Independent Geological Report
On the Hydrocarbon Prospectivity of Acreage Held by Kingsway Oil Pty Ltd
In the Canning Basin, Western Australia

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1.0 Executive Summary

Kingsway Oil Pty Ltd (Kingsway) was originally incorporated in 2001 specifically to undertake exploration of the Canning Basin, Western Australia and has been actively exploring since 2003. The company currently owns permits or has applications pending over some 62,416 km² within the central and southern Canning Basin under various arrangements (Figure 1).

Kingsway drilled the Sally May 1 exploration well in EP429 in early 2005. The well encountered good oil shows in the Ordovician Nita Formation within the aerially extensive Sally May anticline. The structure contains estimated prospective resources between 3.0 MMBO and 190 MMBO (P90/P10); the mean volume is 70 MMBO. The chance of success is estimated at 32%. Kingsway has calculated an associated NPV(10) for this prospect of over US$512MM. Substantial additional potential exists within the Sally May structure for an accumulation in the deeper Acacia Sandstone, which was below the total depth of the Sally May 1 well, as well as in the shallower Elsa Sandstone of the Worral Formation. The lack of data obtained over the Elsa Sandstone in Sally May 1 precludes a satisfactory evaluation of either interval. Based on the information available, mean prospective resources of 84 MMBO and 92 MMBO have been calculated for the Acacia Sandstone and the Elsa Sandstone, respectively. A complete summary of the contingent and prospective resources and associated risks is included in Appendix 2; the supporting input assumptions are included in Appendix 3.

Kingsway has adopted an exploration methodology that utilises airborne magnetic data to identify structural closures and magnetotelluric (MT) data to help locate hydrocarbon-bearing zones and assess reservoir quality. This methodology was applied at the Sally May 1 location prior to drilling, and the predictions were consistent with the well results. Aeromagnetic data interpretation completed to date in Exploration Permit EP449 has revealed four major anticlinal features. Preliminary evaluation on three of the four anticlines has been completed utilising MT data; the results give positive indications of oil in these structures. Mirbelia 1, drilled on one of these structures in 1985, recovered oil from the Devonian Mirbelia Limestone, and the MT data suggest significantly improved reservoir quality may occur elsewhere on this structure. In addition, Kingsway has recent applied for its third SPA-AO (SPA-AO 3/05-6) over the Southern Canning. This area is remote and has had no exploration since the early 1970s. The prospectivity of this area is enhanced by the results of Patience 2, drilled in 2001, in which an untested oil column of up to 38 m is suggested by the petrophysical evaluation. The SPA-AO wraps around this well location. The remoteness of the area and the paucity of data makes it well suited for the proposed exploration methodology.

Kingsway proposes to undertake a planned placement and capital raising for the specific purpose of carrying out petroleum exploration and development in the Canning Basin. The proposed work program is aimed at assessing the significance of the Sally May 1 well, including drilling deep well to fully evaluate the potential reservoir objectives in the area and three horizontal wells that could be placed on extended production test. The information from these horizontal wells will then enable possible total recoverable resource to be estimated. Additional efforts will be directed towards maturing other prospects on acreage currently controlled by Kingsway and drilling up to three additional wells to evaluate the features. Current plans envisage drilling up to three exploration wells into the most prospective of these structures once a comprehensive evaluation has been completed.
The Canning Basin in general, and the Kidson Sub-basin in particular, are very lightly explored. Efforts to date have encountered all the elements required for a significant petroleum accumulation, but a major discovery has eluded explorers. Kingsway has assembled an acreage portfolio that provides a variety of opportunities and a balanced spectrum of risks from appraisal to rank wildcatting. Perhaps just as importantly, the exploration strategy Kingsway proposes to pursue using aeromagnetic data for cost effective identification of structures combined with magnetotelluric data to identify porous hydrocarbon bearing zones has the potential to produce dramatic results if the additional studies show that the techniques can be reliably applied as a predictive tool.
2.0 Purpose of Independent Geological Report

Kingsway proposes to undertake a planned placement and capital raising for the specific purpose of raising funds to allow for further petroleum exploration and development in the Canning Basin, Western Australia. In accordance with the instructions issued by Kingsway, Isis Petroleum Consultants Pty Ltd (Isis) has prepared this Independent Geological Report on Kingsway’s existing and pending assets in the Canning Basin.

Isis has reviewed the relevant geological and geophysical data provided by Kingsway for the subject areas, although the defined scope of work precluded a full and comprehensive examination of the data. No independent remapping or reinterpretation of these data has been undertaken, nor has there been any detailed examination of the economic model utilized. No site visit was undertaken as it was deemed unlikely to provide any significant insights into the claims or potential described by Kingsway due to the remote nature of the areas held and the lack of any operations, facilities or infrastructure. Isis has also examined the ongoing exploration methodology proposed by Kingsway. Isis has conducted extensive interviews with the managing director of Kingsway and has verified that the representations and interpretations made by Kingsway can be supported technically by the available data. However, due to the interpretive nature of the conclusions drawn by Kingsway, Isis cannot and does not warrant the accuracy of those conclusions.
3.0 Introduction

Kingsway was originally incorporated in 2001 specifically to undertake exploration of the Canning Basin, Western Australia. The company has been actively exploring since that time, and landholdings have expanded rapidly from its first Special Prospecting Authority with an Acreage Option (SPA-AO) that comprised 2,024 km$^2$ over what is now EP429; Kingsway currently owns permits or has applications pending over some 62,416 km$^2$ within the central and southern Canning Basin (Figure 1).

Kingsway drilled the Sally May 1 exploration well in EP429 in early 2005. The well encountered good oil shows in the Ordovician Nita Formation within the aerially extensive Sally May anticline, and a mean prospective resource of 70 million barrels of oil has been calculated. Additional potential exists below the Nita Formation in the Acacia Sandstone as well as above the regional Carribuddy Salt in the Elsa Sandstone. The results of Sally May 1 do not allow either of these zones to be evaluated. Kingsway intends to undertake a comprehensive work program to assess the significance of the Sally May 1 well, including drilling deeper to test assess the potential of the Acacia Sandstone and drilling up to three horizontal wells that could be placed on extended production test. The information from these horizontal wells will then enable the possible total recoverable resource to be estimated and will also allow for the detection of fractures within the reservoir that may not be apparent otherwise.

Kingsway subsequently applied for Exploration Permit EP449 east of EP429, which was awarded on 23 June 2006; work completed to date has revealed four major anticlinal prospects in this area. Preliminary evaluation on three of the four anticlines has been completed utilising magnetotelluric data; the results give positive indications of oil in these structures. This methodology was applied at the Sally May 1 location prior to drilling, and the predictions were consistent with the well results. Current plans envisage drilling up to three exploration wells into the most prospective of these structures once a comprehensive evaluation has been completed.
Finally, Kingsway has recently applied for SPA-AO 3/05-6 (SPA-AO) over the Southern Canning. This area is remote and has had no exploration since the early 1970s. The prospectivity of this area is enhanced by the results of Patience 2, drilled in 2001, in which an untested oil column of up to 38 m is suggested by the petrophysical evaluation. The SPA-AO wraps around this well location.

3.1 Financial and Legal Summary

3.1.1 Contract Terms

Kingsway currently holds acreage under two different authorities.

The first, a Special Prospecting Authority (SPA-AO), enables geophysical surveys to be undertaken in vacant areas as a preliminary means of assessment, prior to application being made for an Exploration Permit. These authorities are restricted in time to six months, and do not allow any drilling to be undertaken. Once the agreed work program has been completed the company has the sole right (option) to convert any of the area enclosed by the SPA-AO into an Exploration Permit(s) during the following six-month period.

Exploration Permits are granted subject to specific work commitments that must be met year by year. The initial term of the Exploration Permit is six years and may be renewed for further periods of five years, with 50% relinquishment of the area held due at the end of each term. A firm commitment applies for the first 2 years, followed by a secondary program for the remaining permit term that can be negotiated on a year-by-year basis.

When a commercial discovery is made the permit holder has a statutory right under the Petroleum Act 1967 (WA) to the grant of a production licence, the initial term of which is 21 years renewable any time for a further period not exceeding 21 years.

If a petroleum discovery proves to be non-commercial but is potentially so within 15 years, the permit holder may apply for a Retention Lease. The initial term of a Retention Lease is five years and it may be renewed for further periods of 5 years. At the time of application and renewal the proponent must show that the discovery is likely to become commercially viable within a 15-year period.

3.1.2 Taxation

In onshore areas the Crown retains ownership of petroleum contained in the ground. Ownership of the petroleum transfers to a licensee upon recovery of the petroleum, on which a royalty is levied.

Royalties are calculated as a proportion of the net sales value of petroleum at the actual point of sale after deduction from the gross sale value of certain expenses. These expenses include costs directly related to treating, processing or refining the petroleum post wellhead and transportation to point of sale. Royalties are payable at the rate of 10%-12.5% of the net-post wellhead sales value of petroleum recovered at the wellhead.

In addition to State royalties, Commonwealth legislation provides for an excise tax of up to 30% on all oil produced from fields greater than 30 million barrels. The first 30 million barrels is exempt from excise tax. All gas produced is excise free.
4.0 Regional Setting

The Canning Basin covers an area of 400,000 km$^2$ and is one of the least explored Palaeozoic basins in the world. It developed in the earliest Ordovician as an extensional intracratonic sag basin. The main tectonic elements are shown in Figure 2. The Broome Arch/Crossland Platform formed during the Early Devonian as a pre-rift arch to the proto-Fitzroy Trough to the north and produced an asymmetry in the Willara and Kidson Sub-basins to the south. Deposition during the Late Devonian was restricted to the Fitzroy Trough, related to the onset of rifting in this area.

Transpressive reactivation during the Late Carboniferous created a series of large NW to SE trending fold axes across the Crossland Platform and Kidson Sub-basin. Further tectonic activity within the Late Triassic-Early Jurassic produced large east-west trending anticlines and flower structures in the Fitzroy Trough and reactivated older faults on adjacent terraces. No strong evidence of this final compression is seen on faults in the Kidson Sub-basin or southern boundary of the Crossland Platform.

Figure 2. Tectonic elements of the Canning Basin. Section line A-A’ shows location of Figure 3.

The Kidson and Willara Sub-basins, which dominate the southern Canning Basin, contain up to 5 km of Palaeozoic strata. The basins are asymmetric, with basement rising up to the north to form the Crossland Platform and Broome Arch. North of this high, a series of rotated fault blocks forming the Barbwire, Dampier and Jungurra Terraces step down into the Fitzroy Trough, a major graben containing up to 12 km of Devonian to Permian sediment.
4.1 Ordovician Petroleum System

The generalised stratigraphy of the Canning Basin is shown in Figure 4. The only commercial hydrocarbon accumulations encountered to date in the Canning Basin are located on the northern margin of the basin and are associated with a Devonian petroleum system developed within the Fitzroy Trough. Most of the previous exploration efforts in the basin have been focused on this play.

The Devonian petroleum system is not developed in the southern Canning Basin, although viable exploration targets associated with this play may exist in the eastern part of EP449. The primary focus of Kingsway’s exploration strategy is the Ordovician petroleum system associated with source rocks identified within the Ordovician Goldwyer Formation. Oil associated with this petroleum system has been recovered in wells drilled on the Barbwire Terrace (Dodonea 1, Percival 1 and Solanum 1), the Dampier Terrace (Edgar Range 1 and Pictor 1), Broome Arch / Crossland Platform (Looma 1) and along the Admiral Bay fault zone (Cudalgarra 1, Great Sandy 1 and Leo 1). Source rock maturation increases progressively from immature to overmature towards the axis of the Kidson and Willara Sub-basins; timing of charge varies accordingly.

Potential reservoirs within the pre-salt section include the Nita Formation dolomites and carbonates (e.g. Looma 1, Pictor 1, 2 and Sally May 1), the Acacia sandstone (e.g. Looma 1 and Acacia-1 and -2) and the Nambeet Formation (Looma-1). Good quality reservoir rock is also present in the post-salt section, particularly the Elsa Sandstone, which occurs near the base of the Devonian Tandalgoo Formation.

A high quality regional seal is provided by the Ordovician - Silurian Carribuddy Group, which consists of shale, impermeable carbonates and evaporite facies (Mallowa and Minjoo Salt). The Carribuddy Group can be up to 1,500m thick, about one-third of which is a massive evaporite facies. The presence of sealing facies in the post-salt section relies on the development of laterally extensive intra-formational shales, and is considered higher risk. Nevertheless, the Devonian Elsa Sandstone, which occurs near the base of the Tandalgoo Formation is considered a potential objective. In addition to the seal risks, it would also require a fairly tortuous migration pathway to get the oil from the pre-salt
Goldwyer Formation in deeper reaches of the Kidson Sub-basin, where it is most likely generated, through (or around) the Caribuddy evaporites and into the overlying strata. This risk is further exacerbated by the possibility of biodegradation.

Figure 4. Generalised stratigraphy of the Canning Basin.
5.0 Exploration Strategy and Methodology

5.1 Previous Exploration

Most of the previous exploration in the Canning Basin focussed on the Devonian petroleum system related to the Fitzroy Trough. Excluding the Northern Fitzroy Trough area, only 150 wells have been drilled to date in the basin, and of these only 50 penetrated the base of the Silurian-Ordovician Carribudy evaporite sequence. Of these wells, 5 encountered hydrocarbon indications in the Ordovician (Looma 1, Pictor 1 and 2, Sally May 1, Patience 2 and Mirbelia 2).

If one focuses more closely on the Kidson Sub-basin and adjacent areas – an area of some 150,000 km² - 19 wells have been drilled, only 8 of which intersected the pre-salt section. Two of these, Sally May 1 and Patience 2, encountered hydrocarbons.

Despite the fact that a number of wells in the southern Canning Basin have encountered oil shows, poor reservoir quality in the Ordovician objectives has thwarted any attempts to achieve commercially viable flow rates. Nevertheless, good potential reservoirs have been penetrated in the area; the challenge remains identifying locations where these reservoirs are oil-charged.

5.2 Exploration Methodology

The Canning Basin covers a large area and much of it is very remote. As a result, it can be both challenging and expensive to conduct exploration operations. The wells drilled previously were often located using sparse grids of seismic data and this, combined with the thick evaporite sequence and paucity of sub-surface control to constrain depth conversion of the time structure maps means that it is difficult to assess whether many of the wells tested valid structural closures.

Kingsway proposes to implement an exploration methodology somewhat different to what has been used previously. This will involve acquiring and interpreting new airborne magnetic surveys to cost effectively identify structural highs, in conjunction wherever possible with reprocessing of existing seismic data. The features identified in this manner will then be high-graded using magnetotelluric data.

Magnetotellurics (MT) is a natural-source, electromagnetic geophysical method of imaging structures below the earth's surface. Natural variations in the earth's magnetic field induce electric (telluric) currents under the earth's surface. These naturally varying electric and magnetic fields are measured over a wide range of frequencies (0.0001 to 10,000 Hz). The ratio of the electric field to magnetic field can give information about sub-surface rock properties such as conductivity.

The MT technique can be useful in identifying the reservoir properties and differentiating of fluids (gas, oil or water) beneath the ground. Recent work using this technique has enjoyed high success rates in the U.S., and surveys conducted in the Canning Basin by Kingsway have provided encouraging results. Importantly, the results suggest that the method may provide not only an indication of where hydrocarbons occur in the sub-surface, but may offer a tool to directly assess reservoir quality. As noted above, reservoir
quality has proved one of the biggest challenges in the area, so if successful, the method could represent a significant step forward, and the results of calibration with existing well control completed to date have been encouraging. In combination, these techniques could provide a cost-effective method for reducing exploration risks and assessing the vast tracts of acreage that typify the Canning Basin.
6.0 Exploration Permit EP429

EP429 encompasses an area of 2,024 km² and is located on the northern flank of the Kidson Sub-basin approximately 300 km SSE of Broome (Figure 1). The EP429 permit area is dominated by the Sally May anticline. The primary reservoir objectives in the pre-salt section are dolomite and limestone intervals within the Nita Formation and the Acacia Sandstone within the Willara Formation. Both are Ordovician in age. In the post-salt section, the Elsa Sandstone within the basal part of the Tandalgoo Formation constitutes an additional objective (Figure 4).

The sedimentary section over EP429 has only been penetrated to Top Goldwyer Formation in Sally May 1. Surrounding wells such as Looma 1 and Pegasus 1 have reached the economic basement beneath the Nambeet Formation suggesting that within EP429 the maximum geological section is at least 2,750m thick.

6.1 Obligations

EP429 was awarded to Kingsway on September 6th 2004. The proposed minimum work program is shown in Table 1. All obligations for the first two-years of the program were fulfilled by drilling Sally May 1 in early 2005. Kingsway plans to commit to a further work program for EP period years 3 and 4 in September 2006. The minimum work program for year 3 includes further office-based studies and drilling another exploration well. Total planned investment commitment for years 3 and 4 amounts to A$5.0 million. If the appraisal of the Sally May 1 well is successful, it is likely that by Year 4 Kingsway will begin to convert the Sally May oil field into a production licence and further exploration wells will not be required.

| Table 1. Minimum work program for EP429. Year 1 and 2 commitments have been satisfied. |
|---|---|---|
| Period | Dates | Work Program |
| Year 1 | 6 Sept 2004 – 5 Sept 2005 | Studies |
| Year 2 | 6 Sept 2005 – 5 Sept 2006 | Drill 1 well |
| Year 3 | 6 Sept 2006 – 5 Sept 2007 | Studies |
| Year 4 | 6 Sept 2007 – 5 Sept 2008 | Drill 1 well |
| Year 5 | 6 Sept 2008 – 5 Sept 2009 | Studies |
| Year 6 | 6 Sept 2009 – 5 Sept 2010 | Drill 1 well |

6.2 Proposed Work Program

Notwithstanding the minimum work program indicated above, Kingsway has indicated that they intend to undertake a much more ambitious exploration program over the next 2 years, as described below in Table 2.
Table 2. Actual intended work program for EP429.

<table>
<thead>
<tr>
<th>Period</th>
<th>Dates</th>
<th>Work Program</th>
<th>Indicative Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 3</td>
<td>6 Sept 2006 – 5 Sept 2007</td>
<td>Acquire and interpret airborne magnetic survey Acquire and interpret magnetotelluric program. Reprocess and interpret available seismic data</td>
<td>$0.5MM $0.5MM $0.5MM</td>
</tr>
<tr>
<td>Year 4</td>
<td>6 Sept 2007 – 5 Sept 2008</td>
<td>Drill and evaluate one deep vertical well Drill and complete 3 horizontal appraisal/development wells</td>
<td>$5.0MM $18.0MM</td>
</tr>
</tbody>
</table>

The primary objective of the work program is to appraise the Sally May –1 well in order to evaluate all the potential reservoir objectives, determine the presence of moveable hydrocarbons in the Nita Formation, assess the extent of any accumulation and the nature of the reservoir, including the presence of fractures. Should any of the three horizontal wells proposed be successful they would be placed on long term, production test to obtain additional data as a prelude to planning a full field development.

### 6.3 Source and Quality of data

The EP429 area is covered by an aeromagnetic survey acquired in the mid 1980s on a broad 1 by 3 kilometre grid. A regional structural interpretation report by Fugro Airborne Surveys Pty Ltd was completed in early 2006. This effort highlighted the Sally May anticline (Figure 5).

![Figure 5](image.png)

Figure 5. Shallow depth slice (left) and reduced to pole imagery (right) both with NW illumination. Note the broad intensity change that has been used to define the NW closure of the anticline and the low magnetic response that defines the core of the structure.

There are approximately 580 km of 2D seismic data in the permit area (Figure 6), which were acquired between 1986 and 1992. The seismic data is of moderate to good quality (Figure 7) and several two-way time (TWT) structure maps are available from interpretations done by previous operators (Figure 8). There appears to be a reasonably close co-incidence between the post-salt structure at Sally May as defined by the seismic mapping and that defined by the aeromagnetic interpretation (Figure 9). This supports the validity of Kingsway’s proposed use of aeromagnetic data to identify and identify structural closures in a gross sense. More detailed work is required with the aeromagnetic data in conjunction with seismic data to determine how accurately structural details can be resolved, as well as the relationship between the post-salt structural configuration and that in the pre-salt section where the reservoir primary targets are situated.
Figure 6. Seismic basemap showing existing seismic data coverage over EP429 and EP449. Black lines were acquired prior to 1986, the green lines were acquired after.

Figure 7. Seismic line TQI 37 showing Sally May 1 location. Line location is indicated on Figure 6.
Figure 8. Time structure map by Amoco over the Sally May anticline at Base Nita Formation horizon.

Figure 9. Relationship between closure defined by aeromagnetic data and seismic mapping at Top Carribuddy Salt.

Kingsway contracted an Independent USA company (DMT Technologies) to acquire and interpret the MT response from a series of transects across the Sally May anticline prior to the drilling of Sally May 1, as well as over a number of previously drilled exploration wells.
for calibration. A total of 90 locations were sampled and processing is underway. Two different processing techniques are being utilized. The first is an audio interpretation, done by DMT personnel by actually listening to the playback of the recorded data, and the other is a digital simulation of the same process. The audio interpretation is currently considered more reliable, but is quite labor intensive and therefore slow and expensive. The digital interpretation is currently being utilized as a screening tool to identify zones of interest that can then be high-graded for audio interpretation.

6.4 Sally May 1 results

Sally May 1 was drilled to a total depth of 1700 mDF in the Ordovician Goldwyer Formation. The well was drilled to test a large anticlinal feature identified on seismic and aeromagnetic data (Figure 9). The primary objectives of the well were the Ordovician Nita Formation and the Acacia Sandstone member of the Willara Formation.

Figure 10 shows the petrophysical interpretation of the Nita Formation in the Sally May 1 well. These results indicate an oil-saturated dolomitized zone over a gross interval of 18m from 1629m (-1396m sub sea) to 1647m with porosities locally in excess of 10%. The Nita Formation below this zone comprises limestone with very low matrix porosity; good oil shows were reported within this limestone interval from 1647-1686m, with fluorescence of up to 80% reported in the cuttings. No shows were reported above 1647m. Petrophysical analysis of this interval indicates the net pay thickness in the well ranges from 0m to 38m (P90 and P10, respectively), with an expected value of 2m. There is a strong possibility that fractures may be present within the Nita carbonates that would significantly increase porosity and permeability, and this could provide a primary mechanism for hydrocarbon production; however, the available data are not suitable for identifying any fracture systems that may be present.

![Petrophysical interpretation of Nita Formation in Sally May 1. Results indicate moveable oil in the dolomitized interval between 1629m and 1647m. Porosities of over 10% are indicated over 1636-1639m.](image-url)
DST 2 was conducted over the interval 1629.5-1700m (Figure 10). The test resulted in a weak bubble after 20mins with no flow to surface. Two litres of gas-cut mud were recovered. Formation damage caused by the heavy weight bentonite mud system being used may have contributed to the poor test result.

The Nita Formation was encountered deeper than prognosed, and due to technical limitations of the rig the well could not be deepened to test the Acacia Sandstone objective. A shallower objective in the Devonian Elsa Sandstone could not be evaluated due to limited data available over the interval. The mudlog does indicate a 53 m interval below 683 mDF containing sandstone described as having very good porosity, overlain by a 46 m interval of shale and dolomite that could provide a viable seal.

6.5 Integration of Magnetotelluric data with Sally May 1 well results

The MT interpretation over the Sally May 1 location is shown in Figure 11. The figure includes the pre-drill audio interpretation as well as the post-drill interpretation that was done using the digital method. The results suggested that Sally May 1 would intersect three distinct oil zones. The shallowest predicted hydrocarbon intersection was at 1,120m (- 887m sub sea) within the salt section. This zone had a minor background gas response. A drill stem test (DST) over this zone mechanically failed due to enlarged well bore. The deepest zone appears likely to correlate with the Acacia sandstone, which was not penetrated by the well due to technical limitations of the rig.

![Figure 11. Magnetotelluric data interpretation at Sally May 1 location. Audio interpretation was done prior to drilling; the digital interpretation was done after. The well did not reach the deepest zone due to technical limitations of the rig.](image-url)
The MT interpretation also predicted oil would be encountered within the Nita Formation. The actual well result is generally consistent with this prediction. Figure 12 illustrates the correlation between the audio and digital MT results, the petrophysical interpretation and the mud log over the Nita formation. Both the audio and digital MT indicate an oil zone within the dolomitic interval in the Nita Formation between approximately 1635-1639 m. This coincides with the zone identified in the petrophysical evaluation as having porosities of 10+% and S_w of 60-65%. Additional oil zones are indicated by the MT below 1660m. The petrophysical evaluation indicates very low matrix porosity over this interval; however, fractures may be developed within this brittle limestone interval that would not be resolved by the available wireline data. Good oil shows were reported between 1647-1686m.

As noted above, MT data have been recorded at a total of 90 locations within EP429. Preliminary digital interpretation has been completed at a number of these locations. Figure 13 illustrates the lateral continuity of the oil response anomalies along a dip transect across the Sally May anticline. These results show oil-related anomalies are present over the Sally May anticline at two levels, within the Carribuddy Salt and in the Nita Formation. They also indicate no anomalies are present in the down-dip locations on the flank of the anticline beyond the extents of the apparent structural closure. Efforts are underway to determine if any anomalies are evident in the post-salt section, such as might be associated with the Devonian Elsa Sandstone.

Pre-drill MT interpretation efforts were focussed on identifying potential oil zones. Subsequent work aimed at better understanding the ability of the MT data to predict porosity development has produced encouraging results. In areas where MT data has not been applied previously, it is only able to predict porosity in a relative sense; therefore calibration with existing wells is required. Figure 14 shows the results of the porosity calculations at the Pictor 1, Looma 1, Acacia 2 and Sally May 1 locations, as well as an

Figure 12. Sally May 1 - Correlation between magnetotelluric data, petrophysics and mudlog over Nita Fm.
additional point on the Sally May anticline approximately 10 km north of the well location. The data show a good correlation with porosity development obtained from the results of DSTs conducted in the respective wells, with larger negative numbers associated with better porosity development. It is encouraging to note that in Pictor1 and Looma 1, where the MT curve exhibits values around zero or slightly positive, test results indicated low porosity and permeability. At the Sally May 1 location the numbers are marginally better, particularly over the dolomitic interval, but about 10 km north of the well location at Sally May Station 5, for example, readings below −150 are evident (Figure 15). These are similar to the values indicated at the Acacia 2 location, where the Acacia Sandstone flowed water at a rate of 1760 BPD. Figure 15 summarises the interpretation of the MT data over the Sally May structure completed to date, and indicates significant areas of good porosity development within the area of mapped closure.

![MT response for additional stations along dip transect across the Sally May anticline. An oil response is evident at two levels at locations within closure; no oil response is evident for the downdip locations.](image-url)
6.6 Appraisal of Sally May Structure

The Sally May anticline is a large structure, potentially comprising over 300 km² of closure. The results of Sally May 1 demonstrate that oil has migrated into the structure and offer encouragement that a significant accumulation may be present. A probabilistic reserve distribution based on the available data indicates potential reserves of 3.2 MMBO (P90) to 190 MMBO (P10), with a mean volume of 70 MMBO (see Appendix 2 and 3). The prospect has a NPV at 10% of over US$512MM. A series of sensitivities are included as Appendix 4. In addition to the prospective resource identified in the Nita Formation, prospective resources have been identified at both the Elsa Sandstone and Acacia Sandstone levels, comprising mean volumes of 92 MMBO and 84 MMBO, respectively.

In order to evaluate this potential accumulation an appraisal program should be undertaken to clarify a number of issues. The results of Sally May 1 are ambiguous; the petrophysical evaluation indicates the presence of moveable oil over the zone 1636-1639m within the dolomitic portion of the Nita Formation, and this corresponds to one of the oil pay zones indicated by the MT data. However, there were no shows associated with this interval nor was any significant increase in background gas indicated. In addition, although the DST conducted over the interval did recover a small amount of gas, it failed to produce any significant flow. This may have been due to formation damage caused by the mud system, which was overbalanced and would also tend to suppress shows through the interval. However, it could also be due to low permeability in the formation. Petrophysical analysis in carbonates with a complex diagenetic history is difficult,
particularly with a limited data set; the assumptions made regarding formation water salinity and other petrophysical parameters are reasonable given the data available, but are assumptions nonetheless. The possibility also exists that significant fracturing may be present in the limestone within the Nita Formation below 1647m. Good shows were noted in this interval but the petrophysical analysis indicates very low matrix porosity. The wireline log suite recorded at Sally May 1 is not suitable for detecting potential fractures, and an appropriate formation imaging tool should be run in the appraisal wells to assess this possibility.

Poor reservoir quality, particularly in the Nita Formation, has been a recurring issue in the basin. The results obtained from the MT data to date are very encouraging, not only because they suggest the reservoir quality may improve elsewhere on the Sally May structure, but because if ongoing calibration of this technique are successful it would provide a method for significantly reducing this critical risk in both appraisal and exploration drilling. Mapping of the MT data shows that Sally May 1 was drilled in one of the poorest reservoir quality areas of the structure and suggests that better reservoir quality exists over a significant portion of the Sally May anticline (Figure 15),

Additional potential also remains in the Sally May structure at the deeper objective Acacia Sandstone. Due to limitation of the rig, it was not possible to deepen Sally May 1 to test this zone. There are encouraging indications on the MT data of an additional, deeper potential oil zone at the Sally May location. The closest penetration of the Acacia Sandstone is some 35 kms to the northeast in the Fruitcake 1 well, where the interval was about 36 m thick and had an average porosity of 11%. Mapping by previous operators suggests that the closure at this level may be significantly larger than for the Nita Formation, although reservoir quality is a significant risk due to the more distal location of Sally May structure relative to Fruitcake 1, as well as the fact it is likely to occur about 250 m deeper. The potential mean prospective resource volume associated with this objective is 84 MMBO. Details are included in Appendix 2; the corresponding input parameters are tabulated in Appendix 3.

The Elsa Sandstone, which occurs near the base of the Devonian Tandalgoo Formation, just above the Carribuddy Evaporite sequence, is also a potential objective. The interval was identified by Shell as their preferred target when they were operator of EP353, which incorporated the area that is now EP429. Sally May 1 penetrated the Elsa Sandstone, but no electric logs were recorded over the interval. The only data is available is the mudlog, which indicates the presence of a sand described as having “very good visual porosity” over the interval 687-740 mDF that is overlain by a over 200 m of predominantly shale. The primary risks for this play are whether a migration pathway exits to charge the Elsa Sandstone from the sub-salt strata where the hydrocarbons are generated. In additional, there is a risk that any oil that may have migrated into the structure could be biodegrated due to the shallow depths. The potential mean prospective resource volume associated with this objective is 92 MMBO. Details are included in Appendix 2; the corresponding input parameters are tabulated in Appendix 3.

Kingsway is proposing to acquire a modern high-density magnetic survey, complete further analysis of MT data points and reprocess the existing seismic data. The integration of all these datasets will enable the company to optimise the appraisal program by allowing well design to be improved and potentially providing a better understanding of geological variations over the structure, including the location and extent of fracture trends, porosity distribution and hydrocarbon occurrences, thus providing a much better basis for selecting well locations.
Kingsway proposes initially to drill one deep exploration well to fully evaluate the various potential reservoir objectives and three horizontal development/appraisal wells targeting the high porosity zones and fracture trends. These horizontal wells would then be put on long term production testing with the two fold aim of providing early cash flow to the company and important information on the long term production profile for wells drilled into the Sally May anticline. Initial oil production would be trucked to Broome before shipment to market, eventually a pipeline would be built to the coast and then onto a moored storage tanker with transhipment to shuttle tankers as required.

### 6.7 Recommendations for EP429

The results from the Sally May 1 well are encouraging. A number of ambiguities exist within the currently available data and these must be addressed in the forward work program in order to assess the economic potential of the Sally May structure. Kingsway proposes to acquire and interpret an aeromagnetic survey, undertake detailed evaluation and calibration of the magnetotelluric data to assess its value as an indicator of both hydrocarbons and porosity, reprocess and reinterpret the existing seismic data and drill three horizontal wells.

Isis considers that the proposed approach is a prudent strategy to adopt and the best use of Kingsway’s funds given the inherent risks associated with this project. We recommend that prior to drilling the planned wells Kingsway should complete the following:

1. Reprocess and/or phase match all existing seismic lines and produce new time structure maps of the Sally May anticline and apply the new velocity information from the more recently drilled exploration wells to redefine the Sally May anticline in terms of depth;
2. Additional aeromagnetic data should be acquired and integrated with the pre-existing seismic data.

3. Further interpretation of the MT data is required and mapping of fracture trends, MT porosity distribution and oil anomalies mapping should be completed before spudding any further wells.

4. A detailed analysis of the pressure build-up data from DST 2 in Sally May 1 should be undertaken to see if it might provide any support for the presence of significant formation damage in Nita Formation dolomite and limestone, as well as investigating the potential for pressure support for production.

5. Kingsway should drill the first (at least) of these additional wells to the economic basement to fully evaluate the Nita Formation and ensure they are engineered to allow the potential of both the shallower objective in the Elsa Sandstone and the deeper objectives in the Acacia Sandstone and possibly the Nambeet Formation to be fully assessed. Drilling a horizontal section through the Nita Formation would assist in the identification of any fracture systems that may exist, in addition to the advantages associated with increased oil production rates.
7.0 Exploration Permit EP449

EP449 is located on the edge Crossland Platform and the Barbwire Terrace within the Canning Basin and encompasses an area of 5,832 km² (Figure 2). This area is some 350 km southeast of Broome. A good quality sealed road exists around the western and northern parts of the sedimentary basin and various gravel tracks exist within or nearby EP449.

7.1 Obligations

Kingsway first acquired control of EP449 via a Special Prospecting Authority with an Acreage Option (SPA-AO) in September 2004, just before spudding Sally May 1 in EP429. The SPA-AO commitment work program was to undertake a magneto telluric survey within a six-month period. The MT data acquisition was successfully completed by the end of October 2004 and preliminary interpretation results were encouraging. Based on these findings and the results of Sally May 1, Kingsway applied to convert the SPA-AO area into an Exploration Permit. The area was awarded to Kingsway on 10th August 2005 subject to Native Title negotiations and the permit was formally awarded on June 23rd 2006. Kingsway has the following two-year firm work program commitment:

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<th>Period</th>
<th>Dates*</th>
<th>Work Program</th>
<th>Indicative Amount</th>
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</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>23 June 2006 – 21 June 2007</td>
<td>Office Studies</td>
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<tr>
<td>Year 2</td>
<td>23 June 2007 – 22 June 2008</td>
<td>Drill 1 exploration well</td>
<td>$5.0MM</td>
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7.2 Source and Quality of data

The EP449 permit area is covered by an aeromagnetic survey acquired in the mid 1980s on a broad 1 by 3 kilometre grid. A regional structural interpretation report by Fugro Airborne Surveys Pty Ltd was completed in early 2006. This effort targeted four-way dip closures without major faults associated, and four such structural leads were identified (Figure 15).
There are approximately 1350 km of seismic data acquired predominantly in the early 1980's (Figure 6). In general, the data are only poor to moderate quality and only a few seismic lines actually cross over the anticlines identified by the aeromagnetic interpretation (Figure 17).

Within and surrounding EP449, some thirty-six exploration wells have been drilled, many of which were shallow stratigraphic tests. Only nine have penetrated the prospective sub-salt Ordovician section. Mirbelia 2, the only well in the permit that currently appears to have tested a closure apparent on both the seismic and aeromagnetic data, encountered oil shows.

A MT survey has been carried out over the application area, with data acquired at 52 locations over the seismically and magnetically defined anticlines previously identified by Kingsway, as well as 12 additional well calibration locations.
7.3 Geology of Exploration Permit EP449

The regional geology over the EP449 area is broadly similar to EP429, which is located some 100km to the west. The only major difference is in the NE portion of the application area where there is an increase in the thickness of the post-salt sedimentary section. As a result the depth to economic basement approaches 4000m in this area, whereas the correlative depth on the Crossland Platform over the remainder of the application area is likely to be less than 2,500m. In addition, it suggests that there may be potential for accumulations associated with the Devonian petroleum system in this part of the application area.

The primary objectives in the area are the Nita Formation and the Acacia sandstone in the Willara Formation, both of which are of Ordovician age. The Acacia Sandstone, in particular, appears to offer an attractive target. It flowed 1730 BPD of water in the nearby Acacia-2 well, thus demonstrating good reservoir potential (Figure 17).

The aeromagnetic interpretation over EP449 identified the four significant structures, “Anna Helen”, “Lisa Grace”, “Max” and “Holly as well”. All four anticlines have been defined using both the existing seismic data (poor quality) and magnetic datasets. Figure 18 shows an example of the seismic data over the Anna Helen structure, including the Mirbelia 1 location.

Western Mining drilled Mirbelia 1 and 2 on the Anna Helen structure in 1985 and 1988, respectively. Mirbelia 1 recovered 22°API oil from post-salt Upper Devonian Mirbelia Limestone and is interpreted to have 13m of net oil pay in a reservoir section with porosity of 10-15% and permeability of 1-10 mD. The follow up Mirbelia-2 well, drilled 210 m away,
encountered only minor shows in the correlative interval with no significant reservoir development evident. It was deepened to test the pre-salt section and encountered fluorescence in sidewall cores over a 15m interval. Both contingent and prospective resources have been attributed to this structure, and are summarized in Appendix 2.

Figure 18. Seismic line 84-16 across Anna Helen prospect. Line location is shown on Figure 6.

Kingsway has acquired MT measurements over Anna Helen, Lisa Grace and Max anticlines. Initial analysis of selected MT records indicates potential oil zones in all three (Figure 19). Note that the oil zone indicated by the MT analysis over Mirbelia 2 indicates poor reservoir development, and thus correlates with the well results. Interestingly, preliminary analysis of additional MT data points over the structure suggests significant improvements in reservoir quality may occur elsewhere on the feature.

It is likely that the MT oil zones seen within the Max prospect are above the Carribuddy evaporite due to increased sedimentary thickness to in the northeast part of the application area.
7.4 Exploration Potential Conclusions

Kingsway has identified four significant anticlines within the application area; at the Nita Formation level, potential closures range in size from 57 to 115 km² (P10). Potential reserves for the features are tabulated in Appendix 2. MT data indicate oil is present within all three of the structures currently covered by MT data. A new MT survey is planned over “Holly as well” structure as there is currently no MT coverage over this anticline. Reservoir quality has been a problem encountered in previously drilled wells; however, the Acacia sandstone is likely to be developed over all four anticlines and appears likely to provide a viable reservoir target based on other wells in the vicinity.

7.5 Recommendations for EP449

Before Kingsway considers exploration drilling in this area a number of projects are recommended, including

1. Reprocessing and reinterpreting the existing seismic data, including depth conversion.
2. Acquiring and interpreting a modern airborne magnetic survey, and
3. Obtain additional MT data over the “Holly as well” anticline.
4. Completing the analysis of the MT data acquired to date, including calibration with existing wells and mapping out porosity trends and oil anomalies.

Given the proposed exploration program in EP429 over the Sally May structure, it would be prudent to ensure as much synergy as possible between these two programs so that
the validity or the proposed exploration methodology can be assessed. The Company has indicated that its initial exploration program consists of drilling one well within EP449, with the provision for an additional two contingent wells. The relative timing of these wells and those proposed over the Sally May feature should be carefully considered.
8.0 Special Prospecting Authority with an Acreage Option (SPA-AO)

Kingsway has successfully applied for its third SPA-AO within the Canning Basin (both EP429 and application 16/4-5 were originally SPA-AO). The new SPA-AO covers an area of some 54,560 km² in an almost totally unexplored portion of the Southern Canning basin (Figures 1 & 2).

This area has a proven petroleum system with oil intersected in the sub-salt Ordovician age Bongabinni and Nita Formations. This area is very remote, lying some 700 km south-southeast of Broome. A good quality sealed road exists around the western and northern parts of the sedimentary basin and various gravel tracks exist within or nearby the SPA-AO area.

Kingsway expects the SPA-AO to be awarded imminently. The SPA-AO work program will be carried out once Native Title Negotiations are completed. The company believes that this area is highly prospective and offers the opportunity to expand the Kingsway acreage holding significantly within the Canning Basin.

8.1 Obligations

Once native title negotiations are completed Kingsway has committed to fly a regional aeromagnetic survey over the SPA-AO area where currently no modern dataset exists. It is planned to undertake these surveys during the dry season of 2006. The company expects to delineate at least three or four significant anticline structures (with a mapped closure of greater than 100 km²) within the SPA-AO area. If the results of the surveys are encouraging then some of the SPA-AO area will be converted into one or more Exploration Permits. A possible firm commitment of a two-year work program might encompass an MT survey and seismic acquisition. It is unlikely that Kingsway will commit to drill an exploration well during the first two-year period on any of these possible southern EPs.

8.2 Source and Quality of data

Within and surrounding the SPA-AO application there have been eight exploration wells drilled over that last 40 years, all of these where drilled to gain basic sedimentary information. The last of the three wells drilled within the SPA-AO boundary was drilled in 1973. Only the Patience 2 well (spudded in 2001) has been drilled on a valid seismically and magnetically defined structural closure. The Patience 2 well intersected gas and oil shows in a sub-salt sandstone reservoir (Figure 19).

Magnetic data again is of poor quality and acquired during the 1960 to 1970’s and is unsuitable for modern day processing and interpretation. The northern boundary of the SPA-AO corresponds to the southern-most extents of the post-1980’s magnetic surveys.

The seismic data is limited and of very poor quality. If necessary, the company will re-process the relevant lines if they coincide with any magnetically defined structures.
Magnetic Telluric (MT) data has yet to be acquired over this area.

8.3 Geology of SPA-AO application area

The area of the SPA-AO is within the Southern Canning and encompasses the southern Kidson Sub basin and a proportion of the Tabletop Shelf (Figures 2 and 3). Currently very little is known of this area. The main target remains the Ordovician petroleum system. This petroleum system is poorly defined in the area due to the paucity of data. The results of Nerdlihc Company Inc's Patience 2 well are encouraging, however. The petrophysical evaluation from the well suggests it intersected 42.9m of hydrocarbons (gross) within the Bongabinni/Nita Formation, comprising a 4.5m gas cap overlying a 38.4m oil column.
Although Nerdlihc was unable to test this well due to financial difficulties, the result does provide encouragement that a working petroleum system is present in the area, with hydrocarbons presumably generated from the Goldwyer source rocks within the Kidson Sub-basin and migrating to the southern flanks of the Canning Basin.

In addition, Kingsway has used regional aeromagnetic data to identify NW-SE oriented regional fold belts (of which the Sally May anticline is part) that extend across the Kidson Sub-basin in a SE direction (Figure 19). These anticlinal fold belts appear likely to extend into the SPA-AO application area. Currently, however, the extents of the fold belts are limited to areas with modern aeromagnetic survey coverage. This coverage ends at the northern boundary of the SPA-AO.

8.4 Potential of SPA-AO application

Kingsway has reviewed the results from Patience 2, the possible extension of NW - SE trending fold belts and believe that several major anticlinal structures will be identified. At this stage Kingsway is unable to predict possible reserves. Until the proposed aeromagnetic and MT survey are interpreted and give Kingsway sufficient encouragement, no commitment to exploration drilling will be made.

8.5 Exploration Potential Conclusions

The SPA-AO is remote and at a very immature stage of exploration. The hydrocarbon indications intersected at Patience 2 suggest a working petroleum system is present and thus the area offers the potential for significant oil discoveries. The area fits well with the exploration strategy outlined by Kingsway, and offers the opportunity to apply the methodology from the earliest phases of exploration.

It should again be emphasised that the opinions expressed here are based on a limited review of the Company’s data thus this report must be considered as “preliminary” pending a more detailed review of the available data.

8.6 Recommendation for SPA-AO area

Before any application for an Exploration Permit for any area covered by the SPA-AO area, it is recommended that the following work program should be undertaken

1. Acquire and interpret an airborne magnetic survey. The SPA-AO work program commitment is to undertake such a survey.
2. Conduct an MT survey as soon as possible after the magnetic survey interpretation is complete over the structural leads identified. Interpret as much of this data as possible in the available time to allow the selection of the most prospective areas for conversion to Exploration Permit(s).

Assuming that sufficient encouragement becomes evident to apply for an Exploration Permit, it is suggested that the following steps be completed prior to conducting any exploration drilling operations.

1. Consider acquisition and interpretation of a more detailed aeromagnetic survey to allow more accurate definition of any interesting structures are identified.
2. Complete the processing and interpretation of the MT data, including identifying potential hydrocarbon zones and areas with good potential reservoir quality. These results should be calibrated with the results obtained from work done in and around EP429 and EP449.

3. If the technique continues to provide useful insights, a follow-up, detailed MT survey should be completed over key areas.

4. Reprocessing and interpretation of existing seismic data (if possible and/or relevant).

5. New seismic data acquisition over interesting leads/prospects should be considered to reduce structural risk prior to drilling, if appropriate.
9.0 Concluding remarks

The Canning Basin in general, and the Kidson Sub-basin in particular, are very lightly explored. Efforts to date have encountered all the elements required for a significant petroleum accumulation, but a major discovery has eluded explorers. Kingsway has assembled an acreage portfolio that provides a variety of opportunities and a balanced spectrum of risks from appraisal to rank wildcatting. Perhaps just as importantly, the exploration strategy Kingsway proposes to pursue using aeromagnetic data for cost effective identification of structures, combined with magnetotelluric data to identify porous hydrocarbon bearing zones, has the potential to produce dramatic results if the additional studies show that the techniques can be reliably calibrated.

It is also important to note that the economic analysis completed by Kingsway (see Appendix 4) indicates that an accumulation of 5 MMBO or less capable of sustaining a moderate flow rate is likely to be economically attractive, thus even volumes in the order of the P90 level for any one of the three objectives identified in the Sally May structure could be sufficient.
10.0 Qualifications

This report was prepared by Isis Petroleum Consultants Pty Ltd, an independent geoscience consultancy firm based in Perth, Western Australia. Isis provides a broad spectrum of petroleum geology and geophysics services ranging from frontier exploration permit management, asset valuations and field development studies. Isis has considerable international experience with deep knowledge of some 80 hydrocarbon provinces worldwide.

All of the personnel involved in the preparation of this report are independent of the applicant, its directors, senior management and advisors. Isis received a lump sum fee for the preparation of this report that was not linked to the admission to the Exchange or value of the applicant. Isis personnel involved in the preparation of this report are as follows;

Mark Ballesteros graduated from Williams College in Massachusetts, USA with a B.A. in Geology in 1981 and earned a M.Sc. in Geology in 1988 from the University of Tulsa in Oklahoma, USA. Mark has 24 years of experience in various facets of petroleum geology and geophysics including exploration, appraisal and development projects in Australia, Asia, Africa, India, Europe and South America.

Peter M. Barber PhD graduated with a BSc (Hons) from the University of Wales, UK in 1972 and a PhD from Imperial College, London, UK in 1982. He is a director of Isis Petroleum Consultants and has 30 years experience in the international petroleum business, both with majors (Phillips) and independents (Petroz), working in a diverse range of challenging environments, ranging from the North Sea and Mediterranean, to Africa and SE Asia. Since 1995, as a consultant, he has completed over 80 projects for both domestic and international clients, ranging from prospect specific and regional-level studies, seismic sequence stratigraphy projects, asset valuations and management of exploration permits. He is a member of the American Association of Petroleum Geologists, the Geological Society of London, the Petroleum Exploration Society of Great Britain and the Petroleum Exploration Society of Australia.

Mr. Paul Carter is a founding Director of Isis Petroleum Consultants and a Principal Geophysicist with the group. He graduated with a B.Sc in Applied Sciences from Curtain University, Perth, Australia in 1973. Paul Carter has over 25 years exploration and exploitation experience throughout Australia, Southeast Asia, India and Africa. Paul Carter specializes in seismic interpretation projects focused on play, prospect and reservoir development in conjunction with sequence stratigraphy as well as permit and asset valuations. He is a member of the American Association of Petroleum Geologists and the Petroleum Exploration Society of Australia.
Appendix 1 – Summary Table of Assets

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<th>Asset</th>
<th>Operator</th>
<th>Interest (%)</th>
<th>Status</th>
<th>Licence expiry date</th>
<th>Licence area (sq km)</th>
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## Appendix 2 – Summary of Reserves and Resources by Status

Classification is based on SPE definitions.

### Contingent Resources

Oil contingent resources per asset from development pending to development not viable.

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Source: ISIS Petroleum Consultants

### Prospective Resources

Oil prospective resources per asset from prospect to play.

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</tbody>
</table>

Source: ISIS Petroleum Consultants
Appendix 3 - Reserve Distribution and Risk Calculation Input Variables

<table>
<thead>
<tr>
<th>Reserve Distribution Inputs</th>
<th>Sally May (Nita)</th>
<th>Sally May (Elsa Sst)</th>
<th>Sally May (Acacia)</th>
<th>Anna Helen (Mirbelia)</th>
<th>Anna Helen (Nita)</th>
<th>Lisa Grace</th>
<th>Max</th>
<th>Holly as Well</th>
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<tbody>
<tr>
<td>Area (km²)</td>
<td>P90</td>
<td>P10</td>
<td></td>
<td></td>
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<td>P90</td>
<td>10</td>
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<td>10</td>
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<tr>
<td>P10</td>
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<td>115</td>
<td>350</td>
<td>20</td>
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</tr>
<tr>
<td>P90</td>
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<td>3</td>
<td>3</td>
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<td>P10</td>
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<tr>
<td>Porosity</td>
<td>Min</td>
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<td>8%</td>
<td>8%</td>
<td>8%</td>
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<tr>
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<td>Max</td>
<td>12%</td>
<td>28%</td>
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<td>12%</td>
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<tr>
<td>Oil Saturation</td>
<td>Min</td>
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<td>40%</td>
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<td>40%</td>
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<td>Max</td>
<td>65%</td>
<td>80%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
<td>65%</td>
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<tr>
<td>Recovery Factor</td>
<td>Min</td>
<td>10%</td>
<td>15%</td>
<td>15%</td>
<td>10%</td>
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<td>35%</td>
<td>35%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>FVF (rb/stb)</td>
<td>Min</td>
<td>1.1</td>
<td>1.04</td>
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<td>1.1</td>
<td>1.1</td>
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<tr>
<td></td>
<td>Max</td>
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<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
<td>1.25</td>
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<table>
<thead>
<tr>
<th>Risk Factor Summary</th>
<th>Sally May (Nita)</th>
<th>Sally May (Elsa Sst)</th>
<th>Sally May (Acacia)</th>
<th>Anna Helen (Mirbelia)</th>
<th>Anna Helen (Nita)</th>
<th>Lisa Grace</th>
<th>Max</th>
<th>Holly as Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>90%</td>
<td>90%</td>
<td>80%</td>
<td>100%</td>
<td>90%</td>
<td>65%</td>
<td>60%</td>
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<tr>
<td>Reservoir</td>
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<td>80%</td>
<td>40%</td>
<td>60%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
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</tr>
<tr>
<td>Seal</td>
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<td>90%</td>
<td>100%</td>
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<td>90%</td>
<td>90%</td>
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</tr>
<tr>
<td>Source</td>
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<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
</tr>
<tr>
<td>Preservation/Migration</td>
<td>70%</td>
<td>30%</td>
<td>56%</td>
<td>100%</td>
<td>90%</td>
<td>70%</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Overall risk</td>
<td>32%</td>
<td>9%</td>
<td>16%</td>
<td>60%</td>
<td>13%</td>
<td>9%</td>
<td>6%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Resource distributions were calculated with a Monte Carlo simulation using log normal distributions for area and net pay variables and triangular distributions for porosity, water saturation, FVF and recovery factor. In the case of the Nita Formation in the Sally May structure, the indicated P90 net pay of 3 m refers to updip potential within the portion of the structure not tested by the well. Areal distribution assumes P1 value approximates the closure as defined by aeromagnetic data except for Sally May structure, where the area of closure defined on mapping by a previous operator (Amoco) is used as the P10. The Acacia Fm level at Sally May appears significantly larger than that evident at the Nita Fm level based on the available mapping. Net pay distribution in Sally May and Anna Helen (Mirbelia) based on well results; other prospects by analogy.
Appendix 4 – Sally May Prospect Economics and Sensitivities

NPV 10% Base case model parameters and sensitivities as provided by Kingsway.

A 70 million barrel recoverable oil field model using 10% discount rates has a Net Present Value of US$512 million.

Base case parameter used.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil Price</td>
<td>USD 50.00 per barrel</td>
</tr>
<tr>
<td>Discount Rate</td>
<td>10%</td>
</tr>
<tr>
<td>Model time span</td>
<td>40 years</td>
</tr>
<tr>
<td>Maximum oil flow rate per well</td>
<td>500 barrels per day</td>
</tr>
<tr>
<td>Decline rate per well</td>
<td>10% per year</td>
</tr>
<tr>
<td>Total oil recovered</td>
<td>70 million barrels</td>
</tr>
<tr>
<td>Development well cost</td>
<td>US$3.5 million per well</td>
</tr>
<tr>
<td>Total number of producing wells</td>
<td>40</td>
</tr>
<tr>
<td>Transport and operation cost</td>
<td>US$8.00 per barrel.</td>
</tr>
</tbody>
</table>

Sensitivities represent 70 MMBO reserve case except reserve volume.
Appendix 5 – Glossary of Technical Terms

The following technical terms are used in this document. Grammatical variations of these terms should be interpreted in the same way.

2D Seismic: Seismic data acquired in a grid that is relatively broad, and is processed in two dimensions.
Aeromagnetic data: a airborne geophysical survey that takes detailed measurements of the earth’s magnetic field.
Anticlinal trap: a hydrocarbon trap formed by the upward bowing of strata into a dome or arch.
Anticline: a tectonic structure in which strata are folded so as to form an arch or dome.
Appraisal well: a well drilled to determine the physical extent, reserves and likely production rate of hydrocarbons discovered in previous well on the same structure.
Barrel (bbl): the unit of volume measurement used for petroleum and its products. 1 barrel = 42 U.S. Gallons = 35 Imperial Gallons (approx.) or 159 litres (approx.), 7.3 barrels = 1 ton: 6.29 barrels = 1 cubic metre.
Basin: a depression of large size in which sediments have accumulated.
BCF: billion cubic feet (109 cubic feet) = 28.317 million cubic metres.
Biodegradation – a natural process in which oil in the sub-surface is altered by micro-organisms, generally resulting in a reduction in specific gravity.
BOPD: barrels of oil per day.
BPD: barrels per day
Bounding fault: a fault that defines the limit of a prospect of hydrocarbon accumulation
Cambrian: a geological time period approximately 545 to 490 million years ago.
Carbonates: sedimentary rocks composed of calcium and/or magnesium carbonate e.g. limestone.
Carboniferous: geological period between 354 and 295 million years ago
Claystone: a sedimentary rock composed predominantly of particles less than silt size usually comprising clay minerals.
Closure: the area within the lowest closing contour of a structure, also, a closed structure. See four-way dip closure.
Completion: the operation of perforating, stimulating and equipping an oil or gas well.
Condensate: hydrocarbons (predominantly pentane and heavier compounds) which spontaneously separate out from natural gas at the wellhead and condense to liquid.
Contingent resource: Those quantities of petroleum which are estimated, on a given date, to be potentially recoverable from known accumulations, but which are not currently considered to be commercially recoverable.
Culmination: the highest point on a four-way dip closed structure, also used to indicate that a four-way dip closure exists.
Depocentre: an area or site of maximum deposition in a sedimentary basin.
Deposition: the laying down of potential rock forming material i.e. sediments.
Depression: a low place of any size on the Earth’s surface, also may refer to a sedimentary trough or basin.
Devonian: a geological time period approximately 410 to 354 million years ago.
Dip: the angle of the plan of a bed relative to the horizontal.
Dolomite: a rock or mineral composed of calcium-magnesium carbonate.
Dry hole: a well drilled without finding gas or oil in commercial quantities.
Exploration drilling: drilling carried out to determine whether hydrocarbons are present in a particular area or structure.
Exploration phase: the phase of operations which covers the search for oil or gas by carrying out detailed geological and geophysical surveys followed up where appropriate by exploratory drilling.

Exploration well: a well drilled to determine whether hydrocarbons are present in a particular area or structure.

Extended production test: producing a well or formation for a long period of time in order to determine production performance.

Evaporite: a non-clastic sedimentary rock composed primarily of minerals produced from saline solution as a result of extensive or total evaporation of the solvent, such as salt, gypsum or anhydrite.

Facies/lithofacies: the rock record of any sedimentary environment, including both physical and organic characters.

Fault trap: A hydrocarbon trap that relies on the termination of a reservoir against a seal due to fault displacement.

Fault: a fracture in the Earth’s crust along which the rocks on one side are displaced relative to those on the other.

Field: a geographical area under which an oil or gas reservoir lies.

Fold/Folding: a bend in strata, commonly a product of deformation.

Formation: a unit in stratigraphy defining a succession of rocks of the same type.

Four-way dip: a structural feature seen on orthogonal seismic lines to dip away in all four possible directions, closure indicating that any hydrocarbons beneath a sealing stratum will be trapped in this feature.

Gas field: a field containing natural gas but no oil.

Gas in Place (GIP): an estimated measure of the total amount of gas contained in a reservoir and, as such, a higher figure than Recoverable Gas.

Geology: the science relating to the history and development of the Earth’s crust.

Geophysical: the measurement of the earth’s physical properties to explore and delineate hydrocarbons, including electrical, seismic, gravity, magnetics, but not including drilling.

Geophysics: the physics of the Earth; a hybrid discipline involving a combination of physical and geological principles.

Graben: a normally faulted elongate trough or block of rock, down-thrown on both sides.

Gross pay: the total thickness of hydrocarbon bearing sediments.

Horizon: a term used in seismic interpretation to identify the signal reflected from a particular layer of rock.

Hydrocarbons: a compound containing only the elements hydrogen and carbon. May exist as a solid, a liquid or a gas. The term is mainly used in a catch-all sense for oil, gas and condensate.

Intraformational: existing within a geological formation, for example a single shale bed in an alternating sequence of sands and shales may be an intraformational seal.

Lead: inferred geologic feature or structural pattern requiring investigation.

License: an authority to explore for or produce oil or gas in a particular area issued to a company by the governing state.

Limestone: a rock or mineral composed of calcium carbonate.

Lithology: the physical and mineralogical characteristics of a rock.

Log interpretation: technical analysis of the results of well logging leading to quantitative estimates of various rock properties including contained liquids and gases.

Log(s): see well log.

Marine: deposited in the sea.

Mature (source): the condition, caused by pressure, temperature and time, in which organic matter in a potential source rock will be converted to hydrocarbons.

mD: (milli-Darcy) a unit for measuring permeability.
Migration: the movement of hydrocarbons from regions of higher to lower pressure.

MM: millions.

MMBO: millions of barrels of oil.

MMBOE: millions of barrels of oil equivalent.

MMCFD: millions of cubic feet per day = 28,317 cubic metres per day.

Mean: the average of all outcomes included in a probabilistic range or distribution.

Mud: a mixture of base substance and additives used to lubricate the drill bit and to counteract the natural pressure of the formation.

Mudlog: a record of what is encountered in a well during the drilling process, including a visual description of the rock chips and any hydrocarbon indications encountered.

Natural gas: gas, occurring naturally, and often found in association with crude petroleum.

Net Pay: the thickness of hydrocarbon-bearing sediments from which hydrocarbons can be practically extracted.

NPV(10): net present value using a 10% discount rate.

Oil Field: a geographical area under which an oil reservoir lies.

Oil: a mixture of liquid hydrocarbons of different molecular weights.

Operator: the company that has legal authority to drill wells and undertake production of hydrocarbons. The Operator is often part of a consortium and acts on behalf of this consortium.

Ordovician: a geological time period approximately 490 to 434 million years ago.

P90: a 90% probability that the value indicated will be matched or exceeded.

P10: a 10% probability that the value indicated will be matched or exceeded.

Paleozoic: geological Era between 540 and 250 million years ago. Includes the Permian, Carboniferous, Devonian, Silurian, Ordovician and Cambrian periods.

Permeability: a measure of the capacity of rock or stratum to allow water or other fluids such as oil to pass through it.

Permian: a geological strata/period formed during the period 250 to 295 million years before present.

Petroleum system: the set geological elements that give rise to petroleum accumulations, including source rock, migration path, reservoir rock, seal and trap.

Petroleum: a generic name for hydrocarbons, including crude oil, natural gas liquids, natural gas and their products.

Petrophysical: the physical properties of rocks, in this context, as measured by well logs.

Pipeline: a pipe through which oil, its products, or gas is pumped between two points, either offshore or onshore.

Porosity: the ratio of the volume of pore space in rock to its total volume, expressed as a percentage.

Prospective resource: Those quantities of petroleum that are estimated, on a given date, to be potentially recoverable from undiscovered accumulations.

Pre-salt: lying below the Salt (in the case of the Canning Basin), including primarily Ordovician-age rocks.

Post-salt: lying above the Silurian-Ordovician salt (in the case of the Canning Basin), including Devonian and younger rocks.

Prospect: a feature sufficiently defined to warrant the drilling of a well without the necessity of further investigation.

Quartz: a mineral composed of silicon dioxide.

Reserves: those quantities of petroleum that are anticipated to be commercially recovered from known accumulations from a given date forward.

Reservoir: permeable and porous rocks (usually sandstone, limestone or dolomite) capable of containing significant quantities of hydrocarbons.

Risk: factor: the chance of encountering a measurable, recoverable volume of hydrocarbons.
Sandstone: a sedimentary rock composed predominantly of sand sized grains, usually quartz.

Seal: an impermeable rock (usually claystone, shale or salt) that prevents the escape of hydrocarbons to the surface.

Sediment: solid material, whether mineral or organic, which has been moved from its position of origin and redeposited.

Sedimentary rock: a rock formed as a result of the consolidation of sediments.

Seismic survey: a technique for determining the detailed structure of the rocks underlying a particular area by passing acoustic shock waves into the strata and detecting and measuring the reflected signals.

Shale: a claystone exhibiting a finely laminated structure.

Show: an indication of oil or gas from an exploratory well.

Silt/siltstone: rock intermediate in texture and grain size between sandstone and claystone.

Silurian: a geological period 400 to 440 million years before present.

Source rocks: rocks (usually claystone or coal) that have generated or are capable of generating significant quantities of hydrocarbons.

Stratigraphy: the study of stratified rocks, especially their age, correlation and character.

Structural high: an area where rocks have been elevated due to tectonic activity

Structural Trap: a trap formed as a result of folding, faulting or a combination of both.

Structure: deformed sedimentary rocks, where the resultant bed configuration is such as to form a trap for migrating hydrocarbons.

Sub-salt: lying below the Salt (in the case of the Canning Basin), including primarily Ordovician-age rocks.

Supra-salt: lying above the Silurian-Ordovician salt (in the case of the Canning Basin), including Devonian and younger rocks.

TD: total depth of a well, when drilling has finished.

Tectonic: descriptive of all movements of the Earth’s crust caused by directed pressures, and the results of those movements.

Trap: a body of reservoir rock, vertically or laterally sealed, the attitude of which allows it to retain the hydrocarbons that have migrated into it.

Trend: a strike direction of a geological feature.

Unconformity (angular): lack of parallelism between rock strata in sequential contact, caused by a time break in sedimentation.

Undiscovered Petroleum Initially in Place: that quantity of petroleum that is estimated, on a given date, to be contained in accumulations yet to be discovered.

Updip: the direction leading most directly to higher elevations on an inclined stratum or structure.

Uplift: elevation of any extensive part of the Earth’s surface relative to some other part.

Well-log (log): a recording of rock properties obtained by lowering various instruments down a drilled well.