



HOKKAIDO UNIVERSITY

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THE " USHIO MARU "

CRUISE 194

CRUISE 195

CRUISE 196

IN APRIL - MAY 2010

1. Cruise Itinerary

Cruise 194		
Departure from Hakodate	Apr.	15 , 2010
Arrival at Usujiri		15
Departure from Usujiri		16
Start hydrographic research (US10156)		16
Sampling by Frame trawl net		16
Arrival at and departure from Usujiri		17
Arrival at Usujiri		17
Departure from Usujiri		19
Arrival at Usujiri		20
Departure from Usujiri		22
Retrieval Sediment trap system		22
Arrival at Mori		22
Departure from Mori		23
Set Sediment trap system		23
Arrival at Muroran		23
Departure from Muroran		24
Finish hydrographic research (US10195)		24
Return to Hakodate		25

Total coverage 554.0 miles

Cruise 195		
Departure from Hakodate	May	7 , 2010
Arrival at Usujiri		7
Departure from Usujiri		8
Research by bottom long line		8
Start hydrographic research (US10196)		8
Arrival at Usujiri		8
Departure from Usujiri		9
Start Frame trawl net sampling		9
Finish Frame trawl net sampling		10
Arrival at Usujiri		11
Departure from Usujiri		13
Start Trawl net research		13
Finish Trawl net research		14
Arrival at Usujiri		14
Departure from Usujiri		15
Finish hydrographic research (US10235)		15
Arrival at Usujiri		15
Departure from Usujiri		16
Return to Hakodate		16

Total coverage 451.3 miles

Cruise 196		
Departure from Hakodate	May	21 , 2010
Start hydrographic research (US10236)		21
Finish hydrographic research (US10246)		23
Return to Hakodate		23

Total coverage 336.8 miles

2. Vessel Personnel

Captain:		Professor	Toshimi Meguro
Crew:	Chief Officer	Assistant Professor	Osamu Kimura
	Second Officer	Assistant Professor	Naoto Kobayashi
	And 13 men		

Cruise 194

Research Staff:	Associate Professor	(Laboratory of Marine Environmental Science)	Isao Kudo
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Tohru Mukai
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Tohru Hirawake
	Associate Professor	(Laboratory of Marine Bioresource Science)	Toshikuni Nakatani
	Assistant Professor	(Laboratory of Marine Environmental Science)	Hiroji Onishi
	Assistant Professor	(Field Science Center for Northern Biosphere)	Jun Yamamoto
	Postdoctoral fellow	(Faculty of Fisheries Sciences)	Tomonori Isada

Guest Scientist (Domestic):	(Ehime University)	Michinobu Kuwae
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Graduate Students:	Chair of Marine Bioresource and Environment Sensing:	8 persons
	Chair of Marine Bioresource Science:	3 persons
	Chair of Marine Environmental Science:	1 person
	Graduate School of Environmental Science:	2 persons
Under Graduate Students:	Department of Marine Biology:	5 persons
	Department of Applied Marine Science:	9 persons
	Ehime University:	1 person

Cruise 195

Research Staff:	Professor	(Laboratory of Marine Biology and Biodiversity)	Ichiro Imai
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Susumu Shimizu
	Associate Professor	(Laboratory of Marine Bioresource and Environment Sensing)	Tohru Mukai
	Associate Professor	(Laboratory of Marine Bioresource Science)	Toshikuni Nakatani
	Assistant Professor	(Field Science Center for Northern Biosphere)	Jun Yamamoto

Graduate Students:	Chair of Marine Bioresource and Environment Sensing:	6 persons
	Chair of Marine Industrial Science and Technology:	1 person
	Chair of Marine Bioresource Science:	4 persons

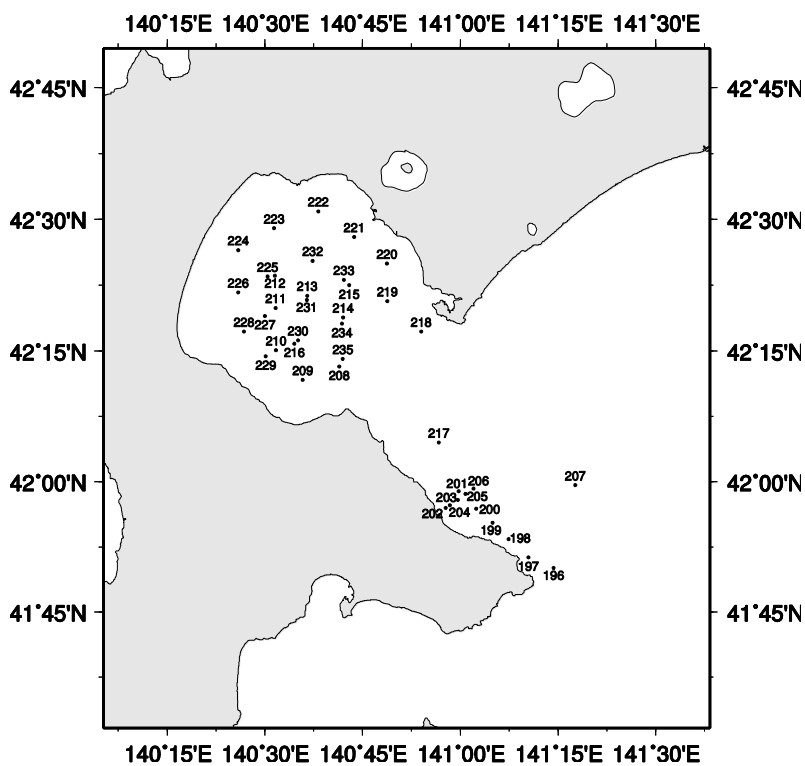


Figure 2: Oceanographic stations (Cruise 195)

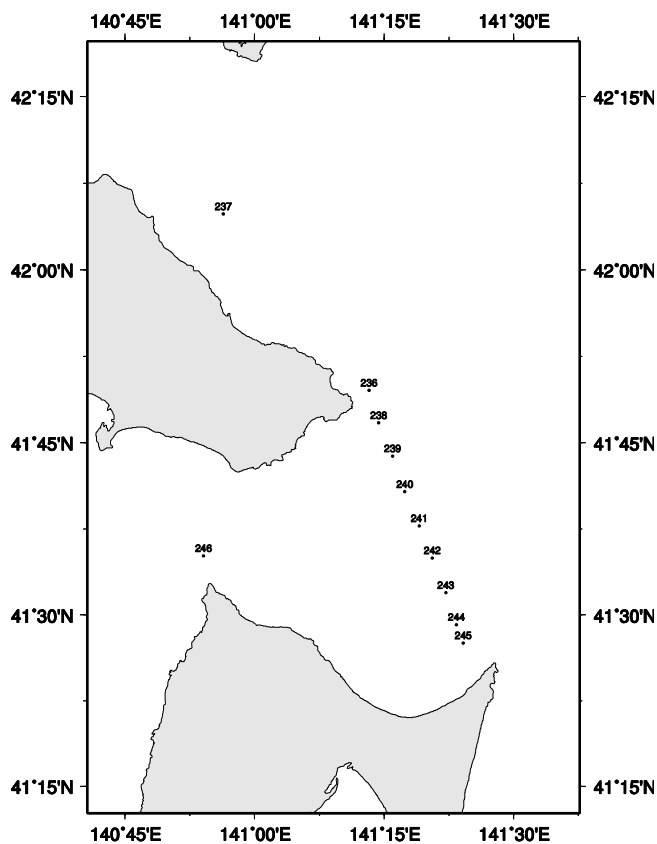


Figure 3: Oceanographic stations (Cruise 196)

Table 1: List of oceanographic stations

Cruise 194												
Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10156	41-57.4	140-58.2	4/16	1202-1205	79	SE -1	NW -1	SE -3	5.3	3.4	bc	1027.2
US10157	41-58.1	140-59.4	4/16	1214-1217	86	ESE-1	NW -1	ESE-3	4.8	3.3	bc	1027.2
US10158	41-58.7	141-00.6	4/16	1225-1229	94	ESE-1	NW -1	ESE-3	4.8	3.3	bc	1027.2
US10159	41-59.3	141-02.0	4/16	1238-1242	102	ESE-1	NW -1	ESE-3	4.9	3.4	bc	1027.2
US10160	42-00.9	141-17.0	4/16	1754-1804	256	SSE-1	NW -1	SSE-2	5.4	4.0	bc	1027.3
US10161	42-02.5	140-54.8	4/19	0635-0640	78	Calm	ESE-1	Calm	3.6	3.2	o	1027.6
US10162	42-04.9	140-56.9	4/19	0720-0730	86	WSW-1	ESE-1	WSW-1	3.6	2.9	o	1027.7
US10163	42-07.8	140-59.2	4/19	0824-0828	84	Calm	ESE-1	Calm	4.8	3.3	o	1027.6
US10164	42-09.1	140-53.1	4/19	0858-0903	78	SE -1	ESE-1	SE -2	5.3	3.2	o	1027.6
US10165	42-07.5	140-50.7	4/19	0918-0923	82	SE -1	ESE-1	SE -2	5.1	3.6	o	1027.6
US10166	42-10.0	140-47.2	4/19	0947-0954	94	East-1	ESE-1	East-2	4.9	3.6	o	1027.1
US10167	42-10.2	140-41.5	4/19	1018-1022	86	East-1	ESE-1	East-2	5.9	3.4	c	1027.1
US10168	42-12.9	140-41.3	4/19	1040-1044	91	East-1	ESE-1	East-3	4.8	3.6	c	1027.1
US10169	42-15.9	140-35.8	4/19	1117-1123	92	ENE-1	ESE-1	ENE-3	4.7	3.3	c	1027.1
US10170	42-11.4	140-35.3	4/19	1223-1227	82	East-1	East-1	East-2	5.6	3.6	c	1026.7
US10171	42-14.3	140-30.4	4/19	1256-1259	82	Calm	East-1	Calm	5.6	3.6	o	1026.8
US10172	42-18.8	140-31.2	4/19	1327-1331	95	ESE-1	East-1	ESE-2	5.3	3.9	c	1026.6
US10173	42-21.2	140-36.0	4/19	1358-1402	90	SE -1	East-1	SE -3	5.5	4.1	c	1026.1
US10174	42-24.0	140-32.0	4/19	1428-1432	97	SE -1	ESE-1	SE -3	7.5	4.0	c	1025.7
US10175	42-25.8	140-37.3	4/19	1510-1515	85	SE -1	ESE-1	SE -3	5.1	4.0	bc	1025.4
US10176	42-27.7	140-43.1	4/19	1544-1547	62	SSE-2	SE -1	SSE-4	5.2	4.2	c	1025.4
US10177	42-23.9	140-42.8	4/19	1612-1615	62	SE -2	SE -1	SE -4	5.5	4.0	c	1025.2
US10178	42-25.0	140-48.5	4/19	1644-1647	45	SE -1	SE -1	SE -3	5.5	5.7	c	1025.1
US10179	42-20.9	140-48.0	4/19	1713-1716	54	ESE-1	SE -1	ESE-3	5.4	4.5	c	1025.2
US10180	42-18.4	140-42.6	4/19	1745-1748	64	SE -1	SE -1	SE -3	5.3	3.8	o	1024.8
US10181	42-16.3	140-47.9	4/19	1816-1820	70	ESE-1	SE -1	ESE-3	5.2	4.0	c	1024.6
US10182	42-13.6	140-55.0	4/19	1857-1900	66	ESE-1	SE -1	ESE-3	4.8	3.2	o	1024.6
US10183	42-15.9	140-58.0	4/19	1923-1926	65	SE -2	SE -1	SE -4	4.9	3.1	o	1024.6
US10184	42-17.7	140-54.1	4/20	0713-0719	58	East-3	SE -1	East-5	4.6	3.3	o	1021.2
US10185	42-12.1	141-02.4	4/20	0827-0831	81	ENE-3	East-1	ENE-5	4.1	2.9	r	1021.6
US10186	42-14.6	141-05.3	4/20	0851-0855	82	ENE-3	East-1	ENE-5	4.0	3.1	r	1021.6
US10187	42-13.9	141-11.6	4/20	0925-0930	122	East-2	ESE-1	East-4	4.1	2.9	r	1021.6
US10188	42-10.9	141-08.9	4/20	0959-1004	110	East-2	ESE-1	East-4	4.4	3.2	r	1020.6
US10189	42-07.5	141-06.2	4/20	1030-1034	106	East-2	ESE-1	East-4	4.4	2.9	o	1020.5
US10190	42-03.8	141-03.2	4/20	1105-1109	99	ESE-3	ESE-1	ESE-5	4.6	3.3	o	1020.1
US10191	42-00.7	141-00.7	4/20	1133-1136	91	ESE-3	ESE-1	ESE-5	4.4	3.2	r	1019.1
US10192	41-58.4	140-58.6	4/20	1155-1159	84	ESE-3	ESE-1	ESE-5	4.4	3.4	r	1019.0
US10193	42-18.0	140-25.4	4/22	1112-1115	67	East-1	ESE-1	East-2	6.9	3.8	c	1019.7
US10194	42-08.7	140-35.7	4/22	1557-1600	64	East-2	East-1	East-4	5.8	3.5	c	1017.6
US10195	42-28.7	140-31.8	4/23	1041-1045	79	SE -3	ESE-1	SE -5	3.3	3.2	o	1013.2

Cruise 195												
Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10196	41-50.2	141-14.2	5/8	0730-0740	218	West-1	SE -1	West-3	8.7	5.0	c	1003.6
US10197	41-51.4	141-10.3	5/8	0804-0809	112	South-1	SE -1	South-2	9.9	4.9	c	1003.6
US10198	41-53.5	141-07.3	5/8	0832-0836	97	Calm	SE -1	Calm	8.3	4.9	c	1003.6
US10199	41-55.4	141-04.8	5/8	1157-1202	114	Calm	East-1	Calm	7.7	4.5	c	1004.1
US10200	41-57.0	141-02.3	5/8	1221-1225	107	NNE-1	East-1	NNE-3	7.4	5.3	c	1004.2
US10201	41-59.0	140-59.6	5/8	1243-1248	88	NNE-1	East-1	NNE-3	7.3	5.8	c	1004.1
US10202	41-57.1	140-57.6	5/9	0744-0747	64	NNW-1	East-1	NNW-3	7.9	4.7	bc	1010.6
US10203	41-57.4	140-58.3	5/9	1140-1144	80	North-1	East-1	North-3	10.7	6.0	bc	1012.1
US10204	41-58.0	140-59.5	5/9	1151-1155	88	Calm	East-1	Calm	9.8	6.2	bc	1012.2
US10205	41-58.7	141-00.7	5/9	1203-1207	96	NW -1	East-1	NW -2	9.4	6.3	bc	1012.2
US10206	41-59.3	141-01.9	5/9	1214-1218	103	Calm	East-1	Calm	9.6	6.0	bc	1012.2
US10207	41-59.7	141-17.5	5/9	1435-1445	266	NW -2	ESE-2	NW -4	10.5	6.8	bc	1012.2
US10208	42-13.3	140-41.3	5/13	0855-0859	90	West-2	ESE-1	West-3	6.4	4.8	r	1007.3
US10209	42-11.8	140-35.7	5/13	1023-1027	84	NW -1	ESE-1	NW -2	7.1	5.6	o	1007.6
US10210	42-15.2	140-31.6	5/13	1147-1151	89	NNW-2	ESE-1	NNW-4	8.2	5.7	o	1007.8
US10211	42-20.0	140-31.5	5/13	1313-1318	96	NNW-3	ESE-1	NNW-5	7.3	5.5	c	1007.9
US10212	42-23.7	140-31.4	5/13	1436-1441	98	NNW-3	NW -1	NNW-5	7.7	5.7	c	1008.1
US10213	42-21.4	140-36.4	5/13	1530-1535	90	NNW-3	NW -1	NNW-5	7.0	5.9	r	1008.5
US10214	42-18.9	140-41.9	5/13	1625-1629	72	NNW-3	NW -1	NNW-5	7.1	5.9	r	1008.6
US10215	42-22.6	140-42.8	5/13	1711-1714	62	NW -2	NW -1	NW -4	7.1	6.4	r	1008.8
US10216	42-15.9	140-34.4	5/14	0849-0853	92	NW -2	ESE-1	NW -3	7.8	5.4	bc	1015.6
US10217	42-04.6	140-56.6	5/15	0648-0654	86	Calm	ESE-1	Calm	7.2	6.4	bc	1021.2
US10218	42-17.3	140-53.9	5/15	0819-0823	57	Calm	ESE-1	Calm	7.9	6.6	bc	1021.6
US10219	42-20.8	140-48.7	5/15	0904-0907	52	Calm	SE -1	Calm	8.3	6.7	bc	1021.5
US10220	42-25.1	140-48.6	5/15	0935-0938	43	Calm	SE -1	Calm	8.3	7.1	bc	1021.5
US10221	42-28.1	140-43.6	5/15	1010-1014	59	Calm	SSE-1	Calm	9.6	6.7	bc	1021.5
US10222	42-31.0	140-38.1	5/15	1046-1049	62	Calm	SE -1	Calm	10.7	7.0	bc	1021.2
US10223	42-29.1	140-31.3	5/15	1123-1127	74	Calm	ESE-1	Calm	10.1	7.8	bc	1021.1
US10224	42-26.6	140-25.8	5/15	1156-1200	66	Calm	ESE-1	Calm	10.3	7.7	bc	1021.0
US10225	42-23.6	140-30.3	5/15	1230-1234	95	SE -1	ESE-1	SE -2	10.1	7.7	bc	1020.7
US10226	42-21.8	140-25.8	5/15	1258-1302	76	SSE-1	ESE-1	SSE-2	9.5	8.1	bc	1020.7
US10227	42-19.1	140-29.9	5/15	1333-1337	93	SE -1	ESE-1	SE -2	10.8	7.0	bc	1020.5
US10228	42-17.3	140-26.7	5/15	1400-1403	72	Calm	ESE-1	Calm	9.9	8.0	bc	1020.2
US10229	42-14.5	140-30.0	5/15	1427-1430	82	Calm	ESE-1	Calm	10.0	7.9	bc	1020.1
US10230	42-16.3	140-35.0	5/15	1456-1500	93	SE -1	ESE-1	SE -2	9.1	7.7	bc	1020.0
US10231	42-20.9	140-36.3	5/15	1537-1542	90	SSE-1	ESE-1	SSE-2	11.1	8.4	bc	1020.1
US10232	42-25.4	140-37.2	5/15	1623-1627	86	ESE-1	ESE-1	ESE-2	8.8	8.5	bc	1020.1
US10233	42-23.2	140-42.0	5/15	1654-1657	65	SE -1	ESE-1	SE -3	9.0	7.6	bc	1020.1
US10234	42-18.2	140-41.7	5/15	1730-1734	70	SE -1	ESE-1	SE -3	8.4	7.6	bc	1020.1
US10235	42-14.2	140-41.8	5/15	1801-1805	88	SE -1	ESE-1	SE -3	8.1	7.2	bc	1020.1

Cruise 196

Station	Lat. (N)*	Long (E)*	Date	S.M.T	Depth	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar. (hPa)
US10236	41-49.6	141-13.2	5/21	1156-1205	179	North-1	East-1	North-1	9.9	6.6	bc	1009.3
US10237	42-04.9	140-56.3	5/21	1451-1457	86	Calm	East-1	Calm	14.5	8.2	m	1009.5
US10238	41-46.8	141-14.3	5/21	1744-1755	196	SW-3	South-1	SW-5	9.4	5.9	bc	1008.4
US10239	41-43.9	141-15.9	5/21	1816-1829	230	SW-3	SSW-1	SW-5	8.8	5.5	f	1009.0
US10240	41-40.8	141-17.3	5/21	1850-1905	232	WSW-3	SSW-1	WSW-5	8.6	5.5	f	1009.3
US10241	41-37.8	141-19.0	5/21	1927-1938	218	WSW-3	SW-1	WSW-5	9.1	7.5	f	1009.7
US10242	41-35.0	141-20.5	5/21	1957-2014	311	West-3	WSW-1	West-5	9.0	6.9	bc	1010.1
US10243	41-32.0	141-22.1	5/21	2035-2050	247	West-2	WSW-1	West-4	10.2	9.8	bc	1010.2
US10244	41-29.2	141-23.3	5/21	2110-2124	109	West-1	WSW-1	West-3	10.7	10.0	bc	1010.8
US10245	41-27.6	141-24.1	5/21	2136-2143	55	NW-1	WSW-1	NW-3	10.5	9.4	bc	1011.0
US10246	41-35.2	140-54.0	5/23	0010-0013	57	ENE-3	East-1	ENE-5	10.9	10.8	bc	1016.7

(*) : Fixed position by Global Positioning System

Table 2: Oceanographic data

STATION US10156				STATION US10157				STATION US10158			
LATITUDE 41-57.4 N				LATITUDE 41-58.1 N				LATITUDE 41-58.7 N			
LONGITUDE 140-58.2 E				LONGITUDE 140-59.4 E				LONGITUDE 141-00.6 E			
DEPTH (m) 79				DEPTH (m) 86				DEPTH (m) 94			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.073	32.687	26.032	5	3.103	32.778	26.102	5	2.898	32.789	26.129
10	2.779	32.708	26.075	10	2.698	32.782	26.140	10	2.673	32.793	26.151
20	3.036	32.866	26.179	20	2.715	32.800	26.154	20	2.845	32.844	26.177
30	4.765	33.562	26.561	30	3.560	33.145	26.353	30	3.648	33.215	26.400
40	4.927	33.592	26.567	40	4.661	33.537	26.553	40	4.359	33.435	26.504
50	4.978	33.608	26.574	50	5.022	33.639	26.594	50	4.522	33.479	26.522
75	4.882	33.676	26.639	75	5.040	33.696	26.637	75	5.408	33.709	26.604
STATION US10159				STATION US10160				STATION US10161			
LATITUDE 41-59.3 N				LATITUDE 42-00.9 N				LATITUDE 42-02.5 N			
LONGITUDE 141-02.0 E				LONGITUDE 141-17.0 E				LONGITUDE 140-54.8 E			
DEPTH (m) 102				DEPTH (m) 256				DEPTH (m) 78			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	2.826	32.773	26.123	5	3.650	32.900	26.150	5	3.406	32.533	25.880
10	2.659	32.787	26.148	10	3.425	32.910	26.179	10	3.302	32.655	25.987
20	2.623	32.798	26.159	20	3.160	32.913	26.206	20	3.010	32.812	26.138
30	3.069	33.053	26.325	30	3.188	32.924	26.211	30	2.946	32.846	26.171
40	4.545	33.422	26.474	40	3.326	32.954	26.223	40	3.440	33.028	26.271
50	5.233	33.546	26.496	50	3.290	32.968	26.238	50	4.193	33.393	26.488
75	5.512	33.674	26.564	75	5.151	33.523	26.487	75	4.837	33.674	26.642
STATION US10162				STATION US10163				STATION US10164			
LATITUDE 42-04.9 N				LATITUDE 42-07.8 N				LATITUDE 42-09.1 N			
LONGITUDE 140-56.9 E				LONGITUDE 140-59.2 E				LONGITUDE 140-53.1 E			
DEPTH (m) 86				DEPTH (m) 84				DEPTH (m) 78			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.372	32.715	26.028	5	3.530	32.696	25.999	5	3.426	32.675	25.992
10	3.199	32.788	26.102	10	3.413	32.754	26.056	10	3.368	32.713	26.027
20	2.818	32.834	26.172	20	3.377	32.966	26.228	20	3.302	32.980	26.246
30	3.551	33.136	26.347	30	3.788	33.242	26.409	30	4.555	33.515	26.547
40	4.276	33.364	26.457	40	4.576	33.446	26.490	40	5.006	33.636	26.593
50	5.026	33.548	26.522	50	4.996	33.530	26.510	50	5.020	33.642	26.596
75	5.366	33.668	26.577	75	5.431	33.660	26.563	75	4.869	33.644	26.615
STATION US10165				STATION US10166				STATION US10167			
LATITUDE 42-07.5 N				LATITUDE 42-10.0 N				LATITUDE 42-10.2 N			
LONGITUDE 140-50.7 E				LONGITUDE 140-47.2 E				LONGITUDE 140-41.5 E			
DEPTH (m) 82				DEPTH (m) 94				DEPTH (m) 86			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.619	32.617	25.928	5	3.871	32.610	25.898	5	3.511	32.608	25.930
10	3.315	32.637	25.971	10	3.744	32.649	25.941	10	3.487	32.642	25.959
20	2.977	32.769	26.107	20	3.196	32.652	25.994	20	3.071	32.749	26.082
30	2.898	32.795	26.134	30	2.731	32.751	26.113	30	3.257	32.823	26.124
40	3.199	32.973	26.250	40	3.247	32.993	26.261	40	3.393	32.876	26.155
50	4.714	33.555	26.562	50	5.096	33.659	26.602	50	3.247	32.930	26.211
75	5.018	33.636	26.592	75	5.151	33.653	26.590	75	4.282	33.463	26.535
STATION US10168				STATION US10169				STATION US10170			
LATITUDE 42-12.9 N				LATITUDE 42-15.9 N				LATITUDE 42-11.4 N			
LONGITUDE 140-41.3 E				LONGITUDE 140-35.8 E				LONGITUDE 140-35.3 E			
DEPTH (m) 91				DEPTH (m) 92				DEPTH (m) 82			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	3.592	32.569	25.892	5	3.642	32.588	25.902	5	3.810	32.662	25.945
10	3.553	32.590	25.912	10	3.572	32.700	25.998	10	3.440	32.668	25.985
20	3.284	32.596	25.942	20	3.060	32.690	26.036	20	2.853	32.727	26.084
30	2.871	32.629	26.004	30	3.393	32.802	26.096	30	2.800	32.751	26.107
40	2.611	32.726	26.102	40	2.745	32.758	26.117	40	2.854	32.788	26.132
50	3.267	33.072	26.322	50	2.762	32.773	26.128	50	3.223	32.856	26.154
75	4.443	33.473	26.525	75	4.300	33.446	26.520	75	4.221	33.457	26.536

STATION		US10171	
LATITUDE		42-14.3	N
LONGITUDE		140-30.4	E
DEPTH (m)		82	
Press.	Temp.	Salinity	Sigma-T
5	3.498	32.634	25.953
10	3.361	32.676	25.999
20	3.009	32.796	26.125
30	2.939	32.801	26.135
40	2.960	32.826	26.154
50	3.118	32.890	26.190
75	4.245	33.460	26.536

STATION		US10174	
LATITUDE		42-24.0	N
LONGITUDE		140-32.0	E
DEPTH (m)		97	
Press.	Temp.	Salinity	Sigma-T
5	3.588	32.648	25.955
10	3.121	32.665	26.011
20	2.874	32.668	26.035
30	3.036	32.733	26.072
40	2.714	32.715	26.086
50	2.666	32.737	26.107
75	3.830	33.351	26.492

STATION		US10177	
LATITUDE		42-23.9	N
LONGITUDE		140-42.8	E
DEPTH (m)		62	
Press.	Temp.	Salinity	Sigma-T
5	3.976	32.504	25.804
10	3.507	32.516	25.857
20	2.858	32.658	26.028
30	2.816	32.697	26.062
40	2.609	32.730	26.106
50	2.569	32.897	26.243

STATION		US10180	
LATITUDE		42-18.4	N
LONGITUDE		140-42.6	E
DEPTH (m)		64	
Press.	Temp.	Salinity	Sigma-T
5	4.172	32.493	25.775
10	4.000	32.520	25.814
20	3.116	32.520	25.896
30	2.892	32.580	25.963
40	2.798	32.699	26.066
50	2.683	32.953	26.278

STATION		US10183	
LATITUDE		42-15.9	N
LONGITUDE		140-58.0	E
DEPTH (m)		65	
Press.	Temp.	Salinity	Sigma-T
5	3.637	32.830	26.096
10	3.539	32.826	26.101
20	3.711	33.118	26.317
30	3.998	33.321	26.451
40	4.115	33.390	26.494
50	4.123	33.390	26.493

STATION		US10186	
LATITUDE		42-14.6	N
LONGITUDE		141-05.3	E
DEPTH (m)		82	
Press.	Temp.	Salinity	Sigma-T
5	3.431	32.755	26.055
10	3.429	32.757	26.056
20	3.260	32.863	26.156
30	3.768	33.152	26.339
40	4.661	33.440	26.476
50	4.967	33.513	26.500
75	5.442	33.658	26.561

STATION		US10172	
LATITUDE		42-18.8	N
LONGITUDE		140-31.2	E
DEPTH (m)		95	
Press.	Temp.	Salinity	Sigma-T
5	3.803	32.768	26.030
10	3.202	32.764	26.083
20	3.038	32.795	26.122
30	3.075	32.820	26.138
40	3.044	32.819	26.140
50	3.035	32.830	26.150
75	3.738	33.336	26.488

STATION		US10175	
LATITUDE		42-25.8	N
LONGITUDE		140-37.3	E
DEPTH (m)		85	
Press.	Temp.	Salinity	Sigma-T
5	3.540	32.609	25.928
10	2.882	32.671	26.036
20	2.827	32.695	26.060
30	2.792	32.707	26.073
40	2.614	32.722	26.099
50	2.850	32.894	26.217
75	4.163	33.476	26.557

STATION		US10178	
LATITUDE		42-25.0	N
LONGITUDE		140-48.5	E
DEPTH (m)		45	
Press.	Temp.	Salinity	Sigma-T
5	4.279	32.479	25.753
10	3.716	32.723	26.002
20	3.388	33.204	26.417
30	3.422	33.244	26.446
40	3.915	33.407	26.528

STATION		US10181	
LATITUDE		42-16.3	N
LONGITUDE		140-47.9	E
DEPTH (m)		70	
Press.	Temp.	Salinity	Sigma-T
5	4.298	32.507	25.773
10	3.451	32.540	25.882
20	3.095	32.654	26.004
30	3.057	32.998	26.282
40	4.758	33.555	26.557
50	4.978	33.593	26.562

STATION		US10184	
LATITUDE		42-17.7	N
LONGITUDE		140-54.1	E
DEPTH (m)		58	
Press.	Temp.	Salinity	Sigma-T
5	3.353	32.714	26.029
10	3.094	32.752	26.082
20	3.286	33.038	26.294
30	4.076	33.377	26.487
40	4.124	33.391	26.494
50	4.415	33.460	26.519

STATION		US10187	
LATITUDE		42-13.9	N
LONGITUDE		141-11.6	E
DEPTH (m)		122	
Press.	Temp.	Salinity	Sigma-T
5	3.214	32.736	26.059
10	3.192	32.760	26.080
20	3.134	32.764	26.089
30	2.643	32.763	26.130
40	2.617	32.829	26.185
50	3.091	32.967	26.255
75	3.782	33.297	26.453
100	4.508	33.498	26.539

STATION		US10173	
LATITUDE		42-21.2	N
LONGITUDE		140-36.0	E
DEPTH (m)		90	
Press.	Temp.	Salinity	Sigma-T
5	3.637	32.599	25.911
10	3.211	32.604	25.954
20	2.894	32.626	26.000
30	2.813	32.686	26.054
40	2.786	32.719	26.083
50	2.759	32.734	26.097
75	3.075	33.116	26.375

STATION		US10176	
LATITUDE		42-27.7	N
LONGITUDE		140-43.1	E
DEPTH (m)		62	
Press.	Temp.	Salinity	Sigma-T
5	4.311	32.460	25.735
10	3.460	32.525	25.869
20	2.965	32.753	26.095
30	2.876	32.905	26.224
40	3.087	33.135	26.389
50	3.884	33.402	26.527

STATION		US10179	
LATITUDE		42-20.9	N
LONGITUDE		140-48.0	E
DEPTH (m)		54	
Press.	Temp.	Salinity	Sigma-T
5	3.887	32.461	25.778
10	3.365	32.485	25.846
20	3.104	32.731	26.065
30	2.555	32.851	26.207
40	3.354	33.227	26.438
50	4.268	33.457	26.531

STATION		US10182	
LATITUDE		42-13.6	N
LONGITUDE		140-55.0	E
DEPTH (m)		66	
Press.	Temp.	Salinity	Sigma-T
5	3.544	32.678	25.983
10	3.334	32.787	26.089
20	3.151	32.844	26.151
30	3.851	33.258	26.415
40	5.256	33.691	26.608
50	5.287	33.685	26.599

STATION		US10185	
LATITUDE		42-12.1	N
LONGITUDE		141-02.4	E
DEPTH (m)		81	
Press.	Temp.	Salinity	Sigma-T
5	3.269	32.680	26.010
10	3.190	32.689	26.024
20	2.971	32.830	26.156
30	4.641	33.465	26.498
40	5.626	33.681	26.556
50	5.446	33.653	26.556
75	5.452	33.656	26.557

STATION		US10188	
LATITUDE		42-10.9	N
LONGITUDE		141-08.9	E
DEPTH (m)		110	
Press.	Temp.	Salinity	Sigma-T
5	3.512	32.819	26.098
10	3.324	32.825	26.120
20	3.115	32.824	26.138
30	2.824	32.822	26.161
40	2.840	32.847	26.180
50	2.797	32.871	26.203
75	4.024	33.356	26.476
100	4.690	33.524	26.540

STATION US10189			
LATITUDE 42-07.5 N			
LONGITUDE 141-06.2 E			
DEPTH (m) 106			
Press.	Temp.	Salinity	Sigma-T
5	3.303	32.759	26.069
10	3.300	32.761	26.071
20	2.921	32.752	26.098
30	3.246	32.833	26.134
40	3.205	32.842	26.145
50	2.913	32.845	26.172
75	4.168	33.358	26.463
100	5.498	33.649	26.546

STATION US10192			
LATITUDE 41-58.4 N			
LONGITUDE 140-58.6 E			
DEPTH (m) 84			
Press.	Temp.	Salinity	Sigma-T
5	3.593	32.744	26.031
10	3.233	32.923	26.207
20	3.107	32.938	26.230
30	3.243	33.072	26.325
40	3.677	33.189	26.377
50	4.753	33.472	26.491
75	5.745	33.709	26.564

STATION US10195			
LATITUDE 42-28.7 N			
LONGITUDE 140-31.8 E			
DEPTH (m) 79			
Press.	Temp.	Salinity	Sigma-T
5	3.569	32.567	25.892
10	3.425	32.566	25.905
20	2.740	32.682	26.057
30	2.800	32.775	26.127
40	3.271	32.881	26.170
50	2.878	33.084	26.367
75	3.901	33.416	26.536

STATION US10198			
LATITUDE 41-53.5 N			
LONGITUDE 141-07.3 E			
DEPTH (m) 97			
Press.	Temp.	Salinity	Sigma-T
5	5.148	32.307	25.524
10	5.138	32.314	25.531
20	4.184	32.536	25.808
30	3.684	32.658	25.954
40	3.611	32.680	25.979
50	3.390	32.844	26.130
75	4.286	33.478	26.546

STATION US10201			
LATITUDE 41-59.0 N			
LONGITUDE 140-59.6 E			
DEPTH (m) 88			
Press.	Temp.	Salinity	Sigma-T
5	5.395	32.323	25.510
10	4.897	32.392	25.620
20	4.147	32.673	25.921
30	3.846	32.811	26.060
40	3.710	32.967	26.197
50	4.161	33.284	26.405
75	4.849	33.511	26.511

STATION US10204			
LATITUDE 41-58.0 N			
LONGITUDE 140-59.5 E			
DEPTH (m) 88			
Press.	Temp.	Salinity	Sigma-T
5	5.904	32.307	25.436
10	5.261	32.363	25.556
20	4.489	32.686	25.896
30	3.854	32.823	26.069
40	3.970	33.072	26.256
50	4.120	33.196	26.339
75	3.924	33.294	26.437

STATION US10190			
LATITUDE 42-03.8 N			
LONGITUDE 141-03.2 E			
DEPTH (m) 99			
Press.	Temp.	Salinity	Sigma-T
5	3.474	32.846	26.123
10	3.470	32.846	26.123
20	3.291	32.858	26.150
30	3.039	32.895	26.201
40	3.150	32.958	26.242
50	3.179	33.023	26.291
75	4.695	33.461	26.489

STATION US10193			
LATITUDE 42-18.0 N			
LONGITUDE 140-25.4 E			
DEPTH (m) 67			
Press.	Temp.	Salinity	Sigma-T
5	3.432	32.542	25.885
10	3.356	32.548	25.897
20	2.805	32.646	26.023
30	2.592	32.719	26.099
40	2.555	32.805	26.171
50	4.028	33.360	26.479

STATION US10196			
LATITUDE 41-50.2 N			
LONGITUDE 141-14.2 E			
DEPTH (m) 218			
Press.	Temp.	Salinity	Sigma-T
5	5.368	32.316	25.507
10	5.349	32.321	25.513
20	4.720	32.634	25.830
30	4.537	32.681	25.887
40	3.562	32.832	26.104
50	3.430	32.870	26.147
75	3.499	33.093	26.318
100	3.863	33.237	26.397
125	4.368	33.444	26.510
150	4.700	33.553	26.561
175	4.679	33.555	26.565
200	4.679	33.555	26.565

STATION US10199			
LATITUDE 41-55.4 N			
LONGITUDE 141-04.8 E			
DEPTH (m) 114			
Press.	Temp.	Salinity	Sigma-T
5	4.714	32.410	25.654
10	4.556	32.454	25.705
20	4.208	32.627	25.878
30	4.063	32.764	26.001
40	3.789	32.796	26.053
50	3.988	32.966	26.170
75	4.296	33.332	26.429
100	4.388	33.532	26.578

STATION US10202			
LATITUDE 41-57.1 N			
LONGITUDE 140-57.6 E			
DEPTH (m) 64			
Press.	Temp.	Salinity	Sigma-T
5	4.855	32.444	25.665
10	4.382	32.538	25.790
20	3.771	32.754	26.022
30	3.464	32.854	26.131
40	3.440	32.916	26.182
50	3.421	32.980	26.235

STATION US10205			
LATITUDE 41-58.7 N			
LONGITUDE 141-00.7 E			
DEPTH (m) 96			
Press.	Temp.	Salinity	Sigma-T
5	5.775	32.552	25.645
10	5.474	32.595	25.715
20	5.001	32.706	25.857
30	3.980	32.860	26.086
40	3.579	33.008	26.242
50	3.539	33.087	26.309
75	4.378	33.453	26.517

STATION US10191			
LATITUDE 42-00.7 N			
LONGITUDE 141-00.7 E			
DEPTH (m) 91			
Press.	Temp.	Salinity	Sigma-T
5	3.621	32.822	26.091
10	3.473	32.863	26.137
20	3.200	32.915	26.203
30	3.150	32.997	26.274
40	3.098	33.076	26.341
50	3.279	33.131	26.368
75	4.614	33.437	26.479

STATION US10194			
LATITUDE 42-08.7 N			
LONGITUDE 140-35.7 E			
DEPTH (m) 64			
Press.	Temp.	Salinity	Sigma-T
5	3.744	32.350	25.703
10	3.361	32.593	25.932
20	3.280	32.660	25.993
30	3.016	32.826	26.149
40	3.092	32.930	26.225
50	3.526	33.283	26.467

STATION US10197			
LATITUDE 41-51.4 N			
LONGITUDE 141-10.3 E			
DEPTH (m) 112			
Press.	Temp.	Salinity	Sigma-T
5	5.143	32.360	25.567
10	5.127	32.384	25.588
20	4.605	32.520	25.752
30	4.388	32.586	25.827
40	4.328	32.615	25.856
50	4.102	32.658	25.914
75	3.387	32.972	26.232
100	3.896	33.262	26.414

STATION US10200			
LATITUDE 41-57.0 N			
LONGITUDE 141-02.3 E			
DEPTH (m) 107			
Press.	Temp.	Salinity	Sigma-T
5	4.509	32.469	25.722
10	4.413	32.481	25.742
20	4.080	32.570	25.846
30	3.735	32.725	26.003
40	3.957	32.850	26.080
50	3.962	32.987	26.189
75	4.458	33.394	26.461

STATION US10203			
LATITUDE 41-57.4 N			
LONGITUDE 140-58.3 E			
DEPTH (m) 80			
Press.	Temp.	Salinity	Sigma-T
5	4.850	32.596	25.786
10	4.008	32.669	25.931
20	3.784	32.753	26.020
30	3.375	32.892	26.169
40	3.361	32.928	26.199
50	3.416	33.008	26.258
75	3.798	33.223	26.393

STATION US10206			
LATITUDE 41-59.3 N			
LONGITUDE 141-01.9 E			
DEPTH (m) 103			
Press.	Temp.	Salinity	Sigma-T
5	5.650	32.610	25.706
10	5.507	32.627	25.737
20	4.889	32.707	25.870
30	4.201	32.949	26.134
40	3.866	32.941	26.162
50	3.584	32.989	26.227
75	3.746	33.258	26.425
100	4.516	33.498	26.538

STATION		US10207	
LATITUDE		41-59.7	N
LONGITUDE		141-17.5	E
DEPTH (m)		266	
Press.	Temp.	Salinity	Sigma-T
5	5.894	32.756	25.792
10	5.778	32.783	25.828
20	5.145	32.868	25.969
30	4.015	32.918	26.128
40	3.690	33.160	26.353
50	4.192	33.357	26.460
75	5.762	33.659	26.522
100	5.668	33.671	26.543
125	4.634	33.541	26.559
150	4.303	33.536	26.591
175	4.475	33.590	26.615
200	4.290	33.581	26.628
250	3.826	33.571	26.667

STATION		US10210	
LATITUDE		42-15.2	N
LONGITUDE		140-31.6	E
DEPTH (m)		89	
Press.	Temp.	Salinity	Sigma-T
5	5.965	32.206	25.350
10	5.910	32.240	25.383
20	5.376	32.446	25.608
30	4.871	32.620	25.803
40	3.549	32.809	26.087
50	3.754	32.942	26.173
75	3.879	33.362	26.496

STATION		US10213	
LATITUDE		42-21.4	N
LONGITUDE		140-36.4	E
DEPTH (m)		90	
Press.	Temp.	Salinity	Sigma-T
5	6.197	32.199	25.316
10	6.167	32.207	25.326
20	5.591	32.361	25.516
30	5.018	32.546	25.728
40	4.107	32.680	25.931
50	3.846	32.767	26.025
75	3.947	33.296	26.436

STATION		US10216	
LATITUDE		42-15.9	N
LONGITUDE		140-34.4	E
DEPTH (m)		92	
Press.	Temp.	Salinity	Sigma-T
5	5.695	32.389	25.526
10	5.581	32.373	25.528
20	5.365	32.476	25.634
30	4.605	32.630	25.839
40	3.928	32.799	26.042
50	3.716	32.954	26.186
75	4.091	33.384	26.491

STATION		US10219	
LATITUDE		42-20.8	N
LONGITUDE		140-48.7	E
DEPTH (m)		52	
Press.	Temp.	Salinity	Sigma-T
5	7.206	31.516	24.648
10	6.516	32.116	25.211
20	5.937	32.343	25.461
30	4.952	32.466	25.672
40	4.098	32.903	26.108

STATION		US10222	
LATITUDE		42-31.0	N
LONGITUDE		140-38.1	E
DEPTH (m)		62	
Press.	Temp.	Salinity	Sigma-T
5	7.057	32.116	25.140
10	6.531	32.169	25.250
20	4.606	32.519	25.751
30	4.416	32.556	25.800
40	4.069	32.682	25.936
50	3.554	32.839	26.110

STATION		US10208	
LATITUDE		42-13.3	N
LONGITUDE		140-41.3	E
DEPTH (m)		90	
Press.	Temp.	Salinity	Sigma-T
5	5.138	32.426	25.620
10	5.084	32.433	25.632
20	5.029	32.474	25.670
30	4.335	32.754	25.966
40	3.691	32.857	26.111
50	3.758	33.123	26.317
75	4.191	33.399	26.493

STATION		US10211	
LATITUDE		42-20.0	N
LONGITUDE		140-31.5	E
DEPTH (m)		96	
Press.	Temp.	Salinity	Sigma-T
5	5.932	32.332	25.453
10	5.884	32.302	25.435
20	5.602	32.381	25.531
30	5.005	32.537	25.723
40	4.289	32.671	25.905
50	3.923	32.736	25.993
75	3.514	33.132	26.348

STATION		US10214	
LATITUDE		42-18.9	N
LONGITUDE		140-41.9	E
DEPTH (m)		72	
Press.	Temp.	Salinity	Sigma-T
5	6.301	32.140	25.257
10	5.554	32.336	25.501
20	5.221	32.453	25.631
30	4.941	32.645	25.815
40	3.970	32.763	26.010
50	3.693	32.901	26.147

STATION		US10217	
LATITUDE		42-04.6	N
LONGITUDE		140-56.6	E
DEPTH (m)		86	
Press.	Temp.	Salinity	Sigma-T
5	6.725	31.853	24.976
10	5.825	32.442	25.553
20	4.827	32.808	25.957
30	4.209	32.888	26.085
40	3.820	32.920	26.149
50	3.741	32.963	26.192
75	3.506	33.230	26.426

STATION		US10220	
LATITUDE		42-25.1	N
LONGITUDE		140-48.6	E
DEPTH (m)		43	
Press.	Temp.	Salinity	Sigma-T
5	6.919	32.046	25.103
10	6.276	32.225	25.326
20	5.536	32.441	25.586
30	4.077	32.788	26.019

STATION		US10223	
LATITUDE		42-29.1	N
LONGITUDE		140-31.3	E
DEPTH (m)		74	
Press.	Temp.	Salinity	Sigma-T
5	7.315	32.027	25.035
10	6.701	32.078	25.157
20	5.386	32.464	25.622
30	4.950	32.598	25.777
40	4.220	32.752	25.976
50	3.603	32.836	26.103

STATION		US10209	
LATITUDE		42-11.8	N
LONGITUDE		140-35.7	E
DEPTH (m)		84	
Press.	Temp.	Salinity	Sigma-T
5	5.783	32.318	25.460
10	5.652	32.337	25.489
20	5.075	32.582	25.747
30	4.420	32.709	25.920
40	3.918	32.865	26.095
50	3.990	33.079	26.259
75	3.872	33.359	26.494

STATION		US10212	
LATITUDE		42-23.7	N
LONGITUDE		140-31.4	E
DEPTH (m)		98	
Press.	Temp.	Salinity	Sigma-T
5	6.085	32.287	25.399
10	6.028	32.284	25.403
20	5.790	32.356	25.489
30	5.362	32.513	25.663
40	4.485	32.538	25.779
50	4.203	32.663	25.907
75	3.304	33.065	26.313

STATION		US10215	
LATITUDE		42-22.6	N
LONGITUDE		140-42.8	E
DEPTH (m)		62	
Press.	Temp.	Salinity	Sigma-T
5	6.775	31.877	24.989
10	6.721	31.892	25.007
20	6.054	32.206	25.339
30	5.266	32.521	25.681
40	4.815	32.609	25.800
50	4.005	32.761	26.004

STATION		US10218	
LATITUDE		42-17.3	N
LONGITUDE		140-53.9	E
DEPTH (m)		57	
Press.	Temp.	Salinity	Sigma-T
5	6.564	32.097	25.189
10	5.565	32.381	25.536
20	4.751	32.655	25.844
30	3.803	32.849	26.095
40	3.715	32.910	26.151
50	3.709	32.921	26.161

STATION		US10221	
LATITUDE		42-28.1	N
LONGITUDE		140-43.6	E
DEPTH (m)		59	
Press.	Temp.	Salinity	Sigma-T
5	6.826	32.030	25.103
10	6.272	32.242	25.340
20	4.978	32.465	25.668
30	4.575	32.545	25.775
40	4.244	32.717	25.946
50	3.762	33.002	26.220

STATION		US10224	
LATITUDE		42-26.6	N
LONGITUDE		140-25.8	E
DEPTH (m)		66	
Press.	Temp.	Salinity	Sigma-T
5	7.089	31.861	24.935
10	6.575	32.176	25.250
20	6.079	32.284	25.398
30	5.282	32.370	25.559
40	4.212	32.541	25.809
50	3.988	32.725	25.978

STATION		US10225	
LATITUDE		42-23. 6	N
LONGITUDE		140-30. 3	E
DEPTH (m)		95	
Press.	Temp.	Salinity	Sigma-T
5	6. 759	32. 196	25. 242
10	6. 644	32. 122	25. 199
20	5. 811	32. 326	25. 463
30	5. 196	32. 518	25. 686
40	4. 258	32. 683	25. 918
50	3. 859	32. 773	26. 028
75	3. 895	33. 192	26. 358

STATION		US10228	
LATITUDE		42-17. 3	N
LONGITUDE		140-26. 7	E
DEPTH (m)		72	
Press.	Temp.	Salinity	Sigma-T
5	7. 326	32. 190	25. 162
10	6. 358	32. 329	25. 399
20	5. 459	32. 444	25. 598
30	5. 065	32. 527	25. 708
40	4. 376	32. 705	25. 923
50	3. 709	32. 790	26. 057

STATION		US10231	
LATITUDE		42-20. 9	N
LONGITUDE		140-36. 3	E
DEPTH (m)		90	
Press.	Temp.	Salinity	Sigma-T
5	7. 517	31. 870	24. 884
10	7. 036	31. 920	24. 989
20	6. 034	32. 229	25. 360
30	5. 409	32. 492	25. 641
40	5. 159	32. 556	25. 720
50	4. 172	32. 793	26. 013
75	4. 256	33. 332	26. 434

STATION		US10234	
LATITUDE		42-18. 2	N
LONGITUDE		140-41. 7	E
DEPTH (m)		70	
Press.	Temp.	Salinity	Sigma-T
5	7. 527	31. 970	24. 962
10	7. 412	31. 975	24. 981
20	6. 039	32. 287	25. 404
30	5. 276	32. 509	25. 670
40	4. 546	32. 740	25. 933
50	3. 731	32. 806	26. 067

STATION		US10237	
LATITUDE		42-04. 9	N
LONGITUDE		140-56. 3	E
DEPTH (m)		86	
Press.	Temp.	Salinity	Sigma-T
5	7. 028	32. 297	25. 286
10	6. 884	32. 590	25. 536
20	4. 155	32. 741	25. 974
30	3. 749	32. 806	26. 066
40	3. 691	32. 872	26. 123
50	3. 748	32. 969	26. 196
75	3. 980	33. 374	26. 495

STATION		US10226	
LATITUDE		42-21. 8	N
LONGITUDE		140-25. 8	E
DEPTH (m)		76	
Press.	Temp.	Salinity	Sigma-T
5	7. 210	32. 182	25. 171
10	6. 648	32. 091	25. 173
20	5. 666	32. 353	25. 502
30	5. 058	32. 518	25. 701
40	4. 444	32. 582	25. 819
50	3. 703	32. 731	26. 010

STATION		US10229	
LATITUDE		42-14. 5	N
LONGITUDE		140-30. 0	E
DEPTH (m)		82	
Press.	Temp.	Salinity	Sigma-T
5	7. 071	32. 286	25. 272
10	6. 137	32. 373	25. 461
20	5. 396	32. 411	25. 579
30	4. 813	32. 576	25. 774
40	4. 128	32. 730	25. 968
50	3. 755	32. 858	26. 106
75	3. 702	33. 294	26. 458

STATION		US10232	
LATITUDE		42-25. 4	N
LONGITUDE		140-37. 2	E
DEPTH (m)		86	
Press.	Temp.	Salinity	Sigma-T
5	7. 329	32. 119	25. 106
10	7. 005	32. 025	25. 076
20	5. 831	32. 290	25. 432
30	5. 200	32. 531	25. 696
40	4. 396	32. 578	25. 820
50	4. 002	32. 721	25. 973
75	3. 495	33. 262	26. 452

STATION		US10235	
LATITUDE		42-14. 2	N
LONGITUDE		140-41. 8	E
DEPTH (m)		88	
Press.	Temp.	Salinity	Sigma-T
5	7. 281	32. 174	25. 156
10	6. 893	32. 210	25. 236
20	5. 605	32. 428	25. 568
30	4. 184	32. 605	25. 863
40	4. 358	32. 788	25. 991
50	3. 512	32. 837	26. 112
75	4. 003	33. 360	26. 481

STATION		US10238	
LATITUDE		41-46. 8	N
LONGITUDE		141-14. 3	E
DEPTH (m)		196	
Press.	Temp.	Salinity	Sigma-T
5	6. 132	32. 754	25. 762
10	5. 866	32. 784	25. 818
20	5. 438	32. 780	25. 865
30	5. 389	32. 786	25. 876
40	5. 009	32. 770	25. 907
50	5. 328	32. 968	26. 027
75	4. 986	33. 123	26. 189
100	4. 569	33. 267	26. 348
125	4. 653	33. 289	26. 358
150	4. 770	33. 319	26. 369
175	5. 021	33. 396	26. 401

STATION		US10227	
LATITUDE		42-19. 1	N
LONGITUDE		140-29. 9	E
DEPTH (m)		93	
Press.	Temp.	Salinity	Sigma-T
5	6. 294	32. 431	25. 487
10	5. 454	32. 548	25. 681
20	5. 184	32. 466	25. 646
30	5. 095	32. 481	25. 668
40	4. 725	32. 514	25. 734
50	3. 896	32. 850	26. 086
75	3. 984	33. 366	26. 488

STATION		US10230	
LATITUDE		42-16. 3	N
LONGITUDE		140-35. 0	E
DEPTH (m)		93	
Press.	Temp.	Salinity	Sigma-T
5	7. 642	32. 045	25. 005
10	6. 837	32. 097	25. 154
20	6. 023	32. 325	25. 437
30	4. 590	32. 562	25. 787
40	3. 623	32. 724	26. 012
50	3. 688	33. 011	26. 235
75	4. 136	33. 371	26. 477

STATION		US10233	
LATITUDE		42-23. 2	N
LONGITUDE		140-42. 0	E
DEPTH (m)		65	
Press.	Temp.	Salinity	Sigma-T
5	7. 112	32. 002	25. 043
10	6. 834	32. 018	25. 093
20	6. 231	32. 175	25. 292
30	4. 830	32. 460	25. 680
40	4. 355	32. 632	25. 867
50	4. 217	32. 721	25. 952

STATION		US10236	
LATITUDE		41-49. 6	N
LONGITUDE		141-13. 2	E
DEPTH (m)		179	
Press.	Temp.	Salinity	Sigma-T
5	6. 142	32. 597	25. 637
10	5. 605	32. 935	25. 969
20	4. 748	32. 999	26. 116
30	4. 008	32. 967	26. 168
40	3. 914	33. 006	26. 209
50	3. 970	33. 083	26. 264
75	4. 830	33. 343	26. 381
100	4. 706	33. 356	26. 405
125	4. 652	33. 362	26. 415
150	5. 151	33. 548	26. 507

STATION		US10239	
LATITUDE		41-43. 9	N
LONGITUDE		141-15. 9	E
DEPTH (m)		230	
Press.	Temp.	Salinity	Sigma-T
5	5. 851	32. 706	25. 759
10	5. 811	32. 711	25. 767
20	5. 336	32. 764	25. 865
30	4. 415	32. 899	26. 073
40	4. 184	33. 052	26. 218
50	4. 452	33. 163	26. 278
75	5. 029	33. 435	26. 432
100	5. 572	33. 597	26. 497
125	5. 963	33. 693	26. 524
150	4. 676	33. 563	26. 572
175	4. 644	33. 603	26. 607
200	4. 558	33. 613	26. 625

	STATION	US10240		
	LATITUDE	41-40.8	N	
	LONGITUDE	141-17.3	E	
	DEPTH (m)	232		
Press.	Temp.	Salinity	Sigma-T	
5	5.878	32.613	25.682	
10	5.871	32.615	25.684	
20	5.864	32.633	25.700	
30	5.485	32.804	25.879	
40	4.792	33.049	26.152	
50	4.811	33.317	26.363	
75	4.729	33.442	26.470	
100	6.075	33.729	26.539	
125	5.942	33.770	26.588	
150	5.324	33.716	26.620	
175	4.459	33.630	26.649	
200	3.906	33.588	26.672	

	STATION	US10243		
	LATITUDE	41-32.0	N	
	LONGITUDE	141-22.1	E	
	DEPTH (m)	247		
Press.	Temp.	Salinity	Sigma-T	
5	10.308	33.869	26.016	
10	10.265	33.873	26.027	
20	10.100	33.911	26.084	
30	10.056	33.919	26.099	
40	9.981	33.924	26.115	
50	9.944	33.924	26.121	
75	9.832	33.934	26.148	
100	9.643	33.957	26.197	
125	9.535	33.968	26.224	
150	9.336	34.013	26.292	
175	8.653	33.985	26.378	
200	8.181	33.948	26.421	

	STATION	US10246		
	LATITUDE	41-35.2	N	
	LONGITUDE	140-54.0	E	
	DEPTH (m)	57		
Press.	Temp.	Salinity	Sigma-T	
5	10.977	33.838	25.875	
10	10.925	33.845	25.890	
20	10.845	33.860	25.916	
30	10.833	33.862	25.919	
40	10.833	33.862	25.919	
50	10.815	33.863	25.923	

	STATION	US10241		
	LATITUDE	41-37.8	N	
	LONGITUDE	141-19.0	E	
	DEPTH (m)	218		
Press.	Temp.	Salinity	Sigma-T	
5	7.896	32.634	25.431	
10	7.844	32.663	25.461	
20	9.183	33.829	26.172	
30	9.279	33.938	26.242	
40	8.451	33.789	26.255	
50	8.775	33.923	26.310	
75	8.480	33.937	26.367	
100	7.351	33.835	26.452	
125	6.794	33.817	26.514	
150	5.686	33.734	26.591	
175	4.498	33.651	26.661	
200	3.137	33.550	26.716	

	STATION	US10244		
	LATITUDE	41-29.2	N	
	LONGITUDE	141-23.3	E	
	DEPTH (m)	109		
Press.	Temp.	Salinity	Sigma-T	
5	10.344	33.887	26.024	
10	10.342	33.887	26.025	
20	10.214	33.899	26.056	
30	10.030	33.917	26.101	
40	9.983	33.923	26.114	
50	9.890	33.931	26.136	
75	9.841	33.940	26.151	

	STATION	US10242		
	LATITUDE	41-35.0	N	
	LONGITUDE	141-20.5	E	
	DEPTH (m)	311		
Press.	Temp.	Salinity	Sigma-T	
5	7.219	32.666	25.551	
10	7.208	32.668	25.554	
20	6.484	32.756	25.719	
30	6.326	32.824	25.792	
40	6.169	32.902	25.874	
50	5.787	33.068	26.052	
75	7.807	33.760	26.328	
100	7.601	33.838	26.419	
125	7.544	33.873	26.455	
150	6.972	33.839	26.508	
175	6.017	33.768	26.577	
200	5.378	33.732	26.626	
250	4.346	33.656	26.681	
300	3.784	33.628	26.717	

	STATION	US10245		
	LATITUDE	41-27.6	N	
	LONGITUDE	141-24.1	E	
	DEPTH (m)	55		
Press.	Temp.	Salinity	Sigma-T	
5	9.649	33.953	26.193	
10	9.513	33.964	26.224	
20	9.354	33.980	26.263	
30	9.342	33.995	26.276	
40	9.207	33.998	26.300	