

STATE WELL REPORT

Part 1

County: HINDS
 Permit #: MS-GW-02423 **GW17033**
 Driller: LAYNE CHRISTENSEN
 Date drilling completed: 1/7/2013

Driller's Log
 Mississippi Department of Environmental Quality
 Office of Land and Water Resources
 P.O. Box 2309
 Jackson, MS 39225-2309
 (601)961-5210
 (601)360-0535 (fax)

For Office Use Only:
 Well #: N-159
 Aquifer: _____
 E-Log #: _____

Lease owner - Hinds Co Board of Supervisors

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 <small>(Landowner if borehole is not for a water well)</small>	Well or Borehole Location
Applicant: <u>BASF CATALYSTS, LLC</u> Owner Name: _____ Mailing Address: <u>600 EAST MCDOWELL ROAD</u> _____ JACKSON MS 39204 City State Zip Code Telephone No. (601) <u>985-4849</u>	Latitude: <u>N 32° 16' 00" 26</u> Longitude: <u>W 90° 12' 42" 26</u> Method of Lat/Long (check one): Conventional Survey _____, USGS quad _____, Hand-held GPS <input checked="" type="checkbox"/> , Survey-grade GPS _____ <u>SW</u> 1/4 <u>SW</u> 1/4, Sec 16 T 5 N R 1 E _____ Miles of _____ JACKSON (Distance) (Direction) (Nearest Town)

Well / Borehole Data

Date drilling started: 11/26/2012 Date drilling completed: 1/17/2013 Hole depth: 817' Hole diameter: 18"
 Location of the source of any surface water used for drilling: N/A
 Method of dosing and volume of Chlorine used in drilling and development: N/A
 Logs run (circle all applicable): No log run Electric Gamma Ray Density Sonic Neutron Other: _____
 Name of organization running log(s): LAYNE CHRISTENSEN COMPANY, JACKSON, MS
 Purpose of borehole (circle one): Water Well Geotechnical/Geological Investigation Ground Source Heat Pump
 Seismic Survey Other (describe) _____

If drilling is not related to water well construction, skip the remainder of this block

Purpose of Well (circle all applicable): Home Industrial Public Supply Irrigation Fish Culture
 Other (describe): _____
 If a flowing well, method of flow regulation: Valve _____ Other (describe) _____
 Static Water Level: 308 feet [above or below] land surface Date measured: 1/17/2013
(circle one)
 Method of measurement (circle one): Steel tape Electric tape Air line Other (describe): _____
 Well depth: 790' Well grouted to a depth of: 751 feet Type of grout (circle one): Neat Cement Bentonite Mix
 Casing length: 751 feet Casing diameter: 10 inches Type of casing: STEEL
 Screen length: 40 feet Screen diameter: 6 inches Type of screen: SS WR
 Screen slot size: 0.020 inches Setting depth: From 750 feet to 790 feet
 Type of completion (circle all applicable): Gravel packed Underreamed Open hole Natural Development
 Other (describe): _____
 Top of lap pipe or reduction in casing: 707 feet

If telescoped or more than one screen, describe on next page

RECEIVED
JAN 30 2015
BY: OLWR

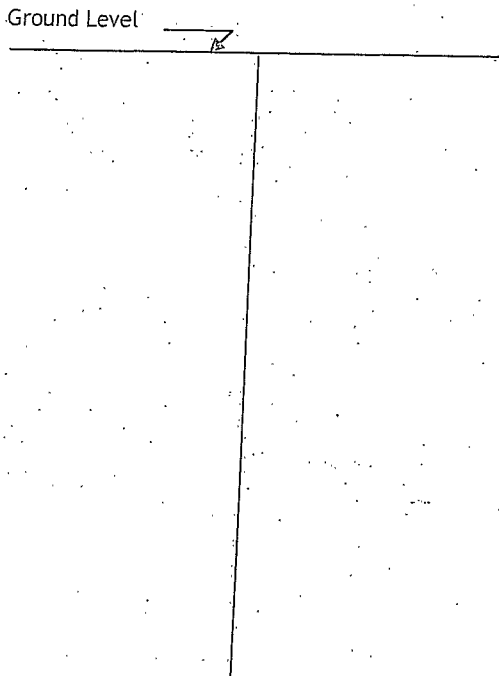
Replaced GW-02424

County: HINDS
 Permit #: MS-GW-02423
GW 17033

For Office Use Only:
 Well #: N

*The sketch below only required for water wells
 If well telescopes, show depths on sketch.*

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



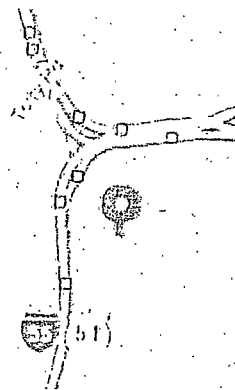
Description of Formations Encountered	From (depth)	To (depth)
TOP SOIL	Ground level	5
SANDY CLAY	5	15
YELLOW CLAY	15	30
BLUE CLAY W/ GRAVEL STREAKS	30	177
SOFT SHALE	177	236
SHALE & LIGNITE	236	267
SHALE W/ STREAKS OF SAND	267	299
SHALE W/ SAND STREAKS	299	331
SANDY SHALE	331	424
SHALE & SAND STREAKS	424	455
SHALE & CLAY	455	487
CLAY W/ HARD SHALE STREAKS	487	518
SANDY SHALE	518	706
SAND	706	797

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

Sketch the property layout and include the following:

- 1) the well location
- 2) any permanent structures on the property that may aid in locating the well
- 3) any roads, power lines, or other items that may aid in locating the property and the well
- 4) north arrow

NORTH



NOT TO SCALE

RECEIVED
 JAN 30 2015
 BY: OLIVER

Landowner Name: BASF CATALYSTS, LLC

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.

JOEY SAVORGNAN UNR-00000766

Print Name of Responsible Licensee and License No.

Date

Signature of Licensee

RECEIVED
 JAN 30 2015
 BY: OLWR

STATE WELL REPORT

County: HINDS **GW 17033** Part 2
 Permit #: ~~MS-GW-02423~~
 Driller: LAYNE CHRISTENSEN
 Date completed: 1/17/2013
 Copy information from block on Part 1

Pump Installer's Completion Report
 Mississippi Department of Environmental Quality
 Office of Land and Water Resources
 P.O. Box 2309
 Jackson, MS 39225-2309
 (601)961-5210
 (601) 360-0535 (fax)

For Office Use Only
 Well #: N-
 Aquifer: _____

This part of the report must be completed by a licensed water well contractor or a licensed pump installer. A copy of Part 1 of the report must be attached and both parts filed with the Department at the above address within 30 days of well completion.

Well Owner Information			Well Location		
Owner Name:	BASF CATALYSTS, LLC		Latitude:	N 32' 16.097	Longitude: W' 90' 12.429
Mailing Address:	500 EAST MCDOWELL ROAD.		Method of Lat/Long (check one):	Conventional Survey _____	
	JACKSON	MS 39204	USGS quad _____, Hand-held GPS <input checked="" type="checkbox"/> _____, Survey-grade GPS _____		
City	State	Zip Code	SW 1/4 _____ 1/4, Sec 16 T. 5 N R 1 E		
Telephone No. (601) 985-4849			_____ Miles of _____	JACKSON	
			(Distance) (Direction)	(Nearest Town)	

Pump Type (circle one)
 Submersible Turbine Air Lift Centrifugal Flowing Well Jet Piston Rotary Other (describe): _____
 Date Pump Installed: 1/25/2013 Rated Pump Capacity: 300 Gallons Per Minute
 Is This Pump (circle one): New Repaired Replacement

Power Type (circle one)
 Electric Diesel Gasoline Natural Gas Tractor PTO Windmill Other (describe): _____
 Horse Power Rating of Motor: 60 Setting Depth: 468 feet Number of Stages: 4

Pump Test Data for Non Flowing Well
 Date Well Tested: 1/10/2013 Duration of Pump Test (minimum 4 hours): 6 hours
 Static Water Level (A): 300 Feet Below Land Surface Pumping Water Level (B): 320 Feet Below Land Surface
 Drawdown [(B) - (A)]: 20 Feet Below Land Surface Test Pumping Rate: 300 Gallons Per Minute
 Method of measurement (circle one): Steel tape Electric tape Air line Other (describe): _____

Pump Test Data for Flowing Well
 Measured shut in head: _____ feet.
 Well yielded _____ GPM with a drawdown of _____ feet after _____ hours of pumping

Meter Installation
 Meter Manufacturer: _____ Meter Serial Number: _____
 Meter Model Number/Name: _____ Type of Meter: _____
 Totalizer Register Unit and Multiplier Factor (AF x .001, gal x 1000, etc): _____
 Installation Date: _____ Meter installed by: _____
 Is This Meter (circle one): New Repaired Replacement
 Important: By submitting the above information you are certifying that this meter was installed to manufacturer standards. For agricultural wells, a list of approved meters is on the MDEQ website.

I HEREBY CERTIFY that the above statements are true to the best of my knowledge.
 JOEY SAVORGNAN UNR-00000766
 Print Name of Pump Installer and License No. (if applicable) Date: _____ Signature of Pump Installer