

# 2018

## Management Discussion & Analysis

Critical Control Energy Services Corp.

December 31, 2018

The discussion and analysis of the financial condition and results of operations of Critical Control Energy Services Corp. is prepared as at March 27, 2019 and should be read in conjunction with the audited consolidated financial statements of Critical Control Energy Services Corp., and the notes thereto, for the year ended December 31, 2018.

All financial information is presented in thousands of Canadian dollars, except share and per share data, and where otherwise indicated.

## **MANAGEMENT DISCUSSION AND ANALYSIS**

The following management discussion and analysis (“MD&A”) of the financial condition and results of operations is intended to help the reader understand the current and prospective financial position and operating results of Critical Control Energy Services Corp. (“Critical Control” or the “Corporation”). The MD&A discusses the operating and financial results for the three and twelve months ended December 31, 2018, is dated March 27, 2019, and takes into consideration information available up to that date.

The MD&A is based on the annual consolidated financial statements of Critical Control for the year ended December 31, 2018. The MD&A should be read in conjunction with the annual consolidated financial statements and related notes for the year ended December 31, 2018, prepared in accordance with International Financial Reporting Standards (IFRS).

Additional information is available on Critical Control’s website ([www.criticalcontrol.com](http://www.criticalcontrol.com)) and all previous public filings, including the most recent filed Annual Information Form and Information Circular, are available through SEDAR ([www.sedar.com](http://www.sedar.com)).

All amounts are denominated in Canadian dollars (“CND\$”) unless otherwise identified. All amounts are stated in thousands unless otherwise identified.

## **FORWARD-LOOKING STATEMENTS**

The MD&A contains certain forward-looking statements relating to the Corporation’s plans, strategies, objectives, expectations and intentions. The use of any of the words “expect”, “anticipate”, “continue”, “estimate”, “objective”, “ongoing”, “may”, “will”, “project”, “should”, “believe”, “plans”, “intends”, “confident”, “might” and similar expressions are intended to identify forward-looking information or statements. Various assumptions were used in drawing the conclusions or making the projections contained in the forward-looking statements throughout this MD&A. The forward-looking information and statements included in this MD&A are not guarantees of future performance and should not be unduly relied upon. Forward-looking statements are based on current expectations, estimates, and projections that involve a number of risks and uncertainties, which could cause actual results to differ materially from those anticipated and described in the forward-looking statements. Such information and statements involve known and unknown risks, uncertainties, and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information or statements.

In particular, but without limiting the foregoing, this MD&A may contain forward-looking information and statements pertaining to the fluctuations in the demand for the Corporation’s services; the ability for the Corporation to attract and retain qualified personnel; the existence of competitors; technological changes and developments; the existence of operating risks inherent in the oil and gas services industry; assumptions regarding foreign currency exchange rates and interest rates; the existence of regulatory and legislative uncertainties; the possibility of changes in tax laws and general economic conditions including the capital and credit markets; assumptions made about future performance and operations. The Corporation cautions that the foregoing list of assumptions, risks, and uncertainties is not exhaustive. The forward-looking information and statements contained in this MD&A speak only as of the date of this MD&A and the Corporation assumes no obligation to publicly update or revise them to reflect new events or circumstances, except as may be required pursuant to applicable securities laws.

## **NON-GAAP MEASURES AND ADDITIONAL GAAP MEASURES**

Throughout this document, reference is made to “gross margin”, “working capital”, “EBITDA”, and “adjusted EBITDA”, which are all non-IFRS measures. Management believes that gross margin, defined as revenue less operating expenses, is a useful supplemental measure of operations. Management believes that working capital, defined as current assets less current liabilities, is an indicator of the Corporation’s liquidity and its ability to meet its current obligations. Management believes that adjusted EBITDA, which normalize earnings to exclude certain amounts, is a useful measure for comparing results from one period to another. Readers are cautioned that these non-IFRS measures may not be comparable to similar measures used by other companies. Readers are also cautioned not to view these non-IFRS financial measures as an alternative to financial measures calculated in accordance with International Financial Reporting Standards (“IFRS”).

## FINANCIAL HIGHLIGHTS

All results are related to continuing operations unless otherwise identified. All reported numbers have been restated to reflect continuing operations.

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Cloud based software	<b>7,853</b>	7,801	7,355
Software based services	<b>7,230</b>	8,414	9,335
Measurement services	<b>7,527</b>	8,453	10,624
Equipment and other revenue	<b>4,259</b>	4,454	4,452
Total revenue	<b>26,869</b>	29,122	31,766
Gross margin <sup>(1)</sup>	<b>11,068</b>	13,049	12,714
Gross margin - percentage <sup>(1)</sup>	<b>41.2%</b>	44.8%	40.0%
Adjusted EBITDA <sup>(1)</sup>	<b>1,631</b>	2,621	1,864
EBITDA <sup>(1)</sup>	<b>1,444</b>	1,153	797
Net loss before discontinued operations	<b>(19,238)</b>	(3,257)	(1,912)
Net loss	<b>(19,238)</b>	(3,257)	(1,997)

### Revenue

- Key strategic cloud based software generated \$7.9 million during 2018 consistent with the comparative period in 2017. Industry associated declines in Canada were offset by penetration of the Corporation's client base in the United States ("US").
- Software based services revenue decreased by 14.1% compared to the prior period comparison, due to shut in wells, competitive pricing pressures, and the completion of a large software implementation for a client in 2018.
- Measurement services revenue decreased 11.0% compared to the prior period due to an increasingly competitive market in the US for measurement services work.
- Equipment and other revenue generated \$4.3 million during 2018 consistent with the comparative period in 2017. Over 90% of this revenue is based in the US. It fluctuates from period to period depending on demand and is viewed as non-recurring in nature.

### Gross margin <sup>(1)</sup>

- The Corporation achieved a gross margin of 41.2% for the year ended 2018. This is comprised of cloud based software and software based services ("Software") with a gross margin of 61.0% and measurement services and equipment and other revenue ("Field Services") with a gross margin of 14.7%.
- Gross margin in Software decreased from 62.8% to 61.0% during 2018, due to a strong competitive environment in Canada.
- Gross margin from Field Services was 14.7% in 2018 compared to 21.3% in 2017. This reduction was driven by customer losses due to competitive pricing pressure and pricing concessions given to combat competitive pressures. The Corporation focused on restructuring its Field Services business and consolidating operations across the US in order to operate more efficiently, offsetting the impact of the above pressures. During the year ended December 31, 2018, the Corporation sold inventory with a cost of \$1.3 million at auction for gross proceeds of \$0.1 million of which \$0.6 million was applied against the allowance for inventory obsolescence.

**Net loss and adjusted EBITDA <sup>(1)</sup>**

- The Corporation has a loss of \$19.2 million in 2018 (2017: \$3.3 million). The increased loss is attributed to \$10.5 million impairment of intangible assets and goodwill, \$3.7 million derecognition of deferred income taxes, increase in depreciation and amortization of \$2.8 million and increase of \$1.5 million in other expenses related to write-down of inventory, termination benefits, restructuring fees, and other charges incurred by the Corporation in 2018.
- Adjusted EBITDA decreased 37.8% in 2018 which is attributed to reduced gross margins, however is partially offset by reduced administrative expenditures.

**OPERATIONAL HIGHLIGHTS**
**For the years ended December 31,**

(\$ thousands)	2018	2017	2016
<b>Software (CND\$)</b>			
Cloud based software	7,853	7,801	7,355
Software based services	7,230	8,414	9,335
Equipment and other revenue	279	299	229
Total revenue	15,362	16,514	16,919
Gross margin <sup>(1)</sup>	9,372	10,363	9,427
Gross margin - percentage <sup>(1)</sup>	61.0%	62.8%	55.7%
<b>Field Services (CND\$)</b>			
Measurement services	7,527	8,453	10,624
Equipment and other revenue	3,980	4,155	4,223
Total revenue	11,507	12,608	14,847
Gross margin <sup>(1)</sup>	1,696	2,686	3,287
Gross margin - percentage <sup>(1)</sup>	14.7%	21.3%	22.1%
<b>Field Services (US\$)</b>			
Measurement services	5,835	6,485	7,757
Equipment and other revenue	3,099	3,185	3,396
Total revenue	8,934	9,670	11,153
Gross margin <sup>(1)</sup>	1,328	2,053	2,466
Gross margin - percentage <sup>(1)</sup>	14.7%	21.3%	22.1%

**2018 ANNUAL SUMMARY**

The primary focus of the company is to penetrate the oil and gas industry with cloud based software to manage oil and gas production data and oil and gas measurement operations across North America. In an effort to penetrate the US market with the Corporation's Software, the Corporation completed the acquisition of Field Service companies in the United States, first in 2009 and then in 2016.

The impact of the harsh drop in the price of oil in 2016 resulted in lower revenue from the Corporation's Field Services business and impeded penetration of the Corporation's Software in the US. The Corporation was successful in penetrating the US market with its Software in 2018 as the price of oil commenced a recovery, however the Field Services business was impacted by increasing competitive pressures. In the second half of 2018, the price differential between Canada and the US for oil increased to the point where oil fell below \$10 in Canada in Q4 2018. These material pressures resulted in the Corporation reorganizing its operations in Canada and the US in order to operate in the current environment.

## **OUTLOOK AND GUIDANCE**

This Outlook and Guidance contains forward-looking statements that the Corporation does not intend, and does not assume any obligation, to update, except as required by law. The forward looking information and statements include:

- The current economic climate and its effect on the Corporation's client base business;
- The price of natural gas and its effect on capital spending and operating budgets of the Corporation's client base;
- The effect of the economy and the price of oil and gas on the Corporation's clients' expenditure plans;
- The demand for value added services that provide additional cost reduction or production optimization for the Corporation's Energy Services client base; and
- Management's assumptions regarding the sustainability of recurring revenue streams and the Corporation's expected profitability.
- Management's outlook and guidance contains forward looking statements of the Corporation's ability to penetrate the US client base with its software and continue its penetration in the Canadian market to offset reduced revenue resulting from the downturn in the industry. These forward looking statements are based on continued acceptance of the Corporation's products and the current price of oil and gas. A further decline in the price of commodities will increase the rate of decline of the Corporation's historic revenue – especially if the continued price or decline results in an acceleration in the shutting in of operating wells. Under such conditions, the Corporation would be at risk of declining revenue.

The price of oil fell below \$10 per boe in Canada in Q4 2018, resulting in a material contraction for the Corporation's Software in Canada. The Corporation partially offset this decline with successful penetration of its Software in the US. During the second half of 2018, the Corporation undertook a reorganization to operate in an environment in Canada which is expected to continue to contract and an environment in the US which is expected to be increasingly competitive.

The Corporation's strategy for 2019 and onwards is to leverage its Field Services customers in the US to adopt the Corporation's Software. The Corporation is rebuilding its Field Services business to differentiate an increasingly commoditized offering with cost savings based on adoption of Software. Management's expectation of growth is based upon continued penetration of the Corporation's Software by its US customers and may be impacted as the industry continues investment in automation attracting the entry of new competitive products to the Corporation's Software.

Growth of the Corporation's cloud based software revenue in the US during 2018 is a reflection of the success of the Corporation's strategy to convert its measurement services to automation based on software. Management is optimistic that the continuation of this strategy in 2019 will accelerate adoption of the Corporation's cloud based software in the US which will offset the risk inherent in the Canadian market place.

## **RESPONSIBILITY OF MANAGEMENT AND THE BOARD OF DIRECTORS**

Management is responsible for the information disclosed in this MD&A and the accompanying consolidated financial statements, and has in place appropriate information systems, procedures, and controls to ensure that information used internally by management and disclosed externally is materially complete and reliable. In addition, Critical Control's Audit Committee, on behalf of the Board of Directors, provides an oversight role with respect to all public financial disclosures made by the Corporation and has reviewed and approved this MD&A and the accompanying consolidated financial statements.

## CORPORATE PROFILE

Critical Control provides solutions for the collection, control, and analysis of measurement and operational data related to the oil and gas wells across North America. The Corporation provides services to capture data, cloud-based software to visualize and manage it, and business intelligence to make quicker and more informed operational decisions. All of the Corporation's identifiable assets are located in Canada and the United States.

On January 30, 2019, the Corporation received notice from the TSX that the Corporation's common shares did not meet the continued listing requirements provision that the total value of the common shares in the public float must be in excess of \$2 million, excluding any common shares held by officers, directors and those who own more than 10% of the common shares. On February 12, 2019, the Corporation filed an application with the TSX, which was approved, to voluntarily delist the common shares and preferred shares from trading on the TSX after the close of business on February 28, 2019. The Corporation is not seeking an alternative listing for its shares.

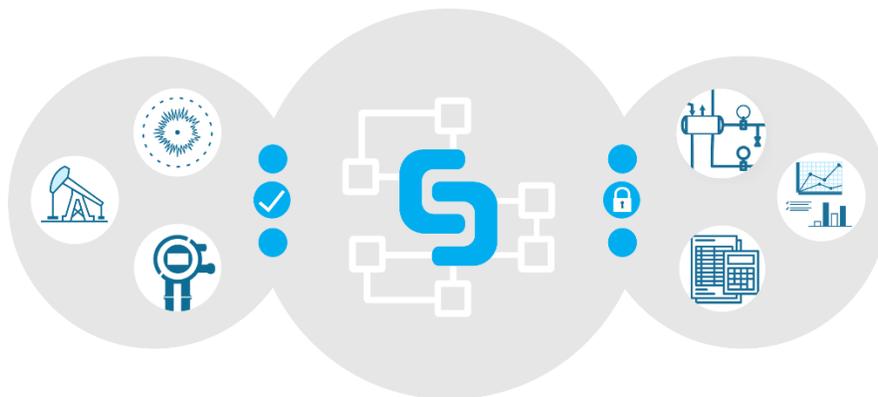
The reportable segments are managed separately because of the unique characteristics and requirements of each business.

### Software

The Software business provides cloud based software and software based services to its upstream and midstream oil and gas clients:

- **Measurement Data Management:** Gas chart integration and reporting; web-based monitoring and control of electronic devices at the well site; and cost-efficient data validation.
- **Regulatory Compliance and Risk Management:** Integrated pipeline and asset profiles management; intelligent fluid analysis management; and streamlined, auditable meter calibration.
- **Production and Financial Accounting:** Production accounting; financial and joint interest accounting; capital projects management; land and contracts management; production asset management; and facility processing contract management.

Software operations has offices located in Calgary, Alberta, Indiana, Pennsylvania, Girard, Ohio, Stonewood, West Virginia, and Tyler, Texas.



### Field Services

The Field Services business provides the following services to its upstream and midstream oil and gas clients. The business comprises of two services lines in the United States.

#### Measurement services

- **Gas Measurement Field Services:** Inclusive of natural gas meter installation, calibration, and monitoring.
- **Gas and Liquid Laboratory Services:** Gas composition management services including gas sample analysis and data management tools.

- **Certification and Proving:** Calibration and certification of measurement meters and gas measurement equipment.

#### Equipment and other revenue

- **Distribution of Measurement Equipment:** Sale of gas measurement related equipment.
- **Fabrication:** Assembly and sale of gas measurement related equipment.

Field Services operates in multiple locations across the United States.

## RESULTS OF OPERATIONS

### Software

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Cloud based software	<b>7,853</b>	7,801	7,355
Software based services	<b>7,230</b>	8,414	9,335
Equipment and other revenue	<b>279</b>	299	229
	<b>15,362</b>	16,514	16,919
Operating expense	<b>5,990</b>	6,151	7,492
Gross margin <sup>(1)</sup>	<b>9,372</b>	10,363	9,427
Gross margin - percentage <sup>(1)</sup>	<b>61.0%</b>	62.8%	55.7%

The Corporation generated \$7.9 million in cloud based software revenue in 2018. This revenue remained strong due to the continued penetration of the Corporation's Software in the United States, offsetting declines in Canada. Software based services revenue decreased compared to the prior period comparison due to shut in wells and both competitive pressure and resulting pricing concessions, generating \$7.2 million in 2018, compared to \$8.4 million in the prior period.

Gross margin percentage has decreased to 61.0% from 62.8% in the prior period. The decline is the result of strong competitive environment in Canada. Management continues to monitor its product line revenues, costs, and streamlining of operations. Software generated gross margins of \$9.4 million in 2018 and \$10.4 million for 2017.

### Field Services

The Field Services business unit is comprised of two distinctive groups of products. Measurement services which includes lab, field, certification and proving, and equipment and other revenue which includes distribution of measurement equipment and fabrication based in Indiana, Pennsylvania.

<b>For the years ended December 31,</b>			
<b>(CND\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Measurement services	<b>7,527</b>	8,453	10,624
Equipment and other revenue	<b>3,980</b>	4,155	4,223
	<b>11,507</b>	12,608	14,847
Operating expense	<b>9,811</b>	9,922	11,560
Gross margin <sup>(1)</sup>	<b>1,696</b>	2,686	3,287
Gross margin - percentage <sup>(1)</sup>	<b>14.7%</b>	21.3%	22.1%

<sup>(1)</sup> See Non-GAAP measures and additional Non-GAAP measures

Field Services generated revenue for the year ended December 31, 2018 of \$11.5 million compared to \$12.6 million during 2017, a decrease of 8.7%. The decrease for the year was due to increased competition.

Due to the impact of foreign exchange translation in relation to foreign currency fluctuations, financial results for US operations have been provided in both Canadian and US dollars.

<b>For the years ended December 31,</b>			
<b>(US\$ thousands)</b>	<b>2018</b>	2017	2016
Measurement services	<b>5,835</b>	6,485	7,757
Equipment and other revenue	<b>3,099</b>	3,185	3,396
	<b>8,934</b>	9,670	11,153
Operating expense	<b>7,606</b>	7,617	8,687
Gross margin <sup>(1)</sup>	<b>1,328</b>	2,053	2,466
Gross margin - percentage <sup>(1)</sup>	<b>14.9%</b>	21.2%	22.1%

The Corporation focused on restructuring the Field Services business segment to integrate its Software into the operation process and evaluated field offices that were underperforming in 2018. The implementation of these initiatives combined with the Corporation's strategy to replace a portion of field services with automation resulted in a decrease gross margin of 30.8%.

#### **GENERAL AND ADMINISTRATION**

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	2017	2016
General and administrative less share-based payments	<b>7,979</b>	8,958	9,855
Share-based payments	<b>(37)</b>	88	149
General and administrative	<b>7,942</b>	9,046	10,004

For the year ended December 31, 2018, total general administration expenses decreased by \$1.1 million compared to 2017 as a result of the continued focus on cost reduction and process efficiencies to maintain lower administrative costs.

Share-based payment expense was maintained at less than \$0.1 million year over year. The expense is driven by the timing of vesting of deferred share units and forfeitures during the period.

#### **RESEARCH AND DEVELOPMENT**

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	2017	2016
Research and development	<b>2,648</b>	3,058	2,120
Less:			
SR&ED tax credits, net of costs	-	-	(114)
Capitalized research and development costs	<b>(1,190)</b>	(1,587)	(1,011)
Research and development	<b>1,458</b>	1,471	995

<sup>(1)</sup> See Non-GAAP measures and additional Non-GAAP measures

The Corporation continues its research and development initiatives to increase the functionality that Software clients derive from the Corporation’s products. The Corporation’s accounting policies for research and development require capitalization of product development expenditures that meet specific criteria as set out in Note 3 of the Corporation’s December 31, 2018 annual audited consolidated financial statements.

**Regulatory Compliance and Risk Management:** In 2013, the Corporation embarked on a project to develop a new pipeline risk and measurement schematic product based on existing solutions acquired in previous acquisitions. The pipeline risk component uses proprietary risk scoring algorithms to account for a wide variety of internal, external, and topographical factors to develop a risk score. The measurement schematics component produces database driven schematics and GIS maps for upstream facilities. Both solutions utilize a common web-enabled front-end, and both integrate the same public and private data sources. The project continued into 2018 and new versions of the Software were released with numerous improvements, enhancements, and functionality.

#### DEPRECIATION AND AMORTIZATION

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Depreciation	<b>1,533</b>	1,168	1,024
Amortization	<b>4,183</b>	1,714	1,586
Depreciation and amortization	<b>5,716</b>	2,882	2,610

For the year ended December 31, 2018, depreciation expense increased by less than \$0.1 million compared to the prior year. This is attributed to the timing of depreciation of acquired assets and assets prior to disposal and the prospective change in accounting estimates adopted effective January 1, 2018.

Amortization expense, which relates to the intangible assets, has increased by \$2.5 million compared to the prior year. This is attributed to the timing of the impairment of certain product development costs and the prospective change in accounting estimates adopted effective January 1, 2018.

#### IMPAIRMENT OF INTANGIBLE ASSETS AND GOODWILL

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Impairment of intangible assets and goodwill	<b>10,500</b>	-	-

The Corporation reviews the carrying value of its long term non-financial assets at each reporting period for indicators of impairment. During the year ended December 31, 2018, the Corporation reviewed all of its cash generating units (“CGU”s) for indicators of impairment. As a result of current forecasts, trading value, and financing, it was determined there were indicators of impairment for the Software CGU which resulted in two impairment tests performed in the year to assess the recoverable amount.

The Corporation identified that the product development costs included in the Software CGU related to one of its product lines were impaired due to a change in focus making its commercialization unlikely. An impairment charge of \$3.0 million was recorded against certain product development costs. The remaining \$7.5 million impairment was applied to the goodwill in the CGU.

## FOREIGN EXCHANGE

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Foreign exchange - realized	<b>51</b>	(95)	45
Foreign exchange - unrealized	<b>(1,565)</b>	1,253	183
Foreign exchange	<b>(1,514)</b>	1,158	228

Foreign exchange gains and losses are the result of foreign currency fluctuations during the period and the timing of when items are settled.

Foreign exchange gains and losses fluctuate quarterly in relation to changes in the US/Canadian exchange rate. Intercompany advances of a current nature between the Corporation and its US subsidiaries, net of the Corporation's loans and borrowings denominated in US dollars, have the most significant impact on foreign exchange gains and losses.

## FINANCE COSTS

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Bank related charges	<b>244</b>	387	480
Interest on bank indebtedness	<b>161</b>	229	202
Interest on long-term debt	<b>419</b>	356	471
Interest on Factoring Facility	<b>54</b>	-	-
Deferred financing costs on long-term debt	-	-	27
Finance costs	<b>878</b>	972	1,180

Finance costs have decreased in 2018 compared to the prior period. The decrease was mainly driven by improved interest rates management negotiated on its credit facility early in 2018, offset by an increase in rates after the closing of the Corporation's new debt facilities in November 2018.

## OTHER EXPENSES

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Acquisition related charges	-	-	25
Provision of onerous lease	-	-	(28)
Restructuring fees	<b>399</b>	-	-
Termination benefits	<b>472</b>	200	318
Write-down of inventory	<b>705</b>	-	-
Other	<b>170</b>	48	348
Other expenses	<b>1,746</b>	248	663

Other expenses contain expenses and recoveries that are infrequent and unusual in nature and are not expected to be recurring.

Restructuring fees of \$0.4 million were incurred by the Corporation in its renegotiation of the terms of its lease in Calgary, Alberta, and termination of two other office leases in Cotulla, Texas and Mounds, Oklahoma. The renegotiated lease terms will enable the Corporation to save \$0.5 million per annum, for a total of \$1.7 million for the remaining life of the lease.

The Corporation continued to execute the plan to streamline operations resulting in termination costs of \$0.5 million in the current year.

During the year ended December 31, 2018, the Corporation sold inventory with a cost of \$1.3M at auction for gross proceeds of \$0.1 million of which \$0.6 million was applied against the allowance for inventory obsolescence and \$0.7 million was recorded as a write-down of inventory.

#### DEFERRED INCOME TAX

During the year ended December 31, 2018, the Corporation derecognized deferred tax assets of \$3.6 million that were recognized at December 31, 2017. At December 31, 2018 the Corporation has \$13.3 million and \$8.7 million of Canadian Federal and Provincial non-capital losses respectively, as well as \$10.1 million of US non-capital losses. These losses will expire between 2026 and 2036. The Corporation also has other deductible temporary differences in the amount of \$9.6 million. It is uncertain whether future taxable profit will be available against which the Corporation can use the benefits of the deferred tax assets and therefore the benefits of these tax attributes have not been recognized.

#### NET LOSS, TOTAL COMPREHENSIVE LOSS, AND CASH FLOWS

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
Adjusted EBITDA <sup>(1)</sup>	<b>1,631</b>	2,621	1,864
EBITDA <sup>(1)</sup>	<b>1,444</b>	1,153	797
Net loss before discontinued operations	<b>(19,238)</b>	(3,257)	(1,912)
Net loss	<b>(19,238)</b>	(3,257)	(1,997)
Total comprehensive loss	<b>(19,902)</b>	(3,196)	(2,039)
Cash provided by (used in) operations before change in non-cash working capital balances	<b>(215)</b>	1,839	1,276
Cash flow provided by (used in) operating activities	<b>400</b>	2,573	441

For the year ended December 31, 2018, the Corporation's net loss was \$19.2 million compared to \$3.3 million in 2017. This is largely attributed to \$10.5 million impairment of intangible assets and goodwill, \$3.6 million derecognition of deferred income taxes, increase in depreciation and amortization of \$2.8 million and increase of \$1.7 million in other expenses related to write-down of inventory, termination benefits, restructuring fees, and other charges incurred by the Corporation in 2018.

The Adjusted EBITDA was \$1.6 million for 2018 compared to \$2.6 million for 2017 which is attributed to reduced gross margins, however is partially offset by reduced administrative expenditures.

The Corporation's cash provided by (used in) operations before change in non-cash working capital balances and cash flow provided by (used in) operating activities decreased during 2018 compared to 2017 due to reduced revenue offset by a decrease in administrative expenses.

<sup>(1)</sup> See Non-GAAP measures and additional Non-GAAP measures

## FINANCIAL HIGHLIGHTS - QUARTERLY ANALYSIS

(\$ thousands)	2018				2017			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Cloud based software	<b>1,928</b>	1,910	1,983	2,032	2,049	1,941	1,918	1,893
Software based services	<b>1,715</b>	1,772	1,900	1,843	1,889	2,029	2,360	2,136
Measurement services	<b>1,670</b>	2,053	1,940	1,864	1,862	1,931	2,229	2,431
Equipment and other revenue	<b>1,153</b>	1,008	1,067	1,031	980	1,172	1,122	1,180
Total revenue	<b>6,466</b>	6,743	6,890	6,770	6,780	7,073	7,629	7,640
Gross margin <sup>(1)</sup>	<b>2,741</b>	2,775	2,851	2,701	2,923	3,107	3,496	3,523
Gross margin - percentage <sup>(1)</sup>	<b>42.4%</b>	41.2%	41.4%	39.9%	43.1%	43.9%	45.8%	46.1%
Adjusted EBITDA <sup>(1)</sup>	<b>457</b>	658	282	234	473	533	853	762
EBITDA <sup>(1)</sup>	<b>880</b>	(373)	236	701	352	(199)	390	610
Net earnings (loss)	<b>(4,547)</b>	(13,289)	(1,329)	(73)	(1,652)	(1,153)	(400)	(52)

## OPERATIONS HIGHLIGHTS – QUARTERLY ANALYSIS

(\$ thousands)	2018				2017			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
<b>Software (CND\$)</b>								
Cloud based software	<b>1,928</b>	1,910	1,983	2,032	2,049	1,941	1,918	1,893
Software based services	<b>1,715</b>	1,772	1,900	1,843	1,889	2,029	2,360	2,136
Equipment and other revenue	<b>82</b>	32	45	120	72	62	59	106
Total revenue	<b>3,725</b>	3,714	3,928	3,995	4,010	4,032	4,337	4,135
Gross margin <sup>(1)</sup>	<b>2,344</b>	2,240	2,372	2,416	2,592	2,543	2,756	2,472
Gross margin - percentage <sup>(1)</sup>	<b>62.9%</b>	60.3%	60.4%	60.5%	64.6%	63.1%	63.5%	59.8%
<b>Field Services (CND\$)</b>								
Measurement services	<b>1,670</b>	2,053	1,940	1,864	1,862	2,058	2,448	2,431
Equipment and other revenue	<b>1,071</b>	976	1,022	911	908	983	844	1,074
Total revenue	<b>2,741</b>	3,029	2,962	2,775	2,770	3,041	3,292	3,505
Gross margin <sup>(1)</sup>	<b>397</b>	535	479	285	331	564	740	1,051
Gross margin - percentage <sup>(1)</sup>	<b>14.5%</b>	17.7%	16.2%	10.3%	11.9%	18.5%	22.5%	30.0%
<b>Field Services (US\$)</b>								
Measurement services	<b>1,277</b>	1,567	1,511	1,480	1,484	1,503	1,656	1,842
Equipment and other revenue	<b>825</b>	750	800	724	729	857	787	812
Total revenue	<b>2,102</b>	2,317	2,311	2,204	2,213	2,360	2,443	2,654
Gross margin <sup>(1)</sup>	<b>310</b>	413	377	228	269	438	551	795
Gross margin - percentage <sup>(1)</sup>	<b>14.7%</b>	17.8%	16.3%	10.3%	11.9%	18.5%	22.5%	30.0%

<sup>(1)</sup> See Non-GAAP measures and additional Non-GAAP measures

**FOURTH QUARTER ANALYSIS**
**Software (CND\$)**

<b>Three months ended December 31,</b>		
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>
Cloud based software	<b>1,928</b>	2,049
Software based services	<b>1,715</b>	1,889
Equipment and other revenue	<b>82</b>	72
Total revenue	<b>3,725</b>	4,010
Gross margin <sup>(1)</sup>	<b>2,344</b>	2,592
Gross margin - percentage <sup>(1)</sup>	<b>62.9%</b>	64.6%

Software generated revenue for the three months ended December 31, 2018 was \$3.7 million compared to \$4.0 million in 2017. The gross margin percentage decreased from 64.6% to 62.9%.

**Field Services (CND\$)**

<b>Three months ended December 31,</b>		
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>
Measurement services	<b>1,670</b>	1,862
Equipment and other revenue	<b>1,071</b>	908
Total revenue	<b>2,741</b>	2,770
Gross margin <sup>(1)</sup>	<b>397</b>	331
Gross margin - percentage <sup>(1)</sup>	<b>14.5%</b>	11.9%

**Field Services (US\$)**

<b>Three months ended December 31,</b>		
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>
Measurement services	<b>1,277</b>	1,484
Equipment and other revenue	<b>825</b>	729
Total revenue	<b>2,102</b>	2,213
Gross margin <sup>(1)</sup>	<b>310</b>	269
Gross margin - percentage <sup>(1)</sup>	<b>14.7%</b>	11.9%

Field Services generated revenue for the three months ended December 31, 2018 of \$1.7 million compared to \$1.9 million in 2017.

Due to the impact of foreign exchange translation in relation to foreign currency fluctuations, financial results for US operations have been provided in both Canadian and US dollars.

Field Services generated revenue for the three months ended December 31, 2018 of US\$2.1 million compared to US\$2.2 million in 2017.

Gross margin percentage increased from 11.9% to 14.5%, as the benefits from restructuring of the measurement services management team in the fourth quarter of 2017 are being realized.

## LIQUIDITY AND CAPITAL RESOURCES

### Working capital

<b>As at December 31,</b> <b>(\$ thousands)</b>	<b>2018</b>	2017	Increase (decrease) in working capital
Current assets			
Cash and cash equivalents	630	287	343
Accounts receivable	4,737	5,938	(1,201)
Inventory	1,379	2,357	(978)
Prepaid expenses and deposits	1,079	253	826
	<b>7,825</b>	8,835	(1,010)
Current liabilities			
Bank indebtedness	-	4,743	(4,743)
Accounts payable and accrued liabilities	3,727	2,963	764
Deferred revenue	873	827	46
Factoring Facility	2,801	-	2,801
Current portion of deferred lease inducements	12	12	-
	<b>7,413</b>	8,545	(1,132)
Working capital (excluding debt) <sup>(1)</sup>	<b>412</b>	290	122

<b>As at December 31,</b> <b>(\$ thousands)</b>	<b>2018</b>	2017	Increase (decrease)
Bank indebtedness	-	4,743	(4,743)
Secured bank term loan (CAD \$3.0 million)	-	2,874	(2,874)
Secured bank term loan (CAD \$2.0 million)	-	499	(499)
Factoring Facility	2,801	-	2,801
Term Loan	6,825	-	6,825
Total debt	<b>9,626</b>	8,116	1,510
Less:			
Cash and cash equivalents	630	287	343
Net debt	<b>8,996</b>	7,829	1,167

The key driver of the change in working capital is the decrease in bank indebtedness of \$4.7 million which is partially offset by the use of the Factoring Facility which increased by \$2.8 million; the decrease in account receivable of \$1.2 million relates to decreased revenue and changes in the foreign exchange rates; the \$1.0 million decrease in inventory due to the sale of a large amount of inventory in the year; the \$1.0 million increase in prepaid expenses and deposits from the interest and default reserves required for the Corporation's new credit facility.

### Credit facilities

On November 14, 2018, the Corporation closed a credit facility agreement with a new lender to replace the previous credit facility discussed above. Significant details of the facility are summarized below.

- a) A \$7.0 million non-revolving term loan (“Term Loan”) maturing three years after the closing date. The Term Loan is interest only until December 31, 2019 at which time principal payments thereafter will be calculated based on 80% of free cash flow reported for the second preceding month, the first payment which is due in March 2020. The Term Loan bears interest at a rate of 15% and is payable on the last day of each month. The interest rate is reduced to 13.5% if the debt to EBITDA ratio, calculated on a trailing twelve month basis, is less than 2.75 to 1.00 at the end of a fiscal quarter, and is increased by 3% if amounts are not paid when due.

An interest reserve equal to nine months of interest and a default reserve equal to three months of interest were withheld from the amount advanced and have been included in prepaid expenses and deposits. Interest payments for the first nine months will be applied against the interest reserve and the default reserve is returned upon repayment of the Term Loan.

After considering the timing of repayments and transaction costs of \$0.3 million incurred to finance the Term Loan, the effective interest rate is 18.29%. The breakdown of the Term Loan balance at December 31, 2018 is as follows:

<b>As at December 31,</b>	<b>2018</b>
<b>(\$ thousands)</b>	
Term Loan	<b>7,000</b>
Transaction costs	<b>(347)</b>
Carrying value at closing date	<b>6,653</b>
Interest expense	<b>172</b>
	<b>6,825</b>

- b) An accounts receivable factoring agreement (“Factoring Facility”) up to a maximum of \$4.95 million which is the total of the Corporation’s trade accounts receivable at December 31, 2018. The fees charged under the factoring agreement are (i) an initial discount fee of 1.50%; (ii) a further daily discount fee of 0.05% on any unpaid amounts in which more than 30 days have elapsed from the factoring of the individual accounts receivable; (iii) monthly monitoring fee of \$4 thousand. Under the factoring agreement, a reserve is withheld from the factoring purchase price in the amount of 10% for the individual accounts receivable 0-121 days based on the face value and is returned to the Corporation upon collection of the individual accounts receivable.

Under the terms of the factoring agreement, the Corporation is not permitted to amend payment terms relating to any trade accounts receivable or the lender may require immediate repayment of the accounts receivable or charge a further discount of 5% for every 30 days in which payment terms were extended. Should any customer dispute occur, or a customer fail to pay within 120 days from the invoice date, the individual accounts receivable must be repurchased from the factoring corporation at their request for a price equal to the outstanding amount. When the Corporation is obliged to re-purchase an individual accounts receivable, a daily discount fee of 0.05% will be incurred for each day that any portion of the individual accounts receivable remains unpaid.

The amounts owing under the agreement are secured by the Corporation’s trade accounts receivable and the lender has a first priority lien. As at December 31, 2018, the amounts advanced under this facility totaled \$2.8 million. This arrangement is recorded as a financing from the lender and factoring costs are charged to operations as incurred.

The Term Loan and Factoring Facility funds are used first to refinance existing indebtedness under the old credit facility and subsequently for working capital needs. The breakdown of funds drawn are as follows:

<b>At Closing Date</b>	
<b>(\$ thousands)</b>	
Term Loan	<b>7,000</b>
Factoring Facility	<b>2,969</b>
	<b>9,969</b>
Interest and default reserve	<b>(1,050)</b>
Advanced proceeds	<b>8,919</b>
Closing costs and fees	<b>(94)</b>
Net proceeds	<b>8,825</b>
Payout existing credit facility	<b>(8,261)</b>
Addition to working capital	<b>564</b>

After a period of one year from the closing date, the amounts may be repaid on 90 days' notice without penalty. The prepayment option represents an embedded derivative which should be separated from the host Term Loan, however had no value at December 31, 2018.

The Term Loan and Factoring Facility are secured by the following:

- A general security agreement creating a first-priority security interest in all present and future undertaking and personal property of the Corporation; and
- Upstream guarantees from all material subsidiaries of the Corporation.

The Term Loan and Factoring Facility require adherence to the following financial covenants:

- Current ratio to exceed 0.90 to 1.00 each quarter up to and including the quarter ended June 30, 2019 and exceed 1.00 to 1.00 thereafter;
- Commencing January 1, 2019, debt to EBITDA ratio not to exceed 4.00 to 1.00 each quarter up to and including the quarter ended December 31, 2019 and not to exceed 2.75 to 1.00 thereafter;
- Commencing January 1, 2019, debt service coverage ratio to exceed 1.00 to 1.00 each quarter; and
- Commencing January 1, 2019, interest coverage ratio to exceed 1.25 to 1.00 each quarter up to and including the quarter ended December 31, 2019 and exceed 1.75 to 1.00 thereafter.

As at December 31, 2018, the Corporation was in compliance with its financial covenants.

### **Liquidity**

At December 31, 2018, the Corporation had \$0.6 million (2017 – \$0.3 million) of cash on hand, and access to a further \$1.3 million available on its Factoring Facility (2017 – \$0.9 million available on its secured banking facility) to fund ongoing working capital requirements.

The Corporation prepared financial forecasts for the year ended December 31, 2019 which indicated non-compliance with its financial covenants in the first quarter, with expected compliance for all other quarters, which would make the Term Loan and Factoring Facility callable. On March 26, 2019, the Corporation and its lender entered into an amending agreement to revise the calculation of the debt to EBITDA ratio, debt service coverage ratio and interest coverage ratio. The revision is such that EBITDA or adjusted EBITDA as applicable for the quarters ended March 30, 2019 and June 30, 2019 will be calculated based on each respective quarters annualized results opposed to the previous rolling four quarter basis. Based on the current financial forecasts, the Corporation expects to be in compliance with its amended financial covenants for fiscal 2019.

Management anticipates that its current level of cash flow from operations is sufficient to meet its existing operational obligations, but intends to regularly review its level of capital resources and actively manage its affairs. This review will consider factors such as the current economic environment, changes in demand for the Corporation’s services, capital spending requirements, foreign exchange rates, working capital needs, and profitability of the Corporation’s operations, any of which could materially affect the Corporation’s ability to meet its obligations.

Additional financing may be necessary in a variety of circumstances, including the requirement of working capital to ramp up operations required by strong growth, the occurrence of adverse circumstances, fluctuations in foreign currency translation, or the decision to expand geographically into new markets or by acquisition. It is anticipated that the financing may be raised by bank debt, other forms of debt, or the issue of equity. It is possible that such financing will not be available, or if available, will not be available on favorable terms.

## SHAREHOLDERS’ EQUITY

### Issued and Outstanding

Number of common shares	Issued
Balance as at December 31, 2016	58,459,856
Common shares converted to preferred shares	(14,728,860)
Shares issued to senior member of management	200,000
Shares issued under Employee Share Purchase Plan	114,466
Balance as at December 31, 2017	<b>44,045,462</b>
Shares issued under Employee Share Purchase Plan	<b>142,148</b>
Shares issued under deferred share unit plan	<b>289,981</b>
Balance as at December 31, 2018	<b>44,477,591</b>

At December 31, 2018, the Corporation was authorized to issue an unlimited number of common shares without par value. The holders of common shares are entitled to one vote per share and all shares rank equally with regard to the Corporation’s residual assets.

In July 2017, the Corporation converted 14,728,860 common shares for 1,136,245 preferred shares pursuant to the plan of arrangement approved by shareholders on June 29, 2017.

### Preferred shares and warrants

Number of preferred shares	Issued
Balance as at December 31, 2016	-
Common shares converted to preferred shares	1,136,245
Private placement with warrants	1,013,000
Balance as at December 31, 2017 and 2018	<b>2,149,245</b>

In July 2017, the Corporation issued 1,013,000 series A preferred shares (“preferred shares”) in exchange for proceeds of \$2.0 million and converted 14,728,860 common shares for 1,136,245 preferred shares pursuant to the plan of arrangement approved by shareholders on June 29, 2017. The total cost of issuing the preferred shares was \$0.1 million.

The 2,149,245 preferred shares are entitled to receive a cumulative quarterly fixed dividend for the five-year period following their issuance at an annual rate of 8.00%, payable on the last day of March, June, September, and December, as and when declared by the Board of Directors of the Corporation. The first of such dividends was paid September 30, 2017 and second dividend was paid December 31, 2017. In the third quarter of 2018, the Corporation suspended payment of cash dividends on the preferred shares. Total dividend paid in the year was \$0.2 million (2017 - \$0.2 million) and the cumulative unpaid dividend as at December 31, 2018 was \$0.2 million (2017 - \$nil).

After five years, the annual dividend rate will be adjusted to a rate equal to the sum of the then five-year Government of Canada bond yield plus 5.00%, provided that, in any event, such rate will not be less than 8.00% per annum.

At any time after the five-year anniversary of their issuance, all or a portion of the preferred shares may be redeemed by the Corporation for an amount equal to the sum of the deemed purchase price for the preferred shares plus any declared, accrued, and unpaid dividends.

With the issuance of the preferred shares the Corporation issued 1,013,000 warrants which entitles the subscriber to purchase one common share of the Corporation at a purchase price of \$0.20 per warrant before June 30, 2019.

#### Deferred annual bonus and share purchase plan

Number of deferred common shares	Issued	Vested
Balance as at December 31, 2016	1,876,635	551,635
Vested	-	200,000
Exercised	(200,000)	(200,000)
Forfeited	(100,000)	-
Balance as at December 31, 2017	<b>1,576,635</b>	<b>551,635</b>
Granted	<b>500,000</b>	-
Vested	-	<b>233,334</b>
Exercised	<b>(289,981)</b>	<b>(289,981)</b>
Forfeited	<b>(766,666)</b>	-
Balance as at December 31, 2018	<b>1,019,988</b>	<b>494,988</b>

The total number of common shares that may be reserved for issuance to directors, officers, employees, or other insiders under any share-based compensation arrangement, in aggregate during any one year period, cannot exceed 10% of the Corporation's total issued and outstanding common shares. If any share-based award expires without having been exercised or is terminated/forfeited for any reason under any share-based compensation arrangement then, subject to the terms of that particular share-based compensation arrangement, the common shares underlying such award shall again be available for issuance in connection with any future awards that the Corporation may grant.

The Corporation adopted a Deferred Annual Bonus and Share Purchase Plan ("DSP") in 2006. The DSP enables employees to elect to receive up to 10% of their annual base salary and up to 100% of any annual bonus to which they become entitled in the form of deferred common shares ("DCS"). Each DCS may be redeemed by the holder for one common share of the Corporation for no additional payment on death or termination of the holder's service to the Corporation.

During 2018, 500,000 DCS were issued to executives, line managers, and key contributors of the Corporation. 200,000 DCS vest if earnings growth targets are met within a four-year period and 300,000 vest one-third each year. If the earnings growth targets are not met, or if the employee leaves the Corporation before they are met, the DCS are forfeited. The measurement date fair value of the DCS was less than \$0.1 million.

## Employee share purchase plan

The Corporation adopted an Employee Share Purchase Plan (“ESPP”) in 2014 where 3,000,000 common shares may be issued to directors, officers, and employees. The ESPP was subject to the 10% limitation of the Corporation’s total issued and outstanding common shares, thereby reducing the number of common shares for issuance under the ESPP to 1,886,351. In May 2018, the Board passed a resolution which prohibits the Corporation from issuing more than 1,386,351 common shares under the ESPP to allow for the increase in the number of common shares issuable under the DSP.

Each participant in the ESPP is permitted to contribute a portion of his or her salary to the ESPP. The Corporation issues the purchased shares from treasury upon the earlier of a written request from the participant and the one year anniversary of the end of the month in which the contribution was made. In addition to the purchased shares, the Corporation matches the participant's contribution, to an annual maximum of the lesser of five thousand dollars or 5 % of the participant’s annual base salary. The matched shares are subject to a one-year vesting period and are issued from treasury during the quarter following two years from the end of the month in which the contribution was made.

During the year end December 31, 2018, proceeds net of refunds from purchased shares are credited to contributed surplus and totaled less than \$0.1 million (2017 – less than \$0.1 million) . This amount is transferred to share capital when the shares are issued from treasury, and less than \$0.1 million (2017 – less than \$0.1 million) was transferred during the year. The measurement date fair value of the matched shares during the year was less than \$0.1 million (2017 – less than \$0.1 million) and is being expensed over the one year vesting period, with an offsetting credit to contributed surplus.

As at December 31, 2018, 113,502 (2017 – 122,466) shares were reserved for issuance in relation to purchased shares and 225,876 (2017 – 152,240) shares were reserved for issuance in relation to matched shares. A total of 1,072,560 (2017 – 865,740) common shares have been issued and reserved as at December 31, 2018, leaving 313,791 (2017 – 1,020,611) available for issuance in subsequent periods.

## COMMITMENTS AND CONTINGENCIES

### Commitments

The following table shows the Corporation’s financial liabilities and commitments as of December 31, 2017, inclusive of operating leases:

As at December 31, 2018 (\$ thousands)	Less than 1 year	2 - 3 years	4 - 5 years	After 5 years
Operating leases	1,012	1,607	339	107
Accounts payable and accrued liabilities	3,727	-	-	-
Factoring Facility	2,801	-	-	-
Term Loan	-	6,825	-	-
	<b>7,540</b>	<b>8,432</b>	<b>339</b>	<b>107</b>

The Corporation carries \$2.8 million in its Factoring Facility and \$6.8 million Term Loan. The Term Loan matures in 2021 and monthly principal payments begin in March 2020. The Corporation repays the Factoring Facility as payments are received from customers.

## RELATED PARTY TRANSACTIONS

Related party transactions in the normal course of operations are measured at the exchange amount, which is the amount of consideration established and agreed to by the related parties.

Critical Control engages a law firm to provide legal advice and one partner of this law firm is a director of the Corporation. During the year ended December 31, 2018, Critical Control incurred legal fees of \$0.1 million (2017 – less than \$0.1 million) to this law firm. At December 31, 2018, less than \$0.1 million was payable (December 31, 2017 – less than \$0.1 million).

In 2015, the Corporation sold two US based real estate assets acquired as part of a previous measurement services acquisition for US\$0.7 million to a company partially owned by a director of Critical Control. As part of the sale of the two properties the Corporation entered into a ten year lease agreement with the company, which began in January of 2016. During 2018, one of the leases was terminated resulting in a lease termination fee of less than \$0.1 million paid during the year. The annual rent paid on the other property during the year ended December 31, 2018 was less than \$0.1 million.

In 2017, the Corporation issued 1,013,000 preferred shares through a private placement with warrants for \$1.8 million. The directors, executive officers, and department heads participated in the offering and purchased 395,500 preferred shares for \$0.8 million.

## NON-GAAP MEASURES

This MD&A contains references to certain financial measures and associated per share data that do not have any standardized meaning prescribed by IFRS and may not be comparable to similar measures presented by other companies. These financial measures are computed on a consistent basis for each reporting period and include EBITDA, adjusted EBITDA, adjusted net earnings, and working capital.

These non-GAAP measures are identified and defined as follows:

“**EBITDA**” is a measure of the Corporation’s operating profitability. EBITDA provides an indication of the results generated by the Corporation’s principal business activities prior to how these activities are financed, assets are depreciated and amortized or how the results are taxed in various jurisdictions.

EBITDA is derived from the consolidated statements of operations and comprehensive loss and is calculated as follows:

<b>For the years ended December 31,</b>			
(\$ thousands)	<b>2018</b>	2017	2016
Net loss	<b>(19,238)</b>	(3,257)	(1,912)
Plus:			
Finance costs	<b>878</b>	972	1,180
Income taxes	<b>3,588</b>	556	(1,081)
Depreciation and amortization	<b>5,716</b>	2,882	2,610
Impairment of intangible assets and goodwill	<b>10,500</b>	-	-
<b>EBITDA</b>	<b>1,444</b>	1,153	797

“**Adjusted EBITDA**” is used by management and investors to analyze EBITDA (as defined above) prior to the effect of foreign exchange, other expenses, and share-based payment expense. Adjusted EBITDA is not intended to represent net earnings as calculated in accordance with IFRS. Adjusted EBITDA provides an indication of the results generated by the Corporation’s principal business activities prior to how these activities are financed, assets are depreciated, amortized and impaired, the impact of foreign exchange, how the results are taxed in various jurisdictions, effects of share-based payment expenses, and normalized other expenses not recurring in nature.

Adjusted EBITDA from the consolidated statements of operations and comprehensive loss and is calculated as follows:

<b>For the years ended December 31,</b>			
<b>(\$ thousands)</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>
EBITDA	<b>1,444</b>	1,153	797
Plus:			
Share-based payments	<b>(37)</b>	88	149
Foreign exchange	<b>(1,514)</b>	1,158	228
Gain (loss) on sale of property and equipment	<b>(8)</b>	(27)	27
Other expenses	<b>1,746</b>	248	663
<b>Adjusted EBITDA</b>	<b>1,631</b>	2,620	1,864

“**Working capital**” is used by management and the investment community to analyze the operating liquidity available to the Corporation. Working capital is calculated based on current assets less current liabilities.

“**Working capital (excluding debt)**” is used by management and the investment community to analyze the operating liquidity available to the Corporation. Working capital (excluding debt) is calculated based on current assets less current liabilities excluding the current portion of long-term debt.

Working capital (excluding debt) is derived from the consolidated statements of financial positions and is calculated as follows:

<b>As at December 31,</b>	<b>2018</b>	<b>2017</b>	<b>Increase (decrease) in working capital</b>
<b>(\$ thousands)</b>			
Current assets			
Cash and cash equivalents	<b>630</b>	287	343
Accounts receivable	<b>4,737</b>	5,938	(1,201)
Inventory	<b>1,379</b>	2,357	(978)
Prepaid expenses and deposits	<b>1,079</b>	253	826
	<b>7,825</b>	8,835	(1,010)
Current liabilities			
Bank indebtedness	-	4,743	(4,743)
Accounts payable and accrued liabilities	<b>3,727</b>	2,963	764
Deferred revenue	<b>873</b>	827	46
Factoring Facility	<b>2,801</b>	-	2,801
Current portion of deferred lease inducements	<b>12</b>	12	-
	<b>7,413</b>	8,545	(1,132)
Working capital (excluding debt) <sup>(1)</sup>	<b>412</b>	290	122
Current portion of long-term debt	-	661	(122)
Working capital <sup>(1)</sup>	<b>412</b>	(371)	244

#### **ADDITIONAL NON-GAAP MEASURES**

“**Funds provided by continuing operations**” is used by management and investors to analyze the funds generated by the Corporation’s principal business activities prior to consideration of working capital, which is primarily made up of highly liquid balances. This balance is reported in the consolidated statements of cash flows included in the cash provided by (used in) operating activities section.

“**Gross margin**” is used by management and investors to analyze overall and segmented operating performance. Gross margin is not intended to represent an alternative to net earnings or other measures of financial performance calculated in accordance with IFRS. Operating income is calculated from the consolidated statements of operations and comprehensive loss and from the segmented information contained in the notes to the consolidated financial statements. Gross margin is defined as revenue less operating expenses.

“**Gross margin percentage**” is used by management and investors to analyze overall and segmented operating performance. Gross margin percentage is calculated from the consolidated statements of operations and comprehensive loss and from the segmented information in the notes to the consolidated financial statements. Gross margin percentage is defined as gross margin divided by revenue.

“**Cloud based software**” is reasonably expected to be continually provided to clients on a recurring periodic basis. This would include subscription revenue for software.

“**Software based services**” are provided to clients based on a per occurrence charge. This would include the implementation of cloud based software and monthly recurring services inclusive of gas chart integration and production and financial accounting.

“**Measurement services**” are non-software based services reasonably expected to be provided on a recurring periodic basis. This would include gas and liquid laboratory services, certification and proving, and gas measurement field services.

“**Equipment and other revenue**” are viewed as one-time in nature. This would include equipment sales, and fabrication projects.

## **BUSINESS RISKS**

### **Management of Growth**

The Corporation has, in the past, experienced significant growth in its business, including an expansion in the Corporation's staff, customer base and the expansion of its product and service offerings. Such growth placed, and will continue to place, a significant strain on the Corporation's management and operations. The Corporation's ability to manage growth effectively in the future will require it to further develop and improve its operational, financial, and other internal systems, as well as to hire, and manage employees. If the Corporation is unable to manage its growth effectively, the Corporation's business, results of operations, liquidity, and financial condition could be materially and adversely affected.

### **Fluctuation in Quarterly Results**

Quarterly revenue and operating results may fluctuate as a result of a variety of factors, including demand for the Corporation's products and services; the proportion of recurring revenue versus non-recurring revenue; the introduction of new products and product enhancements by the Corporation or its competitors; changes in the Corporation's pricing policies or those of its competitors; currency exchange rate fluctuations; or the fixed nature of a significant portion of the Corporation's operating expenses, particularly salaries and leasing costs.

### **Dependence on Management and Key Employees**

The Corporation's continued success will depend, to a very significant extent, on the performance and continued services of its senior management and certain other key employees; the loss of any of whom could have a material adverse effect upon the Corporation. In addition, the Corporation has hired a number of key managers in recent years and may continue to expand its management team in the future. The Corporation believes that its future success will also depend in large part upon its ability to attract and retain highly skilled technical, managerial and sales/marketing personnel. Competition for such personnel is intense and the Corporation has experienced difficulties in recruiting qualified personnel and may continue to experience such difficulties in the future. There can be no assurance that the Corporation will be successful in attracting and retaining the personnel it requires to continue to maintain and expand its business. The Corporation has key person life insurance on its President and CEO.

### **Risks Related to Acquisitions**

The Corporation may, in the future, further expand its operations or product offerings through the acquisition of additional businesses, products, or technologies. There can be no assurances that the Corporation will be able to identify, acquire or profitably manage additional businesses without substantial expenses, delays, or other operational or financial problems. Furthermore, acquisitions also entail numerous risks, including: difficulties in assimilating acquired operations, products and personnel; unanticipated costs, events, and legal liabilities; diversion of management's attention from other business concerns; adverse effects on existing business relationships with suppliers and customers; risks of entering markets in which the Corporation has limited or no prior experience; and potential loss of key employees from either the Corporation's pre-existing business or the acquired organization. Some or all of these risks could have a material adverse effect on the Corporation's business, results of operations, financial condition and liquidity.

In addition, there can be no assurance that acquired businesses, products, or technologies, if any, will achieve anticipated revenues and income. Acquisitions could also use a substantial portion of the Corporation's available cash; may result in the Corporation incurring substantial debt, which may not be available on favorable terms and may adversely affect the liquidity of the Corporation's stock; may result in the Corporation assuming contingent liabilities and taking substantial charges in connection with the impairment and amortization of intangible assets; and may result in the issuance of equity securities that would dilute existing shareholders. The failure of the Corporation to manage its acquisition strategy successfully could have a material adverse effect on the Corporation's business, results of operations, liquidity, and financial condition.

### **Protection of Intellectual Property**

The Corporation relies primarily on a combination of copyright, trademark and trade secrets laws, confidentiality procedures, and contractual provisions to protect its proprietary rights. Substantial portions of the Corporation's sales are derived from outsourced business processes that are intrinsically tied to the Corporation's proprietary software and other intellectual property. The Corporation generally enters into confidentiality agreements with clients, employees, and outsourced development companies, including offshore software development companies assisting the Corporation with its development activities. Despite the Corporation's efforts to protect its proprietary rights, unauthorized parties may attempt to copy and may succeed in copying aspects of the Corporation's products or may attempt to obtain and use information that the Corporation regards as proprietary. Furthermore, there can be no assurance that others will not independently develop products similar to those of the Corporation. In addition, the laws of some foreign countries do not protect the Corporation's proprietary rights to as great an extent as do the laws of Canada and the US. There can be no assurance that the Corporation's competitors will not independently develop similar technology or that the Corporation's means of protecting its proprietary rights will be adequate, and, consequently, the Corporation's business, results of operations, liquidity, and financial condition could be materially adversely affected.

The Corporation is not aware that any of its products infringe the proprietary rights of third parties. There can be no assurance, however, that third parties will not claim infringement by the Corporation with respect to current or future products. Defense of such claims, with or without merit, could be time-consuming, result in costly litigation, cause product delivery delays or require the Corporation to enter into royalty or licensing agreements. Such royalty or licensing agreements, if required, may not be available on terms acceptable to the Corporation or at all, either of which could have a material adverse effect on the Corporation's business, results of operations, liquidity, and financial condition.

### **Market Adoption and Software Development Risk**

The Corporation has made and continues to make significant investments in software for clients to better control their production related data, and some of the costs have been capitalized. The investments were made based on management's evaluation of the market and the needs of the Corporation's client base. The total costs of development cannot be accurately predicted, and the timing of deliverables is subject to constraints of labour and unpredictability of development timelines. There can be no assurance of market adoption of this software once it is developed, which could have a material adverse effect on the Corporation's business, results of operations, liquidity, and financial condition.

### **Risks Related to Cloud Based Solutions**

The Corporation's strategy on software development is to provide its solutions to the client through a web interface rather than license the software for deployment to servers used by the client. Although implementation is less expensive and quicker with such a design, accessibility to the software by the client is dependent upon access to the internet, the speed and availability of which is outside the control of the Corporation. Prolonged interruptions to software access could have a material adverse effect on the Corporation's business, results of operations, liquidity, and financial condition.

### **RISK RELATED TO THE INDUSTRY**

#### **Price of Oil and Gas**

The Corporation's products and services cost oil and gas producers money. In many instances, the product or service provided is a necessary component of the producer's business, or the value proposition to the producer is such that it saves the producer money. Where the price of oil and gas is low, the value proposition may be insufficient to entice producers to adopt the Corporation's products or services. This could cause a material delay in the Corporation's growth objectives and target profitability.

#### **Intense Competition**

The markets for the Corporation's products and services are intensely competitive and rapidly changing, and a number of companies offer products and services similar to the Corporation's products and services and target the same customers as the Corporation. The Corporation believes its ability to compete depends upon many factors within and outside its control, including the timely development and introduction of new products and services and product enhancements; product functionality, performance, price, and reliability; customer service and support; sales and marketing efforts; and the introduction of new products and services by competitors.

Many of the Corporation's competitors and potential competitors are substantially larger than the Corporation and have greater name recognition, larger customer bases and significantly greater financial, technical, marketing, public relations, sales, distribution, and other resources than the Corporation. As a result, they may be able to respond more quickly to new or emerging technologies and changes in customer requirements, or devote greater resources to the development, promotion and sale of their products than the Corporation.

As competition increases, the prices that the Corporation charges for its products and services may decline. If the Corporation is not able to compete successfully, the Corporation's business, financial condition, liquidity, and operating results could be materially adversely affected.

#### **Rapid Technological Change**

The markets for the Corporation's products are characterized by rapid technological advances, evolving industry standards, changes in end-user requirements and frequent new product introductions and enhancements. The Corporation's future success will depend upon its ability to enhance its current products, and to develop and introduce new products that keep pace with technological developments, respond to evolving end-user requirements and achieve market acceptance.

The development of such new products or enhanced versions of existing products entails significant technological risks. There can be no assurance that the Corporation will be successful in marketing its existing products or be successful in developing or marketing new products or product enhancements, any of which could have a material adverse effect on the Corporation's business, results of operations, financial condition, and liquidity.

### **Effect of Government Regulation**

The business processes associated with the Corporation's Software are, in part, designed to meet government regulation requirements where applicable. The Corporation's expansion in the United States, including states in which the Corporation has not done significant business, carries uncertainty with respect to the application of the Corporation's Software to government regulation requirements, which could have a material adverse effect on the Corporation's business, results of operations, liquidity, and financial condition.

### **DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROLS OVER FINANCIAL REPORTING**

Management is responsible for designing disclosure controls and internal controls over financial reporting ("ICFR"), as defined in National Instrument 52-109 Certification of Disclosure in Issuer's Annual and Interim Filings ("52-109"). Management has designed such internal controls over financial reporting to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements and other filings in accordance with IFRS. The control framework management used to design ICFR is the Internal Control – Integrated Framework (2013) published by The Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Management has concluded that the Corporation's ICFR are not effective due to a material weakness in relation to segregation of duties. Given the limited resources and number of staff, it is not feasible for the Corporation to achieve complete segregation of duties amongst its staff. This creates a risk that inaccurate recording of amounts could be made and not corrected on a timely basis. The result is that the Corporation is highly reliant on the performance of mitigating procedures and management oversight during its financial close process.

In assessing the Corporation's disclosure controls and procedures (DC&P), management concluded that DC&P are not effective due to the material weakness in the Corporation's ICFR.

### **CRITICAL ACCOUNTING JUDGEMENT AND ESTIMATES**

#### **Changes in Accounting Policies**

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and the interpretations of the IFRS Interpretations Committee ("Interpretations Committee") in effect as at January 1, 2018. Information about the significant accounting policies applied under IFRS are presented in Note 3 and new standards and interpretations not yet adopted are presented in Note 4 to the consolidated financial statements.

#### **Revenue Recognition**

##### ***Initial application***

On May 28, 2014 the IASB issued IFRS 15, "Revenue from contracts with customers". IFRS 15 replaced existing standards and interpretations on revenue recognition. The standard is effective for annual periods beginning on or after January 1, 2018 and was adopted by the Corporation on January 1, 2018. The standard outlines a single comprehensive model for entities for revenue recognition arising from contracts with customers.

The Corporation has completed its evaluation of the impact of IFRS 15 on its consolidated financial statements. The Corporation's practices of revenue recognition are unchanged upon adoption of this standard, therefore, the adoption of IFRS 15 did not result in a material impact to the consolidated financial statements. The Corporation has elected to apply the standard on a modified retrospective basis. Under this approach, the December 31, 2017 comparative period was not restated. There was no cumulative transitional adjustment to the opening retained earnings balance required.

### ***Recognition***

The Corporation derives revenues primarily from providing solutions to clients in the energy sector. The Corporation's solutions for each sector are comprised of services, maintenance and support, third party hardware, software application and equipment sales, and the fabrication and assembly of gas measurement and related equipment. Each component of the Corporation's solutions has specific revenue recognition policies, and revenue is only recognized based on fixed or agreed upon priced purchase orders or contracts with the customer when it is probable that the payment will be received, the revenue can be measured reliably, and the costs are identifiable and can be measured reliably.

Services include data entry, technology solutions, and outsourcing as well as the Corporation's solutions to the energy sector, some of which are dependent on the Corporation's proprietary applications and data sets. Revenue related to Services is recognized as the services are performed. Amounts invoiced in advance of work performed are recorded as unearned revenue, and revenue recognized in advance of being invoiced is recorded as unbilled revenue.

Revenue related to agreements for maintenance and support is recognized on a straight-line basis over the term of the agreement.

Sales of third-party hardware, software application and equipment sales and revenue from the fabrication, assembly, and sale of gas measurement and related equipment are generally recognized upon delivery, provided the following criteria are met:

- there is no continuing management involvement over the goods to the degree usually associated with ownership; and
- the significant risks and rewards of ownership have been transferred to the customer and there is no effective control over the goods.

The Corporation does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. Consequently, the Corporation does not adjust any of the transaction prices for the time value of money.

### **Financial instruments**

The Corporation's financial instruments consist of cash and cash equivalents, accounts receivable, bank indebtedness, accounts payable and accrued liabilities, and long-term debt.

### ***Initial application***

The International Accounting Standards Board issued IFRS 9 – Financial Instruments that introduces new requirements for classifying and measuring financial instruments. The standard is effective for fiscal years beginning on or after January 1, 2018 and was adopted by the Corporation on January 1, 2018. IFRS 9 affects the classification and measurement of financial assets and financial liabilities and the recognition of expected credit losses. The Corporation adopted IFRS 9 effective January 1, 2018 on a retrospective basis. The prior year comparative information has not been adjusted with respect to the adoption of IFRS 9's classification and measurement requirements as the adoption of IFRS 9 did not result in material changes to the determination of the Corporation's anticipated credit losses and associated allowance for doubtful accounts.

There were no adjustments to the carrying amounts of financial instruments as a result of the measurement classification category changes from IAS 39 to IFRS 9.

Consistent with the requirements of IFRS 9, the Corporation assesses the lifetime expected credit losses on an ongoing basis and updates its assumptions, if and when required.

The following table summarizes the classification impacts of the adoption of IFRS 9:

Financial instrument	Previous classification under IAS 39	New Classification under IFRS 9
Financial assets:		
Cash and cash equivalents	Loans and receivables	Amortized cost
Accounts receivable	Loans and receivables	Amortized cost
Financial liabilities:		
Bank indebtedness	Other liabilities	Amortized cost
Accounts payable and accrued liabilities	Other liabilities	Amortized cost
Long-term debt	Other liabilities	Amortized cost

### **Financial assets**

The Corporation recognizes financial assets when it becomes party to the contractual provisions of the instrument. Financial assets are measured initially at their fair value plus, in the case of financial assets not subsequently measured at fair value through profit or loss, transaction costs that are directly attributable to their acquisition. Transaction costs attributable to the acquisition of financial assets subsequently measured at fair value through profit or loss are expensed in profit or loss when incurred.

Pursuant to IFRS 9, the classification of financial assets is based on the Corporation’s assessment of its business model for holding financial assets. The classification categories are as follows:

- Financial assets measured at amortized cost: assets that are held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- Financial assets at fair value through other comprehensive income: assets that are held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
- Financial assets at fair value through profit or loss: assets that do not meet the criteria for amortized cost or fair value through other comprehensive income.

Financial assets measured at amortized cost are measured at cost using the effective interest method. Impairment of financial assets are recognized in accordance with IFRS 9’s three stage process and credit losses expected to occur over the first 12 months of the life of the instrument are recognized immediately. The life time credit losses are recognized when the credit risk has increased significantly since the initial recognition. Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amounts of the assets and the loss is recognized in the Consolidated Statements of Operations and Comprehensive Loss. When a trade receivable is uncollectible, it is written off against the allowance for doubtful accounts.

The Company reclassifies financial assets only when its business model for managing those financial assets has changed. Reclassifications are applied prospectively from the reclassification date and any previously recognized gains, losses or interest are not restated. Upon entering into the Factoring Facility in December 31, 2018, the Corporation’s accounts receivable were reclassified from amortized cost to fair value through other comprehensive income. There was no change in the carrying amount at the date of reclassification.

Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire or when the contractual rights to those assets are transferred.

### ***Financial liabilities***

The Corporation recognizes a financial liability when it becomes party to the contractual provisions of the instrument. At initial recognition, the Company measures financial liabilities at their fair value plus transaction costs that are directly attributable to their issuance, with the exception of financial liabilities subsequently measured at fair value through profit or loss for which transaction costs are immediately recorded in profit or loss.

The classification of financial liabilities is determined by the Corporation at initial recognition. The classification categories are as follows:

- Financial liabilities measured at amortized cost: financial liabilities initially measured at fair value less directly attributable transaction costs and are subsequently measured at amortized cost using the effective interest method. Interest expense is recognized in the Consolidated Statements of Operations and Comprehensive Income Loss.
- Financial liabilities measured at fair value through profit or loss: financial liabilities measured at fair value with changes in fair value and interest expense recognized in the Consolidated Statements of Operations and Comprehensive Loss.

Financial liabilities are derecognized when the obligation is discharged, cancelled or expired

### **Critical Accounting Estimates**

The preparation of the consolidated financial statements in conformity with IFRSs requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenue, and expenses. Actual results may differ from these estimates.

The preparation of the consolidated financial statements in conformity with IFRS requires management to make judgements, estimates, and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, revenues, and expenses. Actual results may differ from these estimates.

The key judgements identified in applying accounting policies that have a significant effect on the amounts recognized in the consolidated financial statements include the following:

- The determination of whether it is probable that sufficient taxable earnings will be generated in future periods to utilize tax losses and tax credits for the purpose of recognizing related tax assets. If sufficient taxable earnings are not generated, or estimates change, the Corporation does not recognize the related tax assets.
- The determination of research and development costs that are capitalized to deferred development costs are subject to management's estimates to the future economic value of the projects.
- The determination of cash generating units and reportable segments that are managed separately because of the unique characteristics and requirements of each business.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected. Information about assumptions and estimation uncertainties that have a significant risk of resulting in a material adjustment within the next financial year are as follows:

- **Impairment calculations for intangible assets and goodwill.** Key estimates and assumptions include future cash flows and discount rates used for calculating the recoverable amount of cash-generating units.
- **Measuring deferred income taxes.** Key estimates and assumptions include the availability of future taxable, timing of reversals for temporary differences, and future enacted tax rates.
- **Fair value of consideration provided and assets acquired in business combinations.** Key estimates and assumptions include future cash flows and discount rates used for valuing contingent consideration, customer relationship assets, and other intangible assets.
- **Depreciation and amortization.** The key estimate and assumption is the useful life of each asset.
- **Provisions, including onerous lease contracts.** Key estimates include future cash flows and discount rates.
- **Bad debts.** The Corporation estimates potential bad debts based on an analysis of historical collection activity and specific identification of overdue accounts. Actual bad debts may differ from estimates made.

**Change in estimates and judgments:**

Effective January 1, 2018, the Corporation made a change to its depreciation and amortization rates which was accounted for on a prospective basis as a result of a review of the useful lives of its property and equipment and intangible assets and expected pattern of consumption. All property and equipment and intangibles are now depreciated or amortized on a straight-line basis at rates ranging from two to seven years. The Corporation has determined that the change in estimate better reflects changes in the industry, competition, and technology.

The change in estimate resulted in \$0.3 million more depreciation expense on property and equipment and \$2.5 million more amortization on intangible assets during the year ended December 31, 2018 than if the change in estimate had not been completed.

**Depreciation of property and equipment**

Depreciation is calculated based on the depreciable amount, which is the cost of an asset less its residual value. Depreciation is charged to earnings, from the date assets are installed and ready for use, on a straight-line basis, over the estimated useful lives of each part of an item of property and equipment. The rates of depreciation are as follows:

Leasehold improvements	term of lease
Computer hardware	five years
Office and operating equipment	five years
Vehicles	five years

**Amortization of intangible assets**

Amortization is calculated based on the cost of an asset less its residual value. Amortization is charged to earnings, from the date assets qualify for recognition and are ready for use, on a straight-line basis, over the estimated useful lives of the asset. The rates of amortization are as follows:

Product development costs	five years
Customer relationships and contracts	two to seven years
Software	two years
Non-compete agreements	five to seven years

### **New Standards and Interpretations Not Yet Adopted**

A number of new standards and amendments to existing standards have been issued by the IASB that are effective after December 31, 2018, and, therefore, have not been applied to the consolidated financial statements. These new standards and amendments have been reviewed and those that are anticipated to have an impact on Critical Control's consolidated financial statements are as follows:

#### **IFRS 16 – Leases**

IFRS 16 replaces the previous guidance on lease recognition and establishes principles for recognition, measurement, presentation and disclosure of leases, with the objective of ensuring that lessees and lessors provide relevant information that faithfully represents those transactions. The new standard brings most leases onto the statements of financial position for lessees under a single model, eliminating the distinction between operating and finance leases. Lessor accounting, however, will remain largely unchanged.

The amendments are effective for annual periods beginning on or after January 1, 2019, with early application permitted if IFRS 15 – Revenue from Contracts with Customers, has also been applied. The Corporation is currently evaluating the impact of the adoption of this standard on its consolidated financial statements and will apply the IFRS on January 1, 2019.

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