# Hydrogeologic Investigation of the Floridan Aquifer System

# Intercession City, Osceola County, Florida

Technical Publication WS-23



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# **Executive Summary**

The Kissimmee Basin Water Supply Plan (KBWSP, 2000) was the first look at the long-term water use conditions for areas in the South Florida Water Management District (SFWMD) located north of Lake Okeechobee. The findings of the KBWSP suggest that the ground-water supplies in Osceola County area may not be sufficient to meet the 2020 (1-in-10 drought year) water supply needs. The continued use of the upper Floridan Aquifer System (FAS) may affect wetlands, reduce spring flow, and possibly be a factor in the formation of sinkholes in this area. However, these conclusions are predicated on a limited amount of geologic and hydrologic information in this region. In particular, information regarding the lower Floridan aquifer is very limited. The highest ranked recommendation of the KBWSP is to gather additional hydrogeologic information on the FAS to better resolve the uncertainty of future water use affects. These wells will supply information needed to characterize the water supply potential of the FAS and for use in development of a ground water flow model, which will support future planning and regulatory decisions

The FAS test site is located near Intercession City in northwest Osceola County on SFWMD-owned property known as the Upper Lakes Watershed Property (**Figure 1**). These wells are located in the northeast quadrant of Section 3 of Township 26 South, Range 28 East. Land surface was surveyed at 68.2 feet relative to the National Geodetic Vertical Datum of 1929 (NGVD, 1929).

This report documents the results of three Floridan aquifer wells constructed and tested under the direction of the SFWMD. The Intercession City site was selected to augment existing hydrogeologic data and to provide broad, spatial coverage within the Kissimmee Basin planning area.

The scope of the investigation consisted of constructing and testing three FAS wells. The first well identified as IC-TW was drilled to a total depth of 2,480 feet below land surface (bls). The Contractor constructed a telescoping type well in various stages, completing it into three distinct hydrogeologic zones within the FAS. A single-zone monitor well identified as OSF-100 was constructed into the uppermost portion of the FAS. A dual-zone production well identified as IC\_PW located 340 feet north of the FAS monitor wells was constructed to facilitate aquifer testing of the upper and lower portion of the FAS.

SFWMD provided oversight during all well drilling, construction, and testing operations. Diversified Drilling Corporation (DDC), a Tampa based corporation was responsible for all drilling, well construction, and testing services at the Intercession City site under SFWMD Contract C-12356. This project was completed on schedule at a cost of \$720,000.

The main findings of the exploratory drilling and testing program at this site are as follows:

- The top of the FAS as defined by the Southeastern Geological Society AdHoc Committee on Florida Hydrostratigraphic Unit Definition (1986) was identified at a depth of approximately 110 feet below land surface.
- Lithologic and geophysical logs, specific capacity and APT results indicate moderate production capacity in Zone A of the UFA, good production capacity in Zone B of the UFA and excellent production capacity in the LFA.
- Water quality data from packer tests and completed monitor zones indicate that chloride and total dissolved solids in the upper Floridan aquifer waters meet potable drinking water standards.
- The base of the Underground Source of Drinking Water, those waters having TDS concentrations less than 10,000 mg/L, occurs at an approximate depth of 2,250 feet bls.
- Zone A of the UFA from 110 to 260 feet bls yielded a transmissivity of 115,000 gallons per day per foot of aquifer (gpd/ft), storage coefficient of  $2.2 \times 10^{-5}$ , an r/B value of 0.12, and a leakance value of  $1.43 \times 10^{-2}$  gpd/ft<sup>3</sup>.
- Zone B of the UFA 360 to 860 feet bls yielded a transmissivity of 510,000 gpd/ft, storage coefficient of 6.1 x  $10^{-5}$ , an r/B value of 0.07 and a leakance value of 2.16 x  $10^{-2}$  gpd/ft<sup>3</sup>.
- A productive horizon in LFA from 1,210 to 1,500 feet bls yielded a transmissivity of 1,500,000 gpd/ft storage coefficient of  $1.2 \times 10^{-5}$ , an r/B value of 0.007, and a leakance value of  $6.36 \times 10^{-4}$  gpd/ft<sup>3</sup>.
- The average measured hydraulic heads for the FAS monitoring intervals are as follows:
  - 66.58 feet above mean sea level for the 370 to 860 feet bls monitor interval 54.13 feet above mean sea level for the 1,220 to 1,490 feet bls monitor interval 53.00 feet above mean sea level for the 2,000 to 2097 feet bls monitor interval.
- Water levels in the FAS respond to external stresses such as tidal loading and barometric pressure variations.

# INTRODUCTION

# **Background**

The Kissimmee Basin Water Supply Plan (KBWSP, 2000) was the first look at the long-term water use conditions for areas in the South Florida Water Management District (SFWMD) located north of Lake Okeechobee. The findings of the KBWSP-2000 suggest that the ground-water supplies in Osceola County area may not be sufficient to meet the 2020 (1-in-10 drought year) water supply needs. The continued use of the upper Floridan Aquifer System (FAS) may affect wetlands, reduce spring flow, and possibly be a factor in the formation of sinkholes in this area. However, these conclusions are predicated on a limited amount of geologic and hydrologic information in this region. In particular, information regarding the lower Floridan aquifer is very limited. The highest ranked recommendation of the KBWSP is to gather additional hydrogeologic information on the FAS to better resolve the uncertainty of future water use affects. These wells will supply information needed to characterize the water supply potential of the FAS and for use in development of a ground water flow model, which will support future planning and regulatory decisions

The FAS test site documented in this report is located near Intercession City in northwest Osceola County on SFWMD-owned property known as the Upper Lakes Watershed Property (**Figure 1**). These wells are located in the northeast quadrant of Section 3 of Township 26 South, Range 28 East. Land surface was surveyed at 68.2 feet relative to the National Geodetic Vertical Datum of 1929 (NGVD, 1929).

**Project Description**Site preparation and equipment mobilization at the project site began October 16, 2001. Three wells were constructed to facilitate aquifer testing and long-term monitoring of the FAS. The first well, a telescoping style, multi-zone monitor well (referred to as , 98, 99) was drilled to a total depth of 2,480 feet below land surface (bls) and completed in three distinct hydrogeologic units. The second well, is a 4-inch diameter single zone monitor well (referred to as OSF-100) completed between 110 and 260 feet bls, which monitors the uppermost production unit (Zone A) of the upper Floridan aquifer (UFA). The third well, a telescoping style tri-zone, test-production well (referred to as IC\_PW) was completed to 1,500 feet with a final 8-inch diameter casing set at 1,210 feet in depth. In addition, two shallow monitor wells (2-inch diameter - PVC) were completed in the surficial aquifer (referred to as IC\_SAS) and the Hawthorn Confining Unit (referred to as IC\_HCU).

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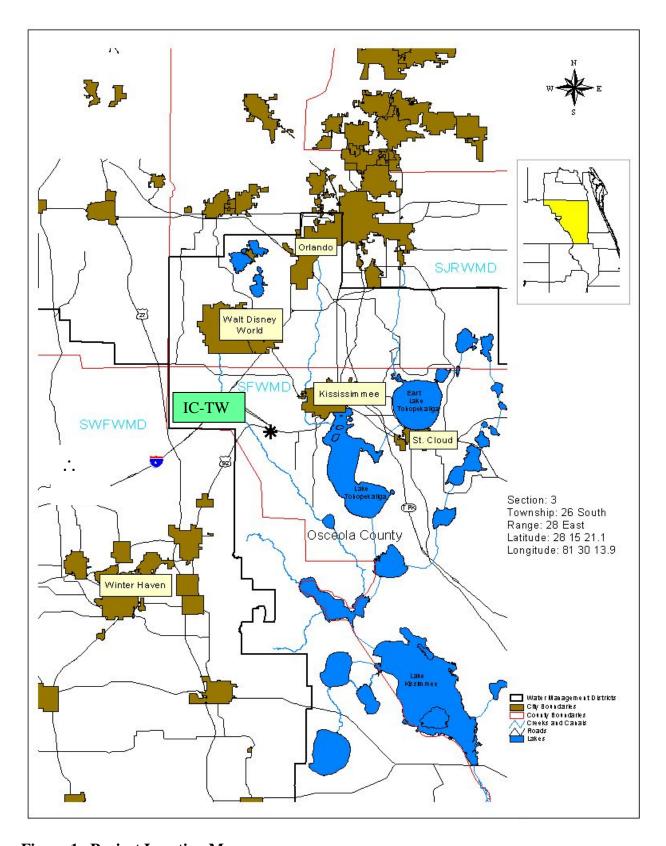


Figure 1. Project Location Map.

# **Exploratory Drilling and Well Construction**

## **Intercession City Tri-Zone Monitor Well**

On October 16, 2001, DDC delivered drilling and support equipment to begin site preparation for drilling and construction of the Floridan aquifer system tri-zone monitor well (referred to as ICTW). DDC cleared and rough graded the site and then constructed a two-foot thick, drilling pad using crushed limestone. The drilling pad served to reduce impacts to adjacent natural wetland areas during normal drilling, testing, and construction activities.

Mud rotary and reverse-air techniques were used during drilling operations. Closed-circulation mud rotary drilling was used to advance a nominal 10-inch diameter pilot hole from land surface to 245 feet bls. DDC employed the reverse-air, open circulation method to drill the pilot-hole from 245 to 2,480 feet bls due to a highly permeable, fractured/cavernous dolostone/limestone sequence encountered below 245 feet bls, which prohibited continued mud circulation.

SFWMD used formation samples (well cuttings), packer tests results, and geophysical logs to determine the actual casing setting depths. Once identified, the Contractor reamed the pilot hole to specified diameter and depth for the selected casing setting. Five concentric casings (26-, 20-, 14-, 8-, and 3-inch diameter) were used in the construction of the telescoping style, Floridan aquifer system monitor well.

The completed telescoped-style well allows SFWMD to monitor water levels and water quality in three distinct FAS intervals. The uppermost monitor zone (OSF-99) constructed using 14-inch diameter steel casing and completed with an annular zone between 355 to 675 feet bls. The intermediate zone (OSF-98) is completed with an annular zone from 1,220 to 1,501 feet bls. The lowermost well (OSF-97) constructed of 3-inch diameter steel casing was completed with an open hole of 2,000 to 2,096 feet bls. **Table 1** lists the monitor intervals and completion methods for the tri-zone FAS monitor well.

<u>Table 1</u>. Completion details and interval identifiers for IC-TW

	Monitor Interval		
Identifier	(feet bls)	<b>Completion Method</b>	
OSF-99	355 to 675	Annular Zone	
OSF-98	1,220 to 1,501	Annular Zone	
OSF-97	2,000 to 2,096	Open-Hole	

## Intercession City -- OSF-100, IC\_HCU and IC\_SAS Monitor Wells

On April 11, 2003, DDC began drilling and construction of an upper Floridan aquifer system monitor well (referred to as OSF-100) adjacent to the tri-zone monitor well (IC-TW). Closed-circulation mud rotary drilling techniques were used during drilling operations. DDC installed 10-inch diameter, steel casing, (ASTM A53) to 20 feet bls and grouted it to surface. DDC then advanced a nominal 8-inch diameter borehole using the mud-rotary method from 20 to 260 feet bls. The SFWMD selected the casing point for the 4-inch diameter steel casing, (ASTM A53, Grade B) at 110 feet bls and on April 19, 2003 DDC installed the casing to the specified depth. The monitor interval was completed open hole from 110 to 260 feet bls.

In addition, DCC installed two shallow monitor wells next to the upper Floridan monitor well to determine the degree of upper confinement and the effects on wetlands as a result of withdrawals from the UFA. Both wells were constructed via 6-inch diameter hollow stem auger with 2-inch diameter schedule 40 PVC casing and slotted well screen (20-slot). The first 2-inch diameter monitor well (referred to as IC\_HCU) was completed in the Hawthorn confining unit from 45 to 55 feet bls. The second 2-inch diameter monitor well (referred to as IC\_SAS) was completed in the surficial aquifer system from 15 to 20 feet bls. DDC completed well construction operations related to these monitor wells on April 21, 2003. **Table 2** lists the monitor intervals and completion methods for the upper FAS and two shallow monitor wells.

Table 2.

	Monitor Interval		
Identifier	(feet bls)	Completion Method	
OSF-100	110 to 260	Open-Hole	
IC_HCU	45 to 55	Screened (20 slot)	
IC_SAS	15 to 20	Screened (20 slot)	

## **Intercession City Test-Production Well**

DDC then moved the drill rig and support equipment onto to begin drilling operations for the test-production well, located 340 feet northeast of the monitor wells discussed above.

SFWMD designed the tri-zone, test-production well using four concentric steel casings (30-, 24-, 18-, and 12-inch diameter) that would be used to facilitate aquifer testing of three distinct productive horizons identified in the Floridan aquifer between 110 to 1,500 feet bls.

DDC began construction of test-production well on April 4, 2002 by installing 30-inch diameter steel pit casing to 40 feet bls and pressure-grouting it to land surface. Once completed, DDC advanced a nominal 29-inch diameter borehole via mud rotary method to a depth of 115 feet bls and installed the first production casing. The production casing consisted of 24-inch diameter steel pipe (ASTM A53, Grade B) installed from land surface to 110 feet bls. DDC re-configured the drill bit assembly and advanced a nominal 12-inch diameter borehole through the upper Floridan aquifer to 260 feet bls using the reverse-air method.

Once the borehole was completed it was developed using the reverse-air techniques. SFWMD then conducted an aquifer performance test (APT) on the upper Floridan aquifer production interval (110 to 260 feet bls – Zone A) during late April 2002.

After successfully completing the first APT, DDC reamed the nominal 12-inch diameter borehole via the reverse-air drilling method using a nominal 23-inch diameter bit to 373 feet bls. The second stage of well construction consisted of installing 18-inch diameter steel casing (ASTM A53, Grade B) from land surface to 370 feet bls. DDC completed installation of the 18-inch diameter, steel production casing on May 8, 2002.

On May 16, 2002, DDC advanced a nominal 17-inch diameter bit via reverse-air method to a total depth of 680 feet bls. They developed the second production interval (370 to 680 feet bls –

Zone B) using reverse-air and centrifugal pumping techniques. Once sufficiently developed, SFWMD conducted and successfully completed the second APT on May 23, 2002.

Upon completing the second APT, DDC advanced a 17-inch diameter borehole via the reverse-air drilling method to 1,215 feet bls and subsequently installed 12-inch diameter steel casing to 1,210 feet bls. On June 18, 2002, DDC began to advance a nominal 12-inch borehole via the reverse air method to a total depth of 1,500 feet bls. DDC developed the third production interval from 1,210 to 1,500 feet bls, using reverse-air and a centrifugal pump technique. Once sufficiently developed, SFWMD conducted and successfully completed the third APT on the lower Floridan aquifer on July 1, 2002. This production-test well will be plugged and abandoned at a later date. It was closed at the surface using a 12-inch diameter blind flanged secured to 12-inch diameter production casing.

# HYDROSTRATIGRAPHIC FRAMEWORK

SFWMD collected geologic formation samples (well cuttings) from the pilot hole during drilling operations for the tri-zone FAS monitor well and separated them based on their dominant lithologic or textural characteristics, and to a lesser extent color. The onsite geologist then washed then described the samples using the Dunham (1962)-classification scheme. SFWMD's onsite lithologic descriptions are summarized in **Appendix A.** SFWMD then sent these samples to the Florida Geological Survey (FGS) for further analysis and long-term storage identified using the reference number **W-18369.** An electronic version of the lithologic description can be downloaded directly from the FGS Internet site.

Two major aquifer systems underlie this site, the surficial aquifer system, and the Floridan aquifer system with the Floridan aquifer system being the focus of this test well program. These aquifer systems are composed of multiple, discrete aquifers separated by low permeability "confining" units that occur throughout this Tertiary/Quaternary-aged sequence. **Figure 2** shows a generalized lithostratigraphic and hydrogeologic section underlying the Intercession City site.

The FAS consists of a series Tertiary Age limestone and dolostone units. The system includes permeable sediments of the Ocala Limestone, Avon Park Formation, and the Oldsmar Formation. The Paleocene age Cedar Keys Formation with evaporitic gypsum and anhydrite forms the lower boundary of the FAS (Miller, 1986), which was not penetrated at this site.

eet (bls)	Lithology	Series	Formations	Ну	Hydrogeologic Unit		Flow		
٠ ا	Quartz Sand/Shell	Pliocene	Undifferentiated Sands	Sur	ficial Aqu	ifer			
-	Silts & Clay	Miocene	Hawthorn Ocala	Co	nfining U		12		
150	Mudstone	-	Limestone		Upper F Aqu	ifer	← Diffuse Flov		
	Packstone/ Grainstone	1 1			Zon	20,000	V		
300		-			Ser Confini				
450	Dolostone				Upper F		← Point Flow		
600	Packstone/ Wackestone				Aqu Zon		V		
750	Dolostone								
900	Packstone/ Wackestone		Avon Park Fm.		Mid	dle			
1,050	Mudstone		Avon P	Avon P	Avon P.		Confining Unit		
1,200	Dolostone	eu l			Lower F	lauldau	•		
1,350	Packstone	Eocene		Ε	Aqu Zon	ifer	0		
1,500	Dolostone	-		ster					
-	Dolostone/	-		ŝ					
1,650	Mudstone	-		uifer					
1,800	Dolomitic			Floridan Aquifer System	Lov Confi Ur	ining			
1,950	Packstone		estone		Lower Floridan		<ul><li>•</li></ul>		
2,100			Oldsmar Limestone		Aqu Zon	ifer	0		
0.050			spic						
2,250	Dolostone	1 I	9		Sub-Fle Lov				
-	w/Anhydrite	┥ ┃			Confi				
2,400	Grainstone				Ur				
	oth Florida Water Mama District 3301 Gun Club Roa est Palm Beach, Florida	d	Intercession Tri-zone Monit		506	Н	Lithologic & ydrogeologic		

Figure 2. Generalized Lithostratigraphic and Hydrogeologic Section – Intercession City Site

The top of the FAS, as defined by the Southeastern Geological Society AdHoc Committee on Florida Hydrostratigraphic Unit Definition (1986), coincides with the top of a vertically continuous permeable carbonate sequence. The upper Floridan aquifer (UFA) consists of thin water bearing horizons with high permeability interspersed within thick units of Early to middle-Eocene age sediments with low permeability, including the Ocala Limestone and the Avon Park Formation. At this site, the top of the FAS occurs at a depth of 110 feet bls, which coincides with the upper portion of the Ocala Limestone.

Two discrete zones were identified in the UFA separated by a semi-confining unit. These two productive horizons are designated as "Zone A and Zone B" consistent with nomenclature used in O'Reilly et al., 2002. Zone A corresponds to the upper one-third of the aquifer and coincides with the Ocala Limestone and upper part of the Avon Park Formation. The top of this interval is marked by a lost circulation horizon (permeable zone) at 110 feet bls near the contact between the Hawthorn Group and Ocala Limestone. Low permeable mudstones and inter-bedded bluishgray clays define the lower limits of Zone A at 260 feet bls. The first aquifer performance test was conducted on the interval between 110 and 260 feet bls. Analysis of data yielded a transmissivity value of 115,000 gallons per day per foot (gpd/ft) of aquifer, storage coefficient of 2.2 x 10<sup>-5</sup>, and an r/B value of 0.12 with a calculated leakance of 1.43 x 10<sup>-2</sup> gpd/ft<sup>3</sup>. Water levels in the overlying confining unit (IC\_HCU) and Zone B of the UFA (OSF-99) declined during the drawdown phase of the APT indicating semi-confined conditions.

Low permeable mudstone units inter-bedded with poorly indurated bluish-gray clays and dense, microcrystalline dolostone units from 260 to 360 feet bls act as an intervening semi-confining unit separating Zone A from Zone B within the UFA.

Zone B, which may also be referred to in the literature as the Avon Park Permeable zone or the middle Floridan aquifer, corresponds to the lower two-thirds of the UFA with the majority of water production from 360 to 425 feet bls. This zone corresponds to fractured and cavernous dolostone units in the upper portion of the Avon Park Formation. Smaller, less productive intervals continue from 425 to 680 feet bls. A second APT test was conducted on the interval between 360 and 680 feet bls. Analysis of test data yielded a transmissivity of 510,000 gpd/ft, storage coefficient of 6.1 x 10<sup>-5</sup>, and an r/B value of 0.07. Water levels in the monitor well identified as OSF-100, constructed in Zone A of the UFA, declined during the drawdown phase of the APT indicating semi-confined conditions. Water levels in the lower Floridan aquifer (monitored via OSF-98) were not affected by withdrawals from Zone B of the upper Floridan aquifer. Water level data suggests that downward leakage occurred primarily across the semi-confining unit separating Zone A from Zone B with no upward contribution across the underlying middle semi-confining unit.

The middle semi-confining unit separates the upper and lower Floridan aquifers and is composed of moderately to poorly indurated limestone (mudstone and wackestone) units with calcite and gypsum/anhydrite that appears to fill pre-existing secondary porosity features – infilling occurs predominately from 855 to 1,180 feet bls. The top of the middle semi-confining unit is located at

approximately 680 feet bls and approximately 550 feet thick, which effectively isolates the upper and lower Floridan aquifers.

The lower Floridan aquifer underlies the middle semi-confining unit. The top of the lower Floridan aguifer at this site was identified at 1,210 feet bls corresponding to a well-indurated dolostone unit having good fracture and secondary porosity development. The top of the lower Floridan aguifer is marked by increased formation resistivity and decreased sonic transit time indicative of a well indurated rock unit. Through the lower Floridan aquifer, however the formation resisitivity and sonic transit times and caliper vary significantly in response to fractures and solution features. The production-type logs indicate a noticeable increase in downward flow and change in water quality near the top of the lower Floridan aquifer. aquifer performance test was conducted on the interval from 1,210 to 1,500 feet bls and analysis of the test data yielded a transmissivity value of 1,500,000 gpd/ft, a storage coefficient of 1.2 x 10<sup>-5</sup>, and an r/B value of 0.007. These hydraulic results indicate that the LFA is highly productive but confined in nature as seen by a fairly small storage coefficient and r/B value. Results of laboratory analyses conducted on water samples from the LFA indicate that inorganic constituents exceed potable drinking water standards. Low permeable sediments of the middle Avon Park Formation mark the base lower Floridan aquifer at approximately 1,500 feet bls.

The Avon Park and upper part of the Oldsmar Formation from 1,500 to 2,000 feet bls, consists of low permeability, moderately indurated, dolomitic wackestones and packstones and well indurated, dense crystalline dolostones. Formation samples do not show evidence of large-scale secondary porosity development, and the temperature and flowmeter log traces indicate limited water production, which supports the overall confining nature of this interval.

A low to moderately permeable dolostone unit occurs from 2,000 to 2,130 feet bls. The change in lithology from a dolomitic limestone to dolostone is noted by individual geophysical log traces. The induction and sonic logs show a slight increase in formation resistivity and lower sonic transit times, which are indicative of well-indurated dolostones. A minor flow zone, present near the top of this dolostone sequence was initially identified during reverse-air drilling operations. Minor deflections in the temperature log and information from the borehole video log confirmed small productive horizons from 2,000 to 2,130 feet bls. This interval was identified as Zone B within the LFA. Results of laboratory analyses conducted on water samples from this zone indicate that inorganic constituents exceed potable drinking water standards but are relatively good considering the sample depth with a total dissolved solids (TDS) concentrations 1,866 mg/L. This lowermost interval was identified for long-term water level and quality monitoring (OSF-97; 2,000 to 2,096 feet bls). Low permeable sediments of the Oldsmar Formation mark the base of the lower Floridan aquifer at 2,130 feet bls.

Hard, dense dolostone and well-indurated limestone units inter-bedded with anhydrite are present from 2,130 feet bls to a total depth of 2,480 feet bls. These low permeable units form the sub Floridan confining unit – lower limits of the Floridan aquifer system. A packer test conducted on an interval from 2,350 to 2,480 feet bls produced less than half a gallon per minute (gpm) with approximately 80 feet of drawdown yielding a specific capacity of less than 0.01 gpm per foot of drawdown. The packer assembly was moved to 2,226 feet bls and the test repeated on an interval from 2,226 to 2,480 feet bls. This interval produced 1.5 gpm and allowed a water sample to be

taken for laboratory analyses. The very low specific capacity of 0.04 gpm/ft in concert with the production log data and formation samples confirm the confining nature of this interval.

# **Hydrogeologic Testing**

SFWMD collected specific information during the drilling program to determine the lithologic, hydraulic, and water-quality characteristics of the Floridan aquifer system at this site. These data were to be used in the final design of both the Floridan aquifer monitor and test-production wells for use in site-specific aquifer tests, and a long-term water level and water-quality monitoring program. **Figure 3** summarizes the well construction and test results from the Intercession City site.

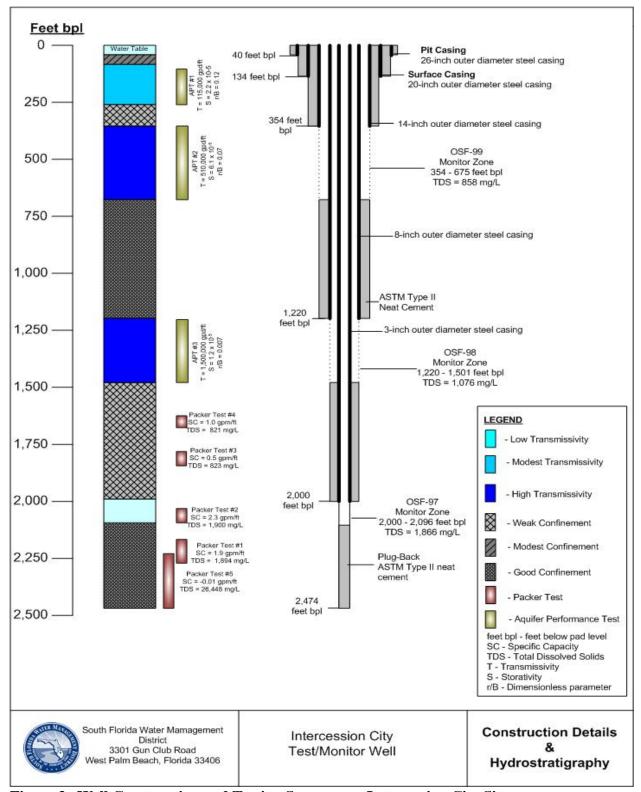


Figure 3. Well Construction and Testing Summary – Intercession City Site

# **Formation Fluid Sampling**

During reverse-air drilling of the pilot-hole, samples were taken from circulated return fluids (composite formation water) at 30-foot intervals (average length of drill rod) from 250 feet bls to 2,440 feet bls. A Hydrolab® multi-parameter probe was used to measure field parameters on each sample, which included temperature, specific conductance, and pH. **Figure 4** shows field determined specific conductance values and calculated total dissolved solids (TDS) concentrations with respect to depth using the following equation TDS = Specific Conductance \* 0.65 (Hem, 1994).

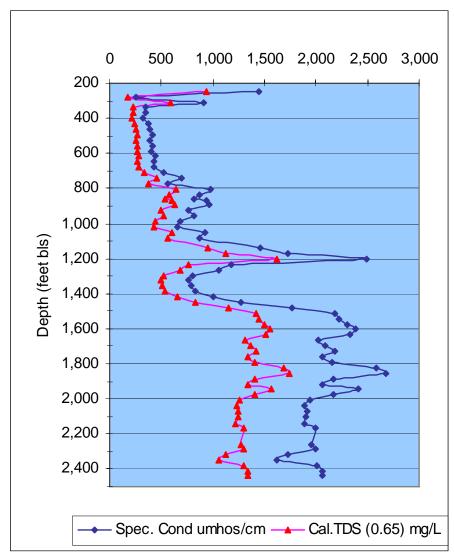


Figure 4. Water Quality with Depth

## **Geophysical Logging**

Geophysical logging was conducted in the pilot-holes after each stage of drilling and before reaming of the boreholes for casing installations. The resulting logs provide a continuous record of the physical properties of the subsurface formations and their respective fluids. These logs were later used to assist in the interpretation of lithology, provide estimates of permeability,

porosity, bulk density, and resistivity of the aquifer and formation water. In addition, the extent of confinement of discrete intervals can be discerned qualitatively from the individual logs.

The geophysical logging contractor(s) downloaded the data directly from the onsite logging processor onto diskettes using log ASCII standard (LAS) version 1.2 or 2.0 format. **Appendix B** contains the geophysical log traces from the various log runs for IC-TW. **Table 3** is a summary of the geophysical logging program conducted at this site. The original geophysical logs and video surveys from the Intercession City site are archived (SFWMD reference no. 097-000028) and available for review at the SFWMD headquarters in West Palm Beach, Florida.

Run #	Date	Logging Company	Logged Interval feet below land surface	Caliper	Natural Gamma Ray	S P	Dual Induct	Sonic	Density Neutron PEF	Flow- Meter	Temp	Fluid Resist	Video
1	11/08/01	SRE	42 - 135	X	X								
2	11/19/01	MVG	134 - 708	X	X	X	X	X		X	X	X	
3	11/27/01	MVG	134 - 422	X	X								
4.a	12/12/01	MVG	354 - 1325	X	X	X	X	X					X
4.b	12/15/01	MVG	354 - 1325							X	X	X	
5	01/07/02	SRE	354 - 1227	X	X								
6	01/08/02	SRE	0 - 1220		X						X		
7	01/28/02	MVG	1220 - 2258	X	X	х	X	X		X	X	X	X
8	02/21/02	SWS	1220 - 2474	X	X	X	X	X	X				

SRE = Southern Resource Exploration

MVG = MV Geophysical Inc

SWS = Schlumberger Wireline Service

Measuring Point Elevation is Land Surface at 68.4 feet NGVD, 1929

Table 3. Summary of Geophysical Logging Activities at the Intercession City Site

## **Straddle Packer Tests**

and specific capacity tests.

SFWMD conducted a series of straddle-packer tests within the Floridan aquifer system between 1,622 and 2,474 feet bls. The purpose of these tests was to gain water quality and production capacity data on discrete intervals. SFWMD selected intervals based on lithologic, geophysical logs, borehole video surveys and hydraulic and water quality considerations using all available data. The Contractor purged the packer intervals a minimum of three borehole volumes or until field parameters of samples collected from the discharge pipe had stabilized then SFWMD obtained individual ground water samples. A limit of +/-5% variation in consecutive field parameter readings was used to determine chemical stability. SFWMD staff used a Hydrolab® multiparameter probe to measure field parameters including temperature, specific conductance, and pH on each sample. SFWMD personnel collected unfiltered and filtered water in accordance with SFWMD sampling protocol. The water samples were placed on ice and transported to the SFWMD water quality laboratory where they were analyzed for inorganic constituents using EPA and/or Standard Method procedures (SFWMD, Comprehensive Quality Assurance Plan, 2000). **Table 4** 

lists the field parameters and laboratory-determined water quality results for the individual packer

Inorg	Inorganic Water Quality Data from Intercession City Drill Site, Osceola County, Florida.											
			Cat	ions			Anions			Field	Paramete	rs
Identifier	Depth Interval (ft. bls)	Na <sup>+</sup> mg/L	K <sup>+</sup> mg/L	Ca <sup>2+</sup> mg/L	Mg <sup>2+</sup> mg/L	Cl <sup>-</sup> mg/L	Alka as CaCO <sub>3</sub> mg/L	SO <sub>4</sub> <sup>2-</sup> mg/L	TDS mg/L	Specific Conduct. umhos/cm	Temp ° C	pH s.u.
OSF97-SC2	355-580	3.4	1.4	63.4	17.3	4.7	95	136.0	350	725	24.71	7.81
OSF97-SC1	355-720	4.3	1.4	66.0	18.5	4.6	97	142.0	370	469	24.39	7.54
OSF97-PT4	1622-1672	10.8	1.8	143.3	49.0	16.4	111	424.2	821	1,054	27.48	7.53
OSF97-PT3	1776-1826	12.3	2.3	148.0	57.5	15.9	111	453.0	823	1,071	27.16	7.47
OSF97-PT2	2033-2088	10.4	2.1	439.0	95.3	23.2	108	1155.5	1,899	1,864	26.53	7.40
OSF97-PT1	2148-2258	11.2	2.5	397.0	95.1	13.2	106	1122.2	1,894	2,021	27.22	7.43
OSF97-PT5	2226-2472	6637.6	222.7	1203.6	738.7	12374.3	138	4082.2	26,448	37,549	24.79	7.43
mg/L = milligrams per liter PT = Packer Test												

umhos/cm = microumhos per centimeter

SC = Specific Capacity Test

s.u = standard unit

° C = degree Celsius

ft. bls = feet below land surface

Table 4. Water Quality Data obtained during Packer and Specific Capacity Tests

The Hazen-Williams equation was used to calculate the friction (head) losses for all drawdown data because of induced flow up the drill pipe. These head losses were then used to correct the drawdown data for specific capacity determinations. Curve-matching techniques were not used to determine transmissivity values from the drawdown or recovery data. These tests generally involve partial penetration, have significant friction loss due to small pipe diameter, and have short pumping periods, which violate basic assumption of the various analytical methods. Table 5 lists the pertinent hydraulic information from the individual packer and specific capacity tests.

Identifier	Depth (ft. bls.)	Pump Rate (gpm)	Pump Duration (min)	Corrected Drawdown (feet)	Calculated Specific Capacity (gpm/ft)	Measured Hydraulic Head (feet, NGVD-29)
OSF97-SC2	355-580	2800	60	14.0	200.0	ND
OSF97-SC1	355-720	2800	60	13.7	205.2	ND
OSF97-PT4	1622-1672	53	60	78.9	1.0	52.9
OSF97-PT3	1776-1826	35	80	69.0	0.5	50.7
OSF97-PT2	2033-2088	38	85	15.7	2.4	51.3
OSF97-PT1	2148-2258	38	95	15.8	2.4	49.7
OSF97-PT5	2226-2472	1.5	1440	36.7	0.04	21.8

ft .bls = feet below land surface

NGVD, 29 = National Geodetic Vertical Datum of 1929

gpm = gallons per minute

ND = Not Determined

gpm/ft = gallons per minute per foot of drawdown

SC = Specific Capacity Test

PT = Packer Test

Table 5. Summary of Hydraulic Data obtained from Packer and Specific Capacity Tests

### **Long-Term Ground Water Level/Quality Monitoring Program**

Shortly after the construction of the SAS, HCU, and FAS monitor wells, SFWMD collected water samples to establish baseline water quality conditions. Unfiltered and filtered water samples were taken directly from the discharge point into a Teflon bailer, which was placed on a stand where the

sample bottles filled slowly, minimizing aeration. As part of SFWMD's water quality sampling protocol, duplicate samples were collected from consecutive bailers with sample splits collected from the same bailer. Once collected, all water samples were preserved and immediately placed on ice in a closed container and transported to SFWMD water quality laboratory. The laboratory analyzed the samples using EPA and/or Standard Method procedures (SFWMD, Comprehensive Quality Assurance Plan, 2000). **Table 6** summarizes the analytical results of the inorganic constituents from the completed monitor wells.

Inorg	Inorganic Water Quality Data from the Intercession City Drill Site, Osceola County, Florida.											
			Cat	tions			Anions			Field F	arameter	's
Identifier	Depth Interval (ft. bls)	Na <sup>+</sup> mg/L	K⁺ mg/L	Ca <sup>2+</sup> mg/L	Mg <sup>2+</sup> mg/L	Cl <sup>-</sup> mg/L	Alka as CaCO <sub>3</sub> mg/L	SO <sub>4</sub> <sup>2</sup> · mg/L	TDS mg/L	Specific Conduct. umhos/cm	Temp ° C	pH s.u.
IC_SAS	15-20	20.8	8.6	52.6	3.8	14.1	172	5.2	300	347	23.29	6.80
IC_HCU	45-55	135.7	1.4	69.5	13.7	277.9	71	71.3	682	1,059	22.36	7.85
OSF-100	110-280	3.7	2.2	38.6	9.6	5.2	66	68.2	200	297	22.55	8.55
OSF-99	355-675	4.0	1.7	169.9	54.1	6.1	93	503.5	858	1,085	24.12	7.84
OSF-98	1220-1500	7.3	1.7	209.6	61.8	9.1	101	610.7	1,076	1,258	25.21	7.71
OSF-97	2000-2130	12.7	2.2	391.0	98.5	18.4	106	1150.3	1,866	2,030	26.02	7.66
umhos/cm = m	mg/L = milligrams per liter  the blase feet below land surface  umhos/cm = microumhos per centimeter  s.u = standard unit  o C = degree Celsius											

Table 6. Composite Water Quality Data from Completed Monitor Wells

In addition, SFWMD established a potentiometric-head monitoring program by installing automated pressure recorders on the various monitor wells constructed at this site. The sample frequencies were set to hourly readings to identify short- and long-term stresses to the FAS.

The pressure transducer converted all pressure readings to equivalent fresh-water heads in feet using a conversion factor of 2.31 feet of head per psi. SFWMD then added the converted pressure readings to the surveyed measuring point elevation (located on the concrete well pad) to obtain a hydraulic head referenced to the National Geodetic Vertical Datum (NGVD) of 1929.

**Figures 5** illustrate hourly water level data between March 5, 2003 and August 2, 2003 for the SAS, HCU and FAS monitor intervals. **Table 7** lists the monitor intervals within the SAS, HCU and FAS, average recorded hydraulic head, and degree of variation. These hydrographs show water level fluctuations that may be attributed to tidal loading, earth tides, and changes in atmospheric pressure (i.e., barometric effect).

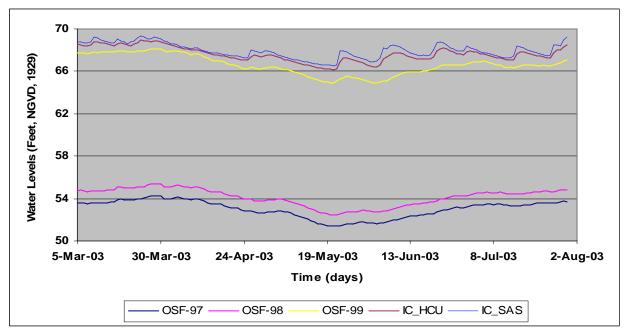


Figure 5. Time Series Plot of Water Levels from Completed Monitor Wells

Table 7.

Identifier	Monitor Interval (feet bls)	Average Measured Hydraulic Head (feet NGVD, 1929)	Standard Deviation (feet)				
IC_SAS	15 to 20	67.95	0.70				
IC_HCU	45 to 55	67.61	0.69				
OSF-99	370 to 680	66.58	0.92				
OSF-98	1,220 to 1,490	54.13	0.83				
OSF-97	2,000 to 2,097	53.00	0.82				
Period of Record from 03/05/03 to 08/02/03							

# **Summary**

- 1. The top of the Floridan aquifer system (FAS) as defined by the Southeastern Geological Society AdHoc Committee on Florida Hydrostratigraphic Unit Definition (1986) was identified at a depth of approximately 110 feet below land surface (bls).
- 2. Lithologic and geophysical logs, specific capacity and APT results indicate moderate production capacity in Zone A of the UFA, good production capacity in Zone B of the UFA and excellent production capacity in the LFA.
- 3. Water quality data from packer tests and completed monitor zones indicate that chloride and total dissolved solids in the upper Floridan aquifer waters meet potable drinking water standards.

- 4. The base of the Underground Source of Drinking Water, those waters having TDS concentrations less than 10,000 mg/L, occurs at an approximate depth of 2,250 feet bls.
- 5. Zone A of the UFA from 110 to 260 feet bls yielded a transmissivity value of 115,000 gallons per day per foot of aquifer (gpd/ft), storage coefficient of  $2.2 \times 10^{-5}$ , a r/B value of 0.12, and a leakance value of  $1.43 \times 10^{-2}$  gpd/ft<sup>3</sup>.
- 6. Zone B of the UFA 360 to 860 feet bls yielded transmissivity value of 510,000 gpd/ft, storage coefficient of  $6.1 \times 10^{-5}$ , a r/B value of 0.07 and a leakance value of  $2.16 \times 10^{-2}$  gpd/ft<sup>3</sup>.
- 7. A productive horizon in LFA from 1,210 to 1,500 feet bls yielded a transmissivity value of 1,500,000 gpd/ft storage coefficient of  $1.2 \times 10^{-5}$ , a r/B value of 0.007, and a leakance value of  $6.36 \times 10^{-4}$  gpd/ft<sup>3</sup>.
- 8. The average measured hydraulic heads for the FAS monitoring intervals are as follows:
  - 66.58 feet above mean sea level for the 370 to 860 feet bls monitor interval
  - 54.13 feet above mean sea level for the 1,220 to 1,490 feet bls monitor interval
  - 53.00 feet above mean sea level for the 2,000 to 2097 feet bls monitor interval.
- 9. Water levels in the FAS respond to external stresses such as tidal loading and barometric pressure variations.

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# APPENDIX A SOUTH FLORIDA WATER MANAGEMENT DISTRICT LITHOLOGIC DESCRIPTIONS

#### LITHOLOGIC WELL LOG PRINTOUT

WELL NUMBER: W-18369 COUNTY - OSCEOLA TOTAL DEPTH: 2480 FT. LOCATION: T.26 R.28 S.03 11 480 SAMPLES FROM 80 TO 2480 FT. LAT = 28D 15M 21S

SOURCE - FGS

LON = 81D 30M 13SCOMPLETION DATE: 03/25/02 ELEVATION: 66 FT

OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:OSF-97 DIVERSIFIED DRILLING CORP/ED RECTENWALD

#### WORKED BY:E DORN 5/21/2003 PICKS BY RICK GREEN AND BRIE COANE

0. - 80. 000NOSM NO SAMPLES

80. - 90. 124AVPK AVON PARK FM. 90. - 185. 000NOSM NO SAMPLES

185. - 1605. 124AVPK AVON PARK FM.

1605. - . 124OLDM OLDSMAR LIMESTONE

#### 0 - 80 NO SAMPLES

#### 80 - 85 PACKSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERGRANULAR GRAIN TYPE: PELLET, SKELETAL 80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ SAND-05%, SHELL-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: MOLLUSKS

#### 85 - 90 PACKSTONE; YELLOWISH GRAY

POROSITY: INTERGRANULAR GRAIN TYPE: PELLET, SKELETAL 90% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SHELL-05%, QUARTZ SAND- T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: MOLLUSKS

#### 90 - 185 NO SAMPLES

#### 185 - 190 PACKSTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR GRAIN TYPE: PELLET, SKELETAL 65% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: CLAY-05% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA Amphistegina, roots and twigs

#### 190 - 195 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR GRAIN TYPE: CALCILUTITE, PELLET 40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, MOLLUSKS

# 195 - 200 WACKESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR

GRAIN TYPE: CALCILUTITE, PELLET

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: FOSSIL MOLDS

#### 200 - 210 NO SAMPLES

210 - 215 WACKESTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR

GRAIN TYPE: CALCILUTITE, PELLET

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

FOSSILS: NO FOSSILS

215 - 220 WACKESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: CALCILUTITE, PELLET

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

FOSSILS: NO FOSSILS

220 - 225 PACKSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

DOLOMITIC

FOSSILS: NO FOSSILS

225 - 230 WACKESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

FOSSILS: NO FOSSILS

230 - 235 PACKSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

FOSSILS: NO FOSSILS

235 - 240 WACKESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: CALCILUTITE, PELLET

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: LOW RECRYSTALLIZATION, PLATY

UNWASHED SAMPLE

FOSSILS: NO FOSSILS

Interbedding of a greenish mineral on some of the sample

(~5%) roots and twigs

#### 240 - 245 PACKSTONE; GRAYISH BROWN TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE, SKELTAL CAST

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA, CORAL

Dictyconus

#### 245 - 250 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE, SKELETAL

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE

FOSSILS: ECHINOID, FOSSIL FRAGMENTS

#### 250 - 255 GRAINSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, SKELETAL

95% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-05% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: FOSSIL MOLDS, ECHINOID, FOSSIL FRAGMENTS

### 255 - 260 AS ABOVE

## 260 - 265 WACKESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERGRANULAR GRAIN TYPE: CALCILUTITE, PELLET 40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-30%

OTHER FEATURES: CHALKY, UNWASHED SAMPLE

FOSSILS: ECHINOID

Sample is very poorly indurated, chalky and easily broken

possible casing cement present

#### 265 - 270 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Dictyconus, Lituonella, Cribrobulimina; casing cement

#### 270 - 275 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR GRAIN TYPE: PELLET, CALCILUTITE 85% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Spirolina, Dictyconus, Lituonella

#### 275 - 280 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-05%, DOLOMITE-02%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Cribrobulimina, Lituonella, and Dictyconus abundant

#### 280 - 285 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Dictyconus

#### 285 - 290 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE, SKELETAL

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR- T%

OTHER FEATURES: UNWASHED SAMPLE FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS

Dictyconus; casing cement

#### 290 - 295 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Dictyconus

#### 295 - 300 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Dictyconus, Cribrobulimina

305 - 310 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-30% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

Dictyconus

310 - 315 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-15% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA

315 - 320 PACKSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-45% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

320 - 325 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 10-50% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT. CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-15%

OTHER FEATURES: SUCROSIC FOSSILS: BENTHIC FORAMINIFERA

Dictyconus

325 - 330 DOLOSTONE: GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

330 - 335 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: ECHINOID, BENTHIC FORAMINIFERA

335 - 340 DOLOSTONE; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 10-50% ALTERED **SUBHEDRAL** 

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-30% OTHER FEATURES: SUCROSIC FOSSILS: BENTHIC FORAMINIFERA

340 - 345 PACKSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE 70% ALLOCHEMICAL CONSTITUENTS

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: DOLOMITE-15% OTHER FEATURES: SUCROSIC

FOSSILS: BENTHIC FORAMINIFERA

345 - 350 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR LOW PERMEABILITY; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA

350 - 355 AS ABOVE

355 - 360 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-O5%

OTHER FEATURES: SUCROSIC

FOSSILS: NO FOSSILS

360 - 365 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

Spirolina

365 - 370 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CALCILUTITE 80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-45% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

casing cement; phosphate likely cavings

370 - 375 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE 90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE- T% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA Dictyconus

375 - 380 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

380 - 385 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, MOLDIC

GRAIN TYPE: PELLET, CALCILUTITE

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: FOSSIL MOLDS

385 - 390 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: MEDIUM TO VERY FINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

 $390\,$  -  $\,400\,$  DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-O5%, SPAR-T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

400 - 405 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-02%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

405 - 410 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-45% OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

 $410\,$  -  $\,415\,$  DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T% OTHER FEATURES: SUCROSIC FOSSILS: NO FOSSILS

415 - 420 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: SUCROSIC

FOSSILS: NO FOSSILS

420 - 425 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: SUCROSIC

FOSSILS: NO FOSSILS

425 - 430 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: SUCROSIC LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

430 - 435 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

both sucrosic and non-sucrosic dolomite; casing cement

435 - 440 DOLOSTONE: GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

casing cement

440 - 445 AS ABOVE

445 - 450 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA

450 - 455 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

casing cement

455 - 460 DOLOSTONE: GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: FOSSIL FRAGMENTS

460 - 465 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

Two levels of recrystallization: low and high; high ~5% -

could be cavings

465 - 470 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

470 - 475 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

475 - 480 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

480 - 485 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

Two levels of recrystallization: Low & High; high  $\sim$ 25% of sample

485 - 490 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

490 - 495 DOLOSTONE; GRAYISH ORANGE TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

495 - 500 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 10-50% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS very low-grade dolomite

 $500\,$  -  $\,505\,$  WACKESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR

GRAIN TYPE: PELLET, CALCILUTITE

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE; RANGE: FINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

505 - 510 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR

GRAIN TYPE: PELLET, CALCILUTITE

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE; RANGE: FINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-07%

OTHER FEATURES: DOLOMITIC

LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

 $510\,$  -  $\,515\,$  PACKSTONE; VERY LIGHT ORANGE TO MODERATE GRAY

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-45%

OTHER FEATURES: DOLOMITIC

FOSSILS: FOSSIL MOLDS

515 - 520 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE GRAIN TYPE: PELLET, CALCILUTITE, CRYSTALS 90% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05% OTHER FEATURES: LOW RECRYSTALLIZATION, UNWASHED SAMPLE DOLOMITIC

#### 520 - 525 AS ABOVE

525 - 530 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE
 POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE
 GRAIN TYPE: PELLET, CALCILUTITE, CRYSTALS
 90% ALLOCHEMICAL CONSTITUENTS
 GRAIN SIZE: VERY FINE
 RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: DOLOMITE-10%, QUARTZ-T% OTHER FEATURES: LOW RECRYSTALLIZATION DOLOMITIC

FOSSILS: FOSSIL MOLDS

FOSSILS: FOSSIL MOLDS

530 - 535 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS 30% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-05%, QUARTZ-T% OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: NO FOSSILS

535 - 540 PACKSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY
POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR
GRAIN TYPE: PELLET, CALCILUTITE, CRYSTALS
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE
RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE- T%, ORGANICS- T%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: BENTHIC FORAMINIFERA

540 - 545 PACKSTONE; GRAYISH BROWN TO GRAYISH ORANGE
POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR
GRAIN TYPE: PELLET, CALCILUTITE
80% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE
RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE- T%
OTHER FEATURES: DOLOMITIC, UNWASHED SAMPLE

545 - 550 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR 50-90% ALTERED; SUBHEDRAL GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

FOSSILS: BENTHIC FORAMINIFERA

MODERATE INDURATION
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE- T%
OTHER FEATURES: CALCAREOUS, UNWASHED SAMPLE
FOSSILS: FOSSIL MOLDS

#### 550 - 555 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-40%

OTHER FEATURES: CALCAREOUS, UNWASHED SAMPLE

FOSSILS: FOSSIL MOLDS

#### 555 - 560 WACKESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET 50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-02%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: FOSSIL MOLDS

#### 560 - 565 WACKESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

#### 565 - 570 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CALCILUTITE, CRYSTALS

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%, QUARTZ- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

#### 570 - 575 WACKESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ-01%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

#### 575 - 580 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

Sample is highly recrystallized - no original fabric is

apparent

#### 580 - 585 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE- T%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

#### 585 - 590 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE- T%, ORGANICS- T%, QUARTZ- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

#### 590 - 595 PACKSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 595 - 600 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

#### 600 - 605 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA

#### 605 - 610 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

610 - 615 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS; 20% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION

615 - 620 PACKSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR GRAIN TYPE: PELLET, CRYSTALS 60% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%, DOLOMITE-01% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: BENTHIC FORAMINIFERA

620 - 625 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR GRAIN TYPE: PELLET, CRYSTALS 60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-01% OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

FOSSILS: NO FOSSILS

casing cement

625 - 630 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS 70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

630 - 635 PACKSTONE: GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

635 - 640 AS ABOVE

640 - 645 PACKSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS 70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

645 - 650 PACKSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS 70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

650 - 655 PACKSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

65% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

655 - 660 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

660 - 665 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

665 - 670 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED: ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, QUARTZ- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

670 - 675 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-10%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

### 675 - 680 GYPSUM; YELLOWISH GRAY TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

POOR INDURATION

CEMENT TYPE(S): GYPSUM CEMENT, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-40%, ORGANICS-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

Sample consists of granule to gravel-sized gypsum clasts of subhedral crystals, loosely cemented together with very fine gypsum. Also contains gravel-sized dolomite clasts and

some silt-sized dolomite.

 $680\,$  -  $\,685\,$  DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, GYPSUM- T%

OTHER FEATURES: CALCAREOUS

MEDIUM RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

### 685 - 690 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-02%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 690 - 695 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

25% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: DOLOMITIC

FOSSILS: FOSSIL MOLDS

# 695 - 700 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: DOLOMITIC

FOSSILS: BENTHIC FORAMINIFERA

# 700 - 705 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE-01%, GYPSUM- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

# FOSSILS: BENTHIC FORAMINIFERA

705 - 708 PACKSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-02%, DOLOMITE-T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

708 - 710 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: DOLOMITIC

HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

710 - 715 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM- T% OTHER FEATURES: CALCAREOUS

HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

715 - 720 LIMESTONE: GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: CALCITE-01%, DOLOMITE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

720 - 725 PACKSTONE: GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: FINE; RANGE: FINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

725 - 730 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

25% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS Pore-filling Calcite

730 - 732 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

732 - 735 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, MOLDIC

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, CALCITE- T%

OTHER FEATURES: CALCAREOUS

HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

735 - 740 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-03%

OTHER FEATURES: CALCAREOUS

MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

740 - 745 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCITE- T% OTHER FEATURES: CALCAREOUS

MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

745 - 750 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCITE-01%

OTHER FEATURES: CALCAREOUS

MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

750 - 755 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T% OTHER FEATURES: CALCAREOUS MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

755 - 757 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-02%, ORGANICS- T%

OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

757 - 760 WACKESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

760 - 765 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

765 - 770 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

 $ACCESSORY\ MINERALS:\ ORGANICS-\ T\%,\ ANHYDRITE-\ T\%$ 

OTHER FEATURES: DOLOMITIC

MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

770 - 775 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: DOLOMITIC

MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

775 - 780 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL.

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01% OTHER FEATURES: CALCAREOUS MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

780 - 785 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: DOLOMITIC MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

785 - 790 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: DOLOMITIC MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

790 - 795 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE GRAIN TYPE: CRYSTALS, PELLET 15% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE- T%

CALCITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

795 - 800 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

800 - 805 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-01% OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION FOSSILS: FOSSIL MOLDS

805 - 810 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

Moderate to low recrystallization - some packstone fabric

still visible.

810 - 815 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

 $CEMENT\ TYPE(S):\ CALCILUTITE\ MATRIX,\ DOLOMITE\ CEMENT$ 

 ${\tt ACCESSORY\ MINERALS:\ DOLOMITE-05\%,\ ANHYDRITE-15\%}$ 

OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

815 - 820 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 20% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-01%, ANHYDRITE-10%

OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

820 - 825 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 15% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

825 - 830 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%, DOLOMITE-01%

OTHER FEATURES: DOLOMITIC HIGH RECRYSTALLIZATION

830 - 835 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-30%

OTHER FEATURES: DOLOMITIC

HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $835\,$  -  $\,840\,$  LIMESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%, ORGANICS- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

840 - 845 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

35% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

845 - 850 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

850 - 855 LIMESTONE: GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-02%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

855 - 859 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, ANHYDRITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

859 - 860 ANHYDRITE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR MODERATE INDURATION CEMENT TYPE(S): ANHYDRITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: LIMESTONE-40%, ORGANICS- T% OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

860 - 865 NO SAMPLES

865 - 870 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: ANHYDRITE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION **CALCAREOUS** FOSSILS: NO FOSSILS

870 - 875 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS, PELLET 15% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-10%, DOLOMITE-02% OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

875 - 880 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS, PELLET 10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-T% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

880 - 885 LIMESTONE: GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS, PELLET 10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-05%, ANHYDRITE-25% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

885 - 890 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR GRAIN TYPE: CRYSTALS, PELLET 40% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-05%, ANHYDRITE-25% OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

890 - 895 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%, ANHYDRITE-20%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 895 - 900 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS

60% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 900 - 905 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM- T%, ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 905 - 910 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%, GYPSUM-02%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 910 - 915 MUDSTONE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-20%, ANHYDRITE-10%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 915 - 920 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS-02%

OTHER FEATURES: CALCAREOUS MEDIUM RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

920 - 925 MUDSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-20%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

925 - 930 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-30%, ANHYDRITE-05%

CALCILUTITE-15%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

930 - 935 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05%, ANHYDRITE-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

935 - 940 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

25% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-02%, ANHYDRITE-15%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

940 - 945 LIMESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

25% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%, ANHYDRITE-10%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

945 - 950 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-30%, DOLOMITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

# 950 - 955 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 955 - 957.5 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

pore-filling gypsum

#### 957.5- 960 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-05%, ANHYDRITE-15%

ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

# 960 - 965 LIMESTONE; GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-02%, ANHYDRITE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 965 - 970 NO SAMPLES

### 970 - 980 ANHYDRITE; WHITE TO TRANSPARENT

X% POROSITY: VUGULAR; POOR INDURATION

CEMENT TYPE(S): ANHYDRITE CEMENT, GYPSUM CEMENT

CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%, LIMESTONE-35%

ORGANICS-01%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

# 980 - 985 LIMESTONE; GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-40%, GYPSUM-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

985 - 988 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-05%, GYPSUM-02%

OTHER FEATURES: CALCAREOUS MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

988 - 995 LIMESTONE; VERY LIGHT ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-10%, GYPSUM-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

995 - 1000 LIMESTONE: GRAYISH BROWN TO WHITE

POROSITY: INTERCRYSTALLINE

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-40%, GYPSUM-10%

ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1000 - 1010 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-02%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1010 - 1015 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-03%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1015 - 1020 DOLOSTONE; GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-20%, GYPSUM-03%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

CALCAREOUS FOSSILS: NO FOSSILS

#### 1020 - 1025 NO SAMPLES

1025 - 1030 DOLOSTONE; GRAYISH ORANGE TO TRANSPARENT POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: GYPSUM-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1030 - 1040 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-01%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1040 - 1045 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%, ORGANICS-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1045 - 1050 DOLOSTONE: GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

 $ACCESSORY\ MINERALS:\ GYPSUM-03\%,\ ANHYDRITE-02\%$ 

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1050 - 1060 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-02%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

1060 - 1065 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%, ORGANICS-T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1065 - 1070 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%, ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1070 - 1075 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-05%, ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1075 - 1080 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-07%, ORGANICS-01%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

1080 - 1085 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1085 - 1090 NO SAMPLES

1090 - 1095 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE- T%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

1095 - 1100 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1100 - 1105 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS- T%

LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1105 - 1111.8 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: ANHYDRITE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1111.8- 1115 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

 $ACCESSORY\ MINERALS:\ ANHYDRITE-01\%,\ LIMESTONE-05\%$ 

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1115 - 1117 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1117 - 1119 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

1119 - 1122 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-20%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1122 - 1125 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1125 - 1130 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR: 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-02%, GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1130 - 1135 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-05%, GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1135 - 1137 DOLOSTONE; GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-35%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1137 - 1140 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1140 - 1145 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-02% OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS FOSSILS: NO FOSSILS

1145 - 1147 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE
POROSITY: INTERCRYSTALLINE, VUGULAR
GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
GOOD INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: GYPSUM- T%
OTHER FEATURES: HIGH RECRYSTALLIZATION

1147 - 1150 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

FOSSILS: NO FOSSILS

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-10% OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS FOSSILS: NO FOSSILS

1150 - 1155 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS FOSSILS: NO FOSSILS

1155 - 1160 LIMESTONE; GRAYISH ORANGE TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1160 - 1165 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: GYPSUM-01%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1165 - 1170 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%, ORGANICS-02% OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1170 - 1175 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-02%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1175 - 1180 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CLAY-10%, GYPSUM-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1180 - 1185 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $1185\,$  -  $1190\,$  LIMESTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-05%, ORGANICS-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1190 - 1195 LIMESTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-03%, ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1195 - 1200 LIMESTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-05%, ORGANICS-07%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1200 - 1205 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-07%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1205 - 1210 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-15%, GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

Sample appears to have organics embedded between crystals

and has an oily smell.

1210 - 1215 LIMESTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: ANHYDRITE-25%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1215 - 1220 DOLOSTONE: GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1220 - 1225 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

**EUHEDRAL** 

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

# 1225 - 1230 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

### 1230 - 1235 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR: 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC, CALCAREOUS

FOSSILS: NO FOSSILS

# 1235 - 1240 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

# 1240 - 1245 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

# 1245 - 1255 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS: 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: DOLOMITE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1255 - 1260 LIMESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

#### 1260 - 1265 LIMESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1265 - 1270 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-03%, DOLOMITE-05%, GYPSUM-01%

CALCILUTITE-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1270 - 1275 LIMESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM- T%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1275 - 1280 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM- T%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

### 1280 - 1285 LIMESTONE: MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: GYPSUM-T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $Sample\ is\ very\ heavily\ recrystallized,\ large\ subhedral$ 

crystals.

# 1285 - 1290 LIMESTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

#### 1290 - 1295 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC, SUCROSIC

FOSSILS: NO FOSSILS

# 1295 $\,$ - 1300 $\,$ LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 1300 - 1305 DOLOSTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1305 - 1310 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ- T%, ANHYDRITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1310 - 1315 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1315 - 1320 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1320 - 1325 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS- T%, QUARTZ- T% OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS FOSSILS: NO FOSSILS

1325 - 1330 DOLOSTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-15%, QUARTZ- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1330 - 1335 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT

ACCESSORY MINERALS: LIMESTONE-20%, ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1335 - 1340 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-10%, QUARTZ-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $1340\,$  -  $1345\,$  LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-03%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1345 - 1350 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1350 - 1355 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX. DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1355 - 1360 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1360 - 1365 DOLOSTONE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1365 - 1370 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1370 - 1375 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1375 - 1380 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1380 - 1385 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

1385 - 1390 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS-T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1390 - 1395 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1395 - 1400 DOLOSTONE; GRAYISH BROWN TO MODERATE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL.

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-10%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS

FOSSILS: NO FOSSILS

1400 - 1405 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1405 - 1410 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1410 - 1415 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL.

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

1415 - 1420 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-07%, ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1420 - 1425 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1425 - 1430 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-07%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1430 - 1435 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-03%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1435 - 1440 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: FOSSIL MOLDS

1440 - 1445 LIMESTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: FOSSIL MOLDS

1445 - 1450 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- L%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

Sample contains large crystalline chunks that do not change with Alizeran Red. Possibly Anhydrite; percentage impossible to tell.

1450 - 1455 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1455 - 1460 LIMESTONE; YELLOWISH GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-15%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1460 - 1465 LIMESTONE; YELLOWISH GRAY TO VERY LIGHT GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 07% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1465 - 1470 LIMESTONE; VERY LIGHT GRAY TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1470 - 1475 LIMESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-40%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1475 - 1480 DOLOSTONE; YELLOWISH GRAY TO GRAYISH ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS-01%, LIMESTONE-30% OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1480 - 1485 DOLOSTONE; GRAYISH ORANGE TO YELLOWISH GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1485 - 1490 LIMESTONE; GRAYISH ORANGE TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-02%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1490 - 1495 LIMESTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS- T%, ANHYDRITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1495 - 1500 LIMESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%, DOLOMITE-01%, GYPSUM-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1500 - 1505 LIMESTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1505 - 1510 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ANHYDRITE-01%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1510 - 1515 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ-T%, LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1515 - 1520 LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-01%, QUARTZ- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

 $1520\,$  -  $1525\,$  LIMESTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: QUARTZ-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1525 - 1530 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: QUARTZ-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1530 - 1535 DOLOSTONE; GRAYISH ORANGE TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ANHYDRITE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS FOSSILS: NO FOSSILS

1535 - 1540 DOLOSTONE; GRAYISH BROWN TO WHITE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

1540 - 1545 LIMESTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS; 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: SILT-SIZE DOLOMITE-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1545 - 1550 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

1550 - 1555 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED ANHEDRAL.

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

1555 - 1560 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

1560 - 1565 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-07%

OTHER FEATURES: CALCAREOUS

#### FOSSILS: NO FOSSILS

#### 1565 - 1570 DOLOSTONE; OLIVE GRAY TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-35%, IRON STAIN-15%

OTHER FEATURES: CALCAREOUS

HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1570 - 1575 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-15%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

# 1575 - 1580 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

02% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-02%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 1580 - 1585 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

03% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

SEDIMENTARY STRUCTURES: BANDED

ACCESSORY MINERALS: DOLOMITE-03% OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 1585 - 1590 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

03% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-03%, ORGANICS-01%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 1590 - 1595 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-35%, LIMESTONE-10%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

# 1595 - 1600 DOLOSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

SEDIMENTARY STRUCTURES: BANDED

ACCESSORY MINERALS: DOLOMITE-30%, LIMESTONE-10%

CALCILUTITE-25%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

#### 1600 - 1605 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-20%, LIMESTONE-10%

SILT-SIZE DOLOMITE-05%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 1605 - 1610 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-15%, LIMESTONE-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

# 1610 - 1615 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-10%, LIMESTONE-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

# $1615\,$ - $1620\,$ MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05%, LIMESTONE-05%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

# 1620 - 1625 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: SILT-SIZE DOLOMITE-20%, ANHYDRITE-05%

LIMESTONE-05%

OTHER FEATURES: CALCAREOUS

FOSSILS: NO FOSSILS

# 1625 - 1630 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

1630 - 1635 WACKESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE: POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: DOLOMITE-01%, SPAR-02%

OTHER FEATURES: DOLOMITIC

FOSSILS: NO FOSSILS

1635 - 1640 WACKESTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CALCILUTITE, CRYSTALS

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

1640 - 1645 MUDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

01% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-30%, LIMESTONE-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1645 - 1650 DOLOSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED ANHEDRAL.

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-40%, LIMESTONE-10%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1650 - 1655 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

45% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE; RANGE: FINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-25%, CALCILUTITE-30%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1655 - 1660 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

45% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: VERY FINE; RANGE: FINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-25%, CALCILUTITE-25% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA

1660 - 1665 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERGRANULAR, INTERCRYSTALLINE GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS 45% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: VERY FINE; RANGE: FINE TO CRYPTOCRYSTALLINE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-25%, CALCILUTITE-35% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: NO FOSSILS

1665 - 1670 LIMESTONE; GRAYISH BROWN TO MODERATE GRAY POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: CALCILUTITE-20% OTHER FEATURES: HIGH RECRYSTALLIZATION DOLOMITIC FOSSILS: NO FOSSILS

1670 - 1675 LIMESTONE; VERY LIGHT ORANGE TO MODERATE GRAY POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: CALCILUTITE-30%, DOLOMITE-10% OTHER FEATURES: HIGH RECRYSTALLIZATION DOLOMITIC FOSSILS: NO FOSSILS

1675 - 1680 MUDSTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY POROSITY: INTERGRANULAR, INTERCRYSTALLINE GRAIN TYPE: CALCILUTITE, CRYSTALS 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: LITHOGRAPHIC TO CRYPTOCRYSTALLINE; POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-10%, LIMESTONE-10% OTHER FEATURES: UNWASHED SAMPLE FOSSILS: NO FOSSILS

1680 - 1685 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE
15% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT
ACCESSORY MINERALS: DOLOMITE-03%, CALCILUTITE-10%
OTHER FEATURES: DOLOMITIC
HIGH RECRYSTALLIZATION
FOSSILS: NO FOSSILS

1685 - 1690 LIMESTONE; GRAYISH ORANGE TO DARK YELLOWISH BROWN POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT ACCESSORY MINERALS: DOLOMITE-07%, CALCILUTITE-15%
OTHER FEATURES: DOLOMITIC
HIGH RECRYSTALLIZATION
FOSSILS: NO FOSSILS

1690 - 1695 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-40%, DOLOMITE-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1695 - 1700 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: CALCILUTITE-30% OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

1700 - 1705 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, BIOGENIC, CRYSTALS

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-02% OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

Dictyconus

1705 - 1710 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE: MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-10%, DOLOMITE-01%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1710 - 1715 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-02%, DOLOMITE-01%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1715 - 1720 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-01%, DOLOMITE- T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1720 - 1725 WACKESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

50% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-15%, DOLOMITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1725 - 1730 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1730 - 1735 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE- T%, ORGANICS- T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1735 - 1740 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA

1740 - 1745 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-T%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

1745 - 1750 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

95% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

OTHER FEATURES: UNWASHED SAMPLE FOSSILS: BENTHIC FORAMINIFERA, MILIOLIDS

1750 - 1755 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

75% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1755 - 1760 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SPAR-T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1760 - 1765 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, LIMESTONE-02%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Accesory is gray crystalline limestone.

1765 - 1770 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%, LIMESTONE-01%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1770 - 1775 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-45%, LIMESTONE-05%

ANHYDRITE-03%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: NO FOSSILS

1775 - 1780 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

85% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%, LIMESTONE-02%

ORGANICS- T%

OTHER FEATURES: UNWASHED SAMPLE

#### FOSSILS: BENTHIC FORAMINIFERA

1780 - 1785 GRAINSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

90% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-03%

OTHER FEATURES: UNWASHED SAMPLE

FOSSILS: BENTHIC FORAMINIFERA

1785 - 1790 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-01%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

1790 - 1795 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-45%, ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1795 - 1800 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $1800\,$  -  $1805\,$  PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, VUGULAR, INTERCRYSTALLINE

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

80% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-02%, LIMESTONE-02%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1805 - 1810 DOLOSTONE; GRAYISH ORANGE TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-07%, LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1810 - 1815 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-45%, GYPSUM-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS FOSSILS: NO FOSSILS

1815 - 1820 DOLOSTONE; GRAYISH ORANGE TO LIGHT GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 90-100% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%, GYPSUM-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1820 - 1825 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; EUHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-20%, GYPSUM-20%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

1825 - 1830 DOLOSTONE; GRAYISH ORANGE TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1830 - 1835 WACKESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-40%, CALCILUTITE-07%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA, ALGAE

1835 - 1840 LIMESTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

25% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-20%

OTHER FEATURES: HIGH RECRYSTALLIZATION

DOLOMITIC

FOSSILS: NO FOSSILS

Accessory limestone is fine-grained mudstone to wackestone primary limestone is pale yellowish brown and composed of euhedral crystals.

#### 1840 - 1845 DOLOSTONE; GRAYISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 1845 - 1850 LIMESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE, PELLET

20% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-30%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 1850 - 1855 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE: 50-90% ALTERED: ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-15%, GYPSUM- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 1855 - 1860 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%, ANHYDRITE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 1860 - 1865 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 1865 - 1870 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

# 1870 - 1875 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; EUHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION SUCROSIC

FOSSILS: NO FOSSILS

1875 - 1880 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-02% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1880 - 1885 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1885 - 1890 LIMESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

25% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-30%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1890 - 1895 PACKSTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-20%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1895 - 1900 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-45%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

1900 - 1905 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%, ANHYDRITE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

#### 1905 - 1910 LIMESTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

25% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 1910 - 1915 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-40%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

## 1915 - 1920 LIMESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-30%, ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

Dictyconus

# 1920 - 1925 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-01%, LIMESTONE-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: BENTHIC FORAMINIFERA

## 1925 - 1930 LIMESTONE; VERY LIGHT ORANGE TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR, VUGULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-03%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: BENTHIC FORAMINIFERA

# 1930 - 1935 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

#### 1935 - 1940 DOLOSTONE; MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE: 90-100% ALTERED: SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 1940 - 1945 DOLOSTONE; MODERATE YELLOWISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE: GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM- T%, LIMESTONE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 1945 - 1950 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM- T%, LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 1950 - 1960 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE: 90-100% ALTERED: SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

# 1960 - 1965 DOLOSTONE; GRAYISH ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; EUHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-30%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 1965 - 1970 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-10%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 1970 - 1975 PACKSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERGRANULAR, INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: PELLET, CRYSTALS, CALCILUTITE

70% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: LOW RECRYSTALLIZATION FOSSILS: NO FOSSILS

1975 - 1980 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET, CALCILUTITE

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-40%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1980 - 1985 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-30%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1985 - 1990 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-25%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

Accesory limestone has a lithographic texture.

1990 - 1995 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

1995 - 2000 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-20%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2000 - 2005 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2005 - 2010 DOLOSTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2010 - 2015 DOLOSTONE; GRAYISH BROWN TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2015 - 2020 DOLOSTONE; GRAYISH BROWN TO VERY LIGHT ORANGE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2020 - 2030 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO COARSE; GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $2030\,$  -  $2035\,$  DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2035 - 2040 DOLOSTONE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2040 - 2045 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

2045 - 2050 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 2050 - 2055 DOLOSTONE; GRAYISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-03% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2055 - 2060 DOLOSTONE; MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2060 - 2065 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2065 - 2070 DOLOSTONE; MODERATE YELLOWISH BROWN TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

SUCROSIC

FOSSILS: NO FOSSILS

#### 2070 - 2075 DOLOSTONE: MODERATE YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2075 - 2080 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION

#### FOSSILS: NO FOSSILS

2080 - 2085 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2085 - 2090 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2090 - 2095 DOLOSTONE; GRAYISH BROWN TO MODERATE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-01% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

FOSSILS: NO FOSSILS

2095 - 2100 DOLOSTONE; VERY LIGHT ORANGE TO MODERATE GRAY POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL GRAIN SIZE: CRYPTOCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-02% OTHER FEATURES: HIGH RECRYSTALLIZATION

2100 - 2105 DOLOSTONE; GRAYISH ORANGE TO LIGHT OLIVE GRAY POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL GRAIN SIZE: CRYPTOCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-03%

ACCESSORY MINERALS: LIMESTONE-03% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2105 - 2110 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE- T% OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

2110 - 2115 DOLOSTONE; MODERATE GRAY TO LIGHT OLIVE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE GOOD INDURATION CEMENT TYPE(S): DOLOMITE CEMENT OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

2115 - 2120 DOLOSTONE; MODERATE GRAY TO LIGHT OLIVE GRAY POROSITY: VUGULAR, INTERCRYSTALLINE; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2120 - 2125 DOLOSTONE; MODERATE DARK GRAY TO OLIVE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-01% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2125 - 2130 DOLOSTONE; OLIVE GRAY TO LIGHT OLIVE GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-02% OTHER FEATURES: HIGH RECRYSTALLIZATION FOSSILS: NO FOSSILS

2130 - 2135 DOLOSTONE: YELLOWISH GRAY TO MODERATE DARK GRAY POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2135 - 2140 DOLOSTONE; GRAYISH BROWN TO MODERATE DARK GRAY POROSITY: INTERCRYSTALLINE, VUGULAR: 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-05% OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2140 - 2145 DOLOSTONE; GRAYISH ORANGE TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

2145 - 2150 DOLOSTONE: GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR, INTERGRANULAR

50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2150 - 2155 DOLOSTONE; LIGHT OLIVE GRAY TO MODERATE LIGHT GRAY POROSITY: INTERCRYSTALLINE, VUGULAR: 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-10%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2155 - 2160 DOLOSTONE: GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

2160 - 2165 DOLOSTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2165 - 2170 DOLOSTONE: YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: LIMESTONE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2170 - 2175 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

2175 - 2180 DOLOSTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

CALCAREOUS FOSSILS: NO FOSSILS

2180 - 2185 DOLOSTONE; GRAYISH ORANGE TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2185 - 2190 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2190 - 2195 DOLOSTONE; DARK YELLOWISH BROWN TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: SPAR- T%, ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2195 - 2200 DOLOSTONE; OLIVE GRAY TO GRAYISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 90-100% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GLAUCONITE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2200 - 2205 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

 $POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90\%\ ALTERED$ 

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%, LIMESTONE- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

CALCAREOUS

FOSSILS: NO FOSSILS

10 to 15% clay

2205 - 2210 DOLOSTONE; OLIVE GRAY TO GRAYISH ORANGE

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

SEDIMENTARY STRUCTURES: LAMINATED, FISSILE

ACCESSORY MINERALS: ORGANICS-30%, CLAY-02%, GLAUCONITE- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Organics occur in lenticular beds, interbedded with dolosilt. Clay contains ribbons of glauconite

#### 2210 - 2215 DOLOSTONE: LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-15%, SILT-SIZE DOLOMITE-20%

CLAY-01%, GYPSUM-T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

organics, dolosilt, and clays as above

#### 2215 - 2220 DOLOSTONE: LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-05%, SILT-SIZE DOLOMITE-10%

ORGANICS-07%, CLAY-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

## 2220 - 2225 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ORGANICS-20%, LIMESTONE-03%

DOLOMITE-03%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

# 2225 - 2230 DOLOSTONE; YELLOWISH GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

EUHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Limestone cavings

## 2230 - 2235 DOLOSTONE; LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-05%, SILT-SIZE DOLOMITE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

#### 2235 - 2240 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

**SUBHEDRAL** 

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-01%, CLAY-01%, LIMESTONE-01%

ORGANICS-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2240 - 2245 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-07%, CLAY-01%

SILT-SIZE DOLOMITE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Anhydrite is blue to bluish white and occurs as large nodules

#### 2245 - 2250 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-07%, CLAY-01%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Limestone cavings; Anhydrite as above; Clays interbedded

with organics.

# 2250 - 2255 DOLOSTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-03%, ORGANICS- T%

LIMESTONE-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2255 - 2265 DOLOSTONE; LIGHT OLIVE GRAY TO GRAYISH BROWN

 $POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90\%\ ALTERED$ 

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%, LIMESTONE-02%

**ORGANICS-T%** 

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2265 - 2270 DOLOSTONE; LIGHT OLIVE GRAY TO DARK YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX ACCESSORY MINERALS: ORGANICS- T% OTHER FEATURES: HIGH RECRYSTALLIZATION CALCAREOUS FOSSILS: NO FOSSILS

2270 - 2275 DOLOSTONE; LIGHT OLIVE GRAY TO GRAYISH BROWN POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: GYPSUM- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2275 - 2280 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: GYPSUM-01%, ANHYDRITE-02%, CLAY-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2280 - 2285 DOLOSTONE; MODERATE GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-10%, ORGANICS-01%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2285 - 2290 DOLOSTONE; OLIVE GRAY TO DARK GRAY

POROSITY: INTERCRYSTALLINE; 90-100% ALTERED; SUBHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-30%, ORGANICS-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2290 - 2295 DOLOSTONE; OLIVE GRAY TO WHITE

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-15%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2295 - 2300 DOLOSTONE; OLIVE GRAY TO MODERATE DARK GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-03%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2300 - 2305 DOLOSTONE; OLIVE GRAY TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: ANHYDRITE-02%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2305 - 2310 DOLOSTONE; OLIVE GRAY TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2310 - 2315 DOLOSTONE; MODERATE DARK GRAY TO MODERATE LIGHT GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: ANHYDRITE-T% OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2315 - 2320 DOLOSTONE; MODERATE DARK GRAY TO MODERATE LIGHT GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: IRON STAIN-15%, ANHYDRITE- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2320 - 2325 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: DOLOMITE-01% OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2325 - 2330 DOLOSTONE; MODERATE LIGHT GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2330 - 2335 MUDSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS 10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS- T%

OTHER FEATURES: LOW RECRYSTALLIZATION

## 2340 - 2345 MUDSTONE; YELLOWISH GRAY TO MODERATE DARK GRAY

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, CRYSTALS

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%

OTHER FEATURES: LOW RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2345 - 2350 LIMESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE

GRAIN TYPE: CRYSTALS; 15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-03%, GYPSUM- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: FOSSIL MOLDS

#### 2350 - 2355 WACKESTONE: LIGHT OLIVE GRAY TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2355 - 2360 WACKESTONE; LIGHT OLIVE GRAY TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

30% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE; MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: CALCILUTITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2360 - 2365 WACKESTONE; LIGHT OLIVE GRAY TO GRAYISH BROWN

POROSITY: INTERGRANULAR, INTERCRYSTALLINE

GRAIN TYPE: CALCILUTITE, PELLET, CRYSTALS

40% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: VERY FINE TO CRYPTOCRYSTALLINE: MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CALCILUTITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2365 - 2370 DOLOSTONE; DARK YELLOWISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-05%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

# 2370 - 2375 DOLOSTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED

ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT ACCESSORY MINERALS: LIMESTONE-07%

OTHER FEATURES: HIGH RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2375 - 2380 DOLOSTONE: GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

GOOD INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX

ACCESSORY MINERALS: LIMESTONE-10%, ANHYDRITE-01%

ORGANICS- T%

OTHER FEATURES: HIGH RECRYSTALLIZATION

**CALCAREOUS** 

FOSSILS: NO FOSSILS

#### 2380 - 2385 LIMESTONE; LIGHT OLIVE GRAY TO MODERATE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-07%, CLAY-01% OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2385 - 2390 LIMESTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE, PELLET

15% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SILT-SIZE DOLOMITE- T%, ORGANICS- T%

ANHYDRITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2390 - 2395 LIMESTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE, PELLET

20% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SILT-SIZE DOLOMITE-01%, ANHYDRITE-02%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

#### 2395 - 2400 LIMESTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, VUGULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-30%, ANHYDRITE-02%, CLAY- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

#### 2400 - 2405 LIMESTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ORGANICS-03%, ANHYDRITE-05%

DOLOMITE-05%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2405 - 2410 DOLOSTONE; LIGHT OLIVE GRAY TO YELLOWISH GRAY

POROSITY: INTERCRYSTALLINE; 50-90% ALTERED; ANHEDRAL

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): DOLOMITE CEMENT

ACCESSORY MINERALS: ANHYDRITE-05%, LIMESTONE-10%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

Possible lenticular bedding

#### 2410 - 2415 LIMESTONE; YELLOWISH GRAY TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-05%, CLAY- T%

SILT-SIZE DOLOMITE- T%, GYPSUM-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2415 - 2420 AS ABOVE

# 2420 - 2430 LIMESTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

07% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE-05%, SILT-SIZE DOLOMITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2430 - 2435 LIMESTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SILT-SIZE DOLOMITE-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

## 2435 - 2440 LIMESTONE; GRAYISH BROWN TO LIGHT OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: SILT-SIZE DOLOMITE-01%, CLAY-01% ANHYDRITE-02% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

2440 - 2445 LIMESTONE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

10% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: MICROCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

MODERATE INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: SILT-SIZE DOLOMITE-01%, CLAY-01%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2445 - 2450 LIMESTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: CLAY- T%, SILT-SIZE DOLOMITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2450 - 2455 LIMESTONE; GRAYISH BROWN TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE- T%, CLAY- T%

SILT-SIZE DOLOMITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

 $2455\,$  -  $2460\,$  LIMESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS

GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: ANHYDRITE- T%, SILT-SIZE DOLOMITE- T%

ORGANICS- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

FOSSILS: NO FOSSILS

2460 - 2465 LIMESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY

POROSITY: INTERCRYSTALLINE, INTERGRANULAR

GRAIN TYPE: CRYSTALS, CALCILUTITE

05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE

RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE

POOR INDURATION

CEMENT TYPE(S): CALCILUTITE MATRIX

ACCESSORY MINERALS: DOLOMITE-10%, ANHYDRITE- T%

OTHER FEATURES: MEDIUM RECRYSTALLIZATION

POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE POOR INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: ANHYDRITE- T%, DOLOMITE-15% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

2470 - 2475 LIMESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-20%, ANHYDRITE- T% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

2475 - 2480 LIMESTONE; LIGHT OLIVE GRAY TO OLIVE GRAY POROSITY: INTERCRYSTALLINE, INTERGRANULAR GRAIN TYPE: CRYSTALS, CALCILUTITE 05% ALLOCHEMICAL CONSTITUENTS GRAIN SIZE: CRYPTOCRYSTALLINE RANGE: MICROCRYSTALLINE TO CRYPTOCRYSTALLINE MODERATE INDURATION CEMENT TYPE(S): CALCILUTITE MATRIX ACCESSORY MINERALS: DOLOMITE-20%, ANHYDRITE-01% OTHER FEATURES: MEDIUM RECRYSTALLIZATION FOSSILS: NO FOSSILS

# 2480 TOTAL DEPTH

# APPENDIX B GEOPHYSICAL LOGS

# LEGEND FOR GEOPHYSICAL LOG TRACES

AHT10 Shallow Induction

AHT30 Medium Induction

AHT90 Deep Induction

**CNCF** Calculated porosity

**CPS** Count per Second

**DDTMP** Dynamic Delta Temperature

**DFRES** Dynamic Fluid Resisivity

DPHZ Density Porosity

**DTMP** Dynamic Temperature Gradient

degF Degrees Fahrenheit

DT delta transient time

DTMP delta temperature

DTCO delta transient time – Compression Wave

DTSM delta transient time – Shear Wave

FLOWN Flow-meter - Dyanamic

FLOWNS Flow-meter - Statice

FT feet

Ft/min feet per minute
FRES Fluid Resistivity

GAPI gamma American Petroleum Institute units

GR gamma ray

g/c<sup>3</sup> grams per cubic centimeter

HCAL density caliper

in inches

LSPD Line Speed - downward

MV Millivolts

OHMM ohm-meters

PEFZ photoelectric effect

QFlown Corrected Flowmeter

RILD deep induction log

RILM medium induction log

RLL3 shallow focused resistivity

SP spontaneous potential

**TEMP** temperature gradient

Usec/ft microseconds per foot

VCL Volume - Clay

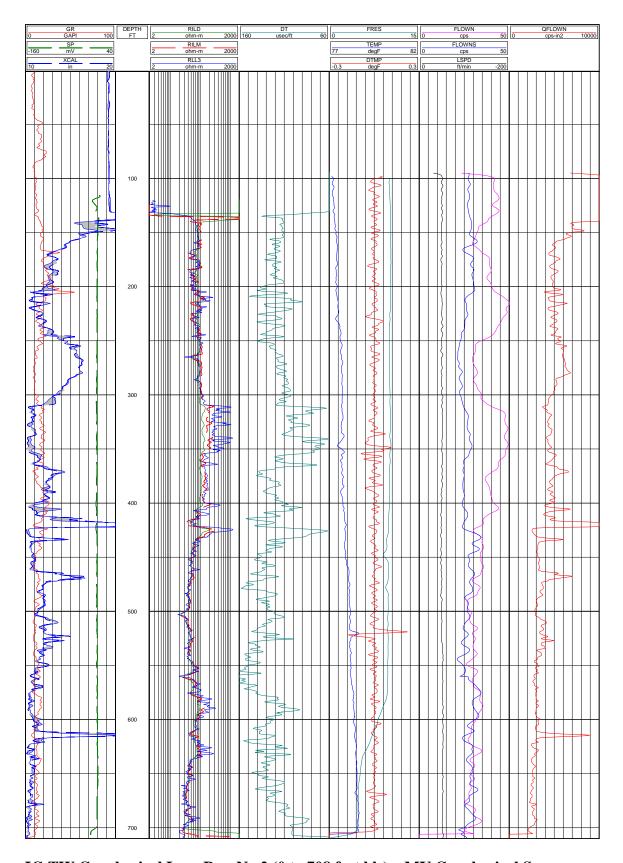
VCLC Volume - Limestone

VDOL Volume – Dolomite

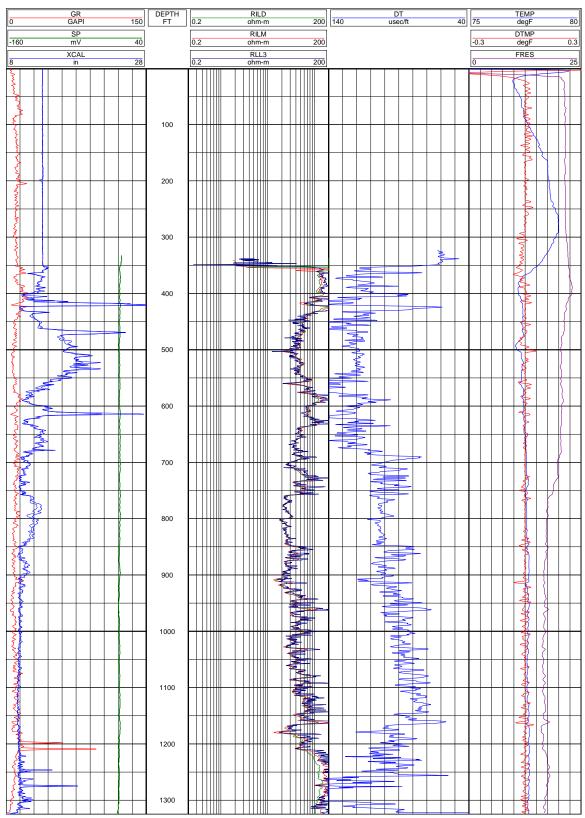
VP/VS Velocity Primary vs. Velocity Secondary

XCAL x-caliper

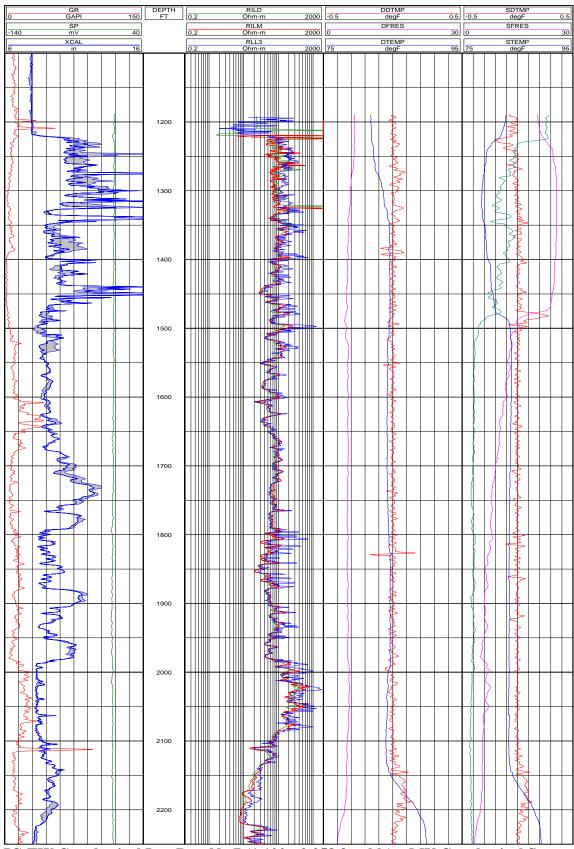
YCAL y-caliper



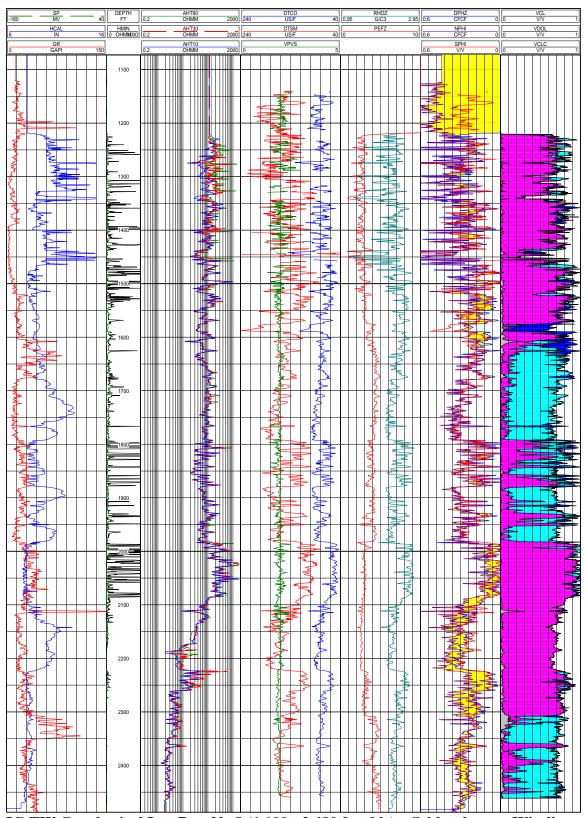
IC-TW Geophysical Logs Run No.2 (0 to 708 feet bls) – MV Geophysical Surveys



IC-TW Geophysical Log Run No.4 (0 to 1,325 feet bls) – MV Geophysical Surveys



IC-TW Geophysical Log Run No.7 (1,100 t 2,258 feet bls) – MV Geophysical Survey



IC-TW Geophysical Log Run No.8 (1,100 t 2,480 feet bls) – Schlumberger Wireline