**Minute of the meeting of the Tinker Lane CLG held in Lound Village Hall at 7pm on Thursday 30th June.**

In attendance: Christie Willis, Rob Beouf, George Fridlington, Peter Thompson, Ann Fraser, Chick Fraser, Maureen Holdgate, Julia Kershaw, Rhonda Miller and Kate Parkin from IGas.

1. **Welcome and apologies**

Christie welcomed everyone to the meeting. Apologies were received from Michael Gray, Tracey Taylor, Philip Merchant, Sally Hill, Sharon Dyson, Bev Fullwood, Helen Wilson.

1. **Minute of the last meeting**

Given that the minute was only distributed earlier in the day it was agreed to defer agreeing the minute until the next meeting.

1. **Matters arising**

Rhonda gave a document to Julia explaining that the NFU had stated that they would provide insurance for households near sites which were to be fracked. For clarification the full statement is attached to the back of this minute.

Rob stated that this still meant that if there was any claim the householder would have to pay the excess which is generally £1000. He felt this was unfair but made it clear that he feels this is an issue which should be addressed at a government level. Rhonda assured him that UKOOG are talking to government about the issue of insurance.

1. **Presentation by Kate Parkin, Senior Geologist with IGas**

Kate introduced herself and explained that she works on both the Tinker Lane and Springs Road development.

She explained that the reason for drilling the well was to evaluate the resource potential of the Bowland Shale by carrying out a comprehensive data acquisition programme including wireline log data and coring at prospective intervals. She explained that wireline logging meant putting a cable down the well and then attaching various tools to acquire different pieces of data.

Kate then went on to describe the geological background to the area, showing how the Gainsborough Trough was created 350 million years ago. She outlined what the world would have looked like at that time and explained that tectonic plates shifted over time which caused rifting, thus creating basins where material collected and eventually became shale as we know it.

The shales are buried and then heat up which converts the organic matter into either oil or gas depending on the original materials.

Kate then moved onto explain that they had drilled the Scaftworth B2 well into the Bowland Shale some time ago and showed the wireline logging data which they had gathered from this site (which is around 7 km north of Tinker Lane. She explained what the data meant and showed a picture of an outcrop of Bowland Shale which can be seen in the Pennines.

She then moved on to talk about PEDL 200 specifically. She showed a map which detailed the mine workings in the area and stated that she had been to the Coal Authority and looked at other data held by IGas and in public records and felt confident that these were correct. She had also looked at various data gathered from boreholes in the area. It was pointed out that the nearest mine workings were around 1km from the Tinker Lane site. Around 40 boreholes have been drilled within this PEDL and 18 of these have gone below 600m with no issues, so there is a large amount of data. Most of these have been extensively cored with comprehensive descriptions.

She pointed out that Harworth Colliery has been mined since the 1980s (1960s for the area just to the west of the map) into the 1990s. The colliery was finally shut in 2006. The extent of mining is driven by the presence and quality of the coal seams and any geological disturbance i.e. faults.

According to the Notice of Abandonment produced by UK Coal Mining Ltd. for the Harworth Colliery, underlying PEDL 12, the extent of coal mining was driven by several factors, varying geographically:

North: presence of Rossington Colliery

West: faulting

East: deterioration of coal seams

South: deterioration of coal seams

Kate clarified that ‘deterioration’ in this context means that there is less available coal and so it is less economically viable to continue.

Tinker Lane sits to the south where the extent of the mine workings was driven by a deterioration in the quality of the coal seams, and not due to the presence of faulting. Most noticeable is the Torworth borehole itself, ~200m from the Tinker Lane site, which has no evidence of faulting in the core descriptions.

She then went on to explain that she had studied many of these boreholes. Faulting ranged from no faulting to a few feet of fractured zone.

Small scale faulting and fracturing is a very common feature within coal seams and does not necessarily imply a large fault. The continuity of the longwall mining within the Harworth Colliery also attests to a lack of large scale faulting in this area.

In response to a question Kate clarified that there had been two boreholes drilled close at Lound One was at Daneshill, known as Lound 1, and the other was drilled by the Coal Authority and is known as Lound.

A paper had been produced by Al Fraser in 1990 which did show faulting close to the Tinker Lane 1 site. However, this interpretation came from a number of different 2D seismic interpretations covering several BP licenses.

In discussions with the author of the paper he confirms that the interpretation is robust over the specific license positions but did not have the same level of detail applied outwith these areas. As can be seen in the presentation, PEDL 200/12 sits within an area that was not part of the BP acreage and it is highly likely that the faults were extrapolated across this area in a fairly broad brush manner (filling in the blanks and joining up known faults across unknown areas.)

Again the boreholes shown in the presentation are the ones that have indications of faulting from the very small to the more significant especially the Forest Hill borehole to the south, however, there is little correlation between fault or fault related features in the remaining boreholes and the CLS faults seen in Fraser’s interpretation.

Most noticeable the Torworth borehole itself, ~200m from the Tinker Lane site has no evidence of faulting in the core descriptions.

Kate explained that she had used 2d seismic data of which there was a large amount, particularly running through Tinker Lane. The data had been reprocessed, which improves the imaging quality, although it was of good quality anyway.

Rob asked why IGas would not consider gathering 3d data now, as this would alleviate a lot of the communities concerns and Kate answered that IGas feel the data they have is of a good quality.

Christie commented that the people of Torworth had always been told that the reason they stopped coal mining in the area was because of faulting under the area. Although Kate reiterated that there is no evidence to support this, rather a great deal of evidence to support there not being a fault present, Christie maintained that everyone talks about this and so she is sceptical.

Peter asked whether obtaining 3d seismic would remove any doubt and Kate replied that it would depend on the interpretation of the data, whilst she agreed with Peter that the more data that can be obtained the better the knowledge, it still comes down to how the data is interpreted.

Rob asked whether it is possible to carry out a localised piece of 3d gathering? Kate explained that it was necessary to have a certain size of area for effective data gathering, so that signals can bounce back from lots of locations to the receivers.

Rob reiterated that carrying out 3d seismic would remove the risk and he was not happy that the risk lay with the community and the reason not to do it was purely cost. Kate stated that the risk with drilling a vertical well was low risk but Rob suggested that IGas planned to carry out a ‘mini frack.’

There followed a conversation as to whether the pressure test IGas propose to carry out is in fact a ‘mini frack.’ Whilst Rob is convinced that this is the procedure being planned, Rhonda and Kate stated that this is not a mini frack but a pressure test at low pressure with fresh water and with no fracturing taking place. Rob stated that he would be objecting on these grounds.

Christie expressed concern that this procedure might cause a tremor but Kate reassured her that this could not happen given the depth of the procedure and how localised it would be. She also clarified that the aquifer sits at depths of 300m, so 1500m between it and the Bowland Shale.

To summarise Kate said that this was a vertical well with no hydraulic fracturing. There have been a large number of boreholes drilled across the area with no problems from pre 1940s until 2014. She sees minor faulting in the coal measures as expected, but no evidence of any faulting which would impact upon this development.

Kate then gave more detail of the samples that would be obtained during the wireline logging, all of which helps to understand the characteristics of the rock and helps with evaluation. This would be done as soon as the well has been drilled.

Kate explained that it would take about a week to carry out all of the exploratory work and then the analysis will take some time – up to two years. This is all desk based work.

1. **AOCB**

Christie asked if everyone has gone through the Planning Application with their parish councils?

Chick reported that they had carried out a survey which showed 22 for, 70 against and 37 undecided. He said that the parish had gone through the application and that the difficulty they are having is that they feel there is not an issue but some of their constituents feel differently.

Maureen said that it is impossible to drum up any interest.

Rob reported that his parish are overwhelmingly against, but he could not provide numbers.

There was a conversation about the extension which had been granted until the 22nd of July. It was felt that this was an extension for the general public and not for Parish Councils. Christie recommended that PC’s should write individually to ask for an extension.

Christie asked Rhonda for feedback on the public exhibition which had been held in Blyth on the 29th. Rhonda reported that there had been a low turnout of only 31 people but that those who had attended had been local and had asked lots of questions. The group agreed that it was unfortunate that more people hadn’t taken the opportunity to visit the exhibition.

**ACTION: Rhonda to send out the contents of the new boards to everyone.**

Christie had a question relating to the planning application. On the site plans there is one small box which is not labelled and she asked Rhonda to find out what the box stands for.

Christie informed the group that Notts CC have invited the regulators to a meeting with parish councils on Wednesday 6th July. Rob will be going along.

Also on Wednesday Bassetlaw District Council will be considering their response as a statutory consultee on Tinker Lane at a planning committee meeting. Christie will be speaking on behalf of the Torworth parish. If you wish to speak you must let the Council know in advance.

Christie asked if it was possible for the group to be copied into any results from the Ground Water Monitoring Boreholes. It was pointed out that the EA had agreed to this at an earlier meeting. The data would also be available on the website.

**ACTION: Christie to follow this up with the EA.**

 **Rhonda to send Christie contacts at EA and HSE.**

Rob noted that Jayne Watson had received hard copies of all statutory comments from Notts planning department and the TL CLG should receive the same.

1. **Date of Next Meeting**

The next meeting will be held on Thursday 28th July at 7pm in Lound Village Hall.

**ACTION: Rhonda to provide speaker. TESLA if possible but otherwise IGas seismic expert.**