

WSW# 1A

County: JASPER  
 Permit #: MS-GW 16577  
 Driller: Griner Dllg Serv  
 Date drilling completed: Jun 5, 2009

**State Well Report**  
**Part 1 - Driller's Log**

Mississippi Department of Environmental Quality  
 Office of Land and Water Resources  
 P.O. Box 10631  
 Jackson, MS 39289-0631  
 (601)961-5210  
 (601)354-6938 (fax)

**For Office Use Only:**  
 Aquifer: \_\_\_\_\_  
 Well #: N0060  
 L. S. Elevation: \_\_\_\_\_  
 E-log #: \_\_\_\_\_

Wilcox  
 Group  
 elev.  
 475

*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><b>Information on Well Owner</b>          (Landowner if borehole is not for a water well)          Owner Name: <u>LEAF RIVER ENERGY</u>          Mailing Address: <u>924 CR-7</u>  <u>Stringer MS 39481</u>          City State Zip Code          Telephone No. ( ) _____</p>	<p><b>Well or Borehole Location</b>          Latitude: <u>31.54.18</u> Longitude: <u>89.19.12</u>          Method of Lat/Long (circle one): Conventional Survey,          USGS quad, <u>Hand-held GPS</u>, Survey-grade GPS  <u>NW 1/4 NW 1/4 Sec 30 Twn 1N Rng 10E</u>          Distance Direction Nearest Town  <u>3.5</u> Miles <u>NW</u> of <u>Stringer</u></p>
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**Well / Borehole Data**  
 Date drilling started: MAY 09 Date drilling completed: JUN 09 Hole depth: 460 Hole diameter: 24"  
 Location of the source of any surface water used for drilling: \_\_\_\_\_  
 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): \_\_\_\_\_  
 Purpose of borehole (check 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 (check one): Home \_\_\_\_\_ Industrial  Public Supply \_\_\_\_\_ Irrigation \_\_\_\_\_ Fish Culture \_\_\_\_\_ Other: Gas Storage  
 If a flowing well, method of flow regulation: Valve \_\_\_\_\_ Other (describe) \_\_\_\_\_  
 Static Water Level: 186 feet above or below (circle one) land surface Date measured: 8/22/09  
 Method of Measurement (circle one) steel tape electric tape air line other: \_\_\_\_\_  
 Well depth: 3955 Well grouted to a depth of 213 feet Type of grout (circle one) Neat Cement Bentonite Mix  
 Casing length: 2123 feet Casing diameter: 16 inches Type of casing: Steel  
 Screen length: 441 feet Screen diameter: 10 inches Type of screen: Stainless  
 Screen slot size: 0.016 inches Setting depth: From 2136 feet to 2949 feet  
 Type of completion (circle all applicable): Gravel packed Underreamed Telescoped Open hole Natural Development  
 Other (describe): Pre-packed screen  
 Top of lap pipe or reduction in casing: 1699 feet. *If telescoped or more than one screen, describe on next page*

Split  
 screen

(104' of 26" surface casing)

The sketch below only required for water wells

If well telescopes, show depths on sketch.

Ground Level  $\rightarrow$

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)
Geophysical logs provided		

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) a north arrow.

See attached location maps

Landowner Name: \_\_\_\_\_

Form: OLWR-SWR-1A

I 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.

Irwin Drilling Service 9-28-09

Charles A. [Signature]

#184

Print Name of Responsible Licensee and License No.

Date

Signature of Licensee

# State Well Report

County: Jasper  
SMITH

Permit #: MS-GW-16577

Driller: GRINER DRILLING

Date Completed: 10/18/09

*Copy information from block on Part 1*

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) 354-6938 (fax)

For Office Use Only:

Aquifer: \_\_\_\_\_

Well #: N60

Elevation: \_\_\_\_\_

*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.*

<p style="text-align: center;">Well Owner Information</p> <p>Owner Name <u>LEAF RIVER ENERGY CENTER</u></p> <p>Mailing Address: <u>53 RIVERSIDE AVENUE</u></p> <p style="text-align: center;"><u>WESTPORT</u>      <u>CT</u>      <u>06880</u></p> <p style="text-align: center;">City                      State      Zip Code</p> <p>Telephone No. ( <u>203</u> ) <u>557.0577</u></p>	<p style="text-align: center;">Well Location <u>31-54-10</u>      <u>89-19-12</u></p> <p>Latitude: <u>N 31° 54.529</u>      Longitude: <u>W 89° 19.047</u></p> <p>Method of Lat/Long (check one):      Conventional Survey _____</p> <p>USGS quad <input checked="" type="checkbox"/>      Hand-Held GPS _____      Survey-grade GPS _____</p> <p><u>SW</u> ¼ <u>SW</u> ¼      Sec <u>19</u>      T <u>1N</u>      R <u>10E</u></p> <p><u>NW</u>      <u>NW</u>      <u>30</u></p> <p>Distance                      Direction                      Nearest Town</p> <p><u>5</u> Miles                      <u>S</u> of <u>BAY SPRINGS</u></p>
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<p>#2      <b>Pump Type</b></p> <p style="text-align: center;">Circle One</p> <p>Air Lift      Jet      <input checked="" type="checkbox"/> Submersible</p> <p>Bucket      Piston      Turbine</p> <p>Centrifugal      Rotary      Flowing Well</p> <p>Other (specify): _____</p> <p>Date Pump Installed: <u>9/9/09</u></p> <p>Rated Pump Capacity <u>1000</u> Gallons Per Minute</p>	<p style="text-align: center;"><b>Power Type</b></p> <p style="text-align: center;">Circle One</p> <p>Diesel Engine      Gasoline Engine      Natural Gas</p> <p><input checked="" type="checkbox"/> Electric Motor      Hand      Tractor PTO</p> <p>Windmill      Other (specify): _____</p> <p>Horse Power Rating of Motor: <u>450</u></p> <p>Setting Depth: <u>1051</u> feet</p> <p>Number of Stages: <u>6</u></p>
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<p style="text-align: center;"><b>Pump Test Data</b></p> <p>Date Well Tested: <u>10/18/09</u></p> <p>Static Water Level (A): <u>189</u> Feet Below Land Surface</p> <p>Pumping Water Level (B): _____ Feet Below Land Surface</p> <p>Drawdown [(B) - (A)]: _____ Feet Below Land Surface</p> <p>Test Pumping Rate: <u>N/A</u> Gallons Per Minute</p> <p>Duration of Pump Test (minimum 4 hours): _____ hours</p>	<p style="text-align: center;"><b>Method of Measuring Water Level</b></p> <p style="text-align: center;">Circle One</p> <p>Air Line      <input checked="" type="checkbox"/> Electric Measuring Line      Steel Tape</p> <p>Other (specify): _____</p> <p>For flowing well, measured shut in head: _____ feet</p> <p>Well yielded _____ GPM with a drawdown of _____ feet after _____ hours of pumping</p>
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This is for (circle one)       New Well      Replacement of Existing Pump      Repair of Existing Pump

I hereby certify that the above statements are true to the best of my knowledge.

DAVE COOK      692      \_\_\_\_\_

Print Name of Pump Installer and License No. (if applicable)      Signature of Pump Installer

**RECEIVED**  
*Dave Cook*  
 Signature of Pump Installer      MAR 24 2011

BY: OLWR

# Leaf River Energy Center

## Casing Tally

<b>Name:</b>	Leaf River Energy Center	<b>DATE</b>	6/4/2009
<b>Well:</b>	WSW #1-A		
<b>Contractor:</b>	Performance Rig 22	<==Do not enter in this cell	
<b>Desired Shoe Depth</b>	3967.00 <== Enter shoe depth		
<b>KB to Wellhead</b>	18.00 <== Enter KB elevation	<b>CASING SIZE</b>	
<b>Total length - Circ head to shoe</b>	2253.01	<b>WEIGHT</b>	
<b>Height above rotary table</b>	-1713.99	<b>GRADE</b>	
<b>Shoe Depth to Wellhead</b>	3949.00	<b>TYPE</b>	

**OUT COLUMN = 0- PUT BACK 1-TAKE OUT**

Orig Jt #	Total Jts Run	Length	Out	Cum Length	Joint Top	Comment
	<b>Shoe</b>	<b>12.00</b>		<b>12.00</b>	<b>3955.00</b>	<b>Shoe &amp; Swedge (6" x 8-5/8")</b>
1	1	42.07		54.07	3912.93	Blank
2	2	37.05		91.12	3875.88	Blank
	3	23.97		115.09	3851.91	Screen ✓
3	4	39.00		154.09	3812.91	Blank
	5	21.98		176.07	3790.93	Screen ✓
	6	31.00		207.07	3759.93	Screen ✓
4	7	53.97		261.04	3705.96	Blank
	8	11.00		272.04	3694.96	Screen ✓
	9	33.03		305.07	3661.93	Screen ✓
	10	25.01		330.08	3636.92	Screen ✓
	11	18.97		349.05	3617.95	Screen ✓
	12	16.00		365.05	3601.95	Screen ✓
	13	11.07		376.12	3590.88	Screen ✓
5	14	35.00		411.12	3555.88	Blank
	15	13.00		424.12	3542.88	Screen ✓
	16	31.01		455.13	3511.87	Screen ✓
6	17	42.03		497.16	3469.84	Blank
7	18	41.97		539.13	3427.87	Blank
8	19	37.00		576.13	3390.87	Blank
	20	24.08		600.21	3366.79	Screen
	21	24.01		624.22	3342.78	Screen
9	22	27.00		651.22	3315.78	Blank
	23	34.07		685.29	3281.71	Screen ✓
	24	16.00		700.29	3266.71	Screen ✓
10	25	41.96		742.25	3224.75	Blank
11	26	42.05		784.30	3182.70	Blank
12	27	42.10		826.40	3140.60	Blank
13	28	42.06		868.46	3098.54	Blank
14	29	42.06		910.52	3056.48	Blank
15	30	42.09		952.61	3014.39	Blank
16	31	42.07		994.68	2972.32	Blank
17	32	42.08		1036.76	2930.24	Blank
18	33	42.05		1078.81	2888.19	Blank
19	34	30.00		1108.81	2858.19	Blank
	35	10.00		1118.81	2848.19	Screen -
20	36	36.00		1154.81	2812.19	Blank
	37	31.01		1185.82	2781.18	Screen ✓
21	38	9.00		1194.82	2772.18	Blank
	39	21.01		1215.83	2751.17	Screen ✓
22	40	42.01		1257.84	2709.16	Blank

44.22

23	41	42.00	1299.84	2667.16	Blank
24	42	41.97	1341.81	2625.19	Blank
25	43	41.97	1383.78	2583.22	Blank
26	44	41.96	1425.74	2541.26	Blank
27	45	41.97	1467.71	2499.29	Blank
28	46	41.97	1509.68	2457.32	Blank
29	47	42.02	1551.70	2415.30	Blank
30	48	42.09	1593.79	2373.21	Blank
31	49	42.05	1635.84	2331.16	Blank
32	50	42.08	1677.92	2289.08	Blank
33	51	42.07	1719.99	2247.01	Blank
34	52	42.02	1762.01	2204.99	Blank
35	53	4.00	1766.01	2200.99	Blank
	54	34.50	1800.51	2166.49	Screen
	55	11.50	1812.01	2164.99	Screen
36	56	20.00	1832.01	2134.99	Blank
	<b>Swedge</b>	<b>0.57</b>	<b>1832.58</b>	<b>2134.42</b>	<b>Swedge (8-5/8" x 10-3/4")</b>
37	57	42.06	1874.64	2092.36	Lap Pipe
38	58	42.04	1916.68	2050.32	Lap Pipe
39	59	42.06	1958.74	2008.26	Lap Pipe
40	60	42.05	2000.79	1966.21	Lap Pipe
41	61	42.05	2042.84	1924.16	Lap Pipe
42	62	42.04	2084.88	1882.12	Lap Pipe
43	63	42.04	2126.92	1840.08	Lap Pipe
44	64	42.00	2168.92	1798.08	Lap Pipe
45	65	42.03	2210.95	1756.05	Lap Pipe
46	66	42.06	2253.01	1713.99	Lap Pipe

## Leaf River Energy Center

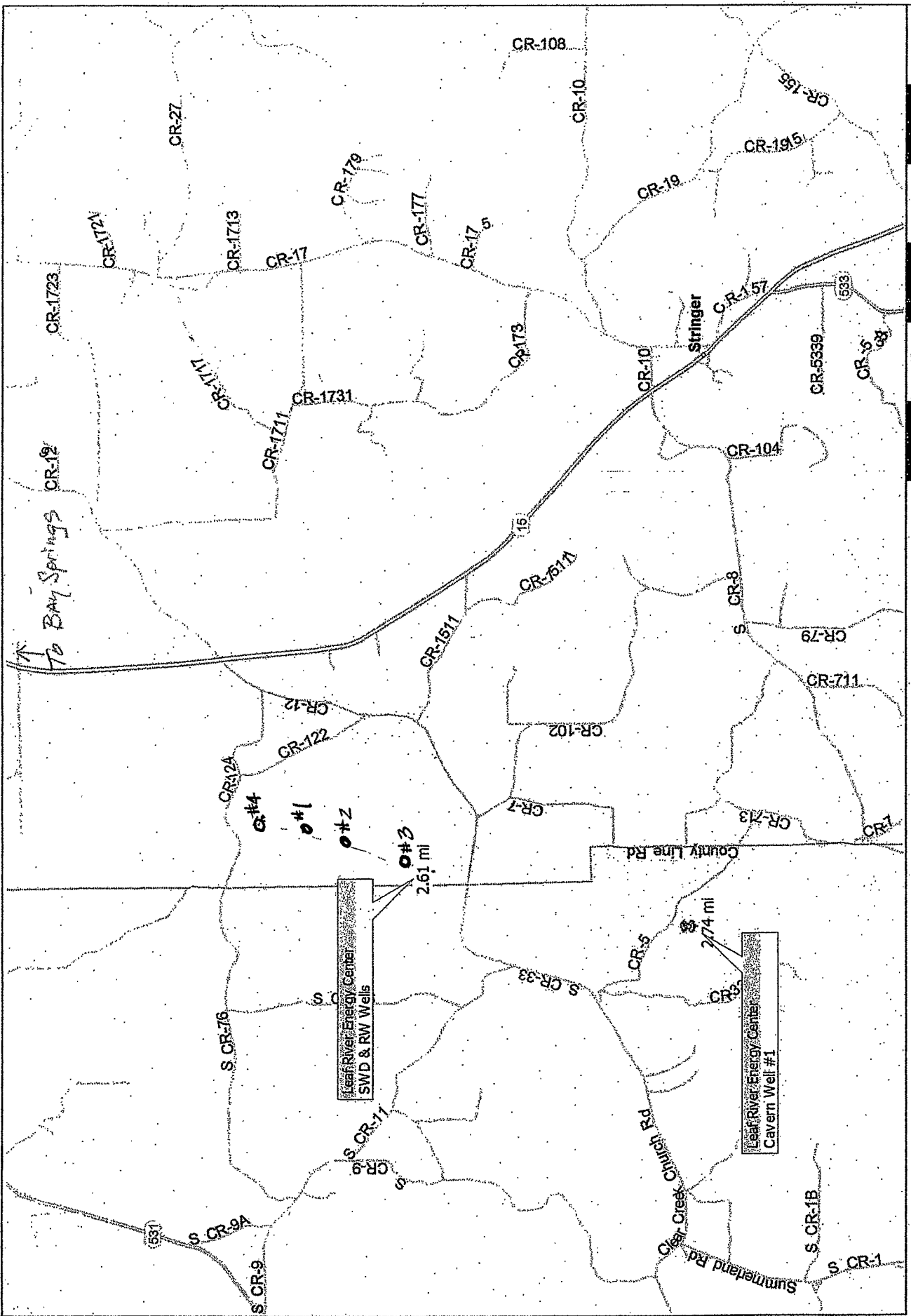
To Cavern Well #1: From Laurel, Take hwy 15 North towards Bay Springs. Turn left on hwy CR12 for approx. 1 ¾ Mile. Left on CR102 for ¼ mile, Right on CR7 for 1.6 mile, Right @ Tee onto CR5 for 6/10 mile. Location on left in Pasture.

To SWD & RW Wells: From Laurel, Take hwy 15 north towards Bay Springs. Turn left on hwy CR12 & go approx. 2 miles to lease rd on right. Follow to wells.

Note: Hwy CR12 is Between Stringer & Bay Springs

# Leaf River Energy Center Map

70060



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