

Engineering Consultancy Group

REPORT PREPARED FOR
Adrian Frost
Technical Services DETL

STRUCTURAL INSPECTION
AT
TROOPERS HILL CHIMNEY

29th October 2004



Report Prepared by:

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History

The chimney on Troopers Hill near St. George is a very well known Bristol land-mark which dates back to a time when this area was mined for coal, copper and clay etc

The chimney is thought to have been built in 1863 as a vent for sulphurous smoke produced by William Butler's Tar distillery at the bottom of the hill. It has been disused since 1969.

Extensive repointing of the chimney was carried out in 2001 (3 years ago)

Leans to the west

Site Survey 29th October 2004

The survey was carried out from ground level, so the condition of the upper levels could not be assessed.

The chimney sits in an exposed position at the top of Troopers Hill, overlooking the river below. Trooper's Hill itself is dominated by pennant sandstone. Several deep coalmines run under the hill and a small amount of opencast mining was done on the hill in the early 1900s.

The chimney is predominantly constructed of local stone with some brickwork features. It appears to be in relatively good condition although it does have a pronounced lean, (to the west?) which may pose problems in the future. Generally the pointing is in good condition although some areas need attention to prevent water ingress.

There is a crack at the front extending up from ground level to approx 3-4m in height. This should be pointed up, as water will infiltrate the wall and when freezing will expand and cause further cracking.



Conclusions

There is little cause for concern other than the movement out of vertical that has taken place. It is difficult to predict if the chimney is still moving without knowing its previous history, and I think it is vital that some form of monitoring is put in place to record future movement (if any).

Recommendations

Monitor by measuring key points with total station. Measurements to be taken quarterly for 12 months before re-assessing the situation.

Arthur Richards

