

MGG 07995003

CLIMAP CORE DATA FILE - UPDATED AT OREGON STATE UNIVERSITY - AUGUST 1980
PRIMARY REFERENCE FOR THIS FILE IS:

CLIMAP PROJECT MEMBERS, "SEASONAL RECONSTRUCTION OF THE EARTH'S
SURFACE AT THE LAST GLACIAL MAXIMUM", GEOLOGICAL SOCIETY OF
AMERICA - MAP AND CHART SERIES - IN PRESS

INFORMATION ON EQUATIONS USED TO ESTIMATE SEA SURFACE TEMPERATURES, AND
THE COLLECTION AND SELECTION OF DATA CAN BE FOUND IN THE PRIMARY REFERENCE,
OR IN THE PAPERS CITED THEREIN.

DATA FILE --

EACH CORE IS HEADED BY A MASTER CARD WHICH IS IDENTIFIED
BY #00# IN COLUMNS 73 AND 74.

SORTING SEQUENCE FOR THE FILE IS:

CORE ID	- (SHIP,CRUISE,CORE)
CORE TYPE	
DEPTH IN CORE	
RECORD TYPE	
SAMPLE NUMBER	
CARD NUMBER	

NOTE: AT THIS TIME A NUMBER OF MASTER RECORDS ARE NOT COMPLETE, IE. DATA
RECORDED AS MISSING. THESE RECORDS WILL BE REPLACED AT A LATER DATE

MASTER CARD --

COL. 1-2	SHIP CODE (ALPHABETIC - RIGHT JUSTIFIED)
A	- ATLANTIS
D	- DISCOVERY
K	- KANE
R	- REHOBETH
V	- VEMA
Y	- YEQUNA
AR	- ARGO
BS	- TANNER
KM	- KEVIN MORAN
RC	- RICHARD CONRAD
RE	- REHOBETH
SP	- SAN PABLO
A2	- ATLANTIS II
AL	- ALAMINCS
CH	- CHAIN
CR	- CHARCOT
CT	- CHARCCT
IG	- CHARCCT
E	- ELTANIN
HU	- HUDSON
M	- METEOR
TR	- TRIDENT

NOTE: IN SOME INSTANCES UNKNOWN SHIP CODES MAY HAVE MORE THAN TWO
ALPHA CHARACTERS AND EXTEND INTO SPACE FOR CRUISE.

COL. 3-5	CRUISE NUMBER (NUMERIC - LEADING ZEROS)
COL. 6-8	CORE NUMBER (NUMERIC - LEADING ZEROS)
COL. 9-12	BLANK
COL. 13-16	DEGREES LATITUDE (- = SOUTH)
COL. 17-20	MINUTES LATITUDE (- = SOUTH)
COL. 21-24	1/10 MINUTES LATITUDE (- = SOUTH)
COL. 25-28	DEGREES LONGITUDE (- = WEST)
COL. 29-32	MINUTES LONGITUDE (- = WEST)
COL. 33-36	1/10 MINUTES LONGITUDE (- = WEST)
COL. 37-40	10 DEGREE MARSDEN SQUARE
COL. 41-44	1 DEGREE MARSDEN SQUARE
COL. 45-48	WATER DEPTH (METERS) (ZERO IF NOT REPORTED)
COL. 49-52	CORE LENGTH (CENTIMETERS)
COL. 53-56	OCEAN AREA
1	- ANTARCTIC
2	- SOUTH ATLANTIC
3	- SOUTH PACIFIC
4	- INDIAN OCEAN
5	- NORTH ATLANTIC
6	- NORTHEAST PACIFIC
7	- NORTHWEST PACIFIC
8	- NORTH SEA
9	- BALTIC SEA
10	- ARCTIC

COL. 57-72 BLANK

COL. 73-74 00

COL. 75 CORE TYPE

C = DREDGE

F = FREE FALL

G = GRAVITY

H = HEAT FLOW

K = KASTON

M = MULTIPLE GRAVITY

P = PISTON CORE

T = TRIGGER OR GRAVITY CORE

COL. 76 MULTIPLE CORE I.D. CODE (ALPHAMERIC)

COL. 77-78 BLANK

COL. 79-80 00

DATA CARDS --

COL. 1-2 SHIP CODE (ALPHABETIC - RIGHT JUSTIFIED)

COL. 3-5 CRUISE NUMBER (LEADING ZEROS)

COL. 6-8 CORE NUMBER (LEAD ING ZEROS)

COL. 9-12 SAMPLED DEPTH IN CORE (CENTIMETERS)

COL. 13-72 FIFTEEN 4-BYTE DATA FIELDS
(RIGHT JUSTIFIED + -999 = MISSING DATA)

COL. 73-74 RECORD TYPE

10 = COCCOLITHS

11 = COCCOLITHS (MCINTYRE/MOLFINO VARIANT)

20 = DIATOMS

30 = PLANKTONIC FORAMINIFERA

40 = OPAL, CLARTZ AND CARBON DATA

50 = RADIOLARIA

51 = RADIOLARIA (HAYS VARIANT)

60 = STRATIGRAPHY

70 = TIME

80 = SEA SURFACE TEMPERATURE ESTIMATES

90 = OBSERVED SEA SURFACE TEMPERATURE (CORE TOP)

COL. 75 CORE TYPE

COL. 76 MULTIPLE CORE I.D. CODE (ALPHAMERIC)

COL. 77 BLANK OR NUMERIC (IF NUMERIC, N+1 COUNTS
REPORTED FOR THIS LEVEL)

COL. 78 BLANK

COL. 79-80 CARD NUMBER FOR COUNTED SAMPLE

RECORD TYPE = 10 (COCCOLITHS)

VAR. 1 ACANTHOICA ACANTHIFERA LOHMANN, 1912, P. 219, BEITRAGE ZUR
CHARAKTERISIERUNG DES TIER - UND PFLANZENLEBENS IN DEN VON
DER DEUTSCHLAND WAHRENDE IHER FAHRT NACH QUENG'S AYRES
DURCHFAHRENEN GEBIETEN DES ATLANTISCHEN OZEANS. I. TEIL.
INT. REV. HYDROBOL. U. HYDROGEOG. 4 407-432.VAR. 2 ACANTHOICA ACULEATA KAMPTNER, 1941, PP. 72, 76, 97, 133,
PL. 1, FIGS. 1, 2, DIE COCCOLITHINEEN DER SUDWESTKUSTE VON
ISTRION. ANN. NATURH. MUS. WIEN 51 54-149, 15 PLS.VAR. 3 ACANTHOICA QUATTROSPINA LOHMANN, 1903, WISS. MEERESUNTERSUCH
KIEL, V. 7, P. 1-87, FIGS. 1-4.VAR. 4 ANTHOSPHEAERA ROBUSTA (LOHMANN) KAMPTNER, 1941, P. 86
FOR CITATION SEE VAR. 2VAR. 5 CALCIOCAPPUS CAUDATUS GAARDER + RAMSFJELL, 1954,
P. 155, FIGS. 1A-D, A NEW COCCOLITHOPHORID FROM NORTHERN
WATERS, CALCIOCAPPUS CAUDATUS N. GEN. N. SP. NYTT MAG.
BOT. 2 155-156, 1 FIG.VAR. 6 OPHIASTER HYDROIDEUS (LOHMANN) LOHMANN, 1913, P. 151,
FIG. 9, UBER COCCOLITHOPHORIDEN. VERH. DEUTSCH ZOOL.
GES. 23 143-164, 19 FIGS.VAR. 7 PONTOSPHEA NANA, KAMPTNER 1941, PP. 73, 79, 134, PL. 3
FIGS. 31-32, FOR CITATION SEE VAR 2VAR. 8 SYRACOSPHEAERA CONFUSA HALLDAI + PARKALI, 1955, P. 13,
PL. 13, ELECTRON MICROSCOPE STUDIES ON COCCOLITHOPHORIDS
FROM THE NORWEGIAN SEA, THE GULF STREAM AND THE
MEDITERRANEAN. AUF. NORSKE VID.- AKAD. OSLO, MAT. - NATURV.
K1 1955, NO. 1, 30 P., 27 PLS.VAR. 9 SYRACOSPHEAERA BINODATA (KAMPTNER) KAMPTNER, 1937, P. 300,
NEUE UND BERMERKENSWERTE COCCOLITHINEEN AUS DEM
MITTELMEER. ARCH. PROTISTENK. 89 279-316, PLS. 14-17.VAR. 10 SYRACOSPHEAERA MEDITERRANEA LOHMANN, 1902, PP. 133,
134, PL. 4 FIGS. 31, 31A, 32, DIE COCCOLITHOPHORIDAE,
EINE MONOGRAPHIE DER COCCOLITHEN BILDENDEN FLAGELLATEN,
ZUGLEICH EIN BEITRAG ZUR KENNTNIS DES MITTELMEERAUFTRIEBS.

VAR. 11 SYRACOSPHEAERA HISTRICA KAMPTNER, 1941, PP. 74, 84,

104, 134, PL. 6 FIGS. 65-68. FOR CITATION SEE VAR 2

VAR. 12 SYRACOSPHEAERA CORALLA, LECAL, 1966, EXPL. P. 1 FIG. 2,
COCCOLITHOPHORIDES LITTORAUX DE BANYULS VIE ET MILIEU,

- SER. 3, OCEANOGRAPHIE, V. 16 (1965), P. 251-270, 10 PLS.
 VAR. 13 SYRACOSPHAERA MCLISCHI SCHILLER, 1925, P. 21, FIGS.
 KA-E, DIE PLANKTONISCHEN VEGETATIONEN DES ADRIATISCHEN
 MEERES. A. DIE COCCOLITHOPHORIDEN - VEGETATION IN DEN
 JAHREN 1911-14, ARCH. PROTISTENK, 51, 1-130, PLS. 1-9,
 TEXT-FIGS. A-Y.
- VAR. 14 SYRACOSPHAERA PIRUS HALLDAL + MARKALI, 1955, P. 11,
 P. 110. FOR CITATION SEE VAR. 8.
- VAR. 15 SYRACOSPHAERA WAGON WHEELS NO. 2, IN HOUSE
- VAR. 16 SYRACOSPHAERA PULCHRA LOHMANN, 1902, PP. 133, 134, PL. 4
 FIGS. 33, 36, 36A, 8, 37, FOR CITATION SEE VAR. 10
- VAR. 17 SYRACOSPHAERA PULCHROIDES HALLDAL + MARKALI, 1955, P. 10
 FOR CITATION SEE VAR. 8 (1955)
- VAR. 18 ALISPHEARA UNICORNIS IN HOUSE
- VAR. 19 PONTOSPHAERA VARIABILIS HALLDAL + MARKALI, 1955, P. 11,
 P. 110, FOR CITATION SEE VAR. 8
- VAR. 20 SYRACOSPHAERA WAGON WHEELS, IN HOUSE
- VAR. 21 SYRACOSPHAERA SP. B., UNPUBLISHED
- VAR. 22 SYRACOSPHAERA SP. C., UNPUBLISHED
- VAR. 23 UMBELLOSPHAERA IRREGULARIS PAASCHE IN MARKALI + PAASCHE,
 1955, P. 97, PLS. 3-6, ON TWO SPECIES OF UMBELLOSPHAERA,
 A NEW MARINE COCCOLITHOPHORID GENUS. NYTT MAG. BOT. 4
 95-100, 6 PLS.
- VAR. 24 UMBELLOSPHAERA TENUIS (KAMPTNER) PAASCHE IN MARKALI +
 PAASCHE, 1955, P. 9 FOR CITATION SEE VAR. 23.
- VAR. 25 HELICOPONTOSPHAERA KAMPTNERI HAY + MOHLER IN HAY,
 MOHLER, ROTH, SCHMIDT + BOUREAUX, 1967, P. 448, PL. 10,
 FIG. 5 PL. 11, FIG. 5. CALCARECUS NANNOPLANKTON ZONATION
 OF THE CENOZOIC OF THE GULF COAST AND CARIBBEAN-
 ANTILLEAN AREA, AND TRANSGEANIC CORRELATION TRANS.
- GULF COAST ASSOC. GEOL. SOC. V. 17, P. 428-480, PLS. 1-13.
- VAR. 26 ANOPLOSOLENIA BFAZILLES (LOHMANN) DEFLANDRE IN
 GRASSE, 1952, P. 458, FIGS. 356,
 TRAITE DE ZOOLOGIE ANATMIE, SYSTEMATIQUE, BIOLOGIE.
 TOME 1, FASC. 1 PHYLOGENIE, PROTOZOAires GENERALITES.
 FLAGELLES. PARIS MASON XII T 1, 071 PP. 830 FIGS.
 (CLASSE DES COCCOLITHOPHORIDES (COCCOLITHOPHORIDAE
 LOHMANN, 1902). PP. 439-470, FIGS. 339-364 BIS. BY
 G. DEFLANDRE (DEPOT LEGAL NO. 1550)
- VAR. 27 CALCICOLENIA SINUOSA SCHLAUDER, 1945. P. 45, PL. 8
 FIGS. 31, 33 PL. 9 FIGS. 32, 32A-C, RECHERCHES SUR LES
 FLAGELLES CALCAIRES DE LA BAIE D'ALGER. DIPLOME FACULTE
 DES SCIENCES, UNIVERSITE D'ALGER. 51 PP., INCL 9 PLS.
- VAR. 28 DISCOSPHAERA TUBIFERA G. MURRAY + BLACKMAN, 1898, PP. 438
 439, PL. 15 FIGS. 13, 14, (CLAVIGER) ON THE NATURE
 OF THE COCCOSPHERES AND RHABDOSPHERES. PHLOS. TRANS.
- ROY. SOC. LONDON 1908 427-441, PLS. 15-16.
- VAR. 29 RHABDOSPHERA CLAVIGERA G. MURRAY + BLACKMAN, 1898,
 PP. 438, 439, PL. 15 FIGS. 13, 14, (CLAVIGER) ON
 THE NATURE OF THE COCCOSPHERES AND RHABDOSPHERES. PHLOS.
 TRANS. ROY. SOC. LONDON 1908 427-441, PLS. 15-16.
- VAR. 30 CYCLOLITHELLA ANNULUS (COHEN) MCINTYRE + BE, 1967, P. 568
 PL. 5, FIGS. A-C., MODERN
 COCCOLITHOPHORIDA OF THE ATLANTIC OCEAN - I. PLACOLITHS
 AND CYRTOLITHS. DEEP-SEA RESEARCH, V. 14, P. 561-597,
 PLS. 1-12, FIGS. 1-17.
- VAR. 31 CYCLOLITHELLA ANNULUS (COHEN) MCINTYRE + BE, 1967,
 P. 568, PL. 5, FIGS. A-C, FOR CITATION SEE VAR. 30.
- VAR. 32 COCCOLITHUS DORONICCIDES ELACK + BARNE, 1961, P. 142,
 PL. 25 FIG. 3, COCCOLITHS AND DISCOASTERS FROM THE
 FLOOR OF THE SOUTH ATLANTIC OCEAN. J. ROY. MIGR. SOC.
 (LONDON). SEP. 3, 80 137-147. PLS. 19-26.
- VAR. 33 CYCLOCOCCOLITHUS FRAGILIS (LOHMANN) DEFLANDRE IN DEFLANDRE +
 OBSERVATIONS SUR LES
 COCCOLITHOPHORIDES ACTUELS ET FOSSILS EN MICROSCOPIE
 ORDINAIRE ET ELECTRONIQUE. ANN. PALEONT. 40 115-176, 15
 PLS. 127 TEXT-FIGS.
- VAR. 34 COCCOLITHUS JARAMILLENSIS - LARGE FORM OF C. DORONICCIDES
 FOR CITATION SEE VAR. 32.
- VAR. 35 CYCLOCOCCOLITHINA LEPTOPORA (MURRAY + BLACKMAN)
 WILCOXON, FOR CITATION SEE VAR. 29
- VAR. 36 CYCLOCOCCOLITHINA LEPTOPORA 3 FOR CITATION SEE VAR. 35
- VAR. 37 CYCLOCOCCOLITHINA LEPTOPORA 4 FOR CITATION SEE VAR. 35
- VAR. 38 CYCLOCOCCOLITHINA LEPTOPORA 5 FOR CITATION SEE VAR. 35
- VAR. 39 COCCOLITHUS PELAGICUS (WALLICH) SCHILLER, 1930, PP. 91,
 246. COCCOLITHINAE. IN DR. L. RABENHORSTS KRIFTAMEN
 FLORA VON DEUTSCHLAND, OSTERREICH UND DER SCHWEIZ 10. BAND,
 2. ABT. LEIPZIG AKADEMISCHE VERLAGSGESELLSCHAFT,
 PP. 89-267, 137 FIGS. + FIGS. A-F.
- VAR. 40 EMILIANI HUXLEYI C (LOHMANN) HAY + MOHLER IN HAY,
 MOHLER, ROTH, SCHMIDT + BOUREAUX, 1967, P. 447.
 CALCARECUS NANNOPLANKTON ZONATION OF THE CENOZOIC OF
 THE GULF COAST AND CARIBBEAN-ANTILLEAN AREA, AND
 TRANSGEANIC CORRELATION TRANS. GULF COAST ASSOC.

- VAR. 41 GEDL. SOC. V. 17, P. 428-480, PL. 1-13.
EMILIANI HUXLEYI W FOR CITATION SEE VAR. 40
- VAR. 42 GEPHYROCAPSA APERTA KAMPTNER, 1963, P. 173, PL. 6
FTGS. 32, 35. COCCOLITHINEEN-SKELETTRESTE AUS
TIEFSEEABLÄGERUNGEN DES PAZIFISCHEN OZEANS. ANN. NATURH.
MUS. WIEN 66 139-204, 9 PL. 39 TEXT-FIGS.
- VAR. 43 GEPHYRACAPSA CARIBBEANICA BOUDREAUX + HAY IN HAY,
MOHLER, ROTH, SCHMIDT + BOLDREAUX, 1967, FOR CITATION
SEE VAR. 40.
- VAR. 44 GEPHYROCAPSA ERICSONII MCINTRYE + BE, 1967, P. 571,
PL. 10 PL. 12, FIG. 9. FOR CITATION SEE VAR. 30
- VAR. 45 GEPHYROCAPSA OCEANICA KAMPTNER, 1943, P. 45, (NOT
FIGURED. ZUR REVISION DER COCCOLITHINEEN-SPEZIES
PONTOSPHAERA HUXLEYI LOHM. ANZ-AKAD. WISS. WIEN, MATH.-
NATURU. KL. 80 43-49.
- VAR. 46 GEPHYROCAPSA PROTOHUXLEYI MC INTRYE, 1969, P. 300, 303,
304. THE COCCOLITHOPHORIDA IN RED SEA SEDIMENTS. IN
DEGENS, E. T., AND ROSS, D. A. (ED) HOT BRINES AND RECENT
HEAVY METAL DEPOSITS IN THE RED SEA. A. GEOCHEMICAL AND
GEOGRAPHICAL ACCOUNT, SPRINGER-VERLAG, N.Y., P. 299-305, 2
FIG.
- VAR. 47 PSEUDOEMILIANI LACUNOSA GARTNER, 1969, P. 598, CORRELATION
OF NEOCENE FLANKTONIC FORAMINIFERA AND CALCAREOUS
NANNOFOSSIL ZONES. TRANS. GULF COAST ASSOC. GECL. SOC.
19 585-599, PL. 1, 2, 7 FIG.
- VAR. 48 UMBILICOSPHAERA HULBURTIANA GAARDER, 1970, P. 121, FIG.
7-9. THREE NEW TAXA OF COCCOLITHINEAE. NYTT MAG. BCT.,
17 113-126, 9 FIG.
- VAR. 49 UMBILICOSPHAERA MIRABILIS C LOHMANN, 1902, P. 139, PL.
5 FIGS. 66, 66A. FOR CITATION SEE VAR. 10.
- VAR. 50 UMBILICOSPHAERA MIRABILIS + LOHMANN, 1902, P. 139,
PL. 5 FIGS. 66, 66A FOR CITATION SEE VAR. 10.
- VAR. 51 DISCOASTER BROUWERI TAN SIN HOK, 1927, P. 415, FIGS. 8A, B.
DISCOASTERIDAE INCERTAE SEDIS. PROC. SECT. SC. K.
ADAD. WET. AMSTERDAM 30, 411-419, 14 FIGS.
- VAR. 52 DISCOASTER CHALLENGERI BRAMLETTE + RIEDEL, 1954, P. 401
PL. 39 FIG. 10. STRATIGRAPHIC VALUE OF DISCOASTERS AND
SOME OTHER MICROFOSSILS RELATED TO RECENT COCCOLITHOPHORES.
- VAR. 53 J. PALEONT. 28 385-403, PL. 38 + 39, 3 TEXT-FIGS.
DISCOASTER PERPLEXUS BRAMLETTE + RIEDEL, 1954, P. 400,
PL. 39 FIG. 9. FOR CITATION SEE VAR. 52
- VAR. 54 DISCOASTER PENTARADIATUS TAN SIN HOK, 1927, FIG. 14,
PROC. SECT. SC. K. AKAD. WET. AMSTERDAM 30 P. 411-419,
14 FIGS.
- VAR. 55 DISCOASTER SURCULUS MARTINI + BRAMLETTE, 1963, P. 854,
PL. 104. FIG. 10-12. CALCAREOUS NANNOPLANKTON FROM THE
EXPERIMENTAL MOHOLE DRILLING. J. PALEONTOLOGY 37 845-855,
PL. 102-105.
- VAR. 56 BRAARUDOSPHAERA BIGELOWI (GRAN + BRAARUD), DEFLANDRE,
1947, C. R. ACAD. SC. (PARIS) 225, P. 439-441
- VAR. 57 PONTOSPHAERA DISCOPORA SCHILLER, 1925, P. 11, PL. 1
FIG. 4. DIE PLANKTONISCHEN VEGETATIONEN DES ARIATISCHEN
MEERES. A. DIE COCCOLITHOPHORIDEN - VEGETATION IN DEN
JAHREN 1911 - 14. ARCH. PROTISTENK. 51 1-130, PL. S.
- VAR. 58 1-9, TEXT-FIGS. A-Y.
THOROSPHAERA FLABELLATA HALLDAL + MARKALI, 1955, P. 19,
PL. 26. ELECTRON MICROSCOPE STUDIES ON COCCOLITHOPHORIDS
FROM THE NORWEGIAN SEA, THE GULF STREAM AND THE
MEDITERRANEAN. A.U.H. NORSKE VID-AKAD. OSLO, MAT-NATURV.
KL 1955 (1) 30 PP. 27 PL.
- VAR. 59 FLORISPHAERA PROFUNDA VAR. A. OKADA AND HONJC, 1973,
DEEP SEA RESEARCH, VOL 20, PL. 2, NO. 5.
- VAR. 60 HOLOCOCCOLITHS. ALL HOLOCOCCOLITH SPECIES NOT
NAMED SEPARATELY.
- VAR. 61 GERTOLITHUS, CITA, 1971, TEXT-FIG. 10 BIOSTRATIGRAPHY,
CHRONOSTRATIGRAPHY AND FAUCENVIRONMENT OF THE PLIOCENE
OF CAPE VERDE (NORTH ATLANTIC). REV. MICROPALAEONTOLOGIE
14 17-42, PL. 1, 2, TEXT-FIG. 1-11.
- VAR. 62 SCYPHOSPHAERA APSTEINI LOHMANN 1902, ARCH. PROTISTENK.
1 P. 89-165.
- VAR. 63 DISCOLITHUS MACROPORUS DEFLANDRE, 1954, P. 136, PL. 11 FIG. 5,
FOR CITATION SEE VAR. 33
- VAR. 64 THORACOSPHAERA, KAMPTNER, 1927, ARCH. PROTISTENK,
V. 58, P. 173-184, 6 FIGS.
- VAR. 65 FF CARB PERCENT
- VAR. 66 FF NON. CARB PERCENT
- VAR. 67 CACO₃ LESS THAN 74 MICRONS
- VAR. 68 CACO₃ GREATER THAN 74 MICRONS
- VAR. 69 CONTAMINATION
- VAR. 70 RINGS
- VAR. 71 UNKNOWNS
- VAR. 72 COCCOLITHUS SP. A. BUKRY, 1971, P. 968. COCCOLITH
STRATIGRAPHY LEG 6, DEEP SEA DRILLING PROJECT. IN
FISCHER, A.G. ET AL., INITIAL REPORTS OF THE DEEP SEA

DRILLING PROJECT, WASHINGTON, U. S. GOVERNMENT
PRINTING OFFICE, V. 6, P. 965-1004, PL. 1-8.
VAR. 73 COCCOLITHUS SP B FOR CITATION SEE VAR. 72
VAR. 74 CYCLOCOCCOLITHUS FRAGILIA (LOHMANN) DEFLANDRE IN
DEFLANDRE & FERT, 1954, P. 151, PL. 6 FIGS 1-3 TEXT
FIG. 19. FOR CITATION SEE VAR. 33
VAR. 75 CYCLOCOCCOLITHUS FRAGILIS VAR A. (LOHMANN) DEFLANDRE
IN DEFLANDRE & FERT, 1954, P. 151, PL. 6 FIGS 1-3.
TEXT-FIG. 19. FOR CITATION SEE VAR. 33

RECORD TYPE 11 COCCOLITHS (MCINTYRE/MOLFINO VARIANT)

- VAR. 1 COCCOLITHUS PELAGICUS ?WALLICH† SCHILLER, 1931.
 VAR. 1 MCINTYRE AND BE, 1967, P. 569-570, PL. 8, FIGS. A-C.
 VAR. 1 MODERN COCCOLITHOPHORIDA OF THE ATLANTIC OCEAN-I.
 VAR. 1 PLACOLITHS AND CYRTOLITHS. DEEP-SEA RESEARCH, VOL. 14,
 PP. 561-597, PL. 1-12, FIGS. 1-17.
 VAR. 2 CRENALITHUS PARVULUS OKADA AND MCINTYRE, 1977, PL. 2.
 VAR. 2 FIGS. 1-2. MODERN COCCOLITHOPHORES OF THE PACIFIC AND
 NORTH ATLANTIC OCEANS. MICROPALAEONTOLOGY, VOL. 23,
 VAR. 2 NO. 1, PP. 1-55, PL. 1-13.
 VAR. 3 COCCOLITHUS OODONICOIDS BLACK AND BARNES, 1961, P. 142,
 PL. 25, FIG. 3. COCCOLITHS AND DISCOASTERS FROM THE
 FLOOR OF THE SOUTH ATLANTIC OCEAN. J. ROY. MICROSC. SOC.,
 VOL. 80, PP. 137-147, PL. 19-26.
 VAR. 4 CYCLOCOCCOLITHUS LEPTOFORA ?MURRAY AND BLACKMAN†
 KAMPTNER, 1954. MCINTYRE AND BE, 1967, P. 569, PL. 7.
 VAR. 4 FIGS. A-C. FOR CITATION SEE VARIABLE 1.
 VAR. 4 CYCLOCOCCOLITHUS LEPTOFORA VAR. B. IN HOUSE.
 VAR. 5 CYCLOCOCCOLITHUS LEPTOFORA VAR. C. IN HOUSE.
 VAR. 6 CYCLOCOCCOLITHUS LEPTOFORA VAR. D. IN HOUSE.
 VAR. 7 CYCLOCOCCOLITHUS MACINTYREI BUKRY AND BRAMLETTE, 1969,
 P. 132, PL. 1, FIGS. 1-3. SOME NEW AND
 STRATIGRAPHICALLY USEFUL CALCAREOUS NANNOFOSSILS OF
 THE CENOZOIC. TULANE STUDIES IN GEOL. AND PAL..
 VAR. 7 VOL. 7, PP. 131-142, PL. 1-3.
 VAR. 8 EMILIANIA HUXLEYI ?LOHMANN† HAY AND MOHLER, 1967, P. 447,
 PL. 10, FIGS. 1-2. PL. 11, FIGS. 1-2. IN HAY, MOHLER,
 ROTH, SCHMIDT, AND BOUDREAUX.
 VAR. 8 CALCAREOUS NANNOPLANKTON ZONATION OF THE CENOZOIC OF
 THE GULF COAST AND CARIBBEAN-ANTILLEAN AREA, AND
 VAR. 8 TRANSOCEANIC CORRELATION. GULF COAST ASSOC. GEOL.
 SOCS. TRANS. VOL. 17, PP. 428-480, PL. 1-13. TEXT-FIGS.
 VAR. 8 1-13.
 VAR. 8 EMILIANIA HUXLEYI VAR. C. IN HOUSE.
 VAR. 9 EMILIANIA HUXLEYI VAR. W. IN HOUSE.
 VAR. 10 EMILIANIA HUXLEYI VAR. I. IN HOUSE.
 VAR. 11 EMILIANIA HUXLEYI VAR. CT. IN HOUSE.
 VAR. 12 EMILIANIA HUXLEYI VAR. B. IN HOUSE.
 VAR. 13 TOTAL COUNT OF EMILIANIA HUXLEYI I, CT, AND B.
 VAR. 14 EMILIANIA HUXLEYI UNDIFFERENTIATED. IN HOUSE.
 VAR. 15 RINGS. IN HOUSE.
 VAR. 16 PSEUDOEMILIANI LACUNOSA GARTNER, 1969, P. 598.
 VAR. 16 CORRELATION OF NEogene PLANKTONIC FORAMINIFERA
 VAR. 16 AND CALCAREOUS NANNOFOSSIL ZONES. TRANS. GULF
 VAR. 16 NANNOFOSSIL ZONES. TRANS. GULF COAST ASSOC. GEOL.
 VAR. 16 COAST ASSOC. GEOL. SOC., VOL. 19, PP. 585-599, PL. 1-7.
 VAR. 16 PSEUDOEMILIANI LACUNOSA VAR. ANNULA. IN HOUSE.
 VAR. 17 PSEUDOEMILIANI LACUNOSA VAR. OVATA. IN HOUSE.
 VAR. 18 GEPHYROCAPSA APERTA KAMPTNER, 1963, P. 173, PL. 6,
 FIGS. 32-35. COCCOLITHINEEN-SKELETTRESTE AUS
 VAR. 18 TIEFSEEABLÄGERUNGEN DES PAZIFISCHEN OZEANS. ANN.
 VAR. 18 NATURH. MUS. WIEN 66, PP. 139-204, PL. 1-9,
 VAR. 18 TEXT-FIGS. 1-39.
 VAR. 19 GEPHYROCAPSA CARIBBEANICA BOUDREAUX AND HAY, 1967,
 VAR. 19 PL. 12, FIGS. 3-4. IN HAY, MOHLER, ROTH, SCHMIDT AND
 VAR. 19 BOUDREAUX. FOR CITATION SEE VARIABLE 8.
 VAR. 19 GEPHYROCAPSA CARIBBEANICA VAR. OPEN. IN HOUSE.
 VAR. 20 GEPHYROCAPSA CARIBBEANICA VAR. SOLID. IN HOUSE.
 VAR. 21 TOTAL COUNT OF GEPHYROCAPSA CARIBBEANICA VAR. OPEN
 VAR. 21 AND SOLID.
 VAR. 22 GEPHYROCAPSA ERICSONII MCINTYRE AND BE, 1967,
 VAR. 22 P. 571, PL. 10, PL. 12, FIG. 8.
 VAR. 22 FOR CITATION SEE VARIABLE 1.
 VAR. 23 GEPHYROCAPSA OCEANICA KAMPTNER, 1943. OKADA AND
 VAR. 23 MCINTYRE, 1977, PL. 3, FIGS. 3-9. FOR CITATION SEE
 VAR. 23 VARIABLE 2.
 VAR. 24 GEPHYROCAPSA CRNATA HEIMDAL, 1973, P. 71, TEXT-FIGS. 1-5.
 VAR. 24 TWO NEW TAXA OF RECENT COCCOLITHOPHORIDS. [METEORIC
 VAR. 24 FORSCH.-ERGEBN., SER. D., NO. 13, PP. 70-75, TEXT-FIGS.
 VAR. 24 1-3.

- VAR. 25 GEPHYROCAPSA PROTOHUXLEYI MCINTYRE, 1969, FIG.2F,
 VAR. 25 THE COCCOLITHOPHORIDA IN RED SEA SEDIMENTS.
 VAR. 25 IN DEGENS, AND ROSS, 2EDS.†, HOT BRINES AND RECENT
 VAR. 25 HEAVY METAL DEPOSITS IN THE RED SEA.
 VAR. 25 A GEOCHEMICAL AND GEOGRAPHICAL ACCOUNT, SPRINGER-
 VAR. 25 VERLAG, NEW YORK, PP.299-305, FIGS.1-2.
 VAR. 26 OOLITHOTUS FRAGILIS >LICHMANN OKADA AND MCINTYRE, 1977,
 VAR. 26 PL.4, FIG.3. FOR CITATION SEE VARIABLE 2.
 VAR. 27 OOLITHOTUS FRAGILIS >LICHMANN OKADA AND MCINTYRE SUBSP.
 VAR. 27 CAVUM OKADA AND MCINTYRE, 1977, PL.4, FIGS.4-5.
 VAR. 27 FOR CITATION SEE VARIABLE 2.
 VAR. 28 TOTAL COUNT OF OOLITHOTUS FRAGILIS AND OOLITHOTUS
 VAR. 28 FRAGILIS CAVUM.
 VAR. 29 UMBILICOSPHAERA ANGUSTIFORAMEN OKADA AND MCINTYRE, 1977,
 VAR. 29 PL.3, FIGS.10-11. FOR CITATION SEE VARIABLE 2.
 VAR. 30 UMBILICOSPHAERA HULBURTIANA GAARDER, 1970,
 VAR. 30 P.121, FIGS.7-9. THREE NEW TAXA OF COCCOLITHINEAE.
 VAR. 30 NYTT MAG. BOT., VOL.17, PP.113-126, FIGS.1-9.
 VAR. 31 UMBILICOSPHAERA SIBOGAE >WEBER-VAN BOSSE GAARDER, 1970,
 VAR. 31 FIGS.9C,D. FOR CITATION SEE VARIABLE 30.
 VAR. 32 UMBILICOSPHAERA SIBOGAE >WEBER-VAN BOSSE GAARDER
 VAR. 32 VAR. FOLIOSA >KAMPTNER OKADA AND MCINTYRE, 1977.
 VAR. 32 PL.4, FIG.1. FOR CITATION SEE VARIABLE 2.
 VAR. 33 HELICOSPHAERA CARTERI ?WALLICH KAMPTNER, 1941.
 VAR. 33 BARTOLINI, 1970, PL.6, FIGS.1-5. COCCOLITHS FROM
 VAR. 33 SEDIMENTS OF THE WESTERN MEDITERRANEAN.
 VAR. 33 MICROPALaeONTOLOGY, VOL.16, NO.2, PP.129-154, PLS.1-8.
 VAR. 34 HELICOSPHAERA HYALINA GAARDER, 1970, TEXT-FIGS.1A-G,
 VAR. 34 2A-D, 3A. FOR CITATION SEE VARIABLE 30.
 VAR. 35 HELICOSPHAERA PAVIMENTUM OKADA AND MCINTYRE, 1977,
 VAR. 35 PL.4, FIGS.6-7. FOR CITATION SEE VARIABLE 2.
 VAR. 36 HELICOSPHAERA WALLICHI >LOHMANN OKADA AND MCINTYRE,
 VAR. 36 1977, PL.4, FIG.8. FOR CITATION SEE VARIABLE 2.
 VAR. 37 HELICOSPHAERA UNDIFFERENTIATED. IN HOUSE.
 VAR. 38 TOTAL OF ALL HELICOSPHAERA SPECIES.
 VAR. 39 CRICOSPHAERA QUADRILAMINATA OKADA AND MCINTYRE, 1977,
 VAR. 39 PL.6, FIGS.5-6. FOR CITATION SEE VARIABLE 2.
 VAR. 40 PONTOSPHAERACEAE LEMMERMAN, 1908. THIS IS AN IN HOUSE
 VAR. 40 GROUPING OF ALL GENERA AND SPECIES IN THE FAMILY
 VAR. 40 PONTOSPHAERACEAE.
 VAR. 41 ACANTHOICA LOHMANN, 1903.
 VAR. 41 THIS IS AN IN HOUSE GROUPING OF ALL ACANTHOICA SPECIES.
 VAR. 42 DISCOSPHAERA TUBIFERA ?MURRAY AND BLACKMAN OSTENFELD,
 VAR. 42 1900. MCINTYRE AND BE, 1967, P.566, PL.1, FIGS.A-C.
 VAR. 42 FOR CITATION SEE VARIABLE 1.
 VAR. 43 NEOSPHAERA COCCOLITHOMORPHA LECAL-SCHLAUDER, 1950,
 VAR. 43 PP.163-167, TEXT-FIGS.4-6 & PL.6, FIG.4. NOTES
 VAR. 43 PRELIMINAIRES SUR LES COCCOLITHOPHORIDES D'AFRIQUE DU
 VAR. 43 NORD. BULL. SOC. HIST. NAT. AFR. NORD, VOL.40,
 VAR. 43 PP.160-167, PLS.1-6, TEXT-FIGS.1-6.
 VAR. 43 NEOSPHAERA COCCOLITHOMORPHA WARM. IN HOUSE
 VAR. 44 NEOSPHAERA COCCOLITHOMORPHA COLD. IN HOUSE.
 VAR. 45 RHABDOSPHAERA CLAVIGERA MURRAY AND BLACKMAN, 1898.
 VAR. 45 MCINTYRE AND BE, 1967, P.567, PL.4, FIGS.A-C.
 VAR. 45 FOR CITATION SEE VARIABLE 1.
 VAR. 46 UMBELLOSPHAERA IRREGULARIS PAASCHE IN MARKALI AND
 VAR. 46 PAASCHE, 1955, P.97, PLS.2-5. ON TWO SPECIES OF
 VAR. 46 UMBELLOSPHAERA, A NEW MARINE COCCOLITHOPHORID GENLS.
 VAR. 46 NYTT MAG. BOT., VOL.4, PP.95-100, PLS.1-6.
 VAR. 47 UMBELLOSPHAERA TENUIS ?KAMPTNER PAASCH IN MARKALI AND
 VAR. 47 PAASCHE, 1955, P.96, PLS.1-2. FOR CITATION SEE
 VAR. 47 VARIABLE 46.
 VAR. 48 ALISPHAERA UNICORNIS OKADA AND MCINTYRE, 1977,
 VAR. 48 P.18, PL.6, FIGS.7-8. FOR CITATION SEE VARIABLE 2.
 VAR. 49 CALCIOSENIA MURRAYI GRAN IN MURRAY AND HJORT, 1912.
 VAR. 49 GAARDER AND HASLE, 1971, TEXT-FIGS.2D,E.
 VAR. 49 COCCOLITHOPODIDS OF THE GULF OF MEXICO. BULL. MAR.
 VAR. 49 SCI., VOL. 21, NO.3, PP.519-544, TEXT-FIGS.1-12.
 VAR. 50 HALOPAPPUS ADRIATICUS SCHILLER, 1914. GAARDER
 VAR. 50 AND HASLE, 1971, P.533, TEXT-FIGS.5C,D. FOR
 VAR. 50 CITATION SEE VARIABLE 49.
 VAR. 51 SYRACOSPHAERA PULCHRA LOHMANN, 1902. OKADA AND
 VAR. 51 MCINTYRE, 1977, P.27, PL.10, FIGS.11-12.
 VAR. 51 FOR CITATION SEE VARIABLE 2.
 VAR. 52 SYRACOSPHAERA MEDITERRANEA LOHMANN, 1902. OKADA AND
 VAR. 52 MCINTYRE, 1977, P.23, PL.10, FIGS.4-5.
 VAR. 52 FOR CITATION SEE VARIABLE 2.
 VAR. 53 SYRACOSPHAERA spp. IN HOUSE. GROUPING OF ALL OTHER
 VAR. 53 SYRACOSPHAERA SPECIES.
 VAR. 54 HAYASTER PERPLEXUS ?BAMFLETTE AND RIEDEL BUKRY, 1973.
 VAR. 54 OKADA AND MCINTYRE, 1977, P.38, PL.5, FIGS.4-5. FOR
 VAR. 54 CITATION SEE VARIABLE 2.
 VAR. 55 CERATOLITHUS KAMPTNER, 1950. IN HOUSE GROUPING OF
 VAR. 55 ALL CEFATOLITHUS SPECIES.

VAR. 56 HOLOCOCCOLITHS. IN HULSE GROUPING OF ALL HOLOCOCCOLITH
 VAR. 56 FORMS.
 VAR. 57 CONTAMINATION.
 VAR. 58 UNKNOWNS.

- RECORD TYPE = 20 (DIATOMS)
- VAR. 1 THALASSIONEMA NITZSCHIOIDES GRUNOW = SAME IN HUSTEDT (1962)
 P. 244, FIG. 725.
- VAR. 2 THALASSIONEMA NITZSCHIOIDES VAR. PARVA HEIDEN AND KOLBE
 = SAME IN HEIDEN AND KOLBE (1928) PL. 5, FIG. 118.
- VAR. 3 PSEUDOEUNOTIA DOLIOLUS (WALL.) GRUNOW = SAME IN HUSTEDT
 (1962) P. 259, FIG. 737.
- VAR. 4 COSCINODISCUS ECCENTRICUS EHRENSBERG = SAME IN HENDEY
 (1964) P. 80, PL. 24, FIG. 7.
- VAR. 5 NITZSCHIA MARINA GRUNOW = SAME IN CLEVE AND GRUNOW (1880)
 PL. 4, FIGS. 17-19.
- VAR. 6 COSCINODISCUS CURVATULUS GRUNOW IN SCHMIDT = SAME IN HUSTEDT
 (1962) P. 406, FIG. 214.
- VAR. 7 NAVICULA SP. = HENDEY (1964) P. 186, PL. 27, FIGS. 7, 12,
 PL. 30, FIGS. 1-22, PL. 31, FIGS. 1-17, PL. 33, FIGS. 1-14.
- VAR. 8 RHIZOSOLENIA STYLIFORMIS BRIGHTWELL = SAME IN HENDEY (1964)
 P. 150, PL. 2, FIG. 1.
- VAR. 9 THALASSIOTHRIX LONGISSIMA CLEVE AND GRUNOW = SAME IN
 HUSTEDT (1962) P. 247, FIG. 726.
- VAR. 10 ROPERIA TESSELLATA GRUNOW = SAME IN HENDEY (1964) P. 85,
 PL. 22, FIG. 3.
- VAR. 11 THALASSIOSIRA OESTRUPI = SAME IN HUSTEDT (1962) P. 318,
 FIG. 155.
- VAR. 12 COSCINODISCUS NODULIFER = SAME IN HUSTEDT (1962) P. 426,
 FIG. 229.
- VAR. 13 COCCONEIS SP. = HENDEY (1964) P. 177, PL. 28, FIGS. 13,
 18-22.
- VAR. 14 COSCINODISCUS AFRICANUS JANISCH = SAME IN HUSTEDT (1962)
 P. 428, FIG. 231.
- VAR. 15 THALASSIOSIRA DECIPIENS GRUNOW = SAME IN HUSTEDT (1962)
 P. 322, FIG. 158.
- VAR. 16 CYCLOTELLA STYLORUM BRIGHTWELL = SAME IN HUSTEDT (1962)
 P. 348, FIG. 179.
- VAR. 17 ASTEROPHALUS SP. = HENDEY (1964) P. 95, PL. 24, FIG. 5.
- VAR. 18 ACTINOPTYCHUS SENARIUS EHRENSBERG = SAME IN HENDEY (1964)
 P. 95, PL. 23, FIGS. 1, 2.
- VAR. 19 COSCINODISCUS MARGINATUS EHRENSBERG = SAME IN HENDEY (1964)
 P. 78, PL. 22, FIG. 2.
- VAR. 20 RHIZOSOLENIA BERGONII PERAGALLO = SAME IN HENDEY (1964)
 P. 151, PL. 3, FIG. 4.
- VAR. 21 HEMIDISCUS CUNEIFORMIS WALLICH = SAME IN HENDEY (1964)
 P. 94, PL. 22, FIG. 9.
- VAR. 22 COSCINODISCUS LINEATUS EHRENSBERG = SAME IN HUSTEDT (1962)
 P. 392, FIG. 204.
- VAR. 23 NITZSCHIA SP. = HENDEY (1964) P. 274, PL. 39, FIGS. 2-10.
- VAR. 24 NITZSCHIA KERGUELENSIS HUSTEDT = SAME IN HUSTEDT (1952)
 P. 294.
- VAR. 25 FRAGILARIA SP. = HENDEY (1964) P. 152, PL. 26, FIG. 16.
- VAR. 26 DENTICULA SP. = HUSTEDT (1962) P. 118, FIGS. 642, 643.
- VAR. 27 DIPLONEIS SP. = HENDEY (1964) P. 222, PL. 32, FIGS. 1-13.
- VAR. 28 ACTINOCYCLUS CURVATULUS JANISCH = SAME IN HUSTEDT (1962)
 P. 538, FIG. 307.
- VAR. 29 CYCLOTELLA SP. = HUSTEDT (1962) P. 334, FIGS. 171, 176,
 177, 181.
- VAR. 30 ACTINOCYCLUS OCTONARIUS EHRENSBERG = SAME IN HENDEY (1964)
 P. 83, PL. 24, FIG. 3.
- VAR. 31 TRICERATIUM SP. = HENDEY (1964) P. 107, PL. 25, FIG. 4.
- VAR. 32 STEPHANODISCUS ASTRAEA = SAME IN HUSTEDT (1962) P. 368;
 FIG. 193.
- VAR. 33 COSCINODISCUS OCULUS-IRIDIS EHRENSBERG = SAME IN HENDEY
 (1964) P. 78, PL. 24, FIG. 1.
- VAR. 34 MELOSIRA SP. = HUSTEDT (1962) P. 221, FIGS. 111, 112, 114,
 117.
- VAR. 35 COSCINODISCUS ARGUS EHRENSBERG = SAME IN HUSTEDT (1962)
 P. 422, FIG. 226.
- VAR. 36 COSCINODISCUS RADIIATUS EHRENSBERG = SAME IN HUSTEDT (1962)
 P. 420, FIG. 225.
- VAR. 37 THALASSIOSIRA GRAVIDA CLEVE = SAME IN HUSTEDT (1962)
 P. 325, FIG. 161.
- VAR. 38 HEMIDISCUS KARSTENI JOUSE = SAME IN JOUSE ET AL. (1962)
 PL. 2, FIGS. 7-9.
- VAR. 39 RHIZOSOLENIA HEBETATA FORRA SEMISPINA (HENSEN) GRAN
 = SAME IN HENDEY (1964) P. 151, PL. 3, FIG. 5.
- VAR. 40 CHAETOCEROS MITRA (BAILEY) CLEVE = SAME IN HENDEY (1964)
 P. 124, PL. 15, FIG. 2.

- VAR. 41 RHIZOSOLENIA HESSETATA FORMA HIEMALIS GRAN = SAME IN HENDEY (1964) P. 150, PL. 3, FIG. 6.
- VAR. 42 MELOSIRA SULCATA (EHRENBURG) KUTZING = SAME IN HENDEY (1964) P. 73, PL. 23, FIG. 5.
- VAR. 43 SYNEDRA SP. = HUSTEDT (1962) P. 180, FIGS. 687, 690, 691.
- VAR. 44 COSCINODISCUS BATHYOMPHALUS CIEVE = SAME IN HUSTEDT (1962) P. 431, FIG. 234.
- VAR. 45 ACTINOPTYCHUS SP. = HENDEY (1964) P. 95, PL. 22, FIG. 1.
- VAR. 46 ACTINOCYCLUS SP. = HENDEY (1964) P. 82, PL. 23, FIG. 6.
- VAR. 47 PODOSIRA STELLIGER (BAILEY) MANN = SAME IN HENDEY (1964) P. 90, PL. 22, FIG. 6.
- VAR. 48 COSCINODISCUS SP.
- VAR. 49 PLAGICGRAMMA SP. = HENDEY (1964) P. 166, PL. 36, FIG. 1.
- VAR. 50 OPEPHORA SP. = HENDEY (1964) P. 159, PL. 36, FIGS. 8, 9.
- VAR. 51 RHAPHONEIS SP. = HENDEY (1964) P. 154, PL. 26, FIGS. 1-4, 11-13.

RECORD TYPE = 30 (PLANKTONIC FORAMINIFERA)
UNLESS STATED OTHERWISE, REFERENCES ARE TO --

BE, A.W.H. (1967)

FORAMINIFERA. FAMILIES -- GLOBIGERINIDAE AND
GLOBOROTALITIDAE. SHEET NO. 108. IN FRASER, J.H.,
FICHES D'IDENTIFICATION DU ZOOPLANCTON. CONSEIL
PERMANENT INTERNATIONAL POUR L'EXPLORATION DE LA MER,
CHARLOTTENLUND SLOT, DENMARK.

PARKER, F.L. (1962)

- PLANKTONIC FORAMINIFERAL SPECIES IN PACIFIC SEDIMENTS.
MICROPALEONTOLOGY, VOL. 8, NO. 2, PP. 219-254.
- VAR. 1 ORBULINA UNIVERSA D'ORBIGNY = SAME IN BE (1967) FIG. 3.
- VAR. 2 GLOBIGERINOIDES CONGLOBATLS (BRADY) = SAME IN BE (1967) FIG. 4. = SAME IN PARKER (1962) P. 229, PL. 3, FIGS. 1-5.
- VAR. 3 GLOBIGERINOIDES RUBER (D'ORBIGNY) (PINK) = SEE VAR. 5.
(PINK COLORATION)
- VAR. 4 GLOBIGERINOIDES RUBER (D'ORBIGNY) (WHITE) = SEE VAR. 5.
(NOT PINK)
- VAR. 5 GLOBIGERINOIDES RUBER (D'ORBIGNY) = SAME IN BE (1967)
FIG. 5. = SAME IN PARKER (1962) P. 230, PL. 3, FIGS. 11-14,
PL. 4, FIGS. 1-10. (TOTAL OF VAR. 3 AND 4)
- VAR. 6 GLOBIGERINOIDES TENELLUS FARKER = SAME IN PARKER (1962)
P. 232, PL. 4, FIGS. 11, 12.
- VAR. 7 GLOBIGERINOIDES SACCOLIFER (BRADY) (NO SAC) = SEE VAR. 9.
- VAR. 8 GLOBIGERINOIDES SACCOLIFER (BRADY) (WITH SAC) = SEE VAR. 9.
- VAR. 9 GLOBIGERINOIDES SACCOLIFER (BRADY) = SAME IN BE (1967)
FIG. 6. = GLOBIGERINOIDES QUADRILOBATUS SACCOLIFER (BRADY)
IN PARKER (1962) P. 229, PL. 3, FIGS. 6-10.
(TOTAL OF VAR. 7 AND 8)
- VAR. 10 SPAEROIDINELLA DEHISCENS (PARKER AND JONES) = SAME IN BE
(1967) FIG. 7. = SAME IN PARKER (1962) P. 234, PL. 5,
FIGS. 1, 2.
- VAR. 11 GLOBIGERINELLA ADAMST (BANNER AND BLOW) = SAME IN BE (1967)
FIG. 17. = SAME IN PARKER (1962) P. 226, PL. 2,
FIGS. 19-21.
- VAR. 12 GLOBIGERINELLA AEQUILATERALIS (BRADY) = SAME IN BE (1967)
FIG. 16.
- VAR. 13 GLOBIGERINA CALICA PARKER = SAME IN BE (1967) FIG. 15.
= SAME IN PARKER (1962) P. 221, PL. 1, FIGS. 9-13, 15.
- VAR. 14 GLOBIGERINA BULLOIDES D'ORBIGNY = SAME IN BE (1967) FIG. 14.
= SAME IN PARKER (1962) P. 221, PL. 1, FIGS. 1-8.
- VAR. 15 GLOBIGERINA FALCONensis BLACK = SAME IN BE (1967) FIG. 13.
= SAME IN PARKER (1962) P. 224, PL. 1, FIGS. 14, 16-19.
- VAR. 16 GLOBIGERINA DIGITATA BRADY = SAME IN BE (1967) FIG. 9.
= SAME IN PARKER (1962) P. 222, PL. 1, FIGS. 20-25.
- VAR. 17 GLOBIGERINA RUBESCENS HOFKER = SAME IN BE (1967) FIG. 8.
= SAME IN PARKER (1962) P. 226, PL. 2, FIGS. 17, 18.
- VAR. 18 GLOBIGERINA HUMILIS (BRADY) = SAME IN BE (1967) FIG. 12.
= GLOBIGERINITA HUMILIS (BRADY) IN PARKER (1962) P. 249;
PL. 10, FIGS. 1-25.
- VAR. 19 GLOBIGERINA QUINQUELoba NATLAND = SAME IN BE (1967) FIG. 10.
= SAME IN PARKER (1962) P. 225, PL. 2, FIGS. 7-16.
- VAR. 20 GLOBIGERINA PACHYDERMA (EHRENBURG) (LEFT COILING) = SEE
VAR. 21.
- VAR. 21 GLOBIGERINA PACHYDERMA (EHRENBURG) (RIGHT COILING) = SAME IN
BE (1967) FIG. 11. = SAME IN PARKER (1962) P. 224, PL. 1,
FIGS. 26-35, PL. 2, FIGS. 1-6.
- VAR. 22 GLOBOQUADRINA DUTERTREI (D'ORBIGNY) = SAME IN BE (1967)
FIG. 20. = SAME IN PARKER (1962) P. 242, PL. 7, FIGS.
1-13, PL. 8, FIGS. 1-4.
- VAR. 23 GLOBOQUADRINA CONGLOMERATA (SCHWAGER) = SAME IN BE (1967)
FIG. 21. = SAME IN PARKER (1962) P. 240, PL. 6,
FIGS. 11-13.

- 9
- VAR. 24 GLOBOQUADRINA HEXAGONA (NATLAND) = SAME IN BE (1967)
 FIG. 22. = SAME IN PARKER (1962) P. 244, PL. 8, FIGS. 5-13.
 VAR. 25 PULLENIATINA OBLIQUILOCULATA (PARKER AND JONES) = SAME IN BE
 (1967) FIG. 23. = SAME IN PARKER (1962) P. 234, PL. 4,
 FIGS. 13-16, 19, 22.
 VAR. 26 GLOBOROTALIA TINELATA (D'ORBIGNY) = SAME IN BE (1967)
 FIG. 24. = SAME IN PARKER (1962) P. 236, PL. 5, FIGS. 6-9.
 VAR. 27 GLOBOROTALIA TRUNCATULINOIDES (D'ORBIGNY) (LEFT COILING)
 = SEE VAR. 28.
 VAR. 28 GLOBOROTALIA TRUNCATULINOIDES (D'ORBIGNY) (RIGHT COILING)
 = SAME IN BE (1967) FIG. 25. = SAME IN PARKER (1962)
 P. 239, PL. 6, FIG. 7.
 VAR. 29 GLOBOROTALIA CRASSAFORMIS (GALLOHAY AND WISSLER) = SAME IN
 BE (1967) FIG. 26. = SAME IN PARKER (1962) P. 235, PL. 4.
 FIGS. 17, 18, 20, 21.
 VAR. 30 G. PACHYDERMA -- G. DUTERTREI INTERGRADE = GLOBIGERINA
 INCOMPTA CIFELLI IN CIFELLI (1973) JOUR. FORAM. RES.,
 VOL. 3, NO. 4, PP. 157-166, PL. 2, FIGS. 8-12.
 = NEOGLOBOQUADRINA PACHYDERMA INCOMPTA (CIFELLI) IN
 ROGL AND BOLLI (1973) REPT. DEEP-SEA DRILLING PROJECT,
 VOL. 15, PP. 553-615, PL. 10, FIGS. 12-20, PL. 11, FIG. 1.
 VAR. 31 GLOBOROTALIA HESUTA (D'ORBIGNY) = SAME IN BE (1967)
 FIG. 27. = SAME IN PARKER (1962) P. 236, PL. 5, FIGS.
 10-15, PL. 6, FIG. 1.
 VAR. 32 GLOBOROTALIA SCITULA (BRADY) = SAME IN BE (1967) FIG. 28.
 = SAME IN PARKER (1962) P. 238, PL. 6, FIGS. 4-6.
 VAR. 33 GLOBOROTALIA ANFRACTA PARKER = SAME IN PARKER (1967) BULL.
 AMER. PALEO., VOL. 52, NO. 235, P. 175, PL. 28, FIGS. 3-8.
 VAR. 34 GLOBOROTALIA MENARDII (D'ORBIGNY) = SAME IN BE (1967)
 FIG. 29.
 VAR. 35 GLOBOROTALIA TUMIDA (BRADY) = SAME IN BE (1967) FIG. 30.
 = SAME IN PARKER (1962) P. 239, PL. 6, FIGS. 8-10.
 VAR. 36 GLOBOROTALIA TUMIDA FLEXUOSA (KOCHE) = PULVINULINA TUMIDA
 BRADY VAR. FLEXUOSA KOCH (1923) ECOLOGAE GEOL. HELV.,
 VOL. 18, NO. 2, P. 357, TFS. 9, 10.
 (INCLUDES GLOBOROTALIA MENARDII NEOFLEXUOSA SRINIVASAN,
 KENNEDY AND BE (1974) DEEP-SEA RES. (IN PRESS))
 VAR. 37 GLOBOROTALIA MENARDII (D'ORBIGNY) (TOTAL) = TOTAL OF
 VAR. 34, 35, 36.
 VAR. 38 CANDEINA NITIDA D'ORBIGNY = SAME IN BE (1967) FIG. 31.
 = SAME IN PARKER (1962) P. 253, PL. 8, FIGS. 27-30.
 VAR. 39 GLOBIGERINITA GLUTINATA (EGGER) = SAME IN BE (1967) FIG. 18.
 = SAME IN PARKER (1962) P. 246, PL. 9, FIGS. 1-16.
 VAR. 40 GLOBIGERINITA IOTA PARKER = SAME IN PARKER (1962) P. 250,
 PL. 10, FIGS. 26-30.
 VAR. 41 GLOBIGERINITA BRADYI HESNER = SAME IN BE (1967) FIG. 19.
 VAR. 42 GLOBOROTALIA PUMILIO PARKER = SAME IN PARKER (1962) P. 238,
 PL. 6, FIGS. 2, 3.
 VAR. 43 HASTIGERINA PELAGICA (D'ORBIGNY) = SAME IN BE (1967) FIG. 1.
 VAR. 44 HASTIGERINELLA DIGITATA (RHUMBLER) = SAME IN BE (1967)
 FIG. 2.
 VAR. 45 OTHER PLANKTONIC FORAMINIFERA

RECORD TYPE = 40 (OPAL, QUARTZ AND CARECN)

REFERENCES --

ELLIS, D. B. (1972)

HOLOCENE SEDIMENTS OF THE SOUTH ATLANTIC OCEANS
 THE CALCITE COMPENSATION DEPTH AND CONCENTRATION
 OF CALCITE, OPAL AND QUARTZ.

MASTERS THESIS, OREGON STATE UNIVERSITY, CORVALLIS,
 OREGON.

DETERMINATION OF OPAL AND QUARTZ PERCENTAGES ARE CALCULATED USING
 X-RAY DIFFRACTION. THE TECHNIQUE IS BASED ON CONVERSION OF AMOR-
 PHOUS SILICA TO CRYSTOBALITE AT HIGH TEMPERATURES. PERCENTAGES OF
 CONVERTED OPAL AND QUARTZ ARE CALCULATED USING AN INTERNAL
 STANDARD OF ALPHA-ALUMINA, WITH CONVERSION FACTORS CALCULATED FROM
 A SET OF SAMPLES WITH KNOWN COMPOSITION.

ORGANIC CARBON ANALYSIS IS DONE ON A LECO INDUCTION FURNACE. ANALYSES
 ARE PERFORMED ON UNTREATED SAMPLES (UNBURNED) TO DETERMINE TOTAL
 CARBON IN THE SAMPLE, AND ON HEATED SAMPLE SPLITS (BURNED) TO REMOVE
 ORGANIC CARBON. THE ORGANIC CARBON CONCENTRATION IS DETERMINED FROM
 THE DIFFERENCE BETWEEN THE BURNED AND UNBURNED SPLITS.

VAR. 1 PERCENT OPAL, AVERAGE OF TWO REPLICATE SAMPLES

VAR. 2 PERCENT QUARTZ, AVERAGE OF TWO REPLICATE SAMPLES

VAR. 3 PERCENT ORGANIC CARBON

RECORD TYPE = 50 (RADIOLARIA)

REFERENCES --

BENSON, R.N. (1966)

RECENT RADIOLARIA FROM THE GULF OF CALIFORNIA
(DOCTORAL DISSERTATION).

HAYS, J.D. (1965)

RADIOLARIA AND LATE TERTIARY AND QUATERNARY HISTORY OF
ANTARCTIC SEAS. BIOL. OF THE ANTARCTIC SEAS II, ANT. RES.
SER. 5. PUBL. AMER. GEOPHYS. UNION.

LOZANO, J.A. (1974)

DOCTORAL DISSERTATION, COLUMBIA UNIVERSITY, NEW YORK,
NEW YORK.

NIGRINI C. (1967)

RADIOLARIA IN PELAGIC SEDIMENTS FROM THE INDIAN OCEAN AND
ATLANTIC OCEANS. BULL. SCRIPPS INSTIT. OCEANOGR., VOL. 11.

PETRUSHEVSKAYA, M.G. (1967)

RADIOLARIANS OF ORDERS SPUMELLARIA AND NASSELLARIA OF THE
ANTARCTIC REGION (FROM MATERIAL OF THE SOVIET ANTARCTIC
EXPEDITION). IN PAVLOVSKIY, E.P. (ED.) BIOL. REPT. SOVIET
ANTARCTIC EXPED. (1955-1958), VOL. 3, PP. 2-186.
(TRANSLATED - ISRAEL PROGRAM SCIENTIFIC TRANSLATION, 1968)

RIEDEL, W.R. (1958)

RADIOLARIA IN ANTARCTIC SEDIMENTS. B.A.N.Z. ANTARCTIC RES.
EXPEO. REPTS., SER B, VOL. 6, PT. 10, PP. 217-255.

VAR. 1 OMMATODISCUS SP.

= SAME IN BENSON (1966) PL. 10, FIG. 3.

VAR. 2 THEOCORYTHIUM TRACHELIUM (EHRENBERG)

= SAME IN NIGRINI (1967) PL. 8, FIGS. 1, 2.

VAR. 3 LITHELIUS MINOR JORGENSEN

= SAME IN BENSON (1966) PL. 18, FIGS. 1-4.

VAR. 4 PTEROCANTUM PRAETEXTUM (EHRENBERG)

= SAME IN NIGRINI (1967) PL. 7, FIGS. 1, 2.

VAR. 5 ANTHOCYRTIDIUM OPHIRENSE (EHRENBERG)

= SAME IN NIGRINI (1967) PL. 6, FIG. 3.

VAR. 6 LAMPROCYCLAS MARITALIS HAECKEL

= SAME IN NIGRINI (1967) PL. 7, FIGS. 5, 6.

VAR. 7 OMMAHARTUS TETRATHALAMUS HAECKEL

= SAME IN NIGRINI (1967) PL. 2, FIGS. 4A-4D.

VAR. 8 LITHOCAMPE SP.

= SAME IN NIGRINI (1967) PL. 8, FIGS. 6A, 6B.

VAR. 9 HELIODISCUS ASTERISCUS HAECKEL

= SAME IN NIGRINI (1967) PL. 3, FIG. 1.

VAR. 10 EUKYRTIDIUM ACUMINATUM (EHRENBERG)

= SAME IN NIGRINI (1967) PL. 8, FIGS. 3A, 3B.

VAR. 11 THEOCALYPTRA BICORNIS (POPOFSKY)

= SAME IN PETRUSHEVSKAYA (1967) P. 125, FIG. 71.

VAR. 12 SPONGOTROCHUS GLACIALIS POPOFSKY

= SAME IN RIEDEL (1958) PL. 2, FIGS. 1, 2.

VAR. 13 ANTARCTISSA DENTICULATA (EHRENBERG)

= SAME IN PETRUSHEVSKAYA (1967) PP. 85, 87, FIGS. 49, 50.

VAR. 14 ANTARCTISSA STRELKOVI PETRUSHEVSKAYA

= SAME IN PETRUSHEVSKAYA (1967) FIG. 51. = HELOTHOLUS HISTRICOZA
JORGENSEN IN RIEDEL (1958) PL. 3, FIG. 8.

VAR. 15 CYCLADOPHORA DAVISIANA EHRENBERG

= SAME IN PETRUSHEVSKAYA (1967) P. 121, FIG. 6C.

VAR. 16 TRICERASPYS ANTARCTICA (HAECKEL)

= SAME IN PETRUSHEVSKAYA (1967) P. 63, FIG. 37.

VAR. 17 SPONGOPLEGMA ANTARCTICUM HAECKEL

= SAME IN HAYS (1965) P. 166, PL. 1, FIG. 1.

VAR. 18 LITHELIUS NAUTILOIDES POPOFSKY

= SAME IN RIEDEL (1958) PL. 2, FIGS. 3, 4.

VAR. 19 SPONGURUS PYLOMATICUS RIEDEL

= SAME IN RIEDEL (1958) PL. 1, FIGS. 10, 11.

VAR. 20 SPONGOPYLE OSCULOSA DREYER

= SAME IN RIEDEL (1958) PL. 1, FIG. 12.

VAR. 21 ANDROCYCLAS GAMPHONYCHA JORGENSEN

= SAME IN HAYS (1965) P. 174, PL. 3, FIG. 2.

VAR. 22 ALL OTHER SPECIES (UNIDENTIFIED)

VAR. 23 BLANK

VAR. 24 BLANK

VAR. 25 BLANK

VAR. 26 BLANK

VAR. 27 BLANK

VAR. 28 BLANK

VAR. 29 AREA COUNTED (SQUARE MILLIMETERS)

BULK WEIGHT OF SAMPLE IN GRAMS (REPORTED TO THOUSANDS)

VAR. 30

RECORD TYPE = 51 RADICLARIA (HAYS VARIANT)

CARD ONE

COLS. VARIABLE

1-2	SHIP CODE
3-5	CRUISE NUMBER
6-8	CORE NUMBER
9-12	DEPTH IN CORE
13-16	1 OMMATODISCUS SP.
17-20	2 THEOCORYTHIUM TRACHELIUM DIANAEC T. T. TRACHELIUM
21-24	3 LITHELIA MINOR
25-28	4 PTEROCANIUM PRAETEXTUM EUCOLPUM P. P. PRAETEXTUM
29-32	5 ANTHOCYRTIDIUM OPHIRENSE
33-36	6 NOT USED IN EQUATION
37-40	7 LAMPROCYCLAS MARITALIS MARITALIS
41-44	8 LAMPROCYCLAS MARITALIS POLYPORA
45-48	9 OMMATARTUS TETRATHALAMUS TETRATHALAMUS
49-52	10 LITHOCAMPE SP.
53-56	11 NOT USED IN EQUATION
57-60	12 NOT USED IN EQUATION
61-64	13 NOT USED IN EQUATION
65-68	14 HELIODISCUS ASTERISCUS
69-72	15 EUCYRTIDIUM AGLINATUM
73	DATA TYPE
74	CORE TYPE
75-78	BLANK
79-80	CARD NUMBER FOR SAMPLE

CARD TWO

COLS. VARIABLE

1-12	SAME AS CARD 1
13-16	16 NOT USED IN EQUATION
17-20	17 THEOCALYPTERA BICORNIS
21-24	18 SPONGOTRACHUS GLACIALIS
25-28	19 ANTARCTISSA DENTICULATA
29-32	20 ANTARCTISSA STRELKOWI
33-36	21 NOT USED IN EQUATION
37-40	22 TRICERASPYRIS ANTARCTICA
41-44	23 SPONGOPLEGMA ANTARCTICUM
45-48	24 LITHELIA NAUTILOIDES
49-52	25 SPONGURUS PYLCHATICIS
53-56	26 SPONGOPYLE OSCULOSA
57-60	27 ANDROCYCLAS GAMPHONYCHA
61-64	28 THEOCONUS ZANCLEUS THEOCONUS MINITHORAX
65-72	BLANK
73	DATA TYPE
74	CORE TYPE
75-78	BLANK
79-80	CARD NUMBER FOR SAMPLE

CARD THREE

COLS. VARIABLE

1-12	SAME AS CARD 1
13-56	BLANK
57-60	29 OTHERS % UNIDENTIFIED RADIOLARIA TOTAL % SUM OF DATA ENTRIES, 1 THROUGH 28 + OTHERS TO GET THE TOTAL OF ALL RAD., IDENTIFIED AND UNIDEN- TIFIED, PRESENT IN THE AREA COUNTED.
61-64	AREA COUNTED % NUMBER OF SQUARE MILLIMETERS COUNTED
65-68	BULK WEIGHT % WEIGHT IN GRAMS X 100 2ND DECIMAL +
69-72	OF THE DRIED BULK SAMPLE >COARSE AND FINE FRACTIONS + BEFORE PROCESSING.
73	DATA TYPE % R % RADIOLARIAN
74	CORE TYPE
75-78	BLANK
79-80	CARD NUMBER FOR SAMPLE

REFERENCES

BENSON, R. N.
1966 RECENT RADIOLARIA FROM THE GULF OF CALIFORNIA.

DOCTORAL DISSERTATION. UNIV. OF MINNESOTA. 577 PP.

CHEN, PEI HSIN & PERCY CHEN
 1975 11. ANTARCTIC RADIOLARIA. REPRINTED FROM
 HAYES, D. E., FRAKES, L. A., ET AL., 1975 IN:
 INITIAL REPORTS OF THE DEEP-SEA DRILLING PROJECT,
 VOL. XXVIII, WASHINGTON U.S. GOV. PR. O.
 PP. 437-513, 24 PL.

HAYS, J. D.
 1965 RADIOLARIA AND LATE TERTIARY AND QUATERNARY HISTORY
 OF ANTARCTIC SEAS. BICL. OF THE ANT. SEAS II.,
 ANT. RES. SERIES 5. PUBL. AM. GEOPHYS. UNION
 1969 PLIOCENE-PLEISTOCENE SEDIMENTS OF THE EQUATORIAL PACIFIC:
 THEIR PALEOMAGNETIC, BICSTRATIGRAPHIC, AND CLIMATIC
 RECORD. GEOL. SOC. OF AM. BULL., V. 80, PP. 1481-1514,
 16 FIGS, 1 PL.
 1970 GEOLOGICAL INVESTIGATIONS OF THE NORTH PACIFIC.
 THE GEOL. SOC. OF AMERICA. MEMOIR 126
 STRATIGRAPHY AND EVOLUTIONARY TRENDS OF RADIOLARIA IN
 NORTH PACIFIC DEEP SEA SEDIMENTS. PP. 185-218

HAYS, J. D. AND NEIL D. O'DOYKE
 1967 ANTARCTIC RADIOLARIA, MAGNETIC REVERSALS, AND CLIMATIC CHANGE.
 SCIENCE, VOL. 158, NO. 3804, PP. 1001-1011

LING, H. Y., C. J. STADUM & M. L. WELCH
 1971 POLYCISTINE RADIOLARIA FROM BERING SEA SURFACE
 SEDIMENTS. IN: PROCEEDINGS OF THE II PLANKTONIC CONF.
 A. FARINACCI, ED. R.C.M.A. 1970, 705-729

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 YEARS AGO AND
 TODAY. DOCTORAL DISSERTATION. COLUMBIA UNIV. 400 PP.

NIGRINI, C.
 1967 RADIOLARIA IN PELAGIC SEDIMENTS FROM THE INDIAN AND
 ATLANTIC OCEANS. BULL. SCRIPPS INST. OF OCEANOGR.
 VOL. 11:1-125
 1968 RADIOLARIA FROM EASTERN TROPICAL PACIFIC SEDIMENTS.
 IN: MICROPALAEONTOLOGY, 14 21+, PP. 51-53
 1970 RADIOLARIAN ASSEMBLAGES IN THE NORTH PACIFIC AND THEIR
 APPLICATION TO A STUDY OF QUATERNARY SEDIMENTS IN
 CORE V 20-130. MEMOIR 126, GEO. INVEST. OF N. PAC.,
 GEOL. SOC. OF AM., P. 139-188

PETRUSHEVSKAYA, M. G.
 1968 ORDEPS SPUMELLARIA AND NASSELARIA OF THE ANTARCTIC REGION.

13

STUDIES OF MARINE FAUNA IV XII. BIOL. REPORTS OF
THE SOVIET ANTARCTIC EXPD. 1955-1958 VOL. 3.
TRANS FROM RUSSIAN. PUBL. NSF.
USSR AKADEM NAK. 3:2-186
ANDRYASHEV, A. P. + P. V. USHAKOV EDS.

RIEDEL, W. R.
1957 RADIOLARIA IN ANTARCTIC SEDIMENTS.

SCRIPPS INST. OF OCEANOG. BANZAR EXPD. REP. SER. 86
10-217-255

RECORD TYPE = 60 (STRATIGRAPHY)
REFERENCES --

- BISCAY, P. E., V. KOLLA AND K. K. TUREKIAN (1976)
DISTRIBUTION OF CALCIUM CARBONATE IN SURFACE SEDIMENTS OF
THE ATLANTIC OCEAN
JOURNAL OF GEOPHYSICAL RESEARCH 81(15) 2595-2603
- ELLIS, D. B. (1972)
HOLOCENE SEDIMENTS OF THE SOUTH ATLANTIC OCEANS
THE CALCITE COMPENSATION DEPTH AND CONCENTRATION
OF CALCITE, OPAL AND QUARTZ.
MASTERS THESIS, OREGON STATE UNIVERSITY, CORVALLIS,
OREGON.
- HULSEMANN, J. (1966)
ON ROUTINE ANALYSIS OF CARBONATES IN UNCONSOLIDATED
SEDIMENTS
JOURNAL OF SEDIMENTARY PETROLOGY 36:622-625
- SHACKELTON, N. J. AND N. D. OPOYKE (1973)
OXYGEN ISOTOPE AND PALEOMAGNETIC STRATIGRAPHY OF EQUATORIAL
PACIFIC CORE V28-238: OXYGEN ISOTOPE TEMPERATURES AND ICE
VOLUMES ON A 10^{-5} YEAR AND 10^{-6} YEAR SCALE
QUATERNARY RESEARCH 3:39-55

CARBONATE DATA --

- VAR. 1 PERCENT FINE CARBONATE (LESS THAN 63 MICRONS)
VAR. 2 PERCENT COARSE CARBONATE (GREATER THAN 63 MICRONS)
VAR. 3 PERCENT TOTAL CARBONATE
VAR. 4 CARBONATE METHOD
1 - MODIFIED HULSEMANN GASOMETRIC
2 - LECO INDUCTION FURNACE

ISOTOPE DATA --

- VAR. 5 SPECIES CODE FOR ISOTOPE ANALYSES

- 1 - U. AUBERIANA
2 - G. BULLOIDES
3 - G. CONGLOBATUS
4 - G. DUTERTREI
5 - G. INFLATA
6 - P. OBLIQUELOCULATA
7 - G. PACHYDERMA
8 - G. RUBER
9 - G. SACCOLIFER
10 - G. TRUNCATULOIDES
11 - G. SUBGLOBOSEA
12 - UVIGERINA SP.
13 - P. WUELLERSTORFI

- VAR. 6 DELTA OXYGEN-18 (PDB)
VAR. 7 DELTA CARBON-13 (PDB)
VAR. 8 LABORATORY

- 1 - DUPLESSY
2 - BENEDUM LABORATORY, BROWN UNIVERSITY
3 - SHACKELTON

RECORD TYPE = 70 (TIME)

VAR. 1 UPPER SAMPLE DEPTH
 VAR. 2 LOWER SAMPLE DEPTH
 VAR. 3 TECHNIQUE
 1 - CARBON 14 DATE ON TOTAL SAMPLE
 2 - CARBON 14 DATE ON COARSE FRACTION (GREATER THAN 63 MICRONS)
 3 - CARBON 14 DATE ON FINE FRACTION (LESS THAN 63 MICRONS)
 VAR. 4 AGE ESTIMATE IN THOUSANDS OF YEARS
 VAR. 5 AGE ESTIMATE IN ADDITIONAL YEARS
 (VAR. 4 X 1000 + VAR. 5 = TRUE AGE ESTIMATE)
 VAR. 6 UPPER AGE ERROR IN THOUSANDS OF YEARS
 VAR. 7 LOWER AGE ERROR IN ADDITIONAL YEARS
 (VAR. 6 X 1000 + VAR. 7 = TRUE AGE ESTIMATE)
 VAR. 8 LOWER AGE ERROR IN THOUSANDS OF YEARS
 VAR. 9 LOWER AGE ERROR IN ADDITIONAL YEARS
 (VAR. 8 X 1000 + VAR. 9 = TRUE AGE ESTIMATE)

RECORD TYPE = 80 SEA SURFACE TEMPERATURE ESTIMATES

COL. 13-16 AUGUST SST IN TENTHS OF DEGREES CELSIUS
 COL. 17-20 FEBRUARY SST IN TENTHS OF DEGREES CELSIUS
 COL. 21-22 CODE FOR 1ST EQUATION USED FOR ESTIMATES
 COL. 23-24 CODE FOR 2ND
 COL. 25-26 CODE FOR 3RD
 COL. 27-28 CODE FOR 4TH
 COL. 29-32 ERROR CODE

EQUATION CODES:

- 1 - IOF09
- 2 - AOC08
- 3 - FG1
- 4 - FA20
- 5 - FA,C
- 6 - FM1
- 7 - CA8
- 8 - RSA1
- 9 - RAN3
- 10 - ANR03
- 11 - SAR01
- 12 - FA
- 13 - AC
- 14 - ANSAR

SEE PRIMARY REFERENCE FOR MORE INFORMATION ON EQUATIONS

ERROR CODES:

- 1 - CONFIRMED ESTIMATE (MORE THAN ONE TAXA USED)
- 2 - DATA SUPPORTED (MORE THAN ONE EQUATION USED)
- 3 - TREND SUPPORTED
- 4 - UNSUPPORTED ESTIMATE
- 5 - UNRESOLVED ESTIMATE

RECORD TYPE = 90 OBSERVED SEA SURFACE TEMPERATURE (CORE TOPS)

COL. 13-16 AUGUST SST IN DEGREES CELSIUS
 COL. 17-20 FEBRUARY SST IN DEGREES CELSIUS

15
MCG 07 99 5008

Ships:

A Atlantis
D Discovery
K Kane
V Vema
AR Argo
BS Tanner
KM Kevin Moran
RC Robert Conrad
R or RE Rehoboth
SP San Pablo
Y Yaquina

Ocean Areas:

1. Antarctic
2. South Atlantic
3. South Pacific
4. Indian
5. North Atlantic
6. Northeast Pacific
7. Northwest Pacific
10. Arctic