

OIL - WATER SEPARATION SYSTEM



HydroReserve hydrocarbon water separator

HYDRO RESERVE'S SEPARATION SYSTEM

is for treating oil and gas process wastewater volumes ranging from 1,000 to over 100,000 barrels per day. This equipment takes petroleum based wastewater and separates hydrocarbons and other contaminants for reuse. It will improve water quality with less cost and more efficiency than distillation, on-site removal and conventional wastewater treatment.

Oil and gas extraction processes generate high volumes of water contaminated with hydrocarbons and salts. This highly regulated waste stream must often be transported to a central processing facility. The transportation and processing is costly and results in very high water treatment expenses.

Hydro Reserve offers an innovative, low cost solution for on-site treatment of hydrocarbon contaminated water. The effluent stream is safe for water table infiltration and can be reused for agriculture or other process applications.

TECHNOLOGY

Hydro Reserve uses filtration technology that physically separates hydrocarbons and salts from clean water.



FILTRATION

The Hydro Reserve system uses membrane filtration to filter salts, TSS, TDS, BOD, COD, and oil and grease.



WATER RECYCLING

The Hydro Reserve system allows owners to resell the processed water to local users. In addition, the filtered water can be reused in the oil and gas extraction process.



SYSTEM BENEFITS



LOW MAINTENANCE

Reliable for long intervals with minimum maintenance required. The system backwashes automatically and system controls alert operators to status of primary components.



SCALABLE

The Hydro Reserve System can be scaled to treat from 1,000 to over 100,000 barrels per day. The only real limitation is the available mechanical space.



AUTOMATED CONTROLS AND REPORTING

Hydro Reserve's Proprietary Control System monitors all system activity. Data and alarms are reported locally and communicated to remote data collection sources.



INTEGRATED SYSTEM DESIGN

Comprehensive system designs include all pumps, storage, filtration and controls. Systems are pre-built on skids, tested and delivered ready for installation.

| HydroReserve Water Quality Data | |
|---------------------------------|----------------------------------|
| Turbidity | ≤ 0.5 NTU |
| TSS | none detected |
| TDS | to meet requirements |
| E.coli | 7 log reduction none detected |
| CBOD | ≤ 2mg/L MDL |
| Odor | no odor |