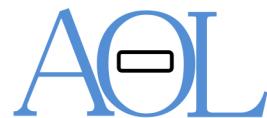


# For Operators: Questions?

- a. What crude types and what are the crude characteristics ?
- b. What are the volumes ?
- c. What are the current crude Flowrate ?
- d. Fluid Temperature ?
- e. Fluid data – viscosity etc.. ?
  
- f. Connecting pipe size OD and ID ?
- g. Piping thread type and specifications ?
- h. Piping materials ?
  
- i. How severe are the scaling?
- j. Types of scaling?
- k. What are the current scale inhibition and remediation works?
- l. How much are spent to clean these scales?



Company: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_

Company Rep: \_\_\_\_\_  
Contact Number: \_\_\_\_\_  
Country: \_\_\_\_\_ Zip: \_\_\_\_\_

**WELL INFORMATION:**

Depth of Well: \_\_\_\_\_  
County: \_\_\_\_\_  
Well Number: \_\_\_\_\_  
Production Tubing Size: \_\_\_\_\_  
Seat Nipple Type: \_\_\_\_\_  
Size ID.: \_\_\_\_\_

Lease: \_\_\_\_\_  
Field: \_\_\_\_\_  
Flowline Size OD.: \_\_\_\_\_  
Flowline Size ID.: \_\_\_\_\_

Producing Zones: \_\_\_\_\_

Operating Pressure: \_\_\_\_\_ Down Hole Temp: \_\_\_\_\_  
Up Hole Temp: \_\_\_\_\_

Flowing Well: \_\_\_\_\_ Pumping: \_\_\_\_\_ Gas Lift: \_\_\_\_\_ Other: \_\_\_\_\_

Total BBLS Fluid Day: \_\_\_\_\_ BBLS Water: \_\_\_\_\_  
Gas Cu. Ft.: \_\_\_\_\_ Gravity A.P.I.: \_\_\_\_\_  
Viscosity: \_\_\_\_\_ Pour Point: \_\_\_\_\_  
Paraffin Content: \_\_\_\_\_ Any Oil Analysis Attached: \_\_\_\_\_  
Water Analysis: \_\_\_\_\_ Scale Analysis: \_\_\_\_\_

Past Production Records Available: \_\_\_\_\_

Pump Size: \_\_\_\_\_ Length of Stroke (actual): \_\_\_\_\_  
Strokes Per Min: \_\_\_\_\_

List Problems – Example: Paraffin, scale, etc.: \_\_\_\_\_

Indicate location of problems, such as: Pump, production tubing, flow line, high tank bottoms, emulsion: \_\_\_\_\_

Types of Treatment including frequency of hot oiling and/or paraffin cutting, scale treatment: \_\_\_\_\_

Field Rep: \_\_\_\_\_

Date: \_\_\_\_\_

**HSE**

- Less variables to consider – less chemical related risk;
- No storage required;
- Easy installation & maintenance;

**Crude  
Properties**

- Improved crude flowability yet **NOT** changing crude characteristics;
- Eliminate/Reduced emulsification process;

**Well  
Integrity**

- Installation and tool function does not intervene with wellbore design or operations;
- Installation is above perforation, thus not affecting reservoir flow design;

**Topside  
Equipments**

- Better crude quality reduces surface equipment wear and maintenance;
- Functionally complements topside equipment efficient operations

**Operations**

- Scale reduction prevents downtime, reduces maintenance and prevents manhour losses;
- Scale/Wax stays in solution and allows easier transfer to tanks;
- Solubility of scale/wax is almost permanent, and no cases of build-up post-MFC treatment;
- MFC becomes enabler for corrosion inhibitor treatment;
- Treated crude gives financial value to operators;

## Tool Cost &amp; Warranty

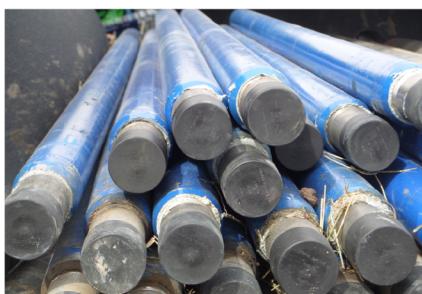
- Tools are leased rather than purchased – **OPEX** not CAPEX;
- Rates varies according to sizes and specifications;
- Acts as a **preventive maintenance** tool, giving value over time;
- Same time, the tool aids production **efficiency** for operators;

## Installation Cost

- Installation extremely easy and quick, as tools are **robust**;
- Cost is as per current standard slickline conveyance rate;
- Easily **one day completion** – X nipple installed;

## Value Gain

- Anticipated scale/wax removal direct cost to be lowered:
  - chemical usage will be reduced,
  - direct/indirect manhours cut,
  - wax cutting eliminated or reduced,
  - extend topside **equipment life**;
- **Workover intervals extended** due to flowing wells thus giving production value gains;
- Production rate could be stabilised;
- **Reduce maintenance frequency** caused by scale/wax issues;



## CONTACT

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