MANAGEMENT'S DISCUSSION & ANALYSIS

FOR THE THREE MONTHS AND YEAR ENDED DECEMBER 31, 2016

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(Unless otherwise indicated, all dollar amounts are in United States dollars ("USD"))

This Management's Discussion and Analysis of financial condition and results of operations ("MD&A") is based on information available to May 1, 2017 and should be read in conjunction with Madalena Energy Inc.'s ("Madalena" or the "Company") audited consolidated financial statements ("consolidated financial statements") for the year ended December 31, 2016 and the accompanying notes. This MD&A contains forward-looking information about the Company's current expectations, estimates, projections and assumptions. See the Advisory for information on the risk factors that could cause actual results to differ materially and the assumptions underlying the Company's forward-looking information. Madalena's management prepared the MD&A, while the Audit Committee of the Madalena Board of Directors (the "Board") reviewed and recommended its approval by the Board. Additional information relevant to the Company's activities contained in its continuous disclosure documents, including the consolidated financial statements and the Annual Information Form ("AIF"), is available on the System for Electronic Document Analysis and Retrieval ("Sedar") under the Company's profile at www.sedar.com and on the Company's website at www.madalenaenergy.com.

Basis of Presentation

This MD&A and the consolidated financial statements and comparative information have been prepared in United States dollars ("USD"), except where another currency has been indicated, and have been prepared in accordance with International Financial Reporting Standards ("IFRS" or "GAAP") as issued by the International Accounting Standards Board ("IASB"). Sales volumes are presented on a before royalties basis.

Non-GAAP Measures

Certain financial measures in this document do not have a standardized meaning as prescribed by IFRS, such as funds flow from operations and netbacks and therefore are considered non-GAAP measures. These measures may not be comparable to similar measures presented by other issuers. These measures have been described and presented in order to provide shareholders and potential investors with additional measures for analyzing the Company's ability to generate funds to finance its operations and information regarding its liquidity. The additional information should not be considered in isolation or as a substitute for measures prepared in accordance with IFRS. The definition and/or reconciliation of each non-GAAP measure is presented in the Netbacks and Reconciliation of Cash Flow from Operating Activities and Funds Flow from Continuing Operations sections of this MD&A.

Funds flow from continuing operations per share is calculated using the same basic and diluted weighted average number of shares for the period, consistent with the calculations of loss per share.

The term barrels of oil equivalent ("boe") may be misleading, particularly if used in isolation. Per boe amounts have been calculated using a conversion rate of six thousand cubic feet of natural gas to one barrel of oil. This equivalence is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

Introduction

Madalena is an independent, Canadian headquartered, Argentine focused upstream oil and gas company with operations in four provinces of Argentina where it is focused on the delineation of unconventional resources in the Vaca Muerta shale, Lower Agrio shale and Loma Montosa oil plays. The Company is implementing horizontal drilling and completions technology to develop both its conventional and resource plays.

Madalena trades on the TSX Venture Exchange under the symbol MVN and on the OTCQX under the symbol MDLNF. Madalena's Argentine upstream oil and gas operations as well as the corporate segment are discussed in the "Continuing Argentine Operations and Corporate Segments" section of this MD&A. Unless specifically noted, all current and comparative reporting periods' operating and financial disclosures and discussion are in reference to the continuing Argentine operations and corporate segments. As discussed elsewhere in the MD&A, the Company disposed of its Canadian operations during 2016, which has been reported as discontinued operations.

2017 Developments

- Madalena closed the previously announced Coirón Amargo-Sur Este ("CASE") transaction in January 2017, providing the Company with cash payments of $10 million, $3 million of which was received in December 2016 and the balance on closing;
- The 2017 work program at CASE has commenced. A Vaca Muerta horizontal trajectory of approximately 1,000 meters has been drilled and a liner has been run at CAS.x-15(r)(h);
- Madalena repaid its $1.6 million Argentine debt facility in full in February 2017;
- Argentine oil prices are forecast to converge to international Brent pricing over the coming months;
- Madalena sold 1.6 million free-trading common shares of Point Loma Resources Ltd. ("Point Loma") in January 2017 for net proceeds of $0.5 million; and
- The Company sold 4.7 million escrowed common shares in Point Loma in April 2017 for gross cash proceeds of $0.8 million. These common shares will be released from escrow in 20% increments in six month intervals commencing July 2017.

Outlook

With the assistance of Evercore Group Inc., the Company is actively pursuing strategic alternatives with a view to enhance liquidity and meet ongoing capital commitments. There can be no guarantee that this review will result in a transaction(s), or if a transaction(s) is undertaken, as to its terms or timing. At the same time, the Board of Directors is seeking to identify the appropriate CEO candidate to lead the Company.

Highlights in 2016

The Company entered 2016 with liquidity restraints due to limited working capital. Accordingly, the focus for 2016 was directed towards accessing additional funding and monetizing assets. Changes in management and the Board were made in March 2016 with Mr. Steven Sharpe, Chairman of the Board appointed as Interim President and Chief Executive Officer and Mr. Eric Mark appointed to the Board as an independent director. Both have significant experience in corporate restructurings and the capital and debt markets.

Measures were taken to reduce expenses and conserve cash. Office and field personnel have been reduced in both countries, office space has been downsized in Canada, contracts have been re-negotiated to reduce rates and other cost-saving measures were implemented.

2016 Activity

- ***Review of Strategic Alternatives***
  In April 2016, Madalena retained Evercore Group LLC ("Evercore") as its exclusive financial advisor in connection with identifying and securing a joint venture partner for the 90% working interest ("WI") Curamhuele block in Argentina. In late June 2016, Evercore had its mandate broadened to encompass a complete review of strategic alternatives, including asset sales, a merger, sale or recapitalization transaction, joint ventures or other opportunities.

- ***Coirón Amargo ("CA")***
  On July 11, 2016, the Company entered into definitive agreements whereby CA-Sur (35% WI) was divided into two evaluation lots – CASE and *Coirón Amargo-Sur Oeste* ("CASO"). Madalena sold its interest in CASO in return for an additional 55% WI at CASE, thereby increasing its WI in CASE to 90% and becoming operator.

  On December 7, 2016, the Company entered into agreements with Pan American Energy LLC, Sucursal Argentina ("PAE") relating to its 90% WI at CASE. Pursuant to these agreements, Madalena received cash payments of $10 million, $3 million of which was received in December 2016 and the balance on closing and sold a 55% WI and operatorship to PAE, thereby retaining a 35% non-operated WI in CASE. A 2017 work program ("Work Program"), comprised of two well re-entries, will be undertaken by PAE as the new operator of CASE. Madalena will receive $5.6 million in carried capital costs through this Work Program. Concurrently, PAE agreed, subject to certain conditions, to provide Madalena with a loan of up to $40 million, on a limited recourse basis, to be drawn-down as required to fund CASE capital expenditures. This limited recourse loan will bear interest at 7% per annum and is repayable in five years from the net revenue generated from the capital expenditure program. This transaction closed on January 10, 2017.

- ***Curamhuele***
  The Yapai.x-1001 well was successfully completed in Q1-2016 with four hydraulic fractures, the upper three intervals being within the Lower Agrio shale and the lowest interval containing both the Lower Agrio shale and Mulichinco tight sand formations. Initial test results were sufficiently encouraging for the Company to request renewal of the Curamhuele evaluation concession for four years with a total of $8.2 million of work commitments to be incurred by March 9, 2019.

- ***Sale of Canadian Assets***
  On June 28, 2016, independent of the Evercore process and pursuant to a series of transactions, Madalena sold its Canadian petroleum and natural gas assets in exchange for 6.2 million escrowed common shares of Point Loma, with a fair value of $1.9 million and a five-year $2.4 million subordinated secured convertible debenture, bearing interest at 3% per annum, payable at the end of the debenture term. In December 2016, the Company sold the Point Loma convertible debenture for net cash proceeds of $0.5 million.

- ***Madalena Convertible Debenture Issuance***
  On July 13, 2016, the Company closed a private placement of CAD 1.8 million 12% secured convertible debentures, with a June 30, 2019 maturity date. The debentures are convertible into common shares of the Company at a conversion price of CAD $0.25 per common share any time after January 13, 2017. Interest on the debentures is payable semi-annually, in arrears, on December 31 and June 30. Under certain conditions, the Company may repay the outstanding indebtedness. Such repayments involve call premiums that reduce as the date to maturity approaches.

Going Concern and Capital Commitments

For the year ended December 31, 2016, the Company reported a net loss from continuing operations of $32.1 million, had a working capital deficit of approximately $4.4 million and significant future capital commitments to develop its properties. It is currently anticipated that forecasted cash flow from operating activities will not be sufficient to resolve the current working capital deficit and fund the anticipated capital commitments through 2017. As a result, the Company continues to include a note of going concern uncertainty in the December 31, 2016 consolidated financial statements.

Foreign Exchange Fluctuations

The table below provides various exchange rates that illustrate the foreign exchange fluctuations between the USD, the Argentine Peso ("ARS"), and the Canadian dollar ("CAD"). The table illustrates the impact of both the ARS and CAD changes relative to the USD in the three and twelve months ended December 31, 2016 compared to the three and twelve months ended December 31, 2015. During 2016, ARS continued to depreciate against the USD. CAD appreciated in the first two quarters, and then depreciated in the last half of the year, resulting in a net appreciation of 3% during the year. Foreign exchange changes in ARS impact the unrealized foreign exchange gains and losses recorded in the consolidated statements of loss. Foreign exchange changes in CAD are reflected through the foreign currency translation adjustment in accumulated other comprehensive loss, as shown in shareholders' equity and in the consolidated statements of comprehensive loss.

	Three months ended December 31		%	Year ended December 31		%
USD	2016	2015	Change(1)	2016	2015	Change(1)
Average CAD to USD	**0.75**	0.75	0.1%	**0.75**	0.78	-3.5%
Average ARS to USD	**0.06**	0.10	-37.0%	**0.07**	0.11	-37.9%
Period end CAD to USD				**0.74**	0.72	3.1%
Period end ARS to USD				**0.06**	0.08	-18.5%

(1) Differences calculated from the numbers within the table are due to rounding.

Continuing Argentine Operations and Corporate Segments

Sales Volumes

	Three months ended December 31		Year ended December 31	
	2016	2015	2016	2015
Crude oil and NGLs (bbls/d)	**1,947**	2,549	**2,072**	2,749
Natural gas (mcf/d)	**2,303**	3,363	**2,569**	3,887
Total daily sales (boe/d)	**2,330**	3,110	**2,500**	3,397
% oil	**84%**	82%	**83%**	81%

Madalena's primary producing concessions are at Surubi, Puesto Morales and Coirón Amargo-Norte ("CA-Norte"). Other producing concessions include El Chivil, El Vinalar and Palmar Largo. All concessions produce oil and Puesto Morales and CA-Norte also produce natural gas. Approximately 86% of Madalena's current production comes from Surubi, Puesto Morales, and CA-Norte.

Crude oil and NGL sales volumes for the three months ended December 31, 2016 ("the Quarter" or "Q4-2016") decreased to 1,947 bbl/d from 2,549 bbl/d for the three months ended December 31, 2015 ("Q4-2015"). The change compared to Q4-2015, can be attributed to production declines at both Surubi and Puesto Morales.

Natural gas sales volumes for the Quarter of 2,303 mcf/d decreased compared to 3,363 mcf/d for Q4-2015 due to lower production at Puesto Morales and CA-Norte.

For the year ended December 31, 2016 (“YTD”), crude oil and NGL sales volumes decreased to 2,072 bbl/d from 2,749 bbl/d for the year ended December 31, 2015 (“YTD-2015”), primarily due to production declines at Surubi and operations downtime at both CA-Norte and Puesto Morales. Natural gas sales volumes YTD decreased to 2,569 mcf/d from 3,887 mcf/d due to production declines at Puesto Morales.

While the decrease at Puesto Morales was from natural declines, the Surubi decline was a function of the delay in remedial work. During Q4-2016, the remedial work program at Surubi commenced and this ongoing program allowed for incremental production to be brought back on line during the Quarter.

Madalena expects Q1-2017 sales volumes to average approximately 2,200 boe/d (85% oil and NGLs).

Average Realized Prices

	Three months ended December 31		**Year ended December 31**	
USD	**2016**	**2015**	**2016**	**2015**
Crude oil and NGLs - $/bbl	**53.59**	70.65	**60.09**	74.60
Natural gas - $/mcf	**4.47**	4.31	**4.87**	4.84
Total - $/boe	**49.18**	62.58	**54.81**	65.91

The Government of Argentina sets the benchmark (Medanito) price for oil. The Medanito crude quality oil posting averaged $67.50/bbl for the Quarter (Q4-2015 - $75.00/bbl). For the first ten months of 2016, the Company’s average discount to this posting was approximately $5.00/bbl for quality and transportation differentials. In mid-November 2016, the refiners to which Madalena sells its oil, advised Madalena they would discount prices by approximately 30% for the months of November and December 2016. As a result, the realized average oil price for the Quarter was $53.59/bbl or 79% (2015 – 94%) of Medanito pricing.

The average price the Company received for oil for the Quarter of $53.59/bbl was lower than the $70.65/bbl realized in Q4-2015 mainly as a result of the refinery discounts for November and December, lower Medanito pricing, as well as the elimination of the $3/bbl oil incentive program on January 1, 2016.

The average price received for oil YTD was $60.09/bbl, lower than the $74.60/bbl realized YTD-2015 for the same reasons as noted for the Quarter and amounted to 89% (2015 – 99%) of Medanito pricing on a year to date basis.

Gas prices in Argentina are subject to seasonal demand and are negotiated between the producer and the buyer. Summer pricing for October 2016 – April 2017 was set at $4.30/mmbtu (October 2015 - April 2016 - $4.20/mmbtu). Winter pricing for May 2017 – September 2017 has been set at $5.40/mmbtu (May 2016 – September 2016 - $5.35/mmbtu).

The average price received for oil and gas equivalent for the Quarter was $49.18/boe, lower than the $62.58/boe realized in Q4-2015 mainly as a result of lower oil prices for the reasons described above.

The average price received for oil and gas equivalent for YTD was $54.81/boe, lower than the $65.91/boe realized in YTD-2015 mainly as a result of lower oil prices for the reasons described above.

In early January, the majority of producers and refiners in Argentina, at the request of the government, signed a 2017 Medanito crude oil pricing agreement (the “Agreement”) allowing for the expected convergence with international Brent pricing over the coming months. The 2017 Medanito pricing is expected to decline from $59.40/bbl in January 2017 to $55.00/bbl from July 2017 to December 2017. Should international Brent pricing be reached and remain higher than $1.00 above the monthly Medanito floor price for 10 consecutive days, the Agreement will be suspended and international Brent pricing adopted. Should international Brent pricing fall below $45.00 for 10 consecutive days and/or the ARS exchange rate exceed or fall below the range of 15.5 to 20.0 ARS/USD for 10 consecutive days, the Agreement will be reviewed. The official Medanito crude quality oil posting for January – April 2017 was $58.67/bbl. The Company anticipates an average discount to this posting of approximately $3.50/bbl for quality and transportation differentials.

The Company anticipates an Argentine price per boe (oil and gas equivalent) of approximately $51.00 during Q1 – 2017.

Oil and Natural Gas Revenue

	Three months ended December 31		Year ended December 31	
USD 000s, except boe	**2016**	**2015**	**2016**	**2015**
Crude oil	**9,596**	16,568	**45,572**	74,864
Natural gas	**947**	1,334	**4,580**	6,861
	10,543	17,902	**50,152**	81,725
$/boe	**49.18**	62.58	**54.81**	65.91

Oil and gas revenue was $10.5 million for the Quarter compared to $17.9 million for Q4-2015 due to lower sales volumes of 25% compounded with an approximate 21% decrease in prices per boe. The 25% decrease in sales volumes is primarily a result of production declines at Surubi and Puesto Morales.

YTD oil and gas revenues decreased to $50.2 million compared to $81.7 million YTD-2015, due to the same reasons as described for the Quarter.

Royalties

	Three months ended December 31		Year ended December 31	
USD 000s, except boe	**2016**	**2015**	**2016**	**2015**
Royalties	**1,784**	2,767	**8,039**	13,217
As % of revenue	**17%**	15%	**16%**	16%
$/boe	**8.32**	9.67	**8.78**	10.66

Royalty expenses were $1.8 million for the Quarter compared to $2.8 million in Q4-2015 due to lower production volumes. The royalty rate increased in Q4-2016 compared to Q4-2015 is a result of the rate increase implemented in conjunction with the Puesto Morales block extension in late 2015. Royalty expenses YTD of $8.0 million decreased compared to $13.2 million YTD-2015 for the same reasons as outlined for the Quarter, as well as a one-time $1.9 million settlement in Q2-2015 relating to a royalty dispute on certain assets.

The Company expects royalty rates in Q1-2017 to be approximately 16%.

Other Income

Other income of $0.4 million YTD-2016 related primarily to miscellaneous equipment sales. YTD-2015, other income of $13.9 million was the result of proceeds from Petroleum Plus settlement bonds (Available for Sale Securities). These bonds were issued by the government of Argentina to reward producers who materially increased oil reserves and production though drilling and development. All of these bonds issued to Madalena were liquidated for cash by June 30, 2016.

Operating Costs

	Three months ended December 31		**Year ended December 31**	
USD 000s, except boe	**2016**	**2015**	**2016**	**2015**
Compensation costs	**1,079**	1,172	**4,067**	5,000
Transportation and processing	**2,011**	3,196	**7,474**	10,865
Maintenance, workovers and other	**3,267**	4,167	**12,026**	17,429
	6,357	8,535	**23,567**	33,294
$/boe	**29.65**	29.83	**25.75**	26.85

Operating costs during the Quarter decreased to $6.4 million from $8.5 million in Q4–2015 mainly as a result of lower sales volumes. Operating costs per boe increased throughout the year as the effects of the ARS devaluation in December 2015 were offset by inflationary increases in the last six months of 2016. On a per boe basis, operating costs for the Quarter decreased to $29.65/boe from $29.83/boe in Q4-2015.

Operating costs YTD were $23.6 million compared to $33.3 million YTD-2015 due to the same reasons discussed for the Quarter. On a per boe basis, YTD costs were $25.75/boe, reduced from $26.85/boe YTD-2015.

Management expects operating costs to average approximately $27.00 per boe in Q1-2017.

Netbacks (1)

	Three months ended December 31		**Year ended December 31**	
USD/boe	**2016**	**2015**	**2016**	**2015**
Oil and gas revenue	**49.18**	62.58	**54.81**	65.91
Royalties	**(8.32)**	(9.67)	**(8.78)**	(10.66)
Operating expenses	**(29.65)**	(29.83)	**(25.75)**	(26.85)
Netbacks	**11.21**	23.08	**20.28**	28.40

(1) The term "netback" is a non-GAAP measure and may not be comparable with the calculation of other entities. Netback is calculated as the average unit sales price, less royalties and operating expenses and represents the operating cash margin for every barrel of oil equivalent sold. The Company uses this measure to analyze operating performance and considers netback a key measure as it demonstrates its profitability relative to current commodity prices.

General and Administration ("G&A") Expenses

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Argentina				
Gross G&A				
Compensation costs	**622**	1,050	**3,297**	4,891
Other	**706**	672	**2,614**	2,648
	1,328	1,722	**5,911**	7,539
Capitalized	**(219)**	(255)	**(1,005)**	(1,234)
	1,109	1,467	**4,906**	6,305
Corporate				
Gross G&A				
Compensation costs	**194**	104	**1,190**	1,498
Severance costs	**-**	-	**734**	-
Onerous contracts	**927**	-	**927**	-
Other	**585**	963	**2,443**	3,174
	1,706	1,067	**5,294**	4,672
Capitalized	**-**	(190)	**(342)**	(713)
	1,706	877	**4,952**	3,959
Consolidated				
Net G&A total	**2,815**	2,344	**9,858**	10,264

Argentina

Gross G&A expenses for the Quarter decreased by $0.4 million to $1.3 million due primarily to lower salaries as a result of staff attrition and the ARS devaluation during 2016.. The Company currently employs 34 office employees in Argentina, a reduction of 8 since Q4-2015. The Company continues to optimize in areas where efficiencies can be realized.

During the Quarter, $0.2 million (Q4-2015 - $0.3 million) of directly attributable G&A costs in Argentina were capitalized to property, plant and equipment. YTD, gross G&A costs decreased by $1.6 million to $5.9 million due to the same reasons noted for the Quarter. YTD, amounts capitalized were $1.0 million compared to $1.2 million YTD-2015.

G&A expenses for Q1-2017 for Argentina, net of amounts capitalized, are estimated to be approximately $1.3 million.

Corporate

Gross G&A expenses for the Quarter were $1.7 million compared to $1.1 million in Q4-2015. In the Quarter, increased G&A costs resulted from a non-cash onerous lease contract expense of $0.9 million which was offset by a reduction in compensation costs due to fewer Canadian employees and the Company's optimization in areas where efficiencies have been realized.

Gross G&A costs were $5.3 million YTD and $4.7 million YTD-2015. YTD increased G&A costs resulted from severance costs of $0.7 million and the non-cash onerous contract costs of $0.9 million relating to the Company's former office space in Canada, which were offset by a reduction in compensation costs due to fewer Canadian employees and the Company's optimization in areas where efficiencies have been realized.

During the Quarter, nil (Q4-2015 - $0.2 million) of directly attributable G&A costs in Canada were capitalized to property, plant and equipment in Argentina. YTD, $0.3 million was capitalized compared to $0.7 million YTD-2015.

G&A expenses for Q1-2017 in Canada are estimated to be approximately $0.7 million.

Finance (Income) and Expenses

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Argentina				
Bank charges and fees	**268**	440	**1,229**	2,084
Foreign exchange (gain) loss - unrealized	**(499)**	(185)	**(795)**	14
Accretion of decommissioning liabilities	**43**	66	**203**	265
Interest (income) and other expenses	**(364)**	(514)	**925**	276
Available for sale securities	**-**	-	**68**	-
	(552)	(193)	**1,630**	2,639
Corporate				
Foreign exchange loss - realized	**-**	-	**16**	-
Foreign exchange (gain) loss - unrealized	**(400)**	(628)	**634**	(3,936)
Accretion of debt component of convertible debentures issued	**15**	-	**29**	-
Interest and other expenses	**19**	3	**23**	46
Equity loss pick up	**614**	-	**614**	-
Fair value change on convertible debentures held	**(142)**	-	**190**	-
Fair value change on assets held for sale	**(14)**	-	**(14)**	-
	92	(625)	**1,492**	(3,890)
Consolidated	**(460)**	(818)	**3,122**	(1,251)

Argentina

Bank Charges and Fees

Bank charges and fees relate to various forms of taxation in Argentina outside of royalties and income taxes. Bank charges and fees for the Quarter were $0.3 million and decreased from $0.4 million in Q4-2015 as a result of lower transaction activity compared to Q4-2015.

YTD, bank charges and fees were $1.2 million compared to $2.1 million YTD-2015. The decrease was also due to reduced transaction activity.

Bank charges for Q1-2017 are estimated at approximately $0.3 million.

Foreign exchange (gain) loss – unrealized

During the Quarter the Company recorded an unrealized foreign exchange gain of $0.5 million compared to an unrealized gain of $0.2 million in Q4-2015. YTD, the Company recorded a $0.8 million gain compared to a $14 thousand loss YTD-2015. Quarterly fluctuations in unrealized gains and losses are a result of changing foreign exchange rates and underlying movements in the net assets of the Argentine subsidiaries.

Accretion of decommissioning liabilities
Accretion expense was $43 thousand for the Quarter (Q4-2015– $66 thousand), and $203 thousand YTD compared to $265 thousand YTD-2015.

Interest (income) and other expenses
Interest (income) and other expenses relate primarily to interest expense on the Argentine Industrial and Commercial Bank of China S.A. ("ICBC") loan offset during the Quarter by interest expense adjustments of $0.4 million relating to CA-Norte, as well as $0.1 million relating to interest adjustments on turnover taxes from previous years.

Had the Buenos Aires Deposits of Large Amount Rate ("BADLAR") interest rate associated with the Argentine ICBC loan changed by 5%, associated interest expense would have changed by $0.2 million YTD.

Available for sale securities
The year to date recycle amount of $68 thousand relates to amounts previously recorded in other comprehensive income due to fair value reporting relating to the Petroleo Plus settlement bonds.

Corporate

Foreign exchange (gain) loss - unrealized
During the Quarter and YTD, the Company recorded an unrealized foreign exchange gain of $0.4 million and loss of $0.6 million, respectively (Q4-2015 and YTD- 2015 - gain of $0.6 million and a gain of $3.9 million, respectively). The YTD loss of $0.6 million and the YTD- 2015 gain of $3.9 million relate to foreign exchange movements between the USD and CAD associated mainly with the intercompany loans held in Canada and due from the Argentine subsidiaries that are not considered part of the net investment in Argentina, and are therefore recorded through the consolidated statements of loss and not adjusted against other comprehensive loss. The majority of the YTD loss was realized early in the first half of the year when the USD:CAD foreign exchange rate depreciated by 6.7%. QTD, the USD:CAD foreign exchange rate appreciated by 2.4% creating the gain in the current quarter. The USD:CAD foreign exchange rate depreciated by 3.0% from December 31, 2015 to December 31, 2016 and depreciated by 19.3% from December 31, 2014 to December 31, 2015.

Accretion of debt component of convertible debentures issued
Accretion expense was $15 thousand for the Quarter and $29 thousand YTD (Q4-2015 and YTD-2015 – nil). This accretes the liability component up to its principal value over the period of time to maturity.

Equity loss pick up
During the Quarter and YTD, the equity loss pick up of $0.6 million (2015 – nil) relates to the equity loss pick up on the Point Loma common shares held up to the time that it was determined that the common shares would be reclassified to assets held for sale.

Fair value change on convertible debentures held
During the Quarter a gain of $0.1 and YTD a loss of $0.2 million (Q4-2015 and YTD-2015 – nil) was recorded. This calculation is dependent on the changes in the share price of the underlying Point Loma common shares.

Fair value change on assets held for sale
On December 31, 2016, the Point Loma common shares were reclassified to assets held for sale and a fair value change of $14 thousand was recorded at December 31, 2016. Subsequent to December 31, 2016, the Company sold 1.6 million common shares of Point Loma for proceeds of approximately $0.5 million. In addition, and pursuant to a purchase and sale agreement dated April 21, 2017 with an arms-length third party, the Company sold 4.7 million escrowed common shares in Point Loma for gross cash proceeds of $0.8 million, which resulted in a loss on sale of $0.1 million. These common shares were acquired by Madalena pursuant to the sale of the Company's Canadian oil and gas assets in June 2016 and will be released from escrow in 20% increments in six month intervals commencing July 2017. Closing will take place in two equal tranches. The first tranche was completed on April 24, 2017 and the second tranche is expected to close on or about May 25, 2017.

Share-based and Long-term Incentive Compensation

Stock options

The Company has issued stock options as an incentive plan that allow officers, directors, consultants and certain employees to purchase shares in the Company. During the Quarter, no (2015 - nil) options were granted to directors, officers or employees and YTD, 8.7 million options were granted (YTD-2015 – 16.0 million). Share based compensation expense was $0.3 million in the Quarter compared to $0.4 million for Q4-2015, and nil was capitalized during the Quarter (Q4-2015 - $0.1 million).

On an YTD basis, share-based compensation expense was $1.5 million (YTD-2015 - $1.1 million), of which $40 thousand was capitalized (YTD-2015 - $0.2 million).

Long-term incentive units

During 2016, the Company issued Long-term incentive units ("Units") under a Long-term incentive plan ("LTIP") that allow employees to benefit as a result of appreciation of the trading price of Madalena's common shares from the issue date, through the ability to receive payment of cash upon vesting and the election to exercise. On August 26, 2016, 6.5 million Units were issued to certain employees at an exercise price of CAD $0.145 per common share. Incentive compensation expense was $64 thousand in the Quarter and YTD (Q4-2015 and YTD-2015 – nil).

Depletion and Depreciation ("D&D")

	Three months ended December 31		Year ended December 31	
USD 000s, except boe	**2016**	**2015**	**2016**	**2015**
Argentina	**3,747**	6,878	**19,574**	25,578
$/boe	**17.48**	24.04	**21.39**	20.63
Corporate	**59**	56	**231**	214
Consolidated	**3,806**	6,934	**19,805**	25,792

Argentina

D&D decreased to $3.7 million in the Quarter compared to $6.9 million in Q4-2015 due to a reduced depletable base caused by a combination of impairment charges, reduced future development costs, minimal capital spending and lower production. On a per boe basis, D&D for the Quarter decreased to $17.48/boe from $24.04/boe in Q4-2015 due to the same reasons as noted above.

YTD, D&D decreased to $19.6 million from $25.6 million in 2015 and per boe costs went from $20.63/boe to $21.39/boe for the same reasons noted for the Quarter.

Corporate

D&D expenses for corporate relate only to depreciation on office equipment.

Property Plant and Equipment ("PPE") Impairment

At December 31, 2016, Madalena determined that indicators of impairment existed in each of its Argentine CGUs due to pricing reductions associated with Argentine oil benchmarks moving toward world prices. CGUs at December 31, 2016 and 2015 were defined at the legal entity level and aggregated up to the concession level for the Argentine branches of Madalena Petroleum Ltd. (Canada) ("MPL") and Madalena Petroleum Americas Limited (Barbados) ("MPAL"). As a result, impairment tests were performed over each CGU and two (Madalena Austral S.A. (Argentina) ("MASA") and the Argentine branches of MPL/MPAL) were deemed to be impaired as their estimated recoverable amounts were lower than their carrying amounts. The recoverable amounts, calculated as $12.8 million and $5.0 million, resulted in pre-tax impairment charges of $3 million and $3.2 million for the two CGUs, respectively, for the Quarter (Q4-2015 - $8.4 million) and $17.4 million YTD (YTD-2015 - $8.4 million).

The impaired CGU's recoverable values were estimated using value in use calculations based on future net cash flows expected to be derived from the CGU's proven plus probable reserves from the externally prepared December 31, 2016 reserve report using a pre-tax discount rate ranging from 22% to 28% depending on the category of reserves and the following forecast benchmark commodity price estimates:

Year	Brent Oil Price (1) (USD/bbl)	Argentina Domestic Gas Price (1) (USD/mmbtu)
2017	57.00	4.95
2018	61.00	4.95
2019	66.00	5.05
2020	70.00	5.15
2021	74.00	5.25
2022	77.00	5.36
2023	80.00	5.47
2024	83.00	5.57
2025	86.00	5.69
2026	89.64	5.80
2027+	+2.0%/yr	+2%/yr

(1) The forecast benchmark commodity prices listed above are adjusted for quality differentials, heat content, distance to market and other factors in performing our impairment tests.

Had the discount rate used been 1% higher for the range of discount rates used, additional impairment charges of $1.2 million would have resulted for the year ended December 31, 2016.

An additional $1 decrease in the price deck would have resulted in further impairment charges of $1.6 million for the year ended December 31, 2016.

At December 31, 2015, Madalena determined that indicators of impairment existed in each of its Argentine CGUs. These indicators of impairment were a result of a decline in oil prices resulting in lower netbacks in certain CGUs in addition to the increase in discount rate to be applied in the CGU impairment calculations due to the increased country risk identified as at December 31, 2015. As a result, an impairment test was performed for each CGU. As at December 31, 2015, one of the three Argentine CGUs (Madalena Energy Argentina S.R.L. ("MEA")) was determined to be impaired as the estimated recoverable amount was lower than the carrying amount. The recoverable amount, calculated as $32.0 million, resulted in a pre-tax impairment charge of $8.4 million for the Quarter and the YTD.

The impaired CGU's recoverable value was estimated using a value in use calculation based on future net cash flows expected to be derived from the CGU's proved plus probable reserves from the externally prepared December, 31, 2015 reserve report using a pre-tax discount rate ranging from 22% to 28% depending on the category of reserves and using forward commodity price estimates ranging from $65.23/bbl - $88.48/bbl for oil and $4.95 - $6.03/mmbtu for natural gas.

Exploration & Evaluation ("E&E") Impairment

At December 31, 2016, Madalena determined that no impairment triggers existed relating to its Argentine E&E assets. The Cortadera concession was officially relinquished to the Province of Neuquén in October 2016, prior to the release of the Company's Q3-16 results. Accordingly, the net book value of the Cortadera E&E assets of $2.7 million was written off and recorded as part of Impairment in the consolidated statements of loss during Q3-16, and is included in Impairment for the year ended December 31, 2016.

At December 31, 2015, there were no triggers for impairment on the Argentine E&E assets.

Gain on Disposal of Assets

The Company recorded a gain on disposal of assets in the consolidated statements of loss for the Quarter and YTD of $2.2 million, which consisted primarily of a pre-tax $3.7 million gain (2015 - nil) on the sale of its 35% WI in CASO, offset by a pre-tax loss of $1.6 million (2015 - $nil) on the sale of the Point Loma convertible debenture.

Income Tax Expense (Recovery)

	Three months ended December 31		Year ended December 31	
USD 000s	**2016**	**2015**	**2016**	**2015**
Current	**842**	(438)	**2,203**	5,359
Deferred	**480**	2,365	**(1,512)**	5,593
Total	**1,322**	1,927	**691**	10,952

Madalena has four legal entities in Argentina, two of which had taxable income in the Quarter and YTD. The income tax rate in Argentina is 35%. The two entities that do not have taxable income are subject to minimum taxes, which are generally taxed at 1% of net assets. Current income tax expense (including minimum tax) for the Quarter was $0.8 million compared to a recovery of $0.4 million for Q4-2015. On an YTD basis, current income tax expense was $2.2 million (YTD-2015 – $5.4 million). The increase in current tax expense incurred in the Quarter is primarily a result of the tax impact on the July 11, 2016 Coirón Amargo transaction described under "2016 Activity". The YTD decrease in current tax expense is primarily a result of lower taxable income earned compared to YTD-2015.

The Company recorded a deferred income tax expense of $0.5 million during the Quarter (Q4-2015 – deferred income tax expense - $2.4 million). YTD, the Company booked a deferred income tax recovery of $1.5 million (YTD-2015 – deferred income tax expense - $5.6 million).

The YTD recovery is primarily a result of the impairment charges recorded during the year and the corresponding impact to the temporary differences between tax and accounting values.

Reconciliation of Cash Flow from Operating Activities and Funds Flow from Continuing Operations

As detailed previously in this MD&A, funds flow from operations is a term that does not have any standardized meaning under GAAP. Madalena's method of calculating funds flow from continuing operations may differ from that of other companies, and accordingly, may not be comparable to measures used by other companies.

Funds flow from (used in) continuing operations is calculated as cash flow from continuing operating activities before changes in non-cash working capital and change in other long-term assets.

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Cash flow from operating activities	**3,255**	12,370	**12,854**	21,837
Cash flow from operating activities – discontinued operations	**-**	796	**41**	923
Change in non-cash working capital	**(1,112)**	(8,492)	**(8,178)**	5,468
Change in non-cash working capital – discontinued operations	**-**	(478)	**59**	657
Change in other long-term assets	**(2,468)**	(189)	**718**	492
Funds flow (used in) from continuing operations	**(325)**	4,007	**5,494**	29,377

Funds flow from (used in) Continuing Operations, Net Income (Loss) and Comprehensive Income (Loss) from Continuing Operations

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Funds flow from (used in) continuing operations	**(325)**	4,007	**5,494**	29,377
Per share – basic & diluted	**(0.00)**	0.01	**0.01**	0.05
Net loss - continuing operations	**(9,402)**	(12,510)	**(32,100)**	(6,164)
Per share – basic & diluted	**(0.02)**	(0.02)	**(0.06)**	(0.01)
Comprehensive loss – continuing operations	**(9,830)**	(13,139)	**(31,348)**	(11,177)

Madalena's funds flow from (used in) continuing operations for the Quarter decreased by $4.3 million from Q4-2015 primarily due to lower sales volumes and realized commodity prices.

On an YTD basis, funds flow from continuing operations decreased to $5.5 million from $29.4 million YTD-2015 due to the same reasons noted above and the one-time $13.9 million benefit from the Petroleo Plus settlement bonds that were recorded in Q3-2015.

The net loss from continuing operations for the Quarter was $9.4 million (Q4-2015 - loss of $12.5 million), primarily due to lower oil and natural gas revenues as a result of lower production and lower realized commodity prices offset by a gain on disposal of assets of $2.2 million (see Gain on Disposal of Assets).

The net loss from continuing operations YTD was $32.1 million (YTD-2015 – loss of $6.2 million), with the decrease due to the same reasons outlined for the Quarter.

A summary of the foreign exchange impact as it relates to the foreign currency translation adjustment is as follows:

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Foreign currency translation gain (loss)	**(428)**	(836)	**820**	(5,081)

During the Quarter, the Company recorded a foreign currency translation loss of $0.4 million (QTD-2015 – loss of $0.8 million). During this period the USD appreciated by 2.4% against the CAD (QTD-2015 – appreciated by 3.7%), which resulted in $30 thousand loss on the translation of the Canadian parent into USD from continuing operations (QTD-2015 - $0.2 million gain), in addition to the impact of the translation of the Canadian intercompany loans to Argentina that are not considered part of the net investment in the subsidiaries, which amounts to a $0.4 million loss for the Quarter (QTD-2015 - $0.6 million loss). On an YTD basis, the Company recorded a foreign currency translation gain of $0.8 million (YTD-2015 – loss of $5.1 million). This is the net result of the impact of the USD YTD foreign exchange rate depreciating against the CAD by 3.0% (YTD-2015 – 19.3% appreciation) which created a gain of $0.2 million (YTD-2015 - $1.2 million loss) on the translation of the Canadian parent into USD, in addition to a $0.6 million gain (YTD-2015 – $3.9 million loss) on the intercompany loans from Canada to Argentina, not considered part of the net investment in subsidiaries.

Capital Expenditures

USD 000s	Three months ended December 31 2016	Three months ended December 31 2015	Year ended December 31 2016	Year ended December 31 2015
Argentina				
Land and associated renewal fees	**-**	589	**20**	9,770
Geological and geophysical	**249**	352	**307**	1,651
Drilling and completions	**-**	10,275	**4,057**	24,010
Well equipment and facilities	**-**	458	**1,124**	2,989
Other	**82**	1,005	**831**	2,479
Argentina total	**331**	12,679	**6,339**	40,899
Corporate				
Other	**-**	-	**-**	37
Corporate total	**-**	-	**-**	37
Consolidated	**331**	12,679	**6,339**	40,936

<u>Argentina</u>

Minimal capital spending occurred during the Quarter, however YTD, the Company completed both the vertical exploration well at Curamhuele (Yapai.x-1001) and completed and placed on-stream a horizontal well at CA-Norte (CAN-6), in the first quarter of 2016.

The Yapai.x-1001 well was successfully completed with four hydraulic fractures, the upper three intervals being within the Lower Agrio shale and the lowest interval containing both the Lower Agrio shale and Mulichinco tight sand formations. Initial test results were sufficiently encouraging for the Company to request renewal of the Curamhuele evaluation concession for four years with a total of $8.2 million of work commitments to be incurred by March 9, 2019.

YTD-2015, the Company drilled 5 wells (3.05 net) – three horizontal wells at CA-Norte (CAN-16(h), CAN-19(h) and CAN-20(h)), a horizontal multi-frac well at Puesto Morales (PMS-1135), and a re-entry at Curamhuele (Yapai.x-1001). The CAN-16(h) was placed on production March 15, 2015 while the PMS-1135 started producing oil on April 2, 2015 with solution gas conservation commencing on April 9, 2015. The CAN-19(h) went on-stream in early October 2015. The CAN-20(h) well spud in September 2015 and started producing on November 9, 2015. At CA-Norte, the CAN-6(h) well was spud in December 2015 and completed in Q1- 2016. In addition, the Puesto Morales concession was renewed, seismic activities were conducted at CA-Norte, Curamhuele and Puesto Morales and facility and production optimizations were completed at Surubi.

As at December 31, 2016, the net book value of the PP&E assets was $53.5 million (2015 - $89.4 million) and the net book value of the E&E assets were $49.3 million (2015 - $43.8 million). The December 31, 2016 reserve report was prepared in accordance with the definitions, standards and procedures contained in NI 51-101 and the COGE Handbook by GLJ Petroleum Consultants ("GLJ Report"). In that report, the Company's proved plus probable reserves, discounted before tax at 10%, was $121.9 million. This includes $29.4 million (2015 - $14.6 million) associated with the Company's unconventional assets in the Vaca Muerta shale recorded in E&E assets.

Transactions with Related Parties

A director of the Company is a partner of a law firm that provides legal services to the Company. During the Quarter and the Year, the Company incurred fees of $0.2 million (Q4-2015 - $40 thousand) and $0.8 million (2015 - $0.3 million), respectively from this firm for legal fees related to legal matters of which $0.8 million (2015 - $40 thousand) is included in trade and other payables at December 31, 2016. The costs were expensed in G&A in the consolidated statements of loss.

A director of two of the Company's subsidiaries provides professional services to the Company. During the Quarter and Year, the Company incurred fees of $45 thousand (2015 – nil) for professional fees, of which $45 thousand (2015 – nil) was included in trade and other payables at December 31, 2016. The costs were expensed in G&A in the consolidated statements of loss.

Of the convertible debentures issued by Madalena in July 2016, certain directors and officers of the Company subscribed to 18% of the total issuance.

The transactions arose during the normal course of business and have been recorded at the exchange amounts, which are the amounts agreed upon by the related parties. The terms and conditions of these transactions were no more favourable than those available, or which might reasonably be expected to be available in similar transactions with arm's length third parties.

Discontinued Canadian Operations

The operating results for the discontinued Canadian operations are shown in the following table for the noted periods:

USD 000s	Three months ended December 31 2016(1)	Three months ended December 31 2015	Year ended December 31 2016(1)	Year ended December 31 2015
Oil and natural gas revenue	-	402	**430**	1,923
Royalty expense	-	(119)	**(7)**	(434)
Operating cost	-	(536)	**(395)**	(2,712)
General and administrative expense	-	(64)	**(127)**	(353)
Share-based compensation	-	(14)	**(21)**	1
Depletion and depreciation	-	(108)	**(163)**	(526)
Accretion	-	(20)	**(23)**	(82)
Impairment	**-**	(1,342)	**-**	(5,358)
Loss from discontinued operations	-	(1,801)	**(306)**	(7,541)
Loss on sale of discontinued operations	-	-	**(18)**	-
Realized accumulated other comprehensive loss on disposition of Canadian operations	-	-	**(4,153)**	-
Net loss from discontinued operations	-	(1,801)	**(4,477)**	(7,541)

(1) The Canadian operations were sold on June 28, 2016 and results are included up to this date.

During the year, oil and natural gas revenues declined to $0.4 million from $1.9 million YTD-2015 due to the continued shut-in of a processing plant. Royalties and operating costs decreased due to the reduced activity and the variable nature of these costs as they relate to revenue. As depletion is calculated on a unit of production basis, the reduction in sales volumes directly impacted the reduction in depletion expense.

There were no indicators of impairment on E&E assets or property, plant and equipment ("PPE") assets for the Canadian operations from January 1, 2016 – April 30, 2016. During 2015, indicators of impairment existed and an impairment test resulted in an impairment charge of $1.3 million and $5.4 million for Q4-2015 and YTD-2015, respectively.

The loss on sale of discontinued operations amounted to $18 thousand, and was the result of total proceeds of $4.3 million, less net assets disposed of amounting to $4.3 million.

The realized accumulated other comprehensive loss ("OCI") on disposal of the Canadian operations of $4.2 million YTD relates to the requirement to recycle OCI to profit and loss associated with the historical foreign exchange gains and losses on the disposed Canadian operating segment.

Financial Position, Liquidity and Capital Resources

Liquidity risk

USD 000s	December 31 2016	December 31 2015
Working capital (deficit) surplus		
Argentina	**(3,422)**	(415)
Canada	**(991)**	877
	(4,413)	462
Convertible debentures	**1,143**	-
Long-term debt	**-**	1,972
Shareholders' equity	**70,258**	100,093

Liquidity risk is the risk that Madalena will not be able to meet its financial obligations as they become due. The Company's approach to managing liquidity risk is to ensure, as far as is reasonable, that it will have sufficient liquidity to meet its liabilities when due. The Company has a working capital deficit of $4.4 million at December 31, 2016 and continued to face liquidity challenges during 2016. Unless the Company is able to raise additional capital or renegotiate its commitments, it does not expect that forecasted cash flows from operating activities will be sufficient to meet its anticipated capital commitments through 2017 and resolve the current working capital deficit.

Management in Canada and Argentina have taken significant measures to reduce expenses and conserve cash. Office and field personnel have been reduced in both countries, office space has been downsized in Canada, contracts have been re-negotiated to reduce rates, and other costs saving measures have been implemented wherever possible. Cash has been preserved by deferring the payment of amounts owed to creditors, including directors and management fees owed to the Interim CEO of the Company. In addition, all capital spending has been limited or deferred.

In early January, the Company closed the sale of a 55% WI in the CASE exploration concession for $10 million, of which $3 million was received in December 2016 and the balance in January 2017. In addition, the Company sold 1.6 million common shares in Point Loma in January 2017 for net proceeds of approximately $0.5 million. These transactions have temporarily reduced the current liquidity restraints and enabled the Company to pay a significant portion of amounts due to creditors, including the full repayment of the $1.6 million Argentine ICBC loan, and resolve the risk of forfeiture at CA-Norte due to the settlement of overdue amounts payable to the operator.

In addition, the Company sold 4.7 million escrowed common shares in Point Loma in April 2017 for gross cash proceeds of $0.8 million.

At December 31, 2016, all of Madalena's cash and cash equivalents of $4.1 million was deposited with banks in Argentina (December 31, 2015 - $2.1 million, 54% held in Argentina), and is held in ARS.

At December 31, 2016, the consolidated working capital deficit of the Company was $4.4 million (December 31, 2015 – positive working capital of $0.5 million), consisting of working capital deficiency of $3.4 million (December 31, 2015 - $0.4 million) in Argentina and a working capital deficiency of $1.0 million (December 31, 2015 – positive working capital of $0.9 million) in Canada.

Repatriation of Funds to Canada

Madalena's corporate office is in Canada. Funds are required to enable the Company to maintain its Canadian corporate office and manage the regulatory, reporting, audit, legal and tax requirements of a TSX-V listed company. Prior to the decline in commodity prices, Canadian oil and gas revenues were sufficient to fund the corporate costs incurred. In 2015, with the majority of the Canadian production shut in, it was necessary for the

Company to repatriate funds from Argentina. During the Quarter and YTD $0.2 million (Q4-2015 - $3.2 million) and $0.7 million (Year 2015 - $7.8 million) respectively, was repatriated from Argentina.

Share Capital Issued and Options Granted

Outstanding Share Capital

During the Quarter no common shares were issued and YTD 1.7 million common shares were issued pursuant to the settlement of severance related costs which reduced the associated liability by $0.2 million. During Q4-2015, no common shares were issued. YTD-2015, 2.3 million common shares were issued pursuant to the exercise of options for cash proceeds of $0.5 million.

Options

YTD, 8.7 million options were granted to certain employees and directors of the Company, at an exercise price of CAD $0.27 per share. During Q4-2015 and YTD-2015, nil and 15.6 million options were granted to directors, officers and employees of the Company.

As at May 1, 2017, the Company had 543.8 million shares and 34.1 million options outstanding.

Fair value of Financial Instruments

The Company's financial instruments include cash and cash equivalents, trade and other receivables, other long-term assets, refundable deposit, current portion of long-term debt, trade and other payables, taxes payable, convertible debentures issued and long-term debt, the carrying values of which approximate their fair values due to their short-term nature with the exception of: (i) long-term debt, which approximates fair value as a result of its variable interest rate; (ii) convertible debentures issued, which relates to the debt component of these instruments and is accreted up to their principal value over the term of the debenture using the effective interest rate method; (iii) available for sale securities which are recorded at fair value through the statements of other comprehensive loss, and recycled into the statements of loss and comprehensive loss when sold; and (iv) other long-term assets whose calculated fair value approximates its carrying value.

Decommissioning Obligations

Decommissioning obligations result from net ownership interests in property, plant and equipment and involve critical accounting estimates. There are significant uncertainties related to the estimated costs and the timing of settlement of decommissioning obligations, and the impact on the financial statements could be material. The main factors that can cause expected decommissioning obligations to change are changes to laws and regulations, construction of new facilities, changes in reserve estimates and life, changes in technology, and discount and/or inflation rates applied.

The Company expects the decommissioning obligations to be invoiced in USD and settled in ARS.

Changes to Madalena's estimates of decommissioning, restoration and similar liabilities are recorded directly to the related asset with a corresponding entry to the provision. Madalena's estimates are reviewed at the end of each reporting period for changes in estimated costs, timing of settlement, changes in laws, regulatory requirements, discount rates, and effects of inflation.

At December 31, 2016, an inflation rate of 1.5% was used (December 31, 2015 – 1.0%). The risk free rate used to discount the liability at December 31, 2016 was 2.8% (December 31, 2015 – 2.7%).

Commitments and Other Long-term Liabilities

Development and Exploration Commitments

Coirón Amargo ("CA")

Madalena and its partners at the CA concession in the province of Neuquén are responsible for paying 100% of the costs during the exploration and evaluation phase, with Gas y Petróleo del Neuquén S.A. ("GyP"), a provincial government entity, receiving a 10% carry whereby all other partners, including Madalena, are responsible for paying their proportionate share of GyP's WI. Currently, exploration and evaluation phases are contained in CA-Sur, in the southern portion of CA.

In an exploitation or development phase, GyP is responsible for its 10% interest of the incurred capital costs through an assignment of GyP's 10% interest in future production revenue streams to Madalena and its partners. The amounts due to Madalena from GyP are recorded as a receivable. Currently, exploitation and development phases are contained in CA-Norte, in the northern portion of CA, for which there are no current work commitments.

In conjunction with the sale of the Company's 35% WI at CASO and the concurrent acquisition of an additional 55% WI at CASE, the terms relating to the recovery of previously incurred capital costs at CA-Norte and a recovery of future capital costs to be incurred at CA-Norte, were adjusted.

CASE (90% WI – operated – see subsequent event details below)

Prior to July 11, 2016, Madalena held a 35% WI in the entire CA-Sur exploration and evaluation concession. Pursuant to a series of agreements dated July 11, 2016 and subject to government approvals and an Executive Decree, which were subsequently obtained in October 2016, CA-Sur was divided into two evaluation lots – CASE and CASO. Madalena sold its' interest in CASO in return for an additional 55% WI in CASE and became operator.

Pursuant to the new arrangements, Madalena work commitments at CASE were amended as follows:

USD 000s	2016	2017(1)	Beyond
Concession commitments at CASE	-	5,000	5,000(2)

(1) Committed values are reflected at 90% WI at December 31, 2016.
(2) Subject to the results in 2017 to be completed, before November 8, 2019.

The new exploration and evaluation permit for CASE expires on November 8, 2019, following which Madalena will be eligible to enter into a development concession.

The sale of its 35% WI in CASO resulted in a pre-tax gain of $3.7 million, which has been recorded as part of gain on disposal of assets in the consolidated statements of loss for the year ended December 31, 2016. At December 31, 2016, the Company held a 90% WI and GyP retained its 10% WI in the CASE block.

On December 7, 2016, the Company entered into agreements with PAE relating to the Company's 90% WI at CASE. Pursuant to these agreements, Madalena would receive cash payments of an aggregate of $10 million on closing and sell a 55% WI and operatorship to PAE, thereby retaining a 35% non-operated WI in CASE. A 2017 Work Program would be comprised of two well re-entries, which would be undertaken by PAE as the new operator of CASE. Madalena will be carried for the first $5.6 million of costs through this Work Program.

Concurrently, PAE agreed, subject to certain conditions, to provide Madalena with a loan of up to $40 million, on a limited recourse basis, to be drawn-down as required to fund CASE capital expenditures. This limited recourse loan would bear interest at 7% per annum and is repayable in five years from the net revenue generated from the capital expenditure program.

The PAE transaction closed on January 10, 2017.

A refundable deposit of $3 million was received on December 13, 2016. The remaining $7 million was received on January 10, 2017. To the extent that Madalena's share of the Work Program extends beyond $5.6 million, Madalena will be required to fund this incremental amount.

Curamhuele Block (90% WI-operated)
At Curamhuele, a concession in the province of Neuquén, the Company is responsible for paying 100% of the costs during the exploration phase of a concession to maintain its 90% WI.

In December 2015, Madalena ratified an extension of its second exploration and evaluation term with the Province of Neuquén to September 9, 2016, after which a further extension was available. During the first quarter of 2016, the remaining work commitment relating to the block concession agreement was fulfilled by completing the Yapai.x 1001 well in the Mulichinco and Lower Agrio shale. A performance bond of $17.6 million relating to amounts committed under this exploration and evaluation permit is posted by the Company. The assets of Madalena Austral S.A., a subsidiary of the Company, are held as security for the bond.

The Company has commenced discussions with the Province of Neuquén to obtain a four year extension of the exploration and evaluation block. The Company has proposed a horizontal multi-frac re-entry in CH.x-1 for $8.2 million to be incurred by March 9, 2019, to obtain this extension.

The Company is waiting on a provincial certification that the $17.6 million of work commitments have been fulfilled and a provincial decree on the new $8.2 million of work commitments. Upon receipt of the provincial certification, the Company anticipates that the $17.6 million performance bond will be cancelled and a new $8.2 million performance bond will be posted.

Puesto Morales Block (100% WI-operated)

USD 000s	**2016**	**2017**	**Beyond**
Concession commitments	4,400	13,300	13,100

The Company is awaiting written provincial approval to transfer $4.4 million of 2016 commitments to 2017.

Santa Victoria Block (100% WI - operated)
The contract can contain up to three exploration and evaluation phases, of which the second expired in April 2015. The second phase required additional work commitments of $4.0 million for which no qualifying expenditures have been made. A performance bond of $3.6 million is in place over the commitments under this exploration and evaluation permit. An application has been submitted and negotiations continue and are currently ongoing with the province of Salta to reach a multi-year extension agreement.

El Chivil Block (100% WI – operated)
The concession's one year extension expiry occurred on September 7, 2016 and during the Quarter, the province of Formosa granted a further six month extension to negotiate a 10-year development period extension, which expires on May 1, 2017. At May 1, 2017, the Company remains in discussions with the province of Formosa.

El Vinalar Block (100% WI – operated)
Salta province granted a block extension to file an investment plan, which expired on November 11, 2016. The Company has requested a further extension from the province of Salta and is awaiting further discussions.

Other Commitments
In November 2016, Madalena sub-leased its former corporate office premises to the end of 2018, with the expectation of further renewals or alternative sub-lease arrangements to the end of the head lease term of September 2022. The difference between the head lease payments under the existing contract and the sub-lease contract income expected over the period of the lease term, results in an onerous contract and a liability

has been recognized of approximately $0.9 million, of which $0.1 million is recorded as part of Trade and other payables and $0.8 million is recorded as part of Other long-term liabilities in the consolidated statements of financial position at December 31, 2016. Without the sub-lease, the total liability would be approximately $1.5 million. The expense associated with this liability of $0.9 million is recorded as part of general and administrative expenses in the consolidated statements of loss for the year ended December 31, 2016.

Other long-term liabilities

A continuity relating to these liabilities is as follows:

	Year ended December 31,	
	2016	**2015**
Balance, beginning of year	**1,575**	4,296
Lease liability[(1)]	**786**	
LTIP liability	**64**	-
New contingencies	**19**	-
Settled through negotiation	**(29)**	(1,815)
Effect of change in foreign exchange rates	**(277)**	(906)
Balance, end of year	**2,138**	1,575

(1) Relates to "Other Commitments"

Annual and Quarterly Financial Results

Annual Financial Results – Continuing Operations

As at December 31 USD 000s, unless otherwise noted	**2016**	2015	2014
Oil and natural gas revenues	**50,152**	81,725	51,809
Other income	**-**	13,857	-
Net loss from continuing operations	**(32,100)**	(6,164)	(4,741)
Shares outstanding – millions	**543.8**	542.1	539.8
Net loss per share – basic and diluted-continuing operations	**(0.06)**	(0.01)	(0.01)
Total assets	**123,228**	155,186	154,175
Shareholders' equity	**70,258**	100,093	117,016

The decrease in oil and gas revenues in 2016 was a result of reduced production in Argentina due primarily to natural declines in the second half of 2016 compared to 2015. The Company recorded a pre-tax impairment charge in 2016 and 2015 of $18.2 million and $8.4 million, respectively, impacting the net loss recognized. Other income of $13.9 million was recorded in 2015 due to Petroleo Plus settlement bond income.

Quarterly Financial Results - Continuing Operations

USD 000s, unless otherwise noted	Q4 2016	Q3 2016	Q2 2016	Q1 2016
Oil and natural gas revenues	**10,543**	11,728	13,070	14,811
Net income (loss)	**(9,402)**	(12,715)	(3,491)	(6,492)
Shares outstanding – millions	**543.8**	543.8	542.1	542.1
Net income (loss) per share – basic and diluted	**(0.02)**	(0.02)	(0.01)	(0.01)

USD 000s, unless otherwise noted	Q4 2015	Q3 2015	Q2 2015	Q1 2015
Oil and natural gas revenues	17,901	20,816	24,115	18,893
Other income	-	13,857	-	-
Net income (loss)	(12,510)	7,939	(3,209)	1,616
Shares outstanding – millions	542.1	542.1	541.0	540.3
Net income (loss) per share – basic and diluted	(0.02)	0.02	(0.01)	0.00

The Company's decrease in oil and gas revenues during the Quarter, Q3-2016, Q2-2016, Q1-2016, Q4-2015 and Q3-2015 can be primarily attributed to lower sales volumes at Puesto Morales and Surubi. The Company also experienced commodity price declines in 2016. Q2-2015 revenue increases were favourably impacted by successful horizontal drilling in Argentina and the $3.00 per barrel oil incentive.

The Company recorded pre-tax impairment charges of $6.2 million in the Quarter, $12.0 million in Q3-2016 and $8.4 million in Q4-2015.

The Company recorded $13.9 million of other income as settlement of past Petroleo Plus settlement bonds in Q3-2015.

Critical Accounting Judgments, Estimates and Accounting Policies

For further details regarding the Company's critical accounting judgments, estimates and accounting policies, the following should be read in conjunction with the Company's consolidated financial statements for the year ended December 31, 2016.

Management is required to make judgments, estimates and assumptions in the application of accounting policies that could have a significant impact on the Company's financial results. Actual results may differ from those estimates and those differences may be material. The estimates and assumptions used are subject to updates based on experience and the application of new information. The Company's critical accounting policies and estimates are reviewed annually by the Audit Committee of the Board. Further details on the basis of presentation and significant accounting policies can be found in the Company's notes to the consolidated financial statements for the year ended December 31, 2016.

Critical Accounting Judgments in Applying Accounting Policies

Critical judgments are those judgments made by management in the process of applying accounting policies that have the most significant effect on the amounts recognized in the Company's consolidated financial statements and accompanying notes for the year ended December 31, 2016. Further information on management's critical accounting judgments in applying accounting policies can be found in the notes to the consolidated financial statements for the year ended December 31, 2016.

Critical Accounting Estimates

Critical accounting estimates are those estimates that require management to make particularly subjective or complex judgments about matters that are inherently uncertain. Estimates and underlying assumptions are reviewed on an ongoing basis and any revisions to accounting estimates are recognized in the period in which the estimates are revised. During the Quarter, there were no changes to the Company's key sources of estimation uncertainty. Further information on the Company's key sources of estimation uncertainty can be found in the notes to the consolidated financial statements for the year ended December 31, 2016.

Future Accounting Pronouncements

- In January 2016, the IASB issued amendments to International Accounting Standard ("IAS") 7 ("Statement of Cash Flows") to be applied prospectively for annual periods beginning on or after January 1, 2017 with early adoption permitted. The amendments require disclosure of information enabling users of financial statements to evaluate changes in liabilities arising from financing activities, including changes from cash flows and non-cash changes such as foreign exchange gains or losses. The Company has reviewed these amendments and the impact is not expected to be significant, however will be reflected in the March 31, 2017 condensed interim consolidated financial statements.
- In January 2016, the IASB issued an amendment to IAS 12 ("Income Taxes") to be applied retrospectively for annual periods beginning on or after January 1, 2017. The amendments clarify the existence of deductible temporary differences on debt instruments measured at fair value are solely dependent on a comparison of the carrying amount and its tax base at the end of the reporting period, and is not affected by possible future changes in the carrying amount or expected manner of asset recovery. Madalena has reviewed these amendments and does not believe there will be an impact to our financial statements.
- As of January 1, 2018, Madalena will be required to adopt the following three standards and one interpretation and is evaluating the impact these standards/interpretations may have on Madalena's consolidated financial statements.
    - In June 2016, the IASB issued amendments to IRFS 2 to clarify how to account for certain types of share – based payment transactions, including cash-settled share-based plans, share-based payments with net of tax settlements and modifications of share-based payments from cash-settled to equity-settled. Application of the changes is allowed prospectively or retroactively if information is available.
    - In July 2014, the IASB issued IFRS 9 "Financial Instruments" to replace IAS 39 "Financial Instruments Recognition and Measurement". The new standard replaces the current multiple classification and measurement models for financial instruments with a single model that has only two classifications categories: amortized cost and fair value. It introduces new requirements for the classification and measurement of financial assets, additional changes relating to financial liabilities and amends the impairment model with the introduction of a new expected credit loss calculation.
    - In May 2014, the IASB issued IFRS 15 "Revenue from Contracts with Customers" to replace IAS 18 "Revenue", IAS 11 "Construction Contracts", and related interpretations. The standard contains a single model that applies to contracts with customers and two approaches to recognizing revenue: at a point in time or over time. The model features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized. New estimates and judgmental thresholds have been introduced, which may affect the amount and/or timing of revenue recognized. The standard must be applied retrospectively, with some exemptions.
    - In December 2016, the IASB issued IFRIC Interpretation 22 ("Foreign Currency Transactions and Advance Consideration.") This Interpretation clarifies the date that should be used for translation when a foreign currency transaction is involved in an advance payment or receipt. This interpretation may be applied retrospectively or prospectively.

- In January 2016, IASB issued IFRS 16 "Leases". The goal of the standard is to bring leases on the balance sheet for lessees for all leases with a term of more than 12 months, subject to materiality. The standard requires the recognition of a right-of-use asset and the related lease liability. This creates a single lease accounting model for all leases, as there will no longer be a classification test between finance and operating leases. As of January 1, 2019, Madalena will be required to adopt this standard. Madalena is evaluating the impact this standard may have on Madalena's consolidated financial statements.

Risk Management

For a full understanding of the risks that impact the Company, the following discussion should be read in conjunction with the Company's consolidated financial statements for the year ended December 31, 2016.

The Company is exposed to a number of risks through the pursuit of its strategic objectives. Some of these risks impact the oil and gas industry as a whole and others are unique to its operations and its involvement in Argentina. Actively managing these risks improves the Company's ability to effectively execute its business strategy. The factors that impact the Company's exposure to liquidity risk, safety risk, capital project execution and operating risk, reserves replacement risk, environmental risk and regulatory risk has not changed substantially since December 31, 2015. For a further and more in-depth discussion of the Company's risk management see the Company's consolidated financial statements for the year ended December 31, 2016.

A description of the risk factors and uncertainties affecting the Company can be found in the Advisory and a full discussion of the material risk factors affecting the Company can be found in the Company's Annual Information Form for the year ended December 31, 2016.

Advisory

Forward Looking Statements

This MD&A may include forward-looking statements including opinions, assumptions, estimates and management's assessment of future plans and operations, expected depletion, depreciation and accretion expenses, expectations as to the taxability of the Company and planned capital expenditures and the timing and funding thereof. When used in this document, the words "anticipate," "believe," "estimate," "expect," "intent," "may," "project," "plan", "should" and similar expressions are intended to be among the statements that identify forward-looking statements. Forward-looking statements are subject to a wide range of risks and uncertainties, and although the Company believes that the expectations represented by such forward-looking statements are reasonable, there can be no assurance that such expectations will be realized. Any number of important factors could cause actual results to differ materially from those in the forward-looking statements including, but not limited to, the outcome of the strategic review process, risks associated with petroleum and natural gas exploration, development, exploitation, production, marketing and transportation, the volatility of petroleum and natural gas prices, currency fluctuations, the ability to implement corporate strategies the ability to repatriate funds from Argentina, the state of domestic capital markets, the ability to obtain financing, incorrect assessment of the value of acquisitions, failure to realize the anticipated benefits of acquisitions, changes in petroleum and natural gas acquisition and drilling programs, delays resulting from inability to obtain required regulatory approvals, delays resulting from inability to obtain drilling rigs and other services, labour supply risks, environmental risks, competition from other producers, imprecision of reserve estimates, changes in general economic conditions, ability to execute farm-in and farm-out opportunities, and other factors, all of which are more fully described from time to time in the reports and filings made by the Company with securities regulatory authorities.

Statements relating to "reserves" or "resources" are deemed to be forward looking statements, as they involve the implied assessment, based on certain estimates and assumptions, that the reserves and resources described can be profitably produced in the future.

The forward looking statements contained in this MD&A are expressly qualified by this cautionary statement. Readers are cautioned not to place undue reliance on forward-looking statements, as no assurances can be given as to future results, levels of activity or achievements. Except as required by applicable securities laws, the Company does not undertake any obligation to publicly update or revise any forward-looking statements.

Reserves and Other Oil and Gas Disclosure

Any references in this MD&A to test rates, flow rates, initial and/or final raw test or production rates, early production, test volumes behind pipe and/or "flush" production rates are useful in confirming the presence of hydrocarbons, however, such rates are not necessarily indicative of long-term performance or of ultimate recovery. Such rates may also include recovered "load" fluids used in well completion stimulation. Readers are cautioned not to place reliance on such rates in calculating the aggregate production for Madalena. In addition, the Vaca Muerta and Agrio shales are unconventional resource plays which may be subject to high initial decline rates.

Analogous Information

Certain information in this MD&A may constitute "analogous information" as defined in National Instrument 51-101 - Standards of Disclosure for Oil and Gas Activities ("NI 51-101"), including, but not limited to, information relating to areas, assets, wells, industry activity and/or operations that are in geographical proximity to or believed to be on-trend with lands held by Madalena. Such information has been obtained from public sources, government sources, regulatory agencies or other industry participants. Management of Madalena believes the information may be relevant to help define the reservoir characteristics within lands on which Madalena holds an interest and such information has been presented to help demonstrate the basis for Madalena's business plans and strategies. However, management cannot confirm whether such analogous information has been prepared in accordance with NI 51-101 and the Canadian Oil and Gas Evaluation Handbook and Madalena is unable to confirm that the analogous information was prepared by a qualified reserves evaluator or auditor. Madalena has no way of verifying the accuracy of such information. There is no certainty that the results of the analogous information or inferred thereby will be achieved by Madalena and such information should not be construed as an estimate of future production levels or the actual characteristics and quality Madalena's assets. Such information is also not an estimate of the reserves or resources attributable to lands held or to be held by Madalena and there is no certainty that such information will prove to be analogous in the future. The reader is cautioned that the data relied upon by Madalena may be in error and/or may not be analogous to such lands to be held by Madalena.

Numerical Amounts

The reporting and the measurement currency is the USD. Natural gas reserves and volumes are converted to barrels of oil equivalent (boe) on the basis of six thousand cubic feet (mcf) of gas to one barrel (bbl) of oil. Boe's may be misleading, particularly if used in isolation. A boe conversion ratio of 6 mcf to 1 bbl is based on an energy equivalency conversion method primarily applicable at the burner tip and does not represent a value equivalency at the wellhead.

This MD&A uses the term "netback" which is a term that does not have standardized meanings under GAAP and this non-GAAP measurement may not be comparable with the calculation of other entities. The Company uses this measure to analyze operating performance.

The term "netback", which is calculated as the average unit sales price, less royalties and operating expenses, represents the cash margin for every barrel of oil equivalent sold. The Company considers this a key measure as it demonstrates its profitability relative to current commodity prices. This term does not have any standardized meaning prescribed by GAAP and, therefore, might not be comparable with the calculation of a similar measure for other companies.

Abbreviations

The following is a summary of the abbreviations used in this MD&A:

Oil and Natural Gas Liquids

bbl	barrel
bbls/d	barrels per day
NGLs	Natural gas liquids
boe	barrel of oil equivalent
boe/d	barrel of oil equivalent per day

Natural Gas

Mcf	thousand cubic feet
mmbtu	million British Thermal Units