



# 2010 ANNUAL GENERAL MEETING

*Presented by:*  
Dr Hugh Herbert, Managing Director

Level 3, 600 Bourke Street,  
Melbourne, Victoria

Monday, 22 November 2010  
11.00am AEDST



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# The Company at a Glance

Listed:	11th December 2006
ASX Code:	AXT
Nature of Business:	Focused mineral explorer primarily for copper, gold and uranium in South Australia
Number of Shares:	82,800,000
Market Capitalization:	\$6.458M as at 19 <sup>th</sup> November 2010
Cash Balance:	\$1.527M as at 19 <sup>th</sup> November 2010
Unrealized Value of Investment in Pantheon Resources Plc @ 0.617	\$2.439M as at 19 <sup>th</sup> November 2010
Total Number of Shareholders:	822 as at 19 <sup>th</sup> November 2010
Major Shareholders:	Top 20 shareholders control 50% of the company

# Performance of Securities



Source: ASX for the period 19<sup>th</sup> November 2009 to 19<sup>th</sup> November 2010

# Year in Review

- Invested in AIM-listed Pantheon Resources Plc
- Completed TEM survey at Emmie North, Canegrass North and Winjabbie East Prospects
- Semi-quantitative HyLogger™ mineralogical analysis of selected intervals of Company's drill cores undertaken
- Signed Binding Term Sheet with Xstrata Copper Ltd governing future Joint Venture exploration of Intercept Hill tenement EL4164
  - Extensive 3-D modeling of Company's geophysical data undertaken
  - Magnetotelluric survey embracing Emmie North Prospect completed
- Applied for and received PACE drilling support for Oak Dam South Prospect
- Executed new Native Title Mining Agreement for Exploration
- Conducted extensive cultural heritage clearance surveys at Oak Dam South, Canegrass South and Winjabbie East Prospects
- Renewed Exploration Licenses 4164 and 4284 for further terms

# EL4164 - INTERCEPT HILL PROJECT



# Tenement Tenure

- Accepted offer of Renewal of Term of EL4164, effective 15<sup>th</sup> July 2010, for a three year period to 14 July 2013
- Statutory expenditure for the period set at \$420,000

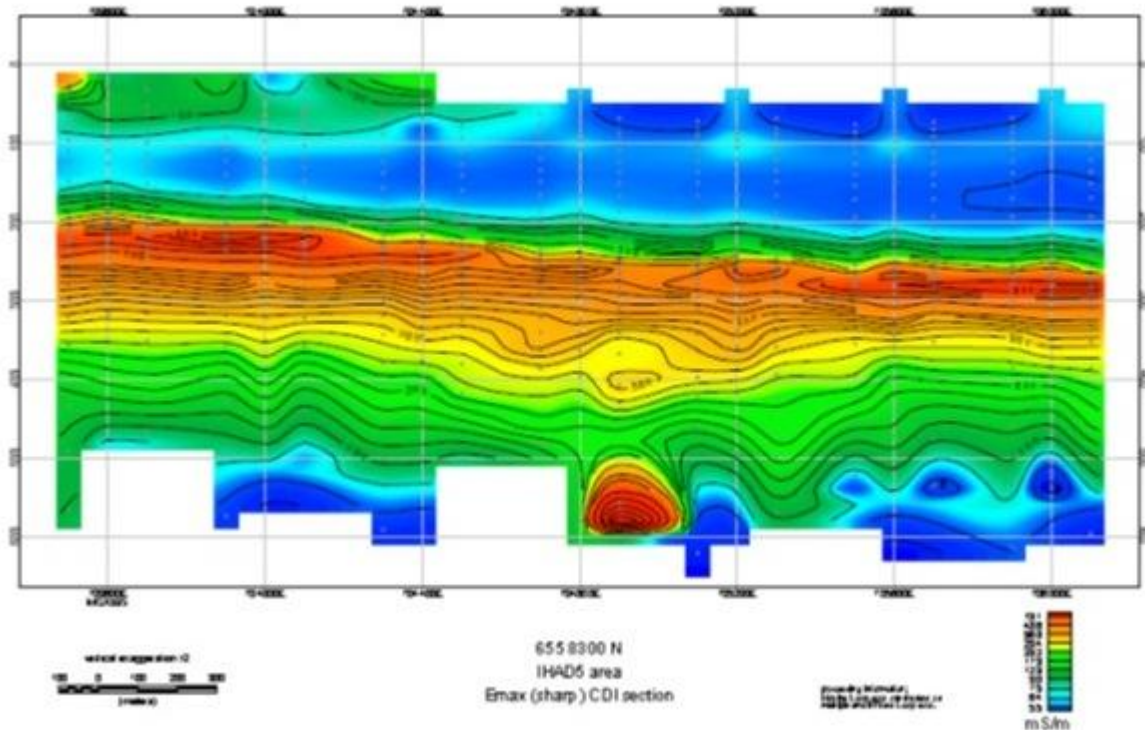
# Work Undertaken and in Progress

- Completed time domain transient electromagnetic (TEM) surveys at Emmie North, Canegrass North and Winjabbie East Prospects
- Semi-quantitative HyLogger™ mineralogical analysis of selected intervals of Company's drill cores continuing
- Negotiated and signed Binding Term Sheet with Xstrata Copper Ltd governing future Joint Venture exploration of Intercept Hill tenement EL4164
  - Extensive 3-D modeling of Company's geophysical data undertaken
  - Magnetotelluric survey embracing Emmie North Prospect completed
- Applied for and received PACE drilling support for Oak Dam South Prospect
- Executed new Native Title Mining Agreement for Exploration
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# TEM Survey Results

Conductivity Depth Image for Line 6558300N, Emmie North Prospect showing:

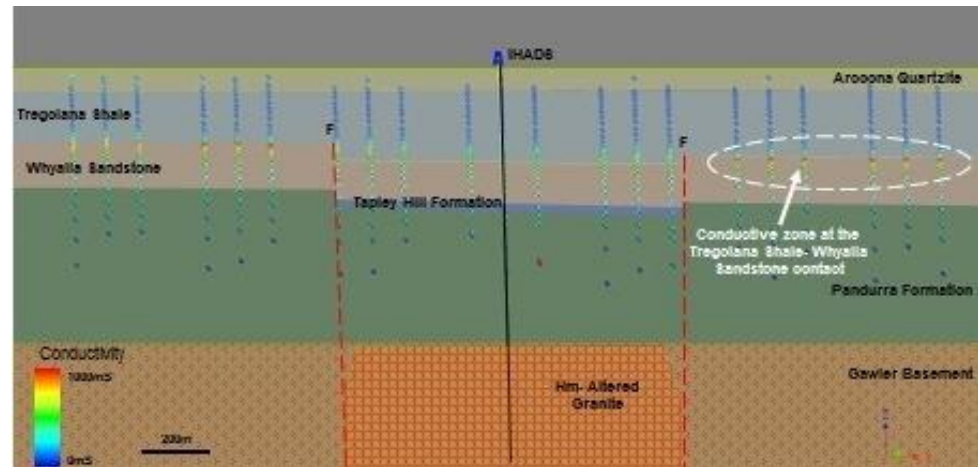
- laterally extensive, flat lying conductive zone at about 240 to 280 meters depth corresponding to the Tregolana Shale-Whyalla Sandstone contact resident within the Whyalla Sandstone.
- discrete conductive response at depth.



# TEM Results – Emmie North Prospect

Cross Section through IHAD5, Line 6558300N showing:

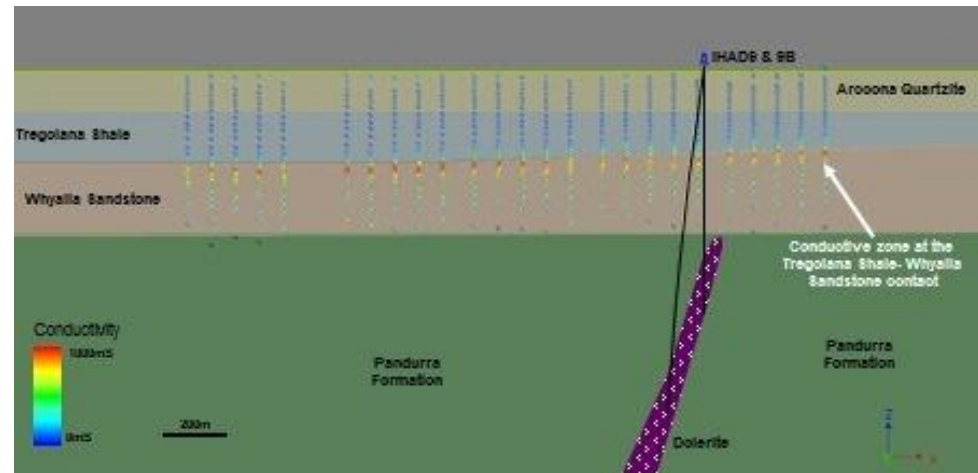
- Higher intensity of the TEM response at the top of the Whyalla Sandstone to the East and West of interpreted graben structure containing Tapley Hill Formation
- Weaker response above Tapley Hill Formation
- May reflect contrast in porosity caused by phengite deposition in pore spaces as opposed to dickite where Tapley Hill Formation is missing



# TEM Results – Canegrass North Prospect

Cross Section through IHAD9 and 9B, Line 6564450N showing:

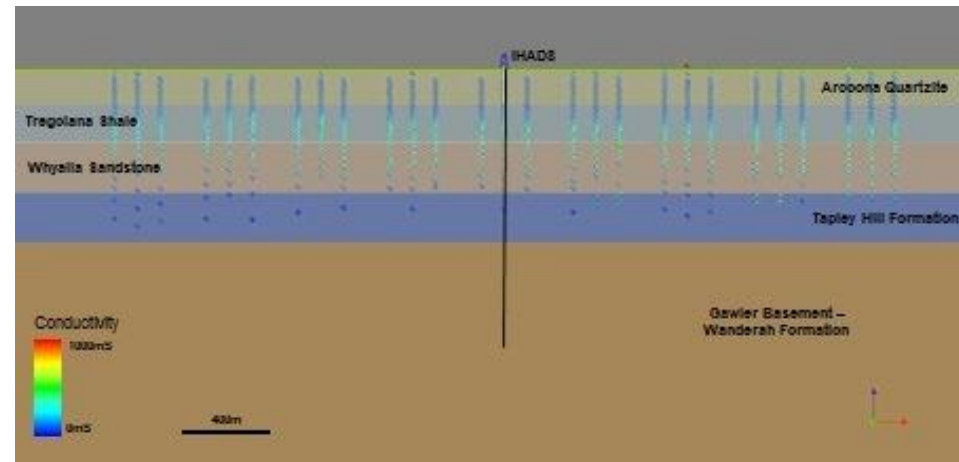
- Absence of Tapley Hill Formation overlying Pandurra Formation
- Well-defined flat lying conductive zone at the contact of the Tregolana Shale and Whyalla Sandstone, but resident with the Whyalla Sandstone.



# TEM Results – Winjabbie East Prospect

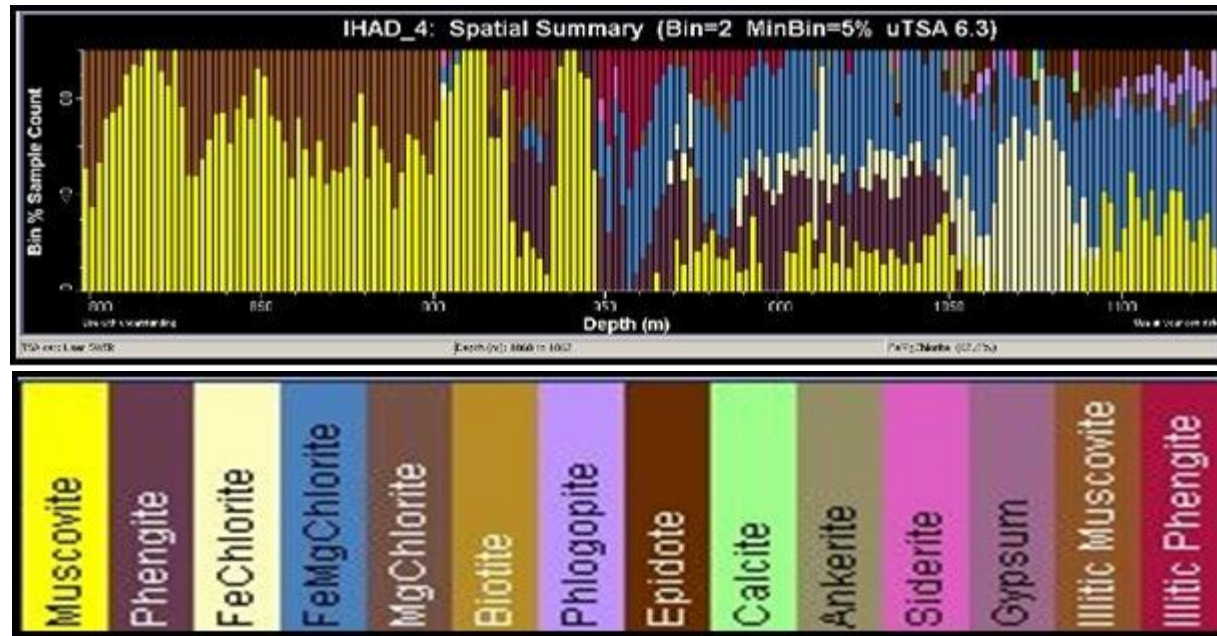
Cross Section through IHAD8, Line 6561325N showing:

- Absence of Pandurra Formation at this locality
- Whyalla Sandstone rests on a thick sequence of Tapley Hill Formation directly overlying Gawler Basement/ Wanderah Formation
- Conductive response is broad and appears to straddle the Tregolana Shale and Whyalla Sandstone units
- The magnitude of the conductive response is similar to that occurring above the Tapley Hill Formation position at Emmie North Prospect.



# Hylogger™ Results - IHAD4

The Spectral Geologist (TSG) Mineral Summary screen with mineral key showing the distribution of minerals down hole for IHAD-4 for a section from 796 m to 1158 m. Top of hole is on the left.



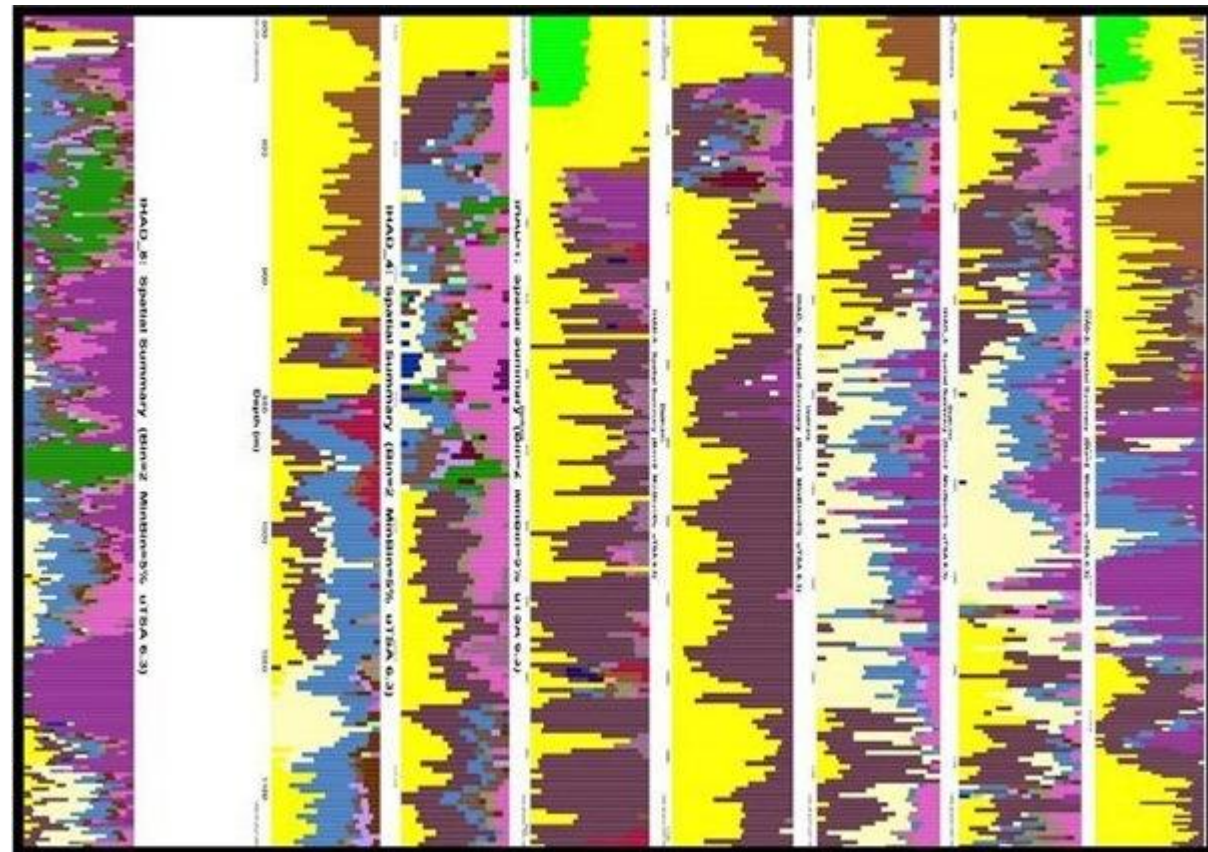
# Hylogger™ Results of Selected Cores

Down hole TSG mineral  
summary plots.

From left to right:

- IHAD8 (Winjabbie East Prospect)
- IHAD4, 1, 3, 6, 5, 2 (Emmie North)
- SAE6 (Emmie Bluff)

Chlorite relationships provide a strong mineralogical vector towards basement IOCG mineralisation.



# Argo – Xstrata Copper Joint Venture

## Key Terms – Xstrata Copper

- Xstrata Copper may earn 75% interest in EL4164 by sole funding \$16M exploration expenditure in two tranches.
  - (1) \$4M within 3.5 years to earn 51% interest; minimum annual expenditure of \$600K; may withdraw after Year 1; forfeits any interest in EL if withdraws prior to earning 51%
  - (2) Additional \$12M within a further 4 years to increase to 75% interest; expenditures may be brought forward
- Xstrata Copper to undertake all exploration carried out during the earn-in period and, upon achieving 51%, to manage the joint venture while it maintains a joint venture interest in excess of 50%.

# Argo – Xstrata Copper Joint Venture

## Key Terms – Argo

- Upon Xstrata Copper earning 51% or, if it elects, 75% interest, Argo:
  - May contribute to expenditure on a pro-rata basis
  - Dilute down, according to an agreed formula, to a 10% interest triggering conversion to a 2% net smelter royalty
- If Xstrata Copper elects, having completed earn-in to 51%, not to further contribute to exploration expenditure, Argo:
  - May sole fund further exploration and dilute Xstrata Copper's interest according to an agreed formula



# Argo – Xstrata Copper Joint Venture

## Key Terms – Xstrata Copper Buy Back

If Argo dilutes Xstrata to less than 50% interest:

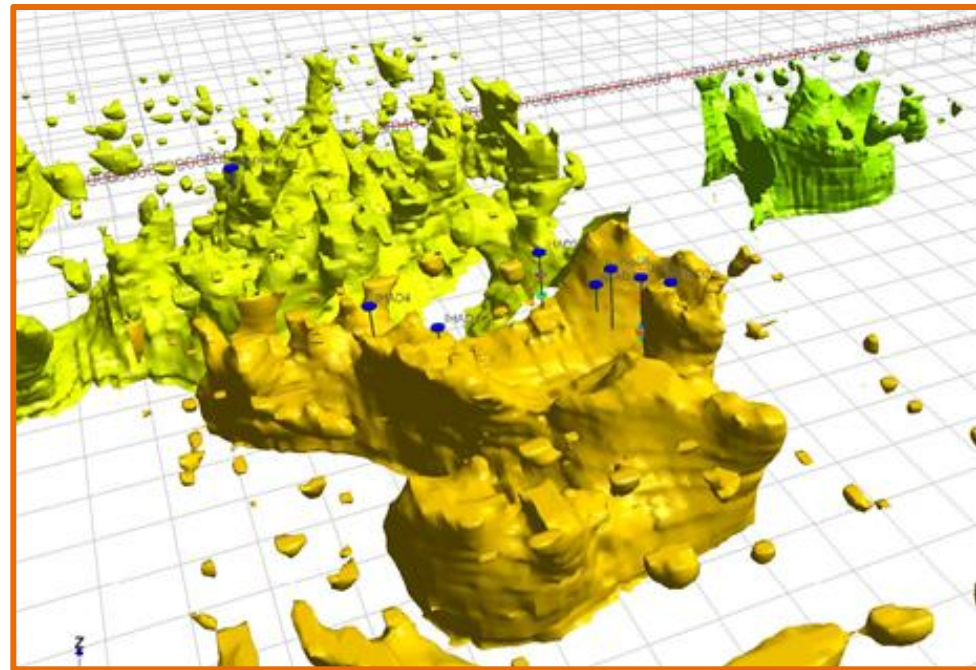
- Xstrata may buy back to 51% at any time by reimbursing Argo a multiple of 3 of Argo's sole funding expenditure
- Xstrata may then sole fund \$24M within 3 years to earn an additional 24% interest in the tenement (75% total).



# 3-D Gravity Modelling - Regional

3-D gravity model, facing NE, at 0.02mgal gravity difference showing:

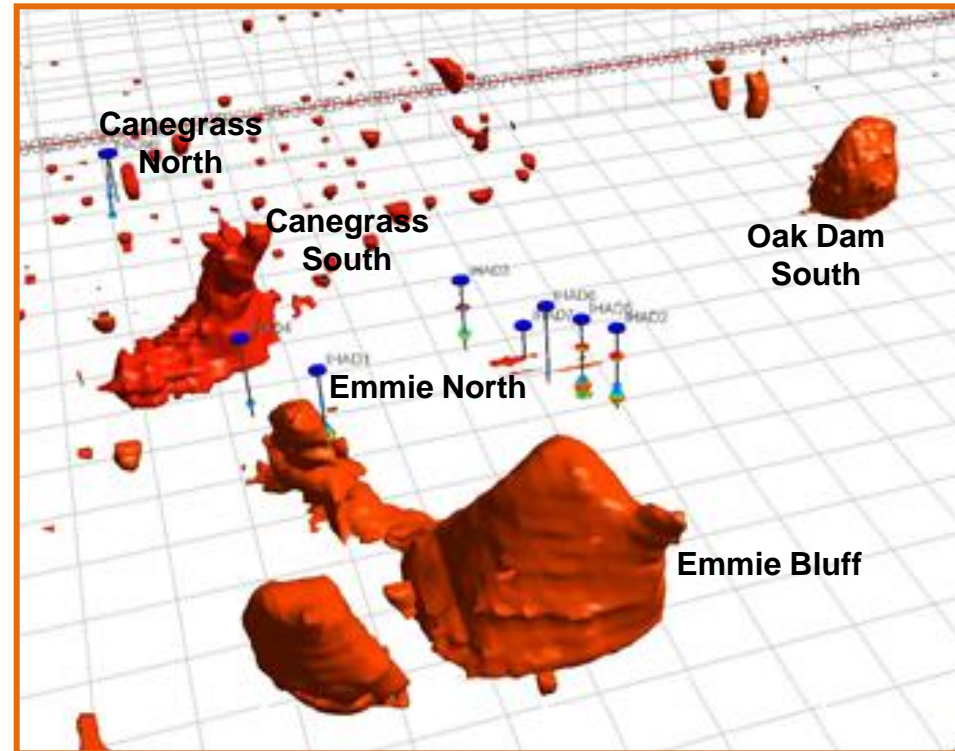
- Emmie North Prospect – mustard
- Canegrass N and S Prospects – lemon yellow
- Oak Dam South Prospect – lime green
- Argo's drill holes at Emmie North and Canegrass North Prospects in relation to 3-D gravity features



# 3-D Gravity Modelling - Regional

3-D gravity model, facing NE, at 0.04mgal gravity difference showing:

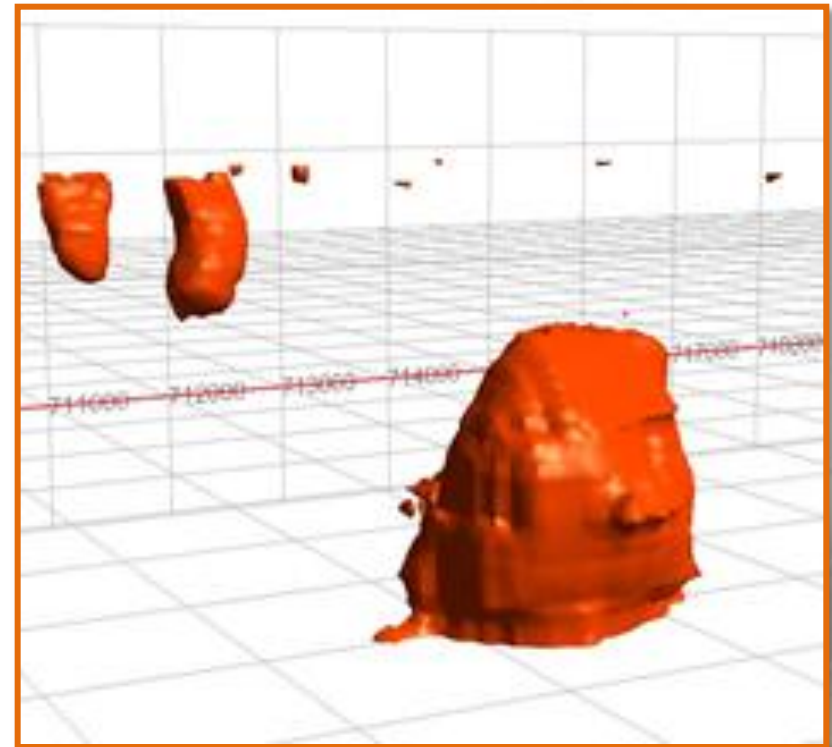
- Emmie North, Canegrass South and Oak Dam South Prospects
- Higher gravity difference shell sharply defines Oak Dam South and Canegrass South anomalies as high priority targets open at depth
- Much of Emmie North Prospect not represented by this gravity difference shell
- Argo's drill holes at Emmie North and Canegrass North Prospects in relation to 3-D gravity features



# 3-D Gravity Model - Oak Dam South Prospect

3-D gravity model, facing NE, at 0.04mgal gravity difference

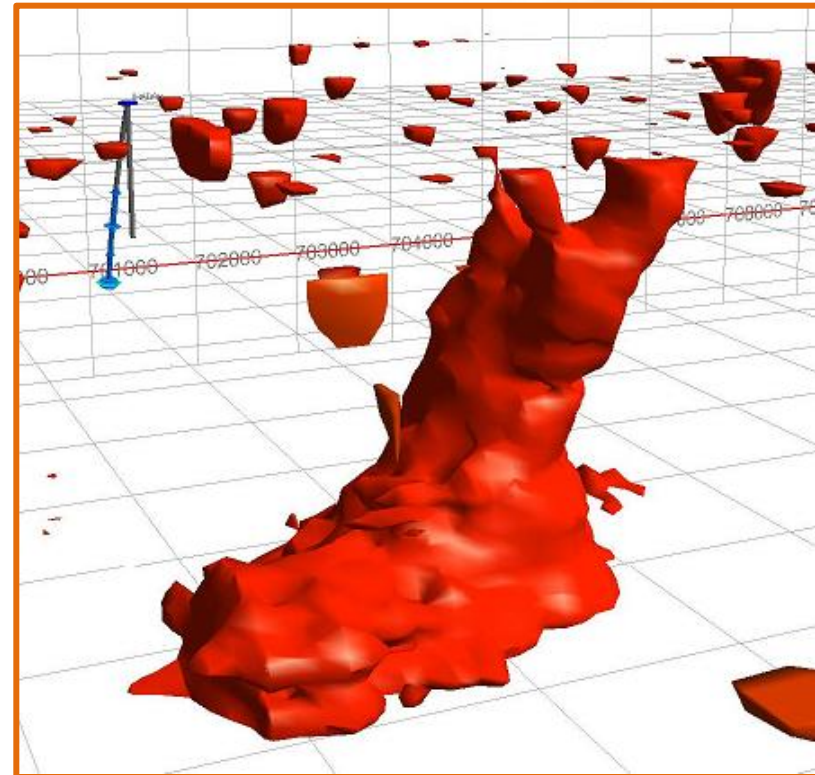
- Pipe-like geometry of Oak Dam South Prospect open at depth
- Top of anomaly modelled at ~600 meters in basement
- Gravity feature coincides with destruction of magnetic feature
- Secondary discrete anomalies to north-west reside in cover sequence and persist to 0.065mgal gravity difference
- Secondary anomalies are pipe-like in form



# 3-D Gravity Model - Canegrass South Prospect

3-D gravity model, facing NE, at 0.04mgal gravity difference

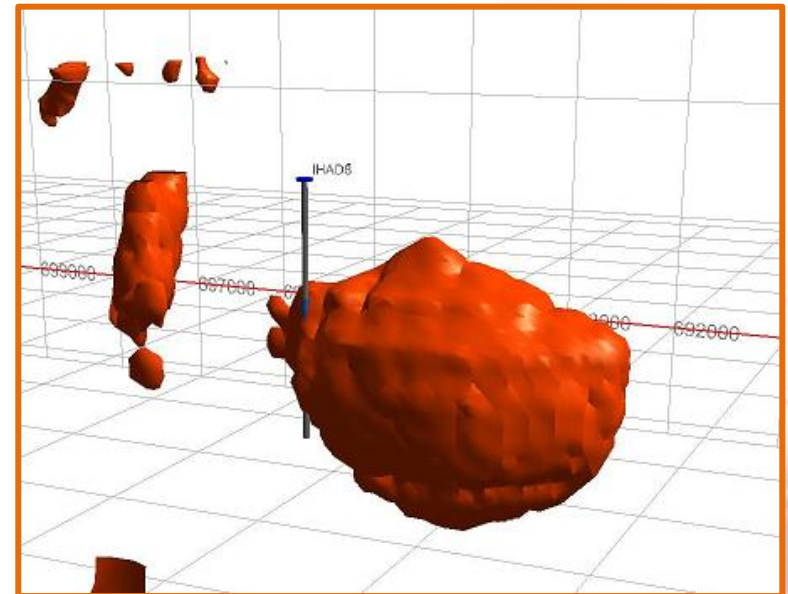
- Boot-like 3-D geometry of 0.04mgal gravity difference shell open at depth
- Top of gravity shell modelled at inferred basement contact
- Anomaly occurs at intersection of NW- and NE-trending basement structural elements in area of magnetic destruction
- Argo's diamond drill holes at Canegrass North Prospect shown
- High-amplitude 'sole' to anomaly covers an area of some 8km<sup>2</sup>



# 3-D Gravity Model – Winjabbie East Prospect

3-D gravity model, facing SE, at 0.05mgal gravity difference

- High intensity anomaly, broken into two parts at the modelled gravity difference
- Top of gravity shell modelled at inferred basement contact
- Gravity shell constrained at depth
- Gravity shell marginal to very strong magnetic anomaly
- Argo's ~1,200m vertical drill hole IHAD8 shown clipping edge of gravity shell
- Anomaly not satisfactorily tested by IHAD8

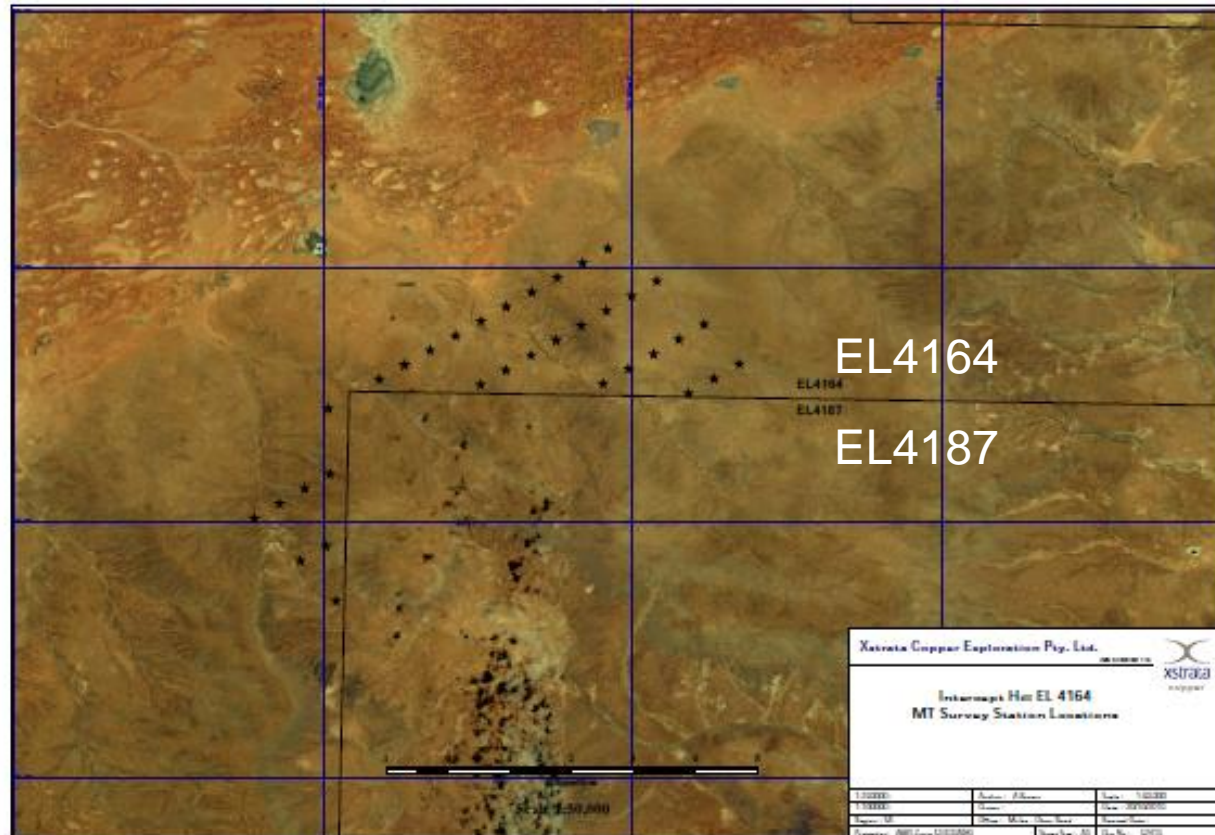


# Magnetotelluric Survey

- Magnetotellurics (MT) measures naturally occurring, time-varying magnetic and electric fields within the earth's crust
- Used to determine the electrical structure of the earth with little environmental impact and cost
- Allows assessment of resistivity/conductivity to thousands of meters depth
- Xstrata Copper commissioned Quantec Geoscience Pty Ltd to conduct survey
- Survey covers ground in EL4164 (Argo Exploration) and the adjoining EL4187 (Gunson Resources)
- The EL4164 component of the survey comprises 35 stations for 21.8 line kilometers at 500m spaced stations on 1000m spaced SW-NE trending Lines
- Survey completed October and data currently being processed in Canada

# MT Survey Area

- Plan map of the MT station locations for EL4164 on satellite imagery.
- The EL4164 component of the survey comprises 35 stations for 21.8 line kilometers.



## PACE Funding for Oak Dam South

- Applied for funding support under Round 6 of the South Australian Government's Plan for Accelerating Exploration (PACE) for drilling at Oak Dam South Prospect
- Awarded \$60K towards drilling costs of an initial hole
- Applications under the PACE Initiative are peer assessed on the basis of technical, scientific and commercial merit
- Further endorses perceived potential of Oak Dam South geophysical anomaly

# Native Title Mining Agreement for Exploration

- Independent Native Title claims embracing EL4164 by Kokatha and Barngarla withdrawn in favour of a unified claim by Kokatha Uwankara people
- Previous Land Access Agreements with Kokatha and Barngarla void
- New Agreement negotiated and executed by Athena Mines Pty Ltd (100% owned by Argo)
- Four signatories to the claim
- Three have signed - awaiting signature of fourth

# Cultural Heritage Clearance Surveys

- Several sites at each of three prospects – Oak Dam South, Canegrass South and Winjabbie East presented for clearance of drill sites by elected Kokatha Uwankara survey members
- Survey members supported by a professional anthropologist and archaeologist from Australian Cultural Heritage management
- Two sites at Oak Dam South Prospect, and a strip between them, were cleared for drilling
- Four sites at Winjabbie East Prospect were cleared
- Sites at Canegrass South were not cleared and Xstrata is exploring possibility of testing the high-priority geophysical target from without the culturally sensitive area via a long angled hole

# EL4284 TOONDULYA PROJECT



# Tenement Tenure

- Accepted offer of two year renewal of EL 4284, effective 15<sup>th</sup> July 2009, which replaced EL3156 without reduction in area

# Work Undertaken

- Field work at Toondulya curtailed during Global Financial Crisis
- Re-engaged through mobilization to area to conduct orientation biogeochemical, soil and lag geochemical surveys
- Survey team withdrawn prior to commencement of surveys due to heavy and repeated rain events precluding road and off-road access

# PANTHEON RESOURCES Plc - INVESTMENT



# Summary

- Tyler County location - onshore East Texas, USA
- Excellent pipeline infrastructure, fiscal regime and sovereign risk.
- Tyler County considered proven as a development play by operator. Up to 50 wells may be drilled across the 30,000 gross acres
- First well confirmed existence of Austin Chalk and petroleum system
- Upside potential in Austin Chalk from higher average reserves per well and increased liquid hydrocarbon yields
- Additional upside from separate and independent Woodbine play already proven on acreage
- Next well estimated for December 2010 or January 2011 to drill both Austin Chalk and Woodbine at low net incremental cost to Pantheon

# High Quality Partners in Tyler County JV

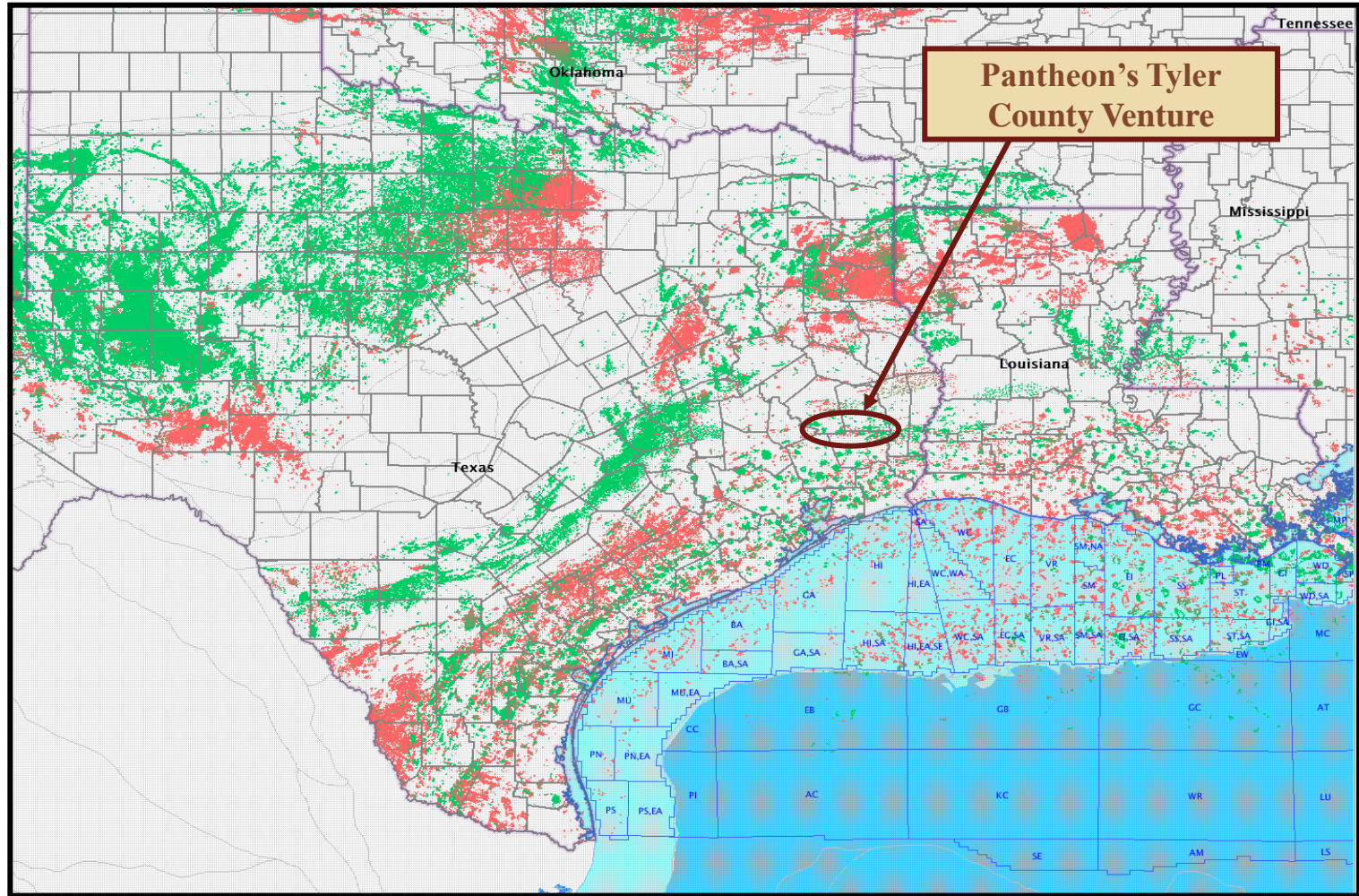
Company	Working Interest	Comments
Vision Resources LLC (operator)	37.5%	Private company.
		Long term presence in East Texas.
		Majority owned by George Kaiser.
Kaiser Francis Oil Company	25.0%	Private company.
		Owned by George Kaiser.
		<i>"Amongst world's biggest private energy producers"</i> Forbes 400, Oct. 2009.
W.R. Huff	12.5%	New York private equity fund.
		Took over Noram's interest .
Pantheon	25.0%	

# Regional Context – Proven Hydrocarbon Basin

- Brookeland field has produced for over 20 years.
- Austin Chalk directly above source rock. Whole area hydrocarbon charged.

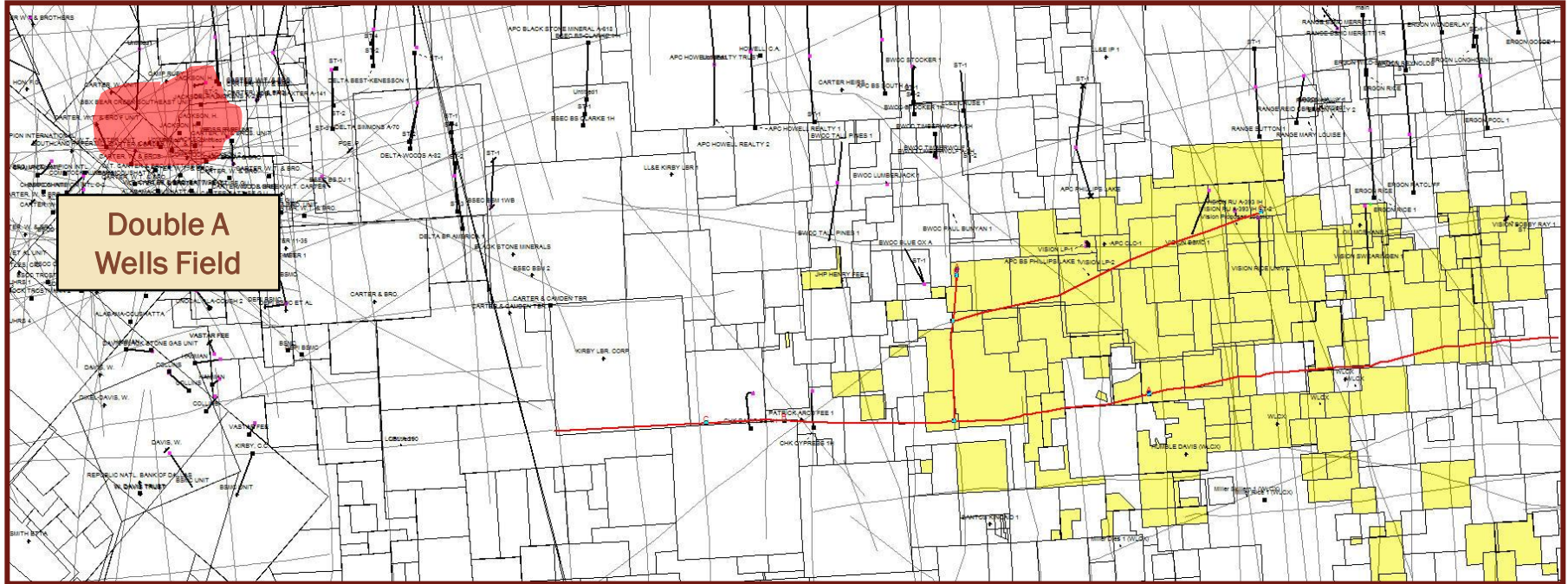


# Location Map



Southern US Producing Basins and Trends Map

# JV Acreage Position



**Joint Venture acreage shown in yellow**

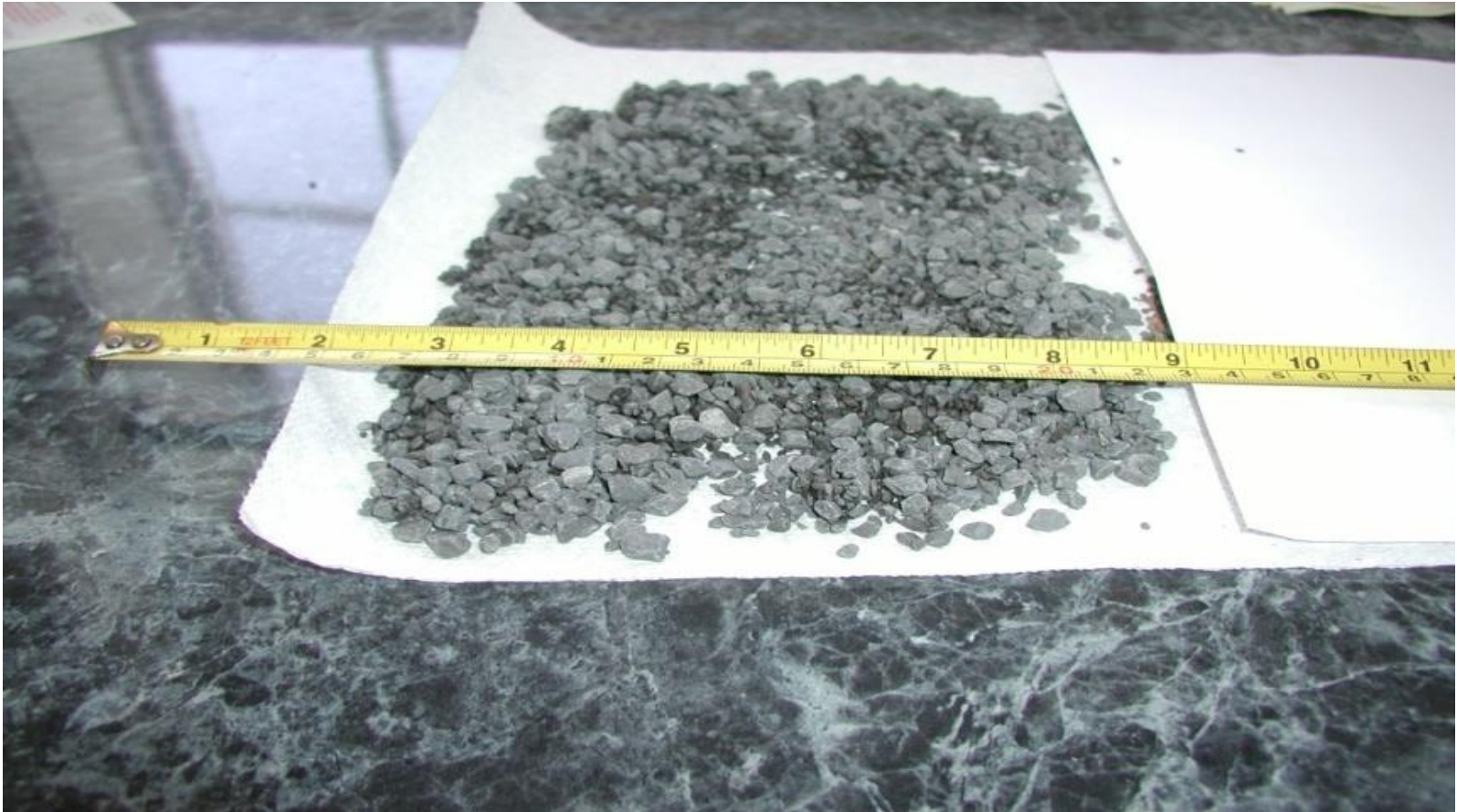
# Tyler County Acreage

- Production from Austin Chalk adjacent to JV acreage.
- Historic vertical wells drilled on JV acreage were targeted at deeper horizons but proved existence of Austin Chalk.
- Prolific Ergon Ratcliff and Ergon Rice wells both offset JV acreage
- Since farm-in in May 2008, Brookeland field has been proven to extend south to Pantheon's acreage.
- Geological confirmation. VRU#1 well proved extension of Brookeland field onto Pantheon's acreage. Modelled flow rates showed similarity to prolific Ergon Ratcliff well.
- Acreage now considered a development project by operator.
- Additional potential upside from deeper "Woodbine" zone.

## Flare at VRU#1 Presence of Hydrocarbons



# Rubble Zone Enhances permeability and porosity



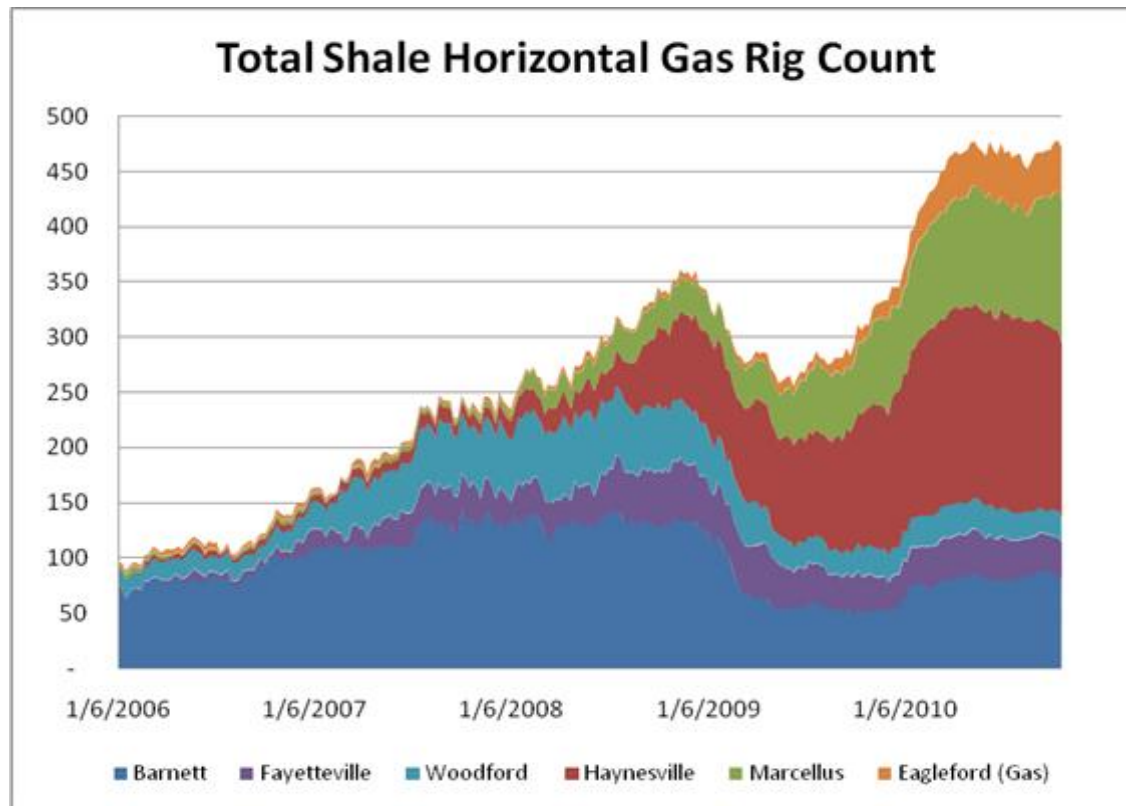
# Tyler County - Upside Potential

- Average JV reserve estimates of 8 bcfe per well have potential to be exceeded:
  - VRU#1 shows similarities to down-dip Giddings Field (Austin Chalk) well
  - Average down-dip Giddings wells >10 bcfe per well
  - Pantheon's JV acreage is down-dip portion of the Brookeland Field - similar geological setting
- Liquids yield may be greater than 5 barrels per mmcf
  - Positive impact on well economics.
- Overall Potential:
  - Austin Chalk: c.50 wells @ 8 bcfe = 400 bcfe
  - Woodbine: Unknown

# Woodbine – Additional Upside

- Woodbine is an independent and totally separate play from Pantheon's Austin Chalk project
- Sits directly below Austin Chalk target
- Existing Woodbine fields are generally prolific producers
- Austin Chalk remains primary target but next well permits testing of Woodbine at modest incremental cost
- Woodbine zone proven to exist on Pantheon's acreage
  - Vision LP#2 (pre farm-in) well currently producing from Woodbine on acreage with estimated reserves of 5 bcfe
  - Subsequent seismic mapping on Pantheon's acreage has occurred after LP#2
  - As a result the operator has identified a high potential Woodbine target
  - Target offsets LP-2 and is in a similar geological setting to Double A Wells Field
  - Potential for material upside for modest incremental cost (US\$0.25 million net to Pantheon) for second well

# Macro Economic Data



Dramatic increase in horizontal gas rig activity has resulted in a delay in the drilling programme until an estimated December 2010 to January 2011.

# FUTURE PLANS



## Plans Going Forward - JV

- A three hole Phase 1 program is initially planned to test each of the currently defined high-priority targets at Oak Dam South, Canegrass South and Winjabbie East Prospects
- Xstrata Copper plans to commence drilling at Oak Dam South February 2011 subject to availability of a suitable rig and written confirmation of relevant site clearances
- Both Argo and Xstrata Copper have planned for success and are awaiting written confirmation of a number of Phase 2 drill sites verbally approved during recent cultural heritage clearance surveys
- Xstrata Copper plans to finalize 3-D modeling of entire EL4164, including the proven fertile IOCG system at Emmie North Prospect
- 3-D modeling at Emmie North Prospect will be integrated with MT survey results when to hand and potential further drilling assessed

## Plans Going Forward - Argo

- Within EL4284, conduct rain-delayed orientation biogeochemical, soil and lag surveys over both calcrete-defined geochemical anomalies and geophysically defined structural anomalies commencing Quarter 1, 2011
- Based on successful orientation surveys, conduct broad-scale surveys throughout EL4284
- Define targets for drill testing in EL4284
- Argo will continue to evaluate commercial opportunities to broaden its exploration portfolio



# Contact Argo Exploration

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