



# “Enhanced borehole stability and lubricity”



## Introduction

In many respects, the Q'Vert system—a  $\text{CaCl}_2$  brine in oil emulsion—can be described as an ideal fluid because, if chosen properly, its interaction with the formation rock is almost zero.

Primarily, this system is used to provide borehole stability across water sensitive shale. Capillary pressures, convex meniscus in capillaries and osmosis are responsible for shale inhibition.

In its unweighted form—which allows for densities below water gradient—Q'Vert can be used for high ROP drilling.

Several formation damage mechanisms are eliminated when Q'Vert system is used however, it is not a formation impairment-free system. The characteristics of fluid/rock system have to be considered as well as the whole chain of workover operations.

## Applications:

- Deep, foothills wells through water sensitive shale formations
- Deviated wells where borehole stability is of concern
- Horizontal wells in pay zones where water related damage mechanisms have been proven

## Benefits:

- Enhanced borehole stability and lubricity
- High ROP
- Ease of use and adaptability
- Re-usable/returnable
- Cost effective
- Q'Max provides full service laboratory to custom blend recipes for specific applications

# Q'Vert System™

[www.qmaxsolutions.com](http://www.qmaxsolutions.com)

## Q'Max Canadian Plants

Depending on operators' focus on H&S economics and drilling performance several different base oils can be used to custom-fit a Q'Vert System. Our experience with base oils include recycled lube oils, diesels, distillates, low toxicity mineral oils and high grade synthetic oils for offshore applications. At Q'Max Solutions, we continue to develop the Q'Vert System to exceed the industry standards.



### Grande Prairie, Alberta

60 m<sup>3</sup> pre-mix tank  
1200 m<sup>3</sup> storage capacity



### Edson, Alberta

30 m<sup>3</sup> pre-mix tank  
1000 m<sup>3</sup> storage capacity

**Mount Pearl, NFLD** - Operational since July, 2003

**Characteristics:**

- 60 m<sup>3</sup> premix tank
- 400 m<sup>3</sup> storage capacity

