Heron H-73

Nannofossils - new data
Scale: 1:2000
Weston *et al.* 2023 Atlantic Geoscience

Interval: 7400' - 12000'

Text Keys
?? quantitative abundance (300 = 40mm, scale tick = 10 counts)

Boundary Types
Possible
Confident
Unconformable
?Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
NA - Nannofossils

Heron H-73

Scale
Measured depth (ft)
Chronostratigraphy
Period/Epoch
Age
Gamma-Ray
Gamma Log (API)
Sonic Log
Sonic Log (uS)
Casing
9588.00
Density & Diversity
Samples (ft)
[Cv excluded] Tt
[Cv excluded] species richness
NA
Nannopalaeontology
quantitative abundance (100 = 20mm, scale tick = 10 counts)
Samples (ft)
Biostrat Comments
Nanno.

Late Cretaceous
Late Cretaceous - Early Cretaceous
Early Cretaceous
Late Jurassic - Middle Jurassic
Campanian - Turonian
Cenomanian - middle Albian
?Aptian
Oxfordian - Bajocian
Bajocian
early Toarcian
Pliensbachian
Early Jurassic

7500 CU — FDO C. margereli, TR. asper (middle Cenomanian or older)
8220 CU
8580 CU — FDO C. deflandrei (=elongimarus to Caloviandatest Bathonian)
9130 CU
9580 CU
9750 CU
9840 CU
9930 CU — FDO Carinolithus spp., P. grassei (Bajocian)
10020 CU — FDO M. janaae (early Toarcian to Sinemurian)
10360 CU — FDO C. granulatus, common L. hauffii (late Pliensbachian)
10650 CU
10740 CU
10800 CU — FDO persistent & in situ M. stegera (early-late Pliensbachian to Sinemurian)
10860 CU
11100 CU — Sole C. pliensbachensis (early Pliensbachian to Sinemurian) with C. granulatus, S. crucivulus (no older than Pliensbachian)

Heron H-73

Palynology - new data
Scale: 1:2000
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Interval: 5700' - 12200'

Text Keys
*1 quantitative abundance (200 = 20mm, scale tick = 10 counts)
*2 quantitative abundance (100 = 20mm, scale tick = 10 counts)

Boundary Types
Possible
Confident
Unconformable
?Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
AC - Acritarchs
ALBO - Botryococcus and pediastrum
ALIN - Incertae sedis
ALPR - Prasinophyceae
DC - Dinoflagellate cysts
FT - Foram test linings
FU - Fungi
MP - Miscellaneous palynomorphs
SP - Spores and pollen

Heron H-73

Scale | Chronostratigraphy: Period/Epoch, Age | Measured depth (ft) | Gamma-Ray: Gamma Log (API) 0–150 | Sonic: Sonic Log (us/ft) 140–40 | Casing | Visual Kero... | Samples (ft)

Eocene
Late Cretaceous
Campanian - Turonian
Late Cretaceous - Early Cretaceous
Cenomanian - middle Albian
Early Cretaceous
?Aptian
Late Jurassic - Middle Jurassic
Oxfordian - Bajocian
Bajocian
early Toarcian
Plienbachian
Early Jurassic

Casing: 9 5/8 @ 6797.00'
Pw @ 9588.00'

Palynology

Dinocysts — quantitative abundance (200 = 20mm, scale tick = 10 counts)

Barren
Adnatosphaeridium robustum
Areoligera spp.
Cleistosphaeridium spp. (fine processes)
Cordosphaeridium cantharellus
Cordosphaeridium fibrospinosum
Cordosphaeridium inodes
Cordosphaeridium spp.
Thalassiphora pelagica
Adnatosphaeridium spp.
Spiniferites spp.
Dinopterygium nitratum
Senegalinium spp.
Dapsilidinium spp.
Dinopterygium acuminatum
Oligosphaeridium complex
Cladopyxidium hasticat
Cladopyxidium scabrosum
Chlamydophorella nyei
Cribroperidinium spp.
Spiniferites ramosus
Isabelidinium spp.
Isabelidinium cooksoniae
Chytroeisphaeridia spp.
Pterosphaeridium bifidum
Batiacasphaera spp.
Hystrichodinium pulchrum
Trichodinium spp.
Hystrichosphaeridium spp.
Spiniferites spp.
Florentinia spp.
Pterosphaeridium spp.
Cyclonephelium distinctum
Palaeoperidinium cretaceum
Yolkinogymnium spp.
Subtilisphaera perlucida
Subtilisphaera spp.
Chlamydophorella spp.
Dinogymnium euclensis
Dinogymnium nelsonense
Dinogymnium spp.
Odontochitina costata
Chatangiella spp.
Cerodinia sp. (operculate)
Odontochitina operculata
Xenascus ceratioides
Chlamydophorella nyei
Litosphaeridium siphoniphorum
Palaeohystrichophora infusionoides
Phelodinium kozlowskii
Odontochitina operculata
Pterodinium spp.
Fromea tetragona
Pterodinium cretaceum
Manumiella spp.
Scriniodinium crystallinum (protoceratioid)
Cyclonephelium compactum (indeterminate)
Cerodinium spp.
Phelodinium kozlowskii (indeterminate)
Dinogymnium acuminatum (circumscribed)
Senoniasphaera inornata
Dichadogonyaulax spp.
Carnisphaera spp.
Lanmarkia sphinxia
Cribroperidinium cooksoniae
Cyclonephelium brevispinatum
Dinogymnium undulosum
Dinopterygium cladoides
Exochosphaeridium phragmites
Exochosphaeridium spp.
Subtilisphaeridium spp.
Xiphophoridium alatum

Acritarchs — *1

Micrhystridium spp.
Baltisphaeridium spp.

ALPR — *1

Pterosperma spp.
Tasmanites spp.
Leiosphaeridia spp.

FT — *2

Microforaminiferal test linings

Fungi — *1

Barren
Fungal hyphae
Fungal spore (multicellate)
Fungal spore (monocellate)

Spores and Pollen — quantitative abundance (200 = 20mm, scale tick = 10 counts)

Barren
Ellipsoidites ellipsoides
Araucariacites australis
Classopollis spp.
Cicatricosisporites spp.
Cyathidites spp.
Polatisporites spp. (pale)
Rugubivesiculites spp.
Trilobosporites (trilobate)
Rugubivesiculites rugosus
Phyllocerites spp.
Microcachryidites spp.
Baculatisporites spp.
Brattisporites spp.
Cicatricosisporites annulatus
Cicatricosisporites augustus/hallei
Cicatricosisporites fasciatus
Cicatricosisporites australiensis
Concavissimisporites spp.
Dictyophyllidites spp.
Exesipollenites spp.
Exesipollenites tumulus
Foraminisporis spp.
Gleicheniidites spp.
Lycopodiumsporites spp.
Podocarpidites spp.
Retitriletes spp.
Rouseisporites spp.
Stereisporites spp.
Verrucosisporites spp.
Aequitriradites spp.
Appendicisporites spp.
Foveotriletes spp.
Gleicheniidites spp.
Ischyosporites spp.
Cyathidites spp.
Osmundacidites spp.
Classopollis torosus
Spheripollenites psilatus
Verrucatosporites usmensis
Impardecispora apatela (Velosi)
Impardecispora spp.
Leptolepidites spp.
Uvaesporites spp.
Verrucatosporites (distal)
Verrucatosporites usmensis
Verrucatosporites spp.
Crassiretitriletes vanraadshooveni
Cyathidites minor
Kraeuselisporites reissingeri
Callialasporites dampieri
Callialasporites segmentatus
Callialasporites trilobatus
Spherical pollen

Biostrat Comments

Paly.	Biostrat Comments
5680 - 5710 CU:	FDO D. colligerum (Lutetian to Ypresian)
5770 - 5800 CU:	FDO X. ceratioides (late Campanian or older)
5865.0 SC:	FDO common Dinogymnium spp. (Late Cretaceous, ?late Campanian)
6200.0 SC:	FDO S. longifurcatum (early Campanian or older)
6450.0 SC:	FDO S. protrusa (Santonian or older)
6700 - 6730 CU:	FDO O. porifera (intra-Santonian to Coniacian)
6980 - 7010 CU:	FDO common O. porifera (Coniacian)
7450.0 SC:	LDO in situ common O. porifera (Coniacian)
7490.0 SC:	FDO C. huguoniotii (intra-Coniacian or older)
7528.0 SC:	FDO L. siphoniphorum (early Turonian to late Albian)
7608.0 SC:	Abundant C. nyei, L. siphoniphorum (Cenomanian to late Albian)
7690.0 SC:	LDO L. siphoniphorum (no older than late Albian)
7750.0 SC:	FDO C. vestitum (late to middle Albian)
7790.0 SC:	FDO K. eoincides (Aptian or older)
7810.0 SC:	FDO dominant miospores
7830.0 SC:	FDO A. problematicus, Eucommiidites spp. (Albian or older)
8105.0 SC:	Sole in situ C. ornatum, T. dangeardii (Oxfordian to Callovian)
8500.0 SC:	FDO G. pectinigera, A. caulleryi (Callovian to late Bathonian)
9110.0 SC:	FDO D. filapicata (Callovian to middle Aalenian, typical of Bathonian and older)
10060 - 10090 CU:	FDO L. spinosa with abundant C. torosus and S. psilatus suggests earliest Toarcian
10160 - 10190 CU:	Abundant S. psilatus suggests earliest Toarcian
10260 - 10290 CU:	Dominance of C. torosus suggests Pliensbachian or older
10930 - 10960 CU:	Cadargasporites verrucosus (typical of Pliensbachian or older)
11030 - 11060 CU:	LDO persistent L. spinosa (no older than late Pliensbachian)
11610 - 11640 CU:	Echinitosporites sp. A of Bujak and Williams 1977 (early Pliensbachian to late Hettangian)
11940 - 11970 CU:	Persistent dominance of C. torosus suggests no older than late Hettangian

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Scale: 1:2000
Interval: 1400' - 12200'
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Text Keys
*1 quantitative abundance (2000 = 40mm, scale tick = 100 counts)
*2 (Rw, Cv excluded)
*3 species richness
*4 quantitative abundance (300 = 40mm, scale tick = 10 counts)

Base Lithology
anhydrite/gypsum
chert
claystone
conglomerate
dolomite
halite
limestone
marl
sandstone
shale
siltstone

Lithology Qualifiers
carbonaceous

Boundary Types
Possible
Probable
Confident
Unconformable
?Unconformable

Sampling
Cutting
Core
Sidewall Core

Taxon Categories
AC - Acritarchs
AL - Algae
ALPR - Prasinophycea
DC - Dinoflagellate cysts
DI - Diatoms
FT - Foram test linings
FU - Fungi
NA - Nannofossils
SP - Spores and pollen