

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-24A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Fire clay-----	3	102	
Slate, black-----	4	106	
Shale, sandy, light-gray-----	11	117	

Well 12/ 8W-24B2

Type of record: Driller's log.		Altitude: About 605 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan, gray-----	16	36	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	3	39	
Coal-----	2	41	
Fire clay, hard-----	2	43	
Sandstone, pasty, gray-----	10	53	W.B.
Slate, gray-----	7	60	

Well 12/ 8W-24M1

Type of record: Driller's log.		Altitude: About 580 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan, gray-----	31	49	
Sand and gravel, dirty-----	2	51	W.B.
Pennsylvanian system:			
Middle series:			
Slate, blue-----	1	52	

Well 12/ 8W-24P1

Type of record: Driller's log.		Altitude: About 590 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Softpan, yellow-----	6	24	
Hardpan, gray-----	28	52	
Sand and gravel-----	9	61	W.B.

Well 12/ 8W-25C1

Type of record: Driller's log.		Altitude: About 585 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-25C1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Hardpan, gray-----	32	46	
Sand and gravel-----	4	50	W.B.
Wash-----	1.5	51.5	W.B.

Well 12/ 8W-25M1

Type of record: Driller's log.

Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Sandstone-----	5	18	Cemented sand (?)
Hardpan-----	27	45	
Drift-----	5	50	
Hardpan-----	15	65	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	5	70	
Slate, black-----	10	80	
Shale, light-----	15	95	
Coal and dirty band-----	8	103	
Shale, light-----	2	105	
Coal-----	3	108	
Shale, light-----	17	125	
Slate, black-----	2	127	
Coal-----	2	129	
Shale, light-----	14	143	
Coal-----	4	147	
Shale, light-----	20	167	
Limestone-----	8	175	
Shale, dark-----	14	189	
Limestone-----	5	194	
Shale, light-----	6	200	
Shale, dark-----	5	205	
Limestone-----	5	210	
Shale, light-----	10	220	
Sandstone-----	15	235	
Lower (?) series:			
Shale, dark-----	10	245	
Coal-----	4	249	
Sandstone-----	6	255	
Shale, light-----	10	265	
Shale, dark-----	5	270	
Shale, light-----	15	285	
Sandstone-----	5	290	
Shale, dark-----	10	300	
Shale, light-----	15	315	
Coal-----	3	318	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-25Mi--Continued			
Material	Thick-ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Lower (?) series:			
Shale, light-----	7	325	
Shale, dark-----	15	340	
Shale, light-----	5	345	
Sandstone-----	55	400	
Shale, light-----	2	402	
Limestone-----	6	408	
Shale, dark-----	2	410	

Well 12/ 8W-26L1			
Type of record: Driller's log.		Altitude: About 592 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Clay-----	14	14	
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	36	50	
Shale-----	35	85	
Coal-----	4	89	
Shale, dark-----	26	115	
Slate-----	13	128	
Shale, gray-----	9	137	
Shale, sandy-----	17	154	
Shale, dark-----	4	158	
Lower (?) series:			
Limestone-----	2	160	
Clay, white-----	6	166	
Shale-----	110	276	
Sandstone, broken-----	14	290	
Shale, sandy-----	22	312	
Sandstone-----	18	330	
Sandstone-----	32	362	W.B.; T.D. 824 ft

Well 12/ 8W-26P1			
Type of record: Driller's log.		Altitude: About 590 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Softpan, yellow-----	20	35	
Gravel, trace-----	--	35	W.B.
Hardpan, gray-----	9	46	
Pennsylvanian system:			
Middle series:			
Shale, sandy, light-----	10	56	
Slate, sandy, gray-----	39	95	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-26Q1

Type of record: Driller's log. Altitude: About 570 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	12	27	
Softpan, yellow-----	8	35	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	10	45	
Slate, sandy, gray-----	20	65	W.B.
Slate, gray-----	15	80	
Coal-----	--	80	

Well 12/ 8W-26R2

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

Quaternary system:			
Recent and Pleistocene series:			
Surface and pan-----	30	30	
Pennsylvanian system:			
Middle series:			
Shale, dark-gray-----	16	46	
Coal-----	1.5	47.5	
Shale, dark-gray-----	26.5	74	
Slate, black-----	10	84	
Shale, sandy, gray-----	14	98	
Coal-----	7	105	
Clay, hard-----	1	106	
Shale, sandy, hard, dark-gray---	4	110	
Coal and sulfur-----	1	111	
Shale, sandy, gray-----	2	113	
Limestone, dark-----	1.5	114.5	
Shale, sandy, gray-----	11.5	126	
Shale, dark-gray-----	2	128	
Coal-----	1	129	
Shale, sandy, gray-----	6	135	
Shale, dark-gray-----	5.5	140.5	
Coal-----	3.5	144	
Clay, hard-----	1	145	
Shale, sandy, gray-----	5	150	W.B.
Shale, gray-----	6	156	

Well 12/ 8W-27Q1

Type of record: Driller's log. Altitude: About 585 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Hardpan, gray-----	8	24	
Softpan, gray-----	27	51	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

## Well 12/ 8W-27Q1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Rock, clayey, yellow-----	10	61	
Sandstone, pasty, gray-----	20	81	W.B.
Shale, sandy, blue-----	6	87	

## Well 12/ 8W-28A1

Type of record: Driller's log. Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Dug well-----	18	18	
Hardpan-----	5	23	
Softpan-----	33	56	
Pennsylvanian system:			
Middle series:			
Sandstone, yellow-----	2	58	
Sandstone, white-----	26	84	W.B.

## Well 12/ 8W-28Q1

Type of record: Driller's log. Altitude: About 585 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan-----	9	24	
Sand and gravel-----	.5	24.5	
Hardpan, gray, with streaks of sand-----	45.5	70	
Pan, tough, light-green-----	31	101	
Muck, soft, dark-----	20	121	
Sand, gray-----	3.5	124.5	W.B.

## Well 12/ 8W-28R1

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

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	43	43	
Hardpan-----	29	72	
Sand and gravel-----	11	83	W.B.
Pennsylvanian system:			
Middle series:			
Shale-----	--	83	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-29C2

Type of record: Driller's log. Altitude: About 560 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Sand-----	7	23	
Hardpan-----	42	65	
Sand and hardpan-----	62	127	
Pennsylvanian system:			
Middle series:			
Coal-----	--	127	

Well 12/ 8W-29D1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	30	30	
Hardpan-----	12	42	
Sand and gravel-----	8	50	W.B.

Well 12/ 8W-29H1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	29	29	
Pennsylvanian system:			
Middle series:			
Slate, black-----	15	44	
Sandstone-----	10	54	
Limestone-----	6	60	
Shale-----	25	85	
Coal-----	5	90	

Well 11/ 8W-29J1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	17	17	
Sand, fine-----	1	18	Dry
Hardpan-----	28	46	
Sand, dirty-----	4	50	W.B.
Pennsylvanian (?) system:			
Middle (?) series:			
Coal-----	1	51	
Hardpan and slate-----	29	80	Shale (?) and slate

Table 3.--Selected well logs, Vigo County, Indiana--Continued

## Well 12/ 8W-29N1

Type of record: Driller's log. Altitude: About 560 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Sand-----	4	22	
Hardpan-----	16	38	
Sand and gravel-----	2	40	W.B.
Hardpan and cemented gravel-----	20	60	
Sand and gravel-----	10	70	W.B.

## Well 12/ 8W-30B1

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	20	20	
Glacial drift and boulders-----	10	30	
Hardpan, blue-----	30	60	
Sand and boulders-----	20	80	
Pennsylvanian system:			
Middle series:			
Fire clay, white-----	10	90	
Shale, sticky, blue-----	60	150	
Slate, black-----	10	160	
Coal-----	6	166	

## Well 12/ 8W-30B2

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Soil-----	5	5	
Clay-----	7	12	
Clay, sandy-----	28	40	
Shale, sandy, gray-----	16	56	
Sand, fine, brown-----	4	60	W.B.
Sand, gray, coal and wood-----	11	71	W.B.
Sand, coarse, gray-----	3	74	W.B.
Gravel, small, and sand-----	5	79	W.B.

## Well 12/ 8W-30Q1

Type of record: Driller's log. Altitude: About 560 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	25	25	
Hardpan-----	23	48	
Sand-----	10	58	W.B.
Drift-----	3	61	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-31A3

Type of record: Driller's log. Altitude: About 560 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	22	22	
Hardpan-----	21	43	
Sand and gravel, blue-----	5	48	W.B.
Sand, gray-----	3	51	W.B.

Well 12/ 8W-31B1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	21	21	
Hardpan, gray-----	15	36	
Hardpan, dark-----	34	70	
Sand and gravel, dirty-----	2	72	W.B.

Well 12/ 8W-31J2

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	25	25	
Hardpan, gray-----	17	42	
Sand, dirty-----	2	44	
Hardpan, gray-----	45	89	
Sand and gravel-----	8	97	W.B.

Well 12/ 8W-31R1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	24	24	
Hardpan, gray-----	10	34	
Softpan, yellow, and streak of gravel and sand-----	6	40	W.B.
Hardpan, gray-----	3	43	

Well 12/ 8W-32B1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Softpan, gray-----	9	24	
Hardpan, gray-----	13	37	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-32B1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Sandstone, soft, blue-----	3	40	
Slate, blue-----	3	43	
Slate, black-----	4	47	
Coal-----	3	50	
Fire clay-----	3	53	

Well 12/ 8W-32D1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	13	13	
Softpan, yellow-----	9	22	
Hardpan, gray-----	48	70	
Sand, dirty, gray-----	4	74	W.B.
Wash, gray-----	4	78	W.B.
Sand, gray-----	4	82	W.B.
Sand, coarse, and wheat-gravel---	4	86	W.B.
Sand and gravel, gray-----	4	90	W.B.

Well 12/ 8W-32D2

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	18	18	
Hardpan-----	20	38	
Gravel-----	10	48	W.B.

Well 12/ 8W-32E1

Type of record: Driller's log. Altitude: About 555 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	22	22	
Hardpan, gray-----	38	60	
Wash, gray-----	22	82	
Sand and gravel-----	4	86	W.B.
Hardpan-----	2	88	

Well 12/ 8W-32N1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan, gray-----	24	41	
Sand and gravel-----	12	53	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-32R1

Type of record: Driller's log. Altitude: About 565 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Sand, fine-----	20	30	
Hardpan-----	47	77	
Gravel-----	2	79	W.B.
Pennsylvanian system:			
Middle series:			
Shale-----	1	80	

Well 12/ 8W-34B1

Type of record: Driller's log. Altitude: About 585 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Softpan, dark-----	44	60	
Pennsylvanian system:			
Middle series:			
Sandstone, shaly, blue-----	5	65	
Sandstone, pasty, yellow-----	26	91	W.B.
Coal, trace-----	--	91	
Shale, sandy, light-gray-----	6	97	

Well 12/ 8W-34H1

Type of record: Driller's log. Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Sand and gravel-----	2	18	
Pan, sandy-----	2	20	
Sand and gravel-----	8	28	
Pan, sandy-----	36	64	
Sand-----	22	86	
Pan-----	10	96	
Sand and gravel-----	2	98	
Hardpan-----	2	100	
Sand and gravel-----	2	102	
Hardpan-----	7	109	
Sand and gravel-----	2	111	
Hardpan-----	4	115	
Sand and gravel-----	2	117	
Hardpan-----	8.5	125.5	
Pennsylvanian system:			
Middle series:			
Slate, soft, black-----	1.5	127	
Coal-----	1.5	128.5	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 8W-34H1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Clay-----	.5	129	
Shale, gray-----	17.5	146.5	
Shale, dark-gray-----	16.5	163	
Coal, hard-----	1	164	
Mine opening-----	10	174	

Well 12/ 8W-34R1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan-----	19	34	
Pennsylvanian system:			
Middle series:			
Shale, light-gray-----	16	50	

Well 12/ 8W-35C1

Type of record: Driller's log. Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	8	8	
Gravel and sand-----	4	12	
Softpan, sandy-----	16	28	
Gravel and sand-----	2	30	
Softpan, sandy-----	32	62	
Sand and gravel-----	33	95	
Pennsylvanian system:			
Middle series:			
Shale, sandy, gray-----	2	97	
Shale, dark-----	8	105	
Slate, black-----	2	107	
Coal-----	1	108	
Clay-----	1	109	
Shale, sandy, gray-----	4	113	
Sandstone-----	2	115	
Shale, sandy, gray-----	7	122	
Sandstone-----	2	124	
Shale, sandy, brown-----	3.5	127.5	
Coal-----	2	129.5	

Well 12/ 9W- 1N3

Type of record: Driller's log. Altitude: About 500 feet.

Cinders-----	6	6	
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Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 1N3--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Dirt, soft, and sand-----	8	14	W.B. 30 to 120 ft.
Gravel, medium-----	39	53	
Gravel, fine-----	12	65	
Sand, coarse-----	10	75	
Gravel, fine-----	5	80	
Gravel, medium-----	10	90	
Sand, coarse, and gravel-----	30	120	
Pennsylvanian system:			
Middle series:			
Shale or slate-----	--	120	

Well 12/ 9W- 2F2

Type of record: Driller's log. Altitude: About 495 feet.

Quaternary system:			
Recent and Pleistocene series:			
Dirt and sand-----	20	20	W.B. 31 to 52 ft
Sand and gravel-----	16	36	
Gravel-----	11	47	
Sand-----	5	52	
Gravel, fine-----	--	52	

Well 12/ 9W- 2L1

Type of record: Driller's log. Altitude: About 495 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	5	5	W.B. W.B.
Gravel-----	35	40	
Gravel and sand-----	20	60	
Gravel-----	25	85	
Sand and gravel-----	34	119	
Pennsylvanian system:			
Middle series:			
Shale-----	16	135	W.B.
Shale, gray-----	5	140	
Coal and black shale-----	2	142	
Shale, gray-----	13	155	
Sandstone, gray-----	15	170	
Shale, gray-----	7	177	
Coal and black shale-----	2	179	
Shale, gray-----	12	191	
Coal and black shale-----	2	193	
Shale, gray-----	22	215	
Sandstone, gray-----	7	222	
Shale, sandy-----	2	224	
Sandstone, gray-----	21	245	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 2L1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	10	255	
Shale, sticky, dark-----	5	260	
Coal and black shale-----	1	261	
Shale, sandy-----	44	305	T.D. 585 ft

Well 12/ 9W- 3A2

Type of record: Driller's log. Altitude: About 520 feet.

Quaternary system:

Recent and Pleistocene series:

Record missing-----	9	9	
Sand, fine, brown-----	39	48	
Gravel-----	2	50	W.B.
Sand, fine, brown-----	33	83	W.B.
Gravel-----	7	90	W.B.

Well 12/ 9W- 3B1

Type of record: Driller's log. Altitude: About 520 feet.

Quaternary system:

Recent and Pleistocene series:

Surface-----	41	41	
Gravel-----	11	52	
Sand-----	10	62	
Gravel, medium-----	20.5	82.5	

Well 12/ 9W- 3D1

Type of record: Driller's log. Altitude: About 470 feet.

Quaternary system:

Recent and Pleistocene series:

Surface drift-----	1	1	
Gravel, coarse-----	8	9	
Sand, red-----	20	29	
Sand and gravel-----	83	112	W.B.
Drift, blue-----	1.3	113.3	

Pennsylvanian system:

Middle series:

Slate, black-----	3.5	116.8	
Shale, sandy-----	3.4	120.2	
Sandstone, hard-----	2.6	122.8	
Shale, sandy-----	1.5	124.3	
Sandstone, hard-----	2.6	126.9	
Slate, soft, gray-----	11.9	138.8	
Slate, hard, blue-----	3.5	142.3	
Slate, black-----	1.3	143.6	
Slate, gray-----	3.2	146.8	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 3D1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	4.5	151.3	
Fire clay-----	2	153.3	
Sandstone-----	--	153.3	

Well 12/ 9W- 4B1

Type of record: Driller's log. Altitude: About 460 feet.

Quaternary system:			
Recent and Pleistocene series:			
Soil, mucky-----	12	12	
Sand, red-----	100	112	W.B.
Sand and gravel-----	6.3	118.3	W.B.
Pennsylvanian system:			
Middle series:			
Sandstone, hard-----	3.3	121.6	
Fire clay-----	.5	122.1	
Shale, sandy, hard-----	3	125.1	
Shale, gray-----	7.9	133	
Limestone, hard-----	1	134	
Slate, hard, gray-----	15	149	
Coal-----	5	154	
Fire clay-----	3	157	
Limestone-----	.6	157.6	
Shale, sandy-----	1.4	159	

Well 12/ 9W- 4E1

Type of record: Driller's log. Altitude: About 464 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	27	27	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	5	32	
Shale, dark-----	11	43	
Coal-----	1	44	
Shale, gray-----	8	52	
Shale, dark, hard bands-----	6	58	
Slate, black-----	1	59	
Limestone, soft-----	1	60	
Shale, gray-----	2.5	62.5	
Slate, black-----	3	65.5	
Coal-----	4	69.5	
Shale, soft, gray-----	2	71.5	
Shale, limy, gray-----	16	87.5	
Sandstone, gray-----	15	102.5	
Shale, gray-----	4	106.5	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 4E1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, dark, hard bands-----	20	126.5	
Slate, black-----	1	127.5	
Coal-----	2	129.5	
Shale, sandy, gray-----	36	165.5	
Coal-----	4.5	170	

Well 12/ 9W- 4F1

Type of record: Driller's log. Altitude: About 467 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	93	93	
Gravel-----	30	123	
Pennsylvanian system:			
Middle series:			
Sandstone, hard-----	6	129	
Sandstone-----	8	137	
Shale, hard, brown-----	30	167	
Shale, moderately hard, brown---	2	169	
Coal-----	6.3	175.3	

Well 12/ 9W- 4K1

Type of record: Driller's log. Altitude: About 459 feet.

Quaternary system:			
Recent and Pleistocene series:			
Soil, sandy-----	20	20	
Sand and gravel-----	84.6	104.6	W.B.
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	1.3	105.9	
Sandstone-----	2.2	108.1	
Shale, sandy-----	5.6	113.7	
Slate, blue-----	.7	114.4	
Sandstone-----	.6	115	
Slate, gray-----	9.7	124.7	
Coal-----	4.5	129.2	
Fire clay-----	1.4	130.6	
Rash and sticky shale-----	10.9	141.5	
Slate, gray-----	3.4	144.9	
Sandstone-----	1.3	146.2	

Well 12/ 9W- 4M1

Type of record: Driller's log. Altitude: About 464 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and sand-----	80	80	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 4M1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	11	91	
Pennsylvanian system:			
Middle series:			
Shale, soft, blue, with hard bands-----	19	110	
Slate, black-----	2	112	
Coal-----	1	113	
Fire clay-----	2	115	
Shale, gray-----	5	120	
Sandstone, hard, gray-----	1	121	
Sandstone, moderately hard, gray-	16	137	
Shale, moderately hard, gray----	2	139	
Shale, moderately hard, brown----	17	156	
Coal-----	4.8	160.8	

Well 12/ 9W- 4Q2			Altitude: About 467 feet.
Type of record: Driller's log.			
Quaternary system:			
Recent and Pleistocene series:			
Surface and sand-----	100	100	
Gravel-----	3	103	
Pennsylvanian system:			
Middle series:			
Sandstone, hard, gray-----	2	105	
Shale, soft, dark-----	7	112	
Shale, gray, with hard bands----	4	116	
Slate, black-----	1	117	
Limestone-----	.4	117.4	
Slate, black-----	1.3	118.7	
Coal-----	1.6	120.3	
Fire clay-----	1.8	122.1	
Shale, moderately hard, gray----	7	129.1	
Sandstone, moderately hard, gray-	11	140.1	
Shale, sandy, moderately hard, gray-----	4	144.1	
Shale, brown-----	14.2	158.3	
Coal-----	5	163.3	

Well 12/ 9W- 4R1			Altitude: About 495 feet.
Type of record: Driller's log.			
Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	2	2	
Gravel-----	8	10	
Sand-----	10	20	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 4R1--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	22	42	W.B.
Sand, coarse-----	22	64	W.B.

Well 12/ 9W- 5E1

Type of record: Driller's log. Altitude: About 565 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	
Hardpan with trace of sand-----	43	60	W.B.
Pennsylvanian system:			
Middle series:			
Shale, light-----	35	95	
Rock-----	3	98	Limestone (?)
Slate, black-----	5	103	
Coal-----	2	105	
Shale, light-----	8	113	
Limestone-----	3	116	
Shale, light-----	4	120	
Sandstone-----	5	125	
Shale, sandy-----	20	145	
Sandstone-----	15	160	
Shale, sandy-----	5	165	
Shale, blue-----	10	175	
Limestone-----	3	178	
Shale, blue-----	18	196	
Sandstone-----	7	203	
Shale, blue-----	8	211	
Slate, black-----	5	216	
Coal-----	2	218	
Sandstone-----	8	226	
Shale, dark-----	6	232	
Coal-----	4	236	
Shale, sandy-----	2	238	
Slate, black-----	3	241	
Coal-----	5	246	
Rock-----	4	250	

Well 12/ 9W- 5G1

Type of record: Driller's log. Altitude: About 517 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface; sand, clay, and hardpan-----	20	20	
Pennsylvanian system:			
Middle series:			
Shale, very soft-----	8.7	28.7	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 5G1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	6.1	34.8	
Fire clay-----	3	37.8	
Fire clay, limy-----	4.5	42.3	
Limestone-----	2.1	44.4	
Shale, limy-----	.3	44.7	
Limestone-----	.9	45.6	
Shale, sandy, limy-----	10.2	55.8	
Slate, sandy-----	53	108.8	
Slate, gray-----	27.5	136.3	
Siderite-----	.1	136.4	
Slate, black and gray-----	2.9	139.3	
Slate, black-----	2	141.3	
Slate, brown and black-----	3	144.3	
Coal-----	2	146.3	
Fire clay-----	1.5	147.8	
Shale, limy-----	3.4	151.2	
Shale, clayey, black and gray with limestone boulders-----	8.4	159.6	
Coal-----	1.3	160.9	
Sandstone-----	2.4	163.3	
Slate, slightly sandy, gray-----	1.5	164.8	
Slate, black-----	3.5	168.3	
Coal-----	4.5	172.8	
Fire clay-----	1	173.8	
Fire clay, limy-----	1.4	175.2	
Sandstone-----	.8	176	

Well 12/ 9W- 5H1

Type of record: Driller's log.

Altitude: About 496 feet.

Quaternary system:		
Recent and Pleistocene series:		
Surface-----	25	25
Pennsylvanian system:		
Middle series:		
Shale, yellow-----	4	29
Shale, gray-----	7	36
Limestone-----	1	37
Sandstone, soft, gray-----	28.4	65.4
Shale, gray-----	16	81.4
Shale, gray, with hard bands-----	13.3	94.7
Shale, black-----	1	95.7
Shale, gray-----	1	96.7
Slate, black-----	2	98.7
Shale, dark-----	2	100.7
Slate, black-----	3.5	104.2
Coal-----	1	105.2

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 5H1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, gray-----	3	108.2	
Limestone-----	1	109.2	
Shale, gray-----	4	113.2	
Shale, limy, gray-----	6	119.2	
Slate, black-----	1	120.2	
Shale, gray-----	4	124.2	
Slate, black-----	4	128.2	
Sulfur-----	.2	128.4	
Coal-----	3.1	131.5	
Shale, gray-----	2	133.5	
Limestone-----	1.5	135	
Shale, limy-----	24	159	
Shale, gray, with hard bands-----	8	167	
Shale, dark, with hard bands-----	21.3	188.3	
Slate, black-----	1	189.3	
Coal-----	1	190.3	
Fire clay-----	3	193.3	
Shale, gray-----	2.5	195.8	
Shale, hard, gray-----	4	199.8	
Shale, gray-----	4	203.8	
Shale, limy-----	10.5	214.3	
Shale, sandy, gray-----	20	234.3	
Coal-----	4.7	239	

Well 12/ 9W- 5J1

Type of record: Driller's log.

Altitude: About 469 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	4	4	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	24	28	
Shale, soft, gray-----	6	34	
Shale, gray, with hard bands-----	12	46	W.B.
Limestone-----	.2	46.2	
Slate, black-----	2	48.2	
Shale, soft, dark-----	5	53.2	
Coal-----	2.2	55.4	
Shale, limy-----	1	56.4	
Shale, gray-----	8	64.4	
Shale, dark-----	3	67.4	
Shale, black-----	1	68.4	
Sandstone, dark-----	4	72.4	
Slate, black-----	3.5	75.9	
Coal-----	3.3	79.2	
Shale, gray-----	2	81.2	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 5J1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, sandy, gray, with hard bands-----	1	82.2	
Shale, gray-----	3	85.2	
Shale, limy-----	4	89.2	
Sandstone, gray-----	20	109.2	
Shale-----	4	113.2	
Shale, dark, with hard bands-----	4	117.2	
Shale, dark-----	6	123.2	
Shale, gray, with hard bands-----	10	133.2	
Slate, black-----	1	134.2	
Coal-----	1	135.2	

Well 12/ 9W- 5P1

Type of record: Driller's log. Altitude: About 485 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pennsylvanian system:			
Middle series:			
Sandstone-----	2	12	
Fire clay-----	3	15	
Shale, light-----	90	105	
Sandstone-----	5	110	
Coal-----	1	111	
Sandstone-----	3	114	
Shale, light-----	10	124	
Coal-----	1	125	
Shale-----	5	130	
Slate, black-----	8	138	
Coal-----	2	140	
Shale, sandy-----	5	145	
Sandstone-----	10	155	"Salt water"

Well 12/ 9W- 6H1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Hardpan-----	38	50	
Pennsylvanian system:			
Middle series:			
Shale, light-----	16	66	
Shale, brown-----	4	70	
Shale, light-----	20	90	
Shale, dark-----	4	94	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 6H1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, light-----	4	98	
Limestone-----	3	101	
Sandstone-----	14	115	
Shale, light-----	40	155	
Shale, gray-----	36	191	
Shale, dark-----	9	200	

Well 12/ 9W- 6M1

Type of record: Driller's log.		Altitude: About 600 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Clay, sandy-----	10	10	
Muck and gravel, blue-----	5	15	
Drift, sandy, gray-----	35	50	
Gravel, muddy-----	7	57	
Gravel, fine-----	4	61	W.B.
Gravel, muddy-----	16	77	
Gravel, medium-----	2	79	W.B.
Gravel-----	2	81	W.B.
Gravel, muddy-----	13	94	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	7	101	

Well 12/ 9W- 7D1

Type of record: Driller's log.		Altitude: About 575 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	23	23	
Hardpan-----	34	57	
Gravel-----	3	60	W.B.
Hardpan-----	8	68	
Pennsylvanian system:			
Middle series:			
Shale, light-----	6	74	

Well 12/ 9W- 8K1

Type of record: Driller's log.		Altitude: About 460 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pennsylvanian system:			
Middle series:			
Shale, light-----	42	52	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W- 8K1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Rock-----	28	80	
Shale-----	32	112	"Salt water"

Well 12/ 9W- 8N1

Type of record: Driller's log.		Altitude: About 480 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Pennsylvanian system:			
Middle series:			
Shale, light-----	11	21	
Coal-----	4	25	
Shale, light-----	5	30	
Sandstone-----	10	40	W.B.
Shale, light-----	5	45	

Well 12/ 9W- 9A1

Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Dirt-----	5	5	
Sand-----	10	15	
Gravel and sand-----	10	25	
Pea gravel-----	5	30	
Sand-----	10	40	
Gravel-----	6	46	W.B.
Gravel, fine-----	17	63	W.B.

Well 12/ 9W-13K1

Type of record: Driller's log.		Altitude: About 505 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Open pit-----	13	13	
Sand-----	4	17	
Gravel-----	21	38	
Drift, blue-----	3	41	

Well 12/ 9W-13P1

Type of record: Driller's log.		Altitude: About 510 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface soil-----	6	6	
Sand, brown-----	8	14	
Sand and gravel-----	59	73	W.B. 39 to 73 ft

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-13P1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system: Middle series: Shale-----	--	73	

Well 12/ 9W-15H2

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil, black-----	5	5	
Pebbles, ½-inch, to brown quartz sand-----	45	50	W.B. 30 to 85 ft
Gravel, medium to coarse-----	10	60	
Sand, coarse, brown, and gravel--	10	70	
Sand, coarse; gravel, and pebbles-----	15	85	

Well 12/ 9W-16P1

Type of record: Driller's log. Altitude: About 460 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	16	16	
Clay and sand-----	6	22	
Sand-----	15	37	W.B. 22 to 87 ft
Sand and gravel-----	15	52	
Gravel and some sand-----	15	67	
Gravel and sand-----	5	72	
Sand, blue-gray-----	15	87	
Pennsylvanian system:			
Middle series:			
Rock-----	2.8	89.8	

Well 12/ 9W-18B1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	10	10	
Hardpan-----	35	45	
Sand and gravel-----	4	49	W.B.
Hardpan-----	2	51	
Shale-----	11	62	Clay (?)
Sand and gravel-----	2	64	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-19E1			
Type of record: Driller's log.		Altitude: About 550 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Pennsylvanian system:			
Middle series:			
Sandstone, yellow-----	28	43	
Sandstone, white-----	8	51	
Shale, light-----	9	60	
Well 12/ 9W-21F4			
Type of record: Driller's log.		Altitude: About 495 feet.	
Cinders-----	4	4	
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	14	18	
Sand and clay-----	12	30	
Sand and gravel-----	9	39	
Sand, fine-----	7	46	
Sand and some gravel-----	6	52	
Sand and gravel-----	41	93	
Gravel and sand-----	7	100	
Sand, gray, and gravel-----	2	102	
Sand, fine-----	6	108	
Sand and gravel-----	2	110	
Gravel, large-----	2	112	
Sand and gravel-----	8	120	
Pennsylvanian system:			
Middle series:			
Shale-----	3	123	
Well 12/ 9W-21J3			
Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Open pit-----	7	7	
Sand-----	13	20	
Gravel-----	13	35	
Rock, cemented-----	4	39	
Gravel, coarse-----	49	88	
Sand-----	10	98	
Gravel-----	11	109	
Sand-----	5	114	
			Cemented gravel (?)



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-21M2

Type of record: driller's log. Altitude: About 460 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Fill-----	20.5	20.5	
Quaternary system:			
Recent and Pleistocene series:			
Silt-----	7.5	28	
Sand-----	5	33	
Gravel, small-----	1	34	

Well 12/ 9W-22A2

Type of record: Driller's log. Altitude: About 510 feet.

Quaternary system:			
Recent and Pleistocene series:			
Fill and clay-----	9	9	
Sand-----	11	20	
Gravel, medium-----	27	47	
Sand, muddy-----	8	55	
Sand, coarse-----	5	60	
Sand and gravel, fine-----	40	100	
Sand, coarse-----	15	115	
Clay-----	1	116	

Well 12/ 9W-22N3

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	20	20	
Sand and gravel-----	47	67	W.B. 55 to 80 ft
Gravel, coarse-----	3	70	
Sand and gravel-----	10	80	

Well 12/ 9W-23L1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	38	38	
Hardpan-----	10	48	
Pennsylvanian system:			
Middle series:			
Shale, soft-----	15	63	
Limestone, hard-----	2	65	
Slate and coal-----	7	72	W.B.
Limestone, hard-----	5	77	
Limestone, broken-----	3	80	
Shale, dark-----	62	142	
Limestone-----	2	144	
Coal-----	6	150	
Shale, dark-----	4	154	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-23L1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Limestone-----	2	156	
Shale, dark-----	7	163	
Sandstone-----	12	175	W.B.
Shale, dark-----	2	177	
Well 12/ 9W-25B1			
Type of record: Driller's log.		Altitude: About 515 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	30	30	
Softpan, gray-----	16	46	
Sand and small gravel, dirty-----	2	48	W.B.
Softpan, dark-----	17	65	
Wash, dark-----	11	76	
Sand, dirty-----	1	77	
Pennsylvanian system:			
Middle series:			
Slate, black-----	--	77	
Well 12/ 9W-25B2			
Type of record: Driller's log.		Altitude: About 520 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	14	14	
Hardpan-----	44	58	
Sand, soft-----	14	72	
Pennsylvanian system:			
Middle series:			
Coal-----	2	74	
Shale, dark-----	10	84	
Limestone, hard-----	8	92	
Sandstone-----	8	100	W.B.
Shale, gray-----	7	107	
Well 12/ 9W-25B3			
Type of record: Driller's log.		Altitude: About 515 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand and clay-----	16	16	
Hardpan-----	50	66	
Sand, dirty, gray-----	5	71	W.B.
Hardpan-----	2	73	
Pennsylvanian system:			
Middle series:			
Coal-----	2	75	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-25B3--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Limestone-----	19	96	W.B.
Shale-----	14	110	
Limestone-----	5	115	
Shale-----	21	136	

Well 12/ 9W-25B5

Type of record: Driller's log. Altitude: About 540 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay and shale-----	40	40	Clay and hard clay (?)
Hardpan-----	20	60	
Sand, fine-----	10	70	W.B.
Hardpan-----	25	95	
Sand and gravel, dirty-----	8	103	W.B.
Pennsylvanian system:			
Middle series:			
Limestone-----	1	104	
Coal and black shale-----	10	114	
Sandstone-----	10	124	W.B.
Shale-----	11	135	
Sandstone-----	2	137	W.B.
Shale-----	5	142	

Well 12/ 9W-25D1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and sand-----	26	26	
Hardpan-----	1	27	
Gravel-----	19	46	"Dry"
Gravel-----	8	54	W.B.
Pennsylvanian system:			
Middle series:			
Rock-----	--	54	

Well 12/ 9W-25L1

Type of record: Driller's log. Altitude: About 510 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Sand, fine, gray-----	4	23	
Pennsylvanian system:			
Middle series:			
Shale, light-----	7	30	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-25L1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system			
Middle series:			
Shale, dark-----	8	38	W.B.
Limestone, gray-----	7	45	
Slate-----	10	55	
Coal-----	5	60	
Shale, light-----	5	65	

Well 12/ 9W-25M1

Type of record: Driller's log. Altitude: About 495 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Sand and gravel-----	20	30	
Pennsylvanian system:			
Middle series:			
Shale, light-----	2	32	

Well 12/ 9W-25Q1

Type of record: Driller's log. Altitude: About 535 feet.

Quaternary system:			
Recent and Pleistocene series:			
Record missing-----	54	54	W.B.
Hardpan and gravel-----	--	54	
Gravel and sand-----	2	56	
Sand-----	7	63	
Pennsylvanian system:			
Middle series:			
Shale-----	4	67	
Limestone, white-----	2	69	
Limestone, brown-----	5	74	
Shale, black, and coal-----	10	84	
Slate-----	6	90	

Well 12/ 9W-25R2

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and clay-----	20	20	W.B.
Sand and clay, red-----	15	35	
Hardpan and gravel-----	25	60	
Hardpan, soft-----	9	69	
Sand and mud-----	18	87	
Pennsylvanian system:			
Middle series:			
Limestone, hard-----	2	89	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-25R2--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	3	92	W.B.
Sandstone, gray-----	16	108	W.B.
Shale, dark-----	42	150	

Well 12/ 9W-26A1			
Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	54	54	W.B.
Pennsylvanian system:			
Middle series:			
Shale, light-----	8	62	
Shale, dark-----	63	125	
Coal-----	9	134	
Shale, dark-----	11	145	
Sandstone-----	8	153	
Shale, dark-----	14	167	
Coal-----	5	172	
Shale, light-----	3	175	
Shale, dark-----	15	190	
Sandstone-----	4	194	
Shale, dark-----	26	220	
Shale, light-----	6	226	
Sandstone-----	9	235	

Well 12/ 9W-26J1			
Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan-----	45	65	
Pan, yellow-----	13	78	
Hardpan-----	4	92	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	14	106	
Slate, gray-----	30	136	
Slate, black-----	6	142	
Coal-----	5	147	
Fire clay-----	2	149	
Shale, gray-----	11	160	
Sandstone-----	10	170	
Shale, gray-----	5	175	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-27D5

Type of record: Driller's log. Altitude: About 490 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Fill, surface, and brown sand----	10	10	
Gravel and sand-----	23	33	
Gravel, fine-----	3	36	
Gravel, coarse, and boulders----	16	52	
Sand, coarse-----	11	63	
Gravel, fine, and sand-----	5	68	
Sand, fine-----	20	88	
Sand and some gravel-----	5	93	
Sand, coarse-----	12	105	
Sand, coarse, and gravel-----	13	118	
Gravel and sand-----	6	124	

Well 12/ 9W-27F1

Type of record: Driller's log. Altitude: About 490 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	8	8	
Sand and gravel-----	50	58	
Sand, fine-----	20	78	
Gravel, fine-----	21	91	

Well 12/ 9W-27R1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, coarse, sharp, clean-----	17	17	
Sand and gravel-----	4	21	
Gravel, fine-----	6	27	
Gravel and boulders-----	4	31	
Gravel, fine-----	8	39	W.B. 36 to 86.5 ft
Sand, coarse, and gravel-----	18	57	
Sand-----	1	58	
Sand and coarse gravel-----	5	63	
Sand and fine gravel-----	1	64	
Sand-----	1	65	
Sand, fine, sharp-----	4	69	
Sand, coarse, sharp-----	4.7	73.7	
Gravel, pea-sized, coarse, fine, sharp, brown-----	5.3	79	
Gravel, pea-sized, coarse, fine, sharp, gray-----	2.7	81.7	
Sand, coarse, sharp, and coarse gravel up to 1-inch diameter---	4.8	86.5	Trace of coal at 83.5 ft

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-28L1

Type of record: Driller's log. Altitude: About 497 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Fill-----	5	5	
Quaternary system:			
Recent and Pleistocene series:			
Clay, gritty-----	6	11	
Sand, coarse, and gravel-----	47	58	
Gravel, medium-----	11	69	
Sand, coarse, and gravel-----	31	100	
Sand, coarse-----	25	125	
Gravel, medium-----	7	132	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	4	136	

Well 12/ 9W-32H2

Type of record: Driller's log. Altitude: About 490 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil, sandy-----	3	3	
Sand, clay, and boulders-----	15	18	
Sand, and gravel, medium to coarse-----	12	30	
Sand and gravel, medium-----	65	95	W.B. 47 to 129.5 ft
Sand, sharp-----	5	100	
Sand, sharp, and some coarse gravel-----	15	115	
Gravel, medium to coarse, very little sand-----	14.5	129.5	
Pennsylvanian system:			
Middle series:			
Limestone-----	.5	130	

Well 12/ 9W-33E3

Type of record: Driller's log. Altitude: About 480 feet.

Fill and cinders-----	8	8	
Quaternary system:			
Recent and Pleistocene series:			
Clay and gravel-----	6	14	
Sand and gravelly clay-----	23	37	
Sand and gravel-----	41	78	W.B.
Sand and some gravel-----	32	110	W.B.
Sand and gravel, coarse-----	11	121	W.B.
Pennsylvanian system:			
Middle series:			
Shale-----	--	121	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-33G2

Type of record: Driller's log. Altitude: About 485 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Fill-----	5	5	
Quaternary system:			
Recent and Pleistocene series:			
Gravel and clay-----	5	10	
Gravel, coarse-----	10	20	
Sand-----	1	21	
Gravel, coarse-----	6	27	
Boulder, big, with coarse gravel--	5	32	
Sand and gravel-----	6	38	
Gravel, coarse, dark-----	3	41	W.B. 38 to 84 ft
Sand, yellow, and coarse gravel--	7	48	
Sand, fine, yellow-----	12	60	
Sand and gravel, light-----	5	65	
Sand and gravel-----	19	84	
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	1	85	

Well 12/ 9W-33M2

Type of record: Driller's log. Altitude: About 490 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	3	3	
Gravel, coarse, some clay-----	17	20	
Sand and gravel, medium to coarse-----	30	50	
Sand, fine-----	14	64	W.B. 56 to 115 ft
Sand and gravel, medium-----	11	75	
Sand, fine-----	5	80	
Sand and gravel, medium-----	5	85	
Sand and gravel, medium to coarse-----	10	95	
Sand, fine-----	20	115	
Pennsylvanian system:			
Middle series:			
Limestone-----	.5	115.5	

Well 12/ 9W-34A1

Type of record: Driller's log. Altitude: About 490 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	5	5	
Clay, sandy-----	7	12	
Sand and gravel, coarse-----	15	27	W.B. 20 to 71 ft



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-34A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel, medium-----	23	50	Float (?)
Coal-----	.5	50.5	
Sand and gravel, medium-----	8.5	59	
Sand, fine-----	8	67	
Sand and gravel, coarse-----	4	71	

Well 12/ 9W-34Q1

Type of record: Driller's log. Altitude: About 510 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	45	45	W.B. 53 to 73 ft
Sand and gravel-----	18	63	
Gravel-----	10	73	
Muck-----	2	75	

Well 12/ 9W-34R1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	3	3	W.B. 42 to 101.5 ft
Sand, muddy-----	4	7	
Sand, medium, clean-----	7	14	
Sand and gravel-----	12	26	
Sand, medium-----	3	29	
Sand and gravel, medium-----	34	63	
Sand and gravel, coarse-----	17	80	
Sand, coarse-----	9	89	
Sand and gravel, medium-----	3	92	
Sand and gravel, coarse-----	4	96	
Sand, medium-----	4.5	100.5	
Sand, gritty-----	1	101.5	
Pennsylvanian system:			
Middle series:			
Shale, gray-----		101.5	

Well 12/ 9W-35E1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Pit-----	4	4	W.B. W.B.
Sand and gravel-----	26	30	
Gravel, hard, cemented-----	1	31	
Sand and gravel-----	32	63	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-35H1

Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	Sandy silt (?)
Soil, sandy-----	10	30	
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	38	68	
Sandstone-----	37	105	
Shale, light-----	5	110	
Shale, dark-----	35	145	
Shale, light-----	10	155	

Well 12/ 9W-35K1

Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Boulders-----	10	25	
Sand-----	6	31	
Gravel and sand-----	8	39	
Gravel-----	2	41	

Well 12/ 9W-35K2

Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	33	33	W.B. 30-33 ft
Pennsylvanian system:			
Middle series:			
Shale-----	16	49	
Sandstone-----	6	55	
Shale, light-gray-----	10	65	
Sandstone-----	5	70	
Shale, dark-----	2	72	
Limestone, black-----	5	77	
Shale, black-----	7	84	
Coal-----	5	89	
Shale-----	3	92	
Sandstone-----	--	92	

Well 12/ 9W-35Q1

Type of record: Driller's log.		Altitude: About 500 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	26	26	W.B.
Hardpan-----	46	72	
Gravel-----	--	72	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/ 9W-36N3

Type of record: Driller's log. Altitude: About 560 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	10	10	
Clay-----	18	28	
Hardpan-----	35	63	
Sand, fine, muddy-----	7	70	
Gravel, sandy, with some clay----	8	78	
Sand, gravel, and shale-----	12	90	Sand, gravel, and clay (?)
Gumbo and gravel-----	2	92	W.B.
Pennsylvanian system:			
Middle series:			
Shale, sandy-----	17	109	
Sandstone-----	8	117	W.B.
Sandstone, brown-----	2	119	W.B.
Shale-----	1	120	

Well 12/ 9W-36Q1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan-----	35	55	
Gravel and sand-----	4	59	
Hardpan-----	26	85	
Gravel-----	12	97	W.B.

Well 12/10W- 1H1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Hardpan, yellow-----	26	45	
Sand, fine, gray-----	2	47	W.B.
Hardpan, brown-----	18	65	
Sand, coarse, gray-----	2	67	W.B.
Pennsylvanian system:			
Middle series:			
Shale, light-gray-----	--	67	

Well 12/10W- 1L1

Type of record: Driller's log. Altitude: About 530 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface, sandy, and yellow clay--	28	28	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W- 1L1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Hardpan, gray-----	34	62	W.B.
Sand and gravel, fine-----	10	72	
Drift, brown-----	10	82	
Pennsylvanian system:			
Middle series:			
Shale, light-----	--	82	

Well 12/10W- 9A1

Type of record: Driller's log. Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	30	30	
Pennsylvanian system:			
Middle series:			
Shale, light-----	10	40	W.B. at 82 and 86 ft.
Shale, blue-----	21	61	
Shale, sandy-----	42	103	

Well 12/10W-11E1

Type of record: Driller's log. Altitude: About 605 feet.

Quaternary system:			
Recent and Pleistocene series:			
Soil and clay-----	6	6	"Gas"  W.B.
Mud and sand, yellow-----	11	17	
Mud, gray-----	17	34	
Mud-----	1	35	
Hardpan, gray-----	39	74	
Sand-----	1	75	
Hardpan, gray-----	7	82	
Mud-----	25	107	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	4	111	

Well 12/10W-14E1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Hardpan-----	83	95	
Pennsylvanian system:			
Middle series:			
Shale, light-----	29	124	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-14E1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	6	130	
Fire clay-----	3	133	
Shale, light-----	5	138	
Slate, gray-----	22	160	

Well 12/10W-14E2

Type of record: Driller's log.	Altitude: About 570 feet.		
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Gravel, dirty-----	3	13	
Gravel-----	1	14	
Hardpan-----	8	22	

Well 12/10W-15A1

Type of record: Driller's log.	Altitude: About 570 feet.		
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan-----	49	67	
Pennsylvanian system:			
Middle series:			
Shale, light-----	4	71	
Shale, dark-----	3	74	
Rock, hard, black-----	22	96	
Shale, gray-----	40	136	
Shale, dark-----	4	140	
Coal-----	2	142	
Shale, gray-----	21	163	
Sandstone-----	12	175	
Shale, gray-----	16	191	
Shale, dark-----	66	257	
Slate, black-----	4	261	
Coal-----	4	265	
Fire clay-----	2	267	
Rock, black-----	8	275	

Well 12/10W-15K1

Type of record: Driller's log.	Altitude: About 515 feet.		
Quaternary system:			
Recent and Pleistocene series:			
Clay and sand-----	14	14	
Hardpan-----	27	41	
Gravel-----	3	44	W.B.
Hardpan-----	67	111	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-15K1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale-----	13	124	
Shale, sandy-----	10	134	
Shale, dark-----	22	156	
Coal-----	4	160	W.B.
Fire clay-----	10	170	
Limestone, hard-----	4	174	
Limestone, broken-----	3	177	

Well 12/10W-25F1

Type of record: Driller's log. Altitude: About 540 feet.

Quaternary system:

Recent and Pleistocene series:

Surface-----	5	5
Sand-----	10	15
Gravel-----	19	34
Sand-----	1	35

Well 12/10W-26G1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:

Recent and Pleistocene series:

Old hole-----	20	20
Mud and gravel-----	10	30
Mud, blue-----	31	61

Pennsylvanian system:

Middle series:

Coal-----	3	64	W.B.
Fire clay-----	4	68	
Shale, soft-----	7	75	
Shale, dark-----	7	82	
Red rock-----	3	85	
Limestone, hard-----	3	88	
Shale, soft-----	5	93	
Shale, sandy-----	27	120	
Shale, dark-----	23	143	
Coal-----	3	146	
Fire clay-----	4	150	
Shale, sandy-----	65	215	
Slate, dark-----	45	260	

Well 12/10W-28K1

Type of record: Driller's log. Altitude: About 512 feet.

Quaternary system:

Recent and Pleistocene series:

Clay-----	34	34
-----------	----	----

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-28K1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	3	37	
Shale-----	14	51	Clay (?)
Sand and gravel-----	15	66	
Shale, gray-----	20	86	Clay (?)
Sand and gravel-----	21	107	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	90	197	
Coal-----	2	199	
Shale, gray-----	20	219	
Coal-----	6	225	
Shale-----	4	229	
Limestone-----	3	232	
Shale, gray-----	57	289	
Limestone-----	3	292	
Shale, sandy-----	18	310	
Sandstone-----	35	345	T.D. 1,059 ft

## Well 12/10W-28N1

Type of record: Driller's log.

Altitude: About 490 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface, silty-----	12	12	
Sand and gravel, fine-----	13	25	
Sand, sharp-----	15	40	

## Well 12/10W-28Q1

Type of record: Driller's log.

Altitude: About 487 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	63	63	
Pennsylvanian system:			
Middle series:			
Coal-----	2	65	
Shale, gray-----	8	73	
Limestone-----	2	75	
Shale, gray-----	105	180	
Coal-----	1	181	
Shale, gray-----	20	201	
Shale-----	64	265	
Shale, sandy-----	100	365	
Shale, dark-----	25	390	
Coal-----	3	393	T.D. 1,849 ft



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-33B1

Type of record: Driller's log.

Altitude: About 490 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	22	22	Clay (?)
Gravel-----	3	25	
Shale, gray-----	13	38	
Gravel and coal-----	1	39	
Sand and gravel-----	8	47	
Pennsylvanian system:			
Middle series:			
Shale, white-----	2	49	W.B.  T.D. 1,854 ft
Sandstone-----	16	65	
Shale, white-----	25	90	
Shale, dark-gray-----	9	99	
Limestone-----	2	101	
Shale-----	59	150	
Coal-----	4	154	
Limestone-----	5	159	
Sandstone-----	38	197	
Shale, gray-----	38	235	
Coal-----	6	241	
Unknown-----	36	277	
Sandstone-----	34	311	
Shale, dark-gray-----	31	342	
Shale, sandy, light-gray-----	32	374	
Coal-----	4	378	
Shale, sandy-----	37	415	

Well 12/10W-33C1

Type of record: Driller's log.

Altitude: About 492 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	26	26	
Pennsylvanian system:			
Middle series:			
Shale, dark-----	33	59	
Coal-----	4	63	
Shale-----	14	77	
Limestone-----	5	82	
Shale-----	12	94	
Shale, gray-----	74	168	
Shale, sandy-----	4	172	
Coal-----	2	174	
Limestone-----	5	179	
Sandstone-----	9	188	
Shale, gray-----	37	225	
Shale, dark-----	21	246	
Shale, sandy-----	12	258	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-33G1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Limestone-----	3	261	
Shale, sandy-----	29	290	
Sandstone-----	21	311	T.D. 1,835 ft

Well 12/10W-33P1

Type of record: Driller's log. Altitude: About 560 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	15	15	
Hardpan, gray-----	3	18	
Sand, trace-----	--	18	W.B.
Hardpan-----	26	44	
Shale, sandy, hard, with pebbles-	26	70	Sandy clay (?)
Shale, gray, and small gravel----	8	78	Clay (?) and gravel
Sand, fine, gray; wood, and gumbo balls-----	3	81	W.B.
Sand and gravel, fine-----	4	85	W.B.
Sand, very fine-----	2	87	W.B.

Well 12/10W-34H1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	6	6	
Sand-----	12	18	
Sand, coarse-----	2	20	
Sand-----	19	39	W.B. 29 to 56 ft
Sand, fine-----	7	46	
Sand-----	10	56	
Pennsylvanian system:			
Middle series:			
Shale-----	1	57	

Well 12/10W-34K1

Type of record: Driller's log. Altitude: About 530 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay-----	22	22	
Hardpan-----	30	52	
Pennsylvanian system:			
Middle series:			
Shale-----	37	89	
Coal-----	1	90	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 12/10W-34K1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Fire clay-----	5	95	
Shale, gray-----	5	100	
Shale, light-----	3	103	
Limestone-----	8	111	
Fire clay, red and yellow-----	8	119	
Limestone-----	4	123	

Well 13/ 7W- 6E1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and pan-----	48	48	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	20	68	
Shale, sandy, gray-----	60	128	
Shale, dark-gray-----	20	148	
Shale, sandy, gray-----	17	165	

Well 13/ 7W- 7J1

Type of record: Driller's log. Altitude: About 555 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Wash, gray-----	17	27	
Sand, dirty-----	4	31	
Sand and gravel-----	17	48	"Bad water"
Pennsylvanian system:			
Middle series:			
Slate, black-----	2.5	50.5	
Coal-----	1.5	52	
Clay, blue-----	2	54	
Clay, light-----	3	57	
Slate, blue-----	14	71	
Shale, sandy, blue, with sand- stone bands-----	9	80	W.B.

Well 13/ 7W- 7K1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Hardpan-----	67	81	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W- 7K1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	.5	81.5	
Clay-----	.5	82	
Shale, sandy, gray-----	16	98	
Shale, dark-gray-----	6	104	
Coal-----	1	105	
Clay-----	4	109	
Shale, dark-gray-----	12	121	
Coal-----	1	122	
Clay-----	1	123	
Shale, sandy, dark-gray-----	7	130	
Well 13/ 7W-17H1			
Type of record: Driller's log.		Altitude: About 620 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	8	8	
Softpan-----	10	18	
Sand-----	3	21	
Softpan-----	7	28	
Pennsylvanian system:			
Middle series:			
Shale, light-----	9	37	
Coal-----	7	44	
Clay-----	6	50	
Shale, hard, dark-----	16	66	
Shale, soft, brown-----	4	70	
Slate, black-----	2	72	
Coal-----	2	74	
Shale, sandy, light-----	21	95	
Sandstone-----	6	101	
Shale, soft, light-brown-----	11	112	
Slate, dark-----	5	117	
Shale, sandy, gray-----	2.5	119.5	
Sandstone-----	1	120.5	
Lower series:			
Limestone, dark-----	9	129.5	
Shale, gray-----	1	130.5	
Sandstone, dark-----	5	135.5	
Slate, black-----	14.5	150	
Coal-----	1.5	151.5	
Shale, sandy, light-----	41.5	193	
Coal-----	2.5	195.5	
Clay-----	1	196.5	
Shale, dark-gray-----	12.5	209	
Rock, dark-brown-----	19	228	
Sandstone, light-----	53	281	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-18P1

Type of record: Driller's log. Altitude: About 600 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Hardpan, gray-----	1	20	
Sand and gravel-----	3	23	
Hardpan, gray-----	45	68	
Sand-----	2	70	W.B.
Sand and gravel-----	10	80	W.B.

Well 13/ 7W-19A2

Type of record: Driller's log. Altitude: About 605 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan-----	24	44	
Softpan, yellow-----	10	54	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	9	63	
Limestone-----	2	65	
Slate, black-----	5	70	
Coal, trace-----	--	70	W.B.
Fire clay-----	3	73	W.B.

Well 13/ 7W-19J1

Type of record: Driller's log. Altitude: About 600 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	19	19	
Hardpan-----	27	46	
Sand-----	--	46	W.B.
Pennsylvanian system:			
Middle series:			
Slate, black-----	4	50	
Coal-----	1	51	
Slate, dark-blue-----	4	55	
Shale, light-----	6	61	
Fire clay-----	3	64	
Shale, light-----	5	69	
Coal-----	2	71	
Fire clay-----	5	76	
Rock, hard-----	1	77	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-20N1

Type of record: Driller's log.

Altitude: About 610 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan, gray-----	15	35	
Softpan, yellow-----	10	45	
Hardpan, gray-----	7	52	
Pennsylvanian system:			
Middle series:			
Coal-----	3	55	
Fire clay-----	7	62	
Shale, sandy, light-----	1	63	
Slate, sandy, gray-----	10	73	
Slate, black-----	7	80	
Shale, blue-----	3	83	
Slate, black-----	6	89	W.B.
Clay-----	4	93	

Well 13/ 7W-29H1

Quaternary system:

Recent and Pleistocene series:

Surface-----	4	4	
Wash-----	16	20	
Sand-----	2	22	
Wash-----	18	40	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	10	50	
Clay, light-----	15	65	
Slate, sandy, gray-----	27	92	
Lower (?) series:			
Coal-----	2	94	
Fire clay-----	2	96	
Slate, dark-----	5	101	
Coal-----	3.5	104.5	
Fire clay-----	4.5	109	
Slate, blue-----	19	128	
Coal-----	2	130	
Coal, smut, black-----	2	132	
Fire clay-----	10	142	
Shale, sandy, light-----	20	162	
Sandstone, gray-----	15	177	
Sandstone, white-----	49	226	W.B.

Well 13/ 7W-29R1

Type of record: Driller's log.

Altitude: About 610 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-29R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Hardpan, gray-----	40	60	
Softpan, dark-----	30	90	
Wash, dark-----	10	100	
Sand and gravel-----	1	101	W.B.

Well 13/ 7W-30K1

Type of record: Driller's log.

Altitude: About 605 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	27	42	
Pennsylvanian system:			
Middle series:			
Coal-----	3	45	
Fire clay-----	8	53	
Slate, blue-----	3	56	
Slate, black-----	9	65	
Slate, blue-----	3	68	
Clay-----	3	71	
Shale, light-----	10	81	
Shale, gray-----	5	86	
Shale, light-blue-----	6	92	
Shale, gray-----	9	101	
Shale, sandy, gray-----	4	105	
Coal, trace-----	--	105	
Fire clay (?)-----	3	108	
Shale (?), light-gray-----	6	114	
Shale, dark-blue-----	7	121	
Lower (?) series:			
Slate, black-----	3	124	
Shale, hard, gray-----	4	128	
Sandstone, pasty, light-----	4	132	
Shale, sandy, dark-----	3	135	
Shale, sandy, blue-----	10	145	
Sandstone, pasty, gray-----	5	150	
Shale, sandy, gray-----	31	181	
Coal, trace-----	--	181	
Fire clay, hard-----	3	184	
Shale, sandy, blue-----	16	200	

Well 13/ 7W-31A1

Type of record: Driller's log.

Altitude: About 595 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	17	17	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-31A1--Continued			
	Thick- ness (feet)	Depth (feet)	
Quaternary system:			
Recent and Pleistocene series:			
Hardpan, gray-----	17	34	
Hardpan, yellow-----	12	46	
Hardpan, dark-----	26	72	
Softpan, yellow-----	8	80	
Pennsylvanian system:			
Middle series:			
Fire clay-----	5	85	
Shale, clayey-----	10	95	
Shale, blue-----	5	100	
Sandstone, gray-----	4	104	
Shale, blue-----	9	113	
Shale, sandy, gray-----	17	130	
Sandstone, shaly, gray-----	8	138	
Lower (?) series:			
Shale, light-----	3	141	
Shale, sandy, light-----	9	150	
Shale, dark-blue-----	3	153	

Well 13/ 7W-31B1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan, gray-----	18	33	
Gravel, trace-----	--	33	
Hardpan, dark-----	19.5	52.5	
Sand and gravel-----	.5	53	W.B.

Well 13/ 7W-31H1

Type of record: Driller's log. Altitude: About 595 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Hardpan-----	46	61	
Wash, yellow-----	10	71	
Hardpan-----	2	73	
Sand-----	4	77	W.B.
Sand and gravel-----	5	82	W.B.

Well 13/ 7W-31R1

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

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-31R1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Muck, sandy, yellow-----	17	32	
Hardpan, gray-----	33	65	
Softpan, gray-----	20	85	
Wash, gray-----	12	97	
Sand, fine, and little gravel----	2	99	W.B.
Wash and muck-----	4	103	
Softpan, dark-gray and gray-----	18	121	
Pennsylvanian system:			
Middle (?) series:			
Fire clay, white-----	1	122	

Well 13/ 7W-32B1

Type of record: Driller's log. Altitude: About 605 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	16	16	
Softpan-----	9	25	
Hardpan, gray-----	20	45	
Softpan, dark-----	27	72	
Softpan, yellow-----	12	84	
Wash, dark-----	13	97	
Sand, dirty-----	5	102	
Sand, coarse, and small gravel---	2	104	W.B.; "Too much iron"
Sand and gravel-----	2	106	Do
Softpan, dark-----	14	120	
Sand and some gravel-----	2	122	
Softpan, yellow-----	8	130	
Pennsylvanian system:			
Lower series:			
Shale, light-----	3	133	
Slate (?), blue-----	3	136	
Slate (?), black-----	3	139	
Coal-----	1	140	
Fire clay (?)-----	3	143	
Shale, blue-----	3	146	
Shale, sandy, gray-----	20	166	
Coal, trace-----	--	166	
Fire clay, hard-----	2	168	
Shale, dark-blue-----	4	172	
Sandstone, pasty, gray-----	36	208	
Sandstone, white-----	20	228	
Sandstone, blue-----	5	233	
Sandstone, light-blue-----	82	315	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 7W-32M1

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Sand, dirty, yellow-----	8	28	
Hardpan, gray-----	50	78	
Sand, dirty, gray-----	6	84	
Softpan-----	8	92	
Sand-----	4	96	W.B.
Sand and gravel-----	12	108	W.B.

Well 13/ 8W- 1N1

Type of record: Driller's log. Altitude: About 587 feet.

Quaternary system:			
Recent and Pleistocene series:			
Drift-----	102	102	W.B. at 68 and 93 ft
Pennsylvanian system:			
Middle series:			
Coal-----	4	106	
Shale-----	45	151	
Slate and shale-----	21	172	
Sandstone-----	3	175	
Sandstone, shaly-----	22	197	T.D. 1,622 ft

Well 13/ 8W- 1Q1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	21	21	
Sand-----	1	22	W.B.
Hardpan-----	9	31	

Well 13/ 8W- 3M1

Type of record: Driller's log. Altitude: About 530 feet.

Quaternary system:			
Recent and Pleistocene series:			
Loam, sandy-----	8	8	
Sand, yellow-----	17	25	W.B.
Gravel-----	65	90	W.B.

Well 13/ 8W- 5A1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	33	33	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W- 5A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Hardpan-----	40	73	W.B.
Gravel-----	1	74	
Hardpan-----	48	122	
Drift, brown-----	5	127	
Hardpan-----	18	145	
Sand and gravel-----	25	170	

Well 13/ 8W- 5B1

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

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	35	35	W.B.
Hardpan-----	73	108	
Drift-----	40	148	
Gravel, green-----	11	159	
Hardpan-----	2	161	
Gravel, clean-----	15	176	

Well 13/ 8W- 5M1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	27	27	W.B.
Hardpan, gray-----	57	84	
Clay, sandy, yellow-----	7	91	
Sand and gravel, yellow-----	1	92	

Well 13/ 8W- 7D1

Type of record: Driller's log. Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, yellow-----	31	31	W.B.
Hardpan-----	106	137	
Sand and gravel-----	5	142	

Well 13/ 8W-13A1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface and hardpan-----	80	80	
Sand and gravel-----	20	100	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	20	120	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-13A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Clay, soft, light-----	40	160	
Lower series:			
Limestone-----	6	166	
Clay, soft-----	74	240	
Shale, sandy, hard, light-----	130	370	
Limestone, sandy-----	10	380	
Shale and sandstone-----	26	406	
Sandstone and limestone, gray----	22	428	
Sandstone, white-----	22	450	

Well 13/ 8W-13A2

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Softpan, yellow-----	13	28	
Sand and gravel-----	1	29	W.B.
Hardpan, gray-----	3	32	

Well 13/ 8W-13F1

Type of record: Driller's log. Altitude: About 550 feet.

Quaternary system:			
Recent and Pleistocene:			
Surface-----	10	10	
Muck and wash, gray-----	20	30	
Sand-----	4	34	W.B.
Sand and gravel-----	15	49	W.B.
Hardpan-----	2	51	
Pennsylvanian system:			
Middle series:			
Slate-----	2	53	

Well 13/ 8W-13G2

Type of record: Driller's log. Altitude: About 545 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Muck, gray-----	30	40	
Sand and gravel-----	3	43	"Bad water"
Wash, gray-----	5	48	Do
Sand and gravel-----	1	49	Do
Softpan, gray-----	9	58	
Sand and gravel-----	1	59	Do

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-13G2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, sandy, light-----	4	63	
Shale, gray-----	5	68	
Slate, dark-----	8	76	
Clay-----	3	79	
Shale, sandy, gray-----	4	83	
Slate, black-----	4	87	W.B.
Clay-----	2	89	

Well 13/ 8W-13G3

Type of record: Driller's log. Altitude: About 540 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Sand, dirty-----	5	20	
Muck-----	10	30	
Sand and gravel-----	5	35	
Wash-----	10	45	
Hardpan, gray-----	7	52	
Pennsylvanian system:			
Middle series:			
Coal, trace-----	--	52	
Fire clay-----	3	55	
Rock-----	1	56	Limestone (?)
Slate, gray-----	4	60	
Slate, dark-blue-----	4	64	
Slate, black-----	5	69	
Coal-----	2	71	
Fire clay-----	3	74	
Slate, blue-----	6	80	
Slate, black-----	4	84	
Coal-----	1	85	
Fire clay, hard-----	3	88	
Slate, gray-----	17	105	

Well 13/ 8W-13H1

Type of record: Driller's log. Altitude: About 540 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Wash and muck-----	15	30	
Sand and gravel-----	25	55	
Pennsylvanian system:			
Middle series:			
Slate, blue-----	3	58	
Slate, dark-blue-----	9	67	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-13H1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	2	69	W.B.
Clay, hard-----	4	73	
Shale, gray-----	2	75	
Well 13/ 8W-13H3			
Type of record: Driller's log.		Altitude: About 540 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	14	14	
Muck and sand-----	21	35	
Sand and gravel-----	20	55	"Bad water"
Pennsylvanian system:			
Middle series:			
Slate, dark-blue-----	8	63	
Coal, trace-----	--	63	
Shale, soft, light-gray-----	8	71	
Slate, black-----	4	75	
Coal, trace-----	--	75	"Bad water"
Shale, soft, light-gray-----	12	87	
Shale, gray-----	28	115	
Shale, sandy, gray-----	8	123	
Shale, gray-----	5	128	
Shale, sandy, blue-----	3	131	
Lower (?) series:			
Limestone-----	16	147	
Slate, black-----	4	151	
Coal-----	4	155	W.B.
Shale, sandy, blue-----	4	159	
Well 13/ 8W-13Q1			
Type of record: Driller's log.		Altitude: About 595 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Gravel-----	40	40	
Hardpan-----	35	75	
Sand-----	24	99	W.B.
Well 13/ 8W-13R2			
Type of record: Driller's log.		Altitude: About 595 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan, gray-----	25	43	
Sand and gravel-----	13	56	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-14A1

Type of record: Driller's log. Altitude: About 600 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Wash, gray-----	10	25	
Softpan, gray-----	6	31	
Hardpan, gray-----	38	69	
Sand and gravel-----	7	76	W.B.

Well 13/ 8W-14B1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Hardpan-----	27	37	
Gravel and hardpan-----	1	38	W.B.

Well 13/ 8W-14L1

Type of record: Driller's log. Altitude: About 590 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan-----	32	50	
Sand-----	10	60	
Hardpan-----	20	80	
Sand-----	25	105	W.B.
Gravel-----	7	112	W.B.

Well 13/ 8W-14N1

Type of record: Driller's log. Altitude: About 590 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Hardpan-----	50	60	
Gravel-----	3	63	
Hardpan-----	12	75	
Gravel-----	5	80	W.B.
Hardpan-----	1	81	

Well 13/ 8W-14Q1

Type of record: Driller's log. Altitude: About 535 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	21	21	
Hardpan-----	19	40	
Gravel, medium-----	5	45	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-16N1			
Type of record: Driller's log (memory).		Altitude: About 550 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan-----	53	73	
Sand and gravel-----	2	75	W.B.

Well 13/ 8W-20L1			
Type of record: Driller's log.		Altitude: About 525 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	105	105	
Pennsylvanian system:			
Middle series:			
Limestone and shale-----	24	129	
Shale-----	8	137	
Sandstone-----	13	150	W.B.
Shale-----	5	155	
Sandstone and coal-----	15	170	
Sandstone-----	35	205	W.B.
Sandstone and limestone-----	5	210	
Shale, sandy-----	10	220	
Lower (?) series:			
Shale and blue mud-----	24	244	
Limestone-----	3	247	
Shale and blue mud-----	29	276	
Coal-----	5	281	
Shale-----	29	310	
Sandstone-----	105	415	T.D. 1,636 ft

Well 13/ 8W-24A1			
Type of record: Driller's log.		Altitude: About 595 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	
Pan-----	107	122	
Pennsylvanian system:			
Middle (?) series:			
Shale, light-gray-----	23	145	
Coal-----	1	146	
Clay-----	3	149	
Shale, sandy, gray-----	31	180	

Well 13/ 8W-24A2			
Type of record: Driller's log.		Altitude: About 595 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-24A2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Pan-----	50	68	W.B.
Sand-----	1	69	
Pan-----	1	70	

Well 13/ 8W-24B1

Type of record: Driller's log. Altitude: About 590 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	W.B. W.B.
Hardpan-----	49	64	
Sand and gravel, dirty-----	14	78	
Hardpan-----	13	91	
Sand-----	8	99	
Sand and gravel-----	1	100	
Hardpan, gray-----	--	100	

Well 13/ 8W-24E1

Type of record: Driller's log. Altitude: About 595 feet.

Quaternary system:				
Recent and Pleistocene series:				
Open well-----	20	20		
Hardpan-----	52	72		
Pennsylvanian system:				
Middle series:				
Sandstone-----	11	83		
Shale, gray-----	3	86		
Coal and slate-----	7	93		
Shale, light-----	7	100		
Sandstone-----	4	104		
Shale, light-----	3	107		
Shale, dark-----	6	113		
Coal and slate-----	4	117		
Shale, light-----	11	128		
Coal and slate-----	8	136		
Shale, gray-----	6	142		
Shale, light-----	11	153		
Sandstone-----	6	159		
Lower (?) series:				
Shale, light-----	9	168		
Shale, dark-----	7	175		
Sandstone-----	33	208		
Shale, sandy, gray-----	4	212		

Table 3.--Selected well logs, Vigo County, Indiana--Continued

		Well 13/ 8W-25C1	
Type of record: Driller's log.		Altitude: About 590 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Pan-----	22.5	42.5	
Pennsylvanian system:			
Middle series:			
Coal-----	1	43.5	
Clay-----	1	44.5	
Shale, gray-----	33.5	78	
Shale, dark-gray-----	4	82	
Coal-----	3	85	
Clay-----	3	88	
Shale, gray-----	17	105	
Clay-----	3	108	
Shale, sandy, gray-----	17	125	
Shale, dark-gray-----	6	131	
Coal-----	1	132	
Clay-----	1	133	
Shale, light-gray-----	9	142	
Shale, dark-gray-----	5	147	
Shale, light-gray-----	13	160	
Lower (?) series:			
Coal-----	1	161	
Clay-----	2	163	
Shale, soft, light-gray-----	9	172	
Sandstone-----	2	174	
Shale, light-----	18	192	
Sandstone-----	7	199	
Shale, dark-gray-----	1	200	
Shale, light-gray-----	30	230	
Shale, gray-----	12	242	
Sandstone-----	4	246	
Shale, dark-gray-----	2	248	
Shale, light-gray-----	4	252	
Sandstone-----	8	260	
Shale, sandy, gray-----	103	363	
Sandstone-----	19	382	

		Well 13/ 8W-25R1	
Type of record: Driller's log.		Altitude: About 590 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	18	18	
Hardpan-----	77	95	
Pennsylvanian system:			
Middle series:			
Shale, light-----	17	112	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-25R1--Continued.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, blue-----	10	122	
Sandstone-----	5	127	
Shale, blue-----	32	159	
Sandstone-----	19	178	
Lower (?) series:			
Shale, blue-----	5	183	
Shale, sandy-----	12	195	
Sandstone-----	5	200	
Shale, sandy, gray-----	12	212	
Sandstone-----	49	261	

Well 13/ 8W-26B1

Type of record: Driller's log.                                                  Altitude: About 580 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Softpan, yellow-----	16	36	
Wash and sand, soft, yellow-----	4	40	W.B.
Hardpan, gray-----	11	51	

Well 13/ 8W-27E1

Type of record: Driller's log.                                                  Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	3	3	
Clay and hardpan-----	20	23	
Sand and gravel-----	3	26	
Hardpan, gravelly-----	37	60	
Sand and gravel-----	3	63	
Hardpan, gravelly-----	17	80	
Sand and gravel-----	10	90	W.B.

Well 13/ 8W-28H1

Type of record: Driller's log.                                                  Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	10	10	
Hardpan-----	50	60	
Sand and gravel-----	2	62	W.B.

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-29F1			
Type of record: Driller's log.		Altitude: About 595 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	20	20	
Mud, soft-----	16	36	
Quicksand-----	6	42	
Clay, brown, with gravel-----	10	52	
Shale, sandy, light-----	13	65	Sandy clay (?)
Shale, sandy-----	47	112	Do
Sand, coarse-----	--	112	W.B.
Well 13/ 8W-29L1			
Type of record: Driller's log.		Altitude: About 575 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Open pit-----	12	12	
Drift, sandy-----	38	50	
Hardpan-----	25	75	
Sand and gravel-----	6	81	W.B.
Well 13/ 8W-34B1			
Type of record: Driller's log.		Altitude: About 590 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Clay-----	20	20	
Sand and gravel mixed in clay---	10	30	
Sandstone-----	10	40	Cemented sand (?)
Sand and gravel-----	2	42	W.B.
Shale, sandy-----	3	45	Sandy clay (?)
Sandstone-----	11	56	"Dry"; cemented sand (?)
Sand, gravel, and coal-----	5	61	
Sand and gravel-----	5	66	W.B.
Pennsylvanian system:			
Middle series:			
Shale, white-----	14	80	
Well 13/ 8W-34F1			
Type of record: Driller's log.		Altitude: About 580 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Surface, sandy-----	35	35	
Hardpan-----	20	55	
Sand-----	18	73	W.B.
Gravel and sand-----	3	76	W.B.
Pennsylvanian system:			
Middle series:			
Coal-----	5	81	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 8W-34F1--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, light-----	14	95	
Sandstone-----	3	98	
Shale, blue-----	4	102	
Coal-----	4	106	
Shale, light-----	10	116	
Shale, blue-----	7	123	
Shale, light-----	12	135	

Well 13/ 8W-35B1

Type of record: Driller's log. Altitude: About 585 feet.

Quaternary system:			
Recent and Pleistocene series:			
Open well-----	28	28	
Hardpan-----	12	40	
Sand-----	2	42	
Hardpan-----	10	52	
Sand and gravel-----	6	58	W.B.
Hardpan-----	15	73	
Pennsylvanian system:			
Middle series:			
Slate and coal-----	5	78	
Fire clay-----	2	80	

Well 13/ 8W-36R1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Hardpan, gray-----	56	68	
Pennsylvanian system:			
Middle series:			
Slate, soft, blue-----	2	70	
Slate, black-----	6	76	
Coal-----	3	79	W.B.
Slate, gray-----	9	88	

Well 13/ 9W- 1D1

Type of record: Driller's log. Altitude: About 510 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	15	15	
Gravel-----	7	22	
Sand and gravel-----	30	52	W.B. 45 to 76 ft
Gravel-----	24	76	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W- 1N1

Type of record: Driller's log. Altitude: About 510 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	5	5	
Sand-----	8	13	
Gravel-----	41	54	
Sand-----	15	69	
Gravel, medium-----	17	86	

Well 13/ 9W- 4A1

Type of record: Driller's log. Altitude: About 480 feet.

Quaternary system:			
Recent and Pleistocene series:			
Soil; sand and gravel-----	4	4	
Pennsylvanian system:			
Middle series:			
Shale-----	50	54	
Sandstone-----	1.7	55.7	
Coal-----	3.5	59.2	
Fire clay and sandy shale-----	12	71.2	
Black rock and gray shale-----	5	76.2	
Coal-----	4.7	80.9	
Iron band and black shale-----	2.2	83.1	
Coal-----	3.9	87	
Fire clay-----	3	90	
Limestone-----	9.5	99.5	
Shale, gray-----	10.5	110	
Shale, sandy, and sandstone-----	34	144	
Iron band and gray shale-----	5.3	149.3	
Coal-----	1.6	150.9	
Shale and iron band-----	10	160.9	
Shale, sandy, and iron band-----	12.3	173.2	
Sandstone-----	14	187.2	
Shale, gray-----	2	189.2	
Coal-----	6.5	195.7	

Well 13/ 9W- 4D1

Type of record: Driller's log (memory). Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	12	12	
Hardpan-----	26(?)	38(?)	
Sand and gravel-----	8(?)	46(?)	W.B.
Hardpan-----	12(?)	58	
Undifferentiated:			
Record missing-----	117	175	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W- 4E1

Type of record: Driller's log. Altitude: About 545 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	15	15	W.B.
Sand and gravel-----	62	77	
Sand, fine, brown-----	13	90	
Pennsylvanian system:			
Middle series:			
Clay, alternating hard and soft, blue-----	55	145	
Slate-----	5	150	
Coal-----	--	150	

Well 13/ 9W- 4L1

Type of record: Driller's log. Altitude: About 500 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand, fine-----	10	10	
Sand, coarse-----	38	48	
Sand, fine-----	2	50	
Gravel-----	10	60	

Well 13/ 9W- 6R1

Type of record: Driller's log. Altitude: About 588 feet.

Quaternary system:			
Recent and Pleistocene series:			
Till, brown and silty, and sandy clay-----	30	30	Auger refusal at 45 ft
Till, compact, gray-----	15	45	

Well 13/ 9W- 7C1

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

Quaternary system:			
Recent and Pleistocene series:			
Clay, red-----	6	6	W.B.
Sand, clayey, red-----	4	10	
Sand, soupy, gray-----	8	18	
Till, clayey, sandy, tough, gray-	2	20	
Soupy materials-----	8	28	
Till, clayey, tough, gray-----	4	32	
Soft zone-----	1	33	
Clay, green and olive-green, and sandy clay, no pebbles, like top of bedrock-----	1	34	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W- 7C2

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	3	3	
Hardpan-----	7	10	
Sand and gravel-----	33	43	
Pennsylvanian system:			
Middle series:			
Sandstone-----	15	58	

Well 13/ 9W- 7J1

Type of record: Driller's log. Altitude: About 613 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	3	3	
Sand-----	9	12	
Hardpan-----	29	41	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	3	44	

Well 13/ 9W- 7N1

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

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	12	12	
Hardpan and gravel-----	28	40	
Sand-----	4	44	W.B.
Hardpan and gravel-----	24	68	

Well 13/ 9W-10N1

Type of record: Driller's log. Altitude: About 460 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay and silt-----	8	8	
Clay and sand, silty-----	17	25	
Sand, silty-----	15	40	
Sand and gravel, dirty-----	8	48	

Well 13/ 9W-14K1

Type of record: Driller's log. Altitude: About 525 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	55	55	
Gravel-----	3	58	
Sand and gravel-----	24.5	82.5	



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-16G1

Type of record: Driller's log. Altitude: About 470 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	30	30	
Sand-----	15	45	
Drift-----	4	49	
Drift, shaly-----	5	54	

Well 13/ 9W-16P2

Type of record: Driller's log. Altitude: About 460 feet.

Quaternary system:			
Recent and Pleistocene series:			
Silt, brown, and soupy clay-----	13	13	
Clay, silty, brown-----	8	21	
Clay, gray, containing small shells-----	2	23	
Pennsylvanian system:			
Middle series:			
Shale-----	--	23	

Well 13/ 9W-17C1

Type of record: Driller's log. Altitude: About 590 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface, sandy-----	1	1	
Hardpan-----	12.5	13.5	
Sand-----	15.5	29	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	41.3	70.3	

Well 13/ 9W-17E1

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

Quaternary system:			
Recent and Pleistocene series:			
Clay, brown-----	18	18	
Sand, gray-----	7	25	W.B.
Till, hard, gray-----	2	27	
Clay, sandy, soft, soupy-----	18	45	
Till, gray-----	13	58	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-17M1

Type of record: Driller's log. Altitude: About 600 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	3	3	
Sand and gravel-----	14	17	
Hardpan-----	27	44	
Sand and gravel-----	4	48	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	9	57	

Well 13/ 9W-17N1

Type of record: Driller's log. Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	27	27	
Hardpan-----	13	40	
Sand-----	6	46	
Drift-----	2	48	
Pennsylvanian system:			
Middle series:			
Sandstone-----	8	56	

Well 13/ 9W-17P1

Type of record: Driller's log. Altitude: About 570 feet.

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	4	4	
Sand-----	2	6	
Hardpan-----	29	35	
Sand and gravel-----	7	42	
Sand and shale-----	10	52	

Well 13/ 9W-18D1

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

Quaternary system:			
Recent and Pleistocene series:			
Surface-----	20	20	
Hardpan and sand-----	53	73	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	48	121	
Coal-----	6	127	
Shale, light-----	11	138	
Limestone-----	4	142	
Shale, light-----	18	160	
Shale, blue-----	130	290	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-18G1

Type of record: Driller's log.

Altitude: About 620 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay-----	10	10	
Sand and clay-----	8	18	
Shale, sandy, gray-----	7	25	Sandy clay (?)
Mud, blue-----	5	30	
Mud, green-----	10	40	
Shale, brown-----	7	47	Clay (?)
Sand, fine-----	4	51	W.B.
Shale, sandy-----	10	61	Sandy clay (?)
Clay and gravel-----	20	81	
Pennsylvanian system:			
Middle series:			
Shale, light-gray-----	27	108	
Shale, dark-----	24	132	
Coal-----	1	133	
Shale-----	2	135	

Well 13/ 9W-18G2

Type of record: Driller's log.

Altitude: About 613 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, sandy-----	10	10	
Hardpan-----	4	14	
Sand-----	4	18	
Clay, sandy-----	8	26	
Hardpan-----	28	54	
Gravel-----	3	57	
Hardpan-----	22	79	
Pennsylvanian system:			
Middle series:			
Shale, soft, blue-----	17	96	

Well 13/ 9W-18K2

Type of record: Driller's log.

Altitude: About 600 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay, yellow-----	8	8	
Clay, sandy, yellow, and sand----	9	17	W.B.
Sand, gray-----	8	25	W.B.
Till, hard, gray-----	4	29	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-18R1		Altitude: About 590 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	4	4	
Sand and gravel-----	35	39	
Drift, sandy-----	4	43	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	17	60	

Well 13/ 9W-18R2		Altitude: About 580 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, black-----	2	2	
Clay, red-----	5	7	
Sand-----	18	25	W.B.
Till, sandy, hard, blue-----	2	27	
Sand-----	12	39	W.B.
Gravel or bedrock, and chat-----	3	42	W.B.

Well 13/ 9W-19A1		Altitude: About 575 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	4	4	
Sand-----	1	5	
Hardpan-----	25	30	
Pennsylvanian system:			
Middle series:			
Shale, limy-----	1	31	

Well 13/ 9W-20B1		Altitude: About 580 feet.	
Type of record: Driller's log.			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Surface-----	7	7	
Sand-----	13	20	W.B.
Hardpan and gravel-----	20	40	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	15	55	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-20K1

Type of record: Driller's log.

Altitude: About 530 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary system:			
Recent and Pleistocene series:			
Clay, red-----	10	10	
Hardpan and boulders-----	18	28	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	11	39	
Limestone, hard-----	2	41	
Shale, gray-----	14	55	
Shale, dark-----	15	70	
Coal-----	4	74	
Fire clay-----	7	81	
Limestone, hard-----	4	85	
Shale, sandy-----	65	150	
Shale, dark-----	35	185	
Slate, dark-----	10	195	
Shale, light-----	9	204	
Slate, dark-----	11	215	
Limestone, hard-----	2	217	
Coal-----	5	222	
Limestone, hard-----	6	228	
Shale, light-----	5	233	
Limestone, sandy-----	7	240	
Shale, dark-----	43	283	
Coal-----	3	286	
Shale, dark-----	4	290	
Limestone, hard-----	3	293	
Shale, gray-----	22	315	
Slate, dark-----	14	329	
Coal-----	5	334	
Shale, gray-----	8	342	
Slate, dark-----	18	360	
Shale, gray-----	10	370	
Slate, dark-----	15	385	
Mine opening-----	--	385	

Well 13/ 9W-20M1

Type of record: Driller's log.

Altitude: About 588 feet.

Quaternary system:		
Recent and Pleistocene series:		
Clay, yellow-----	19	19
Clay-----	1	20
Clay and gravel-----	5	25
Pennsylvanian system:		
Middle series:		
Shale, sandy, blue-----	5	30
Shale, gray-----	15	45
Sandstone-----	2	47

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-20M1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Limestone-----	3	50	
Limestone and sandstone-----	5	55	
Shale, gray-----	4	59	
Shale, gray, and limestone-----	4	63	
Coal-----	4	67	
Shale, gray-----	8	75	
Limestone, hard-----	1	76	
Limestone, sandy-----	8	84	
Shale, sandy, gray-----	11	95	
Sandstone and shale, gray-----	13	108	
Shale, gray-----	75	183	
Shale, brown-----	4	187	
Coal-----	3	190	
Shale, gray, with some limestone-	5	195	
Mine opening-----	5	200	
Shale, black-----	14	214	
Limestone, sandy, hard-----	3	217	
Shale, sandy-----	23	240	
Shale, gray-----	19	259	
Shale, muddy-----	14	273	
Shale, sandy-----	15	288	
Coal, shaly-----	1	289	
Shale, muddy-----	17	306	
Shale, gray, and slate-----	8	314	
Coal-----	3	317	
Shale, sandy-----	8	325	
Limestone, gray-----	5	330	
Shale, dark-----	16	346	
Coal-----	1	347	
Sandstone and limestone-----	3	350	
Shale, gray-----	22	372	
Coal-----	4	376	
Shale, gray-----	8	384	
Limestone-----	1	385	
Shale, gray-----	25	410	
Shale, sandy-----	16	426	
Sandstone and shale-----	54	480	T.D. 1,987 ft

## Well 13/ 9W-22P1

Type of record: Driller's log.	Altitude: About 472 ft	
Quaternary system:		
Recent and Pleistocene series:		
Sand and gravel-----	100.5	100.5
Pennsylvanian system:		
Middle series:		
Slate, black-----	2	102.5

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-22P1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Coal-----	1.3	103.8	
Fire clay-----	5.2	109	
Sandstone-----	3	112	
Shale, sandy, light-----	13	125	
Shale, sandy, blue-----	32	157	
Coal-----	5.8	162.8	
Shale, sandy-----	12.2	175	
Slate, black-----	6	181	
Coal-----	1	182	
Fire clay-----	3	185	
Sandstone-----	9	194	
Slate, sandy-----	3.3	197.3	
Coal-----	1.6	198.9	
Slate, brown-----	11.1	210	
Sandstone-----	5	215	
Slate, brown-----	7	222	
Slate, black-----	2.3	224.3	
Coal-----	1.2	225.5	
Fire clay-----	.5	226	

## Well 13/ 9W-24M1

Type of record: Driller's log.                   Altitude: About 505 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	2	2	
Gravel, large, and sandy clay----	2	4	
Sand and gravel-----	59	63	

## Well 13/ 9W-25L1

Type of record: Driller's log.                   Altitude: About 510 feet.

Quaternary system:			
Recent and Pleistocene series:			
Top soil-----	3	3	
Sand-----	22	25	
Sand and gravel-----	17	42	W.B.
Sand-----	10	52	W.B.
Gravel-----	7	59	W.B.

## Well 13/ 9W-25Q1

Type of record: Driller's log.                   Altitude: About 493 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	54	54	
Coal-----	1	55	
Sand and gravel-----	36	91	

Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-2501--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Shale, gray-----	13	104	
Limestone, shaly, black-----	3	107	
Coal-----	4	111	
Shale-----	8	119	
Sandstone, gray-----	7	126	
Shale, gray-----	9	135	
Shale, dark-----	6	141	
Slate, shaly-----	12	153	
Shale, gray-----	8	161	
Sandstone-----	11	172	
Shale, brown-----	6	178	
Coal-----	2	180	
Shale, gray-----	35	215	T.D. 570 ft

Well 13/ 9W-27B1			
Type of record: Driller's log.		Altitude: About 506 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand-----	55	55	
Sand and gravel-----	97	152	
Pennsylvanian system:			
Middle series:			
Shale, blue-----	3	155	
Slate, black-----	5	160	
Coal-----	1.5	161.5	
Shale, clayey-----	12.3	173.8	
Coal-----	2.8	176.6	
Slate, sandy, brown-----	9.4	186	
Shale, blue-----	13	199	
Slate, black-----	6	205	
Coal-----	1	206	
Fire clay-----	3	209	
Sandstone-----	3	212	
Shale, brown-----	8	220	
Sandstone-----	3	223	
Slate, brown-----	7.5	230.5	
Coal-----	6.2	236.7	
Slate-----	1	237.7	
Fire clay-----	.8	238.5	

Well 13/ 9W-27F1			
Type of record: Driller's log.		Altitude: About 467 feet.	
Quaternary system:			
Recent and Pleistocene series:			
Sand and gravel-----	102	102	W.B.



Table 3.--Selected well logs, Vigo County, Indiana--Continued

Well 13/ 9W-27F1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Pennsylvanian system:			
Middle series:			
Sandstone and shale-----	63	165	
Coal-----	5	170	
Sandstone and shale-----	35	205	
Coal-----	5	210	
Shale-----	30	240	
Sandstone-----	20	260	W.B.; T.D. 1,630 ft

Well 13/ 9W-27J1

Type of record: Driller's log. Altitude: About 520 feet.

Quaternary system:			
Recent and Pleistocene series:			
Sand-----	18	18	
Sand with some pebbles-----	2	20	
Sand, coarse-----	11	31	
Sand and some pea gravel-----	3	34	
Sand-----	5	39	
Sand and pea gravel-----	3	42	
Gravel, sand, and some large rocks-----	12	54	
Gravel and sand-----	10	64	W.B.
Gravel, coarse-----	10	74	W.B.
Gravel, coarse, and big rocks----	19	93	W.B.

Well 13/ 9W-27K1

Type of record: Driller's log. Altitude: About 514 feet.

Quaternary system:			
Recent and Pleistocene series:			
Clay and sand-----	18	18	
Sand and gravel-----	142	160	
Pennsylvanian system:			
Middle series:			
Shale, gray-----	4	164	
Shale, blue-----	8	172	
Slate, black-----	1	173	
Rock, black-----	2	175	
Coal-----	3.2	178.2	
Fire clay-----	1	179.2	
Sandstone, hard-----	4	183.2	
Shale, light-----	9	192.2	
Coal-----	4.7	196.9	
Fire clay-----	.3	197.2	
Shale, light-----	3	200.2	
Shale, blue-----	19	219.2	
Slate, black-----	4	223.2	