



Title	8.THE " USHIO MARU " CRUISE 372, CRUISE 373, CRUISE 374 IN OCTOBER - NOVEMBER 2016
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THE " USHIO MARU "

CRUISE 372

CRUISE 373

CRUISE 374

IN OCTOBER 2016
IN NOVEMBER 2016

1.Cruise Itinerary

1. Cruise Itinerary

Cruise 372

Departure from Hakodate	Oct. 12, 2016
Arrival at and departure from Muroran	12
Start whales and dolphins watching research	13
Arrival at Kushiro	15
Departure from Kushiro	16
Hydrographic research (US16427)	17
Finish whales and dolphins watching research	18
Return to Hakodate	19
Total coverage 1006.4 miles	

Cruise 373

Departure from Hakodate	Oct. 23, 2016
Arrival at Fukushima	24
Departure from Fukushima	25
Start hydrographic research (US16428)	25
Sampling by tuna long-line	25
Finish hydrographic research (US16434)	26
Return to Hakodate	26
Total coverage 197.5 miles	

Cruise 374

Departure from Hakodate	Oct. 31, 2016
Start hydrographic research (US16435)	Nov. 1, 2016
Retrieving mooring ADCP system	1
Setting mooring ADCP system	1
Arrival at Mori	1
Departure from Mori	2
Sampling by trawl net	2
Finish hydrographic research (US16448)	2
Arrival at Muroran	2
Departure from Muroran	3
Return to Hakodate	4
Total coverage 252.5 miles	

2. Data on Temperature, Salinity and Computed Dynamic Depth Anomaly

Hydrographic work on deck and the data processing were made by the deck officers, crews, research staff and cadets of the “Ushio Maru”. Temperature and salinity were measured by CTD (Seabird SBE-19Plus and SBE-19). Dynamic computations were made using a desk-top computer aboard the “Ushio Maru”.

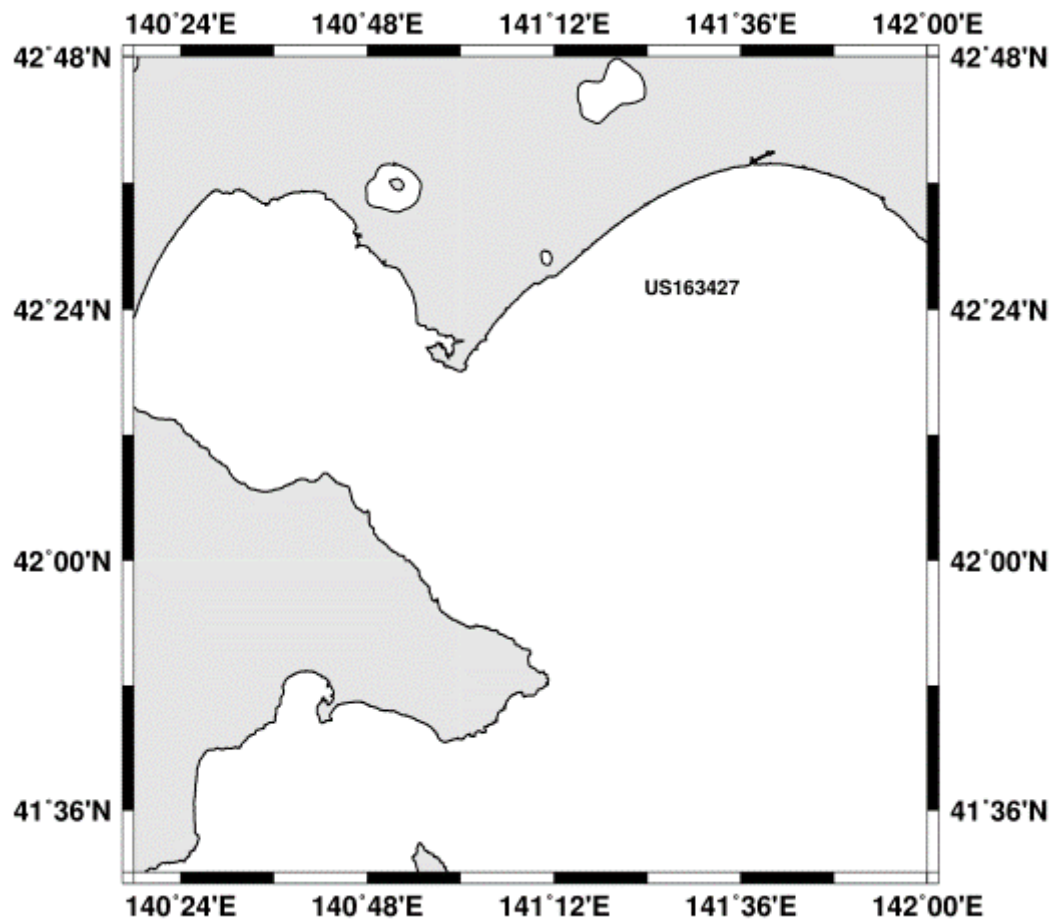


Figure 1. Oceanographic stations (Cruise 372)

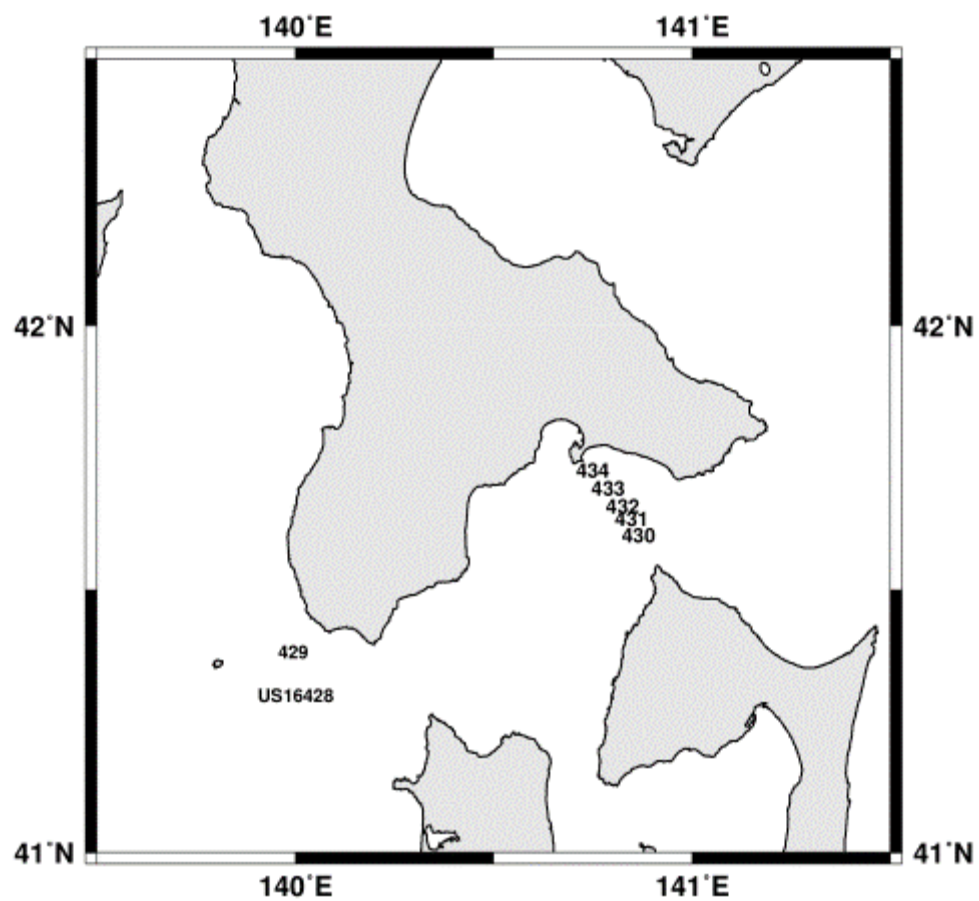


Figure 2. Oceanographic stations (Cruise 373)

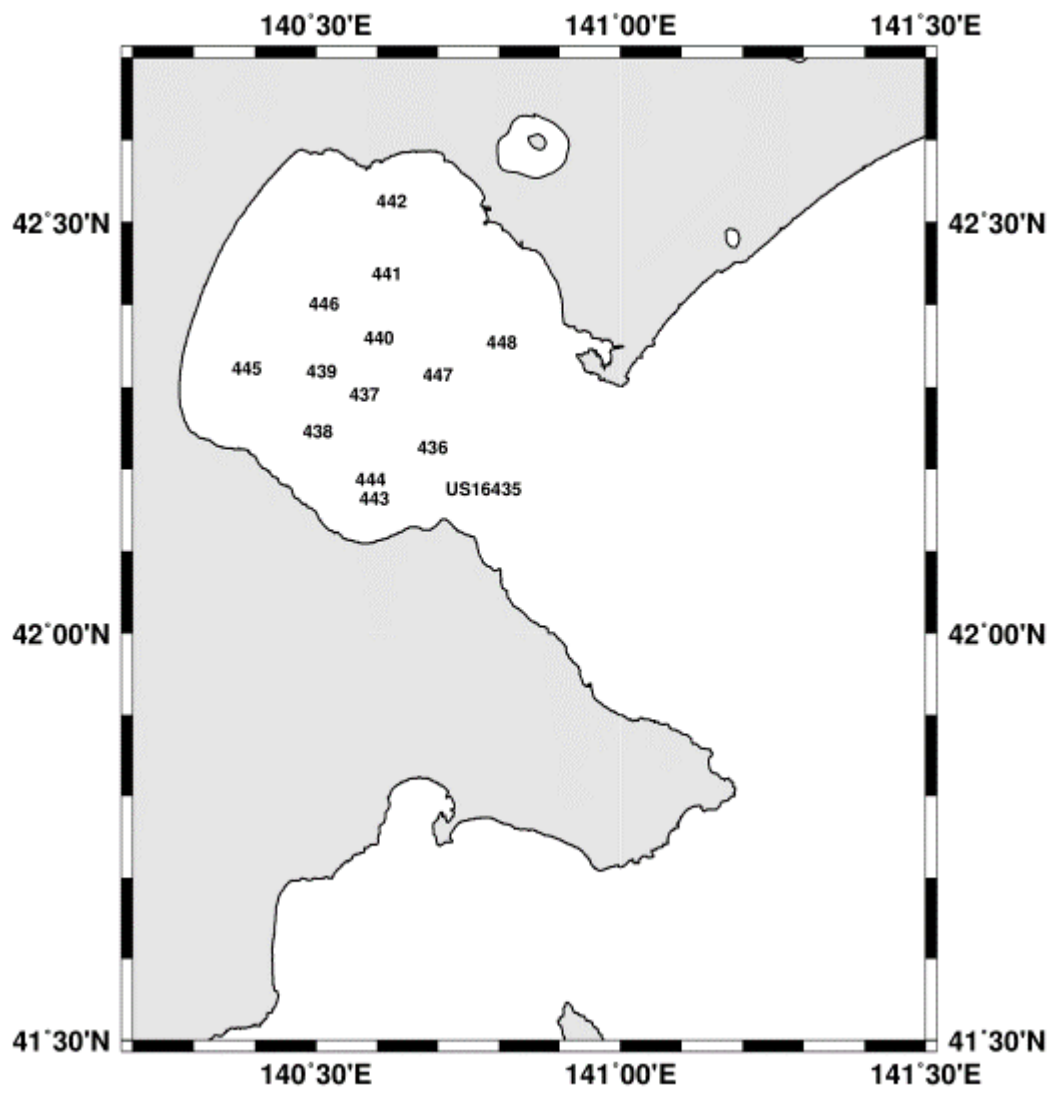


Figure 3. Oceanographic stations (Cruise 374)

Table 1. List of Oceanographic Station

Cruise 372												
station	Lat. (N)°	Long. (E)°	Date	Hour	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US16427	42-25.4	141-29.7	10/17	1630-1638	120	South-2	South-1	South-3	16.5	15.3	o	1015
Cruise 373												
station	Lat. (N)°	Long. (E)°	Date	Hour	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US16428	41-17.2	140-00.0	10/25	1059-1108	180	East-2	WNW-1	East-2	13.3	15.5	bc	1019.8
US16429	41-22.2	139-59.7	10/25	1229-1234	125	East-2	NW-1	East-3	12.5	13.2	o	1018.1
US16430	41-35.4	140-51.9	10/26	0421-0424	54	West-2	West-1	West-3	14	17.5	o	1012
US16431	41-37.3	140-50.9	10/26	0443-0447	99	West-2	West-1	West-4	15.1	17.3	c	1012.1
US16432	41-38.7	140-49.5	10/26	0507-0521	299	West-2	West-1	West-4	14.7	17.8	bc	1012.5
US16433	41-40.7	140-47.3	10/26	0548-0559	228	West-2	West-1	West-3	14.8	14.5	bc	1012.6
US16434	41-42.8	140-45.0	10/26	0619-0625	84	West-2	West-1	West-3	14.2	13.7	bc	1012.7
Cruise 374												
station	Lat. (N)°	Long. (E)°	Date	Hour	Depth (m)	Wave	Swell	Wind	Air Temp.	Sea Temp.	Wr.	Bar (hPa)
US16435	42-10.1	140-46.5	11/1	0528-0534	94	NW-2	WNW-1	NW-3	5.2	12.1	o	1022.6
US16436	42-13.1	140-41.5	11/1	0604-0609	88	WNW-2	WNW-1	West-4	5.3	12	o	1022.2
US16437	42-17.0	140-34.8	11/1	0715-0725	90	West-2	ESE-1	West-4	5	12.3	c	1021.1
US16438	42-14.3	140-30.2	11/1	0841-0847	79	WNW-3	WNW-1	WNW-5	5.2	12.1	c	1022.4
US16439	42-18.7	140-30.6	11/1	0920-0926	91	WNW-3	WNW-1	WNW-5	5.7	12.2	c	1022.2
US16440	42-21.1	140-36.2	11/1	1015-1024	87	NW-3	NW-1	NW-5	6	12.1	o	1023
US16441	42-25.8	140-37.0	11/1	1055-1101	83	NW-3	NW-1	NW-5	4.6	10.7	o	1022.6
US16442	42-31.1	140-37.5	11/1	1158-1205	61	WNW-3	NW-1	NNW-4	3.8	10.8	o	1021.6
US16443	42-09.4	140-35.8	11/1	1430-1439	69	NW-3	NW-1	NW-5	4.7	12	o	1021.1
US16444	42-10.8	140-35.4	11/2	0659-0705	78	WNW-3	NW-1	WNW-4	5.4	11.7	c	1026.9
US16445	42-18.9	140-23.2	11/2	1006-1011	53	West-2	NW-1	West-3	6	11.8	c	1027.1
US16446	42-23.6	140-30.8	11/2	1121-1127	94	WNW-2	NW-1	WNW-3	7.4	11.8	c	1027.1
US16447	42-18.4	140-42.0	11/2	1304-1310	66	West-2	NW-1	West-4	7.9	11.9	bc	1026.1
US16448	42-20.8	140-48.3	11/2	1453-1458	52	WNW-3	West-1	WNW-4	7.9	11.8	bc	1025.5

Table 2. Oceanographic data

STATION US16427				STATION US16428				STATION US16429			
LATITUDE 42-25.4 N				LATITUDE 41-17.2 N				LATITUDE 41-22.2 N			
LONGITUD 141-29.7 E				LONGITUD 140-00.0 E				LONGITUD 139-59.7 E			
DEPTH (m) 120				DEPTH (m) 180				DEPTH (m) 125			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	15.4287	33.6511	24.8381	5	16.0718	34.0732	25.0184	5	13.5302	34.1044	25.592
10	15.2711	33.8747	25.0451	10	15.93	34.0865	25.0609	10	13.0806	34.1018	25.681
20	14.2155	34.069	25.4224	20	15.2171	34.0331	25.1789	20	12.7582	34.1709	25.7985
30	13.5559	34.121	25.5996	30	14.7213	34.1171	25.3517	30	11.7382	34.1707	25.9943
40	12.6409	34.0969	25.7642	40	14.6106	34.1912	25.4327	40	10.9332	34.155	26.1294
50	12.4288	34.1053	25.812	50	14.474	34.2033	25.4712	50	10.3693	34.1408	26.2177
75	11.3799	34.061	25.9754	75	13.2288	34.275	25.7852	75	8.0198	34.0465	26.522
100	10.1761	34.007	26.1466	100	11.4516	34.1969	26.0679	100	4.8075	34.0244	26.9235
111	9.8504	33.9906	26.1889	125	10.4848	34.1679	26.2188	105	4.7177	34.0301	26.9381
				150	9.5126	34.131	26.3547				
				158	8.9464	34.1271	26.4431				

STATION US16430				STATION US16431				STATION US16432			
LATITUDE 41-35.4 N				LATITUDE 41-37.3 N				LATITUDE 41-38.7 N			
LONGITUD 140-51.9 E				LONGITUD 140-50.9 E				LONGITUD 140-49.5 E			
DEPTH (m) 54				DEPTH (m) 99				DEPTH (m) 299			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	16.9562	33.9241	24.6989	5	17.6664	33.9144	24.5219	5	17.8642	33.7732	24.3657
10	16.8167	33.9332	24.7387	10	17.1024	33.9223	24.6629	10	17.1502	34.0237	24.7294
20	16.4764	33.9912	24.8624	20	16.4579	33.9714	24.8515	20	16.8897	34.0447	24.8071
30	15.7261	34.0536	25.0816	30	16.202	34.0354	24.9596	30	16.0728	34.0687	25.0147
40	15.3764	34.0757	25.1766	40	15.8734	34.0942	25.0796	40	15.3252	34.0298	25.1526
42	15.3473	34.0804	25.1866	50	15.2393	34.0965	25.2229	50	14.5111	34.0527	25.3471
				75	12.8093	34.1444	25.7679	75	11.1102	34.1085	26.0614
				82	12.577	34.1771	25.8388	100	10.4557	34.1407	26.2027
								125	10.3445	34.1472	26.227
								150	10.1928	34.1511	26.2562
								175	9.7215	34.1388	26.3263
								200	9.53	34.1394	26.3584
								250	9.0658	34.1298	26.4262
								262	9.03	34.1294	26.4316

STATION US16433				STATION US16434				STATION US16435			
LATITUDE 41-40.7 N				LATITUDE 41-42.8 N				LATITUDE 42-10.1 N			
LONGITUD 140-47.3 E				LONGITUD 140-45.0 E				LONGITUD 140-46.5 E			
DEPTH (m) 228				DEPTH (m) 84				DEPTH (m) 94			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	14.0821	34.0602	25.4436	5	14.4402	34.1261	25.4189	5	12.0664	33.6726	25.5456
10	14.0028	34.0743	25.4711	10	14.2753	34.1123	25.4432	10	12.0688	33.6719	25.5446
20	14.0398	34.0754	25.4643	20	14.1609	34.1287	25.48	20	12.0757	33.6727	25.544
30	13.9231	34.0847	25.4958	30	13.6531	34.1311	25.5875	30	12.0789	33.6742	25.5445
40	13.9604	34.0817	25.4857	40	12.5447	34.133	25.8109	40	12.0832	33.6759	25.545
50	13.951	34.086	25.491	50	12.3214	34.1529	25.8697	50	12.1208	33.6976	25.5547
75	12.6506	34.1151	25.7764	75	11.5996	34.1486	26.003	75	9.9452	33.8977	26.1005
100	11.1074	34.1368	26.084	79	11.4259	34.1509	26.0369	92	9.0242	33.8403	26.2062
125	10.8106	34.158	26.1536								
150	10.5206	34.1574	26.2044								
175	10.2785	34.1584	26.2471								
200	9.3095	34.1339	26.3902								
204	9.2365	34.136	26.4036								

STATION US16436				STATION US16437				STATION US16438			
LATITUDE 42-13.1 N				LATITUDE 42-17.0 N				LATITUDE 42-14.3 N			
LONGITUD 140-41.5 E				LONGITUD 140-34.8 E				LONGITUD 140-30.2 E			
DEPTH (m) 88				DEPTH (m) 90				DEPTH (m) 79			
Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T	Press.	Temp.	Salinity	Sigma-T
5	12.291	33.6359	25.4744	5	12.5255	33.6299	25.4246	5	12.4324	33.7031	25.4993
10	12.2925	33.6355	25.4738	10	12.5862	33.705	25.471	10	12.4365	33.7025	25.4981
20	12.2926	33.6347	25.4732	20	12.5919	33.6964	25.4633	20	12.4497	33.7012	25.4945
30	12.2801	33.6354	25.4761	30	12.5961	33.6954	25.4616	30	12.4486	33.7014	25.4949
40	12.2208	33.6448	25.4947	40	12.5991	33.6958	25.4614	40	12.4268	33.706	25.5028
50	12.2425	33.662	25.5039	50	12.6081	33.7026	25.4649	50	10.4948	33.9233	26.0263
75	10.1859	33.9614	26.1093	75	9.3114	33.838	26.1584	75	8.116	33.7556	26.2794
86	9.6787	33.9075	26.1526	86	8.6138	33.7741	26.2186	77	8.1175	33.7632	26.2851

STATION	US16439		
LATITUDE	42-18.7	N	
LONGITUD	140-30.6	E	
DEPTH (m)	91		
Press.	Temp.	Salinity	Sigma-T
5	12.4711	33.6989	25.4886
10	12.4829	33.6988	25.4863
20	12.486	33.6981	25.4851
30	12.4874	33.6976	25.4845
40	12.4678	33.698	25.4885
50	10.7292	33.9377	25.9965
75	9.5493	33.9114	26.177
89	7.7672	33.722	26.3043

STATION	US16440		
LATITUDE	42-21.1	N	
LONGITUD	140-36.2	E	
DEPTH (m)	87		
Press.	Temp.	Salinity	Sigma-T
5	12.3042	33.6546	25.4864
10	12.3161	33.6544	25.4839
20	12.3191	33.6539	25.483
30	12.3203	33.6539	25.4828
40	11.6409	33.7201	25.6622
50	11.3497	33.7901	25.7702
75	9.3993	33.8428	26.1479
86	8.412	33.7658	26.2429

STATION	US16441		
LATITUDE	42-25.8	N	
LONGITUD	140-37.0	E	
DEPTH (m)	83		
Press.	Temp.	Salinity	Sigma-T
5	10.9703	33.8728	25.9031
10	10.9697	33.8732	25.9035
20	10.9727	33.8747	25.9042
30	10.9755	33.8747	25.9036
40	10.9411	33.8886	25.9206
50	10.6049	33.8919	25.9826
75	8.0691	33.7368	26.2716
80	8.023	33.7471	26.2865

STATION	US16442		
LATITUDE	42-31.1	N	
LONGITUD	140-37.5	E	
DEPTH (m)	61		
Press.	Temp.	Salinity	Sigma-T
5	11.298	33.5859	25.6208
10	11.4234	33.7272	25.7078
20	11.329	33.7741	25.7615
30	10.2804	33.8886	26.0364
40	9.497	33.843	26.1321
50	9.1995	33.8575	26.1917
56	9.197	33.8615	26.1952

STATION	US16443		
LATITUDE	42-09.4	N	
LONGITUD	140-35.8	E	
DEPTH (m)	69		
Press.	Temp.	Salinity	Sigma-T
5	12.226	33.673	25.5156
10	12.2504	33.6689	25.5078
20	12.2559	33.6683	25.5062
30	12.2554	33.6702	25.5078
40	11.3937	33.7958	25.7665
50	10.2553	33.9265	26.0702
65	9.7159	33.9429	26.1741

STATION	US16444		
LATITUDE	42-10.8	N	
LONGITUD	140-35.4	E	
DEPTH (m)	78		
Press.	Temp.	Salinity	Sigma-T
5	12.0618	33.682	25.5538
10	12.071	33.6824	25.5524
20	12.1253	33.7021	25.5574
30	12.1864	33.7408	25.5757
40	11.6479	33.7818	25.7089
50	9.7883	33.8707	26.1057
75	8.2638	33.7885	26.2831
76	8.2644	33.7906	26.2847

STATION	US16445		
LATITUDE	42-18.9	N	
LONGITUD	140-23.2	E	
DEPTH (m)	53		
Press.	Temp.	Salinity	Sigma-T
5	12.0317	33.6547	25.5383
10	12.0344	33.6595	25.5415
20	12.0426	33.6955	25.5679
30	10.9048	33.8991	25.9352
40	10.5059	33.9438	26.0404
50	10.0206	33.9211	26.1059
52	9.8704	33.9172	26.1283

STATION	US16446		
LATITUDE	42-23.6	N	
LONGITUD	140-30.8	E	
DEPTH (m)	94		
Press.	Temp.	Salinity	Sigma-T
5	12.1294	33.6708	25.5323
10	12.1081	33.6695	25.5354
20	12.1237	33.6744	25.5362
30	12.1603	33.6931	25.5437
40	11.8114	33.7894	25.6844
50	10.4856	33.906	26.0144
75	8.7356	33.8237	26.2385
92	7.8009	33.7413	26.3144

STATION	US16447		
LATITUDE	42-18.4	N	
LONGITUD	140-42.0	E	
DEPTH (m)	66		
Press.	Temp.	Salinity	Sigma-T
5	12.2719	33.6725	25.5064
10	12.2716	33.6719	25.506
20	12.257	33.6707	25.5079
30	12.2484	33.6704	25.5094
40	11.9667	33.6784	25.569
50	11.3197	33.7379	25.7351
64	10.637	33.8779	25.9662

STATION	US16448		
LATITUDE	42-20.8	N	
LONGITUD	140-48.3	E	
DEPTH (m)	52		
Press.	Temp.	Salinity	Sigma-T
5	12.2398	33.6784	25.5172
10	12.2436	33.677	25.5153
20	12.2098	33.6742	25.5196
30	12.1329	33.6693	25.5305
40	11.3126	33.8497	25.8233
50	10.6429	33.8478	25.9415
51	10.1023	33.8865	26.0657

STATION US16407
 LATITUDE 41-24.0 N
 LONGITUD 140-06.1 E
 DEPTH (m) 75

Press.	Temp.	Salinity	Sigma-T
5	20.8355	33.8677	23.6765
10	20.2123	33.9023	23.8688
20	19.4399	33.9528	24.1086
30	16.0059	34.1404	25.085
40	12.4136	34.1727	25.8672
50	10.3456	34.1345	26.2169
70	8.7907	34.117	26.4597

STATION US16408
 LATITUDE 41-23.4 N
 LONGITUD 140-06.0 E
 DEPTH (m) 95

Press.	Temp.	Salinity	Sigma-T
5	20.6081	33.8921	23.7559
10	20.247	33.9146	23.869
20	18.6179	34.0595	24.3986
30	14.0933	34.1997	25.5491
40	12.7929	34.1509	25.7759
50	10.112	34.0799	26.2143
75	8.0725	34.1007	26.5567
90	7.9521	34.1033	26.5767

STATION US16409
 LATITUDE 41-22.3 N
 LONGITUD 140-06.1 E
 DEPTH (m) 118

Press.	Temp.	Salinity	Sigma-T
5	20.0529	33.9182	23.9229
10	19.4379	33.9336	24.0944
20	18.2036	34.049	24.4937
30	15.2629	34.1891	25.2887
40	11.338	34.0152	25.9466
50	9.0327	34.1067	26.4134
75	7.6635	34.0787	26.5995
100	6.7699	34.0739	26.7205
105	6.7325	34.0742	26.7257

STATION US16410
 LATITUDE 41-06.0 N
 LONGITUD 140-50.5 E
 DEPTH (m) 52

Press.	Temp.	Salinity	Sigma-T
5	21.822	33.0669	22.7989
10	21.8152	33.079	22.81
20	21.6027	33.2191	22.9748
30	19.998	33.6279	23.716
40	18.5997	33.9873	24.3481
48	17.124	34.0721	24.7728

STATION US16411
 LATITUDE 41-04.8 N
 LONGITUD 141-02.0 E
 DEPTH (m) 46

Press.	Temp.	Salinity	Sigma-T
5	21.7952	33.0582	22.7997
10	21.782	33.1395	22.8651
20	21.7828	33.2253	22.9301
30	19.857	33.3814	23.5648
40	18.6379	33.6734	24.0986
42	18.5313	33.902	24.2999

STATION US16412
 LATITUDE 41-10.9 N
 LONGITUD 141-10.7 E
 DEPTH (m) 29

Press.	Temp.	Salinity	Sigma-T
5	21.7693	32.7885	22.6021
10	21.7514	32.8645	22.6647
20	21.4992	33.1177	22.9262
24	21.4644	33.1474	22.9583

STATION US16413
 LATITUDE 40-57.7 N
 LONGITUD 141-07.1 E
 DEPTH (m) 37

Press.	Temp.	Salinity	Sigma-T
5	21.6522	33.0544	22.8362
10	21.6484	33.0538	22.8368
20	21.6429	33.0748	22.8543
30	20.2121	33.5424	23.5947
32	19.2783	33.4686	23.7809

STATION US16414
 LATITUDE 41-03.8 N
 LONGITUD 140-52.3 E
 DEPTH (m) 50

Press.	Temp.	Salinity	Sigma-T
5	21.6536	33.0842	22.8585
10	21.6568	33.0837	22.8572
20	21.6305	33.2092	22.9598
30	20.2327	33.7134	23.7195
40	19.0549	33.9463	24.2021
46	18.0892	34.0272	24.5053

STATION US16415
 LATITUDE 40-57.5 N
 LONGITUD 140-45.7 E
 DEPTH (m) 49

Press.	Temp.	Salinity	Sigma-T
5	21.972	33.1628	22.8303
10	21.9762	33.1662	22.8317
20	21.7227	33.5014	23.1564
30	20.7515	33.7438	23.6047
40	19.2612	33.9081	24.1203
45	17.8826	34.0059	24.5396

STATION US16416
 LATITUDE 41-04.7 N
 LONGITUD 140-44.0 E
 DEPTH (m) 59

Press.	Temp.	Salinity	Sigma-T
5	21.7874	33.2423	22.9417
10	21.812	33.2961	22.9758
20	21.9206	33.5088	23.1073
30	21.5687	33.7079	23.3556
40	19.6877	33.8846	23.9925
50	17.7536	34.0384	24.5957
55	17.1375	34.1488	24.8284

STATION US16417
 LATITUDE 41-08.8 N
 LONGITUD 141-41.1 E
 DEPTH (m) 45

Press.	Temp.	Salinity	Sigma-T
5	22.3472	33.7011	23.134
10	22.2285	33.7156	23.1784
20	22.1015	33.7233	23.2198
30	21.538	33.765	23.4075
40	20.1661	33.8521	23.8427

STATION US16418
 LATITUDE 41-10.7 N
 LONGITUD 140-39.7 E
 DEPTH (m) 47

Press.	Temp.	Salinity	Sigma-T
5	21.7537	33.32	23.01
10	21.8511	33.6081	23.2019
20	21.8033	33.7247	23.3037
30	21.6564	33.7396	23.3556
40	20.4854	33.8347	23.745
42	20.2998	33.8612	23.8144

STATION US16419
 LATITUDE 41-11.3 N
 LONGITUD 140-40.0 E
 DEPTH (m) 53

Press.	Temp.	Salinity	Sigma-T
5	21.3473	33.2345	23.0564
10	21.3229	33.3348	23.1393
20	21.6511	33.703	23.3292
30	21.5447	33.7508	23.3948
40	21.2859	33.7596	23.4724
48	18.951	33.9149	24.204

STATION US16420
 LATITUDE 41-11.6 N
 LONGITUD 140-41.1 E
 DEPTH (m) 69

Press.	Temp.	Salinity	Sigma-T
5	22.1372	33.6002	23.1163
10	22.1525	33.6497	23.1496
20	22.0591	33.7311	23.2375
30	21.8794	33.7395	23.2938
40	20.3957	33.8244	23.761
50	17.8339	34.0206	24.5626
65	14.5344	34.2214	25.4724

STATION US16421
 LATITUDE 41-11.9 N
 LONGITUD 140-42.1 E
 DEPTH (m) 73

Press.	Temp.	Salinity	Sigma-T
5	21.8696	33.4837	23.1023
10	22.0209	33.5944	23.1444
20	22.0378	33.7341	23.2457
30	21.4488	33.7482	23.4191
40	19.3626	33.8799	24.0727
50	16.3488	34.0958	24.9722
68	14.214	34.2369	25.5524

STATION US16422
 LATITUDE 41-12.2 N
 LONGITUD 140-43.0 E
 DEPTH (m) 72

Press.	Temp.	Salinity	Sigma-T
5	21.8583	33.4757	23.0994
10	21.8983	33.5078	23.1126
20	21.9528	33.5939	23.1629
30	21.5992	33.7498	23.3791
40	20.1317	33.8407	23.8431
50	15.6751	34.1266	25.1492
68	13.1662	34.2272	25.7609

STATION US16423
 LATITUDE 41-12.5 N
 LONGITUD 140-44.1 E
 DEPTH (m) 69

Press.	Temp.	Salinity	Sigma-T
5	21.9408	33.5288	23.1168
10	22.0038	33.604	23.1564
20	21.8162	33.7192	23.296
30	21.3778	33.7701	23.4552
40	20.0334	33.8598	23.8835
50	18.1558	33.9948	24.4639
67	13.7255	34.2274	25.6473

STATION US16424
 LATITUDE 41-12.7 N
 LONGITUD 140-44.9 E
 DEPTH (m) 66

Press.	Temp.	Salinity	Sigma-T
5	21.9602	33.5649	23.1389
10	21.9767	33.5752	23.142
20	21.7929	33.7155	23.2996
30	21.2436	33.729	23.4606
40	20.0034	33.8528	23.8859
50	18.3733	33.956	24.3806
62	16.4682	34.1197	24.9631

STATION US16425
LATITUDE 41-13.0 N
LONGITUD 140-45.5 E
DEPTH (m) 65

Press.	Temp.	Salinity	Sigma-T
5	22.037	33.6106	23.1522
10	22.0441	33.6112	23.1507
20	21.7166	33.6585	23.2774
30	20.9382	33.7656	23.5711
40	19.421	33.9096	24.0804
50	18.454	33.9872	24.3844
61	16.6297	34.1099	24.918

STATION US16426
LATITUDE 41-16.9 N
LONGITUD 140-41.6 E
DEPTH (m) 144

Press.	Temp.	Salinity	Sigma-T
5	21.6645	33.802	23.4008
10	21.5626	33.7988	23.4264
20	21.3247	33.8067	23.4975
30	21.0111	33.8337	23.6033
40	20.9262	33.8286	23.6223
50	19.9566	33.9105	23.9423
75	16.988	34.1353	24.8534
100	14.3364	34.2095	25.5053
125	12.6696	34.2248	25.8577
135	11.9553	34.2207	25.9923