

INTERVAL SHEET

WWCR 66

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VDMR Well No.: Well No. 1308

Date 5/17/65

Sample Interval: from 0 to 910

PROP: Town of Manassas #9

Total depth 910

COMP: Manassas Well Drillers

Oil  Gas  Water  Exploratory

COUNTY: Prince William (Manassas)

Cuttings  Core  Other

VDMR Well No: W-1308

Washed samples

From-To	From-To	From-To	From-To	From-To
-	-	0 - 10	340 - 360	720 - 740
-	-	10 - 20	360 - 380	740 - 760
-	-	20 - 30	380 - 400	760 - 780
-	-	30 - 40	400 - 410	780 - 790
-	-	40 - 50	410 - 420	790 - 800
-	-	50 - 60	420 - 430	800 - 810 *
-	-	60 - 70	430 - 440	810 - 820
-	-	70 - 80	440 - 450	820 - 830
-	-	80 - 90	450 - 460	830 - 840
-	-	90 - 100	460 - 470	840 - 850
-	-	100 - 110	470 - 480	850 - 860 *
-	-	110 - 120	480 - 490	860 - 870
-	-	120 - 130	490 - 500	870 - 880
-	-	130 - 140	500 - 510	880 - 890
-	-	140 - 150	510 - 520	890 - 900
-	-	150 - 160	520 - 530	900 - 910
-	-	160 - 170	530 - 540	-
-	-	170 - 180	540 - 550	-
-	-	180 - 190	550 - 560	-
-	-	190 - 200	560 - 570	-
-	-	200 - 210	570 - 580	-
-	-	210 - 230	580 - 590	-
-	-	230 - 250	590 - 600	-
-	-	250 - 260	600 - 610	-
-	-	260 - 280	610 - 620	-
-	-	280 - 290	620 - 640	-
-	-	290 - 300	640 - 660	-
-	-	300 - 310	660 - 680	-
-	-	310 - 320	680 - 700	-
-	-	320 - 340	700 - 720	-

\* No sample

OWNER: Town of Manassas - Well #9  
DRILLER: Manassas Well Drillers  
COUNTY: Prince William (Manassas)

VDMR #1308  
WWCR #66  
TOTAL DEPTH: 910'

### GEOLOGIC LOG

- 0-10            Calcareous Arkose — grayish-red, shaly, fine sand to coarse silt and clay; quartz, albite, potash feldspar, biotite, muscovite, hematite, calcite (probably some ankerite) magnetite, pyrite; minor medium-gray shale, and thin calcite veins.
- 10-20           As above — less gray shale.
- 20-30           As above — more gray shale.
- 30-40           As above — minor very calcareous shale.
- 40-50           As above — less carbonate.
- 50-60           Calcareous Silty Shale — grayish-red to pinkish-gray; clay and silt, hematite, calcite (ankerite ?) mica, trace magnetite; siltstone clasts observed in this section; gray portion more carbonate.
- 60-70           As above — minor very-fine-grained sandstone.
- 70-80           Ferruginous Limestone — dark-grayish-red, arenite, silty, calcite (ankerite ?) quartz, hematite, clays, mica; some mica detrital some authigenic.
- 80-90           As above.
- 90-100           As above.
- 100-110           As above.
- 110-120          Silty Shale and Lithic Sandstone — medium-dark-gray, slightly pink; very-fine- to medium-grained; quartz, clay, biotite, muscovite, chlorite, iron oxides, calcite, plagioclase, and potash feldspar; the lithic particles are siltstones and limestones.
- 120-130          As above.
- 130-140          As above.
- 140-150          Micaceous Sandstone — dark-grayish-red, very-fine-grained, shaly; quartz, micas, chlorite, carbonate, clay.
- 150-160          Sandstone — medium-dark- to light-gray, coarse- to very-fine-grained; angular, calcareous, lithic, argillaceous; quartz, feldspar, chlorite, muscovite, pyrite, trace coal.

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- 160-170 Sandstone — medium-dark- to light-gray, coarse- to very-fine-grained, angular, calcareous, lithic, argillaceous; quartz, feldspar, chlorite, muscovite, pyrite, trace coal.
- 170-180 Micaceous Sandstone — dark-red-gray, very-fine-grained; quartz, mica, chlorite, hematite, calcite.
- 180-190 Shaly Sandstone — medium-gray; medium- to fine-grained; lithic with siltstone, shale, and limestone grains; cement is calcite-dolomite; quartz, muscovite, plagioclase, potash feldspar, chlorite, trace hornblende; the siltstone grains have opaque cement, the limestone is dense, the shale contains authigenic feldspar, micas and chlorite.
- 190-200 As above.
- 200-210 As above.
- 210-230 As above — with minor fragments of coal with pyrite and hematite.
- 230-250 As above.
- 250-260 As above.
- 260-280 As above.
- 280-290 As above.
- 290-300 Silty Shale — dark-red-gray, fine sand to clay; clay, micas, quartz, feldspar, calcite, chlorite, pyrite, minor amounts diabase.
- 300-310 Shaly Arkose — dark-red-gray, very-fine-grained except mica and chlorite flakes to .7 mm; quartz, feldspar, micas, chlorite, ferruginous, and carbonaceous cement.
- 310-320 As above.
- 320-340 As above.
- 340-360 As above.
- 360-380 Siltstone — dark-red-gray; quartz, mica, clay, ferruginous, and carbonaceous cement; minor amount diabase.
- 380-400 As above.
- 400-410 As above — no diabase.

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- 410-420 Sandstone — dark-red-gray; fine- to very-fine-grained; quartz, mica, feldspar, clay, dolomite, ferruginous, and carbonate cement; vein quartz.
- 420-430 As above.
- 430-440 As above.
- 440-450 As above.
- 450-460 Micaceous Siltstone — dark-red-gray; quartz, mica, carbonate clay, minor chlorite, ferruginous, and carbonate cement; minor vein quartz.
- 460-470 As above — with minor ferruginous concretions.
- 470-480 As above — no concretions.
- 480-490 As above — more vein quartz, vein calcite, minor sandstone, fine-grained, calcareous.
- 490-500 As above.
- 500-510 As above.
- 510-520 As above.
- 520-530 Arkose — grayish-red, medium-grained; quartz, feldspar, mica, chlorite, ferruginous, and carbonaceous cement.
- 530-540 Calcareous Siltstone — dark-grayish-red; quartz, feldspar, micas, ferruginous, and carbonate cement.
- 540-550 Shaly Arkose — dark-gray-red, medium- to very-fine-grained; quartz, feldspar, micas, iron and carbonate cement.
- 550-560 As above — finer-grained.
- 560-570 As above.
- 570-580 As above.
- 580-590 As above — minor medium-grained sandstone.
- 590-600 As above — less sandstone.
- 600-610 As above.
- 610-620 As above.

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- 620-640 Shaly Arkose — dark-gray-red, medium- to very-fine-grained; quartz, feldspar, micas, iron and carbonate cement, minor fragments coarse-grained diabase.
- 640-660 Shaly Arkose — dark-red-gray, coarse- to fine-grained with greasy-looking hematitic shale and micaceous siltstones and shales; quartz, feldspar, micas, chlorite, clay; ferruginous, and carbonate cement.
- 660-680 As above.
- 680-700 As above.
- 700-720 As above.
- 720-740 As above.
- 740-760 As above — minor brick-red mudstone, green-gray arkose, coarse-grained diabase.
- 760-780 Shaly Arkose — dark-red-gray, coarse- to fine-grained with micaceous claystone and siltstone; quartz, feldspar, micas, chlorite, clay; iron and carbonate cement.
- 780-790 As above.
- 790-800 As above.
- 800-810 No sample.
- 810-820 Shaly Arkose — dark-red-gray, coarse- to fine-grained with micaceous claystone and siltstone; quartz, feldspar, micas, chlorite, clay; iron and carbonate cement.
- 820-830 As above.
- 830-840 Arkose — red-gray, coarse- to fine-grained angular to rounded; quartz, feldspar, micas, chlorite, clay, ferruginous and carbonate cement; friable and permeable; trace diabase.
- 840-850 As above — minor dark-red-gray shale, no diabase.
- 850-860 No sample.
- 860-870 Arkose — red-gray, coarse- to fine-grained angular to rounded; quartz, feldspar, micas, chlorite, clay, ferruginous and carbonate cement; friable and permeable; trace diabase, minor dark-red-gray shale.

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870-880 Arkose — red-gray, coarse- to fine-grained angular to rounded; quartz, feldspar, micas, chlorite, clay, ferruginous and carbonate cement; friable and permeable; trace diabase, minor dark-red-gray shale and brick colored mudstone, minor vugs filled with ferruginous carbonate.

880-890 As above — no vugs.

890-900 As above — less ferruginous material.

900-910 As above.

GEOLOGIC SUMMARY

ROCK UNIT

TIME ROCK UNIT

Manassas Sandstone

Triassic

The well cuttings were too finely ground to permit observations of coherence, porosity, etc. Due to calcareous cement all are probably weak, friable, and permeable.

Virginia Division of Mineral Resources  
Hollis N. Walker, Geologist  
May 26, 1965