

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 33/3-12M1

Type of record: Driller's log.

Altitude: 838 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil-----	4	4	
Sand and gravel-----	36	40	
Hardpan or sandy shale-----	29	69	
Sand and gravel-----	31	100	
Hardpan or shale-----	13	113	
Clay, sandy-----	8	121	
Hardpan or shale-----	29	150	
Sand-----	5	155	
Hardpan, gray-----	7	162	
Hardpan, reddish-----	33	195	
Gravel-----	5	200	
Sand and gravel-----	13	213	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, brown-----	58	271	
Shale, gray-----	19	290	
Devonian System:			
Middle Devonian Series:			
Limestone-----	53	343	
Lime, broken, with some shale---	4	347	
Lime, hard-----	20	367	
Lime, medium, brown-----	5	372	
Shale, soft, brown, with gypsum and calcite-----	12	384	
Lime, medium, brown-----	36	420	
Lime, gray-----	15	435	

Well 33/3-13P1

Type of record: Driller's log.

Altitude: 845 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	18	18	
Gravel, dirty, with blue clay----	5	23	
Gravel and sand; gray-----	4	27	

Well 33/3-14C1

Type of record: Driller's log.

Altitude: 850 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	12	12	
Sand-----	4	16	
Clay, blue-----	74	90	
Clay, blue, with streaks of sand and gravel-----	40	130	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 33/3-24K2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Mud, soft-----	13	55	
Hardpan-----	35	90	
Clay and sand; yellow-----	19	109	
Gravel-----	6	115	
Hardpan-----	16	131	
Sand-----	10	141	
Hardpan-----	17	158	
Sand-----	9	167	
Hardpan-----	16	183	
Sand and gravel; mixed-----	19	202	

Well 33/3-26D1

Type of record: Driller's log. Altitude: 817 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	20	20	
Sand-----	5	25	
Clay, blue-----	75	100	
Sand and gravel-----	12	112	

Well 33/3-27A1

Type of record: Driller's log. Altitude: 822 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	20	20	
Sand-----	5	25	
Clay-----	55	80	
Sand and gravel-----	10	90	

Well 33/3-31N1

Type of record: Driller's log. Altitude: 834 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	12	12	
Sand and gravel-----	38	50	
Gravel, coarse-----	7	57	Blue clay at 57 feet.

Well 33/4-19A1

Type of record: Driller's log. Altitude: 832 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	24	24	
Clay, blue, and sand-----	16	40	
Gravel, coarse-----	5	45	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 33/4-19E1

Type of record: Driller's log.

Altitude: 843 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	15	15	Suitable for 40-slot screen.
Gravel-----	20	35	
Clay, blue-----	50	85	
Clay, very hard, yellow-----	45	130	
Sand and gravel-----	18	148	

Well 33/4-19H1

Type of record: Driller's log.

Altitude: 838 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, sandy, yellow-----	15	15	
Clay, blue-----	26	41	
Sand, coarse-----	7	48	

Well 33/4-19M1

Type of record: Driller's log.

Altitude: 842 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand and clay-----	40	40	Suitable for 30-slot screen.
Clay, blue-----	66	106	
Gravel-----	3	109	
Clay, blue-----	22	131	
Gravel-----	13	144	

Well 33/4-19M2

Type of record: Driller's log.

Altitude: 838 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, black-----	1	1	
Clay, brown and yellow-----	5	6	
Clay, blue-----	4	10	
Sand, dirty, and stones-----	20	32	
Clay, blue, and stones-----	20	32	
Clay, blue-----	12	44	
Clay, blue, and hardpan-----	16	60	
Clay, soft, blue-----	3	63	
Clay, blue, and hardpan-----	17	80	
Clay, yellow, and hardpan-----	7	87	
Clay, yellow-----	9	96	
Clay, yellow, and hardpan-----	8	104	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 33/4-19M2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay balls, stones, and gravel---	3	107	Clay balls, dirty sand, and gravel at 117 feet.
Sand, coarse, and gravel-----	10	117	

Well 33/4-32M1

Type of record: Driller's log. Altitude: 847 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand-----	16	16	
Clay-----	14	30	
Sand and gravel-----	9	39	

Well 34/1- 1C1

Type of record: Driller's log. Altitude: 813 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	18	18	
Clay, blue, and gravel; mixed----	57	75	
Sand, coarse, and gravel-----	12	87	

Well 34/1- 6C1

Type of record: Driller's log. Altitude: 727 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	20	20	
Clay, blue-----	40	60	
Sand, fine-----	10	70	
Sand, coarse, and medium gravel--	7	77	

Well 34/1- 6C3

Type of record: Driller's log. Altitude: 723 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift; sand and sandy gravel-----	190	190	
Mississippian and Devonian Systems; undifferentiated:			
Lime, shaly, brown-----	10	200	
Limestone, hard, chocolate-brown-	10	210	
Limestone, hard, chocolate-brown, with shale lenses-----	30	240	
Shale, dense, medium-hard, gray--	18	258	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/1- 6C3--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Mississippian and Devonian Systems; undifferentiated:			
Lime, fine to coarse, medium- hard, brown-----	5	263	
Lime fine-grained, light-gray to gray-brown-----	5	268	

Well 34/1- 9P1

Type of record: Driller's log.

Altitude: 755 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Gravel-----	10	10	
Clay-----	15	25	
Sand-----	8	33	
Gravel, pea-sized-----	2	35	

Well 34/1-10F1

Type of record: Driller's log.

Altitude: 807 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	12	12	
Clay, yellow, and gravel-----	38	50	
Clay, blue-----	15	65	
Gravel-----	5	70	

Well 34/1-10L1

Type of record: Driller's log.

Altitude: 812 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay and sand; yellow-----	30	30	
Clay, blue-----	12	42	
Sand, fine, gray-----	4	46	
Sand, coarse-----	4	50	

Well 34/1-10M1

Type of record: Driller's log.

Altitude: 798 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	10	10	
Clay, blue-----	20	30	
Sand-----	11	41	
Gravel, medium-----	4	45	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/1-21C1

Type of record: Driller's log.

Altitude: 778 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, yellow-----	15	15	
Clay, blue-----	45	60	
Clay, blue, with streaks of sand-	24	84	
Sand and gravel; muddy, becoming cleaner with depth-----	18	102	
Sand, clean-----	7	109	
Gravel-----	5	114	

Well 34/1-22R1

Type of record: Driller's log.

Altitude: 852 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	12	12	
Clay, blue, and pea-sized gravel-	48	60	
Gravel-----	30	90	

Well 34/1-23C1

Type of record: Driller's log.

Altitude: 836 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand and clay-----	12	12	
Clay, yellow-----	20	32	
Clay, blue-----	16	48	
Sand-----	10	58	
Gravel, coarse-----	2	60	

Well 34/1-23D1

Type of record: Driller's log.

Altitude: 826 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	30	30	
Clay, blue-----	40	70	
Sand-----	20	90	
Gravel, pea-sized, gray-----	4	94	

Well 34/1-23N1

Type of record: Driller's log.

Altitude: 855 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow, and gravel; mixed--	28	28	
Gravel, yellow-----	42	70	
Clay, blue, and gravel-----	5	75	
Gravel, very coarse-----	18	93	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/1-26B1

Type of record: Driller's log.

Altitude: 827 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series;			
Clay, blue, with streaks of gravel-----	50	50	
Gravel with clay-----	8	58	
Clay, blue, with gravel-----	38	96	
Gravel and sand; with clay-----	33	129	
Gravel and sand-----	5	134	

Well 34/-27N1

Type of record: Driller's log.

Altitude: 822 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	10	10	
Gravel-----	32	42	
Clay, blue-----	8	50	
Gravel, coarse, gray-----	6	56	

Well 34/1-29N1

Type of record: Driller's log.

Altitude: 782 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, and gravel; mixed----	24	24	
Clay, blue-----	10	34	
Sand, fine, and gravel; mixed----	10	44	
Gravel and sand; brown-----	5	49	

Well 34/1-30R1

Type of record: Driller's log.

Altitude: 774 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	25	25	
Clay, blue-----	30	55	
Sand, fine-----	6	61	
Sand, coarse-----	5	66	
Gravel, coarse-----	4	70	

Well 34/1-31D2

Type of record: Driller's log.

Altitude: 747 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand-----	22	22	
Clay, blue-----	12	34	
Sand, fine-----	5	39	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/1-31D2--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	6	45	
Gravel, coarse, gray-----	4	49	

Well 34/1-32C1

Type of record: Driller's log. Altitude: 778 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil, muck, and blue clay----	24	24	
Gravel, dirty, with blue soft clay-----	4	28	
Gravel, clean, gray with some sand-----	4	32	

Well 34/1-33B1

Type of record: Driller's log. Altitude: 808 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	14	14	
Clay, blue-----	36	50	
Sand and gravel; white-----	8	58	

Well 34/1-33C1

Type of record: Driller's log. Altitude: 802 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	26	26	
Sand, fine-----	3	29	
Clay, soft, blue, with sand-----	9	38	
Gravel and sand; coarse, gray----	4	42	

Well 34/1-34D1

Type of record: Driller's log. Altitude: 827 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	25	25	
Clay, blue-----	12	37	
Gravel-----	27	64	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2- 1B1

Type of record: Driller's log. Altitude: 826 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay-----	20	20	
Sand-----	12	32	
Clay-----	25	57	
Sand-----	8	65	

Well 34/2- 1J1

Type of record: Driller's log. Altitude: 807 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sandy-----	10	10	
Clay, blue-----	44	54	
Gravel, fine-----	3	57	

Well 34/2- 1J2

Type of record: Driller's log. Altitude: 822 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay-----	60	60	
Sand-----	8	68	
Clay-----	32	100	
Sand, fine-----	10	110	
Sand, coarse-----	7	117	

Well 34/2- 5H1

Type of record: Driller's log. Altitude: 852 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	20	20	
Clay, blue-----	6	26	
Gravel and sand; coarse, gray----	4	30	

Well 34/2- 5J1

Type of record: Driller's log. Altitude: 862 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	18	18	
Clay, yellow, and gravel-----	22	40	
Gravel-----	10	50	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2- 5N1

Type of record: Driller's log. Altitude: 847 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay and top soil-----	18	18	
Sand or gravel-----	12	30	
Clay-----	10	40	
Gravel, pea-sized-----	7	47	

Well 34/2- 5R1

Type of record: Driller's log. Altitude: 852 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sandy-----	10	10	
Clay, blue-----	20	30	
Sand, coarse, and gravel-----	14	44	

Well 34/2- 6L1

Type of record: Driller's log. Altitude: 833 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	10	10	
Clay, blue, and gravel; mixed-----	47	57	
Sand and gravel-----	6	63	

Well 34/2- 8B2

Type of record: Driller's log. Altitude: 843 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Gravel, yellow-----	38	38	
Clay, blue-----	18	56	
Sand and stone-----	4	60	
Gravel and sand; gray-----	6	66	

Well 34/2- 8H1

Type of record: Driller's log. Altitude: 836 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sandy-----	18	18	
Gravel-----	6	24	
Clay, blue-----	24	48	
Gravel, coarse-----	9	57	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2- 8J1

Type of record: Driller's log.

Altitude: 823 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil and clay-----	16	16	
Sand, fine-----	10	26	
Clay, blue-----	3	29	
Clay, blue, with gravel-----	2	31	
Sand, fine-----	4	35	
Sand, coarse-----	5	40	

Well 34/2-10F1

Type of record: Driller's log.

Altitude: 832 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay-----	28	28	
Sand and gravel-----	3	31	
Clay, hard, blue-----	27	58	
Clay, blue, with sand-----	34	92	
Clay, blue, with tight sand-----	28	120	
Clay, soft, and sand-----	6	126	
Sand, coarse, clean, gray, and gravel-----	4	130	

Well 34/2-11R1

Type of record: Driller's log.

Altitude: 828 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	259	259	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series: undifferentiated:			
Shale, green-----	35	294	
Shale, brown-----	62	356	
Devonian System:			
Middle Devonian Series:			
Lime, gray-----	14	370	
Lime, brown-----	4	374	

Well 34/2-12A2

Type of record: Driller's log.

Altitude: 809 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	40	40	
Sand, medium-----	10	50	
Gravel and blue clay-----	30	80	
Sand, medium-----	4	84	
Gravel, medium to coarse-----	9	93	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-12N1

Type of record: Driller's log.

Altitude: 825 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	60	60	
Mud and gravel-----	63	123	
Sand-----	41	164	
Sand and gravel-----	33	197	
Gravel-----	23	220	
Sand-----	10	230	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, dark-----	25	255	
Shale, brown-----	77	332	
Shale, gray-----	28	360	

Well 34/2-12P1

Type of record: Driller's log.

Altitude: 825 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Mud and gravel-----	123	123	
Sand-----	41	164	
Sand and gravel-----	33	197	
Gravel-----	23	220	
Sand-----	10	230	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, dark-----	25	255	
Shale, brown-----	77	332	
Shale, gray-----	26	358	
Devonian System:			
Middle Devonian Series:			
Lime-----	42	400	

Well 34/2-13C1

Type of record: Driller's log.

Altitude: 826 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	173	173	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, gray-----	97	270	
Shale, light-brown-----	30	300	
Shale, dark-brown-----	15	315	
Devonian System:			
Middle Devonian Series:			
Lime, dark-----	39	354	
Lime-----	19	373	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

		Well 34/2-14D1	
Type of record: Driller's log.		Altitude: 824 feet.	
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	230	230	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale-----	155	385	
Devonian and Silurian Systems; undifferentiated:			
Limestone, fine-grained, light- brown-----	10	395	
Lime, coarser, gray to brownish- gray-----	30	425	
Lime, fine to coarse, light-brown to gray-----	20	445	
Lime, gray, grading to brown----	15	460	
Lime, coarse, gray-----	15	475	
Lime, fine, hard, dense, gray----	10	485	
Lime, coarse, grading to fine, soft, brown-----	15	500	
Lime, medium to coarse, brownish-	25	525	
Lime, fine to medium, gray to brownish-gray-----	25	550	
Lime, shaly, gray to gray-blue---	25	575	
Shale and lime; gray to brown to gray-----	10	585	
Shale, slightly harder, gray to brown-----	5	590	
Shale, harder, gray-brown-----	5	595	
Lime, shaly, hard, brown-----	20	615	
Limestone, dolomitic, white-----	35	650	
Lime, dolomitic, white, with few tannish-colored phases----	40	690	
Lime, gray-blue, with some buff--	25	715	
Limestone, fine-grained, hard, dolomitic, white to grayish- white-----	105	820	
Limestone, white to grayish-white	70	890	
Lime, gray-----	25	915	
Lime, gray, grayish-white, and brownish-----	95	1,010	
Lime, coarse, brownish-gray, with calcite-----	30	1,040	
Ordovician? System:			
Upper? Ordovician Series:			
Lime, gray, and shaly lime; alternating-----	170	1,210	
Lime, shaly, brown, and medium hard shale; with few gray shale lenses and fine brown hard lime intervals-----	245	1,455	
Lime, hard, with abundant pyrite	35	1,490	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-15D1

Type of record: Driller's log.

Altitude: 842 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	10	10	
Gravel-----	50	60	
Clay, blue, and gravel; mixed---	65	125	
Gravel-----	10	135	

Well 34/2-17A2

Type of record: Driller's log.

Altitude: 818 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand and clay-----	22	22	
Clay, blue-----	16	38	
Sand, coarse, gray, and gravel---	6	44	

Well 34/2-17Q1

Type of record: Driller's log from memory.

Altitude: 846 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine-----	40	40	
Clay, yellow, and boulders; mixed-----	30	70	
Sand, fine, with streak of gravel	5	75	
Clay, yellow, and sand; mixed----	33	108	
Gravel, coarse, gray-----	5	113	

Well 34/2-18A1

Type of record: Driller's log.

Altitude: 822 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	22	22	
Sand, fine-----	9	31	
Clay, blue-----	21	52	
Clay, and sand; yellow-----	23	75	
Sand, coarse-----	8	83	

Well 34/2-20Q2

Type of record: Driller's log.

Altitude: 814 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sand, and blue clay----	42	42	
Sand, coarse-----	18	60	
Gravel, pea-sized-----	6	66	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-20Q3

Type of record: Driller's log. Altitude: 822 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sandy-----	10	10	
Clay, yellow-----	11	21	
Clay, blue-----	21	42	
Gravel, coarse-----	4	46	

Well 34/2-20Q5

Type of record: Driller's log. Altitude: 817 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand-----	10	10	
Clay, blue-----	20	30	
Clay, blue, and gravel; mixed----	10	40	
Gravel, coarse-----	7	47	

Well 34/2-25E1

Type of record: Driller's log. Altitude: 783 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, gray with gravel-----	1	1	Gravel 15-20 per cent, up to 3/8 inch.
Sand, fine to medium, silty, clayey, gray, with few gravel--	2	3	Less silt than above.
Sand, fine to medium, silty, clayey, gray-brown-----	2	5	Clay 25 percent.
Do-----	1	6	Clay more than 40 percent.
Sand, fine to medium, silty, gray, with trace of coarse sand-----	2	8	Silt about 25 percent.
Sand, fine to coarse, silty, slightly clayey, gray and brown, with few fine gravel----	3	11	
Sand, fine to coarse, silty, slightly clayey, gray, with few fine gravel-----	2	13	
Sand, fine to coarse, silty, slightly clayey, gray, with trace of gravel-----	7	20	
Sand, fine to medium, silty, gray	5	25	Silt 30 percent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-25N1

Type of record: Driller's log.

Altitude: 808 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	190	190	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, blue-----	10	200	
Shale, brown and blue; mixed----	10	210	
Shale, blue and gray-----	20	230	
Shale, gray-----	11	241	
Shale, hard, brown-----	29	270	
Shale, medium, brown-----	30	300	
Shale, hard, bray-----	12	312	
Devonian System:			
Middle Devonian Series:			
Lime, hard, gray-----	8	320	

Well 34/2-25P1

Type of record: Driller's log.

Altitude: 786 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, brown-----	1	1	
Sand, fine, brown-----	3	4	
Sand, fine, brown, with some silt-----	2	6	
Sand, fine, silty, brown, with clay lumps-----	2	8	
Sand, fine, silty, clayey, grayish-brown-----	2	10	
Sand, fine to coarse, silty, brown, and fine gravel-----	2	12	
Sand, fine to medium, brown, with silt-----	3	15	
Sand, fine to coarse, brown, with some silt-----	10	25	

Well 34/2-25Q1

Type of record: Driller's log.

Altitude: 792 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, clayey, sandy, black-----	1	1	
Clay, black, with some fine sand-	1	2	
Sand, fine, silty, dark-gray----	13	15	Silt 20-30 percent.
Sand, fine to medium, silty-----	6	21	Silt 10-15 percent.
Sand, fine to coarse, with fine gravel; grayish-brown-----	4	25	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-26L1

Type of record: Driller's log.

Altitude: 786 feet.

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Silt, sandy, clayey, dark-gray, with roots-----	1	1	Organic odor.
Clay, light-brown, with fine to coarse sand and trace of gravel-----	2	3	Sand 45 percent.
Clay, gray-brown, with fine to coarse sand and some fine gravel-----	2	5	Sand more than 45 percent; gravel up to 3/8 inch.
Sand, fine to coarse, clayey, brown, with some gravel-----	6	11	Clay 15 percent; sand mostly coarse; gravel up to 3/8 inch.
Sand, fine to coarse, clayey, silty, gravelly, gray-----	2	13	Silt 15 percent; less coarse sand than above; gravel up to 1/2 inch.
Sand, fine to coarse, gravelly, silty, gray-----	4	17	Gravel 20 percent, up to 1/2 inch.
Sand, fine to coarse, gravelly, silty, slightly clayey, gray---	4	21	Sand 40 percent; gravel up to 1 inch.
Sand, fine to coarse, gravelly, slightly silty, gray, with trace of clay-----	4	25	Gravel 30 percent.

Well 34/2-26N2

Type of record: Driller's log.

Altitude: 782 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, dark-gray, with many roots-----	1	1	Organic odor.
Sand, fine to coarse, brown, with few fine gravel-----	2	3	
Sand, fine to coarse, brown-----	3	6	Sand mostly fine.
Sand, fine to coarse, slightly clayey, dark-brown-----	2	8	More medium sand than above.
Sand, fine to coarse, clayey, dark-brown, with few fine gravel	5	13	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-26N2--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to coarse, clayey, yellow-brown, with few fine gravel-----	5	18	Sand mostly fine to medium.
Sand, fine to medium, clayey, yellow-brown-----	3	21	
Sand, fine to medium, clayey, light-gray-----	4	25	More fine sand than above.

Well 34/2-26P1

Type of record: Driller's log. Altitude: 814 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sandy-----	20	20	
Clay, blue, and gravel; soft-----	100	120	
Gravel, coarse-----	15	135	

Well 34/2-28H1

Type of record: Driller's log. Altitude: 820 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	25	25	
Clay, blue-----	10	35	
Gravel and sand; coarse-----	11	46	

Well 34/2-29Q3

Type of record: Driller's log. Altitude: 800 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, silty, clayey, black-----	2	2	
Sand, brown, with trace of silt--	1	3	
Sand, silty, brown-----	8	11	
Gravel, sandy, brown, with trace of silt and clay-----	5	16	
Clay, silty, gray, with trace of sand and gravel; hard-----	14	30	

Well 34/2-29Q4

Type of record: Driller's log. Altitude: 799 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil-----	1	1	
Sand, silty, clayey, brown, with trace of gravel-----	1	2	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-29Q4--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, silty, brown, with trace of gravel-----	4	6	
Clay, silty, brown, with trace of sand and gravel-----	4	10	
Clay, silty, gray, with trace of sand and gravel; hard-----	28	38	
Gravel, sandy, gray, with trace of silt and clay-----	12	50	
Sand, gray, with trace of gravel-	2	52	

Well 34/2-29Q6

Type of record: Driller's log.

Altitude: 801 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil-----	1	1	
Sand, silty, brown-----	1	2	
Sand, gravelly, brown-----	4	6	
Clay, silty, brown, with trace of sand and gravel-----	2	8	
Sand, brown-----	2	10	
Clay, silty, brown, with trace of sand and gravel; hard-----	5	15	
Clay, silty, gray, with trace of sand and gravel-----	18	33	
Gravel, sandy, gray, with trace of silt and clay-----	2	35	

Well 34/2-29R2

Type of record: Driller's log.

Altitude: 802 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Top soil-----	1	1	
Sand, gravelly, brown, with trace of silt-----	1	2	
Clay, silty, brown, with trace of sand and gravel-----	14	16	
Clay, silty, gray, with trace of sand and gravel; hard-----	8	24	
Sand, gray, with trace of gravel and silt-----	4	28	
Clay, silty, gray, with trace of sand and gravel; hard-----	6	34	
Sand, gravelly, gray, with trace of clay and silt-----	16	50	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-29R3

Type of record: Driller's log.

Altitude: 802 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series			
Top soil-----	1	1	
Clay, silty, brown, with trace of sand and gravel-----	1	2	
Sand, fine, silty, brown-----	4	6	
Sand, fine, brown, with trace of silt-----	8	14	
Sand, fine, brown, with trace of silt and gravel-----	2	16	
Clay, silty, gray, with trace of sand and gravel-----	8	24	
Gravel, sandy, gray, with trace of silt and clay-----	4	28	
Clay, silty, gray, with trace of sand and gravel-----	8	36	
Sand, silty, gray, with trace of clay and gravel-----	4	40	
Gravel, sandy, brown, with trace of silt-----	10	50	

Well 34/2-29R4

Type of record: Driller's log.

Altitude: 802 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Top soil-----	1	1	
Sand, fine, silty, brown-----	1	2	
Clay, silty, sandy, brown-----	2	4	
Sand, fine, brown, with trace of silt-----	14	18	
Gravel, sandy, gray, with trace of silt and clay-----	7	25	
Clay, silty, gray, with trace of sand and gravel; hard-----	5	30	
Gravel, sandy, gray-----	1	31	Gray silty clay with trace of sand and gravel at 31 feet.

Well 34/2-31D1

Type of record: Driller's log.

Altitude: 809 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	195	195	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, soft, gray-----	10	205	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-31D1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, brown-----	30	235	
Shale, gray, with gravel-----	50	285	
Devonian and Silurian Systems; undifferentiated:			
Lime, brown-----	15	300	
Lime, gray-----	50	350	
Lime, brown-----	20	370	
Lime, brown and gray-----	15	385	
Lime, brown-----	15	400	
Lime, dark-gray-----	15	415	
Lime, dark-gray, with trace of shale-----	10	425	
Lime, dark-gray-----	20	445	
Lime, light-gray-----	20	465	
Lime, hard, light-gray-----	5	470	
Lime, light-gray-----	65	535	
Lime, soft, light-gray-----	25	560	
Lime, hard, light-gray-----	15	575	
Lime, hard, light-brown-----	20	595	
Lime, very hard, brown-----	10	605	
Lime, very hard, gray-----	5	610	
Lime, light-gray-----	30	640	
Lime, medium, light-gray-----	20	660	
Shale, hard, light-gray-----	40	700	
Shale, medium-hard, darker-gray--	5	705	
Shale, hard, gray-----	30	735	
Shale, medium, gray-----	20	755	
Shale, medium, blue-gray-----	10	765	
Shale, hard, blue-gray-----	5	770	
Shale, medium, blue-gray-----	10	780	
Shale, hard, blue-gray-----	10	790	
Record indefinite-----	60	850	

Well 34/2-32D1

Type of record: Driller's log. Altitude: 812 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand and yellow clay-----	45	45	
Sand, fine-----	7	52	
Sand, coarse-----	5	57	

Well 34/2-32J4

Type of record: Driller's log. Altitude: 803 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, muddy-----	5	5	
Clay-----	33	38	
Sand and gravel-----	17	55	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-32J4--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Gravel and clay-----	7	62	
Clay, soft, with gravel-----	38	100	
Gravel and sand-----	27	127	
Clay, gray-----	6	133	
Gravel with strips of clay-----	17	150	
Gravel, very fine, and sand-----	20	170	
Clay, gray-----	28	198	
Gravel, fine-----	2	200	
Clay, gray-----	1	201	

Well 34/2-32Q1

Type of record: Driller's log.		Altitude: 802 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Sand and clay; yellow-----	45	45	
Sand-----	5	50	Suitable for 10- slot screen.
Hardpan-----	28	78	
Sand, fine-----	2	80	Suitable for 6- slot screen.
Sand, fine-----	19	99	Suitable for 15- slot screen.
Sand, fine-----	6	105	Suitable for 6- slot screen.
Gravel-----	28	133	
Clay, blue-----	2	135	

Well 34/2-33B1

Type of record: Driller's log.		Altitude: 801 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Top soil, sand, and gravel-----	18	18	
Sand and gravel-----	15	33	
Clay, blue-----	6	39	
Gravel, coarse, clean-----	4	43	

Well 34/2-33H1

Type of record: Driller's log.		Altitude: 778 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, dark-gray, with trace of coarse sand-----	2	2	Sand 75 percent
Sand, fine to medium, silty, gray-brown-----	1	3	Silt less than 15 percent; sand mostly fine.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-33H1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, tan-----	1	4	Sand mostly fine.
Do-----	3	7	More medium sand than above.
Sand, fine to medium, silty, tan-	4	11	
Sand, fine to medium, silty, slightly clayey, dark-brown----	2	13	Silt 35 percent; sand mostly medium.
Sand, fine to medium, slightly silty and clayey, brown-----	4	17	Sand mostly fine.
Sand, fine to coarse, silty, gray-----	3	20	Sand mostly fine to medium.
Sand, fine to coarse, silty, gray-brown-----	3	23	
Sand, fine to coarse, slightly silty, brown-----	2	25	

Well 34/2-33K1

Type of record: Driller's log.

Altitude: 777 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, dark-gray, with fine to coarse sand, few gravel, and fine roots-----	1	1	Organic odor.
Sand, fine to coarse, silty, gray-brown, with few gravel----	1	2	Organic odor; sand 80 percent.
Sand, fine to coarse, silty, yellow-brown, with some clay and few fine gravel-----	2	4	
Sand, fine to coarse, clayey, yellow-brown, with some silt and few fine gravel-----	3	7	
Sand, fine to coarse, silty, clayey, yellow-brown, with few fine gravel-----	3	10	
Sand, fine to coarse, silty, slightly clayey, brown-----	3	13	Silt 40 percent; sand mostly fine.
Sand with fine to medium sand; slightly clayey, brown-----	3	16	Sand 35 percent.
Sand, fine to medium, silty, slightly clayey, brown-----	2	18	Sand 75 percent.
Do-----	4	22	Sand 85 percent.
Sand, fine to medium, silty, brown, with trace of clay-----	3	25	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-33L1

Type of record: Driller's log.

Altitude: 780 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, dark-brown, with fine roots-----	1	1	Organic odor; silt less than 15 per- cent.
Sand, fine to medium, light-brown	1	2	Sand mostly fine.
Do-----	3	5	Medium sand 25 per- cent.
Sand, fine to medium, slightly silty and clayey, light-brown--	2	7	
Sand, fine to coarse, silty, light-brown, with trace of clay	2	9	
Silt, clayey, gray, with fine to medium sand-----	2	11	Sand less than 15 percent.
Clay, sandy, brown-gray-----	1	12	
Sand, fine to coarse, silty, clayey, gray, with trace of gravel-----	2	14	
Do-----	4	18	More coarse sand, less clay than above.
Do-----	3	21	Slightly more clay than above.
Do-----	4	25	More silt than above.

Well 34/2-33L2

Type of record: Driller's log.

Altitude: 783 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, brown-gray, with fine roots and trace of medium to coarse sand-----	1	1	Organic odor; silt 30 percent or more.
Sand, fine to medium, silty, brown-----	1	2	Silt 10-15 percent.
Silt, brown, with fine to coarse sand and trace of gravel-----	2	4	Sand 35 percent.
Silt, slightly clayey, brown, with fine to medium sand-----	2	6	Sand 30-35 percent.
Sand, fine to medium, silty, slightly clayey, brown-----	3	9	Silt 15-20 percent.
Do-----	2	11	More sand, less silt than above.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont

Well 34/2-33L2--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, clayey, brown-----	3	14	
Sand, fine to medium, silty, clayey, brownish-gray-----	2	16	Silt 20 percent.
Silt, gray, with fine to medium sand-----	3	19	Sand more than 30 percent.
Do-----	3	22	Sand nearly 50 per- cent.
Sand, fine to medium, silty, gray-----	3	25	Silt 45 percent.

Well 34/2-34A1

Type of record: Driller's log.

Altitude: 782 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, gray-brown----	2	2	Slight organic odor; silt less than 15 percent.
Sand, fine to medium, slightly silty, brown-----	1	3	Sand mostly fine.
Do-----	2	5	Slightly more silt than above; sand mostly fine
Sand, fine to medium, slightly silty, gray-----	2	7	Sand mostly fine.
Sand, fine to medium, silty, gray-----	1	8	Sand mostly fine; silt less than 15 percent.
Sand, fine to coarse, silty, brown, with few fine gravel----	3	11	Sand mostly fine to medium.
Sand, fine to coarse, silty, brown-----	2	13	More coarse sand than above.
Sand, fine to coarse, silty, brown, with trace of gravel----	4	17	
Clay, gray, with fine to coarse sand and few fine gravel-----	2	19	
Record missing-----	6	25	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-34A2

Type of record: Driller's log.

Altitude: 787 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, slightly silty, slightly clayey, dark-brown----	1	1	
Sand, fine to medium, silty, slightly clayey, brown-----	2	3	Sand 60 percent, mostly fine.
Silt, slightly clayey, brown, with fine sand-----	1	4	Sand 25 percent.
Sand, fine to medium, clean, light-brown-----	4	8	Sand mostly fine.
Sand, fine to medium, slightly silty, clean, brown, with trace of clay-----	2	10	Do.
Sand, fine to medium, clean, brown, with trace of silt-----	8	18	Do.
Sand, fine to medium, clean, brown, with trace of coarse sand-----	7	25	

Well 34/2-34F1

Type of record: Driller's log.

Altitude: 778 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, dark-gray, with fine roots-----	1	1	Some organic odor; sand about 85 percent, mostly fine.
Sand, fine to medium, silty, dark-gray, with fine roots-----	1	2	Silt about 50 per- cent; sand mostly fine.
Sand, fine to medium, clayey, silty, light gray-brown-----	1	3	Clay 30 percent.
Clay, hard, light-gray, with fine sand-----	8	11	Sand 10-15 percent.
Sand, fine to medium, silty, light-gray-----	4	15	Penetrating odor; sand mostly fine.
Sand, fine to coarse, silty, light-gray-----	3	18	Silt about 15 per- cent; sand mostly fine to medium.
Do-----	7	25	Silt about 15 per- cent; more coarse sand than above.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-34G1

Type of record: Driller's log.

Altitude: 780 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to coarse, silty, brown-gray, with trace of gravel-----	1	1	Slight organic odor; silt about 20 per- cent; sand mostly fine.
Sand, fine to coarse, silty, brown-----	2	3	Silt 25 percent; sand mostly fine to medium.
Sand, fine to coarse, gravelly, silty, brown, with some clay---	2	5	Gravel up to 3/8 inch.
Sand, fine to coarse, silty, brown, with some gravel and clay-----	3	8	Gravel 5-10 percent; sand mostly coarse.
Sand, fine to coarse, clayey, silty, brown-----	2	10	
Do-----	5	15	Silt less than 15 percent.
Clay, gray, with fine to medium sand-----	7	22	Sand 15 percent, mostly fine.
Silt, gray, with fine to medium sand-----	3	25	Sand 20 percent, mostly fine.

Well 34/2-34M1

Type of record: Driller's log.

Altitude: 792 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, gray-brown, with fine roots----	1	1	Organic odor; silt more than 30 percent.
Sand, fine to coarse, gravelly, silty, brown, with trace of clay-----	2	3	Gravel 20 percent, up to 3/8 inch; sand mostly medium to coarse.
Sand, fine to coarse, silty, clayey, brown, with trace of gravel-----	2	5	Sand about 55 per- cent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-34M1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to coarse, silty, clayey, brown, with trace of gravel-----	3	8	Slightly more clay and less sand than above.
Silt, clayey, gray-brown, with fine to coarse sand-----	3	11	Sand more than 40 percent.
Sand, fine to coarse, silty, brown, with some gravel-----	3	14	Sand mostly medium to coarse; gravel up to 3/8 inch.
Sand, fine to coarse, slightly silty, brown, with few fine gravel-----	3	17	Sand mostly fine to medium.
Sand, fine to medium, slightly silty, brown-----	8	25	Sand mostly fine.

Well 34/2-35G1

Type of record: Driller's log.

Altitude: 817 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	18	18	
Clay, blue-----	31	49	
Gravel, coarse-----	5	54	

Well 34/2-35G2

Type of record: Driller's log.

Altitude: 810 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, sandy, yellow-----	18	18	
Gravel and blue clay-----	42	60	
Gravel, pea-sized-----	4	64	

Well 34/2-36A1

Type of record: Driller's log.

Altitude: 797 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	180	180	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/2-36A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, brown and blue-----	30	210	
Shale, brown-----	68	278	
Shale, gray-----	13	291	
Devonian and Silurian Systems; undifferentiated:			
Lime, brown-----	39	330	
Lime, brown and gray-----	20	350	
Lime, gray-----	5	355	
Shale, gray-----	2	357	
Lime, gray-----	3	360	
Lime, light-brown-----	30	390	
Lime and strips of shale-----	50	440	
Lime, gray-----	362	802	

Well 34/2-36D1

Type of record: Driller's log. Altitude: 805 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	200	200	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, brown-----	116	316	
Devonian and Silurian Systems; undifferentiated:			
Lime, hard, gray-----	109	425	
Lime, gray-----	448	873	
Lime, brown-----	11	884	
Lime, hard, blue-gray-----	31	915	
Lime, gray-----	41	956	
Lime, brown-----	19	975	
Lime with strips of shale-----	85	1,060	
Ordovician? System:			
Upper Ordovician? Series:			
Shale, gray-----	210	1,270	
Shale, brown-----	118	1,388	
Middle Ordovician Series:			
Lime, brown-----	32	1,420	

Well 34/3- 3E1

Type of record: Driller's log. Altitude: 802 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, silty, brown-----	1	1	
Sand, fine to coarse, silty, brown, with fine gravel-----	3	4	
Sand, fine to medium, brown-----	2	6	
Clay, sandy, stiff, brown and gray	2	8	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3- 3E1--Continued			
Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, gravelly, brown-----	3	11	Gravel 15 percent.
Clay, brownish-gray, with fine to coarse sand-----	8	19	Sand 15 percent.
Sand, silty, gray-----	7	26	Silt 30 percent.
Sand, fine to coarse, silty, brownish-gray-----	4	30	Do.

Well 34/3- 3N1

Type of record: Driller's log.

Altitude: 797 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, clayey, sandy, brownish- gray-----	1	1	
Sand, fine, brown, with clay lumps-----	1	2	
Sand, fine to medium, clayey, brown-----	2	4	
Sand, fine to coarse, silty, brown, with fine gravel-----	2	6	
Clay, sandy, stiff, grayish- brown-----	2	8	Sand 20-30 percent.
Clay, sandy, silty, grayish- brown-----	3	11	Do.
Clay, gray, with some sand-----	10	21	
Clay, gray, with fine to coarse sand-----	3	24	Sand 10-15 per- cent.
Clay, gray, with some sand-----	6	30	

Well 34/3- 6Q1

Type of record: Driller's log.

Altitude: 808 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue, and gravel-----	22	22	
Clay, blue, and gravel; hard-----	8	30	
Clay, soft-----	12	42	
Sand, coarse-----	4	46	

Well 34/3- 6Q2

Type of record: Driller's log.

Altitude: 809 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand and blue clay-----	38	38	
Gravel mixed with blue clay-----	5	43	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3- 6Q2--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Clay, blue-----	15	58	
Sand, fine-----	7	65	
Sand, coarse-----	5	70	

Well 34/3- 7B3

Type of record: Driller's log.		Altitude: 807 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Top soil and sand-----	14	14	
Clay, blue-----	21	35	
Sand-----	5	40	

Well 34/3- 7G1

Type of record: Driller's log.		Altitude: 807 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Clay and sand; yellow-----	30	30	
Clay, blue-----	10	40	
Sand, fine-----	3	43	
Gravel and sand; coarse, gray----	6	49	

Well 34/3- 9J1

Type of record: Driller's log.		Altitude: 792 feet.	
Quaternary System:			
Recent and Pleistocene Series:			
Silt, brown, with fine sand and gravel-----	1	1	
Sand, fine to medium, silty, brown-----	2	3	Silt 15-20 percent.
Sand, fine to medium, silty, brown, with clay lumps-----	1	4	Silt 30 percent.
Sand, fine to medium, brown-----	2	6	
Sand, fine to coarse, brown, with fine gravel and clay lumps-----	4	10	
Sand, fine to coarse, brown, with fine gravel-----	6	16	
Sand, fine to coarse, grayish- brown, with fine gravel-----	2	18	
Clay, brownish-gray, with fine to coarse sand and fine gravel-	7	25	
Sand, fine to coarse, silty, grayish-brown, with fine gravel-----	3	28	
Sand, silty, grayish-brown, with fine gravel-----	2	30	Silt 30-40 percent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3- 9Q1

Type of record: Driller's log. Altitude: 792 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Silt, sandy, brown-----	1	1	
Silt, sandy, brown, with clay lumps-----	1	2	
Sand, fine, silty, brown, with clay lumps-----	1	3	Silt 40 percent.
Sand, fine to medium, brown-----	2	5	
Sand, fine to coarse, grayish- brown, with fine gravel and some silt-----	3	8	
Sand, fine to medium, brown-----	2	10	
Sand, fine to medium, silty, brown-----	6	16	
Clay, gray, with fine to medium sand-----	5	21	
Clay, sandy, stiff, gray-brown---	9	30	Sand 15 percent.

Well 34/3-10C1

Type of record: Driller's log. Altitude: 800 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay-----	16	16	
Sand-----	5	21	
Clay, blue-----	26	47	
Clay, yellow-----	13	60	
Sand-----	10	70	
Gravel-----	5	75	

Well 34/3-10D1

Type of record: Driller's log. Altitude: 797 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, silty, sandy, brown-----	1	1	
Clay, stiff, brown-----	3	4	
Clay, sandy, brown-----	1	5	Sand 15-20 percent.
Sand, silty, brown-----	2	7	Silt 30 percent.
Clay, gray, with some sand-----	6	13	
Sand, fine, silty, gray-----	2	15	Silt 30 percent.
Clay, stiff, gray, with fine to medium sand-----	3	18	Sand 20 percent.
Sand, fine to medium, silty, brown-----	3	21	
Clay, sandy, stiff, brown-----	4	25	Sand 15 percent.
Clay, stiff, gray, with some sand	5	30	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-10E1

Type of record: Driller's log.

Altitude: 796 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, clayey, brown-----	1	1	Clay 30-40 percent.
Sand, fine to medium, brown-----	1	2	
Sand, fine to coarse, silty, brown, with fine gravel-----	1	3	Silt 10-15 percent.
Clay, sandy, brownish-gray-----	4	7	Sand 10-15 percent.
Do-----	4	11	Sand 20 percent.
Clay, gray-----	3	14	
Silt, sandy, gray-----	5	19	Sand 10-15 percent.
Silt, clayey, gray, with some sand-----	3	22	
Clay, stiff, gray, with some sand-----	2	24	
Sand, fine, silty, gray-----	4	28	
Clay, stiff, gray-----	2	30	

Well 34/3-11A1

Type of record: Driller's log.

Altitude: 807 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay-----	7	7	
Sand-----	9	16	
Clay, blue-----	16	32	
Gravel and sand-----	6	38	Blue clay at 38 ft.

Well 34/3-16B1

Type of record: Driller's log.

Altitude: 793 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, silty, gray-----	1	1	Silt 30 percent.
Sand, fine to medium, silty, brown, with clay lumps-----	3	4	
Sand, fine to medium, brown-----	1	5	
Clay, brown, with fine to coarse sand-----	3	8	
Silt, clayey, brownish-gray, with fine to medium sand-----	3	11	
Clay, stiff, gray-----	7	18	
Sand, fine, silty, grayish-brown-----	8	26	
Silt, sandy, grayish-brown-----	4	30	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-16G1

Type of record: Driller's log.

Altitude: 792 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Silt, slightly clayey, gray, with fine to coarse sand, few fine gravel, and roots-----	2	2	Organic odor; sand more than 40 percent.
Sand, fine to medium, silty, gray-brown, with trace of roots	1	3	Sand 85 percent.
Sand, fine to medium, silty, gray-brown-----	1	4	
Sand, fine to medium, slightly silty, slightly clayey, gray- brown, with bits of wood-----	1	5	
Sand, fine to medium, silty, gray-black, with trace of fine gravel-----	2	7	
Silt, clayey, gray, with fine to coarse sand and bits of wood	4	11	Sand 40 percent, mostly fine.
Clay, gray, with some medium to coarse sand-----	3	14	
Sand, fine, silty, gray-----	7	21	Silt 40 percent.
Sand, silty, brownish-gray-----	6	27	Silt 10-15 percent.
Clay, gray, with some sand-----	3	30	

Well 34/3-16J1

Type of record: Driller's log.

Altitude: 797 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, dark-gray, with fine sand-----	1	1	Some organic odor; sand nearly 50 percent.
Clay, silty, brown, with fine to medium sand-----	2	3	Sand 25 percent; silt 20 percent.
Sand, fine to medium, clayey, silty, brown-----	1	4	Sand about 65 per- cent; silt 15 percent.
Sand, fine to medium, clayey, silty, gray-brown, with few fine gravel-----	1	5	Clay 30 percent.
Sand, fine to medium, clayey, silty, gray-brown-----	3	8	More silt than above.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-16J1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Silt, fine to medium, sandy, clayey, gray-brown, with trace of quartz-----	3	11	Clay about 10 per- cent.
Silt, slightly clayey, gray- brown, with fine sand and trace of gravel-----	5	16	Sand about 15 per- cent.
Clay, silty, gray, with fine sand-----	7	23	Sand 15-20 percent.
Clay, very silty, gray, with fine to coarse sand-----	3	26	Sand 40 percent, mostly fine to medium.
Clay, silty, gray, with fine to coarse sand and few gravel--	4	30	Sand almost 50 percent; gravel up to 3/8 inch.

Well 34/3-16R1

Type of record: Driller's log.

Altitude: 792 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, sandy, black-----	1	1	Sand 20 percent.
Sand, fine, silty, light-brown---	4	5	
Sand, gray, with fine gravel----	8	13	
Sand, fine to coarse, brown-----	2	15	Sand mostly fine to medium.
Sand, fine to medium, bluish- gray, with trace of very fine gravel-----	9	24	Gravel 3 percent.
Sand, fine to medium, clayey, bluish-gray-----	6	30	Sand about 75 per- cent.

Well 34/3-21A1

Type of record: Driller's log.

Altitude: 798 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Silt, sandy, gray, with fine gravel and fibers-----	1	1	
Sand, silty, light-brown, with fine gravel-----	1	2	Sand 40 percent; silt 35 percent; gravel 25 per- cent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-21A1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series;			
Clay, grayish-brown, with fine sand-----	3	5	Sand 35 percent.
Clay, silty, grayish-brown, with fine sand-----	3	8	
Clay, bluish-gray, with fine sand-----	3	11	Sand 30 percent.
Clay, stiff, with fine sand-----	2	13	Sand 10 percent.
Clay, stiff, bluish-gray-----	5	18	
Clay, soft, sand-----	4	22	Sand 15 percent.
Sand, fine to medium, clayey-----	8	30	Sand 55 percent.

Well 34/3-21H1

Type of record: Driller's log.

Altitude: 792 feet.

Quaternary System:

Recent and Pleistocene Series:

Sand, fine, silty, gray-----	1	1	Silt 15 percent.
Sand, fine-----	4	5	
Sand, fine, with fine gravel-----	2	7	Gravel 5 percent.
Sand-----	4	11	
Sand, fine, silty, gray-----	2	13	Silt 45 percent.
Clay, bluish-gray, with coarse sand-----	4	17	Sand 45 percent
Clay, sandy, stiff, gray-----	3	20	Do.
Silt, bluish-gray, with fine to medium sand-----	11	31	Sand 45-50 percent.

Well 34/3-21P1

Type of record: Driller's log.

Altitude: 787 feet.

Quaternary System:

Recent and Pleistocene Series:

Sand, fine to coarse, silty, gray, with clay lumps-----	1	1	
Sand, fine to medium, silty brown-----	2	3	
Sand, fine to medium, silty, brown, with clay lumps-----	1	4	Silt 20 percent.
Sand, fine to medium, silty, brown-----	2	6	Do.
Sand, fine to coarse, silty, brown, with fine gravel-----	1	7	Silt 10-15 percent.
Sand, fine to coarse, silty, greenish-brown-----	3	10	
Sand, fine to coarse, silty, brown	6	16	
Do-----	3	19	Silt 30-40 percent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-21P1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to coarse, silty, gray-----	3	22	Silt 30-40 percent.
Clay, sandy, gray-----	3	25	Sand 10-15 percent.

Well 34/3-28C1

Type of record: Driller's log.

Altitude: 790 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to coarse, brown with fine gravel-----	1	1	
Sand, fine, silty, brown, with fine gravel-----	1	2	Silt 10-15 percent.
Sand, fine to coarse, silty, brown, with clay lumps-----	1	3	
Clay, silty, sandy, brown-----	1	4	Sand 20 percent.
Sand, fine to medium, silty, clayey, brown, with gravel-----	3	7	
Sand, fine, silty, brown, with fine gravel-----	4	11	Silt 10-15 percent.
Sand, fine to medium, silty, brown, with clay lumps-----	4	15	
Sand, fine to medium, silty, gray, with clay lumps-----	3	18	
Sand, fine to medium, silty, brown-----	10	28	
Clay, gray, with fine to medium sand-----	2	30	Sand 10-15 percent.

Well 34/3-29M1

Type of record: Driller's log.

Altitude: 790 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, gray-----	1	1	
Sand, fine to medium, silty, brown-----	2	3	
Sand, fine to coarse, silty, clayey, grayish-brown, with fine gravel-----	6	9	
Sand, fine, silty, brown-----	6	15	
Sand, fine to medium, silty, clayey, gray-----	3	18	
Sand, fine to coarse, silty, clayey, gray-----	3	21	
Sand, fine to coarse, silty, brown-----	4	25	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-30P1

Type of record: Driller's log.

Altitude: 793 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, brown, with some fine gravel---	2	2	
Sand, fine to coarse, silty, brown, with fine gravel-----	1	3	
Sand, fine to medium, silty, brown-----	2	5	
Sand, silty, brown-----	2	7	
Sand, fine to medium, silty, brown, with fine gravel-----	1	8	
Clay, sandy, stiff, brown, with fine gravel-----	2	10	Sand 30-40 percent.
Sand, fine to medium, silty, grayish-brown, with clay lumps-	5	15	Silt 20-30 percent.
Sand, fine to medium, silty, brown-----	3	18	
Sand, fine to coarse, brown, with some silt-----	7	25	

Well 34/3-30Q1

Type of record: Driller's log.

Altitude: 787 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, brown-----	1	1	
Sand, fine brown, with fine gravel-----	2	3	
Sand, fine to medium, silty, brown-----	2	5	
Sand, fine to medium, silty, brown, with clay lumps-----	3	8	
Clay, sandy, soft, brown-----	6	14	Sand 15 percent.

Well 34/3-31D1

Type of record: Driller's log.

Altitude: 797 feet.

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine, silty, grayish- brown-----	2	2	
Sand, fine, silty, brown-----	1	3	
Sand, fine, brown, with some silt	6	9	
Sand, fine, silty, brown-----	5	14	Silt 20-30 percent.
Sand, fine to coarse, silty, brown, with some gravel-----	3	17	Do.
Sand, medium to coarse, silty, brown, with clay lumps-----	1	18	Silt 30-40 percent.

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 34/3-31D1--Continued

Material	Thick-ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, fine to medium, silty, clayey, brown-----	4	22	Silt 30 percent.
Sand, fine, silty, gray, with some gravel-----	3	25	Silt 30-40 percent.

Well 34/3-34J1

Type of record: Driller's log.

Altitude: 793 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Muck-----	8	8	
Clay-----	23	31	
Sand, fine-----	22	53	
Clay-----	5	58	
Clay and gravel; mixed-----	2	60	
Sand, fine-----	5	65	
Sand, medium-----	15	80	Clay at 80 feet.

Well 35/1-23P2

Type of record: Driller's log.

Altitude: 787 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	20	20	
Clay, blue-----	25	45	
Sand-----	10	55	
Gravel, medium-----	3	58	

Well 35/1-27N1

Type of record: Driller's log.

Altitude: 763 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow-----	25	25	
Clay, blue-----	60	85	
Clay and gravel-----	12	97	
Sand-----	11	108	
Gravel, pea-sized, gray-----	4	112	

Well 35/1-31H1

Type of record: Driller's log from memory.

Altitude: 725 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Clay, yellow, and gravel; mixed--	36	36	
Record missing-----	15	51	Yellow sand at 36 feet.
Clay-----	4	55	

Table 4.--Selected logs of wells and test holes in Marshall County, Ind.--Cont.

Well 35/1-31H1--Continued

Material	Thick- ness (feet)	Depth (feet)	Remarks
Quaternary System:			
Recent and Pleistocene Series:			
Sand, gray-----	19	74	
Gravel-----	3	77	

Well 35/1-31R1

Type of record: Driller's log. Altitude: 720 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift; clay, sand, and sandy gravel-----	125	125	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, blue-gray and brown-----	45	170	
Shale, limey, brown-----	15	185	
Limestone, chocolate-brown-----	43	228	
Shale, hard, gray-----	13	241	
Middle Devonian Series:			
Caprock, brown, and coarse lime--	8	249	
Lime, sandy, brown-----	6	255	
Lime, medium-grained, sandy, hard, brown to gray-----	15	270	

Well 35/1-32N1

Type of record: Driller's log. Altitude: 723 feet.

Quaternary System:			
Recent and Pleistocene Series:			
Drift-----	140	140	
Mississippian and Devonian Systems:			
Lower Mississippian and Upper Devonian Series; undifferentiated:			
Shale, blue-gray, and light-brown	45	185	
Shale, limey, brown-----	25	210	
Limestone, chocolate-brown-----	30	240	
Shale, medium-hard, gray-----	13	253	
Devonian and Silurian Systems; undifferentiated:			
Limestone, hard, brownish-white--	7	260	
Limestone, fine to coarse, brown-	8	268	
Lime, medium to coarse, brownish- gray-----	27	295	
Lime, medium to coarse, brown- gray to gray-white-----	32	327	
Lime fine-grained, dense, gray- white-----	33	360	
Lime, soft to medium-hard, coarse, shaly, gray to brown---	49	409	
Lime, fine-grained, dense, gray to gray-white-----	41	450	