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CCRL PETROLEUM EMPLOYEES' PENSION PLAN

REPORT ON THE ACTUARIAL VALUATION FOR FUNDING PURPOSES AS AT DECEMBER 31, 2015

OCTOBER 31, 2016

Canada Revenue Agency Registration Number: 0358986



**MARSH & MCLENNAN
COMPANIES**

Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date. The content of the report may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used, or relied upon without reference to the report as a whole.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future, and other factors.

The valuation results shown in this report also illustrate the sensitivity to one of the key actuarial assumptions, the discount rate. We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes, and the results are sensitive to all the assumptions used in the valuation.

Should the plan be wound up, the going concern funded status and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the plan assuming it is wound up on the valuation date. Emerging experience will affect the wind-up financial position of the plan assuming it is wound up in the future. In fact, even if the plan were wound up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security, and/or benefit-related issues should not be made solely on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic, and societal factors, including financial scenarios that assume future sustained investment losses.

Funding calculations reflect our understanding of the requirements of The Pension Benefits Act, 1992 (Saskatchewan), The Pension Benefits Regulations, 1993 (Saskatchewan), the Income Tax Act, and related regulations that are effective as of the valuation date. Mercer is not a law firm, and the analysis presented in this report is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this report.

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Summary of Results

(000's)	31.12.2015	31.12.2013
Going Concern Financial Status		
Market value of assets	\$336,146	\$244,628
Going concern funding target	\$425,454	\$332,696
Funding excess (shortfall)	(\$89,308)	(\$88,068)
Hypothetical Wind-up Financial Position		
Wind-up assets	\$335,796	\$244,378
Wind-up liability	\$477,599	\$326,366
Wind-up excess (shortfall)	(\$141,803)	(\$81,988)
Funding Requirements in the Year Following the Valuation ¹		
Total current service cost	\$20,355	\$14,712
Non-investment expense allowance	\$130	\$130
Total	\$20,485	\$14,842
Employer's current service cost as a percentage of members' pensionable earnings	22.69%	20.32%
Minimum special payments	\$33,426	\$17,921
Estimated minimum employer contribution	\$52,114	\$32,763
Estimated maximum eligible employer contribution	\$162,288	\$102,910
Next required valuation date	31.12.2018	31.12.2016

¹ Provided for reference purposes only. Contributions must be remitted to the Plan in accordance with the Minimum Funding Requirements and Maximum Eligible Contributions sections of this report.

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Introduction

To Federated Co-operatives Limited and Consumers' Co-operative Refineries Limited

At the request of the Federated Co-operatives Limited and Consumers' Co-operative Refineries Limited, we have conducted an actuarial valuation of the CCRL Petroleum Employees' Pension Plan (the "Plan"), sponsored by Consumers' Co-operative Refineries Limited (the "Company"), as at the valuation date, December 31, 2015. We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation is to determine:

- The funded status of the Plan as at December 31, 2015 on going concern, hypothetical wind-up, and solvency bases;
- The minimum required funding contributions from 2016, in accordance with *The Pension Benefits Act, 1992 (Saskatchewan)* (the "Act") and *The Pension Benefits Regulations, 1993 (Saskatchewan)* (the "Regulations"); and
- The maximum permissible funding contributions from 2016, in accordance with the *Income Tax Act*.

The information contained in this report was prepared for the internal use of the Company, and for filing with the Saskatchewan Financial and Consumer Affairs Authority and with the Canada Revenue Agency, in connection with our actuarial valuation of the Plan. This report will be filed with the Saskatchewan Financial and Consumer Affairs Authority and with the Canada Revenue Agency. This report is not intended or suitable for any other purpose.

In accordance with pension benefits legislation, the next actuarial valuation of the Plan will be required as at a date not later than December 31, 2018, or as at the date of an earlier amendment to the Plan.

Terms of Engagement

In accordance with our terms of engagement with the Company, our actuarial valuation of the Plan is based on the following material terms:

- It has been prepared in accordance with applicable pension legislation and actuarial standards of practice in Canada.
- As instructed by the Company, we have reflected a margin for adverse deviations in our going concern valuation by reducing the going concern discount rate by 0.50% per year.

- We have reflected the Company's decisions for determining the solvency funding requirements, summarized as follows:
 - The same plan wind-up scenario was hypothesized for both hypothetical wind-up and solvency valuations.
 - The solvency financial position was determined on a market value basis.

See the Valuation Results - Solvency section of the report for more information.

Events since the Last Valuation at December 31, 2013

Pension Plan

There have been no special events since the last valuation date.

This valuation reflects the provisions of the Plan as at December 31, 2015. The Plan has not been amended since the date of the previous valuation, and we are not aware of any pending definitive or virtually definitive amendments coming into effect during the period covered by this report. The Plan provisions are summarized in Appendix F.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation, except for the following:

	Current valuation	Previous valuation
Discount rate:	5.20%	5.60%
ITA limit / YMPE increases:	2.50%	2.75%
Inflation	2.00%	2.25%
Pensionable earnings increases:	3.75% + merit and promotion	4.00%

The hypothetical wind-up and solvency assumptions have been updated to reflect market conditions at the valuation date.

A summary of the going concern methods and assumptions is provided in Appendix C. A summary of the hypothetical wind-up and solvency methods and assumptions is provided in Appendix D.

Regulatory Environment and Actuarial Standards

There have been no changes to the Act or the Regulations which impact the funding of the Plan.

At its meeting on June 9, 2015, the Actuarial Standards Board (ASB) decided to promulgate the use of the following mortality table with respect of the computation of pension commuted values ("CIA CV Standard"), effective October 1, 2015: *Mortality rates equal to the 2014 Canadian Pensioners Mortality Table (CPM2014) combined with mortality improvement scale CPM Improvement Scale B (CPM-B)*. The change affects the mortality assumption used to value the solvency and wind-up liabilities for benefits assumed to be settled through a lump sum transfer. The financial impact of the change in the CIA CV Standard has been reflected in this actuarial valuation on a solvency and hypothetical wind-up basis.

Subsequent Events

After checking with representatives of the Company, to the best of our knowledge there have been no events subsequent to the valuation date and prior to date of this report which, in our opinion, would have a material impact on the results of the valuation. Our valuation reflects the financial position of the Plan as of the valuation date and does not take into account any experience after the valuation date.

Impact of Case Law

This report has been prepared on the assumption that all of the assets in the pension fund are available to meet all of the claims on the Plan. We are not in a position to assess the impact that the Ontario Court of Appeal's decision in *Aegon Canada Inc. and Transamerica Life Canada versus ING Canada Inc.* or similar decisions in other jurisdictions might have on the validity of this assumption.

We have assumed that all the Plan's assets are available to cover the Plan's liabilities presented in this report.

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Valuation Results – Going Concern

Financial Status

A going concern valuation compares the relationship between the value of Plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follows:

(000's)	31.12.2015	31.12.2013
Assets		
Market value of assets	\$334,592	\$242,531
In transit amounts	\$1,554	\$2,097
Market value of assets adjusted for in transit amounts	\$336,146	\$244,628
Going concern funding target		
• Active members	\$307,024	\$259,072
• Pensioners and survivors	\$114,599	\$71,459
• Deferred pensioners	\$3,831	\$2,165
Total	\$425,454	\$332,696
Funding excess (shortfall)	(\$89,308)	(\$88,068)

The going concern funding target includes a provision for adverse deviations. This provision for adverse deviations represents approximately \$43,475,000 of the total funding target.

Reconciliation of Financial Status

(000's)	
Funding excess (shortfall) as at previous valuation	(\$88,068)
Interest on funding excess (shortfall) at 5.6% per year	(\$10,140)
Employer's special payments, with interest	\$37,691
Expected funding excess (shortfall)	(\$60,517)
Net experience gains (losses)	
• Investment return	\$13,066
• Increases in pensionable earnings, maximum pension and YMPE	(\$7,147)
• Indexation	\$506
• Mortality	(\$889)
• Retirement	(\$2,035)
• Termination	(\$2,217)
• Expenses	(\$265)
Total experience gains (losses)	\$1,019
Employer's contributions other than expected	(\$1,116)
Impact of changes in assumptions	
• Discount rate	(\$28,154)
• Pensionable earnings increases	(\$6,932)
• ITA limit / YMPE increases	\$9,005
• Commuted value interest rate	(\$888)
Total assumption changes impact	(\$26,969)
Net impact of other elements of gains and losses	(\$1,725)
Funding excess (shortfall) as at current valuation	(\$89,308)

Current Service Cost

The current service cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely.

The current service cost during the year following the valuation date, compared with the corresponding value determined in the previous valuation, is as follows:

(000's)	2016	2014
Total current service cost	\$20,355	\$14,712
Expense allowance	\$130	\$130
Total	\$20,485	\$14,842
Estimated members' pensionable earnings	\$90,266	\$73,044
Employer's current service cost expressed as a percentage of members' pensionable earnings	22.69%	20.32%

The total current service cost includes a provision for adverse deviations of approximately \$3,202,000.

The key factors that have caused a change in the employer's current service cost since the previous valuation are summarized in the following table:

As a percentage of members' pensionable earnings	
Employer's current service cost as at previous valuation	20.32%
Demographic changes	(0.54%)
Changes in assumptions	
• Economic	2.89%
Employer's current service cost as at current valuation	22.69%

Discount Rate Sensitivity

The following table summarizes the effect on the going concern funding target shown in this report of using a discount rate which is 1.00% lower than that used in the valuation:

Scenario \$000's	Valuation Basis	Reduce Discount Rate by 1%
Going concern funding target	\$425,454	\$517,172
Current service cost		
• Total current service cost	\$20,355	\$27,005
• Expense allowance	\$130	\$130
• Total	\$20,485	\$27,135

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Valuation Results – Hypothetical Wind-up Financial Position

When conducting a hypothetical wind-up valuation, we determine the relationship between the respective values of the Plan's assets and its liabilities assuming the Plan is wound up and settled on the valuation date, assuming benefits are settled in accordance with the Act and under circumstances producing the maximum wind-up liabilities on the valuation date and reflect the assumed form of benefit settlement. However, to the extent permitted by law, the actuary may disregard:

- Benefits that would not be payable under the hypothesized scenario.
- Plan member earnings after the valuation date.

The hypothetical wind-up financial position as of the valuation date, compared with that at the previous valuation, is as follows:

\$000's	31.12.2015	31.12.2013
Assets		
Market value of assets	\$334,592	\$242,531
In transits	\$1,554	\$2,097
Allowance for wind-up expenses	(\$350)	(\$250)
Wind-up assets	\$335,796	\$244,378
Present value of accrued benefits for:		
• Active members	\$302,035	\$227,322
• Pensioners and survivors	\$169,515	\$96,095
• Deferred pensioners	\$6,049	\$2,949
Total wind-up liability	\$477,599	\$326,366
Wind-up excess (shortfall)	(\$141,803)	(\$81,988)

Wind-up Incremental Cost to December 31, 2018

The wind-up incremental cost is an estimate of the present value of the projected change in the hypothetical wind-up liabilities from the valuation date until the next scheduled valuation date, adjusted for the benefit payments expected to be made in that period.

The hypothetical wind-up incremental cost determined in this valuation, compared with the corresponding value determined in the previous valuation, is as follows:

	31.12.2015	31.12.2013
Number of years covered by report	3 years	3 years
Total hypothetical wind-up liabilities at the valuation date (A)	\$477,599	\$326,366
Present value of projected hypothetical wind-up liability at the next required valuation (including expected new entrants) plus benefit payments until the next required valuation (B)	\$607,141	\$411,559
Hypothetical wind-up incremental cost (B – A)	\$129,542	\$85,195

The incremental cost is not an appropriate measure of the contributions that would be required to maintain the financial position of the Plan on a hypothetical wind-up basis unchanged from the valuation date to the next required valuation date, if actual experience is exactly in accordance with the going concern valuation assumptions. This is because it does not reflect the fact that the expected return on plan assets (based on the going concern assumptions) is greater than the discount rate used to determine the hypothetical wind-up liabilities.

Discount Rate Sensitivity

The following table summarizes the effect on the hypothetical wind-up liabilities shown in this report of using a discount rate which is 1% lower than that used in the valuation:

Scenario \$000's	Valuation Basis	Reduce Discount Rate by 1%
Total hypothetical wind-up liability	\$477,599	\$588,604

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Valuation Results – Solvency

Overview

The Act also requires the financial position of the Plan to be determined on a solvency basis. The financial position on a solvency basis is determined in a similar manner to the Hypothetical Wind-up Basis

Financial Position

The financial position on a solvency basis, compared with the corresponding figures from the previous valuation, is as follows:

\$000's	31.12.2015	31.12.2013
Assets		
Market value of assets	\$334,592	\$242,531
In transits	\$1,554	\$2,097
Present value of special payments for the next five years	\$74,451	\$46,960
Allowance for plan wind-up expenses	(\$350)	(\$250)
Net assets	\$410,247	\$291,338
Liabilities		
Total hypothetical wind-up liabilities	\$477,599	\$326,366
Difference in circumstances of assumed wind-up	\$0	\$0
Value of excluded benefits	(\$0)	(\$0)
Liabilities on a solvency basis	\$477,599	\$326,366
Surplus (shortfall) on a solvency basis	(\$67,352)	(\$35,028)
Solvency ratio	0.7031	0.7488

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Minimum Funding Requirements

The Act prescribes the minimum contributions that the Company must make to the Plan. The minimum contributions in respect of a defined benefit component of a pension plan are comprised of going concern current service cost and special payments to fund any going concern or solvency shortfalls.

On the basis of the assumptions and methods described in this report, the rule for determining the minimum required employer monthly contributions, as well as an estimate of the employer contributions, from the valuation date until the next required valuation are as follows:

Employer's contribution rule (000's)			Estimated employer's contributions (\$000's)	
Period beginning	Monthly current service cost ²	Minimum monthly special payments	Monthly current service cost including expense allowance	Total minimum monthly contributions
January 1, 2016	20.32%	\$2,785	\$1,528	\$4,313
November 1, 2016	22.69%	\$2,785	\$1,707	\$4,492
January 1, 2017	22.69%	\$2,785	\$1,771	\$4,556
January 1, 2018	22.69%	\$2,785	\$1,838	\$4,623

The estimated contribution amounts above are based on projected members' pensionable earnings. Therefore, the actual employer's current service cost will be different from the above estimates and, as such, the contribution requirements should be monitored closely to ensure contributions are made in accordance with the Act.

The development of the minimum special payments is summarized in Appendix A.

Other Considerations

Differences Between Valuation Bases

There is no provision in the minimum funding requirements to fund the difference between the hypothetical wind-up and solvency shortfalls, if any.

In addition, although minimum funding requirements do include a requirement to fund the going concern current service cost, there is no requirement to fund the expected growth in the hypothetical wind-up or solvency liability after the valuation date, which could be greater than the going concern current service cost.

Timing of Contributions

Funding contributions are due on monthly basis. Contributions for current service cost and special payments must be made within 30 days following the month to which they apply.

² Expressed as a percentage of members' pensionable earnings.

Retroactive Contributions

The Company must contribute the excess, if any, of the minimum contribution recommended in this report over contributions actually made in respect of the period following the valuation date. This contribution, along with an allowance for interest, is due no later than 30 days following the date this report is filed.

Payment of Benefits

The Act imposes certain restrictions on the payment of lump sums from the Plan when the solvency ratio revealed in an actuarial valuation is less than one. If the solvency ratio shown in this report is less than one, the plan administrator should ensure that the monthly special payments are sufficient to meet the requirements of the Act to allow for the full payment of benefits, and otherwise should take the prescribed actions.

Specifically, pursuant to the Act, transfers out of the Plan may be made in full provided an amount equal to the transfer deficiency has been remitted to the pension fund in addition to the minimum special payments. However, transfer deficiencies that are less than 5% of the Year's Maximum Pensionable Earnings ("YMPE") under the Canada/Québec Pension Plan can be paid in full until such time as the sum of all such transfer deficiencies paid since the date of the last actuarial valuation exceed 5% of the market value of the Plan assets at the time of the transfer, at which time, this exemption no longer applies.

As such, the administrator should monitor the solvency ratio of the Plan and, if necessary, take the prescribed actions.

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Maximum Eligible Contributions

The *Income Tax Act* (the "ITA") limits the amount of employer contributions that can be remitted to the defined benefit component of a registered pension plan. However, notwithstanding the limit imposed by the ITA, for plans which are not 'Designated' as defined in the ITA, in general, the minimum required contributions under the Act can be remitted.

In accordance with Section 147.2 of the ITA and *Income Tax Regulation* 8516, for a plan which is underfunded on either a going concern or on a hypothetical wind-up basis, the maximum permitted contributions are equal to the employer's current service cost (either going concern or plan termination basis), including the explicit expense allowance if applicable, plus the greater of the going concern funding shortfall and hypothetical wind-up shortfall.

For a plan which is fully funded on both going concern and hypothetical wind-up bases, the employer can remit a contribution equal to the employer's current service cost (either going concern or plan termination basis), including the explicit expense allowance if applicable, as long as the surplus in the plan does not exceed a prescribed threshold. Specifically, in accordance with Section 147.2 of the ITA, for a plan which is fully funded on both going concern and hypothetical wind-up bases, the plan may not retain its registered status if the employer makes a contribution while the going concern funding excess exceeds 25% of the going concern funding target.

Schedule of Maximum Contributions

The Company is permitted to fully fund the greater of the going concern and hypothetical wind-up shortfalls of \$141,803,000, as well as make current service cost contributions (either going concern or plan termination basis) including the explicit expense allowance. The portion of this contribution representing the payment of the hypothetical wind-up shortfall can be increased with interest from the valuation date to the date the payment is made, and must be reduced by the amount of any deficit funding made from the valuation date to the date the payment is made.

Assuming the Company contributes the greater of the going concern and hypothetical wind-up shortfall of \$141,803,000 as of the valuation date, the rule for determining the estimated maximum eligible annual contributions, as well as an estimate of the maximum eligible contributions until the next valuation, are as follows:

Employer's contribution rule			Estimated employer's contributions (\$000's)
Year beginning	Monthly current service cost ³	Deficit Funding	Monthly current service cost including expense allowance
January 1, 2016	20.32%	n/a	\$1,528
November 1, 2016	22.69%	n/a	\$1,707
January 1, 2017	22.69%	n/a	\$1,771
January 1, 2018	22.69%	n/a	\$1,838

The employer's current service cost in the above table was estimated based on projected members' pensionable earnings. The actual employer's current service cost will be different from these estimates and, as such, the contribution requirements should be monitored closely to ensure compliance with the ITA.

The Company could elect to contribute the service cost on a plan termination basis instead of the going concern service cost. In such case, the maximum employer contribution for the period to December 31, 2018, is the hypothetical wind-up shortfall of \$141,803,000, plus the three-year wind-up incremental cost of \$129,542,000.

³ Expressed as a percentage of members' pensionable earnings.

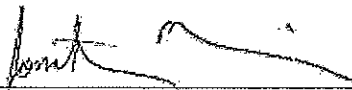
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Actuarial Opinion

In our opinion, for the purposes of the valuations,

- The membership data on which the valuation is based are sufficient and reliable.
- The assumptions are appropriate.
- The methods employed in the valuation are appropriate.

This report has been prepared, and our opinions given, in accordance with accepted actuarial practice in Canada. It has also been prepared in accordance with the funding and solvency standards set by *The Pension Benefit Act, 1992 (Saskatchewan)*.



Jonathan Mossing
FCIA, FSA

31 October 2016
Date



Deanna (Dea) Napen
FCIA, FSA

31 October 2016
Date

APPENDIX A

Prescribed Disclosure

Definitions

The Act requires certain information to be included in the actuarial valuation report or cost certificate. This section of the report compiles most of the required numerical disclosure. The required disclosure under the Act that is not shown in this Appendix A can be located throughout the remainder of this report.

		(000's)
Defined Term	Description	Result
Going Concern Assets	The value of the assets of a plan as of the relevant review date, determined on the basis of a going concern valuation.	\$336,146
Going Concern Liabilities	The actuarial present value of a plan's benefits as of the relevant review date, determined on the basis of a going concern valuation.	\$425,454
Unfunded Liability	The amount, if any, by which a plan's going concern liabilities exceed its going concern assets.	(\$89,308)
Solvency Ratio	The fraction obtained by dividing:	0.7031
	(a) the market value of the plan's assets including any cash balances and accrued and receivable income and reduced by the actuary's estimate of the expenses that would be incurred in winding-up the plan (hereafter referred to as Solvency Assets), and	\$335,796
	(b) the liabilities of the plan calculated on a plan termination basis (hereafter referred to as Solvency Liabilities).	\$477,599
Solvency Deficiency	The amount, if any, by which:	
	(a) the Solvency Liabilities	- \$477,599
	exceed the sum of:	
	(b) the Solvency Assets, and	\$335,796
	(c) the present value of special payments payable over the next five years.	\$74,451
		\$67,352
Special Payments	A monthly special payment established to amortize an unfunded liability is hereafter referred to as an unfunded liability special payment.	
	A monthly special payment established to amortize a solvency deficiency is hereafter referred to as a solvency special payment.	

Timing of Next Required Valuation

In accordance with the Act, an actuarial report must be prepared at intervals not exceeding three years. Accordingly, the next valuation of the Plan will be required no later than December 31, 2018.

Special Payments *Going Concern Basis*

The present values, at the current valuation date, of the monthly unfunded liability special payments determined at the previous valuation, are as follows:

Present Value of Monthly Special Payments From the Previous Valuation

Type of Deficit	Effective Date	Special Payment	Last Payment	Present Value at the Current Valuation Date
Unfunded Liability	January 1, 2005	\$52,000	December 31, 2019	\$2,254,000
Unfunded Liability	February 1, 2007	\$116,583	January 31, 2022	\$7,308,000
Unfunded Liability	January 1, 2008	\$130,007	December 31, 2022	\$9,174,000
Unfunded Liability	January 1, 2011	\$210,701	December 31, 2025	\$19,792,000
Unfunded Liability	January 1, 2014	\$346,077	December 31, 2028	\$39,456,000
Total		\$855,368		\$77,984,000

Due to the experience loss arising since the previous valuation, the unfunded liability, \$89,308,000, now exceeds the present value of the special payments that were determined in the previous valuation, \$77,984,000.

In accordance with the Act, this additional shortfall needs to be amortized over a period not exceeding 15 years. As such, unfunded liability special payments must be increased by \$90,029 per month, until December 31, 2030 to amortize this additional shortfall.

Solvency Basis

In accordance with the Act, the solvency deficiency of \$141,803,000 must be eliminated by special payments within five years.

Present Value of Monthly Special Payments From the Previous Valuation

Type of Deficit	Effective Date	Special Payment	Last Payment	Present Value at the Current Valuation Date
Solvency	January 1, 2014	\$638,029	December 31, 2018	\$22,031,000
Total		\$638,029		\$22,031,000

The present value of the special payments to be made over the next five years is less than the solvency deficiency. In accordance with the Act, this additional shortfall needs to be amortized over a period not exceeding five years. As such, solvency special payments must be increased by \$1,202,036 per month, until December 31, 2020 to amortize this additional shortfall.

Total Special Payments

The following minimum monthly special payments must be made to the Plan to eliminate any unfunded liability and any solvency deficiency at the valuation date, within the periods prescribed by the Act.

Type of Payment	Start Date	End Date	Monthly Special Payment	Present Value	
				Going Concern Basis ⁴	Solvency Basis ⁵
Going concern	January 1, 2005	December 31, 2019	\$52,000	\$2,254,000	\$2,362,000
Going concern	February 1, 2007	January 31, 2022	\$116,583	\$7,308,000	\$6,532,000
Going concern	January 1, 2008	December 31, 2022	\$130,007	\$9,174,000	\$7,285,000
Going concern	January 1, 2011	December 31, 2025	\$210,701	\$19,792,000	\$11,806,000
Going concern	January 1, 2014	December 31, 2028	\$346,077	\$39,456,000	\$19,391,000
New going concern	January 1, 2016	December 31, 2030	\$90,029	\$11,324,000	\$5,044,000
Solvency	January 1, 2014	December 31, 2018	\$638,029	N/A	\$22,031,000
New solvency	January 1, 2016	December 31, 2020	\$1,202,036	N/A	\$67,352,000
Total			\$2,785,462	\$89,308,000	\$141,803,000

⁴ Calculation only considers going concern special payments and is based on a going concern discount rate.

⁵ Calculation considers both solvency and going concern special payments (five years only) and is based on the average solvency discount rate.

APPENDIX B

Plan Assets

The pension fund is held by Co-operators Life Insurance Company. In preparing this report, we have relied upon fund information and cash flow information by Addenda Capital Inc. without further audit. Customarily, this information would not be verified by a plan's actuary. We have reviewed the information for internal consistency and we have no reason to doubt its substantial accuracy.

Reconciliation of Market Value of Invested Plan Assets

The pension fund transactions since the last valuation are summarized in the following table:

(000's)	2014	2015
January 1	\$242,531	\$294,530
PLUS		
Members' contributions	\$0	\$0
Company's contributions		
• Current service	\$14,689	\$16,666
• Special Payments	\$17,921	\$17,921
Investment return	\$28,002	\$16,966
	<u>\$60,612</u>	<u>\$51,553</u>
LESS		
Pensions paid	\$4,869	\$7,464
Lump-sums paid	\$2,970	\$3,058
Administration fees	\$200	\$314
Investment fees	\$574	\$655
	<u>\$8,613</u>	<u>\$11,491</u>
December 31	\$294,530	\$334,592
Rate of return net of investment expenses	10.76%	5.32%

The market value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

(000's)	Current Valuation	Previous Valuation
Market value of invested assets	\$334,592	\$242,531
In-transit amounts		
• Other contributions	\$2,977	\$2,097
• Benefit Payments	(\$1,423)	\$0
Market value of assets adjusted for in-transit amounts	<u>\$336,146</u>	<u>\$244,628</u>

We have tested the pensions paid, the lump-sums paid, and the contributions for consistency with the membership data for the Plan members who have received benefits or in respect of which contributions were made. The results of these tests were satisfactory.

Investment Policy

The plan administrator has adopted a statement of investment policy and procedures ("SIPP"). This policy is intended to provide guidelines for the manager(s) as to the level of risk that is consistent with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The plan administrator is solely responsible for selecting the plan's investment policies, asset allocations, and individual investments.

The constraints on the asset mix and the actual asset mix at the valuation date are provided for information purposes:

	Investment Policy			Actual Asset Mix as at 31.12.2015
	Minimum	Target	Maximum	
Canadian equities	20%	30%	40%	32.3%
US equities	10%	15%	20%	17.2%
Non-North American equities	10%	15%	20%	12.3%
Universe bonds	30%	40%	60%	34.2%
Mortgages	0%	0%	10%	0.0%
Cash and cash equivalents	0%	0%	10%	4.0%
		100%		100%

Because of the mismatch between the Plan's assets (which are invested in accordance with the above investment policy) and the Plan's liabilities (which tend to behave like long bonds) the Plan's financial position will fluctuate over time. These fluctuations could be significant and could cause the Plan to become underfunded or overfunded even if the Company contributes to the Plan based on the funding requirements presented in this report.

APPENDIX C

Methods and Assumptions – Going Concern

Valuation of Assets

For this valuation, we have used the market value of assets.

Going Concern Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions, if any, and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected final average earnings. This is referred to as the funding target.

The funding excess or funding shortfall, as the case may be, is the difference between the market or smoothed value of assets and the funding target. A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets is not expected to be sufficient to meet the plan's cash flow requirements in respect of accrued benefits, absent additional contributions.

As required under the Act, a funding shortfall must be amortized over no more than 15 years through special payments. A funding excess may, from an actuarial standpoint, be applied immediately to reduce required employer current service contributions unless precluded by the terms of the plan or by legislation.

The actuarial cost method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

Current Service Cost

The current service cost is the present value of projected benefits to be paid under the plan with respect to service expected to accrue during the period until the next valuation.

The employer's current service cost has been expressed as a percentage of the members' pensionable earnings to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the current service cost for an individual member will increase each year as the member approaches retirement. However, the current service cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation	Previous valuation
Discount rate:	5.20%	5.60%
Inflation (Canada and Saskatchewan):	2.00%	2.25%
Post-retirement indexing:		
• 50% indexed	1.00%	1.13%
• 75% indexed	1.50%	1.69%
ITA limit / YMPE increases:	2.50%	2.75%
Pensionable earnings increases:	3.75% + service related merit and promotion scale	4.00%
Retirement rates:	Age-related table	Age-related table
Termination rates:	Age-related table	Age-related table
Mortality rates:	100% of the rates of the 2014 Private Sector Canadian Pensioners Mortality Table (CPM2014Priv)	100% of the rates of the 2014 Private Sector Canadian Pensioners Mortality Table (CPM2014Priv)
Mortality improvements:	Fully generational using CPM Improvement Scale B (CPM-B)	Fully generational using CPM Improvement Scale B (CPM-B)
Disability rates and allowance for recovery from disability:	None	None
Eligible spouse at retirement:	90%	90%
Spousal age difference:	Male spouse 4 years older than female spouse	Male spouse 4 years older than female spouse
Allowance for non-investment expenses	\$130,000 per annum	\$130,000 per annum
Benefits Settlement on Termination	75% elect commuted value; remainder assumed to elect pension deferred to normal retirement date	75% elect commuted value; remainder assumed to elect pension deferred to normal retirement date
Commuted Value Interest Rate	4.00%	3.00% for 10 years, 4.60% thereafter

The assumptions are best-estimate with the exception that the discount rate includes a margin for adverse deviations, as shown below.

Age and Service Related Tables

Sample rates from the age related tables are summarized in the following table:

Age	Termination	Retirement
20	5.00%	0%
25	3.75%	0%
30	3.05%	0%
35	2.35%	0%
40	1.93%	0%
45	1.50%	0%
50	1.08%	0%
55	0%	50%
56	0%	10%
57	0%	10%
58	0%	10%
59	0%	10%
60	0%	50%
61	0%	5%
62	0%	5%
63	0%	5%
64	0%	5%
65	0%	100%

Sample rates from the service related tables are summarized in the following table:

Continuous Service ⁶	Merit / Promotion scale		Continuous Service	Merit / Promotion scale	
	In-scope	Management		In-scope	Management
0	11.50%	1.00%	13	0.90%	1.00%
1	9.50%	1.00%	14	0.80%	1.00%
2	6.30%	1.00%	15	0.70%	1.00%
3	5.40%	1.00%	16	0.60%	1.00%
4	4.40%	1.00%	17	0.50%	1.00%
5	3.50%	1.00%	18	0.40%	1.00%
6	2.50%	1.00%	19	0.30%	1.00%
7	1.60%	1.00%	20	0.20%	1.00%
8	1.50%	1.00%	21	0.10%	1.00%
9	1.40%	1.00%	22	0.10%	1.00%
10	1.30%	1.00%	23	0.10%	1.00%
11	1.20%	1.00%	24	0.10%	1.00%
12	1.00%	1.00%	>=25	0.00%	1.00%

⁶ Completed years at the beginning of the year.

Pensionable Earnings

The benefits ultimately paid will depend on each member's final average earnings. To calculate the pension benefits payable upon retirement, death, or termination of employment, we have taken 2015 pensionable earnings and assumed that such pensionable earnings will increase at the assumed rate and merit / promotion scale.

Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the market value of the fund. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- Estimated returns for each major asset class consistent with market conditions on the valuation date and the target asset mix specified in the Plan's investment policy
- Additional returns assumed to be achievable due to active equity management, equal to the fees related to active equity management. Such fees were determined by the difference between the provision for total investment expenses and the hypothetical fees that would be incurred for passive management of all assets
- Implicit provision for investment expenses determined as the average rate of investment expenses paid from the fund over the last 3 years and expectations for future expense
- A margin for adverse deviations of 0.50%
- The discount rate was developed as follows:

Assumed investment return	5.91%
Additional return for active management	0.14%
Investment expense provision	(0.35%)
Margin for adverse deviation	(0.50%)

Net discount rate 5.20%

Inflation

The inflation assumption is based on the mid-point of the Bank of Canada's inflation target range of between 1% and 3%.

Income Tax Act Pension Limit and Year's Maximum Pensionable Earnings

The assumption is based on historical real economic growth and the underlying inflation assumption.

Pensionable Earnings

The assumption is based on general wage growth assumptions increased by our best estimate of future merit and promotional increases over general wage growth considering current economic and financial market conditions and company expectations.

Retirement Rates

Due to the size of the Plan, there is no meaningful retirement experience. The assumption is based on the Plan provisions and our experience with similar plans and employee groups.

Termination Rates

Due to the size of the Plan, there is no meaningful termination experience. The assumption is based on the same table as was used in the previous valuation and is consistent with our experience with similar plans and employee groups.

Mortality Rates

The assumption for the mortality rates is based on the Canadian Pensioners' Mortality (CPM) study published by the Canadian Institute of Actuaries in February 2014.

Due to the size of the Plan, specific data on plan mortality experience is insufficient to determine the mortality rates. After considering plan-specific characteristics, such as the type of employment, the industry experience, pension and employment income for the plan members, and data in the CPM study, it was determined to use the CPM mortality rates without adjustment.

There is broad consensus among actuaries and other longevity experts that mortality improvement will continue in the future, but the degree of future mortality improvement is uncertain. The mortality improvement scale published in the CPM study represents one reasonable outlook for future improvement. We have used the CPM mortality improvement scale without adjustment.

Based on the assumption used, the life expectancy of a member age 65 at the valuation date is 21.6 years for males and 24.0 years for females.

Disability Rates and Allowance for Recovery from Disability

Use of a different assumption would not have a material impact on the valuation.

Eligible Spouse

The assumption is based on an industry standard for non-retired members (actual status used for retirees).

Spousal Age Difference

The assumption is based on an industry standard showing males are typically 4 years older than their spouse.

Allowance for non-investment expenses

The assumption is based on an estimate of expected regular recurring non-investment expenses to be paid from the Plan assets over the next three years and future expectations.

APPENDIX D

Methods and Assumptions – Hypothetical Wind-up and Solvency

Hypothetical Wind-up Basis

The Canadian Institute of Actuaries requires actuaries to report the financial position of a pension plan on the assumption that the plan is wound up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit. For the purposes of the hypothetical wind-up valuation, the plan wind-up is assumed to occur in circumstances that maximize the actuarial liability and reflect the assumed form of benefit settlement.

To determine the actuarial liability on the hypothetical wind-up basis, we have valued those benefits that would have been paid had the Plan been wound up on the valuation date, with all members fully vested in their accrued benefits.

There are no benefits under the plan contingent upon the circumstances of the plan wind-up or contingent upon other factors. In particular, there are no additional benefits that would be immediately payable if the employer's business were discontinued on the valuation date. Therefore, it was not necessary to postulate a scenario upon which the hypothetical wind-up valuation is made. Therefore, no benefits payable on plan wind-up were excluded from our calculations.

Upon plan wind-up, members are given options for the method of settling their benefit entitlements. The options vary by eligibility and by province of employment, but in general, involve either a lump sum transfer or an immediate or deferred pension.

The value of benefits assumed to be settled through a lump sum transfer is based on the assumptions described in Section 3500 – *Pension Commuted Values* of the Canadian Institute of Actuaries' Standards of Practice applicable for December 31, 2015.

Benefits provided as an immediate or deferred pension are assumed to be settled through the purchase of annuities based on an estimate of the cost of purchasing annuities.

However, there is limited data available to provide credible guidance on the cost of a purchase of indexed annuities in Canada. In accordance with the *Canadian Institute of Actuaries Educational Note: Assumptions for Hypothetical Wind-up and Solvency Valuations with Effective Dates Between December 31, 2015 and December 30, 2016* (the "Educational Note"), we have assumed that an appropriate proxy for estimating the cost of such purchase is using the yield on the long-term Government of Canada Real Return bonds, reduced by 0.7%.

The Educational Note provides guidance on estimating the cost of annuity purchases assuming a typical group of annuitants. That is, no adjustments for sub- or super-standard mortality are considered. However, it is expected that insurers will consider plan experience and certain plan-specific characteristics when determining the mortality basis for a particular group. The Educational Note states that the actuary would be expected to make an adjustment to the regular annuity purchase assumptions where there is demonstrated substandard or super-standard mortality or where an insurer might be expected to assume so. In such cases, the actuary would be expected to make an adjustment to the mortality assumption in a manner consistent with the underlying annuity purchase basis. Given the uncertainty surrounding the actual mortality basis that would be typical of a group annuity purchase, it is reasonable to assume that there is a range of bases that can be expected not to be materially different from the actual mortality basis. Therefore, an adjustment to the regular annuity purchase assumptions would be warranted when the plan's assumed basis falls outside that range.

We have not included a margin for adverse deviation in the solvency and hypothetical wind-up valuations.

The assumptions are as follows:

Form of Benefit Settlement Elected by Member

Lump sum	100% of active and deferred members under age 55 elect to receive their benefit entitlement in a lump sum.
Annuity purchase	All remaining members are assumed to elect to receive their benefit entitlement in the form of a deferred or immediate pension. These benefits are assumed to be settled through the purchase of deferred or immediate annuities from a life insurance company.

Basis for Benefits Assumed to be Settled through a Lump Sum

Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Mortality Table
Interest rate:	
• Non-Indexed	2.10% for 10 years, 3.70% thereafter
• 50% inflation indexed	1.70% for 10 years, 2.80% thereafter
• 75% inflation indexed	1.50% for 10 years, 2.30% thereafter

Basis for Benefits Assumed to be Settled through the Purchase of an Annuity

Mortality rates:	100% of the rates of the 2014 Canadian Pensioners Mortality Table
Interest rate:	
• Non-Indexed	3.10%
• 50% inflation indexed	1.54%
• 75% inflation indexed	0.75%

Other Assumptions

Special payments	Discounted at the average interest rate of 2.76% per year
Final average earnings:	Based on actual pensionable earnings over the averaging period
Family composition:	Same as for going concern valuation
Maximum pension limit:	\$2,890 increasing after 2016 at 1.82% for 9 years, 2.88% thereafter
Plan wind-up expenses:	\$350,000

To determine the hypothetical wind-up position of the Plan, a provision has been made for estimated plan wind-up expenses payable from the Plan's assets in respect of actuarial and administration expenses that may reasonably be expected to be incurred in terminating the Plan and to be charged to the Plan.

Because the settlement of all benefits on wind-up is assumed to occur on the valuation date and is assumed to be uncontested, the provision for termination expenses does not include custodial, investment management, auditing, consulting, and legal expenses that would be incurred between the wind-up date and the settlement date or due to the terms of a wind-up being contested.

Expenses associated with the distribution of any surplus assets that might arise on an actual wind-up are also not included in the estimated termination expense provisions.

In determining the provision for termination expenses payable from the Plan's assets, we have assumed that the plan sponsor would be solvent on the wind-up date. We have also assumed, without analysis, that the Plan's terms as well as applicable legislation and court decisions would permit the relevant expenses to be paid from the Plan.

Actual fees incurred on an actual plan wind-up may differ materially from the estimates disclosed in this report.

Incremental Cost

In order to determine the incremental cost, we estimate the hypothetical wind-up liabilities at the next valuation date. We have assumed that the cost of settling benefits by way of a lump sum or purchasing annuities remains consistent with the assumptions described above. Since the projected hypothetical wind-up liabilities will depend on the membership in the Plan at the next valuation date, we must make assumptions about how the Plan membership will evolve over the period until the next valuation.

We have assumed that the Plan membership will evolve in a manner consistent with the going concern assumptions as follows:

- Members terminate, retire, and die consistent with the termination, retirement, and mortality rates used for the going concern valuation.
- Pensionable earnings, the Income Tax Act pension limit, and the Year's Maximum Pensionable Earnings increase in accordance with the related going concern assumptions.
- Active members accrue pensionable service in accordance with the terms of the Plan.
- To accommodate for new entrants to the Plan, we have added to the projected liability an amount equal to the liability of new entrants that have joined the Plan since the previous valuation.
- Cost of living adjustments are consistent with the inflation assumption used for the solvency valuation.

Solvency Basis

In determining the financial position of the Plan on the solvency basis, we have used the same assumptions and methodology as were used for determining the financial position of the Plan on the hypothetical wind-up basis.

The solvency position is determined in accordance with the requirements of the Act.

APPENDIX E

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at December 31, 2015, provided by the Company.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments, and pensions to retirees were compared with corresponding amounts reported in financial statements. The results of these tests were satisfactory.

If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	31.12.2015	31.12.2013
Active Members		
Number	853	766
Total pensionable earnings	\$84,776,019	\$70,566,083
Average pensionable earnings	\$99,386	\$92,123
Average years of pensionable service	12.5	13.6
Average age	40.9	41.8
Deferred Pensioners⁷		
Number	23	16
Total monthly pension	\$33,193	\$20,163
Average monthly pension	\$1,509	\$1,260
Average age	47.1	52.6
Pensioners and Survivors		
Number	124	85
Total monthly lifetime pension	\$555,491	\$352,947
Total monthly temporary pension	\$33,952	\$26,134
Average monthly lifetime pension	\$4,480	\$4,152
Average age	63.3	62.6

⁷ Counts include one member as at December 31, 2015 with a pending payout who is not included in the statistics.

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Actives	Deferred Vested	Pensioners and Beneficiaries	Total
Total at December 31, 2013	766	16	85	867
New entrants	148			148
Terminations:				
• Not vested				
• Transfers/lump sums	(7)			(7)
• Deferred pensions	(7)	7		0
Deaths	(5)	1	(7)	(11)
Retirements	(42)	(1)	43	0
Beneficiaries			3	3
Total at December 31, 2015	853	23	124	1,000

The distribution of the active members by age and pensionable service, along with average pensionable earnings in 2015, as at December 31, 2015 is summarized as follows:

Age	Years of Pensionable Service									Total
	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	
<25	30	2								32
	\$75,998	\$84,275								\$76,515
25 to 29	97	30								127
	\$84,836	\$96,040								\$87,483
30 to 34	72	59	16							147
	\$84,631	\$96,782	\$105,363							\$91,764
35 to 39	40	44	43	7						134
	\$85,505	\$96,705	\$106,074	\$118,772						\$97,521
40 to 44	18	23	24	25	7					97
	\$83,763	\$93,757	\$100,157	\$109,266	\$124,263					\$99,685
45 to 49	6	14	13	12	12	35	1			93
	\$88,063	\$91,980	\$109,006	\$106,235	\$133,010	\$116,835	*			\$111,042
50 to 54	5	7	18	10	8	56	7	8		119
	\$78,532	\$85,596	\$99,303	\$106,715	\$109,269	\$111,333	\$124,056	142,704		\$109,010
55 to 59	3	7	7	5	5	37	5	8		77
	\$86,701	\$89,609	\$115,319	\$165,944	\$86,622	\$114,613	\$130,954	\$127,884		\$115,272
60 to 64	2	3	4	1	1	5	2	4	3	25
	\$70,189	\$97,794	\$78,500	*	*	\$113,441	\$132,447	\$108,851	\$111,899	\$100,749
65 to 69						2				2
						\$148,380				\$148,380
Total	273	189	125	60	33	135	15	20	3	853
	\$83,707	\$95,163	\$103,812	\$113,406	\$117,314	\$114,285	\$128,109	\$130,005	\$111,899	\$99,386

*Data suppressed for confidentiality purposes.

The distribution of the inactive members by age as at the valuation date is summarized as follows:

Retirements Prior to February 1, 2007

		Indexed at 50% CPI		Non Indexed	
AGE	Number	Total Monthly Lifetime Pensions	Total Monthly Temporary Pensions	Total Monthly Lifetime Pensions	Total Monthly Temporary Pensions
65-69	8	\$10,076	\$0	\$9,929	\$0
>70	1	\$1,470	\$0	\$191	\$0
TOTAL	9	\$11,547	\$0	\$10,120	\$0

Retirements on and after February 1, 2007

Indexed at 75% CPI			
AGE	Number	Lifetime Pensions	Temporary Pensions
55-59	29	\$170,997	\$14,758
60-64	49	\$224,199	\$19,195
65-69	29	\$107,718	\$0
>70	8	\$29,550	\$0
TOTAL	115	\$532,464	\$33,952

APPENDIX F

Summary of Plan Provisions

Mercer has used and relied on the plan documents, including amendments and interpretations of plan provisions, supplied by the Company. If any plan provisions supplied are not accurate and complete, the results of any calculation may differ significantly from the results that would be obtained with accurate and complete information. Moreover, plan documents may be susceptible to different interpretations, each of which could be reasonable, and the results of estimates under each of the different interpretations could vary.

This valuation is based on the plan provisions in effect on December 31, 2015. Since the previous valuation, the Plan has not been amended.

DB Component

The following is a summary of the main provisions of the Plan in effect on December 31, 2015. This summary is not intended as a complete description of the Plan.

Eligibility for Membership	<p>The plan is closed to employees hired after December 31, 2007 who are not members of collective bargaining unit at their date of hire.</p> <p>All other full time employees must join the plan after the completion of one year of service. Part time, temporary or construction employees may elect to join the plan after 24 months of service provided the employee has completed 700 hours of employment in each of the two preceding calendar years.</p>
Employee Contributions	<p>No employee contributions are required.</p>
Retirement Dates	<p>Normal Retirement Date</p> <ul style="list-style-type: none">• The normal retirement date is the first day of the month following the member's 65th birthday. <p>Early Retirement Date</p> <ul style="list-style-type: none">• If a member has been in the Plan for at least two years, the member may choose to retire as early as age 55. <p>Postponed Retirement Date</p> <ul style="list-style-type: none">• A member may postpone retirement until the first day of December of the year in which the member attains age 71.

Normal Retirement Pension	<p>Management Members</p> <p>2% of Highest Average Earnings multiplied by the years of pensionable service accrued on or after January 1, 1990</p> <p>PLUS</p> <p>1.8% of Highest Average Earnings multiplied by the years of pensionable service accrued before January 1, 1990</p> <p>LESS</p> <p>1.5% multiplied by the years of pensionable service to a maximum of 50%, multiplied by the maximum Canada Pension Plan retirement pension payable (prorated if the member's earnings are less than the YMPE) if the member were age 65 at the earlier of the date of retirement or termination.</p> <p>Union Member</p> <p>2% of Highest Average Earnings multiplied by the years of pensionable service</p> <p>LESS</p> <p>1.5% multiplied by the years of pensionable service to a maximum of 50%, multiplied by the maximum Canada Pension Plan⁸ retirement pension payable (prorated if the member's earnings are less than the YMPE) if the member were age 65 at the earlier of the date of retirement or termination.</p> <p>Pensionable past service, if any, is included as part of the pensionable service prior to January 1, 1990, and the pension provided by member's total accumulated amount of matched contributions in the Co-operative Superannuation Society in respect of the pensionable past service is deducted from the formula pension above.</p> <p>Prior to August 1, 2005 annuities were purchased at retirement. For retirement after that date, pensions are paid from the fund.</p>
Highest Average Earnings Pensionable Service	The annual average of the best 36 months of the member's earnings
Earnings	Regular pay including shift differentials.
Pensionable Service	Completed months of continuous employment commencing from the earlier of the date the employee joins the Plan or the date the employee is appointed to a permanent full-time position.
Early Retirement Pension	<p>If a member retires early, the member will be entitled to a pension that is calculated the same way as for a normal retirement. The basic pension payable, however, will be reduced as follows:</p> <ul style="list-style-type: none"> • A member may elect to retire on the first day of the month after age 55. • A member, other than a terminated vested member, may retire with an unreduced pension prior to age 65 upon completion of 30 years of continuous service or on the attainment of age 60 with ten years of continuous service. • A member, other than a terminated vested member, who retires prior to age 60 with 10 years of continuous service but less than 30 years of continuous service is entitled to a pension reduced by 5% per year prior to age 60. • All other members, including terminated vested members, are subject to an actuarial equivalent reduction from normal retirement date.
Bridge Benefit	For a member, other than a terminated vested member, who retires early, the reduction applicable to the Canada Pension Plan (1.5% multiplied by the years of

⁸ Reflecting Canada Pension Plan provisions at the valuation date.

	pensionable service to a maximum of 50%, multiplied by the maximum Canada Pension Plan retirement pension payable) will not commence until age 65.
Postponed Retirement	A member who retires at their normal retirement but elects to postpone the commencement of their pension shall have their pension actuarially increased to date of retirement. A member who elects to postpone the commencement of their pension but continues working after normal retirement date shall continue to accrue benefits.
Death Benefits	<p>Pre-retirement:</p> <ul style="list-style-type: none"> If a member dies before the normal retirement date and before any pension payments have begun, the member's spouse, or beneficiary if there is no spouse, will receive a lump sum settlement equal to the value of the benefits to which the member would have been entitled had employment terminated on the date of death. <p>Post retirement:</p> <ul style="list-style-type: none"> The normal form of payment for a member without a spouse at date of retirement is a lifetime pension guaranteed for five years. The normal form of payment for a member with a spouse at date of retirement is a pension payable for the member's lifetime with 30% of that pension payable to the spouse after the death of the member, but guaranteed for five years in any event. However, the member may elect to receive an optional form of pension on an actuarial equivalent basis subject to spousal waiver requirements pursuant to the Act.
Termination of employment	<p>Less than two years of continuous service:</p> <ul style="list-style-type: none"> No benefits. At least two years of continuous service: A deferred lifetime pension, based on the member's earnings and credited service up to the date of termination. Deferred pensions are payable commencing at age 65. However, a member may elect to receive an actuarially reduced early retirement pension as early as age 55. Portability options are available provided the member is not eligible to retire at the date of termination.
Maximum Benefits	<p>The total annual lifetime pension payable from the Plan upon retirement, death or termination of employment cannot exceed the lesser of:</p> <ul style="list-style-type: none"> 2% of the average of the best three consecutive years of total compensation paid to the member by the Company, multiplied by total pensionable service; and \$2,890.00 in 2016 or such other maximum permitted under the Income Tax Act, multiplied by the member's total credited service. <p>The maximum pension is determined at the date of pension commencement.</p>
Pension Increases	<p>For retirements and terminations prior to February 1, 2007, benefits earned in respect of service after January 1, 1990 are increased annually at a rate of 50% of the percentage increase in the Canada Consumer Price Index for the previous year, commencing on the later of the member's 60th birthday or the member's retirement date.</p> <p>For retirements on or after February 1, 2007, benefits earned in respect of all years of pensionable service are increased annually at a rate of 75% of the percentage increase in the Saskatchewan Consumer Price Index for the previous year, commencing on the members' retirement date.</p>

APPENDIX G


Employer Certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at December 31, 2015 of the CCRL Petroleum Employees' Pension Plan, I hereby certify that, to the best of my knowledge and belief:

- The valuation reflects the terms of Federated Co-operatives Limited and Consumers' Co-operative Refineries Limited engagement with the actuary described in section 2 of this report, particularly the requirement to include a margin of 0.50% in the discount rate used to perform the going concern valuation and Federated Co-operatives Limited's and Consumers' Co-operative Refineries Limited's decisions in regards to determining the going-concern and solvency funding requirements.
- A copy of the official plan documents and of all amendments made up to December 31, 2015 was provided to the actuary and is reflected appropriately in the summary of plan provisions contained herein.
- The asset information summarized in Appendix B is reflective of the Plan's assets.
- The membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to December 31, 2015.
- All events subsequent to December 31, 2015 that may have an impact on the Plan have been communicated to the actuary.

October 31, 2016

Date


Signed

Tony Van Burgsteden
Vice-President Finance

Name



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