

# **Problems of Legal and Evaluation of the Objects of Subsoil Usage**

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*Abstract. Evaluation of the objects in the mineral resources sector depend on type of the legislative framework for the different stages of exploration process.*

*The article covers to problems of legal and evaluation to objects of subsoil usage according to different stages of geological exploration in International Financial Reporting Standard 6 «Exploration for and Evaluation of Mineral Resources», Russian Financial Standard 24/2011 « Cost accounting of the mineral resources deployment», US GAAP and other normative documents.*

*The results present the possibility of capitalizing mineral reserves as assets in mining oil and gas companies.*

*Keywords: subsoil usage, reserves, evaluation, international standards, russian financial standard.*

## **I. INTRODUCTION**

System of subsoil usage plays a fundamental role in the economy of countries, as it covers economic relations in its primary sector.

Capitalization of assets related to the exploration and evaluation of mineral resources is one of the most important factors of sustainable development in mining oil and gas companies.

To build properly a conceptual framework that is consistent with the of professional practice of assets concepts, to justify the possibility of presenting the financial statements information on changes in the cost of exploration and evaluation of mineral resources assets is a hot topic for modern economic science in the extractive industries.

Nowadays as part of the resumed scientific discussion on methods of capitalization of mineral prospects the presence of a large number of undeveloped problems of the theory and methodology of mineral prospects evaluation is indicated [1,2,3].

Thus the cost of the most significant asset of mining, oil and gas companies - mineral reserves - is not reflected in their financial statements that distorts the capitalization of assets and as a result the company's investment attractiveness .

## **II. MATERIALS AND METHODS**

The concept of "natural resources", and similar terms are used to it in various aspects of the current legislation.

Evaluation to objects of natural resources usage is largely determined by the characteristics of the legal framework for the conduct of work at various stages of exploration, evaluation and mining operations of minerals.

Oil and gas companies (OGC) of US often acquire the rights for the exploration and extraction of minerals, concluding leasing agreements for mineral raw materials, and the surface of the earth. Leasing contract provides that the lessee (OGC) uses property, has the right to derive a profit, extracting minerals, and ownership right remains with the lessor (usually the state). Since the assets are transferred with the right of ownership to the company, the risks associated with the ownership of the property are also transferred [4].

The concept of "subsoil" is covered in the RF Law "About subsoil" (hereinafter - the Law on Subsoil). In accordance with this law, it follows that "the subsoil are a part of the Earth's crust below the soil, and in his absence - below the earth's surface and the bottom of ponds and streams, stretching to depths that are available for exploration and development." [5]

In accordance with the Law of Subsoil subsoil resources in the borders of the Russian Federation, including the subsurface and minerals contained in subsoil resources, energetic and other resources are state property (Article 1.2). [5]

In the Russian Federation only alienation and change the right to use subsoil resources from one person to another is allowed. Provision of subsoil resources in a use is made by special government permission in the form of a license.

Mined from the subsoil minerals and other resources under the terms of the license may be in the federal state ownership, ownership of constituent entities of the Russian Federation, municipal, private and other forms of property.

In other words, in Russia mining companies are not always able to control the receipt of income from the use of the property (subsoil). Based on the written

above, we can conclude that according to the legislation of Russia mining companies don't have the right of ownership for the reserves, but only the right to exercise a particular activity. Thus, the problem of reserves reflection in the financial statements does not only affect directly the scope of financial accounting, but also a number of legal aspects, indicating that it has comprehensive nature.

### III. RESULTS AND DISCUSSION

In his work, C. Wright and R. Gallun pointed out that the true cost of the oil and gas company - the cost belong to it reserves that can fairly be attributed to each mining enterprises. [6].

In developing Western methodology for evaluation of natural resources-mineral reserves treated as assets, which it is necessary to take into account when determining the market value of specific fields and the determination of the national wealth in the composition of natural capital. Because of the difficulty of direct correlation of assets in the form of building machines and equipment assets in the form of the mineral reserves this term has not yet been reflected in the international accounting standards on accounting and evaluation. However, this approach to mineral resources developed in the scientific literature.

The concept of "reserves" is disclosed in the Subsoil Law. [5] In accordance with this law that the "mineral reserves - is the amount of mineral in the subsoil of a current or perspective conditions, supported by the results of geological work."

As it historically formed, the biggest companies leading their business in oil industry were based on two basic standings groups.

The first one, representing the most comprehensive instruction, is Generally Accepted Accounting Principles (US GAAP), developed by the American Council accounting to the financial standards of accounting and supplemented by the №1 (SEC)[4].

Until recently, the accounting standards for investors in Russia have been US GAAP, as they regulated the accounting of real situations in oil industry in detail.

However, due to the new federal law «About the Consolidation of Financial Accounting» №208-FL by 27.07.2010, the organizations whose securities were admitted to organized trading by including in the quotation list, had to prepare consolidated financial statement in accordance with IFRS. As a result, many oil companies were forced to refuse US GAAP. Table 1 provides information about the investor accounting standards used by the leading Russian oil companies.

Table 1  
The use of foreign accounting standards of the Russian oil and gas companies

Companies	Accounting standards
<b>Gas companies</b>	
JSC «Gasprom»	IAS (since 1996)
JSC «NovaTAC»	IAS (since 2005)
<b>Oil companies</b>	
JSC «Lookoil»	GAAP US (since 1998)
JSC «TNK-BP Holding»	GAAP US (until 2011), IAS (since 2012)
JSC «Surgut neftegas»	GAAP US (1999-2001)
JSC «Gaspromneft»	GAAP US (until 2011), IAS (since 2012)
JSC «Tatneft»	GAAP US (since 1996)
JSC «Rosneft»	GAAP US (until 2011), IAS (since 2012)
JSC «NGK Slavneft»	GAAP US (until 2011), IAS (since 2012)

Source: official financial statements of companies

Oil and gas industry is a specific one as special financial accounting regulations were established directly for it:

- SFAS 19 «Financial Accounting and Reporting by Oil and Gas Producing Companies»,
- SFAS 25 «Suspension of Certain Accounting Requirements for Oil and Gas Producing Companies – an amendment of SFAS 19»,
- SFAS 69 «Disclosures about Oil and Gas»,
- SFAS 143 «Accounting for Asset Retirement Obligations»,
- SFAS 144 «Accounting for the Impairment or Disposal of Long-Live Assets».

Statements S-X Rule 4-10, SEC.

These statements allow conveying the oil and gas industry accounting statement specifics:

- a) There are particular types of assets which have their own features of genesis, amortization and depreciation.
- b) An oilfield classification of expenses is used in this industry.
- c) Two accounting methods of capital-productive investments are allowed.
- d) Additional information about oil and gas extraction activity is covered in the accounting, including non-financial information of proved reserves.

In accounting practice existing in USA there are two possible approaches used to count the costs: the method of successfully completed surveys and method of full costs. The principle difference

between the methods lies in the allocation of costs that did not lead directly to growth stocks. These costs occur as a rule, during the period of «exploration and evaluation». In accordance with the method of full costs such costs are capitalized, and in accordance with the method of successfully completed surveys these costs refer to the current costs of this period. It is important to point out that the costs incurred before obtaining the case rights and license according to the method of full costs are capitalized, but according to the successfully completed exploration method proposes similar expenses incurred at the time of their occurrence. The biggest Russian oil companies use this method of successfully completed surveys.

US GAAP involve the requirements of the content of the additional oil and gas activity information which is included in annual company statements. Companies are obliged to submit the following information:

- I. Capitalized costs in the sphere of oil and gas extraction.
- II. Costs for the acquisition of the reserves their exploration and development
- III. Results of oil and gas extraction.
- IV. Information of the value of reserves/
- V. Standardized evaluation of discounted net cash flows.
- VI. Fundamental reasons for alterations in the standardized evaluation of discounted net cash flows.

The date on the reserves are the most significant section for external users – investors and creditors. It is they that determine company's attractiveness, its market prospects, and, eventually, the market price[9].

The second standards are the International Financial Reporting Standards of Accounting (IFRS) 6 «Exploration and Evaluation of Mineral Recourses» [7] and developed on their bases the Russian standard (PBU 24/2011) «Accounting for the Development of National Recourses»[8].

If we talk about the stages of exploration work, the only formation if a cost of search operations after obtaining the license, exploration and evaluation of mineral resources is reflected in legislation. These standards do not apply to cost that arose before the exploration phase, that is, until of acquisition licenses for exploration activities, and the cost incurred after the determination of the technical capabilities and commercial viability of mining operations of minerals. They apply only to the mineral assets that occurred during exploration, as well as during evaluation of mineral reserves. It was as a result of evaluation of mineral reserves. It was as a result of evaluation of mineral deposits forms information about the quantity and quality resources in the subsoil.

Never the less, there are a number objective reasons according to which the reflection of the reserves the financial statement may lead to certain problems [4].

Firstly, currently, there is no methodology to determine the procedure for calculating the cost of mineral reserves.

Secondly, prices for these mineral reserves fluctuant and that can cause frequent revaluation of the reserves put on the balance sheet.

This situation may cause additional problems, first of all, for the financial services.

Besides there problems, which any company of this industrial activity cab face there are a number of moments worsening the situation for Russian companies particularly[10].

Based on the fact that the subsoil can only be in the state ownership. Consider how to handle the objects of subsoil usage in budget accounting.[11]

The chart of accounts provides for budget accounting balance account "non-financial assets", which includes the expense 010301000 "non-plagued assets - real estate enterprises". [11] This account is used to account for assets used in the activity of the institution, not the product of production, ownership of which must be set and legislated.

Based on the chart of budget accounting shows that to the non-produced concern assets include, in particular, subsoil. Thus, in this case the objects of accounting are not subsoil as such curves, but their useful content.

These objects are reflected in account 010312000 "Subsoil assets - non-movable assets of participants." Instructions of paragraph 36 that on this account included proved reserves of mineral resources (oil, natural gas, coal, ore reserves and non-metallic resources located underground or on the surface, including the seabed);

Thus, in the financial statement the proved reserves of mineral resources can be used in the long-turned assets.

In this context, the substantial classification systems operating in Russian Federation, USA, Great Britain and in the World oil and gas industry have been considered.

Based on the classification of the UNO of the fuel and mineral reserves and resources 2009, at three-dimensional classification of mineral resources was developed (mineral reserves), it is based on three criteria: availability of development (D1, D2); geological knowledge (F, B, C1, C2); economic expediency (R1, R2, R3). This classification allows to identify previously chosen and proved subsoil reserves as the reserves from which the economic profit is expected.

The issue of including in financial accounting the proved subsoil reserves it being considered, in this case while reflecting them as the objects of financial accounting, it is necessary to reflect them in the

balance assets of an organization in the section called «Non-current Assets».

Therefore, the assets of the balance-sheet can be presented in a following way:

	Indicator's name
	<b>ASSETS</b>
	<b>I Non current assets</b>
1	Intangible assets
2	Proved reserves of mineral resources
3	Tangible assets
4	Long-term financial investments
5	Deferred tax assets
6	Other non current assets
<b>Total for I</b>	
	<b>II Current assets</b>
<b>Total for II</b>	
<b>BALANCE</b>	

#### IV. CONCLUSION

Mineral resources data are the most important section for external users - investors and creditors. They determine the attractiveness of the company, its market prospects and, ultimately, its market value.

Despite the global and widespread process of convergence and harmonization of standards, specific oil industry is still focused on the detailed, prescribing every step of the US GAAP standards. Russia, followed by the European Community, obliged large companies, whose shares are quoted on the stock exchange, to prepare its financial statements in accordance with IFRS.

US GAAP standards are closer to understanding the need to consider mineral reserves in the financial statements because they contain requirements for the

content of additional information on oil and gas exploration activities, among them mineral reserves, which are included in the annual reports of the company.

Given the above, it should be noted that the need of legislative resolve all inconsistencies in legal and financial reporting of mining industries, so that the evaluation of their market value to account as the asset value of the reserves of mineral resources as proved subsoil reserves in the section called «Non-current Assets».

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