ISO 16440:2016-10 (E)

Petroleum and natural gas industries - Pipeline transportation systems - Design, construction and maintenance of steel cased pipelin es

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Design 2
4.1 General 2
4.2 Carrier pipe design 3
4.3 Casing design 3
4.4 Electrical isolation 4
4.5 Corrosion protection 4

5 Installation 4
5.1 General 4
5.2 Handling and storage 4
5.3 New casing 4
5.3.1 General 4
5.3.2 Carrier pipe installation 5
5.3.3 Casing end seals 6
5.3.4 Test leads 6
5.3.5 Backfilling 7
5.4 Split-sleeve type casing extensions and installations 7

6 Inspection and monitoring 8
6.1 General 8
6.2 Integrity inspection of carrier pipe 8
6.3 Monitoring of carrier pipe and casing 9
6.4 Leakage survey 9
6.5 Corrosiveness of the annular space 9

7 Maintenance and repair 9
7.1 General 9
7.2 Maintenance of vents and test leads 10
7.3 Clearing of shorted casings 10
7.4 Filling of casings 11
7.5 Removal of casings 11

Annex A (informative)CasingfillingproceduresforDielectricFillerMaterials 12

Annex B (informative) Examples of cathodic protection testing and monitoring techniques for carrier pipes and casings 15

Annex C (informative) Inspection tools for cased carrier pipe 30

Annex D (informative) Clearing a shorted casing 35

Annex E (informative) Removing and cutting a casing 37

Bibliography 39