

WELL SCHEDULE

SITE NAME 13FF19 OTHER IDENTIFIER Johnston Road WELL NUMBER 335602084010201
 Latitude 33° 56' 2.62" Longitude -84° 1.' 4.11" Ground Elevation 921.8 NGVD 29
 OWNER City of Lawrenceville Casing Elevation 923.58 NGVD 29

WELL CONSTRUCTION DESCRIPTION

Name of Aquifer: metamorphic - crystalline rock

TYPE OF DRILLING

Rotary Total Depth 477
 Percussion Static Water Level (bls)
 Bored 9.25 @

10/31/2001 8:50:00 AM

DRILL HOLE DIAMETER

Size 12 in, from 0 ft to 65 ft
 Size 8 in, from 65 ft to 275 ft
 Size 6 in, from 275 ft to 477 ft

CASING RECORD

Type material steel
 Size 8 in, from 0 ft to 65 ft
 Size in, from ft to ft
 Size in, from ft to ft

WELL SCREEN

Type material open hole
 Size in, from ft to ft
 Size in, from ft to ft
 Size in, from ft to ft

Date drilled 5/10/2001 8/13/2001

Driller Middle Georgia Water Systems

GROUTING YES NO

Type portland type I

From 0 ft to 65 ft

From ft to ft

From ft to ft

TEST PUMP DATA

Pumped Bailed

Estimated 250 (air-lift yield)

Date tested 10/2/2001 10/5/2001

Pump rated 375 gal/min 25 HP

Test yield 177.0 gal/min After 72 hrs

Water level before test 13.3 ft btoc

Drawdown 140.8 ft

Specific Capacity 1.3 gal/min/ft

Altitudes are in reference to NGVD 29

Latitude/longitude in NAD 83

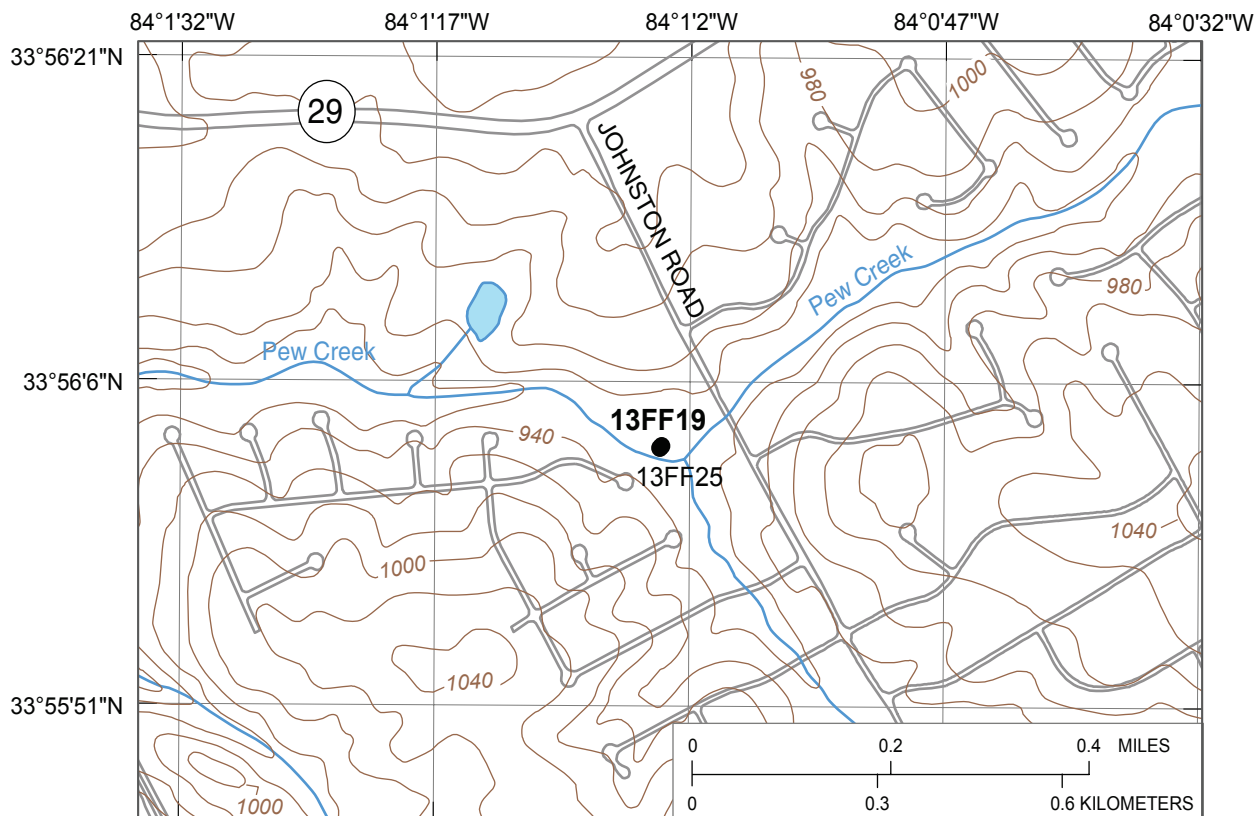
Depths are in feet below land surface (bls)

Feet below top of casing (ft btoc)

Comments: Water-bearing fractures at 35-37.5', 58-61', 198-199', 245.5-246.5', 356-357'; test hole drilled

5/10/01 to 5/11/01 and logged by L.J. Williams; air-lift yield was 250 gpm with shallow fractures exposed in

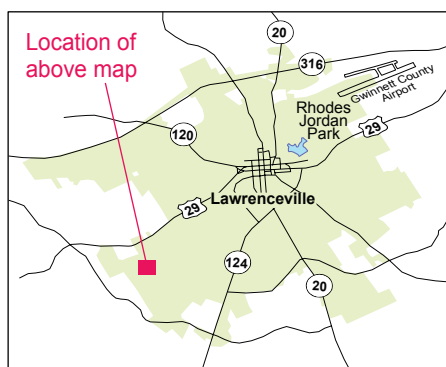
6-inch borehole; shallow fractures at 35 and 58 feet sealed off after setting permanent casing.



Base from U.S. Geological Survey 1:24,000-scale, Luxomni Roads from City of Lawrenceville 1999 digital data

13FF19 EXPLANATION

- Observation well and site name

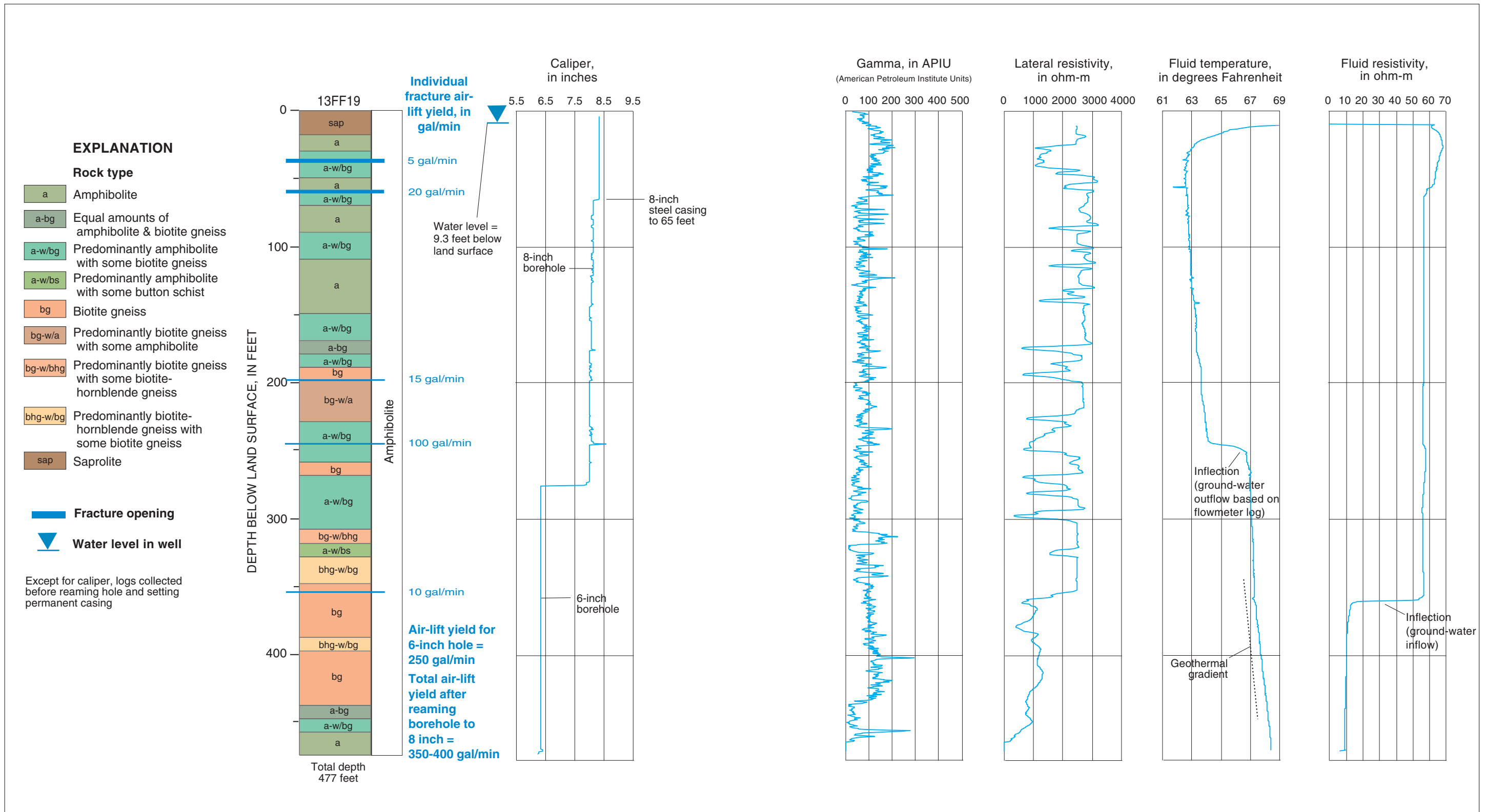


Geophysical log files for well 13FF19 [contained on CD in Supplemental_data\log_archive\logs.zip; ft bls, feet below land surface]

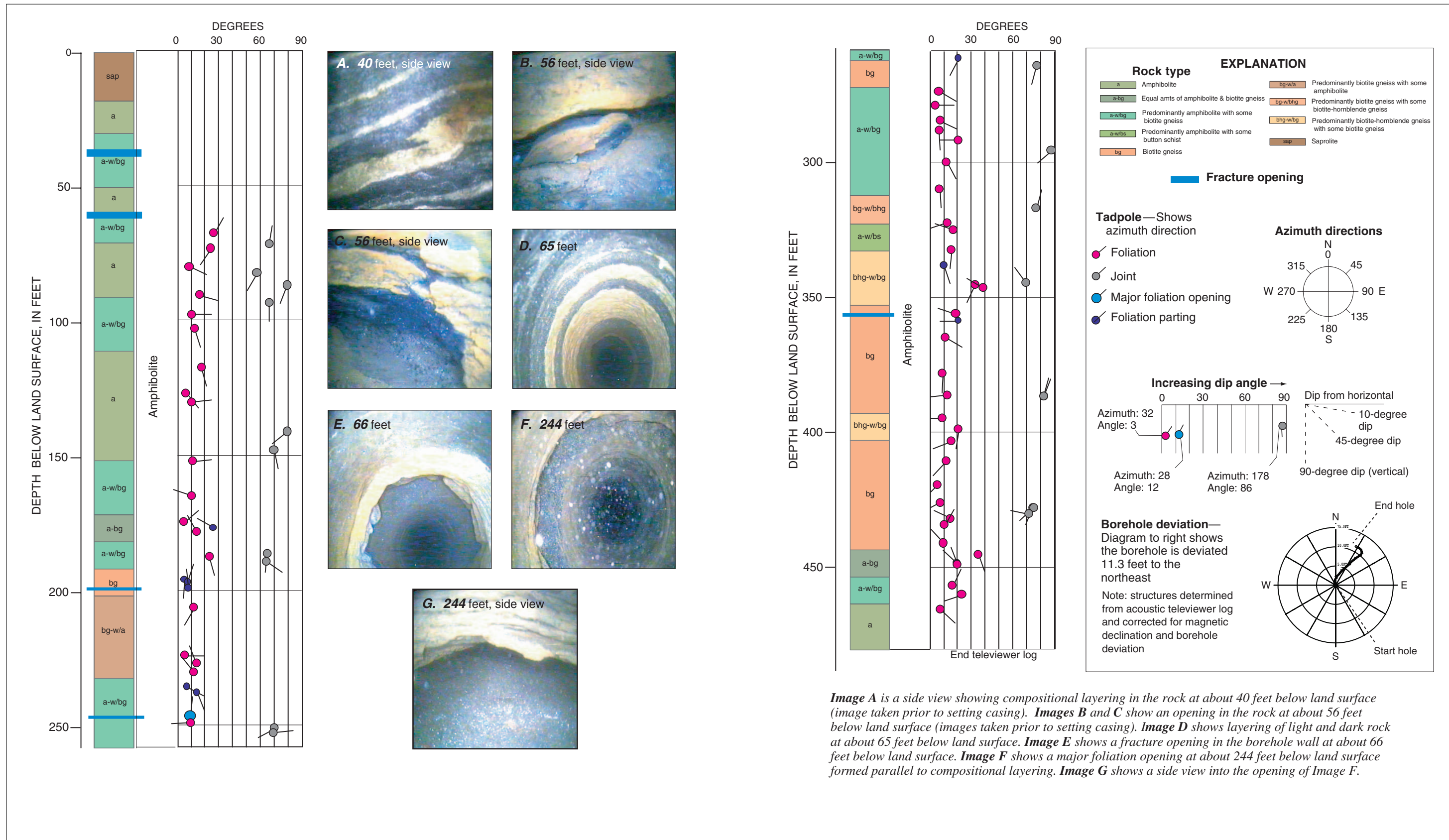
File name	Type	Date	Start depth (ft bls)	Stop depth (ft bls)
13FF19.20010719.ZE01	Combination Tool ¹	07/19/01	-0.5	473.7
13FF19.20011113.AT02	Acoustic Televiwer ²	11/13/01	63.04	277.76
13FF19.20011113.AT01	Acoustic Televiwer ²	11/13/01	270.56	475.53
13FF19.20010719.CT01	Caliper, Three Arm	07/19/01	3.7	473.5
13FF19.20011113.CT01	Caliper, Three Arm	11/13/01	3.2	476.6
13FF19.20011129.FE02	Electromagnetic Flowmeter	11/29/01	41.4	476.7
13FF19.20011129.FE01	Electromagnetic Flowmeter	11/29/01	41.6	477
13FF19.20010719.ZI01	Gamma and EM Induction	07/19/01	-0.8	471.4
13FF19.20010813.FH01	Heat-pulse Flowmeter	08/13/01	40	473
13FF19.20011128.FEI01	Interpreted EM Flowmeter	11/28/01	45.8	265.3
13FF19.20011130.FEI01	Interpreted EM Flowmeter	11/30/01	313.8	449
13FF19.20011130.FEI02	Interpreted EM Flowmeter	11/30/01	45.8	265.3
13FF19.20011130.FEI03	Interpreted EM Flowmeter	11/30/01	285.3	472.3

¹/ Includes gamma, long/short normal resistivity, spontaneous potential, single-point resistance, fluid resistivity, and temperature

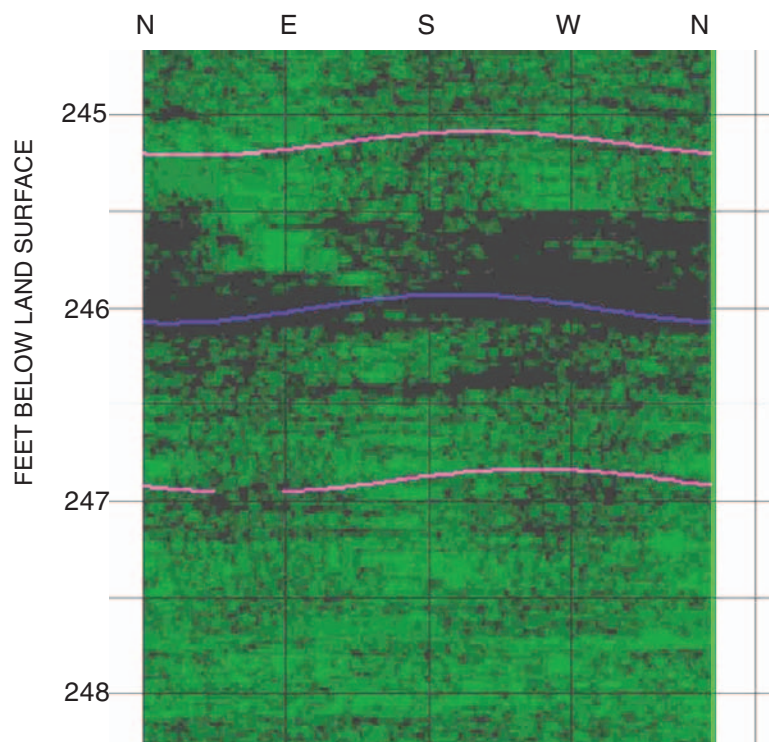
²/ Does not include trace data, original log is provided in Century binary format under the same file name with extension ".log"



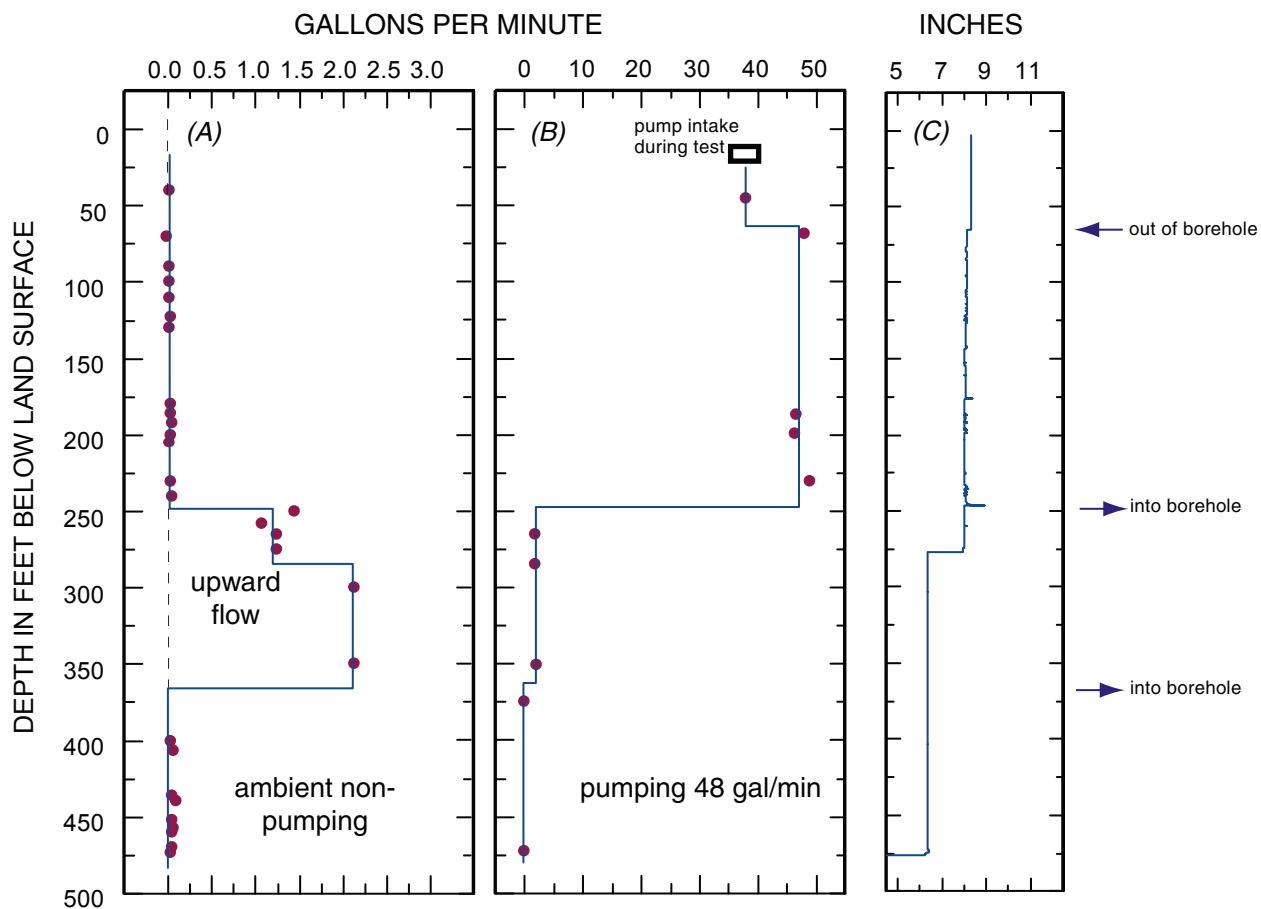
Lithology and borehole geophysical logs for well 13FF19 (Johnston Road well), Lawrenceville, Georgia.



Structural tadpole plot and downhole camera images for well 13FF19 (Johnston Road well), Lawrenceville, Georgia.



Projected acoustic televiewer image of borehole wall from well 13FF19. Purple lines trace rock foliation above and below the main producing fracture. Blue line traces the center of an opening formed parallel to foliation and compositional layering (dark area is the opening).



Flowmeter logs from well 13FF19 showing (A) flow in borehole under ambient conditions; left of dashed line indicates downward flow and right of line upward flow, and (B) vertical flow in borehole during pumping 48 gal/min. Caliper log (C) shows peaks where the borehole diameter is enlarged at discrete fracture openings in the bedrock. Right-facing arrows indicate flow into borehole during pumping. Left-facing arrow indicates flow out of borehole during pumping.

EXPLANATION

- Measured flow
- Interpretation