

Executive Summary  
ROMP Site 26  
Three Monitor Wells

Location - ROMP Site No. 26 is located on the east side of U.S. 17 and adjacent to the Brownville Church of God in Brownville. The site is located in Section 33, Township 36 South, Range 25 East and at latitude 27°18'00", longitude 81°49'30".

Site Easement - This site was obtained from the DeSoto County Board of County Commissioners on January 21, 1974 for the sum of one dollar. The perpetual easement for this site is 40 feet by 40 feet and is recorded in O.R. Book No. 107, Pages 468 through 470 at the DeSoto County Courthouse. A temporary construction easement was not obtained for this site.

Geology - This site is located on the Wicomico Terrace at an elevation of 78 feet above mean sea level (MSL). Geologic information for this site was obtained from well cuttings from land surface to 1,320 feet below land surface datum (LSD). The general geology of this site is as follows:

0-50'	Sand
50'-65'	Bone Valley
65'-180'	Hawthorn Formation
180'-525'	Tampa Limestone
525'-760'	Suwannee Limestone
760'-920'	Ocala Group
920'-1320'	Avon Park Limestone

Hydrogeology - The aquifer at ROMP 26 is divided up into at least three separate zones. The water table aquifer is found in the unconsolidated sands of the undifferentiated formation and extends down to  $\pm$  50 feet below land surface datum (LSD). It is separated from the first artesian aquifer by  $\pm$  90 feet of clay, marl, and limestone of the Bone Valley and Upper Hawthorn Formations. The first artesian aquifer is found in the Lower Hawthorn Formation between the depths of  $\pm$  140 and  $\pm$  180 feet below LSD. This aquifer is separated from the second artesian aquifer by

approximately 345 feet of clay, marl, and limestone which grade into limestone at a depth of  $\pm$  525 feet below LSD at the Tampa-Suwannee contact. The second artesian aquifer consists of the Suwannee, Ocala, and Avon Park Formations according to the ROMP files. Since water level data is not included in the file this can not be considered conclusive since a zone of sand, clay, and limestone exists from around  $\pm$  990 to  $\pm$  1290 feet below LSD. Above  $\pm$  990 feet the formations consist of mostly limestone which would tend to indicate that the section from  $\pm$  525 feet to  $\pm$  990 feet is one distinct artesian zone. At a depth of  $\pm$  1290 feet a section of dolomite begins that extends down to the point where drilling terminated at  $\pm$  1320 feet below LSD. This could very well be a third artesian zone.

Well Construction - All three wells were constructed by District owned and operated rigs.

A. Water table wells - This well is 15 feet deep and consists of 10 feet of 6 inch PVC casing and 5 feet of .020 slot 6 inch PVC screen. The screen is packed with coarse sand. The cost of this well is not known and it was constructed in April, 1976.

B. Well No. 1 - The deep well which monitors the Suwannee, Ocala, and Avon Park Formations was constructed with 55 feet of 16 inch steel work casing, 128 feet of 14 inch steel work casing, and 580 feet of 8 inch PVC casing both of which were grouted in place. The well was then drilled out to 6 inches in diameter and a depth of 1320 feet. This well was completed between October 17 and December 15, 1977. Since this well was constructed at the same time as the Hawthorn monitor, a break down of the individual costs is not available. The combined cost of the two wells is \$39,369 or \$26.25 per foot.

C. Well No. 2 - The intermediate well or Hawthorn monitor was constructed with 54 feet of 14 inch steel work casing and 140 feet of 8 inch PVC casing. Both of these casings were grouted in place and then after coring, the hole was drilled out to a nominal 6 inch diameter hole to 180 feet. This well was completed between December 19, 1977 and January 5, 1978 at an estimated cost of \$26.25 per foot.

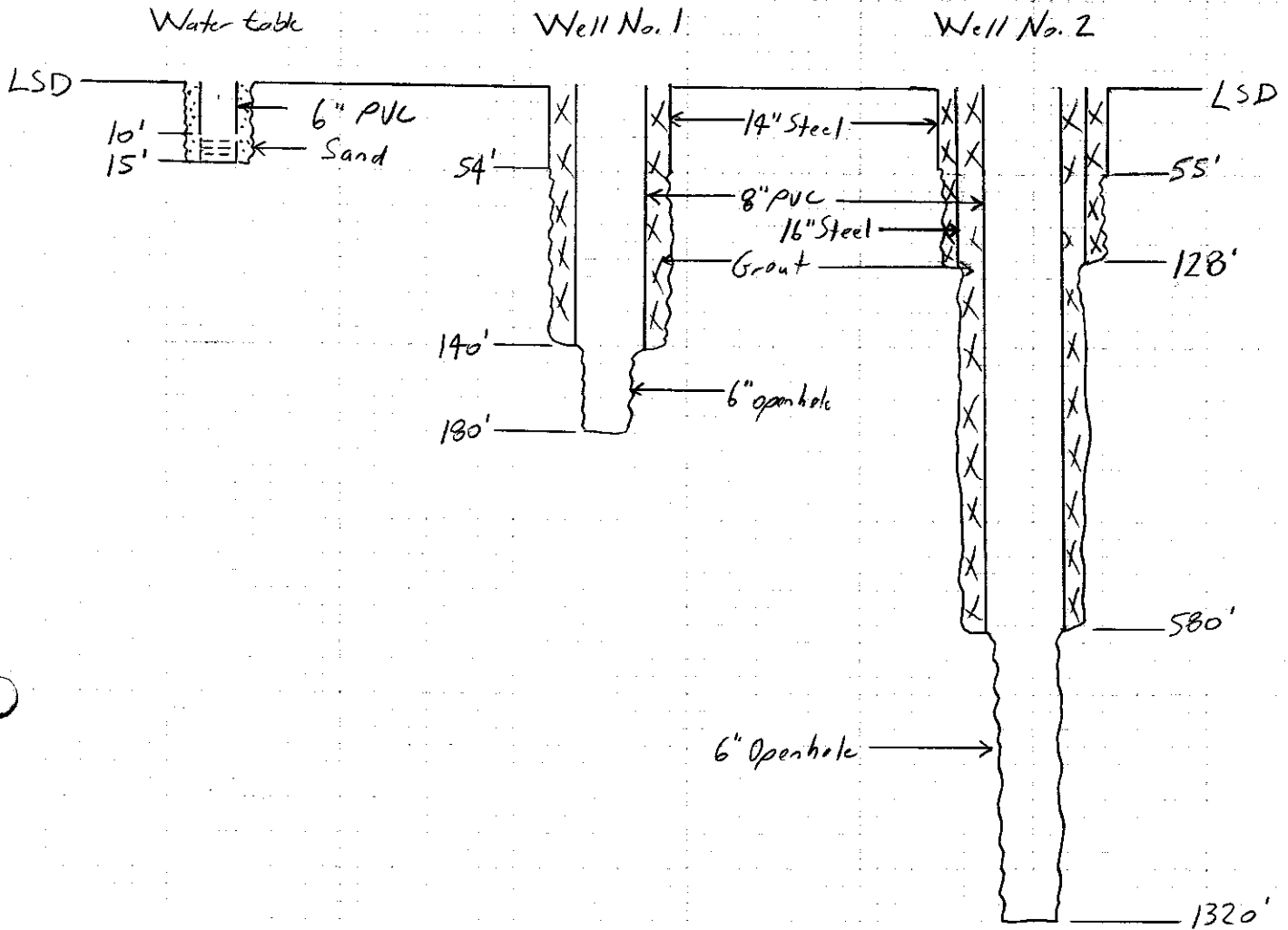
Geophysical Logs - Electric, caliper, gamma, fluid resistivity, and temperature logs were run on the deep well but only the caliper log was run to the full depth.

Type of Monitor - As previously mentioned the 15 foot well is a water table monitor whereas Well's No. 1 and 2 are potentiometric monitors.

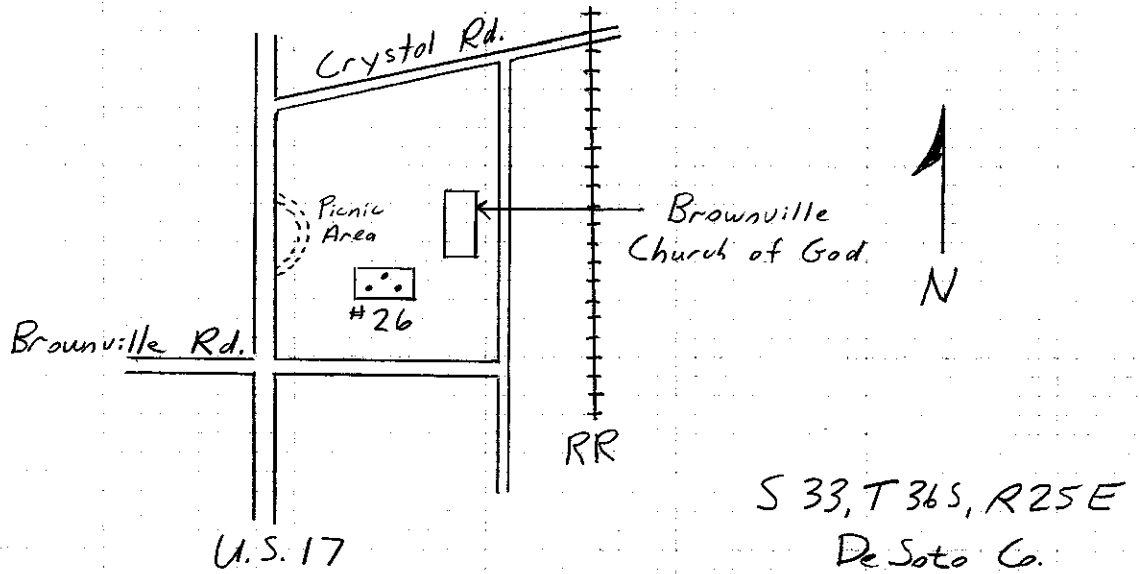
Water Quality - A water sample was collected during the development of the deep well at  $\pm$  1320 feet which showed sulfate levels of around 256 milligrams per liter (mg/l) which is just above the drinking water standard of 250 mg/l. The total hardness was 412 mg/l which is also quite high but not a prohibitive factor.

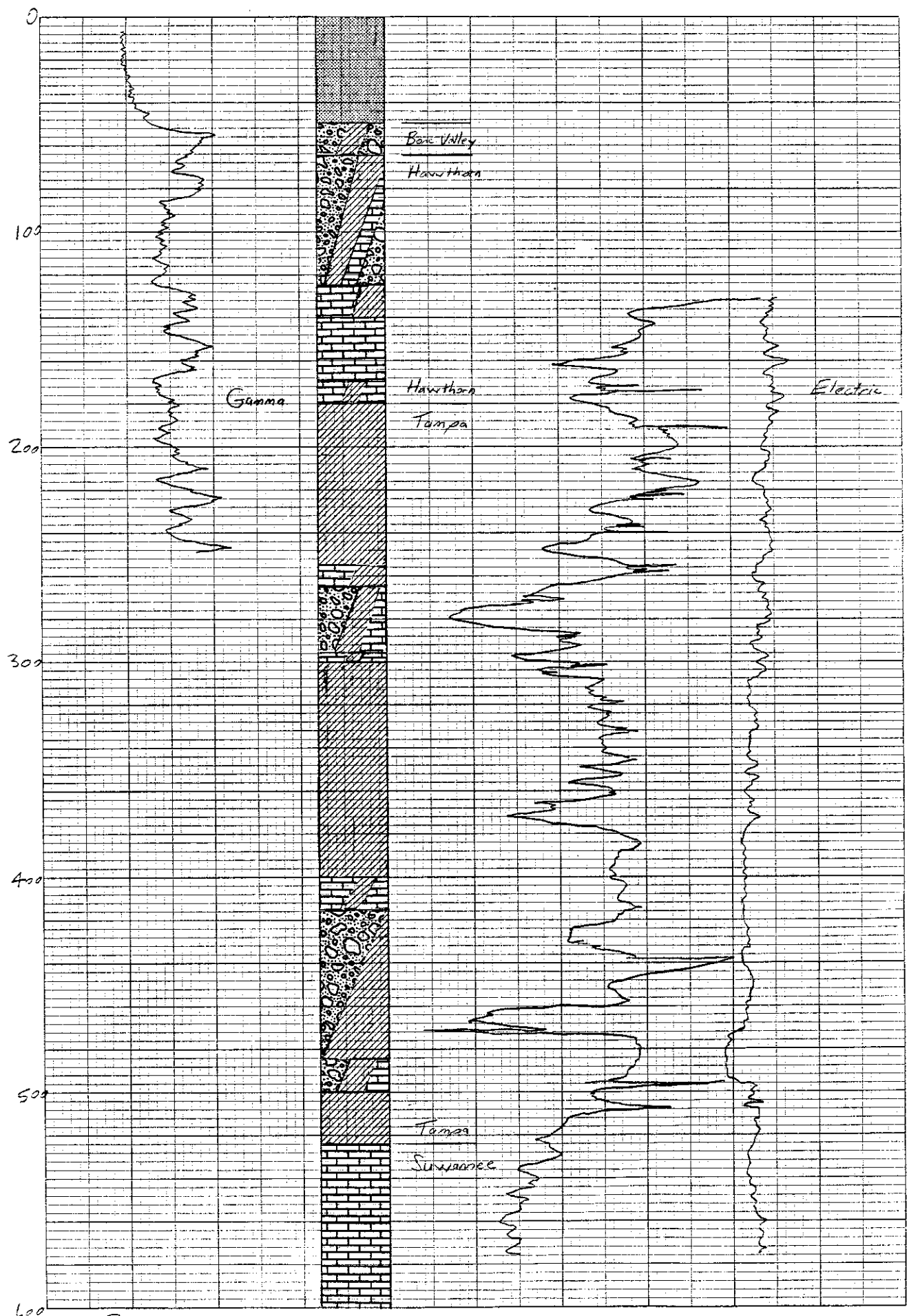
U.S.G.S. Notification - The USGS was notified in June, 1976 that the water table well was completed and in January, 1978 that the intermediate and deep well were complete and ready for monitoring.

# As Built Well Diagrams

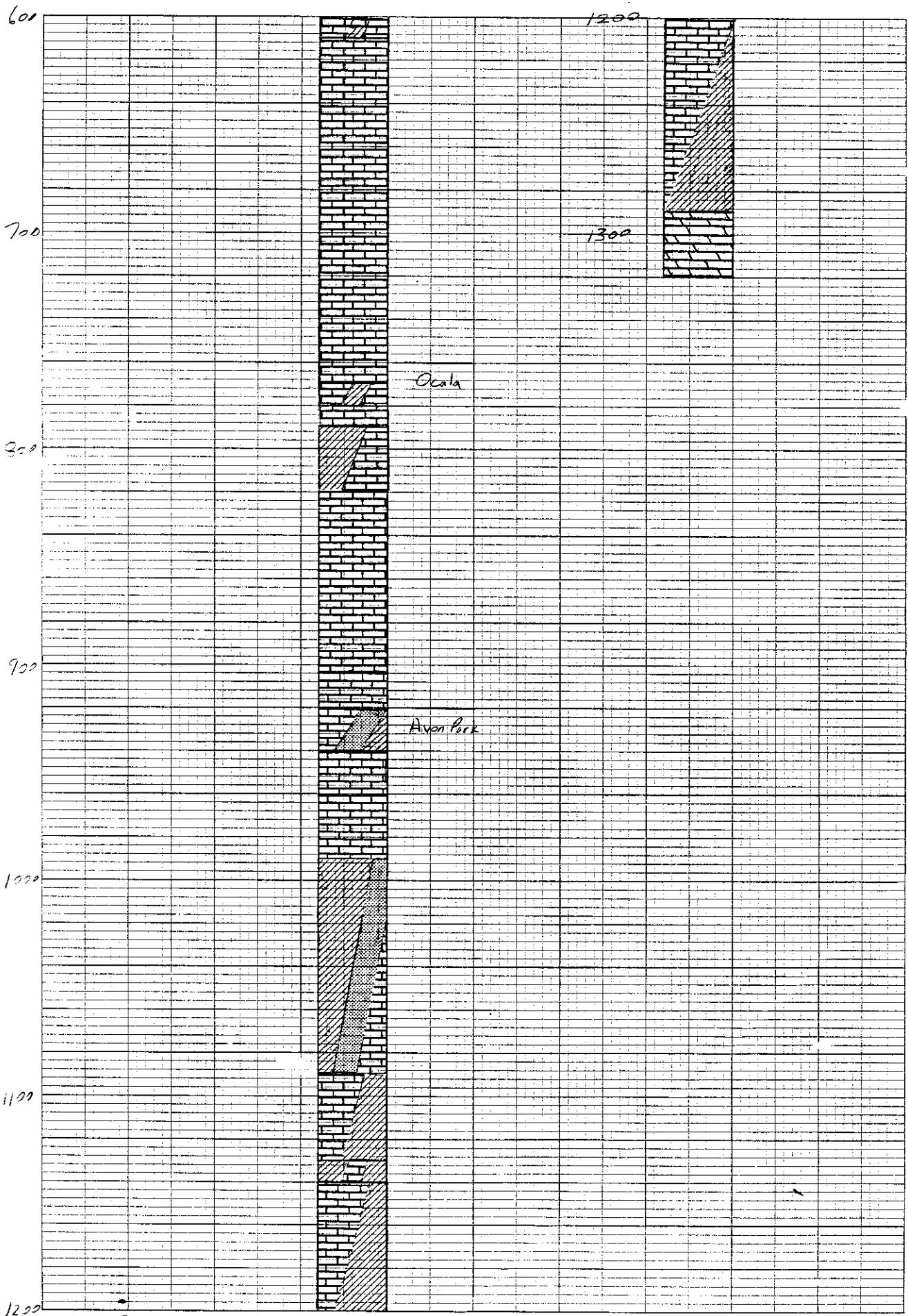


## Site Location





Roma 26



Romp 26

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-~~14878~~ <sup>-14670</sup>  
TOTAL DEPTH: 01320 FT.  
SAMPLES - NONE

COUNTY - DESOTO  
LOCATION: T.36S R.25E S.33  
LAT = N 27D 18M 00  
LON = W 81D 49M 30

COMPLETION DATE - 12/20/77  
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 075 FT

OWNER/DRILLER: SWFWMD; ROMP 26.

WORKED BY: FREEDOM. CODED AND ENTERED BY RICHARD GREEN FROM A GEOLOGIST'S  
LOG PROVIDED BY SWFWMD. 12\90.

NOTE: THERE ARE TWO SETS OF W#S FOR THIS WELL, W-14670 (1040-1315')  
AND W-14878 (0-1110')

0. - 50. UNDIFFERENTIATED SAND AND CLAY  
50. - 70. BONE VALLEY MEMBER OF PEACE RIVER FM.  
~~50.78~~ - 525. HAWTHORN GROUP  
180. - 525. TAMPA MEMBER OF ARCADIA FM.  
525. - 760. SUWANNEE LIMESTONE  
760. - 920. OCALA GROUP  
920. - . AVON PARK FM.

0 - 5 SAND; LIGHT BROWNISH GRAY;  
GRAIN SIZE: MEDIUM;  
BECOMING ORGANIC STAINED WITH DEPTH.

5 - 10 AS ABOVE  
MORE ORGANIC STAIN.

10 - 20 AS ABOVE  
WITH DARK ORGANIC STAIN.

20 - 25 SAND; ; RANGE: MEDIUM TO COARSE;  
CEMENT TYPE(S): IRON CEMENT;  
ACCESSORY MINERALS: IRON STAIN- %, ORGANICS-%;  
CONTAINS IRON CEMENTED NODULES AND ORGANICS.

25 - 30 AS ABOVE

30 - 35 AS ABOVE

35 - 40 AS ABOVE

40 - 45 AS ABOVE

45 - 50 AS ABOVE

- 50 - 55 CLAY; LIGHT GRAY TO GREENISH GRAY;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %, CALCILUTITE-%;  
MARL, BLACK PHOSPHATE, WHITE MICRITE GRAINS.
  
- 55 - 60 AS ABOVE  
BUT WITH MUCH HIGHER PERCENTAGE OF PHOSPHATE GRAINS.
  
- 60 - 65 AS ABOVE
  
- 65 - 75 CLAY; OLIVE TO LIGHT GRAY;  
MARL. VARIES FROM OLIVE MARL TO GRAY CLAY. CONTAINS VARYING AMOUNTS OF LS AND PHOSPHATE.  
MINOR LENSES OF DARK BLUE CLAY PRESENT.
  
- 75 - 80 NO SAMPLES
  
- 80 - 90 AS ABOVE
- 90 - 100 AS ABOVE
- 100 - 110 AS ABOVE
- 110 - 120 AS ABOVE
- 120 - 125 AS ABOVE
  
- 125 - 130 LIMESTONE; MODERATE GRAY;  
GRAIN TYPE: CALCILUTITE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %, CLAY-%;
  
- 130 - 135 AS ABOVE
  
- 135 - 140 AS ABOVE  
BUT WITH MORE CLAY.
  
- 140 - 145 LIMESTONE; MODERATE GRAY TO CREAM;  
GRAIN TYPE: CALCILUTITE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: ORGANICS-%;  
FAIRLY WELL LITHIFIED. CONTAINS BLACK PHOSPHATE GRAINS.
  
- 145 - 150 AS ABOVE
  
- 150 - 155 LIMESTONE; MODERATE GRAY TO CREAM;  
GRAIN TYPE: CALCILUTITE;  
CONTAINS MANY LARGE FOSSILS APPARENTLY YIELDING GREATER POROSITY THAN ABOVE.
  
- 155 - 160 AS ABOVE

65-75'



- 160 - 170 AS ABOVE
- 170 - 180 AS ABOVE  
BUT GAINING SOME CLAY LENSES.
- 180 - 190 CLAY; ;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %, CALCILUTITE-%;  
GRAYISH TAN, CONTAINS FINE BLACK PHOS. GRAINS AND SOME SMALL MICRITE GRAINS.
- 190 - 200 AS ABOVE
- 200 - 210 AS ABOVE
- 210 - 215 AS ABOVE
- 215 - 220 AS ABOVE  
BUT MORE STICKY THAN ABOVE.
- 220 - 230 AS ABOVE
- 230 - 240 AS ABOVE
- 240 - 250 AS ABOVE
- 250 - 255 AS ABOVE
- 255 - 260 LIMESTONE; ;  
LS AND CLAY. LT GRAY CLAY WITH LENSES OF WHITE, FINELY CRYSTALLINE LIMESTONE.
- 260 - 265 AS ABOVE
- 265 - 270 CLAY; ;  
MARL-GRAY CLAY WITH FINE PHOSPHATE GRAINS AND LS GRAINS.
- 270 - 275 AS ABOVE
- 275 - 280 AS ABOVE
- 280 - 290 AS ABOVE  
BUT GRAINY LIMESTONE.
- 290 - 295 AS ABOVE
- 295 - 300 LIMESTONE; CREAM TO WHITE;  
GRAIN TYPE: CALCILUTITE, CRYSTALS;  
MODERATE INDURATION;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %, CLAY-%;  
SPARRY, CONTAINS BLACK PHOSPHATE AND LT GRAY CLAY LENSES.

- 300 - 305 CLAY; MODERATE GRAY;  
ACCESSORY MINERALS: CALCILUTITE- %, SPAR- %, PHOSPHATIC SAND- %;  
FOSSILS: MOLLUSKS;  
LENSES OF MICRITE, SPARITE, BLACK AND BROWN PHOSPHATE, MANY PELECYPODS AND GASTROPODS.
- 305 - 310 AS ABOVE  
WITH MANY PHOSPHATE LENSES.
- 310 - 320 AS ABOVE
- 320 - 330 AS ABOVE
- 330 - 340 AS ABOVE
- 340 - 350 AS ABOVE
- 350 - 360 AS ABOVE
- 360 - 370 AS ABOVE
- 370 - 380 AS ABOVE
- 380 - 390 AS ABOVE
- 390 - 400 AS ABOVE
- 400 - 415 LIMESTONE; CREAM TO WHITE;  
GRAIN TYPE: CALCILUTITE, CRYSTALS;  
GOOD INDURATION;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %, CLAY- %, SPAR-%;
- 415 - 420 CLAY; LIGHT GRAY TO WHITE;  
ACCESSORY MINERALS: CLAY- %, CALCILUTITE- %, PHOSPHATIC SAND- %;  
FOSSILS: MOLLUSKS;  
MARL, LT GRAY CLAY AND WHITE MICRITE LENSES, CONTAINS BLACK PHOSPHATE GRAINS, PELECYPODS  
AND GASTROPODS.
- 420 - 430 AS ABOVE
- 430 - 440 AS ABOVE
- 440 - 450 AS ABOVE
- 450 - 460 AS ABOVE
- 460 - 470 AS ABOVE
- 470 - 480 AS ABOVE

- 480 - 485 AS ABOVE
- 485 - 496 AS ABOVE  
SIMILAR TO ABOVE BUT MUCH MORE LIMESTONE THAN ABOVE.
- 496 - 500 AS ABOVE
- 500 - 510 CLAY; MODERATE GRAY TO DARK BLUE;  
MINOR MICRITE AND PHOSPHATE. SOMEWHAT INDURATED.
- 510 - 520 AS ABOVE
- 520 - 525 AS ABOVE
- 525 - 530 LIMESTONE; CREAM;  
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL;  
POOR INDURATION;  
OTHER FEATURES: GRANULAR;  
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;  
MICRITE TO PACKED BIOMICRITE. FRIABLE. CONTAINS MANY PELECYPODS AND GASTROPODS WITH RARE  
DICTYOCONUS.
- 530 - 540 AS ABOVE
- 540 - 550 AS ABOVE
- 550 - 560 AS ABOVE
- 560 - 570 AS ABOVE
- 570 - 580 AS ABOVE
- 580 - 590 AS ABOVE
- 590 - 600 AS ABOVE
- 600 - 610 AS ABOVE  
BUT CONTAINING A CLAY FRACTION.
- 610 - 620 AS ABOVE
- 620 - 625 AS ABOVE

- 625 - 630 Limestone; Cream;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
POOR INDURATION;  
OTHER FEATURES: GRANULAR;  
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;  
MICRITE TO PACKED BIOMICRITE. FIRABLE. MANY PELECYPODS AND GASTROPODS. LITHIFICATION IS  
VERY WEAK.
- 630 - 640 AS ABOVE
- 640 - 650 AS ABOVE
- 650 - 660 AS ABOVE
- 660 - 670 AS ABOVE
- 670 - 680 AS ABOVE
- 680 - 690 Limestone; Cream;  
GRAIN TYPE: CALCILUTITE;  
POOR INDURATION;  
FOSSILS: ECHINOID, MOLLUSKS;  
FINE GRAINED, FRIABLE, PASTY. CONTAINS SMALL LENSES OF BROWN SPARITE.
- 690 - 700 AS ABOVE
- 700 - 710 AS ABOVE
- 710 - 720 AS ABOVE
- 720 - 730 AS ABOVE
- 730 - 740 AS ABOVE
- 740 - 750 AS ABOVE
- 750 - 760 AS ABOVE
- 760 - 770 Limestone; Cream;  
GRAIN SIZE: FINE; POOR INDURATION;  
FRIABLE, PASTY, CONTAINS POORLY PRESERVED LEPIDOCYCLINA.
- 770 - 780 AS ABOVE  
WITH CLAY FRACTION.
- 780 - 790 AS ABOVE

- 790 - 800 LIMESTONE; CREAM TO MODERATE GRAY;  
POOR INDURATION;  
VERY PASTY AND SOFT. CONTAINS THIN LENSES OF FINE-GRAINED FRIABLE MICRITE AND CALCIFIED  
LEPIDOCYCLINA.
- 800 - 810 AS ABOVE
- 810 - 820 AS ABOVE  
WITH HIGHER PERCENT LIMESTONE.
- 820 - 830 LIMESTONE; WHITE;  
GRAIN TYPE: CALCILUTITE;  
POOR INDURATION;  
ACCESSORY MINERALS: SPAR- %;  
FOSSILS: BENTHIC FORAMINIFERA;  
FRIABLE, FINE-GRAINED, STRONGER LITHIFICATION THAN ABOVE, MINOR SPAR LENSES AND ABUNDANT  
LEPIDOCYCLINA.
- 830 - 840 LIMESTONE; CREAM;  
GRAIN TYPE: CALCILUTITE;  
GRAIN SIZE: FINE;  
FRIABLE, HAS VERY EVEN TEXTURE AND LITHOLOGY.
- 840 - 850 AS ABOVE
- 850 - 860 AS ABOVE  
WITH SOME RECRYSTALLIZED CALCITE, LEPIDOCYCLINA AND CAMERINA.
- 860 - 870 AS ABOVE
- 870 - 880 LIMESTONE; ;  
POORLY WASHED BIOSPARITE, CONSISTS OF A MICRITE MATRIX WITH SPARRY FOSSILS. LEPIDOCYCLINA,  
CAMERINA.
- 880 - 890 AS ABOVE
- 890 - 900 AS ABOVE
- 900 - 910 LIMESTONE; ;  
BIOSPARITE. COQUINA OF LEPIDOCYCLINA AND CAMERINA.
- 910 - 920 AS ABOVE
- 920 - 930 LIMESTONE; ;  
GRAIN TYPE: BIOGENIC, CRYSTALS;  
ACCESSORY MINERALS: SPAR- %, CLAY- %, QUARTZ SAND-%;  
BIOSPARITE, CONTAINS AMBER CALCITE CRYSTALS, VERY MINOR LENSES OF BRN TO BLUIISH BROWN WAXY  
CLAY. CONTAINS ABUNDANT FINE QTZ SAND.

- 790 - 800 LIMESTONE; CREAM TO MODERATE GRAY;  
POOR INDURATION;  
VERY PASTY AND SOFT. CONTAINS THIN LENSES OF FINE-GRAINED FRIABLE MICRITE AND CALCIFIED LEPIDOCYCLINA.
- 800 - 810 AS ABOVE
- 810 - 820 AS ABOVE  
WITH HIGHER PERCENT LIMESTONE.
- 820 - 830 LIMESTONE; WHITE;  
GRAIN TYPE: CALCILUTITE;  
POOR INDURATION;  
ACCESSORY MINERALS: SPAR- %;  
FOSSILS: BENTHIC FORAMINIFERA;  
FRIABLE, FINE-GRAINED, STRONGER LITHIFICATION THAN ABOVE, MINOR SPAR LENSES AND ABUNDANT LEPIDOCYCLINA.
- 830 - 840 LIMESTONE; CREAM;  
GRAIN TYPE: CALCILUTITE;  
GRAIN SIZE: FINE;  
FRIABLE, HAS VERY EVEN TEXTURE AND LITHOLOGY.
- 840 - 850 AS ABOVE
- 850 - 860 AS ABOVE  
WITH SOME RECRYSTALLIZED CALCITE, LEPIDOCYCLINA AND CAMERINA.
- 860 - 870 AS ABOVE
- 870 - 880 LIMESTONE; ;  
POORLY WASHED BIOSPARITE, CONSISTS OF A MICRITE MATRIX WITH SPARRY FOSSILS. LEPIDOCYCLINA, CAMERINA.
- 880 - 890 AS ABOVE
- 890 - 900 AS ABOVE
- 900 - 910 LIMESTONE; ;  
BIOSPARITE. COQUINA OF LEPIDOCYCLINA AND CAMERINA.
- 910 - 920 AS ABOVE
- 920 - 930 LIMESTONE; ;  
GRAIN TYPE: BIOGENIC, CRYSTALS;  
ACCESSORY MINERALS: SPAR- %, CLAY- %, QUARTZ SAND-%;  
BIOSPARITE, CONTAINS AMBER CALCITE CRYSTALS, VERY MINOR LENSES OF BRN TO BLUIH BROWN WAXY CLAY. CONTAINS ABUNDANT FINE QTZ SAND.

- 930 - 940 AS ABOVE
- 940 - 950 LIMESTONE; LIGHT BROWN;  
GRAIN TYPE: CRYSTALS;  
GRAIN SIZE: FINE; GOOD INDURATION;  
SPARITE. VERY HARD.
- 950 - 960 AS ABOVE  
BUT LESS LITHIFIED.
- 960 - 970 AS ABOVE
- 970 - 980 AS ABOVE
- 980 - 990 AS ABOVE
- 990 - 990 CLAY; MODERATE GRAY;  
980-990' CLAY, CONTAINS FINE QTZ SAND AND THIN LENSES OF LS AS ABOVE.
- 990 - 1000 CLAY; ;  
AS ABOVE.
- 1000 - 1020 AS ABOVE
- 1020 - 1030 AS ABOVE  
WITH MORE LS LENSES.
- 1030 - 1040 AS ABOVE
- 1040 - 1050 AS ABOVE
- 1050 - 1060 CLAY; ;  
SIMILAR TO ABOVE WITH ABUNDANT LENSES OF TAN SPARITE.
- 1060 - 1070 AS ABOVE
- 1070 - 1080 AS ABOVE
- 1080 - 1090 AS ABOVE
- 1090 - 1100 LIMESTONE; CREAM TO LIGHT TAN;  
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, CORAL;  
POORLY WASHED BIOSPARITE. CONTAINS DICTYOCONUS, CAMERINA, AND MINOR CORALS. LS IS HEAVILY  
LENSED WITH CLAY AS ABOVE.
- 1100 - 1110 AS ABOVE
- 1110 - 1120 AS ABOVE

1120 - 1130 AS ABOVE

1130 - 1140 AS ABOVE  
WITH LESS LIMESTONE.

1140 - 1150 AS ABOVE  
SAME AS 1090-1100'.

1150 - 1160 AS ABOVE

1160 - 1170 AS ABOVE

1170 - 1180 AS ABOVE

1180 - 1190 AS ABOVE

1190 - 1200 AS ABOVE

1200 - 1210 NO SAMPLES

1210 - 1220 AS ABOVE 1190'-1200'

1220 - 1230 AS ABOVE

1230 - 1240 AS ABOVE

1240 - 1250 AS ABOVE

1250 - 1260 AS ABOVE

1260 - 1270 AS ABOVE

1270 - 1280 AS ABOVE

1280 - 1290 AS ABOVE

1290 - 1300 DOLOSTONE; DARK BROWN;  
GRAIN SIZE: COARSE; GOOD INDURATION;  
VERY HARD. COARSELY CRYSTALLINE.

1300 - 1310 AS ABOVE

1310 - 1320 AS ABOVE

1320 TOTAL DEPTH



LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 14878

COUNTY - DESOTO

TOTAL DEPTH: 01110 FT.

LOCATION: T.36S R.25E S.33

SAMPLES - NONE

LAT = N 27D 18M 00

LON = W 81D 49M 30

COMPLETION DATE - 12/20/77

ELEVATION - 075 FT

OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: SWFMD; ROMP SITE 26-1.

WORKED BY: RICHARD GREEN; DESCRIBED FROM CUTTINGS 1/91.  
CUTTING QUALITY POOR-FAIR, POOR OVERALL. FORMATION PICKS  
ARE TENTATIVE, DUE TO POOR SAMPLES IN CERTAIN INTERVALS.  
NOTE----0-1110' SAMPLES ARE FROM W# 14878 AND  
1110-1315' SAMPLES ARE FROM W# 14670, BOTH W#'S ARE FOR  
ROMP SITE 26.

0. - 50. UNDIFFERENTIATED SAND AND CLAY  
50. - 540. HAWTHORN GROUP  
50. - 125. PEACE RIVER FM.  
125. - 540. ARCADIA FM.  
185. - 540. TAMPA MEMBER OF ARCADIA FM.  
540. - 770. SUWANNEE LIMESTONE  
770. - 935. OCALA GROUP  
935. - . AVON PARK FM.

0 - 5 SAND; YELLOWISH GRAY TO LIGHT OLIVE GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;  
ROUNDNESS: ROUNDED TO SUB-ANGULAR; UNCONSOLIDATED;  
FOSSILS: NO FOSSILS;  
WELL SORTED.

5 - 10 AS ABOVE

10 - 15 SAND; BROWN TO BROWNISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM;  
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;  
CEMENT TYPE(S): ORGANIC MATRIX, CLAY MATRIX;  
ACCESSORY MINERALS: ORGANICS-02%, CLAY-02%, IRON STAIN-01%;  
OTHER FEATURES: POOR SAMPLE;  
ABUNDANT CAVINGS. BROWN ORGANIC CLAY MATRIX.

15 - 20 AS ABOVE  
LESS CAVINGS.

- 20 - 25 SAND; BROWN TO BROWNISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM;  
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;  
CEMENT TYPE(S): ORGANIC MATRIX, CLAY MATRIX;  
ACCESSORY MINERALS: ORGANICS-02%, CLAY-02%, IRON STAIN-01%;  
OTHER FEATURES: POOR SAMPLE;  
SLIGHTLY COARSER THAN ABOVE. POORLY SORTED.
- 25 - 30 AS ABOVE
- 30 - 35 AS ABOVE
- 35 - 40 AS ABOVE  
POORLY SORTED. GRADUAL INCREASE IN CLAY WITH DEPTH.
- 40 - 45 AS ABOVE
- 45 - 50 AS ABOVE
- 50 - 55 SAND; YELLOWISH GRAY TO BLACK; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO VERY COARSE;  
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: CALCILUTITE-10%, PHOSPHATIC GRAVEL-05%, PHOSPHATIC SAND-05%;  
OTHER FEATURES: DOLOMITIC;  
FOSSILS: SHARKS TEETH;  
ABUNDANT BLACK PHOS. GRAVEL IN CUTTINGS. VARIABLE FROM VERY SILTY-SANDY-CARBONATE RICH,  
ALL VERY PHOSPHATIC.
- 55 - 60 AS ABOVE
- 60 - 65 SILT; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE;  
POOR INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC GRAVEL-05%, PHOSPHATIC SAND-05%, MICA-01%;  
OTHER FEATURES: CALCAREOUS, DOLOMITIC;  
FOSSILS: SHARKS TEETH, MOLLUSKS, FOSSIL MOLDS;  
INTERBEDDED SANDY PHOSPHATIC DOLOSILT AND SAND WITH DOLOSILT MATRIX.
- 65 - 70 SILT; YELLOWISH GRAY TO BUFF; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
MODERATE INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: QUARTZ SAND-08%, PHOSPHATIC GRAVEL-08%, PHOSPHATIC SAND-08%,  
DOLOMITE-20%;  
OTHER FEATURES: DOLOMITIC;

- 70 - 75 SAND; YELLOWISH GRAY TO BUFF; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO COARSE; MODERATE INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC GRAVEL-04%, PHOSPHATIC SAND-08%, DOLOMITE-20%;  
OTHER FEATURES: DOLOMITIC, POOR SAMPLE;  
FOSSILS: SHARKS TEETH;  
ABUNDANT CAVINGS.
- 75 - 80 AS ABOVE
- 80 - 85 SILT; ;  
AS 65-70' SAMPLE.
- 85 - 90 SAND; YELLOWISH GRAY TO BUFF; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE; MODERATE INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC GRAVEL-04%, PHOSPHATIC SAND-08%, DOLOMITE-20%;  
OTHER FEATURES: DOLOMITIC, POOR SAMPLE;  
FOSSILS: SHARKS TEETH;  
VERY SILTY. ABUNDANT CAVINGS.
- 90 - 95 AS ABOVE
- 95 - 100 AS ABOVE  
VERY POOR SAMPLE. MIX OF 70-95' LITHOLOGIES.
- 100 - 105 SAND; YELLOWISH GRAY TO BUFF; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; POOR INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-08%, DOLOMITE-20%;  
OTHER FEATURES: DOLOMITIC, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 105 - 110 AS ABOVE
- 110 - 115 SILT; YELLOWISH GRAY TO BUFF; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY; POOR INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: QUARTZ SAND- %, PHOSPHATIC SAND-08%, PHOSPHATIC GRAVEL- %;  
OTHER FEATURES: DOLOMITIC, POOR SAMPLE;  
DOLOMITIC SILT W/ PHOS. SAND AND GRAVEL. ABUNDANT CAVINGS. ABUNDANT F-C QTZ SAND IN  
CAVINGS.
- 115 - 120 AS ABOVE
- 120 - 125 AS ABOVE  
NOTE: SPLS FROM 55-125' ALL HAVE ABUNDANT QTZ SAND (F-C) AND PHOSPHATE SAND AND GRAVEL AS  
PART OF UNCONSOLIDATED CUTTINGS-- THESE MAY BE CAVINGS, THEREFORE ONLY INDURATED PIECES OF  
ROCK WERE USED FOR CUTTINGS DESCRIPTION. GAMMA LOG MAY HELP DECIDE ON FORMATION PICKS FOR  
THIS INTERVAL.

- 125 - 130 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %, PHOSPHATIC SAND-03%;  
OTHER FEATURES: POOR SAMPLE;  
FOSSILS: ECHINOID, FOSSIL FRAGMENTS, BRYOZOA;  
VARIABLE SAND AND SPAR; ABUNDANT CAVINGS.
- 130 - 135 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-03%, QUARTZ SAND-05%;  
VERY SILTY AND SLIGHTLY CLAYEY.
- 135 - 140 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-05%, QUARTZ SAND-05%, PHOSPHATIC GRAVEL-01%;  
SAND IS FINE, WELL ROUNDED.
- 140 - 145 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-08%, QUARTZ SAND-03%;  
VARIABLE PHOSPHATE AND SAND CONTENT.
- 145 - 150 AS ABOVE
- 150 - 155 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-05%, QUARTZ SAND-03%, HEAVY MINERALS-01%;
- 155 - 160 AS ABOVE  
VERY SILTY AND SLIGHTLY MORE PHOSPHATIC.
- 160 - 165 AS ABOVE

- 165 - 170 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, PHOSPHATIC SAND-10%, QUARTZ SAND-05%;  
PHOS. AND SAND VARIABLE (5-15%), PHOS. IS BLK/BRN, F-M SIZE.
- 170 - 175 AS ABOVE
- 175 - 180 AS ABOVE
- 180 - 185 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, QUARTZ SAND- %, SILT-%;
- 185 - 190 AS ABOVE
- 190 - 195 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, QUARTZ SAND- %, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 195 - 200 AS ABOVE
- 200 - 205 AS ABOVE  
SLIGHTLY MORE PHOSPHATIC.
- 205 - 210 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;  
ACCESSORY MINERALS: CLAY- %, PHOSPHATIC SAND-03%, PHOSPHATIC GRAVEL- %, QUARTZ SAND-05%;  
OTHER FEATURES: POOR SAMPLE;  
ABUNDANT CAVINGS. VARIABLY CLAYEY AND PHOSPHATIC.
- 210 - 215 AS ABOVE
- 215 - 220 SAND; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;  
ACCESSORY MINERALS: CLAY-05%, PHOSPHATIC SAND-04%, CALCILUTITE-10%;  
OTHER FEATURES: POOR SAMPLE;  
VARIABLE FROM: VERY SANDY CARBONATE-VERY CALCAREOUS SAND.

- 220 - 225 AS ABOVE
- 225 - 230 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;  
SEDIMENTARY STRUCTURES: MOTTLED,  
ACCESSORY MINERALS: CLAY- %, PHOSPHATIC SAND-02%, QUARTZ SAND-10%, SILT- %;  
OTHER FEATURES: DOLOMITIC, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 230 - 235 AS ABOVE  
ABUNDANT PHOS. GRAVEL--CAVINGS?
- 235 - 240 LIMESTONE; ;  
AS 230'.
- 240 - 245 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-02%, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE, DOLOMITIC;
- 245 - 250 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-02%, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
- 250 - 255 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-02%, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;
- 255 - 260 AS ABOVE  
VARIABLE SILT AND CLAY.

- 260 - 265 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-02%, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
LESS CLAY, MORE RECRYSTALLIZED.
- 265 - 270 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-02%, SILT- %, CLAY- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC, HIGH RECRYSTALLIZATION;  
VERY SILTY.
- 270 - 275 AS ABOVE
- 275 - 280 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY; INTERGRANULAR, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%;  
OTHER FEATURES: CALCAREOUS, POOR SAMPLE, HIGH RECRYSTALLIZATION;  
ABUNDANT CAVINGS.
- 280 - 285 AS ABOVE
- 285 - 290 AS ABOVE
- 290 - 295 AS ABOVE
- 295 - 300 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %, QUARTZ SAND-01%, PHOSPHATIC SAND-01%;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: FOSSIL MOLDS;  
ABUNDANT CAVINGS.

- 300 - 305 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-01%, SPAR-01%;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION;  
SOME DOLOMITE CAVINGS.
- 305 - 310 AS ABOVE
- 310 - 315 AS ABOVE
- 315 - 320 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %, PHOSPHATIC SAND-02%, QUARTZ SAND-02%;  
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION;
- 320 - 325 AS ABOVE
- 325 - 330 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %, QUARTZ SAND-03%, PHOSPHATIC SAND-02%;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
- 330 - 335 MINOR MOLLUSK MOLDS AND CASTS.
- 335 - 345 AS ABOVE
- 345 - 350 AS ABOVE
- 350 - 355 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %, QUARTZ SAND-02%, PHOSPHATIC SAND-01%;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC, HIGH RECRYSTALLIZATION;



- 355 - 360 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, QUARTZ SAND-01%, SILT- %, CLAY-%;
- 360 - 365 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN TYPE: CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-25%, SILT- %, PHOSPHATIC SAND-03%, CLAY-%;  
VERY SANDY AND SILTY MICRITE. SAND IS VF-MED.
- 365 - 370 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY,  
INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%, SPAR- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: ECHINOID, FOSSIL FRAGMENTS;
- 370 - 375 AS ABOVE
- 375 - 380 AS ABOVE  
MORE RECRYSTALLIZED. CUTTINGS ARE FINER.
- 380 - 385 AS ABOVE
- 385 - 390 AS ABOVE
- 390 - 395 AS ABOVE
- 395 - 400 DOLOSTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: CALCILUTITE- %, PHOSPHATIC SAND-01%, QUARTZ SAND-01%, SPAR- %;  
OTHER FEATURES: CALCAREOUS, HIGH RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 400 - 405 AS ABOVE

- 405 - 410 DOLOSTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;  
50-90% ALTERED; SUBHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, QUARTZ SAND-02%, SPAR- %;  
OTHER FEATURES: CALCAREOUS, HIGH RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: FOSSIL MOLDS;  
ABUNDANT CAVINGS.
- 410 - 415 AS ABOVE
- 415 - 420 AS ABOVE
- 420 - 425 AS ABOVE  
VERY POOR SAMPLE--CAVINGS.
- 425 - 430 AS ABOVE
- 430 - 435 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-05%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT QTZ SAND AND PHOSPHATE CAVINGS.
- 435 - 440 AS ABOVE
- 440 - 445 AS ABOVE
- 445 - 450 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, PIN POINT VUGS,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-04%, PHOSPHATIC SAND-03%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
FOSSILS: FOSSIL MOLDS, ECHINOID;
- 450 - 455 AS ABOVE
- 455 - 460 LIMESTONE; VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY, INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-02%, PHOSPHATIC SAND-02%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: ECHINOID;  
ABUNDANT CAVINGS.

- 405 - 410 DOLOSTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;  
50-90% ALTERED; SUBHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, QUARTZ SAND-02%, SPAR- %;  
OTHER FEATURES: CALCAREOUS, HIGH RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: FOSSIL MOLDS;  
ABUNDANT CAVINGS.
- 410 - 415 AS ABOVE
- 415 - 420 AS ABOVE
- 420 - 425 AS ABOVE  
VERY POOR SAMPLE--CAVINGS.
- 425 - 430 AS ABOVE
- 430 - 435 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-05%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT QTZ SAND AND PHOSPHATE CAVINGS.
- 435 - 440 AS ABOVE
- 440 - 445 AS ABOVE
- 445 - 450 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY; INTERGRANULAR, PIN POINT VUGS,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-04%, PHOSPHATIC SAND-03%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
FOSSILS: FOSSIL MOLDS, ECHINOID;
- 450 - 455 AS ABOVE
- 455 - 460 LIMESTONE; VERY LIGHT GRAY; INTERGRANULAR, LOW PERMEABILITY, INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-02%, PHOSPHATIC SAND-02%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: ECHINOID;  
ABUNDANT CAVINGS.

- 460 - 465 AS ABOVE
- 465 - 470 AS ABOVE
- 470 - 475 LIMESTONE; VERY LIGHT GRAY TO YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY,  
INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-04%, PHOSPHATIC SAND-04%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT QTZ AND PHOS. SAND CAVINGS. SOME HIGHLY RECRYSTALLIZED DOLOMITE FRAGMENTS.
- 475 - 480 AS ABOVE
- 480 - 485 AS ABOVE
- 485 - 490 AS ABOVE
- 490 - 495 LIMESTONE; VERY LIGHT GRAY TO YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-02%, PHOSPHATIC SAND-02%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: FOSSIL MOLDS, MOLLUSKS, FOSSIL FRAGMENTS;  
SOME HIGHLY RECRYSTALLIZED MUDSTONE W/ TRACE PHOS. AND QTZ SAND.
- 495 - 500 AS ABOVE
- 500 - 505 CLAY; OLIVE GRAY TO DARK GREENISH GRAY; LOW PERMEABILITY; MODERATE INDURATION;  
CEMENT TYPE(S): CLAY MATRIX;  
ACCESSORY MINERALS: SILT- %, QUARTZ SAND-01%, PHOSPHATIC SAND-01%;  
OTHER FEATURES: POOR SAMPLE;  
VERY SILTY. VERY ABUNDANT CAVINGS. VARIABLE TO A CLAYEY SILT.
- 505 - 510 AS ABOVE
- 510 - 515 AS ABOVE
- 515 - 520 AS ABOVE
- 520 - 525 AS ABOVE
- 525 - 530 AS ABOVE
- 530 - 535 AS ABOVE

- 535 - 540 WACKESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID;  
VERY ABUNDANT CAVINGS. PACKSTONE-GRAINSTONE.
- 540 - 545 AS ABOVE  
SAMPLE SO CONTAMINATED BY CAVINGS THAT LITHOLOGY IS UNCERTAIN--PROBABLY AS ABOVE.
- 545 - 550 LIMESTONE; ;  
AS 535-540'.
- 550 - 555 AS ABOVE
- 555 - 560 LIMESTONE; ;  
SEE 540-545' FOR COMMENTS.
- 560 - 565 LIMESTONE; ;  
AS 535-540'.
- 565 - 570 AS ABOVE  
NOTE-----SAMPLES FROM 530-570' ARE EXTREMELY POOR. SOME SAMPLES SEEM TO CONSIST ENTIRELY  
OF CAVINGS.
- 570 - 575 LIMESTONE; CREAM; INTERGRANULAR, INTRAGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: MILIOLIDS, FOSSIL MOLDS, BENTHIC FORAMINIFERA;  
PACKSTONE-WACKESTONE. MODERATE-ABUNDANT CAVINGS.
- 575 - 580 AS ABOVE
- 580 - 585 LIMESTONE; CREAM; INTERGRANULAR, INTRAGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR-02%;  
OTHER FEATURES: LOW RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA;  
WACKESTONE. ABUNDANT CAVINGS.
- 585 - 590 AS ABOVE
- 590 - 595 AS ABOVE

- 595 - 600 AS ABOVE
- 600 - 605 AS ABOVE
- 605 - 610 AS ABOVE
- 610 - 615 LIMESTONE; CREAM; INTERGRANULAR, INTRAGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR-01%;  
OTHER FEATURES: LOW RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: ECHINOID, FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, MILIOLIDS;  
WACKESTONE-PACKSTONE. MINOR CAVINGS.
- 615 - 620 AS ABOVE
- 620 - 625 AS ABOVE  
MORE OF A PACKSTONE.
- 625 - 630 LIMESTONE; CREAM; INTERGRANULAR, INTRAGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION;  
FOSSILS: ECHINOID;
- 630 - 635 AS ABOVE
- 635 - 640 AS ABOVE
- 640 - 645 AS ABOVE
- 645 - 650 AS ABOVE
- 650 - 655 LIMESTONE; CREAM; INTERGRANULAR, INTRAGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR-01%;  
OTHER FEATURES: LOW RECRYSTALLIZATION;  
FOSSILS: ECHINOID, FOSSIL FRAGMENTS, MOLLUSKS;  
PACKSTONE.
- 655 - 660 AS ABOVE
- 660 - 665 AS ABOVE
- 665 - 670 AS ABOVE

- 670 - 675 LIMESTONE; CREAM TO YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;
- 675 - 680 AS ABOVE  
SLIGHTLY MORE RECRYSTALLIZED THAN ABOVE. DOLOMITIC.
- 680 - 685 AS ABOVE
- 685 - 690 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL;  
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE; UNCONSOLIDATED;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION;  
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA;  
PROBABLY A GRAINSTONE DISAGGREGATED BY DRILLING.
- 690 - 695 AS ABOVE
- 695 - 700 AS ABOVE
- 700 - 705 AS ABOVE
- 705 - 710 AS ABOVE
- 710 - 715 AS ABOVE
- 715 - 720 DOLOSTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ACCESSORY MINERALS: ORGANICS-01%, PYRITE-01%;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC, CALCAREOUS;
- 720 - 725 AS ABOVE  
SOME CAVINGS.
- 725 - 730 AS ABOVE
- 730 - 735 AS ABOVE
- 735 - 740 AS ABOVE
- 740 - 745 AS ABOVE

- 745 - 750 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, DOLOMITIC;  
WACKESTONE-PACKSTONE. SOME CAVINGS. POSSIBLY DOLOMITIC.
- 750 - 755 AS ABOVE
- 755 - 760 AS ABOVE
- 760 - 765 AS ABOVE
- 765 - 770 LIMESTONE; CREAM; INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS, ECHINOID;  
POORLY PRESERVED LEPIDOCYCLINA. PACKSTONE.
- 770 - 775 AS ABOVE
- 775 - 780 AS ABOVE  
VERY POOR SAMPLE--ABUNDANT CAVINGS.
- 780 - 785 AS ABOVE
- 785 - 790 AS ABOVE
- 790 - 795 AS ABOVE
- 795 - 800 AS ABOVE
- 800 - 805 LIMESTONE; CREAM; INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS, FOSSIL FRAGMENTS;  
POORLY PRESERVED AMPHISTEGINA SP.
- 805 - 810 AS ABOVE



- 745 - 750 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION, DOLOMITIC;  
WACKESTONE-PACKSTONE. SOME CAVINGS. POSSIBLY DOLOMITIC.
- 750 - 755 AS ABOVE
- 755 - 760 AS ABOVE
- 760 - 765 AS ABOVE
- 765 - 770 LIMESTONE; CREAM; INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS, ECHINOID;  
POORLY PRESERVED LEPIDOCYCLINA. PACKSTONE.
- 770 - 775 AS ABOVE
- 775 - 780 AS ABOVE  
VERY POOR SAMPLE--ABUNDANT CAVINGS.
- 780 - 785 AS ABOVE
- 785 - 790 AS ABOVE
- 790 - 795 AS ABOVE
- 795 - 800 AS ABOVE
- 800 - 805 LIMESTONE; CREAM; INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MOLLUSKS, FOSSIL FRAGMENTS;  
POORLY PRESERVED AMPHISTEGINA SP.
- 805 - 810 AS ABOVE

- 810 - 815 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO COARSE; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION;  
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;  
SOME CAVINGS. AMPHISTEGINA, LEPIDOCYCLINA, PROBABLY A POORLY CONSOLIDATED GRAINSTONE.
- 815 - 820 AS ABOVE
- 820 - 825 LIMESTONE; CREAM TO WHITE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, ECHINOID;  
WACKESTONE. ABUNDANT LEPIDOCYCLINA SP.
- 825 - 830 AS ABOVE
- 830 - 835 AS ABOVE  
LESS FORAMS. HOMOGENOUS TEXTURE.
- 835 - 840 AS ABOVE
- 840 - 845 AS ABOVE
- 845 - 850 AS ABOVE
- 850 - 855 AS ABOVE  
SOME CAMERINA SP.
- 855 - 860 AS ABOVE
- 860 - 865 AS ABOVE  
FORAM MORE ABUNDANT (LEPS, CAMERINA, AMPHISTEGINA SP).
- 865 - 870 AS ABOVE  
WACKESTONE-PACKSTONE.
- 870 - 875 AS ABOVE  
PACKSTONE.
- 875 - 880 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, INTRAGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, FOSSIL FRAGMENTS;  
VERY ABUNDANT FORAMS (LEPS, CAMERINA, AMPHISTEGINA SP). PACKSTONE.

- 880 - 885 AS ABOVE
- 885 - 890 AS ABOVE  
PACKSTONE-WACKESTONE.
- 890 - 895 LIMESTONE; CREAM; INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION;  
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;  
LEPIDOCYCLINA, NUMMULITES, AMPHISTEGINA SP. MODERATELY ABUNDANT.
- 895 - 900 AS ABOVE
- 900 - 905 AS ABOVE
- 905 - 910 AS ABOVE  
VERY ABUNDANT FORAMS.
- 910 - 915 AS ABOVE
- 915 - 920 AS ABOVE
- 920 - 925 AS ABOVE  
SOME CAVINGS.
- 925 - 930 AS ABOVE  
MORE CAVINGS.
- 930 - 935 AS ABOVE  
ABUNDANT CAVINGS.
- 935 - 940 DOLOSTONE; LIGHT BROWN; INTERGRANULAR, INTERCRYSTALLINE,  
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: SUCROSIC, POOR SAMPLE, HIGH RECRYSTALLIZATION;  
ABUNDANT CAVINGS.
- 940 - 945 AS ABOVE  
LESS CAVINGS.
- 945 - 950 AS ABOVE  
MINOR CAVINGS.
- 950 - 955 AS ABOVE
- 955 - 960 AS ABOVE

- 960 - 965 AS ABOVE
- 965 - 970 AS ABOVE
- 970 - 975 AS ABOVE
- 975 - 980 AS ABOVE  
CAVINGS BECOMING MORE ABUNDANT.
- 980 - 985 AS ABOVE  
VERY POOR SPL--ABUNDANT CAVINGS--(OCALA GROUP FORAMS-- SEE 895', SOME VERY CALCAREOUS SS  
TO VERY SANDY CALCARENITE FRAGMENTS--MAY BE CAVINGS?)
- 985 - 990 AS ABOVE  
ALSO INCLUDES HAWTHORN GROUP CAVINGS.
- 990 - 995 AS ABOVE
- 995 - 1000 AS ABOVE
- 1000 - 1005 AS ABOVE
- 1005 - 1010 AS ABOVE  
GENERALLY, FROM 990-1010' CAVINGS ARE ABUNDANT AND INCREASE WITH DEPTH. FORAMS FROM OCALA  
GROUP, HAWTHORN GP CAVINGS, COMMON-MINOR. GIVEN ABUNDANT CAVINGS, IT IS IMPOSSIBLE TO  
TELL WHETHER PRIMARY LITHOLOGY IS A DOLOMITE OR A VERY SANDY LS WITH DOLOMITE INTERBEDDED.
- 1010 - 1015 DOLOSTONE; ;  
AS 940' WITH MUCH LESS CAVINGS.
- 1015 - 1020 DOLOSTONE; ;  
AS 985'.
- 1020 - 1025 AS ABOVE
- 1025 - 1030 AS ABOVE
- 1030 - 1035 AS ABOVE  
LESS DOLOMITIC, MORE CALCAREOUS.

- 1035 - 1040 LIMESTONE; CREAM TO LIGHT BROWN; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY,  
INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, CRYSTALS, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION;  
FOSSILS: ECHINOID;  
LESS DOLOMITIC. LESS CAVINGS; WACKESTONE-PACKSTONE.
- 1040 - 1045 NO SAMPLES
- 1045 - 1050 AS ABOVE
- 1050 - 1060 NO SAMPLES
- 1060 - 1065 AS ABOVE
- 1065 - 1070 AS ABOVE
- 1070 - 1075 NO SAMPLES
- 1075 - 1080 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
FOSSILS: ECHINOID;  
PACKSTONE-GRAINSTONE. MINOR CAVINGS.
- 1080 - 1085 NO SAMPLES
- 1085 - 1090 LIMESTONE; CREAM; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION, CHALKY;  
WACKESTONE-PACKSTONE.
- 1090 - 1095 NO SAMPLES
- 1095 - 1100 AS ABOVE  
ABUNDANT CAVINGS-- HAWTHORN GP, OCALA GP.
- 1100 - 1105 NO SAMPLES
- 1105 - 1110 AS ABOVE

1110 ZTHIS BEGINS CUTTING DESCRIPTION FOR W-14670  
THIS IS TD FOR SAMPLES OF THIS W NUMBER

- 0 - 1110 CUTTINGS FOR THIS WELL (14670) ARE GENERALLY VERY POOR QUALITY.
- 1110 - 1115 DOLOSTONE; YELLOWISH GRAY TO GRAYISH BROWN; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY,  
INTERCRYSTALLINE; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, POOR SAMPLE, SUCROSIC;  
ABUNDANT CAVINGS FROM ARCADIA FM AND OCALA GROUP
- 1115 - 1120 AS ABOVE
- 1120 - 1125 AS ABOVE
- 1125 - 1130 AS ABOVE
- 1130 - 1135 AS ABOVE  
CAVINGS ARE VERY ABUNDANT.
- 1135 - 1140 AS ABOVE
- 1140 - 1145 LIMESTONE; CREAM TO YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;  
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, CONES;  
SOME CAVINGS (LEPIDOCYCLINA, NUMMULITES). PACKSTONE-GRAINSTONE.
- 1145 - 1150 AS ABOVE
- 1150 - 1155 AS ABOVE
- 1155 - 1160 AS ABOVE  
DICTYOCONUS AMERICANUS?.
- 1160 - 1165 AS ABOVE  
ABUNDANT CAVINGS: OCALA GP, HTRN GP., AMPHISTEGINA SP.
- 1165 - 1170 AS ABOVE  
LESS FORAM CAVINGS.
- 1170 - 1175 AS ABOVE
- 1175 - 1180 AS ABOVE

- 1180 - 1185 DOLOSTONE; YELLOWISH GRAY; INTERGRANULAR, INTERCRYSTALLINE,  
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUNEDRAL;  
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: POOR SAMPLE, SUCROSIC;  
ABUNDANT LS CAVINGS. BASICALLY A DOLOSPAR SAND.
- 1185 - 1190 AS ABOVE
- 1190 - 1195 AS ABOVE  
VERY ABUNDANT CAVINGS.
- 1195 - 1200 AS ABOVE
- 1200 - 1205 AS ABOVE  
LESS CAVINGS.
- 1205 - 1210 LIMESTONE; CREAM TO YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-01%;  
OTHER FEATURES: CHALKY;  
WACKSTONE-PACKSTONE. MINOR CAVINGS.
- 1210 - 1215 AS ABOVE
- 1215 - 1220 AS ABOVE
- 1220 - 1225 AS ABOVE
- 1225 - 1230 LIMESTONE; CREAM TO YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: CHALKY;  
WACKSTONE-PACKSTONE. MINOR CAVINGS.
- 1230 - 1235 AS ABOVE
- 1235 - 1240 LIMESTONE; CREAM TO YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: COARSE TO VERY FINE; POOR INDURATION;  
CARBONATE SAND. PACKSTONE-GRAINSTONE.
- 1240 - 1245 AS ABOVE
- 1245 - 1250 AS ABOVE  
SOME HAWTHORN GROUP CAVINGS.

- 1250 - 1255 AS ABOVE  
LESS CAVINGS.
- 1255 - 1260 AS ABOVE
- 1260 - 1265 AS ABOVE
- 1265 - 1270 AS ABOVE  
WACKESTONE.
- 1270 - 1275 AS ABOVE
- 1275 - 1280 LIMESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY; INTERGRANULAR, LOW PERMEABILITY,  
INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION, POOR SAMPLE;  
FOSSILS: BENTHIC FORAMINIFERA;  
ABUNDANT CAVINGS. POSSIBLY DOLOMITIC.
- 1280 - 1285 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN; INTERCRYSTALLINE,  
LOW PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: VERY FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION, SUCROSIC, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 1285 - 1290 AS ABOVE  
VERY ABUNDANT CAVINGS (MINOR DOLOMITE IN SAMPLE).
- 1290 - 1295 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERCRYSTALLINE, LOW PERMEABILITY,  
PIN POINT VUGS; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
OTHER FEATURES: HIGH RECRYSTALLIZATION;  
TRACE OF CAVINGS. DOLOSPAR COATS SOME PIN-POINT VUGS.
- 1295 - 1300 AS ABOVE
- 1300 - 1305 AS ABOVE
- 1305 - 1310 NO SAMPLES
- 1310 - 1315 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERCRYSTALLINE, LOW PERMEABILITY,  
PIN POINT VUGS; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: COARSE TO MICROCRYSTALLINE; GOOD INDURATION;  
OTHER FEATURES: HIGH RECRYSTALLIZATION;
- 1315 TOTAL DEPTH