Recommended Practice for Care and Use of Subsurface Pumps

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FOREWORD

Jurisdiction. This recommended practice (RP) is under the jurisdiction of the American Petroleum Institute (API) Committee on Standardization of Production Equipment.

Purpose. This document presents recommended practices for the care and use of subsurface pumps.

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Suggested revisions are invited and should be submitted to the general manager of the Upstream Segment, American Petroleum Institute, 200 Massachusetts Avenue, NW, Washington, DC 20001.

CONTENTS

Page

1 SCOPE 1

2 REFERENCES 2
2.1 Referenced Standards 2

3 HISTORY 2

4 TYPES OF SUBSURFACE PUMPS 2
4.4 Tubing Pumps 2
4.5 Rod Pumps 4

5 APPLICATION OF SUBSURFACE PUMPS 4
5.1 Tubing Pumps 4
5.2 Rod Pumps 5
5.3 To Obtain Optimum Performance 6
5.4 Allowable Pump Setting Depths 6

6 COMMON PUMP PROBLEMS AND SOLUTIONS 13
6.1 Corrosion 13
6.2 Fluid Pound 13
6.3 Gas Pound 14
6.4 Gas Lock 14
6.5 Sand Problems 14
6.6 Scale Problem 14
6.7 Systematic Problem Solving 15

7 MATERIAL SELECTION 22

8 PUMP REPAIR 24
8.1 General 24
8.2 Conditions 24
8.3 Insert Pump 24
8.4 Tubing Pump 46

9 CARE AND HANDLING OF SUBSURFACE PUMPS 47

10 RECORDKEEPING 48

Tables
1 Pump Type Modes of Failure and Reference Figures 8
2 Yield Collapse Pressure Formula Range 9
3 Formula Factors and *D*/*t* Ranges for Plastic Collapse 9
4 Formula Factors and *D*/*t* Ranges for Transition Collapse 10
5 Common Pump Barrel Material Mechanical Properties 11
6 Pump OD/ID/Thread Data 11
7 Pump Setting Depths (ft) for Common Barrel Materials 12
8 Pump Designations 22
9 Pump Fittings 40

Page

Figures

1 Pumping System 1
2 Operation of Tubing Type Pump. 3
3 A Typical Tubing Pump 4
4 A Typical Traveling Barrel Pump 5
5 A Typical Stationary Barrel, Bottom Hold Down, Pump. 7
6 A Typical Stationary Barrel,Top Hold Down, Pump 7
7 Subsurface Sucker Rod Pump Loading Configurations. 8
8 A Systematic Approach to Problem Well Tests 15
9 Valves Good Fluid Weight Satisfactory 16
10 Valves Good Fluid Weight Less Than Satisfactory 17
11 Indicated Valve Leaks TV or SV. 18
12 Only SV or TV Recorded 19
13 Abnormal Load Indicated by Valve Measurements and by Card Shape 20
14 A Systematic Approach to Problem Well Tests Without Weight Measurements. 21
15 Pump Designations 23
55 API Sucker Rod Pump Repair/New Pump Log 49
56 API Sucker Rod Pump Repair Report 50

Recommended Practice for Care and Use of Subsurface Pumps

1 Scope

1.1 The intent of this recommended practice is to give information on the proper selection, operation and maintenance of subsurface pumps so the best economical life can be obtained.

1.2 The basic walking-beam sucker rod combination for producing fluids from the ground had its beginning in very early history. In more recent times, many advances in design and metallurgy have evolved. The method is so popular that today approximately 90 percent of all artificially lifted wells are produced by a sucker rod pump.

1.3 The downhole sucker rod pump is only one portion of the pumping system (see Figure 1). The other major components are the sucker rod string, the surface pumping unit and the prime mover. For proper pumping operation and long maintenance-free runs, all components of the system must be designed and sized properly, taking into account well depth, the amount and viscosity of fluids (oil, water or gas) to be produced, and abrasiveness and corrosiveness of fluids. A failure of any one of the pumping components will result in a shut down of the system, resulting in a costly repair, downtime and possible loss of production.

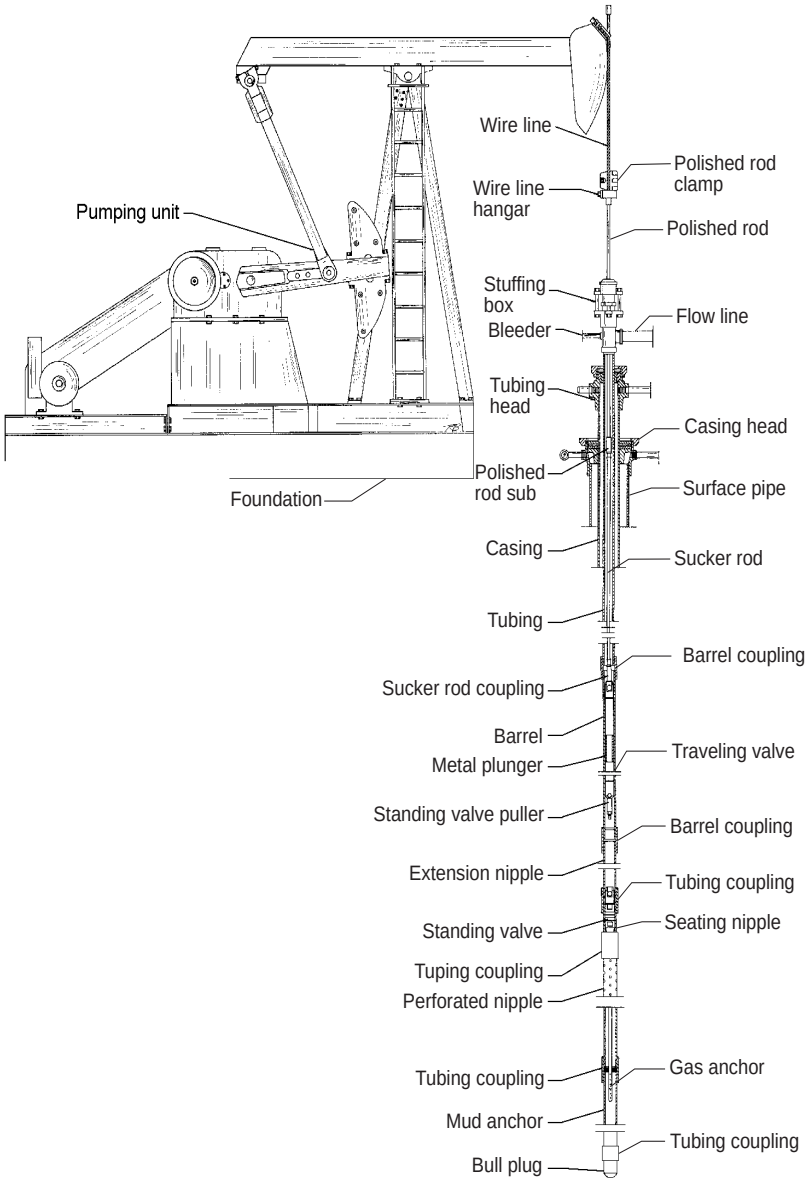


Figure 1—Pumping System