

## WELL SCHEDULE

SITE NAME 13FF17 OTHER IDENTIFIER Monfort Road WELL NUMBER 335711084011901  
 Latitude 33° 57' 11.05" Longitude -84° 1.' 19.08" Ground Elevation 990.9 NGVD 29  
 OWNER City of Lawrenceville Casing Elevation 994.04 NGVD 29

## WELL CONSTRUCTION DESCRIPTION

Name of Aquifer: metamorphic - crystalline rock

## TYPE OF DRILLING

Rotary Total Depth 480  
 Percussion Static Water Level (bls)  
 Bored 13.34 @  
10/31/200110:0

## DRILL HOLE DIAMETER

Size 8 in, from 0 ft to 15 ft  
 Size 6 in, from 15 ft to 480 ft  
 Size \_\_\_\_\_ in, from \_\_\_\_\_ ft to \_\_\_\_\_ ft

## CASING RECORD

Type material PVC  
 Size 6 in, from 0 ft to 15 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 4/19/2001 4/20/2001

Driller Middle Georgia Water Systems

GROUTING  YES  NO

Type bentonite

From 0 ft to 15 ft

From \_\_\_\_\_ ft to \_\_\_\_\_ ft

From \_\_\_\_\_ ft to \_\_\_\_\_ ft

## TEST PUMP DATA

Pumped  Bailed \_\_\_\_\_

Estimated 90 (air-lift yield)

Date tested 12/4/2001

Pump rated \_\_\_\_\_ gal/min \_\_\_\_\_ HP

Test yield 40 gal/min After 5 hrs

Water level before test 4 ft btoc

Drawdown 16.72 ft

Specific Capacity 5.43 gal/min/ft

Pumped during EM flow meter test

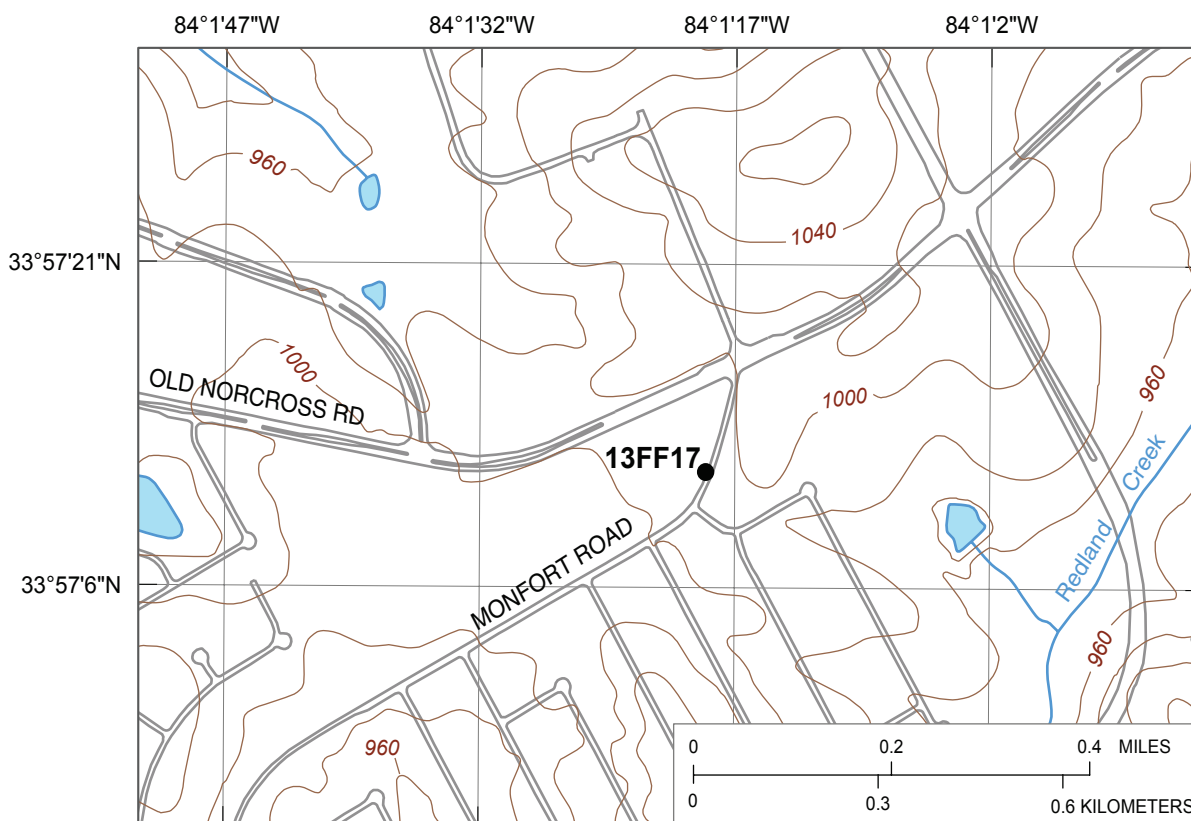
Altitudes are in reference to NGVD 29

Latitude/longitude in NAD 83

Depths are in feet below land surface (bls)

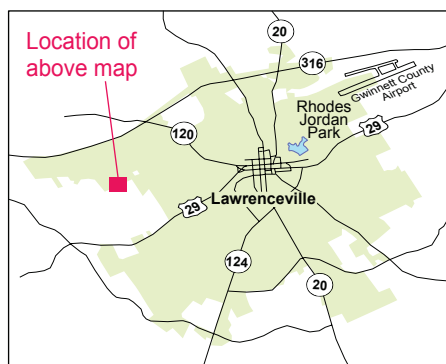
Feet below top of casing (ft btoc)

Comments: Test hole drilled 4/19-20/2001 and logged by L.J. Williams and D.M. Crilley; major water-bearing fractures at 48-49', 64.5-65.5', 197-198'



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

**EXPLANATION**  
**13FF17** ● Observation well  
and site name

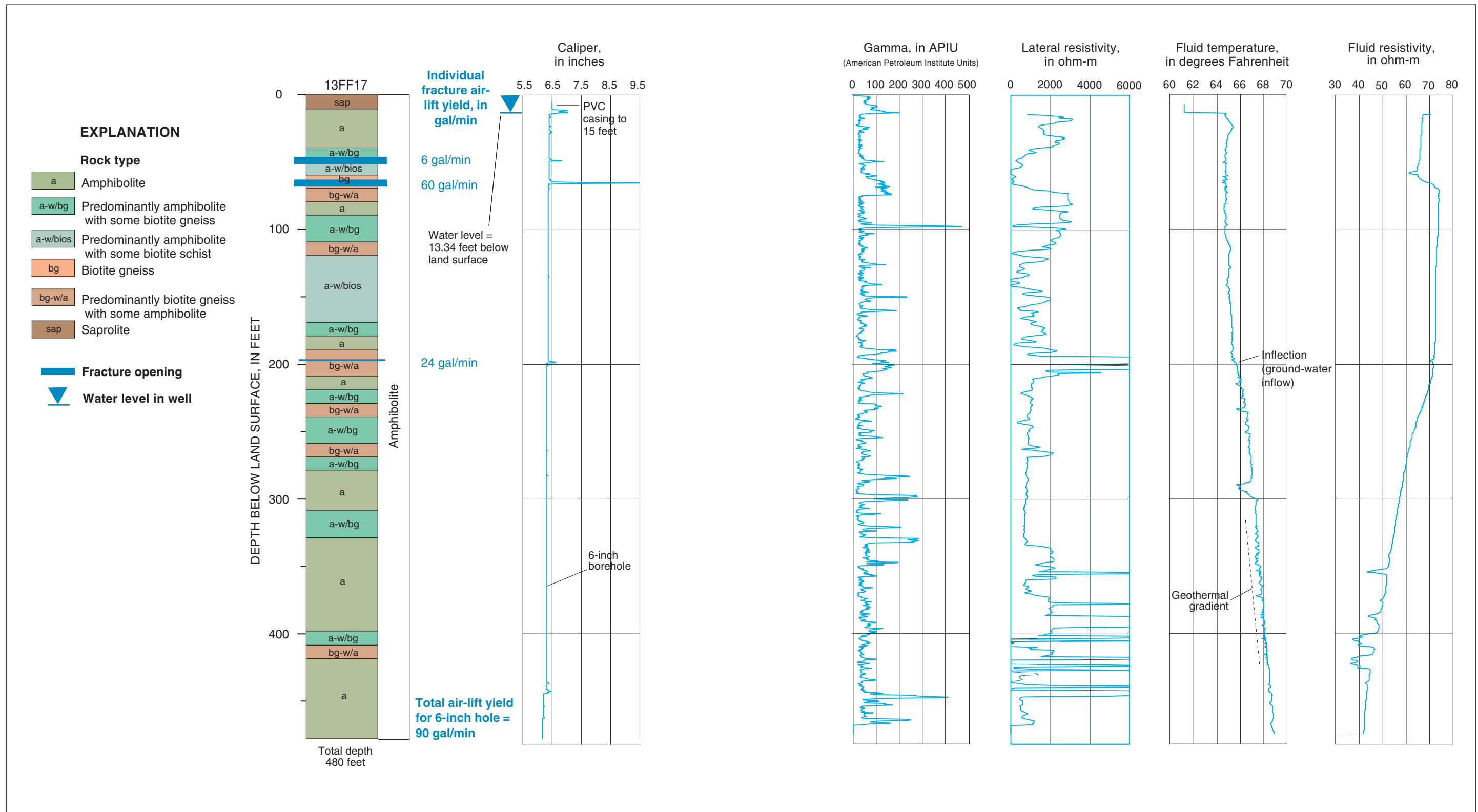


Geophysical log files for well 13FF17 [contained on CD in Supplemental\_data\log\_archive\logs.zip;  
ft bls, feet below land surface]

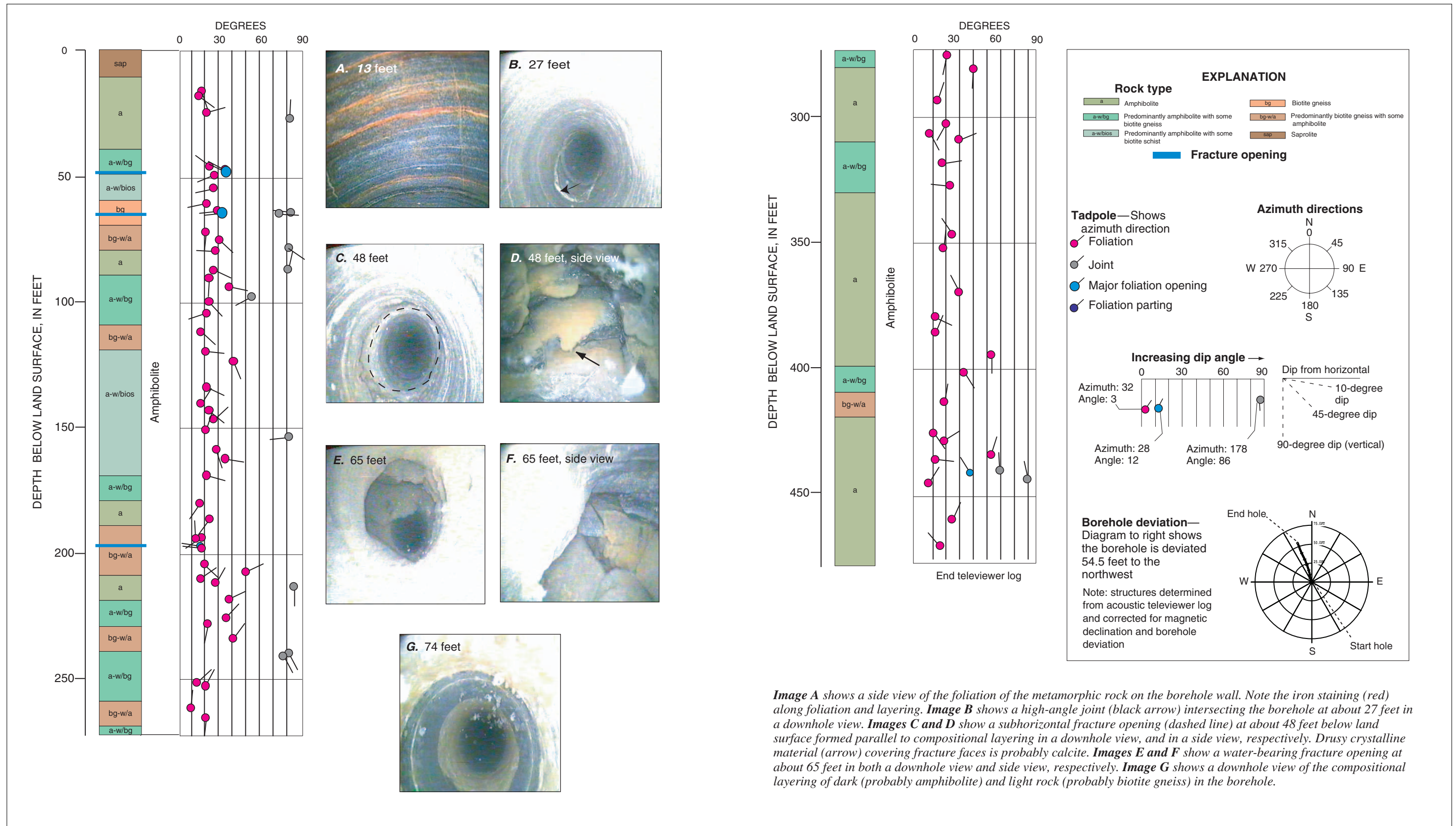
File name	Type	Date	Start depth (ft bls)	Stop depth (ft bls)
13FF17.20010723.ZE01	Combination Tool <sup>1/</sup>	7/23/01	0.2	98.4
13FF17.20010723.ZE02	Combination Tool <sup>1/</sup>	7/23/01	0.2	472.6
13FF17.20010723.ZE03	Combination Tool <sup>1/</sup>	7/23/01	0.1	473.2
13FF17.20011115.AT01	Acoustic Televiwer <sup>2/</sup>	11/15/01	12.48	475.79
13FF17.20010723.CT01	Caliper, Three Arm	7/23/01	4.2	476.4
13FF17.20011204.FE01	Electromagnetic Flowmeter	12/4/01	38.4	204.6
13FF17.20011204.FE02	Electromagnetic Flowmeter	12/4/01	38.2	204.9
13FF17.20010723.ZI01	Gamma and EM Induction	7/23/01	-0.1	471.8
13FF17.20010815.FH01	Heat-pulse Flowmeter	8/15/01	16	475
13FF17.20011204.FEI01	Interpreted EM Flowmeter	12/4/01	43.9	205

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

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

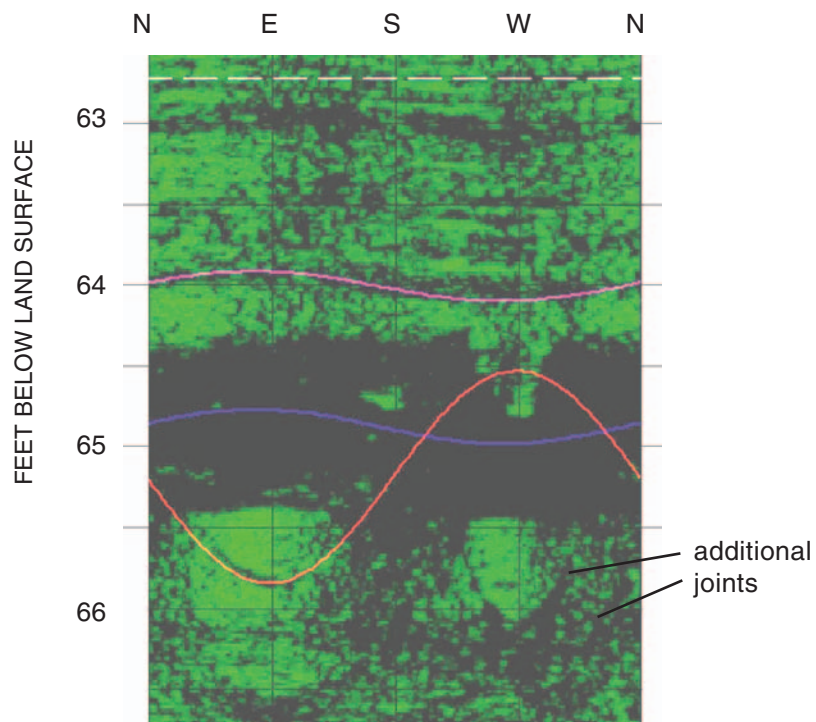


Lithology and borehole geophysical logs for well 13FF17 (Monfort Road well), Lawrenceville, Georgia.

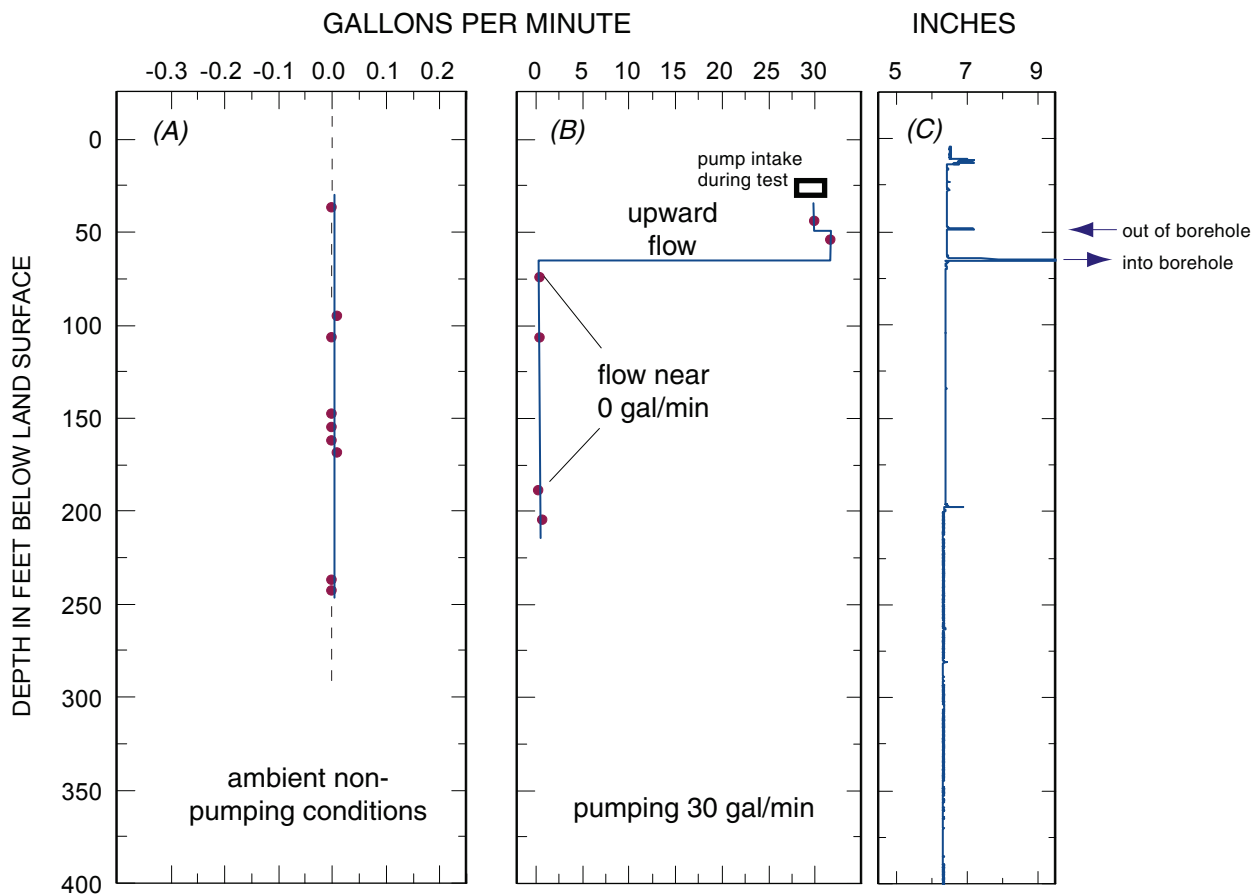


*Image A* shows a side view of the foliation of the metamorphic rock on the borehole wall. Note the iron staining (red) along foliation and layering. *Image B* shows a high-angle joint (black arrow) intersecting the borehole at about 27 feet in a downhole view. *Images C and D* show a subhorizontal fracture opening (dashed line) at about 48 feet below land surface formed parallel to compositional layering in a downhole view, and in a side view, respectively. Drusy crystalline material (arrow) covering fracture faces is probably calcite. *Images E and F* show a water-bearing fracture opening at about 65 feet in both a downhole view and side view, respectively. *Image G* shows a downhole view of the compositional layering of dark (probably amphibolite) and light rock (probably biotite gneiss) in the borehole.

Structural tadpole plot and downhole camera images for well 13FF17 (Monfort Road well), Lawrenceville, Georgia.



Projected acoustic televiewer image of borehole wall from well 13FF17. Red line traces a joint cutting across rock foliation and layering. Purple line traces rock foliation. Blue line traces the center of an opening formed parallel to foliation and compositional layering (dark area is the opening).



Flowmeter logs from well 13FF17 showing (A) flow in borehole under ambient nonpumping conditions; left of dashed line indicated downward flow and right of line upward flow, and (B) vertical flow in borehole during pumping 30 gal/min. Caliper log (C) shows peaks where the borehole diameter is enlarged at discrete fracture openings in the bedrock. Right-facing arrow indicates flow into borehole during pumping. Left-facing arrow indicates flow out of borehole during pumping.

#### EXPLANATION

- Measured flow
- Interpretation