10	19	0800	36	45 S	150	9 E	16.7	1
16	63	10	19	0900	36	39 S	150	21 E	17.2	1
16	63	10	19	1000	36	33 S	150	15 E	17.0	1

VESSEL - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

16	63	10	19	1100	36	33	S	150	21	E	17.3	1
16	63	10	19	1200	36	27	S	150	21	E	17.6	1
16	63	10	19	1300	36	21	S	150	21	E	17.6	1
16	63	10	19	1400	36	15	S	150	15	E	17.3	1
16	63	10	20	0900	36	21	S	150	9	E	16.7	1
16	63	10	20	1000	36	21	S	150	21	E	17.0	1
16	63	10	20	1100	36	15	S	150	27	E	17.6	1
16	63	10	20	1200	36	9	S	150	33	E	17.7	1
16	63	10	20	1300	36	3	S	150	39	E	17.7	1
16	63	10	20	1400	35	51	S	150	39	E	17.5	1
16	63	10	20	1500	35	45	S	150	39	E	17.5	1
16	63	10	20	1600	35	39	S	150	33	E	17.5	1
16	63	11	7	0930	37	3	S	149	57	E	15.8	1
16	63	11	7	1100	37	3	S	150	9	E	15.8	1
16	63	11	7	1130	37	9	S	150	9	E	15.8	1
16	63	11	7	1300	37	3	S	149	51	E	16.1	1
16	63	11	9	0930	37	3	S	150	3	E	17.2	1
16	63	11	9	1030	36	57	S	150	9	E	17.6	1
16	63	11	9	1130	36	51	S	150	21	E	18.6	1
16	63	11	9	1230	36	51	S	150	27	E	18.6	1
16	63	11	9	1330	36	45	S	150	27	E	18.7	1
16	63	11	9	1430	36	39	S	150	21	E	18.8	1
16	63	11	9	1530	36	51	S	150	9	E	18.7	1
16	63	11	9	1630	36	57	S	150	3	E	17.8	1
16	63	11	10	0930	37	3	S	150	3	E	17.8	1
16	63	11	10	1030	36	57	S	150	9	E	17.5	1
16	63	11	10	1130	36	51	S	150	21	E	18.3	1
16	63	11	10	1230	34	57	S	150	27	E	18.6	1
16	63	11	10	1330	37	9	S	150	21	E	18.6	1
16	63	11	10	1400	37	15	S	150	21	E	18.6	1
16	63	11	10	1500	37	15	S	150	15	E	18.6	1
16	63	11	10	1600	37	9	S	150	15	E	18.6	1
16	63	11	10	1700	37	9	S	150	9	E	18.8	1
16	63	11	11	0900	37	3	S	150	9	E	17.3	1
16	63	11	11	1000	37	9	S	150	15	E	18.3	1
16	63	11	11	1100	37	9	S	150	21	E	18.6	1
16	63	11	11	1200	37	15	S	150	21	E	18.7	1
16	63	11	11	1300	37	9	S	150	15	E	18.6	1
16	63	11	11	1400	37	3	S	150	21	E	18.7	1
16	63	11	11	1500	36	57	S	150	21	E	18.8	1

VESSEL CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND DN, AMT. SEA SWELL MEA. VIS. BAROM. SAMPLING METHOD

16	63	11	20	1800	37	9 S	150	15 E	18.3	1
16	63	11	21	0900	37	3 S	150	9 E	18.3	1
16	63	11	21	1000	37	3 S	150	15 E	18.7	1
16	63	11	21	1100	37	3 S	150	21 E	18.7	1
16	63	11	21	1200	36	51 S	150	21 E	18.7	1
16	63	11	21	1300	36	39 S	150	21 E	19.2	1
16	63	11	21	1400	36	39 S	150	21 E	19.7	1
16	63	11	21	1500	36	33 S	150	21 E	19.7	1
16	63	11	21	1540	36	33 S	150	21 E	19.7	1
16	63	11	21	1620	36	33 S	150	21 E	19.7	1
16	63	11	21	1700	36	39 S	150	21 E	19.7	1
16	63	11	21	1730	36	45 S	150	21 E	19.7	1
16	63	11	21	1745	36	45 S	150	21 E	19.7	1
16	63	11	23	0800	37	3 S	150	3 E	17.4	1
16	63	11	23	0900	36	57 S	150	9 E	18.4	1
16	63	11	23	1000	36	57 S	150	21 E	19.1	1
16	63	11	23	1100	36	45 S	150	21 E	19.2	1
16	63	11	23	1200	36	39 S	150	21 E	19.2	1
16	63	11	23	1300	36	27 S	150	21 E	19.0	1
16	63	11	23	1400	36	21 S	150	21 E	18.9	1
16	63	11	23	1500	36	21 S	150	21 E	18.9	1
16	63	11	23	1600	36	21 S	150	21 E	18.7	1
16	63	11	24	0800	36	27 S	150	21 E	18.6	1
16	63	11	24	0900	36	27 S	150	21 E	18.7	1
16	63	11	24	1000	36	33 S	150	21 E	18.9	1
16	63	11	24	1100	36	33 S	150	15 E	19.2	1
16	63	11	24	1200	36	33 S	150	21 E	19.1	1
16	63	11	24	1300	36	33 S	150	21 E	19.3	1
16	63	11	24	1305	36	33 S	150	21 E	19.3	1
16	63	11	24	1340	36	33 S	150	21 E	19.3	1
16	63	11	24	1500	36	39 S	150	21 E	19.2	1
16	63	11	24	1600	36	31 S	150	21 E	19.3	1
16	63	11	24	1700	36	57 S	150	15 E	19.0	1
16	63	11	25	0900	36	57 S	150	9 E	18.7	1
16	63	11	25	1000	36	57 S	150	15 E	19.1	1
16	63	11	25	1100	36	51 S	150	21 E	19.4	1
16	63	11	25	1200	36	45 S	150	21 E	19.6	1
16	63	11	25	1230	36	45 S	150	21 E	18.7	1
16	63	11	25	1340	36	39 S	150	21 E	19.1	1
16	63	11	25	1500	36	45 S	150	21 E	19.4	1

VESSE- CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SMELL MEA. VIS. BAROM. SAMPLING METHOD

16	63	11	25	1600	36	57	S	150	21	E	19.6	1
16	63	11	25	1700	37	3	S	150	21	E	19.7	1
16	63	11	26	0800	37	3	S	150	3	E	18.3	1
16	63	11	26	0900	36	57	S	150	9	E	19.1	1
16	63	11	26	1000	36	51	S	150	21	E	19.2	1
16	63	11	26	1100	36	39	S	150	27	E	19.8	1
16	63	11	26	1200	36	33	S	150	33	E	20.1	1
16	63	11	26	1300	36	33	S	150	39	E	20.1	1
16	63	11	26	1400	36	27	S	150	45	E	20.0	1
16	63	11	26	1500	36	27	S	150	45	E	20.0	1
16	63	11	26	1600	36	27	S	150	45	E	20.0	1
16	63	11	26	1630	36	27	S	150	45	E	20.0	1
16	63	11	26	1845	36	21	S	150	51	E	20.1	1
16	63	12	1	0800	36	57	S	150	3	E	17.5	1
16	63	12	1	0900	36	51	S	150	9	E	17.5	1
16	63	12	1	1000	36	51	S	150	21	E	19.4	1
16	63	12	1	1100	36	45	S	150	27	E	19.7	1
16	63	12	1	1200	36	39	S	150	33	E	20.4	1
16	63	12	1	1300	36	45	S	150	27	E	19.7	1
16	63	12	1	1400	36	51	S	150	21	E	19.6	1
16	63	12	1	1500	36	45	S	150	21	E	19.7	1
16	63	12	1	1600	36	57	S	150	21	E	19.6	1
16	63	12	1	1700	36	57	S	150	9	E	19.6	1
16	63	12	2	0900	37	3	S	150	3	E	17.2	1
16	63	12	2	1000	36	57	S	150	9	E	17.6	1
16	63	12	2	1100	36	51	S	150	15	E	19.4	1
16	63	12	2	1200	36	51	S	150	21	E	19.9	1
16	63	12	2	1202	36	51	S	150	21	E	19.9	1
16	63	12	2	1230	36	51	S	150	21	E	19.9	1
16	63	12	2	1300	36	45	S	150	27	E	19.8	1
16	63	12	2	1400	36	39	S	150	27	E	19.9	1
16	63	12	2	1500	36	51	S	150	27	E	19.9	1
16	63	12	2	1600	36	57	S	150	21	E	19.7	1
16	63	12	2	1630	36	57	S	150	15	E	19.7	1
16	63	12	2	1700	36	57	S	150	9	E	19.3	1
16	63	12	3	0700	37	3	S	150	3	E	17.5	1
16	63	12	3	0800	36	57	S	150	15	E	18.9	1
16	63	12	3	0900	36	51	S	150	21	E	19.6	1
16	63	12	3	1000	36	45	S	150	27	E	20.0	1
16	63	12	3	1100	36	57	S	150	21	E	20.6	1

VESSEL - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND DN. AMT, DN. AMT, SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

16	63	12	3	1200	37	3	S	150	21	E	20.4	1
16	63	12	3	1300	37	9	S	150	21	E	20.3	1
16	63	12	3	1320	37	9	S	150	21	E	20.3	1
16	63	12	3	1400	37	15	S	150	21	E	20.0	1
16	63	12	3	1420	37	15	S	150	27	E	20.0	1
16	63	12	3	1630	37	27	S	150	27	E	20.0	1
16	63	12	3	1800	37	27	S	150	21	E	19.7	1
16	63	12	3	1845	37	27	S	150	21	E	19.7	1
16	63	12	6	0900	37	3	S	150	3	E	17.3	1
16	63	12	6	1000	37	3	S	150	9	E	17.8	1
16	63	12	6	1100	37	3	S	150	21	E	18.7	1
16	63	12	6	1200	37	9	S	150	27	E	20.0	1
16	63	12	6	1300	37	21	S	150	27	E	19.9	1
16	63	12	11	0600	37	9	S	150	9	E	18.3	1
16	63	12	11	0700	37	15	S	150	9	E	18.3	1
16	63	12	11	0800	37	15	S	150	9	E	18.3	1
16	63	12	11	0900	37	21	S	150	15	E	19.2	1
16	63	12	11	1000	37	21	S	150	21	E	19.2	1
16	63	12	11	1100	37	27	S	150	27	E	19.2	1
16	63	12	11	1200	37	21	S	150	27	E	19.2	1
16	63	12	11	1300	37	27	S	150	15	E	19.1	1
16	63	12	11	1400	37	21	S	150	15	E	19.1	1
16	63	12	11	1500	37	15	S	150	15	E	19.1	1
16	63	12	11	1600	37	15	S	150	15	E	19.1	1
16	63	12	12	0800	37	3	S	150	3	E	18.1	1
16	63	12	12	0900	37	9	S	150	3	E	18.1	1
16	63	12	12	1000	37	9	S	150	15	E	19.7	1
16	63	12	12	1025	37	9	S	150	21	E	19.7	1
16	63	12	12	1040	37	15	S	150	27	E	20.0	1
16	63	12	12	1200	37	21	S	150	27	E	20.2	1
16	63	12	12	1300	37	21	S	150	21	E	19.6	1
16	63	12	12	1400	37	15	S	150	27	E	19.9	1
16	63	12	12	1500	37	15	S	150	27	E	20.1	1
16	63	12	12	1600	37	9	S	150	21	E	20.0	1
16	63	12	12	1700	37	9	S	150	9	E	19.3	1
16	63	12	13	0800	37	3	S	150	3	E	18.1	1
16	63	12	13	0900	37	3	S	150	9	E	18.6	1
16	63	12	13	1000	37	9	S	150	15	E	19.6	1
16	63	12	13	1100	37	9	S	150	21	E	20.3	1
16	63	12	13	1200	37	21	S	150	21	E	20.3	1

VESSE- NUMBER	CHUISE NUMBER	STATION NUMBER	YR. 63	MIN. 1	DAY 19	TIME 0615	LONGITUDE 34	TEMP. 39 E	SALINITY 35.99	WIND DN. AMT.	SEA DN. AMT.	SHELL DN. AMT.	WEA. VIS.	BAROM. AMT.	SAMPLING METHOD
17	63	17	63	1	19	0615	34	57 S 135	39 E 18.1						1
17	63	17	63	1	19	1130	34	57 S 135	39 E 18.1						1
17	63	17	63	1	19	1230	34	57 S 135	39 E 18.1						1
17	63	17	63	1	19	1330	34	57 S 135	39 E 18.1						1
17	63	17	63	1	19	1630	34	57 S 135	39 E 18.1						1
17	63	17	63	1	20	0600	34	51 S 134	39 E 18.3						1
17	63	17	63	1	20	1600	34	15 S 135	9 E 19.7						1
17	63	17	63	1	21	0900	34	15 S 135	9 E 18.9						1
17	63	17	63	1	26	1000	34	51 S 134	39 E 18.3						1
17	63	17	63	1	29	1400	34	15 S 135	9 E 17.2						1
17	63	17	63	2	6	0900	34	51 S 134	39 E 18.3						1
17	63	17	63	2	15	1500	34	21 S 135	9 E 16.4						1
17	63	17	63	11	18	1400	34	57 S 136	3 E 16.0						1
17	63	17	63	11	18	1500	35	3 S 135	57 E 16.9	35.99					1
17	63	17	63	11	18	1700	34	57 S 135	39 E 17.3	35.99					1
17	63	17	63	11	18	1800	34	51 S 135	21 E 17.9						1
17	63	17	63	11	18	1900	34	51 S 135	15 E 17.6						1
17	63	17	63	11	18	2000	34	51 S 135	9 E 17.3						1
17	63	17	63	11	18	2100	34	45 S 134	57 E 17.3						1
17	63	17	63	11	18	2200	34	39 S 134	51 E 17.1						1
17	63	17	63	11	19	0600	34	39 S 134	45 E 16.9						1
17	63	17	63	11	19	0700	34	39 S 134	45 E 16.8						1
17	63	17	63	11	19	0800	34	45 S 134	39 E 16.9						1
17	63	17	63	11	19	0900	34	39 S 134	39 E 17.1						1
17	63	17	63	11	19	1000	34	33 S 134	39 E 17.1						1
17	63	17	63	11	19	1100	34	21 S 134	35 E 17.2						1
17	63	17	63	11	19	1200	34	15 S 134	27 E 17.6						1
17	63	17	63	11	19	1300	34	9 S 134	21 E 17.4						1
17	63	17	63	11	19	1400	34	3 S 134	21 E 17.4						1
17	63	17	63	11	19	1500	35	57 S 134	15 E 17.3						1
17	63	17	63	11	19	1600	33	51 S 134	27 E 17.1						1
17	63	17	63	11	19	1700	33	45 S 134	33 E 17.1						1
17	63	17	63	11	20	0600	33	39 S 134	33 E 16.5						1
17	63	17	63	11	20	0615	33	39 S 134	33 E 16.5						1
17	63	17	63	11	20	0700	33	33 S 134	27 E 16.9						1
17	63	17	63	11	20	0800	33	27 S 134	15 E 17.1						1
17	63	17	63	11	20	0900	33	27 S 134	9 E 17.3						1
17	63	17	63	11	20	1000	33	21 S 134	3 E 17.5						1
17	63	17	63	11	20	1100	33	15 S 134	3 E 17.8						1
17	63	17	63	11	20	1200	33	3 S 133	57 E 18.2						1

VESSEL CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL MEA. VIS. BAROM. SAMPLING METHOD

17	63	11	20	1300	32	57 S	133	57 E	18.5	1
17	63	11	20	1400	32	51 S	133	57 E	18.0	1
17	63	11	20	1500	32	45 S	134	3 E	17.8	1
17	63	11	20	1600	32	45 S	134	15 E	19.7	1
17	63	11	20	1620	32	45 S	134	15 E	19.7	1
17	63	11	21	0600	32	45 S	134	15 E	19.3	1
17	63	11	21	0610	32	45 S	134	15 E	19.3	1
17	63	11	21	0700	32	39 S	134	9 E	18.1	1
17	63	11	21	0800	32	39 S	133	57 E	17.7	1
17	63	11	21	0900	32	39 S	133	51 E	18.1	1
17	63	11	21	1000	32	39 S	133	39 E	17.4	1
17	63	11	21	1100	32	45 S	133	33 E	17.6	1
17	63	11	21	1200	32	51 S	133	27 E	17.8	1
17	63	11	21	1300	32	45 S	133	21 E	17.8	1
17	63	11	21	1400	32	39 S	133	21 E	17.7	1
17	63	11	21	1410	32	33 S	133	21 E	17.7	1
17	63	11	22	0800	32	33 S	133	15 E	17.8	1
17	63	11	22	0900	32	33 S	133	15 E	17.8	1
17	63	11	22	1000	32	39 S	133	9 E	18.0	1
17	63	11	22	1100	32	39 S	133	3 E	18.2	1
17	63	11	22	1200	32	33 S	133	3 E	18.5	1
17	63	11	22	1300	32	27 S	133	9 E	18.8	1
17	63	11	22	1400	32	27 S	133	21 E	19.1	1
17	63	11	22	1500	32	27 S	133	33 E	19.1	1
17	63	11	22	1600	32	27 S	133	33 E	18.9	1
17	63	11	22	1700	32	21 S	133	27 E	19.3	1
17	63	11	22	1800	32	15 S	133	33 E	20.4	1
17	63	11	25	0800	32	15 S	133	33 E	18.4	1
17	63	11	25	0900	32	15 S	133	33 E	18.8	1
17	63	11	25	1000	32	15 S	133	15 E	20.3	1
17	63	11	25	1100	32	15 S	133	3 E	19.0	1
17	63	11	25	1200	32	9 S	132	57 E	19.3	1
17	63	11	25	1300	32	9 S	132	51 E	19.3	1
17	63	11	25	1400	32	9 S	132	39 E	19.0	1
17	63	11	25	1500	32	3 S	132	33 E	19.6	1
17	63	11	26	0400	32	3 S	132	33 E	18.9	1
17	63	11	26	0500	32	15 S	132	39 E	18.6	1
17	63	11	26	0600	32	21 S	132	45 E	18.7	1
17	63	11	26	0700	32	21 S	132	45 E	18.7	1
17	63	11	26	0700	32	27 S	132	51 E	18.4	1

VESSE- CRUISE STATION YR. MTH. DAY TIME / LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SMOELL WEA. VIS. BAROM. SAMPLING METHOD

17	63	11	26	0800	32	33	S	132	51	E	18.2	1
17	63	11	26	0900	32	39	S	132	51	E	18.3	1
17	63	11	26	1000	32	45	S	132	45	E	18.4	1
17	63	11	26	1100	32	51	S	132	39	E	18.6	1
17	63	11	26	1200	33	3	S	132	33	E	19.0	1
17	63	11	26	1300	33	9	S	132	33	E	18.9	1
17	63	11	26	1400	33	15	S	132	27	E	19.1	1
17	63	11	26	1500	33	21	S	132	21	E	18.8	1
17	63	11	26	1600	33	27	S	132	15	E	18.6	1
17	63	11	26	1700	33	33	S	132	9	E	18.6	1
17	63	11	26	1715	33	45	S	132	9	E	18.6	1
17	63	11	26	1800	33	45	S	132	15	E	18.5	1
17	63	11	27	0500	33	57	S	132	27	E	17.9	1
17	63	11	27	0600	34	3	S	132	33	E	17.6	1
17	63	11	27	0700	34	9	S	132	39	E	17.7	1
17	63	11	27	0730	34	15	S	132	45	E	17.8	1
17	63	11	27	0800	34	15	S	132	45	E	17.7	1
17	63	11	27	0900	34	21	S	132	51	E	17.9	1
17	63	11	27	1000	34	27	S	132	57	E	17.7	1
17	63	11	27	1100	34	33	S	133	3	E	17.8	1
17	63	11	27	1200	34	39	S	133	9	E	17.8	1
17	63	11	27	1300	34	45	S	133	15	E	18.0	1
17	63	11	27	1400	34	51	S	133	21	E	18.0	1
17	63	11	27	1500	34	51	S	133	33	E	18.2	1
17	63	11	27	1600	34	57	S	133	39	E	18.0	1
17	63	11	27	1700	35	3	S	133	51	E	17.9	1
17	63	11	27	1710	35	3	S	133	51	E	17.9	1
17	63	11	27	1800	35	3	S	133	57	E	17.8	1
17	63	11	27	1900	34	57	S	134	9	E	17.8	1
17	63	11	27	2000	34	51	S	134	15	E	18.0	1
17	63	11	27	2100	34	51	S	134	21	E	17.9	1
17	63	11	27	2200	34	45	S	134	27	E	17.9	1
17	63	11	27	2300	34	39	S	134	39	E	17.8	1
17	63	11	27	2400	34	39	S	134	45	E	17.7	1
17	63	12	2	0700	34	27	S	135	9	E	16.3	1
17	63	12	2	0800	34	27	S	135	3	E	16.6	1
17	63	12	2	0900	34	33	S	134	57	E	16.4	1
17	63	12	3	1000	34	45	S	134	45	E	16.8	1
17	63	12	3	1100	34	51	S	134	45	E	16.9	1
17	63	12	3	1200	34	57	S	134	39	E	17.7	1

35.75

VESSEL CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

18	63	2	23	0700	34	39 S	134	45 E	17.2	1
18	63	2	23	0930	34	45 S	134	39 E	18.3	1
18	63	2	23	1230	34	45 S	134	39 E	18.3	1
18	63	2	23	1700	34	45 S	134	39 E	18.3	1
18	63	2	23	1830	34	39 S	134	45 E	18.3	1
18	63	2	24	0230	34	39 S	134	45 E	17.2	1
18	63	2	24	0730	34	27 S	134	39 E	18.3	1
18	63	2	24	1400	35	39 S	135	9 E	18.3	1
18	63	2	24	1730	35	33 S	135	21 E	18.3	1
18	63	2	24	2400	35	33 S	135	57 E	17.2	1
18	63	2	25	2030	34	45 S	135	51 E	20.6	1
18	63	2	25	2130	34	45 S	135	51 E	20.6	1
18	63	3	9	1500	36	15 S	135	45 E	18.9	1
18	63	3	9	1700	36	21 S	135	51 E	18.9	1
18	63	3	28	0600	35	45 S	134	51 E	17.2	1
18	63	3	28	0800	35	39 S	134	39 E	18.9	1
18	63	3	28	0900	35	39 S	134	33 E	18.9	1
18	63	3	28	1000	35	39 S	134	27 E	18.9	1
18	63	3	28	1030	35	39 S	134	27 E	18.9	1
18	63	3	28	1130	35	33 S	134	21 E	18.9	1
18	63	3	28	1215	35	33 S	134	21 E	18.9	1
18	63	3	28	1330	35	33 S	134	21 E	18.9	1
18	63	3	28	1400	35	33 S	134	21 E	18.9	1
18	63	3	28	1500	35	33 S	134	27 E	18.9	1
18	63	3	28	1600	35	33 S	134	27 E	18.9	1
18	63	3	28	1700	35	33 S	134	27 E	18.9	1
18	63	3	28	1800	35	33 S	134	15 E	18.9	1
18	63	4	1	0900	35	27 S	134	51 E	16.7	1
18	63	4	1	1030	35	33 S	134	27 E	18.3	1
18	63	4	1	1230	35	33 S	134	9 E	18.3	1
18	63	4	1	1400	35	33 S	133	45 E	18.3	1
18	63	4	1	1600	35	27 S	134	15 E	18.3	1
18	63	4	1	1800	35	27 S	134	27 E	18.3	1
18	63	4	2	0630	35	33 S	134	27 E	18.3	1
18	63	4	2	0800	35	27 S	134	3 E	18.3	1
18	63	4	2	1100	35	27 S	133	39 E	18.3	1
18	63	4	2	1300	35	33 S	134	3 E	18.9	1
18	63	4	2	1500	35	39 S	134	27 E	18.9	1
18	63	4	2	1600	35	39 S	134	45 E	18.9	1

VESSE - CRUISE STATION YR. MIN. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

18	63	4	2	1700	35	33	S	135	9	E	19.2	1
18	63	4	3	0630	35	39	S	135	15	E	18.9	1
18	63	4	3	0800	35	33	S	135	3	E	19.2	1
18	63	4	3	1000	35	27	S	134	33	E	18.3	1
18	63	4	3	1200	35	21	S	134	15	E	18.3	1
18	63	4	3	1400	35	9	S	133	51	E	18.3	1
18	63	4	3	1600	34	57	S	133	39	E	18.3	1
18	63	4	3	1700	34	45	S	133	45	E	18.9	1
18	63	7	27	0530	37	3	S	149	57	E	13.9	1
18	63	7	27	0800	36	51	S	150	21	E	16.4	1
18	63	7	27	1000	36	21	S	150	15	E	16.4	1
18	63	7	27	1200	36	9	S	150	27	E	16.1	1
18	63	7	27	1400	35	51	S	150	27	E	16.1	1
18	63	7	27	1600	35	33	S	150	45	E	16.1	1
18	63	7	27	1800	35	15	S	150	51	E	16.4	1
18	63	7	27	1945	35	3	S	150	45	E	15.0	1
18	63	7	28	0730	35	3	S	150	45	E	15.0	1
18	63	7	28	1000	34	45	S	151	9	E	17.2	1
18	63	7	28	1200	34	33	S	151	15	E	17.2	1
18	63	7	28	1400	34	15	S	151	15	E	17.2	1
18	63	7	28	1645	33	51	S	151	15	E	15.0	1
18	63	8	2	0820	33	51	S	151	15	E	15.8	1
18	63	8	2	1000	33	45	S	151	33	E	15.8	1
18	63	8	2	1200	33	15	S	151	51	E	17.2	1
18	63	8	2	1400	32	57	S	151	57	E	17.5	1
18	63	8	2	1600	32	45	S	152	15	E	16.9	1
18	63	8	2	1800	32	39	S	152	15	E	15.0	1
18	63	8	2	2000	32	39	S	152	21	E	16.1	1
18	63	8	2	2100	32	39	S	152	21	E	16.1	1
18	63	8	3	0900	32	39	S	152	21	E	16.1	1
18	63	8	3	1000	32	33	S	152	33	E	17.8	1
18	63	8	3	1200	32	27	S	152	33	E	18.3	1
18	63	8	3	1400	32	27	S	152	33	E	16.4	1
18	63	8	3	1600	32	21	S	152	33	E	15.6	1
18	63	8	3	1800	32	15	S	152	33	E	15.6	1
18	63	8	3	2115	32	15	S	152	33	E	15.6	1
18	63	8	4	0800	32	21	S	152	33	E	15.8	1
18	63	8	4	1000	32	9	S	152	39	E	16.4	1
18	63	8	4	1200	31	45	S	152	51	E	16.4	1
18	63	8	4	1400	31	27	S	153	3	E	17.2	1
18	63	8	4	1600	30	51	S	153	3	E	16.9	1
18	63	8	4	1800	30	51	S	153	3	E	16.9	1

VESSEL, CRUISE STATION NR., MIN., DAY TIME & LATITUDE LONGITUDE TEMP. SALINITY WIND DN, AMT, SEA SWELL MEA, VIS, BAROM, SAMPLING METHOD

18	63	8	5	0700	30	51	S	153	21	E	16.4	1
18	63	8	5	0830	30	45	S	153	21	E	17.8	1
18	63	8	5	1000	30	33	S	153	21	E	18.3	1
18	63	8	5	1200	30	33	S	153	3	E	18.9	1
18	63	8	5	1400	30	21	S	153	15	E	17.5	1
18	63	8	8	1300	30	21	S	153	9	E	17.2	1
18	63	8	8	1400	30	15	S	153	15	E	18.3	1
18	63	8	8	1600	29	57	S	153	33	E	18.3	1
18	63	8	8	1900	29	45	S	153	57	E	19.7	1
18	63	8	8	2100	29	45	S	154	3	E	19.7	1
18	63	8	8	2400	29	45	S	153	51	E	19.7	1
18	63	8	14	0640	28	39	S	153	33	E	18.9	1
18	63	8	14	0800	28	27	S	153	45	E	18.9	1
18	63	8	14	1000	28	33	S	153	57	E	20.0	1
18	63	8	14	1200	28	45	S	154	3	E	20.3	1
18	63	8	14	1345	28	45	S	153	57	E	19.7	1
18	63	8	14	1800	28	39	S	153	33	E	18.6	1
18	63	8	14	2400	28	9	S	153	33	E	20.0	1
18	63	8	15	0600	27	3	S	153	39	E	21.1	1
18	63	8	15	1000	26	45	S	153	33	E	21.1	1
18	63	8	15	1200	26	33	S	153	27	E	21.1	1
18	63	8	15	1400	26	21	S	153	27	E	19.4	1
18	63	8	15	1800	25	27	S	153	9	E	16.7	1
18	63	8	15	2100	25	27	S	153	9	E	16.7	1
18	63	8	16	0700	25	25	S	153	9	E	15.6	1
18	63	8	16	2000	25	39	S	153	9	E	20.0	1
18	63	8	16	2300	25	27	S	153	27	E	20.0	1
18	63	8	18	0630	25	3	S	153	9	E	20.0	1
18	63	8	18	0900	25	15	S	153	45	E	21.1	1
18	63	8	18	1200	25	15	S	153	57	E	21.1	1
18	63	8	18	1500	26	15	S	154	15	E	21.1	1
18	63	8	18	1800	26	33	S	154	33	E	20.3	1
18	63	8	18	2100	27	3	S	154	39	E	19.9	1
18	63	8	18	2400	27	33	S	155	3	E	16.4	1
18	63	8	19	0300	27	39	S	155	27	E	18.6	1
18	63	8	19	0600	27	45	S	155	39	E	18.6	1
18	63	8	19	0900	28	3	S	155	57	E	18.9	1
18	63	8	19	1200	28	27	S	155	45	E	20.0	1
18	63	8	19	1400	28	39	S	155	45	E	20.0	1
18	63	8	19	1600	28	51	S	155	15	E	20.3	1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SWELL DN. AMT.	HEA. VIS.	BAROM.	SAMPLING METHOD
18	63	9	2	1100	35	15 S 151	3 E 17.2							1
18	63	9	2	1300	35	15 S 151	27 E 17.2							1
18	63	9	2	1500	35	21 S 151	3 E 17.2							1
18	63	9	2	1700	35	15 S 150	27 E 15.0							1
18	63	9	4	0700	35	21 S 150	27 E 15.0							1
18	63	9	4	0800	35	21 S 150	33 E 15.0							1
18	63	9	4	0900	35	21 S 150	45 E 15.6							1
18	63	9	4	1000	35	33 S 150	51 E 16.9							1
18	63	9	4	1100	35	39 S 150	51 E 15.6							1
18	63	9	4	1200	35	45 S 150	45 E 16.1							1
18	63	9	4	1300	35	57 S 150	39 E 16.4							1
18	63	9	4	1400	36	9 S 150	33 E 16.1							1
18	63	9	4	1500	36	9 S 150	27 E 15.3							1
18	63	9	4	1600	36	15 S 150	21 E 15.0							1
18	63	9	4	1700	36	27 S 150	15 E 14.2							1
18	63	9	4	1800	36	27 S 150	3 E 13.9							1
18	63	9	5	0750	36	27 S 150	3 E 12.8							1
18	63	9	5	0900	36	21 S 150	21 E 15.0							1
18	63	9	5	1000	36	15 S 150	21 E 14.7							1
18	63	9	5	1100	36	15 S 150	33 E 15.3							1
18	63	9	5	1200	36	9 S 150	21 E 15.6							1
18	63	9	5	1300	36	3 S 150	27 E 15.0							1
18	63	9	5	1400	36	27 S 150	15 E 15.6							1
18	63	9	5	1500	36	33 S 150	15 E 14.7							1
18	63	9	5	1600	36	45 S 150	15 E 13.9							1
18	63	9	5	1700	36	57 S 150	3 E 13.3							1
18	63	9	6	0630	36	57 S 150	3 E 12.8							1
18	63	9	8	0900	37	3 S 149	57 E 13.8	35.62						1
18	63	9	8	1000	37	9 S 150	3 E 13.8							1
18	63	9	8	1035	37	3 S 150	3 E 13.8	35.50						1
18	63	9	8	1100	37	9 S 150	3 E 13.9							1
18	63	9	8	1200	37	15 S 150	3 E 13.3	35.53						1
18	63	9	8	1400	37	9 S 150	3 E 13.3							1
18	63	9	9	0900	37	3 S 149	57 E 13.1							1
18	63	9	9	0920	37	3 S 149	57 E 13.8	35.35						1
18	63	9	9	1000	37	3 S 149	57 E 13.8							1
18	63	9	9	1100	37	3 S 150	15 E 14.4							1
18	63	9	9	1200	37	3 S 150	21 E 14.3	35.46						1
18	63	9	9	1300	37	3 S 150	33 E 14.6	35.48						1

VESSEL - CHUISE STATION YR. MIN. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SMELL WEA. VIS. BAROM. SAMPLING METHOD

18	63	9	9	1400	36	45 S	150	45 E	15.1	35.70	1
18	63	9	9	1500	36	39 S	151	3 E	14.6	35.52	1
18	63	9	9	1515	36	39 S	150	57 E	16.4	35.52	1
18	63	9	9	1520	36	33 S	151	3 E	16.4	35.55	1
18	63	9	9	1540	36	33 S	151	3 E	16.9	35.55	1
18	63	9	9	1600	36	27 S	150	51 E	16.6	35.55	1
18	63	9	9	1700	36	27 S	150	51 E	17.2	35.64	1
18	63	9	9	1800	36	27 S	150	39 E	16.5	35.59	1
18	63	9	9	1900	36	27 S	150	27 E	16.2	35.52	1
18	63	9	10	0700	36	15 S	150	15 E	13.3	35.46	1
18	63	9	10	0730	36	15 S	150	21 E	13.8	35.46	1
18	63	9	10	0800	36	9 S	150	21 E	14.7	35.50	1
18	63	9	10	0900	36	15 S	150	27 E	15.8	35.50	1
18	63	9	10	1000	36	15 S	150	21 E	14.7	35.50	1
18	63	9	10	1100	36	27 S	150	15 E	14.6	35.53	1
18	63	9	10	1200	36	39 S	150	9 E	14.2	35.48	1
18	63	9	10	1300	36	31 S	150	3 E	14.3	35.52	1
18	63	9	10	1400	37	3 S	150	3 E	14.3	35.48	1
18	63	9	10	1415	37	3 S	150	3 E	14.3	35.48	1
18	63	9	10	1500	37	9 S	150	3 E	13.7	35.50	1
18	63	9	10	1600	37	9 S	150	3 E	13.7	35.50	1
18	63	9	10	1730	37	9 S	150	3 E	13.7	35.44	1
18	63	9	10	1830	37	3 S	149	57 E	13.9	35.44	1
18	63	9	11	0730	37	3 S	149	57 E	12.7	35.43	1
18	63	9	11	0800	37	3 S	149	57 E	13.5	35.43	1
18	63	9	11	0900	37	3 S	150	3 E	14.0	35.43	1
18	63	9	11	1000	37	15 S	150	3 E	13.6	35.43	1
18	63	9	11	1100	37	21 S	150	9 E	13.6	35.44	1
18	63	9	11	1200	37	27 S	150	15 E	14.1	35.48	1
18	63	9	11	1300	37	21 S	150	15 E	14.8	35.48	1
18	63	9	11	1400	37	15 S	150	15 E	14.2	35.46	1
18	63	9	11	1500	37	15 S	150	9 E	13.4	35.39	1
18	63	9	11	1700	37	3 S	149	57 E	13.7	35.41	1
18	63	9	16	0700	37	3 S	149	57 E	13.3	35.41	1
18	63	9	16	0730	37	3 S	149	57 E	13.4	35.41	1
18	63	9	16	0800	36	57 S	150	3 E	13.4	35.48	1
18	63	9	16	0900	36	51 S	150	15 E	14.0	35.48	1
18	63	9	16	1000	36	51 S	150	21 E	15.0	35.52	1
18	63	9	16	1030	36	45 S	150	21 E	15.0	35.52	1
18	63	9	16	1100	36	45 S	150	21 E	15.2	35.52	1

VESSEL	CHUISE STATION NUMBER	YR.	MO.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN.	SEA DN.	SWELL DN.	VIS. BAROM.	SAMPLING METHOD
18	63	9	16	1200	36	39 S 150	21 E 15.4	35.71					1
18	63	9	16	1300	36	33 S 150	21 E 16.0						1
18	63	9	16	1400	36	27 S 150	21 E 16.9						1
18	63	9	16	1500	36	15 S 150	21 E 16.2	35.61					1
18	63	9	16	1600	36	15 S 150	15 E 14.9						1
18	63	9	16	1700	36	21 S 150	3 E 14.0						1
18	63	9	16	1745	36	21 S 150	3 E 14.4						1
18	63	9	19	0715	36	21 S 150	3 E 13.8						1
18	63	9	19	0800	36	21 S 150	9 E 14.2						1
18	63	9	19	0900	36	21 S 150	21 E 16.1	35.55					1
18	63	9	19	1000	36	15 S 150	21 E 15.5						1
18	63	9	19	1100	36	9 S 150	27 E 15.7						1
18	63	9	19	1130	36	9 S 150	27 E 15.8						1
18	63	9	19	1200	36	9 S 150	27 E 15.3	35.75					1
18	63	9	19	1300	36	3 S 150	27 E 14.0						1
18	63	9	19	1400	35	51 S 150	15 E 14.4						1
18	63	9	19	1430	35	51 S 150	9 E 15.0						1
18	63	9	21	0700	36	3 S 150	9 E 14.0						1
18	63	9	21	0800	36	3 S 150	21 E 14.1	35.53					1
18	63	9	21	0900	36	3 S 150	27 E 15.9						1
18	63	9	21	1000	36	9 S 150	27 E 16.4						1
18	63	9	21	1100	36	9 S 150	27 E 16.1						1
18	63	9	21	1200	36	15 S 150	21 E 15.9	35.53					1
18	63	9	21	1210	36	9 S 150	21 E 16.1						1
18	63	9	21	1245	36	21 S 150	21 E 15.9	35.64					1
18	63	9	21	1300	36	21 S 150	21 E 16.1						1
18	63	9	21	1345	36	21 S 150	21 E 15.9	35.59					1
18	63	9	21	1400	36	21 S 150	21 E 15.9						1
18	63	9	21	1500	36	27 S 150	21 E 15.1	35.55					1
18	63	9	21	1600	36	33 S 150	21 E 16.3						1
18	63	9	21	1700	36	39 S 150	15 E 14.4						1
18	63	9	21	2000	37	3 S 149	57 E 13.3	35.66					1
18	63	9	25	0900	37	3 S 149	57 E 14.9						1
18	63	9	25	0930	37	3 S 150	3 E 14.9	35.53					1
18	63	9	25	0950	37	3 S 150	3 E 14.9						1
18	63	9	25	1000	37	3 S 150	3 E 14.9						1
18	63	9	25	1100	36	51 S 150	15 E 15.6						1
18	63	9	25	1200	36	45 S 150	27 E 15.7	35.75					1
18	63	9	25	1400	36	33 S 150	21 E 14.9						1
18	63	9	25	1400	36	27 S 150	27 E 14.8						1

VESSEL	CRUISE STATION NUMBER	YR.	MIN.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN, AMT,	SEA DN, AMT,	SWELL DN, AMT,	WEA.	VIS.	BAROM.	SAMPLING METHOD
18	63	9	25	1500	36	21 S 150	21 E 15.4	35.66							1
18	63	9	25	1600	36	15 S 150	21 E 15.8								1
18	63	9	26	0715	36	15 S 150	15 E 15.0								1
18	63	9	26	0800	36	15 S 150	21 E 15.6								1
18	63	9	26	0900	36	9 S 150	33 E 16.3	35.59							1
18	63	9	26	1000	36	9 S 150	45 E 16.6								1
18	63	9	26	1100	36	9 S 150	57 E 17.2								1
18	63	9	26	1200	36	3 S 150	57 E 17.2								1
18	63	9	26	1300	36	15 S 150	57 E 16.9								1
18	63	9	26	1400	36	33 S 151	3 E 16.9								1
18	63	9	26	1500	36	39 S 150	45 E 15.8	35.55							1
18	63	9	26	1600	36	45 S 150	33 E 15.8								1
18	63	9	26	1700	36	51 S 150	27 E 15.9								1
18	63	9	26	1800	36	51 S 150	21 E 15.7	35.55							1
18	63	9	26	2030	36	57 S 149	57 E 14.3								1
18	63	9	27	0715	36	57 S 149	57 E 14.3								1
18	63	9	27	0845	37	3 S 149	57 E 14.3								1
18	63	9	29	0345	37	3 S 149	57 E 15.0								1
18	63	9	29	0600	37	15 S 150	3 E 14.7								1
18	63	9	29	0700	37	33 S 149	57 E 13.5								1
18	63	9	29	0800	37	39 S 149	51 E 13.5								1
18	63	9	29	0900	37	51 S 149	45 E 14.8	35.43							1
18	63	9	29	1000	38	3 S 149	33 E 14.4								1
18	63	9	29	1100	38	9 S 149	21 E 15.4								1
18	63	9	29	1110	38	9 S 149	21 E 15.4								1
18	63	9	29	1200	38	21 S 149	21 E 15.3	35.48							1
18	63	9	29	1300	38	21 S 149	33 E 15.3	35.50							1
18	63	9	29	1400	38	21 S 149	39 E 15.3								1
18	63	9	29	1500	38	15 S 149	51 E 15.5								1
18	63	9	29	1600	38	9 S 150	3 E 15.2	35.48							1
18	63	9	29	1700	38	3 S 150	3 E 15.6								1
18	63	9	29	1800	37	51 S 149	57 E 14.9	35.55							1
18	63	9	30	0800	37	33 S 150	57 E 14.7								1
18	63	9	30	0830	37	33 S 150	3 E 14.8								1
18	63	9	30	0900	37	33 S 150	9 E 15.2	35.48							1
18	63	9	30	1000	37	33 S 150	15 E 15.2								1
18	63	9	30	1045	37	27 S 150	15 E 15.1	35.48							1
18	63	9	30	1100	37	27 S 150	15 E 15.2								1
18	63	9	30	1200	37	27 S 150	21 E 15.2								1
18	63	9	30	1220	37	21 S 150	21 E 15.2	35.44							1

VESSE - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL HEA. VIS. BAROM. SAMPLING METHOD

18	63	10	5	1500	35	45 S	150	39 E	16.7	35.52	1
18	63	10	5	1600	35	39 S	150	39 E	16.3		1
18	63	10	5	1700	35	27 S	150	33 E	16.1		1
18	63	10	5	1800	35	27 S	150	27 E	16.4	35.34	1
18	63	10	5	1830	35	21 S	150	27 E	16.1		1
18	63	10	6	0700	35	21 S	150	27 E	16.2		1
18	63	10	6	0800	35	27 S	150	33 E	16.2		1
18	63	10	6	0900	35	39 S	150	51 E	16.3	35.53	1
18	63	10	6	1000	35	33 S	150	45 E	16.4		1
18	63	10	6	1100	35	39 S	150	51 E	16.7		1
18	63	10	6	1200	35	33 S	150	51 E	16.6	35.64	1
18	63	10	6	1300	35	21 S	150	51 E	16.8		1
18	63	10	6	1400	35	15 S	150	57 E	16.7		1
18	63	10	6	1500	35	21 S	150	57 E	16.6	35.57	1
18	63	10	6	1600	35	9 S	150	51 E	16.7		1
18	63	10	6	1730	35	9 S	150	45 E	16.1		1
18	63	10	7	0600	35	9 S	150	45 E	15.6		1
18	63	10	7	0700	35	9 S	150	51 E	15.8		1
18	63	10	7	0800	35	15 S	150	51 E	17.4		1
18	63	10	7	0830	35	21 S	150	57 E	17.4	35.62	1
18	63	10	7	0900	35	21 S	150	57 E	17.7		1
18	63	10	7	1000	35	21 S	150	57 E	18.1		1
18	63	10	7	1100	35	21 S	150	57 E	17.8		1
18	63	10	7	1200	35	15 S	151	3 E	17.5		1
18	63	10	7	1210	35	15 S	151	3 E	17.5		1
18	63	10	7	1300	35	3 S	151	21 E	18.3		1
18	63	10	7	1400	35	3 S	151	27 E	18.9	35.75	1
18	63	10	7	1400	35	3 S	151	27 E	18.3		1
18	63	10	7	1440	35	3 S	151	15 E	18.4		1
18	63	10	7	1500	35	3 S	151	27 E	18.1		1
18	63	10	7	1600	35	3 S	151	27 E	18.3		1
18	63	10	7	1700	35	9 S	151	15 E	18.3		1
18	63	10	7	1800	35	9 S	151	15 E	18.3		1
18	63	10	7	1900	35	9 S	151	15 E	18.3		1
18	63	10	7	2000	35	3 S	151	3 E	16.7		1
18	63	10	8	0700	34	39 S	150	51 E	16.8		1
18	63	10	8	0800	34	45 S	151	3 E	16.7	35.55	1
18	63	10	8	0900	34	57 S	151	3 E	16.8	35.66	1
18	63	10	8	1000	35	3 S	151	9 E	16.8		1
18	63	10	8	1100	35	3 S	151	21 E	17.1		1

VESSE -	CRUISE	STATION	YR.	MO.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SMELL	HEA.	VIS.	BARDM.	SAMPLING
NUMBER	NUMBER	NUMBER								DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.			METHOD
18	63	10	11	1400	36	21	S 150	33 E 17.6								1
18	63	10	11	1400	36	33	S 150	27 E 17.5								1
18	63	10	11	1500	36	39	S 150	15 E 17.3								1
18	63	10	11	1540	36	39	S 150	15 E 15.7								1
18	63	10	11	1600	36	45	S 150	15 E 16.4								1
18	63	10	11	1800	37	3	S 149	57 E 16.1								1
18	63	10	16	0700	37	3	S 149	57 E 13.9								1
18	63	10	16	0800	37	3	S 150	9 E 15.7								1
18	63	10	16	0900	36	57	S 150	15 E 16.7	35.59							1
18	63	10	16	1000	36	57	S 150	33 E 16.9								1
18	63	10	16	1100	36	57	S 150	33 E 17.0								1
18	63	10	16	1200	36	57	S 150	33 E 17.1	35.61							1
18	63	10	16	1300	37	3	S 150	33 E 17.2								1
18	63	10	16	1400	37	15	S 150	33 E 17.1								1
18	63	10	16	1500	37	27	S 150	27 E 15.9	35.50							1
18	63	10	16	1600	37	21	S 150	21 E 16.9								1
18	63	10	16	1700	37	9	S 150	21 E 16.9								1
18	63	10	16	1720	37	9	S 150	21 E 17.0								1
18	63	10	16	1800	37	9	S 150	21 E 16.9								1
18	63	10	16	1815	37	9	S 150	21 E 17.1	35.59							1
18	63	10	16	1900	37	3	S 150	21 E 15.7								1
18	63	10	16	2000	36	57	S 150	15 E 15.8								1
18	63	10	16	2100	36	45	S 150	3 E 15.9								1
18	63	10	17	0700	36	45	S 149	57 E 16.1								1
18	63	10	17	0800	36	33	S 150	9 E 16.9								1
18	63	10	17	0900	36	33	S 150	21 E 16.7	35.52							1
18	63	10	17	1000	36	27	S 150	21 E 16.9								1
18	63	10	17	1100	36	15	S 150	21 E 17.2								1
18	63	10	17	1200	36	15	S 150	33 E 16.7	35.59							1
18	63	10	17	1300	36	21	S 150	33 E 17.0								1
18	63	10	17	1400	36	53	S 150	33 E 17.0								1
18	63	10	17	1500	36	45	S 150	27 E 17.1	35.50							1
18	63	10	17	1600	36	51	S 150	21 E 17.2								1
18	63	10	17	1700	36	57	S 150	15 E 17.2								1
18	63	10	17	1800	37	3	S 150	9 E 16.6	35.48							1
18	63	10	17	1900	37	3	S 149	57 E 15.3								1
18	63	10	18	0600	37	3	S 149	57 E 16.1								1
18	63	10	18	0700	37	9	S 150	9 E 16.1								1
18	63	10	18	0800	37	9	S 150	21 E 17.2								1
18	63	10	18	0900	37	3	S 150	27 E 17.3	35.64							1

VESSE - CRUISE NUMBER	STATION NUMBER	YR.	MH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND		SEA		SAMPLING METHOD
											DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	
18	63	10	18	1000	36	57 S	150	33 E	17.4						1
18	63	10	18	1100	37	9 S	150	33 E	17.4						1
18	63	10	18	1200	37	15 S	150	33 E	17.7	35.66					1
18	63	10	18	1300	37	15 S	150	27 E	17.7						1
18	63	10	18	1400	37	21 S	150	27 E	15.6						1
18	63	10	18	1500	37	15 S	150	21 E	17.0	35.55					1
18	63	10	18	1600	37	9 S	150	15 E	17.1						1
18	63	10	18	1700	37	3 S	150	9 E	16.7						1
18	63	10	18	1800	37	3 S	149	57 E	16.1						1
18	63	10	20	0745	37	3 S	149	57 E	15.6						1
18	63	10	20	0900	37	9 S	150	9 E	16.4	35.50					1
18	63	10	20	1000	37	9 S	150	21 E	17.4						1
18	63	10	20	1100	37	3 S	150	21 E	17.5						1
18	63	10	20	1200	36	57 S	150	21 E	17.7	35.66					1
18	63	10	20	1300	36	45 S	150	27 E	18.1						1
18	63	10	20	1400	36	39 S	150	21 E	18.1						1
18	63	10	20	1500	36	39 S	150	15 E	17.9	35.64					1
18	63	10	20	1600	36	45 S	150	9 E	17.4						1
18	63	10	22	0700	37	3 S	149	57 E	16.6						1
18	63	10	22	0800	37	3 S	149	57 E	16.9						1
18	63	10	22	0900	37	3 S	150	9 E	17.1						1
18	63	10	22	1000	37	9 S	150	21 E	17.9	35.68					1
18	63	10	22	1100	37	9 S	150	33 E	17.9						1
18	63	10	22	1200	37	9 S	150	33 E	17.9						1
18	63	10	22	1300	37	15 S	150	33 E	18.1	35.62					1
18	63	10	22	1400	37	21 S	150	27 E	19.1						1
18	63	10	22	1500	37	15 S	150	27 E	18.4						1
18	63	10	22	1600	37	9 S	150	21 E	18.3	35.66					1
18	63	10	22	1700	37	3 S	150	9 E	17.3						1
18	63	10	22	1800	37	3 S	149	57 E	18.3						1
18	63	10	23	0730	37	3 S	149	57 E	17.2						1
18	63	10	23	0800	37	3 S	150	3 E	16.8						1
18	63	10	23	0900	37	3 S	150	9 E	18.1	35.66					1
18	63	10	23	1000	37	9 S	150	21 E	17.9						1
18	63	10	23	1100	37	15 S	150	21 E	18.0						1
18	63	10	23	1200	37	9 S	150	21 E	18.1	35.64					1
18	63	10	23	1300	37	9 S	150	21 E	18.1						1
18	63	10	23	1400	37	9 S	150	15 E	18.0						1
18	63	10	23	1500	37	15 S	150	15 E	18.2	35.66					1

VESSE - CRUISE STATION YR. MIN. DAY TIME L LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

VESSE	CRUISE	STATION	YR.	MIN.	DAY	TIME	L	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
18		63	11	19	19	1300	36	39 S	150	21 E	18.4								1
18		63	11	19	19	1350	36	39 S	150	21 E	18.4			35.62					1
18		63	11	19	19	1400	36	39 S	150	21 E	18.6								1
18		63	11	19	19	1445	37	3 S	150	21 E	18.6			35.61					1
18		63	11	19	19	1400	37	3 S	150	21 E	18.6								1
18		63	11	19	19	1500	37	9 S	150	21 E	18.7			35.62					1
18		63	11	19	19	1600	36	57 S	150	21 E	18.7								1
18		63	11	19	19	1700	36	57 S	150	21 E	18.8								1
18		63	11	19	19	1800	36	57 S	150	21 E	18.7			35.59					1
18		63	11	19	20	2020	37	3 S	149	57 E	17.2								1
18		63	11	20	20	0600	37	3 S	149	57 E	17.2			35.41					1
18		63	11	20	0700	37	3 S	150	9 E	17.6									1
18		63	11	20	0800	36	57 S	150	21 E	18.2									1
18		63	11	20	0900	36	51 S	150	21 E	18.5				35.64					1
18		63	11	20	1000	36	57 S	150	21 E	18.5									1
18		63	11	20	1100	37	9 S	150	21 E	18.6									1
18		63	11	20	1200	37	15 S	150	21 E	18.6									1
18		63	11	20	1305	37	15 S	150	21 E	18.6				35.62					1
18		63	11	20	1300	37	21 S	150	21 E	18.3									1
18		63	11	20	1400	37	21 S	150	27 E	18.3									1
18		63	11	20	1500	37	15 S	150	27 E	18.7				35.61					1
18		63	11	20	1600	37	3 S	150	21 E	18.9									1
18		63	11	20	1700	37	3 S	150	9 E	18.5									1
18		63	11	20	1800	37	3 S	150	3 E	18.1				35.48					1
18		63	11	21	0800	37	3 S	149	57 E	17.4									1
18		63	11	21	0900	37	3 S	150	9 E	18.3				35.52					1
18		63	11	21	1000	37	3 S	150	21 E	18.7									1
18		63	11	21	1100	36	51 S	150	21 E	18.7									1
18		63	11	21	1200	36	39 S	150	21 E	19.0									1
18		63	11	21	1300	36	33 S	150	21 E	19.2									1
18		63	11	21	1400	36	33 S	150	21 E	21.7				35.64					1
18		63	11	21	1500	36	27 S	150	21 E	20.6									1
18		63	11	21	1505	36	27 S	150	21 E	21.3				35.66					1
18		63	11	21	1600	36	21 S	150	21 E	21.1									1
18		63	11	21	1625	36	21 S	150	21 E	20.7				34.69					1
18		63	11	21	1700	36	27 S	150	27 E	21.1									1
18		63	11	21	1800	36	27 S	150	27 E	20.0									1
18		63	11	21	1810	36	27 S	150	27 E	20.3									1
18		63	11	21	1830	36	27 S	150	27 E	20.0				35.57					1

VESSE- CRUISE STATION YR. MTH. DAY TIME & LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

18	63	12	29	1100	37	33	S	150	3	E	18.9								1
18	63	12	29	1300	37	9	S	150	3	E	18.3								1
18	63	12	30	0600	37	9	S	150	3	E	18.3								1
18	63	12	30	0700	37	21	S	150	3	E	18.9								1
18	63	12	30	0900	37	39	S	149	51	E	19.4								1
18	63	12	30	1000	37	51	S	149	45	E	19.4								1
18	63	12	30	1100	37	39	S	149	27	E	17.8								1
18	63	12	30	1200	37	39	S	149	27	E	17.8								1
18	63	12	30	1400	37	39	S	149	51	E	18.3								1
18	63	12	30	1600	37	21	S	150	3	E	18.9								1

VESSE - CRUISE STATION YR. MTH. DAY TIME & LATITUDE LONGITUDE TEMP. SALINITY WIND DN. AMT. SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

19	63	11	22	1800	32	15	S	133	33	E	21.0	37.48	1
19	63	11	25	0800	32	21	S	133	27	E	18.4		1
19	63	11	25	0900	32	27	S	133	33	E	18.8	36.51	1
19	63	11	25	1000	32	27	S	133	39	E	18.8	36.44	1
19	63	11	25	1100	32	27	S	133	33	E	18.8		1
19	63	11	25	1200	32	33	S	133	27	E	18.7	36.44	1
19	63	11	25	1300	32	33	S	133	21	E	18.6		1
19	63	11	25	1400	32	33	S	133	15	E	18.4		1
19	63	11	25	1500	32	33	S	133	21	E	18.4	36.35	1
19	63	11	25	1600	32	27	S	133	15	E	18.5		1
19	63	11	26	0800	32	33	S	133	9	E	18.7		1
19	63	11	26	0900	32	33	S	133	03	E	18.7	36.35	1
19	63	11	26	1000	32	39	S	132	57	E	18.7		1
19	63	11	26	1100	32	39	S	132	51	E	18.7		1
19	63	11	26	1200	32	31	S	132	45	E	19.0	36.22	1
19	63	11	26	1300	32	57	S	132	45	E	19.2		1
19	63	11	26	1400	33	3	S	132	39	E	19.3		1
19	63	11	26	1500	33	09	S	132	33	E	19.3	36.08	1
19	63	11	26	1600	33	15	S	132	27	E	18.9		1
19	63	11	26	1700	33	21	S	132	21	E	18.8		1
19	63	11	26	1800	33	27	S	132	21	E	18.6	35.84	1
19	63	11	26	1900	33	39	S	132	15	E	18.5		1
19	63	11	26	2000	33	45	S	132	15	E	18.1		1
19	63	11	26	2200	33	57	S	132	27	E	18.2		1
19	63	11	26	2400	34	9	S	132	39	E	17.9		1
19	63	11	27	0200	34	21	S	132	51	E	18.1		1
19	63	11	27	0400	34	33	S	133	3	E	17.7		1
19	63	11	27	0600	34	33	S	133	09	E	17.7	35.81	1
19	63	11	27	0700	34	39	S	133	3	E	17.7		1
19	63	11	27	0800	34	45	S	133	9	E	17.7		1
19	63	11	27	0900	34	45	S	133	15	E	17.7	35.90	1
19	63	11	27	1000	34	45	S	133	15	E	17.6		1
19	63	11	27	1100	34	51	S	133	27	E	18.1		1
19	63	11	27	1200	34	57	S	133	33	E	18.2	35.73	1
19	63	11	27	1300	34	57	S	133	21	E	18.1		1
19	63	11	27	1400	35	3	S	133	51	E	18.1		1
19	63	11	27	1500	34	57	S	133	57	E	18.1	35.71	1
19	63	11	27	1600	35	9	S	134	9	E	18.2		1
19	63	11	27	1800	35	09	S	134	21	E	18.1	35.71	1
19	63	11	27	1900	35	9	S	134	39	E	17.8		1

VESSE-	CRUISE	STATION	YR.	MT.	DAY	TIME	◊	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	
		NUMBER										DN. AMT.	DN. AMT.	DN. AMT.				METHOD	
19		63	12	13	1300		34	57 S	135	39 E	16.9								1
19		63	12	13	1400		34	57 S	135	45 E	17.4								1
19		63	12	13	1500		35	03 S	135	57 E	17.4								1
19		63	12	13	1600		34	57 S	136	3 E	17.7								1
											36.18								

VESSEL CRUISE STATION YR. MIN. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U1	63	11	27	1500	34	33 S	135 E	3 E	36.11	1
U1	63	12	1	1100	34	15 S	135 E	17.2	36.06	1
U1	63	12	1	1200	34	9 S	135 E	18.1	36.26	1
U1	63	12	1	1300	34	21 S	135 E	17.4	35.93	1
U1	63	12	1	1400	34	27 S	135 E	17.2	36.02	1
U1	63	12	1	1500	34	33 S	135 E	17.5	36.08	1
U1	63	12	1	1600	34	39 S	135 E	17.8	36.08	1
U1	63	12	1	1700	34	27 S	135 E	17.2	36.04	1
U1	63	12	3	0500	34	27 S	135 E	17.8	36.08	1
U1	63	12	3	0600	34	27 S	135 E	17.8	36.08	1
U1	63	12	3	0700	34	33 S	135 E	17.2	35.95	1
U1	63	12	3	0800	34	39 S	134 E	16.9	35.93	1
U1	63	12	3	0900	34	45 S	135 E	16.9	35.93	1
U1	63	12	3	1000	34	51 S	135 E	17.2	35.91	1
U1	63	12	3	1100	34	57 S	135 E	17.8	35.99	1
U1	63	12	3	1200	35	3 S	135 E	17.8	35.90	1
U1	63	12	3	1300	35	9 S	135 E	17.8	35.90	1
U1	63	12	3	1400	35	15 S	135 E	17.5	35.88	1
U1	63	12	3	1500	35	15 S	135 E	17.5	35.81	1
U1	63	12	3	1630	35	15 S	135 E	17.2	35.86	1
U1	63	12	3	1730	35	3 S	135 E	17.8	36.08	1
U1	63	12	14	0600	35	45 S	135 E	16.1	35.71	1
U1	63	12	14	0700	35	51 S	135 E	16.2	35.68	1
U1	63	12	14	0800	35	51 S	135 E	16.4	35.68	1
U1	63	12	14	0900	35	57 S	135 E	16.6	35.61	1
U1	63	12	14	1000	35	57 S	135 E	16.5	35.62	1
U1	63	12	14	1100	35	57 S	135 E	16.4	35.61	1
U1	63	12	14	1200	36	3 S	135 E	16.6	35.62	1
U1	63	12	14	1400	35	57 S	135 E	16.9	35.62	1
U1	63	12	14	1500	35	51 S	135 E	16.4	35.61	1
U1	63	12	14	1600	35	57 S	135 E	16.7	35.61	1
U1	63	12	14	1700	35	57 S	135 E	16.7	35.61	1
U1	63	12	14	1740	36	3 S	135 E	16.5	35.61	1
U1	63	12	14	1800	36	3 S	135 E	16.5	35.61	1
U1	63	12	15	0600	35	45 S	135 E	16.1	35.61	1
U1	63	12	15	0700	35	51 S	135 E	16.2	35.61	1
U1	63	12	15	0800	35	51 S	135 E	16.4	35.61	1
U1	63	12	15	0900	35	57 S	135 E	16.6	35.61	1
U1	63	12	15	1000	35	57 S	135 E	16.5	35.61	1
U1	63	12	20	1030	35	57 S	135 E	17.8	35.70	1

VESSEL	CRUISE NUMBER	STATION	YR.	MO.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING METHOD
										DN. AMT.	DN. AMT.	DN. AMT.				
U1		63	12	20	1045	35 S 135 W	45 E 18.2									1
U1		63	12	20	1047	35 S 135 W	45 E 17.9									1
U1		63	12	20	1200	36 S 135 W	45 E 18.7	35.62								1
U1		63	12	20	1300	36 S 135 W	45 E 18.9									1
U1		63	12	20	1500	36 S 135 W	45 E 19.9									1
U1		63	12	20	1600	36 S 135 W	39 E 19.9									1
U1		63	12	20	1700	36 S 135 W	33 E 20.0									1
U1		63	12	20	1800	36 S 135 W	33 E 20.0									1
U1		63	12	21	0400	35 S 135 W	27 E 18.1									1
U1		63	12	21	0600	35 S 135 W	27 E 16.9									1
U1		63	12	21	0800	35 S 135 W	33 E 16.7									1

VESSEL	CRUISE	STATION	YR.	MTN.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER									DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.					
U5		63		1	17	0545	K 37	03 S 150	03 E 16.1		00	0							1
U5		63		1	17	0715	K 37	03 S 150	03 E 16.7		00	0							1
U5		63		1	17	0830	K 37	03 S 150	03 E 16.7		00	0							1
U5		63		1	17	1000	K 37	03 S 150	03 E 16.7		00	0							1
U5		63		1	17	1115	K 37	03 S 150	03 E 16.7		00	0							1
U5		63		1	17	1300	K 37	03 S 150	03 E 16.7		14	1							1
U5		63		1	18	0545	K 37	03 S 150	03 E 16.1		23	1							1
U5		63		1	18	0700	K 37	03 S 150	03 E 16.1		23	1							1
U5		63		1	18	0815	K 37	03 S 150	03 E 16.1										1
U5		63		1	18	0945	K 37	03 S 150	03 E 16.7		36	1							1
U5		63		1	18	1100	K 37	03 S 150	03 E 16.7		04	1							1
U5		63		1	18	1230	K 37	03 S 150	03 E 16.7		04	1							1
U5		63		1	18	1345	K 37	03 S 150	03 E 16.7										1
U5		63		1	19	0500	K 37	03 S 150	03 E 16.7		27	1							1
U5		63		1	19	0815	K 36	57 S 150	03 E 17.2		23	1							1
U5		63		1	19	0945	K 36	57 S 150	03 E 17.2		14	1							1
U5		63		1	19	1115	K 36	57 S 150	03 E 17.2		14	2							1
U5		63		1	20	0530	K 36	57 S 150	03 E 16.7		00	0							1
U5		63		1	20	0700	K 36	57 S 150	03 E 16.7		18	1							1
U5		63		1	20	0830	K 36	57 S 150	03 E 16.7		18	1							1
U5		63		1	20	1000	K 36	57 S 150	03 E 17.2		00	0							1
U5		63		1	20	1145	K 36	57 S 150	03 E 17.8		00	0							1
U5		63		1	21	0530	K 36	57 S 150	03 E 17.8		00	0							1
U5		63		1	21	0700	K 36	57 S 150	03 E 17.8		00	0							1
U5		63		1	21	0815	K 36	57 S 150	03 E 18.9		00	0							1
U5		63		1	21	0945	K 36	57 S 150	03 E 20.0		04	1							1
U5		63		1	21	1145	K 36	57 S 150	03 E 20.6		04	2							1
U5		63		1	21	1300	K 36	57 S 150	03 E 20.6		09	2							1
U5		63		1	22	0530	K 37	09 S 150	09 E 18.3		04	2							1
U5		63		1	22	0800	K 37	03 S 150	03 E 18.3		04	2							1
U5		63		1	22	1045	K 37	03 S 150	03 E 18.3		04	3							1
U5		63		1	24	0400	K 37	21 S 150	09 E 17.2		18	1							1
U5		63		1	24	0800	K 37	21 S 150	03 E 17.2		18	1							1
U5		63		1	24	1000	K 37	21 S 150	03 E 17.2		18	1							1
U5		63		1	24	1200	K 37	09 S 150	03 E 19.4		14	1							1
U5		63		1	25	0600	K 36	57 S 150	03 E 19.4		00	0							1
U5		63		1	25	0730	K 36	57 S 150	03 E 19.4		00	0							1
U5		63		1	25	0915	K 36	51 S 150	03 E 20.8		00	0							1
U5		63		1	25	1030	K 36	51 S 150	03 E 20.8		00	0							1
U5		63		1	26	0545	K 36	51 S 150	09 E 19.4		04	2							1

VESSEL	CRUISE	STATION	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	MEAS.	VIS.	BARDN.	SAMPLING	METHOD
		NUMBER									DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.					
U5	63	1	26	0715	K 36	51	S	150	09 E	19.4	04	2							1
U5	63	1	26	0845	K 36	51	S	150	09 E	19.4	04	2							1
U5	63	1	26	1015	K 36	51	S	150	09 E	19.4	04	3							1
U5	63	1	28	0600	K 36	51	S	150	09 E	19.7	00	0							1
U5	63	1	28	0715	K 36	51	S	150	09 E	19.7	00	0							1
U5	63	1	28	0830	K 36	51	S	150	09 E	19.7	00	0							1
U5	63	1	28	1000	K 36	51	S	150	09 E	20.0	00	0							1
U5	63	1	28	1130	K 36	51	S	150	09 E	20.0	00	0							1
U5	63	1	28	1315	K 36	51	S	150	09 E	20.6	00	0							1
U5	63	1	29	0700	K 37	03	S	150	03 E	20.0	36	1							1
U5	63	1	29	0830	K 37	03	S	150	03 E	20.0	00	0							1
U5	63	1	29	1000	K 37	03	S	150	03 E	20.0	23	1							1
U5	63	1	29	1000	K 37	03	S	150	03 E	20.0	23	2							1
U5	63	1	30	0545	K 37	03	S	150	03 E	21.1	32	1							1
U5	63	2	1	0645	K 36	51	S	150	03 E	22.2	32	1							1
U5	63	2	1	0845	K 36	51	S	150	15 E	22.2	04	1							1
U5	63	2	1	1000	K 36	57	S	150	15 E	22.2	04	1							1
U5	63	2	1	1230	K 37	03	S	150	09 E	23.6	04	1							1
U5	63	2	2	0500	K 37	51	S	149	51 E	20.0	00	0							1
U5	63	2	2	0700	K 37	51	S	149	51 E	21.1	00	0							1
U5	63	2	2	0830	K 37	51	S	149	51 E	21.1	32	1							1
U5	63	2	2	1230	K 38	03	S	149	33 E	20.0	23	1							1
U5	63	2	2	1400	K 38	03	S	149	33 E	20.0	32	1							1
U5	63	2	2	1500	K 38	03	S	149	33 E	20.0	32	1							1
U5	63	2	3	0500	K 37	57	S	149	21 E	18.9	23	1							1
U5	63	2	3	0800	K 37	57	S	149	21 E	18.9	23	2							1
U5	63	2	3	0915	K 37	57	S	149	21 E	18.9	23	2							1
U5	63	2	3	1045	K 37	57	S	149	21 E	18.9	23	3							1
U5	63	2	3	1230	K 37	51	S	149	33 E	19.4	23	3							1
U5	63	2	3	1230	K 37	51	S	149	33 E	19.4	23	2							1
U5	63	2	7	0630	K 36	57	S	150	03 E	21.1	32	1							1
U5	63	2	7	0745	K 36	57	S	150	03 E	21.1	32	1							1
U5	63	2	7	0900	K 36	51	S	150	03 E	21.1	32	1							1
U5	63	2	8	0500	K 37	57	S	149	21 E	20.6	32	1							1
U5	63	2	8	1230	K 37	57	S	149	21 E	19.4	32	3							1
U5	63	2	9	0200	K 37	57	S	149	21 E	20.0	09	2							1
U5	63	2	9	0400	K 37	57	S	149	21 E	20.0	09	2							1
U5	63	2	10	0630	K 37	45	S	150	03 E	19.4	00	0							1
U5	63	2	10	0730	K 37	45	S	150	03 E	19.4	00	0							1
U5	63	2	10	0900	K 37	45	S	150	03 E	20.0	18	1							1
U5	63	2	10	1015	K 37	45	S	150	03 E	20.0	18	1							1
U5	63	2	10	1145	K 37	45	S	150	03 E	20.0	18	1							1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND		SEA	SMELL	HEA.	VIS.	BAROM.	SAMPLING METHOD
										DN.	AMT.						
U5	63			2	10	1400	K 37	57 S	149	18	1						1
U5	63			2	10	1530	K 37	57 S	149	18	1						1
U5	63			2	10	1700	K 37	57 S	149	18	1						1
U5	63			2	10	1845	K 37	57 S	149	18	1						1
U5	63			2	17	0645	K 37	51 S	149	36	1						1
U5	63			2	17	0830	K 37	51 S	149	36	2						1
U5	63			2	17	1000	K 37	51 S	149	36	2						1
U5	63			2	17	1130	K 37	51 S	149	36	2						1
U5	63			2	17	1300	K 37	51 S	149	04	3						1
U5	63			2	18	0345	K 37	51 S	149	36	2						1
U5	63			2	18	0515	K 37	51 S	149	36	2						1
U5	63			2	18	0630	K 37	51 S	149	36	2						1
U5	63			2	18	0800	K 37	51 S	149	36	2						1
U5	63			2	18	0945	K 37	51 S	149	36	2						1
U5	63			2	18	1100	K 37	51 S	149	36	1						1
U5	63			2	18	1230	K 37	51 S	149	27	1						1
U5	63			2	21	0520	K 36	57 S	150	23	3						1
U5	63			2	21	0650	K 36	57 S	150	36	3						1
U5	63			2	21	0815	K 36	57 S	150	36	3						1
U5	63			2	21	0950	K 36	57 S	150	36	3						1
U5	63			2	21	1115	K 36	57 S	150	36	3						1
U5	63			2	21	1250	K 36	57 S	150	36	3						1
U5	63			2	21	1430	K 36	57 S	150	36	3						1
U5	63			2	22	0535	K 36	57 S	150	04	4						1
U5	63			2	22	0700	K 36	57 S	150	18	3						1
U5	63			2	22	0830	K 36	57 S	150	36	3						1
U5	63			2	22	1000	K 36	57 S	150	36	3						1
U5	63			2	22	1135	K 36	57 S	150	36	3						1
U5	63			2	22	1315	K 36	57 S	150	36	3						1
U5	63			2	23	0420	K 36	57 S	150	36	3						1
U5	63			2	23	0645	K 36	57 S	150	36	3						1
U5	63			2	23	0815	K 36	57 S	150	36	3						1
U5	63			2	23	0945	K 36	57 S	150	36	3						1
U5	63			2	23	1125	K 36	57 S	150	36	3						1
U5	63			2	23	1300	K 36	57 S	150	36	3						1
U5	63			2	24	0605	K 36	45 S	150	14	3						1
U5	63			2	24	0740	K 36	45 S	150	14	3						1
U5	63			2	24	0910	K 36	45 S	150	36	3						1
U5	63			2	24	1045	K 36	45 S	150	36	3						1

VESSEL	CRUISE STATION	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SMELL	WEA.	VIS.	BAROM.	SAMPLING METHOD
	NUMBER								DN, AMT.	DN, AMT.	DN, AMT.	DN, AMT.	DN, AMT.	DN, AMT.	
U5	63	3	8	0230	K 37	51 S	149	33 E	20.0	04	1				1
U5	63	3	8	0345	K 37	51 S	149	33 E	20.0	04	1				1
U5	63	3	8	0500	K 37	51 S	149	33 E	20.0	04	1				1
U5	63	3	8	0715	K 37	51 S	149	33 E	20.6						1
U5	63	3	10	0400	K 37	39 S	150	03 E	18.3	00	0				1
U5	63	3	10	0915	K 37	15 S	150	09 E	20.0	23	2				1
U5	63	3	10	1230	K 37	09 S	150	03 E	20.0	23	3				1
U5	63	3	12	0630	K 37	15 S	150	09 E	20.0	09	2				1
U5	63	3	12	0815	K 37	09 S	150	03 E	20.0	09	1				1
U5	63	3	12	0930	K 37	09 S	150	03 E	20.0	09	1				1
U5	63	3	13	0615	K 36	57 S	150	03 E	21.1	36	1				1
U5	63	3	13	0800	K 36	51 S	150	03 E	21.1	36	1				1
U5	63	3	13	0945	K 36	51 S	150	03 E	21.1	36	2				1
U5	63	3	13	1100	K 36	51 S	150	03 E	21.1	36	2				1
U5	63	3	14	0530	K 36	51 S	150	03 E	20.6	36	1				1
U5	63	3	14	0745	K 36	51 S	150	03 E	21.1	36	1				1
U5	63	3	14	0930	K 36	57 S	150	03 E	21.1	36	1				1
U5	63	3	14	1045	K 36	57 S	150	03 E	21.1	14	1				1
U5	63	3	15	1130	K 37	21 S	149	57 E	20.0	18	2				1
U5	63	3	15	1300	K 37	21 S	149	57 E	20.0	18	2				1
U5	63	3	15	1430	K 37	21 S	150	03 E	20.6	18	2				1
U5	63	3	16	0001	K 37	21 S	150	15 E	20.6	18	3				1
U5	63	3	16	0115	K 37	21 S	150	15 E	20.6						1
U5	63	3	16	0245	K 37	21 S	150	15 E	20.6						1
U5	63	3	16	0400	K 37	21 S	150	15 E	20.6						1
U5	63	3	17	1830	K 37	33 S	150	09 E	21.1						1
U5	63	3	17	2000	K 37	33 S	150	09 E	21.1						1
U5	63	3	17	2115	K 37	33 S	150	09 E	21.1						1
U5	63	3	17	2230	K 37	33 S	150	09 E	21.1						1
U5	63	3	17	2345	K 37	33 S	150	09 E	21.1						1
U5	63	3	18	0115	K 37	33 S	150	09 E	21.1						1
U5	63	3	18	0230	K 37	33 S	150	09 E	21.1						1
U5	63	3	18	0345	K 37	33 S	150	09 E	21.1						1
U5	63	3	18	0530	K 37	33 S	150	09 E	21.1						1
U5	63	3	18	1825	K 37	33 S	150	09 E	20.6	14	1				1
U5	63	3	18	1945	K 37	33 S	150	09 E	20.6						1
U5	63	3	18	2115	K 37	33 S	150	09 E	20.6						1
U5	63	3	18	2230	K 37	33 S	150	09 E	20.6						1
U5	63	3	18	2345	K 37	33 S	150	09 E	20.6						1
U5	63	3	19	0115	K 37	33 S	150	09 E	20.6						1

VESSEL - CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND DIR. AMT. DN. AMT. SEA SWELL DIR. AMT. DN. AMT. WEA. VIS. BAROM. SAMPLING METHOD

U5	63	3	19	0300	K 37	33 S	150	09 E	20.6	09	2	1
U5	63	3	21	1815	K 37	33 S	150	09 E	21.1	04	3	1
U5	63	3	22	1145	K 37	15 S	150	03 E	18.3	04	2	1
U5	63	3	22	1315	K 37	15 S	150	03 E	18.3	04	2	1
U5	63	3	25	0638	K 36	45 S	150	03 E	20.3	32	1	1
U5	63	3	25	0745	K 36	45 S	150	03 E	20.3	00	0	1
U5	63	3	25	0915	K 36	45 S	150	03 E	20.6	00	0	1
U5	63	3	25	1030	K 36	45 S	150	03 E	20.6	00	0	1
U5	63	3	25	1200	K 36	45 S	150	03 E	20.6	00	0	1
U5	63	3	26	0610	K 36	39 S	150	03 E	20.0	32	1	1
U5	63	3	26	0730	K 36	39 S	150	03 E	20.0	00	0	1
U5	63	3	26	0900	K 36	39 S	150	03 E	20.3	18	3	1
U5	63	3	26	1100	K 36	45 S	150	03 E	19.2	18	3	1
U5	63	3	28	0600	K 36	45 S	150	03 E	20.6	14	1	1
U5	63	3	28	0730	K 36	45 S	150	03 E	20.6	00	0	1
U5	63	3	28	0900	K 36	51 S	150	03 E	21.1	09	1	1
U5	63	3	28	1030	K 36	51 S	150	03 E	21.1	09	1	1
U5	63	3	28	1145	K 36	51 S	150	09 E	21.1	09	1	1
U5	63	3	28	1330	K 36	51 S	150	09 E	20.6	09	2	1
U5	63	3	28	1500	K 36	51 S	150	09 E	20.6	09	2	1
U5	63	3	29	0530	K 36	51 S	150	03 E	20.6	04	1	1
U5	63	3	29	0645	K 36	51 S	150	03 E	20.6	00	0	1
U5	63	3	29	0830	K 36	51 S	150	03 E	20.6	00	0	1
U5	63	3	29	0945	K 36	51 S	150	03 E	20.6	00	0	1
U5	63	3	30	0215	K 37	09 S	150	15 E	21.1	32	1	1
U5	63	3	30	0330	K 37	09 S	150	15 E	21.1	32	1	1
U5	63	3	30	0500	K 37	09 S	150	15 E	21.1	32	1	1
U5	63	3	30	0635	K 37	09 S	150	15 E	21.1	36	2	1
U5	63	4	1	0630	K 37	09 S	150	09 E	18.3	32	1	1
U5	63	4	1	0800	K 37	09 S	150	03 E	19.4	27	3	1
U5	63	4	1	0930	K 37	09 S	150	03 E	19.4	27	3	1
U5	63	4	1	1100	K 37	09 S	150	03 E	19.4	27	3	1
U5	63	4	1	1230	K 37	09 S	150	03 E	19.4	18	3	1
U5	63	4	2	0745	K 37	09 S	150	03 E	17.8	18	1	1
U5	63	4	2	0915	K 37	03 S	150	03 E	17.8	18	1	1
U5	63	4	3	0615	K 37	03 S	150	15 E	18.3	18	2	1
U5	63	4	3	0800	K 37	03 S	150	15 E	18.3	18	2	1
U5	63	4	3	0930	K 37	03 S	150	15 E	18.3	18	1	1
U5	63	4	4	0630	K 37	09 S	150	09 E	18.9	36	1	1
U5	63	4	4	0745	K 37	09 S	150	09 E	18.9	36	1	1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SWELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
U5	63	5	8	1900	K	37	03 S	150	15 E	20.6	04	1					1
U5	63	5	8	2015	K	37	03 S	150	15 E	20.6	00	0					1
U5	63	5	8	2120	K	37	03 S	150	15 E	20.6	00	0					1
U5	63	5	8	2315	K	37	09 S	150	15 E	20.6	00	0					1
U5	63	5	9	0930	K	37	09 S	150	15 E	20.6	04	1					1
U5	63	5	9	0930	K	37	09 S	150	15 E	20.6							1
U5	63	5	10	1700	K	37	03 S	150	15 E	20.0	18	1					1
U5	63	5	10	1830	K	37	03 S	150	15 E	20.0	18	1					1
U5	63	5	10	1945	K	37	03 S	150	15 E	20.0	00	0					1
U5	63	5	10	2100	K	37	03 S	150	15 E	20.0	00	0					1
U5	63	5	10	2200	K	37	03 S	150	15 E	20.0							1
U5	63	5	11	0300	K	37	03 S	150	15 E	20.0							1
U5	63	5	11	0200	K	37	03 S	150	15 E	20.6							1
U5	63	5	11	0330	K	37	03 S	150	15 E	20.6							1
U5	63	5	11	0445	K	37	03 S	150	15 E	20.6							1
U5	63	5	11	0630	K	37	03 S	150	15 E	20.6							1
U5	63	5	16	0200	K	37	33 S	150	03 E	17.8	23	3					1
U5	63	5	16	0330	K	37	33 S	150	03 E	17.8	23	2					1
U5	63	5	16	0515	K	37	33 S	150	03 E	17.8	23	2					1
U5	63	5	16	0630	K	37	33 S	150	03 E	17.8	23	1					1
U5	63	5	16	0830	K	37	33 S	150	03 E	17.8	23	1					1
U5	63	5	16	1015	K	37	33 S	150	03 E	17.8	23	1					1
U5	63	5	16	1145	K	37	33 S	150	03 E	17.8	23	1					1
U5	63	5	16	1330	K	37	33 S	150	03 E	17.8	18	1					1
U5	63	5	21	0700	K	37	21 S	150	09 E	18.3	27	1					1
U5	63	5	21	0845	K	37	21 S	150	15 E	18.2	36	2					1
U5	63	5	21	1030	K	37	21 S	150	15 E	18.9	32	2					1
U5	63	5	21	1230	K	37	21 S	150	03 E	18.9	27	2					1
U5	63	5	21	1400	K	37	21 S	150	09 E	18.9	27	1					1
U5	63	5	21	1530	K	37	21 S	150	09 E	18.9	36	1					1
U5	63	5	21	1700	K	37	21 S	150	09 E	18.9	36	1					1
U5	63	5	24	0700	K	37	21 S	150	09 E	15.8	23	3					1
U5	63	5	24	0845	K	37	21 S	150	09 E	15.8	23	3					1
U5	63	5	24	1030	K	37	21 S	150	09 E	16.1	23	3					1
U5	63	5	24	1200	K	37	21 S	150	09 E	16.1	23	3					1
U5	63	5	24	1330	K	37	21 S	150	09 E	16.1	23	3					1
U5	63	5	24	1500	K	37	21 S	150	09 E	15.6	23	3					1
U5	63	5	24	1700	K	37	21 S	150	15 E	15.6	18	2					1
U5	63	5	25	0515	K	37	27 S	150	03 E	15.3	27	1					1
U5	63	5	25	0645	K	37	27 S	150	03 E	15.3	27	1					1

VESSEL	STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN, AMT,	SEA DN, AMT,	SMELL DN, AMT,	WEA.	VIS.	BAROM.	SAMPLING METHOD
U5	63	5	25	0800	K	37	27	S	150	09	E	15.3	23	1			1
U5	63	5	25	1000	K	37	21	S	150	09	E	15.0	23	1			1
U5	63	5	25	1200	K	37	21	S	150	09	E	15.3	00	0			1
U5	63	5	26	0800	K	37	27	S	149	57	E	16.1	23	2			1
U5	63	5	26	1700	K	37	27	S	149	57	E	16.1	23	2			1
U5	63	5	27	1130	K	37	39	S	149	57	E	16.1	32	1			1
U5	63	5	29	1700	K	37	09	S	150	09	E	16.7					1
U5	63	5	29	1815	K	37	09	S	150	09	E	16.7					1
U5	63	5	29	1930	K	37	09	S	150	09	E	16.7					1
U5	63	5	29	2100	K	37	09	S	150	09	E	16.7					1
U5	63	5	29	2230	K	37	09	S	150	09	E	16.7					1
U5	63	5	30	0615	K	37	27	S	149	57	E	14.4					1
U5	63	5	30	0800	K	37	27	S	149	57	E	14.4					1
U5	63	5	30	0915	K	37	27	S	149	57	E	14.4					1
U5	63	5	30	1045	K	37	27	S	150	03	E	14.4					1
U5	63	5	30	1215	K	37	27	S	150	03	E	14.4					1
U5	63	5	31	0900	K	37	33	S	149	57	E	15.6					1
U5	63	5	31	1030	K	37	33	S	149	57	E	15.6					1
U5	63	5	31	1700	K	37	27	S	150	03	E	16.1					1
U5	63	5	31	1830	K	37	27	S	150	03	E	16.1					1
U5	63	5	31	2030	K	37	27	S	150	03	E	16.1					1
U5	63	5	31	2200	K	37	27	S	150	03	E	16.1					1
U5	63	6	6	0515	K	37	27	S	150	03	E	17.2	09	1			1
U5	63	6	6	0645	K	37	27	S	150	03	E	17.2					1
U5	63	6	6	0800	K	37	27	S	150	03	E	17.2					1
U5	63	6	7	0515	K	37	27	S	150	03	E	17.2	09	2			1
U5	63	6	9	0500	K	37	03	S	150	09	E	17.2	05	1			1
U5	63	6	9	0630	K	37	03	S	150	09	E	17.2	05	1			1
U5	63	6	10	0745	K	37	03	S	150	09	E	17.2	05	1			1
U5	63	6	10	0445	K	37	03	S	150	09	E	17.8	36	1			1
U5	63	6	10	0615	K	37	03	S	150	09	E	17.8	36	1			1
U5	63	6	10	0745	K	37	03	S	150	09	E	17.8					1
U5	63	6	10	0915	K	37	03	S	150	09	E	17.8					1
U5	63	6	10	1045	K	37	03	S	150	09	E	17.8					1
U5	63	6	10	1215	K	37	03	S	150	09	E	17.8					1
U5	63	6	10	2000	K	37	03	S	150	09	E	17.8					1
U5	63	6	11	1700	K	36	39	S	150	03	E	17.8	14	1			1
U5	63	6	11	1830	K	36	39	S	150	03	E	17.8	14	1			1
U5	63	6	11	2200	K	36	27	S	150	09	E	17.8	23	1			1
U5	63	6	11	2330	K	36	39	S	150	03	E	17.8	23	1			1

VESSE-	CRUISE	STATION	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER									DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.					
U5		63	6	13	0530	K	37	51 S	149	51 E	17.2	05	2						1
U5		63	6	13	0645	K	37	51 S	149	51 E	17.2	05	2						1
U5		63	6	13	0800	K	37	51 S	149	51 E	17.2	05	2						1
U5		63	6	13	0930	K	37	51 S	149	51 E	17.2	05	2						1
U5		63	6	14	0500	K	37	45 S	149	39 E	16.7	05	2						1
U5		63	6	14	0630	K	37	45 S	149	39 E	16.7	05	3						1
U5		63	6	14	0815	K	37	45 S	149	39 E	16.7	05	2						1
U5		63	6	16	0145	K	37	45 S	149	39 E	17.2	23	2						1
U5		63	6	16	0315	K	37	45 S	149	39 E	17.2	18	2						1
U5		63	6	16	0445	K	37	57 S	149	51 E	17.2	18	2						1
U5		63	6	16	0600	K	37	57 S	149	51 E	17.2	18	2						1
U5		63	6	16	0730	K	37	57 S	149	51 E	17.2	27	1						1
U5		63	6	16	0900	K	37	57 S	149	51 E	17.2	27	1						1
U5		63	6	16	1100	K	37	57 S	149	51 E	17.2	27	4						1
U5		63	7	7	0630	K	37	51 S	149	57 E	14.4	27	2						1
U5		63	7	7	0745	K	37	51 S	149	57 E	14.4	27	2						1
U5		63	7	7	0900	K	37	51 S	149	57 E	14.4	27	3						1
U5		63	7	7	1100	K	37	51 S	149	57 E	14.4	27	3						1
U5		63	7	8	0630	K	37	51 S	149	57 E	14.4	27	3						1
U5		63	7	8	0830	K	37	51 S	149	57 E	14.4	27	1						1
U5		63	7	8	1045	K	37	51 S	149	57 E	14.4	27	3						1
U5		63	7	12	0700	K	37	09 S	150	09 E	14.4	27	3						1
U5		63	7	12	1100	K	37	09 S	150	09 E	14.4	27	3						1
U5		63	7	12	1245	K	37	09 S	150	09 E	14.4	27	3						1
U5		63	7	12	1300	K	37	09 S	150	09 E	14.4	27	1						1
U5		63	7	12	1500	K	37	09 S	150	03 E	14.4	05	2						1
U5		63	7	19	1045	K	37	15 S	150	15 E	14.4	27	1						1
U5		63	7	19	1200	K	37	15 S	150	15 E	15.0	27	1						1
U5		63	7	19	1330	K	37	15 S	150	15 E	15.0	27	1						1
U5		63	7	19	1500	K	37	15 S	150	15 E	15.0	27	1						1
U5		63	7	21	0645	K	37	09 S	150	21 E	17.2	27	1						1
U5		63	7	21	0800	K	37	09 S	150	15 E	15.8	27	1						1
U5		63	7	21	0945	K	37	09 S	150	15 E	15.0	27	1						1
U5		63	7	21	1115	K	37	09 S	150	15 E	15.0	27	1						1
U5		63	7	21	1300	K	37	09 S	150	15 E	15.6	23	3						1
U5		63	7	22	0645	K	37	09 S	150	15 E	13.9	23	3						1
U5		63	7	22	0830	K	37	09 S	150	15 E	13.3	23	3						1
U5		63	7	22	1000	K	37	09 S	150	15 E	13.3	23	3						1
U5		63	7	22	1130	K	37	09 S	150	15 E	13.3	23	3						1
U5		63	7	22	1300	K	37	09 S	150	15 E	13.3	23	3						1

VESSE - CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U5	63	7	23	0645	K	37	09	S	150	15	E	13.9	27	1	1
U5	63	7	23	0830	K	37	09	S	150	15	E	13.9	23	1	1
U5	63	7	23	1000	K	37	09	S	150	15	E	13.9	23	1	1
U5	63	7	25	0700	K	37	21	S	150	09	E	13.3	00	0	1
U5	63	7	25	0815	K	37	21	S	150	09	E	13.3	00	0	1
U5	63	7	25	1000	K	37	21	S	150	09	E	13.3	00	0	1
U5	63	7	25	1130	K	37	21	S	150	15	E	14.7	05	1	1
U5	63	7	25	1300	K	37	15	S	150	15	E	14.7	05	1	1
U5	63	7	26	0730	K	37	03	S	150	09	E	13.6	36	1	1
U5	63	7	26	0915	K	37	03	S	150	15	E	16.1	36	1	1
U5	63	7	26	1100	K	37	09	S	150	15	E	16.1	36	1	1
U5	63	7	26	1430	K	37	09	S	150	15	E	16.1	36	1	1
U5	63	7	27	0730	K	37	21	S	150	09	E	14.4	36	1	1
U5	63	7	27	0930	K	37	21	S	150	03	E	15.6	05	1	1
U5	63	7	27	1030	K	37	21	S	150	03	E	15.6	05	2	1
U5	63	7	27	1200	K	37	21	S	150	03	E	15.6	05	2	1
U5	63	7	28	0845	K	37	09	S	150	03	E	15.6	36	1	1
U5	63	7	28	1000	K	37	09	S	150	03	E	15.6	36	2	1
U5	63	7	28	1130	K	37	09	S	150	03	E	15.6	36	2	1
U5	63	7	28	1245	K	37	09	S	150	03	E	15.6	36	2	1
U5	63	7	29	0830	K	37	21	S	150	03	E	13.1	36	1	1
U5	63	7	29	1000	K	37	21	S	150	03	E	13.1	36	1	1
U5	63	7	29	1130	K	37	27	S	150	03	E	12.8	36	2	1
U5	63	7	31	0715	K	37	33	S	149	57	E	13.7	27	2	1
U5	63	7	31	0930	K	37	33	S	150	15	E	13.9	27	3	1
U5	63	7	31	1130	K	37	33	S	150	15	E	13.9	27	4	1
U5	63	7	31	1330	K	37	33	S	149	57	E	13.9	23	3	1
U5	63	7	31	1500	K	37	33	S	149	57	E	13.9	23	2	1
U5	63	7	31	1645	K	37	33	S	149	57	E	13.9	23	2	1
U5	63	8	1	0915	K	37	21	S	150	09	E	13.9	32	1	1
U5	63	8	1	1030	K	37	21	S	150	09	E	13.9	32	1	1
U5	63	8	1	1200	K	37	21	S	150	09	E	13.9	32	1	1
U5	63	8	1	1315	K	37	21	S	150	09	E	13.9	32	2	1
U5	63	8	1	1500	K	37	21	S	150	03	E	13.6	36	2	1
U5	63	8	2	0745	K	37	21	S	150	03	E	13.6	23	2	1
U5	63	8	2	0930	K	37	21	S	150	03	E	13.6	23	1	1
U5	63	8	2	1115	K	37	21	S	150	03	E	13.6	23	2	1
U5	63	8	2	1245	K	37	21	S	150	03	E	13.6	23	2	1
U5	63	8	2	1500	K	37	21	S	150	03	E	13.6	23	2	1
U5	63	8	3	0730	K	37	21	S	150	09	E	13.3	32	1	1

VESSE-	CRUISE	STATION	YR.	MM.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	SEA	WIND	SWELL	WEA.	VIS.	BAROM.	SAMPLING
		NUMBER				4				DN,	AMT,	DN,	DN,	AMT,		METHOD
U5	63	18	1015	K	37	21	S	150	09	E	13.9	00	0			1
U5	63	18	1130	K	37	21	S	150	09	E	13.9	00	0			1
U5	63	18	1300	K	37	21	S	150	09	E	13.9	36	1			1
U5	63	19	0945	K	37	21	S	150	09	E	13.9	00	0			1
U5	63	19	1145	K	37	21	S	150	09	E	13.9	18	1			1
U5	63	19	1300	K	37	21	S	150	09	E	13.9	18	1			1
U5	63	20	0815	K	37	21	S	150	09	E	13.9	36	1			1
U5	63	20	0945	K	37	21	S	150	09	E	13.9	36	1			1
U5	63	20	1100	K	37	21	S	150	09	E	13.9	32	1			1
U5	63	20	1215	K	37	21	S	150	09	E	13.9	32	1			1
U5	63	21	0700	K	37	09	S	150	09	E	13.9	36	1			1
U5	63	21	0830	K	37	09	S	150	09	E	13.9	05	1			1
U5	63	21	1000	K	37	09	S	150	09	E	13.9	05	1			1
U5	63	21	1115	K	37	09	S	150	09	E	13.9	05	1			1
U5	63	21	1215	K	37	09	S	150	09	E	13.9	05	1			1
U5	63	22	0645	K	37	09	S	150	09	E	13.6	36	1			1
U5	63	22	0800	K	37	09	S	150	09	E	13.6	36	2			1
U5	63	22	0930	K	37	09	S	150	09	E	13.6	36	2			1
U5	63	22	1100	K	37	09	S	150	09	E	13.6	36	2			1
U5	63	22	1200	K	37	09	S	150	09	E	13.6	36	2			1
U5	63	23	0700	K	37	21	S	150	03	E	13.9	23	1			1
U5	63	23	0830	K	37	21	S	150	03	E	13.9	23	1			1
U5	63	23	0945	K	37	21	S	150	03	E	13.9	23	1			1
U5	63	23	1100	K	37	21	S	150	03	E	13.9	00	0			1
U5	63	24	0645	K	37	51	S	149	57	E	13.9	36	1			1
U5	63	24	0800	K	37	51	S	149	57	E	13.9	36	1			1
U5	63	24	0930	K	37	51	S	149	57	E	13.9	36	1			1
U5	63	24	1115	K	37	51	S	149	57	E	13.9	36	1			1
U5	63	24	1230	K	37	51	S	149	57	E	13.9	36	2			1
U5	63	24	1345	K	37	51	S	149	57	E	13.9	36	2			1
U5	63	27	0730	K	37	09	S	150	03	E	13.1	23	1			1
U5	63	27	0900	K	37	09	S	150	03	E	13.1	23	1			1
U5	63	27	1015	K	37	09	S	150	03	E	13.1	23	1			1
U5	63	27	1135	K	37	09	S	150	03	E	13.1	23	1			1
U5	63	28	0900	K	37	09	S	150	03	E	13.6	00	0			1
U5	63	28	1045	K	37	09	S	150	03	E	13.6	00	0			1
U5	63	28	1200	K	37	09	S	150	03	E	13.6	00	0			1
U5	63	28	1330	K	37	09	S	150	03	E	13.6	00	0			1
U5	63	28	1500	K	37	09	S	150	03	E	13.6	00	0			1
U5	63	9	0600	K	37	09	S	150	03	E	12.8	27	1			1

VESSE-	CRUISE	STATION	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SMELL	WEA.	VIS.	BAROM.	SAMPLING
NUMBER		NUMBER										DN. AMT.	DN. AMT.	DN. AMT.				METHOD
U5	63	9	2	0715	K	37	09	S	150	03	E	12.8	00	0				1
U5	63	9	2	0845	K	37	09	S	150	03	E	12.8	00	0				1
U5	63	9	2	1015	K	37	09	S	150	03	E	12.8	36	1				1
U5	63	9	2	1130	K	37	09	S	150	03	E	12.8						1
U5	63	9	2	1300	K	37	09	S	150	03	E	12.8						1
U5	63	9	3	0615	K	37	09	S	150	09	E	14.2	27	1				1
U5	63	9	3	0745	K	37	09	S	150	09	E	14.2	27	1				1
U5	63	9	3	0900	K	37	09	S	150	09	E	14.2	27	1				1
U5	63	9	3	1030	K	37	09	S	150	09	E	14.2	36	1				1
U5	63	9	3	1145	K	37	09	S	150	09	E	14.2	05	1				1
U5	63	9	4	0615	K	37	15	S	150	09	E	13.9	36	1				1
U5	63	9	4	0745	K	37	15	S	150	09	E	13.9	36	2				1
U5	63	9	4	0900	K	37	15	S	150	09	E	13.9	36	2				1
U5	63	9	5	0600	K	37	03	S	150	09	E	13.9	27	1				1
U5	63	9	5	0730	K	37	03	S	150	09	E	13.9	27	1				1
U5	63	9	5	0900	K	37	03	S	150	09	E	13.9	27	2				1
U5	63	9	5	1015	K	37	03	S	150	09	E	13.9	23	3				1
U5	63	9	6	0715	K	37	15	S	150	09	E	13.3	27	1				1
U5	63	9	6	0830	K	37	15	S	150	09	E	13.3	27	1				1
U5	63	9	6	1000	K	37	15	S	150	09	E	13.3	36	1				1
U5	63	9	6	1145	K	37	15	S	150	09	E	13.9	36	2				1
U5	63	9	6	1300	K	37	15	S	150	09	E	13.9	36	2				1
U5	63	9	7	0800	K	37	21	S	150	09	E	13.3	23	2				1
U5	63	9	7	0930	K	37	21	S	150	09	E	13.3	23	2				1
U5	63	9	7	1115	K	37	15	S	150	09	E	13.3	23	3				1
U5	63	9	8	0745	K	37	15	S	150	09	E	13.9	23	2				1
U5	63	9	8	0900	K	37	15	S	150	09	E	13.9	23	2				1
U5	63	9	8	1100	K	37	15	S	150	09	E	13.9	23	2				1
U5	63	9	8	1215	K	37	15	S	150	09	E	13.9	23	1				1
U5	63	9	8	1345	K	37	15	S	150	09	E	13.9	23	1				1
U5	63	9	9	0815	K	37	21	S	150	09	E	13.6	23	3				1
U5	63	9	9	0945	K	37	21	S	150	09	E	13.6	23	3				1
U5	63	9	10	0630	K	37	09	S	150	09	E	13.9	36	1				1
U5	63	9	10	0800	K	37	09	S	150	09	E	13.9	36	2				1
U5	63	9	10	0930	K	37	09	S	150	09	E	13.9	36	2				1
U5	63	9	10	1045	K	37	09	S	150	09	E	13.9	36	2				1
U5	63	9	10	1230	K	37	09	S	150	09	E	13.9	34	3				1
U5	63	9	10	1330	K	37	09	S	150	09	E	13.9	36	3				1
U5	63	9	11	0700	K	37	09	S	150	09	E	13.9	36	1				1
U5	63	9	11	0900	K	37	09	S	150	09	E	13.9	36	1				1

VESSE-	CRUISE	STATION	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER									DN, AMT.	DN, AMT.	DN, AMT.	DN, AMT.					
U5	63	9	11	1030	K	37	09	S	150	09 E 13.9	36	2							1
U5	63	9	11	1145	K	37	09	S	150	09 E 13.9	36	2							1
U5	63	9	12	0730	K	37	09	S	150	09 E 13.6	27	1							1
U5	63	9	12	0900	K	37	09	S	150	09 E 13.6	32	1							1
U5	63	9	12	1045	K	37	09	S	150	09 E 13.9	32	2							1
U5	63	9	12	1215	K	37	09	S	150	09 E 13.9	27	2							1
U5	63	9	12	1330	K	37	09	S	150	09 E 13.9	27	3							1
U5	63	9	13	0700	K	37	09	S	150	09 E 13.1	32	2							1
U5	63	9	15	0830	K	37	21	S	150	09 E 13.9	32	1							1
U5	63	9	15	1030	K	37	21	S	150	09 E 13.9	36	1							1
U5	63	9	15	1230	K	37	27	S	150	03 E 14.4	00	0							1
U5	63	9	16	0645	K	37	33	S	149	57 E 13.1	36	1							1
U5	63	9	16	0830	K	37	33	S	149	57 E 13.1	05	3							1
U5	63	9	16	1000	K	37	33	S	149	57 E 13.3	05	2							1
U5	63	9	16	1130	K	37	33	S	149	57 E 13.3	05	2							1
U5	63	9	16	1300	K	37	33	S	149	57 E 13.3	00	0							1
U5	63	9	16	1430	K	37	33	S	149	57 E 13.3	23	2							1
U5	63	9	21	0600	K	37	21	S	150	03 E 13.1	32	1							1
U5	63	9	21	0745	K	37	21	S	150	03 E 13.1	36	2							1
U5	63	9	21	0930	K	37	21	S	150	03 E 13.1	36	2							1
U5	63	9	21	1300	K	37	33	S	149	57 E 13.3	05	2							1
U5	63	9	21	1415	K	37	33	S	149	57 E 13.3	05	3							1
U5	63	9	22	0615	K	37	33	S	149	57 E 12.8	05	2							1
U5	63	9	26	1000	K	37	09	S	150	15 E 15.6	05	2							1
U5	63	9	26	1115	K	37	09	S	150	15 E 15.6	00	0							1
U5	63	9	28	0600	K	37	03	S	150	03 E 14.4	00	0							1
U5	63	9	28	0730	K	37	03	S	150	03 E 14.4	00	0							1
U5	63	9	28	0830	K	37	03	S	150	03 E 14.4	00	0							1
U5	63	9	28	1015	K	37	03	S	150	03 E 14.4	00	0							1
U5	63	9	28	1115	K	37	03	S	150	03 E 14.4	00	0							1
U5	63	9	28	1245	K	37	03	S	150	03 E 14.4	09	1							1
U5	63	9	29	0700	K	37	51	S	149	57 E 14.4	18	1							1
U5	63	9	29	0830	K	37	51	S	149	57 E 14.4	00	0							1
U5	63	9	29	1000	K	37	51	S	149	57 E 14.4	00	0							1
U5	63	9	29	1145	K	37	51	S	149	57 E 14.4	14	1							1
U5	63	9	29	1245	K	37	51	S	149	57 E 14.4	14	1							1
U5	63	9	29	1415	K	37	51	S	149	57 E 14.4	14	1							1
U5	63	9	30	0745	K	37	33	S	149	57 E 14.4	05	1							1
U5	63	9	30	0900	K	37	33	S	149	57 E 14.4	05	1							1
U5	63	10	1	0630	K	37	33	S	149	57 E 15.0	00	0							1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA SWELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
U5	63	10	1	0800	K 37	33 S 149	57 E 15.0		18	1				1
U5	63	10	1	0930	K 37	33 S 149	57 E 15.0		18	1				1
U5	63	10	4	0645	K 37	09 S 150	03 E 14.7		00	0				1
U5	63	10	4	0815	K 37	09 S 150	03 E 14.7							1
U5	63	10	4	0845	K 37	09 S 150	03 E 14.7							1
U5	63	10	5	0730	K 37	15 S 150	03 E 15.0							1
U5	63	10	5	0815	K 37	15 S 150	03 E 15.0		36	1				1
U5	63	10	5	1015	K 37	15 S 150	03 E 15.0		27	1				1
U5	63	10	5	1130	K 37	15 S 150	03 E 15.0		36	2				1
U5	63	10	5	1300	K 37	15 S 150	03 E 15.0		05	3				1
U5	63	10	8	0545	K 36	57 S 150	03 E 15.0		00	0				1
U5	63	10	8	0915	K 36	57 S 150	03 E 16.1		00	0				1
U5	63	10	9	0615	K 36	57 S 150	03 E 15.0		32	2				1
U5	63	10	9	0745	K 36	57 S 150	03 E 15.0		32	2				1
U5	63	10	9	0900	K 36	57 S 150	03 E 15.0		32	2				1
U5	63	10	9	1215	K 36	57 S 150	03 E 16.1		05	2				1
U5	63	10	9	1400	K 36	57 S 150	03 E 16.1		05	2				1
U5	63	10	11	0600	K 37	03 S 150	09 E 15.6		36	1				1
U5	63	10	11	0730	K 37	03 S 150	09 E 15.8		36	1				1
U5	63	10	11	0900	K 37	03 S 150	09 E 15.8		36	1				1
U5	63	10	15	0630	K 36	57 S 150	09 E 15.6		23	2				1
U5	63	10	15	0745	K 36	57 S 150	09 E 15.6		23	2				1
U5	63	10	15	0945	K 36	57 S 150	09 E 15.6							1
U5	63	10	15	1115	K 36	57 S 150	09 E 15.6		18	1				1
U5	63	10	15	1245	K 36	57 S 150	09 E 15.6		14	1				1
U5	63	10	16	0715	K 37	15 S 150	15 E 15.3		23	1				1
U5	63	10	16	0830	K 37	15 S 150	15 E 15.3		23	1				1
U5	63	10	16	1130	K 37	15 S 150	15 E 15.0		00	0				1
U5	63	10	17	0700	K 37	21 S 150	03 E 14.4		36	1				1
U5	63	10	17	0830	K 37	21 S 150	03 E 14.4		36	1				1
U5	63	10	17	1015	K 37	21 S 150	03 E 14.4		36	2				1
U5	63	10	17	1145	K 37	21 S 150	03 E 14.4		05	2				1
U5	63	10	17	1300	K 37	21 S 150	03 E 14.4		05	1				1
U5	63	10	17	1415	K 37	21 S 150	03 E 14.4		05	1				1
U5	63	10	17	1600	K 37	21 S 150	03 E 14.4		00	0				1
U5	63	10	18	0545	K 37	27 S 150	03 E 14.4		00	0				1
U5	63	10	18	0730	K 37	27 S 150	03 E 14.4		36	2				1
U5	63	10	18	0915	K 37	27 S 150	03 E 14.4		36	2				1
U5	63	10	18	1030	K 37	27 S 150	03 E 14.4		36	2				1
U5	63	10	18	1200	K 37	27 S 150	03 E 14.4		36	2				1

VESSE - CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND		SEA	SMELL	WPA.	VIS.	BAROM.	SAMPLING METHOD
									DN.	AMT.						
U5	63	11	11	1130	K 37	09 S 150	09 E 17.8	05	1	1						1
U5	63	11	12	0615	K 37	51 S 149	45 E 16.1	36	1	1						1
U5	63	11	12	0900	K 37	51 S 149	45 E 16.1	36	1	1						1
U5	63	11	12	1345	K 37	39 S 149	39 E 16.1	36	2	2						1
U5	63	11	12	1615	K 37	39 S 149	39 E 16.1	36	2	2						1
U5	63	11	15	0615	K 37	15 S 150	09 E 17.2	23	2	2						1
U5	63	11	15	0745	K 37	15 S 150	09 E 17.2	23	2	2						1
U5	63	11	16	0545	K 36	57 S 150	09 E 16.9	23	2	2						1
U5	63	11	17	0615	K 36	57 S 150	09 E 16.7	23	2	2						1
U5	63	11	17	0745	K 36	57 S 150	09 E 16.7	27	2	2						1
U5	63	11	17	0900	K 36	57 S 150	09 E 16.7									1
U5	63	11	17	1030	K 36	57 S 150	09 E 16.7									1
U5	63	11	17	1145	K 36	57 S 150	09 E 16.7	14	1	1						1
U5	63	11	18	0530	K 37	45 S 149	57 E 15.6	36	3	3						1
U5	63	11	18	0830	K 37	39 S 149	57 E 15.8	00	0	0						1
U5	63	11	18	1100	K 37	51 S 149	57 E 15.8	05	1	1						1
U5	63	11	18	1230	K 37	51 S 149	57 E 15.8	05	1	1						1
U5	63	11	18	1400	K 37	51 S 149	57 E 15.8	05	2	2						1
U5	63	11	18	1545	K 37	51 S 149	57 E 15.8	05	2	2						1
U5	63	11	19	0545	K 37	51 S 149	57 E 15.8	36	1	1						1
U5	63	11	19	0715	K 37	51 S 149	57 E 15.8	32	1	1						1
U5	63	11	21	0600	K 37	51 S 149	57 E 15.0	05	1	1						1
U5	63	11	21	0730	K 37	51 S 149	57 E 15.0	05	2	2						1
U5	63	11	21	0845	K 37	51 S 149	57 E 15.0	05	2	2						1
U5	63	11	21	1015	K 37	51 S 149	57 E 15.0	05	3	3						1
U5	63	11	21	1230	K 37	51 S 149	57 E 15.0	05	3	3						1
U5	63	11	23	0900	K 37	09 S 150	09 E 16.7	23	2	2						1
U5	63	11	23	1030	K 37	09 S 150	09 E 16.7	23	2	2						1
U5	63	11	24	0715	K 37	09 S 150	09 E 16.4	23	1	1						1
U5	63	11	24	0845	K 37	09 S 150	09 E 16.4	23	1	1						1
U5	63	11	24	1015	K 37	09 S 150	09 E 16.4	23	1	1						1
U5	63	11	24	1145	K 37	09 S 150	09 E 16.4	23	1	1						1
U5	63	11	25	0545	K 36	57 S 150	03 E 18.3	09	1	1						1
U5	63	11	25	0715	K 36	57 S 150	03 E 18.3	09	1	1						1
U5	63	11	25	0845	K 36	57 S 150	03 E 18.3	09	1	1						1
U5	63	11	25	1015	K 36	57 S 150	03 E 18.3	09	1	1						1
U5	63	11	26	0645	K 36	57 S 150	15 E 18.6	09	1	1						1
U5	63	11	26	0815	K 36	57 S 150	15 E 18.6	09	1	1						1
U5	63	11	26	0945	K 36	57 S 150	15 E 19.4	09	1	1						1
U5	63	11	26	1100	K 36	57 S 150	15 E 19.4	09	1	1						1

VESSE - CRUISE STATION YR, MTH, DAY	TIME Z	LATITUDE	LONGITUDE	TEMP,	SALINITY	WIND DN. AMT,	SEA DN. AMT,	SWELL DN. AMT,	WEA. VIS.	BAROM.	SAMPLING METHOD
U5 63 11 27	0710	K 37	27 S	150	03 E	18.3	05	2			1
U5 63 11 27	0845	K 37	27 S	150	03 E	18.3	05	3			1
U5 63 11 27	1030	K 37	27 S	150	03 E	18.3	05	3			1
U5 63 11 27	1230	K 37	27 S	150	03 E	18.3	05	3			1
U5 63 11 27	1430	K 37	33 S	150	03 E	18.3	05	4			1
U5 63 11 29	0530	K 37	33 S	150	03 E	16.1	27	1			1
U5 63 11 29	0700	K 37	33 S	150	03 E	16.1	27	1			1
U5 63 12 1	0700	K 37	21 S	150	03 E	17.2	23	1			1
U5 63 12 1	0900	K 37	21 S	150	03 E	17.2	23	1			1
U5 63 12 1	1045	K 37	21 S	150	03 E	16.7	18	2			1
U5 63 12 1	1215	K 37	21 S	150	03 E	16.7	16	2			1
U5 63 12 1	1400	K 37	21 S	150	03 E	16.7	16	3			1
U5 63 12 2	0615	K 37	45 S	149	57 E	16.1	18	1			1
U5 63 12 2	0730	K 37	45 S	149	57 E	16.1	18	1			1
U5 63 12 2	0900	K 37	45 S	149	57 E	16.1	18	1			1
U5 63 12 2	1030	K 37	45 S	149	57 E	16.1	18	1			1
U5 63 12 2	1445	K 37	39 S	149	57 E	15.6	23	3			1
U5 63 12 3	0445	K 37	27 S	150	03 E	15.8	00	0			1
U5 63 12 3	0645	K 37	27 S	150	03 E	15.8	00	0			1
U5 63 12 3	0830	K 37	27 S	150	03 E	16.1	00	0			1
U5 63 12 3	1000	K 37	27 S	150	03 E	16.1	00	0			1
U5 63 12 4	0615	K 36	51 S	150	03 E	14.4	00	0			1
U5 63 12 12	0600	K 36	51 S	150	09 E	17.8	05	2			1
U5 63 12 12	0730	K 36	51 S	150	09 E	17.8	23	1			1
U5 63 12 12	0900	K 36	51 S	150	09 E	17.8	23	1			1
U5 63 12 12	1030	K 36	51 S	150	09 E	18.9	00	0			1
U5 63 12 12	1200	K 36	51 S	150	09 E	18.9	00	0			1
U5 63 12 12	1400	K 36	51 S	150	09 E	20.0	00	0			1
U5 63 12 13	0545	K 36	51 S	150	09 E	18.3	00	0			1
U5 63 12 13	0700	K 36	51 S	150	09 E	18.3	00	0			1
U5 63 12 13	0900	K 36	51 S	150	09 E	18.3	05	2			1
U5 63 12 16	0600	K 36	57 S	150	03 E	17.8	23	1			1
U5 63 12 16	0745	K 36	57 S	150	03 E	17.8	23	2			1

VESSEL- CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U7	63	11	19	1700	37	3 S 150	15 E 18.9	1
U7	63	11	20	0800	37	3 S 150	3 E 17.7	1
U7	63	11	20	0900	37	3 S 150	9 E 17.8	1
U7	63	11	20	1000	36	57 S 150	21 E 18.6	1
U7	63	11	20	1100	37	3 S 150	21 E 18.6	1
U7	63	11	20	1200	37	3 S 150	21 E 18.4	1
U7	63	11	20	1300	37	3 S 150	21 E 18.9	1
U7	63	11	20	1400	37	3 S 150	21 E 18.9	1
U7	63	11	20	1500	37	9 S 150	33 E 18.6	1
U7	63	11	20	1505	37	9 S 150	33 E 18.9	1
U7	63	11	20	1600	37	3 S 150	27 E 18.9	1
U7	63	11	20	1700	37	9 S 150	21 E 18.9	1
U7	63	11	20	1800	37	9 S 150	21 E 18.8	1
U7	63	11	20	1900	37	9 S 150	15 E 18.8	1
U7	63	11	21	0900	37	3 S 150	3 E 17.8	1
U7	63	11	21	1000	36	57 S 150	9 E 18.9	1
U7	63	11	21	1100	36	57 S 150	15 E 18.8	1
U7	63	11	21	1107	36	51 S 150	15 E 18.9	1
U7	63	11	21	1200	36	45 S 150	21 E 19.8	1
U7	63	11	21	1300	36	39 S 150	21 E 21.1	1
U7	63	11	21	1300	36	33 S 150	21 E 21.1	1
U7	63	11	21	1600	36	27 S 150	27 E 20.6	1
U7	63	11	21	1700	36	21 S 150	27 E 20.2	1
U7	63	11	23	0700	36	27 S 150	9 E 17.9	1
U7	63	11	23	0800	36	27 S 150	15 E 18.9	1
U7	63	11	23	0900	36	27 S 150	21 E 18.9	1
U7	63	11	23	1000	36	27 S 150	27 E 19.2	1
U7	63	11	23	1100	36	27 S 150	21 E 19.3	1
U7	63	11	23	1200	36	27 S 150	21 E 18.9	1
U7	63	11	23	1300	36	27 S 150	21 E 18.9	1
U7	63	11	23	1400	36	27 S 150	21 E 18.9	1
U7	63	11	23	1500	36	33 S 150	21 E 19.2	1
U7	63	11	23	1700	36	39 S 150	15 E 19.1	1
U7	63	11	23	1900	37	3 S 150	3 E 16.9	1
U7	63	11	24	0800	37	3 S 150	3 E 16.7	1
U7	63	11	24	0900	37	3 S 150	9 E 18.3	1
U7	63	11	24	1000	37	3 S 150	15 E 18.9	1
U7	63	11	24	1009	37	3 S 150	21 E 18.9	1
U7	63	11	24	1100	37	3 S 150	21 E 18.9	1
U7	63	11	24	1200	37	3 S 150	21 E 18.9	1

VESSE- CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SMELL SEA SAMPLING
 NUMBER DN. AMT. DN. AMT. DN. AMT. DN. AMT. DN. AMT. DN. AMT. DN. AMT. METHOD

U7	63	11	24	1300	36	57	S	150	21	E	18.9	1
U7	63	11	24	1347	36	57	S	150	21	E	18.9	1
U7	63	11	24	1645	36	57	S	150	21	E	18.9	1
U7	63	11	24	1800	36	57	S	150	15	E	18.9	1
U7	63	11	24	1900	37	3	S	150	9	E	18.8	1
U7	63	11	25	0900	37	3	S	150	9	E	18.9	1
U7	63	11	25	1000	37	3	S	150	15	E	19.4	1
U7	63	11	25	1100	37	3	S	150	21	E	19.4	1
U7	63	11	25	1200	36	57	S	150	21	E	19.6	1
U7	63	11	25	1300	36	57	S	150	27	E	20.0	1
U7	63	11	25	1400	36	57	S	150	27	E	20.0	1
U7	63	11	25	1500	36	57	S	150	21	E	20.0	1
U7	63	11	25	1600	36	57	S	150	21	E	19.9	1
U7	63	11	25	1607	36	57	S	150	21	E	19.8	1
U7	63	11	25	1700	37	3	S	150	15	E	19.8	1
U7	63	11	25	1800	37	3	S	150	9	E	19.3	1
U7	63	11	26	0800	36	57	S	150	9	E	18.8	1
U7	63	11	26	0900	36	57	S	150	15	E	19.1	1
U7	63	11	26	0943	37	3	S	150	21	E	19.1	1
U7	63	11	26	1100	36	57	S	150	27	E	19.5	1
U7	63	11	26	1110	36	57	S	150	27	E	19.6	1
U7	63	11	26	1200	36	57	S	150	27	E	19.4	1
U7	63	11	26	1300	36	57	S	150	27	E	20.2	1
U7	63	11	26	1400	36	57	S	150	27	E	20.0	1
U7	63	11	26	1500	36	57	S	150	21	E	20.0	1
U7	63	11	26	1600	37	3	S	150	15	E	19.7	1
U7	63	11	26	1700	37	3	S	150	9	E	19.3	1
U7	63	11	26	1800	37	3	S	150	3	E	18.9	1
U7	63	11	27	0600	36	57	S	150	15	E	17.8	1
U7	63	11	27	0700	36	57	S	150	9	E	17.9	1
U7	63	11	27	0800	36	51	S	150	15	E	18.9	1
U7	63	11	27	0900	36	45	S	150	21	E	19.1	1
U7	63	11	27	1000	36	45	S	150	27	E	19.0	1
U7	63	11	27	1100	36	39	S	150	27	E	20.4	1
U7	63	11	27	1200	36	39	S	150	27	E	20.3	1
U7	63	11	27	1300	36	33	S	150	27	E	20.3	1
U7	63	11	27	1400	36	51	S	150	27	E	20.3	1
U7	63	11	27	1500	36	57	S	150	21	E	19.6	1
U7	63	11	27	1600	37	3	S	150	21	E	19.3	1
U7	63	11	27	1700	37	3	S	150	15	E	18.9	1

VESSE- CRUISE STATION YR. MH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

VESSE	CRUISE STATION	YR.	MH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	WEA.	VIS.	BAROM.	SAMPLING METHOD
U7	63	11	27	1800	37	S	150	3	E	18.3							1
U7	63	12	1	0700	37	S	150	9	E	16.4							1
U7	63	12	1	0800	37	S	150	15	E	17.1							1
U7	63	12	1	0900	37	S	150	21	E	18.6							1
U7	63	12	1	1000	36	S	150	27	E	19.2							1
U7	63	12	1	1100	36	S	150	33	E	19.4							1
U7	63	12	1	1200	36	S	150	39	E	19.4							1
U7	63	12	1	1300	36	S	150	45	E	20.0							1
U7	63	12	1	1400	36	S	150	27	E	19.7							1
U7	63	12	1	1500	36	S	150	27	E	19.7							1
U7	63	12	1	1600	36	S	150	21	E	19.7							1
U7	63	12	1	1700	37	S	150	15	E	17.8							1
U7	63	12	1	1800	37	S	150	9	E	16.8							1
U7	63	12	2	0700	37	S	150	9	E	17.1							1
U7	63	12	2	0800	37	S	150	15	E	17.3							1
U7	63	12	2	0900	36	S	150	21	E	19.3							1
U7	63	12	2	1000	36	S	150	21	E	19.6							1
U7	63	12	2	1100	36	S	150	21	E	19.4							1
U7	63	12	2	1200	36	S	150	21	E	19.9							1
U7	63	12	2	1300	36	S	150	21	E	19.8							1
U7	63	12	2	1400	36	S	150	21	E	19.7							1
U7	63	12	2	1500	36	S	150	21	E	19.7							1
U7	63	12	2	1700	36	S	150	15	E	18.3							1
U7	63	12	2	1800	37	S	150	3	E	17.5							1
U7	63	12	3	0700	37	S	150	3	E	17.2							1
U7	63	12	3	0800	37	S	150	9	E	18.3							1
U7	63	12	3	0900	37	S	150	21	E	19.1							1
U7	63	12	3	1000	37	S	150	21	E	19.7							1
U7	63	12	3	1100	37	S	150	15	E	19.7							1
U7	63	12	3	1200	37	S	150	15	E	19.2							1
U7	63	12	3	1300	37	S	150	21	E	18.9							1
U7	63	12	3	1400	37	S	150	21	E	19.2							1
U7	63	12	3	1500	37	S	150	21	E	19.4							1
U7	63	12	3	1600	37	S	150	21	E	19.4							1
U7	63	12	3	1700	37	S	150	21	E	19.9							1
U7	63	12	3	1800	37	S	150	21	E	19.7							1
U7	63	12	3	1900	37	S	150	9	E	18.9							1
U7	63	12	3	2000	37	S	150	3	E	16.7							1
U7	63	12	6	0800	37	S	150	3	E	16.7							1
U7	63	12	6	0900	37	S	150	9	E	17.1							1

VESSE - CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U8	63	2	7	1100	34	45 S	135	3 E	18.9	1
U8	63	2	7	1230	34	51 S	135	15 E	18.1	1
U8	63	2	7	1530	34	57 S	135	39 E	18.3	1
U8	63	2	16	1230	35	3 S	135	57 E	17.2	1
U8	63	2	16	1500	35	15 S	135	39 E	18.3	1
U8	63	2	16	1510	35	15 S	135	39 E	18.6	1
U8	63	2	16	1540	35	15 S	135	39 E	18.6	1
U8	63	2	16	1640	35	15 S	135	39 E	18.3	1
U8	63	2	16	1700	35	15 S	135	39 E	18.3	1
U8	63	2	16	1730	35	15 S	135	39 E	18.6	1
U8	63	2	20	0900	35	15 S	135	39 E	18.9	1
U8	63	2	22	1000	35	15 S	135	39 E	18.3	1
U8	63	2	22	1700	34	45 S	134	39 E	18.3	1
U8	63	2	24	0645	34	45 S	134	39 E	18.3	1
U8	63	3	5	1330	35	51 S	135	27 E	18.9	1
U8	63	4	16	0730	35	15 S	135	39 E	17.6	1
U8	63	4	18	0900	35	3 S	135	39 E	17.8	1
U8	63	4	18	1000	34	57 S	135	39 E	17.8	1
U8	63	4	18	1300	34	57 S	135	39 E	18.6	1
U8	63	4	19	0800	34	45 S	135	3 E	17.5	1
U8	63	4	19	0830	34	45 S	135	3 E	17.5	1
U8	63	4	22	0700	34	57 S	135	33 E	17.5	1
U8	63	4	22	0930	34	45 S	135	3 E	17.8	1
U8	63	4	22	1040	34	51 S	135	9 E	17.8	1
U8	63	4	22	1110	34	51 S	135	9 E	17.8	1
U8	63	4	22	1230	34	57 S	135	33 E	17.5	1
U8	63	4	22	1315	34	57 S	135	39 E	17.8	1
U8	63	4	22	1325	34	57 S	135	39 E	18.1	1
U8	63	4	22	1545	35	15 S	135	39 E	17.8	1
U8	63	5	3	0630	35	15 S	135	57 E	16.7	1
U8	63	5	3	0900	35	27 S	136	3 E	16.9	1
U8	63	5	3	1215	35	21 S	135	51 E	16.9	1
U8	63	5	3	1330	35	21 S	136	3 E	17.2	1
U8	63	5	3	1440	35	21 S	136	15 E	17.2	1
U8	63	5	3	1500	35	21 S	136	15 E	17.2	1
U8	63	5	3	1515	35	21 S	136	15 E	17.2	1
U8	63	5	3	1555	35	21 S	136	15 E	17.2	1
U8	63	11	2	0700	37	3 S	149	57 E	16.1	1
U8	63	11	2	0800	37	3 S	150	3 E	16.2	1
U8	63	11	2	0900	37	3 S	150	15 E	17.2	1

VESSE- CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U8	63	11	2	1000	36	57 S	150	27 E	17.8	1
U8	63	11	2	1100	36	51 S	150	27 E	18.8	1
U8	63	11	2	1200	36	45 S	150	27 E	18.3	1
U8	63	11	2	1300	36	39 S	150	27 E	18.9	1
U8	63	11	2	1400	36	51 S	150	21 E	18.5	1
U8	63	11	2	1500	36	51 S	150	21 E	17.8	1
U8	63	11	2	1600	36	57 S	150	9 E	17.2	1
U8	63	11	2	1700	37	3 S	149	57 E	16.0	1
U8	63	11	10	0720	37	3 S	150	3 E	16.9	1
U8	63	11	10	0800	37	3 S	150	9 E	17.5	1
U8	63	11	10	0900	37	3 S	150	21 E	17.9	1
U8	63	11	10	1000	37	3 S	150	21 E	17.8	1
U8	63	11	10	1100	37	3 S	150	21 E	17.9	1
U8	63	11	10	1200	37	9 S	150	21 E	17.9	1
U8	63	11	10	1300	37	9 S	150	21 E	18.3	1
U8	63	11	10	1400	37	9 S	150	21 E	18.5	1
U8	63	11	10	1500	37	9 S	150	21 E	18.5	1
U8	63	11	10	1600	37	9 S	150	21 E	18.5	1
U8	63	11	10	1700	37	9 S	150	15 E	18.4	1
U8	63	11	10	1800	37	9 S	150	3 E	18.4	1
U8	63	11	10	1900	37	3 S	149	57 E	16.7	1
U8	63	11	11	0600	37	3 S	150	3 E	16.0	1
U8	63	11	11	0700	37	3 S	150	15 E	16.8	1
U8	63	11	11	0800	37	9 S	150	21 E	18.1	1
U8	63	11	11	0900	37	9 S	150	27 E	18.5	1
U8	63	11	11	1000	37	9 S	150	27 E	18.2	1
U8	63	11	11	1100	37	9 S	150	21 E	18.3	1
U8	63	11	11	1200	37	3 S	150	21 E	18.4	1
U8	63	11	11	1300	36	57 S	150	21 E	18.5	1
U8	63	11	11	1400	36	57 S	150	21 E	18.6	1
U8	63	11	11	1500	36	57 S	150	9 E	18.9	1
U8	63	11	11	1600	36	57 S	150	9 E	18.3	1
U8	63	11	11	1700	37	3 S	150	3 E	17.3	1
U8	63	11	12	0700	37	3 S	149	57 E	16.8	1
U8	63	11	12	0800	36	57 S	150	15 E	18.5	1
U8	63	11	12	0900	36	51 S	150	21 E	18.7	1
U8	63	11	12	1000	36	45 S	150	21 E	18.6	1
U8	63	11	12	1100	36	39 S	150	21 E	18.7	1
U8	63	11	12	1200	36	33 S	150	21 E	18.7	1
U8	63	11	12	1300	36	33 S	150	21 E	18.6	1

VESSEL CRUISE STATION YR. MTH. DAY TIME L LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U8	63	11	12	1400	36	39 S	150	21 E	18.9	1
U8	63	11	12	1500	36	57 S	150	9 E	19.2	1
U8	63	11	12	1600	36	57 S	150	3 E	18.2	1
U8	63	11	15	0700	37	3 S	150	9 E	16.7	1
U8	63	11	15	0800	37	3 S	150	9 E	16.7	1
U8	63	11	15	0900	37	3 S	150	3 E	17.4	1
U8	63	11	15	1000	37	3 S	150	9 E	16.9	1
U8	63	11	15	1100	37	3 S	150	15 E	17.2	1
U8	63	11	15	1200	37	3 S	150	21 E	17.9	1
U8	63	11	15	1300	36	51 S	150	27 E	17.9	1
U8	63	11	15	1400	36	45 S	150	27 E	16.2	1
U8	63	11	15	1500	36	57 S	150	9 E	17.8	1
U8	63	11	15	1600	37	3 S	150	3 E	17.7	1
U8	63	11	15	1615	37	3 S	149	57 E	17.2	1
U8	63	11	19	0700	37	3 S	150	3 E	16.8	1
U8	63	11	19	0800	37	3 S	150	9 E	17.8	1
U8	63	11	19	0900	36	57 S	150	21 E	18.1	1
U8	63	11	19	1000	36	51 S	150	21 E	18.2	1
U8	63	11	19	1100	36	45 S	150	21 E	18.1	1
U8	63	11	19	1200	36	51 S	150	21 E	18.2	1
U8	63	11	19	1300	36	51 S	150	21 E	18.2	1
U8	63	11	19	1400	36	57 S	150	21 E	18.3	1
U8	63	11	19	1500	36	57 S	150	21 E	18.8	1
U8	63	11	19	1600	37	3 S	150	27 E	18.8	1
U8	63	11	19	1700	37	3 S	150	27 E	18.8	1
U8	63	11	19	1800	37	3 S	150	15 E	18.8	1
U8	63	11	20	0700	37	3 S	149	57 E	17.7	1
U8	63	11	20	0800	37	3 S	150	9 E	17.9	1
U8	63	11	20	0900	37	9 S	150	21 E	18.2	1
U8	63	11	20	1000	37	9 S	150	21 E	18.2	1
U8	63	11	20	1100	37	9 S	150	21 E	18.3	1
U8	63	11	20	1200	37	9 S	150	21 E	18.4	1
U8	63	11	20	1300	37	9 S	150	21 E	18.5	1
U8	63	11	20	1400	37	3 S	150	21 E	18.8	1
U8	63	11	20	1500	37	3 S	150	27 E	18.4	1
U8	63	11	20	1600	37	3 S	150	21 E	18.4	1
U8	63	11	20	1700	37	3 S	150	15 E	18.9	1
U8	63	11	20	1800	37	3 S	149	57 E	17.7	1
U8	63	11	21	0800	37	3 S	150	3 E	17.8	1
U8	63	11	21	0900	37	3 S	150	15 E	18.4	1

VESSE-- CRUISE STATION YR. MTH. DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SHELL WEA. VIS. BAROM. SAMPLING
 NUMBER DN. AMT. DN. AMT. DN. AMT. DN. AMT. DN. AMT. METHOD

U8	63	11	25	1400	36	57	S	150	27	E	19.7	1
U8	63	11	25	1410	36	57	S	150	27	E	19.7	1
U8	63	11	25	1500	36	57	S	150	27	E	19.3	1
U8	63	11	25	1600	36	57	S	150	27	E	19.4	1
U8	63	11	25	1700	36	57	S	150	27	E	19.3	1
U8	63	11	25	1730	36	57	S	150	27	E	19.4	1
U8	63	11	26	0700	37	3	S	150	3	E	18.1	1
U8	63	11	26	0800	37	3	S	150	15	E	18.9	1
U8	63	11	26	0900	36	57	S	150	21	E	18.9	1
U8	63	11	26	1000	36	51	S	150	27	E	19.4	1
U8	63	11	26	1100	36	51	S	150	27	E	20.8	1
U8	63	11	26	1200	36	45	S	150	33	E	20.0	1
U8	63	11	26	1300	36	51	S	150	27	E	20.0	1
U8	63	11	26	1330	36	51	S	150	27	E	20.0	1
U8	63	11	26	1400	36	51	S	150	27	E	19.9	1
U8	63	11	26	1500	36	57	S	150	27	E	20.2	1
U8	63	11	27	0700	36	57	S	150	15	E	18.9	1
U8	63	11	27	0800	36	51	S	150	21	E	18.9	1
U8	63	11	27	0900	36	51	S	150	27	E	20.0	1
U8	63	11	27	1000	36	39	S	150	33	E	20.0	1
U8	63	11	27	1100	36	33	S	150	33	E	20.0	1
U8	63	11	27	1200	36	33	S	150	33	E	20.0	1
U8	63	11	27	1300	36	39	S	150	27	E	20.0	1
U8	63	11	27	1400	36	51	S	150	21	E	20.4	1
U8	63	11	27	1500	36	57	S	150	21	E	20.0	1
U8	63	11	27	1600	36	57	S	150	21	E	19.4	1
U8	63	12	1	0900	36	51	S	150	15	E	17.8	1
U8	63	12	1	1000	36	45	S	150	27	E	19.4	1
U8	63	12	1	1100	36	45	S	150	27	E	19.6	1
U8	63	12	1	1200	36	39	S	150	33	E	19.6	1
U8	63	12	1	1300	36	45	S	150	27	E	19.6	1
U8	63	12	1	1400	36	45	S	150	27	E	19.4	1
U8	63	12	1	1500	36	45	S	150	21	E	19.6	1
U8	63	12	1	1600	36	45	S	150	27	E	19.7	1
U8	63	12	1	1600	36	51	S	150	21	E	20.0	1
U8	63	12	2	0700	36	45	S	150	9	E	17.8	1
U8	63	12	2	0800	36	45	S	150	15	E	19.4	1
U8	63	12	2	0900	36	45	S	150	21	E	19.6	1
U8	63	12	2	1000	36	51	S	150	27	E	19.4	1
U8	63	12	2	1100	36	45	S	150	27	E	19.4	1
U8	63	12	2	1100	36	45	S	150	27	E	19.4	1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN. AMT.	SEA DN. AMT.	SWELL DN. AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
U8	63	12	2	1200		36	45 S	150	21 E	19.4							1
U8	63	12	2	1300		36	45 S	150	33 E	20.0							1
U8	63	12	2	1400		36	51 S	150	27 E	19.7							1
U8	63	12	2	1500		36	51 S	150	21 E	19.8							1
U8	63	12	2	1600		36	57 S	150	15 E	19.7							1
U8	63	12	3	0700		37	3 S	150	9 E	17.1							1
U8	63	12	3	0800		37	3 S	150	15 E	18.1							1
U8	63	12	3	0900		37	3 S	150	21 E	19.6							1
U8	63	12	3	1000		36	57 S	150	27 E	20.0							1
U8	63	12	3	1100		37	3 S	150	21 E	19.9							1
U8	63	12	3	1200		37	9 S	150	21 E	20.0							1
U8	63	12	3	1300		37	15 S	150	21 E	19.7							1
U8	63	12	3	1400		37	15 S	150	21 E	19.7							1
U8	63	12	3	1500		37	15 S	150	21 E	19.9							1
U8	63	12	3	1600		37	15 S	150	21 E	19.3							1

VESSEL	CRUISE NUMBER	STATION YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND DN, AMT.	SEA DN, AMT.	SWELL DN, AMT.	WEA.	VIS.	BAROM.	SAMPLING METHOD
U9	63	1	20	1236	34	45 S	134	39 E	18.6						1
U9	63	1	20	1800	34	51 S	134	39 E	19.2						1
U9	63	1	26	0430	34	45 S	133	57 E	20.6						1
U9	63	1	26	1000	34	57 S	135	39 E	17.5						1
U9	63	1	26	1230	34	51 S	135	21 E	18.1						1
U9	63	1	26	1430	34	45 S	135	3 E	17.2						1
U9	63	1	26	1620	34	45 S	134	39 E	18.9						1
U9	63	1	26	1650	34	45 S	134	39 E	18.9						1
U9	63	1	26	2015	34	45 S	134	45 E	20.6						1
U9	63	1	26	2035	34	45 S	134	39 E	18.9						1
U9	63	1	31	0001	34	57 S	136	3 E	18.9						1
U9	63	1	31	0700	34	51 S	134	51 E	18.1						1
U9	63	1	31	1030	34	51 S	134	39 E	18.6						1
U9	63	1	31	1400	34	51 S	134	39 E	18.6						1
U9	63	1	31	1410	34	51 S	134	39 E	18.6						1
U9	63	1	31	1430	34	51 S	134	39 E	18.3						1
U9	63	1	31	1610	34	51 S	134	39 E	18.3						1
U9	63	2	5	0930	34	57 S	135	57 E	19.4						1
U9	63	2	5	1000	35	3 S	135	57 E	18.9						1
U9	63	2	5	1100	35	9 S	135	45 E	18.1						1
U9	63	2	5	1200	35	9 S	135	39 E	18.4						1
U9	63	2	5	1500	35	15 S	135	39 E	18.4						1
U9	63	2	5	1530	35	15 S	135	39 E	18.4						1
U9	63	2	5	1600	35	15 S	135	39 E	18.4						1
U9	63	2	6	0010	34	57 S	135	57 E	18.9						1
U9	63	2	6	0900	34	51 S	134	45 E	18.1						1
U9	63	2	6	1200	34	45 S	134	45 E	18.5						1
U9	63	2	6	1430	34	45 S	134	45 E	18.6						1
U9	63	2	6	1445	34	45 S	134	45 E	18.6						1
U9	63	2	6	1500	34	45 S	134	45 E	18.6						1
U9	63	2	6	1514	34	45 S	134	51 E	18.6						1
U9	63	2	6	1745	34	45 S	135	3 E	19.2						1
U9	63	2	6	1845	34	45 S	135	3 E	19.2						1
U9	63	2	16	0900	34	57 S	136	9 E	18.1						1
U9	63	2	16	0930	34	57 S	136	9 E	18.1						1
U9	63	2	16	1100	35	9 S	136	9 E	18.6						1
U9	63	2	16	1120	35	9 S	136	9 E	18.6						1
U9	63	2	16	1130	35	9 S	136	9 E	18.6						1
U9	63	2	16	1200	35	9 S	136	15 E	19.2						1
U9	63	2	16	1210	35	9 S	136	15 E	19.2						1

VESSEL - CRUISE STATION YR, MTH, DAY TIME Z LATITUDE LONGITUDE TEMP. SALINITY WIND MIND SEA SHELL WEA. VIS. BAROM, SAMPLING METHOD

U9	63	2	16	1500	35	15 S	135	39 E	18.6	1
U9	63	2	16	1520	35	15 S	135	39 E	18.6	1
U9	63	2	16	1700	35	15 S	135	33 E	18.6	1
U9	63	2	16	1800	35	15 S	135	33 E	18.4	1
U9	63	2	19	0730	34	27 S	135	3 E	17.5	1
U9	63	2	19	0800	34	27 S	135	3 E	17.5	1
U9	63	2	19	0945	34	33 S	134	57 E	16.8	1
U9	63	2	19	1145	34	39 S	134	45 E	18.1	1
U9	63	2	19	1210	34	51 S	134	39 E	18.1	1
U9	63	2	19	1330	34	51 S	134	39 E	18.2	1
U9	63	2	19	1345	34	51 S	134	39 E	18.2	1
U9	63	2	19	1645	34	51 S	135	9 E	17.3	1
U9	63	2	19	1900	34	57 S	135	27 E	17.8	1
U9	63	2	23	0500	34	57 S	136	3 E	17.8	1
U9	63	2	23	0730	35	3 S	135	57 E	18.3	1
U9	63	2	23	0830	35	9 S	135	45 E	18.3	1
U9	63	2	23	1015	35	9 S	135	45 E	18.4	1
U9	63	2	23	1200	35	9 S	135	21 E	18.3	1
U9	63	2	23	1330	35	3 S	135	9 E	18.2	1
U9	63	2	23	1500	34	57 S	134	57 E	18.2	1
U9	63	2	23	1600	34	45 S	135	3 E	18.1	1
U9	63	2	23	1820	34	45 S	135	3 E	18.1	1
U9	63	2	24	0545	34	39 S	134	45 E	16.7	1
U9	63	2	24	0630	34	45 S	134	45 E	17.7	1
U9	63	2	24	0645	34	45 S	134	45 E	17.7	1
U9	63	2	24	0840	34	51 S	134	39 E	17.7	1
U9	63	2	24	1130	34	45 S	134	39 E	17.8	1
U9	63	2	24	1330	34	33 S	134	57 E	16.7	1
U9	63	2	24	1500	34	27 S	135	3 E	15.8	1
U9	63	2	25	0645	34	45 S	134	45 E	17.5	1
U9	63	2	25	0725	34	45 S	134	39 E	17.6	1
U9	63	2	25	0845	34	45 S	134	39 E	17.9	1
U9	63	2	25	1045	34	45 S	134	45 E	18.2	1
U9	63	2	25	1200	34	45 S	134	45 E	18.3	1
U9	63	2	25	1350	34	45 S	134	45 E	18.6	1
U9	63	2	25	1550	34	45 S	134	45 E	18.8	1
U9	63	2	25	1700	34	45 S	134	45 E	18.8	1
U9	63	2	25	1845	34	39 S	134	45 E	18.4	1
U9	63	2	26	0530	34	27 S	135	15 E	18.7	1
U9	63	2	26	0720	34	15 S	135	9 E	17.2	1

VESSEL - CHUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

U9	63	2	26	0815	34	15	S	135	9	E	17.3	1
U9	63	2	26	0905	34	15	S	135	3	E	17.3	1
U9	63	2	26	1015	34	15	S	135	3	E	17.4	1
U9	63	2	26	1455	34	15	S	135	9	E	17.8	1
U9	63	2	27	0700	34	15	S	135	3	E	17.7	1
U9	63	2	27	1050	34	15	S	135	3	E	18.2	1
U9	63	2	27	1400	34	15	S	135	3	E	18.9	1
U9	63	2	27	1600	34	15	S	135	9	E	19.4	1
U9	63	2	27	1640	34	15	S	135	9	E	20.3	1
U9	63	3	3	0715	35	9	S	135	57	E	17.8	1
U9	63	3	3	0900	35	9	S	135	51	E	18.1	1
U9	63	3	3	1110	35	9	S	135	45	E	18.3	1
U9	63	3	3	1220	35	9	S	135	39	E	18.4	1
U9	63	3	3	1415	35	3	S	135	27	E	18.3	1
U9	63	3	3	1600	34	57	S	135	15	E	18.4	1
U9	63	3	3	1730	34	51	S	135	3	E	18.9	1
U9	63	3	3	1900	34	39	S	134	57	E	18.6	1
U9	63	3	4	0750	34	15	S	135	3	E	18.4	1
U9	63	3	4	0945	34	15	S	135	3	E	18.7	1
U9	63	3	4	1100	34	15	S	135	3	E	18.9	1
U9	63	3	4	1125	34	15	S	135	3	E	18.9	1
U9	63	3	4	1155	34	15	S	135	3	E	18.6	1
U9	63	3	4	1330	34	15	S	135	3	E	18.6	1
U9	63	3	4	1430	34	15	S	135	3	E	18.6	1
U9	63	3	13	0730	35	3	S	136	3	E	18.1	1
U9	63	3	13	0950	35	3	S	136	9	E	18.3	1
U9	63	3	13	1400	35	9	S	136	9	E	18.4	1
U9	63	3	13	1600	35	9	S	136	3	E	18.4	1
U9	63	3	13	1645	35	9	S	136	3	E	18.4	1
U9	63	3	13	1830	35	3	S	135	3	E	18.7	1
U9	63	3	13	2200	35	3	S	135	51	E	18.7	1
U9	63	3	14	0700	35	51	S	135	33	E	19.0	1
U9	63	3	14	0930	35	51	S	135	27	E	19.4	1
U9	63	3	14	1130	35	45	S	135	21	E	19.9	1
U9	63	3	14	1330	35	45	S	135	21	E	19.9	1
U9	63	3	14	1345	35	45	S	135	21	E	19.9	1
U9	63	3	14	1620	35	45	S	135	27	E	20.3	1
U9	63	3	17	0900	34	51	S	136	3	E	18.5	1
U9	63	3	17	1200	35	9	S	135	45	E	18.4	1
U9	63	3	17	1255	35	9	S	135	39	E	18.6	1

VESSEL	CRUISE NUMBER	STATION NUMBER	YR.	MTH.	DAY	TIME	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SWELL	VIS.	BAROM.	SAMPLING METHOD
							DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	DN. AMT.	
U9	63	3	17	1500	35	9	S	135	39	E	18.4	1			1
U9	63	3	17	1830	34	51	S	135	9	E	18.2	1			1
U9	63	3	17	2030	34	45	S	134	51	E	17.1	1			1
U9	63	3	18	0730	34	39	S	134	45	E	17.6	1			1
U9	63	3	18	0900	34	51	S	134	39	E	17.8	1			1
U9	63	3	18	0905	34	51	S	134	39	E	17.8	1			1
U9	63	3	18	0915	34	51	S	134	39	E	17.9	1			1
U9	63	3	18	0920	34	51	S	134	39	E	17.9	1			1
U9	63	3	18	0950	34	51	S	134	39	E	17.9	1			1
U9	63	3	18	1010	34	51	S	134	39	E	17.9	1			1
U9	63	3	18	1300	34	51	S	134	39	E	17.9	1			1
U9	63	3	18	1330	34	33	S	135	3	E	16.0	1			1
U9	63	3	18	1500	34	27	S	135	3	E	16.4	1			1
U9	63	3	21	0210	34	51	S	134	57	E	18.3	1			1
U9	63	3	21	0900	34	51	S	134	51	E	19.0	1			1
U9	63	3	21	1025	34	51	S	134	39	E	19.3	1			1
U9	63	3	21	1115	34	51	S	134	39	E	19.3	1			1
U9	63	3	21	1335	34	51	S	134	45	E	19.7	1			1
U9	63	3	21	1330	34	51	S	134	39	E	20.0	1			1
U9	63	3	23	0700	34	39	S	134	45	E	18.4	1			1
U9	63	3	23	0940	34	51	S	134	39	E	18.3	1			1
U9	63	3	23	1015	34	51	S	134	39	E	18.3	1			1
U9	63	3	23	1220	34	51	S	134	39	E	18.9	1			1
U9	63	3	23	1355	34	51	S	134	45	E	18.6	1			1
U9	63	3	23	1435	34	51	S	134	45	E	18.9	1			1
U9	63	4	8	0700	35	45	S	135	33	E	18.1	1			1
U9	63	4	8	1015	35	45	S	135	33	E	18.6	1			1
U9	63	4	8	1330	35	39	S	135	21	E	18.6	1			1
U9	63	4	9	0700	34	51	S	134	39	E	18.2	1			1
U9	63	4	9	0945	34	51	S	134	45	E	18.3	1			1
U9	63	4	9	1250	34	51	S	134	39	E	18.4	1			1

VESSEL, CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL MEA. VIS. BAROM. SAMPLING METHOD

M1	63	10	5	0900	33	57	S	151	33	E	16.4	1
M1	63	10	5	1000	33	57	S	151	39	E	16.7	1
M1	63	10	5	1100	33	52	S	151	45	E	16.4	1
M1	63	10	5	1200	33	39	S	151	57	E	16.4	1
M1	63	10	5	1300	33	39	S	151	51	E	16.8	1
M1	63	10	5	1400	33	45	S	151	51	E	16.7	1
M1	63	10	5	1500	33	51	S	151	33	E	16.4	1
M1	63	10	6	0616	33	51	S	151	15	E	16.4	1
M1	63	10	6	0700	33	51	S	151	21	E	16.2	1
M1	63	10	6	0800	33	51	S	151	27	E	16.1	1
M1	63	10	6	0900	33	51	S	151	33	E	16.2	1
M1	63	10	6	1000	33	39	S	151	45	E	16.5	1
M1	63	10	6	1100	33	33	S	152	3	E	16.7	1
M1	63	10	6	1200	33	33	S	151	51	E	16.7	1
M1	63	10	6	1300	33	27	S	151	51	E	16.7	1
M1	63	10	6	1400	33	27	S	151	45	E	16.8	1
M1	63	10	6	1500	33	33	S	151	39	E	17.2	1
M1	63	10	6	1600	33	33	S	151	27	E	16.7	1
M1	63	10	7	0400	33	33	S	151	21	E	15.6	1
M1	63	10	7	0500	33	33	S	151	27	E	16.1	1
M1	63	10	7	0600	33	27	S	151	39	E	16.1	1
M1	63	10	7	0700	33	21	S	151	51	E	16.7	1
M1	63	10	7	0800	33	27	S	151	57	E	17.0	1
M1	63	10	7	0900	33	15	S	152	9	E	18.4	1
M1	63	10	7	1000	33	21	S	152	3	E	18.3	1
M1	63	10	7	1100	33	33	S	152	3	E	17.5	1
M1	63	10	7	1200	33	39	S	151	57	E	17.7	1
M1	63	10	7	1300	33	39	S	151	57	E	17.7	1
M1	63	10	7	1400	33	45	S	151	51	E	17.8	1
M1	63	10	7	1500	33	45	S	151	45	E	16.9	1
M1	63	10	7	1600	33	45	S	151	27	E	16.7	1
M1	63	10	7	1700	33	51	S	151	21	E	16.7	1
M1	63	10	8	0500	34	51	S	151	21	E	17.3	1
M1	63	10	8	0600	34	57	S	151	27	E	16.9	1
M1	63	10	8	0700	34	57	S	151	27	E	16.4	1
M1	63	10	8	0800	35	3	S	151	27	E	16.6	1
M1	63	10	8	0900	35	9	S	151	15	E	17.5	1
M1	63	10	8	1000	35	9	S	151	15	E	17.8	1
M1	63	10	8	1100	35	15	S	151	21	E	18.1	1
M1	63	10	8	1200	35	15	S	151	27	E	17.8	1

VESSE - CRUISE STATION YR. MH. DAY TIME L LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

W1	63	10	12	1000	35	15	S	150	57	E	17.3	1
W1	63	10	12	1100	35	21	S	150	45	E	17.2	1
W1	63	10	12	1200	35	9	S	150	39	E	17.3	1
W1	63	10	12	1300	35	15	S	150	39	E	16.7	1
W1	63	10	14	1100	35	15	S	150	39	E	16.4	1
W1	63	10	14	1200	35	15	S	150	39	E	16.7	1
W1	63	10	14	1300	35	9	S	150	45	E	16.7	1
W1	63	10	14	1400	35	9	S	150	45	E	16.7	1
W1	63	10	16	0600	35	9	S	150	45	E	16.1	1
W1	63	10	16	0700	35	9	S	150	51	E	16.4	1
W1	63	10	16	0800	35	9	S	151	3	E	16.4	1
W1	63	10	16	0900	35	3	S	151	9	E	16.4	1
W1	63	10	16	1000	35	3	S	151	9	E	16.1	1
W1	63	10	16	1100	34	57	S	151	9	E	15.9	1
W1	63	10	16	1200	34	51	S	151	21	E	17.1	1
W1	63	10	16	1300	34	57	S	151	3	E	17.5	1
W1	63	10	16	1400	34	51	S	151	3	E	17.4	1
W1	63	10	16	1500	34	45	S	151	9	E	17.9	1
W1	63	10	16	1600	34	45	S	150	57	E	17.2	1
W1	63	10	16	1700	34	45	S	150	51	E	17.2	1
W1	63	10	17	0300	34	39	S	150	57	E	15.3	1
W1	63	10	17	0400	34	39	S	151	3	E	16.4	1
W1	63	10	17	0500	34	39	S	151	9	E	16.1	1
W1	63	10	17	0600	34	45	S	151	9	E	16.4	1
W1	63	10	17	0700	34	57	S	151	9	E	16.0	1
W1	63	10	17	0800	34	57	S	151	9	E	16.1	1
W1	63	10	17	0900	35	3	S	151	9	E	16.1	1
W1	63	10	17	1000	35	9	S	151	9	E	16.1	1
W1	63	10	17	1100	35	15	S	151	3	E	16.4	1
W1	63	10	17	1200	35	27	S	150	57	E	16.6	1
W1	63	10	17	1300	35	33	S	150	57	E	16.6	1
W1	63	10	17	1400	35	39	S	150	39	E	17.1	1
W1	63	10	17	1500	35	39	S	150	33	E	17.1	1
W1	63	10	17	1600	35	39	S	150	27	E	17.2	1
W1	63	10	17	1700	35	39	S	150	21	E	17.1	1
W1	63	10	17	1800	35	45	S	150	21	E	17.1	1
W1	63	10	17	1900	35	51	S	150	15	E	16.7	1
W1	63	10	18	0230	35	51	S	150	9	E	15.7	1
W1	63	10	18	0600	35	51	S	150	15	E	16.1	1
W1	63	10	18	0700	36	3	S	150	15	E	16.7	1

VESSE-	CRUISE	STATION	YR.	MT.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SHELL	WEA.	VIS.	BAROM.	SAMPLING	METHOD
		NUMBER										DN. AMT.	DN. AMT.	DN. AMT.					
W1		63	10	18	0800		36	9 S 150	15 E 16.8	15 E 16.8									
W1		63	10	18	0900		36	15 S 150	15 E 16.8	15 E 16.8									
W1		63	10	18	1000		36	15 S 150	21 E 17.2	21 E 17.2									
W1		63	10	18	1100		36	15 S 150	27 E 17.2	27 E 17.2									
W1		63	10	18	1200		36	15 S 150	21 E 16.9	21 E 16.9									
W1		63	10	18	1300		36	15 S 150	9 E 17.2	9 E 17.2									
W1		63	10	18	1400		36	21 S 150	9 E 16.8	9 E 16.8									
W1		63	10	18	1500		36	27 S 150	3 E 16.7	3 E 16.7									
W1		63	10	19	0530		36	27 S 150	3 E 15.6	3 E 15.6									
W1		63	10	19	0700		36	15 S 150	9 E 16.1	9 E 16.1									
W1		63	10	19	0800		36	15 S 150	9 E 16.4	9 E 16.4									
W1		63	10	19	0900		36	15 S 150	15 E 16.2	15 E 16.2									
W1		63	10	19	1000		36	15 S 150	21 E 17.2	21 E 17.2									
W1		63	10	19	1200		36	21 S 150	15 E 17.3	15 E 17.3									
W1		63	10	19	1300		36	27 S 150	27 E 16.7	27 E 16.7									
W1		63	10	20	0530		36	27 S 150	3 E 15.6	3 E 15.6									
W1		63	10	20	0600		36	27 S 150	9 E 16.1	9 E 16.1									
W1		63	10	20	0700		36	27 S 150	15 E 16.8	15 E 16.8									
W1		63	10	20	0800		36	27 S 150	21 E 16.9	21 E 16.9									
W1		63	10	20	0900		36	21 S 150	21 E 17.2	21 E 17.2									
W1		63	10	20	1000		36	21 S 150	21 E 17.5	21 E 17.5									
W1		63	10	20	1100		36	21 S 150	27 E 17.5	27 E 17.5									
W1		63	10	20	1200		36	27 S 150	27 E 17.7	27 E 17.7									
W1		63	10	20	1300		36	27 S 150	27 E 17.8	27 E 17.8									
W1		63	10	20	1400		36	27 S 150	21 E 17.8	21 E 17.8									
W1		63	10	20	1500		36	21 S 150	21 E 17.9	21 E 17.9									
W1		63	10	20	1600		36	27 S 150	9 E 17.8	9 E 17.8									
W1		63	10	20	1650		36	27 S 150	3 E 16.7	3 E 16.7									
W1		63	10	21	0530		36	27 S 150	3 E 15.6	3 E 15.6									
W1		63	10	21	0600		36	27 S 150	3 E 15.8	3 E 15.8									
W1		63	10	21	0700		36	21 S 150	15 E 16.8	15 E 16.8									
W1		63	10	21	0800		36	21 S 150	21 E 16.9	21 E 16.9									
W1		63	10	21	0900		36	15 S 150	21 E 17.3	21 E 17.3									
W1		63	10	21	1000		36	9 S 150	27 E 16.7	27 E 16.7									
W1		63	10	21	1100		36	3 S 150	27 E 17.5	27 E 17.5									
W1		63	10	21	1200		35	57 S 150	27 E 17.5	27 E 17.5									
W1		63	10	21	1300		35	57 S 150	21 E 17.5	21 E 17.5									
W1		63	10	21	1400		36	3 S 150	9 E 17.2	9 E 17.2									

1000 FT. WIND SPEEDS
 1000 FT. VISIBILITIES
 1000 FT. SEA HEIGHTS
 1000 FT. SHELL AMOUNTS
 1000 FT. WEATHER
 1000 FT. BAROMETRIC PRESSURES
 1000 FT. SAMPLING METHODS

VESSEL - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL HEA. VIS. BAROM. SAMPLING METHOD

W1	63	10	21	1500	35	57	S	150	9	E	17.1	1
W1	63	10	21	1550	35	57	S	150	3	E	16.1	1
W1	63	10	22	0630	35	57	S	150	9	E	16.4	1
W1	63	10	22	0700	35	57	S	150	15	E	16.7	1
W1	63	10	22	0800	35	57	S	150	21	E	16.7	1
W1	63	10	22	0900	35	51	S	150	33	E	17.2	1
W1	63	10	22	1000	35	45	S	150	39	E	17.2	1
W1	63	10	22	1100	35	39	S	150	39	E	17.5	1
W1	63	10	22	1200	35	33	S	150	51	E	18.1	1
W1	63	10	22	1300	35	27	S	150	57	E	18.2	1
W1	63	10	22	1400	35	21	S	151	3	E	17.9	1
W1	63	10	22	1500	35	15	S	150	57	E	17.7	1
W1	63	10	22	1600	35	9	S	150	57	E	17.9	1
W1	63	10	22	1700	35	9	S	150	51	E	17.1	1
W1	63	10	22	1800	35	3	S	150	45	E	17.1	1
W1	63	10	23	0500	35	3	S	150	45	E	17.2	1
W1	63	10	23	0600	35	3	S	150	51	E	16.7	1
W1	63	10	23	0700	34	57	S	150	57	E	17.2	1
W1	63	10	23	0800	34	51	S	151	3	E	17.5	1
W1	63	10	23	0900	34	51	S	151	15	E	17.8	1
W1	63	10	23	1000	34	45	S	151	15	E	18.1	1
W1	63	10	23	1100	34	33	S	151	15	E	18.2	1
W1	63	10	23	1150	34	33	S	151	19	E	18.4	1
W1	63	10	23	1200	34	33	S	151	3	E	18.1	1
W1	63	10	23	1300	34	21	S	150	57	E	16.7	1
W1	63	10	23	1400	34	21	S	150	57	E	16.7	1
W1	63	10	23	1500	34	21	S	150	57	E	18.3	1
W1	63	10	23	1600	34	15	S	151	9	E	18.6	1
W1	63	10	23	1700	34	9	S	151	9	E	18.1	1
W1	63	10	28	0530	34	3	S	151	15	E	16.1	1
W1	63	10	28	0600	34	3	S	151	15	E	16.1	1
W1	63	10	28	0700	34	9	S	151	15	E	15.8	1
W1	63	10	28	0800	34	15	S	151	3	E	15.8	1
W1	63	10	28	0900	34	21	S	151	3	E	16.1	1
W1	63	10	28	1000	34	21	S	151	3	E	16.4	1
W1	63	10	28	1100	34	27	S	151	3	E	16.5	1
W1	63	10	28	1200	34	39	S	150	57	E	16.7	1
W1	63	10	28	1300	34	51	S	150	57	E	16.8	1
W1	63	10	28	1400	34	57	S	150	57	E	15.7	1
W1	63	10	28	1500	35	3	S	150	51	E	15.0	1

VESSEL	CRUISE STATION NUMBER	YR.	MTH.	DAY	TIME	←	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND DN.	SEA DN.	SWELL DN.	WEA.	VIS.	BAROM.	SAMPLING METHOD
M1	63	10	31	0530	35	3	S	150	51 E	16.2							1
M1	63	10	31	0600	35	3	S	150	51 E	17.5							1
M1	63	10	31	0700	35	3	S	151	9 E	17.4							1
M1	63	10	31	0800	35	3	S	151	9 E	19.2							1
M1	63	10	31	0900	35	3	S	151	15 E	19.2							1
M1	63	10	31	1000	35	9	S	151	9 E	19.2							1
M1	63	10	31	1100	35	15	S	151	3 E	19.2							1
M1	63	10	31	1200	35	21	S	150	57 E	19.2							1
M1	63	10	31	1300	35	21	S	150	45 E	16.7							1
M1	63	10	31	1400	35	21	S	150	33 E	16.7							1
M1	63	10	31	1600	35	21	S	150	33 E	16.7							1
M1	63	10	31	1700	35	15	S	150	39 E	16.7							1
M1	63	10	31	1800	35	9	S	150	39 E	16.9							1
M1	63	10	31	2000	35	9	S	150	45 E	16.9							1
M1	63	10	31	2100	35	9	S	150	45 E	16.7							1
M1	63	11	1	0600	35	9	S	150	45 E	16.7							1
M1	63	11	1	0700	35	3	S	150	57 E	17.2							1
M1	63	11	1	0800	34	57	S	150	57 E	17.2							1
M1	63	11	1	0900	34	45	S	150	57 E	17.2							1
M1	63	11	1	1000	34	39	S	150	57 E	17.8							1
M1	63	11	1	1100	34	33	S	150	57 E	17.9							1
M1	63	11	1	1200	34	27	S	151	3 E	17.9							1
M1	63	11	1	1300	34	21	S	151	9 E	18.2							1
M1	63	11	1	1400	34	15	S	151	15 E	19.0							1
M1	63	11	1	1500	34	9	S	151	15 E	19.0							1
M1	63	11	1	1600	33	57	S	151	15 E	18.3							1
M1	63	11	1	1700	33	57	S	151	9 E	18.3							1
M1	63	11	10	1400	34	3	S	151	9 E	17.8							1
M1	63	11	10	1500	33	57	S	151	15 E	17.8							1
M1	63	11	11	0500	33	51	S	151	15 E	18.2							1
M1	63	11	11	0600	33	57	S	151	15 E	18.3							1
M1	63	11	11	0700	34	3	S	151	27 E	18.3							1
M1	63	11	11	0800	34	9	S	151	27 E	18.3							1
M1	63	11	11	0900	34	15	S	151	27 E	18.6							1
M1	63	11	11	1000	34	21	S	151	21 E	19.0							1
M1	63	11	11	1100	34	27	S	151	21 E	20.0							1
M1	63	11	11	1200	34	33	S	151	15 E	19.0							1
M1	63	11	11	1300	34	45	S	151	15 E	18.9							1
M1	63	11	11	1400	34	51	S	151	9 E	18.9							1
M1	63	11	11	1500	34	57	S	151	9 E	18.3							1

VESSEL- CRUISE STATION YR. MTH. DAY TIME L LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

W1	63	11	11	1600	34	57 S	151	3 E	18.1	1
W1	63	11	12	0530	35	3 S	150	45 E	16.7	1
W1	63	11	12	0600	35	9 S	150	51 E	16.9	1
W1	63	11	12	0700	35	9 S	150	45 E	16.9	1
W1	63	11	12	0800	35	15 S	150	33 E	17.5	1
W1	63	11	12	0900	35	21 S	150	33 E	18.3	1
W1	63	11	12	1000	35	21 S	150	45 E	18.2	1
W1	63	11	12	1100	35	27 S	150	51 E	19.2	1
W1	63	11	12	1200	35	33 S	150	45 E	19.5	1
W1	63	11	12	1300	35	45 S	150	39 E	19.4	1
W1	63	11	12	1400	35	45 S	150	27 E	18.9	1
W1	63	11	12	1500	35	51 S	150	21 E	18.1	1
W1	63	11	12	1600	35	51 S	150	9 E	17.8	1
W1	63	11	13	0700	35	51 S	150	9 E	17.6	1
W1	63	11	13	0800	35	57 S	150	21 E	17.6	1
W1	63	11	13	0900	36	9 S	150	21 E	18.3	1
W1	63	11	13	1000	36	15 S	150	21 E	17.8	1
W1	63	11	13	1100	36	21 S	150	9 E	17.8	1
W1	63	11	13	1200	36	27 S	150	3 E	16.7	1
W1	63	11	15	0900	36	27 S	150	3 E	16.9	1
W1	63	11	15	0600	36	27 S	150	15 E	17.2	1
W1	63	11	15	0700	36	27 S	150	15 E	17.2	1
W1	63	11	15	0800	36	27 S	150	15 E	17.5	1
W1	63	11	15	0900	36	33 S	150	21 E	17.8	1
W1	63	11	15	1000	36	33 S	150	27 E	18.1	1
W1	63	11	15	1100	36	39 S	150	27 E	18.1	1
W1	63	11	15	1200	36	33 S	150	21 E	18.2	1
W1	63	11	15	1300	36	39 S	150	21 E	18.3	1
W1	63	11	15	1400	36	33 S	150	21 E	18.3	1
W1	63	11	15	1500	36	27 S	150	15 E	18.1	1
W1	63	11	15	1600	36	27 S	150	9 E	18.1	1
W1	63	11	15	1700	36	27 S	150	3 E	17.8	1
W1	63	11	16	0530	36	27 S	150	3 E	16.5	1
W1	63	11	16	0600	36	27 S	150	9 E	16.7	1
W1	63	11	16	0700	36	27 S	150	9 E	17.5	1
W1	63	11	16	0800	36	33 S	150	15 E	18.1	1
W1	63	11	16	0900	36	27 S	150	9 E	17.5	1
W1	63	11	17	0600	36	27 S	150	9 E	16.7	1
W1	63	11	17	0700	36	27 S	150	9 E	17.2	1
W1	63	11	17	0800	36	33 S	150	15 E	17.5	1

VESSE-- CRUISE STATION YR. MTH. DAY TIME L LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

W1	63	11	22	1000	36	51	S	150	21	E	18.5								1
W1	63	11	22	1100	36	57	S	150	21	E	18.5								1
W1	63	11	22	1200	36	57	S	150	21	E	18.3								1
W1	63	11	22	1300	36	51	S	150	21	E	18.8								1
W1	63	11	22	1400	36	45	S	150	21	E	18.4								1
W1	63	11	22	1500	36	39	S	150	21	E	18.4								1
W1	63	11	22	1600	36	45	S	150	9	E	18.6								1
W1	63	11	25	0800	36	27	S	150	9	E	17.8								1
W1	63	11	25	0900	36	27	S	150	21	E	18.6								1
W1	63	11	25	1000	36	27	S	150	21	E	18.9								1
W1	63	11	25	1100	36	27	S	150	21	E	18.9								1
W1	63	11	25	1200	36	33	S	150	21	E	18.9								1
W1	63	11	25	1300	36	27	S	150	27	E	18.9								1
W1	63	11	25	1400	36	27	S	150	27	E	18.9								1
W1	63	11	25	1500	36	27	S	150	9	E	18.6								1
W1	63	11	25	1600	36	27	S	150	15	E	17.8								1
W1	63	11	25	1700	36	27	S	150	9	E	17.8								1

VESSL - CRUISE STATION YR.	MTH.	DAY	TIME	Z	LATITUDE	LONGITUDE	TEMP.	SALINITY	WIND	SEA	SMELL	WEA.	VIS.	BAROM.	SAMPLING METHOD
W5	63	2	12		35	39 S	135	15	F	18.9					1
W5	63	2	12		34	45 S	135	51	E	21.1					1
W5	63	2	26		35	33 S	135	3	E	18.9					1
W5	63	3	8		34	45 S	135	51	E	22.2					1
W5	63	3	8		35	39 S	135	15	E	18.9					1
W5	63	3	13		35	15 S	136	3	E	20.0					1
W5	63	3	14		35	39 S	135	15	E	18.9					1
W5	63	3	15		35	15 S	136	3	E	19.2					1
W5	63	3	16		35	33 S	135	21	E	19.2					1
W5	63	3	18		34	45 S	135	51	E	23.3					1
W5	63	3	19		34	45 S	134	39	E	18.3					1
W5	63	3	20		34	27 S	135	15	E	17.8					1
W5	63	3	26		35	27 S	135	3	E	18.9					1
W5	63	3	28		35	15 S	136	3	E	17.8					1
W5	63	4	1		35	57 S	135	51	E	18.3					1
W5	63	4	2		35	15 S	136	3	E	18.3					1
W5	63	4	8		35	51 S	135	39	E	18.3					1
W5	63	4	18		35	15 S	134	39	E	18.9					1
W5	63	4	19		34	45 S	135	51	E	16.7					1
W5	63	4	20		35	9 S	135	39	E	17.8					1
W5	63	5	2		35	15 S	136	3	E	17.8					1
W5	63	5	3		35	9 S	135	39	E	18.3					1
W5	63	5	7		35	9 S	135	51	E	18.3					1
W5	63	5	8		35	51 S	135	39	E	17.8					1

VESSE - CRUISE STATION YR. MTH. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

48	63	1	21	0530	34	45	S	135	57	E	20.0	1
48	63	1	21	0800	34	45	S	135	57	E	20.0	1
48	63	1	21	1230	34	57	S	135	57	E	18.3	1
48	63	1	21	1515	34	51	S	135	9	E	18.6	1
48	63	1	21	2015	34	57	S	134	57	E	19.2	1
48	63	1	21	2020	34	57	S	134	57	E	19.2	1
48	63	1	25	0400	34	45	S	135	57	E	17.8	1
48	63	1	25	0630	34	45	S	135	57	E	18.9	1
48	63	1	25	0820	34	57	S	135	57	E	18.9	1
48	63	1	25	1055	35	9	S	135	15	E	17.8	1
48	63	1	25	1300	34	51	S	135	15	E	17.8	1
48	63	1	25	1455	35	15	S	135	39	E	19.2	1
48	63	1	25	1720	34	51	S	135	45	E	18.1	1
48	63	1	31	0410	34	57	S	135	57	E	17.2	1
48	63	1	31	0730	35	15	S	135	39	E	18.3	1
48	63	1	31	1630	35	15	S	135	39	E	18.9	1
48	63	2	6	0400	34	57	S	135	57	E	17.8	1
48	63	2	6	0600	35	9	S	135	45	E	17.8	1
48	63	2	6	0710	35	15	S	135	39	E	17.8	1
48	63	2	6	0840	35	15	S	135	39	E	17.8	1
48	63	2	6	0900	35	15	S	135	39	E	17.8	1
48	63	2	6	1700	35	21	S	136	3	E	18.9	1
48	63	2	7	1100	34	51	S	134	45	E	18.3	1
48	63	2	7	1530	34	51	S	134	45	E	18.3	1
48	63	2	12	0230	34	57	S	135	57	E	16.7	1
48	63	2	12	1140	35	33	S	135	21	E	17.8	1
48	63	2	12	1700	35	51	S	135	33	E	18.3	1
48	63	2	12	1730	35	51	S	135	33	E	18.3	1
48	63	2	12	1840	35	51	S	135	33	E	18.3	1
48	63	2	16	1130	35	45	S	135	27	E	16.7	1
48	63	2	17	1145	34	57	S	134	57	E	18.3	1
48	63	2	17	1315	34	57	S	134	57	E	18.3	1
48	63	2	17	1600	34	57	S	135	15	E	18.3	1
48	63	2	17	1640	34	57	S	135	15	E	18.3	1
48	63	2	23	1250	35	3	S	135	21	E	18.3	1
48	63	2	23	1300	35	3	S	135	21	E	18.3	1
48	63	2	23	1710	34	51	S	134	45	E	18.3	1
48	63	2	23	1755	34	51	S	134	45	E	18.3	1
48	63	2	24	1400	35	27	S	134	51	E	18.9	1
48	63	2	24	1710	35	33	S	135	9	E	18.9	1

VESSE - CRUISE STATION YR. MIN. DAY TIME \angle LATITUDE LONGITUDE TEMP. SALINITY WIND SEA SWELL WEA. VIS. BAROM. SAMPLING METHOD

W8	63	2	24	1745	35	33	S	135	15	E	18.9	1
W8	63	2	24	1800	35	33	S	135	15	E	18.9	1
W8	63	2	25	0615	35	33	S	135	15	E	18.9	1
W8	63	2	25	0710	35	39	S	135	21	E	18.3	1
W8	63	2	25	1045	35	39	S	135	21	E	18.3	1
W8	63	2	25	1150	35	39	S	135	21	E	18.3	1
W8	63	2	25	1715	35	51	S	135	21	E	18.3	1
W8	63	2	26	0750	35	21	S	136	9	E	18.3	1
W8	63	2	26	1120	35	15	S	135	39	E	18.3	1
W8	63	2	26	1220	35	15	S	135	39	E	18.9	1
W8	63	2	28	1015	35	9	S	136	15	E	18.9	1
W8	63	2	28	1020	35	9	S	136	15	E	18.9	1
W8	63	2	28	1055	35	9	S	136	15	E	18.9	1
W8	63	2	28	1120	35	9	S	136	15	E	18.9	1
W8	63	2	28	1542	35	9	S	136	21	E	20.3	1
W8	63	2	28	1725	35	9	S	136	9	E	19.4	1
W8	63	2	28	1745	35	9	S	136	9	E	19.4	1
W8	63	3	4	1000	35	9	S	136	15	E	19.7	1
W8	63	3	4	1130	35	9	S	136	15	E	19.4	1
W8	63	3	4	1730	35	9	S	136	15	E	19.4	1
W8	63	3	4	1835	35	9	S	136	15	E	19.4	1
W8	63	3	5	0700	35	51	S	135	39	E	18.9	1
W8	63	3	5	0745	35	51	S	135	39	E	18.3	1
W8	63	3	5	1140	35	51	S	135	39	E	18.9	1
W8	63	3	5	1355	35	51	S	135	39	E	18.9	1
W8	63	3	5	1550	35	51	S	135	39	E	18.3	1
W8	63	3	10	0930	35	45	S	135	21	E	18.6	1
W8	63	3	10	1415	35	45	S	135	21	E	18.3	1
W8	63	3	11	0700	35	15	S	136	9	E	17.8	1
W8	63	3	11	1000	35	9	S	136	15	E	17.8	1
W8	63	3	13	0455	35	51	S	135	27	E	18.9	1
W8	63	3	13	1050	35	45	S	135	15	E	18.9	1
W8	63	3	14	0730	36	15	S	135	51	E	18.6	1
W8	63	3	14	0900	36	15	S	135	51	E	18.6	1
W8	63	3	21	1000	35	57	S	135	33	E	18.9	1
W8	63	3	21	1630	36	9	S	135	51	E	18.3	1
W8	63	3	21	2000	35	57	S	136	21	E	18.3	1
W8	63	3	22	0630	35	51	S	136	21	E	17.8	1
W8	63	3	22	1130	35	21	S	136	21	E	18.3	1
W8	63	3	22	1215	35	21	S	136	21	E	18.3	1

VESSE- CRUISE STATION YR. MH. DAY TIME & LATITUDE LONGITUDE TEMP, SALINITY WIND SEA SRELL WEA. VIS. BAROM. SAMPLING METHOD

VESSE	CRUISE	STATION	YR.	MH.	DAY	TIME	&	LATITUDE	LONGITUDE	TEMP,	SALINITY	WIND	SEA	SRELL	WEA.	VIS.	BAROM.	SAMPLING
		NUMBER																METHOD
W8		63	3	22	1530	35	S	136	9	E	18.3							1
W8		63	3	24	1020	35	S	135	21	E	18.9							1
W8		63	3	24	1140	35	S	135	15	E	18.9							1
W8		63	3	24	1150	35	S	135	15	E	18.9							1
W8		63	3	24	2350	35	S	136	9	E	18.3							1
W8		63	3	28	1120	35	S	135	57	E	18.3							1
W8		63	3	28	1135	35	S	135	57	E	18.3							1
W8		63	3	28	1220	35	S	135	51	E	18.9							1
W8		63	3	28	1300	35	S	135	51	E	18.9							1
W8		63	3	28	1305	35	S	135	51	E	18.9							1
W8		63	3	28	1820	35	S	135	39	E	18.3							1
W8		63	3	29	0700	34	S	134	45	E	18.3							1
W8		63	3	29	0910	34	S	134	45	E	18.3							1
W8		63	4	1	1000	35	S	136	21	E	16.7							1
W8		63	4	2	0900	35	S	135	39	E	16.7							1
W8		63	4	2	1500	35	S	135	39	E	17.8							1

OCEANOGRAPHICAL STATION LISTS

1. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1938-39
2. Hydrological and planktological observations by F.R.V. *Warreen* in south-eastern Australian waters, 1940-42
3. Hydrological and planktological observations by F.R.V. *Warreen* in south-western Australian waters, 1947-50
4. Onshore hydrological investigations in eastern Australia, 1942-50
5. Estuarine hydrological investigations in eastern Australia, 1940-50. Queensland: Nerang and Coomera Rivers, Moreton Bay and Brisbane River, Logan River, Dunwich Oyster Lease; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Tilligerry Creek, Hawkesbury River
6. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Middle Harbour and Port Jackson, Georges River-Botany Bay
7. Estuarine hydrological investigations in eastern Australia, 1940-50. New South Wales: Port Hacking, Lake Illawarra, Shoalhaven River, Jervis Bay, Clyde River, Moruya River, Tuross River, Wagonga Inlet; Victoria: Port Phillip; Tasmania: Tamar River, Derwent River, Huon River, D'Entrecasteaux Channel, Pittwater, Lake Dobson (freshwater), Penna Dam (freshwater)
8. Hydrological investigations in south-western Australia, 1944-50
9. Records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1942-50. Queensland: Logan River; New South Wales: Richmond River, Clarence River, Macleay River, Hastings River, Manning River, Port Stephens, Hawkesbury River, Georges River, Port Hacking, Clyde River, Tuross River; Tasmania: Tamar River, Derwent River
10. Records of twenty-four hourly hydrological observations at Shell Point, Georges River, New South Wales, 1942-50
11. Analyses of bottom deposits in eastern Australia, 1946-50
12. Estuarine hydrological investigations in eastern and south-western Australia, 1951
13. Analysis of bottom deposits in eastern and south-western Australia, 1951 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1951
14. Onshore hydrological investigations in eastern and south-western Australia, 1951
15. Estuarine hydrological investigations in eastern and south-western Australia, 1952
16. Analysis of bottom deposits in eastern and south-western Australia, 1952 and records of twenty-four hourly hydrological observations at selected stations in eastern Australian estuarine systems, 1952
17. Onshore hydrological investigations in eastern and south-western Australia, 1952
18. Onshore hydrological investigations in eastern and south-western Australia, 1953
19. Onshore planktological investigations in eastern Australia, 1945-54
20. Surface sampling in the Tasman Sea, 1953
21. Estuarine hydrological investigations in eastern and south-western Australia, 1953
22. Further onshore planktological investigations in eastern Australia, 1945-54
23. Planktological investigations made by F.R.V. *Derwent Hunter* in eastern Australian waters, 1952-54
24. Onshore hydrological investigations in eastern and south-western Australia, 1954
25. Surface sampling in the Tasman Sea, 1954
26. Estuarine hydrological investigations in eastern and south-western Australia, 1954
27. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1955
28. Surface sampling in the Tasman and Coral Seas, 1955
29. Estuarine hydrological investigations in eastern and south-western Australia, 1955
30. Onshore and oceanic hydrological investigations in eastern and south-western Australia, 1956
31. Surface sampling in the Tasman and Coral Seas and the south-eastern Indian Ocean, 1956
32. Estuarine hydrological investigations in eastern and south-western Australia, 1956
33. Coastal hydrological investigations in eastern and south-western Australia, 1957
34. Coastal hydrological investigations at Port Hacking, New South Wales, 1957
35. Coastal hydrological investigations at Eden, New South Wales, 1957

OCEANOGRAPHICAL STATION LISTS

(Continued)

36. Surface sampling in the Tasman and Coral Seas, 1957
37. Hydrological investigations from F.R.V. *Derwent Hunter*, 1957
38. Coastal hydrological investigations in the New South Wales tuna fishing area, 1958
39. Surface sampling in the Coral and Tasman Seas, 1958
40. Coastal hydrological investigations in south-eastern Australia, 1958
41. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1958
42. Coastal investigations at Port Hacking, New South Wales, 1958
43. Oceanic investigations in eastern Australia, H.M.A. Ships *Queenborough*, *Quickmatch*, and *Warrego*, 1958
44. Oceanic observations in Antarctic waters, M.V. *Magga Dan*, 1959
45. Coastal hydrological investigations in eastern Australia, 1959
46. Coastal hydrological investigations in the New South Wales tuna fishing area, 1959
47. Coastal investigations at Port Hacking, New South Wales, 1959
48. Oceanic investigations in eastern Australian waters, F.R.V. *Derwent Hunter*, 1959
49. Coastal hydrological sampling Rottneest Island, W.A., and Port Moresby, Papua, during the I.G.Y. (1957-58), and surface sampling in the Tasman and Coral Seas, 1959
50. Surface sampling in the Coral and Tasman Seas, 1960
51. Coastal hydrological investigations in eastern Australia, 1960
52. Coastal investigations at Port Hacking, New South Wales, 1960
53. Coastal hydrological investigations in the New South Wales tuna fishing area, 1960
54. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1961
55. Investigations by F.R.V. *Weerutta* on the South Australian tuna grounds in 1961
56. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1961
57. Investigations by F.V. *Estelle Star* in Western Australian waters in 1961
58. Temperature observations from Australian tuna fishing vessels in 1961
59. Investigations by F.R.V. *Derwent Hunter* on the eastern Australian tuna grounds in 1962
60. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1962
61. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1962
62. Investigations by F.V. *Estelle Star* in Western Australian waters in 1962
63. Temperature and salinity observations from Australian tuna fishing vessels in 1962
64. Investigations by F.R.V. *Investigator* on the South Australian tuna grounds in 1963
65. Investigations by F.R.V. *Marelda* on the eastern Australian tuna grounds in 1963
66. Temperature and salinity observations from Australian tuna fishing vessels in 1963