

State: Virginia                      Map Quad: Mendota                      District: Fulkerson

County: Scott

Permit: SC-3

Oper: Tidewater-Wolf's Head              Well #: 1                      Farm: SMITH, E.D.  
P.O. Box 243  
Robinson, Illinois

Location: 6400'S of 36° 40'; 4500'E of 82° 20'      Carter Coordinate: 6-B-87

Elevation: 1456.3 Gr      Datum: 1467.5 KB

Commenced: Sept. 5, 1963      Contractor: Sam Jack Drig. Avonmore PA Rotary

Completed: Jan. 30, 1964 as shut-in gas well (IOF 223 MCFGPD after acid  
2888-2892 Little Valley Ls)

Drlr TD: 7218 SLM      Log TD: 7222      PBTD: 3800 (Jan. 21, 1964)

Other Data Available:

Oil and Gas Well Completion Report to Virginia Div. of Mines  
Sample Desc by Warren J. Souder, VDMR, of Set VDMR No. 951  
Sch1 GRN Run#1 10/28/63 100-4504 LTD 4506=DTD 4516  
Run#2 11/21/63 4504-7221 LTD 7222=DTD 7220  
Faults reported on dipmeter survey (not available) @ 2889, 3056, 4314, 4375,  
5305, 6175, 6282, (or6292)  
& 6450.

PARTIAL SAMPLE DESCRIPTION OF VDMR No. 951 run 5/15-5/20/77  
by Jaffery S. Zafar, Petr. Geol., KGS.

Note: Sample tops are estimated within the sample intervals, not  
corrected to GRN log depths. Sample quality GOOD. Lithology  
percentages are estimated. JSZ.

Interval              Lithology  
MISSISSIPPIAN (Top of ... in ...)

<u>Interval</u>	<u>Lithology</u>
4500-16	MISSISSIPPIAN Price=Borden (Ky), Grainger (Tn), Pocono (W.Va.) Shale, medium gray, silty, slightly micaceous, pyritic, with about 15% interbedded sandstone, light gray, very fine grained and silty, argillaceous and very slightly dolomitic, and about 25% interbedded siltstone, medium gray, argillaceous.
4516-4696	Shale, medium and dark gray, silty, micaceous, pyritic with about 15-25% interbedded siltstone, dark gray, argillaceous.
4696-4736	Shale, dark gray, silty, slightly micaeous, slightly pyritic with about 15-25% interbedded siltstone, dark gray, argillaceous.
4696-4736	Shale, dark gray, silty, slightly micaceous, slightly pyritic with about 5% siltstone as above.
4736-82	Shale, as above.
4782-90	BIG STONE GAP=Sunbury (Ky, Ohio, W.Va.), Chattanooga (Tn.) Shale, black, silty, micaceous, pyritic and carbonaceous.
4790-4810	CLOYD=Berea (Ky, Ohio, W.Va.) Sandstone, white, very fine and medium grained, subangular, poorly sorted, loosely cemented, argillaceous, slightly calcareous and micaceous.
4810-70	DEVONIAN = Ohio (Ky, Ohio, W. Va.) Shale, medium gray and brownish gray, silty, micaceous, slightly pyritic with about 15% interbedded sandstone, light gray, very fine grained and silty, argillaceous, very slightly calcareous and about 15% interbedded siltstone, medium gray, argillaceous plus about 5% streaks of shale, grayish black, silty, slightly micaceous.
4870-4990	Shale, as above with about 25% interbedded siltstone, medium gray, sandy, argillaceous, micaceous and about 10-15% Shale, dark gray, silty, micaceous, pyritic.
4990-5200	Shale, as above with about 10% siltstone, medium gray argillaceous, slightly micaceous and 5-10% interbedded Shale, dark gray, silty.
5200-5385	Shale, as above with about 5% siltstone as above and about 5% dark gray shale, as above.
5385-5600	Shale, as above with streaks of siltstone and dark gray shale, as above.
5600-5725	Shale, as above, with streaks of dark gray shale and about 5-10% interbedded siltstone, as above.
5725-65	Shale, medium and dark gray, silty, micaceous, pyritic with about 30% interbedded Shale, grayish black, silty.

- 5765-90 Shale, medium gray and grayish black, slightly micaceous with 50% interbedded siltstone, medium gray, argillaceous, sandy.
- 5790-5805 Shale, medium gray, silty, micaceous, pyritic with about 15% shale, grayish black, silty
- 5805-25 Siltstone, medium gray, argillaceous with 35% interbedded Shale, grayish black, silty.
- 5825-73 Shale, medium gray and brownish gray, silty, micaceous, pyritic with about 30% interbedded shale, grayish black, silty and about 5% siltstone, medium gray, argillaceous.
- 5873-6020 Shale, grayish black and brownish black, silty, micaceous, pyritic; occasional spores.
- 6020-40 Shale, medium gray and brownish gray, silty, micaceous, pyritic with about 20% interbedded shale, silty, micaceous and about 10% interbedded siltstone, medium gray, argillaceous and slightly calc.
- 6040-60 Shale, brownish-black, black, silty, micaceous; scattered pyrite & spores. 10% interbedded shale, medium gray, silty.
- 6060-93 Shale, medium gray and brownish gray, silty, micaceous, pyritic with about 35% interbedded shale, brownish black and black, silty; scat spores. About 30% interbedded siltstone, medium gray, argillaceous, slightly calc.
- 6093-6130 Shale, brownish black and black, slightly silty, micaceous; pyrite and spores.
- 6130-70 No samples.
- 6170-82 Shale, as above
- 6182-84 Metabentonite, light gray, non-micaceous.
- 6184-6250 Shale, greenish gray, medium gray and brownish gray, silty, micaceous, pyritic, slightly calc with about 8% interbedded siltstone, medium gray, argillaceous, calcareous, & about 8% interbedded shale, black, silty; scattered crinoids & brachiopods.
- 6250-52 Metabentonite, light gray, non-micaceous.
- 6252-6335 Shale, medium gray, greenish gray and brownish gray, silty, slightly calcareous; about 10% interbedded siltstone, medium gray, argillaceous, slightly calcareous. 15% interbedded shale, black silty. Pyrite, crinoids, & brachio pods.
- 6335-6445 Shale, as above with 30% interbedded brownish black and black silty shale and about 10% interbedded siltstone, medium gray, argillaceous, slightly calcareous.
- 6445-6510 Shale, greenish gray and brownish gray, slightly calc, silty, micaceous; about 10% interbedded siltstone, medium

gray, argillaceous, about 10% shale, brownish black, silty, micaceous, pyritic.

- 6510-6668 Shale, brownish black and black, silty, micaceous, pyritic. 10% interbedded shale, brownish gray and greenish gray, silty, micaceous. Scattered calcitic-filled fractures. 6610-50, fossiliferous.
- 6668-70 TIOGA (correlated with Tioga in Hawkins Co., Tn. of J.M. Dennison)  
Metabentonite, light gray, micaceous.  
(=top of Needmore Sh?)
- 6670-88 Shale, black, silty, micaceous, pyritic.
- 6688-6720 WILD CAT VALLEY(=Huntersville Chert of VDMR Sample Description)  
Sandstone, white, very fine grained, well cemented, tight, cherty, glauconitic. Streaks of limestone, grayish yellow, cryptocryslattine, argillaceous, fossiliferous.  
(=Hancock ? Fm of VDMR Sample Description)
- 6720-30 Sandstone, white, fine to coarse grained, subrounded to rounded, poorly sorted, loosely cemented, argillaceous, calcareous. Oriskany type.
- 6730-60 Sandstone, light gray and white, very fine grained. Subrounded, fairly sorted, fairly cemented, argillaceous, very slightly calcareous. 45% pale green to brown-gray, silty.
- 6760-78 BIG SIX=Keefer (W.Va.)  
Sandstone, light gray, very fine grained to silty, argillaceous, very slightly calcareous.
- 6778-6800 Sandstone, white, very fine and fine grained, subrounded, fairly sorted, fairly cemented, argillaceous, clean, very slightly calcareous.
- 6800-6900 Sandstone, light gray to white, very fine grained, sub-rounded, fairly sorted, fairly cemented, argillaceous, very slightly calcareous, micaceous. 30% interbedded shale, brownish gray and pale green, silty, micaceous.
- 6900-20 CLINCH=Tuscarora (W.Va.)  
Sandstone, white, very fine and fine grained, sub-rounded to rounded, poorly sorted, loosely cemented, argillaceous.
- 6920-80 Sandstone, white, very fine to medium grained, sub-rounded to rounded, poorly sorted, loosely cemented, argillaceous.
- 6990-7050 Sandstone, white, very fine to medium grained, sub angular, poorly sorted, loosely to fairly cemented, argillaceous, porous.
- 7050-7198 Sandstone, white, fine to coarse grained, sub angular, poorly sorted, loosely to fairly cemented, argillaceous, porous; trace of intergranular carbonaceous material.

ORDOVICIAN Sequatchie = Queenston (W.Va.)

7198-7220TD Shale, red, silty, calcareous, micaceous.