

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)

For Office Use Only:

Well #: **H184**

Aquifer: _____

E-Log #: _____

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12-03-2019

BY OLWR

County: Leflore, MS
Permit #: _____
Driller: Roland W Tollett (RMO-00009026)
Date drilling completed: 07/10/2019

USGS site name: OW-12

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.

<p>(Landowner if borehole is not for a water well)</p> <p>Owner Name: <u>(landowner)</u></p> <p>Mailing Address: <u>USGS (driller - rtollett@usgs.gov)</u> <u>3095 W. California Ave</u></p> <table><tr><td><u>Ruston</u></td><td><u>LA</u></td><td><u>71270</u></td></tr><tr><td>City</td><td>State</td><td>Zip Code</td></tr></table> <p><u>318</u> <u>251-9630</u> (245-8639 cell)</p>	<u>Ruston</u>	<u>LA</u>	<u>71270</u>	City	State	Zip Code	<p><input checked="" type="checkbox"/> Well or <input type="checkbox"/> Borehole Location</p> <p>Latitude: <u>33.60052</u> Longitude: <u>-090.23463</u></p> <p>Method of Lat/Long (check one): Conventional Survey _____, USGS quad _____, Hand-held GPS <u>X</u>, Survey-grade GPS _____</p> <p><u>SE</u> $\frac{1}{4}$ <u>NW</u> $\frac{1}{4}$, Sec <u>18</u> T <u>20N</u> R <u>01E</u></p> <p><u>7.5</u> Miles <u>North</u> of <u>Greenwood MS</u> (Distance) (Direction) (Nearest Town)</p>
<u>Ruston</u>	<u>LA</u>	<u>71270</u>					
City	State	Zip Code					

Well / Borehole Data	
Date drilling started: <u>7/10/2019</u> Date drilling completed: <u>7/10/2019</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) _____	
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>21.14</u> feet <input type="checkbox"/> above or <input checked="" type="checkbox"/> below land surface Date measured: <u>7/11/2019 @ 0900</u> (check one)	
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>78</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>68</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>68</u> feet to <u>78</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	

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

Site number: [083H0184] LEFLORE OW-12

Drill date: 20190710 @1300

Plugged date: active monitoring well

Site type: USGS monitoring well

Well depth: 78 ft bls (MP=2.5 ft bls)

EC-log depth none

Rig Type: Geoprobe 7822DT

Lat/Long 33.60052 -090.23463 +- 6ft Sec Township Range: SE1/4,NW1/4,S18,T20N,R01E

Land surface elevation: 41.1 meters (135 feet; accuracy 1.6 ft) [data source: DEM]

Topo Map Name: Shellmound, MS

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

HUC code: 080302020604 Outlet Tallahatchie River

MAPS site_no for USGS NWIS: 333602090140501

Land owner: x



***** 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; likely a coarser sandy zone.

No clay was seen on the wiper after pulling rods.

Well construction: This 2" PVC monitoring well is ~80.5 ft from bottom of point to TOC with a 10 ft screen; screened interval is 68-78 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:

7/11/19 @ 0900 = 24.64 – 2.50 (MP) - 1.0 (tape offset) = 21.14 ft bls (measured with an etape by rtollett USGS)

*Note that all water level tapes used by the USGS are calibrated by the HIF.

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Figure 1. Location of monitoring well OW-12 near Shellmound, MS.



USGS/USDA-ARS OW-12 (continued) (near power pole)

New Site Sheet Form - MAPS

File Tables Search Network Help

NEW SITE

Site Record

Agency Code: USGS : U.S. Geologica Site Number: 333602090140501 Site Type Code: GW

Station Name: [MDEQ no] LEFLORE OW-12 Agency Use Code: []

Coordinate/Altitude Data

Latitude: 333601.87 Longitude: 0901404.67 Coordinate Accuracy: H. Hndrth secon Coordinate Method: G. GPS

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

Altitude in ft: 135 Altitude Datum Code: NAVD88: V Datum of 1988 Altitude Method Code: N. DEM Altitude Accuracy Value in ft: 1.6

Surface Water Data

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

Contributing Drainage Area in sq mi: []

Hydrologic Unit Code: 080302020604- Outlet Tallahatchie Riv

Spatial Data

Land Net: S18 T20N R01E O Topographic Code: []

Map Name: GREENWOOD, MS 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 Stat

State Fips Code: 28: Mississippi

County Fips Code: 083: Leflore Cox

Minor Civil Division: 91116: District 2

District Code: 28: MISSISSIPP

Time Zone Code: CST : Central Standar

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

Date of Establishment: [] Site Establishment Date: [] First Construction Date: []



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