

3-20-50

Lincoln Mineral Co. No. 4 Well

Washington District, Lincoln County, W. Va.

By Harvard Gas Company, Charleston, W. Va.

Located 3.87 Mi. W. of 80° 45' and 2.19 Mi. S. of 38° 15'

Madison Quadrangle - EE

Elevation 744' L

Permit - Lin-157

Drilling completed July 7, 1936

Shot at 3465-3665 with 1320 pounds of gelatin and at 4440-4452 with 30 qts; No results

Show of oil in Corniferous Lime at 4378'

Dry hole in Oriskany

Coal encountered at 31-36' and 500-508'

TOP	BOTTOM	THICKNESS	
4330	4340	10	SHALE, black, highly carbonaceous, slightly pyritic; small amount is calcareous.
4340	4350	10	HUMPHERSVILLE CHERT, 95 FEET LIMESTONE, brownish-black, very shaly, slightly pyritic.
4350	4354	4	LIMESTONE, brownish-gray to brownish-black, very shaly, somewhat cherty.
4354	4362	8	CHERT, light- to medium-gray, some white, calcareous to a cherty limestone, brownish-gray (shaly), some brownish-black (very shaly).
4362	4369	7	CHERT, white to medium-gray, some brownish-gray (calcareous) to limestone, light brownish gray to brownish-gray, some brownish-black (shaly).
4369	4373	4	No sample
4373	4388	15	LIMESTONE, brownish-gray to brownish-black, some light brownish gray, shaly, somewhat dolomitic, very cherty to calcareous chert, white to medium-gray; some brownish-black to grayish-black, calcareous, silicified shale in the lower part.
4388	4393	5	SILTSTONE (at top), light-gray to brownish-gray, calcareous, dolomitic, very cherty to a calcareous, dolomitic chert, white to light brownish gray.
4393	4401	8	CHERT, very light gray to light brownish gray, calcareous, dolomitic (high in magnesium content ? - effervesces very slowly in cold dilute HCL).

4401	4407	6	LIMESTONE, light-gray to brownish-gray, highly dolomitic (high magnesian content ?), very cherty; trace of glauconite.
4407	4415	8	CHERT, light-gray to brownish-gray, highly calcareous, somewhat dolomitic, sandy in the lower part; trace of glauconite.
4415	4418	3	CHERT, light-gray to light brownish gray, moderately calcareous, slightly dolomitic.
4418	4422	4	SANDSTONE, light-gray, very fine to fine-grained, subrounded to rounded, calcareous, slightly glauconitic.
4422	4433	11	SILTSTONE to sandstone (very fine), light-gray, highly calcareous, cherty, very cherty in part; contains some glauconite.
<u>ORISKANY SANDSTONE, 10 FEET</u>			
4433	4439	6	SANDSTONE, light-gray, very fine to fine-grained, contains a few medium, rounded grains, most of the grains are clear and glassy, highly calcareous, very highly calcareous in the lower part.
4439	4440	1	SANDSTONE, very light to light-gray, fine-grained, some medium (rounded) and some very fine grains, highly calcareous.
4440	4443	3	SANDSTONE, light-gray, very fine to fine-grained, very highly calcareous and some sandy limestone.
<u>HELDERBERG FORMATION, 82⁺ FEET</u>			
4443	4447	4	LIMESTONE, very light to medium-gray, very silty and sandy (fine).
4447	4449	2	LIMESTONE to sandstone (fine to very fine), medium light gray.
4449	4451	2	SANDSTONE (very fine, silty) to chert, very light to light-gray, highly calcareous.
4451	4452	1	CHERT, very light gray, somewhat calcareous.
4452	4454	2	CHERT to siltstone, very light gray, some brownish-gray to brownish-black (shaly) in lower part, calcareous.
4454	4456	2	CHERT, brownish-gray to brownish-black (shaly), highly calcareous.
4456	4457	1	SANDSTONE (very fine) to chert, light-gray to brownish-gray, highly calcareous.
4457	4461	4	CHERT, light-gray to brownish-gray, calcareous, dolomitic
4461	4464	3	CHERT, brownish-gray to brownish-black (shaly), calcareous, highly dolomitic.

4464	4470	6	LIMESTONE, to chert, brownish-black, shaly, dolomitic.
4470	4474	4	LIMESTONE, brownish-gray to brownish-black, moderately dolomitic, very shaly.
4474	4478	4	SHALE, brownish-black to grayish-black, highly calcareous, somewhat dolomitic.
4478	4482	4	SHALE (calcareous) to limestone (shaly), brownish-black, some light-gray to brownish-gray, slightly sandy and cherty, somewhat dolomitic.
4482	4486	4	LIMESTONE (shaly) to shale (calcareous), brownish- and grayish-black, cherty, dolomitic.
4486	4490	4	No Sample
4490	4494	4	SILTSTONE to sandstone (very fine), light- to medium-gray, some dark-gray, highly calcareous at the top, cherty, glauconitic.
4494	4498	4	SILTSTONE and sandstone (very fine), very light to light-gray, calcareous to a silty and sandy limestone, cherty, slightly glauconitic.
4498	4506	7	No Sample
4506	4518	13	CHERT (sandy and silty) to siltstone and sandstone (very fine), very light to light-gray at the top to light and medium-gray in the lower part, calcareous, highly calcareous in the lower part, slightly glauconitic.
4518	4526	7	SILTSTONE and sandstone (very fine), light- to medium-gray, highly calcareous; trace of glauconite; a large amount of chert and some shaly material at the bottom.