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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)961-5210
(601)360-0535 (fax)

RECEIVED
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County: Claiborne
Permit #: C-W 173cc
Driller: John W Thompson
Date drilling completed: 9-28-17

For Office Use Only
Well #: K66 (268)
Aquifer:
E-Log #:

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
(Landowner if borehole is not for a water well)

Owner Name: Lorman Water Works
Mailing Address: 67 Oak St
Lorman MS 39096
City State Zip Code
Telephone No. (____)

Well or Borehole Location

Latitude: N 31° 52' 45" Longitude: W 91° 7' 56"
Method of Lat/Long (*check one*): Conventional Survey____, USGS quad____, Hand-held GPS____, Survey-grade GPS____
IR ¼ IR ¼, Sec 60 T 11N R 1E
10 Miles (*Distance*) SW (*Direction*) of Port Gibson (*Nearest Town*)

Well / Borehole Data

Date drilling started: 7-11-17 Date drilling completed: 9-28-17 Hole depth: 480 Hole diameter: ____
Location of the source of any surface water used for drilling: Fire Hydrant
Method of dosing and volume of Chlorine used in drilling and development: ____
Logs run (*circle all applicable*): No log run Electric Gamma Ray Density Sonic Neutron Other: ____
Name of organization running log(s): Layne
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: 247 feet [above or (below)] land surface (*circle one*) Date measured: 9-28-17
Method of measurement (*circle one*): Steel tape Electric tape Air line Other (*describe*): ____
Well depth: 460 Well grouted to a depth of: 415 feet Type of grout (*circle one*): Neat Cement Bentonite Mix
Casing length: 415 feet Casing diameter: 16 inches Type of casing: Steel
Screen length: 42.5 feet Screen diameter: 10" inches Type of screen: Stainless wrap rod base
Screen slot size: .02 inches Setting depth: From 417.5 feet to 460 feet
Type of completion (*circle all applicable*): Gravel packed Underreamed Open hole Natural Development
Other (*describe*): ____
Top of lap pipe or reduction in casing: ____ feet

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

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County: _____

Permit #: _____

For Office Use Only:

Well #: _____

The sketch below only required for water wells

If well telescopes, show depths on sketch.

Ground Level

see attached drawing

If more than one screen, show location of each 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) Ground level	To (depth)
brown clay		110
fine sand	110	150
coarse sand / pea gravel	150	223
blue clay	223	276
rock	276	277
fine sand	277	282
blue clay	282	318
rock	318	320
blue clay	320	385
sand & clay	385	400
fine sand	400	440
med. sand	440	460
clay	460	480

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

see attached map

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.

John W Thompson 0-679 — Print Name of Responsible Licensee and License No.

10-17-17 — Date

John W Thompson — Signature of Licensee

Form: OLWR-SWR-1A (4/13)

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STATE WELL REPORT
Part 2
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)

County: Claiborne
Permit #: GW173CC
Driller: John W Thompson
Date completed: 9-28-17
Copy information from block on Part 1

For Office Use Only:
Well #:
Aquifer:

This part of the report must be completed by a licensed water well contractor or a licensed pump installer. A copy of Part I 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

Owner Name: Lorman Water Works
Mailing Address: 67 Oak St
Lorman MS 39096
City State Zip Code
Telephone No. (____)

Well Location

Latitude: 31°52'45" Longitude: 91 7'56"
Method of Lat/Long (*check one*): Conventional Survey____, USGS quad____, Hand-held GPS____, Survey-grade GPS____
____¼ ____¼, Sec 60 T 11N R 1E
10 Miles (*Distance*) 5 (*Direction*) of Port Gibson (*Nearest Town*)

Pump Type (*circle one*)

Submersible Turbine Air Lift Centrifugal Flowing Well Jet Piston Rotary Other (*describe*): ____
Date Pump Installed: 12-2-18 Rated Pump Capacity: 225 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: 370 feet Number of Stages: ____

Pump Test Data for Non Flowing Well

Date Well Tested: 12-2-18 Duration of Pump Test (*minimum 4 hours*): 4 hours
Static Water Level (A): 279 Feet Below Land Surface Pumping Water Level (B): 339 Feet Below Land Surface
Drawdown [(B) - (A)]: 60 Feet Below Land Surface Test Pumping Rate: 225 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

John W Thompson 0-679 — Print Name of Pump Installer and License No. (*if applicable*)
12-26-18 — Date
John W Thompson — Signature of Pump Installer

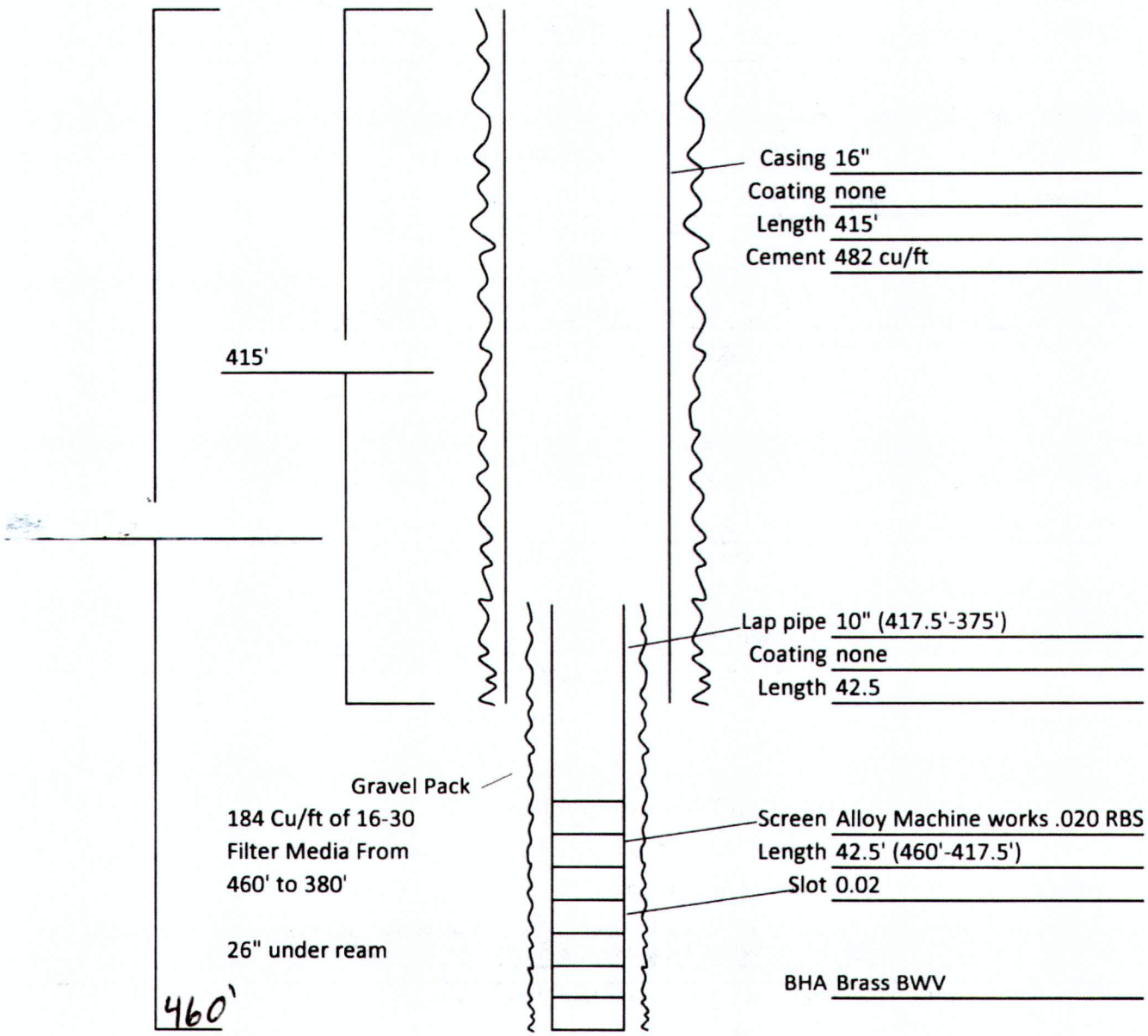
Form: OLWR SWR-1B (4/13)

Thompson Brothers Drilling
"Our Most Important Asset Wears a Hardhat"
5410 Highway 11 North * Ellisville, MS 39459 * 601-425-0970

Water Well Dimensions

Well Name Lorman Well 5

Owner Lorman Water Works



Casing 16"
Coating none
Length 415'
Cement 482 cu/ft

Lap pipe 10" (417.5'-375')
Coating none
Length 42.5

Screen Alloy Machine works .020 RBS
Length 42.5' (460'-417.5')
Slot 0.02

BHA Brass BWV

Thompson Brothers Drilling
"Our Most Important Asset Wears a Hardhat"
538 Moselle Seminary Road • Moselle, MS 39459 •(601) 425-0970

PUMPING TEST

Date 12/2/2018 Formation Miocene County Jefferson

Well Observed Lorman Owner Lorman Water Association

Well Pumped Lorman Average Discharge 225 GPM By Orifice

Static Water Level 279' Pump On 11:40 a.m. Pump Off 3:40 p.m.

Time	T (Mins.)	T (Mins.)	Tape Held	Wetted	Water Level		P.S.I.	IN	GPM	
11:40					324		110	12	225	
12:40					334		110	12	225	
1:40					335		110	12	225	
2:40					338		110	12	225	
3:40					339		110	12	225	
3:45					293					
3:50					290					
3:55					288					
4:00					285					

Observer _____ Page 1 of 1

Pump Data Sheet - American Turbine

Company: Thompson Brothers Drilling
Name: Lorman
Date: 10/2/2017

Q-67455-1

Pump:

Size: 10-L-20 (11 stage)
Type: VERT.TURB.ENCLOSED
Synch Speed: 1800 rpm
Speed: 1770 rpm
Dia: 7.7 in
Curve: CV10-L-204P6CY
Impeller: 10-L-20
Specific Speeds
Ns: 1600
Nss: 7700
Dimensions:
Suction: ---
Discharge: ---
Vertical Turbine:
Bowl Size: 9.72 in
Max Lateral: 0.29 in
Thrust K Factor: 4.8 lbf/ft

Pump Limits:

Temperature: 180 °F
Pressure: 360 psi g
Sphere Size: 0.55 in
Power: 284 hp
Eye Area: 8.98 in²

Search Criteria:

Flow: 225 US gpm
Head: 563 ft

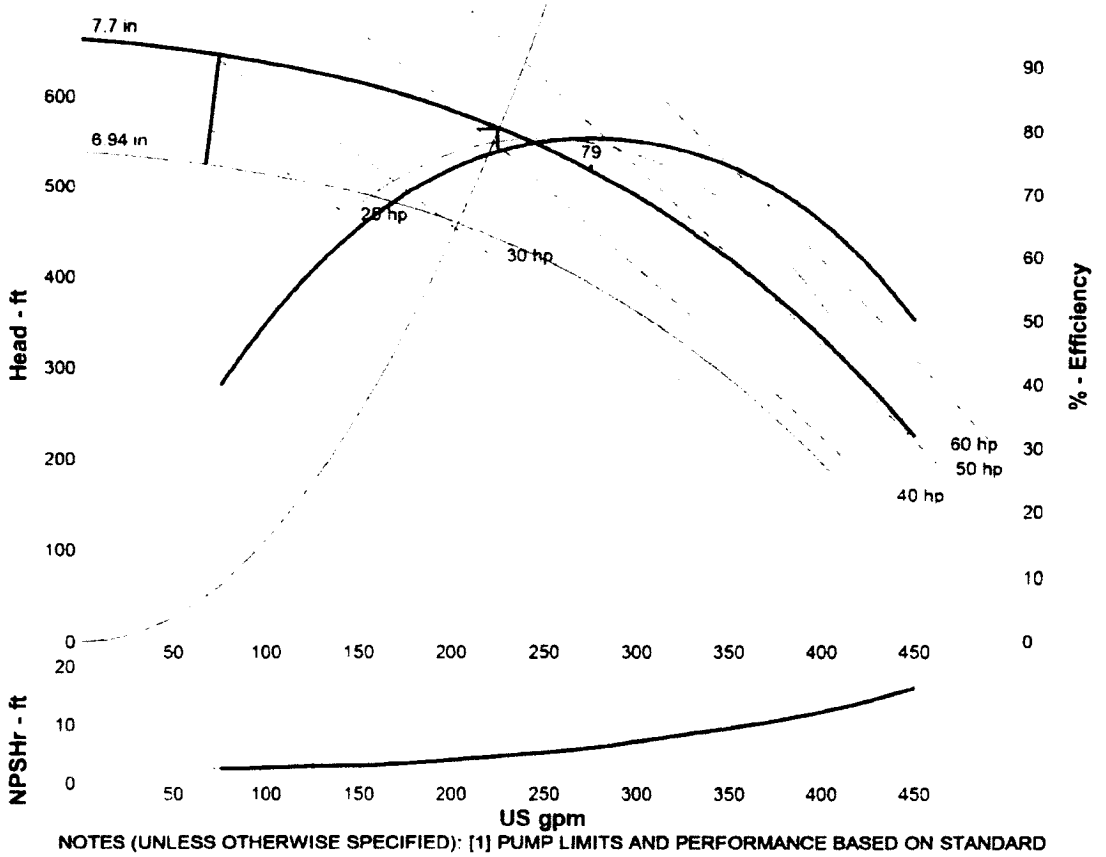
Fluid:

Water
Density: 62.32 lb/ft³
Viscosity: 0.9946 cP
Temperature: 68 °F
Vapor Pressure: 0.3391 psi a
Atm Pressure: 14.7 psi a
NPSHa: ---

Motor:

Standard: NEMA
Enclosure: WP-I
Size: 60 hp
Speed: 1800 rpm
Frame: 364
Sizing Criteria: Max Power on Design Curve

--- Duty Point ---	
Flow	225 US gpm
Head:	564 ft
Eff	76.6%
Power:	41.7 hp
NPSHr:	4.64 ft
--- Design Curve ---	
Shutoff Head:	662 ft
Shutoff dP:	287 psi
Min Flow:	74.3 US gpm
BEP:	79% @ 275 US gpm
NOL Power:	51 hp @ 404 US gpm
-- Max Curve --	
Max Power:	51 hp @ 404 US gpm



NOTES (UNLESS OTHERWISE SPECIFIED): [1] PUMP LIMITS AND PERFORMANCE BASED ON STANDARD MATERIALS. [2] PERFORMANCE MEETS HI 14.6-2011 GRADE 1B TOLERANCES AT THE RATED CONDITION WITHIN THE SELECTION WINDOW. [3] NPSHR AT 1ST STAGE IMPELLER CENTERLINE.

Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
270	1770	522	78.9	45	5.86
225	1770	564	76.6	41.7	4.64
180	1770	597	70.9	38.2	3.54
135	1770	621	60.6	34.7	3.01
90	1770	639	45.5	31.5	2.63