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DEVELOPMENTS IN ILLINOIS AND INDIANA IN 1947<sup>1</sup>ALFRED H. BELL<sup>2</sup> AND RALPH E. ESAREY<sup>3</sup>

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## ABSTRACT

In all, 2,727 wells were drilled for oil and gas in Illinois and Indiana in 1947 as compared with 2,870 in 1946, a decrease of 5 per cent. Total oil production decreased 11 per cent from 82,128,000 barrels in 1946 to 72,900,000 barrels in 1947. Wildcat drilling increased from 760 completions in 1946 to 792 completions in 1947. Forty-four new pools and approximately 76 extensions were discovered in the two states in 1947 as a result of wildcat drilling.

The new production found in 1947 was almost entirely from Mississippian strata. Little deep drilling was done, and no major amounts of oil were produced from strata below the Mississippian. A "Trenton" pool, Woburn South, was discovered in Bond County, Illinois, which had six producing wells at the end of the year. Drilling is expected to continue in 1948 at nearly the same rate as in 1947.

## INTRODUCTION

The area discussed in this paper includes Illinois and Indiana. Most of the oil and gas drilling was done in the southern part of Illinois and the southwestern part of Indiana. Oil and gas drilling in the two states decreased 5 per cent, from 2,870 completions in 1946 to 2,727 completions in 1947. Oil production decreased 11 per cent, from 82,128,000 barrels in 1946 to 72,900,000 barrels in 1947. Wildcat drilling increased from 760 completions in 1946 to 792 completions in 1947. Forty-four new pools and approximately 75 extensions to old pools were discovered in the two states in 1947 as a result of wildcat drilling.

The new production discovered in 1947 was largely from Mississippian strata. Of the 44 new pools discovered, three were in Pennsylvanian sandstones, one was in the "Trenton" (Ordovician) limestone, and the remaining 40 were in Mississippian sandstones and limestones; of these, 18 were in Chester sandstones and 22 were in Lower Mississippian limestone or sandstones.

Little deep drilling was done and no major amounts of oil were produced from strata below the Mississippian. The one new pre-Mississippian pool, Woburn South in Bond County, Illinois, had six producing wells in the "Trenton" at the end of the year.

Drilling is expected to continue during 1948 at nearly the same rate as in 1947.

The details of development are discussed separately for each state.

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TABLE I  
DISCOVERY WELLS OF NEW POOLS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Depth to Top (Feet)	Initial Production (Barrels) <sup>a</sup>
1. Ab Lake	Gallatin	Sohio, J. Lynch I	32-8S-10E	2,790	Renault	2,655	149
2. Beman East	Lawrence	S. Zanetis, H. W. Mahrenholz I	19-3N-10W	1,904	McClosky	1,882	190; 175
3. Berryville	Wabash	British American, A. Higgins I	36-2N-14W	2,903	McClosky	2,901	223
4. Bible Grove North	Efingham	Gilliam & Aspin, E. Adams I	10-6N-7E	2,878	McClosky	2,868	102; 30
5. Bone Gap South	Edwards	Inland Producers, G. Harms I	19-1S-14W	3,126	Cypress	2,712	498; 80
6. Burnt Prairie South	White	British American, Duckworth I	7-4S-9E	3,552	Lower Ohara	3,417	72
7. Centerville North	White	F. Heldt, C. & M. Endicott I	28-3S-10E	3,233	Bethel	2,901	38; 50
8. Concord Central	White	W. O. Allen, Ackerman I	4-7S-10E	2,913	Aux Vases	2,900	135
9. Cottonwood	Gallatin	Natl. Assoc. Pet., J. C. Moye I-A	33-7S-9E	2,328	Tar Springs	2,314	6
10. Divide East	Jefferson	Natl. Assoc. Pet., D. McElravy I	17-1S-4E	2,647	Aux Vases	2,637	109; 17
11. Eberle	Efingham	Natl. Assoc. Pet., A. Jacobs I	24-6N-6E	2,866	McClosky	2,823	118; 200
12. Elliottstown	Efingham	Gulf (Schock), J. M. Schultz I	32-7N-7E	2,884	Rosciare	2,730	62; 20
13. Fairfield East	Wayne	Tuley & Carter, A. Martin I	4-2S-8E	3,200	Aux Vases	3,178	16
14. Half Moon	Wayne	Collins Bros., M. Flowers I	27-1S-9E	3,403	McClosky	3,353	60; 40
15. Helena	Lawrence	Fox & Fox, E. Bass I	11-2N-13W	1,803	McClosky	1,776	12; 100
16. Herald East	White	J. Reznik, H. Graat I	13-7S-9E	2,201	Waltersburg	2,436	10; 6
17. Hunt City South	Jasper	Robinson & Puckett, B. Dillman I	18-7N-11E	2,300	McClosky	2,436	118; 200
18. Iowa South	Clay	J. M. Gilliam, H. Ebe I	11-4N-5E	2,703	McClosky	2,581	80; 40
19. Iuka	Clay	Natl. Assoc. Pet., N. O. Golden I	14-2N-4E	2,886	McClosky	2,702	232; 100
20. Kenner North	Marion	Natl. Assoc. Pet., E. Spiker I	17-3N-5E	2,772	Bethel	2,758	87
21. Kenner West	Clay	Phillips Pet., E. Spiker I	23-3N-5E	3,038	Cypress	2,535	95; 70
22. Lexington	Wabash	F. J. Fleming et al., W. Berberich I	26-1S-14W	3,016	McClosky	2,966	250
23. Massillon South	Edwards	Magnolia, L. W. Wilson I	18-1S-10E	3,391	Lower Ohara	3,313	41; 1
24. Milletus	Marion	Natl. Assoc. Pet., G. Boye et al. I	21-4N-4E	2,212	Aux Vases	2,199	38; 32
25. Newton West	Jasper	McCullough Drlg., Winterrowd I	10-6N-9E	3,016	McClosky	2,901	8; 18
26. Stanford West	Clay	Natl. Assoc. Pet., O. Hickle I	33-3N-7E	3,047	McClosky	3,031	305
27. Westfield East	Clark	Van Tarble, Tarble Bros. 3	2-11N-14W	428	Pennsylvanian	418	50
28. Woburn South	Bond	L. Horton, W. Kokorudz I	21-6N-2W	3,167	"Trenton"	3,151	70

<sup>a</sup> Oil and water.

TABLE II  
DISCOVERY WELLS OF EXTENSIONS TO POOLS IN ILLINOIS IN 1947

Pool	County	Company	Farm	Location	Total Depth	Producing Formation	Top of Pay	Initial Production Bbls. a
1. Albion Consol.	Edwards	N. Redwine	McKinley-Walker Comm. I	31-S-1-W	3,198	McClosky	3,150	25; 1
2. Albion East	Edwards	Wm. Bell	F. Fieber I	31-25-14-W	3,431	Rosclaire	3,168	42; 30
3. Beaver Creek South	Clinton	A. M. Fowley & A. Jackson	Burkett I	53-N-2-W	1,150	McClosky	1,447	5; 5
4. Beman East	Lawrence	S. Zanettis	Lindsay I	20-3N-10W	1,907	(Aux Vases Rosclaire	(1,809) 1,880	2; 20
5. Bible Grove East	Clay	Calvert & Willis	L. Shields I	23-S-7E	2,953	McClosky	2,875	10; 20
6. Bible Grove East	Clay	N. V. Duncan	A. A. Harmon Heirs I	16-S-1-W	2,975	Aux Vases	2,728	15; 50
7. Bone Cap South	Edwards	E. Witt (D. Miller)	F. S. Racster I	16-25-1-W	3,494	McClosky	3,438	78; 35
8. Bonpas	Richland	Gilliam et al.	I. Provines I	34-N-1-W	3,430	McClosky	3,428	30; 100
9. Boyleston Consol.	Wayne	B. J. Taylor et al.	A. R. Burkett I	18-25-7E	3,345	(Aux Vases Rosclaire	(3,455)	40; 150
10. Boyleston Consol.	Wayne	Robinson & Puckett	Henson Cons. I	30-S-8E	3,453	McClosky	3,459	30; 60
11. Browns	Wabash	Cherry & Kidd	Gray-Tanquary I	27-S-1-W	2,963	McClosky	3,458	41; 15
12. Browns South	Edwards	Lynn, Calvert & Willis	A. J. Messman I	9-25-4-W	3,075	(Bethel Aux Vases	(2,858)	11
13. Calhoun	Richland	O. Weston	E. O. Kirk I	20-N-10E	3,168	McClosky	3,438	140
14. Calvin North	White	D. Miller Drig.	Johnson I	6-4-S-1E	3,404	Lower Ohara	3,478	42; 40
15. Cisne	Wayne	N. Redwine	W. Lusk I	3-15-7E	3,310	(Lower Ohara McClosky	(3,451)	17; 53
16. Clay City Consol.	Wayne	Robinson & Puckett	M. Shackelford I	2-N-8E	3,001	Rosclaire	3,070	200
17. Clay City Consol.	Wayne	D. Slape et al.	F. Pettiford I	27-N-7E	3,986	Aux Vases	3,976	05
18. Clay City Consol.	Wayne	D. Slape	S. O. Hesselton I	29-N-8E	3,080	Rosclaire	3,073	63; trace
19. Clay City Consol.	Wayne	Tuley & Carter	I. O. Sandlin I	35-N-8E	3,087	McClosky	3,073	72
20. Clay City Consol.	Clay	W. Bell	C. T. Smith I	55-S-8E	3,074	Aux Vases	3,882	73
21. Clay City Consol.	Wayne	Robinson & Puckett	D. Perardi I	28-S-9E	3,435	Aux Vases	3,413	10
22. Cottonwood	Gallatin	Mealy & Wolfe	L. M. Mills I	28-S-9E	3,331	Tur Springs	2,459	10,500,000 cu. ft.
23. Cowling	Edwards	G. Wickham	Mason-Schroeder I	18-S-1-W	3,009	Bethel	1,781	32
24. Dubois	Washington	W. O. Allen	J. L. Kasban I	5-3-S-7E	2,830	Cypress	2,883	37,000,000 cu. ft.
25. Ewing	Franklin	Sohio	Besserman I	53-S-8E	2,841	Aux Vases	3,080	177
26. Geff	Wayne	Tuley & Carter	J. C. Stanley I	4-5-S-8E	3,107	Aux Vases	3,083	87
27. Geff West	Wayne	A. J. Slagter	I. T. Haynes I	4-5-S-8E	3,172	Aux Vases	3,108	42; 3
28. Geff West	Wayne	Nation Oil	W. G. Cisne I	3-10-S-7E	3,110	Aux Vases	3,095	45; 25
29. Grayville West	White	B. Lambert	Robinson Heirs I	23-S-10E	3,871	Cypress	3,896	63
30. Half Moon	Wayne	George & Wrather	W. C. Turner I	22-S-9E	3,373	Rosclaire	3,831	63
31. Herald	White	Central Pipe Line	T. Poole I	32-S-9E	3,460	Lower Ohara	3,340	121; 40
32. Herald East	White	B. M. Heath	M. E. Austin I	32-S-9E	3,460	Degonia	1,920	166; 20
33. Herald East	White	Oil Mgt.	Eubanks I	38-S-10E	2,930	Aux Vases	2,928	86; 20
34. Hoosier North	Clay	Evans & Barrow	L. Stanley I	35-N-7E	2,900	McClosky	2,853	71; 15

TABLE II—(continued)

Pool	County	Company	Farm	Location	Total Depth	Producing Formation	Top of Pay	Initial Production Bbls. <sup>a</sup>
35. Johnsonville Consol.	Wayne	Nat'l. Assoc. Pet.	Z. H. Grinstead I	25-IN-6E	3,243	McClosky	3,268	134
36. Johnsonville West	Wayne	Puritan Drig.	B. Spicer I	24-IN-5E	2,973	Aux Vases	2,954	200; 65
37. Johnsonville West	Wayne	Taylor	B. Watkins I	26-IN-5E	3,087	McClosky	3,064	120
38. Junction	Gallatin	C. E. Skiles	Stinson I	9-95-9E	2,012	Pennsylvanian	1,429	17
39. Junction North	Gallatin	Delta Drig.	Ingleton I	34-8S-9E	1,587	Pennsylvanian	1,564	40
40. Junctionburg Consol.	Wabash	Ill.-Mid-Continent	Krutz I	36-3S-14W	2,874	Tar Springs	2,006	15; 15
41. Kemmer North	Clay	A. J. Slaughter	C. Tackitt I	36-3N-5E	2,987	Rosiclare	2,875	65; 2
42. Lancaester East	Clay	Nat'l. Assoc. Pet.	E. Spiker I	12-3N-5E	2,803	Aux Vases	2,779	20; 20
43. Lancaester East	Wabash	Arvin Drig.	E. Alka I	35-2N-13W	2,750	Rosiclare	2,662	150
44. Lillyville	White	Nation Oil	C. E. Haefely I	20-3N-9E	3,478	McClosky	3,377	43; 20
45. Lillyville	White	Nat'l. Assoc. Pet.	J. J. Schneiderjan I	6-8N-7E	2,416	McClosky	2,463	90
46. Maud North	Wabash	Calvert & Willis	A. Garwood I	16-1S-13W	2,608	Bethel	2,586	34
47. Maud North	Wabash	Hayes & Wolfe	L. Peter A-1	20-1S-13W	2,939	Rosiclare	2,859	32; 1
48. Maunie North	White	I. H. Gilliam	W. Hines I	36-5S-10E	3,167	Paint Creek	2,812	97
49. Mt. Erie South	Wayne	Nat'l. Assoc. Pet.	E. Tidball I	23-1S-8E	2,188	Lower Ohara	3,097	113
50. New Harmony-Griffin Consol.	White	Magnolia	F. E. Henning I	19-5S-14W	3,127	Rosiclare	3,014	15; 6
51. Noble North	Richland	Calvert & Willis	Yunker et al. I	14-3N-8E	3,090	Rosiclare	3,002	84; 14
52. Noble North	Richland	P. Fulk	T. Dresser I	36-2N-9E	2,981	Cypress	2,554	18; 2
53. Oney East	Richland	George & Wraether	M. Leaf I	13-4N-10E	3,082	McClosky	3,068	23; 50
54. Passport	Clay	T. B. Dirckson	Kuenstler I	2-4N-8E	3,025	McClosky	3,019	720 (BOF)
55. Roland Hill	Gallatin	C. E. Breham	J. W. Oliver et al. I	29-7S-8E	2,115	Waltersburg	2,084	30
56. Rural Hill	Hamilton	B. Taylor	Wilson I	30-6S-6E	3,192	Aux Vases	3,180	52; 71
57. Sailor Springs Consol.	Clay	Nat'l. Assoc. Pet.	S. Lee I	15-3N-7E	2,990	McClosky	2,949	84
58. Sailer Springs Consol.	Clay	E. A. Ohering	Armstrong I	20-3N-7E	2,992	McClosky	2,978	105; 11
59. Salem	Marion	Schlafly & Shyka	R. N. Davis I	21-1N-2E	1,928	Bethel	1,918	5; 75
60. Shattuck	Marion	B. Taylor et al.	H. J. Sebastian I	21-1N-2E	1,935	Bethel	1,920	11; 30
61. Shelbyville	Clinton	P. E. Turner	R. Mann I	28-2N-1W	1,295	Cypress	1,288	44
62. Storms	Shelby	F. Doran	R. Manning I	14-11N-4E	2,084	Aux Vases	1,866	69; 43
63. Trumbull	White	Ashland & Buchman	A. Orman I	18-6S-10E	3,062	McClosky	3,027	50
64. Trumbull	White	Pure	M. E. Husk I	20-5S-9E	3,352	(Aux Vases) Rosiclare	3,194; 3,288	6; 31
65. Trumbull	White	W. E. Witt	J. W. Williams I	6-5S-9E	3,382	McClosky	3,288	48; 18
66. Westfield East	Clark	F. Hessler	B. Buckler I	36-12N-14W	460	Pennsylvanian	453	3
67. Willow Hill Consol.	Isasper	Robinson & Puckett	C. J. McCord I	23-7N-10E	2,597	Rosiclare	2,549	87
68. Woburn South	Boyd	I. Horton	L. F. Stoecklin I	16-6N-2W	3,179	"Trenton"	3,158	45
69. Woodlawn	Jefferson	C. E. Townsend	O. Watkins et al. I	25-2S-1E	2,036	Bethel	2,026	72

<sup>a</sup> Oil and water.

TABLE III. DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (feet)	Productive Formation	Depth to Top (feet)	Initial Production (barrels <sup>a</sup> )
1. Albion East	Edwards	W. Bell, F. Fieber I	31-25-14W	3,231	Rosiclare <sup>b</sup>	3,126	42; 30
2. Beman East	Lawrence	S. Zanetis, Lindsay I	20-3N-10W	1,907	Aux Vases <sup>b</sup> ; Rosiclare	1,869; 1,866	2; 20
3. Berryville	Wabash	Phillips Pet., Fire I	33-2N-14W	3,013	Rosiclare <sup>b</sup>	2,911	156; 2
4. Bible Grove East	Clay	Calvert & Willis, L. Shields I	23-5N-7E	2,953	McClosky	2,878	16; 20
5. Bible Grove East	Clay	N. V. Duncan, A. A. Harmon Heirs I	27-5N-7E	2,978	Aux Vases	2,783	115; 50
6. Bible Grove North	Efingham	Superior, C. Kluthe I	10-6N-7E	2,887	Cypress <sup>b</sup>	2,833	54; 14
7. Bible Grove North	Efingham	Texas, A. J. Bloemker I	10-6N-7E	2,944	Rosiclare	2,835	7; 23
8. Bible Grove South	Clay	W. Durcan, Harden-Webster Comm. I	20-5N-7E	2,758	Cypress	2,300	26
9. Bone Gap	Edwards	Cities Service, L. Inread "A", -1	18-12-11W	3,316	Rosiclare	3,198	99
10. Bone Gap South	Edwards	Calvert & Willis, Briggs I	19-12-14W	3,990	Aux Vases	3,658	125
11. Bone Gap South	Edwards	E. Witt (D. Miller), J. D. Raester I	18-12-14W	3,910	McClosky	3,058	76; 15
12. Browns	Wabash	Cotter, Reeves, Lobell, Beell I	4-5-14W	3,010	Rosiclare <sup>b</sup>	2,973	225; 10
13. Browns	Wabash	Cherry & Kidd, Gray-Newman, S	4-5-14W	3,031	Tar Springs <sup>b</sup>	2,304	99; 40
14. Browns South	Edwards	Lynn, Calvert & Willis, A. J. Messman I	9-8-12E	3,204	Aux Vases <sup>b</sup>	2,958	11
15. Calvin North	White	C. Miller Drug, Johnson I	4-7-5-10E	3,953	Lower Ohara	3,648	42; 40
16. Concord Central	White	Great Lakes Carbon, Calvert I	10-6S-10E	3,971	Cypress <sup>b</sup> ; McClosky	2,677; 2,970	9; 9
17. Concord North	White	E. Brehm, A. William I	34-22-10W	2,010	Lower Ohara	3,933	86
18. Cowling	Edwards	C. Wickham, G. Broster I	18-32-14W	1,330	Palentine	1,981	248
19. Dubois	Washington	W. Allen, J. L. Kasban I	18-32-14W	1,330	Cypress	1,185	3,200,000 cu. ft.
20. Eberle	Efingham	Natl. Assoc. Pet., Jacobs 2	24-9-10E	2,483	Cypress	2,473	32; 10
21. Eberly South	Edwards	Wenman & Gier, H. E. Perkins I	33-2-10E	3,346	Aux Vases	3,269	26; 5
22. Epworth East	White	W. O. Allen, Brimble-Combe I	26-3-10E	3,127	Tar Springs	2,359	500
23. Ewing	Franklin	Solio, Bosserman I	5-7-3-E	2,841	Tar Springs	2,850	177
24. Geff West	Wayne	A. J. Sagter, Evans I	4-15-7E	3,214	Aux Vases	3,199	77; 80
25. Geff West	Wayne	S. C. Yimging, Sanders I	4-15-7E	3,272	Rosiclare	3,262	125; 30
26. Grayville	Wayne	George & Wray, W. C. Turner I	20-3-2-AW	3,775	Waltersburg	3,262	153
27. Half Moon	Wayne	C. M. Heath, M. E. Austin I	32-6-9E	2,500	Degonia	3,340	69; 40
28. Herald East	White	C. E. Skiles, Wilkins I	13-7-9E	2,444	Rosiclare	2,397	66; 40
29. Herald East	White	J. Resnik, C. Gluyers I	23-6-9E	2,500	Tar Springs	2,954	60; 40
30. Hoosier East	Gallatin	I. W. Rudy, F. W. Newman I	24-7-9E	3,093	Aux Vases	2,924	60; 40
31. Hoosier North	Clay	Evans & Brown, J. Brooks Comm. I	35-3N-7E	2,595	Cypress	2,954	26
32. Hoosier North	Clay	Natl. Assoc. Pet., C. Wattles I	35-3N-7E	2,905	Lower Ohara <sup>b</sup>	2,881	20
33. Hoosier North	Clay	C. C. Clark, Dail 2	11-8-7E	2,908	McClosky	2,891	24
34. Inman	Gallatin	Coy & Ashland, Foster I	19-8-9E	932	Pennsylvania	924	25
35. Inman North	Gallatin	Coy & Ashland, Foster I	11-8-9E	2,390	Hardsburg	2,330	2
36. Inman North	Gallatin	Coy & Ashland, Foster 2	11-8-9E	2,524	Cypress	2,510	50
37. Inman North	Gallatin	Coy & Ashland, Foster 3	11-8-9E	2,545	Tar Springs <sup>b</sup>	2,177	52; 35
38. Inman West	Gallatin	King, Scott, Schif I	21-8-9E	2,957	Palentine <sup>b</sup>	1,915	32; 17
39. Junction	Gallatin	C. E. Skiles, Stinson I	9-9-9E	2,952	Pennsylvania	1,429	17
40. Junction North	Clay	Delta Drig., Igneroch I	36-8-9E	1,387	Pennsylvania	1,364	40
41. Kenner North	Clay	A. Sagter, P. Beckert I	36-3N-5E	2,987	Rosiclare	2,875	95; 2
42. Kenner North	Clay	Natl. Assoc. Pet., B. Spiker I	12-3N-5E	2,863	Aux Vases	2,179	38; 20
43. Kenner North	Clay	Phillips Pet., Theobald 4-A	17-3N-6E	3,041	McClosky	2,664	39; 50
44. Kenner West	Clay	Phillips Pet., Coldasure 4	23-3N-5E	3,047	McClosky	2,809	38; 71
45. Kenner West	Clay	Phillips Pet., Kain 1	23-3N-5E	3,000	Bethel	2,793	143
46. Lancaster Central	Wabash	Nu-Enamel, A. H. Barnes I	7-1N-13W	2,854	Lower Ohara	2,639	156; 6
47. Lancaster Central	Wabash	Nu-Enamel, C. F. Higgins I	7-1N-13W	2,815	McClosky <sup>b</sup>	2,668	156; 6
48. Lancaster East	Wabash	W. H. Dlig., Walsh I	35-2N-13W	2,750	Rosiclare	2,602	150
49. Maud	Champaign	Ill.-Mid. Continent, J. Grundon I	19-7-12-13W	1,823	Salem	1,857	26; 2
50. Maud North	Wabash	Hayes & Wolf, L. Peter "A", -1	35-12-13W	2,368	Cypress	2,857	200
51. Maud North	Wabash	J. H. Cillman, Slemaker I	20-12-13W	2,939	Rosiclare	2,859	32; 1
52. Maumee North	White	Nu-Enamel, W. Adams I	10-4N-4E	2,168	Rosiclare	2,152	101; 10
53. Maumee North	Marion	Natl. Assoc. Pet., W. Adams I	10-4N-4E	2,168	Bethel	2,152	101; 10
54. Mileus	Gallatin	Solio, J. W. Feitour I	23-5-10E	2,418	Bethel	2,367	15; 1
55. New Haven West	White	Synd. of Wyoming, C. D. Reddy 2	23-5-10E	2,930	Lower Ohara	2,789	42; 47
56. Roland	Lawrence	H. Spruws, M. H. Benson 2	18-4N-10W	1,947	Clare	1,994	26; 2
57. Russellville (gas)	Clay	T. M. Conroy, E. Koister 2	9-3N-7E	1,570	McClosky	1,551	23; 100
58. Sailor Springs Consol.	Clinton	Natl. Assoc. Pet., J. N. Klein 2	27-3N-11W	2,989	Lower Ohara	2,943	40; 12
59. Shattuck	White	E. Witt, J. W. Williams I	33-3N-7E	3,083	Rosiclare <sup>b</sup>	2,968	1,468
60. Trumull	White	H. Ames et al., Thompson 1-A	36-7S-9E	3,382	McClosky	3,288	48; 18
61. West Frankfort South	Franklin	R. Barnes et al., West Frankfort Pack-	36-7S-3E	2,731	Aux Vases	2,603	15
62. West Frankfort South	Franklin	R. Barnes et al., West Frankfort Pack-	36-7S-3E	2,192	McClosky	2,187	248+trace
64. Whitington West	Franklin	M. H. Richardson, Franklin Co. Coal I	14-5S-2E	2,786	Rosiclare	2,779	11; 1
65. Woodlawn	Jefferson	N. Redwine, Lancy et al. I	24-2S-1E	2,217	Rosiclare	2,195	7+trace

<sup>a</sup> Oil and water. <sup>b</sup> Dual completion. <sup>c</sup> Triple completion.

## ILLINOIS

BY ALFRED H. BELL

In Illinois, 2,046 wells were completed for oil and gas in 1947, a decrease of 13 per cent from 1946. Drilling resulted in 1,071 oil wells, 9 gas wells, and 966 dry holes. Of the 536<sup>4</sup> wildcat wells drilled, 28 discovered pools and 69 discovered extensions to pools (Tables I and II). In addition, 65 wells, most of which can not be designated properly as exploratory wells, discovered additional producing zones in known producing areas (Table III).

The geographic pattern of drilling followed that prevalent in recent years, the greatest number of completions by counties being in Wabash (301) followed by Wayne (253), White (223), and Clay (196) counties. Wells in Clay County averaged 160 barrels initial production compared with a state average of 100 barrels.

The pools with the greatest numbers of well completions in 1947 were as follows: Clay City Consolidated, 120 completions; New Harmony Consolidated, 63 completions; Willow Hill Consolidated, 63 completions; Allendale, 61 completions; and Sailor Springs Consolidated, 52 completions.

Total oil production in Illinois in 1947 was 66,459,000 barrels as compared with 75,297,000 barrels in 1946, a decrease of 13 per cent. Average daily production in 1947 was 182,000 barrels. Average daily production, by months during the year varied from 193,000 barrels in January to 175,000 barrels in August and November.

## EXPLORATORY DRILLING

As may be noted on the map (Fig. 1) the new pools discovered were all within short distances of previous production so that no new regions were opened for exploration and development during the year. One of the new pools, Kenner West in Clay County, Illinois (No. 21, Fig. 1) is located on a structure which was mapped on outcropping Pennsylvanian strata and recommended for testing by the Illinois Geological Survey in *Report of Investigations 40*, published in 1936. At the end of the year, this pool had 21 wells producing from the Cypress and Bethel sandstones at approximate average depths of 2,570 feet and 2,705 feet, respectively. The pool had an approximate total production at the end of the year of 225,000 barrels. This was the most oil produced by any one of the 1947 discoveries. Kenner North, with 22 wells and a total production to the end of the year of 222,000 barrels, was a close second.

A list of some of the most noteworthy dry holes completed in 1947 is given in Table IV. Little deep testing was done. A well in Jersey County (Table IV, No. 15) located on the Lincoln fold which is adjacent to the Cap au Grés fault was drilled into the Lamotte sandstone (basal Cambrian). A well in Pike County,<sup>5</sup> not listed in Table IV because it was not reported complete at the end of 1947, was drilled to the pre-Cambrian granite on top of the Pittsfield-Hadley anticline.

<sup>4</sup> This figure does not include wells which tested additional producing zones in producing areas classified by Lahee as deeper-pool tests and shallower-pool tests.

<sup>5</sup> Panhandle Eastern Pipe Line Company's Mumford No. 1, NE.  $\frac{1}{4}$ , NE.  $\frac{1}{4}$ , NW.  $\frac{1}{4}$ , Sec. 21, T. 5 S., R. 4 W., Pike County.

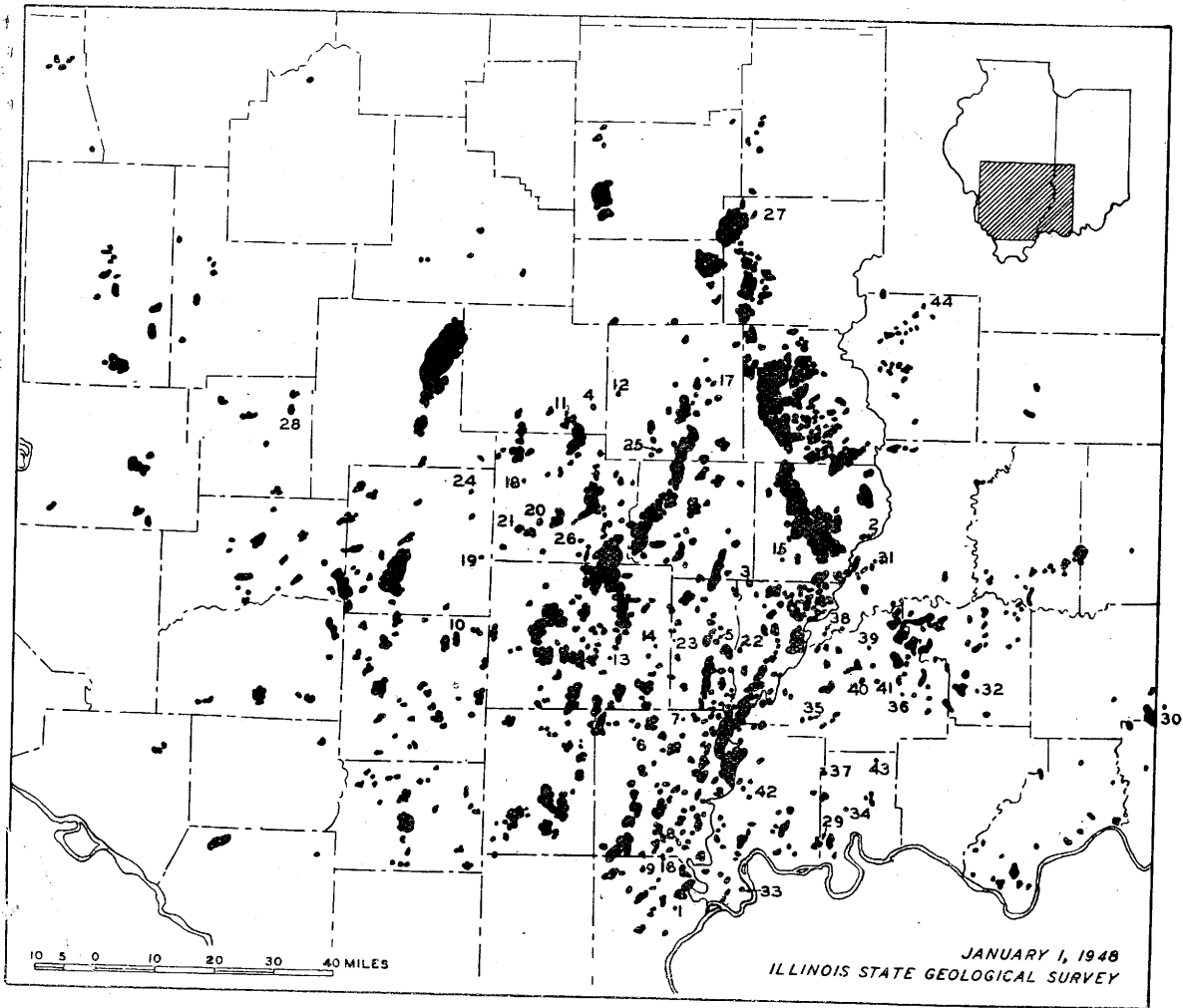


FIG. 1.—New pools discovered in 1947. All present and former oil- and gas-producing areas are shown in black. (See Tables I and VII for pool number identification.)

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Depth to granite in this well was 2,221 feet, or an elevation of 1,401 feet below sea-level. The elevation of the top of the pre-Cambrian granite in a well 9 miles northwest, low on the north flank of the anticline, was 2,484 feet below sea-level, a difference of 1083 feet. Thus there appears to be a granite hill underlying the Pittsfield-Hadley anticline of considerably greater relief than that of the overlying sedimentary strata. This suggests that there may be granite hills under other major anticlinal structures of the Illinois area.

Some of the wells located in western Illinois (Table IV) were drilled in exploration

TABLE IV  
SELECTED LIST OF DRY TESTS IN ILLINOIS IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Deepest Formation	Depth to Top (Feet)
1.	Bond	H. Hoffman, G. Wilson "A" 3	24-4N-3W	2,460	Devonian	2,445
2.	Christian	Sun Oil, A. Ettinger 1	8-13N-1W	2,910	"Trenton"	2,788
3.	Clark	J. W. Menhall, Bubeck 2	11-9N-11W	2,580	Devonian	2,402
4.	Clark	P. W. Menhall, E. P. Daly 1	27-9N-11W	2,959	Devonian	2,478
5.	Bartelso West	P. Mosebach et al., C. Meyer 2	18-1N-3W	2,520	Devonian	2,446
6.	Boulder	Texas, Defend-Gray Comm. 1	35-3N-2W	3,813	"Trenton"	3,711
7.	Carlyle	Murphy Oil, Hempen 1	10-2N-3W	2,614	Devonian	2,518
8.	Mattoon	Blalock & Walters, Coles County Locker Co. 1	11-12N-7E	3,211	Devonian	3,172
9.	Mattoon	B. A. Baker, H. Hagen 1	1-12N-7E	3,181	Devonian	3,139
10.	Coles	H. Sanders et al. R. M. Childress 1-B	30-13N-11E	2,325	"Trenton"	2,134
11.	Coles	E. Zink, Bales 1	3-12N-9E	2,185	Devonian	2,114
12.	Douglas	Burkett & Farnham, A. Brock 1	7-15N-14W	859	Devonian	799
13.	Fayette	Nat'l. Assoc. Pet.-Ashland, J. M. Dugan 1	23-6N-1W	3,900	"Trenton"	3,737
14.	Hancock	D. E. Lambert, W. Griffith 1	26-7N-8W	1,102	St. Peter	977
15.	Jersey	T. R. Kerwin et al, Legate 1	2-6N-13W	2,680	Lamotte	2,670
16.	Macoupin	Sun Oil, C. C. Alford 1	3-9N-6W	2,552	Glenwood	2,536
17.	Madison	Texas, Hosto 1	18-5N-5W	2,755	Plattin	2,744
18.	Miletus	Nat'l. Assoc. Pet., Lacy 5	21-4N-4E	3,950	Clear Creek	3,787
19.	Montgomery	J. Reznik, Monke 1	4-7N-5W	2,600	"Trenton"	2,490
20.	Washington	L. V. Horton, B. Huck 1	16-1S-2W	2,965	Devonian	2,876

TABLE V  
WILDCAT WELLS DRILLED IN ILLINOIS IN 1947, CLASSIFIED BY METHOD OF LOCATION

Method of Location	Wildcat Near <sup>a</sup>		Wildcat Far <sup>b</sup>		Total Wildcats	Total Producers	Percentage Successful
	Total	Producers	Total	Producers			
Geology	296	69	169	22	465	91	19.5
Geophysics	1	0	2	0	3	0	0.0
Geology and Geophysics	12	0	26	6	38	6	15.8
Nonscientific	309	69	197	28	506	97	19.2
Unknown	3	0	23	0	26	0	0.0
	2	0	2	0	4	0	0.0
Total	314	69	222	28	536	97	18.1

<sup>a</sup> One half to 2 miles from production.  
<sup>b</sup> More than 2 miles from production.

tion for additional Silurian coral reefs, like the one that is productive of oil in the Marine pool, Madison County. Although as yet no additional oil-bearing reefs have been located, there is still a large unexplored territory.<sup>6</sup>

<sup>6</sup> Heinz A. Lowenstam, "Marine Pool, Madison County, Illinois, Silurian Reef Producer," *Struc. Typ. Amer. Oil Fields*, Vol. III, Amer. Assoc. Petrol. Geol. (1948), pp. 153-88.



## METHODS OF EXPLORATION

The principal methods used in locating exploratory wells continued to be sub-surface geology and the reflection seismograph (see Table V). The amount of seismograph work in Illinois increased 25 per cent from 284 crew-weeks in 1946 to 354 crew-weeks in 1947.

TABLE VI  
GEOPHYSICAL EXPLORATION BY MONTHS IN ILLINOIS IN 1947

Period (1947)	Seismograph		Gravity	Resistivity
	(a)	(b)		
Jan.	8—32		1-4	1-4
Feb.	8—32		1-4	1-4
Mar.	8—32		1-4	1-4
Apr.	7—28		2-6	1-4
May	8—32		2-8	1-4
June	8—30		2-8	1-4
July	7—28		2-8	1-4
Aug.	7—28		2-8	1-4
Sept.	7—28		2-8	1-4
Oct.	6—26		1-6	1-4
Nov.	6—24		1-4	1-4
Dec.	6—24		1-4	1-4

<sup>a</sup> First figure indicates number of crews working.

<sup>b</sup> Second figure indicates number of working weeks completed.

## INDIANA

By RALPH E. ESAREY

Drilling activity in Indiana was the greatest since the opening of the Eastern Interior basin. In all, 666 wells were drilled, of which 340 were producing field wells, and 24 were successful wildcats. In addition, 6 wells opened extensions to oil fields, and 8 wells discovered oil in deeper or shallower sands in present pro-

TABLE VII  
DISCOVERY WELLS OF NEW POOLS IN INDIANA IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
29. Belknap	Vanderburgh	G. Engle, Helfrich 1	18-6S-11W	1,872	Waltersburg
30. Birdseye East	Crawford	H. A. Kays, St. Clair 1	31-2S-2W	995	Salem
31. Cathlinett	Knox	Zink et al., Halter 1	8-2N-10W	1,885	Rosiclare
32. Coe	Pike	R. Halbert, Ayrshire Coll. 1	30-2S-7W	1,423	Ste. Genevieve
33. College North	Posey	Calvert & Willis, Hastings 1	10-8S-14W	2,337	Ste. Genevieve
34. Evansville	Vanderburgh	Calvert & Willis, Engli 1	2-6S-11W	895	Pennsylvanian ss
35. Fleener	Gibson	C. A. Lynch, Fleener 1	22-3S-12W	1,880	Waltersburg
36. Francisco South	Gibson	J. Reznik, Weber 1	30-2S-9W	1,942	Ste. Genevieve
37. Martin	Vanderburgh	O'Neal et al., Wassmer 1	6-5S-11W	2,206	Cypress
38. Orrville	Knox	H. E. Ledbetter et al., Elkins 1	12-1S-12W	2,167	Bethel
39. Patoka East	Gibson	J. Savage, Hall 1	19-1S-10W	1,921	Cypress
40. Princeton New	Gibson	Princeton Mining, McCarty 1	13-2S-11W	2,184	Ste. Genevieve
41. Princeton South	Gibson	Kingwood Oil, Steiner 1	16-2S-10W	2,155	Ste. Genevieve
42. Solitude	Posey	Indiana Farm Bur., Highman Est. 1	31-5S-13W	3,039	Palestine
43. Stacer	Vanderburgh	J. Reznik, Feil 1	28-4S-10W	2,214	Ste. Genevieve
44. Standard	Sullivan	A. S. Reid, Jewell 1	22-9N-9W	643	Pennsylvanian

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ducing areas. A total of 16 new fields was discovered: 5 in Gibson County, 4 in Vanderburgh, 2 in Posey, 2 in Knox, 1 in Pike, 1 in Crawford, and 1 in Sullivan County. The opening of the Evansville field created some excitement when substantial amounts of oil were produced from the Pennsylvanian sands at 900 feet. In this field, 17 wells were completed by the end of the year.

A great many wildcats were drilled around the edge of the basin where Chester sands vary from 500 to 1500 feet in depth. Several of the productive spots were

TABLE VIII  
DISCOVERY WELLS OF EXTENSIONS TO POOLS IN INDIANA IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
Decker	Knox	K. D. Holland, Ruppel 1	1-1N-11W	1,883	McClosky
Mt. Carmel	Gibson	I. Van Tuyl, Putnam 1	26-1S-12W	2,111	Bethel
New Boston	Perry	C. A. Busick, Gayer 1	5-6S-3W	516	Jackson
Owensville North	Gibson	Deep Vein Coal, Davis 2	6-2S-11W	2,326	McClosky
Owensville North	Gibson	Superior, Hardiman 2	18-2S-11W	2,371	McClosky
Princeton North	Gibson	George & Wrather, Beloat 1	8-2S-10W	1,841	Cypress
Peru	Miami	J. Minneci, Butt 1	24-27N-4E	876	Trenton

TABLE IX  
DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN INDIANA IN 1947

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
Dodds Bridge	Sullivan	M. Myers, Bradgon Heirs 1	5-8N-10W	590	Pennsylvanian
Hovey West	Posey	B. M. Heath, A. Gray Est. 1	36-7S-15W	2,167	Waltersburg
Mt. Carmel	Knox	H. E. Ledbetter, Steckler 7	22-1S-12W	2,095	Lower Ohara
Owensville	Gibson	Ashland-O'Neal, Bender 1	36-3S-12W	2,551	Bethel
Princeton North	Gibson	Princeton Mining, Hunt 1	8-2S-10W	1,944	Bethel
Rockport	Spencer	Port Rock Oil Co., Hayden 3-A	30-7S-6W	1,099	Cypress
Rockport	Spencer	D. Stinson, Axton 1	30-7S-6W	913	Tar Springs
Solitude	Posey	Indiana Farm Bur., M. Perry 2	31-5S-13W	3,016	McClosky
Springfield	Posey	Texas, Golden 1	19-15S-13W	2,126	Waltersburg
St. Thomas	Knox	E. Zink, Indiana Def.	19-2N-10W	1,662	Cypress

found in and around the old fields. The counties of Pike, Daviess, Sullivan, Spencer, Martin, Greene, and Warrick received more attention than in previous years. In seven of the new fields, oil was found in the Ste. Genevieve limestone, emphasizing the importance of that formation as a reservoir rock.

The number of gas wells reported during the year was 41, and all were producers. More than 4 million cubic feet of daily open flow was added to the gas production of the state by the opening of the four new fields. The Sun Oil Company opened a potential gas field in the Devonian limestone at 1,900 feet in Greene County, but the well was abandoned, eventually. The reported open flow was 2 million cubic feet per day. Another test may be drilled in the near future.

The "pocket" area (Posey, Vanderburgh, and Gibson counties) continued to be the most active from the standpoint of wells drilled and total number of completions. The Griffin field remained the largest producer, where 458 wells averaged 3,925 barrels per day throughout the year. The deepest tests made in the basin

were the Thomas No. 1 in Sullivan County which tested the St. Peter at depth of 4,328 feet, and the Bodine, No. 1, the deepest well stratigraphically, which was abandoned in the Shakopee dolomite at 2,417 feet in Fountain County. The pipeline runs for the year indicate that Indiana produced about 6,441,500 barrels of crude oil.

Outside the basin, a new strike in the old Trenton field near Peru, Miami County, caused a small flurry of activity. The field is an extension of an old productive area opened 50 years ago. Oil is produced from the Trenton limestone at 850 feet. The best well had an initial production of more than 100 barrels per day.

An additional pool producing from the Salem limestone was opened near Birdseye in Crawford County. It is an extension of the old Birdseye field abandoned many years ago. The top of the saturated zone is about 1,000 feet in depth. An interesting wildcat was drilled to the basement rock in Allen County, near Fort Wayne; the pre-Cambrian was reached at about 3,500 feet, without finding saturation in the overlying formations.