

STATE WELL REPORT

Part 1

Driller's Log

Mississippi Department of Environmental Quality
Office of Land and Water Resources
P.O. Box 2309
Jackson, MS 39225-2309
(601)961-5555
(601)961-5228 (fax)

County: Leflore, MS
Permit #: _____
Driller: Roland W Tollett (RMO-00009026)
Date drilling completed: 07/23/2019

For Office Use Only:

Well #: F239
Aquifer: _____
E-Log #: _____

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12-03-2019
BY OLWR

USGS site name: QV-01a

State Law requires that this report be prepared by the license holder responsible for the work and filed with the Department at the above address within 30 days of completion of drilling of the well or borehole.

Well Owner Information <i>(Landowner if borehole is not for a water well)</i> Owner Name: <u>(landowner)</u> Mailing Address: <u>USGS (driller - rtollett@usgs.gov)</u> <u>3095 W. California Ave</u> Ruston LA 71270 City State Zip Code Telephone No. (<u>318</u>) <u>251-9630</u> (245-8639 cell)	<input checked="" type="checkbox"/> Well or <input type="checkbox"/> Borehole Location Latitude: <u>33.63477</u> Longitude: <u>-090.40134</u> Method of Lat/Long (check one): Conventional Survey _____, USGS quad _____, Hand-held GPS <u>X</u> , Survey-grade GPS _____ NE <u>1/4</u> NE <u>1/4</u> , Sec <u>09</u> 04 T <u>20N</u> R <u>02W</u> <u>3.5</u> Miles <u>West</u> of <u>Schlater MS</u> <i>(Distance) (Direction) (Nearest Town)</i>
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Well / Borehole Data	
Date drilling started: <u>7/23/2019</u> Date drilling completed: <u>7/23/2019</u> Hole depth: <u>80 ft bls</u> Hole diameter: <u>3.25 in</u>	
Location of the source of any surface water used for drilling: <u>none used</u>	
Method of dosing and volume of Chlorine used in drilling and development: <u>none used</u>	
Logs run (check applicable): <input checked="" type="checkbox"/> No log run <input type="checkbox"/> Electric <input type="checkbox"/> Gamma Ray <input type="checkbox"/> Density <input type="checkbox"/> Sonic <input type="checkbox"/> Neutron <input type="checkbox"/> Other: _____	
Name of organization running log(s): <u>USGS, 3095 W. California Ave, Ruston, LA 71270 (318) 251-9630 x13</u>	
Purpose of borehole (check one): <input type="checkbox"/> Water Well <input checked="" type="checkbox"/> Geotechnical/Geological Investigation <input type="checkbox"/> Ground Source Heat Pump <input type="checkbox"/> Seismic Survey <input type="checkbox"/> Other (describe) _____	
<i>If drilling is not related to water well construction, skip the remainder of this block</i>	
Purpose of Well (check all applicable): <input type="checkbox"/> Home <input type="checkbox"/> Industrial <input type="checkbox"/> Public Supply <input type="checkbox"/> Irrigation <input type="checkbox"/> Fish Culture <input checked="" type="checkbox"/> other	
Other (describe): <u>monitoring well</u>	
If a flowing well, method of flow regulation: Valve _____ Other (describe) _____	
Static Water Level: <u>51.33</u> feet <input type="checkbox"/> above or <input checked="" type="checkbox"/> below land surface Date measured: <u>7/24/2019 @ 1625</u> <i>(check one)</i>	
Method of measurement (check one) <input type="checkbox"/> Steel tape <input checked="" type="checkbox"/> Electric tape <input type="checkbox"/> Air line <input type="checkbox"/> Other (describe): _____	
Well depth: <u>79.5</u> Well grouted to a depth of: <u>30</u> feet Type of grout (check one): <input checked="" type="checkbox"/> Neat Cement <input type="checkbox"/> Bentonite <input type="checkbox"/> Mix	
Casing length: <u>69.5</u> feet Casing diameter: <u>2</u> inches Type of casing: <u>PVC</u>	
Screen length: <u>10</u> feet Screen diameter: <u>2</u> inches Type of screen: <u>PVC</u>	
Screen slot size: <u>0.010</u> inches Setting depth: From <u>69.5</u> feet to <u>79.5</u> feet	
Type of completion (check all applicable): <input type="checkbox"/> Gravel packed <input type="checkbox"/> Underreamed <input type="checkbox"/> Open hole <input checked="" type="checkbox"/> Natural Development	
Other (describe): _____	
Top of lap pipe or reduction in casing: <u>NA</u> feet	
<i>If telescoped or more than one screen, describe on next page</i>	

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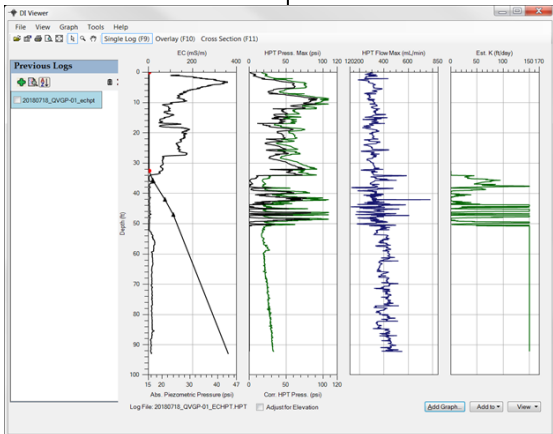
Permit #: _____

The sketch below only required for water wells

If well telescopes, show depths on sketch.

Ground Level 121 ft

Geoprobe ECHPT log from site on 7/18/2018.



Description of formations encountered must be provided for all wells and boreholes, unless specifically exempted by regulations

Description of Formations Encountered	From (depth)	To (depth)
	Ground level	
Description of Geoprobe direct-push		
Pushed easily	0	~35
(likely some clay nr the upper part;	35	79.5
then likely sand 35-78 ft bls)		



If more than one screen, show location of each on sketch

Sketch the property layout and include the following:

Landowner Name: _____

I HEREBY CERTIFY that the well/borehole was drilled, constructed, and completed in accordance with all applicable requirements of the Mississippi Department of Environmental Quality and the Mississippi Department of Health regulations, if applicable, and state laws.

Roland W Tollett

8/23/2019

ROLAND TOLLETT Digitally signed by ROLAND TOLLETT Date: 2019.08.23 14:50:42 -05'00'

Print Name of Responsible Licensee and License No.

Date

Signature of Licensee

Driller: Roland W Tollett, USGS, 3095 W California Ave, Ruston, LA 71270 [318-245-8639] (MS LIC RMO-00009026)

Site number: **[083F0239]** LEFLORE QV-01a

Drill date: 20190723 @0900

Plugged date: active monitoring well

Site type: USGS monitoring well

Well depth: 79.5 ft bls (MP=2.5 ft bls)

EC-log depth none

Rig Type: Geoprobe 7822DT

Lat/Long 33.63477 -090.40134 +- 2ft

Sec Township Range: NE1/4,NE1/4,S04,T20N,R02W

Land surface elevation: 36.9 meters (121 feet; accuracy 1.6 ft) [data source: DEM]

Topo Map Name: Shellmound, MS

County/Parish: 083 Leflore County, MS (1:24,000)

HUC code: 080302070705 Pecan Bayou

MAPS site_no for USGS NWIS: 333805090240501

Land owner: Watson Pillow



******* USER NOTES *******

Drilled by Roland (USGS Ruston LA) and Wesley Bolton (USDA ARS Oxford MS).

Driller notes (ROP is rate of penetration; TOC is top of 2" PVC casing):

0-60 ft intervals pushed moderately easily; ROP was about 1 inch per 0.5 to 1.0 second.

60-79 ft intervals pushed slightly more difficult.

No clay was seen on the wiper after pulling rods.

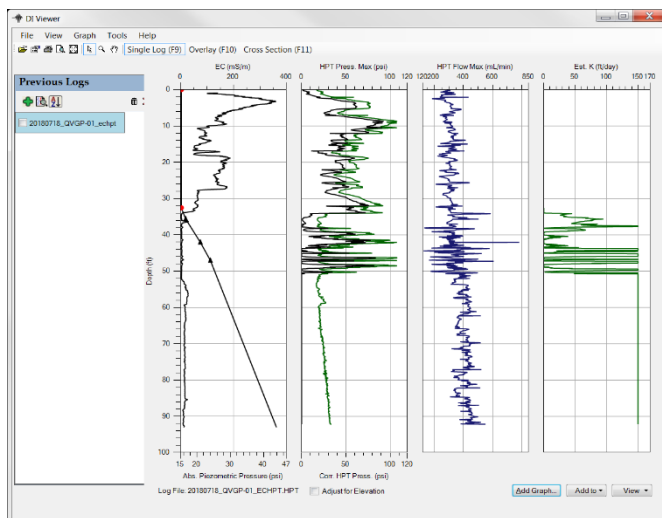
Well construction: This 2" PVC monitoring well is ~82.7 ft from bottom of point to TOC with a 10 ft screen; screened interval is 69.5-79.5 ft bls; MP is 2.5 above land surface with aluminum protective riser and 2.0 ft radius concrete slab; a 4" point was added to btm of casing; about 15 gallons of tap water were poured into PVC casing prior to pulling rods; this technique was used to balance and equalize pressure.

About 2 cups of bentonite granules were poured into the annular space of the borehole and bridged over around 30 ft below land surface (bls). Portland cement at a tap water ratio of 5-6 gals per 92-lb bag was used to seal the borehole from about 30 ft bls to land surface.

Water level:

7/24/19 @ 1625 = 54.83 – 2.50 (MP) - 1.0 (tape offset) = 51.33 ft bls (measured with an etape by rtollett USGS)

Reference QV-01-BH direct-pushed on 20180718 for ECHPT log information near this site.





USGS/USDA-ARS QV-01a (continued)

Figure 1. Location of monitoring well QV-01a near Shellmound, MS.

USGS New Site Sheet Form - MAPS

File Tables Search Network Help

NEW SITE

- Site
- Datums
- Physical Characteristics
- Administrative
- Groundwater
- Other Data Available
- Miscellaneous Values
- Special Cases
- Spring

Site Record

Agency Code: USGS : U.S. Geological Survey Site Number: 333805090240501 Site Type Code: GW

Station Name: QV-01a Agency Use Code: []

Coordinate/Altitude Data

Latitude: 333805.17 Longitude: 0902404.82 Coordinate Accuracy: H: Hndrth secur Coordinate Method: G: GPS

Coordinate Datum: NAD83: NA Datum of 1983 Latitude NAD83 in decimal degrees Longitude NAD83 in decimal degrees

Altitude in ft: 121 Altitude Datum Code: NAVD83: V Datum of 1988 Altitude Method Code: N: DEM Altitude Accuracy Value in ft: []

Surface Water Data

Drainage Area in sq mi: [] Basin Code: []

Contributing Drainage Area in sq mi: []

Hydrologic Unit Code: 080302070705: Pecan Bayou

Spatial Data

Land Net: S04 T20N R02W 0 Topographic Code: []

Map Name: RATTLESNAKE BAYOU, M Map Scale: 24000

Groundwater Data

Aquifer Code: [] National Aquifer Code: []

Aquifer Type Code: [] Well Depth in ft: [] Hole Depth in ft: [] Source of Depth: []

Administrative Data

Country Code: US: United States State Fips Code: 28: Mississippi County Fips Code: 083: Leflore Co Minor Civil Division: 91854: District 3 District Code: 28: MISSISSIPPI Time Zone Code: CST : Central Standard Daylight Savings Time Flag: Y: Yes

Use Data

Primary Use of Site: [] Secondary Use of Site: [] Tertiary Use of Site Code: [] Primary Use of Water Code: [] Secondary Use of Water Code: [] Tertiary Use of Water Code: [] National Water Use Code: []

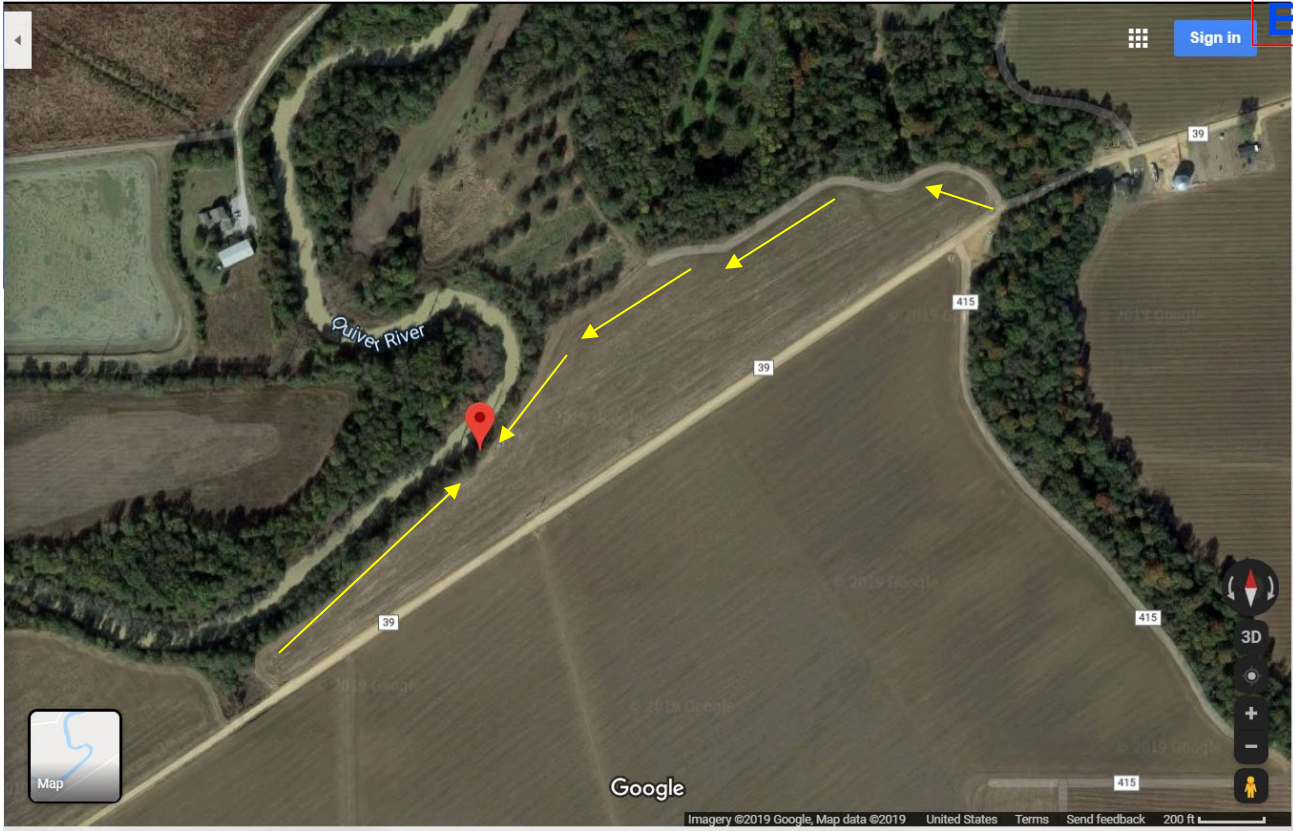
Data Collection and Dates

Data Reliability Code: [] Site Establishment Date: [] First Construction Date: []

Instruments: [] Data Types: []



USGS/USDA-ARS QV-01a (continued)



USGS/USDA-ARS QV-01a (continued)

