August 4, 1981

Executive Summary
ROMP #120 - Cotton Plant
S17, T15 South, R20 East
Floridan Aquifer Potentiometric Monitor Well

G. H. New

General Description

This site is approximately 10 miles due west of Ocala near Florida 40 and one-third mile northwest of Florida 40 adjacent to the south side of C-328 in Marion County. It is located in the NE 1/4, SE 1/4, SE 1/4 of Section 17, Township 15 South, Range 20 East, and at latitude 29°10'59", longitude 82°19'08".

The site is located on the southeastern side of a hill which slopes from the northwest to the southeast. Elevation on the hill ranges from 90'-50'. Locally, elevation ranges from 170'-45'. The area west of Ocala is one of Karst topography and there are only thin layers of miocene -- recent sediments overlying late Eocene rocks which outcrop on some hills.

Site Easement

The temporary construction easement at this site is 40'x50' and contains the perpetual easement which is 20'x20'. This site was obtained for the sum of $1 (one dollar) from the estate of Dr. S. H. & V. Rowland. The permanent monitor well was constructed within the 20'x20' perpetual easement.

Geology

The elevation at this site is approximately 75' and it is located on the Wicomico terrace. The following is a brief summary of the lithology which was obtained from the description of continuous wireline cores taken from land surface to a total depth of 549'. Drill cuttings from the monitor well which was subsequently drilled closely agreed with the cores.

0'-13'	Alachua Formation and Holocene deposits - quartz sand and yellow-orange sandy clay.

13'-28'	Alachua Formation and Remnant Crystal River Formation - weathered, offwhite, limestone intermixed with sandy, yellow-orange clay.
28'-63.5'	Williston Formation (Ocala Group) - limestone, biomicrite, white-yellow, fossiliferous, weathered, friable, high porosity.
63.5'-108'	Inglis Formation (Ocala Group) - limestone, biomicrite, yellow-reddish tan (iron staining), weathered, contains common fossils, minor clay-infilled zones, and some re-crystallized calcite fossils, friable, moderate-high porosity overall.
108'-336'	Avon Park Formation - dolostone and limestone, grey-tannish brown, varies from soft and chalky to hard and crystalline, contains many thin lenses of organic or lignitic clay, porosity is generally low.
336'-549'	Lake City Formation - dolostone and clay; dolostone is grey-tannish brown, mostly hard and crystalline, porosity varies from low to high; clay varies from soft, grey to waxy, dark brown; formation contains some lenses and vugs of crystalline chert or quartz, overall porosity is low but it may be high in the vicinity of fractures or vugs.

Hydrology

The Floridan aquifer system most likely consists of a single continuous aquifer system at this site. The level at which the water table was first encountered during drilling and the static water level in the well both during and after drilling was the same level (approximately 35' below l.s.d. or 40' above m.s.l.). Checking with the USGS quadrangle map of the area, this is the same as the level of local lakes which are generally good surface expressions of the water table. This area is most likely a recharge area as rainwater rapidly percolates down into the rock and the aquifer through the surficial deposits.

Several specific-capacity tests were performed at this site during drilling of the monitor; they indicated the following:

Specific Capacity 110'-160' - Less than 1 gpm/ft

Specific Capacity 160'-230' - Approx. 9 gpm/ft (average)

The higher specific capacity noted between 160'-230' could actually be the result of a few fractures as most of the rock from the cores was reported to be relatively

tight. These fractures could be naturally in the formation or inadvertently created during drilling.

The rock between the surface and 110' is quite porous and may yield high, specific capacities but we were unable to test this due to its soft, friable structure.

The specific capacity below 230' was not tested due to our limited pumping capabilities.

Water Quality

Water samples were retrieved during the drilling of the core hole at this site. These samples were retrieved at regular intervals between 48' and 540' below l.s.d. and were analyzed by the SWFWMD laboratory for chloride and sulfate concentration. Conductivities were checked in the field with field instruments. All of the water samples were better than the minimum standards for public supply. The conductivities ranged from 280-650 umho, chlorides 7-18 mg/l and sulfates 20-100 mg/l. One sample was tested for flourides and found to be less than 0.5 mg/l. Two samples were tested for total dissolved solids and both were between 190-210 mg/l.

Well Construction

This well was constructed during June and July 1981, and its design was based on the information gained in coring the site during December 1980 through January 1981. The total depth of this well is 403', and it has 110' of 8" diameter PVC well casing.

The well was constructed in the following steps:

A) First a 20"-22" diameter borehole was drilled using mud rotary drilling techniques to approximately 40' and 16" steel casing was placed in the well as a sand casing.
B) After this a 16" nominal borehole was drilled to a depth of 49' and 49' of 14" diameter steel well casing was placed in the hole.
C) The 16" steel casing was removed and the 14" steel was grouted into place with a cement slurry.

D) At that time, a 12" nominal borehole was drilled to a depth of 110' and 8" diameter PVC well casing was set to this depth then grouted into place with a cement slurry.

E) The open hole portion of the well, 110"-403", was drilled first by circulating freshwater added from a supply well to a depth (approximately 140') where the well began producing water. At that point, reverse-air circulation drilling was used to drill the remainder of the well. This interval from 110'-403' was drilled with an 8" nominal borehole diameter.

Geophysical Logs

The following types of geophysical logs were run on the core hole under static conditions from land surface to 545': natural gamma emmission, electric (single point resistivity and spontaneous potential), caliper, fluid resistivity, and gradient temperature. To date, no geophysical logs have been run on the completed monitor well.

Type of Monitor

ROMP #120 is designated as a potentiometric surface monitor and responds to changes in water level or potentiometric head within the Floridan aquifer.

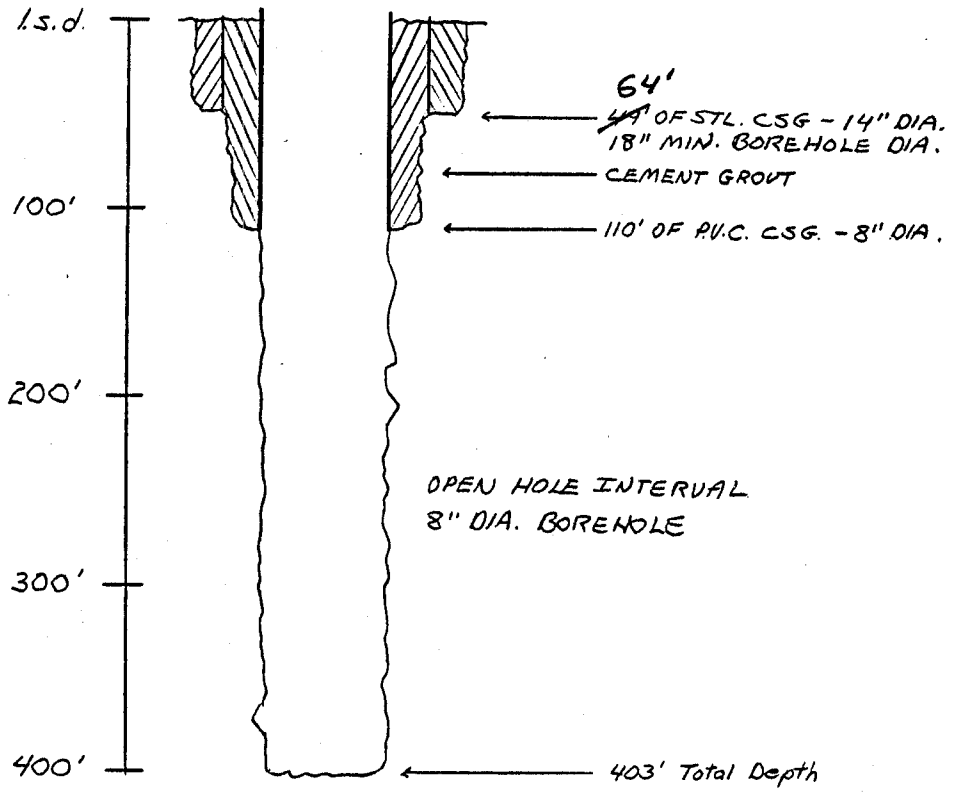
USGS Notification

The District's Technical Support Division was notified that this well is complete and ready for monitoring during August 1981.

8-11-81

ROMP #120 S17, T15, R20

AS BUILT WELL DIAGRAM



2 (5/10)

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15495
TOTAL DEPTH: 548 FT.
SAMPLES - NONE

COUNTY - MARION
LOCATION: T.15S R.17E S.17DD
LAT = N 29D 11M 30
LON = W 82D 32M 00

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

ELEVATION - N/A FT 76

OWNER/DRILLER: ROMP 120; "COTTON PLANT" CORE; 39 BOXES OF CORE

WORKED BY: ORIGINALLY DESCRIBED BY G.L. HENDERSON OF SWFWMD; NEW DESCRIPTION BY
T.L. SEAL (FGS) 5/91, ENTERED BY R.S. MINCE (FGS); FORMATION PICKS
REMAINED ESSENTIALLY THE SAME, EXCEPT ALACHUA FORMATION
TERMINOLOGY ABANDONED
WELL TOO LONG FOR PROGRAM - THIS IS PART 1 OF 2 PARTS

0. -	13.	UNDIFFERENTIATED SAND AND CLAY
13. -	116.5	OCALA GROUP
13. -	28.	CRYSTAL RIVER FM.
28. -	64.	WILLISTON FM.
64. -	116.5	INGLIS FM.
116.5-	.	AVON PARK FM.

0 - 5 SAND; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
ACCESSORY MINERALS: IRON STAIN- %;
OTHER FEATURES: FROSTED;
FOSSILS: PLANT REMAINS;
UNCONSOLIDATED TO POORLY CONSOLIDATED; CUTTINGS

5 - 10 SAND; YELLOWISH GRAY TO YELLOWISH GRAY; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-20%, IRON STAIN-02%;
FOSSILS: PLANT REMAINS;
CUTTINGS

10 - 15 AS ABOVE
CUTTINGS; SMALL FRAGMENTS OF WEATHERED LIMESTONE

15 - 20 SAND; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, IRON CEMENT;
ACCESSORY MINERALS: CLAY-25%, IRON STAIN-05%, CHERT-01%;
LIMESTONE AND CHERT FRAGMENTS IN POOR TO MODERATELY INDURATED SAND

20 - 29.5 NO SAMPLES

29.5- 33.5 WACKESTONE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; POSSIBLY HIGH PERMEABILITY, MOLDIC, INTERGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, SKELETAL;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS;
FOSSILS: MOLLUSKS, BRYOZOA, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS;
OPERCULINOIDES = OCALA FORMATION; SOME LARGE MOLLUSK SHELL FRAGMENTS; OSTREA (?) IDENTIFIED; YELLOWISH ORANGE STAINING

33.5- 48.5 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS;
15% RECOVERY

48.5- 53.5 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS;
FINE-GRAINED CALCARENITE; 25% RECOVERY

53.5- 55.5 AS ABOVE
RUBBLY RECOVERY; MORE MOLDIC POROSITY IN THIS INTERVAL AND MORE YELLOWISH ORANGE STAINING THAN 48.5-53.5'

55.5- 63.5 WACKESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS, MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, WORM TRACES, FOSSIL MOLDS, BRYOZOA, BENTHIC FORAMINIFERA;

63.5- 68.5 AS ABOVE
THIN INTERVAL OF MOLDIC POROSITY; OPERCULINOIDES; A FEW ZONES HAVE MUCH COARSER BIOGENIC GRAINS

68.5- 73 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, MOLDIC;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS, BRYOZOA, BENTHIC FORAMINIFERA;
LARGE CLAM MOLDS (SPECIES?); YELLOW ORANGE STAINING IN THIS INTERVAL (AS WELL AS ABOVE INTERVALS) IS USUALLY ASSOCIATED WITH MOLLUSK AND OTHER SPECIES' MOLDS AND CASTS;
MILIOLIDS AND ECHINOIDS ALSO IDENTIFIED; THEY ACTUALLY COMPRISE MOST OF THE "CALCARENITE" IN THIS INTERVAL

73 - 78.5 WACKESTONE; MODERATE ORANGE PINK TO LIGHT BROWN; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: BIOGENIC, CALCILUTITE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CALCAREOUS;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, MILIOLIDS, ECHINOID, FOSSIL FRAGMENTS;
BIOGENIC FORAMINIFERAL FOSSIL HASH OF "CALCARENITE"; RICH IN MILIOLIDS; WELL PRESERVED ECHINOID "PLATE" OBSERVED APPROACHES GRAINSTONE IN SOME INTERVALS; 65% RECOVERY

78.5- 92.5 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK; INTERGRANULAR;
OTHER FEATURES: COQUINA, VARVED, GREASY, MEDIUM RECRYSTALLIZATION, FROSTED;
40% RECOVERY; MOST OF RECOVERED MATERIAL IS A MILIOLID FOSSIL HASH; BRYOZOAN AND ECHINOID FRAGMENTS ALSO OBSERVED

92.5- 103.5 AS ABOVE
YELLOWISH ORANGE STAINING OF MOLDS AND CASTS IN SOME INTERVALS; 25% RECOVERY

103.5- 108.5 WACKESTONE; GRAYISH ORANGE PINK TO LIGHT GRAY; INTERGRANULAR;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
VERY POOR (15%) RECOVERY; GRADES FROM LIGHT GRAYISH ORANGE PINK CALCARENITE TO LIGHT GRAY WELL-COMPACTED, TIGHT CALCARENITE; POSSIBLY A TRACE DOLOMITE AT BOTTOM OF RECOVERED INTERVAL

108.5- 116.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY; PIN POINT VUGS, INTERCRYSTALLINE; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
OTHER FEATURES: DOLOMITIC;
FOSSILS: MILIOLIDS, FOSSIL MOLDS;
ABRUPT TRANSITION FROM CALCAREOUS CALCARENITE TO APPROXIMATELY 100% DOLOMITE WITH WELL DEVELOPED PINPOINT AND SECONDARY POROSITY DEVELOPMENT THAT CHARACTERIZES COMPLETELY DOLOMITIZED LIMESTONE; SOME POORLY PRESERVED RELIC FOSSIL DEVELOPMENT (MOLLUSK?) MOLDS;
THIS CONTACT IS PICKED AS TOP OF AVON PARK FORMATION

116.5- 127.5 WACKESTONE; LIGHT OLIVE GRAY TO GRAYISH BLUE GREEN; PIN POINT VUGS, MOLDIC,
INTERCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: DOLOMITIC;
FOSSILS: FOSSIL MOLDS;
GRADES FROM A DOLOMUDSTONE TO DOLOMITIC "PACKSTONE" WITH DEEPLY "WEATHERED" FOSSIL MOLDS

127.5- 130.5 AS ABOVE

130.5- 138.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN; PIN POINT VUGS,
INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION;
ABUNDANT GRAY TO BLACK FRAGMENTS DISPERSED THROUGHOUT WELL-INDURATED DOLOMITE; SOMES ZONES
ARE TIGHTLY PACKED AND RECRYSTALLIZED

138.5- 148.5 DOLOSTONE; ;
WELL DEVELOPED PINPOINT POROSITY; 50% RECOVERY

148.5- 152.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; PIN POINT VUGS,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: DOLOMITIC;
PERMEABILITY IN WELL INDURATED ZONES

152.5- 153.5 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK; PIN POINT VUGS;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
ACCESSORY MINERALS: CALCILUTITE-20%, CLAY-20%;
OTHER FEATURES: DOLOMITIC, CALCAREOUS;
FOSSILS: ORGANICS;
INCREASE IN CALCILUTITE WITH DEPTH IN THIS INTERVAL; SOME PALE YELLOWISH BROWN CLAY IS
ALSO PRESENT

153.5- 156 CALCILUTITE; WHITE TO VERY LIGHT ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
OTHER FEATURES: CALCAREOUS, CHALKY, HIGH RECRYSTALLIZATION;
CHALKY CALCILUTITE MUDSTONE; NO RECOGNIZABLE FOSSIL FRAGMENTS; MAYBE SOME FORAMS, BUT
DIFFICULT TO BE CERTAIN

156 - 157.5 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY; PIN POINT VUGS,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-05%;
OTHER FEATURES: DOLOMITIC, HIGH RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL MOLDS;
SOME LARGE VUGS (A FEW GASTROPOD FOSSIL MOLDS)

157.5- 162.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; PIN POINT VUGS,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-25%;
OTHER FEATURES: DOLOMITIC, CALCAREOUS;
FOSSILS: MOLLUSKS, FOSSIL MOLDS;
A FEW MOLLUSK MOLDS STILL RECOGNIZABLE; AMOUNT OF CALCILUTITE VARIES IN THIS INTERVAL; LOW PERMEABILITY ONLY IN SOME INTERVALS

162.5- 168.5 DOLOSTONE; VERY LIGHT ORANGE; PIN POINT VUGS; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-25%;
OTHER FEATURES: DOLOMITIC, CALCAREOUS, HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA;
CALCILUTITE-RICH INTERVALS AT 164-165 AND 165.5-168.5

168.5- 173 CALCILUTITE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED,
ACCESSORY MINERALS: DOLOMITE-20%;
OTHER FEATURES: DOLOMITIC, CALCAREOUS, CHALKY;
FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA;
SOME INTERVALS VERY WELL INDURATED; OTHERS ALMOST CHALKY IN APPEARANCE

173 - 178.5 AS ABOVE
DOLOMITIC LIME MUDSTONE WITH ACCESSORY DOLOMITE; CHALKY

178.5- 183.5 CALCILUTITE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, BIOGENIC;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BIOTURBATED, BEDDED,
ACCESSORY MINERALS: DOLOMITE-10%;
OTHER FEATURES: DOLOMITIC;
FOSSILS: FOSSIL MOLDS, FOSSIL FRAGMENTS;
GRAY FOSSIL FRAGMENTS

183.5- 193.5 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE BROWN; PIN POINT VUGS, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED,
ACCESSORY MINERALS: CALCILUTITE-30%;
OTHER FEATURES: DOLOMITIC, CALCAREOUS, SUCROSIC, HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA;
50% RECOVERY; "SPOTTED" APPEARANCE DUE TO UNUSUAL TEXTURAL RELATIONSHIP; CALCILUTITE AND SPAR APPEAR TO BE RIMMING GRAINS OF MODERATE BROWN SUCROSIC DOLOMITE; POSSIBLY THIS INTERVAL WAS A FORAM (MILIOLID?) GRAINSTONE THAT WAS PARTIALLY DOLOMITIZED; SAMPLE COLLECTED FOR THIN SECTION

193.5- 195.5 AS ABOVE
POSSIBLE WORM BURROWS; BECOMES MORE CHALKY WITH DEPTH

195.5- 202 LIMESTONE; VERY LIGHT ORANGE TO MODERATE BROWN; INTERGRANULAR, INTRAGRANULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BEDDED,
ACCESSORY MINERALS: DOLOMITE-30%;
OTHER FEATURES: SUCROSIC, DOLOMITIC, MEDIUM RECRYSTALLIZATION;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS, ECHINOID, MOLLUSKS;
SPARSELY DOLOMITIZED "BIOSPARITE"; SUCROSIC; CALCITE-RICH; FORAM MOLDS ARE ABUNDANT;
YELLOWISH GRAY INTERVALS; ALGAL STRANDS OBSERVED

202 - 205.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, INTRAGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED,
OTHER FEATURES: SUCROSIC, DOLOMITIC, HIGH RECRYSTALLIZATION;
SOME WELL-INDURATED HIGHLY RECRYSTALLIZED INTERVALS INTERLAYERED WITH ZONES OF HIGHER MOLDIC POROSITY (SECONDARY POROSITY AFTER DISSOLUTION OF DOLOMITE)

205.5- 213 AS ABOVE
INCREASING AMOUNT OF "SPARRY" CALCILUTITE RIMMING DOLOMITE CRYSTALS DOWNSECTION;
DOLOMITE/CALCILUTITE RATIO DECREASES; SOME ORGANIC LAMINAE OBSERVED

213 - 218.5 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, INTRAGRANULAR,
PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BEDDED,
ACCESSORY MINERALS: CALCILUTITE-20%;
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;
FOSSILS: FOSSIL MOLDS;
CALCILUTITE VARIES IN ABUNDANCE FROM 0 TO APPROXIMATELY 20-30%; SIMILAR DOLOMITE WITH "SPOTTED" TEXTURE INTERBEDDED WITH 100% HIGHLY RECRYSTALLIZED DOLOMITE WITH A HIGH AMOUNT OF SECONDARY POROSITY DEVELOPMENT

218.5- 228.5 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE; INTERGRANULAR,
LOW PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED, BIOTURBATED,
ACCESSORY MINERALS: CALCILUTITE-20%;
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;
FOSSILS: ORGANICS;
AMOUNT OF CALCILUTITE INCREASES WITH DEPTH TO APPROXIMATELY 225' AND THEN RAPIDLY DECREASES FROM 225'-226.5'; SOME INTERVALS ARE CHALKY DOLOMUDSTONES WITH ABUNDANT ORGANIC LAMINAE, BUT OTHER INTERVALS ARE TIGHT, WELL-INDURATED DOLOMITE

228.5- 238.5 AS ABOVE
LITTLE TO NO CALCILUTITE IN THIS BEDDED INTERVAL; WELL-DEVELOPED PINPOINT VUGULAR POROSITY

238.5- 243.5 DOLOSTONE; YELLOWISH GRAY TO YELLOWISH GRAY; INTERGRANULAR,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
30% RECOVERY; SPARSE PINPOINT VUG DEVELOPMENT

243.5- 248 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED,
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS;
40% RECOVERY; SOME PALE OLIVE DOLOMITIC INTERVALS; SPARSE PINPOINT VUG DEVELOPMENT; TRACE ORGANICS (?)

248 - 248.7 DOLOSTONE; LIGHT GRAY TO YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY;
50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: HIGH RECRYSTALLIZATION, SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
STRIKING CONTACT BETWEEN TWO GRAY AND TAN DOLOMITIC HORIZONS; DEPOSITIONAL HIATUS (?);
RIP-UP CLAST (?); SAMPLE COLLECTED FOR THIN SECTION

248.7- 258 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR,
LOW PERMEABILITY; ;
GRAIN SIZE: ; RANGE: FINE TO VERY FINE; ;
CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED, BIOTURBATED, LAMINATED,
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: ORGANICS;
SOME LIMITED POROSITY OBSERVED (PROBABLY NOT DRILLING-PRODUCED); COLLAPSE BRECCIA
STRUCTURES (?) AT 257-258'; ABUNDANT ORGANIC LAMINAE IN 257-258 INTERVAL, BUT LESS COMMON
HIGHER IN SECTION

258 - 263.5 AS ABOVE
BEDDED, WELL-INDURATED DOLOMITE; FINELY LAMINATED IN SOME INTERVALS; TRACE ORGANICS

263.5- 268.5 AS ABOVE
GRADES FROM A PALE ORANGE TO GRAYISH ORANGE BEDDED DOLOMITE TO A LIGHT GRAY DOLOMITE; SOME
ZONES HAVE WELL-DEVELOPED POROSITY; THESE HIGHER POROSITY ZONES MAY BE FORMER BURROWS; A
FEW FOSSIL MOLDS (MOLLUSKS) OBSERVED; TRACE OF GRAY FOSSIL (?) FRAGMENTS

268.5- 278 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT GRAY; INTERGRANULAR, PIN POINT VUGS;
10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED, BIOTURBATED,
ACCESSORY MINERALS: SPAR-02%;
FOSSILS: ORGANICS, MOLLUSKS, FOSSIL MOLDS;
TRACE MOLDIC POROSITY; SOME VERY WELL-INDURATED INTERVALS INTERBEDDED WITH INTERVALS OF
HIGHER POROSITY; THIN INTERVAL WITH LARGE CYLINDRICAL VUGS AT APPROXIMATELY 276'; POSSIBLE
WORM BURROWS (?)

278 - 288 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY,
PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;
SOME WELL-DEVELOPED MOLDIC POROSITY IN MOST OF THIS INTERVAL; SOME INTERVALS CONTAIN
NUMEROUS MOLLUSK MOLDS AND CASTS IN FORAM-RICH MATRIX; LARGE WHITE DOLOMITE CRYSTALS
COATING SOME FOSSIL FRAGMENTS

288 - 293.5 AS ABOVE
40% RECOVERY; WELL TOO LONG FOR PROGRAM SEE FOLLOWING WELL FOR PART 2

293.5 TOTAL DEPTH

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15495
TOTAL DEPTH: 548 FT.
SAMPLES - NONE

COUNTY - MARION
LOCATION: T.15S R.17E S.17DD
LAT = N 29D 11M 30
LON = W 82D 32M 00

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

OWNER/DRILLER: ROMP 120; "COTTON PLANT" CORE; 39 BOXES OF CORE

WORKED BY: ORIGINALLY DESCRIBED BY G.L. HENDERSON OF SWFWMD; NEW DESCRIPTION BY T.L. SEAL (FGS) 5/91, ENTERED BY R.S. MINCE (FGS); FORMATION PICKS REMAINED ESSENTIALLY THE SAME, EXCEPT ALACHUA FORMATION
TERMINOLOGY ABANDONED
THIS IS PART 2 OF 2 PARTS

0 - 293.5 SEE ABOVE WELL

293.5- 303.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR, LOW PERMEABILITY, PIN POINT VUGS; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
EXTREMELY POOR (10%) RECOVERY; RUBBLY RECOVERY; DENSE DOLOMUDSTONE FRAGMENTS MIXED WITH LESS DENSE HIGHER POROSITY DOLOMITE

303.5- 308.5 DOLOSTONE; VERY LIGHT ORANGE; INTERGRANULAR, POSSIBLY HIGH PERMEABILITY, MOLDIC; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED,
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ORGANICS;
SOME VUGULAR POROSITY FORMED FROM FORMER WORM BURROWS (?); TRACE ORGANICS; SOME SURPRISINGLY WELL-PRESERVED MOLLUSK MOLDS

308.5- 313.5 AS ABOVE
5% RECOVERY

313.5- 318.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ORGANICS;
SPECTACULAR EXAMPLE OF FINE-SCALE BEDDED DOLOMUDSTONE; SOME MOLDIC POROSITY IN UPPER PART OF INTERVAL; MUCH OF DOLOMUDSTONE APPEARS WEATHERED, AMOST PUNKY

318.5- 328.5 AS ABOVE
20% RECOVERY

328.5- 334.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: CALCAREOUS;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ORGANICS;
TRACE AMOUNT OF CALCILUTITE PRESENT

334.5- 338.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY, MOLDIC; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID;
SOME VERY WELL-PRESERVED FOSSIL MOLDS (MOLLUSKS, ECHINOIDS)

338.5- 348.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY, MOLDIC; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ORGANICS;
INTERBEDDED GRAY TO TAN DOLOMITIC MUDSTONES; MOLDIC POROSITY VARIES FROM WELL- TO POORLY-DEVELOPED; SOME PINPOINT VUGULAR POROSITY ALSO PRESENT IN SOME INTERVALS

348.5- 358.5 DOLOSTONE; YELLOWISH GRAY TO LIGHT GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE- %;
OTHER FEATURES: CALCAREOUS;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
CALCILUTITE VARIABLE IN ABUNDANCE; DEPOSITIONAL HIATUS AT 348', WHICH IS INDICATED BY BRECCIA CLASTS OF GRAY DOLOMITE CONTAINED WITHIN A VERY FINE GRAINED CALCAREOUS DOLOMITE

358.5- 360 DOLOSTONE; VERY LIGHT GRAY TO LIGHT GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY, MOLDIC; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED,
FOSSILS: FOSSIL MOLDS, MOLLUSKS, CORAL, FOSSIL FRAGMENTS;
EXCELLENT FOSSIL MOLDS PRESERVED IN THIS INTERVAL

360 - 368.5 DOLOSTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY; INTERGRANULAR,
MOLDIC; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: FOSSIL MOLDS, FOSSIL FRAGMENTS, ORGANICS;
INTERVAL WITH WELL DEVELOPED MOLDIC POROSITY 364-365'; MOST OF INTERVAL TOTALLY
DEVOID OF MOLDIC POROSITY; GRAY FOSSIL FRAGMENTS; SOME THIN ORGANIC LAMINAE;
GRAY DOLOMITE INTERVAL FROM 364-365'

368.5- 378.5 AS ABOVE
SOME FINE-GRAINED INTERVALS HAVE ACCESSORY CALCILUTITE; SOME ORGANIC LAMINAE AT
373-374'; EXTREMELY WELL PRESERVED CORAL AND ECHINOID FRAGMENTS AT 376-377'

378.5- 388.5 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE; INTERGRANULAR,
PIN POINT VUGS; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BEDDED,
FOSSILS: FOSSIL MOLDS, MILIOLIDS, BENTHIC FORAMINIFERA, MOLLUSKS;
5% RECOVERY 378.5-383.5'; 40% RECOVERY 383.5-388.5'; DOLOMUDSTONE INTERBEDDED
WITH GRAY DOLOMITE THAT HAS VARIABLY DEVELOPED MOLDIC POROSITY ZONES

388.5- 393.5 DOLOSTONE; WHITE TO LIGHT GRAY; INTERGRANULAR, PIN POINT VUGS;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
20% RECOVERY; CHALKY IN PART

393.5- 395.5 AS ABOVE
GRADES INTO MODERATE GRAY DOLOMITE WITH WELL-DEVELOPED PIN POINT POROSITY

395.5- 398.5 DOLOSTONE; LIGHT GRAY TO MODERATE LIGHT GRAY; INTERGRANULAR,
POSSIBLY HIGH PERMEABILITY, MOLDIC; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
FRIABLE DOLOMITE WITH EXTENSIVELY DEVELOPED SECONDARY POROSITY, RANGING FROM
MOLD TO LARGE PIN POINT VUGS

398.5- 403.5 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
SOME INTERVALS GRADE INTO WHITE DOLOMUDSTONE; SPARSE FOSSIL MOLDS; INCH THICK
YELLOWISH GRAY DOLOMUDSTONE WITH A THIN PEAT LAYER AT 400-401 INTERVAL

403.5- 406 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED,
FOSSILS: FOSSIL MOLDS;

406 - 410 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR,
MOLDIC; 10-50% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: CONES, BENTHIC FORAMINIFERA, MOLLUSKS, CORAL, FOSSIL MOLDS;
DICTYOCONUS AMERICANUS IDENTIFIED

410 - 413 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; INTERGRANULAR,
MOLDIC; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE- %;
FOSSILS: BENTHIC FORAMINIFERA, BRYOZOA, MOLLUSKS, FOSSIL MOLDS, CORAL;
MOST OF INTERVAL IS DOLOMUDSTONE WITH SOME ORGANIC LAMINAE, BUT THIS GRADES INTO
A DOLOMITE WITH SPORADIC MOLDIC POROSITY, TRACE CALCILUTITE; LARGE DICTYOCONUS

413 - 423.5 AS ABOVE
MOST OF INTERVAL IS YELLOWISH GRAY DOLOMITE BUT WHITE AND GRAY DOLOMITE ALSO
PRESENT; EXTREMELY WELL-INDURATED INTERVAL FROM 415-416'

423.5- 433.5 DOLOSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR, PIN POINT VUGS,
MOLDIC; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED, MOTTLED,
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
MOTTLED APPEARANCE AT 427-428.5 FROM BURROWS; GRAY FOSSIL (?) FRAGMENTS
SCATTERED THROUGH INTERVAL; MOLDIC POROSITY NOT WELL-DEVELOPED IN SOME INTERVALS

433.5- 438.5 AS ABOVE
MOST OF INTERVAL IS DOLOMUDSTONE; DELICATELY INTERLAYERED DOLOMUDSTONE WITH
ORGANIC LAMINAE AT 435-437

438.5- 441 DOLOSTONE; WHITE TO VERY LIGHT ORANGE; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-05%;
HOMOGENEOUS VERY LIGHT PALE ORANGE DOLOMUDSTONE; SLIGHTLY CALCAREOUS

441 - 447 DOLOSTONE; LIGHT GRAY TO VERY LIGHT ORANGE; INTERGRANULAR, MOLDIC,
PIN POINT VUGS; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
GRADES INTO LIGHT GRAY MOLDIC DOLOMITE; OSTREA (?) MOLD

447 - 453 DOLOSTONE; VERY LIGHT ORANGE TO WHITE; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-02%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL MOLDS;
CHALKY DOLOMUDSTONE, VIRTUALLY NO FOSSIL MOLDS

453 - 453.5 PEAT; BLACK TO DARK BROWN; INTERGRANULAR; POOR INDURATION;
CEMENT TYPE(S): ORGANIC MATRIX;
DESSICATED PEAT LAYER IMMEDIATELY ABOVE 4" HARD DOLOMITE INTERVAL

453.5- 463.5 DOLOSTONE; VERY LIGHT ORANGE TO WHITE; INTERGRANULAR;
50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCILUTITE-02%;
OTHER FEATURES: CHALKY;
FOSSILS: ORGANICS;
EXTREMELY FINE-GRAINED HOMOGENEOUS DOLOMUDSTONE; TRACES OF ORGANICS SCATTERED
THROUGHOUT INTERVAL

463.5- 465 AS ABOVE
GREATER AMOUNT OF ORGANICS THAN OBSERVED FROM 453.5-463.5

465 - 468.5 CHERT; LIGHT GRAYISH BROWN TO GRAYISH BROWN; LOW PERMEABILITY; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
OTHER FEATURES: DOLOMITIC;
FOSSILS: ORGANICS;
GRADES INTO LIGHT GRAY TO WHITE CHERT; WELL-DEVELOPED CHERT LAYER; EXHIBITS A
CONCHOIDAL FRACTURE WHEN BROKEN; BANDED APPEARANCE POSSIBLY DUE TO GROUNDWATER
ACTIVITY

468.5- 478.5 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN; INTERGRANULAR,
VUGULAR; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: PEAT-05%;
VUGULAR POROSITY WELL-DEVELOPED FROM 468-473; 40% RECOVERY; PEAT-RICH INTERVAL BETWEEN 473.5 AND 478.5; THE VUGS MAY BE WEATHERED BURROWS

478.5- 481 AS ABOVE
SECONDARY QUARTZ CRYSTALS HAVE GROWN IN SOME "WEATHERED" VUGS; MORE ACCESSORY PEAT FRAGMENTS

481 - 488.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN; INTERGRANULAR,
PIN POINT VUGS; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: QUARTZ-05%;
FOSSILS: ORGANICS;
TRACE EUHEDRAL TO SUHEDRAL QUARTZ CRYSTALS

488.5- 492 AS ABOVE

492 - 498.5 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN; INTERGRANULAR, PIN POINT VUGS, MOLDIC; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, GYPSUM CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED, BIOTURBATED,
ACCESSORY MINERALS: QUARTZ-02%;
FOSSILS: ORGANICS, FOSSIL MOLDS, MOLLUSKS;
INTERVAL WITH NUMEROUS EUHEDRAL QUARTZ CRYSTALS AT 493 EXTREMELY WELL-INDURATED FROM 492-493; MOLDIC POROSITY IS WELL-DEVELOPED IN SOME INTERVALS, AND ABSENT IN OTHERS

498.5- 502 AS ABOVE

502 - 503.5 NO SAMPLES

503.5- 508.5 DOLOSTONE; MODERATE YELLOWISH BROWN TO YELLOWISH GRAY; INTERGRANULAR,
LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: ORGANICS, FOSSIL MOLDS, MOLLUSKS;
30% RECOVERY; ZONES OF VERY LOW PERMEABILITY INTERBEDDED WITH ZONES OF HIGH MOLDIC POROSITY

508.5- 513.5 AS ABOVE
SOME ZONES OF RUBBLY RECOVERY MAY INDICATE VUGULAR POROSITY DEVELOPMENT IN THESE INTERVALS