A pure gas play in a volatile oil sector

Over the last two years, Prospex has assembled an exciting portfolio of assets focused on high impact onshore gas opportunities in Italy, Romania and Spain. In December 2019, the company transformed the business with the acquisition of 49.9% of the El Romerol gas power project in southern Spain, funded by a successful placing to raise gross proceeds of £720,000 in January 2020. With plans to increase output significantly from El Romerol through a low risk drilling programme, we believe that El Romeral possesses the potential re-rate the shares.

In December 2019, Prospex acquired 49.9% of the El Romerol gas power project located in the Guadalquivir Basin in southern Spain. El Romerol consists of three gas production wells, an 8.1 MW capacity power plant and associated infrastructure. The 310 km² licence area also contains two additional development locations and a prospect inventory with over 90 BCF of prospective gas resources which carry a high weighted geological chance of success in excess of 70%.

The El Romerol gas plant is currently operating at only 22% capacity as output is limited by gas supply. Consequently, Prospex and its partner, Warrego Energy (ASX: WGO) are in the early stages of the planning and permitting for a three well drilling campaign which we expect to start in 2021. We believe that gas brought on stream from a single prospect of 9 BCF+ would be more than sufficient to return the power plant back to capacity utilisation of over 70%, equivalent to output in excess of 50,000 Mwh. We note that excess gas production can also be sold directly into the Spanish grid given that an Enagás pipeline traverses directly through Prospex’s licence.

In Italy, Prospex holds a 17% interest in the Podere Gallina permit located in the Po Basin of northern Italy. The permit contains the Selva gas discovery which was ascribed maiden gross reserves of 13.4 BCF in February 2019. Environmental approval has been granted by the Italian authorities as a precursor the final grant of a production concession. However, given the likely hiatus that the government’s emergency measures in regard to containing Covid-19 will represent, we expect that Selva will be on stream in H1 2021 providing significant cash flow to the company next year. This could enable Prospex to participate in further exploration and appraisal activities to realise the full potential of additional targets on the wider permit area.

In Romania, Prospex holds a 50% working interest in the Exploration Area of the Suceava Concession located in the mature Carpathian Basin in Romania. The core asset on Suceava is the Bainet gas field which came on stream in September 2018. Although a second well probing a lookalike structure to Bainet was unsuccessful, Prospex has no immediate financial commitments in Romania while Bainet currently provides modest income for the company.

In Spain, Prospex increased its interest in the Tesorillo project from 2.5% to 15% in December 2018. Tesorillo contains an historic gas discovery which is estimated to contain unrisked prospective resources of 830 BCF of gas. The company has the option to increase its interest to 49.9% for a consideration of €1.725m prior to the drilling of at least one exploration well. As such a programme is currently unfunded, we believe that Prospex is likely to focus its financial resources and management time on increasing output from El Romerol with a view to funding Tesorillo over the longer term.

We have established a valuation for Prospex’s core interests in production from El Romeral, Selva and Bainet of 9.6p per share which covers the existing share price by a several multiples. This metric is augmented by our upside valuation of Prospex’s currently unfunded interests represented primarily by exploration and appraisal opportunities at Tesorillo and the wider Podere Gallina and Suceava permits. This lifts our fully risked assessment to approximately 43.7p per share.

Company data

<table>
<thead>
<tr>
<th>EPIC</th>
<th>PXEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price (last close)</td>
<td>1.40p</td>
</tr>
<tr>
<td>52 week Hi/Low</td>
<td>3.875p/1.40p</td>
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<tr>
<td>Shares in issue</td>
<td>88.5m</td>
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<tr>
<td>Fully diluted equity</td>
<td>98.6m</td>
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<td>Market cap</td>
<td>£1.24m</td>
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<tr>
<td>Sector</td>
<td>Oil &amp; Gas</td>
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</table>

12 months share price (p)

Source: LSE website

Company description

Prospex Energy Plc is a junior E&P company with a portfolio of gas exploration, development and production assets in proven hydrocarbon basins in Spain, Italy and Romania.

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Introduction to Prospex Energy

Prospex Energy is an AIM quoted oil and gas investment company which has assembled a diverse and exciting portfolio of European onshore gas assets located in proven and working hydrocarbon regions. The company’s core assets are:

- **El Romerol (Spain)** – Prospex has acquired a 49.9% interest in the El Romerol gas power project located in southern Spain, with its partner Warrego Energy Ltd.
- **Podere Gallina (Italy)** – A 17% interest in the highly prospective Podere Gallina Exploration Permit which contains the Selva gas field, expected on stream within the next twelve months, in addition to significant exploration and appraisal upside.
- **Suceava (Romania)** – A 50% interest the Suceava Concession which contains the producing Bainet gas field in addition to a portfolio of gas prospects and leads.
- **Tesorillo (Spain)** – Prospex holds a 15% interest in the Tesorillo Project which contains a large gas discovery estimated to contain 830 BCF. The company has the option to increase its stake in Tesorillo to 49.9% for a consideration of €1.725m.

We note that in this current period of volatile oil prices and the lack of future visibility in regard to the direction and stability of global crude markets, Prospex is a pure gas play in a market characterised by considerably more stable commodity pricing and better visibility.

Led by CEO Edward Dawson, the company has an experienced management and technical team in place (See Appendix 1 at the end of this report) and a focused strategy of concentrating on well understood regions located primarily in the Foredeep Play geological region of southern Europe (see Appendix 2).

A period of good progress

Over 2017, Prospex acquired its interests in the Suceava Concession in Romania, the Podere Gallina permit in Italy and an initial 2.5% interest in the Tesorillo Project in Spain. However, in the last two years in particular, the company has made further progress which we believe is not reflected in the current share price.

In early 2018, Prospex participated in the successful completion of the Podere Maiar-1 well appraisal/redevelopment well on the Selva gas field which flowed gas at highly commercial rates (See Appendix 3). The company has since booked maiden gas reserves in Italy and a preliminary production concession and key environmental approvals have been signed off by the Italian authorities as an expected precursor for final Ministerial sign off. Although Covid-19 lockdown measures instigated across Italy have slowed down activity within the energy and government sectors to a major degree, we anticipate that gas production from Selva will commence in H1 2021.

In Romania, gas production from Bainet field since September 2018 has generated modest early income for the company. Although a second well on the field, Bainet-2, did not deliver commercial volumes of hydrocarbons, the company’s financial exposure to this potential extension of the Bainet field was very modest at only €0.26m net to Prospex.
In December 2018, Prospex acquired an additional 12.5% in the Tesorillo Project in Spain for €153,250 increasing the company’s interest to 15%. However, of particular interest in the same country was Prospex’s decision to acquire a 49.9% in the El Romerol gas power project in southern Spain which has the potential to deliver substantial revenue to the company, particularly in the event that Prospex can bring new gas resources on stream and increase capacity utilisation at the project’s power plant.

As demonstrated by all of the company’s investments, Prospex is focused on gas-only projects with relatively low entry costs, mature markets and relatively short timelines to production (El Romerol, Selva and Bainet). This is balanced by longer term high impact exploration upside in the form of Tesorillo in Spain and the wider Suceava Concession in Romania.

**Valuation summary**

Prospex has assembled its portfolio of assets at comparatively modest cost. Since 2016 to date, the company has raised new equity totalling £8.3m (prior to expenses) to build its current asset base. A recent placing to raise gross proceeds £0.72m in January 2020 was completed to provide funds for the company’s participation in El Romerol in Spain in the current year.

Within this report we have outlined Prospex’s core assets in Spain, Italy and Romania in detail and identified key areas of major potential upside within the portfolio. By way of a summary in the table below, we have established a core valuation for Prospex of **9.6p** per share which is based on the company’s existing and near term projects (expected to be on stream within the next 12 months) with either zero or comparatively modest future funding requirements.

To augment this, we have also outlined the potential value of Prospex’s interests in a range of exploration and appraisal projects associated with the group’s core asset base which represent major potential upside yet are predominantly unfunded at this stage. We note that this combined valuation increases Prospex’s upside valuation considerably to **43.7p** per share. We note that this and our core metric will be subject to dilution in the event that the company conducts future fund raising activities to expedite further activity in these areas.

**Prospex valuation summary for core assets**

<table>
<thead>
<tr>
<th>Item</th>
<th>Country</th>
<th>Status</th>
<th>Valuation Cm</th>
<th>Valuation £m</th>
<th>Per share p</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Romerol gas to power project</td>
<td>Spain</td>
<td>Production</td>
<td>4.8</td>
<td>4.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Podere Gallina (Selva field)</td>
<td>Italy</td>
<td>Development</td>
<td>4.6</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>Bainet</td>
<td>Romania</td>
<td>Production</td>
<td>1.6</td>
<td>1.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Overheads</td>
<td>Corporate</td>
<td></td>
<td>-0.8</td>
<td>-0.7</td>
<td>-0.8</td>
</tr>
<tr>
<td>Cash*</td>
<td>Corporate</td>
<td></td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Debt**</td>
<td>Corporate</td>
<td></td>
<td>-0.5</td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td><strong>Core valuation</strong></td>
<td></td>
<td></td>
<td><strong>9.7</strong></td>
<td><strong>8.5</strong></td>
<td><strong>9.6</strong></td>
</tr>
<tr>
<td>El Romerol exploration upside</td>
<td>Spain</td>
<td>Prospective resources</td>
<td>22.9</td>
<td>20.0</td>
<td>22.6</td>
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<tr>
<td>Podere Gallina appraisal upside</td>
<td>Italy</td>
<td>Contingent resources</td>
<td>1.1</td>
<td>0.9</td>
<td>1.0</td>
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<td>Podere Gallina exploration upside</td>
<td>Italy</td>
<td>Prospective resources</td>
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<td>1.3</td>
<td>1.4</td>
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<tr>
<td>Tesorillo exploration licence</td>
<td>Spain</td>
<td>Prospective resources</td>
<td>8.2</td>
<td>7.2</td>
<td>8.1</td>
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<tr>
<td>Suceava concession</td>
<td>Romania</td>
<td>Prospective resources</td>
<td>1.0</td>
<td>0.9</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Portfolio upside</strong></td>
<td></td>
<td></td>
<td><strong>34.6</strong></td>
<td><strong>30.2</strong></td>
<td><strong>34.2</strong></td>
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<tr>
<td><strong>Total risked valuation</strong></td>
<td></td>
<td></td>
<td><strong>44.3</strong></td>
<td><strong>38.7</strong></td>
<td><strong>43.7</strong></td>
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</tbody>
</table>

Source: Peterhouse estimates  
*Estimated cash does not include proceeds of recent placing

**Unsecured loan notes of £0.48m repayable in four instalments between Dec 2020 and June 2022**
Share consolidation following AGM

Following the AGM on 30 June 2020 where the company initiated a 1 for 25 share consolidation and changed the name of the company from Prospex Oil & Gas to Prospex Energy to emphasise better the current focus of the group, our valuation is based on outstanding share capital of 88.5 million shares. The company also has a modest amount of outstanding dilution represented by 8.7 million options and 1.4 million warrants held predominately by directors and other staff members. However, these are currently priced at premiums to the current share price of between 4.0p and 15.0p for the majority of options and warrants.

Our assumptions are also based on several currency conversions and throughout we have assumed a Sterling/US Dollar conversion rate of £1.00: US$1.26 and a Sterling/Euro exchange rate of £1.00: €1.14 reflecting the average rates for the current year to date. We note that as a consequence of modest potential dilution to our current valuation from the future exercise of options or warrants offset by the potential inflow of cash from such transactions, our fully diluted per share valuation for the company’s core asset base is very similar to the undiluted version.

Potential working capital requirement for the next 12 months

Prospex had a cash balance of £69,387 at the end of 2019. However, following a placing to raise gross proceeds of £720,000 (we assume net proceeds of £680,000 after expenses), the company was able to fund its share of the acquisition of El Romerol which was €374,250 (equivalent to £316,383).

Other financial commitments over the next twelve months are likely to include approximately €0.4m for Prospex’s 17% share of remaining capital expenditure (based on a gross amount of €2.4m) to bring the Selva gas field in Italy into production. However, we assume that this expenditure is more likely to be required in early 2021 than in Q3/Q4 2020 as we await final permitting for the project.

Additionally, the company is required to make the first of four loan note repayments of £120,000 in December 2020 and finally, we have assumed that ongoing administration costs for the current year will be approximately £0.7m.

In summary, we expect that Prospex will have a net working capital requirement of £0.7m - £0.8m in 2020. However, this excludes any revenue generated from the company’s 50% interest in the Bainet field which is on production in Romania and critically, it also excludes any cash flow from El Romerol which, at currently restricted levels, is still generating regular gross monthly revenue of approximately €65,000 via electricity sales to Spanish grid. With a 49.9% interest, this would represent annualised revenue of nearly €390,000 (£330,000) net to Prospex prior to the company’s share of operating expenditure.

With the potential to fund its share of the final tranche of expenditure on Selva through non-equity sources such as short term bank finance or a bridging loan prior to first gas production, we believe that Prospex’s short term financing requirements will be modest over the next twelve months. We do not rule out a further fund raisings to provide working capital in the latter part of 2020. However, with Selva on stream in 2021 potentially generating up to €1.0m of free cash flow per annum, we believe that Prospex will be able to fund most of its core working capital requirements from internal sources next year.
Spain- Acquisition of El Romeral

On 17 December 2019, Prospex announced the conditional acquisition of up to a 49.9% indirect interest in El Romeral, an integrated gas production and power station operation located in the Guadalquivir Basin in Southern Spain. As a consequence of the impact of the COVID-19 outbreak in Spain, the final transfer to Prospex is likely to be delayed. However, the management has been in continued dialogue with the appropriate authorities throughout the lockdown period and is confident this process will be completed as soon as it is practicable to do so.

The El Romeral project comprises three contiguous licence areas; El Romeral-1, 2 and 3 which cover an area of approximately 310 km². The licences were awarded in 1994 and are valid until 2024 although the operator will have the right to extend this for two further 10-year periods until 2044.

Within this acreage, the existing project comprises three gas production wells, an 8.1 MW capacity power station and associated infrastructure. The combined area also contains two additional development locations and as shown below, a portfolio of low risk prospects with contingent and unrisked prospective gas resources of 5 BCF and 90 BCF respectively.

Location of El Romeral blocks, wells, seismic coverage and associated prospects

Source: Netherland, Sewell & Associates Inc., Company
El Romeral Asset Purchase Agreement

In an Asset Purchase Agreement with Petroleum Oil and Gas Espana SA (Petroleum Oil and Gas), a subsidiary of Naturgy Energy Group SA, El Romeral has been acquired by Tarba Energia S.L. with the funding for the acquisition provided by Tarba’s shareholders; Warrego Energy Limited (ASX: WGO) and Prospex. Warrego funded the initial consideration of €750,000, which has already been paid to the vendor and Prospex has in turn repaid Warrego its corresponding share of the initial consideration (i.e. €374,250). Consequently, the company now has 49.9% ownership interest in El Romeral.

A gross deferred consideration of €250,000 will be paid by Tarba to Petroleum Oil and Gas*, on the subsequent drilling of each of the next three wells (i.e. up to €750,000 for three wells). Subsequent to the announcement of the acquisition of El Romeral, Prospex raised gross proceeds of £720,000 at 0.12p per share in late January 2020 (equivalent to 3.0p following the share consolidation). These proceeds will be used primarily to fund Prospex’s acquisition of its stake in El Romeral.

*We note that when Petroleum Oil and Gas acquired the El Romeral project in 2006, it granted the then vendors a right to 16% of future revenue derived from further commercial discoveries in the licence area. These obligations will transfer to Tarba upon further commercial discoveries on the acreage. We note that this obligation does not apply the current revenue as existing sales are generated from gas production from wells that were discovered and producing prior to Petroleum Oil and Gas’s acquisition in 2006.

El Romeral reserves and resources

There have been ten wells drilled on El Romeral since the 1950s including seven which discovered gas (of these, five were deemed commercial) after 1983. In 2002, four wells started delivering gas to the El Romeral power station and a fifth (Rio Corbones-1) was brought on stream in 2012. As of the end of 2019, three wells are currently in production and two are shut-in with the potential to contribute production following low cost workovers. Details of these five are outlined in the table below.

Gas production wells on El Romeral

<table>
<thead>
<tr>
<th>Well</th>
<th>Status</th>
<th>Discovered</th>
<th>Cumulative production (BCF)</th>
<th>Production (May 2019) (mmcfpd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Ciervo-1</td>
<td>Producing</td>
<td>1983</td>
<td>3.8</td>
<td>111.6</td>
</tr>
<tr>
<td>Sevilla-1</td>
<td>Producing</td>
<td>1984</td>
<td>0.6</td>
<td>109.4</td>
</tr>
<tr>
<td>Santa Clara-1</td>
<td>Producing</td>
<td>1998</td>
<td>1.1</td>
<td>21.6</td>
</tr>
<tr>
<td>Sevilla-3</td>
<td>Shut-in</td>
<td>1985</td>
<td>0.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Rio Corbones-1</td>
<td>Shut-in</td>
<td>2007</td>
<td>0.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Source: Netherland, Sewell & Associates Inc., Company

Reserves

Associated with the three producing wells outlined above, an independent reserves and resources report produced by Netherland, Sewell & Associates Inc. (NSAI), has identified 2P reserves of 0.3 BCF within the licence area as at 30 June 2019.
Gross reserves attributed El Ciervo-1, Santa Clara-1 and Sevilla-1

<table>
<thead>
<tr>
<th>Gross gas reserves</th>
<th>1P</th>
<th>2P</th>
<th>3P</th>
</tr>
</thead>
<tbody>
<tr>
<td>MMSCM (Million cubic metres)</td>
<td>3.15</td>
<td>8.46</td>
<td>12.07</td>
</tr>
<tr>
<td>BCF</td>
<td>0.11</td>
<td>0.30</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Source: Netherland, Sewell & Associates Inc.

Resources

Prospex has access to a dataset of approximately 550 km of 2D seismic supported by AVO analysis over El Romeral which was originally conducted by Chevron and Repsol. This work has identified several additional drilling opportunities on the licence area. Within this portfolio, there are two existing development locations within the licence. Romeral-4 Sur and Tarazona to which NSAI has ascribed gross contingent resources of 5 BCF of gas.

Gross contingent resources attributed to Romeral-4 Sur and Tarazona

<table>
<thead>
<tr>
<th>Development location</th>
<th>1C</th>
<th>2C</th>
<th>3C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Romerol-4 Sur</td>
<td>57.7</td>
<td>93.1</td>
<td>138.8</td>
</tr>
<tr>
<td>Tarazona</td>
<td>30.0</td>
<td>48.9</td>
<td>74.5</td>
</tr>
<tr>
<td>Total MMSCM</td>
<td>87.7</td>
<td>142.0</td>
<td>213.3</td>
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</table>

<table>
<thead>
<tr>
<th>Development location</th>
<th>1U</th>
<th>2U</th>
<th>3U</th>
<th>1U</th>
<th>2U</th>
<th>3U</th>
<th>78%</th>
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</thead>
<tbody>
<tr>
<td>Romerol-4 Sur</td>
<td>2.0</td>
<td>3.3</td>
<td>4.9</td>
<td>4.9</td>
<td>4.9</td>
<td>5.0</td>
<td>75%</td>
</tr>
<tr>
<td>Tarazona</td>
<td>1.1</td>
<td>1.7</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>75%</td>
</tr>
<tr>
<td>Total BCF</td>
<td>3.1</td>
<td>5.0</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
<td>75%</td>
</tr>
</tbody>
</table>

Source: Netherland, Sewell & Associates Inc.

Prospective resources

As can be seen from the original map of the El Romeral area, there are 11 prospects within the licence with estimated unrisked prospective resources of almost 90 BCF of gas ascribed by NSAI. The competent person has ascribed a high GCoS (Geological Chance of Success) of over 70% for most of the prospects indicating a low drilling risk in the event that Prospex wishes to add new reserves through the drill bit. In general, these prospects are located in shallow formations of c.700 metres.

Gross prospective resources on El Romeral

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Unrisked</th>
<th>Risked</th>
<th>Risk factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1U</td>
<td>2U</td>
<td>3U</td>
</tr>
<tr>
<td>Aventurado Norte</td>
<td>14.7</td>
<td>24.9</td>
<td>39.2</td>
</tr>
<tr>
<td>Aventurado Sur</td>
<td>12.1</td>
<td>20.5</td>
<td>32.2</td>
</tr>
<tr>
<td>Cervatillo</td>
<td>1.1</td>
<td>1.8</td>
<td>2.7</td>
</tr>
<tr>
<td>Gamo</td>
<td>1.6</td>
<td>2.8</td>
<td>4.4</td>
</tr>
<tr>
<td>Rio Corbones Oeste</td>
<td>1.4</td>
<td>3.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Romeral-1 Sand 1</td>
<td>4.1</td>
<td>9.3</td>
<td>18.5</td>
</tr>
<tr>
<td>Romeral-1 Sand 2</td>
<td>0.6</td>
<td>2.5</td>
<td>7.6</td>
</tr>
<tr>
<td>Romeral-2 Sur Sand</td>
<td>4.5</td>
<td>9.1</td>
<td>16.1</td>
</tr>
<tr>
<td>Romeral-2 Upper Sand</td>
<td>0.7</td>
<td>1.4</td>
<td>2.8</td>
</tr>
<tr>
<td>Romeral-3</td>
<td>1.5</td>
<td>3.0</td>
<td>5.3</td>
</tr>
<tr>
<td>Saltio</td>
<td>3.1</td>
<td>6.4</td>
<td>11.6</td>
</tr>
<tr>
<td>San Pablo</td>
<td>0.8</td>
<td>1.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Santiche</td>
<td>2.1</td>
<td>3.6</td>
<td>5.7</td>
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<tr>
<td>Total</td>
<td>48.3</td>
<td>89.7</td>
<td>153.8</td>
</tr>
</tbody>
</table>

Source: Netherland, Sewell & Associates Inc.
Low risk exploration

We note that the majority of prospects within Prospex’s portfolio carry high GCoS (Geological Chance of Success) factors generally in excess of 70%. This is a consequence of the positive interplay of geological factors including:

- **Source:** Existing El Romerol resources and reserves are characterised by shallow biogenic gas. Biogenic gas is formed by the decomposition of organisms under anoxic conditions generating methane in situ. As such, there is no migration risk as in the case of thermogenic gas which is generated at deeper depths.
- **Reservoir:** Previous exploration has clearly imaged the existing reservoirs within El Romerol and the structure of the likely reservoirs is well understood by the partners.
- **Seal:** Thick impermeable shales overlie the reservoirs providing effective seal.
- **Trap:** The reservoirs exhibit turbidite sequences providing effective trapping structures at the sides and top of the reservoirs within the portfolio.

Potential drilling activity

Located at depths of only 600-800 metres, Prospex believes that most of the prospects within the El Romerol portfolio would be straightforward and inexpensive to drill at a gross estimated cost of only €1.8m per well. We anticipate that a back to back well programme of multiple wells would be less costly as the mobilisation and demobilisation costs would be spread across several wells.

Drilling at El Romerol would be straightforward as a light truck mounted drilling rig would be sufficient to probe the shallow structures on the licence. We understand that there are several easily available such rigs located in Spain.

We understand that the more likely delay to further drilling on El Romerol would be represented by the machinations of the permitting process. However, we understand that the government of the autonomous region of Andalucia has granted three exploration permits to Oil & Gas Capital S.L. for three projects in the upper and lower basin of the Guadalquivir River located to the east of El Romerol. Given that project termed ‘Project Penelope’ is located in the vicinity of Seville city, where numerous discoveries of biogenic gas have been made, we are confident that Prospex will not experience any undue future permitting delays given that the political landscape for future gas exploration in the region looks favourable.

The El Romeral power plant

The El Romeral 8.1 MW capacity power plant was constructed in 2001-02 at a cost of approximately €10m. The producing wells can supply enough gas to operate one of three gas turbines for approximately 16 hours per day. The power plant delivers electricity to the Spanish grid. The result of limited production is that the power plant has approximately 78% spare capacity. Depicted in the second picture below is one of the three Jenbacher gas engine generators in the power plant. With two currently in use regularly, the third engine requires remedial work to return it to service.
With the primary limitation on capacity utilisation being gas volumes, the plant consumes approximately 11,000 scmpd (cubic metres per day equivalent to c.390 mcfpd) of gas in a typical day generating monthly revenues of approximately €65,000 (c.€780,000 per annum) assuming historic average prices. When gas supply was not a limiting factor, Prospex notes that the plant can produce up to 60,000 Mwh (megawatt hours) per annum compared to around 11,000 Mwh per annum currently. (See later chart).

The El Romeral power plant (external and internal views)

Source: Company

Associated infrastructure

Approximately 25 km of local gas pipeline connecting the existing wells to the power plant is included in the project area. This will provide the basis for future infrastructure expansion as the average straight line connection for future tie-ins is less than 3.5 km from existing pipelines. We note that the company has easy access to well sites through existing agricultural roads implying a minimal environmental impact save for new well pads at drilling sites.
As seen on the initial map of the El Romeral licence area, the main high pressure Enagás Gas Pipeline also traverses through Prospex’s licence area with sufficient capacity for additional gas production should future drilling activity prove up more reserves than are required for the existing capacity of the power plant.

**Future drilling activities**

Prospex is currently in the early stages of the planning and permitting process for a three well campaign which we expect will commence in 2021. This would consist of low cost shallow wells, expected to cost approximately €1.8m each to drill. At this stage, the initial targets are unknown. However, we anticipate that the company is likely to target the larger prospects in the portfolio with the lowest risk factors. These include Romeral-1 Sand 1 (9.3 BCF and a 90% GCoS) and Romeral-2 Sur Sand (9.1 BCF and an 81% GCoS). A successful outcome from a prospect of such a size has the potential to return the power plant back to full utilisation with production from a single well.

As can be seen in the chart below, despite a rebound in output since 2018, the power plant is well below capacity given that current gas supplies are less than 400 mcfpd. We anticipate that a successful single new well could increase gas production to a level closer to 1,400 mcfpd. We calculate that this could generate initial output of over 50,000 Mwh, indicating capacity utilisation of over 70%.

**Historical El Romeral electricity production p.a. (Mwh) (2002A – 2018A)**

![Historical El Romeral electricity production chart (2002A – 2018A)](chart.png)

Source: Company
Indicative value of El Romeral

We have ascribed an initial valuation to the existing El Romerol power plant on the basis that the company brings a single successful gas well on stream after drilling one of the low risk prospects outlined previously. We have assumed that the well is completed in 2021 with production coming on stream in 2022 and reaching peak production by 2023. The electricity production profile below assumes that peak gas production from the new well reaches 1,400 mcfpd and declines thereafter with the assumption that no further wells are required to be drilled for plant electricity production.

**Estimated El Romeral electricity production p.a. (Mwh) (2019E – 2037E)**

![Estimated El Romeral electricity production p.a. (Mwh) (2019E – 2037E)](image)

Source: Peterhouse estimates

**Key valuation assumptions**

Within our calculations, we have assumed an energy conversion of approximately 33.8% implying that El Romerol gas production generates 99 kWh per mcf of gas. Other assumptions include:

- Approximately 5.4 BCF of gas produced over production profile.
- Electricity price of c.€0.08 per kWh including a €0.02 per kWh subsidy (un-escalated over production profile).
- 313 production days per annum (85% plant uptime).
- Generating capacity reaches 71% at plateau.
- Unit opex (comprising fixed and variable costs and applicable taxes) equivalent to approximately €2.45 - €2.50 at peak output.
- Total gross capex including drilling costs, infrastructure costs and deferred consideration estimated at €3.05m.
- Notional abandonment charge of €0.86m in 2037 for existing wells and infrastructure.

With these assumptions, we have generated a gross pre-tax NPV (10%) for the El Romerol plant of **€9.6m** (€4.8m net to Prospex’s 49.9% interest). If we apply Spanish corporation tax of 25% at the project level our gross NPV is **€7.1m** (€3.5m net to Prospex).
El Romerol exploration upside potential

As noted previously, there are 11 prospects within the licence with estimated unrisked prospective resources of 89.7 BCF of gas ascribed by NSAI. To this we have derived a weighted average GCoS of 78% from NSAI’s application of individual GCoSs for the prospects portfolio.

In the table below we have applied Prospex’s interest of 49.9% to these metrics to generate a net risked recoverable resource for the prospect inventory. To this we have applied a unit NPV of €1.32 per mcf of gas derived from our valuation of the El Romeral gas project.

Prospex has outlined that further gas volumes are likely to be delivered directly into the Spanish grid rather than the partners investing additional capital to increase the capacity of the existing power plant. In this regard we acknowledge that the power plant generates revenue equivalent of approximately €7.66 per mcf of gas which is in excess of current Spanish gas prices of €5.00-6.00 per mmbtu (million British Thermal Units equivalent to €4.88 – €5.85 per mcf). However, we believe that this revenue premium will be offset by considerably lower operating unit expenditure (assumed to be c.€2.50 per mcf for the power plant) as gas volumes could be hot tapped into the existing regional pipeline at modest expense and low ongoing field expenditure.

We have also applied a highly conservative commercial risk factor to our NPV to account for a range of non-technical risk factors which could include funding, political, environmental, and permitting risks among several possible others. Consequently, our fully risked indicative valuation for the potential upside on El Romeral is outlined below.

### Risked valuation of El Romeral prospect inventory

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unrisked prospective resources</td>
<td>BCF</td>
<td>89.7</td>
</tr>
<tr>
<td>Prospex interest</td>
<td>%</td>
<td>49.9%</td>
</tr>
<tr>
<td>Net unrisked prospective resources</td>
<td>BCF</td>
<td>44.8</td>
</tr>
<tr>
<td>GCoS</td>
<td>%</td>
<td>78%</td>
</tr>
<tr>
<td>Net risked recoverable resources</td>
<td>BCF</td>
<td>34.7</td>
</tr>
<tr>
<td>NPV per mcf of gas</td>
<td>EUR</td>
<td>1.32</td>
</tr>
<tr>
<td>NPV</td>
<td>€m</td>
<td>45.9</td>
</tr>
<tr>
<td>Commercial risk factor</td>
<td>%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Indicative valuation</strong></td>
<td>€m</td>
<td>22.9</td>
</tr>
</tbody>
</table>

Source: Peterhouse estimates
Spanish gas market potential

Overall energy consumption is Spain has fallen from peaks of nearly 160 million tonnes of oil equivalent (mmtoe) in 2007 prior to the global financial crisis to levels closer to 140 mmtoe in 2018. Consumption has been rising at approximately 1.2% per annum since bottoming out in 2014 as economic activity has continued to strengthen. (Source: Enerdata Intelligence and Consulting).

Primary energy consumption in Spain (millions of tonnes of oil equivalent)

Source: Adapted from BP Statistical Review 2019

The Spanish energy mix

The largest source of primary energy usage in Spain is still derived from oil at approximately 47% of the energy mix in 2018. Coal comprises a rapidly shrinking share of the energy portfolio (17% reduction from 2017 to 2018) with the share of renewables continuing to increase in line with the current trend for developed countries.

Primary energy consumption by fuel in Spain (2018)

Source: Adapted from BP Statistical Review 2019
Electricity generation

In terms of energy sources for electricity generation, gas now represents Spain’s most important fuel generating 21% of the country’s electricity. In terms of fossil fuel consumption, gas is also now the primary source of power generation in comparison with coal and oil whose share of the energy mix continues to shrink. In effect, we see gas as the most effective and cleanest ‘transitional’ fuel as many developed countries attempt to increase the share of renewables within the energy mix over the coming decades and progress to carbon neutral economies.

Spain – Electricity generation by fuel in TWh (2018)

Source: Adapted from BP Statistical Review 2019

Spanish gas distribution infrastructure

Spanish domestic production of oil and gas is negligible. As such, the country imports virtually all of its natural gas requirements. The country, which was historically isolated from northern European gas markets, primarily by geography now represents a highly strategic location in both the Mediterranean and Atlantic contexts.

As the map below indicates, Spain has several LNG entry points on the Mediterranean and Atlantic coast. However, of primary interest to us is the Maghreb-Europe pipeline at the southern tip of Spain which bisects Prospex’s acreage upon landfall delivering gas primarily from Algeria in addition to a range of other African producers.

This 1,620 km pipeline came on stream in 1996 and cost US$2.3bn to construct. Its initial annual gas capacity was 8.6 billion cubic metres which was later expanded to 12 billion cubic metres of gas per annum. The pipeline has a 48 inch diameter at the Andalusian section in southern Spain prior to joining the Spanish and Portuguese internal gas grids.

As can be seen on the map below, gas in transit exits northern Spain into France whereupon it is transported to northern European markets where gas prices are a considerable premium to those in the US.
Spanish gas distribution infrastructure

![Image of Spanish gas distribution infrastructure]

Source: Enagás

The gas market opportunity for Spain

With UK and Dutch gas production on decline, we believe that Europe is vulnerable to overreliance of Norwegian and particularly Russian gas and on the means of pipelines crossing potentially unstable regions of Turkey, Belarus and the Ukraine. However, the Maghreb-Europe pipeline provides Spain with the status as a very stable alternative hub and transit point into Europe. Although some gas producing regions of North Africa have stability issues of their own, Spain is able to source gas simultaneously from as many as 11 different countries, thus spreading the implied geopolitical risk considerably (Source: OGFI).

Without Spain’s current hub and transportation status, we believe that future gas supplies from El Romeral and potentially Tesorillo in the longer term (see later section of this report) would be comparatively stranded, reliant on local gas supply contracts as the basis of potential development projects. We believe that dynamic this may have hindered the historical development of Spain’s gas E&P sector prior to the completion of the Maghreb-Europe pipeline in 1996.

With the potential for future production from El Romeral and potentially Tesorillo to connect into the Maghreb-Europe via a short local connection, it is likely that Prospex will gain exposure to pan-European gas pricing as part of the development economics.
Spanish and European gas prices are robust

As can be seen below, recent data from BP indicates that northern European gas prices are converging at a healthy US$6.00- US$8.00 per mmBtu (mmBtu converts to mcf at a factor of 0.9756, e.g. US$6.00 per mmBtu is equivalent to US$5.85 per mcf) indicating a level consistently higher than the US Henry Hub benchmark, also depicted on the chart.

According to Prospex, Spanish gas prices are in the region of €5.00 - €6.00 per mmBtu, a level that we believe is more than adequate to drive future drilling activity and relatively low cost tie-ins to Spanish gas infrastructure.

Global natural gas prices (US$ per mmBtu)

Source: Adapted from BP Statistical Review 2019
Italy – The Podere Gallina permit

Prospex holds a 17% economic interest of the 506 km\(^2\) Podere Gallina Exploration Permit located in the Po Valley river region of Northern Italy. The company’s partners in Podere Gallina are ASX listed Po Valley Energy which is operator with 63% and AIM quoted United Oil & Gas (AIM: UOG) with the remaining 20%.

The Po Valley river region is a proven and mature hydrocarbon province with over 5,000 wells drilled to date. Podere Gallina, located near the city of Bologna contains the Selva gas field on which a successful appraisal/development well, Podere Maiar-1d, was drilled at the end of 2017 and subsequently flow tested in January 2018 (See Appendix 2 for further details of the Podere Maiar-1d well and the subsequent testing programme results). The permit also contains several additional exploration targets which are examined in greater detail in this report.

Location of the Podere Gallina Exploration Permit

Sources: UNMIG, ViDEPI, Natural Earth, Google Physical and Prospex Energy

Selva Malvezzi

Outlined below is an area called ‘Selva Malvezzi’, a clearly defined 80.7 km\(^2\) sub-section of the wider Podere Gallina licence, which is under application for a Production Concession after being granted preliminary approval by the Italian government in December 2018.

Selva Malvezzi contains the Selva gas field, substantial contingent resources in the form of the Selva North and South structures in addition to the East Selva, Riccardina and Fondo Perino prospects which have the potential to provide significant longer term upside to the Selva field development. These accumulations are depicted clearly on the map below.
Location of the Podere Gallina Exploration Permit

Sources: Po Valley Energy

Production Concession preliminary award

The operator submitted a Production Concession application for the Selva gas field to the Italian Ministry at the end of May 2018. As outlined previously, the application covers the 80.7 km² Selva Malvezzi area outlined in blue on the map above.

In January 2019, the Production Concession application was granted preliminary approval by the Italian government and the operator has outlined its plans for a development of the Selva field. This will include the installation of a fully automated gas plant at the existing Podere Maiar-1d well site and the running of a 1 km pipeline to connect to the nearby Italian National Grid. This phase of development is budgeted to cost approximately €2.4m gross.

The development is targeting the installation of facilities with a capacity of up to 150,000 scmpd (5.3 mmcfpd) gross from the C1 and C2 reservoirs. Although we note that the reservoirs have tested successfully at these volumes (See Appendix 3), we anticipate that initial production is likely to commence at a stabilised rate of c.100,000 scmpd in order to provide effective reservoir management in the initial production stages.

Environmental approval

In early January 2020, Po Valley announced that formal technical environmental approval for the development of Selva was received from the Italian Environment Ministry. Environmental approval is a precursor to final sign off by Ministerial decree, the issuing of the required INTESA (intergovernmental agreement) and the final grant of a production concession from Italy’s Economic Development Ministry.
Coronavirus emergency measures in Italy

We note that the emergency measures enacted by the Italian government in March 2020, which include a travel ban and restrictions on public gatherings are likely to disrupt the day to day functioning of Italy’s civil institutions including government departments. As such, we believe that this scenario is likely to contribute to delays to the commencement of gas production from Selva which we have assumed to be in the first half of 2021 at this stage.

Capacity for additional production

Subject to a planned 3D seismic survey on the Selva area, the scope of which is also outlined on the previous map in red, the operator has outlined plans to drill additional wells targeting further prospectivity on the licence. These include the Selva South and North Flanks which have been attributed contingent resources and also the Selva East and Riccardina structures which could represent major resource upside for the company.

It is important to note that the Production Concession covering the area shown on the licence map will enable subsequent gas discoveries adjacent to Selva to be tied in quickly with gas production infrastructure across the whole concession.

Selva field reserves

In a recent Competent Persons Report (CPR) published by CGG Services (UK) Limited in February 2019 and subsequently updated in April 2019, the independent consultant has estimated that remaining 2P gross reserves on the Selva field are 13.4 BCF (2.3 BCF net to Prospex’s 17% economic interest). The reserves estimates in both metric and imperial denominations are outlined in the tables below.

<table>
<thead>
<tr>
<th>Sand</th>
<th>Gross</th>
<th>MMscm</th>
<th>Net</th>
<th>MMscm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1P</td>
<td>2P</td>
<td>3P</td>
<td>1P</td>
</tr>
<tr>
<td>C1</td>
<td>48</td>
<td>129</td>
<td>209</td>
<td>8</td>
</tr>
<tr>
<td>C2</td>
<td>69</td>
<td>250</td>
<td>637</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>379</td>
<td>846</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: CGG

Indicative valuation of the Selva field

Utilising guidance from the CPR coupled with our internal estimates, we have attempted to ascribe an indicative valuation to Prospex’s interest in the Selva gas field using an NPV based cash flow model.
We expect that Prospex will fund its share of final development expenditure at its working interest share of 17% and we note that a further €2.4m of gross development expenditure, related primarily to final surface facilities, compression equipment and pipeline connection to the grid, is required.

We anticipate that the field can be developed and most of the 2P gas resources recovered from the Podere Maiar-1d well. The Selva field was previously on production since the 1950s to the 1990s and several analogous wells recovered substantial volumes of gas, the most notable of which was the Selva-6-C well which recovered 31 BCF. Other significant producers included Selva-5-C and Selva-17-C which also recovered 10.5 BCF and 11.75 BCF of gas respectively.

We have assumed that a single well will commence production in H1 2021 and that initial rates of approximately 100,000 scmpd (3.5 mmcfpd) will be sustained for the first three to four years consistent with the long term production potential of the Pliocene reservoirs across the Selva structure. Our assumptions are based on the production profile below which is adapted from CGG’s CPR.

**Anticipated gross gas production profile for the Podere Maiar well (mcfpd)**

![Graph showing anticipated gas production](image)

Source: Adapted from CGG Services (UK) Limited

**Revenue and cost assumptions**

To our production profile, we have applied a flat long term gas price of €0.22 per cubic metre (equivalent to €6.23 per mcf), a reflection of average Italian gas prices since 2016. In line with CPR guidance, we have applied a royalty of 10% on all revenue from gas produced in excess of the annual royalty free allowance of 25 million cubic metres.

**Cost assumptions**

Within our assumptions, we have assumed fixed opex of €0.3m per annum over the life of the field. CPR guidance also indicates a €0.015/m³ unit charge for compression from 2024 which we have factored into our assumptions. This implies a significant increase in field opex to an annual level in excess of €0.8m at this time, declining gradually as gas volumes fall.

To profits from production, we have applied Italian corporation tax of 24% and a further 3.9% of regional income tax (IRAP) which is applicable to onshore production.
Indicative NPV

On the basis of our assumptions, we have ascribed a net NPV of €4.6m for Prospex's 17% economic interest in the Selva gas field. This is not dissimilar to CGG’s assessment, although we assume a flat gas price compared to CGG’s treatment of the gas price which dips during the earlier years of production before inflating over later productive years.

Podere Gallina – Contingent resources

Selva North and South

Following the drilling of the Podere Maiar-1d well, two additional prospects on the north and south crests of the original Selva gas field have been firmed up. Structurally, both prospects rely on the same stratigraphic pinch-out concept that the Podere Maiar-1d well demonstrated and both are located almost entirely within the Selva Malvezzi production concession area as demonstrated below.

Both structures are termed ‘prospects’ by the operator. However, by virtue of already having produced gas to surface in commercial quantities from previous wells, leaving significant volumes of gas updip in each accumulation, they fall into the contingent resources category and are viewed as attractive low risk potential additions to the longer term Selva production profile.

Level B North and South prospects within Selva Malvezzi

Source: Po Valley Energy
Proof of concept

CGG has identified Level A and Level B sands which were productive in the Selva field and pinch out onto the underlying thrust fold structure in the same way the Level C sands do on Podere Maiar-1d. Prospex expects that the A and B sands will demonstrate comparable reservoir properties to the Level C sands and the thickness of the sands is known from older producing wells such as Selva-9 for the North prospect and Selva-12 for the South prospect.

In this particular case, CGG expects that for the North prospect, only the Level B sand is expected although both sands are expected to be present in the South prospect.

Both prospects were worked up by information provided by eleven reprocessed 2D seismic lines and historical Selva gas well data. The indicative contingent resources ascribed to each prospect is outlined in the tables below suggesting that substantial and potentially producible gas resources will exist in close proximity to the Podere Maiar production facilities when they are completed.

<table>
<thead>
<tr>
<th>Selva North and South prospects resources (MMscm and BCF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospect</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Level B North</td>
</tr>
<tr>
<td>Level B South</td>
</tr>
<tr>
<td>Level A South</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Gross 1C</th>
<th>Gross 2C</th>
<th>Gross 3C</th>
<th>Net 1C</th>
<th>Net 2C</th>
<th>Net 3C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level B North</td>
<td>3.5</td>
<td>8.9</td>
<td>17.8</td>
<td>0.6</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Level B South</td>
<td>1.0</td>
<td>3.4</td>
<td>9.3</td>
<td>0.2</td>
<td>0.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Level A South</td>
<td>1.0</td>
<td>1.8</td>
<td>3.6</td>
<td>0.2</td>
<td>0.3</td>
<td>0.6</td>
</tr>
<tr>
<td>Total</td>
<td>5.5</td>
<td>14.1</td>
<td>30.7</td>
<td>0.9</td>
<td>2.4</td>
<td>5.2</td>
</tr>
</tbody>
</table>

Establishing an initial value for contingent resources

The table below indicates that CGG has established project Chance of Success of 70% for Level B North and 60% for Level A and B South which is slightly less defined. This reflects the estimated chances that the volumes ascribed can be commercially extracted.

To establish a conservative indicative valuation for these resources at this stage, we have applied a unit NPV per mcf of gas based on the existing Selva field development. This has been calculated on the basis of including the cost of the Podere Maiar-1d well in 2017 rather than the higher unit NPV calculated from 2020 onwards. To this risked metric, we have also applied a substantial commercial risk factor to account for non-technical aspects such as funding and permitting for a potential development in order to generate an initial assessment. We note that successful future drilling on either prospect will firm up these numbers and serve to reduce the associated risk factors, boosting the indicative valuation significantly.
Indicative valuation for Selva North and South contingent resources (2C)

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Gross Prospect</th>
<th>PXOG</th>
<th>Net Prospect</th>
<th>GCoS</th>
<th>NPV/mcf</th>
<th>Unrisked</th>
<th>Risked</th>
<th>Commercial risk discount (%)</th>
<th>Fully risked</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level B North</td>
<td>8.9 BCF</td>
<td>17%</td>
<td>1.5 BCF</td>
<td>70%</td>
<td>1.26</td>
<td>1.9</td>
<td>1.3</td>
<td>50%</td>
<td>0.7</td>
</tr>
<tr>
<td>Level B South</td>
<td>3.4 BCF</td>
<td>17%</td>
<td>0.6 BCF</td>
<td>60%</td>
<td>1.26</td>
<td>0.7</td>
<td>0.4</td>
<td>50%</td>
<td>0.2</td>
</tr>
<tr>
<td>Level A South</td>
<td>1.8 BCF</td>
<td>17%</td>
<td>0.3 BCF</td>
<td>60%</td>
<td>1.26</td>
<td>0.4</td>
<td>0.2</td>
<td>50%</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14.1 BCF</strong></td>
<td></td>
<td><strong>2.4 BCF</strong></td>
<td></td>
<td><strong>3.0</strong></td>
<td><strong>2.0</strong></td>
<td></td>
<td></td>
<td><strong>1.0</strong></td>
</tr>
</tbody>
</table>

Source: CGG, Peterhouse estimates

Podere Gallina - Prospective resources

There are several additional large prospects located within the Podere Gallina licence of which three, East Selva, Fondo Perino and Riccardina are located within the Selva Malvezzi production concession. A fourth smaller prospect; Cembalina, is located outside the concession towards the north of the wider licence area.

The prospective resources as outlined in the CGG CPR are outlined in the tables below in both metric and imperial and gross and net to Prospex’s 17% interest in the licence. We note that these additional structures represent significant additional upside to the planned development at Podere Maiar, with over 88 BCF (excluding Cembalina) of gross gas resources estimated to be contained in the three primary structures within Selva Malvezzi.

Podere Gallina prospect inventory (MMscm and BCF)

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Gross MMscm Low</th>
<th>MMscm Best</th>
<th>MMscm High</th>
<th>Net MMscm Low</th>
<th>MMscm Best</th>
<th>MMscm High</th>
<th>CoS</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Selva</td>
<td>824.1 MMscm</td>
<td>985.6 MMscm</td>
<td>1,149.8 MMscm</td>
<td>140.1 MMscm</td>
<td>167.6 MMscm</td>
<td>195.5 MMscm</td>
<td>40%</td>
</tr>
<tr>
<td>Fondo Perino</td>
<td>288.9 MMscm</td>
<td>413.5 MMscm</td>
<td>580.6 MMscm</td>
<td>49.1 MMscm</td>
<td>70.3 MMscm</td>
<td>98.7 MMscm</td>
<td>34%</td>
</tr>
<tr>
<td>Cembalina</td>
<td>59.5 MMscm</td>
<td>93.5 MMscm</td>
<td>133.1 MMscm</td>
<td>10.1 MMscm</td>
<td>15.9 MMscm</td>
<td>22.6 MMscm</td>
<td>51%</td>
</tr>
<tr>
<td>Riccardina</td>
<td>367.2 MMscm</td>
<td>1,097.8 MMscm</td>
<td>3,651.5 MMscm</td>
<td>62.4 MMscm</td>
<td>186.6 MMscm</td>
<td>620.8 MMscm</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,539.7 MMscm</strong></td>
<td><strong>2,590.4 MMscm</strong></td>
<td><strong>5,515.0 MMscm</strong></td>
<td><strong>261.7 MMscm</strong></td>
<td><strong>440.4 MMscm</strong></td>
<td><strong>937.6 MMscm</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: CGG

Riccardina prospect

The largest prospect within the production concession area is Riccardina located only 5 km from the Podere Maiar-1d well. This accumulation has already been identified by ENI which tested the prospect in 2004 but encountered water bearing sands and abandoned the well. However, the operator has reinterpreted the 2D seismic data which comprises ten lines and is of the opinion that the original well just missed the prospect, coming in on the wrong side of a thrust fault and lying outside the area that is interpreted to signify the presence of gas.
The depth structure map below depicts very clearly the Riccardina prospect and the location of the original ENI well which is believed to have probed the wrong side of a major fault.

The structure is reasonably well defined by 2D seismic lines although the partners are keen to acquire additional 3D data over the structure to better define the area. This information is likely to serve to increase the current GCoS which is currently 21%. Within the calculations to arrive at this GCoS, CGG notes that the primary risk for Riccardina is the seal capacity of the fault that defines the northern margin of the prospect.

**Depth structure map of the Riccardina prospect**

![Depth structure map of the Riccardina prospect](image)

Source: Po Valley Energy

**East Selva prospect**

Within Selva Malvezzi, Prospex has also highlighted the large East Selva prospect which lies on the pinch-out edge to the east of the main Selva field. Both Selva and East Selva are identical in concept and located on the same play trend as the nearby Minerbio field to the northwest of Selva outside the Podere Gallina licence.

Minerbio is now depleted although still used for gas storage by its operator, SRG (Snam Rete Gas). As with the main Selva field, East Selva represents a target in the C sand interval, the top of which is estimated to be at a vertical depth of c.1,230 metres. The map below depicts the East Selva prospect clearly in addition to valuable additional data including the location of the historical wells on the wider Selva structure.
Recoverable resources double that of Selva

CGG has indicated that East Selva could contain Best case gross recoverable gas resources of almost 35 BCF. Since the successful well result from Podere Maiar-1d, CGG has increased the GCoS for East Selva from 30% to 40% and we believe that this could increase further if the 3D seismic survey proposed by the operator can delineate the structure more clearly and de-risk the work programme prior to drilling. Presently, the primary risk remains the definition of gross rock volume based on a limited number of seismic lines.

Other prospects

Fondo Perino

Fondo Perino is defined by the dip closed cap of a hanging wall anticline located between the Selva-1 and Selva-23 wells which are clearly defined on the map above. Like the existing Selva field, the reservoirs are Lower Pliocene sandstones and the Fondo Perino structure is believed to be the updip gas bearing level tested on the Selva-1 well, as such the GCoS is quite high at 34% according to CGG.
Cembalina

The small Cembalina prospect is located to the north of the Podere Gallina licence outside the Selva Malvezzi production concession. The prospect is defined by five 2D seismic lines at the Upper Pliocene level. Prospective resources carry a high GCoS of 51% as a function of the relatively close proximity of other gas fields producing from Early Pliocene sands.

We note that plans to assess the smaller Cembalina prospect with additional seismic work have yet to be firmed up at this stage although given its relatively separate location north of the Selva prospect group; we would assume that any seismic work conducted within the next 12 months would not include it.

Establishing an initial value for prospective resources

To engineer an indicative valuation for the key prospects on Podere Gallina, we have applied the unit NPV per mcf of gas produced from our Selva field valuation outlined earlier to the unrisked net prospective resource for each prospect. However, to risk this appropriately we have applied the indicative GCoS and higher commercial risk factors to account for non-geological risks.

At this early stage, we have elected to exclude Cembalina from our core assumptions at this stage as it falls outside the current area of focus for the company. We note that with production facilities in place at Podere Maiar, it would likely be straightforward to tie-in production from the core prospects into a wider development project assuming a successful drilling programme. However, given that additional seismic work and evaluation, exploration drilling and permitting are yet to be completed and are currently unfunded, we have ascribed a high commercial risk factor to the Podere Gallina prospect inventory at this stage.

Indicative valuation for prospect inventory on Podere Gallina (Best case)

<table>
<thead>
<tr>
<th>Prospect</th>
<th>Net Resource BCF</th>
<th>CoS</th>
<th>NPV/mcf</th>
<th>Unrisked</th>
<th>Risked</th>
<th>Commercial risk %</th>
<th>Fully risked</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Selva</td>
<td>5.9</td>
<td>40%</td>
<td>1.26</td>
<td>7.5</td>
<td>3.0</td>
<td>75%</td>
<td>0.7</td>
</tr>
<tr>
<td>Fondo Pierino</td>
<td>2.5</td>
<td>34%</td>
<td>1.26</td>
<td>3.1</td>
<td>1.1</td>
<td>75%</td>
<td>0.3</td>
</tr>
<tr>
<td>Cembalina</td>
<td>0.6</td>
<td>51%</td>
<td>1.26</td>
<td>0.7</td>
<td>0.4</td>
<td>100%</td>
<td>0.0</td>
</tr>
<tr>
<td>Riccardina</td>
<td>6.6</td>
<td>21%</td>
<td>1.26</td>
<td>8.3</td>
<td>1.7</td>
<td>75%</td>
<td>0.4</td>
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<tr>
<td>Total</td>
<td>19.9</td>
<td></td>
<td>6.2</td>
<td></td>
<td>1.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Company, Peterhouse estimates

Cash flow can fund future exploration activity

As yet, future exploration activity is largely unfunded. However, we expect that net cash flow to Prospex from the Podere Maiar-1d well could be up to €1.0m per annum for several years after full production is instigated. This would provide the company with appreciable financial resources from which to draw in order to participate in further exploration activity on Podere Gallina and realise significant value within its core asset portfolio.
Romania – Suceava concession

Acquired in August 2017, Prospex holds a 50% working interest in the EIV-1 Suceava Concession (Suceava) in Romania through its wholly owned subsidiary, PXOG Massey Limited. Suceava is operated by Raffles Energy S.R.L. an established gas producer in Romania which also holds the other 50% stake in the licence. Suceava contains the producing asset, the Bainet gas field, on stream since September 2018 and the block also possesses additional exploration upside, particularly in the southern region of the Suceava Concession.

This 984 km² licence is located in North East Romania in the proven Carpathian hydrocarbon basin. In addition to the Bainet field, Suceava also contains an undeveloped discovery called Granicesti SE-1 and also several prospects and leads at various stages of development. The permit also contains two producing gas fields; Climauci and Dornesti South, which are also operated by Raffles. However, these fields do not constitute part of the wider Exploration Area in which Prospex has an interest. Over 1,600 km lines of 2D seismic have been shot over the Suceava Concession to date.

Location of the Suceava Concession in Romania

Source: Prospex Energy
The Bainet gas field

The Bainet field was discovered by the Bainet-1 exploration well in late November 2017. The well was drilled to a depth of 600 metres targeting a biogenic sandstone reservoir, estimated to contain over approximately 1.5 BCF of gas and clearly outlined on 3D seismic data acquired by the operator.

Bainet-1 encountered 9 metres of reservoir with 8 metres of net gas pay consisting of a good quality Sarmatian sandstone reservoir. This is similar to that found in fields producing elsewhere on Suceava in addition to analogue fields in the Bilca Gas Production Area of the adjoining EIII-1 Brodina Block to the west of Prospex’s acreage.

The two intervals tested by Bainet-1 within the main gas pay zone were perforated at measured depths of 513.3-514.8 metres and 516.3-517.3 metres and during an 11-hour flow test, natural gas comprised of more than 99% methane flowed at a rate of approximately 33,000 cubic metres/day equivalent to almost 1.17 mmcfpd through an 8mm choke.

The Bainet development

In September 2018, experimental production commenced from Bainet at an initial rate of approximately 0.7 mmcfpd (equivalent to c. 20,000 scm/day) with gas volumes sold into the national grid run by Transgaz, a well-established Romanian gas trading business, at prices of approximately €6.00 per mcf. Payment for gas production is typically received in the following month after delivery. In the calendar year 2019, Bainet delivered slightly lower than expected gross production of approximately 14,000 scm/day (c.0.5 mmcfpd) although at slightly higher than average gas prices.

We note that production can be adjusted up or down according to the well performance and market demand. Bainet is connected to the Raffles-operated Bilca gas processing plant which connects to the field through a 2.2 km flow line tie-back to the existing production infrastructure. Bainet came on stream within the original drilling and development estimate and Prospex’s share of development costs was approximately €400,000.

Further drilling activity

On 25 June 2019, Raffles spudded the Bainet-2 well on the Suceava Concession targeting the Bainet West prospect; a lookalike structure to the Bainet field, at an estimated depth of approximately 600 metres. On 1 July 2019, Bainet-2 reached a total depth of 656 metres and encountered the same Sarmatian sandstone as is evident in Bainet-1. However, no commercially recoverable hydrocarbons were indicated on the logs and the operator plugged and abandoned the well.

The cost of the well to Prospex was modest and with the inclusion of plugging and abandoning expenditure, the cost of drilling Bainet-2 was only €0.26m net to the company.
Valuation of Bainet to Prospex

We have ascribed an NPV (10) of approximately €1.6m to Prospex’s 50% interest in the Bainet field. Based on the estimated recovery of approximately 1.5 BCF of gas, we have applied the following production profile to the field recovering the full reserve from a single well.

**Gas production from Bainet (mcfpd)**

![Gas production from Bainet (mcfpd)](image)

Source: Peterhouse estimates

Within our valuation, we also assume the following variables

- A flat gas price of €6.00 per mcf over the productive life of the field.
- A 3.5% government royalty payable.
- Average unit opex equivalent to €1.40 per mcf comprising fixed and variable opex.
- No further substantial capex.
- Corporate tax rate of 16% on profits.

**Strong near term cash flow**

Bainet has the potential to deliver between €0.3m and €0.4m of net cash flow per annum to the company over the early years of production providing rapid payback of the initial investment and also providing the company with the internal resources to pursue additional opportunities in Romania.

**Exploration upside**

Prospex has identified a portfolio of additional low risk exploration/appraisal targets on Suceava which have been highlighted on a 1,600 km 2D seismic grid. One of the main targets within this portfolio is the Granicesti SE-1 discovery, discovered in 2005 by a well drilled to a depth of approximately 2,300 metres by a previous operator targeting a deeper oil target.
Granicesti SE-1 flowed gas at a rate of 1.2 mmcfpd from a reservoir located at c.550 metres within the Sarmatian reservoir over a short test period. Given the similarities to Bainet, Prospex and Raffles would be keen to develop Granicesti once access to land has been secured. We note that the partners have outlined plans to work over and recomplete the well as a gas producer should funds be available.

Connection to the local grid is likely to be straightforward given that the Granicesti SE-1 well is located within only 1.5 km of the Transgaz pipeline.

Additional upside

The wider Suceava Exploration Area offers significant longer term opportunities to drill additional low cost, low risk wells, all targeting gas. The operator has identified four additional prospects and one lead and Prospex estimates internally that the aggregate gross recoverable gas could be between 6 BCF and 40 BCF on an unrisked basis, providing the foundations for a substantial business in Romania. As the map below depicts, the Suceava Concession is very large and the prospect inventory extends to the southern extent of the acreage.

Additional prospects on the Suceava Concession

Source: NAMRA, Natural Earth, Google Physical and Company
If we apply appropriate geological risk factors to these resources and a significant commercial risk factor of 50% given that future exploratory work on the concession is currently unfunded, we note the additional potential upside to the company in the table below.

**Indicative value range for additional prospects on Suceava concession**

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Low</th>
<th>Mid</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prospective resources</td>
<td>BCF</td>
<td>6.0</td>
<td>15.7</td>
<td>40.3</td>
</tr>
<tr>
<td>Prospek interest</td>
<td>%</td>
<td>50.0%</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>Net unrisked prospective resources</td>
<td>BCF</td>
<td>3.0</td>
<td>7.9</td>
<td>20.2</td>
</tr>
<tr>
<td>Chance of success</td>
<td>%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>Net risked recoverable resources</td>
<td>BCF</td>
<td>0.9</td>
<td>2.4</td>
<td>6.0</td>
</tr>
<tr>
<td>NPV per mcf*</td>
<td>EUR</td>
<td>0.85</td>
<td>0.85</td>
<td>0.85</td>
</tr>
<tr>
<td>NPV</td>
<td>€m</td>
<td>0.8</td>
<td>2.0</td>
<td>5.1</td>
</tr>
<tr>
<td>Commercial risk factor</td>
<td>%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>

**Indicative valuation**

<table>
<thead>
<tr>
<th>€m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4</td>
</tr>
<tr>
<td>1.0</td>
</tr>
<tr>
<td>2.6</td>
</tr>
</tbody>
</table>

Source: Peterhouse estimates

*Derived from our unit valuation of the Bainet field including all drilling and development expenditure since 2017*
Spain – The Tesorillo Project

Prospex currently holds a 15% working interest in the Tesorillo Project (Tesorillo) located in Cadiz Province in southern Spain. In December 2017, the company initially acquired a 2.5% interest in Schuepbach Energy España S.R.L., now renamed Tarba Energia S.L., which holds a 100% interest in Tesorillo. As we noted previously, that Prospex, with its partner, Warrego Energy, is a shareholder in Tarba with a 50% interest in the vehicle.

In December 2018, Prospex increased its interest to 15% through the exercise of an option to buy a further 12.5% for €153,250*. Prospex retains an option to buy a further 34.9% for €1.725m when drilling of a well is due to commence. This would increase the company’s ultimate interest to 49.9%.

*In regard to the El Romeral project, Tarba has changed its equity structure. Tarba’s equity is now split into Ordinary Shares and B Ordinary Shares. The Tesorillo project is for the benefit of the Ordinary shares and the B Ordinary Shares have the benefit of the El Romeral project. As such, Prospex has 15% of the Ordinary shares and 49.9% of the B Ordinary Shares in Tarba.

Tesorillo contains a gas discovery which is estimated to hold best estimate gross prospective gas resources of 830 BCF according to a CPR undertaken by Netherland Sewell and Associates (NSAI) in 2015.

The Tesorillo licence area

The map below indicates that Tesorillo comprises two petroleum exploration licences, namely the Tesorillo and Ruedalabola permits. Together these permits cover an area of 38,000 hectares (equivalent to 380 km²). As is evident, both permits are close to infrastructure with the original El Almarchal-1 well located only 3.9 km from the 48” North African Maghreb gas pipeline European landing point. This pipeline provides access to the wider European gas market.

Location map of the Tesorillo Project in Southern Spain

Source: MINETAD, Natural Earth, Google Physical, Company
The Tesorillo asset

Tesorillo contains the Almarchal-1 discovery well, drilled by Spanish operator Valdebro in 1956. The well is located on a gravity and seismically delineated thrust ramp anticline and intersected a thick section of possible gas pay amounting to approximately 212 metres of net pay, including two primary zones which flowed gas to surface on testing.

The Almarchal-1 discovery well (1956)

Gas flowed to surface during drillstem tests (DST)

Drillstem tests (a procedure for isolating and testing the pressure, permeability and productive capacity of a geological formation during the drilling of a well) and log analysis confirmed 48 metres of proven gas pay in two Miocene Aljibe Formation sandstone intervals and further interpretation of the logs also indicated an additional 492 metres of probable gas pay upside, as yet unconfirmed by testing. Out of a total of 39 DSTs which ranged between one hour and eight days, two intervals flowed gas to surface at rates equivalent to 7 mcfpd and 5 mcfpd (DSTs 13 and 36 respectively). It should be noted that 16 DSTs failed as a consequence of packer or tool failure although a further three DSTs recorded gas shows or formation water.

The photographs below depict the rig used to drill and test Almarchal-1 and also a gas flare from the well during the DST.
Original photographs from the Almarchal-1 well

Of the DST’s that flowed, DST 13 tested an interval at 755-759 metres MD (measured depth) over a short period of 1.5 hours and the flow rate equivalent to 7 mcfpd is an extrapolation of the test period. DST 36 was conducted a considerably deeper interval of 2,198-2,206 metres MD over a 24 hour period and the initial implied flow rate of 5 mmcfpd decreased to 2 mcfpd after 20 hours. These DSTs are recorded clearly on the chart below along with additional data from additional DSTs conducted within the 1,460 metre horizon between DST13 and 36.

DST analysis of the Almarchal-1 well

Source: Warrego Energy Limited
Geological conclusions

NSAI has outlined that permeabilities measured in the Almarchal-1 well core in the range of 2.4 to 2.7 millidarcies. However, measured permeability is very low, in the submillidarcy range, when correlated to the measured porosities in the well which were estimated to be high at up to 26%. The CPR explains that this correlation is as a function of a high clay content in the reservoirs which can still be productive nonetheless. It should be noted that modern studies indicate that the matrix of the Tesorillo sandstone can be highly porous and later studies on cores and by petrophysical modelling post the NIAS CPR have concluded that the proven reservoir porosity is actually in the range of 5% to 10-12%, which for gas sandstone reservoirs is acceptable to produce efficiently using modern completion technology.

The operator did attempt minor and largely unsuccessful reservoir stimulation activities at the time of testing which did not result in any measurable additional gas production, mainly because the inadequate type of drilling fluid at high pressures (more than 500 psi than the reservoir pressure) led to clogging of the effective porosity and permeability). However, NSAI states that these stimulation activities conducted in 1957 can be considered very minor and of very limited effectiveness by today’s industry standards.

The high resource estimates in Almarchal-1 as seen in the table below are balanced by low estimates of GCoS which NSAI states should be between 6.25% and 12.5% primarily as a function of low effective permeabilities of the potentially productive intervals and the paucity of seismic lines to accurately delineate the structure. Nevertheless, the competent person indicates that the prospective reservoirs should be considered a conventional resource at this stage.

We believe that the application of modern drilling and testing methods could de-risk Tesorillo to a significant extend. Petrel Resources has noted that the results outlined above were likely as a result of reservoir damage caused by low permeability reservoir, fresh water drilling fluids reacting with swelling clays and heavy weight mud causing mud filtrate and fine particle invasion.

All of these factors would serve to limit flow gas rates upon testing and the company concludes that DSTs and logs were not conducted or evaluated properly. As such, the partners in Tesorillo believe that there is a substantial opportunity to re-drill this prospect using modern testing, formation evaluation and completion methods and expedite a significantly better outcome than that achieved over 60 years previously.

Resource estimates

In May 2015, NSAI independently certified an unrisked prospective resource of 830 BCF of gas for the Tesorillo project. However, as the table below indicates, the upside potential of the asset could be in excess of 2 TCF of recoverable resources.

<table>
<thead>
<tr>
<th>Tesorillo gas resource estimates (2015)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Item (BCF)</strong></td>
</tr>
<tr>
<td>Original gas in place</td>
</tr>
<tr>
<td>Gross unrisked prospective resources</td>
</tr>
</tbody>
</table>

Source: NSAI
Ruedalabola permit

The Ruedalabola permit to the southeast of Tesorillo contains the Puerto de Ojan-1 well drilled in 1957, approximately 15km east of Almarchal-1. This well displayed similar gas shows to Almarchal-1 but could not be tested for mechanical reasons at the time. We believe that with comparatively limited resources, Almarchal-1 and the Tesorillo permit will be Prospex’s core focus on Tesorillo for the foreseeable future.

Recent work commitments

Over the course of 2018 and the first half of 2019, Tarba carried out general field studies as part of the Environmental and Social Impact Assessment (ESIA) on Tesorillo required for the permitting of up to two new wells. In the event that drilling will commence, the first well is likely to probe a similar trap configuration to the Almarchal-1 discovery well from 1956.

The operator also reprocessed, interpreted and integrated recent 2D seismic data with new detailed surface structural geology which is providing more confidence about the subsurface geometry of the suggested exploration target. This is likely to be the Aljibe sandstone in the Lower Miocene which is believed to be a potential trap for gas.

Tarba’s studies have also identified four promising leads in the northern portion of the concession although Prospex believes that this work will require further imaging and mapping in order to work these leads into potentially drillable prospects.

Tesorillo is geologically complex and the company expects that further field work will be required to provide a better understanding of the regional subsurface. At this point, the currently limited data set precludes the Tesorillo partners from undertaking a new CPR.

Potential drilling costs

In the event that Tarba identifies a potential drilling target on Tesorillo, we estimate that a single appraisal well would cost up to €4.0m (gross) to drill. However, in the event of a two well programme, the cost per well could be reduced to $3.75m per well as a consequence of unit mobilisation costs spread over two wells.

At present, Prospex is not funded to increase its interest to 49.9% in Tesorillo or to participate in a drilling programme on the licence. Assuming that Tesorillo remains a core asset in the company’s portfolio, Prospex will be required to raise significant additional funds to expedite the completion of the deal and to participate in a drilling programme. The company also has the potential to bring in an approved partner to reduce its ultimate interest and reduce considerably its overall cost exposure.
An indicative valuation for Tesorillo

Placing an initial value of Prospex’s interest in Tesorillo in the event that the company acquires the full 49.9% interest in the permit is highly indicative at this stage as much depends on the ability of the company to fund the third stage of the acquisition. As such, we are focusing on the company’s existing 15% interest in the asset.

We also note that further cash will be required to fund the company’s share of a potential two well drilling programme which is likely to amount to a further US$4.0m (gross) plus potential contingencies.

However, if we apply some of the variables outlined in this section of the report, it is feasible to generate an initial risked indicative valuation for the company’s eventual interest.

Outlined below is a table depicting a valuation range for Prospex’s 15% interest in Tesorillo. We have elected to take the mid-case gross prospective resources case as the most likely according the NSAI and we have applied a range of GCoS factors as outlined in the CPR. For a mid-case scenario, we have elected to apply a 10% GCoS which is likely to be conservative post the AMT survey and further log and DST analysis conducted by the operator.

For an indicative unit NPV of undiscovered gas in the ground we have assumed a modest US$1.32 per mcf which is based on our read across for exploration activity at El Romerol.

After the application of a substantial commercial risk factor to account for non-technical risks such as planning and permitting, gas sales issues, unforeseen delays in addition to as yet unfulfilled funding requirements as outlined previously. Consequently, we arrive at a low to high range with a fully risked mid-range case of **€8.2m** for the value of Prospex’s 15% interest in Tesorillo.

### Indicative valuation range for Tesorillo

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Low</th>
<th>Mid</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross prospective resources</td>
<td>BCF</td>
<td>220</td>
<td>830</td>
<td>2,289</td>
</tr>
<tr>
<td>Prospex interest</td>
<td>%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Net unrisked prospective resources</td>
<td>BCF</td>
<td>33</td>
<td>125</td>
<td>343</td>
</tr>
<tr>
<td>Chance of success</td>
<td>%</td>
<td>10.0%</td>
<td>10.0%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Net risked recoverable resources</td>
<td>BCF</td>
<td>3.3</td>
<td>12.5</td>
<td>34.3</td>
</tr>
<tr>
<td>NPV per mcf</td>
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<td>1.32</td>
</tr>
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<td>NPV</td>
<td>€m</td>
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<td><strong>Indicative net valuation</strong></td>
<td>€m</td>
<td>2.2</td>
<td>8.2</td>
<td>22.7</td>
</tr>
</tbody>
</table>

Source: NSAI, Peterhouse estimates
Appendix 1: Directors and management

Bill Smith - Non-Executive Chairman

Bill is a Canadian solicitor with 40 years of experience in corporate finance and is a director of a number of listed and private companies including Orca Exploration Group (TSXV), Mosaic Capital Corporation (TSXV) and PFB Corporation (TSX). He was a senior partner of McCarthy Tetrault LLP in Canada and was subsequently Executive VP of two listed international oil companies and a listed investment firm. He has extensive experience including a number of start-up ventures in the oil and gas sector.

Edward Dawson - Chief Executive Officer

Edward has a BEng and a MSc in investment analysis and over 15 years’ experience in the oil and gas sector. He has financed, managed and acted as a key investor in several oil and gas companies. Positions held include MD of Peppercoast Petroleum plc and Black Star Petroleum plc, analyst for RAB Capital’s Energy Fund, Business Development and Finance Manager for Oilexco Incorporated and a fund manager for Park Place Capital.

Richard Mays - Non-Executive Director

Richard is a solicitor in Scotland and has extensive industry, commercial and legal experience. He is VP and General Counsel at Canadian Overseas Petroleum Limited (TSX and FTSE) and has leadership and senior management experience of other LSE listed companies including DEO Petroleum plc and Oilexco North Sea Limited. He has also served as Executive Chairman of Peppercoast Petroleum plc and Black Star Petroleum plc. He is formerly Professor and Deputy Dean of the Aberdeen Business School.

James Smith - Non-Executive Director

James holds an MSc in Petroleum Geology and has over 25 years’ experience in the oil and gas sector. Having started his career as a petroleum geophysicist with Chevron UK in 1988, he became VP of Exploration for PanOcean Energy and in this capacity was instrumental in building the value of PanOcean from US$20m to its eventual sale to Addax Petroleum for US$1.4 billion in 2006. He has extensive experience in exploration, appraisal and development with proven success in finding oil, delivering positive, high impact results and ultimately building value.

Carlos Venturini – Exploration Manager

Carlos is a geologist (BSc) with an MSc in Structural Geology & Rock Mechanics and over 30 years in geophysical interpretation and oil prospect generation gained with Schlumberger, ENI, Sipetrol in addition to his own Libya-based consultancy working for Petrobras, GDF, OMV amongst others. He is an expert in Mediterranean and African petroleum geology.

Peter Elliot – Business Development

Peter holds a degree in geology and an MSc in petroleum geology. He has 22 years’ experience in the international oil and gas industry working in New Ventures and Business Development, most recently building oil company JVs in West Africa, including Senegal AGC, Liberia and Equatorial Guinea. He has also managed exploration contracts and work programmes.
Appendix 2 - The Foredeep play

Prospex has focused its activities on basins within the Foredeep play. These are structural basins that develop adjacent and parallel to mountain belts (in this case, the European Alps).

The Foredeep play

Creation of hydrocarbon basins

Foredeep or foreland basins form as a result of the immense mass created by crustal thickening associated with the evolution of a mountain belt which causes the lithosphere (the rigid outer part of the earth, consisting of the crust and upper mantle) to bend. This is a process known as lithospheric flexure and is an essential part of plate tectonics on a global scale.

The basin receives sediment that is eroded off the adjacent mountain belt, filling the basin with thick sedimentary successions that thin away from the mountain belt and create the sedimentary reservoirs suitable for the generation of hydrocarbons.

Foredeep basins in Europe typically host Tertiary (66 million to 2.6 million years ago) turbidite sandstone reservoirs located at the foothills of Alpine systems in central and southern Europe. Within this large area, Prospex’s near term development activities are focused on mature and proven hydrocarbon provinces represented by the Po Basin in northern Italy and the Carpathian basin in Romania in particular.
Important gas provinces

The Po Basin is often regarded as a syncline, or dip in the lithosphere due to compression at the basin edges. However, the Po Valley is a large sediment filled trough which now represents Italy’s most important gas province and is also home to the largest oil field discovered in Italy to date; Trecate Villafortuna.

The Carpathian Foredeep represents the largest basin of this type in Europe. It developed during the early and middle Miocene (no more than 23 million years ago) as a flexural foreland basin in front of the advancing Carpathian front. The wider basin covers a large area of Central and Eastern Europe and of all the countries in this region that are located within its area, Romania remains the most prominent oil and gas producing region.

Romania’s oil and gas industry is one of Europe’s oldest and is therefore we consider it to be mature. Current oil production is approximately 70,000 bpd in 2018 compared to double this level 25 years ago (Source: Trading Economics). Gas reserves in Romania are Europe’s fourth largest after the UK, Norway and the Netherlands and gas output is estimated by BP to be at least 0.9 BCF per day, a level of output that has been comparatively steady since the early 2000s.

According to Romanian publication, Capital, Romanian gas output is expected to almost double to a level close to 1.9 BCF per day by 2025 due to the commissioning of several new gas fields discovered on the continental shelf of the Black Sea. With accelerated output from Romania’s gas industry over the next decade, driven in part by a keenness to reduce dependence on Russian gas imports, we believe that the gas E&P sector in Romania is particularly conducive to new players such as Prospex bringing known reserves on stream.
Appendix 3: Podere Maiar background

The Podere Maiar-1d appraisal/development well was spudded in late November 2017 targeting a gas volume updip the existing Selva-5 and Selva-6 wells. Under the terms of the company’s farm-in agreements with Po Valley at the time, we estimate that Prospex contributed approximately 34% towards the cost of the well, which we believe cost approximately €3.5m, in return for a 17% working interest.

The well was completed successfully on 20 December 2017 to a depth of approximately 1,350 metres and perforations executed post completion identified two gas reservoirs in the Lower Pliocene sands of the Porto Garibaldi Formation. These reservoirs have been termed C1 and C2.

Location of the Podere Maiar-1d well on Selva

![Location of the Podere Maiar-1d well on Selva](image)

Source: Po Valley Energy

Productive horizons

The C1 and C2 reservoirs were delineated with total gross pay of 62.5 metres and net pay of 44 metres. The shallower C1 gross pay runs from 1,253.5m MD (Measured Depth) to 1,275.5m MD and has a gross pay of 22m and net pay of 15.5m. The gas-water contact (GWC) is located at 1,237m and C1 has been perforated over 2.5m in the uppermost section of pay.

The deeper and thicker C2 horizon runs from 1,282.5m MD to 1,322.5m MD and has a net pay of 25.5m. The GWC is located at 1,274m and the interval has been perforated over 8.5m. At this point, we believe that C2 could be the initial productive horizon on the field.
Flow testing confirms commerciality

The Podere Maiar-1d well was flow tested in January 2018 with peak flow rates of 148,136 scmpd (standard cubic metres per day), equivalent to 5.2 mmcfpd on a 3/8 inch choke from the C2 interval and 129,658 scmpd (4.6 mmcfpd) from C1 on the same sized choke. A summary of the test results is outlined in the tables below.

### Flow test results from C2 level

<table>
<thead>
<tr>
<th>Choke</th>
<th>Flow rate scmpd</th>
<th>Flow rate mcfpd</th>
<th>Flowing well head pressure Bars</th>
<th>% pressure drop across constriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 inch</td>
<td>17,850</td>
<td>631</td>
<td>122.8</td>
<td>0.2%</td>
</tr>
<tr>
<td>2/8 inch</td>
<td>66,000</td>
<td>2,332</td>
<td>120.7</td>
<td>1.9%</td>
</tr>
<tr>
<td>18/64 inch</td>
<td>80,700</td>
<td>2,852</td>
<td>119.5</td>
<td>2.8%</td>
</tr>
<tr>
<td>3/8 inch</td>
<td>148,136</td>
<td>5,234</td>
<td>111.9</td>
<td>9.0%</td>
</tr>
</tbody>
</table>

### Flow test results from C1 level

<table>
<thead>
<tr>
<th>Choke</th>
<th>Flow rate scmpd</th>
<th>Flow rate mcfpd</th>
<th>Flowing well head pressure Bars</th>
<th>% pressure drop across constriction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 inch</td>
<td>14,348</td>
<td>507</td>
<td>119.3</td>
<td>0.3%</td>
</tr>
<tr>
<td>2/8 inch</td>
<td>64,475</td>
<td>2,278</td>
<td>115.0</td>
<td>3.9%</td>
</tr>
<tr>
<td>18/64 inch</td>
<td>77,351</td>
<td>2,733</td>
<td>113.7</td>
<td>5.0%</td>
</tr>
<tr>
<td>3/8 inch</td>
<td>129,658</td>
<td>4,582</td>
<td>105.1</td>
<td>12.2%</td>
</tr>
</tbody>
</table>

Source: Company RNS

**Commercial discovery declared**

Based on these strong flow rates, which exceeded the pre-test expectations of 100,000 scmpd (3.5 mmcfpd), and a methane content of 99.5% recorded from each horizon, the operator declared Selva a commercial discovery. This status is augmented by the location of the Podere Maiar-1d well which is only 1,000 metres from the Italian national grid connection, enabling an inexpensive tie-in to local transportation infrastructure (see photograph below).

**Location of Podere Maiar-1d well in relation to SNAM pipeline tie-in**

![Tie-in to 70bar SNAM pipeline 1,000 m away from Podere Maiar well site](image)
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