LITHOLOGIC WELL LOG PRINTOUT WELL NUMBER: W-17794 TOTAL DEPTH: 178 FT. S.11 SAMPLES - NONE 51S COMPLETION DATE: 25/ 7/96 OTHER TYPES OF LOGS AVAILABLE - NONE SOURCE - FGS COUNTY - DADE99 LOCATION: T.54S R.38E LOCATION: T.54S R.38E LON = 80D 29M ELEVATION: 5 FT

OWNER/DRILLER:SOUTH FLORIDA WATER MANAGEMENT DISTRICT

WORKED BY:CINDY FISCHLER. 025-20 DLBS-9 SFWMD GEOPHY # 025000023 SOUTH MIAMI NW FLA PLANAR X 665208 STATE COORD. Y 514218 ACTUAL FOOTAGE IS LESS THAN INTERVAL GIVEN. COMPLETED OCT. 1999.

0.	-172	•	121PCPC	PLIOCENE-PLEISTOCENE
172.	-175		122HTRN	HAWTHORN GROUP

- 0 1 LIMESTONE; YELLOWISH GRAY 15% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS 60% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO GRANULE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: QUARTZ SAND- 5%, SPAR- 8% OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: OOLITES
- 1 3 PEAT; GREENISH BLACK 15% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC MODERATE INDURATION CEMENT TYPE(S): ORGANIC MATRIX, CLAY MATRIX ACCESSORY MINERALS: SHELL-20% FOSSILS: MOLLUSKS MANY FRESHWATER GASTROPODS.
- 3 5 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN 10% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR GRAIN TYPE: CALCILUTITE, OOLITE CLAST, CRYSTALS 70% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT FOSSILS: OOLITES, PLANT REMAINS ABOUT 50% OF INTERVAL IS PEAT AS ABOVE. LIMESTONE IS

WITH PEAT.

COATED

5 - 9 LIMESTONE; GRAYISH BROWN 20% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC GRAIN TYPE: CALCILUTITE, OOLITE CLAST, CRYSTALS
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
ACCESSORY MINERALS: QUARTZ SAND- 5%, SILT-15%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: OOLITES, PLANT REMAINS
LIMESTONE IS COATED WITH SANDY SILT. LARGE SOLUTION VOIDS
PRESENT. SILT INCREASES WITH DEPTH TO ABOUT 20%.

9 – 13 LIMESTONE; YELLOWISH GRAY TO GRAYISH ORANGE 10% POROSITY: INTERGRANULAR, PIN POINT VUGS, MOLDIC GRAIN TYPE: CALCILUTITE, OOLITE CLAST, SKELETAL 65% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO GRAVEL MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT IRON CEMENT SEDIMENTARY STRUCTURES: MOTTLED OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: OOLITES, MOLLUSKS, BENTHIC FORAMINIFERA PLANT REMAINS SOME IRON STAINING. SOLUTION VOIDS ARE PRESENT. LITHOLOGY VARIES: SOME OF THE LIMESTONE IS SANDY WITH OOLITIC TEXTURE; IRON STAINED LIMESTONE IS MORE RECRYSTALLIZED

AND

LESS OOLITIC.

13 - 15 WACKESTONE; VERY LIGHT ORANGE 5% POROSITY: INTERGRANULAR GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS 45% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO GRANULE GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: SPAR-10% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: BENTHIC FORAMINIFERA MANY OF THE ALLOCHEMS ARE RECRYSTALLIZED CLAM AND

GASTROPOD

CAST.

15 - 35 LIMESTONE; WHITE TO YELLOWISH GRAY 10% POROSITY: INTERGRANULAR, VUGULAR, MOLDIC GRAIN TYPE: CALCILUTITE, SKELTAL CAST, PELLET 40% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MEDIUM; RANGE: CRYPTOCRYSTALLINE TO GRANULE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: SPAR-20% OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: MOLLUSKS, CRUSTACEA GASTROPOD AND CLAM CAST. DRUSY CALCITE COATING ON SOME OF THE PIECES. MEDIUM RECRYSTALLIZATION. FEW PIECES SPOTTED WITH VERY FINE BLACK MATERIAL IN THE MATRIX MAY BE

ORGANICS

OR IRON SULFIDE. HIGHLY MOLDIC TOWARD BOTTOM.

- 35 43 WACKESTONE; WHITE 20% POROSITY: INTERGRANULAR, MOLDIC GRAIN TYPE: CALCILUTITE, SKELETAL, BIOGENIC
 - 70% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: CRYPTOCRYSTALLINE TO GRAVEL MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: SPAR- 5%, QUARTZ SAND-<5% FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, OSTRACODS MILIOLIDS, CRUSTACEA CLAM AND GASTROPOD CAST AND MOLDS. MEDIUM TO POOR INDURATION. ABOUT 5% SHELL FRAGMENTS SOME ARE RECRYSTALLIZED.
 - 43 50 WACKESTONE; YELLOWISH GRAY 10% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR GRAIN TYPE: CALCILUTITE, SKELTAL CAST, CRYSTALS 70% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: COARSE; RANGE: MICROCRYSTALLINE TO GRAVEL MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: SPAR- 5% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: MOLLUSKS, WORM TRACES ABUNDANT CLAM AND GASTROPOD MOLDS. INCREASE IN RECRYSTALLIZATION TOWARD BOTTOM ABOUT 15% SPAR. NOT QUITE AS MOLDIC TOWARD BOTTOM.
 - 50 57 LIMESTONE; YELLOWISH GRAY 10% POROSITY: INTERGRANULAR, MOLDIC, VUGULAR GRAIN TYPE: CALCILUTITE, CRYSTALS, SKELETAL 60% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: COARSE; RANGE: MICROCRYSTALLINE TO GRAVEL GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT ACCESSORY MINERALS: SPAR-15%, QUARTZ SAND-40%, SHELL-15% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: MOLLUSKS, ECHINOID, BARNACLES LITHOLOGY VARIES: SANDY, SHELLY LIMESTONE TO CALCAREOUS SHELLY SANDSTONE. SAND IS PREDOMINANTLY MEDIUM TO COARSE GRAINED. FEW PIECES APPEAR TO BE SANDY CONCRETIONS - THIS SAND IS FINE GRAINED. LOOSE SHELL FRAGMENTS TOWARD

BOTTOM.

57 - 80 SHELL BED; MODERATE LIGHT GRAY TO LIGHT GRAY 30% POROSITY: INTERGRANULAR; UNCONSOLIDATED ACCESSORY MINERALS: LIMESTONE-15%, SPAR- 5% FOSSILS: MOLLUSKS, BARNACLES GASTROPDS. SHELL FRAGMENTS ARE LARGE UP TO 5CM. LARGE BARNACLES ARE PRESENT (1CM).

80 -93 SHELL BED; YELLOWISH GRAY TO LIGHT OLIVE GRAY 30% POROSITY: INTERGRANULAR; POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: QUARTZ SAND-30%, PHOSPHATIC SAND- 3% FOSSILS: MOLLUSKS, BARNACLES, ECHINOID, BRYOZOA GASTROPODS. SHELL FRAGMENTS ARE SMALLER THAN PREVIOUS. SAND IS POORLY SORTED. 70% OF INTERVAL IS LOOSE SHELL BED REMAINING PART IS SHELL, SAND, AND CALCILUTITE WITH MEDIUM INDURATION. LIMESTONE; YELLOWISH GRAY 93 - 101 20% POROSITY: INTERGRANULAR, MOLDIC GRAIN TYPE: CALCILUTITE, SKELETAL, SKELTAL CAST 95% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO GRAVEL MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: QUARTZ SAND-35%, PHOSPHATIC SAND- 3% SHELL-50% OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA,

BRYOZOA BARNACLES GASTROPOD AND CLAM CAST. MOST SHELL MATERIAL IS FINELY GROUND. ABOUT 50% OF INTERVAL IS LOOSE SHELL FRAGMENTS

FROM

97-101FT.

101 - 130 SHELL BED; YELLOWISH GRAY TO MODERATE LIGHT GRAY UNCONSOLIDATED CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: LIMESTONE-15%, QUARTZ SAND-10% FOSSILS: MOLLUSKS, ECHINOID, BARNACLES, BRYOZOA GASTROPODS. MANY TURRITELLA. LIMESTONE IS VERY SANDY AND SHELLY "COQUINA LIKE". LIMESTONE DECREASES TO A TRACE TOWARD BOTTOM. ABOUT 10% SHELLY, CALCAREOUS SANDSTONE

WITH

POOR INDURATION.

- 130 132 LIMESTONE; YELLOWISH GRAY 25% POROSITY: INTERGRANULAR GRAIN TYPE: CALCILUTITE, SKELETAL 80% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY COARSE; RANGE: MICROCRYSTALLINE TO
- GRAVEL POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX ACCESSORY MINERALS: SILT-10%, SHELL-35%, QUARTZ SAND-30% PHOSPHATIC SAND-<2% FOSSILS: MOLLUSKS, ECHINOID, BARNACLES

GASTROPODS.

- 132 145 LIMESTONE; YELLOWISH GRAY 20% POROSITY: INTERGRANULAR, MOLDIC GRAIN TYPE: CALCILUTITE, SKELETAL, CRYSTALS 80% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY COARSE; RANGE: MICROCRYSTALLINE TO
- GRAVEL MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: SHELL-30%, QUARTZ SAND-40% PHOSPHATIC SAND-<2% OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: MOLLUSKS, CORAL, WORM TRACES BENTHIC FORAMINIFERA, BRYOZOA TURRITELLA MOLDS AND OTHER VERY LARGE MOLDS. LITHOLOGY VARIES: SHELLY, SANDY LIMESTONE TO SHELLY, CALCAREOUS SANDSTONE. SOME PARTS OF THIS INTERVAL ARE "COQUINA

LIKE".

MANY WORM TRACES. POSSIBLE STORM DEPOSIT. POORLY SORTED.

145 - 172 SHELL BED; VERY LIGHT ORANGE TO YELLOWISH GRAY UNCONSOLIDATED FOSSILS: MOLLUSKS, BARNACLES, BRYOZOA, ECHINOID GASTROPODS. 10-15% OF INTERVAL IS SMALL PIECES OF PHOSPHATIC, CALCAREOUS SANDSTONE. SANDSTONE DECREASES

WITH

DEPTH.

172 - 175 SAND; YELLOWISH GRAY
20% POROSITY: INTERGRANULAR
GRAIN SIZE: COARSE; RANGE: FINE TO GRAVEL
ROUNDNESS: SUB-ROUNDED TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
ACCESSORY MINERALS: SHELL-35%, PHOSPHATIC SAND- 2%
SILT-15%
FOSSILS: MOLLUSKS, BARNACLES, BRYOZOA, ECHINOID
SHELL ENCRUSTED WITH BRYOZOAN.

175 TOTAL DEPTH