

Kandemir, Ö., Akbayram, K., Çobankaya, M., Kanar, F., Pehlivan, Ş., Tok, T., Hakyemez, A., Ekmekçi, E., Danacı, F., and Temiz, U., 2019, From arc evolution to arc-continent collision: Late Cretaceous–middle Eocene geology of the Eastern Pontides, northeastern Turkey: GSA Bulletin, <https://doi.org/10.1130/B35913.1>.

Data Repository

A1. List of supplementary figures, plates and tables	2
A2. Petrographic descriptions of radiometric dating samples	6
A3. Analytical methods	7
A4. References	8

A1. List of supplementary figures, plates and tables

Figure DR1. (A) The faulted unconformity between Dogger volcanics and the Çatak Formation (Location P1 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 40 906 - 45 54 886). (B) The conformable relationship between the basal conglomerates and the Lower-Mid. Turonian pelagic limestones of the Çatak Formation (Location P1 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: UTM 37T/ 07 40 906 - 45 54 886). (C) The conformable contact between basic-intermediate volcanics of the Çatak Formation and overlying dacites of the Kızılkaya Formation (Location P2 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 32 235 - 45 56 212). (D) The basalts of the Sümbüllü Formation conformably overlying the pelagic limestones of the Kızılkaya Formation (Location P3 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 33 191 - 45 70 388).

Figure DR2. (A) Eocene? basalt sills and dykes crosscutting the Cankurtaran Formation (Location P4 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 10 900 - 45 86 300). (B) The unconformity between the Sümbüllü Formation and the Beşağıl Formation (Location P3 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 33 500 - 45 70 800). (C) The unconformity between the basalts of the Sümbüllü Formation and the Upper Cretaceous conglomerate-reefal limestone intercalation of the Ağıllar Formation (Location P5 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 23 000 - 45 66 500). (D) The angular unconformity between the Sümbüllü Formation and the limestones of the Ağıllar Formation (Location P6 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 51 688 - 45 59 280). (E) The disconformity between the Beşağıl Formation and the Erenler Formation (Location P7 in Fig. 4 – Datum WGS 1984/ UTM 37T/ 07 33 714 - 45 70 987). (F) The disconformity between the Beşağıl Formation and the Erenler Formation (Location P8 in Fig. 4 – Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 32 650 - 45 72 270).

Figure DR3. Thrust fault between the Carboniferous granitoids and the Eastern Pontide arc rocks. For figure location, see Figure 4.

Plate DR1. Photomicrographs of some important planktonic foraminifera species defined from the Cretaceous Eastern Pontide Arc. Scale bar is 100 µm. (1–6) *Helvetoglobotruncana helvetica*

(Bolli), early-middle Turonian, (7–11) *Dicarinella asymmetrica* (Sigal), Santonian, (12–17) *Dicarinella concovata* (Brotzen), Santonian, (18–21) *Marginotruncana coronata* (Bolli), Santonian, (22–26) *Marginotruncana pseudolinneiana* Pessagno, Santonian.

Plate DR2. Photomicrographs of some important Campanian-Maastrichtian planktonic foraminifera species defined from the Beşağıl formation (2, 17 and 18) and the Cankurtaran Formation (all others). Value of scale bar for each sample is in brackets. Sample numbers and their ages are also indicated below and can also be followed in Tables DR7 and DR8. (1) *Abathomphalus mayaroensis* (Bolli), a- spiral view (350 µm), b- umbilical view (250 µm), c- side view (420 µm), 13-ÖK-113B, late Maastrichtian, (2) *Abathomphalus mayaroensis* (Bolli), a- spiral view (330 µm), b- side view (300 µm), sample 13-ŞP-45C, late Maastrichtian, (3) *Globigerinelloides messinae* (Brönnimann), a- umbilical view (130 µm), b- side view (190 µm), 13-ÖK-102B, late Campanian-Maastrichtian, (4) *Globotruncana linneiana* (d'Orbigny), a- spiral view (300 µm), b- umbilical view (300 µm), c- side view (250 µm), 13-ÖK-93B, late Campanian-Maastrichtian; (5) *Kuglerina rotundata* (Brönnimann), a- spiral view (220 µm), b- umbilical view (220 µm), c- side view (220 µm), 13-ÖK-99B, late Campanian-Maastrichtian, (6) *Globotruncana arca* (Cushman), a- spiral view (340 µm), b- umbilical view (340 µm), c- side view (270 µm), 13-ÖK-88B, middle-late Campanian-Maastrichtian, (7) *Contusotruncana contusa* (Cushman), a- spiral view (300 µm), c- side view (300 µm), sample 13-ÖK-112B, late Maastrichtian, (8) *Contusotruncana plicata* (White), spiral view (320 µm), 13-ÖK-108B, late Maastrichtian, (9) *Globotruncanita stuarti* (de Lapparent), a- spiral view (320 µm), b- umbilical view (300 µm), c- side view (250 µm), 13-ÖK-113B, late Maastrichtian, (10) *Rugoglobigerina pennyi* Brönnimann, a- spiral view (240 µm), b- umbilical view (220 µm), 13-ÖK-112B, late Maastrichtian, (11) *Globigerinelloides subcarinatus* (Brönnimann), a- umbilical view (170 µm), b- side view (170 µm), 13-ÖK-102B, late Campanian-Maastrichtian, (12) *Planoglobulina acervulinoides* (Egger) (300 µm), 13-ÖK-109B, late Maastrichtian, (13) *Globotruncanella havanensis* (Voorwijk), a- spiral view (160 µm), b- umbilical view (160 µm), 13-ÖK-102B, late Campanian-Maastrichtian, (14) *Globotruncanella petaloidea* (Gandolfi), umbilical view (160 µm), 13-ÖK-102B, late Campanian-Maastrichtian, (15) *Gublerina cuvillieri* Kikoine, 210 µm, 13-CP-01, latest Maastrichtian; (16) *Racemiguembelina fructicosa* (Egger) (260 µm), 13-ÖK-113B, late Maastrichtian, (17) *Racemiguembelina fructicosa* (Egger) (220 µm), 13-ŞP-43B, late Maastrichtian, (18) *Racemiguembelina powelli* (Smith & Pessagno) (280 µm), 13-ŞP-43B, late Maastrichtian, (19) *Pseudotextularia elegans* (Rzehak) (240 µm), 13-ÖK-109B, late Maastrichtian.

Plate DR3. Photomicrographs of some important Paleocene-Lower Eocene planktonic foraminifera species defined from the Cankurtaran Formation (2 and 6) and the Erenler Formation (all others). Value of scale bar for each sample is in brackets. Sample numbers and their ages are also indicated below and can also be followed in Tables DR7 and DR10. (1) *Globanomalina chapmani* (Parr), a- spiral view (200 µm), b- umbilical view (200 µm), c- side view (170 µm), 13-SP-61, Late Paleocene-Early Eocene?, (2) *Parasubbotina pseudobulloides* (Plummer), a- spiral view (200 µm), b- umbilical view (200 µm), c- side view (200 µm), 13-CP-20, early Danian, (3) *Acarinina soldadoensis* (Brönnimann), a- spiral view (200 µm), b- umbilical view (200 µm), c- side view (200 µm), 13-MC-158, Thanetian?- early Ypresian, (4) *Acarinina mckannai* (White), spiral view (200 µm), 13-SP-61, Late Paleocene-Early Eocene?, (5) *Acarinina nitida* (Martin), spiral view (170 µm), 13-MC-152, Thanetian?- early Ypresian, (6) *Subbotina triloculinoides* (Plummer), a- spiral view (160 µm), b- umbilical view (160 µm), c- side view (160 µm), 13-CP-20, early Danian, (7) *Subbotina velascoensis* (Cushman), a- spiral view (190 µm), c- side view (210 µm), 13-SP-61, Late Paleocene-Early Eocene?, (8) *Acarinina pseudotopilensis* Subbotina, umbilical view (130 µm), 13-MC-152, Thanetian?- early Ypresian, (9) *Morozovella* sp., spiral view (160 µm), 13-MC-158, Thanetian?- early Ypresian, (10) *Subbotina triangularis* (White), a- spiral view (200 µm), b- umbilical view (200 µm), c- side view (230 µm), 13-MC-152, Thanetian?- early Ypresian, (11) *Igorina* sp., spiral view (120 µm), 13-SP-61, Late Paleocene-?Early Eocene.

Plate DR4. Photomicrographs of some important calcareous nannofossils from the Erenler Formation. Scale bar is 2 µm. Photomicrographs numbered with digit “a” are taken under cross-polarized light, with digit “b” are taken under parallel light. Sample numbers and their ages are also indicated below and can also be followed in Table DR10. (1a–1b) *Sphenolithus primus* Perch-Nielsen, 13-MC-144, late Thanetian, (2a–2a1) *Sphenolithus moriformis* (Brönnimann & Stradner), 13-MC-150, late Thanetian, (3a–3b) *Coccolithus eopelagicus* (Bramlette & Riedel), 13-SP-50, late Thanetian, (4a–4b) *Heliolithus kleinpelli* Sullivan, 13-SP-50, Ypresian, (5a–5b) *Ericsonia robusta* (Bramlette & Sullivan), 13-SP-50, Ypresian, (6a–6b) *Fasciculithus tympaniformis* Hay & Mohler, 13-SP-50, Ypresian, (7a–7b) *Fasciculithus thomasii* Perch-Nielsen, 13-SP-50, early Ypresian, (8a–8b) *Neococcolithes minutus* (Perch-Nielsen), 13-SP-50, early Ypresian, (9a–9b) *Toweius eminens* (Bramlette & Sullivan), 13-SP-52, early Ypresian, (10a–10b) *Fasciculithus tympaniformis* Hay & Mohler, 13-MC-251, Ypresian, (11a–11b) *Discoaster kuepperi* Stradner, 13-MC-245, late Ypresian, (12a–12b) *Discoaster elegans* Bramlette & Sullivan 13-MC-245, late Ypresian, (13a–13b) *Tribrachiatus orthostylus* Shamrai,

13-MC-241, late Ypresian, (14a–14b) *Discoaster binodosus* Martini, 13-MC-245, late Ypresian, (15a–15b) *Discoaster araneus* Bukry, 13-MC-269, Ypresian, (16a–16a1–16b) *Sphenolithus editus* Perch-Nielsen, 13-MC-269, Ypresian, (17a–17a1–17b) *Sphenolithus radians* Deflandre, 13-MC-269, Ypresian, (18a–18b) *Ericsonia cava* (Hay & Mohler), 13-MC-267, Ypresian, (19a–19b) *Fasciculithus pileatus* Bukry, 13-MC-269, Ypresian, (20a–20b) *Ericsonia robusta* (Bramlette & Sullivan), 13-MC-269, Ypresian, (21a–21b) *Coccolithus eopelagicus* (Bramlette & Riedel), 13-MC-271, late Ypresian, (22a–22b) *Toweius? gammation* (Bramlette & Sullivan), 13-MC-265, Ypresian, (23a–23b) *Neococcolithes minutus* (Perch-Nielsen), 13-MC-265, Ypresian, (24a–24b) *Chiphragmalithus calathus* Bramlette & Sullivan, 13-MC-271, late Ypresian, (25a–25b) *Discoaster lodoensis* Bramlette & Riedel, 12-MC-364, late Ypresian, (26a–26b) *Discoaster deflandrei* Bramlette & Riedel, 12-MC-366, late Ypresian.

Plate DR5. Photomicrographs of some important calcareous nannofossils from the Kabaköy Formation. Scale bar is 2 µm. Photomicrographs numbered with digit “a” are taken under cross-polarized light, with digit “b” are taken under parallel light. Sample numbers and their ages are also indicated below and can also be followed in Table DR11. (1a–1b) *Reticulofenestra dictyoda* (Deflandre), 13-MC-214, Lutetian, (2a–2b) *Helicosphaera seminulum* Bramlette & Sullivan, 13-MC-70, Ypresian, (3a–3b) *Neochiastozygus distentus* (Bramlette & Sullivan), 12-TT-115, Lutetian, (4a–4b) *Ericsonia formosa* (Kamptner), 13-KA-52, late Lutetian, (5a–5b) *Micrantholithus bulbosus* Bouche, 13-KA-52a, late Lutetian, (6a–6b) *Rhabdosphaera inflata* Bramlette & Sullivan, 13-MC-214, Lutetian, (7a–7a1–7b) *Chiasmolithus solitus* (Bramlette & Sullivan), 13-KA-52a, late Lutetian, (8a–8a1–8b) *Sphenolithus anarrhopus* Bukry & Bramlette, 12-TT-115, Lutetian, (9a–9b) *Cribrocentrum coenurum* (Reinhardt), 13-KA-529, late Lutetian, (10a–10b) *Cyclicargolithus floridanus* (Roth), 13-KA-53c, late Lutetian, (11a–11b) *Zygrhablithus bijugatus* (Deflandre), 13-KA-52a, Lutetian, (12a–12b) *Helicosphaera lophota* Bramlette & Sullivan, 13-KA-52a, late Lutetian, (13a–13b) *Pontosphaera plana* (Bramlette & Sullivan), 13-KA-52a, late Lutetian, (14a–14b) *Reticulofenestra umbilica* (Levin), 13-KA-52a, late Lutetian.

Table DR1: Paleontological data of samples from the Çatak Formation.

Table DR2: Ar-Ar isotopic data of samples from the Çatak and the Kızılıkaya Formations. Dated sample locations are shown in Fig. 4.

Table DR3: Paleontological data of samples from the Kızılıkaya Formation.

Table DR4: Paleontological data of samples from the Sümbüllü Formation.

Table DR5: Paleontological data of samples from the Çayırbağ Formation.

Table DR6: U–Pb zircon data of the sample from the Kaçkar Granitoids. Sample location is shown in Fig. 4.

Table DR7: Paleontological data of samples from the Cankurtaran Formation.

Table DR8: Paleontological data of samples from the Beşağıl Formation.

Table DR9: Paleontological data of samples from the Ağıllar Formation.

Table DR10: Paleontological data of samples from the Erenler Formation.

Table DR11: Paleontological data of samples from the Kabaköy Formation.

A2. Petrographic descriptions of radiometric dating samples

Sample R1 (Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T / 07 36 325 N – 45 43 836 E) is a basaltic pillow lava from the Çatak Formation. The amigdoloidal, intersertal and ophitic textures with secondary filling of calcite, chlorite and zeolite in the amigdoloidals are observed. The main constituents are prismatic-polysynthetic twins of plagioclase microlites. Zircons found as the accessory minerals.

Sample R2 (Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T/ 07 22 961 N – 45 54 112 E) is a dacite from the Kızılıkaya Formation. The main constituents of this sample are quartz and plagioclase phenocrysts with lesser amount of alkali feldspar and opaque minerals. A felsitic groundmass, made up of quartz and feldspat microcrystals, is very well preserved in thin section. Quartz phenocrysts are anhedral to subhedral, have commonly rounded and corroded margins. The sericitization of the subhedral plagioclase phenocrysts and the groundmass are common.

Sample R3 (Datum: WGS 1984/ Universal Transverse Mercator [UTM] coordinates: 37T / 07 50 909 N – 45 68 165 E) is a granite porphyry from the Kaçkar Granitoid. The sample has holocrystalline porphyritic texture and consists mainly of quartz and plagioclase. Muscovite, titanite, zircon and opaque minerals are observed as accessory minerals. Plagioclases are usually sericitized and show polysynthetic twinning. Phenocrysts of quartz are anhedral, rounded and

usually have corroded margins. The groundmass of the sample has microfelsitic texture also made up of quartz and feldspar. The sample also contains chloritized, carbonated mafic mineral remnants.

A3. Analytical Methods

A3.1. $^{40}\text{Ar}/^{39}\text{Ar}$ age dating: Flux Monitoring and Isotope measurements

$^{40}\text{Ar}/^{39}\text{Ar}$ age dating was done at the Geochronology and Isotopic Geochemistry Laboratory of Activation Laboratories Ltd. (Actlabs), Ancaster, Ontario, Canada. We obtained $^{40}\text{Ar}/^{39}\text{Ar}$ ages of three whole rock samples of the arc rocks. The samples wrapped in Al foil was loaded in evacuated and sealed quartz vial with K and Ca salts and packets of LP-6 biotite interspersed with the samples to be used as a flux monitor. The samples were irradiated in the nuclear reactor for 48 hours. The flux monitors were placed between every two samples, thereby allowing precise determination of the flux gradients within the tube. After the flux monitors were run, J values were then calculated for each sample, using the measured flux gradient. LP-6 biotite has an assumed age of 128.1 Ma. The neutron gradient did not exceed 0.5% on sample size. The Ar isotope composition was measured in a Micromass 5400 static mass spectrometer. 1200°C blank of ^{40}Ar did not exceed $n \times 10^{-10}$ cc STP. Argon is extracted from the sample as degassing at ~100°C during two days in double vacuum furnace at 1700°C. Argon concentration is determined using isotope dilution with ^{38}Ar spike, which is introduced to the sample system prior to each extraction. The obtained pure Ar is introduced into customer build magnetic sector mass spectrometer (Reinolds type) with Varian CH5 magnet. Measurement Ar isotope ratios is corrected for mass– discrimination and atmospheric argon assuming that ^{36}Ar is only from the air. After each analysis the extraction temperature is elevated to 1800°C for few minutes. Then, Aliquot of the sample is weighed into graphite crucible with lithium metaborate/tetraborate flux and fused using LECO induction furnace for K–analysis. The fusion bead is dissolved with acid. Standards, blanks and sample are analyzed on Thermo Jarrell Ash Enviro II ICP 261 Spectrometer.

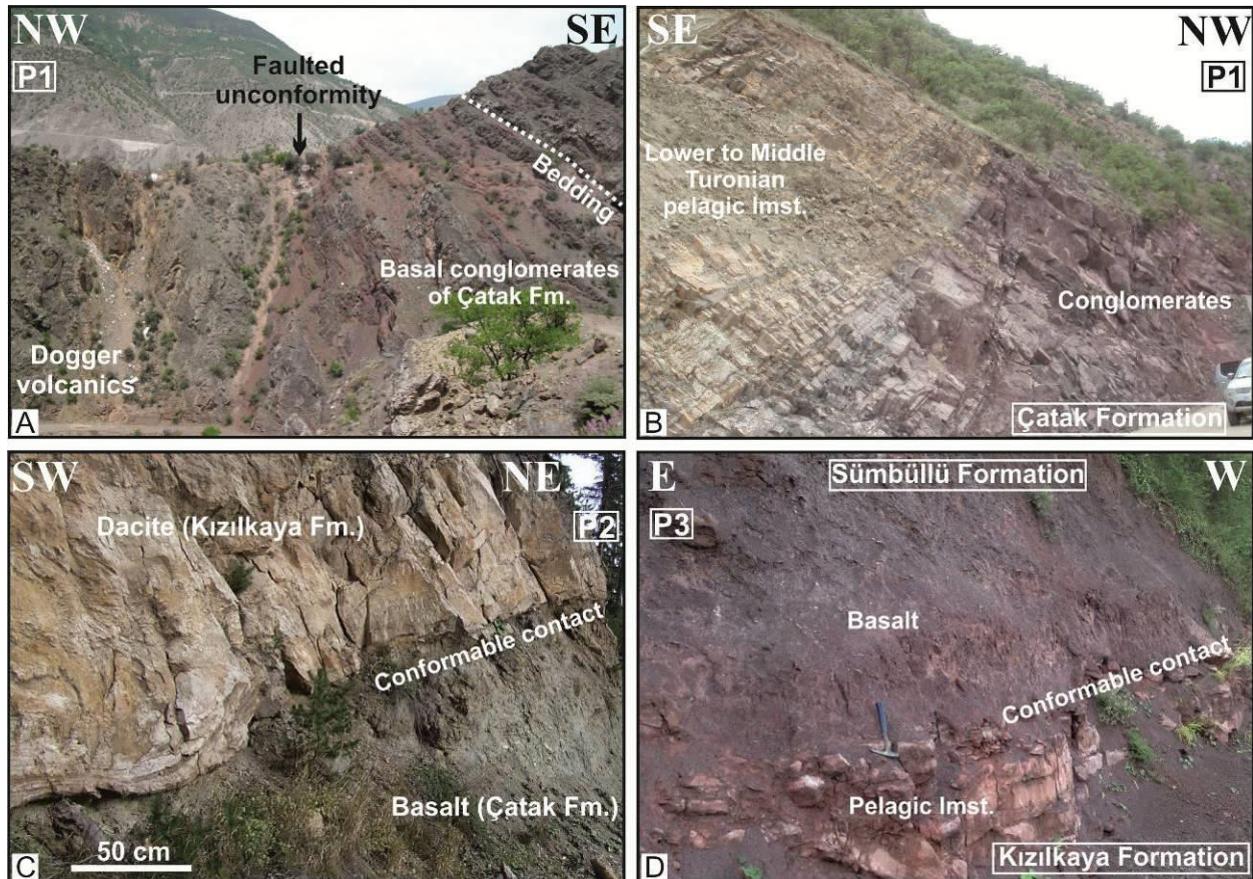
A3.2. U-Pb age determinations on zircons by LA-ICP-MS

U-Pb ages were determined by LA-ICP-MS using a Thermo Scientific Element 2 ICP/MS at the University of Kansas. A Photon Machines 193 nm ArF excimer laser was used to ablate 29 μm spots on whole zircon crystals placed on double-sided tape. The laser was set to

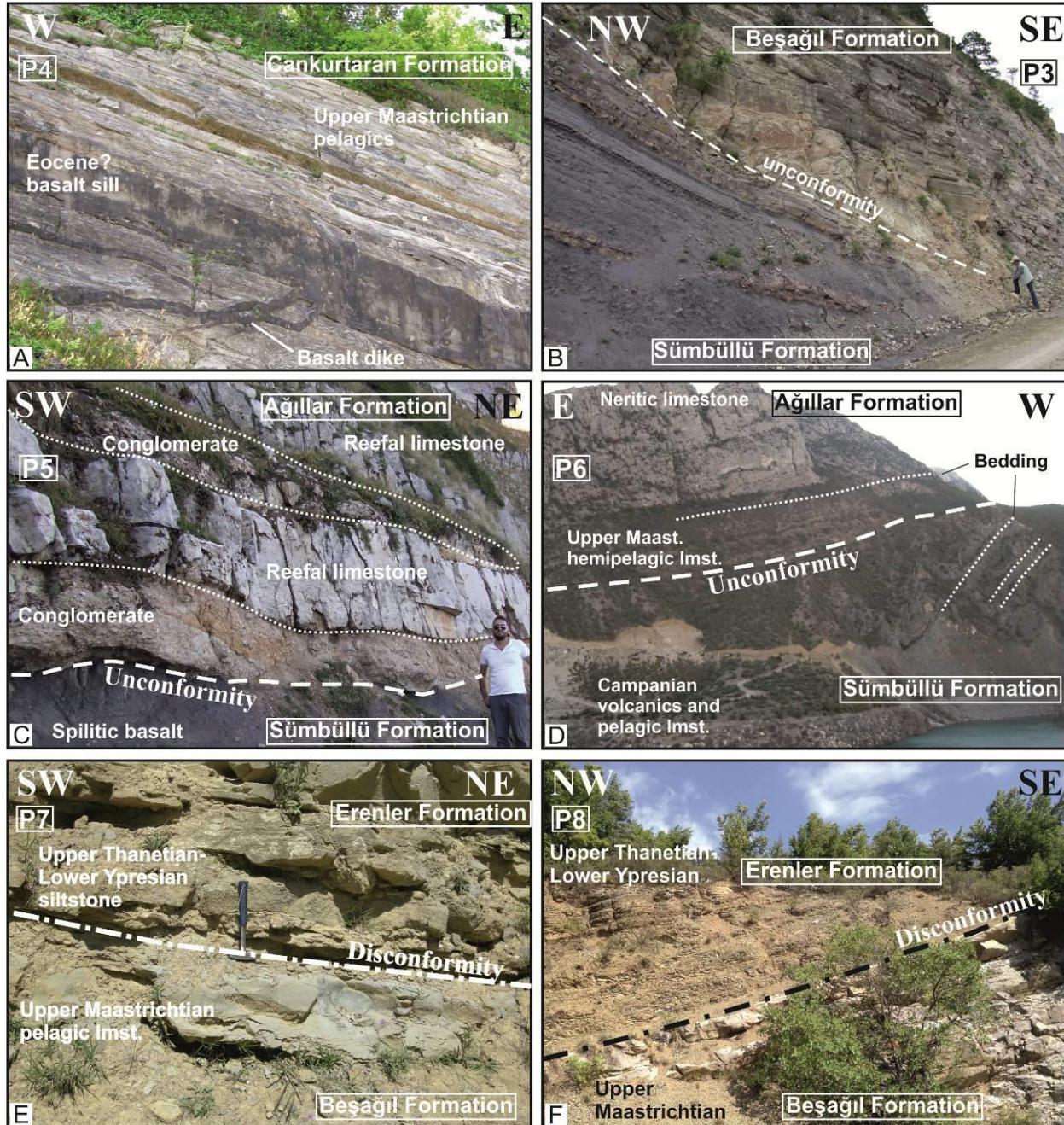
3.5 J cm^{-2} fluency at 10 Hz repetition rate, which produced ablation pits of $\sim 20 \mu\text{m}$ depth, with the ablated material carried to the ICP/MS in He gas with a flow rate of 0.74 L min^{-1} , tied in with Ar gas at 1.0 L min^{-1} flow rate with a Y-connector 15 cm down flow from the ablation cell. Elemental fractionation, downhole fractionation, and calibration drift were corrected by bracketing measurements of unknowns with GJ1 zircon reference material (Jackson et al., 2004) and data reduction using the VisualAge data reduction scheme (Petrus and Kamber, 2012) for the IOLITE software package (Paton et al., 2011). Because the zircon crystals were not polished, multiple growth zones were ablated during some analyses. Ages were calculated only for the outermost growth zones (rims) in these cases. Within run, reproducibility of the GJ1 reference material (Jackson et al. 2004) was better than 2% on the U-Pb age. Results were corrected for diffusive lead loss and common lead with the methods of Andersen (2002).

A4. References

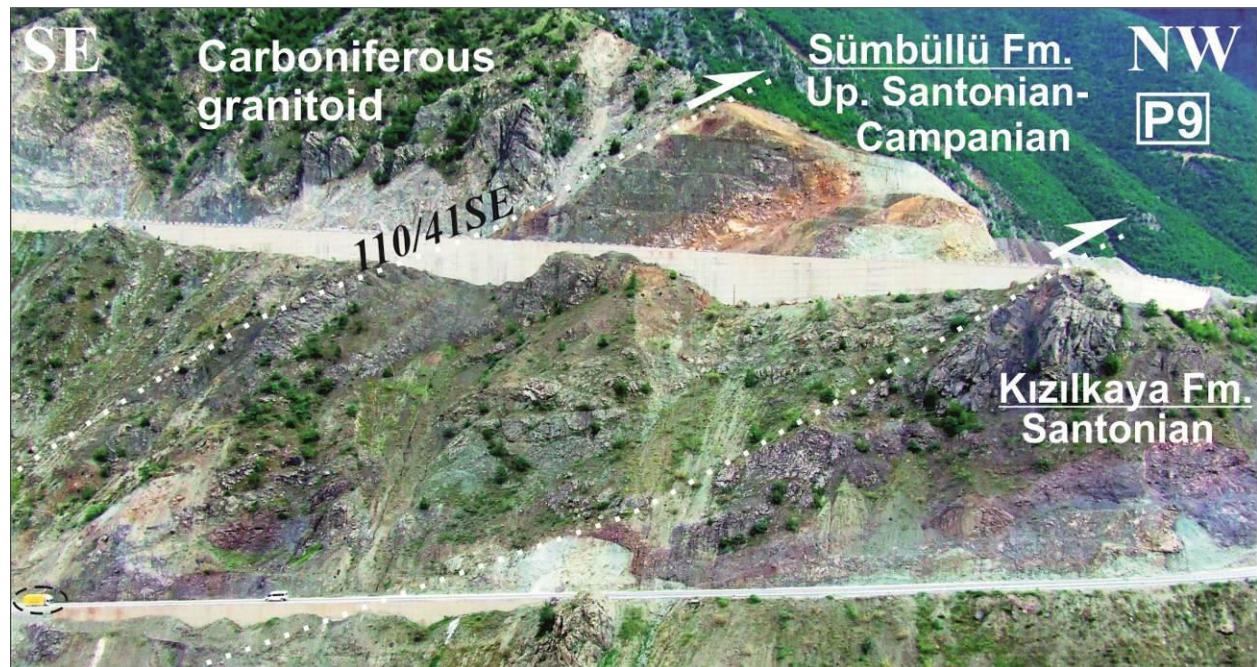
- Andersen, T., 2002, Correction of common lead in U–Pb analyses that do not report ^{204}Pb : Chemical geology, v. 192(1), p. 59–79.
- Jackson, S.E., Pearson, N.J., Griffin, W.L. and Belousova, E.A., 2004, The application of laser ablation-inductively coupled plasma-mass spectrometry to in situ U–Pb zircon geochronology: Chemical Geology, v. 211(1), p. 47–69.
- Paton, C., Hellstrom, J., Paul, B., Woodhead, J. and Herdt, J., 2011, Iolite: Freeware for the visualisation and processing of mass spectrometric data: Journal of Analytical Atomic Spectrometry, v. 26(12), p. 2508–2518.
- Petrus, J.A. and Kamber, B.S., 2012, VizualAge: A Novel Approach to Laser Ablation ICP - MS U - Pb Geochronology Data Reduction: Geostandards and Geoanalytical Research, v. 36(3), p. 247–270.



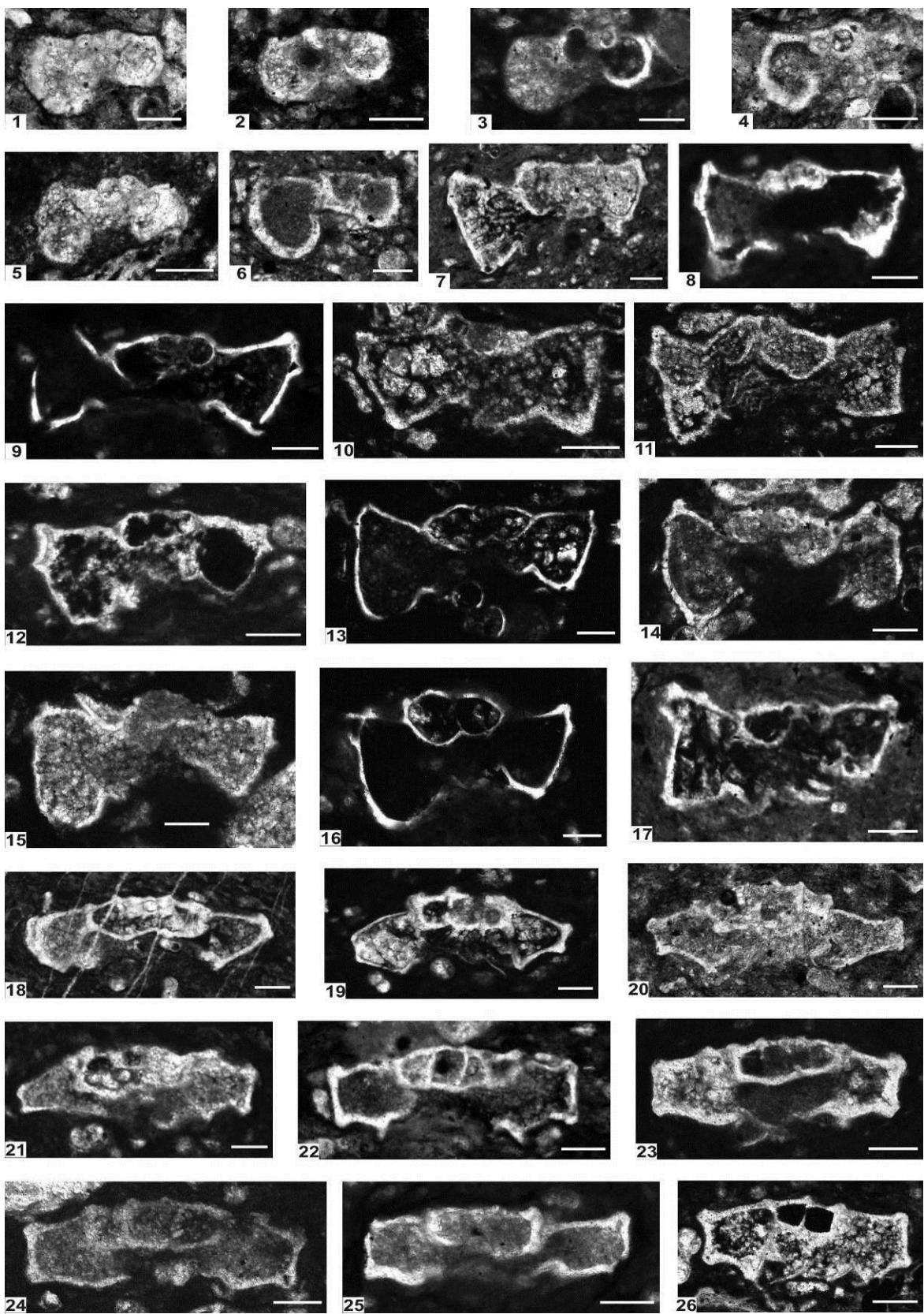
Kandemir et al. Figure DR1

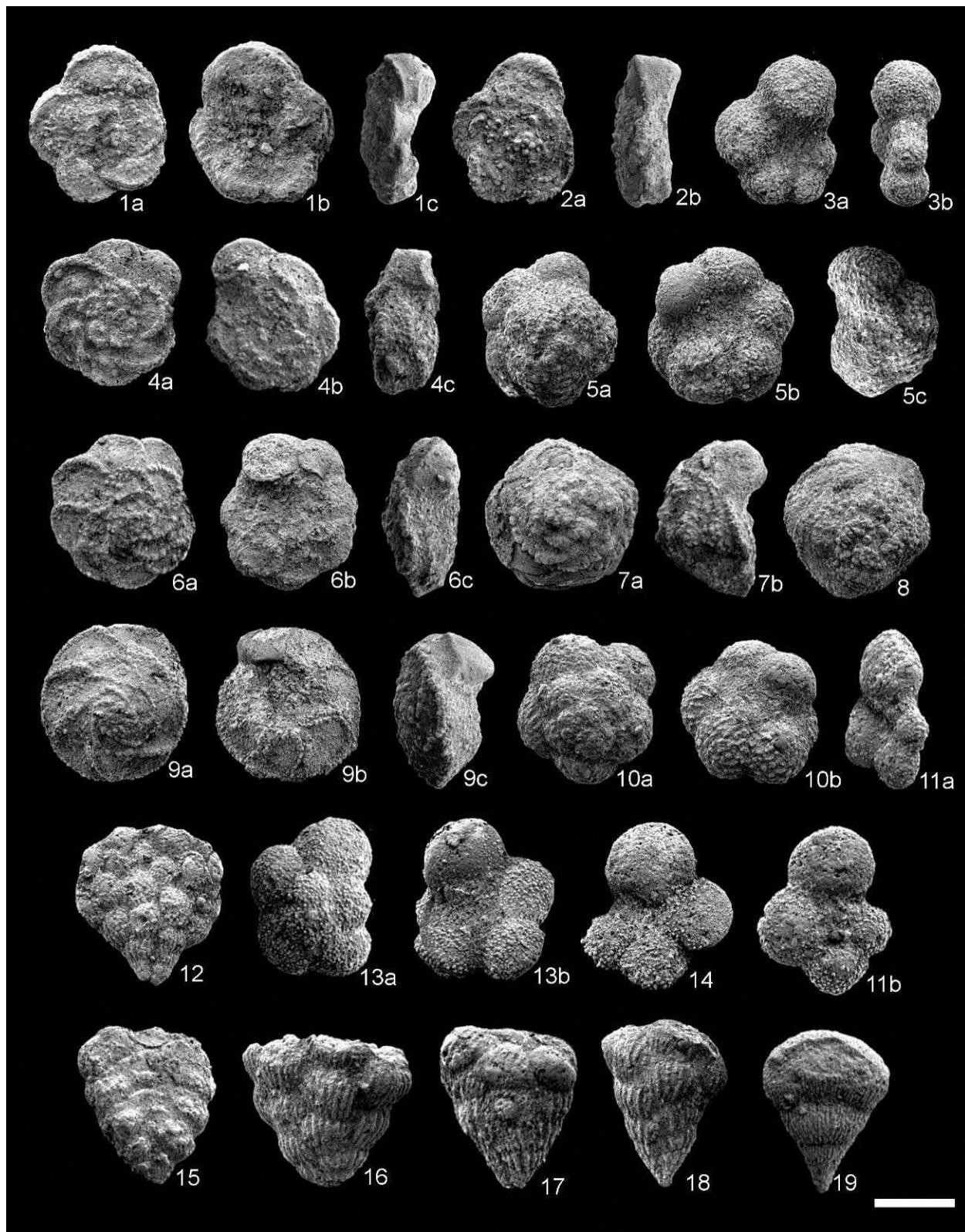


Kandemir et al. Figure DR2

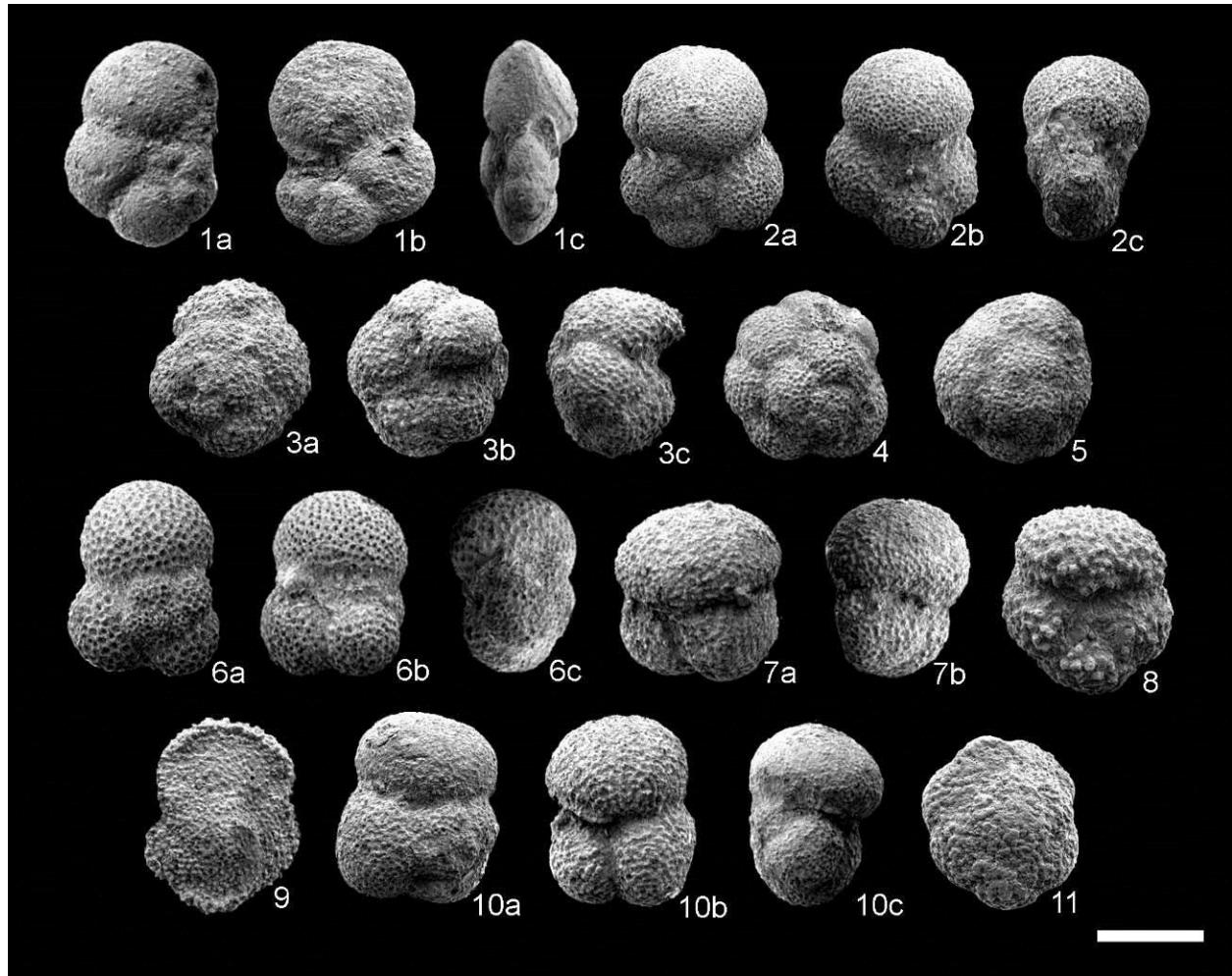


Kandemir et al. Figure DR3

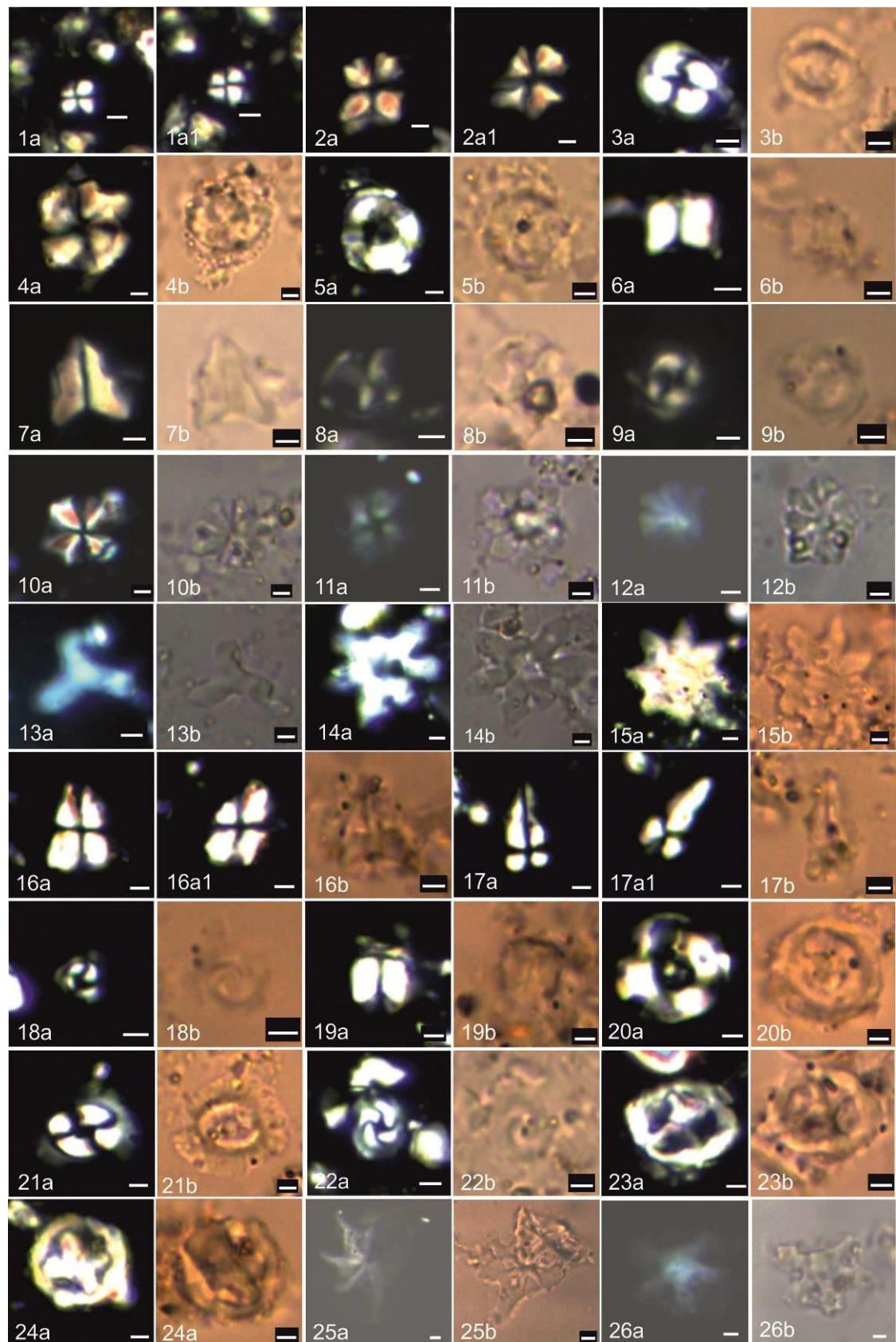


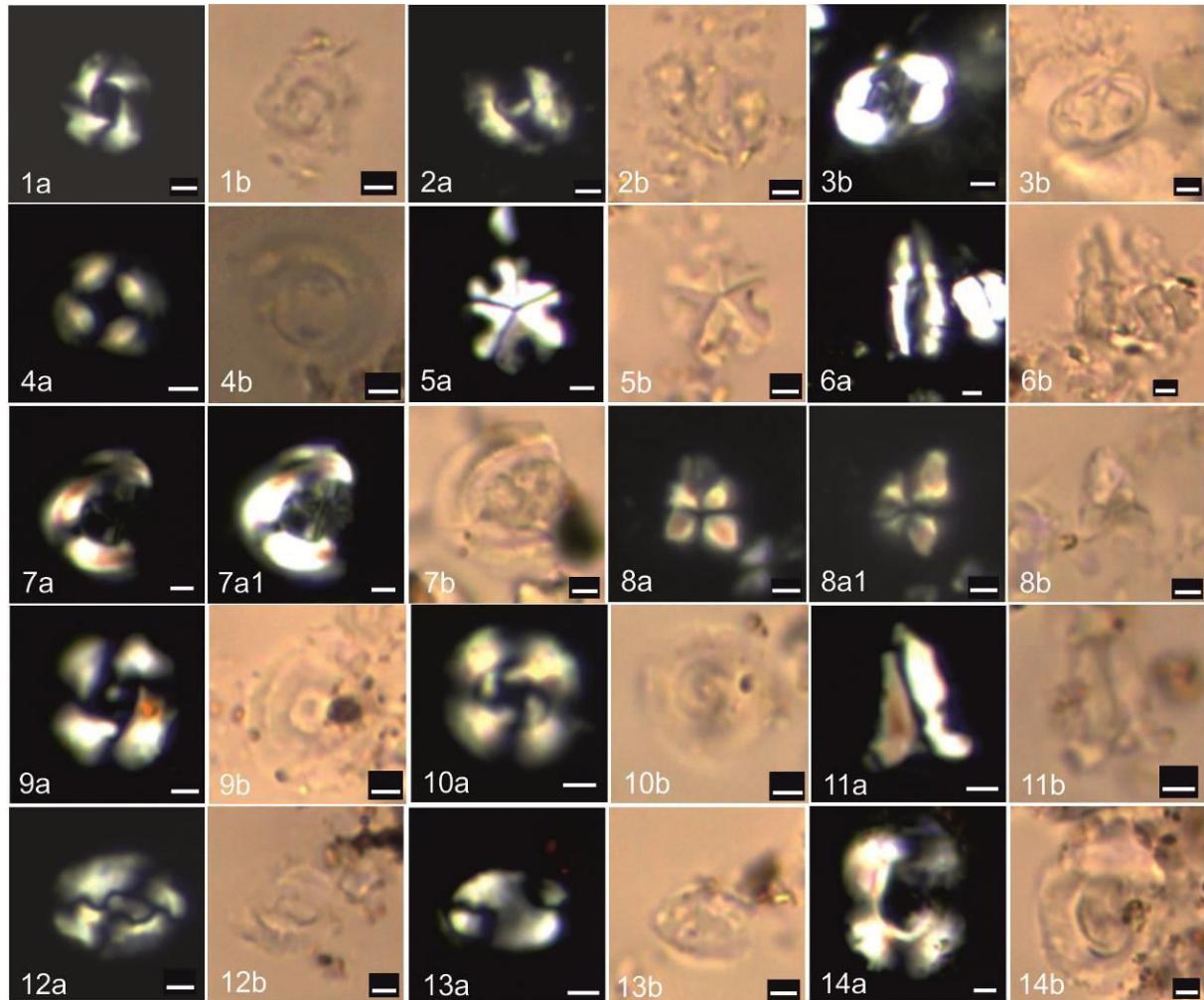


Kandemir et al. Plate DR2



Kandemir et al. Plate DR3





Kandemir et al. Plate DR5

Table DR1: Paleontological data of samples from the Çatak Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing planktonic foraminifera				
12-TT-02	1	0740906E 4554886N	<i>Praeglobotruncana</i> cf. <i>gibba</i> Klaus <i>Helvetoglobotruncana</i> cf. <i>helvetica</i> (Bolli) <i>Marginotruncana renzi</i> (Gandolfi) <i>Praeglobotruncana</i> sp. <i>Dicarinella</i> sp. <i>Macroglobigerinelloides</i> sp. <i>Muricohedbergella</i> sp.	early-mid. Turonian
12-TT-03	1	0740906E 4554886N	<i>Macroglobigerinelloides</i> sp. Globotruncanid foram.	early-mid. Turonian?
12-TT-04	1	0740906E 4554886N	<i>Praeglobotruncana</i> cf. <i>gibba</i> Klaus <i>Helvetoglobotruncana</i> cf. <i>helvetica</i> (Bolli) <i>Marginotruncana renzi</i> (Gandolfi) <i>Praeglobotruncana</i> sp. <i>Dicarinella</i> sp. <i>Macroglobigerinelloides</i> sp. <i>Muricohedbergella</i> sp.	early-mid. Turonian
12-ÖK-233	2	0740521E 4566613N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Helvetoglobotruncana</i> cf. <i>Helvetica</i> <i>Globigerinelloides</i> sp. <i>Dicarinella</i> sp. <i>Heterohelix</i> sp. Radiolaria	Turonian
12-ÖK-234	2	0740521E 4566613N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Helvetoglobotruncana</i> cf. <i>Helvetica</i> <i>Globigerinelloides</i> sp. <i>Dicarinella</i> sp. <i>Heterohelix</i> sp. Radiolaria	Turonian
12-ÖK-252		0750743E 4571925N	<i>Dicarinella</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> spp. Radiolaria	Turonian-Santonian
12-ÖK-257		0750771E 4572991N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Turonian-Santonian
12-ÖK-258		0750771E 4572991N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Turonian-Santonian
12-ÖK-259		0750771E 4572991N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Turonian-Santonian
12-ÖK-260	3	0749828E 4573606N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Turonian-Santonian

Table DR1 (continued)

12-ÖK-261		0749691E 4573939N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana coronata</i> Bolli, <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Turonian-Santonian
12-ÖK-262	4	0748226E 4574237N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Santonian
12-ÖK-405	5	0742193E 4570410N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-TT-157	20	0712944E 4548364N	<i>Heterohelix</i> spp. <i>Globigerinelloides</i> spp. <i>Marginotruncana</i> ? sp. <i>Hedbergella</i> sp.	Turonian-Santonian?
12-TT-38-39	25	0752244E 4544050N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Santonian
12-FK-205	1	0740822E 4554767N	<i>Helvetoglobotruncana cf. helvetica</i> (Bolli) <i>Marginotruncana cf. renzi</i> (Gandolfi) <i>Whiteinella baltica</i> Douglas and Rankin <i>Whiteinella</i> spp.	Turonian
12-TT-118-119	26	0750032E 4545497N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Santonian

Table DR2. Ar-Ar isotopic data of the samples collected from the Çatak and the Kızılıkaya Formations (sample locations shown in Fig. 4).

T ⁰ C	⁴⁰ Arcc(STP)	⁴⁰ Ar/ ³⁹ Ar	±1σ	³⁸ Ar/ ³⁹ Ar	±1σ	³⁷ Ar/ ³⁹ Ar	±1σ	³⁶ Ar/ ³⁹ Ar	±1σ	Ca/K	Σ ³⁹ Ar (%)	Age (Ma)	±1σ
------------------	-------------------------	------------------------------------	-----	------------------------------------	-----	------------------------------------	-----	------------------------------------	-----	------	------------------------	----------	-----

The Çatak Formation

Sample no: R1 (Basalt groundmass), J=0.003969 ± 0.000041

550	8.94*e ⁻⁹	68.752	1.151	0.05332	0.01185	5.2565	0.1108	0.21263	0.01700	18.9	2.6	41.9	34.4
700	29.43*e ⁻⁹	59.752	0.372	0.04131	0.00299	5.5534	0.0532	0.16058	0.00629	20.0	12.3	86.0	12.6
850	36.33*e ⁻⁹	48.815	0.120	0.03919	0.00042	6.6580	0.0362	0.11834	0.00245	24.0	27.1	96.5	5.0
950	49.27*e ⁻⁹	18.215	0.011	0.01683	0.00044	1.0970	0.0061	0.01711	0.00041	3.9	80.6	91.8	1.2
1130	24.89*e ⁻⁹	25.360	0.037	0.02711	0.00066	6.7488	0.0128	0.05130	0.00143	24.3	100.0	71.6	3.0

Plateau Age=92.1 ± 1.2 Ma

Isochron Age=100.3 ± 2.3 Ma

The Kızılıkaya Formation

Sample no: R2 (Dacite groundmass), J=0.003850 ± 0.000039

500	22.77*e ⁻⁹	13.8527	0.0075	0.015338	0.000965	0.0121	0.0148	0.00284	0.00028	0.0435	8.6	88.2	1.0
625	104.95*e ⁻⁹	13.6648	0.0049	0.014292	0.000076	0.0052	0.0013	0.00156	0.00019	0.0189	48.6	89.5	1.0
725	90.19*e ⁻⁹	13.4309	0.0049	0.014539	0.000196	0.0025	0.0022	0.00101	0.00015	0.0091	83.6	89.0	0.9
825	34.63*e ⁻⁹	13.4475	0.0202	0.014699	0.000371	0.0066	0.0023	0.00243	0.00148	0.0239	97.0	86.3	3.0
925	7.18*e ⁻⁹	17.6899	0.0720	0.018896	0.001426	0.0779	0.0205	0.01341	0.00281	0.2803	99.1	92.9	5.6
1130	5.41*e ⁻⁹	33.0431	0.4258	0.023855	0.004673	0.1903	0.0508	0.05831	0.01290	0.6851	100.0	106.6	25.0

Plateau Age=88.8 ± 0.9 Ma

Isochron Age=88.8 ± 1.3 Ma

Table DR3: Paleontological data of samples from the Kızılıkaya Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing planktonic foraminifera				
13-ÖK-07	6	0747481E 4572287N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella cf. concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-08	6	0747367E 4572300N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella cf. concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-47	7	0719646E 4570216N	<i>Marginotruncana coronata</i> Bolli <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-MC-174	8	0731468E 4572604N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp. Radiolaria	Santonian
12-MC-351	9	0738405E 4573381N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-MC-356	9	0740050E 4573224N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-07		0747481E 4572287N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella cf. concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian

Table DR3 (continued)

13-ÖK-08		0747367E 4572300N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymmetrica</i> (Sigal) <i>Dicarinella cf. concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-MC-04	10	0737287E 4576591N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella cf. asymmetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Globigerinidae</i>	Santonian
13-MC-05	10	0737287E 4576591N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Dicarinella</i> sp. <i>Globigerinidae</i> Radiolaria	late Santonian
13-MC-30	11	0738836E 4577013N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella concavata</i> Brotzen <i>Rosita fornicata</i> (Plummer) <i>Globigerinidae</i>	late Santonian
13-MC-31	11	0738836E 4577013N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Dicarinella concavata</i> Brotzen <i>Globigerinidae</i>	late Santonian
13-MC-35	11	0739082E 4576671N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella concavata</i> Brotzen <i>Globigerinidae</i>	late Santonian
13-MC-36	11	0739082E 4576671N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> sp. <i>Globigerinidae</i> <i>Heterohelicidae</i>	Santonian
13-MC-37	11	0739082E 4576671N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Rosita fornicata</i> (Plummer)	Santonian
13-FK-22		0744650E 4570050N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella concavata</i> (Brotzen) <i>Whiteinella</i> sp.	Santonian
13-TT-120		0710661E 4565500N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella asymmetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-TT-113	12	0745289E 4548010N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella cf. asymmetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-TT-169	21	0717413E 4546400N	<i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella asymmetrica</i> (Sigal) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> sp.	Santonian

Table DR3 (continued)

12-SP-84	22	0730200E 4563940N	<i>Marginotruncana coronata</i> (Bolli) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana</i> gr. <i>sinuosa</i> Porthault <i>Globotruncana tricarinata</i> (Quereau) <i>Globotruncana lapparenti</i> (Brotzen) <i>Dicarinella?</i> sp. <i>Heterohelix</i> spp. <i>Globigerinelloides</i> spp. <i>Hedbergella</i> sp.	Santonian
12-SP-85	22	0730200E 4563940N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-ÖK-34	23	0737575E 4563484N	<i>Marginotruncana tarfayaensis</i> (Lehmann) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana renzi</i> (Gandolfi) <i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Dicarinella</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Marginotruncana</i> spp. Radiolaria	Turonian-Santonian
12 ÖK-38-39- 40	23	0737394E 4564253N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-ÖK-122 - 123-125-127	24	0731500E 4562134N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian

Table DR4: Paleontological data of samples from the Sümbüllü Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing planktonic foraminifera				
13-ÖK-10	13	0715679E 4573169N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> cf. <i>concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-17		0740617E 4577860N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) ?Marginotruncana sp. <i>Globigerinelloides</i> sp. Radiolaria	?Santonian-Campanian
13-ÖK-19		0740897E 4578108N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler ?Marginotruncana sp. <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	?Santonian-Campanian
13-ÖK-29		0716225E 4571910N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-39	13	0715992E 4573141N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-50		0717329E 4572497N	<i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-51		0717329E 4572497N	<i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-60		0716847E 4574966N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian

Table DR4 (continued)

13-ÖK-61		0716847E 4574966N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-190	14	0741528E 4575772N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-191	14	0741942E 4575781N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-201		0716760E 4574270N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-202	15	0719988E 4576365N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-ÖK-206		0730727E 4574871N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
13-KA-95-C2	16	0701675E 4583341N	<i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Globigerinidae</i>	late Santonian
13-MC-02	10	0737298E 4576718N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Globigerinidae</i>	late Santonian
13-MC-03	10	0737298E 4576718N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Globigerinidae</i>	late Santonian
13-MC-12	11	0738418E 4577226N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicate</i> (Plummer) <i>Globotruncana ventricosa</i> White <i>Dicarinella</i> sp. <i>Heterohelicidae</i> <i>Globigerinidae</i>	late Santonian
13-MC-13	11	0738418E 4577226N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicate</i> (Plummer) <i>Globigerinidae</i> <i>Heterohelicidae</i>	Campanian

Table DR4 (continued)

13-MC-17	11	0738668E 4577273N	<i>Dicarinella concavata</i> (Brotzen) <i>Marginotruncana pseudolineeiana</i> Pessagno <i>Globotruncanita cf. stuartiformis</i> Dalbiez <i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) Globigerinidae Heterohelicidae	late Santonian
13-MC-18	11	0738668E 4577273N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineeiana</i> Pessagno <i>Rosita fornicata</i> (Plummer) Globigerinidae Heterohelicidae	late Santonian
13-MC-21	11	0738748E 4577197N	<i>Dicarinella concavata</i> (Brotzen) <i>Globotruncana arca</i> (Cushman) <i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) Globigerinidae Heterohelicidae	late Santonian
13-MC-25	11	0738900E 4577180N	<i>Globotruncana bulloides</i> Vogler <i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana ventricosa</i> White Globigerinidae	?-Campanian
13-MC-28	11	0739015E 4577091N	<i>Dicarinella concavata</i> Brotzen <i>Dicarinella asymetrica</i> (Sigal) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana ventricosa</i> White <i>Rosita fornicata</i> (Plummer) Globigerinidae	late Santonian
13-MC-38		0738800E 4579124N	<i>Marginotruncana pseudolineeiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Rosita fornicata</i> (Plummer) Globigerinidae	Santonian
13-MC-65	27	0735933E 4582910N	<i>Globotruncana ventricosa</i> White <i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Globotruncana arca</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) Globigerinidae	late Santonian-Campanian
13-MC-66	27	0735933E 4582910N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana ventricosa</i> White <i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Radotruncana cf. calcarata</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. Globigerinidae Heterohelicidae	late Campanian
12-MC-248		0715728E 4574263N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Lagenoid	Campanian-Maastrichtian
12-MC-251		0715796E 4574301N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolineeiana</i> Pessagno <i>Dicarinella cf. asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian

Table DR4 (continued)

12-MC-270		0730728E 4574870N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
12-MC-324		0733985E 4570526N	<i>Marginotruncana renzi</i> (Gandolfi) <i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
13-FK-78	17	0700423E 4572477N	<i>Globotruncanalinneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Globotruncanita</i> cf. <i>elevata</i> (Brotzen) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> Dalbiez	Campanian
13-FK-231		0751552E 4560594N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Globotruncana ventricosa</i> White <i>Globotruncanita</i> sp. Heterohelicidae	Campanian-Maastrichtian
13-FK-229		0751601E 4560986N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella concavata</i> Brotzen	Santonian
13-FK-233	18	0745034E 4557816N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) Heterohelicidae	Campanian-Maastrichtian
13-TT-102	19	0712229E 4556018N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp., <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian
12-ÖK-01	23	0737490E 4564856N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Textularid foraminifera Radiolaria	Santonian
12-ÖK-13-14- 15-16-17	28	0734824E 4566958N	<i>Marginotruncana coronata</i> Bolli <i>Marginotruncana pseudolinneiana</i> Pessagno <i>Dicarinella</i> cf. <i>asymetrica</i> (Sigal) <i>Dicarinella</i> sp., <i>Marginotruncana</i> spp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Textularid foraminifera Radiolaria	Santonian
12-ÖK-401	29	0739157E 4568773N	<i>Marginotruncana pseudolinneiana</i> Pessagno <i>Marginotruncana coronata</i> Bolli <i>Dicarinella asymetrica</i> (Sigal) <i>Dicarinella concavata</i> (Brotzen) <i>Dicarinella</i> sp. <i>Marginotruncana</i> sp. <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Santonian

Table DR4 (continued)

12-ÖK-112-	30	0733602E	<i>Marginotruncana pseudolinneiana</i> Pessagno	Santonian
113		4562711N	<i>Marginotruncana coronata</i> Bolli	
			<i>Dicarinella concavata</i> (Brotzen)	
			<i>Dicarinella cf. asymetrica</i> (Sigal)	
			<i>Dicarinella</i> sp.	
			<i>Marginotruncana</i> sp.	
			<i>Globigerinelloides</i> sp.	
			<i>Heterohelix</i> sp.	
			Radiolaria	

Table DR5: Paleontological data of samples from the Çayırbağ Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84- UTM zone: 37T)	Fossils defined	Age
Samples bearing planktonic foraminifera				
13-MC-41	31	0740420E 4579482N	<i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Radotruncana calcarata</i> (Cushman) <i>Globotruncanita stuartiformis</i> Dalbiez <i>Schackoina</i> sp.	late Campanian
13-MC-42	31	0740420E 4579482N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana ventricosa</i> White <i>Rosita fornicata</i> (Plummer)	Campanian
13-ÖK-194	32	0744171E 4576039N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-195	33	0745925E 4574420N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-196	33	0745935E 4574473N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-FK-80	17	0701988E 4571879N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Globotruncanita elevata</i> (Brotzen) <i>Globotruncanita stuartiformis</i> Dalbiez Heterohelicidae	Campanian
13-FK-201	16	0701693E 4582356N	<i>Globotruncanita stuartiformis</i> Dalbiez <i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) Globigerinidae	Campanian-Maastrichtian
13-KA-108A	34	0708326E 4586194N	<i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana ventricosa</i> White <i>Globotruncanita stuartiformis</i> Dalbiez <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Pithonella ovalis</i> (Kaufmann) Heterohelicidae	Campanian-?
13-KA-108B	34	0708161E 4586441N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Globotruncanita cf. elevata</i> (Brotzen) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Pithonella ovalis</i> (Kaufmann)	Campanian-?
13-KA-108C	34	0708047E 4586534N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Rosita fornicata</i> (Plummer) <i>Globotruncanita elevata</i> (Brotzen) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Pithonella ovalis</i> (Kaufmann) Heterohelicidae part of Bryozoa	Campanian
13-KA-88	34	0707544E 4587099N	<i>Rugoglobigerina rugosa</i> (Plummer) <i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) Heterohelicidae	Campanian-?

Table DR5 (continued)

13-KA-78	0708578E 4584271N	<i>Rosita fornicata</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana ventricosa</i> White <i>Rugoglobigerina</i> sp. <i>Schackoina</i> sp. Heterohelicidae <i>Inoceramus</i> sp.	Campanian-?	
13-TT-111	0741195E 4547890N	<i>Contusotruncana cf. fornicata</i> (Plummer) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian	
13-TT-100	19	0710971E 4556831N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-408		0741979E 4573560N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-410		0743610E 4574590N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-411		0744459E 4575326N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-264		0747360E 4575556N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-335		0742117E 4578011N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-333		0743374E 4578939N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian

Table DR5 (continued)

12-ÖK-331		0744826E 4579025N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
12-ÖK-326- 327-328	35	0744920E 4579197N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Contusotruncana fornicata</i> (Plummer) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. <i>Rugoglobigerina</i> sp. Radiolaria Macro fossil shell fragments	Maastrichtian

Table DR6: U–Pb zircon data of the sample dated from the Kaçkar Granitoids. Sample location is shown in Fig. 4.

Analysis number	U [ppm]	Th [ppm]	Th/U	Isotopic ratios						Error Corre.	Apparent Age [Ma]						% Disc.
				$^{207}\text{Pb}/^{235}\text{U}$	$2\sigma[\%]$	$^{206}\text{Pb}/^{238}\text{U}$	$2\sigma[\%]$	$^{207}\text{Pb}/^{206}\text{Pb}$	$2\sigma[\%]$		$^{206}\text{Pb}/^{238}\text{U}$	$2\sigma[\%]$	$^{207}\text{Pb}/^{235}\text{U}$	$2\sigma[\%]$	$^{207}\text{Pb}/^{206}\text{Pb}$	$2\sigma[\%]$	
1	461	132	0,28	0,2306	0,007	0,02935	0,0006	0,05780	0,002	0,1767	186,50	4,0	210,60	5,9	518	84	11,4
2	92	34	0,36	0,0857	0,005	0,01322	0,0003	0,04580	0,003	0,0257	84,70	1,7	83,20	4,7	30	110	-1,8
3	487	158	0,32	0,3899	0,007	0,05292	0,0006	0,05328	0,001	0,4027	332,40	3,5	335,70	4,6	340	30	1,0
4	270	108	0,40	0,3525	0,008	0,04877	0,0007	0,05175	0,001	0,5006	306,90	4,0	307,00	5,6	271	45	0,0
5	284	144	0,49	0,3659	0,006	0,05072	0,0007	0,05213	0,001	0,4645	318,90	4,3	316,40	4,7	290	40	-0,8
6	1650	283	0,17	0,3059	0,008	0,04278	0,0010	0,05260	0,001	0,6811	270,00	6,0	270,80	6,0	305	49	0,3
7	2220	4040	1,72	0,0913	0,002	0,01324	0,0002	0,04969	0,001	0,4603	84,80	1,2	88,70	1,7	175	40	4,4
8	117	51	0,43	0,0899	0,004	0,01327	0,0003	0,04910	0,002	0,1000	85,00	1,7	87,30	3,5	153	97	2,6
9	1454	111	0,07	0,3651	0,006	0,05012	0,0007	0,05300	0,001	0,5803	315,30	4,1	315,90	4,8	325	32	0,2
10	124	58	0,45	0,0920	0,007	0,01335	0,0004	0,04980	0,004	0,0280	85,50	2,5	89,10	6,3	180	150	4,0
11	1090	32	0,03	0,1988	0,006	0,02740	0,0007	0,05234	0,001	0,8161	174,20	4,7	184,00	5,1	296	35	5,3
12	134	74	0,47	0,0902	0,005	0,01346	0,0003	0,04790	0,003	0,2072	86,20	1,8	87,40	4,8	120	110	1,4
13	50	18	0,35	0,0983	0,008	0,01380	0,0004	0,05140	0,004	0,2000	88,30	2,3	94,60	7,0	240	160	6,7
14	1033	1190	1,13	0,0953	0,002	0,01325	0,0002	0,05250	0,001	0,2371	84,90	1,1	92,40	2,2	293	59	8,1
15	142	68	0,48	0,0871	0,004	0,01340	0,0002	0,04730	0,002	0,0339	85,80	1,4	85,00	3,6	86	92	-0,9
16	124	47	0,37	0,1530	0,010	0,01395	0,0004	0,07870	0,005	0,0545	89,30	2,3	144,10	8,6	1130	130	38,0
17	78	124	1,57	0,8130	0,020	0,09870	0,0016	0,05910	0,002	0,3275	606,50	9,6	604,00	11,0	562	54	-0,4
18	105	42	0,40	0,0932	0,005	0,01365	0,0003	0,04980	0,003	0,2056	87,40	1,9	91,30	4,4	170	100	4,3
19	535	341	0,57	0,3510	0,006	0,04873	0,0006	0,05207	0,001	0,5439	306,70	3,5	305,30	4,5	285	33	-0,5
20	95	38	0,38	0,0903	0,006	0,01336	0,0003	0,04940	0,003	0,1000	85,60	1,7	88,70	5,4	180	130	3,5
21	98	38	0,37	0,2048	0,008	0,01457	0,0003	0,10040	0,004	0,1950	93,50	1,9	188,70	6,8	1631	77	50,5
22	74	23	0,31	0,0949	0,006	0,01357	0,0004	0,05060	0,003	0,1916	86,90	2,3	92,30	5,8	200	120	5,9
23	122	35	0,29	0,3730	0,011	0,05169	0,0008	0,05260	0,001	0,3990	325,40	4,5	322,20	7,8	301	58	-1,0
24	126	59	0,45	0,0897	0,005	0,01340	0,0003	0,04800	0,003	0,1054	85,80	1,8	87,00	4,8	140	110	1,4
25	756	129	0,17	0,3590	0,006	0,04898	0,0006	0,05304	0,001	0,5661	308,30	3,7	311,30	4,7	328	30	1,0
26	1179	310	0,26	0,3578	0,008	0,04880	0,0010	0,05321	0,001	0,6753	306,80	6,1	310,30	5,7	340	37	1,1
27	188	118	0,63	0,0913	0,004	0,01349	0,0003	0,04830	0,002	0,2845	86,40	1,6	88,60	3,4	128	75	2,5
28	326	153	0,46	0,4172	0,008	0,05622	0,0007	0,05297	0,001	0,3868	352,60	4,4	353,80	5,5	318	41	0,3
29	97	33	0,35	0,0966	0,005	0,01347	0,0003	0,05140	0,003	0,0958	86,30	2,0	93,40	4,4	250	110	7,6
30	81	24	0,30	0,0928	0,006	0,01342	0,0004	0,04920	0,003	0,1011	85,90	2,5	89,80	5,3	220	130	4,3
31	202	98	0,44	0,0913	0,004	0,01430	0,0003	0,04680	0,002	0,1729	91,50	2,1	88,50	4,0	50	91	-3,4
32	96	31	0,32	0,1293	0,009	0,01463	0,0005	0,06590	0,005	0,0468	93,60	3,1	123,00	7,7	780	160	23,9
33	153	68	0,44	0,0843	0,004	0,01311	0,0003	0,04680	0,002	0,2314	84,00	1,6	82,00	3,6	52	87	-2,4
34	138	54	0,39	0,0880	0,004	0,01291	0,0003	0,04980	0,003	0,0092	82,70	2,0	85,90	3,9	170	110	3,7
35	91	30	0,33	0,1192	0,006	0,01391	0,0004	0,06280	0,003	0,0540	89,00	2,3	114,10	5,3	670	110	22,0
36	293	53	0,18	0,3840	0,011	0,05244	0,0008	0,05260	0,001	0,4851	329,50	4,9	329,70	8,0	309	48	0,1
37	38	5	0,13	0,6990	0,033	0,08480	0,0028	0,06180	0,003	0,3914	524,00	17,0	547,00	20,0	653	91	4,2
38	97	34	0,35	0,0862	0,005	0,01343	0,0003	0,04690	0,003	0,0759	86,00	2,0	83,70	4,6	50	110	-2,7

Table DR7: Paleontological data of samples from the Cankurtaran Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84- UTM zone: 37T)	Fossils defined	Age
Samples bearing planktonic foraminifera				
13-ÖK-85B	36	0710279E 4586350N	<i>Globotruncana lapparenti</i> (Brotzen) <i>Globotruncana bulloides</i> Vogler <i>Contusotruncana cf. fornicata</i> (Plummer) <i>Globotruncana</i> spp. <i>Marginotruncana ? sp.</i>	late Santonian?-Campanian
13-ÖK-85A	36	0710279E 4586350N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-86B	36	0710279E 4586350N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana lapparenti</i> (Brotzen) <i>Contusotruncana cf. fornicata</i> (Plummer) <i>Globotruncana</i> sp. <i>Globotruncanita</i> sp.	Campanian-?Maastrichtian
13-ÖK-86A	36	0710279E 4586350N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-87B	36	0710279E 4586350N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana lapparenti</i> (Brotzen) <i>Contusotruncana fornicata</i> (Plummer)	Campanian-?Maastrichtian
13-ÖK-87A	36	0710279E 4586350N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-88B	36	0710279E 4586350N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Contusotruncana fornicata</i> (Plummer) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana mariei</i> Banner and Blow <i>Globotruncana cf. falsostuarti</i> Sigal <i>Globotruncana ventricosa</i> White <i>Contusotruncana patelliformis</i> (Gandolfi) <i>Heterohelix globulosa</i> (Ehrenberg)	middle-late Campanian-?Maastrichtian
13-ÖK-88A	36	0710279E 4586350N	<i>Globotruncana cf. ventricosa</i> White <i>Pithonella ovalis</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Campanian
13-ÖK-89B	36	0710279E 4586350N	<i>Globotruncana ventricosa</i> White <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana lapparenti</i> (Brotzen) <i>Contusotruncana fornicata</i> (Plummer) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Heterohelix punctulata</i> (Cushman)	middle-late Campanian-?Maastrichtian

Table DR7 (continued)

13-ÖK-90B	36	0710279E 4586350N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana arca</i> (Cushman) <i>Globotruncana lapparenti</i> (Brotzen) <i>Contusotruncana fornicata</i> (Plummer) <i>Globotruncana</i> sp. <i>Macroglobigerinelloides</i> sp.	middle-late Campanian-?Maastrichtian
13-ÖK-91B	36	0710279E 4586350N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana</i> cf. <i>lapparenti</i> (Brotzen) <i>Kuglerina</i> cf. <i>rotundata</i> (Brönnimann) <i>Globotruncana</i> spp.	middle?-late Campanian-Maastrichtian
13-ÖK-92B	36	0710279E 4586350N	<i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Laeviheterohelix dentata</i> (Stenestad) <i>Macroglobigerinelloides</i> cf. <i>prairiehillensis</i> (Pessagno) <i>Rugoglobigerina</i> spp. <i>Heterohelix</i> spp. <i>Macroglobigerinelloides</i> spp.	late Campanian-Maastrichtian
13-ÖK-93B	36	0710576E 4586127N	<i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncanella</i> cf. <i>havanensis</i> (Voorwijk) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana mariei</i> Banner and Blow <i>Macroglobigerinelloides</i> spp.	late Campanian-Maastrichtian
13-ÖK-94B	36	0710576E 4586127N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana linneiana</i> (d'Orbigny) <i>Contusotruncana fornicata</i> (Plummer) <i>Macroglobigerinelloides</i> spp. <i>Heterohelix</i> spp.	Campanian-Maastrichtian
13-ÖK-95B	36	0710576E 4586127N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana linneiana</i> (d'Orbigny) <i>Contusotruncana fornicata</i> (Plummer) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Laeviheterohelix glabrans</i> (Cushman) <i>Macroglobigerinelloides</i> spp. <i>Heterohelix</i> spp.	middle Campanian-Maastrichtian
13-ÖK-96B	36	0710576E 4586127N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana linneiana</i> (d'Orbigny) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana mariei</i> Banner and Blow <i>Heterohelix globulosa</i> (Ehrenberg) <i>Heterohelix</i> spp.	middle Campanian-Maastrichtian
13-ÖK-97B	36	0710576E 4586127N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Rugoglobigerina</i> cf. <i>pennyi</i> Brönnimann <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana orientalis</i> El-Naggar <i>Rugoglobigerina rugosa</i> (Plummer) <i>Heterohelix globulosa</i> (Ehrenberg) <i>Globotruncanella petaloidea</i> (Gandolfi) <i>Macroglobigerinelloides</i> spp. <i>Heterohelix</i> spp.	late Campanian-Maastrichtian
12-ÖK-364	36	0710899E 4586297N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Contusotruncana</i> cf. <i>fornicata</i> (Plummer) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. <i>Rugoglobigerina</i> sp.	Maastrichtian

Table DR7 (continued)

13-ÖK-98B	36	0710576E 4586127N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana mariei</i> Banner and Blow <i>Globotruncana cf. falsostuarti</i> Sigal	late Campanian-Maastrichtian
13-ÖK-99B	36	0710279E 4586350N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana tricarinata</i> (Quereau)	late Campanian-Maastrichtian
13-ÖK-100B	36	0710279E 4586350N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia elegans</i> (Rzehak) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana arca</i> (Cushman) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Globotruncana lapparenti</i> (Brotzen) <i>Rugoglobigerina pennyi</i> Brönnimann <i>Heterohelix punctulata</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Macroglobigerinelloides</i> spp. <i>Heterohelix</i> spp.	late Campanian-Maastrichtian
13-ÖK-100A	36	0710279E 4586350N	<i>Globotruncanella havanensis</i> (Voorwijk) <i>Contusotruncana contusa</i> (Cushman) <i>Contusotruncana fornicata</i> (Plummer) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Pithonella ovalis</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian
13-ÖK-101B	36	0710279E 4586350N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia elegans</i> (Rzehak) <i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncanella cf. havanensis</i> (Voorwijk) <i>Macroglobigerinelloides</i> sp. <i>Heterohelix</i> sp.	late Campanian-Maastrichtian
13-ÖK-102B	36	0710899E 4586297N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia elegans</i> (Rzehak) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncanella pschadae</i> (Keller) <i>Globotruncanella petaloidea</i> (Gandolfi) <i>Macroglobigerinelloides subcarinatus</i> (Brönnimann) <i>Macroglobigerinelloides prairiehillensis</i> (Pessagno) <i>Heterohelix globulosa</i> (Ehrenberg) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Contusotruncana fornicata</i> (Plummer) <i>Globigerinelloides messinae</i> (Brönnimann) <i>Rugoglobigerina pennyi</i> Brönnimann <i>Macroglobigerinelloides</i> spp. <i>Heterohelix</i> sp. <i>Laeviheterohelix</i> sp.	late Campanian-Maastrichtian

Table DR7 (continued)

13-ÖK-103B	36	0710899E 4586297N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana falsostuarti</i> Sigal <i>Contusotruncana fornicata</i> (Plummer) <i>Contusotruncana patelliformis</i> (Gandolfi) <i>Globotruncanita angulata</i> (Tilev) <i>Globotruncanella petaloidea</i> (Gandolfi) <i>Laeviheterohelix dentata</i> (Stenestad) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Contusotruncana walfischensis</i> (Todd) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Ventilabrella</i> sp. <i>Heterohelix</i> spp. <i>Laeviheterohelix</i> sp.	late Campanian?-Maastrichtian
13-ÖK-104B	36	0710899E 4586297N	<i>Globotruncanita stuarti</i> (de Lapparent) <i>Contusotruncana plicata</i> (White) <i>Globotruncana arca</i> (Cushman) <i>Contusotruncana patelliformis</i> (Gandolfi) <i>Globotruncana falsostuarti</i> Sigal <i>Globotruncanita angulata</i> (Tilev) <i>Contusotruncana walfischensis</i> (Todd) <i>Contusotruncana cf. contusa</i> (Cushman) <i>Racemiguembelina</i> sp. <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globotruncana</i> sp.	Maastrichtian
13-ÖK-105B	36	0710899E 4586297N	<i>Globotruncanita pettersi</i> (Gandolfi) <i>Pseudotextularia intermedia</i> De Klasz <i>Globotruncanita stuarti</i> (de Lapparent) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Racemiguembelina powelli</i> (Smith and Pessagno) <i>Contusotruncana plicata</i> (White) <i>Kuglerina rotundata</i> (Brönnimann) <i>Contusotruncana walfischensis</i> (Todd) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Heterohelix</i> sp.	Maastrichtian
13-ÖK-106B	36	0710899E 4586297N	<i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncana falsostuarti</i> Sigal <i>Contusotruncana plicata</i> (White), <i>Contusotruncana contusa</i> (Cushman), <i>Globotruncanita angulata</i> (Tilev) <i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia intermedia</i> De Klasz <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncanella petaloidea</i> (Gandolfi) <i>Heterohelix</i> spp.	late Maastrichtian
13-ÖK-107B	36	0710899E 4586297N	<i>Abathomphalus mayaroensis</i> (Bolli) <i>Contusotruncana contusa</i> (Cushman) <i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Contusotruncana plicata</i> (White) <i>Contusotruncana walfischensis</i> (Todd) <i>Globotruncanita angulata</i> (Tilev) <i>Heterohelix globulosa</i> (Ehrenberg) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Laeviheterohelix dentata</i> (Stenestad) <i>Rugoglobigerina</i> sp. <i>Heterohelix</i> spp. <i>Macroglobigerinelloides</i> sp.	late Maastrichtian

Table DR7 (continued)

13-ÖK-108B	36	0710899E 4586297N	<i>Contusotruncana contusa</i> (Cushman) <i>Contusotruncana plicata</i> (White) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Globotruncana arca</i> (Cushman) <i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana orientalis</i> El-Naggar <i>Rugoglobigerina</i> sp. <i>Heterohelix</i> spp. <i>Macroglobigerinelloides</i> spp.	late Maastrichtian
13-ÖK-109B	36	0710899E 4586297N	<i>Planoglobulina acervulinoides</i> (Egger) <i>Planoglobulina carseyae</i> (Plummer) <i>Pseudotextularia elegans</i> (Rzehak) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Rugoglobigerina pennyi</i> Brönnimann <i>Heterohelix globulosa</i> (Ehrenberg) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Kuglerina rotundata</i> (Brönnimann) <i>Racemiguembelina fructicosa</i> (Egger) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncana arca</i> (Cushman) <i>Globotruncana falsostuarti</i> Sigal <i>Globotruncana</i> spp.	late Maastrichtian
13-ÖK-110B	36	0710899E 4586297N	<i>Pseudotextularia elegans</i> (Rzehak) <i>Globotruncanita cf. conica</i> (White) <i>Planoglobulina acervulinoides</i> (Egger) <i>Globotruncana arca</i> (Cushman) <i>Planoglobulina</i> sp. <i>Globotruncana</i> sp. <i>Globotruncanita</i> sp. <i>Heterohelix</i> sp.	late Maastrichtian
13-ÖK-111B	36	0710899E 4586297N	<i>Globotruncanita conica</i> (White) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Planoglobulina carseyae</i> (Plummer) <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita cf. stuartiformis</i> (Dalbiez) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Pseudotextularia elegans</i> (Rzehak) <i>Globotruncana orientalis</i> El-Naggar <i>Ventilabrella</i> sp., <i>Globotruncana</i> sp. <i>Heterohelix</i> sp.	late Maastrichtian
13-ÖK-112B	36	0710899E 4586297N	<i>Abathomphalus mayaroensis</i> (Bolli) <i>Globotruncana aegyptiaca</i> Nakkady <i>Pseudotextularia intermedia</i> De Klasz <i>Racemiguembelina fructicosa</i> (Egger) <i>Planoglobulina acervulinoides</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncanita conica</i> (White) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Pseudotextularia elegans</i> (Rzehak) <i>Kuglerina rotundata</i> (Brönnimann) <i>Rugoglobigerina pennyi</i> Brönnimann <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Rugoglobigerina</i> sp. <i>Globotruncana</i> sp.	late Maastrichtian
13-ÖK-113B	36	0710899E 4586297N	<i>Abathomphalus mayaroensis</i> (Bolli) <i>Contusotruncana contusa</i> (Cushman) <i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Globotruncana arca</i> (Cushman) <i>Kuglerina rotundata</i> (Brönnimann) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Pseudotextularia elegans</i> (Rzehak) <i>Globotruncana orientalis</i> El-Naggar <i>Contusotruncana patelliformis</i> (Gandolfi) <i>Planoglobulina</i> sp. <i>Heterohelix</i> sp.	late Maastrichtian

Table DR7 (continued)

13-ÖK-114B	36	0710899E 4586297N	<i>Contusotruncana walfischensis</i> (Todd) <i>Contusotruncana contusa</i> (Cushman) <i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncanita conica</i> (White) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia elegans</i> (Rzehak) <i>Kuglerina rotundata</i> (Brönnimann) <i>Planoglobulina carseyae</i> (Plummer) <i>Globotruncana falsostuarti</i> Sigal	late Maastrichtian
13-CP-01	36	0710279E 4586350N	<i>Gublerina cuvillieri</i> Kikoine <i>Rugoglobigerina hexacamerata</i> Brönnimann <i>Pseudotextularia elegans</i> (Rzehak) <i>Racemiguembelina fructicosa</i> (Egger) <i>Planoglobulina carseyae</i> (Plummer) <i>Planoglobulina acervulinoides</i> (Egger) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana mariei</i> Banner and Blow <i>Kuglerina rotundata</i> (Brönnimann) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana</i> spp. <i>Heterohelix</i> sp. <i>Macroglobigerinelloides</i> sp.	late Maastrichtian
13-CP-20	36	0710576E 4586127N	<i>Subbotina triloculinoides</i> (Plummer) <i>Parasubbotina pseudobulloides</i> (Plummer) <i>Praemurica pseudoinconstans</i> (Blow) <i>Subbotina trivialis</i> (Subbotina) <i>Eoglobigerina edita</i> (Subbotina) <i>Eoglobigerina eobulloides</i> (Morozova) <i>Globanomalina</i> sp.	early Danian
13-CP-26B	36	0710576E 4586127N	<i>Globanomalina compressa</i> (Plummer) <i>Subbotina triloculinoides</i> (Plummer) <i>Parasubbotina pseudobulloides</i> (Plummer) <i>Praemurica inconstans</i> (Subbotina) <i>Globanomalina</i> sp.	Danian
13-CP-37B	36	0710576E 4586127N	<i>Eoglobigerina spiralis</i> (Bolli) <i>Praemurica inconstans</i> (Subbotina) <i>Globanomalina compressa</i> (Plummer) <i>Parasubbotina pseudobulloides</i> (Plummer) <i>Globanomalina</i> sp.	late Danian

Table DR8: Paleontological data of samples from the Beşağıl Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84- UTM zone: 37T)	Fossils defined	Age
Samples bearing foraminifera				
13-ÖK-14		0712855E 4569760N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-21-22-23	37	0717846E 4573608N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella cf. havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian
13-ÖK-30		0716225E 4571910N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-31		0716225E 4571910N	<i>Globotruncana cf. arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-35		0716087E 4573359N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-38		0716087E 4573359N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Textularia</i> sp. <i>Anomalina</i> sp. <i>Rugoglobigerina</i> sp. <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian
13-ÖK-41		0717075E 4572675N	<i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria	Maastrichtian

Table DR8 (continued)

13-ÖK-43		0717560E 4572375N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Pithonella ovalis</i> (Kaufmann) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. <i>Anomalina</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria	Maastrichtian
13-ÖK-49		0717527E 4572438N	<i>Pithonella ovalis</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. <i>Anomalina</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria	Maastrichtian
13-ÖK-55-56	37	0717510E 4574720N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Pithonella ovalis</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. <i>Anomalina</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria	Maastrichtian
13-ÖK-72-73	37	0716847E 4574966N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-74-75	37	0716847E 4574966N	<i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian
13-ÖK-79		0719569E 4576347N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Anomalina</i> sp. <i>Textularia</i> sp. Radiolaria	Campanian-Maastrichtian

Table DR8 (continued)

13-ÖK-80	15	0719569E 4576347N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Anomalina</i> sp. <i>Textularia</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-81	15	0719569E 4576347N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp.	Campanian-Maastrichtian
13-ÖK-133		0713352E 4574533N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp.	Campanian-Maastrichtian
13-ÖK-203-204	15	0719988E 4576365N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-205	15	0719988E 4576365N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-207	38	0730727E 4574871N	<i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Textularia</i> sp. Radiolaria	Maastrichtian
13-ÖK-09		0714059E 4572680N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-69		0716847E 4574966N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. Radiolaria	Campanian-Maastrichtian
13-ÖK-70		0716847E 4574966N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana</i> sp. Radiolaria	Campanian-Maastrichtian

Table DR8 (continued)

13-KA-3B	39	0746469E 4590894N	<i>Racemigumbelina fructicosa</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides apiculatus</i> Schlumberger <i>Lepidorbitoides</i> sp. <i>Rotalia</i> sp. <i>Laffitteina</i> sp. Heterohelicidae <i>Lithophillum</i> sp. <i>Lithothamnium</i> sp. Bryozoa Coral Echinid	late Maastrichtian
13-KA-3C	39	0746469E 4590894N	<i>Globotruncanitastuarti</i> (De Lapparent) <i>Racemigumbelinafructicosa</i> (Egger) <i>Contusotruncanacontusa</i> (Cushman) <i>Globotruncanellahavanensis</i> (Voorwijk) <i>Rugoglobigerinarugosa</i> (Plummer) <i>Marsonella oxycona</i> (Reuss) <i>Pithonellaovalis</i> (Kaufmann) <i>Stomiosphaerasphaerica</i> (Kaufmann) Rotalidae Heterohelicidae	late Maastrichtian
12-ÖK-282-283		0733622E 4570776N	<i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides cf. medius</i> (d'Archiac) <i>Marsonella oxycona</i> (Reuss) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Lepidorbitoides</i> sp. <i>Textularia</i> sp. Nodosariidae Rotaliidae Miliolidae Ophthalmodiidae Anomaliniidae	Maastrichtian
12-ÖK-286B- 286C-286D		0733662E 4570776N	<i>Siderolites calcitropoides</i> Lamarck <i>Omphalocyclus macroporus</i> (Lamark) <i>Orbitoides medius</i> (d'Archiac) <i>Marsonella oxycona</i> (Reuss) <i>Lepidorbitoides</i> sp. <i>Textularia</i> sp. <i>Lithothamnium</i> sp. Nodosariidae Rotaliidae Miliolidae Ophthalmodiidae Anomaliniidae Algae Echinid part of Lamellibranch shell part of Rudist shell Gastropoda	Maastrichtian
12-MC-195	40	0712751E 4569259N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Marsonella oxycona</i> (Reuss) <i>Globotruncana</i> sp. <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. <i>Gansserina</i> sp. Textularid foraminifera Radiolaria Sponge spicule Macro fossil shell fragments	?-Maastrichtian

Table DR8 (continued)

12-MC-273	38	0730728E 4574870N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita cf. stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Rosita</i> sp. <i>Globotruncanella</i> sp. <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria Sponge spicule	Maastrichtian
12-MC-275	38	0730748E 4574908N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita cf. stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Rosita</i> sp. <i>Globotruncanella</i> sp. <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria Sponge spicule	Maastrichtian
12-MC-277	38	0730748E 4574908N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita cf. stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Rosita</i> sp. <i>Globotruncanella</i> sp. <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria Sponge spicule	Maastrichtian
12-MC-278	38	0730751E 4574987N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncanita cf. stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Rosita</i> sp. <i>Globotruncanella</i> sp. <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Lagenoid foraminifera Macro fossil shell fragments Radiolaria Sponge spicule	Maastrichtian
12-MC-328	41	0733985E 4570526N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Rosita</i> sp. <i>Globotruncanella</i> sp. <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria Sponge spicule	Maastrichtian

Table DR8 (continued)

13-MC-01	42	0735220E 4576270N	<i>Siderolites cf. calcitropoides</i> Lamarck <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Rotalia</i> sp. <i>Lepidorbitoides</i> sp. <i>Lithophillum</i> sp. <i>Lithothamnium</i> sp. Bryozoa Brachiopod shells Rudist shell fragments	Maastrichtian
13-MC-55	43	0735148E 4582970N	<i>Rugoglobigerina rugosa</i> (Plummer) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globotruncana linneiana</i> (d'Orbigny)	Maastrichtian
13-MC-57	43	0735187E 4582937N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanella havanensis</i> (Voorwijk) <i>Rugoglobigerina rugosa</i> (Plummer)	Maastrichtian
13-MC-138		0733637E 4570792N	<i>Contusotruncana</i> cf. <i>contusa</i> (Cushman) <i>Contusotruncana</i> cf. <i>patelliformis</i> (Gandolfi) <i>Contusotruncana</i> cf. <i>plicata</i> (White) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana falsostuarti</i> Sigal <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncanita pettersi</i> (Gandolfi) <i>Heterohelix globulosa</i> (Ehrenberg) <i>Heterohelix</i> spp. <i>Globotruncana</i> sp.	late? Maastrichtian
13-MC-218	44	0738030E 4587274N	<i>Rosita fornicate</i> (Plummer) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Globotruncanella havanensis</i> (Voorwijk) Heterohelicidae Sponge spicules	Maastrichtian
13-MC-283		0732481E 4572471N	<i>Siderolites calcitropoides</i> Lamarck <i>Marsonella oxycona</i> (Reuss) <i>Siderolites</i> sp., <i>Rotalia</i> sp. Coral Rudist shell fragments	Maastrichtian
13-MC-284		0732481E 4572471N	<i>Lepidorbitoides</i> sp. <i>Laffitteina</i> sp. <i>Mississippina</i> sp. <i>Rotalia</i> spp. little benthics Bryozoa Macro fossil shell fragments	late Maastrichtian
13-TT-115-116	45	0711773E 4568282N	<i>Globotruncanella havanensis</i> (Voorwijk) <i>Racemiguembelina fructicosa</i> (Egger) <i>Rugoglobigerina rugosa</i> (Plummer) <i>Pithonella ovalis</i> (Kaufmann) <i>Globotruncana arca</i> (Cushman) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Abathomphalus</i> cf. <i>mayaroensis</i> (Bolli) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	late Maastrichtian
13-SP-35A	46	0733040E 4571215N	<i>Pithonella ovalis</i> (Kaufmann) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Siderolites calcitropoides</i> Lamarck <i>Sirtina</i> sp. part of Echinid Macro fossil shell fragments	Maastrichtian

Table DR8 (continued)

13-SP-41 B	46	0733104E 4571300N	<i>Globotruncanita stuarti</i> (de Lapparent) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Laeviheterohelix</i> cf. <i>glabrans</i> (Cushman) <i>Macroglobigerinelloides</i> sp. <i>Heterohelix</i> sp. <i>Globotruncana</i> sp.	Maastrichtian
13-SP-42	46	0733104E 4571300N	<i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian
13-SP-43	46	0733104E 4571300N	<i>Rugoglobigerina rugosa</i> (Plummer) <i>Racemiguembelina fructicosa</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. Radiolaria	Maastrichtian
13-SP-43 B	46	0733104E 4571300N	<i>Abathomphalus mayaroensis</i> (Bolli) <i>Racemiguembelina fructicosa</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globotruncana orientalis</i> El-Naggar <i>Planoglobulina acervulinoides</i> (Egger) <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia elegans</i> (Rzehak) <i>Racemiguembelina powelli</i> (Smith and Pessagno) <i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Heterohelix</i> spp.	late Maastrichtian
13-SP-44	46	0733126E 4571352N	<i>Rugoglobigerina rugosa</i> (Plummer) <i>Racemiguembelina fructicosa</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. Radiolaria	Maastrichtian
13-SP-44 B	46	0733126E 4571352N	<i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia nuttalli</i> (Voorwijk) <i>Globotruncana orientalis</i> El-Naggar <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncanella</i> cf. <i>havanensis</i> (Voorwijk) <i>Kuglerina</i> cf. <i>rotundata</i> (Brönnimann) <i>Rugoglobigerina</i> cf. <i>pennyi</i> Brönnimann <i>Heterohelix</i> sp.	late Maastrichtian

Table DR8 (continued)

13-SP-45	46	0733126E 4571352N	<i>Rugoglobigerina rugosa</i> (Plummer) <i>Racemiguembelina fructicosa</i> (Egger) <i>Contusotruncana contusa</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncanella havanensis</i> (Voorwijk) <i>Globigerinelloides</i> sp. <i>Textularia</i> sp. Radiolaria	Maastrichtian
13-SP-45 B	46	0733126E 4571352N	<i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Planoglobulina acervulinoides</i> (Egger) <i>Contusotruncana plicata</i> (White) <i>Globotruncanella cf. havanensis</i> (Voorwijk) <i>Pseudotextularia elegans</i> (Rzechak) <i>Globotruncanita cf. angulata</i> (Tilev) <i>Planoglobulina carseyae</i> (Plummer) <i>Laeviheterohelix glabrans</i> (Cushman) <i>Globotruncana arca</i> (Cushman) <i>Pseudotextularia</i> sp. <i>Heterohelix</i> spp. <i>Macroglobigerinelloides</i> spp.	late Maastrichtian
13-SP-45 C	46	0733126E 4571352N	<i>Abathomphalus mayaroensis</i> (Bolli) <i>Racemiguembelina fructicosa</i> (Egger) <i>Globotruncanita stuarti</i> (de Lapparent) <i>Kuglerina rotundata</i> (Brönnimann) <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Planoglobulina carseyae</i> (Plummer) <i>Globotruncana arca</i> (Cushman) <i>Heterohelix punctulata</i> (Cushman) <i>Globotruncana</i> spp. <i>Heterohelix</i> spp.	late Maastrichtian
13-SP-69-70	54	0725125E 4572250N	<i>Siderolites calcitropoides</i> Lamarck <i>Textularia</i> sp. <i>Lithothamnium</i> sp. Nodosariidae Rotaliidae Anomaliniidae Algae part of Echinid Lamellibranch shell fragments Rudist shell fragments Gastropoda	Maastrichtian
12-ÖK-400	68	0739223E 4567461N	<i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Contusotruncana</i> sp. <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Heterohelix</i> sp. <i>Globotruncanella</i> sp. <i>Globigerinelloides</i> sp. <i>Rugoglobigerina</i> sp. Radiolaria	Maastrichtian

Table DR9: Paleontological data of samples from the Ağıllar Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing foraminifera				
13-ÖK-187	47	0747425E 4580750N	<i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides cf. medius</i> (d'Archiac) <i>Marsonella oxycona</i> (Reuss) <i>Rotalia</i> sp. <i>Lithothamnium</i> sp. <i>Textularia</i> sp. <i>Anomalina</i> sp. part of Echinid Macro fossil shell fragments	Maastrichtian
13-ÖK-188	47	0747425E 4580750N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana bulloides</i> Vogler <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globigerinelloides</i> sp. <i>Globotruncana</i> sp.	Maastrichtian?
13-ÖK-189	47	0747425E 4580750N	<i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides cf. medius</i> (d'Archiac) <i>Marsonella oxycona</i> (Reuss) <i>Rotalia</i> sp. <i>Lithothamnium</i> sp. <i>Textularia</i> sp. <i>Anomalina</i> sp. part of Echinid Macro fossil shell fragments	Maastrichtian
12-TT 175	48	0751000E 4548400N	<i>Siderolites</i> ? sp. <i>Sirrina</i> ? sp. Textulariidae Rotaliidae Algae Bryozoa Rudist shell fragments Lamellibranchia shell fragments	Maastrichtian
12-TT-25	49	0749020E 4550971N	<i>Globotruncana bulloides</i> Vogler <i>Globotruncanita stuartiformis</i> (Dalbiez) <i>Heterohelix</i> sp.	?Campanian- Maastrichtian
12-TT 26	49	0749020E 4550971N	<i>Stomiosphaera sphaerica</i> Kaufmann <i>Globotruncana linneiana</i> (d'Orbigny) <i>Globotruncana</i> cf. <i>bulloides</i> (Vogler) <i>Globotruncana ventricosa</i> White <i>Globotruncana</i> sp. Globigerinidae Heterohelixidae Radiolaria Lamellibranchia shell fragments	Campanian- Maastrichtian
12-TT-21	50	0749225E 4554346N	<i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides medius</i> (d'Archiac) <i>Marsonella oxycona</i> (Reuss) <i>Lepidorbitoides</i> sp. <i>Textularia</i> sp.	Maastrichtian
12-TT-22	50	0748158E 4553897N	<i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Marsonella oxycona</i> (Reuss) <i>Globotruncana</i> sp. <i>Abathomphalus</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. Radiolaria	Maastrichtian

Table DR9 (continued)

12-TT-54-55	51	0743781E 4552662N	<i>Globotruncanita situartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Globotruncana</i> sp. <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. <i>Orbitoides</i> sp. Anomalinid foraminifera Rotalid foraminifera Lagenoid foraminifera Rudist shell fragments Radiolaria Sponge spicule	Maastrichtian
12-TT-62	51	0744072E 4552634N	<i>Marsonella oxycona</i> (Reuss) Anomalinid foraminifera Rotalid foraminifera Lagenoid foraminifera Rudist shell fragments Lithothamnium algae	Maastrichtian
12-TT-63-64	51	0744072E 4552634N	<i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides medius</i> (d'Archiac) <i>Textularia</i> sp. Nodosariidae Rotaliidae Anomalinidae Algae part of Echinid Lamellibranchia shell fragments Rudist shell fragments Lithothamnium algae	Maastrichtian
12-MC-112- 113	52	0725992E 4567854N	<i>Globotruncanita situartiformis</i> (Dalbiez) <i>Globotruncana bulloides</i> Vogler <i>Globotruncana linneiana</i> (d'Orbigny) <i>Stomiosphaera sphaerica</i> (Kaufmann) <i>Siderolites calcitropoides</i> Lamarck <i>Heterohelix</i> sp. <i>Globigerinelloides</i> sp. <i>Rugoglobigerina</i> sp. Anomalinidae Radiolaria Algae Bryozoa Rudist shell fragments	Maastrichtian
12-MC-116- 117-118	53	0723000E 4566500N	<i>Marsonella oxycona</i> (Reuss) <i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides cf. medius</i> (d'Archiac) <i>Lepidorbitoides</i> sp. <i>Textularia</i> sp.	Maastrichtian
12-MC-121- 122	53	0721059E 4565851N	<i>Marsonella oxycona</i> (Reuss) <i>Siderolites calcitropoides</i> Lamarck <i>Orbitoides cf. medius</i> (d'Archiac) <i>Lepidorbitoides</i> sp. <i>Textularia</i> sp.	Maastrichtian
12-SP-109	52	0726100E 4567860N	<i>Codeina</i> sp. Rotaliidae Textulariidae Rudist shell fragments part of Echinid Macro fossil shell fragments	Maastrichtian

Table DR10: Paleontological data of samples from the Erenler Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing nanoplankton				
13-ÖK-116	55	0712564E 4574063N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Discoaster diastypus</i> Bramlette and Sullivan	early Ypresian
13-ÖK-136	13	0715446E 4574159N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Ellipsolithus macellus</i> (Bramlette and Sullivan) <i>Discoaster kuepperi</i> Stradner <i>Coccolithus crassus</i> Bramlette and Sullivan	early Ypresian
13-ÖK-138	13	0715446E 4574159N	<i>Discoaster diastypus</i> Bramlette and Sullivan <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler)	early Ypresian
13-ÖK-139	13	0714880E 4574115N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Discoaster kuepperi</i> Stradner <i>Sphenolithus radians</i> Deflandre <i>Tribrachiatus orthostylus</i> Shamrai <i>Tribrachiatus bramlettei</i> (Brönnimann and Stradner) <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Ericsonia obruta</i> Perch-Nielsen <i>Zygrhablithus bijugatus</i> (Deflandre) <i>Toweius ? gammation</i> (Bramlette and Sullivan)	late Ypresian
13-ÖK-140	13	0714880E 4574115N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Discoaster lodoensis</i> Bramlette and Riedel <i>Discoaster binodosus</i> Martini <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Discoaster kuepperi</i> Stradner <i>Chiasmolithus grandis</i> (Bramlette and Riedel) <i>Coccolithus crassus</i> Bramlette and Sullivan <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette	late Ypresian
13-ÖK-141	13	0714880E 4574115N	<i>Coccolithus crassus</i> Bramlette and Sullivan <i>Sphenolithus radians</i> Deflandre <i>Zygrhablithus bijugatus</i> (Deflandre)	Ypresian
13-ÖK-142	13	0714880E 4574115N	<i>Lanternithus minutus</i> Stradner <i>Tribrachiatus orthostylus</i> Shamrai <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Discoaster kuepperi</i> Stradner <i>Zygrhablithus bijugatus</i> (Deflandre) <i>Reticulofenestra dictyoda</i> (Deflandre) <i>Ericsonia obruta</i> Perch-Nielsen <i>Helicosphaera lophota</i> Bramlette and Sullivan <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Discoaster lodoensis</i> Bramlette and Riedel <i>Chiasmolithus grandis</i> (Bramlette and Riedel) <i>Coccolithus crassus</i> Bramlette and Sullivan	late Ypresian-early Lutetian
13-ÖK-144	56	0714100E 4572650N	<i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus anarrhopus</i> Bukry and Bramlette	late Paleocene
13-ÖK-146	56	0714100E 4572650N	<i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Zygrhablithus bijugatus</i> (Deflandre)	Ypresian
13-ÖK-148	56	0714100E 4572650N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Discoaster kuepperi</i> Stradner <i>Zygrhablithus bijugatus</i> (Deflandre) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Rhomboaster</i> sp.	late Ypresian

Table DR10 (continued)

13-ÖK-149	56	0714100E 4572650N	<i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Discoaster kuepperi</i> Stradner <i>Coccolithus crassus</i> Bramlette and Sullivan	Ypresian
13-ÖK-150	56	0714100E 4572650N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus radians</i> Deflandre <i>Discoaster diastypus</i> Bramlette and Sullivan	Ypresian
13-ÖK-154	57	0711406E 4574380N	<i>Fasciculithus tympaniformis</i> Hay vande Mohler <i>Fasciculithus involutus</i> Bramlette and Sullivan <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Sphenolithus anarrhopus</i> Bukry and Bramlette	late Paleocene
13-ÖK-155	57	0711406E 4574380N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Discoaster diastypus</i> Bramlette and Sullivan <i>Coccolithus crassus</i> Bramlette and Sullivan <i>Discoaster kuepperi</i> Stradner <i>Ellipsolithus macellus</i> (Bramlette and Sullivan)	early Ypresian
13-ÖK-156	57	0711406E 4574380N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Coccolithus crassus</i> Bramlette and Sullivan <i>Sphenolithus moriformis</i> (Brönnimann and Stradner)	early Ypresian
13-ÖK-157	57	0711659E 4574441N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus radians</i> Deflandre <i>Sphenolithus anarrhopus</i> Bukry and Bramlette	early Ypresian
13-ÖK-158	57	0711659E 4574441N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Coccolithus crassus</i> Bramlette and Sullivan	early Ypresian
12-MC-199	45	0712629E 4567999N	<i>Neococcolithes minutus</i> (Perch-Nielsen) <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Heliolithus kleinelli</i> Sullivan	late Ypresian
12-MC-202	45	0712629E 4567999N	<i>Zygrhablithus bijugatus</i> (Deflandre and Fert) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Coccolithus eopelagicus</i> (Bramlette and Riedel)	late Paleocene-early Ypresian
12-MC-206	45	0712629E 4567999N	<i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Heliolithus kleinelli</i> Sullivan <i>Coccolithus eopelagicus</i> (Bramlette and Riedel)	late Paleocene-early Ypresian
12-MC-218	45	0710963E 4568046N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Toweius ? magnicrassus</i> (Bukry) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Discoaster kuepperi</i> Stradner	Ypresian
12-MC-227	45	0710618E 4568829N	<i>Discoaster binodosus</i> Martini <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Ericsonia cava</i> (Hay and Mohler) <i>Thoracosphaera</i> sp.	late Paleocene-early Ypresian
12-MC-240	13	0715417E 4574152N	<i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Fasciculithus tympaniformis</i> Hay and Mohler	Ypresian

Table DR10 (continued)

12-MC-295	38	0730970E 4574553N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus</i> sp.	Ypresian
12-MC-297	38	0730994E 4574588N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Heliolithus ? floris</i> Haq ve Aubry <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Thoracosphaera</i> sp.	Ypresian
12-MC-299	38	0730994E 4574588N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Chiasmolithus danicus</i> (Brotzen) <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Ericsonia cava</i> (Hay and Mohler)	Ypresian
12-MC-307	38	0731527E 4573406N	<i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Ericsonia cava</i> (Hay and Mohler) <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Biscutum constans</i> (Gorka)	late Paleocene
12-MC-335	59	0734612E 4572294N	<i>Reticulofenestra</i> sp. <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Ericsonia cava</i> (Hay and Mohler) <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Biscutum constans</i> (Gorka) <i>Thoracosphaera</i> sp.	Ypresian
12-MC-340	60	0735095E 4574012N	<i>Discoaster binodosus</i> Martini <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Thoracosphaera</i> sp.	late Paleocene-early Ypresian
12-MC-364	61	0735095E 4574012N	<i>Discoaster distinctus</i> Martini <i>Discoaster lodoensis</i> Bramlette and Riedel <i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Coccolithus eopelagicus</i> (Bramlette and Riedel)	late Ypresian
12-MC-366	61	0732147E 4574807N	<i>Neococcolithes minutus</i> (Perch-Nielsen) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Ericsonia ovalis</i> Black	late Ypresian
13-MC-71	42	0735098E 4576396N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Sphenolithus</i> sp. <i>Micula decussata</i> Vekshina	Ypresian
13-MC-111	42	0733992E 4576645N	<i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Sphenolithus radians</i> Deflandre and Grasse <i>Zygrhablithus bijugatus</i> (Deflandre and Fert) <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus editus</i> Perch-Nielsen <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia ovalis</i> Black <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus danicus</i> (Brotzen) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Thoracosphaera</i> sp.	Ypresian

Table DR10 (continued)

13-MC-115	42	0734554E 4576168N	<i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Toweius tovae</i> Perch-Nielsen <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus solitus</i> (Bramlette and Sullivan) <i>Chiasmolithus danicus</i> (Brotzen) <i>Fasciculithus</i> sp. <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	late Thanetian
13-MC-117	42	0734828E 4576216N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Ericsonia cava</i> (Hay and Mohler) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Ypresian
13-MC-122	42	0735192E 4576313N	<i>Sphenolithus editus</i> Perch-Nielse <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Ypresian
13-MC-142	62	0733720E 4570938N	<i>Discoaster</i> sp. <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Thanetian
13-MC-144	62	0733720E 4570938N	<i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Discoaster</i> sp.	late Thanetian
13-MC-147	62	0733722E 4570974N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Ericsonia ovalis</i> Black <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Discoaster</i> sp.	Thanetian
13-MC-150	62	0733722E 4570974N	<i>Discoaster binodosus</i> Martini <i>Discoaster</i> sp. <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina	late Thanetian
13-MC-153	62	0733722E 4570974N	<i>Discoaster multiradiatus</i> Bramlette ve Riedel <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Cruciplacolithus frequens</i> (Perch-Nielsen) <i>Ellipsolithus macellus</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus danicus</i> (Brotzen) <i>Micula decussata</i> Vekshina <i>Micula concava</i> (Stradner) <i>Thoracosphaera</i> sp.	late Thanetian
13-MC-159	62	0733768E 4571046N	<i>Discoaster</i> sp. <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus danicus</i> (Brotzen) <i>Micula decussata</i> Vekshina <i>Micula concava</i> (Stradner)	Thanetian

Table DR10 (continued)

13-MC-161	62	0733768E 4571046N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina	Ypresian
13-MC-163	62	0733768E 4571046N	<i>Discoaster germanicus</i> Martini <i>Discoaster barbadiensis</i> Tan <i>Discoaster</i> sp. <i>Micula decussata</i> Vekshina <i>Micrantholithus</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-170	62	0733768E 4571046N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Tribrachiatus orthostylus</i> Shamrai <i>Discoaster</i> sp. <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Sphenolithus primus</i> Perch-Nielsen <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-177	62	0733768E 4571046N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster binodosus</i> Martini <i>Discoaster araneus</i> Bukry <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Cruciplacolithus tenuis</i> (Stradner) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Micula decussata</i> Vekshina	Ypresian
13-MC-181	62	0734015E 4571595N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina	Ypresian
13-MC-184	62	0734020E 4571806N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Micula concava</i> (Stradner) <i>Biscutum constans</i> (Gorka) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-198	62	0734510E 4572246N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus danicus</i> (Brotzen) <i>Braarudosphaera discula</i> Bramlette and Riedel	Thanetian
13-MC-201	62	0734510E 4572246N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Tribrachiatus orthostylus</i> Shamrai <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Cruciplacolithus frequens</i> (Perch-Nielsen) <i>Coccolithus pelagicus</i> (Wallich)	Ypresian
13-MC-203	62	0734510E 4572246N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Coccolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-205	62	0734510E 4572246N	<i>Discoaster lodoensis</i> Bramlette and Riedel <i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster</i> sp. <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Micula concava</i> (Stradner)	Ypresian

Table DR10 (continued)

13-MC-207	62	0734510E 4572246N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus editus</i> Perch-Nielsen <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-209	62	0734510E 4572246N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich)	Ypresian
13-MC-237	62	0733141E 4571397N	<i>Toweius tovae</i> Perch-Nielsen <i>Heiolithus kleinpelli</i> Sullivan <i>Fasciculithus involutus</i> Bramlette and Sullivan <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Chiasmolithus danicus</i> (Brotzen) <i>Zygodiscus bramlettei</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	late Thanetian
13-MC-241	62	0733271E 4571508N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster elegans</i> Bramlette and Sullivan <i>Discoaster binodosus</i> Martini <i>Ericsonia cava</i> (Hay and Mohler) <i>Coccolithus pelagicus</i> (Wallich) <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-243	62	0733271E 4571508N	<i>Discoaster binodosus</i> Martini <i>Discoaster mohleri</i> Bukry and Percival <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Thoracosphaera</i> sp.	late Thanetian-early Ypresian
13-MC-245	62	0733271E 4571508N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-247	62	0733271E 4571508N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Discoaster mohleri</i> Bukry and Percival <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-249	62	0733271E 4571508N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster binodosus</i> Martini <i>Toweius tovae</i> Perch-Nielsen <i>Ericsonia subpertusa</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian

Table DR10 (continued)

13-MC-251	62	0733271E 4571508N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster barbadiensis</i> Tan <i>Ericsonia cava</i> (Hay and Mohler) <i>Toveius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Placozygus fibuliformis</i> (Reinhardt) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Biscutum constans</i> (Gorka) <i>Markalius inversus</i> (Deflandre) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-253	62	0733271E 4571508N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Discoaster barbadiensis</i> Tan <i>Discoaster binodosus</i> Martini <i>Discoaster</i> sp.	Ypresian
13-MC-255	62	0733271E 4571508N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Discoaster bramlettei</i> (Bukry and Percival) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp.	Ypresian
13-MC-257	62	0733271E 4571508N	<i>Toveius ? gammation</i> (Bramlette and Sullivan) <i>Tribrachiatus orthostylus</i> Shamrai <i>Toveius ? crassus</i> (Bramlette and Sullivan) <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia subpertusa</i> Hay and Mohler <i>Toveius eminens</i> (Bramlette and Sullivan) <i>Cruciplacolithus tenuis</i> (Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-259	62	0733176E 4571511N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Tribrachiatus orthostylus</i> Shamrai <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-261	62	0733176E 4571511N	<i>Toveius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Cruciplacolithus tenuis</i> (Stradner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich)	Thanetian
13-MC-263	62	0733176E 4571511N	<i>Discoaster mohleri</i> Bukry and Percival <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Thanetian
13-MC-265	62	0732981E 4571913N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Chiasmolithus eograndis</i> Perch-Nielsen <i>Toveius ? gammation</i> (Bramlette and Sullivan) <i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay ve Mohler) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian

Table DR10 (continued)

13-MC-267	62	0732981E 4571913N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay ve Mohler) <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Markalius inversus</i> (Deflandre) <i>Micrantholithus crenulatus</i> Bramlette and Sullivan <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-269	62	0732981E 4571913N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster binodosus</i> Martini <i>Toweius tovae</i> Perch-Nielsen <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia subpertusa</i> Hay and Mohler <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Cruciplacolithus tenuis</i> (Stradner) <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-271	62	0732981E 4571913N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Toweius ? gammation</i> (Bramlette and Sullivan) <i>Discoaster kuepperi</i> Stradner <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Sphenolithus anarrhopus</i> Bukry and Bramlette <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-273	62	0732981E 4571913N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia subpertusa</i> Hay and Mohler <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Braarudosphaera bigelowi</i> (Gran and Braarud) <i>Biscutum constans</i> (Gorka) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-275	62	0732638E 4572388N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Ericsonia ovalis</i> Black <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus</i> sp.	Ypresian
13-MC-277	62	0732638E 4572388N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Ellipsolithus macellus</i> (Bramlette and Sullivan) <i>Coccolithus pelagicus</i> (Wallich) <i>Chiphragmalithus</i> sp. <i>Thoracosphaera</i> sp.	Ypresian

Table DR10 (continued)

13-MC-279	62	0732638E 4572388N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Prinsius bisulcus</i> (Stradner) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-MC-281	62	0732571E 4572259N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich)	Ypresian
13-MC-289	62	0732481E 4572471N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Tribrachiatus orthostylus</i> Shamrai <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia cava</i> (Hay and Mohler) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Markalius inversus</i> (Deflandre) <i>Thoracosphaera</i> sp.	Ypresian
13-MC-356	43	0735046E 4582724N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp.	Ypresian
13-MC-359	43	0735134E 4582977N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia ovalis</i> Black <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Chiasmolithus danicus</i> (Brotzen) <i>Coccolithus pelagicus</i> (Wallich) <i>Micrantholithus obtusus</i> Stradner <i>Thoracosphaera</i> sp.	Ypresian
13-KA-74A	63	0707932E 4583784N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler) <i>Coccolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	Thanetian
13-KA-71A	63	0707196E 4583764N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler) <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Thanetian

Table DR10 (continued)

13-KA-71B	63	0707196E 4583764N	<i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Discoaster delicatus</i> Bramlette and Sullivan <i>Discoaster elegans</i> Bramlette and Sullivan <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Coccolithus pelagicus</i> (Wallich) <i>Chiasmolithus danicus</i> (Brotzen) <i>Micrantholithus crenulatus</i> Bramlette and Sullivan <i>Discoaster</i> sp. <i>Biscutum constans</i> (Gorka), <i>Thoracosphaera</i> sp.	late Thanetian
13-KA-73A	63	0707148E 4583796N	<i>Discoaster binodosus</i> Martini <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia cava</i> (Hay and Mohler) <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Micula decussata</i> Vekshina	late Thanetian-early Ypresian
13-KA-70	63	0707087E 4583638N	<i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Ericsonia ovalis</i> Black <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	early Ypresian
13-KA-69	63	0707169E 4583442N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Ericsonia ovalis</i> Black <i>Ericsonia cava</i> (Hay and Mohler) <i>Coccolithus eopelagicus</i> (Bramlette and Riedel) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Chiasmolithus danicus</i> (Brotzen) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-KA-99B	64	0704304E 4587980N	<i>Helicosphaera seminulum</i> Bramlette and Sullivan <i>Discoaster lodoensis</i> Bramlette and Riedel <i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus editus</i> Perch-Nielsen <i>Discoaster kuepperi</i> Stradner <i>Ericsonia formosa</i> (Kamptner) <i>Zygrhablithus bijugatus</i> (Deflandre and Fert) <i>Tribrachiatus orthostylus</i> Shamrai <i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Chiasmolithus solitus</i> (Bramlette and Sullivan) <i>Discoaster binodosus</i> Martini <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Ellipsolithus macellus</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Ericsonia cava</i> (Hay and Mohler) <i>Placozygus sigmoides</i> (Bramlette and Sullivan) <i>Markalius inversus</i> (Deflandre) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13-FK-177	65	0706572E 4574730N	<i>Discoaster</i> sp. <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ericsonia robusta</i> (Bramlette and Sullivan) <i>Micula decussata</i> Vekshina	Thanetian
13-FK-163	66	0708581E 4574922N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Ericsonia ovalis</i> Black	Thanetian

Table DR10 (continued)

13-FK-137	67	0706836E 4571621N	<i>Discoaster</i> sp. <i>Coccolithus pelagicus</i> (Wallich) <i>Sphenolithus primus</i> Perch-Nielsen <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Thanetian
14-FK-138	67	0707184E 4570852N	<i>Discoaster</i> sp. <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Coccolithus pelagicus</i> (Wallich) <i>Micula decussata</i> Vekshina <i>Thoracosphaera</i> sp.	Thanetian
13-FK-174	67	0706065E 4571896N	<i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Coccolithus pelagicus</i> (Wallich) <i>Sphenolithus</i> sp. <i>Discoaster</i> sp.	late Thanetian
13-FK-175	67	0706065E 4571896N	<i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Neochiastozygus distentus</i> (Bramlette and Sullivan) <i>Coccolithus pelagicus</i> (Wallich) <i>Ericsonia ovalis</i> Black <i>Sphenolithus</i> sp. <i>Thoracosphaera</i> sp.	Thanetian
13-SP-61	68	0723595E 4576245N	<i>Sphenolithus moriformis</i> (Brönnimann and Stradner) <i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Fasciculithus thomasii</i> Perch-Nielsen <i>Fasciculithus clinatus</i> Bukry <i>Fasciculithus lillianae</i> Perch-Nielsen <i>Fasciculithus bobii</i> Perch-Nielsen <i>Discoaster falcatus</i> Bramlette and Sullivan <i>Discoaster mohleri</i> Bukry and Percival <i>Ericsonia cava</i> (Hay ve Mohler) <i>Ericsonia subpertusa</i> Hay and Mohler <i>Ericsonia ovalis</i> Black <i>Neochiastozygus perfectus</i> Perch-Nielsen <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Chiasmolithus danicus</i> (Brotzen) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Biscutum constans</i> (Gorka) <i>Discoaster</i> sp.	late Thanetian
13-SP-63	69	0725780E 4576100N	<i>Sphenolithus radians</i> Deflandre and Grasse <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	early Ypresian
13-SP-55	70	0727750E 4577650N	<i>Discoaster multiradiatus</i> Bramlette and Riedel <i>Ericsonia cava</i> (Hay and Mohler) <i>Ericsonia ovalis</i> Black <i>Toweius eminens</i> (Bramlette and Sullivan) <i>Fasciculithus tympaniformis</i> Hay and Mohler <i>Ellipsolithus macellus</i> (Bramlette and Sullivan) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	late Thanetian
12-TT-139	71	0746064E 4554044N	<i>Sphenolithus editus</i> Perch-Nielsen <i>Sphenolithus radians</i> Deflandre and Grasse <i>Zygrhablithus bijugatus</i> (Deflandre and Fert) <i>Toweius ? crassus</i> (Bramlette and Sullivan) <i>Toweius ? gammation</i> (Bramlette and Sullivan)	Ypresian

Table DR10 (continued)

Samples bearing planktonic foraminifera

13-ÖK-78	58	0719624E 4576199N	<i>Morozovella occlusa</i> (Loeblich and Tappan) <i>Subbotina</i> cf. <i>triloculinoides</i> (Plummer) <i>Subbotina velascoensis</i> (Cushman) <i>Morozovella subbotiniae</i> (Morozova) <i>Acarinina</i> cf. <i>soldadoensis</i> (Brönnimann) <i>Subbotina</i> spp. <i>Acarinina</i> spp.	Thanetian-early Ypresian
12-MC-201	45	0712629E 4567999N	<i>Acarinina</i> cf. <i>soldadoensis</i> (Brönnimann) <i>Subbotina velascoensis</i> (Cushman) <i>Morozovella</i> cf. <i>subbotiniae</i> (Morozova) <i>Subbotina</i> cf. <i>hornibrooki</i> (Brönnimann) <i>Acarinina pseudotopilensis</i> Subbotina <i>Subbotina</i> cf. <i>triangularis</i> (White) <i>Acarinina</i> cf. <i>subsphaerica</i> (Subbotina) <i>Chiloguembelina</i> spp. <i>Igorina</i> ? sp. <i>Pseudohastigerina</i> ? sp.	late Paleocene (Thanetian)?-early Eocene (Ypresian)
12-MC-239	13	0715417E 4574152N	<i>Acarinina</i> cf. <i>soldadoensis</i> (Brönnimann) <i>Subbotina</i> cf. <i>triangularis</i> (White) <i>Acarinina pseudotopilensis</i> Subbotina <i>Acarinina</i> spp. <i>Subbotina</i> sp. <i>Pseudohastigerina</i> sp.	late Paleocene (Thanetian)?-early Eocene (Ypresian)
12-MC-241	13	0715417E 4574152N	<i>Subbotina</i> cf. <i>triangularis</i> (White) <i>Acarinina</i> spp. <i>Subbotina</i> sp	late Paleocene-early Eocene
12-MC-301	38	0731135E 4574332N	<i>Subbotina</i> cf. <i>triangularis</i> (White) <i>Acarinina</i> cf. <i>nitida</i> (Martin) <i>Acarinina</i> sp. <i>Subbotina</i> sp.	late Paleocene-early Eocene
12-MC-306	38	0731527E 4573406N	<i>Pseudohastigerina wilcoxensis</i> (Cushman and Ponton)? <i>Chiloguembelina</i> spp. <i>Subbotina</i> sp.	late Paleocene (Thanetian)?-early Eocene (Ypresian)
12-MC-339	60	0735095E 4574012N	<i>Acarinina</i> cf. <i>primitiva</i> (Finlay) <i>Pseudohastigerina</i> sp. <i>Acarinina</i> spp. <i>Subbotina</i> sp.	late Paleocene (Thanetian)?-early Eocene (Ypresian)
12-MC-365	61	0732147E 4574807N	<i>Turborotalia</i> cf. <i>frontosa</i> (Subbotina) <i>Morozovella</i> ? sp. <i>Turborotalia</i> sp. <i>Subbotina</i> sp.	probable early-mid. Eocene (middle Ypresian-Lutetian)
13-MC-116	42	0734828E 4576216N	<i>Acarinina primitiva</i> (Finlay) <i>Subbotina linaperta</i> (Finlay) <i>Acarininanitida</i> (Martin)	probable early Eocene
13-MC-143	62	0733720E 4570938N	<i>Subbotina velascoensis</i> (Cushman) <i>Acarinina</i> cf. <i>soldadoensis</i> (Brönnimann) <i>Subbotina linaperta</i> (Finlay) <i>Acarinina</i> sp.	late Paleocene (Thanetian)?- early Eocene (early-mid. Ypresian)
13-MC-149	62	0733722E 4570974N	<i>Subbotina</i> cf. <i>velascoensis</i> (Cushman) <i>Subbotina linaperta</i> (Finlay) <i>Subbotina</i> sp.	late Paleocene (Thanetian)?- early Eocene (early-mid. Ypresian)
13-MC-152	62	0733722E 4570974N	<i>Acarinina nitida</i> (Martin) <i>Subbotina linaperta</i> (Finlay) <i>Morozovella</i> cf. <i>subbotiniae</i> (Morozova) <i>Acarinina primitiva</i> (Finlay) <i>Subbotina triangularis</i> (White) <i>Acarinina pseudotopilensis</i> Subbotina <i>Subbotina</i> sp.	late Paleocene (Thanetian)?- early Eocene (early-mid. Ypresian)

Table DR10 (continued)

13-MC-158	62	0733768E 4571046N	<i>Subbotina</i> cf. <i>velascoensis</i> (Cushman) <i>Subbotina linaperta</i> (Finlay) <i>Morozovella</i> cf. <i>subbotinae</i> (Morozova) <i>Morozovella</i> cf. <i>aequa</i> (Cushman and Renz) <i>Acarinina primitiva</i> (Finlay) <i>Acarinina</i> cf. <i>soldadoensis</i> (Brönnimann) <i>Subbotina</i> sp. <i>Morozovella</i> sp.	late Paleocene (Thanetian)?- early Eocene (early-mid. Ypresian)
13-MC-169	62	0733768E 4571046N	<i>Acarinina</i> cf. <i>primitiva</i> (Finlay) <i>Subbotina</i> sp.	late Paleocene - early Eocene
13-MC-183	62	0734020E 4571806N	<i>Subbotina linaperta</i> (Finlay)	late Paleocene - early Eocene
13-MC-187	62	0734029E 4571991N	<i>Subbotina linaperta</i> (Finlay) <i>Acarinina</i> cf. <i>nitida</i> (Martin)	late Paleocene - early Eocene
13-MC-197	62	0734510E 4572246N	<i>Pseudohastigerina</i> cf. <i>wilcoxensis</i> (Cushman and Ponton) <i>Subbotina linaperta</i> (Finlay) <i>Subbotina inaequispira</i> (Subbotina) <i>Acarinina</i> cf. <i>primitiva</i> (Finlay) <i>Acarinina</i> spp. <i>Subbotina</i> spp.	early Eocene
13-MC-199	62	0734510E 4572246N	<i>Acarinina</i> sp. <i>Subbotina</i> spp.	late Paleocene - early Eocene
13-MC-204	62	0734510E 4572246N	<i>Subbotina</i> sp. <i>Globanomalina</i> ? sp.	late Paleocene - early Eocene
13-MC-208	62	0734510E 4572246N	<i>Subbotina</i> sp. <i>Acarinina</i> sp.	late Paleocene - early Eocene
13-SP-60	68	0723595E 4576245N	<i>Subbotina</i> cf. <i>triloculinoides</i> (Plummer) <i>Subbotina</i> cf. <i>velascoensis</i> (Cushman) <i>Acarinina</i> cf. <i>subsphaerica</i> (Subbotina) <i>Globanomalina</i> sp. ? <i>Morozovella</i> sp. <i>Subbotina</i> sp.	late Paleocene - early Eocene
13-SP-61	68	0723595E 4576245N	<i>Subbotina velascoensis</i> (Cushman) <i>Acarinina mckannai</i> (White) <i>Igorina</i> cf. <i>convexa</i> (Subbotina) <i>Acarinina</i> cf. <i>primitiva</i> (Finlay) <i>Globanomalina chapmani</i> (Parr) <i>Igorina</i> sp.	late Paleocene - ?early Eocene
Samples bearing benthic foraminifera				
12-TT-139	71	0746064E 4554044N	<i>Amphistegina</i> spp. <i>Operculina</i> spp. <i>Nummulites</i> sp. <i>Discocyclina</i> sp. <i>Daviesina</i> ? sp.	late Paleocene (Thanetian)
12-MC-300	38	0731135E 4574332N	<i>Nummulites</i> sp. <i>Discocyclina</i> sp. <i>Operculina</i> sp. <i>Siderolites calcitrapoides</i> Lamarck (transported) <i>Orbitoides</i> sp.(transported) <i>Omphalocyclus</i> sp. (transported)	early-mid. Eocene (probable early Eocene)
12-MC-308	38	0731488E 4573386N	<i>Nummulites</i> spp. <i>Discocyclina</i> sp. <i>Siderolites calcitrapoides</i> Lamarck (transported) <i>Orbitoides</i> sp.(transported) Rudist shell fragments(transported) Mississippinid form Rotaliidae Textulariidae Algae Bryozoa Macro fossil shell fragments	early-mid. Eocene (probable early Eocene)
13-MC-172	62	0733768E 4571046N	<i>Siderolites</i> sp. (transported) <i>Nummulites</i> spp. <i>Discocyclina</i> sp. Echinid Bryozoa	early Eocene

Table DR11: Paleontological data of samples from the Kabaköy Formation

Sample Number	Location Number in Fig.4	GPS Locality (Datum WGS84-UTM zone: 37T)	Fossils defined	Age
Samples bearing nanoplankton				
12-TT-115	72	0749740E 4557460N	<i>Reticulofenestra hillae</i> Bukry ve Percival <i>Cribrocentrum coenurum</i> (Reinhardt) <i>Reticulofenestra dictyoda</i> (Deflandre) <i>Discoaster binodosus</i> Martini <i>Zygrhablithus bijugatus</i> (Deflandre ve Fert) <i>Ericsonia formosa</i> (Kamptner)	Lutetian
12-TT-116	72	0749740E 4557460N	<i>Dictyococcites bisectus</i> (Hay, Mohler ve Wade) <i>Ericsonia obruta</i> Perch-Nielsen <i>Cribozentrum coenurum</i> (Reinhardt) <i>Sphenolithus spiniger</i> Bukry <i>Sphenolithus editus</i> Perch-Nielsen <i>Reticulofenestra dictyoda</i> (Deflandre)	Lutetian
13_MC_70	73	0733106E 4580399N	<i>Sphenolithus radians</i> Deflandre ve Grasse <i>Sphenolithus moriformis</i> (Brönnimann ve Stradner) <i>Toweius eminens</i> (Bramlette ve Sullivan) <i>Fasciculithus tympaniformis</i> Hay ve Mohler <i>Coccoolithus pelagicus</i> (Wallich) <i>Discoaster</i> sp. <i>Thoracosphaera</i> sp.	Ypresian
13_MC_81	73	0730962E 4579852N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Sphenolithus radians</i> Deflandre ve Grasse <i>Fasciculithus clinatus</i> Bukry <i>Fasciculithus tympaniformis</i> Hay ve Mohler <i>Coccoolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	Ypresian
13_MC_90	43	0734776E 4584415N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccoolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	Ypresian
13_MC_214	74	0735551E 4588364N	<i>Cribozentrum coenurum</i> (Reinhardt) <i>Reticulofenestra dictyoda</i> (Deflandre) <i>Ericsonia formosa</i> (Kamptner) <i>Sphenolithus moriformis</i> (Brönnimann ve Stradner) <i>Transversopontis latus</i> Müller <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccoolithus pelagicus</i> (Wallich) <i>Thoracosphaera</i> sp.	Lutetian
13-KA-52A	75	0741091E 4592879N	<i>Reticulofenestra hillae</i> Bukry ve Percival <i>Cribozentrum coenurum</i> (Reinhardt) <i>Reticulofenestra dictyoda</i> (Deflandre) <i>Sphenolithus moriformis</i> (Brönnimann ve Stradner) <i>Helicosphaera seminulum</i> Bramlette ve Sullivan <i>Pemma rotundum</i> Klumpp <i>Ericsonia formosa</i> (Kamptner) <i>Heliolithus kleinpelli</i> Sullivan <i>Coccoolithus eopelagicus</i> (Bramlette ve Riedel) <i>Zygrhablithus bijugatus</i> (Deflandre ve Fert) <i>Thoracosphaera</i> sp.	Lutetian
13-KA-53B	75	0741310E 4593059N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Ericsonia formosa</i> (Kamptner) <i>Fasciculithus tympaniformis</i> Hay ve Mohler <i>Thoracosphaera</i> sp. <i>Reticulofenestra</i> sp.	Ypresian
13-KA-53C	75	0741310E 4593059N	<i>Reticulofenestra dictyoda</i> (Deflandre) <i>Sphenolithus spiniger</i> Bukry <i>Sphenolithus primus</i> Perch-Nielsen <i>Coccoolithus eopelagicus</i> (Bramlette ve Riedel) <i>Thoracosphaera</i> sp.	Ypresian

Table DR11 (continued)

Samples bearing planktonic foraminifera

13_MC_80	73	0730962E 4579852N	<i>Subbotina linaperta</i> (Finlay) <i>Acarinina cf. nitida</i> (Martin) <i>Acarinina cf. pseudotopilensis</i> Subbotina <i>Globanomalina</i> ? sp.	early Eocene?
13-KA-22A 22-B-22C	75	0742099E 4592900N	<i>Subbotina linaperta</i> (Finlay) <i>Acarinina</i> spp. <i>Subbotina</i> spp. <i>Globigerinetheka</i> ? sp.	early-middle Eocene
12-KA45B-45C	75	0739541E 4591965N	<i>Subbotina linaperta</i> (Finlay) <i>Acarinina cf. nitida</i> (Martin) <i>Turborotalia cf. Frontosa</i> (Subbotina) <i>Subbotina</i> spp. <i>Pseudohastigerina</i> ? sp. <i>Globigerinetheka</i> ? sp.	early-middle Eocene
13-KA-48-48B	75	0739429E 4591965N	<i>Subbotina linaperta</i> (Finlay) <i>Subbotina</i> spp. <i>Globigerinetheka</i> ? sp.	early-middle Eocene
13-KA-49A-49B	75	0739429E 4591965N	<i>Acarinina cf. primitiva</i> (Finlay) <i>Subbotina linaperta</i> (Finlay) <i>Turborotalia cf. frontosa</i> (Subbotina) <i>Acarinina</i> spp. <i>Subbotina</i> spp.	
13-KA-50	75	0740326E 4593120N	<i>Acarinina cf. bullbrookii</i> (Bolli) <i>Turborotalia cf. frontosa</i> (Subbotina) <i>Subbotina gr. eocaena</i> (Gümbel) <i>Subbotina</i> spp. <i>Acarinina</i> spp. <i>Globigerinetheka</i> ? sp.	early-middle Eocene
13-KA-51	75	0740326E 4593120N	<i>Acarinina cf. bullbrookii</i> (Bolli) <i>Turborotalia cf. frontosa</i> (Subbotina) <i>Subbotina gr. eocaena</i> (Gümbel) <i>Subbotina</i> spp. <i>Acarinina</i> spp. <i>Globigerinetheka</i> ? sp.	early-middle Eocene