

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-17K3

Type of record: Driller's log.

Altitude: 611 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary systems:			
Recent and Pleistocene series:			
Silt, sandy, organic-----	6	6	
Sand, fine, brown, with trace of silt-----	9	15	
Silt, tan and gray, with trace of fine sand, fine gravel, and clay-----	3	18	
Clay, soft, silty, blue-----	5	23	
Sand, fine, tan, with trace of silt and fine gravel-----	17	40	
Clay, stiff, gray, with trace of silt-----	2	42	

Well 36/6W-17K7

Type of record: Driller's log.

Altitude: 611 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, dark-brown-----	2	2	
Silt, organic, brown-----	3	5	
Sand, fine, silty, organic, brown-----	8	13	
Marl, soft, clayey, organic-----	9	22	
Sand, silty, gray-----	6	28	
Clay, very soft, marly, sandy, gray-----	10	38	
Sand, silty, gray-----	7	45	
Clay, medium, silty, gray, with embedded sand and gravel-----	11	56	

Well 36/6W-17K9

Type of record: Driller's log.

Altitude: 610 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, gray and brown-----	2	2	
Clay, soft, gray and brown-----	3	5	
Sand, fine, silty, gray, with organic clay seams-----	5	10	
Marl, soft, sandy, clayey, organic-----	20	30	
Sand, fine, gray, with shell fragments and lignite-----	15	45	
Clay, stiff, silty, gray, with embedded sand and gravel-----	7	52	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-17K10

Type of record: Driller's log.

Altitude: 610 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, sandy, dark-brown-----	3	3	
Clay, soft, organic, dark-brown-	1	4	
Clay, soft, gray, stratified with sand seams-----	2	6	
Marl, very soft, sandy, clayey, dark-gray-----	30	36	
Clay, stiff, silty, gray, with embedded sand and gravel-----	26	62	

Well 36/6W-17K11

Type of record: Driller's log.

Altitude: 612 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, dark-brown-----	4	4	
Clay, stiff, gray-----	1	5	
Sand, soft, clayey, gray-----	2	7	
Clay, very soft, sandy, gray----	1	8	
Sand, fine, gray-----	12	20	
Marl, soft, clayey, organic, gray-----	8	28	Sandy near bottom.
Sand, fine, gray-----	6	34	
Clay, medium, silty, tan and gray, with embedded sand and gravel-----	11	45	

Well 36/6W-17L1

Type of record: Driller's log.

Altitude: 636 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, clayey, black-----	2	2	
Sand, medium, tan, with trace of silt-----	2	4	
Sand, fine, silty, tan-----	2	6	
Clay, medium, sandy, with em- bedded gravel-----	2	8	
Sand, fine, tan, with trace of silt-----	14	22	
Sand, medium, gray-----	4	26	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-17L3

Type of record: Driller's log.

Altitude: 634 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Top soil, silty, dark-brown-----	2	2	
Silt, stiff, tan, with some clay	2	4	
Sand, fine, silty, tan-----	21	25	
Clay, medium, tan-----	5	30	
Sand, fine, silty, tan-----	2	32	

Well 36/6W-17M1

Type of record: Driller's log.

Altitude: 636 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, brown and gray-----	2	2	
Sand, fine, brown-----	3	5	
Sand, fine, brown, with soft clay seams-----	1	6	
Sand, fine, brown-----	9	15	
Sand, fine, silty, brown-----	20	35	
Sand, fine, silty, gray-----	25	60	
Silt, gray-----	6	66	

Well 36/6W-17M3

Type of record: Driller's log.

Altitude: 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, soft, silty, brown-----	4	4	
Sand, clayey, brown-----	1	5	
Sand, fine, brown-----	10	15	
Sand, fine, silty, brown-----	10	25	
Sand, fine, silty, brown, with clay seams-----	5	30	
Sand, fine, silty, gray-----	20	50	
Sand, fine, silty, gray, with clay seams-----	16	66	

Well 36/6W-18C2

Type of record: Driller's log.

Altitude: 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown, with trace of clay-----	4	4	
Clay, soft, silty-----	1	5	
Sand, fine, brown-----	15	20	
Sand, fine, gray-----	20	40	
Sand, fine, gray, with trace of soft clay-----	20	60	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-18C2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, clayey, gray-----	1	61	
Clay, soft, gray, with silt seams and trace of sand-----	11	72	

Well 36/6W-18C4

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

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Sand, fine, brown, with trace of silt-----	1	2	
Clay, silty, tan and gray, with some sand-----	3	5	
Sand, fine, tan and brown-----	10	15	
Sand, fine, gray-----	4	19	
Silt, sandy, gray-----	16	35	
Sand, medium to coarse, gray, and fine gravel; with trace of silt-----	27	62	
Silt, clayey, gray-----	6	68	
Sand, fine, gray, with some silt	4	72	

Well 36/6W-18D1

Type of record: Driller's log. Altitude: 628 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, soft, sandy, gray-----	6	6	
Sand, fine, brown-----	29	35	
Clay, soft, gray, with silt seams-----	7	42	

Well 36/6W-18E1

Type of record: Driller's log from memory. Altitude: 632 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, blue-----	34	34	
Sand, very fine-----	8	42	
Clay, blue-----	8	50	
Gravel, fine-----	7	57	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-18F2

Type of record: Driller's log.

Altitude: 636 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	2	2	
Clay, soft, silty, mottled gray and brown-----	3	5	
Sand, fine, brown, with gray silt seams-----	5	10	
Sand, fine, brown, with trace of clay-----	5	15	
Sand, fine, gray, with trace of gravel-----	15	30	
Sand, fine, gray, with silty clay seams-----	5	35	
Sand, coarse, gray, with gravel-	35	70	
Clay, soft, silty, gray, with silt seams-----	6	76	

Well 36/6W-18F5

Type of record: Driller's log.

Altitude: 638 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, tan-----	6	6	
Sand, fine, brown-----	19	25	
Clay, medium, gray-----	2	27	
Sand, fine, gray-----	12	39	
Sand, fine, silty, gray-----	3	42	
Clay, medium, silty, gray-----	7	49	
Sand, fine, gray-----	6	55	
Sand, coarse, gray-----	14	69	
Clay, medium, gray, with silt seams-----	7	76	

Well 36/6W-18F8

Type of record: Driller's log.

Altitude: 636 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, tan-----	2	2	
Clay, soft, sandy, brown-----	2	4	
Sand, fine, brown-----	15	19	
Silt, clayey, gray-----	4	23	
Sand, fine, silty, gray-----	22	45	
Sand, coarse, gray-----	15	60	
Clay, soft, gray, with silt seams-----	6	66	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-18F9

Type of record: Driller's log.

Altitude: 629 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, mottled gray and tan, with trace of clay-----	2	2	
Clay, silty, gray and tan-----	2	4	
Sand, fine, silty, tan, with trace of clay-----	1	5	
Silt, sandy, tan, with trace of clay-----	5	10	
Sand, fine, tan-----	15	25	
Silt, gray, with some fine sand-----	15	40	
Sand, fine, silty, gray-----	6	46	
Silt, gray, with some clay-----	1	47	
Sand, fine, gray, with trace of silt-----	5	52	

Well 36/6W-18F10

Type of record: Driller's log.

Altitude: 635 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil, black, and gray sand--	2	2	
Sand, silty, gray to brown-----	6	8	
Sand, brown, with trace of silt-	8	16	
Silt, gray, with trace of sand--	40	56	

Well 36/6W-18G1

Type of record: Driller's log.

Altitude: 634 feet.

Quaternary system:			
Recent and Pleistocene series:			
Soil, black-----	1	1	
Sand, brown and gray-----	3	4	
Sand, gray, with trace of clay--	2	6	
Clay with brown sand-----	4	10	
Sand, brown-----	15	25	
Sand, gray, with trace of silt and clay-----	21	46	

Well 36/6W-18H1

Type of record: Driller's log.

Altitude: 633 feet.

Quaternary system:			
Recent and Pleistocene series:			
Road fill-----	1	1	
Clay, stiff, silty, brown-----	1	2	
Sand, fine, brown, with soft clay seams-----	8	10	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-18H1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, brown-----	20	30	
Sand, fine, silty, gray-----	3	33	
Clay, medium, silty, gray, with embedded sand and gravel-----	4	37	
Sand, fine, gray-----	18	55	
Sand, fine, silty, gray-----	17	72	

Well 36/6W-20A2

Type of record: Driller's log.

Altitude: 618 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil, black, and concrete fill-----	4	4	
Sand, fine, medium dense, brown, with silt-----	1	5	
Sand, fine, medium dense, brown, with some silt and trace of gravel-----	2	7	
Sand, fine, loose, brown, with some silt-----	3	10	
Silt, organic, dark-gray, with trace of sand-----	22	32	
Silt, and fine to coarse sand; very loose-----	4	36	
Sand, fine to coarse, loose, gray, with some silt-----	6	42	
Silt, medium dense, with some fine to medium gravel and trace of clay-----	4	46	
Silt and fine to medium gravel; dense, gray-----	4	50	
Sand, fine, dense, gray, with some silt-----	3	53	

Well 36/6W-21C1

Type of record: Driller's log.

Altitude: 642 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow and blue-----	21	21	
Sand, fine, soft, brown-----	6	27	
Clay, medium hard, blue-----	4	31	
Sand, fine, hard, gray-----	9	40	
Sand and gravel-----	6	46	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-32A1

Type of record: Driller's log.

Altitude: 621 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Silt, loose, dark-brown, with trace of sand-----	2	2	
Silt, loose, brown, with trace of sand-----	2	4	
Silt, and fine sand; very loose, dark-brown-----	2	6	
Silt and clay; very loose, dark- brown and gray, with trace of sand-----	8	14	
Silt, very loose, dark-brown and gray, with some fine sand-	4	18	
Sand-----	2	20	
Silt, medium dense, gray, with some clay and trace of sand and gravel-----	4	24	
Clay and silt; very tough, blue, with trace of sand-----	10	34	
Silt, dense, gray, with some clay and trace of sand-----	2	36	

Well 36/6W-32C2

Type of record: Driller's log.

Altitude: 652 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	42	42	
Clay, blue-----	36	78	
Gravel and sand-----	24	102	
Clay, blue, and gravel-----	38	140	Shale at 140 feet.

Well 36/6W-32C3

Type of record: Driller's log.

Altitude: 652 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	37	37	
Sand, silty-----	1	38	
Clay, blue-----	22	60	
Clay and gravel-----	5	65	
Sand, silty-----	5	70	
Clay, blue-----	5	75	
Clay and gravel-----	5	80	
Sand, silty-----	5	85	
Gravel, light-----	30	115	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-32D1

Type of record: Driller's log. Altitude: 662 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	35	35	
Clay, blue-----	15	50	
Clay and gravel-----	5	55	
Gravel, fine-----	10	65	
Clay, blue-----	30	95	
Gravel, coarse-----	10	105	
Sand-----	10	115	Shale at 115 feet.

Well 36/6W-32H1

Type of record: Driller's log. Altitude: 642 feet.

Quaternary system:			
Recent and Pleistocene series:			
Muck-----	21	21	
Clay, soft, blue-----	9	30	
Clay, blue, and hard gravel-----	5	35	
Gravel, small-----	3	38	
Sand, fine, soft, gray-----	7	45	
Clay, soft, blue-----	3	48	
Sand, fine, gray-----	1	49	
Gravel, black-----	2	51	
Gravel, black, and gray coarse sand-----	3	54	
Sand, fine, gray-----	2	56	
Sand, fine, with mud and gravel-----	3	59	
Mud, black-----	3	62	
Sand, salt and pepper, with gravel-----	6	68	
Sand, fine, gray, and gravel-----	9	77	
Sand, coarse to medium, gray and white-----	10	87	

Well 36/6W-33D1

Type of record: Driller's log. Altitude: 621 feet.

Quaternary system:			
Recent and Pleistocene series:			
Silt, loose, dark-brown, with trace of sand-----	7	7	
Silt, very loose, organic, dark-gray and brown, with some sand-----	2	9	
Sand, fine to medium, and organic silt; very loose, dark-gray and brown-----	5	14	
Silt, very loose, organic, gray and brown, with trace of sand--	4	18	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/6W-33D1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine to coarse, medium dense, gray and brown, with some organic silt and gravel--	6	24	
Silt, medium dense, gray, with some fine sand-----	10	34	
Clay, very tough, with some silt and trace of sand-----	4	38	
Silt, dense, gray, with some fine sand-----	4	42	

Well 36/6W-36D1

Type of record: Driller's log. Altitude: 765 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	30	30	Clay. Do.
Shale, blue-----	73	103	
Shale-----	67	170	
Mud, blue-----	3	173	
Sand-----	7	180	
Mud-----	19	199	
Devonian system:			
Upper Devonian series:			
Lime-----	15	214	
Shale-----	11	225	

Well 36/7W-1R1

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

Quaternary system:			
Recent and Pleistocene series:			
Sand, medium, brown-----	5	5	
Clay, medium, brown-----	15	20	
Sand, medium, brown-----	16	36	
Silt, medium, gray-----	2	38	
Gravel, medium, gray-----	3	41	
Silt, medium, gray-----	1	42	
Sand, medium, gray-----	17	59	

Well 36/7W-10C5

Type of record: Driller's log. Altitudes: 591 feet.

Quaternary system:			
Recent and Pleistocene series:			
Loam and sand-----	5	5	
Muck, soft-----	9	14	
Sand, fine, gray-----	16	30	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-10D1

Type of record: Driller's log.

Altitude: 594 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Loam and sand-----	4	4	
Sand, brown-----	13	17	
Sand, fine, gray-----	33	50	

Well 36/7W-10E1

Type of record: Driller's log.

Altitude: 596 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, organic, black-----	1	1	
Sand, fine, gray-----	14	15	
Clay, soft, gray-----	5	20	
Silt, gray-----	3	23	
Sand, silty, gray-----	32	55	
Silt, clayey, gray-----	1	56	
Clay, soft, silty, gray-----	2	58	

Well 36/7W-10E2

Type of record: Driller's log.

Altitude: 596 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, organic, black-----	3	3	
Sand, silty, gray-----	17	20	
Clay, soft, gray to black-----	6	26	
Silt, sandy, gray-----	28	54	
Clay, medium, gray, with trace of gravel-----	12	66	

Well 36/7W-10E5

Type of record: Driller's log.

Altitude: 596 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, organic, black-----	2	2	
Sand, fine, silty, gray-----	8	10	
Sand, fine, gray-----	10	20	
Silt, sandy, gray-----	10	30	
Sand, silty, gray-----	10	40	
Sand, fine, gray-----	8	48	
Sand, silty, gray-----	4	52	
Clay, soft, gray-----	10	62	
Silt, clayey, gray-----	5	67	
Sand, silty, gray-----	8	75	
Clay, gray-----	27	102	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-10F1

Type of record: Driller's log.

Altitude: 612 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, organic, black-----	2	2	
Sand, fine, brown-----	13	15	
Sand, fine, gray, with trace of clay-----	15	30	
Sand, fine, silty, gray, with trace of clay-----	32	62	

Well 36/7W-10L2

Type of record: Driller's log.

Altitude: 611 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, organic, black-----	2	2	
Sand, fine, brown-----	18	20	
Sand, fine, gray-----	15	35	
Sand, fine, silty, gray-----	25	60	
Silt, sandy, gray, with clay seams-----	15	75	
Clay, soft, gray, with silt and sand seams-----	40	115	
Silt, gray, with embedded shale and sand-----	7	122	

Well 36/7W-11M2

Type of record: Driller's log.

Altitude: 616 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	6	6	
Sand, fine, silty, brown-----	14	20	
Sand, fine, silty, gray-----	5	25	
Sand, fine, gray-----	9	34	
Clay, soft, gray, with silt seams-----	5	39	
Sand, fine, gray-----	10	49	Clay seam at 45 feet.
Clay, soft, gray-----	13	62	
Sand, fine, gray-----	22	84	
Silt, gray, and silty clay; stratified-----	14	98	
Sand, fine, gray-----	3	101	
Clay, stiff, silty, gray, with embedded coarse sand-----	3	104	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-11M4

Type of record: Driller's log.

Altitude: 617 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	15	15	
Sand, fine, silty-----	2	17	
Sand, fine-----	3	20	
Sand, fine, silty, gray-----	5	25	
Sand, fine, gray-----	14	39	
Clay, soft, gray-----	3	42	
Sand, fine, gray-----	4	46	
Silt, clayey, gray-----	11	57	
Clay, medium, gray-----	13	70	
Sand, fine, gray-----	6	76	

Well 36/7W-11M8

Type of record: Driller's log.

Altitude: 611 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, organic, gray and brown---	2	2	
Sand, gray-----	8	10	
Sand, silty, gray-----	10	20	
Sand, gray-----	10	30	
Sand, silty, gray-----	5	35	
Clay, silty, gray-----	35	70	
Sand, fine, gray-----	10	80	
Sand, silty, gray-----	15	95	
Silt, stiff, slightly clayey, gray, with embedded coarse sand and gravel-----	11	106	

Well 36/7W-11N5

Type of record: Driller's log.

Altitude: 626 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown, with trace of organic matter-----	4	4	
Clay, sandy, mottled brown and gray-----	3	7	
Sand, fine, silty, brown, with trace of organic matter-----	18	25	
Sand, fine, with trace of silt--	20	45	
Sand, fine, with clay and silt seams-----	5	50	
Clay, gray, with silt seams-----	36	86	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-11P1

Type of record: Driller's log. Altitude: 632 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	12	12	
Clay, blue-----	6	18	
Sand and clay, mixed-----	17	35	
Sand, coarse, gray-----	15	50	

Well 36/7W-11P2

Type of record: Driller's log. Altitude: 626 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	5	5	
Clay, mottled brown and gray----	3	8	
Sand, fine, silty, brown-----	7	15	
Sand, fine, gray-----	35	50	
Clay, gray, with sand seams-----	5	55	

Well 36/7W-11R3

Type of record: Driller's log. Altitude: 633 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	2	2	
Sand, fine, silty, brown, with organic matter-----	5	7	
Sand, fine, gray, with trace of clay-----	3	10	
Sand, fine, silty, gray-----	25	35	
Sand, fine-----	15	50	
Clay, soft, gray-----	5	55	
Silt, gray-----	5	60	
Silt, sandy, gray-----	15	75	Fine sand seam at 65 feet.
Clay, medium, gray-----	11	86	Silt seam at 85 feet.

Well 36/7W-12N1

Type of record: Driller's log. Altitude: 633 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown, with de- cayed organic matter-----	3	3	
Sand, fine, gray-----	42	45	
Sand, fine, silty, gray-----	5	50	
Clay, medium, silty, gray-----	6	56	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-12Q5

Type of record: Driller's log.

Altitude: 637 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, brown-----	4	4	
Clay, stiff, mottled gray and brown-----	4	8	
Sand, fine, brown-----	7	15	
Sand, fine, silty, brown-----	3	18	
Sand, fine, brown-----	12	30	
Sand, coarse, brown-----	10	40	
Sand, coarse, gray-----	10	50	
Sand, fine, silty, gray-----	10	60	
Sand, fine, gray, with trace of gravel-----	10	70	
Silt, gray-----	15	85	
Clay, slightly silty, gray-----	11	96	

Well 36/7W-12R3

Type of record: Driller's log.

Altitude: 637 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, brown-----	4	4	
Clay, soft, silty, mottled gray and brown-----	4	8	
Sand, fine, silty, brown-----	22	30	
Silt, gray-----	5	35	
Sand, fine, gray-----	10	45	
Sand, fine, silty, gray-----	5	50	
Sand, fine, silty, tan-----	10	60	
Sand, fine, tan, with trace of brown and gray clay-----	12	72	
Clay, gray-----	3	75	
Clay, gray, with silt seams-----	11	86	

Well 36/7W-12R4

Type of record: Driller's log.

Altitude: 638 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, brown-----	5	5	
Clay, mottled brown and gray----	5	10	
Sand, fine, silty, brown-----	10	20	
Sand, fine, brown, with trace of gravel-----	5	25	
Sand, fine, brown, with trace of clay-----	12	37	
Sand, fine, gray-----	25	62	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-13D1

Type of record: Driller's log.

Altitude: 634 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, medium, brown-----	27	27	
Clay, medium, blue-----	6	33	
Sand, medium, black and white---	6	39	

Well 36/7W-13M1

Type of record: Driller's log.

Altitude: 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	24	24	
Clay, blue-----	6	30	
Sand, very coarse, gray-----	14	44	

Well 36/7W-15J2

Type of record: Driller's log.

Altitude: 633 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and brown and blue clay----	18	18	
Sand, fine, brown-----	6	24	
Clay, soft, blue-----	1	25	
Sand, fine, gray-----	14	39	
Sand, medium, gray-----	6	45	

Well 36/7W-15K1

Type of record: Driller's log.

Altitude: 633 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, medium, yellow-----	38	38	
Clay, blue-----	6	44	
Sand, medium, gray-----	22	66	
Marl-----	10	76	

Well 36/7W-15Q1

Type of record: Driller's log.

Altitude: 633 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine-----	18	18	
Clay, brown-----	3	21	
Sand, fine-----	4	25	
Sand, very fine, brown and white	5	30	
Sand, medium, gray-----	22	52	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-15R1

Type of record: Driller's log from memory.

Altitude: 632 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	12	12	
Sand, yellow-----	10	22	
Clay, blue-----	16	38	
Sand, coarse, gray-----	12	50	

Well 36/7W-34P1

Type of record: Driller's log.

Altitude: 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, medium, brown-----	15	15	
Clay, medium, gray-----	59	74	
Sand, gray, and medium gravel--	6	80	
Clay, medium, gray-----	34	114	
Sand, gray, and medium gravel--	23	137	

Well 36/7W-36A2

Type of record: Driller's log.

Altitude: 670 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	5	5	
Clay, blue-----	49	54	
Sand, dirty, and clay-----	4	58	
Silt to fine sand-----	11	69	
Sand, fine, dirty-----	5	74	
Silt-----	9	83	
Clay, blue-----	7	90	
Clay, hard, blue-----	10	100	Boulder at 93 feet.
Sand-----	5	105	
Gravel and shale-----	5	110	
Gravel, dirty-----	7	117	
Sand-----	5	122	
Clay-----	5	127	
Clay, gravel, and boulders-----	11	138	
Sand-----	5	143	
Gravel with clay-----	2	145	
Clay-----	3	148	

Well 36/7W-36A3

Type of record: Driller's log.

Altitude: 670 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, red-----	13	13	
Clay, blue-----	42	55	
Sand, silty, with clay streak---	15	70	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 36/7W-36A3--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, blue-----	32	102	
Silt-----	3	105	
Clay-----	5	110	
Gravel-----	5	115	
Sand-----	5	120	
Gravel-----	18	138	
Sand, fine-----	12	150	Clay at 150 feet.

Well 36/7W-36P2

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

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	5	5	
Clay, yellow-----	45	50	
Clay, sandy-----	25	75	
Gravel-----	10	85	
Sand and gravel-----	25	110	
Devonian system:			
Upper Devonian series:			
Slate, gray-----	15	125	Shale.
Lime, broken, with pyrite-----	3	128	
Lime, solid, with pyrite-----	7	135	
Slate, gray-----	50	185	Shale.
Shale, blue-----	15	200	
Middle Devonian series:			
Lime, broken-----	4	204	
Lime, solid, dark-gray-----	10	214	
Lime, solid, dark-gray-----	26	240	
Lime, solid, gray-----	8	248	

Well 36/7W-36P3

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

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	16	16	
Clay, blue-----	62	78	
Clay, hard, blue-----	3	81	Boulder at 78 feet.
Sand-----	7	88	Boulder at 86 feet.
Sand, fine, dirty-----	12	100	
Sand, fine-----	27	127	
Sand, fine, dirty-----	6	133	Boulder at 132 feet.
Devonian system:			
Upper Devonian series:			
Shale-----	3	136	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-1A1

Type of record: Driller's log.

Altitude: 617 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, with peaty beds near bottom-----	30	30	
Clay, blue, with thin sand beds	55	85	
Gravel and sand-----	9	94	
Clay, blue-----	110	204	
Gravel-----	6	210	
Clay, blue-----	35	245	
Devonian system:			
Upper Devonian series:			
Shale-----	1	246	
Devonian and Silurian system; undifferentiated:			
Limestone, hard, gray-----	180	426	
Rock, soft-----	66	492	
Limestone, hard-----	372	864	

Well 37/5W-1B1

Type of record: Driller's log.

Altitude: 620 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	20	20	
Clay-----	60	80	
Sand-----	7	87	
Sand-----	14	101	

Well 37/5W-13A1

Type of record: Driller's log.

Altitude: 662 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, gray-----	72	72	
Clay, blue-----	23	95	
Gravel and sand-----	5	100	

Well 37/5W-13H1

Type of record: Driller's log.

Altitude: 659 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Clay, silty, brown, with some sand	4	5	
Clay, silty, light-brown, and coarse sand-----	5	10	
Clay, silty, gray, with some sand	5	15	
Clay, silty, gray, and sand-----	15	30	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-14M3

Type of record: Driller's log.

Altitude: 655 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Clay, silty, mottled, with trace of sand and organic matter-----	5	6	
Clay, silty, gray, with little sand-----	19	25	
Clay, silty, gray, with trace of coarse sand-----	10	35	
Clay, silty, gray, and coarse sand-----	10	45	
Sand, coarse, silty, gray, and clay-----	5	50	

Well 37/5W-16J1

Type of record: Driller's log from memory.

Altitude: 670 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	15	15	
Clay, yellow-----	5	20	
Sand, yellow-----	20	40	
Clay, blue-----	57	97	

Well 37/5W-16K1

Type of record: Driller's log.

Altitude: 650 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	9	9	
Clay, blue-----	10	19	
Clay, sandy, gravel, and stone--	16	35	
Sand, dirty-----	22	57	
Clay, blue, with stones-----	30	87	
Hardpan-----	1	88	
Clay, sand, and stone; mixed-----	37	125	
Sand, white-----	5	130	

Well 37/5W-19B1

Type of record: Driller's log.

Altitude: 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, loose, yellow-----	5	5	
Clay, firm, yellow-----	3	8	
Sand, soft, orange-----	12	20	
Clay, soft, light-gray and yellow-----	1	21	
Sand, hard, light-gray-----	4	25	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-28D1

Type of record: Driller's log.

Altitude: 645 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, gray, with trace of clay-----	1	1	
Sand, silty, brown, with little clay-----	5	6	
Sand, fine, silty, gray, with some clay-----	4	10	
Clay, silty, gray, with sand-----	5	15	
Clay, silty, gray, with little sand-----	11	26	
Sand, fine to medium, brown, with little silt-----	10	36	
Silt, very stiff, clayey, and coarse sand-----	14	50	

Well 37/5W-28D3

Type of record: Driller's log.

Altitude: 644 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, with little clay-----	1	1	
Sand, brown, and clay; with little silt-----	6	7	
Clay, silty, gray, and sand-----	3	10	
Sand, silty, gray, with little clay-----	6	16	
Sand, silty, brown, and clay-----	4	20	
Sand, brown, with little silt and clay-----	5	25	
Sand, medium to coarse, light- brown, with little clay-----	5	30	

Well 37/5W-28P1

Type of record: Driller's log.

Altitude: 642 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, firm, yellow-----	29	29	
Clay and gravel, hard, gray-----	10	39	
Sand, hard, gray-----	4	43	

Well 37/5W-28R1

Type of record: Driller's log.

Altitude: 643 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, sandy-----	60	60	
Sand-----	30	90	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-28R1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Devonian system:			
Upper Devonian series:			
Shale, hard, blue-black-----	58	148	
Lime, with pyrite-----	1	149	
Shale-----	11	160	
Shale, hard, slaty, blue-black--	7	167	
Shale, hard, brown-----	18	185	
Shale, hard, brown, calcareous--	5	190	
Slate, soft, black and white----	5	195	Shale.
Shale, hard, bituminous-----	5	200	
Shale, with sand stringers-----	15	215	
Middle Devonian series:			
Lime, sandy, black-----	10	225	
Lime-----	3	228	
Lime, sandy, reddish-brown-----	12	240	
Lime, hard, sandy-----	10	250	
Lime, gray-black, with gray and brown shells-----	10	260	
Shale, black, and black lime----	5	265	
Record missing-----	10	275	
Shale, black, and black lime----	5	280	
Shale, gray, calcareous, with light and dark shells-----	15	295	
Lime, gray, dove-colored-----	5	300	
Lime, reddish-brown-----	10	310	
Silurian system:			
Middle Silurian series:			
Lime, gray-----	10	320	
Limestone, dolomitic-----	20	340	Hydrogen sulfide water.
Lime, dolomitic, siliceous, blue	10	350	
Lime, hard, gray-blue-----	15	365	
Lime, dolomitic, hard, white----	5	370	
Lime, hard, gray-----	5	375	
Lime, dolomitic, white-gray-----	5	380	Hydrogen sulfide water.
Lime, sandy, white-----	5	385	
Record missing-----	5	390	
Sand, gray-----	10	400	
Lime, hard, gray-----	10	410	
Lime, sandy, gray, with very fine sand-----	20	430	
Lime, gray, with shells-----	5	435	
Lime, hard, sandy, gray-----	45	480	
Lime, whitish-gray-----	5	485	
Lime, hard, blue-gray-----	5	490	
Lime, sandy, gray, with very fine sand-----	15	505	
Lime, sandy, grayish-white-----	10	515	
Limestone, medium-hard, grayish-white-----	10	525	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-28R1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Silurian system:			
Middle Silurian series:			
Lime, white-----	15	540	
Lime, siliceous, white-----	5	545	
Lime, hard, black-----	10	555	
Lime, soft, white-----	5	560	
Lime, white-----	5	565	
Lime, soft, blue-gray-----	20	585	
Lime, sandy, gray and white-----	35	620	
Lime, hard, sandy, brownish-----	30	650	
Lime, hard, sandy, white and gray-----	25	675	
Lime, white-gray-----	35	710	
Lime, hard, brown-----	10	720	
Sand, calcareous, and blue hard shale-----	5	725	
Lime, hard, white-----	5	730	
Lime, hard, light-----	5	735	
Lime, hard, white-gray-----	15	750	
Lime, hard, white-----	5	755	
Lime, very hard, gray-----	5	760	
Lime, softer, brown-----	5	765	
Lime, very hard, grayish-brown-----	5	770	
Lime, somewhat softer, gray-----	10	780	
Lime, hard, gray to black-----	5	785	
Lime, gray, with calcareous very fine sand-----	5	790	
Lime, hard, sandy-----	15	805	
Limestone-----	15	820	
Sandstone, hard, calcareous-----	10	830	
Ordovician system:			
Upper Ordovician series?:			
Shale, hard, blue, calcareous-----	20	850	
Sandstone, blue-black, calcareous-----	5	855	
Shale, hard, blue-black, calcareous-----	5	860	
Shale, soft, light-blue-----	85	945	
Shale, bituminous, brownish- black-----	10	955	
Shale, soft, blue-black-----	5	960	
Shale, soft, blue gumbo-----	5	965	
Shale, hard, blue-black-----	5	970	
Shale, soft, blue gumbo-----	5	975	
Shale, blue, calcareous-----	5	980	
Shale, blue gumbo-----	15	995	
Shale, soft, blue gumbo-----	5	1,000	
Shale, soft, black, calcareous-----	10	1,010	
Shale, very hard, blue calcareous-----	10	1,020	
Shale, hard, black, calcareous-----	10	1,030	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-28R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Ordovician system:			
Middle Ordovician series:			
Lime, hard, buff-----	65	1,095	
Lime and shale, buff-----	5	1,100	
Lime, hard, buff-----	5	1,105	

Well 37/5W-29J1

Type of record: Driller's log.		Altitude: 644 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Clay, medium, gray-----	15	15	
Sand, gray and brown, and medium gravel-----	10	25	
Silt, medium, gray-----	17	42	
Gravel, medium, gray-----	3	45	

Well 37/5W-30N2

Type of record: Driller's log.		Altitude: 646 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Clay, sandy, brown, with little silt-----	7	8	
Clay, silty, brown, with little sand-----	9	17	
Sand, medium, brown, with little clay-----	9	26	
Sand, medium, brown, with trace of silt and clay-----	5	31	
Sand, medium, brown-----	19	50	

Well 37/5W-30N3

Type of record: Driller's log.		Altitude: 646 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand, brown, clay, and silt-----	5	5	
Clay, silty, brown, and sand-----	5	10	
Sand, medium, brown-----	20	30	

Well 37/5W-30R2

Type of record: Driller's log.		Altitude: 649 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Clay, silty, gray, and sand-----	1	1	
Sand, brown, and clay; with little silt-----	9	10	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-30R2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine to medium, brown, with little silt and clay-----	6	16	
Sand, fine, silty, gray, with little clay-----	4	20	
Sand, fine, silty, gray, and clay-----	5	25	
Sand, fine, silty, brown, with little clay-----	1	26	
Clay, silty, gray, with little sand-----	4	30	

Well 37/5W-30R4

Type of record: Driller's log.

Altitude: 653 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, dark-brown, and clay-----	1	1	
Sand, medium, brown, with little silt and clay-----	11	12	
Clay, silty, gray, and sand-----	8	20	
Sand, medium, brown, with little silt and clay-----	11	31	
Clay, silty, gray, and sand-----	4	35	
Sand, silty, gray, with little clay-----	5	40	
Clay, silty, gray, and fine sand	10	50	

Well 37/5W-31C1

Type of record: Driller's log.

Altitude: 638 feet.

Quaternary system:			
Recent and Pleistocene series:			
Loam; black silty sand-----	1	1	
Clay, silty, brown, with little sand-----	4	5	
Sand, fine, silty, brown, with little clay-----	5	10	
Sand, silty, gray, with little clay-----	2	12	
Sand, medium, brown, with trace of silt-----	6	18	
Clay, silty, gray, and fine sand	5	23	
Sand, fine, silty, gray, with little clay-----	7	30	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-31C4

Type of record: Driller's log.

Altitude: 638 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary systems:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Clay, silty, brown, and sand----	4	5	
Sand, medium, brown-----	3	8	
Sand, fine, silty, brown, with little clay-----	4	12	
Sand, fine, silty, gray, and clay-----	25	37	
Clay, silty, gray, and sand----	4	41	
Clay, silty, gray, with much coarse sand-----	4	45	
Clay, silty, gray, and sand----	5	50	

Well 37/5W-31C5

Type of record: Driller's log.

Altitude: 640 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, medium to coarse, dark- brown-----	1	1	
Clay, silty, brown, and sand----	7	8	
Clay, silty, brown, with some sand-----	4	12	
Clay, silty, brown, with sand seams-----	3	15	
Sand, fine, silty, gray, and clay-----	5	20	
Clay, silty, gray, and fine sand	10	30	

Well 37/5W-31L1

Type of record: Driller's log.

Altitude: 642 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Fill; black cinders and sand with large stones-----	5	5	
Sand, dark-brown, and clay-----	4	9	
Sand, medium, brown, with trace of silt-----	5	14	
Sand, medium, brown-----	5	19	
Sand, coarse, brown, with trace of small gravel-----	5	24	
Sand, medium, brown, with trace of small gravel-----	11	35	
Sand, medium, gray-----	10	45	
Sand, medium, brown, with trace of small gravel-----	5	50	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-31M2

Type of record: Driller's log.

Altitude: 645 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Fill-----	3	3	
Sand, fine-----	40	43	
Sand, coarse, gravel, and stone-----	11	54	
Sand, coarse-----	7	61	
Clay and fine sand-----	7	68	

Well 37/5W-31P4

Type of record: Driller's log.

Altitude: 644 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Fill; black cinders, sand, and large stones-----	5	5	
Sand, brown, and clay-----	5	10	
Sand, medium, brown, with trace of silt and clay-----	5	15	
Sand, medium, brown-----	5	20	
Sand, coarse, brown, with some small gravel-----	5	25	
Sand, medium, brown-----	20	45	
Sand, fine to medium, gray-----	5	50	

Well 37/5W-32E1

Type of record: Driller's log.

Altitude: 639 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and medium gravel; brown and gray-----	30	30	
Clay, medium, gray-----	8	38	
Sand and medium gravel; brown-----	12	50	
Sand, medium, gray-----	16	66	

Well 37/5W-32E2

Type of record: Driller's log.

Altitude: 635 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, soft, brown-----	5	5	
Clay, medium, brown and gray-----	25	30	
Sand, medium, brown-----	12	42	
Sand, medium, gray-----	3	45	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-32G1

Type of record: Driller's log.

Altitude: 640 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	16	16	
Clay, blue-----	2	18	
Gravel, light-----	7	25	
Sand, gray-----	8	33	

Well 37/5W-36E1

Type of record: Driller's log.

Altitude: 662 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, sand, and gravel-----	5	5	
Sand and gravel-----	15	20	
Gravel and sand-----	7	27	Clay at 27 feet.

Well 37/5W-36H1

Type of record: Driller's log.

Altitude: 690 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Soil-----	3	3	
Clay, sandy-----	25	28	
Clay-----	25	53	
Clay, sandy-----	38	91	
Gravel and sand-----	24	115	Shale at 115 feet.

Well 37/5W-36N1

Type of record: Driller's log.

Altitude: 678 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	7	7	
Sand, gray-----	20	27	Suitable for 15-slot screen.
Clay, blue-----	53	80	
Sand, dirty, gray-----	18	98	
Clay, blue-----	2	100	
Sand, fine-----	28	128	Suitable for 10-slot screen.
Sand and gravel-----	3	131	

Well 37/5W-36N2

Type of record: Driller's log.

Altitude: 678 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	7	7	
Clay, yellow, and sand-----	15	22	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/5W-36N2--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, blue, and sand-----	44	66	
Sand, fine-----	4	70	
Clay and sand-----	43	113	
Sand-----	11	124	
Clay and gravel; hard-----	11	135	
Devonian system:			
Upper Devonian series:			
Shale, brown-----	13	148	

Well 37/5W-36N3

Type of record: Driller's log.

Altitude: 668 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	5	5	
Clay and sand-----	78	83	
Sand, dirty-----	7	90	
Sand-----	3	93	
Clay and sand-----	7	100	
Sand-----	3	103	
Clay-----	1	104	
Sand-----	2	106	
Clay, hard-----	3	109	
Clay and gravel-----	2	111	
Gravel-----	7	118	Clay at 118 feet.

Well 37/6W-14L1

Type of record: Driller's log.

Altitude: 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, round-----	12	12	
Sand, coarse-----	2	14	
Sand, medium-----	1	15	
Gravel, large-----	3	18	
Sand, coarse, and large gravel--	3	21	
Clay-----	1	22	

Well 37/6W-14N2

Type of record: Driller's log.

Altitude: 625 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Sand, fine-----	10	11	
Sand and gravel-----	6	17	
Clay, blue-----	55	72	
Sand-----	12	84	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-14N2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system: Recent and Pleistocene series: Gravel and sand; with shale fragments-----	10	94	

Well 37/6W-23R1

Type of record: Driller's log.

Altitude: 650 feet.

Quaternary system: Recent and Pleistocene series: Sand, yellow-----	35	35	
Clay, blue-----	39	74	
Sand, very coarse-----	30	104	

Well 37/6W-24A1

Type of record: Driller's log.

Altitude: 608 feet.

Quaternary system: Recent and Pleistocene series: Sand, yellow-----	22	22	
Clay, blue-----	24	46	
Sand, very coarse, and fine gravel-----	8	54	

Well 37/6W-25J2

Type of record: Driller's log.

Altitude: 657 feet.

Quaternary system: Recent and Pleistocene series: Loam, silty, black, with sand and cinders-----	1	1	
Sand, medium, dark, with some silt and clay-----	4	5	
Sand, medium, brown, with trace of silt and clay-----	10	15	
Sand, medium, brown-----	15	30	
Sand, fine to medium, brown-----	20	50	

Well 37/6W-25M1

Type of record: Driller's log.

Altitude: 682 feet.

Quaternary system: Recent and Pleistocene series: Clay, medium, brown-----	48	48	
Clay, gray, and medium gravel-----	6	54	
Sand, medium, gray-----	4	58	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-25N1

Type of record: Driller's log.

Altitude: 631 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, black and brown, and clay-----	1	1	
Sand, fine, silty, brown, and clay-----	15	16	
Sand, fine, silty, brown-----	5	21	
Silt, clayey, gray, with little sand-----	11	32	
Clay, silty, brown, with little sand-----	3	35	
Silt, clayey, gray, with little sand-----	5	40	
Clay, silty, gray, with little sand-----	10	50	

Well 37/6W-25Q1

Type of record: Driller's log.

Altitude: 630 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, mottled, and clay--	1	1	
Clay, silty, brown, with little sand-----	19	20	
Sand, fine, silty, gray, and clay-----	5	25	
Clay, silty, brown, with little sand and trace of gravel-----	5	30	

Well 37/6W-25Q4

Type of record: Driller's log.

Altitude: 625 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Sand, fine, silty, brown, with trace of clay-----	4	5	
Clay, silty, brown, and sand----	6	11	
Sand, fine, silty, mottled, with little clay-----	4	15	
Sand, fine, silty, mottled, with some clay-----	5	20	
Sand, fine, silty, gray, with little clay-----	15	35	
Sand, fine, silty, gray, with clay-----	6	41	
Clay, silty, mottled, and sand--	9	50	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-26B1

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, sandy, brown, with gravel	11	11	
Clay, sandy, silty, brown, with gravel and small stones	6	17	
Clay, sandy, mottled gray-brown, with gravel	7	24	
Clay, sandy, gray, with gravel and small stones	26	50	

Well 37/6W-26G1

Type of record: Driller's log. Altitude: 685 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow	25	25	
Clay, gray	25	50	
Till, gray	25	75	
Till, gray, and gravel	19	94	
Gravel grading to sand	10	104	
Sand, fine	6	110	
Sand, medium	10	120	
Sand, fine, muddy	5	125	

Well 37/6W-26R1

Type of record: Driller's log. Altitude: 631 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, gray and brown, and clay	1	1	
Sand, fine, silty, brown, and clay	9	10	
Clay, silty, gray and brown, with little sand	15	25	
Clay, silty, gray and brown, with seams of fine sand	5	30	

Well 37/6W-27A1

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

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow	30	30	
Clay, blue	6	36	
Sand, red	50	86	
Sand, gray	7	93	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-27H1

Type of record: Driller's log.

Altitude: 679 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, sandy, silty, brown, with gravel-----	12	12	
Silt, firm, sandy, brown-----	2	14	
Clay, sandy, brown, with gravel-	2	16	
Silt, clayey, brown, with gravel	2	18	
Clay, silty, brown, with gravel-	3	21	
Clay, firm, sandy, gray, with gravel-----	9	30	

Well 37/6W-27H2

Type of record: Driller's log.

Altitude: 680 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	15	15	
Clay, yellow, with sand-----	7	22	
Clay, light-brown-----	5	27	
Clay, gray-----	10	37	
Till, gray-----	43	80	
Till, gray, with fine gravel----	7	87	
Gravel, fine, grading to sand----	25	112	
Sand, fine to medium-----	13	125	

Well 37/6W-27L2

Type of record: Driller's log.

Altitude: 675 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	18	18	
Sand and clay-----	47	65	
Clay, blue-----	11	76	
Sand, medium, clean-----	14	90	
Sand, fine, gray-----	12	102	
Sand, fine, with some clay-----	8	110	Blue clay at 110 feet.

Well 37/6W-31R1

Type of record: Driller's log.

Altitude: 632 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay-----	12	12	
Sand, coarse, and gravel-----	31	43	
Sand, fine-----	7	50	
Sand-----	6	56	
Clay-----	127	183	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-31R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Devonian system: Middle Devonian series: Limestone-----	42	225	

Well 37/6W-32R1

Type of record: Driller's log. Altitude: 636 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, black and dark-brown-----	1	1	
Sand, silty, brown, and clay----	4	5	
Sand, fine to medium, brown, and little silt-----	10	15	
Sand, fine to medium, light- brown-----	11	26	
Sand, medium, brown, with some silt and clay-----	4	30	
Sand, medium, brown, with little silt and clay-----	10	40	
Sand, medium, light-brown, with some silt-----	5	45	
Sand, medium, gray to brown, with little silt and clay-----	5	50	

Well 37/6W-33N1

Type of record: Driller's log. Altitude: 634 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, silty, dark-brown, and clay-----	1	1	
Clay, silty, brown, and sand----	4	5	
Sand, fine to medium, brown, with little silt-----	20	25	
Sand, medium to coarse, light- brown-----	5	30	

Well 37/6W-33R3

Type of record: Driller's log. Altitude: 636 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Sand, silty, mottled, with trace of clay-----	4	5	
Sand, fine to medium, brown-----	45	50	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-34A1

Type of record: Driller's log.

Altitude: 630 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, medium, brown-----	33	33	
Clay, medium, gray-----	8	41	
Sand, medium, gray-----	7	48	

Well 37/6W-35B1

Type of record: Driller's log.

Altitude: 611 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, silty, brown, and clay-----	1	1	
Clay, silty, brown, and sand----	9	10	
Sand, silty, dark-gray, and clay with trace of organic matter-----	5	15	
Sand, silty, gray, with some clay-----	5	20	
Sand, fine, silty, gray, with little clay-----	15	35	
Sand, silty, gray, with some clay-----	10	45	

Well 37/6W-35B7

Type of record: Driller's log.

Altitude: 610 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, soft to very soft, silty, organic, brown-----	8	8	
Clay, very soft, silty, gray, with trace of organic matter----	9	17	
Clay, very soft, silty, gray----	4	21	
Clay, very soft, silty, sandy, gray-----	9	30	
Gravel, medium, sandy, gray, with trace of silt-----	4	34	
Clay, stiff, silty, gray, with trace of sand and gravel-----	6	40	
Clay, stiff, silty, gray-----	9	49	
Sand, very dense, gray-----	3	52	

Well 37/6W-35C1

Type of record: Driller's log.

Altitude: 613 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, silty, mottled, and sand--	1	1	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-35C1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, silty, brown, with little sand and trace of small gravel	4	5	
Clay, silty, mottled gray and brown, with trace of organic matter-----	6	11	
Clay, very soft, silty, and fine sand; with trace of organic matter-----	9	20	
Clay, silty, mottled, with little sand-----	6	26	
Sand, silty, dark-gray, and clay	4	30	
Sand, silty, brown and gray, and clay-----	5	35	
Sand, medium, gray, with little silt and clay-----	5	40	
Sand, medium, gray, with some silt and clay-----	5	45	
Sand, medium, gray, with trace of silt and clay-----	5	50	

Well 37/6W-35E1

Type of record: Driller's log.

Altitude: 639 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Sand, silty, brown, with little clay-----	14	15	
Sand, fine, brown, with little silt-----	6	21	
Sand, coarse, brown-----	14	35	
Sand, medium to coarse, brown---	15	50	

Well 37/6W-35E7

Type of records: Driller's log.

Altitude: 639 feet.

Quaternary systems:			
Recent and Pleistocene series:			
Top soil-----	1	1	
Clay, silty, brown, and sand---	10	11	
Sand, fine to medium, brown----	4	15	
Sand, medium, brown-----	5	20	
Sand, medium to coarse, brown---	10	30	
Sand, fine to medium, brown----	10	40	
Sand, medium to coarse, brown---	5	45	
Sand, fine to medium, brown----	5	50	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/6W-35G2

Type of record: Driller's log.

Altitude: 640 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, red-----	17	17	
Clay, blue-gray-----	10	27	
Sand, coarse, brown-----	1	28	
Sand, coarse, gray, and fine gravel-----	4	32	
Sand, medium, and little gravel-	7	39	
Sand, medium, gray, and medium gravel-----	3	42	
Gravel, fine to medium, gray, and broken shale-----	4	46	
Gravel, fine, gray, and sand----	12	58	
Gravel, coarse, and sand-----	2	60	
Gravel, fine, and coarse sand---	1	61	Gray clay and quick- sand at 61 feet.

Well 37/6W-35G3

Type of record: Driller's log.

Altitude: 640 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	20	20	
Sand, fine, and gravel-----	15	35	
Clay-----	5	40	
Gravel and sand-----	20	60	
Sand, fine, muddy-----	14	74	Clay at 74 feet.

Well 37/6W-36R1

Type of record: Driller's log.

Altitude: 630 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, sand, and gravel-----	10	10	
Sand, brown-----	8	18	
Sand, gray-----	12	30	
Sand, gray, and gravel-----	10	40	
Sand, gray-----	3	43	
Sand, gray, and gravel-----	17	60	
Clay, sand, and gravel-----	11	71	
Clay, blue-----	4	75	
Quicksand-----	15	90	

Well 37/7W-35B3

Type of record: Driller's log.

Altitude: 610 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, brown-----	30	30	

Table 3.--Selected logs of wells and test holes in Porter County--Continued

Well 37/7W-35B3--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series			
Clay, blue-----	32	62	
Sand, coarse, white-----	6	68	

Well 37/7W-35B4

Type of record: Driller's log.			Altitude: 625 feet.
Quaternary system:			
Recent and Pleistocene series:			
Sand, fine, brown-----	36	36	
Sand, fine, white-----	14	50	
Sand, white, and gravel-----	8	58	

Well 37/7W-35J1

Type of record: Driller's log from memory.			Altitude: 605 feet.
Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	12	12	
Clay, blue-----	28	40	
Sand, very fine, gray-----	27	67	
Clay, blue-----	5	72	
Sand and little gravel; mixed-----	23	95	

Well 37/7W-36B1

Type of record: Driller's log.			Altitude: 607 feet.
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	15	15	
Sand, dark-gray-----	4	19	
Sand, fine, gray-----	9	28	
Clay-----	2	30	
Peat and clay, in layers-----	4	34	
Clay-----	4	38	
Clay, sandy-----	4	42	
Sand, fine-----	42	84	
Clay, gray-----	1	85	

Table 4.--Records of springs in Porter County, Indiana

Spring: See text for description of well-numbering system.
 Altitude: Altitude of land-surface datum from topographic map.
 Material: D, drift; G, gravel; M, muck; Sd, sand.
 Geologic age: Pl, Pleistocene; R, Recent.
 Use: D, domestic; N, none; P, public supply; S, stock.

Flow: E, estimated; M, measured.
 Field chemical analyses: In parts per million; water samples collected on date of measurement, except where otherwise noted in remarks.
 Remarks: GPM, gallons per minute.

Spring	Owner	Altitude (feet)	Material	Geologic age	Use	Flow (gpm)	Date of measurement	Field chemical analyses					Remarks		
								Temperature (°F)	Iron (Fe)	Carbonate (CO ₂)	Bicarbonate (HCO ₃)	Chloride (Cl)		Hardness as CaCO ₃ (calcium, magnesium)	
35/8W-1511	State of Indiana	700	D	Pl	P	25 M	10-11-56	54	---	0	329	---	---	350	Seven scoops in area; water sample collected 6-18-58. Spring zone at contact of clayey, silty, medium to coarse sand and gray-blue clay till; spring zone consists of many scoops; iron encrustation. Spring zone at base of knoll at contact of sandy muck with underlying sandy clay till; iron encrustation. Used for cooling; iron deposit on spillway. Used for cooling and sprinkling; spring zone consists of six scoops; iron deposits on spillway.
25D1	Doubling Paint Store	700	Sd, G	Pl	N	15 M	10-10-58	53	2.0	0	429	---	---	416	
33P1	P. Hubbal	705	Sd	Pl	D, S	27 M	10-27-56	---	---	---	---	---	---	---	
35H1	C. McGill	700	M	R	N	11 M	10-10-56	---	---	---	---	---	---	---	
36E1	-----do-----	715	D	Pl	---	4 M	10-10-50	53	---	---	---	---	---	---	
36M1	-----do-----	715	D	Pl	---	16 M	10-10-56	52	---	0	381	---	---	370	
38/5W-10J1	State of Indiana	720	D	Pl	N	1 E	10-31-56	---	---	---	---	---	---	---	
21K1	E. Graiger	720	D	Pl	N	35 E	10-30-56	---	---	---	---	---	---	---	
21N1	-----do-----	720	D	Pl	N	20 M	10-30-56	---	---	---	---	---	---	---	
21N2	State of Indiana	720	D	Pl	P	30 M	10-30-56	52	---	0	273	---	---	276	
36/6W-23P2	-----do-----	640	D	Pl	P	15 M	10-30-56	54	---	0	400	---	---	330	
20A1	-----do-----	675	D	Pl	N	---	-----	---	---	---	---	---	---	---	
20H2	H. L. Borg	710	D	Pl	S	1 E	10-30-56	---	---	---	---	---	---	---	
20R1	Mr. Shenck	715	D	Pl	N	1.5M	10-30-56	53	---	0	379	---	---	420	
33J1	Girl Scouts of Chicago	675	Sd	Pl	---	30 E	10-30-56	54	---	---	---	---	---	---	
34E2	-----do-----	695	Sd	Pl	D	0 M	10-30-56	52	---	0	338	---	---	360	
								52	1.3	0	388	---	---	380	

Table 5.--Field chemical analyses of water from wells in Porter County, Indiana (Results in parts per million. Analyses by U. S. Geological Survey, except where otherwise noted.)

Well	Material	Geologic Age	Date of Collection	Temperature (°F)	Iron (Fe)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Hardness as CaCO ₃ (calcium, magnesium)	Remarks
33/5W-3Q1	G, Sd	Pl	11-19-59	---	0.3	10	176	150	20	268	
33/6W-19P3	Sd, G	Pl	11-19-59	---	1.0	34	405	10	12	152	
	Sd, G	Pl	11-19-59	---	>7.5	19	215	545	56	744	
33/7W-15A2	Sd, G	Pl	3-21-57	53	---	7	281	---	4	332	
34/5W-20D1	Sd	Pl	11-19-59	---	.5	29	220	60	12	244	
	Sd, G	Pl	11-19-59	---	.5	29	405	95	20	436	
34/6W-4B2	Sd	Pl	11-19-59	---	3.0	19	478	145	32	524	
	Sd, G	Pl	11-19-59	53	1.0	24	278	25	16	224	
33Q1	Sd	Pl	1957	---	---	0	405	---	16	296	
	Sd	Pl	5-21-57	---	.1	0	229	---	8	340	
34/7W-1B7	Sd, G	Pl	11-19-59	---	3.0	10	522	295	16	668	
	Sd	Pl	5-21-57	53	4.0	0	368	---	4	692	
1E2	Sd	Pl	7-17-56	54	1.0	0	449	---	6	468	
	Sd	Pl	5-21-57	55	>7.5	0	300	---	0	248	
12A1	Sd	Pl	5-21-57	52	2.0	0	490	---	10	632	
	Sd	Pl	11-19-59	52	3.0	14	317	85	12	326	

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

Material: G, gravel; Ls, limestone; Sd, sand.

Geologic age: D, Devonian; Pl, Pleistocene; S, Silurian.

Iron (Fe): U. S. Public Health Service drinking-water standards - 0.3 parts per million for iron and manganese together.

Sulfate (SO₄): U. S. Public Health Service drinking-water standards - 250 parts per million.

Chloride (Cl): U. S. Public Health Service drinking-water standards - 250 parts per million.

Remarks: DCC, analysis by Dearborn Chemical Co.; ICI, analysis by Industrial Chemicals, Inc.; So, analysis of softened water; TDS, total dissolved solids.

Table 5.--Field chemical analyses of water from wells in Porter County, Indiana--Continued

Well	Material	Geologic Age	Date of Collection	Temperature (°F)	Iron (Fe)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Hardness as CaCO ₃ (calcium, magnesium)	Remarks
34/7W-26A1	Sd	Pl	11-19-59	---	2.0	19	200	115	16	292	
	G, Sd	Pl	11-19-59	---	.3	14	395	22	12	300	
35/5W-16P2	Sd	Pl	12-10-59	---	.1	19	283	50	4	276	
	Sd	Pl	11-18-59	---	1.0	14	429	155	20	512	
	Sd	Pl	5-17-57	57	.1	17	183	---	6	252	
	Sd	Pl	11-18-59	---	.1	29	224	55	16	260	
	Sd	Pl	11-18-59	---	.5	0	83	35	20	72	
	Sd	Pl	11-18-59	---	.5	14	146	45	16	144	
	Sd	Pl	11-18-59	---	.5	24	176	5	16	200	
	Sd, G	Pl	11-19-59	---	<.1	12	117	95	16	184	
35/6W-5Q1	Sd	Pl	11-18-59	---	1.5	41	322	30	4	304	
	Sd, G	Pl	12-10-59	55	1.5	10	381	85	16	372	
	Sd	Pl	11-18-59	---	1.0	29	303	135	16	384	
	Sd	Pl	11-18-59	---	.3	24	239	65	16	272	
	Sd	Pl	5-21-57	57	1.0	0	271	---	4	276	
	Sd	Pl	11-18-59	---	1.0	10	259	90	16	284	
	Sd	Pl	11-14-56	53	---	0	361	---	6	338	
	Sd	Pl	11-18-59	---	2.0	14	264	55	16	260	
	Sd	Pl	11-18-59	---	.5	14	332	40	12	292	
	Sd	Pl	11-18-59	---	2.0	34	346	90	16	348	
35/7W-2J1	Sd	Pl	5-16-57	---	.5	0	373	---	4	248	
	Sd	Pl	11-18-59	---	.1	24	312	5	16	176	
	G	Pl	11-18-59	---							
36/5W-1R1	Sd	Pl	5-16-57	52	2.5	14	334	---	4	372	
	Sd	Pl	10-30-59	---	3.0	19	298	58	12	312	
	Sd, G	Pl	5-14-57	58	1.5	10	224	---	6	284	
	Sd	Pl	5-14-57	54	1.5	29	185	---	4	280	
	Sd	Pl	4-14-57	55	2.5	0	466	---	6	544	
	Sd	Pl	10-30-59	---	3.0	14	366	140	8	404	

36/5W-15R1	Sd	Pl	5-14-57	55	0.5	24	268	---	---	---	368	ICI.
15R1	Sd	Pl	10-30-59	---	.1	24	307	95	8	8	312	So.
18D1	Sd	Pl	6-9-55	53	2.3	0	144	210	8	8	327	
18D1	Sd	Pl	11-17-59	---	.1	58	381	50	20	20	12	
19N1	Sd	Pl	11-17-59	---	1.0	24	371	120	24	24	432	
22D1	Sd	Pl	10-30-59	---	1.0	24	317	95	12	12	372	
30N1	Sd	Pl	11-17-59	---	2.5	38	381	70	12	12	416	
31M1	Sd	Pl	11-17-59	---	1.5	19	307	130	10	10	384	
36/6W-5N1	Sd	Pl	11-17-59	---	1.0	29	273	35	12	12	252	
9E4	Sd	Pl	11-17-59	---	.3	24	200	55	16	16	216	
13N1	G,Sd	Pl	11-17-59	---	.5	29	390	60	28	28	400	
13N2	Sd	Pl	11-17-59	---	2.0	19	381	45	16	16	344	
18E1	G	Pl	11-17-59	---	.5	24	161	15	12	12	160	
19L1	Sd	Pl	11-17-59	---	1.0	38	312	15	8	8	280	
21C1	Sd,G	Pl	11-17-59	---	.5	24	224	12	16	16	200	
23P1	Sd	Pl	10-30-56	52	.2	0	405	---	0	0	400	
23R1	Sd,G	Pl	5-15-57	55	2.5	31	310	---	14	14	424	
23R1	Sd,G	Pl	11-17-59	---	1.0	34	293	80	16	16	268	
32D1	Sd,G	Pl	11-17-59	---	2.0	46	386	5	28	28	272	
34E1	Sd	Pl	10-30-56	52	.5	0	305	---	4	4	307	
34E1	Sd	Pl	11-17-59	---	1.0	24	210	70	12	12	264	
36E1	Sd,G	Pl	11-17-59	---	1.5	19	407	155	12	12	456	
36/7W-3E1	Sd	Pl	11-12-56	56	2.0	0	127	---	0	0	142	
11P1	Sd	Pl	10-29-59	---	.1	19	88	50	8	8	122	
12Q1	Sd,G	Pl	10-29-59	---	.3	19	98	85	16	16	172	
13M2	Sd	Pl	10-29-59	---	.3	24	117	70	10	10	168	
23N2	Sd	Pl	10-29-59	---	.5	0	293	180	18	18	376	
25F1	Sd	Pl	10-29-59	---	.1	53	376	10	8	8	296	DCC.
36A2	G,Sd	Pl	11-10-56	---	.7	22	352	---	7	7	324	DCC.
36A3	G,Sd	Pl	1-7-57	---	.4	0	402	---	7	7	204	TDS 497; DCC.
36P5	Sd,G	Pl	11-13-56	---	1.2	---	340	12	5	5	270	
36Q1	G	Pl	5-16-57	50	1.1	0	449	---	8	8	320	
37/5W-1A1	Ls	D,S	3-12-57	56	---	0	351	---	3,600	3,600	3,850	
1A1	Ls	D,S	10-28-59	56	.1	0	317	2,000	3,300	3,300	2,700	
2Q1	Sd	Pl	10-28-59	---	.1	14	112	75	20	20	164	
3A1	Sd	Pl	10-28-59	---	1.0	0	78	45	16	16	8	So.

Table 5.--Field chemical analyses of water from wells in Porter County, Indiana--Continued

Well	Material	Geologic Age	Date of Collection	Temperature (°F)	Iron (Fe)	Carbonate (CO ₃)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Hardness as CaCO ₃ (calcium, magnesium)	Remarks
37/5W-3L1	Sd	P1	5-9-57	55	2.7	5	95	---	2	152	
16K1	Sd	P1	10-28-59	---	1.5	53	483	8	16	416	
16K1	Sd	P1	5-10-57	55	2.0	17	498	---	6	448	
21M1	Sd	P1	5-14-57	60	2.0	10	537	---	10	518	
21M1	Sd	P1	10-28-59	---	1.5	14	493	38	12	380	
24H2	G	P1	10-28-59	---	.3	0	288	30	8	224	
28P1	Sd	P1	10-28-59	---	1.5	29	254	15	10	200	
29J1	G	P1	10-28-59	---	.3	43	283	20	12	272	
31H2	Sd	P1	5-15-57	54	2.5	0	337	---	26	340	
31H2	Sd	P1	10-28-59	---	1.5	34	303	50	12	312	
32G1	Sd	P1	10-28-59	---	1.0	24	259	45	28	264	
36E1	G,Sd	P1	3-14-57	53	2.5	0	285	---	10	232	
36H1	G,Sd	P1	5-57	---	---	12	178	---	4	148	
36H1	G,Sd	P1	10-28-59	---	.1	29	322	35	16	---	So.
37/6W-14J1	Sd	P1	5-14-57	56	.2	0	37	---	0	76	
14J2	Sd	P1	10-29-59	---	1.5	0	78	45	12	84	
23R1	Sd	P1	5-14-57	54	1.0	12	364	---	12	344	
24D1	G	P1	10-29-59	---	.5	34	283	20	92	176	
24H1	G,Sd	P1	12-9-59	---	1.5	14	400	25	8	296	
25E1	Sd	P1	3-14-57	56	1.0	0	322	---	8	364	
25E1	Sd	P1	10-29-59	---	.5	0	303	85	10	300	
25K1	Sd	P1	5-14-57	53	.8	14	181	---	10	300	
26G1	Sd,G	P1	11-14-56	---	1.4	0	415	110	8	460	TDS 697; DCC.
27H2	G,Sd	P1	11-5-56	---	.7	---	415	92	10	440	TDS 667; DCC.
27L1	Sd	P1	5-22-57	52	.1	0	427	---	14	460	
27L2	Sd	P1	10-29-59	52	.1	0	346	100	16	348	
29H1	Ls	S?	11-1-56	54	---	0	395	---	16	1,170	
36B1	Sd,G	P1	5-15-57	57	.8	0	273	---	2,400	336	

37/7W-26M1	Sd	Pl	10-29-59	---	3.0	38	273	45	24	296
35B1	Sd	Pl	11-1-56	54	1.0	7	166	---	6	200
35B1	Sd	Pl	4-12-57	50	.4	14	124	---	4	228
35B2	Sd,G	Pl	10-29-59	---	.1	34	220	28	8	---
35J1	Sd	Pl	5-16-57	55	2.0	0	205	---	4	224
36B1	Sd	Pl	10-29-59	---	.1	19	137	60	16	176
38/5W-36Q1	Sd	Pl	4-57	53	.2	12	220	---	54	76

So.

Table 6.--Water levels in observation wells in Porter County, Indiana
(In feet below land-surface datum. Water level: e, estimated; h, tape measurement)

Porter 1. (35/5W-6L5). City of Valparaiso. Valparaiso Water Dept.
NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 35 N., R. 5 W. Drilled unused water-table well in sand, diameter 2 inches, depth 89 feet. Land-surface datum is 803 feet above msl. Highest water level is 48.28 below lsd, July 8, 1952; lowest 70.31 below lsd, Oct. 29, 1957. Records available: 1935-58. Affected by nearby pumping.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1935		June 15	52.64	Mar. 2	51.62	1941	
		July 1	52.58	16	52.08	Jan. 2	52.69
Oct. 16	51.58	15	52.60	Apr. 2	52.17	13	53.14
Dec. 2	52.34	Aug. 1	52.57	15	51.96	Feb. 2	54.21
17	51.50	15	52.68	May 15	51.68	15	54.76
1936		Sept. 2	52.80	June 1	51.66	Mar. 2	54.96
		16	52.95	16	51.20	16	54.82
Jan. 2	51.32	Oct. 1	56.22	July 1	51.55	31	55.93
15	51.65	16	57.54	15	51.46	Apr. 16	56.47
Feb. 2	51.58	Nov. 16	55.05	Aug. 1	51.42	1	55.85
15	51.83	Dec. 15	53.45	15	51.32	16	56.40
Mar. 1	51.62	1938		27	51.40	June 15	55.72
16	51.76	Jan. 2	52.99	Sept. 1	51.34	July 1	54.39
Apr. 16	51.72	Feb. 1	52.53	Oct. 2	51.54	16	54.20
May 1	51.75	15	52.96	16	52.41	Aug. 1	55.12
15	51.22	Mar. 1	53.05	Nov. 2	51.18	15	55.52
June 1	51.60	16	53.19	16	51.30	Sept. 1	55.58
15	51.81	Apr. 1	52.74	Dec. 2	51.57	16	56.34
July 3	52.62	15	52.83	15	51.32	Oct. 2	56.80
16	52.82	May 1	52.97	1940		16	55.50
Aug. 7	57.20	16	52.73	Jan. 2	51.29	Nov. 1	55.28
15	57.35	June 1	52.65	Feb. 1	51.16	15	53.94
Sept. 1	54.79	15	52.56	15	51.64	Dec. 2	53.62
15	53.77	July 1	52.58	Mar. 1	51.92	15	53.55
Oct. 1	53.04	15	52.40	15	51.82	1942	
16	52.99	Aug. 1	52.34	Apr. 1	51.74	Jan. 1	53.56
Nov. 1	52.85	15	52.15	16	51.64	30	52.94
16	52.91	Sept. 2	52.20	May 2	51.69	Feb. 15	52.70
20	52.29	16	52.18	15	52.05	Mar. 2	52.70
Dec. 1	52.97	Oct. 2	52.02	June 1	51.18	15	53.00
15	52.65	15	51.97	15	51.84	Apr. 1	52.40
1937		Nov. 1	52.05	July 1	51.74	15	52.30
		16	52.08	15	51.78	May 1	52.60
Jan. 1	52.68	Dec. 2	52.35	Aug. 1	52.36	16	52.30
16	52.26	16	52.06	15	51.80	June 1	51.90
Feb. 1	52.21	1939		Sept. 2	51.79	16	52.20
15	52.81	Jan. 1	52.00	15	51.86	July 2	52.12
Mar. 16	52.70	16	51.83	Oct. 1	51.93	15	52.12
Apr. 15	52.97	Feb. 1	51.91	15	52.06	Aug. 3	52.18
May 1	52.74	15	51.74	Nov. 2	52.12	15	52.20
15	52.69	1940		16	51.85	Sept. 1	52.00
June 1	52.65	Jan. 2	51.29	Dec. 15	51.82		

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

Porter 1--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1942		July 15	50.96	1947		May 16	51.30
		30	50.87			24	51.25
Sept. 15	52.08	Aug. 15	52.03	Jan. 1	51.10	31	51.34
Oct. 1	51.88	31	52.22	15	50.80	June 6	52.14
16	51.93	Sept. 15	51.44	Feb. 1	51.15	13	51.69
Nov. 2	52.08	30	53.67	28	51.45	20	53.78
15	52.02	Oct. 15	52.74	Mar. 16	51.70	July 4	51.50
Dec. 1	52.20	31	53.86	30	51.80	11	51.75
15	52.62	Nov. 15	54.46	Apr. 16	51.50	18	51.48
		30	54.70	30	51.25	25	51.83
1943		Dec. 15	55.25	May 15	51.30	Aug. 1	51.60
		31	56.65	31	51.75	8	51.85
Jan. 1	51.62	1945		June 15	51.50	15	51.70
15	51.94			July 1	51.30	22	52.45
Feb. 1	51.28	Jan. 31	57.35	16	51.45	29	53.05
15	51.68	Feb. 15	56.85	Aug. 15	52.55	Sept. 5	52.95
Mar. 1	51.96	28	57.05	31	51.40	12	52.85
15	52.08	Mar. 16	57.65	Sept. 15	51.25	19	53.25
Apr. 1	51.92	31	58.05	30	51.25	26	52.75
15	51.80	Apr. 15	54.80	Oct. 7	51.10	Oct. 3	53.20
May 3	51.92	30	53.75	15	51.05	10	53.60
17	51.73	May 15	53.60	23	51.10	17	53.40
June 1	51.75	31	55.70	30	51.15	24	53.50
15	51.20	June 15	57.15	Nov. 12	51.20	31	53.90
July 2	51.17	30	57.10	19	51.40	Nov. 7	53.85
15	51.14	July 15	57.00	26	51.55	14	53.65
Aug. 3	50.63	30	57.60	Dec. 9	52.00	21	53.45
17	51.08	Sept. 15	54.50	17	51.80	28	53.25
Sept. 2	51.14	30	54.00	23	51.68	Dec. 12	53.30
16	51.21	Oct. 15	53.94	31	51.81	26	53.35
Oct. 1	50.88	1946		1948		1949	
31	51.00			Jan. 11	52.80	Jan. 2	54.80
Nov. 16	50.82	Mar. 17	52.40	18	52.25	9	55.45
Dec. 1	50.91	31	52.35	25	52.10	16	56.23
1944		May 31	51.95	Feb. 1	51.95	24	56.25
Jan. 1	50.95	July 1	51.80	8	52.20	31	56.25
16	51.10	16	51.95	15	51.95	Feb. 13	56.85
Feb. 15	51.40	Aug. 2	52.00	23	51.87	20	55.45
29	51.55	15	52.00	Mar. 14	51.82	27	54.75
Mar. 15	51.28	31	51.65	21	51.68	Mar. 6	54.85
31	51.34	Sept. 15	51.60	28	51.36	13	55.45
Apr. 15	50.90	Oct. 1	51.25	Apr. 4	51.60	20	55.70
30	51.19	15	51.50	11	51.76	28	56.90
May 15	51.06	31	51.40	18	51.45	Apr. 3	57.20
31	50.93	Nov. 15	51.63	25	51.40	10	57.05
June 15	50.96	30	51.45	May 3	51.30	17	56.15
30	50.98	Dec. 15	51.05	9	51.30	24	57.90

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

Porter 1--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1949		Mar. 26	57.87	Mar. 18	56.73	Apr. 1	49.80
		Apr. 2	57.20		25	8	49.86
May 1	58.20		9	Apr. 1	56.76	15	49.86
8	58.15		16	8	57.23	22	49.62
15	58.17		23	15	56.23	30	49.60
22	58.55		30	22	56.80	May 6	49.53
29	58.73	May 7	55.47	29	55.17	13	49.50
June 5	58.40	14	55.26	May 6	54.94	21	49.50
12	58.52	21	55.20	13	54.67	27	49.25
19	58.83	28	54.56	20	54.09	June 3	49.29
26	58.95	June 4	54.40	28	53.94	11	49.22
July 3	59.03	11	54.27	June 3	53.57	17	49.15
10	58.87	18	53.98	10	53.34	24	48.03
17	59.53	25	53.88	17	53.10	July 1	49.13
24	59.88	July 2	53.80	24	52.91	8	48.28
31	60.42	9	53.57	July 1	52.77	15	48.70
Aug. 7	66.32	16	53.35	8	52.57	22	48.84
21	61.30	23	53.21	15	52.64	29	48.85
28	61.16	30	53.08	22	52.50	Aug. 5	49.59
Sept. 3	61.38	Aug. 6	53.05	29	52.35	12	50.60
11	61.64	13	52.94	Aug. 5	52.24	19	51.69
18	62.90	20	52.84	12	52.14	26	52.34
25	61.54	27	52.70	19	52.04	Sept. 2	50.70
Oct. 2	60.40	Sept. 3	52.67	26	52.02	16	50.21
9	58.65	10	52.53	Oct. 30	51.48	23	53.59
16	59.18	17	52.58	Nov. 6	51.01	30	53.88
30	59.22	24	52.60	13	51.47	Oct. 13	53.44
Nov. 6	59.55	Oct. 1	52.39	20	50.43	21	53.59
13	59.03	8	52.28	27	50.91	28	53.22
20	59.00	15	52.37	Dec. 4	50.02	Nov. 4	53.97
27	59.08	22	52.17	11	50.02	11	54.49
Dec. 4	58.86	29	52.18	18	50.57	18	54.34
11	58.90	Nov. 5	52.65	27	50.78	Dec. 9	53.85
18	58.02	12	53.79			16	54.78
25	58.86	19	54.30	1952		23	55.42
		Dec. 3	55.20	Jan. 1	50.79	30	56.29
1950		10	55.68	8	50.68		
Jan. 1	59.08	24	55.91	15	50.64	1953	
8	59.05	31	55.96	22	50.30	Jan. 13	56.59
16	59.03			29	50.57	20	57.77
22	60.08	1951		Feb. 5	50.26	27	58.06
30	60.58	Jan. 7	56.09	12	50.41	Feb. 3	58.30
Feb. 5	60.94	14	55.98	17	50.27	10	58.51
19	59.90	21	56.02	26	50.38	17	58.75
26	59.54	28	56.19	Mar. 4	50.38	24	58.95
Mar. 5	59.58	Feb. 4	56.07	11	49.98	Mar. 3	59.10
12	59.92	11	56.02	18	49.07	10	59.26
19	58.53	18	56.03	25	49.95	17	59.38

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

Porter 1--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1953		Feb. 16	61.60	Jan. 25	54.80	1956	
		23	61.60	Feb. 1	54.80		
Mar. 24	59.40	Mar. 2	61.68	8	54.69	Jan. 3	62.67
31	58.19	9	61.72	15	54.53	10	61.33
Apr. 8	56.98	16	61.84	21	54.37	17	60.23
14	56.93	23	61.89	Mar. 1	54.32	24	59.05
21	57.01	30	61.94	8	54.15	31	58.56
28	57.05	Apr. 6	61.99	15	54.07	Feb. 7	58.78
May 5	56.98	13	61.35	22	53.98	14	59.42
19	56.63	20	61.54	29	53.88	21	59.94
26	56.47	27	61.37	Apr. 5	53.75	28	60.70
June 2	56.00	May 11	58.75	12	53.65	Mar. 6	60.90
9	55.70	17	59.52	19	53.57	13	60.64
17	55.55	24	60.30	26	53.49	27	60.01
24	55.02	June 1	61.90	May 3	53.42	Apr. 3	59.55
30	55.20	8	61.24	10	54.36	10	59.14
July 7	56.03	15	61.59	17	53.25	17	58.76
14	56.74	22	61.75	24	53.16	24	58.48
21	57.40	29	61.90	31	53.12	May 1	58.50
29	57.97	July 6	61.98	June 7	54.02	8	58.92
Aug. 4	58.20	13	62.07	14	54.82	15	59.43
11	58.57	20	62.22	21	55.62	22	59.17
18	58.91	27	62.32	30	56.04	29	59.00
25	59.17	Aug. 3	62.36	July 5	56.27	June 5	57.72
Sept. 3	58.87	10	62.41	12	56.15	12	57.68
9	58.94	17	62.46	19	55.90	19	57.56
15	59.09	25	61.80	26	55.95	26	58.33
22	59.40	31	61.03	Aug. 2	56.32	July 10	59.57
29	59.49	Sept. 14	60.73	9	56.49	17	62.12
Oct. 13	60.06	22	60.90	16	57.60	31	64.06
20	60.21	28	61.00	23	58.25	Aug. 7	64.75
27	60.40	Oct. 5	61.64	30	58.91	14	65.29
Nov. 3	60.50	12	61.80	Sept. 6	60.01	22	66.00
10	60.60	22	60.69	13	60.02	28	66.25
17	60.70	27	59.76	20	60.20	Sept. 4	66.75
24	60.77	Nov. 2	58.80	29	60.38	11	66.87
Dec. 1	60.89	9	59.17	Oct. 4	60.58	18	67.09
8	60.98	16	57.60	11	61.10	25	66.59
22	60.81	23	57.25	18	61.55	Oct. 2	65.62
31	60.93	30	56.80	25	61.00	9	65.97
		Dec. 7	56.45	Nov. 1	62.04	16	66.49
		14	56.15	8	62.26	23	67.05
1954		31	55.57	15	62.36	30	67.41
Jan. 5	60.98			22	62.50	Nov. 6	67.76
12	61.06	1955		29	62.61	16	67.82
19	61.13			Dec. 6	62.79	20	68.10
26	61.35	Jan. 4	55.37	14	62.83	27	68.55
Feb. 2	61.55	11	55.17	20	62.92	Dec. 4	68.66
9	61.58	18	55.00	27	62.87	12	66.70

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

Porter 1--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1956		May 29	68.76	1958		July 3	65.69
		June 11	69.82			10	65.93
Dec. 18	65.30	18	69.62	Jan. 2	59.41	16	66.28
26	64.84	25	69.32	8	59.31	23	66.71
1957		July 2	69.41	14	59.22	30	67.00
		9	69.48	21	58.96	Aug. 6	67.25
		17	69.53	29	58.81	14	67.52
Jan. 2	64.60	24	69.76	Feb. 5	58.46	20	67.65
9	64.61	30	69.99	12	58.13	27	67.82
15	64.62	Aug. 6	69.69	19	57.80	Sept. 3	67.96
22	64.48	13	69.98	28	57.65	10	68.11
29	64.42	28	65.46	Mar. 6	58.50	17	68.24
Feb. 6	64.60	Sept. 3	67.36	13	57.41	24	68.48
13	65.26	10	68.39	20	57.29	Oct. 1	68.81
19	66.93	18	68.98	27	57.11	8	68.87
27	67.93	27	69.37	Apr. 3	56.98	15	68.90
Mar. 6	68.44	Oct. 3	69.50	10	56.82	22	68.91
13	68.94	9	69.57	17	56.70	29	68.91
20	69.18	17	69.98	24	56.70	Nov. 5	68.94
27	67.60	22	70.14	May 1	56.64	12	68.98
Apr. 3	69.27	29	70.31	8	57.00	19	69.00
10	69.22	Nov. 5	67.01	15	59.50	26	69.02
17	69.30	19	63.50	22	61.45	Dec. 3	69.05
24	69.33	27	62.60	29	62.82	10	69.06
May 1	69.19	Dec. 3	61.50	June 5	63.69	17	69.08
7	67.31	10	61.00	12	64.29	24	69.11
15	66.43	18	60.44	18	64.99	31	69.17
22	67.99	26	59.81	25	65.42		

Porter 2. (37/6W-13C1). State of Indiana. Dunes State Park. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 37 N., R. 6 W. Dug unused water-table well in sand, diameter 24 inches, reported depth 22 feet. Land-surface datum is 615 feet above msl. Highest water level is 9.83 below lsd, Oct. 1, 1945; lowest 13.89 below lsd, Oct. 18, 1935. Records available: 1935-46.

1935		Feb. 29	12.70	1937		Dec. 2	12.10
		Mar. 15	13.00			1938	
Oct. 18	13.89	31	13.30	Jan. 15	13.10		
Nov. 15	13.50	Apr. 15	13.10	Feb. 1	13.30		
Dec. 2	12.30	May 1	12.80	Mar. 1	13.20	Jan. 1	12.80
16	12.40	15	13.10	Apr. 15	13.00	Feb. 1	13.00
1936		31	13.00	May 1	12.90	Mar. 1	13.30
		June 15	13.00	15	12.90	Apr. 1	13.00
Jan. 2	12.40	July 1	13.00	June 15	12.70	May 1	12.60
15	12.70	15	13.20	July 1	12.80	June 1	12.60
Feb. 3	13.10	Nov. 30	13.03	Aug. 2	12.70	July 1	12.00
15	13.20	Dec. 16	12.04	Oct. 1	12.70	Aug. 6	12.30
				Nov. 2	12.60	Sept. 1	11.70

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

Porter 2--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1938		June 24	12.40	July 10	10.50	Mar. 19	12.10
		July 20	12.40	Aug. 9	12.10	Apr. 4	11.00
Oct. 1	11.40	Sept. 12	11.50	Nov. 1	10.50	16	11.25
18	11.17	Oct. 5	11.80	16	10.10	May 1	11.50
Nov. 1	11.30	Nov. 1	12.10	30	10.80	21	10.96
Dec. 30	12.20	Dec. 23	12.30			June 2	10.67
				1944		19	10.87
1939		1941		Jan. 5	10.60	July 2	10.50
Feb. 1	11.90	Jan. 24	12.30	18	11.50	18	10.71
Apr. 1	12.30	Mar. 3	12.60	Feb. 4	11.30	Aug. 1	10.00
May 1	12.20	Sept. 30	12.56	15	11.10	17	10.71
June 1	12.20			Mar. 3	11.60	Sept. 4	10.71
July 1	12.00	1942		20	11.70	17	10.08
Aug. 1	11.80	Apr. 21	13.60	Apr. 1	11.20	Oct. 1	9.83
27	11.70	June 20	13.50	15	11.50	16	10.50
Sept. 1	11.65	Aug. 5	13.40	June 5	10.80	Nov. 2	10.83
15	11.20	Nov. 3	13.40	15	11.50	16	12.92
Nov. 15	11.00			July 19	10.10	Dec. 4	10.96
Dec. 2	11.20	1943		Aug. 2	10.92		
1940		Jan. 8	11.80	Oct. 24	11.00	1946	
Jan. 3	12.00	Mar. 24	12.20	Nov. 30	11.00	Jan. 2	11.13
Feb. 1	12.30	Apr. 5	12.30	Dec. 15	11.10	15	11.38
Mar. 15	12.60	30	11.20			Feb. 2	11.67
Apr. 5	12.30	May 15	10.90	1945		16	12.63
May 4	11.30	June 20	10.70	Feb. 13	12.19	Mar. 2	12.58
				Mar. 1	12.25	18	10.50
						Apr. 15	11.02

Porter 3. (37/6W-13F1). State of Indiana. Dunes State Park. SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 13, T. 37 N., R. 6 W. Driven unused water-table well in sand, diameter 1 $\frac{1}{4}$ inches, depth 18 feet. Land-surface datum is 614 feet above msl. Highest water level is 11.10 below lsd, June 20, 1943; lowest, dry, Sept. 18, 25, 1953. Records available: 1935-46, 1948-56.

1935		Feb. 29	15.80	1937		Nov. 2	15.20
		Mar. 15	15.80			Dec. 2	15.30
Oct. 18	15.50	31	15.80	Jan. 15	15.90		
Nov. 15	15.70	Apr. 15	15.50	Feb. 1	15.80	1938	
Dec. 2	15.80	May 1	15.00	Mar. 1	15.70		
16	16.00	15	15.10	Apr. 15	15.30	Jan. 1	15.60
1936		31	15.20	May 1	15.10	Feb. 1	16.00
Jan. 2	16.00	June 15	15.60	15	15.10	Mar. 1	15.00
15	16.00	July 1	15.80	June 15	14.60	Apr. 1	14.10
Feb. 3	16.20	15	16.20	July 1	15.10	May 1	14.30
15	16.30	Nov. 30	16.00	Aug. 2	15.40	June 1	14.10
		Dec. 16	15.60	Sept. 1	15.70	July 1	13.70
				Oct. 1	15.10	Aug. 6	14.00

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

Porter 3--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1938		1943		Oct. 1	12.83	Apr. 16	15.55
				16	12.67	May 4	15.20
Sept. 1	14.70	Jan. 8	13.90	Nov. 2	13.10	11	15.38
Oct. 1	15.10	Feb. 2	13.10	16	13.23	20	13.94
Nov. 1	15.50	Mar. 4	12.80	Dec. 4	13.29	27	15.00
Dec. 30	16.40	Apr. 5	12.80			June 2	15.39
		30	12.80	1946		8	15.06
1939		May 15	11.80	Jan. 2	13.42	15	15.10
		June 20	11.10	15	12.92	22	15.25
Feb. 1	15.70	July 10	11.30	Feb. 2	12.92	29	15.45
Apr. 1	14.90	Aug. 9	12.70	16	13.08	July 6	15.57
May 1	14.80	Nov. 1	13.60	Mar. 2	13.06	27	15.88
June 1	14.70	16	13.90	18	12.75	Aug. 3	15.94
July 1	15.10	30	13.90	Apr. 15	12.67	10	16.08
Aug. 1	15.30					17	16.15
27	15.84	1944				24	16.28
Sept. 1	15.90	Jan. 5	13.60	1948		31	16.38
15	14.90	18	14.30	July 2	14.62	Sept. 7	16.47
Nov. 15	15.00	Feb. 4	14.60	14	14.99	14	16.58
Dec. 2	15.30	15	14.10	Aug. 6	15.30	21	16.63
		Mar. 3	14.50	13	15.47	28	16.69
1940		20	14.30	20	15.67	Oct. 5	16.66
Jan. 3	15.10	Apr. 1	13.80	27	15.80	12	16.72
Feb. 1	15.30	June 5	12.50	Sept. 3	15.97	19	16.77
Mar. 15	15.00	15	12.70	10	16.05	26	16.80
Apr. 5	14.90	July 19	13.60	24	16.18	Nov. 2	16.85
May 4	14.30	Aug. 2	13.70	Oct. 9	16.35	9	16.87
June 24	13.60	Oct. 24	14.80	16	16.45	16	16.89
July 20	14.20	Nov. 30	14.80	22	16.52	23	16.90
Sept. 12	14.90	Dec. 15	14.90	29	16.59	Dec. 21	16.39
Oct. 5	15.20			Nov. 12	16.67	28	16.00
Nov. 1	15.10	1945		19	16.97		
Dec. 23	15.30	Feb. 13	15.40	Dec. 3	16.80	1950	
		Mar. 1	15.04	11	16.85	Jan. 4	15.98
1941		19	14.98			11	15.71
		Apr. 4	14.67	1949		18	15.59
Jan. 24	15.10	16	14.50	Jan. 14	15.99	26	15.45
Mar. 3	14.90	May 1	14.31	28	16.47	Feb. 2	15.33
Sept. 30	14.80	21	12.67	Feb. 4	16.28	9	15.24
Oct. 2	14.80	June 2	12.21	11	16.23	18	15.15
		19	12.12	18	15.94	25	15.13
1942		July 2	11.19	25	15.94	Mar. 4	14.97
		18	11.92	Mar. 4	15.99	11	14.93
Apr. 21	12.40	Aug. 1	11.67	11	15.91	18	14.61
June 20	12.90	17	12.06	18	15.94	25	14.59
Aug. 5	14.20	Sept. 4	12.33	25	15.94	Apr. 1	14.56
Nov. 3	14.50	17	12.92	Apr. 8	15.97	8	14.15
						15	13.97

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

Porter 3--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1950		July 2	14.64	July 12	15.20	May 29	13.98
		9	14.68	19	15.48	June 8	14.70
Apr. 22	13.88	16	14.77	26	15.55	10	14.85
29	13.79	23	14.93	Aug. 2	15.73	23	15.01
May 6	13.78	30	14.85	9	15.86	July 3	15.09
13	13.77	Aug. 6	14.83	16	15.96	10	14.89
20	13.87	13	14.81	23	16.10	18	15.41
27	13.95	20	14.77	30	16.20	25	15.51
June 3	13.90	27	14.78	Sept. 6	16.24	Aug. 1	15.62
10	13.85	Sept. 3	14.73	13	16.35	8	15.76
17	13.79	10	14.75	27	16.58	15	15.87
24	13.67	17	15.74	Oct. 18	16.70	22	15.85
July 1	13.68	24	15.83			29	15.82
8	14.13	Oct. 1	15.48	1953		Sept. 5	16.98
15	14.40	8	15.61	Mar. 13	16.54	13	16.18
22	14.32	15	15.66	20	16.50	20	16.30
Aug. 5	14.44	22	15.64	27	16.39		
12	14.65	Nov. 9	15.67	Apr. 3	16.28	1955	
19	14.74	26	15.04	10	16.26	Mar. 1	14.80
26	14.95	Dec. 3	15.03	17	16.23	19	14.70
Sept. 9	15.15	8	15.01	24	16.19	Apr. 24	14.50
30	15.51	15	14.98	May 1	16.17	May 8	14.47
Oct. 14	15.61	22	14.98	8	16.14	28	14.78
21	15.68			15	16.10	June 27	15.20
28	15.74	1952		22	16.00	July 5	15.20
Nov. 18	15.74	Jan. 5	14.94	29	15.00	Aug. 10	15.53
Dec. 2	15.96	19	14.85	June 5	14.00	15	15.60
9	15.99	Feb. 2	14.79	12	14.40	24	15.77
1951		16	14.26	19	15.20	29	15.87
Jan. 6	15.71	23	14.84	26	15.97	Sept. 5	15.35
27	15.51	Mar. 15	14.94	July 3	16.10	Nov. 30	15.80
Feb. 24	15.40	22	14.92	10	16.25	Dec. 7	15.90
Mar. 10	15.49	29	14.89	17	16.36	14	15.90
17	15.45	Apr. 5	14.82	24	16.37	21	15.70
Apr. 2	15.37	12	14.76	31	16.50		
9	15.33	19	14.65	Aug. 7	16.40	1956	
16	15.06	26	14.56	14	16.54	Jan. 3	15.88
23	14.99	May 3	14.53	21	16.56	10	16.06
30	14.79	10	14.58	28	16.70	18	16.12
May 7	14.54	17	14.63	Sept. 4	16.80	25	16.16
14	14.00	20	14.63	11	16.90	Feb. 2	16.18
21	13.89	24	14.64	18	(f)	10	16.24
28	13.88	31	14.62	25	(f)	17	16.23
June 4	14.04	June 7	14.74	1954		28	15.66
11	14.20	14	14.67	Mar. 17	16.90	Mar. 15	15.48
18	14.39	21	14.75	Apr. 5	15.90	21	15.41
25	14.45	28	14.93	Apr. 15		Apr. 15	15.60
		July 5	15.04				

f Dry.

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

Porter 3--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1956		June 11	15.42	June 26	15.00	July 11	15.42
		18	14.86	July 4	15.20	19	15.60
May 10	15.04						

Porter 4. (35/6W-26H1). Farmers State Bank. SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 26, T. 35 N., R. 6 W. Drilled unused well in gravel, diameter 6 inches, reported depth 86 feet. Land-surface datum is 692 feet above msl. Highest water level is 0.04 below lsd, May 2, 1936; lowest 2.80 below lsd, Oct. 15, 1938. Records available: 1935-39.

1935		Aug. 15	2.20	Aug. 1	1.45	Aug. 15	1.08
		31	1.52	Sept. 3	1.52	Sept. 1	1.27
Oct. 15	1.41	Sept. 15	1.40	17	1.59	15	0.42
31	1.17	30	1.09	Oct. 1	1.40	1	0.96
Nov. 15	0.90	Oct. 15	1.00	16	1.23	15	2.80
30	0.95	Nov. 12	0.65	30	0.94	Nov. 1	1.98
Dec. 14	0.97	14	0.70	Nov. 13	0.95	15	1.89
31	1.07	Dec. 5	1.10	27	0.90	Dec. 1	1.40
		15	1.20	Dec. 11	1.00	15	1.47
1936		1937		1938		1939	
Jan. 15	0.55	Jan. 2	1.02	Jan. 5	1.00	Jan. 1	1.71
Feb. 1	1.16	15	0.60	15	1.10	14	1.49
15	0.52	30	0.97	29	0.90	1	1.66
29	0.70	Feb. 17	1.03	Feb. 14	0.67	15	1.30
Mar. 14	0.86	Mar. 1	0.98	28	0.73	Mar. 1	1.20
Apr. 2	0.89	15	0.97	Mar. 15	0.71	15	0.99
16	1.04	Apr. 2	0.86	Apr. 1	0.47	Apr. 1	1.34
May 2	0.04	17	0.69	15	0.55	15	0.90
19	0.92	May 1	0.56	30	0.82	May 5	1.41
June 4	1.06	15	0.80	June 1	0.51	15	1.50
20	1.45	June 1	0.91	16	0.55	31	1.57
30	1.60	16	1.00	July 1	0.41	June 15	1.35
July 4	1.20	29	0.87	15	1.03	July 3	1.23
15	1.95	July 18	0.87	Aug. 1	0.78	15	1.45
31	2.20						

Porter 5. (36/6W-36D1). A. A. Hanrakean at residence. NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 36, T. 36 N., R. 6 W. Drilled unused artesian well in limestone, diameter 10 inches, reported depth 202 feet. Land-surface datum is 765 feet above msl. Highest water level is 40.30 below lsd, Apr. 1, 1938; lowest 43.10 below lsd, Aug. 1, 1937. Records available: 1935-42.

1935		Nov. 15	42.07	1936		Feb. 15	42.00
		30	41.90			29	42.06
Oct. 15	42.17	Dec. 14	41.95	Jan. 15	41.92	Mar. 14	41.91
31	42.07	31	41.95	Feb. 1	42.01	Apr. 2	41.90

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

Porter 5--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1936		Oct. 16	42.10	Apr. 15	41.28	Nov. 15	42.19
		30	42.00	May 5	41.15	Dec. 16	42.08
Apr. 16	41.92	Nov. 13	41.90	15	41.30		
May 2	42.00	27	42.10	31	41.50	1941	
19	42.08	Dec. 11	42.30	June 15	41.35	Jan. 3	42.20
June 4	41.75			July 3	41.60	Feb. 3	42.12
20	42.05	1938		15	41.25	15	42.34
30	41.55	Jan. 5	42.00	Aug. 1	41.25	Mar. 3	42.40
July 4	41.90	15	42.20	15	41.30	18	42.34
15	42.00	29	42.20	27	41.42	Apr. 1	42.38
31	42.20	Feb. 14	42.30	Sept. 15	41.53	16	42.31
Aug. 15	42.00	28	42.10	Oct. 4	41.53	May 15	42.25
31	42.12	Mar. 15	42.00	16	41.62	June 4	42.14
Sept. 15	42.15	Apr. 1	40.30	Nov. 7	41.65	16	42.12
30	42.10	15	41.70	15	41.95	July 3	42.20
Oct. 15	42.12	30	41.70	Dec. 1	41.85	17	42.27
Nov. 2	41.90	June 1	41.40	15	41.92	Aug. 6	42.39
14	41.92	16	41.40	1940		16	42.40
Dec. 1	42.22	July 1	41.35	Jan. 2	42.10	Sept. 4	42.41
15	42.16	15	41.55	15	41.93	17	42.52
1937		Aug. 1	41.50	Feb. 1	42.05	Oct. 1	42.42
		15	41.40	15	42.18	Nov. 3	42.17
Jan. 2	41.96	Sept. 1	41.30	Mar. 7	42.08	18	42.11
15	41.89	15	41.35	16	42.17	Dec. 2	42.08
30	42.05	Oct. 1	41.60	Apr. 2	41.93	16	42.04
Feb. 17	42.12	15	41.65	15	41.78		
Mar. 1	42.14	Nov. 1	41.30	May 2	41.73	1942	
15	42.13	15	41.37	17	41.81	Jan. 17	42.06
Apr. 2	42.04	Dec. 1	41.40	June 1	41.78	Feb. 5	41.92
17	41.95	15	41.43	15	41.77	Mar. 5	41.82
May 1	41.81			July 2	41.87	17	41.67
15	41.88	1939		16	41.96	Apr. 1	41.70
June 1	41.72	Jan. 1	41.70	Aug. 2	42.06	15	41.62
16	41.90	14	41.60	16	42.04	May 4	41.67
29	41.70	Feb. 1	41.60	31	42.06	15	41.53
July 18	41.77	15	41.65	Sept. 17	42.14	June 3	41.59
Aug. 1	43.10	Mar. 1	41.70	Oct. 2	42.18	17	41.48
Sept. 3	41.50	15	41.35	15	42.20		
17	42.10	Apr. 1	41.25	Nov. 2	42.16		
Oct. 1	42.00						

Porter 6. (35/7W-2J2). Indiana Associated Telephone Co. Wheeler. NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 2, T. 35 N., R. 7 W. Dug and driven unused artesian well in clay and sand, diameter 60-4 inches, depth unknown. Land-surface datum is 666 feet above msl. Highest water level is 1.68 below lsd, Apr. 24, 1954; lowest 22.03 below lsd, Dec. 11, 1948. Records available: 1948-58.

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

Porter 6--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1948		Apr. 16	4.70	Mar. 4	2.46	Jan. 20	4.55
			23	11	2.38	27	5.36
June 11	6.79		30	18	1.69	Feb. 3	6.20
	19	May 7	5.23	25	2.72	10	5.42
	26		14	Apr. 1	2.33	17	4.17
July 3	10.81		21	8	2.32	24	3.64
	10		28	15	2.72	Mar. 3	3.15
	17	June 4	4.92	22	3.36	10	3.83
	24		11	29	2.37	17	2.75
	31		18	May 6	3.36	24	3.70
Aug. 7	16.07		25	13	4.30	31	2.36
	14	July 2	9.73	20	4.68	Apr. 7	2.07
	21		9	27	5.47	14	2.02
	28		16	June 3	3.75	21	3.29
Sept. 4	20.12		23	10	4.09	28	2.90
	11		30	17	3.24	May 5	3.81
	18	Aug. 6	14.30	24	3.70	12	2.66
	26		13	July 1	4.60	19	3.76
Oct. 2	21.10		20	8	5.31	26	4.38
	9		27	15	5.89	June 2	4.48
	16	Sept. 3	17.34	22	5.66	9	5.12
	23		10	29	6.01	16	5.57
	30		17	Aug. 5	6.83	23	4.18
Nov. 6	21.58		24	12	8.11	30	4.49
	13	Oct. 1	18.18	19	9.27	July 7	5.33
	20		8	26	10.40	14	6.09
	27		15	Sept. 2	11.45	21	5.00
Dec. 4	21.37		22	9	12.34	28	5.74
	11		29	16	13.74	Aug. 4	6.76
	18	Nov. 5	17.81	23	14.27	11	7.30
	25		12	30	14.86	18	7.84
			19	Oct. 7	16.05	25	9.23
1949			26	14	16.38	Sept. 1	10.37
		Dec. 3	18.70	21	16.55	8	10.90
Jan. 1	20.81		10	28	16.74	15	11.57
	8		17	Nov. 4	17.25	22	12.37
	15		24	11	17.67	29	8.90
	22		31	18	18.37	Oct. 6	8.59
	29			25	18.09	13	5.80
Feb. 5	17.30	1950		Dec. 2	16.97	20	6.44
	12			9	16.15	27	4.72
	19	Jan. 7	4.09	16	16.39	Nov. 3	5.26
	26		14	23	16.21	10	5.40
Mar. 5	7.56		21	30	15.66	17	2.97
	12		28			24	3.01
	19	Feb. 4	3.17	1951		Dec. 1	3.43
	26		11			8	3.48
Apr. 2	3.23		19	Jan. 6	4.68	15	4.05
	9		25	13	4.74	22	4.55

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

Porter 6--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1951		Oct. 25	19.80	Sept. 12	15.65	July 31	8.70
Dec. 29	4.49	Nov. 1	20.59	19	15.94	Aug. 7	9.07
		6	21.29	26	16.54	14	10.56
		15	21.20	Oct. 3	16.72	21	10.83
1952		22	21.36	10	17.47	28	11.30
Jan. 5	4.50	29	21.40	17	17.95	Sept. 4	11.66
12	3.80	Dec. 6	21.29	24	19.02	11	11.86
19	2.03	11	21.20	31	19.05	18	12.28
26	3.41	19	20.97	Nov. 7	19.44	25	13.05
Feb. 2	3.38	27	20.69	14	19.52	Oct. 2	13.28
9	3.40			21	19.61	9	6.76
16	3.70	1953		28	19.68	16	2.70
23	4.21	Jan. 3	20.33	Dec. 5	19.68	23	2.99
Mar. 1	4.40	10	20.25	12	19.70	30	3.49
8	4.44	17	20.22	19	19.54	Nov. 6	3.00
15	2.92	24	19.74	26	19.35	13	3.64
22	2.70	31	19.40			20	4.90
29	3.53	Feb. 7	19.05	1954		27	5.05
Apr. 5	2.66	14	18.96	Jan. 2	19.58	Dec. 4	3.78
12	2.02	21	18.31	9	19.69	11	4.18
19	3.32	28	18.29	16	19.95	18	4.41
26	3.67	Mar. 7	16.50	23	19.94	25	4.70
May 3	4.30	14	8.48	30	19.73		
10	4.61	21	4.67	Feb. 6	19.54	1955	
17	4.89	28	4.68	13	19.57	Jan. 1	2.35
24	5.00	Apr. 4	4.91	20	19.05	8	2.26
31	4.64	11	4.66	27	18.15	15	3.03
June 7	4.97	18	4.69	Mar. 6	17.26	22	3.58
14	3.15	25	4.03	13	12.70	29	4.07
21	4.45	May 2	4.04	20	9.05	Feb. 5	4.43
28	4.97	9	4.35	27	3.14	12	4.68
July 5	5.85	16	4.40	Apr. 3	3.30	19	3.58
12	7.04	23	3.48	10	3.25	26	3.67
19	7.83	30	4.03	17	3.30	Mar. 5	2.68
26	8.85	June 6	4.81	24	1.68	12	2.02
Aug. 2	9.73	13	4.33	May 1	2.84	19	3.48
9	10.72	20	4.73	8	3.35	26	3.40
16	11.48	27	5.18	15	4.18	Apr. 2	3.09
23	12.75	July 4	7.63	22	4.64	9	3.64
30	13.85	11	8.92	29	5.18	16	3.85
Sept. 6	14.65	17	10.22	June 5	5.72	23	3.49
9	15.07	25	11.30	12	6.69	30	3.72
13	15.64	Aug. 1	12.05	19	7.78	May 7	4.19
20	16.85	8	12.85	26	8.48	14	4.52
27	17.60	15	13.64	July 3	9.43	21	4.95
Oct. 4	18.36	22	14.27	10	5.70	28	5.40
11	18.83	29	15.10	17	6.30	June 4	6.49
18	19.43	Sept. 5	15.37	24	8.37	11	6.00

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

Porter 6--Continued

Date	Water level	Date	Water level	Date	Water level	Date	Water level		
1955		Apr. 21	5.36	Mar. 9	21.12	Jan. 25	4.23		
			2.03		16	21.40	Feb. 1	4.49	
June 18	6.68	May 5	2.28		23	19.79		8	4.70
	25		12		30	19.85		15	4.83
July 2	7.77		19	Apr. 6	13.09		22	5.09	
	9		26		13	13.25	Mar. 1	3.07	
	16	June 2	4.83		20	6.56		8	3.49
	23		9		27	2.59		15	3.81
	30		16	May 4	2.95		22	4.17	
Aug. 6	11.71		23		11	3.28		29	4.46
	13		30		18	3.40	Apr. 5	4.57	
	20	July 7	8.81		25	3.59		12	4.73
	27		14	June 1	3.81		19	4.89	
Sept. 6	13.28		21		8	4.38		26	5.00
	13		28		15	4.78	May 3	5.28	
	20	Aug. 4	11.49		22	5.15		10	5.63
	27		11		26	5.17		17	5.81
Oct. 1	14.76		18	July 6	5.74		24	6.08	
	8		25		13	4.70		31	6.39
	15	Sept. 1	13.92		20	4.97	June 7	6.49	
	22		8		27	5.06		14	4.30
	29		15	Aug. 3	5.18		21	4.47	
Nov. 5	14.80		22		10	5.39		28	4.74
	12		29		17	5.68	July 5	4.88	
	19	Oct. 6	16.73		24	5.92		12	5.29
	26		13		31	6.27		19	5.57
Dec. 3	13.99		20	Sept. 7	7.29		26	5.73	
	10		27		14	8.32	Aug. 2	5.88	
	17	Nov. 3	18.38		21	9.49		9	6.03
	24		10		28	10.60		16	6.19
	31		17	Oct. 5	10.76		23	6.47	
			24		12	10.99		30	6.69
1956		Dec. 1	19.88		19	11.22	Sept. 6	6.83	
			8		26	4.77		13	7.04
Jan. 7	13.79		15	Nov. 2	4.01		20	8.02	
	14		22		9	3.57		27	9.18
	21		29		16	2.79	Oct. 4	9.49	
	28				23	3.22		11	9.88
Feb. 4	13.65	1957			30	3.86		18	10.29
	11			Dec. 7	4.07		25	10.67	
	18	Jan. 5	21.07		14	3.99	Nov. 1	11.07	
	25		12		21	2.67		8	11.33
Mar. 3	4.71		19		28	2.90		15	11.63
	10		26					22	11.99
	17	Feb. 2	21.63	1958				29	12.17
	24		9				Dec. 6	12.96	
	31		16	Jan. 4	3.19			13	13.58
Apr. 7	4.60		23		11	3.50		20	14.09
	14	Mar. 2	20.99		18	3.81		27	14.86

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

Porter 7. (35/5W-6P3). City of Valparaiso. Valparaiso Water Dept. SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 35 N., R. 5 W. Driven unused well in drift, diameter 1 $\frac{1}{4}$ inches, depth unknown. Land-surface datum is 800 feet above msl. Highest water level is 54.04 below lsd, Jan. 31, 1956; lowest 66.50 below lsd, Mar. 13, 1957. Records available: 1954, 1956-57. Affected by nearby pumping.

Date	Water level	Date	Water level	Date	Water level	Date	Water level
1954		May 8	59.16	Dec. 4	64.80	May 15	63.72
		15	55.70	11	61.66	22	64.34
Aug. 25	58.05	22	54.35	12	62.80	29	65.06
31	57.69	29	54.50	18	63.93	June 11	64.18
Sept. 14	58.83	June 19	57.09	26	63.60	18	64.08
22	60.30	26	58.79			25	63.78
28	60.95	July 10	59.83	1957		July 2	63.20
Oct. 5	61.21	17	59.57			9	63.50
12	59.00	24	60.00	Jan. 2	63.97	17	63.84
22	55.90	31	59.64	9	64.15	24	64.07
1956		Aug. 7	60.78	15	64.17	30	63.39
		14	60.99	22	64.20	Aug. 6	64.00
		21	61.21	29	64.28	20	65.14
Jan. 24	54.43	29	62.10	Feb. 6	64.43	28	64.41
31	54.04	Sept. 4	61.73	13	64.48	Sept. 3	63.91
Feb. 7	58.42	11	61.83	19	63.38	10	63.91
14	59.43	18	63.35	27	63.50	27	63.92
21	60.38	25	62.79	Mar. 6	63.52	Oct. 2	63.94
28	60.44	Oct. 2	62.80	13	66.50	9	63.96
Mar. 6	57.90	9	61.48	20	63.75	17	65.92
13	56.55	16	62.10	27	65.44	22	65.92
27	56.25	23	62.62	Apr. 3	65.10	29	65.92
Apr. 3	55.68	30	62.51	10	63.82	Nov. 5	60.16
10	55.95	Nov. 6	62.62	17	63.89	19	58.10
17	54.09	16	62.49	24	63.81	27	57.19
24	54.65	20	62.92	May 1	62.93		
May 1	57.81	27	63.20	7	60.74		

Porter 8. (36/6W-9E3). Wabash Railway Co. Crocker. SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 9, T. 36 N., R. 6 W. Drilled unused artesian well in sand, diameter 10 inches, reported depth 80 feet. Land-surface datum is 633 feet above msl. Recording gage installed Nov. 27, 1956. Highest water level is 10.91 below lsd, Apr. 5, 1958; lowest 11.87 below lsd, Apr. 3, 21, 1957. Records available: 1956-58. Affected by barometric pressure and by trains.

(Daily highest water level from recorder graph, 1956)

Nov. 29	11.28	Dec. 2	11.25	Dec. 5	11.28	Dec. 30	11.37
30	11.26	3	11.28	28	11.39	31	11.41
Dec. 1	11.27	4	11.31	29	11.43		

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

Porter 8--Continued

(Daily highest water level from recorder graph, 1957)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.49	11.62	11.70	11.72	11.43	11.30	11.44	11.41	11.40	11.55	-----	-----
2	11.44	11.59	11.71	11.76	11.44	11.35	11.43	11.40	11.37	11.58	-----	-----
3	11.39	11.58	11.73	11.76	11.42	11.33	11.41	11.38	11.39	11.59	-----	-----
4	11.43	11.64	11.74	-----	11.41	11.33	11.39	11.41	11.42	11.59	-----	-----
5	11.47	11.65	11.73	-----	11.40	11.31	11.44	11.45	11.46	11.60	-----	-----
6	11.43	11.65	11.74	-----	11.38	11.30	11.44	11.45	11.45	11.58	-----	-----
7	11.43	11.66	11.74	-----	11.35	11.31	11.44	11.44	11.45	11.59	-----	-----
8	11.42	11.58	11.74	-----	11.34	11.34	11.44	11.43	11.46	11.61	-----	-----
9	11.46	11.55	11.74	-----	11.35	11.33	11.49	11.40	11.47	11.64	-----	-----
10	11.46	11.64	11.73	-----	11.33	11.31	11.49	11.30	11.47	11.66	-----	-----
11	11.49	11.66	11.63	11.77	11.34	11.29	11.48	11.38	11.47	11.66	-----	-----
12	11.47	11.60	11.73	11.83	11.34	11.31	11.29	11.38	11.46	11.66	-----	-----
13	11.50	11.62	11.76	11.83	11.31	11.30	11.29	11.35	11.48	11.65	-----	-----
14	11.52	11.65	11.72	11.83	11.30	11.33	11.40	11.34	11.47	11.65	-----	-----
15	11.51	11.64	11.76	11.79	11.31	11.37	11.37	11.35	11.47	11.63	-----	-----
16	11.52	11.66	11.77	11.79	11.33	11.37	11.36	11.37	11.51	11.61	-----	-----
17	11.54	11.67	11.76	11.80	11.28	11.37	11.37	11.36	11.53	11.64	-----	-----
18	11.57	11.66	11.72	11.82	11.31	11.34	11.36	11.36	11.50	11.68	-----	-----
19	11.54	11.71	11.72	11.80	11.28	11.36	11.36	11.36	11.49	11.69	-----	11.31
20	11.52	11.69	11.80	11.78	11.30	11.36	11.35	11.36	11.50	11.69	-----	11.47
21	11.50	11.68	11.77	11.82	11.27	11.36	11.35	11.38	11.50	11.68	-----	11.43
22	11.55	11.68	11.76	11.77	11.28	11.34	11.35	11.39	11.53	11.62	-----	11.42
23	-----	11.69	11.79	-----	11.30	11.38	11.36	11.35	11.54	11.56	-----	11.43
24	11.55	11.64	11.80	-----	11.34	11.39	11.40	11.32	11.52	-----	-----	11.26
25	11.54	11.65	11.76	11.74	11.25	11.39	11.38	11.37	11.53	-----	-----	11.30
26	11.58	11.67	11.79	11.64	11.26	11.40	11.38	11.40	11.56	-----	-----	11.35
27	11.58	11.71	11.78	11.57	11.33	11.40	11.38	11.41	11.57	-----	-----	11.28
28	11.55	11.69	11.78	11.51	11.33	11.35	11.38	11.39	11.56	-----	-----	11.39
29	11.56	-----	11.77	11.47	11.32	11.40	11.38	11.39	11.55	-----	-----	11.39
30	11.59	-----	11.80	11.45	11.32	11.44	11.40	11.42	11.54	-----	-----	11.27
31	11.59	-----	11.76	-----	11.29	-----	11.41	11.40	-----	-----	-----	-----

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	11.25	11.19	11.15	11.00	11.05	11.10	11.06	-----	11.24	11.40	11.55	11.75
2	11.34	11.20	11.10	10.98	11.04	11.23	11.02	11.12	11.23	11.40	11.55	-----
3	11.36	11.22	11.10	10.98	11.03	11.31	-----	11.17	11.23	11.40	11.55	-----
4	11.35	11.18	11.11	10.98	11.07	11.30	-----	11.17	11.26	11.40	11.50	-----
5	11.23	11.17	11.05	10.91	11.09	11.30	-----	11.19	11.24	11.40	11.55	-----
6	11.16	11.21	11.05	10.93	11.08	11.32	-----	11.18	11.24	-----	11.60	11.75
7	11.25	11.22	11.05	11.01	11.07	11.29	11.08	11.09	11.28	-----	11.60	11.70
8	11.25	11.23	11.02	11.06	11.06	11.24	11.08	11.13	11.29	-----	11.55	11.70
9	11.22	11.21	11.01	11.02	11.08	11.23	11.08	11.15	11.25	11.45	11.55	11.70
10	11.23	11.20	11.04	10.99	11.10	11.22	11.06	11.12	11.28	11.50	11.60	11.75
11	11.27	11.20	11.04	10.99	11.10	11.24	11.06	11.13	11.30	11.50	11.60	11.70
12	11.25	11.20	11.01	11.02	11.18	11.20	11.06	11.13	11.30	11.50	11.60	11.70
13	11.22	11.23	10.99	11.02	11.15	11.14	11.08	11.13	11.30	11.50	11.60	11.75

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

Porter 8--Continued

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
14	11.22	11.21	11.01	11.01	11.11	11.16	11.07	11.13	11.30	11.50	11.60	11.75
15	11.25	11.21	11.01	11.01	11.11	11.15	11.10	11.12	11.30	11.45	11.55	11.70
16	11.23	11.24	11.00	11.02	11.11	11.14	11.12	11.12	11.30	11.45	11.60	11.65
17	11.25	11.25	11.01	11.01	11.10	11.13	11.12	11.11	11.25	11.50	11.60	11.70
18	11.25	11.25	11.02	11.01	11.11	-----	11.10	11.14	11.35	11.50	11.65	11.70
19	11.22	11.27	11.00	11.00	11.15	-----	11.10	11.14	11.35	11.45	11.65	11.70
20	11.21	11.26	10.99	10.99	11.15	-----	11.13	11.13	11.30	11.50	11.65	11.80
21	11.09	11.22	10.99	11.00	11.14	-----	11.12	11.11	11.35	11.50	11.60	11.80
22	11.15	11.24	11.02	10.99	11.11	-----	11.13	11.17	11.35	11.50	11.60	11.75
23	11.24	11.21	11.02	10.97	11.18	-----	11.13	11.14	11.35	11.50	11.70	11.75
24	11.16	11.17	11.00	10.97	11.14	-----	11.13	11.11	11.35	11.50	11.65	11.80
25	11.15	11.17	11.00	11.11	11.14	-----	11.12	11.17	11.35	11.55	11.65	11.80
26	11.17	11.11	11.00	11.06	11.19	11.06	11.17	11.18	11.35	11.55	11.70	11.80
27	11.18	11.07	11.00	11.04	11.17	11.07	11.15	11.16	11.35	11.55	11.70	11.75
28	11.21	11.09	11.00	11.02	11.20	11.05	11.17	11.17	11.40	11.55	11.65	11.80
29	11.20	-----	11.01	11.06	11.20	11.05	-----	11.18	11.40	11.55	11.65	11.80
30	11.19	-----	11.01	11.05	11.18	11.05	-----	11.18	11.40	11.55	11.70	11.85
31	11.18	-----	11.01	-----	11.10	-----	-----	11.20	-----	11.55	-----	11.75

Porter 9. (35/7-27C1). H. Hull. NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 35 N., R. 7 W. Drilled unused artesian well in limestone, diameter 8 to 6 inches, reported depth 379 feet. Land-surface datum is 684 feet above msl. Recording gage installed Aug. 6, 1957. Highest water level is 23.60 below lsd, Feb. 28, 1958; lowest 24.69 below lsd, Oct. 12, 1957. Records available: 1957-58. Affected by barometric pressure.

(Daily highest water level from recorder graph, 1957)

Date	Water level	Date	Water level	Date	Water level	Date	Water level
Aug. 7	24.03	Aug. 11	23.92	Oct. 10	24.57	Oct. 14	24.55
8	24.00	12	23.93	11	24.63	15	24.43
9	23.95	13	23.93	12	24.64		
10	23.92	Oct. 9	24.53	13	24.60		

(Daily highest water level from recorder graph, 1958)

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	-----	-----	-----	-----	-----	-----	-----	-----	23.84	24.06	24.13	-----
2	-----	-----	-----	-----	-----	-----	-----	-----	23.81	24.07	24.10	-----
3	-----	-----	-----	-----	-----	-----	-----	-----	23.81	23.96	24.13	-----
4	-----	-----	-----	-----	-----	-----	-----	-----	23.87	23.85	23.97	-----
5	-----	-----	-----	-----	-----	24.20	-----	-----	23.82	24.04	23.94	-----
6	-----	-----	-----	-----	-----	24.28	-----	-----	23.79	23.97	24.14	24.23
7	-----	-----	-----	-----	-----	24.12	-----	-----	23.84	23.87	24.16	24.36
8	-----	-----	-----	23.85	-----	24.06	-----	-----	23.88	23.83	23.94	24.25
9	-----	-----	-----	23.95	-----	23.99	-----	-----	23.74	23.83	23.91	24.28
10	-----	-----	-----	23.95	-----	23.83	-----	-----	23.84	23.95	24.13	24.46

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

Porter 9--Continued

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
11	-----	-----	-----	23.95	-----	23.83	-----	-----	23.98	24.10	24.23	24.29
12	-----	-----	-----	23.95	-----	23.90	-----	-----	23.95	24.19	24.29	25.26
13	-----	-----	-----	23.99	-----	23.96	-----	23.91	23.95	24.14	24.16	24.32
14	-----	-----	-----	23.97	-----	24.00	-----	23.89	23.87	24.15	24.18	24.38
15	-----	-----	-----	23.95	-----	23.99	-----	23.88	23.88	24.06	24.06	24.35
16	-----	-----	-----	23.97	-----	23.97	-----	23.84	23.90	24.00	24.16	24.18
17	-----	-----	-----	23.94	-----	23.95	-----	23.79	23.77	24.06	24.04	24.17
18	-----	-----	-----	23.92	-----	23.96	-----	23.84	23.88	24.16	24.06	24.17
19	-----	-----	-----	23.87	-----	23.83	-----	23.84	23.91	24.08	24.18	24.10
20	-----	-----	-----	23.83	-----	23.83	-----	23.78	23.81	24.06	24.22	24.40
21	-----	-----	-----	23.78	-----	23.99	-----	23.78	23.81	24.07	24.18	24.41
22	-----	-----	-----	23.75	-----	23.88	-----	23.82	23.92	24.05	24.21	24.23
23	-----	-----	-----	23.64	-----	23.85	-----	23.73	23.85	24.01	24.15	24.20
24	-----	-----	-----	-----	-----	23.85	-----	23.70	23.80	24.07	24.22	24.36
25	-----	h23.99	-----	-----	-----	23.85	-----	23.75	23.82	24.10	24.05	24.45
26	-----	-----	-----	-----	-----	-----	-----	23.76	23.92	24.13	24.19	24.42
27	-----	-----	-----	-----	-----	-----	-----	23.72	23.94	24.17	24.23	24.39
28	-----	h23.60	-----	-----	-----	-----	-----	23.70	23.94	24.21	24.18	24.41
29	-----	-----	-----	-----	-----	-----	-----	23.68	23.79	24.27	-----	24.43
30	-----	-----	-----	-----	-----	-----	-----	23.66	23.78	24.28	-----	24.58
31	-----	-----	-----	-----	-----	-----	-----	23.72	-----	24.17	-----	24.25

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.

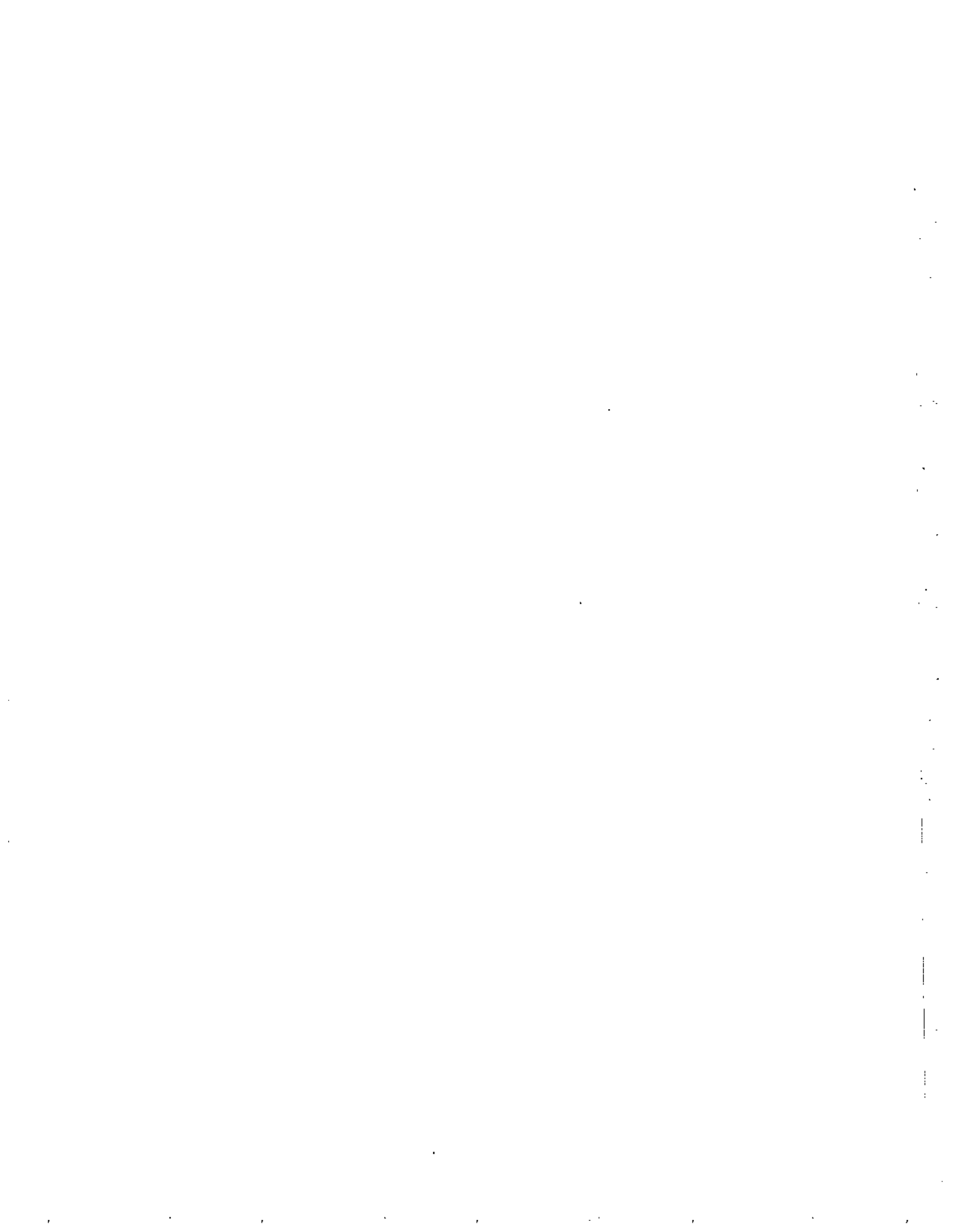
Bulletins

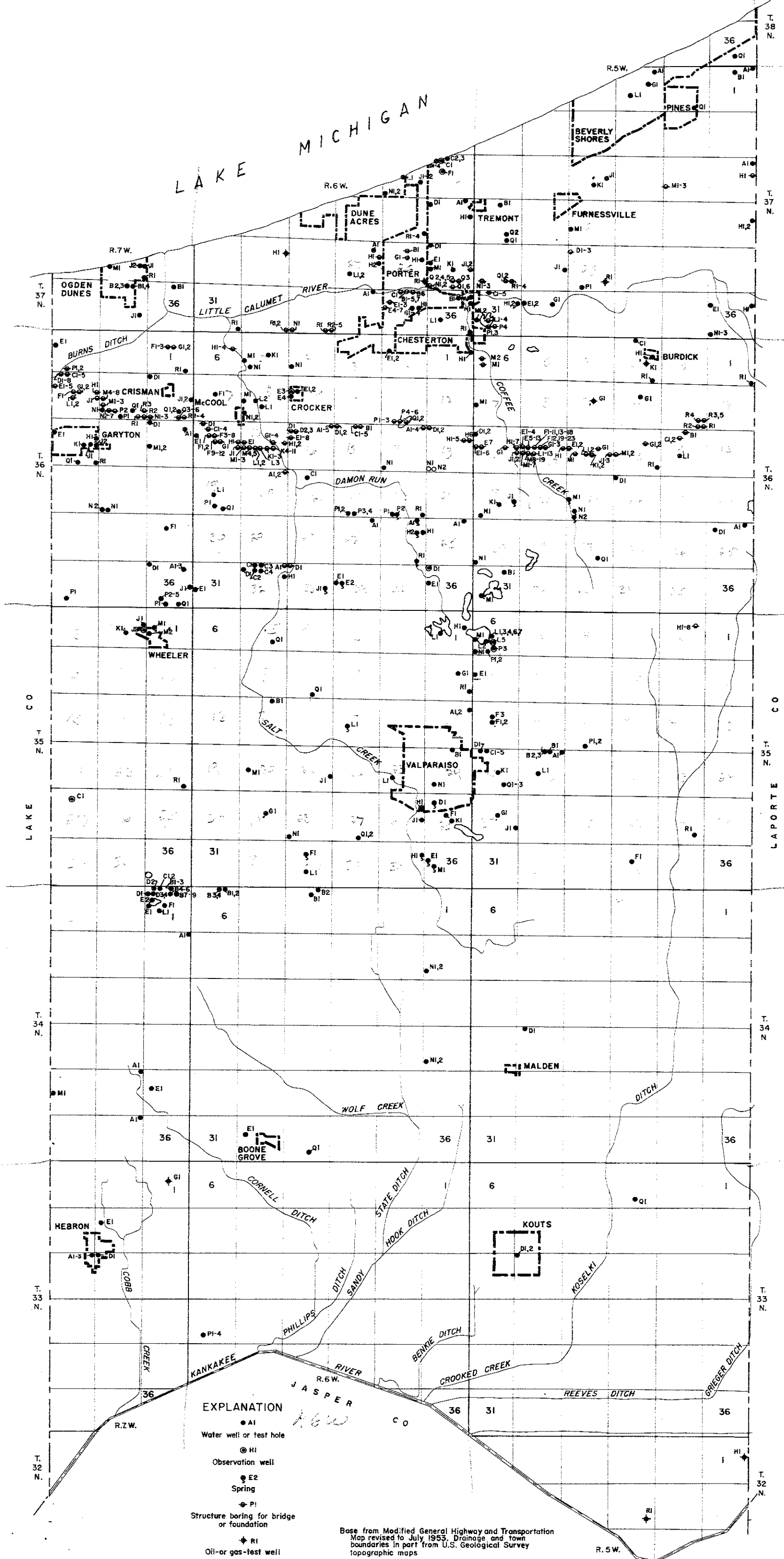
- No. 1 Memorandum concerning a pumping test at Gas City, Ind. J. G. Ferris. Ind. Dept. Conserv., Div. Water Resources. 1945.
- 2 A preliminary report of the ground-water levels of the State based on records of twenty-six observation wells for which long time records are available. Anonymous. Ind. Dept. 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.
- 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.



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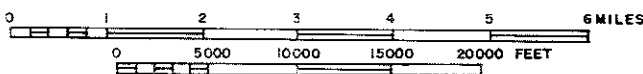




MAP OF PORTER COUNTY, INDIANA, SHOWING LOCATION OF WELLS, SPRINGS, AND TEST HOLES

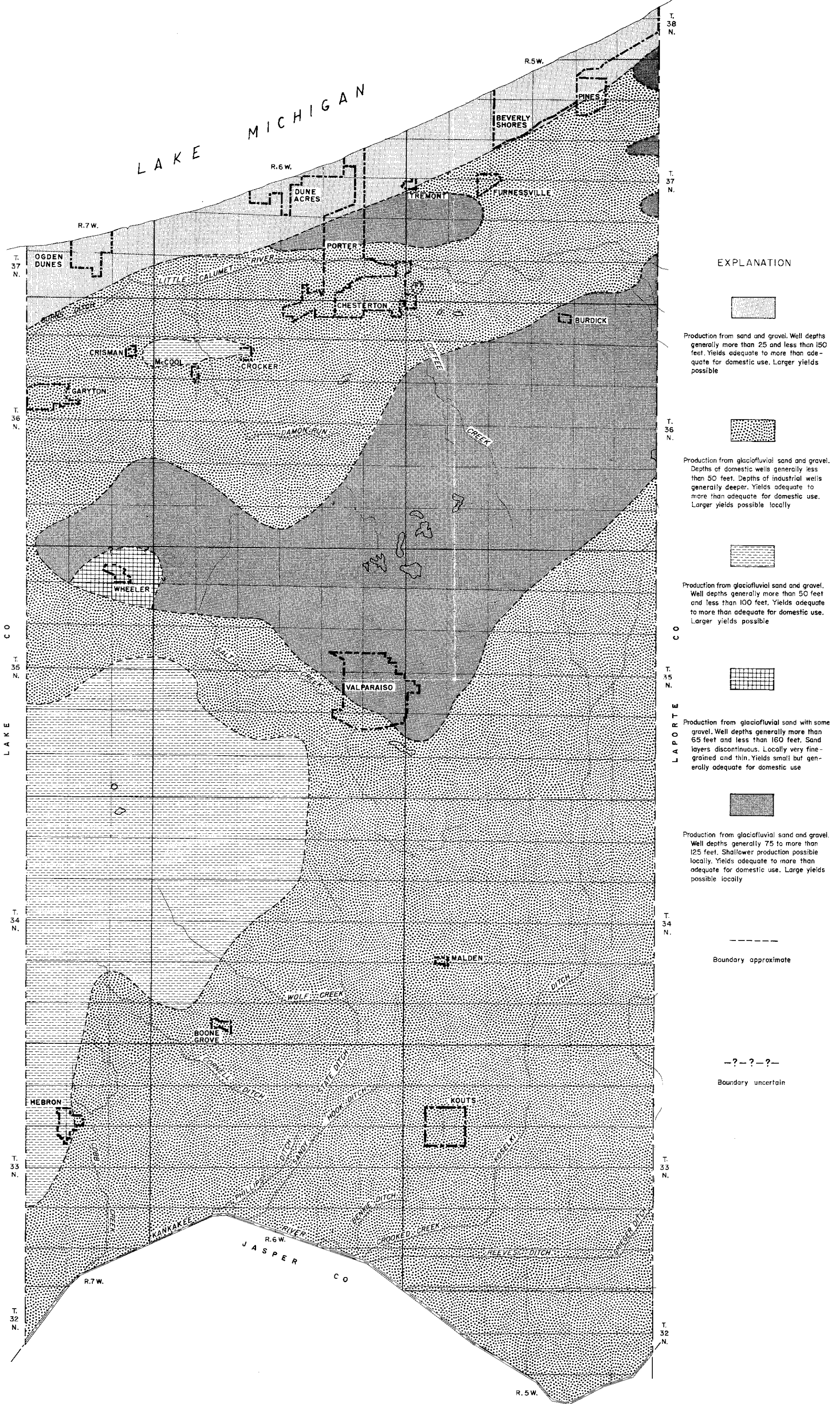
DIAGRAM OF TOWNSHIP

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



SECTION LETTER SYMBOLS IN WELL-NUMBERING SYSTEM.

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



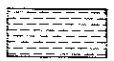
EXPLANATION



Production from sand and gravel. Well depths generally more than 25 and less than 150 feet. Yields adequate to more than adequate for domestic use. Larger yields possible



Production from glaciofluvial sand and gravel. Depths of domestic wells generally less than 50 feet. Depths of industrial wells generally deeper. Yields adequate to more than adequate for domestic use. Larger yields possible locally



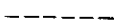
Production from glaciofluvial sand and gravel. Well depths generally more than 50 feet and less than 100 feet. Yields adequate to more than adequate for domestic use. Larger yields possible



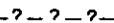
Production from glaciofluvial sand with some gravel. Well depths generally more than 65 feet and less than 160 feet. Sand layers discontinuous. Locally very fine-grained and thin. Yields small but generally adequate for domestic use



Production from glaciofluvial sand and gravel. Well depths generally 75 to more than 125 feet. Shallower production possible locally. Yields adequate to more than adequate for domestic use. Large yields possible locally



Boundary approximate

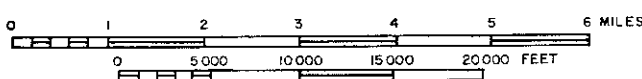


Boundary uncertain

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

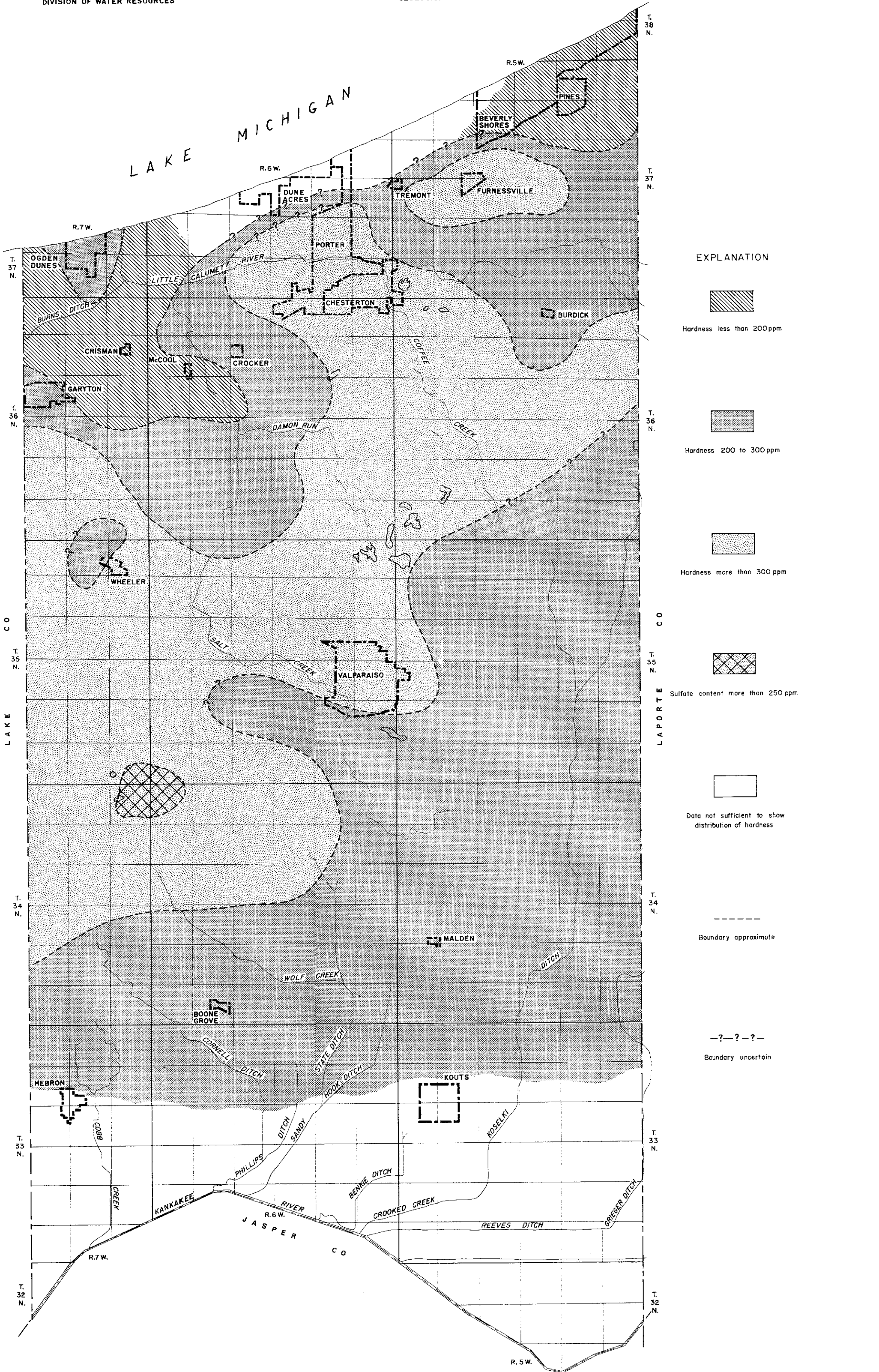
DIAGRAM OF TOWNSHIP

MAP OF PORTER COUNTY, INDIANA, SHOWING
AVAILABILITY OF GROUND WATER




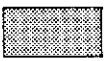
BY J. S. ROSENSHEIN
1962

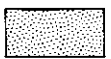
Base from Modified General Highway and Transportation Map revised to July 1953. Drainage and town boundaries in part from U.S. Geological Survey topographic maps




EXPLANATION


 Hardness less than 200 ppm

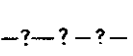
 Hardness 200 to 300 ppm

 Hardness more than 300 ppm

 Sulfate content more than 250 ppm

 Data not sufficient to show distribution of hardness

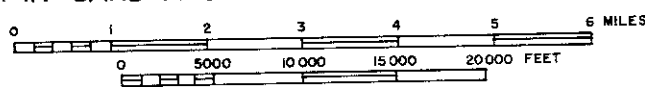
 Boundary approximate

 Boundary uncertain

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 PORTER COUNTY, INDIANA, SHOWING HARDNESS OF WATER IN SAND AND GRAVEL OF PLEISTOCENE AGE



BY J. S. ROSENSHEIN
1962

Base from Modified General Highway and Transportation Map revised to July 1953. Drainage and town boundaries in part from U.S. Geological Survey topographic maps