

MAILING ADDRESS:

DIVISION OF MINERAL RESOURCES

OFFICE ADDRESS:

B 3667
Charlottesville, VA 22903

JAMES L. CALVER, COMMISSIONER

McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

2901 Lafayette Blvd.

OWNER: Kirkland Construction Company Mailing Address: Norfolk, VA.

TENANT: McDonald's Restaurant Mailing Address: Nine Mile Road

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: Henrico County, VA.

WELL LOCATION: County Henrico Approx. 15 ^{feet}/_{miles} north (direction) of

Nine Mile Road (Route 33) and 1,100 ^{feet}/_{miles} xxx northeast (direction) of Laburnum Ave.

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: 9/8/70 DATE COMPLETED: 9/23/70

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 295 feet

WATER LEVEL: Stands 166 feet below surface OR

has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Submersible pump HOLE SIZE: 8-3/4 inches from 0 to 295 feet

Drawdown 53 feet _____ inches from _____ to _____ feet

Rate 43 gal. per min. _____ inches from _____ to _____ feet

Duration 5 hrs., 30 min. SCREEN SIZE: 4 inches from 252 to 272 feet

WATER ZONES: from 252 to 272 feet _____ inches from _____ to _____ feet

from _____ to _____ feet _____ inches from _____ to _____ feet

from _____ to _____ feet CASE SIZE: 4 inches from +1'6" to 252 feet

WATER: Color clear Taste _____ 4 inches from 272 to 272 feet

Odor _____ Temp. _____ °F _____ inches from _____ to _____ feet

WELL TO SUPPLY: (check one) Home _____ GROUTING: Method Pressure

Farm _____ Town _____ School _____ Material Cement & Water Depth 50 feet

Industry _____ Other Restaurant PUMP: Type _____

WATER ANALYSIS AVAILABLE: Yes x No _____ Capacity _____ gal per min

(29)

DRILL CUTTINGS SAVED: Yes x No _____ Depth of intake _____ feet

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: _____

LOG

FURNISHED BY: Sydnor Hydrodynamics, Inc.

DATE: 9/23/70

DEPTH (feet)		TYPE OF ROCK OR SOIL PENETRATED (gravel, clay, etc., hardness, color, etc.)	REMARKS (water, caving, shot, screen, sample, etc.)
FROM	TO		
0	10	Brown and Red Clay	
10	114	Gray Gravel	
14	20	Sandy Clay	
20	31	Yellow Clay	
31	33	Large Gravel	
33	36	Brown - Gray Clay	
36	98	Light Gray Clay	
98	128	Light Gray Clay - Streaks of Sand	
128	136	Pink Clay	
136	165	Black and Gray Sand (Mixed)	
165	167	Shells	
167	203	Hard Green Clay	
203	209	Hard Green Sand - Clay	
209	251	Hard Green Sand	
251	276	Hard & Soft Streaks of Brown & Gray Sand -	Thin layers of Clay
276	295	Hard Gray Sand & Brown Sand - Clay	

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W-3107
C-203

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION AND ECONOMIC DEVELOPMENT

W-3107

MAILING ADDRESS:
Box 3667
Charlottesville, VA 22903

DIVISION OF MINERAL RESOURCES

JAMES L. CALVER, COMMISSIONER

OFFICE ADDRESS:
McCormick Road
Charlottesville, Virginia

WATER WELL COMPLETION REPORT

OWNER: Kirkland Construction Company Mailing Address: 2901 Lafayette Boulevard, Norfolk, Va

TENANT: McDonald's Restaurant Mailing Address: Nine Mile Road - Henrico County, Va.

DRILLER: Sydnor Hydrodynamics, Inc. Mailing Address: P.O. Box 1476, Richmond, Virginia

WELL LOCATION: County Henrico Approx. 15 ^{feet}/_{miles} North (direction) of Nine Mile Road (Route 33) and 1,100 ^{feet}/_{miles} Northeast (direction) of Laburnum Avenue

(GIVE DIRECTION AND DISTANCE IN FEET OR MILES FROM TWO REFERENCE POINTS - ROADS, TOWNS, RIVERS, ETC. - ON COUNTY HIGHWAY OR OTHER MAP.)

DATE STARTED: 9/8/70 DATE COMPLETED: 9/23/70

TYPE OF DRILL RIG USED: Rotary TOTAL DEPTH 295 feet

WATER LEVEL: Stands 166 feet below surface OR
has NATURAL flow of _____ gallons per minute.

YIELD TEST: Method Submersible
Drawdown 53 feet
Rate 43 gal. per min.
Duration 5 hrs., 30 min.

HOLE SIZE: 8-3/4 inches from 0 to 295 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER ZONES: from 252 to 272 feet
from _____ to _____ feet
from _____ to _____ feet

SCREEN SIZE: 4 inches from 252 to 272 feet
_____ inches from _____ to _____ feet
_____ inches from _____ to _____ feet

WATER: Color Clear Taste _____
Odor _____ Temp. _____ °F

CASE SIZE: 4 inches from +1'6" to 252 feet
_____ inches from 272 to 274 feet
_____ inches from _____ to _____ feet

WELL TO SUPPLY: (check one) Home _____
Farm _____ Town _____ School _____
Industry _____ Other Restaurant

GROUTING: Method Pressure
Material Cement & Water Depth 50 feet

WATER ANALYSIS AVAILABLE: Yes No _____

PUMP: Type _____
Capacity _____ gal. per min.
Depth of intake _____ feet

DRILL CUTTINGS SAVED: Yes No _____

(DRILL CUTTINGS SHOULD BE COLLECTED AT 10 FOOT INTERVALS. THESE SAMPLES MAY BE SHIPPED TO THIS OFFICE EXPRESS COLLECT. SAMPLE BAGS ARE FURNISHED FREE OF CHARGE UPON REQUEST.)

REMARKS: SEVEN PINES QUADRANGLE

ELEV: 152

See W-2936

VIRGINIA DIVISION OF MINERAL RESOURCES
Box 3667, Charlottesville, VA 22903

INTERVAL SHEET

Page 1 of 1 Well Repository No: C-203 3107
Date rec'd: 10/19/70 ; processed 3/12/71 Sample Interval; from 0 to: 290'
PROPERTY: Kirkland Const. Co. Number of samples: 29
(McDonald's Restaurant)
COMPANY: Sydnor Hydrodynamics, Inc. Total Depth: 295'
COUNTY: Henrico (Richmond) Oil or Gas: Water: Exploratory:

From-To	From-To	From-To	From-To
0 - 10	250 - 260	-	-
10 - 20	260 - 270	-	-
20 - 30	270 - 280	-	-
30 - 40	280 - 290	-	-
40 - 50	-	-	-
50 - 60	-	-	-
60 - 70	-	-	-
70 - 80	-	-	-
80 - 90	-	-	-
90 - 100	-	-	-
100 - 110	-	-	-
110 - 120	-	-	-
120 - 130	-	-	-
130 - 140	-	-	-
140 - 150	-	-	-
150 - 160	-	-	-
160 - 170	-	-	-
170 - 180	-	-	-
180 - 190	-	-	-
190 - 200	-	-	-
200 - 210	-	-	-
210 - 220	-	-	-
220 - 230	-	-	-
230 - 240	-	-	-
240 - 250	-	-	-

All intervals have washed and unwashed samples



Owner: Kirkland Const. Co.
(McDonald's Restaurant)
Driller: Sydnor
County: Henrico

W# 3107
C# 203
Total depth: 295'
Quad: Seven Pines

Depth
(feet)

GEOLOGIC LOG

- 0-10 Sand - grayish orange; moderate clay; medium grained, some fine grains; subangular to subrounded; well sorted; quartz; feldspar; few opaques.
- 10-20 Sand - off white; slightly clayey; fine to very coarse grained, 5% granules, some pebbles; subangular to subrounded; poorly sorted; quartz; feldspar; few grains of glauconite; muscovite.
- 20-30 Granules - grayish orange; heavily stained; slightly clayey; abundant coarse grained sand, 7% pebbles; subrounded; moderately sorted; quartz; feldspar.
- 30-40 Sand - olive light gray; moderate clay; fine grained, some medium grains; subangular to subrounded; well sorted; quartz; few grains of glauconite; muscovite.
- 40-50 As above plus few grains of feldspar.
- 50-60 Sand - olive light gray; abundant clay; very fine to fine grained; few granules; subangular to subrounded; well sorted; quartz; some muscovite.
- 60-70 Sand - olive light gray, abundant clay - olive light gray, light gray; very fine to medium grained, some moderately stained coarse grains, few angular granules; subangular to subrounded; moderately sorted; quartz; few grains of feldspar; glauconite; muscovite.
- 70-80 As above.
- 80-90 Clay - light olive gray; slightly sandy; fine to medium grained, subangular to subrounded; moderately well sorted; quartz; few black phosphatic fragments; glauconite; muscovite.
- 90-100 Clay - olive light gray; abundant sand; fine to coarse grained; subangular to rounded; moderately sorted; quartz; glauconite 25%; of sand sized fraction; some garnet; muscovite; few black phosphatic fragments.
- 100-110 As above except no garnet.
- 110-120 Sand - light olive gray; moderate clay; very fine to medium grained, some coarse grains, few angular granules; subangular to rounded; moderately sorted; quartz; 40% glauconite; muscovite; bone fragment.

Depth
(feet)

- 120-130 Sand - light olive gray; abundant clay - light olive gray, moderate orange pink; fine to medium grained, some coarse grains; subangular to subrounded; moderately sorted; quartz; 7% glauconite; muscovite; few grains black phosphatic fragments.
- 130-140 Clay and sand - grayish orange pink; abundant clay - moderate orange pink, olive light gray; moderate sand; fine to medium grained; subangular to subrounded; moderately well sorted; quartz; some glauconite; few black phosphatic fragments; muscovite; forams scarce (inc. Robulus).
- 140-150 Sand - olive light gray; abundant clay - olive light gray, moderate orange pink, very light gray (clasts), light gray (clasts); very fine to medium grained; subangular to subrounded; moderately sorted; quartz; 5% glauconite; few black phosphatic fragments; muscovite.
- 150-160 As above plus some coarse grains; 15% glauconite.
- 160-170 Sand - light gray; slightly clayey - light gray, moderate orange pink (clasts); coarse grained, some medium grains; subrounded; well sorted; quartz; feldspar; some glauconite; muscovite.
- 170-180 Sand - dusky yellow; moderate clay (some clasts); medium to coarse grained; subangular to subrounded; moderately well sorted; quartz; feldspar; some glauconite.
- 180-190 Sand - off white; slightly clayey (clasts) - light olive gray, moderate orange pink; coarse grained to granular; subangular to subrounded; moderately well sorted; quartz; feldspar; few grains of glauconite.
- 190-200 As above.
- 200-210 As above.
- 210-220 Sand - light gray; moderate clay; medium to coarse grained, few granules; subangular to subrounded; moderately well sorted; quartz; feldspar; few grains of glauconite; muscovite.
- 220-230 Sand - off white; slightly clayey; coarse grained; subrounded; well sorted; quartz; feldspar; few grains of glauconite.
- 230-240 As above plus some granules.
- 240-250 Sand - off white; slightly clayey; coarse grained, some medium grains; subrounded; well sorted; quartz; feldspar; few grains of glauconite; muscovite.
- 250-260 As above.

Depth
(feet)

- 260-270 Sand - off white; very coarse grained; subrounded; well sorted; quartz; feldspar; few grains of glauconite.
- 270-280 Sand - off white; slightly clayey; medium to coarse grained, some fine grains, some granules; subrounded; moderately sorted; quartz; feldspar; some glauconite.
- 280-290 Sand - off white; slightly clayey; coarse grained to granular; subrounded; moderately sorted; quartz; feldspar; few grains of garnet; glauconite.
- 290-295 No sample.

Logged by: Michael T. Currie

OWNER: Kirkland Construction Co.
DRILLER: Sydnor Hydrodynamics, Inc.
COUNTY: Henrico (Richmond)

VDMR # 3107
WWCR # 203
TOTAL DEPTH : 295'

GEOLOGIC SUMMARY

<u>Depth (feet)</u>	<u>Rock Unit</u>	<u>Age</u>
0-30	Columbia Group	Pleistocene
30-70	Calvert Formation	Miocene
70-130	Nanjemoy Formation	Eocene
130-150	Mattaponi Formation	Paleocene
150-290	Patuxent Formation	Early Cretaceous
290-295	No sample	-

Virginia Division of Mineral Resources
Robert H. Teifke - Geologist
May 13, 1971

~~Do Not Type~~
GEOLOGIC SUMMARY

<u>Depth</u> <u>(feet)</u>	<u>Thickness</u> <u>(feet)</u>	<u>Rock Unit</u>	<u>Time Rock Unit</u>
0-30	30	Columbia Group	Pleistocene
30-80	50	Calvert Formation	Miocene-Eocene
80-120	40	Nanjemo Formation	Eocene
120-140	20	Marlboro Clay	Eocene
140-160	20	Mattaponi Formation	Eocene-Cretaceous
160-290	130	Patuxent Formation	Cretaceous
290-295	5	No Sample	

VIRGINIA DIVISION OF MINERAL RESOURCES
 David A. Hubbard, Jr., Geologist
 November 29, 1978