CLAIMS:

1. A hydraulic circuit for supplying hydraulic fluid to a subsea control module of a control system for an underwater hydrocarbon well, comprising:

an input for hydraulic fluid;

a filter connected to the input for filtering hydraulic fluid from the input;

an output for supplying hydraulic fluid from the filter to the subsea control module;

first sensing means for sensing pressure of hydraulic fluid from the input upstream of the filter;

second sensing means for sensing pressure of hydraulic fluid downstream of the filter at the output of the filter; and

a subsea electronics module in the subsea control module, the subsea electronics module being coupled with the first and second sensing means and being adapted to produce an indication related to a hydraulic fluid pressure differential across the filter.

2. A circuit according to claim 1, wherein there is at least one further such subsea electronics module in the subsea control module for redundancy purposes, the or each further subsea electronics module also being coupled with the first and second sensing means.

3. A circuit according to claim 1 or claim 2, including:

a further input for hydraulic fluid and a further filter, connected to the further input for filtering hydraulic fluid from the further input, the output being connected for use in supplying hydraulic fluid from the further filter to the subsea control module;

means for selecting whether the output of the hydraulic circuit supplies hydraulic fluid to the subsea control module from the first or the further filter; and

further such first sensing means, for sensing pressure of hydraulic fluid from the further input upstream of the further filter, further second sensing means sensing pressure of hydraulic fluid downstream of the further filter at the output of the filter, the or each subsea electronics module being coupled with the further such first sensing means and being adapted to produce an indication related to a hydraulic fluid pressure differential across that one of the first and further filters which is supplying fluid to the output.

4. A circuit according to claim 3, wherein the first and further such first sensing means comprise respective ones of transducers between the first and further filters and the first and further inputs.

5. A circuit according to any preceding claim, wherein the second sensing means comprises a transducer between the selecting means and the output.

6. A circuit according to any preceding claim, wherein the second sensing means comprises respective ones of transducers between outputs of the first and further filters and the selecting means.

7. A method of monitoring a filter in a hydraulic circuit for supplying hydraulic fluid to a subsea control module of a control system for an underwater hydrocarbon well, the circuit comprising:

an input for hydraulic fluid;

a filter connected with the input for filtering hydraulic fluid from the input; and

an output for supplying hydraulic fluid from the filter to the subsea control module, wherein the method comprises:

sensing pressure of hydraulic fluid from the input upstream of the filter;

sensing pressure of hydraulic fluid downstream of the filter at the output of the filter; and

using software algorithms within a subsea electronics module in the subsea control module to produce an indication related to a hydraulic fluid pressure differential across the filter, the subsea electronics module being coupled with the first and second sensing means.

8. A method according to claim 7, wherein the circuit includes a further input for hydraulic fluid and a further filter, connected to the further input for filtering hydraulic fluid from the further input, the output of the further filter being connected for use in supplying hydraulic fluid from the further filter to the subsea control module, the method comprising:

selecting whether the output of the hydraulic circuit supplies hydraulic fluid to the subsea control module from the first or the further filter; and

sensing pressure of hydraulic fluid upstream of the filter supplying hydraulic fluid to the output and sensing pressure of hydraulic fluid downstream of that filter, at the output of the filter the subsea electronics module being adapted to produce an indication related to a hydraulic fluid pressure differential across that one of the first and further filters which is supplying hydraulic fluid to the output.