

Executive Summary  
ROMP Site No. 59  
Three Monitor Wells

Location - ROMP 59 is located in the southwest corner of the Bartow Ball Park approximately .8 mile south of the intersection of State Routes 60 and 555 and on the west side of State Route 555 in Polk County. The site is located in Section 12, Township 30 South, Range 24 East and at latitude 28°53'14", longitude 81°51'42".

Site Easement - This site was obtained from the City of Bartow for the sum of one dollar. The Perpetual Easement is 25 feet by 80 feet and was obtained on April 30, 1974, and is recorded in O.R. Book 1595, Pages 1224 through 1226. A Temporary Construction Easement was not obtained for this site.

Geology - This site is located on the Sunderland Terrace at an elevation of 119 feet above mean sea level (MSL). Geologic information was obtained from well cuttings from land surface to 1400 feet below LSD. The general geology of this site is as follows:

0-20'	Undifferentiated sands and clays
20'-60'	Bone Valley Formation
60'-100'	Hawthorn Formation
100'-170'	Tampa Limestone
170'-270'	Suwannee Limestone
270'-460'	Ocala Group
460'-1120'	Avon Park Limestone
1120'-1400'	Lake City Limestone

Hydrogeology - Very little information is available in the files for this site so no attempt can be made to describe the hydrogeology of this area.

Well Construction - Three wells have been constructed at this site under a U.S.G.S. contract. These wells were constructed during April and May, 1974 by the Meridith Corporation. Although the exact contract amount is not known, the Engineer's Estimate for the job was \$45,000 or about \$28 per foot.

A. Well No. 1 - The deep or Avon Park well was originally drilled to 1400 feet below LSD which is in the Lake City Limestone. The well was plugged back to 1048 feet and has 203 feet of 12 inch steel casing.

B. Well No. 2 - The Tampa monitor well has 122 feet of 6 inch diameter steel casing and is drilled out to 142 feet below LSD.

C. Well No. 3 - The shallow well which is open to the Bone Valley Formation has 50 feet of 6 inch steel casing and is 60 feet deep.

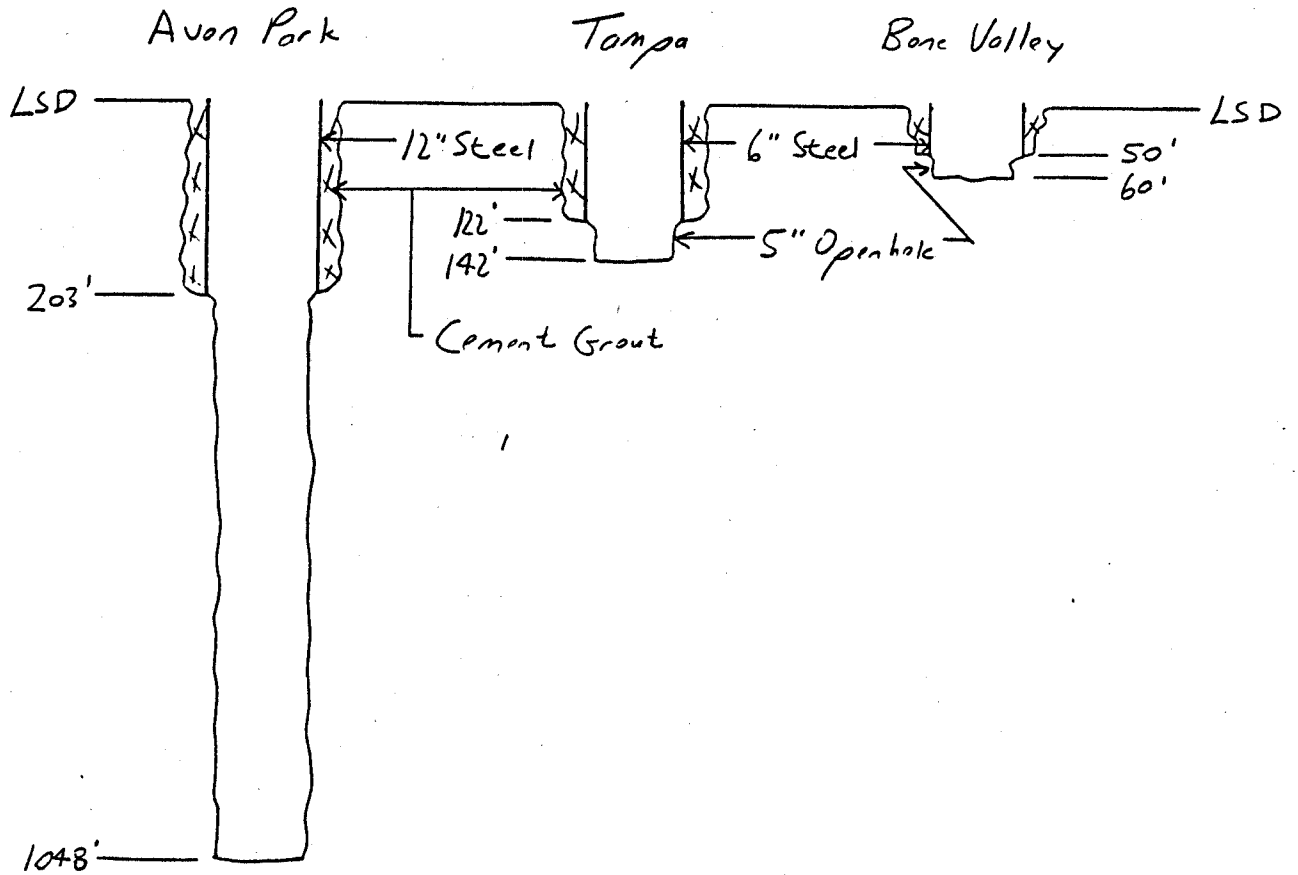
Geophysical Logs - Gamma, Fluid Conductivity, electric, and fluid resistivity logs were made by the U.S.G.S. on this well.

Type of Monitor - The Bone Valley and Tampa monitor wells are designed to monitor the artesian groundwaters whereas the Avon Park well is designed to monitor the freshwater-saltwater interface which has risen in this area due to the large amounts of groundwater withdrawal in this area from phosphate mining.

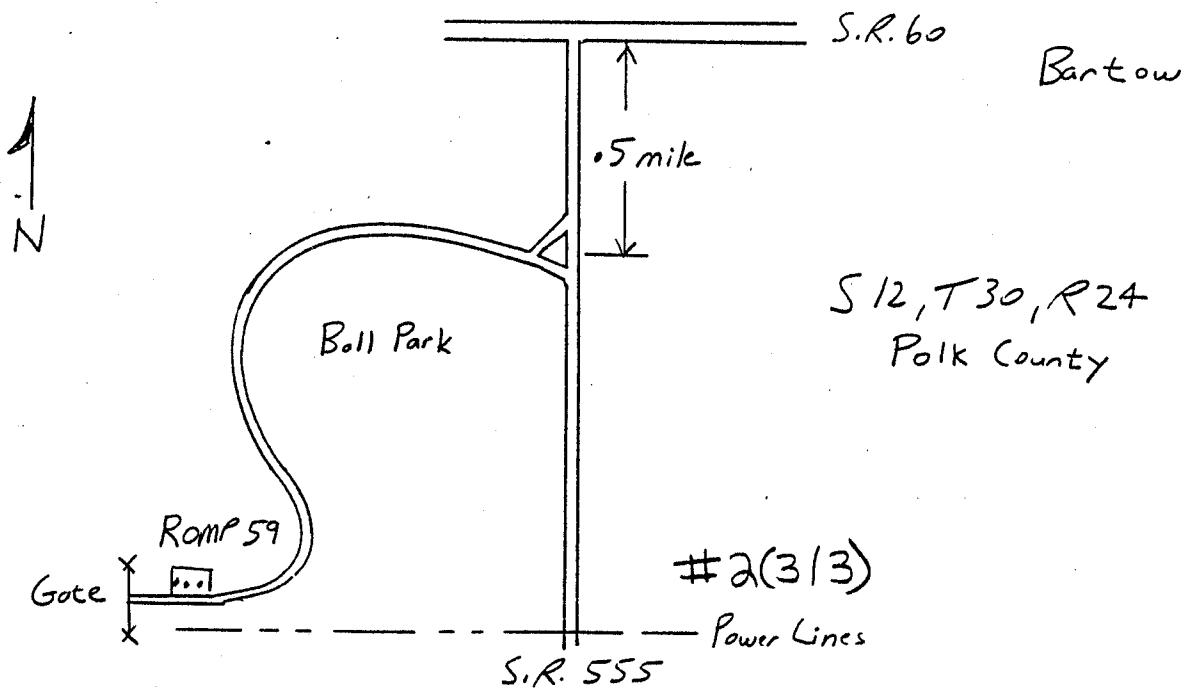
Water Quality - The U.S.G.S. collected a standard complete analysis on the chloride monitor well. Both sulfates and chlorides exceed 250 milligrams per liter (mg/L) in this well at approximately 740 feet below LSD.

U.S.G.S. Notification - Since the U.S.G.S. administrated this contract all information that is in our files was received from the U.S.G.S.

# As Built Well Diagram



## Site Location



LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 12640  
TOTAL DEPTH: 01400 FT.  
SAMPLES - NONE

COUNTY - POLK  
LOCATION: T.30S R.24E S.12  
LAT = N 28D 53M 14  
LON = W 81D 51M 42

COMPLETION DATE - 05/ /74 ELEVATION - 119 FT  
OTHER TYPES OF LOGS AVAILABLE - ELECTRIC, FLUID COND, GAMMA, TEMP

OWNER/DRILLER: SWFWMD; ROMP SITE # 59; THREE MONITOR WELLS

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

NOTE: THERE IS ANOTHER DESCRIPTION FOR PART OF THIS WELL,  
IT PRECEDES THIS ONE ON THE DISK.

ROMP 59 IS LOCATED ON THE SW CORNER OF THE BARTOW BALL  
PARK APPROX. 0.8 MILES SOUTH OF THE INTERSECTION OF STATE  
ROUTES 60 AND 555 AND ON THE WEST SIDE OF S.R. 555 IN POLK COUNTY.

- 0. - 20. UNDIFFERENTIATED SAND AND CLAY
  - 20. - 60. BONE VALLEY MEMBER OF PEACE RIVER FM.
  - 60. - 170. HAWTHORN GROUP
  - 100. - 170. TAMPA MEMBER OF ARCADIA FM.
  - 170. - 270. SUWANNEE LIMESTONE
  - 270. - 460. OCALA GROUP
  - 460. - 1120. AVON PARK FM.
  - 1120. - . LAKE CITY LIMESTONE
- 
- 0 - 10 CLAY; DARK YELLOWISH BROWN;  
ACCESSORY MINERALS: QUARTZ SAND-03%, PHOSPHATIC SAND- %;  
OTHER FEATURES: FROSTED;  
QTZ IS FINE TO MEDIUM, FROSTED.
  - 10 - 20 AS ABOVE
  - 20 - 30 LIMESTONE; YELLOWISH GRAY;  
ACCESSORY MINERALS: CLAY- %, QUARTZ SAND- %, PHOSPHATIC GRAVEL- %;  
WITH YELLOWISH BROWN SANDY CLAY AND PHOSPHATE PEBBLES.
  - 30 - 40 AS ABOVE  
EXCEPT FOR DISTINCT GREEN CLAY SEAMS AND VERTEBRATE FRAGMENTS.
  - 40 - 50 LIMESTONE; YELLOWISH GRAY;  
ACCESSORY MINERALS: QUARTZ SAND- %, PHOSPHATIC SAND- %, CLAY- %;  
OTHER FEATURES: DOLOMITIC, FOSSILIFEROUS;  
SEAM OF GRAYISH-BROWN SANDY CLAY, AND W/ SOME DOLOMITE.

- 50 - 60 LIMESTONE; YELLOWISH GRAY;  
ACCESSORY MINERALS: PHOSPHATIC GRAVEL- %, QUARTZ SAND- %, CLAY-%;  
WITH LENS OF BRN SANDY CLAY AND ABUNDANT PHOSPHATE PEBBLES.
- 60 - 70 LIMESTONE; YELLOWISH GRAY;  
ACCESSORY MINERALS: QUARTZ SAND- %;  
OTHER FEATURES: FOSSILIFEROUS;  
WITH CAVITY FROM 66.5-67.6'.
- 70 - 80 LIMESTONE; YELLOWISH GRAY;  
V. LT YELLOWISH GRAY, W/ LENS OF GRAY ARGILLACEOUS LS.
- 80 - 90 LIMESTONE; YELLOWISH GRAY;  
ACCESSORY MINERALS: PHOSPHATIC SAND- %;  
OTHER FEATURES: FOSSILIFEROUS;  
VERY LT YELLOWISH GRAY.
- 90 - 100 AS ABOVE
- 100 - 110 LIMESTONE; LIGHT GRAY;  
ACCESSORY MINERALS: CLAY-%;  
WITH 5' LENS OF DK BLUE-GREEN CLAY.
- 110 - 120 LIMESTONE; LIGHT GRAY;
- 120 - 130 LIMESTONE; LIGHT GRAY;  
WITH LENS OF GRAY TO BLACK LIGNITE.
- 130 - 140 CLAY; MODERATE GRAY TO GREEN;  
OTHER FEATURES: CALCAREOUS;  
VERY CALCAREOUS.
- 140 - 150 LIMESTONE; LIGHT GRAY;  
ACCESSORY MINERALS: CLAY- %, DOLOMITE-%;
- 150 - 160 CLAY; DARK GRAY TO GREEN;  
ACCESSORY MINERALS: LIMESTONE-%;  
WITH LS FRAGMENTS.
- 160 - 170 CLAY; LIGHT GRAYISH GREEN TO DARK GRAYISH GREEN;  
ACCESSORY MINERALS: DOLOMITE- %;  
OTHER FEATURES: CALCAREOUS;  
VERY CALCAREOUS, WITH SOME DOLOMITE.
- 170 - 180 LIMESTONE; YELLOWISH GRAY; POSSIBLY HIGH PERMEABILITY;  
ACCESSORY MINERALS: CLAY- %;  
OTHER FEATURES: FOSSILIFEROUS;  
VERY POROUS, VERY FOSSILIFEROUS, WITH CLAY AS ABOVE FROM 170-173'.

180 - 190 AS ABOVE

190 - 200 AS ABOVE

200 - 210 AS ABOVE

210 - 220 AS ABOVE

220 - 230 AS ABOVE

230 - 240 LIMESTONE; YELLOWISH GRAY;  
MODERATE INDURATION;  
OTHER FEATURES: GRANULAR;  
GRANULAR IN A POWDERY MATRIX.

240 - 250 AS ABOVE

250 - 260 LIMESTONE; YELLOWISH GRAY;  
GRAIN SIZE: VERY FINE; MODERATE INDURATION;  
OTHER FEATURES: GRANULAR;

260 - 270 AS ABOVE

270 - 280 LIMESTONE; YELLOWISH GRAY;  
GRAIN SIZE: VERY FINE; POOR INDURATION;  
MEDIUM LIGHT YELLOW-GRAY, VERY FINELY GRANULAR TO POWDERY, SOFT.

280 - 290 AS ABOVE

290 - 300 AS ABOVE

300 - 310 AS ABOVE

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 LIMESTONE; YELLOWISH GRAY;  
MODERATE INDURATION;  
OTHER FEATURES: GRANULAR;  
GRANULAR IN CRYPTO-CRYSTALLINE MATRIX, FAIRLY HARD.
- 400 - 410 AS ABOVE
- 410 - 420 AS ABOVE
- 420 - 430 AS ABOVE
- 430 - 440 AS ABOVE
- 440 - 450 AS ABOVE
- 450 - 460 AS ABOVE
- 460 - 470 LIMESTONE; YELLOWISH GRAY;  
POOR INDURATION;  
OTHER FEATURES: GRANULAR;  
FINELY GRANULAR IN POWDERY MATRIX, SOFT.
- 470 - 480 AS ABOVE
- 480 - 490 AS ABOVE
- 490 - 500 AS ABOVE
- 500 - 510 AS ABOVE
- 510 - 520 AS ABOVE
- 520 - 530 AS ABOVE
- 530 - 540 AS ABOVE
- 540 - 550 AS ABOVE
- 550 - 560 DOLOSTONE; MODERATE GRAY TO BROWN;  
GOOD INDURATION;  
OTHER FEATURES: CRYSTALLINE;  
NON-FOSSILIFEROUS. MODERATE TO VERY HARD.
- 560 - 570 AS ABOVE
- 570 - 580 AS ABOVE

- 580 - 590 LIMESTONE; YELLOWISH GRAY;  
GRAIN SIZE: FINE;  
OTHER FEATURES: GRANULAR;  
SOFT TO MODERATELY HARD. FINELY GRANULAR.
- 590 - 600 AS ABOVE
- 600 - 610 AS ABOVE
- 610 - 620 AS ABOVE
- 620 - 630 DOLOSTONE; DARK GRAY TO BROWN; 50-90% ALTERED; EUHEDRAL;  
GOOD INDURATION;  
OTHER FEATURES: CRYSTALLINE;  
FOSSILS: NO FOSSILS;  
RHOMBIC, MODERATE TO VERY HARD.
- 630 - 640 AS ABOVE
- 640 - 650 AS ABOVE
- 650 - 660 AS ABOVE
- 660 - 670 AS ABOVE
- 670 - 680 AS ABOVE
- 680 - 690 AS ABOVE
- 690 - 700 AS ABOVE
- 700 - 710 LIMESTONE; YELLOWISH GRAY;  
GRAIN SIZE: FINE;  
OTHER FEATURES: CHALKY, GRANULAR;  
FINELY GRANULAR TO CHALKY, SOFT-MODERATELY HARD.
- 710 - 720 AS ABOVE
- 720 - 730 AS ABOVE
- 730 - 740 DOLOSTONE; DARK GRAY TO BROWN; 50-90% ALTERED; EUHEDRAL;  
GOOD INDURATION;  
OTHER FEATURES: CRYSTALLINE;  
FOSSILS: NO FOSSILS;  
RHOMBIC, MODERATE TO VERY HARD.
- 740 - 750 AS ABOVE



750 - 760 LIMESTONE; YELLOWISH GRAY;  
GRAIN SIZE: FINE; MODERATE INDURATION;  
OTHER FEATURES: CHALKY, GRANULAR;  
FINELY GRANULAR TO CHALKY, SOFT-MODERATELY HARD.

760 - 770 AS ABOVE

770 - 780 AS ABOVE

780 - 790 AS ABOVE

790 - 800 AS ABOVE

800 - 810 AS ABOVE

810 - 820 AS ABOVE

820 - 830 AS ABOVE

830 - 840 AS ABOVE

840 - 850 AS ABOVE

850 - 860 AS ABOVE

860 - 870 AS ABOVE

870 - 880 AS ABOVE

880 - 890 AS ABOVE

890 - 900 AS ABOVE  
EXCEPT WITH SOME DOLOMITE.

900 - 910 AS ABOVE

910 - 920 AS ABOVE

920 - 930 AS ABOVE

930 - 940 AS ABOVE

940 - 950 AS ABOVE

950 - 960 AS ABOVE

960 - 970 AS ABOVE

970 - 980 AS ABOVE

980 - 990 AS ABOVE

990 - 1000 AS ABOVE

1000 - 1010 AS ABOVE

1010 - 1020 AS ABOVE

1020 - 1030 AS ABOVE

1030 - 1040 AS ABOVE

1040 - 1050 AS ABOVE

1050 - 1060 AS ABOVE

1060 - 1070 AS ABOVE

1070 - 1080 AS ABOVE

1080 - 1090 AS ABOVE

1090 - 1100 AS ABOVE

1100 - 1110 AS ABOVE

1110 - 1120 AS ABOVE

1120 - 1130 LIMESTONE; BUFF;  
GRAIN SIZE: FINE; MODERATE INDURATION;  
ACCESSORY MINERALS: ANHYDRITE- %;  
OTHER FEATURES: CHALKY, GRANULAR;  
FINELY GRANULAR TO CHALKY, SOFT-MODERATELY HARD.

1130 - 1140 AS ABOVE

1140 - 1150 AS ABOVE

1150 - 1160 AS ABOVE

1160 - 1170 AS ABOVE

1170 - 1180 AS ABOVE

1180 - 1190 AS ABOVE

1190 - 1200 LIMESTONE; BUFF;  
GRAIN SIZE: FINE; MODERATE INDURATION;  
ACCESSORY MINERALS: GYPSUM- %, ANHYDRITE- %, CHERT- %, DOLOMITE- %;  
OTHER FEATURES: GRANULAR, CHALKY;  
FINELY GRANULAR TO CHALKY, SOFT TO MODERATELY HARD, WITH MUCH SELENITE AND ANHYDRITE, AND  
SOME CHERT AND DOLOMITE.

1200 - 1210 AS ABOVE

1210 - 1220 AS ABOVE

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 AS ABOVE

1300 - 1310 AS ABOVE

1310 - 1320 AS ABOVE

1320 - 1330 AS ABOVE

1330 - 1340 AS ABOVE

1340 - 1350 AS ABOVE

1350 - 1360 AS ABOVE

1360 - 1370 AS ABOVE

1370 - 1380 AS ABOVE

1380 - 1390 AS ABOVE

1390 - 1400 AS ABOVE

1400 TOTAL DEPTH

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 12640  
TOTAL DEPTH: 01390 FT.  
139 SAMPLES FROM 0 TO 1390 FT.

COUNTY - POLK  
LOCATION: T.30S R.24E S.12  
LAT = N 28D 53M 14  
LON = W 81D 51M 42

COMPLETION DATE - 05/ /74 ELEVATION - 119 FT  
OTHER TYPES OF LOGS AVAILABLE - FLUID COND, GAMMA, TEMP, FLUID COND, NEUTRON

OWNER/DRILLER: SWFWD; ROMP SITE #59; THREE MONITOR WELLS.

WORKED BY: DESCRIBED FROM CUTTINGS (10' INTERVAL) BY RICHARD GREEN 2/91.  
FORMATION PICKS TENTATIVE. (TOP OF AVON PARK QUESTIONABLE)  
GAMMA LOG SUGGESTS 55' AS BOTTOM OF BONE VALLEY, AND 180' AS TOP  
OF SUWANNEE LIMESTONE.  
CUTTINGS ARE FAIR-POOR, BECOMING WORSE WITH DEPTH.

0. - 30. NO SAMPLES  
30. - 60. BONE VALLEY MEMBER OF PEACE RIVER FM.  
60. - 180. HAWTHORN GROUP  
180. - 210. NO SAMPLES  
210. - 270. SUWANNEE LIMESTONE  
270. - 550. Ocala GROUP  
550. - . AVON PARK FM.

0 - 30 NO SAMPLES

30 - 40 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, PHOSPHATE CEMENT;  
SEDIMENTARY STRUCTURES: INTERBEDDED,  
ACCESSORY MINERALS: QUARTZ SAND-08%, PHOSPHATIC GRAVEL-02%, PHOSPHATIC SAND-05%, SILT-%;  
MIX OF PHOSPHATE, SANDY LS AND IRON CEMENTED SAND AND PHOSPHATE (CAVING FROM UNSAMPLED  
UNIT ABOVE?) PHOSPHATE IS WELL ROUNDED, BLACK-WHITE-TAN.

40 - 50 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY, INTERCRYSTALLINE;  
GRAIN TYPE: CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-08%, PHOSPHATIC SAND-08%, SILT- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;  
POSSIBLY DOLOMITIC; VARIABLY SILTY, SANDY AND PHOSPHATIC. (PHOSPHATE IS BLACK-BROWN).

50 - 60 AS ABOVE  
INTERBEDDED ZONES OF PHOSPHATIC, SANDY LS AND NON-PHOSPHATIC SANDY LIMESTONE.

- 60 - 70 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY, MOLDIC, PIN POINT VUGS;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%;  
FOSSILS: FOSSIL MOLDS, MOLLUSKS;  
MUCH LESS PHOSPHATE AND SAND THAN ABOVE.
- 70 - 80 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY, MOLDIC, PIN POINT VUGS;  
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;  
GOOD INDURATION;  
ACCESSORY MINERALS: IRON STAIN-01%;  
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID;  
NO PHOSPHATE OR QTZ SAND.
- 80 - 90 AS ABOVE  
MIX OF 60-80' LITHOLOGIES.
- 90 - 100 SAND; LIGHT OLIVE GRAY TO YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY;  
GRAIN SIZE: VERY FINE; RANGE: FINE TO VERY FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;  
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,  
ACCESSORY MINERALS: CALCILUTITE-05%, PHOSPHATIC SAND-05%, CLAY- %, PHOSPHATIC GRAVEL-02%;  
OTHER FEATURES: CALCAREOUS, SPLINTERY;  
INTERBEDDED CLAYEY SANDS AND SANDS. MINOR PLANT FRAGMENTS.
- 100 - 110 AS ABOVE  
SOME CAVINGS FROM ABOVE (LS); ALSO SOME MORE CLAYEY INTERVALS.
- 110 - 120 SAND; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: CALCILUTITE-05%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;  
OTHER FEATURES: CALCAREOUS;  
SOME MINOR QTZ SAND AND PHOSPHATE.
- 120 - 130 SAND; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: CALCILUTITE-05%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%, CLAY- %;  
OTHER FEATURES: CALCAREOUS;  
VARIABLY CARBONATE RICH; MINOR ZONES OF HIGH RECRYSTALLIZATION.
- 130 - 140 AS ABOVE
- 140 - 150 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY; LOW PERMEABILITY, INTERGRANULAR; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND- %, SILT- %, CALCILUTITE- %, PHOSPHATIC SAND- %;  
OTHER FEATURES: CALCAREOUS;  
VERY CLAYEY SILT/VERY SILTY CLAY.

- 150 - 160 SAND; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SILT- %, CALCILUTITE-05%, CLAY- %, PHOSPHATIC SAND-01%;  
OTHER FEATURES: CALCAREOUS;  
VERY POOR RECOVERY; ABUNDANT LOOSE QTZ SAND AND MINOR SAND CEMENTED WITH MICRITE.  
POOR-MOD. INDURATION. VARIABLE FROM A VERY SANDY CARBONATE TO V. CARBONATE RICH SAND.
- 160 - 170 AS ABOVE  
SLIGHTLY COARSER QTZ SAND THAN ABOVE. PROBABLY UNCONSOLIDATED QTZ SAND W/ MINOR LENSES OF  
CARBONATE CEMENTED SAND.
- 170 - 180 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY;  
GRAIN TYPE: CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: QUARTZ SAND-08%, PHOSPHATIC SAND-01%, SILT- %;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, DOLOMITIC;  
VARIABLY SANDY AND SILTY LS.; POSSIBLY DOLOMITIC. SOME CAVINGS.
- 180 - 210 NO SAMPLES  
GAMMA LOG SUGGESTS TOP OF SUWANNEE LIMESTONE AT APPROX. 180'.
- 210 - 210 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, MOLDIC;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: FINE TO COARSE; GOOD INDURATION;  
OTHER FEATURES: LOW RECRYSTALLIZATION;  
FOSSILS: MOLLUSKS, FOSSIL MOLDS, MILIOLIDS;  
PACKSTONE-WACKESTONE. MINOR SPAR.
- 210 - 220 AS ABOVE
- 220 - 230 AS ABOVE
- 230 - 240 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY, MOLDIC;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: LOW RECRYSTALLIZATION;  
FOSSILS: MOLLUSKS, FOSSIL MOLDS, MILIOLIDS;  
MUDSTONE-WACKESTONE.
- 240 - 250 AS ABOVE  
MORE OF A WACKESTONE.

- 250 - 260 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY, MOLDIC;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, HIGH RECRYSTALLIZATION;  
FOSSILS: MOLLUSKS, FOSSIL MOLDS, MILIOLIDS;  
WACKESTONE-PACKSTONE; SOME SPAR COATS MOLDS.
- 260 - 270 LIMESTONE; YELLOWISH GRAY; 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;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;  
LEPIDOCYCLINA FRAGMENTS; PACKSTONE-WACKESTONE.
- 270 - 280 AS ABOVE  
LEPIDOCYCLINA MORE COMMON.
- 280 - 290 AS ABOVE
- 290 - 300 AS ABOVE
- 300 - 310 AS ABOVE
- 310 - 320 AS ABOVE  
BRYOZOAN FRAGMENT NOTED.
- 320 - 330 NO SAMPLES
- 330 - 340 AS ABOVE  
SLIGHTLY MUDDIER THAN ABOVE.
- 340 - 350 AS ABOVE
- 350 - 360 NO SAMPLES
- 360 - 365 LIMESTONE; YELLOWISH GRAY; 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;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;
- 365 - 375 AS ABOVE  
ABUNDANT LEPIDOCYCLINA.

- 375 - 385 LIMESTONE; YELLOWISH GRAY; 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;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS;  
ABUNDANT LEPS; WACKESTONE-PACKSTONE.
- 385 - 395 AS ABOVE  
NUMMULITES SP.
- 395 - 405 AS ABOVE  
VERY ABUNDANT LEPIDOCYCLINA.
- 405 - 415 AS ABOVE  
NUMMULITES VANDERSTOKI NOTED.
- 415 - 425 AS ABOVE
- 425 - 435 AS ABOVE
- 435 - 445 AS ABOVE  
TRACE OF PYRITE.
- 445 - 455 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: PYRITE-01%;  
FOSSILS: BENTHIC FORAMINIFERA;  
PACKSTONE-GRAINSTONE.
- 455 - 465 AS ABOVE
- 465 - 475 AS ABOVE  
NO PYRITE.
- 475 - 485 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
FOSSILS: SPICULES;  
PACKSTONE.
- 485 - 495 AS ABOVE
- 495 - 505 AS ABOVE



- 505 - 515 LIMESTONE; YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA;  
WHOLE ECHINOID FOUND; GRAINSTONE-PACKSTONE.
- 515 - 525 AS ABOVE
- 525 - 535 NO SAMPLES
- 535 - 540 AS ABOVE
- 540 - 550 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: VERY FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION, SUCROSIC;
- 550 - 560 AS ABOVE  
MINOR CAVINGS.
- 560 - 570 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE;  
50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: SUCROSIC, HIGH RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT CAVINGS.
- 570 - 580 LIMESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; POSSIBLY HIGH PERMEABILITY, INTERGRANULAR,  
INTRAGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL;  
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE; POOR INDURATION;  
ACCESSORY MINERALS: SPAR-01%;  
OTHER FEATURES: LOW RECRYSTALLIZATION, MEDIUM RECRYSTALLIZATION;  
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS, CONES;  
FORAM GRAINSTONE; VERY POROUS AND PERMEABLE.
- 580 - 590 AS ABOVE  
DICTYOCONUS COOKEI.
- 590 - 600 AS ABOVE  
POOR RECOVERY.
- 600 - 610 AS ABOVE  
ABUNDANT CONES. SOME LEPS (CAVINGS?)
- 610 - 620 AS ABOVE

- 620 - 630 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: SUCROSIC;
- 630 - 640 AS ABOVE  
ABUNDANT CAVINGS.
- 640 - 650 AS ABOVE
- 650 - 660 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERGRANULAR, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: SUCROSIC;  
MINOR CAVINGS; GOOD INTERCRYSTALLINE POROSITY.
- 660 - 670 AS ABOVE  
SLIGHTLY COARSER THAN ABOVE. MODERATE INDURATION.
- 670 - 680 DOLOSTONE; GRAYISH BROWN; INTERGRANULAR, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
MODERATE CAVINGS.
- 680 - 690 AS ABOVE  
SLIGHTLY MORE RECRYSTALLIZED, FINER THAN ABOVE.
- 690 - 700 AS ABOVE  
POOR SAMPLE--ABUNDANT CAVINGS (LS) AND VERY FEW DOLOSTONE FRAGMENTS.
- 700 - 710 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERGRANULAR, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: SUCROSIC;  
ABUNDANT CAVINGS; GOOD POROSITY.
- 710 - 720 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERCRYSTALLINE, LOW PERMEABILITY; 50-90% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
LOW PERMEABILITY, "TIGHT".
- 720 - 730 AS ABOVE  
VERY HIGHLY RECRYSTALLIZED MUDSTONE-WACKESTONE?

- 730 - 740 AS ABOVE
- 740 - 750 AS ABOVE  
POOR RECOVERY.
- 750 - 760 AS ABOVE  
ABUNDANT OCALA GROUP CAVINGS.
- 760 - 770 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY; 50-90% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: VERY FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
ABUNDANT CAVINGS AS ABOVE.
- 770 - 780 AS ABOVE  
LESS CAVINGS.
- 780 - 790 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; POSSIBLY HIGH PERMEABILITY, INTERGRANULAR,  
INTRAGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: MEDIUM; RANGE: COARSE TO FINE; POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: POOR SAMPLE;  
FOSSILS: BENTHIC FORAMINIFERA, CONES, FOSSIL FRAGMENTS;  
ABUNDANT CAVINGS--OCALA GROUP--LEPS., AMPHISTEGINA.
- 790 - 800 LIMESTONE; YELLOWISH GRAY; LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION, DOLOMITIC;  
FOSSILS: BENTHIC FORAMINIFERA;
- 800 - 810 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; LOW PERMEABILITY, INTERGRANULAR,  
PIN POINT VUGS;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
GRANULE SIZED CUTTINGS; WELL ROUNDED; MAY BE ALTERED FORAMS.
- 810 - 820 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR, INTERCRYSTALLINE,  
LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: HIGH RECRYSTALLIZATION;

- 820 - 830 LIMESTONE; VERY LIGHT ORANGE; INTERCRYSTALLINE, LOW PERMEABILITY, INTERGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;  
SOME LS AS ABOVE; MUDSTONE-WACKESTONE. INTERBEDDED MODERATELY RECRYSTALLIZED  
MUDSTONE/WACKESTONE AND VERY HIGHLY RECRYSTALLIZED LS.
- 830 - 840 LIMESTONE; VERY LIGHT ORANGE; INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS;  
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;  
ACCESSORY MINERALS: SPAR- %;  
OTHER FEATURES: HIGH RECRYSTALLIZATION;  
POSSIBLY PERMEABLE; V.F. SPAR COATS/MAKES UP LIMESTONE.
- 840 - 850 DOLOSTONE; YELLOWISH GRAY; INTERCRYSTALLINE, INTERGRANULAR,  
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;  
CAVINGS COMMON; CUTTING FRAGMENTS ARE SMALL, POROUS.
- 850 - 860 AS ABOVE
- 860 - 870 DOLOSTONE; GRAYISH BROWN; INTERCRYSTALLINE, PIN POINT VUGS,  
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;  
LEPS, AMPHISTEGINA, HETEROSTEGINA SP. (CAVINGS?); VERY POROUS DOLOSTONE.
- 870 - 880 AS ABOVE  
LESS CAVINGS.
- 880 - 890 AS ABOVE  
LESS POROUS; CUTTINGS ARE FINER THAN ABOVE; POOR RECOVERY.
- 890 - 900 AS ABOVE  
V. ABUNDANT CAVINGS: LEPS, HETEROSTEGINA; DOLOSTONE LOOKS MORE POROUS AND COARSER THAN  
ABOVE.
- 900 - 910 AS ABOVE
- 910 - 920 AS ABOVE  
LESS CAVINGS.

- 920 - 930 DOLOSTONE; VERY LIGHT ORANGE; INTERGRANULAR, PIN POINT VUGS,  
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;  
MINOR CAVINGS.
- 930 - 940 AS ABOVE
- 940 - 950 AS ABOVE
- 950 - 960 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; LOW PERMEABILITY;  
50-90% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
GOOD INDURATION;  
OTHER FEATURES: HIGH RECRYSTALLIZATION, POOR SAMPLE;  
ABUNDANT CAVINGS; A FEW FRAGMENTS OF VERY HARD, VERY LOW POROSITY, HIGHLY RECRYSTALLIZED  
DOLOSTONE. ONE DOUBLY TERMINATED QUARTZ CRYSTAL NOTED.
- 960 - 970 AS ABOVE  
NOT SURE IF THIS IS ABUNDANT CAVINGS AND A LITTLE DARK BROWN DOLOSTONE OR JUST A THIN LENS  
OF DOLOSTONE IN THE MIDDLE OF LIGHTER DOLOSTONE.
- 970 - 980 AS ABOVE
- 980 - 990 AS ABOVE
- 990 - 1000 DOLOSTONE; VERY LIGHT ORANGE; LOW PERMEABILITY; 10-50% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
GOOD INDURATION;  
OTHER FEATURES: CALCAREOUS;  
MINOR CAVINGS; DOLOMITIZED MUDSTONE.
- 1000 - 1010 LIMESTONE; VERY LIGHT ORANGE; POSSIBLY HIGH PERMEABILITY, PIN POINT VUGS, VUGULAR;  
GOOD INDURATION;  
ACCESSORY MINERALS: SPAR-01%;  
OTHER FEATURES: DOLOMITIC, MEDIUM RECRYSTALLIZATION;  
ABOVE LITHOLOGY MIXED W/ VERY POROUS FRAGMENTS OF DOLOMITIC LS.-LIMEY DOLOSTONE; TRACE OF  
SPAR.
- 1010 - 1020 AS ABOVE  
ABUNDANT CAVINGS?--NUMMULITES COMMON.
- 1020 - 1030 AS ABOVE  
COMMENTS AS ABOVE.

- 1030 - 1040 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: HIGH RECRYSTALLIZATION;  
SLIGHTLY LESS CAVINGS THAN ABOVE.
- 1040 - 1050 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN; LOW PERMEABILITY, POSSIBLY HIGH PERMEABILITY, INTERGRANULAR; 10-50% ALTERED; SUBHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
SEDIMENTARY STRUCTURES: MOTTLED,  
OTHER FEATURES: CALCAREOUS;  
VARIABLY RECRYSTALLIZED; MOTTLED WHITE/ TAN-BROWN; VARIABLY DOLOMITIC AND POROUS.
- 1050 - 1060 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
ACCESSORY MINERALS: GYPSUM-03%;
- WHITE FRAGMENTS MAY BE GYPSUM (ANHYDRITE?); MINOR DK BRN, HIGHLY RECRYSTALLIZED DOLOSTONE.
- 1060 - 1070 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: VERY FINE; RANGE: FINE TO MICROCRYSTALLINE; GOOD INDURATION;  
AS ABOVE WITHOUT GYPSUM.
- 1070 - 1080 AS ABOVE  
MINOR LS FRAGS. LOOKS LIKE 1050'. VARIABLY DOLOMITIC.
- 1080 - 1090 AS ABOVE
- 1090 - 1100 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 10-50% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;  
SEDIMENTARY STRUCTURES: MOTTLED,  
OTHER FEATURES: CALCAREOUS;  
FOSSILS: BENTHIC FORAMINIFERA;  
VARIABLY DOLOMITIC AND CALCAREOUS; MOTTLED WHITE/TAN-BRN.
- 1100 - 1110 LIMESTONE; WHITE TO VERY LIGHT ORANGE; INTERGRANULAR, INTERCRYSTALLINE, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
OTHER FEATURES: DOLOMITIC;  
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID;

- 1110 - 1120 LIMESTONE; WHITE TO VERY LIGHT ORANGE; LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, CALCILUTITE;  
POOR INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: GYPSUM- %;  
OTHER FEATURES: CHALKY;  
ABUNDANT GYPSUM (ANHYDRITE?) AND MICRITE. GYPSUM IS WHITE.
- 1120 - 1130 LIMESTONE; WHITE TO VERY LIGHT ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: GYPSUM-05%, SPAR-02%, DOLOMITE- %;  
FOSSILS: BENTHIC FORAMINIFERA;
- 1130 - 1140 LIMESTONE; VERY LIGHT ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, INTRAGRANULAR;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
CEMENT TYPE(S): CALCILUTITE MATRIX;  
ACCESSORY MINERALS: GYPSUM-02%, SPAR-02%;  
OTHER FEATURES: DOLOMITIC;  
FOSSILS: BENTHIC FORAMINIFERA;  
ABUNDANT FORAMS. VARIABLY DOLOMITIC.
- 1140 - 1150 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN; LOW PERMEABILITY;  
10-50% ALTERED; SUBHEDRAL;  
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;  
CEMENT TYPE(S): DOLOMITE CEMENT;  
OTHER FEATURES: CALCAREOUS;  
FOSSILS: BENTHIC FORAMINIFERA;  
VARIABLY RECRYSTALLIZED; SOME VERY CALCAREOUS ZONES.
- 1150 - 1160 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY, INTERCRYSTALLINE,  
INTERGRANULAR; 10-50% ALTERED; EUHEDRAL;  
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
ACCESSORY MINERALS: GYPSUM-01%;  
OTHER FEATURES: CALCAREOUS, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA;  
VARIABLE INDURATION, RECRYSTALLIZATION, AND DOLOMITIZATION.
- 1160 - 1170 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY, INTERCRYSTALLINE,  
INTERGRANULAR; 50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
GOOD INDURATION;  
OTHER FEATURES: POOR SAMPLE;  
VERY POOR RECOVERY. ONLY A FEW FRAGMENTS OF CUTTINGS.

- 1170 - 1180 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; 10-50% ALTERED;  
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
OTHER FEATURES: CALCAREOUS, CHALKY;  
FOSSILS: BENTHIC FORAMINIFERA;
- 1180 - 1190 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE; 10-50% ALTERED;  
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;  
OTHER FEATURES: CALCAREOUS;  
FOSSILS: BENTHIC FORAMINIFERA, BRYOZOA;  
VERY LIMEY DOLOMITE-DOLOMITIC LS. ABUNDANT FORAMS.
- 1190 - 1200 AS ABOVE
- 1200 - 1210 AS ABOVE
- 1210 - 1220 DOLOSTONE; GRAYISH BROWN; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 10-50% ALTERED;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;  
ACCESSORY MINERALS: GYPSUM-01%;  
FOSSILS: BENTHIC FORAMINIFERA;
- 1220 - 1230 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE; LOW PERMEABILITY;  
0-10% ALTERED;  
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;  
OTHER FEATURES: CALCAREOUS, CHALKY;
- 1230 - 1240 AS ABOVE  
3% CHERT FRAGMENTS, DK BROWN, VERY DENSE.
- 1240 - 1250 AS ABOVE  
W/O CHERT. 1230-1250' BECOMING MORE CALCAREOUS WITH DEPTH.
- 1250 - 1260 DOLOSTONE; ;  
AS 1230'.
- 1260 - 1270 AS ABOVE
- 1270 - 1280 LIMESTONE; VERY LIGHT ORANGE; LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: CHERT-01%, GYPSUM-01%;  
OTHER FEATURES: GRANULAR, DOLOMITIC, MEDIUM RECRYSTALLIZATION;  
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;



- 1280 - 1290 DOLOSTONE; VERY LIGHT ORANGE; POSSIBLY HIGH PERMEABILITY, INTERCRYSTALLINE, PIN POINT VUGS;  
50-90% ALTERED; EUHEDRAL;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION;  
OTHER FEATURES: POOR SAMPLE, SUCROSIC;  
ABUNDANT CAVINGS; MIX OF LS, DOLOSTONE, SOME CHERT.
- 1290 - 1300 AS ABOVE  
MORE LS. --MAY BE CAVINGS-- ?
- 1300 - 1310 DOLOSTONE; ;  
AS 1290', LESS LIMESTONE CAVINGS.
- 1310 - 1320 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE; LOW PERMEABILITY;  
10-50% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: GYPSUM-01%;  
OTHER FEATURES: SUCROSIC, CALCAREOUS;
- 1320 - 1330 LIMESTONE; VERY LIGHT ORANGE TO WHITE; LOW PERMEABILITY;  
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: GYPSUM-03%;  
OTHER FEATURES: DOLOMITIC;  
GYPSUM (ANHYDRITE?) IS WHITE.
- 1330 - 1340 AS ABOVE
- 1340 - 1350 AS ABOVE  
MORE DOLOMITIC, SLIGHTLY MORE RECRYSTALLIZED THAN ABOVE.
- 1350 - 1360 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY, PIN POINT VUGS; 10-50% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
MODERATE INDURATION;  
ACCESSORY MINERALS: GYPSUM-%;
- 1360 - 1370 AS ABOVE  
GYPSUM MORE ABUNDANT THAN ABOVE. MAY BE THIN BEDS OF GYPSUM INTERBEDDED WITH DOLOSTONE.
- 1370 - 1380 AS ABOVE  
ALSO BLACK/BROWN CHERT AND MORE GYPSUM.
- 1380 - 1390 DOLOSTONE; GRAYISH BROWN; LOW PERMEABILITY; 10-50% ALTERED;  
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;  
GOOD INDURATION;
- 1390 TOTAL DEPTH