INFORMAL REPORT AND INDEX OF

NAVIGATION, DEPTH, MAGNETIC AND SUBBOTTOM PROFILER DATA

(Issued November 1984)

PROTEA EXPEDITION

LEG 4

Punta Arenas, Chile (4 November 1983) to Cape Town, South Africa (13 December 1983)

R/V Melville

Chief Scientist - D. Ainley (Pt. Reyes Bird Observatory)

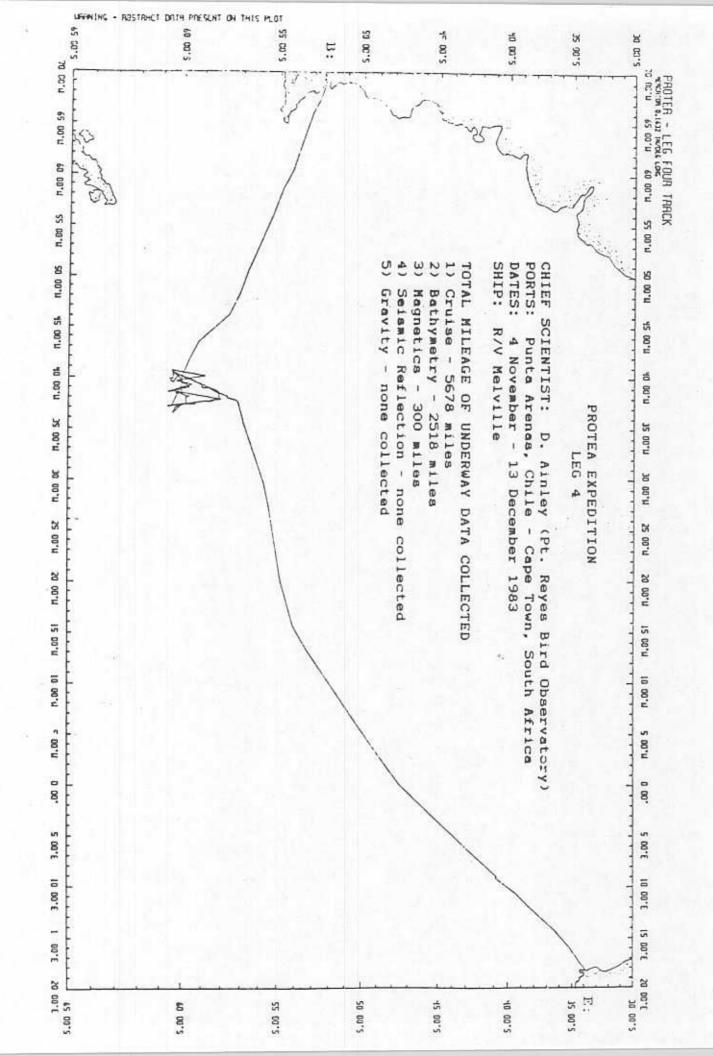
Resident Marine Tech - R. Wilson

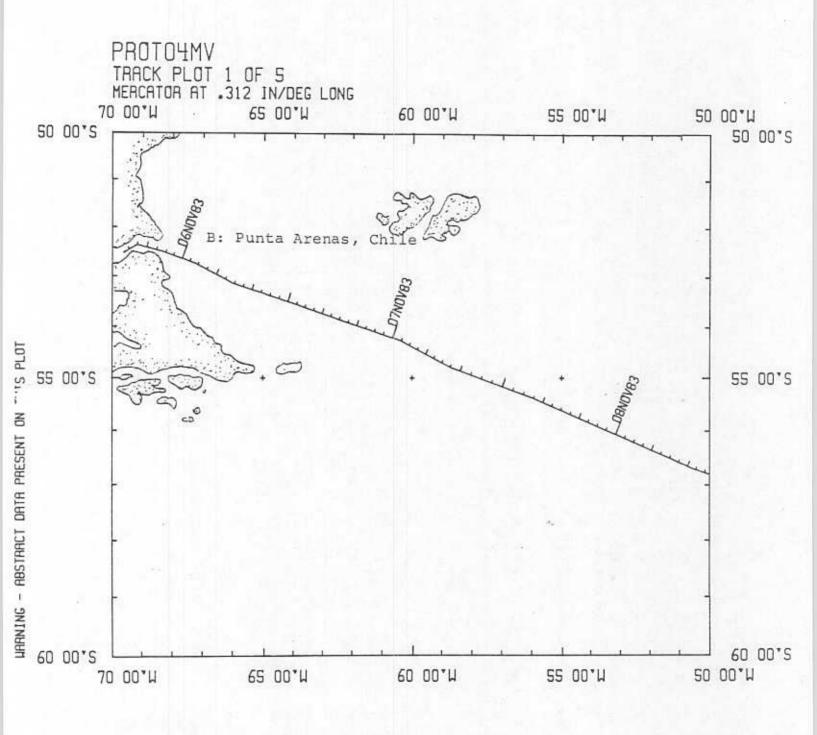
Post-Cruise Processing and Report Preparation by S.I.O. Geological Data Center

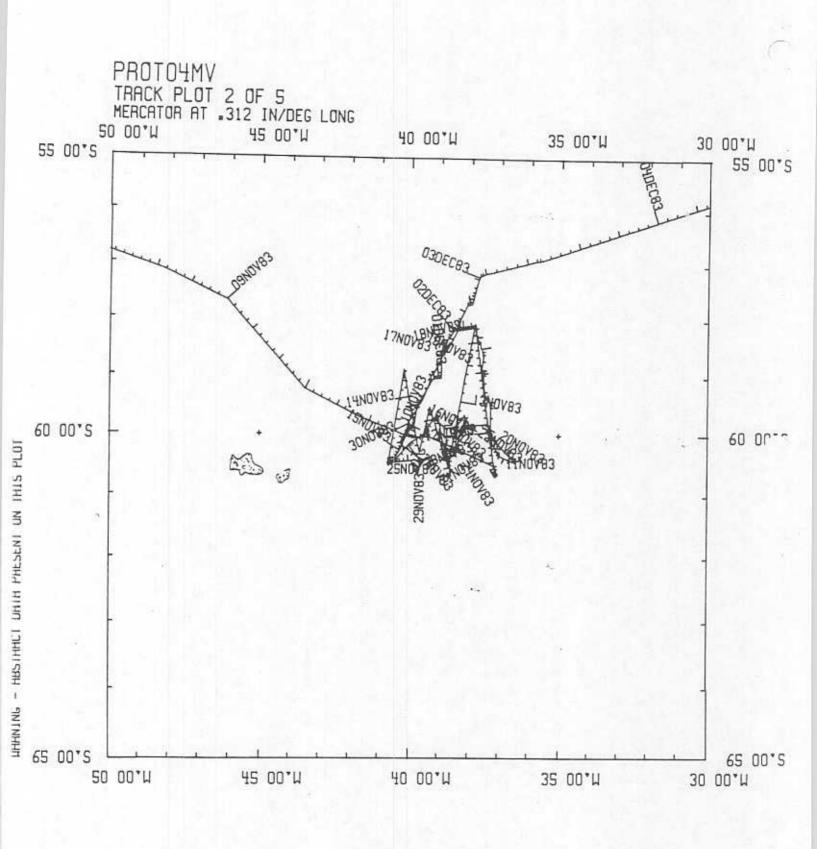
Data Collection Funded by NSF Grant Number NSF OCE80-24472 Data Processing Funded by SIA and NSF

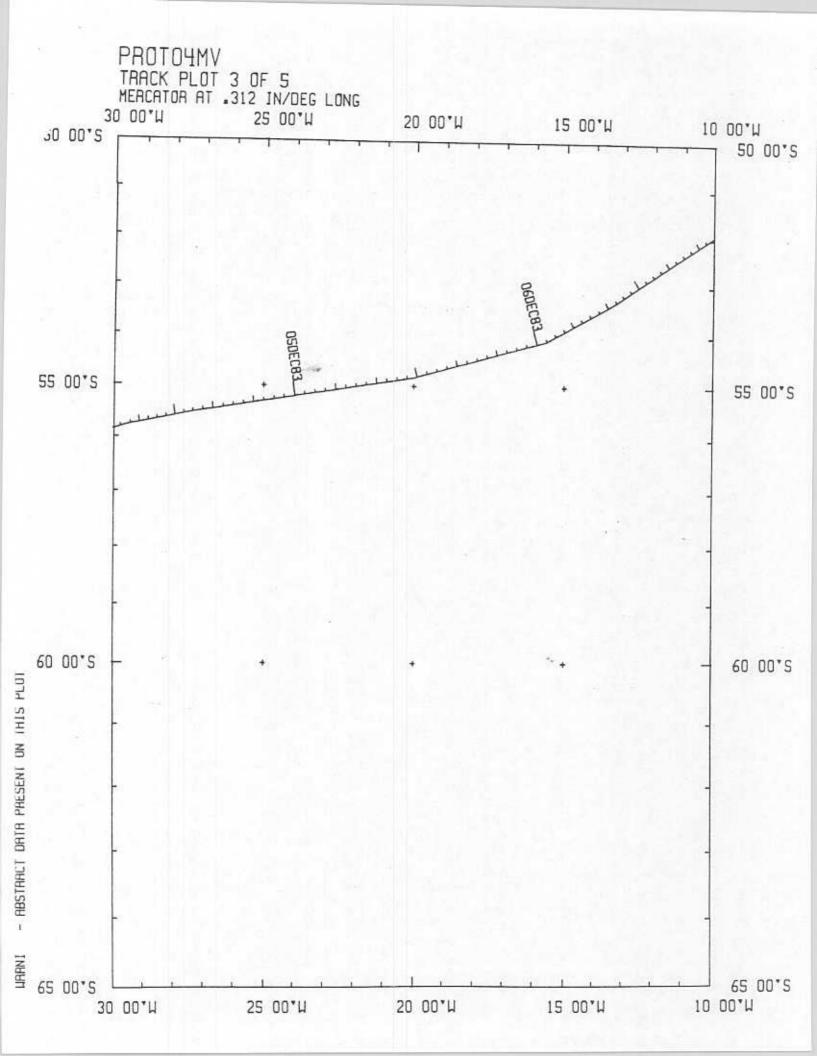
NOTE: This is an index of underway geophysical data edited and processed after the completion of the cruise leg and is intended primarily for informal use within the institution. This document is not to be reproduced or distributed outside Scripps without prior approval of the chief scientist or the Geological Data Center, Scripps Institution of Oceanography, La Jolla, California 92093.

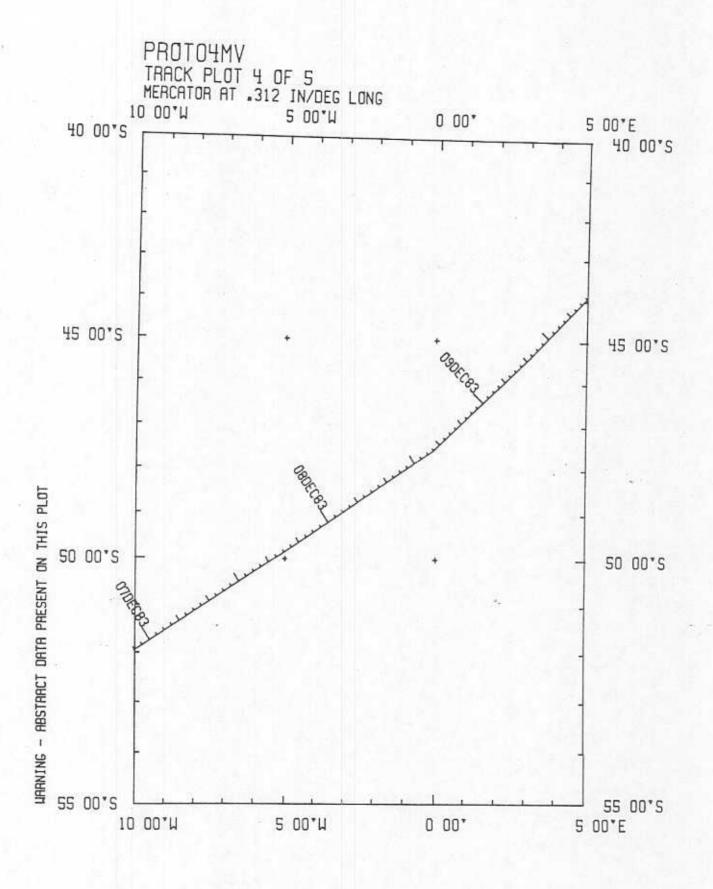
GDC Cruise I.D.# 212

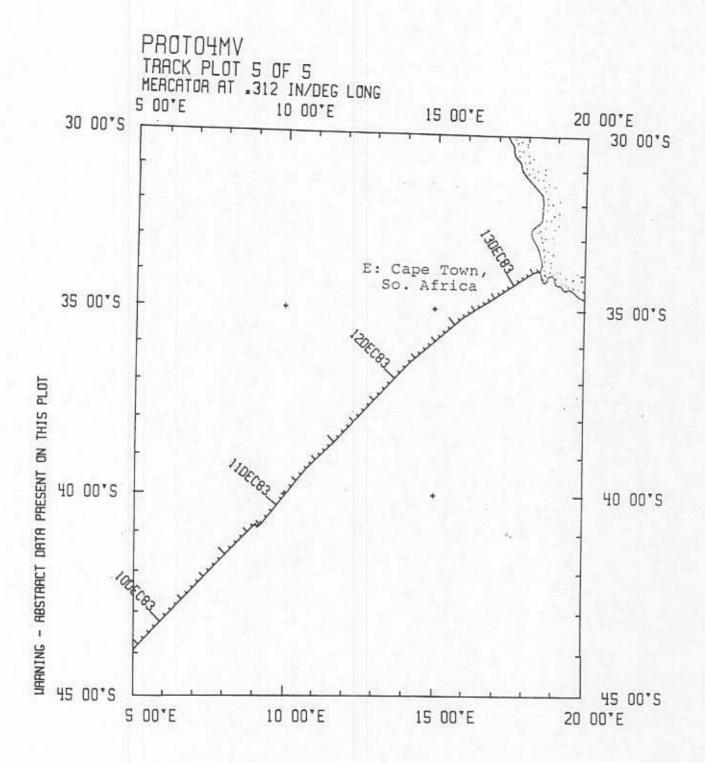


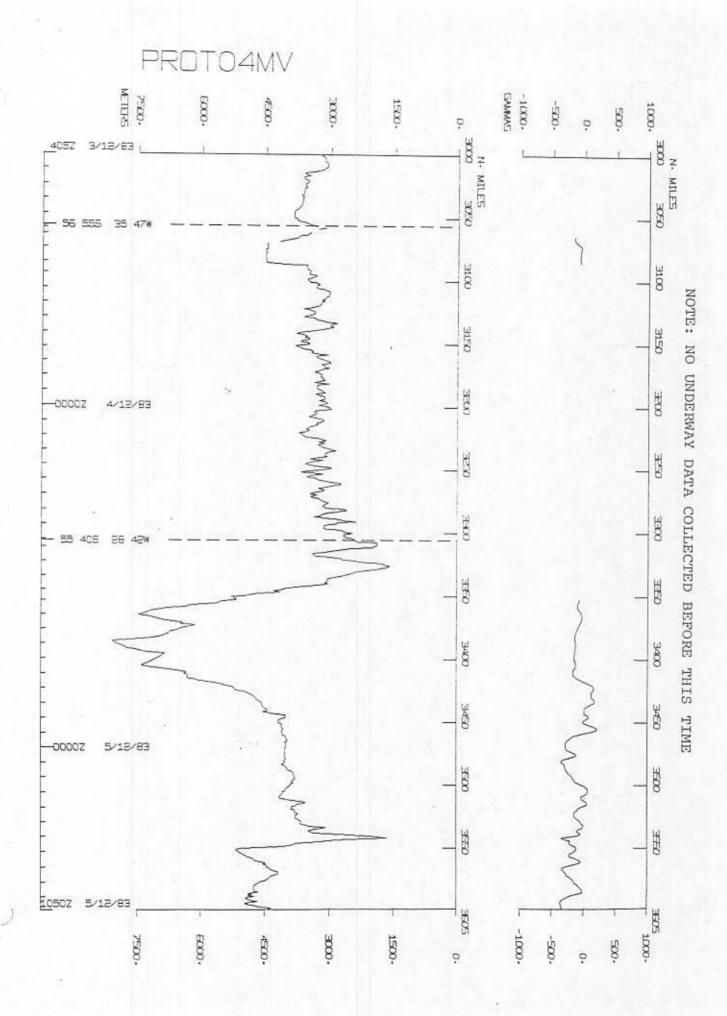


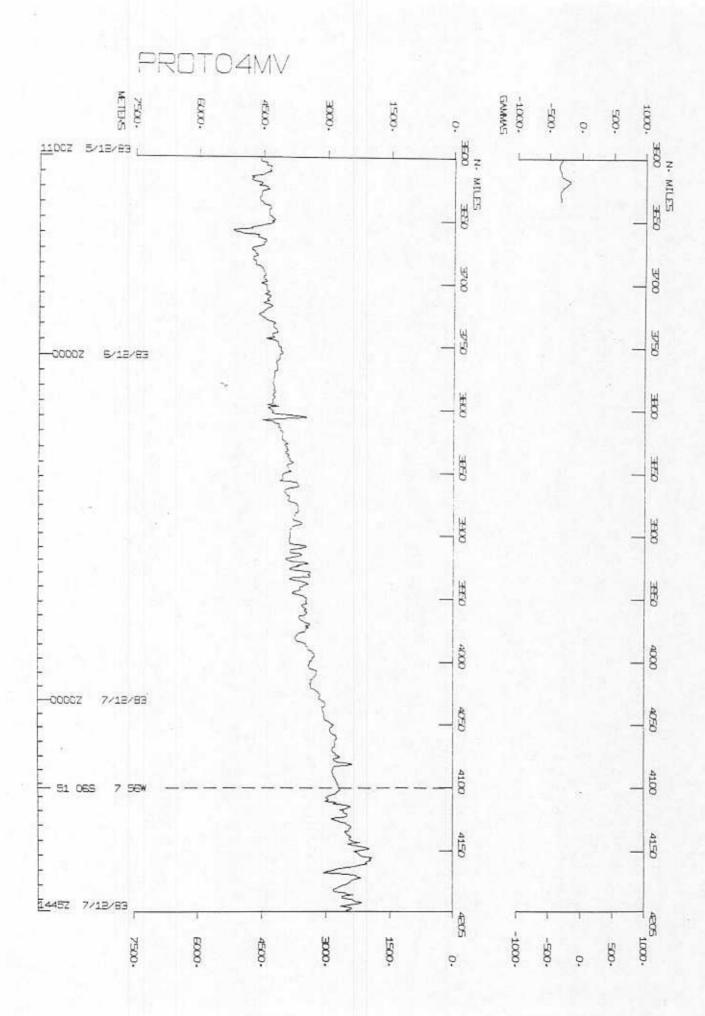


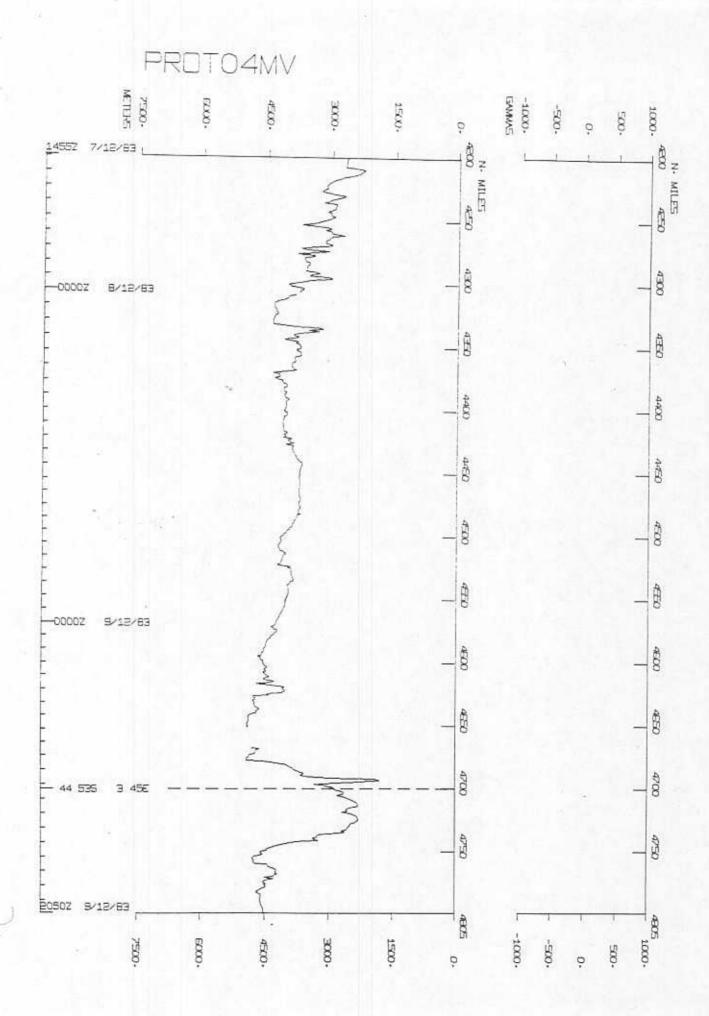


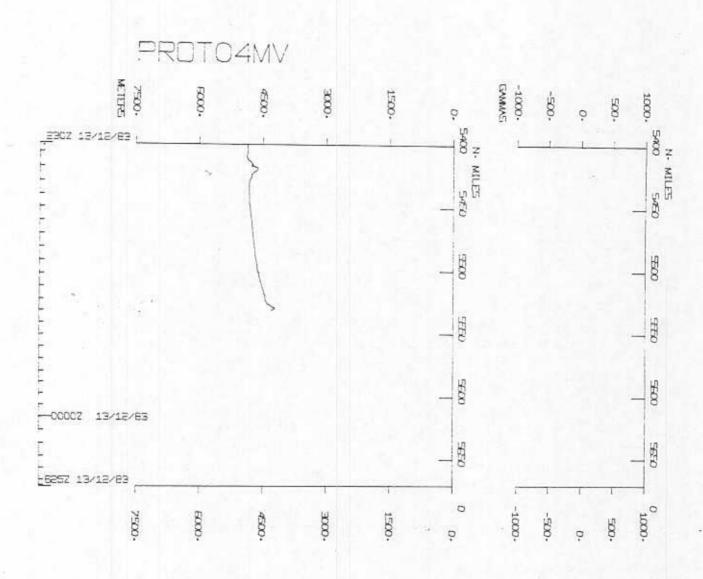












S.I.O. SAMPLE INDEX (Issued November 1984)

PROTEA EXPEDITION

Leg 4

Punta Arenas, Chile (04 November 1983) to Cape Town, South Africa (13 December 1983) R/V Melville

Chief Scientist - D. Ainley (Pt. Reyes Bird Observatory)

Post-Cruise Processing and Report Preparation by S.I.O. Geological Data Center

Index Encoding Funded by NSF Grant Number OCE80-22996 Index Processing and Report Preparation funded in part by SIA

The Sample Index is a first level interdisciplinary listing of time, position, sample identification and disposition of all samples, records and measurements collected on this cruise leg. The index data are encoded at sea by the resident marine technician and processed on shore by the S.I.O. Geological Data Center shortly after the completion of the cruise leg.

Positions are interpolated on the basis of sample time by comparison to a single, edited navigation file. Samples beginning at one time and position and ending at another are entered on two consecutive lines. Disposition and sample type are represented by three and four character codes to permit future computer searches on these parameters. (Listings defining these codes are available from the Geological Data Center.)

GDC Cruise I.D. #212

PROTEA LEG 4 SAMPLE INDEX

PROTO4MV

***	PORTS ***													
1303	41183	*	LGPT	B PU	TA ARE	NAS,	CHILE		53	10 S	70	54 W	F	PROTO4NV
0518	131283				PETOWN,									PROTO4MV
1704	41183				O NEGR									PROTO4MV
1042	51183	240			O NEGRO									PROTO4NV
										1				
								900						

***PERSONNEL ***

100		Control of the Contro		
	***	NAME *** ***	TITLE ***	*** AFFILIATION ***
PECS	SIX	AINLEY, D.	CHIEF SCIENTIST	
PERT	MTG	WILSON, R.	RESIDENT TECH	
PECT	SCG	STUBER, D.	COMPUTER TECH	SCRIPPS INST.OF OCEAN. PROTO4MV
PESP	OSU	AHERN, J.	RESEARCH ASST.	OREGON STATE UNIV. PROTO4MV
PEST	UWA	BISHOP, G.	STUDENT	UNIV. OF WASHINGTON PROTO4MV
PESP	MBD	BRINTON, E.	PROFESSOR	SCRIPPS INST.OF OCEAN. PROTO4MV
PESP !	LDO	BRUCHHAUSEN, P.	RESEARCH ASST.	LAMONT-DOHERTY GEOL.OBS.PROTO4MV
PESP :	SIX	COATS, W.	BIOLOGIST	CHESAPEAKE BAY INST. PROTO4MV
PESP :	SIX	FERRIS, L.	NATURALIST	PT. REYES BIRD OBS. PROTO4MV DIGITAL EQUIP.CORP. PROTO4MV
PECT :	SIX	GRAUE, G.	COMPUTER TECH	DIGITAL EQUIP.CORP. PROTO4MV
PESP :	SIX	HEINBOKEL, J.	SCIENTIST	CHESAPEAKE BAY INST. PROTO4MV
PESP 1	LDO	HUBER, B.	OCEANOGRAPHER	LAMONT-DOHERTY GEOL.OBS.PROTO4MV
PESP (OSU	JENNINGS, J.	RESEARCH ASST.	
PEST :	SIX	JOHNSON, T.	STUDENT	UNIV. OF TENNESSEE PROTO4MV
PEST :	SIX	KREMPIN, D.	STUDENT	UNIV. OF SO. CALIF. PROTO4NV
PESP :	SIX	LANCRAFT, M.	TECHNICIAN	UNIV. OF SO. FLORIDA PROTO4MV
PESP I	UWA	MACAULAY, M.	OCEANOGRAPHER	UNIV. OF WASHINGTON PROTO4NV
PEXN I		MARIN, V.	STUDENT	SCRIPPS INST. OF OCEAN. PROTO4MV
PEST S	SIX	MILLER, N.	STUDENT	UNIV. OF SO. CALIF. PROTO4MV
PESP I	NOA	MOUNTAIN, D.	OCEANOGRAPHER	-NAT.OCEAN/ATMOS.ADMIN. PROTO4MV
PESP S	SIX	OCONNOR, E.		
PESP 1	NOA	SCHLITZ, R.	OCEANOGRAPHER	NAT.OCEAN/ATHOS.ADMIN. PROTO4NV
PESP :	SIX	SMITH, W.		UNIV. OF TENNESSEE PROTO4NV
PESP (OSU	SPARROW, M.	RESEARCH ASST.	OREGON STATE UNIV. PROTO4MV
PESP I	LDO	STEPIEN, J.	OCEANOGRAPHER	LAMONT-DOHERTY GEOL.OBS.PROTO4NV
PEST 1	MBD	SYKES, P.	STUDENT	SCRIPPS INST.OF OCEAN. PROTO4NV
PESP S	SIX	TORRES, J.	PROFESSOR	UNIV. OF SO. FLORIDA PROTO4MV
PEST S	SIX	WEIGLE, B.	STUDENT	UNIV. OF SO. FLORIDA PROTO4NV

NOTES AN 'X' IN THE (B)EGIN/(E)ND COLUMN FOLLOWING THE SAMPLE CODE INDICATES NO SAMPLE OR DATA RECOVERED. A 'C' INDICATES CONTINUATION OF DATA COLLECTION FROM BEFORE THE BEGINNING OR AFTER THE END OF THIS LEG. (MOORED BOTTOM INSTRUMENTS, FOR EXAMPLE). THE NUMBER APPEARING IN THE COLUMNS BETWEEN THE SAMPLE IDENTIFIER AND THE DISPOSITION CODE, FOR MANY SAMPLE ENTRIES, IS THE WATER DEPTH IN CORRECTED METERS.

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 2

GHT TIME	DDHMYY		SAMP	SAMPLE IDENTIFIER	DISP LA	т.	LO	NG.		CRUISE LEG-SHIP
				- STUART M. SMITH						
	LOG BOOKS									
2232	101183		LBSC B	HYDROGRAPHIC LOG HYDROGRAPHIC LOG CTD LOG CTD LOG BIRD CENSUS MELV83 BIRD CENSUS MELV83 BIRD SPECIMEN DATA	NOA 60	3425	37	55₩	S	PROTO4MV
2003	21283		LBSC E	HYDROGRAPHIC LOG	NOA 57	1745	37			PROTO4MV
2232	101183		LBSC B	CTD LOG	NOA 60	3425	37			PROTO4MV
2006	31283		LBSC E	CTD LOG	NOA 56	2505	33	20W	5	PROTO4MV
830	61183		LBSC B	BIRD CENSUS MELV83	SIG 53	1765	65	86W	S	PROTO4MV
518	131283		LBSC E	BIRD CENSUS MELV83	SIG 33	5295	18	273E	S	PROTO4HV
1200	111183		LBSC B	BIRD SPECIMEN DATA	SIG 60	4225	37	76W	S	PROTO4HV
900	31283		LBSC E	BIRD SPECIMEN DATA	SIG 56	5595	35	469W	S	PROTO4NV
*** F	FATHOGRAMS	***								
2124	101183		DPRT B	EDO 12KHZ R-01	GDC 60	3435	37	60W	S	PROTO4MV
820	91283		DPRT E	EDO 12KHZ R-01	GDC 45	2565	3	26E	S	PROTO4MV
845	91283		DPRT B	EDO 12KHZ R-02	GDC 45	2235	3	67E	S	PROTO4MV
1500	121283		DPRT E	EDO 12KHZ R-01 EDO 12KHZ R-01 EDO 12KHZ R-02 EDO 12KHZ R-02	GDC 35	72W	16	101E	S	PROTO4MV
*** }	AGNETONET	ER **								
1202	31283		MGRA B	MAGNETICS R-01	GDC 56	5535	35	355W	S	PROTO4MV
1230	51283		MGRA E	MAGNETICS R-01	GDC 54	4795	19	434W	S	PROTO4NV
*** S	SPECIAL BI	OLOGI	CAL SAMI	PLE ***			500			
1200	111183		BLXX B	BIRD COLLECTION	SIG 60	4225	37	76W	S	PROTO4NV
1400	111183		BLXX E	BIRD COLLECTION BOAT AND SHOTGUN BIRD COLLECTION BOAT AND SHOTGUN	SIG 60	4175	37	49W	S	PROTO4MV
1115	161183		BLXX B	BIRD COLLECTION	SIG 59	225	39	162W	S	PROTO4MV
1259	161183		BLXX E	BOAT AND SHOTGUN	SIG 59	95	39	174W	S	PROTO4MV
959	171183		BLXX B	BIRD COLLECTION	SIG 58	1165	38	232₩	5	PROTO4MV
1100	171183		BLXX E	BOAT AND SHOTGUN	SIG 58	1175	38	216W	S	PROTO4MV
812	181183		BLXX B	BIRD COLLECTION	SIG 58	2665	37	401W	S	PROTO4MV
948	181183		BLXX E	BOAT AND SHOTGUN	SIG 58	2675	37	387W	S	PROTO4MV
900	191183		BLXX B	BIRD COLLECTION	SIG 59	2505	37	267₩	S	PROTO4MV
1030	191183		BLXX E	BOAT AND SHOTGUN	SIG 59	2415	37	252W	S	PROTO4MV
813	231183		BLXX B	BOAT AND SHOTGUN BIRD COLLECTION BOAT AND SHOTGUN BOAT AND SHOTGUN BIRD COLLECTION BOAT AND SHOTGUN BIRD COLLECTION BOAT AND SHOTGUN BIRD COLLECTION	SIG 60	185	38	215₩	S	PROTO4HV
1015	231183		BLXX E	BOAT AND SHOTGUN	SIG 60	155	38	216W	S	PROTO4MV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 3

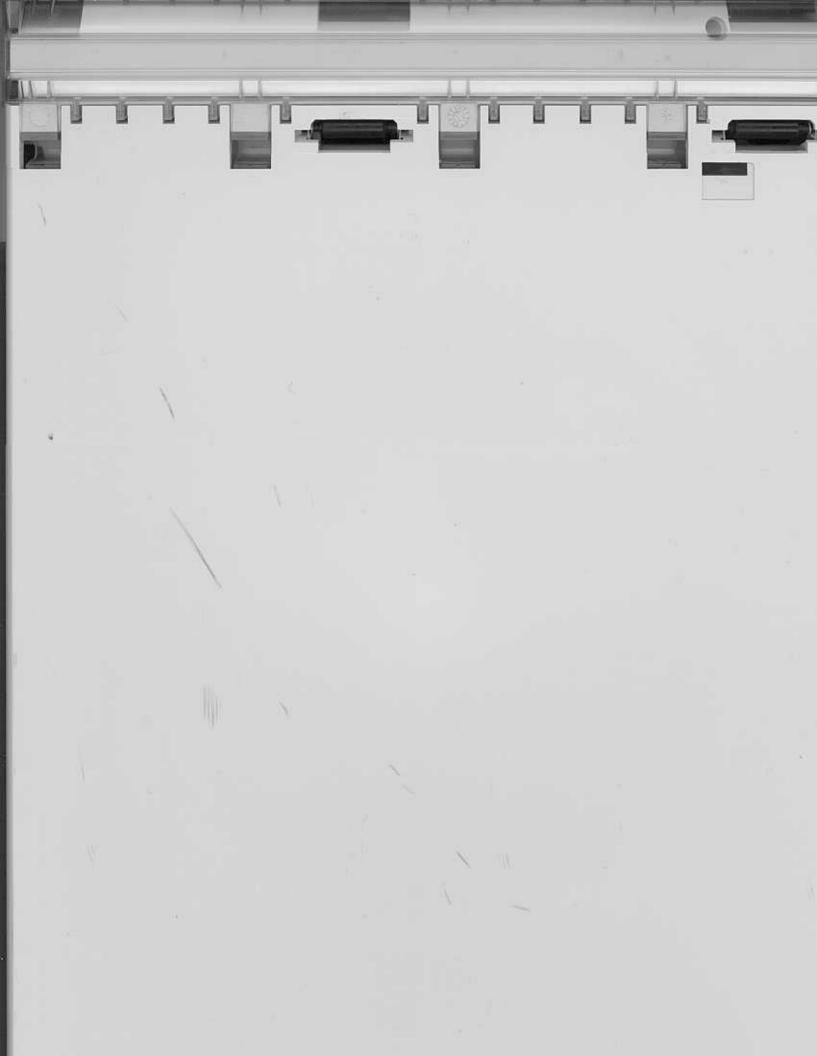
GHT		SAMP	SAMPLE				LO			CRUISE
1185	DATE	CODE	IDENTIFIER	CODE						LEG-SHIF
1920	231183	BLXX E	PHOTOS AND ICE	SIG	60	2155	38	281W	s	PROTO4MV
2100	231183	BLXX E	BOAT AND CAMERA	SIG	60	2205	38	285W	S	PROTO4MV
920	241183	BLXX B	BIRD COLLECTION	SIG	60	1515	38	448W	S	PROTO4HV
1045	241183	BLXX E	BOAT AND SHOTGUN	SIG	60	1455	38	453W	S	PROTO4NV
830	281183	BLXX B	BIRD COLLECTION	SIG	60	3345	39	341W	S	PROTO4HV
1035	281183	BLXX E	BOAT AND SHOTGUN	SIG	60	3165	39	327W	S	PROTO4HV
900	31283	BLXX B	BIRD COLLECTION	SIG	56	5595	35	469W	S	PROTO4MV
1130	31283	BLXX E	BOAT AND SHOTGUN	SIG	56	5615	35	412W	5	PROTO4MV
1512	101183	BLXX	BIOLOGY SAMPLE	SIG	60	3245	37	65₩	S	PROTO4HV
1639	141183	BLXX	BIOLOGY SAMPLE	SIG	60	2955	40	333₩	S	PROTO4MV
1718	141183	BLXX	BIOLOGY SAMPLE	SIG	60	2935	40	334W	5	PROTO4HV
735	151183	BLXX	BIOLOGY SAMPLE	SIG	60	825	40	112W	S	PROTO4MV
1354	151183	BLXX	BIOLOGY SAMPLE	SIG	59	5375	40	18	S	PROTO4NV
2240	151183	BLXX	BIOLOGY SAMPLE	SIG	59	3245	39	444W	S	PROTO4MV
	161183	BLXX	BIOLOGY SAMPLE	SIG	59	175	39	165W	5	PROTO4MV
	161183	BLXX	BIOLOGY SAMPLE	SIG	58	3845	38	515W	S	PROTO4MV
	171183	BLXX	BIOLOGY SAMPLE	SIG	58	1175	38	221W	S	PROTO4MV
	171183	BLXX	BIOLOGY SAMPLE	SIG	58	665	37	478W	S	PROTO4HV
	181183	BLXX	BIOLOGY SAMPLE	SIG	58	2665	37	412W	5	PROTO4MV
	181183	BLXX	BIOLOGY SAMPLE	SIG	58	5515	37	374W	5	PROTO4NV
	191183	BLXX	BIOLOGY SAMPLE	SIG	59	2255	37	229W	S	PROTO4NV
	191183	BLXX	BIOLOGY SAMPLE	SIG	59	5375	37	178W	S	PROTO4MV
	191183	BLXX	BIOLOGY SAMPLE	SIG	59	5495	37	194W	S	PROTO4HV
	201183	BLXX	BIOLOGY SAMPLE	SIG	60	1965	37	55W	S	PROTO4MV
	211183	BLXX	BIOLOGY SAMPLE	SIG	59	5145	38	2W	S	PROTO4HV
	221183	BLXX	BIOLOGY SAMPLE	SIG	59	4195	38	95W	S	PROTO4NV
	231183	BLXX	BIOLOGY SAMPLE	SIG	60	185	38	214W	S	PROTO4HV
	231183	BLXX	BIOLOGY SAMPLE	SIG	60	2085	38	281W	S	PROTO4NV
	241183	BLXX	BIOLOGY SAMPLE	SIG	60	1495	38	443W	S	PROTO4NV
	241183	BLXX	BIOLOGY SAMPLE	SIG	60	4135	38	364W	S	PROTO4MV
	251183	BLXX	BIOLOGY SAMPLE	SIG	60	125	38	563W	S	PROTO4MV
	251183	BLXX	BIOLOGY SAMPLE	SIG	59	4145	39	140	S	PROTO4HV
	261183	BLXX	BIOLOGY SAMPLE			5585	39	290W	S	PROTO4HV
	261183	BLXX	BIOLOGY SAMPLE	SIG		765	39	564W	S	PROTO4MV
	271183	BLXX	BIOLOGY SAMPLE	SIG		2845	40	321₩	S	PROTO4H

TIME	DDMMYY DATE	CODE	IDE	NTIFIER		CODE						LEG-SHIP
		**										
	BATHYTHERMO											
0	61183	BTXP	NO.	SAMPLES =	1	NOA	52	3905	67	417₩	S	PROTO4MV
	71183		NO.	SAMPLES =	3	NOA	54	1335	60			PROTO4MV
	81183	BTXP	NO.	SAMPLES =	6	NOA	56	605	53			PROTO4MV
	91183	BTXP	NO.	SAMPLES =	6	NOA	57	4065				PROTO4MV
	101183	BTXP		SAMPLES =	1	NOA	59	5995				PROTO4MV
	111183	BTXP		SAMPLES =	5	NOA	60	3385				PROTO4MV
	121183	BTXP	NO.	SAMPLES =	20	NOA	59	5855	37			PROTO4MV
	131183	BTXP	NO.	SAMPLES =	24	NOA	59	2515	38			PROTO4MV
0	141183	BTXP	NO.	SAMPLES =	14	NOA	59	2205	40			PROTO4MV
0	151183	BTXP	NO.	SAMPLES =	1	NOA	60	172S	40	235W	S	PROTO4MV
0	161183	BTXP	NO.	SAMPLES = SAMPLES =	3	NOA	59	3245	39	451W	S	PROTO4MV
0	171183	BTXP	NO.	SAMPLES =	5	NOA	58	3815	38	502₩	5	PROTO4MV
0	181183	BTXP	NO.	SAMPLES =	2	NOA	58	615	37	483W	S	PROTO4MV
0	191183	BTXP	NO.	SAMPLES =	0	NOA	58	5305		360W	S	PROTO4MV
0	201183	BTXP	NO.	SAMPLES =	3	NOA	59	5515	37	199W	S	PROTO4NV
0	211183	BTXP	NO.	SAMPLES =	3	NOA	60	1455	37	27W	S	PROTO4MV
0	231183	BTXP	NO.	SAMPLES =		NOA	59	4375	38	69W	5	PROTO4MV
0	241183	BTXP	NO.	SAMPLES =	2	NOA	60	2175	38	305W	S	PROTO4MV
0	251183	BTXP	NO.	SAMPLES =	3	NOA	60	4205	38	357₩	S	PROTO4MV
	261183	BTXP	NO.	SAMPLES =	2	NOA	59	4365	39	101W	S	PROTO4MV
0	291183	BTXP	NO.	SAMPLES =	1	NOA	60	2405	39	285W	S	PROTO4MV
0	301183	BTXP	NO.	SAMPLES =	2	NOA	59	4905	39	595W	S	PROTO4MV
0	11283	BTXP	NO.	SAMPLES =	3	NOA	59	365	39	14W	S	PROTO4MV
0	21283	BTXP	NO.	SAMPLES =	2	NOA	58	1305	38	300M	S	PROTO4MV
***BI	JCKET WATER	SAMPLE SUF	RFACE	TEMPERATU	RE===							
	61183	BKST	NO.	SAMPLES =	15	NOA	52	3905	67	417W	S	PROTO4MV
	71183	BKST	NO.	SAMPLES =	16	NOA	54	1335	60	390W	S	PROTO4NV
	81183	BKST	NO.	SAMPLES =	18	NOA	56	605				PROTO4MV
0	91183	BKST	NO.	SAMPLES =	15	NOA		4065				PROTO4MV
0	101183	BKST	NO.	SAMPLES =	3	NOA	59	5995				PROTO4MV
	111183	BKST		SAMPLES =			60	3385				PROTO4MV
	121183	BKST	NO.	SAMPLES =	19	NOA	59	5855				PROTO4MV
	131183	BKST	NO.	SAMPLES =	24	NOA	59	2515	38	235W	S	PROTO4HV
	141183	BKST	NO.	SAMPLES =	12	NOA	59	2205	40	9₩	S	PROTO4NV
	161183	BKST	NO.	SAMPLES =	3	NOA	59	3245	39	451W	S	PROTO4MV
	171183	BKST		SAMPLES =		NOA	58	3815				PROTO4MV
	181183	BKST		SAMPLES =		NOA	58	615				PROTO4HV
	191183	BKST		SAMPLES =		NOA	58	5305	37	360W	S	PROTO4MV
	201183	BKST		SAMPLES =		NOA	59	5515				PROTO4MV
	211183	BKST		SAMPLES =		NOA	60	1455				PROTO4NV
	221183	BKST		SAMPLES =		NOA	59	5275				PROTO4MV
	241183	BKST		SAMPLES =				2175	38	305W	S	PROTO4MV

GMT TIME	DDMMYY DATE	SAMP		CODE						LEG-SHIP
0	251183	BKST	NO. SAMPLES = 3 NO. SAMPLES = 2 NO. SAMPLES = 1 NO. SAMPLES = 2 NO. SAMPLES = 1 NO. SAMPLES = 6 NO. SAMPLES = 3 NO. SAMPLES = 7 NO. SAMPLES = 4 NO. SAMPLES = 7							
		BKST	NO. SAMPLES = 3	NOA	50	4205	38	30/W	2	PROTO4NV
	301183	BKST	NO. SAMPLES = 1	NOA	50	4365	37	TOTA	2	PROTO4NV
		BKST	NO. SAMPLES = 2	MON	59	366	33	14W	0	PRUTUANV
	21283	BKST	NO. SAMPLES = 1	NOA	50	1205	20	148	2	PROTOANV
0		BKST	NO. SAMPLES = 6	NOA	57	1455	37	409W	0 0	DECTORMU
0		BKST	NO. SAMPLES = 3	MON	56	1005	21	4436	2	PROTOAMU
0		BKST	NO. SAMPLES = 7	NOA	55	1135	27	501W	0	PROTOAMU
0		BKST	NO. SAMPLES = 4	NOA	54	905	15	545W	2	PROTOARU
0		BKST	NO. SAMPLES = 4 NO. SAMPLES = 7 NO. SAMPLES = 5 NO. SAMPLES = 6 NO. SAMPLES = 6 NO. SAMPLES = 6 NO. SAMPLES = 5	NOA	51 4	1225	13	317W	0	PROTOAMU
0		BKST	NO. SAMPLES = 5	NOA	49 1	1045	2	317W	0	PROTOAMU
		BKST	NO. SAMPLES = 6	NOA	46	2545	1	32/W	0	DROTOAMU
		BKST	NO. SAMPLES = 6	NOA	43 1	1755	5	5500	2	PROTO4HV
		BKST	NO. SAMPLES = 6	NOA	40 1	1625	9	4435	0	DPOTO4NU
0	121283	BKST	NO. SAMPLES = 5	NOA	36 5	5545	13	2075	2	DECTOVE
- 10		5	NO. JAME BED - 5	NON	36 .	3343	13	30/1	3	PRUIUMNV
	14									
***C	ONTINUOUS SUR	FACE WATE	R SAMPIFOR							
			SURFACE CHLOROPHYLL	SIG	60 3	2235	37	1066	c	DPOTOANU
800	41283	CSXX F	SURFACE CHLOROPHYLL	SIG	55 4	1245	29			PROTO4NV
1921	111183	CSXX B	SURFACE CHLOROPHYLL	SIG	60 3	3235	37			PROTO4HV
800	41283	CSXX E	SURFACE CHLOROPHYLL	SIG	55 4	1245	29	410	S	PROTO4NV
***P(OCK DEFOCES	CUDATOR	W. RIEDEL (EXT. 4386)							
			ROCK FROM ICEBURG		60 1	125	20	4576		DROTOANU
	211100	DIKK	NOOK PROM TOEBORG	GOK	00 1	1425	30	43/W	2	PROTOGRA
SI	UBMERGED PHOTO	METER								
			SPECTRORADIOMETER	SIG	57 3	3595	46	329W	S	PROTO4MV
	91183	PSXX	SPECTRORADIOMETER		59 5					PROTO4NV
	111183	PSXX	SPECTRORADIOMETER		60 3		37			PROTO4MV
	111183	PSXX	SPECTRORADIOMETER		60 3		37			PROTO4MV
	111183	PSXX	SPECTRORADIOMETER		60 4		37			PROTO4HV
	111183	PSXX	SPECTRORADIOMETER		60 4		37			PROTO4HV
	141183	PSXX	SPECTRORADIOMETER		60 2					PROTO4MV
	141183	PSXX	SPECTRORADIOMETER		60 2					PROTO4NV
	151183	PSXX	SPECTRORADIOMETER	SIG		815				PROTO4HV
	151183	PSXX	SPECTRORADIOMETER	SIG		815				PROTO4HV
	151183	PSXX	SPECTRORADIOMETER		59 5					PROTO4MV
	151183	5.1 (4.5-1) (4.5-1)		superiol of the	THE WAY OF SHE	395				PROTO4NV

Sep 12 15:07 1984 PROTEA LEG 4 SAMPLE INDEX Page 6

GHT TIME	DDMMYY		DISP		т.	LO	NG.		CRUISE LEG-SHIP				
1241	161183	PSX	(SPECTR	ORADION	ETER	SIG	59	115	39	1736	5	PROTO4HV
1257	161183	PSX	(ORADIOM		SIG						PROTO4NV
1104	171183	. PSX	(ORADION				1185				PROTO4NV
1125	171183	PSX	(SPECTR	ORADION	ETER			1185				PROTO4HV
741	181183	PSXX	(ORADIOM				2665				PROTO4HV
802	181183	PSXX	(SPECTR	ORADIOM	ETER			2665				PROTO4MV
1932	181183	PSXX	(SPECTR	ORADION	ETER			5415				PROTO4MV
2002	181183	PSXX	(SPECTR	ORADION	ETER			5405				PROTO4MV
1024	191183	PSXX	(SPECTR	ORADION	ETER			2425				PROTO4MV
1058	191183	PSXX	(SPECTR	ORADION	ETER			2375				PROTO4NV
1900	51183	PSQI	B	LIGHT	SENSOR				2175				PROTO4MV
1500	31283	PSQ	E	LIGHT	SENSOR				4515				PROTO4NV
***A(COUSTIC	SURVEY											
1020	81183	ACXX	В	ACOUST	IC ZOOP	LANKTON	SIG	56	4875	50	42W	S	PROTO4MV
1330	41283	ACXX							3075	-			PROTO4NV
01	OEN NEE												
	101183		ъ	2511	E0	^	CTC		2100	07	700	-	DDOMO ANII
	101183	ONSC		35V	50	0			3185	37			PROTO4MV
	101183			35V	50	0			3195	37			PROTO4MV
	101183	ON30		35V 35V	50 50	0			3355	37			PROTO4MV
	101183	ONSO		35V	50	0			3355	37			PROTO4MV
	101183					0			3425	37			PROTO4MV
	111183	ONSO		35V 35V	50 50	0			3425 4 3395				PROTO4MV
	111183	ONSO		35V	50	0			3395	37			PROTO4MV PROTO4MV
	111183			35V	50	0			3395	37			PROTO4HV
	111183	ONSC		35V	50	o			3385	37 37			PROTO4NV
	111183	ONSO		35V	50	0			3395	37			PROTO4HV
	111183	ONSC		35V	50	0			3395	37			PROTO4HV
	111183	ONSO		35V	75	0			3295		100 A 200 A		PROTO4HV
	111183	ONSO		35V	75	o			3325				PROTO4NV
	111183	ONSO		35V	75	0			4195	37			PROTO4MV
	111183	ONSC		35V	75	o			4195	37			PROTO4HV
	141183	ONSC		35V	25	0			2875				PROTO4NV
	141183	ONSC		35V	25	0			2865	100 min 100 min	0.7545.0366.00		PROTO4NV
	151183	ONSO		35V	30	0	SIG		785				PROTO4NV
	151183	ONSC		35V	30	0	SIG		785				PROTO4NV
	151183	ONSO		35V	30	0			5455				PROTO4HV
	151183	ONSC		35V	30	0			5455				PROTO4NV
	161183	ONSO		35V	30	0			3245				PROTO4NV
	161183	DN30		35V	30	o			3245				PROTO4NV
	161183	ON30			30	0	SIG						PROTO4MV
1242	161183	ON30			30	0	SIG		45				PROTO4MV



Sep 12 15:07 1984 PROTEA LEG 4 SAMPLE INDEX Page 7

GMT TIME	DATE	SAMP	SAMPLE IDENTI			DISP		т.	LO	ING.	CRUISE LEG-SHIP
2314	161183	ON30 B	35V	30	0	STG	58	3845	30	5016	 PROTO4HV
	161183	ON30 E	35V	30	0			3845			PROTO4NV
	171183	ОМЗО В	35V	50	0			1195			PROTO4HV
	171183	ON30 E	35V	50	0			1195			PROTO4HV
	171183	ON30 B	35V	50	0	SIG					PROTO4NV
	171183	ON30 E	35V	50	0			695			PROTO4NV
	181183	ON30 B	35V	30	0			2615			PROTO4NV
	181183		35V	30	0	0.000		2615			PROTO4NV
604	181183	ON30 B	35V	20	0			2655			PROTO4MV
607	181183	ON30 E	35V	20		SIG					PROTO4NV
1716	181183	ON30 B	35V	30	0	STG	58	5445			PROTO4NV
1720	181183	ON30 E	35V	30		SIG					PROTO4MV
2040	181183	ON30 B	35V	30	0			5395			PROTO4NV
2045	181183	ON30 E	35V	30		SIG					PROTO4NV
2049	181183	ON3O B	35V	20		SIG					PROTO4MV
2053	181183	ON30 E	35V	20		SIG					PROTO4NV
17	191183		35V	30	0	SIG					PROTO4MV
	191183	ON30 E	35V	30		SIG					PROTO4NV
906	191183	ON3O B	35V	50	0						PROTO4HV
920	191183	ON30 E	35V	50		SIG					PROTO4NV
1156	191183	ON3O B	35V	50	0	SIG					PROTO4HV
	191183	ON3O E	357	50	0	SIG					PROTO4HV
1214	191183	ON20 B	20V	20	0			2275			PROTO4MV
1218	191183	ON20 E	20V	20		SIG					PROTO4NV
2006	191183	ON3O B	35V	50		SIG					PROTO4MV
2012	191183		35V	50	0						PROTO4NV
2243	191183	ON30 B	35V	50	0			5495			PROTO4MV
2248	191183	ON30 E	35V	50	0						PROTO4MV
2250	191183	ON20 B	20V	20							PROTO4MV
	191183	ON20 E	20V	20							PROTO4NV
216	201183	ON30 B	35V	50							PROTO4NV
224	201183	ON30 E	35V	50		SIG	59	5635	37		PROTO4NV
1737	201183	ON30 B		50	0	SIG					PROTO4MV
1747	201183	ON30 E	357	50	0			1955	37		PROTO4NV
	201183	ON3O B	35V	50	0			2015			PROTO4HV
2115	201183	ON30 E	35V	50	0			2005			PROTO4NV
2118	201183	ON20 B	20V	20	0			2005			PROTO4MV
	201183	ON20 E	20V	20	0			1995			PROTO4NV
1227	211183	ON50 B	35V	50	0			5155	38		PROTO4MV
	211183	ON50 E	35V	50	0			5165	38		PROTO4MV
	211183	ONSO B	35V	50	0			5255	38		PROTO4HV
	211183	ONSO E	35V	50	0			5265	38		PROTO4NV
	211183	ON20 B	20V	20	0			5265	38		PROTO4MV
	211183	ON20 E	20V	20	0			5265	38		PROTO4NV
	211183	ONSO B	35V	50	0			5315	38		PROTO4NV
1930	211183	ON50 E	35V	50	0			5315	38		PROTO4MV

Sep 12 15:27 1984 PROTEA LEG 4 SAMPLE INDEX Page 8

GHT TIME	DDMMYY DATE	SAMP	SAMPLE IDENTI			DISP	LA	T.	LC	ING.	CRUISE LEG-SHIF
	211183	ON50 B	35V	50	0	SIG	59	5315	38	29ы	 PROTO4MV
	211183	ON50 E	35V	50	0			5315	38		PROTO4HV
	211183	ON50 B	35V	50	0			5295	38		PROTO4HV
	211183	ON50 E	35V	50	0			5285	38		PROTO4NV
	211183	ON50 B	35V	50	0			5285	38		PROTO4NV
	211183	ONSO E	35V	50	0			5285	38		PROTO4HV
	221183	ONSO B	35V	50	0			5285	38		PROTO4NV
	221183	ON50 E	35V	50	0			5295	38		PROTO4NV
	221183	ON50 B	35V	50	0			5305	38		PROTO4MV
	221183	ON50 E	35V	50	0	STC	=0	E000	38		PROTO4NV
	221183	ON50 B	35V	50	0	SIG	59	5195	38		PROTO4NV
	221183	ON50 E	35V	50	0	SIG	59	5185	38		PROTO4MV
	221183	ON50 B	35V	50	0	SIG	59	5165	38		PROTO4MV
	221183	ON50 E	35V	50	0	SIG	59	5155	38		PROTO4NV
	221183	ON50 B	35V	50	0			5095			PROTO4HV
	221183	ON50 E	35V	50	0			5095			PROTO4MV
	221183	ON50 B	35V	50	0			5095			PROTO4MV
	221183	ONSO E	35V	50	0			5095	117504		PROTO4NV
	221183	ONSO B	35V	50	0			5105			PROTO4MV
	221183	ONSO E	35V	50	0			5105			PROTO4MV
	221183	ONSO B	35V	50	0	SIG					PROTO4MV
2319	221183	ONSO E	35V	50	0	SIG	59	4325	38		PROTO4NV
742	231183	ON50 B	35V	50	0	SIG					PROTO4MV
754	231183	ONSO E	35V	50	0	SIG					PROTO4NV
1025	231183	ON50 B	35V	50		SIG					PROTO4MV
1035	231183	ONSO E	35V	50	0	SIG		145-			PROTO4NV
1645	231183	ONSO B	35V	50	0			2025			PROTO4MV
1655	231183	ONSO E	35V	50	0	SIG					PROTO4NV
2004	231183	ONSO B	35V	50	0			2165			PROTO4NV
2014	231183	ONSO E	35V	50	0	SIG					PROTO4MV
2333	231183	ON50 B	35V	50	0	SIG					PROTO4NV
2343	231183	ONSO E	35V	50	0	SIG					PROTO4NV
918	241183	ON50 B	35V	50	0			1525			PROTO4NV
928	241183	ON50 E	35V	50	0			1505			PROTO4NV
1938	241183	ON50 B	35V	50	0			4135			PROTO4HV
1948	241183	ONSO E	35V	50	0			412S			PROTO4HV
815	251183	ON50 B	35V	50	0	SIG					PROTO4NV
825	251183	ON50 E	35V	50	0			205			PROTO4NV
1614	251183	ON30 B	35V	50	0			4145	39		PROTO4NV
1624	251183	ON30 E	35V	50	0			4135	39		PROTO4NV
341	261183	ON3O B	35V	50	0			5585			PROTO4MV
	261183	ON30 E	35V	50	0			5585			PROTO4NV
	261183	ON30 B	35V	50	0	SIG		765			PROTO4MV
	261183	ON30 E	35V	50	0	SIG		755			PROTO4NV
	271183	ON30 B	35V	50	0			2835			PROTO4MV
	271183	ON30 E	35V	50	0			2835			PROTO4NV

Sep 12 15:27 1984 PROTEA LEG 4 SAMPLE INDEX Page 9

GMT TIME	DDMMYY E DATE		SAMP					DISI	P LA	AT.	Lo	NG.		CRUISE LEG-SHI	(P
1700	271183		0,030						3111233						
1710	271183		0830	F	35V	50	157.0			2705		542W	S	PROTO4N	V
	281183		0030	R	35V	50	280			2715		537W	S	PROTO4M	٧
	281183		ON30	F	35V		1.50			3945		450W	S	PROTO4M	٧
	281183		ON30	B	35V	30	15.0			3955		447W	S	PROTO4M	٧
	281183		ON30		35V	50	130	10000		3845		422W	S	PROTO4M	٧
	281183		0130		35V	50	22			3835				PROTO4M	
	281183		ONSO	E	35V	50	- 19			3625				PROTO4M	
	281183		0830	B	35V	50		SIG	60	3625				PROTO4M	
	281183		UNSO	E	35V	50 50	0	SIG	60	3495	39	362W	S	PROTO4M	٧
	281183		0830	B	35V	50	0	SIG	60	3475				PROTO4M	
	281183		0830	F	35V	50				3305				PROTO4M	
	281183		UN30	D	35V	50	0			3295				PROTO4H	
	281183		ON30	F	35V	50	0			3175				PROTO4M	
	281183		ON30	B	35V	50	0			3145				PROTO4M	
	281183		ON30		35V	50	0			2675				PROTO4M	
	281183		ONSO		35V	50	0			2675				PROTO4N	
	281183		ONSO	E	35V	50	0	STC	60	251S 251S				PROTO4M	
	281183		ONSO		35V	50	ő			2565				PROTO4N	
	281183		0830		35V	50	o			2575				PROTO4M	
2105	281183		ONSO		35V	50	0			2625				PROTO4M	
2115	281183		ON30	E	35V	50				2635				PROTO4N	
2243	281183		0830	В	35V	50				2425				PROTO4M	
2253	281183		0830	E	35V	50				2415				PROTO4M	
22	291183		0830		35V	50				2415				PROTO4M	
32	291183	*17	ON30	E	357									PROTO4N	
*** }	IDWATER	TRAWL	***												
	111183		TMXX	В		150	100	STG	60	3355	37	724	c	DROTOANS	,
	111183		THXX	E		150	100	SIG	60	3295	37	1038	2	PROTO4M	,
1553	111183		THXX	В		600	0			4015	2000000			PROTO4M	
1829	111183		TMXX	E		600	0			3425	37			PROTO4N	
2049	141183		TMXX	В		800	0			2665				PROTO4M	
	151183		TMXX	E		800	0			1485				PROTO4MY	
	151183		THXX	В		300	200			5495				PROTO4MY	
	151183		TMXX	E		300	200	SIG	59	5005				PROTO4NV	
	161183		TMXX	В		400	200	SIG	59	2915	39	401W	S	PROTO4MV	1
	161183		TMXX	E		400	200	SIG	59	265S				PROTO4NV	
	161183		TMXX			750	600	SIG	58	5995	39	174W	S	PROTO4MV	,
	161183		TMXX			750	600			5585	39	90W	S	PROTO4MV	1
	171183		THXX			200	100			3645				PROTO4NV	
	171183		XXMT			200	100			3265				PROTO4NV	
	171183		TMXX			1000	0			1215				PROTO4MV	
	171183		THXX			1000	0			935				PROTO4HV	
	181183		TMXX			400	300			2685				PROTO4MV	
	181183		THXX			400	300			3935				PROTO4NV	
136	191183		THXX	В		400	300	SIG	58	5275	37	353W	S	PROTO4MV	

Sep 12 15:27 1984 PROTEA LEG 4 SAMPLE INDEX Page 10

GHT TIME	DDMMYY DATE	SAMP	SAMPLE IDENTIFIER		DISP	LA	т.	LO	NG.		CRUISE LEG-SHIP
	191183	TMXX E	400	300	etc	E0					
	191183	TMXX B	500	400			15 2165		332W	S	PROTO4NV
	191183	THXX E	500	400							PROTO4HV
346	201183	TMXX B	100	0			3215				PROTO4NV
420	201183	THXX E	100	0			5695				PROTO4MV
2246	201183	TMXX B	7100	o			5835				PROTO4MV
	211183	TMXX E	7100	0	SIG		1715				PROTO4MV
1228	221183	TMXX B	900	450			845 5075				PROTO4NV
1601	221183	THXX E	900	450			4205				PROTO4MV
8	231183		1000	600			4395				PROTO4MV
416	231183	THXX F	1000	600			5305	38			PROTO4MV
	231183	TMXX B	100	0	SIG						PROTO4MV
1238	231183	TMXX E	100	0	SIG		165				PROTO4MV
41	241183	TMXX B	600				305				PROTO4MV
	241183	TMXX E	600	0			2155 1175				PROTO4MV
	241183	TMXX B	170	100							PROTO4HV
	241183	TMXX E	170	100			1885				PROTO4MV
	251183	TMXX B	200	100	SIG						PROTO4NV
	251183	TMXX E	200	100	SIG						PROTO4MV
	251183	TMXX B	300	200			165				PROTO4NV
	251183	TMXX E	300	200	SIG						PROTO4MV
	251183	TMXX B	400	300	SIG						PROTO4MV
	261183	TMXX E	400	300			4645				PROTO4MV
	261183	TMXX B	550	400			5655				PROTO4NV PROTO4NV
	261183	TMXX E	550	400			5985				PROTO4NV
	261183		400	0							PROTO4NV
	271183	THXX E	400	o	SIG	60	1315	40			PROTO4NV
		TMXX B	350	200			2835				PROTO4MV
	271183		350	200			2515	100000			PROTO4NV
	271183	TMXX B	550	300	SIG						PROTO4NV
	271183	TMXX E	550	300	SIG						PROTO4NV
		TMXX B	350	200	SIG						PROTO4NV
	291183	THXX E		200							PROTO4NV
	291183	TMXX B	1000	0			995				PROTO4NV
	291183	TMXX E	1000	o	SIG		225				PROTO4NV
	301183	TMXX B	1000	500			3085				PROTO4HV
	301183	THXX E	1000	500			2615				PROTO4NV
254	11283	THXX B	600	400	SIG		255				PROTO4NV
704	11283	TMXX E	600	400			5405				PROTO4HV
549	21283	TMXX B	300	200	SIG		495				PROTO4NV
700	21283	TMXX E	300	200	SIG		25				PROTO4NV

GMT TIME	DDMMYY DATE	COD	P E	SAMPLE IDENTIFIER			DISE	L/	AT.	L	ONG.		CRUISE LEG-SHIP
								V.C.					
eseP	UMP ***												
1621	101183	DHY	/ P	FLUORESCENCE			2/22						
1701	101183	PHY		FLUORESCENCE	PUP	PSON			3305		64W	S	PROTO4MV
1256	151183	PHX	(B	FLUORESCENCE	PUP	PBOR			3335		73W	S	PROTO4MV
	100	PHY	, F	FLUORESCENCE	PUR	PSOM			5275		580W	S	PROTO4MV
		PHY	B	FLUORESCENCE	PUR	PACH			5335				PROTO4MV
	161183	PHX	F	FLUORESCENCE	DUM	DOOM			3835				PROTO4MV
		PHX	B	FLUORESCENCE	DUM	DOOM			3855				PROTO4MV
		PHXX	F	FLUORESCENCE	DIIM	DROW			665				PROTO4MV
		PHXX	B	FLUORESCENCE	. PUN	POOM			625				PROTO4NV
		PHXX	F	FLUORESCENCE	DIIM	DOOM			2455				PROTO4MV
		PHXX	R	FLUORESCENCE	DIIM	DOOM			257S 543S				PROTO4MV
		PHXX	F	FLUORESCENCE	DIIM	DROM			5435				PROTO4NV
		PHXX	В	FLUORESCENCE	DIIM	DROM			2245				PROTO4NV
1320	191183	PHXX	F	FLUORESCENCE	DIIM	DROM			2205				PROTO4HV
				FLUORESCENCE					1965				PROTO4NV PROTO4NV
				FLUORESCENCE					1975				PROTO4NV
				FLUORESCENCE					5205				PROTO4NV
1530	211183	PHXX	E	FLUORESCENCE	PUM	PROM			5245				PROTO4NV
	221183	PHXX	В	FLUORESCENCE	PIIM	PAON			5175	38			PROTO4NV
630				FLUORESCENCE					5165	38			PROTO4NV
				FLUORESCENCE					145				PROTO4NV
1125	231183	PHXX	E	FLUORESCENCE	PUM	PBOM							PROTO4NV
1917	231183	PHXX	В	FLUORESCENCE	PUN	PBOM			2145	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1			PROTO4HV
2023				FLUORESCENCE					2175				PROTO4MV
1212	241183	PHXX	В	FLUORESCENCE	PUM	MO89	SIG		1435				PROTO4NV
1250	241183	PHXX	Ε	FLUORESCENCE	PUM	PBOM	SIG	60	1435	38			PROTO4NV
* = + CO	NDUCTIVITY.	TEMPERA	TUI	RE, DEPTH***									
	101183	TDCT		STA01	500M	RO1	NOA	60	3425	37	55W	S	PROTO4MV
459	111183	TDCT			500M				3395	37			PROTO4NV
	111183	TDCT			500H				4205	37			PROTO4NV
1634	141183	TDCT			500M				2955				PROTO4MV
613	151183	TDCT			500M		NOA		895				PROTO4HV
1331	151183	TDCT		STA06	500H	RO1	NOA	59	5355	39	598W	S	PROTO4MV
2227	151183	TDCT		STA07	500M	R11	NOA	59	3235				PROTO4NV
1133	161183	TDCT		STAO8	500M	R11	NOA	59	215	39	162W	S	PROTO4MV
	161183	TDCT		STA09	500M	R10	NOA	58	3895	38	524W	S	PROTO4NV
955	171183	TDCT		STA10	500M	R12	NOA	58	1165	38	233W	S	PROTO4MV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 12

GHT TIME		SAMP	SAMPLE IDENTIFIER		DISP LAT. CODE				DNG.	CRUISE LEG-SHIP		
	181183	TDCT	STA11	500%	R12	NOA	58	495		7 4000		
	181183	TDCT	STA12	500M			58	2675		1 402%	2	PROTO4NV
	181183	TDCT		5001				5435		7 2000	2	PROTO4MV
	191183	TDCT		500M				2485	27	202W	5	PROTO4NV
	191183	TDCT	STA15	500H				5435	27	201W	2	PROTO4MV
	201183	TDCT	STA16	500H				2675				PROTO4NV
	201183	TDCT	STA17	500M				1975				PROTO4HV
	211183	TDCT	STA18	500M				5165	37	42W	5	PROTO4MV
	211183	TDCT		500M				5315				PROTO4MV
	221183	TDCT	STA20	500M				5305				PROTO4MV
	221183	TDCT	STA21	500M				5105	38	23W	5	PROTO4MV
	221183	TDCT	STA22	500M				4115				PROTO4MV
	231183	TDCT	STA23	500M		NOA		185				PROTO4MV
	231183	TDCT	STA24	500M				2095				PROTO4NV
934	241183	TDCT	STA25	500M				1495				PROTO4MV
1956	241183	TDCT	STA26	500M				4135				PROTO4MV
831	251183	TDCT	STA27	500H				205				PROTO4MV
1633	251183	TDCT	STA28	500M				4135				PROTO4NV
403	261183	TDCT	STA29	500H				5595				PROTO4MV
1929	261183	TDCT	STA30	500H				755				PROTO4NV PROTO4NV
629	271183	TDCT	STA31	500M				2885				
1720	271183	TDCT	STA32	500H				2715				PROTO4MV PROTO4MV
814	281183	TDCT	STA33	500M				3365				PROTO4MV
1517	281183	TDCT	STA34	500H				2675				PROTO4NV
2129	281183	TDCT	STA35	500M				2645				PROTO4NV
814	291183	TDCT	STA36	500M				1015				PROTO4NV
	291183	TDCT	STA37	500H				5135				PROTO4HV
	301183	TDCT		1000H				3175				PROTO4HV
	301183	TDCT		1000H				355				PROTO4HV
925	11283	TDCT		10001				4035				PROTO4HV
230	21283	TDCT		HOOOL				1085				PROTO4NV
949	21283	TDCT		LOOON				4595				PROTO4HV
2006	21283	TDCT		1000M				1755				PROTO4NV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 13

GHT TIME	DDMMYY DATE	SAMP					DISP	LAT	T. LO		(G.		CRUISE LEG-SHIP
e = +H'	YDROGRAPHIC	CAST											
842	181183	HCNI	N	C	QGH15	150H	OSU	58	2665	37	397W	S	PROTO4HV
2021	181183	HCNI	N	C	QGH15	150M	OSU	58	5405	37	367W	S	PROTO4MV
1134	191183	HCNI	N	C	QGH15	150M	OSU	59	2325	37	235₩	S	PROTO4MV
2217	191183	HCNI	N	C	QGH15	150M	OSU	59	5485	37	189W	S	PROTO4MV
2044	201183	HCNI	N	C	QGH15	150M	OSU	60	2025	36	598W	5	PROTO4HV
1414	211183	HCNI	N	C	QGH15	150M	OSU	59	5185	38	13W	S	PROTO4MV
2214	211283	HCNI	N	C	QGH15	150M	OSU	59	5285	38	30₩	S	PROTO4HV
1050	221183	HCNI	N	C	QGH15	150M	OSU	59	5095	37	597W	S	PROTO4MV
1908	221183	HCNI	N	C	QGH15	150M	OSU	59	4145	38	112W	S	PROTO4HV
910	231183	HCNI	N	C	QGH15	150M	OSU	60	195	38	216W	S	PROTO4NV
1832	231183	HCNI	N	C	QGH15	150M	OSU	60	2125	38	274W	S	PROTO4MV
1043	241183	HCNI	N	C	QGH15	150M	OSU	60	145S				PROTO4MV
2145	241183	HCNI	N	C	QGH15	150M	OSU	60	4185				PROTO4HV
947	251183	HCNI	N	C	QGH15	150M	OSU	60	185	38	495W	S	PROTO4MV
1747	251183	HCNI	N	C	QGH15	150M	OSU	59	4125	39	25₩	S	PROTO4HV
517	261183	HCNI	N	C	QG	150M			5615				PROTO4MV
1321	261183	HCNI	N	C	QGH15	150M	050	59	5625	39	189W	S	PROTO4MV
2035	261183	HCNI	N	C	QGH15	150H	OSU	60	715	39	564W	S	PROTO4MV
745	271183	HCNI	N	C	QGH15	150M	OSU	60	2865				PROTO4HV
1835	271183	HCNI	N	C	QGH15	150M	OSU	60	2735				PROTO4MV
1018	281183	HCNI	N	C	QGH15	150M	OSU	60	3215				PROTO4HV
930	291183	HCNI	N	C	QGH15	150M	OSU	60	985	100	Committee of the commit		PROTO4NV
	291183	HCNI	N	C	QGH15	150M	OSU		5055	39			PROTO4MV
	301183	HCNI	N	C	QGH15	150M	OSU		3115	39			PROTO4MV
	301183	HCNI	N	C	QG	150M	osu		375	39	77W		PROTO4MV
1110	11283	HCNI	N	C	QGH15	150M	050		4015		547W	700	PROTO4MV
409		HCNI	N	C	QG	150H	osu	58	945				PROTO4HV
1129	21283	HCNI	N	C	QG	150M	osu	57	4465	38			PROTO4MV
2144		HCNI	N	C	QG	150M	osu	57	1615	37	420W	S	PROTO4HV

GHT TIME	DAMMYY		SAMP	SAMPLE IDENTIF	TIER		DISP		Т.	LO	NG.		CRUISE LEG-SHIE
***C	AMERA												
109	111183	36	CAWS E	35MM SM	01	200M	LDO	60	3405	37	40W	S	PROTO4MV
426	111183		CAWS E	35MM SK	01	 200M			3385	37			PROTO4NV
	151183	- 1	CAWS B	35NM SK	02	250M	LDO	60	945	40			PROTO4MV
	151183		CAWS E	35MM SK	02	250M	LDO	60	905				PROTO4MV
	161183		CAWS B	35MM SK	03	300M	LDO	59	3245	39	456W	5	PROTO4MV
	161183			35MM SK		300M	LDO	59	3285	39	467W	S	PROTO4MV
	161183		CAWS B	35MM SK	04	250M	LDO	58	3825	38	501W	5	PROTO4MV
	171183		CAWS E	35MM SK	04	250M	LDO	58	3665	38	513W	S	PROTO4MV
	171183		CAWS B	35MM SK	05	100M	LDO	58	895	37	465W	S	PROTO4MV
	171183		CAWS E	35MM SK	05	100M	LDO	58	725	37	475W	S	PROTO4MV
2101	181183		CAWS B	35MM SK	06	200M	LDO	58	5375	37	365W	S	PROTO4MV
11	191183		CAWS E	35MM SK	06	200M	LDO	58	5295	37	359W	5	PROTO4MV
	191183			35MM SK		250M			5505	37	195W	5	PROTO4MV
	201183			35MM SK		250M	LDO	59	5625	37	228W	S	PROTO4MV
	211183			35MM SK		300M			5275	38	15W	S	PROTO4HV
	211183			35MM SK		300M			5315	38	28W	S	PROTO4MV
	221183			35MM SK		300M			4165	38	102W	S	PROTO4MV
	221183			35MM SK		300H			4315	38			PROTO4MV
	231183			35MM SK		200M			2175				PROTO4MV
	231183			35MM SK		2001			2185				PROTO4MV
	241183			35MM SK		115M			2655	38	406W	S	PROTO4MV
	241183			35MM SK		115H			2755				PROTO4NV
	241183			35MM SK		100M			4205				PROTO4MV
	241183			35MM SK		100M			4225	Service.			PROTO4NV
	251183			35MM SK		300M			4115	39			PROTO4MV
	251183			35MM SK		300M			3975	39			PROTO4NV
	261183			35MM SK		500M			5605				PROTO4MV
	261183			35MM SK		500H			5665				PROTO4MV
	271183			35MM SK		250M			2865				PROTO4MV
	271183		A STATE OF	35MM SK		250M			2835				PROTO4MV
Table (40) 1-1	281183		SECTION E	35MM SK		300M			2965	2000			PROTO4MV
	281183			35MM SK		3001			2685				PROTO4NV
	281183			35MM SK		35M			2405	105.754			PROTO4MV
	291183			35MM SK		35H			2415				PROTO4MV
	291183			35MM SK		2701	LDO		975				PROTO4MV
	291183			35MM SK		270H	LDO		995	117001			PROTO4MV
	291183		1475 to 7246 Sabball 1466	35MM SK		250H			5035				PROTO4NV
	291183			35MM SK		250H			4915				PROTO4NV
	301183			35MM SK		400M			3105				PROTO4NV
	301183			35MM SK		400M			3105				PROTO4NV
	301183			35MM SK		808	LDO		375	39			PROTO4MV
32	11283		CAWS E	35MM SK	21	801	LDO	59	355	39	OW	5	PROTO4MV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 15

GHT TIME	DATE	SAMP		SAMPLE IDENTIFIER			DISP		т.	LO	NG.		CRUISE LEG-SHIP
1134	11283	CAWS	В	35MM SK 22		250M	LDO	58	4005	38	546W	S	PROTO4MV
1445	11283			35MM SK 22		250H			3995				PROTO4NV
48	21283		F-2-1	35MM SK 23		60H			1265				PROTO4NV
217	21283			35MM SK 23		60M			1105				PROTO4NV
1157	21283			35MM SK 24		150M			4435	38			PROTO4MV
1328	21283	CAWS	E	35MM SK 24		150H			4375	7-330			PROTO4MV
2206	21283			35MM SK 25		3001			1575				PROTO4MV
113	31283	CAWS	Ε	35MM SK 25		300#			1415				PROTO4NV
* * * CI	OSING NET	- BONGO***											
2110	101183	CNBG	В	0 MSN60	0		MIC	60	3465	37	56W	S	PROTO4MV
2125	101183	CNBG		O MSM60	0				3435	37			PROTO4MV
1314	141183	CNBG		0 MS200	0				3025				PROTO4MV
1450	141183	CNBG	E	0 MS200	0		MIC	60	2985				PROTO4MV
OF	PEN NET - 1	BONGO										2	
215	141183	ONBG	В	0 MS200	0		MIC	58	580S	40	89W	S	PROTO4MV
237	141183	ONBG	E	0 MS200	0		MIC	58	5455	40	101W	S	PROTO4NV
1137	151183	ONBG	В	0 MS200	0		MIC	59	5075	39	528W	S	PROTO4HV
1200	151183	ONBG	E	0 MS200	0		MIC	59	5105	39	537W	S	PROTO4MV
2130	151183	ONBG	В	0 MS200	0		MIC	59	3135	39	430W	S	PROTO4MV
2215	151183	ONBG	E	0 MS200	0		MIC	59	3215	39	440W	S	PROTO4MV
1023	161183	ONBG	В	0 MS200	0		MIC	59	285	39	160W	S	PROTO4MV
1050	161183	ONBG	E	0 MS200	0		MIC	59	255	39	163W	S	PROTO4MV
320	171183	· ONBG	В	. 0 MS200	0	90	MIC	58	3665	38	514W	S	PROTO4MV
350	171183	ONBG	E	0 MS200	0		MIC	58	3685	38	531W	S	PROTO4MV
	171183	ONBG	В	0 MS200	0		MIC	58	1165	38	233W	5	PROTO4MV
945	171183	ONBG	E	0 MS200	0		MIC	58	1165	38	235W	S	PROTO4MV
1725	171183	ONBG	В	0 MS 1	0		MIC	58	1075	37	510W	S	PROTO4HV
70.71-70-70-70	171183	ONBG	E	0 MS 1	0				1045				PROTO4MV
1847	171183	ONBG	В	0 MS 50	0		MIC	58	905	37	468W	S	PROTO4HV
	171183	ONBG	E	0 MS 50	0		MIC		895	37	466W	5	PROTO4NV
	181183	ONBG		0 MS200	0				2505				PROTO4MV
	181183	ONBG		0 MS200	0				2585				PROTO4NV
	181183	ONBG		0 MS200	0				5515				PROTO4MV
	181183	ONBG		0 MS200	0				5545	16731110	원생하다가 없다.		PROTO4MV
	191183	ONBG		0 MS 1	0				5345				PROTO4MV
	191183	ONBG		0 MS 1	0				5485				PROTO4NV
	191183	ONBG		0 MS200	0				2475				PROTO4MV
	191183	ONBG		0 MS200	0				2505				PROTO4MV
	201183	ONBG		0 MS200	0				5645				PROTO4MV
304	201183	ONBG	E	0 MS200	0		MIC	59	5565	37	247W	S	PROTO4MV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 16

GHT TIME	DDMMYY		SAMP		SAMPLE IDENTIFIER			DISP	LAT.		LONG.			CRUISE LEG-SHIP
359	201183	*3	ONBG I	3 () MS	1	0	MIC	59	574S	37	24211		PROTO4MV
	201183		ONBG I	8 97	MS	1	o			5835				PROTO4NV
	201183		S22015120		MS2		o			1965				PROTO4NV
	201183		ONBG I		MS2		0			1875		The second secon		PROTO4MV
	211183		ONBG I		MS2		0			5135	38			PROTO4MV
	211183		ONBG E		MS2		0			5155	38			PROTO4MV
	221183		ONBG E		MS2		0			5365				PROTO4MV
	221183		ONBG E		MS2		0			5415	38			PROTO4HV
	221183		ONBG E		MS2		0			4035	21/27/			PROTO4HV
	221183		ONBG E		MS2		0			4085				PROTO4HV
	231183		ONBG E		MS2		0	MIC						PROTO4HV
714	231183		ONBG E		MS2		0	MIC	NAME OF STREET	205				PROTO4NV
1547	231183		ONBG E		MS2		0	55757	SE 20	1785				PROTO4MV
1620	231183		ONBG E		MS2		0			1885				PROTO4MV
	241183		ONBG E	0	HS2	00	0			1675				PROTO4MV
850	241183		ONBG E		MS2		0			1585				PROTO4NV
1630	241183		ONBG E		HS2		0			2705		10.63.406.70		PROTO4MV
1718	241183		ONBG E	. 0	MS2	00	0			2625				PROTO4MV
2337	241183		ONBG E	0	MS	30	0			4225				PROTO4MV
7	251183		ONBG E	. 0	MS	30	0	MIC	60	4185	38	358W	5	PROTO4MV
15	251183		ONBG E	. 0	MS2	00	0	MIC	60	4175	38	359W	S	PROTO4MV
50	251183		ONBG E	. 0	MS2	00	0	MIC	60	4105	38	363W	S	PROTO4MV
657	251183		ONBG B	0	MS2	00	0	MIC	60	185	38	556W	S	PROTO4MV
732	251183		ONBG E	. 0	MS2	00	0	MIC	60	85	38	567W	S	PROTO4MV
1457	251183		ONBG B	0	MS2	00	0	MIC	59	3945	39	29W	S	PROTO4MV
1537	251183		ONBG E	. 0	MS2	00	0	MIC	59	3935	39	29W	S	PROTO4NV
2230	251183		ONBG B	0	MS	1	0	MIC	59	4085	39	54W	S	PROTO4MV
2300	251183		ONBG E	. 0	MS	1	0	MIC	59	4175	39	72W	S	PROTO4NV
252	261183		ONBG B	0	MS2	00	0	MIC	59	5665	39	292₩	S	PROTO4MV
335	261183		ONBG E	. 0	MS2	00	0	MIC	59	5595	39	290W	S	PROTO4MV
2117	261183		ONBG B	0	MS2	00	0	MIC	60	755	39	560W	S	PROTO4MV
2151	261183		ONBG E	0	MS2	00	0	MIC	60	795	39	564W	S	PROTO4MV
402	271183		ONBG B	0	MS2	00	0			2975	40	340W	S	PROTO4MV
437	271183		ONBG E	. 0	MS2	00	0	MIC	60	2965	40	340W	S	PROTO4MV
	271183		ONBG B		MS2	00	0			2765				PROTO4MV
2000	271183		ONBG E	0	MS2	00	0	MIC	60	2815	39	496W	S	PROTO4NV
	281183		ONBG B	2 (5)	MS2	200	0	700775-700		3855	1000			PROTO4MV
106	281183		ONBG E	0	MS2	00	0	MIC	60	3925	39	453W	S	PROTO4MV

May 25 12:12 1984 PROTEA LEG 4 SAMPLE INDEX Page 17

GMT TIME	DDMMYY DATE	SAMP	SAMPLE IDENTIFIER		DISP LAT. CODE	LONG.	CRUISE LEG-SHIP
	281183	ONBG B	0 MS200	0	WIG 60 060		
	281183	ONBG E	0 MS200	o	MIC 60 263		PROTO4NV
	291183	ONBG B	D MS200	o	MIC 60 250		PROTO4NV
	291183	ONBG E	0 MS200	0	MIC 60 107		PROTO4MV
	301183	ONBG B	0 MS200	0	MIC 60 101:		PROTO4MV
	301183	ONBG E	0 MS200	0	MIC 59 488		PROTO4MV
	301183	ONBG B	0 MS200	0	MIC 59 482		PROTO4MV
457	301183	ONBG E	0 MS200	0	MIC 59 3225		PROTO4MV
243	11283	ONBG B	0 MS200	0	MIC 59 3155		PROTO4HV
313	11283	ONBG E	0 MS200		MIC 59 253	38 554W S	PROTO4MV
836	11283	ONBG B	0 MS200	0	MIC 59 199		PROTO4MV
912	11283	ONBG E		0	MIC 58 4175		PROTO4HV
5	21283	ONBG B	0 MS200	0	MIC 58 4059		PROTO4NV
38	21283	ONBG E	0 MS200	0	MIC 58 1299		PROTO4HV
857	21283		0 MS200	0	MIC 58 1279	38 279W S	PROTO4NV
937	21283	ONBG B	0 MS200	0	MIC 57 4589		PROTO4MV
126	31283	ONBG E	0 MS200	0	MIC 57 459S		PROTO4HV
203		ONBG B	0 MS200	0	MIC 57 1395	37 398W S	
250	31283	ONBG E	0 MS200	0	MIC 57 131S	37 383W S	
	31283	ONBG B	0 MS 1	0	MIC 57 1215	37 361W S	
320	31283	ONBG E	0 MS 1	0	MIC 57 115S		
		DUD 0					

END SAMPLE INDEX