

THE IMPACT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS ON OIL AND GAS EXPLORATION AND PRODUCTION COMPANIES: THE CANADIAN FIRST-YEAR EXPERIENCE

**Robert B. Matthews
Ronald J. Daigle
Paul Anthony Vanek***

Introduction

“No accounting system is a replacement for management integrity.”—
Keith Schafer, “How IFRS Accounting Rules Effect Oil Investors,” Oil
and Gas Investments Bulletin, January 3, 2012

A topic of intense discussion and significance in accounting circles during recent years has been the potential change in the United States of America (US) to adopting a set of global accounting standards. This could include a shift of accounting principles from historical cost under generally accepted accounting principles (US GAAP) to international financial reporting standards (IFRS) currently applicable in most countries outside the US, or a convergence of US GAAP and IFRS. The actual timing of adoption of any change is currently uncertain, pending analysis by groups and organizations such as the Financial Accounting Standards Board (FASB) and Securities Exchange Commission (SEC). However, there is a trend toward worldwide adoption of a common set of accounting standards (PwC 2011), and it appears more likely than not that the US will join the trend at some point.

The emphasis on adopting a worldwide set of common accounting standards can be seen in the results of a 2007 survey of accounting leaders by the International Federation of Accountants. Gathering 143 responses from 91 countries, 90% of respondents state that a single set of international financial reporting standards is “very important” or “important” for economic growth in their respective countries (IFAC 2007). Further emphasizing this importance is the fact that more than 120 nations and reporting jurisdictions currently permit or require IFRS for domestic listed companies (AICPA 2011).

* Robert B. Matthews, JD, CPA is an Assistant Professor of General Business and Finance at Sam Houston State University. Ronald J. Daigle, PhD, CPA is an Associate Professor of Accounting at Sam Houston State University. Paul Anthony Vanek, CPA, CGMA, CIA, CRMA, CISA, CFE is the Managing Member of The Vanek Consultancy Group, LLC.

This paper briefly reviews the current status of—and prospects for—ongoing conversion efforts in the US; identifies key differences between US GAAP, as promulgated by the FASB, and IFRS, as promulgated by the International Accounting Standards Board [IASB]); discusses the potential impact of adoption on the oil and gas exploration and production (E&P) industry; and analyzes the Canadian experience for the oil and gas E&P industry from converting to IFRS for 2011 as an indicator of what the actual impact might be for their US counterparts when adoption occurs.

Current Status and Projected Adoption of IFRS in the US

In April 2010, Wayne Upton, Director of International Activities for the IASB, expressed that the IASB recognizes there are (Upton 2010):

“cultural, legal, or political obstacles to an immediate full adoption of IFRS . . . it is our ultimate objective to make full adoption of IFRS possible because we believe that only then will a country be able to fully benefit from the advantages of using IFRS . . . While convergence may be the necessary preparation for some countries to adopt IFRS, the simplest, least costly and most straightforward approach is to adopt the complete body of IFRS in a single step rather than opting for long-term convergence . . . The main reason why most companies want to use IFRSs in their financial statements is the ability to demonstrate to the investor community that their financial statements are IFRS-compliant. For that purpose it is not sufficient that the standards have converged. The only way to make . . . that claim is to apply all the standards as issued by the IASB and make the compliance representation required by IAS-1. Hence, while convergence is good, adoption is necessary to be truly able to harvest the benefits of the change.”

Despite the suggested benefits of adoption, the US has been somewhat hesitant to push for wholesale adoption of IFRS. This is due in part to the lack of independence and assurance of funding of the IFRS Foundation, the parent of the IASB. Until the SEC has assurance of the resolution of the issues of independence and funding of the IASB, coupled with the on-going comments from US issuers and roundtable discussions, the ultimate mechanism to the adoption of a set of global accounting standards remains uncertain.

As a result of the lack of resolution, the SEC did not issue a final rule for adoption by the expected deadline of November 15, 2011, nor has it done so subsequently. Despite the missed deadline and lack of resolution, the IFRS Foundation Monitoring Board, which monitors the IASB, made a change in February 2012 regarding the types of entities that can oversee the IASB. Beginning in 2013, monitoring entities will need to mandate “domestic use of IFRS in [their] jurisdiction’s capital market” (Johnson 2012). This new criterion has been interpreted as a hint or nudge for the SEC, an entity on the monitoring board, to move forward with IFRS.

In March 2013, the IASB formed a technical advisory group for the develop-

ment of IFRS, the Accounting Standards Advisory Forum (ASAF). Although the SEC has not yet decided whether to accept the use of IFRS, FASB was selected to participate in the group (Tysiac 2013). Upon selection, Jeffrey J. Diermeier, Chair of the Financial Accounting Foundation Board of Trustees, remarked (FAF 2013):

“The FASB’s membership on the Accounting Standards Advisory Forum is an opportunity to represent U.S. interests in the IASB’s standard-setting process and to continue the process of improving and converging U.S. Generally Accepted Accounting Principles and IFRS.”

Additionally, FASB Chairman Leslie F. Seidman said (FAF 2013):

“The FASB looks forward to participating in the Accounting Standards Advisory Forum and working with other standard setters to contribute to the ongoing improvement and convergence of global accounting standards.” She added, “We also look forward to working with other standard setters to augment and improve the Conceptual Framework, which will lay the groundwork for consistent, high-quality standards.”

While it has been a challenging process, it is clear to see that steps are being taken towards eventual following of IFRS standards by public companies in the US.

Key Differences between US GAAP and IFRS

While the basic principles underlying both US GAAP and IFRS are very similar, there are some conceptual differences in the application of those principles, thereby causing some of the issues sought to be resolved between the FASB and IASB. The conceptual differences might be summarized by stating that IFRS is more principles-based, whereas US GAAP is more rules-based. This difference presents itself in many ways. For example, US GAAP pronouncements cover an estimated 25,000 pages, whereas IFRS covers less than 3,000 pages, with a “light” version for small and medium-sized entities (SMEs) that includes only 237 pages (Thacker 2009). As another example, whereas US GAAP has extensive guidance for specific industries, IFRS includes almost no industry-specific rules and very little adoption guidance.

As a result of such differences, the adoption of IFRS will require far more judgement, both on the part of management in preparing financial statements and on the part of independent auditors in reaching an opinion on the fairness of presentation. In the absence of the kinds of “bright line” rules that characterize US GAAP, different companies may reach different accounting conclusions for transactions that are essentially the same. On perhaps a more favorable note, this may end the need for extensive structuring of certain transactions in order to compel a certain desired applicability (or non-applicability, as the case may be) of specific US GAAP provisions (i.e., instead of form dominating substance in some instances, substance should rightfully dominate form, which is in accordance with the principles of both US GAAP and IFRS).

Table 1 highlights some of the most notable key differences between US GAAP and IFRS (see <http://www.sec.gov/spotlight/globalaccountingstandards/ifrs-work->

plan-paper-111611-gaap.pdf for a more detailed discussion comparing US GAAP to IFRS).

Table 1 – Notable Key Differences between US GAAP and IFRS

Financial Statement Area	US GAAP	IFRS
Inventory	Reversal of inventory write-downs prohibited. Market = replacement cost, with floor & ceiling.	LIFO prohibited. Reversal of inventory write-downs required in certain cases. Market = net realizable value.
Deferred Taxes	Deferred tax assets and liabilities classified current/non-current. Deferred taxes recognized in full, with valuation allowance for non-probable part. Measured based on enacted tax rates. Deferred tax on intercompany profits recognized at seller's rate.	Deferred tax assets and liabilities always non-current. Only probable portion of deferred taxes recognized. Measured based on enacted or "substantially enacted" tax rates. Deferred tax on intercompany profits recognized at buyer's rate.
Fixed Assets	Historical cost, no revaluation. Residual value may only be adjusted downward. Residual value, useful life, and depreciation reviewed only when significant events or changes occur.	Historical cost or revalued amount may be used. Residual value may be adjusted up or down. Residual value, useful life, and depreciation method reviewed annually.
Asset Impairment	Asset impaired when carrying value greater than expected future cash flows from asset. Reversal of impairment loss is prohibited.	Asset impaired when carrying amount is higher than larger of (1) asset's value in continued use, or (2) fair value less costs to sell. Reversal of impairment loss required if certain conditions are met.
Leases	Primarily based on substance, but extensive form-driven requirements. Land and buildings considered as one unit unless land >25% of value. Discounted using implicit rate. Gain on sale/leaseback amortized over term of lease.	Substance over form. Land and buildings considered separately unless land is immaterial. Lessors use implicit rate; lessees use lower of incremental borrowing rate or implicit rate. Gain on sale/leaseback recognized immediately.
Revenue Recognition	Much more detailed specific guidance on multiple deliverables, software, and industry-specific issues.	Prohibits completed contract method of revenue recognition, and requires cost recovery when percentage completion cannot be determined.

Financial Statement Area	US GAAP	IFRS
Pensions	Past service costs on vested benefits amortized over remaining service period of life expectancy. Defers actuarial gains and losses as part of comprehensive income, then amortized to net income. Distinction between pensions and other post-retirement benefits.	Past service costs on vested benefits recognized immediately. Actuarial gains or losses can be recognized immediately or deferred; if deferred in equity, not through income statement. No distinction between pensions and other benefits.
Interim Reporting	Generally treats interim period as integral part of full year.	Each interim reporting period treated as a discrete accounting period.

As can be seen in Table 1, rather than following the US GAAP preference for stating all things as conservatively as possible, IFRS appears to be more oriented toward trying to reflect economic reality across the board. In this regard, it should be noted that US GAAP has, in many ways (such as application of mark-to-market principles), already moved from its prior position of historical cost and extreme conservatism to one that relies ever more on market criteria. As a reminder, the FASB and IASB have been working formally since 2002 with resolving differences between the two sets of standards. For this reason, much of the transition may be easier than it would have been from a purely conservative, historical cost approach in place as of 2002.

Anticipated Impact of Adopting IFRS on Oil and Gas E&P Companies

The current approaches to accounting for oil and gas E&P operations under US GAAP include:

- Successful Efforts, pursuant to Accounting Standards Codification (ASC) 932 (previously referred to as FAS 19 before the ASC), under which the costs of successful (producing) wells are capitalized, unsuccessful (non-producing) wells are expensed, and most other exploration costs are expensed. Capitalized costs are subject to depletion, depreciation, and amortization (DD&A) over useful life of oil and gas reserves, generally following a unit-of-production method. The field is the relevant cost center.
- Full Cost, pursuant to SEC Regulation S-X, Rule 4-10, under which costs of all exploration and development activities are capitalized, subject to a cost ceiling test, with capitalized costs subject to DD&A over the useful life of reserves following a unit of production method. The relevant cost center, for both the cost ceiling test and the DD&A calculation, is usually the country.

A third approach, revenue recognition accounting, has been suggested by the SEC. Under this approach, capitalized costs of oil and gas producing properties reflect the future realizable net cash flows from operating and producing such

properties. This approach has never approved or implemented.

The primary IFRS pronouncements affecting oil and gas companies include the following:

- IFRS 6, Exploration for and Evaluation of Mineral Resources
- International Accounting Standard (IAS) 8, Accounting Policies, Changes in Accounting Estimates and Errors
- IAS 16, Property, Plant and Equipment
- IAS 36, Impairment of Assets
- IAS 37, Provisions, Contingent Liabilities, and Contingent Assets
- IAS 38, Intangible Assets

IFRS 6 is the primary pronouncement governing accounting for the E&P phase, and is essentially a temporary provision. IAS 16 and 38 are the primary pronouncements governing accounting in the development phase. There is currently no specific IFRS pronouncement covering the pre-exploration phase. Further guidance is expected in the future.

The major points of difference between IFRS and US GAAP regarding both Full Cost and Successful Efforts are shown in Table 2.

Table 2 – Major Points of Difference between US GAAP and IFRS Regarding Both Full Cost and Successful Efforts Approaches

Category	Full Cost under US GAAP	Successful Efforts under US GAAP	IFRS
Cost center	Country	Lease/field	Cash generating unit (CGU), which may be aggregated
Pre-exploratory costs	Capitalized	Expensed	Typically expensed
Exploration & Evaluation (E&E)	Capitalized and added to depletion, depreciation & amortization (DD&A) pool	Successful wells capitalized and subject to DD&A; unsuccessful expensed	Once technical feasibility and commercial viability are established, tested for impairment and reclassified as property, plant & equipment (PP&E) or intangibles
Development and production	Development costs capitalized and subject to DD&A; production costs expensed	Development costs capitalized and subject to DD&A; production costs expensed	IAS 16 and IAS 34 should be followed; costs capitalized if they have future benefit
Impairment	Full Cost ceiling annually at cost center level	Capitalized costs subject to impairment provisions of ASC 360 (previously referred to as FAS 144 before the ASC)	GCUs may be aggregated in evaluation E&E costs; all assets outside E&E phase tested by CGU
DD&A	Unit of production basis over total Full Cost pool	Unit of production basis for each property or small group of properties	Each part of an item of PP&E must be depreciated separately
Reserves measure used	Total proved	Total proved	Not prescribed

The fact that IFRS 6 allows an entity to group CGUs for impairment during the E&E stage, plus the availability of the deemed cost exception under IFRS 1, may permit continuation of the Full Cost method. There are only minor differences between IFRS 6 and the Successful Efforts method. The essence is that costs are capitalized pending evaluation.

Some major changes are anticipated for oil and gas E&P companies with the adoption of IFRS. The standards are very similar to the Successful Efforts method, in which costs of unsuccessful wells and other exploration costs are expensed when incurred. However, adoption of the IFRS 1 deemed cost exception would appear to permit continued use of the Full Cost method, in which the costs of unsuccessful wells and other exploration costs are capitalized and amortized over the productive life of all wells in a cost center (typically country level). Also, the IFRS requirements for impairment, and the IFRS provision that assets may be

marked-to-market value, including reversal of prior impairments and write-up to fair market value, are expected to produce more volatile asset values and earnings, and could lead to something approximating the revenue recognition accounting method.

The Canadian Experience from Adopting IFRS

In trying to determine the impact on US oil and gas E&P companies with the adoption of IFRS, it is useful to look at the Canadian experience from adoption. Canadian companies were required to convert from Canadian Generally Accepted Accounting Principles (CA GAAP) to IFRS for 2011 and subsequent years. The Canadian experience is particularly useful for US companies to consider because:

- CA GAAP was relatively close to US GAAP,
- The Canadian oil and gas E&P operating environment is very similar to that in the US, and
- The impacts of adoption are easily seen because the transitional method adopted required a footnote reconciling CA GAAP financial statements to IFRS statements for the 2011 income statement and beginning balance sheet.

Interviews by Keith Schaefer, publisher of the online “Oil and Gas Investments Bulletin,” with Kevin Nielsen (Partner, Deloitte & Touche, Calgary), Stuart Symon (CFO, Argyle Energy), and Craig Nieboer (CFO, Canadian Energy Services) expressed the opinions that investors will notice the following impacts for Canadian companies under IFRS compared to CA GAAP (Schaefer 2012):

- There are more impairments or writedowns—and more frequent—with IFRS because of the intent to carry assets on the financial statements at a more current or real-time market valuation. Asset values are obviously tied to commodity prices in this sector, so as prices move, the industry will not only see more writedowns, but lots of reversals in impairments. “A writedown used to be viewed as negative in the market as it was rare,” says Symon. “People are going to have to get more used to impairments and reversals giving rise to earnings volatility.”
- For service companies, one of the downsides of IFRS is there is not a true gross margin anymore, says Nieboer, as non-cash items like stock based compensation and amortization are included as cost of goods sold. “Gross margin is now artificially lower,” he says.
- Many more costs must be expensed, not capitalized, such as transaction costs when doing a deal, and even dry holes must be expensed, whereas before they could be capitalized. For the small junior producer, a couple misses can mean a very bad income statement.
- All of the above points indicate more volatility in earnings, an important issue for junior oil and gas companies because few have earnings.

Besides these predictions, a KPMG survey of Canadian oil and gas E&P

companies regarding the adoption of IFRS provides the following insights (KPMG 2010):

- When asked, “Do you anticipate using the IFRS 1 deemed cost (full cost) exception?,” 73% answered “Yes,” 17% answered “No,” and 10% answered “Undecided.”
- When asked, “Do you expect to use the optional IFRS 1 exemption for all business combinations before the effective date?,” 86% answered “Yes,” 5% answered “No,” and 9% answered “Undecided.”
- When asked, “At what point in time do you expect to capitalize exploration and evaluation (E&E) costs?,” 83% answered “As soon as possible,” 5% answered “Never,” 9% answered or responded “Undecided/no answer,” and 3% answered “Other.”
- When asked, “Do you intend to capitalize any general and administrative overhead costs during the E&E phase?,” 55% answered “Yes,” 10% answered “Yes but only once under production/development,” 20% answered “No,” and 15% answered “Undecided.”
- When asked, “At what point do you intend to transfer costs out of IFRS 6 (E&E)?,” 31% answered “Upon establishment of reserves,” 32% answered “Upon establishment of proved reserves,” 9% answered “Upon establishment of probable reserves,” 7% answered “Other,” and 21% answered “Undecided.”

Because IFRS has recently been implemented in Canada, an analysis of the financial statements of Canadian oil and gas E&P companies can provide useful insights for US companies. We have analyzed financial statement data and evaluated the extent to which the problems identified in the proposed points materialized for Canadian oil and gas E&P companies, as well as to what extent the results meet the intentions of respondents in the KPMG survey. The next section discusses our analyses and insights obtained.

Methodology and Data Selection

To investigate the impact of IFRS adoption on Canadian oil and gas E&P companies, we performed the following:

- Accessed the database of Canadian System for Electronic Document Analysis and Retrieval (SEDAR) publicly-traded company financial statements at www.sedar.com (conceptually similar to the SEC Electronic Data Gathering, Analysis and Retrieval database).
- Selected a judgmental sample of fifty (50) companies from the SEDAR database.
- Initially selected two companies starting with each letter of the alphabet, which would have produced a sample size of 52.
- Because not all letters had 2 companies, we supplemented that additional selection judgmentally to include all Successful Efforts companies (which

are in the distinct majority) included the SEDAR database and to expand the cross-section of company sizes.

- Analyzed and quantified the changes in reported financial information from Canadian GAAP, as documented in the GAAP to IFRS conversion footnote in each financial statement.

Companies included in the sample are given in Table 3.

Table 3—Canadian Oil and Gas Exploration and Production Companies Analyzed for Impact of Adopting IFRS

Company Size Range in Canadian Dollars (C\$), Based on Total Assets	Basis of Accounting	
	Full Cost	Successful Efforts
Less than C\$10 million	(5) Abentour Resources Corporation, Canadian Energy Exploration, Dualex Energy International Inc., Thunderbird Energy Corp., Vecta Energy Corporation	
C\$10-C\$100 million	(12) Anglo-Canadian Oil Corp., Anterra Energy Inc., ArPetrol Ltd., Alberta Oilsands Inc., Bengal Energy Ltd., Caspian Energy Inc., Dee Three Ltd., Edge Resources Inc., Fortress Energy Inc., Manitok Energy Inc., Rodinia Oil Corp., Wrangler West Energy Corp.	
Greater than C\$100 million	(28) Africa Oil Corp., Artek Exploration Ltd., Arsenal Energy Inc., Bankers Petroleum Ltd., Baytex Energy Corp., Calvalley Petroleum Inc., Celtic Exploration Ltd., Conacher Oil & Gas, Delphi Energy Corp., Encana Corporation, Fairborne Energy Ltd., Husky Energy Inc., Legacy Oil + Gas Inc., Logan International, MEG Energy, MGM Energy Corp., NAL Energy Corp., Niko Resources Ltd., NuVista Energy Ltd., Open Range Energy Corp., Painted Pony Petroleum Ltd., Parex Resources Inc., Peyto Exploration & Development Corp., Rock Energy Inc., Second Wave Petroleum Inc., Vermilion Energy, WestFire Energy Ltd., Zargon Oil & Gas Ltd.	(5) Nexen Inc., Paramount Resources Ltd., Perpetual Energy Inc., Talisman Energy, Trilogy Energy Corp.

Results

The average percentage change for various financial statement captions in total, plus broken down by company size and also by accounting basis (Full Cost or Successful Efforts), are shown in Table 4.

Table 4—Percentage Changes in 2011 Financial Statement Items of Canadian Oil and Gas Exploration and Production Companies after Restating for IFRS

Financial Statement Caption	All Companies	Accounting Basis		Company Size in Millions of CAS, Based on Total Assets		
		Full Cost	Successful Efforts	<CAS10M	CAS10M- CAS100M	>CAS100M
<u>BALANCE SHEET</u>						
Current assets	0.2%	0.5%	-0.2%	-0.8%	0.1%	0.2%
Oil and gas exploration and evaluation properties	5925.0%	3530.7%	N/A	N/A	N/A	5861.1%
Oil and gas producing properties, net	-13.1%	-10.4%	-18.4%	-37.2%	-45.2%	-13.1%
Total oil and gas properties	-4.2%	-2.3%	-7.8%	-18.2%	-12.7%	-4.2%
Other assets	-17.7%	-7.7%	-32.8%	0.0%	18.6%	-17.7%
TOTAL ASSETS	-4.9%	-2.5%	-9.2%	-11.3%	-7.8%	-4.9%
Current liabilities	3.4%	1.3%	5.8%	-0.1%	5.4%	3.4%
Decommissioning liabilities	24.6%	19.6%	28.4%	33.4%	61.1%	24.6%
Deferred taxes	-22.5%	-7.3%	-43.3%	0.0%	0.6%	-22.5%
Other liabilities	-0.8%	0.7%	-3.4%	3.0%	7.9%	-0.8%
Total Liabilities	-2.9%	0.1%	-7.0%	-22.4%	11.3%	-2.9%
Equity	-6.8%	-4.5%	-12.2%	-11.3%	-12.7%	-6.7%
TOTAL LIABILITIES AND EQUITY	-4.9%	-2.5%	-9.2%	-11.3%	-7.8%	-4.9%
<u>INCOME STATEMENT</u>						
Sales	-1.2%	-2.5%	2.0%	-2.9%	0.0%	-1.2%
Production expense	-3.5%	-4.6%	1.4%	-1.6%	-0.1%	-3.5%
Exploration expense	95.9%	N/A	5.3%	0.0%	N/A	95.6%
Depletion, depreciation, and amortization	-6.4%	-5.4%	-8.0%	-46.6%	-47.3%	-6.1%
Impairment	683.6%	7888.7%	182.8%	1280.7%	211.7%	714.1%
Share-based compensation	23.3%	49.0%	5.4%	-7.2%	3.5%	23.6%
Other expenses	-1.4%	-0.6%	-2.2%	2.2%	7.3%	-1.5%
Total expenses	0.2%	0.4%	-0.4%	14.0%	-9.2%	0.2%
Operating income	-8.3%	-19.1%	11.0%	-24.9%	13.6%	-8.3%
Financing income	-47.4%	-43.2%	-49.8%	3.6%	58.6%	-48.6%
Investing income	778.8%	740.1%	799.3%	71.2%	43.4%	823.6%
Other income (expense)	-29.2%	-5.0%	204.9%	-15.8%	0.0%	29.1%
Pretax income	0.3%	-20.2%	37.9%	-10.3%	20.3%	-0.1%
Income taxes	-2.4%	34.8%	-18.9%	148.5%	8.4%	-2.3%
NET INCOME	2.6%	-14.9%	64.9%	-9.1%	20.7%	2.1%

The “N/A” entries in Table 4 are for E&E properties or exploration expenses, which were zero or minimal amounts in the CA GAAP financial statements, so reporting the percentage increase is meaningless or cannot be calculated if a zero balance. The mean Canadian dollar amounts in thousands for those items, as well as other major categories, under both CA GAAP and IFRS, are shown in Table 5.

Table 5---Mean Canadian Dollar Amounts in Thousands for 2011 Financial Statement Items of Canadian Oil and Gas Exploration and Production Companies before and after Restating for IFRS

Financial Statement Caption	All Companies	Accounting Basis		Company Size in Millions of CAS, Based on Total Assets		
		Full Cost	Successful Efforts	<CA\$10M	CAS10M- CAS100M	>CA\$100M
BALANCE SHEET						
Oil and gas exploration and evaluation properties						
CAGAAP	3	4	0	0.0	0	5
IFRS	163	131	778	0.7	8	294
Oil and gas producing properties, net						
CAGAAP	1,794	1,576	7,343	3.6	25	3,252
IFRS	1,558	1,412	5,989	2.3	14	2,827
Total assets						
CAGAAP	2,312	1,978	9,932	6.0	40	4,187
IFRS	2,199	1,930	9,020	5.3	37	3,984
Decommissioning liabilities						
CAGAAP	107	61	736	0.1	1	194
IFRS	133	73	945	0.1	2	242
Deferred taxes						
CAGAAP	282	217	1,427	0.1	1	512
IFRS	218	201	809	0.2	1	397
Total Liabilities						
CAGAAP	1,132	869	5,772	2.6	8	2,056
IFRS	1,100	870	5,368	2.7	9	1,996
Total Equity						
CAGAAP	1,179	1,110	4,159	3.4	32	2,132
IFRS	1,099	1,060	3,652	2.6	28	1,988
INCOME STATEMENT						
Exploration expense						
CAGAAP	12	0	146	0.1	0	21
IFRS	24	15	154	0.1	0	44
Depletion, depreciation, and amortization						
CAGAAP	197	167	855	0.6	7	355
IFRS	184	158	787	0.3	4	333
Impainnent						
CAGAAP	2	0	23	0.1	1	3
IFRS	16	14	65	0.6	2	28
Share-based compensatio n						
CAGAAP	7	4	52	0.2	0	13
IFRS	9	6	54	0.2	0	16
Pretax income (loss)						
CAGAAP	104	89	447	-1.9	-9	193
IFRS	105	72	612	-2.1	-7	194
Net income						
CAGAAP	67	69	176	-1.9	-8	125
IFRS	68	59	291	-2.1	-6	127

The following comments can be made from analyzing the above data:

- Current assets and current liabilities changed by small amounts, and such changes reflect minor classification adjustments.
- The capitalized cost of oil and gas properties decreased by 4.2%. The decrease was greater for smaller companies (18.2%) than larger compa-

nies (4.2%). Somewhat surprisingly, the impact was greater on successful-efforts companies (7.8%) than full-cost companies (2.3%); this result appears to reflect the decision to take advantage of the IFRS-1 deemed cost exception, as indicated by the results of the KPMG survey.

- Decommissioning liabilities increased by an average of 24.6%, with the impact greater for Successful Efforts companies, and somewhat greater for mid-range companies.
- Sales changed by only minor amounts.
- Production expenses declined slightly, primarily reflecting reclassification of certain expenses to other categories.
- Exploration expense increased substantially, largely due to: 1) expensing costs previously capitalized, 2) writing off certain costs that had previously not required write-off, and 3) impairment of exploration properties.

With respect to financial statement ratios, the impact of IFRS on the sample companies is shown in Table 6.

Table 6 – 2011 Financial Statement Ratios for Canadian Oil and Gas Exploration and Production Companies before and after Restating for IFRS

Financial Statement Ratio	All Companies	Accounting Basis		Company Size in Millions of CAS, Based on Total Assets		
		Full Cost	Successful Efforts	<CAS10M	CAS10M-CAS100M	>CAS100M
Current Ratio						
CA GAAP	1.24	1.34	1.13	1.86	2.34	1.24
IFRS	1.20	1.33	1.07	1.85	2.22	1.20
Working Capital						
CA GAAP	59.0	58.1	185.4	1.1	8.2	104.1
IFRS	51.3	57.1	102.1	1.1	7.9	90.3
Return on Equity						
CA GAAP	5.7%	6.3%	4.2%	-57.0%	-25.2%	5.8%
IFRS	6.2%	5.6%	8.0%	-80.2%	-22.9%	6.4%
Return on Assets						
CA GAAP	2.9%	3.5%	1.8%	-32.0%	-20.1%	3.0%
IFRS	3.1%	3.1%	3.2%	-39.4%	-17.3%	3.2%
EBITDA						
CA GAAP	322.2	274.4	1397.4	-0.7	-1.8	586.6
IFRS	299.3	244.8	1389.0	-1.4	-3.9	545.9

The changes in current ratio and working capital are not particularly significant, and result from minor changes in the definition of terms and treatment for some minor accounts. Because total assets and net equity both decrease under IFRS (see Tables 4 and 5), return on assets (ROA) and return on equity (ROE) are more volatile (especially ROE) for smaller companies with the adoption of IFRS. Companies with a positive net income show a larger, more positive ROA/ROE under IFRS than CA GAAP, while companies with a net loss show a larger, more negative ROA/ROE, particularly smaller companies.

Based upon results shown in Tables 4 through 6, we conclude the following

regarding the impacts that had been predicted:

- More impairments or writedowns clearly do occur under IFRS, a major reason for the adjustments noted. This leads to a logical inference that writedowns should be more frequent under IFRS. This conclusion should be properly tested by looking at multiple years' financial statements after IFRS adoption.
- Although earnings volatility is noted as predicted, such a conclusion cannot be reached based upon a single year's financial statements. This will require analysis of multiple years.
- The impacts clearly appear to be more severe for the smaller producers. Whether the markets will be sufficiently sophisticated to factor this in going forward is another matter that can be tested more effectively when multiple years of financial statements are available after adoption of IFRS.
- The impacts are greater for companies that previously reported under Successful Efforts than for companies that previously reported under Full Cost. This supports the survey responses indicating that the vast majority of Full Cost companies intended to make use of the IFRS 1 deemed cost exception, which basically permits continued use of what is in effect the Full Cost method.
- We do not note substantial changes resulting from methods of accounting for business combinations, suggesting that companies utilized the IFRS 1 exception, just as indicated in the KPMG survey.
- The impact of somewhat different capitalization policies is reflected in both reductions of amounts of fixed assets and increases in exploration costs.
- The classification between producing properties and properties results in larger amounts being shown for non-producing properties under IFRS, a useful disclosure.

Concluding Comments

Based upon the first-year Canadian experience, the conversion to IFRS had some definite measurable financial statement impacts. One potential negative impact is that the effects appear to be more severe for smaller oil and gas E&P companies. This may cause concern within similar companies in the US.

Although we note a number of financial statement impacts for Canadian oil and gas E&P companies with the adoption of IFRS, the true impact (or lack thereof?) may have been identified by Argyle Energy CFO, Stuart Symon. Symon believes that IFRS should not have a major effect on investor behavior with oil and gas E&P companies, noting that (Schaefer 2012):

“We are not judged as much on earnings as we are on cash flow and recycle ratio [Authors' note: Recycle ratio = field profit per barrel divided by finding cost per barrel], So how much will this change how investors

look at junior oil and gas companies? If you have an earnings emphasis, IFRS will change things, but oil and gas valuations do not tend to be as influenced by earnings.”

Besides cash flow and recycle ratio, another critical valuation metric is estimated future net cash flows from recoverable reserves. To the extent that IFRS’s revaluation provisions may mirror this more closely than US GAAP, this could actually be a positive impact of the change to IFRS in the US. So long as oil and gas E&P companies, particularly smaller ones, are evaluated by investors based upon recoverable oil and gas reserves, finding costs and cash flows, differences due to IFRS may not have a substantial effect on investor behavior. As a study at the point of adoption, a one-year time frame is not sufficient to measure all potential impacts. Continued analysis of Canadian oil and gas E&P financial statements in subsequent years is required for gaining an understanding of how IFRS may impact US companies.

Acknowledgements

The authors thank Christopher McMillan for his assistance with data collection.

REFERENCES

- American Institute of Certified Public Accountants (AICPA), 2011. International Financial Reporting Standards (IFRS): An AICPA Backgrounder, last accessed on 6/14/2013 at http://www.ifrs.com/updates/aicpa/Backgrounder_pdf.html.
- Financial Accounting Foundation (FAF), 2013. “FASB to Join IFRS Foundation’s Accounting Standards Forum” last accessed on 6/14/2013 at http://www.accountingfoundation.org/cs/ContentServer?c=FAFContent_C7&pagename=Foundation%2FFAFContent_C%2FFAFNewsPage&cid=1176162294866.
- International Federation of Accountants (IFAC), 2007. IFAC 2007 Global Leadership Survey, last accessed on 6/14/2013 at http://www.ifac.org/sites/default/files/downloads/Global_Survey-Summary.pdf.
- Johnson, S., 2012. “Could Its IFRS Delay Strip the SEC of Power?” CFO.com, last accessed 6/14/2013 at <http://www.cfo.com/printable/article.cfm/14620057>.
- KPMG, 2010. KPMG’s Oil & Gas IFRS Survey Report, last accessed on 6/14/2013 at http://www.kpmg.com/Ca/en/IssuesAndInsights/ArticlesPublications/Documents/IFRS%20Survey%20Brochure_FINAL%20WEB.pdf.
- Markus, T., 2009. “International Financial Reporting Standards (IFRS): Much More than a Technical Accounting Exercise,” presentation to the Houston Chapter Texas Society of Certified Public Accountants Educational Foundation on May 28, 2009.
- PricewaterhouseCoopers, 2011. IFRS Adoption by Country, last accessed on 6/14/2013 at <http://www.pwc.com/us/en/issues/ifrs-reporting/publications/ifrs-status-country.jhtml>.
- Schaefer, K., 2012. “How IFRS Accounting Rules Affect Oil Investors,” Oil and Gas Investments Bulletin, last accessed on 6/14/2013 at <http://oilandgas-investments.com/2012/investing/a-behind-the-scenes-look-at-oil-gas-company-financials/>.
- Thacker, S., 2009. “IFRS Coming to the U.S.?” All-Business last accessed 6/14/2013 at <http://www.allbusiness.com/government/government-bodies-offices-us-federal-government/13281351-1.html>.
- Tysiac, K., 2013. “FASB one of 12 participants in IASB advisory forum” Journal of

Accountancy, last accessed on 6/14/13 at <http://www.journalofaccountancy.com/News/20137604.htm>

Upton, W., 2010. "Adopt, adapt, converge?" last accessed on 6/14/2013 at <http://www.ifrs.org/News/Features/Adopt+adapt+converge.htm>.