

2 heavy 3 1/2" casing
Elva Simmons No. 1 (303) Well

located on top map
strat sum correct
log plotted

RAU-2

Elva Simmons No. 1 (303)
Rand. Allegheny
Cumberl

Valley Bend District, Randolph County, W. Va.

by Cumberland and Allegheny Gas Co., Pittsburgh, Pa.

located 4.57 mi. W. of $79^{\circ}50'$ and 3.37 mi. S. of $38^{\circ}50'$
SE - Elkins Quadrangle; 1.2 mi. N.E. of Valley Bend

Elevation 2030' L.

Permit Rau-2.

Commenced Nov. 12, 1940; completed Dec. 31, 1940.

Fresh water at 16'; salt water at 1640' and 1653'
10" casing, 188'; 8 1/4", 893'

Section based on complete set of samples examined by J. H. L. Martin

Copy sent to Mr. Schillhaber

copy to A.C.T.

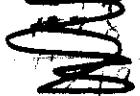
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Rau-2



| Top | Bottom | Thickness | Devonian Shales, etc., 1378 feet |
|-----|--------|-----------|--|
| 0 | 10 | 10 | Clay, brown |
| 10 | 22 | 12 | Siltstone, gray, shaly |
| 22 | 33 | 11 | Shale and siltstone, gray |
| 33 | 52 | 19 | Siltstone, gray |
| 52 | 81 | 29 | Siltstone, gray, 60% ; gray shale, 40% |
| 81 | 116 | 35 | Shale, gray, silty; contains some thin veins of white dolomite |
| 116 | 132 | 16 | Siltstone, gray, micaceous |
| 132 | 238 | 106 | Shale and siltstone, gray; contains some small veins of white to brown dolomite; amount of siltstone varies from about 10 to 60% |
| 238 | 250 | 12 | Siltstone, dark-brown, pyritic |
| 250 | 260 | 10 | Shale and siltstone, gray |
| 260 | 275 | 15 | Siltstone, gray and dark-brown, shaly |
| 275 | 365 | 90 | Shale, gray, 60 to 80% ; siltstone, medium-gray to dark-gray and dark-brown, 40 to 20% ; much of the shale is silty so there is no sharp distinction between shale and siltstone; contains some thin veins of white dolomite |

| Top | Bottom | Thickness | Description |
|------|--------|-----------|--|
| 365 | 380 | 15 | Shale, dark-gray, silty |
| 380 | 385 | 5 | Siltstone, dark-gray, pyrite |
| 385 | 395 | 10 | Shale, gray |
| 395 | 430 | 35 | Siltstone, dark-gray, pyritic, 50% ; gray pyritic shale, 50% ; pyrite is present in veins with dolomite as well as in the shale and siltstone ; a few shale fragments are slickensided |
| 430 | 440 | 10 | Shale, dark-gray, pyritic |
| 440 | 460 | 20 | Shale, medium-gray, 50% ; very dark gray highly pyritic shale and siltstone, 50% ; contains small veins of pyrite and dolomite ; some slickensided shale fragments |
| 460 | 1067 | 607 | Shale, dark-gray to very dark gray ; in a general way upper part is coarser and more silty ; mostly contains some disseminated pyrite and in many samples there are fragments of small veins of pyrite and dolomite ; some shale fragments are slickensided ; none of this shale is calcareous |
| 1067 | 1075 | 8 | Shale, black, 95% ; light-brown, very fine textured dolomitic limestone, 5% |
| 1075 | 1085 | 10 | Limestone, light-brown, very fine textured, dolomitic, 50% ; dark-gray shale, 50% |
| 1085 | 1100 | 15 | Limestone, light-brown, very fine textured, dolomitic, 60% ; dark-gray shale, 40% |



Top Bottom Thickness

800 1174 77 Shale, very dark gray to black; slightly to moderately calcareous

1174 1262 88 Shale, black; only a few fragments of calcareous material

1262 1345 83 Shale, black, calcareous

1345 1378 33 Shale, black, calcareous, pyritic; contains a few fragments of brown limestone

2020
1378
642

Huntersville Chert, 219 feet

1378 1387 9 Limestone, brown, very cherty

1387 1402 15 Chert, light-gray and light-brown; contains a little dolomite in small rhombohedral crystals

1402 1415 13 Chert, light-gray, slightly calcareous, contains both calcite and dolomite; a few fragments are silty and contain some glauconite; many fragments show evidence of fracturing

1415 1426 13 Chert, very light-brown, dolomitic; there are many cracks which are filled with thin quartz veins

1426 1462 34 Chert, very light gray, to nearly white; contains some small dolomite rhombs, a little very fine quartz sand and a few grains of glauconite; many very thin quartz veins

1462 1505 43 Chert, light-gray, sandy and glauconitic; contains a little dolomite and many small grains of pyrite; much detrital quartz of silt to very fine sand size

| Top | Bottom | Thickness | Description |
|-------------------------------------|--------|-----------|---|
| 1505 | 1532 | 27 | Chert, medium- to dark-gray, slightly dolomitic |
| 1532 | 1555 | 23 | Chert, dark-gray, partly shaly |
| 1555 | 1585 | 30 | Shale, very dark gray; some fragments of pyrite concretions |
| 1585 | 1597 | 12 | Chert, dark-gray, calcareous, sandy; contains dolomite as well as calcite; also rather abundant pyrite and a very little sphalerite |
| <u>Oriskany Sandstone, 153 feet</u> | | | |
| 1597 | 1601 | 4 | Sandstone, light-brown, fine calcareous |
| 1601 | 1612 | 11 | Sandstone, light-gray, fine, slightly to moderately calcareous |
| 1612 | 1642 | 30 | Sandstone, light-gray to slightly brownish, moderately to highly calcareous |
| 1642 | 1654 | 12 | Sandstone, fine, slightly to moderately calcareous; much stained with iron rust, but natural color is probably gray |
| 1654 | 1675 | 21 | Sandstone, light-gray to brownish, fine, calcareous |
| 1675 | 1690 | 15 | Sandstone, brownish-gray, very fine, highly calcareous; contains a little dolomite |
| 1690 | 1695 | 5 | Limestone, light-gray, very sandy |
| 1695 | 1709 | 14 | Sandstone, white, medium-grained, slightly to moderately calcareous |
| 1709 | 1727 | 18 | Sandstone, white with some rust stain, fine, not calcareous |

2030
1597
+433

Top Bottom Thickness

- 1727 1737 10 Sandstone, fine, white, calcareous
- 1737 1750 13 Sandstone, gray, very fine, calcareous
- 1750 1768 18 Helderberg Group, 66 + feet
Sandstone, gray, very fine, cherty, highly calcareous
- 1768 1799 31 Limestone, gray, very sandy; contains small amounts of chert and dolomite; most of sand is very fine
- 1799 1816 17 Sandstone, light-gray, fine to very fine, highly calcareous

1816 Total depth

2030
1750

+280