



Steve Castle travels down Boulby Potash mine to discover more about a vital ingredient for golf course fertiliser

GOING UNDERGROUND

I'm three quarters of a mile beneath the ground, six miles out under the North Sea, and a burly miner, visible only because of dim torchlight and his orange uniform, is tucking into a lunch of Dairy Lea Dunkers. Just another average Tuesday afternoon for the intrepid turf journalist.

The location is the east coast of Yorkshire and I'm watching on as workers at Boulby Potash mine operate a huge machine which is prising potash ore from the earth. The mine is run by Cleveland Potash Ltd - a wholly owned subsidiary of Israel Chemicals Ltd - and I'm on site to discover more about the beginning of the fertiliser production process.

Potash is the common name for potassium chloride, and Boulby Mine produces over half of the UK's annual supply - from a staggering 2.4 million tonnes of potash ore a year.

This dark, warm and dusty atmosphere thus eventually leads to the production area of polyhalite, a different seam, some 140m beneath the potash - which contains potassium sulphate, calcium sulphate and magnesium sulphate. This polyhalite, a unique, organic mineral, is the key ingredient of Evertis's ProTurf fertiliser - which we would learn more of later.

After an informative briefing from our guide Neil Rowley, we don the all-orange outfit worn by the workers.

This features an oxygen self-rescuer (which converts CO to CO₂ if smoke inhalation occurs) clinging to the belts we wear in case of fire.

We file into a small, dark lift which then plunges at surprising speed beneath the earth. We then walk through piles of silvery dust before we reach a Ford Transit which will shuttle us 45 minutes to the face where the mining is taking place.

The vehicle trundles through the darkness. One of my colleagues compares the landscape to a Terminator film. It does almost seem post-apocalyptic. The roof is low and it's stuffy and warm - around 32C - as the Transit rattles along a path of compacted dust in the gloom.

I'm astonished at how far we have to travel. There seem to be no obvious points of reference, with only the odd safety refuge point and mechanical station to be seen. It's hard to imagine that this is someone's daily commute.

At the face we meet several miners, who are happy to chat about their work. Some of the workforce began as coal miners before joining Boulby, and all have several years of experience as a necessity to allow them to work at the face and operate the huge, complex and potentially highly dangerous machinery.

As well as potash, Boulby produces between 0.5 - 0.8 million tonnes of rock salt



annually, which is the crucial substance which de-ices UK roads.

The end result of all this labour and expense goes into ProTurf - a high impact fertiliser with a combination of controlled release and conventional release of nitrogen designed for use on all outfield turf areas.

The polyhalite ensures all macro nutrients are delivered in one application, and rates are flexible due to the small granule size.

It's been a fascinating experience as I'd never before considered the sheer scale of the technical and human operation required to produce this substance which then goes into fertiliser.

From this weird, arid environment comes the building blocks for the fine turf we see on fairways, tees, surrounds, approaches and lawns.

All things considered though I'm happier to view the North Yorkshire coastline from a more traditional vantage point above ground.