



## **Vesti gazovoy nauki V. 5 (16) / 2013**

### **Resource support problems of Russian oil-producing regions up to 2030**

**Skorobogatov V.A. Problems of resource support production of natural gas in Russia to 2050** / V.A. Skorobogatov, S.N. Sivkov, S.A. Danilevsky // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 4–14.

Problems of resource support the current, medium-term and long-term gas production in Russia are considered. Resource possibilities of increase in gas production to 1,0 trillion m<sup>3</sup> by 2030 on a land and on shelf zones (The Arctic, the Far East, etc.) are shown. According to an assessment of authors, taking into account carrying out active prospecting works and new increases explored reserves of hydrocarbons it is possible to maintain the reached level of production of gas till 2045–2050. Gas production over this level will be provided at the expense of development of nonconventional sources of natural gas (gas of dense low-permeability collectors, coal layers, etc.).

**Keywords:** *resource supply, gas production, hydrocarbon potential, increase in reserves, unconventional gas sources.*

**Astafyev D.A. New ideas of a deep structure of sedimentary basins and prospects of opening of unique and large-scale fields of hydrocarbons** / D.A. Astafyev // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 15–31.

Results of studying of a regional and deep structure of sedimentary basins and oil-and-gas occurrence of a subsoil are given in interrelation with a deep structure, global and planetary geodynamics of Earth. On the basis of the new concept of geodynamics of the crust-mantle plates (sectors) the conclusion that any oil-and-gas basin can be considered in the form of the subradial destructive channel from the section «a core – a mantle» to a surface, providing at the expense of a decompression on borders of column bodies magmatism going back to a surface with carrying out of the allocated deep fluids, including hydrogen is drawn. According to the specified forecasts, there are all bases to expect opening of large-scale deposits of hydrocarbons first of all in Cainozoic and Mesozoic complexes of rocks potentially gas-and-oil occurrence, being in a formation stage basins.

**Keywords:** *sedimentary basin, oil-and-gas occurrence, tectonics, geodynamics, hydrocarbon resource.*

**Istratov I.V. Oil-and-gas occurrence and resource potential of the main sedimentary basins of World Ocean** / I.V. Istratov // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 32–42.

Features of oil-and-gas occurrence and distribution of the initial potential resource of hydrocarbonic raw materials on main oil-and-gas and oil-and-gas potential sedimentary basins of a shelf of the World Ocean are briefly stated. According to the accepted classification, these basins are concentrated in seven regions: the Arctic Ocean, Northern Atlantic, Southern Atlantic, western part of the Indian Ocean, east part of the Indian Ocean, western part of the Pacific Ocean, east part of the Pacific Ocean. Distribution of initial potential resource of hydrocarbons on the main sedimentary basins of a shelf of the World Ocean, made on the published materials and Gazprom VNIIGAZ data is given.

**Keywords:** *oil, gas, resource, reserves, offshore, oil-and-gas basin.*

**Skorobogatov V.A. The comparative analysis of conditions of oil-and-gas accumulation in West-Siberian and Arab-Persian megabasins** / V.A. Skorobogatov, N.N. Solovyev // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 43–52.

The comparative analysis of conditions of oil-and-gas accumulation in Western Siberia and in the Middle East is made. The major factors which have caused unique concentration of oil and gas in West-Siberian and Arab-Persian megabasins are specified. The characteristic West-Siberian and Arab-Persian (or the Persian Gulf) oil-and-gas megabasins is reflected.

**Keywords:** *sedimentary basin, oil-and-gas accumulation, oil-and-gas megabasin, Western Siberia, the Arab-Persian.*

**Lyugay D.V. Strategy of searches of gas in Peri-Caspian depression** / D.V. Lyugay, B.S. Korotkov, E.E. Polyakov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 53–58.

Peri-Caspian depression is presented for the first time as the epipaleozoic imposed depression. Prospects of opening of new large-scale fields in a subsalt complex not only in onboard zones, but also in the central deep-shipped part of a depression are proved. It is shown that mapping of subsalt deposits needs to be carried out on the basis of the uniform geological digital model constructed according to seismic exploration of different years and results of deep drilling in zones of left and right bank of the Volga River in Astrakhan, Volgograd and Saratov areas.

**Keywords:** *Peri-Caspian depression, trends, gas, hydrocarbons, geological model, the deeper horizons, super-deep wells.*

**Soin D.A. Pressure and temperature conditions of gas-and-oil occurrence of northern regions of Western Siberia (land and shelf)** / D.A. Soin, V.A. Skorobogatov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 59–65.

The characteristic of a geothermal field of Jurassic and cretaceous part of a sedimentary cover of northern regions of Western Siberia is considered. The major factors having impact on distribution of sizes of sheeted temperatures and pressure in natural tanks are allocated. Defining influence of the thermodeep characteristic of a bedding of reservoir quality rocks on their formation reservoir properties is established.

**Keywords:** *Western Siberia, geotemperature, formational pressure, abnormal-high formation pressure.*

**Podurushin V.F. Features of a structure and history of formation of structures of Neocomian age in Yamalo-Gydansky region** / V.F. Podurushin // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 66–73.

The sedimentary cover of Western Siberia is usually considered as tectonic the passive formation broken by only stamp folds over ledges of the base and low-amplitude steeply-dipping fault. On the basis of results of repeated interpretation of the seismic exploration sections which have been carried out by the author, it is proved that Neocomian tectonic compression recognized concerning a framing of Western Siberia, extended and on Yamalo-Tazovsky region. The type of dislocations presented by flat thrust and underthrust of considerable amplitude new to the region, is considered by the complicated under-fault anticlinal folds. Some of these folds contain the revealed deposits of oil and gas, others are potentially productive and are offered as objects of searches of hydrocarbonic congestions.

**Keywords:** *Neocomian, compression, thrust, underthrust, anticlinal flexure, structural trap.*

**Izvekov I.B. Regularities of placement of hydrocarbons fields of a zone of a joint of Yamal, Gydansky and Nadym-Pursky areas of the West Siberian megaprovince** / I.B. Izvekov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 74–80.

The zone of a joint of Nadym-Pursky, Yamal and Gydansky oil-and-gas areas is characterized by various oil-and-gas occurrence on a section and on the area. As a result of the exploration, which has been carried out in this zone, rather wide age range of oil-and-gas occurrence is established. Industrial congestions of hydrocarbons are found in deposits from Cenomanian roof to Paleozoic inclusive. Regularities and features of placement of gas and oil fields in a zone of a joint are connected with features of a tectonic structure and development of the area and lithologic and facies conditions of formation of sedimentary thicknesses. The difficult tectonic structure of the base of the studied area, existence rifts and interrift raisings causes specifics of development of structures in a sedimentary cover. The tectonic factor in a zone of a joint is one of defining placement oil and gas fields.

**Keywords:** *oil-and-gas occurrence, field, tectonic structure, junction zone, especially accommodation, Western Siberia.*

**Davydova E.S. Problems of studying, assessment and development of hydrocarbonic potential of Achimov thickness (Berriasian – Valanginian) of Nadym-Pur-Tazovsky region of Western Siberia** / E.S. Davydova, I.B. Izvekov, G.R. Pyatnitskaya, Yu.B. Silantsev, V.A. Skorobogatov, E.V. Semyonova // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 81–90.

Modern data on study, geological structure and oil-and-gas occurrence of Achimov sandy-argillaceous thickness of Berriasian – Valanginian age in Nadym-Pur-Tazovsky interfluvium (region) in the north of Western Siberia are reflected. Questions of placement and stocks of hydrocarbonic congestions in volume of Achimov thickness, thermobaric conditions of its fluidal system, physical and chemical properties and composition of free gas, condensate and oil, geochemical features and catagenesis organic substance are in detail considered. The retrospective analysis of estimates of size and structure of initial potential resource of hydrocarbons of Achimov tanks is carried out, author's estimates of resource of gas and liquid hydrocarbons are given.

**Keywords:** *hydrocarbons, Achimov thickness, Western Siberia, Nadym-Pur-Taz region.*

**Ryzhov A.E. Physical and chemical characteristic of condensates of Achimov deposits of Urengoyskoye oil-gas condensate field** / A.E. Ryzhov, N.M. Parfyonova, E.B. Grigoriev, I.M. Shafiev, M.M. Orman // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 91–98.

Results of complex physical and chemical research of condensates of Achimov deposits (Ach<sub>3-4</sub>, Ach<sub>3-4, 5</sub> and Ach<sub>3</sub> layers) of Urengoyskoye oil-gas condensate field with determination of properties, fraction and group hydrocarbonic structures, and also commodity properties of fuel fractions are stated. It is established that condensates of the studied deposits are similar among themselves according to physical and chemical characteristics and treat heavy condensates of methane and naphthenic type. It is shown that petrol, kerosene and diesel distillates of condensates are favorable stock for their use as a basis for the purpose of receiving the corresponding fuels.

**Keywords:** *gas condensate, fraction composition, group hydrocarbon composition, gasoline, kerosene, diesel fractions.*

**Istomin V.A. Hydrate formation in a bottomhole formation zone at development of Turonian deposits of Western Siberia** / V.A. Istomin, P.A. Moiseykin, V.N. Abrashov, D.M. Fedulov, V.V. Chernykh, C.G. Medvedev, T.V. Sopnev // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 99–104.

On the example of Yuzhno-Russkoye field hydrate formation conditions in the Turonian deposits are defined. The technique of specification of formation temperature is offered and the nomogram for definition of without hydrate depression is submitted.

**Keywords:** *Yuzhno-Russkoye field, natural gas, gas hydrates, hydrate formation, reservoir temperature and pressure, without hydrate depression and well production.*

**Tsvetkov L.D. Oil-bearing capability of zones of tension crust on the example of offshore part of Brazil and Russia** / L.D. Tsvetkov, N.L. Tsvetkova // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 105–113.

Results of the analysis of oil-bearing capability of offshore part of Brazil and east regions of Russia are given. On the basis of their comparison authors allocate in the east of Russia independent Nelkano-Sette-Dabansky the oil-and-gas basin with considerable resources of hydrocarbons.

**Keywords:** *oil-bearing capability, Eastern Siberia, the Far East of Russia, Brazil, the Gulf of Mexico.*

**Kosachuk G.P. To a question of the nature of oil pools (oil rims) formation of Nepsko-Botuoobinskaya anticlinal fields** / G.P. Kosachuk, S.V. Burakova, S.I. Butochkina, E.V. Melnikova, N.V. Budrevich // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 114–123.

The existing points of view of oil pools (oil rims) formation of Nepsko-Botuoobinskaya anticlinal are shined. Results of the analysis of data on distribution of the productive oil-and-gas horizons of a section and the area of the Nepsko-Botuoobinsky region, their collection properties, the geochemical characteristic oils and condensates are given. On the basis of the received results authors formulated own ideas of oil pools (oil rims) formation of Nepsko-Botuoobinskaya anticlinal.

**Keywords:** *Nepsko-Botuoobinskaya anticlinal, fields, terrigenous strata Vendian, Lower Cambrian carbonate complex, oil-and-gas generation potential, hydrocarbon migration, accumulation.*

**Burakova S.V. Problems of development thin oil rims gas-condensate deposits of Eastern Siberia (on the example of Botuoobinskaya deposit of Chayandinskoye oil-gas condensate field)** / S.V. Burakova, D.V. Izyumchenko, I.I. Minakov, V.A. Istomin, E.L. Kumeiko // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 124–133.

The analysis of possible approaches to development thin oil rims gas and gas-condensate deposits and methods of increase of coefficient of extraction of oil is submitted. Features of an oil rim of Chayandinskoye oil-gas condensate field and factors which can complicate its development are considered. Recommendations about application of the most perspective, according to authors, methods of extraction of oil in relation to geological field conditions of the Chayandinskoye field are made.

**Keywords:** *gas condensate deposits, oil rims, oil recovery factor (ORF), displacement agent, reservoir-producing methods.*

**Kichenko V.E. Condition and problems of resource support export of the East Siberian gas** / V.E. Kichenko, E.V. Semyonova // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030*. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 134–139.

The analysis of modern activity of the leading oil-and-gas extraction companies of the Russian Federation in Eastern Siberia and in the Far East indicates expansion here in the short term gas production and gas processing for the purpose of export of the Russian gas to the Asia-Pacific Region (APR) countries. The geographical position of designed plants on liquefied natural gas production (LNG) and gas processing and also feature of structure of gas raw materials will allow to satisfy demand of a number of the APR countries for the Russian gas. For implementation of export targets of gas and gas processing products to the APR countries Gazprom it is necessary to bring till 2018–2020 into development gas fields belonging to it and gas-processing plants (including on LNG production).

**Keywords:** *Eastern Siberia, the license areas, helium, Gazprom, Rosneft.*

**Korotkov S.B. Vertical channels of migration of hydrocarbons and their role in formation of the deep-shipped pools** / S.B. Korotkov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030*. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 140–147.

In the sedimentary and migratory theory Naphthide Genesis the key part in formation of hydrocarbons fields is assigned to their distant lateral migration. Distinctive feature of the top horizons is the consistency of permeable layers on the big area that provides conditions for regional streams of underground waters (the artesian pool). At big depths (the km is deeper 4,0÷4,5) all sedimentary rocks are strongly condensed (except very young depressions), in a section are absent the sustained layers, universal development the block structure has and, as a result, conditions for regional streams of underground waters are created. Vertical migration becomes the main form of a mass transfer. To increase the accuracy of forecasting of deep-laying productive objects, it is necessary to rethink the models of their formation considering revealed features of the deep horizons, and also the formations which have experienced deep immersion in the historical development.

At big depths the massif of rocks is divided into hydrodynamic isolated blocks of different dimension. In the block massif discretely at different levels there are zones of the raised jointing which serve in one cases as a receptacle for hydrocarbonic congestions, in others – migration ways in the direction of a day surface. The interblock zones being independent facial objects, also can form subvertical fluid canal, the environment for formation of hydrocarbons traps and the subvertical fluid barrier dividing a deposit into isolated hydrodynamic objects of development. This feature should be considered by searches, additional exploration and development of oil-and-gas fields.

**Keywords:** *hydrocarbons, migration, downtake, accumulation, deep horizons.*

**Akimov V.V. Problems of an assessment and development of hydrocarbonic potential of a subsoil Korotaihinskaya deep** / V.V. Akimov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030*. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 148–152.

Problems of an assessment of hydrocarbonic potential of a subsoil of the Korotaihinskaya deep and its development are considered. The factors influencing an assessment of prospects of oil-and-gas content of the area as a whole are revealed. Prospects of the main oil-and-gas complexes of the Korotaihinskaya deep are shown.

**Keywords:** *Korotaihinskaya deep, oil and gas occurrence, hydrocarbon potential, oil and gas complex.*

**Razmanova S.V. Fracture rocks collectors as additional source of the income of oil-and-gas companies** / S.V. Razmanova, V.N. Abramov, T.V. Antonovskaya // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030*. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 153–160.

Results of an assessment of economic efficiency of development of one of subcalculating objects of Vuktylskoye oil-and-gas field by traditional trade and geophysical researches on the basis of the approach offered by authors are given. Conclusions are drawn on efficiency of its application and expediency of researches in fracture rocks collectors.

**Keywords:** *fractured reservoir rocks, the method of large thin sections, actual value profit, net present value.*

**Kovalyova E.D. Classification of stocks of hydrocarbons of Russia. Problems of adaptation to the international standards** / E.D. Kovalyova, O.G. Kananykhina, Yu.B. Silantyev // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030*. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 161–164.

Problems of evolution of classification of stocks of hydrocarbons and its adaptation to the international standards are considered. Features of domestic and foreign systems of classification of stocks and resources of hydrocarbonic raw materials are shown. It is offered to consider staging of search process at their classification.

**Keywords:** *hydrocarbons, reserves classification, evolution, international standards, stages.*

**Korotkov S.B. Resource base, forecasts of production and consumption of natural gas in the European countries** / S.B. Korotkov, E.V. Semyonova, V.V. Yakovenko // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 165–172.

Gazprom continues to remain the largest supplier of gas in the European market providing more than a quarter of its total consumption. Considering that such situation will remain in the next decades in article possible scenarios of development of the European gas market taking into account existing tendencies are considered: on the one hand, fast exhaustion of resource base and decrease in own production in the majority of the European countries, with another – diversifications of supply of gas, development of the market of the liquefied natural gas and transition to alternative energy sources.

**Keywords:** *gas, resource base, demand and supply of natural gas.*

**Zabolotnaya Yu.I. Present state of mineral resources of hydrocarbons and forecast of an export potential of neighboring countries (Turkmenistan, Kazakhstan, Uzbekistan)** / Yu.I. Zabolotnaya, N.A. Krylov, A.Ya. Grizik, E.V. Yudina, N.G. Ivanov // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 173–184.

On the basis of monitoring of a condition of a source of raw materials the structure of initial total resources of hydrocarbons of neighboring countries – Turkmenistan, Uzbekistan and Kazakhstan – is estimated. The expert forecast of their opportunities in the field of production, export and import on the five-year periods of development of mineral resources till 2030 is given. In the conditions of closeness of reliable information about a condition of the current stocks of gas and concrete results of exploration in a several countries of CIS, such forecast is necessary for Gazprom management for adoption of basic administrative decisions.

**Keywords:** *initial total resources, hydrocarbon reserves, natural gas, oil, annual production, export potential, import requirements, neighboring countries.*

**Zabolotnaya Yu.I. The directions of geological prospecting works of Gazprom in neighboring countries (Turkmenistan, Kazakhstan, Uzbekistan, Tajikistan, Kyrgyzstan)** / Yu.I. Zabolotnaya, N.A. Krylov, A.Ya. Grizik // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 185–193.

The directions of geological prospecting activity of Gazprom in the countries of the Central Asian region, its results and prospects of further development are presented. The assessment of investment climate in the region is given. Formation and expansion of mineral resources base of Gazprom happens at the expense of development of the hydrocarbons resources of the oil-and-gas pools being not only in the territory of the Russian Federation, but also in neighboring countries. Control over the last allows to optimize dynamics of development of the Russian hydrocarbons resources and their structure.

**Keywords:** *initial total resources, hydrocarbon reserves, natural gas, exploration, neighboring countries, production sharing agreement.*

**Pyatnitskaya G.R. The helium resources base of Russian Federation and prospect of its development** / G.R. Pyatnitskaya, Yu.B. Silantsev // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 194–199.

Results of the analysis of distribution of world reserves of helium and source of raw materials of its production in the Russian Federation are given. Need of approach of the Russian standards to western as existence of divergences complicates comparison of regional structure of the revealed stocks and predicted resources is noted. The fractal assessment of structure of possible opening of helium-rich fields is given. Prime objects of development and the direction of search works for formation of resource base of helium are defined. The prime region for creation of the helium industry of Russia are the Irkutsk region and regions of the Krasnoyarsk Territory adjacent to it. Problems of resource providing the world market of helium are considered.

**Keywords:** *helium, resource base, fractal convergence of reserves, tornado-mapping.*

**Silantsev Yu.B. Features of localization of helium resources in oil-and-gas pools of world** / Yu.B. Silantsev, T.O. Haloshina // *Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030.* – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 200–204.

From positions of evolution of natural oil and gas systems features of formation of zones of helium accumulation, their confinedness to non-uniformly scaled oil and gas objects and also dependence on age of consolidation of the base of sedimentary pools are considered. The main regularities of localization of helium accumulation resources are given.

**Keywords:** *gas, oil, resources, sedimentary rocks, helium, oil and gas systems.*

**Kovalyova E.D. Directions of increase of efficiency of development of the non-conventional gas resources / E.D.**

Kovalyova, Yu.B. Silantyev // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 205–211.

Development of non-conventional gas resources demands application of new geotechnologies and the optimum industrial providing allowing to increase profitability of their development. New systematization of geotechnologies is offered. The analysis of fiscal tax incentives of development of non-conventional gas resources of the USA, China and other countries is carried out.

**Keywords:** *gas, unconventional resources, profitability, systematization, geotechnology, promotion, analysis of fiscal and tax law.*

**Kuzminov V.A. Gas-containing slates as one of types of non-conventional resources of natural gas of low-permeability formations / V.A. Kuzminov, S.A. Leonov, E.V. Perlova, L.S. Salina // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 212–218.**

One of types of the non-conventional gas resources – slate gas is considered, in which industrial development the USA by right are considered as the pioneer. “The slate boom” overflowed many countries of Europe and Asia having its resources and wishing to reduce dependence of the economy on import of natural gas. In Russia because of sufficient security with stocks of traditional gas questions of an assessment of resources a demand and prospects of development of slate gas are a little studied as in the near future it won't be the priority direction. According to authors of article carrying out scientific research work directed on an assessment of strategic risks of Gazprom, the slate projects connected with realization now is expedient.

**Keywords:** *natural gas, unconventional gas, shale gas, low-permeability formations.*

**Tsvetkov L.D. Slate oil of Russia / L.D. Tsvetkov, N.L. Tsvetkova // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 219–230.**

On the basis of studying of the main formations in the territory of Russia the conclusion that within an epipaleozoic West Siberian plate (and especially ancient Siberian platform) there are huge resources of slate oil which will allow our country to keep leading positions in world oil production to the middle of the current century is drawn. It is expedient to concentrate efforts on the first stage of industrial development of these resources in the areas having obvious geological and economic advantages or the most favorable geographic-and-economic conditions, namely: in the central regions of Western Siberia (Bazhenovskaya formation), the western part of the Krasnodar territory near the coast of the Black Sea (Kumskaya formation), northern part of the Khabarovsk territory near the coast of the Sea of Okhotsk (Malginskaya and Inikanskaya formations).

**Keywords:** *shale oil, the Bazhenov formation, Salymskoe shale field, Domanik formation, Kumskaya formation, Kuonamskaya formation, Malginskaya formation, Inikanskaya formation.*

**Cheltsov V.N. Vibrogeodynamic recurrence of sheeted temperatures in temporarily shut-in wells / V.N. Cheltsov, M.I. Miklyaev, T.V. Cheltsova, L.A. Kalyakina // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 231–237.**

For the first time as one of the reasons, caused spatial changes of a thermic field of the Astrakhanskoye gas field, natural vibrogeodynamic recurrence is specified. It influences gas-tightness, drainage, flood and fluid charging of deposits, emergence of behind-the-casing pressure, burial of industrial flows, safety of drilling and feature of fields development. The available facts of recurrence of sheeted temperatures and pressure define expediency of carrying out passive seismometry of gas fields (including in a mode of continuous monitoring). It will allow to provide fuller metrological coverage of objects of development, the prevention of complications, etc.

**Keywords:** *vibrogeodynamic cyclicity, formation temperature, compression and decompression geomedium, oscillation amplitude.*

**Akhiyarov A.V. Paleozoic carbonate platforms of Peri-Caspian Depression as oil-and-gas search criteria / A.V. Akhiyarov, K.M. Semyonova // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 238–252.**

Features of a structure and development of large carbonate massifs of Peri-Caspian Depression with which are generally connected as the proved considerable industrial stocks of hydrocarbonic raw materials, and further prospects of opening of new hydrocarbonic fields, probably, large and unique on stocks are considered. The analysis of the published geologic-geophysical data carried out by authors on this region, and also results of scientific researches of the last years of known Russian and Kazakhstan scientists allowed to reveal features of sedimentation modes at which there was an origin and formation of carbonate massifs of this type. All onboard zones of Peri-Caspian Depression about their oil and gas prospects are reflected. On the example of the largest fields of the studied region regularities of distribution (from the east to the west) congestions of hydrocarbons of a different phase condition irrespective of the size of stocks, type of a deposit and stratigraphic interval of its bedding, and also a lithology of breeds collectors are shown.

**Keywords:**

*Peri-Caspian depression, intrabasin Paleozoic carbonate platform, carbonate arrays, situation intensive carbonate.*

**Akhiyarov A.V. Belsko-bulaysky halogen and carbonate complex and its lithofacies and stratigraphic analogs within the Leno-Tungusky oil-and-gas province: prospects of oil-and-gas content and possible complications at drilling** / A.V. Akhiyarov, K.M. Semyonova // Vesti gazovoy nauki: Resource support problems of Russian oil-producing regions up to 2030. – Moscow: Gazprom VNIIGAZ, 2013. – № 5 (16). – P. 253–264.

The geological structure of a Belsko-bulaysky halogen and carbonate complex in the Leno-Tungusky oil-and-gas province (in an area of the Irkutsk region) and its lithofacies and stratigraphic analogs within Yakutia is reflected. On the basis of the retrospective analysis of results of prospecting works of the last decades (from the open published sources) authors optimistically estimate carbonate collectors of a halogen and carbonate complex of cavernous fractured type and draw a conclusion about need of further studying of a sedimentary cover for this stratigraphic interval. It is shown also that relevance of studying of a Belsko-bulaysky complex is caused including high mobility of the Siberian platform that creates additional difficulties (brine manifestations, the horizons of sliding and other) when drilling explorative and operational wells, and also leads to destruction of already drilled wells which were in preservation that turns around in very serious ecological and economic consequences.

**Keywords:** *Peri-Caspian depression, intrabasin Paleozoic carbonate platform, carbonate arrays, situation intensive carbonate.*