RobSearch

8 June, 2005

The Directors
Dome Petroleum Resources Plc
Ludwell House
2 Guildford Street
CHERTSEY Surrey KT16 9BQ
United Kingdom

RA Ref: #4251

Dear Sirs,

INDEPENDENT TECHNICAL EXPERT'S REPORT

This report has been prepared at the request of the Directors of Dome Petroleum Resources Plc (Dome), a private company based in the United Kingdom.

Dome has entered into agreements with White Sands Petroleum Pty Ltd (WSP), an Australian private company which has secured rights to earn equity in ATP 333P (Reids Dome) and of Pl 171 (Cherwondah) in Queensland from the present permit holders, Victoria Petroleum NL and Roma Petroleum NL. Under these agreements, Dome may earn a 40% Working Interest in each of the permits by funding drilling operations in each.

RobSearch Australia Pty Limited ("RobSearch") has been commissioned as the Independent Technical Expert to review and assess the petroleum interests to be acquired by Dome and to comment on the appropriateness of the proposed exploration and development programs.

RobSearch is an independent, Australian-owned and managed natural resource consultancy, specialising, inter alia, in the appraisal and valuation of petroleum resources and projects. In preparing this report, professional staff and associates of RobSearch provided expert opinion on matters related to their specific expertise.

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1.0 SUMMARY & CONCLUSIONS

RobSearch has reviewed the petroleum interests to be acquired by Dome and is satisfied that:

(i) each of the tenement areas has conventional petroleum potential worthy of exploration at the expenditure levels contemplated by Dome and has the potential for the discovery of petroleum.

(ii) Dome's proposed exploration programs are consistent and appropriate with the current levels of understanding of the petroleum potential of each of the licence areas.

The examination of the petroleum potential of the Dome prospects and tenements has been made on the basis of information supplied by the company as well as published information. RobSearch is satisfied that sufficient data was available to adequately examine the areas.

2.0 SCHEDULE OF INTERESTS (Figure 1)

Table 1

Licence area	Basin	Dome WI	Type of equity	Area of Licence km^2
ATP 333P (Reids Dome)	Bowen	40%	Option to earn by drilling well	388
PL 171 (Cherwondah)	Bowen	40% (Clematis Zone)	Option to earn with horizontal extension of North Cherwondah 1	175

3.0 SOURCES OF INFORMATION

This report is based primarily on:

- confidential and non-confidential data made available by WSP & Dome, the permit holders and their advisers,
- non-confidential data in the files of RobSearch, and
- other publicly available data.

Although WSP and Dome have advised that they has provided all relevant data in their possession, RobSearch is not in a position to guarantee the accuracy or completeness of such data available to it in the preparation of this report.

4.0 PETROLEUM POTENTIAL OF TENEMENTS

4.1 ATP 333P (Reids Dome)

Dome will earn a 40% Working Interest (WI) in all of ATP 333P by funding the drilling Reids Dome North-1 ("the earning well") to a total depth of 2,700 metres. Drilling of the earning well is to commence before 1 September 2005. On completion of the drilling, interests in ATP 333P will be:

Dome Petroleum Resources Plc	40%	WI
White Sands Petroleum N.L (operator)	20%	WI
Victoria Petroleum N.L	40%	WI
Victoria Petroleum N.L ORRI	*7%*	*ORRI*

4.1.1 Introduction

This permit of 388 km² lies over the Reids Dome anticline, which lies on the regional Serocold Anticline in the western Bowen Basin of south east Queensland. Two deep tests and eleven shallow wells have been drilled on Reids Dome between 1954 and 2004. Gas flow rates in excess of 1 mmcfd have been achieved from some wells in the shallow Cattle Creek Formation sandstone. The reservoirs have relatively low permeability and are thought to be easily damaged by mud filtrate. Many of the wells have been drilled with very high mud weights, which increases the risk of formation damage. Better success has been achieved with wells drilled using air, (*Anthony, 2004)*. Artificial stimulation by fracturing has not yet been attempted.

The Oil Company of Australia/Santos joint venture has been successful in exploiting gas reserves of the Denison Trough in the Bowen Basin. Proved and probable reserves as at June 2004 are reported (*Anthony, 2004)* as 331.2 PJ (approximately 331 bcf) with slightly more than half of the reserves being in the Aldebaran Sandstone. Five percent of the total production to June 2004 is attributed to the Reids Dome Beds, i.e. 11.3 PJ

4.1.2 Regional Geology

The Early Permian to Middle Triassic Bowen Basin covers an area of 160,000 km² in Queensland. The Bowen Basin is part of Sydney–Gunnedah–Bowen system which extends from the Illawarra region south of Sydney to the northern Bowen Basin in the region of Collinsville. The southern part of the basin is overlain by the Jurassic to Cretaceous Surat Basin. The Bowen Basin began as a back arc basin west of the continental Camboon Volcanic Arc. Early Permian extension resulted in a series of half grabens with the Denison Trough being the most prominent in the general region of ATP 333P. Clastic sediments were laid down in the western part, while andesite and volcanoclastics were laid down in the eastern areas. Subsidence allowed the sea to enter from the east with deltaic sedimentation occurring along the western and northern flanks of the basin. Compressive uplift during the Late Permian resulted in the sea being restricted by the infilling of the basin with deltaic sediments and peat-forming wetlands. These peats became the coal measures of the Bowen Basin after they had been buried.

The Late Permian was marked by deposition of volcanolithic sediments of the Rewan Group in a terrestrial environment. This deposition continued into the Middle Triassic when uplifted rocks from the western margins provided a supply of quartzose sands deposited as the Clematis Group. This deposition occurred in an inland sea or lake.

Later in the Middle Triassic, following apparent uplift in the east, the Moolayember Formation was laid down. Sourced from a volcanic province, the environment of deposition is interpreted as fluvial to lacustrine.

Sediment thickness is up to 10 km in the two major basin depocentres, the Taroom Trough and the Denison Trough.

ATP 333P is located in the central Bowen Basin and lies on the north-trending Serocold Anticline on the western flank of the Denison Trough. The anticlinal Reids Dome structure has been breached by erosion, resulting in a crestal valley floor of Cattle Creek Formation surrounded on the flanks by escarpments of Aldebaran Sandstone. The Serocold Anticline is well located to receive hydrocarbons migrating from within the deeper parts of the Denison Trough. Oil shows have been recorded within the Bowen Basin sequence in this region however gas is the predominant hydrocarbon discovered to date. The depth of burial of potential source rocks is such that the source rocks would have passed through the oil generating window into the gas generating window. Gas fields of the Denison Trough have been supplying the Gladstone/Rockhampton region gas market since 1990. The proved and probable resource base as at July 2004 was 331.2 PJ (*Anthony, 2004*).

4.1.3 Stratigraphy (Figure 2)

Age		Formation	Hydrocarbon occurences
PERMIAN	L	**Aldebaran Sandsatone**	Gas - Rolleston,Arcturus, Yandina
		Cattle Creek Formation	Gas - AOE 1, Reids Dome 1A, 2, 3, Nyanda 1
		Reids Dome Beds	Gas - Maintop, Merivale, AOE 1

Figure 2 Stratigraphic Column ATP 333P, Reids Dome

Reids Dome Beds The oldest sequence in this region of the Bowen Basin is the Reids Dome Beds of Early Permian age. The lower Reids Dome Beds consist of a non-marine sequence of interbedded sandstone, siltstone, shale, coal and conglomerate. They do not outcrop, only being encountered in a number of wells. These sediments are interpreted to have been deposited in environments ranging from alluvial fans to coal marshes. An unconformity at the top of the lower Reids Dome Beds is recognised on seismic in the northern part of Reids Dome. It is not possible to identify an unconformity in the southern part of Reids Dome, presumably due to the absence of coal beds in that area.

The upper Reids Dome Beds are mainly shale, with some coal in the northern part of Reids Dome and fluvial sands in the southern part.

Cattle Creek Formation A marine transgression represented by the marine sandstones, siltstone, shale and some coquina limestone of the Cattle Creek Formation.

Aldebaran Sandstone This formation was deposited in a regressive phase; lithologies include bioturbated sandstones, conglomerates with some coal, shale and siltstone. The Aldebaran Sandstone has been completely eroded from the crest of the anticline, being present only on the flanks.

The stratigraphy of younger sediments of the Bowen Basin is not discussed here, as these sediments are only present on the flanks of Reids Dome and as such would not be encountered by wells in the crestal area. These younger formations are shown in the stratigraphic table (**Figure 2**).

4.1.4 Exploration History

Reids Dome is a large elongated surface anticline trending north-south. It is almost 40 km long and 10km wide. The first exploration well by Australasian Oil Exploration Ltd (AOE), AOE 1, was drilled in the northern part of the Dome (**Figure3**). This well spudded in the Cattle Creek Formation in August 1954 and reached total depth of 2761.5m. The well completion report states "Drilling was abandoned when it was apparent that the drill had entered a metamorphic zone." It is not known if this zone was due to contact metamorphism from a sill, or indeed was metamorphic basement.. *Paten et al, 1979* indicate that the Reids Dome Beds exceed 3,000m in the Reids Dome area, based on regional studies. Based on seismic interpretation, it is inferred that the well was still in Reids Dome Beds at total depth.

Oil shows were recorded at several levels, with frequent gas shows. Gas was tested from the Cattle Creek Formation and flowed at 0.550 mmcfd from the interval 136.6m to 142.3m. Methane content was 97.4 percent, with carbon dioxide 1.2 %, oxygen 0.5 % and nitrogen 0.9 %. Small flow rates were recorded from tests over intervals 822.7m to 827.8m and 1,359.4m to 1,364.6m within the Reids Dome Beds. Gas was recorded over the interval 2,350.0m to 2,353.7m, apparently from fractured shale. Attempts to test this zone were unsuccessful due to inability to move the test tools through a zone at 1,341.1m to 1,371.6m. Gas shows were also recorded over the interval 2,350.0m to 2,687.4m.

Well	Year	Total Depth	Comments
AOE 1	1954-55	2761.5m	0.550 mmcfd
AOE 2	1955	1237.5m	no gas flows
MNX Reids Dome 1	1975	102m	mechanical problems resulted in re-drill
MNX Reids Dome 1A	1975	139m	calculated flow potential of 1 mmcfd
ERI Reids Dome 2	1980	150.6m	0.850 mmcfd
ERI Reids Dome 3	1980	149.0m	0.973 mmcfd
ERI Reids Dome 4	1980	152.4m	0.485 mmcfd
ERI Reids Dome 5		182.9m	no flow but suspended
RDE Nyanda 1	1987	450.8m	flowed gas at RTSTM
VPE Aldinga North 1	1993	162.5m	1.2 mmcfd
VPE Aldinga East 1	1993	228.5m	<0.005 mmcfd

VPE Aldinga West 1	1993	228.5m	no flow
VPE Nyanda North 1	1993	228.5m	did not encounter sand
TSE Nyanda 2	2001	214.9m	flowed gas at RTSTM
TSE Nyanda 3	2001	215.5m	no gas flow

AOE – Australasian Oil Exploration
MNX – Minex Incorporated
ERI – Energy Resources Incorporated
RDE – Reids Dome Exploration Company
VPE – Victoria Petroleum NL
TSE – Tri-Star Energy Company

AOE 2 was drilled in 1955 updip from AOE 1 (**Figure 3**), primarily to test water filled sandstones encountered in AOE 1 between 518.2m and 1,286.3m. Correlations indicate that AOE 2 is some 190m updip from AOE 1. The productive sand in AOE 1 was not recognised in AOE 2 at the time, and it has been speculated the gas sand is present, but that its log response was attenuated by mud filtrate from the high-weight drilling mud. There is also the possibility that the sand is either not a continuous blanket or that there are permeability barriers within the sandstone interval. A cross section over Reids Dome just north of AOE 2 is presented as **Figure 4**. Reverse faulting on the western margin of similar structures in the Denison Trough is recognised on modern seismic data (*Anthony, 2004*). It is likely that similar reverse faulting is present along the western margin of the Reids Dome closure.

Between 1975 and 2001, 13 more wells were drilled on the Reids Dome structure, all targeting the shallow Cattle Creek Formation sandstone which tested gas in AOE 1. Some encouraging gas flows have been recorded from this interval, but other wells did not flow or flowed at very low rates. Poor flow rates or lack of flow could be due damage by mud filtrate or to low inherent permeability. In some cases, completion design of the wells was less than optimal and this precluded effective testing.

Minex drilled MNX Reids Dome 1 just beside AOE 1. MNX Reids Dome 1 was terminated at 102 metres due to mechanical problems. MNX Reids Dome 2 was also drilled beside AOE 1 and encountered gas at approximately 138.5m and was terminated at 139m. Two production tests were conducted resulting in calculated open flow potentials of 1 mmcfd and 0.875 mmcfd. The well completion procedures were inadequate for the pressures encountered and the well was plugged at the direction of the Queensland Department of Mines. Gas analyses were similar to that of samples from AOE 1.

Energy Resources Incorporated (ERI) drilled 4 wells in 1980. ERI Reids Dome 2 was drilled 6m from MNX Reids Dome 1 and tested gas at 0.850 mmcfd from the Cattle Creek Formation sandstone . Flowing pressure was 122 psi and a well head pressure of 290 psi was recorded after the well had been shut in for several hours. ERI Reids Dome 3 was drilled approximately 305m west of ERI Reids Dome 2 and a test rate of 0.973 mmcfd was recorded.

ERI Reids Dome 4 was drilled about 305m south of ERI Reids Dome 2. A maximum stabilised flow rate of 0.485 mmcfd was recorded with a maximum shut in pressure of 290 psi. Reids Dome 5 was drilled approximately 610m northwest of ERI Reids Dome 2 and encountered the Cattle Creek Formation sandstone low on the structure and flowed water on test. These ERI wells were drilled with mud weights in excess of 11 pound per gallon; there is a high risk of formation damage using such mud weight at such shallow depth.

Figure 3 Reids Dome – Landsat image showing well locations

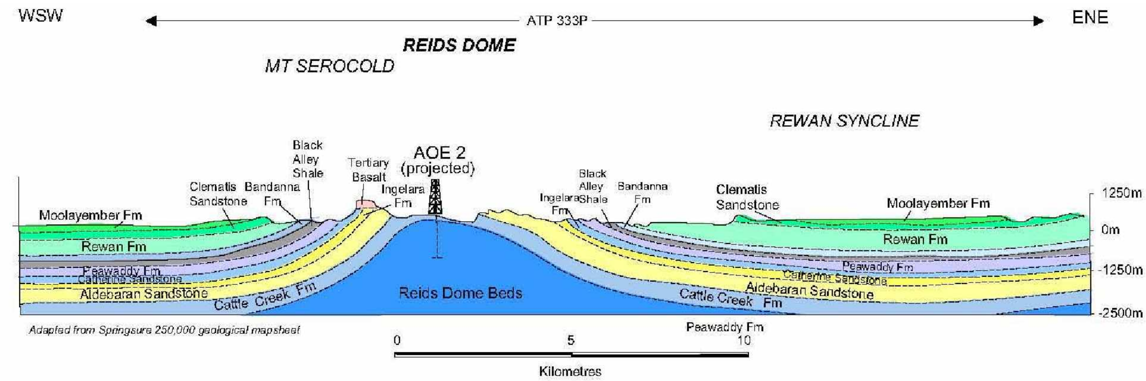


Figure 4 Cross Section over Reids Dome

Nyanda 1 was drilled in 1987 on the southern part of Reids Dome by the Reids Dome Exploration Company to a depth of 450.8m. A DST of the Cattle Creek Formation sandstone flowed gas at very low rates and interpretation of the DST chart indicated formation damage.

In 1993, Victoria Petroleum drilled three wells in the northern portion of Reids Dome, and one in the southern portion. Air drilling was used to minimise the risk of formation damage from drilling fluids.

Aldinga North 1, located 370m west of AOE 1, tested gas with a stable flow rate of 1.2 mmcfd from the Cattle Creek Formation sandstone. Aldinga East 1 was located 1.85km south of Aldinga North 1 and recorded a minor flow of gas from the Cattle Creek Formation sandstone at a rate of less than 5 mcfd (0.005 mmcfd).

Aldinga West 1 encountered the Cattle Creek Formation sandstone, but no flow could be achieved. Nyanda North 1, located 2.8 km north of Nyanda 1, did not encounter the Cattle Creek Formation sandstone.

In 2001, Tri-Star Petroleum drilled two wells following up on the Nyanda 1 well of 1987. Both wells were drilled using air. Nyanda 2 was located 38m southwest of Nyanda 1. The well encountered the Cattle Creek Formation sandstone, which flowed gas at a rate too small to measure (RTSTM). Nyanda 3 was located approximately 38m north of Nyanda 1 and no gas flow was recorded. Gas bleeding from the core was observed; this behaviour is indicative of very low permeability.

Victoria Petroleum conducted mini-Sosie seismic surveys in the northern portion of Reids Dome in 1994 and 1995. Interpretation of these surveys suggests that the gas filled Cattle Creek Formation sandstone can be recognised by a high amplitude seismic character. This promising hypothesis has not yet been tested. The challenge will be distinguishing between gas filled very low permeability Cattle Creek Formation sandstone and gas filled sandstone with sufficient permeability to produce at potentially commercial rates. Seismic data of fair to good quality can be obtained in the crestal valley floor; however, data quality deteriorates on approach to the Aldebaran Sandstone escarpment. The pressure of the gas in the Cattle Creek Formation sandstone is greater than hydrostatic; that is it is overpressured. A definitive explanation of this overpressure is not available; however, some possible explanations are available. The most likely is that the pressure is “fossil” pressure from when the reservoir was buried much deeper and this high pressure has been preserved when the rocks were uplifted. This implies that the seals surrounding the reservoir are particularly effective. One of the benefits of overpressuring is that a greater volume of gas can be contained in the pore spaces of the reservoir than would be the case with a normally pressured reservoir. Also, the recovery factor is generally higher from overpressured reservoirs than from normally pressured reservoirs. Greater operational constraints apply when drilling overpressured reservoirs; however, the benefits generally outweigh the negatives.

The operator has estimated potential gas reserves in the range of 15 to 30 bcf for the Cattle Creek Formation sandstone, but the lateral continuity of this sandstone is not well understood. The ability to predict the lateral continuity of Cattle Creek Formation sandstone which can sustain economic flow rates, and defining the optimal method of drilling and completion, are the two primary challenges to commercial development. Successful resolution of these two challenges could result in gas reserves greater than the current estimated range.

4.1.5 Gas potential of the Reids Dome Beds.

The Reids Dome Beds at Reids Dome have not been conclusively tested. Commercial gas flow rates have been recorded from the Reids Dome Beds in the Westgrove area, particularly when air drilling has been used. A deep test of the Reids Dome Beds at Reids Dome is warranted. The structure is very large and well situated to trap gas migrating from within the Denison Trough. Consideration should be given to acquiring modern seismic over the Reids Dome Beds section, as seismic attribute analysis might be successful in indicating areas of better reservoir quality.

Anthony 2004 reports that "Excellent post-frac results of the Reids Dome Beds were achieved in Merivale-5, -6, -7, -8 and –10". The Merivale gas field is approximately 90 km south of Reids Dome. *Lowe-Young 1999* reported that a post fracture stimulation test rate of 5.1 mmcfd from Merivale 8, compared to the DST flow rate of 0.764 mmcfd; a greater than six fold increase in flow rate after the frac treatment.

Potential resources

Only potential gas resources are considered, although oil shows have been recorded in some wells. All reservoirs encountered to date have relatively low permeability, and it is considered that the probability of achieving commercial oil deliverability rates is very low. This perception may need to be reviewed if future drilling identifies higher permeability reservoirs.

The intense drilling in the vicinity of AOE 1 has established a gas pool of some 1 bcf in the Cattle Creek Formation sandstone. The potential of this sandstone across the Reids Dome structure is dependent on the distribution of the higher permeability zones within the sandstone. The operator has estimated the potential at about 30 bcf. This estimate is considered as indicative of the potential, based on current knowledge.

The deeper potential of the Reids Dome Beds is much greater than that of the Cattle Creek Formation. The operator estimates a potential gas recoverable resource of 202 bcf. Assuming relatively conservative parameters for a 10 metre net pay sand at 1,400m (porosity 12 %, gas saturation 70 percent, gas expansion factor 125 and a recovery factor of 70 %), the potential recoverable resource over 83 km^2 is 217 bcf. Potential recoverable resource for a 10m net sand at 2,500m is estimated at 309 bcf (porosity 10 % and gas expansion factor of 200 with a recovery factor of 75 %). Reservoir stimulation such as fraccing has the potential to enhance deliverability of anticipated low permeability reservoirs of the Reids Dome Beds. There is also the possibility of better permeability in conglomerates of the Lower Reids Dome Beds as have been encountered in the Westgrove region.

4.1.6 Future program

Clearly there are two targets in ATP 333P, the shallow Cattle Creek Formation sandstone and the reservoirs within the underlying Reids Dome Beds.

The challenge with the Cattle Creek Formation sandstone is identifying sands with sufficient permeability to be commercially productive prior to drilling. Previous attempts using analysis of seismic amplitudes have not been entirely successful; however, this does not rule out the possibility of using seismic attributes to identify areas of better permeability. Surface geochemical methods may also have applicability in ATP 333P. There are sufficient wells to calibrate such a surface geochemical technique, which would have to be followed up by drilling. A combination of both techniques could be appropriate.

Evaluating the potential of the Reids Dome Beds will require a deep well, preferably drilled using air. Any drilling will need to address sensitivity of reservoirs to water and also assess their potential for fraccing. The gas potential of the Reids Dome Beds is considerable and justifies a fully engineered deep test.

4.2 PL 171 (Cherwondah)

Dome have entered an agreement with WSP whereby Dome can earn a 40% interest in the Clematis Zone by funding the re-entering and drilling a horizontal extension within the Clematis Sandstone gas reservoir and completing the well if successful. The Clematis Zone is defined as the stratigraphic section from the base of the Precipice Sandstone to the base of the Clematis Sandstone.

On completion of the drilling activity at North Cherwondah 1, interests in the petroleum lease over the Clematis Zone will be:

Dome Petroleum Resources Plc	40%	WI
White Sands Petroleum N.L. (operator)	20%	WI
Roma Petroleum N.L.	32%	WI
Victoria Petroleum N.L.	8%	WI
QGAS Pty Ltd	*2.5%*	*ORRI*
GFK Investments	*2.5%*	*ORRI*

4.2.1 Introduction

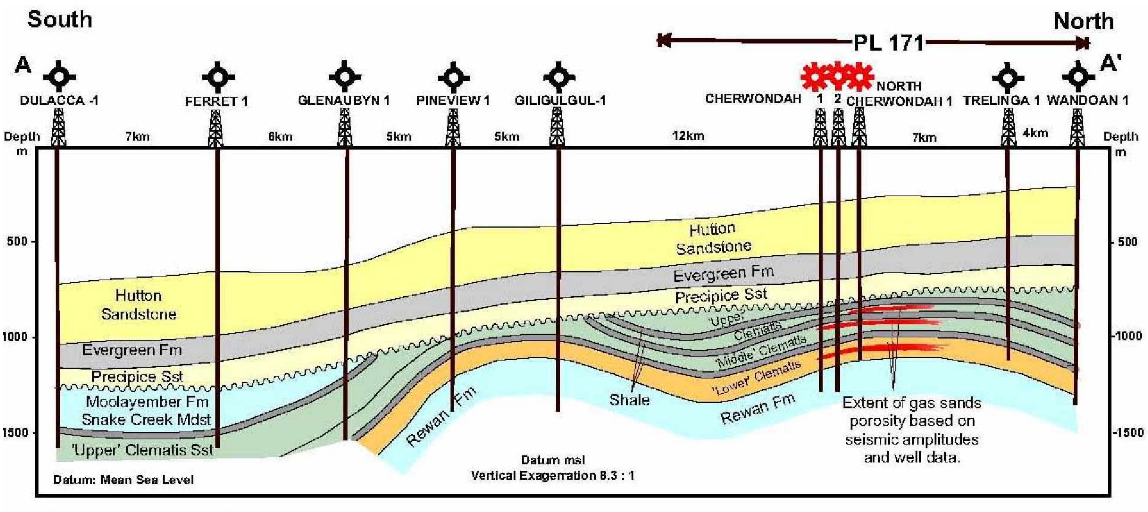
PL 171 is located in the Surat Bowen Basin of Queensland (**Figure 5**). Gas infrastructure is excellent as the Peat/Scotia lateral connection to the Roma Brisbane Pipeline passes some 10 km to the east of PL 171. Encouraging, but sub-commercial, gas flows have been achieved from North Cherwondah 1 and Cherwondah 1. A horizontal hole drilled through the "Upper gas sand" of the Clematis Sandstone has the potential to achieve to commercial gas flow rates. Minimal gas processing would be required to bring the gas to pipeline specifications.

4.2.2 Regional geology

The Early Permian to Middle Triassic Bowen Basin covers an area of 160.000 km2 in Queensland. The Bowen Basin is part of Sydney, Gunnedah, Bowen system which extends from the Illawarra region south of Sydney to the northern Bowen Basin in the region of Collinsville. The southern part of the basin is overlain by the Jurassic to Cretaceous Surat Basion. The Bowen Basin began as a back arc basin west of the continental Camboon Volcanic Arc. Early Permian extension resulted in a series of half grabens with the Denison Trough being the most prominent. Clastic sediments were laid down in the western part while andesite and volcanoclastics were laid down in the eastern areas. Subsidence allowed the sea to enter from the east with deltaic sedimentation occurred along the western and northern flanks of the basin. Compressive uplift during the Late Permian resulted in the sea being restricted with the infilling of the basin with deltaic sediments and peat forming wetlands. These peats became the coal measures of the Bowen Basin after they had been buried. The Late Permian was marked by deposition of volcanolithic sediments of the Rewan Group in a terrestrial environment. This deposition continued into the Middle Triassic when uplifted rocks from the western margins provided a supply of quartoze sands deposited as the Clematis Group. This deposition occurred in an inland sea or lake.

Later in the Middle Triassic, following apparent uplift in the east, the Moolayember Formation, sourced from a volcanic province, was laid down. Environment of deposition is interpreted as fluvial to lacustrine.

Major compression from the east in the Middle to Late Triassic resulted in uplift and folding along generally north trending axes. The easternmost fold is the Burunga Anticline with the Weringa Syncline separating it from the Wandoan Anticline (**Figure 6**). The Mimosa Syncline to the west of the Wandoan Anticline marks the axis of the Taroom Trough. Hydrocarbons migrating from the Taroom Trough move westwards towards the Roma Shelf or eastwards towards the Wandoan and Burunga Anticlines. The Wandoan Anticline is the first major reversal of dip and is the potential trapping mechanism for hydrocarbons migrating eastwards from the Taroom Trough.



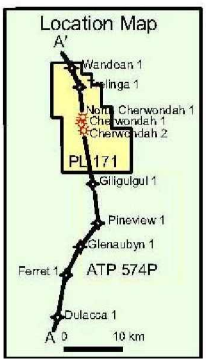


Figure 6 **Wandoan Anticline**
Diagrammatic well cross section

Datum: Mean Sea Level
Vertical exaggeration V/H: ~ 8.3

Stratigraphy

The stratigraphy of the Bowen Surat Basin in the region of PL 171 is depicted in (**Figure 7**). The Early Permian Camboon Volcanics is the oldest sequence within this region of the Bowen Basin and comprise mainly andesitic and basaltic flows. Significant gas flows have been recorded from the

Camboon Volcanics on the Burunga Anticline. Overlying the Camboon Volcanics is the Barfield Formation which is predominantly mudstone and siltstone. This is overlain by the siltstone and sandstone of the Flat Top Formation. The Banana Formation of dominantly siltstone and shale overlies the Flat Top Formation. Overlying the Banana Formation is the Gyranda Formation which consists of sandstone, shale, siltstone, coal and tuff. This formation is also referred to as the Burunga Formation and is equivalent in part to the Early Storms Sandstone. The Bandanna Formation of Late Permian age is uppermost Permian sequence; it consists of mudstone, siltstone, sandstone and coal. Coals of the Bandanna Formation and its equivalent Baralaba Coal Measures are mined within northern Bowen Basin. The Peat and Scotia coal seam gas fields are producing from Bandanna coals.(**Figure 6**)

Age		Formation	Hydrocarbon occurences
JURASSIC	M	**Walloon Coal Measures**	Coal seam gas - Argyle, Berwyndale South, Tipton West & Kogan North
		Hutton Sandstone	
	L	**Evergreen Formation**	Oil - Conloi
		Precipice Sandstone	Gas - Roma Shelf Fields (main Surat gas production)
TRIASSIC	M	**Clematis Sandstone**	Flowed Gas - Cherwondah Nth. 1 (Shows only) Cherwondah 1 Cherwondah 2 Flowed Gas - Cherwondah 1 Gasfields - equivalent (Showgrounds) southern Roma Shelf
	L	**Rewan Formation**	(North Cherwondah reached T.D. in the lower part of the Clematis Sandstone. Cherwondah 1 & 2 reached T.D. in the Rewan Fm) Minor gas & oil production Southern Roma Shelf
PERMIAN	L	**Gyranda Formation**	Gassy water - Burunga Anticline
		Back Creek Group	
		Camboon Andesite	Gas - Scotia, Burunga

Figure 7 Stratigraphic column PL 171, North Cherwondah

The multicoloured mudstones, siltstones and sandstones of the Early Triassic Rewan Formation overlie the Bandanna Formation. The Clematis Sandstone is predominantly sandstone with minor siltstone and mudstone. Gas flows have been recorded from this formation on the Wandoan Anticline. Commercial gas discoveries have been made in the Roma region from the Showgrounds Sandstone, which is equivalent to the Clematis Sandstone. The Moolayember Formation overlies the Clematis Sandstone in the synclinal areas, but is eroded from high areas such as the Wandoan Anticline.

The Jurassic-Cretaceous Surat Basin sequence unconformably overlies the Triassic sequence in this region. The Precipice Sandstone is dominantly a fine to coarse grained sandstone with minor siltstone. The Precipice Sandstone is the primary reservoir for many of the gas fields on the Roma Shelf. Oil and gas shows have been recorded from the Precipice in the region; however, no commercial discoveries have yet been made. Structure at the Triassic level is not reflected at Precipice level due to the unconformity truncating the upper part of the Triassic section (**Figure 8**). Most of the wells have targeted Triassic structures rather than the more subtle Jurassic features.

The Evergreen Formation of fine to medium sandstones, mudstone and siltstone overlies the Precipice Sandstone. Minor oil discoveries have been made in intra-Evergreen Formation sandstones; however, recoverable oil volumes typically have been modest. Alton is the largest discovery in this formation with reserves of around 2 million barrels. The modest volumes are attributed to limited lateral extent of individual sand bodies, and low energy drive mechanisms. The Conloi 1 well to the south of PL 171 is an example of such a discovery. The Hutton Sandstone is a thick fluvial sandstone with a very wide distribution. While it is not a hydrocarbon reservoir in the Surat Basin, it is the primary oil reservoir in the Eromanga Basin to the west. The Walloon Coal Measures are the youngest Surat Basin rocks in this region. This unit contains fine grained sandstone, siltstone, mudstone and coal. Enormous volumes of methane are adsorbed onto the coals of the Walloons and there are several advanced pilot projects extracting gas from these coals. Commercial developments are anticipated in the near future.

4.2.3 Exploration history

Exploration for hydrocarbons in the Bowen Surat commenced in the early 1900s. The Union Oil Development Corporation operated joint venture discovered the Moonie oil field in 1961 and the Associated Group discovered a number of gas fields in the Roma area in the 1960s. Union carried out extensive regional exploration which led to the discovery of Cabawin, Alton and Conloi oil fields. Union used a mobile drilling rig to assess the eastern flank of the Surat Basin and underlying Bowen Basin. Eight wells were drilled by Union on the Wandoan anticline, but only those of relevance to PL 171 are discussed below. There is a significant unconformity at the base of the Jurassic Precipice Sandstone, hence the structure at Precipice level is not indicative of that of the underlying Bowen Basin sequence (**Figure 6**)

The initial test of the anticline was Wandoan 1 in 1961, which was designed to target the Precipice Sandstone (reservoir at Moonie), on the northern end of the anticline. It reached total depth in the Permian Bandanna Formation. Numerous minor shows were recorded; however, testing only produced water.

Giligulgul 1 tested a closure on the southern end of the Wandoan anticline, targeting the Precipice Sandstone. It tested fresh water from several Jurassic zones and was plugged and abandoned. Cherwondah 1 tested a seismically defined closure at Bandanna level in 1964. Good gas shows and fluorescence were recorded in the Triassic section. A DST of the Clematis Sandstone (equivalent of the Showgrounds Sandstone) over the interval 1,271 –1,277m flowed gas at an estimated 0.250 mcfd. A deeper DST over the interval 1,424 – 1,438m flowed at 0.031 mmcfd. A subsequent DST over the interval 1,272 –1,277m, later flowed at less than 0.050 mmcfd. This has been interpreted to indicate that the extent of formation damage increases with the length of time that the reservoir is exposed to invasion by mud filtrate. This type of reservoir behaviour is not uncommon in relatively low permeability reservoirs sensitive to damage from mud filtrate invasion.

Golden West Hydrocarbons (GWH) drilled Cherwondah 2 in 1985 as a follow up to Cherwondah 1. The well is located 400m north of Cherwondah 1. This well was drilled with air over the prospective zones to reduce the extent of formation damage. It encountered the Clematis Sandstone updip of that in Cherwondah 1; however, initial assessment was that reservoir quality was poorer than that at Cherwondah 1. The intention at the time of drilling the well was to stimulate the gas charged Clematis Sandstone using liquid nitrogen and proppant. The cost of such an operation was prohibitive at the time and the well was completed as a water supply well from the Jurassic. Much has been learnt about fraccing procedures over the past 20 years and costs have been reduced dramatically and success rates improved.

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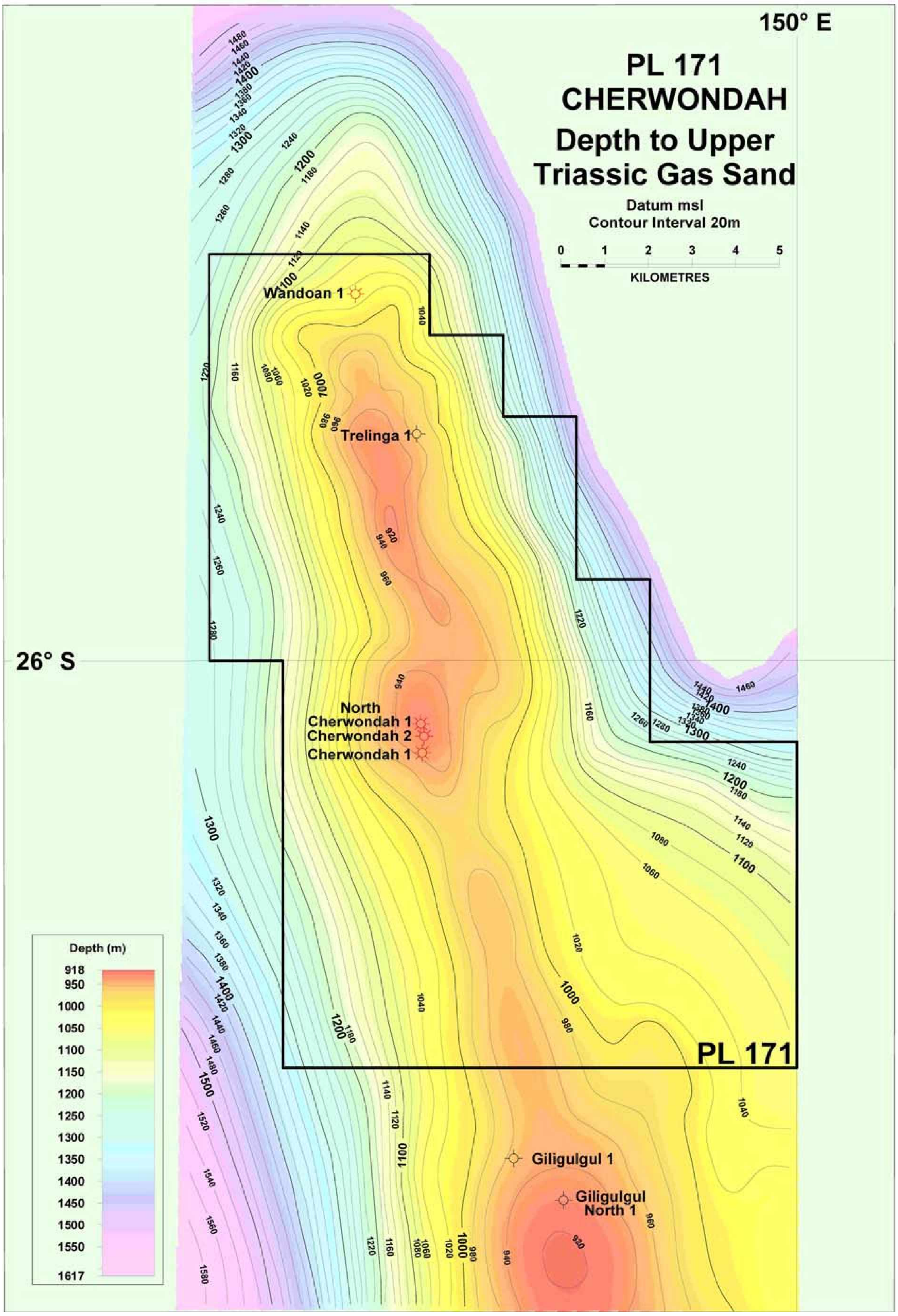

Figure 8

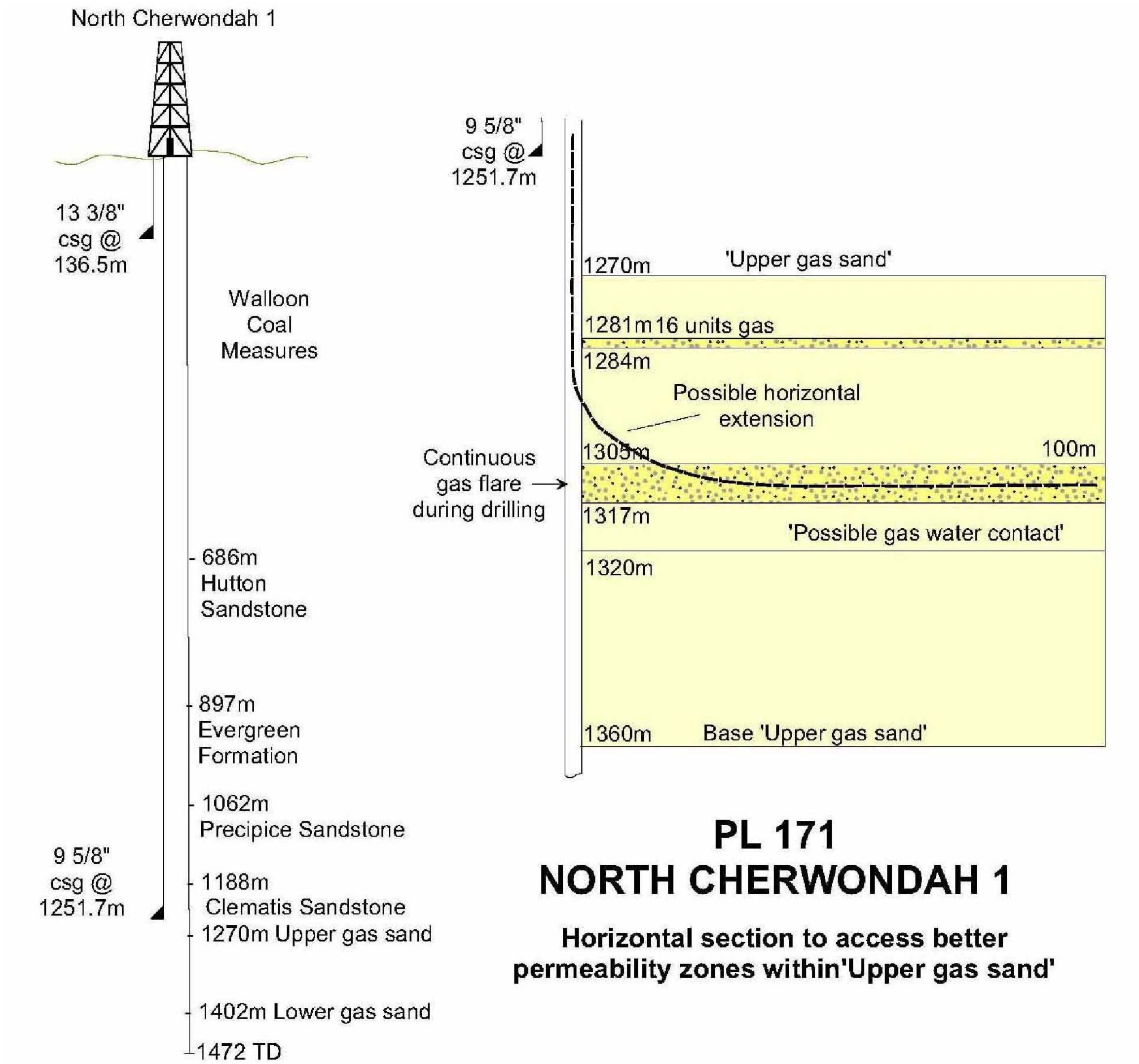

Figure 9

Trelinga 1, located on the northern part of the Wandoan anticline between Wandoan 1 and Cherwondah 2, was drilled in 1985. This well was targeting the Precipice Sandstone and sands within the Evergreen Formation. Minor gas was tested from a sand within the Evergreen, while water was tested from the Precipice. No potential reservoir sands were encountered in the Clematis Sandstone.

Roma Petroleum drilled the North Cherwondah 1 well in 1995, 400m north of Cherwondah 2. This well was air drilled in an attempt to minimise formation damage; however, water ingress resulting in the well be drilled with mist. The hole condition deteriorated and consequently it was elected not to run logs over the air drilled section. Open hole flow rates of 0.320 mmcfd were recorded from the Clematis Sandstone. The well was cased and suspended. Due to extensive caving of siltstones within the Clematis Formation, open hole logs were not able to be run in the hole. Gas analyses of two samples taken during an open hole test showed methane content greater than 96 %, with less than 1 % inert gases. Minimal gas processing such as dehydration to remove water of condensation and compression to pipeline pressure is all that would be required prior to delivering gas into the pipeline system.

It is obvious that the Cherwondah Dome has gas charged reservoirs within the Clematis Sandstone. It is possible that these reservoirs are particularly sensitive to damage from seemingly small quantities of water causing clays to swell and reduce permeability. Careful lithological rock typing and designing drilling procedures to manage these sensitive reservoirs has the potential to unlock significant gas volumes.

Mosaic Oil has had considerable success using underbalanced drilling in the Showgrounds Sandstone and the Tinowon formation in the southern Bowen Basin. Markedly increased production rates were obtained from horizontal well sections in the Showgrounds Sandstone in the Tinker field. Tinker 3H was drilled underbalanced using nitrogen and tested at an estimated 20mmcfd for a sand of 3 to 5 metres vertical thickness. A DST conducted over a similar interval at the time the well was drilled resulted in a flow rate of 1.3 mmcfd. Such underbalanced technology could be appropriate in drilling the Clematis Sandstone (equivalent in age and with similar lithology to the Showgrounds) at Cherwondah.

The advantage of drilling a horizontal extension of North Cherwondah is shown in **Figure 9**. The zone of best permeability in North Cherwondah 1 lies in the interval 1,305m to 1,317m. It is assumed that this comprises several beds of better permeability within this 12m interval. A horizontal well has the potential to intersect a much greater portion of these better permeability zones over its proposed 100m length.

9.0 DECLARATIONS

9.1 QUALIFICATIONS

RobSearch Australia Pty Limited (previously named Robertson Australia Pty Limited and Robertson Research Australia Pty Limited) has been established for thirty five years and is one of the largest integrated independent natural resource consulting firms in Australia.

The core activities of RobSearch are in petroleum, minerals and coal exploration and development, including reserve assessment and production planning. The company has extensive experience in valuation of reserves and other assets on behalf of many international oil and mineral companies and financial institutions.

This report has been prepared for RobSearch by J. M. Blumer and G. Evans. The qualifications and experience of these personnel are set out below.

John Blumer - Chairman & Managing Director, RobSearch Australia
B. Gen Sc. , MAAPG, FAusIMM (CPGeo), MMICA, MAIG, MPESA

John Blumer is one of Australia's most experienced independent petroleum consultants, with over 40 years of experience in the Australasian and international oil exploration industry. He formed his own consulting firm in 1975, and became a major shareholder and Director of RobSearch Australia in 1990. He is specifically responsible for all petroleum related activities of the company, specialising in exploration management, valuation of exploration and production interests and the preparation of statutory reports. He is a member of the VALMIN Committee of the AusIMM, advising the Australian Stock Exchange and the Australian Securities and Investments Commission with respect to mineral valuation issues, and is past-President of the Earth Resources Foundation of the University of Sydney.

Garth Evans - Associate Consultant, Petroleum Production Geology
B.Sc., MAAPG, MAIG(RPGeo), SPE, MPESA

Garth Evans is a geologist with over 30 years experience in the international petroleum industry, specialising in development and production geology.

After eleven years with AAR Limited in Australia and Indonesia, Garth joined Atlantic Richfield (Arco) in 1979, initially in Indonesia and then transferring to Arco Norway as a Staff Geologist in 1984. In 1988, Garth returned to Australia to take a position as Exploration Manager for Kundu Petroleum, and in 1989 joined Claremont Petroleum as Exploration Manager before transferring to the parent company, Beach Petroleum, as Manager, Production and Development in 1991. In that role, he was responsible primarily for oil production and gas development interests in south west Queensland, Papua New Guinea and United States.

In 1997, Garth formed Evans Energy as an independent consultancy. Since then he has carried out a variety of assignments, ranging from asset valuations to gas marketing studies.

9.2 INDEPENDENCE

RobSearch Australia Pty. Limited or any of the authors of this report have no pecuniary or professional interests which could reasonably be regarded in any way as affecting their abilities to report impartially on the petroleum exploration interests of Dome Petroleum Resources Plc.

9.3 PURPOSE OF THE REPORT

This report has been prepared solely for Dome Petroleum Resources Plc for inclusion in the Prospectus and should not be relied on for any other purpose.

9.4 CONFORMITY

This report has been prepared in conformity with the requirements of the Australian Securities Commission and the VALMIN Code of the Australasian Institute of Mining & Metallurgy and the signatory is bound by the authority of the Ethics Committee of the AusIMM.

9.5 CONSENTS

RobSearch has given and has not, before the date of this Report, withdrawn its consent to the issue of the Prospectus with this report in the form and context in which it appears.

RobSearch was only commissioned to prepare, and has authorised only the issue of this Independent Technical Consultant's Report. RobSearch has not been involved in the preparation of, nor has authorised or caused the issue of any other part of the Prospectus in which this report is included.

RobSearch Australia Pty. Limited

J. M. Blumer B. Gen Sc., MAAPG, FAusIMM (CPGeo), MMICA, MAIG, MPESA
Managing Director

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GLOSSARY OF TECHNICAL TERMS & ABBREVIATIONS

Terms not included in the glossary are used in accordance with their definition in the Concise Oxford Dictionary.

acreage	the area covered by petroleum exploration tenements
acre-foot	a layer of porous reservoir one foot in thickness covering an area of one acre
alluvial	a sediment formed by the action of running water
anomaly	a value higher or lower than the expected or norm. In geophysical usage, a portion of an area surveyed which is different in character from the area in general; in seismic usage, generally synonymous with structure, but also used for unexplained events or greater than normal amplitude of the seismic signal
anticline	upward-arching fold of rock strata
barrel (bbl)	a unit of volume in oil production; one barrel equals 42 U.S. gallons, 35 Imperial gallons, or approximately 159 litres
basal sand	a sand deposited at the base of a sequence
basement	non-prospective rocks underlying a sedimentary basin
basin	a segment of the earth's crust which has downwarped, and in which sediments have accumulated; such areas may contain hydrocarbons
bcf	billion cubic feet, i.e., 1,000 million cubic feet (equivalent to approximately 28.3 million cubic metres) of gas
bed	a layer of sedimentary rock, distinguishable from layers above and below
block	a petroleum tenement, permit, lease or licence
closure (structural)	in a subsurface fold, dome, fault block, or other structural trap; the vertical distance between the structure's highest point and its lowest closed structural contour; reservoirs within closure are potential sites or traps for oil or gas accumulations
condensate	hydrocarbons, often found with natural gas, which are themselves gases in the reservoir but which condense out to liquids when the pressure drops during production
control	refers to the amount or concentration of geological or seismic data available for structural mapping
cross-section	a (vertical) section drawn at right angles to the long axis of a geological feature
crude oil	a mixture of hydrocarbons occurring naturally in underground deposits; the basic feedstock for petroleum refineries
Degree API Gravity (°API)	the specific gravity of oil, measured in degrees on the American Petroleum Institute scale, in which a higher API gravity value indicates a lesser actual specific gravity
deltaic sediment	a deposit of sediment formed at the mouth of a river either in the ocean or a lake, which results in progradation of the shoreline
deposition	laying down of potential rock-forming material, i.e., sediment
dip	the angle that rock strata make with a horizontal surface, measured at right angles to the strike
drillstem test (DST)	a test carried out in an oilwell, using testing tools attached to the drillstem, in order to assess the producing possibilities of one or more formations intersected by the well
facies	the aspect, appearance and characteristics of a rock unit (e.g., member or formation), usually reflecting the conditions of deposition; sedimentary units commonly change laterally from one facies to another, such as from sandstone to shale, reflecting changes in depositional environment
farmin, farmout, farminee, farmor	descriptive of a joint venture in which an incoming farm-in partner (farminee) earns an interest in a property by funding costs of exploration, while the farm-out partner (farmor) owning the property does not contribute
fault	(to form) a break in the subsurface strata; strata on opposite sides of a fault may be displaced vertically and/or laterally relative to their original position
fault trap	hydrocarbon trap which relies on the termination of the reservoir against a seal, due to fault

	movement
fluvial	laid down by river or stream
flysch	rapidly deposited sediments derived from erosion of the Alps as they were being uplifted
fold	a bend in rock strata
formation	a (named) succession of sedimentary beds having some common characteristic
four-way dip closure	a anticlinal feature in which closure is formed by the sediments dipping in all directions
fracture	a general term for any break in a rock, whether or not it causes displacement, due to mechanical failure by stress; fractures include cracks, joints and faults
generation (of oil or gas)	process by which organic matter is transformed into hydrocarbons in a source rock
geophysics	study of the earth by quantitative physical methods
geothermal gradient	the rate at which temperature increases with increasing depth below the Earth's surface; a general average is around 30°C increase per additional kilometre of depth
graben	a downthrown block of sediments bounded by faults
gravity exploration	the precise measurement of the force of gravity at different points over an area to give an indication of thickness of sediments and of structure
group	a (named) succession of formations having some common characteristic
horst	an elongated uplifted block of sediments bounded by faults
hydrocarbon	a class of naturally-occurring organic compounds containing only carbon and hydrogen atoms (in practice, small quantities of sulphur, oxygen and nitrogen and their compounds may also be present); hydrocarbons include natural gas, liquefied petroleum gas, natural gas condensate and crude oil
km	kilometre
km^2, sq km	square kilometre
lead	a potential petroleum trap which has been identified but has not been adequately defined
limestone	a sedimentary rock composed predominantly of calcium carbonate
m	metre
maturation	the process involving time, temperature and pressure in which potential petroleum source rocks may generate hydrocarbons and attain maturity
migration	the movement of oil or gas from a source rock to a reservoir
Mmbo, mmbbl	million barrels (of oil)
mmcf	million cubic feet of gas
oil window	the levels of maturity at which source rocks are within the range of conditions favourable for oil generation
net pay	the cumulative thickness of porous and permeable reservoir beds within an overall hydrocarbon column in a structure
NPI	Net Profit Interest
operator	the member of an exploration joint venture of two or more exploration companies which has been appointed to carry out all operations on behalf of the parties
ORRI	Overriding Royalty Interest
overthrust	the result of strong compressional tectonic forces which have thrust a body of rock over an adjoining body along a fault plane
permeability	the degree to which fluids such as oil, gas and water can move through the pore spaces of a reservoir rock
permit	a petroleum tenement, lease, licence or block
petroleum	general term for all phases of naturally-occurring hydrocarbons
pinchout	where a sandstone reservoir thins to nil between two layers of impervious rocks
PJ	Petajoule

play	a geological concept which, if proved correct, could result in the discovery of hydrocarbons
prospect (petroleum)	a geological or geophysical anomaly that has been surveyed and defined, usually by seismic data, to the degree that its configuration is fairly well established, and on which further exploration such as drilling can be recommended
radar oil seep study	a technique for detecting submarine oil seeps by the use of airborne radar to detect oil slicks on the surface of the sea
RTSM	Rate Too Small to Measure
reserves	quantities of economically recoverable hydrocarbons estimated to be present within a trap, classified as proven, probable or possible
reservoir	a subsurface volume of rock of sufficient porosity and permeability to permit the accumulation of crude oil and natural gas under adequate trap conditions
salt structures	structures formed by the plastic deformation of underlying beds of salt (salt tectonics) e.g. salt anticlines, salt domes
sandstone	a sedimentary rock which is generally composed essentially of sand-sized quartz grains
satellite geological studies	the use of images obtained from satellites to interpret the surface geology of an area
seal	an impervious layer over a reservoir which prevents escape of fluids
section	a general term used to refer to a sequence of sedimentary rocks, eg "sedimentary section", "Mesozoic section", etc.
sediment	(rock formed from) solid material, whether mineral or organic, which has been moved from its position of origin and redeposited
sedimentary rock, sediments	a rock formed as a result of consolidation of loose sediments, often created by weathering processes, such as sandstone & shale, or deposited by chemical processes, such as salt or limestone.
seismic survey	a type of geophysical survey where the travel times of artificially created seismic waves are measured as they are reflected in a near-vertical sense back to the surface from subsurface boundaries. This data is typically used to determine the depths to the tops of stratigraphic units and in making subsurface structural contour maps and ultimately in delineating prospective structures.
seismic (2D)	a seismic survey made up of widely spaced lines of data
seismic (3D)	a seismic survey made up of very closely spaced data whereby a "3D" image can be processed
seismic reprocessing	the use of the latest computer processing technology to improve the quality of older seismic data
sequence	a succession of sedimentary rocks laid down in order
shale	fine-grained sedimentary rock characterised by finely-laminated structure
shelf	the shallower, marginal part of a sedimentary basin
source unit, source rock	a rock capable of generating oil and gas under the right conditions of temperature, pressure and time
stratigraphic trap	a type of petroleum trap which results from variations in the lithology of the reservoir rock, which cause a termination of the reservoir, usually on the up-dip extension
stratigraphy	the succession or superimposition of rock strata
structure	a discrete area of deformed sedimentary rocks, in which the resultant bed configuration is such as to form a potential trap for migrating hydrocarbons
sub-basin	a localised depression within a basin
subsidence	a sinking of a large part of the earth's crust relative to the surrounding parts
tcf	Trillion Cubic Feet
tectonic	descriptive of all movements of the Earth's crust caused by directed pressures, and the results of these movements
TJ/d	Terrajoules per day
trap	a body of reservoir rock, vertically or laterally-sealed, the attitude of which allows it to retain hydrocarbons which have migrated into it

turbidite	sediment typically deposited in deep water which have flowed off the edge of the continental shelf
unconformity	lack of parallelism between rock strata in sequential contact, caused by a time break in sedimentation
up-dip	at a structurally higher elevation within dipping strata
VALMIN Code	The "Code and Guidelines for Technical Assessment and/or Valuation of Mineral and Petroleum Assets and Mineral and Petroleum Securities for Independent Expert Reports" issues by the Australasian Institute of Mining & Metallurgy, 1998
vuggy porosity	porosity developed in carbonates where a system of holes have developed by solution