



RSS-NMR SEVSU Poisk

Groupe POISK

Re-Exploration dans les champs Mature en production

Exemples de projets

Étude de cas I. Russie. Champ de production

But de l'étude

Identification et délimitation des anomalies d'hydrocarbures associées à des gisements non forés ou découverts dans le champ de production de condensats de gaz

- 1) Déterminer les anomalies d'hydrocarbures dans la zone étudiée en traitant les données satellitaires (étape I) et en examinant en détail les zones anormales à l'aide d'un équipement mobile de terrain d'essai à résonance (étape II) ;
- 2) Mesurer les profondeurs des réservoirs d'hydrocarbures dans les anomalies
- 3) Estimer l'épaisseur des réservoirs d'hydrocarbures ;
- 4) Estimer l'épaisseur moyenne de la partie poreuse de la formation gazeuse et la pression de gaz dans chaque horizon ;
- 5) Cartographier les voies de migration des hydrocarbures à travers les roches perméables aux gaz ;
- 6) Déterminer le type de roches réservoirs des horizons d'hydrocarbures ;
- 7) Construire des profils de profondeur des réservoirs d'hydrocarbures sur les anomalies avec un pas de mesure ne dépassant pas 500 m ;
- 8) Estimer les ressources en hydrocarbures dans les anomalies identifiées.

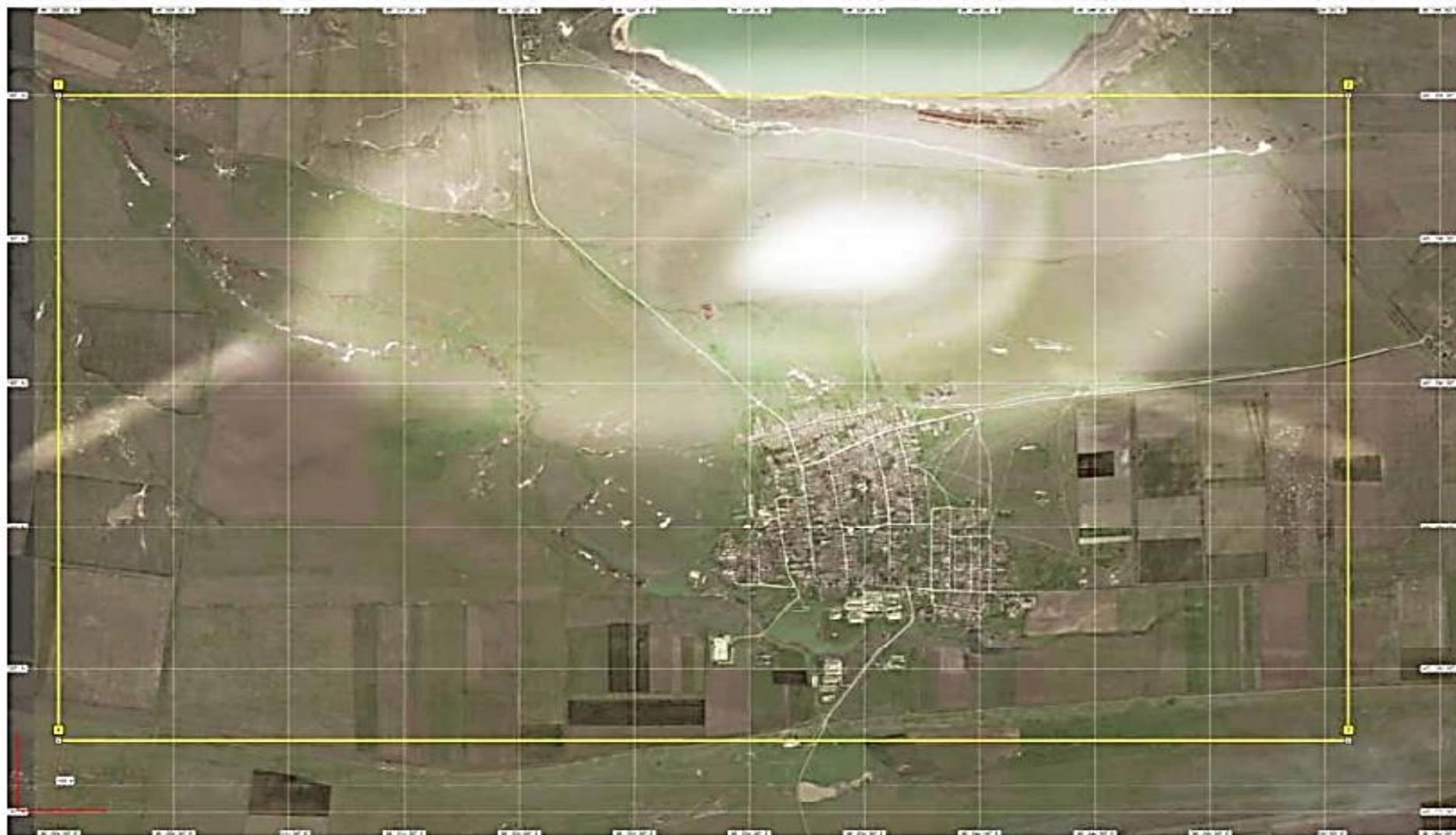
Étude de cas I. Russie. Champ de production

Phase I (télédéttection). Mise en page



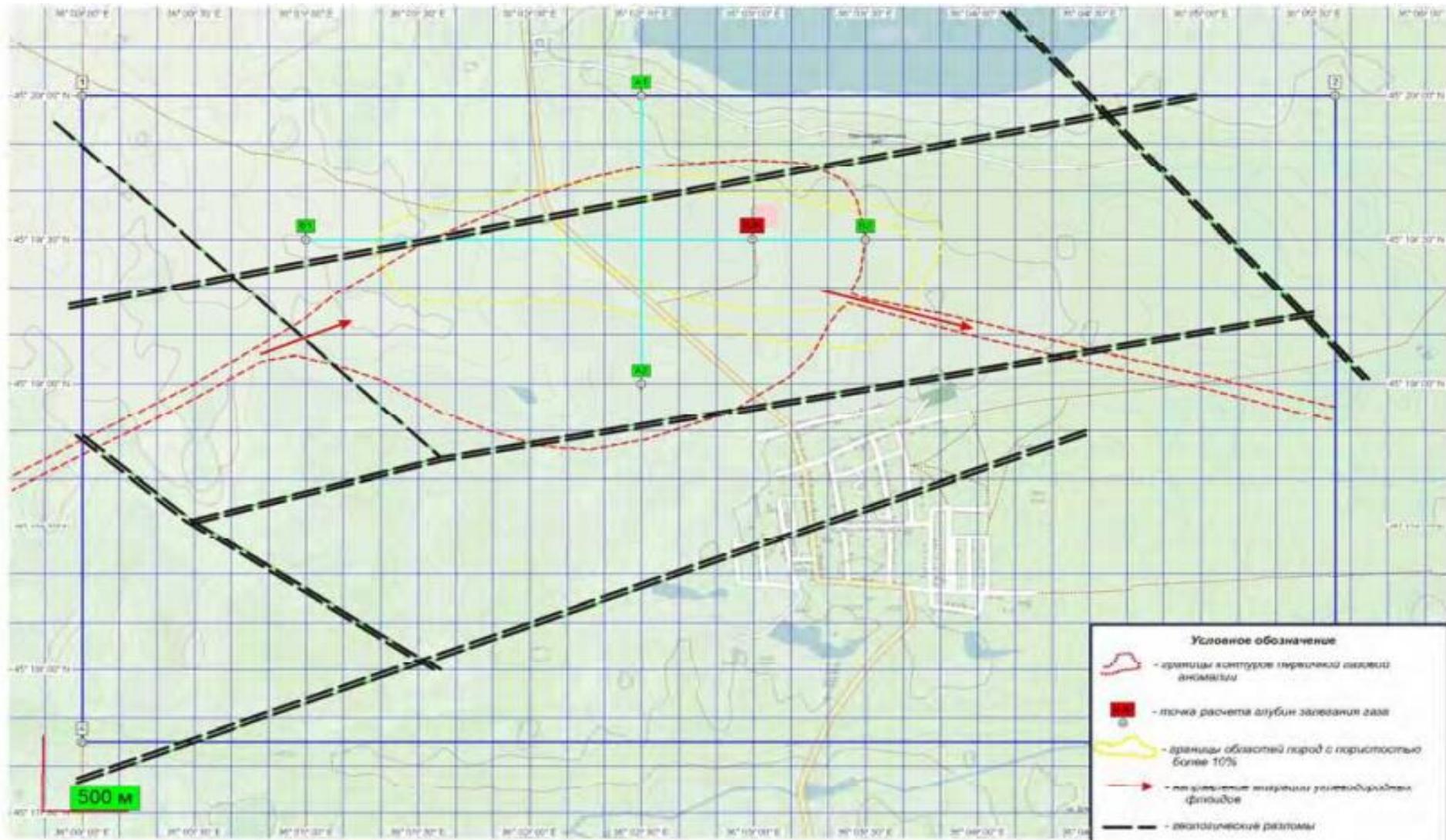
Étude de cas I. Russie. Champ de production

Phase I (télédéttection). Anomalies cartographiées



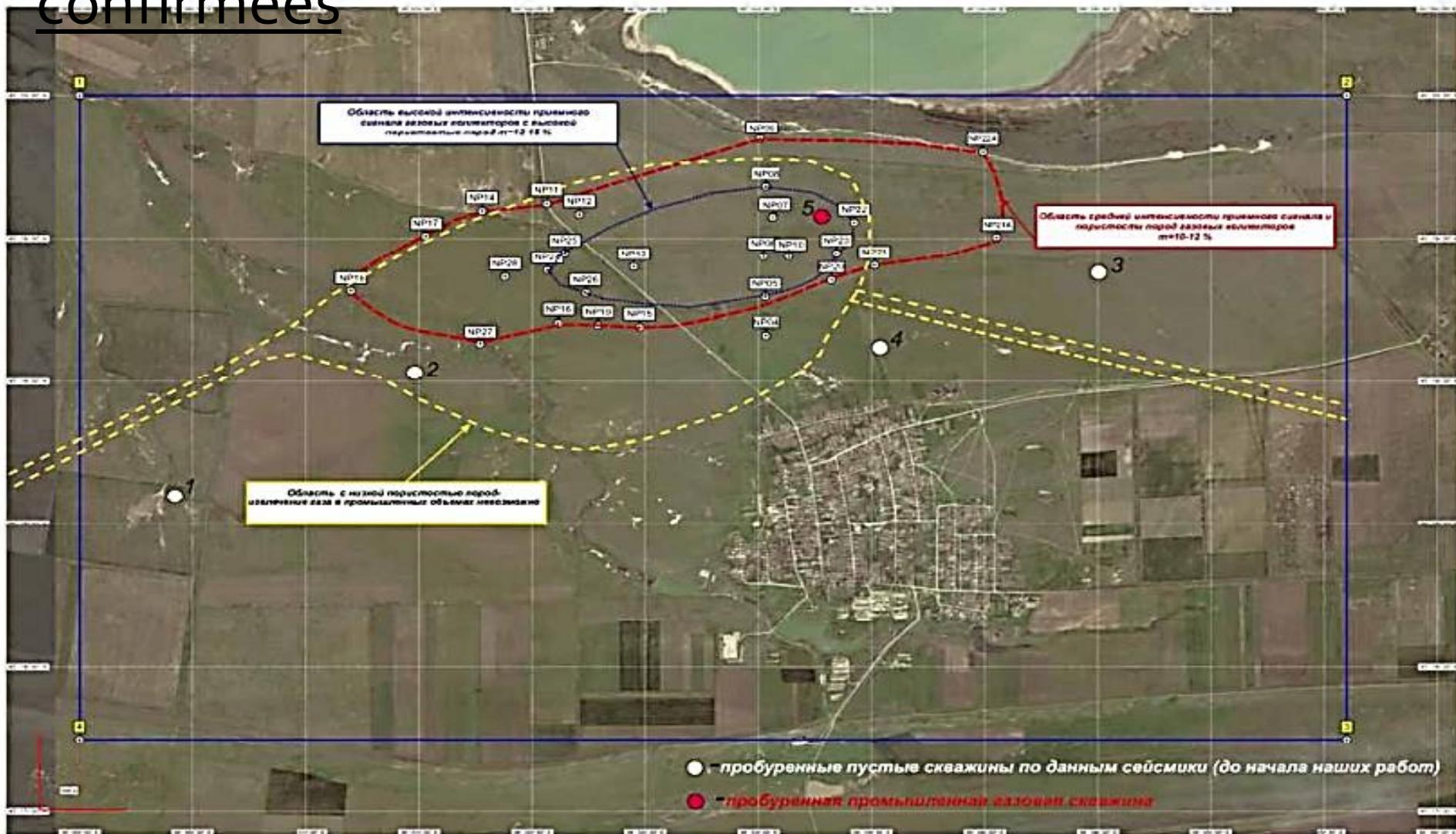
Étude de cas I. Russie. Champ de production

Phase I (télédéttection). Défauts



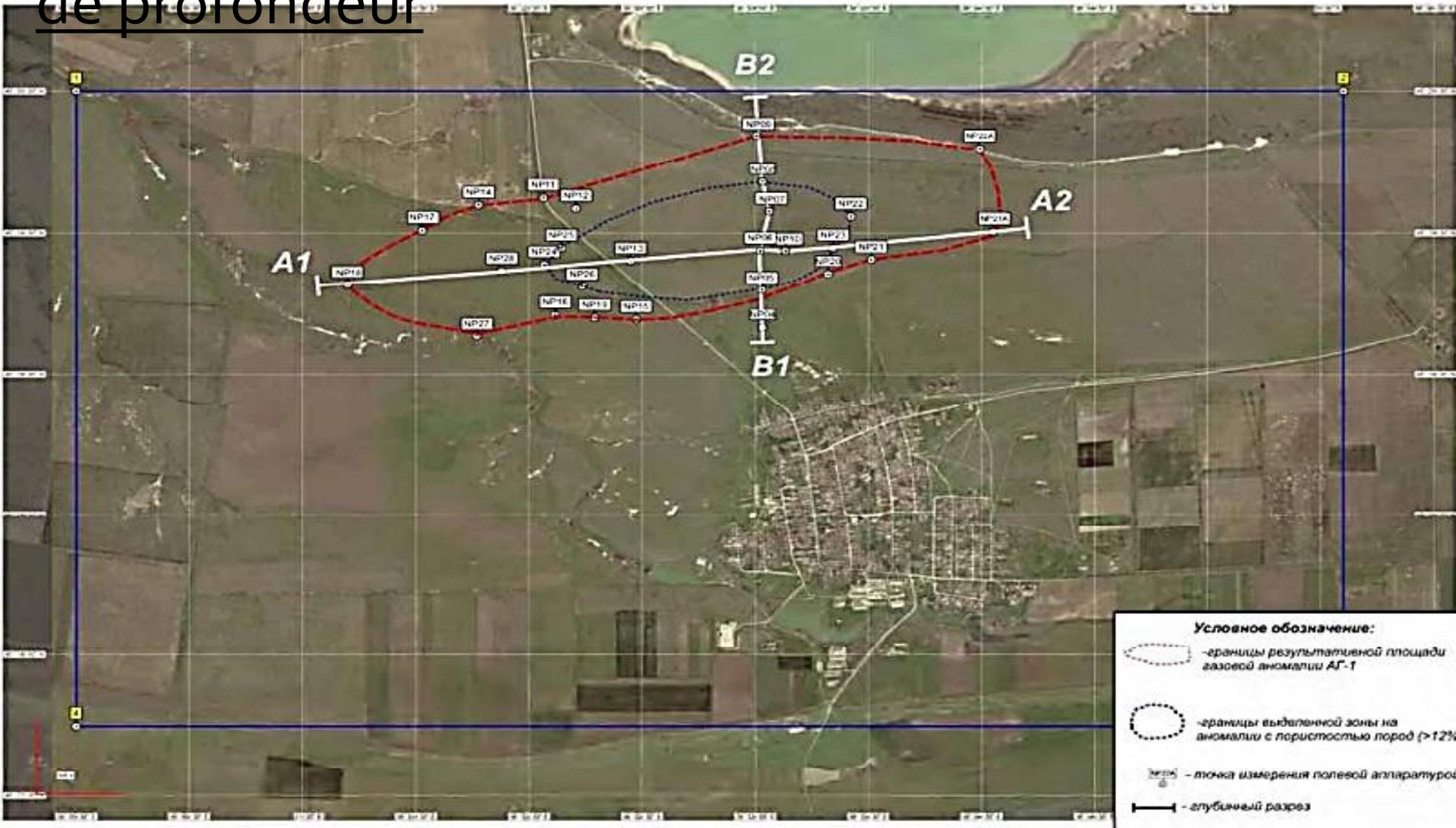
Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Anomalies confirmées



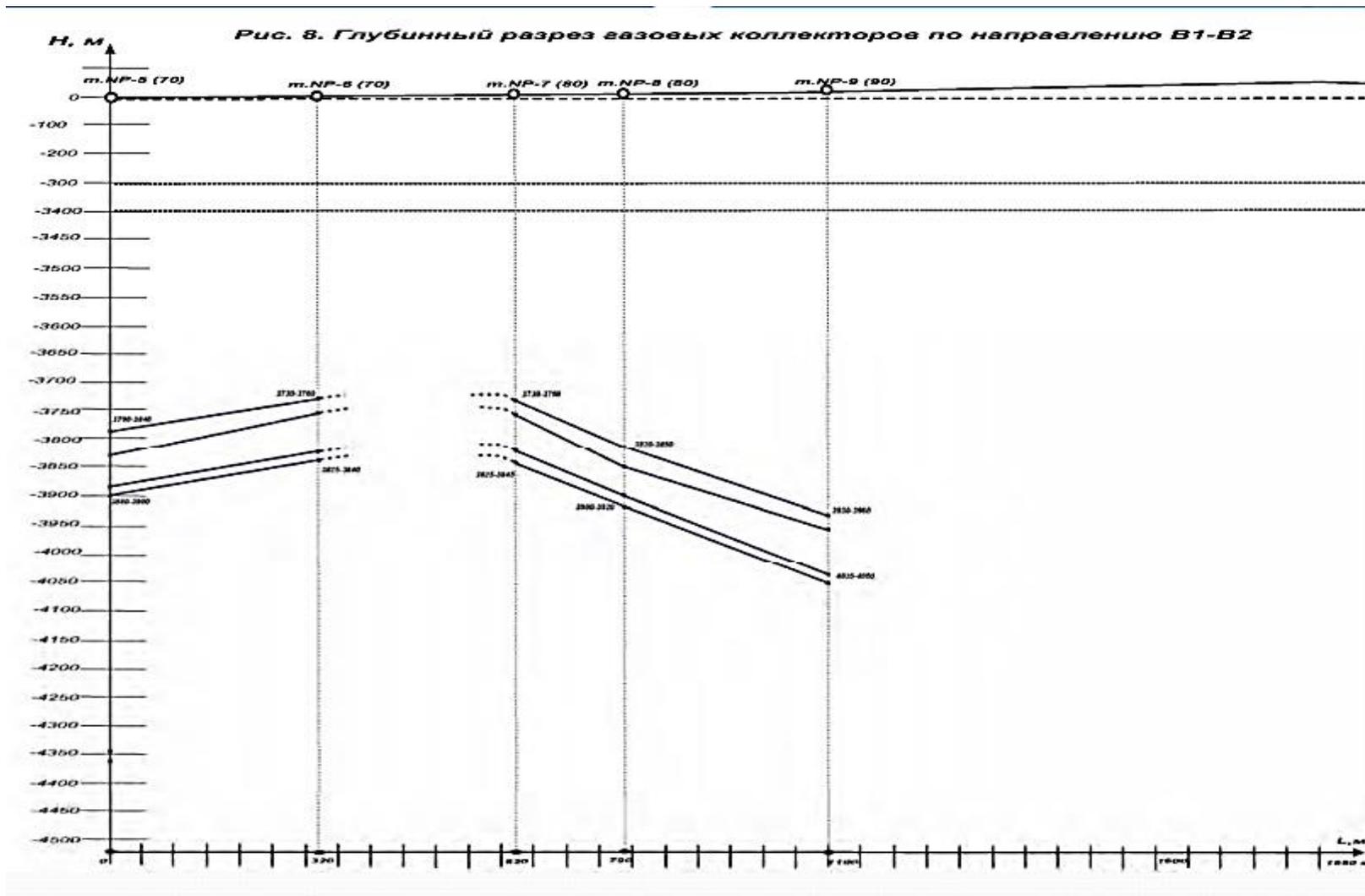
Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Lignes d'estimation de profondeur



Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Estimation de la profondeur



Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Propriétés du réservoir

Location	Lat, N	Signal features	Altitude above sea level (m)	Gas reservoirs depth -H ₁ , -H ₂ (m)	Rock types. Pressure (P, MPa)	Gas reservoir thickness, Δh (m)
	Long, E					
1	2	3	4	5	6	7
NP04	45°19'9,7" 36°3'2,0"	The "gas" signal, the background values of the signal. Of no commercial value	70	-	-	-
NP05	45°19'17,7" 36°3'1,8"	Gas. The southern tip of the productive anomaly. Maximum signal intensity. Measurement of gas reservoir occurrence parameters.	70	(I) -3790÷3830; (II) -3880÷3900.	Porous sandstone, P ₁ =50; P ₂ =55	30 10
NP06	45°19'26,2" 36°3'1,4"	Gas. The maximum amplitude of the signal. Measurement of gas reservoir occurrence parameters.	70	(I) -3730÷3760; (II) -3825÷3840.	Porous sandstone, P ₁ =50; P ₂ =55	25 10
NP07	45°19'34,4" 36°3'3,8"	Gas. The maximum amplitude of the signal. Measurement of gas reservoir occurrence parameters.	80	(I) -3730÷3750; (II) -3825÷3845.	Porous sandstone, P ₁ =50; P ₂ =55	25 10
NP08	45°19'40,7" 36°3'2,0"	The boundary of the intense signal at the northern part of the anomaly.	80	(I) -3820÷3850; (II) -3930÷3950.	Porous sandstone, P ₁ =50; P ₂ =55	25 10
NP09	45°19'51" 36°03'00"	Gas. Average signal intensity. The northern part of the anomaly. Measurement of gas reservoir occurrence parameters.	90	(I) -3930÷3960; (II) -4035÷4050.	-/-	25 10
NP10	45°19'25,9" 36°03'7,1"	Gas. Maximum signal intensity. Measurement of gas reservoir occurrence parameters.	70	(I) -3730÷3755; (II) -3825÷3840.	-/-	25 10

Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Données de profondeur et de réservoir

Nº	Location	Altitude above sea level (m)	The depth of occurrence of gas reservoirs from the sea level	Effective thickness of the gas reservoirs (m)
1	P-18	50	3870-3915 3965-3985	30 10
2	P-28	60	3800-3830 3895-3915	25 8
3	P-24	60	3750-3770 3845-3855	25 10
4	P-13	60	3725-3745 3820-3835	20 10
5	P-06	70	3730-3750 3825-3840	20 8
6	P-10	70	3730-3755 3825-3840	25 9
7	P-23	80	3730-3755 3825-3840	25 10
8	P-21A	90	3750-3775 3835-3850	20 8

Étude de cas I. Russie. Champ de production

Phase II (enquête de terrain). Estimation des ressources

Horizon	Gas reservoir size			Depth, H (m)			Average effective thickness h (m)	Porosity m (%)	Water saturation, %	Pressure P (MPa)	Resources ($\cdot 10^6$ M ³)	
	Width (m)	Length (m)	Area S(m ²)	Min	Average	Max					In-place	Recoverable
I	1,3	3,8	3,2 $\cdot 10^6$	3725	3820	3930	20	12÷15	30	50	582,4	416,0
II	1,3	3,8	3,2 $\cdot 10^6$	3820	3930	4048	10	10÷12	40	55	147,84	105,6
Total:			6,4 $\cdot 10^6$								730,24	521,6

Volumes récupérables :

$$V_{rec} = S \cdot \Delta h \cdot P \cdot \eta_{CP};$$

où η_{CP} – le facteur intégral de porosité, température, saturation en eau, récupération de gaz

- η_{CP} – pour l'horizon I – 0,13
- η_{CP} – pour l'horizon II – 0,06

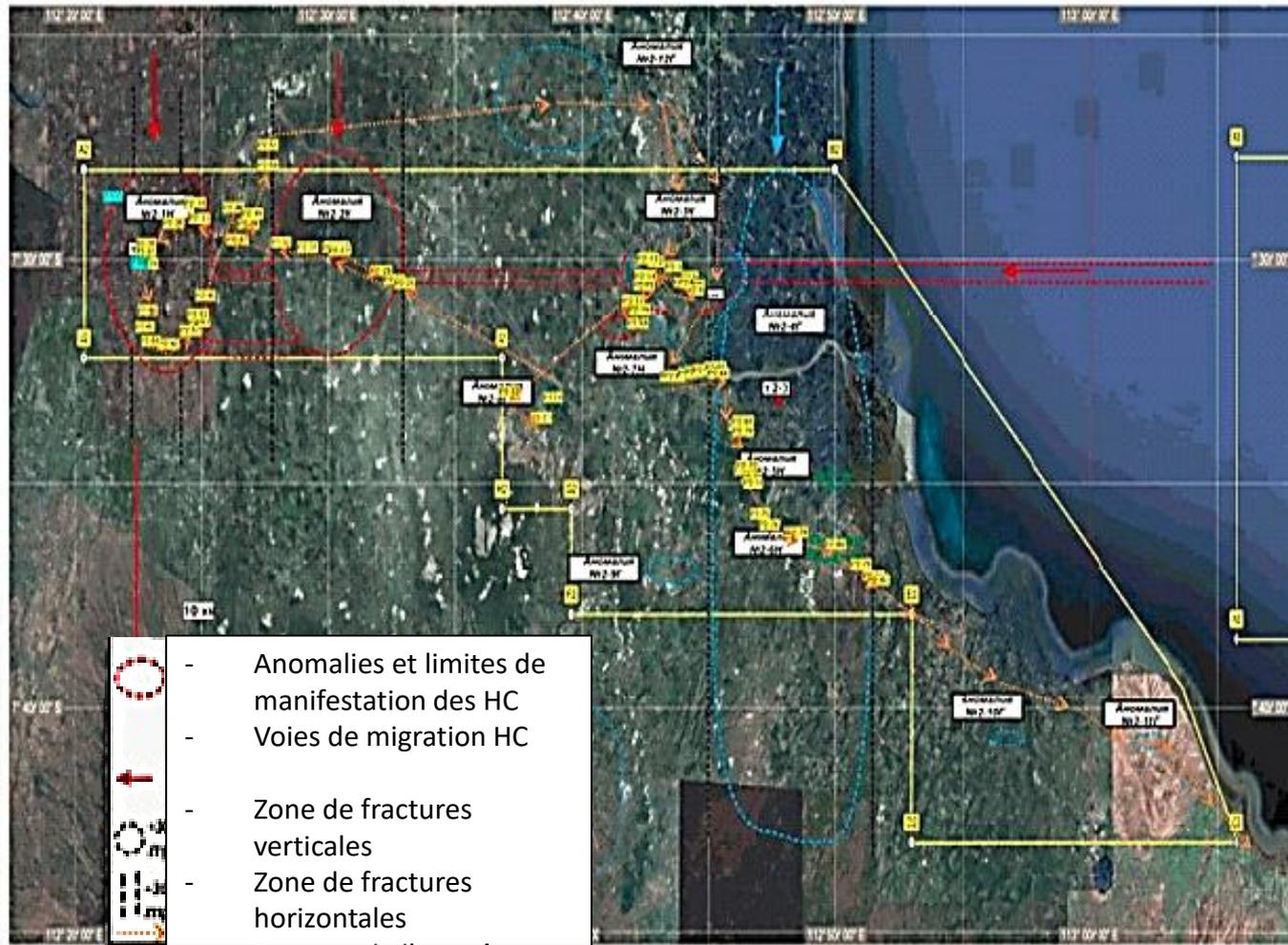
Étude de cas I. Russie. Champ de production

conclusions

- À la suite de l'étude de la zone sous licence à l'aide de la technologie RS-NMR et du traitement des images spatiales à l'aide de l'équipement POISK (étape I), des anomalies de gaz ont été identifiées et cartographiées.
- Les profondeurs (approximations) d'occurrence des réservoirs de gaz ont été estimées.
- Les types de roches réservoirs des horizons gazeux ont été identifiés et les spectres caractéristiques des champs électromagnétiques résonnants au-dessus de l'anomalie ont été enregistrés par lesquels les épaisseurs effectives de la partie poreuse des réservoirs saturés en gaz sont déterminées.
- Certaines propriétés de réservoir ont été prédites et les ressources en gaz ont été estimées
- Les puits forés aux emplacements recommandés ont produit un afflux de gaz qui a prouvé la fiabilité de la méthode

Étude de cas II. Indonésie.

Champ de production



License block in Indonesia

Productive wells are sitting within the areas outlined marked with red color

Cas II. Indonésie. Témoignage



CV RussTechno Indonesia

Ruko Permata Boulevard Blok BA, No.1
Jl Pos Pengumben Raya Jakarta Barat 11550 – INDONESIA

Date : 1 June, 2012 r.

Re: SBRDSS report reference

In accordance Contract No.1, 28.11.2011 between RussTechno Indonesia and Sevastopol State University, Sevastopol's specialists (head of team - Ph.D. Kovalev N.I.) were involved with a set of equipment "Poisk" for remote search for oil and gas with identification its depth and deposit on Brantas Block in Java, Indonesia total area 3050 km². Off-shore – 2 blocks and On-shore – 3 blocks.

Previously, these areas were studied by traditional seismic methods and have more then 30 wells.

The study was performed in February 2012. Based on the results of study on Brantas Block by using remote method SBRDSS Sevastopol specialists discovered total 31 hydrocarbon anomalies.

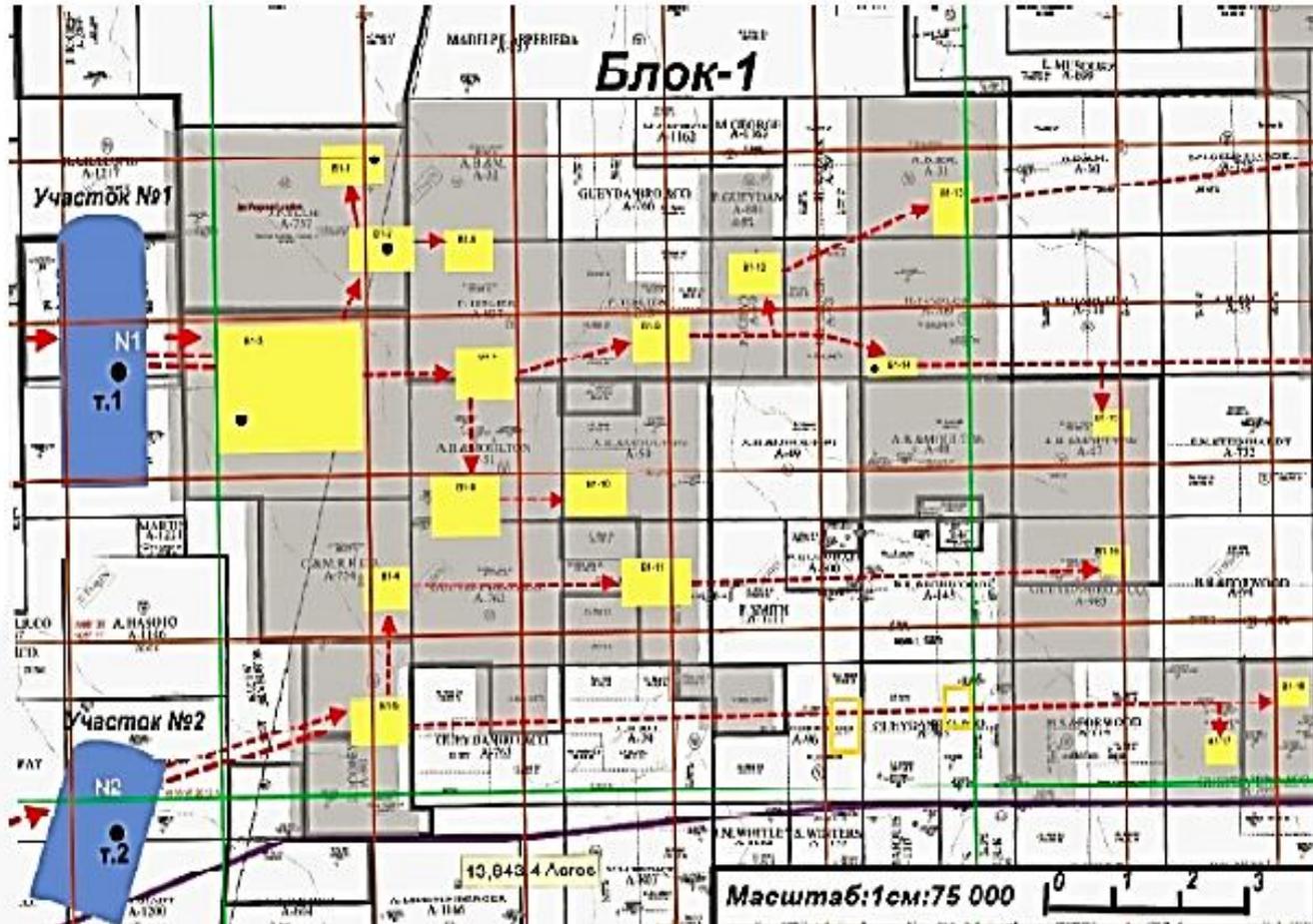
SBDRSS remote method was proven by compare with seismic date available in Lapindo Brantas company. This method is cost effective and very accurate in depth and deposit result.

Regards,

Thanigasalam
President Director



Étude de cas III. ETATS-UNIS. Champ producteur de gaz



License block in
Texas, USA

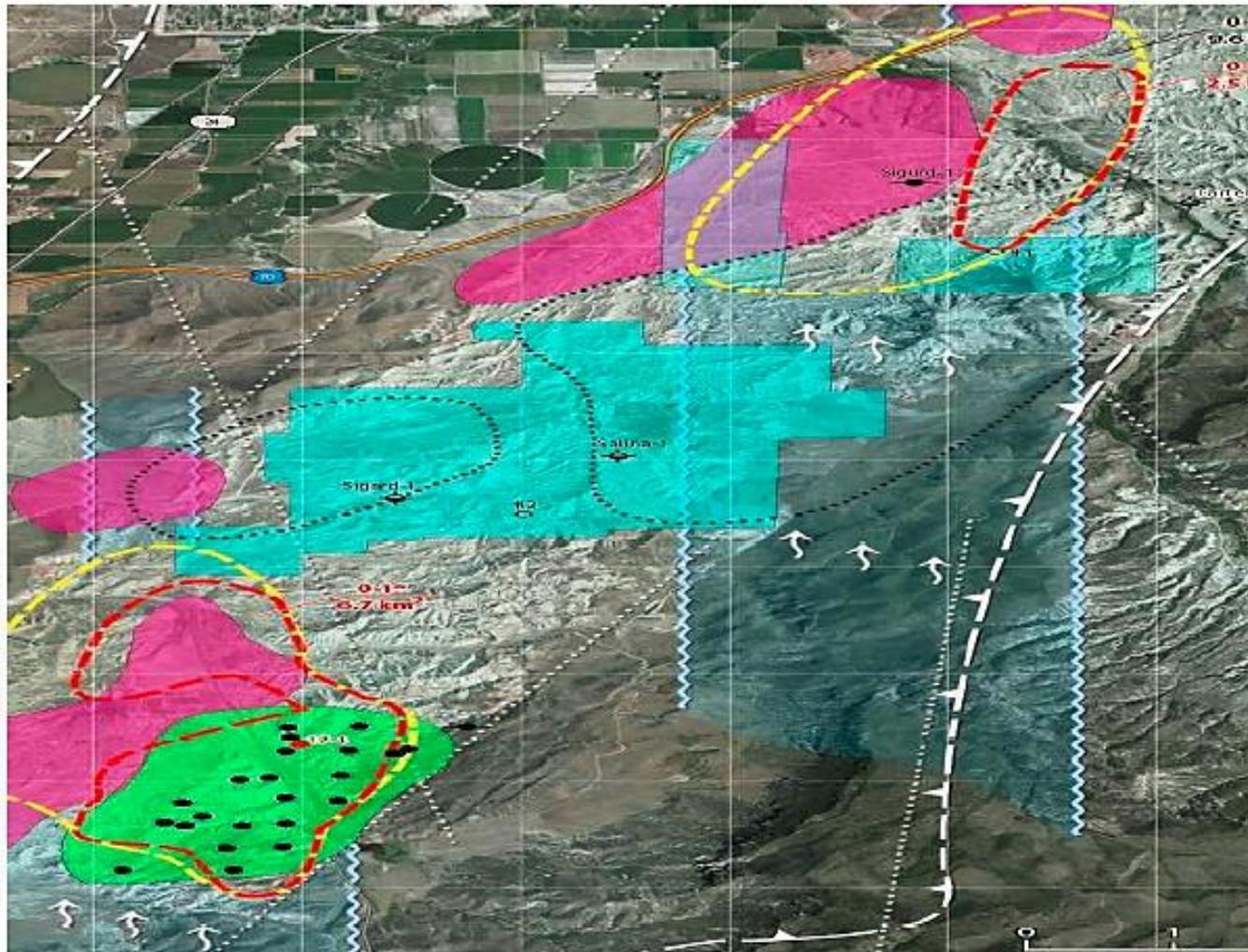
Well N-1 penetrated shale
oil formation as indicated by
the corresponding anomaly

Cas III. ETATS-UNIS. Témoignage

«Інститут геофізики та проблем Землі» Товариство з обмеженою відповідальністю		«Institute of Geophysics and Problems of the Earth» Limited Liability Company
Україна, м. Київ, вул. К. Білокур 4, оф. 6 тел/факс: +38 044 285 0826, моб.: +38 068 100 5153	Founded in 2007	Ukraine, Kyiv, K. Bilokur 4, of. 6 tel/fax: +38 044 285 0826, mobile: +38 068 100 5153
Outgoing # <u>11/10-03</u>		15.11. 2010
Conclusion on the results of prospecting works performed by specialists of the «Sevastopol National University of Nuclear Energy and Industry» in the territory of Texas, USA		
<p>Commissioned by the Institute of Geophysics and Problems of the Earth (Kiev, Ukraine) in 2010 specialists (Ph.D. Goh V.A., Ph.D. Kovalev N.I., Doctor of Geological and Mineralogical Sciences Filippov E.M., etc.) performed a search and exploration of natural gas deposits on the territory of Texas, USA using the equipment of the remote complex "Search". At the same time, remote search facilities were used to study the territory in the south of Texas, with an area of about 500 km².</p>		
<p>Based on the results of work on a given territory, underground natural gas accumulations were discovered having industrial significance, 3 points for drilling industrial wells were selected and surveyed.</p>		
<p>The results of drilling a well at one of the proposed points confirmed the presence of a natural gas reservoir. The gas pressure in the deposit proved to be abnormally high, 620 atm., in accordance with the survey data.</p>		
Director of Institute of Geophysics and Problems of the Earth Pavel Ivashchenko		

Étude de cas IV. ETATS-UNIS.

Champ de production de pétrole



License block in Utah, USA

The oil accumulations and wells locations have proved the delineated anomalies. Recommendations were made to drill new wells at the identified anomalies to the north-east.

Cas IV. ETATS-UNIS. Témoignage

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 Cell:801-380-2087 ttvol333@gmail.com



"КАРПАТІЯ", ТОВ
 Товариство з Обмеженою Відповідальністю
 Cell:8063-740-4071 ttvol333@gmail.com

FINAL REPORT On Presentation-Demonstration of "Deep Vision" Model

"CARPATHIA", LLC, represented by Vasyl Lyubarets, as a party representing "Deep Vision" Model of discovering natural resources that being tested, and Kelly Alvey, as a party participating in the test, have executed this Final Report concerning final results of testing unique Model "Deep Vision".

Results of inspection of objects, located on the territory of the state of Utah, USA Dated 25 of February 2009

Object #	Kelly Alvey's data	"Deep Vision" data	Comparison %	CONCLUSION
X "0"	Nothing	Nothing	100 %	Matching results
X 1	Nothing	Nothing	100 %	Matching results
X 911	6380	6150-6450	100 %	Matching results
X 912	6380	6150-6420	100 %	Matching results
X 913	6500 ; 9500-10000	6040-6420 ; 9450-9500	98 %	Matching results

Director of "Institute of Geophysics and Problems of the Earth"
 Technical Director of "Benif International" Corporation



Pavlo N. Ivashchenko

Inventor of "Deep Vision" Model
 Professor [Signature] Vitaly A. Gokh

Inventor of "Deep Vision" Model
 Professor [Signature] Mykola I. Kovalyov

Signatures of Witnesses

[Signature]

Vasyl O. Lyubarets, Leader-President
 of "CARPATHIA", LLC

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 Kelly Alvey

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 Rex W Hardy, Lawyer

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 Roy Moore, Wolverine Gas and Oil
 Company of Utah, LLC. Landman

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 Ray Beckham, BYU Professor

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 Jeffrey F. Chivers, "ENDEAVOR"
 Capital Group, LLC

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 Brad Whittaker, CEDO Executive
 Director

[Signature]
 Edward W. Fall, P.G.-UT Government
 Department of Natural-Resources
 Phillip Babcock

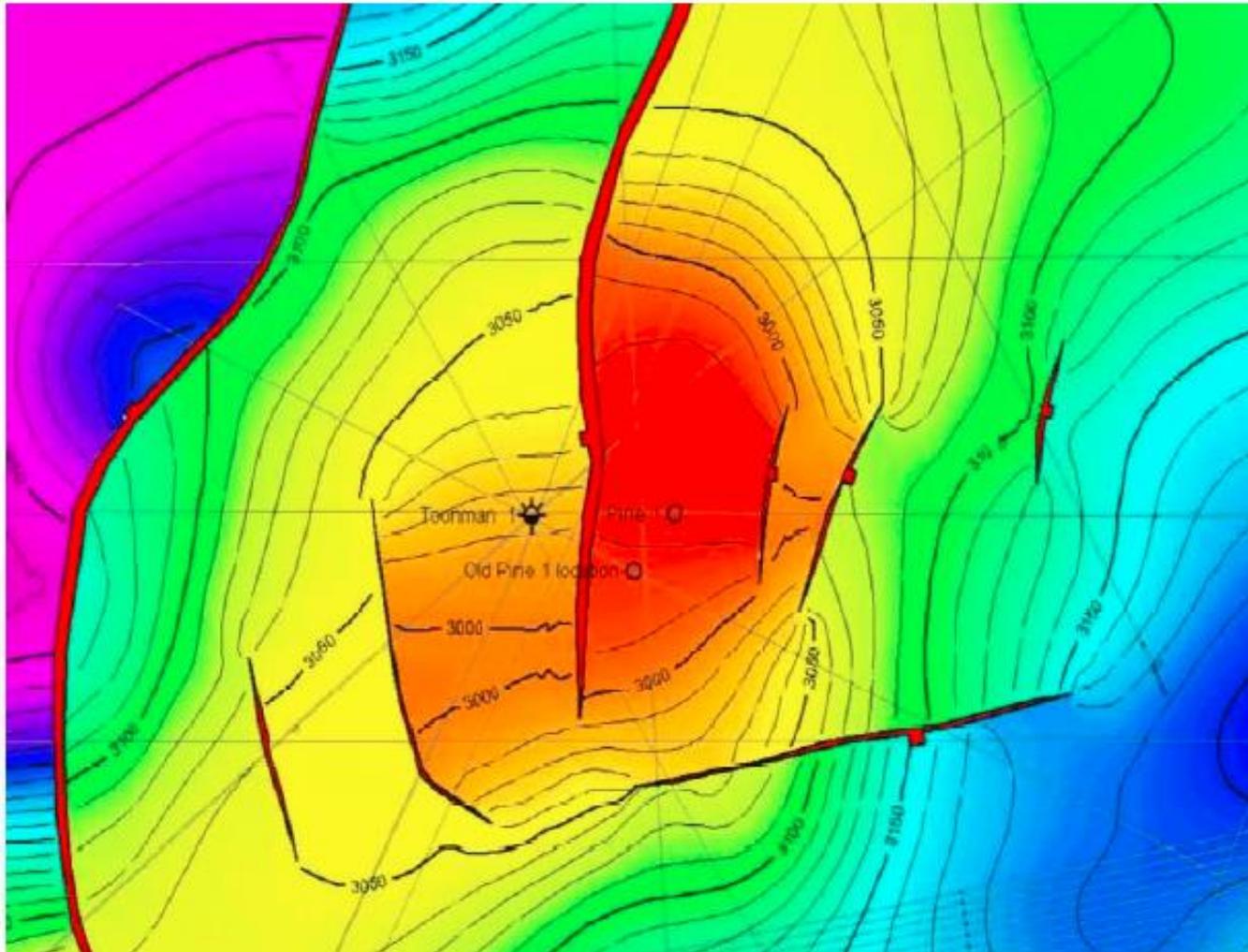
Arbitrator



[Signature]
 Elizabeth Goryunova,
 Director of International Relations
 Salt Lake Chamber of Commerce

Étude de cas V. Australie.

Champ de production de pétrole



License block
Pel-105 in Aus-
tralia

Well Pine-1 location was changed as suggested the identified anomaly. The well has been drilled and proved to be productive.

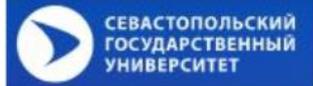


RSS NMR

THE SIMPLE WAY OF EXPLORATION

By Fands-LLC

GROUP
POISK



RSS-NMR SEVSU Poisk



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