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**A Data-Base of
Antarctic Pre-Pleistocene Sediment Cores**

by

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Technical Report

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Approved for Distribution:

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Abstract

A listing of high southern latitude ($>30^{\circ}$ S) pre-Pleistocene sediment cores is given for samples obtained by the coring and drilling programs of the Lamont-Doherty Geological Observatory, the Antarctic Program of the Florida State University, the French Museum national d'Histoire naturelle, and the Deep Sea Drilling Program. Information on geologic age, core length, lithology, bathymetry, and geographic location are given for each sediment sample. Ages of cores are given whenever possible to the nearest sub-epoch (middle Miocene, etc), together with (when known) the fossils used to determine the age, and the source of the age determination. Many core ages are from previously unpublished sources. The listing provides information on approximately 500 different cores. A computer-searchable version of the database may be obtained by writing to the senior author.

A brief analysis of latitudinal and bathymetric patterns of sedimentation is also given for the Paleogene, Miocene, and Pliocene of the Southern Ocean. Throughout the Neogene, an essentially modern pattern of sedimentation is seen, with carbonate ooze predominating north of the present-day position of the polar front, siliceous ooze between the polar front and approximately 65° S, and clay near the Antarctic continent and in water depths >4 km. Paleogene and Cretaceous patterns of sedimentation appear to be different, but are difficult to distinguish due to plate motion and subsidence, and also because of the relatively small number of available pre-Neogene sediment cores.

Introduction

Antarctic deep-sea sediments contain an important record of late Mesozoic and Cenozoic climate change and oceanographic evolution.

Paleoceanographers studying these sediments have access to a large number of sediment samples of Pleistocene and Holocene age. The lithology and microfossil assemblages of these sediments have been used to study recent and ice age paleoceanographic conditions in the Antarctic (Lozano and Hays, 1976; Hays et al., 1976). Similarly detailed studies of earlier time intervals are not yet available, and will depend in part on securing an adequate number of well dated samples for analysis. Pre-Pleistocene sediment samples from the Southern Ocean have been obtained using 2 major types of coring devices: piston cores, and DSDP drill cores. Cores obtained by these two different methods provide complementary types of information for paleoceanographic studies. DSDP drill sites have recovered very long, relatively continuous stratigraphic sections. These cores are well suited to stratigraphic and time-series oriented paleoceanographic studies. Piston cores, while generally too short for the former type of study, are relatively numerous and thus provide a large number of geographically distributed samples for paleogeographic reconstructions of sedimentation patterns and microfossil distributions.

Paleoceanographers wishing to use both piston core and DSDP core samples in studies of pre-Pleistocene paleoceanography need a convenient source of basic information about all samples obtained for any given time interval of interest. This information has been difficult to obtain, particularly for pre-Pleistocene piston cores, as much of the basic age information has been either unpublished, or scattered widely in the literature. This technical report has been prepared to remedy this situation. In it we summarize basic information, including age, for all pre-Pleistocene sediment samples known to us that have been obtained from latitudes south of 30° south. We have included published and unpublished data on the piston core collections of the Lamont-Doherty Geological Observatory, The Florida State University, the French National Museum of Natural History, and the Deep Sea Drilling Project. We have not attempted to re-date or otherwise modify the information provided by the original source, but rather have tried to summarize the existing data for each core in a convenient, standard format, as described in the explanatory notes section of this report. In addition to listing basic data for all cores, we have provided maps (in the back pocket of the report) showing the distribution of the cores for different age intervals.

Discussion

While the primary purpose of this report is to provide paleoceanographers with a convenient starting point for more detailed investigations, it is also possible to use this data-base to characterize the present state of marine geological sampling of the pre-Pleistocene Antarctic deep-sea sediment record; and to describe the general pattern of Antarctic sedimentation during the Cenozoic.

Characterization of the data-base -. Table 1 summarizes the amount of core material available by age interval. The majority of the cores, and in particular the large majority of piston cores are of Miocene and Pliocene age. Many of the piston cores are only dated to the epoch level. Only 18 of the 38 Eocene piston cores, for example, are dated to subdivisional level. While for most time intervals the number of piston cores recovered exceeds the number of DSDP Sites of equivalent age, the average length of sediment recovered in piston cores decreases with increasing age. The majority of the recovered sedimentary record in the Neogene is thus contained in piston cores, while in the Paleogene and Cretaceous, by contrast, the available record, meager as it is, is contained mostly in the DSDP collections. When expressed in numbers of core sites per million years, the available core collections provide good geographic coverage for short time intervals back through the Late Miocene. Older periods, by contrast, have a sufficient number of recovered cores to permit geographic analyses of only relatively broad time intervals.

Age Interval ¹	Number of Records ²	Number of Piston Cores	Number of DSDP Sites	Number of Cores/Myr ³	Average Piston Core Length (meters)
Pliocene	334	279	36	85.1	8.0
<i>Late Pliocene</i>	50	34	16	27.8	9.0
<i>Early Pliocene</i>	103	80	23	54.2	7.6
Miocene	271	189	38	12.3	6.3
<i>Late Miocene</i>	119	89	30	23.3	7.1
<i>Mid Miocene</i>	54	28	26	8.7	5.8
<i>Early Miocene</i>	39	15	24	5.5	6.3
Oligocene	56	27	17	3.4	3.3
<i>Late Oligocene</i>	19	9	10	3.0	4.3
<i>Early Oligocene</i>	10	3	7	1.5	1.9
Eocene	76	38	22	2.8	3.7
<i>Late Eocene</i>	25	11	14	7.4	3.3
<i>Mid Eocene</i>	14	3	11	1.2	3.0
<i>Early Eocene</i>	17	4	13	2.9	2.3
Paleocene	36	18	12	3.5	3.0
Cretaceous	33	18	12	0.4	2.7

Table 1 -. Summary of sediment core numbers in data-base. 1) - Core data for epoch level intervals (in boldface) include both cores dated only to this level of resolution and cores with more precisely defined ages. 2) - Each piston core entered as single record into data-base. DSDP Sites contain sediments of various ages, and therefore were broken down into separate entries for each standard age interval present. 3) - Length of age intervals of Cenozoic from Berggren et al., 1985. Length of Cretaceous from Harland et al., 1982.

The maps enclosed in the back pocket show the distribution of sediment cores in the Pliocene, Miocene and in the Paleogene plus Cretaceous. While the distribution of cores is non-uniform (with the South Atlantic sector being most heavily sampled) there are in the Neogene a large number of cores from most regions of the Antarctic. The distribution of cores in the the Paleogene and Cretaceous is less uniform, being concentrated on the Falkland Plateau, the Agulhas Plateau, and the Tasman Plateau.

Antarctic sedimentation patterns during the Cenozoic -. The database of piston cores was used to define general features of pelagic sedimentation in the Antarctic during the Cenozoic. Cores were grouped into sets covering restricted time intervals, depths, and latitudes. Within each group the relative abundance of lithologic types (non-biogenic sand, pelagic clay, calcareous ooze, or siliceous ooze) was computed, and the results summarized in bar-chart format (Figures 1 to 9). The present day Antarctic sedimentation pattern is dominated by calcareous oozes north of the

Antarctic Polar Front, siliceous oozes from the Polar Front south to 60°-65° S, and pelagic clays near the Antarctic continent. South of the Polar Front the CCD lies between 3 and 4 km, while it is at least 1 km deeper in the subtropical waters north of the Front (Lozano and Hays, 1976).

The Pliocene data (Figures 1 - 3) show an essentially modern sedimentation pattern. South of the Front (Figure 1), calcareous oozes are common at depths <4 km, while pelagic clays dominate below 5 km. North of the front (Figure 2) a similar pattern is seen. In Pliocene cores shallower than the inferred CCD (ie, above 4 km - Figure 3) calcareous ooze predominates in the areas North of the present day position of the Polar Front, siliceous oozes dominate the 50° to 60° latitudinal band, and pelagic clay is the dominant lithology south of 60° S.

Figure 1 -. Relative abundance of different lithologic types in pre-Pleistocene piston core collections south of the approximate present day position of the polar front. Calcareous and siliceous clays were considered as 'clay' in this and subsequent figures, with 'CaCO₃' and 'silica' reflecting only those cores comprised of calcareous and biosiliceous ooze, respectively.

Figure 2 -. Pliocene core lithologies North of the present day position of the polar front. For explanation of lithologies, see caption to Figure 1.

Figure 3 -. Pliocene core lithologies vs. latitudinal band. Only cores shallower than 4 km water depth are used given the (presumably dissolution induced) scarcity of biogenic oozes below 4 km. Lithologic categories explained in caption to Figure 1.

The same pattern can also be recognized in the Miocene (Figures 4 - 6), although a slight reduction in the abundance of siliceous ooze can be seen. To see if the mid-Miocene ice-volume increase inferred from isotope data

affected sedimentation patterns, subsets of Miocene cores were examined in the same manner. Late Miocene sedimentation patterns (not shown) appear to be identical to those of the Pliocene and recent. Too few cores are known from the earlier Miocene to provide a clear picture of sedimentary pattern.

Figure 4 -. Miocene sediment types South of the present day position of the Polar Front. Lithologic types explained in caption to Figure 1.

Figure 5 -. Sediment types in Miocene piston cores north of the present day position of the polar front.

Figure 6 -. Sediment distribution vs latitudinal band in Miocene piston cores above the dissolution limit of 4 km water depth.

Sedimentation patterns in the Paleogene (Figures 7 - 9) differ from those of the Neogene in the relatively common occurrence in the Paleogene of calcareous ooze and the relative rarity of siliceous ooze at all water depths and latitudinal bands. However, due to substantial amounts of plate motion and subsidence since the Paleogene, these latter Figures present a very imperfect reconstruction of Paleogene sedimentation patterns.

Figure 7 -. Paleogene lithologies in piston cores from south of the present day position of the polar front. No cores are known of Paleogene age which have a present water depth > 5 km.

Figure 8 -. Lithologies of piston cores collected from regions north of the present day position of the Polar Front.

Figure 9 -. Distribution of lithologies vs. present day latitude in Paleogene piston cores above 4 km present day water depth.

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- Lombardi, G. and D. B. Lazarus (in press). Neogene cycladophorid radiolarians from North Atlantic, Antarctic, and North Pacific deep-sea sediments. Micropaleontology.
- Lozano, J. A. and J. D. Hays. 1976. Relationship of radiolarian assemblages to sediment types and physical oceanography in the Atlantic and western Indian Ocean sectors of the Antarctic Ocean. Geological Society of America Memoir 145: 303-336.
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- Weaver, F. M. 1983. Cenozoic radiolarians from the southwest Atlantic, Falkland Plateau region, Deep Sea Drilling Project Leg 71. p. 667-686, *In*: W. J. Ludwig, V. A. Krashennnikov, et al., Initial Reports of the Deep Sea Drilling Project, Volume 71. United States Government Printing Office, Washington, D.C.

Explanatory notes for data base listing

This pre-Pleistocene Antarctic piston core data-base attempts to provide complete coverage for the southern hemisphere south of 30° south. It lists all cores known to contain pre-Pleistocene sediment in alphabetical order by core name, together with information about each core, including the estimated age, latitude, longitude, water depth where each core was taken, lithology, true core length (i.e., excluding flow-in and 'sucked' sediment), the actual species used to provide the age estimate, zonal assignment (where possible), whether or not paleomagnetism has been run on the core, and the name of the original source or sources of the age information.

Base maps showing the present location of all cores are provided in the back pocket of the report. The maps summarize the cores recovered in three time-intervals: the Pliocene, Miocene, and pre-Neogene.

A computer-searchable version of this data-base is available from the senior author, who should be contacted for details.

Key to the abbreviations used are as follows:

Core: DP- Deep Sea Drilling Project; E- Eltanin; IO- Islas Orcadas; MD- Marion Dufresne; RC- Robert Conrad; V- Vema. For DSDP sites, separate entries are given for the sediments recovered from each standard age interval, in the form of Site, core & section at top of interval, core & section at base of interval.

Latitude and Longitude are given in degrees and minutes, with West and South negative.

Age is generally the age of the oldest sediment in the core, given to nearest known standard division of the Cenozoic. PLI- Pliocene; MIO- Miocene; OLG- Oligocene; EOC- Eocene; PAL- Paleocene; CRE- Cretaceous.

Zones and/or indicator species -. Where known, the actual species used to provide the stratigraphic age determination are listed. To save space, each stratigraphic species is represented by a unique 2 letter code. Zonal assignments are noted by 3 letter codes, while codes are listed for cores with paleomagnetic stratigraphy giving the magnetic chrons contained in the core. All codes and their equivalences are listed alphabetically in table 2. Other codes used include: ?- original source of age information questioned reliability of date; L- Late; M- Middle; E- Early; R- reworked. Not all

cores have an unambiguous age assignment, particularly those dated by different workers with different microfossil groups, or those dated by earlier workers. Reworking is noted only where it is clearly stated by the source of the date that reworked material is present.

F.G.U. (Fossil groups used): R- Radiolarians; D- Diatoms; N- Calcareous nanofossils; F- Foraminifera; S- Silicoflagellates. In some cases, the original source of the age information did not provide clear indications as to the method by which each core was dated. For these cores this field has been left blank.

Lithology: O- ooze; C- clay or clayey; D- diatomaceous; R- radiolarian; N- nanofossil; F- foraminiferal; S- sandy; *- calcareous; V- volcaniclastic. Lithology is given with the least significant component to the left, and the dominant one to the right. Thus SDRNO stands for a radiolarian bearing nanofossil ooze, with minor diatoms and sand. In some cores, very different lithologies alternate (e.g., nanno ooze with diatomaceous clay). To the extent possible, the important components of both lithologies are listed, in the approximate order of their relative abundance.

Core length is given in meters for the undisturbed portion of the core (for piston cores) or for the length of the cored interval (for DSDP sites).

TABLE 2: CODES USED TO DESCRIBE ZONAL INDICATORS

Microfossils

- AA - *Amphistylus angelinus* Chen 1975 (radiolarian)
 AD - *Antarctissa denticulata* Chen 1975 (radiolarian)
 AE - *Antarctissa ewingi* Chen 1975 (radiolarian)
 AS - *Antarctissa strelkovi* Petrushevskaya 1968 (radiolarian)
 AT - *Actinomma tanyacantha* Chen 1975 (radiolarian)
 CB - *Cycladophora pliocenica* (Hays 1965) Lombardi and Lazarus¹ (radiolarian)
 CD - *Cycladophora davisiana* Chen 1975 (radiolarian)
 CG - *Cycladophora g. golli* (Chen 1975) Lombardi and Lazarus² (radiolarian)
 CI - *Cyrtocapsella isopera* Chen 1975 (radiolarian)
 CS - *Cycladophora spongothorax* (Chen 1975) Lombardi and Lazarus³ (radiolarian)
 CT - *Cyrtocapsella tetrapera* Sanfilippo and Riedel 1970 (radiolarian)
 DH - *Diartus hughesi* Sanfilippo and Riedel 1980 (radiolarian)
 DJ - *Dendrospyrus haysi* Chen 1975 (radiolarian)
 DM - *Dendrospyrus megaloccephalis* Chen 1975 (radiolarian)
 DS - *Desmospyris spongiosa* Hays 1965 (radiolarian)
 DY - *Didymocyrtis spp.* Sanfilippo and Riedel 1980 (radiolarian)
 EC - *Eucyrtidium calvertense* Chen 1975 (radiolarian)
 EI - *Eucyrtidium pseudoinflatum* Weaver 1983 (radiolarian)
 EK - *Eucyrtidium ceinkowski* Chen 1975 (radiolarian)
 EP - *Eucyrtidium punctatum* Chen 1975 (radiolarian)
 HV - *Helotholus vema* Hays 1965 (radiolarian)
 LE - *Lamprocyclas aegles* group Petrushevskaya 1975 (radiolarian)
 LG - *Lychnocanium grande* Weaver 1976 (radiolarian)
 LN - *Lithelius nautiloides* Riedel 1958 (radiolarian)
 MC - *Mesocena circulus* Ciesielski 1975 (silicoflagellate)
 PH - *Prunopyle hayesi* Chen 1975 (radiolarian)
 PN - *Prunopyle titan* Chen 1975 (radiolarian)
 PT - *Pterocanium c. trilobum* (Hays 1965) Lazarus et al. 1985 (radiolarian)
 SD - *Stichocorys delmontense* Sanfilippo and Riedel 1970 (radiolarian)
 SP - *Stichocorys peregrina* Sanfilippo and Riedel 1970 (radiolarian)
 SU - *Stylatractus universus* Chen 1975 (radiolarian)
 SS - *Stichocorys sp.* Keany 1979 (radiolarian)
 TB - *Theocalyptra bicornis* Chen 1975 (radiolarian)

Table 2 (cont.)

Other

MAT - Matuyama
CHI - Chi Zone (Hays)
GAU - Gauss
PHI - Phi Zone (Hays)
GIL - Gilbert
PSI - Psi Zone (Hays)
CR5 - Chron 5
TAU - Tau Zone (Hays)
UPS - Upsilon Zone (Hays)

- 1 - Replacement name for *Clathrocyclas bicornis* Hays (Lombari and Lazarus, in press).
- 2 - Replacement name for *Lophocyrtis golli* Chen (Lombari and Lazarus, in press).
- 3 - Replacement name for *Theocalyptra bicornis spongothorax* Chen (Lombari and Lazarus, in press).

**TABLE 3: ABBREVIATIONS FOR 'SOURCES OF
INFORMATION'
IN DATABASE LISTING**

- BURCKLE - L. H. Burckle, unpublished data.
- CAULET ET AL 84 - Caulet, J. P., P. Clement and P. Milleliri. 1984.
GEOCORES: Inventaire informatise des roches et sediments marins
conservees au Museum national d'Histoire naturelle. Bull. Mus. natn.
Paris, 4^e ser. 6: 215-243.
- C&WS77, PFC77 - Ciesielski, P. and S. W. Wise, Jr. 1977. Geologic history
of the Maurice Ewing Bank of the Falkland Plateau (Southwest
Atlantic Sector of the Southern Ocean) based on piston and drill cores.
Marine Geology 25:175-207.
- CHEN - P. H. Chen, unpublished data.
- DBL - D. Lazarus, unpublished data.
- FMW - F. Weaver, unpublished data.
- FMW73 - Weaver, F. M. 1973. Pliocene Paleoclimatic and Paleoglacial
History of East Antarctica Recorded in Deep Sea Piston Cores.
Unpublished M.S. Thesis, Florida State Univ.
- G&W68 - Goodell, H. G. and N. D. Watkins. 1968. The paleomagnetic
stratigraphy of the Southern Ocean: 20° West to 160° East longitude.
Deep-Sea Research, 15:89-112.
- GOLL - R. Goll, unpublished data.
- H&O67 - Hays, J. D. and N. D. Opdyke. 1967. Antarctic radiolaria,
magnetic reversals, and climatic change. Science 158:1000-1011.
- JDH, JHSS - J. Hays, unpublished data.
- IO7REP, IO11REP, etc. - Islas Orcadas sediment description volumes,
Antarctic Research Facility, Florida State Univ. (Sedimentology
Research Laboratory Contribution Series).
- KNY - J. Keany, unpublished data.
- KNYTH - Keany, J. 1972. Pliocene-early Pleistocene paleoclimatic history
recorded in Antarctic-Sub-Antarctic deep sea cores: Unpublished M.S.
Thesis, Florida State Univ.
- K&W76 - Kennett, J.P. and N. D. Watkins. 1976. Regional deep-sea
dynamic processes recorded by late Cenozoic sediments of the
southeastern Indian Ocean. Geol. Soc. Amer. Bull. 87:321-339.
- LDGO, * - Lamont-Doherty Geological Observatory core curator's office,
unpublished data.
- LED - M. Ledbetter, unpublished data.
- LOZ74 - Lozano, J. A. 1974. Antarctic sedimentary, faunal, and sea surface
temperature responses during the last 230,000 years with emphasis on
comparison between 18,000 year ago and today. Unpubl. Ph.D.

- Dissertation, Columbia Univ. 419 p.
- MCC - McCollum, D. W. 1975. Diatom stratigraphy of the Southern Ocean. p. 515-571. *In* D. E. Hayes, L. A. Frakes et al., Initial Reports of the Deep Sea Drilling Project, Volume 28. United States Government Printing Office, Washington, D.C.
- OSBORN83 - Osborn, N. I., P. F. Ciesielski and M. T. Ledbetter. 1983. Disconformities and paleoceanography in the southeast Indian Ocean during the past 5.4 million years. *Geol. Soc. Amer. Bull.* 94:1345-1358.
- OPDYKE - N. Opdyke, unpublished data.
- OPDYKETAL66 - Opdyke, N. D., B. Glass, J. D. Hays and J. Foster. 1966. Paleomagnetic study of Antarctic deep-sea cores. *Science* 154: 349-357.
- PFC - P. Ciesielski, unpublished data.
- PFCTHES - Ciesielski, P. 1978. The Maurice Ewing Bank of the Malvinas (Falkland) Plateau: Depositional and erosional history and its paleoenvironmental implications. Unpublished Ph.D. Thesis, Florida State Univ., Tallahassee.
- SBH74 - Saito, T., L. H. Burckle and J. D. Hays. 1974. Implications of some pre-Quaternary sediment cores and dredgings. p. 6-36. *In*: W.W. Hay (ed.) *Studies in Paleo-oceanography*. Soc. Econ. Paleont. Miner. Spec. Publ. 20.
- WEAV&GOMBOS - Weaver, F. M. and A. M. Gombos Jr. 1981. Southern high-latitude diatom biostratigraphy. p. 445-470. *In* J. E. Warne, R. G. Douglas and E. L. Winterer (eds.), *The Deep Sea Drilling Project: A Decade of Progress*. Soc. Econ. Paleont. Mineral. Spec. Publ. 32.
- WIL&LED80 - Williams, D. F. and M. Ledbetter. 1980. Sedimentary hiatuses along the southern continental rise of Australia. *Amer. Geophys. Union Abs.*, Eos 61: 17.
- W&K72 - Watkins, N. D. and J. P. Kennett. 1972. Regional sedimentary disconformities and upper Cenozoic changes in bottom water velocities between Australia and Antarctica. *Amer. Geophys. Union Antarctic Res. Series* 19:273-293.

Key to Maps (back pocket)

Three maps are provided to show the location of sediment cores of pre-Pleistocene age: Pliocene; Miocene; and Paleogene plus Cretaceous. Cores with more than one estimated age are shown repeatedly as necessary on each map. Piston cores are plotted as solid dots, DSDP Sites as solid squares. In some areas cores are so densely distributed that it is impossible to show the location of each individual core. In these instances the location of several cores is indicated by a number (which can be distinguished from a regular core name as it is not preceded by a letter combination indicating core type), and the full listing of cores at this location is given in the box at the lower right-hand corner of each map. Maps are azimuthal equidistant projections with 10° latitudinal and longitudinal grid spacing. The 4 km bathymetric contour is shown on each map.

Pliocene Sediment Cores

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
DP003-015,02-02	-30.54	-17.59	3927	LPLI		FN	FNO	8.3	N		
DP003-015,03-04	-30.54	-17.59	3927	EPLI		FN	FNO	6.9	N		
DP003-016,02-03	-30.2	-15.43	3527	LPLI		FN	FNO	13.1	N		
DP003-016,04-04	-30.2	-15.43	3527	EPLI		FN	FNO	9	N		
DP003-022,01-01	-30.01	-35.15	2106	LPLI		FN	NFO	.8	N		
DP021-206,11-16	-32.01	165.27	3196	LPLI		FN	FNO	49	N		
DP021-206,17-18	-32.01	165.27	3196	MPLI		FN	DRENO	22	N		
DP021-206,19-21	-32.01	165.27	3196	EPLI		FN	DFNO	26	N		
DP021-207,04-04	-36.58	165.26	1386	LPLI		N	FNO	8	N		
DP021-207,03A-04A	-36.58	165.26	1386	EPLI		N	NFO	13	N		
DP025-246 ,02-02CC	-33.37	45.1	1030	EPLI		FN	FNO	9	N		
DP026-250,04A-05A	-33.28	39.22	5119	LPLI		FN	CO	47.5	N		
DP026-250,07A-07A	-33.28	39.22	5119	EPLI		FN	CO	1.5	N		
DP026-251,05A-06A	-36.3	49.29	3489	E&MPLI		FN	NO	13	N		
DP026-251,07-01A	-36.3	49.29	3489	LPLI		FN	NO	38	N		
DP026-252	-37.03	59.14	5032	PLI/MIO	HV AF	R	RC	0	DBL		
DP026-254,02-02	-30.58	87.54	1253	LPLI		F	FO	3	N		
DP026-254,02-03	-30.58	87.54	1253	EPLI		NF	F*O	16	N		
DP026-255,03-03	-30.55	94.15	1144	PLI		NF	NFO	1.5	N		
DP026-258,03-03	-33.48	112.29	2793	LPLI		NF	*O	3	N		
DP026-258,03-03CC	-33.48	112.29	2793	MPLI		NF	*O	6.5	N		
DP028-265,11-11CC	-53.33	109.57	3582	PLI		DO	DO	2	N		
DP028-265,13-14	-53.33	109.57	3582	EPLI		F	DO	38	N		
DP028-266,05-09	-56.24	110.07	4173	E-MPLI		D	DO	66.5	N		
DP028-267,01-01	-59.15	104.29	4564	PLI			DC	4	N		
DP028-268,04-04	-63.57	105.09	3544	PLI			DC	9.5	N		
DP028-269,02-03	-61.41	140.04	4285	PLI			DC	51.5	N		
DP028-270,01-03	-77.26	178.3	634	PLI			DC	25	N		
DP028-271,16-24	-76.43	-175.03	554	PLI			C	90	N		
DP028-272,01-01	-77.08	-176.46	629	EPLI			DC	9.5	N		
DP028-274,05-08	-68.6	173.26	3326	LPLI		D	DC	38	N		
DP028-274,09-10	-68.6	173.26	3326	EPLI		D	DC	17.5	N		
DP029-278,08-08	-56.33	160.04	3698	PLI		NF	DO	9.5	N		
DP029-280,01-01	-48.57	147.14	4181	PLI		N	FNO	4.5	N		
DP029-281,02-03	-47.6	147.46	1591	LPLI		FN	NFO	11	N		
DP029-281,04-04	-47.6	147.46	1591	EPLI		FN	NFO	9.5	N		
DP029-284,05-08	-40.3	167.41	1068	LPLI		FN	FNO	38	N		
DP029-284,09-15	-40.3	167.41	1068	EPLI		FN	FNO	66.5	N		
DP035-322,01-01	-60.01	-79.25	5026	MPLI		D	SC	9.5	N		
DP035-322,02-03	-60.01	-79.25	5026	EPLI		D	C	114	N		
DP035-323,01-01	-63.41	-97.6	4993	LPLI		D	CS	7.5	N		
DP035-323,01-02	-63.41	-97.6	4993	EPLI		D	CS	8	N		
										MCC,WEAV&GOMBOS	
										MCC,WEAV&GOMBOS	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
DP035-324,06-09	-69.03	-98.47	4449	PLI		R	SC	57	N		
DP035-325,01-01	-65.03	-73.4	3745	EPLI		R	SC	3.5	N		
DP035-325,01-03	-65.03	-73.4	3745	PLI		DR	C	148.5	N		
DP036-328,02-02	-49.49	-36.4	5013	PLI		RD	CDO	2.5	N		
DP039-357,01-02	-30	-35.34	2109	LPLI		N	FNO	8.5	N		
DP039-357,02-03	-30	-35.34	2109	EPLI		FN	FNO	11.5	N		
DP039-358,01-01	-37.39	-35.58	5000	EPLI		FN	DRC	3	N		
DP039-359,01-01	-34.59	-4.3	1658	EPLI		FN	FNO	9	N		
DP040-360,01-01	-35.51	18.06	2949	EPLI		FN	FNO	9.5	N		
DP071-513,05-06	-47.53	-24.38	4373	LPLI		DR	DO	19	N		
DP071-513,09-04A	-47.53	-24.38	4373	EPLI		DR	DO	28.5	N		
DP071-514,06-013	-46.03	-26.51	4318	LPLI		D	DO	35.2	N		
DP071-514,14-35	-46.03	-26.51	4318	EPLI		RD	DC	96.8	N		
E05-011	-59.01	-67.3	3627	PLI		R	FCS	5.53		JDH	
E05-013	-59.46	-68.52	494	PLI		R	S	2.12		JDH	
E05-014	-61.07	-67.52	562	PLI		R	CDO	3.07		JDH	
E07-003	-55.03	-44.4	3495	PLI MIO	CB EC DS HV	RD	SC	4.94		JDH PFC	
E07-010	-63.15	-44.56	3803	PLI	EC HV CB DS	R	C	4.71		JDH	
E08-018	-58.31	-22.24	4484	PLI	DS HV EC	R	DSC	9.74		JDH	
E10-002	-55.57	-82.45	4831	PLI	DS	R	DC	10.9		JDH	
E10-012	-64.51	-78.58	4136	EPLI LMIO	AS?	FR	SC	3.7		JHSS DBL	
E10-029	-58.08	-79.08	4959	PLI	CB EC HV DS	R	DFC	6.69		JDH	
E11-009	-62.5	-115.04	5014	PLI	CB	R	CDO	22.7		JDH	
E11-011	-64.5	-114.28	4868	PLI	CB DS EC	R	DOC	11.97		JDH	
E11-024	-65.53	-89.02	4495	PLI	CB DS	R	C	10.46		JDH	
E12-013	-60.4	-34.59	2877	PLI	DS	R	C	5.01		JDH	
E13-001	-55.04	-89.45	4630	EPLI LMIO	HV PH	R	FDO	10.9	Y	DBL G&W68	
E13-003	-57	-89.28	5097	PLI	PHI UPS	R	CDO	16.03	Y	JDH H&O67	
E13-004	-57.06	-90.47	4703	PLI	CB EC	R	*CDO	16.77		JDH	
E13-006	-59.35	-89.28	4328	PLI	EC CB DS	R	DC	17.39		JDH	
E13-007	-61.13	-89.4	4795	PLI	EC DS	R	DC	15.48		JDH	
E13-016	-65.37	-121.18	4743	PLI		R	DC	8.3		JDH	
E13-017	-65.4	-124	4835	LMIO PLI	UPS DS LG EC CB	R	RDCO	26.42	Y	JDH DBL H&O67	
E13-021	-59.35	-130.3	4054	PLI	CB EC	R	FDC	11.48		JDH	
E13-024	-54.25	-129.36	3459	PLI	CB	R	FO	6.37		JDH	
E14-007	-58.03	-160.1	4163	PLI		R	CDO	8.39		JDH	
E14-008	-59.4	-160.17	3880	EPLI LPLI	PHI TAU EC CB	R	CDO	18.3	Y	JDH H&O67	
E14-013	-60.01	-145.16	3418	PLI LMIO		RD	FCDO	4.86		JHSS	
E15-007	-61.03	-99.58	5014	PLI	CB	R	DC	13.77		JDH	
E15-009	-60.04	-104.44	4593	PLI	CB	R	CDO	6.49		JDH	
E15-026	-54.02	-145.18	3660	PLI	CB	R	SFCO	1.28		JDH	
E15-028	-56.01	-149.49	3331	PLI	CB HV DS	R	FDO	12.4		JDH	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
E16-004	-55.36	160.12	4154	LMIO EPLI	CS HV	R	DC	6.4	Y	DBL FMW KNYTH OSBORN	
E16-006	-58.59	161.55	4639	PLI MAT GAUSS	CB EC HV	R	DO	6.3	Y	JDH OSBORN83	
E17-003	-56.01	-135.01	3170	PLI	UPS DS HV CB EC	R	FO	5.3		JDH	
E17-007	-61.05	-134.21	4438	PLI	CB EC	R	CDO	7.26		JDH	
E17-008	-62.01	-135.17	4551	PLI		R	DOC	11.28		JDH	
E17-027	-64.18	-94.58	4740	PLI	CB	R	C	12.52		JDH	
E18-004	-58	-99.19	4776	PLI		R	DO	11.2		JDH	
E19-004	-61.58	-102.47	5075	PLI	DS CB	R	CDO	7.2		JDH	
E19-007	-67.1	-109.05	5055	PLI	CB EC	R	DOC	17.5		JDH	
E19-008	-61.04	-109.41	5029	PLI		R	DOC	6.99		JDH	
E19-006	-61.56	-107.57	5067	PLI	CB	R	CDO	8.75		JDH	
E20-006	-58.05	-144.57	3124	PLI	UPS DS HV	R	DFSC	3		JDH	
E20-007	-59.08	-145.08	3157	PLI	UPS DS HV	R	FCDO	1.02		JDH	
E20-011	-57	-104.4	4374	PLI	PHI	R	CDO	4.38		JDH	
E22-006	-55.54	-51.5	3953	PLI	UPS	R	SC	5.32		JDH	
E22-009	-50.59	-51.52	2047	MIO PLI	AA EI	R	CS	3.46		JHSS DBL	
E22-011	-51	-43.02	1340	PLI	LG	RD	FDS	4.55		JDH C&WS77	
E22-015	-57	-39.57	3084	PLI	UPS HV DS	R	SC	6.12		JDH	
E22-017	-61.02	-39.58	2324	PLI	PHI DS EC	R	C	.97		JDH	
E22-020	-60.03	-35.59	2123	PLI	UPS	R	DC	4.2		JDH	
E22-022	-61.03	-26.14	3174	PLI	UPS EC	R	C	2.83		JDH	
E22-025	-60.05	-14.52	4136	PLI	DS HV	R	C	6.08		JDH	
E22-034	-53.23	-52.54	3587	PLI	UPS	R	FSC	.58		JDH	
E23-002	-62.22	-95.32	4910	PLI	DS EC CB HV	R	DC	5.55		JDH	
E23-003	-61.29	-95.58	4465	PLI	CB PT	R	DC	6.11		JDH	
E23-004	-60.3	-95.06	4923	PLI	PHI CB EC	R	DRC	11.49		JDH	
E23-005	-62.27	-101.3	4831	PLI	DS HV CB EC	R	DC	15.4		JDH	
E23-011	-60.03	-108.29	5078	PLI		R	DOC	12.04		JDH	
E23-012	-61.29	-109.26	5033	PLI		R	DOC	15.51		JDH	
E23-015	-64.03	-115.52	4868	PLI	EC CB DS	R	DOC	16.6		JDH	
E23-016	-62.09	-114.4	5038	PLI		R	DOC	15.56		JDH	
E25-015	-64.31	-145.59	3777	PLI	DS EC	R	C	3.8		JDH	
E27-003	-66.04	176.3	3977	PLI	DS UPS EC HV	R	RC	21.56	Y	JDH FMW73 W&K72	
E27-021	-69.02	179.5	3458	PLI	UPS	R	C	16.08	Y	FMW73 W&K72	
E27-022	-64.52	160.37	2946	PLI	UPS DS HV EC CB	R	FC	8.08	Y	JDH FMW73 W&K72	
E27-025	-57.56	143.43	3495	PLI	UPS DS CB EC HV	R	FS	.68		JDH	
E32-048	-67	176.16	3528	PLI	UPS HV	R	CDO	16.29	Y	FMW73 W&K72	
E32-051	-55.57	176.57	4871	PLI	UPS	R	SDRC	7.6	Y	FMW73 W&K72	
E33-018	-61.05	-119.46	4667	PLI	CB HV	R	DCRO	15.49		JDH	
E34-003	-60.02	167.18	4520	LPLI	MAT GAU	DS	FSDRO	3.55	Y	OSBORN83	
E34-005	-57.23	160	3797	LMIO PLI	CS GIL CR5	R	SDRO	5.83	Y	DBL FMW KNYTH OSBORN	
E34-014	-52.12	145.04	3267	LPLI	MAT	DS	RFO	3.06	Y	OSBORN83	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
E34-017	-60.11	144.46	3856	PLI	UPS TAU	R	FSRO	5.93	Y	FMW73 W&K72	
E34-018	-60	134.52	4509	PLI	UPS TAU	R	RC	9.2	Y	FMW73 W&K72	
E34-019	-56.4	135.13	4019	EPLI	GIL	DS	DRC	2.6	Y	FMW DBL KNYTH OSBORN	
E35-007	-49.58	128.04	3880	PLI	DS CBEC	R	RFO	6.04		JDH	
E35-035	-58.59	170.03	5027	PLI	GAU GIL	DS	FRDSC	9.18	Y	OSBORN83	
E36-008	-58.05	139.55	3898	LPLI	GAU	DS	FRO	.97	Y	OSBORN83	
E36-014	-58.06	150.14	3056	PLI	PHI CB EC	R	RDSFO	6.02		JDH	
E36-015	-56.35	150.16	3519	MMIO? PLI?	DS	R	RDCO	2	Y	FMW73 W&K72 OSBORN83	
E36-027	-49.42	154.54	4538	PLI	CB EC	RDS	FSROC	11.54	Y	JDH OSBORN83	
E36-033	-57.46	154.55	3435	EPLI		R	DCRO	5	Y	FMW OSBORN KNTH DBL	
E36-034	-60	155.02	2796	PLI	UPS EC DS CB HV	RDS	SDRFO	4.6	Y	JDH OSBORN83	
E36-037	-58.4	159.31	3879	MMIO RLMIO+PLI	CG	RDS	DRSOC	5.25	Y	FMW DBL OSBORN83	
E37-007	-65.01	144.57	3157	LPLI	MAT GAU	DS	RSFC	8.4	Y	OSBORN83	
E37-008	-64.51	142.25	3038	LMIO PLI	UPS GIL	RDS	RSDC	2.6	Y	FMW FMW73 OSBORN83	
E37-014	-63.55	132.28	3290	LPLI	MAT GAU	DS	RSC	5.14	Y	OSBORN83	
E37-020	-50.53	125.1	4035	PLI	PHI CB EC	R	CDRO	6.1		JDH	
E38-007	-61.48	149.54	3660	PLI	HV GAU	RDS	DROC	6.02	Y	FMW OSBORN83	
E38-008	-61.46	149.58	3294	EPLI	UPS GAU GIL	R	DSRCO	5.44	Y	FMW73 KNY DBL OSBORN	
E38-009	-57.27	150.04	3175	E?PLI	GAU	DS	RFO	6.1	Y	FMW OSBORN83	
E39-026	-52.59	126.08	4676	LPLI	MAT GAU	DS	RDOC	9.3	Y	OSBORN83	
E39-052	-47.35	142.6	4538	PLI	CB EC PHI	R	RFO	4.63		JDH	
E39-055	-49.56	145.55	4703	PLI/MMIO?	HV	RDS	DSFRO	8.83	Y	FMW OSBORN83	
E44-011	-56.04	160.45	4410	LPLI	MAT	DS	RDSO	10.59	Y	OSBORN83	
E44-022	-58.05	130.08	4597	LPLI	MAT GAU	DS	CDRO	23.24	Y	OSBORN83	
E45-079	-45.03	114.22	4092	PLI	EC SD	R	SCRFO	9.13		JDH	
E47-010	-63.57	83.59	3609	PLI		SC	SC	5.29	FMW		
E47-012	-61.57	84.02	2767	PLI		FSCO	FSCO	5.37	FMW		
E47-015	-57.17	78.48	1631	PLI		DRFO	DRFO	5.25	FMW		
E49-004	-49.04	110.08	3570	PLI		RDFO	RDFO	8	FMW		
E49-010	-59	110.08	4374	PLI		RDCO	RDCO	5.51	FMW		
E49-028	-55.1	94.51	4540	PLI		SRDOC	SRDOC	15.98	FMW		
E49-029	-57.05	94.57	4240	EPLI		SRDOC	SRDOC	11.23	FMW		
E50-013	-59.59	105	4213	PLI		SRDOC	SRDOC	16.06	FMW		
E50-028	-62.54	150.41	3492	EPLI GAU GIL	HV DS	RDS	SDRFO	4.1	Y	FMWTH KNYTH DBL OSBO	
E50-030	-65	164.58	2931	LPLI	GAU	DS	SVFC	5.88	Y	OSBORN83	
E50-031	-66.03	170.01	3235	LPLI	GAU	DS	RSDC	15.3	Y	OSBORN83	
E50-032	-65.03	169.52	2979	LPLI	GAU MAT	DS	DSFCO	11.02	Y	OSBORN83	
E50-033	-61.05	170.03	4553	PLI GIL GAU MAT	CB DS HV EC	R	RDSOC	11.32	Y	FMW OSBORN83 JDH	
E50-034	-60	170.09	4866	PLI GAU GIL	CB EC	DSR	RSDC	10.14	Y	FMW OSBORN83 JDH	
E50-22	-63.02	139.42	3717	LPLI	GAU	DS	RFCS	5.79	Y	OSBORN83	
E53-005	-43.19	159.17	4791	LPLI	MAT GAU	DS	SC	16.79	Y	OSBORN83	
E54-001	-48.07	86.11	3865	PLI			RDCO	10.99		FMW	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
E54-002	-52.05	84.32	4297	PLI			SRDCO	.4		FMW	
E54-008	-56.52	81.11	4227	PLI			RFDCC	5.9		FMW	
E54-009	-57.44	80.16	1662	PLI			RDNFO	5.34		FMW	
E54-011	-57.46	81	1830	RMIO LMIO PLI	HV CS	R	RDNFO	3.32		DBL FMW	
E54-015	-47.51	123.53	4209	LPLI	MAT	DS	FRDNO	4.17	Y	OSBORN83	
EO6-006	-57.1	-58.5	3651	PLI	HV CB EC	R	SC	6.44		JDH	
IO07-002	-49.27	-39.38	3336	LMIO EPLI	HV CS	DR	DC	8.17	Y	PFCTH DBL	
IO07-004	-47.49	-37.02	5616	EPLI?			DC	11.42		IO7REP	
IO07-005	-48.51	-36.33	4895	EPLI			C	11.69		IO7REP	
IO07-006	-48.42	-35.03	5087	EPLI			C	10.09		IO7REP	
IO07-021	-52.35	-27.16	4639	EPLI			DC	9.23		IO7REP	
IO07-040	-50.18	-43.25	1605	PLIRMIO ROLG?		R	DNO	4.45		DBL	
IO07-042	-49.52	-43.37	2621	LPLI			RS	.28		IO7REP	
IO07-048	-50.39	-46.05	1498	PLIRMIO		R	DNO	3.94		DBL	
IO07-049	-50.44	-46.2	1784	LMIO EPLI	HV CS	R	NDO	4.67	Y	DBL LED	
IO07-051	-50.57	-47.02	2547	EPLI			DO	.66		IO7REP	
IO07-052	-50.54	-46.5	2558	EPLI			SDO	1.35		IO7REP	
IO07-055	-50.38	-46.39	2255	LMIO EPLI RLMI	HV CS	DR	DNO	3.45	Y	PFC DBL	
IO07-057	-50.34	-47.3	2525	EPLI			S	.66		IO7REP	
IO11-010	-50.06	-41.07	1635	LMIO EPLI REOC	HV CS	DR	DNO	3.33		PFC DBL	
IO11-013	-50.04	-40.3	2209	MPLI			DSC	1.28		IO11REP	
IO11-016	-50.53	-33.57	2880	MPLI			DSC	1.4		IO11REP	
IO11-019	-51.29	-33.21	1767	EPLI			CDO	2.34		IO11REP	
IO11-064	-57.14	8.12	5479	LMIO EPLI PLI	HV CS	DR	C	17.56		PFC DBL	
IO11-066	-57.55	8.59	4513	LMIO EPLI	HV CS LG DR	RD	DC	11.61		PFC DBL JDH	
IO11-067	-57.02	9.14	5274	EPLI			C	16.44		IO11REP	
IO11-068	-56.11	9.35	4830	LPLI			DO	17.67		IO11REP	
IO11-070	-55.09	9.58	4521	MPLI			CDO	16.91		IO11REP	
IO11-071	-54.31	10.18	3809	LMIO EPLIRMMIO	HV CS	DR	DO	10.8		PFC DBL	
IO11-073	-53.31	10.49	3167	EPLI			DO	6.29		IO11REP	
IO11-076	-52.31	11.34	3127	EPLI			CVDO	3.65		IO11REP	
IO12-001	-39.31	16.51	4806	LPLI			C	6.75		IO12REP	
IO12-002	-45.02	22.28	4806	LPLI			C	1.11		IO12REP	
IO12-013	-56.16	19.04	4100	EPLI	HV	R	DO	8.34		IO12REP DBL	
IO12-015	-59.31	17.5	5066	LMIO/EPLI	HV	R	C	.3		IO12REP DBL	
IO12-016	-61.02	17.27	4921	LMIO/EPLI	HV	DR	DC	14.29	Y	PFC DBL LED	
IO12-017	-61.59	16.58	4998	LMIO PLI	DS HV	DR	C	17.05		PFC JDH	
IO12-018	-63	16.37	5022	LPLI			C	.65		IO12REP	
IO12-021	-66	15.2	3603	LMIO EPLI	HV CS DR	R	C	9.93		IO12REP DBL JDH	
IO12-022	-67.01	14.52	3904	EPLI			C	11.94		IO12REP	
IO12-026	-65.01	9.11	4658	LMIO EPLI	LG DS EC	R	C	10.94		IO12REP DBL JDH	
IO12-027	-62.56	9.07	4846	EPLI RMIO	HV	R	CDO	18.06		IO12REP DBL	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
IO12-034	-64.28	1.33	2679	EPLI			DO	4.88		IO12REP	
IO12-035	-64.27	1.46	2527	EPLI			DO	1.2		IO12REP	
IO12-036	-65.32	.27	3440	MMIO LMIO EPLI	HV CS AG	R	CDO	4.95	Y	IO12REP DBL LED	
IO12-037	-66.3	-4	4473	EPLI RMIO			S	12.75		IO12REP	
IO12-20	-65	15.44	3886	MMIO? EPLI	HV	R	C	8.91		IO12REP DBL	
IO15-005	-59.48	-13.28	3968	PLI	HV DS EC CB	RDS	DO	5.56		IO15REP DBL JDH	
IO15-006	-59.29	-9.51	4283	EPLI	HV	RDS	VCDO	6.41		IO15REP DBL	
IO15-007	-60	-6.45	5214	LMIO? PLI	AC	DSR	C	7.88		IO15REP DBL	
IO15-014	-68.41	-10.13	4256	LMIO PLI	AD	DSR	C	3.57		IO15REP DBL	
IO15-024	-69.58	-12.17	4078	PLI+RLOLG	AC PN	NR	DC	10.68		IO15REP DBL	
IO15-025	-71.01	-18.16	4440	LMIO? PLI	AC PH	DSR	SC	10.13		IO15REP DBL	
IO15-033	-71.55	-16.43	1536	EPLI RLMIO	HV	DSR	C	5.21		IO15REP DBL	
IO15-034	-71.54	-16.55	1865	LMIO? PLI		DSR	C	7.68		IO15REP DBL	
IO15-035	-71.51	-17.1	2350	LMIO? EPLI	DS AC	DSR	C	11.43		IO15REP DBL	
IO15-036	-71.46	-17.31	2751	LMIO/EPLI	HV	DSR	C	8.02		IO15REP DBL	
IO15-037	-71.31	-18.07	3681	LMIO? PLI	AC	DSR	C	9.43		IO15REP DBL	
IO15-061	-58	-41	3438	EPLI		DS	DSC	1.71		IO15REP	
IO16-018	-49.43	-47.17	2345	EPLI		S		1.78		IO16REP	
IO16-031	-49.53	-46	3091	LPLI		DS		4.6		IO16REP	
IO16-056	-51.5	-33.54	2374	EPLI		CDO		7.77		IO16REP	
IO16-067	-51.26	-22.53	4588	EPLI		CDO		.27		IO16REP	
IO16-090	-57.3	-17.22	4545	EPLI		DC		5.35		IO16REP	
IO16-103	-51.3	-25.11	3028	EPLI		DO		4.87		IO16REP	
IO16-105	-51.31	-25.3	3122	EPLI		SDO		2.2		IO16REP	
IO16-107	-51.31	-25.25	2986	EPLI		SDO		4.01		IO16REP	
IO16-108	-51.31	-25.43	2772	EPLI		SDO		4.44		IO16REP	
MD0-36	-49.26	61.47	2650	EPLI		*O		5.08		CAULET ET AL 84	
MD0-44	-31.22	61.51	4100	LPLI	NN14	C*O		7.85		CAULET ET AL 84	
MD20-10	-30.45	48.15	4150	EPLI	NN18	D*O		.35		CAULET ET AL 84	
MD20-9	-30.47	48.11	3942	LPLI	NN14	D*C		.26		CAULET ET AL 84	
MD35-16	-50.03	73.43	734	EPLI	NN18	R	DO	6.8		CAULET ET AL 84	
MD35-22	-49.41	74.01	2592	EPLI	NN15	R	*DO	4		CAULET ET AL 84	
MD35-41	-50.06	63.55	1485	EPLI	NN16	R	DOFS	3.2		CAULET ET AL 84	
MD6-24	-37.38	63.08	4942	LPLI	NN16	R	CDO	18.1		CAULET ET AL 84	
MD6-26	-34.24	66.27	4725	LPLI	NN18	N	O*C	16.9		CAULET ET AL 84	
MD6-28	-34.35	63.31	4200	LPLI	NN16	N	*C	8.25		CAULET ET AL 84	
MD6-29	-37.01	59.15	5025	LPLI	NN16	N	CDO	16.2		CAULET ET AL 84	
MD6-29BX	-37.01	59.16	5025	EPLI	NN15	R	CDO	.94		CAULET ET AL 84	
MD6-34	-47.11	63.02	3937	LPLI	NN18	R	*CDO	13.5		CAULET ET AL 84	
MD9-10	-32.51	48.59	4005	EPLI	NN15	N	C*O	12.8		CAULET ET AL 84	
MD9-13	-32.56	52.05	4460	EPLI	NN14	N	DC*O	17.1		CAULET ET AL 84	
MD9-34BX	-34.36	63.3	4425	LPLI	NN18	N	C*O	.85		CAULET ET AL 84	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
RC08-041	-43.38	51.16	2897	EOCEPLI	HV	R	FNO	9.74	N	LDGO DBL LBURKLE	
RC08-049	-51.04	81.33	3908	PLI	EC CB DS	R	DRSC	9.56	Y	* JDH	
RC08-050	-44.46	92.25	3219	PLI	EC PHI	R	FO	12	Y	* JDH	
RC08-052	-41.06	101.25	4393	PLI	CB EC PHI	R	FC	11.03	Y	* JDH	
RC08-067	-51.08	152.56	4356	PLI MMIO?		R	*C	14.25	Y	DBL	
RC08-071	-58.03	155.44	3224	PLI	PSI SU	R	SFDC	8.67	Y	LDGO JDH	
RC08-080	-48.18	-162.64	4997	LMIO PLI	CS	RD	C	8.95	Y	DBL BUR	
RC08-081	-47.57	-159.03	5130	LMIO PLI		R	DR	12.85	Y	DBL	
RC09-132	-44.47	152.48	4709	MIO PLI	DY LG	R	C	10.55	Y	DBL	
RC09-137	-45.01	132.45	4675	PLI	PHI CB EC	R	FC	9.89	Y	* OPDYKE JDH	
RC11-072	-48.51	-30.52	5561	MIO PLI	SD CB EC	R	SC	12.01	N	LDGO JDH	
RC11-081	-43.53	5.13	4705	EPLI MIO	HV	R	FRCO	6.11	N	DBL	
RC11-082	-43.29	5.29	4609	MIO PLI	HV SS DY	R	FRSC	10.5	Y	* OPDYKE DBL	
RC11-088	-41.11	20.08	5125	EPLI MIO	HV	R	C	7.43	Y	DBL OPDYKE	
RC11-090	-56.38	25.43	5334	EPLI MIO LMIO?	HV EC CB DS	R	RDOC	10.82	Y	* OPDYKE DBL JDH	
RC11-100	-44.5	60.52	4742	PLI	SD CB EC	R	FSRC	8.68	N	* JDH	
RC11-101	-44.04	59.5	4806	PLI	EC CB DS	R	SFC	8.05	Y	* JDH	
RC11-102	-43.42	58.48	4709	LMIO PLI	CHIUPS CB EC SD	R	RC	11.32	Y	JDH OPDYKE DBL	
RC11-105	-38.47	58.5	5256	EPLI? MIO?	CB SD SD	R	DC	10.8	N	* DBL JDH	
RC11-121	-39.43	82.15	3426	PLI	PHI EC	R	CFO	5.52	N	* JDH	
RC12-224	-51.12	-133.4	4663	LPLI	UPS CB EC DS	R	FRC	10.98	Y	* JDH OPDYKE	
RC12-228	-55.34	-100.18	4420	MIO PLI?	CS EC DS	R	RNOC	7.65	N	* DBL JDH	
RC12-229	-55.2	-94.25	5284	LPLI	CB PHI EC	R	DRCO	7.86	N	* DBL JDH	
RC12-241	-43.28	-57.4	3499	PLI			FSC	6	N	LDGO	
RC12-253	-44.09	-46.31	5128	LPLI	PHI CB EC	R	C	10.88	N	* JDH	
RC13-251	-42.31	11.4	4341	MMIO PLI		R	C	10.85	N	DBL	
RC13-252	-45.05	9.09	4523	PLI	PHI CB EC HV	R		12.33	N	* JDH	
RC13-266	-57.08	-3.4	4078	PLI	UPS DS	R	DOSC	5.23	N	* JDH	
RC13-268	-57.02	-0.5	4005	PLI	UPS EC DS HV CB	R		8.48	N	* JDH	
RC13-270	-55.29	4.38	3160	LMIO EPLI	HV CS	R	RC	10.5	N	DBL	
RC13-272	-55.05	8	2538	EPLI LMIO	HV CS	R	FRDO	11.05	Y	DBL	
RC13-277	-44.34	15.45	4877	EPLI	HV UPS EC DS CB	R	RC	17.56	Y	* JDH OPDYKE DBL	
RC13-278	-42.03	16.43	4790	PLI? MIO?	EC CB SD PHI	R	FSC	12.8	N	* JDH	
RC14-013	-37.23	59.19	4471	LMIO EPLI	HV EK	R	C	20.8	Y	DBL OPDYKE	
RC15-081	-52.52	-52.26	3442	RMIO+PLI		R	S	5.16	N	DBL	
RC15-095	-42.57	-23.3	4264	LPLI	PHI DH EC	R	FC	9.52	N	JDH	
RC15-097	-42.57	-25.56	4583	MMIO? PLI		R	RC	8.82	N	DBL	
RC15-113	-43.37	-48.62	5312	PLI		R	DC	10.37	N	JDH	
RC15-136	-51.41	-51.19	1204	PLI	UPS HV DS CB EC	R	SC	1.08	N	JDH	
RC16-093	-45.17	-56.39	5147	LMIO PLI	CS MC	R	C	3.96	Y	DBL	
RC16-108	-50.36	-46.13	1650	LMIO EPLI	HV CS	RDS	DS*CO	4.88	Y	DBL PFC77	
RC16-111	-51.14	-43.26	1716	LMIO PLI	CS DB CB	RDS	RSCO	4.38	Y	DBL JDH PFC	

Pliocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
RC17-054	-43.3	28.08	5452	MPLIEPLI	SD EC CB HV DS	R	DORC	12.02	N	* DBL JDH	
RC17-211	-48.26	-101.42	4353	LPLI	AC EC PHI	R	C	11.19	N	* DBL JDH	
RC17-212	-53.19	-95.21	4578	PLI	EC CB DS PHI	R	OFC	10.76	N	* JDH DBL	
RC18-227	-39.26	165.41	3052	PLI			FO	4.9	N	LDGO	
RC36-012	-61.45	149.33	4059	MMIO/PLI?	GAU?	DS	DSRCO	3.22	Y	FMW OSBORN83	
RC54-010	-57.45	80.39	1735	PLI			DSFRO	5.22	Y	FMW	
V14-047	-50.46	-42.09	1690	LMIO?EPLI	CS? HV	R	NCO	4.15	Y	DBL CHEN OPDYKE	
V15-136	-52.11	-49.05	2514	LMIOEPLI	CS HV	R	SC	7.35	N	DBL CHEN	
V15-137	-50.23	-47.24	2681	EPLI	HV UPS CB EC DS	R	SC	6.4	Y	* DBL OPDYKE JDH	
V16-059	-50.03	35.11	4868	PLI	DS HV EC UPS	R	DC	8.82	N	* JDH	
V16-060	-49.59	36.45	4574	PLI	UPSEC HV DS	R	FDC	7.55	Y	* DB OPDYKE JDH	
V16-061	-48.41	39.56	4534	PLI	PHI CB EC	R	DC	11.96	N	* JDH	
V16-063	-47.19	41.58	3866	PHI	HV CB EC SD DS	R	FCO	8.92	N	* JDH	
V16-064	-46.01	44.28	2202	PLI	PHI EC CB SD	R	FO	1.2	N	* JDH	
V16-066	-42.39	45.4	2984	PLI	PHI EC CB DS HV	R	FC	11.08	Y	* DBL OPDYKE JDH	
V16-119	-52.51	158.55	4338	EPLIEMIO	HV EP	R	DFC	7.85	N	CHEN	
V16-134	-61.54	-91.15	5138	PLI	UPS DS CB OMG	R	DC	8.28	Y	* JDH DBL OPDYKET66	
V16-137	-58.53	-71.57	4045	PLI	PHI EC CB	R	C	.52	N	* JDH	
V17-124	-48.34	-36.04	5176	PLI	DS HV CB EC	R	C	2.9	N	* JDH	
V17-125	-50.15	-35.53	4689	PLI		R	DCO	7.35	N	LDGO H	
V18-038	-36.35	-50.42	4319	PLI		R	SC	10.8	N	LDGO	
V18-071	-59.3	-78.36	5008	PLI?	PHI? DS LN	R	RSC	8	N	* JDH	
V18-072	-60.29	-75.57	4695	PLI	UPS HV CB EC DS	R	RSC	6.62	Y	* JDH	
V18-113	-51	-49.08	2747	PLI	DS EC CB HV		CS	.34	N	*	
V18-114	-49.35	-50.34	2576	LMIOEPLI	HV	D	SDO	4.9		PFC CHEN	
V18-115	-49.26	-50.42	3493	PLI RMIO	PHI EC CB	R	CSFO	.82	N	* CHEN JDH	
V18-116	-49.29	-50.28	2367	PLI	PHI ECCB	R	OFRCS	1.85	N	* JDH	
V18-186	-38.59	29.56	840	PLI	EC CB	R	FCO	8.4	N	* JDH	
V22-085	-39.45	-49.4	5411	PLI			SC	.4	N	LDGO	
V22-088	-45.04	-40.2	4980	PLI	UPS DS EC	R	SC	16.37	Y	* JDH	
V22-092	-50.06	-42.56	1686	PLI RMIO	UPS CB EC DS SD	R	FCOS	1.47	N	* JDH	
V22-094	-51.31	-43.3	2164	LMIOEPLI	CS HV	R	DRC	4.26	Y	DBL	
V22-097	-48.49	-37.41	5401	PLI			SC	3.94	N	LDGO	
V22-098	-47.56	-35.56	5630	PLI			SC	8.6	N	LDGO	
V22-106	-46.08	-10.54	3037	MIOEPLI	HV AC	DR	FDCO	9.65	Y	PFC DBL OPDYKE	
V22-107	-44.28	-6.38	3898	MMIOEPLI	AGHV	R	*C	10.45	Y	DBL OPDYKE	
V22-125	-40.32	25.39	2694	PLI			FO	3.12	N	LDGO	
V22-128	-40.29	26.45	2487	PLI			FO	4.6	N	LDGO	
V22-129	-40.29	26.45	2345	PLI OLG			FO	2.25	N	LDGO	
V29-107	-42.08	17.26	4815	LMIO/EPLI	LE SU	R	C	11.51	N	DBL	

Miocene Sediment Cores

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
DP003-015,04-05	-30.54	-17.59	3927	LMIO		FN	CFNO	11.1	N		
DP003-015,06-06	-30.54	-17.59	3927	MMIO		FN	CFNO	9	N		
DP003-015,07-08	-30.54	-17.59	3927	EMIO		FN	FNO	18	N		
DP003-016,04-11	-30.2	-15.43	3527	LMIO		FN	CFNO	56	N		
DP003-022,01-02	-30.01	-35.15	2106	EMIO		FNR	RFNO	9.7	N		
DP021-206,21-24	-32.01	165.27	3196	LMIO		FN	RFNO	27	N		
DP021-206,25-26	-32.01	165.27	3196	MMIO		FN	RFNO	76	N		
DP021-206,33-6C	-32.01	165.27	3196	EMIO		FN	FCNO	176	N		
DP021-207,04A-08A	-36.58	165.26	1386	LMIO		N	NFO	41	N		
DP025-245,01-01	-31.32	52.18	4857	MMIO		N	C	9	N		
DP025-246 ,03-03CC	-33.37	45.1	1030	MMIO		F	FO	9	N		
DP025-246 ,04-05	-33.37	45.1	1030	EMIO		F	*FS	12	N		
DP026-250,07A-09A	-33.28	39.22	5119	LMIO		FN	CO	150	N		
DP026-250,11A-13A	-33.28	39.22	5119	E&MMIO		N	C	114	N		
DP026-250,16A-16A	-33.28	39.22	5119	EMIO		FN	NC	9.5	N		
DP026-251,06A-14A	-36.3	49.29	3489	LMIO		FN	NO	154.5	N		
DP026-251,15A-25A	-36.3	49.29	3489	MMIO		FN	NO	142.5	N		
DP026-251,26A-30A	-36.3	49.29	3489	EMIO		FN	NO	41	N		
DP026-252	-37.03	59.14	5032	PLI LMIO	HV AF	R	RC	0	N	DBL	
DP026-254,04-05	-30.58	87.54	1253	LMIO		NF	F*O	19	N		
DP026-254,05-14	-30.58	87.54	1253	MMIO		NF	F*O	89.5	N		
DP026-254,15-19	-30.58	87.54	1253	EMIO		NF	F*O	40.5	N		
DP026-255,03-03CC	-30.55	94.15	1144	LMIO		NF	NFO	8	N		
DP026-255,04-04	-30.55	94.15	1144	MMIO		NF	NFO	10.5	N		
DP026-255,05-06	-30.55	94.15	1144	EMIO		N	NFO	19	N		
DP028-264,02-02	-34.58	112.03	2873	LMIO		NF	FNO	5.2	N		
DP028-265,15-17	-53.33	109.57	3582	MMIO		D	NO	54	N	MCC,WEAV&GOMBOS	
DP028-266,10-12	-56.24	110.07	4173	LMIO		D	DO	37	N	MCC,WEAV&GOMBOS	
DP028-266,13-16	-56.24	110.07	4173	MMIO		D	CNO	38	N	MCC,WEAV&GOMBOS	
DP028-266,17-22	-56.24	110.07	4173	EMIO		D	NO	76	N	MCC,WEAV&GOMBOS	
DP028-267,02-02	-59.15	104.29	4564	LMIO		D	DC	9.5	N		
DP028-267,03-03	-59.15	104.29	4564	EMIO		D	C	9.5	N		
DP028-268,05-07	-63.57	105.09	3544	LMIO		D	NOC	40	N	MCC,WEAV&GOMBOS	
DP028-268,08-12	-63.57	105.09	3544	MMIO		F	C	123.5	N		
DP028-268,13-16	-63.57	105.09	3544	EMIO			C	57	N		
DP028-269,03-06	-61.41	140.04	4285	LMIO		D	C	110	N	MCC,WEAV&GOMBOS	
DP028-269,06-09	-61.41	140.04	4285	MMIO		D	DC	134	N	MCC,WEAV&GOMBOS	
DP028-270,04-28	-77.26	178.3	634	LMIO		D	C	248	N		
DP028-272,02-03	-77.08	-176.46	629	LMIO		D	DC	19	N	MCC,WEAV&GOMBOS	
DP028-272,04-17	-77.08	-176.46	629	MMIO		D	DC	133	N	MCC,WEAV&GOMBOS	
DP028-272,18-38	-77.08	-176.46	629	EMIO		D	DC	199.5	N	MCC,WEAV&GOMBOS	
DP028-273,06-21A	-74.33	174.38	495	MMIO		D	DC	230	N	MCC,WEAV&GOMBOS	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
DP028-274,11-12	-68.6	173.26	3326	LMIO		D	DC	19	N	MCC,WEAV&GOMBOS	
DP028-274,13-15	-68.6	173.26	3326	MMIO		D	DC	28.5	N	MCC,WEAV&GOMBOS	
DP028-274,16-19	-68.6	173.26	3326	EMIO		D	DC	38	N	MCC,WEAV&GOMBOS	
DP029-278,09-14	-56.33	160.04	3698	LMIO		D	DRNO	57	N	WEAV&GOMBOS	
DP029-278,15-20	-56.33	160.04	3698	MMIO		D	DRNO	57	N	WEAV&GOMBOS	
DP029-278,21-29	-56.33	160.04	3698	EMIO		D	NDO	85.5	N	WEAV&GOMBOS	
DP029-279,01A-02A	-51.2	162.38	3371	MMIO		NF	FNO	91	N	WEAV&GOMBOS	
DP029-279,03A-11A	-51.2	162.38	3371	EMIO		NF	NO	85.5	N	WEAV&GOMBOS	
DP029-281,05-09	-47.6	147.46	1591	LMIO		FN	NFO	42.5	N		
DP029-281,09-10	-47.6	147.46	1591	MMIO		FN	NFO	19	N		
DP029-281,11-13	-47.6	147.46	1591	EMIO		FN	NFO	27.5	N		
DP029-282,01-04	-42.15	143.29	4207	LMIO		NF	SFO	5	N		
DP029-282,02-04	-42.15	143.29	4207	EMIO		NF	NSC	25	N		
DP029-284,15-22	-40.3	167.41	1068	LMIO		FN	FNO	76	N		
DP035-322,04-11	-60.01	-79.25	5026	MIO		D	CS	218.5	N		
DP035-323,02-03	-63.41	-97.6	4993	LMIO		DRS	SC	103.5	N		
DP035-323,04-05	-63.41	-97.6	4993	MMIO		DS	SC	285	N		
DP035-323,06-13	-63.41	-97.6	4993	EMIO		RD	C	285	N		
DP035-325,04-07	-65.03	-73.4	3745	LMIO		DR	NO&C	238	N		
DP035-325,08-09	-65.03	-73.4	3745	MMIO		DR	NOC	38	N		
DP035-325,10-10	-65.03	-73.4	3745	EMIO		R	SC	9.5	N		
DP036-328,02-02A	-49.49	-36.4	5013	LMIO		RD	CO	5	N		
DP036-328,02-03	-49.49	-36.4	5013	MMIO		RD	CO	11.5	N		
DP036-329,02-21	-50.39	-46.06	1519	LMIO		RFD	DNO	209	N		
DP036-329,22-26	-50.39	-46.06	1519	MMIO		RFD	DNO	104.5	N		
DP036-329,27-27	-50.39	-46.06	1519	EMIO		RD	NO	104.5	N		
DP039-357,03-04	-30	-35.34	2109	LMIO		N	FNO	16	N		
DP039-357,05-06	-30	-35.34	2109	MMIO		FN	FNO	19	N		
DP039-357,07-15	-30	-35.34	2109	EMIO		FN	FNO	123.5	N		
DP039-358,02-02	-37.39	-35.58	5000	LMIO			DRC	9.5	N		
DP039-358,03-03	-37.39	-35.58	5000	MMIO			C	9.5	N		
DP039-358,04-05	-37.39	-35.58	5000	EMIO			RC	19	N		
DP039-359,02-02	-34.59	-4.3	1658	MIO		FN	FNO	9.5	N		
DP040-360,02-14	-35.51	18.06	2949	LMIO		FN	NO	123.5	N		
DP040-360,15-22	-35.51	18.06	2949	MMIO		FN	NO	114	N		
DP040-360,23-26	-35.51	18.06	2949	EMIO		FN	NO	47.5	N		
DP071-512,01-01	-49.52	-40.51	1856	LMIO		RD	DNO	25	N		
DP071-512,02-05	-49.52	-40.51	1856	MMIO		RD	DNO	17.6	N		
DP071-513,05A-10A	-47.53	-24.38	4373	LMIO		DRS	DO	57	N		
DP071-513,11A-12A	-47.53	-24.38	4373	EMIO		DO	DO	19	N		
E06-010	-55.06	-55.35	2214	MIO		D	S	2.26		PFC	
E07-003	-55.03	-44.4	3495	PLI MIO	EC HV CB DS	RD	SC	4.94		JDH PFC	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
E07-016	-60	-49.04	3697	MIO?	DR	R	C	.45		JHSS JDH	
E07-018	-53.01	-48.53	3120	LMIO	DS HV EC	D	CS	4.2		PFC JDH	
E09-002	-50.37	-43.46	1272	LMIO	MC DH	DRS	DNO	5.85		PFCTHES C&WS77 JHSS	
E09-003	-50.36	-43.43	1263	LMIO	MC DH SD	DS	DNO	4.56		PFCTHES C&WS77 JDH	
E09-004	-49.5	-39.56	3038	LMIO		RD	SC	6.91	Y	JHSS C&WS77 G&W68	
E10-012	-64.51	-78.58	4136	EPLI LMIO	AS?	FR	SC	3.7		JHSS DBL	
E10-022	-56.26	-75.03	3459	LMIO	EL DS SD PH	RF	C	4.6	N	DBL JHSS JDH	
E11-031	-53.52	-65.41	92	MIO	DH	R	SC	6.39		JHSS JDH	
E13-001	-55.04	-89.45	4630	EPLI LMIO	HV PH	R	FDO	10.9	Y	DBL G&W68	
E13-017	-65.4	-124	4835	LMIO PLI	UPS DS LG EC CB	R	RDCO	26.42	Y	JDH DBL H&O67	
E14-003	-53.58	-159.59	4279	LMIO		R	*C	6.42		DBL	
E14-013	-60.01	-145.16	3418	PLI LMIO		RD	FCDO	4.86		JHSS	
E15-011	-60.07	-109.55	4952	MIO	EC T/CB	R	DC	17		JDH	
E16-004	-55.36	160.12	4154	LMIO EPLI	CS HV	R	DC	6.4	Y	DBL FMW KNYTH OSBORN	
E20-002	-49	-144.5	4520	LMIO	SS CS	R	DC	8.67	Y	DBL G&W68	
E20-015	-51.57	-99.43	4227	LMIO	DS EC SD AD SP.	RD	*CO	4.51		DBL JHSS JDH	
E20-016	-51.31	-102.27	4127	MMIO EMIO		R	NO	4.56		DBL	
E22-001	-57.03	-60.01	3440	MMIO		R	C	4.25		DBL	
E22-009	-50.59	-51.52	2047	MIO PLI	AA EI	R	CS	3.46		JHSS DBL	
E22-010	-50.59	-46.06	2110	MIO	HV CB EC DS	RD	CSDO	1.9		JHSS JDH	
E23-019	-57.36	-115.09	4026	MIO			*DRC	9.6		SBH74	
E33-002	-67	-164.34	3294	MIO		R	FRC	1.06		JHSS	
E34-005	-57.23	160	3797	LMIO PLI	CS GIL CR5	R	SDRO	5.83	Y	DBL FMW KNYTH OSBORN	
E34-006	-51.22	159.56	3880	PREGIL MIO?		DS	SRFO	4.74	Y	OSBORN83	
E36-015	-56.35	150.16	3519	MMIO? PLI?	DS	R	RDCO	2	Y	FMW73 W&K72 OSBORN83	
E36-016	-55.08	149.59	3825	PLS+RMIO	CD AD CG	R	RDOC	5.98	Y	DBL FMW OSBORN83	
E36-017	-54.01	150.04	3953	MMIO		RDS	DRC	6.14	Y	FMW DBL OSBORN83	
E36-037	-58.4	159.31	3879	MMIO RL MIO+PLI	CG	RDS	DRSOC	5.25	Y	FMW DBL OSBORN83	
E37-008	-64.51	142.25	3038	LMIO PLI	UPS GIL	RDS	RSDC	2.6	Y	FMW FMW73 OSBORN83	
E39-055	-49.56	145.55	4703	PLI/MIO?	HV	RDS	DSFRO	8.83	Y	FMW OSBORN83	
E43-002	-46.57	-129.42	4355	LMIO	EK CS	R	CDRO	6.04	Y	DBL FMW WATKINS	
E44-007	-53.03	158.13	3331	EMIO		DS	FSRCO	8.62	Y	FMW OSBORN83	
E45-016	-35.07	101.58	4385	MIO OLG	EC	R	RSFVC	6.85		JDH DBL	
E45-042	-57.12	113.2	4333	MMIO		R	SRCO	.85		JHSS DBL JDH	
E45-062	-55.05	114.07	4209	MMIO		R	DRFCO	4.9		DBL	
E45-081	-43.57	114.22	4258	MIO	EC CB SD	R	DFRC	10.62		JDH	
E45-083	-42.35	114.26	4337	MIO	CB DH EC	R	FODRC	5.01		JDH	
E45-086	-41.3	114.26	4304	LMIO MMIO		R	FC	4.07		DBL	
E45-088	-40.33	114.32	4392	EMIO			FC	3.84		K&W76	
E47-007	-66.39	77.54	1427	MMIO LMIO			SDC	3		FMW	
E54-011	-57.46	81	1830	RMIO LMIO PLI	HV CS	R	RDNO	3.32		DBL FMW	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
E55-035	-34.45	110	3203	MIO		F	NFO	3.96	Y	WIL&LED80 DBL	
E55-036	-34.49	109.57	4172	MIO		F	SCFO	2.25	Y	WIL&LED80 DBL	
E55-039	-34.4	110.02	3609	MIO		F	CS	2.39	Y	WIL&LED80 DBL	
E55-041	-34.32	109.44	2809	MIO		F	FNO	2.22	Y	WIL&LED80 DBL	
IO07-002	-49.27	-39.38	3336	LMIO EPLI	HV CS	DR	DC	8.17	Y	PFC TH DBL	
IO07-040	-50.18	-43.25	1605	PLI RMIO ROLG?		R	DNO	4.45		DBL	
IO07-047	-50.32	-45.18	1517	EMIO			RNO	2.82		IO7REP	
IO07-048	-50.39	-46.05	1498	PLI RMIO		R	DNO	3.94		DBL	
IO07-049	-50.44	-46.2	1784	LMIO EPLI	HV CS	R	NDO	4.67	Y	DBL LED	
IO07-053	-50.52	-46.36	2229	LMIO			SDN	1.78		IO7REP	
IO07-054	-50.36	-46.23	1856	LMIO			DNO	2.8	Y	IO7REP PFC	
IO07-055	-50.38	-46.39	2255	LMIO EPLI RLMIO	HV CS	DR	DNO	3.45	Y	PFC DBL	
IO11-009	-50.09	-42.17	1441	MMIO			RNO	1.46		IO11REP	
IO11-010	-50.06	-41.07	1635	LMIO EPLI REOC	HV CS	DR	DNO	3.33		PFC DBL	
IO11-064	-57.14	8.12	5479	LMIO EPLI PLI	HV CS	DR	C	17.56		PFC DBL	
IO11-066	-57.55	8.59	4513	LMIO EPLI	HV CS LG DR	RD	DC	11.61		PFC DBL JDH	
IO11-071	-54.31	10.18	3809	LMIO EPLI RMMIO	HV CS	DR	DO	10.8		PFC DBL	
IO12-015	-59.31	17.5	5066	LMIO/EPLI	HV	R	C	.3		IO12REP DBL	
IO12-016	-61.02	17.27	4921	LMIO/EPLI	HV	DR	DC	14.29	Y	PFC DBL LED	
IO12-017	-61.59	16.58	4998	LMIO PLI	DS HV	DR	C	17.05		PFC JDH	
IO12-019	-64	16.11	4949	LMIO		D	C	10.39		PFC	
IO12-021	-66	15.2	3603	LMIO EPLI	HV CS DR	R	C	9.93		IO12REP DBL JDH	
IO12-025	-68.36	10.57	2015	LMIO	CS	R	CDO	8.66	Y	DBL LED	
IO12-026	-65.01	9.11	4658	LMIO EPLI	LG DS EC	R	C	10.94		IO12REP DBL JDH	
IO12-027	-62.56	9.07	4846	EPLI RMIO	HV	R	CDO	18.06		IO12REP DBL	
IO12-030	-60.01	6.07	5229	LMIO		D	DC	14.69		PFC	
IO12-031	-62.02	4.1	5240	LMIO		D	C	17.32		PFC	
IO12-032	-60	3.06	5227	LMIO		D	DC	14.41		PFC	
IO12-033	-63.33	2.28	4184	RMIO			C	1.86		IO12REP	
IO12-036	-65.32	.27	3440	MMIO LMIO EPLI	HV CS AG	R	CDO	4.95	Y	IO12REP DBL LED	
IO12-037	-66.3	-4	4473	EPLI RMIO		R	S	12.75		IO12REP	
IO12-20	-65	15.44	3886	MMIO? EPLI	HV	R	C	8.91		IO12REP DBL	
IO15-007	-60	-6.45	5214	LMIO? PLI	AC	DSR	C	7.88		IO15REP DBL	
IO15-014	-68.41	-10.13	4256	LMIO PLI	AD	DSR	C	3.57		IO15REP DBL	
IO15-025	-71.01	-18.16	4440	LMIO? PLI	AC PH	DSR	SC	10.13		IO15REP DBL	
IO15-033	-71.55	-16.43	1536	EPLI RLMIO	HV	DSR	C	5.21		IO15REP DBL	
IO15-034	-71.54	-16.55	1865	LMIO? PLI		DSR	C	7.68		IO15REP DBL	
IO15-035	-71.51	-17.1	2350	LMIO? EPLI	DS AC	DSR	C	11.43		IO15REP DBL	
IO15-036	-71.46	-17.31	2751	LMIO/EPLI	HV	DSR	C	8.02		IO15REP DBL	
IO15-037	-71.31	-18.07	3681	LMIO? PLI	AC	DSR	C	9.43		IO15REP DBL	
IO15-039	-70.39	-21.34	4334	LMIO?		DS	C	5.15		IO15REP	
IO16-020	-50.17	-46.4	2498	LMIO		D	DNO	1.44		PFC	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
IO16-021	-50.21	-46.32	2262	LMIO		D	DNO	3.39		PFC	
IO16-022	-50.31	-46.44	2420	LMIO		D	RDO	4.47		PFC	
IO16-025	-50.53	-47.27	2573	LMIO		D	DO	1.4		PFC	
IO16-026	-51.19	-46.59	2703	LMIO		D	CDO	2.3		PFC	
IO16-027	-51.22	-45.44	2264	LMIO		D	C	3.77		PFC	
IO16-030	-50.57	-45.42	2012	LMIO		D	DNO	3.72		PFC	
IO16-033	-50.14	-46	2465	LMIO		D	DNO	3.07		PFC	
IO16-034	-50.1	-45.54	2769	LMIO		D	DNO	2.79		PFC	
IO16-047	-49.59	-41.57	1529	MMIO EMIO LOLG		D	DNO	.73		PFC IO16REP	
IO16-050	-49.43	-41.43	1726	MMIO LMIO		D	DO	.27		IO16REP	
IO16-055	-61.45	-34.02	2533	LMIO		D	CDO	2.8		PFC	
IO16-109	-50.46	-26.04	2999	LMIO		D	DNO	2.66		PFC	
IO16-116	-45	-32.07	5044	LMIO		D	DC	11.2		PFC	
MD0-16	-30.49	45.34	1930	EMIO	NN19		F*O	5.68		CAULET ET AL 84	
MD0-24	-33.36	49.16	4228	EMIO	NN10		F*O	11.82		CAULET ET AL 84	
MD0-43	-34.33	63.32	4261	LMIO	NN12		C*O	7		CAULET ET AL 84	
MD20-12	-30.45	48.16	3927	EMIO	NN1	I	S*O	7.96		CAULET ET AL 84	
MD20-8	-30.46	48.18	4249	MMIO	NP9	N	DC*O	5.96		CAULET ET AL 84	
MD35-4	-45.41	66.37	2750	LMIO	NN15	I	*F0	8		CAULET ET AL	
MD35-43	-50.21	63.54	2260	LMIO	NN21	N	DOFS	4.1		CAULET ET AL 84	
MD35-44	-50.01	63.57	1350	LMIO	NN12	N	DOFS	6.7		CAULET ET AL 84	
MD9-11	-32.45	49.53	4160	LMIO	NN12	N	C*O	12.1		CAULET ET AL 84	
N	-33.48	112.29	2793	LMIO		NF	O	9.1		CAULET ET AL 84	
RC08-067	-51.08	152.56	4356	PLI MMIO?		R	*C	14.25		DBL	
RC08-069	-53.29	155.37	4303	MMIO EMIO	AG CT	R	RDC	1.7		DBL CHEN	
RC08-080	-48.18	-162.64	4997	LMIO PLI	CS	R	C	8.95		DBL BUR	
RC08-081	-47.57	-159.03	5130	LMIO PLI		R	DRC	12.85		DBL	
RC08-086	-40.33	-129.23	4852	EMIO		R	SOC	3.57		SBH74	
RC08-087	-39.28	-125.3	4583	MIO			OC	3.7		LDGO	
RC08-089	-36.23	-118.06	3900	MIO			SFCO	3.66		LDGO	
RC09-132	-44.47	152.48	4709	MIO PLI		R	C	10.55		DBL	
RC09-134	-44.09	143.47	4570	MIO	DY LG		DOFC	8.28		SBH74	
RC09-139	-47.46	123.06	4158	MIO			SDFC	4.71		LDGO	
RC09-141	-44.18	120.06	4658	MIO	EK DM	R	FC	7.72		DBL OPDYKE	
RC11-072	-48.51	-30.52	5561	MIO PLI	SD CB EC	R	SC	12.01		LDGO JDH	
RC11-081	-43.53	5.13	4705	EPLIMIO	HV	R	FRCO	6.11		DBL	
RC11-082	-43.29	5.29	4609	MIO PLI	HV SS DY	R	FOSRC	10.5		* OPDYKE DBL	
RC11-088	-41.11	20.08	5125	EPLIMIO	HV	R	C	7.43		DBL OPDYKE	
RC11-090	-56.38	25.43	5334	EPLIMPLI LMIO?	HV EC CB DS	R	RDOC	10.82		* OPDYKE DBL JDH	
RC11-102	-43.42	58.48	4709	LMIO PLI	CHIUPS CB EC SD	R	RC	11.32		JDH OPDYKE DBL	
RC11-103	-43.02	57.21	4673	MIO		R	VSFRC	5.07		SBH74	
RC11-105	-38.47	58.5	5256	EPLI? MIO?	CB SD SD	R	DC	10.8		* DBL JDH	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
RC11-118	-37.48	71.32	4354	MIO			CFRO	6.28	N	LDGO	
RC12-228	-55.34	-100.18	4420	MIO PLI?	CS EC DS	R	RNO	7.65	N	* DBL JDH	
RC12-249	-38.24	-54.34	1196	MIO	CS CB HV	R	SC	1.62	N	LDGO JDH	
RC13-242	-37.32	-3.35	4266	MMIO	CL	R	FCNO	9.16	N	DBL	
RC13-251	-42.31	11.4	4341	MMIO PLI		R	C	10.85	N	DBL	
RC13-270	-55.29	4.38	3160	LMIO EPLI	HV CS	R	RC	10.5	N	DBL	
RC13-272	-55.05	8	2538	EPLI LMIO	HV CS	R	FRDO	11.05	Y	DBL	
RC13-274	-53.09	12.26	3372	MIO		R	DO	9.83	Y	GOLL	
RC13-278	-42.03	16.43	4790	PLI? MIO?	EC CB SD PHI	R	FSC	12.8	N	* JDH	
RC14-013	-37.23	59.19	4471	LMIO EPLI	HV EK	R	C	20.8	Y	DBL OPDYKE	
RC15-081	-52.52	-52.26	3442	RMIO+PLI		R	S	5.16	N	DBL	
RC15-082	-52.24	-49.11	3292	EMIO MMIO		R	SC	10.69	N	DBL	
RC15-097	-42.57	-25.56	4583	MMIO? PLI		R	RC	8.82	N	DBL	
RC15-107	-41.24	-50.59	5018	MIO		R	SC	4.4	N	LOZ74	
RC15-110	-38.06	-53.41	3237	MIO	DHEC	R	SC	1.68	N	JDH	
RC15-132	-47.12	-51.25	6067	MIO		R	CS	8.27	N	DBL	
RC16-093	-45.17	-56.39	5147	LMIO PLI	CS MC	R	C	3.96	Y	DBL	
RC16-107	-50.17	-51.06	2220	MIO		R	FOS	2.65	N	JDH	
RC16-108	-50.36	-46.13	1650	LMIO EPLI	HV CS	R	DS*CO	4.88	Y	DBL PFC77	
RC16-111	-51.14	-43.26	1716	LMIO PLI	CS DB CB	R	RSC	4.38	Y	DBL JDH PFC	
RC36-012	-61.45	149.33	4059	MMIO/PLI?	GAU?	DS	DSRCO	3.22	Y	FMW OSBORN83	
V12-040	-45.28	-59.4	1044	MIO?	CT	R	C	2.45	N	* JDH	
V12-042	-45.27	-58.08	3266	MIO OLG		R	C	.76	N	* CHEN	
V12-048	-46.47	-58.12	2763	MIO EMIO REOC	EP	DR	DCNS	6.5	N	PFC CHEN DBL	
V14-044	-53.28	-58.31	2140	MMIO	AG	R	SC	2.44	N	DBL CHEN	
V14-047	-50.46	-42.09	1690	LMIO? EPLI	CS? HV	R	NCO	4.15	Y	DBL CHEN OPDYKE	
V15-096	-53.16	-68.1	11	MIO		D?	C	2.15	N	LDGO	
V15-125	-55.18	-64.08	3263	MIO OLG		R	C	7.14	N	PFC *	
V15-136	-52.11	-49.05	2514	LMIO EPLI	CS HV	R	SC	7.35	N	DBL CHEN	
V16-117	-53.24	153.59	3992	MIO R? MIO EMIO		R	DC	5.9	N	DBL CHEN BURCKLE	
V16-119	-52.51	158.55	4338	EPLI EMIO	HV EP	R	DFC	7.85	N	CHEN	
V17-107	-51.08	-54.22	1525	MIO ROLG		R	SDC	2	N	*	
V18-097	-55.42	-59.06	3892	MMIO?		R	SFC	4.63	N	DBL	
V18-106	-53.27	-50.24	2638	MIO	EC	R	FRDSC	2.02	N	* JDH	
V18-107	-52.53	-48.08	2926	MIO		D	SC	4.42	Y	PFC	
V18-109	-52.12	-45.41	3232	MIO RMIO	HV DH EC DS CB	R	SC	2.9	N	* CHEN JDH	
V18-112	-51.4	-48.29	2429	MIO		D	DSC	2.6	N	*	
V18-114	-49.35	-50.34	2576	LMIO EPLI	HV	R	SDO	4.9	N	PFC CHEN	
V18-115	-49.26	-50.42	3493	PLI RMIO	PHI EC CB	R	CSFO	.82	N	* CHEN JDH	
V18-117	-49.3	-52.15	2559	MIO	ECCB DS	R	FCS	2.45	N	LDGO JDH	
V18-118	-49.05	-52.54	5319	LMIO		DR	SDC	11.16	N	PFC DBL	
V18-121	-47.37	-55.29	5236	MIO OLG? R		DR	C	5.25	N	PFC CHEN DBL	

Miocene Sediment Cores (cont.)

core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pm	Sources	Infor
V18-128	-44.21	-57.21	4333	MIO		D	SC	4.7	N	PFC	
V19-226	-35.45	23.52	2188	MIO			CFO	4.9	N	LDGO	
V22-092	-50.06	-42.56	1686	PLI RMIO	UPS CB EC DS SD	R	FCOS	1.47	N	* JDH	
V22-093	-50.47	-43.1	1320	LMIO		D	DFO	2.65		PFC	
V22-094	-51.31	-43.3	2164	LMIO EPLI	CS HV	R	DRC	4.26	Y	DBL	
V22-099	-49.14	-33.13	5440	LMIO	MC	RS	C	4.98	Y	DBL	
V22-106	-46.08	-10.54	3037	MIO/EPLI	HV AC	DR	FDCO	9.65	Y	PFC DBL OPDYKE	
V22-107	-44.28	-6.38	3898	MMIO EPLI	AG HV	R	*C	10.45	Y	DBL OPDYKE	
V22-121	-39.38	24.35	3592	MIO			FO	3.56	N	LDGO	
V22-122	-39.35	24.35	3272	MIO			OFC	4.11	N	LDGO	
V22-123	-39.32	24.5	2961	MIO			FOS	2.4	N	LDGO	
V22-130	-40.08	25.42	2428	MIO			FO	2.45	N	SBH74	
V22-131	-40	25.02	2801	MIO			CFO	1.34	N	SBH74	
V22-135	-38.05	21.2	5114	MIO			SC	4.83	N	LDGO	
V24-207	-36.18	46.13	3449	MIO			FO	2.9	N	LDGO	
V29-106	-45.58	17.42	4378	EMIO/MMIO		R	RC	11.75	N	DBL	
V29-107	-42.08	17.26	4815	LMIO/EPLI	LE SU	R	C	11.51	N	DBL	
V31-026	-43.3	-58.2	2550	MIO		R	CS	1.8	N	JDH	
V31-072	-50.49	-42.23	1595	LMIO		D	NDO	1.54		PFC	
V31-084	-49.34	-44.01	4029	LMIO		D	SCDO	1.27		PFC	

Paleogene and Cretaceous Sediment Cores

Core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pmag	Sources	Info
DP021-206,15C-15C	-32.01	165.27	3196	LEOC		FN	DFO	1.5	N		
DP021-206,16C-19C	-32.01	165.27	3196	EEOC		N	CFNO	8.5	N		
DP021-206,20C-21C	-32.01	165.27	3196	EPAL		N	NC	21	N		
DP021-207,24A-26A	-36.58	165.26	1386	EEOC		N	SFNO	17	N		
DP021-207,26A-26A	-36.58	165.26	1386	LPAL		N	FNO	1.5	N		
DP021-207,27A-27A	-36.58	165.26	1386	MPAL			FNO	8	N		
DP021-207,28A-28A	-36.58	165.26	1386	EPAL			FNO	9	N		
DP025-245,02-02	-31.32	52.18	4857	LEOC		N	NCO	9	N		
DP025-245,03-03	-31.32	52.18	4857	MEOC		FN	CNO	9	N		
DP025-245,04-08	-31.32	52.18	4857	EEOC		FN	C*FNO	126.2	N		
DP025-245,14-16	-31.32	52.18	4857	EPAL		FN	CNO	30	N		
DP025-246 ,05-11	-33.37	45.1	1030	EEOC		FN	*S	59	N		
DP026-255,07-07	-30.55	94.15	1144	MEOC		F	*O	9.5	N		
DP026-255,08-08	-30.55	94.15	1144	LCRET		F	*O	9.5	N		
DP026-258,05-14	-33.48	112.29	2793	LCRET		NF	F*OC	132	N		
DP026-258,15-18	-33.48	112.29	2793	ECRET		NF	C	66.5	N		
DP028-264,02-03	-34.58	112.03	2873	LEOC		F	NO	32.8	N		
DP028-264,04-09	-34.58	112.03	2873	MEOC		F	NO	76	N		
DP028-264,10-10	-34.58	112.03	2873	EEOC		F	CNO	9	N		
DP028-264,10-10CC	-34.58	112.03	2873	MPAL		F	CNO	.5	N		
DP028-267,06-06	-59.15	104.29	4564	LEOC		F	NO	6.5	N		
DP029-277,21-27	-52.13	166.11	1222	LEOC		F	FNO	66.5	N		
DP029-277,28-37	-52.13	166.11	1222	MEOC		F	FNO	133	N		
DP029-277,38-43	-52.13	166.11	1222	EEOC		F	F*NO	97	N		
DP029-277,44-45	-52.13	166.11	1222	LPAL		F	CF*NO	19	N		
DP029-277,46-46	-52.13	166.11	1222	MPAL		F	CNO	9.5	N		
DP029-280,06A-11A	-48.57	147.14	4181	LEOC		C	C	120	N		
DP029-280,12A-22A	-48.57	147.14	4181	MEOC		C	SDO	285	N		
DP029-281,14-16	-47.6	147.46	1591	EEOC		FN	NC	111.5	N		
DP029-282,15-18	-42.15	143.29	4207	EEOC		F	NC	77	N		
DP029-283,02-07				LEOC			CNO	143	N		
DP029-283,08-12				MEOC			C	134.5	N		
DP029-283,12-17				PAL			C	255	N		
DP035-323,17-18	-63.41	-97.6	4993	LCRET		FN	C	19	N		
DP036-327,02A-03A	-50.52	-46.47	2401	EEOC		N	SC	10.5	N		
DP036-327,03A-08A	-50.52	-46.47	2401	PAL		N	C	56	N		
DP036-327,03A-8A	-50.52	-46.47	2401	PAL		N	C	56	N		
DP036-328,04-05	-49.49	-36.4	5013	LEOC		C	C	57.5	N		
DP036-328,08-08	-49.49	-36.4	5013	EEOC		C	C	9.5	N		
DP036-328,09-09	-49.49	-36.4	5013	LPAL		C	C	9.5	N		
DP036-328,10-12	-49.49	-36.4	5013	LCRET		C	C	38	N		

Paleogene and Cretaceous Sediment Cores (cont.)

Core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pmag	Sources	Info
DP036-329,32-32	-50.39	-46.06	1519	EEOC		FN	NO	4.5	N		
DP036-329,32-34	-50.39	-46.06	1519	LPAL		FN	NO	11	N		
DP039-357,20-20	-30	-35.34	2109	LEOC		F	FNO	9.5	N		
DP039-357,21-28	-30	-35.34	2109	MEOC		F	FNO	161.5	N		
DP039-357,29-29	-30	-35.34	2109	LPAL		F	N*	9.5	N		
DP039-357,30-30	-30	-35.34	2109	EPAL		F	*	9.5	N		
DP039-357,31-51	-30	-35.34	2109	LCRET		F	*	304	N		
DP039-358,10-10	-37.39	-35.58	5000	LEOC		F	C	9.5	N		
DP039-358,11-11	-37.39	-35.58	5000	MEOC		F	C	9.5	N		
DP039-358,12-12	-37.39	-35.58	5000	EEOC		F	C	9.5	N		
DP039-358,13-14	-37.39	-35.58	5000	EPAL		F	O	19	N		
DP039-358,15-16	-37.39	-35.58	5000	LCRET		F	OC	28.5	N		
DP039-359,02-06	-34.59	-4.3	1658	LEOC		F	VCENO	38	N		
DP040-360,35-40	-35.51	18.06	2949	LEOC		FN	NO	92	N		
DP040-360,41-50	-35.51	18.06	2949	MEOC		FN	*CNO	170.5	N		
DP040-361,01-02	-35.04	15.27	4549	LEOC		N	NO	38	N		
DP040-361,04-05	-35.04	15.27	4549	MEOC		N	NO	47.5	N		
DP040-361,06-08	-35.04	15.27	4549	EEOC		N	NO	57	N		
DP040-361,09-09	-35.04	15.27	4549	LPAL		N	NO*C	9.5	N		
DP040-361,10-11	-35.04	15.27	4549	EPAL		N	NOC	19	N		
DP040-361,12-24	-35.04	15.27	4549	LCRET		C	522.5		N		
DP040-361,25-49	-35.04	15.27	4549	ECRET		C	406.5		N		
DP071-511,16-20	-51	-46.58	2589	LEOC		FNR	NDO	47	N		
DP071-511,23-49	-51	-46.58	2589	LCRET		FN	C	236	N		
DP071-511,49-70	-51	-46.58	2589	ECRET		F	NOC	200.5	N		
DP071-512,06-19	-49.52	-40.51	1856	MEOC		RDS	NO	53.5	N		
E06-009	-53.59	-55.58	1793	EOC		FSC		1.59	N	FMW	
E36-030	-54.04	155	4090	EOCLOLG		DS	CRDO	5.77	Y	FMW OSBORN83	
E36-031	-55	155	4273	LEOCLOLG			RCDO	4.93	Y	FMW OSBORN83	
E54-003	-57.25	77.49	1921	LEOC			RFNO	.27		FMW	
IO07-045	-50.25	-44.52	1621	LPAL			FNRO	4.77		IO7REP	
IO07-046	-50.27	-44.57	1599	LPAL			SDRNO	3.05		IO7REP	
IO07-050	-50.51	-46.46	2344	EOC			C	1.61		IO7REP	
IO11-010	-50.06	-41.07	1635	LMIO EPLI REOC	HV CS	DR	DNO	3.33		PFC DBL	
IO11-012	-50.04	-40.38	2088	LEOC			RDC	1.6		IO11REP	
IO12-014	-58.26	18.14	4682	PAL			NO	9.84		IO12REP	
IO15-059	-60.33	-40.13	2707	LEOC EOLG		N	C	1.27		IO15REP	
IO16-035	-50.15	-45.22	2429	LPAL			RFNO	5.2		IO16REP	
IO16-037	-50.21	-44.32	1580	LPAL			NO	.51		IO16REP	
IO16-038	-50.18	-44.18	1595	LPAL			NO	2.29		IO16REP	
IO16-039	-50.1	-43.44	1840	LPAL			*O	2.15		IO16REP	

Paleogene and Cretaceous Sediment Cores (cont.)

Core	Lat	Long	Depth	Ages	Zones	FGU	Lith	Lgth	Pmag	Sources	Info
IO16-041	-50.14	-43.35	1655	LPAL			NO	.31		IO16REP	
IO16-043	-49.57	-42.43	1706	LEOC			NO	1.88		IO16REP	
IO16-045	-50.02	-42.38	1624	LEOC			DNO	.74		IO16REP	
IO16-046	-50	-42.1	1693	MEOC			NO	.27		IO16REP	
IO16-049	-49.47	-41.41	1708	LPAL			FNO	.37		IO16REP	
MD20-19	-30.4	50.46	4342	LPAL	NP9	N	DC*O	7.28		CAULET ET AL 84	
MD35-12	-49.58	73.39	881	LPAL	NP9	N	*O	.65		CAULET ET AL 84	
MD35-13	-49.58	73.39	953	MPAL	NP6	N	FS*O	.4		CAULET ET AL 84	
MD35-15	-50.01	73.41	873	MEOC	NP15	I	*O	.2		CAULET ET AL 84	
MD35-2	-45.25	66.3	3718	LEOC	NP19	I	*C	2.9		CAULET ET AL 84	
MD35-3	-45.48	66.34	2390	LEOC	NP19	I	SF*O	4.2		CAULET ET AL 84	
MD35-37	-49.58	73.36	780	LEOC	NP16	N	D*O	.75		CAULET ET AL 84	
MD35-8	-49.58	73.37	778	EEOC	NP13	I	*O	.55		CAULET ET AL 84	
MD35-9	-49.58	73.36	709	EEOC	NP13	I	*O	.4		CAULET ET AL 84	
MD6-31	-39.35	61.04	5230	EEOC	NP13	N	CD*O	5		CAULET ET AL 84	
MD9-12	-32.38	50.47	4414	LEOC	NP16	N	*O	12.9		CAULET ET AL 84	
MD9-30A	-41.26	60.03	4630	EEOC	NP13	N	*ODC	3.1		CAULET ET AL 84	
MD9-30B	-41.25	60.02	4125	LEOC	NP17	N	DC*O	4.4		CAULET ET AL 84	
MD9-6	-30.47	48.19	4222	MEOC	NP14	N	*OC	8.4		CAULET ET AL 84	
RC08-035	-38.3	26.05	2992	EOC			FC	1.08	N	LDGO	
RC08-041	-43.38	51.16	2897	EOC EPLI	HV	R	FNO	9.74	N	LDGO DBL LBURKLE	
RC08-055	-35.49	109.57	5435	REOC			SC	7.77	*	*	
RC09-107	-44.13	179.34	902	EOC			SOFR	5.65	N	*	
RC09-129	-39.31	163.08	2836	EOC			FO	7.35	N	LDGO	
RC12-237	-47.47	-57.39	3652	EOC			RSDCO	4.45	N	LDGO	
RC12-242	-43.28	-57.4	3638	EOC			SC	2.07	N	LDGO	
RC15-084	-50.29	-44.43	1492	EOC			SRFO	5.55	N	LDGO	
RC15-085	-50.38	-40.21	3085	EOC			CRS	1.43	N	LDGO	
RC15-121	-49.37	-55.54	739	EOC			RFCO	1.7	N	LDGO	
RC16-090	-41.17	-52.54	5507	EOC			RCS	2.45	N	JDH	
RC16-094	-46.21	-59.32	1028	PAL		R	S	4.4	N	LDGO	
V12-046	-47.29	-59.21	1167	EOC?			SC	7.12	N	*	
V12-048	-46.47	-58.12	2763	MIO EMIO REOC	EP	DR	DCNS	6.5	N	PFC CHEN DBL	
V16-055	-40.14	25.15	2772	PAL			SFO	1.82	N	LDGO	
V18-104	-53.01	-52.52	2880	EOC			SC	3.33	N	*	
V18-187	-38.2	33.55	3680	PAL			FC	.47	Y	LDGO	
V22-126	-41.1	26.3	2791	PAL			O	3	N	LDGO	
V22-127	-41.18	26.43	2932	PAL			FO	2.3	N	LDGO	
V22-133	-39.39	24.57	3065	PAL			FO	5.33	N	LDGO	
V24-214	-37.03	24.57	3290	EOC			OFC	2.95	N	LDGO	
V31-068	-49.38	-42.28	2202	EOC?			CSRO	5.18	N	*	

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16. Abstract (Limit: 200 words) A listing of high southern latitude (>30° S) pre-Pleistocene sediment cores is given for samples obtained by the coring and drilling programs of the Lamont-Doherty Geological Observatory, the Antarctic Program of the Florida State University, the French Museum national d'Histoire naturelle, and the Deep Sea Drilling Program. Information on geologic age, core length, lithology, bathymetry, and geographic location are given for each sediment sample. Ages of cores are given whenever possible to the nearest sub-epoch (middle Miocene, etc), together with (when known) the fossils used to determine the age, and the source of the age determination. Many core ages are from previously unpublished sources. The listing provides information on approximately 500 different cores. A computer-searchable version of the data base may be obtained by writing to the senior author. A brief analysis of latitudinal and bathymetric patterns of sedimentation is also given for the Paleogene, Miocene, and Pliocene of the Southern Ocean. Throughout the Neogene, an essentially modern pattern of sedimentation is seen, with carbonate ooze predominating north of the present-day position of the polar front, siliceous ooze between the polar front and approximately 65° S, and clay near the Antarctic continent and in water depths >4 km. Paleogene and Cretaceous patterns of sedimentation appear to be different, but are difficult to distinguish due to plate motion and subsidence, and also because of the relatively small number of available pre-Neogene sediment cores.			
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