Senex’s Digital Revolution:
A new way of working

Ian Davies | 17 September 2019
A growing Australian oil and gas explorer and producer

Senex’s Digital Revolution: A new way of working
An E&P company in transformation

Senex’s Digital Revolution: A new way of working

Business transformation

Gas
Realising the near-term potential in the Australian east coast gas market

Oil
Focusing our material exploration and production positions in Cooper Basin oil

Growth
Pursuing opportunities in new markets and new ventures

Digital transformation
Using digitalisation to create value

Goal: Deliver a digital Senex

Operational execution

- Data management

Operational optimisation

- Communications

Value creation

- Hosting environment

- Business intelligence

- Artificial intelligence

Increasing return on investment

**Guiding principles**

- **Measurement:** Measure success in terms of the contribution to our overall business objectives
- **Risk:** Cannot introduce risk into safety of our operations
- **Technology:** Introduce new technologies incrementally
- **People:** Drive engagement of our employees
- **Jobs:** Support our commitments to generate jobs in the communities in which we operate
- **Alignment:** Business-led and supported by our CEO and Executive
Key enablers to value creation

The substantial increase in subsurface and production data as we accelerate to up to 100 wells a year is a challenge.

Collaboration
Supported through our organisational structure, work environment, data and technology solutions

Infrastructure
Technical infrastructure and software solutions to best support our people and our strategy

Partnership
Partnering with our stakeholders, rather than transactional relationships

Efficiency
Access to our data, leveraging data science technologies

Flexibility
In everything we do
Enhancement of subsurface technology

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>2019</th>
<th>2020 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infrastructure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data server</td>
<td>Physical servers</td>
<td>Cloud servers/SaaS</td>
<td>Cloud servers/SaaS</td>
</tr>
<tr>
<td>Hardware</td>
<td>Workstations</td>
<td>Workstations and laptops</td>
<td>Laptops/tablets</td>
</tr>
<tr>
<td>GIS server</td>
<td>Local physical server</td>
<td>Cloud servers/SaaS</td>
<td>Cloud servers/SaaS</td>
</tr>
<tr>
<td>Subsurface software</td>
<td>Local hosting</td>
<td>Cloud and local hosting</td>
<td>Cloud/SaaS</td>
</tr>
<tr>
<td>Subsurface data</td>
<td>Local physical server</td>
<td>In-house and cloud servers</td>
<td>Data ecosystem</td>
</tr>
<tr>
<td>Working environment</td>
<td>Desk-based work stations over four floors</td>
<td>Laptop-based collaboration</td>
<td>Laptop-based collaboration</td>
</tr>
<tr>
<td>Intelligence</td>
<td>N/A</td>
<td>N/A</td>
<td>ML/AI</td>
</tr>
</tbody>
</table>
Proof of concept testing of DELFI – early 2019

Benefits of DELFI for Senex

- **Scalability**: Able to scale up/down as required
- **Collaboration**: Improved partnering and decision making
- **Flexibility**: Able to access data from anywhere
- **Performance**: Comparable to high-end workstations
- **Infrastructure**: Able to access subsurface data from normal laptop
- **Licensing**: More capability per subscription

Senex’s Digital Revolution: A new way of working
2018 Subsurface IT infrastructure

Internally managed

On Prem E&P environment

Senex’s Digital Revolution: A new way of working
2019 Subsurface IT infrastructure

On Prem E&P environment

E&P environment

In-house data delivery workflow

Scalable
Secure
Open
Managed

Internally managed
DELFI deployment - 2019

**Scalable**

**Secure**

**Open**

**Managed**

---

**E&P environment**

**In-house data delivery workflow**

---

Senex’s Digital Revolution: A new way of working
Subsurface IT infrastructure – 2020 and beyond

- Scalable
- Managed
- Secure
- Open
- Cognitive
- Automated

E&P environment

Shared services

Data ecosystem

API Gateway

apigee

Senex’s Digital Revolution: A new way of working
Through partnering with Schlumberger, we:

Have successfully deployed DELFI this month

Are exploring subsurface “data management as a service” as the next logical step

We are now focusing on:

Data management

Insights in support of other business critical processes

A current focus on our well lifecycle
Any questions?