PREFACE

There has been a long-standing need for a comprehensive book on ground water development. The lack of sufficient texts may be because the industry is highly fragmented, and a number of technologies and sciences are needed for the understanding of the occurrence, extraction, replenishment, and proper exploitation of ground water. There are, however, numerous publications that concern one or few aspects of this activity, but many are regional in scope or apply only to special conditions. To fill this gap, the Roscoe Moss Company sought out and enlisted the talents of distinguished experts in this multifaceted field and blended their knowledge with its 80 years of practical experience in water well design and construction. The result in this handbook which includes much valuable information not found in the literature but known to practitioners in different segments of the industry.

This book is therefore written for use by all those involved in ground water development, be they designers, constructors, managers, or operators. It provides not only an overview of the subject, but is sufficiently detailed to be useful to professionals. The range of treatment should particularly benefit students and newcomers to the industry.

The text is divided into three parts. In this way it traces the logical progression of the study of ground water from its origin through its development and exploitation. Part I deals primarily with the nature of ground water and where it can be found. Part II considers the parameters related to water and well design and construction. Part III covers well and well field operation.

Although the emphasis is on high-capacity ground water-producing installations, most of the material applies to lower-yield wells. Although monitoring wells are not discussed specifically, the technologies of ground water development presented in this book are applicable, and those readers engaged in protection of this life-giving resource will find this publication useful.

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# Table of Contents

## I  WATER IN THE GROUND

1. Geologic Formations as Aquifers
   1.1 Introduction
   1.2 The Hydrologic Cycle
   1.3 Ground Water in Storage
   1.4 Connate Water
   1.5 Aquifers
   1.6 Porosity
   1.7 Heterogeneity and Anisotropy
   1.8 Fractures: Joints and Faults
   1.9 Descriptive Properties of Aquifers
   1.10 Application to Geologic Formations
   1.11 Glacial Deposits
   1.12 Bedrock Aquifers
   1.13 Volcanics

References
Reading List

## II  MOVEMENT OF GROUND WATER

2. Movement of Ground Water
   2.1 Introduction
   2.2 Fundamental Laws and Principles
   2.3 Differential Equations for Ground Water Flow
   2.4 Aquifer Parameter
   2.5 Applications of Ground Water Flow

References

## III  EXPLORATION FOR GROUND WATER

3. Exploration for Ground Water
   3.1 Introduction
   3.2 Project Definition
   3.3 The Preliminary Ground Water Study
   3.4 Geohydrologic Setting
   3.5 The Hydrologic Budget
   3.6 Geohydrologic Methods of Investigation
   3.7 Geophysical Studies
   3.8 Synthesis of Data
   3.9 Test Drilling

References
Reading List
4 Geophysical Borehole Logging 52
  4.1 Introduction 52
  4.2 Formation Resistivity and Conductivity 52
  4.3 Principles of Resistivity Measurement 53
  4.4 Lateral Resistivity Device 63
  4.5 Spontaneous Potential Logging 67
  4.6 Porosity Measuring Techniques 76
  4.7 Gamma Ray Logging 77
  4.8 Other Logging Devices 79
  4.9 Log Interpretation and Application to Water Well Completion 80
References 83
Reading List 83

5 Hydraulics of Wells 84
  5.1 Introduction 84
  5.2 Equations for Aquifer Drawdown 86
  5.3 Applications and Special Well/Aquifer Conditions 90
  5.4 Well and Near-Well Characteristics 97
References 107

II EXPLOITATION 109

6 Well Design - General Considerations 111
  6.1 Introduction 111
  6.2 Design Objectives 111
  6.3 Preliminary Evaluation 111
  6.4 End Use 111
  6.5 Operational Requirements & Their Relationship to the System 111
  6.6 Site Selection 111
  6.7 Well Components 113
  6.8 Completion 113
  6.9 Drilling Method 113
  6.10 Criteria for Selection of Well Designs 113
  6.11 Naturally Developed Wells 121
  6.12 Well Depth 125
  6.13 Depth of Conductor Casing 125
  6.14 Depth of Pump Housing Casing 125
  6.15 Criteria for Casing Diameter 125
  6.16 Criteria for Screen Diameter 126
  6.17 Criteria for Borehole Diameter 126
  6.18 Plumbness and Alignment 126
  6.19 Procedure for Checking Well Plumbness and Alignment 127
  6.20 Calculation of Well Deviation 127
  6.21 Plotting Well Deviation 127
6.22 Well Pad 128
6.23 Gravel Feed Line 128
6.24 Sounding Pipe 130
6.25 Disinfection 130

7 **Drilling Systems** 131
7.1 Introduction 131
7.2 Rotary Drilling 131
7.3 Reverse Circulation Rotary 141
7.4 Cable Tool Method 144
7.5 Variation of Basic Drilling Systems & Special Drilling Tools 150

References 153
Reading List 154

8 **Drilling Fluid** 155
8.1 Introduction 155
8.2 Functions of Drilling Fluids 155
8.3 Classification of Drilling Fluids 158
8.4 Rheological and Wall-Building Properties of Drilling Fluid 159
8.5 General Constituents of Freshwater-Base Drilling Fluids 160
8.6 Drilling-Fluid Additives 163
8.7 Organic Polymers 164
8.8 Selection of Drilling Fluid 166
8.9 Drilling-Fluid Problems 167
8.10 Procedures for Evaluating Drilling-Fluid Properties 170
8.11 Field Tests 173
8.12 Drilling Systems Using Air 173

References 177

9 **Stresses on Well Casing and Screen** 178
9.1 Introduction 178
9.2 Tensile Stresses on Well Casing and Screen 178
9.3 Radial Forces on Well Casing and Screen 181
9.4 Collapse Resistance of Casing 182
9.5 API Collapse Formulas 183
9.6 Collapse Strength of Double Well Casing 185
9.7 Added Strength Due to Cementing 186
9.8 Safety Factors 186
9.9 Thermoplastic Collapse Formula 187
9.10 Collapse Strength of Well Screen 188
9.11 Compressive Loads 190
9.12 Bursting Strength 192
9.13 Bending Stresses 192
9.14 Combined Loads 192
10  Corrosion and Incrustation

10.1 Introduction 198
10.2 Chemical Equilibria 198
10.3 Theory of Corrosion 200
10.4 Corrosion of Casings and Screens 208
10.5 Incrustation 212

References 213

11  Selection of Casing and Screen

11.1 Introduction 215
11.2 Well Casing 215
11.3 Selection of Casing Material 215
11.4 Manufacturing Processes - Steel Casing 216
11.5 Casing and Material Standards 217
11.6 End Connections 218
11.7 Casing Accessories 219
11.8 Well Screen 220
11.9 Screen Inlet Area and Entrance Velocity 224
11.10 Types of Well Screen 227
11.11 Selection of Material 230
11.12 Screen Geometry 230
11.13 Aperture Size 231
11.14 Screen Accessories 231

References 231

12  Water Well Cementing

12.1 Introduction 232
12.2 Purpose of Water Well Cementing 232
12.3 Cementing Materials 232
12.4 Cement Admixtures 238
12.5 Considerations during the Mixing and Placement of Cement 244
12.6 Placement Techniques 246
12.7 Squeeze Cementing 248
12.8 Liners 249
12.9 Well Abandonment 250
12.10 Considerations after Cementing 251

Reading List 252
III MANAGEMENT AND USE

16 Vertical Turbine Pumps
16.1 Introduction
16.2 Principles of Turbine Pump Operation
16.3 System Assemblies
16.4 Components
16.5 Specific Speed
16.6 Operating Parameters
16.7 Pump Losses
16.8 System Efficiencies
16.9 System Considerations
16.10 Design Point
16.11 Pump-Selection Calculations
16.12 Instrumentation and Protection
16.13 Controls
Reading List

17 Well and Pump Operation and Maintenance
17.1 Introduction
17.2 Preliminary Data
17.3 Well and Pump Operations Procedure and Records
17.4 Evaluation of Pump and Well Performance
17.5 Major Causes of Deteriorating Pump Performance
17.6 Major Causes of Deteriorating Well Performance
17.7 Well Maintenance and Rehabilitation
17.7 Typical Well Problems Occurring in Various Aquifer Types
17.8 Method for Well and Pump Evaluation
References

18 Ground Water Quality and Contamination
18.1 Introduction
18.2 Water-Quality Criteria and Standards
18.3 Water-Quality Constituents and Characteristics
18.4 Treatment of Ground Water
18.5 Water-Quality Testing and Records
References
Reading List

19 Artificial Recharge
19.1 Introduction
19.2 Conditions Favorable for Recharging
19.3 Methods of Artificial Recharge
19.4 Hydraulics of Artificial Recharge
Handbook of Ground Water has been added to your Cart. Add to Cart. Buy Now. This is a great reference for anyone involved in design and installation of a water well. It was very helpful during the process of working with a driller and selecting screen for a municipal water production well. This is the gold standard for water well design and construction. Read more. Helpful. Although the focus is on high-capacity ground water producing installations, most of the material is also applicable to lower-yield wells. Roscoe Moss Company is the author of Handbook of Ground Water Development, published by Wiley. Table of contents. Water in the ground. Geologic Formations as Aquifers. Movement of Ground Water. Exploration for Ground Water. Geophysical Borehole Logging. Hydraulics of Wells. There has been a long-standing need for a comprehensive book on ground water development. The lack of sufficient texts may be because the industry is highly fragmented, and a number of technologies and sciences are needed for the understanding of the occurrence, extraction, replenishment, and proper exploitation of ground water. The result in this handbook which includes much valuable information not found in the literature but know to practitioners in different segment of the industry. This book is therefor written for use by all those involved in ground water development, be they designers, constructors, managers, or operators. It provides no only an overview of the subject, but it is sufficiently detailed to be useful to professionals.
Impetus for the development of the Handbook of Suggested Practices for the Design and Installation of Ground-Water Monitoring Wells was provided by the passage of a series of federal laws which addressed the need to protect ground-water quality. Table 1 lists the laws enacted by Congress and summarizes the applicable ground-water activities associated with each law. Of the sixteen statutes listed in Table 1, ten statutes have regulatory programs which establish ground-water monitoring requirements for specific sources of contamination. Ground-water monitoring is specified in Federal regulations for all hazardous waste land disposal facilities (e.g., landfills, surface impoundments, waste piles, and land treatment units). The interaction between surface water and groundwater has a great attention of water resources workers, both managers and researchers thanks to its important role in both long-term studies for determining the effects of hydrologic and climatic conditions on the groundwater resources and in short-term tests to determine local-scale effects of pumping on the exchange of surface water bodies and groundwater aquifers (John H. Cushman and Daniel M. Tartakovsky, 2017). The book also examines the issues regarding the nature of shale gas development, the potential environmental impacts, and the ability of the current regulatory structure to deal with these issues. There has been a long-standing need for a comprehensive book on ground water development. The lack of sufficient texts may be because the industry is highly fragmented, and a number of technologies and sciences are needed for the understanding of the occurrence, extraction, replenishment, and proper exploitation of ground water. The result in this handbook which includes much valuable information not found in the literature but known to practitioners in different segments of the industry. This book is therefore written for use by all those involved in ground water development, be they designers, constructors, managers, or operators. It provides not only an overview of the subject, but it is sufficiently detailed to be useful to professionals.