P67

LAF-OT-1
#1 Henderson
Core Description

447-56	Chalk, white, soft, powdery. Probable Ocala.
456-66	Do.
1044-54	Chalk, white, moderately hard, massive, pure. Slightly glauconitic in middle part with Archais sp. (Jackson). Highly glauc. at bottom.
1054-64	Two lithologies (contact?). One is glauc. chalk as above. Second is light-tan highly anhydritic dolomite, C-x tall.
1550-55	LS, lt-tan, argillaceous, sl. glauc. A new lithology to me.
1565-75	Dolo, lt-grey, microxtall, slight vuggy porosity, homogeneous.
1575-85	Highly mixed. Mostly microxtall lt-brown to lt-grey dolo. Has limy layers with Dictyoconus and Camerina.
1585-90	Dolo, lt-grey, F-xtall, massive, uniform. Tr of vuggy porosity.
1590-95	Do with gastropod and pelecypod molds preserved.
1595-1602	Do. A mold of Archais Sp. preserved.
1602-10	Two rock types: Bulk of sample is light-grey microxtall dense dolo, with a few streaks of organic matter. Second type is tan F-xtall homogeneous dolo.
1610-20	Two rock types: mostly tan microxtall dolo with network of brown fractures, also filled with dolo. Rock has minor vuggy porosity, "ghosts" of oolites. Second is lt-brown med-xtall massive dolo.
1620-26	Dolo, F-xtall, m-brown. Has areas of dk-brown dolo which appear texturally to have been organic material.
1627-37	Dolo, dk-brown, C-xtall (Sacchroidal), slightly vuggy. Much black material which may represent residual oil.
1636-46	Mixture of 3 rock types: 1. Dolo as 1627-37: 2. Black silty shale: 3. Off-white chalky LS, with many black specks and coarse dolo xtals.

3172-76	Two rock types: 1.LS, lt-gry, micor-xtall, Tr brown organic material: 2. Shale, v-dk-grey with brownish cast, fissile, pure. (Atkinson).
3176-81	Shale, dk-grey-brown, massive, pure. Tr brn mica. Atkinson.
3181-91	Shale do interbedded with dk-brown m-xtall Argillaceous LS.
3191-95	Sand, M-grey, F-grn, 20% calcareous clay matrix.
3195-3200	LS, dk-brown, F-xtall, sandy, well-indurated.
3200-05	Sand, M-grey, m-grn, friable, calc. Has laminae of black shale.
3205-09	Quartzite, white, tight, calc.
3212-17	As 3200-05 But loose, unconsolidated.
3224-26	As 3200-05 with sand calc, well-indurated.
3226-31	Quartzite, white, tight, calc., interbedded with blk shale. Medium-bedded.
3231-36	Quartzite do interbedded with brown Argillaceous sandy LS.
3236-46	Top - Shale, lt-green, ashy, with thin laminae of F-grn micaceous sand. Has light-greenish-grey mixroxtall LS interbeds. Top Washita? Bottom - Shale Do. Full of fish scales.
3246-56	Top - Shale do. Interbedded with brown f-grn micaceous Lignitic sand. Middle - Shale do with pockets of lt-grey m-grn sand. Bottom - Do.
3256-61	Shale do with much interbedded brown-white mottled highly micaceous and lignitic shale.
3261-66	Sand, brownish-grey, calc., argillaceous, highly micaceous. Tr glauc. Thinly laminated with clay-rich layers.
3266-68	Appears to be a dropped core - disregard. Appears to be green shale as above.

3268-69	Do. Shale olive-green, waxy, hard.
3269-74	Do.
3274-76	Do.
3276-77	Shale, dk-brown with greenish cast, micaceous, lignitic. Tr f-grn brown micaceous sand laminae.
3277-82	Shale, dk olive-green, hard, with iron-filled fractures.
3282-87	Shale, m-grey, ashy, micaceous. Minor white speckling.
3287-92	Shale, lt-green, interbedded with f-grn brown highly micaceous argillaceous sand. Shale has fish scales.
3292-97	Shale, m-gry, massive, sl- micaceous, breaks up blocky.
3297-3302	LS, m-grey with brown cast, argillaceous, sandy, SL. micaceous, well-indurated.
3302-07	Shale, m-grey, massive, micaceous, calc., ashy. Tr f-grn sand blebs and stringers.
3309-14	Shale, dk-grey with brown cast, ashy, blocky, massive, calc.
3314-19	Shale, calc., lt-grey, fissile, with thin laminae of f-grn glauc sand.
3319-29	Do.
3329-30	Sand, m-grey, f-grn, highly glauc (sausserite?), micaceous, poorly indurated, calcareous, argillaceous.
3330-33	Do.
3333-38	Do. sample dk-grey. Argillaceous matrix 30%. Sand green with laminae of dk-grey shale at bottom of interval.
3338-48	Sand as 3329-30 with green cast.
3348-50	Probably a dropped core. Consists of sand do with large mottles of dk-grey clay.

3350-60	Sand, lt greenish-grey, f-m-grn, argillaceous, Sl micaceous, loose, friable. Glauc. Prominent.
3360-65	Lumpy mixture of bright-green argill. sand and dk-grey clay. Probably dropped.
3365-67	Sand as 3350-60.
3367-69	Clay, dk-grey, silty, calc., slightly micaceous. Sand as above prom.
3369-71	Sand, lt-grey, f-grn, micaceous, argillaceous, glauconitic, poorly indurated.
3371-76	As 3367-69. Sand is f-m-grn.
3376-81	SS, c-grn, white-green laminated, highly argillaceous. Tr siderite.
3381-86	Sand, C-VC-grn, lt-grey, argillaceous. Tr glauc., lignite. Poorly consolidated.
3386-88	Do. Argillaceous matrix is v-lt-grey to pale green.
3388-90	Sand as 3381-86. Add tr pea gravel.
3390-95	Sand do but m-grey with green cast. Argillaceous matrix 20%.
3395-3400	Sand as 3381-86.
3400-10	Sand, white, VF-f-grn, argillaceous, poorly consolidated. C-grn muscovite, comanche common.
3417-19	Sand, lt-grey, c-grn, fairly ws, loose, friable, argillaceous. Tr feldspar, lignite, muscovite.
3419-24	Sand do. Pink and light-grey argill. matrix 25%.
3424-29	Sand Do. Tr yellow-green clay.
3429-31	Sand, white to lt-grey, m-c-grn, loose, friable. Tr pink feldspar, lignite.
3433-35	Sand, f-grn, highly micaceous, argillaceous, poorly consolidated. Tr lignite.

3443-44	Sand, grey-pink-white mottled, f-m-grn. Tr muscovite, feldspar. 30% clay matrix of above 3 colors.
3444-49	Sand, m-grey, VF-m-grn, v. highly micaceous (15% mica), silty, poorly consolidated. Has thin bands of red clay.
3449-51	Do.
3451-56	Sand, red with white bands, vf-m-grn, silty. Tr vf-grn mica.
3456-58	Sand, lt-grey, c-grn, sr-r, loose. Tr c-grn muscovite, feldspar.
3456-61	Sand do. Very poorly sorted. Pink to grey clay binder prom. Tr pea gravel.
3461-66	Sand, C-vc-grn, brownish-grey. Tr c-grn muscovite, feldspar.
3466-70	Sand, pale-green, f-c-grn, silty. 30% silt binder. Friable tr lignite, muscovite.
3970-75	Clay, waxy, pure, ochre-pink-yellow-white mottled. Ochre dominant color.
3975-80	Do.
3982-87	Sand, dull pink, loose, m-c-grn, slightly argillaceous, sr to well-rounded.
3987-89	Sand, dull brown. As above with 20% dull brown clay matrix.
3989-91	Sand, consisting of flesh-colored argill. C-grn loose sand interbedded with pink rounded well-indurated sandstone.
3991-93	Sandstone, dull red, m-grn, well-indurated, with calcite cement.
3995-96	Siltstone, sandy, reddish-brown, with minor white mottling. Sand 40%, f-grn, angular.
3996-4001	Do.
4039-44	Shale, reddish-brown, white mottled. 30% m-grn rnd sand. Pockets of white sand give mottled appearance.

4044-54	Top - Sand, dull brown, c-grn, ws, r-to well-rounded, loose. Minor argillaceous matrix.
4044-54	Bottom - Clay, dull red. 45% m-grn sr-r white sand as blebs and stringers.
4054-59	Sandstone, dull reddish-brown, well indurated, f-grn, matrix slightly calc. Has pockets of m-grn white ss.
4059-61	SS do with no white mottling.
4061-63	Siltstone, dull red with minor purple and yellowish-green mottling. Minor f-grn sand as convoluted laminae.
4063-67	Do with sand prominent as blebs.
4067-72	Sand, pale-green to orange mottled, c-vc grn, sr. Argillaceous matrix 15%.
4072-73	As 4063-67
4073-74	SS, pale-green-orange, medium-bedded, argillaceous, well indurated.
4074-49	Sand, dull yellow-orange, f-m-grn, argill., semi-consolidated. Minor red-brown shale.
4079-80	Sand, med-brn with white mottling, m-grn, sr-r, ws, semi-indurated.
4080-82	Siltstone, dull dark yellowish-green, tr m-grn sand.
4082-84	Do.
4084-86	Do.
4086-91	Do.
4091-93	Sand, pink, vf-grn, ws, loose. Tr pink argill. matrix.
4093-98	Interbedding of above two rock types. Sand is light pink to white.
4098-4100	Sand, dull pink, loose, m-grn, sr-r ws, tr argill. matrix.
4100-02	Sand do but dull yellow.

Henderson

4102-07	Argillaceous sand, red-white mattled, f-grn. 25% argill. matrix of above colors.
4107-09	Sand, yellow-dull pink mottled, c-grn, sr, ws. Tr yellow to pink argill. matrix.
4109-14	Siltstone, dull red, sandy, massive. 35% f-grn sr sand.
4114-20	Sand, vf-f-grn, dull yellow-brn to red mottled. Argillaceous.
4120-21	Siltstone, red-purple mottled, sandy. Minor white m-grn Argill. sand in sample.
4121-29	Clay, v pale red. 40% f-grn r-sr sand.
4141-46	Do. Sand is 60% of sand, in 40% clay matrix.
4146-48	Sand, dull red, m-c-grn, sa-sr, Ws. Minor white specks. Unconsolidated.

FLA-LAF-OT-1

58-78 | Microcoq. Crmy, v.f. forams in micro, ind matrix, porous
78-98 | do
98-550 | N.S.
550-60 | Mxt. of dirty dk brn, f xraln, v porous, chy, ind dol & buff, doly, highly foss micro porous ls
560-2060 | N.S.
2060-80 | Wh ind ch. Sample contains abund. v lt tan, f xraly porous, ind, chy dol but this is coming from above
2080-00 | do
2100-20 | do w/ buff, crypto, tight, hard dol
2120-40 | Same (2060-80)
2140-60 | do
2160-80 | do but ch is ddtz to lt tan, porous, f gry, hard dol
2180-00 | do
2200-20 | Wh, ind, foss ch w/ abund. Inoc. prisms & s.f.
2220-40 | do plus dol as (2160-80)
2240-60 | do
2260-80 | V.V. lt gry, ind, slightly foss ch w/ Tr. I. prisms
2280-00 | Wh, ind, foss ch w/ lt tan, f xraly porous, chy dol as replacement & Tr. I. prisms & s.f.
2300-20 | do but no dol
2320-40 | do w/ dol
2340-60 | Wh, ind ch w/ abund I. prisms, loose lg. forams, Tr. s.f. & pyr w/ some lt tan, f xraly, porous, chy dol as replacement of some pieces
2360-80 | ch w/ Tr. dol, I. prism, pyr, lg. forams

2380-00| ch w/ Abund I. prisms Tr. pyr, s.f.

2400-20| ch w/ Abund I. prisms Tr. dol as above

2420-40| ch w/ Abund I. prisms Tr. dol, pyr, ls. forams & ultqmy fissile sft, waxy calc sh

2440-60| ch w/ Tr. dol, I. prisms, pyr, sh

2460-80| ch w/ Abund I. prisms Tr. pyr, sh, s.f., ls. forams

2480-00| ch w/ Tr. I. prisms, sh, ch is slightly foss

2500-20| ch w/ Tr. I. prisms, sh, pyr, dol

2520-40| ch w/ Tr. I. prisms, pyr, dol

2540-60| do plus a few vc, euh, Anh cubes within the ch

2560-80| ch w/ Tr. I. prisms, pyr, s.f., dol, Anh cubes

2580-00| do

2600-20| do but Abund I. prisms, dol & Anh cubes

2620-40| wh, ind ch w/ vf, euh, dol rhombs scatt. throughout each ch piece, w/ Abund I. prisms w/ Tr. pyr, s.f., Anh cubes & dol as above

2640-60| do but no s.f.

2660-80| vltqmy, muny ind, porous, ls VARS Tr. I. prisms

2680-00| do but no I. prisms

2700-20| ls w/ v small s.f. embedded within Tr. ls, s.f., I. prisms, pyr

2720-40| ls as (2700-20) w/ Tr. pyr, I. prisms

2740-60| do

2760-80| N.S

2780-00| do w/ Abund I. prisms & Tr. pyr

2800-20| do

2820-40| do

2840-50| do

840-60 | V lt gry, micro, ind, porous, v arg ls
860-80 | lt gngry, micro, ind, porous, v arg ls
880-00 | do but M gngry
2900-20 | do
2920-40 | do
2940-60 | do
2960-80 | do plus wh, micro, porous, ind, ls
2980-00 | do
3000-20 | M gngry, highly calc, blocky, ind sh w/ v poorly developed lt & dk laminations
3020-40 | do w/ laminations slightly better developed
3040-60 | do but M gry
3060-80 | do
3080-00 | do
3100-20 | N.S.
3120-40 | do w/ Tr pyr
3140-60 | do
3160-60 | N.S.
3160-80 | M gry, fissile, ind, highly & v finely mic, calc sh
3180-00 | wh, f gry, porous, calc, slightly arg ss, friable Tr pyr
3200-20 | do
3220-40 | do but ss is ind & a little less porous than above
3240-60 | Gn gry, fissile, soft, calc sh Some pieces mottled wh
3260-80 | do
3280-00 | do
3300-20 | do

3320-40 | do but Mgry-gngry

3340-60 | wh-vltgy fgry, porous, glauc d/o pyritic, calc, Arg SS

3360-80 | do

3380-00 | Mostly clear wh pink, yel, gn, brn), C gry, loose, & A gtz sd w/ some wh, Mgry, glauc, tight, calc ss
glauc is gn & Mgry. Tr. C gry, blk phos

3400-20 | brngry, fissile, ind, crmy mottled, calc sh

3420-40 | Mxt. of sh & sd as above Tr pyr

3440-60 | clear-yel-wh-orange, C gry, SA gtz sd w/ Tr. lt brick red, fissile, soft, highly but finely mic
sh

3460-80 | Mxt. of sd & red sh as above but red sh is sometimes mottled yel & sd is SA-SR

3480-00 | Sd as above Tr lt brngry, ind, blocky, calc cly MATRIX

3500-20 | do

3520-40 | sd as above w/ Mgry-gngry, fissile, soft, calc sh

3540-60 | Clear-milky-yel, C-UC gry, SR-SA gtz sd w/ lt gry, fissile, soft, calc sh

3560-80 | do w/ Tr red sh as above

3580-00 | Gry sh as above

3600-20 | Mxt. of sd as above & Mgry-lt gry, fissile, ind-soft, wh mottled, calc sh Tr red sh

3620-40 | Gry sh AS (3600-20)

3640-60 | Sd as above w/ sh as (3600-20)

3660-80 | Sd as above

3680-00 | Mxt. of sd & sh as (3600-20)

3700-20 | do Tr orange-pink fsp

3720-40 | do

P67

Tallahassee, Florida
November 10, 1948

HUMBLE OIL & REFINING CO. WILDCAT #1 HENDERSON
LAFAYETTE COUNTY, FLORIDA

Worked by: ERA/has

CUTTING SAMPLES

2980-3000' Cut. of gray chalk, and some frags of white chalk. Some frags of an Ostrea-like fos bivalve, a few frags of Inoceramus: Forams present non-diagnostic, mainly from higher depth. Lith indicates age Austin.

3000-20' Like the preceding.

3020-40' Similar to the above, some frags of a tan "speckled" gray marly chalk, ("speck" appearance due to finely broken, and small, crushed fos mat.). Specimens of Globotruncana marginata very common. Def. Austin on lith.

3040-60' Like the preceding.

3060-80' No change. Same for (3080-3100') (3100-20') (3120-40').

3140-50' Similar to the above, some increase in frags. of darker gray - "light speck" marly chalk. Some Inoc. frags - a few frags of a fos. bivalve (Ostrea? sp.).

CORES

3172-76' Core #34 Rec. 4': Dark gray, highly and finely light speckled marl (speckled appearance due to crushed, fine and finely broken fos. shell mat.). Some frags. of fish scales (many Inoceramus prisms) and numerous forams. Common forams present - Globotruncana marginata, Globigerina sp. and Gumbellina reussi. Age: Lower Austin.

Base Austin
Globotruncana sp.
Globigerina
Gumbelina
Plan. eaglefordensis
I. Prisms

3176-81' Core #35 Rec. 4½': Core of gray marl, lighter in color and much more finely and less clearly light speckled than the preceding. Abundant specimens of the same forams as listed from preceding core, also Inoceramus prisms and frags. and some fish bones and scales. A few specimens of Planulina eaglefordensis also present. Core also contains some very hard white limestone. Position of this limestone in cored section not indicated.

3181-91' Core #36 Rec. 5'2": Core of gray marl similar to the preceding core but very finely sandy, also a gray very finely and highly sandy hard light gray limestone. Large specimens of Globigerina and Inoceramus prisms present. Material still Austin in character.

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3191-95' Core #37 Rec. 3'10": Hard white finely sandy chalk. (sand about 25%)fish bone frags. common. A small amount of dark green glauconitic also present.

3195-3200' Core #38 Rec. 2': Highly and finely S. hard white chalk. (S. 50 to 75% of chalk body.) Some fish bones and frags.

3200-05' Core #39 Rec. 2½': A small amount of highly S. Chalk as above major portion of sample hard, white dense, fine grnd. cal. s.s. Some fish bones and scales.

3205-09' Core #40 (Rec. ?): Some s.s. as above also soft fine grained quartzitic s. with apparently has lenses of thinly laminated dark gray, unctuous "spec." sh. some fish bones and scales in the s.s. and some specimens of Planulina eaglefordensis (some specimens attached to sand grns.) Some carb. frags.

3212-17' Core #41 Rec. 1½': Loosely consolidated, fine grnd qtz s.s. apparently with thin laminae of black, unctuous carb. sh. showing some small fish bone frags. and a few nods. of glauc. Some phos. nods.

3217-22' Core #42 Rec. 6": Dense, fine grnd cal qtz s.s. Some frags of Ostrea sp. some small phosphatic nods. present. and a few thin strks of brownish black, sh.

3222-24' Core #43 Rec 6": Mod. hard, fine grnd qtz s.s. with some thin lenses of black, micaceous (bituminous?) sh. Frags of fish bones common. Some specimens of Planulina eaglefordensis. in s.s.

3224-26' Core #44 Rec. 21": Hard, white fine grnd cal. s.s. and s. hard cream colored ls. (sand about 50%) Some frags of fish bones, and some impressions of micro fossils. Material somewhat micaceous.

3226-31' Core #45 Rec 49": Hard whit fine grnd calcareous qtz s.s. and lenses of brownish gray, light "speckled" flaky sh. (Speckled appearance due to fine crushed and broken fosil mat.) A little mica in the s.s.

ATR ?

3231-36' Core #46 Rec 4': Dark brownish gray, finely light "spec." shale and lenses of lt. tan, hard, fine grnd. s.s. abundant fish bones and scales and many specimens of Planulina eaglefordensis A few frags. of a thin shelled Inoc. sp. Some lenses of s. cream colored hard ls.

ALL PLANU. EAGLEFORDENSIS EXCEPT FOR ONE HEDBERGELLA PLANISPIRA

3236-46' Core #47 Rec. 10': Gray-green, flaky, irreg. mica, lt. speck" sh. (speckled appearance due to finely broken and crushed fos. mat.) Some lenses of very fine grnd. white s.s. Some fish scales and bones, abundant specimens of Planulina eaglefordensis, some of Globigerina sp. Gumbelina reussi.

Top of U. Atkinson / Eagle Ford

DO ATR WITH ANO. GUMBELINA, H. BRITTONENSIS

#1 HENDERSON

3246-56' Core #48 Rec. 10': Gray green sh. as described from the the preceding core, with thin highly micro-fos. and sandy lenses. Fauna same as in preceding core.
Bottom of core: shows green sh. as above and thin lenses of brownish gray sh. highly lt. speckled with crushed micro-fos and frags of other fos. mat. This brownish gray shale has abundant specimens of a large Globigerina sp. Globotruncana marginata, some specimens of Gumbelina sp. Some Inoceramus frags. fish bones and scales.

3256-61' Core #49 Rec. 5': Gray, highly "speckled" sh. as above. Many specimens of a small Globigerina sp. Gumbelina moremani Gumbelina sp. small specimens of Planulina eaglefordensis and Neobulimina? sp.

3261-66' Core #50 Rec. 29": Dark brownish gray, highly "speckled" sh. with some thin hard very finely sandy and mica. lenses. Fauna same as in preceding core.

3266-68' Core #51 Rec.2': Greenish gray "speckled" flaky sh. Specimens of Planulina eaglefordensis, Globigerina sp., Gumbelina sp. and Neobulimina? abundant. Mat. is slightly micaceous and irregularly silty. A few fish bones and scales.

3268-69' Core #52 Rec. 1': Sh. as in preceding core. Fauna abundant. Species same as above.

3269-74' Core #53 Rec. 2½': Sh. as above with some lenses of hard, cream colored, very fine grnd. cal, and somewhat micaceous and glauconitic s.s. Forams not as common as above, Species present mainly Globigerina, Gumbelina and Neobulimina? sp.

3274-76' Core #54 Rec. 1': Dark gray, highly light "speckled" sh. Forams abundant, mainly Gumbelina and Planulina eaglefordensis. Some Globigerina and Neobulimina? sp.

3276-77' Core #55 Rec. 6": Sh. similar to the above, less highly "speckled", a few Gumbelinas. Fossil material here consists mainly of crushed and broken non-determinable mat.

3277-82' Core #56 Rec. 2': Brownish gray "speckled" sh like the preceding. A few Gumbelina sp and Globigerina sp. A few fish bones and some small ball shaped pyrite nods. Material is somewhat micaceous.

3282-87' Core #57 Rec. 39": Dark brownish gray, "speckled" slightly mica sh. as above. Gumbelina and Globigerina the common forams present. Forams generally broken and crushed.

3287-92' Core #58 Rec. 41": Gray, flaky, micaceous slightly speckled sh. Some Globigerina and Gumbelina present.

3292-97' Core #59 Rec. 18": Greenish gray, flaky, "speckled" sh. Some lenses of hard cal. fine grnd s.s. Globigerina and Gumbelina common.

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3297-3302' Core #60 Rec. 5': Dark brownish gray "speckled" micaceous clay-shale. Abundant specimens of Globigerina, Gumbelina, some Planulina eaglefordensis. Some frags of Inoceramus sp.

3302-07' Core #61 Rec. 5': Greenish gray, mica, clay sh. Some frags of fish scabs and many specimens of Gumbelina sp. Shale somewhat white "speckled" from fragmental and crushed fosil mat.

3307-09' Core #62 Rec. 2': Gray, flaky, somewhat micaceous shale which contains scattered grns of fine to mod. coarse qtz, a trace of glauc. and fairly numerous forams: Many fish scales and bones. Forams - mainly Globigerina and Gumbelina sp.

3309-14' Core 63 Rec. 4': Gray, light "speckled" sh. irreg. sandy. S. fine, clear qtz - forams about 25% of core material. Some fish scales and bones.

3314-19' Core #64 Rec.4': Gray, flaky, lt. "speckled" sh, irreg. very finely sandy, slightly micaceous and with a trace of glauc. Frags of fish scales fairly common. Micro-fos. represented by the crushed and very fragmental "mat." which gives sh. its "speckled" appearance.

Def. Woodbine. M. + L. Atkinson.

3319-29' Core #65 Rec. 10': Gray, flaky, finely lt. "speckled" slightly mica. sh. Mat is irreg finely sandy. Some fish bone frags and small specimans of Gumbelina new sp. and small frags of carb. mat. noted in the sh. Sh lenses also show specimen of Ammobaculites comprinatus and Trochammina rainwateri and a number of Ostracods. In addition to the Gumbelina noted above; specimens of very small Pulvinulinella? sp. also common in the shale.

A.T.K. Ammobacs, Trochammina, Ostracods

3330-33' Core #67 Rec. $2\frac{1}{2}$': Fine mod. fine s. and stringers of flaky sh. as above. Fauna same as for precedding core. frags of fish bones and scales - some Ostracods and forams.

A.T.K. Cytheridea sp.

3333-38' Core #68 Rec 10': Fine to mod. fine qtz s. glauconitic, slightly micaceous, frags of fish bones common. Some shale stringers which contain many specimens of the small Gumbelina and Pulvinulinella? noted in the immediately preceding cores.

3338-48' Core #69 Rec. 3': Fine to mod. fine glauc. qtz s. and some thing flaky lenses of sh. some specimens of Gumbelina and and Pulvinulinella? sp. (as above) noted in the sh. frags.

3348-50' Core #70 Rec. 2': S. with some sh stringer, as above. Fauna as above.

3350-60' Core #71 Rec. $4\frac{1}{2}$': Lt. green fine soft, argil. s. as above some thin sh. stringers, also as above.

X

#1 HENDERSON

3360-65'	Core #72 Rec 6": Gray green, flaky sh- and some fine s. Specimens of Glob. - Gumbelina and Planulina eagle-fordensis present in the sample. Some of the fos. may be from higher depths, because fos. from much higher depths and some mat. from higher depths are present. Core apparently not clean.
3365-67'	Core #73 Rec. 18": Green, argil. highly glauc. fine grnd. soft s.s. s is fine, even grnd. sub - ang. clear qtz. Glauc. drk green - irreg. shaped nods.
3367-69'	Core #74 Rec 2½': Brownish gray, lt. speckled sh. and some stringers of mod. hard cream colored argil., and mica s.s. The sh- contains some fish bones and scales and much fine and finely broken crushed fos. mat. (which gives the speckled appearance). Many specimens of Globigerina sp. Gumbelina (sev. species) and Planulina cf eaglefordensis, present. (Note: this fauna whihh closely duplicates an Eagle Ford fauna, is often found in relatively deep water phases of the Woodbine - sometimes accompanied by typical Woodbine species andagain rapidly interbedded with shale lenses carrying a typical Woodbine fauna).
3369-71'	Core #75 Rec 2': Similar to the preceeding. Some glauc. present. Gumbelinas the strongly dominant micro-fos. present.
3371-76'	Core #76 Rec. 8": Soft, lt. green, glauc. and mica fine grnd, argil. s. Some small phos. nods. also present.
3376-81'	Core #77 Rec 14": Lt. green, mod. fine even grnd, glauc. soft, argil. qtz. s.
3381-86'	Core #78 Rec. 8": Lt. green, argil. s.s. washed - Hard, calcareous glauc. qtz. s.s. grns. poorly sorted - fine to mod. coarse. Frags of an Ostrea-like bivalve present in s.s.
3386-88'	Core #79 Rec. 6": Argil, soft, poorly sorted, s. - grns very fine to mod. coarse, some pink grns - a few large phos. nods.
3386-90'	Core #80 Rec. 5': Lt. green, soft, argil, glauc. s. S. grns. very fine to mod. coarse- (mod fine to mod. coarse.) common. Some glauc. Tinted grns. Common.
3390-95'	Core #81 Rec. 5': Lt. green, soft, argil s.s. similar to preceding in char. averaging coarser grnd. grns fine to coarse. Phos. fragments, and some glauc.
3395-3400'	Core #82 Rec 6': S. similar to preceding mod. fine and mod. coarse grns. strongly dominant Tinted grns. common. A few phos. nods.

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4091-93'	Core 131 Rec. 1': Red. argil. soft. very fine even grnd. s. A few mustard colored strks.
4093-98'	Core 132 Rec. 1': Argil. s. similar to above - grns very fine to mod. fine.
4098-4100'	Core 133 Rec. 9": Lt. red, soft, argil mod. fine qtz s. grns. rounded.
4100-05'	Core 134 Rec. 2': Soft, argil. red sand - Sand fine, sub-ang. clear qtz.
4102-07'	Core 135 Rec. 2': Dark dull red, slightly mica. sh. Washed - mod small residue of very fine qtz sand and some sandy frags. of the clay sh.
4107-09'	Core 136 Rec. 2⅔': Soft, redish brown, argil. s. S. mod. fine, sub-angular, even grnd clear qtz.
4109-14'	Core 137 Rec. 5': Dark dull red, mica clay sh. Some mustard colored mottling. Washed- mod. small residue of very fine qtz. s.
4114-20'	Core 138 Rec. 1': Dull brownish red, argil s.s. is fine, even grnd. sub-ang. qtz.
4120-21'	Core 139 Rec. 1': Lt. red, mica, highly silty mod. hard clay. Mod. small washed residue of very fine to mod coarse qtz. s.
Core 140 ?	
4141-46'	Core 141 Rec. 18": Red, mica. highly sandy mod. hard clay S. generally fine to very fine with some mod. coarse grns. also present.
Core 142 ?	
4148-50'	Core 143 Rec. 2': Soft red, argil. s. Washed sample - fine grnd white (clear qtz.) s.s. and fine to coarse, red stained qtz. s.
4150-60'	Core 144 Rec. 5': Soft, red, argil. s. S. generally fine to mod. fine with some coarse grns present. S. qtz. sub-angular to rounded. Some frags of mustard colored sh. present and a trace of glauconite ?.
4160-65'	Core 145 Rec 8": Soft white, argil s. and dark brownish red sh. Washed - mod. small residue of fine, even grnd, sub-ang. clear qtz. s.
4165-67'	Core 146 Rec. 1': Dark red, soft, sandy clay. S - fine to mod. fine, sub-ang. to rounded qtz. A few coarse grns.

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4167-69' Core 147 Rec. 1': Dark, brick red sh. some soft, argil. red s.
Washed sample - very fine to mod. coarse red stained, sub-angular to rounded qtz.

4169-71' Core 148 Rec 14": Dull brick red sh. with some lt. gray-green areas. Washed - small residue of very fine to mod. fine s. and many sandy frags of the sh.

4171-76' Core 149. Like the preceeding. S. averaging slightly coarser grnd.

4176-80' Core 150. Brownish yellow quartzite. Top of Goldie horizon

Core 151 ?

4180-81' Core 152 Rec 1": Hard white quartzitic s.s.

Core 153 ?

4182-83' Core 154. Yellow and white mottled, somewhat mica, soft argil. s.s.
Washed - very fine, even grnd s and s.s. Ashy cemment. some of s.s. frags stained yellow.

4183-85' Core 155. Lt. pinkish gray, hard, fine grnd quartzitic like s.s. Material shows many small, scattered evenly distributed frags of hemitite (apparently oxidized biotite) and also an abundana of evenly distributed. scattered particles of a soft white (ash-like) material. Sandy Brook - Scale 49.

4185-87' Core 156. Hard quartzitic s.s. like the preceding in character. but only a very small amount of very minute hemitite frags present.

4187-89' Core 157. Like the preceding.

4189-90' Core 158. Mat. similar to preceeding, but hemitite and iron stained common to this s.s.

4190-92' Core 159. Like the preceeding - but more highly iron-stained.

4192-96' Core 160. Rec. 18": Purplish gry sh. with red and yellow strks.
(Note: A thin layer of this material is found just over the Paleoz. in a number of wells drilled in Penn.-Fla.) Sh. contains some silty area.

Top of A & W zone = altered & weathered age unknown. F.R.A.
Believed to be altered & weathered true Paleoz. by Jean Berdan USGS

4196-98' Core 161 Rec. 18": Light brownish red and pale green mottled very fine grnd s.s. Mica abundant in thin lamentations S.s. apparently white, with red strking due to staining from some irreg. distributed small ferruginous inclusions.

Core 162 ?

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4203-05' Core 163 Rec. 1'; s.s. like the preceeding. less finely well consolidated in part.

4205-05½' Core 164. Hard s.s. similar to preceeding with some highly hemitste impregnated areas.

Def. Paleozoic. by Jean Berdan. U.S.G.S.

4205½-06' Core 166 Rec. 2": Hard, white, mod. coarse grnd. quartzite.

Core 167?

4207-07½' Core 168 Rec. 3": Like the preceeding.

4207½-08½' Core 169 Rec. ½": No change.

4208½-10' Core 172 Rec. 3": Quartzitic s.s. as above - occasional small inclusions of material resembling soft gray clay.

4210-10½' Core 173 Rec. 3": Like the preceeding.

Core 175-80 ?

4212-12'1" Core 180. Rec. 1": Quartzite as above.

4213'3"-13'8" Core 185 Rec 3": No change.

4214'3"-14'6" Core 188 Rec. 2": Gray and white quartzite. Material contains small inclusions of various sizes of material resembling a black unctuous sh.

4215'2"-6" Core 192. Quartzite as above - a few shaly areas.

4234-35' Core 196. Quartzite as above with many inclusions of material resembling a black micaceous shale.

Respectfully submitted,

E. R. Applin