1. Record Nr. UNINA9910133577603321

Autore	Milsom John <1939->
Titolo	Field geophysics
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, 2011
ISBN	1-283-37286-X 9786613372864 0-470-97232-7 0-470-97231-9
Edizione	[4th ed.]
Descrizione fisica	1 online resource (305 p.)
Collana	The geological field guide series
Altri autori (Persone)	EriksenAsger
Disciplina	550 622.15
Soggetti	Prospecting - Geophysical methods Geophysics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Field Geophysics; CONTENTS; Preface to the First Edition; Preface to the Second Edition; Preface to the Third Edition; Preface to the Fourth Edition; 1 Introduction; 1.1 What Geophysics Measures; 1.2 Fields; 1.3 Geophysical Survey Design; 1.4 Geophysical Fieldwork; 1.5 Geophysical Data; 1.6 Bases and Base Networks; 1.7 Real-Time Profiling; 2 Gravity Method; 2.1 Physical Basis of the Gravity Method; 2.2 Gravity Meters; 2.3 Gravity Reductions; 2.4 Gravity Surveys; 2.5 Field Interpretation; 3 Magnetic Method; 3.1 Magnetic Properties; 3.2 The Magnetic Field of the Earth; 3.3 Magnetic Instruments 3.4 Magnetic Surveys3.5 Simple Magnetic Interpretation; 4 Radiometric Surveys; 4.1 Natural Radiation; 4.2 Radiation Detectors; 4.3 Radiometric Surveys; 5 Electric Current Methods: General Considerations; 5.1 Resistivity and Conductivity; 5.2 Varying Currents; 6 Resistivity Methods; 6.1 DC Survey Fundamentals; 6.2 DC Practicalities; 6.3 Resistivity Profiling; 6.4 Resistivity Depth-Sounding; 6.5 Electrical Resistivity Imaging (ERI); 6.6 Capacitive Coupling; 7 SP and IP; 7.1 SP Surveys; 7.2 Polarisation Fundamentals; 7.3 Time-Domain IP Surveys; 7.4 Frequency-Domain Surveys; 7.5 IP Data 8 Electromagnetic Methods8.1 Two-Coil CW Systems; 8.2 CWEM

Conductivity Mapping; 8.3 Fixed-Source Methods; 8.4 Transient Electromagnetics; 9 Remote-Source Electromagnetics; 9.1 Natural Electromagnetic Radiation; 9.2 Controlled-Source Audio-Magnetotellurics (CSAMT); 10 Ground Penetrating Radar; 10.1 Radar Fundamentals; 10.2 GPR Surveys; 10.3 Data Processing; 11 Siesmic Methods: General Considerations; 11.1 Seismic Waves; 11.2 Seismic Sources; 11.3 Detection of Seismic Waves; 11.4 Recording Seismic Signals; 12 Seismic Reflection; 12.1 Reflection Theory; 12.2 Reflection Surveys
13 Seismic Refraction13.1 Refraction Surveys; 13.2 Interpretation; 13.3 Limitations of the Refraction Method; 14 Seismic Surface Wave Methods; 14.1 Surface Wave Surveys; 14.2 Data Processing; 14.3 Limitations of the Method; 15 Maps, Mapping and GPS; 15.1 Maps and Mapping; 15.2 Satellite Navigation; Appendix: Terrain Corrections for Hammer Zones B to M; Index

Sommario/riassunto

This handy pocket-sized field guide provides practical information and assistance to anyone engaged in small-scale surveys on the ground. Fully revised and updated throughout, the Fourth Edition includes comprehensive updates on the use of GPR and GPS and new sections on surface wave seismics and towed array systems. This has become the standard text in this area for use in the field and the experience of the two authors will ensure the book retains its place as one of the most popular handbooks in applied geophysics. Fully revised and updated to incorporate new developments in