

Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/6W-14Q1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, blue-----	28	155	
Shale, sandy-----	5	160	

## Well 13/6W-15J1

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Wash, gray-----	10	30	
Softpan, gray-----	10	40	
Wash, gray-----	20	60	
Sand and gravel-----	1	61	W.B.
Hardpan-----	4	65	

## Well 13/6W-16N1

Type of record: Driller's log.

Altitude: About 710 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Slate, blue-----	9	27	
Coal, trace-----	--	27	
Fire clay-----	3	30	
Slate, hard, gray-----	7	37	
Slate, blue-----	3	40	
Coal, trace-----	--	40	
Fire clay-----	3	43	
Slate, light-gray-----	5	48	
Slate, black-----	5	53	
Coal, trace-----	--	53	
Fire clay-----	2	55	
Slate, dark-blue-----	5	60	
Coal-----	2	62	W.B.
Fire clay-----	3	65	
Shale, sandy, blue-----	5	70	
Shale, sandy, gray-----	5	75	
Shale, dark-blue-----	15	90	
Sandstone, pasty, gray-----	25	115	
Shale, black-----	3	118	
Shale, sandy, gray-----	19	137	
Sandstone, gray-----	5	142	W.B.
Shale, blue-----	3	145	



Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-18R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Clay-----	2	72	W.B.
Shale, dark-gray-----	26	98	
Shale, sandy, gray-----	17	115	
Sandstone-----	40	155	
Shale, gray-----	8	163	

Well 13/6W-19H1

Type of record: Driller's log.

Altitude: About 700 feet.

Quaternary system:				
Recent and Pleistocene series:				
Surface-----	20	20	W.B.	
Hardpan-----	35	55		
Pan-----	35	90		
Pennsylvanian system:				
Lower series:				
Coal-----	1	91		
Clay-----	3	94		
Shale, gray-----	51	145		
Shale, sandy, gray-----	15	160		
Sandstone-----	5	165		
Shale, sandy, gray-----	29	194		
Sandstone-----	79	273		
Mississippian? system:				
Meramec? series:				
Limestone-----	1.5	274.5		

Well 13/6W-20B1

Type of record: Driller's log.

Altitude: About 705 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	12	30	
Mine opening-----	5	35	
Fire clay-----	5	40	
Slate, gray-----	6	46	
Slate, sandy, gray-----	5	51	
Coal-----	1	52	
Fire clay-----	8	60	
Shale, dark-----	12	72	
Shale, gray-----	6	78	
Shale, sandy, gray-----	14	92	
Shale, gray-----	3	95	
Sandstone, gray-----	4	99	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-20B1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale (?), soft, dark-blue-----	13	112	W. B.
Shale, gray-----	7	119	
Sandstone, pasty, gray-----	18	137	
Shale, gray-----	14	151	
Sandstone, gray-----	12	163	
Shale, gray-----	12	175	
Shale, sandy, light-blue-----	10	185	
Shale, gray-----	15	200	
Mississippian? system:			
Meramec? series:			
Limestone-----	--	200	

Well 13/6W-20D1

Type of record: Driller's log.

Altitude: About 705 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Pennsylvanian system:			
Lower series:			
Shale, dark-gray-----	17	35	W. B.
Sandstone-----	11.5	46.5	
Coal-----	3.5	50	
Clay-----	6	56	
Shale, dark-gray-----	23	79	
Coal-----	3	82	
Clay-----	5	87	
Shale, light-gray-----	5	92	
Shale, sandy, light-----	12	104	
Shale, dark-gray-----	45	149	
Sandstone-----	10	159	
Shale, dark-gray-----	5	164	
Sandstone-----	38	202	

Well 13/6W-20J1

Type of record: Driller's log.

Altitude: About 710 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan-----	23	41	
Pennsylvanian system:			
Lower series:			
Coal-----	1	42	
Clay-----	1	43	
Slate, blue-----	7	50	
Coal-----	3	53	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-20J1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Clay-----	1	54	
Slate, sandy, light-----	6	60	
Slate, blue-----	5	65	
Slate, sandy, light-gray-----	6	71	
Coal-----	3	74	W.B.
Fire clay-----	5	79	
Shale, dark-blue-----	23.5	102.5	

Well 13/6W-20P1

Type of record: Driller's log.

Altitude: About 705 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Hardpan, gray-----	6	22	
Clay-----	5	27	
Slate, sandy, gray-----	20	47	
Slate, blue-----	10	57	
Coal-----	3	60	
Fire clay-----	7	67	
Slate, sandy, gray-----	5	72	
Slate-----	4	76	
Coal-----	2.5	78.5	W.B.; "mine water"
Fire clay-----	3.5	82	
Shale, blue-----	38	120	
Shale, sandy, gray-----	4	124	
Shale, sandy, blue-----	12	136	
Shale, dark-blue-----	4	140	
Shale, sandy, dark-blue-----	10	150	
Shale, dark-gray-----	32	182	
Shale, sandy, gray-----	18	200	
Shale, sandy, blue-----	22	222	
Mississippian? system:			
Meramec? series:			
Limestone-----	3	225	

Well 13/6W-20P2

Type of record: Driller's log.

Altitude: About 700 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Pan-----	2	14	
Pennsylvanian system:			
Lower series:			
Limestone-----	6	20	
Slate, blue-----	5.5	25.5	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-20P2--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Coal-----	.5	26	
Clay-----	3.5	29.5	
Shale, sandy, gray-----	7.5	37	
Mine opening-----	2	39	
Shale-----	14	53	
Clay-----	4	57	
Shale, sandy, gray-----	14.5	71.5	
Shale, gray-----	40.5	112	
Coal-----	1.5	113.5	
Shale, sandy, gray-----	15.5	129	
Shale, dark-gray-----	15	144	
Shale, gray-----	6	150	
Shale, sandy, gray-----	73	223	

## Well 13/6W-22J1

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan-----	16	34	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	15	49	
Shale, white-----	3	52	
Shale, sandy, blue-----	11	63	
Sandstone, blue-----	12	75	
Shale, sandy, blue-----	14	89	
Shale, blue-----	3	92	
Shale, sandy, blue-----	14	106	
Shale, dark-----	3	109	
Shale, sandy, light-----	13	122	
Shale, sandy, blue-----	26	148	
Shale, sandy, light-----	8	156	
Shale, sandy, blue-----	5	161	
Limestone-----	1	162	

## Well 13/6W-22R1

Type of record: Driller's log.

Altitude: About 670 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan-----	36	56	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	5	61	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-22R1-Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Sandstone, gray-----	10	71	
Slate, black-----	6	77	
Shale, sandy, gray-----	8	85	
Shale, blue-----	8	93	

Well 13/6W-23J1			
Type of record: Driller's log.		Altitude: About 675 feet.	
Quaternary System:			
Recent and Pleistocene series:			
Surface-----	15	15	
Pennsylvanian system:			
Lower series:			
Sandstone-----	2	17	
Shale, sandy, dark-gray-----	6	23	
Shale, sandy, gray-----	19	42	
Shale, gray-----	3	45	
Shale, sandy, gray-----	7	52	

Well 13/6W-24M1			
Type of record: Driller's log.		Altitude: About 670 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Pan-----	11	29	
Pennsylvanian system:			
Lower series:			
Shale, gray-----	14	43	
Shale, sandy, gray-----	41	84	W.B.
Shale, gray-----	1	85	

Well 13/6W-24R1			
Type of record: Driller's log.		Altitude: About 690 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Pennsylvanian system:			
Lower series:			
Sandstone with clay bands, yellow-----	7	23	
Sandstone, gray-----	21	44	
Shale, sandy, blue-----	14	58	
Shale, blue-----	9	67	
Shale, sandy, blue-----	13	80	
Shale, dark-----	4	84	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-24R1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, light-----	8	92	
Shale, sandy, light-----	14	106	
Shale, dark-----	3	109	
Shale, light-----	3	112	
Shale, blue-----	12	124	
Shale, sandy, blue-----	11	135	
Sandstone, blue-----	2	137	

## Well 13/6W-26A1

Type of record: Driller's log.

Altitude: About 695 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Pennsylvanian system:			
Lower series:			
Sandstone, soft, yellow-----	5	22	
Sandstone, brown-----	15	37	
Sandstone, white-----	9	46	W.B.
Shale, blue-----	26	72	
Sandstone, gray, with shale bands-----	8	80	
Shale, sandy, blue-----	4	84	
Shale, dark-----	41	125	
Sandstone, hard, gray-----	20	145	
Mississippian system:			
Meramec? series:			
Limestone, shaly-----	5	150	
Limestone-----	1	151	

## Well 13/6W-26A2

Type of record: Driller's log.

Altitude: About 705 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Pennsylvanian system:			
Lower series:			
Sandstone, soft, yellow-----	5	17	
Clay, soft, yellow-----	8	25	
Shale, sandy, dark-----	9	34	
Sandstone, brown-----	3	37	
Sandstone yellow-----	3	40	
Sandstone, dark-----	7	47	W.B.
Sandstone, white-----	8	55	W.B.
Shale, blue-----	3	58	



Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-26A3

Type of record: Driller's log. Altitude: About 700 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system: Recent and Pleistocene series: Surface-----	18	18	
Pennsylvanian system: Lower series: Sandstone, yellow-----	6	24	
Sandstone, gray-----	10	34	
Sandstone, blue-----	6	40	W.B.

Well 13/6W-27M1

Type of record: Driller's log. Altitude: About 680 feet.

Quaternary system: Recent and Pleistocene series: Surface-----	15	15	
Pennsylvanian system: Lower series: Slate, blue-----	2	17	
Clay-----	2	19	
Sandstone, light-----	9	28	
Coal-----	3	31	W.B.
Clay-----	3	34	

Well 13/6W-27Mz

Type of record: Driller's log. Altitude: About 670 feet.

Quaternary system: Recent and Pleistocene series: Surface-----	11	11	
Hardpan-----	17	28	
Pennsylvanian system: Lower series: Limestone, hard-----	2	30	
Clay, soft, yellow-----	4	34	
Slate, blue-----	68	102	
Shale, sandy, dark-----	4	106	
Shale, sandy, blue-----	6	112	
Rock, hard, blue-----	2	114	Limestone (?)
Shale, sandy, black-----	10	124	
Shale, sandy, blue-----	10	134	
Shale, sandy with sandstone bands, gray-----	5	139	
Shale, gray-----	8	147	
Shale, dark-----	10	157	

Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/6W-27M4

Type of record: Driller's log. Altitude: About 675 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Clay-----	6	26	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	70	96	
Rock, hard, blue-----	3	99	Limestone(?)
Shale, dark-----	13	112	

## Well 13/6W-27M5

Type of record: Driller's log. Altitude: About 670 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Hardpan-----	11	27	
Pennsylvanian system:			
Lower series:			
Slate, soft-----	7	34	
Slate, hard, blue-----	60	94	
Shale, sandy, light-----	15	109	W.B.
Slate, dark-----	3	112	W.B.
Shale, sandy, blue-----	8	120	W.B.
Shale, dark-----	21	141	

## Well 13/6W-28A1

Type of record: Driller's log. Altitude: About 700 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Gravel, trace-----	--	16	
Hardpan, gray-----	21	37	
Gravel, dirty-----	1	38	W.B.
Softpan, gray-----	8	46	
Softpan, yellow-----	3	49	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	6	55	
Coal-----	3	58	
Fire clay-----	1	59	
Sandstone, gray, with some slate-----	7	66	W.B.
Coal, trace-----	--	66	
Fire clay-----	4	70	
Shale, blue-----	30	100	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-28D1		Altitude: About 690 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Hardpan-----	10	23	
Softpan-----	30	53	
Sand, dirty, and some gravel----	8	61	
Wash-----	2	63	
Softpan, yellow-----	8	71	
Pennsylvanian system:			
Lower series:			
Slate, gray-----	6	77	
Slate, soft, gray-----	5	82	
Shale, blue-----	45	127	
Coal-----	1	128	
Shale, sandy, gray-----	7	135	
Shale, sandy, blue-----	42	177	
Shale, sandy, light-----	10	187	
Shale, sandy, gray-----	16	203	
Sandstone, pasty-----	7	210	
Shale, blue-----	5	215	
Shale, sandy, light-----	3	218	
Sandstone, hard-----	5	223	
Mississippian? system:			
Meramec? series:			
Limestone-----	1	224	

Well 13/6W-28H1		Altitude: About 695 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Hardpan, gray-----	31	45	
Gravel-----	1	46	
Clay, yellow-----	6	52	
Pennsylvanian system:			
Lower series:			
Fire clay, white-----	1	53	

Well 13/6W-28J1		Altitude: About 675 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	40	55	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-28J1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, blue-----	77	132	
Slate, black-----	14	146	
Shale, gray-----	11	157	
Shale, dark-----	43	200	
Shale, gray-----	3	203	
Mississippian? system:			
Meramec? series:			
Limestone-----	1	204	

## Well 13/6W-28J2

Type of record: Driller's log.

Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Sand-----	1	16	
Pan-----	42	58	
Pennsylvanian system:			
Lower series:			
Rock-----	2	60	Limestone (?)
Shale, sandy, gray-----	2	62	
Coal-----	2	64	W.B.
Clay-----	1	65	

## Well 13/6W-28N1

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan, gray-----	12	30	
Softpan, dark-----	16	46	
Boulder-----	1	47	
Softpan, dark-----	14	61	
Sand and gravel, dirty-----	2	63	
Wash, dark-----	6	69	
Sand and gravel-----	2	71	W.B.
Softpan-----	15	86	
Sand-----	1	87	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	3	90	
Shale, sandy, blue with sand- stone bands-----	23	113	W.B.
Shale, sandy, gray-----	2	115	
Shale, black-----	10	125	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-28N2

Type of record: Driller's log.

Altitude: About 680 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Softpan, yellow-----	5	20	
Hardpan, gray-----	20	40	
Softpan, gray-----	27	67	
Wash and drift, gray, with sand streaks and some gravel-----	10	77	
Softpan-----	2	79	
Sand and gravel-----	11	90	W.B.

Well 13/6W-28N3

Type of record: Driller's log.

Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Hardpan, gray-----	12	31	
Softpan, dark-----	36	67	
Sand and gravel-----	3	70	W.B.

Well 13/6W-28P1

Type of record: Driller's log.

Altitude: About 685 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Pan-----	60	75	
Pennsylvanian system:			
Lower series:			
Shale, gray-----	6	81	
Coal-----	4	85	
Clay-----	5	90	
Shale, sandy, gray-----	10	100	
Sandstone-----	10	110	
Shale, sandy, gray-----	75	185	
Sandstone-----	33	218	W.B.
Shale, sandy, gray-----	2	220	

Well 13/6W-28P2

Type of record: Driller's log.

Altitude: About 685 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	60	75	
Sand and gravel, trace-----	--	75	W.B.
Hardpan, gray-----	1	76	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-28Q1

Type of record: Driller's log. Altitude: About 670 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Hardpan-----	26	39	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	1	40	
Coal, trace-----	--	40	
Fire clay-----	3	43	
Slate, gray-----	23	66	
Coal-----	3.5	69.5	
Fire clay-----	2.5	72	
Shale, sandy, gray-----	6	78	
Shale, sandy, white-----	5	83	
Shale, light-brown-----	49	132	
Shale, black-----	4	136	
Shale, light-----	5	141	
Shale, sandy-----	6	147	
Shale, dark-----	3	150	
Shale, sandy, light-----	3	153	
Shale, dark-brown-----	2	155	

Well 13/6W-28Q2

Type of record: Driller's log. Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Hardpan, gray-----	43	57	
Wash, yellow-----	6	63	
Fire clay-----	4	67	
Pennsylvanian system:			
Lower series:			
Sandstone, soft, brown-----	3	70	
Sandstone, light-----	37	107	
Sandstone, coarse, gray-----	10	117	W.B.
Shale, blue-----	1	118	

Well 13/6W-28R2

Type of record: Driller's log. Altitude: About 670 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Pan-----	27	45	
Pennsylvanian system:			
Lower series:			
Shale, gray-----	34	79	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-28R2--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Sandstone-----	16	95	W.B.
Shale, gray-----	1	96	

Well 13/6W-29B1

Type of record: Driller's log.

Altitude: About 710 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Pennsylvanian system:			
Lower series:			
Limestone-----	7	23	
Shale, sandy, gray-----	9	32	
Sandstone-----	5	37	
Shale, sandy, gray-----	16	53	
Coal-----	2	55	
Clay-----	1	56	
Shale, sandy, gray-----	8	64	
Coal-----	1	65	
Clay-----	9	74	
Shale, gray-----	3	77	
Shale, sandy, gray-----	3	80	
Sandstone-----	7	87	
Shale, sandy, gray-----	3	90	
Shale, gray-----	15	105	
Coal-----	2	107	
Clay-----	.5	107.5	
Shale, sandy, gray-----	1.5	109	
Sandstone-----	11	120	
Shale, sandy, gray-----	5	125	
Coal-----	.5	125.5	
Clay-----	1.5	127	
Shale, sandy, gray-----	3	130	
Shale, dark-gray-----	10	140	
Sandstone-----	4	144	
Shale, sandy, gray-----	21	165	

Well 13/6W-29E1

Type of record: Driller's log.

Altitude: About 685 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Pennsylvanian system:			
Lower series:			
Sandstone-----	3	17	
Shale, gray-----	12	29	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-29E1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Sandstone-----	5	34	
Shale, sandy, gray-----	13	47	
Mine opening-----	5	52	
Clay-----	5	57	
White top-----	6	63	
Shale, sandy, gray-----	4	67	
Sandstone-----	3	70	
Shale, gray-----	11	81	
Mine opening-----	4	85	W. B.
Clay-----	4	89	
Sandstone-----	6	95	
Shale, light-gray-----	9	104	
Shale, sandy, gray-----	25	129	
Sandstone-----	2	131	
Shale, gray-----	12	143	
Limestone-----	2	145	
Shale, sandy, gray-----	23	168	
Limestone-----	.5	168.5	
Shale, gray-----	16.5	185	
Shale, sandy, gray-----	11	196	
Shale, gray-----	5	201	
Shale, sandy, gray-----	47	248	

## Well 13/6W-29E2

Type of record: Driller's log.

Altitude: About 695 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan-----	6	21	
Pennsylvanian system:			
Lower series:			
Limestone-----	1.5	22.5	
Shale, gray-----	22.5	45	
Coal-----	.5	45.5	
Shale, dark-----	2.5	48	
Shale, sandy, light-----	4	52	

## Well 13/6W-29J1

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	8	23	
Softpan, yellow-----	9	32	



Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-29J1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Slate, blue-----	3	35	
Coal-----	2	37	W.B.
Fire clay, soft-----	3	40	
Slate, sandy, gray-----	13	53	
Slate, dark-----	3	56	
Coal, trace-----	--	56	W.B.
Fire clay, soft-----	3	59	
Slate, sandy, light-----	15	74	
Slate, gray-----	3	77	
Coal, trace-----	--	77	
Fire clay-----	2	79	
Shale, blue-----	6	85	

Well 13/6W-30H1

Type of record: Driller's log.

Altitude: About 690 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Softpan-----	5	15	
Pan, gravelly-----	5	20	
Hardpan-----	23	43	
Pennsylvanian system:			
Middle? series:			
Sandstone-----	5	48	
Lower series:			
Shale, dark-gray-----	5	53	
Coal-----	.5	53.5	
Clay-----	3.5	57	
Shale, gray-----	8	65	
Shale, light-gray-----	14	79	
Sandstone-----	3	82	
Shale, dark-gray-----	4	86	
Sandstone-----	59	145	W.B.

Well 13/6W-30H2

Type of record: Driller's log.

Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface; clay, soft, yellow----	10	10	
Hardpan, gray-----	12	22	
Softpan, gray-----	10	32	
Pea gravel-----	1	33	
Softpan, sandy, gray-----	19	52	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-30H2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, hard, dark-----	10	62	W.B.
Shale, soft, light-----	11	73	
Shale, hard, dark-----	3	76	
Sandstone, hard-----	7	83	
Shale, sandy, hard, light-----	7	90	
Shale, hard, gray-----	12	102	

Well 13/6W-30J1

Type of record: Driller's log. Altitude: About 670 feet.

Quaternary system:			
Recent and Pleistocene series:			
Softpan-----	25	25	W.B.
Hardpan, gray-----	7	32	
Softpan, dark-----	21	53	
Sand and gravel-----	2	55	

Well 13/6W-30M1

Type of record: Driller's log. Altitude: About 670 feet.

Quaternary system:				
Recent and Pleistocene series:				
Surface-----	20	20	W.B.	
Pennsylvanian system:				
Lower series:				
Shale, blue-----	3	23		
Shale, light-----	2	25		
Limestone-----	1	26		
Slate, blue-----	34	60		
Mine opening-----	8	68		
Clay, soft, white-----	14	82		
Slate, gray-----	20	102		
Coal-----	2	104		
Clay, sandy, hard-----	3	107		
Shale, light-----	15	122		
Sandstone-----	10	132		
Shale, sandy, white-----	6	138		
Shale, dark-blue-----	2	140		

Well 13/6W-31K1

Type of record: Driller's log. Altitude: About 665 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan-----	3	18	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-31K1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Slate, blue-----	15	50	
Slate, gray-----	15	65	
Coal-----	1	66	
Fire clay-----	4	70	
Shale, blue-----	20	90	
Shale, dark-----	30	120	
Shale, gray-----	55	175	
Sandstone-----	76	251	W.B.

Well 13/6W-31K3

Type of record: Driller's log.

Altitude: About 665 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	8	8	
Softpan-----	2	10	
Sand, dirty-----	12	22	
Gravel, fine-----	4	26	
Gravel, yellow-----	8	34	
Gravel, gray-----	5.5	39.5	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	.5	40	

Well 13/6W-31P1

Type of record: Driller's log.

Altitude: About 650 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Hardpan, gray-----	9	19	
Sand-----	3	22	W.B.
Gravel, blue-----	8	30	W.B.

Well 13/6W-31P2

Type of record: Driller's log.

Altitude: About 650 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface; clay-----	7	7	
Softpan, yellow-----	10	17	
Hardpan, gray-----	11	28	
Gravel, gray-----	1	29	
Hardpan, gray-----	2	31	
Gravel, gray-----	4	35	
Hardpan, gray-----	9	44	
Gravel, gray-----	10	54	W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-31R1

Type of record: Driller's log.

Altitude: About 675 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan-----	10	30	
Softpan-----	19	49	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	13	62	
Coal-----	.5	62.5	
Shale, sandy, gray-----	40.5	103	
Sandstone, hard-----	4	107	
Sandstone-----	32	139	W.B.
Shale, sandy, gray-----	1	140	

Well 13/6W-32H1

Type of record: Driller's log.

Altitude: About 660 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	2	16	
Coal-----	1	17	
Fire clay-----	2	19	
Slate, light-blue-----	12	31	
Coal-----	2	33	
Fire clay-----	1	34	
Slate, sandy, gray-----	9	43	
Coal-----	1	44	
Fire clay-----	1	45	
Clay rock, sandy-----	3	48	
Sandstone-----	5	53	
Shale, sandy, blue-----	13	66	
Sandstone, dark-gray and white-----	4	70	
Sandstone, white-----	15	85	W.B.

Well 13/6W-32H2

Type of record: Driller's log.

Altitude: About 675 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Pennsylvanian system:			
Lower series:			
Sandstone-----	12	27	
Slate, blue-----	13	40	
Coal-----	3	43	

Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/6W-32H2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Fire clay-----	5	48	
Slate, gray-----	7	55	
Coal-----	1	56	
Fire clay-----	3	59	
Slate, gray-----	21	80	
Fire clay-----	2	82	
Shale, blue-----	48	130	
Shale, sandy, blue-----	36	166	
Shale, sandy, white-----	10	176	
Shale, blue-----	26	202	
Shale, sandy, light-----	14	216	
Sandstone, gray-----	34	250	
Mississippian system:			
Meramec? series:			
Limestone, dark-----	6	256	
Limestone, white-----	5	261	

## Well 13/6W-32J1

Type of record: Driller's log.

Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	15	35	
Mine opening-----	--	35	
Slate, gray-----	15	50	
Shale, sandy, light-----	8	58	
Coal-----	1	59	
Fire clay-----	3	62	
Shale, sandy, light-----	5	67	
Coal, trace-----	--	67	
Shale, sandy, blue-----	13	80	
Shale, blue-----	30	110	
Sandstone-----	9	119	W.B.
Sandstone, hard, brown-----	2	121	

## Well 13/6W-32J3

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pennsylvanian system:			
Lower series:			
Sandstone-----	24	44	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-32J3--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Slate, blue-----	8.5	52.5	
Coal-----	1.5	54	
Slate, gray-----	26	80	
Coal-----	2	82	
Fire clay-----	2	84	
Slate, blue-----	8	92	
Coal-----	3	95	
Fire clay-----	4	99	
Sandstone, white-----	33	132	W.B.

## Well 13/6W-32J4

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Pennsylvanian system:			
Lower series:			
Sandstone, soft, gray-----	10	26	
Shale, light-----	4	30	
Slate, blue-----	8	38	
Coal-----	3.5	41.5	
Fire clay, light-----	3.5	45	
Slate, gray-----	13	58	
Coal-----	2	60	
Fire clay-----	2	62	
Slate, dark-----	7	69	
Coal-----	3	72	
Fire clay-----	4	76	
Shale, sandy, hard, light-----	31	107	
Sandstone, white-----	15	122	W.B.
Shale, sandy, blue-----	2	124	

## Well 13/6W-32N1

Type of record: Driller's log.

Altitude: About 680 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	15	30	
Softpan, gray-----	38	68	
Sand and gravel, gray-----	1	69	W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-32R1

Type of record: Driller's log. Altitude: About 680 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Softpan-----	15.5	25.5	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	12.5	38	
Shale, gray-----	7	45	

Well 13/6W-33D1

Type of record: Driller's log. Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and pan-----	14	14	
Hardpan-----	44	58	
Sand and pea gravel-----	2	60	W.B.

Well 13/6W-33H1

Type of record: Driller's log. Altitude: About 655 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	7	7	
Hardpan, gray-----	49	56	
Sand and gravel-----	1	57	W.B.

Well 13/6W-33H2

Type of record: Driller's log. Altitude: About 660 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Sand, yellow-----	15	35	
Sand and gravel, gray-----	4	39	
Hardpan, gray-----	5	44	
Sand and gravel-----	4	48	W.B.

Well 13/6W-33N1

Type of record: Driller's log. Altitude: About 675 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan-----	6	23	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	25	48	
Slate, gray-----	20	68	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-33N1-Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Coal-----	2	70	
Clay, blue-----	2	72	
Fire clay, white-----	8	80	
Shale, sandy, dark-----	12	92	
Shale, light-----	3	95	
Shale, sandy, light-----	4	99	
Shale, sandy, blue-----	4	103	
Sandstone, blue-----	14	117	W.B.
Shale, sandy, blue-----	3	120	
Shale, dark-brown-----	10	130	

Well 13/6W-33N3

Type of record: Driller's log.		Altitude: About 680 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan, gray-----	7	24	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	6	30	
Slate, gray-----	20	50	
Slate, blue-----	21	71	
Coal-----	2	73	
Fire clay-----	5	78	
Shale, sandy, light-----	7	85	
Shale, dark-----	4	89	

Well 13/6W-33Q1

Type of record: Driller's log.		Altitude: About 670 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface and pan-----	15	15	
Hardpan-----	9	24	
Pennsylvanian system:			
Lower series:			
Shale, dark-gray-----	5	29	
Coal and jack-----	.5	29.5	
Clay-----	1	30.5	
Shale, sandy, dark-gray-----	3.5	34	
Shale, sandy, gray-----	2	36	
Sandstone-----	31	67	W.B.



Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/6W-33R1

Type of record: Driller's log.

Altitude: About 562 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	25	25	
Sand and gravel-----	45	70	
Pennsylvanian system:			
Lower series:			
Shale, sandy-----	75	145	
Sandstone-----	15	160	
Mississippian system:			
Chester? series:			
Shale, dark-----	30	190	
Limestone, sandy-----	5	195	
Shale, dark-green-----	5	200	
Shale, pale-green-----	6	206	
Limestone, crystalline, sandy---	4	210	
Meramec? series:			
Limestone, oolitic-----	5	215	
Limestone, oolitic, white-----	5	220	
Limestone, dense, hard-----	5	225	
Dolomite, sucrose, pale-----	4	229	
Limestone, dense, tan-----	6	235	
Limestone, dense-----	10	245	
Limestone, dolomitic-----	17	262	
Limestone, permeable-----	10	272	
Limestone, hard, cherty-----	2	274	

## Well 13/6W-34N1

Type of record: Driller's log.

Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and pan-----	14	14	
Pennsylvanian system:			
Lower series:			
Sandstone-----	26	40	
Shale, sandy, dark-gray-----	52	92	
Sandstone-----	10	102	
Sandstone, hard-----	11	113	
Shale, sandy, gray-----	14	127	
Sandstone-----	13	140	W.B.

## Well 13/6W-35Q1

Type of record: Driller's log.

Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pan, sandy-----	55	75	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/6W-35Q1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, yellow-----	5	80	
Shale, sandy, soft, gray-----	38	118	
Coal-----	1	119	
Clay-----	1	120	
Shale, sandy, gray-----	60	180	W.B.

Well 13/6W-35Q2			
Type of record: Driller's log.		Altitude: About 640 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Sand, dirty-----	43	58	
Sand and gravel-----	6	64	W.B.

Well 13/7W- 1J1			
Type of record: Driller's log.		Altitude: About 685 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan, sandy-----	14	34	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	2	36	
Sandstone-----	22	58	
Shale, sandy, dark-gray-----	12	70	
Sandstone-----	25	95	
Shale, sandy, gray-----	10	105	
Sandstone-----	5	110	W.B.

Well 13/7W- 2N1			
Type of record: Driller's log.		Altitude: About 625 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pan-----	25	35	
Pennsylvanian system:			
Lower series:			
Coal-----	.5	35.5	
Clay-----	2.5	38	
Shale, gray-----	17	55	
Clay-----	4	59	
Shale, sandy, gray-----	13	72	
Shale, gray-----	6	78	
Coal-----	2	80	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W- 2N1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Clay-----	1.5	81.5	
Shale, sandy, gray-----	57.5	139	
Sandstone-----	48	187	W.B.
Well 13/7W- 2N2			
Type of record: Driller's log.		Altitude: About 635 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Open well-----	22	22	
Sand-----	4	26	
Pan-----	20	46	
Pennsylvanian system:			
Lower series:			
Coal, very-soft-----	1	47	
Clay-----	4	51	
Shale, sandy, gray-----	20	71	
Coal-----	4	75	
Clay-----	2	77	
Shale, sandy, gray-----	22	99	
Coal, soft-----	1	100	
Clay-----	2	102	
Shale, sandy, gray-----	17	119	
Sandstone-----	3	122	
Shale, sandy, gray-----	13	135	
Sandstone-----	15	150	W.B.
Well 13/7W- 3F1			
Type of record: Driller's log.		Altitude: About 620 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface soil-----	3	3	
Boulder clay (hardpan)-----	33	36	
Pennsylvanian system:			
Lower series:			
Limestone-----	10	46	
Shale, black-----	7	53	
Coal-----	3	56	
Fire clay-----	3	59	
Sandstone-----	2	61	
Shale, blue-----	17	78	
Coal-----	1.5	79.5	
Fire clay (rock)-----	5	84.5	
Fire clay-----	7.5	92	
Shale, gray-----	25	117	
Coal and bone coal-----	2	119	
Coal-----	2	121	

Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/7W-3P1

Type of record: Driller's log.

Altitude: About 575 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Drift, sandy-----	16	26	
Hardpan-----	6	32	
Pennsylvanian system:			
Lower series:			
Shale, light-----	12	44	
Shale, sandy, gray-----	16	60	

## Well 13/7W- 4N1

Type of record: Driller's log.

Altitude: About 570 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pennsylvanian system:			
Middle? series:			
Shale, black-----	2	12	
Shale, white-----	9.5	21.5	
Coal-----	1.3	22.8	
Shale, white-----	21.2	44	
Coal-----	1.2	45.2	
Shale, white-----	4.8	50	
Shale, blue-----	15	65	
Sandstone-----	10	75	
Lower series:			
Shale, gray-----	3	78	
Fire clay-----	7	85	
Shale, blue-----	25	110	
Sandstone-----	7	117	
Shale, gray-----	4	121	
Coal-----	4.2	125.2	
Fire clay-----	3	128.2	
Shale, blue-----	10.6	138.8	
Coal and shale-----	.4	139.2	
Coal-----	.6	139.8	
Fire clay-----	1	140.8	

## Well 13/7W- 4R1

Type of record: Driller's log.

Altitude: About 575 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Wash, gray-----	21	31	
Sand, coarse-----	4	35	W.B.
Sand and gravel-----	14	49	W.B.
Hardpan-----	3	52	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W- 4R1--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Fire clay-----	1	53	

Well 13/7W- 9R1

Type of record: Driller's log.		Altitude: About 600 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	5	5	
Pennsylvanian system:			
Middle? series:			
Sandstone-----	17	22	
Shale, gray-----	18.5	40.5	
Sandstone-----	10	50.5	
Shale-----	23.5	74	
Sandstone-----	2.2	76.2	
Lower? series:			
Coal-----	2	78.2	
Clay-----	1.6	79.8	
Shale, gray-----	15.7	95.5	
Shale, black-----	9	104.5	
Fire clay-----	2	106.5	

Well 13/7W-10C1

Type of record: Driller's log.		Altitude: About 630 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Sand-----	1	20	
Boulder clay-----	23	43	
Pennsylvanian system:			
Middle? series:			
Sandstone-----	40	83	
Lower? series:			
Coal-----	2.2	85.2	
Clay-----	2	87.2	
Shale, gray-----	15.8	103	
Shale, black-----	20	123	

Well 13/7W-10F1

Type of record: Driller's log.		Altitude: About 630 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Quicksand-----	2	17	
Boulder clay-----	19	36	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-10F1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle? series:			
Limestone-----	14	50	
Shale, black-----	1	51	
Coal-----	1.5	52.5	
Shale-----	.5	53	
Coal-----	.5	53.5	
Clay-----	6	59.5	
Shale, sandy-----	36	95.5	
Lower? series:			
Coal-----	2.3	97.8	
Clay-----	5.7	103.5	
Shale, light-----	3	106.5	
Shale, gray-----	15.5	122	
Coal-----	3.8	125.8	
Sandstone-----	1	126.8	

## Well 13/7W-10J1

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Boulder clay-----	4	19	
Sand-----	4	23	
Boulder clay-----	57.5	80.5	
Pennsylvanian system:			
Middle? series:			
Shale, sandy-----	4	84.5	
Coal-----	2.4	86.9	
Clay-----	2.6	89.5	
Shale, gray-----	7.5	97	
Lower? series:			
Shale and coal-----	1.2	98.2	
Clay-----	1.8	100	
Coal-----	3	103	
Clay, soft-----	1	104	
Shale, clayey-----	6	110	
Sandstone-----	7	117	
Shale, gray-----	4.2	121.2	
Coal-----	2.6	123.8	
Clay, dark-----	2	125.8	
Coal, soft-----	4	126.2	
Shale, black-----	2.6	128.8	
Coal-----	1	129.8	
Clay-----	1	130.8	
Shale, brown-----	2.4	133.2	
Coal (mixed)-----	.6	133.8	
Clay-----	1	134.8	
Shale, light-----	5.7	140.5	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-10K1		Altitude: About 630 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Sand-----	12	28	
Boulder clay-----	34.5	62.5	
Pennsylvanian system:			
Middle? series:			
Shale, soft, blue-----	2.5	65	
Coal-----	2.3	67.3	
Clay-----	2	69.3	
Shale, light-----	5.7	75	
Lower? series:			
Shale, gray-----	12.5	87.5	
Coal-----	4	91.5	
Clay-----	2	93.5	
Shale, clayey-----	3.5	97	
Shale, gray-----	18	115	
Coal-----	1.9	116.9	
Coal, bone-----	1.2	118.1	
Clay, hard-----	.9	119	

Well 13/7W-10M1		Altitude: About 630 feet.	
Type of record: Driller's log.			
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Sand-----	10	24	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	3	27	
Limestone-----	1	28	
Sandstone-----	11	39	
Shale, gray-----	32.5	71.5	
Sandstone, white-----	10	81.5	
Sandstone-----	3.3	84.8	
Lower? series:			
Clay-----	2.2	87	
Shale, blue-----	18.5	105.5	
Coal-----	2.5	108	
Shale, blue-----	1.9	109.9	
Coal-----	1.4	111.3	
Fire clay-----	3.6	114.9	
Shale, gray-----	12.8	127.7	
Shale, blue-----	4	131.7	
Sandstone-----	5	136.7	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-10Q1

Type of record: Driller's log.

Altitude: About 630 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Boulder clay-----	29	45	
Sand-----	4	49	
Boulder clay-----	17	66	
Pennsylvanian system:			
Middle? series:			
Shale, blue-----	14	80	
Coal-----	2.5	82.5	
Clay-----	1	83.5	
Shale, gray-----	8	91.5	
Lower? series:			
Smut and shale-----	1.5	93	
Clay-----	.5	93.5	
Rock-----	5.5	99	Limestone (?)
Shale, gray-----	23	122	
Coal-----	4.8	126.8	
Shale-----	12.2	139	
Shale, blue-----	41	180	

Well 13/7W-10R1

Type of record: Driller's log.

Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Pan, sandy-----	39	51	
Pennsylvanian system:			
Lower series:			
Shale, gray-----	2.5	53.5	
Coal-----	.5	54	
Coal, very-soft-----	.5	54.5	
Coal-----	2	65.5	
Clay-----	2.5	59	
Smut-----	1	60	
Clay-----	3	63	
Sandstone-----	1	64	

Well 13/7W-11D1

Type of record: Driller's log.

Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	2	2	
Boulder clay-----	2	4	
Conglomerate (gravel?)-----	18	22	



Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-11D1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, sandy-----	12	34	
Shale, black-----	1.1	35.1	
Shale, gray-----	31	66.1	
Coal-----	5.9	72	
Clay-----	.3	72.3	

Well 13/7W-11E1			
Type of record: Driller's log.		Altitude: About 635 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	4.5	4.5	
Sand and muck-----	13.5	18	
Sand and boulder clay-----	14	32	
Boulder clay, rough-----	7	39	
Coal-----	4	43	
Clay-----	5	48	
Sandstone, soft-----	3	51	
Shale, blue-----	17.5	68.5	
Coal-----	1.8	70.3	
Clay-----	13.2	83.5	
Shale, gray-----	2.5	86	
Coal-----	2.3	88.3	
Coal, bone-----	1.4	89.7	
Clay-----	.3	90	

Well 13/7W-12A1			
Type of record: Driller's log.		Altitude: About 680 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan, sandy-----	27	47	
Pennsylvanian system:			
Lower series:			
Shale, gray-----	33	80	
Shale, sandy, gray-----	30	110	
Shale, gray-----	10	120	
Shale, sandy, gray-----	5	125	
Shale, gray-----	5	130	
Shale, sandy, gray-----	6	136	
Sandstone-----	19	155	W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-12K1

Type of record: Driller's log. Altitude: About 665 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface, sandy-----	15	15	
Pan, sandy-----	90	105	
Sand and gravel-----	2	107	W.B.

Well 13/7W-13P1

Type of record: Driller's log. Altitude: About 660 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Open well-----	35	35	
Hardpan-----	14.5	49.5	
Gravel, dirty-----	.5	50	
Hardpan, gray-----	34	84	
Pennsylvanian system:			
Lower series:			
Clay, light-----	8	92	
Shale, blue-----	103	195	
Shale, sandy, light-blue-----	2	197	
Sandstone, hard-----	1	198	
Shale, sandy, blue-----	2	200	
Sandstone, gray-----	12	212	W.B.
Shale, sandy, blue-----	3	215	
Sandstone, gray-----	1	216	

Well 13/7W-15A1

Type of record: Driller's log. Altitude: About 610 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Sand-----	14	26	
Boulder clay-----	8	34	
Pennsylvanian system:			
Lower series:			
Shale, sandy-----	5	39	
Coal-----	3.6	42.6	
Clay-----	1.4	44	
Shale, light-----	3	47	
Shale, gray-----	13	60	
Clay-----	1	61	

Well 13/7W-15D1

Type of record: Driller's log. Altitude: About 645 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	75	75	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-15D1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Clay, white-----	6	81	
Slate, blue-----	12	93	
Coal-----	1	94	
Fire clay-----	5	99	
Limestone, blue-----	3	102	W.B.
Slate-----	1	103	

Well 13/7W-15N1

Type of record: Driller's log.

Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	24	24	
Hardpan-----	52	76	
Pennsylvanian system:			
Middle? series:			
Slate, blue-----	6	82	
White top-----	7	89	
Lower series:			
Slate, blue-----	8	97	
Slate, sandy, gray-----	18	115	
Slate blue-----	7	122	
Coal-----	4	126	W.B.
Fire clay-----	5	131	
Shale, blue-----	3	134	

Well 13/7W-16C1

Type of record: Driller's log.

Altitude: About 615 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	6	6	
Sand-----	15	21	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	6	27	
Coal-----	4	31	
Fire clay-----	4	35	
Shale-----	3	38	
Sandstone-----	1	39	
Shale, blue-----	2.5	41.5	
Clay-----	9	50.5	
Shale, blue-----	2	52.5	
Clay-----	8.5	61	
Sandstone-----	3	64	
Shale, gray-----	13	77	
Shale, blue-----	13.7	90.7	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-16C1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower? series:			
Coal-----	3	93.7	
Shale-----	1.6	95.3	
Coal-----	2.6	97.9	
Shale-----	.2	98.1	
Sandstone-----	3.6	101.7	
Shale, gray-----	35.3	137	

Well 13/7W-16E1

Type of record: Driller's log.

Altitude: About 610 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Sand-----	9	22	
Boulder clay-----	22	44	
Shale-----	2	46	"Drift"
Clay-----	4	50	Do
Shale-----	1.5	51.5	Do
Pennsylvanian system:			
Middle series:			
Coal-----	2.5	54	
Fire clay-----	7.5	61.5	
Shale, blue-----	3	64.5	
Clay-----	6.4	70.9	
Sandstone-----	1	71.9	
Flint rock (limestone)-----	1.3	73.2	
Clay-----	4.3	77.5	
Sandstone-----	3	80.5	
Clay-----	7.5	88	
Shale, blue-----	6.3	94.3	
Lower? series:			
Coal-----	.5	94.8	
Shale-----	3.3	98.1	
Clay-----	1.8	99.9	
Limestone-----	4.2	104.1	
Shale, blue-----	7	111.1	
Clay-----	1.1	112.2	
Shale, gray-----	20.7	132.9	

Well 13/7W-16Q1

Type of record: Driller's log.

Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pan-----	67	77	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-16Q1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, gray-----	1	78	
Coal-----	1	79	
Clay-----	2	81	
Shale, gray-----	3	84	
Coal-----	1	85	
Shale, gray-----	20	105	
Coal-----	3	108	
Clay-----	1	109	
Shale, sandy, gray-----	24	133	
Lower? series:			
Coal-----	2	135	
Clay-----	4	139	
Shale, sandy, gray-----	15	154	
Coal-----	3	157	
Clay-----	1	158	
Shale, sandy, gray-----	22	180	
Sandstone-----	50	230	W.B.

## Well 13/7W-22E1

Type of record: Driller's log.	Altitude: About 640 feet.	
Record missing-----	125.5	125.5
Pennsylvanian system:		
Lower series:		
Fire clay-----	5.5	131
Shale, light-----	8	139
Shale, dark-----	15	154
Shale, light-----	5	159
Sandstone-----	4	163
Sandstone, dark-----	7	170
Shale, limy, soft-----	10	180
Shale, sandy-----	20	200
Shale, sandy, blue-----	5	205
Sandstone, white-----	108.5	313.5
		W.B.

## Well 13/7W-23C1

Type of record: Driller's log.	Altitude: About 640 feet.	
Quaternary system:		
Recent and Pleistocene series:		
Surface-----	15	15
Pan, sandy-----	76	91
Clay-----	3.5	94.5
Pennsylvanian system:		
Lower series:		
Shale, sandy-----	17.5	112
Sandstone-----	13	125
		W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/7W-23H1

Type of record: Driller's log.

Altitude: About 670 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Softpan-----	5	18	
Hardpan-----	16	34	
Sand-----	4	38	
Sand and pan-----	26	64	
Pennsylvanian system:			
Lower series:			
Sandstone-----	36	100	W.B.
Shale, sandy-----	8	108	
Shale, sandy, gray-----	2	110	
Sandstone-----	38	148	W.B.
Shale, gray-----	2	150	
Sandstone-----	8	158	
Shale, gray-----	2	160	

## Well 13/7W-25F1

Type of record: Driller's log.

Altitude: About 650 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Pennsylvanian system:			
Middle? series:			
Slate, blue-----	4	22	
Sandstone, pasty-----	20	42	
Lower series:			
Slate, gray-----	7	49	
Coal-----	1	50	
Slate, gray-----	12	62	
Slate, blue-----	5	67	
Clay-----	2	69	
Slate, sandy, gray-----	4.5	73.5	
Mine opening-----	5	78.5	

## Well 13/7W-26E1

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pan-----	32	52	
Sand-----	1	53	W.B.
Pan-----	2	55	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-26P1

Type of record: Driller's log. Altitude: About 640 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan, gray-----	32	50	
Sand and gravel, fine-----	1	51	
Softpan, gray-----	34	85	
Wash-----	14	99	
Pennsylvanian system:			
Lower series:			
Shale, sandy, hard, light-----	1	100	
Sandstone, white-----	16	116	W.B.
Shale, white-----	4	120	
Shale, sandy, blue-----	4	124	

Well 13/7W-26R1

Type of record: Driller's log. Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pan-----	5	25	
Pennsylvanian system:			
Middle series:			
Sandstone-----	25	50	
Lower series:			
Shale, gray-----	2	52	
Coal-----	2	54	
Clay-----	2	56	
Shale, sandy, gray-----	14	70	
Coal-----	2	72	
Clay-----	2	74	
Shale, sandy, gray-----	1	75	
Sandstone-----	20	95	
Shale, sandy, gray-----	19	114	
Coal-----	4	118	
Clay-----	1	119	
Sandstone-----	47	166	W.B.
Shale, gray-----	8	174	
Shale, sandy, gray-----	4	178	
Sandstone-----	3	181	

Well 13/7W-27F1

Type of record: Driller's log. Altitude: About 575 feet.

Quaternary system:			
Recent and Pleistocene series:			
Dug well-----	24	24	
Pan, soft, gray-----	16	40	
Black formation, soft, smooth---	1	41	Clay (?)

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-27F1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, soft, light-----	5	46	
Shale, sandy, hard, dark-----	14	60	
Coal, hard, black-----	3.5	63.5	
Shale, hard, gray-----	5.5	69	
Shale, sandy, hard, dark-----	14	83	
Sandstone, hard, dark-----	17	100	W.B.
Sandstone, hard, light-----	16	116	W.B.

Well 13/7W-27G1

Type of record: Driller's log.		Altitude: About 620 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Hardpan, soft, yellow-----	80	80	
Sand, light-----	3	83	W.B.
Gravel-----	2	85	W.B.

Well 13/7W-27G2

Type of record: Driller's log.		Altitude: About 600 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface; clay, soft, yellow----	18	18	
Hardpan, gray-----	26	44	
Softpan, gray-----	20	64	
Sand, fine, dark-----	10	74	W.B.
Sand, fine gray-----	11	85	W.B.
Gravel, coarse, gray-----	5	90	W.B.

Well 13/7W-27H1

Type of record: Driller's log.		Altitude: About 630 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan, sandy-----	10	27	
Sand-----	4	31	
Hardpan-----	45	76	
Gravel-----	6	82	W.B.

Well 13/7W-27R1

Type of record: Driller's log.		Altitude: About 630 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Hardpan-----	10	10	
Hardpan-----	100	110	
Sand, fine, dirty, and wash----	15	125	





Table 2.--Selected well logs, Clay County, Indiana--Continued

## Well 13/7W-34H1

Type of record: Driller's log. Altitude: About 625 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	28	28	
Muck, soft, gray-----	21.5	49.5	
Gravel-----	.5	50	W.B.

## Well 13/7W-34H2

Type of record: Driller's log. Altitude: About 635 feet.

Quaternary system:			
Recent and Pleistocene series:			
Dug well-----	35	35	
Drift, yellow-----	17	52	
Pan-----	16	68	
Pennsylvanian system:			
Middle? series:			
Shale, sandy, gray-----	15	83	
Sandstone-----	2	85	
Lower? series:			
Shale, sandy, gray-----	25	110	
Shale, gray-----	4	114	
Coal-----	2	116	
Clay-----	1	117	
Shale, gray-----	3	120	
Shale, sandy, gray-----	4	124	
Sandstone-----	86	210	W.B.
Shale, gray-----	5	215	

## Well 13/7W-34J1

Type of record: Driller's log. Altitude: About 635 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan, gray-----	32	50	
Pennsylvanian system:			
Middle? series:			
Slate, light-blue-----	10	60	
Slate, sandy, gray-----	28	88	
Lower series:			
Coal-----	2	90	
Fire clay?-----	5	95	
Shale, light-blue-----	5	100	
Clay, white-----	3	103	
Shale, sandy, gray-----	37	140	
Sandstone, gray-----	20	160	W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-34K1

Type of record: Driller's log. Altitude: About 620 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pan-----	34	54	
Pennsylvanian system:			
Middle series:			
White top-----	6	60	
Shale, dark-gray-----	5	65	
Sandstone-----	1	66	
Lower series:			
Shale, dark-gray-----	18	84	
Shale, gray-----	13	97	
Coal-----	2	99	
Clay-----	2	101	
Shale, sandy-----	14	115	
Sandstone-----	20	135	
Shale, sandy-----	30	165	
Sandstone-----	25	190	W.B.

Well 13/7W-34R1

Type of record: Driller's log. Altitude: About 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Hardpan-----	24	40	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	1	41	
Sandstone-----	13	54	W.B.
Shale, gray-----	1	55	
Sandstone-----	20	75	W.B.
Lower? series:			
Shale, sandy, gray-----	2	77	

Well 13/7W-35B1

Type of record: Driller's log. Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan, gray-----	14	34	
Pennsylvanian system:			
Middle? series:			
Sandstone, pasty, light-----	21	55	
Lower series:			
Coal, trace-----	--	55	
Slate, gray-----	4	59	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-35B1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Coal-----	3	62	
Fire clay, soft-----	3	65	
Slate, sandy, gray-----	19	84	
Coal, trace-----	--	84	W.B.
Fire clay, soft-----	6	90	
Shale, gray-----	1	91	

Well 13/7W-35C1

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan-----	15	35	
Sand-----	10	45	
Softpan-----	3	48	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	10	58	
Coal-----	1	59	
Clay-----	4	63	
Shale, sandy, gray-----	21	84	
Coal-----	1	85	W.B.

Well 13/7W-35C2

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan-----	15	35	
Sand-----	10	45	
Softpan-----	6	51	
Pennsylvanian system:			
Lower series:			
Coal-----	1	52	
Clay-----	4	56	
Shale, sandy, gray-----	7	63	
Coal-----	1	64	
Clay-----	2	66	
Shale, sandy, gray-----	29	95	
Sandstone-----	25	120	W.B.

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-35C3

Type of record: Driller's log.

Altitude: About 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	W.B.
Hardpan-----	9	24	
Sand and gravel-----	1	25	
Hardpan, gray-----	23	48	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	10	58	

Well 13/7W-35C4

Type of record: Driller's log.

Altitude: About 630 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan-----	18	35	
Sand, dirty-----	2	37	
Hardpan, gray-----	14	51	
Pennsylvanian system:			
Lower series:			
Slate, gray-----	7	58	W.B.
Fire clay-----	5	63	
Slate, dark-gray-----	5	68	
Slate, gray-----	10	78	
Fire clay, hard-----	3	81	
Shale, sandy, gray-----	11	92	
Shale, dark-gray-----	11	103	
Shale, sandy, gray-----	5	108	
Slate, dark-----	4	112	
Coal, trace-----	--	112	
Fire clay, hard-----	2	114	
Shale, sandy, gray-----	12	126	
Sandstone, hard, gray-----	10	136	
Sandstone, white-----	10	146	
Sandstone, blue-----	10	156	
Shale, sandy, blue-----	4	160	

Well 13/7W-35E1

Type of record: Driller's log.

Altitude: About 600 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	4	4	
Sand, red-----	23	27	
Pennsylvanian system:			
Lower series:			
Shale-----	23	50	W.B.
Coal-----	3	53	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-35E1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Fire clay-----	13	66	
Shale, black-----	9	75	

Well 13/7W-35H1

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Hardpan, gray-----	29	42	
Clay-----	4	46	
Pennsylvanian system:			
Lower series:			
Shale, sandy, white-----	19	65	
Slate, sandy, gray-----	20	85	
Coal-----	2	87	
Fire clay-----	6	93	
Shale, sandy, light-----	3	96	
Shale, sandy, blue-----	7	103	
Shale, blue-----	4	107	
Shale, sandy, light-blue-----	3	110	
Shale, sandy, blue-----	17	127	
Shale, sandy, light-blue-----	13	140	
Sandstone, very-hard-----	--	140	
Sandstone, gray-----	16	156	
Shale, dark-blue-----	24	180	
Shale, sandy, dark-blue-----	30	210	
Shale, dark-blue-----	14	224	
Sandstone, blue-----	53	277	W.B.

Well 13/7W-35R1

Type of record: Driller's log.

Altitude: About 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Sand and gravel, dirty, yellow-	14	29	
Softpan, dark-----	9	38	
Pennsylvanian system:			
Lower series:			
Fire clay-----	6	44	
Limestone, hard, trace-----	--	44	
Slate, blue-----	26	70	
Fire clay-----	3	73	
Slate, gray-----	51	124	
Coal, trace-----	--	124	
Fire clay-----	3	127	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-35R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Shale, gray-----	4	131	
Shale, sandy, blue-----	9	140	
Shale, sandy, light-----	10	150	
Shale, blue-----	4	154	
Coal, trace-----	--	154	
Fire clay-----	5	159	
Shale, sandy, gray-----	10	169	
Shale, sandy, blue-----	5	174	
Sandstone, pasty-----	5	179	
Shale, dark-blue-----	77	256	
Shale, sandy, blue-----	16	272	
Sandstone, blue-----	5	277	W.B.
Sandstone, dark-----	3	280	W.B.

Well 13/7W-35R3

Type of record: Driller's log.		Altitude: About 620 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Record missing-----	10	10	
Sand and gravel-----	13	23	
Pan and gravel-----	3	26	
Sand-----	1.5	27.5	W.B.
Sand and gravel-----	12.5	40	W.B.
Hardpan-----	14	54	
Pennsylvanian system:			
Lower series:			
Shale, sandy, gray-----	38	92	
Coal-----	2.5	94.5	
Shale, sandy, light-----	7.5	102	

Well 13/7W-35R5

Type of record: Driller's log.		Altitude: About 620 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Sand and gravel, yellow-----	9	19	
Softpan, gray-----	1	20	
Sand and gravel, gray-----	2	22	W.B.
Sand, fine, gray-----	2	24	W.B.
Gravel, gray-----	9	33	W.B.
Hardpan, gray-----	15	48	
Pennsylvanian system:			
Lower series:			
Slate, gray-----	42	90	
Coal-----	1	91	
Fire clay, sandy, hard-----	9	100	

Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-36N2

Type of record: Driller's log.

Altitude: About 625 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay-----	19	19	
Gravel, yellow-----	12	31	
Hardpan-----	6	37	
Gravel, gray-----	17	54	W.B.
Softpan-----	6	60	
Pennsylvanian system:			
Lower series:			
Fire clay-----	5	65	
Slate, blue-----	65	120	

Well 13/7W-36N5

Type of record: Driller's log.

Altitude: About 630 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface; clay-----	15	15	
Softpan-----	3	18	
Sand and muck, dirty-----	3	21	
Sand, yellow, and fine gravel--	13	34	W.B.
Sand, fine, yellow-----	2	36	W.B.
Sand, fine, gray-----	2	38	W.B.
Gravel, gray-----	13	51	W.B.
Hardpan, gray-----	.5	51.5	
Sand, fine, dirty-----	6.5	58	
Softpan, gray-----	2	60	
Pennsylvanian system:			
Lower series:			
Slate, blue-----	8	68	
Slate, gray-----	31	99	
Coal-----	1	100	
Clay-----	2	102	
Shale, blue-----	31	133	

Well 13/7W-36N6

Type of record: Driller's log.

Altitude: About 630 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Sand and gravel, dirty, yellow-	10	29	
Sand and gravel, yellow-----	8	37	W.B.
Sand and gravel, gray-----	4	41	W.B.
Sand-----	2	43	W.B.
Sand and gravel, gray-----	7	50	W.B.
Sand-----	2.5	52.5	W.B.
Sand and gravel, gray-----	1.5	54	W.B.
Hardpan-----	6	60	



Table 2.--Selected well logs, Clay County, Indiana--Continued

Well 13/7W-36N6--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower series:			
Slate, dark-blue-----	8	68	
Coal, trace-----	--	68	
Fire clay-----	3	71	
Slate, sandy, gray-----	27	98	
Coal-----	1	99	
Fire clay-----	3	102	
Shale, sandy, light-----	15	117	
Slate, blue-----	18	135	

Well 13/7W-36N7

Type of record: Driller's log.

Altitude: About 620 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Sand-----	8	26	W.B.
Sand and gravel-----	6	32	W.B.
Softpan-----	8	40	
Pennsylvanian system:			
Lower series:			
Slate, dark-blue-----	3	43	
Coal-----	1.5	44.5	
Fire clay-----	5.5	50	
Sandstone, white-----	2	52	
Shale, gray-----	20	72	
Slate, gray-----	13	85	
Coal-----	2	87	
Fire clay-----	3	90	

Table 3.--Field chemical analyses of water from wells, Clay County, Indiana  
(Results in parts per million)

Well number: See text for description of well-numbering system.

Geologic age: Pl, Pleistocene; P, Pennsylvanian; M, Mississippian.

Material: C, coal; F, fire clay; G, gravel; Ls, limestone; S, sand; Sd-sh, sandy shale; Sh, shale; Ss, sandstone.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as CaCO <sub>3</sub>	Remarks
9/6W- 4E1	Ss	P	12-30-59	--	0.1	268	110	70	524	
4R1	Ss	P	12- 9-59	55	.3	605	12	6	18	
5J1	-----	P	3-25-58	--	.3	312	-----	72	302	
6F1	C	P	12- 9-59	54	.3	537	9	8	8	
9J1	Ss	P	12-30-59	--	.1	1,370	13	2,540	36	
17N1	-----	P	12- 9-59	--	.3	737	90	444	10	
18G1	Sd-sh	P	1- 4-60	--	.3	517	6	4	212	
18L1	Ss	P	12- 9-59	53	.1	512	8	4	62	
20C1	Ss	P	3-25-58	--	.1	586	-----	154	4	
20D1	Ss	P	12- 9-59	52	.3	1,240	13	34	2	
21K2	C	P	12-30-59	--	1.0	542	7	16	8	
21R1	C,Sh	P	8- 5-59	65	.5	532	15	25	2	
22M1	-----	P	12- 9-59	54	.5	468	10	8	156	
31D1	G	P1	12- 9-59	--	7.5+	356	16	4	240	
9/7W- 1D1	Sd-sh	P	12-29-59	--	2.0	439	10	10	276	
	Ss									
1E1	Ss	P	12-29-59	52	.1	488	12	12	112	
5A1	Sh,Ls	P	12-30-59	54	2.0	371	8	4	100	
6C1	Sh	P	6-25-59	--	5.0	532	1,250	34	1,616	Shale now cased out
6C1	Ss	P	12- 9-59	--	.3	434	520	10	784	
6G1	Ss	P	6-25-59	--	7.5+	449	430	8	676	Iron bacteria
7C1	Ss	P	12-29-59	--	2.5	532	90	8	388	
8L1	C	P	3-25-58	56	7.5	0	-----	22	192	High sulfate
14Q2	S,G	P1	5- 7-57	54	1.0	329	-----	6	296	
28H1	Ss	P	12-29-59	54	.1	283	64	66	288	
30F1	Ss	P	12-29-59	--	1.0	449	270	50	548	
31R1	Ss,Sh	P	3-58	--	.5	337	-----	54	436	
35E1	-----	P	4- 4-60	53	.1	871	7	212	12	
35K1	Ss	P	12-29-59	--	.3	327	115	82	464	
36E1	-----	P	12-29-59	--	.1	996	10	76	4	
36L1	Ss	P	5- 7-57	--	1.0	1,560	-----	1,316	20	
36M1	-----	P	12-29-59	--	.3	1,620	12	876	12	
10/6W- 3M1	S,G	P1	4-29-58	57	5.0	356	-----	4	236	
6C1	G	P1	3-26-58	52	.5	376	-----	18	208	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
10/6W- 6N1	Ss	P	12-29-59	56	3.0	464	11	150	108	
10E1	-----	M	3-26-58	50	3.0	410	-----	14	160	
16F1	Ss	P	8-20-59	60	.5	922	18	158	32	
16G1	Ss	P	12-10-59	--	.5	542	12	14	19	
16J1	Ss	P	12-29-59	51	.1	639	11	6	12	
20H1	-----	P	3-26-58	--	.1	791	-----	32	24	
20P1	-----	P	12-30-59	54	3.0	503	28	30	380	
21L1	Ss	P	12-30-59	--	.3	834	11	32	20	
22E1	C	P	12-29-59	50	.1	595	12	8	38	
22H1	S	P1	1- 6-60	46	.1	224	43	20	184	
22H2	Ss	P	1- 6-60	52	.1	464	27	10	116	
22L1	-----	P	1- 6-60	50	7.5+	493	11	16	312	
28A1	Ss	P	12-30-59	--	.1	815	10	26	8	
29C1	Ss	P	12-30-59	--	.1	637	10	26	24	
29N2	Ss	P	4-29-58	58	.3	595	-----	6	8	
30B3	-----	P	12-30-59	--	.1	693	10	24	8	
30D1	Sd-sh	P	1- 4-60	54	.5	444	10	12	188	
30D2	Sd-sh	P	12-30-59	54	.1	1,090	10	228	8	
30G2	-----	P	12-10-59	--	.1	1,220	12	96	6	
31C1	C,Ss	P	12-30-59	--	.5	478	25	6	20	
31F1	-----	P	6-28-60	57	.3	190	10	86	16	
31K1	Sh	P	12-30-59	--	.1	449	11	2	224	
31L1	-----	P	12-30-59	--	.1	415	18	8	68	
31P1	Ss	P	4- 4-60	--	.1	586	8	8	6	
32K1	Ss	P	4- 4-60	--	.1	508	38	18	216	
10/7W- 1D2	Ss	P	4-29-58	56	.3	644	-----	10	12	
1J1	G	P	1- 4-60	57	.3	288	86	50	336	
3A1	Ss	P	12-29-59	56	.5	405	10	6	180	
5B1	Ss	P	12-10-59	--	.3	454	59	6	356	
5J1	-----	P	1- 4-60	54	.1	346	47	12	260	
8A1	Ss	P	12-29-59	52	.5	439	47	6	288	
11A1	G	P1	3-26-58	--	1.0	171	-----	116	252	
12B2	S,G	P1	3-27-58	--	7.5	122	-----	158	270	
17Q1	Ss	P	12-29-59	52	.3	615	14	24	88	
20M1	Sd-sh Ss	P	12-10-59	--	.1	503	10	50	132	
20M2	Ss	P	12-29-59	52	7.5+	215	115	16	184	
20N1	-----	P	12-29-59	54	1.0	459	18	6	332	
24H1	C	P	12-10-59	--	1.5	551	13	14	76	
24K1	-----	P	12-29-59	--	.1	264	125	64	436	
24R1	Sd-sh	P	12-10-59	--	.3	371	12	8	176	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
10/7W-25H1	-----	P	12-10-59	55	1.0	517	11	4	96	
25K1	-----	P	12-10-59	56	1.0	429	12	2	284	
25M1	-----	P	1- 7-60	48	.3	293	8	2	64	
25R1	-----	P	4- 4-60	--	.1	605	10	14	32	
27E1	S,G	P1	12-10-59	--	7.5	381	11	84	336	
32G1	Ss	P	-----	--	.3	132	-----	128	72	
36P1	C	P	12-29-59	54	.3	371	13	4	260	
11/5W-3G1	Ss	P	1-26-60	--	.3	444	100	10	376	
4N1	Ss	P	3-27-58	--	1.5	346	-----	6	104	
4R1	Ss	P	1-26-60	--	7.5	283	225	14	400	
5A1	G	P	3-27-58	--	1.0	395	-----	22	272	
6C1	Ss	P	1-27-60	--	1.5	195	710	10	676	
9A1	Ss	P	3-27-58	--	.0	249	-----	24	168	
17R1	-----	P	1-26-60	--	7.5	390	33	6	184	
18R1	-----	P	1-26-60	--	.1	288	80	12	236	
19D1	Ss	P	1-26-60	--	.3	98	34	26	84	
19D2	Ss	P	1-26-60	--	5.0+	190	80	56	204	
19D3	Ss	P	1-26-60	--	.3	83	86	110	192	
19D4	-----	P	1-26-60	--	.5	151	75	64	168	
19F1	Ls(?)	M	1-26-60	--	.1	722	21	58	16	
19F2	-----	P	1-26-60	--	.1	93	55	12	64	
19H1	Ss	P	3-27-58	--	.1	98	-----	216	300	
19L1	Ss	P	1-26-60	--	.3	137	220	20	224	
20M1	Ss	P	4- 1-58	--	.5	590	-----	18	480	
28C1	Ss	P	4- 1-58	--	7.5	268	-----	14	300	
28H1	-----	-----	3-29-60	54	.5	473	38	8	200	
30A1	Ss	P	1-26-60	--	.1	371	16	12	244	
30B1	Ss	P	4-29-58	55	7.5+	454	-----	22	296	
30F1	Ss	P	1-26-60	--	.1	312	56	48	356	
30M1	Ss	P	1-26-60	--	.1	356	18	6	76	
31N1	-----	P	10-16-59	56	1.0	59	175	26	152	
11/6W-1D1	S	P1	1- 6-60	50	3.0	439	12	14	240	
2B1	Ss	P	1- 6-60	54	3.0	425	12	6	180	
2P1	Ss	P	1- 6-60	--	.1	508	32	8	24	Water sample from upper aquifer
4Q1	-----	-----	1- 6-60	--	.1	1,250	12	84	8	
4R1	-----	P	4- 1-58	--	.5	508	-----	4	160	
6H1	Ss	P	1- 6-60	--	.1	249	73	28	236	
7B1	Ss	P	4- 5-60	--	.3	444	10	8	144	
7K1	Ss	M(?)	4- 2-58	56	.1	1,350	-----	528	18	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic Age	Date of Collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
11/6W- 7L1	Ss	P	4- 1-58	--	0.1	795	-----	10	4	
8P1	-----	P	4- 2-58	--	.5	346	-----	144	428	
9C1	Ss	M(?)	1- 6-60	54	.1	1,450	20	168	8	
10E1	Ss	P	4- 1-58	--	.0	454	-----	120	336	
11B1	Ss	P	1- 6-60	--	2.5	454	110	10	372	
13G1	Ss	P	4- 2-58	--	1.0	503	-----	4	104	
14G1	-----	M(?)	1- 6-60	--	.1	473	34	6	136	
14Q1	Ss	P	1- 7-60	--	.1	220	42	18	212	
15D1	Ss	P	1- 6-60	--	.1	810	50	18	32	
17C1	-----	P	4- 2-58	--	.5	547	-----	10	28	
17C3	Ss	P	1- 7-60	--	.1	1,260	10	412	8	
17E1	Ss	P	1- 7-60	--	.1	322	95	20	348	
19A2	Ss	P	4- 2-58	--	1.0	468	-----	6	136	
19B1	Ss	P	4- 5-60	56	.3	561	10	8	60	
20P1	S	P1	4- 2-58	--	.1	508	-----	16	348	
21P3	S,G	P1	5- 7-57	55	1.0	420	-----	16	304	
22H1	Ss	P	1- 7-60	--	2.0	410	58	20	252	
23P1	-----	P	1- 6-60	--	.1	68	26	28	80	
27G1	-----	P	4- 2-58	--	.3	366	-----	12	202	
29M1	Ss	P	1- 6-60	--	.3	429	7	14	180	
31P1	S,G	P1	1- 7-60	50	5.0	356	18	6	248	
32B1	S,G Ss	P1	1- 7-60	--	3.0	434	13	12	244	
35F1	Ss	P	4- 2-58	--	.3	195	-----	13	128	
35N1	Ss	P	1- 7-60	49	.1	171	12	8	80	
36J1	-----	P	4-29-58	56	3.0	537	-----	24	580	
11/7W- 2H1	Ss	P	6-12-58	59	.5	595	-----	2	45	
3A1	Ss	P	6-12-58	56	.0	917	-----	24	18	
3D1	Ss	P	6-12-58	56	.5	595	-----	6	116	
4M1	-----	P	6-12-58	54	.3	459	-----	10	224	
5M1	Ss	P	6-12-58	--	.1	390	-----	76	390	
5Q1	-----	P	6-12-58	58	.5	444	-----	4	92	
7H1	-----	P	6-12-58	60	.5	444	-----	8	260	
7L1	Ss	P	6-12-58	59	.0	478	-----	38	432	
7N1	Ss	P	4- 5-60	52	1.5	303	170	48	328	
8B2	G	P1	1- 5-60	--	.1	390	30	18	312	
9J1	S	P1	6-12-58	58	1.0	483	-----	8	192	
10C1	C,Sh	P	1- 5-60	54	.1	473	9	4	112	
11A1	-----	P	6-12-58	59	.5	517	-----	4	288	
11M1	S,G	P1	6-12-58	--	1.0	532	-----	8	344	
12C1	Ss	P	1- 5-60	55	1.0	464	7	4	264	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic Age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
11/7W-12N1	-----	P	6-12-58	58	0.3	483	-----	24	256	
15P1	Ls	P	1- 5-60	--	1.5	468	12	6	212	
15Q1	S,G	P1	6-12-58	--	1.5	488	-----	6	264	
16C1	Ss	P	6-12-58	60	.1	610	-----	36	48	
16G1	G,S	P1	6-12-58	62	.5	415	-----	4	188	
17H1	F,C	P	1- 5-60	54	.1	585	7	6	256	
17Q1	Ss	P	1- 5-60	--	.1	439	7	4	280	
17R1	Ss	P	6-12-58	59	.0	508	-----	12	332	
18N1	C,Ss	P	6-12-58	60	.1	566	-----	4	40	
18Q1	Ss	P	6-12-58	--	.5	439	-----	4	300	
19D1	Ss	P	6-12-58	--	.1	356	-----	76	580	
19D2	Ss	P	6-12-58	--	.1	547	-----	16	40	
19R1	Ss	P	1- 5-60	--	.1	400	7	2	128	
20E1	Sh	P	7- 9-58	58	.1	468	-----	6	24	
20G1	Ss	P	1- 5-60	--	.1	434	11	4	268	
20K2	C,Ss	P	1- 5-60	--	.5	371	83	8	312	
21B1	Ss	P	7- 9-58	58	.0	444	-----	12	232	
21N1	Ss	P	7- 9-58	58	.3	98	-----	204	295	
23B1	S,G	P1	1- 5-60	--	2.0	425	8	4	284	
23N1	Ss	P	4-30-58	57	.3	439	-----	14	316	
25G1	C	P	1- 5-60	--	1.0	459	7	6	92	
26N1	C	P	4-30-58	54	.0	464	-----	4	52	
26P1	G	P1	1- 5-60	52	.3	439	66	8	352	
27C1	C,Sh	P	1- 5-60	56	1.5	200	17	22	148	
27D1	S,G	P1	1- 5-60	--	.3	464	10	14	324	
28Q1	Ss	P	4-30-58	52	2.0	464	-----	4	360	
29D1	-----	P	4-30-58	57	.1	234	-----	16	240	
29H1	Ss	P	4- 5-60	--	.5	425	41	8	336	
32A1	Ss	P	4-30-58	--	.0	327	-----	4	208	
32H1	Ss	P	4-30-58	57	.0	190	-----	46	300	
35B1	S,G	P1	4-30-58	50	2.5	532	-----	24	424	
35M2	Ss	P	4-30-58	57	.1	429	-----	24	404	
36B1	C	P	4-30-58	52	.5	693	-----	6	156	
12/5W-20H1	Ls	M	7- 9-58	60	3.0	229	-----	2	156	
20N1	-----	P	7- 9-58	58	7.5+	93	-----	62	632	
21L1	-----	P(?)	1-26-60	--	.3	337	13	6	220	
28L1	S,G	P1	7- 9-58	58	1.0	386	-----	0	228	
28P1	G	P1	1-26-60	--	.3	322	24	4	236	
30J1	Ss	P	1-26-60	--	.5	429	13	6	240	
31F1	Ss	P	7- 9-58	60	7.5+	220	-----	22	440	
32J1	Ss	P	3-28-60	52	4.0	390	5	8	264	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
12/5W-33R1	-----	P	7- 9-58	60	1.0	44	-----	122	110	
34B1	G	P1	4-29-58	53	1.5	342	-----	1	236	
34B3	G	P1	1-26-60	--	2.5	303	20	4	228	
34C1	Sh	P	1-26-60	--	.1	307	14	6	192	
12/6W-1Q1	S,G	P1	7-23-57	63	1.0	222	-----	2	194	
2N1	-----	P	8- 6-58	60	.3	649	-----	20	92	
3N1	Ss	P	8- 6-58	--	.3	410	-----	3	4	
5C1	C	P	10-22-58	--	.0	664	-----	18	16	
5D1	Ss	P	8- 6-58	60	1.0	434	-----	2	92	
6A1	Ss	P	1-28-60	--	.3	429	11	4	100	
7D2	-----	P	1-28-60	--	.1	898	9	10	7	
7F1	Ss	P	8- 6-58	58	.5	473	-----	24	480	
8N1	Ss	P	1-28-60	--	.1	498	13	6	30	
8P1	Ss	P	1-20-60	--	.1	439	10	6	144	
9D1	Ss	P	1-28-60	--	.1	468	13	16	84	
9E1	Ss	P	1-28-60	--	.1	659	33	12	28	
12B1	Ss	M(?)	8- 6-58	--	.1	307	-----	8	272	
12J1	-----	M(?)	1-27-60	--	.3	405	18	8	272	
13D1	-----	P	7-10-58	60	.3	420	-----	8	244	
13E1	Ss	P	1-27-60	--	.1	1,600	11	488	22	
14D1	-----	P	4-18-60	54	.5	444	100	10	300	
15A1	-----	P	1-27-60	--	2.5	478	185	10	404	
16D1	S,G	P1	7-10-58	60	2.0	478	-----	8	248	
16J1	Ss	P	7-10-58	56	.0	996	-----	56	0	
17N1	Ss	P	8- 6-58	59	.1	551	-----	3	100	
17N2	Ss	P	1-27-60	--	.5	468	11	6	92	
18H1	Ss	P	1-28-60	--	.1	307	200	28	364	
18P1	Ss	P	8- 6-58	59	3.0	415	-----	46	484	
18Q1	Sd-sh	P	4- 5-60	--	.3	566	310	6	148	
20B1	Ss	P	7-10-58	58	.1	468	-----	4	216	
22B1	C	P	1-27-60	--	.1	342	275	184	516	
22M1	C	P	7-10-58	60	2.0	483	-----	6	260	
23C1	Ls	M(?)	7-10-58	58	3.0	473	-----	52	400	
23P1	-----	P	7-10-58	60	.1	581	-----	26	48	
27R1	-----	P	1-28-60	--	.3	493	12	56	68	
29B1	Ss	P	7-10-58	58	3.0	464	-----	8	272	
30E1	Ss	P	1-28-60	--	.1	420	21	6	240	
30Q1	Ss	P	1-28-60	--	.3	449	12	6	284	
31M1	Ss	P	7-10-58	--	1.0	478	-----	4	232	
31Q1	Sd-sh	P	7-10-58	--	.5	478	-----	12	212	
32R1	Ss	P	7-10-58	60	.0	615	-----	4	48	
33B1	Ss	P	7-10-58	--	.1	356	-----	114	84	
33J1	Ss	P	6-28-60	--	.1	151	85	18	128	
34P1	Ss	P	7-10-58	58	.0	620	-----	42	0	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
12/6W-34Q1	Ss	P	1-28-60	--	0.3	542	35	8	22	
12/7W- 1D1	Sd-sh Ss	P	6-29-60	--	.3	664	7	12	4	
1J1	Sd-sh	P	2-28-57	59	.3	512	-----	3	302	
2F1	Sd-sh Ss	P	8-28-57	59	.3	581	-----	1	34	
2G5	-----	P	1-28-60	--	.1	771	13	8	4	
3A2	Sd-sh Ss	P	-----	58	---	625	-----	14	102	
3A3	Ss	P	4- 6-60	56	1.0	298	15	14	224	
3L2	Ss	P	8-28-57	62	.2	822	-----	8	6	
3N3	-----	P	9-24-58	--	.1	566	-----	16	40	
3R1	Ss	P	8-28-57	59	.3	705	-----	8	6	
4J4	S,G	P1	8-27-57	62	.5	300	-----	22	331	
4J5	S,G	P1	9-23-58	--	.3	312	-----	26	316	
4K1	S,G	P1	8-27-57	59	.5	200	-----	3	212	
4Q1	Ss	P	8-20-58	59	.5	561	-----	12	26	
4Q2	-----	P	9-24-58	--	.5	869	-----	176	8	
4Q3	-----	P	8-27-57	59	.3	183	-----	6	210	
4R2	S,G	P1	9-29-58	--	.5	73	-----	146	308	
4R3	-----	P	8-27-57	58	4.5	266	-----	16	209	
5Q1	S,G	P1	9-29-58	--	.3	303	-----	24	344	
5R1	S,G	P1	9-24-58	--	.1	342	-----	14	320	
6E1	G	P1	9-29-58	--	3.0	395	-----	12	284	
6E2	G	P1	8-28-57	62	3.0	344	-----	4	270	
6F1	C	P	7-28-57	62	.2	217	-----	4	214	
6G1	Sd-sh	P	9-24-58	--	.1	224	-----	4	160	
6Q1	Ss	P	9-24-58	--	.1	556	-----	12	114	
7F2	C	P	8-29-57	62	.3	307	-----	4	290	
7F7	S,G	P	8-28-57	62	3.5	327	-----	4	272	
7K1	Ss	P	8-29-57	58	.3	637	-----	42	4	
7Q1	-----	P	4- 6-60	--	.1	410	8	6	32	
8A1	-----	P	9-25-58	56	.1	449	-----	4	188	
8D1	S,G	P1	8-30-57	60	.3	354	-----	50	576	
8D2	S,G	P1	4-22-59	54	.3	268	130	10	300	
8D4	S,G Ss	P1 P	6-28-60	57	1.5	288	24	4	184	
12A2	Sd-sh	P	9-25-58	--	.1	874	-----	6	10	
12H2	Sd-sh Ss	P P	1-28-60	--	1.0	498	355	8	196	
12J3	Ss	P	1- 7-60	--	.1	727	10	6	14	
13A1	Ss	P	9-25-58	--	.3	312	-----	12	292	
13A2	-----	P	4- 6-60	51	.1	654	7	6	6	
13C1	Sd-sh	P	9-25-58	--	.1	875	-----	18	52	



Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
12/7W-14D1	F	P	4- 6-60	--	0.3	605	8	10	18	
14R1	-----	P	9-25-58	--	.1	742	-----	4	312	
16F1	C	P	9-29-58	--	.3	498	-----	8	116	
16K2	C	P	9-29-58	--	.1	560	-----	12	16	
19C1	-----	P	9-29-58	--	.3	688	-----	14	46	
19R1	S,G	P1	9-29-58	--	.5	556	-----	18	388	
22L1	C	P	4- 6-60	--	1.0	439	80	6	220	
22L2	S,G C	P1 P	4- 6-60	--	.3	478	10	6	96	
24J1	-----	P	9-29-58	56	.1	493	-----	6	44	
25L1	S,G	P1	9-29-58	--	1.0	449	-----	4	256	
27J1	-----	P	9-29-58	--	.1	468	-----	4	288	
27R1	Ss	P	9-29-58	--	.1	1,040	-----	296	8	
29C1	C	P	4- 6-60	--	.2	493	37	28	396	
29E1	Sh	P	9-29-58	--	.3	434	-----	8	272	
30D1	S,G	P1	9-29-58	58	.1	259	-----	14	216	
30M1	S,G	P	4- 6-60	--	1.0	429	10	8	212	
30R1	Ls	P	9-29-58	--	.0	517	-----	6	36	
31B1	-----	P	9-29-58	--	.1	595	-----	8	44	
31B2	S,G	P1	4- 6-60	--	.3	312	13	6	216	
32R1	-----	P	9-29-58	--	.1	464	-----	7	308	
33A1	-----	P	4- 6-60	57	.3	415	100	32	400	
33R1	Sh	P	9-29-58	--	.3	498	-----	10	340	
34C1	C	P	9-29-58	56	.1	517	-----	6	356	
34P1	Ss	P	4- 6-60	52	.3	727	8	20	18	
13/6W- 2E1	G	P1	9-30-58	--	.1	459	-----	15	264	
3A1	-----	-----	7-25-57	54	5.0	227	-----	6	188	
3D1	Ss	P	9-30-58	--	.1	434	-----	2	292	
4J1	Ss	P	9-30-58	--	.1	512	-----	4	72	
4R1	Sd-sh	P	8-27-57	54	7.5	317	-----	28	232	
5E1	Ss	P	9-22-59	--	.1	473	10	4	80	
5N1	Ss	P	11-21-58	--	.1	439	-----	2	144	
6A1	S,G	P1	9-30-58	56	2.0	493	-----	70	664	
6H1	Ss	P	4-17-58	57	.1	483	-----	2	52	
6J1	Ss	P	4-19-60	--	.1	581	10	6	18	
6P1	C	P	9-30-58	--	1.0	454	-----	14	304	
6R1	Ss	P	4-14-60	53	.3	454	10	6	144	
7C1	-----	P	4-14-60	50	.1	434	13	8	320	
7D1	Ss	P	4-14-60	52	.3	405	10	40	284	
7F1	Ss	P	4-14-60	50	3.0	386	10	22	296	
8D1	S,G	P1	4-14-60	52	2.0	244	95	20	248	
9A1	S,G	P1	4-14-60	53	.3	244	33	10	188	
12H1	Ss	P	4-14-60	53	.2	127	15	8	72	
14Q1	-----	P	7-25-57	61	.5	285	-----	5	246	
15J1	S,G	P1	4-14-60	--	3.0	439	9	10	312	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
13/6W-15N1	Ss	P	10-14-58	56	0.0	683	-----	4	64	
18R1	Ss	P	4-14-60	--	.3	678	10	10	10	
19H1	Ss	P	4-14-60	52	.2	747	18	90	6	
20B1	Ss	P	4-14-60	--	.3	834	20	18	6	
20D1	Ss	P	4-14-60	--	.3	161	210	50	268	
20P2	-----	P	4-14-60	--	.5	303	195	14	308	
22J1	-----	P	7-24-57	61	.1	261	-----	2	184	
22R1	-----	P	7-24-57	55	.1	439	-----	4	227	
23B1	Ss	P	4-14-60	54	.3	98	10	16	28	
23J1	-----	P	10-14-58	58	2.0	88	-----	12	84	
24R1	-----	P	7-22-57	56	4.5	154	-----	10	118	
25J1	-----	P	10-14-58	--	.1	322	-----	12	216	
26A1	Ss	P	7-22-57	55	7.5	224	-----	32	194	
26A3	Ss	P	10-14-58	56	.0	83	-----	6	24	
27M1	C	P	7-22-57	62	3.0	307	-----	1	215	
27M4	-----	P	7-22-57	56	.2	749	-----	16	8	
28D1	-----	P	7-22-57	--	.3	852	-----	16	5	
28H1	G	P1	7-22-57	57	.5	193	-----	12	216	
28J1	Sh	P	7-22-57	57	1.0	1,710	-----	168	15	
28N1	Sd-sh Ss	P P	7-22-57	62	.8	412	-----	6	346	
28N2	S,G	P1	7-22-57	61	2.0	454	-----	8	448	
28P1	Ss	P	6- 3-58	58	.1	771	-----	4	2	
28P2	S,G	P1	7-23-57	58	1.5	366	-----	4	288	
28Q1	-----	P	7-23-57	62	.1	976	-----	50	13	
28Q2	Ss	P	7-23-57	62	2.0	395	-----	1	270	
28R2	Ss	P	4-14-60	--	.2	864	7	64	44	
29B1	C	P	4-14-60	--	.2	698	85	64	124	
29E1	-----	-----	10-22-58	58	7.5+	468	-----	6	540	Water from old mine
29E2	-----	P	6- 3-58	54	1.5	249	-----	12	188	
29E3	T	P1	6- 3-58	54	.1	395	-----	3	332	
29J1	C	P	7-26-57	58	3.0	251	-----	10	210	
30H2	Ss	P	4-19-60	--	.3	547	84	10	156	
30J1	S,G	P1	4-19-60	--	5.0	488	155	8	448	
30M1	Ss	P	8-27-57	61	.3	420	-----	12	140	
31P1	S,G	P1	4-19-60	--	1.0	307	95	14	296	
31R1	Ss	P	10-22-58	--	.2	654	-----	12	5	
32H1	Ss	P	7-24-57	63	.3	449	-----	4	29	
32J1	Ss	P	7-26-57	62	.5	583	-----	10	28	
32J3	Ss	P	7-22-57	62	.1	664	-----	11	7	
32J4	Ss	P	4-19-60	--	.1	610	8	12	6	
32N1	S,G	P1	4-19-60	--	3.0	478	10	8	320	
33H1	S,G	P1	1-23-57	62	2.0	373	-----	6	128	

Table 3.--Field chemical analyses of water from wells, Clay County, Ind.--Cont.

Well Number	Material	Geologic age	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as (CaCO <sub>3</sub> )	Remarks
13/6W-33H2	S,G	P1	4-14-60	--	0.5	307	63	24	252	
33N1	Ss	P	7-22-57	65	2.3	642	-----	12	394	
33Q1	Ss	P	1-28-60	--	1.0	439	12	6	292	
34N1	Ss	P	4-14-60	--	.5	410	9	8	232	
35Q1	Sd-sh	P	4-14-60	--	.3	351	9	44	192	
13/7W-1J1	Ss	P	4- 7-60	48	.1	395	8	6	260	
2N1	Ss	P	4- 7-60	--	.2	386	8	6	196	
2N2	Ss	P	10-23-58	56	1.0	473	-----	4	208	
3P1	Sd-sh	P	4- 7-60	--	3.0	386	135	10	224	
12A1	Ss	P	9-30-58	--	1.0	478	-----	4	300	
13P1	Ss	P	4- 7-60	50	.3	447	12	6	132	
15D1	Ls	P	4- 7-60	51	3.0	346	55	12	304	
15N1	C	P	7-22-57	56	7.5	547	-----	8	394	
16Q1	Ss	P	10-23-58	--	3.0	444	-----	16	176	
23C1	Ss	P	10-23-58	--	1.0	390	-----	4	236	
23H1	Ss	P	4- 7-60	--	.1	381	12	8	264	
26E1	S	P1	10-23-58	--	.1	337	-----	32	272	
26P1	Ss	P	10-23-58	--	.5	473	-----	4	160	
27F1	Ss	P	4- 7-60	--	.1	386	17	8	164	
27G1	S,G	P1	7-22-57	62	.1	346	-----	36	404	
27G2	S,G	P1	4- 7-60	--	1.0	351	22	14	276	
27R1	Ss	P	4- 7-60	--	.2	434	8	10	140	
28D1	-----	P	4- 7-60	54	.2	268	145	30	372	
28N1	S,G	P1	7-26-57	56	2.0	244	-----	0	185	
28Q1	Ss	P	4- 7-60	52	.3	381	13	142	160	
34J1	Ss	P	7-26-57	65	.1	378	-----	4	88	
35C1	C	P	10-23-58	--	.3	498	-----	4	232	
35H1	Ss	P	7-26-57	58	.1	590	-----	20	42	
35R1	Ss	P	8-28-57	58	.3	639	-----	8	2	
36N1	G	P1	10-23-58	--	.0	283	-----	28	372	

Table 4.--Records of springs, Clay County, Indiana

Flow: e, estimated.  
 Use: N, not used; S, stock.  
 Field chemical analyses: in parts per million; water samples collected on date of measurement.

Spring number: See text for well-numbering system.  
 Altitude: Altitude of land-surface datum from topographic map.  
 Water-bearing material: T, till; Ls, limestone; Ss, sandstone.  
 Geologic age: Pl, Pleistocene; P, Pennsylvanian.

Spring	Owner	Altitude (feet)	Water-bearing material	Geologic age	Flow (gpm)	Date of measurement	Use	Temperature (F°)	Field chemical analyses				Remarks	
									Iron (Fe)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)		Hardness as CaCO <sub>3</sub>
13/6W-13H1	-----	645	T	P1	-----	9-14-60	N	59	0.2	244	13	8	192	Seep area at base of hill
36D1	E. Hoffman	640	Ss	P	-----	9-14-60	N	60	.8	1,176	40	32	344	Spring in bottom of small gully
36D2	---ditto---	645	Ss	P	1e	9-14-60	S	60	.8	107	10	8	48	Do
13/7W-10D1	-----	590	Ls	P	.5e	9-14-60	N	57	.3	298	65	10	316	Seep area near bottom of face in small unused quarry

Table 5.--Field chemical analyses of water from streams, Clay County, Indiana  
(Results in part per million)

Name	Location	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as CaCO <sub>3</sub>	Remarks
T. 9 N., R. 6 W.									
Eel River White Oak Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 19	9-13-60	70	0.3	317	23	12	284	Sample taken at bridge on state road.
	NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 20	9-13-60	70	.2	376	490	10	792	Sample taken at bridge on county road.
T. 9 N., R. 7 W.									
Conneley Ditch	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 13	9-13-60	78	.5	268	19	8	220	Do
T. 10 N., R. 6 W.									
---Do---	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 18	9-13-60	75	.3	239	190	12	348	Sample taken at bridge on state road.
T. 10 N., R. 7 W.									
Eel River	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17	9-13-60	71	.2	307	22	10	280	Sample taken at bridge on county road.
T. 11 N., R. 5 W.									
Jordan Creek Six Mile Creek	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18	9-13-60	67	.3	210	9	8	148	Do
	NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 31	9-13-60	64	.2	122	11	8	84	Do

Table 5.--Field chemical analyses of water from streams, Clay County, Indiana  
(Results in part per million)

Name	Location	Date of collection	Temperature (F°)	Iron (Fe)	Bicarbonate (HCO <sub>3</sub> )	Sulfate (SO <sub>4</sub> )	Chloride (Cl)	Hardness as CaCO <sub>3</sub>	Remarks
T. 11 N., R. 6 W.									
McIntyre Creek	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 1	9-13-60	65	0.2	190	110	12	240	Sample taken at bridge on county road.
Birch Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 7	9-13-60	71	.3	317	185	36	396	Sample taken at bridge on state road.
Eel River	SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 33	9-13-60	69	.2	322	18	16	284	Sample taken at bridge on county road.
T. 11 N., R. 7 W.									
Big Slough	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18	9-14-60	58	.2	215	12	30	164	Sample taken at bridge on state road.
Clear Branch	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 33	9-13-60	68	.2	327	21	8	212	Sample taken at bridge on county road.
Birch Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35	9-13-60	76	.2	268	185	28	352	Do
T. 12 N., R. 5 W.									
Eel River	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29	9-13-60	68	.2	312	33	12	276	Sample taken at bridge on state road.
T. 12 N., R. 6 W.									
Croys Creek	NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2	9-14-60	60	.2	220	11	8	172	Sample taken at bridge on county road.
Billy Creek	SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 2	9-14-60	60	.2	298	260	12	468	Do
East Fork	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 17	9-13-60	66	.2	303	120	10	312	Do
Birch Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 18	9-13-60	65	1.0	454	89	76	352	Do

T. 12 N., R. 7 W.

Sulphur Creek	NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 4	9-14-60	58	7.5+	0	1,140	22	1,090	Sample taken at bridge on county road.
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T. 13 N., R. 6 W.

Croys Creek Otter Creek	SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 11	9-14-60	61	.2	293	15	10	232	Do
	SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 18	9-14-60	59	.3	215	495	10	712	Do

T. 13 N., R. 7 W.

North Branch Otter Creek Otter Creek	SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 3	9-14-60	58	.3	273	530	10	740	Do
	SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27	9-14-60	58	.3	215	415	14	532	Do

Table 6.--Water levels in observation wells in Clay County, Indiana  
(In feet below land-surface datum.

Water level: e, estimated; h, tape measurement)

Clay 1. (9/7W-31E1). Shakamak State Park. Jasonville. SW $\frac{1}{4}$ NW $\frac{1}{4}$  sec. 31, T. 9N., R. 7 W. Drilled unused artesian well in limestone, diameter 6 inches, reported depth 160 feet. Land-surface datum is 580.3 feet above msl. Highest water level is 26.75 below lsd, Feb. 1, 1939; lowest, 33.76 below lsd, Feb. 25, 1941. Records available 1936-1941.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1936		Oct. 19	27.65	Sept. 1	27.54	Aug. 18	27.58
Nov. 30	27.95	Nov. 1	27.71	19	27.50	25	27.70
1937		15	27.75	Oct. 5	27.75	31	27.77
Jan. 11	27.37	Dec. 1	27.78	17	27.77	Sept. 15	28.09
Feb. 2	27.57	15	27.72	Nov. 2	27.79	29	28.27
15	27.55	1938		15	27.80	Oct. 31	28.45
Mar. 1	27.64	Jan. 3	27.58	Dec. 1	27.42	Nov. 21	28.48
15	27.64	Feb. 3	27.55	19	27.43	30	28.47
Apr. 1	27.59	15	27.52	1939		1940	
15	27.56	Mar. 1	27.43	Jan. 5	26.86	Jan. 31	28.47
May 3	26.80	17	27.02	20	27.16	July 12	28.52
15	27.48	Apr. 1	26.92	Feb. 1	26.75	Oct. 13	32.27
June 1	27.66	18	27.33	Mar. 6	26.92	23	33.26
17	27.44	May 3	27.52	16	27.06	30	33.47
July 1	27.87	17	27.72	Apr. 4	27.27	Nov. 27	32.92
16	27.68	June 2	26.82	15	26.91	Dec. 30	33.52
31	27.90	17	27.33	May 3	27.18	1941	
Aug. 17	27.93	July 5	27.30	15	27.14	Jan. 21	33.49
Sept. 13	28.23	18	27.45	June 16	26.88	31	33.51
17	28.33	Aug. 1	27.48	July 18	27.30	Feb. 25	33.76
Oct. 4	28.21	15	27.50	31	27.39		

Clay 2. (13/7W-35R6). Brazil Water Works. Brazil. SE $\frac{1}{4}$ SE $\frac{1}{4}$ , sec. 35, T. 13 N., R. 7 W. Dug unused water table (?) well in sand, diameter 14 feet, depth 25.8 feet. Land-surface datum is about 620 feet above msl. Highest water level is 8.45 below lsd, April 16, 1944; lowest, 19.67 below lsd, Feb. 11, 1944. Records available 1944. Affected by nearby pumping.

1944		Mar. 5	19.26	Apr. 16	8.45	May 28	8.80
Feb. 11	19.67	12	18.54	30	8.47	June 4	9.5
18	19.09	27	17.82	May 7	8.47	11	9.3
26	19.27	Apr. 3	14.75	14	8.94	18	10.5
		9	11.64	21	8.75	25	10.25

Clay 4. (10/6W-30B2). Town of Clay City. Clay City. NW $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec. 30, T. 10 N., R. 6 W. Drilled unused artesian well in sand and gravel, diameter 8 inches, depth 48.0 feet. Land-surface datum is 574.3 feet above msl. Recording gage installed Aug. 13, 1957. Highest water level is 13.35 below lsd, Mar. 10, 12, 1959; lowest, 19.40 below lsd, July 7, 1958. Records available 1957-59. Affected by nearby pumping, changes in barometric pressure, and trains.



Table 6.--Water levels in observation wells, Clay County, Indiana--Continued

Clay 4.--Continued

(Daily highest water level from recorder graph, 1957)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 14	15.09	Sept. 12	15.30	Sept. 28	16.03	Nov. 25	14.86
15	15.17	13	15.28	29	16.04	26	15.14
16	15.03	14	15.53	30	15.87	Dec. 6	14.78
17	15.27	15	15.60	Oct. 7	16.32	7	14.60
18	15.37	16	15.36	8	16.34	8	14.59
19	15.10	17	15.55	9	16.46	9	14.44
20	15.24	18	15.59	10	16.46	10	14.43
23	15.43	19	15.68	11	16.44	11	14.38
24	15.53	20	15.66	12	16.58	12	14.52
25	15.27	21	15.76	13	16.56	20	14.04
26	15.17	22	15.78	23	h 15.81	21	14.14
27	15.30	23	15.62	Nov. 20	14.81	22	14.29
28	15.30	24	15.76	21	14.85	23	14.12
29	15.35	25	15.89	22	14.89	24	14.20
Sept. 10	15.32	26	16.01	23	14.91	25	14.01
11	15.29	27	15.97	24	14.99	26	13.87

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-----	-----	14.36	14.78	-----	16.50	17.20	18.35	17.95	18.10	17.30	16.60
2	-----	-----	14.41	14.91	-----	16.45	17.25	18.20	18.00	18.15	17.20	16.55
3	-----	-----	14.25	14.93	-----	16.70	17.40	17.70	18.00	18.25	17.10	16.25
4	-----	-----	14.29	14.91	-----	16.70	17.45	17.65	18.05	18.10	17.25	16.10
5	-----	13.90	14.34	14.98	-----	16.80	17.45	17.80	18.20	18.00	17.35	16.15
6	-----	13.86	14.30	14.93	-----	17.00	17.55	17.75	18.35	17.90	17.45	16.05
7	-----	13.88	14.43	14.79	-----	17.00	17.60	17.80	18.25	17.95	17.45	16.05
8	13.52	14.01	14.44	14.88	-----	16.90	18.25	17.75	18.20	17.95	17.40	15.95
9	13.77	14.09	14.48	-----	-----	16.90	18.20	17.90	18.20	17.85	17.40	16.10
10	13.75	13.92	14.37	15.03	-----	16.85	18.10	17.95	18.30	17.90	17.25	16.10
11	13.68	13.95	14.42	14.98	-----	16.85	17.90	17.90	18.30	17.80	17.40	16.00
12	13.80	-----	14.48	15.05	-----	16.90	17.85	18.00	18.20	17.80	17.45	15.95
13	13.72	14.03	14.43	15.17	15.70	16.90	17.80	18.05	18.15	17.75	17.45	-----
14	-----	14.12	14.47	15.04	15.75	17.05	17.65	18.10	18.25	17.70	17.45	-----
15	-----	14.04	14.57	15.06	15.90	17.00	17.85	18.05	18.10	17.65	17.35	-----
16	13.83	14.18	14.63	15.16	15.95	16.75	17.85	18.05	18.15	17.55	17.30	-----
17	13.93	14.08	14.39	15.25	16.00	16.65	17.95	18.00	17.90	17.50	17.20	16.00
18	14.03	14.17	14.51	15.29	16.00	16.75	17.85	17.85	18.10	17.45	17.20	15.90
19	14.19	14.23	14.47	15.44	15.90	16.80	18.05	18.05	18.15	17.20	17.15	15.85
20	14.05	-----	14.46	15.39	15.95	16.80	17.70	17.95	18.15	17.15	17.00	15.85
21	-----	-----	14.42	15.29	16.10	16.80	17.60	18.05	18.20	17.15	17.00	15.90
22	-----	-----	14.48	15.43	16.05	16.90	17.65	17.95	18.00	17.10	17.00	15.90
23	-----	-----	14.74	15.60	16.00	16.70	17.85	18.10	18.10	17.05	16.90	15.75
24	13.75	-----	14.55	15.53	16.00	16.55	17.95	18.00	18.15	17.10	16.85	15.70
25	13.73	e14.32	14.50	-----	16.10	16.75	18.15	17.90	18.20	17.10	16.85	15.70
26	13.51	14.35	14.52	-----	16.10	16.80	18.15	18.10	18.15	17.15	16.80	15.55

Table 6.--Water levels in observation wells, Clay County, Indiana--Continued

Clay 4.--Continued

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	13.57	14.25	14.63	-----	16.30	17.40	18.05	18.05	18.05	17.05	16.90	15.50
28	13.60	14.20	14.59	-----	16.40	17.25	18.00	18.05	18.20	17.10	16.75	15.55
29	-----	-----	14.73	-----	16.55	17.05	18.20	18.05	18.05	17.20	16.65	15.60
30	-----	-----	14.85	-----	16.60	16.95	18.20	18.00	18.10	17.15	16.70	15.55
31	-----	-----	14.75	-----	16.50	-----	18.15	18.00	-----	17.25	-----	15.50

(Daily highest water level from recorder graph, 1959)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	15.45	14.70	13.65	13.80	14.20	13.80	15.20	16.05	16.20	-----	14.85	14.40
2	15.40	14.65	13.60	13.80	14.20	13.90	15.10	16.00	15.90	15.20	14.85	14.30
3	15.45	14.55	13.65	13.80	14.10	13.90	15.20	15.85	15.75	15.15	14.90	14.30
4	15.45	14.45	13.60	13.80	14.10	14.10	15.35	15.85	15.60	15.20	14.75	14.25
5	15.45	14.45	13.55	13.75	14.20	14.10	15.20	15.70	15.60	15.10	14.75	14.20
6	15.50	14.45	13.50	13.65	14.30	14.20	15.20	15.75	15.80	15.15	14.80	14.15
7	15.45	14.50	13.50	13.75	14.30	-----	15.35	15.75	15.65	15.10	14.85	14.10
8	15.40	14.40	13.40	13.85	14.35	-----	15.45	15.70	15.60	15.10	14.90	14.15
9	15.35	14.10	13.40	13.80	14.60	14.40	15.50	15.80	15.60	15.05	14.85	14.15
10	15.30	14.00	13.35	13.75	14.40	14.35	15.50	15.60	15.60	15.05	14.85	14.20
11	15.35	14.00	13.45	13.80	14.20	14.35	15.60	15.70	15.55	14.95	14.70	14.10
12	15.40	14.00	13.35	13.90	14.05	14.30	15.60	15.75	15.75	14.95	14.75	13.90
13	15.35	14.00	13.40	13.80	13.90	14.35	15.50	15.95	15.70	15.00	14.60	13.95
14	15.20	13.90	13.60	13.85	13.95	14.40	15.65	16.00	15.55	14.95	14.55	13.90
15	15.05	-----	13.60	13.90	13.95	14.35	15.60	16.20	15.50	15.00	14.60	13.95
16	15.05	14.00	13.60	13.90	14.05	14.35	16.10	16.20	15.60	14.95	14.55	13.95
17	15.05	13.85	13.70	14.05	14.35	14.40	15.85	15.95	15.70	14.95	14.55	13.95
18	15.10	13.75	13.70	14.10	14.15	14.55	16.00	15.95	15.65	15.00	14.50	13.85
19	15.00	13.90	13.85	13.95	14.05	14.55	15.85	15.95	15.50	15.00	14.40	13.95
20	14.95	13.95	13.80	13.80	13.95	14.55	15.70	16.20	15.55	15.00	14.40	13.90
21	14.70	14.00	13.85	13.85	13.85	14.65	15.70	16.25	15.45	15.05	14.35	13.85
22	14.75	13.90	13.90	13.90	13.90	14.50	15.90	16.20	15.50	15.00	14.50	13.95
23	14.80	13.80	13.75	14.00	13.85	14.55	15.80	16.30	15.50	14.90	14.35	13.95
24	14.85	13.80	13.80	13.95	13.80	14.65	15.85	16.05	15.40	14.80	14.35	13.95
25	14.80	13.85	13.80	13.90	13.65	14.60	16.05	16.20	15.50	14.85	14.35	13.85
26	14.70	13.75	13.80	14.05	13.80	14.75	16.00	16.40	15.35	14.80	14.30	13.75
27	14.70	13.75	13.85	13.90	13.80	14.85	15.80	16.25	15.25	14.80	14.30	13.65
28	14.65	13.75	13.90	13.85	13.85	14.90	15.85	16.20	15.15	14.85	14.30	13.60
29	14.70	-----	14.00	13.90	14.05	14.95	16.00	16.25	-----	15.05	14.30	13.70
30	14.70	-----	13.85	14.05	13.95	15.10	16.05	16.40	-----	14.90	14.30	13.65
31	14.70	-----	13.90	-----	13.85	-----	16.15	16.15	-----	14.90	-----	13.65

Clay 5. (13/6W-2B1). David Chavis. Lena. NW $\frac{1}{4}$ NE $\frac{1}{4}$ , sec. 2, T. 13 N., R. 6 W. Drilled unused artesian well in sand and gravel, diameter 6 inches, depth 52.1 feet. Land-surface datum is 426.9 feet above msl. Recording gage installed Aug. 13, 1957; removed Sept. 14, 1959. Highest water level is 11.96 below lsd, Aug. 3, 1958; lowest, 18.59 below lsd, Oct. 14, 1957. Records available 1957-59. Affected by changes in barometric pressure and trains.

Table 6.--Water levels in observation wells, Clay County, Indiana--Continued

Clay 5.--Continued

(Daily highest water level from recorder graph, 1957)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-----	-----	-----	-----	-----	-----	-----	-----	16.53	-----	16.86	14.51
2	-----	-----	-----	-----	-----	-----	-----	-----	16.49	-----	16.98	14.73
3	-----	-----	-----	-----	-----	-----	-----	-----	16.53	17.88	16.99	14.60
4	-----	-----	-----	-----	-----	-----	-----	-----	16.57	17.87	17.06	14.79
5	-----	-----	-----	-----	-----	-----	-----	-----	-----	18.03	17.17	14.90
6	-----	-----	-----	-----	-----	-----	-----	-----	-----	18.03	17.17	14.71
7	-----	-----	-----	-----	-----	-----	-----	-----	-----	18.14	17.28	14.49
8	-----	-----	-----	-----	-----	-----	-----	-----	17.05	18.06	16.92	14.20
9	-----	-----	-----	-----	-----	-----	-----	-----	17.07	-----	16.86	13.78
10	-----	-----	-----	-----	-----	-----	-----	-----	17.12	18.20	16.93	13.68
11	-----	-----	-----	-----	-----	-----	-----	-----	17.26	18.23	16.81	13.73
12	-----	-----	-----	-----	-----	-----	-----	-----	17.28	18.29	16.44	13.74
13	-----	-----	-----	-----	-----	-----	-----	15.23	17.28	18.34	16.11	13.79
14	-----	-----	-----	-----	-----	-----	-----	15.17	17.33	18.40	15.67	13.89
15	-----	-----	-----	-----	-----	-----	-----	15.17	17.28	18.47	15.10	14.12
16	-----	-----	-----	-----	-----	-----	-----	15.21	17.30	18.25	14.96	14.22
17	-----	-----	-----	-----	-----	-----	-----	15.38	17.49	18.15	14.61	14.23
18	-----	-----	-----	-----	-----	-----	-----	15.51	17.56	18.08	13.87	13.00
19	-----	-----	-----	-----	-----	-----	-----	-----	17.48	18.01	13.79	12.57
20	-----	-----	-----	-----	-----	-----	-----	15.71	17.39	-----	13.72	12.21
21	-----	-----	-----	-----	-----	-----	-----	15.86	17.35	-----	13.75	12.45
22	-----	-----	-----	-----	-----	-----	-----	16.10	-----	-----	13.85	12.63
23	-----	-----	-----	-----	-----	-----	-----	16.09	17.58	-----	13.62	12.62
24	-----	-----	-----	-----	-----	-----	-----	16.02	17.55	-----	13.66	12.78
25	-----	-----	-----	-----	-----	-----	-----	16.10	17.53	17.08e	13.83	-----
26	-----	-----	-----	-----	-----	-----	-----	-----	17.61	16.98	-----	-----
27	-----	-----	-----	-----	-----	-----	-----	-----	17.72	17.01	-----	-----
28	-----	-----	-----	-----	-----	-----	-----	-----	17.78e	16.78	14.07	-----
29	-----	-----	-----	-----	-----	-----	-----	-----	17.88	-----	14.26	-----
30	-----	-----	-----	-----	-----	-----	-----	16.43	-----	-----	14.31	-----
31	-----	-----	-----	-----	-----	-----	-----	16.46	-----	-----	-----	-----

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	12.35	13.79	-----	-----	15.69	15.65	13.97	-----	15.91	16.84	17.23	-----
2	12.51	-----	-----	-----	15.71	15.86	14.09	-----	16.15	17.02	17.29	14.32
3	12.72	14.02	-----	14.78	15.69	16.12	14.19	11.96	16.14	-----	17.38	14.10
4	13.02	14.15	-----	14.74	15.60	16.17	14.35	12.08	16.31	-----	17.42	14.04
5	13.20	14.10	16.47	14.61	15.33	16.15	14.53	12.39	16.30	-----	17.42	14.12
6	13.22	14.16	16.46	14.61	15.01	16.24	-----	-----	16.29	17.12	17.58	14.36
7	13.00	14.28	16.43	14.77	-----	16.26	-----	12.75	-----	17.08	17.56	14.41
8	13.06	14.45	16.44	15.05	-----	16.27	14.09	12.89e	16.38	17.06	-----	14.27
9	13.30	-----	16.41	14.90	-----	16.17	14.03	13.11	16.46	17.09	-----	-----
10	13.54	14.80	16.52	14.76	-----	15.85	13.95	13.38	16.48	17.06	-----	14.49
11	13.58	14.76	16.50	14.77	-----	-----	13.33	13.49	16.79	16.90	-----	14.50
12	-----	-----	16.46	14.87	-----	-----	12.86	13.69	16.81	16.81	-----	14.82
13	14.21	-----	16.37	15.00	14.54	-----	12.62	13.88	16.82	16.75	17.69	15.04

Table 6.--Water levels in observation wells, Clay County, Indiana--Continued

Clay 5.--Continued

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	14.19	-----	16.46	14.98	14.50	-----	-----	14.14	16.95	-----	17.68	15.18
15	14.37	-----	16.47	15.01	14.51	-----	-----	14.30	17.01	-----	17.57	15.22
16	14.55	-----	16.50	15.07	14.55	-----	-----	14.25	16.98	16.55	17.61	14.33
17	14.70	-----	16.51	15.20	14.57	13.94	-----	14.20	16.66	16.55	-----	-----
18	-----	15.57	16.55	15.15	14.70	13.96	-----	14.21	16.47	16.63	-----	-----
19	15.01e	15.68	16.55	15.17	14.80	-----	13.12	14.44	16.39	16.72	-----	15.20
20	14.72e	15.80	16.51	15.17	14.93	-----	13.28	14.52	16.24	16.71	15.79	15.49
21	14.37e	15.82	16.52	15.20	-----	-----	13.44	14.71	16.22	16.84e	15.62	15.78
22	14.37	-----	16.62	15.19	-----	-----	13.52	14.86	16.24	16.81	-----	15.78
23	14.14	-----	-----	15.14	15.13	13.43	13.67	14.96	16.37	16.82	-----	15.73
24	13.76	-----	-----	15.22	15.21	13.42	13.87	14.94	16.34	16.90	-----	15.92
25	13.74	-----	16.03	15.67	15.21	13.46	13.89	-----	16.39	17.04	-----	16.20
26	13.70	-----	15.61	15.84	15.34	13.55	-----	-----	16.48	17.17	-----	16.23
27	13.85	-----	-----	-----	15.42	13.55	-----	15.43	16.57	17.16	-----	-----
28	13.79	15.66	-----	-----	15.45	13.56	-----	15.47	16.69	17.25	-----	-----
29	13.70	-----	-----	-----	15.64	-----	-----	15.58	16.80	17.31	-----	-----
30	13.60	-----	-----	15.70	15.71	-----	-----	15.65	16.75	-----	-----	-----
31	13.58	-----	-----	-----	15.67	-----	-----	15.71	-----	-----	-----	16.41

(Daily highest water level from recorder graph, 1959)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	16.25	-----	13.55	13.24	13.37	-----	-----	-----	18.19	-----	-----	-----
2	16.30	15.25	13.45	12.79	-----	-----	-----	-----	18.23	-----	-----	-----
3	16.35	14.82	13.44	12.65	-----	-----	-----	-----	13.39	-----	-----	-----
4	16.48	14.82	13.58	12.74	-----	-----	16.75	-----	18.42	-----	-----	-----
5	16.77	14.87	-----	12.68	-----	-----	16.77	-----	18.47	-----	-----	-----
6	16.65	15.26	-----	12.76	-----	15.30	16.89	-----	18.48	-----	-----	-----
7	16.59	15.16	-----	12.87	14.05	15.44	17.06	-----	-----	-----	-----	-----
8	16.65	15.10	13.43	12.91	14.33	15.54	17.15	-----	-----	-----	-----	-----
9	16.84	14.41	13.30	13.07	14.33	15.72	17.20	-----	-----	-----	-----	-----
10	16.88	-----	13.17	13.15	14.27	15.69	17.28	16.85	-----	-----	-----	-----
11	16.95	14.42e	12.94	13.18	14.35	15.41	-----	16.91	-----	-----	-----	-----
12	16.86	13.90	12.94	13.17	14.51	15.05	-----	17.03	-----	-----	-----	-----
13	16.89	-----	12.63	13.15	14.46	-----	17.66	17.09	-----	-----	-----	-----
14	16.74	-----	12.38	-----	14.53	-----	17.72	17.13	-----	-----	-----	-----
15	-----	-----	12.34	-----	14.56	-----	17.73	17.16	-----	-----	-----	-----
16	16.60	-----	-----	-----	14.62	-----	17.73	17.16	-----	-----	-----	-----
17	16.60	-----	12.50e	13.53	14.70	-----	17.73	-----	-----	-----	-----	-----
18	16.58	12.92	12.73	13.55	14.68	-----	17.68	-----	-----	-----	-----	-----
19	16.68	13.25	12.72	13.65	14.70	-----	17.58	-----	-----	-----	-----	-----
20	-----	13.39	12.70	13.63	14.82	-----	-----	-----	-----	-----	-----	-----
21	-----	13.60	12.82	13.77	14.87	-----	17.62	17.62	-----	-----	-----	-----
22	-----	13.50	13.10	13.70	14.94	-----	17.60	17.66	-----	-----	-----	-----
23	-----	13.32	13.21	13.65	14.91	-----	17.51	17.74	-----	-----	-----	-----
24	15.28	13.62	13.27	13.66	14.76	15.59	17.51	17.78	-----	-----	-----	-----
25	15.08e	13.62	13.43	13.66	14.59	15.70	17.55	17.86	-----	-----	-----	-----
26	15.05	13.58	13.36	13.83	14.50	15.79	17.55	17.95	-----	-----	-----	-----

Table 6.--Water levels in observation wells, Clay County, Indiana--Continued

Clay 5.--Continued

(Daily highest water level from recorder graph, 1959)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
27	15.08	13.51	13.39	13.65	14.50	16.02	17.53	17.99	-----	-----	-----	-----
28	15.13	13.54	13.83	13.54	14.59	16.10	-----	-----	-----	-----	-----	-----
29	14.93	-----	13.87	13.40	-----	16.21	-----	-----	-----	-----	-----	-----
30	15.03	-----	13.71	13.29	-----	16.32	-----	-----	-----	-----	-----	-----
31	15.35	-----	13.66	-----	-----	-----	-----	18.17	-----	-----	-----	-----

PUBLICATIONS OF COOPERATIVE GROUND-WATER PROGRAM

Report

Ground-water resources of the Indianapolis area, Marion County, Ind. C. L. McGuinness. Ind. Dept. Conserv., Div. Geology. 1943.

Bulletins

- No. 1 Memorandum concerning a pumping test at Gas City, Ind. J. G. Ferris, Ind. Dept. Conserv., Div. Water Resources. 1945.
- 2 A preliminary report of the ground-water levels of the State based on records of twenty-six observation wells for which long time records are available. Anonymous. Ind. Dept. Conserv., Div. Water Resources. 1946. (Out of print.)
- 3 Ground-water resources of St. Joseph County, Ind. Part 1, South Bend area. F. H. Klaer, Jr., and R. W. Stallman. Ind. Dept. Conserv., Div. Water Resources. 1948.
- 4 Ground-water resources of Boone County, Ind. E. A. Brown. Ind. Dept. Conserv., Div. Water Resources. 1949.
- 5 Ground-water resources of Noble County, Ind. R. W. Stallman and F. H. Klaer, Jr. Ind. Dept. Conserv., Div. Water Resources. 1950.
- 7 Water-level records of Indiana. Anonymous. Ind. Dept. Conserv., Div. Water Resources. 1956.
- 8 Ground-water resources of Tippecanoe County, Ind.: Appendix, Basic Data. J. S. Rosenshein and O. J. Cosner. Ind. Dept. Conserv., Div. Water Resources. 1956.
- 8 Ground-water resources of Tippecanoe County, Ind.: J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1958.
- 9 Ground-water resources of Adams County, Ind, F. A. Watkins, Jr., and P. E. Ward. Ind. Dept. Conserv., Div. Water Resources. 1962.

Publications of cooperative ground-water program--Continued

Bulletins--continued

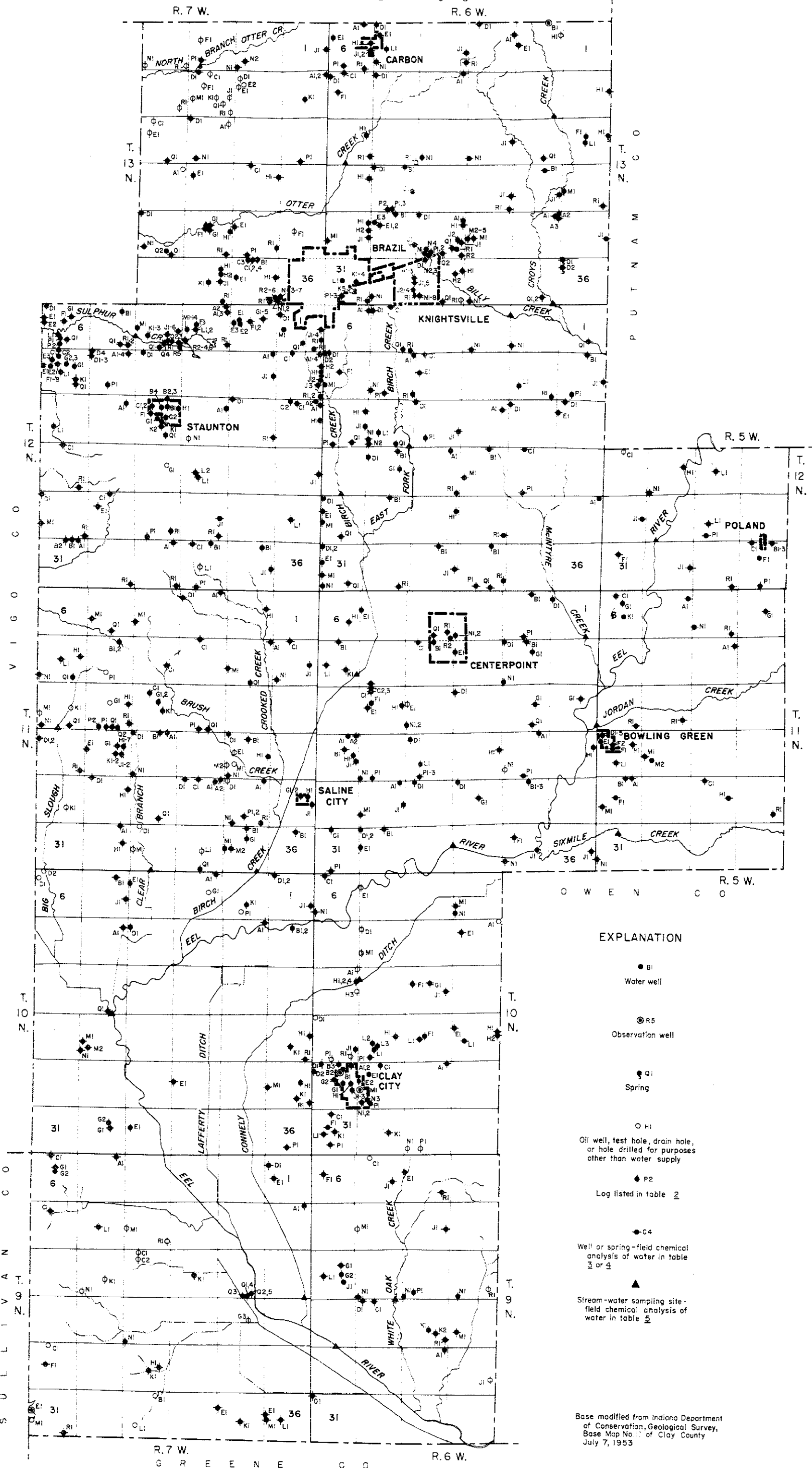
- No. 10 Ground-water resources of Northwestern Ind., Preliminary Report: Lake County. J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1961.
- 11 Ground-water resources of West-Central Ind., Preliminary Report: Greene County. F. A. Watkins, Jr., and D. G. Jordan. Ind. Dept. Conserv., Div. Water Resources. 1961.
- 12 Ground-water resources of Northwestern Ind., Preliminary Report: Porter County. J. S. Rosenshein. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 13 Ground-water resources of Northwestern Ind., Preliminary Report: LaPorte County. J. S. Rosenshein and J. D. Hunn. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 14 Ground-water resources of West-Central Ind., Preliminary Report: Sullivan County. F. A. Watkins, Jr., and D. G. Jordan. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 15 Ground-water resources of Northwestern Ind., Preliminary Report: St. Joseph County. J. S. Rosenshein and J. D. Hunn. Ind. Dept. Conserv., Div. Water Resources. 1962.
- 16 Ground-water resources of West-Central Ind., Preliminary Report: Clay County. F. A. Watkins, Jr., and D. G. Jordan. Ind. Dept. Conserv., Div. Water Resources. 1962.

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P A R K E C O



EXPLANATION

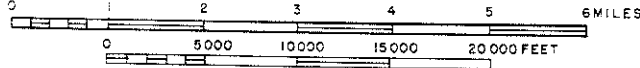
- BI Water well
- ⊙ R5 Observation well
- Q1 Spring
- HI Oil well, test hole, drain hole, or hole drilled for purposes other than water supply
- ◆ P2 Log listed in table 2
- ◆ C4 Well or spring—field chemical analysis of water in table 3 or 4
- ▲ Stream-water sampling site—field chemical analysis of water in table 5

Base modified from Indiana Department of Conservation, Geological Survey, Base Map No. 11 of Clay County, July 7, 1953

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

DIAGRAM OF TOWNSHIP

MAP OF CLAY COUNTY, INDIANA, SHOWING LOCATION OF WELLS AND SPRINGS



BY F. A. WATKINS, JR. AND D. G. JORDAN  
1960

D	C	B	A
E	F	G	H
M	L	K	J
N	P	Q	R

SECTION LETTER SYMBOLS IN WELL-NUMBERING SYSTEM.



P A R K E C O

R. 7 W.

R. 6 W.

T. 13 N.

T. 13 N.

P U T N A M

T. 12 N.

R. 5 W.

T. 12 N.

V I G O

T. 11 N.

T. 11 N.

T. 10 N.

T. 10 N.

C O

T. 9 N.

S U L L I V A N

O W E N C O

R. 5 W.

EXPLANATION

Production from unconsolidated deposits



Water from sand and gravel of Pleistocene age overlain by Pleistocene lake sediments or Recent alluvium. Well depths range from 60 to 160 feet. Yields more than adequate for domestic and stock use. Area of municipal pumpage and relatively large yields



Water from sand and gravel lenses and stringers interbedded with till and/or lake sediments in pre-Pleistocene stream channels. Well depths range from 25 to 110 feet. Yields from sand and gravel adequate for domestic, stock, and locally for small industrial use. Many wells in area are drilled into Pennsylvanian bedrock, bypassing the sand and gravel

Production from bedrock



Water predominately from sandstone of Pennsylvanian age. Well depths range from 20 to 440 feet. Yields generally adequate for domestic and stock use, and locally for small industrial and municipal supplies

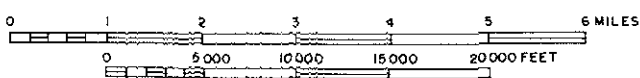
Base modified from Indiana Department of Conservation, Geological Survey, Base Map No. 11 of Clay County July 7, 1953

R. 7 W.

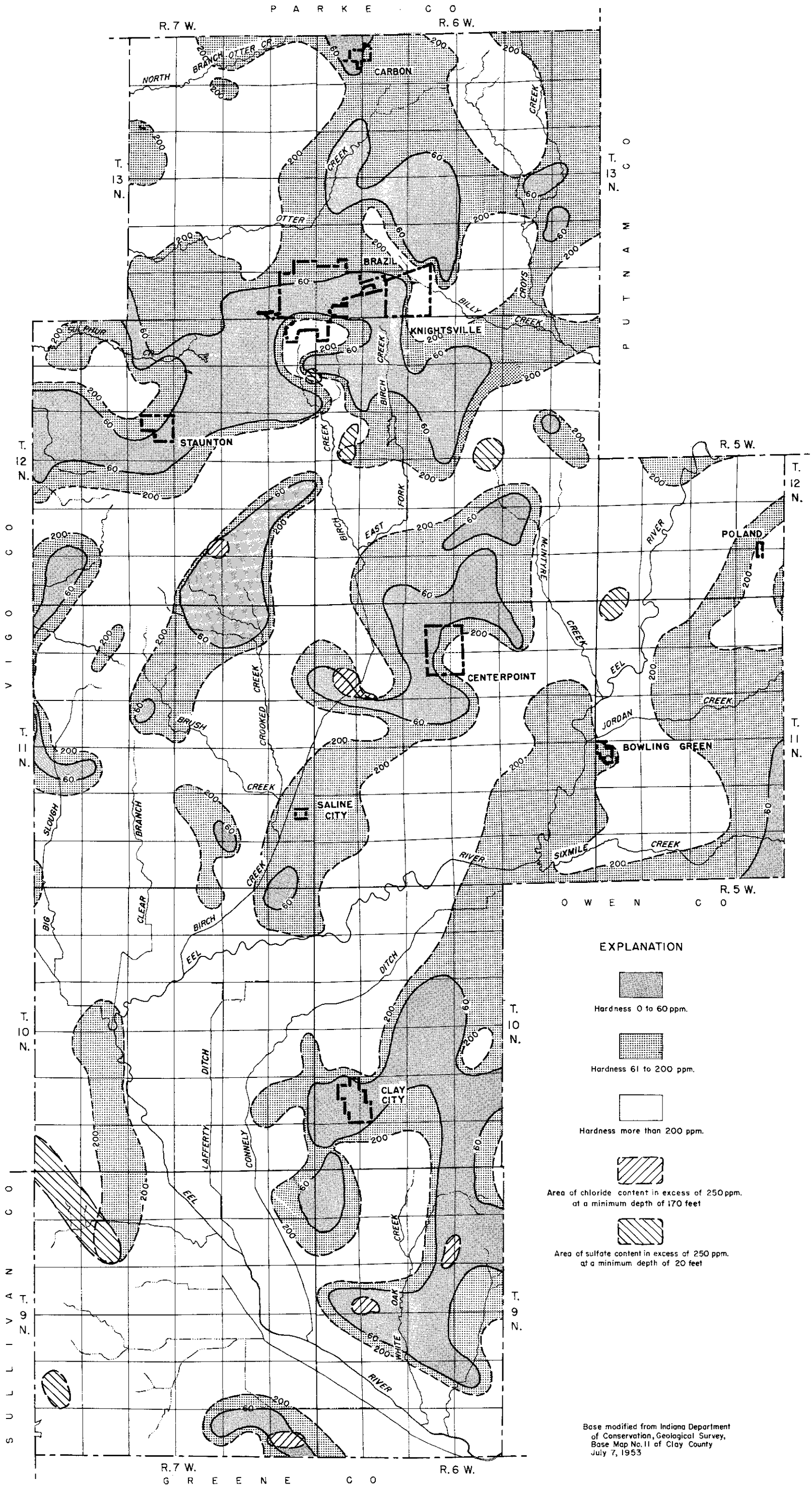
R. 6 W.

G R E E N E C O

MAP OF CLAY COUNTY, INDIANA, SHOWING  
GROUND WATER CONDITIONS



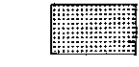
BY F. A. WATKINS, JR. AND D. G. JORDAN  
1960



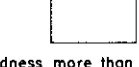
EXPLANATION



Hardness 0 to 60 ppm.



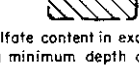
Hardness 61 to 200 ppm.



Hardness more than 200 ppm.



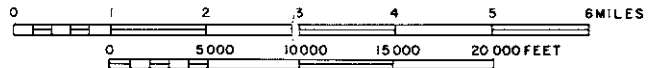
Area of chloride content in excess of 250 ppm. at a minimum depth of 170 feet



Area of sulfate content in excess of 250 ppm. at a minimum depth of 20 feet

Base modified from Indiana Department of Conservation, Geological Survey, Base Map No. 11 of Clay County July 7, 1953

MAP OF CLAY COUNTY, INDIANA, SHOWING  
HARDNESS OF GROUND WATER



BY F.A. WATKINS, JR. AND D.G. JORDAN  
1960