



Determination of the Concentration of Multiple Ions in Crude Oil Extract

Required Apparatus:

CleanGrow's Multi-ion probe
CleanGrow's handheld portable meter
Separating Funnel
Funnel
Filter paper
Conical flask / vessel

Required chemicals:

CleanGrow's multi-ion conditioning solution
CleanGrow's CRUDE OIL multi-ion calibration solutions
Deionised water

Sample Preparation:

Shake the crude oil / water sample to ensure all the ions are in the aqueous phase. Allow the mixture to settle out and using a separating funnel remove the aqueous layer. The aqueous layer will then need to be filtered to remove any remaining oil particles as they may damage / adhere to the probe.

Set up a funnel with folded filter paper in a conical flask or any suitable vessel. Pour the liquid into the funnel and allow the mixture to filter. Collect the filtrate.

Calibration:

Before use, the multi-ion probe must be conditioned in CleanGrow's multi-ion conditioning solution. Ensure the correct calibration solutions for a three-point calibration are set up on the handheld meter. Follow the instructions for calibration and proceed to take a sample reading when the calibration data is 'very good' or 'good' for all ions.

Sample Reading:

Place the probe in the aqueous extract and 'Take a Sample' reading. The concentrations for each ion will be displayed in ppm or mmol / L.