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DEVELOPMENTS IN ILLINOIS AND INDIANA  
IN 1946<sup>1</sup>

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INTRODUCTION

This report covers the states of Illinois and Indiana. Most of the oil and gas drilling was confined to the southern part of Illinois and southwestern part of Indiana.

Drilling in the two states increased by 42 per cent in 1946 as compared with 1945 and production increased  $2\frac{1}{2}$  per cent. Wildcat completions in the two states increased from 575 in 1945 to 760 in 1946, an increase of 32 per cent. Thirty-nine new fields were discovered, all of which were within a few miles of previous production, so that no new regions were opened for production. There was little deep testing and no major discovery of deeper production.

The details of development are discussed separately for each state.

ILLINOIS

BY ALFRED H. BELL

Drilling for oil and gas in Illinois increased by 34 per cent when 2,362 wells were completed in 1946 as compared with 1,763 in 1945. Of the total completions 633<sup>4</sup> are classified as wildcat wells, an increase of 37 per cent over the 460 wildcat completions in 1945. Factors in this increase were: the expiration of many 10-year leases during 1946; greater availability of materials and manpower; and higher prices for crude oil. Of the 1,729 pool development wells completed in 1946, 298 were in the Mattoon pool, Coles County. Most of the drilling here took place in the first half of the year. Development drilling occurred in many pools of which some of the most active were: Clay City Consolidated, 128 completions; Stokes-

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<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.

Brownsville, 88 completions; Marine, 54; Herald, 51; and Calhoun Consolidated, 50.

Total oil production in Illinois in 1946 was 75,297,000 barrels, as compared with 75,094,000 barrels in 1945, an increase of about 0.3 per cent. Average daily production during 1946 was 206,000 barrels. Average daily production, by months, during the year varied between 197,000 barrels (December) and 212,000 barrels (May).

#### NEW POOLS DISCOVERED

Thirty-one new pools<sup>5</sup> were discovered in Illinois in 1946 (Table I, and Fig. 1), 58 extensions to pools were discovered by wildcat wells (Table II), and 33 wells, most of which can not be designated properly as exploratory wells, discovered additional producing zones in producing areas (Table III).

Most of the new pools discovered were located within a short distance of previous production. Those farthest away from previous production were Lillyville, Cumberland County (19, Table I, Fig. 1), Omega, Marion County (23, Table I, Fig. 1), and Waverly gas (30, Table I, Fig. 1), none of which is as much as 20 miles from previous production.

#### IMPORTANT EXPLORATORY WELLS

A list of some of the most noteworthy dry holes is given in Table IV. On the whole there was little deep testing in Illinois in 1946. Of the 14 wells listed in Table IV, all but two (Nos. 2 and 10) were located wholly or in part on the basis of subsurface geology. Number 2 was located by seismograph only, and numbers 1, 5, and 6 were located by a combination of subsurface geology and seismograph. Number 10, the Trempealeau test in McLean County, was located without a scientific basis.

The geographic pattern of exploratory drilling in Illinois and Indiana in 1946 followed that established in the last few years except for an increased relative amount in Coles and surrounding counties in Illinois resulting from the development of the Mattoon pool.

An analysis of the methods used in locating wildcat wells in Illinois is given in Table V.

The amount of geophysical exploration, by months, during 1946 in Illinois and Indiana is given in Table VI. The method used most is the reflection seismo-

<sup>5</sup> A strict distinction between the terms field and pool is difficult to maintain for the Illinois-Indiana area because of the large number of producing formations, several of which are confined to a relatively small stratigraphic section, and because of the large number of separate productive lenses in a single producing zone. The number of oil and gas pools (defined as separate reservoirs) is not accurately known but is undoubtedly more than a thousand for Illinois alone. If a field is defined as all of the pools on a single well defined structural feature, the Southeastern Illinois field located on the LaSalle anticlinal belt is a good example. But for many of the newer producing areas in the Illinois basin there is much room for difference of opinion as to a proper grouping into "fields." The word pool is used in this report to mean, in general, a separate producing area, but there are numerous exceptions where two or more separate producing areas are grouped together under a single pool name.

TABLE I  
DISCOVERY WELLS OF NEW POOLS IN ILLINOIS IN 1946

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation	Depth to Top (Feet)	Initial Production (Barrels)*
1. Beaver Creek South	Clinton	I. L. Garard, Vierzege-Mahandt I	7-3-N-2-W	1,146	Bethel	1,131	17,42
2. Boos East	Esper	Secure Oil Co., L. Ireland I	11-6N-10E	2,073	Rosiclare, McClosky	2,057; 2,672	66; 4
3. Browns East	Wabash	Stagnola, W. J. Pfeiffer I	11-25N-14W	3,030	Cypress	2,590	12; 34
4. Clarkburg	Shelby	Conio, Brenner, Callicotte I	17-6N-4E	1,788	Bethel	1,774	12; 10
5. Concorde North	White	V. E. Breun, Callicotte I	10-6S-10W	2,960	Aux Vases	2,950	248
6. Cooks Mills North	Coles	K. Nolan, Coombs Est. I	23-7-8N-7W	1,795	Rosiclare	1,771	12
7. Covington East	White	K. & J. Prigg, Smith I	21-7-7E	3,323	Aux Vases	3,144	73
8. Crossville East	White	Alford, Hamner I	18-7-10E	3,104	Aux Vases	3,123	18; 10
9. Eppa South	White	Deep Rock, Green I	28-8-16E	2,783	McClosky	2,700	50
10. Eppa South	Clay	Allen, Hamner I	4-2-N-13W	2,783	Cypress	2,978	50
11. Frittsville Central	Wabash	Heidt, Smith, Wilkinson I	14-N-13W	2,344	McClosky	2,321	189
12. Frittsville North	Wabash	Heidt, Smith, Wilkinson I	12-N-13W	2,559	Bethel	2,321	46; 5
13. Hidalgo North	Cumberland	Gen'l. Pipe Line, S. Meyers I	36-N-7E	2,770	Rosiclare	2,648	8
14. Hoosier North	Clay	Nash, D. Lewis, Leonard I-A	34-N-7E	3,007	Cypress	2,850	15
15. Hoosier North	Clay	I. Feanik, A. Velter I	35-S-7E	2,823	Aux Vases	2,850	145; 7
16. Junction North	Gallatin	S. Malis, W. Fite I	5-9N-3W	2,849	Aux Vases	2,863	30
17. Lancaster Central	Wabash	S. Malis, W. Fite I	20-N-2W	2,824	Rosiclare	2,820	8; 24
18. Lancaster South	Wabash	Nash, D. Lewis, Leonard I-A	36-N-7E	2,909	Rosiclare	2,813	900
19. Lillyville	Cumberland	I. Feanik, A. Velter I	35-S-7E	2,856	McClosky	2,720	106; 10
20. Maud North	Wayne	Natl. Assoc. Pet. Krogmann I	17-S-13W	2,454	Lower O'Hara	2,450	140
21. Maud East	Wabash	Hexas & Wolfe, Smith I	2-8-S-8E	5,866	Bethel	3,254	192
22. Omega	Gallatin	Deep Rock, Pioneer Trust Bk. I	16-3-N-1W	2,980	Lower O'Hara	2,900	19
23. Omega	Marion	Doran & Delta, Millican Est. I	10-3-N-1W	1,499	McClosky	1,488	59
24. Richview	Washington	Natl. Consumers Oil Keelling-Pitchford I	24-8S-8E	1,938	Cypress	1,820	31
25. Ridgeway	Gallatin	Wiser Oil, Mitsdarffer I	13-2N-1W	2,783	McClosky	2,642	21
26. Sandoval West	Clinton	Doran, Thomas I	27-11N-4E	1,825	Cypress	1,817	21
27. Sandoval West	Shelby	Britton, Kensil Heirs I	0-2-N-7E	1,825	Aux Vases	1,830	2; 3
28. Stanford South	Shelby	T. B. Drickson, Howell I	16-6N-7E	3,185	Aux Vases	3,059	175
29. Wakefield	Jasper	J. W. Ruddy, Dewhirst I	16-6N-7E	3,185	Rosiclare	3,156	46; 52
30. Waverly	Morgan	Ladet, Stenmeyer I	22-13N-8W	3,126	Pennsylvanian	3,126	46; 52
31. Willow Hill East	Jasper	Pure & Carter, Dodd I	6-6N-11E	2,732	McClosky	2,642	100

\* Oil and water.

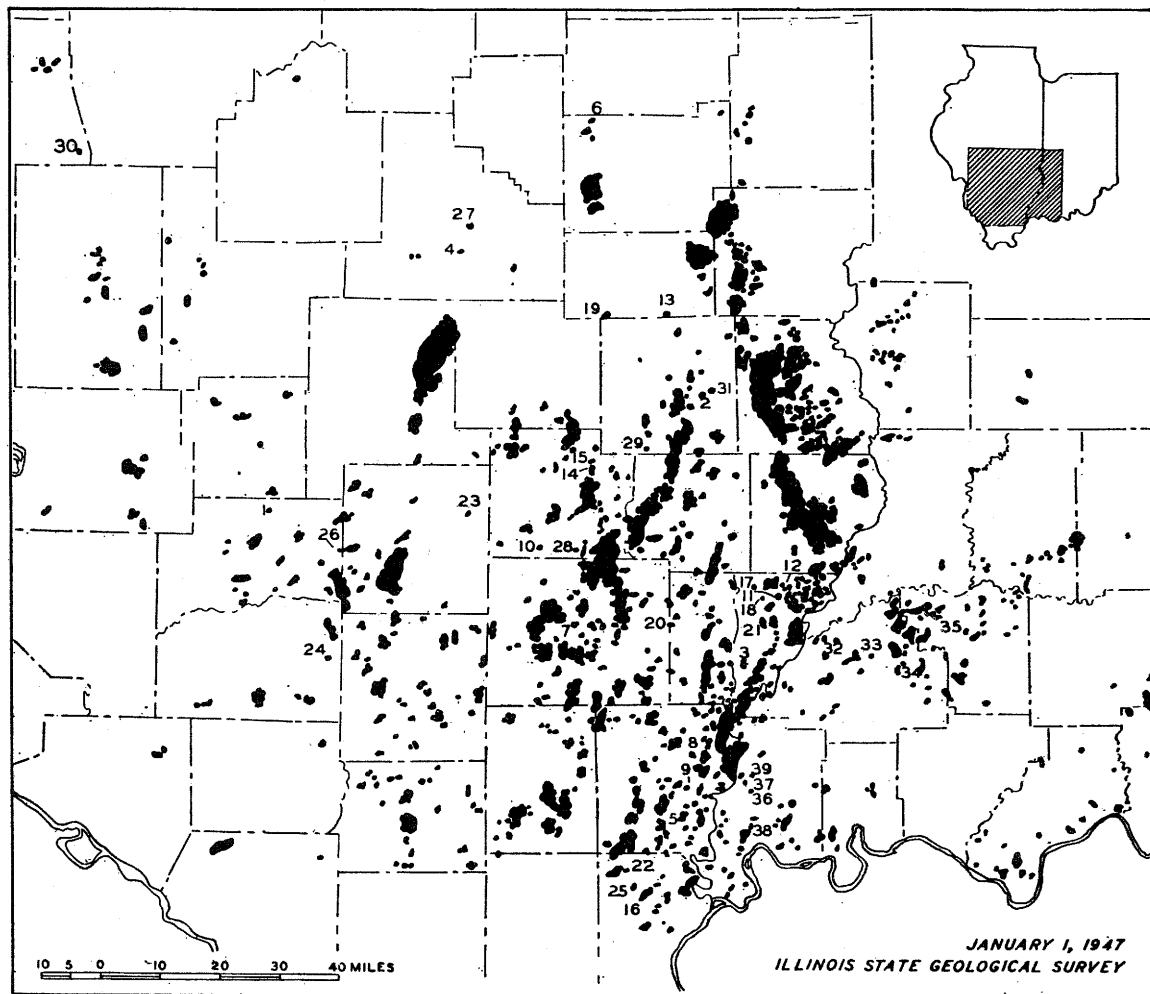


FIG. 1.—New pools discovered in 1946. All present and former oil and gas producing areas are shown in black.  
(See Tables I and VII for pool identification.)

DEVELOPMENTS IN ILLINOIS AND INDIANA IN 1946 983

TABLE II  
DISCOVERY WELLS OF EXTENSIONS TO POOLS IN ILLINOIS IN 1946

Pool	County	Company and Form	Location	Total Depth (Feet)	Producing Formation	Depth to Top (Feet)	Initial Production (Barrels)*
1. Aden South	Hamilton	Weinert, Hall I	20-3S-7E	3,446	Aux Vases; Rosiclare	3,249; 3,335	26; 80.
2. Barrelo West	Clinton	Goldsmidt, Loepker I	10-1N-4W	2,934	Cypress	938	10; 15
3. Boos North	Jasper	Collin, Heaver-Sears I	21-6N-10E	2,872	McClosky	2,800	117
4. Browns East	Wabash	Collman & Hilschman Unit I	27-1S-14W	2,905	Lower O'Hara	2,400	240
5. Browns West	Wabash	Magnus, Feyer I	14-2S-14W	2,582	Cypress	2,575	300
6. Brownsville	White	McBride, Feyer I	32-5S-9E	3,180	Lower O'Hara	3,009	5; 20
7. Brownsville	White	Pure, Adams I	6-6S-9E	3,170	Rosiclare	3,073	100; 118
8. Bungay Consol.	Hamilton	Magnus, Rohrer I	23-4S-7E	3,200	Aux Vases	3,227	27; 3
9. Calhoun Consol.	Richland	Levin, Dyer I	13-2N-9E	3,170	McClosky	1,305	1,305
10. Cisne	Wayne	Robinson, C. E. Downer I	2-1S-7E	3,166	McClosky	3,148	250
11. Clay City Consol.	Wayne	Reynolds & Puckett, S. Bates I	14-2N-8E	3,035	Rosiclare	3,018	1,322
12. Clay City Consol.	Wayne	Reynolds, C. E. Downer I	31-1N-8E	3,216	Rosiclare	3,122	115
13. Clay City Consol.	Wayne	Slagter, Crisman I	32-1N-8E	3,153	Aux Vases	3,054	277
14. Clay City Consol.	Wayne	Slagter, Trotter I	20-1N-8E	3,100	McClosky	3,006	66; 7
15. Clay City Consol.	Wayne	Slagter, R. Pierce I	22-2N-8E	3,032	McClosky	3,029	432
16. Clay City Consol.	Wayne	Ill. Mid-Cont. H. Miller I	13-1N-7E	3,148	Rosiclare	3,108	30; 70
17. Clay City Consol.	Wayne	Slagter, Gray I	16-1S-8E	3,281	Aux Vases	3,104	38
18. Clay City Consol.	Wayne	Ryan, M. A. Brown I	31-2N-9E	3,109	McClosky	3,059	0
19. Clay City Consol.	Wayne	McCall and Cline, Atterberry I	14-1N-7E	3,140	Aux Vases	3,016	8; 24
20. Covington East	White	Nation, Gallagher I	16-1S-7E	3,246	McClosky	3,219	10; 50
21. Epworth East	White	Allen, Williams I	33-5S-10E	3,126	Aux Vases	3,002	24; 36
22. Friendsville North	White	Leavitt, A. L. Gher I	1-1N-13W	1,621	Bielh	1,607	83
23. Gallagher	Richland	Pure, Gallagher I	12-2N-9E	3,181	McClosky	3,166	786
24. Goldengate Consol.	Wayne	Fulk, L. B. Ellis I	20-2S-9E	3,477	Rosiclare	3,408	30; 25
25. Herald	White	Oil Management, Williams I	14-7S-9E	2,882	Aux Vases	2,863	108; 2
26. Hoosier	Clay	Robinson & Puckett, Roley I	11-4N-7E	2,934	Rosiclare	2,916	205
27. Ingraham West	Clay	K-B Drilg, Hastings I	12-4N-7E	2,638	Cypress	2,603	25
28. Ingraham West	Clay	Brinkerhoff, O. A. Barlow 2	11-5N-7E	2,539	Cypress	1,535	165
29. Johnsonville West	Wayne	Gilliam & Aspin, H. D. Lewis I	15-5N-7E	2,941	McClosky	2,870	15; 35
30. Johnsonville West	Wayne	Nat'l Assoc. Pet. Fisher I	30-1N-6E	2,339	McClosky	2,328	84; 20
31. Keenille	Wayne	Deep Rock, Ulysses I	25-1N-5E	3,086	McClosky	3,072	12
32. Keenille	Wayne	Markham, Keeler-Ellis I	27-1S-5E	3,126	McClosky	3,118	29; 9
33. Keenille	Wayne	Mitchell, Cornstubble I	21-1S-5E	2,973	Aux Vases	2,960	18; 3
34. Keenille	Wayne	Zoner, American Nat'l Bank I	23-3N-11W	1,942	McClosky	1,849	1,849
35. Lawrence	Madison	Leper, M. Reding I	14-4N-6W	1,703	Silurian	1,759	80; 170
36. Markham City West	Jefferson	Gulf Green I	10-3S-4E	3,056	McClosky	3,031	128; 15
37. Markham City West	Jefferson	Bresh, Modglin I	32-2S-4E	3,002	McClosky	3,001	12; 50
38. Mason South	Clay	Lynch, Wright I	3-5N-5E	2,521	McClosky	2,439; 2,425	28; 1
39. Mattson	Coles	Nat'l Consumers, Arthur I	2-12N-7E	1,962	Rosiclare	1,934	22; 27
40. Mauld North	Wabash	Hayes & Wolfe, Meyer I	8-1S-13W	2,578	Bethel	2,550	140
41. Maunie North	White	Thompson, E. Bruggen I	13-5S-10E	3,207	McClosky	3,102	20
42. Mt. Auburn	Christian	Wraether, Thompson I	15-13N-2W	1,896	Silurian	1,870	31; 42
43. New Harmony-Griffin Consol.	White	Superior, H. C. Ford 27	8-5S-14W	3,007	McClosky	2,935	400
44. Newton	Jasper	Menhall, J. Eaton I	13-6N-9E	2,943	Rosiclare	2,939	108
45. Potosi	Bond	Bond Co. Gas, Harwood 2	36-7N-4W	753	Pennsylvanian	2,000,000 cu. ft.	
46. Potosi	Richland	Slagter, Fisher I	4-2N-14W	3,150	McClosky	3,125	6; 60
47. Potosi	White	Sun Oil, Okerson I	9-7S-8E	3,114	McClosky	3,018	12; 30
48. St. Francisville East	Lawrence	Bauer, Brevoort I	10-2N-11W	1,852	Bethel	1,701	10
49. Sairo Springs Consol.	Clay	K-B Drilg, Patton I	21-3N-7E	3,080	Bethel	2,784	8; 25
50. Sairoville North	Edwards	Central Pipe Line, Tarpley 2	31-1N-14W	2,940	Bethel	2,934	70; 8
51. Sandington	Hamilton	Sohio, Thomas I	11-4S-7E	3,504	Aux Vases	3,470	8; 1
52. Starved South	Clay	Rudy, O. Tackett I	8-2N-7E	3,087	McClosky	3,080	11; 12
53. Stokes	White	Pure & Carter, E. S. Munsey I	6-6S-9E	3,205	Hardinsburg	2,555	169
54. Stokes	White	Sinclair and Ohio, Holdreby 4	12-6S-9E	3,141	Tar Springs, Waltersburg	2,320; 2,251	9; 20
55. Trumbull	White	Lewis, Nibling I	7-5S-9E	3,270	Rosiclare	3,100	140; 10
56. Trumbull	White	Lewis, Bingham I	17-5S-9E	3,173	Aux Vases	3,102	65; 144
57. Willow Hill	Jasper	Lynn, Hippler I	27-7N-10E	2,776	McClosky	2,668	00

\* Oil and water.

TABLE III  
DISCOVERY WELLS OF ADDITIONAL PRODUCING ZONES IN POOLS IN ILLINOIS IN 1946

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation <sup>a</sup>	Depth to Top (Feet)	Initial Production (Barrels)
1. Aden South	Hamilton	Weinert, Hall 1	29-3S-7E	3,446	Aux Vases	3,449	26; 8b
2. Aden South	Hamilton	Weinert, Hall 1	29-3S-7E	3,446	Rosiclare	3,535	26; 8b <sup>b</sup>
3. Benton	Franklin	Shell, Doty 1	25-6S-2E	2,162	Dezonia	4,737	72; 146 <sup>b</sup>
4. Browns	Wayne	Gilliam & Aspin, H. L. Hering 1	27-1S-14W	2,071	Lower O'Hara	4,898	240
5. Covington East	Wayne	Tex Harvey, Marshall Smith 1	21-1S-7E	3,260	Lower O'Hara	3,408	66; 10 <sup>b</sup>
6. Cowling	Edwards	G. H. Wickham, Schroeder 5	27-2S-14W	2,230	Tar Springs	3,229	30
7. Epworth East	White	W. O. Allen, J. Williams 1	33-5S-10E	3,126	Aux Vases	3,092	76; 36
8. Gaff	Wayne	Robinson & Puckett, Haymes 1	14-7S-0E	3,188	Lower O'Hara	3,469	5
9. Herald	White	Oil Management, J. J. Harrell 1	14-7S-0E	2,972	Lower O'Hara	3,469	443
10. Herald	White	Pure Oil, Austin Consol. "B" 1	34-6S-0E	3,160	Rosiclare	3,805	37; 61
11. Hoosier	Clay	K. B. Drig., Stanley 1	11-4N-7E	3,083	Aux Vases	3,845	36; 125
12. Hoosier	Clay	N. V. Duncan, Gibson 1	2-N-7E	2,084	Rosiclare	2,804	156
13. Ingraham West	Clay	Cities Service, Wyatt 1	13-5N-7E	2,046	Aux Vases	2,762	702; 94 <sup>c</sup>
14. Ingraham West	Clay	Kingwood, Wyatt 5	14-5N-7E	2,938	Bethel	2,842	154
15. Ingraham West	Clay	Cities Service, Wyatt 1	13-5N-7E	2,950	Rosiclare	2,842	764
16. Keenville	Wayne	Wiser, Keen 1	28-1S-5E	3,120	Rosiclare	3,060	159; 75
17. Markham City West	Jefferson	Brehm, Mo'glin 1	34-2S-4E	3,092	Lower O'Hara	3,061	12; 50
18. Mt. Carmel	Wabash	First Nat'l, Pet. Trust, Shaw-Courter 2-A	7-5-12W	1,390	McClosky	1,368	13
19. Newton	Jasper	Menball, James Eaton 1	13-6N-0E	2,943	Bridgeport	2,930	168
20. Noble North	Richland	Pure Oil, L. A. Wasson 3	27-4N-0E	2,090	Rosiclare	2,958	69; 19
21. Olney East	Richland	Texas, R. Scherer 2	23-4N-10E	3,062	Rosiclare	3,048	166
22. Olney East	Richland	Texas, R. Scherer 2	23-4N-10E	3,062	Lower O'Hara	3,048	166
23. Stanford South	Clay	Texas, E. Kitley 2	16-2N-7E	3,109	Rosiclare	3,053	166
24. Stokes	White	Pure & Carter, E. S. Munsey 1	8-6S-0E	3,205	McClosky	3,007	33
25. Stokes-Brownsville	White	Winfrey Drig., Spence 2	17-6S-0E	2,108	Hardinsburg	2,555	169
26. Storms	White	Sinclair & Ohio, Riechen 2	1-6S-9E	3,030	Palestine	2,084	16; 40
27. Storms	White	Sinclair & Ohio, Riechen 2	1-6S-9E	3,030	Aux Vases	3,014	220; 10 <sup>b</sup>
28. Thackeray	Hamilton	Ryford Oil, V. Johnson 3	10-5S-7E	3,598	Tar Springs	2,354	42
29. Trumbull	Hamilton	Ryford Oil, V. Johnson 3	10-5S-7E	3,550	Lower O'Hara	3,450	10; 16
30. Trumbull	White	Pure Oil, W. T. Hall 1	19-5S-0E	3,158	McClosky	3,535	128; 10
31. Trumbull	White	Pure Oil, W. T. Hall 1	19-5S-0E	3,158	Aux Vases	3,150	57; 13
32. Waverly	Morgan	W. L. Lewis, Nibling 1	7-5S-0E	3,270	Rosiclare	3,260	146; 10
33. Willow Hill	Jasper	L. M. Ladef, McManan 1	22-13N-8W	1,543	Devonian	980	1,270,000 cu. ft.
		Secure Oil, L. Mascher 1	3-0N-10E	2,673	Rosiclare	2,661	255

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

<sup>b</sup> Dual completion.

<sup>c</sup> Triple completion.

graph and the number of crews increased from 4 in January to 8 in December. In Indiana only the magnetometer method was reported in use.

STRATIGRAPHY

The geologic system which produces most of the oil in Illinois and Indiana continues to be the Mississippian, and the bulk of the discoveries of new fields, extensions, and new producing formations were in the Mississippian.

TREND IN EXPLORATION, LEASING AND DRILLING

The trend in leasing and drilling was downward in the latter part of 1946 but this was partly seasonal. There will probably be less drilling, both wildcat and

TABLE IV  
SELECTED LIST OF DRY TESTS IN ILLINOIS IN 1946

Pool	County	Company and Farm	Location	Total Depth (Feet)	Deepest Formation	Depth to Top (Feet)
1.	Bond	Sohio, Mohme 1	14-6N-5W	2,668	Trenton	2,608
2.	Bond	Sohio, Long 1	26-6N-5W	2,768	Trenton	2,623
3. Mattoon	Coles	S. H. & K. Drlg., Strong 1	22-12N-7E	3,191	Devonian	3,111
4.	Coles	Obering, Biemer 1	26-14N-7E	2,888	Devonian	2,873
5.	Crawford	Nat'l. Assoc. Pet., Stifle 1	6-6N-11W	3,281	Devonian	2,878
6.	Cumberland	Nat'l. Assoc. Pet., Handley 1	26-10N-7E	3,815	Devonian	3,670
7. Lillyville <sup>a</sup>	Cumberland	Nat'l. Assoc. Pet., Krogman 3	31-9N-7E	4,000	Devonian	
8. Rural Hill	Hamilton	Shell, Nohava 4	13-6S-5E	5,481	Devonian	5,104
9. Boyd	Jefferson	Superior, Friedrich 10	19-15-2E	3,870	Devonian	3,737
10.	McLean	Minnesota Prod., McGowan 1	33-24N-5E	3,510	Trempealeau	3,200
11.	Madison	Jarvis & Marcell, Hitz 1	8-5N-5W	2,797	Trenton	2,692
12. Tonti <sup>b</sup>	Marion	Harvey, Kagy 1	33-3N-2E	4,900	Trenton	4,709
13. Waverley <sup>c</sup>	Morgan	Ladet, McMahan 11	22-13N-8W	1,543	Trenton	1,400
14.	St. Clair	Young, McCurdy 6	29-3S-6W	2,368	Maquoketa	2,312

<sup>a</sup> Plugged back to McClosky oil.  
<sup>b</sup> Plugged back to Devonian oil.  
<sup>c</sup> Plugged back to Devonian gas.

pool development, in 1947 than in 1946. The expiration of additional 10-year leases, the higher prices for crude oil, and continued high demand, all favor continued activity in leasing and drilling, and it seems likely that total drilling will exceed that of 1945.

There is much interest in prospecting for Silurian reef production in the western marginal area of the Illinois basin. A considerable amount of leasing has been done and there will probably be exploratory drilling in this area in 1947. Plans have been announced for testing the pre-St. Peter Ordovician and Cambrian strata on the Pittsfield-Hadley anticline in western Illinois. If production should be found it would stimulate further testing of these strata.

INDIANA

By RALPH E. ESAREY

During the year 1946, drilling activity in the petroleum industry exceeded all expectations with an increase of 75 per cent in well completions and an increase of more than 200 per cent in the total initial production from new wells. A total of 508 wells were drilled during the year, of which 431 were pool wells and 127

TABLE V  
WILDCAT WELLS DRILLED IN ILLINOIS IN 1946, 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	55	252	27	548	82	15.0
Seismograph	4	1	1	1	5	2	40.0
Geology and seismograph	11	2	28	3	39	5	12.8
Nonscientific	311	58	281	31	592	80	15.0
Unknown	2	0	35	0	37	0	0.0
	1	0	3	0	4	0	0.0
Total	314	58	319	31	633	80	14.0

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

<sup>b</sup> More than 2 miles from production.

TABLE VI  
GEOPHYSICAL EXPLORATION, BY MONTHS, IN ILLINOIS AND INDIANA IN 1946

Period (1946)	Illinois				Indiana			
	Seis.	Grav.	Magnet.	Res.	Seis.	Grav.	Magnet.	Res.
	(a) (b)							
Jan.	4-16							
Feb.	5-18							
Mar.	5-21							
Apr.	5-17							
May	5-20							
June	5-25		1-3				2-6	
July	6-23		1-1	1-3			2-8	
Aug.	6-24			1-4			2-8	
Sept.	6-30			1-5			2-10	
Oct.	6-24			1-4			2-8	
Nov.	7-25	1-2		1-4				
Dec.	8-39	1-5		1-5				

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

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

TABLE VII  
DISCOVERY WELLS OF NEW POOLS IN SOUTHWESTERN INDIANA IN 1946

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
32. Grand Rapid	Gibson	Ill. Midcontinent, Parkinson 2	24-1S-12W	2,095	Bethel
33. Princeton N.E.	Gibson	Eldin Hayden, Creclius 2	5-2S-10W	2,080	McClosky
34. Francisco W.	Gibson	L. A. Plumb, Coleman Comm. 1	7-2S-9W	1,965	Ste. Genevieve
35. Union Bowman New	Pike	W. L. Litchlyter, A. Conley 1	3-1S-9W	1,058	Waltersburg
36. Springfield	Posey	H. E. Ledbetter, N. Utley 1	30-5S-13W	3,111	Ste. Genevieve
37. Springfield N.	Posey	Calvert et al., Fretageat 1	24-5S-14W	2,029	Palestine
38. Farmersville S.	Posey	Paul Rossi, Rippey 1	30-6S-13W	2,484	Pennsylvanian
39. New Harmony E.	Posey	Calvert & Willis, Fred Wiley 1	18-5S-13W	2,023	McClosky

TABLE VIII  
DISCOVERY WELLS OF EXTENSION TO POOLS IN SOUTHWESTERN INDIANA IN 1946

Pool	County	Company and Farm	Location	Total Depth (Feet)	Producing Formation
Dodds Bridge	Sullivan	Roy Myers and Ohio Oil Co., E. Hayden 1	10-8N-10W	1,483	Salem
Mt. Carmel	Knox	H. E. Ledbetter, Steckler 1	22-1S-12W	2,088	Bethel
Dodds Bridge	Sullivan	Roy Myers and Ohio Oil Co., O. Benson	10-8N-10W	1,458	Salem
Rich Valley	Wabash	J. Minneci, Ida Votaw 1	12-27N-5E	870	Trenton
Troy	Spencer	Stroble-Busick 1	11-6S-4W	723	Cypress



were wildcat wells. Seventeen discovery wells were drilled, 15 of them finding new oil fields or extensions, and 2 opening new gas fields or extensions. About 83 per cent of the pool wells were producers and 13 per cent of the wildcat wells encountered commercial production. Only a 10 per cent increase in wildcatting took place, but the stage in the development of the basin and the general industrial situation account for this figure. The total footage of new holes amounted to 985,743 feet, which increased the daily production of oil by 7,743 barrels.

The greatest activity took place in the pools along the Wabash River in Posey and Gibson counties. Seven of the new fields and most of the additional production were found in this area. However, many pool wells were drilled in central and western Gibson County, where the Princeton North field has been extended into the city limits of Princeton. Another town-lot "boom" may be in prospect. Two active areas in southern Knox County are creating unusual interest also, and more development is expected during the coming year.

Roy Myers and the Ohio Oil Company opened a new pool in Sullivan County where 6 wells have been completed in the Salem limestone at an average depth of 1,400 feet. This is an extension of the Dodds Bridge field. Production is reported as about 150 barrels daily per well. An extension of the Troy field in Spencer and Perry counties was made by C. A. Busick, who completed two wells in the lower Chester, reported as producing 75 barrels each.

Outside of the Eastern Interior basin, the Horton field in Hamilton County is the most active. As previously reported, it is an extension of the old Trenton pool, producing at 1,050-1,100 feet. The new wells vary in initial production from 25 to 75 barrels per day. New completions were reported in the Henderson field in Jay County, near the state line of Ohio. The wells were small, however, and did not add greatly to the production of the field. Some additional testing was done near the old Rich Valley field of Miami County, but the results were discouraging. Two small producers were completed which might be considered extensions, but it is doubtful if they prove commercial.

Some of the interesting deep tests were as follows: Continental Oil Company's Cooper Estate in Sec. 13, T. 3 S., R. 14 W., Griffin field, tested the Trenton; Duncan *et al.* Miller No. 1 in Sec. 18, T. 9 N., R. 5 W., Owen County, reached the Glenwood-St. Peter formation; J. Regan's Luther No. 1, Sec. 19, T. 10 N., R. 6 W., Clay County, tested the Glenwood-St. Peter horizon also; and the Kankakee Development Company's State Bank of Rensselaer No. 1 in Sec. 14, T. 30 N., R. 6 W., Jasper County, was abandoned in the Mt. Simon sandstone of Cambrian age.