

Oil and Gas Exploration and Development Activity in Ontario in 2002

INTRODUCTION

Oil and gas drilling activity slowed in 2002 due to a lowering of prices late in 2001, which extended into the early part of the year. Prices for both oil and natural gas increased considerably late in the year, due to rapid draw-down of natural gas storage levels in North America as a result of cold winter temperatures, and uncertainties about crude oil supplies due to the strike by oil workers in Venezuela and the possibility of war in Iraq.

EXPLORATION ACTIVITY

Oil and gas drilling activity in Ontario during 2002 declined considerably compared to the previous year. A total of 105 licences to drill and operate new wells were issued by the Ministry of Natural Resources in 2002, compared to 142 in 2001. At the time of writing, drilling was reported to be complete at 82 wells consisting of 27 exploratory wells, 52 development wells, and 3 service wells. The exploratory drilling resulted in 18 wells reported as gas producers including one private gas well and 1 well reported as an oil producer (Table 1, Figure 1). Development drilling was very successful, with 12 wells reported to be oil producers, 22 as gas producers, 6 as private gas wells and 1 well completed for production of both oil and natural gas. Most of the successful oil wells were completed in Ordovician targets, while completions in Silurian sandstone reservoirs in Norfolk County dominated the gas-producing wells.

Horizontal drilling accounted for 26 of the 82 wells drilled in 2002, continuing the popularity of this technology.

Talisman Energy Inc. was the most active exploration company in Ontario's petroleum industry in 2002, with 28 wells drilled. Echo Energy Inc drilled 13 wells and Pifher Resources Inc completed drilling at 11 wells.

Ordovician Play: Drilling was reported to be complete at 1 exploratory well and 14 development wells testing Ordovician targets in 2002. The one Ordovician exploratory well, TLM No.1 (Horiz #1) Mersea 2-18-D was reported to be completed as an oil producer.

The Ordovician development drilling resulted in 12 new oil producers with 1 well still under evaluation. Successful oil wells were completed in the Mersea 4-240-STR, Mersea 6-16-B, Mersea 3-6-V (Wigle), Rochester 1-17-II EBR, and Rochester 7-17-IV EBR pools. All of these wells were drilled by Talisman Energy Inc.

Cambrian Play: No wells were drilled to test Cambrian targets for oil and natural gas potential in 2002. General Chemical Canada Ltd drilled 1 brine well on their property in Anderdon Township.

Silurian Carbonate Play: There were 8 exploratory tests of Silurian Guelph Formation reef and/or Salina Formation structural trap targets in 2002. Kinetic #5 Sombra 4-2-XIII was completed as a natural gas well in a new pool discovery in Lambton County. REC #13 Aldborough 6-23-IV was reported to be a potential gas producer and is currently undergoing evaluation. The remaining 6 wells were all plugged and abandoned.

There were 13 development tests of Silurian Guelph-Salina formation targets in 2002. Nine wells were drilled on offshore targets in Lake Erie by Talisman Energy Inc to develop natural gas reservoirs in the Morpeth and Silver Creek platform reefs. Five of these wells were either completed for production or reported as potential gas producers. In onshore activity, Clearwood Resources Inc. completed an oil well on an extension of the Becher West oil pool. 748160 Ontario Inc. completed a well for production of natural gas in the Chatham 6-15-XII pool.

Silurian Sandstone Play: The interest in Silurian sandstone targets continued in 2002, as increasing natural gas prices improved the economics of this basin-centered tight gas play. A total of 17 exploratory and 24 development wells tested Lower Silurian sandstone targets in 2002. Sixteen of the exploratory wells were reported to be gas

producers or potential gas producers. Successful wells were completed by Echo Energy Inc., Rowe Energy Corporation, and Pifher Resources.

Twenty-three of the development wells were reported as gas producers or potential gas producers. Successful commercial gas wells were drilled in 5 different pools: Hemlock, Bayham, Lincoln, Houghton 5-8-ENR, and the Lake Erie-Maitland pool. Echo Energy and Pifher Resources were the most active companies in the play, accounting for 11 of the new gas wells. Successful wells were also completed by Hemlock Explorations, Talisman Energy, and NRG Corp. Seven other wells were completed as private gas wells in parts of the Lincoln and Haldimand gas fields.

Devonian Play: One exploratory well was drilled to test the Devonian by Borders Exploration Ontario Inc. The well was reported to have encountered a show of natural gas and was plugged and abandoned shortly after reaching total depth.

Preliminary figures indicate that Ontario produced 214,293 m3 of oil valued at \$56.2 million and 425.3 million m3 of natural gas valued at \$85.6 million in 2002. This compares to production of 242,000 m3 of oil valued at \$55 million and 414 million m3 of natural gas valued at \$100 million in the previous year.

Table 1. Successful exploratory wells in southwestern Ontario, 2002. See Figure 1 for well locations.

Map #	Latitude	Longitude	Well Name	Target	Depth	Result	TD Date
1	42-37-25.947	80-40-53.421	Pifher 5 Houghton 3-2-I	CLI	445	GP-ACT	2002-11-05
2	42-38-34.708	80-40-49.343	Pifher 7 Houghton 3-5-I	CLI	424	GP-ACT	2002-12-12
3	42-38-55.398	80-40-47.883	Pifher 6 Houghton 3-6-I	CLI	445	GP-CAP	2002-12-06
4	42-41-30.110	80-42-49.06	Pifher 12 Houghton 6-11-WNR	CLI	417	GP-POT	2002-09-26
5	42-37-44.797	81-38-30.011	REC #11 Aldborough 1-21-IV	CLI	541	GP-ACT	2002-12-12
6	42-38-15.002	81-38-30.242	REC #14 Aldborough 5-22-III	CLI	544	GP-POT	2002-12-03
7	43-43-49.39	80-44-22.1	Echo 24 Bayham 6-24-SG	CLI	413	GP-CAP	2002-10-04
8	42-42-10.71	80-43-54.04	Echo 20 Bayham 6-26-V	CLI	414	GP-CAP	2002-11-05
9	42-43-18.23	80-47-14.63	Echo 22 Bayham 4-15-V	CLI	422.5	GP-POT	2002-11-05
10	42-42-4.53	80-46-15.43	Echo 18 Bayham 3-18-IV	CLI	423	GP-POT	2002-07-03
11	42-41-32.37	80-45-42.12	Echo 17 Bayham 6-20-IV	CLI	426	GP-POT	2002-09-26
12	42-43-2.25	80-45-3.66	Echo 21 Bayham 2-22-V	CLI	419.9	GP-POT	2002-07-02
13	42-41-22.33	80-44-31.01	Echo 16 Bayham 5-24-IV	CLI	418	GP-POT	2002-12-14
14	42-43-21.87	80-43-36.04	Echo 23 Bayham 8-27-SG	CLI	412	GP-POT	2002-07-02
15	42-42-2.88	80-43-19.81	Echo 19 Bayham 6-28-V	CLI	415	GP-POT	2002-12-16
16	41-59-32.83	82-31-17.902	TLM No.1 (Horiz #1) Mersea 2-18-D	ORD	2016	OP-ACT	2002-06-05
17	42-37-49.196	81-37-39.214	REC #13 Aldborough 6-23-IV	SAL	544	GP-POT	2002-03-19
18	42-44-8.784	82-27-4.538	Kinetic #5 Sombra 4-2-XIII	SAL	695	GP-ACT	2002-10-25

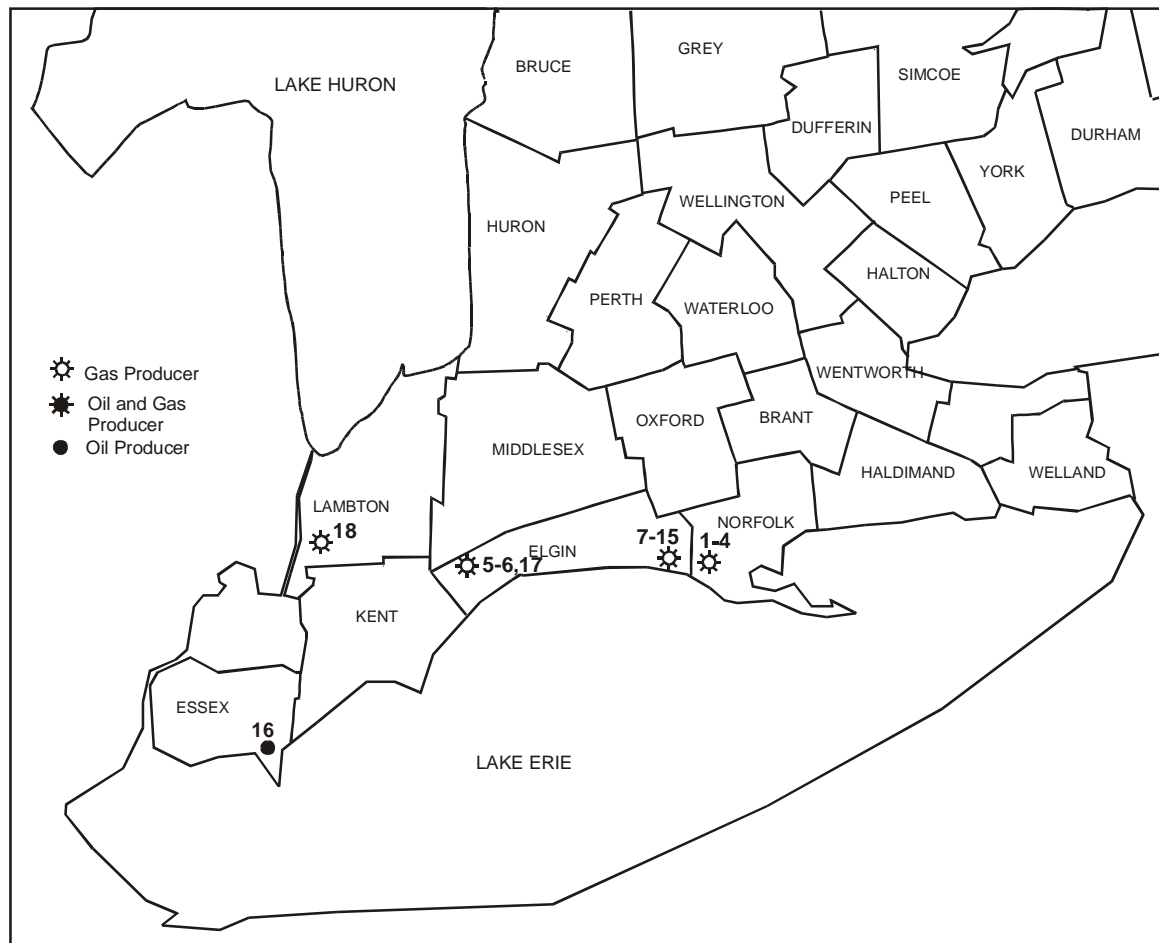


Figure1. Successful exploratory wells in Ontario in 2002.