WATER WELL DRILLERS LOG

**Well #1**

### Landowner:
Southaven, City of Southaven, MS

### Location:
sec. 30 T 13 N R 7 E
Inside City of Southaven

### Description of Formations Encountered:
<table>
<thead>
<tr>
<th>Formation</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>Red Sand</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Red Sand</td>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>Gravel</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Gravel</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Red Sand</td>
<td>70</td>
<td>90</td>
</tr>
<tr>
<td>Blue Gumbo</td>
<td>90</td>
<td>240</td>
</tr>
<tr>
<td>Blue Gumbo &amp; Strk Sand</td>
<td>240</td>
<td>270</td>
</tr>
<tr>
<td>Streaked Sand &amp; Gumbo</td>
<td>270</td>
<td>400</td>
</tr>
<tr>
<td>Sand</td>
<td>400</td>
<td>510</td>
</tr>
</tbody>
</table>

### Well Purpose:
Municipal

### Completion Data:
1. Diameter (inches): 18 x 12
2. Total depth (feet): 478'
3. Static water level (feet): 128 below top of ground
4. Casing: Steel 420' (material) 18' (size) if telescope see back.
5. Screen: 60' 418 (length) 12' Stainless Steel (size) (material)
6. Pump: 75 HP 1033 (yield gpm)
7. Electric: Yes (type power)
8. Electric log: Yes (yes or no)

### Remarks:
12" CI
If well telescopes please sketch and show depths.

GROUND LEVEL

420' of 18" Casing

60' of 12" S.S. Lap Pipe

28" Undersamed hole

Top of Lap 357

60' of Johnson Screen 040 12"

Bottom of B.W. 478

If more than one screen, show locations of each on sketch.

SECTION 30

Please indicate well location X.

ADDITIONAL INFORMATION
State of Mississippi

Department of Natural Resources
Bureau of Land and Water Resources
P.O. Box 10631
Jackson, Mississippi 39209

Permit
TO DIVERT OR WITHDRAW FOR BENEFICIAL USE THE PUBLIC WATERS

This permit is issued to the landowner named below in accordance with the provisions of the Mississippi Water Laws (Section 51-3-1, et seq., Mississippi code of 1972, as amended) and the regulations and standards as promulgated thereunder. Authorization is hereby granted to proceed with the proposed beneficial use subject to the following terms, conditions and limitations:

PERMIT NUMBER: MS-GW-04126
LANDOWNER NAME: City of Southaven
LANDOWNER ADDRESS: P.O. Box 425, Southaven, MS 38671
SOURCE OF WATER: Sparta Aquifer System
BENEFICIAL USE: Municipal
DIVERSION/WITHDRAWAL LOCATION: SW 1/4 of the NE 1/4, Section 30, Township 1 South, Range 7 West
COUNTY: DeSoto
MAXIMUM VOLUME: 0.400 Million Gallons per Day
MAXIMUM RATE: 1000 Gallons per Minute
APPLICANT NAME: City of Southaven
APPLICANT ADDRESS: P.O. Box 425, Southaven, MS 38671
DATE PERMIT ISSUED: November 24, 1987
DATE PERMIT EXPIRES: November 24, 1997
SPECIAL TERMS AND CONDITIONS:

DEPARTMENT OF NATURAL RESOURCES

[Signature]
L. Palmer, Jr.
Executive Director

7/7/95
Replaced by 14981
NOTICE OF CLAIM FOR CONTINUED USE
OF SURFACE/GROUND WATERS FOR BENEFICIAL USE

Pursuant to the laws of the State of Mississippi, namely §51-3-5 (2) or (3), as amended, I, the landowner, _______________________, do hereby file claim for the continued use of: (circle one) ______

- surface water
- ground water

for the following beneficial use: (circle one or more)

- municipal
- irrigation
- recreation
- livestock water
- fish culture
- industrial

Other _______________________

1. Name & Address of agent or applicant if different from landowner.

- Name _______________________
- Address _______________________
- City of Southaven, MS 38671
- P.O. Box 425, Southaven
- (601) 393-5931
- (City or Town)
- (State and Zip)
- (Telephone Number)

2. Location of point of diversion/withdrawal (include location map with claim)

- SE 1/4 of NW 1/4 of Section 50, Township 01S, Range 07W, County Desoto

3. Volume of water diverted/withdrawn:

- (1) _______ acre feet per year, diverted/withdrawn at a maximum rate of _______ gallons per minute; or

- (2) _______ million gallons per day, diverted/withdrawn at a maximum rate of _______ gallons per minute.

4. Description of lands on which water will be used:

- (a) Copy legal description of property upon which water is to be used (may be copied word for word from your deed).
- Attach separate sheet if necessary _______ (see attached sheet)

- (b) Has the above described land any water right or source of water supply other than that herein applied for?

- Water Rights Number(s) _______ none _______ Describe the nature and amount of any additional supply _______

SECTION A (to be completed if source of water is from surface supply)

1. Prior water rights permit/license number _______________________, dated _______

2. Source of supply is _______________________, which drains into _______________________, which drains into _______________________

3. Description of diversion works:

(a) Water obtained directly from stream: _______________________, (Name) _______________________, (Size and type) _______

- Pump _______________________, (Size and type) _______
- Lift _______________________, ft. Maximum capacity _______ gpm

(b) Storage reservoir: _______________________, (Name) _______________________, Height of dam _______ feet. Surface area at normal pool _______ acres. Storage capacity at normal pool _______ acre feet. _______
SECTION B (to be completed if source of water is from underground supply)

1. Source of supply: Sparta aquifer(s)

2. Description of well:
   (a) Well data:
       (1) Date well completed: 1977
       (2) Depth drilled: 478 feet
       (3) Type of completion: Screen & Gravel Pack
       (4) Surface elevation: 337 feet
   (b) Screen data:
       (1) Depth to bottom: 477 feet
       (2) Length: 80 feet
       (3) Diameter: 12 inches
       (4) Type: Stainless steel
   (c) Casing data:
       (1) Length(s): 420 feet
       (2) Type: Steel
   (d) Pump data:
       (1) Type & Size: Vertical Turbine, 8 inch
       (2) Capacity: 1000 gpm
       (3) No. stages: 3
       (4) Setting depth: 221 feet

Well Driller: Herndon Well & Supply Company

WATER USE DATA

1. Irrigation use: (a) Show number of acres to be irrigated by 40-acre blocks:

<table>
<thead>
<tr>
<th>TOWNSHIP</th>
<th>RANGE</th>
<th>SEC.</th>
<th>NW 1/4</th>
<th>NW 1/4</th>
<th>SW 1/4</th>
<th>SW 1/4</th>
<th>SE 1/4</th>
<th>SE 1/4</th>
<th>TOTALS</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>NE 1/4</td>
<td>NE 1/4</td>
<td>NE 1/4</td>
<td>NE 1/4</td>
<td>NE 1/4</td>
<td>NE 1/4</td>
<td></td>
</tr>
</tbody>
</table>

   (b) List the acres to be irrigated: Rice, Cotton, Corn, Pasture, Truck
   Other crops ( ) acres.

2. If for MUNICIPAL use: (a) Present population: 20,000 (1985 est.)
   (b) Estimated average daily consumption during periods of maximum use at the end of each five-year period in next twenty years: (1.8 MGD now, Total system) 2.5 MGD 1990, 3.4 MGD 1995, 4.5 MGD 2000, 5.4 MGD 2005
   (c) (show location on map)

3. If for INDUSTRIAL use: (a) If water is to be released into a watercourse, indicate: Amount released each year
   rate of release
   location of release point in reference to diversion point
   (b) Explain any change in quality of water to be released

4. If for RECREATIONAL use: Explain how water will be used

5. If for FISH CULTURE use: (a) Explain in detail how water will be used
   (b) Number of times reservoir will be emptied and filled annually:

6. If for ANY OTHER use: (a) Explain in detail

REMARKS: This is one of five wells serving the system.

List below the name and address of person to be contacted for additional information, if required.

J. A. Cates, Mayor
P. O. Box 425
SOUTHWAY, MS. 38671

The accompanying map is hereby declared a part of this application.

J. A. Cates
(Signature)

Subscribed and sworn to before me this 2nd day of July, 1986, at SOUTHWAY
County of DeSoto, Mississippi. My commission expires Feb. 16, 1987

Marlene Sprinkle
Notary Public
DEPARTMENT OF ENVIRONMENTAL QUALITY - OLWR
PUBLIC SUPPLY WELLS PROJECT

GPS LOG

USER NAME(S): LAK

DATE: 7/24/86

UNIT DEQ #: 84090

FILE #: 80728316A

HEALTH DEPT. #: 170010-04

ELEV. 320

USGS #: 441 C16

OLWR #: MS-6W-04126

OWNER: City of Southaven / Greenbrook A. #2

LOCATION: NW/4 NW/4 SE/4 30T 15R NW

COUNTY: DeSoto

LOCATION DESCRIPTION: Well on fence we crossed:

Easement

CASING DIA: 10"

PUMP TYPE & SIZE: Turbine 1/75

GPS FIELD LOCATION: LAT. 34°58'21.2" N

LONG. 89°58'40.3" W

GPS CORRECTED LOCATION: LAT. 34°58'21.2" N

LONG. 89°58'40.3" W

REMARKS: Go back 5. on 51 to Rasco Rd turn b. at

light, go under under over pass (55N) cont to

on Greenbrook Parkway, 5 mi north of Goodman Rd


[Diagram with coordinates and directions]
Map center is 34° 58' 13"N, 89° 58' 49"W (WGS84/NAD83)

**Pleasant Hill** quadrangle

Projection is UTM Zone 16 NAD83 Datum