Preliminary Report
of
The Hakuhō Maru Cruise KH-75-3
(Lyra Expedition)

May 14-June 2, 1975
Western North Pacific

Ocean Research Institute
University of Tokyo
1981

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by
The Scientific Members of the Expedition
Edited by
Yoshio HORIBE

Contents

1. Outline of the Expedition

The main purpose of the expedition was to study the distribution of stable and radioactive isotopes, heavy metals, and nutrients for tracer works of water transport in the Northwest Pacific near Japan. Thirteen hydrographic stations were occupied for serial observations by the use of NISKIN-type water samplers, and the large volume water sampling was done at one station for the analysis of man-made radioactive nuclides.

Piston coring and sampling of egg and larvae of fishes were done at several stations, and the gravity was measured throughout the course of the cruise.

Table 1 and Figure 1 gave the locations of stations and sample names.

Table 1 Station/Sample Name

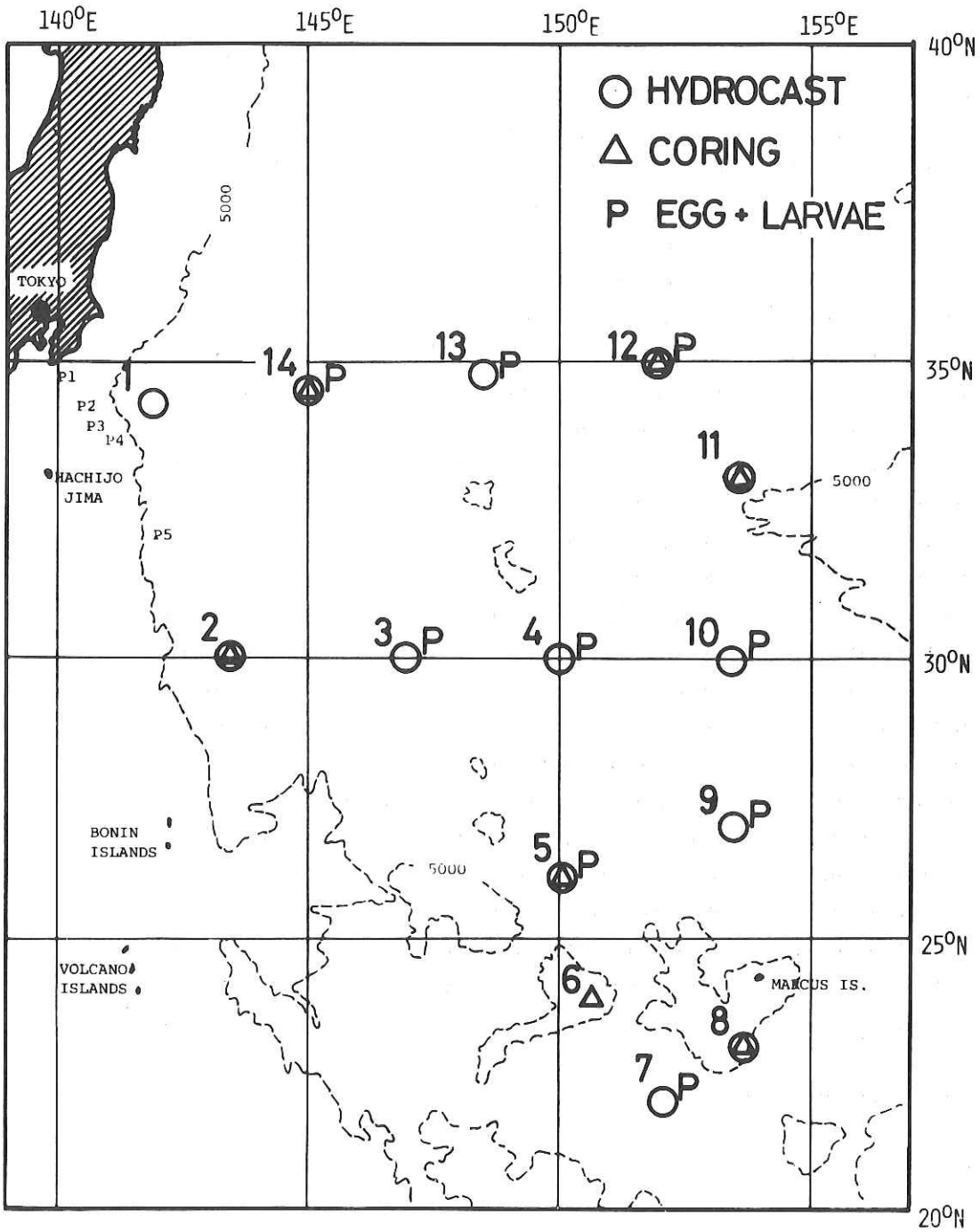
Position[1]	Serial Observation	Coring[3]	Large Volume Water Sampling	NORPAC Net	MTD Net	ORI Net
34.6°N, 140.0°E				P1	P1	P1
34.3°N, 140.3°E				P2	P2	
34.1°N, 140.6°E					P3	
33.7°N, 140.8°E					P4	P4
31.9°N, 142.0°E				P5	P5	P5
34.3°N, 142.0°E	1, 1A					
30.1°N, 143.5°E	2	2-2				
30.0°N, 147.0°E	3			0	0[2]	
30.0°N, 150.0°E	4			0		
26.0°N, 150.1°E	5	5-2 (5-3)		0		
24.0°N, 150.5°E		6-2 (6-3)				
22.0°N, 152.0°E	7A, 7B		0	0	0	0
22,9°N, 153.4°E	8	8-2				
27.0°N, 153.4°E	9			0		
29.9°N, 153.4°E	10			0	0	0
33.0°N, 153.5°E	11	11-2		0		0
34.9°N, 151.9°E	12, 12A	(12-2) 12-3		0		0
34.8°N, 148.6°E	13			0	0	0
34.4°N, 145.0°E	14	14-2		0	0	

1) Exact positions are listed on oceanographic tables of serial observation and core-log.

2) 0 indicates that no station/sample number was recorded.

3) Samples in parenthesis were used for chemical analysis, and no samples were stored.

Firure 1. Stations of KH-75-3 (Lyra Expedition)



2. Scientists Aboard

FURUYAMA,Kazumi	Dept.Chem., Kanazawa U.	Chemistry
GAMO,Toshitaka	Ocean Res.Inst., U.Tokyo	Chemistry
GODA,Shiro	Dept. Reactor Eng., Kinki U.	Anal. Chemistry
HARADA,Kenichi	Dept.Geology, Kyoto U.	Geology
HASUMOTO,Hiroshi	Ocean Res.Inst., U.Tokyo	Biology
HIRAKI,Keizo	Dept.Chem., Kinki U.	Anal. Chemistry
HORIBE,Yoshio[1)]	Ocean Res.Inst., U.Tokyo	Marine Chemistry
ISHIZUKA,Toshio	Ocean Res.Inst., U.Tokyo	Chemistry
KAMEDA,Mitsuo	Dept.Chem., Gakushuin U.	Chemistry
KANAMORI,Satoru	Water Res.Inst., Nagoya U.	Geochemistry
KATO,Yoshihisa	Dept.Oceanogr., Tokai U.	Chemistry
KITAZAWA,Kazuhiro	Ocean Res.Inst., U.Tokyo	Submarine Geophysics
KODAMA,Yukio	Ocean Res.Inst., U.Tokyo	Anal. Chemistry
MASUZAWA,Toshiyuki	Water Res.Inst., Nagoya U.	Chemistry
MINAMISATO,Natsuo	Dept.Agriculture, Ehime U.	Chemistry
MIZUNO,Keisuke	Ocean Res.Inst., U.Tokyo	Biology
NAGAYA,Yutaka	Natl.Inst.Radiological Sci.	Radio-ecology
NIMURA,Gihachiro	Ocean Res.Inst., U.Tokyo	Biology
OBA,Tadamichi	Ocean Res.Inst., U.Tokyo	Geology
ODA,Hideo	Dept.Oceanogr., Tokai U.	Chemistry
OHSUMI,Takashi	Ocean Res. Inst., Tokyo U.	Chemistry
OKAMOTO,Kenichi	Konohana Technology High School	Chemistry
OKAMURA,Makoto	Dept.Geology, Tohoku U.	Geology
SASAKI,Yoshihiro	Inst.Chemical Res., Kyoto U.	Chemistry
SHIGEHARA,Koji	Meteorol. Res. Inst.	Marine chemistry
TANABE,Shinsuke	Dept.Agriculture, Ehime U.	Chemistry
TOKURA,Ryoichi	Dept.Biol., Kyoto U.Education	Biology
TSUBOTA,Hiroyuki	Ocean Res.Inst., U.Tokyo	Marine Chemistry

1) Chief scientist

3. Hydrocast

23 liters and 2.7 liters NISKIN-type PVC samplers were used for shallow and deep casts at each station. Each sampler was equipped with two protected and one unprotected reversing thermometers. The spacing of the samplers on the wire were:

Shallow cast: surface(1), 20, 50, 100, 150, 200, 300, 400, 500, 600, 700, 800, 1000, 1200, 1500 meters

Deep cast: 1500, 1750, 2000, 2250, 2500, 1750, 3000, 3500, 4000, 4500, 5000, ... meters

The distance between deepest sampler and sea floor was measured from the PDR record of an acoustic pinger (EG & G Model 220) attached at the top of the wire.

Salinity: Salinity was measured with an AUTO LAB Mark III inductive salinometer on board. Calibration was done using I.A.P.S.O. STANDARD SEA-WATER.

Dissolved oxygen: Dissolved oxygen was measured by a modified Winker method (Y.Horibe, Y.Kodama, and K.Sigehara, J. Oceanogr. Soc. Japan, 28, 203-206, 1972).

Nutrients: Nutrients were measured on spectrophotometers (HITACHI Model 101), and nutrients standard of SAGAMI CHEMICAL RESEARCH CENTER was used for calibration.

Silicate: Silicomolybdate method was used, and the following procedures were found to be satisfactory for the reproducible results. 1.2 ml of 3M H_2SO_4 and 2.0 ml of 10% ammonium molybdate solution were added to 50 ml of seawater sample. After 15 minutes, the absorbance of 380 nm was measured in 1 cm cell. Estimated error is 3% of the reported values.

Phosphate: Stannous chloride reduction ammonium molybdate method was used.

Nitrate: Due to the trouble of Cd-Cu reduction columns (E.D. Wood,

F.A.J.Armstrong, and F.A.Richard, J. mar. biol. Ass. U. K., 47, 23-31, 1967), the samples were freezed and brought back to the laboratory on land to measure nitrate concentration by Cd-Cu reduction Benschneider-Robinson method (J. Mar. Res., 11, 87-96, 1952). The conditions of samples before freezing were not necessarily satisfactory to prevent concentration changes, and the reported values of nitrate (nitrate + nitrite) are doubtful as is shown in Figure 5 (p.24).

pH: pH was measured with a ORION Model 810 pH-meter with a 2 ml cell of closed type. The accuracy was ±0.003 pH unit.

All the analysis were done by the chemistry group.

4. Oceanographic Data

Tables in pages 7 to 22 listed the data obtained by the hydrocasts. The values which appear to be erroneous are indicated by U.

T-S diagrams are shown in Figure 2, 3, and 4. All the nitrate values are uncertain as described before. Figure 5 shows a plot of nitrate vs. AOU at Station 3(Ly 3) of this expedition and Station 16(Cy 16) of KH-80-2 (Cygnus Expediton). Both stations were at the same location (30°N, 147°E), and the nitrate of the latter was measured with an automatic analyzer with a double beam spectrophoto-meter developed by us (Preliminary Report of the Hakuho Maru Cruise KH-77-3 (Pegasus Expedition, in press). The freezed sample for nitrate reported here showed lower values in some case, and nitrate data of the expedition were judged to be erroneous.

Figure 6 shows the vertical profiles of dissovled oxygen at stations Ly 3 and Cy 16. The latter was measured by the slightly modified Carpenter's method and both were quite consistent.

Figure 7, 8, and 9 show phosphate vs. AOU, and Figure 10, 11, and 12 show silicate vs. AOU. Concentrations of dissolved oxygen, AOU, phosphate, silicate, and nitrate are expressed in μmole/kg sea water.

KH75-3, STATION 1

8980 M (OBS.), 9206 M (COR.), 34.18.0 N, 141.59.0 E, 31 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN (MICROMOLES/KG AT	NITRATE IN SITU TEMP.)	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
1	1	23.60	34.463	215.4	##.#	0.06	5.7	8.236	23.599	23.374	216.7
2	20	23.66	34.463	214.6	##.#	0.03	4.3	8.242	23.655	23.356	216.5
3	49	22.37	34.599	199.2	##.#	0.19	5.7	8.199	22.359	23.830	221.3
4	99	19.89	34.731	223.9	##.#	0.09	6.8	8.199	19.871	24.605	231.3
5	149	18.45	34.791	210.7	##.#	0.21	7.0	8.164	18.423	25.019	237.6
6	198	17.74	34.805	206.4	##.#	0.27	6.5	8.143	17.705	25.205	240.8
7	297	16.40	34.738	204.1	##.#	0.43	8.3	8.109	16.350	25.472	247.2
8	396	14.94	34.629	187.5	##.#	0.71	13.2	8.485	14.877	25.718	254.7
9	496	12.79	34.466	186.2	##.#	0.95	20.3	7.986	12.719	26.040	266.5
10	595	10.03	34.283	163.5	##.#	1.51	34.3	7.871	9.957	26.407	283.0
11	694	7.75	34.187	139.5	##.#	1.99	53.6	7.762	7.677	26.693	298.1
12	794	5.82	34.106	116.5	##.#	2.54	72.1	7.659	5.747	26.891	312.0
13	993	4.10	34.208	57.3	##.#	2.87	105.9	7.510	4.021	27.168	325.0
14	1092	3.68	34.282	47.8	##.#	2.97	119.2	7.493	3.596	27.270	328.2
15	1190	3.36	34.339	39.1	##.#	3.03	128.8	7.481	3.271	27.346	330.7
16	1290	3.08	34.392	39.5	##.#	3.05	135.8	7.478	2.985	27.415	332.9
17	1389	2.84	34.429	39.9	##.#	3.12	143.6	7.493 ▽	2.740	27.466	334.9
18	1488	2.73	34.461	40.8	##.#	3.14	148.6	7.486	2.623	27.501	335.7
19	1588	2.57	34.487	43.0	##.#	2.97	149.3	7.493	2.456	27.536	337.0
20	1688	2.45	34.516	49.9	##.#	2.97	152.7	7.512	2.329	27.569	338.0
21	1787	2.34	34.537	57.7	##.#	3.00	157.4	7.525	2.212	27.595	338.9
22	1986	2.14	34.556 ▽	66.4 ▽	##.#	3.07 ▽	158.2	7.540	1.998	27.627	340.6
23	1956	2.12	34.571	71.2	38.3	2.89	157.4	7.533	1.981	27.640	340.7
24	2198	1.97	34.604	89.0	27.0	2.85	155.1	7.571	1.812	27.678	341.9
25	2442	1.82	34.625	99.0	30.3	2.75	156.6	7.593	1.643	27.707	343.2
26	2686	1.71	34.641	113.8	16.2	2.73	153.2	7.616	1.512	27.728	344.1
27	2932	1.64	34.655	122.0	36.0	2.72	151.1	7.633	1.419	27.744	344.7
28	3183	1.59	34.665	129.8	13.7	2.68	154.0	7.647	1.345	27.756	345.1
29	3419	1.53	34.671	135.0	14.3	2.64	153.2	7.657	1.262	27.765	345.7
30	3663	1.52	34.675	141.6	16.5	2.64	149.5	7.665	1.226	27.769	345.7
31	3908	1.50	34.676	145.9	17.1	2.62	150.6	7.676	1.179	27.771	345.9
32	4400	1.49	34.682	152.8	15.7	2.59	145.1	7.686	1.112	27.777	346.0
33	4981	1.51	34.687	158.1	15.4	2.61	139.7	7.693	1.059	27.780	345.8
34	5367	1.58	34.691	161.1	##.#	#.##	###.#	7.698	1.076	27.778	345.2
35	5376	1.58	34.691	161.1	##.#	2.51	145.9	7.698	1.074	27.778	345.2
36	5385	1.55	34.691	160.7	##.#	2.52	139.4	7.698	1.044	27.780	345.4

KH75-3, STATION 1A

8960 M (OBS.), 34.21.0 N, 142.00.0 E, 31 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	24.20	34.475	211.1	0.0	0.13	4.6	8.229	24.199	23.206	214.5
2	20	23.76	34.447	210.7	0.9	0.12	5.9	8.233	23.755	23.315	216.1
3	50	23.13	34.558	201.4	0.8	0.16	5.1	8.206	23.119	23.582	218.4
4	99	20.37	34.749	207.4	1.5	0.18	5.9	8.180	20.350	24.492	229.3
5	148	18.53	34.793	209.0	2.5	0.22	7.0	8.153	18.503	25.000	237.2
6	197	17.70	34.810	209.8	2.6	0.28	6.2	8.138	17.665	25.218	241.0
7	296	16.37	34.740	203.7	3.1	0.43	9.1	8.101	16.320	25.481	247.4
8	394	15.09	34.639	185.8	7.7	0.72	14.3	8.040	15.027	25.692	253.9
9	492	12.67	34.466	174.9	13.7	1.08	22.1	7.957	12.600	26.064	267.1
10	590	10.48	34.328	159.1	11.0	1.51	33.1	7.867	10.406	26.364	280.2
11	689	7.64	34.146	143.9	25.5	1.94	54.4	7.747	7.568	26.677	298.9
12	787	5.60	34.125	106.5	24.9	2.42	75.7	7.626	5.530	26.933	313.6
13	984	4.08	34.214	54.7	25.3	2.87	106.5	7.499	4.002	27.175	325.2
14	1180	3.37	34.342	37.8	37.4	3.01	128.5	7.469	3.282	27.348	330.7
15	1484	2.75	34.452	39.1	18.3	3.01	146.2	7.472	2.643	27.492	335.6
16	1719	2.38	34.522	52.5	31.5	2.97	154.0	7.499	2.258	27.580	338.6
17	1965	2.12	34.572	67.7	18.3	2.87	158.7	7.533	1.980	27.641	340.7

KH75-3, STATION 2

5620 M (OBS), 5661 M (COR.), 30.03.0 N 143.27.0 E, 16 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	20.70	34.804	227.4	##.#	0.05	7.3	8.185	20.699	24.445	227.8
2	19	20.50	34.808	227.0	##.#	0.07	9.4	8.209	20.496	24.502	228.6
3	47	18.59	34.835	237.8	##.#	0.07	7.1	8.208	18.581	25.017	236.9
4	94	17.57	34.814	216.4	##.#	0.22	7.7	8.165	17.553	25.253	241.6
5	140	17.11	34.793	220.7	##.#	0.28	10.0	8.161	17.086	25.348	243.8
6	186	16.81	34.766	212.0	##.#	0.36	8.6	8.140	16.778	25.398	245.2
7	277	16.27	34.740	208.0	##.#	0.41	9.3	8.121	16.224	25.504	247.9
8	370	15.27	34.666	199.7	##.#	0.59	13.2	8.078	15.211	25.673	253.0
9	463	13.37	34.514	190.5	##.#	0.87	19.2	8.012	13.302	25.961	263.2
10	557	10.78	34.320	185.7	##.#	1.23	29.9	7.930	10.709	26.305	278.4
11	651	8.43	34.158	167.8	##.#	1.66	45.0	7.828	8.358	26.569	293.6
12	747	6.42	34.073	120.4	##.#	2.10	64.1	7.712	6.349	26.788	307.7
13	935	4.37	34.194	63.8	##.#	2.72	107.1	7.534	4.294	27.129	322.9
14	1124	3.55	34.329	42.5	##.#	2.91	128.1	7.497	3.465	27.320	329.2
15	1414	2.80	34.454	41.2	##.#	2.97	149.1	7.490	2.698	27.489	335.2
16	1586	2.48	34.517	49.5	##.#	2.95	161.3	7.506	2.367	27.567	337.7
17	1830	2.16	34.569	69.0	##.#	2.89	162.8	7.543	2.031	27.635	340.4
18	2076	1.95	34.608	84.7	##.#	2.80	162.8	7.578	1.803	27.683	342.1
19	2321	1.83	34.631	105.5	##.#	2.62 ∇	157.8 ∇	7.615	1.663	27.711	343.1
20	2567	1.71	34.646	114.2	##.#	2.67	164.4	7.626	1.523	27.732	344.1
21	2812	1.63	34.657	123.3	##.#	2.61	163.4	7.644	1.421	27.747	344.8
22	3059	1.57	34.666	130.7	##.#	2.54	156.8	7.661	1.338	27.758	345.3
23	3549	1.49	34.679	145.9	##.#	2.52	159.8	7.682	1.209	27.775	346.0
24	4050	1.48	34.689	152.0	##.#	2.47	154.4	7.697	1.144	27.783	346.1
25	4547	1.46	34.693	161.1	##.#	2.39	153.9	7.705	1.065	27.788	346.2
26	5435	1.55	34.696	167.6	##.#	2.32	146.4	7.709	1.038	27.784	345.4

KH75-3, STATION 3

6200 M (OBS.), 6234 M (COR.), 29.57.0 N 147.02.0 E, 17 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	21.80	34.877	222.7	0.1	0.05	2.4	8.226	21.799	24.200	223.2
2	20	19.61	34.770	232.2	0.9	0.08	2.1	8.204	19.606	24.707	232.5
3	49	19.21	34.789	233.4	0.0	0.07	4.2	8.204	19.200	24.825	234.2
4	98	17.53	34.771	232.5	0.5	0.18	6.2	8.188	17.512	25.230	241.8
5	148	17.00	34.763	225.5	3.1	0.28	5.9	8.198	16.974	25.351	244.3
6	197	16.81	34.763	222.9	3.8	0.30	5.1	8.191	16.776	25.396	245.2
7	296	16.46	34.747	212.8	4.1	0.42	8.3	8.137	16.410	25.465	246.9
8	394	15.19	34.653	192.3	8.5	0.67	9.7	8.070	15.127	25.681	253.4
9	493	12.87	34.478	184.9	12.6	0.98	18.4	7.992	12.799	26.033	266.0
10	592	10.17	34.283	176.5	18.6	1.44	18.7	7.904	10.097	26.383	282.2
11	790	5.34	34.047	121.7	27.0	2.44	72.2	7.653	5.271	26.903	315.7
12	984	3.96	34.217	57.8	39.4	2.87	111.3	7.520	3.883	27.190	326.1
13	1174	3.37	34.345	38.6	44.4	2.97	128.3	7.477	3.282	27.350	330.6
14	1453	2.68	34.471	40.8	42.7	3.14	150.8	7.492	2.576	27.513	336.1
15	1557	2.55	34.495	41.7	39.9	3.06	155.7	7.489	2.439	27.544	337.2
16	1797	2.24	34.556	62.1	41.4	2.93	159.9	7.533	2.113	27.618	339.7
17	2039	1.99	34.597	77.3	34.1	2.85	162.6	7.569	1.846	27.671	341.8
18	2279	1.87	34.624	102.9	40.8	2.74	159.1	7.613	1.707	27.702	342.8
19	2521	1.75	34.642	113.8	39.2	2.68	157.5	7.637	1.567	27.726	343.8
20	2762	1.67	34.655	123.3	38.9	2.66	155.9	7.651	1.465	27.742	344.5
21	3005	1.61	34.658	128.5	36.0	2.58	155.6	7.664	1.383	27.749	345.0
22	3247	1.58	34.668	136.3	33.7	2.57	155.6	7.674	1.329	27.759	345.2
23	3490	1.54	34.674	140.7	##.#	2.59	154.0	7.683	1.264	27.767	345.6
24	3733	1.54	34.678	145.0	35.5	2.60	153.5	7.690	1.238	27.770	345.6
25	3978	1.51	34.679	148.9	32.4	2.52	153.2	7.699	1.181	27.773	345.8

KH75-3, STATION 4

5850 M (OBS.), 5895 M (COR.) 29.59.0 N, 150.01.0 E, 18 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	20.00	34.652	233.1	1.9	0.07	1.8	8.189	19.999	24.516	231.0
2	20	19.44	34.654	233.9	2.0	0.07	1.6	8.100	19.436	24.663	233.4
3	50	18.71	34.686	236.9	3.3	0.08	1.3	8.097	18.700	24.874	236.6
4	99	17.23	34.757	239.0	1.3	0.18	3.8	8.178	17.212	25.291	243.2
5	153	16.63	34.749	219.8	3.4	0.34	4.0	8.180	16.604	25.427	246.1
6	204	16.21	34.725	212.0	5.1	0.42	5.1	8.122	16.176	25.506	248.2
7	303	15.00	34.634	191.9	9.8	0.74	11.4	8.063	14.952	25.708	254.4
8	406	12.29	34.436	187.0	10.5	1.10	19.7	7.980	12.234	26.115	269.3
9	507	9.31	34.213	175.2	14.3	1.57	34.3	7.876	9.251	26.473	287.7
10	607	6.64	34.064	151.3	18.3	1.84	59.2	7.749	6.581	26.752	306.1
11	710	5.04	34.066	107.8	27.0	2.22	80.6	7.617	4.980	26.953	318.0
12	1014	3.45	34.316	44.7	37.7	2.61	127.9	7.500	3.375	27.319	330.0
13	1209	2.93	34.420	35.6	36.4	2.66	144.6	7.481	2.844	27.451	334.1
14	1514	2.35	34.519	46.9	30.3	2.65	162.7	7.503	2.245	27.580	338.8
15	1275	2.82	34.438	34.3	27.3	2.63	152.8	7.513	2.729	27.475	335.0
16	1522	2.36	34.521	45.1	39.8	2.60	162.7	7.501	2.254	27.581	338.7
17	1994	1.89	34.604	81.6	30.3	2.49	166.4	7.573	1.751	27.685	342.6
18	2012	1.87	34.612	87.7	31.5	2.47	166.4	7.586	1.730	27.693	342.8
19	2272	1.73	34.634	103.8	21.8	2.41	158.8	7.620	1.570	27.721	344.0
20	2521	1.63	34.653	125.1	28.8	2.32	158.4	7.656	1.449	27.744	344.8
21	2772	1.59	34.660	129.8	24.9	2.29	157.5	7.666	1.386	27.752	345.2
22	3023	1.56	34.667	135.9	24.7	2.27	154.6	7.676	1.332	27.760	345.4
23	3272	1.50	34.672	140.3	31.3	2.27	157.5	7.683	1.248	27.768	345.9
24	3522	1.50	34.676	144.2	30.2	2.21	154.8	7.691	1.222	27.771	345.9
25	3772	1.49	34.676	148.5	24.2	2.23	154.0	7.698	1.185	27.772	346.0
26	4273	1.46	34.684	156.8	23.4	2.19	153.5	7.712	1.098	27.781	346.3
27	4773	1.49	34.685	162.4	23.0	2.15	148.6	7.719	1.066	27.779	346.0
28	5273	1.52	34.690	167.6	31.7	2.19	144.0	7.725	1.031	27.781	345.7
29	5771	1.56	34.691	169.4	23.4	2.20	141.6	7.729	1.001	27.779	345.3

KH75-3, STATION 5

5790 M (OBS.), 5834 M (COR.) 25.59.6 N, 150.02.7 E, 19 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	24.80	34.962	212.0	1.6	0.01	4.4	8.236	24.799	23.394	211.7
2	20	24.62	34.924	208.9	0.1	0.00	1.0	8.248	24.615	23.419	212.4
3	50	21.59	34.992	239.7	1.4	0.00	2.6	8.238	21.579	24.345	223.9
4	103	19.20	34.869	226.0	1.5	0.07	2.1	8.204	19.180	24.889	234.1
5	152	17.84	34.777	215.9	2.9	0.23	3.7	8.165	17.813	25.159	240.4
6	202	16.81	34.752	207.6	4.9	0.32	6.6	8.133	16.775	25.387	245.2
7	300	15.56	34.682	201.9	6.0	0.53	7.6	8.094	15.511	25.621	251.5
8	402	13.54	34.522	189.7	10.1	0.86	15.7	8.021	13.481	25.932	262.2
9	502	10.71	34.319	184.4	14.4	1.22	26.3	7.931	10.646	26.317	278.8
10	707	5.42	34.032	123.4	24.7	2.36	70.5	7.658	5.358	26.881	315.1
11	809	4.66	34.148	73.0	32.8	2.70	90.5	7.549	4.593	27.061	320.7
12	1008	3.65	34.334	40.4	40.0	2.92	119.7	7.491	3.574	27.314	328.4
13	1205	2.97	34.440	38.6	36.2	2.92	138.1	7.488	2.883	27.463	333.8
14	1505	2.41	34.534	56.4	35.3	2.89	151.7	7.422	2.305	27.587	338.3
15	1248	2.87	34.454	39.5	41.6	2.99	142.5	7.493	2.781	27.483	334.6
16	1496	2.41	34.532	58.6	35.2	2.98	150.4	7.427	2.306	27.585	338.3
17	1752	2.07	34.580	79.9	32.0	2.88	154.6	7.571	1.949	27.651	341.1
18	1999	1.90	34.616	98.6	32.9	2.77	153.3	7.605	1.761	27.693	342.5
19	2258	1.78	34.636	113.8	31.2	2.71	151.2	7.632	1.620	27.719	343.5
20	2508	1.68	34.651	122.9	31.0	2.66	154.0	7.653	1.499	27.738	344.4
21	2776	1.62	34.658	129.4	32.9	2.64	148.8	7.664	1.415	27.748	344.9
22	3022	1.59	34.666	135.9	33.5	2.63	148.8	7.675	1.362	27.757	345.1
23	3279	1.55	34.673	140.7	26.1	2.54	153.3	7.680	1.296	27.765	345.5
24	3531	1.52	34.678	145.0	33.6	2.55	148.2	7.686	1.240	27.772	345.7
25	3784	1.52	34.678	148.9	34.7	2.52	145.6	7.695	1.213	27.772	345.7
26	4285	1.49	34.686	153.7	29.6	2.45	143.8	7.705	1.126	27.780	346.0
27	4795	1.48	34.696	163.7	26.7	2.52	141.9	7.715	1.054	27.789	346.1
28	5423	1.51	34.686	163.7	28.5	2.48	137.7	7.717	1.001	27.779	345.8
29	5809	1.61	34.696	169.4	28.7	2.46	133.2	7.722	1.044	27.779	344.9

KH75-3, STATION 7A

5575 M (OBS.), 22.01.0 N, 152.00.0 E, 20 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	28.00	35.099	200.4	5.7	#.##	1.0	8.261	27.999	22.490	200.5
2	20	27.17	35.065	206.9	3.3	#.##	3.7	8.268	27.165	22.733	203.3
3	50	23.76	35.095	212.3	2.2	#.##	4.0	8.246	23.748	23.804	215.3
4	102	20.86	35.008	202.1	4.3	#.##	6.0	8.180	20.839	24.557	226.9
5	151	18.50	34.845	202.0	4.4	#.##	4.9	8.141	18.472	25.048	237.3
6	201	17.05	34.763	205.9	10.1	#.##	6.6	8.124	17.015	25.339	244.1
7	300	15.48	34.678	201.0	8.0	#.##	8.9	8.073	15.431	25.636	251.9
8	402	12.63	34.438	192.3	10.6	#.##	17.1	7.983	12.573	26.050	267.4
9	502	9.62	34.217	174.4	18.8	#.##	32.3	7.868	9.560	26.425	285.7
10	603	6.93	34.091	125.2	25.6	#.##	55.8	7.720	6.870	26.734	304.0
11	703	5.36	34.178	73.8	36.2	#.##	82.0	7.563	5.299	27.004	315.3
12	808	4.62	34.306	50.8	35.2	#.##	98.1	7.527	4.554	27.190	320.7
13	1007	3.83	34.442	59.5	41.5	#.##	113.1	7.546	3.752	27.382	326.7
14	1201	3.37	34.514	72.5	44.2	#.##	124.9	7.563	3.280	27.484	330.3
15	1507	2.55	34.558	83.4	55.1	#.##	139.3	7.580	2.443	27.594	337.0
16	2017	1.96	34.621	105.5	36.6	#.##	148.5	7.622	1.818	27.693	342.0

KH75-3, STATION 7B

5580 M (OBS.), 5619 M (COR.), 22.01.0 N, 152.00.0 E, 21 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	28.10	35.159	195.5	6.8	0.97	5.7	8.229	28.099	22.502	200.1
2	20	27.34	35.108	207.7	3.3	0.00	6.3	8.253	27.335	22.711	202.7
3	50	24.21	35.104	213.2	4.0	0.01	4.4	8.241	24.198	23.678	213.7
4	101	21.71	35.078	200.9	9.3	0.03	8.6	8.182	21.689	24.377	223.3
5	150	19.67	34.914	203.4	4.3	0.09	7.4	8.160	19.641	24.801	232.0
6	198	17.17	34.774	204.6	3.7	0.28	8.6	8.114	17.135	25.319	243.5
7	300	15.36	34.666	201.0	8.2	0.69	10.0	8.060	15.312	25.653	252.5
8	399	12.41	34.422	191.4	22.4	0.95	19.9	7.973	12.354	26.081	268.7
9	500	9.58	34.215	173.1	18.5	1.45	31.3	7.758	9.521	26.430	286.0
10	601	7.13	34.109	132.1	77.7	2.11	49.1	7.600	7.070	26.721	302.5
11	802	4.95	34.263	57.8	32.6	2.86	87.9	7.532	4.882	27.119	318.2
12	1000	4.01	34.436	61.2	33.3	2.82	111.5	7.542	3.931	27.358	325.3
13	1196	3.32	34.516	72.9	34.5	2.71	121.7	7.564	3.231	27.491	330.7
14	1498	2.60	34.562	86.0	29.9	2.67	138.3	7.588	2.493	27.593	336.6
15	1599	2.43	34.573	90.3	34.3	2.66	141.2	7.571	2.317	27.616	338.0
16	1846	2.14	34.600	98.6	33.4	2.72	145.6	7.600	2.010	27.662	340.5
17	2096	1.91	34.622	108.5	38.9	2.59	149.9	7.617	1.762	27.697	342.4
18	2346	1.80	34.638	117.2	30.1	2.57	151.2	7.632	1.632	27.719	343.3
19	2599	1.70	34.650	123.7	32.0	2.61	148.5	7.653	1.510	27.736	344.2
20	2849	1.62	34.660	130.7	28.7	2.57	152.7	7.659	1.408	27.750	344.9
21	3091	1.58	34.669	135.9	30.5	2.51	151.2	7.673	1.345	27.760	345.2
22	3345	1.53	34.674	142.9	26.5	2.41	149.9	7.685	1.270	27.768	345.7
23	3586	1.49	34.680	148.5	27.8	2.48	150.4	7.695	1.205	27.775	346.0
24	3830	1.49	34.682	153.3	29.2	2.49	148.8	7.700	1.179	27.777	346.0
25	4093	1.46	34.687	158.1	30.3	2.46	143.8	7.705	1.120	27.783	346.3
26	4595	1.46	34.692	165.4	27.6	2.40	141.1	7.714	1.060	27.787	346.2
27	5081	1.47	34.695	172.4	30.4	2.39	138.3	7.722	1.008	27.789	346.1
28	5497	1.50	34.695	177.6	##.#	#.##	###.#	7.725	0.981	27.787	345.9
29	5556	1.51	34.696	178.9	25.5	2.31	133.1	7.727	0.983	27.787	345.8
30	5562	1.51	34.699	177.2	28.5	2.37	133.8	7.722	0.982	27.789	345.8
31	5566	1.50	34.698	178.0	26.5	2.35	135.1	7.722	0.972	27.789	345.9

KH75-3, STATION 8

1150 M (OBS.), 1159 M (COR.), 22.54.0 N, 153.21.0 E, 23 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	27.40	35.083	202.1	0.4	0.07	3.2	8.226	27.399	22.673	202.5
2	20	26.18	35.055	210.3	0.2	0.01	2.8	8.240	26.175	23.039	206.7
3	50	22.77	35.157	224.9	0.5	0.02	1.6	8.236	22.759	24.138	219.0
4	103	20.22	34.936	223.5	0.1	0.10	3.0	8.199	20.200	24.674	229.6
5	152	18.22	34.828	209.9	2.0	0.19	2.8	8.143	18.192	25.104	238.6
6	166	18.09	34.825	209.0	1.9	0.22	4.2	8.142	18.060	25.134	239.2
7	265	15.83	34.696	205.0	4.9	0.50	20.4	8.094	15.786	25.571	250.1
8	364	13.77	34.532	196.2	9.5	0.74	26.6	8.026	13.716	25.892	261.0
9	463	11.55	34.345	190.5	12.0	2.28 ▽	32.9	7.950	11.488	26.185	273.7
10	563	8.80	34.163	160.4	16.7	1.62	38.9	7.820	8.736	26.515	291.1
11	762	5.04	34.181	68.2	26.6	2.54	85.9	7.551	4.975	27.044	317.7
12	963	4.09	34.363	53.4	32.8	2.78	112.3	7.525	4.014	27.292	324.8
13	1064	3.58	34.447	60.8	29.6	2.68	136.2	7.540	3.499	27.411	328.7
14	1110	3.46	34.460	62.1	31.7	2.73	128.5	7.540	3.377	27.433	329.7
15	1150	3.46	34.460	62.5	31.6	3.42 ▽	131.9	7.540	3.373	27.433	329.7
16	1158	3.46	34.462	62.5	29.7	3.34 ▽	132.3	7.540	3.373	27.434	329.6

KH75-3, STATION 9

6059 M (OBS.), 6117 M (COR.), 26.59.0 N, 153.26.0 E, 24 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	26.70	34.803	210.4	0.1	0.03	1.8	8.233	26.699	22.686	205.2
2	20	23.54	34.976	219.3	0.3	0.07	5.2	8.239	23.535	23.779	216.3
3	49	21.53	35.014	228.3	0.9	0.08	3.4	8.234	21.520	24.378	224.1
4	98	18.75	34.819	231.7	0.0	0.07	3.1	8.196	18.732	24.965	236.2
5	146	17.68	34.749	226.8	2.9	0.24	5.7	8.177	17.654	25.177	241.2
6	195	17.20	34.755	220.3	2.7	0.31	4.9	8.155	17.166	25.297	243.4
7	293	16.33	34.740	214.1	4.9	0.36	6.6	8.128	16.281	25.490	247.6
8	386	14.73	34.611	189.7	7.3	0.75	13.4	8.054	14.670	25.749	255.8
9	483	11.83	34.411	184.0	11.8	1.13	23.4	7.961	11.765	26.183	272.0
10	580	9.05	34.303	133.9	15.0	1.71	49.1	7.804	8.983	26.585	289.2
11	681	8.31	34.315	173.9 ひ	11.5	1.35 ひ	31.0 ひ	7.906 ひ	8.235	26.710	294.1
12	779	7.56	34.282	102.1 ひ	16.8	2.21 ひ	63.9 ひ	7.717	7.478	26.795	299.2
13	973	4.22	34.174	66.0	26.5	2.60	101.7	7.530	4.142	27.129	324.1
14	1167	3.34	34.359	35.6	36.7	2.87	130.5	7.478	3.253	27.364	330.9
15	1459	2.58	34.507	49.9	35.0	2.93	148.6	7.511	2.477	27.551	336.9
16	1544	2.42	34.544	64.2	19.3	2.87	148.3	7.542	2.312	27.594	338.2
17	1789	2.11	34.586	82.1	21.7	2.73	154.1	7.574	1.985	27.653	340.8
18	2037	1.93	34.610	95.5	18.8	2.70	155.3	7.602	1.787	27.686	342.3
19	2282	1.83	34.636	109.4	26.6	2.51	152.7	7.626	1.667	27.715	343.1
20	2533	1.67	34.649	119.4	25.1	2.68	154.1	7.646	1.487	27.737	344.5
21	2782	1.63	34.661	122.9	21.1	2.64	153.8	7.651	1.424	27.750	344.8
22	3030	1.59	34.661	133.3	25.3	2.51	151.2	7.667	1.361	27.753	345.2
23	3274	1.54	34.677	139.8	20.7	2.53	152.2	7.677	1.287	27.769	345.6
24	3521	1.50	34.599 ひ	87.3 ひ	23.6 ひ	2.76 ひ	153.3	7.587 ひ	1.223	27.710	346.1
25	3776	1.49	34.681	148.9	22.9	2.34	149.3	7.690	1.185	27.776	346.0
26	4024	1.50	34.683	150.7	30.7	2.36	151.6	7.695	1.166	27.777	345.9
27	4521	1.48	34.689	158.5	23.1	2.37	146.2	7.706	1.088	27.783	346.1
28	5006	1.49	34.694	165.4	21.7	2.30	140.6	7.715	1.037	27.787	346.0
29	5505	1.54	34.699	170.2	26.2	2.37	140.9	7.719	1.019	27.787	345.5
30	5974	1.59	34.699	171.5	26.5	2.35	138.0	7.724	1.001	27.783	345.1

KH75-3, STATION 10

5575 M (OBS.), 5612 M (COR.), 29.55.0 N, 153.55.0 E, 25 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN (MICROMOLES/KG AT	NITRATE IN SITU TEMP.)	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
1	1	19.30	34.515	234.8	4.7	0.13	7.1	8.184	19.299	24.593	234.2
2	20	18.78	34.526	235.2	4.0	0.12	6.3	8.194	18.776	24.734	236.5
3	50	17.40	34.742	241.6	4.0	0.18	6.0	8.187	17.391	25.239	242.5
4	99	16.76	34.762	228.5	2.8	0.32	6.8	8.163	16.743	25.407	245.5
5	149	16.49	34.759	232.4	4.8	0.29	7.4	8.163	16.465	25.468	246.8
6	199	16.45	34.756	232.4	5.2	0.35	7.1	8.164	16.416	25.475	247.0
7	298	16.04	34.723	217.2	4.7	0.43	7.8	8.129	15.991	25.544	249.0
8	397	14.02	34.564	196.2	24.9	0.81	16.3	8.038	13.960	25.865	259.6
9	496	11.80	34.418	212.2	15.2	1.00	23.4	8.001	11.733	26.194	272.2
10	596	8.55	34.158	172.2	19.1	1.59	38.9	7.845	8.484	26.550	292.8
11	695	5.81	34.016	143.0	24.4	2.16	64.1	7.698	5.747	26.821	312.3
12	794	4.85	34.064	97.3	26.6	2.54	84.7	7.589	4.784	26.973	319.4
13	990	3.72	34.262	49.1	35.3	2.87	116.5	7.496	3.645	27.250	328.0
14	1185	3.03	34.391	38.6	36.4	2.91	139.3	7.481	2.945	27.418	333.4
15	1477	2.49	34.480	41.7	32.4	3.05	154.6	7.490	2.386	27.537	337.7
16	1485	2.52	34.483	39.9	34.0	2.95	151.5	7.488	2.415	27.537	337.5
17	1731	2.21	34.542	54.3	34.6	2.92	159.6	7.515	2.089	27.610	340.0
18	1978	1.99	34.587	72.1	33.9	2.90	162.3	7.554	1.851	27.663	341.8
19	2223	1.86	34.617	92.5	34.0	2.72	157.5	7.591	1.702	27.697	342.9
20	2479	1.70	34.639	109.0	28.8	2.60	158.6	7.625	1.522	27.727	344.2
21	2714	1.63	34.650	120.3	40.1	2.58	156.1	7.645	1.431	27.741	344.8
22	3207	1.53	34.667	136.3	40.9	2.51	152.5	7.673	1.284	27.762	345.7
23	3455	1.50	34.148 ▽	186.4 ▽	20.2 ▽	1.44	50.0 ▽	7.874 ▽	1.232	27.349	347.2
24	3702	1.48	34.676	148.1	36.7	2.50	148.8	7.693	1.183	27.773	346.1
25	3949	1.48	34.681	151.1	36.3	2.45	146.4	7.691	1.155	27.777	346.1
26	4445	1.47	34.685	158.9	35.8	2.35	147.3	7.708	1.088	27.781	346.2
27	4941	1.48	34.689	164.6	35.3	2.36	152.2	7.718	1.035	27.783	346.1

KH75-3, STATION 11

5660 M (OBS.), 5701 M (COR.), 33.02.0 N, 153.31.0 E, 26 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN (MICROMOLES/KG AT IN SITU TEMP.)	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
1	1	19.40	34.684	231.3	0.9	0.16	6.0	8.209	19.399	24.696	233.5
2	20	18.95	34.694	232.1	0.4	0.16	6.8	8.208	18.946	24.819	235.5
3	50	18.75	34.695	230.8	0.6	0.18	6.0	8.208	18.740	24.870	236.4
4	100	17.77	34.800	219.4	2.0	0.27	6.8	8.182	17.752	25.194	240.7
5	150	17.10	34.783	217.6	2.4	0.32	8.1	8.167	17.074	25.342	243.8
6	200	16.89	34.783	218.5	4.9	0.35	7.4	8.160	16.856	25.392	244.8
7	299	16.35	34.745	214.1	5.2	0.39	24.7	8.137	16.300	25.489	247.5
8	399	14.55	34.602	186.2	9.7	0.83	18.4	8.040	14.488	25.781	256.8
9	499	12.06	34.441	171.8	12.3	1.16	26.8	7.954	11.992	26.163	270.6
10	598	8.97	34.170	187.4 ▽	16.8	1.41	33.4	7.891	8.902	26.494	290.0
11	697	6.66	34.056	156.5	18.6	1.96	57.9	7.756	6.592	26.743	306.0
12	797	5.23	34.057	119.1	19.4	2.36	77.6	7.644	5.161	26.924	316.5
13	996	3.99	34.220	59.1	26.0	2.73	111.0	7.520	3.912	27.189	325.9
14	1193	3.28	34.362	40.4	34.5	3.04	133.6	7.490	3.191	27.372	331.3
15	1491	2.66	34.475	35.1	16.1	2.97	152.6	7.483	2.553	27.518	336.3
16	1492	2.64	34.476	36.4	35.2	3.00	155.2	7.481	2.533	27.521	336.5
17	1740	2.31	34.540	49.0	32.8	2.93	160.9	7.508	2.187	27.600	339.1
18	1988	2.07	34.582	61.6	33.5	2.86	160.6	7.539	1.929	27.653	341.1
19	2234	1.90	34.618	85.1	28.9	#.##	161.4	7.579	1.740	27.695	342.5
20	2482	1.73	34.642	101.2	38.5	2.66	162.0	7.615	1.551	27.727	344.0
21	2729	1.66	34.656	114.2	36.6	2.69	159.6	7.637	1.459	27.744	344.5
22	2977	1.59	34.670	123.3	26.1	2.58	157.2	7.654	1.366	27.760	345.1
23	3224	1.54	34.673	132.4	32.9	2.56	156.7	7.666	1.292	27.766	345.6
24	3473	1.51	34.681	139.8	28.8	2.53	155.3	7.696 ▽	1.237	27.775	345.8
25	3720	1.49	34.685	144.2	30.5	#.##	154.3	7.688	1.191	27.779	346.0
26	3767	1.51	34.688	145.0	33.2	2.37	153.3	7.691	1.205	27.780	345.8
27	4185	1.47	34.692	153.3	32.3	2.36	151.4	7.701	1.118	27.786	346.1
28	4601	1.47	34.697	155.9	36.9	2.31	148.5	7.710	1.068	27.790	346.1

KH75-3, STATION 12

5822 M (OBS.), 5859 M (COR.), 34.52.0 N, 151.55.0 E, 27-28 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	20.00	34.547	229.2	0.0	0.17	3.9	8.206	19.999	24.436	231.1
2	20	20.04	34.536	229.6	0.1	0.16	3.9	8.219	20.036	24.417	231.0
3	49	17.12	34.542	242.9	1.4	0.29	7.8	8.167	17.111	25.153	244.1
4	98	15.04	34.575	198.4	5.6	0.76	16.9	8.067	15.024	25.654	254.3
5	147	13.03	34.515	169.2	13.9	1.09	22.1	7.972	13.009	26.030	265.0
6	195	11.69	34.407	187.0	10.6	1.18	25.8	7.962	11.664	26.206	272.8
7	290	8.84	34.150	202.2	15.8	1.34	33.3	7.907	8.807	26.499	290.9
8	383	6.48	33.934	203.0	18.5	1.73	45.8	7.818	6.444	26.671	307.5
9	475	5.68	34.022	141.7	24.9	2.17	66.4	7.692	5.638	26.842	313.2
10	564	5.06	34.094	105.1	36.6	2.51	81.9	7.614	5.013	26.973	317.8
11	654	4.47	34.151	81.2	34.6	2.67	94.5	7.557	4.418	27.084	322.2
12	739	4.29	34.246	69.1	37.1	2.76	106.5	7.499	4.232	27.178	323.4
13	918	3.42	34.318	49.1	35.1	2.90	125.6	7.495	3.353	27.324	330.3
14	1081	3.02	34.414	48.6	28.8	2.96	135.8	7.502	2.943	27.438	333.4
15	1330	2.58	34.469	43.4	36.2	3.05	152.5	7.490	2.487	27.520	337.0
16	1560	2.31	34.525	49.0	29.9	2.92	159.0	7.507	2.202	27.588	339.2
17	1805	2.07	34.568	63.4	28.2	2.89	161.3	7.533	1.945	27.642	341.1
18	2049	1.90	34.602	81.6	31.6	2.71	162.8	7.571	1.756	27.682	342.6
19	2295	1.78	34.626	95.5	38.2	2.68	161.0	7.597	1.617	27.711	343.6
20	2544	1.67	34.643	109.8	28.6	2.71	158.2	7.624	1.486	27.733	344.5
21	2786	1.61	34.655	117.7	32.4	2.72	158.6	7.643	1.404	27.747	345.0
22	3035	1.58	34.662	127.2	28.0	2.62	154.8	7.657	1.351	27.754	345.2
23	3274	1.54	34.671	135.0	26.8	2.58	152.4	7.670	1.287	27.765	345.6
24	3529	1.52	34.673	140.3	37.5	2.51	153.5	7.679	1.241	27.768	345.7
25	3767	1.50	34.678	146.3	24.7	2.49	150.3	7.689	1.195	27.773	345.9
26	4010	1.50	34.677	149.4	25.6	2.44	148.5	7.708	1.168	27.772	345.9
27	4254	1.48	34.683	154.1	23.2	2.59 ▽	148.2	7.713	1.120	27.779	346.1
28	4505	1.48	34.684	156.8	24.5	2.43	147.0	7.706	1.090	27.779	346.1
29	4993	1.50	34.688	162.0	31.3	2.51	143.6	7.713	1.048	27.781	345.9
30	5463	1.55	34.692	165.4	24.2	2.49	142.3	7.716	1.034	27.781	345.4
31	5765	1.58	34.694	168.5	##.#	#.##	###.#	7.733	1.021	27.780	345.2
32	5797	1.58	34.691	168.9	##.#	#.##	###.#	7.735	1.017	27.778	345.2
33	5817	1.59	34.692	168.9	34.1	2.46	141.5	7.719	1.023	27.778	345.1

KH75-3, STATION 12A

6050-6150 M (OBS.), 34.54.0 N, 151.52.0 E, 27 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	19.70	34.476	233.5	8.7	0.20	4.3	8.213	19.699	24.460	232.5
2	19	19.50	34.497	233.5	8.7	0.16	6.5	8.219	19.496	24.528	233.3
3	46	17.00	34.600	235.5	8.7	0.33	7.8	8.162	16.992	25.226	244.6
4	93	14.48	34.554	224.5	8.7	0.66	14.8	8.056	14.465	25.759	257.2
5	138	13.24	34.517	185.3	8.7	1.04	22.4	8.006	13.220	25.989	263.9
6	184	11.56	34.416	206.6	8.7	1.06	24.2	7.987	11.535	26.238	273.6
7	268	8.72	34.136	197.4	8.7	1.43	34.3	7.897	8.690	26.507	291.7
8	346	7.07	34.060	170.8	8.7	1.29	51.3	7.792	7.036	26.691	303.1
9	423	5.78	34.021	141.2	8.7	2.24	67.1	7.694	5.743	26.829	312.5
10	501	5.29	34.104	102.1	8.7	2.38	79.9	7.633	5.247	26.954	316.0
11	577	4.79	34.161	86.4	8.7	2.53	92.9	7.582	4.743	27.056	319.7
12	651	4.28	34.175	71.7	8.7	2.68	101.5	7.543	4.229	27.123	323.7
13	790	3.75	34.270	54.3	8.7	2.85	115.5	7.509	3.691	27.253	327.7
14	912	3.41	34.348	49.1	8.7	2.94	125.9	7.502	3.343	27.349	330.3
15	1299	2.58	34.462	43.0	8.7	2.98	148.3	7.489	2.490	27.515	337.0

KH75-3, STATION 13

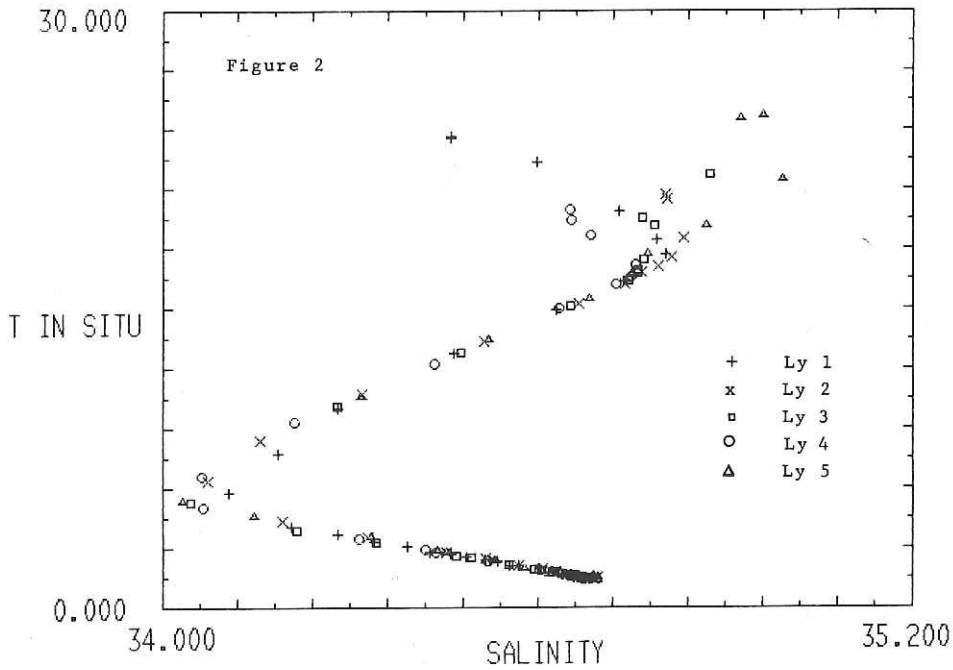
6030 M (OBS.), 6085 M (COR.), 34.46.0 N, 148.34.0 E, 29 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	20.70	34.625	224.0	0.9	0.06	3.1	8.223	20.699	24.309	228.0
2	20	21.05	34.644	224.4	0.1	0.16	4.3	8.234	21.046	24.229	226.6
3	50	20.81	34.663	219.2	1.5	0.20	6.2	8.225	20.800	24.309	227.5
4	99	18.87	34.750	206.9	2.8	0.34	10.7	8.172	18.851	24.882	235.8
5	148	17.74	34.789	228.1	1.5	0.23	6.8	8.184	17.713	25.193	240.8
6	197	17.23	34.789	231.2	2.1	0.29	6.8	8.183	17.196	25.316	243.2
7	295	16.62	34.755	221.1	4.1	0.37	16.9	8.150	16.570	25.434	246.2
8	391	14.71	34.610	188.4	4.0	0.80	13.8	8.052	14.649	25.753	255.9
9	487	12.05	34.432	173.5	7.4	1.19	27.0	7.955	11.983	26.158	270.7
10	581	9.42	34.257	160.0	9.7	1.61	38.7	7.856	9.352	26.489	286.9
11	674	6.24	33.965	183.9 ▽	21.3	1.98	52.8	7.782	6.177	26.727	309.2
12	765	5.00	33.971	135.2	24.7	2.39	70.0	7.650	4.935	26.882	318.5
13	966	4.34	34.265	66.9	32.8	2.71	105.1	7.549	4.262	27.188	323.0
14	1122	3.54	34.319	48.2	37.0	2.81	127.0	7.750	3.455	27.313	329.3
15	1354	2.79	34.439	41.7	21.8	2.93	146.4	7.495	2.693	27.478	335.3
16	1434	2.74	34.447	39.5	20.5	2.98	139.7	7.476	2.637	27.489	335.7
17	1666	2.36	34.515	47.3	21.5	2.98	156.6	7.495	2.242	27.576	338.8
18	1896	2.16	34.559	60.3	23.5	3.01	161.5	7.526	2.026	27.627	340.4
19	2125	1.97	34.598	81.2	28.4	2.94	158.2	7.559	1.819	27.674	341.9
20	2265	1.88	34.609	88.1	35.5	2.76	162.3	7.576	1.718	27.689	342.7
21	2499	1.77	34.635	106.8	27.9	2.73	157.9	7.609	1.588	27.719	343.6
22	2736	1.72	34.646	115.5	24.8	2.66	152.9	7.626	1.517	27.731	344.0
23	2976	1.62	34.660	124.2	21.1	2.61	156.0	7.642	1.395	27.750	344.9
24	3217	1.56	34.664	133.7	20.5	2.68	153.2	7.668	1.313	27.757	345.4
25	3463	1.54	34.669	139.8	37.2	2.49	151.6	7.672	1.267	27.763	345.6
26	3716	1.52	34.675	142.0	15.8	2.49	152.9	7.681	1.220	27.769	345.7
27	4196	1.48	34.680	155.9	18.8	2.49	148.5	7.697	1.127	27.776	346.1
28	4683	1.48	34.685	159.8	35.5	2.43	144.0	7.706	1.068	27.780	346.1

KH75-3, STATION 14

5750 M (OBS.), 5794 M (COR.), 34.52.0 N, 145.00.0 E, 28 MAY, 1975

N	DEPTH (METER)	TEMP. (DEG.C)	SALINITY (PERMIL)	OXYGEN	NITRATE	PHOSPHATE	SILICATE	PH	T POT (DEG.C)	SIGMA T	SAT.02
				(MICROMOLES/KG AT IN SITU TEMP.)							
1	1	21.90	34.521	224.1	0.0	0.13	0.9	8.229	21.899	23.902	223.3
2	20	21.34	34.575	223.1	0.9	0.14	2.1	8.233	21.335	24.098	225.5
3	49	20.25	34.703	###.#	0.9	0.24	7.2	8.200	20.240	24.489	229.8
4	98	18.56	34.790	224.7	0.8	0.19	9.0	8.071	18.542	24.991	237.1
5	146	17.57	34.816	221.6	1.9	0.27	9.5	8.154	17.544	25.255	241.6
6	194	17.23	34.800	215.0	0.3	0.34	12.1	8.151	17.196	25.324	243.2
7	290	15.84	34.703	199.8	1.0	0.54	10.9	8.089	15.792	25.574	250.0
8	387	14.15	34.567	190.1	2.2	0.80	18.9	8.025	14.091	25.840	258.9
9	484	11.38	34.365	183.5	8.0	1.17	27.0	7.939	11.316	26.231	274.7
10	582	8.92	34.179	173.9	8.9	1.51	38.2	7.846	8.854	26.509	290.3
11	680	7.33	34.168	136.9	19.8	1.99	58.9	7.735	7.260	26.739	301.0
12	778	5.06	34.083	108.2	20.3	2.39	82.2	7.604	4.994	26.964	317.8
13	974	3.93	34.272	57.3	21.1	2.72	114.2	7.502	3.854	27.237	326.2
14	1170	3.34	34.384	50.8	22.3	2.75	131.7	7.491	3.253	27.384	330.8
15	1465	2.62	34.454	42.5	29.0	2.82	151.1	7.483	2.516	27.505	336.7
16	1478	2.58	34.479	49.5	38.5	2.87	151.7	7.492	2.475	27.528	337.0
17	1724	2.25	34.541	55.6	38.0	2.86	159.8	7.512	2.129	27.606	339.6
18	1970	2.02	34.583	71.2	31.5	2.80	163.3	7.549	1.881	27.658	341.5
19	2210	1.89	34.634 ʊ	86.0	35.3	2.66	162.4	7.575	1.732	27.709	342.6
20	2468	1.75	34.613 ʊ	98.6	39.3	2.61	163.0	7.603	1.572	27.703	343.8
21	2709	1.65	34.651	114.2	37.9	2.53	160.6	7.630	1.451	27.740	344.6
22	2960	1.60	34.660	124.6	29.0	2.56	156.1	7.651	1.378	27.751	345.1
23	3204	1.55	34.680	132.9	##.#	2.52	156.6	7.666	1.304	27.771	345.5
24	3450	1.51	34.676	138.9	##.#	2.50	154.8	7.686	1.239	27.771	345.8
25	3695	1.49	34.669 ʊ	145.5	##.#	2.52	151.6	7.690	1.194	27.767	346.0
26	3940	1.48	34.682	148.5	29.4	2.42	152.6	7.698	1.156	27.778	346.1
27	4420	1.47	34.689	155.9	28.8	2.36	148.9	7.709	1.091	27.784	346.2
28	4911	1.48	34.692	160.2	33.5	2.37	145.2	7.714	1.039	27.786	346.1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T IN SITU
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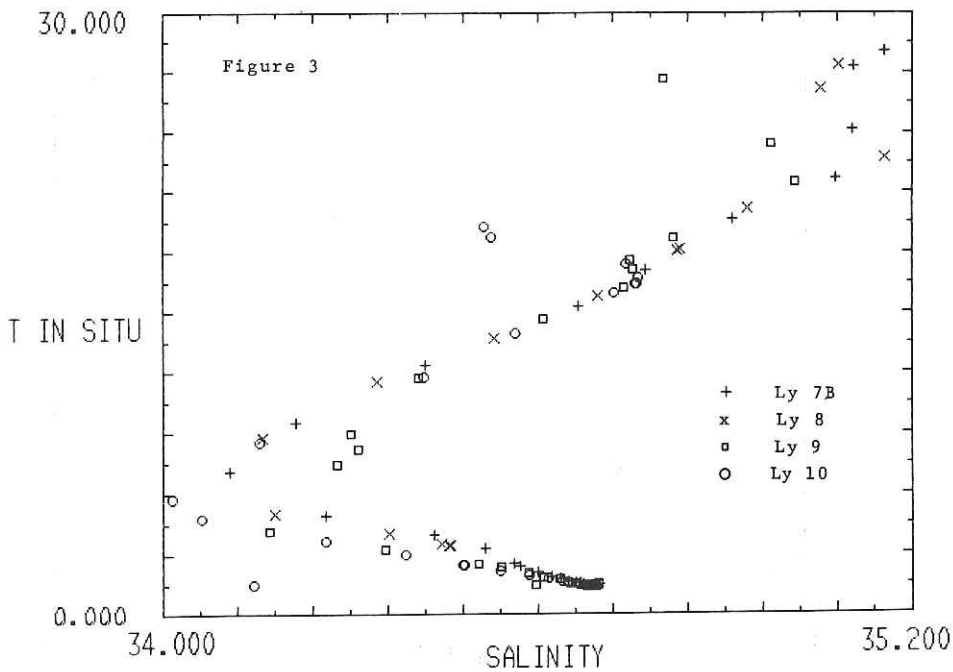
SALINITY
Ly 1
Ly 2
Ly 3
Ly 4
Ly 5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Ly 7B
Ly 8
Ly 9
Ly 10

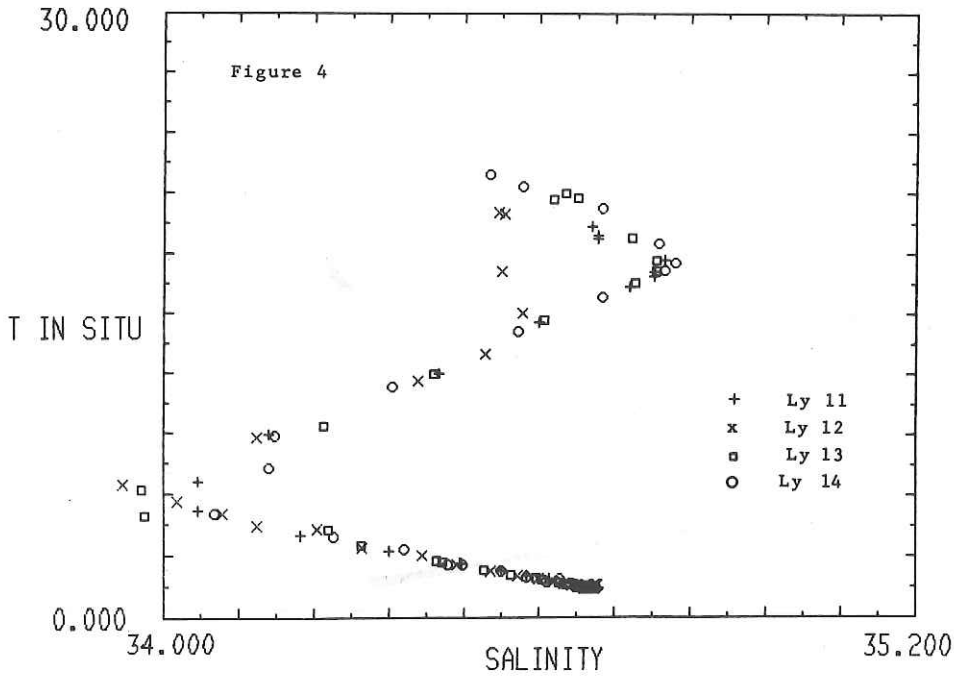
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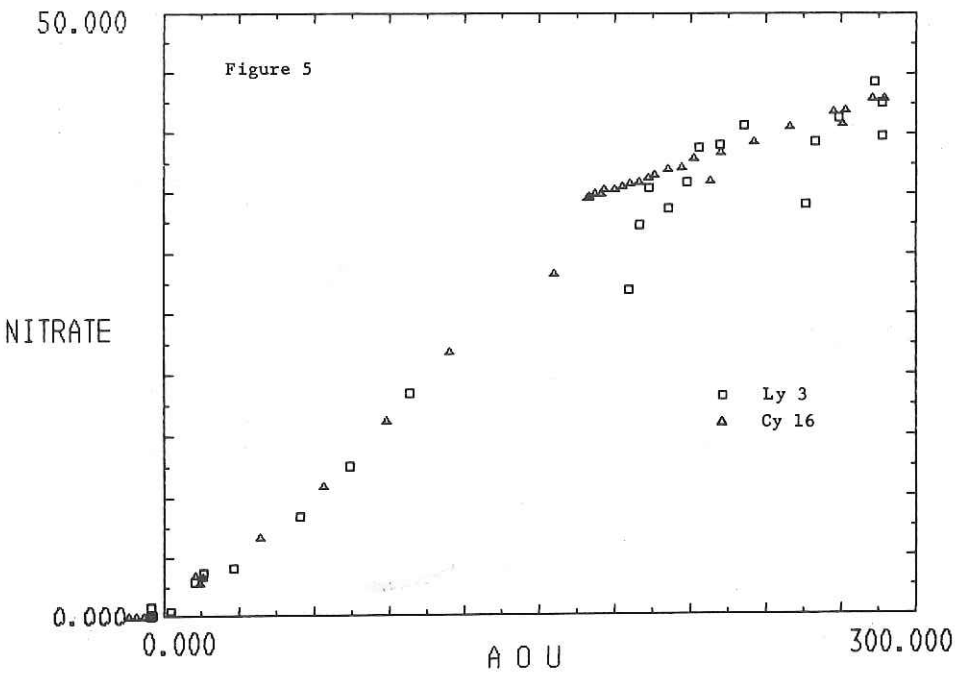
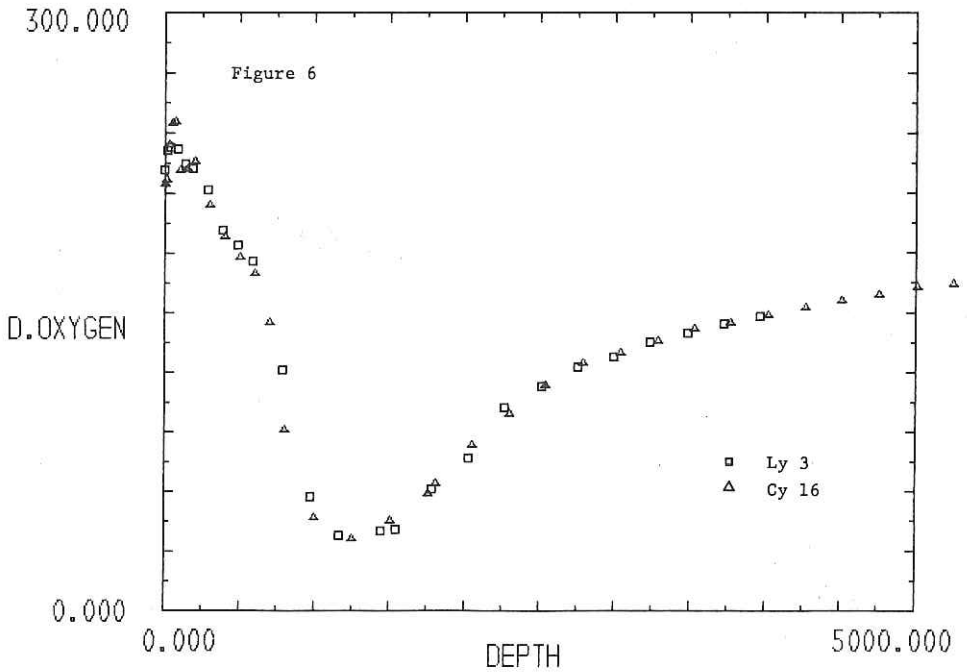
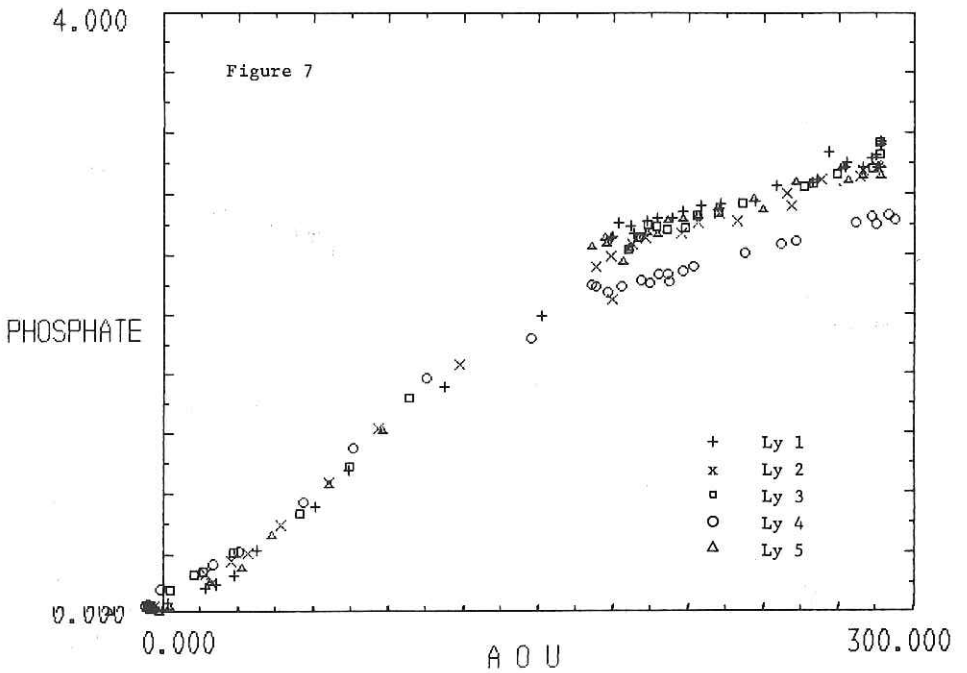
Figure 4
T IN SITU
+ Ly 11
x Ly 12
Ly 13
O Ly 14
0.000
34.000
SALINITY
35.200


50.000
Figure 5
NITRATE
Ly 3
Cy 16
0.000
0.000
A O U
300.000


300.000
Figure 6
D.OXYGEN
0.000
0.000
DEPTH
5000.000
Ly 3
Cy 16


4.000
Figure 7
PHOSPHATE
0.000
0.000
A O U
300.000
Ly 1
Ly 2
Ly 3
Ly 4
Ly 5

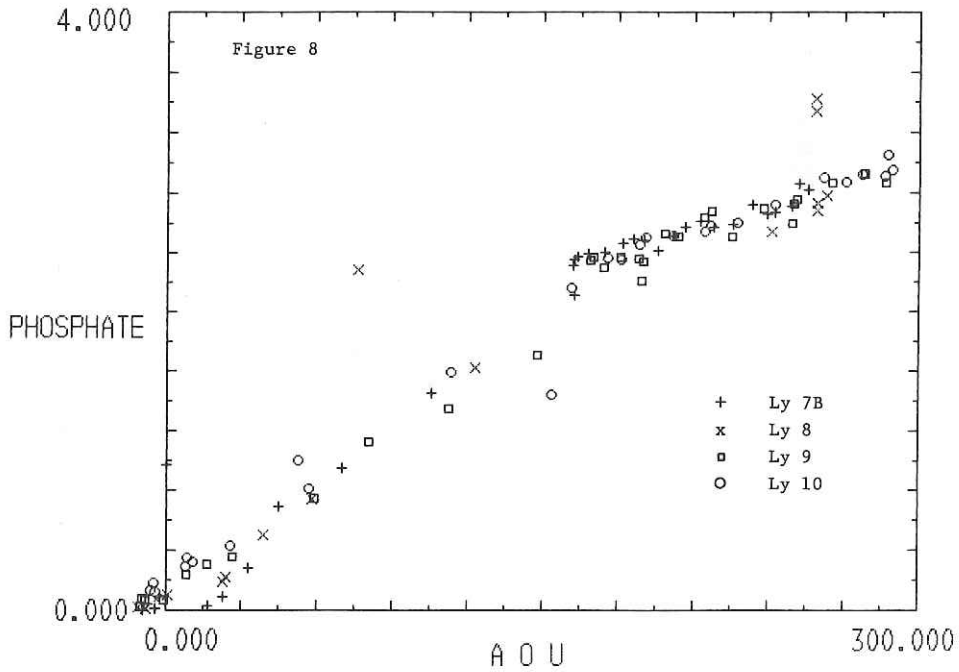


Figure 8
4.000
PHOSPHATE
0.000
0.000
A O U
300.000
+ Ly 7B
x Ly 8
□ Ly 9
○ Ly 10

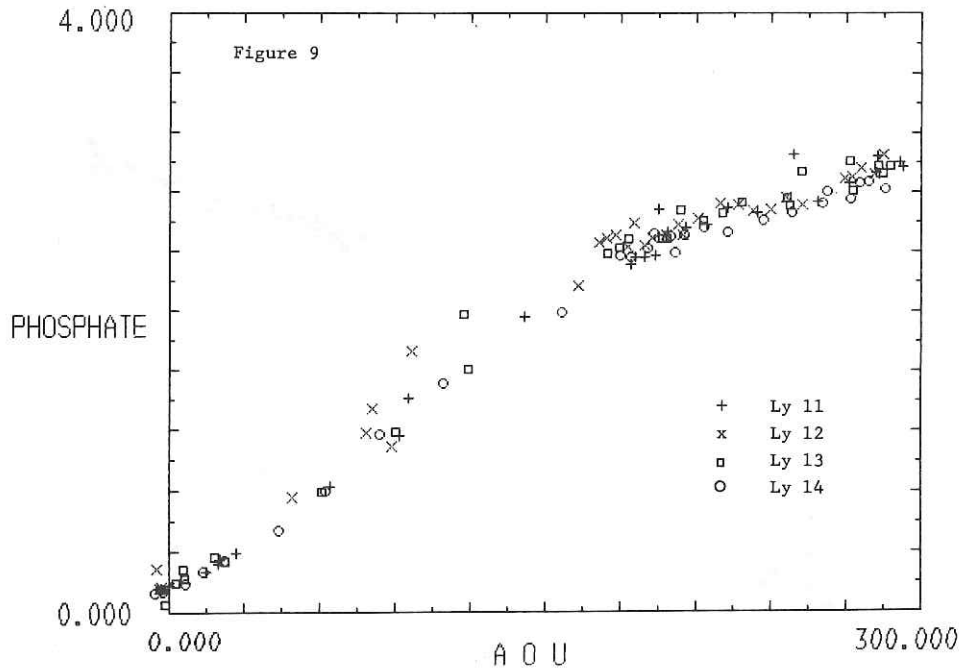


Figure 9
4.000
PHOSPHATE
0.000
0.000
A O U
300.000
+ Ly 11
x Ly 12
□ Ly 13
○ Ly 14

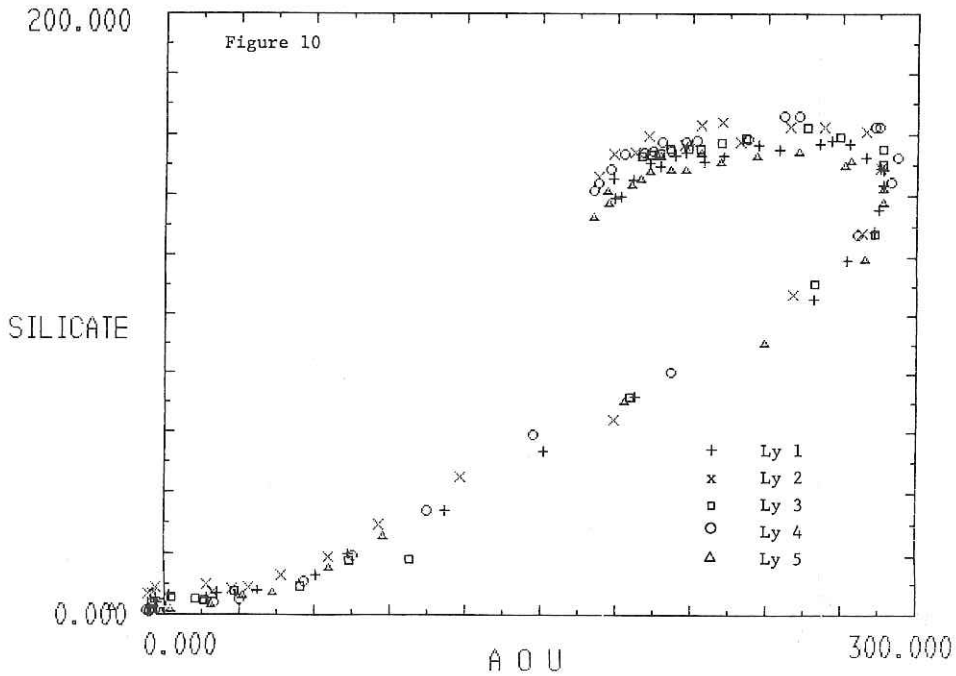


Figure 10
200.000
SILICATE
0.000
0.000
A O U
300.000
+ Ly 1
x Ly 2
□ Ly 3
○ Ly 4
△ Ly 5

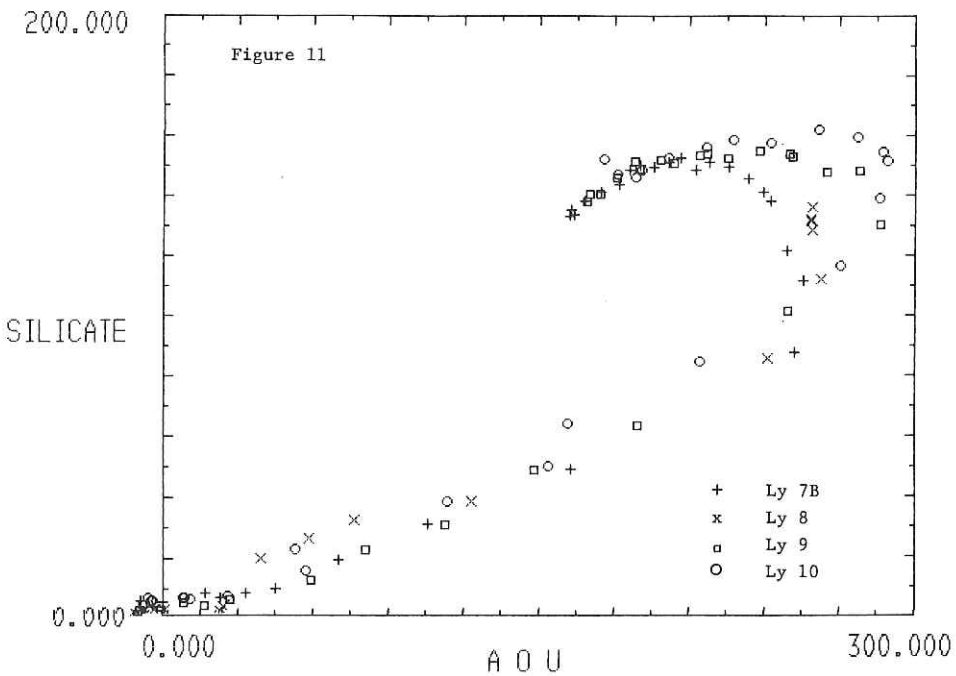
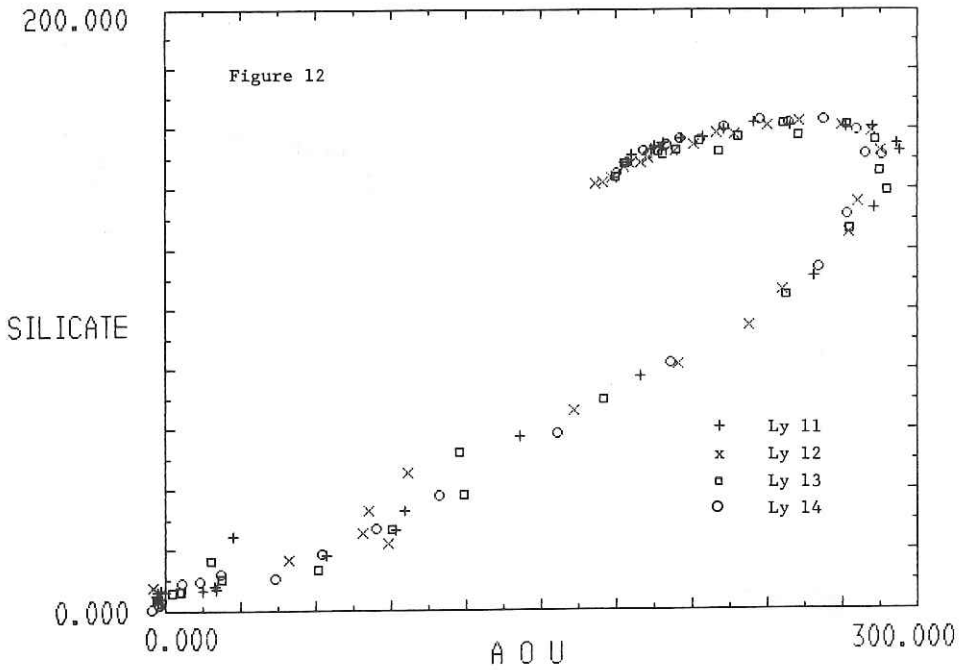


Figure 11
200.000
SILICATE
0.000
0.000
A O U
300.000
+ Ly 7B
x Ly 8
□ Ly 9
○ Ly 10


200.000
Figure 12
SILICATE
0.000
0.000
A O U
300.000
+ Ly 11
x Ly 12
□ Ly 13
○ Ly 14

5. Piston Coring

Sediment samples were collected using a piston corer with a aluminium pipe (I.D.= 65 mm, wall thickness = 7.5 mm, length = 12 m). Detailes of corer were reported in "Preliminary Report of The Hakuho Maru Cruise KH-68-3, Ocean Research Institute, University of Tokyo, 1968", and the detailed description of samples are in Papes 30 to 73.

Sediments samples were taken by geology and geophysics group, and the description of sediment core was done by Oba, Okamura, and Harada.

CORE LOG

Date May 16, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 2-2

Latitude 30°00.0N Longitude 143°30.8E

Location _____

Sea swell Weather clear

Bottom Topography flat

Profiler _____

Length of Core Pipe 12 m — No. of Pipe 1 Material Al

I.D. of Pipe 65 mm — Wall Thickness 7.5 mm

Core Head Weight 570 kg — Trigger Weight 70 kg

Length of Trigger Line 20 m — Length of Main Line 20 m

Length of Free Fall 7 m — Response at Hit clear

Response at Pull-out clear

Time Lowered 12 h 00 min — Uncorrected Water Depth 5600 m

Time Hit 13 h 55 min — Uncorrected Water Depth 5600 m

Wire Angle at Hit 0 ° — Wire-out at Hit 5637 m

Time Surfaced 15 h 30 min — Uncorrected Water Depth 5610 m

Core Length 833 cm

Trigger Core Length 84 cm

Method of Storage usual

Length of Cores in Pipe 1. 76 cm, 2. 177 cm, 3. 153 cm

4. 127 cm, 5. 182 cm, 6. 118 cm

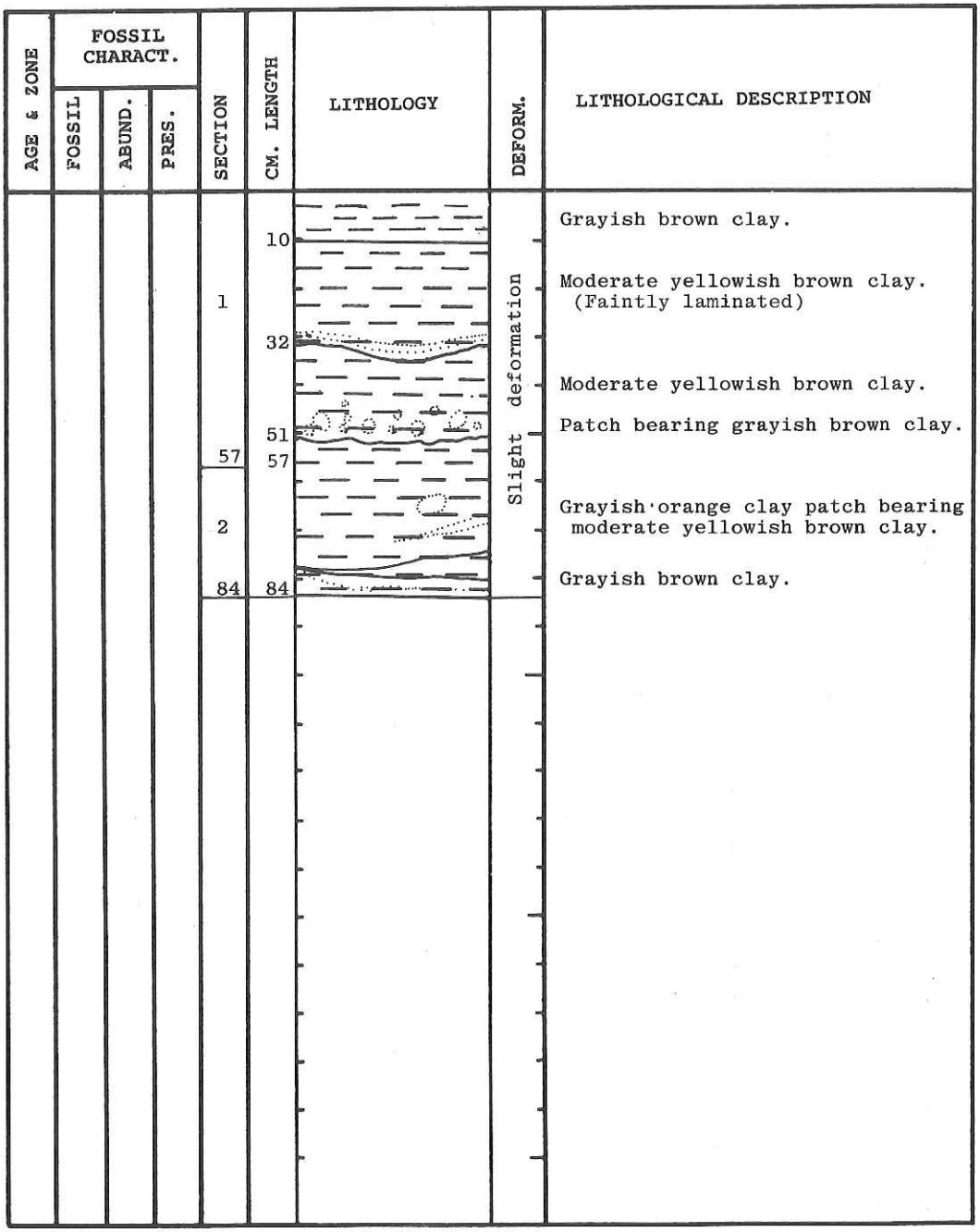
7. _____ cm

No. of Pipe Filled 6 + 2 (pilot core)

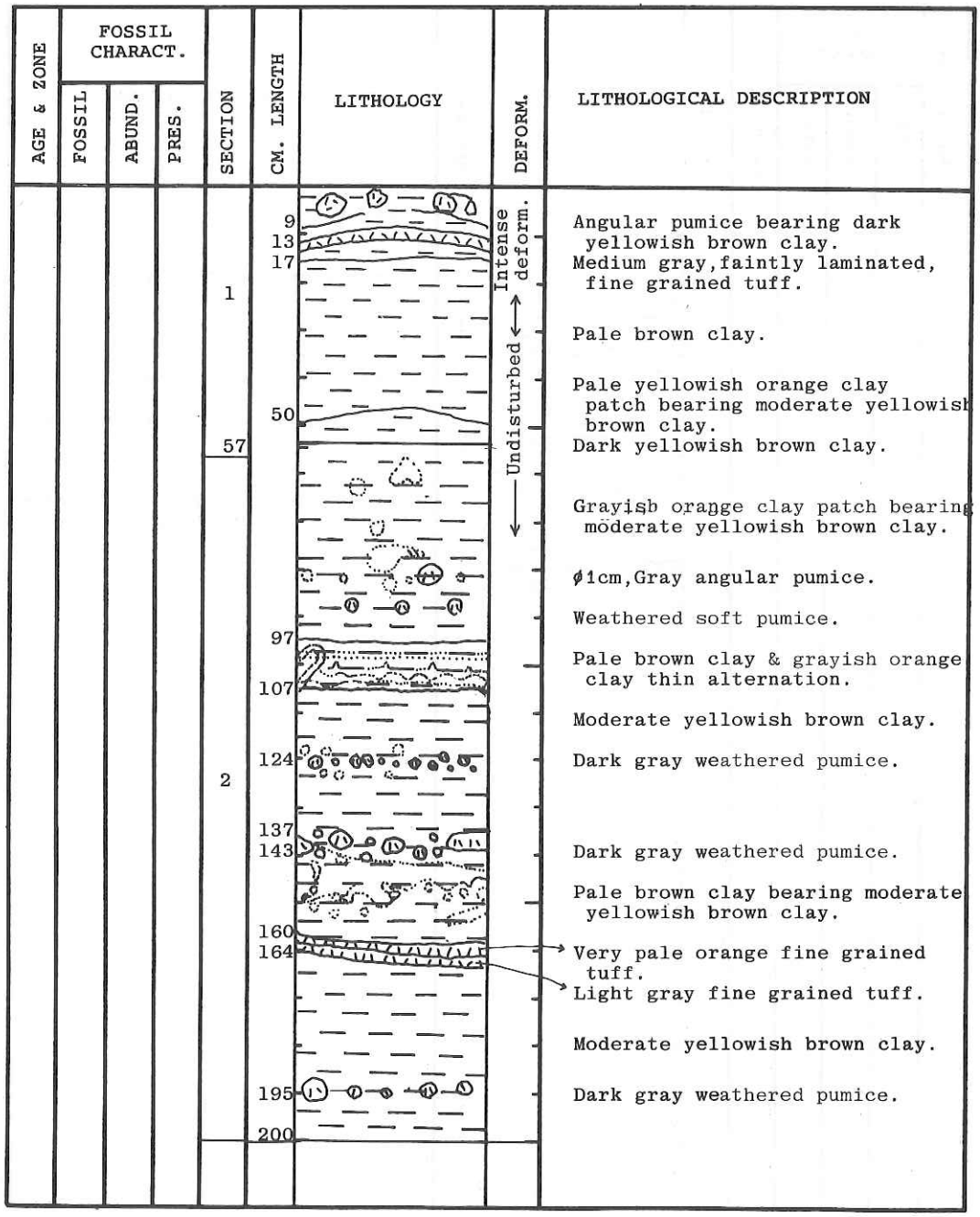
No. of Cubic Samples for Paleomagnetism 350 (No. 700 -No. 1050)

Note: _____

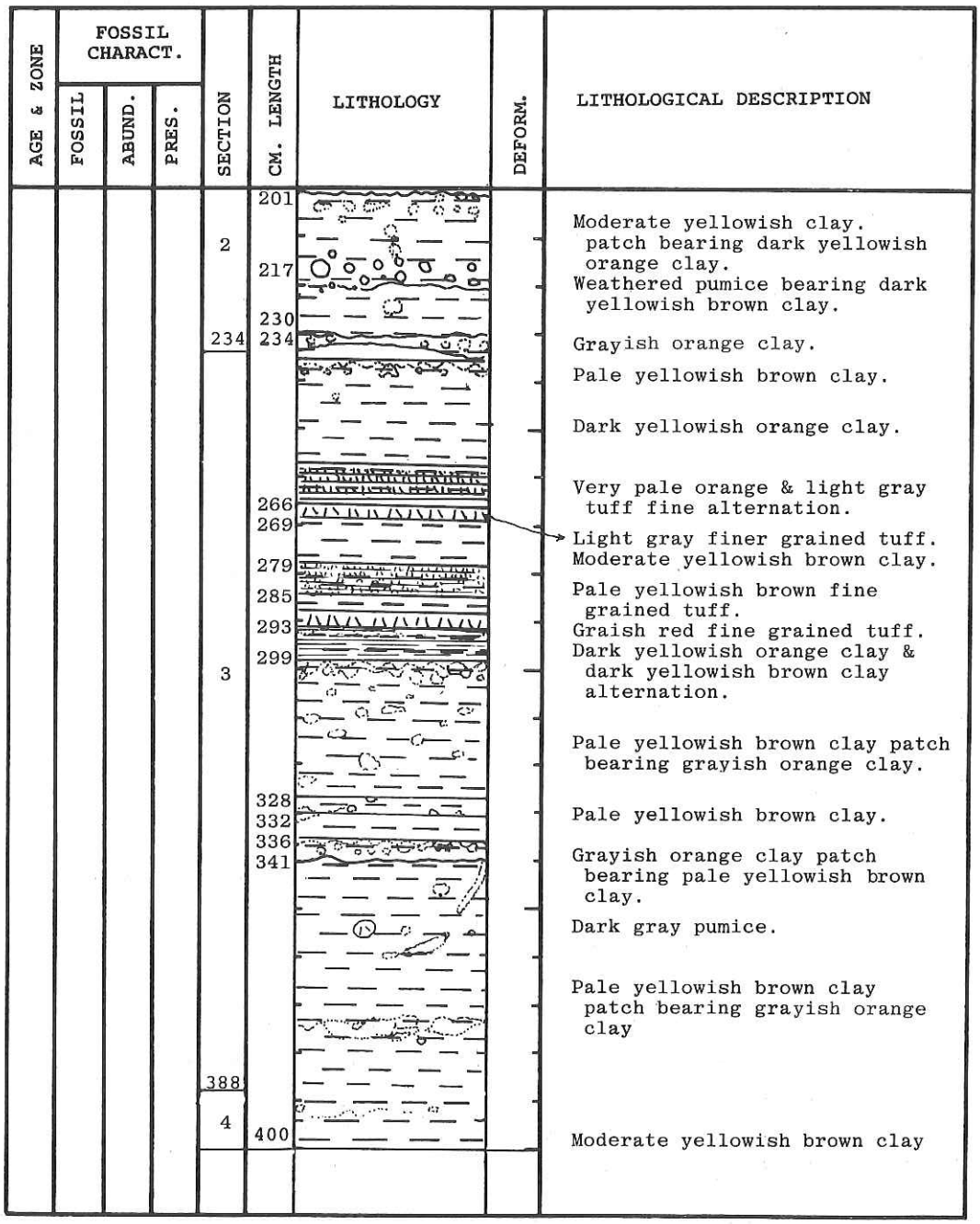
KH-75-3 Stn. 2-2 Pilot core



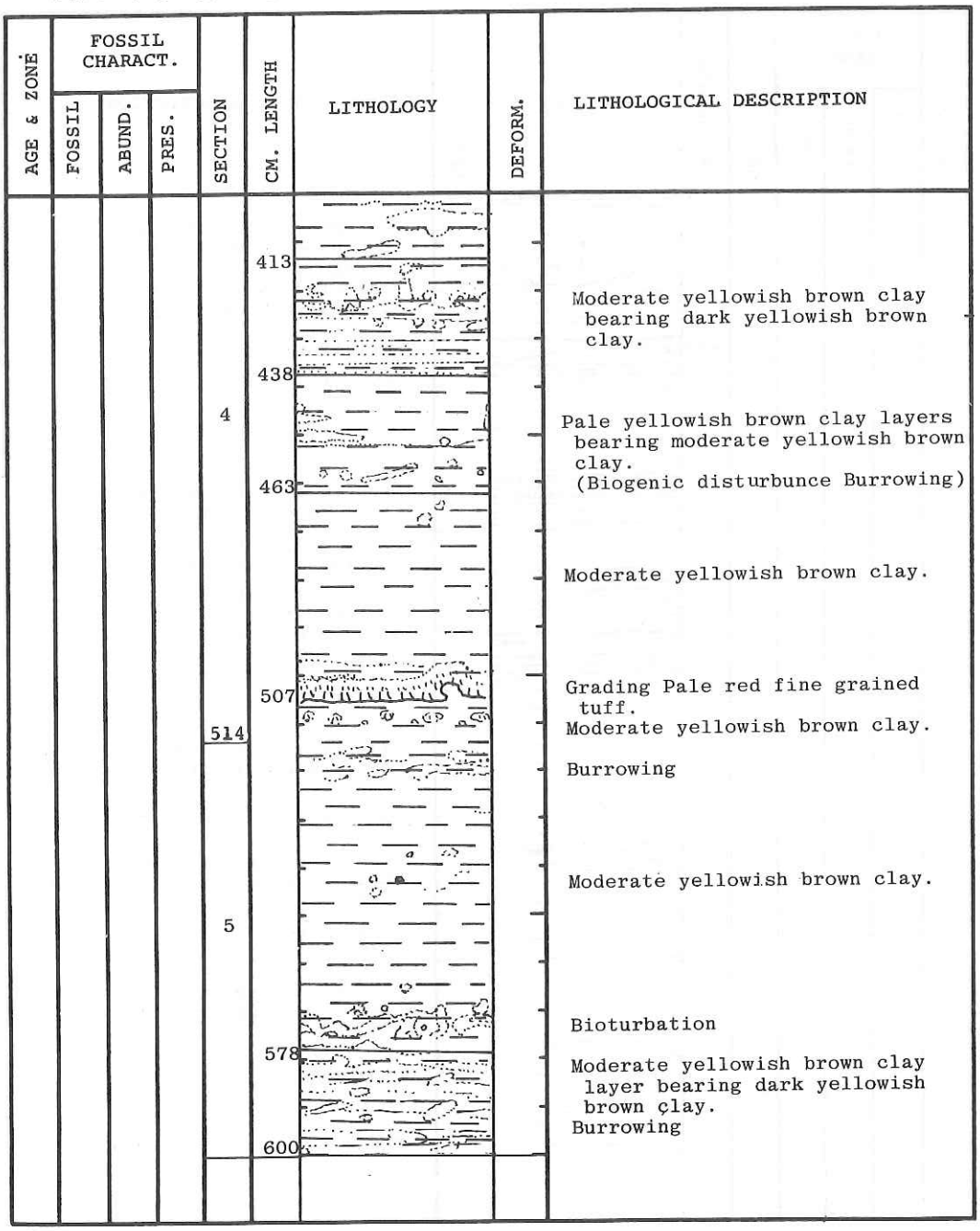
KH-75-3 Stn. 2-2 Piston core 0~2m



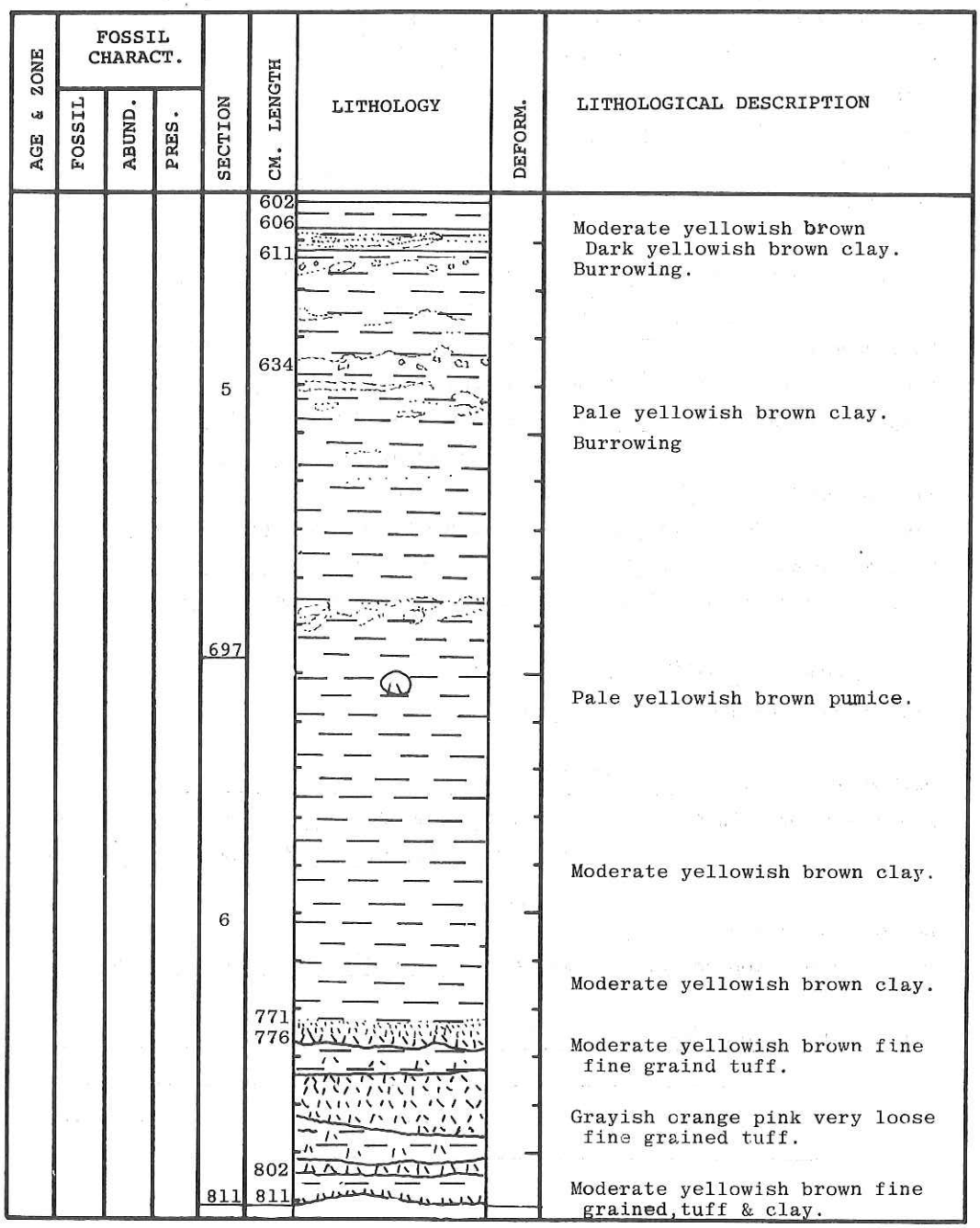
KH-75-3 Stn. 2-2 Piston core 2~4 m



KH-75-3 Stn. 2-2 Piston core 4~6 m



KH-75-3 Stn. 2-2 Piston core 6~8.11 m



CORE LOG

Date May 19, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 5-2

Latitude 26°00.8 N Longitude 150°00.0'E

Location

Sea swell (sea cond. 2) Weather clear, wind W 7 m s^{-1}

Bottom Topography flat

Profiler

Length of Core Pipe 12 m — No. of Pipe 1 Material Al

I.D. of Pipe 65 mm — Wall Thickness 7.5 mm

Core Head Weight 550 kg — Trigger Weight 70 kg

Length of Trigger Line 20 m — Length of Main Line 20 m

Length of Free Fall 7 m — Response at Hit clear

Response at Pull-out clear *

Time Lowered 08 h 45 min — Uncorrected Water Depth 5850 m

Time Hit 10 h 48 min — Uncorrected Water Depth 5870 m

Wire Angle at Hit 0 ° — Wire-out at Hit 5942 m

Time Surfaced 12 h 05 min — Uncorrected Water Depth 5850 m

Core Length 907 cm

Trigger Core Length — cm

Method of Storage usual

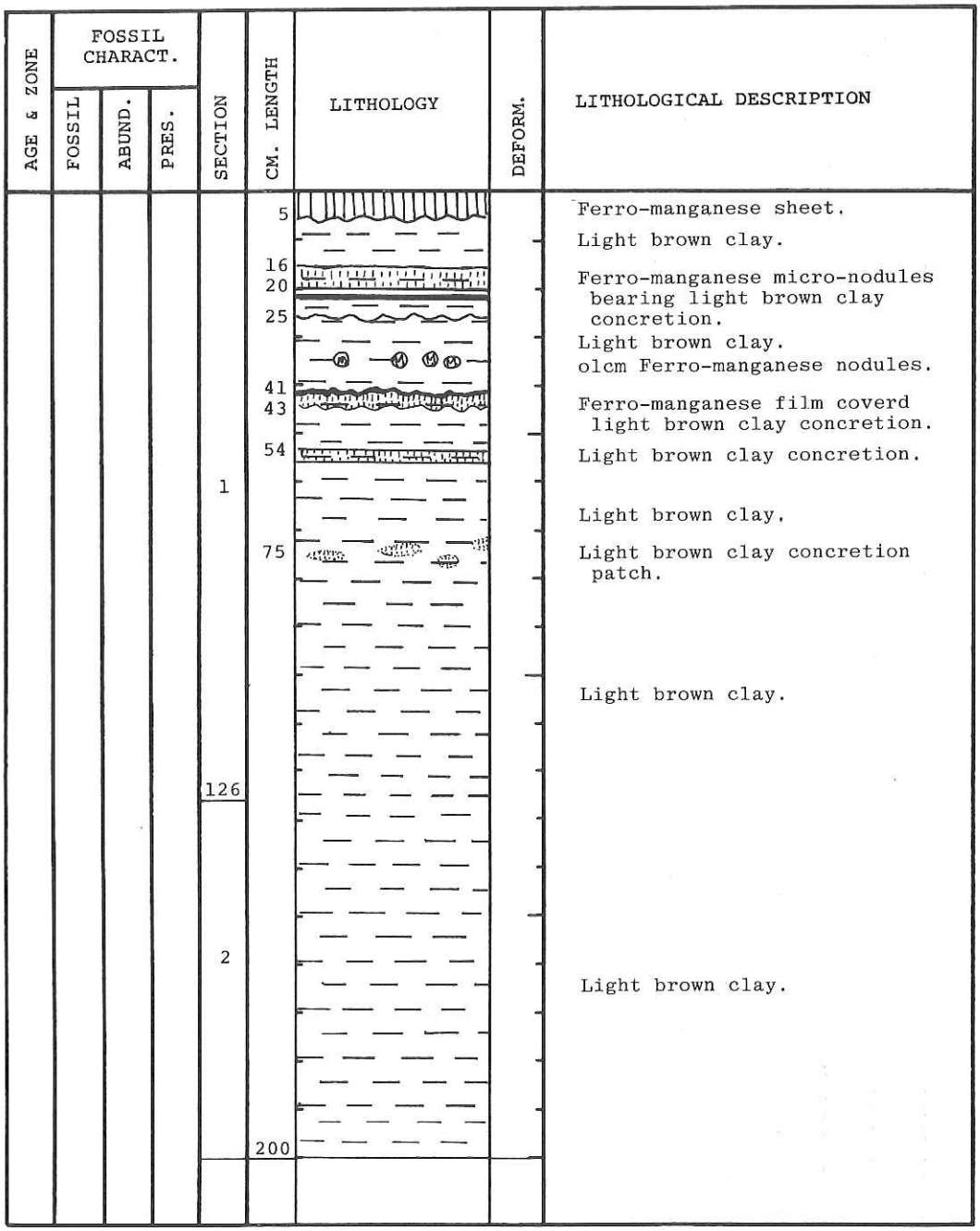
Length of Cores in Pipe 1. 126 cm, 2. 162 cm, 3. 164 cm
4. 160 cm, 5. 149 cm, 6. 146 cm
7. cm

No. of Pipe Filled 6

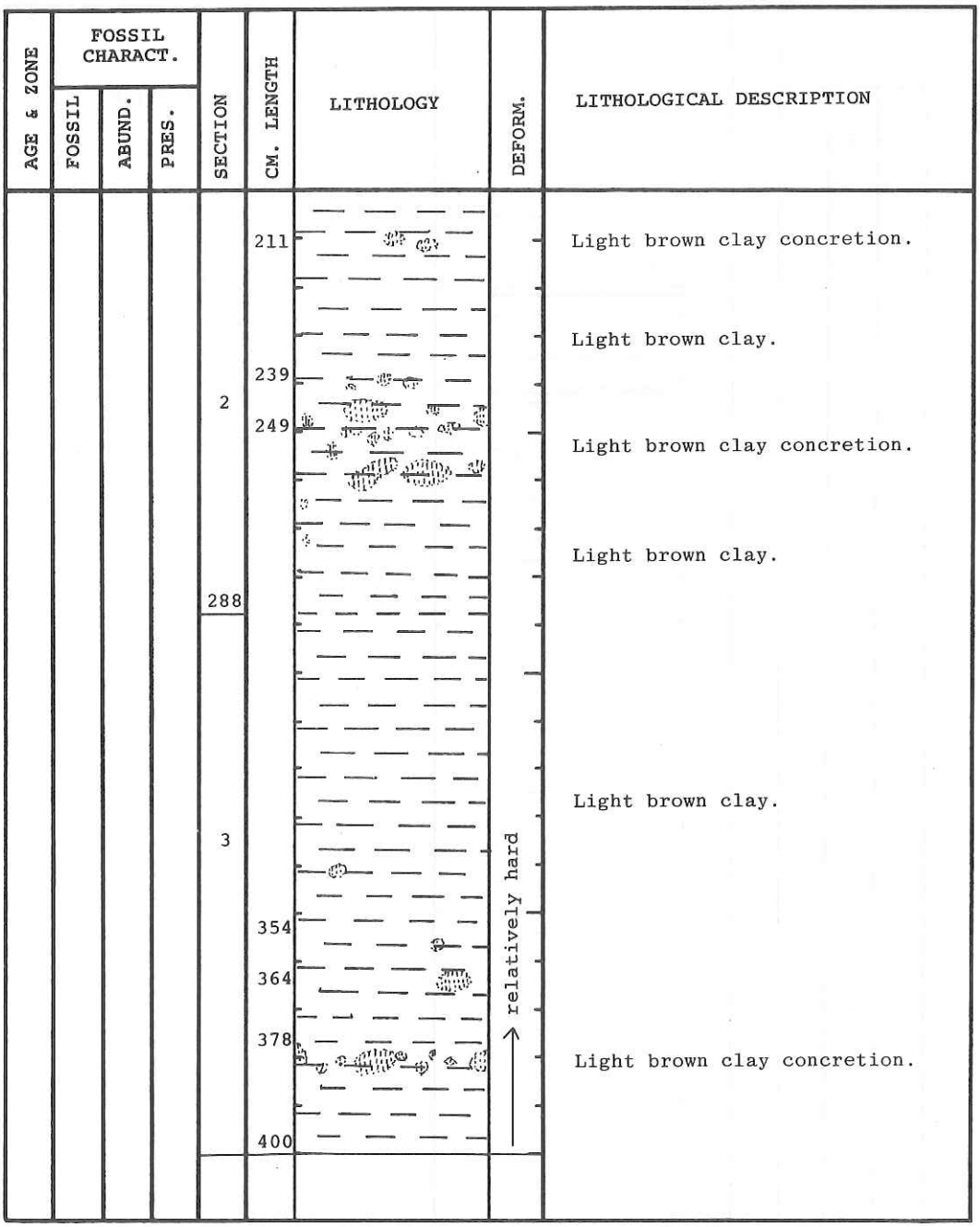
No. of Cubic Samples for Paleomagnetism 378 (No. 1300 -No. 1678)

Note: * Max. tension = 7.0 ton. w.

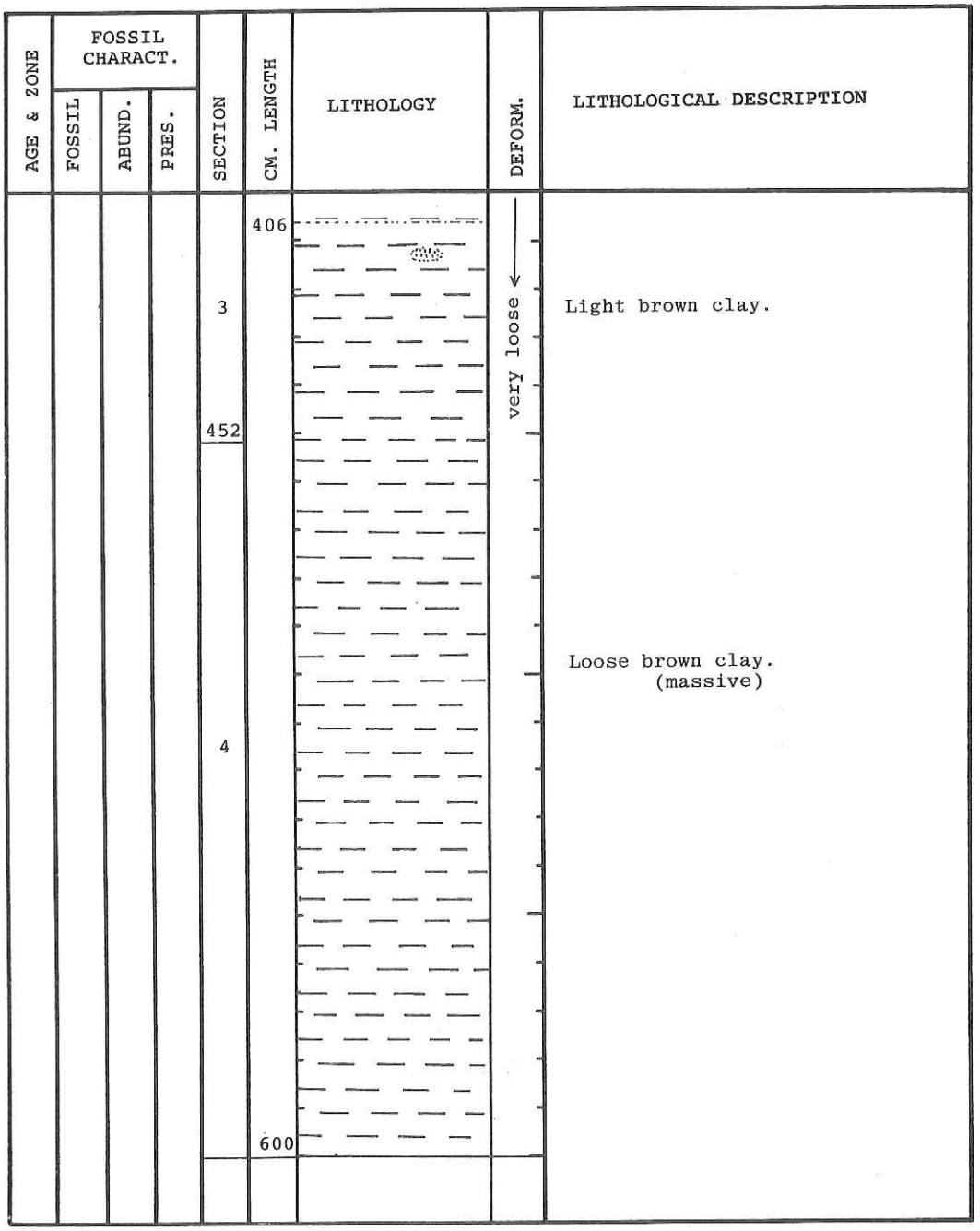
KH-75-3 Stn. 5-2 Piston core 0~2 m



KH-75-3 Stn. 5-2 Piston core 2~4 m



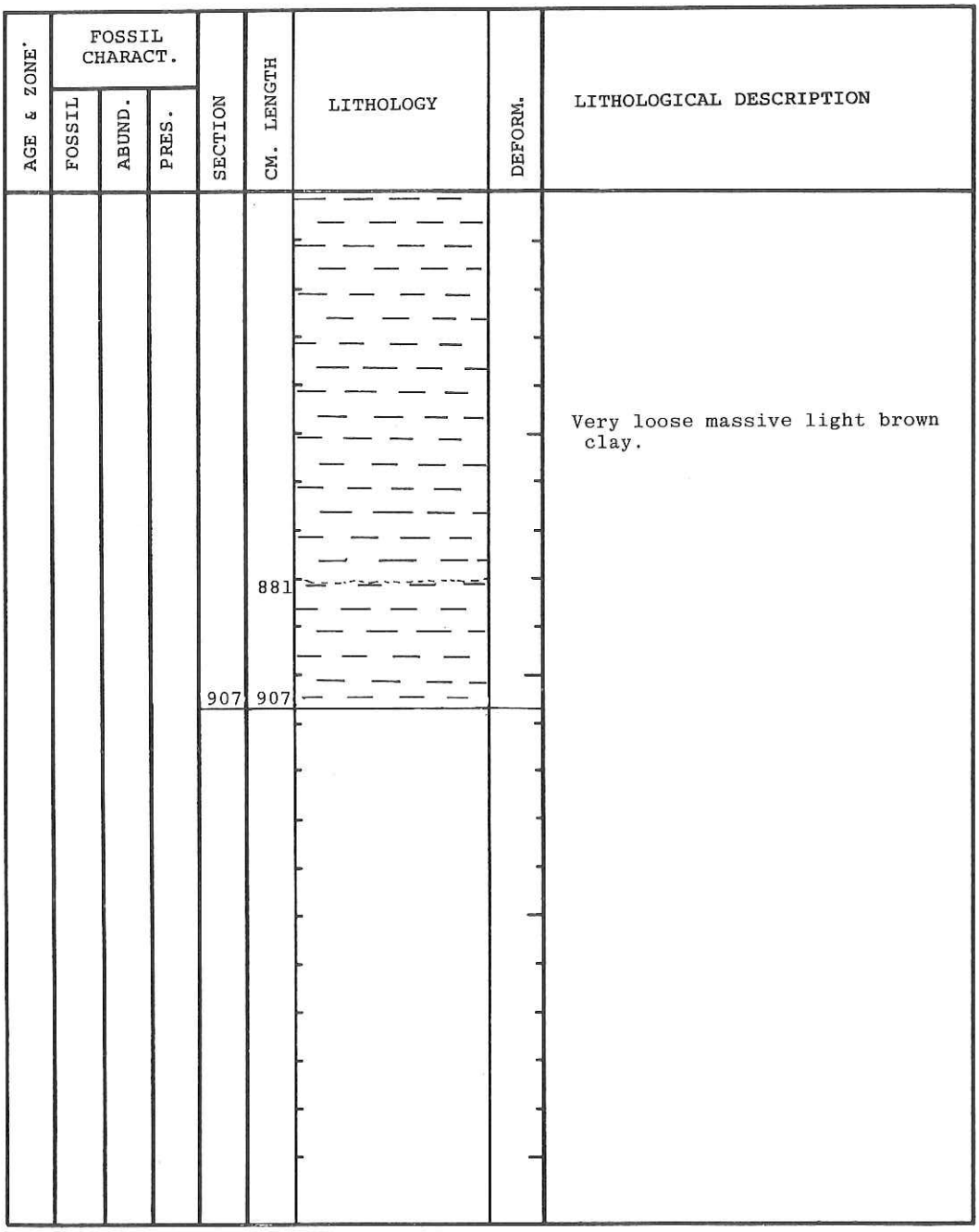
KH-75-3 Stn. 5-2 Piston core 4~6 m



KH-75-3 Stn. 5-2 Piston core 6~8 m

AGE & ZONE	FOSSIL CHARACT. FOSSIL	ABUND.	PRES.	SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
				612				
				5				Very loose massive light brown clay.
				761				
					800			

KH-75-3 Stn. 5-2 Piston core 8~9.07m



CORE LOG

Date May 19, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 5-3

Latitude 26°00.5'N Longitude 150°00.7'E

Location

Sea swell (Sea cond. 2) Weather clear, wind W8 m s⁻¹

Bottom Topography flat

Profiler

Length of Core Pipe 12 m — No. of Pipe 1 Material Al

I.D. of Pipe 65 mm — Wall Thickness 7.5 mm

Core Head Weight 550 kg — Trigger Weight 70 kg

Length of Trigger Line 20 m — Length of Main Line 20 m

Length of Free Fall 7 m — Response at Hit clear

Response at Pull-out clear *1

Time Lowered 12 h 37 min — Uncorrected Water Depth 5830 m

Time Hit 15 h 15 min — Uncorrected Water Depth 5810 m

Wire Angle at Hit 1 ° — Wire-out at Hit 6183 *2 m

Time Surfaced 17 h 47 min — Uncorrected Water Depth 5810 m

Core Length 930 cm

Trigger Core Length NONE cm

Method of Storage SAMPLE NOT STORED *3

Length of Cores in Pipe 1. cm, 2. cm, 3. cm

4. cm, 5. cm, 6. cm

7. cm

No. of Pipe Filled

No. of Cubic Samples for Paleomagnetism (No. -No.)

Note: *1 Max. Tension 6.0 ton, w.

*2 uncertain

*3 for studies of interstitical waters and gas samples.

CORE LOG

Date May 20, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 6-2

Latitude 23°57.6 N Longitude 150°30.9 E

Location

Sea sea cond. 3 Weather clear, wind SW 8 m s⁻¹

Bottom Topography saddle of sea mount (bank ?)

Profiler

Length of Core Pipe 12 m No. of Pipe 1 Material Al

I.D. of Pipe 65 mm Wall Thickness 7.5 mm

Core Head Weight 550 kg Trigger Weight 70 kg

Length of Trigger Line 20 m Length of Main Line 20 m

Length of Free Fall 7 m Response at Hit clear

Response at Pull-out —

Time Lowered 09 h 17 min Uncorrected Water Depth 3200 m

Time Hit 10 h 21 min Uncorrected Water Depth 3060 m

Wire Angle at Hit 2 ° Wire-out at Hit 3142 m

Time Surfaced 11 h 29 min Uncorrected Water Depth 3090 m

Core Length 414 cm

Trigger Core Length 10 cm

Method of Storage usual

Length of Cores in Pipe 1. 150 cm, 2. 184 cm, 3. 80 cm

4. cm, 5. cm, 6. cm

7. cm

No. of Pipe Filled 3 + 1 (pilot)

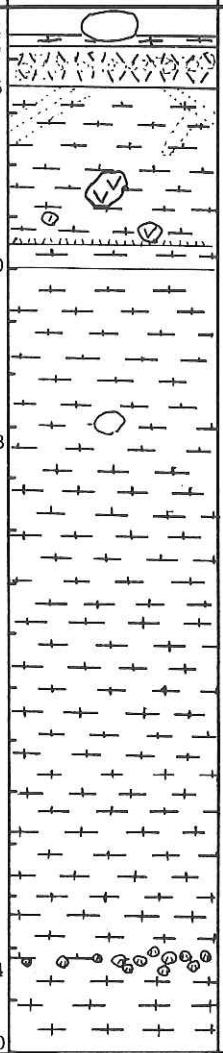
No. of Cubic Samples for Paleomagnetism 150 (No. 1101 - No. 1250)

Note:

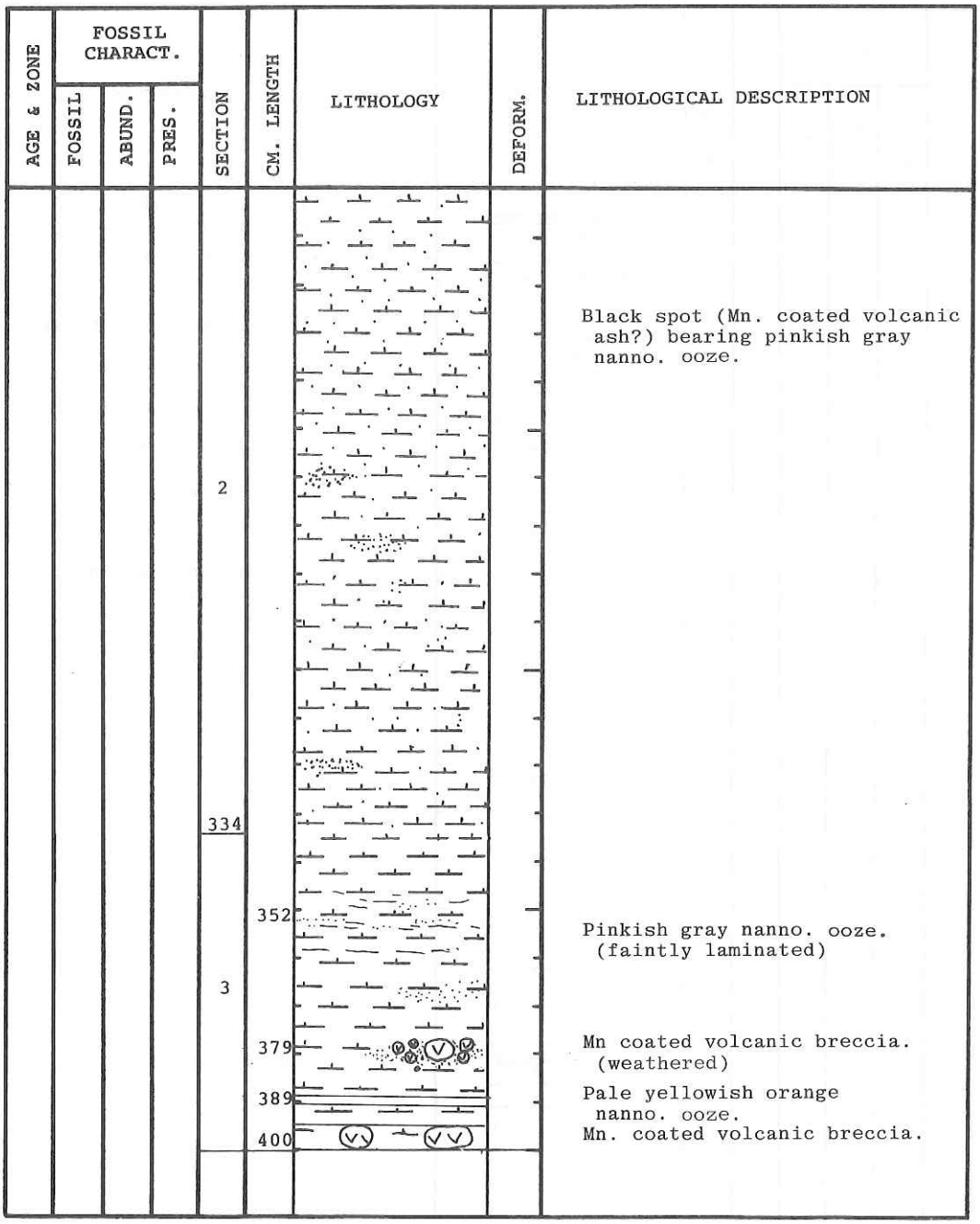
KH-75-3 Stn. 6-2 Pilot core

AGE & ZONE	FOSSIL CHARACT.			SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
	FOSSIL	ABUND.	PRES.					
	Calcareous nanno. and Foraminifera	Abundant	poor	pilot	10			Pale yellowish brown nanno-foram. ooze.

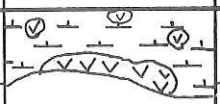
KH-75-3 Stn. 6-2 Piston core 0~2 m

AGE & ZONE	FOSSIL CHARACT. FOSSIL	ABUND.	PRES.	SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
	Nannoplankton and Foraminifera	Abundant	Poor	1	4			ø4cm. manganese nodule.
					7			Light brown nanno.-foram. ooze.
					15			Very pale orange pumice tuff.
								Very pale orange nanno.-foram. ooze.
								Grayish orange weathered volcanic rock.
					50			Brownish black weathered volc. rock.
								Weathered pumice tuff. 1cm thick. (moderate yellow green)
					83			ø2cm, Angular manganese nodule & volcanic lapilli.
								Pinkish gray nanno.-foram. ooze.
				150				
				2				
					184			Mn. coated volcanic lapilli.
					200			

KH-75-3 Stn. 6-2 Piston core 2~4 m



KH-75-3 Stn. 6-2 Piston core 4~4.14 m

AGE & ZONE	FOSSIL CHARACT. FOSSIL	ABUND.	PRES.	SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
				3	414			Pale yellowish brown nanno. ooze. Very hard, subangular volcanic breccia.

CORE LOG

Date May 23, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 8-2

Latitude 22°54.1N Longitude 153°21.1E

Location

Sea Swell (Sea Cmd. 3) Weather clear, wind SE 10 ms^{-1}

Bottom Topography Flat top of sea mount *

Profiler

Length of Core Pipe 12 m — No. of Pipe 1 Material AL

I.D. of Pipe 65 mm — Wall Thickness 7.5 mm

Core Head Weight 558 kg — Trigger Weight 90 kg

Length of Trigger Line 20 m — Length of Main Line 20 m

Length of Free Fall 7 m — Response at Hit clear

Response at Pull-out Not identified

Time Lowered 09 h 27 min — Uncorrected Water Depth 1150 m

Time Hit 10 h 15 min — Uncorrected Water Depth 1140 m

Wire Angle at Hit 0 ° — Wire-out at Hit 1165 m

Time Surfaced 11 h 05 min — Uncorrected Water Depth 1140 m

Core Length 45 cm

Trigger Core Length 0 cm

Method of Storage usual

Length of Cores in Pipe 1. 45 cm, 2. ____ cm, 3. ____ cm

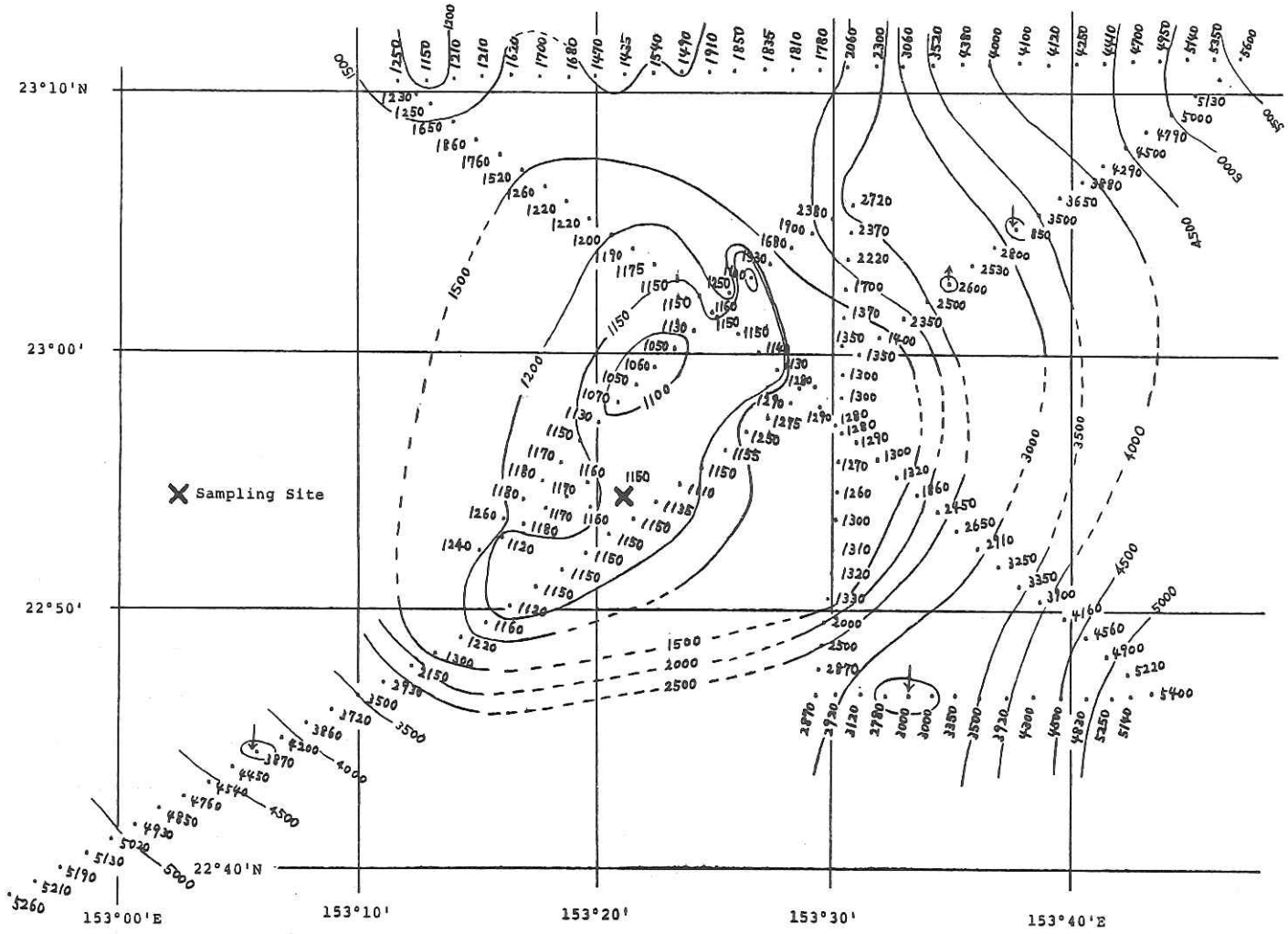
4. ____ cm, 5. ____ cm, 6. ____ cm

7. ____ cm

No. of Pipe Filled 1

No. of Cubic Samples for Paleomagnetism NONE (No. -No.)

Note: * see map on next page


23°10'N
23°00'
22°50'
22°40'N
153°00'E
153°10'
153°20'
153°30'
153°40'E
Sampling Site

KH-75-3 Stn. 8-2 Piston core

AGE & ZONE	FOSSIL CHARACT.			SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
	FOSSIL	ABUND.	PRES.					
	Foraminifera and nannoplankton			1	45			↑ Grading. rock species. Manganese nodule. Conglomerate Volcanic rock Calcite granies φ4cm. Subangular volcanic rocks. rock species: Tuff. Basalt. Recent foraminifera. nanno. ooze. covering volcanic rock. (Discoaster ooze) Discoaster exilis. L.L.M. U.U.M. D. calcaris. M.M.M. U.U.M. D. broweri L.M.M. L.ps. D. challengeri. M.M.M. U.P. D. asymmetricus. U.P.

CORE LOG

Date May 26, 1995 R.V. "Hakuho Maru" Cruise KH-95-3 Station 11-2

Latitude 32°58.9 N Longitude 153°28.6 E

Location

Sea sea cond. 4 (moderate swell) Weather fog, wind SSW 10 cm s^{-1}

Bottom Topography flat

Profiler

Length of Core Pipe 12 m — No. of Pipe 1 Material Al

I.D. of Pipe 65 mm — Wall Thickness 7.5 mm

Core Head Weight 550 kg — Trigger Weight 70 kg

Length of Trigger Line 20 m — Length of Main Line 20 m

Length of Free Fall 7 m — Response at Hit weak

Response at Pull-out hot clear*

Time Lowered 11 h 35 min — Uncorrected Water Depth 5650 m

Time Hit 13 h 12 min — Uncorrected Water Depth 5660 m

Wire Angle at Hit 0 ° — Wire-out at Hit 5757 m

Time Surfaced 14 h 50 min — Uncorrected Water Depth 5660 m

Core Length 956 cm

Trigger Core Length 59 cm

Method of Storage usual

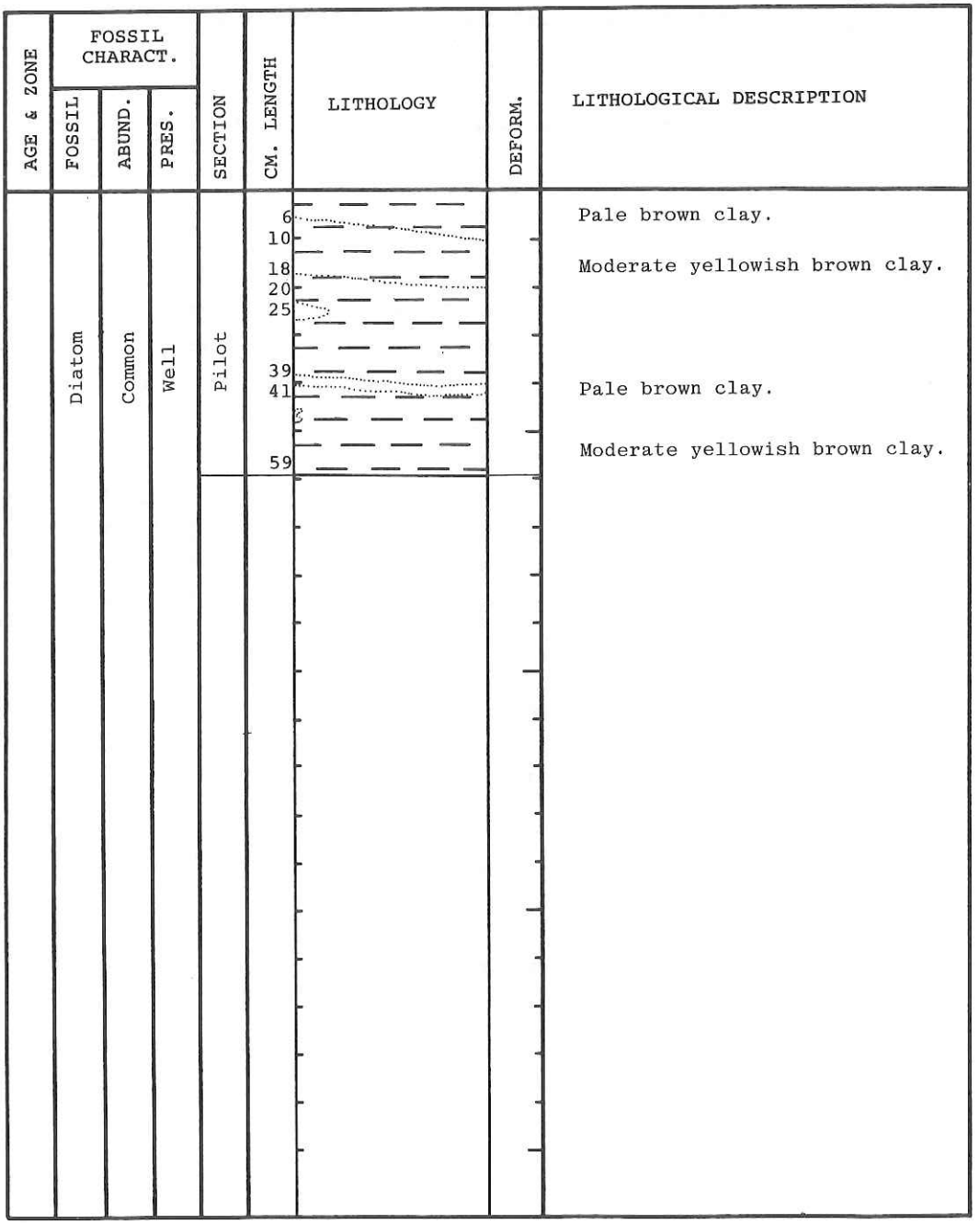
Length of Cores in Pipe 1. 118 cm, 2. 171 cm, 3. 163 cm
4. 147 cm, 5. 165 cm, 6. 157 cm
7. 35 cm

No. of Pipe Filled 7

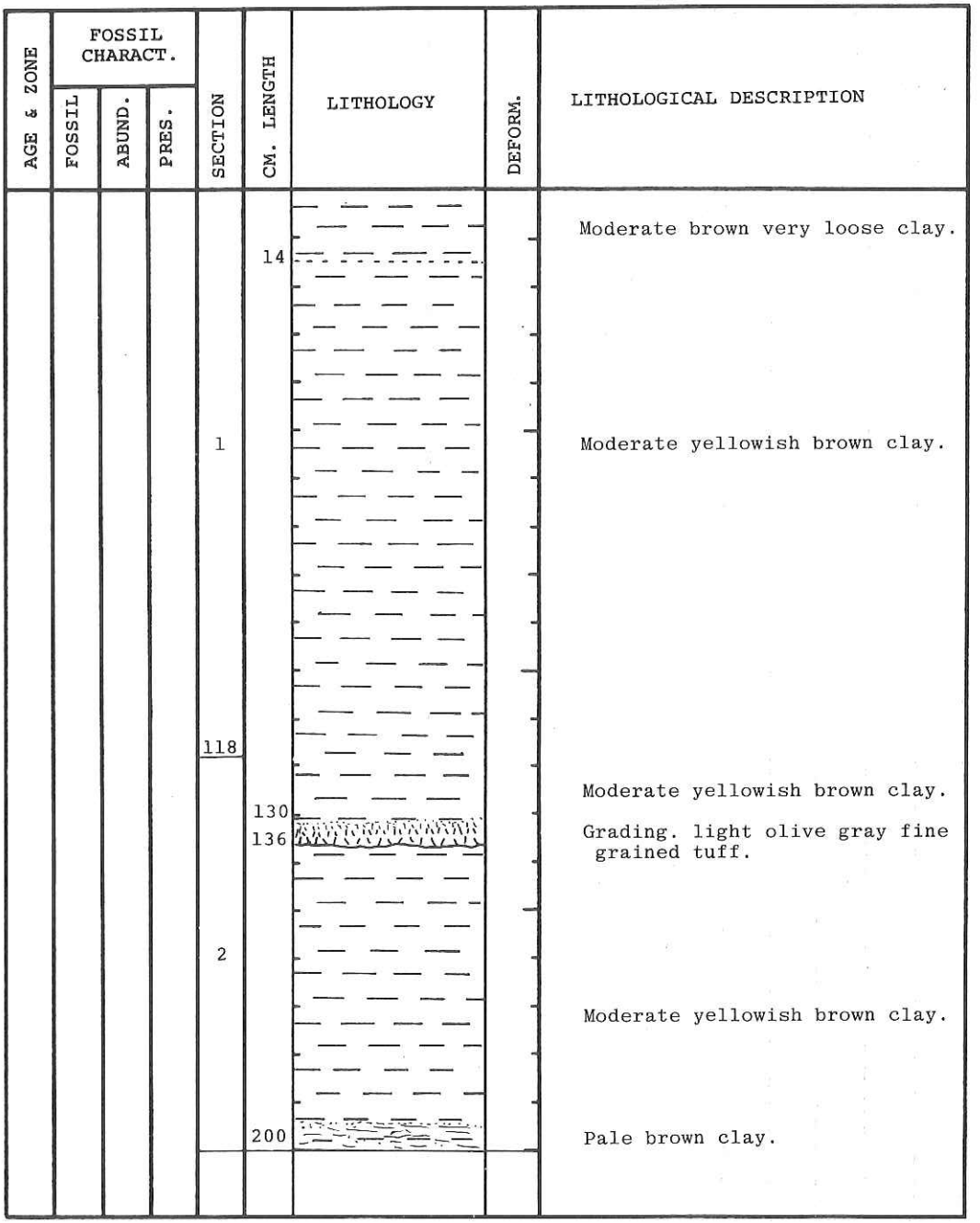
No. of Cubic Samples for Paleomagnetism 406 (No. 1701 -No. 2100)
(No. 1291 - No. 1297)

Note: * 4.6 ton tension at the "Pull-out",
3.4 ton w at just before the "hit".

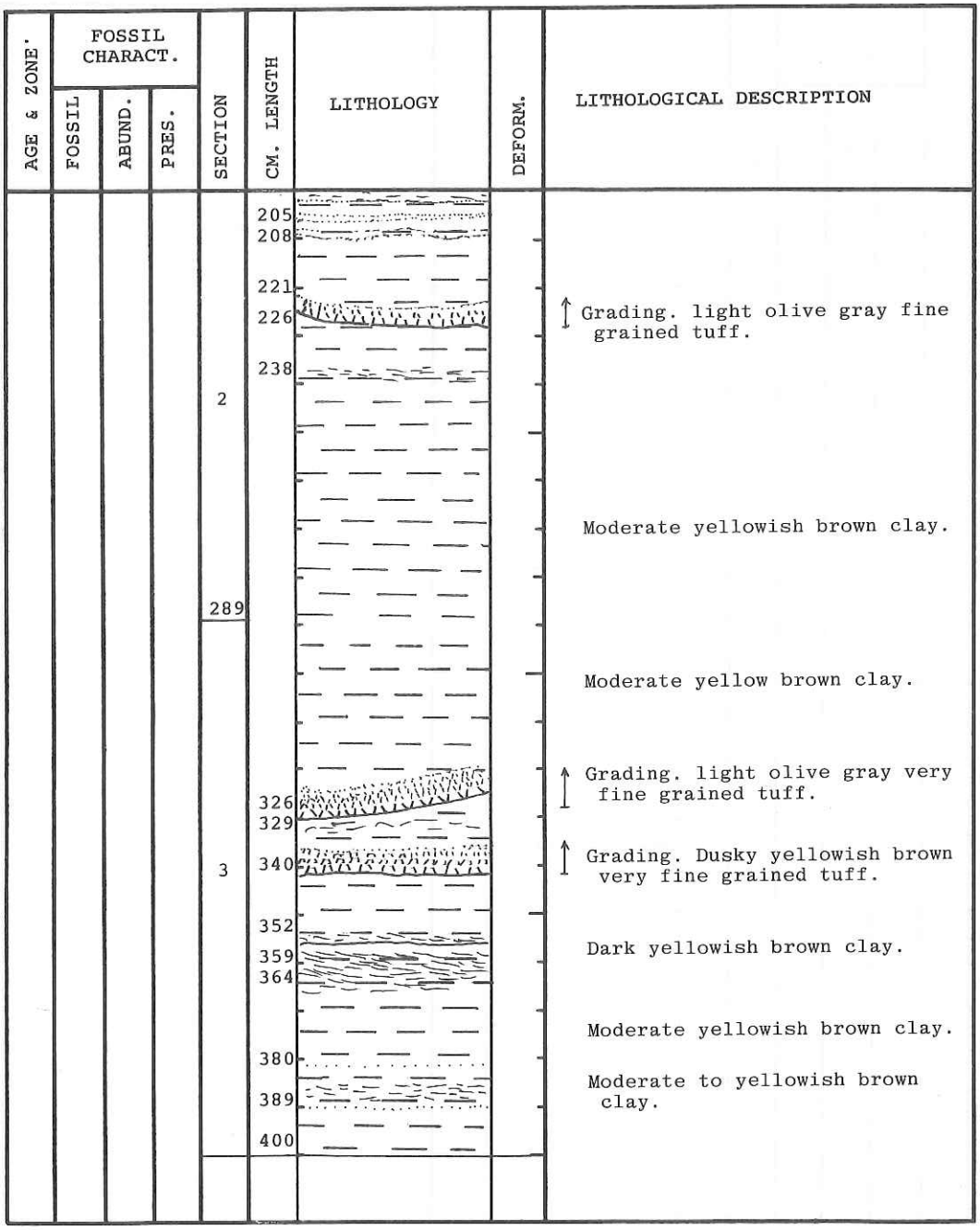
KH-75-3 Stn. 11-2 Pilot core



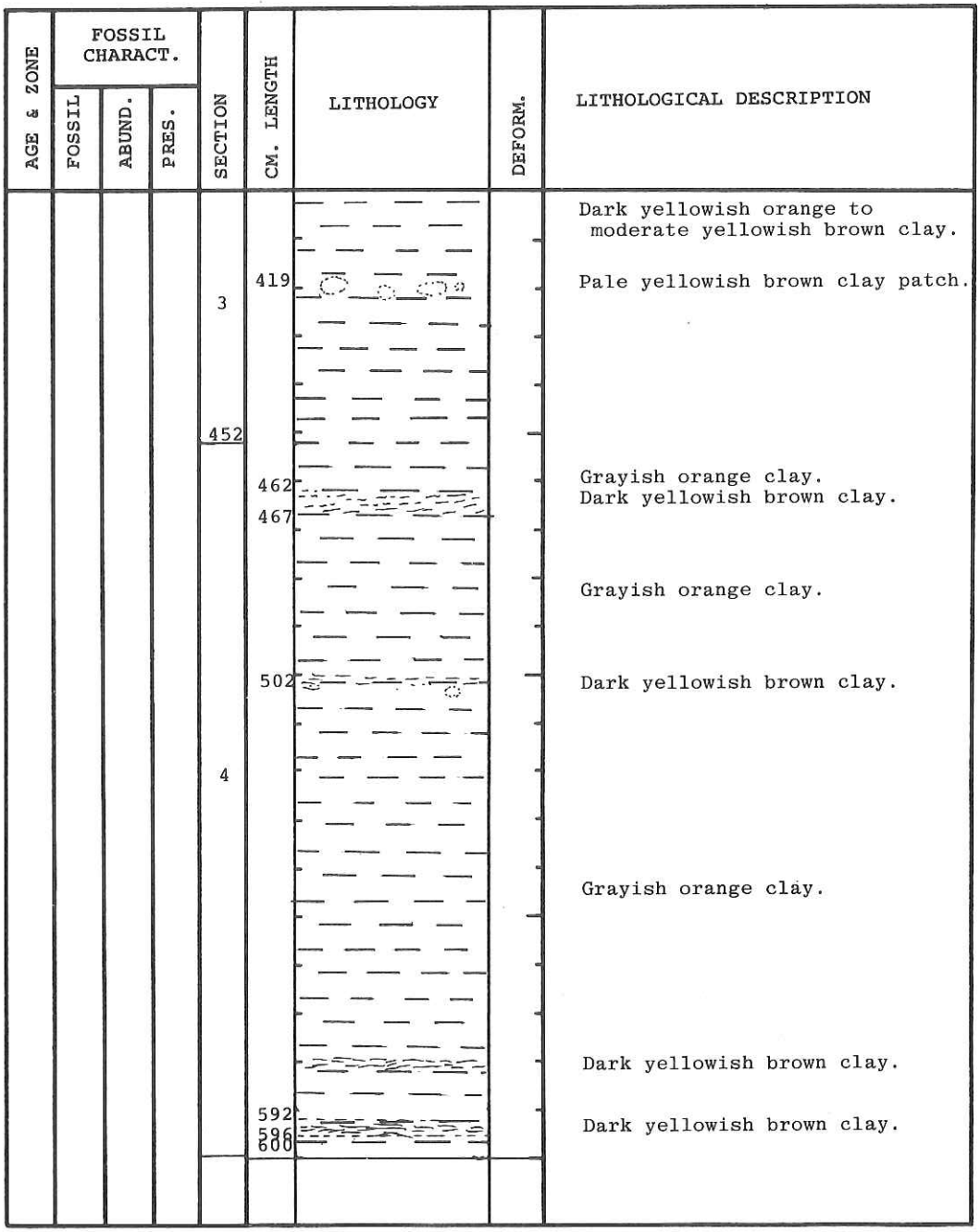
KH-75-3 Stn. 11-2 Piston core 0～2m



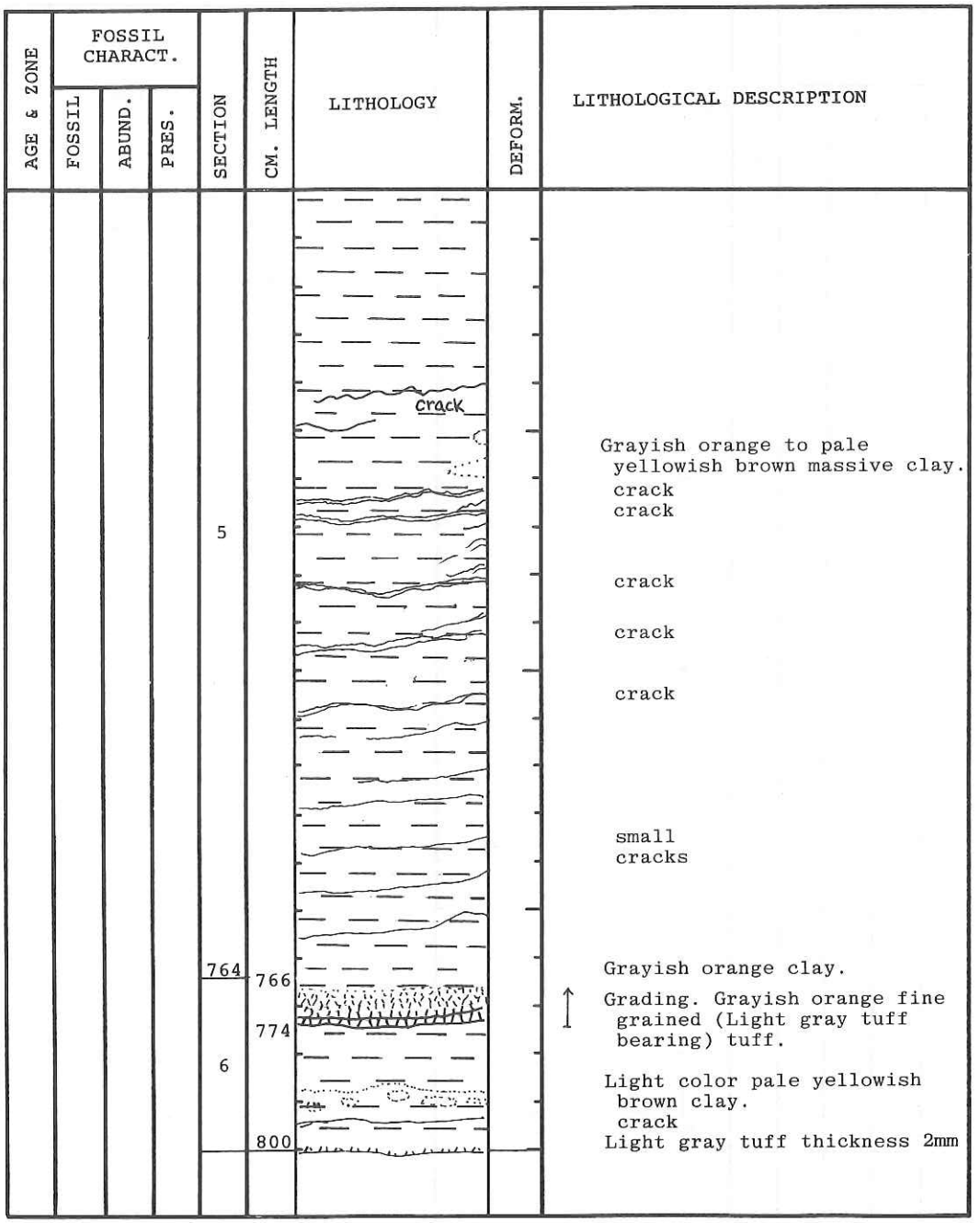
KH-75-3 Stn. 11-2 Piston core 2~4 m



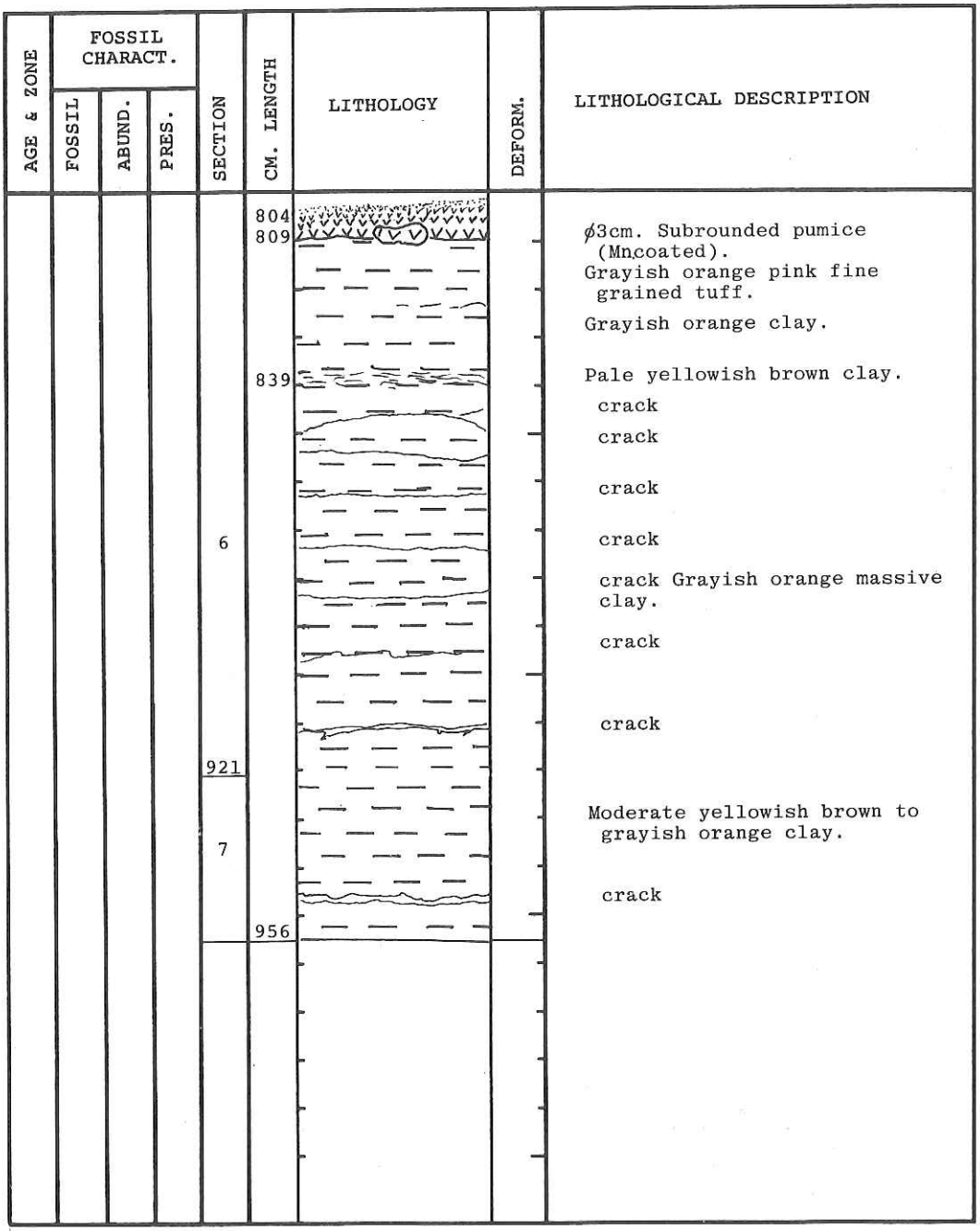
KH-75-3 Stn. 11-2 Piston core 4~6 m



KH-75-3 Stn. 11-2 Piston core 6~8 m



KH-75-3 Stn. 11-2 Piston core 8~9.56 m



CORE LOG

Date May 27, 1975 R.V. "Hakuho Maru" Cruise KH-75-3 Station 12-2
Latitude 34°58.3 N Longitude 151°48.7 E *4
Location
Sea Sea Cond. 2, (low swell) Weather cloudy, wind S 6 ms^{-1} at start
Bottom Topography flat NW 6 ms^{-1} at Hit
Profiler

Length of Core Pipe	12 m	No. of Pipe	1 Material Al
I.D. of Pipe	65 mm	Wall Thickness	7.5 mm
Core Head Weight	550 kg	Trigger Weight	70 kg
Length of Trigger Line	20 m	Length of Main Line	20 m
Length of Free Fall	7 m	Response at Hit	Not clear
		Response at Pull-out	Not identified *1
Time Lowered	14 h 15 min	Uncorrected Water Depth	6150 m
Time Hit	15 h 56 min	Uncorrected Water Depth	6120 m
Wire Angle at Hit	1 °	Wire-out at Hit	6203 m
Time Surfaced	17 h 00 min	Uncorrected Water Depth	6008 m

Core Length about 630 cm *3
Trigger Core Length 75 cm

Method of Storage No sample stored *2
Length of Cores in Pipe 1.____cm, 2.____cm, 3.____cm
4.____cm, 5.____cm, 6.____cm
7.____cm
No. of Pipe Filled
No. of Cubic Samples for Paleomagnetism (No. -No.)

Note: *1 could not wind up at "Pull out" due to the malfunction of winding drum.
*2 All sample for studies of interstitial water and gas analysis.
*3 Pipe was kept at 5.5 m and 7m from core catcher
*4 strong current NW roughly 3 kt.

CORE LOG

Date May 28, 1975 R.V. "Hakuho Maru" Cruise KH- 75-3 Station 12-3
Latitude 34°56.6 N Longitude 151°48.9 E *1
Location
Sea Condition 2 (low swell) Weather clear, wind SE 6 m s⁻¹
Bottom Topography flat
Profiler

Length of Core Pipe 12 m
No. of Pipe 1 Material Al
I.D. of Pipe 65 mm
Wall Thickness 7.5 mm
Core Head Weight 550 kg
Trigger Weight 70 kg
Length of Trigger Line 20 m
Length of Main Line 20 m
Length of Free Fall 7 m
Response at Hit clear
Response at Pull-out weak

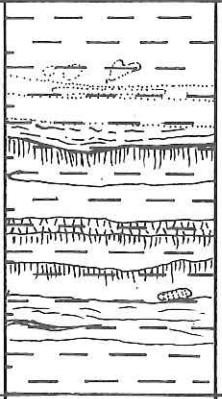
Time Lowered 08 h 52 min
Uncorrected Water Depth 6100 m
Time Hit 10 h 18 min
Uncorrected Water Depth 6100 m
Wire Angle at Hit 0 °
Wire-out at Hit 6262 m
Time Surfaced 11 h 40 min
Uncorrected Water Depth 6000 m

Core Length 902 cm
Trigger Core Length cm

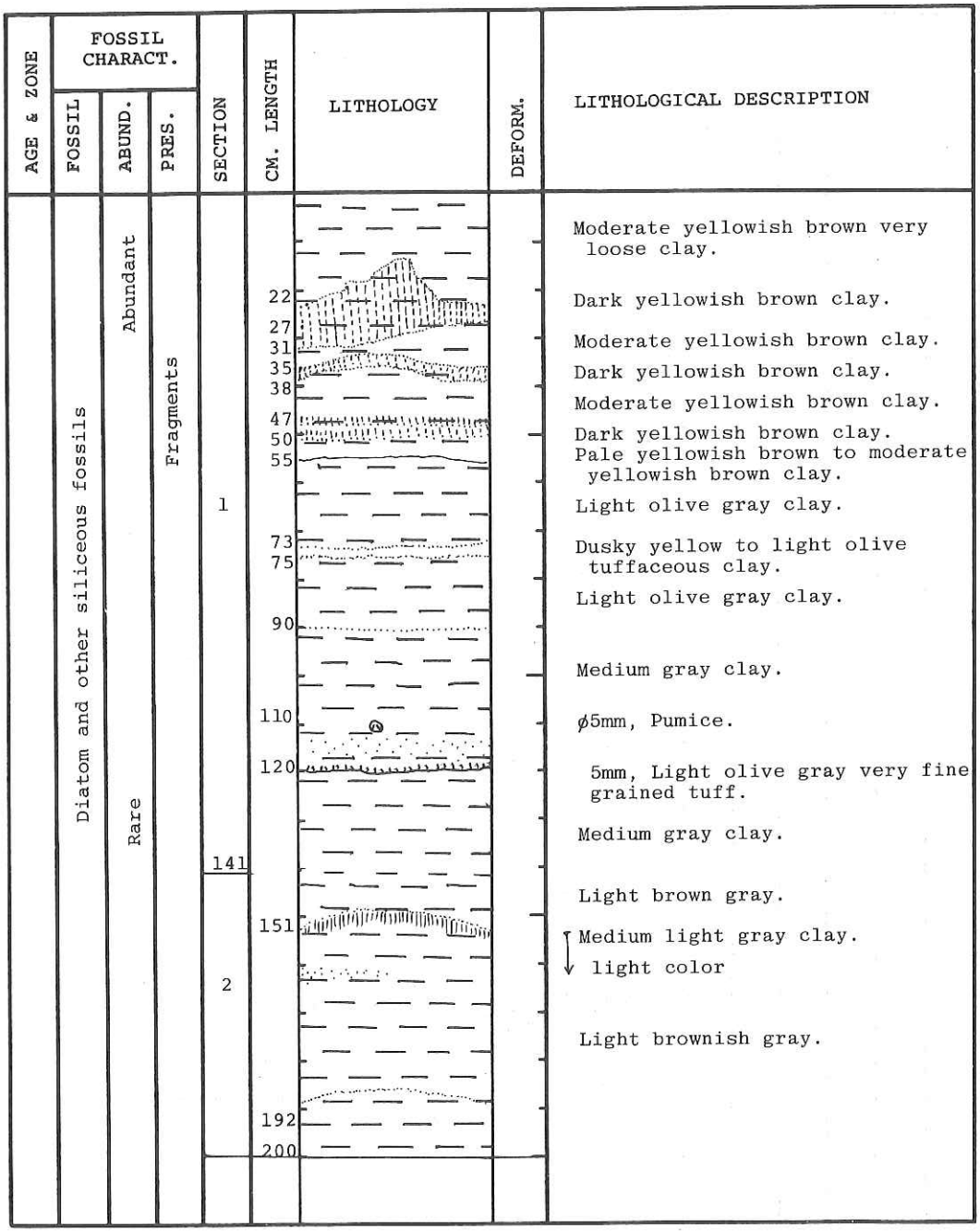
Method of Storage usual
Length of Cores in Pipe 1. 141 cm, 2. 146 cm, 3. 134 cm
4. 160 cm, 5. 171 cm, 6. 150 cm
7. cm
No. of Pipe Filled 6
No. of Cubic Samples for Paleomagnetism (No. -No.)

Note: *1 strong current NW 3.0 kt.

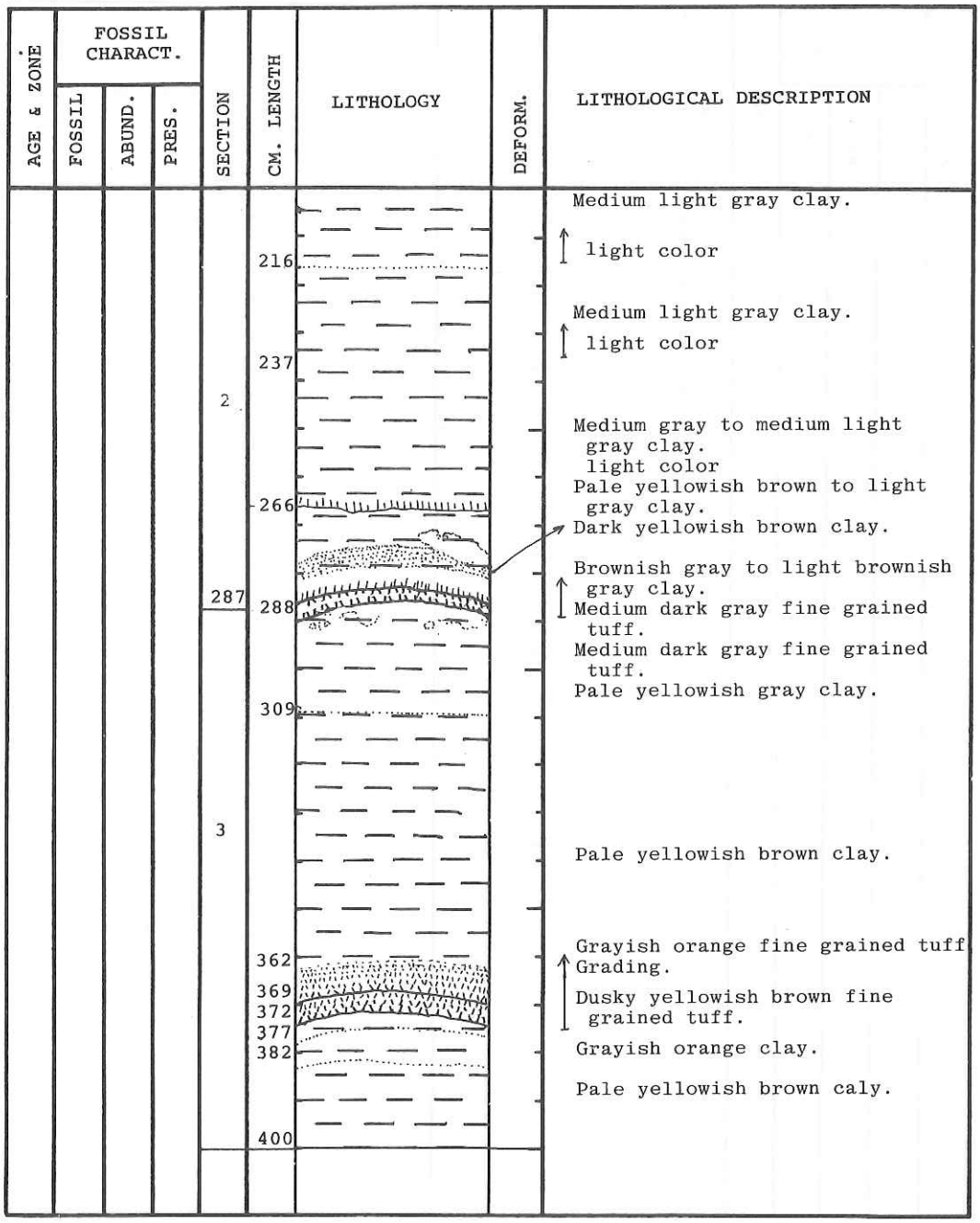
KH-75-3 Stn. 12-3 Pilot core

AGE & ZONE	FOSSIL CHARACT.			SECTION	CM. LENGTH	LITHOLOGY	DEFORM.	LITHOLOGICAL DESCRIPTION
	FOSSIL	ABUND.	PRES.					
	Diatom & other siliceous fossils	Common	Well	Pilot	18 23 28 34 42 44 50 57 75			Moderate yellowish brown clay. Moderate yellowish brown clay patch bearing dark yellowish brown clay. Moderate yellowish brown clay. Moderate brown to pale brown clay Medium light gray clay. Light olive gray very fine tuff. Medium light gray clay. Moderate yellowish brown to medium light gray clay. Moderate brown to dark yellowish brown clay. Olive gray clay.

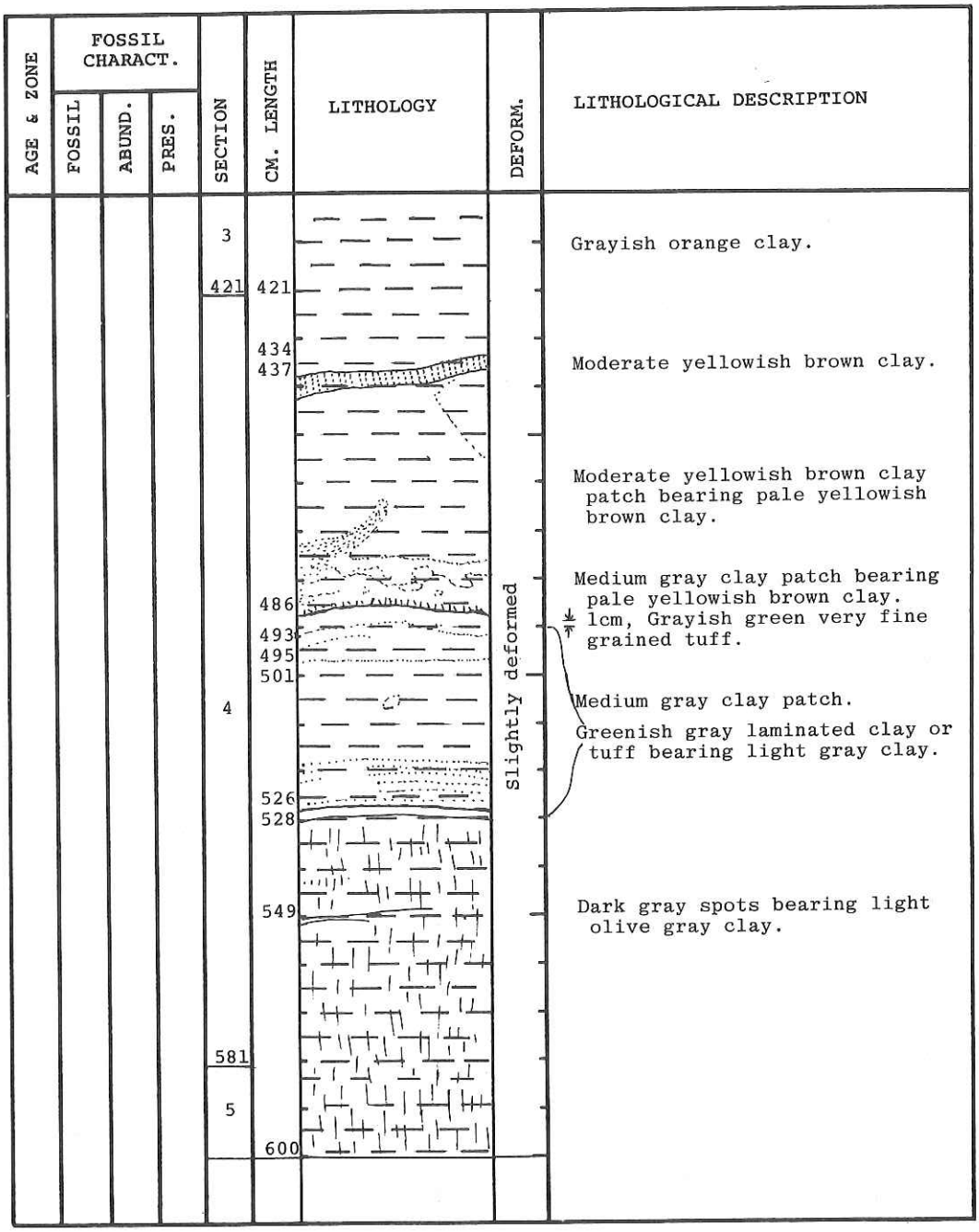
KH-75-3 Stn. 12-3 Piston core 0~2 m



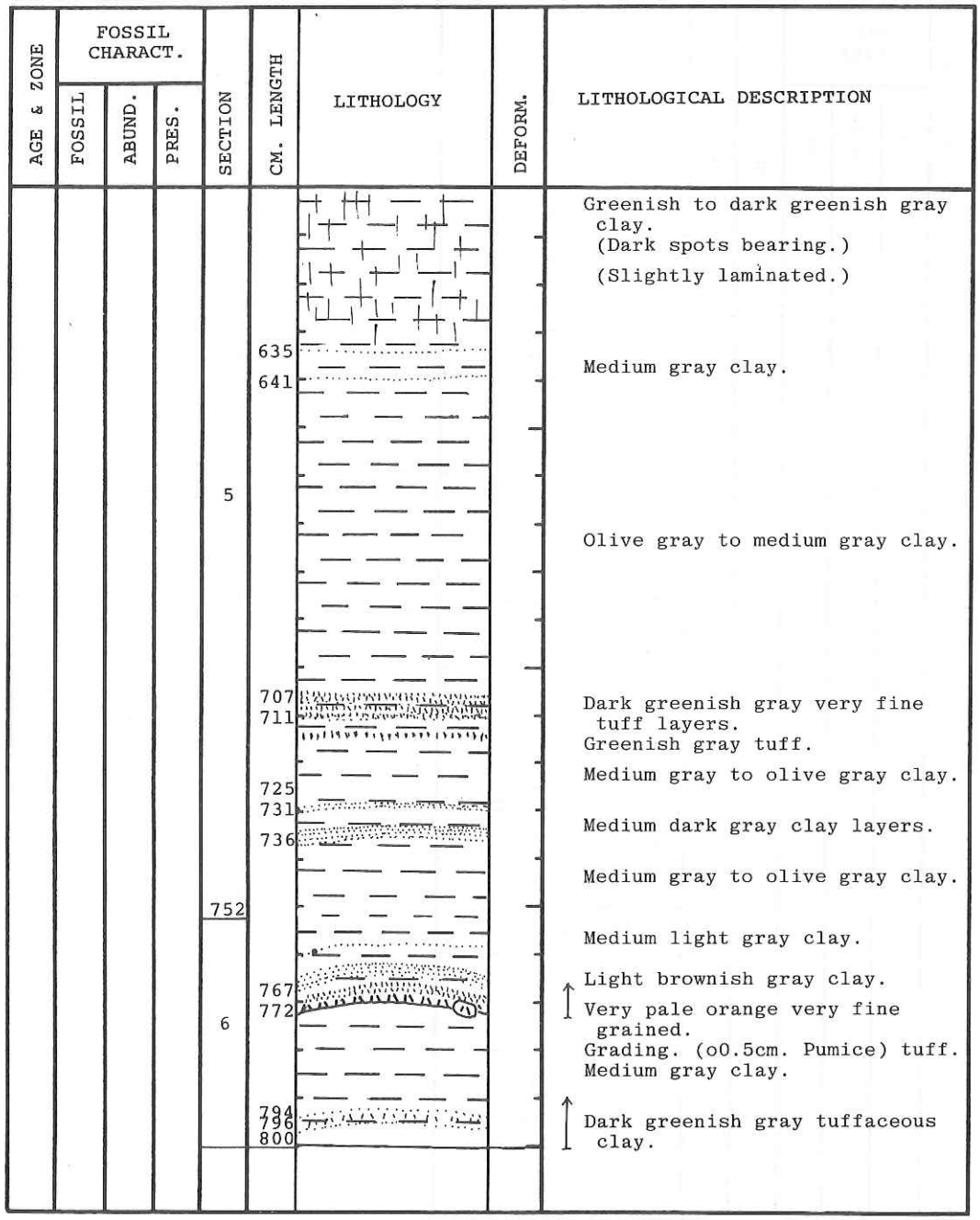
KH-75-3 Stn. 12-3 Piston core 2~4 m



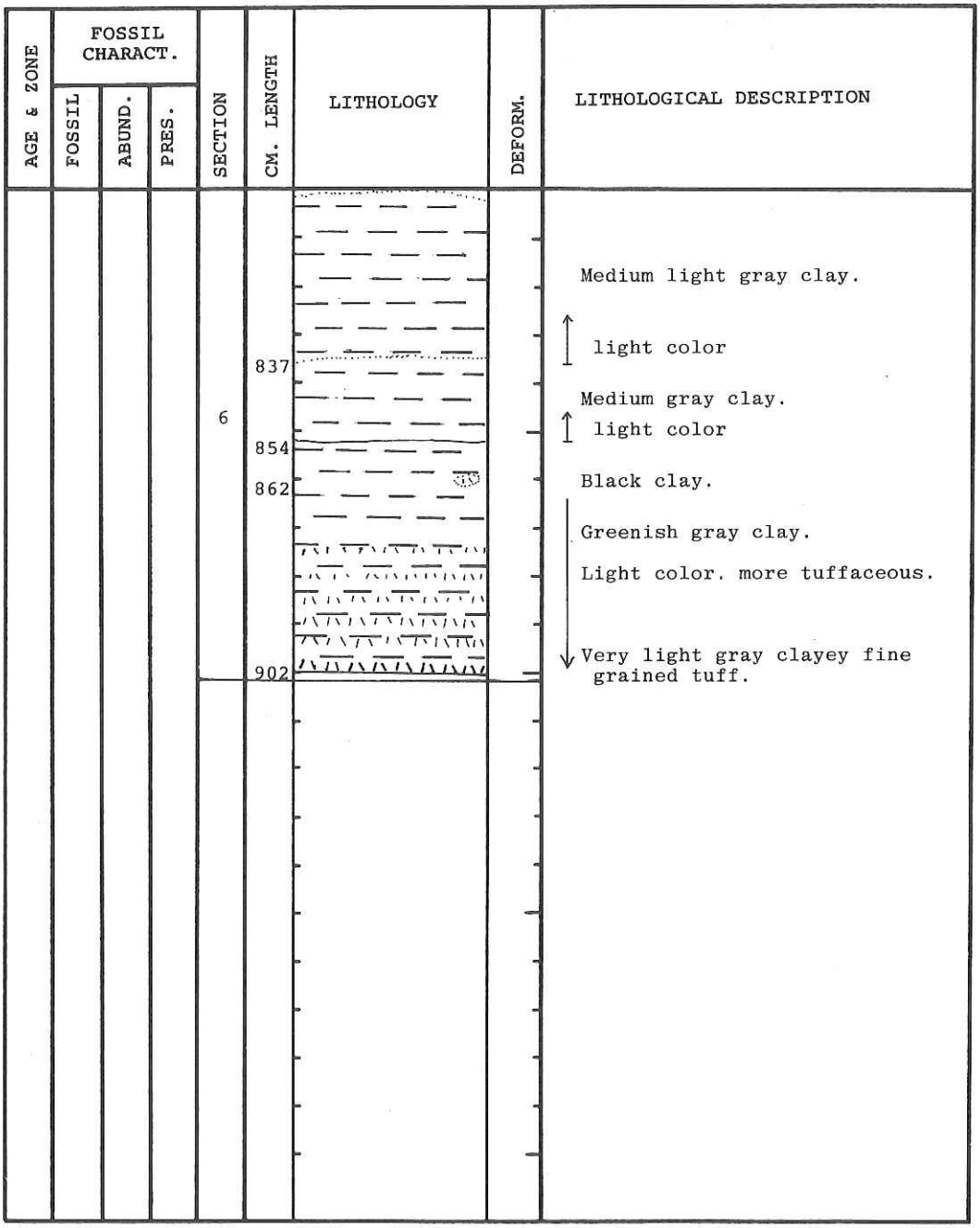
KH-75-3 Stn. 12-3 Piston core 4~6 m



KH-75-3 Stn. 12-3 Piston core 6~8 m



KH-75-3 Stn. 12-3 Piston core 8~9.02 m



CORE LOG

Date May 30, 1995 R.V. "Hakuho Maru" Cruise KH-95-3 Station 14-2

Latitude 34°23.8N Longitude 145°01.8E

Location

Sea low swell (Cmd. 2) Weather clear, Wind SW 7 ms^{-1}

Bottom Topography flat

Profiler

Length of Core Pipe 12 m No. of Pipe 1 Material Al

I.D. of Pipe 65 mm Wall Thickness 7.5 mm

Core Head Weight 550 kg Trigger Weight 70 kg

Length of Trigger Line 20 m Length of Main Line 20 m

Length of Free Fall 7 m Response at Hit clear

Response at Pull-out clear

Time Lowered 11 h 50 min Uncorrected Water Depth 5760 m

Time Hit 13 h 44 min Uncorrected Water Depth 5760 m

Wire Angle at Hit 0 ° Wire-out at Hit 5864 m

Time Surfaced 15 h 35 min Uncorrected Water Depth 5750 m

Core Length 1061 cm

Trigger Core Length 55 cm

Method of Storage usual

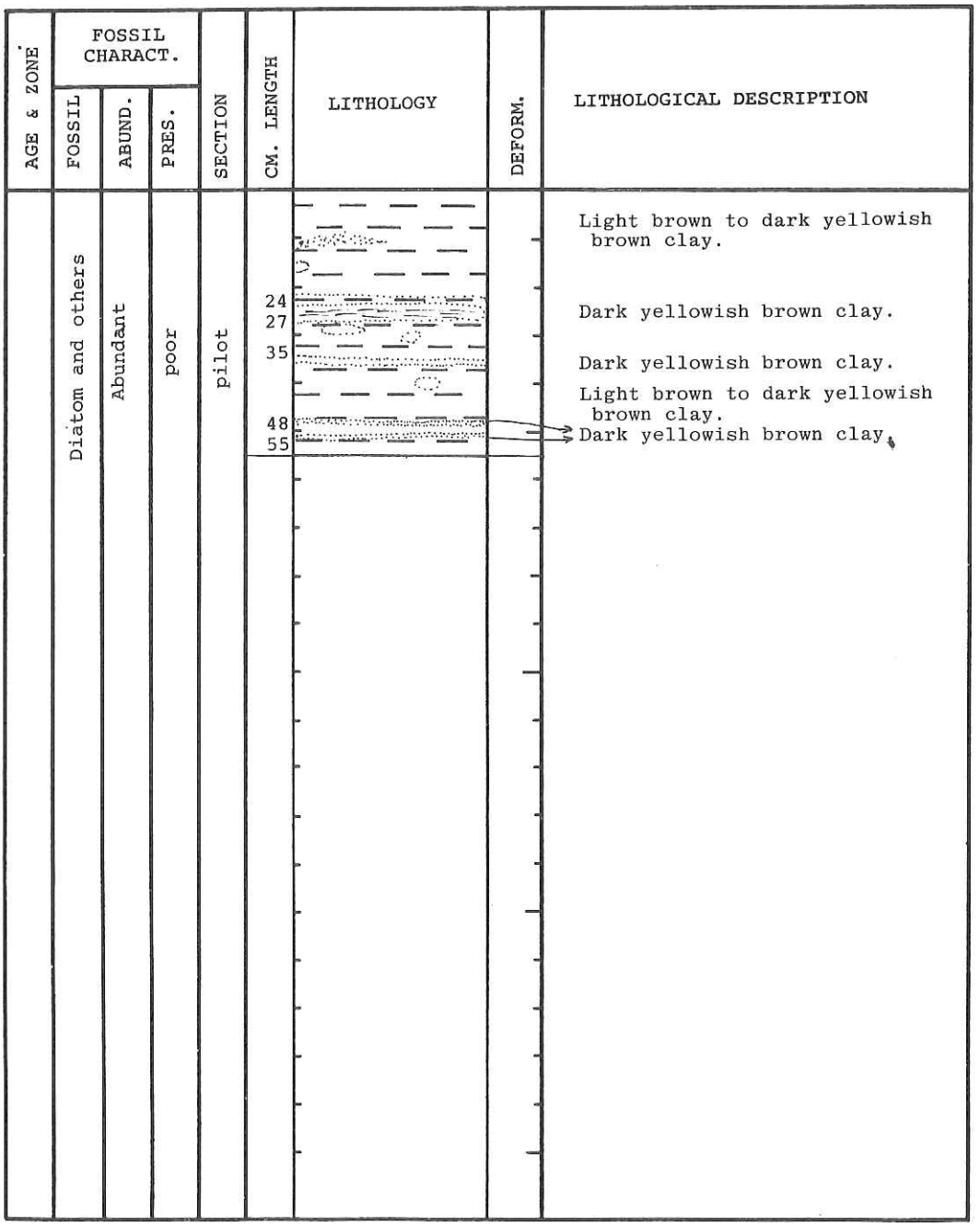
Length of Cores in Pipe 1. 155 cm, 2. 155 cm, 3. 160 cm
4. 166 cm, 5. 170 cm, 6. 155 cm
7. 100 cm

No. of Pipe Filled 7 + 1 (pilot)

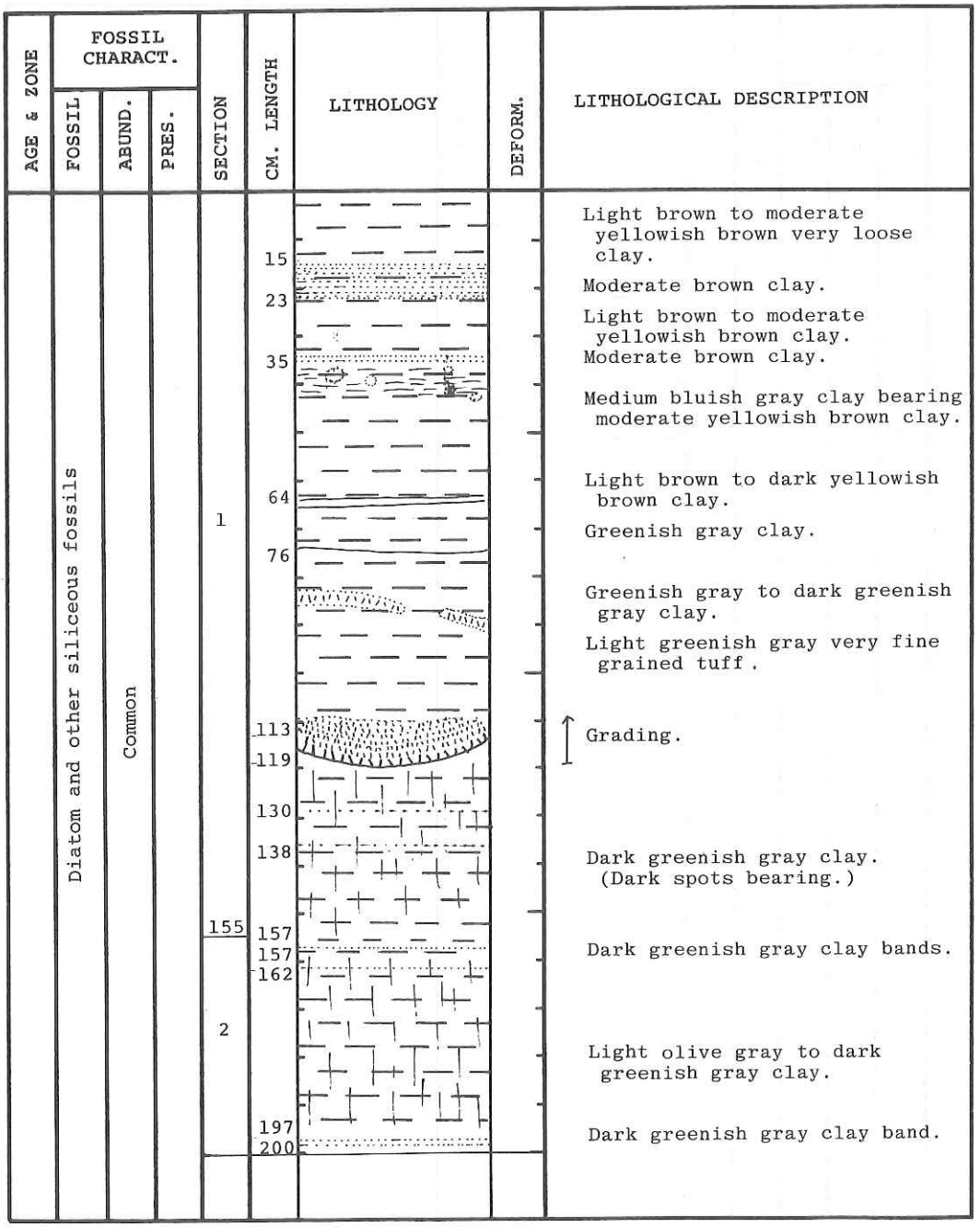
No. of Cubic Samples for Paleomagnetism 470 (No. 2501 -No. 2970)

Note:

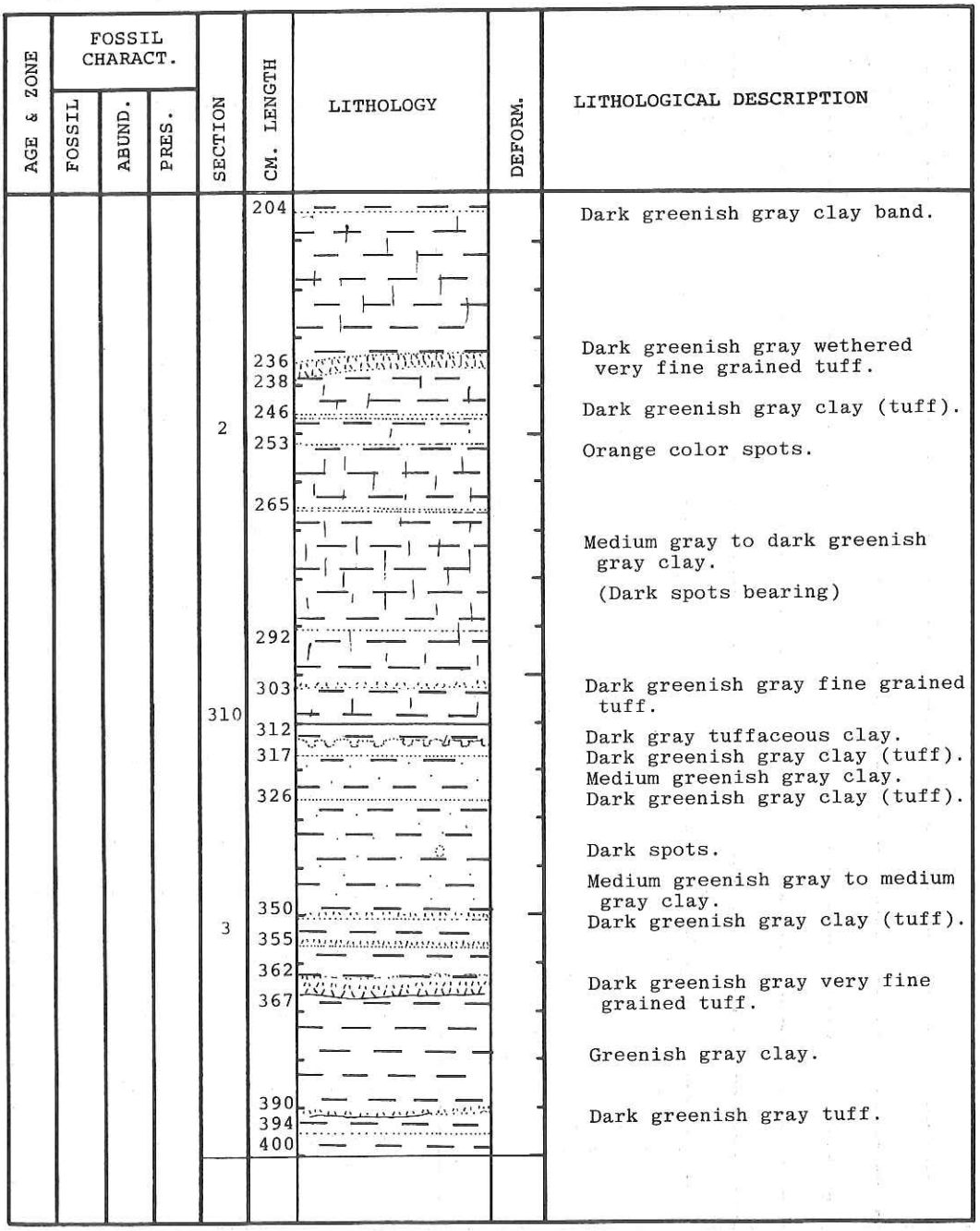
KH-75-3 Stn. 14-2 Pilot core



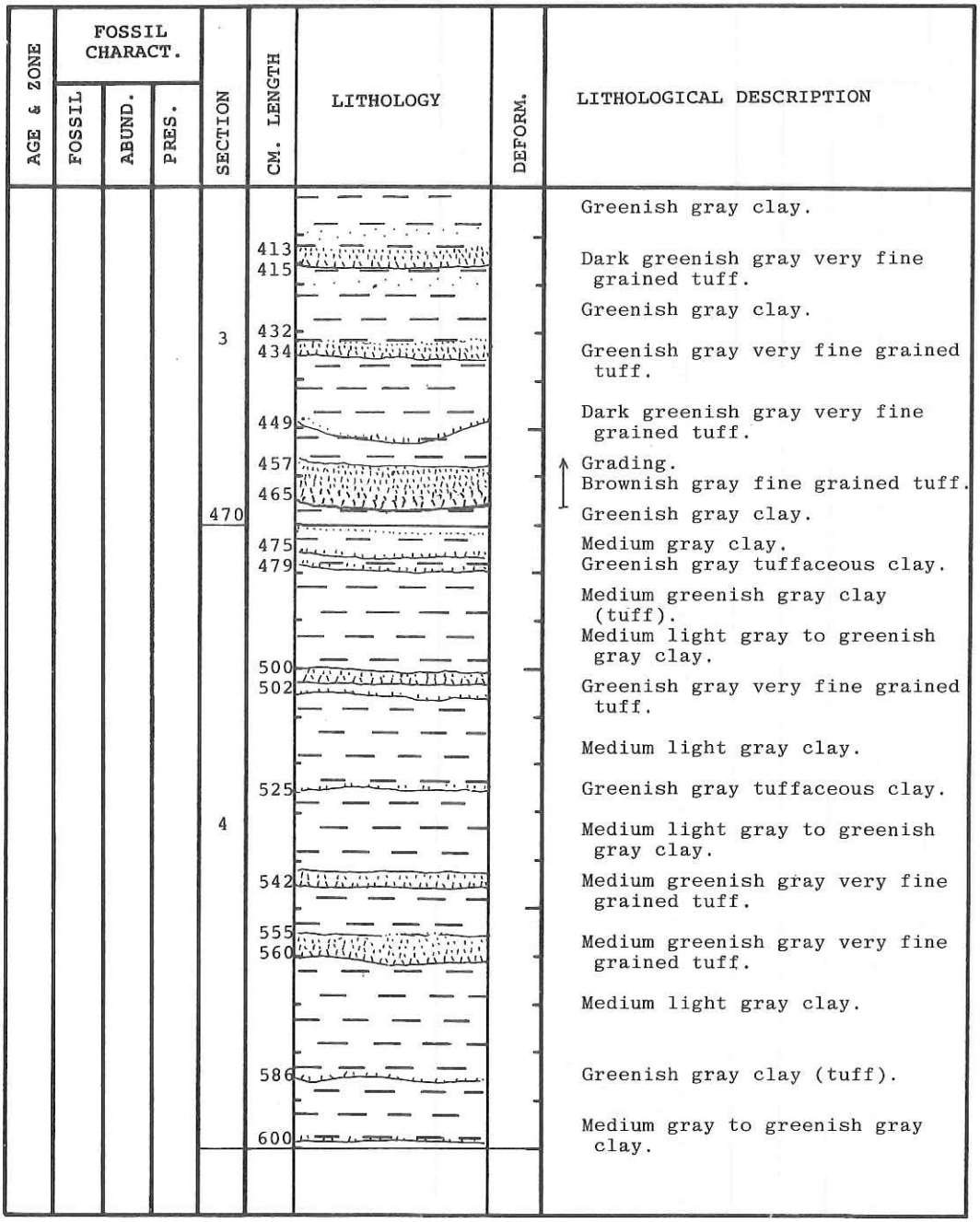
KH-75-3 Stn. 14-2 Piston core 0–2 m



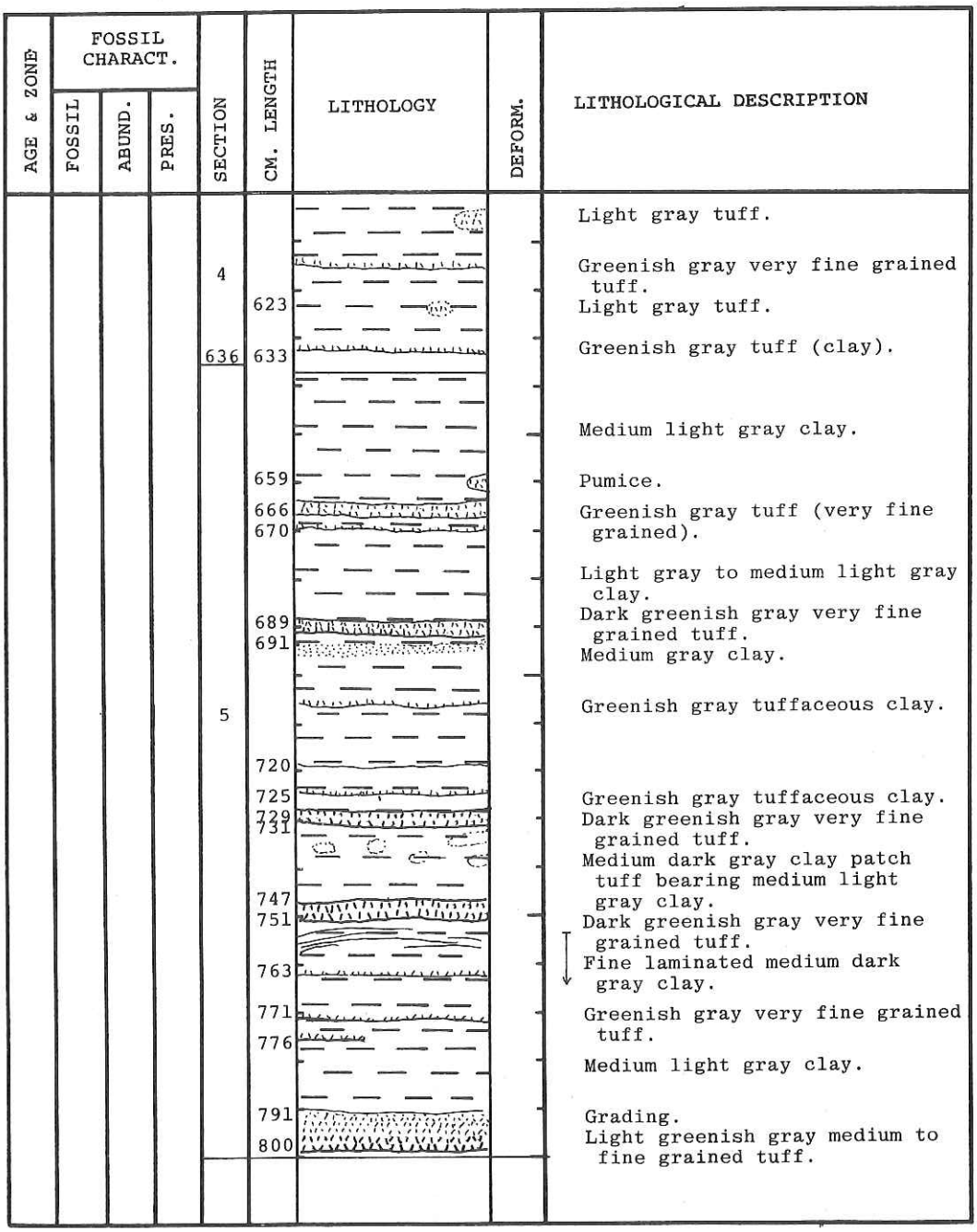
KH-75-3 Stn. 14-2 Piston core 2~4 m



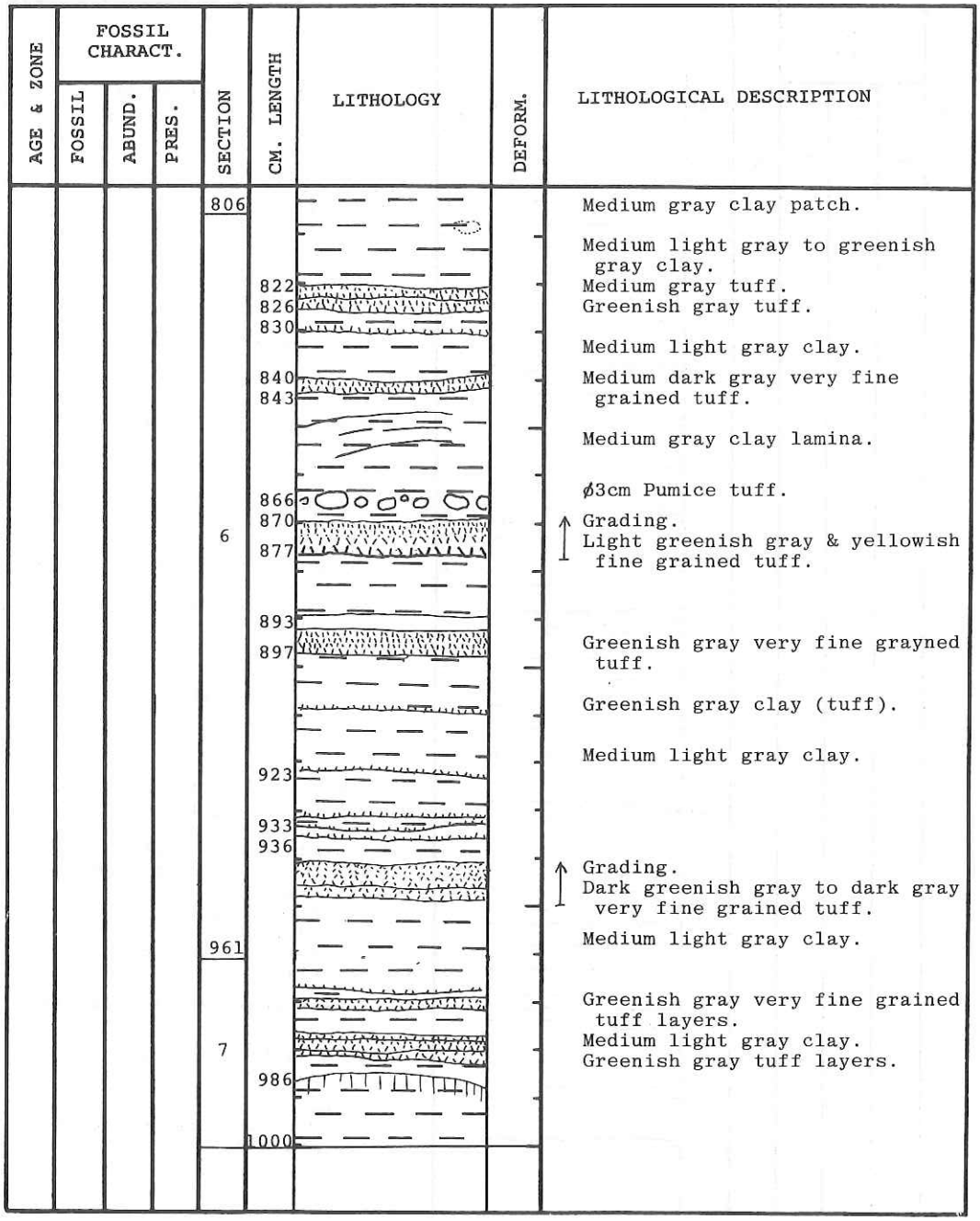
KH-75-3 Stn. 14-2 Piston core 4~6 m



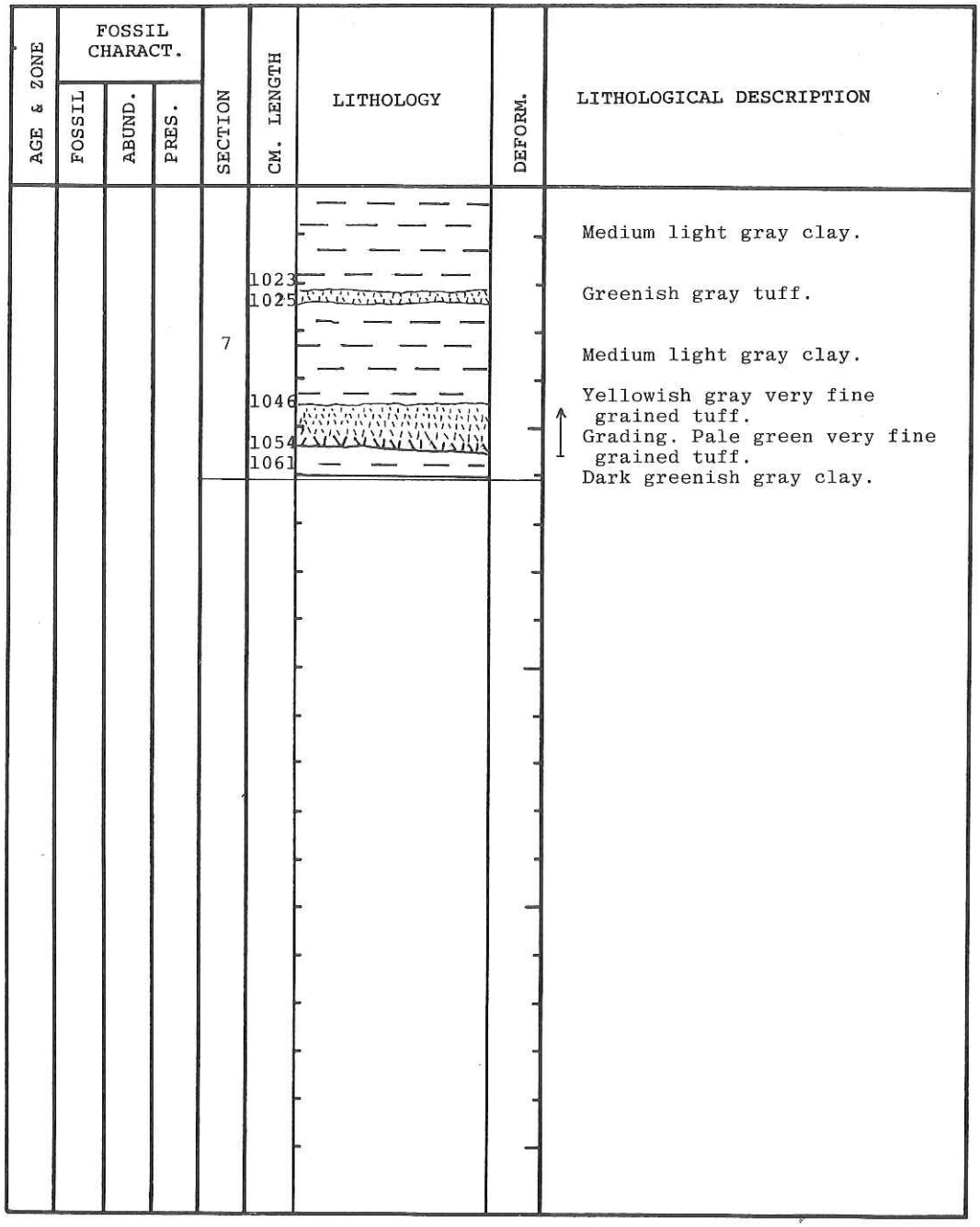
KH-75-3 Stn. 14-2 Piston core 6~8 m



KH-75-3 Stn. 14-2 Piston core 8~10m



KH-75-3 Stn. 14-2 Piston core 10~10.61 m



6. Gravity Measurement

Gravity was measured by K.Kitazawa with the same method reported in "Preliminary Report of The Hakuho Maru Cruise KH-69-2, Ocean Research Institute, University of Tokyo, 1971". Gravity log is in Page 75, and the position of the ship is shown in Figure 13.

Gravity measurement at sea

Cruise No. : KH 75-3

Track of the ship : Fig. _____

Observer : K.Kitazawa

Observed period : May 14 ~ June 2 (1950)

Gravity meter system : T.S.S.G.

Gravity meter : Model Z-68-7-14 (string type)

Vertical Gyro : Model 72-A (a pair of single freedom Gyros)

Data processing system : Model 72-A

(0.05 sec. sampling rate)

Gravity meter calibration points

Harumi (Tokyo), _____, _____,

_____, _____, _____,

Harumi (Tokyo)

Trouble with gravity meter : None

Position fixing : Loran A, C

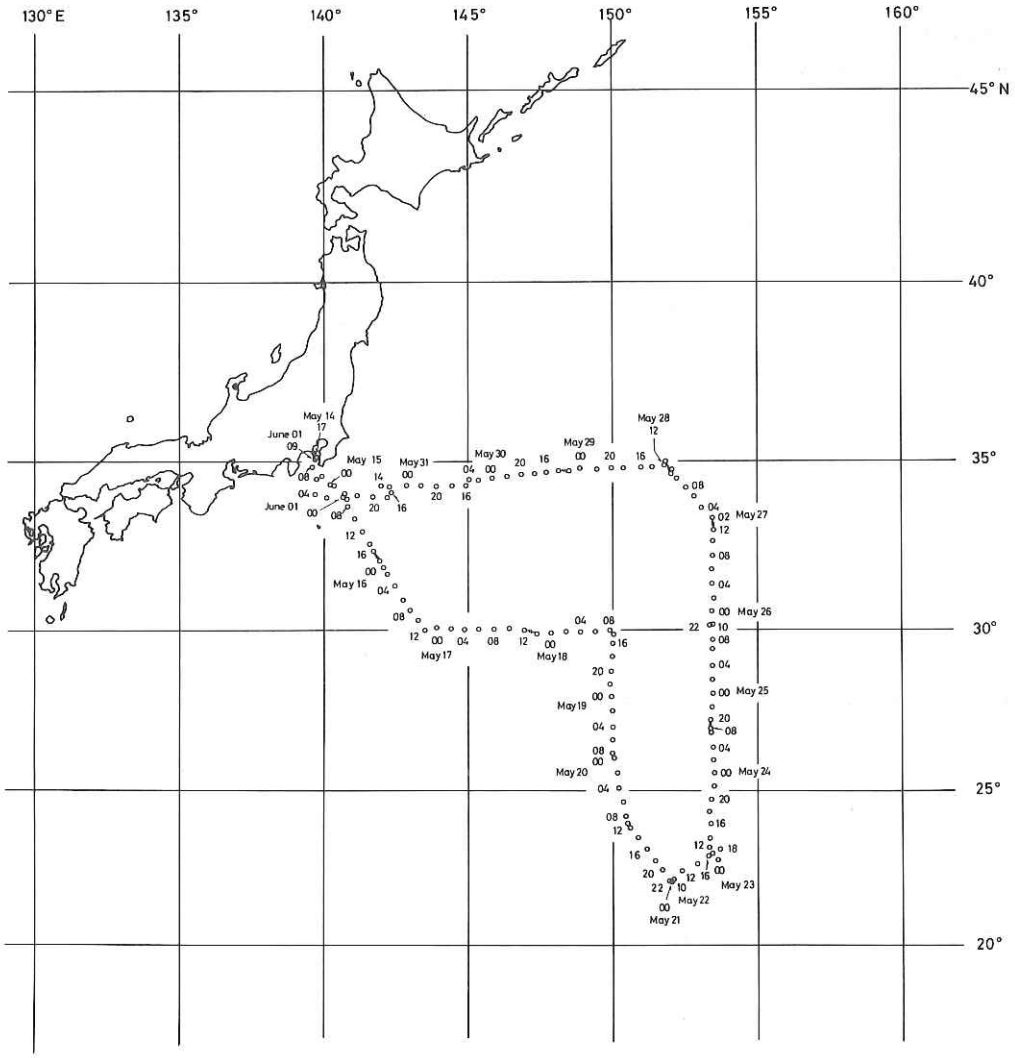
× Dead reckoned navigation

× NNSS

Out of order time of NNSS : None

Out of order time of PDR : None

Figure 13


130°E
135°
140°
145°
150°
155°
160°
45° N
40°
35°
30°
25°
20°
May 14
17
June 01
09
May 15
00
May 31
00
May 30
00
May 29
00
May 28
12
June 01
00
May 16
00
May 17
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May 18
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May 19
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May 20
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May 21
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May 22
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May 23
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May 24
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May 25
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May 26
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May 27
02