Executive Summary
ROMP Site No. 61
One Monitor Well

Location - ROMP Site No. 61 is located along the access road from Turkey Creek Road, at the primary discharge structure for the Pleasant Grove Reservoir, approximately .4 mile east of Turkey Creek Road in Hillsborough County. The site is in Section 36, Township 29 South, Range 21 East, and at latitude 27°54'30", longitude 82°09'41".

Site Easement - This site is located on District owned property at the Pleasant Grove Reservoir in east-central Hillsborough County. The well-site lies on an 80 feet by 80 feet log adjacent to the Reservoir.

Geology - The site is located on the Wicomico terrace at an elevation of ± 72 feet above mean sea level (MSL). All geologic data was obtained from drill cuttings from land surface to 1,000 feet below land surface datum (LSD) and were described by a geologist from P.E. Lamoreaux and Associates. The general geology of this site is as follows:

0-50'	Sand and Clay
50'-120'	Hawthorn formation
120'-270'	Tampa limestone
270'-480'	Suwannee limestone
480'-660'	Ocala group
660'-1000'	Avon Park limestone

Hydrogeology - Two specific capacity tests were conducted on this well. The first test was made on the Hawthorn and Tampa formations which are considered to comprise the first artesian aquifer in this area. The well was pumped for 200 minutes at a rate of 500 gallons per minute (GPM) with a drawdown of approximately 14.5 feet. The estimated transmissivity for this zone is 66,000 GPD per foot of aquifer thickness (GPD/Ft) or 8 second

FIELD OPERATIONS
ROMP FILE COPY
PLEASE RETURN FOR FILING

zone consisting of the Suwannee, Ocala, and Avon Park limestones, which is considered to be the second artesian zone, was also tested. The well was pumped for over 200 minutes at a rate of 543 GPM with a drawdown of almost 5 feet. The estimated transmissivity is 220,000 GPD/ft. A flowmeter profile was also run on the well and this study indicates that the majority of flow is coming from the Tampa limestone from ± 140 to ± 300 feet below LSD and the Avon Park limestone from ± 660 to ± 800 feet below LSD. This profile also shows that little if any water is flowing from ± 850 to ± 1000 feet below LSD.

Well Construction - The ROMP well at this site was constructed by Layne-Atlantic Company under subcontract to P.E. LaMoreau and Associates (PELA). PELA was hired as a consultant by the Resource Development Division of the SWFWMD to investigate the possibility of artificial groundwater recharge at the Pleasant Grove Reservoir. This well was constructed between November, 1977 and January, 1978 as part of the Contract between PELA and SWFWMD. The well consists of 60 feet of 24 inch steel work casing and 300 feet of 12 inch steel well casing both of which were grouted in place. The well was then drilled to 10 inches in diameter to a depth of 1000 feet.

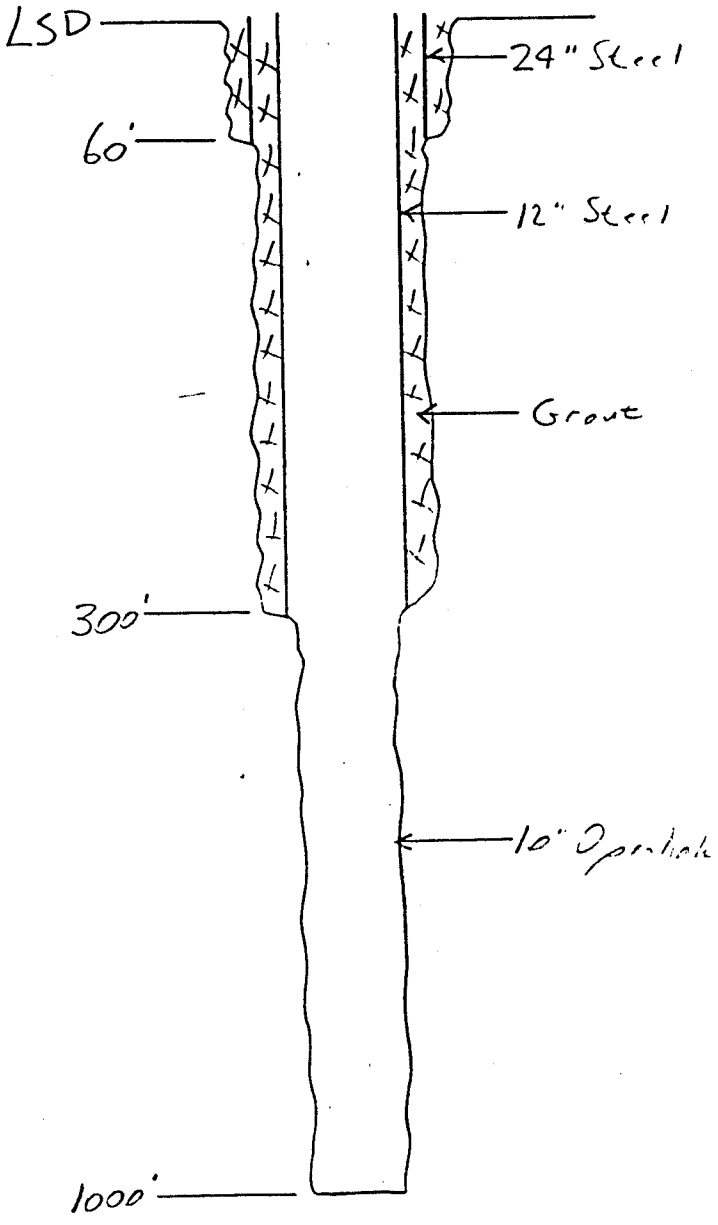
Geophysical Logs - Fluid velocity, gamma, caliper, electric, temperature, and differential temperature logs were run on this well.

Type of Monitor - This well is designed to monitor the potentiometric levels in the Suwannee, Ocala, and Avon Park formations.

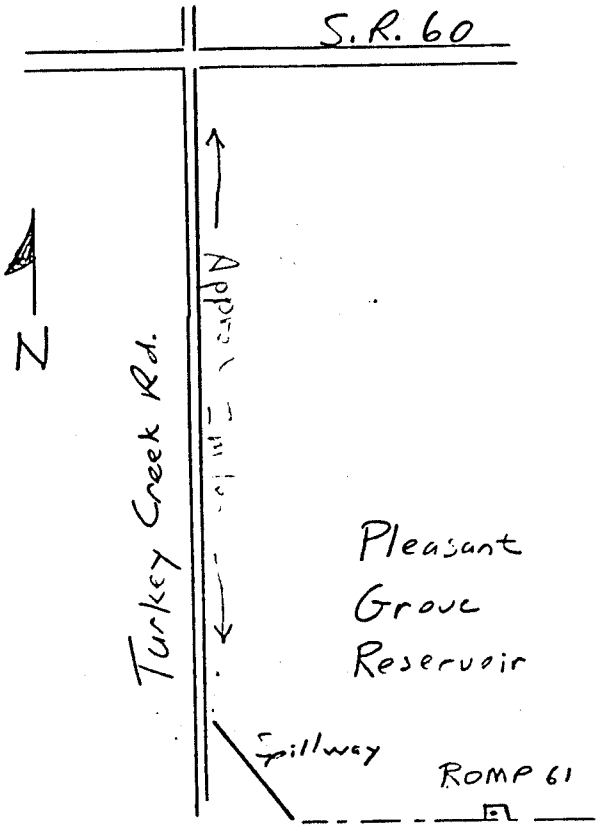
Water Quality - Two water samples were collected at this site. One sample was taken at 300 and the other at 1000 feet below LSD. Of the 14 constituents that were tested for, none approached the recommended maximum concentrations as set forth in the Safe Drinking Water Act.

U.S.G.S. Notification - The SWFWMD Planning Section was notified on June 13, 1978 that this well was complete and ready for monitoring.

As Built
Well Diagram



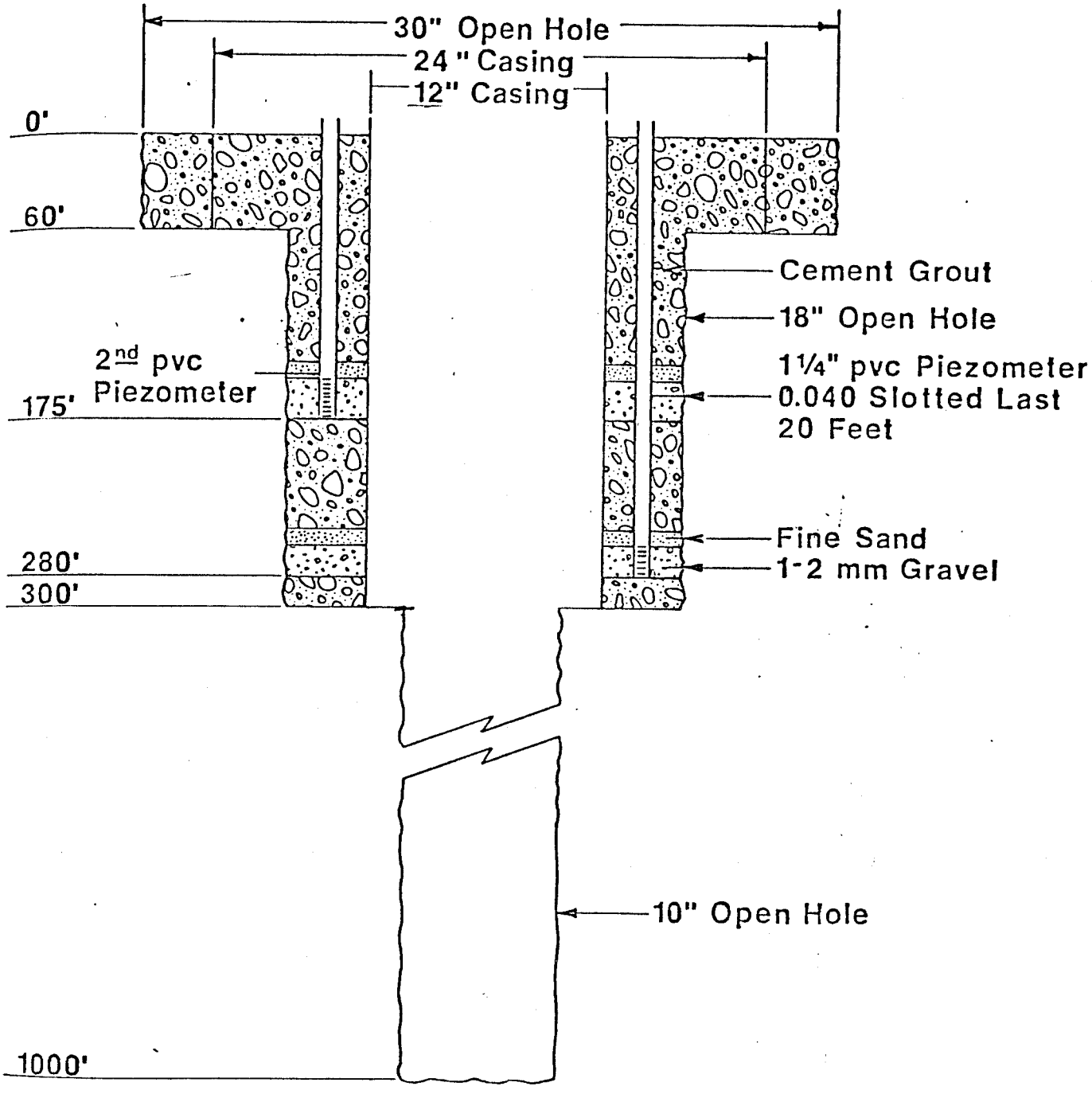
Site Location



S 36, T 29, R 21
Hillsborough Co.

#61 PLEASANT GROVE

Well Completion Diagram
Pleasant Grove ROMP Well



NOT TO SCALE

Prepared by:
P.E. LaMoreaux & Associates, Inc.

FIGURE 9

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 13838
TOTAL DEPTH: 01000 FT.
SAMPLES - NONE

COUNTY - HILLSBORO
LOCATION: T.29S R.21E S.36
LAT = N 27D 54M 30
LON = W 82D 09M 41

COMPLETION DATE - N/A
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 072 FT

OWNER/DRILLER: SWFWMD;ROMP SITE # 61

WORKED BY: CODED AND ENTERED BY RICHARD GREEN FROM A DESCRIPTION OF CUTTINGS. THE SAMPLES WERE DESCRIBED BY A GEOLOGIST FROM P.E. LAMOREAUX AND ASSOCIATES.

LOCATED ALONG THE ACCESS RD FROM TURKEY CREEK ROAD, AT THE PRIMARY DISCHARGE STRUCTURE FOR THE PLEASANT GROVE RESERVOIR, APPROX. .4 MILES EAST OF TURKEY CREEK ROAD IN HILLSBOROUGH COUNTY.

0.	- 50.	UNDIFFERENTIATED SAND AND CLAY
50.	- 120.	HAWTHORN GROUP
120.	- 270.	TAMPA MEMBER OF ARCADIA FM.
270.	- 480.	SUWANNEE LIMESTONE
480.	- 660.	OCALA GROUP
660.	- 1000.	AVON PARK FM.

0 - 5 SAND; LIGHT TAN;
GRAIN SIZE: MEDIUM;
ACCESSORY MINERALS: CLAY-15%;
SOME PEBBBLES; CLAY IS YELLOW-LT YELLOW, SOFT, PLIABLE.

5 - 20 CLAY; LIGHT YELLOW TO YELLOW;
ACCESSORY MINERALS: QUARTZ SAND-15%, SHELL-05%;
CLAY, LT YELLOW-YELLOW 80%; SAND: TAN-YELLOW, MEDIUM-COARSE, MODERATE SORTING, 15%;
PEBBLES: 5-10MM, ANGULAR, WITH SOME SHELL FRAGMENTS, MAINLY MOLLUSKS, 5%.

20 - 25 CLAY; TAN TO BROWN;
ACCESSORY MINERALS: LIMESTONE- %, QUARTZ SAND- %, IRON STAIN- %;
FOSSILS: FOSSIL FRAGMENTS;
CLAY, SOME IRON STAINS, 50%; SAND: BROWN-TAN, QTZ., MED-V.C., POORLY SORTED, SHELL FRAGMENTS AND SOME LIMESTONE FRAGMENTS MORE ABUNDANT.

25 - 30 SAND; BROWN TO MODERATE YELLOWISH BROWN;
ACCESSORY MINERALS: CLAY-15%, LIMESTONE-15%, PHOSPHATIC GRAVEL-01%, ORGANICS-01%;
QTZ SAND POORLY SORTED 70%; CLAY: YELLOWISH-LT. BROWN, 15%; LIMESTONE: WHITE TO LIGHT TAN, FOSSIL FRAGMENTS AND ROCK FRAGMENTS, 2-3MM, ANGULAR, 15%.

30 - 40 SAND; TAN TO YELLOW; RANGE: COARSE TO VERY FINE;
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-%;
ABUNDANT PEBBLES 2-5MM, SOME PURPLE PHOSPHATE PEBBLES; YELLOW CLAY 20%; WHITE-TAN LIMESTONE, FRAGMENTAL 1-4MM, SHELL FRAGMENTS NOT ABUNDANT.

40 - 45 SAND; YELLOW;
GRAIN SIZE: FINE; RANGE: VERY COARSE TO ; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: IRON STAIN- %, CLAY-30%, LIMESTONE-20%;
SOME IRON STAINING IN SAND; CLAY: YELLOW, IRON STAINED 30%, ACTS AS A CEMENT; LIMESTONE: WHITE TO LIGHT TAN, FRAGMENTAL, ANGULAR, SHELL FRAGMENTS MORE ABUNDANT, 20%.

45 - 50 LIMESTONE; YELLOW TO LIGHT TAN;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY- %, QUARTZ SAND-%;
POORLY CEMENTED, MICRITIC LIMESTONE 85%; SAND AND CLAY: YELLOWISH, POORLY SORTED, 15%.

50 - 65 LIMESTONE; WHITE TO MODERATE GRAY;
GRAIN TYPE: CALCILUTITE;
RANGE: COARSE TO VERY COARSE;
ACCESSORY MINERALS: PHOSPHATIC SAND- %, ORGANICS- %, QUARTZ SAND-10%;
LIMESTONE, POORLY CEMENTED, FOSSILS NOT ABUNDANT, PHOSPHATE AND ORGANIC MATERIAL MINOR, 90%; SAND: YELLOW, MEDIUM GRAINED, POORLY SORTED, 10%.

65 - 75 AS ABOVE
PHOSPHATE MORE ABUNDANT.

75 - 90 LIMESTONE; WHITE;
GRAIN TYPE: CALCILUTITE;
RANGE: MEDIUM TO COARSE; GOOD INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-01%;
FOSSILS: NO FOSSILS;

90 - 120 LIMESTONE; WHITE TO MODERATE GRAY;
POOR INDURATION;
ACCESSORY MINERALS: PHOSPHATIC SAND-01%;
FOSSILS: NO FOSSILS;
LIMESTONE: GRANULAR, VERY POORLY CEMENTED 13MM, TRACES OF PHOS., MICRITIC.

120 - 130 LIMESTONE; WHITE TO MODERATE GRAY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-%;
50% LIMESTONE, WHITE, MICRITIC, GRANULAR, SOME SAND, MICRITIC, CALCITIC CEMENT. 50% GRAY LIMESTONE, CRYSTALLINE, HARD.

130 - 165 LIMESTONE; WHITE;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
GRANULAR.

165 - 170 LIMESTONE; WHITE TO LIGHT TAN;
GRAIN TYPE: CALCILUTITE, CRYSTALS;
SEDIMENTARY STRUCTURES: BEDDED,
SANDY, SOME CRYSTALLINE CALCITE, MOSTLY MICRITE, LESS GRANULAR THAN ABOVE, APPEARS BEDDED,
SOME TERRIGENOUS FILL MATERIAL.

170 - 175 LIMESTONE; WHITE;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-%;

175 - 185 AS ABOVE
LIMESTONE SAME AS ABOVE; CHERT: BROWN, HARD, CONCHOIDAL FRACTURE, 5%.

185 - 190 LIMESTONE; LIGHT GRAY TO TAN;
GRAIN SIZE: FINE; POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-%;
70% LIMESTONE; 20% DOLOMITE: LIGHT BROWN, SOFT, MICROPOROUS; CHERT: LIGHT BROWN TO GRAY,
HARD, CONCHOIDAL FRACTURE, 10%.

190 - 200 LIMESTONE; WHITE TO MODERATE GRAY;
GRAIN TYPE: CALCILUTITE;
MICRITIC LIMESTONE, CALCAREOUS SAND, 50%; LIMESTONE GRAY, CRYSTALLINE, HARD, FRACTURED,
50%; TRACES OF DOLOMITE.

200 - 215 NO SAMPLES
NO SAMPLES OBTAINED FROM DRILLERS 200-260', DESCRIPTIONS FROM DRILLERS LOG FOR 200-260'.
LIMESTONE HARD TO VERY HARD.

215 - 220 NO SAMPLES
LIMESTONE: SOFT, CACLAREOUS CLAY.

220 - 260 NO SAMPLES
LIMESTONE:WHITE WITH CLAY, SOFT.

260 - 270 LIMESTONE; WHITE TO LIGHT TAN;
POOR INDURATION;
ACCESSORY MINERALS: CHERT-30%;
OTHER FEATURES: FOSSILIFEROUS;
LIMESTONE, SOFT, 70%; GRAY, HARD, CHERT.

270 - 280 LIMESTONE; WHITE TO LIGHT TAN;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
POOR INDURATION;
ACCESSORY MINERALS: CHERT-03%;
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS;
BIOMICRITE. PELECYPOD SHELL FRAGMENTS COMMON.

280 - 300 AS ABOVE
WITH SOME CHERT.

300 - 345 LIMESTONE; LIGHT GRAY TO WHITE;
GRAIN TYPE: SKELETAL;
ACCESSORY MINERALS: QUARTZ SAND-01%;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, CORAL, FOSSIL FRAGMENTS;
CLEAN FOSSILIFEROUS LIMESTONE, MOSTLY PELECYPOD SHELL FRAGMENTS.

345 - 355 LIMESTONE; LIGHT TAN;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND- %, CHERT-%;
SANDY, POORLY CEMENTED, FOSSILS NOT ABUNDANT.

355 - 385 AS ABOVE
MORE FOSSILIFEROUS, NO CHERT.

385 - 390 LIMESTONE; WHITE;
GRAIN TYPE: CRYSTALS, CALCILUTITE, SKELETAL;
FOSSILS: FOSSIL FRAGMENTS;
CRYSTALLINE, SOME MICRITE AND SHELL FRAGMENTS.

390 - 400 LIMESTONE; LIGHT TAN;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
POOR INDURATION;
OTHER FEATURES: CHALKY;

400 - 405 LIMESTONE; LIGHT TAN;
POOR INDURATION;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;
LEPIDOCYCLINA SHELL FRAGMENTS COMMON.

405 - 415 AS ABOVE
95% LIMESTONE; 5% CHERT, LIGHT GRAY, HARD.

415 - 430 AS ABOVE
SOME CRYSTALLINE LIMESTONE <5%.

430 - 440 LIMESTONE; WHITE;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
OTHER FEATURES: CHALKY;
25% WHITE, HARD, CRYSTALLINE LIMESTONE.

440 - 460 LIMESTONE; WHITE TO LIGHT TAN;
GRAIN TYPE: SKELETAL, CALCILUTITE;
POOR INDURATION;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BENTHIC FORAMINIFERA;
ABUNDANT SHELL FRAGS, LEPIDOCYCLINA SP, MOLLUSKS.

460 - 480 LIMESTONE; CREAM;
GRAIN TYPE: CRYSTALS, SKELETAL;
POOR INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: IRON STAIN- %;
FOSSILS: FOSSIL FRAGMENTS;
SHELL FRAGMENTS COMMON.

480 - 485 LIMESTONE; CREAM;
CEMENT TYPE(S): CALCILUTITE MATRIX;
LEPS VERY ABUNDANT, CALCITIC CLAY CEMENTING AGENT, ALSO CAMERINIDS.

485 - 495 AS ABOVE
WITH LESS CEMENT.

495 - 515 LIMESTONE; CREAM;
PACKED FORAMINIFERAL BIOMICRITE.

515 - 555 LIMESTONE; CREAM;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE;
POOR INDURATION;
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID;
PACKED FORAMINIFERAL BIOMICRITE CONTAINING LEPS, STARFISH OSSICLES, AND ECHINOIDS.

555 - 590 LIMESTONE; LIGHT TAN;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-%;
FOSSILS NOT AS ABUNDANT, POORLY CEMENTED WITH CALCITIC CLAY.

590 - 600 LIMESTONE; LIGHT TAN TO CREAM;
GRAIN TYPE: SKELETAL;
POOR INDURATION;
ACCESSORY MINERALS: DOLOMITE-10%;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA;
ABUNDANT FOSSILS, LEPS, MOLLUSK MOLDS, OSSICLES, AND ECHINOID SPINES, 10% TAN-LT BROWN DOLOMITE, MICROCRYSTALLINE AND HARD.

600 - 615 AS ABOVE
DOLOMITE ABSENT.

615 - 660 LIMESTONE; LIGHT TAN;
GRAIN TYPE: CALCILUTITE, BIOGENIC, SKELETAL;
POOR INDURATION;
ACCESSORY MINERALS: QUARTZ SAND-%;
PACKED BIOMICRITE, FOSSILS NOT ABUNDANT.

660 - 665 LIMESTONE; CREAM;
POOR INDURATION;
FOSSILS: NO FOSSILS;
SOFT, POORLY LKITHIFIED, SOME CRYSTALLINE LIMESTONE.

665 - 670 AS ABOVE
30% YELLOW, SUBANGULAR QTZ SAND, M-FINE GRAINED.

670 - 680 DOLOMITE; LIGHT BROWN TO BROWN;
GRAIN SIZE: MICROCRYSTALLINE;
ACCESSORY MINERALS: LIMESTONE-%;
SOME SOLUTION PORES. MINOR LIMESTONE.

680 - 695 DOLOMITE; BROWN; PIN POINT VUGS;
GOOD INDURATION;
50% DOLOMITE; 50% CREAM, POORLY LITHIFIED, HARD, UNFOSSILIFEROUS LIMESTONE.

695 - 700 LIMESTONE; CREAM;
GRAIN SIZE: LITHOGRAPHIC; GOOD INDURATION;
FOSSILS: NO FOSSILS;
75% LS; 25% DOLOMITE, BROWN, HARD, POROUS, MICRO- CRYSTALLINE.

700 - 715 LIMESTONE; CREAM;
GRAIN TYPE: PELLET, CALCILUTITE;
POOR INDURATION;
PELMICRITE. SOFT.

715 - 720 DOLOMITE; LIGHT BROWN;
POOR INDURATION;
ACCESSORY MINERALS: LIMESTONE- %;
OTHER FEATURES: FOSSILIFEROUS;
SOFT, WITH FOSSILS COMMON. SOME LIMESTONE.

720 - 725 DOLOMITE; BROWN; PIN POINT VUGS;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
85% DOLOMITE; 25% LIMESTONE: LT TAN, PELMICRITE, SOFT, SLIGHTLY FOSSILIFEROUS.

725 - 750 DOLOMITE; DARK YELLOWISH BROWN;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
OTHER FEATURES: MUDDY;
VERY HARD.

750 - 755 DOLOMITE; GRAYISH BROWN;
GRAIN SIZE: CRYPTOCRYSTALLINE;
DENSE, SOME SECONDARY CALCIFICATION.

755 - 785 LIMESTONE; MODERATE GRAY;
GRAIN SIZE: CRYPTOCRYSTALLINE;
DOLOMITIC LIMESTONE, SOME FOSSILS, AND DOLOMITE RHOMBS.

785 - 790 DOLOMITE; BROWN; PIN POINT VUGS; EUHEDRAL;
GOOD INDURATION;
SECONDARY CALCIFICATION COMMON.

790 - 805 AS ABOVE
WITH MANY MICROPORES AND SOLUTION FEATURES.

805 - 825 DOLOMITE; GRAYISH BROWN;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
OTHER FEATURES: CALCAREOUS;
HARD, SOLUTION FEATURES ABSENT, EXTREMELY CALCITIC.

825 - 840 LIMESTONE; CREAM;
POOR INDURATION;
OTHER FEATURES: FOSSILIFEROUS;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS, MOLLUSKS;
HIGHLY FOSSILIFEROUS, VERY LITTLE DOLOMITE, POORLY CEMENTED WITH LEPS, AMPHISTEGINA SP, COMMON, ALSO GASTROPOD MOLDS.

840 - 860 DOLOMITE; LIGHT BROWN TO BROWN; EUHEDRAL;
GOOD INDURATION;
80% DOLOMITE, VERY HARD; 20% LIMESTONE, CREAM, FOSSILIFEROUS.

860 - 870 DOLOMITE; BROWN; PIN POINT VUGS; EUHEDRAL;
DRUSY COATING, MICROPORES COMMON, MINOR LIMESTONE.

870 - 880 AS ABOVE
LIMESTONE MORE ABUNDANT, SOME FOSSILS.

880 - 1000 DOLOMITE; LIGHT BROWN; PIN POINT VUGS;
POOR INDURATION;
DIRTY, POORLY LITHIFIED, MICROPOROUS.

1000 TOTAL DEPTH