-SHOGENERGY USING NUCLEAR MAGNETIC RESONANCE ELENDVENDN

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INTRODUCTION

SOCIAL MEDIA

SCAN ME

Now, humanity stands in front of serious challenges due to political, economic, energy and climate problems. To solve the described challenges, innovative, more effective, economically feasible, faster, and environmentally friendly technologies are needed to explore underground to produce metals, rare elements, critical raw materials, water and geothermal energy. Among new exploration targets are geological resources for underground storage of energy (hydrogen storage or compressed air energy storage (CAES), CO_2 storage, or radioactive waste storage.

The innovative technology of Satellite Exploration of Earth Resources Using the

Mapping of deposit boundaries PHASE-PHASE-2 **PHASE-4** Photogrammetric₁ Preparatory Geological Exploration calibration work nterpretation Detailed workflow

SELECENERGY

Consulting & Solutions for future energy sector CCUS /H,/Energy storage /Geothermal energy recovery SYNERGY CONCEPTS

GEOLOGN

Nuclear Magnetic Resonance (NMR) Phenomenon - "SKYGEOEXPLORENOVA-NMR" -(SGEN-NMR) is proposed. The main idea of the innovative method lies in the point-bypoint sounding of an area with frequency spectra that excite resonance in the target substance. Sounding radio-frequency radiation should be highly directional to concentrate the transmitter's power in the right direction. Point-by-point resonance location sounding allows searching for deposits, obtaining their underground contours, and geological sections and selecting optimal drilling points. Based on these data geological resources of the deposit could be estimated. The magnetic field of the Earth is used as the source of a constant magnetic field to create NMR conditions in the molecules of a target substance at depths of <u>up to 5 km</u> (Ivashchenko, P.et al., 2016, Ivashchenko, P.N. & Geenko, V.P., 2020, Patent 2011, 2013).

For the first time, an updated routine for the exploration process is presented here (Fig. 1).



Fig. 1. Four main phases and detailed workflow of SGEN-NMR technology and frequency range used for analogue space images.

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industrial With SGEN-NMR production

SGEN-NMR does not rely on drilling, prospecting, or exploring wells

Remote diagnostics and sensing of the Earth with nuclear magnetic resonance

We can survey per month up to 50,000 km²

[Great area]

We can reach 7 CLED TRIS onshore

offshore

Great depth up to 5,000 m

Urkunde

The main benefits of SKYGEDEXPLORENOVA

> compared to traditional geophysical methods:

- RADIOACTIVE WASTE STORAGE site

कर [water in crystalline rocks]

SHOGENERGY

Lower price Accuracy (> 90%) **Environmentally** friendly

Time of exploration (2 months)

 Avoidance of permits from public authorities and public acceptance issues





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	A COLOR OF THE OWNER	Testing in Okraine
es Nuclear: Zeroes in Targets	1427.	
Flats Petroleum, Inc., an Environmental Exploration and es in targets using Nuclear Magnetic Resonance (NMR). In an s, nothing comes with higher risks than wildcatting for oil and	۲	
advanced mineral exploration technology known, Chocolate		State-owned commercial enterprise
others fail.		«Scientific Technological Complex «Resource»
Institute of Geophysics and Problems of the Earth, Ltd (Kiev, extensive articles in hydrocarbon exploration using innovative for Remote Sounding in Minaral Deposit, is redefining the	Ц Ч	Requisites: CDPROU 38656297, Account: 26003010046542880 Bank: PAT *Ukreksimbank* jur. address: 031010 m Kyiv, str. Klimenko, 25., Ph. address: 01032, Kyiv, str. Saksaganskogo 121, of. 106. tel. (tax) +38 044 285 08 26
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ill for oil and gas was a decision often based on basic surface	.	
of seismic survey technology eliminated exploration drilling, ological mapping.	Ш	The whom concern
nnology have helped find, drill and produce oil and natural gas,		We hereby inform the following.
s and minimizing the environmental impact of oil and gas	<u>र</u>	By request of "Krymgeologiva" works were carried out on additional investigation of the
have a success rate not higher than 35%-40%. However, the		earlier discovered on the Crimean peninsula "Tat'vaninskoe" deposit of gas condensate.
he millions of dollars, not to mention the difficulty in planning	7	The second s
and sensitive areas.		The geophysical survey was carried out by specialists of institute of Geophysics and
IMR) imaging with accuracy better than 95% to our extensive	Ш	problems of the Earth", Ltd, using innovative technology based on nuclear magnetic
iginal logs, proprietary Western Geophysical deep reflective		resonance.
ravity data, Bouguer gravity data, and hyperspectral images	7	According to the results of the investigation reserves of gas condensate and boring
s to confirm what we've known for a long time, stated Jeff		point were defined, and the boring of prospecting-industrial well was successfully completed.
owa and the generations past and present who have waited		
n important role in the Texas oil and gas industry by funding		
1901."	<u>CAS</u>	Director General of the Scientific Technological Complex "Resurs" Laureate of the State Prize of Ukraine 06 th January 2011 Performed V. Trushina +38 067 740 2633
		The second s

News Release Chocolate Flats Percleum, Inc. CHDCOLATE FLATS



• Ivashchenko, P., Bakai, E., Yurchuket, A, 2016. About the possibility of identification of hydrocarbon deposits with the help of NMR» European scientific journal «Geoscientific Instrumentation Methods. Copernicus, <u>https://gi.copernicus.org/articles/5/551/2016/gi-5-551-2016-</u>

discussion.html

Dppor

 Ivashchenko, P.N., Geenko, V.P., 2020. Experience with the application of «Geodirect» technology for deep freshwater prospecting. VII International scientific-practical conference "Topical issues of science and practice" November 2-06, 2020, London, Great Britain. • Patent UA, 2011. PCT/UA2011/000033. 2013. 86168, 86497, Patent no. 86169, UA, • Patent PCT/UA2013/000036.



