

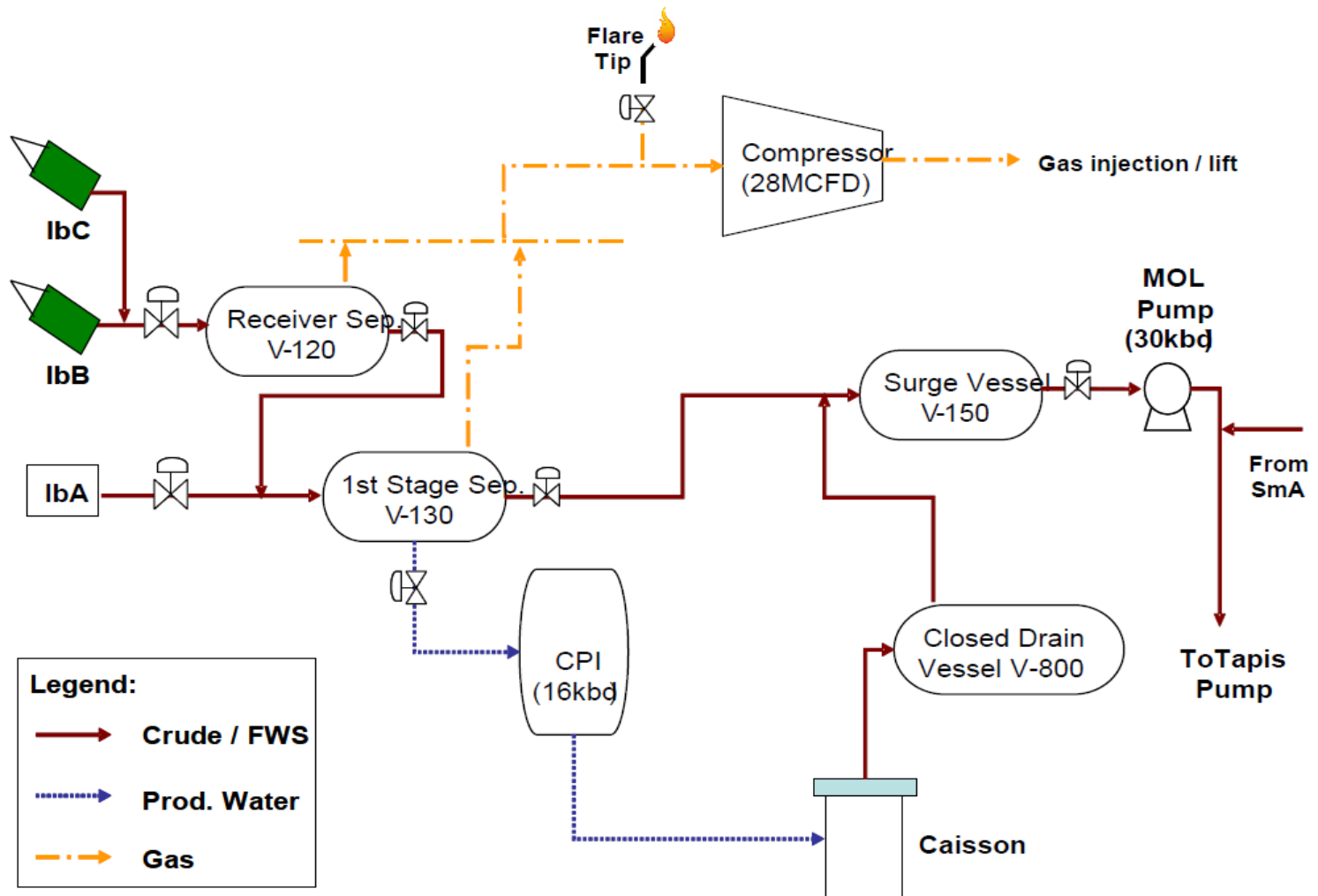


SAND FORUM

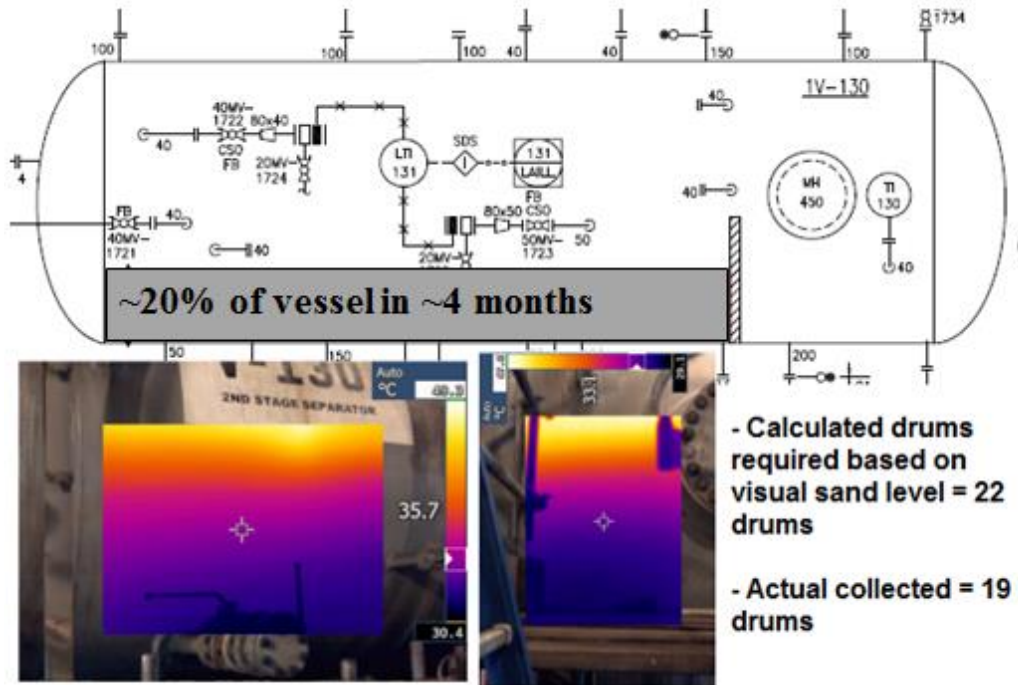
Energy lives here™

This presentation includes forward-looking statements. Actual future conditions (including economic conditions, energy demand, and energy supply) could differ materially due to changes in technology, the development of new supply sources, political events, demographic changes, and other factors discussed herein (and in Item 1A of ExxonMobil's latest report on Form 10-K or information set forth under "factors affecting future results" on the "investors" page of our website at www.exxonmobil.com). This material is not to be reproduced without the permission of Exxon Mobil Corporation.

PROCESS OVERVIEW



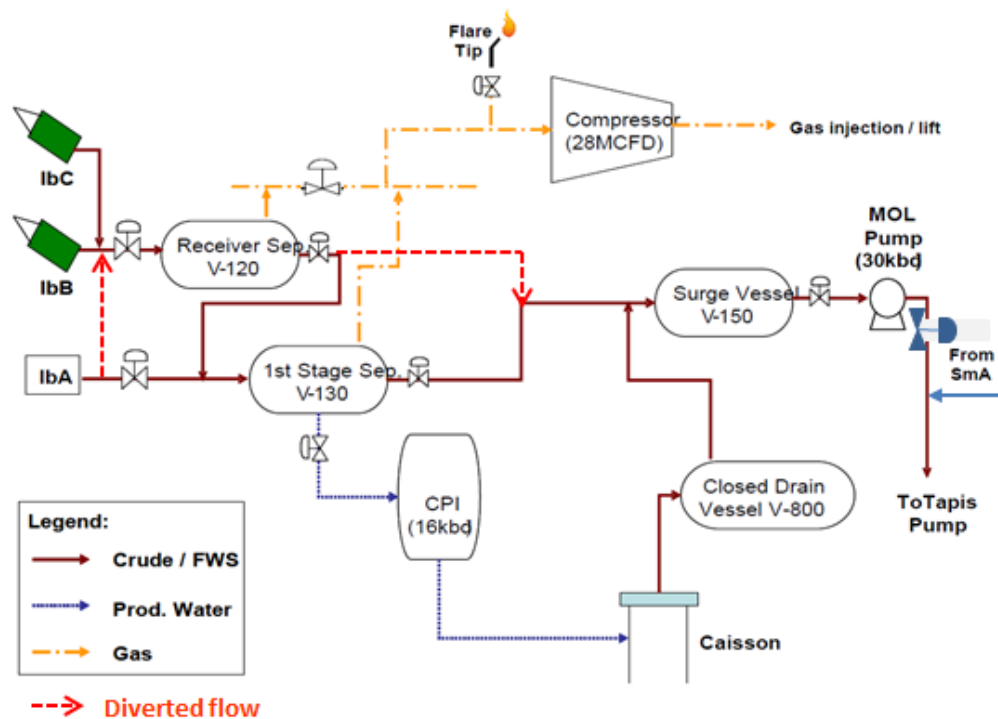
High Sand Production



Impact of Sand

- 1) Chemical efficiency
- 2) CPI/Vessel efficiency
- 3) Level control (clogging LTIs)
- 4) Damages equipment (control valves/pumps)
 - a) Replaced about 3 interface level control valves in 6 months
 - b) Historically between 2-3 MOL seal/pump failures a year

ONLINE CLEANING !

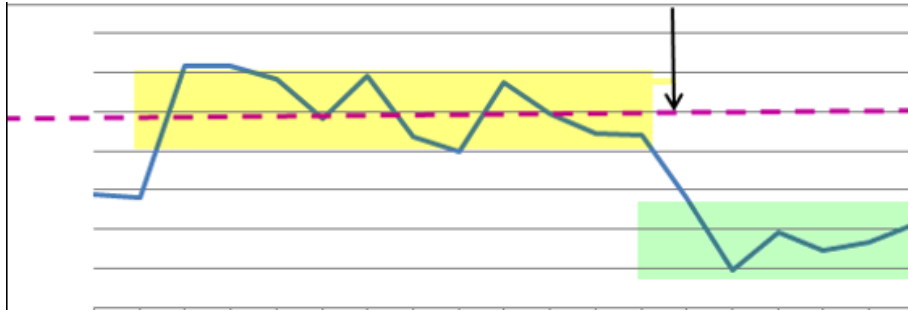


Checks considered:

- 1) Mechanical piping configuration
- 2) Erosional velocity
- 3) PSV Sizing
- 4) Valve sizing
- 5) Isolation valves

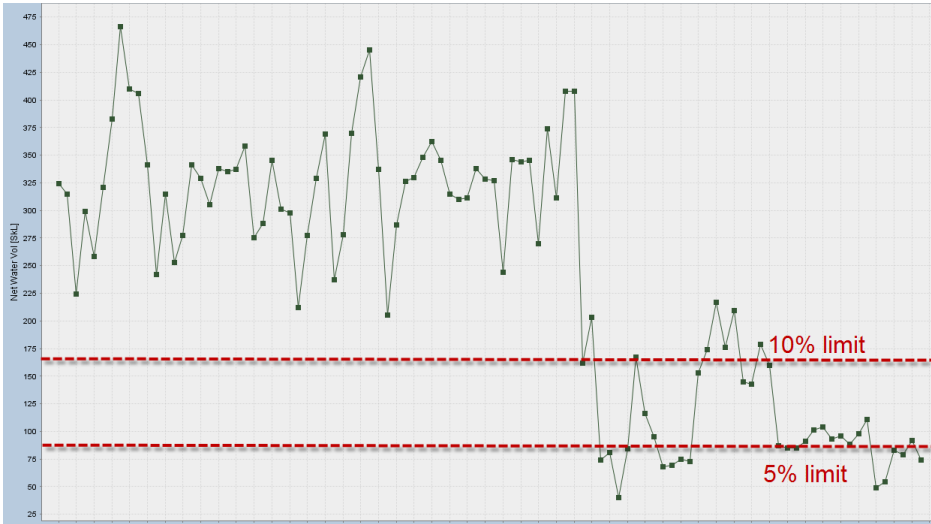
OUTCOME ?

Effluent Water

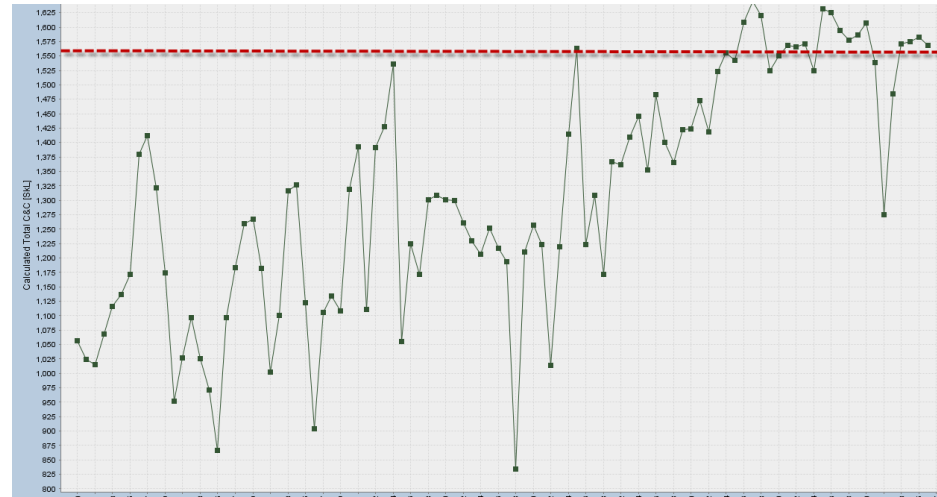


- 1) BOL cutback production
- 2) Reduce SDT
- 3) Reduces manpower/TOB/SIMOP constraints during annual planned SDs
- 4) Reduced OPEX / Increased Reliability with reduction in pump damage due to high sand/water carryover
- 5) Reduction in control valve (LCV/LCIV) failures

BS&W



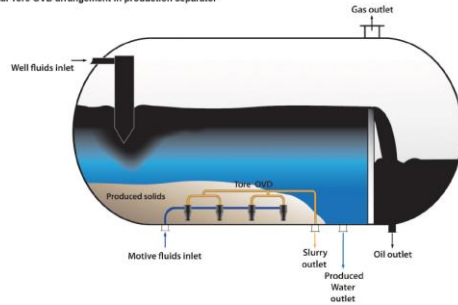
Production



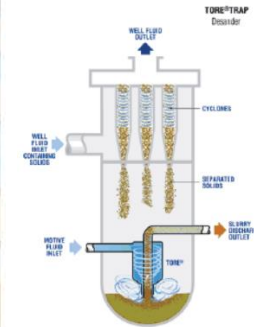
Future EMEPMI Sand Management technology pursuits

Active Technology Pursuits

Schematic of internal Tore OVD arrangement in production separator



Tore Online Vessel Desander (OVD) – The combination of a number of Tors with interconnecting pipework to ensure large area sand removal.



- TORE OVD online vessel desander (Vessel Retrofit)
- Patented vortex suction technology ; no impact to production during cleaning
- Sand removal through slurry outlet can be through temporary facility (Do not require permanent installation of desander in a brownfield environment)

- Cyclone Desander technologies
- Prevent Sand build up into downstream, engineered specific to anticipated sand production
- Wellhead specific retrofit or flow header retrofit where it makes most economical sense

Other considerations

- Sand trap mini-vessels (coalescent filtration)
 - Unable to perform online sand removal/cleaning
- Downhole sand screen
 - Costly, Not-economical on most brownfield application

