SUPPORTING ENERGY LEADERS

GLJ’s Global Expertise: A Leader in Independent Engineering and Geological Services
Discussion

- Introduction to GLJ
- Global Strength
- South America Opportunity
- Key Experience
- Partnership
• Founded in 1972, GLJ is a leader in independent reserves evaluations
• Large, Global client base:
  • ~40% of oil & gas assets reported to Toronto Stock Exchange (TSX) are evaluated by GLJ
  • international clients on markets in US, United Kingdom, Europe, and Hong Kong
  • IOC’s, NOC’s, private equity, pipelines
• Our clients receive reliable results supported by rigorous science
Global Services

- Economic Evaluations
- Reserve and Resource Evaluations
- Corporate Advisory
- Reservoir studies
- Reservoir Simulation
- Ultimate Potential Studies
- Customized Technical Training
- Expert Witness
Our Values

Business Values:
• Ethical Business Practise
• Integrity in our Independent opinions
• Engage in Partnership and Collaboration with key organizations with world leading skills

Professional Development
• GLJ is committed to training and development
• GLJ should facility training and knowledge transfer and exchange to/with industry
• GLJ staff contribute to SPE, COGEH and other technical organizations
• GLJ staff contribute to University education of new professionals

Community Support
• GLJ supports national and international charitable foundations
• Our employee events enrich quality of life in Canada
GLJ has evaluated diverse reservoirs throughout the world.
GLJ’s clients include small and major oil and gas companies, financial institutions, investment bankers, government agencies, and legal firms. Examples include:

### NATIONAL OIL COMPANIES
- CNOOC
- CNPC
- India Oil and Gas
- Korea Gas Corporation (KOGAS)
- Korea National Oil Corporation
- ONGC
- Petronas
- TAQA (NORTH)

### Private Sector Companies
- Andes Petroleum Ecuador Ltd.
- ARC Resources Ltd.
- Athabasca Oil Sands Corp.
- Canadian Natural Resources Limited
- Canadian Oil Sands Limited
- Cenovus Energy Inc.
- ConocoPhillips Canada
- Crescent Point Energy Corp.
- Encana Corporation
- Gran Tierra Energy Inc.
- Husky Energy Inc.
- Maurel et Prom Colombia B.V.
- MEG Energy Corp.
- Parex Resources Inc.
- Pengrowth Energy Corporation
- Petro Andina Resources Inc.
- Shell Canada Limited
- Suncor Energy Inc.
- Sunshine Oil and Gas
- Tourmaline Oil Corp.

[http://www.gljpc.com/selected-recent-clients](http://www.gljpc.com/selected-recent-clients)
Leader in Evaluations

- International client experience with different reservoirs, extraction methods, fiscal regimes, and business alternatives
  - Offshore Reservoirs
  - Heavy Oil, Light Oil, Volatile Oils
  - Shale Oil, Shale Gas, Low Permeability
  - Resource play analysis
    - Oil Sands and Thermal Recovery
    - Horizontal multifrac development
    - Naturally Fractured Reservoirs
    - Mining
GLJ’s relationship with Clients

• We listen and respond in a timely manner.

• We consider our client’s technical concepts with an open mind.

• Our reports allow our clients to make informed and better decisions.
Partnership Opportunity

- The GLJ team of Engineers, Geologists and Support staff have the experience and capacity to manage major projects such as the YPFB evaluation
- Many on evaluation team have more than 15-20+ years of experience directly in reserves evaluation
- Our clients benefit from our leadership, independence and integrity
• GLJ staff have standard setting experience with resource evaluations
  • GLJ staff had representation on SPEE committees that prepared world class Canadian Oil and Gas Evaluation Handbook (COGEH)
  • GLJ has representation on current committees that prepare new COGEH standards for unconventional reservoirs, Canadian securities law on reserves and resource disclosure
GLJ has clients that operate in diverse basins across South America.

Experience includes:
- Light oil reservoirs
- Heavy oil reservoirs
- Naturally fractured reservoirs
- Gas condensate reservoirs
- Volatile oil reservoirs
- Shale Oil
- Deep water

Evaluation types:
- Reserves/Resource and Economic evaluations
- Exploration risk analysis
- Geophysical and geology studies
The following staff will be responsible for key aspects of the project:

<table>
<thead>
<tr>
<th>Area</th>
<th>Personnel</th>
<th>Title</th>
<th>Experience Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordinator of Engineering</td>
<td>Keith Braaten, P. Eng.</td>
<td>President</td>
<td>32</td>
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<tr>
<td>Coordinator of Economics</td>
<td>Leonard Herchen, P. Eng.</td>
<td>Vice President</td>
<td>24</td>
</tr>
<tr>
<td>Coordinator of Geology</td>
<td>Mark Jobin, P. Geol.</td>
<td>Vice President</td>
<td>29</td>
</tr>
<tr>
<td>Reservoir Simulation</td>
<td>Viggo Fløisand, M.Sc., P. Eng.</td>
<td>Manger, Engineering</td>
<td>33</td>
</tr>
<tr>
<td>Stratigraphic Geology</td>
<td>Graham Simpson, Ph.D., P. Geol.</td>
<td>Senior Geoscientist</td>
<td>21</td>
</tr>
<tr>
<td>Petrophysics</td>
<td>Mirek Zaoral, P. Geol.</td>
<td>Manager, Geosciences</td>
<td>37</td>
</tr>
<tr>
<td>Thermal Recovery</td>
<td>Caralyn Bennett, P. Eng.</td>
<td>Vice President</td>
<td>22</td>
</tr>
<tr>
<td>Pressure Transient Analysis</td>
<td>James Werth, P. Eng.</td>
<td>Senior Engineer</td>
<td>34</td>
</tr>
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</table>
GLJ’s recent presentations are reviewable at: http://www.gljpc.com/recent-presentations, including:

- **Considering the Full Production History of Five Key Resource Plays: What Has History Taught Us?**
  Michael Morgan (Ph.D., P.Eng.). Hanson Wade Conference
  Houston, Texas. August 2013

- **Big Data and Predictive Visual Analytics in Tight Oil Resource Assessment**
  Roman Tanner (P. Eng.). 2013 TD Calgary Energy Conference
  Calgary, Alberta, Canada. July 2013

- **De-Risking Unconventional Plays**
  Michael Morgan (Ph.D., P.Eng.). Hanson Wade Unconventionals Europe Conference

- **Market Leading Canadian Oil Sands Expertise**
  Caralyn Bennett (P. Eng.). Canadian Heavy Oil Association’s 2013 Slugging It Out Conference, Calgary, Alberta, Canada. April 2013

- **A Model of Canadian Oil and Gas Price Fluctuations 2012 Update**
  Michael Morgan (Ph.D., P.Eng.). SPE Canadian Unconventional Resources Conference
  Calgary, Alberta, Canada. October 2012

- **Chances Are ... We Don't Know how Things will Turn Out**
  Michael Morgan (Ph.D., P.Eng.). TD Securities' 2012 Calgary Energy Conference
  Calgary, Alberta, Canada. July 2012