

OIL GEOPHYSICAL PROSPECTING

Vol. 31 No. 1~6 1996

CONTENTS

No. 1

Simultaneous inversion of three parameters in layered elastic medium	Song Haibin et al(1)
Nonlinear elastic wave inversion	Yang Huizhu and Diao Shun(8)
Research on G-P method for computing the associative dimension of seismic traces	Le Youxi and Wang Caijing(14)
One-dimensionized finite element method for solving 3-D wave equation	Li Xiaojiang and Zhang Wenfei(21)
Iso-interval trace interpolation in F-X domain	Guo Jiuying et al(28)
Dip-moveout correction of VSP data	Wang Chengli et al(35)
Study on migration datum in complicated terrain area	Qian Rongjun(41)
New LVL refraction method	Chen Zuchuan(55)
Stratified modeling by phase shift	Zhang Shulun and Zhao Dažhuang(63)
Error analysis of stack velocity in the medium where velocity varies laterally	Gu Hanming and Zhao Shuyuan(68)

• EXPERIENCE •

Improving the signal/noise ratio of borehole-side seismic data by making use of VSP data	Liu Xuewei and Li Yanda(77)
Predicting reservoir physical parameters by comprehensively analysing geologic,drilling and seismic data	Xu Jixiang and Wang Caijing(84)
A method for predicting the dense pore-fractured zone in limestone reservoir by analysing seismic data	Li Weizhong et al(92)
Spectral-modeled deconvolution and its application	Zhao Bo et al(101)
B spline function method for complicated terrain correction in magnetic data processing	Jiang Xiaodian(117)
Development of Blin method and its application in trap sequencing	Liu Quanwen(124)
An example of recovering the original formation thickness by TTI method	Xu Chunhua(131)

• DISCUSSION •

How to correctly use fractal and fractal-dimension techniques?	Li Qingzhong(136)
--	-------------------

• CONTENTS OF OTHER GEOPHYSICAL JOURNALS •

<i>Geophysics</i> , Vol. 60, No. 3, No. 4, No. 5, 1995	(161)
<i>Geophysical Prospecting</i> , Vol. 43, No. 4, No. 5, No. 6, 1995	(163)
<i>Geophysical Prospecting for Petroleum</i> , Vol. 34, No. 2, 1995	(163)

• PERSONAGE •

Geophysicist Wang Jiaying	(insert 1)
---------------------------------	------------

• NEWS •

Society of Chinese Geophysicists, 11th annual meeting, Jingzhou	(7)
Schedule of 1996 academic meetings sponsored by Geophysical Exploration Committee of Chinese Petroleum Society	(165)
Contributors	(166)

No. 2

Sectional-decomposition numerical modeling of seismic wave field	Yang Shaoguo and Zhou Xixiang(167)
Walsh function description of discrete formation model	Qian Yongxian et al(177)

Application of Hurst exponent and volume dimension to hydrocarbon prediction	Wang Fuquan et al(184)
Multiwave AVA and lithology prediction	Li Luming and Luo Xingxian(190)
Mechanism of lithology prediction by double-critical DIVA method and its application	Liu Zhen et al(205)
Iso-spaced trace interpolation in F-K domain	Guo Jiuying and Zhou Xingyuan(211)
Recurrence stretch plotting and velocity-varied DMO	Zhao Zhenfei et al(219)
Characteristic filtering for the width and amplitude of gravimetric-magnetic anomaly	Liu Tianyou et al(225)
Application of frequency-domain combinative electromagnetic wave sounding in hydrocarbon exploration	Su Fa and He Jishan(232)
Static offset and correction in frequency electromagnetic-domain sounding	Yan Shu and Chen Mingsheng(238)
Analysing nappe and slumped overthrust in China by seismic data interpretation	Yang Kesheng(248)
·EXPERIENCE·	
Implementation of fast Y transform in computer	Yu Pinneng(257)
Coincidence of two viewpoints on DMO	Kang Ning and Ying Haining(260)
Geophysical methods applied to reservoir description in Liu-3 borehole area	Wei Zhiping et al(264)
Method research and effect analysis of poststack high-resolution data processing	Li Shengjie et al(270)
Oil aeromagnetic data processing by neural network theory	Jiang Xiaodian(278)
·DISCUSSION·	
Questioning the applicability of Petro-Sonde technique	Li Qingzhong(283)
·CONTENTS OF OTHER GEOPHYSICAL JOURNALS·	
<i>Geophysics</i> , Vol. 60, No. 6, 1995	(307)
<i>Geophysical Prospecting</i> , Vol. 43, No. 7, 1995	(307)
·PERSONAGE·	
Geophysicist Ling Yun	(insert 2)
·NEWS·	
Bureau of Oil Geophysical Prospecting, 1995 report-back meeting on the application achievements of interactive interpretation systems, Zhuozhou City	(210)
“Application of 3-D seismic processing-interpretation and reservoir evaluation techniques to rolling exploration-development” has been accepted by China National Petroleum Corporation	(231)
Contributors	(308)
No. 3	
Traveltime seismic tomography with Fresnel volume ray tracing	Wang Hongwie(309)
3-D migration using the full acoustic wave equation that involves fitting-difference method and absorptive boundary	Zhao Zhenfei and Chen Jing(327)
Application of wavelet transform and signal reconstruction in surface wave elimination	Luo Guoan and Du Shitong(337)
High-resolution image of crosshole reflection waves	Fang Wubao et al(350)
Minimum entropy deconvolution using zero phase restriction	Li Guofa et al(359)
Weathered-layer Q-value inversion method with consideration of noise	Liu Xuewei et al(367)
P-SV reflection coefficient approximation using shear modulus and its significance in multiwave AVO inversion	Yang Huizhu and Yin Ke(374)
Determination of velocity field in the Tarim basin and its application	Ma Tao et al(382)
Thin-bed thickness estimation using neural network	Zhuang Donghai et al(394)

Lithology prediction of 2-D seismic section by neural network technique	Wang Di and Du Shitong(400)
Time-convolution regularization iteration method for wave-equation porosity inversion in 2-D two-phase medium	Liu Kean et al(410)
Computing the vertical second derivative and upward continuation of gravity anomaly by spline function method	Wang Bingzhu(415)
•EXPERIENCE•	
Post-stack noise suppression using signal direction restriction	Zhu Shengwang(423)
Relative static correction using refraction wave	Zheng Hongming(430)
Method for compensating attenuation and frequency dispersion	Chang Xinwei(442)
AVO attribute section processing by time-window fitting method	Li Yundian(448)
•SUMMARIZATION•	
Today and future of hydrocarbon reservoir exploration using micromagnetization	Liu Qingsong and Wang Baoren(454)
•CONTENTS OF OTHER GEOPHYSICAL JOURNALS•	
<i>Geophysics</i> , Vol. 61, No. 1996	(464)
<i>Geophysical Prospecting</i> , Vol. 43, No. 8, 1995; Vol. 44, No. 1, 1996	(464)
<i>Geophysical Prospecting for Petroleum</i> , Vol. 34, No. 3, 4, 1995; vol. 35, No. 1, 1996	(465)
•PERSONAGE•	
Geophysicist Wang Jialin	(insert 1)
•NEWS•	
Geophysicists of Beijing and Zhuozhou sections under SEG Beijing Office, the first academic meeting in 1996	(336)
Chinese and Russian geophysicists, academic meeting on the theory and applied techniques of regional hydrocarbon exploration, Zhuozhou City	(358)
Contributors	(466)
No. 4	
A research on reflection and conversion characteristics of several elastic-wave recursion equations	Yao Dezhong(467)
Neural-network learning method based on generalized simulated annealing	Yan Yousheng(476)
Processing methods for complicated-surface static correction in the Tarim basin and the application effects	Xu Yajun et al(483)
Approach and practice of full 3D seismic interpretation	Li Ling et al(495)
Travel time tomography for P and S-waves of crosshole seismic survey	Wang Chengli et al(509)
Influence of reservoir capillary strain on seismic P-wave velocity	Jiang Ziang et al(515)
Method for researching on mud-caprock sealing ability with the use of interval transit times	Fu Guang et al(521)
A research on pulse responses in loss medium	Shen Biao et al(529)
Response characteristics of time-lapse dual laterolog and their variations	Liu Zhenhua et al(535)
Determining both oil-water contact and thin interbed by analysing the resistivity log data of horizontal borehole	Xu Jianhua et al(541)
Direct hydrocarbon accumulation discovery using joint geophysical and geochemical methods	Cao Hui and Zhang Guanghua(546)
Match technique for geophone coupling system	Liao Bingxun(552)
•EXPERIENCE•	
Image of seismic discontinuous points	Tu Shijie(556)
An attempt to research into hydrocarbon-bearing system by analysing geophysical data	Li Zishun and Yang Yufeng(563)
Direct hydrocarbon prediction using high-accurate gravity survey	Wang Xiwen et al(569)

•REVIEW•

- Formation pressure prediction using seismic data *Yun Meihou*(575)
High-resolution data processing and high signal/noise ratio data *Wang Jinhai et al*(587)

•DISCUSSION•

- Discussion on the application conditions of existing seismic hydrocarbon prediction techniques *Le Xiaotao*(597)

•CONTENTS OF OTHER GEOPHYSICAL JOURNALS•

- Geophysics*, Vol. 61, No. 2, 1996 (602)
Geophysical Prospecting, Vol. 44, No. 2, No. 3, 1996 (602)

•PERSONAGE•

- Geophysicist He Zhenhua (insert 1)

•NEWS•

- Academic discussion on electromagnetic exploration method, Hangzhou City (475)
Beijing SEG Liaison Office elected the second executive committee (482)
Exploration Bureau of China National Petroleum Corporation, a conference on geophysical exploration work, Rong City, Sichuan Province (514)

- Contributors (604)

No. 5

- Wide-band Ricker wavelet *Yu Shoupeng*(605)
Approximate inversion of wave impedance *Tian Zhenping*(616)

- Crosshole seismic data image using wave equation inversion *Wang Shoudong and Wu Lü*(624)

- Cross-borehole seismic tomography using shortest path tree method and its application *Li Wenlong*(633)

- A new method for layered-medium image using reflection travel time *Wu Jiancheng et al*(643)

- Moveout estimation for P-S converted wave *Zhu Yanyong*(651)

- Effectiveness of discriminant model and stability of discriminant result in hydrocarbon reservoir description *Fu Jixin et al*(660)

- S-wave velocity inversion using simulated annealing method *Ren Yiqing et al*(677)

- Hydrocarbon prediction system based on neural network *Shi Jicheng et al*(685)

- Local-coordinate spline function method: an accurate method for geophysical anomaly conversion *Wang Shuoru et al*(693)

- Quantitative analysis of flexural subsidence in a foreland basin *Zhou Zongying et al*(699)

- Seismic resolution improvement using wavelet package algorithm *Cao Wuxiang*(704)

•EXPERIENCE•

- Log data extrapolation using BP neural network *Lu Wenkai and Mou Yongguang*(712)
Normalized geometric factor in borehole condition and its application *Shen Jianguo*(716)

- Ellipse filter in f - k domain and its application *Zhang Ruijie et al*(724)

- Research on data processing method for L 371 seismic line in Jidong Oil Field *Wang Shungen*(729)

- An improved SVD filter *Lu Wenkai and Mou Yongguang*(736)

•EDITOR WRITER READER•

- Review on "Oil Geophysical Prospecting" in 1995 *Cheng Jinzhen*(742)

•CONTENTS OF OTHER GEOPHYSICAL JOURNALS•

- Geophysics*, Vol. 61, No. 3, 1996 (748)

- Geophysical Prospecting*, Vol. 44, No. 4, 1996 (748)

- Geophysical Prospecting for Petroleum*, Vol. 35, No. 2, 1996 (748)

•PERSONAGE•

- Geophysicist Zheng xiaodong (insert 1)

•NEWS•

- 30th international geology congress,Beijing (676)
8th technical meeting of oil geophysical exploration in east China (747)
Communique of 1995 geophysical exploration of China National Petroleum Corporation (749)

- Contributors (750)

No. 6

- What is full 3-D seismic data interpretation *Yuan Bingheng*(751)
2-D prestack migration using double τ - p transform *Xu Jixiang and Wu Lü*(755)
Multi-resolution illuminance transform of seismic section *Cao Yuming*(771)
Steady iterative inversion in time domain *Cheng Zengqing et al*(778)
Application of wavelet transform and F - K algorithm in filtering

- *Liu Faqi and Zhang Guanquan*(782)

- Research on equivalent azimuthal isotropy of thin interbed medium
..... *Xu Guoming et al*(792)

- Elastic wave simulation and the wave field character study in azimuthal isotropic
medium *Xie Guisheng and Bao Jishan*(806)

- Analysing both structure and hydrocarbon state of reservoir by using fractal scaling
law *Wang Daxing et al*(815)

- Fractal deconvolution of any-phase wavelets *Le Youxi and Wang Caijing*(826)

- Grey hydrocarbon prediction system *Hu Yuanlai and Li Zhiyun*(835)
Origin analyses of both negative inversion faults and negative inversion structures in

- Palaeozoic Group in coastal region of north Shandong Province
..... *Tan Mingyou et al*(844)

•EXPERIENCE•

- Random noise elimination using w - x domain prediction
..... *Wu Aidi and Mou Yongguang*(851)

- Compensation for spherical divergence and absorption in time-frequency domain
..... *Gao Jun et al*(856)

- 3ns monopulse ground-penetrating radar system *Shen Biao et al*(867)

- Local regular noise elimination using FKSUB model *Duan Yu et al*(874)

- Application of minimum-curvature neural network in hydrocarbon prediction
..... *Wang Yanchun and Duan Yunqing*(885)

- Stack velocity pickup using neural network *Zha Chaoyang*(892)

•SUMMARIZATION•

- A new generational system:computer integration hydrocarbon exploration system
..... *Wang Honglin*(898)

•PERSONAGE•

- Geophysicist Wang Chengli (insert)

•NEWS•

- 1996 SEG/SPG joint geophysical meeting (754)

- 6th academic discussion on petroleum geophysical exploration in West China (791)

- Academic result exhibition of reservoir geophysics on land-facies thin interbeds,Beijing
..... (905)

- Contributors (884)

- Contents,Vol. 31,1996