## **ASX ANNOUNCEMENT & PRESS RELEASE**

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TO: The Manager, Company Announcements ASX Limited

CONTACT: John Heugh +61 8 9474 1444

## PEDIRKA BASIN OIL PROSPECTS UPDATE- MADIGAN AND EAST SIMPSON

Central Petroleum Limited (ASX:CTP) ("Central" or the "Company") has pleasure in releasing a Technical Note by Greg Ambrose, Manager Geology, and John Heugh, Managing Director, "The Madigan and Simpson Prospects: Unitisation & Regional Potential". The report concludes that :

- Billion barrel plus UOIIP (Undiscovered Oil Initially In Place) oil prospects and leads are targeted by Central Petroleum Limited in the Pedirka Basin as part of its ongoing exploration thrust for oil for early cash flow subject to exploration success.
- The Madigan Prospect, a multi- level robust 4-way dip closure at Permo Jurassic levels with additional unquantified closure potential in the underlying Devonian sediments, is thought to have UOIIP potential of 4 billion barrels at P50 or "best" estimate in post Permian sediments alone.
- The Simpson East Prospect is thought to have P50 or "best" estimates of UOIIP in post Permian sediments alone of 350 million barrels and an additional 1.5 billion barrels UOIIP at "high" estimate in an underlying Devonian carbonate platform play.
- Approximately 1/3 of the Madigan Prospect lies in the EP 97 Simpson Farmin Block where the Company enjoys an 80% interest and approximately 2/3 within the Company's 100% owned EP 93. An industry standard unitisation agreement with Rawson Resources will be necessary.
- 100% of the Simpson East Prospect lies within the EP 97 Simpson Farmin Block with Central holding an 80% interest.
- The Company plans to drill the Madigan Prospect first in the latter half of 2011 but dependent on the results of final analysis and interpretation the Simpson East Prospect is an alternative or an additional well.
- There are numerous leads accessible to Central in the Pedirka Basin based upon interpreted Devonian reefal and platform complexes, a play type hosting major oilfields throughout the world.

John Heugh

Mungh

Managing Director Central Petroleum Limited



Phone: 08 9474 1444 Fax: 08 9474 1555

Street Address: Suite 3, Level 4 Southshore Centre 85 South Perth Esplanade South Perth Western Australia 6151

Postal Address: PO Box 197 South Perth Western Australia 6951

info@centralpetroleum.com.au

Wholly owned subsidiaries:







frontier oil & GAS PTY LTD ABN 91 103 194 136











## For further information contact: John Heugh Tel: +61 8 9474 1444 or Ray Beatty Corporate Writers Tel: +613 9224 5272, M: +61 409 174 565

NOTICE: The participating interests of the relevant parties in the respective permits and permit applications which may be applicable to this announcement are:

- EP-82 (excluding the Central subsidiary Helium Australia Pty Ltd ("HEA") and Oil & Gas Exploration Limited ("OGE") (previously He Nuclear Ltd) Magee Prospect Block) - HEA 100%
- Magee Prospect Block, portion of EP 82 HEA 84.66% and OGE 15.34%.
- EP-93, EP-105, EP-106, EP-107, EPA-92, EPA-129, EPA 130, EPA-131, EPA-132, EPA-133, EPA-137, EPA-147, EPA-149, EPA-152, EPA-160, ATP-909, ATP-911, ATP-912 and PELA-77 - Central subsidiary Merlin Energy Pty Ltd 100% ("MEE"). The Simpson, Bejah, Dune and Pellinor Prospect Block portions within EP-97 – MEE 80% and Rawson Resources Ltd 20%.
- The Simpson, Bejan, Dune and Pellinor Prospect Block portions within EP-97 MEE 80% and Rawson Resources Ltd 20%.
  EP-125 (excluding the Central subsidiary Ordiv Petroleum Pty Ltd ("ORP") and OGE Mt Kitty Prospect Block) and EPA-124 ORP 100%.
- Mt Kitty Prospect Block, portion of EP 125 ORP 75.41% and OGE 24.59%.
- EP-112, EP-115, EP-118, EPA-111 and EPA-120 Central subsidiary Frontier Oil & Gas Pty Ltd 100%.
- PEPA 18/08-9, PEPA 17/08-9 and PEPA 16/08-9 Central subsidiary Merlin West Pty Ltd 100%.

#### General Disclaimer and explanation of terms:

Potential volumetrics of gas or oil may be categorised as Undiscovered Gas or Oil Initially In Place (UGIIP or UOIIP) or Prospective Recoverable Oil or Gas in accordance with AAPG/SPE guidelines. Since oil via Gas to Liquids Processes (GTL) volumetrics may be derived from gas estimates the corresponding categorisation applies. Unless otherwise annotated any potential oil, gas or helium UGIIP or UOIIP figures are at "high" estimate in accordance with the guidelines of the Society of Petroleum Engineers (SPE) as preferred by the ASX Limited but the ASX Limited takes no responsibility for such quoted figures.

As new information comes to hand from data processing and new drilling and seismic information, preliminary results may be modified. Resources estimates, assessments of exploration results and other opinions expressed by CTP in this announcement or report have not been reviewed by relevant Joint Venture partners. Therefore those resource estimates, assessments of exploration results and opinions represent the views of Central only. Exploration programmes which may be referred to in this announcement or report have not been necessarily been approved by relevant Joint Venture partners and accordingly constitute a proposal only unless and until approved. All exploration is subject to contingent factors including but not limited to weather, availability of crews and equipment, funding, access rights and joint venture relationships.



502/34 Queens Road, Melbourne 3004, Australia Tel: +613 9867 3299 Fax: +613 9820 9923

### E-mail: raybea@melbpc.org.au Web: www.ebeatty.com

# **Press***Release*

CLIENT: DISTRIBUTION: SUBJECT: TITLE: DATE: Central Petroleum ASX, appended to announcement Madigan and Simpson East Billions of barrels July 7, 2011

# Billions of barrels of oil are this year's priority target for Central Petroleum

Northern Territory prospector Central Petroleum Limited (CTP) has increased its determination to generate early cash flow out of its mapped leads, following recent promising seismic results.

Billions of barrels of UOIIP (Undiscovered Oil Initially In Place) oil have been targeted in its exploration prospects in the Pedirka Basin, the Madigan Prospect and the Simpson East Prospect, south-east of Alice Springs.

While Central owns by far the largest share of interest in the Madigan Prospect, this would be signed off with an industry-standard unitisation agreement with Rawson Resources; whereas the Simpson East Prospect lies completely within Central's Simpson Farmin Block.

There are now plans to drill the Madigan Prospect first, later this year. Depending on the analysis of recently completed surveying, the Simpson may be an additional, or an alternative, well.

The attraction at Madigan is a huge prospect of four billion barrels of UOIIP oil. The Madigan Prospect is a massive ancestral high which marks the eastern margin of the Madigan Trough. This contains oil targets, and structural closure, in the carbonate complex.

At the Pellinor lead and the Simpson East prospect, recent interpretation by CTP of a Devonian barrier reef complex and a rimmed carbonate platform complex have provided new ground breaking plays in the area, and may be far more extensive than currently known.

"We are excited that new seismic we have been carrying out has produced a substantial multi-level prospect at Madigan," said Central Petroleum Managing Director John Heugh. "Success there can be leveraged by drilling Simpson East and in the short term by acquiring incremental seismic to mature existing leads to drillable prospect status. These plays are believed to be far more extensive than currently known and we plan to map as many as possible during 2011."

While Central's investors will be cheered by an early cash stream out of the UOIIP oil explorations, they are mindful that the huge territory – half the size of Texas or bigger than the British Isles – has much more promise under its soil, all of which are being addressed by its energetic management.

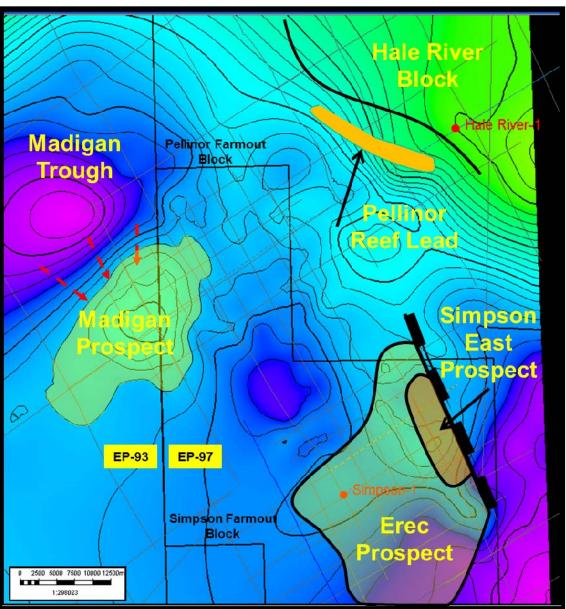
## Madigan and Simpson Prospects: Unitisation & Regional Potential (CTP Technical Note 11.06.20)

## **Executive Summary**

- Billion barrel plus UOIIP (Undiscovered Oil Initially In Place) oil prospects and leads are targeted by Central Petroleum Limited in the Pedirka Basin as part of its ongoing exploration thrust for oil for early cash flow subject to exploration success.
- The Madigan Prospect, a multi- level robust 4-way dip closure at Permo - Jurassic levels with additional unquantified closure potential in the underlying Devonian sediments, is thought to have UOIIP potential of 4 billion barrels at P50 or "best" estimate in post Permian sediments alone.
- The Simpson East Prospect, a large Palaeozoic/ Mesozoic play may represent an alternative to drilling Madigan-1 first or possibly an additional prospect to drill post Madigan-1.
- The Simpson East Prospect is a robust 4-way dip closure which is interpreted to have formed largely as a result of drape and compaction over a massive Devonian carbonate platform developed on a regional high named the Arltunga Arch. This prospect is thought to have P50 or "best" estimates of UOIIP in post Permian sediments alone of 350 million barrels and an additional 1.5 billion barrels UOIIP at "high" estimate in an underlying Devonian carbonate platform play.
- Approximately 1/3 of the Madigan Prospect lies in the EP 97 Simpson Farmin Block where the Company enjoys an 80% interest and approximately 2/3 within the Company's 100% owned EP 93. An industry standard unitisation agreement with Rawson Resources will be necessary
- 100% of the Simpson East Prospect lies within the EP 97 Simpson Farmin Block.
- The Company plans to drill the Madigan Prospect first in the latter half of 2011 but dependent on the results of final analysis and interpretation the Simpson East Prospect is an alternative or an additional well.
- There are numerous leads accessible to Central in the Pedirka Basin based upon interpreted Devonian reefal and platform complexes, a play type hosting major oilfields throughout the world with analogous geology.

# **The Madigan Prospect**

The Madigan Prospect is a very large 4 billion barrels UOIIP (Undiscovered Oil Initially In Place "high" estimate) prospect slated for drilling during the second half of 2011. The prospect straddles the boundary between Central's EP 93 and Central's 80% owned Simpson Prospect Block within Rawson Resources EP 97. It is a multi-level robust 4-way dip closure at Permo-Jurassic levels with additional unquantified closure potential in the underlying Devonian sediments. The structure is thought to have originated largely via drape and compaction of sediments over a massive Devonian carbonate complex.

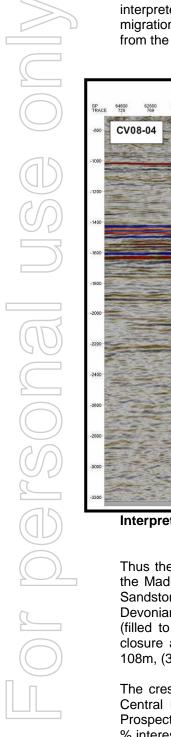


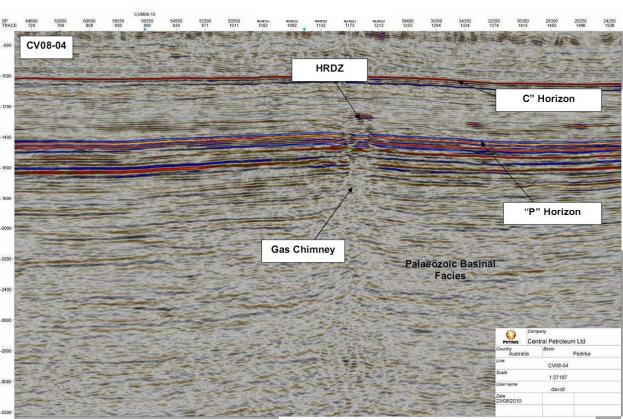
Madigan Area – 'C' time (Top Cadna-owie) structure Map- Contour Interval 20 ms. Madigan Areal Closure 20,000 acres, 80 km<sup>2</sup>

The structure lies directly adjacent to and updip of the Permian Madigan Trough source kitchen where late oil mature source rocks provide a postulated short migration pathway. Two steep N-S trending normal faults define the Madigan Fault System which controls the eastern margin of the Madigan Trough, a Permian depocentre. This fault zone was extensional during the Devonian and Permian and there is evidence of lateral wrenching. Structural growth in the

Permo – Jurassic occurred largely via drape and compaction with some rejuvenation during the Miocene.

Oil migration from Permian and Jurassic source rocks in the Madigan Trough provides the most likely sourcing scenario but there is strong evidence of oil/gas generation in the Devonian sequence downdip to the southeast. Interpreted HRDZ's (Hydrocarbon Related Diagenetic Zones-the presence of hydrocarbons can enhance the precipitation of certain minerals such as silica and carbonates within sediments and this can be sometimes interpreted on a seismic profile) and gas chimneys occur in this area which is on a direct migration pathway to the Madigan Prospect. There is also evidence of possible gas chimneys from the Pre-Permian Palaeozoic over the Madigan Prospect.





Interpreted DHIs (Direct Hydrocarbon Indicators) Downdip from Madigan Prospect

Thus the Madigan Prospect is a massive ancestral high which marks the eastern margin of the Madigan Trough. Oil targets, and structural closure, occur in the Jurassic (Algebuckina Sandstone, Poolowanna Formation (Cycle-1), Permian (Tirrawarra Sandstone) and in the Devonian carbonate complex. Current unrisked UOIIP (Undiscovered Oil Initially In Place) (filled to spill) stands at up to 4 billion barrels at P50 or "best" estimate level. Structural closure at the Poolowanna Cycle-1 level is 80 km<sup>2</sup> (20,000 acres) and vertical closure is 108m, (350 ft.)

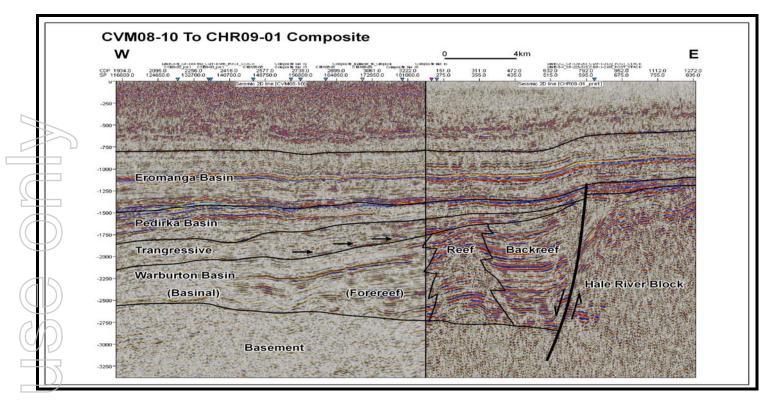
The crest of the Madigan structure, and about 2/3 of areal closure, occur in EP 93 where Central holds a 100% interest, while about 1/3 of areal closure resides in the Simpson Prospect Block where CTP holds 80% and Rawson Resources Limited (Rawson) retains a 20 % interest. In the event of an oil discovery at Madigan, provisions will be made to formulate a "unitisation" agreement (division of product in accordance with oil volumes relevant to each of the Company's 100% net interest EP93, the Company's 80% net interest of the Simpson Prospect Block hosting that part of the Madigan Prospect within Rawson's EP 97 and Rawson's 20% interest in the Simpson Prospect Block) to satisfy the commercial aspects of

appraising and developing the field. If a discovery eventuates the field would attract comprehensive 3D seismic coverage.

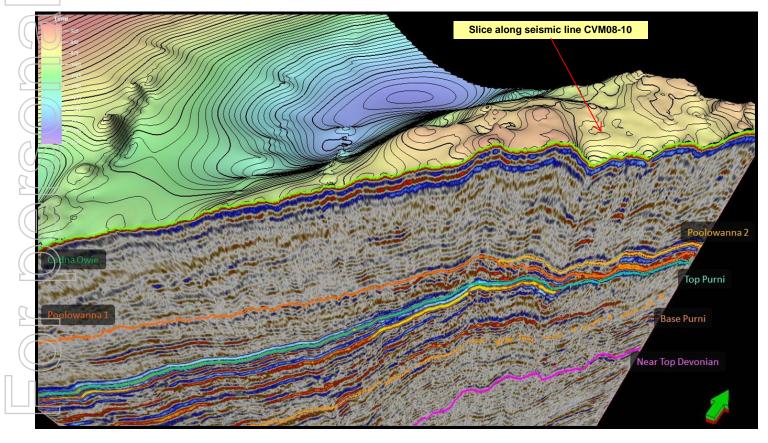
Recent interpretation by CTP of a Devonian barrier reef complex and a rimmed carbonate platform complex at Pellinor and Simpson East respectively, provide new ground breaking plays in the area, and may be far more extensive than currently known. The sedimentary and structural aspects of these carbonate plays, which result in a complicated facies mosaic, are under investigation and a number of structural and structural-stratigraphic plays are emerging. These plays remain leads at this point although the multi-target Simpson East Lead does not require incremental seismic and is being worked up to prospect status. Some of the leads have large unrisked upside potential (billions of barrels) such as Pellinor. If Madigan is successful at Permo-Jurassic levels there are a number of structural leads to follow up at this level although all would require incremental seismic with the exception of Simpson East.

Overall, Central is excited that new seismic has produced a substantial multi-level prospect at Madigan and success here can be leveraged by drilling Simpson East and in the short term by acquiring incremental seismic to mature existing leads to drillable prospect status. The Devonian sequence offers a myriad of play types which will be addressed in part by drilling Simpson East-1 and acquiring incremental seismic to the north on the margins of the Hale River Block. These plays are believed to be far more extensive than currently known and it is planned to map as many as possible of these plays during 2011.

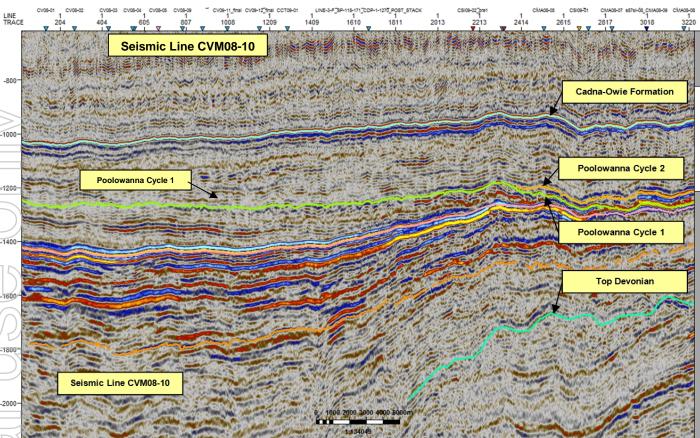
Name of Prospect/Lead	Formation	Permit	P50 UOIIP (MMbbl)	Prospect /Lead
FIUSPECULEau				/Leau
Madigan	Algebuckina	EP93 & EP 97 Simpson F/O Block	900	Prospect
Madigan	Poolowanna	EP93 & EP 97 Simpson F/O Block	3300	Prospect
	Devenien	<b>FD 07</b>	1 400	Lood
Erec	Devonian	EP 97 Simpson F/O Block	1400	Lead
Simpson E.	Algebuckina	EP 97 Simpson F/O Block	70	Prospect
Simpson E.	Poolowanna	EP 97 Simpson F/O Block	280	Prospect
Guinevere	Poolowanna	EP 93	60	Lead
Pellinor : Unmapped interpreted Devonian reefal complex, multi billion barrel UOIIP potential structural & stratigraphic play Simpson Devonian Platform : 1.5 Bn "high" estimate UOIIP				



**Pellinor Barrier Reef Trend and Associated Facies** 



'C' Time (Top Cadna-owie) Structure Map/Seismic slice - Madigan Area



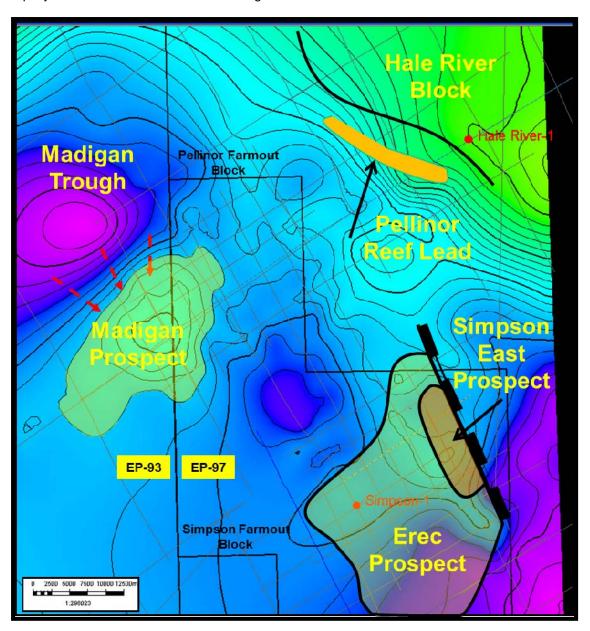
Madigan Prospect – Seismic Line CVM08-10



Simpson West-1 (2008)

# Simpson East Prospect

The Simpson East Prospect is a large Palaeozoic/ Mesozoic play located entirely within the Simpson Farmout Block (EP 97-see page 1) where CTP has earned an 80% interest from Rawson Resources Limited. It may represent an alternative to drilling Madigan-1 first or possibly an additional prospect to drill post Madigan-1. This play is a 4-way dip closure which is interpreted to have formed largely as a result of drape and compaction over a massive Devonian carbonate platform developed on a regional high named the Arltunga Arch. The platform facies is controlled by major tensional faults and at Simpson East the platform thins rapidly onto a tilted-rotated fault block hinged on the Erec Fault.



Location of the Simpson Prospect Block

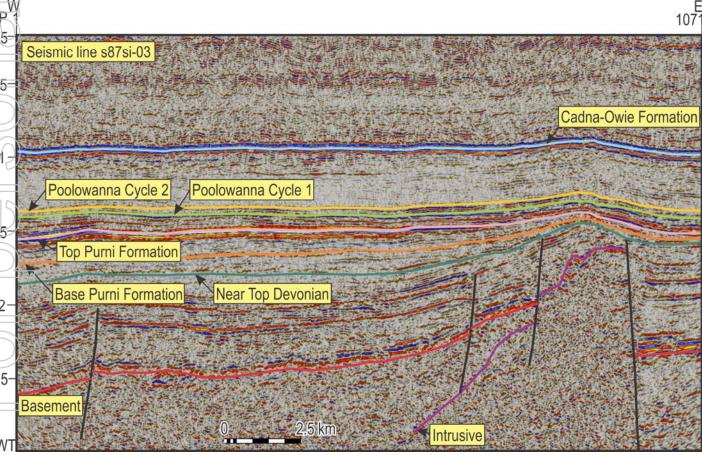
Simpson-1 was drilled in 2008 and was the initial well to test this prospect having been located at the crest of a small sub-closure of very low vertical relief on the larger structure. The well failed to intersect significant hydrocarbons although minor oil shows were encountered in Cycle -1 of the Poolowanna Formation (basal Jurassic). The well penetrated the entire Mesozoic and Permian section but only intersected the top 90m of the Devonian

section which comprised tight red beds. The deeper Devonian platform play was never penetrated and was only confirmed by later seismic mapping.

The Devonian platform sequence sensu stricto defines a large structural-stratigraphic play with an UOIIP (Undiscovered Oil Initially In Place-"high" estimate) of 1.5 billion barrels subject to further remapping. This play infers entrapment within the platform facies itself which has not previously been penetrated, but Simpson East-1 will test this play in a crestal location; there is an geological and structural analogy with the giant Tengiz field in Kazakhstan which resides in a Devonian-Carboniferous carbonate platform hosting over 20 billion barrels OIIP (Oil Initially In Place)

The Prospect structure is interpreted to be initiated by a major normal fault, the Erec Fault, which defines a dipping fault block onto which the platform rapidly thins in an easterly direction. An additional mosaic of carbonate facies, which could be targeted in the event of success in this well, are carbonate mound, platform rim, fore reef slope, and toe of slope apron clastics; these basin elements occur in the depth range 2,300-3,500m. Exploration success would mean the Devonian carbonate play would be opened up over a wide area of the northern Warburton Basin, especially in areas marginal to the Hale River Block such as the Pellinor Trend reefal complex previously described.

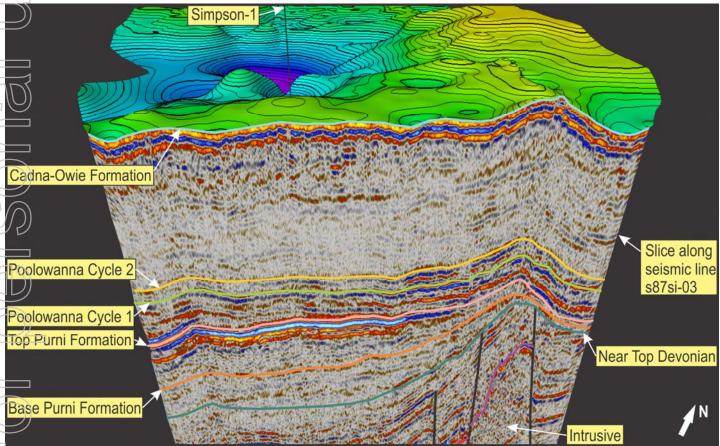
Structuring at Permian and Mesozoic levels is a result of drape over the platform and its bounding fault, the Erec Fault. Distribution of the various elements of source, reservoir and seal rely on depositional models derived from seismic. However, hydrocarbon gas chimneys and associated HRDZ's are associated with major fault zones controlling basinal facies which occur downdip of the Simpson East Prospect and this certainly encourages the notion of hydrocarbon charge to the structure.



Simpson East Prospect – A NE-SW Dip line through the Prospect

Drape closures occur at Permian and Jurassic levels and are believed to be ancestral based on regional isopachs. Charge from Permian and Devonian sources is most likely given the greater depth of burial both locally and in the axis of the Madigan Trough. The Jurassic Poolowanna Formation is a possible source but the presence of immature oil extracts downdip in Simpson-1 downgrades this option. The Erec Fault may have acted as a conduit for Devonian/Permian sourced hydrocarbons to penetrate to higher levels at the Simpson East Prospect ie Poolowanna Cycle 1 and the top Algebuckina Sandstone. Oil in place at these two horizons (P 50) stands at 286 mmbl and 72 mmbl respectively.

An indication of hydrocarbon charge is indicated by the presence of gas chimneys and associated HRDZ's down dip on a fault line which defines the southern margin of the Vivien Prospect. Other lines show hints of gas seepage associated with faulting which is largely tensional in this area. The charge appears to be coming from Devonian source rocks which were probably generative in the Madigan Trough during the Permo-Jurassic. Coals from Blamore-1 contain up to 10% oil prone liptinites and oil droplets, which together with the presence of micrinite, are both suggestive of significant oil generation downdip in the Madigan Trough where the coals would have reached the mid-late oil window.



Simpson East – NE-SW Cross-section with 'C' Horizon Structure Contours

Greg Ambrose Manager Geology John Heugh <u>Managing Director</u>

20 June 2011