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RIGHT WRONG.

# DIRECTIONAL DRILLING

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# Directional Drilling

- The original CSG projects concentrated on vertical wells with a typical well spacing of 750 metres or 400 metres depending upon the company you were dealing with, at depths of 600-1000 metres and generally the Walloon Coal Measures.
- Developments now mean that the companies are engaging in many different forms of drilling including horizontal multi-branch wells vertical multi-seam wells and multiple wells [see slide 2].
- The companies these days draft agreements to be as broad as they can. There are significant differences in terms of compensation claims and impacts generally depending upon the depth of activity and the extent of fracking etc.
- The companies like to say that impacts only relate to surface disturbance which is clearly wrong – the deeper the activity the more the traffic involved, the more fracking involved, the more water carted etc. etc.
- If companies are doing these activities under existing CCAs there may already be grounds for Landowners to apply for further compensation for a material change in circumstances.
- Landowner lawyers need to be across the importance of insisting upon identification of the particular type of activity involved and making clear what is being done and to what depth. We have had some situations where there are up to 7 different potential layers of commercial gas available involving depths of anywhere from 600m down to 4km. Multi-seam vertical drilling is but one of the issues.
- For today's talk however I will deal with the way companies sometimes get around problematic Landowners and/or ways they minimise their liability to compensate by directional drilling.
- [see slide 3]
- Notification to Landowner clients was given recently that a resource company intended to do directional drilling under that land. This followed a series of inspections of the property which our clients had assumed would lead to production activity on their land. The company had even provided the Landowners with a map showing a likely 3 wells when they were doing the initial surveys etc.
- The company then argued that because the directional holes would not intersect the Landowner's property until a significant depth under the surface and then ultimately access the Walloon Coal Measures a further several hundred metres thereunder, they did not need a CCA from the Landowner – i.e. the surface would in no way be disturbed. They said only preliminary activities were involved.
- It is important to understand the difference in the definition between preliminary activities and advanced activities [see slide 4, 5 & 6]
- You will see that an advanced activity is basically anything that is not a preliminary activity. Note however the examples given as to what an advanced activity may be. We believe it is an advanced activity.

- Consistent with the usual mantra the company argued:
  1. Our clients' property was vacant;
  2. There would be no surface disturbance;
  3. They would never have to enter the land;
  4. They would not be disrupting any business or land use activities;
  5. It would not be fracking;
  6. It would not be leaving drilling mud in the soil;
  7. There was no risk of subsidence;
  8. Noise impacts would be within allowable noise limits; and
  9. There was no risk of dust or light impacts
  
- The clients ultimately chose not to fight but it raised some very important issues for Landholders in our view.
  
- Consider for instance:
  1. Section 532 essentially provides that only eligible claimants have a right to compensation [see *slide 7*] – subject 1 argument not relevant for these purposes.
  2. If you are an eligible claimant then you are entitled to a CCA and therefore entitled to insisting upon the provision of information as to what they are doing and more importantly you are able to claim for the impacts of the activities on the neighbouring property and the project generally
  3. If subsidence, fracking impacts, leaking gas etc do occur then you are able to claim compensation.
  4. If you are not an eligible claimant and the impacts are an inevitable consequence of the activities and there is no negligence involved then you may not be able to claim compensation (save for one Section 532 interpretation argument not relevant for these purposes).
  5. You're also able to claim for any loss in market value you may have suffered due to the neighbouring activities and/or the project generally.
  6. In any event it seems to me that the activities are clearly advanced activities. How can you say that digging for a pipeline above the ground is an advanced activity but drilling holes and placing casing etc 600 metres under your land is not. The mere fact you don't see the hole or the pipes etc doesn't mean that it's not an advanced activity.
  7. It seems highly unlikely that there will not ultimately be fracking involved. This is an important issue. It seems to us that the mere fact the activities are out of site does not mean they are any less relevant to ascertaining what an advanced activity may be and/or the importance of acknowledging the Landowner as an eligible claimant. It also evinces a willingness by the companies to take advantage of shades of grey in the legislation.

## BASIN SUSTAINABILITY ALLIANCE AGM

### DIRECTIONAL DRILLING

18 October 2016

### COMPANY EXAMPLES: ARROW ENERGY BOWEN BASIN CSG PROJECT

- Horizontal multi branch wells - wells which steer through a coal seam and intersect a vertical well 400 meters away and side track after intersecting;
- Vertical multi seam wells – wells which intersect several seams;
- Multi pad wells:

Well Pad	Drilling Footprint	Operational Footprint
4 wells (2 vertical production conduit + 2 lateral wells)	130 m x 175 m (22,750 m <sup>2</sup> )	100 m x 155 m (15,500 m <sup>2</sup> )
8 wells (4 vertical + 4 lateral)	130 m x 235 m (30,550 m <sup>2</sup> )	100 m x 215 m (21,500 m <sup>2</sup> )
12 wells (6 vertical + 6 lateral)	130 m x 295 m (38,350 m <sup>2</sup> )	100 m x 275 m (27,500 m <sup>2</sup> )

## DIRECTIONAL DRILLING

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## P&G ACT – DEFINITIONS

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- **Advanced Activity:** For a provision about a petroleum authority, means an authorised activity for the authority other than a preliminary activity for the authority.
- Examples:
  - Levelling of drilling pads and sumps;
  - Earthworks associated with pipeline installation;
  - Vegetation clear-felling;
  - Constructing an exploration camp, concrete pad, sewerage or water treatment facility or fuel dump;
  - Geophysical surveying with physical clearing;
  - Carrying out a seismic survey using explosives;
  - Constructing a track or access road; or
  - Changing a fence line

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### **P&G ACT – DEFINITIONS - CONTINUED**

- **Preliminary activity:** for a provision about a petroleum authority, means an authorised activity for the permit or licence that will have no impact, or only a minor impact, on the business or land use activities of any owner or occupier of the land on which the activity is to be carried out.
- Examples:
  - Walking the area of the permit or licence;
  - Driving along an existing road or track in the area;
  - Taking soil or water samples;
  - Geophysical surveying not involving site preparation;
  - Aerial, electrical or environmental surveying; and
  - Survey pegging

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### **P&G ACT – DEFINITIONS - CONTINUED**

- However the following are **not** preliminary activities:
  - (a) an authorised activity carried out on land that
    - (i) is less than 100ha; and
    - (ii) is being used for intensive farming or broadacre agriculture;
  - Examples:
    - Land used for dryland or irrigated cropping, plantation, forestry or horticulture;
    - A dairy, cattle or sheep feedlot, piggery or poultry farm;
  - (b) an authorised activity carried out within 600m of a school or an occupied residence;
  - (c) an authorised activity that affects the lawful carrying out of an organic or bio-organic farming system

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## P&G ACT – SECTION 532

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- General liability to compensate:
  - (1) The holder of each petroleum authority is liable to compensate each owner or occupier of private land or public land in the area of, or access land for, the authority (an *eligible claimant*) for any compensatable effect the eligible claimant suffers that is caused by relevant authorised activities.