

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SPECIFIC CONDUCTANCE AND DISSOLVED CHLORIDE CONCENTRATIONS OF
FRESHWATER AQUIFERS AND STREAMS IN PETROLEUM PRODUCING AREAS
IN MISSISSIPPI

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CONTENTS

	Page
Abstract-----	1
Introduction-----	1
Location of study areas-----	2
Data Collection-----	2
Results of Analysis-----	2
Selected References-----	33

ILLUSTRATIONS

Figures 1-6. Maps showing:	
1. Location of study area-----	3
2. Surface- and ground-water sampling sites in area 1-----	4
3. Surface- and ground-water sampling sites in area 2-----	5
4. Surface- and ground-water sampling sites in area 3-----	6
5. Surface- and ground-water sampling sites in area 4 and 6-----	7
6. Surface- and ground-water sampling sites in area 5-----	8

TABLES

Tables 1-12. Specific conductance and chloride concentrations at:	
1. Surface-water sites in area 1-----	9
2. Ground-water sites in area 1-----	10
3. Surface-water sites in area 2-----	11
4. Ground-water sites in area 2-----	13
5. Surface-water sites in area 3-----	16
6. Ground-water sites in area 3-----	18
7. Surface-water sites in area 4-----	21
8. Ground-water sites in area 4-----	22
9. Surface-water sites in area 5-----	23
10. Ground-water sites in area 5-----	27
11. Surface-water sites in area 6-----	31
12. Ground-water sites in area 6-----	32

FACTORS FOR CONVERTING INCHPOUND UNITS TO

INTERNATIONAL SYSTEM (SI) UNITS

Factors for converting inch-pound units to metric units are shown below to four significant figures. In the text, metric equivalents are shown only to the number of significant figures consistent with the accuracy of analytical determinations or measurement.

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
inch (in)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
square mile (mi ²)	2.590	square kilometer (km ²)
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second (m ³ /s)

DEFINITION OF TERMS

Milligrams per liter (mg/l) is a unit expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water.

Specific conductance is a measure of the ability of water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C (umhos). Because the specific conductance is related to the number and specific chemical types of ions solutions, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in mg/l) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream and may even vary in the same source with changes in the composition of the water.

Note: The term "milligrams per liter" is essentially equivalent to the unit "parts per million".

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ABSTRACT

Water samples from 224 ground-water and 190 surface-water sites were collected in six oil producing areas of Mississippi during periods of low streamflow in 1980 and 1981, and were analyzed for specific conductance and dissolved chloride concentrations. Samples from 55 surface-water and 17 ground-water sites contained dissolved chloride concentrations in excess of 100 milligrams per liter. The data collected are presented in tables without interpretation. The study was conducted by the U.S. Geological Survey in cooperation with the Mississippi Bureau of Pollution Control.

INTRODUCTION

Oil and gas occur at depth in most of the geologic units in Mississippi. The first successful oil well was drilled in Yazoo County in 1939. Since then, thousands of wells have been drilled and the producing areas have expanded into many parts of the state.

Petroleum production is accompanied by the production of saltwater. Normally, newly completed wells will have a lower saltwater to oil ratio than wells which have been pumping a number of years. This ratio may vary from almost no saltwater to over 20 barrels of saltwater per barrel of oil (Mississippi State Oil and Gas Board, 1980, p. 15).

The most common historical method of saltwater disposal was by "evaporation pits", which, in many cases, actually discharged much water to underlying unconfined aquifers or nearby streams. Although this practice is now prohibited, thousands of pits were constructed and their impact on the hydrologic system is largely unknown. Saltwater contamination of groundwater may also result from improperly constructed or leaking injection wells.

A surface-water and ground-water sampling program to identify locations of brine contamination in oil producing areas was undertaken in cooperation with the Mississippi Bureau of Pollution Control. The results of the first year of the three-year study are presented in this report.

LOCATION OF STUDY AREAS

Six of the most active petroleum producing areas in southern and central Mississippi were selected for study (fig. 1). Study area 1 (fig. 2) encompasses approximately 250 mi² in Yazoo and Madison counties and includes two major oil fields, Pickens and Tinsley. Study area 2 (fig. 3) in southwestern Mississippi includes all of Adams, the southwestern quarter of Jefferson, the west half of Franklin, the northwestern corner of Amite, and the northern half of Wilkinson counties. This area of approximately 1400 mi² contains numerous oil fields. Area 3 (fig. 4) includes approximately 470 mi² in central and southern Lincoln, the northern half of Pike, and a small corner of northeastern Amite counties. McComb, Smithdale, Brookhaven, Little Creek, and Mallalieu are the major oil fields in this area. Study area 4 (fig. 5) encompasses the Baxterville oil and gas field in Marion and Lamar counties. This study area is approximately 40 mi². Study area 5 (fig. 6) encompasses approximately 1550 mi² in the southern half of both Clarke and Jasper counties, the northern half of Jones and Wayne counties, and the extreme southeastern part of Smith county. Numerous oil fields are located in study area 5. Approximately 50 mi² are included in study area 6 (fig. 5) in northeastern Forrest counties which include Pistol Ridge and Maxie oil and gas fields.

DATA COLLECTION

Specific conductance and dissolved chloride concentrations were determined at 224 ground-water and 163 surface-water sites from mid-September to the first week in November 1981 during a low streamflow period. Also, 27 surface-water sites were sampled during a low stream-flow period in October 1980. A field specific conductance value was determined at the sampling site and a water sample collected for laboratory analysis of dissolved chloride concentration. Surface-water samples were generally collected only if the specific conductance was greater than 100 umhos.

RESULTS OF THE ANALYSES

The results of the specific conductance and chloride analysis are listed in tables 1 through 12. Sampling sites are shown in figures 2 through 6. Dissolved chloride concentrations of 54 of the surface-water samples collected during the study were greater than 100 mg/l. The maximum concentration of 15,000 mg/l was determined from a spring in Jasper county.

Chloride concentrations greater than 100 mg/l were found in samples from at least one water well in each study area. Water samples from four wells owned by International Paper Company south of Natchez had concentrations ranging from 100 mg/l to 260 mg/l. One well each in sites 1, 4, and 5, contained concentrations greater than 100 mg/l. The maximum concentration of 680 mg/l from a ground-water site is in water from a well in Pearl River County.

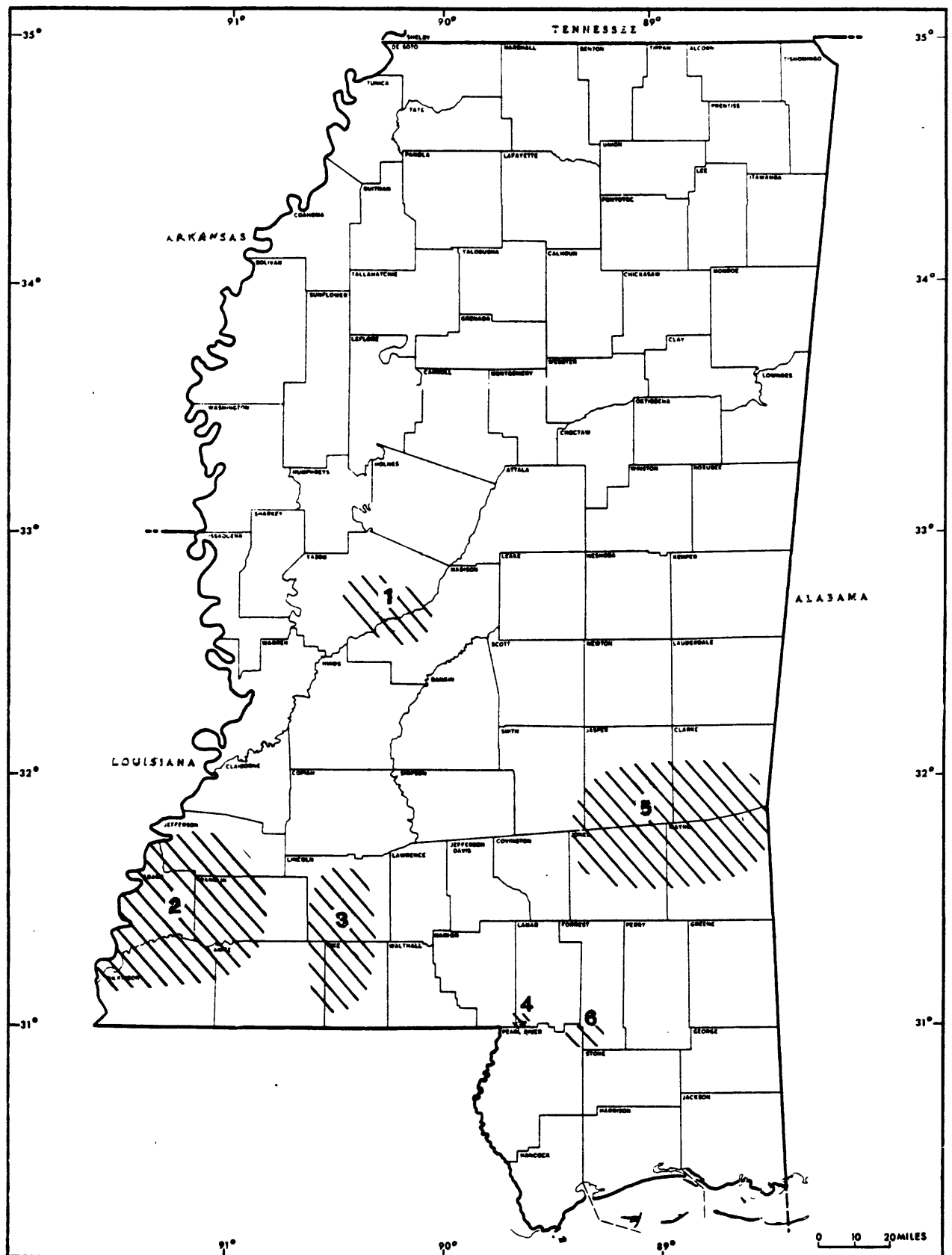


FIGURE 1.--LOCATION OF STUDY AREAS.

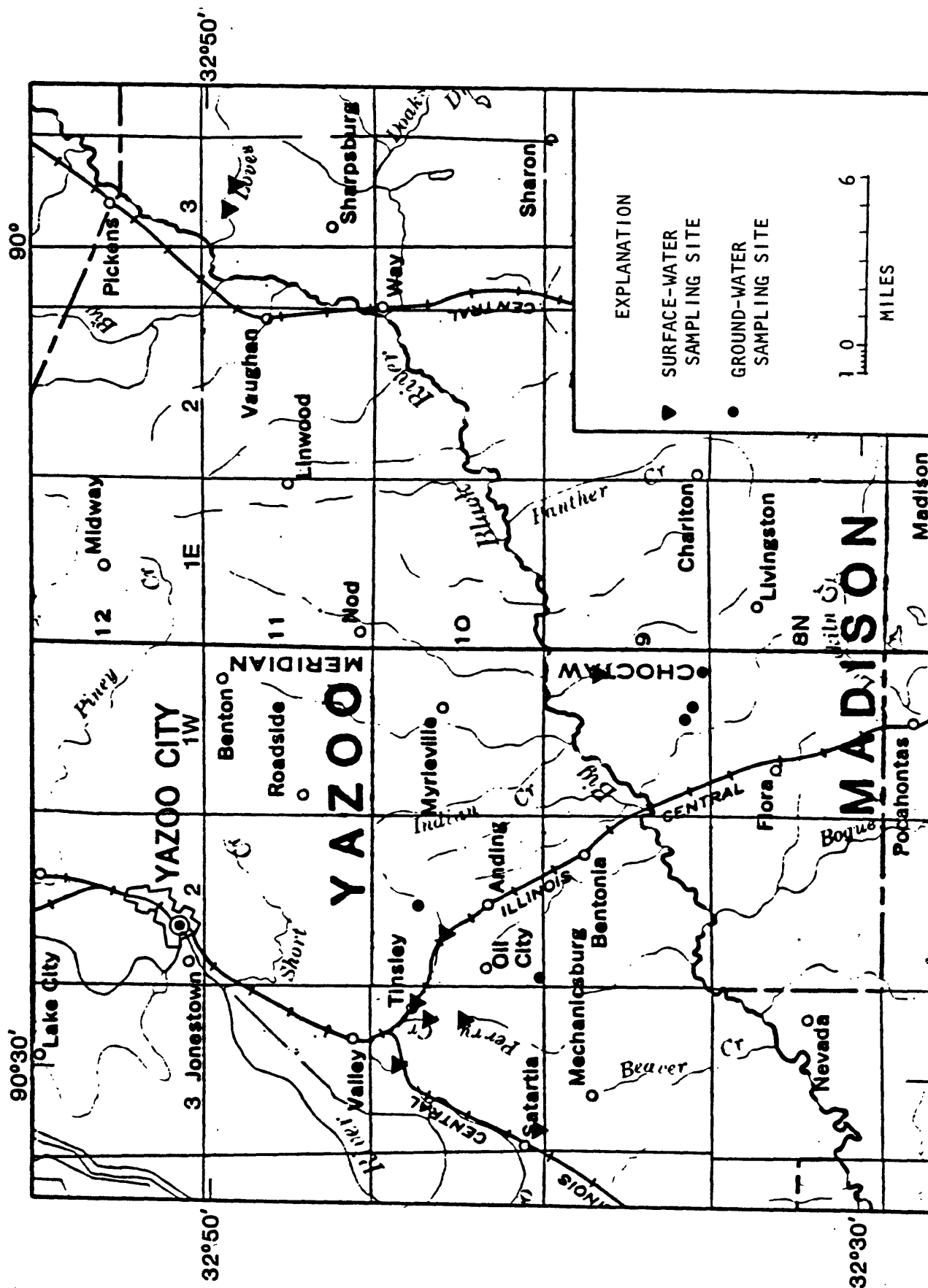


FIGURE 2.--SURFACE-WATER AND GROUND-WATER SAMPLING SITES IN AREA 1.

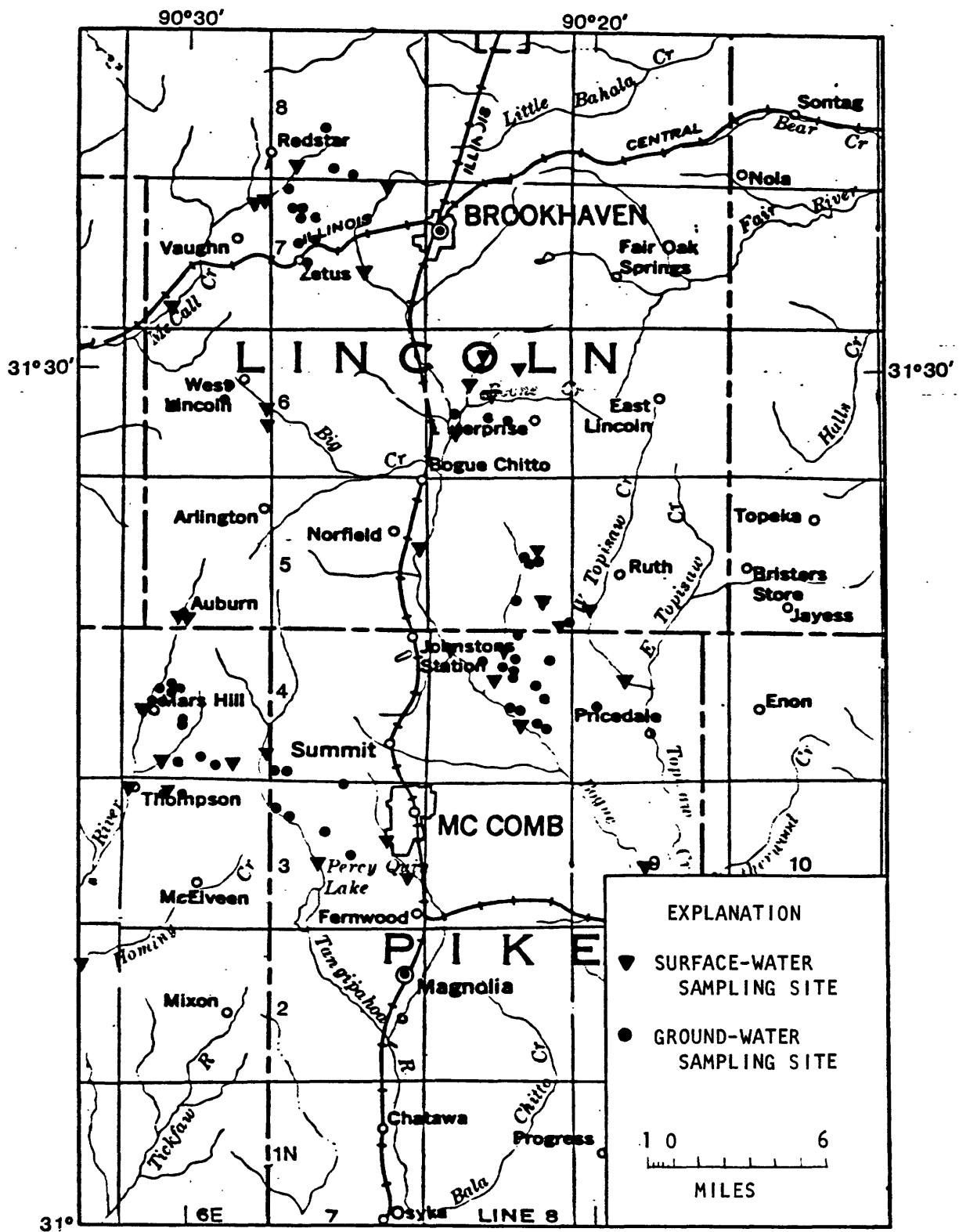
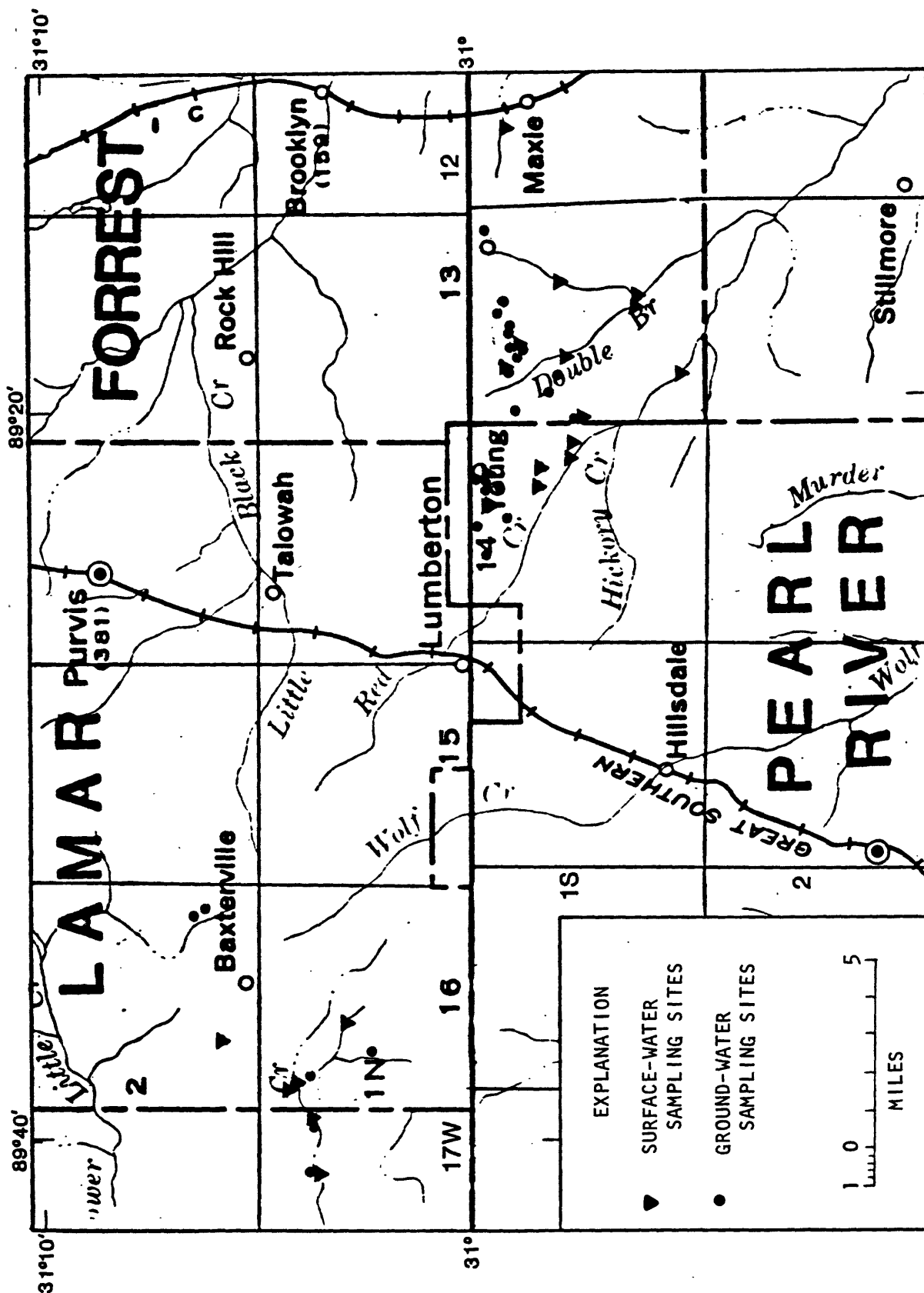


FIGURE 4.--SURFACE-WATER AND GROUND-WATER SAMPLING SITES IN AREA 3.



Base map modified from U.S. Geological Survey Map of Mississippi, 1972

FIGURE 5. ---SURFACE-WATER AND GROUND-WATER SAMPLING SITES IN AREAS 4 AND 6.

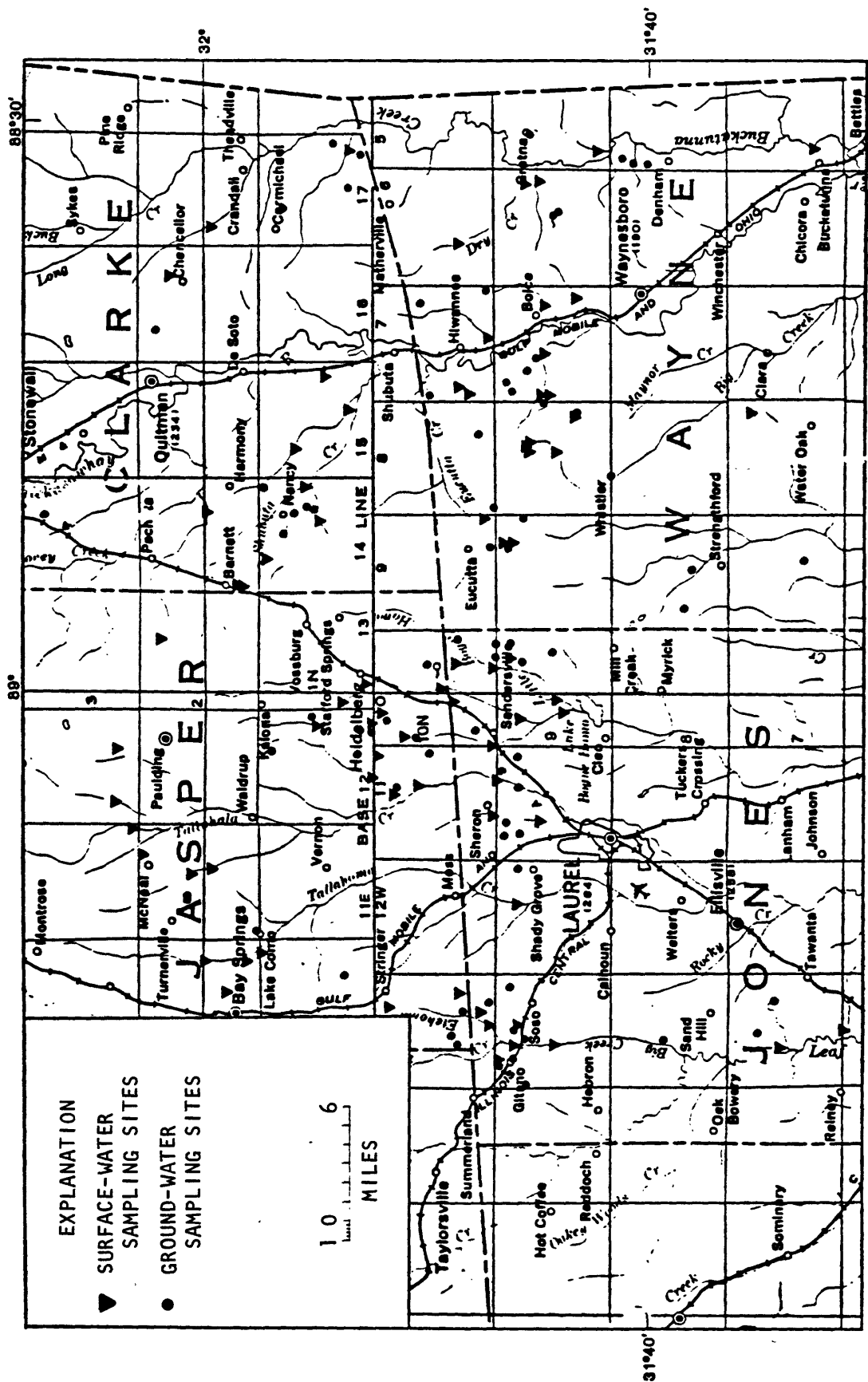


FIGURE 6.--SURFACE-WATER AND GROUND-WATER SAMPLING SITES IN AREA 5.

TABLE 1.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 1

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
MADISON COUNTY, MS						
Loves Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	3	11N	3E	10/21/81	200
Loves Creek	NE $\frac{1}{4}$	11	11N	3E	10/28/81	34
Unnamed	SW $\frac{1}{4}$ SE $\frac{1}{4}$	35	12N	3E	10/21/81	32
Persimmon Creek	NW $\frac{1}{4}$ NW $\frac{1}{4}$	13	9N	1W	10/22/81	26
YAZOO COUNTY, MS						
Unnamed	NE $\frac{1}{4}$ SE $\frac{1}{4}$	31	10N	3W	10/20/81	10
Thompson Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	12	10N	3W	10/20/81	120
Perry Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	11	10N	3W	10/20/81	3700
O'Neil Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$	3	10N	3W	10/20/81	1.1
Perry Creek	NW $\frac{1}{4}$ NE $\frac{1}{4}$	23	10N	3W	10/21/81	4000
Thompson Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	17	10N	2W	10/20/81	18

TABLE 2.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 1

OWNER	LOCATION			WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.				
MADISON COUNTY, MS							
Community Well	NW $\frac{1}{4}$ NE $\frac{1}{4}$	2	11N	3E	52	609	29
Sonny Posey	NE $\frac{1}{4}$ SW $\frac{1}{4}$	36	9N	1W	*	427	5.5
Joe Rule	SW $\frac{1}{4}$ NW $\frac{1}{4}$	35	9N	1W	*	449	9.6
Memorial Circle	NW $\frac{1}{4}$ NE $\frac{1}{4}$	34	9N	1W	1398	268	2.3
YAZOO COUNTY, MS							
Tommy Twiner	SE $\frac{1}{4}$ SW $\frac{1}{4}$	31	10N	2W	*	1218	200
Ed Williams	NE $\frac{1}{4}$ SW $\frac{1}{4}$	9	10N	3W	*	532	25

* Well depth unknown, but estimated to be less than 300 feet

TABLE 3.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 2

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
ADAMS COUNTY, MS						
St. Catherine Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	28	7N	2W	09/25/81	350
St. Catherine Creek		71	7N	2W	09/25/81	1150
St. Catherine Creek	NW $\frac{1}{4}$	8	6N	2W	10/20/80	1100
					09/14/81	420
					09/22/81	1400
Second Creek		26	6N	2W	10/20/80	98
Second Creek		37	6N	2W	10/20/80	784
Second Creek	SE $\frac{1}{4}$	13	5N	3W	10/20/80	625
					09/23/81	540
Sandy Creek		28	5N	1W	10/20/80	220
					09/23/81	900
Pretty Creek		36	5N	1W	09/16/81	1700
					09/23/81	1800
FRANKLIN COUNTY, MS						
Homochitto River		20	6N	3E	10/21/80	260
Homochitto River		28	6N	3E	10/21/80	240
Richardson Creek	NW $\frac{1}{4}$ NW $\frac{1}{4}$	34	5N	2E	09/17/81	245
					10/21/81	430
Dry Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	34	5N	1E	09/17/81	330
Dry Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	45	5N	1E	10/20/80	270
					09/17/81	541
Wells Creek		5	5N	1E	09/23/81	480
Wells Creek		31	5N	1E	09/17/81	330
					09/23/81	460
Wells Creek		43	5N	1E	09/23/81	570
						74
						63
						63
						130
						77
						69
						150
						120
						92
						110
						150

TABLE 3.--Continued

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
JEFFERSON COUNTY, MS						
Bolts Creek	37	9N	1E	09/23/81	160	10
Mud Island Creek	38	9N	1E	09/23/81	380	5.9
South Fork Coles Creek	SE $\frac{1}{4}$ NW $\frac{1}{4}$	35	8N	1W	09/21/81	710
Turpin Creek		37	8N	1W	09/22/81	500
Folks Creek		33	8N	1W	09/21/81	620
South Fork Coles Creek		3	8N	1W	09/22/81	700
South Fork Coles Creek	SW $\frac{1}{4}$	31	9N	1W	09/23/81	640
WILKINSON COUNTY, MS						
Foster Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	29	4N	1E	09/23/81	75
Homochitto River		13	4N	1E	09/23/81	115
Crooked Creek		53	4N	1W	09/24/81	140
Dry Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	25	3N	1W	10/20/80	1140
				09/24/81	185	38
Buffalo River		21	3N	2W	09/24/81	60
Percy Creek		11	2N	3W	09/24/81	180
Buffalo River		12	2N	4W	09/24/81	140
Buffalo River		18	2N	5W	10/20/80	500
Lake Mary		12	2N	5W	09/24/81	280
						9.9
						24
						17
						330
						7.8
						6.9
						14
						18
						16

TABLE 4.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 2

OWNER	LOCATION			WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.				
ADAMS COUNTY, MS							
Jerome Arnold	NW¼NW¼	23	5N	3W	125	310	4.1
Broadmoor Utility		17	7N	2W	150	570	8.1
John Brown		15	5N	3W	214	380	3.4
Luther Davis		24	6N	2W	165	430	3.3
Lamar Felter	NW¼NW¼	30	8N	2W	200	760	5.5
Luke Green		27	5N	1W	35	420	120
R.L. Hensley		19	7N	2W	170	500	8.5
Larry Holder	NW¼NW¼	61	7N	2W	240	560	6.1
Chester Hoover		13	9N	2W	265	660	8.0
Chester Hoover		19	9N	2W	265	660	8.0
Mead Hufford		30	6N	3W	170	450	2.2
International Paper #13	SE¼NW¼	14	6N	3W	213	1750	260
International Paper #14	SE¼NW¼	14	6N	3W	209	860	58
International Paper #15	NW¼SE¼	14	6N	3W	209	650	32
International Paper #16		14	6N	3W	*	950	110
International Paper #16A	NE¼SW¼	20	6N	3W	201	1020	100
International Paper #17	SE¼SE¼	14	6N	3W	220	850	80
International Paper #18	SE¼NE¼	20	6N	3W	232	1400	240

TABLE 4.--Continued

OWNER	LOCATION			WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)	
	SEC.	T.	R.					
ADAMS COUNTY, MS (Continued)								
International Paper #20	SW $\frac{1}{4}$ NW $\frac{1}{4}$	19	6N	3W	251	09/22/81	980	85
International Paper #21		19	6N	3W	*	09/22/81	690	16
International Paper #21A	NE $\frac{1}{4}$ SW $\frac{1}{4}$	14	6N	3W	184	09/22/81	650	29
International Paper #22	SW $\frac{1}{4}$ SW $\frac{1}{4}$	19	6N	3W	264	09/22/81	620	16
International Paper #23	SW $\frac{1}{4}$ SW $\frac{1}{4}$	19	6N	3W	250	09/22/81	676	24
International Paper #24		30	6N	3W	*	09/22/81	887	30
International Paper Research		43	6N	3W	260	09/17/81	490	5.1
T.L. James		47	7N	2W	447	09/16/81	460	2.0
Richard Junkin		9	8N	2W	45	09/15/81	700	3.5
J.T. Marsh		60	8N	1W	262	09/21/81	435	5.0
Floyd McCalip		14	6N	3W	266	09/17/81	470	6.2
Hugh Pearson III		39	6N	3W	169	09/14/81	520	6.5
Rayborn Drilling		51	7N	2W	165	09/15/81	550	5.7
St. Catherine Gravel		28	7N	2W	90	09/18/81	520	6.5
St. Catherine Ready Mix	NW $\frac{1}{4}$ NW $\frac{1}{4}$	7	6N	3W	165	09/14/81	800	48
J.M. Thomas		45	6N	1W	160	09/16/81	550	98
U.S. Forest Service		20	5N	1W	*	09/16/81	230	6.5
James Willard		45	6N	1W	75	09/16/81	760	210
Clyde Williams		29	5N	1W	100	09/16/81	36	2.6

TABLE 4.--Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
FRANKLIN COUNTY, MS						
Spurgeon Beach	NW $\frac{1}{4}$ NE $\frac{1}{4}$	21 6N	1E 160	09/17/81	135	5.3
E.A. Cotren	SW $\frac{1}{4}$ NE $\frac{1}{4}$	26 5N	* 150	09/18/81	30	2.0
D.R. Foster	NW $\frac{1}{4}$ NE $\frac{1}{4}$	26 5N	4E 100	09/18/81	34	3.0
E. Gamble	SW $\frac{1}{4}$ NW $\frac{1}{4}$	25 5N	4E 82	09/18/81	43	5.0
L. Hancock	NE $\frac{1}{4}$ NE $\frac{1}{4}$	29 5N	4E 63	09/17/81	40	6.1
Wallace Howard	SE $\frac{1}{4}$ NE $\frac{1}{4}$	33 5N	1E 85	09/17/81	112	14
M. Jackson	SE $\frac{1}{4}$ SE $\frac{1}{4}$	19 5N	4E 151	09/18/81	58	3.0
H.D. Shell		40 5N	1E *	09/17/81	120	21
M.J. Woodyear	SE $\frac{1}{4}$ NE $\frac{1}{4}$	30 6N	1E	09/16/81	160	16
JEFFERSON COUNTY, MS						
John Cates	4 8N	1N	150	09/22/81	380	4.0
Natchez Trace Parkway	65 8N	1W	444	09/22/81	660	13
Isabele Pinder	22 9N	1W	150	09/23/81	640	7.0
Willie Simon	30 8N	1E	167	09/21/81	260	6.5
WILKINSON COUNTY, MS						
Dave Carter	15 3N	2W	21	09/17/81	145	8.2
McCartle	25 4N	2W	110	09/17/81	780	29

* Well depth unknown, but estimated to be less than 300 feet

TABLE 5.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 3

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
AMITE COUNTY, MS						
Haymans Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	25	4N	6E	61	6.3
Cobb Branch	NE $\frac{1}{4}$ SE $\frac{1}{4}$	35	4N	6E	1500	470
East Fork Amite River	NE $\frac{1}{4}$ NE $\frac{1}{4}$	19	4N	6E	105	24
Gordon Creek	NW $\frac{1}{4}$ NE $\frac{1}{4}$	32	4N	6E	76	15
East Fork Amite River	SE $\frac{1}{4}$ NW $\frac{1}{4}$	6	3N	6E	73	14
Unnamed	NE $\frac{1}{4}$ SE $\frac{1}{4}$	5	3N	6E	95	1.6
East Fork Amite River	SW $\frac{1}{4}$ SW $\frac{1}{4}$	27	2N	5E	53	8.9
Hominy Creek	SW $\frac{1}{4}$ NW $\frac{1}{4}$	11	2N	5E	30	2.8
LINCOLN COUNTY, MS						
East Fork Amite River	NW $\frac{1}{4}$ SW $\frac{1}{4}$	33	5N	6E	40	4.5
Adam Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	33	5N	6E	47	4.9
West Topisaw Creek	NE $\frac{1}{4}$ NW $\frac{1}{4}$	31	5N	9E	30	4.0
Little Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	14	5N	8E	50	7.7
Little Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	26	5N	8E	440	120
Little Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	36	5N	8E	400	120
West Bogue Chitto River	NW $\frac{1}{4}$ NE $\frac{1}{4}$	2	7N	7E	120	6.6
Unnamed	SE $\frac{1}{4}$ NE $\frac{1}{4}$	10	6N	8E	170	40
Unnamed	SE $\frac{1}{4}$ SE $\frac{1}{4}$	16	6N	8E	36	4.8
Jordan Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	8	6N	8E	52	6.3
Jordan Creek	NW $\frac{1}{4}$ NE $\frac{1}{4}$	17	6N	8E	520	150

TABLE 5.--Continued

STREAM	LOCATION			R.	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.					
LINCOLN COUNTY, MS (Continued)							
Boone Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	19	6N	8E	10/06/81	160	39
Big Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	24	6N	6E	11/05/81	110	23
Panther Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	24	6N	6E	11/05/81	120	26
Bogue Chitto River	NW $\frac{1}{4}$ SE $\frac{1}{4}$	13	5N	7E	10/21/80	80	15
Shaws Creek	SW $\frac{1}{4}$ NE $\frac{1}{4}$	31	8N	7E	10/06/81	240	60
Shaws Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	1	7N	6E	10/05/81	200	52
Shaws Creek	NW $\frac{1}{4}$ NW $\frac{1}{4}$	12	7N	6E	10/21/80	138	36
McCall Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	28	7N	6E	10/21/80	71	14
Hurricane Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	7	6N	6E	10/06/81	115	23
PIKE COUNTY, MS							
Bogue Chitto River	SW $\frac{1}{4}$ SE $\frac{1}{4}$	6	4N	8E	11/03/81	64	11
Lazy Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	4	4N	8E	10/06/81	280	80
Lazy Creek	NW $\frac{1}{4}$ SE $\frac{1}{4}$	9	4N	8E	11/03/81	260	72
Bogue Chitto River	NE $\frac{1}{4}$ SW $\frac{1}{4}$	22	4N	8E	10/21/80	105	21
Bogue Chitto River	SE $\frac{1}{4}$ SW $\frac{1}{4}$	21	3N	9E	10/21/80	70	12
West Topisaw Creek	NE $\frac{1}{4}$ NW $\frac{1}{4}$	17	4N	9E	11/04/81	100	25
Tangipahoa River	SW $\frac{1}{4}$ NE $\frac{1}{4}$	20	3N	7E	10/21/80	193	48
Little Tangipahoa River	NE $\frac{1}{4}$ SW $\frac{1}{4}$	14	3N	7E	11/03/81	130	31
Town Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	24	3N	7E	11/03/81	255	21

TABLE 6.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 3

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
AMITE COUNTY, MS						
Myra Alford	NW¼NW¼	34 4N	6E	85	56	5.3
Zack Allard	NE¼SW¼	16 4N	6E	85	205	50
J.A. Burris	SW¼NE¼	4 3N	6E	100	44	3.5
Effie Clark	SE¼SE¼	17 4N	6E	100	300	80
Henry Cooper	NE¼SE¼	21 4N	6E	80	42	5.8
Mrs. J.D. Davis	NW¼SW¼	16 4N	6E	85	65	8.6
Paul Dyke, Sr.	SW¼NE¼	21 4N	6E	30	53	8.2
J.F. Edwards	SE¼NW¼	33 4N	6E	80	32	4.6
L.D. McCurley	NE¼SE¼	34 4N	6E	100	350	97
Jewell McKnight	NE¼SE¼	34 4N	6E	55	30	1.8
E.H. Mitchell	NW¼NW¼	16 4N	6E	80	39	3.6
Mrs. C.W. Robinson	SE¼NE¼	5 3N	6E	175	56	6.1
Grovery Smith	SW¼SE¼	17 4N	6E	133	1800	580
Mrs. Leo Wilkinson	SW¼SE¼	17 4N	6E	60	910	270
Mrs. I. Young	NE¼SE¼	17 4N	6E	100	1530	470
LINCOLN COUNTY, MS						
David Allen	SW¼NE¼	9 6N	8E	*	34	4.0
Marley Bowman, Jr.	SE¼NW¼	21 6N	8E	*	23	1.9
Rayburn Bowman	SW¼NE¼	6 7N	7E	256	97	2.7
Bernard Brister	SW¼NE¼	22 6N	8E	40	33	4.2
Floyd Britt	SW¼SW¼	21 8N	7E	50	50	6.2
N.G. Brown	SW¼SW¼	34 8N	7E	55	120	24
Cecil Case	NE¼NE¼	7 7N	7E	100	430	120
Harry Case	NW¼SW¼	8 7N	7E	80	160	40
John Case, Jr.	NW¼NW¼	8 7N	7E	85	133	30
John Case, Jr.	NW¼NW¼	8 7N	7E	45	800	260

TABLE 6.---Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
LINCOLN COUNTY, MS (Continued)						
Clareman Hodges	SE $\frac{1}{4}$ NE $\frac{1}{4}$	22 5N	8E	75	110	28
L.J. Martin	NE $\frac{1}{4}$ SE $\frac{1}{4}$	36 5N	8E	*	63	3.8
John McCurley	SW $\frac{1}{4}$ NE $\frac{1}{4}$	6 7N	7E	50	190	50
Steve McFadden	SW $\frac{1}{4}$ NW $\frac{1}{4}$	20 7N	7E	100	38	2.5
F. Moak	NE $\frac{1}{4}$ SE $\frac{1}{4}$	22 5N	8E	98	32	3.0
G.E. Moncrief	NW $\frac{1}{4}$ NE $\frac{1}{4}$	19 6N	8E	60	39	4.0
George Mozola	NW $\frac{1}{4}$ NW $\frac{1}{4}$	21 6N	6E	246	58	3.5
H.R. Owens	SE $\frac{1}{4}$ NE $\frac{1}{4}$	18 7N	7E	150	85	15
Mrs. Luther Russians	SE $\frac{1}{4}$ NW $\frac{1}{4}$	14 6N	6E	*	134	24
Smith	NW $\frac{1}{4}$ SE $\frac{1}{4}$	8 7N	7E	80	330	88
Wayne Smith	SE $\frac{1}{4}$ NW $\frac{1}{4}$	33 8N	7E	56	52	7.5
Mrs. Ben Stewart	SW $\frac{1}{4}$ NE $\frac{1}{4}$	16 6N	8E	60	33	4.4
Tyler	SE $\frac{1}{4}$ NW $\frac{1}{4}$	23 5N	8E	80	32	4.0
B.D. Warren	NE $\frac{1}{4}$ SW $\frac{1}{4}$	17 7N	7E	54	209	56
G. Warren	SW $\frac{1}{4}$ SW $\frac{1}{4}$	14 6N	6E	75	56	8.6
Carol A. Watts	SE $\frac{1}{4}$ NW $\frac{1}{4}$	17 7N	7E	65	176	48
PIKE COUNTY, MS						
Fred Alexander	NE $\frac{1}{4}$ NE $\frac{1}{4}$	3 4N	8E	165	45	6.9
Sydney Alexander	SW $\frac{1}{4}$ NW $\frac{1}{4}$	10 4N	8E	*	155	37
James Anding	SW $\frac{1}{4}$ SW $\frac{1}{4}$	15 3N	7E	100	340	96
F. Bridges	NE $\frac{1}{4}$ SE $\frac{1}{4}$	14 4N	8E	*	27	2.6
Joe C. Brown	SW $\frac{1}{4}$ SE $\frac{1}{4}$	10 4N	8E	425	126	2.4
Mrs. A.M. Busby	SW $\frac{1}{4}$ NW $\frac{1}{4}$	22 4N	8E	70	59	8.7
J.E. Busby	NE $\frac{1}{4}$ NE $\frac{1}{4}$	22 4N	8E	60	80	18
B.T. Gutter	NE $\frac{1}{4}$ NE $\frac{1}{4}$	11 4N	8E	125	44	9.0
Devone Guy	NW $\frac{1}{4}$ NE $\frac{1}{4}$	14 4N	8E	110	32	4.0

TABLE 6.---Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
PIKE COUNTY, MS (Continued)						
Elwin Hewitt	NW $\frac{1}{4}$ SE $\frac{1}{4}$	7 3N	7E 32	11/03/81	51	6.8
J. Lofton	NW $\frac{1}{4}$ SE $\frac{1}{4}$	23 4N	8E 200	11/04/81	160	2.4
Fred McCullough	SE $\frac{1}{4}$ SE $\frac{1}{4}$	18 4N	9E 160	11/04/81	24	1.8
Lonnie Pittman	NW $\frac{1}{4}$ SE $\frac{1}{4}$	10 4N	8E *	11/04/81	350	100
E.A. Rollins	SE $\frac{1}{4}$ SE $\frac{1}{4}$	23 4N	8E 60	11/04/81	55	11
H.L. Tate	NW $\frac{1}{4}$ NW $\frac{1}{4}$	7 3N	7E 104	11/03/81	34	2.2
J.E. Tate	NW $\frac{1}{4}$ NW $\frac{1}{4}$	7 3N	7E 100	11/03/81	36	4.9
Clem Wallace	NE $\frac{1}{4}$ NW $\frac{1}{4}$	9 4N	8E 100	11/04/81	34	1.1
J.R. Wilkinson	NW $\frac{1}{4}$ SW $\frac{1}{4}$	31 4N	7E 85	11/03/81	46	8.4
T. Wittington	NE $\frac{1}{4}$ NE $\frac{1}{4}$	4 3N	7E *	11/03/81	34	2.5
M.L. Wroten	NE $\frac{1}{4}$ SE $\frac{1}{4}$	31 4N	7E 100	11/03/81	42	5.2

* Well depth unknown, but estimated to be less than 300 feet

TABLE 7.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 4

STREAM	LOCATION		T.	R.	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.						
LAMAR COUNTY, MS							
Burnt Reed Brake	NE $\frac{1}{4}$ SE $\frac{1}{4}$	22	2N	16W	10/20/81	18	2.9
Clear Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	32	2N	16W	10/19/81	18	2.1
Dry Creek	NW $\frac{1}{4}$ NE $\frac{1}{4}$	16	1N	16W	10/19/81	15	3.3
Unnamed	SE $\frac{1}{4}$ SE $\frac{1}{4}$	6	1N	16W	10/19/81	1350	460
Clear Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	7	1N	16W	10/19/81	295	86
MARION COUNTY, MS							
Clear Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	12	1N	17W	10/19/81	310	91
Clear Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	11	1N	17W	10/21/81	310	90
					10/19/81	375	---

TABLE 8.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 4

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
LAMAR COUNTY, MS						
Virgil F. Davis	NE $\frac{1}{4}$ SE $\frac{1}{4}$	7 1N	235	10/19/81	99	22
Willie Entekin	NE $\frac{1}{4}$ SW $\frac{1}{4}$	25 2N	60	10/20/81	17	.1
Ottis Holston	SE $\frac{1}{4}$ SW $\frac{1}{4}$	17 1N	*	10/19/81	1270	390
Mrs. R.E. Thompson	SW $\frac{1}{4}$ NW $\frac{1}{4}$	25 2N	60	10/20/81	22	1.3
MARION COUNTY, MS						
Douglas C. Alford	NE $\frac{1}{4}$ SW $\frac{1}{4}$	11 1N	130	10/19/81	57	11
Virgis Schrader	NW $\frac{1}{4}$ SE $\frac{1}{4}$	12 1N	148	10/19/81	71	1.6

* Well depth unknown, but estimated to be less than 300 feet

TABLE 9.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 5

STREAM	LOCATION		R.	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.				
CLARKE COUNTY, MS						
Unnamed	NE $\frac{1}{4}$ SW $\frac{1}{4}$	30	2N	14E	10/15/81	475
Shubuta Creek	NE $\frac{1}{4}$ NW $\frac{1}{4}$	31	2N	14E	10/07/81	15
Castoffa Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	5	1N	14E	10/07/81	373
Shubuta Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	13	1N	14E	10/07/81	94
Shubuta Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	22	1N	14E	10/07/81	99
Prairie Branch	NW $\frac{1}{4}$ NE $\frac{1}{4}$	17	1N	15E	10/07/81	7500
Bogue Homo	SW $\frac{1}{4}$ SE $\frac{1}{4}$	27	1N	15E	10/07/81	82
Bogue Homo	SE $\frac{1}{4}$ NW $\frac{1}{4}$	24	1N	15E	10/07/81	176
Watts Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	25	1N	17E	10/07/81	139
Hanging Moss Creek	S $\frac{1}{2}$	11	2N	16E	10/07/81	172
Long Branch	SW $\frac{1}{4}$ SW $\frac{1}{4}$	20	2N	17E	09/25/81	2400
Tallabogue Creek					09/25/81	1300
JASPER COUNTY, MS						
Etehom Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	3	10N	13W	10/06/81	38
Plant Branch	NW $\frac{1}{4}$ NW $\frac{1}{4}$	25	10N	13W	09/21/81	66
Tallahomo Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	23	2N	10E	10/05/81	108
Unnamed	NW $\frac{1}{4}$ NW $\frac{1}{4}$	36	2N	10E	10/06/81	720
Unnamed	SW $\frac{1}{4}$ SE $\frac{1}{4}$	36	2N	10E	10/06/81	323
Piney Creek	SE $\frac{1}{4}$ NW $\frac{1}{4}$	27	2N	10E	10/05/81	115
East Tallahala Creek	NW $\frac{1}{4}$ SE $\frac{1}{4}$	36	3N	11E	10/05/81	149
Unnamed	NW $\frac{1}{4}$ NE $\frac{1}{4}$	2	2N	11E	10/05/81	128
McVay Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	29	3N	12E	10/05/81	186
Goodwater Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	26	3N	12E	10/05/81	15
Nuakfuppa Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	15	2N	11E	10/05/81	105
Naukfuppa Creek	C	22	2N	11E	10/06/81	154
						4.3
						6.9
						4.2
						160
						48
						5.6
						16
						6.2
						4.0
						2.1
						9.8
						15

TABLE 9.--Continued

STREAM	LOCATION		DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.			
JASPER COUNTY, MS (Continued)					
Tallahatta Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	13 1N 12E	10/05/81	201	50
Tallahatta Creek	NE $\frac{1}{4}$ SE $\frac{1}{4}$	33 1N 12E	10/05/81	1370	420
Horse Branch	NW $\frac{1}{4}$ NE $\frac{1}{4}$	1 10N 11W	10/14/81	2800	980
Tallahatta Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$	3 10N 11W	10/05/81	1300	400
Mill Creek	NW $\frac{1}{4}$ NW $\frac{1}{4}$	14 10N 11W	10/05/81	20	2.0
Bogue Homo	NW $\frac{1}{4}$ NW $\frac{1}{4}$	30 1N 13E	10/22/80	450	84
Beaver Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	32 1N 13E	10/05/81	127	6.8
Prairie Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$	36 1N 12E	10/05/81	1600	400
Prairie Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	5 10N 10W	10/05/81	694	150
Bogue Homo	NW $\frac{1}{4}$ NE $\frac{1}{4}$	21 10N 10W	10/22/80	210	21
Flowing Spring	NW $\frac{1}{4}$ NW $\frac{1}{4}$	23 10N 10W	10/14/81	36500	15000
Pachuta Creek	NE $\frac{1}{4}$ NW $\frac{1}{4}$	10 2N 13E	10/05/81	80	.2
JONES COUNTY, MS					
Plant Branch	NW $\frac{1}{4}$ NW $\frac{1}{4}$	35 10N 13W	09/21/81	7900	2700
Etehommo Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	34 10N 13W	10/06/81	72	14
Mill Creek	NW $\frac{1}{4}$ NE $\frac{1}{4}$	5 9N 13W	10/06/81	60	13
Big Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	4 9N 13W	09/21/81	67	13
Brady Creek	NE $\frac{1}{4}$ NW $\frac{1}{4}$	10 9N 13W	09/21/81	70	8.1
Big Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$	17 9N 13W	10/22/80	67	12
Mill Branch	SE $\frac{1}{4}$ NW $\frac{1}{4}$	16 7N 13W	10/06/81	46	6.4
Burr Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	34 7N 13W	10/06/81	18	3.2
Tallahalah Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	35 10N 11W	10/22/80	145	34
Big Reedy Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	33 10N 11W	10/06/81	263	14
Big Reedy Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	17 9N 11W	10/06/81	192	47

TABLE 9.---Continued

STREAM	SEC.	LOCATION		T.	R.	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
JONES COUNTY, MS (Continued)								
Tallahoma Creek	NW¼NE¼	10	9N	12W		10/06/81	90	10
Bogue Homo	NE¼NW¼	8	9N	10W		10/06/81	940	200
Bogue Homo	SE¼NW¼	20	9N	10W		10/06/81	654	160
Terrel Creek	NE¼NW¼	26	10N	10W		10/14/81	1200	390
Old Julie Branch	NE¼SW¼	21	10N	10W		10/06/81	2000	470
Little Bogue Homo	SW¼SW¼	35	10N	10W		10/06/81	161	33
Little Bogue Homo	SW¼SW¼	16	9N	10W		10/22/80	88	11
Reedy Creek	NE¼SE¼	36	10N	11W		10/06/81	320	84
Reedy Creek	SE¼NW¼	20	9N	10W		10/06/81	120	19
Brushy Creek	NE¼SW¼	27	9N	10W		10/06/81	80	12
WAYNE COUNTY, MS								
Tampa Creek	SW¼SE¼	2	9N	9W		09/24/81	590	170
Little Eucutta Creek	SW¼SE¼	2	9N	9W		09/24/81	2260	67
Little Eucutta Creek	SE¼NE¼	36	10N	9W		09/24/81	2860	83
Reedy Branch	NE¼NE¼	30	10N	7W		09/23/81	402	89
Clear Creek	NE¼SW¼	30	10N	7W		09/23/81	170	2.0
Carson Sand Creek	NE¼SW¼	34	10N	7W		09/22/81	180	30
Hortons Mill Creek	NW¼SW¼	13	9N	7W		09/22/81	770	180
Limestone Creek	SW¼NE¼	25	9N	7W		09/22/81	250	32
Yellow Creek	SE¼SW¼	15	9N	8W		09/23/81	165	43
Yellow Creek	SE¼SE¼	10	9N	8W		09/23/81	155	41
Dry Fork	NE¼SW¼	10	9N	8W		09/24/81	450	130
Dry Fork	NE¼SE¼	10	9N	8W		09/23/81	440	120

TABLE 9.--Continued

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
WAYNE COUNTY, MS (Continued)						
Yellow Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	18	9N	7W	540	150
Silver Creek	NE $\frac{1}{4}$ W $\frac{1}{4}$	25	9N	8W	135	35
Silver Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$	18	9N	7W	450	127
Yellow Creek	NW $\frac{1}{4}$ SE $\frac{1}{4}$	16	9N	7W	380	100
Dry Creek	NE $\frac{1}{4}$ W $\frac{1}{4}$	33	10N	6W	145	3.9
Dry Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$	12	9N	6W	710	180
Coldwater Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$	13	9N	6W	120	4.1
Turkey Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$	31	9N	5W	135	4.9
Buckatunna Creek	SW $\frac{1}{4}$ W $\frac{1}{4}$	29	7N	5W	75	9.0
Turkey Creek	NE $\frac{1}{4}$ W $\frac{1}{4}$	12	7N	8W	95	23

TABLE 10.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 5

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
CLARKE COUNTY, MS						
L.E. Alston	SE $\frac{1}{4}$ NE $\frac{1}{4}$	35 1N	17E	10/07/81	22	1.5
Jack Cooley	SE $\frac{1}{4}$ SW $\frac{1}{4}$	14 1N	14E	10/07/81	750	22
Chester Day	NW $\frac{1}{4}$ SW $\frac{1}{4}$	27 1N	17E	10/07/81	360	44
A. Dedwiler	NW $\frac{1}{4}$ NE $\frac{1}{4}$	1 1N	14E	10/15/81	500	1.7
B.J. Harrish	SW $\frac{1}{4}$ SE $\frac{1}{4}$	24 1N	17E	10/07/81	98	9.1
Mrs. N.W. Mason	SW $\frac{1}{4}$ NE $\frac{1}{4}$	14 1N	14E	10/07/81	740	20
Elsie McDaniel	SW $\frac{1}{4}$ SW $\frac{1}{4}$	11 1N	14E	10/04/81	360	18
Elsie McDaniel	SW $\frac{1}{4}$ SW $\frac{1}{4}$	11 1N	14E	10/04/81	700	22
Herman Rolison	NW $\frac{1}{4}$ NW $\frac{1}{4}$	9 1N	17E	10/07/81	284	2.4
W.C. Stallings	SW $\frac{1}{4}$ NW $\frac{1}{4}$	10 1N	14E	10/07/81	740	20
T.R. Sykes	SW $\frac{1}{4}$ SE $\frac{1}{4}$	5 2N	16E	09/25/81	133	3.1
T.R. Sykes	SW $\frac{1}{4}$ SE $\frac{1}{4}$	5 2N	16E	09/25/81	400	2.2
JASPER COUNTY, MS						
Virgil Ainsworth	SW $\frac{1}{4}$ NW $\frac{1}{4}$	26 10N	13W	09/21/81	30	6.1
Waneta Allen	SE $\frac{1}{4}$ SW $\frac{1}{4}$	14 10N	10W	10/14/81	208	6.6
Marsha Beard	SE $\frac{1}{4}$ NE $\frac{1}{4}$	35 1N	12E	10/15/81	208	54
T.A. Bishop	SW $\frac{1}{4}$ NW $\frac{1}{4}$	16 2N	11E	10/13/81	261	3.0
W.N. Bolton	SE $\frac{1}{4}$ SW $\frac{1}{4}$	31 2N	11E	10/13/81	49	4.4
Bernice Ellzie	SE $\frac{1}{4}$ SE $\frac{1}{4}$	21 10N	13W	10/13/81	28	.2
Dan Jones	NE $\frac{1}{4}$ SE $\frac{1}{4}$	3 1N	12E	10/14/81	309	6.6
Floyd Newell	NE $\frac{1}{4}$ NW $\frac{1}{4}$	18 10N	10W	10/15/81	72	5.7
Robert Patrick	SW $\frac{1}{4}$ NE $\frac{1}{4}$	13 10N	11W	10/14/81	71	9.3

TABLE 10.---Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)	
	SEC.	T. R.					
JASPER COUNTY, MS (Continued)							
Arthur Pugh	NE $\frac{1}{4}$ SW $\frac{1}{4}$	5 10N	10W	24	10/15/81	134	24
Lexie Pugh	SW $\frac{1}{4}$ NW $\frac{1}{4}$	16 2N	11E	55	10/13/81	143	6.6
W.T. Rowell	NE $\frac{1}{4}$ NE $\frac{1}{4}$	10 10N	11W	118	10/15/81	67	.1
R.B. Thornton	SE $\frac{1}{4}$ SE $\frac{1}{4}$	35 1N	12E	595	10/15/81	810	27
Robert R. Waldrup	NW $\frac{1}{4}$ SE $\frac{1}{4}$	13 1N	12E	495	10/15/81	645	33
JONES COUNTY, MS							
A.M. Black	SW $\frac{1}{4}$ SE $\frac{1}{4}$	35 10N	10W	125	10/14/81	90	2.2
B.L. Boykin	NW $\frac{1}{4}$ SE $\frac{1}{4}$	35 10N	13W	110	10/08/81	36	2.1
R.L. Caves	SW $\frac{1}{4}$ NE $\frac{1}{4}$	8 9N	11W	25	10/08/81	205	31
R.L. Caves	SW $\frac{1}{4}$ NW $\frac{1}{4}$	8 9N	11W	150	10/07/81	260	2.1
John Eubanks	NW $\frac{1}{4}$ NE $\frac{1}{4}$	12 9N	12W	30	10/08/81	231	22
N.P. Gandy	NE $\frac{1}{4}$ SE $\frac{1}{4}$	9 7N	13W	65	10/09/81	88	4.4
Kisia Graves	SW $\frac{1}{4}$ NW $\frac{1}{4}$	7 9N	13W	*	10/09/81	30	3.2
George Green, Sr.	SW $\frac{1}{4}$ NE $\frac{1}{4}$	9 9N	13W	60	10/09/81	25	2.7
George Green, Sr.	SW $\frac{1}{4}$ NE $\frac{1}{4}$	9 9N	13W	85	10/09/81	46	6.4
Elvan Hodge	SE $\frac{1}{4}$ SE $\frac{1}{4}$	14 9N	10W	*	10/14/81	41	1.1
Wright Hodge	SE $\frac{1}{4}$ SE $\frac{1}{4}$	14 9N	10W	28	10/14/81	175	15
Bernard Jefcoat	NE $\frac{1}{4}$ SW $\frac{1}{4}$	1 9N	13W	62	10/08/81	59	9.1
W.E. Jones	SW $\frac{1}{4}$ NE $\frac{1}{4}$	14 7N	13W	*	10/09/81	78	7.2
Claude Knight	NE $\frac{1}{4}$ NW $\frac{1}{4}$	5 9N	13W	65	10/09/81	26	2.6
Calvin McDonald	NE $\frac{1}{4}$ NW $\frac{1}{4}$	25 10N	10W	518	10/14/81	860	28
O.L. Parker	SW $\frac{1}{4}$ SW $\frac{1}{4}$	3 9N	13W	30	10/14/81	78	2.9
M. Rivers	NE $\frac{1}{4}$ SW $\frac{1}{4}$	16 8N	13W	30	10/09/81	268	12
Elsie Ruston	SE $\frac{1}{4}$ NW $\frac{1}{4}$	11 9N	10W	*	10/14/81	460	.6
Sandersville	SE $\frac{1}{4}$ SE $\frac{1}{4}$	30 10N	10W	*	10/14/81	138	3.2
Damon Smith	SW $\frac{1}{4}$ NW $\frac{1}{4}$	4 9N	11W	68	10/08/81	22	1.3

TABLE 10.---Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)	
	SEC.	T. R.					
JONES COUNTY, MS (Continued)							
Martha Smith	SE $\frac{1}{4}$ NW $\frac{1}{4}$	5 9N	11W	30	10/08/81	148	4.6
L.E. Welch	NW $\frac{1}{4}$ SE $\frac{1}{4}$	5 9N	13W	40	10/09/81	158	16
Francis Yarber	SE $\frac{1}{4}$ SW $\frac{1}{4}$	36 10N	10W	60	10/14/81	63	8.3
WAYNE COUNTY, MS							
John Bishop	NW $\frac{1}{4}$ SE $\frac{1}{4}$	6 8N	5W	100	09/22/81	464	5.3
Eddie Blackledge	SE $\frac{1}{4}$ NE $\frac{1}{4}$	22 9N	6W	62	09/22/81	20	1.9
Bond	NW $\frac{1}{4}$ SW $\frac{1}{4}$	20 8N	9W	*	09/24/81	95	1.0
C.L. Brown, Jr.	NE $\frac{1}{4}$ NW $\frac{1}{4}$	25 9N	8W	100	09/24/81	120	27
J.R. Buckalaw	NE $\frac{1}{4}$ SE $\frac{1}{4}$	36 10N	7W	*	09/22/81	14	3.0
J. Busby	NW $\frac{1}{4}$ NW $\frac{1}{4}$	27 8N	9W	254	09/24/81	28	2.9
Troy Daniels	NE $\frac{1}{4}$ NW $\frac{1}{4}$	35 10N	8W	42	09/23/81	16	2.2
Troy Daniels	NE $\frac{1}{4}$ NW $\frac{1}{4}$	35 10N	8W	54	09/23/81	52	2.0
R. Davis	NE $\frac{1}{4}$ SW $\frac{1}{4}$	18 10N	7W	320	09/23/81	770	26
W.C. Gavin	NE $\frac{1}{4}$ NW $\frac{1}{4}$	16 9N	7W	30	09/23/81	380	14
W.E. Giles	SE $\frac{1}{4}$ SW $\frac{1}{4}$	7 8N	5W	48	09/22/81	34	4.4
Karry Graham	SW $\frac{1}{4}$ SE $\frac{1}{4}$	6 9N	7W	59	09/23/81	136	36
Lamar Graham	NW $\frac{1}{4}$ SW $\frac{1}{4}$	5 9N	7W	162	09/23/81	870	180
Mrs. M. Graham	SE $\frac{1}{4}$ SW $\frac{1}{4}$	31 10N	8W	175	09/24/81	380	2.1
Robert L. Graham	SW $\frac{1}{4}$ SE $\frac{1}{4}$	6 9N	7W	80	09/23/81	310	16
Hudson	SE $\frac{1}{4}$ SE $\frac{1}{4}$	8 9N	5W	250	09/22/81	385	3.6
E.W. Huffman	NE $\frac{1}{4}$ NW $\frac{1}{4}$	7 8N	5W	38	09/22/81	78	4.9
E.W. Huffman	NE $\frac{1}{4}$ NW $\frac{1}{4}$	7 8N	5W	41	09/22/81	21	2.9
Mrs. Virgil Jones	NW $\frac{1}{4}$ NW $\frac{1}{4}$	13 10N	7W	235	09/22/81	980	38

TABLE 10.---Continued

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
WAYNE COUNTY, MS (Continued)						
George Pugh	NW $\frac{1}{4}$ SE $\frac{1}{4}$	8	9N	7W	66	09/23/81
O.R. Reynolds	SE $\frac{1}{4}$ NE $\frac{1}{4}$	12	9N	9W	244	09/24/81
Mrs. S. Strickland	SW $\frac{1}{4}$ SE $\frac{1}{4}$	22	7N	9W	30	09/24/81
Mrs. S. Strickland	SW $\frac{1}{4}$ SE $\frac{1}{4}$	22	7N	9W	100	09/24/81
G. Taylor	NW $\frac{1}{4}$ NE $\frac{1}{4}$	22	9N	6W	*	09/22/81
J. VanOrden	NE $\frac{1}{4}$ SW $\frac{1}{4}$	35	10N	9W	150	09/24/81
T.W. Waldron	NE $\frac{1}{4}$ SW $\frac{1}{4}$	2	9N	9W	30	09/24/81
Fred West	NW $\frac{1}{4}$ SW $\frac{1}{4}$	18	9N	7W	50	09/23/81
					34	.8
					415	2.3
					46	1.7
					93	24
					29	.2
					280	2.1
					57	6.1
					32	6.0

* Well depth unknown, but estimated to be less than 300 feet

TABLE 11.--LOCATION, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT SURFACE-WATER SITES IN AREA 6

STREAM	LOCATION			DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T.	R.			
FORREST COUNTY, MS						
Beaverdam Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$	4	1S	12W	10/20/81	15
Double Branch	SE $\frac{1}{4}$ NE $\frac{1}{4}$	17	1S	13W	10/20/81	130
Double Branch	SE $\frac{1}{4}$ W $\frac{1}{4}$	27	1S	13W	10/20/81	32
Billy Branch	SW $\frac{1}{4}$ SW $\frac{1}{4}$	18	1S	13W	10/20/81	34
Red Creek	SE $\frac{1}{4}$ W $\frac{1}{4}$	32	1S	13W	10/20/81	5.2
Mill Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$	15	1S	13W	10/20/81	26
Mill Creek	NE $\frac{1}{4}$ W $\frac{1}{4}$	27	1S	13W	10/20/81	17
Unnamed	NE $\frac{1}{4}$ W $\frac{1}{4}$	9	1S	13W	10/20/81	13
Pond	SW $\frac{1}{4}$ SE $\frac{1}{4}$	5	1S	13W	10/20/81	120
					6710	2300
PEARL RIVER COUNTY, MS						
Parker Creek	SE $\frac{1}{4}$ NE $\frac{1}{4}$	3	1S	14W	10/21/81	9.8
Parker Creek	NE $\frac{1}{4}$ SW $\frac{1}{4}$	11	1S	14W	10/20/81	76
Unnamed	NE $\frac{1}{4}$ NE $\frac{1}{4}$	2	1S	14W	10/20/81	5.9
Unnamed	NE $\frac{1}{4}$ SE $\frac{1}{4}$	11	1S	14W	10/20/81	180
Dry Creek	SE $\frac{1}{4}$ W $\frac{1}{4}$	13	1S	14W	10/20/81	54
Wash Creek	SW $\frac{1}{4}$ NE $\frac{1}{4}$	13	1S	14W	10/20/81	59

TABLE 12.--LOCATION, WELL DEPTH, SPECIFIC CONDUCTANCE, AND CHLORIDE CONCENTRATIONS
AT GROUND-WATER SITES IN AREA 6

OWNER	LOCATION		WELL DEPTH (ft)	DATE OF COLLECTION	SPECIFIC CONDUCTANCE (micromhos/cm)	CHLORIDE (mg/L)
	SEC.	T. R.				
FORREST COUNTY, MS						
Betty Archer	NE $\frac{1}{4}$ NE $\frac{1}{4}$	8 1S 13W	*	10/20/81	80	13
Carl Archer	NW $\frac{1}{4}$ SW $\frac{1}{4}$	3 1S 13W	50	10/21/81	23	2.0
Itta Bounds	SE $\frac{1}{4}$ NW $\frac{1}{4}$	17 1S 13W	40	10/21/81	21	2.1
W.C. Entekin	SW $\frac{1}{4}$ SW $\frac{1}{4}$	4 1S 13W	350	10/21/81	170	4.8
W.C. Entekin	SW $\frac{1}{4}$ NW $\frac{1}{4}$	9 1S 13W	28	10/21/81	59	1.0
Zellena Entekin	SE $\frac{1}{4}$ SW $\frac{1}{4}$	4 1S 13W	350	10/21/81	125	2.2
Ottis Lee	SW $\frac{1}{4}$ SE $\frac{1}{4}$	4 1S 13W	82	10/20/81	39	1.9
P.A. McCardle	NE $\frac{1}{4}$ NE $\frac{1}{4}$	18 1S 13W	32	10/20/81	68	9.6
Bernie Nall	SW $\frac{1}{4}$ SW $\frac{1}{4}$	18 1S 13W	40	10/20/81	31	3.6
Wesley Rawls	SE $\frac{1}{4}$ SW $\frac{1}{4}$	3 1S 13W	41	10/21/81	22	2.7
Eddie Scarborough	SE $\frac{1}{4}$ NW $\frac{1}{4}$	1 1S 13W	*	10/20/81	25	2.1
K.L. Smith	SW $\frac{1}{4}$ SE $\frac{1}{4}$	5 1S 13W	89	10/21/81	23	1.3
K.L. Smith, Jr.	SW $\frac{1}{4}$ SE $\frac{1}{4}$	5 1S 13W	*	10/21/81	36	15
Ophelia Walters	NE $\frac{1}{4}$ NW $\frac{1}{4}$	7 1S 13W	50	10/21/81	23	3.2
PEARL RIVER COUNTY, MS						
Ronald Boe	SW $\frac{1}{4}$ SE $\frac{1}{4}$	3 1S 14W	*	10/21/81	400	98
Tommy Brown	NW $\frac{1}{4}$ NE $\frac{1}{4}$	2 1S 14W	30	11/21/81	42	3.1
Mrs. H.L. Ladner	SW $\frac{1}{4}$ NE $\frac{1}{4}$	4 1S 14W	40	10/21/81	26	1.1
P. Ladner	SW $\frac{1}{4}$ NE $\frac{1}{4}$	2 1S 14W	51	10/21/81	32	3.8
Rocky McCadala	NE $\frac{1}{4}$ NW $\frac{1}{4}$	3 1S 14W	73	10/21/81	48	4.8
Glenis Merritt	SE $\frac{1}{4}$ NW $\frac{1}{4}$	2 1S 14W	67	10/20/81	32	2.0
J.B. Merritt	SE $\frac{1}{4}$ NW $\frac{1}{4}$	2 1S 14W	97	10/20/81	2160	680
A.W. Nall	SE $\frac{1}{4}$ NW $\frac{1}{4}$	2 1S 14W	52	10/20/81	410	110
James Owen	NE $\frac{1}{4}$ SW $\frac{1}{4}$	2 1S 14W	55	10/21/81	21	1.8

* Well depth unknown, but estimated to be less than 300 feet

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