

CONSOLIDATED OIL AND GAS REVIEW

# 2005 REPORT

JUNE 2006

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## **1. INTRODUCTION AND OVERVIEW**

### **1.1 General**

This Consolidated Oil and Gas Review 2005 Report (the “2005 Report”) marks the second Alberta Securities Commission (“ASC”) focused review of the disclosure required by National Instrument 51-101 *Standards of Disclosure For Oil and Gas Activities* (“NI 51-101”).

The ASC led the development of NI 51-101 with a view to implementing oil and gas disclosure standards commensurate with the importance of the oil and gas sector to the Alberta economy and capital market, to further the ASC's regulatory objectives of protecting investors and fostering a fair and efficient capital market that warrants the confidence of investors.

Our continuous monitoring of oil and gas disclosure, and our focused review reflected in this Report, further those objectives.

The first report, the Consolidated Oil and Gas Review 2004 Report, issued in February 2005 (“the 2004 Report”) reviewed disclosure for the transition year during which NI 51-101 superseded former National Policy 2-B. The 2004 Report can be found at:

[http://www.albertasecurities.com/dms/5821/5836/12106\\_ASC\\_Oil\\_and\\_Gas\\_Report\\_2004.pdf](http://www.albertasecurities.com/dms/5821/5836/12106_ASC_Oil_and_Gas_Report_2004.pdf).

The 2005 Report addresses oil and gas disclosure made in 2005 generally relating to financial years ending in 2004. Our focus was twofold: to assess the quality of public oil and gas disclosure and the quality of the underlying technical reserves reports, in both cases against the yardstick of NI 51-101 and the reserves evaluation standards it prescribes.

This Report was compiled by the Oil and Gas Branch of the ASC Corporate Finance Department. The Branch is comprised of three professional staff, one technologist and administrative support.

For the 2005 Report, Staff reviewed the oil and gas disclosure in annual NI 51-101 filings made by 279 reporting issuers. In addition to that review of disclosure, we also reviewed the underlying reserves information of 101 reporting issuers.

### **1.2 Summarized Observations**

In general, we observed continued improvement in the quality of oil and gas disclosure. This may in part be attributable to greater familiarity with the disclosure requirements. However, deficiencies remain. A summary of deficiencies follows, and they are discussed in greater detail later in this report.

#### ***(i) Issues related to NI 51-101 Annual Disclosure***

As a result of our reviews, 34 reporting issuers were asked to re-issue disclosure. An additional 45 reporting issuers were informed of less serious deficiencies that should be corrected in future disclosure filings.

Deficiencies observed include:

- failure to issue a news release announcing the annual oil and gas disclosure;
- filing of summary or detailed reserves evaluation reports on SEDAR instead of the information prescribed in Forms 51-101F1, F2, and F3;
- reports accompanying annual disclosure (NI Forms 51-101F2 or F3) that were not signed or dated;
- incorrect reporting categories (e.g., combining light and medium oil with heavy oil);
- reporting only using barrels of oil equivalents (“BOEs”). The required mandatory disclosure should be in the appropriate units applicable to the relevant product types (e.g Mbbls, MMcf) not BOEs. BOEs may be used in supplementary disclosure, but must be accompanied by an appropriate cautionary statement;
- missing required information (e.g., no reconciliation of reserves; no information on proved undeveloped reserves (“PUDs”)); and
- confusing unit abbreviations and notations.

*(ii) Issues Related to Underlying Reserves Information*

While the incidence has decreased, the key deficiencies noted in underlying technical reserves evaluation reports were similar to those identified in the 2004 Report. In addition to some of the issues noted above in NI 51-101 annual disclosures, these deficiencies included:

- inadequate explanation in reserves reports, leading to requests for additional information;
- unrealistic timetables, especially for production from PUDs;
- optimistic estimates of volumetric drainage areas, which would require low production decline rates that were not supported by subsequent production;
- optimistic production decline extrapolations of historical production data that are not supported by subsequent production; and
- poor selection and analysis of analog information.

*(iii) Analysis of Technical Revisions*

Technical revisions to reserves are reported in the reserves reconciliation required by Form 51-101 F1. They serve as an indicator of the quality of a reporting issuer’s prior-period reserves estimates. The 2004 Report, which covered disclosure for the first year of reporting under NI 51-101, noted major negative technical revisions for conventional oil and gas activities. Technical revisions for this past year were mostly increases to proved reserves and approximately equal numbers of positive and negative revisions for proved + probable reserves, suggesting an improvement in the quality of reserves evaluation. This analysis will be continued in future years.

*(iv) Trends*

Bitumen and coal bed methane activities are the focus of substantially increased industry activity. This new focus of activity raises a number of disclosure-related issues. One important issue is the increasing importance of resource estimates. Unlike the case for most conventional hydrocarbons, a long period – often years – separates the initial delineation of an unconventional resource and its eventual exploitation as a reserve, and during that interval the resource may represent a substantial portion of the value of the issuer. There has, as yet, been insufficient disclosure to support specific commentary or to carry out any meaningful analysis of the quality of disclosure or evaluations relating to

bitumen and coal bed methane resources; this will be a key item for monitoring in future years.

### **1.3 Conclusions and Looking Forward**

In general, we observed improvement in the quality and consistency of disclosure, indicating to us that reporting issuers and their reserves evaluators and other advisors have embraced both the specific requirements and the objectives of these oil and gas disclosure standards.

Overall we think the reporting is of a high quality. We are, however, still concerned about recurring omissions and errors identified in this report, notably in areas such as the supplementary disclosure required by Part 6 of Form 51-101F1. Reporting issuers and their advisors must become familiar with all aspects of NI 51-101 and its related forms and companion policy, and ensure that all aspects are addressed in their disclosure.

To assist in this, the ASC will continue communication with industry participants during 2006.

The review program will continue in 2006. In addition, the ASC plans an expanded monitoring program in which production forecasts in reserves evaluation reports will be compared to actual results after one or two years. The ASC will also be undertaking a comprehensive review of NI 51-101 to consider any improvements or modifications warranted in light of experience with the instrument since implementation. As part of this initiative, the ASC is hosting an industry consultation in Calgary on June 28, 2006.

## **2. REVIEWS OF OIL AND GAS INFORMATION**

### **2.1 The Review Process and Types of Reviews**

Staff conducted three types of reviews: Statutory Filing Review, Compliance Review and Technical Review.

#### **(i) *Statutory Filing Review***

This most basic level of review determines whether required filings have been made. No detailed examination of the content is carried out.

#### **(ii) *Compliance Review***

NI 51-101 requires the disclosure of certain specified information (e.g., proved and proved + probable reserves). It also prescribes the manner in which certain voluntary disclosure (e.g., possible reserves and resources) is to be made.

Compliance review, ascertains whether the required disclosure is presented and whether both required and voluntary disclosure is made in accordance with NI 51-101 standards.

#### **(iii) *Technical Review***

Technical review is the most intensive level of review. It involves assessing, in detail, the quality of disclosure.

One focus of technical review is disclosure of oil and gas reserves and resources. Because reserve and resource evaluations are estimates, a technical review is primarily an assessment of whether the evaluation is consistent with basic underlying information (e.g., cores, logs and production history), and that it has been prepared in accordance with good geological and engineering practice and the evaluation standards set out in the Canadian Oil and Gas Evaluation Handbook ("COGEH"). Staff will expect a solid and technically supportable explanation for the basis of an evaluation.

As part of a technical review or reserves or resources disclosure review, Staff will consider the explanations provided for the underlying evaluations, assess their sufficiency, and may request further explanation or support for the conclusions expressed.

### **2.2 The Context of Reserves and Resources Reviews**

#### **(i) *Continuous Disclosure***

Corporate Finance Staff carry out a Continuous Disclosure Review program. Findings concerning financial disclosure and accounting issues observed in the course of that program were reported in the annual Continuous Disclosure Review Program 2005 Report on the Review of Financial Statements and MD&A and Other Materials. That report can be found on the ASC website under the "Company Disclosure and Compliance" section. The program for 2005 also included an issue-oriented review of reserve and resource information contained in the continuous disclosure of a selected sample of oil and gas reporting issuers. Review targets were selected both at random and by applying criteria including:

- significant technical revision of proved or proved + probable reserves;
- evaluations performed by a wide sample of independent evaluation firms;
- issues raised with the reporting issuer during the previous year's review whether a concern about the quality of an evaluation, or disclosure or simply a technical issue of general interest.

**(ii) Prospectuses**

Before the ASC issues a receipt for a prospectus, Staff may review the oil and gas reserves and resources information disclosed in the prospectus. Staff may also conduct a technical review of the underlying reserves evaluation reports.

**(iii) Monitoring Reviews**

In subsequent monitoring reviews, staff :

- compare the forecast and actual production;
- compare forecast and actual activity (e.g., drilling of PUDs); and
- determine whether the reserves estimates are supported by subsequent actual production.

**(iv) Miscellaneous Reviews**

Staff review additional material (such as news releases) to assess and monitor compliance with 51-101. They provide support to the ASC Enforcement Branch. They also assist our counterpart securities regulators in other provinces.

**(v) NI 51-101 Annual Filing Reviews**

Staff undertook a compliance review of the annual NI 51-101 filings of 279 reporting issuers, most of whom prepared information as at December 31, 2004. This resulted in requests to re-issue disclosure or to correct deficient disclosures in future submissions. The NI 51-101 form has three essential components:

- Form 51-101F1 *Statement of Reserves Data and Other Oil and Gas Information*. This form outlines mandatory disclosure on proved and probable reserves and may also include voluntary disclosure on possible reserves and Resources;
- Form 51-101F2 *Report on Reserves Data by Independent Qualified Reserves Evaluator or Auditor*. The reserves evaluator or auditor must sign this form;
- Form 51-101F3 *Report of Management and Directors on Oil and Gas Disclosure*. Two officers and two directors of the reporting issuer must sign this form.

As a result of the review:

- 34 reporting issuers were required to re-issue one or more of the forms, 12 of which were required to re-issue all three forms;
- 45 reporting issuers were informed of minor deficiencies that were not considered sufficient to require re-issuance, but they were asked to have their information corrected in subsequent disclosure filings;

- 14 reporting issuers that had failed to file were identified and were requested to make their annual filing;
- 13 reporting issuers identified as having the most serious deficiencies in their disclosures were subjected to a detailed issue-oriented continuous disclosure compliance review.

### 3. ISSUES ARISING FROM REVIEWS

The comments in this section arise mainly from the compliance and technical reviews of reserves reports, AIFs and prospectuses. They apply primarily to conventional oil and gas, and to reporting issuers that do not have an exemption that allows them to report using US reporting requirements.

#### 3.1 Compliance findings related to form and filing of the disclosure requirements

##### (i) *Failure to Issue a News Release when Filing NI 51-101 Forms*

A number of reporting issuers failed to issue a news release with their reserve submissions. Part 2.2 of NI 51-101 requires that reporting issuers issue a news release concurrently with their filing of their NI 51-101 disclosure and reports. These news releases must announce the filing and indicate where the disclosure can be found on SEDAR, either as part of the reporting issuer's AIF or as a separate filing.

##### (ii) *Filing of Summary and/or Detailed Reserve Reports on SEDAR*

A number of reporting issuers disclosed summary or detailed reserves reports on SEDAR in place of the disclosures required by NI 51-101. Reserves reports themselves cannot be substituted for the required disclosure format in Form 51-101F1. For systems reasons, Section 2.3 (1)3 of NI 13-101 (the SEDAR rule) generally prohibits the electronic filing of the full report. More importantly, NI 51-101 requires disclosure of information beyond what will typically be contained in a reserves evaluation report.

##### (iii) *Forms F2 and F3 not Signed or Dated*

In a number of instances Staff noted that the reports prescribed in Forms 51-101F2 and F3 were not signed or dated. Those reporting issuers were required to re-issue the reports with the required signatures.

##### (iv) *Incorrect Reporting Categories and Missing Information*

We observed a number of recurrent specific disclosure omissions or deficiencies.

Part 1.1(v) of NI 51-101 defines product types (light and medium crude oil, heavy oil, natural gas, natural gas liquids, synthetic oil, bitumen, coal bed methane, hydrates) for which reserves must be reported separately. These categories are to be reported separately.

Examples of other, or related, incorrect reporting included:

- combining light and medium crude oil and heavy oil;
- combining coal bed methane with natural gas;

- reporting proved producing and proved non-producing reserves but not total proved reserves;
- reporting total proved reserves without also splitting into producing and non-producing;
- reporting gross lease and company gross reserves but not net reserves;
- reporting using only BOEs. The required mandatory disclosure should be in the units applicable to the relevant product types (e.g Mbbls, MMcf) not BOEs. BOEs may be used in supplementary disclosure, but if used they must be accompanied by the cautionary statement specified in subsection 5.14 (d) of NI 51-101.

Other recurring errors or omissions involved:

- omission of, or deficiencies in, the required reconciliations of reserves or net present value of future net revenue;
- omission of the proved reserves constant price case;
- required information on proved undeveloped reserves;
- reporting only one of after-tax value and before tax value instead of both; and
- not using all of the required discount factors - 0, 5, 10, 15, 20%.

(v) *Reconciliations*

A number of reporting issuers did not provide the reconciliations of reserve volumes and future net revenue from the end of the prior year to the end of the current year, which is required by items 4.1 and 4.2 of Form NI 51-101F1 respectively. These reconciliations help indicate what led to changes in the reporting issuer's reserves during the year, and the relative magnitude of each category of change. One category – technical revisions – served as an important indication of the quality of the issuer's reserve evaluation in the prior period. Reporting issuers who did not provide reserve reconciliations were generally required to re-issue their disclosure with the reconciliations. In certain circumstances, such as where a reporting issuer was a newly-formed entity with no reserves at the beginning of the year, or where a reporting issuer acquired substantially all of its reserves in a single transaction, Staff did not require a reconciliation because little useful information would be provided by a reserve reconciliation in those cases.

Errors were observed within the reconciliations. For example, some reporting issuers did not appreciate that the categories used for reserves reconciliation (Form 51-101F1, Item 4.1.2) are not the same as the product types used for reserves reporting. The category of associated and non-associated gas does not include solution gas and no reconciliation is required for associated products such as sulphur and natural gas liquids. Other examples of incorrect usage were:

- combining light and medium crude oil with heavy oil; and
- combining solution gas with associated and non-associated gas.

A separate issue related to reconciliations was the inclusion of reserves added through infill drilling as a technical revision. Reserve additions arising from infill drilling should be shown as part of improved recovery, not as a technical revision.

**(vi) *Data in Non-Tabular Format, or Confusing Format***

A number of reporting issuers presented reserves volumes and future net revenue in various formats, including some which simply listed the information sequentially without any headings or descriptions. Appendix 2 to the Companion Policy to NI 51-101 contains examples of tabular formats for certain required disclosures. While NI 51-101 does not specifically require the use of these tables, tabular formats, along with appropriate headings, can be a convenient and informative means of presenting reserve volumes, future net revenue and similar numeric data, while enhancing the reader's ability to understand the information being presented. Staff urges reporting issuers to adopt a form of presentation that is helpful to readers including the use of headings and descriptions and (where appropriate) tables, to enhance clarity and facilitate readers' comprehension of the disclosure.

**(vii) *Tax Horizon and Status***

A number of reporting issuers did not disclose the tax horizon information required by Item 6.5 of Form 51-101F1, or provided incomplete information. Some reporting issuers provided information about tax pools but did not state explicitly, as required, whether they were currently taxable, or when they expected to become taxable. This information is mandatory, in part because it affects future net revenue and rates of return.

A separate issue regarding taxation pertains to income trusts. A number of income trusts omitted tax information based on the fact that they were not subject to tax because of the flow-through nature of the income trust structure. Although this may be well known to some readers, Staff believes that the income tax column should be included in the future net revenue tables along with an explanatory note indicating that the trust is not currently subject to taxation.

**(viii) *Missing Pricing Information***

Several reporting issuers did not provide the required disclosures of forecast prices used in preparing forecast price case estimates. Item 3.2 of Form 51-101F1 requires that the pricing assumptions for at least the first five years, and generally thereafter, be disclosed along with price and cost escalation assumptions. In addition, the reporting issuer's weighted average historic prices received for its production during the most recent fiscal year must be disclosed.

This information is important to investors when assessing the reasonableness of the prices used in the evaluation and in comparing estimates between firms or at different dates using differing pricing assumptions.

**(ix) *Missing Supplementary Information***

Most of the reporting issuers selected for detailed review did not provide all of the disclosure required by Part 6 of Form 51-101F1, Other Oil and Gas Information, and several were missing most or all of the disclosures in that part of the form. The information required includes: number and location of the reporting issuer's producing and non-producing oil and gas wells; their gross and net working interests in those wells; the amount and timing of estimated future development costs for undeveloped reserves; the amount, timing and estimation process of abandonment and reclamation costs;

details of any forward contracts entered into for the sale of oil or gas; estimated volumes of production for the first year of the future net revenue forecast; and quarterly production volumes and netback data by product for the most recently completed fiscal year. The majority of reporting issuers surveyed were deficient in several of the required disclosures, particularly the production history and netback data required by Part 6.9 of NI 51-101F1. This information is useful to investors in assessing an issuer's oil and gas properties and provides additional context about the performance and estimated reserve life of those properties. Accordingly, reporting issuers should ensure that all information required by Part 6 is disclosed in Form 51-101F1.

(x) ***Incorrect Reserves Definitions***

Although less common than last year, there were some instances of reserves definitions in continuous disclosure or prospectuses that differed from those in NI 51-101, mostly involving foreign-based reporting issuers or evaluators not familiar with Canadian requirements.

(xi) ***Unit Abbreviations and Notations***

Metric or oilfield (Imperial) units may be used, but their use must be consistent within and between documents.

Consistent use of standard notations and abbreviations is essential to clear disclosure of numerical data. However inconsistent and incorrect usage was common. Since the technical reports are generally correct, it may be that the errors are introduced during the preparation of disclosure documents.

The required notation for oil and gas reserves and resource disclosure is specified in COGEH Volume 1, Appendices B and C, and is based on long-established international standards. It should be noted that usage is not the same in the Imperial and Metric systems, for instance:

- in the Imperial system, M indicates  $10^3$ , that is 1,000;
- in the Metric system, M indicates  $10^6$ , that is 1,000,000.

Some examples of incorrect usage:

- the use of MM instead of M to denote thousands of barrels;
- MMha to describe the size of leases held by a company (which suggests the area of the leases was larger than the size of the earth);
- mmcf should be MMcf (m is not a recognised prefix in the Imperial system, but denotes  $10^{-3}$ , or 0.0001, in the metric system).

Inconsistent usage of the notation for monetary amounts also has the potential for being misleading.

Examples of the misuse of prefixes for monetary amounts are:

- mm\$350,000 in one place (\$0.35 or \$350,000,000,000?); \$350,000 M (\$350,000,000) elsewhere;
- MM\$ 30,000 in one place (\$30,000,000,000); M\$30,000 (\$30,000,000) elsewhere.

Although there do not appear to be any formal standards for indicating monetary amounts, common practice generally uses M to indicate  $10^3$ , that is 1,000 and to MM indicates  $10^6$ , that is 1,000,000 and so on.

Disclosure of monetary amounts in Canadian dollars will generally be presumed. Wherever that is not the case it should be clearly stated.

*(xii) Exempt Reporting Issuers*

Staff reviewed the alternative disclosure of 10 reporting issuers who have been granted limited exemptions under Part 8 of NI 51-101. The exemptions were based on their in-house reservoir engineering capability and the fact that they file reserves information with the SEC under US rules. Staff reviewed these reporting issuers for compliance with FAS 69 and the SEC disclosure requirements. No serious deficiencies were identified during this review; however, suggestions were made for future disclosure enhancements, particularly in the areas of descriptions and costs related to mining assets for those reporting issuers involved in oil sands activities, and in the disclosure of contractual obligations to supply oil and gas.

### **3.2 Reserve Evaluation Reports**

For conventional oil and gas, the issues identified in our technical reviews of underlying reserve evaluation reports were much the same as noted in the 2004 Report, which should be consulted for additional comment. They included the following.

*(i) Inadequate Explanation in Reserves Reports*

COGEH Volume 1, Section 11 - Content of Reserves Reports calls for explanations of the methods used to determine reserves and forecast production rates for major properties. A common deficiency in reserves reports is the absence of such explanation. Technical reviews of reserves reports frequently results in a request for this information and this in some cases in turn led to a restatement of the reserves.

*(ii) Unrealistic Timetables*

Evaluations continue to be seen in which the development assumptions appear to be optimistic. In particular, production from proved undeveloped reserves may in fact begin significantly later than assumed in the evaluation.

*(iii) Volumetric Reserves Estimates*

Fewer volumetric estimates were seen in the 2005 Report, and drainage areas appeared to be generally more realistic. Alberta Energy and Utilities Board Report 2004-A, Alberta Single Well Gas Pool Drainage Area Study, provides a useful standard for assessing the reasonableness of drainage areas for different formations in the West Canadian Sedimentary Basin.

(iv) *Production Decline Extrapolation*

The issues raised last year remain the same. In summary, these were:

- extrapolation carried out on data that shows little or no trend;
- underestimation of the difference between proved and proved + probable reserves;
- selective use of data;
- production decline extrapolation carried out under the assumption that an increased rate of production will result in incremental volumes, without considering the possibility of accelerated production with little or no increment;
- use of a best-fit line for proved reserves with proved + probable reserves as an “upside” case;
- assumption of hyperbolic decline as the standard default case; and
- inconsistencies between historic and forecast production. This included some evaluations for which there were marked changes in performance at the date of the evaluation, with lower rates of decline and changes from historic exponential to forecast hyperbolic decline. Explanations of these anomalies were rarely convincing.

(v) *Material Balance (p/Z)*

Fewer material balance estimates were seen in the 2005 Report than in the 2004 Report, although the same issues were noted. In most cases, more care appears to have been taken in the analysis.

(vi) *Analogs*

Last year’s comment still applies, and is repeated here:

“The selection and use of analogs is one of the most important parts of an evaluation. They are more widely used than is generally recognised and are particularly important to both the volumetric and production decline estimation methods. However, they are often poorly developed, or are biased towards the best wells in an area instead of being representative. They:

- should be selected as being representative of the evaluation;
- should be weighted according to quality, recognising that perfect analogs are rare to non-existent; and
- usually provide a proved + probable analogy and a further step is required if proved reserves are being estimated.”

### 3.3 Analysis of Technical Revisions

The 2004 Report included an analysis of the technical revisions reported in the Form 51-101F1 Part 4, Reconciliations of Changes in Reserves and Future Net Revenue. This analysis was also carried out for the 2005 Report. The data are derived from the information disclosed by reporting issuers related to technical revisions to reconcile the previous and current year's estimates.

As noted, technical revisions such as these are an indicator of the quality of the reserves estimates.

Provided that appropriate evaluation methodologies have been employed, the technical revisions generally expected on various reserves categories should be:

- proved Positive
- proved + probable Close to zero
- proved + probable + possible Negative

Form 51-101F1 disclosure provides information on the first two of these categories.

The overall reported revisions are summarised in the table below for the years 2003 (reported in the 2004 Report) and 2004<sup>1</sup> (the subject of the 2005 Report). The significant negative revisions in the 2004 Report largely reflected the transition to the newly adopted NI 51-101 legislation. The revisions in the 2005 Report are far more consistent with the criteria outlined above. Although several years of data will be required to establish a trend, a comparison of the year-over-year figures suggests that NI 51-101 has resulted in an observable improvement in oil and gas reserves reporting.

	2004 (2005 Report)			2003 (2004 Report)		
	No. of Companies	Proved %	Proved + Probable %	No. Cos.	Proved %	Proved + Probable %
Light and Medium Oil	161	5.0	1.1	138	(5.3)	(0.4)
Heavy Oil	54	5.8	1.9	44	(19.7)	(14.9)
Gas	185	9.6	0.6	155	(8.5)	(4.3)

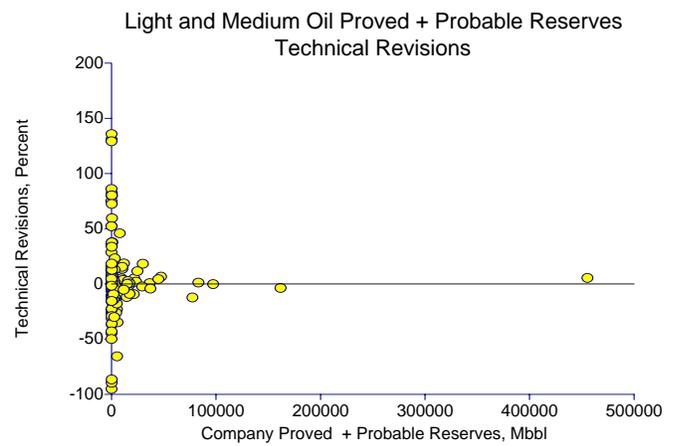
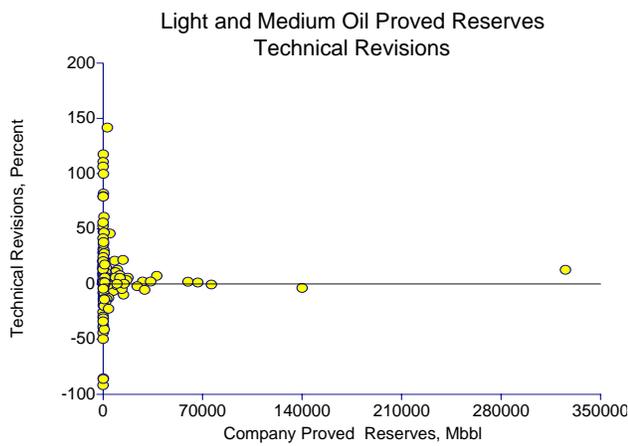
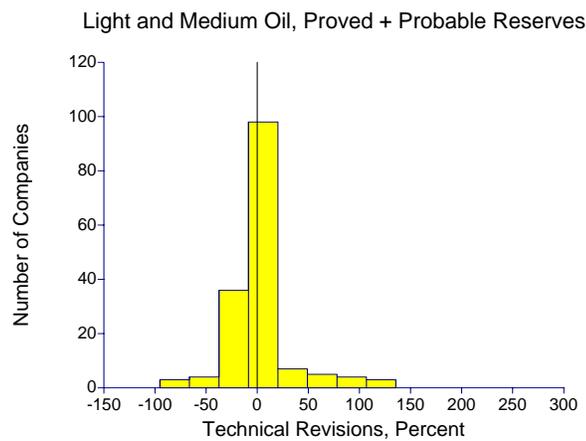
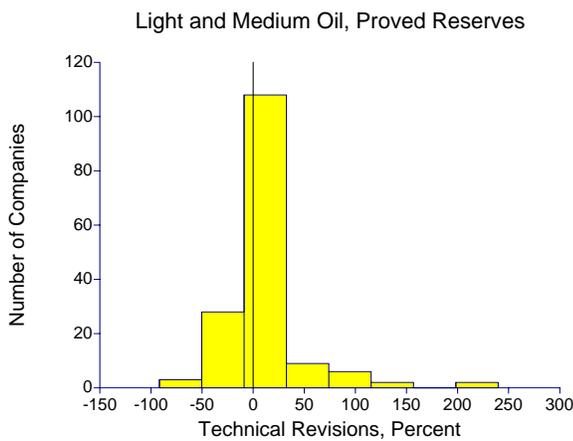
A total of 250 reporting issuers were included in the analysis, but not all of these had reserves of all product types. This analysis omits those that did not have any reserves of any product type at the start of the year, and also a very small number with technical revisions that are so large that they are extreme statistical outliers. Too few reporting issuers reported reserves for bitumen, synthetic oil, and coal bed methane for an analysis to be carried out.

<sup>1</sup> Note that these figures are the ratio, Sum of all Technical Revisions : Sum of all reserves at the start of the year, for all reporting issuers. They are indicative of general industry performance. It is not the same as the average percentage revision by company.

Number of reporting issuers analysed, all product types:

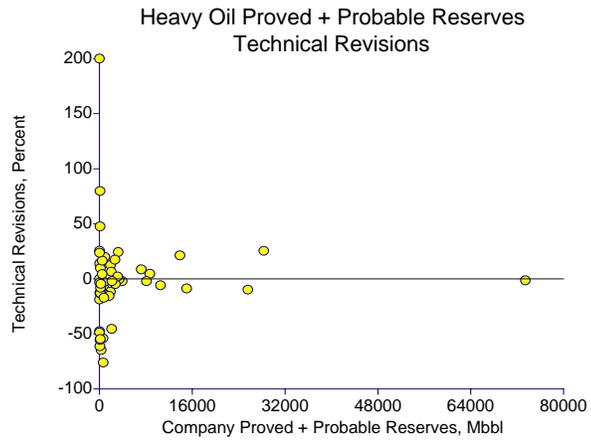
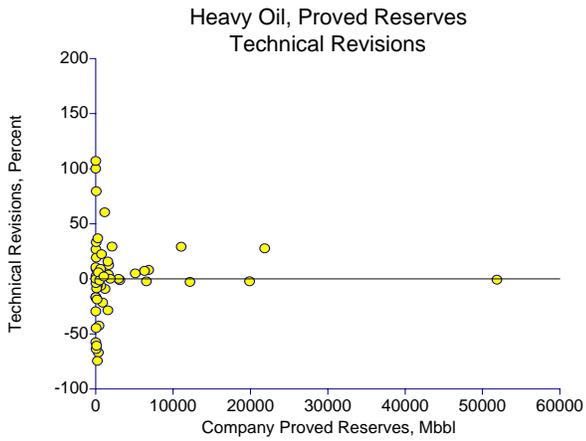
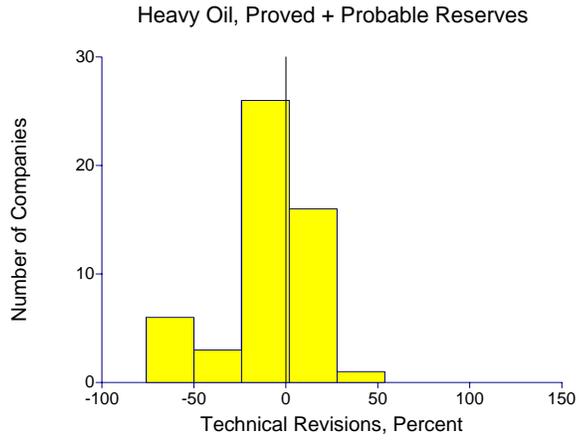
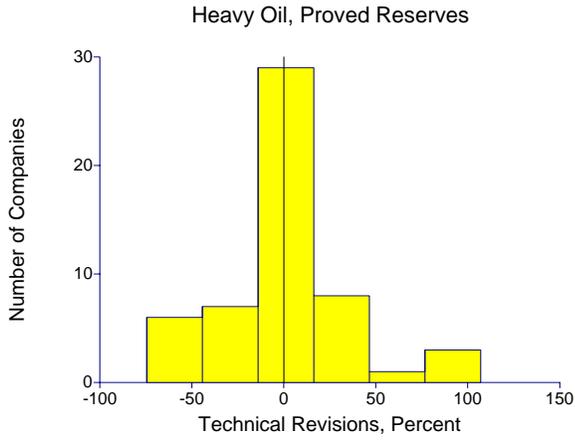
	Proved	Probable	Proved + Probable
Reserves	202	201	206
No opening reserves	48	49	44
Total	250	250	250

**LIGHT AND MEDIUM OIL TECHNICAL REVISIONS, 2004 (2005 Report)**



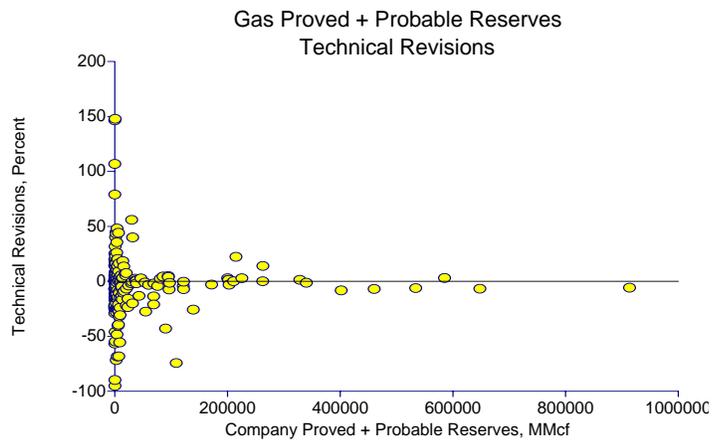
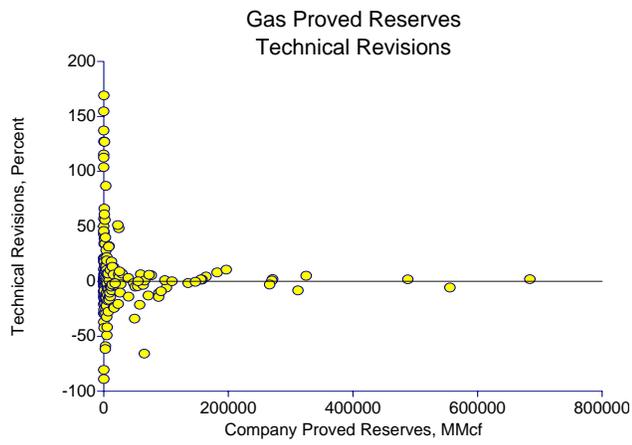
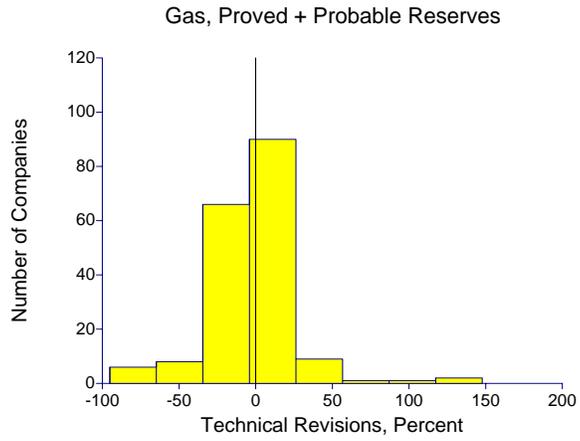
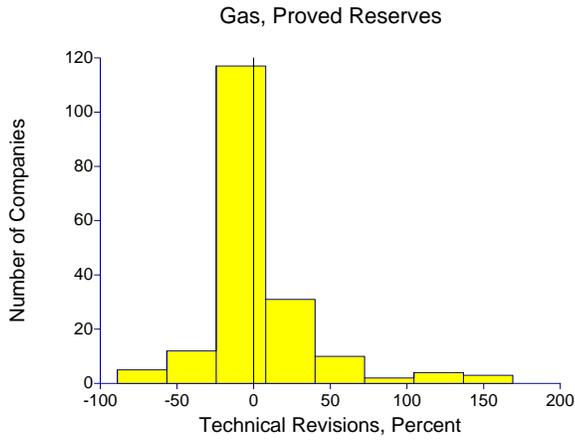
Number of reporting issuers in analysis 161  
 Number of outliers excluded from analysis 3

# HEAVY OIL TECHNICAL REVISIONS, 2004 (2005 Report)



Number of reporting issuers in analysis 54  
 Number of outliers excluded from analysis 1

**NATURAL GAS TECHNICAL REVISIONS, 2004 (2005 Report)**  
 (Excludes Solution Gas)



Number of reporting issuers in analysis      185  
 Number of outliers excluded from analysis      1

#### **4. EVALUATION STANDARDS**

COGEH, Volume 2, Detailed Guidelines for the Estimation and Classification of Oil and Gas Resources and Reserves, was published in November 2005 and has been recognised by the CSA for purposes of NI 51-101. Copies may be obtained from the Petroleum Society of the Canadian Institute of Mining, Metallurgy and Petroleum, (403) 237 5112, [www.petsoc.org](http://www.petsoc.org).

Industry committees are developing guidelines on the evaluation of coal bed methane, in-situ bitumen and mined bitumen, international evaluations (primarily production-sharing agreements) and resources. Staff will be following this effort closely as well as contributing to the various committees.

#### **5. REVIEW OF NATIONAL INSTRUMENT 51-101**

NI 51-101 came into force in September 2003 and reporting under the new standard began in 2004. Staff will be leading a comprehensive review of NI 51-101 in 2006 to determine whether any improvements or amendments are warranted in light of experience with the instrument. As part of this initiative, the ASC is hosting an industry consultation in Calgary on June 28, 2006.

#### **6. CONTACT INFORMATION**

If you have questions, please contact:

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