Requirements to the contents and design of the abstracts for the 4-th International Scientific and Practical Conference of LUKOIL-Engineering LLC "IMPROVING THE EFFICIENCY OF OIL AND GAS ASSETS SUPPORT" 19-21.10.2022

1. Subjects of reports.

The Conference will consist of 5 sections on the following subjects:

N⁰	Section title	Relevant subjects
1	Technology strategies in the key areas	 Search for new industry-specific technology solutions. From exploration to development – building a strategy to improve the assets' efficiency. Improving the efficiency of brown assets – enhanced recovery methods including the tertiary ones. Development systems – experience, selection of optimal solutions, expansion, including: Study and development of complex and unconventional reservoirs State-of-the-art technologies of exploration and development of the offshore fields. Integrated modeling of physico-chemical and engineering processes of field development. Field development management using information technology, machine learning and neural simulation. Modern methods of geological and engineering survey, Import substitution in the areas of Field development, Domestic modeling technologies, Optimization of hydrocarbons' production, Digital fields, Computer technologies of data processing and interpretation, Challenges of gas field development, Information technologies, machine learning, robotics and computer security, Innovative approaches to the study of shelf in difficult climatic conditions, State-of-the-art technologies of core and reservoir fluid study. Geology digitalization, including: Digital core and fluid, geochemical methods of field exploration and operation. Practical experience and new opportunities. Hard-to-recover hydrocarbon reserves. Practical experience and new approaches. Frontier technologies, automation of processes and application of artificial intelligence technology in geological exploration and reservoir
2	Improving the efficiency of engineering processes. Development of oil and gas engineering competences.	 modeling Development of projects aimed at improving the efficiency of production and engineering processes. Continuous improvement systems. Lean production. Tools of process efficiency improvement.
		 Developing competences in oil and gas engineering, including: Contemporary challenges of human capital management. Key elements of the motivation system. Employee development and corporate culture of efficiency. Employee performance assessment systems motivating for efficiency improvement. Talent management

N⁰	Section title	Relevant subjects
3	Developing new areas in oil and gas engineering	 Digitalization and robotization (round table): Machine learning and artificial intelligence methods in the assessment and forecasting of geological and geophysical parameters. Using RPA software robotics to reduce the human factor and increase the efficiency of operations in the oil and gas industry. Results of BIG DATA technology application in the oil and gas industry, challenges and prospects. Integrated modeling.
		 Innovative development and new technologies (round table): New enhanced oil recovery methods. Decarbonization (world experience in CO2 and injection and sequestration, and HNP, experience, challenges and solutions of CO2 injection into aquifers or oil-bearing formations, methods of geophysical survey and monitoring of the subsurface CO2 storages, greenhouse gas emissions accounting methodology)
4	Development of onshore and offshore well technologies as the basis of oil and gas assets' efficiency	 Round table: "Russian rotary steerable system technologies: challenges and prospects" Hot topics: Development of multi-lateral well technologies; Designer well technologies: logging while drilling, directional drilling equipment; Experience in introducing digital tools into the well construction processes: digital twins, trainable systems, Big Data processing; Drilling mud systems and technologies of well casing in complex geological environments; Prevention and elimination of inter-casing leaks - new equipment and technologies, domestic and foreign experience; Experience and specifics of the offshore well construction in high-H2S reservoir fluid environment; Offshore hydraulic fracturing and multi-stage hydraulic fracturing, domestic and foreign experience, equipment, fleet, specific features; Offshore cementing of casing strings with casing rotation, features of RIH equipment and mudline suspension system for cementing with rotation.
5	Sustainable development methods – to the 30-th anniversary of RITEK	 Improving field development systems. Improving the efficiency of field development through the enhanced oil recovery methods. Testing water-alternating-gas and thermal gas treatment technologies.

2. Reports' presentation.

The proceedings of the IV-th International Scientific and Practical Conference « IMPROVING THE EFFICIENCY OF OIL AND GAS ASSETS SUPPORT » are going to be published.

Please find below the requirements to reports presentation:

COMPLETENESS OF THE MATERIALS

1. Article in Word format.

2. Article in PDF format (is a must) –this will let one see the correct initial structure of an article when making up and avoid mistakes in equations.

3. Information on all authors of each article:

– Name, surname, patronymic.

- Academic degree.

- Full job title with an indication of headquarters or branch.

– E-mail.

4. Key words.

TEXTS

– Article length should be up to 7 pages.

– Article should be typed in Word in 14 point font with 1.5 line spacing.

- Each first introduced abbreviation in the article must be fully deciphered: *expansion* (*abbreviation*)

- References should be executed by all authors in the same way – as endnotes, framed with square brackets and Arabic numerals indicating books, articles or other sources listed in the reference list after the text, as they are mentioned (quoted) in the article (not in alphabetic order!)

Russian references

Example of books:

Muromtsev, V.S. Electrometric geology of sand bodies — depositional traps of oil and gas / V.S. Muromtsev. — L. : Nedra Leningrad Branch, 1984. — 260 pgs.

Markin, A.N. CO₂ corrosion of the oilfield equipment / A.N. Markin, R.E. Nizamov. — M. : OJSC VNIIOENG, 2003. — 188 pgs.

Subsurface management in Khanty-Mansi Autonomous Okrug — Yugra in 2015. Tyumen : IzdatNaukaService Publishing House, 2016. — 238 pgs.

Example of books having more than three authors:

Real estate economics and finance / D.L. Volkov [et al.]; edited by Yu.V.Pashkus. — SPb. : SPb SU Publishing House, 1999. — 186 pgs.

Example of magazine article:

Kulakhmetov, N.Kh. Analysis of verification of the inferred oil and gas reserves in the Tyumen Region / Kh.N. Kulakhmetov, V.I.Shpilman, G.I.Plavnik // Oil and gas geology. — 1977. — № 2. pp. 25–29.

Example of magazine article with more than three authors:

Financial performance and neural analysis: experience of business environment study / S. V. Kotelkin [et.al.] // Bulletin of St. Petersburg University. Series 8. Management. — 2002. — Issue 3. — pp. 120–143.

Example of electronic source:

Engineering software development: website of Petroleum Experts company. — 2017 [Electronic source]. — Revision date: 04.05.2016. — Available at: http://www.petex.com/products (assessed on: 15.01.2017).

<u>Sources in English – from SciVerse Scopus:</u> Article in Russian Authors (transliteration) \rightarrow (year in parentheses) \rightarrow transliterated title of an article [translation of the article title into English in square brackets], name of the Russian language source (transliteration or English title - if any), publication data with designations in English.

Example:

Gokhberg L., Kuznetsova T. (2011) Strategiya-2020: novye kontury rossiiskoi innovatsionnoi politiki [Strategy 2020: New Outlines of Innovation Policy]. *Foresight-Russia*, vol. 5, no 4, pp. 8–30.

Comments:

• If no authors and editors are specified in the publication, the reference should start from the name of publishing organization:

HSE, IMEMO (2008) Innovatsionnoerazvitie — osnova modernizatsii ekonomiki Rossii. Natsional'nyidoklad [Innovation Development as a Basis for the Russia's Economic Modernization. National Report], Moscow: HSE, IMEMO.

IBM (2009) A vision of smarter cities: How cities can lead the way into a prosperous and sustainable future. IBM Institute for BusinessValue.

• If authors are not specified, but an editor is mentioned, his name should be placed at the beginning of the reference as follows: Gokhberg L. (ed.) (2002) *Dialogue on S&T* between the European Union and the Russian Federation, Moscow–Vienna: CSRS-BIT.

• There should be specified only the name or abbreviation of the publishing organization (without "Publishing" and etc.), as follows: Moscow: HSE (instead of — Moscow: HSE Publ.).

EQUATIONS

– all equations should be typed in Microsoft equation in Word.

- all equation parameters should have a definition. It is sufficient to provide a definition once, when a parameter is mentioned for the first time.

FIGURES

- Resolution of figures and photos in .jpg, .tif formats should be no less than 300 dpi.

- Figures should be clear, each element and word should be readable.

- Each figure should have a caption per the following sample: *Figure 1 – Sample 14-V- 1901 from the completion tank of the Filanovsky Field.*

– It is desirable that the figure text is editable.

TABLES

- Should be typed in Word, not inserted as pictures.

- Each table should have a caption per the following sample: *Table 3 – Forecasted filling* of the deposits with uncertain fluid contacts and off-balance reserves

Additional recommendations regarding the design of tables and figures

– Figures and tables should not double each other.

– All data should be provided in SI units (for instance, pressure in MPa, viscosity in mPa \cdot s, permeability in μ m² and etc.).