



Ontario Oil, Gas and Salt Resources Library
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Ontario Oil, Gas and Salt Resources Trust

(Ontario Oil, Gas and Salt Resources Library)



2014 Business Plan

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Ontario Oil, Gas and Salt Resources Trust

MISSION AND OBJECTIVES

MISSION

The Ontario Oil, Gas and Salt Resources Trust is a non-profit organization established by the Ontario Oil, Gas and Salt Resources Act to provide information management relating to oil, gas and salt resources, and fund research, surveys, and laboratory facilities and operations relating to oil or gas exploration, drilling or production, the storage of oil, gas and other hydrocarbons in geological formations, and the disposal of oil field fluid in geological formations.

OBJECTIVES

The Ontario Oil, Gas and Salt Resources Trust's mandate is to maintain and improve access to existing data, and to develop programs to improve client access to information, develop new data products, and to generate new revenue to sustain operations.

The Ontario Oil, Gas and Salt Resources Trust manages the Ontario Oil, Gas and Salt Resources Library, a resource centre for oil and gas exploration, salt solution mining, and subsurface storage and fluid disposal in Ontario.

The Ontario Oil, Gas and Salt Resources Library provides services to companies and individuals involved in oil and gas exploration, drilling or production, the storage of hydrocarbons in geological formations, the disposal of oil field fluid in geological formations, and solution mining, as well as the general public, universities, government ministries and agencies, companies providing geotechnical, geothermal and groundwater services, and other clients. Services are provided on a cost recovery basis.

The Ontario Oil, Gas and Salt Resources Library provides its clients in these resource industries with the data they need to conduct their business in the most orderly, safe and efficient way possible. It also provides public access to this data at reasonable cost.

1.0 Introduction

The Ontario Oil, Gas and Salt Resources Trust (Trust) 2014 Business Plan was prepared to fulfill the mandate of the “Trust Agreement” between the Province of Ontario and the Ontario Oil, Gas and Salt Resources Corporation, an entity established by the Ontario Petroleum Institute (OPI).

The 2014 Trust Business Plan is presented to the Trust Advisory Committee organized under the Trust Agreement to set operating budgets and to direct policy with respect to expenditures.

2.0 Executive Summary

The 2014 Business Plan identifies both the long-term strategy and short-term action plans undertaken by the Trust in operating the Ontario Oil, Gas and Salt Resources Library (Library) as a resource centre for the Ontario oil and natural gas, hydrocarbon storage, and salt/solution mining industries.

The Library faces challenging economic conditions as it strives to be a self-sustaining organization that generates the majority of its revenues from the Ontario oil and natural gas industry. Declining revenues from reduced exploration and development activity in recent years has resulted in the Library running operating deficits in 2011 and 2012. An increase in revenue coupled with reduced expenses will result in a surplus for fiscal 2013 due largely to the ongoing project support from the Ontario Ministry of Natural Resources (MNR).

In 2014 the Library will continue to promote its expertise and services to achieve financial sustainability. The Library will continue to work closely with the MNR supporting where it can the projects that provide both financial benefit as well as the progressive development of Ontario’s natural resources.

A proposal has been submitted to the MNR requesting changes to the annual well licence fee assessment in Ontario Regulation 245/97 as well as a request for an alternative to the existing mechanism for setting well license fees. The changes will require the approval of the Provincial Legislature and are expected to take effect in January of 2015.

3.0 The Ontario Oil, Gas and Salt Resources Trust

The Ontario Oil, Gas and Salt Resources Trust was formed by the Ontario Ministry of Natural Resources pursuant to amendments made to the Oil, Gas and Salt Resources Act in 1997. A Trust Agreement, dated February 16, 1998, was signed with the original Trustee, the Ontario Oil Gas and Salt Resources Corporation, an entity established by the Ontario Petroleum Institute and responsibilities for operation of the Library were transferred to the Corporation. The OPI is the sole shareholder of the Ontario Oil Gas and Salt Resources Corporation. The Executive of the OPI are the officers of the Corporation and the Managing Director of the Trust is the Executive Director of OPI.

Requirements for a Trust Advisory Committee (TAC) exist within the Act and the Trust Agreement. The TAC is comprised of four representatives from the oil and natural gas exploration and production industry, and one representative from each of the natural gas storage, hydrocarbon cavern storage, and salt solution mining industry. Committee members are appointed by the Trustee to a two-year term. The TAC meets regularly to advise on Trust policy, operations and budget.

3.1 The Structure of the Trust Agreement:

Ontario Ministry of Natural Resources	Trustees (OPI Executive) ↓ Library ↓ Managing Director ↓ Manager ↓ Staff and Contractors	Trust Advisory Committee
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3.2 Ontario Oil, Gas & Salt Resources Corporation

Trustees (Ontario Petroleum Institute Executive)

Morley Salmon, President

Frank Kuri, First Vice President

Dale Holland, Second Vice President

Jack Norman, Treasurer

Denis Marcus, Secretary

3.3 Trust Advisory Committee

Land:	Dale Norman, Elexco Ltd.
Production:	Frank Kuri, Dundee Energy Andre Czyhun, Manfred Resources
Salt:	Bill Cocchio, Windsor Salt
Natural Gas Storage:	Shelie Cascadden, Union Gas
Cavern Storage:	Dean Edwardson, Sarnia-Lambton Environmental Association
Consulting	Mike Dorland, Consulting Geologist
Government:	Terry Carter, MNR (non-voting member)

3.4 Oil, Gas and Salt Resources Library Team

Hugh Moran, Managing Director
 Richard Ostrowski, Manager
 Jordan Clark, Operations Technician
 Nicole Ramesar-Fortner, Data Entry Operator

4.0 Industry Summary

Ontario's petroleum and salt solution mining industries includes the following activities:

- (i) oil exploration and production;
- (ii) natural gas exploration and production;
- (iii) natural gas underground storage;
- (iv) salt solution mining; and
- (v) hydrocarbon underground storage associated with the petrochemical refining industry

These activities provide Ontario consumers with the following:

- (i) storage of natural gas imported to Ontario from sources in Saskatchewan, Alberta and British Columbia by pipeline and held in reserve to supplement times of peak demand. This becomes very important with the switch from coal to natural gas generation of electricity;
- (ii) table salt and industrial salt – Ontario is a net exporter of salt produced from salt solution mining;
- (iii) underground storage caverns of product necessary for Ontario's petrochemical and refining industry;
- (iv) a small percentage of Ontario's demand for oil and related products; and
- (v) a small percentage of Ontario's demand for natural gas

An estimate of the oil and gas industry's contribution to the Ontario economy:

- (i) approximately 1,000 plus people directly employed in exploration, production, storage and salt solution mining in Ontario;
- (ii) industry assets = \$650 million;
- (iii) personal total taxable income = \$55 million;
- (iv) services and goods purchased by the industry = \$90 million;
- (v) lease payments and royalties paid to land owners and the crown = \$10.4 million; and
- (vi) municipal taxes = >\$4 million per year.

The value of production and storage in Ontario in 2012:

- 1,183 wells produced 76,113 m³ (478,000 barrels) of oil = \$38.3 million
- 1,221 wells produced 220,300 thousand m³ (7.8 bcf¹) of natural gas = \$21.6 million
- 6,900 million m³ (244 bcf) of natural gas storage capacity = \$1 billion in value
- 3.5 million m³ of hydrocarbon storage capacity = ± \$2 billion in value

Overall annual value of oil and gas sector to the Ontario is \$4 billion.

5.0 Ontario Oil, Gas and Salt Resources Library – A Resource Centre

5.1 Resources

The Ontario Oil, Gas and Salt Resources Library can trace its origin to the late 1800's, when the Geological Survey of Canada solicited voluntary submissions of drill cuttings and core from oil and gas wells drilled in Ontario and other parts of the country. This informal collection evolved into the establishment of a core and drill cuttings sample processing, storage and study facility in Ottawa. In 1950, a similar facility was established in Calgary and all Western Canada drill cuttings samples were transferred to Calgary. In 1971, the Ontario cores and drill cuttings samples were shipped to the new Petroleum Resource Laboratory in London, Ontario. The lab was owned and operated by the Ontario MNR.

The Library houses resources and data available for study including: (i) drill cuttings samples from over 13,100 wells; (ii) cores from over 1,027 wells; (iii) file information on approximately 27,000 wells including geophysical logs, formations tops, well history and construction; (iv) oil/gas/water zones, initial completion results; (v) core analyses, (vi) oil/gas/water analyses; and (vii) an extensive collection of reference books, periodicals and reprints on the subsurface geology of oil, gas, salt and subsurface storage resources of Ontario.

Digitization of hard-copy petroleum well records project remained as a first priority in 2013, accounting for over 125,000 scanned pages of original well completion, well plugging and other technical reports on file. Preservation of the original archive will also serve as an instant online viewer of all documents. This project is nearing completion with 25% of records remaining to be scanned.

The Ontario Petroleum Data System data entry project is complete with a total count of approximately 26,500 wells on record. The second phase “Data Integrity” project has further enhanced data accuracy and remains as an ongoing effort.

Pools and pipelines update was completed in 2013, summing up total cumulative production numbers for all pools producing natural gas and crude oil in Ontario. A geographical component of this project produced a new layer of updated pool boundaries. Final report was published as the Oil and Gas Pools and Pipelines Map of Southern Ontario.

5.2 Services

The Library is visited by industry participants wanting to view data files relating to wells drilled in Ontario (i.e., well cards, production information, plugging information, etc.), core and drill cutting samples for wells drilled in Ontario, maps of well locations, and open file reports on the industry. Clients can review materials in the Library, and if relevant, take copies of the data files for studying outside of the Library. An ArcGIS workstation is available for client use and is equipped with the Ontario Ministry of Natural Resources’ (MNR) proprietary PetroGIS software for performing spatial queries on the digital petroleum well database and with Surfer 8© digital gridding and contouring software for subsurface geological mapping. The Library also provides a drill cutting sample service and a core cutting service.

The Library also operates a dynamic website (www.ogsrlibrary.com) which contains summaries of reference materials and a growing list of regularly updated reports (drilling activity reports, new well licenses). Member access includes individual well history complete with geology, analysis, geophysical logs, production, plugging and stimulation.

Basic digital petroleum well data for all counties in Ontario is posted to the Library website for complimentary downloading (well location and historical data). A set of enhanced and value-added subsurface data for all counties is available for purchase. The website is updated regularly with verified county data and digital data products. The Library staff utilizes this digital data for plotting specialized maps which combine different data types including well locations, bedrock geology, bedrock topography, oil and gas pools, and digital elevation models for Ontario as well as incorporating results from data queries and filters.

The Production Module for the Library's well database now incorporates all 70,000 production forms scanned. These forms are posted on the website and can be viewed at no charge by the public. This module also contains digitized monthly production data for all wells completed between 1992 and 2010. The Library has over 7.5 million rows of digital production data available for query and for download by individual and corporate members.

5.3 Ongoing Initiatives

5.3.1 Digitization of Hard-copy Petroleum Well Records

Currently ongoing project to scan original source documents is already proving its worth as the industry responds positively to thousands of records being instantly available online. Dedication and craftsmanship behind this effort resulted in 75% of archival records being scanned and digitally cataloged. This project is sponsored by MNR and expected to complete in the second quarter of 2014.

5.3.2 Digital Archiving of Geophysical Log

A major undertaking in 2012 was the digital log archiving which produced 20,000 geophysical log scans from paper records and became the ultimate backup and an online resource. This project will continue into second phase during 2014 to accomplish depth registration for each image captured. The project results are hoped to be used in the marketing of the Ontario industry in upcoming OPI magazines.

5.3.4 Seismic Surveys and Shot Lines

Following industry feedback, the Library will approach in 2014 the majority of companies who own seismic surveys in Ontario to propose a one point data exchange with anyone interested in exploration. The objective of this venture will aim at encouraging investment in the Ontario oil and gas industry. All seismic shot lines were verified using historical records and a digital compilation was produced.

This project was completed in 2012 however more work can be done by locating owners of seismic data (proprietary) to further expose geological sub-structures in Ontario for the benefit of future exploration

5.3.4 Log Digitizing

TGI research provided budget for hardware/software to scan and digitize hard-copy geophysical well logs, plus some funding for personnel to acquire select project logs. Staff have been trained on digital acquisition, and can digitize logs upon client request.

A fee is charged for this work. There is a continuous review of current digital data pricing. There are on-going requests to ensure that digital log submissions are part of the next Operating Standards update. To date 20,000 geophysical well logs have been scanned and catalogued as TIFF files and 4,700 well logs have been digitized as LAS files.

5.3.5 Digital Data Publishing

The Library will continue to work, in partnership with the MNR to build, maintain and market a digital database of geological and engineering information on wells drilled in Ontario. The Library will be the data vendor for information on Ontario oil, gas, and salt and storage resources, based on the Data Resale Agreement with MNR.

Current Activity:

- MNR has an operational database of all licenced wells in Ontario within the Ontario Petroleum Data System (OPDS). All new wells and well information, with the exception of production information, are entered into OPDS. The OGSRL, in conjunction with MNR, has populated the database with old well information and files.
- Sale of value-added subsurface data from OPDS by the Library began in 2003 and will continue through 2014. Data consist of geological formation tops, logging records, and oil/gas/water interval records.
- A data sharing agreement has been signed between the MNR Information Access Section and the Ontario Oil, Gas and Salt Resources Corporation. The agreement allows corporate members of the Library to use MNR Digital Base Maps.
- The Library is updating geographic co-ordinates for number of wells, populating the well location metadata record for well location accuracy, and performing quality assurance checks and corrections for oil, gas, and water interval records in the MNR petroleum well database.
- Well production history is one of the most sought after items by Library users. The Library has produced a digital dataset of well production history and has posted the data on its website for use by members. This project was funded in part by the MNR.

6.0 Marketing

In 2014 Trust will market the Library as resource centre and provider of member and client services. The emphasis will be on business development and promotion.

These activities will support generating Library sources of non-fixed revenue from three strategic areas:

- **Data sales**
- **Projects**
- **Membership**

6.1 Business Development

The Library's business development activity will target additional project work, sales of information and data, and new memberships.

The geographical markets are Ontario, Alberta, and the mid-western and northeastern USA. In Ontario it's usually the operator of oil, gas, solution mining, natural gas storage, oil field fluid disposal or petroleum product storage wells in the province of Ontario, or a consultant providing services to these operators. Outside of Ontario potential clients are resource exploration companies considering new locations for investment or activity.

The Library will continue to look for opportunities to sell data and information (see Appendix 1), primary assets that the Library has to offer current and potential clients. Various sectors of the economy – energy, telecommunications, construction – responding to market conditions and regulations, specifically environmental compliance, may require resources offered by the Library.

Potential project work opportunities will essentially come from the MNR and member companies and individuals.

The primary market for membership is the oil and gas sector, hydrocarbon storage and salt solution mining companies that fall under the jurisdiction of the MNR. Of 140 companies that are assessed well license fees approximately 30 are Library members. In 2014 the Library will target companies that operate wells licensed under the Oil, Gas and Salt Resources Act but do not have a Library membership, as well as companies and individuals from across the industry.

The other membership potential is with any sector that does subsurface work in Ontario. This includes government ministries and agencies, companies providing geotechnical, geothermal and groundwater services, academic researchers, and the general public.

6.2 Promotion

The Library's promotional activity is focusing on exhibiting at conferences to obtain exposure to key sectors that represent revenue opportunities for membership, projects and data sales.

The Library, in conjunction with the OPI, will develop an exhibit presentation that will feature, to the highest possible level, the benefits that demonstrate the value of each organization.

The list of potential conferences in 2014 will include but not necessarily be limited to:

- Association of American Petroleum Geologists
- Pennsylvania Oil and Gas Association
- Independent Oil and Gas Association of New York
- North American Prospect Expo
- Ontario Groundwater Association
- Ontario Geothermal Association

These conferences as well as others offer potential opportunities for the Library to partner with other organizations, the OPI and MNR for example to maximize its exposure.

7.0 Budget

7.1 Revenue

The Trust has fixed and non-fixed revenue from well license fees, memberships, data sales and projects.

The fixed revenue – the largest source – comes from well license fees which are collected annually through Ontario Regulation 245/97 which obligates producers to pay a yearly production based fee assessed by the MNR. We are anticipating fees will remain at par with 2013 revenue.

The non-fixed revenue from memberships, data sales and projects is projected to show a modest increase in corporate membership income and reductions in individual memberships. Data sales are expected to remain at 2012 levels. The 2013 fee schedule is attached as Appendix 1.

Project revenue for 2013 came in at just under \$100,000 which was well above the Budgeted amount of \$69,000 all derived from the MNR. The Library is lowering its project revenue projection for 2014 to \$60,000 to reflect that this revenue is sole sourced, and therefore not necessarily sustainable on a yearly basis.

7.2 Expenses

The Library's expenses declined in 2013 due to a work share arrangement with the Library's Operations Technician seconded to the Ministry of Natural Resources for approximately four months, and a reduction in contract staff. The budgeted expenses for 2014 do not anticipate a similar work-share agreement.

The Library is projected to post a deficit for the fiscal year 2014.

8.0 A Sustainable Future

The Ontario oil, Gas and Salt Resources Trust has successfully supported the oil and natural gas industry, hydrocarbon storage, and the salt/solution mining industries in and outside of Ontario. It is a self-funded organization with a connection to government not unlike a crown corporation it is an excellent example of how the marketplace and public are well served.

The Trust has built-up a contingency reserve to ensure it has operational stability. For the Library to have a sustainable future it will require action on stabilizing, to the best extent possible, its revenue and expenses.

On the revenue side well license fees will remain unchanged for 2014. The Fee Schedule Proposal submitted in the fall of 2012 has been reviewed by the MNR. The TAC has amended its original proposal. It is expected the amended proposal will receive Government of Ontario approval that will take effect on January 1, 2015.

On expenses, the MNR in responding to TAC's request to have the MNR assume the rent cost of the Library's premises at 660 Exeter Road in London, Ontario has indicated its desire to enter into formal discussions with the TAC in 2014 on the sustainable operation of the Library to include flexibility on any future fee schedule changes on well licenses and the rent costs on 660 Exeter Road.

9.0 Priorities 2014

(1) Develop initiatives from the choices outlined in 8.0 A Sustainable Future to secure long-term financial stability for the Ontario Oil, Gas and Salt Resources Trust for the operation of the Ontario Oil, Gas and Salt Resources Library.

(2) Marketing activity to increase membership, project contracts, and increased client services.

(3) Data services and products - provide the most up-to-date data available and develop a broad selection of products to offer members and clients.

(4) Client access to information - provides members and clients with ease of access – onsite and online – to the store of information housed in the Library.



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