15. OXYGEN AND CARBON ISOTOPE DATA FROM LEG 74 FORAMINIFERS1

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ABSTRACT

Oxygen and carbon isotope measurements have been made in picked planktonic and benthonic foraminifers from the five sites drilled on Leg 74, covering the whole Cenozoic. For the Neogene, the coverage gives good information on the development of the vertical temperature structure of Atlantic deep water. For the Paleogene, vertical gradients were weak and it is possible to combine data from different sites to obtain a very detailed record of both the temperature and carbon isotope history of Atlantic deep waters.

INTRODUCTION

One of the purposes of the Leg 74 drilling was to provide a suite of sites in which deep-water ¹⁸O paleotemperature measurements could be made over a range of paleodepths. Ultimately this will enable a better description of variations in the vertical temperature structure of the ocean through time. It is not possible to complete such an analysis in the time available for the preparation of the *Initial Reports*, but a start has been made in obtaining the data. This chapter summarizes results that have been obtained to date and will give a good indication of the potential of different parts of the section for isotopic work.

METHODS AND RESULTS

Oxygen and carbon isotope measurements were made using a VG Isogas 903 triple collector mass spectrometer to analyze carbon dioxide released from picked foraminifers. The standard method of reaction on line at 50°C using 100% orthophosphoric acid was employed; the reaction line in use is shown in Figure 1.

To obtain seafloor records, benthic foraminifers were selected for analysis. Where possible, monospecific or monogeneric assemblages were picked. Where this proved impractical, species which have similar deviations from isotopic equilibrium were grouped together. In a number of levels it was possible to analyze more than one picking and so provide further data on species-dependent departures from isotopic equilibrium. Appendix A shows the adjustment factors which have been applied to the species analyzed in this chapter in order to obtain as good an approximation as possible to seafloor equilibrium values for ¹³C and ¹⁸O values. These adjustments must be made to take account of genetically controlled departures from isotopic equilibrium (Duplessy et al., 1970; Shackleton, 1974; Vincent et al., 1979; Graham et al., 1981). Appendix B gives the raw values and Appendix C the values adjusted on the basis of Appendix A, averaged where more than one measurement was obtained, and with the age estimate used for plotting (based on the timescales developed in Shackleton et al., this volume). Appendix A includes a number of mixtures; we recognize that there is additional uncertainty involved in these cases since the relative contributions are not known, but we consider that measurements based on specified mixtures are at least better than analyses of unspecified mixed species. A small number of measurements in Appendix B that were neither used in Appendix C nor plotted in the

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figures are marked with asterisks. These values include bad analyses, out-of-place samples, and some values for which correction factors are unknown or unreliable. For example, *Oridorsalis* appears to be close to isotopic equilibrium for ¹⁸O, but to be erratic in its ¹³C composition. It is possible that this reflects the presence of more than one species, or a significant effect of size on isotopic composition. It is interesting to note that Savin et al. (1981) found a perplexing variation in the difference in ¹³C content between *Oridorsalis* and other species.

Figure 2 shows the oxygen and carbon isotope records for benthic and planktonic foraminifers from Sites 525-529. Oxygen isotope values are adjusted for departures from isotopic equilibrium (Shackleton, 1974), and carbon isotope values are adjusted so as to provide an estimate of the ¹³C content of ocean deep water; members of the Cibicides genus are thought to provide a good estimate of this quantity in the modern ocean (Graham et al., 1981; Duplessy et al., pers. comm. 1982; Vincent et al., 1981) so that adjustments are made to Cibicides for ¹³C and to Uvigerina for ¹⁸O. Because Site 526 is significantly shallower and at present the seafloor is bathed by a different water mass, values from this site cannot be plotted with those from the deeper sites.

For planktonic species, we still do not know the order of depth stratification sufficiently well to confidently pick the best surface indicator in every sample. Additionally, it is sometimes useful to obtain a record from deep-dwelling species as well as from surface species (Boersma and Shackleton, 1978; Biolzi, pers. comm., 1982). Thus Table 4 contains data from several different species in some samples.

In the discussion below, oxygen isotope values are discussed in terms of temperature (°C) using the relationship between oxygen isotopic fractionation and temperature established by O'Neil et al. (1969) and discussed by Shackleton (1974). It is assumed that in the absence of an Antarctic ice sheet, the ocean had an oxygen isotopic composition of -1.2% on the PDB scale (Shackleton and Kennett, 1975).

DISCUSSION

Maestrichtian

Analyses of a number of samples in the uppermost part of the Maestrichtian show that there is a significant deep-water temperature variability, with deep-water temperatures varying between about 10° and 6.5°C (Fig. 2). No values as cold as this were encountered again through the Paleocene or lower Eocene. No significant deep-water temperature difference was observed in the immediate vicinity of the Cretaceous/Tertiary boundary, at which time the deep-water temperature was about 10°C.

Abathomphalus mayeroensis and Planoglobulina glabrata were analyzed in several Maestrichtian samples. Both ¹³C and ¹⁸O data indicate that of these two, the lat-

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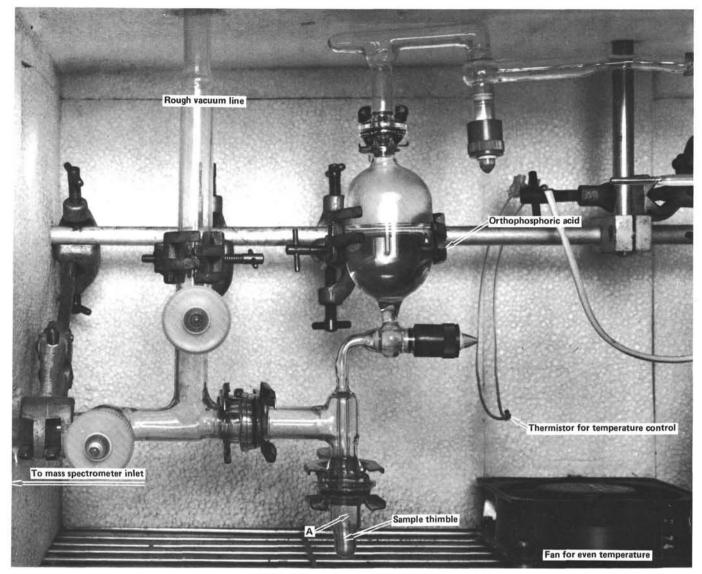


Figure 1. Reaction system used to generate CO₂ from foraminifers for isotopic analysis. The whole region illustrated is kept at 50°C. Orthophosphoric acid is dropped onto the foraminifers, which have previously been cleaned and vacuum-roasted in the thimble visible within container A. The acid is replenished monthly and is kept pumped so that it does not take up moisture.

ter calcified closer to the sea surface; on the basis of its isotopic composition surface temperatures between 13° and 16°C may be calculated. Mixed, very small (63-75 μ m) species from a sample in Hole 527 at 280.10 m (10 cm below top of Maestrichtian) yield ¹⁸O and ¹³C values closer to those given by A. mayeroensis, implying that they are not good indicators of surface conditions.

Paleocene-Eocene

No remarkable changes in deep-water temperature occurred during the Paleocene, although there was apparently less variability and a somewhat higher mean temperature than during the late Maestrichtian. In the early Eocene a significant rise in deep-water temperature is observed, culminating in temperatures of about 12°C. After a few million years a considerable decline in temperature occurred relatively rapidly at about 50 Ma. The dating of this event is well controlled to within the interval of Magnetic Anomaly 21 on the basis of the measure-

ments in Core 527-17. Only a small amount of late Eocene data was obtained; however, the values are consistent with those observed elsewhere, implying a deep-water temperature of about 7°C. The temperature decline within Magnetic Anomaly 21 was not unidirectional but was accompanied by considerable variability that would warrant detailed investigation in a site with a higher accumulation rate over this interval.

Surface temperature appears to have been low in the first 2 m.y. of the Paleocene, but this is probably an artifact of our inability to analyze species which truly reflect surface conditions. Mixed, very small (63-75 μ m) planktonic foraminifers dominated by *Woodringina* and carefully cleaned of obvious Cretaceous specimens were analyzed from 279.91 m in Hole 527 and yielded an ¹⁸O value similar to that of the sample analyzed at the top of the Maestrichtian. Because, as already mentioned, this Maestrichtian measurement was not regarded as a good estimate of surface temperature, we have no reason to

suppose that the Danian measurement enables us to estimate lowermost Danian surface temperature. On the other hand, these very small foraminifers do register essentially the same change in 13C values that is registered by bulk sediment (Shackleton and Hall, this volume). Thus it seems likely that these specimens were calcifying relatively close to the sea surface (certainly well above the oxygen minimum). If the oxygen isotopic composition of these very small specimens is not significantly affected by post-depositional processes (which cannot be definitely established), then we may reasonably argue that the similarity in 18O values between the very small specimens analyzed on either side of the Cretaceous/Tertiary boundary constitutes evidence that there was not a significant change in surface temperature at that boundary. However, this is a difficult point to establish conclusively.

Later in the Paleocene and in the early Eocene, surface temperatures were apparently higher than during the Maestrichtian or, indeed, than during any other part of the Cenozoic. Surface temperatures dropped during the middle Eocene just as deep-water temperatures did. It is interesting to note that this more or less parallel trend in surface and deep-water temperatures during the Eocene shows that there was no thermal isolation between mid-latitude and high-latitude water masses.

Preliminary examination of the benthic data suggests that the vertical temperature and ¹³C gradients between Sites 525 and 527 were too small during the Paleocene to be measured without considerably more data. The two sites then occupied approximately the same positions in the water column as Sites 526 and 525 occupy today; thus there would have been measurable isotopic differences between them, given oceanographic gradients similar to those now prevailing.

Oligocene

At Site 529 detailed measurements were made at the Eocene/Oligocene boundary, where a very sharp transition was observed. The data should be regarded with caution, however, since the nannofossil I. recurvus is not present in the uppermost Eocene sediments, implying that the latest Eocene may be missing at this site (Manivit, this volume). It is interesting to note that the oxygen isotope values obtained in benthic foraminifers just above the boundary (or hiatus) are the most positive observed in the Oligocene. The values, about +2.5% (adjusted to isotopic equilibrium), are in fact similar to the lightest values observed in the late Miocene. This value may be regarded as favoring the presence of an ice sheet in Antarctica for a brief interval in the early Oligocene; in the absence of any significant quantity of ice, a value of +2.5% would indicate a temperature of 2°C at a paleodepth of around 3000 m. This would certainly imply at least freezing winters at sea level around Antarctica, which itself would be consistent with substantial glaciation. It seems perhaps more likely that deep water was not so cold as 2°, and that there was a significant amount of ice on Antarctica for this short interval early in the Oligocene. (An isolated measurement from 225.67 m at Site 528 gave an even more positive 18O

value, but this may have been the result of mixing with one or more Neogene specimens, since the sample proved to contain some drillpipe rust indicative of downhole contamination).

Although we conclude that there may have been some accumulation of ice on Antarctica during the early Oligocene, as claimed by Matthews and Poore (1980), we have reached this conclusion by accumulating more benthic foraminiferal data and extending the argument used by Shackleton and Kennett (1975). We do not agree with the approach taken by Matthews and Poore (1980), who have argued that global ice volume in the Cenozoic may be estimated by assuming that the surface temperature in the tropics is more or less invariant. Indeed, were one to apply this argument to the data set discussed by Shackleton and Boersma (1981), one would conclude that during the early Eocene ocean surface temperature ranged between 28°C at the equator and 18°C at high latitudes, while somewhere on the continents sufficient ice was stored to render the oceans even more isotopically positive than today. For the early Oligocene, Poore and Matthews (in press) have obtained a data set considerably more detailed than ours; it documents isotopically positive values similar to those that we have obtained, but their interpretation is again based on the model of Matthews and Poore (1980), with which we disagree.

The total range in ¹⁸O values in benthic samples from the Oligocene at Sites 528 and 529 is of the order 0.7% (from 1.8 to 2.5%), but this is among a relatively small number of analyses and must underestimate the total range of variation.

Site 526, where the paleodepth was significantly shallower during the Oligocene than the present 1000 m, shows a rather different benthic temperature record. The values are isotopically lighter by the equivalent of 2-3°, and show a greater variability of about 1‰, or more than 3°. Unfortunately, the isotopic results from Site 526 sediments are somewhat unsatisfactory. Differences between species are not as one expects on the basis of present-day calibrations or of between-species comparisons at other sites. Matthews et al. (1980) have suggested that, in very shallow sites, aragonite that was preserved during initial sedimentation may very readily go into solution in the pore waters and reprecipitate on the foraminifers. If this is indeed the case, the values obtained may actually be closer to deep-water isotopic equilibrium than the original calcite was; this would explain the fact that between-species differences are very small in these sediments.

Early-Middle Miocene

Unfortunately the middle Miocene was not well recovered at any Leg 74 site. However, the fragmentary recovery is sufficient to reveal the deep-water temperature maximum of the middle Miocene and the associated positive extreme in ¹³C values first observed by Shackleton and Kennett (1975) and to give hints of the important high-frequency variation in both isotope ratios that was revealed for the first time by the detailed work of Woodruff et al. (1981) from DSDP Site 289. Comparison of the planktonic and benthic records (Fig. 2A)

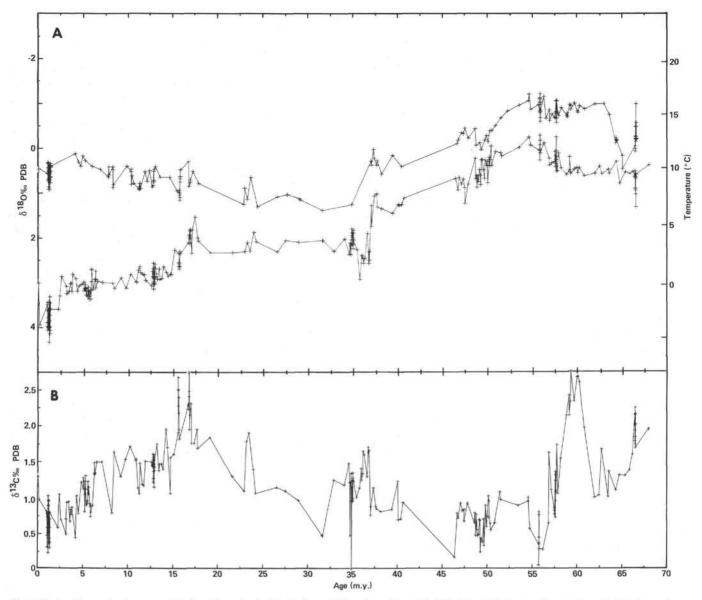


Figure 2. A. Oxygen isotope record in benthic and planktonic foraminifers from Sites 525-529, Maestrichtian to Recent. For planktonic species, data are selected to represent as well as possible those species that apparently calcify near the ocean surface. The temperature scale is calculated for a time without an Antarctic ice sheet. B. Carbon isotope record in benthic foraminifers from Sites 525-529, Maestrichtian to Recent. All data in Figure 2A-B are plotted on a common timescale (from Appendix C). C. Carbon isotope record in planktonic foraminifers from Sites 525-529, Maestrichtian to Recent. All data are plotted on a common timescale (from Appendix D). In samples from which more than one species was analyzed, the isotopically heaviest value is plotted, and analyses of species which are known to deposit their carbonate at depth are not plotted.

shows that the temperature gradient between surface and deep water was approximately the same from the late Eocene to the middle Miocene.

Late Miocene and Pliocene: Changing Vertical Gradients

The drilling of Site 526 provided the unusual opportunity of examining the vertical temperature and ¹³C gradients within the ocean interior and the evolution of these gradients through the late Miocene. Table 1 shows mean ¹⁸O and ¹³C values over 1 m.y. increments (from Appendix C) in Sites 526 and 525.

It is striking that the vertical temperature gradient between the two sites was approximately 1° throughout this interval, with only rather subtle variations, whereas the carbon isotopic gradient actually reversed in the lower Pliocene. Today, Site 526 is bathed by Antarctic Intermediate Water (AIW) with a lower ¹³C content than the North Atlantic Deep Water (NADW) that is found at the depth of the seafloor at Site 525 (~2500 m); the ¹³C difference is about 0.2% (Kroopnick, 1981, from Station 103). In parts of the lower Pliocene, benthic foraminifers from Site 526 were isotopically more positive than at Site 525. Table 2 shows values from the deep Pacific; during the early Pliocene there was clearly an isotopic gradient between the South Atlantic and the deep Pacific just as strong as there is today, and it seems likely that NADW extended up to the depth of Site 526, perhaps with a reduction in the formation of AIW. These data show that the conclusion reached by Keigwin

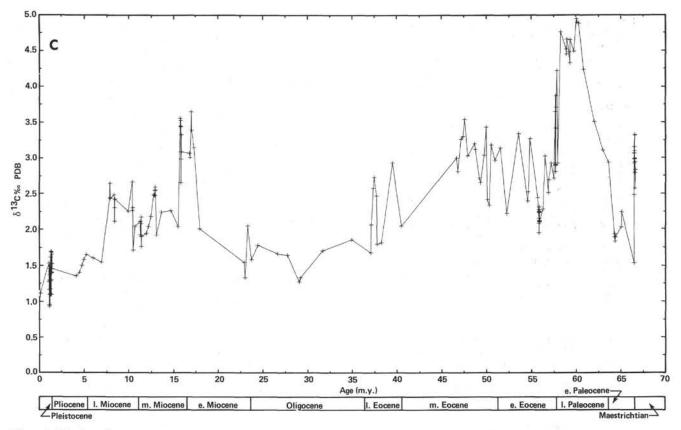


Figure 2. (Continued).

(1982), that the production of NADW was significantly less before the Panama Isthmus closed about 3 Ma, is not correct. Our data show an early Pliocene ¹³C difference between South Atlantic NADW and deep Pacific water of more than 1‰ well prior to that event. It may be that the early Pliocene Caribbean is not an appropriate position from which to monitor the ¹³C content of NADW.

The so-called "carbon shift" at about 6.4 Ma (Haq et al., 1980), when ocean-dissolved CO₂ became isotopically lighter for ¹³C, is reasonably clearly expressed and indeed has been used as a guide to correlating Holes 525B and 526. Occurring just above the appearance of Amaurolithus primus at Hole 525B, it provides a useful datum, because this first appearance was not readily determined under the conditions of more extensive overgrowth observed in the late Miocene nannofossils of Site 526. However, it is certainly not such a striking effect as is observed in the Pacific, and indeed there is a clear overlap between pre-"carbon shift" values and those observed in the lower Pliocene (Fig. 2B).

The deep-water ¹⁸O record of the late Miocene is thought to reflect the history of Antarctic glaciation, and the isotopic difference between the mean value for 16-17 Ma and today's equilibrium value is about 1.2%. This means that if ocean isotopic composition changed by about 0.9% (Shackleton and Kennett, 1975), there was a deep-water temperature drop of only a little over a degree. By contrast, surface temperatures changed considerably; the temperature difference between the surface

and the deep water bathing the shallowest site (526) has increased by about 6°C since the middle Miocene. This dramatic increase in temperature gradients during the last 15 Ma is a fascinating aspect of global paleoclimatology. It must be emphasized again that its interpretation is not affected by current uncertainty (Matthews and Poore, 1980) regarding the history of global oceanic isotopic composition, which affects the absolute temperatures estimated, but not temperature gradients.

Pleistocene

A lower Pleistocene section was analyzed from Hole 528A, where Cores 4-6 were sampled at close intervals. Benthic foraminifers were analyzed in part of the section, chiefly as a check on the reliability of the data obtained. Evidently early Pleistocene climatic variability is easily detectable. With only a single penetration of the site it would not be possible to obtain a long record suitable for spectral analysis. However, the material is suitable for paleoclimatic work; both faunal change and dissolution variability could be examined in relation to the ¹⁸O record in this material.

CONCLUSIONS

The ¹⁸O analyses in benthic foraminifers record the largely well-established temperature and ice-volume history of the Cenozoic. The temperature maximum in the early Eocene, the cooling early in the middle Eocene, and the very rapid cooling at the Eocene/Oligocene boundary are all well displayed. The accumulation of

Table 1. Oxygen and carbon isotope data averaged in million-year increments for Sites 525 and 526, Pliocene to middle Miocene.

Increment	δ180	$\delta^{13}C$	No. of
Increment	(%)	(%)	analyses
Site 525			
3-4	3.17 ± 0.10	0.79 ± 0.17	6
4-5	3.06 ± 0.12	0.87 ± 0.33	4
5-6	3.14 ± 0.19	1.02 ± 0.17	19
6-7	2.97 ± 0.15	1.32 ± 0.22	6
7-8	3.00	1.50	1
8-9	3.13	1.64	1
9-10	3.01 ± 0.16	1.42 ± 0.17	2
10-11	2.93 ± 0.11	1.59 ± 0.11	3
11-12	2.79 ± 0.10	1.29 ± 0.19	6
12-13	2.85 ± 0.15	1.44 ± 0.12	20
13-14	2.82 ± 0.14	1.49 ± 0.15	5
14-15	2.81 ± 0.03	1.57 ± 0.37	4
15-16	2.49 ± 0.16	2.18 ± 0.35	10
16-17	1.96 ± 0.12	2.32 ± 0.23	8
17-24	2.09 ± 0.25	1.65 ± 0.37	12
Site 526			
3-4	2.78 ± 0.12	1.11 ± 0.27	11
4-5	2.96 ± 0.10	0.94 ± 0.18	26
5-6	2.91 ± 0.12	0.91 ± 0.16	25
6-7	2.76 ± 0.10	1.07 ± 0.23	24
7-8	2.79 ± 0.09	1.47 ± 0.22	11
8-9	2.89 ± 0.07	1.51 ± 0.09	6
9-10	2.87 ± 0.16	1.44 ± 0.14	10
10-11	2.92 ± 0.11	1.42 ± 0.10	11
11-12	2.67 ± 0.14	1.22 ± 0.17	8
12-13	2.63 ± 0.17	1.36 ± 0.15	14
13-14	2.51 ± 0.14	1.54 ± 0.14	19
14-15	2.33 ± 0.09	1.64 ± 0.36	2
16-16	No data		
16-17	2.05 ± 0.23	2.24 ± 0.36	4
17-24	1.73 ± 0.20	1.59 ± 0.22	7

Table 2. Oxygen and carbon isotope data averaged in million-year increments for deep equatorial Pacific cores V28-179, V28-185, and RC12-66.

Increment	δ ¹⁸ O (‰)	δ ¹³ C (‰)	No. of analyses
3-4	3.31 ± 0.23	-0.22 ± 0.23	49
4-5	3.06 ± 0.17	-0.30 ± 0.25	39
5-6	3.22 ± 0.13	-0.22 ± 0.20	26
6–7	3.09 ± 0.17	-0.10 ± 0.29	23

Note: Sources are: Shackleton and Opdyke, 1977; Keigwin and Shackleton, 1980; Shackleton, 1982; and Shackleton, unpublished data). Note that the data in the increment 6-7 m.y. are virtually all from between 6 and 6.5 Ma, after the late Miocene ¹³C change.

Antarctic ice in the middle Miocene is clearly recorded although sediment recovery was poor in this part of the section and details of the transition are not well resolved. A good late Miocene record at Site 525 will clarify events during that time. A fairly good early Oligocene record is also available from Site 529. Although frequent slumps would preclude use of this section for detailed time-series analysis, it provides important evidence supporting the existence of limited Antarctic glaciation during the

earliest Oligocene. The details of the Paleogene section permit the climatic events to be better dated than before. High deep-water temperatures were attained close to the Paleocene/Eocene boundary at about 56 Ma, and a temperature decline occurred over a period of about a million years early in the middle Eocene (~50-49 Ma).

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APPENDIX A Isotopic Analyses of Benthic and Planktonic Foraminifers

Adjustment factors applied to the isotopic analyses of benthic foraminiferal species in order to obtain the best estimates of oxygen isotopic equilibrium and carbon isotopic composition of ocean deep-water dissolved CO₂.

Genus	Computer		tment
or Species	Abbreviation	18 _O	13 _C
Uvigerina	UVIG	0.0	0.9
Hoeglundina	HELEGANS	-0.40	-1.3
Cibicidoides	CIB	0.5	0.0
C. kullenbergi	CIBKULL	0.5	0.0
C. wuellerstorffi	PWUELL	0.64	0.0
C. havanensis	CIBHAV	0.5	0.0
Melonis	MELONIS	0.3	0.8
M. pompilliodes	MELPOMP	0.3	0.6
M. barleearnum	MELBARL	0.4	1.0
Bulimina	BULIMINA	0.0	0.0
B. jarvisi	BJARV	0.0	0.0
Globocassidulina	GLOBOCAS	-0.1	0.5
Nuttalides	NUTT	0.35	0.0
Gavelinella	GAVELIN	0.33	0.0
Gyroidina	GYROID	0.0	0.0
Oridorsalis	ORID	0.0	1.0
Stilostomella	STABYSS	-0.15	1.0
Sphaeroidina	SBULL	-0.13	-0.1
Favocassidulina	FAVOCASS	-0.1	0.5
Planulina renzi	PRENZI	0.6	0.0
Pullenia bulloides	PULBUL	0.0	0.0
Rectuvigerina	RECTUVIG	0.0	0.9
Anomalinoides	ANOMALIN	0.0	0.3
Gavelinella	GAVELIN	0.3	0.0
Nodosaria	NOD	0.0	0.0
Osangularia	OSANG	0.0	0.0
NUTT + CIB	NUTTCIB	0.4	0.0
UVIG + GLOBOCAS	UVIGGLOB	-0.05	0.0
PWUELL + CIBKULL	WUELKULL	0.5	0.0
GLOBOCAS + BJARV	GLOBOJAR	0.0	0.0
ORID etc.	ORIDMIX	0.0	0.2
ORID etc.	ORIDBUL	0.0	0.5
NUTT + ALAB	NUTTALAB	0.4	0.0
CIB + GAV	CIBGAV	0.4	0.0
BUL + CIB	BULCIB	0.15	0.0
UVIG + STABYSS			1.0
GLOBOCAS + ORID	UVIGSTIL GLOBORID	0.0	0.7
UVIG + GLOBOCAS		0.000	0.0000000
ORID + GYROID	UVIGGLOB ORIDGYR	0.0	0.7
STABYSS + BJARV		0.0	0.5
GLOBOCAS + STABYSS	STILJARV	0.0	0.3
UVIG + BUL	GLOBSTIL	0.0	4000000
THE REST !- STATE AND !	UVIGBUL	0.0	0.4
NUTT + CIB NUTT + GAV	NUTTCIB NUTTGAV	0.4	2000700
NUII + GAV	NUTIGAV	0.33	0.0

Note: These figures are derived from our assessment of all the data available to us. Although a slightly different set of adjustments might be derived on the basis of data from Leg 74 alone, we consider that this would impede comparison with other sites.

APPENDIX B
Isotopic Analyses of Benthic Foraminifers from Sites 525-529

No. 5256	Sub-bottom Depth (m)	Species	δ ¹⁸ O (%)	δ ¹³ C (%)	Sub-bottom Depth (m)	Species	δ ¹⁸ O (%)	δ ¹³ C (‰)		Sub-bottom Depth (m)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)
11-166											(cont.)		
11-166	0.80	UVIG	1.95	0.08	139 18	PWUELL.	2.52	1.50		287.10	NUTT	0.34	0.78
1306 PWIELL 2.66 1.06 139.44 1.06 139.45 1.06 1.07 1.08 1.09 1	11.66	FAVOCASS	3.69	-0.03	139.18	UVIGGLOB	2.97	0.95*		287.10	ORID	0.65	0.31
1900												0.93	0.79
1901 PWUELL 2.45	13.05											0.33	0.68
1934 PVUELL 2.61 0.71 139.61 PVUELL 1.87 1.30 22.01 NUTT	19.01					GLOBOCAS						0.64	0.40
22.20 CIBKULL 2.64 0.87 19.98 MIXED 2.56 0.86 29.20 ORID	19.34	PWUELL	2.61	0.71	139.61	PWUELL	1.87			292.01	BULIMINA	0.81	0.92
22.20 ONUT											NUTT	0.42	0.74
22.20 PWELL 2, 29 0.36												0.38	-0.05
22.40 CIBRUIL 2.89 0.74 140.41 PWUELL 2.48 1.61 288.00 NUTT NUTT 1.22 1.44 1.61 288.00 NUTT 1.22 1.44 1.61 2.61	22.20	GLOBOCAS	3.32	0.57	140.21	GLOBOCAS	2.58	1.12		295.01	CIB	0.01	0.76
22.40 PWOELS 3.73 0.49 40.41 SBULL 2.77 0.90 302.29 NUTTICES 2.20 PWOELS 2.20 0.74 41.71 PWOELS 2.20 1.47 3.20 30.23 0.01 0.21 41.71 PWOELS 2.20 1.47 3.20 30.23 0.02 30.2					140.21		2.00					-0.13	0.33
22.46					140.41							-0.29 -0.37	0.65 1.08
27.78	22.40	PWUELL	2.90	0.74	140.71		2.50	1.37		302.39		0.15	0.83*
33.10 GLOBOCAS 3.11 0.34 141.31 PWUELL 2.37 1.44 338.49 SULCEB 44.85 CLOBOCAS 3.20 0.27 141.51 CRUELL 2.50 1.46 338.19 CLUEB 44.80 CLOBOCAS 3.10 0.35 141.51 CRUELL 2.50 1.47 388.39 CLUEB 44.80 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.99 1.46 388.39 CLUEB 45.08 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.90 1.46 388.39 CLUEB 45.08 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.90 1.46 388.39 CLUBB 45.08 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.90 1.40 318.39 CLUBB 45.08 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.90 1.40 318.39 CLUBB 45.08 CLOBOCAS 3.14 0.72 142.41 SWUELL 2.39 1.40 318.39 CLUBB 45.01 CLOBOCAS 3.29 0.78 142.61 SWUELL 2.39 1.48 318.39 CLUBB 46.03 CLOBOCAS 3.29 0.78 142.61 SWUELL 2.39 1.48 318.39 CLUBB 46.17 CLOBOCAS 3.29 0.78 142.61 SWUELL 2.39 1.40 318.39 CLUBB 46.17 CLOBOCAS 3.20 0.41 143.41 CLUBB 46.17 CLUBB CLUBB CLUBB CLUBB CLUBB 46.17 CLUBB CLUBB CLUBB CLUBB CLUBB 46.29 STAPAYSS 3.17 0.66 155.65 CLUBB CLUBB CLUBB 46.29 STAPAYSS 3.17 0.68 155.65 CLUBB CLUBB CLUBB 46.29 STAPAYSS 3.17 0.68 CLUBB CLUBB CLUBB 46.20 CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB 46.20 CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB 46.20 CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB 46.21 CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB CLUBB 46.21 CLUBB CL	23.61											-0.43	0.89
33.10 GLOBOCAS 3.30 0.27 141.51 PWUELL 2.26 1.46 338.19 BULCIB 42.26 PUELL 2.26 1.57 318.29 BULCIB 44.07 SULPHINE SULP										337.85		-0.59 -0.78	0.83
42.26 PWUELL 2.28 0.45 141.71 CIB 2.30 1.57 358.39 CIB 44.88 CLOBOCAS 3.18 0.25 142.21 PWUELL 2.24 1.47 318.29 GAYELIN 46.05 01.0BOCAS 3.18 0.25 142.21 PWUELL 2.19 1.40 318.39 MXED 55.51 CIB 55.51 CIB 55.52 CIB 55.52 CIB 55.52 CIB 55.53 CIB 55.53 CIB 55.53 CIB 55.54 CIB 55.55											BULCIB	-0.21	0.35
48.06 GLOBOCAS 3.18 0.28 142.41 PWUELL 2.19 1.46 358.39 MIXED 1.45 1.	42.26		2.28	0.45	141.71	CIB	2.30	1.57		358.29	CIB	-0.42	0.69
54.08 GLOBOCAS 3.14 0.72 142.41 SBULL 2.96 0.93 338.49 MIXED	44.88	GLOBOCAS			142.21	PWUELL	2.24			358.29	GAVELIN	-0.31 -0.59	0.82
55.58 GLOBOCAS 3.14 0.96 142.61 PWUELL 2.19 1.40 338.59 CIB												-0.39	0.45
58.81 GLOBOCAS 3.09 0.65 142.61 STABYSS 2.68 0.80 338.59 ORID	55.58	GLOBOCAS	3.14	0.96	142.61	PWUELL	2.19	1.40		358.59	CIB	-0.38	0.66
66.71 CLOBOCAS 3.37 0.38 143.01 PWUELL 2.34 1.43 318.99 NUTT 61.71 GLOBOCAS 3.32 0.07 1.44 143.07 PWUELL 2.59 1.32 359.09 BULLMINA 61.71 GLOBOCAS 3.32 0.07 1.55.65 PWUELL 2.59 1.72 359.09 NUTT 62.91 GLOBOCAS 3.17 0.26 155.65 PWUELL 2.18 1.30 359.29 NUTT 62.91 UVIG 3.99 0.41 155.65 PWUELL 2.18 1.30 359.29 NUTT 63.21 GLOBOCAS 3.23 0.01 1.55.65 PWUELL 2.18 1.30 359.29 NUTT 63.21 GLOBOCAS 3.23 0.01 1.55.65 PWUELL 2.18 1.30 359.29 NUTT 63.21 GLOBOCAS 3.23 0.01 1.55.65 PWUELL 2.18 1.30 359.29 NUTT 63.21 GLOBOCAS 3.23 0.01 1.55.65 PWUELL 2.26 1.47 359.49 NUTT 64.21 GLOBOCAS 3.23 0.04 0.42 1618.18 GLOBOCAS 2.07 1.40 359.29 NUTT 66.21 GLOBOCAS 3.24 0.62 1618.25 GLOBOCAS 2.07 1.40 359.29 NUTT 66.21 GLOBOCAS 3.24 0.62 1618.25 GLOBOCAS 2.07 1.40 359.29 NUTT 66.21 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.07 1.40 359.29 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.07 1.40 359.29 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.29 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.04 0.50 165.00 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.04 0.56 165.00 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 166.61 GLOBOCAS 2.00 0.56 322.1 NUTT 67.91 GLOBOCAS 3.00 0.66 175.51 GLOBOCAS 2.00 0.56 10.00 0.00 0.00 0.00 0.00 0.00 0.00 0.	58.81	GLOBOCAS	3.09	0.63	142.61	STABYSS	2.68			358.59	ORID	-0.49	-0.14
61.71 GLOBOCAS 3.32 0.81 149.57 PWUELL 2.28 1.75 359.09 NUTT 62.01 GLOBOCAS 3.34 0.79 153.47 PWUELL 2.28 1.75 359.09 NUTT 62.01 GLOBOCAS 3.34 0.79 153.47 PWUELL 2.28 1.75 359.09 NUTT 62.01 GLOBOCAS 3.34 0.70 0.79 153.47 PWUELL 2.28 1.75 359.09 NUTT 63.91 UVIG 3.79 0.41 155.65 PWUELL 2.28 1.40 359.39 NUTT 65.91 GLOBOCAS 3.35 0.81 159.41 PWUELL 2.40 1.40 359.39 NUTT 66.81 GLOBOCAS 3.35 0.81 159.41 PWUELL 2.40 1.40 359.39 NUTT 66.81 GLOBOCAS 3.75 0.80 159.41 PWUELL 2.60 1.40 359.39 NUTT 66.81 OWID 3.77 -0.30 162.31 GLOBOCAS 2.47 1.40 359.39 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 66.81 OWID 3.32 0.62 163.31 GLOBOCAS 2.47 1.45 375.7 NUTT 67.91 GLOBOCAS 3.38 0.70 174.61 GLOBOCAS 2.40 1.50 387.31 NUTT 67.91 GLOBOCAS 3.39 0.66 166.61 PRENZI 2.20 1.50 387.31 NUTT 70.61 GLOBOCAS 3.30 0.70 174.61 GLOBOCAS 2.44 2.01 393.36 NUTT 70.61 GLOBOCAS 3.80 0.70 174.61 GLOBOCAS 2.47 1.11 380.09 NUTT 70.61 GLOBOCAS 3.40 0.56 175.02 GLOBOCAS 2.47 1.11 380.09 NUTT 70.61 GLOBOCAS 3.40 0.56 175.02 GLOBOCAS 2.47 1.11 380.09 NUTT 70.61 PWUELL 2.70 0.83 174.91 PWUELL 2.06 1.20 404.99 CIB 71.11 PRENZI 2.67 0.85 175.31 GLOBOCAS 2.47 2.11 1.80 404.99 CIB 71.12 PRENZI 2.60 0.05 0.85 175.31 GLOBOCAS 2.47 2.11 1.80 404.99 CIB 71.13 PRENZI 2.60 0.05 0.85 175.31 GLOBOCAS 2.47 2.11 1.80 404.99 CIB 71.14 PWUELL 2.10 0.95 175.31 GLOBOCAS 2.47 2.11 1.80 404.99 CIB 71.15 PRENZI 2.20 0.85 175.31 GLOBOCAS 2.47 1.18 0.40 4.40 4.99 CIB 71.16 PWUELL 2.10 0.95 175.31 GLOBOCAS 2.47 1.18 0.40 4.40 4.99 CIB 71.17 PRENZI 2.20 0.85 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.9		GLOBOCAS										-0.80 -0.10	0.06
66.71 GLOBOCAS 3.32 0.81 149.57 PWUELL 2.28 1.75 39.09 NUTT 62.91 GLOBOCAS 3.17 0.26 155.65 GLOBOCAS 3.01 1.21 38 39.19 NUTT 62.91 GLOBOCAS 3.17 0.26 155.65 GLOBOCAS 3.01 1.21 38 39.19 NUTT 62.91 GLOBOCAS 3.17 0.26 155.65 GLOBOCAS 3.01 1.21 38 39.19 NUTT 62.91 GLOBOCAS 3.22 0.031 155.65 FWUELL 2.18 1.00 39.29 NUTT 63.21 GLOBOCAS 3.23 0.031 155.65 FWUELL 2.18 1.00 39.29 NUTT 64.21 GLOBOCAS 3.23 0.031 157.91 FWUELL 2.26 1.47 359.49 NUTT 65.81 OVID 3.07 -0.30* 162.31 GLOBOCAS 2.47 1.40 359.49 NUTT 66.81 GLOBOCAS 3.32 0.04 166.61 GLOBOCAS 2.47 1.45 371.57 NUTT 66.91 GLOBOCAS 3.24 0.62 166.45 GLOBOCAS 2.45 1.40 371.57 NUTT 66.91 GLOBOCAS 3.24 0.62 166.45 GLOBOCAS 2.45 1.20 379.21 NUTT 66.91 GLOBOCAS 3.34 0.43 169.90 GLOBOCAS 2.45 1.40 371.57 NUTT 66.91 GLOBOCAS 3.45 0.43 169.90 GLOBOCAS 2.47 1.10 39.91 NUTT 70.61 GLOBOCAS 3.34 0.43 169.90 GLOBOCAS 2.47 1.11 390.90 NUTT 70.61 GLOBOCAS 3.34 0.43 169.90 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.34 0.43 174.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.34 0.53 174.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.34 0.50 175.02 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.34 0.53 174.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.53 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.47 2.18 403.35 CIB 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.40 1.45 412.81 NUTT 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.40 1.45 412.81 NUTT 70.61 GLOBOCAS 3.40 0.55 175.91 GLOBOCAS 2.40 1.45	61.71					CIB				359.09		0.07	0.32
62.91 STABYSS 3.17 0.08 155.65 PWUELL 2.18 1.30 399.19 NUTT 62.91 UVIG 3.09 0.41 155.65 PWUELL 2.18 1.30 399.29 NUTT 62.91 UVIG 3.09 0.41 155.65 PWUELL 2.18 1.30 399.29 NUTT 62.91 UVIG 3.09 0.41 155.65 PWUELL 2.18 1.30 399.39 NUTT 66.81 ULOGOCAS 3.28 0.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.81 UVIG 3.31 -0.02 163.31 157.91 PWUELL 2.26 1.47 399.49 NUTT 66.91 GLOBOCAS 3.24 0.62 166.45 GLOBOCAS 2.59 1.40 399.45 NUTT 67.91 CLOBOCAS 3.34 0.62 166.45 GLOBOCAS 2.50 0.56 399.21 NUTT 67.91 CLOBOCAS 3.34 0.43 169.90 GLOBOCAS 2.40 1.11 385.81 NUTT 70.61 CLOBOCAS 3.34 0.43 169.90 GLOBOCAS 2.40 1.10 393.36 NUTT 70.61 GLOBOCAS 3.04 0.45 174.91 GLOBOCAS 2.40 1.10 393.36 NUTT 70.61 GLOBOCAS 3.04 0.58 174.91 GLOBOCAS 2.47 2.18 403.39 NUTT 70.61 GLOBOCAS 3.04 0.58 174.91 GLOBOCAS 2.47 2.18 403.49 NUTT 72.11 PRENZI 2.67 0.85 175.31 GLOBOCAS 2.47 2.18 404.69 NUTT 72.11 PRENZI 2.67 0.85 175.31 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.85 175.31 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.85 175.31 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.85 175.31 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.88 191.91 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.67 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.60 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.60 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.60 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.60 0.79 191.92 GLOBOCAS 2.40 1.49 NUTT 73.61 PWUELL 2.60 0.79 191.92 GLOBOCAS 2.20 1.49 NUTT 74.11 GLOBOCAS 3.41 0.40 NUTT 75.81 GLOBOCAS 3.41 0.	61.71	GLOBOCAS	3.32	0.81	149.57	PWUELL	2.28	1.75		359.09	NUTT	-0.34	0.37
62.91 UVIG 62.91 UVIG 63.21 GLOBOCAS 3.22 0.03 0.41 155.65 PWUELL 2.48 1.40 39.29 NUTT 65.21 GLOBOCAS 3.22 0.05 0.41 155.65 PWUELL 2.43 1.40 39.29 NUTT 65.21 GLOBOCAS 3.22 0.05 0.41 155.65 PWUELL 2.46 1.40 39.49 NUTT 66.81 GLOBOCAS 3.22 0.05 0.41 155.65 PWUELL 2.46 1.40 39.49 NUTT 66.81 UVIG 3.31 0.42 165.65 0.05 0.05 39.21 NUTT 66.81 UVIG 3.31 0.42 165.65 0.05 0.05 0.05 39.21 NUTT 66.91 GLOBOCAS 3.24 0.62 166.65 0.05 0.05 0.05 39.21 NUTT 67.91 GLOBOCAS 3.24 0.62 166.65 0.05 0.05 0.05 39.21 NUTT 67.91 GLOBOCAS 3.45 0.43 169.90 0.05 0.05 0.05 0.05 0.05 0.05 0.05	62.01	GLOBOCAS	3.44		153.47		2.05					0.19	0.31
62.91 UVIG 3.09 0.41 155.65 PWUELL 2.43 1.40 359.39 NUTT 66.81 GLOBOCAS 3.23 0.31 157.91 PWUELL 2.26 1.47 359.49 NUTT 66.81 GLOBOCAS 3.75 0.81 159.41 PWUELL 2.20 1.40 359.59 NUTT 66.81 UVIG CAS 3.30 0.42 163.81 159.41 PWUELL 2.20 1.40 359.59 NUTT 66.81 UVIG CAS 3.31 0.42 163.81 159.41 PWUELL 2.20 1.40 359.59 NUTT 66.81 UVIG CAS 3.31 0.42 163.81 159.41 PWUELL 2.20 1.50 1.50 371.57 NUTT 66.81 UVIG CAS 3.31 0.42 163.81 163.81 CLOBOCAS 2.87 1.45 371.57 NUTT 66.81 UVIG CAS 2.70 0.86 166.61 GLOBOCAS 2.97 1.55 1.55 1.51 1.51 1.51 1.51 1.51 1.5	62.91	STARVSS	3.17		155.65	DWIJEI I				359.19	NUTT	-0.10 -0.36	0.53
66.81 GLOBOCAS 3.23 0.31 157.91 PWUELL 2.06 1.40 359.99 NUTT 66.81 ORID 3.07 -0.30° 162.31 GLOBOCAS 2.87 1.45 371.57 NUTT 66.81 ORID 3.07 -0.30° 162.31 GLOBOCAS 2.87 1.45 371.57 NUTT 66.91 GLOBOCAS 3.24 0.62 166.41 GLOBOCAS 2.95 1.45 371.57 NUTT 66.91 GLOBOCAS 3.24 0.62 166.41 GLOBOCAS 2.95 1.20 0.38 1.20 NUTT 66.91 GLOBOCAS 3.24 0.62 166.41 GLOBOCAS 2.95 1.20 0.38 1.20 NUTT 66.91 GLOBOCAS 3.24 0.62 166.61 GLOBOCAS 2.95 1.20 0.38 1.20 NUTT 67.91 GLOBOCAS 3.45 0.43 169.90 GLOBOCAS 2.94 0.1.10 387.31 NUTT 70.61 GLOBOCAS 3.45 0.45 169.90 GLOBOCAS 2.97 1.11 380.09 NUTT 70.61 GLOBOCAS 3.38 0.76 174.71 GLOBOCAS 2.67 2.18 403.55 CIB 70.68 PWUELL 2.70 0.83 174.91 PWUELL 2.06 2.20 404.99 NUTT 72.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 403.40 NUTT 72.11 FRENZI 2.67 0.82 174.91 GLOBOCAS 2.64 2.00 404.99 CIB 72.11 PRENZI 2.67 0.88 175.31 GLOBOCAS 2.67 2.00 404.99 CIB 72.11 PRENZI 2.67 0.88 175.31 GLOBOCAS 2.67 2.00 404.99 CIB 72.11 PRENZI 2.66 0.85 175.31 GLOBOCAS 2.77 1.10 404.99 NUTT 72.13 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.00 404.99 NUTT 72.14 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.00 404.99 NUTT 72.15 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 75.81 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.09 412.81 CIB 75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39° 1.25° 433.72 NUTT 79.07 PRENZI 2.60 1.00 1.00 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.77 GLOBOCAS 3.24 0.05 190.31 RORDOCAS 2.45 1.44 1.40 NUTT 79.77 GLOBOCAS 3.24 0.05 190.31 RORDOCAS 2.45 1.45 1.45 1.42 NUTT 79.77 GLOBOCAS 3.24 0.05 190.31 RORDOCAS 2.45 1.45 1.45 1.42 NUTT 79.77 GLOBOCAS 3.24 0.05 190.31 RORDOCAS 2.45 1.45 1.45 1.44 1.40 NUTT 79.77 GLOBOCAS 3.70 RORDOCAS 2.40 1.14 1.44 1.40 NUTT 79.77 GLOBOCAS 3.70 RORDOCAS 2.45 1.41 1.77 HOWELL 79.77 GLOBOCAS 3.70 RORDOCAS 2.45 1.41 1.77 HOWELL 79.79 GLOBOCAS 3.70 RORDOCAS 2.45 1.41 1.77 HOWELL 79.79 GLOBOCAS 3.70 RORDOCAS 2.45 1.41 1.77 HOWELL 79.79 GLOBOCAS 3.70 RORDOCAS 2.45 1.44 1.77 HOWELL 79.79 GLOBOCAS 3.70 RORDOCAS 2.45 1.44 1.77		UVIG					2.43	1.40				-0.20	0.44
66.8.1 ORID 3.07 -0.30* 162.31 GLOBOCAS 2.87 1.45 371.57 NUTT 66.9.1 GLOBOCAS 3.31 0.42 163.61 GLOBOCAS 2.90 0.56 382.21 NUTT 66.9.1 GLOBOCAS 3.20 0.46 166.61 GLOBOCAS 2.90 0.56 382.21 NUTT 67.9.1 CLOBOCAS 3.20 0.46 166.61 GLOBOCAS 2.90 1.11 383.81 NUTT 67.9.1 CLOBOCAS 2.90 0.46 166.61 GLOBOCAS 2.90 1.11 385.31 NUTT 70.6.1 GLOBOCAS 2.76 0.86 166.61 GLOBOCAS 2.90 1.11 385.31 NUTT 70.6.1 GLOBOCAS 3.38 0.76 174.61 GLOBOCAS 2.90 1.11 385.31 NUTT 70.6.1 GLOBOCAS 3.38 0.76 174.61 GLOBOCAS 2.67 2.18 403.35 CLOBOCAS 2.67 2.18 403.45 NUTT 2.11 GLOBOCAS 2.67 2.00 404.59 NUTT 2.11 FINAL 2.10 CLOBOCAS 2.47 2.10 CLOBOCAS	63.21	GLOBOCAS			157.91		2.26			359.49	NUTT	-0.21	0.37
66,91 UVIG 3.31 0.42 163.81 GLOBOCAS 2.95 1.20 379,21 NUTT 66,91 GLOBOCAS 3.24 0.62 166.45 GLOBOCAS 2.94 1.11 385.81 NUTT 67,91 CLOBOCAS 3.29 0.46 166.61 GLOBOCAS 2.94 1.11 385.81 NUTT 67,91 GLOBOCAS 3.45 0.43 169,90 GLOBOCAS 2.94 1.11 385.81 NUTT 67,91 GLOBOCAS 3.45 0.43 169,90 GLOBOCAS 2.97 1.11 380,90 NUTT 70,61 CLOBULL 2.88 0.70 174.61 GLOBOCAS 2.66 2.01 399,36 NUTT 70,61 CLOBOCAS 3.48 0.70 174.61 GLOBOCAS 2.67 2.11 399,36 NUTT 70,61 CLOBOCAS 3.48 0.70 174.61 GLOBOCAS 2.67 2.11 399,36 NUTT 70,61 CLOBOCAS 3.49 0.56 175.02 GLOBOCAS 2.67 2.00 404.59 NUTT 70,61 CLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.00 404.59 NUTT 72,11 PRENZI 2.67 0.85 175.31 CLOBOCAS 2.67 2.00 404.59 NUTT 72,11 PRENZI 2.51 0.95 175.31 GLOBOCAS 2.68 2.03 408.91 NUTT 73,61 PWUELL 2.51 0.95 175.31 GLOBOCAS 2.67 2.00 404.59 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.190 412.81 CLB 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.190 412.81 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.190 412.81 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.90 412.81 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.90 412.81 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.79 412.81 NUTT 75,81 GLOBOCAS 3.04 0.78 176.01 GLOBOCAS 2.72 1.79 412.81 NUTT 75,81 GLOBOCAS 2.70 0.76 188.11 GLOBOCAS 2.70 0.79 412.81 NUTT 75,81 GLOBOCAS 2.70 0.70 176.41 CLBHAV 1.84 1.69 415.35 NUTT 75,81 GLOBOCAS 2.70 0.70 176.41 CLBHAV 1.84 1.69 415.35 NUTT 75,81 GLOBOCAS 2.71 1.89 175.11 GLOBOCAS 2.71 1.89 175.11 NUTT 75,81 GLOBOCAS 2.71 1.89 175.11 GLOBOCAS 2.71 1.89 175.11 NUTT 75,81 GLOBOCAS 2.71 1.70 175.11 NUTT 75,81 GLOBOCAS 2.71 1.70 175.11 NUTT 75,81 GLOBOCAS 2.71 NUTT 7	66.81				159.41			1.40				-0.26 -0.48	0.29
66.91 GLOBOCAS 3.29 0.62 166.45 GLOBOCAS 2.90 0.56 382.21 NUTT 67.91 CIB 2.70 0.86 166.61 GLOBOCAS 2.94 1.11 67.91 CIB 2.70 0.86 166.61 GLOBOCAS 2.94 1.11 67.91 CIB 2.70 0.86 166.61 GLOBOCAS 2.94 1.11 70.61 GLOBOCAS 3.45 0.43 169.90 GLOBOCAS 2.71 1.11 70.61 GLOBOCAS 3.45 0.43 169.90 GLOBOCAS 2.61 1.00 387.31 NUTT 70.61 GLOBOCAS 3.88 0.76 174.11 GLOBOCAS 2.67 2.18 403.35 CIB 70.61 FRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.35 CIB 70.61 FRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.35 CIB 70.61 FRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.35 CIB 70.61 FRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.35 CIB 70.61 FRENZI 2.67 0.85 175.31 GLOBOCAS 2.68 1.86 403.35 CIB 70.61 FRENZI 2.67 0.85 175.31 GLOBOCAS 2.68 1.86 404.95 NUTT 72.18 PWUELL 2.67 1.23 175.31 GLOBOCAS 2.68 1.80 404.95 NUTT 73.61 PWUELL 2.67 1.23 175.31 GLOBOCAS 2.68 1.80 404.95 NUTT 73.61 FRENZI 2.60 1.02 176.41 GLOBOCAS 2.71 1.89 411.91 NUTT 73.61 FRENZI 2.60 1.02 176.41 GLOBOCAS 2.71 1.89 411.91 NUTT 75.81 FRENZI 2.60 1.02 176.41 GLOBOCAS 2.71 1.89 411.91 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULLIMINA 1.99 1.25* NUTT 79.77 CLOBOCAS 3.24 0.56 193.31 GLOBOCAS 2.45 1.45 422.01 NUTT 79.77 FRENZI 2.49 0.56 193.31 GLOBOCAS 2.40 1.45 412.81 NUTT 79.78 FRENZI 2.49 0.56 193.31 GLOBOCAS 2.40 1.45 412.81 NUTT 79.79 FRENZI 2.49 0.56 193.31 GLOBOCAS 2.40 1.45 422.01 NUTT 79.71 GLOBOCAS 3.24 0.56 193.31 GLOBOCAS 2.40 1.45 422.01 NUTT 79.71 FRENZI 2.49 0.95 190.61 GLOBOCAS 2.40 1.45 422.01 NUTT 79.71 FRENZI 2.49 0.95 190.61 GLOBOCAS 2.40 1.45 422.01 NUTT 79.71 FRENZI 2.49 0.95 190.61 GLOBOCAS 2.40 1.45 422.01 NUTT 79.71 GLOBOCAS 3.24 0.56 193.31 GRIDGYR 1.94 1.81 422.90 NUTT 79.71 GLOBOCAS 3.24 0.56 193.31 GRIDGYR 1.94 1.81 422.90 NUTT 79.71 GLOBOCAS 2.28 0.30 191.21 GRIDGYR 1.94 1.81 1.98 422.90 NUTT 79.71 GLOBOCAS 2.28 0.30 191.21 GRIDGYR 1.94 1.81 1.98 422.90 NUTT 79.71 FRENZI 2.49 0.95 190.61 GLOBOCAS 2.45 1.45 422.01 NUTT 79.71 FRENZI 2.49 0.95 190.61 GLOBOCAS 2.45 1.45 422.01 NUTT 79.71 GLOBOCAS 2.25 0.92 190.00 2.91 1.91 1.99 1.11 1.99 1.11 1.99 1.11 1.9							2.95					0.01	1.63
67.91 CIB 2.70 0.86 166.61 PRENZI 2.20 1.50 387.31 NUTT 70.61 CIDBOCAS 3.45 0.43 169.90 GLOBOCAS 2.64 2.01 390.36 NUTT 70.61 CIDBOCAS 3.34 0.43 169.90 GLOBOCAS 2.64 2.01 390.36 NUTT 70.61 GLOBOCAS 3.38 0.76 174.71 GLOBOCAS 2.64 2.01 390.36 NUTT 70.61 PRENZI 2.67 0.82 174.91 GLOBOCAS 2.66 2.18 403.35 CIB 70.61 PRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.40 NUTT 70.68 PWUELL 2.07 0.83 174.91 PWUELL 2.00 6.20 404.59 CIB 71.11 GLOBOCAS 3.64 0.056 175.02 GLOBOCAS 2.68 1.86 403.40 NUTT 71.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.68 1.86 403.40 NUTT 71.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 404.69 NUTT 71.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 404.69 NUTT 71.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 404.69 NUTT 71.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 404.69 NUTT 71.11 GLOBOCAS 3.04 0.56 175.51 GLOBOCAS 2.67 2.18 404.69 NUTT 71.11 GLOBOCAS 3.00 0.56 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.00 0.56 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 41.19 NUTT 71.11 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.70 1.79 415.51 NUTT 71.11 GLOBOCAS 3.05 0.04 175.11 GLOBOCAS 2.70 1.79 415.51 NUTT 71.11 GLOBOCAS 3.24 0.05 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 71.11 GLOBOCAS 3.24 0.05 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 71.11 GLOBOCAS 3.24 0.05 1.03 11.11 GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.20 1.79 436.05 NUTT 71.11 FRENZI 2.49 0.95 130.61 CIB GLOBOCAS 2.40 1.11 1.11 1.11 1.11 1.11 1.11 1.11 1	66.91	GLOBOCAS	3.24	0.62	166.45	GLOBOCAS	2.90	0.56		382.21	NUTT	-0.04	1.11
67.91 GLOBOCAS 3.45 0.43 169.90 GLOBOCAS 2.37 1.11 390.09 NUTT 70.61 CIBKULL 2.88 0.70 174.61 GLOBOCAS 2.64 2.01 393.36 NUTT 70.61 GLOBOCAS 3.38 0.76 174.71 GLOBOCAS 2.64 2.01 393.36 NUTT 70.61 PRENZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.40 NUTT 70.68 PWUELL 2.70 0.83 174.91 PWUELL 2.06 2.20 404.59 CLB 70.61 PRENZI 2.67 0.85 175.02 GLOBOCAS 2.67 2.00 404.59 CLB 72.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.00 404.59 CLB 72.11 PRENZI 2.67 0.85 175.03 CLBOBOCAS 2.67 2.00 404.59 CLB 72.18 PWUELL 2.67 0.85 175.03 CLBOBOCAS 2.85 2.03 408.91 NUTT 72.18 PWUELL 2.67 0.85 175.31 GLOBOCAS 2.85 2.03 408.91 NUTT 73.51 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 PWUELL 2.51 0.73 18.71 GLOBOCAS 2.71 1.80 411.91 NUTT 73.51 GLOBOCAS 2.70 1.75 1.75 PWUELL 2.51 0.73 18.81 18.11 PWUELL 2.51 0.73 18.81 18.81 1.80 PWUELL 2.51 0.73 18.81										385.81	NUTT	-0.07	0.86
70.61 CIBKULL 2.88 0.76 174.61 GLOBOCAS 2.67 2.18 403.35 CIB 70.61 PRENZI 2.67 0.82 174.91 GLOBOCAS 2.67 2.18 403.35 CIB 70.68 PWUELL 2.70 0.83 174.91 PWUELL 2.06 2.20 404.59 CIB 72.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.18 404.55 CIB 72.11 PRENZI 2.67 0.85 175.31 CIBKULL 2.12 1.83 404.65 NUTTCIB 72.11 PRENZI 2.67 1.23 175.31 GLOBOCAS 2.85 2.03 408.91 NUTT 73.14 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 411.91 NUTT 73.14 GLOBOCAS 3.04 0.78 175.51 GLOBOCAS 2.71 1.89 411.91 NUTT 73.81 GLOBOCAS 3.04 0.78 175.01 GLOBOCAS 2.40 1.45 412.81 NUTT 73.81 GLOBOCAS 3.29 0.64 176.41 CIBHAV 1.84 1.69 415.35 NUTT 73.80 GLOBOCAS 3.29 0.64 176.44 GLOBOCAS 2.45 1.45 422.01 NUTT 73.90 PWUELL 2.51 0.73 188.71 BULIMINA 1.39 1.29 436.05 NUTT 73.71 FRENZI 2.49 0.76 99.01 GLOBOCAS 2.45 1.45 422.01 NUTT 73.71 FRENZI 2.49 0.76 99.01 GLOBOCAS 2.45 1.45 422.01 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 STILLARV 1.84 4.22 4.25 ORID 82.31 GLOBOCAS 3.08 0.40 191.01 STILLARV 1.84 4.22 4.25 ORID 82.31 GLOBOCAS 3.08 0.40 191.01 STILLARV 1.84 4.22 4.25 ORID 82.31 GLOBOCAS 3.08 0.40 191.01 STILLARV 1.44 1.88 4.42 4.20 ORID 82.31 GLOBOCAS 2.84 0.00 191.01 STILLARV 1.44 1.88 4.42 4.20 ORID 82.31 GLOBOCAS 2.84 0.00 191.01 STILLARV 1.44 1.88 4.42 4.20 ORID 82.31 GLOBOCAS 2.81 0.00 0.90 4.42 0.90 0.90 94.31 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 4.40 ORID 95.04 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 4.40 ORID 95.04 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 4.40 ORID 95.04 FRENZI 2.35 0.90 2.00 5 GLOBOCAS											NUTT	-0.32 -0.26	0.96 1.06
70.61 GLOBOCAS 3.38 0.76 174.71 GLOBOCAS 2.67 2.18 403.35 CIB 70.68 PRINZI 2.67 0.82 174.91 GLOBOCAS 2.68 1.86 403.40 NUTT 70.68 PWUELL 2.70 0.83 174.91 PWUELL 2.06 2.20 404.59 CIB 72.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.00 404.59 NUTT 72.11 PRENZI 2.67 0.85 175.31 CIBKULL 2.12 1.83 404.65 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.85 2.03 408.91 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.57 2.09 412.81 CIB 75.81 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.72 1.90 412.81 CIB 75.81 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.70 1.45 412.81 NUTT 75.81 PRENZI 2.60 1.02 176.41 GLOBOCAS 2.45 1.45 412.81 NUTT 75.81 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.45 1.45 412.81 NUTT 75.90 PWUELL 2.79 0.76 189.51 GLOBOCAS 2.45 1.45 422.01 NUTT 75.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 75.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 75.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 75.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 75.72 PRENZI 2.05 0.68 191.01 GLOBOCAS 2.1 1.74 444.00 NUTT 82.06 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 1.3 1.98 442.50 NUTT 82.31 GLOBOCAS 2.84 0.00 191.61 GIBKULL 1.32 1.75 440.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 2.45 1.41 6.71 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 2.45 1.41 1.73 1.70 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 2.45 1.41 1.71 1.71 PWUELL 82.93 GLOBOCAS 2.77 1.48 1.74 1.75		CIBKULL					2.64	2.01				0.07	1.55
70,68 PWUELL 2.70 0.83 174,91 PWUELL 2.06 2.20 404,59 CIB 72.11 PRENZI 2.67 0.85 175.03 CIBKULL 2.12 1.83 404.65 NUTT 72.11 PRENZI 2.67 0.85 175.03 CIBKULL 2.12 1.83 404.65 NUTTCIB 72.18 PWUELL 2.51 0.95 175.31 CIBKULL 2.12 1.83 404.65 NUTTCIB 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.77 1.89 411.91 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.77 1.89 412.81 CIB 75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.89 1.25* 432.72 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 ORID 81.01 PRENZI 2.05 0.80 191.41 ORID 2.02 1.74 444.00 NUTT 82.06 GLOBOCAS 3.88 0.40 191.01 STILJARV 1.94 1.88 442.90 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 NUTT 82.33 GLOBOCAS 2.84 0.00 191.61 CIBKULL 1.32 1.35 440.0 NUTT 82.49 PWUELL 2.50 0.79 192.20 GLOBOCAS 1.92 1.15 444.00 NUTT 82.49 PWUELL 2.50 0.79 192.20 GLOBOCAS 1.93 1.15 444.00 NUTT 82.49 PWUELL 2.50 0.98 191.41 ORID 2.02 1.74 444.00 NUTT 82.49 PWUELL 2.50 0.98 191.21 ORIDOYR 2.13 1.98 442.90 NUTT 82.49 PWUELL 2.50 0.98 191.22 ORIDOYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.55 0.80 191.41 ORID 2.02 1.74 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.15 MUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 2.41 1.41 6.71 82.99 PWUELL 2.50 0.88 191.41 ORID 2.02 1.74 444.00 NUTT 82.49 PWUELL 2.50 0.88 191.40 ORID 2.00 1.74 1.74 1.75 4.70 1.75 1.75 1.75 1.75 1.75 1.75 1.75 1.75		GLOBOCAS								403.35		-0.03	2.43
72.11 GLOBOCAS 3.04 0.56 175.02 GLOBOCAS 2.67 2.00 404.59 NUTT CIB 72.18 PWIELL 2.51 0.95 175.31 GLOBOCAS 2.85 2.03 408.91 NUTT CIB 72.18 PWIELL 2.51 0.95 175.31 GLOBOCAS 2.85 2.03 408.91 NUTT 75.14 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.89 411.91 NUTT 75.14 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.89 411.91 NUTT 75.18 GLOBOCAS 3.30 0.56 175.51 GLOBOCAS 2.77 1.89 411.91 NUTT 75.81 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.70 1.45 412.81 NUTT 75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.06 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.45 1.45 422.01 NUTT 79.06 PWIELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.25 1.45 422.01 NUTT 79.71 GLOBOCAS 3.24 0.56 190.31 ORIDGYR 1.94 1.81 442.50 NUTT 79.71 PRENZI 2.77 0.88 191.01 GLOBOCAS 2.23 1.42 42.50 ORID 81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.50 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 1.94 1.88 442.50 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 1.94 1.88 442.50 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 2.13 1.98 442.50 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 ORIDGYR 2.93 PWIELL 2.90 0.99 195.01 CIBKULL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.31 0.47 194.21 CIBKULL 1.32 1.95 444.00 NUTT 82.93 PWIELL 2.90 0.99 195.91 GLOBOCAS 1.93 1.76 470.91 NUTT 82.93 PWIELL 2.90 0.89 195.91 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 94.31 GLOBOCAS 3.31 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWIELL 2.90 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 ORIDGYR 2.31 1.96 A44.20 NUTT 82.93 PWIELL 2.94 0.98 195.91 GLOBOCAS 2.44 1.81 15.51 PWIELL 99.37 GLOBOCAS 3.31 1.10 222.10 GLOBOCAS 2.44 1.81 15.51 PWIELL 99.37 GLOBOCAS 3.31 1.44 40.0 GLOBOCAS 2.45 1.44 1.51 PWIELL 99.37 GLOBOCAS 3.31 1.40 222.10 CIBKULL 3.31 1.46 1.75 470.91 NUTT 99.37 CIBKULL 2.44 1.40 2.50 S60 GLOBOCAS 2.45 1.41 1.51 PWIELL 99.37 GLOBOCAS 3.31 1.44 2.50 S60 GLOBOCAS 2.45 1.44 1.51 1.75 PWIELL 99.37 GLOBOCAS 3.31 1.44 2.54 1.40 PRENZI 2.31 1.46 2.51 PWIELL 1.34 1.75 1.99 0.8	70.61		2.67		174.91	GLOBOCAS				403.40		-0.18 0.06	2.15
72.11 PRENZI 2.67 0.85 175.31 CIBKULL 2.12 1.83 404.65 NUTTCIB 72.18 PWUELL 2.51 0.95 175.31 CIBKULL 2.12 1.83 404.65 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.89 411.91 NUTT 73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.89 411.91 NUTT 75.14 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.72 1.90 412.81 CIB 75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.06 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.40 1.45 412.81 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 437.2 NUTT 79.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.45 1.45 422.01 NUTT 79.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 82.06 GLOBOCAS 3.88 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.24 CLOBOCAS 2.88 0.30 191.21 ORIDOYR 1.94 1.88 442.90 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 1.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 PWUELL 2.00 0.79 192.20 GLOBOCAS 1.93 1.74 444.00 GAVELIN 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 440.0 NUTT 82.24 UVIG 2.22 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 ORID 82.33 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.75 440.0 NUTT 82.39 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 470.91 ORID 82.39 PWUELL 2.20 0.85 0.88 191.41 ORID 2.02 1.74 444.00 NUTT 82.39 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 470.91 ORID 82.39 PWUELL 2.30 1.27 Hole 525A 94.31 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.39 PWUELL 2.49 0.98 195.91 GLOBOCAS 2.45 1.41 1.51 194.00 ORID 93.37 CIBKULL 2.31 1.46 1.40 222.10 CIBKULL 1.32 1.76 470.91 ORID 93.37 GLOBOCAS 3.30 1.00 212.60 GLOBOCAS 2.45 1.41 1.51 194.11 PWUELL 99.37 CIBKULL 2.34 1.40 222.10 CIB 1.98 1.14 1.75 1.99 1.11 1.99 1.11 1.11 PWUELL 17.71 GLOBOCAS 3.31 1.00 222.10 GLOBOCAS 2.45 1.41 1.51 1.75 1.99 1.11 1.11 PWUELL 17.72 PWUELL 2.34 1.49 2.59 1.50 GLOBOCAS 2.26 0.95 1.77 1.99 1.11 1.11 PWUELL 17.73 GLOBOCAS 3.01 1.09 2.22 1.00 0.00 0.00 0.00 0.00 0.00 0.00												0.13	2.18
73.61 PWUELL 2.67 1.23 175.51 GLOBOCAS 2.71 1.89 411.91 NUTT 75.14 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.40 1.45 412.81 NUTT 75.81 PRENZI 2.60 1.02 176.41 GLOBOCAS 2.40 1.45 412.81 NUTT 79.06 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.45 1.45 42.01 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 42.01 NUTT 79.70 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.71 CIBKULL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.90 ORID 81.01 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.90 ORID 82.01 GLOBOCAS 3.08 0.40 191.01 STILJARV 1.94 1.88 442.90 NUTT 82.06 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 ORID 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 ORID 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 NUTT 82.249 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 NUTT 82.249 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 NUTT 82.249 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.74 444.00 NUTT 82.249 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.75 1.78 470.91 ORID 82.31 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.29 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.79 1.78 470.91 ORID 82.31 GLOBOCAS 3.31 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.39 PRENZI 2.35 1.27 Hole 2.35 1.37 Hole 2.35 1.48 173.60 GLOBOCAS 2.41 1.81 1.51 1.51 1.51 1.51 1.51 1.51 1.5	72.11	PRENZI	2.67	0.85	175.31	CIBKULL	2.12	1.83	-	404.65	NUTTCIB	0.15	2.76
75.14 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.72 1.90 412.81 CIB (75.81 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.40 1.45 412.81 NUTT 79.06 GLOBOCAS 3.64 0.78 176.01 GLOBOCAS 2.40 1.45 412.81 NUTT 79.06 GLOBOCAS 3.29 0.64 176.41 GLBHAV 1.84 1.69 415.35 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.71 GLOBOCAS 3.24 0.56 190.31 ORIDOYR 1.94 1.81 42.00 NUTT 79.71 GLOBOCAS 3.24 0.56 190.31 ORIDOYR 1.94 1.81 42.50 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 GLOBOCAS 1.86 1.94 42.90 NUTT 82.06 GLOBOCAS 2.80 0.30 191.21 ORIDOYR 2.13 1.88 442.90 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.74 444.00 GAYELIN 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 444.00 NUTT 82.99 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 NUTT 82.99 FRENZI 2.35 1.27 Hole 525A 99.41 PRENZI 2.35 1.27 Hole 525A 99.43 GLOBOCAS 3.28 0.85 203.10 GLOBOCAS 2.44 1.81 6.71 GLOBOCAS 3.91 NUTT 99.37 GLOBOCAS 3.21 1.46 174.60 GLOBOCAS 2.97 1.00 99.37 GLOBOCAS 3.21 1.46 174.60 GLOBOCAS 2.97 1.00 99.37 GLOBOCAS 3.31 1.0 4.7 194.21 CIBKULL 1.32 1.76 470.91 NUTT 99.37 GLOBOCAS 3.31 1.0 4.7 194.21 CIBKULL 1.32 1.76 470.91 NUTT 99.37 GLOBOCAS 3.21 1.27 2.31 1.48 174.60 GLOBOCAS 2.45 1.41 6.71 PWUELL 99.37 GLOBOCAS 3.31 1.0 4.0 22.10 CIB 1.98 1.14 1.31 1.31 PWUELL 99.37 GLOBOCAS 3.31 1.0 4.0 22.10 CIB 1.98 1.14 1.31 1.31 PWUELL 99.37 GLOBOCAS 3.31 1.0 40 22.10 CIB 1.98 1.14 1.31 1.31 PWUELL 99.37 GLOBOCAS 3.31 1.0 40 22.10 CIB 1.98 1.14 1.31 1.31 PWUELL 99.37 GLOBOCAS 3.31 1.00 90.90 90.90 1.00 GLOBOCAS 2.45 1.41 1.51 1.31 1.90 90.31 GLOBOCAS 3.31 1.00 90.90 90.90 1.00 GLOBOCAS 2.45 1.41 1.51 1.51 GLOBOCAS 2.55 0.83 193.60 GLOBOCAS 2.45 1.41 1.51 1.51 GLOBOCAS 2.55 0.90 0.90 2.00 0.90 90.90 1.15 1.99 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.15 1.90 1.1											NUTT	0.10	2.35
75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 75.81 PRENZI 2.60 1.02 176.41 CIBHAV 1.84 1.69 415.35 NUTT 79.06 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.45 1.45 422.01 NUTT 79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39 1.25* 433.72 NUTT 79.71 CIBKUIL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 GLOBOCAS 3.24 0.56 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 ORID 81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.50 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 STILIJARV 1.94 1.88 442.90 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 1.94 1.88 442.90 ORID 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 2.13 1.98 442.90 ORID 82.49 PWUELL 2.00 0.79 192.20 GLOBOCAS 1.93 1.74 444.00 GAVELIN 82.49 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.99 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.99 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 470.91 ORID 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.76 470.91 ORID 94.31 PRENZI 2.55 0.90 20.05 GLOBOCAS 2.84 1.44 1.81 1.5.51 GLOBOCAS 94.31 GLOBOCAS 3.01 0.90 94.31 PRENZI 2.55 0.90 20.05 GLOBOCAS 2.44 1.81 1.5.51 GLOBOCAS 95.04 PRENZI 2.35 1.27 95.04 GLOBOCAS 3.07 1.00 1.00 GLOBOCAS 1.93 1.78 470.91 ORID 94.31 GLOBOCAS 3.01 0.90 94.31 PRENZI 2.35 0.90 20.05 GLOBOCAS 2.44 1.81 1.5.51 GLOBOCAS 95.04 PRENZI 2.35 1.27 1.00 SLOBOCAS 3.01 0.90 99.37 GLOBOCAS 3.01 0.90 99.30 GLOBOCAS 2.25 0.85 2.00 0.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90 99.31 99.00 0.90	75.14		3.30		175.51	GLOBOCAS				411.91		0.06	2.68
79.06 GLOBOCAS 3.29 0.64 176.41 GLOBOCAS 2.45 1.45 422.01 NUTT 79.76 PWUELL 2.51 0.73 188.71 BULIMINA 1.39 1.25* 433.72 NUTT 79.71 CIBKUIL 2.51 0.73 188.71 BULIMINA 1.39 1.25* 433.72 NUTT 79.71 GLOBOCAS 3.24 0.56 190.31 ORIDGYR 1.94 1.81 442.50 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 ORID 81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 STILJARV 1.94 1.88 442.50 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 2.13 1.98 442.50 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 GLOBOCAS 2.84 0.00 191.61 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.90 191.61 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 84.31 PRENZI 2.55 0.90 201.05 GLOBOCAS 1.64 1.26 470.91 ORID 94.31 GLOBOCAS 2.87 0.80 195.91 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 94.31 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 95.04 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 95.04 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 CLOBOCAS 3.31 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 CLOBOCAS 3.31 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 CLOBOCAS 3.31 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 CLOBOCAS 3.31 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 1.99 17.11 PWUELL 99.37 GLOBOCAS 3.32 1.32 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.33 1.30 2.21 1.32 2.31 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.34 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.35 1.00 241.40 PRENZI 1.41 1.75 PWUELL 99.37 GLOBOCAS 3.36 1.04 222.10 GLOBOCAS 2.31 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.35 1.04 222.10 GLOBOCAS 2.31 1.34 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.36 1.04 220.86 GLOBOCAS 2.37 1.30 2.30 0.84 1.31 PWUELL 91.32 1.30 241.40 PRENZI 2.33 1.88 26.71 PWUELL 92.34 1.54 2.30 2.30	75.81	GLOBOCAS	3.64		176.01	GLOBOCAS	2.40	1.45		412.81	NUTT	0.09	2.57
79.06 PWUELL 2.51 0.73 188.71 BULIMINA 1.39* 1.25* 433.72 NUTT 79.71 GLOBOCAS 3.24 0.56 189.51 GLOBOCAS 2.0 1.79 436.05 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 NUTT 81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.06 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.20 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 GAVELIN 82.93 GLOBOCAS 3.01 0.90 201.05 GLOBOCAS 2.10 1.45 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 89.431 GLOBOCAS 3.01 0.90 201.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.431 GLOBOCAS 3.31 1.04 2.21 1.95 4.24 1.81 15.51 GLOBOCAS 99.64 GLOBOCAS 3.31 1.04 2.22 1.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.64 GLOBOCAS 3.31 1.00 9.90 201.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.64 GLOBOCAS 3.31 0.90 201.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.64 GLOBOCAS 3.31 0.90 201.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.64 GLOBOCAS 3.22 0.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 GLOBOCAS 3.22 0.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.24 1.11 19 16.31 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.23 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.23 1.64 250.86 GYROID 2.33 1.18 26.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GYROID 2.33 1.18 26.71 PWUELL 117.25 PWUELL 2.23 1.64 250.86 GYROID 2.33 1.18 26.71 PWUELL 117.25 PWUELL 2.24 1.54 250.86 GYROID 2.33 1.18 26.71 PWUELL 124.11 PRENZI 2.44 1.49 263.91 GLOBOCAS 2.77 1.03 29.90 UVIG 126.51 CIB 2.44 1.50 2.38 1.19 281.10 CIB 0.03 11.11	75.81	PRENZI	2.60		176.41					415.35	NUTT	0.07	2.61
79.71 CIBKUIL 2.79 0.76 189.51 GLOBOCAS 2.20 1.79 436.05 NUTT 79.71 GLOBOCAS 3.24 0.56 190.31 ORIDOYR 194 1.81 442.50 NUTT 79.71 PRENZI 2.49 0.95 190.61 CIB 1.48 2.23 442.50 ORID 81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.31 GLOBOCAS 3.08 0.40 191.01 STILJARV 1.94 1.88 442.50 NUTT 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDOYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORIDO 2.02 1.74 444.00 GAVELIN 82.49 GLOBOCAS 2.84 0.00 191.61 CIBKUIL 1.32 1.95 444.00 NUTT 82.49 GLOBOCAS 2.84 0.00 191.61 CIBKUIL 1.32 1.95 444.00 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.95 444.00 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.76 470.91 NUTT 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKUIL 1.32 1.76 470.91 NUTT 82.93 GLOBOCAS 3.01 0.90 94.31 GLOBOCAS 3.01 0.90 94.31 GLOBOCAS 3.01 0.90 94.31 PRENZI 2.35 1.27 Hole 525A 95.69 GLOBOCAS 2.97 1.00 95.69 GLOBOCAS 2.45 1.41 6.71 PWUELL 99.37 CIBKUIL 2.64 1.40 222.10 CIB 1.98 1.14 17.11 PWUELL 99.37 GLOBOCAS 3.32 0.85 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 9.96.21 GLOBOCAS 3.32 0.85 193.60 GLOBOCAS 2.45 1.41 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.82 0.83 193.60 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.24 1.81 15.51 GLOBOCAS 1.13 1.10 222.10 CIB 1.98 1.14 17.51 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.44 1.81 15.51 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.23 1.14 1.75 194.11 17.11 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.23 1.14 1.75 194.11 17.11 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.24 1.81 15.51 PWUELL 99.37 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.24 1.81 1.54 2.50 6.6 GROBOCAS 2.25 1.12 231.91 GLOBOCAS 2.25 1.12 231.91 GLOBOCAS 2.25 1.12 231.91 GLOBOCAS 2.25 1.12 GLOBOCAS 2.25 1.1					176.41					422.01		0.25	1.98
79,71 GLOBOCAS 3,24 0,56 190,31 ORIDGYR 1.94 1.81 442.50 NUTT 79,71 PRENZI 2.49 0,95 190,61 CIB 1.48 2.23 442.50 ORID 81.01 PRENZI 2.77 0.88 191,01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.06 GLOBOCAS 3.08 0.40 191,01 STILJARV 1.94 1.88 442.90 NUTT 82.01 GLOBOCAS 2.88 0.30 191,21 ORIDGYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191,41 ORID 2.02 1.74 444.00 GAVELIN 82.49 PWUELL 2.00 0.79 192,20 GLOBOCAS 1.93 1.51 444.00 NUTT 82.49 PWUELL 2.20 0.79 192,20 GLOBOCAS 1.93 1.78 470,91 GAVELIN 82.93 GLOBOCAS 3.11 0.47 194,21 CIBKULL 1.32 1.95 444.00 NUTT 82.93 PWUELL 2.49 0.98 195,91 GLOBOCAS 1.93 1.78 470,91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 1.04 1.65 470,91 ORID 94.31 GLOBOCAS 3.01 0.90 201.05 GLOBOCAS 2.10 1.45 Hole 526B 94.31 PRENZI 2.35 1.27 Hole 525A 95.04 GLOBOCAS 3.01 1.00 90 201.05 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 95.69 GLOBOCAS 3.02 0.85 0.83 193.60 GLOBOCAS 2.41 1.81 15.51 GLOBOCAS 95.69 GLOBOCAS 3.07 1.00 212,60 GLOBOCAS 2.24 1.81 15.51 PWUELL 99.37 GLOBOCAS 3.03 1.10 0.212,60 GLOBOCAS 2.24 1.34 17.11 PWUELL 99.37 GLOBOCAS 3.03 1.00 2021.05 GLOBOCAS 2.24 1.34 17.11 PWUELL 99.37 GLOBOCAS 3.05 1.00 222.10 GLOBOCAS 2.25 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.05 1.00 222.10 GLOBOCAS 2.25 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.05 1.00 222.10 GLOBOCAS 2.25 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.25 1.85 23.10 GLOBOCAS 2.25 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.25 1.85 23.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.25 1.65 241.40 PRENZI 2.50 0.90 25.51 PWUELL 103.54 GLOBOCAS 3.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 26.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 26.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 26.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 26.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 26.71 PWUELL 2.31 1.49 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 2.31 1.49 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 2.31 1.49 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 2.31 1.49 1.54 250.86 GVROID 2.33 1.18											NUTT	0.03	1.04
81.01 PRENZI 2.77 0.88 191.01 GLOBOCAS 1.86 1.94 442.70 NUTT 82.06 GLOBOCAS 3.08 0.40 191.01 STILJARY 1.94 1.88 442.90 ORID 82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 PRENZI 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.20 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.92 1.51 444.20 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWIELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 1.64 1.26 470.91 ORID 84.31 GLOBOCAS 3.01 0.90 91.45 GLOBOCAS 2.10 1.45 94.31 GLOBOCAS 2.97 1.00 91.45 95.69 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 95.04 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 97.71 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.36 1.04 222.10 CIB 1.98 1.14 17.31 PWUELL 103.54 GLOBOCAS 3.36 1.04 222.10 GLOBOCAS 2.31 1.34 17.31 PWUELL 103.54 GLOBOCAS 3.36 1.04 222.10 GLOBOCAS 2.31 1.34 17.31 PWUELL 103.54 GLOBOCAS 3.36 1.04 220.86 GLOBOCAS 2.31 1.88 26.71 CIB 113.47 PWUELL 2.23 1.65 241.40 FRENZI 1.61 1.75 22.11 GLOBOCAS 1.13 1.70 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.31 1.80 25.51 PWUELL 2.34 1.54 250.86 GROBOCAS 2.31 1.46 25.71 CIB 11.725 PWUELL 2.23 1.64 250.86 GROBOCAS 2.37 0.31 1.82 26.71 CIB 11.725 PWUELL 2.24 1.54 250.86 GROBOCAS 2.37 0.31 1.82 26.71 CIB 11.725 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.37 0.31 1.29 2.90 UVIG 128.51 CIB 2.44 1.49 263.91 GLOBOCAS 2.37 0.31 29.00 UVIG 128.51 CIB 2.47 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 122.71 CIB 12.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 122.71 UVIGSTIL 2.74 0.55*	79.71	GLOBOCAS	3.24	0.56	190.31	ORIDGYR	1.94			442.50	NUTT	-0.01	1.28
82.06 GLOBOCAS 3.08 0.40 191.01 STILJARV 1.94 1.88 442.90 NUTT 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 GLOBOCAS 2.88 0.00 191.61 CIBKULL 1.32 1.95 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.00 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.93 1.78 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 94.31 GLOBOCAS 3.01 0.90 Hole 525A 95.04 GLOBOCAS 3.01 0.90 Hole 525A 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 15.51 GLOBOCAS 3.95.69 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 3.00 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 2.54 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 2.15 1.15 1.15 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.32 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.36 1.04 220.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 103.54 GLOBOCAS 2.84 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 GLOBOCAS 2.84 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 GLOBOCAS 2.84 1.30 240.86 GLOBOCAS 2.31 1.16 25.51 PWUELL 11.32 PWUELL 2.24 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 11.34 11.725 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.16 25.51 PWUELL 2.24 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.37 0.31 1.80 26.71 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.37 0.31 1.80 26.71 PWUELL 2.25 1.66 25.91 GLOBOCAS 2.37 0.31 1.29.00 UVIG 122.51 CIB 2.49 1.52 260.37 GLOBOCAS 2.37 0.31 1.29.00 UVIG 122.51 CIB 2.47 1.48 279.63 NUTTCIB 0					190.61					442.50		0.59	1.01*
82.31 GLOBOCAS 2.88 0.30 191.21 ORIDGYR 2.13 1.98 442.90 ORID 82.31 PRENZI 2.05 0.68 191.41 ORID 2.02 1.74 444.00 GAVELIN 82.49 GLOBOCAS 2.84 0.00 191.61 CIBKULL 1.32 1.95 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.00 NUTT 82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.93 1.78 470.91 ORID 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 Hole 526B 94.31 PRENZI 2.35 1.27 Hole 525A 95.04 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 CIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 CIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 CIB 1.98 1.14 17.31 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.21 1.75 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.31 1.46 2.51 1.771 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.31 1.46 2.51 1.771 PWUELL 103.54 GLOBOCAS 3.36 1.00 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.00 220.86 GROBOCAS 2.31 1.46 26.71 CIB 113.47 PWUELL 2.23 1.90 250.86 GROBOCAS 2.31 1.46 26.71 CIB 113.47 PWUELL 2.23 1.90 250.86 GROBOCAS 2.31 1.46 26.71 CIB 113.47 PWUELL 2.23 1.90 250.86 GROBOCAS 2.31 1.46 26.71 CIB 113.47 PWUELL 2.23 1.60 250.86 STABYSS 2.33 0.80 25.51 PWUELL 11.24 11 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.31 1.46 26.71 CIB 11.75 2.21 GLOBOCAS 2.41 1.90 2.30 1.18 26.71 CIB 11.75 2.30 1.00 2.30 1.18 2.21 UVIG 11.24 1.10 PRENZI 2.44 1.49 263.91 GLOBOCAS 2.37 0.31										442.70		-0.11 0.11	1.34
82.49 GLOBOCAS 2.84 0.00 191.61 CIBKULL 1.32 1.95 444.00 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.92 1.51 444.20 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 Hole 526B 94.31 PRENZI 2.35 1.27 Hole 525A 95.04 GLOBOCAS 2.97 1.00 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 99.37 CIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 GLOBOCAS 3.33 1.10 222.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 2.39 1.65 241.40 PRENZI 2.39 1.65 241.40 PRENZI 2.31 1.65 221.11 GLOBOCAS 3.31 1.10 222.10 GLOBOCAS 2.31 1.34 17.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 1.31 1.77 PWUELL 1.34 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 PWUELL 1.34 1.75 PWUELL 2.25 1.50 241.40 PRENZI 1.93 1.81 PWUELL 2.25 1.50 241.40 PRENZI 1.93 1.81 PWUELL 2.25 1.50 2.41 1.40 PRENZI 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 1.75 2.21 1.61 2.75 2.25 2.25 2.25 2.25 2.25 2.25 2.25	82.31	GLOBOCAS	2.88	0.30	191.21	ORIDGYR	2.13	1.98		442.90	ORID	0.42	1.07*
82.49 PWUELL 2.20 0.79 192.20 GLOBOCAS 1.92 1.51 444.20 NUTT 82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAYELIN 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 2.10 1.45 Hole 526B 94.31 GLOBOCAS 3.01 0.90 90.90 91.05 GLOBOCAS 2.10 1.45 Hole 526B 94.31 PRENZI 2.35 1.27 Hole 525A 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 6.71 PWUELL 95.69 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.41 1.81 15.51 GLOBOCAS 99.37 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.31 PWUELL 97.71 GLOBOCAS 3.33 1.10 222.10 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.32 1.10 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.32 1.10 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 STABYSS 2.13 0.80 22.51 PWUELL 113.47 PWUELL 2.25 1.50 241.40 STABYSS 2.13 0.80 22.51 PWUELL 113.47 PWUELL 2.25 1.50 250.86 GLOBOCAS 2.21 1.99 1.81 117.25 GLOBOCAS 3.01 1.09 260.37 GLOBOCAS 2.41 1.99 1.81 117.25 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.21 1.99 1.81 117.25 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.21 1.99 3.81 117.25 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.21 1.99 3.81 117.25 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.21 1.99 3.81 117.25 PWUELL 2.24 1.49 260.37 GLOBOCAS 2.27 1.09 28.91 PWUELL 117.25 PWUELL 2.24 1.49 260.37 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 PWUELL 2.28 1.14 1.49 260.391 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 PWUELL 2.28 1.14 1.60 2.50 8.6 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 PWUELL 2.28 1.14 1.60 2.08 1.14 260.391 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 PWUELL 2.28 1.14 1.60 2.08 1.14 260.391 GLOBOCAS 2.07 1.03 29.00 UVIG 128.51 PWUELL 2.28 1.14 1.60 2.08 1.14 260.391 GLOBOCAS 2.07 1.03 29.00 UVIG 122.71 CIBKULL 2.38 1.19 281.10 NUTT 0.33 0.73 29.90 UVIG												-0.18	1.20
82.49 UVIG 2.52 0.22 192.20 GLOBOCAS 1.93 1.78 470.91 GAVELIN 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 Hole 526B 95.04 GLOBOCAS 3.01 0.90 Hole 526A 1.27 Hole 525A 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 15.51 GLOBOCAS 95.69 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 99.37 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 171.11 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.25 1.65 241.40 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.25 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.25 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.25 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 GLOBOCAS 3.25 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 1.22 1.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 11.75 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 11.75 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 11.75 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 2.25 1.20 2.31 1.64 250.86 GYROID 2.33 1.18 26.71 PWUELL 11.75 PWUELL 2.26 1.30 2.30 2.30 2.30 2.30 2.30 2.30 2.30 2												0.05	1.41
82.93 GLOBOCAS 3.11 0.47 194.21 CIBKULL 1.32 1.76 470.91 NUTT 82.93 PWUELL 2.49 0.98 195.91 GLOBOCAS 1.64 1.26 470.91 ORID 88.01 PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 94.31 GLOBOCAS 3.01 0.90 94.31 PRENZI 2.35 1.27 Hole 525A 95.04 GLOBOCAS 2.97 1.00 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 6.71 PWUELL 95.69 GLOBOCAS 3.22 0.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.44 1.81 15.51 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 103.54 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.18 26.71 CIB 113.47 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.31 1.18 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.24 1.40 250.81 GLOBOCAS 2.30 0.93 Hole 52.61 PWUELL 113.41 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 126.59 PWUELL 2.23 1.64 250.86 GLOBOCAS 2.07 1.03 22.91 UVIG 126.59 PWUELL 2.28 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.07 1.03 29.90 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 UVIGSTIL	00 40	THITC			100.00	OT OBOGAC				100 01	CARTES IN	-0.06	1.62
Section PRENZI 2.55 0.90 201.05 GLOBOCAS 2.10 1.45 1.45							1.32					0.12	1.69
94.31 GLOBOCAS 3.01 0.90 94.31 PRENZI 2.35 1.27 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 6.71 PWUELL 95.69 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 2.30 0.84 17.71 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 103.54 PRENZI 2.33 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 1.71 PWUELL 113.47 PWUELL 2.25 1.50 260.37 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.34 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 113.47 PWUELL 2.34 1.54 250.86 FRENZI 1.93 1.81 181 117.25 GLOBOCAS 2.44 1.30 250.86 FRENZI 1.93 1.81 181 117.25 GLOBOCAS 2.44 1.40 PRENZI 1.93 1.81 181 117.25 GLOBOCAS 2.44 1.30 250.86 GLOBOCAS 2.31 1.30 26.71 PWUELL 12.25 1.50 1.50 2.50 260.37 CIB 1.16 1.19 26.71 CIB 1.75 22.21 1.70 28.91 PWUELL 12.25 1.70 2.70 2.70 2.70 2.70 2.70 2.70 2.70 2										470.91	ORID	0.34	1.61
94.31 PRENZI 2.35 1.27 95.04 QLOBOCAS 2.97 1.00 95.04 PRENZI 2.37 1.48 174.60 GLOBOCAS 2.45 1.41 6.71 PWUELL 95.05 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.44 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.44 1.81 15.51 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 99.37 GIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.12 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.30 0.84 17.51 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 117.25 GLOBOCAS 2.84 1.30 250.86 GYROID 2.33 1.18 26.71 CIB 117.25 GLOBOCAS 2.84 1.30 250.86 PRENZI 1.93 1.81 26.71 CIB 117.25 GLOBOCAS 3.01 1.09 250.86 STABYSS 2.23 0.93 Hole 526.4 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 PWUELL 124.11 GLOBOCAS 3.01 1.09 260.37 GLOBOCAS 2.27 1.09 28.91 PWUELL 124.11 PRENZI 2.44 1.49 263.91 GLOBOCAS 2.37 0.31 29.90 UVIG 128.51 CIB 2.14 1.66 263.91 GLOBOCAS 2.37 0.31 29.00 UVIG 128.51 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 128.51 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CUBKULL 2.38 1.19 281.10 NUTT 0.33 0.73 29.90 UVIG					201.03	OLOBOCAD	2.10			Hole 526B			
95.04	94.31			1.27	Hole 525A					6.71	GLOBOCAS	3.92	0.42
95.69 GLOBOCAS 2.85 0.83 193.60 GLOBOCAS 2.43 1.81 15.51 GLOBOCAS 96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.47 1.19 16.31 PWUELL 97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.11 PWUELL 99.37 CIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 18.31 PWUELL 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 18.31 PWUELL 113.47 PWUELL 2.25 1.50 241.40 PRENZI 1.61 1.75 18.31 PWUELL 113.47 PWUELL 2.34 1.54 250.86 GLOBOCAS 2.31 1.46 26.71 CIB 113.47 PWUELL 2.34 1.54 250.86 GLOBOCAS 2.31 1.81 26.71 PWUELL 117.25 PWUELL 2.32 1.64 250.86 GYROID 2.33 1.18 26.71 PWUELL 117.25 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 124.11 GLOBOCAS 3.01 1.09 260.37 GLOBOCAS 2.17 1.09 28.91 PWUELL 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 128.51 CIB 2.47 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 128.51 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 UVIGSTIL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.37 0.55 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55 281.10 NUTT 0.33 0.73 29.90 UVIG	95.04				174.60	CI ODOCLE	2.45					3.42	1.19
96.21 GLOBOCAS 3.22 0.85 203.10 GLOBOCAS 2.17 1.19 16.31 PWUELL 99.37 CIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 199.37 GLOBOCAS 3.33 1.10 222.10 GLOBOCAS 2.26 0.95 17.51 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 103.54 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 103.54 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 103.54 PWUELL 2.25 1.30 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 25.51 PWUELL 113.47 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 25.51 PWUELL 113.47 PWUELL 2.34 1.54 250.86 GLOBOCAS 2.31 1.46 25.71 CIB 117.25 GLOBOCAS 2.84 1.30 250.86 GLOBOCAS 2.31 1.81 26.71 CIB 117.25 PWUELL 2.23 1.64 250.86 GYROID 2.33 1.18 26.71 PWUELL 117.25 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526.4 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 124.11 GLOBOCAS 3.01 1.09 260.37 CIB 1.16 1.19 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 PWUELL 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 128.51 CIB 2.14 1.66 263.91 GLOBOCAS 2.37 0.31 29.00 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 UVIGSTIL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG						GLOBOCAS				15.51	GLOBOCAS	3.68	0.57
97.71 GLOBOCAS 3.07 1.00 212.60 GLOBOCAS 2.43 1.34 17.31 PWUELL 99.37 GIBKULL 2.64 1.40 222.10 CIB 1.98 1.14 17.31 PWUELL 103.54 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.30 0.84 18.31 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 113.47 PWUELL 2.34 1.54 250.86 GVROID 2.33 1.18 26.71 CIB 113.47 PWUELL 2.34 1.54 250.86 GVROID 2.33 1.18 26.71 CIB 117.25 GLOBOCAS 2.84 1.30 250.86 PRENZI 1.93 1.81 26.71 CIB 117.25 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 PWUELL 12.34 1.54 250.86 GVROID 2.31 1.14 1.14 1.14 1.15 PWUELL 117.25 GLOBOCAS 3.01 1.09 260.37 GLOBOCAS 2.27 1.09 28.91 PWUELL 12.29 1.24 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 124.11 PRENZI 2.44 1.49 263.91 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 128.51 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG		GLOBOCAS										2.66	0.87
99.37 GLOBOCAS 3.13 1.10 222.10 GLOBOCAS 2.26 0.95 17.71 PWUELL 103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOCAS 2.30 0.84 17.71 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 113.47 PWUELL 2.34 1.54 250.86 GVROID 2.33 1.18 26.71 CIB 113.47 PWUELL 2.34 1.54 250.86 GYROID 2.33 1.18 26.71 CIB 117.25 GLOBOCAS 2.84 1.30 250.86 PRENZI 1.93 1.81 26.71 PWUELL 2.23 1.64 250.86 GTABYSS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 PWUELL 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 128.51 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG					212.60	GLOBOCAS						2.56 2.64	0.99
103.54 GLOBOCAS 3.22 1.12 231.91 GLOBOJAR 2.30 0.84 17.71 PWUELL 103.54 PRENZI 2.53 1.65 241.40 PRENZI 1.61 1.75 22.11 GLOBOCAS 113.47 GLOBOCAS 3.36 1.04 250.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 113.47 PWUELL 2.34 1.54 250.86 GVROID 2.33 1.18 26.71 CIB 2.34 1.54 250.86 GVROID 2.33 1.18 26.71 PWUELL 117.25 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 1.16 1.19 1.24.11 GLOBOCAS 3.01 1.09 260.37 CIB 3.44 1.49 263.91 BJARV 1.99 0.80 28.91 PWUELL 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 VIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.00 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 120.71 1		CIBKULL										2.61	1.08
109.11 PWUELL 2.53 1.65 241.40 PRENZI 1.61 1.75 18.31 PWUELL 109.11 PWUELL 2.25 1.30 241.40 STABYSS 2.13 0.80 22.11 GLOBOCAS 2.31 1.347 GLOBOCAS 3.36 1.04 259.86 GLOBOCAS 2.31 1.46 25.51 PWUELL 2.34 1.54 259.86 GYROID 2.33 1.18 26.71 PWUELL 2.34 1.54 259.86 GYROID 2.33 1.18 26.71 PWUELL 2.34 1.54 259.86 STABYSS 2.23 0.93 Hole 526A 1.30 259.86 STABYSS 2.23 0.93 Hole 526A 1.39												2.75	0.67
113.47 PWUELL 2.34 1.54 250.86 GLOBOCAS 2.31 1.46 26.71 CIB CIB CID CI												2.42 3.16	0.52
113.47 OLOBOCAS 3.58 1.04 250.86 GYROID 2.31 1.48 26.71 CIB 117.25 GLOBOCAS 2.84 1.30 250.86 PRENZI 1.93 1.81 26.71 PWUELL 117.25 PWUELL 2.23 1.64 250.86 STABYS 2.23 0.93 Hole 526A 123.91 CIB 2.49 1.52 260.37 CIB 1.16 1.19 124.11 GLOBOCAS 3.01 1.09 260.37 GLOBOCAS 2.17 1.09 28.91 PWUELL 124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 126.59 PWUELL 2.08 1.14 263.91 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG												2.30	1.04
117.25 GLOBOCAS 2.84 1.30 250.86 PRENZI 1.93 1.81 25.11 PWUELL										26.71	CIB	2.72	0.07
117.25 PWUELL 2.23 1.64 250.86 STABYSS 2.23 0.93 Hole 526A 123.91 CIB										26.71	PWUELL	2.16	0.87
123.91	117.25	PWUELL	2.23	1.64	250.86	STABYSS	2.23	0.93		Hole 526A			
124.11 PRENZI 2.44 1.49 263.91 BJARV 1.99 0.80 28.91 UVIG 126.59 PWUELL 2.08 1.14 263.91 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG 126.75 1.75	123.91										DWIELL	2.00	0.04
126.59 PWUELL 2.08 1.14 263.91 GLOBOCAS 2.07 1.03 29.01 UVIG 128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG												2.00	0.85
128.51 CIB 2.14 1.06 263.91 GLOBOCAS 2.37 0.31 29.20 UVIG 129.56 CIB 2.27 1.48 279.63 NUTTCIB 0.52 0.78 29.60 UVIG 132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG	126.59			1.14	263.91	GLOBOCAS	2.07	1.03			UVIG	2.62	0.37
132.71 CIBKULL 2.38 1.19 281.10 CIB 0.39 1.11 29.79 UVIG 132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG	128.51	CIB	2.14	1.06	263.91	GLOBOCAS	2.37	0.31		29.20	UVIG	2.57	0.36
132.71 UVIGSTIL 2.74 0.55* 281.10 NUTT 0.33 0.73 29.90 UVIG					279.63							2.82	0.74
												2.73 2.76	0.41
134.64 CIB 2.32 1.17 282.60 NUTTCIB 0.47 0.83 30.10 GLOBOCAS	134.64	CIB	2.32	1.17	282.60	NUTTCIB	0.47	0.83		30.10	GLOBOCAS	2.65	0.45
137.20 GLOBORID 3.00 0.98* 284.10 NUTTCIB 0.41 0.92 30.10 PWUELL 137.20 PRENZI 2.30 1.51 284.10 ORID 0.77 0.39* 30.10 UVIG								0.92			PWUELL	2.35 2.85	0.84

Appendix B. (Continued).

Depth (m)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Species	5 ¹⁸ O (%)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Species	δ ¹⁸ O (‰)	å ¹³ (‰)
Tole 526A (c	cont.)		0.000	Hole 526A (c	ont.)		1307	Hole 5256A	(cont.)	100000	
30.20	PWUELL	2.39	0.92	57.54	PWUELL	2.34	1.27	99.51	GLOBOCAS	2.44	1.10
30.20	UVIG	2.77	0.73	57.71	PWUELL	2.06	1.24	99.81	GLOBOCAS	2.68	1.1
30.52 30.52	PWUELL UVIG	2.38	0.80 0.46	57.91	PWUELL	2.03	1.18	103.00	GLOBOCAS GLOBOCAS	2.39	1.1
30.72	UVIG	2.83	0.68	58.11 58.31	PWUELL	2.06	1.27	103.21 103.21	GYROID	3.10	0.3
31.11	PWUELL	2.33	0.93	58.51	ORID	2.67	0.65*	103.61	GLOBOCAS	2.47	1.0
31.11	UVIG	2.75	0.39	58.51	PWUELL	2.09	1.28	103.61	UVIG	2.79	0.5
31.30 31.41	PWUELL	2.19	0.83	58.64 58.71	PWUELL	2.01	1.24	104.51 104.51	PWUELL	2.03	1.7
31.41	UVIG	2.73	0.41	58.71	STABYSS	2.84	0.37	104.71	GLOBOCAS	2.68	1.1
31.60	PWUELL	2.43	0.90	58.71	UVIG	2.96	0.28	105.11	GLOBOCAS	2.79	1.1
31.71	PWUELL	2.47	0.79	58.86	PWUELL	2.11	1.16	105.11	CIB	2.29	1.7
32.01 32.20	PWUELL	2.25	0.72 1.00	60.16 60.40	PWUELL GLOBOCAS	1.98 2.80	0.83	105.31 105.51	GLOBOCAS PWUELL	2.71	0.6
33.05	PWUELL	2.39	0.96	60.40	PWUELL	1.99	1.28	106.01	GLOBOCAS	2.82	1.1
34.55	PWUELL	2.36	1.06	60.60	GLOBOCAS	2.86	1.25	106.01	GYROID	2.50	0.9
36.05 36.59	PWUELL	2.37	0.98 0.87	60.89 60.89	GLOBOCAS PWUELL	3.12	1.17	106.01	PWUELL	2.01 1.96	1.5
38.02	PWUELL	2.32	0.87	61.09	GLOBOCAS	2.90	1.17	106.21 106.41	GLOBOCAS	2.54	1.0
39.52	GLOBOCAS	3.03	0.26	61.09	PWUELL	2.10	1.55	106.41	GLOBOCAS	2.57	1.0
39.52	PWUELL	2.31	1.00	61.29	GLOBOCAS	2.87	1.03	106.85	CIBKULL	1.94	1.4
41.02 41.28	PWUELL GLOBOCAS	2.45	0.71	61.29 61.49	PWUELL GLOBOCAS	2.15	1.62	107.09	GLOBOCAS PWUELL	2.26 1.78	0.7
41.28	PWUELL	2.19	0.83	61.49	PWUELL	2.32	1.57	107.09 110.81	CIBKULL	1.89	1.5
41.42	PWUELL	2.17	1.08	61.66	PWUELL	2.25	1.60	110.81	GYROID	2.45	1.3
44.42	PWUELL	2.22	1.09	63.41	GLOBOCAS	2.89	0.77	110.81	PWUELL	1.73	1.6
45.80 45.80	GLOBOCAS PWUELL	3.21 2.28	0.42 1.00	63.51	GLOBOCAS	2.79	0.52	111.80	PWUELL	1.62	1.7
46.41	PWUELL	2.32	0.90	63.81 65.41	GLOBOCAS PWUELL	2.32	1.42	116.27 116.27	PWUELL GLOBOCAS	2.14	1.7
46.51	PWUELL	2.43	0.89	65.41	GLOBOCAS	2.91	1.03	116.41	GYROID	2.15	1.8
46.61	PWUELL	2.47	0.80	66.16	CIBKULL	2.31	1.41	116.41	GLOBOCAS	2.16	1.8
46.71 46.91	PWUELL	2.42	1.05	66.16	GLOBOCAS	3.03	1.08	116.41	GLOBOCAS CIBKULL	1.23	2.1
47.07	PWUELL	2.34	1.08	66.16 66.16	GLOBOCAS ORID	3.07 2.90	0.73	116.51 116.57	GLOBOCAS	2.14	2.0
47.14	PWUELL	2.45	1.07	66.31	GLOBOCAS	2.97	0.92	119.51	ANOMAL	1.44	1.4
47.31	PWUELL	2.56	1.25	66.31	GLOBOCAS	3.17	1.16	120.76	CIB	1.32	1.7
47.52 47.71	PWUELL	2.30	1.06 0.91	66.51	CIB GLOBOCAS	2.29	1.40 0.78	124.92	GLOBOCAS BJARV	1.89	0.9
47.91	PWUELL	2.40	1.05	66.51 66.51	GLOBOCAS	2.86 3.05	1.07	129.80 129.80	HELEGANS	3.30*	2.5
48.11	PWUELL	2.36	1.04	66.71	GLOBOCAS	3.07	0.92	133.74	CIB	1.57	1.6
48.31	PWUELL	2.43	0.96	70.47	GLOBOCAS	2.89	1.15	157.53	CIB	1.16	1.5
48.41 48.41	GLOBOCAS PWUELL	2.82	0.23	72.51	GLOBOCAS	2.62	1.10	157.53	GLOBSTIL	1.21	0.8
48.64	PWUELL	2.38	1.02	74.38 74.38	PWUELL GLOBOCAS	2.51	1.34 0.75	159.45 159.45	CIBKULL	1.13	1.4
48.81	PWUELL	2.22	0.88	74.51	GLOBOCAS	3.18	1.00	159.45	GLOBOCAS	1.39	1.1
49.01	GLOBOCAS	2.86	0.29	74.71	GLOBOCAS	2.97	1.03	159.45	GYROID	1.62	1.1
49.22 49.22	GLOBOCAS PWUELL	3.00 2.41	0.45 1.10	75.11	GLOBOCAS	3.16	0.81	160.85	CIB	1.45	1.2
49.41	PWUELL	2.30	1.03	75.29 75.48	GLOBOCAS GLOBOCAS	2.87	0.95 1.00	160.85 164.87	GLOBSTIL SBULL	1.45	0.3
49.61	GLOBOCAS	2.98	0.30	75.51	GLOBOCAS	2.95	0.85	164.87	STABYSS	1.54	0.2
49.99	PWUELL	2.25	0.84	75.68	GLOBOCAS	2.94	0.74	164.87	UVIGBUL	1.54	0.5
49.99	GLOBOCAS	2.93	0.47	75.90	GLOBOCAS	2.97	1.14	168.15	CIB	1.37	1.2
50.20 51.21	GLOBOCAS GLOBOCAS	2.91	0.59	78.01 78.21	GLOBOCAS CIBKULL	2.99	0.96 1.19	168.15 169.50	CIB	1.52	1.1
51.21	PWUELL	2.26	0.82	78.21	GLOBOCAS	2.98	0.93	170.47	CIB	1.41	1.2
51.61	GLOBOCAS	2.75	0.19	78.21	PULBUL	2.83	0.66	170.47	UVIG	1.78	0.7
51.61	PWUELL	2.19	0.78	78.41	PWUELL	2.28	1.46	172.18	CIB	1.48	0.8
51.81 51.81	GLOBOCAS PWUELL	2.82	0.22	78.41 78.61	GLOBOCAS GLOBOCAS	2.33	0.68*	174.54 175.70	CIB	1.73	1.3
52.01	BULIMINA	2.72	0.07*	78.81	GLOBOCAS	3.13	0.88	175.90	CIB	1.33	0.8
52.01	GLOBOCAS	2.77	0.11	79.01	GLOBOCAS	2.99	1.01	176.10	UVIG	1.34	0.6
52.01	PWUELL	2.29	0.51	79.21	GLOBOCAS	3.05	0.71	176.40	CIB	1.29	1.5
52.21 52.41	PWUELL	2.24	0.73 0.82	79.41	GLOBOCAS	2.83	1.08 0.88	176.79	CIB UVIGCIB	1.39	0.5
52.61	PWUELL	2.14	0.86	79.61 79.81	GLOBOCAS GLOBOCAS	3.12 3.18	0.89	176.79 177.34	CIB	1.49	1.0
52.71	PWUELL	2.21	0.81	80.01	GLOBOCAS	2.99	0.97	177.34	UVIG	1.40	0.7
52.81	PWUELL	2.20	1.01	80.01	GLOBOCAS	3.29	0.89	177.71	CIB	1.48	1.2
52.81 53.11	UVIGGLOB PWUELL	2.81	0.24 1.06	80.50	GLOBOCAS	2.87	0.81	179.82	CIB STABYSS	1.56	0.7
53.31	CIBKULL	2.21	0.43	83.81 84.01	GLOBOCAS GLOBOCAS	2.87	0.83	181.32 181.60	CIB	1.80	1.3
53.31	GLOBOCAS	2.97	0.55	84.21	GLOBOCAS	2.97	0.62	185.11	UVIG	1.51	0.7
53.31	PWUELL	2.29	0.81	84.41	GLOBOCAS	2.62	0.75	186.60	STABYSS	1.31	0.5
53.51 53.51	GLOBOCAS PWUELL	3.05	0.27	85.57	GLOBOCAS	2.81	0.82	187.46	CIB	1.36	1.3
53.51	STABYSS	2.72	-0.29	87.07 87.07	GLOBOCAS GLOBOCAS	2.75	0.72	188.61 190.11	UVIG BULIMINA	1.39	0.5
53.71	PWUELL	2.39	1.17	88.31	GLOBOCAS	2.59	0.59	190.11	CIB	1.32	1.0
53.91	CIBKULL	2.05	0.46	88.57	GLOBOCAS	2.88	0.98	190.11	UVIG	1.57	0.5
53.91	PWUELL	2.16	0.82	90.01	GLOBOCAS	2.72	0.74	193.64	CIB	1.16	1.2
54.11 54.11	CIBKULL. GLOBOCAS	2.04	0.62	90.21 91.40	GLOBOCAS GLOBOCAS	2.90	0.82	196.00 201.90	UVIG	1.51	0.3
54.21	GLOBOCAS	2.73	0.20	91.61	GLOBOCAS	2.81	1.00	203.40	UVIG	1.30	1.0
54.31	GLOBOCAS	2.91	0.62	93.21	GLOBOCAS	2.94	1.21	205.95	BULIMINA	1.36	0.4
54.31	PWUELL	2.10	1.10	95.31	BULIMINA	2.60	1.02*	205.95	CIB	1.05	1.4
54.50 55.64	GLOBOCAS PWUELL	2.85	0.27 1.20	95.31 95.61	GLOBOCAS	2.90	0.88	205.95 208.32	UVIG	1.43	0.8
56.04	GLOBOCAS	2.10	0.40	95.61 95.81	GLOBOCAS	2.60 3.09	0.87	208.32 217.53	BULIMINA	0.55	0.7
56.04	PWUELL	2.24	1.13	96.01	GLOBOCAS	2.73	0.89	217.53	GYROID	0.90	1.1
56.21	PWUELL	2.25	1.27	96.21	GLOBOCAS	2.67	0.90				
56.61	GYROID	2.54	0.41*	96.41	GLOBOCAS	2.72	1.03	Hole 527	BANGUES .		
56.61 56.81	PWUELL GYROID	2.11	1.29 0.11*	96.61	GLOBOCAS	2.76	0.78	40.94	PWUELL	2.18	0.8
56.81	PWUELL	2.13	1.07	96.81 97.11	GLOBOCAS GLOBOCAS	2.51	0.80	101.10 134.71	PWUELL	2.37 1.08	0.5
57.01	PWUELL	2.26	1.25	98.51	GLOBOCAS	2.57	0.98	137.51	NUTT	0.67	0.6
57.27	GYROID	2.69	0.44*	98.80	GLOBOCAS	2.59	0.83	138.61	NUTT	0.44	1.0
57.27 57.27	RECTUVIG	2.64	0.55 1.07	98.91	GLOBOCAS	2.52	1.05	138.81	NUTTCIB	0.17	0.8
	PWUELL	2.16	1.00	99.11 99.31	GLOBOCAS GLOBOCAS	2.67	0.85	139.01 139.41	NUTT	0.48	0.5

Appendix B. (Continued).

Sub-bottom Depth	C	δ ¹⁸ O	δ ¹³ C	Sub-bottom Depth		δ ¹⁸ O	δ ¹³ C	Sub-bottom Depth	Carolina	δ ¹⁸ O	δ ¹³ C
(m)	Species	(%)	(%)	(m)	Species	(%)	(%)	(m)	Species	(%*)	(%)
Hole 527 (co	at.)			Hole 528A (cont.)			Hole 529 (co	nt.)		
143.29	NUTT	0.02	0.66	8.95	UVIG	3.52	-0.05	131.49	GLOBOCAS	2.20	0.64
143.11 142.88	NUTTCIB	0.33	0.60 0.48	9.05 9.15	CIBKULL GLOBOCAS	3.48 4.27	0.48 -0.52	131.49 135.71	GYROID GLOBORID	2.50	0.65
142.71	MIXED	0.37	0.45	9.15	UVIG	3.94	-0.32	141.46	BULIMINA	1.99	0.66
142.71	NUTT	0.29	0.78	9.35	ORID	4.04	-0.54	141.46	GLOBOCAS	2.29	0.76
142.31	NUTT	0.17	0.57	9.35	UVIG	3.92	-0.18	151.55	BULIMINA	2.05	0.47
142.48 143.61	NUTTCIB NUTTCIB	0.38	0.84	9.45 9.45	GLOBOCAS UVIG	3.99 3.90	0.03	156.21 160.75	GLOBOCAS	1.79	0.90
143.75	NUTTCIB	0.46	0.76	9.55	PWUELL	3.05	0.66	160.75	GYROID	2.19	0.94
143.98	NUTTCIB	0.19	0.55	9.55	UVIG	3.52	0.02	163.91	BJARV	2.35	1.47
144.21 144.52	NUTTCIB NUTTCIB	0.33	0.47	9.75	GLOBOCAS	3.65 4.03	0.13 -0.50	168.89 168.89	CIB GLOBOCAS	1.75 2.05	1.33 0.58
144.79	CIB	0.09	0.69	9.75 9.95	UVIG GLOBOCAS	3.62	0.04	168.89	GLOBOCAS	2.10	0.88
145.11	NUTT	-0.10	0.24	9.95	UVIG	3.76	0.04	170.73	CIB	1.94	0.74
145.31	NUTT	-0.11	0.43	10.05	CIBKULL	3.53	0.70	170.73	GYROID	2.60	0.66
145.76 146.28	NUTTCIB NUTTCIB	0.07 -0.15	0.38	10.05	UVIG	3.96 4.00	-0.05 -0.51	170.73 172.23	STABYSS CIB	2.20 1.66	1.20
146.77	NUTTCIB	-0.13	0.89	10.15 10.15	GLOBOCAS PWUELL	3.23	0.20	175.23	CIB	1.62	1.20
147.02	NUTTCIB	-0.12	0.60	10.15	UVIG	3.88	-0.37	175.41	GLOBOCAS	2.13	0.83
147.68	NUTTCIB	-0.21	1.02	10.25	GLOBOCAS	4.00	-0.08	176.73	CIBGLOB	1.54	1.15
147.93 148.24	NUTT	-0.11 -0.41	0.72	10.25	UVIG	4.05	-0.02	178.23 179.62	ORID	1.44	0.01
152.28	NUTT	-0.19	0.97	10.35 10.35	CIBKULL. UVIG	3.24	0.96	181.50	CIB	1.49	0.95
164.69	NUTT	-0.43	0.57	10.45	CIBKULL	2.94	0.85	181.50	ORID	1.97	0.10
199.91	NUTT	-0.21	0.77	10.55	CIBKULL	3.71	0.86	182.15	CIB	1.77	0.86
199.51	NUTT CIB	-0.29 0.22	0.82 1.25	10.55	PWUELL	3.30	0.86	182.15	BULSTIL	1.96	0.51
202.11	NUTT	-0.10	0.95	10.55 10.62	UVIG GLOBOCAS	3.89	0.05	183.41 183.41	BJARV GLOBOCAS	2.34	0.88
218.34	ORID	0.53	1.70	10.62	ORID	4.09	-0.59	183.41	ORID	2.04	0.60
218.34	CIB	0.33	2.42	10.62	PWUELL	3.54	0.25	183.63	CIB	1.54	1.12
218.34 218.34	NUTT GAVELIN	0.12	2.02	10.62	UVIG	3.86	-0.02	183.63 184.87	ORID CIB	1.74	0.35
256.30	ORID	0.17	0.68	10.75 10.87	CIBKULL	3.35 2.99	0.97	184.87	UVIGORID	1.75	0.60
258.10	NUTTGAV	0.20	1.02	10.87	UVIG	3.65	-0.04	184.87	GYROID	2.07	0.98
261.10	NUTT	0.19	1.37	10.95	UVIG	4.33	0.06	184.87	GLOBORID	1.80	0.65
260.62	GAVELIN	0.15	1.02	11.03	GLOBOCAS	4.19	-0.35	184.87	STABYSS	1.82	0.55
267.31 267.51	ORID	0.65	0.65	11.03 11.15	UVIG	3.89 4.14	-0.32 -0.37	185.13 185.13	NOD	1.94	0.65
267.72	GAVELIN	-0.16	1.13	11.25	GLOBOCAS	3.83	-0.06	185.57	CIB	1.55	1.27
267.72	NUTT	0.50	1.29	11.35	CIBKULL	2.68	0.62	189.01	MIXED	2.05	0.70
267.79 267.79	NUTTGAV	-0.14 0.32	0.65*	11.35	UVIG	3.46	-0.35	192.98 193.21	BJARV BULIMINA	2.37	1.40
267.79	ORID GAVELIN	0.58	1.12	11.55 11.64	CIB GLOBOCAS	3.57 4.48	0.31 -0.39	193.21	GLOBORID	2.34	0.73
267.92	NUTT	-0.02	1.32	11.64	ORID	4.10	-0.78	194.18	BJARV	2.45	1.33
267.92	ORID	0.42	0.57*	11.64	PWUELL	3.06	0.59	194.55	BJARV	2.55	1.64
268.11 270.11	GAVELIN ORID	-0.02 0.59	1.19	11.64	UVIG	4.36	-0.28	195.57	BJARV GYROID	1.95	1.59
270.11	NUTT	0.39	1.28	11.75 11.85	UVIG	3.46	-0.19 -0.10	197.90 197.90	UVIG	1.82	0.66
270.11	NUTT	0.58	1.36	24.25	GLOBOCAS	2.93	0.01	199.00	BJARV	2.38	1.58
271.71	NUTTGAV	0.33	1.30	24.25	GLOBOCAS	3.01	0.39	199.00	CIB	2.22	1.81
271.71 271.92	ORID NUTT	0.61	1.09*	44.35	CIB	2.61	0.49	199.20 199.20	BJARV ORID	2.28	1.43 0.83
271.92	ORID	0.16	0.94*	45.15 45.15	CIB UVIGGLOB	2.50 3.05	0.61	199.50	BJARV	2.48	1.65
273.25	ORID	0.32	1.06*		3.100000	2.03	*****	200.04	BJARV	1.32	0.77
273.25	NUTT	0.35	1.31	Hole 528				200.04	NUTT	0.60	0.76
276.21 278.33	NUTTCIB NUTTCIB	0.15	1.39	225.67	NUTTCIB	2.51	1.13	200.04 200.13	STABYSS BJARV	1.06	0.80
279.71	NUTTGAV	0.16	2.16	227.54	NUTTCIB	0.87	0.75	200.13	NUTT	0.91	0.88
279.91	NUTTGAV	0.14	2.03	237.98	CIB	1.08	1.19	200.20	BULIMINA	1.73	0.87
280.10	NUTTGAV	0.27	2.01	237.98 246.40	NUTT NUTTCIB	0.92	0.69	200.78	BJARV	1.18	1.12
280.28 280.49	NUTT NUTTGAV	0.53	2.01 1.79	249.40	NUTT	0.31	0.17	200.78 201.39	NUTT	0.58	0.97
280.68	NUTT	0.66	2.26	250.60	NUTTCIB	0.29	0.71	201.39	NUTT	0.47	0.77
280.85	NUTTGAV	0.57	1.94	250.60	ORIDBUL	0.58	0.23*	201.53	NOD	1.30	0.84
281.19	NUTTGAV	0.30	1.75	252.00 256.61	NUTT NUTTCIB	0.33 -0.19	0.81	202.58	BJARV	1.44	0.83
281.40 281.40	NUTT	0.94	2.17	257.47	NUTTCIB	0.07	1.01	202.58 205.20	NUTT BJARV	0.89	0.76
281.59	NUTT	-0.27	1.70*	263.01	NUTTCIB	-0.52	1.03	206.60	BULIMINA	1.24	1.22
281.59	NUTT	0.53	1.85	312.07	NUTT	-0.14	0.65 1.32	207.35	BJARV	1.37	0.79
281.59	NUTT	-0.27	1.70	313.53 313.56	NUTT	0.05 -0.02	1.36	207.35	NUTT	0.77	0.57
281.59 282.00	NUTT NUTTGAV	0.53	1.85 2.03	313.82	NUTT	-0.02	1.24	207.35 207.88	NUTT	0.88	0.74
282.20	NUTT	0.20	1.70	314.21	CIB	-0.12	1.08	207.88	CIB	0.47	0.73
	3557576	1600 Ca	550.53	314.21	NUTT	-0.18	1.32	207.88	BULIMINA	1.26	0.82
Hole 528A				315.99	NUTT	0.13	1.74	207.88	ORID	1.10	0.32
8.87	UVIG	3.50	-0.09	Hole 529				207.88 222.50	OSANGUL BJARV	1.06	0.83
8.95	CIBKULL	2.85	0.77	0.11	HELEGANS	3.61	2.89	222.50	NUTT	0.75	0.60
8.95	ORID	3.49	-0.41	0.11	PWUELL	2.19	1.01	268.84	MIXED	-0.27	0.73

Note: Asterisks denote values that have not been used in Appendix C or in the figures. In the majority of cases these are ¹³C values for species whose departure from isotopic equilibrium is poorly defined or very variable; in a small number of cases it is suspected either that the sample was displaced or that the analysis was suspect. For explanations of computer abbreviations, see Appendix A.

APPENDIX C
Isotopic Analyses of Benthic Foraminifers from Sites 525-529, Adjusted on the Basis of Appendix A

Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ Ο (‰)	8 ¹³ C (%)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ Ο (‰)	δ ¹³ (%)
Hole 525B					Hole 525B (c	cont.)				Hole 526B (6	ont.)			
0.80	0.163	UVIG	3.95	0.98	174.91	15.650	MEAN	2.64	2.28	17.31	2.042	PWUELL	3.28	0.9
11.66 13.05	2.216	MEAN MEAN	3.60	0.59 1.05	175.02 175.31	15.658 15.680	GLOBOCAS MEAN	2.57	2.50	17.51 17.71	2.067	PWUELL	3.25	0.6
19.01	3.126	PWUELL	3.09	0.50	175.51	15.695	MEAN	2.62	2.40	18.31	2.170	PWUELL	3.06	0.5
19.34	3.138	PWUELL	3.25	0.71	176.01	15.732	GLOBOCAS	2.30	1.95	22.11	2.655	GLOBOCAS	3.06	0.5
22.10 22.20	3.234	MEAN MEAN	3.25	0.94	176.41 189.51	15.761 16.731	MEAN GLOBOCAS	2.35	1.82	25.51 26.71	3.090	PWUELL	2.94	0.8
22.40	3.244	MEAN	3.52	0.82	190.31	16.790	ORIDGYR	1.94	2.31					
23.61 27.78	3.287	GLOBOCAS GLOBOCAS	3.18	0.86	190.61 190.65	16.812 16.815	CIB	1.98	2.23	Hole 526A				
33.35	3.644	GLOBOCAS	3.01	0.84	191.01	16.842	MEAN	1.85	2.41	28.91	3.525	MEAN	2.69	1.1
35.10	3.748	GLOBOCAS	3.20	0.77	191.05	16.845	MEAN	1.85	2.41	29.01 29.20	3.537 3.562	UVIG	2.62	1.2
42.26 44.88	4.171	PWUELL GLOBOCAS	2.92 3.20	1.03	191.21 191.25	16.856	GYRORID GYRORID	2.13	2.48	29.60	3.633	UVIG	2.82	1.6
48.05	4.513	GLOBOCAS	3.08	0.78	191.41	16.871	ORID	2.02	2.74	29.79	3.697	UVIG	2.73	1.3
54.08 55.58	4.841	GLOBOCAS GLOBOCAS	3.04	1.22	191.45 191.61	16.874 16.886	ORID CIBKULL	2.02 1.82	2.74 1.95	29.90 30.10	3.733	UVIG MEAN	2.76	1.3
58.81	5.063	GLOBOCAS	2.99	1.13	191.65	16.889	CIBKULL	1.82	1.95	30.20	3.833	MEAN	2.90	1.2
59.11	5.074	GLOBOCAS	3.19	1.28	192.20	16.930	MEAN	1.83	2.15	30.52 30.72	3.940 4.007	MEAN UVIG	2.90	1.0
60.31	5.116 5.164	GLOBOCAS MEAN	3.27	1.33	193.60 194.01	17.070 17.134	GLOBOCAS CIBKULL	2.34 1.82	2.31 1.76	31.11	4.110	MEAN	2.86	1.1
62.01	5.175	GLOBOCAS	3.34	1.29	194.21	17.165	CIBKULL	1.82	1.76	31.30	4.127	PWUELL	2.83	0.8
62.91	5.206	MEAN	3.05	1.05	195.91	17.430	GLOBOCAS	1.54	1.76	31.41 31.60	4.137	MEAN PWUELL	2.86 3.07	0.90
66.81	5.217	GLOBOCAS MEAN	3.13	0.81	201.05	17.748	GLOBOCAS	2.00	1.95	31.71	4.164	PWUELL	3.11	0.79
66.91	5.346	GLOBOCAS	3.14	1.12	Hole 525A					32.01	4.191	PWUELL	2.89	0.72
67.41	5.363	GLOBOCAS	3.19	0.96	203.10	17.823	GLOBOCAS	2.07	1.69	32.20 33.05	4.208	PWUELL	2.97 3.03	0.96
67.91 70.61	5.381 5.475	MEAN MEAN	3.28	0.90	212.60	19.187	GLOBOCAS	2.33	1.84	34.55	4.419	PWUELL	3.00	1.00
70.68	5.478	PWUELL	3.34	0.83	222.10 231.91	21.613	MEAN	2.32	1.30	36.05	4.526	PWUELL	3.01	0.98
72.11 72.18	5.528 5.530	MEAN PWUELL	3.11	0.96	241.40	22.955 23.241	GLOBOJAR MEAN	2.30	1.09	36.59 38.02	4.549	PWUELL	2.88	0.8
73.61	5.580	PWUELL	3.15	0.95	250.86	23.526	MEAN	2.29	1.90	39.52	4.673	MEAN	2.94	0.88
75.14	5.633	GLOBOCAS	3.20	1.06	260.37 263.91	23.971 24.229	MEAN MEAN	1.87 2.08	1.39	41.02	4.737	PWUELL	3.09	0.71
75.81 79.06	5.657	MEAN MEAN	3.37	0.94	279.63	46.733	NUTTCIB	0.92	0.78	41.28 41.42	4.748	MEAN PWUELL	2.71	1.08
79.71	5.793	MEAN	3.17	0.92	281.10	47.101	MEAN	0.79	0.92	44.42	4.882	PWUELL	2.86	1.09
81.01	5.838	PRENZI	3.37	0.88	282.60 284.10	47.477 47.860	NUTTCIB MEAN	0.87	0.83	45.80	4.940	MEAN	3.02	0.90
82.06 82.31	5.875 5.884	GLOBOCAS MEAN	2.98	0.90	287.10	47.710	MEAN	0.67	0.78	46.41 46.51	4.966	PWUELL	2.96 3.07	0.90
82.49	5.890	MEAN	2.70	0.80	289.01	49.252	MEAN	0.80	0.68	46.61	4.975	PWUELL	3.11	0.80
82.93	5.905	MEAN	3.07	0.98	290.51 292.01	49.677 50.050	MEAN MEAN	0.66	0.70	46.71 46.91	4.979	PWUELL	3.06 2.94	1.05
88.01 94.31	6.083	PRENZI MEAN	3.15 2.93	0.90 1.34	293.50	50.255	ORID	0.38	0.95	47.07	4.994	PWUELL	2.98	1.08
95.04	6.328	MEAN	2.92	1.49	295.01	50.462	MEAN	0.37	0.55	47.14	4.997	PWUELL	3.09	1.07
95.69 96.21	6.351	GLOBOCAS	2.75 3.12	1.33	298.00 302.29	50.874 51.464	NUTT	0.09	0.65	47.31 47.52	5.019	PWUELL	3,20 2,94	1.25
97.71	6.600	GLOBOCAS	2.97	1.35	302.39	51.477	ORIDBUL	0.15	1.33	47.71	5.086	PWUELL	3.05	0.91
99.37	7.145	MEAN	3.00	1.50	322.79 337.85	53.502 54.604	ALABNUTT MEAN	-0.08 -0.26	0.89	47.91	5.120	PWUELL	3.04	1.05
103.54	8.505 9.228	MEAN PWUELL	3.13 2.89	1.64	338.01	54.617	MEAN	-0.26	1.00	48.11 48.31	5.154 5.188	PWUELL	3.00	0.96
113.47	9.794	MEAN	3.12	1.54	358.19	55.808	CIBBUL	0.04	0.35	48.41	5.205	MEAN	2.86	0.98
117.25 123.91	10.285	MEAN CIB	2.81	1.72	358.29 358.39	55.811 55.814	MEAN BENTHICS	0.04	0.76	48.64 48.81	5.244	PWUELL	3.02 2.86	0.88
124.11	10.932	MEAN	2.98	1.52	358.49	55.818	BENTHICS	0.25	0.45	49.01	5.306	GLOBOCAS	2.76	0.79
126.59	11.142	PWUELL	2.72	1.14	358.59 358.69	55.821	MEAN	-0.19 -0.30	0.76	49.22	5.342	MEAN	2.98	1.03
128.51 129.56	11.293 11.375	CIB	2.64	1.06	358.99	55.824 55.834	NUTT	0.25	0.47	49.41 49.61	5.374 5.408	PWUELL GLOBOCAS	2.94	0.80
132.71	11.623	MEAN	2.81	1.19	359.09	55.838	MEAN	0.04	0.35	49.99	5.472	MEAN	2.86	0.91
134.64	11.774	CIB	2.82	1.17	359.19 359.29	55.841 55.844	MEAN NUTT	0.22 -0.01	0.42	50.20	5.508	GLOBOCAS	2.81	1.09
137.20 139.18	11.975 12.645	MEAN MEAN	2.95 3.07	1.51	359.39	55.848	NUTT	0.15	0.44	51.21 51.61	5.679	MEAN MEAN	2.87	0.79
139.41	12.734	MEAN	2.75	1.45	359.49	55.851	NUTT	0.14	0.37	51.81	5.781	MEAN	2.80	0.68
139.46 139.61	12.753 12.801	GLOBOCAS MEAN	2.68	1.44	359.59 371.57	55.854 56.255	NUTT	0.09	0.29	52.01 52.21	5.814	MEAN PWUELL	2.77	0.56
139.81	12.801	MEAN	2.75	1.50	379.21	56.888	NUTT	0.36	1.63	52.41	5.882	PWUELL	3.04	0.82
140.01	12.820	PWUELL	2.86	1.53	382.21 385.81	57.167	NUTT	0.31	1.11	52.61	5.916	PWUELL	2.78	0.86
140.21 140.41	12.830 12.839	MEAN	2.56	1.61	387.31	57.503 57.643	NUTT	0.28	0.86	52.71 52.81	5.933	PWUELL MEAN	2.85	0.81
140.71	12.853	PWUELL	3.14	1.37	390.09	57.902	NUTT	0.09	1.06	53.11	6.001	PWUELL	3.03	1.06
140.91	12.863	UVIGGLOB	2.86	1.27	393.36 403.35	58.206 59.144	NUTT	0.42	1.55 2.43	53.31	6.035	MEAN	2.84	0.76
141.11 141.31	12.872 12.881	PWUELL	2.80 3.01	1.48	403.40	59.149	CIB NUTT	0.17	2.15	53.51 53.71	6.068	MEAN PWUELL	3.03	0.73
141.51	12.891	PWUELL	2.90	1.46	404.59	59.265	MEAN	0.52	2.34	53.91	6.136	MEAN	2.68	0.64
141.71	12.900	CIB	2.80	1.57	404.65 408.91	59.271 59.687	NUTTCIB NUTT	0.55	2.76	54.11	6.170	MEAN	2.71	0.62
142.21 142.41	12.924 12.933	PWUELL MEAN	2.88	1.47	411.91	59.981	NUTT	0.41	2.68	54.21 54.31	6.187	GLOBOCAS MEAN	2.63	0.70
142.61	12.942	MEAN	2.68	1.60	412.81	60.069	MEAN	0.53	2.69	54.50	6.236	GLOBOCAS	2.75	0.77
142.81 143.01	12.952 12.961	PWUELL	3.03	1.38	415.35 422.01	60.237	NUTT	0.42	1.98	55.64	6.429	PWUELL	2.74	1.02
143.41	12.980	PWUELL	2.98	1.43	433.72	61.984	NUTT	0.54	1.01	56.04 56.21	6.497	MEAN PWUELL	2.82	1.02
149.57	13.270	PWUELL	2.92	1.75	436.05	62.488	NUTT	0.38	1.04	56.61	6.593	MEAN	2.65	1.29
153.47 155.65	13.453	PWUELL MEAN	2.69	1.38	442.50 442.70	63.986 64.032	MEAN	0.47	1.28	56.81	6.627	MEAN	2.84	1.07
157.91	13.753	PWUELL	2.90	1.47	442.90	64.079	MEAN	0.44	1.31	57.01 57.27	6.661	PWUELL MEAN	2.71	1.16
159.41	13.928	PWUELL	2.64	1.40	444.00	64.339	MEAN	0.26	1.31	57.54	6.751	MEAN	2.86	1.14
162.31 163.81	14.266	GLOBOCAS GLOBOCAS	2.77	1.95	444.20 470.91	64.390 68.034	NUTT	0.55	1.18	57.71	6.780	PWUELL	2.70	1.24
166.45	14.441	GLOBOCAS	2.85	1.70	Hole 526B	50.554	, and the same of	0.33	1.77	57.91 58.11	6.814	PWUELL	2.69	1.18
166.61	14.768	MEAN	2.82	1.56						58.31	6.881	PWUELL	2.70	1.27
169.90 174.60	15.152 15.627	GLOBOCAS GLOBOCAS	2.27	1.61	6.71	0.839	MEAN	3.94	1.05	58.51	6.915	MEAN PWUELL	2.70	1.28
174.61	15.628	GLOBOCAS	2.54	2.51	15.51 16.31	1.823	GLOBOCAS PWUELL	3.58	1.07 0.87	58.64 58.71	6.937	MEAN	2.65	1.19
174.71	15.635	GLOBOCAS	2.57	2.68	17.11	2.016	PWUELL	3.20	1.05	58.86	6.974	PWUELL	2.75	1.16

Appendix C. (Continued).

Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (‰)	δ ¹³ (%)
Hole 526A (c	ont.)				Hole 526A (cont.)				Hole 528A				
60.16 60.40	7.194 7.235	PWUELL MEAN	2.62 2.77	1.47	168.15	27.188 27.788	MEAN CIB	1.95 2.15	1.18	8.87 8.95	1.002	UVIG MEAN	3.50 3.45	0.8
60.60	7.269	GLOBOCAS	2.76	1.75	169.50 170.47	28.143	MEAN	1.85	1.35	9.05	1.022	CIBKULL	3.98	0.4
60.89	7.318	MEAN	2.95	1.70	172.18	28.413	CIB	1.98	0.80	9.15	1.033	MEAN	4.06 3.98	0.3
61.09 61.29	7.352 7.386	MEAN MEAN	2.77	1.61	174.54 175.70	28.787 28.971	CIB	2.23	1.32	9.35 9.45	1.056	MEAN MEAN	3.90	0.5
61.49	7.420	MEAN	2.87	1.58	175.90	29.002	CIB	1.83	0.88	9.55	1.078	MEAN	3.61	0.7
61.66	7.448	PWUELL GLOBOCAS	2.89	1.60	176.10 176.40	29.034 29.081	CIB	1.34	1.59	9.75 9.95	1.101	MEAN MEAN	3.79 3.64	0.5
63.51	7.762	GLOBOCAS	2.69	1.02	176.79	29.143	MEAN	1.80	1.19	10.05	1.135	MEAN	4.00	0.7
63.81 65.41	7.813 8.083	GLOBOCAS MEAN	2.83	1.27	177.34 177.71	29.230 29.289	MEAN CIB	1.70	1.36	10.15 10.25	1.146	MEAN MEAN	3.88	0.2
66.16	8.210	MEAN	2.90	1.58	179.82	29.623	CIB	2.06	1.40	10.35	1.169	MEAN	3.62	1.0
66.31 66.51	8.236 8.270	MEAN MEAN	2.97	1.54	181.32 181.60	29.860 29.904	STABYSS CIB	1.65 2.07	1.78	10.45 10.55	1.180	CIBKULL MEAN	3.44 4.01	0.8
66.71	8.304	GLOBOCAS	2.97	1.42	183.95	30.276	STIL	1.40	1.69	10.62	1.199	MEAN	3.98	0.5
70.47 72.51	8.947 9.298	GLOBOCAS GLOBOCAS	2.79	1.65	185.11 186.60	30.480 30.745	UVIG STABYSS	1.51	1.68 1.58	10.75 10.87	1.214	CIBKULL MEAN	3.85 3.57	0.9
74.38	9.620	MEAN	3.02	1.30	187.46	30.899	CIB	1.86	1.26	10.95	1.237	UVIG	4.33	0.9
74.51 74.71	9.642 9.676	GLOBOCAS GLOBOCAS	3.08 2.87	1.50	188.61 190.11	31.103 31.371	UVIG MEAN	1.39	1.48	11.03 11.15	1.246	MEAN UVIG	3.99 4.14	0.3
75.11	9.745	GLOBOCAS	3.06	1.31	193.64	32.000	CIB	1.60	1.26	11.25	1.270	GLOBOCAS	3.73	0.4
75.29	9.776	GLOBOCAS	2.77	1.45	196.00	32.420	UVIG	1.51	1.68	11.35	1.282	MEAN	3.32	0.5
75.48 75.51	9.809 9.814	GLOBOCAS	2.81	1.50	201.90 203.40	33.471 33.738	UVIG	1.31	1.63	11.55 11.64	1.304	CIB MEAN	4.07	0.3
75.68	9.843	GLOBOCAS	2.84	1.24	205.95	34.193	MEAN	1.45	1.56	11.75	1.327	UVIG	3.46	0.7
75.90 78.01	9.881 10.244	GLOBOCAS	2.87	1.64	208.32 217.53	34.615 36.255	BULIMINA MEAN	0.73	0.72	11.85 24.25	1.338 2.570	UVIG MEAN	3.60 2.87	0.8
78.21	10.278	MEAN	2.89	1.53	217.55	50.255	MEAN	0.75	0.57	44.35	3.547	CIB	3.11	0.4
78.41 78.61	10.313 10.347	MEAN GLOBOCAS	2.92	1.46	Hole 527					45.15	3.569	MEAN	3.03	0.6
78.81	10.382	GLOBOCAS	3.03	1.38	40.94	3.808	PWUELL	2.82	0.87	Hole 528				
79.01 79.21	10.416 10.450	GLOBOCAS	2.89	1.51	101.10 134.70	8.265	PWUELL	3.01	0.79	225.67	35.820	NUTTCIB	2.91	1.1
79.41	10.485	GLOBOCAS	2.73	1.58	137.50	41.847	NUTT	1.43	0.96	227.54	37.063	NUTTCIB	1.27	0.7
79.61	10.519	GLOBOCAS	3.02	1.38	138.61	47.140	NUTT	0.79	1.02	237.98 246.40	40.156 44.920	MEAN NUTTCIB	1.43	0.9
79.81 80.01	10.554 10.588	GLOBOCAS MEAN	3.08	1.39	138.81 139.01	47.523 47.617	NUTTCIB NUTT	0.57	0.86	249.40	46.439	NUTT	0.66	0.1
80.50	10.661	GLOBOCAS	2.77	1.31	139.41	47.658	NUTT	0.76	0.77	250.60 252.00	46.837 47.302	MEAN NUTT	0.64	0.7
83.81 84.01	11.141 11.170	GLOBOCAS GLOBOCAS	2.77	0.94	142.31 142.48	48.346 48.406	NUTT NUTTCIB	0.52	0.57	256.61	48.632	NUTTCIB	0.21	0.6
84.21	11.199	GLOBOCAS	2.87	1.12	142.71	48.488	MEAN	0.51	0.62	257.40 263.01	49.217 52.630	NUTTCIB NUTTCIB	0.47 -0.12	1.0
84.41 85.57	11.228 11.396	GLOBOCAS GLOBOCAS	2.52	1.25	142.88 143.11	48.548 48.629	NUTT NUTTCIB	0.54	0.48	312.07	56.869	NUTT	0.21	0.6
87.07	11.614	MEAN	2.68	1.20	143.29	48.693	NUTT	0.37	0.66	313.53 313.56	57.622 57.623	NUTT	0.40	1.32
88.31 88.57	11.794 11.832	GLOBOCAS GLOBOCAS	2.49	1.09	143.61	48.805 48.853	NUTTCIB	0.61	0.47	313.82	57.640	NUTT	0.24	1.24
90.01	12.050	GLOBOCAS	2.62	1.24	143.75 143.98	48.932	NUTTCIB NUTTCIB	0.59	0.76	314.21	57.666	MEAN	0.28	1.74
90.21	12.086	GLOBOCAS	2.80	1.32	144.21	49.010	NUTTCIB	0.73	0.47	315.99	57.782	NUTT	0.48	1./-
91.40 91.61	12.298 12.336	GLOBOCAS GLOBOCAS	2.51	1.27	144.52 144.79	49.117	NUTTCIB CIB	0.47	0.49	Hole 529				
93.21	12,621	GLOBOCAS	2.84	1.71	145.11	49.319	NUTT	0.25	0.24	0.11	0.029	MEAN	3.02	1.30
95.31 95.61	12.870 12.889	MEAN GLOBOCAS	2.70	1.38	145.31 145.76	49.387	NUTT NUTTCIB	0.24	0.43	131.49 135.71	26.571 27.540	MEAN SUBGORID	2.30	1.14
95.81	12.902	GLOBOCAS	2.99	1.12	146.28	49.720	NUTTCIB	0.25	0.33	141.46	28.982	MEAN	2.09	0.96
96.01 96.21	12.915 12.928	GLOBOCAS GLOBOCAS	2.63	1.39	146.77 147.02	49.888	NUTTCIB NUTTCIB	0.37	0.89	151.33 151.55	31.611	BULIMINA BULIMINA	2.05	0.47
96.41	12.940	GLOBOCAS	2.62	1.53	147.68	50.199	NUTTCIB	0.19	1.02	156.21	32.911	CIB	2.29	1.24
96.61 96.81	12.953 12.966	GLOBOCAS GLOBOCAS	2.66	1.28	147.93 148.24	50.285 50.384	NUTT	0.24 -0.06	0.72	160.75 163.91	34.120 34.629	MEAN BJARV	2.01	1.17
97.11	12.985	GLOBOCAS	2.32	1.19	152.28	51.567	NUTT	0.16	0.97	168.89	34.735	MEAN	2.10	1.21
98.51 98.80	13.074	GLOBOCAS GLOBOCAS	2.47	1.48	164.69	54.786	NUTT	-0.08	0.57	170.73 172.23	34.774 34.806	MEAN CIB	2.36	0.47
98.91	13.100	GLOBOCAS	2.42	1.55	199.51 199.91	57.517 57.545	NUTT	0.06	0.82	175.23	34.870	CIB	2.10	1.20
99.11 99.31	13.113 13.125	GLOBOCAS GLOBOCAS	2.57	1.50	202.11	57.699	MEAN	0.49	1.10	175.41	34.873	GLOBOCAS	2.03	1.33
99.81	13.157	GLOBOCAS	2.36	1.66	218.34 256.30	58.833 62.762	MEAN ORID	0.57	2.15 1.68	176.73 178.23	34.901 34.933	CIBGLOB	1.79	0.01
99.51	13.138	GLOBOCAS	2.34	1.65	258.10	62.959	NUTTGAV	0.55	1.02	179.62	34,963	ORID	1.87	1.13
103.00 103.21	13.361	GLOBOCAS GLOBOCAS	2.29	1.69	260.62 261.10	63.502 63.577	GAVELIN	0.45	1.02	181.50 182.15	35.003 35.017	MEAN MEAN	1.98 2.12	0.95
103.61	13,400	MEAN	2.58	1.50	267.31	64.279	NUTT	1.00	1.41	183.41	35.043	MEAN	2.23	1.23
104.51 104.71	13.457 13.470	MEAN GLOBOCAS	2.74	1.75	267.51 267.72	64.307 64.343	ORID MEAN	0.26	1.65	183.63 184.87	35.048 35.074	MEAN MEAN	1.89 1.82	1.24
105.11	13.495	MEAN	2.74	1.73	267.79	64.356	MEAN	0.27	1.11	185.13	35.080	MEAN	2.14	0.98
105.51 106.01	13.521 13.553	MEAN MEAN	2.65	1.36	267.92 268.11	64.378	MEAN GAVELIN	0.54	1.22	185.57 189.01	35.089 35.486	CIB BENTHICS	2.05	1.00
106.21	13.566	CIB	2.46	1.40	270.11	64.756	MEAN	0.76	1.32	192.98	36.007	BJARV	2.37	1.40
106.41 106.85	13.578 13.624	MEAN CIBKULL	2.46	1.52 1.45	271.71	65.032	MEAN	0.65	1.30	193.21	36.037	MEAN	2.39	1.24
107.09	13.682	MEAN	2.29	1.44	271.92 273.25	65.068 65.381	MEAN MEAN	0.55	1.30	194.18 194.55	36.164 36.213	BJARV BJARV	2.45	1.64
110.81	14.579	MEAN	2.40	1.48	276.21	65.888	NUTTCIB	0.55	1.39	195.57	36.346	BJARV	2.44	1.59
111.80 116.27	14.818 16.718	PWUELL MEAN	2.26	2.29	278.33 279.71	66.215 66.418	NUTTCIB NUTTGAV	0.50	2.16	197.90 199.00	36.652 36.796	MEAN MEAN	1.89 2.55	1.70
116.41	16.822	MEAN	2.24	2.44	279.91	66.447	NUTTGAV	0.49	2.03	199.20	36.823	MEAN	2.29	1.63
116.51 116.52	16.896 16.941	GLOBOCAS	1.73	1.72 2.52	280.10 280.28	66.464 66.472	NUTTGAV NUTT	0.62	2.01	199.50 200.13	36.862 37.059	BJARV MEAN	2.48 1.37	0.92
119.51	17.827	ANOMAL	1.74	1.74	280.49	66.481	NUTTGAV	0.62	1.79	200.13	37.091	BULIMINA	1.73	0.92
120.76	17.965	CIB	1.82	1.75	280.68	66.489	NUTT	1.01	2.26	200.78	37.362	MEAN	1.06	1.13
124.92 133.74	22.861	GLOBOCAS CIB	1.79 2.07	1.85	280.85 281.19	66.496	NUTTGAV	0.92	1.94	201.39 201.53	37.647 37.712	MEAN NOD	1.01	0.84
157.53	23.546	MEAN	1.44	1.55	281.40	66.519	NUTT	1.29	2.17	202.58	38.202	MEAN	1.34	0.80
159.45 160.85	23.587	MEAN MEAN	1.55	1.38	281.59 282.00	66.527 66.545	MEAN NUTTGAV	0.88	1.85	205.20 206.60	39.424 40.078	BJARV BULIMINA	1.44	0.83
164.87	25.728	MEAN	1.49	1.09	282.20	66.553	NUTT	0.57	1.70	207.35	40.428	MEAN	1.24	0.70
166.25 167.75	26.342 27.009	STILOS STIL	1.39	1.32						207.88 222.50	40.675	MEAN MEAN	1.10	0.93
		12.4 A.M.	1,00	10 mm (m) (1						444.30	41.491	HILLSPAIN	1.44	U.0/

Note: If more than one analysis was made, a mean was taken. Ages are estimated as described in Shackleton et al. (this volume).

APPENDIX D
Isotopic Analyses of Planktonic Foraminifers from Sites 525-529

Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (%)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ Ο (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ Ο (‰)	δ ¹³ C (%)
Hole 525B					Hole 525A (cont.)				Hole 526A (cont.)			
99.37 117.25	7.145	Globigerina bulloides Globigerinoides sacculifer	3.10 0.53	2.66	387.31 390.09	57.643 57.902	Subbotina patagonica	-0.40	1.76	214.71	35.753	Globigerinatheka index	0.24	
117.25	10.285	Globigerina nepenthes	0.47	2.26	390.09	57.902	S. patagonica Morozovella marginodentata	-0.41 -0.73	2.93	214.71 122.81	35.753 22.817	Catapsydrax sp. Globoquadrina dehiscens	1.25	1.54
117.25	10.285	Globorotalia conoidea	1.07	2.08	404.65	59.271	Subbotina patagonica	-0.42	3.49	119.51	17.827	Globigerina apertura	0.79	2.01
139.18 139.18	12.645 12.645	Globoquadrina dehiscens Globogerina nepenthes	1.07 0.87	1.90	393.36 393.36	58.206 58.206	Morozovella velascoensis Subbotina patagonica	-0.91 -0.27	4.76 2.41	Hole 527				
139.41	12.734	G. nepenthes	0.83	2.48	403.35	59.144	Morozovella velascoensis	-0.98	4.48	146.77	49.888	Morozovella spp.	-0.29	3.43
139.41 139.61	12.734 12.801	Globoquadrina dehiscens	0.85	1.81	403.35	59.144	Subbotina patagonica	-0.56	3.24	164.69	54.786	M. aragonensis	-0.87	3.27
139.61	12.801	G. dehiscens Globigerina nepenthes	0.94	1.84	404.59 404.59	59.265 59.265	S. patagonica Morozovella velascoensis	-0.64 -0.95	3.08 4.33	172.89	55.656	Subbotina patagonica	-0.51	1.27
139.81	12.811	G. nepenthes	0.72	2.54	404.65	59.271	M. pseudomenardii	-0.40	3.23	172.89 172.89	55.656 55.656	Globigerina reissii G. soldadoensis	-0.56 -0.69	1.23
139.81	12.811 12.820	Globoquadrina dehiscens Globigerina nepenthes	0.74	1.83	404.65 408.91	59.271 59.687	M. velascoensis M. velascoensis	-0.87 -1.01	4.65	172.89	55.656	Morozovella formosa	-0.78	2.56
140.01	12.820	Globoquadrina dehiscens	0.91	1.84	408.91	59.687	Subbotina patagonica	-0.66	3.12	172.89	55.656	M. lehneri	-0.97 -0.59	2.45 0.92
140.21	12.830	Globigerina nepenthes	0.47	2.55	411.91	59.981	S. patagonica	-0.49	3.63	172.89 184.71	55.656 56.483	Chiloguembelina wilcoxensis Morozovella spp.	-0.59	3.03
140.21	12.830 12.900	Globoquadrina dehiscens G. dehiscens	0.50 0.71	1.90 2.19	411.91 412.81	59.981 60.069	Morozovella velascoensis Subbotina patagonica	-0.83 -0.42	4.94 3.50	201.61	57.664	M. marginodentata	-0.58	2.91
141.71	12.900	G. dehiscens	0.78	1.65	412.81	60.069	Morozovella velascoensis	-0.80	4.89	201.61 202.11	57.664 57.699	Subbotina patagonica S. patagonica	-0.04 -0.40	1.83
174.61	15.628 15.635	Globigerinoides sacculifer Globoquadrina dehiscens	1.00	3.55	415.35 415.35	60.237 60.237	Subbotina patagonica Morozovella velascoensis	-0.44 -0.95	3.51 4.88	202.11	57.699	Morozovella velascoensis	-1.07	3.71
174.91	15.650	Globigerinoides sacculifer	0.94	3.44	422.01	60.800	M. marginodentata	-0.88	4.24	281.14	58.819	M. spp.	-0.73	4.52
175.31	15.680	G. sacculifer	1.05	3.52	422.01	60.800	Subbotina patagonica	-0.56	3.18	218.34 218.63	58.833 58.853	M. spp. M. spp.	-0.27 -0.79	5.07 4.45
175.51 175.51	15.695 15.695	Globoquadrina dehiscens Globigerinoides sacculifer	1.16	2.65 3.43	422.01 433.72	60.800 61.984	Acarinina nitida Morozovella spp.	-0.63 -0.99	3.90	219.38	58.906	M. spp.	-0.70	4.66
175.81	15.717	G. sacculifer	0.75	2.98	210000000	01.501	morogovena app.	0.33	2.2.	258.10 258.10	62.959	Planorotalites ehrenbergi Morozovella angulata	-0.15 -1.00	1.74 3.11
176.01	15.732 15.746	G. sacculifer G. sacculifer	0.68	3.08	Hole 526A					258,10	62.959	Planorotalites compressa	-0.14	1.81
176.41	15.761	G. sacculifer	0.63	3.08	30.80	4.033	Globigerinoides ruber	0.13	1.35	258.10	62.959	Morozovella conicotruncata	-0.91	2.73
176.41	15.761	Globoquadrina altispira	0.77	2.48	34.55 39.52	4.419	G. ruber Globigerina nepenthes	0.32	1.40	261.10 267.31	63.577	M. uncinata Planorotalites compressa	-0.75 -0.13	1.90
188.71 189.51	16.671 16.731	Globigerinoides sacculifer Globigerinoides spp.	0.30 0.85	3.06	44.42	4.882	G. nepenthes	0.18	1.58	267.51	64.307	P. compressa	-0.24	1.94
191.41	16.871	G. spp.	0.76	3.64	48.11	5.154	G. nepenthes	0.29	1.65	267.72	64.343	P. compressa	-0.20 -0.18	1.84
191.61	16.886	G. spp.	0.71	3.38	52.61 58.11	5.916 6.847	G. nepenthes Globigerinoides mitra	0.41	1.60	267.92 271.92	64.378	P. compressa P. compressa	0.45	2.25
194.21	17.165	G. spp.	0.52	3.14	63.41	7.745	Globigerina nepenthes	0.87	2.04	271.71	65.032	P. compresa	0.16	2.04
Hole 525A					63.41 63.61	7.745	Globigerinoides sacculifer Globigerina nepenthes	0.65	2.44	279.91 280.10	66.447 66.464	Mixed planktonics, 63-75 μm Planoglobulina spp.	-0.06 -0.22	1.54
279.10	46.600	Morozovella spp.	-0.11	3.00	63.61	7.779	Globigerinoides sacculifer	0.42	2.64	280.10	66.464	Abathomphalus mayeroensis	-0.41	2.36
279.63	46.733	M. aragonensis	-0.19	2.81	63.81	7.813	G. sacculifer	0.60	2.43	280.10	66.464	Mixed planktonics, 63-75 µm	0.06	2.49
281,10 282,60	47.101 47.477	M. aragonensis M. aragonensis	-0.35 -0.45	3.26	63.81	7.813 7.813	G. seiglei Globigerina nepenthes	0.86	2.16	280.28 280.49	66.472 66.481	Planoglobulina spp. Abathomphalus mayeroensis	0.01 -0.53	3.07
284.10	47.860	M. aragonensis	-0.23	3.03	64.01	7.846	G. nepenthes	1.16	2.20	280.49	66.481	Planoglobulina spp.	-0.49	3.16
287.10 288.60	48.710 49.135	M. aragonensis M. subbotinae	-0.07 0.31	3.12 1.75	64.21 66.31	7.880 8.236	G. nepenthes Globigerinoides sacculifer	0.42	2.23	280.68 280.68	66.489 66.489	Abathomphalus mayeroensis Planoglobulina spp.	-0.26 -0.27	2.12
288.60	49.135	M. lensiformis	-0.13	2.72	66.51	8.270	G. sacculifer	0.71	2.68	280.85	66.496	Abathomphalus mayeroensis	-0.14	2.14
289.10	49.277	M. aragonensis	0.03	2.66	66.51	8.270	G. ruber	0.88	2.30	280.85	66.496	Planoglobulina spp.	-0.15	3.33
290.51 292.01	49.677 50.050	M. aragonensis M. spp.	-0.19 -0.15	3.04 2.42	66.51 66.51	8.270 8.270	G. sacculifer Globigerina nepenthes	0.48	2.11	281.19 281.19	66.510 66.510	P. spp. Abathomphalus mayeroensis	-0.21 -0.09	3.32 2.11
293.51	50.256	M. spp.	-0.39	2.34	66.71	8.304	Globigerinoides sacculifer	0.82	2.42	281.40	66.519	Planoglobulina spp.	-0.48	2.99
295.01 298.01	50.462 50.875	M. spp.	-0.40	3.18	75.51 75.51	9.814	G. sacculifer	0.40	1.91	281.40 281.40	66.519	P. spp. Abathomphalus mayeroensis	-0.99 -0.17	3.10
302.39	51.477	M. aragonensis M. spp.	-0.51 -0.68	3.14	78.41	9.814	Globigerina nepenthes G. obesa	1.23	1.65	281.59	66.527	Planoglobulina spp.	-0.17	2.80
322.79	53.502	M. spp.	-0.96	3.34	78.41	10.313	G. nepenthes	0.81	2.30	282.00	66.545	P. spp.	-0.20	3.00
337.85 358.19	54.604 55.808	M. aragonensis M. acuta	-1.21 -0.79	2.53	78.81 80.01	10.382	G. nepenthes G. obesa	0.62	1.71	282.20 282.40	66.553	Abathomphalus mayeroensis Planoglobulina spp.	-0.46 -0.57	1.70 2.95
358.19	55.808	Subbotina trilocularis	-0.65	1.24	80.01	10.588	G. nepenthes	0.79	2.04	282.70	66.574	P. spp.	-0.57	2.58
358.29 358.29	55.811 55.811	Morozovella acuta	-1.02	2.28	83.81	11,141	G. nepenthes	0.92	2.11	282.70	66.574	Abathomphalus mayeroensis	-0.58	2.06
358.39	55.814	Subbotina trilocularis Morozovella acuta	-0.82 -0.98	2.24	83.81 83.81	11.141	Globorotalia conoidea G. miozea	1.27	1.78	283.14	66.593	Planoglobulina spp.	-0.22	4.04
358.49	55.818	M. acuta	-1.13	2.16	84.21	11.199	Globigerina nepenthes	0.86	1.92	Hole 528A				
358.49 358.59	55.818 55.821	Subbotina trilocularis Morozovella acuta	-0.69 -1.22	1.08 2.13	84.41 84.61	11.228	G, nepenthes G, nepenthes	0.92	2.08	8.87 8.95	1.002	Globigerinoides ruber G. ruber	0.58	1.53
358.59	55.821	Subbotina trilocularis	-0.53	0.94	84.81	11.286	G. nepenthes	0.79	1.76	9.05	1.022	Gioborotalia inflata	1.74	1.06
358.69	55.824	Chiloguembelina wilcoxensis	-0.80	0.24	85.01	11.315	G. nepenthes	0.90	1.90	9.05	1.022	Globigerinoides ruber	0.45	1.27
358.69 358.69	55.824 55.824	Morozovella acuta Subbotina trilocularis	-1.10 -0.63	0.70	88.57 91.61	11.832 12.336	G. nepenthes G. nepenthes	0.53	1.94 2.18	9.05 9.15	1.022	G. ruber G. ruber	0.35	0.95
358.89	55.831	Morozovella acuta	-0.42	2.13	97.11	12.985	G. nepenthes	0.41	1.92	9.35	1.056	G. ruber	0.74	1.09
358.89 358.89	55.831 55.831	Chiloguembelina wilcoxensis Morozovella subbotinae	-0.54 -1.13	1.00 2.28	105.51 105.51	13.521 13.521	Globoquadrina dehiscens Globigerina nepenthes	0.65	1.76	9.45 9.55	1.067	G. ruber G. ruber	0.57	1.48
358.99	55.834	Chiloguembelina wilcoxensis	-0.47	1.03	110.81	14.579	Globigerinoides sacculifer	0.79	2.49	9.75	1.101	G. ruber	0.93	0.95
358.99	55.834	Morozovella subbotinae	-1.05	2.32	110.81	14.579	G. subquadratus	0.65	2.26	9.95	1,124	G. ruber	0.53	1.37
358.99 358.99	55.834 55.834	M. acuta M. acuta	-0.45 -0.66	2.07	110.81 110.81	14.579	Globigerina nepenthes Globoquadrina dehiscens	0.94	1.70	10.05 10.15	1.135	G. ruber G. ruber	0.49	1.10
359.09	55.838	Chiloguembelina wilcoxensis	-0.36	0.91	114.21	15.399	G. dehiscens	0.95	2.04	10.25	1.158	G. ruber	0.53	1.45
359.09	55.838	Morozovella subbotinae	-0.60	2.25	114.21 119.51	15.399	G. altispira	0.96	2.03	10.35	1.169	G. ruber	0.39	1.61
359.19 359.19	55,841 55,841	M. subbotinae Chiloguembelina wilcoxensis	-0.73 -0.40	0.79	119.51	17.827 17.827	G. dehiscens Globorotalia peripheroronda	0.97	1.51	10.45	1.180	G. ruber G. ruber	0.59	1.10
359.19	55.841	Morozovella subbotinae	-0.82	2.13	128.26	22.931	Globoquadrina dehiscens	0.89	1.33	10.62	1.199	G. ruber	0.74	1.17
359.29 359.39	55.844 55.848	Chiloguembelina wilcoxensis Morozovella subbotinae	-0.38 -0.68	0.84 2.26	141.56 157.53	23.211	G. dehiscens G. transdehiscens	1.14	2.05 1.97	10.75 10.83	1.214	G. ruber G. ruber	0.55	1.28
359.39	55.848	Chiloguembelina wilcoxensis	-0.26	0.93	157.53	23.546	Catapsydrax sp.	0.88	1.52	10.83	1.223	G. ruber G. ruber	0.33	1.69
359.49	55.851	Morozovella subbotinae	-0.85	2.11	160.11	23.609	C. sp.	1.09	1.48	11.03	1.246	G. ruber	0.93	1.09
359.49 359.59	55.851 55.854	Chiloguembelina wilcoxensis Morozovella subbotinae	-0.27 -0.82	0.75 2.12	160.11 160.11	23.609	Globigerina barbemoensis G. angulisuturalis	0.65	1.26	11.25 11.35	1.270	G. ruber G. ruber	0.59	1.30
359.59	55.854	Chiloguembelina wilcoxensis	-0.48	0.82	160.11	23.609	Globigerina tripartita	0.95	1.39	11.55	1.304	G. ruber	0.65	1.40
371.57	56.255	Morozovella marginodentata	-1.16	2.29	160.11	23.609	G. globularis	1.13	1.32	11.64	1.314	G. ruber	0.78	1.39
379.21 379.21	56.888 56.888	M. subbotinae Subbotina patagonica	-0.62 -0.28	1.74	163.85 175.90	25.274 29.002	G. bulloides Globorotalia opima	1.49	1.09	11.64 11.64	1.314	Globorotalia truncatulinoides Globigerinoides ruber	0.66	1.20
382.21	57.167	Morozovella marginodentata	-0.77	2.93	176.79	29.143	G. opima nana	1.17	1.07	11.64	1.314	Globorotalia inflata	1.90	1.23
382.21 385.81	57.167 57.503	Subbotina patagonica Morozovella marginodentata	-0.39	1.78	176.79 213.21	29.143 35.486	Globigerina ampliapertura	1.15 0.14	1.33	11.75	1.327	Globigerinoides ruber	0.52	1.65
385.81	57.503	Subbotina patagonica	-0.70 -0.43	1.68	213.21	35.486	Globigerinatheka index Catapsydrax sp.	0.14	1.79	11.85 11.85	1.338	G. ruber Globorotalia inflata	0.41 1.54	1.45
	57.643	Morozovella marginodentata	-0.67	2.90	214.71	35.753	Globorotalia cerroazulensis	0.39	1.94	11.85	1.338	Globigerinoides ruber	0.43	1.52

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Appendix D. (Continued).

Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (%)	δ ¹³ C (%)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ Ο (‰)	δ ¹³ C (‰)	Sub-bottom Depth (m)	Age (m.y.)	Species	δ ¹⁸ O (‰)	δ ¹³ C (‰)
Hole 528		NO. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	100000	30,2000	Hole 529 (co	nt.)	31.57 5 501925	9000000		Hole 529 (co	nt.)			
228.29	37,285	Globigerinatheka spp.	0.02	2.58	141,46	28,982	Catapsydrax sp.	1.69	1.64	201.53	37.712	G. cerroazulensis	0.27	1.80
252.00	47.302	Morozovella arazonensis	-0.33	3.30	151.33	31.611	C. sp.	1.64	1.51	201.53	37.712	Catansydrax sp.	0.41	1.78
256.61	48.632	M. spp.	-0.44	3.20	151.33	31.611	Turborotalia spp.	1.38	1.71	202.58	38.202	Globigerina cerroazulensis	0.57	1.82
312.07	56.869	M. subbotinge	-0.86	2.52	156.21	32.911	Catapsydrax sp.	1.33	1.86	202.58	38.202	Catapsydrax sp.	0.77	1.68
312.07	56,869	Subbotina patagonica	-0.45	1.56	156.21	32.911	Globorotalia siakensis	1.34	1.86	205.20	39.424	Globigerinatheka index	0.59	2.26
312.99	57,464	S. pataeonica	-0.13	1.66	168.89	34.735	Globigerina pseudoampliapertura	1.35	1.96	205.20	39,424	Globigerina cerroazulensis	0.60	1.91
312.99	57,464	Morozovella rex	-0.13	2.72	168.89	34.735	Catansydrax sp.	1.13	1.91	205.20	39,424	Catapsydrax echinatus	0.15	2.93
313.56	57.623	M. velascoensis	-1.06	3.65	175.41	34.873	Globigerina pseudoampliapertura	1.25	1.86	205.20	39.424	C. sp.	0.60	1.89
313.56	57.623	Subbotina patagonica	-0.26	2.21	175.41	34.873	Turborotalia spp.	1.41	1.80	205.20	39.424	Turborotalia increbescens	0.54	2.14
313.82	57.640	Morozovella acuta	-0.26	3.87	175.41	34.873	Globigerina euaperta	1.34	2.12	205.20	39.424	Globigerina winkleri	0.64	2.04
313.82	57.640	Subbotina pataeonica	-0.82	2.22	175.41	34.873	Catapsydrax sp.	1.26	1.80	207.35	40,428	Globigerinatheka index	0.60	2.06
314.21	57.666	Morozovella subbotinae	-0.32	3.42	176.73	34.901		1.00	1.60	207.35	40,428	Globigerina cerroazulensis	0.54	1.85
314.21	57,666					35.043	C. sp.	1.41	1.90	207.35	40.428	G. corpulenta	0.65	1.86
		Subbotina patagonica	-0.24	2.17	183.41		Globigerina cerroazulensis		1.63	207.35	40.428	Catansydrax sp.	0.71	1.57
315.99	57.782	S. patagonica	-0.38	2.92	183.41	35.043	Catapsydrax sp.	1.19	1.76	207.35	40.428	Globigerinatheka subconglobata	0.40	2.05
315.99	57.782	Morozovella rex	-0.80	4.22	183.63	35.048	C. unicavus	1.30		207.35	40.428	Globigerina winkleri	0.57	2.01
Hole 529					193.21	36.037	C. sp.	1.15	1.92	220.59	46.605	Acarinina sp.	0.62	2.86
	0.000000	COLOR DE CONTRACTOR DE CONTRAC	W25785		198.95	36.790	C. sp.	1.33	2.08			Globigerina cerroazulensis	0.62	1.96
0.11	0.029	Globigerinoides ruber	0.47	1.11	199.20	36.823	Globigerina pseudoeocaena	1.17	2.25	220.59	46.605		0.94	1.60
37.77	12.079	Globigerina nepenthes	0.74	2.04	199.20	36.823	Catapsydrax sp.	1.21	2.10	222.50	47.497	Catapsydrax unicavus	0.46	1.82
121.81	24.348	G. tripartita	1.30	1.78	200.04	37.017	Globigerina cerroazulensis	0.28	1.68	222.50	47.497	Globigerina cerroazulensis	0.40	2.37
121.81	24.348	Globoquadrina praedehiscens	1.43	1.83	200.13	37.059	G. cerroazulensis	0.46	1.87	222.50	47.497	Globigerinatheka mexicana	0.40	2.11
121.81	24.348	Catapsydrax sp.	1.40	1.41	200.13	37.059	Turborotalia increbescens	0.37	2.07	222.50	47.497	Globigerina winkleri		
121.81	24.348	Globoquadrina spp.	1.39	1.54	200.13	37.059	Globigerinatheka index	0.52	2.75	222.50	47.497	Globigerinatheka subconglobata	0.46	2.29
121.81	24,348	Globigerina ouachitensis	1.40	1.72	200.13	37.059	Globigerina winkleri	0.66	2.09	222.50	47.497	Catapsydrax sp.	0.90	1.50
121.81	24.348	G. sellii	1.47	1.83	200.13	37.059	Catapsydrax sp.	0.52	1.84	238.11	52.201	Globorotalia bullbrooki	-0.63	1.34
121.81	24,348	Globoquadrina transdehiscens	1.49	1.83	200.78	37,362	Hantkenina spp.	0.30	2.22	238.11	52.201	G. pseudotopilensis	-0.57	1.62
131.49	26.571	Globigerina angulisuturalis	1.08	1.66	200.78	37.362	Globigerinatheka index	0.21	2.73	238.11	52.201	Morozovella aragonensis	-0.83	2.23
131.49	26.571	Catapsydrax sp.	1.48	1.46	200.78	37.362	Catapsydrax sp.	0.59	1.95	238.11	52.201	Chiloguembelina wilcoxensis	-0.63	0.70
136.31	27.678	Globigerina tripartita	1.44	1.77	200.78	37.362	Globigerina cerroazulensis	0.37	2.17	238.11	52.201	Morozovella soldadoensis	-0.83	1.62
136.31	27,678	G. globularis	1.23	1.46	201.39	37.647	Catapsydrax sp.	0.62	1.90	238.11	52.201	M. subbotinae	-0.24	1.04
136.31	27.678	G. angulisuturalis	1.03	1.64	201.39	37.647	Globigerinatheka index	0.37	2.47	245.68	54.545	M. spp.	-1.06	2.40
136.31	27,678	Catapsydrax unicavus	1.16	1.38	201.39	37.647	Catapsydrax unicavus	0.72	1.70	268.84	57.639	M. spp.	-0.80	2.81
136.31	27,678	Globigerina gortanii	1.21	1.47	201.53	37.712	Globigerina gortanii	0.97	2.07					

Note: Ages are estimated as described in Shackleton et al. (this volume).