


MAR 3 1955


CORA L. BROWN SER. No. 6812

By United Fuel Gas Co., Charleston, W. Va.
 Clay District, Wirt County, W. Va.
 Located 5.82 mi. S. of 39° 10' Lat. and 3.6 mi. W. of 80° 15' Long.
 Elizabeth Quadrangle - EG.
 Elevation 1063.47' L.
 Permit No. Wirt-296.
 Drilling commenced 9-5/51; completed 8-15-52.
 Drilled deeper 10-11-53; completed 1-12-54 (Rotary tools).
 Dry hole.
 Casing 20", 71'; 16", 585'; 13", 1284'; 10", 4870'; 8", 5189'; all left in.
 Section based on samples from 4818' to 8184'; examined by Russell R. Flowers.
 Cored sections examined from 5320 to 5404; 6259 to 6324; 8046 to 8184'.

Top	Bottom	Thickness	
4818	4832	14	Shale, black, very highly carbonaceous, pyritic
HUNTERSVILLE CHERT			
4832	4845	13	Limestone, olive gray, some brownish black (argillaceous), cherty (white to light gray); small amount of medium gray mottled with brownish gray metabentonite in the upper part
4845	4854	9	No sample
4854	4864	10	Limestone, brownish gray to dark yellowish brown and very cherty in the upper part to a medium gray and brownish gray to brownish black limestone to chert in the lower part
4864	4870	6	Limestone (cherty, porous), medium gray to brownish gray and some brownish black to a calcareous chert, white to light gray, transparent to translucent
4870	4907	37	No sample
4907	4911	4	Limestone, brownish gray, argillaceous to a brownish black and grayish black, highly calcareous shale, cherty
4911	4919	8	Chert, mottled white to very light gray, transparent to translucent and brownish gray to brownish black (highly calcareous), somewhat dolomitic at top to moderately dolomitic in the lower part
4919	4929	10	Chert, light gray to brownish gray, with some brownish black (argillaceous) in the upper part and some dark gray to grayish black (highly argillaceous) in the lower part, highly calcareous, dolomitic
4929	4940	11	Chert, light to medium gray and brownish gray (translucent), some brownish black (somewhat argillaceous), highly calcareous, dolomitic at the bottom
4940	4951	11	Chert, brownish gray, some medium gray, small amount of brownish black (argillaceous), highly calcareous to a very cherty limestone, somewhat dolomitic
DEPTH CORRECTION? 4951 corrected to 4927			
4927	4945	18	Chert (highly calcareous) to limestone (very cherty), light gray to brownish gray, some very light gray, some brownish black, dolomitic, silty

- 4945 4964 19 Chert, very light to light gray and brownish gray, some medium gray to brownish black in the lower part, highly calcareous --- NO SAMPLE from 4951 to 4961
- 4964 4973 9 Chert, light to medium gray and brownish gray, some dark gray to brownish black, highly calcareous, slightly dolomitic, somewhat argillaceous, silty in the upper part; some medium gray to brownish gray, calcareous, *glaucconitic* siltstone at the bottom
- 4973 4978 5 Chert, light gray to brownish gray and *medium* gray to brownish black, calcareous, highly calcareous in the upper part, slightly dolomitic, somewhat argillaceous, somewhat silty ~~etc~~
- 4978 4981 3 Chert (silty) to siltstone (cherty), medium gray to brownish gray, some dark gray to brownish black, calcareous, glauconitic, argillaceous in part
- 4981 4985 4 Chert, brownish gray to brownish black, some medium gray, highly calcareous, silty, argillaceous in part, slightly glauconitic
- 4985 5000 15 Chert, light gray to brownish gray, some brownish gray to brownish black, large amount of brownish gray to brownish black from 4992-4995, highly calcareous, somewhat argillaceous, somewhat silty
- 5000 5020 20 Chert, light to medium light gray, translucent to porcelaneous, transparent to translucent from 5008-5015, some brownish gray, some dark gray to brownish black in the upper part and at the bottom, calcareous (somewhat argillaceous, slightly silty)
- 5020 5024 4 Chert, very light to light gray and medium to dark gray (argillaceous), moderately calcareous, dolomitic in the upper part
- 5024 5028 4 Chert, Very light gray to light gray and brownish black, transparent to translucent, calcareous; a moderate amount of medium dark gray to grayish black, calcareous, very highly glauconitic, very sandy (fine to medium), shale at bottom

ORISKANY SANDSTONE, 137 Feet.

- 5028 5038 10 Sandstone, very light to light gray, fine grained, with many medium grains, some coarse to very coarse grains, subrounded to rounded, moderately calcareous, some of the sandstone is medium to dark gray, (black interstitial grains at the top)
- 5038 5101 63 Sandstone, very light to light gray, fine grained to very fine grained, subrounded, many grains contain secondary crystal facets, contains many medium grains (rounded), slightly calcareous, somewhat calcareous from 5094-5099, *contains small amount of black interstitial material in much of the sandstone*
- 5101 5106 5 NO SAMPLE
- 5106 5114 8 Sandstone, very light to light gray, very fine to fine grained, slightly calcareous, quartzitic, very fine grained at the bottom
- 5114 5133 19 Sandstone, very light to light gray, very fine to fine grained, some medium grains, subrounded, many secondary crystal facets on individual sand grains, contains black (shaly) interstitial material disseminated as streaks and specks
- 5133 5147 14 Sandstone, very light gray, very fine to fine grained, subangular to subrounded, many grains show secondary crystal facets, somewhat calcareous in the upper part

5147	5161	14	Sandstone, very light to light gray, with occasional dark gray (shaly) streaks, moderately quartzitic, slightly calcareous, very fine to fine grained, subangular, much secondary quartz cement
5161	5165	4	Sandstone, mottled very light to light gray and medium to dark gray (interstitial shaly material), very fine to fine grained, somewhat quartzitic, slightly calcareous
516			HUNTERSVILLE CHERT, 64 Feet.
5165	5173	8	Chert, light to medium gray (translucent) with some dark gray to grayish black (argillaceous), calcareous
5173	5195	22	NO SAMPLE. Total depth of cable tool hole 5189'. Drilled deeper with rotary tools
5195	5215	20	Chert, light to medium gray mottled with dark gray (argillaceous), some grayish black shale streaks, translucent to opaque, calcareous, slightly dolomitic
5215	5225	10	Chert, as above, with a very small amount of dark gray to grayish black shale; trace of fine to medium grained, calcareous gray sandstone (each of 2 samples contains the shale and sandstone)
5225	5229	4	Chert, brownish gray to brownish black and dark gray, highly calcareous, sandy in part; some dark gray to grayish black, glauconitic shale
			ORISKANY SANDSTONE, 91 Feet.
5229	5250	21	Sandstone, very light to light gray, very fine to fine grained, quartzitic, some of the sand contains black (shaly) interstitial material
5250	5255	5	Sandstone, very light to light gray, very fine to fine grained, quartzitic ---- OIL SHOW
5255	5271	16	Sandstone, very light to light gray, very fine to fine grained, quartzitic; small amount of grayish black, highly glauconitic sandy shale and a very small amount of brownish gray to dark gray, of calcareous chert at the top with trace in other samples
5271	5281	10	Sandstone, very light gray, very fine to fine grained, quartzitic, <i>some medium grains</i>
5281	5293	12	Sandstone, light gray very fine to fine grained, some medium grains, slightly calcareous; contains a little dark (argillaceous) material
5293	5300	7	NO SAMPLE
5300	5308	8	Sandstone, light to medium gray, fine to medium grained and very fine to fine grained, calcareous, somewhat argillaceous; some dark gray to grayish black, argillaceous sandstone to sandy shale; glauconitic in part with a trace of chert (top of Oriskany?)
5308	5311	3	Sandstone, very light gray, very fine to medium grained, quartzitic
5311	5315	4	NO SAMPLE
5315	5320	5	Sandstone, light to medium gray, very fine to fine grained, some medium grains, calcareous, argillaceous in part; small amount of dark gray to grayish black, argillaceous sandstone to a highly glauconitic, very sandy shale

(This interval of 5229-5320 appears to represent only the upper part of the Oriskany --- along the dip?)

- HELDERBERG FORMATION, 175 FEET -

5320	5332	12	Sandstone (very fine grained, highly calcareous) to limestone (very sandy), dark gray to grayish black, some dark gray to brownish black, argillaceous, with many shaly streaks, silty, slightly dolomitic in part, many of the samples are pyritic, somewhat fossiliferous
5332	5333 $\frac{1}{2}$	1 $\frac{1}{2}$	Sandstone, mottled light to medium gray and dark gray to grayish black, very fine grained with streaks of medium (rounded) grains, silty, very highly calcareous, argillaceous with shaly streaks, some glauconite, fossiliferous
5333 $\frac{1}{2}$	5335 $\frac{1}{2}$	2	Sandstone, mottled very light to medium gray and dark gray to grayish black, very fine grained, many fine grains in the lower part, very highly calcareous, argillaceous, very shaly in the lower part, fossiliferous in the upper part
5335 $\frac{1}{2}$	5337	1 $\frac{1}{2}$	Sandstone, medium to dark gray, with grayish black shale streak, very fine grained, silty, some fine grains, very highly calcareous, somewhat pyritic, slightly glauconitic
5337	5338	1	Sandstone, light to medium gray with dark gray to grayish black shale streak, very fine to medium grained, some coarse grains, large grains rounded, silty, very highly calcareous, highly fossiliferous in part, some chert
5338	5341	3	Limestone (very shaly) to shale (highly calcareous), grayish black with much medium to dark gray calcareous siltstone in the middle part, fossiliferous
5341	5346	5	Limestone (very silty and very shaly) to siltstone and shale (highly calcareous) medium dark gray to grayish black, silicified
5346	5352	6	Shale (silty) to siltstone (shaly), dark gray to grayish black, very highly calcareous, silicified with some chert, fossiliferous
5352	5353 $\frac{1}{2}$	1 $\frac{1}{2}$	Shale and siltstone, dark gray to grayish black, very highly calcareous and very highly fossiliferous
5353 $\frac{1}{2}$	5360	6 $\frac{1}{2}$	Sandstone (very fine grained, highly calcareous) to limestone (very sandy), dark gray to grayish black, very silty, highly argillaceous, some very highly calcareous, sandy shale in the lower part, fossiliferous in part
5360	5370	10	Sandstone (very fine grained) to siltstone (coarse), medium dark to dark gray, very highly calcareous, argillaceous, with shaly streaks
5370	5373	3	Limestone (very sandy, silty) to sandstone (very fine grained, highly calcareous), medium gray to brownish gray and dark gray, silicified in the lower part, somewhat argillaceous
5373	5374	1	Limestone, medium gray to brownish gray and dark gray, very sandy, very fine to fine grained, somewhat argillaceous
5374	5376 $\frac{1}{2}$	2 $\frac{1}{2}$	Limestone, medium dark gray to olive gray and dark gray, sandy (very fine to fine grained), highly pyritic (finely disseminated), fossiliferous, somewhat argillaceous
5376 $\frac{1}{2}$	5379	2 $\frac{1}{2}$	Limestone, medium dark gray to brownish gray in the upper part and dark gray in the lower part, sandy (very fine), silty, very silty and argillaceous in the lower part, somewhat pyritic
5379	5379 $\frac{1}{2}$	$\frac{1}{2}$	Limestone, dark gray to olive black mottled with light gray to brownish gray, shaly
5379 $\frac{1}{2}$	5380 $\frac{1}{2}$	1	Limestone, medium dark gray to brownish gray, highly argillaceous, silty

5565	5575	10	Limestone, dark gray mottled with some light to medium gray, very cherty, very silty with some very fine grained, sand, argillaceous
5575	5585	10	Chert, dark gray with some light to medium gray, silty, with some siltstone, argillaceous, very highly calcareous
5585	5595	10	No sample
5595	5600	5	Shale and chert (both highly calcareous) to limestone (very shaly and very cherty), dark gray to grayish black, some light to medium gray, silty
5600	5615	15	No sample
5615	5625	10	Limestone, mottled light to medium gray and dark gray, to grayish black, argillaceous, silty, somewhat cherty, somewhat dolomitic
5625	5655	30	Limestone, light gray to light brownish gray mottled with dark gray to grayish black spots and streaks, somewhat sandy (very fine), slightly silty, trace of chert, contains some shale streaks
5655	5690	35	Limestone, dark gray to to grayish black mottled with very light to medium gray, somewhat argillaceous, slightly silty, slightly dolomitic
5690			CAYUGAN SERIES , 430 FEET.
5690			
5690	5716	26	Limestone, brownish gray to brownish black, some grayish black (argillaceous), highly dolomitic in part, small amount is highly oolitic
5716	5730	14	Dolomite to limestone, olive gray to medium dark gray; some brownish black, argillaceous limestone, large amount in the upper part
5730	5740	10	Limestone, olive gray to medium dark gray, highly dolomitic to dolomite, light olive gray, and highly calcareous in the lower part
5740	5755	15	Limestone, <i>dusky</i> yellowish brown to brownish black, dolomitic, highly dolomitic in the lower part
5755	5767	12	Limestone, olive gray to brownish gray and brownish black, some brownish black (argillaceous), dolomitic
5767	5775	8	Limestone, olive gray to medium dark gray, highly argillaceous, somewhat silty, slightly dolomitic in the lower part
5775	5785	10	Limestone, olive gray to brownish black, much medium dark gray to olive gray in the lower part, ^{some} argillaceous, silty, somewhat cherty and dolomitic in the upper part, (very sandy, very fine) in the lower part
5785	5795	10	Limestone, olive gray to brownish black, some brownish black, very highly argillaceous in part, sandy in the upper part, somewhat sandy in the lower part, sand is very fine grained
5795	5805	10	Limestone, olive gray to grayish black, some olive gray to dusky yellowish brown, highly argillaceous, some anhydrite in the lower part
5805	5813	8	Dolomite, brownish black, some brownish black to black, some brownish gray, argillaceous; large amount of brownish gray to white, dolomitic anhydrite

- rock
- 5813 5855 42 — Dolomite-anhydrite, ~~dark~~ brownish gray to brownish black, with white to light gray spots, some brownish black to black (argillaceous), large amount of brownish black to black at 5830-5835, somewhat argillaceous
- 5855 5860 5 Dolomite, brownish gray to brownish black, argillaceous, highly anhydritic; moderate amount of brownish black to black, dolomitic shale
- 5860 5865 5 Anhydrite, dark yellowish brown to brownish black, some white to brownish gray, highly dolomitic, slightly argillaceous
- 5865 5875 10 Dolomite-anhydrite, dusky yellowish brown to brownish black, some brownish black to black, highly calcareous, argillaceous in part
- 5875 5892 17 Dolomite-anhydrite, dusky yellowish brown to brownish black, small amount of brownish black to black (argillaceous), somewhat calcareous
- 5892 5945 53 Anhydrite, brownish gray to brownish black; some brownish black, dolomitic anhydrite
- 5945 5960 15 Anhydrite, brownish gray to brownish black in the upper part, dark yellowish brown to brownish black in the lower part, highly dolomitic
- 5960 5970 10 No sample
- 5970 5982 12 Anhydrite, olive gray to brownish gray and medium dark gray, dolomitic, somewhat argillaceous
- 5982 6000 18 Anhydrite, dark gray to brownish black and black, argillaceous, somewhat dolomitic
- 6000 6005 5 Limestone to shale, dark gray to grayish black, with light gray spots, cherty (this sample does not seem to be a legitimate sample for this depth)
- 6005 6027 22 Anhydrite, dark gray to grayish black and brownish black with very light gray to brownish gray spots, argillaceous, dolomitic, somewhat calcareous
- 6027 6040 13 Anhydrite, dark gray to grayish black, some brownish black to grayish black, some white to light gray and brownish gray, dolomitic, somewhat argillaceous
- 6040 6045 5 No sample
- 6045 6052 7 Anhydrite, medium to dark gray, some light gray, dolomitic, slightly argillaceous
- 6052 6065 13 — Limestone, white to medium gray with dark gray to grayish black shale streaks, silty
- 6065 6120 55 Limestone, mottled white to light gray and medium gray to dark gray, the dark gray is argillaceous, some of the white is calcite vein fillings (this limestone appears to be brecciated)
- ORISKANY SANDSTONE, 90 Feet.
(This interval does not appear to represent a large thickness of sand)
- 6120 6125 5 Sandstone, medium to dark gray, very fine to fine grained with many fine to medium grains, contains a large amount of black interstitial material, somewhat calcareous; some dark gray to brownish black anhydrite; some light to medium gray limestone

- 6125 6135 10 — This interval is a mixture of limestone, *mottled* white to light gray and dark gray; ~~sandstone, light to medium gray and dark gray~~; sandstone, light to medium gray with black interstitial material, calcareous, very fine to medium grained; anhydrite, dark gray to brownish black, and brownish gray, dolomitic
- 6135 6142 7 As above except that the best part of this interval is white to light gray (some medium to dark gray), very fine to medium grained, sandstone with less other material
- 6142 6146 4 Sandstone, very light to light gray with much brown oil stain, very fine to fine grained, some medium grains, some limestone; some anhydrite, dolomitic (these samples are wet with oil)
- 6146 6150 4 Sandstone, white to light gray, very fine to fine grained, some medium grains; some mottled light to medium gray and dark gray and dark gray limestone; some brownish gray to brownish black anhydrite; oil show 6148-6150
- 6150 6161 11 Sandstone, very light to light gray, very fine to fine grained, some medium grains, somewhat calcareous; some brownish gray to brownish black and grayish black, dolomitic anhydrite, argillaceous; Oil show at 6158-6159
- 6161 6171 10 Sandstone, very light to light gray, fine grained, many medium grains, ^{some} of the sand, contains black interstitial material, somewhat calcareous; some dark gray to brownish black, dolomitic anhydrite; OIL SHOW from 6166 to 6168
- 6171 6178 7 Sandstone, light gray, very fine to fine grained, some medium grains, somewhat calcareous; *moderate* amount of dark gray to brownish black, dolomitic anhydrite; ~~heavy~~ *heavy oil show*
- 6178 6183 5 Sandstone, very light gray, very fine to fine grained, some medium grains, slightly calcareous, *moderate* to large amount of dark gray to brownish black, dolomitic anhydrite; *light* OIL Show 6178-6183
- 6183 6184 1 Limestone, mottled white to light gray and medium to dark gray; trace of light gray sandstone
- 6184 6190 6 Anhydrite, dark gray to brownish black, dolomitic, highly calcareous in part; large amount of sandstone, very light to light gray, very fine to fine grained, light gray and very fine grained at the bottom
- 6190 6205 15 Sandstone (very fine) to siltstone, medium to dark gray and brownish black, very highly calcareous to silty limestone, argillaceous, cherty in the lower part; some dolomitic, brownish gray to brownish black anhydrite at the top (no sample ~~6195~~ 6191-6195)
- 6205 6210 5 Sandstone, very fine to fine grained, some medium grains, silty, very highly calcareous, argillaceous in part; heavy oil show
- HELDERBERG, 215 FEET
- 6210 6230 20 Limestone to sandstone, (very fine to fine grained, highly calcareous), medium to dark gray with some grayish black (highly argillaceous) streaks, silty, slightly dolomitic
- 6230 6256 26 Shale (silicified), (silty) to chert, dark gray to grayish black, very highly calcareous
- 6256 6259 3 No sample

6259	6267	8	Shale, grayish black, highly calcareous, silicified; cores in this interval show 20° to 30° dip
6267	6269	2	No sample
6269	6271	2	Shale to limestone, medium dark to dark gray, very highly fossiliferous, very cherty
6271	6282	11	Shale, brownish black to grayish black, very highly calcareous, highly silicified, fossiliferous; from 6275 to 6275' 6" dark gray to brownish black, very shaly, cherty, fossiliferous limestone
6282	6287	5	Shale (very highly calcareous) to limestone (highly argillaceous), dark gray to brownish black, silicified to very cherty, fossiliferous; some grayish black shale; a large amount of medium dark gray to brownish gray, silicified limestone (very silty) to siltstone (coarse, highly calcareous) at the bottom
6287	6295	8	Shale, dark gray to grayish black, highly calcareous, fossiliferous in part; some medium dark to dark gray, calcareous, chert in the lower part. The average dip shown by these cores is from 20° to 30°
6295	6296	1	Chert, medium gray, translucent, somewhat calcareous; some grayish black shale at the bottom, 40° to 60° dip
6296	6298	2	Shale, (highly calcareous) at top to limestone (very shaly) at bottom, dark gray to grayish black, highly fossiliferous, 40° to 50° dip
6298	6302	4	Shale (grayish black) to chert (dark gray), calcareous, somewhat pyritic, somewhat glauconitic, 20° to 30° dip
6302	6305	3	Limestone (very silty) to siltstone (highly calcareous), medium to dark gray, fossiliferous, glauconitic, somewhat pyritic at the bottom
6305	6306	1	Limestone, some mottled light gray and dark gray, clastic text, highly fossiliferous, cherty, medium crystalline, contains cephalopod fragments?
6306	6307	1	Shale, grayish black, highly calcareous to limestone, light to medium gray, very cherty, fossiliferous
6307	6309	2	Limestone (cherty) to chert (highly calcareous), light to medium gray and brownish gray, highly fossiliferous, silty and sandy in part with some highly calcareous siltstone and very fine sandstone
6309	6314	5	Limestone (very sandy, very fine to silty), medium to dark gray to a grayish black calcareous shale and some light to medium gray, cherty limestone, fossiliferous, somewhat glauconitic
6314	6316	2	Limestone, light to medium gray with dark gray (argillaceous) streak; medium crystalline, highly fossiliferous (some cephalopods?), cherty
6316	6317	1	Sandstone (very fine, highly calcareous) to limestone (sandy), mottled medium gray and dark gray to grayish black, shaly in part, fossiliferous (cephalopods?), somewhat glauconitic
6317	6319	2	Limestone, mottled light and dark gray, somewhat argillaceous and silty and cherty in the upper part to a very cherty and very silty limestone in the lower part, highly fossiliferous (recrystallized fossiliferous fragments, some cephalopods?)
6319	6320	1	Shale (calcareous) to limestone (very silty), dark gray to to grayish black with medium gray spots, somewhat glauconitic 20° dip

6320	6321	1	Chert, medium gray with very light gray (translucent) fossiliferous streak, very silty, somewhat argillaceous
6321	6324	3	Chert, medium gray with dark gray shaly streaks in the lower part, calcareous, very silty, 20° dip
6324	6340	16	Chert, mottled light to medium gray with some dark gray, highly calcareous, argillaceous in part
6340	6370	30	Chert, dark gray with light to medium gray spots, highly calcareous, very silty in part, argillaceous
6370	6392	22	Shale (silicified) to chert, dark gray to grayish black mottled with light to medium gray, highly calcareous
6392	6415	23	Limestone, light to medium gray with dark gray (shaly) streak, silty
6415	6425	10	No sample
6425	6440	15	Limestone, light to medium gray mottled with dark gray, argillaceous, silty, pyritic in part; small amount of brownish gray to brownish black, calcareous dolomite
CAYUGAN SERIES, 710 Feet			
6440	6445	5	Limestone (dolomitic) to dolomite (highly calcareous), brownish gray to brownish black
6445	6455	10	Limestone, medium dark to dark gray, argillaceous, silty; moderate amount of brownish gray to brownish black, dolomitic limestone, oolitic in part at the
6455	6470	15	Dolomite, dark gray to brownish gray and brownish black, highly calcareous; limestone, medium dark to dark gray, silty, argillaceous in part, somewhat dolomitic
6470	6485	15	Dolomite to limestone, pale yellowish brown to brownish gray; some dark gray to brownish black limestone; small amount of white calcite; trace of anhydrite
6485	6510	25	Limestone, dark gray to brownish black, dolomitic in part, argillaceous in part; small amount of calcareous, light gray, very fine grained sandstone at the bottom
6510	6515	5	Dolomite, brownish gray to brownish black, highly calcareous, highly anhydritic, argillaceous
6515	6525	10	Sandstone (calcareous, very fine grained) to limestone (very sandy), light to medium gray; limestone, dark gray to brownish gray and brownish black, dolomitic in part
6525	6565	40	Dolomite, dark yellowish brown to brownish gray and brownish black with white to light gray spots of anhydrite, calcareous, moderately to highly anhydritic, moderately (colloidal) argillaceous
6565	6585	20	Dolomite, brownish gray to brownish black, calcareous, anhydritic, argillaceous (colloidal); moderate to large amount of brownish black to black, argillaceous limestone
6585	6640	55	Dolomite-anhydrite rock, dark yellowish brown to brownish gray and brownish black, small amount of black, somewhat calcareous, moderately (colloidal), argillaceous
6640	6655	15	Dolomite, dark gray to grayish black and brownish black, slightly calcareous, highly argillaceous; small amount of anhydrite in the lower part
6655	6680	15	Dolomite, brownish gray to brownish black and grayish black, highly argillaceous; some brownish black, somewhat dolomitic limestone

6680	6700	20	Dolomite, brownish gray to dark gray, anhydritic, argillaceous (colloidal); small amount of brownish black, dolomitic limestone in the upper part
6700	6720	20	Dolomite-anhydrite rock, brownish gray to dark gray and brownish black, some brownish black to grayish black (argillaceous)
6720	6725	5	As above but has an OIL SHOW
6725	6750	25	Dolomite-anhydrite rock, dark gray to brownish black, some brownish black to grayish black in the lower part, argillaceous (colloidal)
6750	6770	20	Anhydrite, dark gray to brownish black and grayish black, some light gray to brownish gray, dolomitic, some dark (argillaceous) streaks; some brownish gray, argillaceous dolomite
	6870	100	
6770	6770	10	Dolomite-anhydrite rock, brownish gray to dark yellowish brown, brownish black to black, moderately (colloidal), argillaceous
6770	6890	20	
6870	6890	20	Dolomite, brownish gray to brownish black and grayish black, anhydritic, moderately (colloidal) argillaceous
6890	6925	B5	Dolomite, brownish black to black in the upper part, brownish gray to brownish black in the lower part, somewhat (colloidal) argillaceous; small amount of anhydrite
6925	6980	55	Limestone to dolomite, brownish black, some brownish gray, some grayish black; some brownish black, highly oolitic limestone in the upper part
6980	6995	15	Dolomite, brownish gray to brownish black and black, highly calcareous in part, somewhat argillaceous; contains some anhydrite
6995	7010	15	Dolomite, dark gray to brownish gray, some brownish black to grayish black, somewhat (colloidal) argillaceous, somewhat anhydritic, calcareous in the upper part
7010	7030	20	Dolomite, brownish black to grayish black, some brownish gray to dark gray, moderately (colloidal) argillaceous, calcareous; small amount of anhydrite
7030	7050	20	Dolomite, brownish gray to brownish black and grayish black, somewhat to slightly calcareous, somewhat (colloidal) argillaceous; small amount of anhydrite
7050	7088	38	Dolomite, brownish gray to dark gray and brownish black, somewhat to slightly calcareous, somewhat to slightly (colloidal) argillaceous, moderately anhydritic
7088	7115	27	Dolomite, brownish gray to brownish black, some brownish black to black in the lower part, slightly (colloidal) argillaceous, moderately anhydritic
7115	7180	5	No sample
7120	7125	5	Dolomite, brownish gray to brownish black and black, somewhat calcareous, somewhat (colloidal) argillaceous
7125	7135	10	No sample
7135	7150	15	Dolomite, brownish black, somewhat calcareous, somewhat (colloidal) argillaceous with occasional shale streaks, somewhat anhydritic

(7225-7270 - 45 repeated Cayagan)

NIAGARAN GROUP, 445 Feet - - - - -

7150	7180	10	Sandstone, white to light gray, dolomitic (in the upper part) to dolomite, medium dark gray to greenish gray, sandy (in the lower part), very fine grained; a large amount of greenish gray to dark gray, shaly dolomite
7160	7190	30	Shale (dolomitic) to dolomite (very shaly), medium dark gray, some medium dark gray to dark gray, some medium dark gray to greenish gray; dolomite, pale yellowish brown to olive gray, silty and sandy in part part
7190	7220	30	Shale (dolomitic) to dolomite (shaly), medium dark to dark gray; some dark brown to brownish black dolomite; moderate amount at the top, some in the upper part, moderate amount in the lower part, large amount at the bottom of brownish black to grayish black, argillaceous dolomite with some anhydrite
7220	7225	5	No sample
7225	7235	10	Shale, (dolomitic) to dolomite (argillaceous) medium dark to dark gray, some medium dark gray to greenish gray; some pale yellowish brown to olive gray and dark gray dolomite; some brownish black to grayish black dolomite with a little anhydrite
7235	7245	10	Dolomite, brownish black to grayish black, argillaceous with light to medium gray anhydritic spots; some medium dark gray to greenish gray and dark gray, highly argillaceous dolomite
7245	7270	25	Dolomite, brownish black to grayish black, moderately (colloidal) argillaceous, somewhat calcareous in the lower part, somewhat anhydritic except at bottom; some medium dark to dark gray (argillaceous) and brownish black dolomite
7270	7290	20	Dolomite, medium dark gray to brownish gray and brownish black; a very large amount of brownish black to grayish black, moderately (colloidal) argillaceous dolomite with shaly streaks
7290	7310	20	Dolomite, brownish black to grayish black, moderately (colloidal) argillaceous, fine crystalline in the lower part (most of the sample); small amount of anhydrite in the upper part; some brownish black, calcareous shale
7310	7385	75	Dolomite, brownish black to black, somewhat to moderately (colloidal) argillaceous, finely crystalline, somewhat silty (dolomitized former Limestone-collitea)
7385	7405	20	Dolomite, grayish black, brownish black to grayish black, somewhat shaly, moderately (colloidal), argillaceous, somewhat calcareous in the lower part
7405	7415	10	Dolomite, brownish black to grayish black, calcareous to a dolomitic limestone, contains a small amount of anhydrite; chert, medium to dark gray and brownish black, calcareous; trace of light gray, fine grained sandstone (chert and sandstone cavings?)
7415	7460	45	Limestone, brownish black to grayish black, some brownish gray, moderately (colloidal) argillaceous, highly dolomitic
7460	7497	37	Limestone, brownish black to grayish black, somewhat dolomitic, somewhat (colloidal) argillaceous, mostly a dolomitized limestone-collite
7497	7532	35	Limestone, medium dark gray to brownish and grayish black, somewhat dolomitic, silty, sandy (very fine grained) somewhat (colloidal) argillaceous, pyritic in part, contains fossil fragments

7532	7557	25	Limestone (sandy, silty) to calcareous sandstone (very fine grained, silty), dark gray to grayish black, highly dolomitic; some medium dark gray, dolomitic sandstone, argillaceous with some calcareous shale
7557	7565	8	Sandstone (very fine grained) to siltstone (coarse), medium to medium dark gray in the upper part to light brownish gray in the lower part, somewhat calcareous, highly dolomitic, somewhat argillaceous in the upper part
7565	7585	20	Siltstone, very light to light gray, some medium light-gray, calcareous, dolomitic; some dark gray to brownish black limestone and some medium dark gray shale in the lower part
7585	7595	10	Limestone, brownish gray to brownish black, dol., arg. in CLINTON GROUP, 477 Feet.
7595	7610	15	Shale, medium dark gray to greenish gray to some olive gray siltstone, calcareous in part; a moderate amount at the top to a large amount at the bottom of shale, brownish gray to grayish brown
7610	7685	75	Shale, grayish brown, some brownish gray; small amount of medium dark gray to greenish gray and olive gray shale to siltstone (moderate amount in the upper part); small amount of medium to dark gray limestone
7685	7760	75	Shale, brownish gray to grayish brown, some dark greenish gray to medium dark gray at the bottom
7760	7765	5	Limestone to calcareous shale, dark gray to olive black; some shale, dark greenish gray to medium dark gray and brownish gray to grayish brown (limestone cavings?)
7765	7785	20	Shale, dark greenish gray, some dark greenish gray to medium dark gray, some grayish brown to brownish gray; some dark gray to grayish black, shaly limestone (cavings?)
7785	7790	5	No sample
7790	7825	35	Shale, dark greenish gray, some in the upper part and and medium to large amount in the lower part of grayish brown to brownish gray shale
7825	7835	10	No sample
7835	7860	25	Shale, brownish gray, some grayish brown, some medium dark gray to dark greenish gray (silty in part)
7860	7870	10	Shale, dark greenish gray at the top to a medium dark gray to dark greenish gray highly calcareous siltstone and shale at the bottom; moderate amount of brownish gray to grayish brown shale
7870	7895	25	Shale and siltstone, medium dark gray to dark greenish gray with light to medium gray limestone nodules; moderate amount of brownish gray to brownish gray shale
7895	7940	45	Shale, grayish brown to brownish gray; some dark greenish gray shale and siltstone with limestone nodules
7940	7955	15	Shale, dusky brown to grayish brown and brownish gray; large amount of medium dark gray to dark greenish gray siltstone and shale; trace of grayish red argillaceous hematite
7955	7970	15	Shale and siltstone, dark greenish gray to medium dark gray to dark gray dolomitic siltstone
7970	8041	71	Shale, grayish brown to dusky brown and brownish gray; shale and some siltstone, dark greenish gray to medium dark gray, some olive gray, calcareous, with some limestone nodules; small amount of medium dark to dark gray dolomitic dolomitic siltstone in the upper part; trace of grayish grayish red, argillaceous hematite (fossiliferous --cont)

7978 8041	71	(cont) iron ore) at 7980-88 and small amount at 8015-8030
8041	8046	5 No sample
8046	8049	3 Siltstone, light gray in the upper part, mottled light gray and dark gray in the middle, medium to greenish gray mottled with dark gray in the lower part, slightly dolomitic, coarse <i>silt</i> and
8049	8051	2 Shale and siltstone, medium gray to greenish gray, some medium dark to dark gray, some grayish black shale nodules, 15° dip
8051	8052	1 Siltstone, greenish gray to medium dark gray, some medium dark to dark gray, somewhat argillaceous, slightly dolomitic
8052	8053	1 Siltstone to sandstone (very fine grained), medium dark gray, with dark gray (argillaceous) streaks, somewhat kaolinitic, pyritic in part
8053	8054	1 Siltstone, with some very fine sandstone, greenish gray to medium dark gray, argillaceous in part, some dark gray to grayish black (carbonaceous) streaks
8054	8056	2 Siltstone, greenish gray to medium dark gray, some brownish gray to brownish black and black (due to presence of iron oxides?) shaly
8056	8058	2 Shale and siltstone, greenish gray; some grayish black, argillaceous siltstone; large amount of dark gray shale in the lower part
8058	8063	5 Shale, medium dark to dark gray, silty in part in the lower part, some interbedded light gray siltstone in the upper part, approximately 10° dip
8063	8064	1 <i>Siltstone to shale, medium to dark gray with gray blk spots and streaks (some carbonaceous) - thin black shale in part</i>
8064	8067	3 Shale, medium dark to dark gray, very silty in the middle part; some light gray siltstone to very fine sandstone in the upper part; 20° dip at bottom
8067	8071-8	4-8 Siltstone, light to medium gray and greenish gray mottled with dark gray to grayish black; some medium dark gray shale in the lower part, 10° dip in lower part

TUSCARORA SANDSTONE, 87 Feet.

8071-8	8075	3-4 Quartzite, white to very light gray, light gray in the lower part, contains dark gray to argillaceous black (argillaceous) streak, very fine grained
8075	8081	6 <i>Quartzite</i> , light to medium gray with dark gray shaly streaks, very fine grained, silty
8081	8082	1 Siltstone to shale, medium dark to dark gray, sandy (very fine grained)
8082	8085	3 <i>Quartzite</i> , white to light gray, very fine grained, contains thin dark gray shale breaks
8085	8093	8 <i>Quartzite</i> , white to very light gray, some light gray, very fine to fine grained, contains thin dark gray shale interbeds
8093	8102	9 <i>Quartzite</i> , white, very fine to fine grained, mostly fine grained with some medium grains in the lower part; small amount of grayish black shale in some of the samples (<i>One foot samples</i>)
8102	8104	2 Shale, dark gray, silty, interbedded with very light gray, very fine grained sandstone

8104	8108	4	Shale to siltstone, dark gray to grayish black
8108	8110-8"	2-8"	Sandstone, white to very light gray, fine grained, some medium grains, quartzitic, some light gray sandstone at the bottom
8110-8	8118	7-4"	Shale, dark gray, some grayish black, silty in part, with some light gray sandstone streaks (very fine grained)
8118	8121-8	3-8"	<i>Quartzite</i> , white, very fine grained
8021-8	8128	6-4	Shale, dark gray to grayish black; some interbedded light gray, very fine sandstone
8128	8130	2	Sandstone, white, fine grained, well sorted, quartzitic
8130	8132	2	Sandstone, very light gray, very fine to fine grained in the upper part to a light gray and light greenish gray, very fine to fine grained sandstone in the lower part; some medium dark to dark gray shale at the bottom
8132	8134	2	Shale to siltstone, medium dark to dark gray
8134	8138	4	Sandstone, very light to light gray, very fine grained, quartzitic; some dark gray interbedded shale
8138	8140	2	Sandstone, white, very fine grained, quartzitic, contains carbonaceous specks
8140	8142	2	Sandstone, white to light gray, very fine grained, quartzitic; some interbedded dark gray shale in the lower part
8142	8144	2	Shale, dark gray, silty with some medium gray siltstone in the lower part
8144	8149	5	Sandstone (very fine) to siltstone, light gray, some light to medium gray, quartzitic; interbedded with medium dark to dark gray shale
8149	8153	4	Shale to siltstone, medium dark to dark gray, some medium dark gray
8153	8154	1	Sandstone, very light gray, very fine grained, quartzitic; small amount of dark gray shale
8154	8156	2	Shale, medium dark to dark gray, silty
8156	8159	3	Sandstone, very light to light gray, very fine grained, some fine grains; some medium dark to dark gray shale
8159	8184	25	Shale, medium dark to dark gray, silty from 8177 to 8184; a large amount of medium dark gray siltstone from 8174 to 8177; contains pelecypod fragments from 8177 to 8184
8184	8206	22	No sample
	8206		TOTAL DEPTH