



# Exploring the Accounting Treatment of Exploration and Evaluation Activities in the Extraction Industry in South Africa and Australia

Christa Van der Walt, Banele Dlamini\*, Danie P Schutte

School of Accounting Sciences, North-West University, Potchefstroom, Republic of South Africa. \*Email: [bdlamini@lsu.ac.zw](mailto:bdlamini@lsu.ac.zw)

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## ABSTRACT

The study examines the accounting treatment of exploration and evaluation assets in the extraction industry in South Africa and Australia. This study adopted a qualitative research approach and purposive sampling techniques. Data was collected from 60 entities in the extraction industry that are listed on the Johannesburg Stock Exchange and the Australian Securities Exchange. The study found that South African entities classify exploration and evaluation assets as tangible or intangible assets using International Financial Reporting Standard (IFRS) 6. The study also observed that Australian entities classify exploration and evaluation assets as a separate class of assets using the Australian Accounting Standard Board (AASB) 6. South African entities depreciated or amortized exploration and evaluation assets, while Australian entities did not. The study concluded that even though there is high adoption of IFRS 6 or AASB 6, comparability is compromised in the extraction industry. The study recommended that IFRS 6 not offer a choice between IAS 16 or IAS 38 for the classification of exploration and evaluation assets to improve comparability and aid effective decision-making.

**Keywords:** Exploration and Evaluation Assets, Extraction Industry, International Financial Reporting Standard 6, Australian Accounting Standard Board 6, South Africa, Australia

**JEL Classification:** M410

## 1. INTRODUCTION

The International Accounting Standards Board (IASB) develops International Financial Reporting Standard (IFRS). These IFRS offer a principle-based, common set of worldwide language to aid global comparability of financial statements. These IFRS aim to provide a global framework for the preparation and presentation of financial statements for various stakeholders. The use of IFRS facilitates easier access to financial data by investors due to standardisation, consistency, and comparability (Sharma and Gupta, 2019). Accounting for exploration and evaluation costs in the extraction industry has proved to be a significant problem (Cortese and Irvine, 2010). Dunne et al. (2009) stated that variations in the accounting treatment of exploration and

evaluation costs obstruct the evaluation and comparability of the annual financial statements of entities in the extraction industry. This hinders informed decision-making by investors as it compromises the comparability of financial information. Due to globalisation, financial statement comparability has become an international concern as various stakeholders want an internationally comparable set of accounts (Roberts et al., 2008; Glaum et al., 2013). It is critical to disclose how entities in the extraction industry account for exploration and evaluation costs.

According to Gray et al. (2019), a significant portion of the world market is dominated by large corporations in the extraction industry. South Africa and Australia are considered leaders in the extraction industry by the IASB (IASCF, 2010). However,

there seems to be a dearth of information on how the extraction industries in South Africa and Australia account for the exploration and evaluation of assets. At the time of this study, there was a lack of evidence from previous similar studies that had been conducted in South Africa and Australia. This study aimed to examine the accounting treatment of exploration and evaluation assets in the extraction industry in South Africa and Australia. This study will reduce the dearth of research-based knowledge on how entities in the extraction industry in South Africa and Australia account for exploration and evaluation costs. In an attempt to achieve the objective of this study, the paper will discuss the literature related to accounting for exploration and evaluation costs. The methodology adopted in this study will be discussed, and the research findings will be presented. Then a conclusion that culminates the study will present the conclusion and the recommendations of the study.

## 2. LITERATURE REVIEW

According to the IFRS Foundation (2004), as set out in paragraph 25 of IFRS 6 “an entity shall treat exploration and evaluation assets as a separate class of assets and make the disclosures required by either IAS 16 or IAS 38 consistent with how the assets are classified”. Each entity that applies IFRS 6 can choose which IAS standard it wants to apply to classify its exploration and evaluation assets. When an entity elects to classify exploration and evaluation assets in accordance with IAS 16, these assets will be classified as tangible assets. It is required by IAS 16 that an asset be depreciated over its useful life (IFRS, 2001). Furthermore, by selecting IAS 38 to classify exploration and evaluation assets, these assets will be classified as intangible. IAS 38 also requires an asset to be amortized over its useful life (IFRS, 2001b).

The AASB corresponded with the release of IFRS 6 in 2004 by issuing AASB 6: *Exploration for and Evaluation of Mineral Resources* in the same year (AASB, 2015). AASB 6, paragraph 25 (2004), also states that “an entity shall treat exploration and evaluation assets as a separate class of assets and make the disclosures required by either AASB 116 or AASB 138 consistent with how the assets are classified”. Again, assets under AASB 116 will be classified as property, plant, and equipment, and assets classified under AASB 138 will be classified as intangible assets. Depreciation and amortization will be applicable to property, plant and equipment, and intangible assets, respectively.

Paragraph 25 of IFRS 6 and AASB 6 thus gives entities a choice on how exploration and evaluation assets should be classified, viz., under standard IAS 16 or IAS 38. Since entities can choose the classification, this will lead to a deviation in the disclosure of exploration and evaluation assets. When entities elect to disclose exploration and evaluation assets under IAS 16, these assets should be disclosed as cost price less depreciation charges. Exploration and evaluation assets under IAS 38 will be disclosed as the cost price of these assets less amortization charges. The disclosure on the statement of financial position will also differ depending on the standard selected by entities since IAS 16 and IAS 38 have different treatment. When users of these financial statements examine the information presented, the information might not be comparable if different classifications have been applied. Hence,

the difference in the classification of exploration and evaluation assets presents the question of the comparability of financial information among entities in the extraction industry.

## 3. METHODOLOGY

The study adopted a qualitative research design, following an interpretive approach to understand the accounting treatment of exploration and evaluation activities in the extraction industry in South Africa and Australia. The extraction industry in South Africa has the following sectors: gas producers, industrial metals, mining, and oil. At the time of the study, these three sectors consisted of 63 listed entities on the Johannesburg Stock Exchange (JSE) (African Markets, 2022). The Australian extraction industry has two sectors: the energy industry and the materials industry. At the time of the study, there were 818 listed entities on the Australian Securities Exchange (ASX) from these two sectors (ASX, 2021). Purposeful sampling was used to select the sample of entities from the three sectors on the JSE and the two sectors on the ASX. The sample consisted of 30 entities from each country; see Annexure I.

Data was collected from 60 entities in the extraction industry that are listed on the JSE and the ASX. The sample size of 60 entities was considered suitable for the study, as previous studies by Karapinar et al. (2012) as well as Poswal and Chauhan (2021) both consisted of a sample size of ten entities. Content analysis was used to interpret and analyse data from annual financial reports on how each entity accounted for extraction and evaluation costs (Vespestad and Clancy, 2021; Ahmady et al., 2020). This approach was used by Ngai et al. (2020) in their exploratory studies, and it was deemed fit for this study as it analyses the accounting policies of the companies in the extraction industry and ascertains their compliance with the requirements of AASB 6 and IFRS 6.

## 4. RESULTS

The annual financial reports were analysed to consider the accounting treatment of exploration and evaluation assets. The study found that eighty-seven percent (87%) of South African entities accounted for extraction and evaluation costs using the guidance of IFRS 6. Table 1 depicts the results of the classification of exploration and evaluation costs by South African entities.

The findings further revealed that sixty-three percent (63%) of South African entities classified exploration and evaluation

**Table 1: Classification of exploration and evaluation assets by South African entities**

IFRS and AASB	South Africa	
	No.	%
1. Application of IFRS 6	26	87
2. Classification under IAS 16 <i>Property, Plant and Equipment</i>	19	63
3. Classification under IAS 38 <i>Intangible Assets</i>	6	20
4. Classification combination of IAS 16 and IAS 38	2	7
5. Non adoption of IFRS 6	3	10

Source: Own formulation. IFRS: International Financial Reporting Standard

**Table 2: Classification of exploration and evaluation assets by Australian entities**

IFRS and AASB	Australia	
	No.	%
1. Application of IFRS standard	1	3
2. Application of AASB standard	27	90
3. Application of IFRS and AASB standard combined	2	7
4. Classification under AASB 116 <i>Property, Plant and Equipment</i>	5	17
5. Classification under AASB 138 <i>Intangible Assets</i>	1	3
6. Classification combination of AASB 116 and AASB 138	0	0

Source: Own formulation. IFRS: International Financial Reporting Standard, AASB: Australian Accounting Standard Board

**Table 3: Depreciation and amortisation method**

Depreciation and amortisation method	South Africa	Australia
	%	%
1. Units of production method	53	7
2. Straight-line method	20	0
3. Not depreciated under or amortisation	27	93

Source: Own formulation

assets as tangible assets. Thus, exploration and evaluation assets formed part of the total property, plant, and equipment value in the statement of financial position. Twenty percent (20%) of South African entities classified exploration and evaluation assets as intangible assets. Seven percent (7%) of South African entities classified exploration and evaluation assets as tangible and intangible assets. These two entities (7%) classified mineral rights relating to exploration and evaluation assets separately as intangible assets and as part of property, plant, and equipment. However, ten percent (10%) of South African entities did not apply IFRS 6 in the accounting of exploration and evaluation of assets. These findings reveal that there is a high adoption level of IFRS 6 by South African companies in the extraction industry. These findings similar to like the results obtained by Abdo (2016), who reported a high uptake of IFRS 6 from 122 companies listed on six major stock exchanges. The findings further disclosed that ninety percent (90%) of Australian entities accounted for exploration and evaluation costs using the guidance of AASB 6. Table 2 depicts the results of the classification of exploration and evaluation costs by Australian entities.

Australian entities classified exploration and evaluation assets as a separate class of asset on the face of the statement of financial position under non-current assets and added a separate note in the annual financial statements to provide detail regarding this class of asset. Seventeen percent (17%) of the entities classify exploration and evaluation assets as tangible assets and three percent (3%) as intangible assets. The study findings reveal that entities in the sample capitalised differently on exploration and evaluation expenditures. These results concur with the findings obtained by Constantatos et al. (2020), who revealed that entities in the extraction industry capitalise differently on exploration and evaluation expenditures. The study findings further revealed that only seven (7%) of Australian entities depreciated exploration and evaluation assets. Seventy-three percent (73%) of entities depreciated or amortised exploration and evaluation assets in South Africa, and the asset carrying amount was different from the

initial cost of the assets. These findings concur with the findings of Ernest and Young (2009) and Roberts et al. (2008), who found that entities in the extraction industry have diverse practices in the treatment of exploration and evaluation assets. Table 3 shows the depreciation or amortization of exploration and evaluation assets in the South African and Australian extraction industries.

Ninety-three percent (93%) of the Australian entities' annual reports reflected the initial cost value of these assets as the carrying amount since depreciation or amortisation were not accounted for, whereas seven percent (7%) are using the unit of production method for depreciating their exploration assets. These findings are similar to the results obtained by Abdo (2016), who found that entities in the extraction industry use different accounting practices. These findings reveal that comparability is compromised in the extraction industry at a global level as well as in entities within the same country, as entities use various accounting treatments for exploration and evaluation assets.

## 5. CONCLUSION

The study examined the accounting treatment of exploration and evaluation assets in the extraction industry in South Africa and Australia. From the 60 entities that were sampled, the study found that eighty-seven percent (87%) of South African entities have adopted IFRS 6 for classifying exploration and evaluation assets. From these entities, sixty-three percent (63%) classified exploration and evaluation assets as tangible assets, while thirty-seven percent (37%) classified the assets as intangible. The study also observed that ninety percent (90%) of Australian entities have adopted the use of AASB 6, and these entities classified exploration and evaluation assets as a separate class of assets. Australian entities disclose exploration and evaluation assets as tangible or intangible assets. The results further revealed that in South Africa, seventy-three percent (73%) of the sampled entities depreciated or amortized exploration and evaluation assets, while in Australia, only seven percent (7%) of entities applied depreciation and none applied amortization.

The study further observed that entities in the extraction industry both in South Africa and Australia cannot be compared as there are differences in the accounting treatment of exploration and evaluation assets. For instance, there are different treatments of depreciation and amortisation and classifications of exploration and evaluation assets in these two countries. The study concluded that even though there is high adoption of accounting standards, comparability is compromised in the extraction industry at the international level as well as in entities within the same country as the standards provide various treatment of exploration and evaluation assets. This study, along with others (Cortese et al., 2022; Nobes and Stadler, 2021), recommends that the IASB amend IFRS 6 and improve the disclosure requirements. The study further suggests that the standards should not offer a choice between IAS 16 and IAS 38 for the classification of exploration and evaluation assets; this would facilitate better comparability and aid effective decision-making in the extraction industry. This study also observed other areas that need detailed guidance, including the recognition criteria for capitalization, impairment, and revenue streams in the extraction industry.

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## ANNEXURE

## Annexure I: Sample of South African and Australian entities

Number in sample	Name of entity	Sector as Listed on JSE	Sector as Listed on ASX
1.	African Rainbow Minerals Ltd (Top 40)	√	
2.	BHP Group Ltd (Top 40)	√	√
3.	Chrometco Ltd	√	
4.	Jubilee Platinum Plc	√	
5.	Khumba Iron Ore Ltd (Top 40)	√	
6.	Lonmin Plc	√	
7.	Merafe Resources Ltd	√	
8.	South32 Ltd (Top 40)	√	√
9.	Union Atlantic Minerals Ltd	√	
10.	Anglo American Platinum Ltd (Top 40)	√	
11.	Anglo American Plc (Top 40)	√	
12.	Anglogold Ashanti Ltd (Top 40)	√	
13.	Buffalo Coal Corp	√	
14.	DRDGOLD Ltd	√	
15.	Glencore Plc (Top 40)	√	
16.	Gold Fields Ltd (Top 40)	√	
17.	Harmony Gold Mining Company Ltd	√	
18.	Impala Platinum Holdings Ltd (Top 40)	√	
19.	Kibo Mining Plc	√	
20.	Kore Potash Plc	√	
21.	Northern Platinum Ltd (Top 40)	√	
22.	Orion Minerals NL	√	√
23.	Sibanye-Stillwater Ltd (Top 40)	√	
24.	Trans Hex Group Ltd	√	
25.	Wesizwe Platinum Ltd	√	
26.	Efora Energy Ltd	√	
27.	Exxaro Resources Ltd (Top 40)	√	
28.	McMining Ltd	√	
29.	Oanda Plc	√	
30.	Sasol Ltd (Top 40)	√	
31.	Aura Energy Ltd		√
32.	Beach Energy Ltd		√
33.	Origin Energy Ltd		√
34.	Oil Search Ltd		√
35.	Whitehaven Coal Ltd		√
36.	Woodside Petroleum Ltd		√
37.	Emu NL		√
38.	Evolution Mining Ltd		√
39.	Fortescue Metals Group Ltd		√
40.	Gold Road Resources Ltd		√
41.	Igo Ltd		√
42.	Iluka Resources Ltd		√
43.	Lithium Australia NL		√
44.	Lynas Rare earths Ltd		√
45.	Magnetic Resources		√
46.	Mineral Resources Ltd		√
47.	Newcrest Mining Ltd		√
48.	Northern Star Resources Ltd		√
49.	OZ Minerals Ltd		√
50.	Perseus Mining Ltd		√
51.	Ramelius Resources Ltd		√
52.	Regis Resources Ltd		√
53.	Resolute Mining Ltd		√
54.	Rio Tinto Ltd		√
55.	Sandfire Resources Ltd		√
56.	St Barbara Ltd		√
57.	Silver Lake Resources Ltd		√
58.	Westgold Resources Ltd		√
59.	BHP Group Limited	√	√
60.	South 32	√	√

Source: ASX (2022); JSE (2022)