

MEETING MINUTES



MINUTES OF: AIFL Committee Meeting
 HELD AT: Toowoomba Library
 DATE: Thursday 26 May 2016
 COMMENCEMENT TIME: 9.00am

PRESENT:	Darryl Phillips, Jamie Grant, David Munro, Chris Wicks, Stewart Hayllor, Brydie Hedges, Richard McLean, Neville Wirth, Graham Burt, Nick Gifford
	Apologies: Stuart Armitage, Ian Valler, David Wolf, Steve Hanlon, Yihua Xu
CHAIRMAN:	Darryl Phillips
DISCLOSURES	

	Joint Meeting with Surat Community Reference Group	ACTION
ITEM 1 Joint SRG	Welcome – Leisa Elder Leisa Elder welcomed attendees	
ITEM 2 Joint SRG	Acknowledgment of Traditional Owners Safety moment – Sun Cancer Damage – Chris Wicks	
ITEM 3 Joint SRG	Arrow Update – Leisa Elder <ul style="list-style-type: none"> As part of the senior management changes under the Shareholder Agreement, a new Chief Operating Officer, Ivan Tan, will commence next week. Current COO Mike Grieve will be working for Shell Australia, based in Perth as VP Non-Operated Joint Ventures reporting to the Shell Australia Country Chair 	
ITEM 4 Joint SRG	<p>Project Update – Dave Munro</p> <p>Daandine Expansion Project:</p> <ul style="list-style-type: none"> Provides a 60% increase in Daandine CGPF production capacity. All three new compressors are now fully commissioned, handed over and the plant is running in steady state. This will boost operating capacity by about one-third. Project temporary office facilities have been demobilised. Flaring occurred through commissioning of the new compressors. Neville Wirth (AIFL Committee) asked if the gas produced was going to export. Dave Munro advised that some would be for export and some for domestic use. <p>Kogan North Field</p> <ul style="list-style-type: none"> Completed drilling nine 'twinning' wells on 3 May 2016. Completion of the wells is planned to commence late May 2016. Surface facilities construction will commence in Q3, 2016. The wells were twinned using existing well pads and targeting different coal seams. Ian Hayllor asked if the wells were still in the Walloons. Dave advised that they were just targeting the Juandah and the Taroom coal measures. <p>Meenawarra Pilot</p> <ul style="list-style-type: none"> This is in old pilot with pipelines back to Tipton. It has been historically difficult to operate. Arrow will be restarting the well in order to gain more production data. The well will start pumping week commencing 30 May 2016. Trudi Bartlett asked if this work would require further staff. Dave Munro advised that it was within existing contracts. Ian Hayllor asked where the pilot was connected to. Dave Munro advised it was connected to the Tipton Field. <p>Braemar 2 – Darryl Phillips</p> <ul style="list-style-type: none"> Currently undertaking major overhaul. This is the first overhaul of this nature. Overhaul scheduled to take 43 days and nights. At peak of workforce there will be 60 contactors on site. A de-stacking shed was constructed to move the turbine into for the overhaul. The majority of the workforce is from Australia; with Siemens specialists from Germany providing technical instruction. Temporary site works and facilities have been constructed on site. Safety performance – two minor first aid cases. Chris Wicks asked how much power the plant generated. Darryl Phillips advised it was a 450MW 	

	<p>plant. Producing enough electricity to power 45,000 houses which is about 6-7% of Queensland's power needs.</p> <ul style="list-style-type: none"> • Nev Wirth (AIFL Member) asked what is the expected life of the maintenance. Darryl Phillips advised that this was a 45,000 equivalent operating hour maintenance. The turbine would have another overhaul at 84,000 hours. The planned life of the plant is 30 years. Also have a process of circulating refurbished parts to other turbines as required • The next major outage would be 2019-2020. • Nev Wirth asked if the plant could be monitored for efficiencies and efficiencies gained also through minor maintenance activities eg hand washing of blades. Darryl Phillips advised the plant is continually monitored for efficiency and performance. Part of recommissioning is to compare results to those prior to the shutdown. 	
<p>ITEM 5 Joint SRG</p>	<p>Project Update – Planned Engagement – Brydie Hedges</p> <ul style="list-style-type: none"> • Proposed community engagement sessions to be held in late July 2016 in Wandoan, Miles, Chinchilla, Dalby and Cecil Plains. • These engagement sessions are to provide an update on Arrows operations including: <ul style="list-style-type: none"> ○ Ongoing domestic gas activities ○ Planned survey activities – ecology surveys across the basin ○ Research including Lone Pine Interconnectivity Trials and Tipton Seismic survey findings ○ Ground Water Monitoring Bore program. • Nancy Sommerfield asked how these engagement sessions would be advertised. • Brydie Hedges advised that advertising in local papers, local community newsletters, mail outs and emails to landholders would be undertaken. 	
<p>ITEM 6</p>	<p>Water monitoring – Simon Gossmann UWIR -</p> <ul style="list-style-type: none"> • Simon Gossmann provided an update on the UWIR from 2012. Arrow was required to undertake monitoring at 11 sites with 29 monitoring points. • The 2016 UWIR requires Arrow to undertake 11 monitoring sites (some sites have changed or have been delayed) and 30 monitoring points in 2016. 4 sites have been completed with 8 still to be done. • There can be several monitoring points within a physical site. • There has also been a request to install 4 sites by 2018. One of these sites has been completed. • One site at Wandoan has been delayed. • A question was raised if the Springbok Sandstone is in contact with the Walloon Coal Measures – The Springbok overlays the Walloons except where it has been eroded. At many locations the Springbok Sandstone has a very high content of mudstone and siltstone with very low permeability. This tends to locally isolate groundwater contained in the formation. <p>In response to a query at the March meeting from Lee McNicholl re depths for the UWIR monitoring site 28 -</p> <ul style="list-style-type: none"> • Located 14km west of Dalby. • 2012 UWIR required 4 monitoring points <ul style="list-style-type: none"> ○ Springbok Sandstone and Walloon Coal Measures (3 monitoring points) • 2 monitoring bores already drilled and completed • Springbok Sandstone was not present so 2016 UWIR moved this monitoring point to site 29 to the west. • Condamine Alluvium (57m deep) separated from first coal seam of Walloon Coal Measures (103m deep) by 54m of clay (80%), siltstone (12%) and sandstone (8%). <p>Water Bore Construction Types</p> <ul style="list-style-type: none"> • Arrow has developed a Basis of Design for ground water monitoring bores which outlines standard designs for groundwater monitoring bores. The standard design is chosen based on : <ul style="list-style-type: none"> ○ Number of formations being monitored ○ Type of formation(s) to be monitored <ul style="list-style-type: none"> ▪ Above Walloon Coal Measures (WCM) ▪ Within WCM ▪ Below WCM ○ Objectives of monitoring: <ul style="list-style-type: none"> ▪ Pressure/level ▪ Pressure/level and quality (OGIA require pressure data at all sites. • The varying construction types were discussed. 	

ITEM 7	<p>Research Projects</p> <p>Pest Management Activities – Brydie Hedges</p> <ul style="list-style-type: none">▪ Initial program undertaken over 12 days in March on Theten and Broadwater▪ Targeting wild dogs, feral pigs, foxes and cats through:<ul style="list-style-type: none">○ 11 nights of 'free feeding' to attract pigs○ 81 rubber leg hold traps○ 15 monitoring cameras• Trapped two wild dogs, six foxes, six feral cats and 13 feral pigs• Information on the animals' sex, weight, age and capture location was recorded• Genetic samples taken from wild dogs for future DNA testing• Stomach samples taken from all animals to determine the impact of pest species on the local environment and agriculture.• Ian Hayllor raised concerns regarding notification process during pest management activities. Leisa Elder advised Arrow had conducted an internal review following the concerns raised directly with Arrow by Mr Hayllor and issues will be addressed• Neville Wirth advised he believed that notifications have to be two-pronged and can't rely solely on a call only. Also advised that he believes that pig-shooting is more effective than pig trapping. The timing of work needs to take into account current cropping as it is prior to harvest that pig numbers are up. Stated that he fully supported Arrow getting all Theten neighbours together to ensure a coordinated approach. <p>Next stage:</p> <p>Pest Animal Monitoring and Research Program – Brydie Hedges</p> <ul style="list-style-type: none">• Darren Marshall's professional doctorate aims to demonstrate that integration of community engagement and biophysical research creates more effective species control.• Theten Farm will be a 'control site' with data collected through infrared cameras, trapping, fitting of GPS collars and tagging of feral pigs.• Open house will be held at Theten Farm on 12 & 13 July.• Data collected will inform effective management of pest animals on a landscape scale.• Nev Wirth commented that the most effective pig control is by helicopter shoot. Neighbours contribute to a shoot 2 times per year. He noted that pigs move up and down water courses. He fully supported the program.• Brydie Hedges advised the trapping in this part of the program was for collaring purposes only. <p>Mulch rehabilitation trial – Nick Gifford</p> <ul style="list-style-type: none">• The purpose of the trial is to identify the most effective and efficient use of mulch for rehabilitation in terms of:<ul style="list-style-type: none">○ Mulch properties such as texture/shape, size and age (eg fresh vs aged mulch)○ Application methods○ Preparation of underlying soil surface○ Minimising erosion and supporting re-establishment of vegetation.• Complements research undertaken in 2014-2015 on erosion and rehabilitation treatments.• Trial is currently underway under controlled conditions in a contractor's Toowoomba site to investigate the impacts of a number of treatments on germination rates.• Research outcomes to be finalised by end of 2016 and will be communicated to the committee. <p>Water geochemistry research</p> <ul style="list-style-type: none">• This project investigates the use of geochemistry and specialist isotopes to optimise water and gas extraction..• Overall the goal is to use geochemistry and isotopes to assess the proportion of groundwater coming from different parts of a co-mingled production well.• This would allow us to further optimise systems reducing the amount of water produced in production.• Currently in the analysis phase – testing specific units and developing geochemical relationships, including a sample collection of Juandah/Taroom specific production bores and monitoring wells.• Understanding of the groundwater at each site allows for better planning.• Ian Hayllor asked how water quality allows identification of coals. Nick Gifford responded that water quality is like fingerprinting. Carey Bradford provided further advice talking of the link between coal and water saturation	
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<p>ITEM 8</p>	<p>Legal standing of CCAs and rehabilitation of sites if a resource company becomes insolvent – Richard McLean</p> <ul style="list-style-type: none"> Typically, before an insolvency process would commence, the company would go to market. If purchased, the new owners would take on the responsibilities owed to the landholder. If the company were to become insolvent: <ul style="list-style-type: none"> administrators would be appointed to ensure those owed money receive payment landholder compensation payments fall into line with money owed (this may result in the compensation being paid out at a smaller proportion) <p><i>If a resource company becomes insolvent, where does a landholder stand regarding rehabilitation of the site?</i></p> <ul style="list-style-type: none"> Whenever a resource company applies for tenure it is issued an Environmental Authority : Companies are required to submit Financial Assurance (FA) against a plan of operations or for a large work program When FA is granted, application is made for 100% assurance against the full rehabilitation of the disturbed areas, including any associated infrastructure. The Department of Environment and Heritage Protection (EHP) calculation method is used and checked by EHP before the FA amount is accepted. This amount is then assured via bank guarantees from the resource company to EHP. If any issues with the works are identified by EHP, they have the ability to call on the use of the financial assurance for rehabilitation purposes, under the Environmental Protection Act. Alternatively, if the resource company surrenders the tenure they must meet the environmental authority (EA) rehabilitation requirements or EHP may call on the financial assurance to fully rehabilitate the area. This is insurance for the landholder that when the works are finalised the site can be rehabilitated even if the resource company doesn't undertake it. <p>Nev Wirth commented that this in an ongoing concern for landholders and the concern was not so much around rehabilitation but on water impacts. He also said they would be eagerly watching what is currently happening with the Linc Energy matter.</p>	
<p>ITEM 9</p>	<p>Arrow IFL Committee Membership update</p> <p>Some changes to the Landholder members of the committee are:</p> <ul style="list-style-type: none"> Jeff Bidstrup has resigned due to his business commitments A new member Graham Burt has been proposed for the committee. <p>These changes were endorsed by the meeting.</p> <p>The Chair thanked Graham for agreeing to join the committee and asked members to consider other landholders who may be interested in joining the committee.</p>	
<p>ITEM 10</p>	<p>Minutes of previous meeting & actions</p> <p>The minutes of the previous meeting in March have been sent to committee members. The minutes were endorsed by committee.</p>	
<p>ITEM 11</p>	<p>Aerial spraying, safety and SIMOPS - Follow Up</p> <p>Following up from the previous meeting Richard McLean has been in contact with local pilots to discuss risk mitigations.</p> <p>Issues of concern:</p> <ul style="list-style-type: none"> Generally, pilots familiar with the area are less of a concern; greater concern when pilots are brought in from other regions. Ensuring infrastructure maps provided to landholders are up to date. Providing details of infrastructure on neighbouring properties (within 300-500m of the boundary). <p>Risk mitigation:</p> <ul style="list-style-type: none"> Location and height of infrastructure to be shown on maps. Placement of infrastructure should be on edge of fields. Discussion around colour of infrastructure – Jamie Grant suggested. infrastructure could be orange to make more visible. Arrow explained that after landholder input they have revised the colour of infrastructure to minimise visual impacts. Arrow is planning to conduct a trial of new reflective signage and liaise with Pilots to do fly-over and report on visibility. 	<p>Richard Mclean</p>

ITEM 12	Drill Cuttings	Nick Gifford
	<p>Nick Gifford from Arrow updated the committee on Arrow’s Drill cuttings management practices. Key points from his presentation included:</p> <ul style="list-style-type: none"> • Change from disposing of drilling wastes (ground rock, water and drilling additives – KCL and bactericide) in landfills to trials of applying them directly to land, usually back onto the drilling pad, and monitoring any impacts. No oil based drilling fluids, drilling fluids containing concentrations of heavy metals or petroleum based drilling fluids are used by Arrow as drilling additives. • The trials have shown that re-use of drilling by-products are beneficial for rehabilitation and do not cause any environmental or soil impacts. There are also significant reduction in truck movements and cost savings. <p>Q&A</p> <ul style="list-style-type: none"> • Is there additional storage requirements? Nick advised that the land application process uses the current well site footprint so additional space is not required. • Discussion around containment on pad rather than broad scale spreading of the by-products. Arrow’s preferred approach is on pad. Jamie Grant and Nev Wirth suggested on pad containment also allows for better monitoring in the future. • Jamie Grant advised he didn’t have any concerns with the process, and had previously questioned the chemical composition of the by-products but subject to on-gong monitoring couldn’t see anything contained in the drilling products which would harm the land. • All landholders expressed interest in seeing a site in progress. Arrow advised they would seek to arrange a site visit on an upcoming groundwater monitoring site; and will also be setting up a time-lapse camera to collect images throughout process. 	
ITEM 13	Any Other Business	
	<p>Neville Wirth asked if Arrow had any information on water quality from their water monitoring bores as landholders are looking for info to help in assessing the availability of water for stock and domestic supply. Arrow advised the data is available via the Centre for Coal Seam Gas Water Atlas database and Arrow has provided specific bore information to landholders where monitoring occurs.</p> <p>Graham Burt asked:</p> <ul style="list-style-type: none"> • What does Arrow do with its produced water and brine? Darryl Phillips explained Arrow’s existing operations using beneficial use and brine dams. • What are the produced water levels? Darryl Phillips explained the volumes of produced water from the existing operations and noted that levels are much lower than had been previously anticipated. • What community and landholder concerns are raised with Arrow? Arrow advised that questions raised by community members are primarily around groundwater impacts and timeframes for development. Brydie Hedges advised that upcoming engagement sessions would provide community with an update on groundwater studies, findings from the seismic surveys, and an operational update. • Would Arrow use fracking at Tipton? Darryl Phillips advised that fracking is not required at Tipton. 	
ITEM 12	Next Meeting	
	<ul style="list-style-type: none"> • The next meeting is scheduled for 15 September in Dalby. 	

There being no further business, the meeting was closed at 12.00 pm.

CONFIRMED AS A TRUE AND CORRECT RECORD.

Chairman