

EXECUTIVE SUMMARY
ROMP CL-1 "WEBBER COLLEGE"
POLK COUNTY
BASIN 20, S29, T30S, R28E

5-11-87

John L. Decker

- I. **SITE LOCATION**
- II. **GEOLOGY**
- III. **HYDROGEOLOGY**
- IV. **TYPE AND PURPOSE OF MONITORS**
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I. **SITE LOCATION**

The ROMP CL-1 wellsite is located near Webber College in Babson Park, Polk County, Florida. The wellsite can be found by proceeding 0.7 mile north on Alternate U.S. 27, then turning left on North Crooked Lake Road for about 0.1 mile. A 10' wide access road to the wellsite runs about 233' southeast of North Crooked Lake Road. The wellsite encompasses a 100' x 100' temporary construction easement and a 20' x 20' perpetual easement. The ROMP CL-1 wellsite is located in the SE 1/4 of the NW 1/4 of the SE 1/4 of Section 29, Township 30S, Range 28E; at latitude 27°50'23.38" North, longitude 81° 32' 15.76" West.

II. **GEOLOGY**

The ROMP CL-1 wellsite lies on the longitudinal sand ridge known as the Lake Wales Ridge. This upland area of thick surficial sands is transected by sinkholes. The wellsite is near the northeast shoreline of a sinkhole lake known as Crooked Lake. Bottom topography of the lake suggests it formed through the joining of several sinkhole depressions (See Figure 3).

Faulting, fracturing, and dissolution of rock material may have created the potential for Crooked Lake to form due to the collapse of openings in the underlying Floridan Aquifer System.

Seismic reflection techniques identified some solution features (karst sinks/shafts) in and around the Crooked Lake perimeter. These solution features penetrate the Hawthorn clay and appear to terminate in the underlying carbonates of the Hawthorn Formation. Since these sinks/shafts vertically terminate in the Hawthorn carbonates, they may be the result of

solution within these carbonates. The solution features appear to be infilled with sediments (Hine, 1986).

Several very large solution caverns were identified on the north side of Crooked Lake near Babson Park and Webber College. The solution caverns appear to extend vertically all the way to the surface. These features are much larger than the sink/shafts and may have originated within the Suwannee Formation or Ocala Group. The solution caverns apparently do not terminate in the Hawthorn carbonates as the sinks/shafts do (Hine, 1986).

Structurally, the rocks in Polk County dip at low angles and thicken to the southeast, south, and southwest from the north-central part of the county around the southern end of the Ocala Uplift. Fractures and faults may have developed parallel to the crest of the Ocala Uplift. Being that the location of ROMP CL-1 is south of the crest of the Ocala Uplift in north-central Polk County, some vertical displacement may have occurred in this locality (Stewart, 1966).

The CL-1 wellsite is located on the Sunderland Terrace (Pleistocene age) at an elevation of about 122' above NGVD. Undifferentiated Surficial Deposits, consisting of quartz sands, dolomite, and clay, extend to a depth of 132' below LSD (10' below NGVD). White, yellowish gray, grayish brown quartz sand comprise most of the Undifferentiated Surficial Deposits. A lens of very light orange-grayish orange dolomite was described at 117' below LSD. Near the bottom of the Undifferentiated Surficial Deposits, a 10' interval of very light green-light grayish green clay and the accessory mineral mica (122'-132' below LSD) were described in the cuttings. This interval of clay may be more recent in age and not Hawthorn material.

The Hawthorn Formation at CL-1 is composed of interbedded sandy limestone, sandy clay, hard, resistant, highly crystallized dolomite and dolomitic limestone. The Hawthorn Formation (132'-200.5' below LSD) is 68.5' thick at the wellsite. Brecciation in some of the limestone (calcarenite) and clay beds was noted in the core samples. The brecciation may be due to subsurface stratigraphic disruption by subterreanean dissolution processes (Hine, 1986).

The Suwannee Formation of Oligocene age consists primarily of permeable calcarenite. This formation (200.5'-246.8' below LSD) is only 46.3' thick at CL-1 wellsite.


The Ocala Group was only partially penetrated during drilling operations. The rock material described between 246.8' and 349' below LSD is predominantly calcarenite.

The Undifferentiated Surficial Deposits, Hawthorn Formation, Suwannee Formation, and the Crystal River Formation (Ocala Group) are described below:

<u>DEPTH</u> (ft. below LSD)	<u>STRATIGRAPHIC UNIT/AGE</u> Lithologic Description
LSD - 132'	<u>Undifferentiated Surficial Deposits/Pleistocene Age</u> Sand; quartz, white, yellowish gray, grayish brown, intergranular, grain size (fine to coarse), subangular to rounded(LSD - 77'), angular to subangular (77' - 117'), medium sphericity, accessory minerals (clay, mica), dolomite lens at 117', high porosity and permeability. Clay; light grayish green, light green, intergranular, plastic, greasy, accessory mineral (sand), moderately indurated, moderate porosity, low permeability.
132' - 200.5'	<u>Hawthorn Formation/Miocene Age</u> Clay; light greenish gray, grayish green, yellowish gray, dark greenish gray, intergranular, plastic, greasy, some brecciation, accessory minerals (phosphorite, mica, sand), fossiliferous (pelecypod shell fragments, molds), low-moderate porosity, low permeability. Calcarenite; yellowish gray, light gray, greenish gray, grain types (biogenic, calcilutitic, skeletal), some brecciation, accessory minerals (clay, phosphorite,

dolomite), fossiliferous (mollusks, echinoids, foraminifera, molds), low-moderate porosity and permeability.

Dolomite; light gray, light olive gray-dark gray, grain size (microcrystalline - cryptocrystalline), splintery, high recrystallization, laminated, fossiliferous (benthic foraminifera, fossil fragments, molds), low porosity and permeability.


202.5' - 246.8'

Suwannee Formation/Oligocene Age

Calcarenite; yellowish gray, light olive gray, very light orange, grain type (biogenic, calcilutitic, skeletal), intergranular, moderately indurated, fossiliferous (foraminifera-Lepidocyclina, miliolids; coquina, mollusks-Turritella, Chione; coral, molds), moderate porosity, moderate-high permeability.

246.8' - 349'

Crystal River Formation (Ocala Group)/Eocene Age

Calcarenite; very light orange, yellowish gray, light olive gray, grain type (biogenic, calcilutitic, skeletal), intergranular, moldic, accessory minerals (calcite, clay), fossiliferous (foraminifera - Lepidocyclina ocalana, Nummulites, miliolids; coral, mollusks, echinoids, bryozoan), low-moderate porosity and permeability.

III. HYDROGEOLOGY

The Surficial, Intermediate and Floridan Aquifer Systems were found to exist at the CL-1 (Webber College) wellsite (See Figure 1).

The Surficial Aquifer System extends from land surface datum (LSD) to 132' below LSD (10' below NGVD). The elevation at CL-1 is about 122' above NGVD. The Surficial Aquifer System is comprised principally of unconsolidated, highly permeable, terrace quartz sands. Between 122' and 132' below LSD a grayish green-green clay with confining properties forms the lower part of this system.

The Surficial Aquifer System exhibits moderate to high porosity and permeability values. Yields of local wells utilizing this system, ranged from 20-1000 gpm (gallons per minute). Hydraulic coefficients of the aquifer showed transmissivities averaging 1400 gpd/ft. (gallons per day per foot). This was based on information from the Highlands Ridge Investigation report by Geraghty & Miller, 1980. Pump tests to be conducted by Southwest Florida Water Management District in 1987 should provide data relating to permeability and transmissivity in areas adjacent to Crooked Lake.

The hydrostatic level (water table) of the Surficial Aquifer System fluctuates in response to precipitation and local pumpage. Due to the close proximity of CL-1 to Crooked Lake, the water table should be fairly close to the level of the lake. The elevation of Crooked Lake was about 107.91' above NGVD (5-19-87). The wellsite elevation is about 122' above NGVD. The water level in the Surficial Monitor well was measured at 21.42' below LSD (100.58' above NGVD) on 5-7-87. This measurement is 7.33' below the lake level. There may be a site elevation error at CL-1. There does appear to be a general movement of water away from Crooked Lake. Elevations of area lakes to the east and southeast of CL-1 are lower than Crooked Lake. The movement of water in these directions might be one of the reasons for the differential between Crooked Lake's elevation and the water table at CL-1. Movement of water may also be toward solution caverns which are supposedly linked directly to the Floridan Aquifer System in the northern part of Crooked Lake near Babson Park.

Three temporary surficial observation monitors were constructed to determine if any hydraulic head differences exist in the Surficial Aquifer System at CL-1. The three observation wells have the following screened intervals: (30.5' - 35.5', 63.5' - 68.5' and 97.5' - 102.5' below LSD). The water levels in the above wells (May, 1987) were 20.06', 20.08' and 20.71' below LSD respectively (101.94', 101.92' and 101.29' above NGVD). The lithologic descriptions of the Undifferentiated Surficial Deposits indicate that no "perched" water table exists at CL-3. The slight difference recorded in deep surficial observation well could be attributed to an error in measurement. The differential could also be due to transient time required for water from a heavy rainfall to pass through the Surficial Aquifer System. This could create

a potential for water level differences within the system. Because of the close proximity of the wellsite to Crooked Lake, water level in the Surficial Monitor will probably fluctuate in response to changes which occur in Crooked Lake's elevation. These changes in lake level are in response to variations in rainfall, evaporation, leakage and surface water pumping, etc. Crooked Lake is receiving some water from the Surficial Aquifer System, but not enough to recharge the declining lake level.

The top of the Intermediate Aquifer System (Upper Confining Unit) at CL-1 coincides with the base of the Surficial Aquifer System. The Hawthorn Formation is the confining unit which retards the exchange of water between the overlying Surficial Aquifer System and the underlying Floridan Aquifer System. The Intermediate Aquifer System (Upper Confining Unit) which has a thickness of 68.5' at CL-1, extends from 132' to 200.5' below LSD (10' - 78.5' below NGVD). The confining beds within the Intermediate Aquifer System are composed of dolomite, calcarenite and clay. Most of these beds appear to exhibit low hydraulic conductivity. Some of the calcarenite and clay beds are brecciated. The beds of calcarenite, lying between 177' - 190' below LSD, are more permeable than the beds above and below this interval. Even though the small interval appears to transmit some water, the entire Intermediate Aquifer System (Upper Confining Unit) at CL-1 can be categorized as a single water-bearing unit.

Hydrostatic level values between the Surficial and Floridan Aquifer Systems at CL-1 are substantially different. For this reason, the Intermediate Aquifer System at this site tends to exhibit characteristics of a leaky confiner. As indicated earlier in this report, the Hawthorn Formation comprises the entire Intermediate Aquifer System and provides confinement above the Floridan Aquifer System. A thin dolomite bed (200' - 200.5' below LSD) is the unconformable contact which establishes the change from the Intermediate Aquifer System (Upper Confining Unit) to the Floridan Aquifer System.

The Suwannee Formation contact (200.5' below LSD) is the top of the Floridan Aquifer System at CL-1. The Floridan Aquifer System in the Crooked Lake locality can be considered to be one single hydrologic unit. The portion

of this system at this wellsite to be monitored consists of the Suwannee and Crystal River Formations. The Floridan Aquifer System is the principal source of water for agriculture, irrigation and municipal usage in this area. The Suwannee and Crystal River Formations at CL-1 consist mainly of light olive, yellowish gray, very light orange calcarenite. The calcarenite in the Suwannee Formation has intergranular and moldic porosity. Permeability appears to be relatively high between 200.5' and 240' below LSD. Between 240' and 249.9' below LSD (bottom of the Suwannee - top of Crystal River Formations) the porosity and permeability of the calcarenite decrease considerably. Much of Crystal River Formation between 249.9' and 340.6' below LSD is fairly high in permeability. Porosity and permeability decrease near the bottom of the well (340.6' - 349' below LSD).

Yields of wells in the Floridan Aquifer System range from about 100 to 6,000 gpm (gallons per minute). The following parameters were determined from an aquifer pumping test performed in the Lake Wales area by Geraghty & Miller, Inc. in 1979. The transmissivity averaged 385,000 gpd/ft, while storage coefficient averaged 4.70×10^{-3} . Another pumping test performed by Geraghty & Miller, Inc. in the Avon Park area yielded an average transmissivity of 535,000 gpd/ft. and an average storage coefficient of 4.45×10^{-4} .

Data collected during coring operations and following the construction of the monitor wells at CL-1 indicate that the hydrostatic levels between the Surficial and Floridan Aquifer Systems are substantially different. Seasonally these hydrostatic levels appear to be even more divergent.

During coring operations (October, 1986) potentiometric levels in the Floridan Aquifer System (209' - 349' below LSD) ranged between 27.85' and 30.30' below LSD. During this same period of time the water level in the temporary water table monitor was about 16.05' below LSD. The greatest difference between these two systems was 14.25'. Seven months later in May, 1987, following the completion of the monitor wells, the potentiometric level in the Floridan Monitor was 41.0' below LSD. The water level in the Surficial Monitor was 21.41' below LSD. This was a difference of 19.59' between the two wells. The October measurements were recorded at the end of the wet

season, whereas the May measurements were recorded at the end of the dry season. Not only did the potentiometric levels in the Surficial and Floridan Aquifer Systems drop during the dry season, but the difference between the two systems increased.

As indicated earlier in this report, large solution caverns were identified on the north side of Crooked Lake near Babson Park and Webber College. These solution caverns appear to extend vertically all the way to the surface. They apparently do not terminate in the Hawthorn carbonates as the sinks/shafts do. These features are much larger than the sinks/shafts and originate within the Suwannee Formation (Hine, 1986).

Sediments which eventually fill these sinks/shafts and large solution caverns may provide confinement between the Surficial and Floridan Aquifer Systems, thereby creating conditions for a head differential.

The head differential between these systems is also determined by the lack of precipitation, varied evapotranspiration rates, domestic, municipal and agricultural withdrawals. Fluctuations in the potentiometric levels recorded during coring operations can probably be attributed to some of the above factors.

The quality of water from samples collected between 209' and 349' below LSD (Floridan Aquifer System) was good. Fluid conductivity ranged between 205 and 220 Umhos. Chloride values ranged between 6 and 13 mg/l, while the sulfates ranged between 3 and 9 mg/l.

The temperature of the water samples collected during coring operations increased with depth. The temperature of these samples increased from 22° C (209' below LSD) to 26° C at a depth of 349' below LSD.

IV. TYPE AND PURPOSE OF THE MONITORS

A Floridan Monitor, one permanent Surficial Monitor and three temporary surficial observation wells were constructed on the CL-1 wellsite. The three temporary surficial observation wells will be cement-grouted to the surface upon completion of data acquisition.

The primary purpose for constructing the monitor wells at the CL-1 wellsite is to provide a long term record of potentiometric levels in the Surficial and Floridan Aquifer Systems near Crooked Lake. By comparing the long term potentiometric surface of each aquifer, some judgments may be made regarding the downward leakage and the substantial hydrostatic level differential between the two aquifer systems.

Data collected during coring operations and following construction of the monitor wells include: identification of geological formation and hydrostratigraphic boundaries, core sample descriptions, potentiometric level and water quality determinations.

V. **WELL CONSTRUCTION**

A. **Surficial Monitor** (See Well Design Diagram)

The Surficial Monitor was designed to monitor and record fluctuations in the water table in the Surficial Aquifer System. The Surficial Monitor was drilled to a depth of 50' below LSD.

The construction of the Surficial Monitor was initiated by drilling a 10" nominal borehole, using mud-rotary drilling techniques, to a depth of 50' below LSD. A one foot (1') sediment trap of 6" PVC casing (49'-50' below LSD) and twenty (20') of 6" PVC (0.010" slot) wellscreen (29'-49' below LSD) were coupled onto 31' of 6" PVC casing (+2' to 29' below LSD) and set into the borehole. The well's annulus from 50' to 15' below LSD was sandpacked with 6-20 type silica sand. The well's annulus from 15'-LSD (Land Surface Datum) was cement-grouted. Following well development, a solution of HTH (5% chlorine) was injected into the well to prevent bacterial contamination.

B. **FLORDIAN MONITOR** (See Well Design Diagram)

The Floridan Monitor will monitor the calcarenitic limestone of the Suwannee and Crystal River Formations. The Floridan Monitor was drilled to 315' below LSD.

The construction of Floridan Monitor was initiated by drilling a 17" nominal borehole, using mud-rotary drilling techniques, to a depth of 220' below LSD. Ten inch (10") PVC casing was set +2'-220') and cement-grouted to

System

land surface(LSD-220'). This will effectively isolate the Surficial and Intermediate Aquifer from the Floridan Aquifer System at CL-1. A 10" dia. nominal borehole was then drilled from 220'-315' below LSD.

The open hole interval (220'-315' below LSD) was developed and injected with a solution of HTH (5% chlorine) to prevent bacterial contamination.

C. TEMPORARY SURFICIAL OBSERVATION MONITORS

Three temporary surficial observation wells were constructed for the purpose of determining hydraulic head differences within the Surficial Aquifer System.

The Deep Surficial Observation Monitor was drilled to a depth of 102.5' below LSD. The construction of the deep observation well was initiated by drilling an 8" dia. nominal borehole to a depth of 102.5' below LSD. Five feet (5') of 4" dia. PVC (0.010" slot) well screen (97.5'-102.5') was coupled onto 99.5' of 4" dia. PVC casing (+2' to 97.5') and inserted into the borehole. The well's annulus from 102.5' to 6' below LSD was sandpacked with 6-20 type silica sand. From 6' to LSD (Land Surface Datum) the well's annulus was cement-grouted.

The Intermediate Surficial Observation Monitor was drilled to a depth of 68.5' below LSD. The construction of the intermediate observation well was initiated by drilling an 8" nominal borehole to the depth of 68.5' below LSD. Five feet (5') of 4" dia. PVC (0.010" slot) well screen (63.5'-68.5') was coupled onto 65.6' of 4" dia. PVC casing (+2' to 63.5') and inserted into the borehole. The well's annulus from 68.5' to 6' below LSD was sandpacked with 6-20 type silica sand. From 6' to LSD (Land Surface Datum) the well's annulus was cement-grouted.

The Shallow Surficial Observation Monitor was drilled to a depth of 35.5' below LSD. The construction of the shallow observation well was initiated by drilling an 8" nominal borehole to a depth of 35.5' below LSD. Five feet (5') of 4" dia. PVC (0.10" slot) wellscreen (30.5'-35.5') was coupled on 32.5' of 4" dia. PVC casing (+2' to 30.5') and inserted into the borehole. The well's annulus from 35.5' to 6' below LSD was sandpacked with 6-20 type silica sand. From 6' to LSD (Land Surface Datum), the well's annulus was cement-grouted.

The screened intervals for the three temporary observation wells were developed and injected with a solution of HTH(5% chlorine) to prevent bacterial contamination. (Note: See Well Design Diagrams for the three temporary Observation Monitors).

REFERENCES

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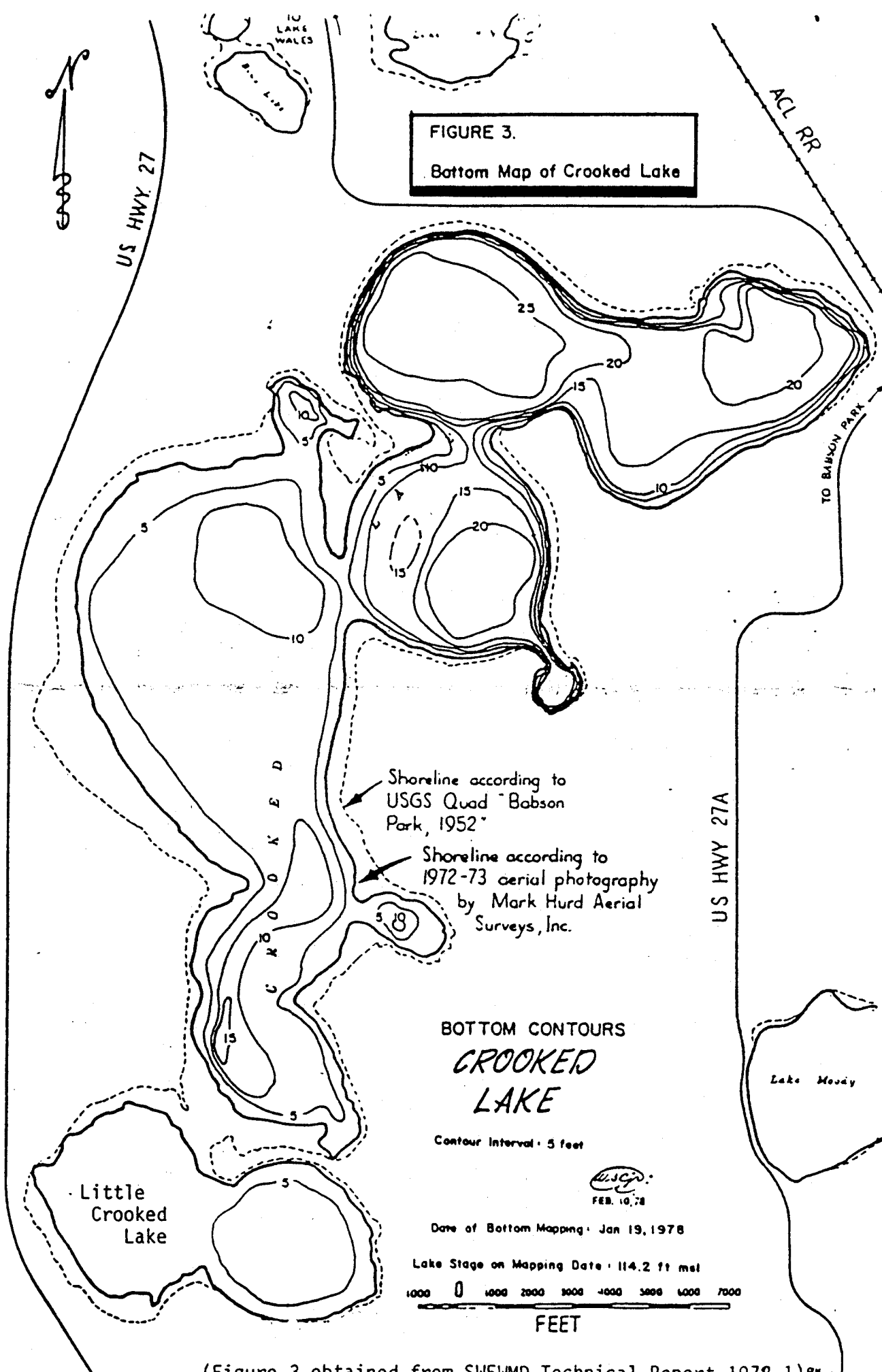
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(Figure 3 obtained from SWFWMD Technical Report 1978-1) ^{AK}

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - SWFW

WELL NUMBER: W-16300
 TOTAL DEPTH: 349.0 FT.
 SAMPLES - NONE

COUNTY - POLK
 LOCATION: T.30S R.28E S.29 AD
 LAT = 27D 50M 23S
 LON = 81D 32M 16S

COMPLETION DATE: 14/10/85

ELEVATION: 122 FT

OTHER TYPES OF LOGS AVAILABLE - B, ELECTRIC, GAMMA, FLUID COND., TEMPERATURE

OWNER/DRILLER: S.W.F.W.M.D. [ROMP CL-1] (WEBBER COLLEGE); DRILLER: L.H. JOHNS

WORKED BY: GREG HENDERSON

CUTTINGS (LSD-139 FEET), CORE (139-349 (TD) FEET)

0.	-	132.	112TRSD	TERRACE SANDS
132.	-	200.5	122HTRN	HAWTHORN GROUP
200.5	-	246.8	123SWNN	SUWANNEE LIMESTONE
246.8	-	349.0	124OCAL	OCALA GROUP

0 - 2 SAND; DARK BROWN TO MODERATE BROWN
 35% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
 ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
 UNCONSOLIDATED
 CEMENT TYPE(S): ORGANIC MATRIX
 SEDIMENTARY STRUCTURES: MASSIVE
 ACCESSORY MINERALS: PLANT REMAINS-04%
 OTHER FEATURES: FROSTED, GRANULAR
 FOSSILS: ORGANICS

2 - 12 SAND; WHITE TO YELLOWISH GRAY
 50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
 GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
 ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
 UNCONSOLIDATED
 SEDIMENTARY STRUCTURES: MASSIVE
 OTHER FEATURES: FROSTED, GRANULAR
 FOSSILS: NO FOSSILS

12 - 17 SAND; YELLOWISH GRAY TO GRAYISH BROWN
 45% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
 GRAIN SIZE: COARSE; RANGE: FINE TO COARSE
 ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
 UNCONSOLIDATED
 SEDIMENTARY STRUCTURES: MASSIVE
 ACCESSORY MINERALS: IRON STAIN-02%
 OTHER FEATURES: FROSTED, GRANULAR
 FOSSILS: NO FOSSILS

17 - 22 SAND; WHITE TO YELLOWISH GRAY
 45% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
 GRAIN SIZE: COARSE; RANGE: FINE TO COARSE
 ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
 UNCONSOLIDATED
 SEDIMENTARY STRUCTURES: MASSIVE
 OTHER FEATURES: FROSTED, GRANULAR
 FOSSILS: NO FOSSILS

- 22 - 32 SAND; WHITE TO YELLOWISH GRAY
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 32 - 37 SAND; WHITE TO YELLOWISH GRAY
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 37 - 54 SAND; WHITE TO YELLOWISH GRAY
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 54 - 57 SAND; WHITE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-05%
OTHER FEATURES: FROSTED, GRANULAR, MUDDY
FOSSILS: NO FOSSILS
- 57 - 62 SAND; WHITE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
POOR INDURATION
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-05%
OTHER FEATURES: FROSTED, GRANULAR, MUDDY
FOSSILS: NO FOSSILS
- 62 - 62 SAND; YELLOWISH GRAY TO GRAYISH BROWN
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: IRON STAIN-02%
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS

- 62 - 72 SAND; WHITE TO YELLOWISH GRAY
45% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 72 - 77 SAND; WHITE TO YELLOWISH GRAY
40% POROSITY: INTERGRANULAR
GRAIN SIZE: COARSE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: FROSTED, GRANULAR, MUDDY
FOSSILS: NO FOSSILS
- 77 - 82 SAND; WHITE TO GRAYISH BROWN
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 82 - 97 SAND; WHITE TO GRAYISH BROWN
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: MICA-01%
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 97 - 117 SAND; WHITE TO GRAYISH BROWN
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: MICA-01%
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 117 - 117 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE
20% POROSITY: INTERGRANULAR, MOLDIC; 0-10% ALTERED; FIBROUS
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-02%
OTHER FEATURES: GRANULAR, LOW RECRYSTALLIZATION

FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS

- 117 - 122 SAND; WHITE TO GRAYISH BROWN
50% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: FINE TO VERY COARSE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
UNCONSOLIDATED
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: MICA-01%
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 122 - 122 CLAY; VERY LIGHT GREEN TO LIGHT GREENISH GRAY
40% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-06%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 122 - 132 CLAY; LIGHT GRAYISH GREEN TO LIGHT GRAYISH GREEN
30% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-05%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 132 - 132 SAND; WHITE
35% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN SIZE: COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
POOR INDURATION
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: MICA-01%
OTHER FEATURES: FROSTED, GRANULAR
FOSSILS: NO FOSSILS
- 132 - 137 CLAY; LIGHT GRAYISH GREEN
30% POROSITY: INTERGRANULAR; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-05%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 137 - 137 CLAY; DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-02%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
- 137 - 139 CLAY; DARK GREENISH GRAY TO DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY

MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
NO CORE RECOVERY FROM 137-139; CUTTINGS SAMPLE DESCRIBED.

- 139 - 142.6 CLAY; DARK GREENISH GRAY TO DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-03%, MICA-02%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
SECTION LAMINATED BY PELECYPOD SHELL FRAGMENTS.
- 142.6- 144 NO SAMPLES
72% CORE RECOVERY.
- 144 - 149 CLAY; DARK GREENISH GRAY TO DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-05%, MICA-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
PELECYPOD SHELL LAMINATIONS COMMON. 100% CORE RECOVERY.
- 149 - 154 CLAY; DARK GREENISH GRAY TO MODERATE GRAYISH GREEN
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-04%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
ABUNDANT PELECYPOD SHELL LAMINATIONS; 100% CORE RECOVERY.
- 154 - 156.6 CLAY; DARK GREENISH GRAY TO MODERATE GRAYISH GREEN
30% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-07%, MICA-03%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
PELECYPOD SHELL LAMINATIONS COMMON; TRACE OF PHOSPHATIC
GRAVEL.
- 156.6- 159 NO SAMPLES
52% CORE RECOVERY.
- 159 - 161 CLAY; DARK GREENISH GRAY TO MODERATE GRAYISH GREEN

30% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-07%, MICA-03%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS
PELECYPOD SHELL LAMINATIONS COMMON.

- 161 - 162.2 CALCARENITE; LIGHT GREENISH GRAY TO GREENISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, BRECCIATED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC GRAVEL-07%
OTHER FEATURES: PLASTIC, LOW RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS
TRACE OF LARGE QUARTZ GRAVEL.
- 162.2- 164 NO SAMPLES
64% CORE RECOVERY.
- 164 - 164.6 CALCARENITE; LIGHT GREENISH GRAY TO GREENISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, BRECCIATED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC GRAVEL-07%
OTHER FEATURES: PLASTIC, LOW RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS
- 164.6- 165.8 CALCARENITE; YELLOWISH GRAY TO LIGHT GREENISH GRAY
08% POROSITY: MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED
ACCESSORY MINERALS: DOLOMITE-10%, PHOSPHATIC GRAVEL-06%
CLAY-05%
OTHER FEATURES: SPLINTERY, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS
- 165.8- 166 DOLOSTONE; MODERATE GRAY TO LIGHT BLUISH GRAY
01% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: PLANT REMAINS-01%

OTHER FEATURES: SPLINTERY, MEDIUM RECRYSTALLIZATION
FOSSILS: NO FOSSILS

- 166 - 169 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: PHOSPHATIC SAND-02%
PHOSPHATIC GRAVEL-01%, DOLOMITE-01%
OTHER FEATURES: GRANULAR, GREASY, LOW RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS
- 169 - 169 CLAY; GREENISH GRAY TO DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-05%, MICA-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
TRACE OF LARGE QUARTZ GRAVEL; TRACE OF SECONDARY QUARTZ
CRYSTALS. 100% CORE RECOVERY.
- 169 - 170 AS ABOVE
- 170 - 174 DOLOSTONE; LIGHT GRAY TO LIGHT OLIVE GRAY
01% POROSITY: MOLDIC, LOW PERMEABILITY; 90-100% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BANDED
ACCESSORY MINERALS: CHERT-01%
OTHER FEATURES: SPLINTERY
FOSSILS: FOSSIL MOLDS
- 174 - 174 CALCARENITE; YELLOWISH GRAY TO LIGHT GRAY
15% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-04%, DOLOMITE-04%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION
FOSSILS: MOLLUSKS, CORAL, FOSSIL FRAGMENTS, FOSSIL MOLDS
ECHINOID
- 174 - 174 CLAY; GREENISH GRAY TO DARK GREENISH GRAY
25% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED

ACCESSORY MINERALS: QUARTZ SAND- %, MICA-02%
FOSSILS: BARNACLES, FOSSIL MOLDS, NO FOSSILS
TRACE LARGE QUARTZ GRAVEL EMBEDDED IN CLAY. 100% CORE
RECOVERY.

- 174 - 177 AS ABOVE
- 177 - 179 CALCARENITE; VERY LIGHT GRAY TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: PHOSPHATIC SAND-04%
PHOSPHATIC GRAVEL-01%, DOLOMITE-01%
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, CRUSTACEA
BENTHIC FORAMINIFERA, FOSSIL MOLDS
- 179 - 179 DOLOSTONE; LIGHT OLIVE GRAY TO LIGHT GRAY
01% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CHERT-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: NO FOSSILS
THIN DOLOMITE LENSES (1-2 INCHES) LAMINATING SECTION. SOME
ECHINOID TESTS; 100% CORE RECOVERY.
- 179 - 184 CALCARENITE; VERY LIGHT GRAY TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-04%
PHOSPHATIC GRAVEL-01%, DOLOMITE-01%
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION
- 184 - 184 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-01%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: CHALKY, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA
FOSSIL FRAGMENTS, FOSSIL MOLDS

- 184 - 184 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY
05% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-01%
OTHER FEATURES: PLASTIC, GREASY
CLAY LENS AT BOTTOM OF SECTION;100% CORE RECOVERY.
- 184 - 187 AS ABOVE
- 187 - 187.6 DOLOSTONE; LIGHT OLIVE GRAY TO LIGHT OLIVE GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 10-50% ALTERED
ANHEDRAL
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: DOLOMITE-08%, CALCILUTITE-04%
PHOSPHATIC SAND-01%, PHOSPHATIC GRAVEL-01%
OTHER FEATURES: SPLINTERY, PLATY, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 187.6- 188.4 CALCARENITE; VERY LIGHT GRAY TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-04%
PHOSPHATIC GRAVEL-01%, DOLOMITE-01%
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, CRUSTACEA
BENTHIC FORAMINIFERA, FOSSIL MOLDS
- 188.4- 188.4 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: PHOSPHATIC SAND-01%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: CHALKY, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA
FOSSIL FRAGMENTS, FOSSIL MOLDS
- 188.4- 189 NO SAMPLES
88% CORE RECOVERY.
- 189 - 189.7 CALCARENITE; VERY LIGHT GRAY TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, BRECCIATED
ACCESSORY MINERALS: PHOSPHATIC SAND-04%
PHOSPHATIC GRAVEL-01%, DOLOMITE-01%
OTHER FEATURES: CHALKY, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, CRUSTACEA
BENTHIC FORAMINIFERA, FOSSIL MOLDS

189.7- 189.7 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, BRECCIATED
ACCESSORY MINERALS: PHOSPHATIC SAND-01%
PHOSPHATIC GRAVEL-01%
OTHER FEATURES: CHALKY, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA
FOSSIL FRAGMENTS, FOSSIL MOLDS

189.7- 191.5 CALCARENITE; LIGHT OLIVE GRAY TO LIGHT BLUISH GRAY
04% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED
ACCESSORY MINERALS: CLAY-04%, PHOSPHATIC GRAVEL-01%
PHOSPHATIC SAND-02%
OTHER FEATURES: CHALKY, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS

191.5- 192.8 DOLOSTONE; MODERATE DARK GRAY TO MODERATE BLUISH GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS

192.8- 193.6 DOLOSTONE; MODERATE DARK GRAY TO MODERATE BLUISH GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS

- 193.6- 193.6 CLAY; YELLOWISH GRAY TO GRAYISH GREEN
05% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 193.6- 194 CLAY; YELLOWISH GRAY TO GRAYISH GREEN
05% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 194 - 194 CLAY; DARK GREENISH GRAY TO DARK GRAY
04% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED
ACCESSORY MINERALS: PHOSPHATIC GRAVEL-04%, QUARTZ SAND-05%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 194 - 194 DOLOSTONE; MODERATE DARK GRAY TO MODERATE BLUISH GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS
100% CORE RECOVERY.
- 194 - 194.6 AS ABOVE
- 194.6- 194.8 DOLOSTONE; OLIVE GRAY TO DARK GREENISH GRAY
02% POROSITY: MOLDIC, LOW PERMEABILITY; 50-90% ALTERED
SUBHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, SILICIC CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED
ACCESSORY MINERALS: CLAY-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS
- 194.8- 198.4 CLAY; GREENISH GRAY TO MODERATE BLUISH GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION

CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-10%, DOLOMITE-04%
PHOSPHATIC GRAVEL-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS

- 198.4- 199 NO SAMPLES
100% CORE RECOVERY.
- 199 - 201 CLAY; GREENISH GRAY TO MODERATE BLUISH GRAY
02% POROSITY: INTERGRANULAR, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: QUARTZ SAND-10%, DOLOMITE-04%
PHOSPHATIC GRAVEL-03%
OTHER FEATURES: PLASTIC, GREASY
FOSSILS: NO FOSSILS
- 201 - 200.5 DOLOSTONE; DARK GRAY TO OLIVE GRAY
POROSITY: NOT OBSERVED, LOW PERMEABILITY; 50-90% ALTERED
ANHEDRAL
GRAIN SIZE: MICROCRYSTALLINE
RANGE: FINE TO MICROCRYSTALLINE; MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: CHERT-01%
OTHER FEATURES: SPLINTERY, HIGH RECRYSTALLIZATION
FOSSILS: MOLLUSKS, FOSSIL MOLDS
CLAY GRADES TO DOLOMITE AT BOTTOM OF SECTION.
- 200.5- 203 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
20% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: SPAR-01%
OTHER FEATURES: COQUINA, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 203 - 204 NO SAMPLES
100% CORE RECOVERY.
- 204 - 209 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
20% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: SPAR-02%, CLAY-01%
OTHER FEATURES: COQUINA, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, FOSSIL FRAGMENTS

FOSSIL MOLDS
100% CORE RECOVERY.

- 209 - 212.1 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: COQUINA, GRANULAR, MEDIUM RECRYSTALLIZATION
FOSSILS: MOLLUSKS, MILIOLIDS, CORAL, FOSSIL FRAGMENTS
FOSSIL MOLDS
MOLLUSK (TURRITELLA, CHIONE) CASTS AND MOLDS COMMON.
- 212.1- 214 NO SAMPLES
62% CORE RECOVERY.
- 214 - 215 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
30% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%
OTHER FEATURES: CHALKY, GRANULAR, COQUINA, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
- 215 - 216 CALCARENITE; YELLOWISH GRAY TO DARK GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: DOLOMITE-02%, SPAR-02%
OTHER FEATURES: GRANULAR, DOLOMITIC
MEDIUM RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 216 - 218.7 CALCARENITE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
34% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%, PLANT REMAINS-01%
OTHER FEATURES: CHALKY, GRANULAR, COQUINA, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS

FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS COMMON; TRACE ORGANICS.

- 218.7- 219 NO SAMPLES
100% CORE RECOVERY.
- 219 - 223.4 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: -5C%, -1 %
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS, MOLLUSK MOLDS COMMON; TRACE FORAM
(LEPIDOCYCLINA).
- 223.4- 224 NO SAMPLES
88% CORE RECOVERY.
- 224 - 225 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-05%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS, MOLLUSK MOLDS COMMON; SMALL LEPIDOCYCLINA.
- 225 - 226.6 CALCARENITE; VERY LIGHT ORANGE TO GRAYISH BROWN
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%, CLAY-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, FOSSIL FRAGMENTS
FOSSIL MOLDS
MILIOLIDS COMMON; TRACE BROWN LIMEY CLAY.
- 226.6- 229 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST

MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS & MOLLUSK MOLDS COMMON;100% CORE RECOVERY.

- 229 - 229.7 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-05%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
- 229.7- 231.2 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%, CLAY-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 231.2- 234 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
25% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-05%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS AND MOLLUSK MOLDS COMMON. 100% CORE RECOVERY.
- 234 - 235.6 AS ABOVE
- 235.6- 239 NO SAMPLES
32% CORE RECOVERY.

- 239 - 240 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
 25% POROSITY: INTERGRANULAR, MOLDIC
 POSSIBLY HIGH PERMEABILITY
 GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL CAST
 MODERATE INDURATION
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
 CLAY MATRIX
 SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
 ACCESSORY MINERALS: SPAR-05%, CLAY-01%
 OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
 LOW RECRYSTALLIZATION
 FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
 FOSSIL FRAGMENTS, FOSSIL MOLDS
 MILIOLIDS COMMON; SOME MOLLUSK MOLDS.
- 240 - 224 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
 12% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
 GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
 TO ; MODERATE INDURATION
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
 DOLOMITE CEMENT
 SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
 ACCESSORY MINERALS: SPAR-03%, DOLOMITE-02%
 OTHER FEATURES: SPLINTERY, DOLOMITIC, GRANULAR
 FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, FOSSIL FRAGMENTS
 FOSSIL MOLDS
- 224 - 244 SLIGHTLY DOLOMITIZED MILIOLIDAL LIMESTONE.
 100% CORE RECOVERY.
- 244 - 245.2 CALCARENITE; YELLOWISH GRAY TO LIGHT OLIVE GRAY
 12% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
 GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
 MODERATE INDURATION
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
 DOLOMITE CEMENT
 SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
 ACCESSORY MINERALS: SPAR-03%, DOLOMITE-02%
 OTHER FEATURES: SPLINTERY, DOLOMITIC, SUCROSIC
 FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
 FOSSIL MOLDS
- 245.2- 246.8 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
 10% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
 GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
 GOOD INDURATION
 CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
 DOLOMITE CEMENT
 SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
 ACCESSORY MINERALS: SPAR-02%, DOLOMITE-01%
 OTHER FEATURES: CHALKY, GRANULAR, DOLOMITIC
 LOW RECRYSTALLIZATION
 FOSSILS: MOLLUSKS, WORM TRACES, MILIOLIDS, FOSSIL FRAGMENTS
 FOSSIL MOLDS
- 246.8- 246.8 CALCARENITE; LIGHT GRAY TO LIGHT BLuish GRAY
 10% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY

GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: CLAY-02%, SPAR-01%
OTHER FEATURES: CHALKY, DOLOMITIC, LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, WORM TRACES, FOSSIL FRAGMENTS
FOSSIL MOLDS
WORM BORINGS, MILIOLIDS, CRAB CLAW FRAGMENTS COMMON.

- 246.8- 247.6 CALCARENITE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
14% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, WORM TRACES
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS COMMON, SOME WORM BORINGS.
- 247.6- 249 NO SAMPLES
72% CORE RECOVERY.
- 249 - 249.1 CALCARENITE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY
14% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 249.1- 249.9 CALCARENITE; LIGHT OLIVE GRAY TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%, DOLOMITE-02%
OTHER FEATURES: SPLINTERY, GRANULAR, DOLOMITIC
LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
- 249.9- 250.7 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
MILIOLIDS COMMON; TRACE SMALL FORAM (LEPIDOCYCLINA).

- 250.7- 254 NO SAMPLES
34% CORE RECOVERY.
- 254 - 255.4 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS, MOLLUSKS
MILIOLIDS COMMON; TRACE FORAM (LEPIDOCYCLINA).
- 255.4- 259 NO SAMPLES
28% CORE RECOVERY.
- 259 - 263.9 CALCARENITE; YELLOWISH GRAY TO YELLOWISH GRAY
20% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-04%, CLAY-01%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, CORAL, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
MILIOLIDS COMMON; SOME MOLLUSK MOLDS. VERY LARGE GRAY
FORAMS (LEPIDOCYCLINA OCALANA) AT TOP.
- 263.9- 264 NO SAMPLES
CORE RECOVERY 98%
- 264 - 267.9 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
22% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC

LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
LARGE GRAY FORAMS (LEPIDOCYCLINA) COMMON IN BOTTON SECTION.
MILIOLIDS COMMON; SOME FORAMS (LAGENA LAEVIS).

- 267.9- 269 NO SAMPLES
78% CORE RECOVERY.
- 269 - 270.3 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
22% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
ECHINOID, FOSSIL FRAGMENTS
LARGE GRAY FORAMS (LEPIDOCYCLINA OCALANA) COMMON. TRACE
ECHINOID TESTS; SOME FORAMS (LAGENA LAEVIS). MILIOLIDS
COMMON.
- 270.3- 272.4 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
ECHINOID, FOSSIL FRAGMENTS
SOME FORAMS (LEPIDOCYCLINA); TRACE ECHINOID SPINES.
- 272.4- 274 NO SAMPLES
68% CORE RECOVERY.
- 274 - 275.5 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
SOME FORAMS (LEPIDOCYCLINA OCALANA).
- 275.5- 279 NO SAMPLES
30% CORE RECOVERY.

- 279 - 282.8 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, ECHINOID
FOSSIL FRAGMENTS, FOSSIL MOLDS
TRACE FORAMS (LEPIDOCYCLINA OCALANA); TRACE ECHINOID TESTS.
- 282.8- 284 NO SAMPLES
76% CORE RECOVERY.
- 284 - 287.9 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
TRACE SMALL TAN FORAMS (LEPIDOCYCLINA OCALANA).
- 287.9- 289 NO SAMPLES
78% CORE RECOVERY.
- 289 - 291.7 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
20% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, SUCROSIC
LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON. TRACE FORAM
(NUMMULITES); TRACE CORAL MOLDS.
- 291.7- 294 NO SAMPLES
54% CORE RECOVERY.
- 294 - 297.2 CALCARENITE; YELLOWISH GRAY TO GRAYISH YELLOW
18% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED

ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA) COMMON. TRACE PELECYPOD (PECTEN)
SHELL FRAGMENTS AND MOLDS.

- 297.2- 299 NO SAMPLES
64% CORE RECOVERY.
- 299 - 300.9 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT ORANGE
14% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, BRYOZOA, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCLINA OCALANA).
- 300.9- 304 NO SAMPLES
38% CORE RECOVERY.
- 304 - 307.3 CALCARENITE; YELLOWISH GRAY TO VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, BRYOZOA, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
SOME FORAMS (LEPIDOCLINA OCALANA).
- 307.3- 309 NO SAMPLES
LOST CIRCULATION AT 308.5 FEET; 66% CORE RECOVERY.
- 309 - 311.8 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
15% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA) COMMON; SOME PELECYPOD SHELL
FRAGMENTS.
- 311.8- 314 NO SAMPLES

56% CORE RECOVERY.

- 314 - 318.6 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, MILIOLIDS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON. TRACE FORAM
(NUMMULITES); SOME PELECYPOD SHELL FRAGMENTS.
- 318.6- 319 NO SAMPLES
92% CORE RECOVERY.
- 319 - 322.3 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-03%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON.
- 322.3- 324 NO SAMPLES
66% CORE RECOVERY.
- 324 - 325.5 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON. TRACE PELECYPOD
(PECTEN) SHELL FRAGMENTS.
- 325.5- 329 NO SAMPLES
POOR CORE RECOVERY DUE TO CORE FALLING OUT OF CORE BARREL.
30% CORE RECOVERY.
- 329 - 333.5 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: CALCILUTITE-03%, SPAR-02%

OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA) COMMON; TRACE FORAM (NUMMULITES).

- 333.5- 334 NO SAMPLES
90% CORE RECOVERY.
- 334 - 337.6 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON.
- 337.6- 339 NO SAMPLES
72% CORE RECOVERY.
- 339 - 339.7 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON.
- 339.7- 339 NO SAMPLES
14% CORE RECOVERY.
- 339 - 340.6 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
12% POROSITY: INTERGRANULAR, MOLDIC
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: SPAR-02%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS
FORAMS (LEPIDOCYCLINA OCALANA) COMMON.
- 340.6- 346.2 CALCARENITE; VERY LIGHT ORANGE TO YELLOWISH GRAY
07% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELTAL CAST
MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED
ACCESSORY MINERALS: SPAR-02%, CLAY-05%
OTHER FEATURES: CHALKY, GRANULAR, LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS, MOLLUSKS
FOSSIL FRAGMENTS, FOSSIL MOLDS

346.2- 346.2 CLAY; LIGHT GRAY TO LIGHT BLUISH GRAY
10% POROSITY: INTERGRANULAR, MOLDIC, LOW PERMEABILITY
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED
ACCESSORY MINERALS: LIMESTONE-04%
OTHER FEATURES: CHALKY, PLASTIC, CALCAREOUS
FOSSILS: MILIOLIDS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS
FOSSIL MOLDS
CALCARENITE INTERMIXED WITH LIME CLAY. FORAMS
(LEPIDOCYCLINA) COMMON IN CALCARENITE.

346.2- 349 NO SAMPLES
72% CORE RECOVERY. BASED ON 10 FOOT CORE RUN.

349 TOTAL DEPTH