STARTED WELL May 14, 2002 AND COMPLETED August 1, 2002
TOTAL DEPTH 1426' ELEVATION 1426' STATIC WATER LEVEL 132'
LENGTH SURFACE CASING 48' SIZE 24" THICKNESS 250
CEMENTED WITH 30 SACKS CEMENT TYPE PACKER
LENGTH WELL CASING 1317' SIZE 20' WEIGHT 375 Wall
CEMENTED WITH 300 SACKS CEMENT TYPE PACKER W/A
INNER CASING LENGTH 60' SIZE 12' WEIGH 304 SS
WITH Fish X Pack GUIDES LOCATED 10' T & B TYPE BACKOFF
LEAD SEAL Cement BACKPRESSURE VALVE___ GUIDE
WELL STRAINER MAKE Houston W W SIZE 12 LENGTH 100 OPENING 20 Slot
TYPE MATERIAL 304 Stainless WITH Weld & Weld CONNECTIONS
SIZE HOLE DRILLED FOR SURFACE CASING 30' WITH Roller
SIZE HOLE DRILLED FOR WELL CASING 25' WITH Roller
SIZE HOLE DRILLED FOR STRAINER 20' WITH Layne Underreamer
YARDS OF GRAVEL USED 19 Bags HOW PLACED Gravel Line
HOW WELL WAS DEVELOPED Air Lift
NOTES: Odelay Norton 16 - 30 Gravel Pack

RIG USED Witches-Tex DRILLER Kevin Mitchell
SERIAL NUMBER _ MAKE _ FOUNDATION
LENGTH COLUMN SIZE TYPE 10 LENGTHS
BOWL SIZE TYPE STAGES MATERIAL IMPELLER
MATERIAL BOWL WITH PLOTS AND SHAFT
SUCTION SIZE LENGTH SUCTION STRAINER
IS PUMP SEALED HOW WHERE WITH WHAT
LUBRICATOR TYPE SIZE VOLTAGE
LENGTH OF AIRLINE SIZE VOLTAGE
AIR RELEASE VALVE TYPE SIZE
SIZE SURFACE DISCHARGE TYPE DAYTON COUPLING
PRESSURE GAUGE _ SPEED
NOTES:
RIG USED TO SET PUMP INSTALLER
DATE PUMP INSTALLED 20 DATE IN OPERATION 20
MAKE __ HP__ FRAME
PHASE __ CYCLE __ VOLT 220
SPEED __ MODEL __ SERIAL NUMBER
TOP BEARING __ BOTTOM BEARING __ RATCHET
STARTER __ PRESSURE SWITCH __ FLOAT

MAKE __ MODEL __ SIZE __ RATIO __ NO.
SIZE PULLEY __ TYPE MOTOR FRAME

MAKE __ MODEL __ HP __ SERIAL NUMBER
SPEED __ SIZE PULLEY FOUNDATION
TYPE FUEL TANK MAKE MAG __ NO.
MAKE STARTER __ NO. __ TYPE FUEL
MAKE FLEXIBLE SHAFT __ SIZE
LENGTH __ BELT LENGTH

PURPOSE FOR WHICH THIS WATER IS USED Industrial
TEMPERATURE __ IS WATER CLEAR __ CAPACITY 1205 gpm
SAND __ HARDNESS __ PH __ IRON __ NACL
TYPE TREATMENT USED
IS THERE A DERRICK OVER THE WELL __ SIZE HEIGHT __ TYPE
CAN TRUCK OR RIG EASILY GET TO WELL __ YES
PUMP HOUSE __ SIZE HATCH

CONTRACT NO. 57-5194
OUR WELL NO. 4 THEIR WELL NO. 4 IN TEST HOLE 1
LOCATION OF THE WELL NEPESO/SNC - Southaven Plant
INSTALLED FOR NEPESO
ADDRESS CITY Southaven COUNTY Desoto STATE Mississippi

YEAR 2002

RECEIVED
SEP 03 2002
BY: OLWR
# Formation Log of the Well or Test Hole

**Started Test Hole**: 5/14/20 02  
**Finished**: 5/21 20 02  
**Test Hole Number**: 4

**Location**: NEPCO Well #4  
**Sec**: ____  
**TS**: ____  
**Range**: ____  
**Elevation**: ____

<table>
<thead>
<tr>
<th>Total Depth</th>
<th>Thickness Each Stratum</th>
<th>Formation</th>
<th>Total Depth</th>
<th>Thickness Each Stratum</th>
<th>Formation</th>
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<tbody>
<tr>
<td>0-15</td>
<td>15</td>
<td>Clay</td>
<td></td>
<td></td>
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<tr>
<td>15-39</td>
<td>24</td>
<td>Med Sand w/Gravel</td>
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<tr>
<td>39-190</td>
<td>151</td>
<td>Med to Hard Clay</td>
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<tr>
<td>190-250</td>
<td>60</td>
<td>Med to Fine Sand w/ Clay Streaks</td>
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<tr>
<td>250-310</td>
<td>60</td>
<td>Coarse to Med Sand</td>
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<td>310-342</td>
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<td>Med to Fine Sand w/ Clay Streaks</td>
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<td>342-460</td>
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<td>Coarse to Med Sand</td>
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<td>460-565</td>
<td>105</td>
<td>Soft to Med Clay w/ Sand Lenses</td>
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<td>565-588</td>
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<td>Med to Fine Sand w/ Clay &amp; Lignite</td>
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<td>695-776</td>
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<td>Med Sand w/Lignite</td>
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<td>776-830</td>
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<td>Fine Sand w/ Clay Layers</td>
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<td>830-980</td>
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<td>980-1239</td>
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<td>Hard to Med Clay</td>
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<td>1239-1375</td>
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<td>Fine Sand w/ Clay Streaks</td>
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<td>1375-1428</td>
<td>53</td>
<td>Fine Sand w/ Lots of Clay</td>
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<td>1428-1460</td>
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<td>Med to Coarse Sand w/ Clay</td>
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<tr>
<td>1460-1515</td>
<td>55</td>
<td>Coarse Sand w/ Lignite</td>
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<td>1515-1553</td>
<td>38</td>
<td>Soft Med Clay</td>
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**TOTAL DEPTH = 1553'**

---

**Test Data Final Test**

<table>
<thead>
<tr>
<th>Static Water Level</th>
<th>Pumped GPM</th>
<th>Pressure Pounds</th>
<th>Draw Down</th>
<th>GPFD</th>
<th>Guaranteed GPM</th>
<th>Guaranteed Pressure</th>
<th>Date of Test</th>
<th>Remarks</th>
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<td>3. 1303-1335</td>
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<td>4. 1335-1360</td>
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<td>5. 1366-1397</td>
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<td>6. 1397-1428</td>
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<tr>
<td>7. 1428-1460</td>
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<tr>
<td>8. 1460-1491</td>
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<td>9. 1491-1522</td>
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</tr>
</tbody>
</table>

**RECEIVED**

**Sep 03, 2002**

**By: OLWR**

**Driller**: Kevin Mitchell  
**Field Supt**: Andrew Crawford
If well telescopes please sketch and show depths.

GROUND LEVEL

SECTION

Please indicate well location X.

ADDITIONAL INFORMATION

If more than one screen, show location of each on sketch.
**MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY**

Office of Land and Water Resources

P. O. Box 10631
Jackson, MS 39289-0631
WATER WELL DRILLERS LOG

### WELL DATA

- **Well Number:** 4
- **Well Name:** Southern Power LLC
- **Well Address:** #4905 Artesian Park Blvd
- **City:** Charlotte, NC 28273
- **Latitude:** 34° 59' 41" N
- **Longitude:** 90° 02' 23" W
- **Well Location:** 15T 17S 8R
- **Distance:** 2 Miles West of Hwy 51
- **Other Landmark:** 5 Miles S of Hwy 51/Heepo Power
- **WELL PURPOSE**: Home, Irrigation, Municipal, Industrial, Fish Pond, etc.
- **INJURY DRAINAGE**: NI

### PUMP DATA

- **PUMP TYPE (Circle One):** Turbine
- **Flow:** Jet
- **Flowing Well:** No
- **Other (Describe):**
- **POWELL TYPE (Circle One):** Electric Tractor, Diesel, Gasoline, Butane
- **Other (Describe):**
- **H/P:** 200
- **Pump Capacity (GPM):** 1205
- **No. of Stages:** 6
- **Setting Depth:** 290 FT

### PUMP TEST

- **Well Yielded:** 1205 GPM with a drawdown of 35 ft.
- **After:** 72 hours of pumping

### WELL DATA

- **Well Depth:** 1429'
- **Casing Diameter (in.):** 20"
- **Casing Length (ft):** 1320'
- **Type of Casing:** 375mm
- **Hole Depth:** 1429'
- **Depth to Static Water Level:** 123.6'
- **TYPE OF COMPLETION: (Circle One or More):** Gravel Packed, Underreamed, Telescoped, Natural Development, Open Hole, Other
- **GEOLOGIC DATA (Office Use Only):**
  - Name of Organization Running Log
  - Type of Log Run (Circle One): No Log Run, Electric Gamma Ray, Density, Sonic, Neutron
  - Other (Describe):

### SCREEN DATA

- **Diameter - Inches:** 12'
- **Length - Feet:** 100'
- **Slot Size - Inches:** 20 slor
- **Screen Type:** 304 Stainless Steel
- **Top of Lap Pipe or Reduction in Casing:** 1929'

### DESCRIPTION OF FORMATIONS ENCOUNTERED

(see attached)

---

**RECEIVED**

**SEP 03 2002**

**BY: OLWR**

---

**DISADVANCED**

**IF MORE SPACE IS NEEDED, USE BACK**
Water level data

This area for location map and notes
<table>
<thead>
<tr>
<th>WELL SCHEDULE</th>
<th>FIPS: 33</th>
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</thead>
<tbody>
<tr>
<td>Recorded by: Phillips</td>
<td>Permit</td>
</tr>
<tr>
<td>Data Source: Driller's log</td>
<td>Date: 10/21/03</td>
</tr>
<tr>
<td>County: DeSoto</td>
<td>Permit No.: GW15558</td>
</tr>
<tr>
<td>Permit No.: GW15558</td>
<td>DOH No.:</td>
</tr>
<tr>
<td>Quad: Horn Lake</td>
<td>Elevation: 275</td>
</tr>
<tr>
<td>¼: ¼: SE ¼: SW ¼: SW Sec.: 15 T: 15 R: 8W</td>
<td></td>
</tr>
</tbody>
</table>

Plotted on quad?: In field? From drillers log? From permit? From GPS? Driller From Quad?

Latitude:       Longitude:       GPS? Driller From Quad?

Primary aquifer: WLCX L Secondary aquifer:

Use: IN Well status: Local well name: Production Well #4

Owner: Peits, Robert D. (Southhaven Power, LLC)

Date completed: 5/21/02 Driller: Layne - Central Well depth: 1429 Hole Depth: 1553

Pump type: T Power type: E Pump capacity: 1205 HP: 200

Casing interval: 0-1317 Casing length: 1317' Casing diameter: 20" Casing type: 5

Casing interval: 1269-1329 Casing length: 60' Casing diameter: 12" Casing type: 5

Screen interval: 1329-1429 Screen length: 100' Screen diameter: 12" Screen type: SS

Screen interval: Screen length: Screen diameter: Screen type:

Type of logs: E Log interval:

Initial water level: 123.6 Date: 5/21/02 M.P. description:

<table>
<thead>
<tr>
<th>Water Quality Data?</th>
<th>Source:</th>
<th>Reliability:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Level Data?</td>
<td>Source:</td>
<td>Reliability:</td>
</tr>
<tr>
<td>Pump Test Data?</td>
<td>Source:</td>
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</tr>
<tr>
<td>Water Use Data?</td>
<td>Source:</td>
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