

CONTENTS

SUMMARIES	7
MAŁGORZATA ULIASZ, MARCIN KREMIENIEWSKI Prevention of gas migration in the area of the Carpathian Foothills in the laboratory tests	19
JAN MACUDA, MAŁGORZATA MACUDA Drilling large diameter water wells in carbonate strata in the Lublin area	31
ANNA TURKIEWICZ, PIOTR KAPUSTA Assessment of the possibility of enzymatic decomposition of cellulose blockers	41
ANDRZEJ GONET, STANISŁAW STRYCZEK Method used for safety pillar reconstruction on the example of the Dunajewski gallery in the “Wieliczka” Salt Mine	49
STANISŁAW J. DUBIEL, MIROŚLAW RZYZCZNIK, MAREK L. SOLECKI Reinterpretation of the results of the two-cycle reservoir test of the Mesozoic water-bearing deposits in the W-3 well in terms of assessing the changes in rock permeability in the zones tested with a drill stem tester	57
ŁUKASZ ŁUKAŃKO, JAN MACUDA Emission of pollutants into the air during exploration of coalbed methane	69
ANDRZEJ GOC, PATRYCJA WOJTASIAK, JAROSŁAW PIOTROWSKI, MACIEJ STEC The influence of water on various clay rocks	83
VITALIJ KULYNYCH, ANNA PIKŁOWSKA, OLEH KULYNYCH Overview of the nanoparticles application for reservoir engineering and Enhanced Oil Recovery (EOR) methods	107

KAROL M. DĄBROWSKI, SZYMON KUCZYŃSKI, TOMASZ WŁODEK, RAFAŁ SMULSKI, JAN BARBACKI	
Characterization of natural gas by Raman spectroscopy and its application for in-situ measurements.....	125
CHRISTIAN TELLEZ, KRITI SINGH, STEFAN MISKA, EVREN OZBAYOGLU, MAŁGORZATA ZIAJA	
Experimental and analytical study of the side cutting ability of drill bits	139
MAŁGORZATA FORMELA, KAMIL GONET, STANISŁAW STRYCZEK, RAFAŁ WIŚNIEWSKI	
Application of fluidal ashes as a component of cement slurry used in carbon dioxide injection wells – possibility analysis	157
ZBIGNIEW FAFAARA, JOANNA LEWANDOWSKA-ŚMIERZCHALSKA, RAFAŁ MATUŁA	
Oil pipeline leak detection using GPR method – simple case study	165
ZBIGNIEW FAFAARA, JOANNA LEWANDOWSKA-ŚMIERZCHALSKA, RAFAŁ MATUŁA, PAULINA LEWIŃSKA	
Recent developments of non-direct methods of pipeline and leak detection	173
JAN MACUDA, KINGA KLIMA	
Selection of effective chemical compounds for drilled wells	181
BARBARA ULIASZ-MISIAK, BOGUMIŁA WINID, EWA CHODAŃ	
The fresh waters of the Krakow region as the lower source for heat pumps	187
JACEK DUDEK, DAMIAN JANIGA, PAWEŁ WOJNAROWSKI	
The model of development of the multihorizontal, hydrocarbon reservoir using advanced exploitation methods.....	201
MARCIN KREMIEŃSKI, MARCIN RZEPKA, STANISŁAW STRYCZEK, RAFAŁ WIŚNIEWSKI	
Improving the efficiency of cleaning annular space with a new flushing fluid	219

EDYTA MIKOŁAJCZAK, JERZY STOPA, PAWEŁ WOJNAROWSKI, DAMIAN JANIGA, ROBERT CZARNOTA	
Intelligent control of CO ₂ -EOR process	235
JAN MACUDA, JERZY GASIŃSKI, JANUSZ GRAD, SŁAWOMIR SZEWCZYK	
Auxiliary gravity drain and infiltration wells supporting basic drainage system in the “Bełchatów” Lignite Mine	245
ARGENTINA TĂTARU, DAN PAUL ȘTEFĂNESCU, SĂNDOR BOLÁZS	
Production decline curve analysis for mature gas reservoirs subject to rehabilitation	255
DIANA-ANDREEA LUPU, ION FOIDAS, FLORINEL SUTOIU	
Depleted gas reservoir management improvement by implementing specialized mobile teams	271
RAFAŁ WIŚNIEWSKI, KRZYSZTOF SKRZYPASZEK, PIOTR KIEBZAK	
Drill string rotary speed influence on equivalent circulating density value	283
EDYTA MIKOŁAJCZAK, PIOTR KOSOWSKI, JERZY STOPA, JOANNA WARTAK	
Analysis and selection of CO ₂ sources for CCS-EOR projects in oil fields clusters in Poland	295
PETR BUJOK, MARTIN KLEMPA, JAKUB RYBA, MICHAL PORZER, MAREK JAKUBČÍK, LUKÁŠ ŠTASTNÝ, ROBERT RADO	
Special shut off device for liquidating blowout from the drill string	309
MAGDALENA GACZOŁ, SŁAWOMIR WYSOCKI, KARINA BUDZIŃSKA	
Modifications of the muds intended for HDD considering drilling through clay rocks – potassium chloride	323
JAN MACUDA, EWA STYRKOWIEC, WITOLD RAJPOLD	
Impact of wells reconstruction on their operational parameters	335
ANDREW K. WOJTANOWICZ, LU JIN	
Loss and restoration of water coning control – field case history and prediction	343
Style Sheet	361