

METHODS AND SYSTEMS FOR PROCESSING CRUDE OIL USING CROSS-FLOW FILTRATION

ABSTRACT OF THE DISCLOSURE

Methods and systems for processing crude oil comprise adding water to the crude oil to produce an emulsion comprising brine and oil and solids; separating oil from brine including producing brine comprising a rag layer; separating the rag layer into a hydrocarbon emulsion having finer solids and brine comprising larger solids; and passing the hydrocarbon emulsion along a cross-flow filter to produce a retentate comprising brine and solids and a permeate comprising hydrocarbon.

Figure 1