

## HYDRAULIC CONDITIONS

**Well name:** BLM-39 **Well location:** SW ¼ NW ¼ SE ¼, S33, T20S, R3E **B.C. elev.:** 4634.85'

**Depth to water (first noted in drilling):** Not apparent when drilling with mud.

**Depth to water table:** 357' (following post-development recovery)

**Formation at depth where water was first noted:** Geophysical logs indicate first water at 390'.

**Borehole diameter:** 17.5"-12.25"

**Total depth of borehole:** 620'

**Total depth of well:** 596.5', conventional/ 585' Westbay®.

**Type of well:** Westbay® retrofit into 4.5" OD stainless steel.

**Well diameter:** 4.5" OD (SS),  
1.5" OD (Westbay®)

**Screened (conventional) or packed (Westbay®) interval(s):**

Westbay® port 345', screen 340.5-350.5', sand pack 331-354'  
Westbay® port 385', screen 380.6-390.6', sand pack 374-399'  
Westbay® port 560', screen 556-566', sand pack 548-572'

**Lithologic description of screened or packed interval(s):**

340-350': Santa Fe Alluvium; 30% grey-green (10GY 5/2) to grey black (N2) limestone, 50% grey-orange (10YR 7/4) to reddish brown (10R/4/6) volcanics, clasts angular to subrounded 1-15 mm, 20 % tan clay.

380-390': Altered rhyolite tuff; pinkish grey (5YR 5/1) to light brown (5YR 6/4) and weathers the same, consists of 10% subhedral plagioclase phenocrysts and 10% subhedral quartz phenocrysts within an 80% clay-altered, felsic matrix. The chips are extensively altered and easily break between the fingers.

556-566': Altered rhyolite to rhyolitic tuff; very pale orange (10YR 8/2) weathers some, aphanitic, no distinguishable crystals within sample. Note: significant down hole contamination. Approximately 30% clay alteration.

**Pertinent observations and/or interpretations:**

**(ie. Confined, unconfined, rapid/slow recovery rates, etc.)**

Semi-confined conditions (based on IS-1 pump test). Recovers slowly.

**Pressure profile summary (Westbay®):**

**(ie. Vertical gradients, hydrostratigraphy)**

Piezometric level at 345' = 343.73'; at 385' = 356.19'; and at 560' = 400.71'. Downward vertical gradient.

**Pertinent Information on conditions in surrounding wells:**

**(ie. potential comparisons)**

Behaves similarly to BLM-38 and within expectations of a MPCA location.