

# ACCOUNTING TREATMENT OF DRILLING AND DEVELOPMENT EXPENSES BETWEEN THE INTERNATIONAL REPORTING STANDARD IFRS 6 AND THE UNIFIED ACCOUNTING SYSTEM (A COMPARATIVE STUDY)

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Accounting Treatment of Drilling and Development Expenses Between the International Reporting Standard Ifrs 6 and the Unified Accounting System (A Comparative Study)

#### TRATAMENTO CONTÁBIL DAS DESPESAS DE PERFURAÇÃO E DESENVOLVIMENTO ENTRE O PADRÃO INTERNACIONAL DE RELATÓRIOS IFRS 6 E O SISTEMA DE CONTABILIDADE UNIFICADO (UM ESTUDO COMPARATIVO)

#### RESUMO

**Objetivo:** O objetivo desta pesquisa é identificar os tratamentos contábeis para despesas de perfuração e desenvolvimento nas empresas petrolíferas iraquianas de acordo com o sistema de contabilidade unificado e indicar o grau de compatibilidade e diferença no tratamento de despesas de perfuração e desenvolvimento entre o sistema unificado sistema de contabilidade e a Norma Internacional de Relato Financeiro IFRS 6.

**Enquadramento teórico:** A indústria do petróleo inclui muitas atividades e operações, desde as operações de pesquisa e exploração até às operações de perfuração e desenvolvimento, e terminando com a extração de petróleo do poço e entrega ao consumidor ou transferência para a indústria de refinação. Durante estas atividades são realizadas despesas que devem ser contabilizadas de forma a garantir o cumprimento dos padrões internacionais para a indústria petrolífera, uma vez que o Iraque, em particular, assiste a um grande desenvolvimento da indústria petrolífera representada no trato com empresas estrangeiras de investimento petrolífero, o que significa a necessidade de padronizar a contabilidade tratamentos para a indústria petrolífera entre companhias petrolíferas locais e companhias petrolíferas.

**Desenho/metodologia/abordagem:** A pesquisa utilizou uma abordagem descritiva comparativa, comparando o tratamento contábil das despesas de perfuração e desenvolvimento sob o Padrão Internacional de Relatórios Financeiros IFRS 6 e o sistema contábil unificado aplicado no Iraque representado pela Basra Oil Company e pela Iraqi Drilling Company.

**Constatações:** Uma das constatações mais importantes da pesquisa é a concordância do método utilizado pela Basra Oil Company na capitalização das despesas de perfuração em detrimento dos poços em operação com a filosofia do método de custo total aprovado pela norma. No entanto, este acordo está condicionado à ausência de poços secos. Se as operações de perfuração resultarem na presença de poços não produtivos ou produtivos, mas em quantidades antieconômicas, o tratamento torna-se incompatível com o padrão.

As implicações práticas e sociais: A Basra Oil Company trata todas as despesas de desenvolvimento (manutenção) como despesas operacionais que são encerradas no final do ano na demonstração de resultados, o que não é consistente com a filosofia da Norma nº 6, que afirma que despesas de desenvolvimento que visam manter a capacidade de produção do poço devem ser tratadas como despesas operacionais, mas se as despesas de desenvolvimento que visam aumentar a capacidade de produção do poço devem ser capitalizadas no custo do poço.

**Originalidade/Valor:** A importância da pesquisa vem da necessidade de trabalhar na aplicação dos requisitos da Norma Internacional de Relatórios Financeiros IFRS 6 no tratamento contábil de gastos com petróleo, incluindo gastos com perfuração e desenvolvimento em empresas petrolíferas iraquianas.

Palavras-chave: Gastos com Perfuração e Desenvolvimento, IFRS 6, Sistema de Contabilidade Unificado.

#### TRATAMIENTO CONTABLE DE LOS GASTOS DE PERFORACIÓN Y DESARROLLO ENTRE LA NORMA INTERNACIONAL DE INFORMACIÓN NIIF 6 Y EL SISTEMA CONTABLE UNIFICADO (UN ESTUDIO COMPARATIVO)

#### RESUMEN

**Propósito:** El propósito de esta investigación es identificar los tratamientos contables para los gastos de perforación y desarrollo en las compañías petroleras iraquíes de acuerdo con el sistema contable unificado, e indicar el grado de compatibilidad y diferencia en el tratamiento de los gastos de perforación y desarrollo entre el sistema unificado sistema contable y la Norma Internacional de Información Financiera NIIF 6.

**Marco teórico:** La industria petrolera incluye muchas actividades y operaciones, desde las operaciones de investigación y exploración hasta las operaciones de perforación y desarrollo, y finaliza con la extracción de petróleo del pozo y su entrega al consumidor o su transferencia a la industria de refinación. Durante estas actividades se realizan gastos que deben ser contabilizados de una manera que asegure el cumplimiento de las normas internacionales para la industria petrolera, ya que Irak, en particular, es testigo de un gran desarrollo en la industria petrolera representada en el trato con empresas extranjeras de inversión petrolera, lo que significa la necesidad de estandarizar la contabilidad. tratamientos para la industria petrolera entre empresas petroleras locales y empresas petroleras extranjeras.

**Diseño/metodología/enfoque:** La investigación utilizó un enfoque descriptivo comparativo al comparar el tratamiento contable de los gastos de perforación y desarrollo bajo la Norma Internacional de Información Financiera IFRS 6 y el sistema de contabilidad unificado aplicado en Irak representado por Basra Oil Company y Iraqi Drilling Company.

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**Hallazgos:** Uno de los hallazgos más importantes de la investigación es la concordancia del método utilizado por Basra Oil Company en la capitalización de los gastos de perforación a expensas de los pozos en operación con la filosofía del método de costo total aprobado por la norma. Sin embargo, este acuerdo está condicionado a la ausencia de pozos secos. Si las operaciones de perforación resultaron en la presencia de pozos improductivos o productivos pero en cantidades antieconómicas, el tratamiento se torna incompatible con la norma.

Las implicaciones prácticas y sociales: The Basra Oil Company trata todos los gastos de desarrollo (mantenimiento) como gastos operativos que se cierran al final del año en el estado de resultados, esto no es consistente con la filosofía del Estándar No. 6 que establece que los gastos de desarrollo que tienen como objetivo mantener la capacidad de producción del pozo deben tratarse como gastos operativos, pero si los gastos de desarrollo que tienen como objetivo aumentar la capacidad de producción del pozo deben capitalizarse sobre el costo del pozo.

**Originalidad/Valor:** La importancia de la investigación surge de la necesidad de trabajar en la aplicación de los requisitos de la Norma Internacional de Información Financiera NIIF 6 en los tratamientos contables de los gastos petroleros, incluidos los gastos de perforación y desarrollo en las empresas petroleras iraquíes.

Palabras clave: Gastos de Perforación y Desarrollo, NIIF 6, Sistema Contable Unificado.

#### **INTRODUCTION**

Oil is one of the most important and valuable natural resources in the world and its importance lies in our world today as it is the main source of energy as well as being a raw material and intermediate for many basic industries it is a vital substance for all countries whether they are producing or consuming. As Iraq particularly, it relies on oil imports in preparing its general budget by no less than 95% annually, which indicates the importance of oil for Iraq. The oil industry includes many activities and operations, starting from research and exploration operations through drilling and development operations, and ending with extracting oil from the well and delivering it to the consumer or transferring it to the refining industry. During these activities expenses are realized that should be accounted for in a way that ensures compliance with international standards for the oil industry as Iraq particularly witness a great development in the oil industry represented in dealing with foreign oil investment companies, which means the need to standardize accounting treatments for the oil industry between local oil companies and foreign oil companies. The drilling and development stage is considered one of the most important stages in the oil industry, as it is the only practical way to extract oil in light of it the presence of oil - in commercial quantities - is determined from its absence, with the difference in accounting treatments for the expenses of this stage between the requirements of the International Financial Reporting Standard IFRS 6 (exploration and evaluation of mineral resources ). Among the rules of the unified accounting system applied in the Iraqi oil companies, the need emerged to develop the methods of accounting treatments adopted by Iraqi companies in accounting for drilling and development expenses to make them compatible with international standards, specifically the international standard IFRS 6.

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The previous studies focused on the importance of the research and exploration stage in oil industry and emphasized the need to treat expenses of this stage in accordance with the requirements of the international standard IFRS 6. Some of those studies - especially those that were applied in the Iraqi environment - indicated different accounting practices for research and exploration expenses Between International Standard No.6 and the unified accounting system, none of the previous studies gave importance to the expenses of the other stages of oil industry, specifically the drilling and development expenses, which are characterized by huge amounts. Accordingly, this research will focus on drilling and development expenses and their accounting treatment according to the unified accounting system applied in Iraqi oil companies and what is imposed by the International Financial Reporting Standard IFRS 6. Therefore, the research problem can be found in the following question; what are the accounting treatments for drilling and development expenses in accordance with the requirements of the international standard IFRS 6 and the unified accounting system in Iraq? This research is based on two main hypotheses: first; Lack of commitment Iraqi oil productive companies to apply the IFRS 6 financial reporting standard when accounting for drilling and development expenses. The second; There is an incompatibility between the requirements of IFRS 6 and the treatments in the unified accounting system related to drilling and development expenditures. In light of the research problem, the research aims to achieve the following, identify the accounting treatments for drilling and development expenses in Iraqi oil companies according to the unified accounting system. Moreover, it aims Statement of the extent of compatibility and difference between the unified accounting system and the International Financial Reporting Standard IFRS 6 in the treatment of drilling and development expenses. The current research has a number of key importance. First; the research gains its importance from the importance of the drilling and development phase for any extractive company. Through drilling activities and operations the presence or absence of oil is confirmed, in addition to the huge expenses incurred by the company in the drilling and development phase. Therefore, the correct method for accounting for these expenses must be determined. Second; the importance of the research emerged from the need to work on applying the requirements of the International Financial Reporting Standard IFRS 6 in accounting treatments for oil expenditures, including drilling and development expenses in Iraqi oil companies.

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## LITERATURE REVIEW

Drilling and development stage is one of the most important stages in the oil industry because it determines definitively the presence of oil or not, This stage begins after the reconnaissance and exploration stage it includes search and exploration operations to determine areas where oil is likely to be found, then start drilling and developing wells to reach oil. Among the distinguishing characteristics of drilling and development phase are the following (Abdul-Wahhab, 2006):

1. Expenditure elements in this stage are characterized as connected that is they are affected by the expenses of the previous stage (survey and exploration) as a result of being charged to them, they also affect in costs of the subsequent stage (production).

2. This stage is characterized by relative ease with regard to monitoring and controlling the elements of costs.

3. The accounting organization for this stage is considered an intermediate organization whose goal ends with the completion of the stage and activity work.

For the purpose of determining the types of drilling and development expenses, it is necessary to distinguish between three basic types of wells, which are (Al-Nawas and Al-Mahaini, 2018):

An exploration well... is a well drilled to find oil and gas in an unproven area (unprepared) or to find a new reservoir in an existing field to make it a producer of oil or gas.

A development well... is a well drilled within a proven (prepared) area to a horizontal depth known to be productive.

**The stratigraphic well**... It represents the drilling efforts exerted to obtain information about the status of the geographical strata. The stratigraphic well is usually drilled without the intention of completing it for production. This type of well also includes tests known as subtests. The stratified test wells are classified into stratified exploration wells if they are drilled in an undeveloped area or developmental stratified wells if they are drilled in a developed area.

## Methods of accounting for drilling and development expenses

The methods used in accounting for drilling and development expenses are related to the methods for dealing with exploration and exploration expenses. According to generally accepted accounting principles, there are three accounting methods used by oil companies in accounting for oil expenses - including drilling and development expenses - which are (Al-Rawi, 2011):

1. The revenue method.. This method requires considering expenditures as revenue expenditures that are deducted from the income in the period during which they are spent, most oil companies prefer to use this method because they deduct the expenditures first, which reduces the risk (Al-Hassan, 2015). Supporters of the revenue method believe that it is appropriate way to offset expenses with revenues in the profit and loss account, just as the amounts spent in the stages of research, exploration and excavation are not necessarily matched by an asset, therefore it is preferable to consider these expenses as revenue to be locked in the profit and loss account. In addition to that, these expenses are spent on Lands and spaces leased and exploited under a contract, the ownership of these lands will return to the owner after the end of contract period. Therefore, they must be considered as revenue expenses because they will not be matched by an asset in the future. On the other hand, the revenue method is criticized on the grounds that it does not agree with accounting principles, because it does not distinguish between revenue expenditures and capital expenditures. It treats the expenses of successful projects and the expenses of failed projects in the same way and this is an incorrect accounting procedure. In successful projects efforts will generate an asset and in failed projects no asset is generated, therefore does not result in revenue in the future. Considering the expenditures that are spent on the stages that precede Oil extraction is a revenue expenditure that does not show the value of the efforts that lead to successful projects, and also leads to the non-accumulation of expenditures in the balance of the research and development account, and this does not explain to the shareholders the size of the company's activity in the field of increasing reserves and increasing its assets (Al-Ghabban, 2007).

2. Total cost method: According to this method, all drilling and development expenses whether tangible or intangible are capitalized, regardless of the drilling result whether the well is productive or dry, as it is included in the statement of financial position as non-current assets. Expenditures for drilling and development are collected in a general account called the work-in-progress account, which is a total control account in the general ledger. It has subsidiary accounts for different wells, each of which includes expenses for each well. Expenses continue to be charged to this account until the results of drilling appear. Work-in-progress account branch out into sub-accounts to assist in the final charging of these expenses when the result of drilling is clear and determined. These sub-accounts are (drilling operations, drilling equipment and equipment, drilling

tools, drilling materials and supplies). Supporters of the total cost method believe it is compatible with the principle of matching revenues with expenses and the principle of stability that all expenses that lead to find productive fields are part of the total cost (Al-Ghazoui, 2011). The total cost method also avoids profit manipulation as long as the total costs needed to create reserves will be spread over a certain period of time (Mayanja, 2018). On the other hand, the total cost method is criticized for not providing investors with accurate information about the company's performance during a certain period, and the costs of dry wells are losses as they do not lead to economic benefits in the future. Therefore, their capitalization according to the total cost method does not comply with the principle of matching revenues with expenses. It also does not comply with standards of the accounting framework, as it does not meet the criteria for defining assets (Erhomosele & Rahim, 2021).

3. Method of Successful Efforts: According to this method, drilling of exploratory wells is considered within the exploration activities. in exception costs of the exploration activities which must be considered an expense when spent, the costs of the exploration well are considered capital expenses if the well created productive reserves, but they are considered revenue expenses if the well did not lead to Discovery of productive reserves. In other words, the costs of drilling an exploratory well are considered deferred as part of the wells, equipment and facilities under implementation until the results of well are known. If it is proven that the well is productive, the amount spent on drilling and preparing the well for production will be transferred to the productive contracts account. If the result of drilling is a dry well, the amount will be transferred to the dry well losses account. With regard to the costs of the development wells drilled to develop the discovered reserves, in addition to all the necessary equipment for the production, processing and transportation of hydrocarbons, they are capitalized and included in the non-current assets in the statement of financial position in all cases, even if the development well is dry.

Supporters of the method of successful efforts believe that it is compatible with standards of the accounting framework for defining the asset, as the asset is expected to obtain future benefits from it. This method also shows the true nature of the extractive industry, which is characterized by a high level of risk due to the fluctuation in the profits announced in the financial statements from one accounting period to another. The capitalization of the costs of failed wells and the subsequent amortization installments with the absence of reserves leads to

obtaining income that hides the inherent fluctuations in the oil industry, the effect of this is not only on distorting the value of the assets shown in the statement of financial position, but it extends to the income statement by postponing costs the current period to future accounting periods - this is what the method of successful efforts avoids - In addition, this method is consistent with the principle of matching revenues with expenses to determine profit or loss (Acheampong, 2013). At the same time, the method of successful efforts is criticized on the grounds that the nature of the search and exploration operations requires a long time that exceeds the financial year to confirm the presence of oil, therefore it is difficult to classify the search and exploration expenses as revenue or capital expenditures, but if accurate technical reports are available on the search and exploration operations, they can be Accounting decisions are accurate and correct especially in light of the development of techniques and methods used to verify the results of research and exploration (Jamil, 2007).

# Treatment of Drilling and Development Expenses in Light of the International Standard IFRS 6

In December of 2004, the International Accounting Standards Board (IASB) issued draft International Standard No. 6 entitled "Exploration and Evaluation of Natural Resources" on January 1, 2006, for convergence of views related to accounting methods in the extractive industries (Abdo, 2016).

International Standard No. 6 came as a result of the international need for an internationally accepted accounting standard that eliminates the problem of preparing financial statements in different formats, in order to reduce accounting diversity between countries and facilitate the movement of capital and integration between global markets. (Hameedi,et al,2021) see that there is possibly significant impact of adoption of IFRS on the business management basis of Iraqi companies for example in the case of renewal of information system, retention of shareholdings, annual report preparation by profit disclosure using detailed incomes and improvement of business processes. Therefore, existence of an agreed international standard represents a necessary accounting, legal and economic need for oil companies (cai & wang, 2010), given that the 38IAS standard for intangible assets did not address mineral resources and wealth (Al-Jaarat, 2008).

The standard aimed at making limited improvements to the current accounting practices for exploration and evaluation expenditures and determining which of these expenditures should be capitalized and which of them should be recognized as an expense, as for the scope

of application of the standard it was limited to exploration and evaluation expenditures related to the discovery of natural resources while it is not applied to exploration expenditures that it is paid before the company obtains the legal right to exploit a specific area and the expenses that are paid after proving the technical and commercial feasibility of extracting natural resources (Abu Nassar and Hamidat, 2013). The following is a summary of the most important points mentioned in the standard:

1. The standard allowed companies to develop an accounting policy for exploration and evaluation assets without taking into account paragraphs (11-12) of IAS 8 (accounting policies, changes in accounting estimates and errors), meaning that companies that apply IFRS 6 can continue to use the accounting policies used before issuance this standard and this includes continuing recognition and measurement practices that are part of those policies.

2. The standard requires companies to test exploration and evaluation assets for impairment when facts and circumstances indicate that the carrying amount or the carrying amount of the assets may exceed their recoverable value.

3. The standard defines the costs related to the exploration and evaluation phase, and the companies must determine which of their costs corresponds to their definitions which are (costs of obtaining exploration rights- costs of topographical, geological, geochemical and geophysical studies- costs of exploratory drilling- costs of drilling - costs of inspection- costs of evaluating the technical and commercial feasibility of extractive natural resources ).

4. The chosen accounting policy must comply with international financial reporting standards with regard to storage costs IAS 2, intangible assets IAS 38, property, plant and equipment IAS 16.

5. The standard requires oil companies to classify their assets at the stage of research, exploration and evaluation into tangible assets and intangible assets.

6. Measurement of discovery and evaluation assets upon recognition is done at cost, and expenditures related to resource development are not recognized as discovery and evaluation assets. Whereas in the subsequent measurement of initial recognition the company must use one of the two models, either the cost model or the re-estimation model, with reference to the IAS 16 standard for measuring tangible assets And the IAS 38 standard for measuring intangible assets (Al-Jaarat, 2008).

7. With regard to depreciation, depreciation and amortization policy, the standard deals with these issues using the product unit method.

The treatment of the IFRS 6 standard for drilling and development expenditures in oil companies requires the classification of these expenditures into intangible drilling and development expenditures and tangible drilling and development expenditures, as follows (Al-Ghabban, 2007):

1. Intangible (current) drilling and development expenses: These are perishable drilling and development expenses and they are treated according to the drilling result, if a productive well is found, these expenses are treated as capital expenditures that are depleted in the years during which production continues. But if the well is found to be non-productive, the intangible drilling and development expenses are considered losses that are charged to the income account for the year in which drilling took place. Examples of intangible drilling expenses include geological expenses for determining the location of drilling, expenses related to preparing the place for drilling such as cleaning and leveling the ground and connecting water, costs of transporting drilling equipment and setting it up on the drilling area, wages of drilling workers, materials and equipment required for drilling, maintenance and repair of drilling machines, fuel costs The driving forces, the consumption of drilling machines and equipment, the expenses of casing the well and surrounding it with cement, the expenses of acids and solvent chemicals, the expenses of perforating wells and the expenses necessary to dismantle the drilling equipment and clean the place after the completion of the drilling process and filling dry wells.

2. Tangible drilling and development expenses related to the contract or well: It includes all that is spent on acquiring machines, equipment, and other tangible supplies necessary to prepare the well for production, it is spent in order to obtain fixed and mobile assets that are subject to deprecation, these assets are the property of the executing company (Ibrahim and Al-Qutaini, 2005). Among the characteristics of these supplies and equipment is that they have a sale value and rubble at the end of their productive life, and that they are movable, so the roads are not considered tangible expenses due to the impossibility of moving them to another region. Likewise, the facilities and workshops that the company establishes are not considered tangible expenses, as their ownership is transferred to the state after the completion of the work surveying and exploration, but sometimes fixed houses can be built for their need not for contractual necessity, so they

are considered tangible expenses despite the inability to transfer them, but they can be sold to the beneficiaries in the region at nominal prices (Yahya, 2011). The tangible drilling expenses are accounted for as follows:

a. The equipment that is installed inside the well during the drilling phase to prevent the collapse of its walls and prevent the leakage of dust and water into the well, Such equipment is recorded at its cost when installed in the work-in-progress account and capitalized as part of the cost of the well, if the well is found to be dry, what can be opened is opened and re-evaluated after use, the difference is treated as expenses for drilling and developing wells according to the method used.

B. Extraction pipes and wellhead valves that are supplied to the well are treated according to the condition of the well, if the well is productive; those expenses are capitalized as part of the cost of producing wells. But if the well is not productive, the values of those expenses are re-estimated and the difference treated with according to the method used.

With regard to the expenses of transportation and installation of equipment of both types, whether those hang in the well or those are fixed at the head of the well, they are treated in addition to the costs of acquiring them if they can be allocated to the equipment belonging to them. If it is not possible to separate and distinguish these expenses, they are treating as intangible drilling and development expenses.

Intangible and tangible drilling and development expenditures are recorded with the following entry (Khalawi and Muhaisen, 2019):

Work-in-progress / intangible expenses

Work-in-progress / tangible expenses

Creditors

As required by the standard capitalizing development drilling expenses on the cost of wells, as for remedial drilling expenses, it treated in two ways. If the expenditures do not lead to developing or increasing the production of the wells, they are considered operating expenses and are closed in the income statement account. But if these expenses led to develop the wells and increase their production, they are capitalized on the cost of the wells (Al-Ani et al., 2017).

Based on the foregoing, the researcher concludes that the international standard IFRS 6 permits the oil companies to choose between each of the total cost method and the method of successful efforts, it did not require the oil company to use a specific method for accounting for oil expenditures, but rather left it free to choose between the total cost method or the method

Successful efforts - provided consistency in application - Noting that the criterion favors the method of successful efforts and prohibits the use of the revenue method because it does not achieve a proper comparison between revenues and expenses. It may be used with the aim of inflating expenditures for tax evasion and the practice of creative accounting. It is also clear that the expenses of obtaining the right to exploration and the costs of geological and geophysical studies are related to the first four stages. For the oil industry (reconnaissance, acquisition, exploration and evaluation), as for the costs of exploratory drilling, trenching, sampling costs, and activities related to the technical and commercial evaluation of the oil resource, they are related to the drilling phase.

# Expenses of Drilling and Development in the Light of the Unified Accounting System in Iraq

In Iraq government institutions apply the government accounting system, which is one of the important tools that the state uses to implement its strategy in order to protect funds and rationalize the process of collecting and spending resources and to achieve its goals efficiently and effectively, rationalizing the use of public money and ensuring respect for budget appropriations, and in the presence of a body that enacts standards for accounting It is not only adopted by the government represented by the International Public Sector Accounting Standards Board (IPSASB), as it is the destination for reforms in government accounting by imparting transparency and the availability of comprehensive, accurate and reliable financial information for accountability and decision-making(El-Toby,et al., 2022), but Iraqi oil companies are committed to apply the unified accounting system, where all expenses are recorded in the cost accounts, and then the disbursed amounts are posted and classified into the accounts of the accounting system by computer, through analytical symbols for each element which provides cost information according to the following divisions:

1. Organizational division: The costs are classified according to the administrative responsibility and the organizational structure of the company, it includes 3 numbers; the first for the Authority and the other two numbers for the department.

2. Geographical division: costs are classified according to work areas and include two numbers and provide information on the costs of each work area in the company.

3. Functional division: The costs are classified according to the nature of the work, as it proves the capital and operational costs and the activities in which they occurred. The functional division includes 3 numbers, the capital business directory starts with number

001 to number 499, while the operational business directory starts with number 500 to number 999.

4. Elemental division: It is used when branching out any work and assigns a number to each part whose cost is to be recorded separately and shows the main elements of costs (Account No. 3), which includes the following accounts (Unified Accounting System, 2011):

a. Account No. 31 (salaries and wages) includes cash salaries and wages for employees and workers, salaries and allowances for non-Iraqis, and contributions to social security for Iraqi and non-Iraqi employees and workers.

b. Account No. 32 (commodity requirements), which includes raw materials, raw materials, fuel, oils, spare tools, packaging materials, personnel supplies, electricity and water.

c. Account No. 33 (service requirements), which includes transportation and maintenance services, research and consulting services, dispatches, communications, rental of fixed assets, and various service expenses.

d. Account No. 34 (contracting and services), which includes operating services, legal services, and contracting.

e. Account No. 37 (Depreciation), which includes the depreciation of buildings, constructions, roads, machines, equipment, means of transportation, tools and molds, and the disappearance of furniture and office equipment.

f. Account No. 38 (Transfer Expenses), which includes retirement expenses, social security, taxes, fees, and subsidies.

g. Account No. 39 (other expenses), which includes previous years' expenses, incidental expenses, and capital losses.

With regard to the extractive sector, the unified accounting system did not specify a specific method to be used in the accounting treatment of oil exploration, drilling and extraction operations, but was limited to specifying the accounts related to the extractive industries as follows (Unified Accounting System, 2011):

1.Wells account (11241) this account includes the costs of drilling the well, values of the devices, equipment and establishments related to it, and all other expenses necessary to prepare it for use, which are:

Drilling cost: It represents the cost of work, materials and expenses, including the depreciation of drilling towers and equipment.

The cost of devices and equipment: It represents the costs of devices, equipment and establishments related to the well, which are part of it, whether it is above or below the surface of the earth.

2. Oil and gas pipelines account (1146) This account includes the costs of extending oil and gas pipelines from one region to another for the purpose of delivering petroleum products from refineries to filling stations or loading ports, including pumps, but does not include oil and gas pipelines inside the unit or pipes connecting wells Oil at the company's labs.

3. Exploration and Survey Expenses Account (1183) This account includes the expenses necessary for conducting the process of surveying the land and exploring its components, such as geological surveys and the work of seismic staffs for the purpose of discovering oil wells and other minerals.

It is noted from the foregoing that the unified accounting system has largely neglected the accounting measurement and disclosure of the oil industry in Iraq, it is designed to serve all industries and does not cover the necessary details for the oil industry. Rather, it includes some specific accounts to treat accounting practices in the oil sector.

The researcher supports what the researchers "Mushjl & Ageely" said, that the development of the unified accounting system to provide appropriate measurement and disclosure for the oil industry leads to more adjustments and new accounts, which will be a burden on accountants in other sectors, so a special accounting system for oil companies should be found that is consistent with the contents of the standard IFRS 6 (Mushjl & Ageely, 2019).

#### MATERIAL AND METHODOLOGY

On the practical side, the comparative descriptive approach was relied upon by comparing the accounting treatment of drilling and development expenses in light of the International Financial Reporting Standard IFRS 6 and the unified accounting system applied in Iraq, represented by the Basra Oil Company and the Iraqi Drilling Company.

# An Introductory Profile of the Basra Oil Company

The Basra Oil Company was established in 1938 under the name (Basra Oil Company Limited) when it was agreed with the Iraqi government at that time to grant the Basra oil concession to the Iraq Oil Company I.P.C (formerly the Turkish Oil Company), which owns all the oil concessions in Iraq except for a small area near Iranian territory. Drilling began in the

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Zubair field and the first isolation and pumping station was established in 1948, the first oil tanker was loaded from the Fao dock in 1951. After the issuance of Law No. 80 of 1961, which paved the way for the issuance of Law No. 11 of 1967, the Iraqi Oil Company was formed and opened a branch in Basra in 1969 in name of (General Directorate of the Iraqi National Oil Company / Basra Branch). In September 1970, drilling operations began for the first time by the Iraqi National Oil Company / Basra with its technical staff, equipment, and equipment (Al-Tamimi, 2014). In the mid-seventies, a decision was made to nationalize the Basra Oil Company and the activities of the French IRAP Company in Maysan, its oil operations and facilities were annexed to the National Oil Company. During the war in 1991, the company's facilities were severely damaged, after the events of 2003 most of the company's fields and facilities were also severely damaged as a result of sabotage, theft and burning, The percentage of destruction reached 80-90%, but thanks to the concerted national efforts, the company was able within a period not exceeding one year, to restore its status to a better state than before (https://boc.oil.gov.iq). As for the fields in which the company operates, they are (West Qurna 1, West Qurna 2, Tuba, Majnoon, North Rumaila, South Rumaila, Nahran bin Omar, Zubair 1, Zubair 2, Siba gas field, Artawi, Luhais and Nasiriyah field).

## The Relationship of Basra Oil Company with Iraqi Drilling Company

The Basra Oil Company contracts with the Iraqi Drilling Company / Basra Branch to drill and reclaim a large number of crude oil wells. The Iraqi Drilling Company operates with three types of drilling contracts, which are (An interview with Mr. Ahmed, in charge of the Service Contracts office):

**Turnkey system**: A contract is made with the drilling company to drill oil wells in return for giving it the costs in a lump sum. The Basra Oil Company (or any company in the licensing rounds) has nothing to do with supplies, equipment, drilling towers, salaries and wages, but it is a responsibility of the drilling company.

**Daily system**: According to this type, a contract is made with the drilling company on a daily work system in exchange for daily wages calculated according to the number of hours in which the drilling tower works. The beneficiary is committed to all matters related to the drilling process, and the drilling company has nothing to do with anything other than equipping the drilling rig, and Submitting daily reports on the number of hours spent in the drilling process. **Metric system**: Under this type of contract, the costs are calculated on the basis of the number of meters that are excavated by the drilling companies, and the deeper the company digs, the greater the costs.

# Method for Calculating Drilling and Development Expenses

Basra Oil Company has two types of budgets; an investment budget funded centrally by the Ministry of Finance and an operational budget that relies on self-financing, so it distinguishes between its revenue and capital expenditures when implementing its basic activity under self-financing (operational budget). According to the central financing system, no distinction is made between these expenses, but all of them are final revenue expenses. Capital expenditures are included in the current budget and financed from it. During the operation process, all expenditures are recorded in the projects under operation account. When the work ends and the asset enter the production process, it is transferred to the fixed assets account. All capital expenditures are treated as profit-generating expenses and are capitalized according to the years of benefit from them under the unified accounting system. The Basra Oil Company relies on the COST-PLUS method to recover its expenses. Everything that is spent in the research and exploration phase or the drilling phase is recovered in addition to a percentage of the profit margin. Therefore, the company has no incentive to compress costs. (An interview with Mr. Iyad Qadir, exchange department director in the investment budget accounts in Basra Oil Company)

Basra Oil Company contracts with the Iraqi Drilling Company, the Basra branch (as well as the licensing tour companies) to drill or development a group of wells in certain fields, so the Iraqi Drilling Company begins with drilling or reclaiming the wells agreed upon in the contract with the Basra Oil Company and according to the contracting system, whether delivery Key or the daily system or the metric system. The researcher was able to calculate the operational costs of drilling a well in Majnoon field by drilling rig 56 for the Basra Oil Company and according to the turnkey system. It should be noted that under the turnkey system, the cost of drilling an oil well is calculated through several steps:

1.Calculating the costs of establishing and preparing well bases

2. Calculating the costs of moving and installing the drilling rig

3. Calculating the costs of drilling materials

Where all these costs are collected at the end of the drilling process and analyzed into direct costs and indirect costs according to the main expenditure chapters (salaries and wages,

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commodity requirements, service requirements, general contracting, depreciation) to calculate the total cost of drilling the well afterward as shown in Tables (1) and (2) and (3).

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Working	Salaries and wages	Commodity	Service	General	Equipment	Furniture	Total
period		requirements	requirements	contracting	depreciation	depreciation	10(a)
11/6/2022-	150,852,106.4	44,259,107.57	26,177,566.67	443,445,648.7	110,787,689.4	4,255,460.1	770 777 578 8
30/6/2022							119,111,510.0
1/7/2022-	315,196,649.35	28457939.433	36,667,000	1,166,547,695	174,927,921.924	6,351,649.858	1,728,148,855.569
31/7/2022							
1/8/2022-	65,202,952.39	4723762.506	17,392,290.32	962,397,595.2	41,387,987.61	1,394,657.511	1,092,499,246
7/8/2022							
Total	531,251,708.1	77,440,809.51	80,236,856.99	2,572,390,939	327,103,598.9	12,001,767.47	3,600,425,680

Table No. (1) Calculating the direct costs of drilling a well

Source: Prepared by the researcher, based on the Iraqi Drilling Company - Financial Authority - Costs department

In calculating the direct costs of the drilling rig No. 56 - which drills several wells according to the contract between the two companies - it was adopted on the monthly cost and revenue reports issued by the Costs department for each drilling rig, the researcher limited the costs of drilling one well in Majnoon field for the benefit of the Basra Oil Company Based on the start and end date of drilling the well. According to the data obtained by the researcher, the process of drilling the well began on 11/6/2022 and ended on 7/8/2022, so the number of drilling days for the month of June was 19 days, at a cost that was calculated as follows: element cost \* 19 days / 30 days, for example, salaries and wages for a month June was 238,187,536.406 \* 19/30 = 150,852,106.4 IQD (and so on for other direct cost components). As for the direct costs for July, they were as stated in the monthly costs report of the Costs department given that the drilling period was a full month. For August, the direct costs were calculated for only 7 days. For example, salaries and wages for August were 288,755,932.023 \* 7/31 = 65,202,952.39 IQD Each direct cost component is being charged to Rig 56

Tuble 1(0: (2) Euleululing mandet Costs					
Working period	Indirect Costs				
11/6/2022 - 30/6/2022	151,735.3				
1/7/2022- 31/7/2022	826,562				
1/8/2022-7/8/2022	380,217.9				
Total	1 358 515 2				

Table No. (2) Calculating Indirect Costs

Source: Prepared by the researcher, based on the Iraqi Drilling Company - Financial Authority - Costs department

The indirect costs of the drilling rig 56 carrying out the drilling process were calculated in the same way that was used to calculate the direct costs, as the indirect costs obtained by the researcher from the company were relied upon, which includes the costs of the supporting departments, and these costs were distributed over the period it took for the drilling rig to drill the well, as June's share of indirect costs =  $239,582 \times 19$  days / 30 days = 151,735.3 IQD, July's share of indirect costs = 826,562 IQD while August's share of indirect costs =  $1,683,822 \times 7/31$ = 380,217.9IQD. As with direct costs, indirect costs are being charged to Rig 56.

Table No. (3) Calculating the total operating costs								
Working period	total direct costs	total indirect costs	total operating costs					
11/6/2022 - 30/6/2022	779,777,578.8	151,735.3	779,929,314.1					
1/7/2022-31/7/2022	1,728,148,855.569	826,562	1,728,975,417					
1/8/2022-7/8/2022	1,092,499,246	380,217.9	1,092,879,464					
Total	3,600,425,680	1,358,515.2	3,601,784,195					

Source: prepared by the researcher based on the data of Table No. 1 and Table No. 2

After calculating the direct and indirect costs of drilling the well, they are being collected to arrive at the total cost of drilling the well. The Iraqi Drilling Company demands the Basra Oil Company for the total cost (according to a debit note) in addition to a predetermined profit margin (5%).With regard to calculating development (maintenance) expenses, the researcher was unable to obtain data that corresponds to the period of preparation of the research, but when inquiring about how to calculate them, the researcher found that the drilling company deals with maintenance expenses according to the same mechanism that it follows in dealing with excavation expenses.

From the foregoing, it appears that the Iraqi Drilling Company is committed to apply the unified accounting system and treats drilling and development expenses as operating expenses using the revenue method as a main contractor or a subcontractor, and therefore it is not obligated to apply the international reporting standard IFRS 6.

After receiving the debit notice containing the cost of drilling the well to Basra Oil Company and confirming the validity of the information contained therein by the Fields Authority, the total amount is paid to the Iraqi Drilling Company, and this means that the Basra Oil Company uses the total cost method in dealing with drilling expenses by capitalizing all costs at the expense of wells in operation, And no distinction is made between productive wells and dry wells, given that the wells that are being drilled are often wells rich in oil, and the researcher believes that this treatment is consistent with International Reporting Standard No. 6 when it is confirmed that there are no dry wells. When inquiring Basra Oil Company about how it handles the development expenses drilling, the answer was to count them as all operating expenses that close the end of the year in the income statement. The researcher believes that this treatment is not consistent with the philosophy of Standard 6 IFRS, which states that if the purpose of the development operations is to maintain the production capacity of the wells, then the development expenses are treated as operating expenses that close the end of the year in the income statement, but if the purpose of the development operations are developing wells and increasing their production according to IFRS 6, development drilling expenses must be capitalized on the cost of the well.

# **RESULTS AND DISCUSSION**

The results reveal that Iraqi oil companies - including Basra Oil Company - have two types of budgets sheets; an investment budget that is centrally funded by the Ministry of Finance and an operational budget that relies on self-financing. It also has two book groups; The first is according to the requirements of the unified accounting system to show the result of the operational activity, and the second is according to the government accounting system to show the capital expenditures (investment) and what has been completed of its annual projects and has been capitalized to the fixed asset and what is not completed and must be included in the budget of the following year. Like that Basra Oil Company relies on the cost plus method to recover its expenses. Everything that is spent in the research, exploration or drilling phase is recovered from the Ministry of Finance through the Ministry of Oil, plus a percentage of the profit margin, so there is no incentive for the company to pressure expenses. The research showed not benefiting from the accounting systems applied by the international oil companies, especially the licensing round companies operating in Iraq. Iraqi Drilling Company treats drilling and reclamation expenses as revenue expenses, given that the Iraqi Drilling Company is a main contractor and sometimes a secondary contractor for Basra Oil Company, so it is natural to apply the revenue method. Additionally, the method followed by the Basra Oil Company in capitalizing drilling expenses at the expense of wells under operation is consistent with the philosophy of the total cost method approved by the standard, but this harmony is conditional on the absence of dry wells. If the drilling operations resulted in the presence of non-productive or productive wells but in non-commercial quantities, the treatment against the standard. Finally, the research showed Basra Oil Company treats all development (maintenance (expenses as operating expenses that are closed at the end of the year in the income statement, this is not consistent with the philosophy of Standard No. 6 which stipulates on treating reclamation expenses aimed to maintain the production capacity of the well should be treated as operating expenses, as for reclamation expenses aimed to increase the production capacity of the well must be capitalized on the cost of the well.

In the light of the foregoing, it is possible to accept the first research hypothesis, which assumed that "Iraqi oil production companies do not adhere to the application of the IFRS 6 financial reporting standard when accounting for drilling and development expenses," because Basra Oil Company does not distinguish in the treatment of drilling expenses between productive wells and non-producing wells, as It does not distinguish in the treatment of reclamation expenses between reclamation operations aimed at increasing the production capacity of the well and reclamation operations aimed at maintenance the well's production.

It is also possible to accept the second research hypothesis, which assumed, "There are a mismatch between the requirements of the IFRS 6 standard and the treatments contained in the unified accounting system related to drilling and development expenses." The most

prominent thing in which the unified accounting system differs from the IFRS 6 standard is the calculation of depreciation for the producing wells, which must be dealt with by the depletion system, and when inquiring from the Basra Oil Company about the percentage of depreciation of the producing wells, it was found that they calculate depreciation for them by 10% as a fixed premium and do not calculate the depletion premium for oil As for the Iraqi drilling company, the researcher learned that the depreciation rate for some drilling rigs and equipment has recently been reduced to 5% and 4% (Decision of the Ministry of Finance on 3/4/2021). The researcher does not support the decision to reduce the depreciation rates, but rather considers the need to work with the accelerated depreciation system, especially for specialized equipment, in order to replace them with equipment that keeps pace with modern technical developments in the field of drilling operations.

## CONCLUSIONS

This research only focused on the accounting treatment of drilling and development expenses carried out by Basra Oil Company (extractive company) and Iraqi Drilling Company (main or secondary contractor) and did not address the accounting treatment of drilling and development expenses used in foreign investment oil companies (licensing rounds), So research is suggested Work on preparing and developing cadres of financial bodies, including accountants, auditors, and auditors, and training them to provide them with the necessary experience to deal with the accounting systems in force in foreign oil companies. also research suggests the need to prepare a special accounting system for the oil sector because the unified accounting system does not contain adequate measurement and disclosure for the oil industry and therefore it does not meet the requirements of the international standard IFRS 6 and does not meet the needs of users of accounting information, especially with the need of Iraqi oil companies to deal with foreign oil companies (rounds licenses). future research should also seek to direct Iraqi oil companies to apply the method of successful efforts to treat oil costs including drilling and development costs - because this method distinguishes in the accounting treatment between productive wells and non-productive wells in accordance with the requirements of the financial reporting standard IFRS 6, With need for the company to differentiate between development (maintenance )expenses that do not lead to an increase in the production of the well and those that lead to an increase in the production capacity of the well, as the first is dealt with as operating expenses, while the second is capitalized on the cost of the well. Finally, the research is suggested for future work directing Iraqi Drilling Company to work with an accelerated depreciation system for the main equipment used in drilling operations so that the company can change it from time to time and make it keep pace with technological developments in order to increase the rate and quality of its performance in the field of drilling.

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# **INTERVIEWS**

An interview with Mr. Ahmed, in charge of the Service Contracts office

An interview with Mr. Iyad Qadir, exchange department director in the investment budget accounts in Basra Oil Company