

LITHOLOGY LOG FOR LM-7734
 PINEWOODS RO WTP TEST PRODUCTION WELL
 NE SE SEC.25 T46S R25E

Depth (ft)		Lithology
Top	Bottom	
0	5	Sand, dark yellowish brown (10YR 4/2), fine to medium grained, subangular to subrounded, poorly sorted, common silt, common clay, common organics (including roots)
5	7	Shell hash, yellowish gray (5Y 8/1), abundant organics (tree roots and plant material)
7	10	Shell hash, yellowish gray (5Y 8/1), excellent porosity, excellent permeability
10	15	Limestone, yellowish gray (5Y 8/1), biomicritic, very hard, common shell fragments, good moldic and dissolution porosity, good apparent permeability
15	23	Limestone, yellowish gray (5Y 7/2), biomicritic, hard, common shell fragments, fair moldic and dissolution porosity, fair apparent permeability
23	39	Limestone, yellowish gray (5Y 7/2), biomicritic, common shell fragments, excellent dissolution porosity, excellent apparent permeability
39	44	Clay, pale olive (10Y 6/2), soft, sticky
44	52	Clay, greenish olive (10Y 4/2), stiff, sticky
52	89	Clay, greenish olive (10Y 4/2), stiff, sticky, rare fine phosphate sand, rare phosphate granules
89	112	Limestone, grayish yellow (5Y 8/4), biomicritic, common shell fragments, good dissolution porosity, good apparent permeability
112	146	Sandstone, yellowish gray (5Y 7/2), fine to medium grained, subangular to subrounded, low to moderate sphericity, common shell fragments, rare fine phosphate sand, fair intergranular porosity, fair apparent permeability
146	149	Clay, greenish olive (10Y 4/2), soft, common to abundant shell fragments
149	166	Shell hash, pale greenish yellow (10Y 8/2), common clay
166	169	Clay, pale greenish yellow (10Y 8/2), soft, abundant shell fragments
169	171	Clay, pale greenish yellow (10Y 8/2), soft, abundant shell fragments, some phosphate granules, some fine to coarse phosphate sand
171	181	Clay, olive gray (5Y 6/1), stiff, sticky, abundant shell fragments, minor phosphate granules, rare fine phosphate sand
181	184	Clay, olive gray (5Y 6/1), soft, sticky, rare shell fragments
184	189	Clay, olive gray (5Y 6/1), soft, sticky, common shell fragments, rare limestone fragments (biomicritic, good dissolution porosity, good apparent permeability) - limestone fragment content increasing with depth
189	196	Clay, olive gray (5Y 6/1), soft, sticky, common shell fragments, some phosphate granules, some fine to medium phosphate sand, rare limestone fragments (biomicritic, good dissolution porosity, good apparent permeability)
196	197	Limestone, yellowish gray (5Y 7/2), biomicritic, good dissolution porosity, good apparent permeability
197	217	Clay, olive gray (5Y 6/1), soft, sticky, common shell fragments, some phosphate granules, some fine to medium phosphate sand, limestone stringers as described from 196 - 197 in the clay
217	249	Limestone, very light gray (N8), biomicritic, some shell fragments, common fine to medium phosphate sand, rare phosphate granules, fair to good moldic and dissolution porosity, fair to good apparent permeability
249	273	Shell hash, white (N9) to very light gray (N8), abundant limestone fragments as above, common fine to medium grained phosphate sand, minor to some clay, poor to fair porosity, poor to fair permeability (depending on clay content)
273	282	Limestone, white (N9), biomicritic, abundant shell fragments, fair to good dissolution porosity, fair to good apparent permeability
282	302	Limestone, white (N9), biomicritic, abundant shell fragments, minor phosphate granules, fair to good dissolution porosity, fair to good apparent permeability

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302	346	Limestone, yellowish gray (5Y 8/1), biomicritic, some shell fragments, minor to common fine to medium phosphate sand, good moldic and dissolution porosity, good apparent permeability
346	353	Limestone, yellowish gray (5Y 8/1), biomicritic, some shell fragments, some sparite, common fine to medium phosphate sand, good moldic and dissolution porosity, good apparent permeability
353	355	Clay, yellowish gray (5Y 7/2), soft, sticky, common fine to medium grained phosphate sand
355	368	Clay, pale olive (10Y 6/2), soft, sticky, abundant shell fragments, common limestone fragments, minor phosphate granules, minor phosphatic sand
368	384	Limestone, pale olive (10Y 6/2), biomicritic, common shell fragments, minor to some fine to medium grained phosphatic sand, minor phosphatic granules, fair to good moldic and dissolution porosity, fair to good apparent permeability
384	400	Limestone, yellowish gray (5Y 8/1), biomicritic, some shell fragments, minor to some fine to medium grained phosphatic sand, minor phosphatic granules, fair to good moldic and dissolution porosity, fair to good apparent permeability
400	419	Marl, yellowish gray (5Y 8/1), biomicritic, abundant soft clay, some shell fragments, minor fine to medium grained phosphate sand
419	446	Clay, yellowish gray (5Y 8/1), soft, sticky, abundant limestone fragments, as above, some shell fragments, minor to some fine to medium phosphatic sand
446	467	Marl, yellowish gray (5Y 8/1), finely phosphatic, clayey, dolosilt with minor shell fragments; some minor interbedded limestone, biomicritic, poor porosity
467	470	Clay, greenish gray (5GY 6/1), cohesive, phosphatic, dense, very slow drilling
470	482	Marl, as above, clayey, phosphatic, shell fragments
482	484	Clay, as above, but not as dense, very phosphatic
484	487	Limestone, yellowish gray (5Y 7/2), calcilutite, phosphatic, poor porosity
487	514	Marl, as above, phosphatic, clayey
514	517	Clay, marly, pale greenish yellow (10Y 8/2), dense, phosphatic, minor shell fragments
517	542	Marl, as above, phosphatic, clayey, minor shell fragments, minor interbedded limestone, as above
542	543	Phosphate bed
543	547	Marl, as above with interbedded limestone, yellowish gray (5Y 8/1), biomicritic, poor porosity
547	562	Clay, olive gray (5Y 4/1), very phosphatic with interbedded marl, as above, some minor shell fragments
562	566	Limestone, yellowish gray (5Y 8/1), biomicritic, calcilutite, slightly dolomitic, fair to poor porosity, poor apparent permeability
566	574	Marl, white (N9), biomicritic, common phosphate granules, some fine to medium grained phosphate sand, minor clay
574	580	Marl, yellowish gray (5Y 8/1), biomicritic, common phosphate granules, some fine to medium grained phosphate sand, minor clay
580	593	Limestone, yellowish gray (5Y 8/1), biomicritic, abundant dolomite - gray finely crystalline, some phosphate granules, good to excellent moldic and dissolution porosity, good to excellent apparent permeability
593	599	Clay, yellowish gray (5Y 7/2), soft, sticky, common marl, common limestone fragments
599	608	Limestone, yellowish gray (5Y 8/1), biomicritic, shell casts, some dolomite - gray finely crystalline, rare phosphate granules, excellent moldic and dissolution porosity, excellent apparent permeability

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608	609	Limestone, yellowish gray (5Y 8/1), biomicritic, minor finely crystalline dolomite, minor phosphate granules, minor fine to coarse phosphate sand, excellent moldic porosity, excellent apparent permeability
609	612	Clay, light olive gray (5Y 8/1), soft, sticky, some shell fragments
612	616	Limestone, yellowish gray (5Y 8/1), biomicritic, minor finely crystalline green/gray dolomite, fair to good moldic porosity, fair to good apparent permeability
616	618	Dolomite, medium dark gray (N4), finely crystalline, very hard, relic shell molds, poor to trace moldic porosity, poor to trace apparent permeability
618	619	Dolomite, light dark gray (N5), finely crystalline, hard, relic shell molds, poor moldic porosity, poor apparent permeability
619	626	Limestone, yellowish gray (5Y 8/1), biomicritic, excellent moldic and dissolution porosity, excellent apparent permeability (top 1' soft)
626	630	Limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, good to excellent moldic and dissolution porosity, good to excellent apparent permeability
630	633	Limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, minor fine calcareous sand, good to excellent moldic and dissolution porosity, good to excellent apparent permeability
633	635	Marly limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, minor fine calcareous sand, fair moldic and dissolution porosity, fair apparent permeability
635	636	Limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, rare fine calcareous sand, good to excellent moldic and dissolution porosity, good to excellent apparent permeability
636	640	Limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, minor to some fine calcareous sand, good to excellent moldic and dissolution porosity, good to excellent apparent permeability
640	642	Marly limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, minor fine phosphate sand, minor shell molds, minor fine calcareous sand, fair moldic and dissolution porosity, fair apparent permeability
642	643	Dolomite, pale yellowish brown (10YR 6/2), finely crystalline, trace porosity, trace apparent permeability
643	651	Limestone, yellowish gray (5Y 8/1), biomicritic and calcarenitic, some finely crystalline dolomite, fair to good dissolution porosity, fair to good apparent permeability