Trans Adriatic Pipeline

Response to issues raised in the Tenagi area of Kavala regarding TAP

1. Peat self-ignition

- The approved pipeline route is outside the "Peat Zone," and just a small section of it lies within the "Transition Zone"
- Boreholes taken from this "Transition Zone" show that the likelihood of self-ignition is not supported.
- In the published research of the Aristotle University of Thessaloniki "Geophysical survey in the Tenagi Area,"[1] it states that there is no peat layer in the area of TAP's new route. More specifically, geotechnical borehole data from the area indicate deeper clay-sand formations with some gravel, and no peat content

2. Ground subsidence

- The approved pipeline route is outside the "Peat Zone" and therefore not affected by subsidence.
- Even at the very low rates that subsidence might occur, the pipeline is designed to be flexible enough to absorb the movement and follow the ground profile.
- Additionally, the weight of 1.3m of soil over the pipeline acts to restrain and prevent it from rising up out of the ground.
- In the studies published by the Aristotle University of Thessaloniki "Verification of Pipeline at Special Ground Conditions"[2] and "Assessment of Ground Deformations in Areas with Special Soil Conditions,"[3] it is stated that "the strains induced in the pipeline are small, and do not impose a threat for the integrity of the pipeline."

3. Ploughing Depth

- In agricultural areas the pipeline is installed at a minimum depth of 1.3m, assuming 300mm of top soil. This is below the reach of most farming equipment (penetrating up to a maximum depth of 500mm) that range between 200 and 300mm, thus leaving a clearance of approximately 1m.
- The pipeline has warning tape and marker posts to ensure the location is known.

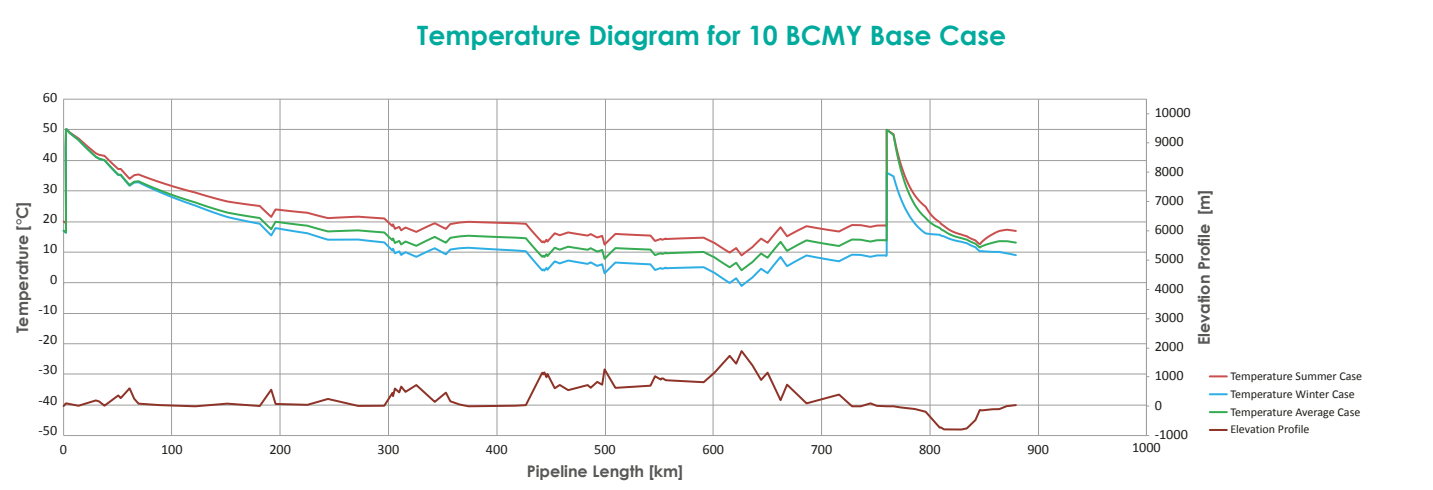
[1] Team of Professor Constantinos Papazachos (September 2014).

[2] Seismic Design Study - WP8 - Verification of Pipeline at Special Ground Conditions, Team of Professor Constantinos Papazachos (January 2015).

[3] Seismic Design Study - WP5 - Assessment of Ground Deformations in Areas with Special Soil Conditions, Team of Professor Constantinos Papazachos (January 2015).

4. Ground Temperature

- The temperature of the pipeline matches the ambient ground conditions, typically around 16oC. In winter this may be lower, but in no instance will the temperature of the ground at 1.3m depth drop below the freezing point.
- As shown in the temperature diagram below, the two peaks relate to the compression temperature of the gas at each of the two compressor stations. The smaller temperature changes reflect terrain effects from decreases and increases in elevation. More specifically, the higher the altitude, the lower the temperature, which in turn is well above zero on flatlands.



5. Cultural Heritage

- TAP is at a safe distance from any known archeological sites or monuments in the vicinity, and does not have any impact on the status of the Battlefield of Philippi as a UNESCO World Heritage Site.
- TAP has signed an MoU with the Ministry of Culture and Sports, as well as local Ephorates of Antiquities, while its route has been unanimously approved by the Central Archeological Council, having taken into account all known areas of archeological interest.
- Local Ephorates of Antiquities have also agreed to monitor TAP's construction, as well as undertake any archeological rescue that might occur during works.
- TAP currently collaborates with 13 Ephorates of Antiquities across Greece (one per Regional Unit traversed by the pipeline), archaeologists and archaeological workers. At the peak of construction, their number reached ca. 650 people.

6. Town Planning/Future Expansion

- The pipeline is fully compliant with relevant Greek technical legislation, in particular the Ministerial Decision No. D3/A/OIK. 4303 PE 26510 "Technical Regulation on Natural Gas Transmission Systems with Maximum Operating Pressure over 16 bar" and its amendments.
- There is no absolute building restriction inside the 200m zone on either side of the pipeline, only a requirement to check the number of structures (building density) that can be built in this area.
- Only within the 20m zone on each side of the pipeline no habitable buildings are allowed.
- The current wall thickness (class location) allows up to 10 houses per 1.6km /1 mile (in length) of pipeline inside the 200m zone.

7. Water Table Effect

- The pipeline will not impact seasonal water table changes, as it is placed in native fill material, compacted to match surrounding soil conditions, so as to allow ground water to migrate around the pipeline.
- Moreover, the weight of 1.3m of soil over the pipeline acts to restrain and prevent it from rising up out of the ground. Consequently, no additional measures are required at this location.