

APPENDIX A

Geraghty & Miller, Inc.

APPENDIX A

GEOLOGIC LOGS FOR
INJECTION WELLS 1 AND 2,
AND MONITOR WELL

GERAGHTY & MILLER, INC.

GEOLOGIC LOG
OF
WELL IW-1
HARRIS CORPORATION
PALM BAY, FLORIDA

Sample Description	Depth Interval (feet)	Thickness (feet)
SAND and ORGANICS - Sand, 70%, clear, quartz, fine- to medium-grained, angular-to sub-rounded; Organics, 30%, roots, soil, etc.	0 - 30	30
SAND and SHELL - Sand, 70%, clear, quartz, medium-grained, angular-to sub-rounded; Shell, 25%, white to medium light gray, small, small whole shells & shell fragments; Limestone, 5%, medium gray, fine- to medium-grained, micrite, well cemented.	30-87	57
SANDSTONE and SHELL - Sandstone, 70%, light olive gray, quartz, fine- to medium-grained, sub-angular, poorly- to well cemented, calcareous cement; Shell, 30%, yellowish gray to very pale orange, fragments, angular; Phosphatic Sand, trace, black, rounded; Marl, trace, greenish gray.	87-148	61
MARL and SAND - Marl, 70%, grayish, olive green, soft, wet; Sand, 30%, clear quartz, fine- to coarse-grained, sub-angular; Shell, trace, angular; Phosphatic Sand, trace, black, rounded.	148-178	30
SAND, CLAY and LIMESTONE - Sand, 50%, clear, quartz, fine- to medium-grained, sub-rounded to sub-angular grains; Clay, 30%, grayish olive green; Limestone, 10%, white to medium gray, coarse-grained, sparite, hard; Phosphatic Sand, 10%, black, very fine- to coarse-grained, rounded to sub-angular.	178-260	82
SAND and MARL - Sand, 50%, clear to brown to black, quartz-dolosilt-phosphatic, fine- to medium-grained, angular to rounded; Marl, 50%, greenish gray, fine-grained, plastic, wet; Limestone, trace, white to medium gray, sparite; Shells, trace, fragmented.	260-310	50

SAND and MARL - Sand, 70%, clear to brown to black, quartz-dolosilt-phosphatic, fine- to medium-grained, angular to sub-angular (quartz) - rounded to sub-rounded (dolosilt & phosphate); Marl, 30% greenish gray, plastic, wet; Limestone, trace, white to medium gray, micrite; Shells, trace, fragmented

310-320 10

SAND, MARL and LIMESTONE - Sand, 70%, clear to brown to black, quartz - dolosilt - phosphatic, fine- to medium-grained, sub-angular to rounded; Marl, 20%, greenish gray, wet, plastic; Limestone, 10%, yellowish gray, medium-grained.

320-327 7

LIMESTONE CLAY and SAND - Limestone, 50%, White to very light gray, fine- to medium-grained, hard; Clay, 25%, light olive gray, non-plastic; Sand, 25%, clear, brown, black, quartz, dolosilt, phosphatic, fine- to medium-grained, sub-angular to rounded.

327-337 10

LIMESTONE and SAND - Limestone, 85%, white to yellowish gray, fine- to medium-grained, hard; Sand, 10%, clear to black, quartz, phosphatic, fine- to medium-grained, sub-angular to rounded; Clay 5%, light olive gray, non-plastic.

337-370 33

LIMESTONE - Limestone, 100%, white to yellowish gray, fine- to medium-grained, sparite, hard; Sand, trace, clear to black, quartz and phosphate; Clay, trace, light olive gray.

370-441 71

LIMESTONE and MARL - Limestone, 90%, white to yellowish gray, medium-grained, sparite, hard, vuggy, microcrystalline to granular, recrystallized in some places, fossiliferous; Marl, 10%, yellowish gray, fine-grained, wet.

441-460 19

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GEOLOGIC LOG

- 3 -

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LIMESTONE, CLAY and SHELLS - Limestone, 50%, yellowish gray to olive gray, fine- to medium-grained, biosparite, hard, microcrystalline to granular, fossiliferous; Clay, 30%, olive gray, non-plastic, well cemented; Shell, 20%, very pale orange to pale yellowish orange to olive gray, whole shells and fragments, angular.

460-500 40

LIMESTONE, CLAYSTONE and SHELL - Limestone, 70%, very light yellowish gray, fine- to medium-grained, biomicrite, hard, microgranular, vuggy, fossils present; Claystone, 20%, medium gray, non-plastic, moderately well cemented; Shell, 10%, white to grayish black, shell fragments, angular to sub-rounded.

500-520 20

LIMESTONE - Limestone, 100%, medium gray to very light yellowish gray, fine-grained to medium-grained, biosparite, microgranular, vuggy, fossiliferous.

520-536 16

CLAY - Clay, 100%, very light gray, high plasticity, very sticky, calcareous.

536-537 1

LIMESTONE - Limestone, 100%, medium gray, fine- to medium-grained, hard, microgranular, vuggy, non-fossiliferous.

537-552 15

LIMESTONE, SHELL and CLAYSTONE - Limestone, 70%, pinkish gray to very light gray, fine- to medium-grained, biosparite, hard, microcrystalline, fossiliferous; Shell, 20%, white to dark gray, fragments; Claystone, 10%, medium gray, calcareous, well cemented, non-plastic, echinoids.

552-572 20

DOLomite and LIMESTONE - Dolomite, 85%, light olive gray, finely crystalline, hard; Limestone, 15%, white to yellowish gray, fine- to medium-grained, sparite, hard, microcrystalline; Shells, trace, bivalves.

572-583 11

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GEOLOGIC LOG

- 4 -

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LIMESTONE and DOLOMITE - Limestone, 70%, yellowish gray, fine- to medium-grained, biomicrite, hard, microcrystalline, vuggy; Dolomite, 30%, light olive gray, finely crystalline, hard, vuggy.	583-591	8
LIMESTONE - Limestone, 100%, light gray to yellowish gray, fine-grained, micrite, hard, microcrystalline, vuggy.	591-600	9
DOLOMITE - Dolomite, 100%, light olive gray to moderate yellowish brown, finely crystalline hard, vuggy, drusy crystals present in vugs.	600-608	8
LIMESTONE - Limestone, 95%, very pale orange to pale yellowish brown, fine- to medium-grained, biosparite, moderately hard, microgranular to granular, fossiliferous; Clay 5%, olive black, quartz and phosphatic, fine-grained, moderately well-cemented, non-plastic; Shells, trace, white to light brown angular, fragmented, bivalves, gastropods, etc.; Sand, trace, clear, quartz, sub-angular.	608-638	30
LIMESTONE - Limestone, 100%, very pale orange, fine- to medium-grained, biomicrite, soft, microgranular, fossils	638-644	6
DOLOMITE - Dolomite, 90%, grayish orange to brownish black, finely crystalline, hard, vuggy; Clay, 5%, medium gray, quartz & phosphatic, fine-grained, poorly-cemented; Limestone, 5%, very pale orange, fine-grained, sparite, moderately well cemented; Shells, trace, fragments.	644-682	38
LIMESTONE - Limestone, 100%, yellowish gray, fine- to medium-grained, micrite, moderately hard to hard, microgranular to microcrystalline.	682-688	6

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GEOLOGIC LOG

- 5 -

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DOLOMITE - Dolomite, 100%, moderate yellowish brown, finely crystalline, hard, vuggy with crystals lining them.

688-699 11

CLAY, DOLOMITE and LIMESTONE - Clay, 60%, light gray to medium gray, calcareous, high plasticity; Dolomite, 30%, moderate yellowish brown, finely crystalline, hard, vuggy w/ crystals; Limestone, 10%, pinkish gray, fine- to medium-grained, biomicrite, moderately hard, microgranular, fossiliferous.

699-701 2

LIMESTONE - Limestone, 100%, pinkish gray, fine- to medium-grained, biomicrite, moderately hard, microgranular, fossiliferous.

701-714 13

DOLOMITE - Dolomite, 100%, moderate yellowish brown, fine- to medium crystalline, hard, microcrystalline; Limestone, trace, very pale orange, fine- to medium-grained, sparite, hard, microcrystalline; Clay, trace, medium gray.

714-719 5

LIMESTONE and DOLOMITE - Limestone, 90%, very pale orange to medium gray, fine- to medium-grained, sparite, hard, microcrystalline to granular, fossiliferous; Dolomite, 10%, moderate yellowish brown, finely crystalline, moderately hard.

719-720 1

DOLOMITE - Dolomite 100%, dark to moderate yellowish brown to yellowish gray, fine- to medium crystalline, hard, vuggy; Limestone, trace, very pale orange, fine-grained, biosparite, hard.

720-794 74

LIMESTONE and DOLOMITE - Limestone, 90%, very pale orange to medium gray, fine- to medium-grained, biomicrite, hard, microcrystalline to granular, fossiliferous; Dolomite, 10%, moderate yellowish brown to medium light gray, fine- to medium crystalline, hard.

794-805 11

DOLOMITE, LIMESTONE and CLAYSTONE - Dolomite, 70%, white to olive black, microcrystalline to finely crystalline, vuggy, moderately hard; Limestone, 20%, bluish white to very pale orange, microcrystalline to fine-grained, micrite, vuggy, fossiliferous; Claystone, 10%, olive gray, non-plastic; Clay, trace, light bluish gray, moist, plastic.

805-831 26

DOLOMITE and LIMESTONE - Dolomite, 90%, moderate yellowish brown to grayish black, microcrystalline to finely crystalline, moderately hard, vuggy; Limestone, 10%, very pale orange to medium bluish gray, microcrystalline to fine-grained, biomicrite, moderately soft, fossiliferous.

831-838 7

SILTSTONE and DOLOMITE - Siltstone, 80%, Pale yellowish orange, moderately hard, calcareous cement, friable; Dolomite, 20%, moderate yellowish brown to medium gray, microcrystalline to finely crystalline, hard, vuggy; Limestone, trace, very pale orange, microcrystalline to fine-grained, moderately soft.

838-841 3

DOLOMITE and LIMESTONE - Dolomite, 90%, grayish orange to bluish gray, microcrystalline to finely crystalline, moderately hard, vuggy; Limestone, 10%, very pale orange to light bluish gray, microcrystalline to fine-grained, biosparite, hard, fossiliferous.

841-846 5

DOLOMITE and LIMESTONE - Dolomite, 75%, moderate yellowish brown to olive black, microcrystalline to finely crystalline, moderately hard, vuggy; Limestone, 25%, very light gray to medium bluish gray, microcrystalline to fine-grained, sparite, hard, fossiliferous.

846-852 6

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GEOLOGIC LOG

- 7 -

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LIMESTONE - Limestone, 95%, very pale orange to light bluish gray, microcrystalline to fine-grained, biomicrite, hard, fossiliferous; Clay, trace, olive gray, non-plastic; Clay, trace, moderate yellowish brown.

852-890 38

DOLOMITE - Dolomite, 95%, grayish orange to light brown, finely crystalline, moderately hard, many solution cavities; Limestone, 5%, white to light gray, fine- to medium-grained, sparite, moderately hard, fossiliferous.

890-898 8

LIMESTONE - Limestone, 100%, very pale orange, microcrystalline to fine-grained, biomicrite, moderately hard; Dolomite, trace, light gray, microcrystalline to finely crystalline, moderately hard, vuggy.

898-903 5

DOLOMITE - Dolomite, 90%, yellowish gray to grayish orange, microcrystalline to finely crystalline, moderately hard, vuggy; Limestone, 5%, very pale orange, microcrystalline to fine-grained, biomicrite, moderately hard, vuggy; Clay, 5%, olive gray, non-plastic; Shells, trace, echinoids.

903-906 3

MARLY LIMESTONE - Limestone, 50%, very pale orange to olive gray, microcrystalline to fine-grained, biomicrite, moderately hard, vuggy, shelly, fossiliferous; Marl, 40%, very pale orange, soft, wet, plastic; Dolomite, trace, moderate yellowish brown, microcrystalline to finely crystalline, moderately hard, vuggy; Clay, trace, olive gray, non-plastic.

906-908 2

DOLOMITE and LIMESTONE - Dolomite, 90%, very pale orange to medium light gray, microcrystalline to finely crystalline, sparite, moderately hard, vuggy, fossiliferous; Clay, trace, olive gray, non-plastic.

908-910 2

LIMESTONE - Limestone, 100%, very pale orange to light bluish gray, microcrystalline to fine-grained, biomicrite, moderately hard, vuggy, echinoids; Dolomite, trace, very pale orange to moderate yellowish brown, microcrystalline to finely crystalline, moderately hard, vuggy.

910-946 36

DOLOMITE - Dolomite, 90%, yellowish gray to medium light gray, microcrystalline to finely crystalline, hard, vuggy; Limestone, 10%, very pale orange to yellowish gray, sparite, moderately hard, shelly, fossiliferous, bivalves; Clay, trace, olive gray, non-plastic.

946-953 7

LIMESTONE - Limestone, 100%, very pale orange to yellowish gray, biomicrite, moderately hard, shelly, echinoids; Marl, trace, olive gray, very fine-grained, non-plastic.

953-965 12

DOLOMITE - Dolomite, 100%, grayish orange to dark gray, microcrystalline to finely crystalline, moderately hard, solution cavities; Limestone, trace, white to very light gray, fine- to medium-grained, sparite, moderately hard, fossiliferous.

965-995 30

DOLOMITE and LIMESTONE - Dolomite, 80%, moderate yellowish brown, microcrystalline to finely crystalline, moderately hard, vuggy; Limestone, 20%, very pale orange to yellowish gray, microcrystalline to fine-grained, biosparite, moderately hard, fossiliferous; Clay, trace, olive gray, non-plastic.

995-1000 5

LIMESTONE - Limestone, 100%, very pale orange to moderate bluish gray, microcrystalline to fine-grained, biomicrite to sparite, hard, fossiliferous, recrystallized; Clay, trace, olive gray, non-plastic; Dolomite, trace, moderate yellowish brown, microcrystalline to finely crystalline, moderately hard, vuggy.

1000-1046 46

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GEOLOGIC LOG

- 9 -

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DOLOMITE - Dolomite, 100%, light brown to moderate brown to grayish brown, microcrystalline, hard, vuggy, pinholes; Limestone, trace, light greenish gray to light bluish gray, fine-grained, sparite, hard, fossiliferous.

1046-1059 13

LIMESTONE - Limestone, 100%, very pale orange to light bluish gray, microcrystalline, biomicrite, hard, fossiliferous, echinoids, recrystallization.

1059-1069 10

LIMESTONE and DOLOMITE - Limestone, 80%, yellowish gray to light greenish gray, microcrystalline, biomicrite, hard, echinoids; Dolomite, 20%, dark yellowish brown to grayish black, microcrystalline, moderately hard.

1069-1109 40

LIMESTONE - Limestone, 100%, very pale orange, microcrystalline to fine-grained, sparite, hard, vuggy, pinholes, fossiliferous; Dolomite, trace, black to moderate yellowish brown, microcrystalline to finely crystalline, vuggy.

1109-1119 10

LIMESTONE and DOLOMITE - Limestone, 80%, very pale orange to light bluish gray, microcrystalline to fine-grained, biosparite, very hard, pinholes, fossiliferous; Dolomite, 20%, moderate yellowish brown to grayish black, microcrystalline to finely crystalline, hard, vuggy with void spaces, limestone filled.

1119-1124 5

LIMESTONE - Limestone, 100%, very pale orange to dark yellowish brown, microcrystalline to fine-grained, sparite, very hard, vuggy, re-crystallized, fossiliferous; Dolomite, trace, moderate yellowish brown microcrystalline to finely crystalline, hard, vuggy with void spaces filled with limestone; Marl, trace, very pale orange, soft, wet.

1124-1140 16

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GEOLOGIC LOG

- 10 -

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DOLOMITE and LIMESTONE - Dolomite, 90%, moderate brown to dusky brown, light gray, microcrystalline to finely crystalline, hard, vuggy with limestone-filled void spaces; Limestone, 10%, bluish white, microcrystalline to fine-grained, biosparite, very hard, Clay, trace, olive black, non-plastic.

1140-1184 44

DOLOMITE and LIMESTONE - Dolomite, 60%, moderate yellowish brown to black, microcrystalline to finely crystalline, moderately hard to hard, vuggy; Limestone, 40%, bluish white to light bluish gray, microcrystalline to fine-grained, sparite, hard, vuggy; Clay, trace, olive black, non-plastic.

1184-1189 5

DOLOMITE - Dolomite, 90%, brownish black to light olive gray, microcrystalline to finely crystalline, moderately hard to hard, vuggy; Limestone, 10%, yellowish gray to light bluish gray, microcrystalline to fine-grained, biosparite, moderately hard, vuggy, pinholes; Clay, trace, olive black, very fine-grained, non-plastic.

1189-1272 83

DOLOMITE and LIMESTONE - Dolomite, 80%, moderate yellowish brown to grayish black, finely crystalline, very hard; Limestone, 20%, yellowish gray to greenish gray, microcrystalline, micrite, hard, vuggy, fossiliferous; Shells, fragments.

1272-1275 3

LIMESTONE - Limestone, 100%, light bluish gray to medium gray, microcrystalline to fine-grained, biosparite, hard, fossiliferous; Dolomite, trace, light brown to grayish black, microcrystalline to finely crystalline, very hard, vuggy; Clay, trace, light olive gray.

1275-1295 20

LIMESTONE and CLAY - Limestone, 80%, very pale orange to yellowish gray, fine- to medium-grained, biomicrite, hard, microgranular, fossiliferous; Clay, 20%, greenish gray, plastic, wet; Dolomite, trace, moderate yellowish brown, vuggy.

1295-1300 5

LIMESTONE - 100%, very pale orange to yellowish gray, fine- to medium-grained, biomicrite, hard, microgranular, pisolitic, fossiliferous; Dolomite, trace, moderate yellowish brown, microcrystalline to finely crystalline, hard; Marl, trace, white soft, plastic.

1300-1324 24

DOLOMITE - Dolomite, 100%, moderate yellowish brown to brownish black, microcrystalline, hard, vuggy; Limestone, trace, white, fine-grained, moderately soft.

1324-1327 3

LIMESTONE - Limestone, 100%, yellowish gray to light bluish gray, fine- to medium-grained, sparite, soft, granular; Sand, trace, colorless, quartz, fine-grained, sub-angular, sucrosic.

1327-1350 23

LIMESTONE - Limestone, 100%, very pale orange, fine- to medium-grained, sparite, soft to moderately hard, granular, vuggy, fossiliferous.

1350-1420 70

LIMESTONE - Limestone, 100%, very pale orange to very light gray, fine- to medium-grained, biomicrite, soft to moderately hard, granular, fossiliferous; Dolomite, trace, grayish orange; Chert, trace.

1420-1450 30

DOLOMITE and LIMESTONE - Dolomite, 90%, moderate yellowish brown, fine- to medium crystalline, hard, vuggy; Limestone, 10%, very pale orange to light gray, fine- to medium-grained, soft to moderately hard, granular, fossiliferous.

1450-1458 8

LIMESTONE and DOLOMITE - Limestone, 50%, very pale orange, fine- to medium-grained, biosparite, soft to moderately hard, granular, fossiliferous; Dolomite, 40%, moderate yellowish brown, fine to medium crystalline, hard, vuggy; Clay, 10%, light gray, plastic, wet.

1458-1460 2

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GEOLOGIC LOG

- 12 -

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DOLOMITE - Dolomite, 95%, moderate yellowish brown, fine- to medium crystalline, hard, vuggy; Limestone, 5%, very pale orange, fine-grained, sparite, hard; Shell, trace, fragments.

1460-1480 20

LIMESTONE, DOLOMITE and CLAYSTONE - Limestone, 70%, very light gray, fine- to medium-grained, sparite, soft, fossiliferous; Dolomite, 20%, moderate yellowish brown, finely crystalline, hard, vuggy; Claystone, 10%, medium dark gray, very fine-grained, hard, non-plastic.

1480-1483 3

DOLOMITE - Dolomite, 95%, moderate yellowish brown to dusky yellowish brown, finely to medium crystalline, hard, vuggy, microcrystalline; Limestone, 5%, very light gray, fine- to medium-grained, micrite, soft to moderately hard.

1483-1503 20

LIMESTONE and DOLOMITE - Limestone, 90%, very light gray to very pale orange, fine- to medium-grained sparite, soft to hard, fossiliferous; Dolomite, 10%, moderate yellowish brown, finely to medium crystalline, hard, vuggy.

1503-1533 30

MARL and CLAYSTONE - Marl, 90%, pale yellowish brown, fine-grained, soft, plastic, moist; Claystone, 10%, medium dark gray, hard, non-plastic.

1533-1536 3

DOLOMITE & MARL - Dolomite, 70% pale yellowish brown, very fine to finely crystalline, very hard, vuggy, limestone filling vugs; Marl, 20% pale yellowish brown, soft; Limestone, 5%, very pale orange, very fine grained, biomicrite, soft to moderately hard.

1536-1542 6

MARL and CHALKY LIMESTONE - Marl, 60%, yellowish gray to olive gray, very fine- to fine-grained; Limestone, biomicrite, hard, microcrystalline, vuggy, fossiliferous; Marl, trace, yellowish gray, very fine-grained, soft, plastic, moist.

1542-1544 2

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GEOLOGIC LOG

- 13 -

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LIMESTONE - Limestone, 100%, very fine- to fine-grained, biomicrite, hard, microcrystalline, vuggy, fossiliferous; Marl, trace, yellowish gray, very fine-grained, soft, plastic, moist.

1544-1545.5 1.5

MARLY LIMESTONE - Limestone, 60%, very pale orange, fine- to very fine-grained, biomicrite, moderately soft, microcrystalline, fossil fragments; Marl, 40%, yellowish gray, cryptocrystalline, soft, plastic, moist.

1545.5-1554 8.5

DOLOMITE and LIMESTONE - Dolomite, 90%, yellowish gray to dusky yellow brown, finely to medium crystalline, hard, drusy crystalline in void spaces, limestone filling in some void spaces; Limestone, 10%, white to grayish yellow, very fine-grained, micrite, moderately hard, slightly fossiliferous; Claystone, trace, medium dark gray.

1554-1564 10

LIMESTONE and DOLOMITE - Limestone, 90%, white to grayish yellow, very fine-grained, micrite, moderately hard, slightly fossiliferous; Dolomite, 10%, moderate yellowish brown, finely to medium crystalline, hard sucrosic, drusy crystallization in void spaces.

1564-1566 2

MARLY LIMESTONE - Limestone, 70%, very pale orange, fine- to very fine-grained, micrite, moderately soft, microcrystalline, some fossil fragments; Marl, 30%, yellowish gray, cryptocrystalline, soft, plastic, moist.

1566-1571 5

LIMESTONE and DOLOMITE - Limestone, 80%, white to grayish yellow, very fine-grained, moderately hard, micrite; Dolomite, 20%, moderate yellowish brown, finely to medium crystalline, hard, sucrosic, drusy crystalline in void spaces.

1571-1589 18

DOLOMITE and LIMESTONE - Dolomite 90%, yellowish gray to light bluish gray, very fine to finely crystalline, very hard, sucrosic; Limestone, 10%, bluish white, very fine- to fine-grained, micrite, moderately hard, microcrystalline; Claystone, trace, medium dark gray, well cemented, non-plastic.

1589-1596 7

DOLOMITE and LIMESTONE - Dolomite, 60%, yellowish gray to pale yellowish brown, very fine to finely crystalline, very hard, vuggy, limestone filling in vugs; Limestone, 40%, white to very light gray, fine-grained, micrite, moderately hard.

1596-1599 3

DOLOMITE and LIMESTONE - Dolomite, 60%, moderate yellowish brown, finely crystalline, hard, vuggy, vugs limestone filled; Limestone, 40%, very pale orange, fine to medium grained, biomicrite, moderately hard.

1599-1604.1 5.1

DOLOMITE and LIMESTONE - Dolomite, 90%, very pale orange to grayish orange to greenish black, very finely crystalline, hard, vugs filled with limestone; Limestone, 10%, very pale orange, fine- to medium-grained, sparite, soft to moderately hard; Clay, trace, white, plastic.

1604.1-1630 25.9

LIMESTONE and CLAYSTONE - Limestone, 95%, very pale orange, fine-grained, biosparite, hard, microcrystalline; Claystone, 5%, dark gray, very well cemented microcrystalline; Clay, trace, white, plastic.

1630-1634 4

LIMESTONE - Limestone, 100%, very pale orange, fine-grained, biosparite, hard, microcrystalline; Claystone, trace, greenish black, very well cemented, microcrystalline; Clay, trace, white, plastic.

1634-1644 10

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GEOLOGIC LOG

- 15 -

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LIMESTONE and DOLOMITE - Limestone, 60%, very pale orange, fine-grained, sparite, moderately hard, slightly fossiliferous; Dolomite, 40%, greenish black, very finely crystalline, very hard, microcrystalline; Clay, trace, white to green gray.

1644-1646 2

LIMESTONE - Limestone, 100%, very pale orange, fine-grained, sparite, moderately hard, non-fossiliferous; Dolomite, trace, dark gray, very finely crystalline, hard.

1646-1652 6

LIMESTONE and CLAYSTONE - Limestone, 80%, very pale orange, fine-grained, micrite, moderately hard, microcrystalline; Claystone, 20%, dark gray, well cemented, microcrystalline.

1652-1654 2

LIMESTONE - Limestone, 100%, very pale orange, fine grained, moderately hard, vuggy, slightly fossiliferous, micrite; Claystone, trace, medium blush gray, moderately well cemented.

1654-1664 10

LIMESTONE and CLAYSTONE - Limestone, 50%, very pale orange, fine-grained, sparite, hard, fossiliferous; Claystone, 50%, dark gray, well cemented.

1664-1670 6

LIMESTONE - Limestone, 95%, very pale orange to pinkish gray, fine- to medium-grained, sparite, hard, fossiliferous; Claystone, 5%, dark gray, well cemented; Clay, trace, light olive gray, plastic.

1670-1680 10

DOLOMITE and CLAYSTONE - Dolomite, 85%, moderate yellowish brown, finely crystalline, very hard, microcrystalline, slightly vuggy; Claystone, 10%, dark gray, well cemented; Limestone, 5%, very pale orange, fine- to medium-grained, sparite, moderately hard, fossiliferous, vuggy.

1680-1697 17

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GEOLOGIC LOG

- 16 -

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DOLOMITE - Dolomite, 100%, moderate yellowish brown to dark yellowish brown, finely crystalline, hard, slightly vuggy; Limestone, trace, very pale orange, very fine-grained, sparite, moderately hard, fossiliferous; Claystone, trace, dark gray, very well cemented, microcrystalline.

1697-1699 2

DOLOMITE and LIMESTONE - Dolomite, 85%, moderate yellowish brown to dark yellowish brown, finely crystalline, hard, microcrystalline, slightly vuggy; Limestone, 10%, very pale orange, very fine-grained, biosparite, moderately hard, fossiliferous; Claystone, 5%, dark gray, very well cemented, microcrystalline.

1699-1705 6

DOLOMITE - Dolomite, 100%, moderate yellowish brown to dark yellowish brown, finely crystalline, hard, slightly vuggy.

1705-1725 20

DOLOMITE and CHERT - Dolomite, 85%, moderate yellowish brown to dark yellowish brown, finely crystalline, hard, microcrystalline, slightly vuggy; Chert, 10%, olive gray to light olive gray, cryptocrystalline, very hard; Claystone, 5%, yellowish gray to dark gray, poorly to moderately well cemented, microcrystalline.

1725-1729 4

CLAYSTONE, CLAY and DOLOMITE - Claystone, 60%, dark gray to yellowish gray, moderately well cemented, microcrystalline; Clay, 20%, very pale orange to yellowish gray, plastic, moist; Dolomite, 20%, yellowish brown, soft to moderately hard, microcrystalline, vuggy.

1729-1735 6

DOLOMITE, CLAYSTONE and LIMESTONE - Dolomite, 75%, moderate yellowish brown, finely crystalline, hard, microcrystalline, slightly vuggy; Claystone, 15%, yellowish gray to dark gray, poorly to moderately well cemented, microcrystalline; Limestone, 10%, very pale orange, very fine-grained, sparite, moderately hard; Chert, trace, olive gray to light olive gray, cryptocrystalline, very hard.

1735-1752 17

DOLOMITE, CHERT and CLAYSTONE - Dolomite, 70%, moderate yellowish brown, finely crystalline, hard, microcrystalline; Chert, 20%, light gray to light olive gray, cryptocrystalline, hard; Claystone, 10%, dark gray, moderately well cemented, microcrystalline; Limestone, trace, very pale orange, very fine-grained, micrite, moderately hard, non-fossiliferous.

1752-1762 10

DOLOMITE - Dolomite, 90%, moderate to dusky yellowish brown, very fine to finely crystalline, soft to moderately hard, microcrystalline, pinholes; Chert, 5%, very light gray to olive gray, cryptocrystalline, hard; Limestone, 5%, very pale orange, fine-grained, micrite, moderately hard, microcrystalline.

1762-1764 2

CHERT and DOLOMITE - Chert, 60%, very light gray to olive gray, cryptocrystalline, hard; Dolomite, 35%, dark yellowish brown to grayish brown, very finely crystalline, hard, microcrystalline, slightly vuggy; Claystone, 5%, medium dark gray, moderately well cemented; Limestone, trace, very pale orange, fine-grained, sparite, moderately hard, slightly fossiliferous.

1764-1770 6

LIMESTONE, DOLOMITE and CLAYSTONE - Limestone, 60%, very pale orange to yellowish gray, fine- to medium-grained, biosparite, moderately hard, slightly vuggy, fossiliferous with small quantity of small shells; Dolomite, 25%, moderate brown, finely crystalline, hard, microcrystalline, slightly vuggy; Claystone, 10%, dark gray, moderately well cemented; Limestone, 5%, very pale orange to pale yellowish brown, fine-grained, biosparite. moderately hard, fossiliferous.

1770-1771 1

CHERT and DOLOMITE - Chert, 70%, yellowish gray to olive gray, cryptocrystalline, hard; Dolomite, 30%, moderate yellowish brown, finely crystalline, very hard, crystalline; Claystone, trace, dark gray, well cemented; Limestone, trace, very pale orange, fine-grained, sparite, moderately hard, microcrystalline.

1771-1781 10

DOLOMITE, CHERT and CLAYSTONE - Dolomite, 70%, dark yellowish brown to grayish brown, finely crystalline, hard, slightly vuggy; Chert, 20%, yellowish gray to olive gray, cryptocrystalline, very hard; Claystone, 10%, dark gray, moderately well cemented; Limestone, trace, very pale orange, fine-grained, biosparite, moderately hard, slightly fossiliferous.

1781-1794 13

DOLOMITE - Dolomite, 95%, moderate yellowish brown to yellowish gray, finely crystalline, hard, microcrystalline, slightly vuggy; Limestone, 5%, very pale orange, very fine-grained, biosparite, soft to moderately hard, microcrystalline; Claystone, trace, dark gray, moderately well cemented, microcrystalline.

1794-1802 8

DOLOMITE and CHERT - Dolomite, 80%, moderately yellowish brown to yellowish gray, finely crystalline, hard, slightly vuggy; Chert, 20%, light gray to light olive gray, cryptocrystalline, very hard; Limestone, trace, very pale orange, very fine-grained, biomicrite, moderately soft to moderately hard; Claystone, trace, light gray to yellowish gray, moderately hard, microcrystalline.

1802-1836 34

LIMESTONE and CHERT - Limestone, 75%, yellowish gray, fine-grained, poorly to moderately hard, sparite; Chert, 20%, light olive gray, cryptocrystalline, very well cemented; Dolomite, 5%, dark yellowish brown, finely crystalline, moderately hard.

1836-1841 5

CHERT and DOLOMITE - Chert, 60%, yellowish gray to dark yellowish brown, cryptocrystalline; Dolomite, 30%, moderate yellowish brown, finely crystalline, hard, microcrystalline; Claystone, 5%, dark gray, moderately hard, microcrystalline; Limestone, 5%, very pale orange fine-grained, biosparite, hard.

1841-1850 9

DOLOMITE and CHERT - Dolomite, 70%, dark yellowish brown, microcrystalline to finely crystalline, hard; Chert, 30%, yellowish gray to olive gray, cryptocrystalline; Claystone, trace, medium dark gray, moderately well cemented; Limestone, trace, very pale orange, fine-grained, micrite, moderately hard.

1850-1857 7

DOLOMITE and CHERT - Dolomite, 80%, dark yellowish brown, finely crystalline, hard; Chert, 20%, yellowish gray to olive gray, cryptocrystalline, very well cemented; Claystone, trace, medium dark gray, moderately well cemented, microcrystalline; Limestone, trace, very pale orange, fine-grained, biosparite, moderately hard, microcrystalline.

1857-1883 26

LIMESTONE and DOLOMITE - Limestone, 70%, very pale orange to moderate yellowish brown, fine-grained micrite, moderately hard, microcrystalline; Dolomite, 25%, moderate yellowish brown to dark yellowish brown, finely crystalline, hard, microcrystalline; Chert, 5%, light olive gray to brownish black, cryptocrystalline, very well cemented; Claystone, trace, dark gray, moderately well cemented, microcrystalline.

1883-1904 21

DOLOMITE and CHERT - Dolomite, 50%, dark yellowish brown, finely crystalline, hard; Chert, 45%, light olive gray to dark yellowish brown, cryptocrystalline, very well cemented; Limestone, 5%, very pale orange, fine-grained, micrite, moderately soft to moderately hard.

1904-1912 8

LIMESTONE - Limestone, 60%, yellowish gray, fine-grained, micrite, moderately soft, to moderately hard, microcrystalline, pinholes; Dolomite, 20%, dark yellowish brown, finely crystalline, very hard, microcrystalline; Chert, 20%, light olive gray to dark yellowish brown, cryptocrystalline, very well cemented.

1912-1932 20

DOLOMITE - Dolomite, 90%, olive gray to dark yellowish brown, finely crystalline, hard, microcrystalline; Chert, 5%, light olive gray to dark yellowish brown, cryptocrystalline, very well cemented; Limestone, 5%, very pale orange to yellowish gray, fine-grained, micrite, moderately soft to moderately hard, microcrystalline.

1932-1936 4

LIMESTONE - Limestone, 90%, very pale orange to yellowish gray, fine-grained, biosparite, moderately soft to moderately hard, microcrystalline; Dolomite, 5%, dark yellowish brown, hard, microcrystalline; Chert, 5%, light olive gray to dark yellowish brown, cryptocrystalline, very well cemented.

1936-2040 104

DOLOMITE - Dolomite, 100%, dark yellowish brown, finely crystalline, moderately hard, vuggy; Limestone, trace, white to light gray, fine-grained, micrite, moderately soft to moderately hard.

2040-2046 6

DOLOMITE and LIMESTONE - Dolomite, 60%, moderate brown to dark yellowish brown, finely crystalline, hard, vugs filled with limestone; Limestone, 40%, yellowish gray, fine-grained, biomicrite, moderately hard.

2046-2049 3

DOLOMITE - Dolomite, 100%, moderate brown, finely crystalline, hard, limestone-filled vugs; Limestone, trace, very pale orange, fine-grained, biosparite, hard, non-fossiliferous.

2049-2053 4

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 21 -

HARRIS CORP.

DOLOMITE - Dolomite, 100%, medium light gray to grayish brown, very hard, microcrystalline, drusy crystals in vugs; Limestone, trace, very pale orange, fine-grained, biomicrite, hard.

2053-2064 11

DOLOMITE AND LIMESTONE - Dolomite, 50%, dark yellowish brown to grayish brown, finely crystalline, hard, drusy crystallization in vugs; Limestone, 50%, very pale orange, fine-grained, biomicrite, moderately hard, microcrystalline.

2064-2069 5

DOLOMITE - Dolomite, 95%, moderately to dark yellowish brown, very fine- to finely crystalline, very hard, drusy crystallization in vugs; Limestone, 5%, very pale orange, fine-grained, sparite, moderately hard, microcrystalline.

2069-2091 22

DOLOMITIC LIMESTONE - Limestone, 60%, very pale orange, very fine-grained, micrite, moderately hard, some recrystallization, interclasts, dolomite filling in solution cavities; Dolomite, 40%, dark yellowish brown, very finely crystalline, moderately hard, vuggy, limestone filling in solution cavities.

2091-2107 16

DOLOMITE - Dolomite, 100%, moderate to dark yellowish brown, microcrystalline, to finely crystalline, hard, vugs, solution cavities; Limestone, trace, very pale orange, very fine-grained, micrite, moderately hard.

2107-2109 2

DOLOMITE and LIMESTONE - Dolomite, 80%, moderately yellowish brown, medium crystalline, hard, vuggy to cavernous; Limestone, 20%, very pale orange, very fine-grained, hard.

2109-2115 6

LIMESTONE and DOLOMITE - Limestone, 90%, grayish orange to pale yellowish orange, very fine-grained, micrite, hard, vuggy; Dolomite, 10%, grayish brown to dusky brown, finely crystalline, very hard.

2115-2126 11

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GEOLOGIC LOG

- 22 -

HARRIS CORP.

DOLOMITE and LIMESTONE - Dolomite, 95%, light brown to grayish brown to dusky brown, microcrystalline to very finely crystalline, moderately hard, vuggy; Limestone, 5%, very pale orange, cryptocrystalline to very fine-grained, micrite, hard, dolomite filling in solution cavities.

2126-2139 13

LIMESTONE and DOLOMITE - Limestone, 60%, yellowish gray, very fine-grained, moderately soft; Dolomite, 40%, pale yellowish brown to dusky brown, cryptocrystalline to microcrystalline, hard, vuggy, solution cavities with drusy crystalline and limestone filling.

2139-2143 4

DOLOMITE - Dolomite, 100%, moderate brown to dark yellowish brown, microcrystalline to finely crystalline, hard, vuggy, drusy crystallization in cavities, sucrosic; Limestone, trace, yellowish gray, very fine-grained, micrite, moderately hard.

2143-2193 50

DOLOMITE - Dolomite, 95%, dark gray to brownish black, cryptocrystalline, to very finely crystalline, hard, limestone filling in vugs; Dolomite, 5%, moderate yellowish brown, cryptocrystalline, hard; Limestone, trace, very pale orange, microcrystalline, moderately soft.

2193-2200 7

LIMESTONE AND DOLOMITE (INTERBEDDED) - Limestone, 60%, very pale orange to medium dark gray, finely crystalline, micrite, moderately soft, friable; Dolomite, 40%, moderate brown to dusky yellowish brown, cryptocrystalline to very finely crystalline, hard, vuggy; Marl, trace, bluish white, soft, wet, plastic.

2200-2231 31

DOLOMITE - Dolomite, 100%, moderate brown to dark yellowish brown to pale yellowish brown, cryptocrystalline to very finely crystalline, very hard.

2231-2247 16

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GEOLOGIC LOG

- 23 -

HARRIS CORP.

DOLOMITE - Dolomite, 85%, brownish black, cryptocrystalline, very hard; Dolomite, 15%, dark yellowish brown, microcrystalline to finely crystalline, hard, vuggy; Limestone, trace, very pale orange, microcrystalline, biomicrite, moderately soft.

2247-2307 60

DOLOMITE - Dolomite, 90%, light gray, cryptocrystalline to very finely crystalline, very hard; Dolomite, 10%, dark yellowish brown, microcrystalline to finely crystalline, hard, vuggy.

2307-2309 2

DOLOMITE - Dolomite, 50%, olive black to olive gray, cryptocrystalline, very finely crystalline, very hard, vuggy; Dolomite 50%, dark yellowish brown, microcrystalline to finely crystalline, hard, slightly vuggy; Limestone, trace, grayish orange to very pale orange, fine-grained, biosparite, soft, fossiliferous.

2309-2319 10

DOLOMITE - Dolomite, 95%, pale yellowish brown, cryptocrystalline, very hard; Dolomite, 5%, dark yellowish brown, microcrystalline, hard, slightly vuggy.

2319-2325 6

DOLOMITE Dolomite, 50%, moderate brown, microcrystalline, hard, vuggy, solution cavities with drusy crystallization; Dolomite, 50%, pale yellowish brown, cryptocrystalline, very hard.

2325-2329 4

DOLOMITE - Dolomite, 100%, dark yellowish brown, cryptocrystalline to finely crystalline, very hard.

2329-2330 1

TOTAL DEPTH: 2330

IW-2

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GEOLOGIC LOG
OF
WELL IW-2
HARRIS CORPORATION
PALM BAY, FLORIDA

Sample Description	Depth Interval (feet)	Thickness (feet)
No Sample Taken	0-32	32
SAND and ORGANICS - Sand, 70%, clear, quartz, fine to medium-grained, sub-angular to sub-rounded; Organics, 30%, roots, soil, etc.	32-35	3
SHELLY SAND and LIMESTONE - Sand, 75%, clear, quartz, medium to coarse-grained, angular to sub-rounded; Shell, 20%, white to very pale orange to medium light gray, small whole shells and broken fragments; Limestone, 5%, dark gray, fine to medium-grained, micrite, hard.	35-55	20
SHELLY SAND and CLAY - Sand, 50%, clear quartz, fine to medium-grained, sub-rounded to rounded; Shell, 40%, white to pale yellow orange to light gray, broken fragments; Clay, 10%, dusky yellow green, plastic, sandy.	55-75	20
SHELL and SAND - Shell, 60%, white to pale yellow orange to light gray, broken fragments; Sand, 40%, clear quartz, fine to coarse-grained, sub-rounded to rounded.	75-102	27
SHELLY SANDSTONE - Sandstone, 75%, light olive gray, quartz, fine to medium-grained, sub-rounded, moderately well cemented, calcareous cement; Shell, 25%, very pale orange, angular fragments; Phosphatic sand, trace, black, fine-grained, rounded.	102-127	25
SANDY MARL - Marl, 80%, medium light gray, soft, wet, plastic; Sand, 20%, colorless, quartz, fine to coarse-grained, sub-rounded; Shells, trace, pale yellow orange, angular fragments; Phosphatic sand, trace, black, rounded.	127-137	10

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GEOLOGIC LOG

- 2 -

HARRIS CORP.

SANDY MARL - Marl, 90%, grayish olive green, soft, wet, plastic; Sand, 10%, colorless, quartz, fine- to medium-grained, sub-rounded; Shell, trace, angular fragments.	137-152	15
MARLY SAND - Sand, 70%, clear quartz, fine to medium-grained, sub-angular to sub-rounded; Marl, 30%, grayish olive green, soft, wet, plastic; Phosphatic sand, trace, black, fine- to medium-grained, sub-rounded; Shells, trace, fragments.	152-241	89
No Sample Available	241-251	10
SANDY CLAY - Clay, 50%, grayish olive green, highly plastic; Sand, 40%, colorless, quartz, fine-grained, sub-angular; Phosphatic sand, 10%, black, fine-grained, sub-rounded to rounded.	251-271	20
SANDY CLAY - Clay, 60%, grayish olive green, highly plastic; Sand, 20%, colorless, quartz, fine- to fine-grained, sub-angular; Claystone, 10%, greenish black, moderately well cemented; Sand, 10%, black, phosphatic, fine-grained, sub-rounded to rounded.	271-281	10
CLAY - Clay, 75%, greenish olive gray, plastic; Sand, 20%, colorless, quartz, very fine- to fine-grained sub-angular; Sand, 10%, black, phosphatic, fine--grained , sub-rounded to rounded.	281-291	10
CLAY - Clay, 85%, greenish olive gray, highly plastic; Sand, 10%, colorless, quartz, fine-grained, sub-angular; Sand, 5%, black, phosphatic, fine-grained, rounded.	291-330	39
LIMESTONE and CLAY - Limestone, 70%, yellowish gray, fine-grained, micrite, moderately hard, sand in matrix; Clay, 20%, light olive gray, low plasticity; Shell, trace, white angular fragments; Sand, trace, colorless to black, quartz, phosphatic, very fine- to fine-grained.	330-340	10

LIMESTONE and SAND - Limestone, 85%, yellowish gray, fine- to very fine-grained, sparite, moderately hard; Clay, 5%, light olive gray, low plasticity; Sand, 5%, black, phosphatic, fine-grained, rounded to well-rounded; Sand, 5%, colorless, quartz, fine-grained, sub-angular to sub-rounded; Shell, trace, white to yellowish gray, angular fragments, some recrystallization.

340-429 89

LIMESTONE - Limestone, 95%, white to yellowish gray, fine-grained, micrite, hard, foraminifera and echinoid fossils; Sand, 5%, colorless, quartz, very fine-grained, sub-angular; Sand, trace, black, phosphatic, fine-grained, sub-rounded; Clay, trace, light olive gray.

429-454 25

MARLY LIMESTONE - Limestone, 75%, very pale orange, fine-grained, micrite, very hard, some vugs filled with sparry calcite; Marl, 25%, very pale orange, very fine to cryptocrystalline, plastic, soft.

454-464 10

LIMESTONE AND CLAY (INTERBEDDED) - Limestone, 70%, white to yellowish gray, fine- to medium-grained, hard, vuggy; Clay, 25%, olive gray, sandy (very fine-grained); Shell, 5%, yellowish gray to pale orange, medium- to coarse-sized fragments; Sand, trace, black, phosphatic, fine-grained.

464-535 71

LIMESTONE, CLAY and DOLOMITE (INTERBEDDED) - Limestone, 65%, white to yellowish gray, cryptocrystalline to fine-grained, micrite, hard, vuggy; Clay, 25%, olive gray; Dolomite, 10%, very pale grayish orange, cryptocrystalline, very hard, vuggy; Sand, trace, black, phosphatic, fine-grained.

535-663 128

DOLOMITE and LIMESTONE - Dolomite, 80%, grayish orange to light gray, very fine to finely crystalline, very hard, sucrosic, vuggy; Limestone, 20%, very light gray to very pale orange, fine-grained, biomicrite, hard.

663-678 15

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 4 -

HARRIS CORP.

DOLOMITE - Dolomite, 100%, grayish orange, very fine to finely crystalline, microsparite, very hard, sucrosic, vuggy; Limestone, trace, very light gray, fine-grained, biomicrite, hard, fossiliferous; Claystone, trace, medium light gray.

678-682 4

DOLOMITE and LIMESTONE - Dolomite, 70%, grayish orange to light gray, very fine to finely crystalline, very hard, sucrosic, vuggy; Limestone, 25%, white to very pale orange, cryptocrystalline to very fine-grained, hard; Siltstone, trace, olive gray, moderately well cemented; Shell, trace, tan, fragments and whole shells present.

682-710 28

LIMESTONE - Limestone, 90%, very pale orange, fine-grained, hard, vuggy; Dolomite, 5%, pale yellowish brown, finely crystalline, very hard, sucrosic; Shell, 5%, very pale orange, whole echinoid spines and shell fragments.

710-724 14

DOLOMITE and LIMESTONE - Dolomite, 90%, light brown to dark yellowish brown to medium gray, cryptocrystalline to finely crystalline, vuggy, moderately hard; Limestone, 10%, bluish white to very pale orange, microcrystalline to fine-grained, vuggy, pinholes, fossiliferous; Clay, trace, olive gray, well cemented, non-plastic.

724-747 23

DOLOMITE - Dolomite, 100%, white to olive black, microcrystalline, vuggy, solution cavities, moderately hard; Limestone, trace, yellowish gray, microcrystalline to fine-grained, biomicrite, vuggy, echinoid fossils; Clay, trace, dark gray, well cemented, non-plastic.

747-865 118

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 5 -

HARRIS CORP.

LIMESTONE and DOLOMITE - Limestone, 80%, very light gray to yellowish gray microcrystalline to fine-grained, pinhole cavities, moderately soft; Dolomite, 15%, moderate yellowish brown to medium gray, microcrystalline to finely crystalline, vuggy, moderately hard; Clay, 5%, light gray, plastic.

865-869 4

LIMESTONE and DOLOMITE - Limestone, 90%, very pale orange to light gray, biomicrite, moderately soft; Dolomite, 10%, moderate yellowish brown to light gray, microcrystalline, solution cavities.

869-880 11

LIMESTONE - Limestone, 100%, light gray, micrite, vuggy, moderately soft; Dolomite, trace, moderate yellowish brown to medium dark gray, microcrystalline, moderately hard.

880-883 3

LIMESTONE and DOLOMITE - Limestone, 60%, very pale orange to dark yellowish brown, microcrystalline to fine-grained, biomicrite, moderately soft; Dolomite, 40%, moderate yellowish brown, microcrystalline to finely crystalline, vuggy; Clay, trace, moderate brown, plastic.

883-919 36

DOLOMITE and LIMESTONE - Dolomite, 90%, very pale orange to medium gray, microcrystalline to finely crystalline, vuggy, moderately hard; Limestone, 10%, very pale orange, microcrystalline to finely crystalline, calcareous matrix, moderately soft, fossiliferous.

919-921 2

LIMESTONE and DOLOMITE - Limestone, 60%, pinkish gray to medium bluish gray, biomicrite, microcrystalline to fine-grained, very hard, recrystallized, fossiliferous; Dolomite, 40%, yellowish gray to moderate yellowish brown, microcrystalline to finely crystalline, vuggy, moderately hard, solution cavities.

921-936 15

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 6 -

HARRIS CORP.

LIMESTONE and DOLOMITE - Limestone, 80%, white to pinkish gray, microcrystalline to fine-grained, biosparite, very hard, echinoids; Dolomite, 20%, yellowish gray to moderate yellowish brown, microcrystalline to finely crystalline, vuggy, moderately hard.

936-950 14

DOLOMITE and LIMESTONE - Dolomite, 70%, very pale orange to olive gray, microcrystalline to finely crystalline, vuggy, moderately hard; Limestone, 20%, very pale orange to medium bluish gray, fine-grained, biosparite, vuggy, fossiliferous; Clay, 10%, dark bluish gray, well cemented, non-plastic.

950-956 6

DOLOMITIC LIMESTONE - Limestone, 70%, white to medium bluish gray, fine-grained to microcrystalline, vuggy, hard; Dolomite, 30%, very pale orange to moderate yellowish brown, microcrystalline to finely crystalline, vuggy, moderately hard.

956-964 8

DOLOMITE and LIMESTONE - Dolomite, 90%, very pale orange to medium light gray, microcrystalline to finely crystalline, vuggy, moderately hard; Limestone, 10%, white to very pale orange, microcrystalline to fine-grained, calcareous matrix, moderately hard.

964-999 35

DOLOMITE - Dolomite, 100%, very pale orange to moderate yellowish brown, microcrystalline to finely crystalline, very vuggy, drusy crystallization in vugs, moderately hard; Limestone, trace, very pale orange, fine-grained, vuggy, moderately soft.

999-1022 23

DOLOMITE and LIMESTONE - Dolomite, 60%, very pale orange, microcrystalline to finely crystalline, vuggy, moderately hard; Limestone, 40%, very pale orange to medium gray, microcrystalline to fine-grained, biosparite, moderately soft, fossiliferous.

1022-1058 36

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 7 -

HARRIS CORP.

LIMESTONE and DOLOMITE - Limestone, 60%, very pale orange to medium gray, microcrystalline to fine-grained, micrite, moderately soft, fossiliferous; Dolomite, 40%, very pale orange, microcrystalline to finely crystalline, vuggy, moderately hard.

1058-1063 5

DOLOMITE and LIMESTONE - Dolomite, 60%, very pale orange, microcrystalline to finely crystalline, vuggy, moderately hard. Limestone, 40%, very pale orange, microcrystalline to fine-grained, biomicrite, moderately soft, fossiliferous.

1063-1068 5

DOLOMITE and LIMESTONE - Dolomite, 90%, moderate yellowish brown, finely crystalline, moderately hard, microcrystalline, vuggy; Limestone, 10%, pinkish gray, fine-grained, biosparite, moderately hard, microcrystalline, fossiliferous, some vugs filled with (possible) anhydrite.

1068-1077 9

LIMESTONE and DOLOMITE - Limestone, 90%, very pale orange, fine-grained, biomicrite, moderately soft to moderately hard, microcrystalline, fossiliferous; Dolomite, 10%, moderate yellowish brown, finely crystalline, hard, microcrystalline.

1077-1129 52

LIMESTONE and CLAYSTONE - Limestone, 70%, very pale orange, fine-grained, sparite, hard, microcrystalline, shells; Claystone, 30%, medium, dark gray, non-plastic, poorly cemented, calcareous cement.

1129-1137 8

CLAYSTONE - Claystone, 100%, medium dark gray, non-plastic, poorly-cemented, calcareous cement; Shells, trace.

1137-1139 2

DOLOMITE and CLAYSTONE - Dolomite, 40%, moderate brown, finely crystalline, hard, microcrystalline, vuggy; Claystone, 40%, medium dark gray, non-plastic, poorly-cemented, calcareous cement limestone, 20%, very pale orange to light gray, fine-grained, sparite, moderately hard microcrystalline.

1139-1147 8

LIMESTONE - Limestone, 90%, grayish orange, fine-to-medium grained, moderately soft; Claystone, 10%, medium dark gray, non-plastic, poorly cemented.

1147-1160 13

DOLOMITE - Dolomite, 95%, moderate yellowish brown-to-drusy yellowish brown, finely crystalline, hard, vuggy, microcrystalline; Limestone, 5%, very pale orange, fine-grained, micrite, moderately soft, microgranular.

1160-1191 31

DOLOMITE and LIMESTONE - Dolomite, 90%, dark yellowish brown to drusy brown, fine-to-medium-crystalline, very hard, crystals of dolomite along fractures and in vugs; Limestone, 10%, pinkish gray, very fine grained, hard.

1191-1218 27

CLAYSTONE & LIMESTONE - Claystone, 60%, medium grey, fine grained, well cemented, microcrystalline; Shells, 20%, white to brownish grey, angular fragments and some complete shells. Limestone, 20%, yellowish grey, medium grained, sparite, moderately hard, microcrystalline.

1218-1220 2

DOLOMITE - Dolomite, 100%, yellowish brown, finely crystalline, moderately hard to hard, drusy crystallization along fractures and in vugs; limestone, trace yellowish gray micrite hard.

1220-1228 8

DOLOMITE & LIMESTONE - Dolomite, 60%, pale yellowish brown to moderate brown, finely crystalline, hard, vuggy, sucrosic; Limestone, 40%, pinkish grey to yellowish grey, fine-to medium-grained, sparite, moderately hard, (foraminifera fossils).

1228-1236 8

DOLOMITE & LIMESTONE - Dolomite, 90%, dusky yellowish brown to moderate yellowish brown, fine-to medium-crystalline, very hard, vuggy & sucrosic; limestone, 10%, very pale orange, fine-to medium grained, hard granular texture.

1236-1248 12

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 9 -

HARRIS CORP.

<p>DOLOMITE and LIMESTONE - Dolomite, 50%, moderate yellowish brown to dusky brown, fine-to medium-crystalline, hard vuggy; Limestone, 50%, yellowish grey, finely crystalline, hard, fossils.</p>	1248-1250	2
<p>DOLOMITE and LIMESTONE - Dolomite, 90%, dark yellowish brown, finely crystalline, hard, vuggy, sucrosic, drusy crystals of dolomite in vugs and fractures; Limestone, 10%, yellowish grey, fine-grained, biomicrite, hard, foraminifera.</p>	1250-1266	16
<p>DOLOMITE - Dolomite, 95%, dark yellowish brown to light olive gray, finely crystalline, hard, microcrystalline, vuggy, sucrosic; Limestone, 5%, pinkish gray, fine-to medium grained, hard, fossiliferous; Peat, trace, brownish black, small chunks.</p>	1266-1296	30
<p>LIMESTONE - Limestone, 100%, pinkish gray, fine to medium-grained, biomicrite, moderately hard to hard, very fossiliferous, Dolomite trace, moderate brown, finely crystalline, hard, drusy crystallization, sucrosic, vuggy.</p>	1296-1388	92
<p>DOLOMITE and LIMESTONE - Dolomite, 70%, moderate yellowish brown, medium-crystalline, hard, limestone in filling in pores; Limestone, 30%, pinkish grey, fine-to medium-grained, moderately hard, granular texture.</p>	1388-1390	2
<p>LIMESTONE and DOLOMITE - Limestone, 90%, pinkish grey to very pale orange, fine-to medium, grained, biomicrite, hard to very hard. Microgranular to microcrystalline fragments of fossils. Dolomite, 10%, moderate yellowish brown, medium-crystalline, moderately hard, limestone filling in voids; Shells, fragments and whole pieces, foraminifera.</p>	1390-1412	22

LIMESTONE and DOLOMITE - Limestone, 80%, pinkish grey to very pale orange, fine to medium grained, hard to very hard, microgranular to micro-crystalline texture; Dolomite, 20%, moderate yellowish brown, medium-crystalline, moderately hard, limestone filling in cavities; Shells, fragments.

1412-1460 48

DOLOMITE - Dolomite, 100%, moderate yellowish brown, fine to medium crystalline, hard, vuggy; Had a lot of trouble with huge chunks of dolomite getting caught in bit and pipe.

1460-1485 25

DOLOMITE - Dolomite, 100%, brownish black, fine-to medium-crystalline, hard, drusy crystallization in pores.

1485-1488 3

DOLOMITE - Dolomite, 100%, moderate yellowish brown, fine-to medium-crystalline, hard, drusy crystals.

1488-1507 19

LIMESTONE and DOLOMITE - Limestone, 80%, pinkish grey, medium-to coarse-grained, biomicrite, moderately soft; Dolomite, 20%, medium yellowish brown to blackish brown, medium-crystalline, moderately hard, drusy crystals along fractures.

1507-1516 9

LIMESTONE and DOLOMITE - Limestone, 50%, pinkish grey medium-to coarse-grained, biomicrite, moderately soft; Dolomite, 50%, medium yellowish brown to blackish brown, medium-crystalline; hard, drusy crystals in voids.

1516-1527 11

DOLOMITE and LIMESTONE - Dolomite, 80%, medium yellowish brown to blackish brown, medium-crystalline, moderately hard, drusy crystallization along fractures & voids; Limestone, 20%, pinkish grey, medium to coarse-grained, sparite moderately soft to moderately hard.

1527-1537 10

DOLomite - Dolomite, 100%, moderate yellowish brown to dusky yellow brown, fine-to medium-crystalline, hard, drusy crystallization in cavities, limestone filling in cavities.

1537-1551 14

LIMESTONE and DOLomite - Limestone, 70%, yellowish gray, fine to medium grained, sparite, very hard, slightly fossiliferous; Dolomite, 30%, moderate yellowish brown, fine-to medium-crystalline, hard, sucrosic, drusy crystallization in cavities.

1551-1561 10

DOLomite - Dolomite, 100%, yellowish gray, finely crystalline, very hard, microcrystalline, sucrosic, drusy crystallization; Limestone trace, yellowish gray, fine-grained, sparite, hard.

1561-1580 19

DOLomite and LIMESTONE - Limestone, 50%, pinkish gray, fine to medium grained, sparite, moderately hard; Dolomite, 50%, moderate yellowish brown to yellowish gray, finely crystalline, drusy crystallization.

1580-1582 2

DOLomite and LIMESTONE - Dolomite, 90%, yellowish gray to moderate yellowish brown, finely crystalline, very hard, sucrosic; Limestone, 10%, yellowish gray, sparite, fine-to medium-grained, moderately hard.

1582-1602 20

DOLomite and LIMESTONE - Dolomite, 60%, yellowish gray to moderate yellowish brown, finely crystalline, very hard, Limestone, 40%, white to very light gray, fine to medium grained, sparite, hard.

1602-1612 10

DOLomite - Dolomite, 95%, moderate yellowish brown to yellowish gray, fine-to medium-crystalline, hard, drusy crystallization in pores; Limestone, 5%, yellowish gray, fine-to medium-grained, biomicrite, hard, slightly fossiliferous.

1612-1622 10

DOLOMITE and LIMESTONE - Dolomite, 85%, yellowish gray to moderate yellowish brown, fine-to medium-crystalline, hard; Limestone, 15%, yellowish gray fine-to medium-grained, biomicrite, hard, microcrystalline, slightly fossiliferous echinoids.

1622-1694 72

DOLOMITE - Dolomite, 95%, moderate yellowish brown to yellowish gray, fine to medium-crystalline, hard, drusy crystallization in pores; Limestone, 50%, yellowish gray, fine-to medium-grained, biomicrite, hard, slightly fossiliferous; Clay, trace, light gray, sandy, plastic; Chert trace of white to light gray, cryptocrystalline; Claystone, trace, very pale orange, poorly to moderately well-cemented, fossiliferous.

1694-1745 51

DOLOMITE & LIMESTONE & CLAYSTONE - Dolomite, 80%, moderate yellowish brown to yellowish gray, fine-to medium-crystalline, hard, drusy crystallization; Limestone, 10%, yellowish gray, fine-to medium-grained, biomicrite, hard, fossiliferous; Claystone, 10%, very pale orange, poorly to moderately well cemented, fossiliferous; Chert, trace, white to light gray, cryptocrystalline.

1745-1750 5

DOLOMITE - Dolomite, 95%, moderate yellowish brown to yellowish gray, fine to medium-crystalline, hard, drusy crystallization in pores; Limestone, 5%, yellowish gray, fine-to medium-grained, sparite, hard, fossiliferous; Chert trace white to light gray, cryptocrystalline; Claystone, trace, very pale orange, poorly-to moderately well-cemented, fossiliferous.

1750-1777 27

DOLOMITE AND CHERT - Dolomite, 60%, moderate yellowish brown to yellowish gray, microcrystalline to medium crystalline, drusy crystallization in cavities; Chert, 35%, white to light gray, cryptocrystalline; Limestone, trace, yellowish gray, fine-to medium-grained, biomicrite, hard fossiliferous; Clay, trace, light to medium gray, sandy, plastic.

1777-1787 10

DOLOMITE AND CHERT - Dolomite, 80%, moderately yellowish brown to yellowish gray, microcrystalline to medium-grained, hard, drusy crystallization in cavities; Chert, 20%, light gray, cryptocrystalline; Limestone, trace, yellowish gray, fine to medium-grained, sparite, moderately soft, claystone, trace, light to medium gray, fine-grained, poorly-to moderately well-cemented.

1787-1884 97

DOLOMITE - Dolomite, 95%, moderate yellowish brown to yellowish gray, microcrystalline to medium-grained, hard, chert, trace, light gray, cryptocrystalline; Limestone, trace, yellowish gray, fine-to medium-grained, micrite, hard.

1884-1898 14

LIMESTONE and DOLOMITE - Limestone, 98%, very pale orange, very fine to fine grained; Dolomite, 2%, moderate yellowish brown, micro-to finely crystalline, hard, drusy crystallization in pores.

1898-1912 14

MARL, LIMESTONE AND DOLOMITE - Limestone, 60%, pale yellowish brown to very pale orange, fine-grained, biomicrite, moderately hard; Marl, 30%, yellowish gray, sandy, soft; Dolomite, 70%, light brown to light gray, microcrystalline to finely crystalline, hard.

1912-1919 7

DOLOMITE AND CHERT - Chert, 50%, dusky brown to medium dark gray, cryptocrystalline, conchoidal fracture; Dolomite, 50%, light brown to moderate brown, microcrystalline to finely crystalline, hard drusy crystallization in cavities.

1919-1930 11

DOLOMITE AND LIMESTONE - Dolomite, 70%, pale yellowish brown to medium dark gray, cryptocrystalline to finely crystalline, hard, glauconitic; Limestone, 30%, white, fine grained, moderately hard, glauconite; Chert, trace, light gray, cryptocrystalline.

1930-1938 8

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GEOLOGIC LOG

- 14 -

HARRIS CORP.

DOLomite - Dolomite, 90%, yellowish gray to dark yellowish brown, fine-to medium-crystalline, sucrosic, glauconitic; Chert, 10%, dusky yellowish brown, cryptocrystalline, conchoidal fracture; Limestone, trace, white, fine-to medium-grained, moderately hard, glauconitic.

1938-1965 27

LIMESTONE, 85%, very pale orange to very light grey, fine-to medium grained, biomicrite, hard, very few fossils, some calcite crystallization in pores; Dolomite, 15% moderate yellowish brown to yellowish grey, fine-to medium crystalline, hard microcrystalline, sucrose texture. Core 1969 to 1977.

1965-1969 4

LIMESTONE - Limestone, 95%, very pale orange to very light gray, fine-to medium grained, biomicrite; hard, microcrystalline, few fossils; Dolomite, 5%, moderate yellowish brown to dusky yellowish brown, fine-to medium-crystalline, hard, sucrosic.

1969-2060 91

DOLomite - Dolomite, 90%, dark yellowish brown to moderate brown, fine-to medium-crystalline, very hard, microcrystalline, sucrosic; Limestone, 10%, very pale orange, fine-to medium-grained, sparite, hard, fossiliferous.

2060-2098 38

DOLomite - Dolomite, 100%, moderate yellowish brown to black, fine-to medium-crystalline, hard, to sucrosic, very vuggy, all vugs lined with drusy dolomite crystallization.

2098-2138 40

DOLomite - Dolomite 100%, light to olive gray-moderate yellowish brown - black, finely crystalline, very hard, some color differences showing recrystallization present; Limestone, trace, white to light gray, fine-grained, microsparite, moderately hard.

2138-2258 120

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GEOLOGIC LOG

- 15 -

HARRIS CORP.

DOLOMITE - Dolomite, 100%, light gray to dark yellowish brown to brownish black, fine-to medium-crystalline, very hard, varying color indicating recrystallization, crystallized fossils.

2258-2274 16

DOLOMITE - Dolomite, 100%, light gray to dark yellowish brown to brownish black, fine-to medium-crystalline, very hard, crystallized fossils; Limestone, trace, very pale orange, medium-grained, sparite hard, granular, oolitic, fossiliferous.

2274-2430 156

DOLOMITE & CLAY - Dolomite, 60%, light gray to dark yellowish brown to brownish black, fine to medium crystalline, very hard, clay, medium gray, fine-grained, wet, plastic, fine grains of pyrite in clay.

2430-2431 1

DOLOMITE - Dolomite, 100%, light gray to brown to black, finely crystalline, very hard, vuggy, sucrosic. (Varying from very hard, and microcrystalline to moderately hard and microgranular).

2431-2500 69

DOLOMITE - Dolomite, 100%, pale yellowish brown to olive gray to black, fine to coarsely crystalline, moderately soft to moderately hard, vuggy; Gypsiferous clay, trace, white to medium gray, plastic.

2500-2530 30

DOLOMITE - Dolomite, 100%, pale yellowish brown to dusky brown to olive black, finely crystalline, very hard; Anhydrite, trace, white, fine-grained, wet, plastic.

2530-2720 190

DOLOMITE - Dolomite, 95%, pale yellowish brown to olive gray to black, fine-to medium-crystalline, moderately hard, microcrystalline, sucrosic, vuggy; Gypsiferous clay, 5%, white, non-fossiliferous.

2720-2800 80

TOTAL DEPTH: 2800

MONITOR WELL

GERAGHTY & MILLER, INC.

GEOLOGIC LOG
OF
MONITOR WELL
HARRIS CORPORATION
PALM BAY, FLORIDA

Sample Description	Depth Interval (feet)	Thickness (feet)
SAND AND ORGANICS - Sand, 70%, Colorless quartz, fine-to medium-grained, sub-angular to sub-rounded; Organics, 30%, roots, soil, etc.	0-33	33
SAND AND SHELLS - Sand, 70%, colorless, quartz, medium-to coarse-grained, angular to sub-rounded; Shells, 30%, white to medium light gray, small whole shells and shell fragments.	33-91	58
LIMESTONE, SAND, AND SHELLS - Limestone, 60%, very light gray to medium light gray, very fine grained, hard; Sand, 35%, colorless, quartz, medium-to coarse-grained, sub-angular to sub-rounded; Shell, 5%, white to medium dark gray to very pale orange, fragments.	91-145	54
SANDY CLAY AND SHELL - Clay, 80%, grayish olive green, soft, plastic; Sand, 10%, colorless, quartz, fine-grained, sub-angular to sub-rounded; Shell, 10%, white to very pale orange to medium dark gray, angular, fragments; Sand, trace, black, phosphatic, fine-grained, rounded.	145-173	28
CLAYEY SAND AND LIMESTONE - Sand, 50% colorless, quartz, fine-to coarse-grained, sub-angular to sub-rounded; Clay, 40%, grayish olive green, soft; Limestone, 10%, very pale orange to medium dark gray, micrite, shell fragments; Sand, trace, black phosphatic, fine - to coarse-grained, rounded.	173-242	69

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GEOLOGIC LOG

- 2 -

HARRIS CORP.

SANDY CLAY, SHELLS, AND LIMESTONE - Clay, 75%, grayish olive green, very soft, plastic; Shell, 10%, white to very pale orange, fragments; Limestone, 10%, greenish gray to very pale orange, micrite, well-cemented; Sand, 5%, clear and black, medium-to coarse-grained, rounded to sub-angular, phosphatic (black).

242-302 60

SANDY CLAY, SHELLS, AND LIMESTONE - Clay, 50%, grayish olive green, soft, plastic; Shell, 20%, white to very pale orange to medium dark gray; Limestone, 20%, greenish gray to very pale orange, very fine-grained, hard; Sand, 10%, colorless, quartz, phosphatic (black).

302-332 30

LIMESTONE CLAY AND SHELL - Limestone, 50%, white to very pale orange, very fine-grained, hard; Clay, 30%, grayish olive green, soft, plastic; Shell, 15%, white to very pale orange to medium dark gray, angular, fragments; Sand, 5%, colorless, quartz, fine-to medium-grained, sub-angular, phosphatic (black).

332-348 16

SANDY LIMESTONE - Limestone, 85%, white to yellowish gray, hard; Fine-to coarse-grained, biosparite, sand, 10%, colorless, quartz phosphatic (black); Clay, 5%, light olive gray, soft, plastic.

348-366 18

LIMESTONE - Limestone, 95%, white to light brown, biosparite, moderately hard to hard; Shells, 5% white to very pale orange to medium dark gray, angular, fragments; Sand, trace, colorless, quartz, phosphatic (black) fine-to medium grained, sub-angular to rounded.

366-371 5

LIMESTONE AND SHELL - Limestone, 90%, white to yellowish gray, fine-to coarse-grained, biosparite moderately hard to hard, fossils (foraminifera); Shells, 10%, white to yellowish gray, angular, fragments.

371-420 49

LIMESTONE - Limestone, 100%, yellowish gray, biomicrite hard shell, trace, yellowish gray to moderate dark gray, angular, fragmented; Sand, trace, colorless, quartz, phosphatic (black); foraminifera fossils.	420-430	10
LIMESTONE - Limestone, 100%, white to yellowish gray, bio-intramicrocrystalline moderately hard granular.	430-500	70
-NO RECOVERY - Lost Circulation	500-557	57
LIMESTONE AND CLAY (Interbedded); Limestone, 75%, white to light bluish gray to grayish orange, fine-to coarse-grained, biomicrite, hard, vuggy, granular to microcrystalline, foraminifera present; Clay, 25%, olive gray, well, cemented, non-plastic; Dolomite, trace, very pale grayish orange, very finely crystalline, hard; Fossils - foraminifera	557-612	55
DOLOMITE AND CLAYSTONE - Dolomite, 85%, moderate yellowish brown to light brown, microcrystalline to finely crystalline, hard, vuggy; Claystone, 10%, olive gray, well cemented; Limestone, 5%, very pale orange to bluish white, fine-to medium-grained, biomicrite, hard.	612-615	3
LIMESTONE AND CLAYSTONE - Limestone, 80%, grayish orange to bluish white, fine-to coarse-grained, biomicrite, hard; Claystone, 20%, olive gray, well-cemented, non-plastic; Dolomite, trace, moderate yellowish brown to light brown, fine-to medium-crystalline, hard.	615-655	40
DOLOMITE, LIMESTONE, AND CLAYSTONE - Dolomite, 80%, grayish orange to brownish black, finely crystalline, moderately hard to hard, vuggy; Limestone, 10%, white to very pale orange, fine-to medium grained, biosparite, moderately hard, vuggy; Claystone, 10%, olive gray, well-cemented.	655-694	39

LIMESTONE, DOLOMITE, AND CLAYSTONE -
Limestone, 50%, bluish white to yellowish
gray, fine-to medium-grained, biosparite,
moderately hard, vuggy; Dolomite, 40%,
grayish orange to brownish black, finely
crystalline, moderately hard to hard, vuggy;
Claystone, 10%, olive gray, well-cemented,
non-plastic.

694-699 5

DOLOMITE, CLAYSTONE, AND LIMESTONE -
Dolomite, 80%, grayish orange to brownish
black, finely crystalline, hard, vuggy;
Claystone, 10%, olive gray well-cemented,
non-plastic; Limestone, 10%, bluish white to
very pale orange, fine-to medium-grained,
biosparite, moderately hard, recrystallized.

699-711 12

LIMESTONE - Limestone, 95% very pale orange
to light gray, fine-to medium-grained,
biomicrite, moderately hard to hard;
Dolomite, 5%, light brown and light gray to
dusky brown, very finely crystalline, hard;
Clay stone, 5%, olive gray, well-cemented,
non-plastic; Shells, trace, bivalves,
echinoids.

711-727 16

DOLOMITE - Dolomite, 100%, light brown to
moderate orange pink, finely to medium,
crystalline, hard, pinholes, vuggy;
Claystone, trace, olive gray, well-cemented,
non-plastic; Limestone, trace very pale
orange, fine-to medium-grained, biomicrite,
moderately hard.

727-774 47

DOLOMITE & LIMESTONE - Dolomite, 80%,
moderate yellowish brown to dusky brown,
finely crystalline, hard vuggy; Limestone,
20%, pinkish-gray to pale yellowish-brown,
finely crystalline, sparite, moderately hard.

774-780 6

DOLOMITE - Dolomite, 100%, pale
yellowish-brown to grayish orange to dusky
yellowish-brown, finely to medium
crystalline, hard, vuggy; Limestone, trace
white.

780-864 84

LIMESTONE - Limestone, 95%, very pale orange to light bluish gray, fine-to medium-grained, biosparite, moderately hard, pinholes; Dolomite, 5%, moderate yellowish brown, finely crystalline, hard, vuggy; Siltstone, trace, medium dark gray, fine-grained, well cemented.

864-902 38

LIMESTONE & DOLOMITE - Limestone, 80%, very pale orange to very light gray, fine grained, biosparite, moderately soft; Some degree of recrystallization; Dolomite, 20%, moderate yellowish brown, fine-to-medium-crystalline, granular vuggy.

902-906 4

DOLOMITE - Dolomite, 100%, moderate yellowish brown to light olive, finely-crystalline, hard, sucrosic; Limestone, trace, very light gray to white finely crystalline, sparite, well-cemented.

906-922 16

DOLOMITE & LIMESTONE - Dolomite, 80%, very pale orange to olive black, finely-crystalline hard; Limestone, 20%, pinkish gray to light bluish gray, fine-to-medium-grained, biomicrite moderately hard, claystone, trace, medium-bluish gray, non-plastic.

922-930 8

LIMESTONE - Limestone, 100%, very pale orange to moderate yellowish brown to light olive gray, fine-to medium-grained, biomicrite, moderately hard, shelly; Dolomite, trace, moderate yellowish brown, finely crystalline; Claystone, trace, olive black.

930-964 34

DOLOMITE & LIMESTONE - Dolomite, 90%, moderate yellowish brown to olive gray, finely to medium crystalline, hard, vuggy; Limestone, 10%, very pale orange to yellowish gray, fine-grained, biosparite, moderately hard; Claystone trace, medium bluish gray, well-cemented.

964-974 10

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 6 -

HARRIS CORP.

LIMESTONE - Limestone, 100%, very pale orange to moderate yellowish brown, fine-grained, biomicrite, moderately hard; Clay, trace, dark greenish gray.

974-985 11

DOLOMITE - Dolomite, 100%, pinkish gray to moderate yellowish brown to medium light gray, microcrystalline to finely crystalline hard.

985-1015 30

DOLOMITE - Dolomite, 95%, moderate yellowish brown to pale yellowish brown, finely-crystalline hard vuggy; Limestone, 5%, very pale orange, fine-grained, biosparite, moderately hard.

1015-1017 2

LIMESTONE AND DOLOMITE - Limestone, 70%, very pale orange to yellowish gray, finely crystalline, biomicrite, moderately hard; Dolomite, 30%, moderate yellowish brown, finely crystalline, hard vuggy.

1017-1022 5

LIMESTONE - Limestone, 100%, very pale orange to grayish orange, fine-grained, biomicrite, soft to moderately hard.

1022-1025 3

DOLOMITE - Dolomite, 100%, grayish orange to moderate yellowish brown, finely-crystalline, hard, vuggy, some vugs filed with limestone; Limestone trace, very pale orange, fine-grained, biosparite.

1025-1028 3

LIMESTONE - Limestone, 100%, very pale orange to grayish orange, fine-grained, biomicrite, soft, granular; Dolomite, trace, moderate yellowish brown; Shells, trace, echinoids.

1028-1048 20

DOLOMITE AND LIMESTONE - Dolomite, 70%, pale yellowish brown to moderate yellowish brown, finely crystalline, hard, sucrosic; Limestone, 30%, very pale orange, fine-grained, biomicrite, soft to hard; Peat, trace, black.

1048-1058 10

LIMESTONE & DOLOMITE - Limestone, 90%, very pale orange, fine-grained, biomicrite, hard; Dolomite, 10%, pale yellowish brown to dusky brown, finely-crystalline, hard, vuggy.	1058-1062	4
DOLOMITE & LIMESTONE - Dolomite, 70%, moderate yellowish brown to medium gray to brownish black, finely crystalline, hard vugs filled with limestone; Limestone, 30%, very pale orange, fine-grained, biomicrite, hard.	1062-1068	6
DOLOMITE - Dolomite, 100%, light brown to black, finely-crystalline, hard vuggy; Limestone, trace, yellowish gray, finely crystalline, biomicrite, hard.	1068-1075	7
LIMESTONE - Limestone, 95%, very pale orange, fine-grained, biomicrite, hard; Dolomite, 5%, moderate yellowish brown to medium gray, fine-grained, finely-crystalline, foraminifera fossils hard, limestone-filled vugs; Shells, trace, echinoids.	1075-1155	80
DOLOMITE - Dolomite, 95%, light brown to dusky brown, microcrystalline to finely-crystalline, hard, vuggy; Limestone, 5%, very pale orange to bluish white, microcrystalline, micrite, hard.	1155-1169	14
LIMESTONE & DOLOMITE - Limestone, 60%, very pale orange, fine-grained, biomicrite, moderately hard; Dolomite, 40%, moderate yellowish brown, finely crystalline, hard, limestone filling in vugs.	1169-1171	2
DOLOMITE AND LIMESTONE - Dolomite, 60%, moderate yellowish brown to medium gray, finely-crystalline, soft to hard, limestone in vugs; Limestone, 40%, very pale orange, fine-grained, biomicrite, moderately hard.	1171-1179	8

DOLOMITE - Dolomite, 95%, light brown to dark gray, to dusky yellowish brown, microcrystalline to finely crystalline, soft to hard, vuggy; Limestone, 5%, yellowish gray to light bluish gray, microcrystalline to fine-grained, micrite, moderately hard vuggy, pinholes; Peat, trace, black, poorly-cemented, appears in bottom 20 ft. of formation.

1179-1289 110

LIMESTONE - Limestone, 100%, yellowish gray to light bluish gray, fine-to medium grained, biosparite, moderately hard; Dolomite, trace, moderate brown, finely crystalline, hard, vuggy.

1289-1295 6

DOLOMITE - Dolomite, 95%, moderate brown, finely-crystalline moderately soft, vuggy; Limestone, 5%, white, fine-grained, biomicrite, hard.

1295-1297 2

LIMESTONE - Limestone, 100%, light bluish gray to very pale orange grayish orange, fine to medium-grained, biomicrite, moderately hard; Dolomite, trace, moderate yellowish brown, finely-crystalline, hard, vuggy; Marl, trace, very light gray, soft, plastic.

1297-1416 119

DOLOMITE - Dolomite, 95%, moderate yellowish brown, finely-crystalline, hard, vuggy; Limestone, 5%, bluish white, fine-grained, micrite, soft to moderately hard, vuggy, pinholes.

1416-1422 6

LIMESTONE - Limestone, 100%, very pale orange, fine-to-medium-grained, biomicrite moderately hard; Dolomite, trace, light brown, fine-to medium crystalline, hard, vuggy.

1422-1454 32

DOLOMITE AND LIMESTONE - Dolomite, 90%, light brown to moderate brown, fine- to medium crystalline, hard; Limestone, 10%, very pale orange, fine-grained, biomicrite, moderately hard.

1454-1507 53

GERAGHTY & MILLER, INC.

GEOLOGIC LOG

- 9 -

HARRIS CORP.

LIMESTONE AND DOLOMITE - Limestone, 85%, very pale orange, fine-to medium-grained, biomicrite, moderately hard; Dolomite, 15%, light brown, finely crystalline, hard.

1507-1515 8

DOLOMITE AND LIMESTONE - Dolomite, 60%, very pale orange to light brown, fine-to medium-crystalline, moderately hard to hard, vuggy; Limestone, 40%, very pale orange to very light gray, fine-to medium, grained, biomicrite. moderately hard, fossiliferous.

1515-1535 20

TOTAL DEPTH: 1535

APPENDIX B

APPENDIX B

RESULTS OF CORE TESTS AND
PHOTOGRAPHS OF CORES

SUMMARY OF TEST RESULTS

<u>Sample</u>	<u>Depth (ft)</u>	<u>Dry Unit Weight (PCF)</u>	<u>Ultimate Com. Strength (psi)</u>	<u>Modulus of Elasticity (psi)</u>	<u>Specific Gravity</u>	<u>Verticle Permeability (CM/SEC.)</u>	<u>Porosity</u>
#1	1355' - 1365'	106.6	542	150,000	2.69	2.63×10^{-4}	.365
#2	1400' - 1410'	118.9	1793	822,500	2.68	1.21×10^{-4}	.289
#3	1536' - 1553'	121.6...	2507	1,110,000	2.70	7.01×10^{-6}	.279
#4	1599' - 1606.5'	121.9	2672	937,500	2.74	1.08×10^{-6}	.287
#5	1654' - 1664'	119.3	1973	1,010,000	2.68	6.03×10^{-5}	.287

cc: (1) client

SUMMARY OF TEST RESULTS

<u>Sample</u>	<u>Visual Description</u>	<u>Dry Unit Weight (PCF)</u>	<u>Ultimate Com. Strength (psi)</u>	<u>Modulus of Elasticity (psi)</u>	<u>Specific Gravity</u>	<u>Verticle Permeability CM/SEC.</u>	<u>Porosity</u>
1. 1320.0'- 1320.3'	Tan cemented sandstone (porous)	127.2	1,987	1,270,000	2.70	2.4×10^{-3}	0.245
2. 1905.17'- 1905.75'	Tan siltstone (dense)	123.6	2,075	450,000	2.68	1.8×10^{-8}	0.261
3. 1932.7'- 1933.0'	Hard gray sandstone (dense)	154.0	7,362	1,700,000	2.81	4.9×10^{-9}	0.122
4. 1971.2'- 1971.7'	Tan limestone with fractures and voids	103.1	966	630,000	2.70	6.2×10^{-5}	0.388











