



HOKKAIDO UNIVERSITY

Title	PART II -2. THE " USHIO MARU " CRUISE 382, CRUISE 383, CRUISE 384 IN FEBRUARY - MARCH 2017
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THE " USHIO MARU "

CRUISE 382

CRUISE 383

CRUISE 384

IN FEBRUARY 2017

IN MARCH 2017

1. Cruise Itinerary

Cruise 382

Departure from Hakodate	Feb.	11, 2017
Start hydrographic research (US17073)		11
Retrieval ADCP mooring system		11
Set ADCP mooring system		12
Arrival at Usujiri		12
Depart from Usujiri		13
Sampling by bottom trawl net		13
Arrival at Muroran		13
Depart from Muroran		14
Sampling by bottom trawl net		14
Arrival at Usujiri		14
Depart from Usujiri		15
Sampling by bottom long-line		15
Arrival at Hakodate		16
Depart from Hakodate		19
Finish hydrographic research (US17107)		20
Return to Hakodate		20
Total coverage 405.2 miles		

Cruise 383

Departure from Hakodate	Feb.	24, 2017
Towing larva net		24
Start hydrographic research (US17108)		25
Arrival at Muroran		25
Depart from Muroran		26
Finish hydrographic research (US17128)		26
Return to Hakodate		27
Total coverage 270.5 miles		

Cruise 384

Departure from Hakodate	Mar.	9, 2017
Arrival at Usujiri		9
Depart from Usujiri		9
Start hydrographic research (US17129)		9
Arrival at Usujiri		10
Depart from Usujiri		11
Arrival at Usujiri		11
Depart from Usujiri		12
Arrival at Hakodate		13
Depart from Hakodate		15
Finish hydrographic research (US17168)		15
Return to Hakodate		16
Total coverage 496.3 miles		

2. Data on Temperature, Salinity and Pressure

Hydrographic work on deck and the data processing were made by the deck officers, crews, research staff and cadets of the “Ushio Maru”. Temperature, salinity and pressure were measured by CTD (Seabird SBE-19Plus and SBE-19).

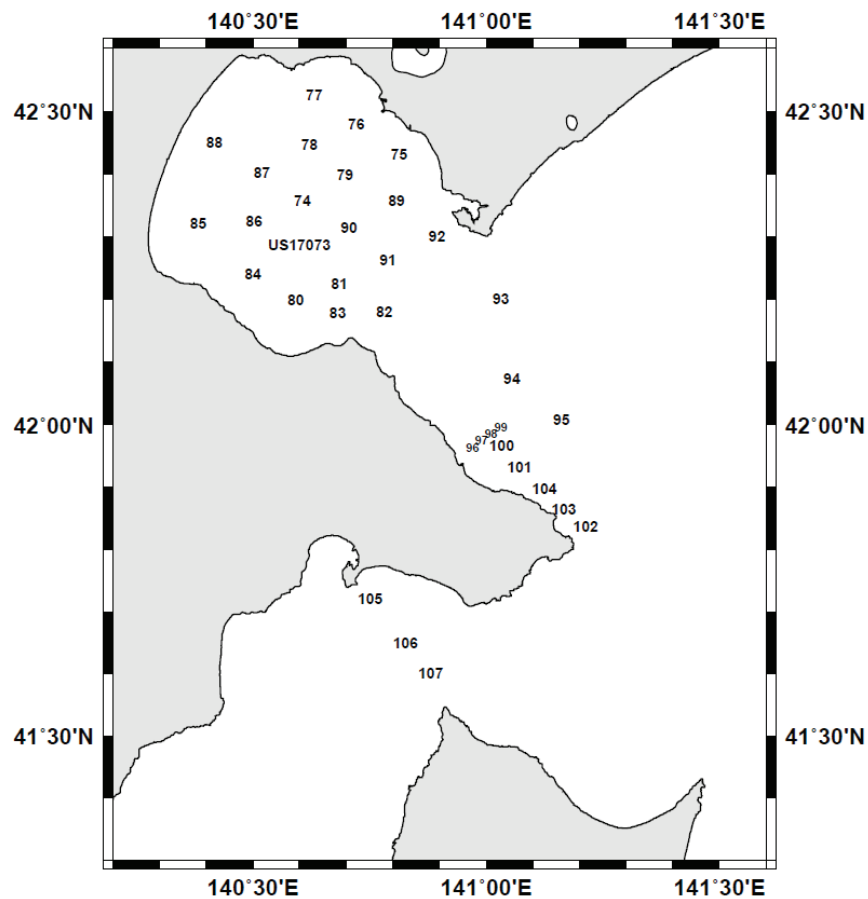


Figure 1. Oceanographic stations (Cruise 382)

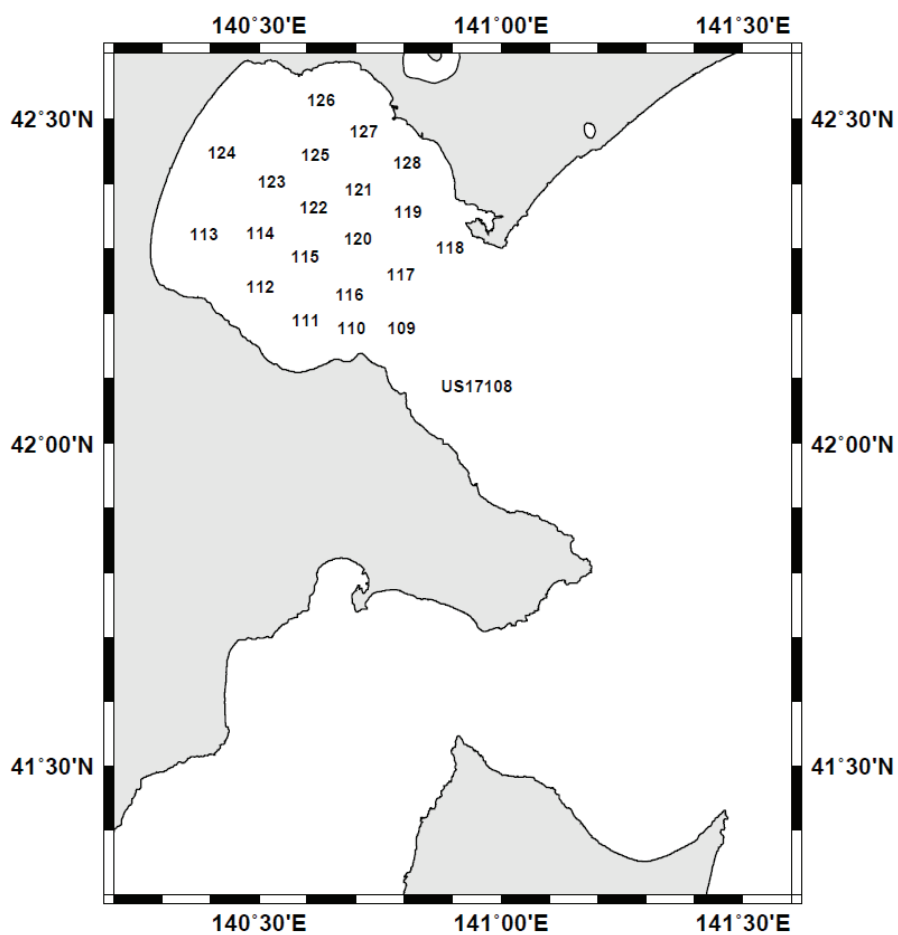


Figure 2. Oceanographic stations (Cruise 383)

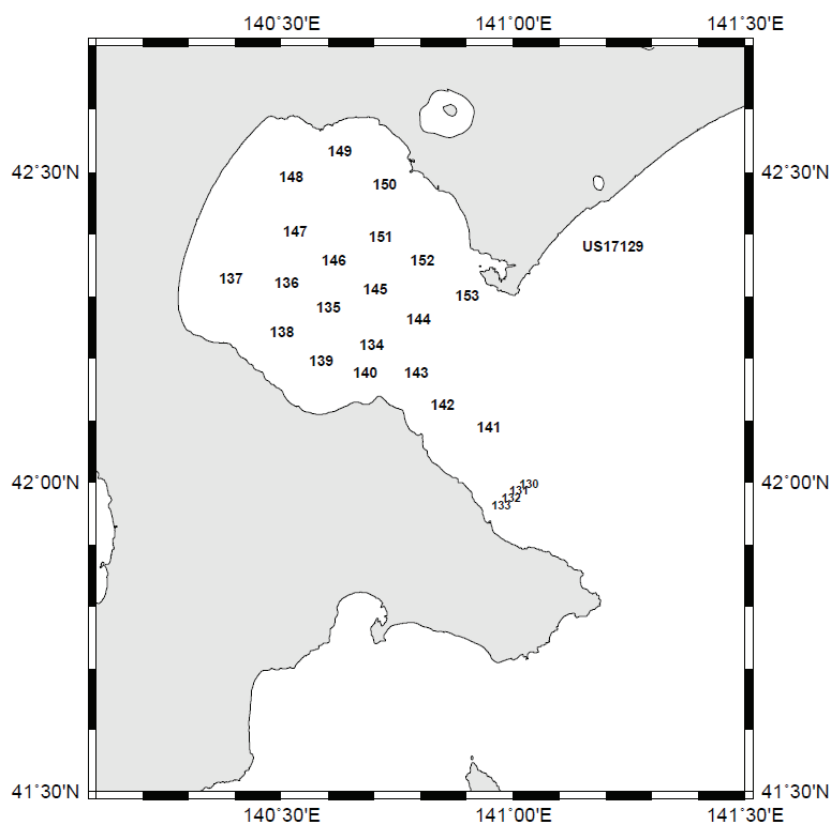


Figure 3. Oceanographic stations (Cruise 384-1)

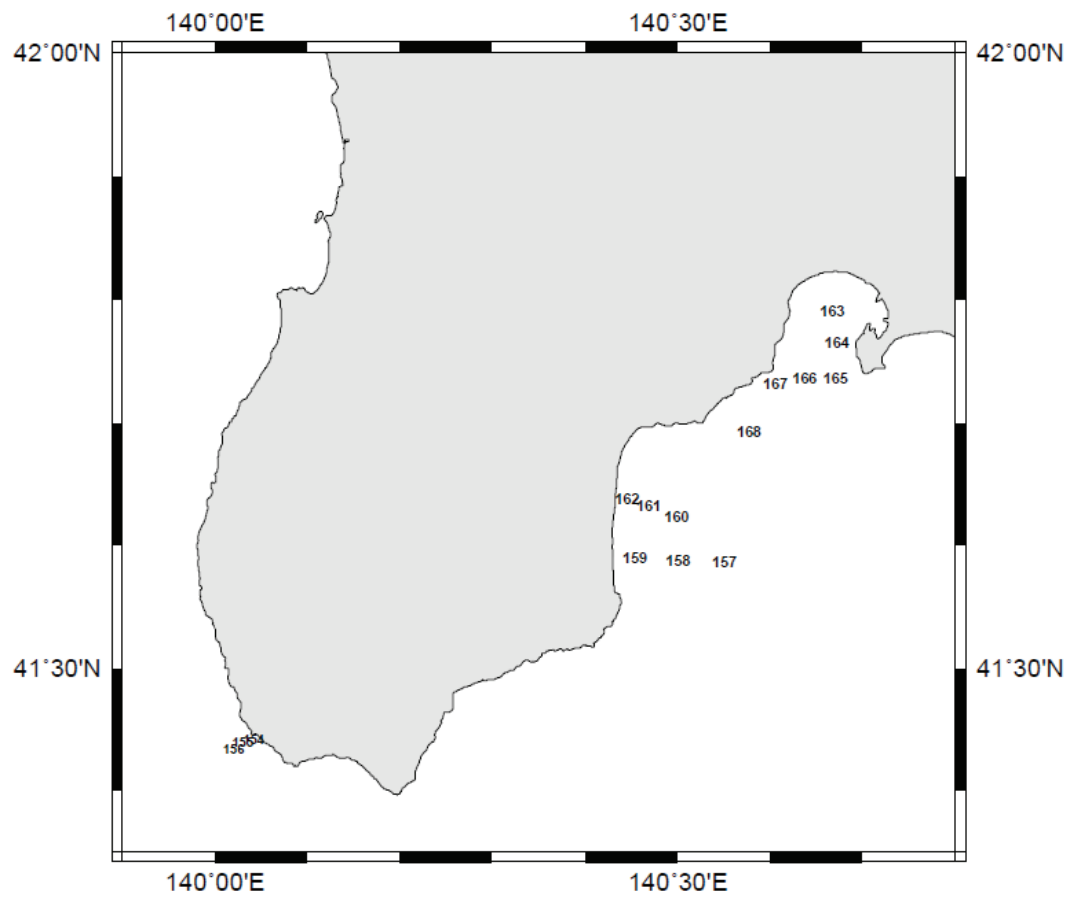


Figure 4. Oceanographic stations (Cruise 384-2)

Table 1. List of Oceanographic Station

Crs382												
station	Lat. (N)°	Long. (E)°	Date	Hour (JST)	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US17073	42-16.7	140-36.0	2/11	1548-1555	92	NNW-3	NW-1	NNW-5	2.8	5.2	c	1004.2
US17074	42-20.9	140-36.4	2/11	1648-1654	89	NNW-3	NW-1	NNW-4	2.5	6.0	c	1005.1
US17075	42-25.4	140-48.8	2/12	0640-0645	44	NNW-3	NNW-1	NNW-5	3.4	5.2	o	1009.5
US17076	42-28.3	140-43.3	2/12	0725-0730	59	NNW-3	NNW-1	NNW-4	3.3	5.3	o	1010.4
US17077	42-31.0	140-37.9	2/12	0806-0811	61	NNW-2	NW-1	NNW-4	3.4	5.2	o	1010.8
US17078	42-26.3	140-37.3	2/12	0904-0909	82	NW-2	NW-1	NW-4	3.5	4.9	o	1011.8
US17079	42-23.4	140-41.9	2/12	0949-0954	65	NW-3	NW-1	NW-5	4.0	6.2	o	1012.0
US17080	42-11.4	140-35.5	2/12	1142-1148	82	NNW-3	NW-1	NNW-4	3.8	4.7	o	1013.0
US17081	42-13.0	140-41.1	2/12	1257-1302	90	NW-3	NW-1	NW-4	4.6	6.1	o	1012.6
US17082	42-10.3	140-46.9	2/12	1353-1359	95	NW-3	NW-1	NW-5	4.1	5.9	o	1012.6
US17083	42-10.2	140-40.9	2/13	0757-0803	85	West-3	WNW-1	West-5	2.8	5.0	c	1021.0
US17084	42-13.9	140-30.0	2/13	0912-0917	77	West-2	WNW-1	West-4	2.8	4.8	c	1021.5
US17085	42-18.8	140-23.0	2/13	1016-1021	53	West-1	West-1	West-2	3.2	4.8	o	1022.0
US17086	42-19.0	140-30.2	2/13	1136-1142	92	NNW-3	NW-1	NNW-5	3.3	5.4	c	1021.6
US17087	42-23.6	140-31.2	2/13	1231-1238	95	NW-3	NW-1	NW-5	3.7	4.7	bc	1021.0
US17088	42-26.5	140-25.1	2/13	1356-1401	61	NW-3	NW-1	NW-6	3.1	5.0	bc	1021.5
US17089	42-20.9	140-48.5	2/14	0723-0728	52	WNW-3	West-1	WNW-5	1.2	5.7	c	1023.2
US17090	42-18.4	140-42.4	2/14	0810-0816	63	WNW-3	West-1	WNW-5	1.7	5.6	c	1023.6
US17091	42-15.3	140-47.4	2/14	0940-0945	71	WNW-3	WNW-1	WNW-5	2.4	5.7	c	1023.8
US17092	42-17.5	140-53.7	2/14	1026-1030	56	WNW-3	WNW-1	WNW-5	2.7	6.3	s	1023.5
US17093	42-11.6	141-01.9	2/14	1137-1143	79	WNW-2	WNW-1	WNW-4	2.6	6.1	bc	1023.9
US17094	42-03.9	141-03.3	2/14	1317-1323	97	NW-2	WNW-1	NW-4	1.9	6.1	s	1022
US17095	42-00.0	141-09.7	2/14	1501-1508	135	WNW-3	WNW-1	WNW-5	2.0	5.6	o	1022.2
US17096	41-57.4	140-58.2	2/15	0942-0947	74	North-3	NW-1	North-4	3.2	5.4	c	1023
US17097	41-58.1	140-59.4	2/15	0957-1003	86	North-2	NW-1	North-4	3.7	5.5	c	1023.1
US17098	41-58.7	141-00.6	2/15	1012-1018	93	NNW-2	NW-1	NNW-4	3.1	5.4	c	1023.2
US17099	41-59.4	141-01.9	2/15	1028-1034	101	NW-3	NW-1	NW-5	3.0	5.5	c	1023.1
US17100	41-57.5	141-02.0	2/15	1049-1055	102	NW-3	NW-1	NW-5	2.5	5.9	o	1023.2
US17101	41-55.4	141-04.3	2/15	1115-1121	110	NW-3	NW-1	NW-5	2.2	5.5	s	1023.1
US17102	41-49.7	141-12.8	2/15	1303-1312	150	NW-3	NW-1	NW-4	3.4	5.4	c	1022.5
US17103	41-51.4	141-10.0	2/15	1330-1338	104	WNW-3	NW-1	WNW-4	4.0	5.5	o	1022.0
US17104	41-53.3	141-07.5	2/15	1356-1403	94	WNW-3	NW-1	WNW-4	3.5	5.4	c	1021.9
US17105	41-42.8	140-45.1	2/20	0402-0411	85	NNE-2	SW-1	NNE-3	-1.3	8.3	s	1011.6
US17106	41-38.5	140-49.6	2/20	0447-0504	324	North-2	SW-1	North-3	-0.3	9.3	s	1011.4
US17107	41-35.6	140-52.9	2/20	0600-0606	45	ENE-2	West-1	ENE-3	0.1	9.3	s	1010.5

Crs383												
station	Lat. (N)°	Long. (E)°	Date	Hour (JST)	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US17108	42-04.7	140-57.0	2/25	0628-0634	84	WSW-2	WNW-1	WSW-4	-1.3	5.7	c	1014.8
US17109	42-10.1	140-47.7	2/25	0743-0750	92	WSW-1	West-1	WSW-3	-0.3	4.9	bc	1014.6
US17110	42-10.1	140-41.5	2/25	0831-0838	83	SSW-2	West-1	SSW-4	-1.0	4.4	o	1014.9
US17111	42-10.8	140-35.8	2/25	0919-0926	79	South-2	SSW-1	South-3	-1.9	4.5	s	1014.8
US17112	42-13.9	140-30.2	2/25	1015-1021	78	SSW-2	SSW-1	SSW-3	1.0	4.5	bc	1014.1
US17113	42-18.8	140-23.2	2/25	1122-1126	54	West-3	WSW-1	West-6	1.3	4.6	o	1013.8
US17114	42-18.9	140-30.2	2/25	1213-1220	92	West-2	West-1	West-4	1.1	4.7	bc	1013.5
US17115	42-16.7	140-35.7	2/25	1308-1315	92	SW-2	West-1	SW-4	1.5	4.6	bc	1013.0
US17116	42-13.2	140-41.2	2/25	1406-1413	90	SW-2	West-1	SW-4	1.4	4.6	c	1012.8
US17117	42-15.1	140-47.6	2/25	1502-1508	72	SW-3	WSW-1	SW-5	1.8	4.9	s	1013.0
US17118	42-17.5	140-53.7	2/25	1552-1557	57	WSW-3	WSW-1	WSW-6	2.6	5.3	c	1013.0
US17119	42-20.8	140-48.5	2/26	0730-0735	52	West-3	WNW-1	West-5	-1.9	5.3	bc	1019.0
US17120	42-18.4	140-42.3	2/26	0817-0822	64	West-3	WNW-1	West-5	-2.3	4.8	bc	1019.2
US17121	42-22.9	140-42.4	2/26	0901-0907	62	WNW-3	WNW-1	WNW-4	-2.3	4.9	c	1019.3
US17122	42-21.2	140-36.8	2/26	0946-0952	86	West-3	WNW-1	West-4	-2.2	4.8	o	1019.5
US17123	42-23.6	140-31.6	2/26	1033-1041	96	West-3	WNW-1	West-4	-1.4	4.6	o	1019.2
US17124	42-26.3	140-25.4	2/26	1126-1131	64	West-2	West-1	West-3	-1.6	4.4	o	1019.0
US17125	42-26.1	140-37.0	2/26	1234-1239	83	NW-2	West-1	NW-4	-0.9	4.6	s	1018.6
US17126	42-31.1	140-37.7	2/26	1321-1326	62	NW-3	WNW-1	NW-6	-1.8	4.7	s	1018.6
US17127	42-28.3	140-43.0	2/26	1407-1412	61	WNW-3	West-1	NW-5	-1.6	4.7	bc	1018.7
US17128	42-25.4	140-48.4	2/26	1453-1457	45	NW-3	West-1	NW-5	-1.0	4.9	bc	1019.1

Table 1. List of Oceanographic Station (continued)

Crs384												
station	Lat. (N)°	Long. (E)°	Date	Hour (JST)	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US17129	42-22.3	141-12.9	3/9	1807-1813	75	West-2	West-1	WSW-3	2.1	5.1	o	1003.2
US17130	41-59.5	141-02.0	3/10	1304-1311	102	NW-2	NW-1	NW-4	2.8	6.4	c	1007.6
US17131	41-58.8	141-00.7	3/10	1321-1328	95	NW-2	NW-1	NW-4	2.6	6.4	c	1007.9
US17132	41-58.1	140-59.7	3/10	1338-1343	88	NW-2	NW-1	NW-4	2.4	6.4	c	1007.8
US17133	41-57.4	140-58.4	3/10	1352-1358	80	NW-2	NW-1	NW-4	2.3	6.0	c	1008.1
US17134	42-12.8	140-41.6	3/11	0755-0801	90	SW-2	West-1	SW-3	1.4	4.5	b	1021.7
US17135	42-16.4	140-36.0	3/11	0906-0913	91	West-1	West-1	West-3	2.8	4.6	bc	1021.7
US17136	42-18.8	140-30.6	3/11	1013-1020	93	West-1	West-1	West-2	3.7	4.6	bc	1022.0
US17137	42-19.2	140-23.4	3/11	1109-1115	55	SSE-1	West-1	SSE-2	5.0	4.9	bc	1022.0
US17138	42-14.0	140-30.0	3/11	1214-1220	78	NE-1	NW-1	NE-3	4.0	4.9	bc	1021.8
US17139	42-11.3	140-35.1	3/11	1306-1312	81	NNE-1	NW-1	NNE-3	4.5	4.2	bc	1021.2
US17140	42-10.1	140-40.8	3/11	1437-1442	85	NW-1	NW-1	NW-3	6.6	4.8	bc	1021.7
US17141	42-04.8	140-56.8	3/12	0644-0650	84	WSW-1	SW-1	WSW-3	1.1	4.4	bc	1026.1
US17142	42-07.0	140-50.8	3/12	0735-0740	74	NW-1	NW-1	NW-3	1.8	4.5	bc	1026.4
US17143	42-10.1	140-47.4	3/12	0818-0825	94	WNW-1	East-1	WNW-3	2.0	4.5	bc	1026.6
US17144	42-15.3	140-47.7	3/12	0910-0915	71	East-1	East-1	East-2	3.2	4.5	bc	1026.7
US17145	42-18.2	140-42.1	3/12	0958-1003	64	Calm	East-1	Calm	3.6	4.5	b	1026.9
US17146	42-21.0	140-36.7	3/12	1107-1113	87	Calm	East-1	Calm	4.0	5.0	b	1026.9
US17147	42-23.7	140-31.7	3/12	1154-1200	96	SSE-1	East-1	SSE-2	3.3	4.7	b	1026.5
US17148	42-29.0	140-31.2	3/12	1244-1249	74	South-1	ESE-1	South-3	4.0	5.0	bc	1025.6
US17149	42-31.4	140-37.5	3/12	1332-1337	60	South-1	ESE-1	South-3	3.7	4.8	b	1025.2
US17150	42-28.3	140-43.3	3/12	1420-1425	60	South-1	SE-1	South-3	3.6	5.2	b	1025.0
US17151	42-23.2	140-42.8	3/12	1508-1512	61	SSE-1	SE-1	SSE-2	4.5	5.2	b	1024.7
US17152	42-21.0	140-48.2	3/12	1551-1555	52	SSE-1	SE-1	SSE-2	3.9	4.8	b	1025.0
US17153	42-17.6	140-54.0	3/12	1640-1646	57	ESE-1	ESE-1	ESE-3	3.8	5.0	b	1025.0
US17154	41-26.3	140-02.5	3/13	0623-0627	29	East-1	SSE-1	East-4	3.9	8.1	b	1023.4
US17155	41-26.1	140-01.8	3/13	0642-0647	54	East-2	SSE-1	East-4	3.8	8.2	b	1022.4
US17156	41-25.8	140-01.2	3/13	0700-0707	85	East-2	SSE-1	East-4	4.2	8.3	b	1023.0
US17157	41-34.9	140-33.0	3/13	1133-1138	58	East-2	SE-1	East-3	8.1	6.5	bc	1022.6
US17158	41-35.0	140-30.0	3/13	1203-1208	44	East-2	SE-1	East-3	6.6	8.4	bc	1022.5
US17159	41-35.1	140-27.2	3/13	1224-1227	21	ENE-2	SE-1	ENE-3	6.4	8.3	bc	1021.6
US17160	41-37.1	140-29.9	3/13	1306-1309	29	ENE-2	SE-1	ENE-4	5.8	8.4	bc	1021.0
US17161	41-37.7	140-28.1	3/13	1331-1334	20	ENE-2	East-1	ENE-5	5.1	8.1	bc	1020.8
US17162	41-38.0	140-26.7	3/13	1343-1347	16	East-2	East-1	East-4	5.3	6.8	bc	1020.6
US17163	41-47.2	140-40.0	3/15	1256-1259	19	North-1	SSE-1	North-3	6.3	7.8	bc	1013.6
US17164	41-45.6	140-40.3	3/15	1324-1333	34	SSW-1	SSE-1	SSW-3	5.7	7.8	bc	1013.6
US17165	41-43.9	140-40.2	3/15	1406-1412	62	South-1	SSE-1	South-3	5.5	8.6	bc	1013.6
US17166	41-43.9	140-38.2	3/15	1444-1449	55	SSW-1	SE-1	SSW-3	5.8	8.6	bc	1013.6
US17167	41-43.6	140-36.3	3/15	1512-1516	31	SSW-1	SE-1	SSW-2	5.4	7.9	bc	1013.6
US17168	41-41.3	140-34.6	3/15	1550-1555	43	SSW-1	SSE-1	SSW-2	5.8	8.4	bc	1013.5

Table 2. Oceanographic data

STATION US17073			
LATITUDE 42-16.7 N			
LONGITUI 140-36.0 E			
DEPTH (m) 92			
Press.	Temp.	Salinity	Sigma-T
5	5.7328	33.644	26.5141
10	5.4892	33.6026	26.5106
20	4.8534	33.5873	26.5717
30	4.8839	33.6011	26.5793
40	5.3005	33.7054	26.6143
50	5.4602	33.7315	26.6161
75	5.6286	33.7975	26.6482
90	5.9046	33.8753	26.6758

STATION US17076			
LATITUDE 42-28.3 N			
LONGITUI 140-43.3 E			
DEPTH (m) 59			
Press.	Temp.	Salinity	Sigma-T
5	5.532	33.5408	26.4567
10	5.5312	33.5399	26.4561
20	5.7041	33.5941	26.4782
30	5.7377	33.6041	26.482
40	5.7313	33.6031	26.482
50	5.7175	33.6059	26.4859
57	5.5766	33.5952	26.4946

STATION US17079			
LATITUDE 42-23.4 N			
LONGITUI 140-41.9 E			
DEPTH (m) 65			
Press.	Temp.	Salinity	Sigma-T
5	6.3436	33.6259	26.4233
10	6.345	33.6261	26.4233
20	6.2638	33.6152	26.4251
30	5.9511	33.586	26.4414
40	5.8421	33.6013	26.467
50	5.7236	33.5958	26.4771
63	5.5933	33.7699	26.6306

STATION US17082			
LATITUDE 42-10.3 N			
LONGITUI 140-46.9 E			
DEPTH (m) 95			
Press.	Temp.	Salinity	Sigma-T
5	6.0524	33.6384	26.4702
10	5.9199	33.6311	26.4809
20	5.2571	33.6412	26.5685
30	5.0052	33.6427	26.5986
40	5.0116	33.6484	26.6024
50	5.0816	33.6654	26.608
75	5.8326	33.8501	26.6649
93	5.8602	33.8568	26.6667

STATION US17085			
LATITUDE 42-18.8 N			
LONGITUI 140-23.0 E			
DEPTH (m) 53			
Press.	Temp.	Salinity	Sigma-T
5	4.8956	33.5046	26.5015
10	4.8877	33.5159	26.5113
20	4.854	33.5545	26.5457
30	4.9491	33.6308	26.5955
40	4.9828	33.6433	26.6017
50	5.4686	33.7868	26.659
50	5.4686	33.7868	26.659

STATION US17074			
LATITUDE 42-20.9 N			
LONGITUI 140-36.4 E			
DEPTH (m) 89			
Press.	Temp.	Salinity	Sigma-T
5	6.2899	33.6246	26.4292
10	6.2915	33.6248	26.4292
20	6.2913	33.6278	26.4315
30	6.4435	33.7049	26.4727
40	6.3039	33.6895	26.4786
50	5.6373	33.6966	26.5673
75	5.5924	33.7914	26.6477
83	5.7094	33.8205	26.6566

STATION US17077			
LATITUDE 42-31.0 N			
LONGITUI 140-37.9 E			
DEPTH (m) 61			
Press.	Temp.	Salinity	Sigma-T
5	6.2993	33.6905	26.48
10	6.3044	33.6901	26.479
20	6.3088	33.6958	26.483
30	6.2886	33.7011	26.4897
40	5.5877	33.6105	26.5051
50	5.4676	33.7618	26.6392
59	5.4875	33.7762	26.6482

STATION US17080			
LATITUDE 42-11.4 N			
LONGITUI 140-35.5 E			
DEPTH (m) 82			
Press.	Temp.	Salinity	Sigma-T
5	5.012	33.6017	26.5653
10	4.9997	33.6025	26.5674
20	4.9928	33.604	26.5694
30	4.9576	33.6193	26.5855
40	4.9123	33.6212	26.592
50	4.8721	33.6184	26.5943
75	5.4228	33.7435	26.6301
80	5.6505	33.8006	26.6479

STATION US17083			
LATITUDE 42-10.2 N			
LONGITUI 140-40.9 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
5	5.0772	33.6356	26.5848
10	5.0806	33.6363	26.585
20	5.0538	33.6338	26.5861
30	5.046	33.6343	26.5873
40	5.041	33.6349	26.5883
50	5.0367	33.6352	26.5891
75	5.162	33.6809	26.611
84	5.307	33.7131	26.6197

STATION US17086			
LATITUDE 42-19.0 N			
LONGITUI 140-30.2 E			
DEPTH (m) 92			
Press.	Temp.	Salinity	Sigma-T
5	5.6249	33.6381	26.5225
10	5.6157	33.6387	26.5241
20	5.4302	33.6282	26.538
30	5.2396	33.6258	26.5583
40	5.2922	33.6721	26.5889
50	5.3622	33.6926	26.5969
75	5.789	33.8114	26.6396
89	5.893	33.844	26.653

STATION US17075			
LATITUDE 42-25.4 N			
LONGITUI 140-48.8 E			
DEPTH (m) 44			
Press.	Temp.	Salinity	Sigma-T
5	6.0743	33.5464	26.3948
10	6.0661	33.5478	26.3969
20	6.0919	33.5501	26.3955
30	6.1235	33.5587	26.3983
40	6.2707	33.615	26.424
43	6.0868	33.6225	26.4533

STATION US17078			
LATITUDE 42-26.3 N			
LONGITUI 140-37.3 E			
DEPTH (m) 82			
Press.	Temp.	Salinity	Sigma-T
5	4.9235	33.6073	26.5798
10	4.9265	33.6083	26.5803
20	4.9254	33.6092	26.5811
30	4.9301	33.6204	26.5894
40	4.9461	33.6283	26.5938
50	5.0069	33.6422	26.598
75	5.9674	33.8823	26.6735
79	5.968	33.884	26.675

STATION US17081			
LATITUDE 42-13.0 N			
LONGITUI 140-41.1 E			
DEPTH (m) 90			
Press.	Temp.	Salinity	Sigma-T
5	6.2931	33.679	26.4717
10	6.293	33.6795	26.4721
20	6.0368	33.65	26.4813
30	5.1978	33.6258	26.5632
40	5.1417	33.6375	26.5789
50	5.5301	33.7484	26.6212
75	5.8168	33.8523	26.6686
88	5.9496	33.8868	26.6793

STATION US17084			
LATITUDE 42-13.9 N			
LONGITUI 140-30.0 E			
DEPTH (m) 77			
Press.	Temp.	Salinity	Sigma-T
5	4.9764	33.6507	26.6082
10	4.9373	33.6401	26.6042
20	4.9645	33.6485	26.6078
30	4.9658	33.6469	26.6064
40	4.9554	33.6451	26.6062
50	4.9773	33.6513	26.6086
75	5.1305	33.6861	26.6187
75	5.131	33.686	26.619

STATION US17087			
LATITUDE 42-23.6 N			
LONGITUI 140-31.2 E			
DEPTH (m) 95			
Press.	Temp.	Salinity	Sigma-T
5	5.062	33.6506	26.5984
10	5.0563	33.6509	26.5993
20	5.0515	33.6501	26.5992
30	5.0475	33.6505	26.6
40	5.0391	33.6515	26.6017
50	5.0406	33.652	26.602
75	5.0987	33.6687	26.6086
93	5.934	33.873	26.671

STATION US17088			
LATITUDE 42-26.5 N			
LONGITUI 140-25.1 E			
DEPTH (m) 61			
Press.	Temp.	Salinity	Sigma-T
5	5.1597	33.4577	26.4344
10	5.158	33.4581	26.4349
20	5.1552	33.4618	26.4382
30	5.1176	33.5165	26.4858
40	5.4766	33.7589	26.6358
50	5.7205	33.8275	26.6608
59	5.6807	33.8214	26.6608

STATION US17091			
LATITUDE 42-15.3 N			
LONGITUI 140-47.4 E			
DEPTH (m) 71			
Press.	Temp.	Salinity	Sigma-T
5	5.8767	33.4828	26.3691
10	5.877	33.4828	26.369
20	5.8824	33.4839	26.3693
30	6.0165	33.516	26.378
40	6.0068	33.5137	26.3774
50	6.2173	33.6041	26.4223
70	5.9577	33.8788	26.6719

STATION US17094			
LATITUDE 42-03.9 N			
LONGITUI 141-03.3 E			
DEPTH (m) 97			
Press.	Temp.	Salinity	Sigma-T
5	6.285	33.5593	26.3782
10	6.2928	33.5602	26.378
20	6.2951	33.56	26.3775
30	6.297	33.5606	26.3777
40	6.298	33.5604	26.3775
50	6.2985	33.5603	26.3773
75	6.2631	33.6079	26.4194
95	5.6511	33.7852	26.6357

STATION US17097			
LATITUDE 41-58.1 N			
LONGITUI 140-59.4 E			
DEPTH (m) 86			
Press.	Temp.	Salinity	Sigma-T
5	5.7089	33.3735	26.3031
10	5.7108	33.3737	26.3031
20	5.8645	33.4302	26.329
30	6.5802	33.5975	26.3701
40	6.6632	33.6166	26.3743
50	6.6066	33.6144	26.38
75	4.7981	33.5512	26.5493
82	4.7985	33.5542	26.5516

STATION US17100			
LATITUDE 41-57.5 N			
LONGITUI 141-02.0 E			
DEPTH (m) 102			
Press.	Temp.	Salinity	Sigma-T
5	6.0586	33.4218	26.2983
10	6.0592	33.4214	26.298
20	6.0726	33.4245	26.2987
30	6.1193	33.4349	26.3011
40	6.221	33.454	26.3033
50	6.252	33.4605	26.3045
75	6.5199	33.6531	26.4219
95	4.917	33.6105	26.5831

STATION US17089			
LATITUDE 42-20.9 N			
LONGITUI 140-48.5 E			
DEPTH (m) 52			
Press.	Temp.	Salinity	Sigma-T
5	5.9179	33.4985	26.3764
10	5.9251	33.4987	26.3757
20	5.9189	33.498	26.3759
30	5.9228	33.4982	26.3756
40	5.9099	33.4976	26.3767
50	6.0157	33.5449	26.401

STATION US17092			
LATITUDE 42-17.5 N			
LONGITUI 140-53.7 E			
DEPTH (m) 56			
Press.	Temp.	Salinity	Sigma-T
5	6.5147	33.5527	26.3434
10	6.5216	33.5542	26.3437
20	6.5264	33.5538	26.3427
30	6.5174	33.5528	26.3431
40	6.381	33.5327	26.3449
50	6.0815	33.4872	26.3472
54	5.6885	33.4374	26.3561

STATION US17095			
LATITUDE 42-00.0 N			
LONGITUI 141-09.7 E			
DEPTH (m) 135			
Press.	Temp.	Salinity	Sigma-T
5	5.8616	33.371	26.2826
10	5.8642	33.3703	26.2817
20	5.8647	33.3709	26.2821
30	5.9304	33.3838	26.2842
40	6.1403	33.4315	26.2957
50	6.4664	33.4854	26.2966
75	7.1712	33.6126	26.3025
100	7.1228	33.6334	26.3255
125	7.2424	33.6973	26.3593
129	7.2035	33.697	26.3644

STATION US17098			
LATITUDE 41-58.7 N			
LONGITUI 141-00.6 E			
DEPTH (m) 93			
Press.	Temp.	Salinity	Sigma-T
5	5.7439	33.3756	26.3006
10	5.7456	33.3757	26.3004
20	5.7343	33.3771	26.3029
30	6.5054	33.5734	26.3609
40	6.731	33.6243	26.3714
50	6.703	33.6252	26.3757
75	4.7869	33.541	26.5424
89	4.826	33.570	26.561

STATION US17101			
LATITUDE 41-55.4 N			
LONGITUI 141-04.3 E			
DEPTH (m) 110			
Press.	Temp.	Salinity	Sigma-T
5	5.7819	33.3803	26.2997
10	5.7579	33.3803	26.3026
20	5.748	33.3832	26.306
30	5.7549	33.3878	26.3089
40	5.7721	33.3937	26.3114
50	5.7927	33.3999	26.3138
75	6.3282	33.5587	26.3722
100	5.1449	33.6585	26.5952
101	5.1446	33.6593	26.5959

STATION US17090			
LATITUDE 42-18.4 N			
LONGITUI 140-42.4 E			
DEPTH (m) 63			
Press.	Temp.	Salinity	Sigma-T
5	5.774	33.6568	26.5192
10	5.7366	33.6546	26.522
20	5.6203	33.6508	26.5332
30	5.6009	33.6525	26.5368
40	5.2491	33.637	26.5661
50	5.1115	33.653	26.5947
62	5.66	33.7994	26.6459

STATION US17093			
LATITUDE 42-11.6 N			
LONGITUI 141-01.9 E			
DEPTH (m) 79			
Press.	Temp.	Salinity	Sigma-T
5	6.3105	33.5313	26.3529
10	6.3118	33.5319	26.3532
20	6.3126	33.532	26.3531
30	6.2859	33.5258	26.3517
40	6.2694	33.5264	26.3543
50	6.4445	33.5737	26.3691
75	6.4776	33.5777	26.3679
77	6.478	33.578	26.368

STATION US17096			
LATITUDE 41-57.4 N			
LONGITUI 140-58.2 E			
DEPTH (m) 74			
Press.	Temp.	Salinity	Sigma-T
5	5.7522	33.4021	26.3205
10	5.7669	33.4074	26.3229
20	6.7406	33.6168	26.3641
30	6.7398	33.6182	26.3654
40	6.5336	33.622	26.3956
50	5.6039	33.6127	26.5049
70	4.8244	33.5532	26.5479

STATION US17099			
LATITUDE 41-59.4 N			
LONGITUI 141-01.9 E			
DEPTH (m) 101			
Press.	Temp.	Salinity	Sigma-T
5	5.7369	33.3733	26.2996
10	5.7362	33.373	26.2994
20	5.7226	33.3736	26.3015
30	6.1004	33.4876	26.345
40	6.7004	33.6232	26.3745
50	6.4955	33.597	26.3808
75	5.3323	33.5795	26.5109
97	4.917	33.599	26.574

STATION US17102			
LATITUDE 41-49.7 N			
LONGITUI 141-12.8 E			
DEPTH (m) 150			
Press.	Temp.	Salinity	Sigma-T
5	5.3652	33.285	26.2739
10	5.4065	33.2937	26.276
20	5.4516	33.3052	26.2798
30	5.7466	33.362	26.2895
40	5.7587	33.3598	26.2863
50	5.766	33.363	26.2879
75	6.9967	33.6052	26.3205
100	7.239	33.6549	26.3263
125	7.061	33.6369	26.3367
130	6.9315	33.6242	26.3443

STATION US17103			
LATITUDE 41-51.4 N			
LONGITUI 141-10.0 E			
DEPTH (m) 104			
Press.	Temp.	Salinity	Sigma-T
5	5.8207	33.3749	26.2906
10	5.8182	33.3747	26.2908
20	5.8416	33.3809	26.2928
30	5.8232	33.3774	26.2923
40	5.7926	33.3748	26.294
50	6.2416	33.476	26.318
75	5.9171	33.4298	26.3222
100	6.3921	33.5217	26.3348
100	6.3921	33.5217	26.3348

STATION US17106			
LATITUDE 41-38.5 N			
LONGITUI 140-49.6 E			
DEPTH (m) 324			
Press.	Temp.	Salinity	Sigma-T
5	9.5376	33.9259	26.1903
10	9.5397	33.9256	26.1897
20	9.5401	33.9302	26.1933
30	9.5324	33.9414	26.2033
40	9.529	33.9479	26.2089
50	9.5282	33.9517	26.212
75	9.4593	33.9503	26.2222
100	9.5009	33.9549	26.2189
125	9.3977	33.9504	26.2323
150	9.3418	33.9519	26.2425
175	9.3411	33.9514	26.2423
200	9.2755	33.9518	26.2532
250	9.2905	33.9507	26.25
288	8.504	33.962	26.3827

STATION US17108			
LATITUDE 42-04.7 N			
LONGITUI 140-57.0 E			
DEPTH (m) 84			
Press.	Temp.	Salinity	Sigma-T
5	5.9133	33.5642	26.4288
10	5.92	33.5654	26.429
20	5.9391	33.568	26.4287
30	5.9348	33.5678	26.4291
40	5.9323	33.5677	26.4293
50	5.9466	33.5698	26.4291
75	5.9506	33.5704	26.4292
82	5.9541	33.571	26.4292

STATION US17111			
LATITUDE 42-10.8 N			
LONGITUI 140-35.8 E			
DEPTH (m) 79			
Press.	Temp.	Salinity	Sigma-T
5	4.6843	33.5856	26.589
10	4.6934	33.5869	26.5891
20	4.6944	33.5868	26.5889
30	4.6954	33.5874	26.5892
40	4.695	33.588	26.589
50	4.679	33.587	26.590
75	4.662	33.586	26.592
77	4.662	33.586	26.592

STATION US17114			
LATITUDE 42-18.9 N			
LONGITUI 140-30.2 E			
DEPTH (m) 92			
Press.	Temp.	Salinity	Sigma-T
5	4.8578	33.5955	26.5778
10	4.8541	33.5954	26.5781
20	4.8488	33.5952	26.5785
30	4.8206	33.5955	26.5818
40	4.8346	33.6041	26.5872
50	4.820	33.607	26.591
75	4.985	33.651	26.608
91	5.7254	33.8387	26.669

STATION US17104			
LATITUDE 41-53.3 N			
LONGITUI 141-07.5 E			
DEPTH (m) 94			
Press.	Temp.	Salinity	Sigma-T
5	5.7695	33.3775	26.299
10	5.9147	33.4224	26.3167
20	6.1064	33.4957	26.3507
30	6.5168	33.5938	26.3756
40	6.455	33.5904	26.3809
50	6.379	33.5938	26.3934
75	5.8585	33.63	26.4876
90	5.465	33.640	26.543

STATION US17107			
LATITUDE 41-35.6 N			
LONGITUI 140-52.9 E			
DEPTH (m) 45			
Press.	Temp.	Salinity	Sigma-T
NO CTD DATA			

STATION US17109			
LATITUDE 42-10.1 N			
LONGITUI 140-47.7 E			
DEPTH (m) 92			
Press.	Temp.	Salinity	Sigma-T
5	5.1681	33.5611	26.5153
10	5.1664	33.5608	26.5153
20	5.1697	33.5605	26.5147
30	5.171	33.561	26.515
40	5.184	33.564	26.516
50	5.203	33.570	26.519
75	5.174	33.579	26.529
91	5.081	33.613	26.567

STATION US17112			
LATITUDE 42-13.9 N			
LONGITUI 140-30.2 E			
DEPTH (m) 78			
Press.	Temp.	Salinity	Sigma-T
5	4.8728	33.5715	26.557
10	4.8632	33.575	26.5609
20	4.8616	33.576	26.5619
30	4.862	33.577	26.562
40	4.864	33.578	26.563
50	4.882	33.583	26.565
75	5.010	33.694	26.639
77	5.025	33.696	26.638

STATION US17115			
LATITUDE 42-16.7 N			
LONGITUI 140-35.7 E			
DEPTH (m) 92			
Press.	Temp.	Salinity	Sigma-T
5	4.8705	33.5324	26.5263
10	4.8702	33.5329	26.5268
20	4.8966	33.5828	26.5633
30	4.8622	33.6065	26.586
40	4.8678	33.6101	26.5882
50	4.8898	33.6171	26.5913
75	4.9646	33.6406	26.6015
90	5.5456	33.7888	26.6513

STATION US17105			
LATITUDE 41-42.8 N			
LONGITUI 140-45.1 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
NO CTD DATA			

STATION US17110			
LATITUDE 42-10.1 N			
LONGITUI 140-41.5 E			
DEPTH (m) 83			
Press.	Temp.	Salinity	Sigma-T
5	4.5592	33.4914	26.5278
10	4.558	33.494	26.5301
20	4.5563	33.4927	26.5292
30	4.5434	33.4922	26.5302
40	4.4911	33.4983	26.5407
50	4.5395	33.5108	26.5454
75	4.599	33.5546	26.5737
82	4.6094	33.5537	26.5718

STATION US17113			
LATITUDE 42-18.8 N			
LONGITUI 140-23.2 E			
DEPTH (m) 54			
Press.	Temp.	Salinity	Sigma-T
5	4.8214	33.6075	26.5913
10	4.8028	33.6064	26.5925
20	4.7763	33.6055	26.5947
30	4.7772	33.6084	26.5969
40	5.0886	33.7182	26.649
50	5.5506	33.8122	26.6692
53	5.7648	33.8415	26.6663

STATION US17116			
LATITUDE 42-13.2 N			
LONGITUI 140-41.2 E			
DEPTH (m) 90			
Press.	Temp.	Salinity	Sigma-T
5	4.8559	33.5337	26.5289
10	4.8462	33.5328	26.5293
20	4.8114	33.5298	26.5308
30	4.7649	33.5287	26.5351
40	4.7584	33.529	26.536
50	4.7534	33.5292	26.5367
75	4.6055	33.5743	26.5887
88	4.588	33.571	26.5879

STATION US17117			
LATITUDE 42-15.1 N			
LONGITUDE 140-47.6 E			
DEPTH (m) 72			
Press.	Temp.	Salinity	Sigma-T
5	5.1778	33.5616	26.5146
10	5.1603	33.5611	26.5163
20	5.0974	33.5654	26.5269
30	5.0222	33.5749	26.543
40	4.9698	33.5913	26.5619
50	4.971	33.603	26.571
71	4.997	33.612	26.575

STATION US17120			
LATITUDE 42-18.4 N			
LONGITUDE 140-42.3 E			
DEPTH (m) 64			
Press.	Temp.	Salinity	Sigma-T
5	4.9159	33.5511	26.5361
10	4.9285	33.5509	26.5345
20	4.9281	33.5508	26.5344
30	4.9195	33.5513	26.5358
40	4.8562	33.5495	26.5415
50	4.5866	33.5651	26.5834
62	4.8123	33.6084	26.593

STATION US17123			
LATITUDE 42-23.6 N			
LONGITUDE 140-31.6 E			
DEPTH (m) 96			
Press.	Temp.	Salinity	Sigma-T
5	4.7652	33.6191	26.6067
10	4.7606	33.6185	26.6068
20	4.769	33.6215	26.6082
30	4.7724	33.622	26.6082
40	4.7762	33.6231	26.6087
50	4.7896	33.6266	26.6099
75	4.9753	33.6614	26.6169
94	5.0678	33.6816	26.6223

STATION US17126			
LATITUDE 42-31.1 N			
LONGITUDE 140-37.7 E			
DEPTH (m) 62			
Press.	Temp.	Salinity	Sigma-T
5	4.9062	33.6584	26.6223
10	4.9062	33.6582	26.6221
20	4.9011	33.6585	26.6228
30	4.8993	33.6593	26.6237
40	4.8813	33.6589	26.6254
50	4.9051	33.664	26.6268
61	5.0144	33.69	26.6351

STATION US17129			
LATITUDE 42-22.3 N			
LONGITUDE 141-12.9 E			
DEPTH (m) 75			
Press.	Temp.	Salinity	Sigma-T
5	5.0346	33.3781	26.3856
10	5.0367	33.3798	26.3867
20	5.0729	33.3901	26.3907
30	5.1132	33.4036	26.3969
40	5.3827	33.4629	26.4126
50	5.8014	33.5551	26.4354
71	5.998	33.5674	26.4209

STATION US17118			
LATITUDE 42-17.5 N			
LONGITUDE 140-53.7 E			
DEPTH (m) 57			
Press.	Temp.	Salinity	Sigma-T
5	5.5313	33.5161	26.4372
10	5.5297	33.515	26.4365
20	5.5163	33.5135	26.4369
30	5.512	33.513	26.437
40	5.508	33.513	26.438
50	5.401	33.524	26.459
56	5.1452	33.5799	26.5329

STATION US17121			
LATITUDE 42-22.9 N			
LONGITUDE 140-42.4 E			
DEPTH (m) 62			
Press.	Temp.	Salinity	Sigma-T
5	5.0407	33.5708	26.5376
10	5.0424	33.5709	26.5375
20	5.0394	33.5702	26.5372
30	5.0443	33.5722	26.5383
40	5.1494	33.6175	26.5622
50	4.9607	33.6381	26.6
59	5.3505	33.7199	26.6199

STATION US17124			
LATITUDE 42-26.3 N			
LONGITUDE 140-25.4 E			
DEPTH (m) 64			
Press.	Temp.	Salinity	Sigma-T
5	4.5588	33.5972	26.6119
10	4.5468	33.6006	26.6159
20	4.5608	33.6044	26.6174
30	4.6099	33.6138	26.6195
40	4.612	33.6162	26.6212
50	4.6215	33.6188	26.6223
62	5.3946	33.781	26.6631

STATION US17127			
LATITUDE 42-28.3 N			
LONGITUDE 140-43.0 E			
DEPTH (m) 61			
Press.	Temp.	Salinity	Sigma-T
5	4.8847	33.6313	26.6032
10	4.8921	33.6335	26.6041
20	4.8911	33.6355	26.6057
30	4.8982	33.6375	26.6065
40	4.9059	33.64	26.6077
50	4.9075	33.6408	26.6081
61	4.9153	33.6419	26.6082

STATION US17130			
LATITUDE 41-59.5 N			
LONGITUDE 141-02.0 E			
DEPTH (m) 102			
Press.	Temp.	Salinity	Sigma-T
5	6.7951	33.7267	26.4435
10	6.785	33.7247	26.4433
20	6.7673	33.7266	26.4471
30	6.6681	33.701	26.4401
40	5.6692	33.5687	26.4623
50	5.7158	33.5978	26.4797
75	5.0815	33.5537	26.5194
97	5.0678	33.5668	26.5313

STATION US17119			
LATITUDE 42-20.8 N			
LONGITUDE 140-48.5 E			
DEPTH (m) 52			
Press.	Temp.	Salinity	Sigma-T
5	5.4844	33.607	26.5147
10	5.4919	33.6073	26.5141
20	5.4884	33.6081	26.5151
30	5.3605	33.6134	26.5344
40	5.1397	33.6573	26.5949
50	5.1154	33.6625	26.6017
51	5.1155	33.6626	26.6018

STATION US17122			
LATITUDE 42-21.2 N			
LONGITUDE 140-36.8 E			
DEPTH (m) 86			
Press.	Temp.	Salinity	Sigma-T
5	5.0208	33.5726	26.5413
10	5.0195	33.5725	26.5414
20	5.0201	33.5731	26.5417
30	5.0271	33.5744	26.542
40	5.0387	33.579	26.5443
50	4.9999	33.5879	26.5557
75	5.5488	33.7837	26.6469
83	5.6403	33.8029	26.651

STATION US17125			
LATITUDE 42-26.1 N			
LONGITUDE 140-37.0 E			
DEPTH (m) 83			
Press.	Temp.	Salinity	Sigma-T
5	4.9704	33.5698	26.5448
10	4.907	33.5769	26.5575
20	4.8985	33.5807	26.5614
30	4.8924	33.5884	26.5683
40	4.876	33.5969	26.5769
50	4.8759	33.6005	26.5797
75	5.1658	33.6953	26.622
82	5.3051	33.7294	26.6327

STATION US17128			
LATITUDE 42-25.4 N			
LONGITUDE 140-48.4 E			
DEPTH (m) 45			
Press.	Temp.	Salinity	Sigma-T
5	4.9415	33.5792	26.5555
10	4.9386	33.5788	26.5555
20	4.9319	33.5787	26.5561
30	4.9182	33.5793	26.5582
40	4.9143	33.5814	26.5603
44	4.91	33.583	26.562

STATION US17131			
LATITUDE 41-58.8 N			
LONGITUDE 141-00.7 E			
DEPTH (m) 95			
Press.	Temp.	Salinity	Sigma-T
5	6.3802	33.6982	26.4757
10	6.3719	33.6951	26.4743
20	6.3061	33.6723	26.4648
30	6.0658	33.6587	26.4846
40	6.0512	33.6605	26.4878
50	6.0298	33.6616	26.4913
75	5.0772	33.5644	26.5283
90	5.0695	33.5688	26.5327

STATION US17132			
LATITUDE 41-58.1 N			
LONGITUDE 140-59.7 E			
DEPTH (m) 88			
Press.	Temp.	Salinity	Sigma-T
5	6.2216	33.6575	26.4639
10	6.2671	33.6691	26.4672
20	6.3777	33.692	26.4711
30	6.1979	33.6265	26.4424
40	6.1285	33.6615	26.4788
50	5.9228	33.5856	26.4446
75	5.0987	33.5594	26.522
84	5.069	33.5624	26.5278

STATION US17135			
LATITUDE 42-16.4 N			
LONGITUDE 140-36.0 E			
DEPTH (m) 91			
Press.	Temp.	Salinity	Sigma-T
5	4.5941	33.6078	26.6165
10	4.5675	33.6123	26.6229
20	4.556	33.6159	26.627
30	4.5451	33.6174	26.6294
40	4.5464	33.618	26.6297
50	4.5474	33.6176	26.6293
75	4.5303	33.6154	26.6294
90	4.675	33.650	26.641

STATION US17138			
LATITUDE 42-14.0 N			
LONGITUDE 140-30.0 E			
DEPTH (m) 78			
Press.	Temp.	Salinity	Sigma-T
5	4.6804	33.5921	26.5946
10	4.5736	33.6279	26.6347
20	4.5698	33.6329	26.639
30	4.5713	33.6326	26.6386
40	4.599	33.6383	26.6402
50	4.634	33.646	26.643
75	4.647	33.649	26.644
76	4.647	33.650	26.644

STATION US17141			
LATITUDE 42-04.8 N			
LONGITUDE 140-56.8 E			
DEPTH (m) 84			
Press.	Temp.	Salinity	Sigma-T
5	4.6216	33.3993	26.448
10	4.633	33.4037	26.4503
20	4.6179	33.4399	26.4807
30	4.6906	33.4676	26.4947
40	4.8262	33.5199	26.5213
50	4.865	33.5507	26.5414
75	4.8088	33.5716	26.5642
82	4.8092	33.5709	26.5636

STATION US17144			
LATITUDE 42-15.3 N			
LONGITUDE 140-47.7 E			
DEPTH (m) 71			
Press.	Temp.	Salinity	Sigma-T
5	4.7044	33.4738	26.4981
10	4.7546	33.471	26.4904
20	4.7003	33.4751	26.4996
30	4.7194	33.4879	26.5077
40	4.6629	33.5436	26.5581
50	4.6395	33.559	26.5728
70	4.567	33.5877	26.6034

STATION US17133			
LATITUDE 41-57.4 N			
LONGITUDE 140-58.4 E			
DEPTH (m) 80			
Press.	Temp.	Salinity	Sigma-T
5	6.3667	33.6772	26.4608
10	6.3888	33.6931	26.4705
20	6.5105	33.7111	26.4689
30	6.4496	33.7027	26.4702
40	6.2821	33.6683	26.4647
50	6.1911	33.6664	26.4747
75	5.5159	33.5661	26.4786

STATION US17136			
LATITUDE 42-18.8 N			
LONGITUDE 140-30.6 E			
DEPTH (m) 93			
Press.	Temp.	Salinity	Sigma-T
5	4.6178	33.6288	26.6306
10	4.6098	33.6325	26.6344
20	4.6107	33.6335	26.6351
30	4.6122	33.6335	26.635
40	4.6106	33.633	26.6347
50	4.6139	33.6339	26.6351
75	4.6148	33.6338	26.6349
92	4.651	33.643	26.638

STATION US17139			
LATITUDE 42-11.3 N			
LONGITUDE 140-35.1 E			
DEPTH (m) 81			
Press.	Temp.	Salinity	Sigma-T
5	4.1344	33.499	26.5785
10	4.1285	33.5175	26.5938
20	4.2334	33.544	26.6041
30	4.542	33.6159	26.6285
40	4.4177	33.5847	26.617
50	4.3741	33.5863	26.6229
75	4.4517	33.6117	26.6349
78	4.480	33.626	26.643

STATION US17142			
LATITUDE 42-07.0 N			
LONGITUDE 140-50.8 E			
DEPTH (m) 74			
Press.	Temp.	Salinity	Sigma-T
5	4.6748	33.4403	26.4748
10	4.673	33.4395	26.4743
20	4.6746	33.4425	26.4765
30	4.6982	33.4496	26.4796
40	4.801	33.5062	26.5132
50	5.0528	33.5644	26.5311
72	4.8234	33.5667	26.5587

STATION US17145			
LATITUDE 42-18.2 N			
LONGITUDE 140-42.1 E			
DEPTH (m) 64			
Press.	Temp.	Salinity	Sigma-T
5	4.5185	33.4811	26.5241
10	4.5159	33.4781	26.522
20	4.5005	33.5209	26.5576
30	4.5125	33.5403	26.5717
40	4.5316	33.6088	26.624
50	4.451	33.6083	26.6322
63	4.7068	33.6685	26.6523

STATION US17134			
LATITUDE 42-12.8 N			
LONGITUDE 140-41.6 E			
DEPTH (m) 90			
Press.	Temp.	Salinity	Sigma-T
5	4.75	33.4832	26.5006
10	4.7264	33.4877	26.5068
20	4.3654	33.5609	26.6037
30	4.3538	33.5707	26.6127
40	4.3797	33.5885	26.6241
50	4.4329	33.5969	26.6251
75	4.6084	33.6465	26.6457
87	4.636	33.656	26.650

STATION US17137			
LATITUDE 42-19.2 N			
LONGITUDE 140-23.4 E			
DEPTH (m) 55			
Press.	Temp.	Salinity	Sigma-T
5	4.6684	33.6113	26.6111
10	4.5764	33.6032	26.6147
20	4.5737	33.617	26.626
30	4.6292	33.6278	26.6286
40	4.6256	33.6244	26.6263
50	4.6136	33.6313	26.633
54	4.6929	33.65	26.6393

STATION US17140			
LATITUDE 42-10.1 N			
LONGITUDE 140-40.8 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
5	4.9577	33.4648	26.4629
10	4.9173	33.4745	26.4752
20	4.8106	33.5128	26.5174
30	5.0444	33.5373	26.5106
40	4.954	33.5329	26.5174
50	4.7615	33.5802	26.5763
75	4.6383	33.6274	26.6273
84	4.6556	33.6408	26.6359

STATION US17143			
LATITUDE 42-10.1 N			
LONGITUDE 140-47.4 E			
DEPTH (m) 94			
Press.	Temp.	Salinity	Sigma-T
5	4.7439	33.4525	26.4769
10	4.7265	33.4531	26.4793
20	4.7062	33.4529	26.4814
30	5.0471	33.5367	26.5099
40	4.7646	33.5057	26.5169
50	4.966	33.5653	26.5417
75	4.5277	33.6038	26.6205
92	4.5636	33.6385	26.6441

STATION US17146			
LATITUDE 42-21.0 N			
LONGITUDE 140-36.7 E			
DEPTH (m) 87			
Press.	Temp.	Salinity	Sigma-T
5	4.7717	33.5634	26.5618
10	4.7208	33.5615	26.566
20	4.6345	33.5788	26.5891
30	4.5599	33.5945	26.6097
40	4.5272	33.5968	26.6149
50	4.496	33.596	26.618
75	4.526	33.609	26.625
84	4.570	33.639	26.644

STATION US17147			
LATITUDE 42-23.7 N			
LONGITUE 140-31.7 E			
DEPTH (m) 96			
Press.	Temp.	Salinity	Sigma-T
5	4.7531	33.5193	26.529
10	4.5592	33.5601	26.5824
20	4.6301	33.6034	26.6091
30	4.6921	33.6229	26.6178
40	4.6749	33.6231	26.6198
50	4.6549	33.6355	26.6319
75	4.6356	33.6385	26.6363
94	4.702	33.663	26.649

STATION US17150			
LATITUDE 42-28.3 N			
LONGITUE 140-43.3 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	5.4916	33.434	26.3769
10	4.9088	33.5191	26.5114
20	4.8521	33.5325	26.5285
30	4.8398	33.5452	26.5398
40	4.9988	33.621	26.5821
50	5.0264	33.6563	26.607
58	5.033	33.6733	26.6197

STATION US17153			
LATITUDE 42-17.6 N			
LONGITUE 140-54.0 E			
DEPTH (m) 57			
Press.	Temp.	Salinity	Sigma-T
5	4.8925	33.3469	26.3768
10	4.892	33.3557	26.3838
20	4.6408	33.3549	26.4107
30	4.5217	33.3565	26.4248
40	4.8004	33.4474	26.4667
50	5.0723	33.4992	26.4773
54	5.0789	33.5012	26.4781

STATION US17156			
LATITUDE 41-25.8 N			
LONGITUE 140-01.2 E			
DEPTH (m) 85			
Press.	Temp.	Salinity	Sigma-T
5	8.3173	33.9614	26.4107
10	8.416	33.9617	26.3959
20	8.3727	33.9637	26.404
30	8.3832	33.962	26.4012
40	8.3899	33.9608	26.3992
50	7.9844	33.9643	26.4627
75	7.5433	33.9822	26.541
83	7.298	33.988	26.580

STATION US17159			
LATITUDE 41-35.1 N			
LONGITUE 140-27.2 E			
DEPTH (m) 21			
Press.	Temp.	Salinity	Sigma-T
5	8.3744	33.9141	26.3649
10	8.3368	33.9497	26.3985
20	8.3056	33.9483	26.4022
21	8.3076	33.9498	26.403

STATION US17162			
LATITUDE 41-38.0 N			
LONGITUE 140-26.7 E			
DEPTH (m) 16			
Press.	Temp.	Salinity	Sigma-T
5	7.3231	33.7217	26.3672
10	7.5361	33.8022	26.4004
15	7.5478	33.8267	26.4181

STATION US17148			
LATITUDE 42-29.0 N			
LONGITUE 140-31.2 E			
DEPTH (m) 74			
Press.	Temp.	Salinity	Sigma-T
5	5.1878	33.5342	26.4917
10	4.7454	33.5873	26.5837
20	4.6973	33.5978	26.5973
30	4.687	33.5994	26.5997
40	4.6766	33.6052	26.6055
50	4.6583	33.6263	26.6242
73	4.977	33.703	26.650

STATION US17151			
LATITUDE 42-23.2 N			
LONGITUE 140-42.8 E			
DEPTH (m) 61			
Press.	Temp.	Salinity	Sigma-T
5	4.9644	33.5181	26.5045
10	4.7056	33.5309	26.5433
20	4.6796	33.5424	26.5552
30	4.7018	33.5722	26.5765
40	4.6901	33.6053	26.6041
50	4.8358	33.641	26.6163
60	4.6803	33.6239	26.6199

STATION US17154			
LATITUDE 41-26.3 N			
LONGITUE 140-02.5 E			
DEPTH (m) 29			
Press.	Temp.	Salinity	Sigma-T
5	8.1915	33.957	26.4261
10	8.22	33.9521	26.4181
20	8.1173	33.9626	26.4417
28	8.114	33.9607	26.4406

STATION US17157			
LATITUDE 41-34.9 N			
LONGITUE 140-33.0 E			
DEPTH (m) 58			
Press.	Temp.	Salinity	Sigma-T
5	8.7001	33.9774	26.3645
10	8.6637	33.9547	26.3523
20	8.4553	33.967	26.3941
30	8.3425	33.9699	26.4135
40	8.2991	33.9742	26.4235
50	8.2613	33.9791	26.433
57	8.261	33.9798	26.4336

STATION US17160			
LATITUDE 41-37.1 N			
LONGITUE 140-29.9 E			
DEPTH (m) 29			
Press.	Temp.	Salinity	Sigma-T
5	8.4116	33.9299	26.3716
10	8.3918	33.9361	26.3795
20	8.3579	33.9549	26.3994
29	7.3879	33.7631	26.3909

STATION US17163			
LATITUDE 41-47.2 N			
LONGITUE 140-40.0 E			
DEPTH (m) 19			
Press.	Temp.	Salinity	Sigma-T
5	7.9418	33.8145	26.3514
10	7.7805	33.8464	26.4
19	7.7275	33.8447	26.4064

STATION US17149			
LATITUDE 42-31.4 N			
LONGITUE 140-37.5 E			
DEPTH (m) 60			
Press.	Temp.	Salinity	Sigma-T
5	4.731	33.1984	26.2768
10	4.6657	33.4746	26.503
20	4.6895	33.5278	26.5426
30	4.7494	33.5837	26.5804
40	4.8272	33.6245	26.6041
50	5.0233	33.6724	26.6201
58	5.1793	33.7091	26.6313

STATION US17152			
LATITUDE 42-21.0 N			
LONGITUE 140-48.2 E			
DEPTH (m) 52			
Press.	Temp.	Salinity	Sigma-T
5	4.7732	33.3218	26.3701
10	4.6957	33.3287	26.384
20	4.8474	33.4066	26.4291
30	4.9036	33.4154	26.4298
40	4.7814	33.4627	26.4809
50	4.865	33.5341	26.5283
51	4.886	33.5428	26.5328

STATION US17155			
LATITUDE 41-26.1 N			
LONGITUE 140-01.8 E			
DEPTH (m) 54			
Press.	Temp.	Salinity	Sigma-T
5	8.3667	33.957	26.3997
10	8.2955	33.9469	26.4026
20	8.2111	33.9608	26.4262
30	8.2095	33.9611	26.4267
40	8.1484	33.9563	26.4321
50	8.1316	33.9657	26.442
54	8.1346	33.966	26.4417

STATION US17158			
LATITUDE 41-35.0 N			
LONGITUE 140-30.0 E			
DEPTH (m) 44			
Press.	Temp.	Salinity	Sigma-T
5	8.6279	33.9651	26.366
10	8.4981	33.9676	26.3879
20	8.4911	33.9726	26.393
30	8.4847	33.9758	26.3965
40	8.4688	33.9775	26.4002
43	8.4696	33.9776	26.4002

STATION US17161			
LATITUDE 41-37.7 N			
LONGITUE 140-28.1 E			
DEPTH (m) 20			
Press.	Temp.	Salinity	Sigma-T
5	7.4137	33.7388	26.368
10	7.4141	33.7901	26.4082
18	7.4078	33.8143	26.4281

STATION US17164			
LATITUDE 41-45.6 N			
LONGITUE 140-40.3 E			
DEPTH (m) 34			
Press.	Temp.	Salinity	Sigma-T
5	8.2299	33.8924	26.3697
10	8.3196	33.9474	26.3993
20	8.2765	33.9354	26.3964
30	7.8661	33.8502	26.3906
34	7.8239	33.8614	26.4055

STATION US17165			
LATITUDE 41-43.9 N			
LONGITUDE 140-40.2 E			
DEPTH (m) 62			
Press.	Temp.	Salinity	Sigma-T
5	8.5998	33.9452	26.3548
10	8.5644	33.9557	26.3684
20	8.5349	33.9582	26.375
30	8.5208	33.9582	26.3772
40	8.5091	33.9591	26.3796
50	8.5019	33.9593	26.3809
60	8.5027	33.9593	26.3808

STATION US17168			
LATITUDE 41-41.3 N			
LONGITUDE 140-34.6 E			
DEPTH (m) 43			
Press.	Temp.	Salinity	Sigma-T
5	8.4585	33.9392	26.3718
10	8.4369	33.9448	26.3794
20	8.3305	33.9468	26.3973
30	8.318	33.9494	26.4012
40	8.3095	33.951	26.4037
43	8.3003	33.9521	26.4059

STATION US17166			
LATITUDE 41-43.9 N			
LONGITUDE 140-38.2 E			
DEPTH (m) 55			
Press.	Temp.	Salinity	Sigma-T
5	8.6665	33.9376	26.3385
10	8.4394	33.9374	26.3733
20	8.4048	33.9472	26.3863
30	8.3929	33.9493	26.3897
40	8.3672	33.9497	26.3939
50	8.3588	33.9516	26.3967
54	8.3573	33.952	26.3972

STATION US17167			
LATITUDE 41-43.6 N			
LONGITUDE 140-36.3 E			
DEPTH (m) 31			
Press.	Temp.	Salinity	Sigma-T
5	8.1401	33.3283	25.9404
10	8.2621	33.5867	26.125
20	8.3947	33.9539	26.393
30	8.3678	33.9583	26.4006