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REGISTRATION DIVISION

August 24, 2006

Ms. Carole J. Washburn, Executive Secretary
Washington Utilities and Transportation Commission
1300 S. Evergreen Par Drive SW
P.O. Box 47250
Olympia, Washington 98504-7250

Re: Petition for Accounting Order regarding SFAS 143, Accounting for Asset Retirement Obligations, and FIN47, Accounting for Conditional Retirement Obligations

Dear Ms. Washburn,

Enclosed please find an original and twelve copies of Cascade Natural Gas Corporation's Petition and supporting work papers for an accounting order related to SFAS 143 and FIN47.

Questions regarding this Petition should be directed to Kathie Barnard at (206) 381-6824 or Doris Brettell at (206) 381-6745.

Sincerely,

Jon Stoltz
Senior Vice President, Regulatory & Gas Supply
Cascade Natural Gas Corporation

BEFORE THE WASHINGTON UTILITIES & TRANSPORTATION
COMMISSION

Petition of

CASCADE NATURAL GAS CORPORATION

For an Order Regarding the Accounting
Treatment of Certain Asset Requirement
Obligations Resulting from Implementation of
SFAS 143

Docket No. UG-06_____

PETITION

1 In accordance with WAC 480-07-370(b), Cascade Natural Gas Corporation (“Cascade” or “the Company”) respectfully petitions the Washington Utilities & Transportation Commission (the “Commission”) for an accounting order authorizing the Company to (1) record, as a regulatory asset or a regulatory liability, the cumulative financial statement impact resulting from the Company’s implementation of Statement of Financial Accounting Standards (SFAS) 143, as further clarified by FASB Interpretation no. (FIN) 47, Accounting for Conditional Retirement Obligations; and (2) record on an ongoing basis, as a regulatory asset or a regulatory liability, an amount equal to the difference between the annual SFAS 143 accretion and depreciation expenses and the annual depreciation expense based on Commission-approved depreciation rates. In support of this Petition, Cascade states:

BACKGROUND

2 Cascade is a natural gas distribution company serving approximately 235,000 residential, commercial, industrial and transportation customers in 95 communities in Washington and

Oregon. Cascade is a public service company, and is subject to the regulatory authority of the Commission as to its rates, service, facilities and practices.

3 This Petition is filed pursuant to RCW 80.04.090, which authorizes the Commission to prescribe the forms of account to be kept by public service companies; and WAC 480-07-370, which authorizes the Commission to prescribe the accounting to be used by public utilities subject to its jurisdiction.

4 Communications regarding this Petition should be addressed to:

Jon T. Stoltz
Senior Vice President, Regulatory & Gas Supply
Cascade Natural Gas Corporation
222 Fairview Avenue North
Seattle, WA 98109
Telephone: (206) 624-3900
Facsimile: (206) 654-4039
E-mail: jstoltz@cngc.com

5 Under the accounting method currently used by the Company for both financial reporting and ratemaking purposes, the cost of removing a tangible long-lived asset at retirement is included in the calculation of depreciation rates as negative salvage and is recovered over the useful life of the asset. Under this method, the accrued removal cost is included in Account 108, Accumulated Depreciation.

6 In June 2001, the Financial Accounting Standards Board (FASB) issued SFAS 143, *Accounting for Asset Retirement obligations*, effective for fiscal years after June 15, 2002. Under SFAS 143, entities are required to recognize and account for certain asset retirement obligations in a manner different from the way that Cascade and other public utilities have previously recognized and accounted for such costs. Specifically, if a legally

enforceable asset retirement obligation (ARO), as defined by SFAS 143, is deemed to exist, an entity must measure and record the liability for the ARO on its books. The liability must be recorded at fair market value in the period during which the liability is incurred. SFAS 143 defines “fair market value” as the amount that the entity would be required to pay in an active market to settle the ARO. SFAS 143 also provides that, if market prices are not available, estimates of fair value can be calculated by discounting the estimated cash flows associated with the ARO to their present value at the date the liability is to be recorded.

7 Under SFAS 143, at the time the liability is recorded, a corresponding ARO asset is also recorded on the entity’s books as part of the cost of the associated tangible asset. The ARO asset is then depreciated over the life of the associated tangible asset. In addition, accretion is added to the ARO liability annually to account for the time value of money, so that at the time of retirement, the recorded ARO liability will be sufficient to meet the legal obligation. Entities are also required to recognize the cumulative effect of the implementation of SFAS 143 on their financial statements.

8 SFAS 143 recognizes that differences may exist between its requirements and the treatment of ARO costs for regulatory purposes and provides that a regulated entity subject to SFAS 71, *Accounting for the Effects of Certain Types of Regulation*, can recognize any differences between the two approaches as a regulatory asset or a regulatory liability, subject to the requirements of SFAS 71.

In March 2005, the FASB issued FIN 47, *Accounting for Conditional Asset Retirement Obligations*, effective for fiscal years ending after December 15, 2005. FIN 47 clarifies that the term conditional asset retirement obligation as used in SFAS 143 refers to

a legal obligation to perform an asset retirement activity in which the timing and (or) method of settlement are conditional on a future event that may or may not be within the control of the entity, the obligation to perform the asset retirement activity, however, is unconditional.

- 9 In accordance with Generally Accepted Accounting Principles, Cascade is required to comply with SFAS 143 and FIN 47. Due to the lack of an active market for determining AROs, the Company will use the expected present value method to account for its ARO liabilities and offsetting assets.
- 10 After a thorough review, Cascade has determined that it will be required to record AROs under SFAS 143 and FIN 47 for certain assets. Under the proposed accounting treatment, the resulting transactions will have no impact for ratemaking purposes.
- 11 In addition to the cumulative ARO entries that will be recorded September 30, 2006, SFAS 143/FIN 47 accounting will require three annual entries. One entry will be required to record the annual increase in the ARO liability from the accretion of interest and another will be necessary to record the annual depreciation of the associated ARO asset on a straight-line basis over its remaining life.
- 12 The third entry will adjust the accumulated removal costs included in accumulated depreciation to the current amount. Since the Company will continue to use the Commission-approved depreciation rates to determine annual asset retirement costs for ratemaking purposes, these new accounting entries will not change the level of costs included in rates.
- 13 Nothing in the Petition is intended to request any approval regarding future ratemaking treatment. However, consistent with past rate proceedings, the Company will continue to

seek recovery of prudently incurred removal costs, not previously recovered through depreciation expenses, in future rate case proceedings.

REQUESTED ACCOUNTING TREATMENT

- 14* In order to comply with the requirements of SFAS 143/ FIN 47 and maintain revenue neutrality with respect to these costs as they relate to regulatory accounting, Cascade seeks Commission approval to record the effect of the annual SFAS 143/FIN47 accretion and depreciation expense as an adjustment to the regulatory asset and the net change in accumulated removal costs as an adjustment to the related regulatory liability. These costs will be recorded in FERC Account 230, Asset Retirement Obligations.

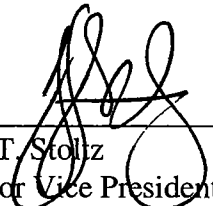
SUMMARY

15 WHEREFORE, Cascade respectfully requests that the Commission enter an order approving the Company's request accounting treatment of as follows:

- 1) Authorizing Cascade to record, as a regulatory asset or a regulatory liability, the cumulative financial statement impact resulting from the Company's implementation of SFAS 143/FIN 47.
- 2) Authorizing Cascade to record, on an ongoing basis, as a regulatory asset or regulatory liability, an amount equal to the difference between the annual SFAS 143/FIN 47 accretion and depreciation expense and the annual depreciation expense based on Commission-approved depreciation rates.
- 3) Confirming that asset removal costs, in the form of negative net salvage, are currently accrued through annual depreciation expense, which is recoverable in rates; that these costs are based on estimates of the final removal cost; and that such costs are trued-up for ratemaking purposes at the time the related assets are retired and the actual removal costs are determined.
- 4) The accounting entries that result from the implementation of SFAS 143/FIN 47 will be recorded on the Company's books as of September 30, 2006. Cascade hereby requests that the Commission grant the requested accounting treatment by September 30, 2006, in order to facilitate the closing of the Company's 2006 financial statements in accordance with this request.

DATED this 24th day of August, 2006.

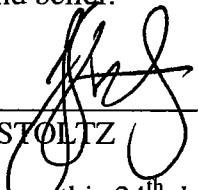
**CASCADE NATURAL GAS
CORPORATION**

By  _____
Jon T. Stoltz
Senior Vice President
Regulatory & Gas Supply

VERIFICATION

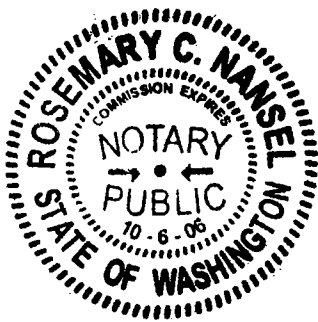
JON T. STOLTZ, being first duly sworn, on oath deposes and says:

That he is Senior Vice President, Regulatory & Gas Supply, of Cascade Natural Gas Corporation, that he has read the foregoing Petition for an Order Regarding Accounting Treatment of Certain Asset Requirement Obligations Resulting from Implementation of SFAS 143, that he knows the contents thereof, and that he believes the same to be true and the best of his knowledge and belief.



JON T. STOLTZ

SUBSCRIBED AND SWORN to before me this 24th day of August, 2006.



Rosemary C Nansel
Print Name: Rosemary C Nansel
Notary Public in and for the State of
Washington, residing at King
My commission expires: OCT 6, 2006



Cascade Natural Gas Corporation

FAS143/FIN47 Asset Retirement Obligations

Work Papers

Summary of Asset Retirement Costs

Cascade Natural Gas Corporation
FAS 143/FIN 47 Implementation

	Anacortes	Kennewick	Longview	Moses Lake	Total
Asset Retirement Cost	\$ 13,797	\$ 5,817	\$ 7,589	\$ 3,600	\$ 30,803
Cumulative Effect/Regulatory Asset	126,890	53,543	69,910	33,130	283,473
Asset Retirement Obligation*	(129,551)	(54,623)	(71,258)	(33,799)	(289,231)
Accumulated Depreciation	(11,136)	(4,737)	(6,241)	(2,931)	(25,045)

Amounts shown are initial calculations and are subject to change prior to preparation of the 9/30/06 FAS 143 journal entries

*In accordance with FAS143, CNGC measured the Asset Retirement Obligations by using the expected Cash Flow present value technique. Multiple cash flow scenarios reflecting the range of possible outcomes and a credit-adjusted risk-free rate were used to estimate the fair value

Cascade Natural Gas Corporation
FAS 143/FIN 47 Implementation

<u>Transition Entries to record as of 9/30/2006</u>	<u>FERC Account Description</u>	<u>FERC Account</u>	<u>Dr.</u>	<u>Cr.</u>
To record the liabilities for asset retirement obligations with offsetting increase to carrying amount of related assets	ARO Assets ARO Liabilities	101 230	30,803	30,803
To record the accretion of asset retirement obligation liabilities from 1970 - 2006	Cumulative Effect adjustment ARO Liabilities	Regulatory Asset 230	258,428	258,428
To record the depreciation of asset retirement cost from 1970 - 2006	Cumulative Effect adjustment Accum Deprec - ARO assets	Regulatory Asset 108	25,045	25,045
To record cumulative effect of implementation of FAS 143 as regulatory assets	Regulatory Assets Cumulative Effect adjustment	182.3 Regulatory Asset	283,473	283,473
Net effect of above entries	ARO Assets Accum Deprec - ARO assets Regulatory Assets ARO Liabilities	101 108 182.3 230	30,803 283,473	25,045 258,428

Amounts shown are initial calculations and are subject to change prior to preparation of the 9/30/2006 FAS 143 journal entries

Cascade Natural Gas Corporation
FAS 143/FIN 47 Implementation
Accretion of Interest

49 CFR Part 192.727
became effective in 1970

YEAR	Anacortes	Kennewick	Longview	Moses Lake	Total
1970	860.93	363.00	473.54	224.61	
1971	914.65	385.65	503.09	238.63	
1972	971.72	409.71	534.48	253.52	
1973	1,032.36	435.28	567.84	269.34	
1974	1,096.78	462.44	603.27	286.14	
1975	1,165.22	491.30	640.91	304.00	
1976	1,237.93	521.96	680.91	322.97	
1977	1,315.17	554.53	723.39	343.12	
1978	1,397.24	589.13	768.53	364.53	
1979	1,484.43	625.89	816.49	387.28	
1980	1,577.06	664.94	867.44	411.45	
1981	1,675.47	706.44	921.57	437.12	
1982	1,780.02	750.52	979.07	464.40	
1983	1,891.09	797.35	1,040.17	493.38	
1984	2,009.09	847.11	1,105.07	524.16	
1985	2,134.46	899.97	1,174.03	556.87	
1986	2,267.65	956.12	1,247.29	591.62	
1987	2,409.15	1,015.79	1,325.12	628.54	
1988	2,559.48	1,079.17	1,407.81	667.76	
1989	2,719.19	1,146.51	1,495.66	709.42	
1990	2,888.87	1,218.05	1,588.99	753.69	
1991	3,069.14	1,294.06	1,688.14	800.72	
1992	3,260.65	1,374.81	1,793.48	850.69	
1993	3,464.12	1,460.60	1,905.39	903.77	
1994	3,680.28	1,551.74	2,024.29	960.17	
1995	3,909.93	1,648.57	2,150.60	1,020.08	
1996	4,153.91	1,751.44	2,284.80	1,083.73	
1997	4,413.11	1,860.73	2,427.37	1,151.36	
1998	4,688.49	1,976.84	2,578.84	1,223.20	
1999	4,981.05	2,100.19	2,739.76	1,299.53	
2000	5,291.87	2,231.24	2,910.72	1,380.62	
2001	5,622.08	2,370.47	3,092.35	1,466.77	
2002	5,972.90	2,518.39	3,285.31	1,558.30	
2003	6,345.61	2,675.54	3,490.32	1,655.54	
2004	6,741.57	2,842.49	3,708.11	1,758.84	
2005	7,162.25	3,019.86	3,939.50	1,868.59	
2006	7,609.17	3,208.30	4,185.32	1,985.19	
Cumulative Effect of Accretion	115,754.09	48,806.13	63,668.97	30,199.65	258,428.84



Cascade Natural Gas Corporation

FAS143/FIN47 Asset Retirement Obligations

Work Papers

Anacortes

Cascade Natural Gas Corporation
Retirement of Anacortes
Summary

Background: CNGC estimates that the asset retirements associated with legal obligations will be settled between 5 and 10 years (i.e. between 2011 & 2016). It is also estimated that the actual retirement period will be over 3 years

Asset Retirement Cost - Discounted 1970 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	2,078.44	1,966.64	1,895.47	
Year 2 cost	4,729.34	4,474.96	4,313.03	
Year 3 cost	7,666.54	7,254.18	6,991.66	
	<u>\$14,474.32</u>	<u>\$13,695.78</u>	<u>\$13,200.16</u>	
Probability	34%	33%	33%	
	<u>\$4,921.27</u>	<u>\$4,519.61</u>	<u>\$4,356.05</u>	<u><u>\$13,797</u></u>

Asset Retirement Obligation - Discounted 2006 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$19,516.19	\$18,466.46	\$17,798.21	
Year 2 cost	\$44,407.79	\$42,019.21	\$40,498.64	
Year 3 cost	\$71,987.59	\$68,115.57	\$65,650.62	
	<u>135,911.57</u>	<u>128,601.24</u>	<u>123,947.47</u>	
Probability	34%	33%	33%	
	<u>\$46,209.93</u>	<u>\$42,438.41</u>	<u>\$40,902.66</u>	<u><u>\$129,551</u></u>

Accumulated Depreciation - from 1970 thru 2006

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$1,831.00	\$1,617.02	\$1,492.18	
Year 2 cost	\$4,069.44	\$3,599.43	\$3,324.62	
Year 3 cost	\$6,446.86	\$5,710.73	\$5,279.42	
	<u>12,347.30</u>	<u>10,927.18</u>	<u>10,096.23</u>	
Probability	34%	33%	33%	
	<u>\$4,198.08</u>	<u>\$3,605.97</u>	<u>\$3,331.75</u>	<u><u>\$11,136</u></u>

Cascade Natural Gas Corporation
Anacortes

Accretion of Interest

	5 Years	8 Years	10 Years	Weighted Average Total
1970	\$903.20	\$854.62	\$823.69	\$860.93
1971	\$959.56	\$907.94	\$875.09	\$914.65
1972	\$1,019.43	\$964.60	\$929.69	\$971.72
1973	\$1,083.05	\$1,024.79	\$987.71	\$1,032.36
1974	\$1,150.63	\$1,088.74	\$1,049.34	\$1,096.78
1975	\$1,222.43	\$1,156.68	\$1,114.82	\$1,165.22
1976	\$1,298.71	\$1,228.85	\$1,184.38	\$1,237.93
1977	\$1,379.75	\$1,305.53	\$1,258.29	\$1,315.17
1978	\$1,465.84	\$1,387.00	\$1,336.81	\$1,397.24
1979	\$1,557.31	\$1,473.55	\$1,420.22	\$1,484.43
1980	\$1,654.49	\$1,565.50	\$1,508.84	\$1,577.06
1981	\$1,757.73	\$1,663.18	\$1,603.00	\$1,675.47
1982	\$1,867.41	\$1,766.97	\$1,703.02	\$1,780.02
1983	\$1,983.94	\$1,877.22	\$1,809.29	\$1,891.09
1984	\$2,107.73	\$1,994.36	\$1,922.19	\$2,009.09
1985	\$2,239.26	\$2,118.81	\$2,042.14	\$2,134.46
1986	\$2,378.99	\$2,251.03	\$2,169.57	\$2,267.65
1987	\$2,527.43	\$2,391.49	\$2,304.95	\$2,409.15
1988	\$2,685.15	\$2,540.72	\$2,448.78	\$2,559.48
1989	\$2,852.70	\$2,699.26	\$2,601.58	\$2,719.19
1990	\$3,030.71	\$2,867.69	\$2,763.92	\$2,888.87
1991	\$3,219.82	\$3,046.64	\$2,936.39	\$3,069.14
1992	\$3,420.74	\$3,236.75	\$3,119.62	\$3,260.65
1993	\$3,634.19	\$3,438.72	\$3,314.28	\$3,464.12
1994	\$3,860.97	\$3,653.30	\$3,521.09	\$3,680.28
1995	\$4,101.89	\$3,881.26	\$3,740.81	\$3,909.93
1996	\$4,357.85	\$4,123.45	\$3,974.24	\$4,153.91
1997	\$4,629.78	\$4,380.76	\$4,222.23	\$4,413.11
1998	\$4,918.68	\$4,654.12	\$4,485.69	\$4,688.49
1999	\$5,225.60	\$4,944.53	\$4,765.60	\$4,981.05
2000	\$5,551.68	\$5,253.07	\$5,062.98	\$5,291.87
2001	\$5,898.11	\$5,580.86	\$5,378.90	\$5,622.08
2002	\$6,266.15	\$5,929.11	\$5,714.55	\$5,972.90
2003	\$6,657.16	\$6,299.09	\$6,071.14	\$6,345.61
2004	\$7,072.56	\$6,692.15	\$6,449.98	\$6,741.57
2005	\$7,513.89	\$7,109.74	\$6,852.45	\$7,162.25
2006	\$7,982.76	\$7,553.39	\$7,280.05	\$7,609.17
	<u>\$121,437.25</u>	<u>\$114,905.46</u>	<u>\$110,747.30</u>	
	34%	33%	33%	
	<u>\$41,289</u>	<u>\$37,919</u>	<u>\$36,547</u>	<u>\$115,754</u>

1977	\$3,175.07	\$198.12	\$3,373.19	\$346.41	\$49.49	\$395.89	\$2,078.44	\$1,682.54
1978	\$3,373.19	\$210.49	\$3,583.68	\$395.89	\$49.49	\$445.38	\$2,078.44	\$1,633.06
1979	\$3,583.68	\$223.62	\$3,807.30	\$445.38	\$49.49	\$494.87	\$2,078.44	\$1,583.57
1980	\$3,807.30	\$237.58	\$4,044.88	\$494.87	\$49.49	\$544.35	\$2,078.44	\$1,534.08
1981	\$4,044.88	\$252.40	\$4,297.28	\$544.35	\$49.49	\$593.84	\$2,078.44	\$1,484.60
1982	\$4,297.28	\$268.15	\$4,565.43	\$593.84	\$49.49	\$643.33	\$2,078.44	\$1,435.11
1983	\$4,565.43	\$284.88	\$4,850.31	\$643.33	\$49.49	\$692.81	\$2,078.44	\$1,385.62
1984	\$4,850.31	\$302.66	\$5,152.97	\$692.81	\$49.49	\$742.30	\$2,078.44	\$1,336.14
1985	\$5,152.97	\$321.55	\$5,474.52	\$742.30	\$49.49	\$791.79	\$2,078.44	\$1,286.65
1986	\$5,474.52	\$341.61	\$5,816.13	\$791.79	\$49.49	\$841.27	\$2,078.44	\$1,237.16
1987	\$5,816.13	\$362.93	\$6,179.05	\$841.27	\$49.49	\$890.76	\$2,078.44	\$1,187.68
1988	\$6,179.05	\$385.57	\$6,564.62	\$890.76	\$49.49	\$940.24	\$2,078.44	\$1,138.19
1989	\$6,564.62	\$409.63	\$6,974.26	\$940.24	\$49.49	\$989.73	\$2,078.44	\$1,088.70
1990	\$6,974.26	\$435.19	\$7,409.45	\$989.73	\$49.49	\$1,039.22	\$2,078.44	\$1,039.22
1991	\$7,409.45	\$462.35	\$7,871.80	\$1,039.22	\$49.49	\$1,088.70	\$2,078.44	\$989.73
1992	\$7,871.80	\$491.20	\$8,363.00	\$1,088.70	\$49.49	\$1,138.19	\$2,078.44	\$940.24
1993	\$8,363.00	\$521.85	\$8,884.85	\$1,138.19	\$49.49	\$1,187.68	\$2,078.44	\$890.76
1994	\$8,884.85	\$554.41	\$9,439.27	\$1,187.68	\$49.49	\$1,237.16	\$2,078.44	\$841.27
1995	\$9,439.27	\$589.01	\$10,028.28	\$1,237.16	\$49.49	\$1,286.65	\$2,078.44	\$791.79
1996	\$10,028.28	\$625.76	\$10,654.04	\$1,286.65	\$49.49	\$1,336.14	\$2,078.44	\$742.30
1997	\$10,654.04	\$664.81	\$11,318.85	\$1,336.14	\$49.49	\$1,385.62	\$2,078.44	\$692.81
1998	\$11,318.85	\$706.30	\$12,025.15	\$1,385.62	\$49.49	\$1,435.11	\$2,078.44	\$643.33
1999	\$12,025.15	\$750.37	\$12,775.52	\$1,435.11	\$49.49	\$1,484.60	\$2,078.44	\$593.84
2000	\$12,775.52	\$797.19	\$13,572.71	\$1,484.60	\$49.49	\$1,534.08	\$2,078.44	\$544.35
2001	\$13,572.71	\$846.94	\$14,419.65	\$1,534.08	\$49.49	\$1,583.57	\$2,078.44	\$494.87
2002	\$14,419.65	\$899.79	\$15,319.44	\$1,583.57	\$49.49	\$1,633.06	\$2,078.44	\$445.38
2003	\$15,319.44	\$955.93	\$16,275.37	\$1,633.06	\$49.49	\$1,682.54	\$2,078.44	\$395.89
2004	\$16,275.37	\$1,015.58	\$17,290.95	\$1,682.54	\$49.49	\$1,732.03	\$2,078.44	\$346.41
2005	\$17,290.95	\$1,078.96	\$18,369.91	\$1,732.03	\$49.49	\$1,781.52	\$2,078.44	\$296.92
2006	\$18,369.91	\$1,146.28	\$19,516.19	\$1,781.52	\$49.49	\$1,831.00	\$2,078.44	\$247.43
2007	\$19,516.19	\$1,217.81	\$20,734.00	\$1,831.00	\$49.49	\$1,880.49	\$2,078.44	\$197.95
2008	\$20,734.00	\$2,545.97	\$23,279.97	\$1,880.49	\$49.49	\$1,929.98	\$2,078.44	\$148.46
2009	\$22,027.80	\$2,253.21	\$24,281.01	\$1,929.98	\$49.49	\$1,979.46	\$2,078.44	\$98.97
2010	\$23,402.33	\$1,922.76	\$25,325.09	\$1,979.46	\$49.49	\$2,028.95	\$2,078.44	\$49.49
2011	\$24,962.64	\$1,551.43	\$26,414.07	\$2,028.95	\$49.49	\$2,078.44	\$2,078.44	\$0.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$4,729.34	\$295.11	\$5,024.45	\$0.00	\$109.98	\$109.98	\$4,729.34	\$4,619.36
1971	\$5,024.45	\$313.53	\$5,337.98	\$109.98	\$109.98	\$219.97	\$4,729.34	\$4,509.37
1972	\$5,337.98	\$333.09	\$5,671.07	\$219.97	\$109.98	\$329.95	\$4,729.34	\$4,399.39
1973	\$5,671.07	\$353.87	\$6,024.95	\$329.95	\$109.98	\$439.94	\$4,729.34	\$4,289.40
1974	\$6,024.95	\$375.96	\$6,400.90	\$439.94	\$109.98	\$549.92	\$4,729.34	\$4,179.42
1975	\$6,400.90	\$399.42	\$6,800.32	\$549.92	\$109.98	\$659.91	\$4,729.34	\$4,069.44
1976	\$6,800.32	\$424.34	\$7,224.66	\$659.91	\$109.98	\$769.89	\$4,729.34	\$3,959.45
1977	\$7,224.66	\$450.82	\$7,675.48	\$769.89	\$109.98	\$879.88	\$4,729.34	\$3,849.47
1978	\$7,675.48	\$478.95	\$8,154.43	\$879.88	\$109.98	\$989.86	\$4,729.34	\$3,739.48
1979	\$8,154.43	\$508.84	\$8,663.26	\$989.86	\$109.98	\$1,099.85	\$4,729.34	\$3,629.50
1980	\$8,663.26	\$540.59	\$9,203.85	\$1,099.85	\$109.98	\$1,209.83	\$4,729.34	\$3,519.51
1981	\$9,203.85	\$574.32	\$9,778.17	\$1,209.83	\$109.98	\$1,319.82	\$4,729.34	\$3,409.53
1982	\$9,778.17	\$610.16	\$10,388.33	\$1,319.82	\$109.98	\$1,429.80	\$4,729.34	\$3,299.54
1983	\$10,388.33	\$648.23	\$11,036.56	\$1,429.80	\$109.98	\$1,539.79	\$4,729.34	\$3,189.56
1984	\$11,036.56	\$688.68	\$11,725.24	\$1,539.79	\$109.98	\$1,649.77	\$4,729.34	\$3,079.57
1985	\$11,725.24	\$731.66	\$12,456.90	\$1,649.77	\$109.98	\$1,759.76	\$4,729.34	\$2,969.59
1986	\$12,456.90	\$777.31	\$13,234.21	\$1,759.76	\$109.98	\$1,869.74	\$4,729.34	\$2,859.60
1987	\$13,234.21	\$825.81	\$14,060.02	\$1,869.74	\$109.98	\$1,979.73	\$4,729.34	\$2,749.62
1988	\$14,060.02	\$877.35	\$14,937.37	\$1,979.73	\$109.98	\$2,089.71	\$4,729.34	\$2,639.63
1989	\$14,937.37	\$932.09	\$15,869.46	\$2,089.71	\$109.98	\$2,199.69	\$4,729.34	\$2,529.65
1990	\$15,869.46	\$990.25	\$16,859.71	\$2,199.69	\$109.98	\$2,309.68	\$4,729.34	\$2,419.66
1991	\$16,859.71	\$1,052.05	\$17,911.76	\$2,309.68	\$109.98	\$2,419.66	\$4,729.34	\$2,309.68
1992	\$17,911.76	\$1,117.69	\$19,029.45	\$2,419.66	\$109.98	\$2,529.65	\$4,729.34	\$2,199.69
1993	\$19,029.45	\$1,187.44	\$20,216.89	\$2,529.65	\$109.98	\$2,639.63	\$4,729.34	\$2,089.71
1994	\$20,216.89	\$1,261.53	\$21,478.42	\$2,639.63	\$109.98	\$2,749.62	\$4,729.34	\$1,979.73
1995	\$21,478.42	\$1,340.25	\$22,818.68	\$2,749.62	\$109.98	\$2,859.60	\$4,729.34	\$1,869.74
1996	\$22,818.68	\$1,423.89	\$24,242.56	\$2,859.60	\$109.98	\$2,969.59	\$4,729.34	\$1,759.76
1997	\$24,242.56	\$1,512.74	\$25,755.30	\$2,969.59	\$109.98	\$3,079.57	\$4,729.34	\$1,649.77
1998	\$25,755.30	\$1,607.13	\$27,362.43	\$3,079.57	\$109.98	\$3,189.56	\$4,729.34	\$1,539.79
1999	\$27,362.43	\$1,707.42	\$29,069.85	\$3,189.56	\$109.98	\$3,299.54	\$4,729.34	\$1,429.80
2000	\$29,069.85	\$1,813.96	\$30,883.80	\$3,299.54	\$109.98	\$3,409.53	\$4,729.34	\$1,319.82
2001	\$30,883.80	\$1,927.15	\$32,810.95	\$3,409.53	\$109.98	\$3,519.51	\$4,729.34	\$1,209.83
2002	\$32,810.95	\$2,047.40	\$34,858.36	\$3,519.51	\$109.98	\$3,629.50	\$4,729.34	\$1,099.85
2003	\$34,858.36	\$2,175.16	\$37,033.52	\$3,629.50	\$109.98	\$3,739.48	\$4,729.34	\$989.86
2004	\$37,033.52	\$2,310.89	\$39,344.41	\$3,739.48	\$109.98	\$3,849.47	\$4,729.34	\$879.88
2005	\$39,344.41	\$2,455.09	\$41,799.50	\$3,849.47	\$109.98	\$3,959.45	\$4,729.34	\$769.89
2006	\$41,799.50	\$2,608.29	\$44,407.79	\$3,959.45	\$109.98	\$4,069.44	\$4,729.34	\$659.91
2007	\$44,407.79	\$2,771.05	\$47,178.84	\$4,069.44	\$109.98	\$4,179.42	\$4,729.34	\$549.92
2008	\$47,178.84	\$2,943.96	\$50,122.79	\$4,179.42	\$109.98	\$4,289.40	\$4,729.34	\$439.94
2009	\$50,122.79	\$6,154.68	\$56,277.47	\$4,289.40	\$109.98	\$4,399.39	\$4,729.34	\$329.95
2010	\$53,250.46	\$5,446.95	\$58,697.41	\$4,399.39	\$109.98	\$4,509.37	\$4,729.34	\$219.97

Year 3

2011	\$56,573.29	\$4,648.11	\$61,221.39	\$4,509.37	\$109.98	\$4,619.36	\$4,729.34	\$109.98
2012	\$60,103.46	\$3,750.46	\$63,853.91	\$4,619.36	\$109.98	\$4,729.34	\$4,729.34	\$0.00
	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$7,666.54	\$478.39	\$8,144.93	\$0.00	\$174.24	\$174.24	\$7,666.54	\$7,492.30
1971	\$8,144.93	\$508.24	\$8,653.17	\$174.24	\$174.24	\$348.48	\$7,666.54	\$7,318.06
1972	\$8,653.17	\$539.96	\$9,193.13	\$348.48	\$174.24	\$522.72	\$7,666.54	\$7,143.82
1973	\$9,193.13	\$573.65	\$9,766.78	\$522.72	\$174.24	\$696.96	\$7,666.54	\$6,969.58
1974	\$9,766.78	\$609.45	\$10,376.23	\$696.96	\$174.24	\$871.20	\$7,666.54	\$6,795.34
1975	\$10,376.23	\$647.48	\$11,023.71	\$871.20	\$174.24	\$1,045.44	\$7,666.54	\$6,621.10
1976	\$11,023.71	\$687.88	\$11,711.59	\$1,045.44	\$174.24	\$1,219.68	\$7,666.54	\$6,446.86
1977	\$11,711.59	\$730.80	\$12,442.39	\$1,219.68	\$174.24	\$1,393.92	\$7,666.54	\$6,272.62
1978	\$12,442.39	\$776.41	\$13,218.80	\$1,393.92	\$174.24	\$1,568.16	\$7,666.54	\$6,098.38
1979	\$13,218.80	\$824.85	\$14,043.65	\$1,568.16	\$174.24	\$1,742.40	\$7,666.54	\$5,924.14
1980	\$14,043.65	\$876.32	\$14,919.97	\$1,742.40	\$174.24	\$1,916.63	\$7,666.54	\$5,749.90
1981	\$14,919.97	\$931.01	\$15,850.98	\$1,916.63	\$174.24	\$2,090.87	\$7,666.54	\$5,575.66
1982	\$15,850.98	\$989.10	\$16,840.08	\$2,090.87	\$174.24	\$2,265.11	\$7,666.54	\$5,401.42
1983	\$16,840.08	\$1,050.82	\$17,890.90	\$2,265.11	\$174.24	\$2,439.35	\$7,666.54	\$5,227.19
1984	\$17,890.90	\$1,116.39	\$19,007.29	\$2,439.35	\$174.24	\$2,613.59	\$7,666.54	\$5,052.95
1985	\$19,007.29	\$1,186.06	\$20,193.35	\$2,613.59	\$174.24	\$2,787.83	\$7,666.54	\$4,878.71
1986	\$20,193.35	\$1,260.06	\$21,453.41	\$2,787.83	\$174.24	\$2,962.07	\$7,666.54	\$4,704.47
1987	\$21,453.41	\$1,338.69	\$22,792.11	\$2,962.07	\$174.24	\$3,136.31	\$7,666.54	\$4,530.23
1988	\$22,792.11	\$1,422.23	\$24,214.33	\$3,136.31	\$174.24	\$3,310.55	\$7,666.54	\$4,355.99
1989	\$24,214.33	\$1,510.97	\$25,725.31	\$3,310.55	\$174.24	\$3,484.79	\$7,666.54	\$4,181.75
1990	\$25,725.31	\$1,605.26	\$27,330.57	\$3,484.79	\$174.24	\$3,659.03	\$7,666.54	\$4,007.51
1991	\$27,330.57	\$1,705.43	\$29,035.99	\$3,659.03	\$174.24	\$3,833.27	\$7,666.54	\$3,833.27
1992	\$29,035.99	\$1,811.85	\$30,847.84	\$3,833.27	\$174.24	\$4,007.51	\$7,666.54	\$3,659.03
1993	\$30,847.84	\$1,924.91	\$32,772.75	\$4,007.51	\$174.24	\$4,181.75	\$7,666.54	\$3,484.79
1994	\$32,772.75	\$2,045.02	\$34,817.76	\$4,181.75	\$174.24	\$4,355.99	\$7,666.54	\$3,310.55
1995	\$34,817.76	\$2,172.63	\$36,990.39	\$4,355.99	\$174.24	\$4,530.23	\$7,666.54	\$3,136.31
1996	\$36,990.39	\$2,308.20	\$39,298.59	\$4,530.23	\$174.24	\$4,704.47	\$7,666.54	\$2,962.07
1997	\$39,298.59	\$2,452.23	\$41,750.83	\$4,704.47	\$174.24	\$4,878.71	\$7,666.54	\$2,787.83
1998	\$41,750.83	\$2,605.25	\$44,356.08	\$4,878.71	\$174.24	\$5,052.95	\$7,666.54	\$2,613.59
1999	\$44,356.08	\$2,767.82	\$47,123.90	\$5,052.95	\$174.24	\$5,227.19	\$7,666.54	\$2,439.35
2000	\$47,123.90	\$2,940.53	\$50,064.43	\$5,227.19	\$174.24	\$5,401.42	\$7,666.54	\$2,265.11
2001	\$50,064.43	\$3,124.02	\$53,188.45	\$5,401.42	\$174.24	\$5,575.66	\$7,666.54	\$2,090.87
2002	\$53,188.45	\$3,318.96	\$56,507.41	\$5,575.66	\$174.24	\$5,749.90	\$7,666.54	\$1,916.63
2003	\$56,507.41	\$3,526.06	\$60,033.47	\$5,749.90	\$174.24	\$5,924.14	\$7,666.54	\$1,742.40
2004	\$60,033.47	\$3,746.09	\$63,779.56	\$5,924.14	\$174.24	\$6,098.38	\$7,666.54	\$1,568.16
2005	\$63,779.56	\$3,979.84	\$67,759.40	\$6,098.38	\$174.24	\$6,272.62	\$7,666.54	\$1,393.92
2006	\$67,759.40	\$4,228.19	\$71,987.59	\$6,272.62	\$174.24	\$6,446.86	\$7,666.54	\$1,219.68
2007	\$71,987.59	\$4,492.03	\$76,479.61	\$6,446.86	\$174.24	\$6,621.10	\$7,666.54	\$1,045.44

2008	\$76,479.61	\$4,772.33	\$81,251.94	\$6,621.10	\$174.24	\$6,795.34	\$7,666.54	\$871.20
2009	\$81,251.94	\$5,070.12	\$86,322.06	\$6,795.34	\$174.24	\$6,969.58	\$7,666.54	\$696.96
2010	\$86,322.06	\$5,386.50	\$91,708.56	\$6,969.58	\$174.24	\$7,143.82	\$7,666.54	\$522.72
2011	\$91,708.56	\$5,722.61	\$97,431.17	\$7,143.82	\$174.24	\$7,318.06	\$7,666.54	\$348.48
2012	\$97,431.17	\$6,079.71	\$103,510.88	\$7,318.06	\$174.24	\$7,492.30	\$7,666.54	\$174.24
2013	\$103,510.88	\$6,459.08	\$109,969.96	\$7,492.30	\$174.24	\$7,666.54	\$7,666.54	(\$0.00)

Cascade Natural Gas Corp
Retirement of Anacortes in 8 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
 Credit adjusted Risk Free Rate (CARFR) -
 Source: 30 Year Treasury + 120 basis points

4.30% 4.30% 4.30%
 6.24% 6.24% 6.24%

Phases of Retirement
 Cost - valued at 2006 prices
 Year 1 (2014) Year 2 (2015) Year 3 (2016)
 21,400.00 49,600.00 81,900.00

	Discounted Present value based on		
2007	22,320.20	51,732.80	85,421.70
2008	23,279.97	53,957.31	89,094.83
2009	24,281.01	56,277.47	92,925.91
2010	25,325.09	58,697.41	96,921.73
2011	26,414.07	61,221.39	101,089.36
2012	27,549.87	63,853.91	105,436.20
2013	28,734.52	66,599.63	109,969.96
2014	29,970.10	69,463.42	114,698.67
2015		72,450.34	119,630.71
2016			124,774.83

PV (2006) \$18,466.46 \$42,019.21 \$68,115.57
 PV (1970) \$1,966.64 \$4,474.96 \$7,254.18

Year 1

PV	A	B	C = A + B	Beginning AD	CY Depr Exp	Ending AD	F	G = PV in 1970	H = G - F	NBV
1970	\$1,966.64	\$122.72	\$2,089.36	\$0.00	\$43.70	\$43.70	\$43.70	\$1,966.64	\$1,922.94	\$1,922.94
1971	\$2,089.36	\$130.38	\$2,219.74	\$43.70	\$43.70	\$87.41	\$87.41	\$1,966.64	\$1,879.24	\$1,879.24
1972	\$2,219.74	\$138.51	\$2,358.25	\$87.41	\$43.70	\$131.11	\$131.11	\$1,966.64	\$1,835.53	\$1,835.53
1973	\$2,358.25	\$147.15	\$2,505.40	\$131.11	\$43.70	\$174.81	\$174.81	\$1,966.64	\$1,791.83	\$1,791.83
1974	\$2,505.40	\$156.34	\$2,661.74	\$174.81	\$43.70	\$218.52	\$218.52	\$1,966.64	\$1,748.13	\$1,748.13
1975	\$2,661.74	\$166.09	\$2,827.83	\$218.52	\$43.70	\$262.22	\$262.22	\$1,966.64	\$1,704.42	\$1,704.42
1976	\$2,827.83	\$176.46	\$3,004.29	\$262.22	\$43.70	\$305.92	\$305.92	\$1,966.64	\$1,660.72	\$1,660.72
1977	\$3,004.29	\$187.47	\$3,191.76	\$305.92	\$43.70	\$349.63	\$349.63	\$1,966.64	\$1,617.02	\$1,617.02
1978	\$3,191.76	\$199.17	\$3,390.92	\$349.63	\$43.70	\$393.33	\$393.33	\$1,966.64	\$1,573.31	\$1,573.31

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1979	\$3,390.92	\$211.59	\$3,602.52	\$393.33	\$43.70	\$437.03	\$1,966.64	\$1,529.61
1980	\$3,602.52	\$224.80	\$3,827.31	\$437.03	\$43.70	\$480.73	\$1,966.64	\$1,485.91
1981	\$3,827.31	\$238.82	\$4,066.14	\$480.73	\$43.70	\$524.44	\$1,966.64	\$1,442.20
1982	\$4,066.14	\$253.73	\$4,319.87	\$524.44	\$43.70	\$568.14	\$1,966.64	\$1,398.50
1983	\$4,319.87	\$269.56	\$4,589.43	\$568.14	\$43.70	\$611.84	\$1,966.64	\$1,354.80
1984	\$4,589.43	\$286.38	\$4,875.81	\$611.84	\$43.70	\$655.55	\$1,966.64	\$1,311.10
1985	\$4,875.81	\$304.25	\$5,180.06	\$655.55	\$43.70	\$699.25	\$1,966.64	\$1,267.39
1986	\$5,180.06	\$323.24	\$5,503.29	\$699.25	\$43.70	\$742.95	\$1,966.64	\$1,223.69
1987	\$5,503.29	\$343.41	\$5,846.70	\$742.95	\$43.70	\$786.66	\$1,966.64	\$1,179.99
1988	\$5,846.70	\$364.83	\$6,211.53	\$786.66	\$43.70	\$830.36	\$1,966.64	\$1,136.28
1989	\$6,211.53	\$387.60	\$6,599.13	\$830.36	\$43.70	\$874.06	\$1,966.64	\$1,092.58
1990	\$6,599.13	\$411.79	\$7,010.92	\$874.06	\$43.70	\$917.77	\$1,966.64	\$1,048.88
1991	\$7,010.92	\$437.48	\$7,448.40	\$917.77	\$43.70	\$961.47	\$1,966.64	\$1,005.17
1992	\$7,448.40	\$464.78	\$7,913.18	\$961.47	\$43.70	\$1,005.17	\$1,966.64	\$961.47
1993	\$7,913.18	\$493.78	\$8,406.96	\$1,005.17	\$43.70	\$1,048.88	\$1,966.64	\$917.77
1994	\$8,406.96	\$524.59	\$8,931.55	\$1,048.88	\$43.70	\$1,092.58	\$1,966.64	\$874.06
1995	\$8,931.55	\$557.33	\$9,488.88	\$1,092.58	\$43.70	\$1,136.28	\$1,966.64	\$830.36
1996	\$9,488.88	\$592.11	\$10,080.99	\$1,136.28	\$43.70	\$1,179.99	\$1,966.64	\$786.66
1997	\$10,080.99	\$629.05	\$10,710.04	\$1,179.99	\$43.70	\$1,223.69	\$1,966.64	\$742.95
1998	\$10,710.04	\$668.31	\$11,378.35	\$1,223.69	\$43.70	\$1,267.39	\$1,966.64	\$699.25
1999	\$11,378.35	\$710.01	\$12,088.36	\$1,267.39	\$43.70	\$1,311.10	\$1,966.64	\$655.55
2000	\$12,088.36	\$754.31	\$12,842.67	\$1,311.10	\$43.70	\$1,354.80	\$1,966.64	\$611.84
2001	\$12,842.67	\$801.98	\$13,644.05	\$1,354.80	\$43.70	\$1,398.50	\$1,966.64	\$568.14
2002	\$13,644.05	\$851.39	\$14,495.44	\$1,398.50	\$43.70	\$1,442.20	\$1,966.64	\$524.44
2003	\$14,495.44	\$904.52	\$15,399.96	\$1,442.20	\$43.70	\$1,485.91	\$1,966.64	\$480.73
2004	\$15,399.96	\$960.96	\$16,360.92	\$1,485.91	\$43.70	\$1,529.61	\$1,966.64	\$437.03
2005	\$16,360.92	\$1,020.92	\$17,381.84	\$1,529.61	\$43.70	\$1,573.31	\$1,966.64	\$393.33
2006	\$17,381.84	\$1,084.63	\$18,466.46	\$1,573.31	\$43.70	\$1,617.02	\$1,966.64	\$349.63
2007	\$18,466.46	\$1,152.31	\$19,618.77	\$1,617.02	\$43.70	\$1,660.72	\$1,966.64	\$305.92
2008	\$19,618.77	\$3,661.20	\$23,279.97	\$1,660.72	\$43.70	\$1,704.42	\$1,966.64	\$262.22
2009	\$20,842.98	\$3,498.02	\$24,341.01	\$1,704.42	\$43.70	\$1,748.13	\$1,966.64	\$218.52
2010	\$22,143.58	\$3,181.51	\$25,325.09	\$1,748.13	\$43.70	\$1,791.83	\$1,966.64	\$174.81
2011	\$23,525.34	\$2,888.72	\$26,414.07	\$1,791.83	\$43.70	\$1,835.53	\$1,966.64	\$131.11
2012	\$24,993.33	\$2,556.55	\$27,549.87	\$1,835.53	\$43.70	\$1,879.24	\$1,966.64	\$87.41
2013	\$26,552.91	\$2,181.61	\$28,734.52	\$1,879.24	\$43.70	\$1,922.94	\$1,966.64	\$43.70
2014	\$28,209.81	\$1,760.29	\$29,970.10	\$1,922.94	\$43.70	\$1,966.64	\$1,966.64	\$0.00
1970	\$4,474.96	\$279.24	\$4,754.20	\$0.00	\$97.28	\$97.28	\$4,474.96	\$4,377.68
1971	\$4,754.20	\$296.66	\$5,050.86	\$97.28	\$97.28	\$194.56	\$4,474.96	\$4,280.40
1972	\$5,050.86	\$315.17	\$5,366.04	\$194.56	\$97.28	\$291.85	\$4,474.96	\$4,183.12
1973	\$5,366.04	\$334.84	\$5,700.88	\$291.85	\$97.28	\$389.13	\$4,474.96	\$4,085.84
1974	\$5,700.88	\$355.73	\$6,056.61	\$389.13	\$97.28	\$486.41	\$4,474.96	\$3,988.56
1975	\$6,056.61	\$377.93	\$6,434.55	\$486.41	\$97.28	\$583.69	\$4,474.96	\$3,891.27
1976	\$6,434.55	\$401.52	\$6,836.06	\$583.69	\$97.28	\$680.97	\$4,474.96	\$3,793.99
1977	\$6,836.06	\$426.57	\$7,262.63	\$680.97	\$97.28	\$778.25	\$4,474.96	\$3,696.71

1978	\$7,262.63	\$453.19	\$7,715.82	\$778.25	\$97.28	\$875.54	\$4,474.96	\$3,599.43
1979	\$7,715.82	\$481.47	\$8,197.29	\$875.54	\$97.28	\$972.82	\$4,474.96	\$3,502.15
1980	\$8,197.29	\$511.51	\$8,708.80	\$972.82	\$97.28	\$1,070.10	\$4,474.96	\$3,404.86
1981	\$8,708.80	\$543.43	\$9,252.23	\$1,070.10	\$97.28	\$1,167.38	\$4,474.96	\$3,307.58
1982	\$9,252.23	\$577.34	\$9,829.57	\$1,167.38	\$97.28	\$1,264.66	\$4,474.96	\$3,210.30
1983	\$9,829.57	\$613.37	\$10,442.93	\$1,264.66	\$97.28	\$1,361.95	\$4,474.96	\$3,113.02
1984	\$10,442.93	\$651.64	\$11,094.57	\$1,361.95	\$97.28	\$1,459.23	\$4,474.96	\$3,015.74
1985	\$11,094.57	\$692.30	\$11,786.87	\$1,459.23	\$97.28	\$1,556.51	\$4,474.96	\$2,918.46
1986	\$11,786.87	\$735.50	\$12,522.37	\$1,556.51	\$97.28	\$1,653.79	\$4,474.96	\$2,821.17
1987	\$12,522.37	\$781.40	\$13,303.77	\$1,653.79	\$97.28	\$1,751.07	\$4,474.96	\$2,723.89
1988	\$13,303.77	\$830.16	\$14,133.92	\$1,751.07	\$97.28	\$1,848.35	\$4,474.96	\$2,626.61
1989	\$14,133.92	\$881.96	\$15,015.88	\$1,848.35	\$97.28	\$1,945.64	\$4,474.96	\$2,529.33
1990	\$15,015.88	\$936.99	\$15,952.87	\$1,945.64	\$97.28	\$2,042.92	\$4,474.96	\$2,432.05
1991	\$15,952.87	\$995.46	\$16,948.33	\$2,042.92	\$97.28	\$2,140.20	\$4,474.96	\$2,334.76
1992	\$16,948.33	\$1,057.58	\$18,005.91	\$2,140.20	\$97.28	\$2,237.48	\$4,474.96	\$2,237.48
1993	\$18,005.91	\$1,123.57	\$19,129.48	\$2,237.48	\$97.28	\$2,334.76	\$4,474.96	\$2,140.20
1994	\$19,129.48	\$1,193.68	\$20,323.16	\$2,334.76	\$97.28	\$2,432.05	\$4,474.96	\$2,042.92
1995	\$20,323.16	\$1,268.16	\$21,591.32	\$2,432.05	\$97.28	\$2,529.33	\$4,474.96	\$1,945.64
1996	\$21,591.32	\$1,347.30	\$22,938.62	\$2,529.33	\$97.28	\$2,626.61	\$4,474.96	\$1,848.35
1997	\$22,938.62	\$1,431.37	\$24,369.99	\$2,626.61	\$97.28	\$2,723.89	\$4,474.96	\$1,751.07
1998	\$24,369.99	\$1,520.69	\$25,890.68	\$2,723.89	\$97.28	\$2,821.17	\$4,474.96	\$1,653.79
1999	\$25,890.68	\$1,615.58	\$27,506.25	\$2,821.17	\$97.28	\$2,918.46	\$4,474.96	\$1,556.51
2000	\$27,506.25	\$1,716.39	\$29,222.64	\$2,918.46	\$97.28	\$3,015.74	\$4,474.96	\$1,459.23
2001	\$29,222.64	\$1,823.49	\$31,046.14	\$3,015.74	\$97.28	\$3,113.02	\$4,474.96	\$1,361.95
2002	\$31,046.14	\$1,937.28	\$32,983.42	\$3,113.02	\$97.28	\$3,210.30	\$4,474.96	\$1,264.66
2003	\$32,983.42	\$2,058.17	\$35,041.58	\$3,210.30	\$97.28	\$3,307.58	\$4,474.96	\$1,167.38
2004	\$35,041.58	\$2,186.59	\$37,228.18	\$3,307.58	\$97.28	\$3,404.86	\$4,474.96	\$1,070.10
2005	\$37,228.18	\$2,323.04	\$39,551.22	\$3,404.86	\$97.28	\$3,502.15	\$4,474.96	\$972.82
2006	\$39,551.22	\$2,468.00	\$42,019.21	\$3,502.15	\$97.28	\$3,599.43	\$4,474.96	\$875.54
2007	\$42,019.21	\$2,622.00	\$44,641.21	\$3,599.43	\$97.28	\$3,696.71	\$4,474.96	\$778.25
2008	\$44,641.21	\$2,785.61	\$47,426.82	\$3,696.71	\$97.28	\$3,793.99	\$4,474.96	\$680.97
2009	\$47,426.82	\$8,850.65	\$56,277.47	\$3,793.99	\$97.28	\$3,891.27	\$4,474.96	\$583.69
2010	\$50,386.25	\$8,311.15	\$58,697.41	\$3,891.27	\$97.28	\$3,988.56	\$4,474.96	\$486.41
2011	\$53,530.36	\$7,691.04	\$61,221.39	\$3,988.56	\$97.28	\$4,085.84	\$4,474.96	\$389.13
2012	\$56,870.65	\$6,983.26	\$63,853.91	\$4,085.84	\$97.28	\$4,183.12	\$4,474.96	\$291.85
2013	\$60,419.38	\$6,180.25	\$66,599.63	\$4,183.12	\$97.28	\$4,280.40	\$4,474.96	\$194.56
2014	\$64,189.55	\$5,273.87	\$69,463.42	\$4,280.40	\$97.28	\$4,377.68	\$4,474.96	\$97.28
2015	\$68,194.98	\$4,255.37	\$72,450.34	\$4,377.68	\$97.28	\$4,474.96	\$4,474.96	\$0.00

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$7,254.18	\$452.66	\$7,706.84	\$0.00	\$154.34	\$154.34	\$7,254.18	\$7,099.83
1971	\$7,706.84	\$480.91	\$8,187.74	\$154.34	\$154.34	\$308.69	\$7,254.18	\$6,945.49
1972	\$8,187.74	\$510.92	\$8,698.66	\$308.69	\$154.34	\$463.03	\$7,254.18	\$6,791.14
1973	\$8,698.66	\$542.80	\$9,241.45	\$463.03	\$154.34	\$617.38	\$7,254.18	\$6,636.80
1974	\$9,241.45	\$576.67	\$9,818.12	\$617.38	\$154.34	\$771.72	\$7,254.18	\$6,482.45
1975	\$9,818.12	\$612.65	\$10,430.77	\$771.72	\$154.34	\$926.06	\$7,254.18	\$6,328.11

1976	\$10,430.77	\$650.88	\$11,081.65	\$926.06	\$154.34	\$1,080.41	\$7,254.18	\$6,173.77
1977	\$11,081.65	\$691.50	\$11,773.15	\$1,080.41	\$154.34	\$1,234.75	\$7,254.18	\$6,019.42
1978	\$11,773.15	\$734.64	\$12,507.79	\$1,234.75	\$154.34	\$1,389.10	\$7,254.18	\$5,865.08
1979	\$12,507.79	\$780.49	\$13,288.28	\$1,389.10	\$154.34	\$1,543.44	\$7,254.18	\$5,710.73
1980	\$13,288.28	\$829.19	\$14,117.47	\$1,543.44	\$154.34	\$1,697.79	\$7,254.18	\$5,556.39
1981	\$14,117.47	\$880.93	\$14,998.40	\$1,697.79	\$154.34	\$1,852.13	\$7,254.18	\$5,402.05
1982	\$14,998.40	\$935.90	\$15,934.30	\$1,852.13	\$154.34	\$2,006.47	\$7,254.18	\$5,247.70
1983	\$15,934.30	\$994.30	\$16,928.60	\$2,006.47	\$154.34	\$2,160.82	\$7,254.18	\$5,093.36
1984	\$16,928.60	\$1,056.34	\$17,984.94	\$2,160.82	\$154.34	\$2,315.16	\$7,254.18	\$4,939.01
1985	\$17,984.94	\$1,122.26	\$19,107.20	\$2,315.16	\$154.34	\$2,469.51	\$7,254.18	\$4,784.67
1986	\$19,107.20	\$1,192.29	\$20,299.49	\$2,469.51	\$154.34	\$2,623.85	\$7,254.18	\$4,630.32
1987	\$20,299.49	\$1,266.69	\$21,566.18	\$2,623.85	\$154.34	\$2,778.19	\$7,254.18	\$4,475.98
1988	\$21,566.18	\$1,345.73	\$22,911.91	\$2,778.19	\$154.34	\$2,932.54	\$7,254.18	\$4,321.64
1989	\$22,911.91	\$1,429.70	\$24,341.61	\$2,932.54	\$154.34	\$3,086.88	\$7,254.18	\$4,167.29
1990	\$24,341.61	\$1,518.92	\$25,860.53	\$3,086.88	\$154.34	\$3,241.23	\$7,254.18	\$4,012.95
1991	\$25,860.53	\$1,613.70	\$27,474.22	\$3,241.23	\$154.34	\$3,395.57	\$7,254.18	\$3,858.60
1992	\$27,474.22	\$1,714.39	\$29,188.62	\$3,395.57	\$154.34	\$3,549.92	\$7,254.18	\$3,704.26
1993	\$29,188.62	\$1,821.37	\$31,009.99	\$3,549.92	\$154.34	\$3,704.26	\$7,254.18	\$3,549.92
1994	\$31,009.99	\$1,935.02	\$32,945.01	\$3,704.26	\$154.34	\$3,858.60	\$7,254.18	\$3,395.57
1995	\$32,945.01	\$2,055.77	\$35,000.78	\$3,858.60	\$154.34	\$4,012.95	\$7,254.18	\$3,241.23
1996	\$35,000.78	\$2,184.05	\$37,184.83	\$4,012.95	\$154.34	\$4,167.29	\$7,254.18	\$3,086.88
1997	\$37,184.83	\$2,320.33	\$39,505.16	\$4,167.29	\$154.34	\$4,321.64	\$7,254.18	\$2,932.54
1998	\$39,505.16	\$2,465.12	\$41,970.28	\$4,321.64	\$154.34	\$4,475.98	\$7,254.18	\$2,778.19
1999	\$41,970.28	\$2,618.95	\$44,589.23	\$4,475.98	\$154.34	\$4,630.32	\$7,254.18	\$2,623.85
2000	\$44,589.23	\$2,782.37	\$47,371.59	\$4,630.32	\$154.34	\$4,784.67	\$7,254.18	\$2,469.51
2001	\$47,371.59	\$2,955.99	\$50,327.58	\$4,784.67	\$154.34	\$4,939.01	\$7,254.18	\$2,315.16
2002	\$50,327.58	\$3,140.44	\$53,468.02	\$4,939.01	\$154.34	\$5,093.36	\$7,254.18	\$2,160.82
2003	\$53,468.02	\$3,336.40	\$56,804.43	\$5,093.36	\$154.34	\$5,247.70	\$7,254.18	\$2,006.47
2004	\$56,804.43	\$3,544.60	\$60,349.02	\$5,247.70	\$154.34	\$5,402.05	\$7,254.18	\$1,852.13
2005	\$60,349.02	\$3,765.78	\$64,114.80	\$5,402.05	\$154.34	\$5,556.39	\$7,254.18	\$1,697.79
2006	\$64,114.80	\$4,000.76	\$68,115.57	\$5,556.39	\$154.34	\$5,710.73	\$7,254.18	\$1,543.44
2007	\$68,115.57	\$4,250.41	\$72,365.98	\$5,710.73	\$154.34	\$5,865.08	\$7,254.18	\$1,389.10
2008	\$72,365.98	\$4,515.64	\$76,881.61	\$5,865.08	\$154.34	\$6,019.42	\$7,254.18	\$1,234.75
2009	\$76,881.61	\$4,797.41	\$81,679.03	\$6,019.42	\$154.34	\$6,173.77	\$7,254.18	\$1,080.41
2010	\$81,679.03	\$5,096.77	\$86,775.80	\$6,173.77	\$154.34	\$6,328.11	\$7,254.18	\$926.06
2011	\$86,775.80	\$5,414.81	\$92,190.61	\$6,328.11	\$154.34	\$6,482.45	\$7,254.18	\$771.72
2012	\$92,190.61	\$5,752.69	\$97,943.30	\$6,482.45	\$154.34	\$6,636.80	\$7,254.18	\$617.38
2013	\$97,943.30	\$12,026.66	\$109,969.96	\$6,636.80	\$154.34	\$6,791.14	\$7,254.18	\$463.03
2014	\$104,054.96	\$10,643.70	\$114,698.67	\$6,791.14	\$154.34	\$6,945.49	\$7,254.18	\$308.69
2015	\$110,547.99	\$9,082.72	\$119,630.71	\$6,945.49	\$154.34	\$7,099.83	\$7,254.18	\$154.34
2016	\$117,446.19	\$7,328.64	\$124,774.83	\$7,099.83	\$154.34	\$7,254.18	\$7,254.18	\$0.00

Cascade Natural Gas Corp
Retirement of Anacortes in 10 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) - Source: 30 Year Treasury + 120 basis points (CNGC credit adjustment)

Phases of Retirement	Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
Cost - valued at 2006 prices	21,400.00	49,600.00	81,900.00

	Discounted Present value based on above CPI & CARFR	
2007	22,320.20	85,421.70
2008	23,279.97	89,094.83
2009	24,281.01	92,925.91
2010	25,325.09	96,921.73
2011	26,414.07	101,089.36
2012	27,549.87	105,436.20
2013	28,734.52	109,969.96
2014	29,970.10	114,698.67
2015	31,258.82	119,630.71
2016	32,602.95	75,565.71
2017		78,815.03
2018		135,736.17

PV (2006)	\$17,798.21	\$40,498.64	\$65,650.62
PV (1970)	\$1,895.47	\$4,313.03	\$6,991.66

Year 1

PV	A	B	C = A + B	Accretion	Balance	Beginning AD	CY Depr Exp of retirement - 1970	Ending AD	F	G = PV in 1970	Asset	NBV
1970	\$1,895.47	\$118.28	\$2,013.75	\$118.28	\$2,013.75	\$0.00	\$40.33	\$40.33	\$40.33	\$1,895.47	\$1,895.47	\$1,855.15
1971	\$2,013.75	\$125.66	\$2,139.41	\$125.66	\$2,139.41	\$40.33	\$40.33	\$80.66	\$80.66	\$1,895.47	\$1,895.47	\$1,814.82
1972	\$2,139.41	\$133.50	\$2,272.91	\$133.50	\$2,272.91	\$80.66	\$40.33	\$120.99	\$120.99	\$1,895.47	\$1,895.47	\$1,774.49
1973	\$2,272.91	\$141.83	\$2,414.74	\$141.83	\$2,414.74	\$120.99	\$40.33	\$161.32	\$161.32	\$1,895.47	\$1,895.47	\$1,734.16
1974	\$2,414.74	\$150.68	\$2,565.42	\$150.68	\$2,565.42	\$161.32	\$40.33	\$201.65	\$201.65	\$1,895.47	\$1,895.47	\$1,693.83
1975	\$2,565.42	\$160.08	\$2,725.50	\$160.08	\$2,725.50	\$201.65	\$40.33	\$241.98	\$241.98	\$1,895.47	\$1,895.47	\$1,653.50
1976	\$2,725.50	\$170.07	\$2,895.57	\$170.07	\$2,895.57	\$241.98	\$40.33	\$282.30	\$282.30	\$1,895.47	\$1,895.47	\$1,613.17
1977	\$2,895.57	\$180.68	\$3,076.26	\$180.68	\$3,076.26	\$282.30	\$40.33	\$322.63	\$322.63	\$1,895.47	\$1,895.47	\$1,572.84

Year	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1978	\$3,076.26	\$191.96	\$3,268.21	\$322.63	\$40.33	\$362.96	\$1,895.47	\$1,532.51
1979	\$3,268.21	\$203.94	\$3,472.15	\$362.96	\$40.33	\$403.29	\$1,895.47	\$1,492.18
1980	\$3,472.15	\$216.66	\$3,688.81	\$403.29	\$40.33	\$443.62	\$1,895.47	\$1,451.85
1981	\$3,688.81	\$230.18	\$3,918.99	\$443.62	\$40.33	\$483.95	\$1,895.47	\$1,411.52
1982	\$3,918.99	\$244.55	\$4,163.54	\$483.95	\$40.33	\$524.28	\$1,895.47	\$1,371.19
1983	\$4,163.54	\$259.80	\$4,423.34	\$524.28	\$40.33	\$564.61	\$1,895.47	\$1,330.87
1984	\$4,423.34	\$276.02	\$4,699.36	\$564.61	\$40.33	\$604.94	\$1,895.47	\$1,290.54
1985	\$4,699.36	\$293.24	\$4,992.60	\$604.94	\$40.33	\$645.27	\$1,895.47	\$1,250.21
1986	\$4,992.60	\$311.54	\$5,304.14	\$645.27	\$40.33	\$685.60	\$1,895.47	\$1,209.88
1987	\$5,304.14	\$330.98	\$5,635.12	\$685.60	\$40.33	\$725.93	\$1,895.47	\$1,169.55
1988	\$5,635.12	\$351.63	\$5,986.75	\$725.93	\$40.33	\$766.26	\$1,895.47	\$1,129.22
1989	\$5,986.75	\$373.57	\$6,360.32	\$766.26	\$40.33	\$806.58	\$1,895.47	\$1,088.89
1990	\$6,360.32	\$396.88	\$6,757.21	\$806.58	\$40.33	\$846.91	\$1,895.47	\$1,048.56
1991	\$6,757.21	\$421.65	\$7,178.86	\$846.91	\$40.33	\$887.24	\$1,895.47	\$1,008.23
1992	\$7,178.86	\$447.96	\$7,626.82	\$887.24	\$40.33	\$927.57	\$1,895.47	\$967.90
1993	\$7,626.82	\$475.91	\$8,102.73	\$927.57	\$40.33	\$967.90	\$1,895.47	\$927.57
1994	\$8,102.73	\$505.61	\$8,608.34	\$967.90	\$40.33	\$1,008.23	\$1,895.47	\$887.24
1995	\$8,608.34	\$537.16	\$9,145.50	\$1,008.23	\$40.33	\$1,048.56	\$1,895.47	\$846.91
1996	\$9,145.50	\$570.68	\$9,716.18	\$1,048.56	\$40.33	\$1,088.89	\$1,895.47	\$806.58
1997	\$9,716.18	\$606.29	\$10,322.47	\$1,088.89	\$40.33	\$1,129.22	\$1,895.47	\$766.26
1998	\$10,322.47	\$644.12	\$10,966.59	\$1,129.22	\$40.33	\$1,169.55	\$1,895.47	\$725.93
1999	\$10,966.59	\$684.32	\$11,650.91	\$1,169.55	\$40.33	\$1,209.88	\$1,895.47	\$685.60
2000	\$11,650.91	\$727.02	\$12,377.93	\$1,209.88	\$40.33	\$1,250.21	\$1,895.47	\$645.27
2001	\$12,377.93	\$772.38	\$13,150.31	\$1,250.21	\$40.33	\$1,290.54	\$1,895.47	\$604.94
2002	\$13,150.31	\$820.58	\$13,970.89	\$1,290.54	\$40.33	\$1,330.87	\$1,895.47	\$564.61
2003	\$13,970.89	\$871.78	\$14,842.67	\$1,330.87	\$40.33	\$1,371.19	\$1,895.47	\$524.28
2004	\$14,842.67	\$926.18	\$15,768.85	\$1,371.19	\$40.33	\$1,411.52	\$1,895.47	\$483.95
2005	\$15,768.85	\$983.98	\$16,752.83	\$1,411.52	\$40.33	\$1,451.85	\$1,895.47	\$443.62
2006	\$16,752.83	\$1,045.38	\$17,798.21	\$1,451.85	\$40.33	\$1,492.18	\$1,895.47	\$403.29
2007	\$17,798.21	\$1,110.61	\$18,908.81	\$1,492.18	\$40.33	\$1,532.51	\$1,895.47	\$362.96
2008	\$18,908.81	\$4,371.15	\$23,279.97	\$1,532.51	\$40.33	\$1,572.84	\$1,895.47	\$322.63
2009	\$20,088.72	\$4,192.28	\$24,281.01	\$1,572.84	\$40.33	\$1,613.17	\$1,895.47	\$282.30
2010	\$21,342.26	\$3,982.83	\$25,325.09	\$1,613.17	\$40.33	\$1,653.50	\$1,895.47	\$241.98
2011	\$22,674.02	\$3,740.05	\$26,414.07	\$1,653.50	\$40.33	\$1,693.83	\$1,895.47	\$201.65
2012	\$24,088.88	\$3,461.00	\$27,549.87	\$1,693.83	\$40.33	\$1,734.16	\$1,895.47	\$161.32
2013	\$25,592.02	\$3,142.50	\$28,734.52	\$1,734.16	\$40.33	\$1,774.49	\$1,895.47	\$120.99
2014	\$27,186.96	\$2,781.14	\$29,970.10	\$1,774.49	\$40.33	\$1,814.82	\$1,895.47	\$80.66
2015	\$28,885.56	\$2,373.26	\$31,258.82	\$1,814.82	\$40.33	\$1,855.15	\$1,895.47	\$40.33
2016	\$30,688.01	\$1,914.93	\$32,602.95	\$1,855.15	\$40.33	\$1,895.47	\$1,895.47	\$0.00
1970	\$4,313.03	\$269.13	\$4,582.16	\$0.00	\$89.85	\$89.85	\$4,313.03	\$4,223.17
1971	\$4,582.16	\$285.93	\$4,868.09	\$89.85	\$89.85	\$179.71	\$4,313.03	\$4,133.32
1972	\$4,868.09	\$303.77	\$5,171.85	\$179.71	\$89.85	\$269.56	\$4,313.03	\$4,043.46
1973	\$5,171.85	\$322.72	\$5,494.58	\$269.56	\$89.85	\$359.42	\$4,313.03	\$3,953.61
1974	\$5,494.58	\$342.86	\$5,837.44	\$359.42	\$89.85	\$449.27	\$4,313.03	\$3,863.75
1975	\$5,837.44	\$364.26	\$6,201.70	\$449.27	\$89.85	\$539.13	\$4,313.03	\$3,773.90

Year 2

1976	\$6,201.70	\$386.99	\$6,588.68	\$539.13	\$89.85	\$628.98	\$4,313.03	\$3,684.04
1977	\$6,588.68	\$411.13	\$6,999.82	\$628.98	\$89.85	\$718.84	\$4,313.03	\$3,594.19
1978	\$6,999.82	\$436.79	\$7,436.60	\$718.84	\$89.85	\$808.69	\$4,313.03	\$3,504.33
1979	\$7,436.60	\$464.04	\$7,900.65	\$808.69	\$89.85	\$898.55	\$4,313.03	\$3,414.48
1980	\$7,900.65	\$493.00	\$8,393.65	\$898.55	\$89.85	\$988.40	\$4,313.03	\$3,324.62
1981	\$8,393.65	\$523.76	\$8,917.41	\$988.40	\$89.85	\$1,078.26	\$4,313.03	\$3,234.77
1982	\$8,917.41	\$556.45	\$9,473.86	\$1,078.26	\$89.85	\$1,168.11	\$4,313.03	\$3,144.91
1983	\$9,473.86	\$591.17	\$10,065.03	\$1,168.11	\$89.85	\$1,257.97	\$4,313.03	\$3,055.06
1984	\$10,065.03	\$628.06	\$10,693.09	\$1,257.97	\$89.85	\$1,347.82	\$4,313.03	\$2,965.21
1985	\$10,693.09	\$667.25	\$11,360.33	\$1,347.82	\$89.85	\$1,437.68	\$4,313.03	\$2,875.35
1986	\$11,360.33	\$708.88	\$12,069.22	\$1,437.68	\$89.85	\$1,527.53	\$4,313.03	\$2,785.50
1987	\$12,069.22	\$753.12	\$12,822.34	\$1,527.53	\$89.85	\$1,617.38	\$4,313.03	\$2,695.64
1988	\$12,822.34	\$800.11	\$13,622.45	\$1,617.38	\$89.85	\$1,707.24	\$4,313.03	\$2,605.79
1989	\$13,622.45	\$850.04	\$14,472.49	\$1,707.24	\$89.85	\$1,797.09	\$4,313.03	\$2,515.93
1990	\$14,472.49	\$903.08	\$15,375.58	\$1,797.09	\$89.85	\$1,886.95	\$4,313.03	\$2,426.08
1991	\$15,375.58	\$959.44	\$16,335.01	\$1,886.95	\$89.85	\$1,976.80	\$4,313.03	\$2,336.22
1992	\$16,335.01	\$1,019.30	\$17,354.32	\$1,976.80	\$89.85	\$2,066.66	\$4,313.03	\$2,246.37
1993	\$17,354.32	\$1,082.91	\$18,437.23	\$2,066.66	\$89.85	\$2,156.51	\$4,313.03	\$2,156.51
1994	\$18,437.23	\$1,150.48	\$19,587.71	\$2,156.51	\$89.85	\$2,246.37	\$4,313.03	\$2,066.66
1995	\$19,587.71	\$1,222.27	\$20,809.98	\$2,246.37	\$89.85	\$2,336.22	\$4,313.03	\$1,976.80
1996	\$20,809.98	\$1,298.54	\$22,108.52	\$2,336.22	\$89.85	\$2,426.08	\$4,313.03	\$1,886.95
1997	\$22,108.52	\$1,379.57	\$23,488.10	\$2,426.08	\$89.85	\$2,515.93	\$4,313.03	\$1,797.09
1998	\$23,488.10	\$1,465.66	\$24,953.75	\$2,515.93	\$89.85	\$2,605.79	\$4,313.03	\$1,707.24
1999	\$24,953.75	\$1,557.11	\$26,510.87	\$2,605.79	\$89.85	\$2,695.64	\$4,313.03	\$1,617.38
2000	\$26,510.87	\$1,654.28	\$28,165.15	\$2,695.64	\$89.85	\$2,785.50	\$4,313.03	\$1,527.53
2001	\$28,165.15	\$1,757.51	\$29,922.65	\$2,785.50	\$89.85	\$2,875.35	\$4,313.03	\$1,437.68
2002	\$29,922.65	\$1,867.17	\$31,789.83	\$2,875.35	\$89.85	\$2,965.21	\$4,313.03	\$1,347.82
2003	\$31,789.83	\$1,983.69	\$33,773.51	\$2,965.21	\$89.85	\$3,055.06	\$4,313.03	\$1,257.97
2004	\$33,773.51	\$2,107.47	\$35,880.98	\$3,055.06	\$89.85	\$3,144.91	\$4,313.03	\$1,168.11
2005	\$35,880.98	\$2,238.97	\$38,119.95	\$3,144.91	\$89.85	\$3,234.77	\$4,313.03	\$1,078.26
2006	\$38,119.95	\$2,378.68	\$40,498.64	\$3,234.77	\$89.85	\$3,324.62	\$4,313.03	\$988.40
2007	\$40,498.64	\$2,527.11	\$43,025.75	\$3,324.62	\$89.85	\$3,414.48	\$4,313.03	\$898.55
2008	\$43,025.75	\$2,684.81	\$45,710.56	\$3,414.48	\$89.85	\$3,504.33	\$4,313.03	\$808.69
2009	\$45,710.56	\$10,566.92	\$56,277.47	\$3,504.33	\$89.85	\$3,594.19	\$4,313.03	\$718.84
2010	\$48,562.90	\$10,134.51	\$58,697.41	\$3,594.19	\$89.85	\$3,684.04	\$4,313.03	\$628.98
2011	\$51,593.22	\$9,628.17	\$61,221.39	\$3,684.04	\$89.85	\$3,773.90	\$4,313.03	\$539.13
2012	\$54,812.64	\$9,041.28	\$63,853.91	\$3,773.90	\$89.85	\$3,863.75	\$4,313.03	\$449.27
2013	\$58,232.95	\$8,366.69	\$66,599.63	\$3,863.75	\$89.85	\$3,953.61	\$4,313.03	\$359.42
2014	\$61,966.68	\$7,596.74	\$69,463.42	\$3,953.61	\$89.85	\$4,043.46	\$4,313.03	\$269.56
2015	\$65,727.16	\$6,723.18	\$72,450.34	\$4,043.46	\$89.85	\$4,133.32	\$4,313.03	\$179.71
2016	\$69,828.54	\$5,737.17	\$75,565.71	\$4,133.32	\$89.85	\$4,223.17	\$4,313.03	\$89.85
2017	\$74,185.84	\$4,629.20	\$78,815.03	\$4,223.17	\$89.85	\$4,313.03	\$4,313.03	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$6,991.66	\$436.28	\$7,427.94	\$0.00	\$142.69	\$142.69	\$6,991.66	\$6,848.98
1971	\$7,427.94	\$463.50	\$7,891.45	\$142.69	\$142.69	\$285.37	\$6,991.66	\$6,706.29
1972	\$7,891.45	\$492.43	\$8,383.87	\$285.37	\$142.69	\$428.06	\$6,991.66	\$6,563.60
1973	\$8,383.87	\$523.15	\$8,907.03	\$428.06	\$142.69	\$570.75	\$6,991.66	\$6,420.92

1974	\$8,907.03	\$555.80	\$9,462.83	\$570.75	\$142.69	\$713.44	\$6,991.66	\$6,278.23
1975	\$9,462.83	\$590.48	\$10,053.31	\$713.44	\$142.69	\$856.12	\$6,991.66	\$6,135.54
1976	\$10,053.31	\$627.33	\$10,680.63	\$856.12	\$142.69	\$998.81	\$6,991.66	\$5,992.86
1977	\$10,680.63	\$666.47	\$11,347.10	\$998.81	\$142.69	\$1,141.50	\$6,991.66	\$5,850.17
1978	\$11,347.10	\$708.06	\$12,055.16	\$1,141.50	\$142.69	\$1,284.18	\$6,991.66	\$5,707.48
1979	\$12,055.16	\$752.24	\$12,807.41	\$1,284.18	\$142.69	\$1,426.87	\$6,991.66	\$5,564.79
1980	\$12,807.41	\$799.18	\$13,606.59	\$1,426.87	\$142.69	\$1,569.56	\$6,991.66	\$5,422.11
1981	\$13,606.59	\$849.05	\$14,455.64	\$1,569.56	\$142.69	\$1,712.24	\$6,991.66	\$5,279.42
1982	\$14,455.64	\$902.03	\$15,357.67	\$1,712.24	\$142.69	\$1,854.93	\$6,991.66	\$5,136.73
1983	\$15,357.67	\$958.32	\$16,315.99	\$1,854.93	\$142.69	\$1,997.62	\$6,991.66	\$4,994.05
1984	\$16,315.99	\$1,018.12	\$17,334.11	\$1,997.62	\$142.69	\$2,140.31	\$6,991.66	\$4,851.36
1985	\$17,334.11	\$1,081.65	\$18,415.76	\$2,140.31	\$142.69	\$2,282.99	\$6,991.66	\$4,708.67
1986	\$18,415.76	\$1,149.14	\$19,564.90	\$2,282.99	\$142.69	\$2,425.68	\$6,991.66	\$4,565.98
1987	\$19,564.90	\$1,220.85	\$20,785.75	\$2,425.68	\$142.69	\$2,568.37	\$6,991.66	\$4,423.30
1988	\$20,785.75	\$1,297.03	\$22,082.78	\$2,568.37	\$142.69	\$2,711.05	\$6,991.66	\$4,280.61
1989	\$22,082.78	\$1,377.97	\$23,460.75	\$2,711.05	\$142.69	\$2,853.74	\$6,991.66	\$4,137.92
1990	\$23,460.75	\$1,463.95	\$24,924.70	\$2,853.74	\$142.69	\$2,996.43	\$6,991.66	\$3,995.24
1991	\$24,924.70	\$1,555.30	\$26,480.00	\$2,996.43	\$142.69	\$3,139.11	\$6,991.66	\$3,852.55
1992	\$26,480.00	\$1,652.35	\$28,132.35	\$3,139.11	\$142.69	\$3,281.80	\$6,991.66	\$3,709.86
1993	\$28,132.35	\$1,755.46	\$29,887.81	\$3,281.80	\$142.69	\$3,424.49	\$6,991.66	\$3,567.18
1994	\$29,887.81	\$1,865.00	\$31,752.81	\$3,424.49	\$142.69	\$3,567.18	\$6,991.66	\$3,424.49
1995	\$31,752.81	\$1,981.38	\$33,734.19	\$3,567.18	\$142.69	\$3,709.86	\$6,991.66	\$3,281.80
1996	\$33,734.19	\$2,105.01	\$35,839.19	\$3,709.86	\$142.69	\$3,852.55	\$6,991.66	\$3,139.11
1997	\$35,839.19	\$2,236.37	\$38,075.56	\$3,852.55	\$142.69	\$3,995.24	\$6,991.66	\$2,996.43
1998	\$38,075.56	\$2,375.91	\$40,451.48	\$3,995.24	\$142.69	\$4,137.92	\$6,991.66	\$2,853.74
1999	\$40,451.48	\$2,524.17	\$42,975.65	\$4,137.92	\$142.69	\$4,280.61	\$6,991.66	\$2,711.05
2000	\$42,975.65	\$2,681.68	\$45,657.33	\$4,280.61	\$142.69	\$4,423.30	\$6,991.66	\$2,568.37
2001	\$45,657.33	\$2,849.02	\$48,506.34	\$4,423.30	\$142.69	\$4,565.98	\$6,991.66	\$2,425.68
2002	\$48,506.34	\$3,026.80	\$51,533.14	\$4,565.98	\$142.69	\$4,708.67	\$6,991.66	\$2,282.99
2003	\$51,533.14	\$3,215.67	\$54,748.81	\$4,708.67	\$142.69	\$4,851.36	\$6,991.66	\$2,140.31
2004	\$54,748.81	\$3,416.33	\$58,165.13	\$4,851.36	\$142.69	\$4,994.05	\$6,991.66	\$1,997.62
2005	\$58,165.13	\$3,629.50	\$61,794.64	\$4,994.05	\$142.69	\$5,136.73	\$6,991.66	\$1,854.93
2006	\$61,794.64	\$3,855.99	\$65,650.62	\$5,136.73	\$142.69	\$5,279.42	\$6,991.66	\$1,712.24
2007	\$65,650.62	\$4,096.60	\$69,747.22	\$5,279.42	\$142.69	\$5,422.11	\$6,991.66	\$1,569.56
2008	\$69,747.22	\$4,352.23	\$74,099.45	\$5,422.11	\$142.69	\$5,564.79	\$6,991.66	\$1,426.87
2009	\$74,099.45	\$4,623.81	\$78,723.26	\$5,564.79	\$142.69	\$5,707.48	\$6,991.66	\$1,284.18
2010	\$78,723.26	\$4,912.33	\$83,635.59	\$5,707.48	\$142.69	\$5,850.17	\$6,991.66	\$1,141.50
2011	\$83,635.59	\$5,218.86	\$88,854.45	\$5,850.17	\$142.69	\$5,992.86	\$6,991.66	\$998.81
2012	\$88,854.45	\$5,544.52	\$94,398.96	\$5,992.86	\$142.69	\$6,135.54	\$6,991.66	\$856.12
2013	\$94,398.96	\$5,888.54	\$100,287.50	\$6,135.54	\$142.69	\$6,278.23	\$6,991.66	\$713.44
2014	\$100,287.50	\$6,250.21	\$106,537.71	\$6,278.23	\$142.69	\$6,420.92	\$6,991.66	\$570.75
2015	\$106,537.71	\$6,633.19	\$113,170.90	\$6,420.92	\$142.69	\$6,563.60	\$6,991.66	\$428.06
2016	\$113,170.90	\$7,033.52	\$120,204.42	\$6,563.60	\$142.69	\$6,706.29	\$6,991.66	\$285.37
2017	\$120,204.42	\$7,448.52	\$127,652.94	\$6,706.29	\$142.69	\$6,848.98	\$6,991.66	\$142.69
2018	\$127,652.94	\$7,877.46	\$135,530.40	\$6,848.98	\$142.69	\$6,991.66	\$6,991.66	\$0.00



Cascade Natural Gas Corporation

FAS143/FIN47 Asset Retirement Obligations

Work Papers

Kennewick

**Cascade Natural Gas Corporation
Retirement of Kennewick
Summary**

Background: CNGC estimates that the asset retirements associated with legal obligations will be settled between 5 and 10 years (i.e. between 2011 & 2016). It is also estimated that the actual retirement period will be over 3 years

Asset Retirement Cost - Discounted 1970 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	2,068.72	1,957.45	1,886.62	
Year 2 cost	2,030.95	1,921.71	1,852.17	
Year 3 cost	2,003.22	1,895.47	1,826.88	
	<u>6,102.89</u>	<u>5,774.64</u>	<u>5,565.67</u>	
Probability	34%	33%	33%	
	<u>\$2,074.98</u>	<u>\$1,905.63</u>	<u>\$1,836.67</u>	<u>\$5,817</u>

Asset Retirement Obligation - Discounted 2006 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$19,424.99	\$18,380.17	\$17,715.04	
Year 2 cost	\$19,070.28	\$18,044.54	\$17,391.55	
Year 3 cost	\$18,809.94	\$17,798.21	\$17,154.13	
	<u>57,305.22</u>	<u>54,222.92</u>	<u>52,260.72</u>	
Probability	34%	33%	33%	
	<u>\$19,483.77</u>	<u>\$17,893.56</u>	<u>\$17,246.04</u>	<u>\$54,623</u>

Accumulated Depreciation - from 1970 thru 2006

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$1,822.45	\$1,609.46	\$1,485.21	
Year 2 cost	\$1,747.56	\$1,545.72	\$1,427.71	
Year 3 cost	\$1,684.53	\$1,492.18	\$1,379.48	
	<u>5,254.54</u>	<u>4,647.37</u>	<u>4,292.40</u>	
Probability	34%	33%	33%	
	<u>\$1,786.54</u>	<u>\$1,533.63</u>	<u>\$1,416.49</u>	<u>\$4,737</u>

Cascade Natural Gas Corporation
Kennewick

Accretion of Interest

	5 Years	8 Years	10 Years	Weighted Average Total
1970	\$380.82	\$360.34	\$347.30	\$363.00
1971	\$404.58	\$382.82	\$368.97	\$385.65
1972	\$429.83	\$406.71	\$391.99	\$409.71
1973	\$456.65	\$432.09	\$416.45	\$435.28
1974	\$485.15	\$459.05	\$442.44	\$462.44
1975	\$515.42	\$487.70	\$470.05	\$491.30
1976	\$547.58	\$518.13	\$499.38	\$521.96
1977	\$581.75	\$550.46	\$530.54	\$554.53
1978	\$618.05	\$584.81	\$563.65	\$589.13
1979	\$656.62	\$621.30	\$598.82	\$625.89
1980	\$697.59	\$660.07	\$636.18	\$664.94
1981	\$741.12	\$701.26	\$675.88	\$706.44
1982	\$787.37	\$745.02	\$718.06	\$750.52
1983	\$836.50	\$791.51	\$762.86	\$797.35
1984	\$888.70	\$840.90	\$810.47	\$847.11
1985	\$944.15	\$893.37	\$861.04	\$899.97
1986	\$1,003.07	\$949.11	\$914.77	\$956.12
1987	\$1,065.66	\$1,008.34	\$971.85	\$1,015.79
1988	\$1,132.15	\$1,071.26	\$1,032.49	\$1,079.17
1989	\$1,202.80	\$1,138.11	\$1,096.92	\$1,146.51
1990	\$1,277.86	\$1,209.12	\$1,165.37	\$1,218.05
1991	\$1,357.59	\$1,284.57	\$1,238.09	\$1,294.06
1992	\$1,442.31	\$1,364.73	\$1,315.34	\$1,374.81
1993	\$1,532.31	\$1,449.89	\$1,397.42	\$1,460.60
1994	\$1,627.92	\$1,540.36	\$1,484.62	\$1,551.74
1995	\$1,729.51	\$1,636.48	\$1,577.26	\$1,648.57
1996	\$1,837.43	\$1,738.60	\$1,675.68	\$1,751.44
1997	\$1,952.08	\$1,847.08	\$1,780.24	\$1,860.73
1998	\$2,073.89	\$1,962.34	\$1,891.33	\$1,976.84
1999	\$2,203.30	\$2,084.79	\$2,009.35	\$2,100.19
2000	\$2,340.79	\$2,214.88	\$2,134.73	\$2,231.24
2001	\$2,486.85	\$2,353.09	\$2,267.94	\$2,370.47
2002	\$2,642.03	\$2,499.93	\$2,409.46	\$2,518.39
2003	\$2,806.90	\$2,655.92	\$2,559.81	\$2,675.54
2004	\$2,982.05	\$2,821.65	\$2,719.54	\$2,842.49
2005	\$3,168.13	\$2,997.72	\$2,889.24	\$3,019.86
2006	\$3,365.82	\$3,184.78	\$3,069.53	\$3,208.30
	<u>\$51,202.32</u>	<u>\$48,448.28</u>	<u>\$46,695.05</u>	
	34%	33%	33%	
	<u>\$17,409</u>	<u>\$15,988</u>	<u>\$15,409</u>	<u>\$48,806</u>

1974	\$2,635.45	\$164.45	\$2,799.90	\$197.02	\$49.26	\$246.28	\$2,068.72	\$1,822.45
1975	\$2,799.90	\$174.71	\$2,974.62	\$246.28	\$49.26	\$295.53	\$2,068.72	\$1,773.19
1976	\$2,974.62	\$185.62	\$3,160.23	\$295.53	\$49.26	\$344.79	\$2,068.72	\$1,723.94
1977	\$3,160.23	\$197.20	\$3,357.43	\$344.79	\$49.26	\$394.04	\$2,068.72	\$1,674.68
1978	\$3,357.43	\$209.50	\$3,566.93	\$394.04	\$49.26	\$443.30	\$2,068.72	\$1,625.43
1979	\$3,566.93	\$222.58	\$3,789.51	\$443.30	\$49.26	\$492.55	\$2,068.72	\$1,576.17
1980	\$3,789.51	\$236.47	\$4,025.98	\$492.55	\$49.26	\$541.81	\$2,068.72	\$1,526.92
1981	\$4,025.98	\$251.22	\$4,277.20	\$541.81	\$49.26	\$591.06	\$2,068.72	\$1,477.66
1982	\$4,277.20	\$266.90	\$4,544.09	\$591.06	\$49.26	\$640.32	\$2,068.72	\$1,428.40
1983	\$4,544.09	\$283.55	\$4,827.65	\$640.32	\$49.26	\$689.57	\$2,068.72	\$1,379.15
1984	\$4,827.65	\$301.25	\$5,128.89	\$689.57	\$49.26	\$738.83	\$2,068.72	\$1,329.89
1985	\$5,128.89	\$320.04	\$5,448.93	\$738.83	\$49.26	\$788.09	\$2,068.72	\$1,280.64
1986	\$5,448.93	\$340.01	\$5,788.95	\$788.09	\$49.26	\$837.34	\$2,068.72	\$1,231.38
1987	\$5,788.95	\$361.23	\$6,150.18	\$837.34	\$49.26	\$886.60	\$2,068.72	\$1,182.13
1988	\$6,150.18	\$383.77	\$6,533.95	\$886.60	\$49.26	\$935.85	\$2,068.72	\$1,132.87
1989	\$6,533.95	\$407.72	\$6,941.67	\$935.85	\$49.26	\$985.11	\$2,068.72	\$1,083.62
1990	\$6,941.67	\$433.16	\$7,374.83	\$985.11	\$49.26	\$1,034.36	\$2,068.72	\$1,034.36
1991	\$7,374.83	\$460.19	\$7,835.02	\$1,034.36	\$49.26	\$1,083.62	\$2,068.72	\$985.11
1992	\$7,835.02	\$488.91	\$8,323.92	\$1,083.62	\$49.26	\$1,132.87	\$2,068.72	\$935.85
1993	\$8,323.92	\$519.41	\$8,843.33	\$1,132.87	\$49.26	\$1,182.13	\$2,068.72	\$886.60
1994	\$8,843.33	\$551.82	\$9,395.16	\$1,182.13	\$49.26	\$1,231.38	\$2,068.72	\$837.34
1995	\$9,395.16	\$586.26	\$9,981.42	\$1,231.38	\$49.26	\$1,280.64	\$2,068.72	\$788.09
1996	\$9,981.42	\$622.84	\$10,604.26	\$1,280.64	\$49.26	\$1,329.89	\$2,068.72	\$738.83
1997	\$10,604.26	\$661.71	\$11,265.96	\$1,329.89	\$49.26	\$1,379.15	\$2,068.72	\$689.57
1998	\$11,265.96	\$703.00	\$11,968.96	\$1,379.15	\$49.26	\$1,428.40	\$2,068.72	\$640.32
1999	\$11,968.96	\$746.86	\$12,715.82	\$1,428.40	\$49.26	\$1,477.66	\$2,068.72	\$591.06
2000	\$12,715.82	\$793.47	\$13,509.29	\$1,477.66	\$49.26	\$1,526.92	\$2,068.72	\$541.81
2001	\$13,509.29	\$842.98	\$14,352.27	\$1,526.92	\$49.26	\$1,576.17	\$2,068.72	\$492.55
2002	\$14,352.27	\$895.58	\$15,247.85	\$1,576.17	\$49.26	\$1,625.43	\$2,068.72	\$443.30
2003	\$15,247.85	\$951.47	\$16,199.31	\$1,625.43	\$49.26	\$1,674.68	\$2,068.72	\$394.04
2004	\$16,199.31	\$1,010.84	\$17,210.15	\$1,674.68	\$49.26	\$1,723.94	\$2,068.72	\$344.79
2005	\$17,210.15	\$1,073.91	\$18,284.07	\$1,723.94	\$49.26	\$1,773.19	\$2,068.72	\$295.53
2006	\$18,284.07	\$1,140.93	\$19,424.99	\$1,773.19	\$49.26	\$1,822.45	\$2,068.72	\$246.28
2007	\$19,424.99	\$1,212.12	\$20,637.11	\$1,822.45	\$49.26	\$1,871.70	\$2,068.72	\$197.02
2008	\$20,637.11	\$2,534.07	\$23,171.18	\$1,871.70	\$49.26	\$1,920.96	\$2,068.72	\$147.77
2009	\$21,924.87	\$2,242.68	\$24,167.54	\$1,920.96	\$49.26	\$1,970.21	\$2,068.72	\$98.51
2010	\$23,292.98	\$1,913.77	\$25,206.75	\$1,970.21	\$49.26	\$2,019.47	\$2,068.72	\$49.26
2011	\$24,746.46	\$1,544.18	\$26,290.64	\$2,019.47	\$49.26	\$2,068.72	\$2,068.72	\$0.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$2,030.95	\$126.73	\$2,157.68	\$0.00	\$47.23	\$47.23	\$2,030.95	\$1,983.72
1971	\$2,157.68	\$134.64	\$2,292.32	\$47.23	\$47.23	\$94.46	\$2,030.95	\$1,936.49
1972	\$2,292.32	\$143.04	\$2,435.36	\$94.46	\$47.23	\$141.69	\$2,030.95	\$1,889.25
1973	\$2,435.36	\$151.97	\$2,587.33	\$141.69	\$47.23	\$188.93	\$2,030.95	\$1,842.02
1974	\$2,587.33	\$161.45	\$2,748.77	\$188.93	\$47.23	\$236.16	\$2,030.95	\$1,794.79
1975	\$2,748.77	\$171.52	\$2,920.30	\$236.16	\$47.23	\$283.39	\$2,030.95	\$1,747.56
1976	\$2,920.30	\$182.23	\$3,102.52	\$283.39	\$47.23	\$330.62	\$2,030.95	\$1,700.33
1977	\$3,102.52	\$193.60	\$3,296.12	\$330.62	\$47.23	\$377.85	\$2,030.95	\$1,653.10
1978	\$3,296.12	\$205.68	\$3,501.80	\$377.85	\$47.23	\$425.08	\$2,030.95	\$1,605.87
1979	\$3,501.80	\$218.51	\$3,720.31	\$425.08	\$47.23	\$472.31	\$2,030.95	\$1,558.63
1980	\$3,720.31	\$232.15	\$3,952.46	\$472.31	\$47.23	\$519.54	\$2,030.95	\$1,511.40
1981	\$3,952.46	\$246.63	\$4,199.09	\$519.54	\$47.23	\$566.78	\$2,030.95	\$1,464.17
1982	\$4,199.09	\$262.02	\$4,461.12	\$566.78	\$47.23	\$614.01	\$2,030.95	\$1,416.94
1983	\$4,461.12	\$278.37	\$4,739.49	\$614.01	\$47.23	\$661.24	\$2,030.95	\$1,369.71
1984	\$4,739.49	\$295.74	\$5,035.23	\$661.24	\$47.23	\$708.47	\$2,030.95	\$1,322.48
1985	\$5,035.23	\$314.20	\$5,349.43	\$708.47	\$47.23	\$755.70	\$2,030.95	\$1,275.25
1986	\$5,349.43	\$333.80	\$5,683.24	\$755.70	\$47.23	\$802.93	\$2,030.95	\$1,228.02
1987	\$5,683.24	\$354.63	\$6,037.87	\$802.93	\$47.23	\$850.16	\$2,030.95	\$1,180.78
1988	\$6,037.87	\$376.76	\$6,414.64	\$850.16	\$47.23	\$897.40	\$2,030.95	\$1,133.55
1989	\$6,414.64	\$400.27	\$6,814.91	\$897.40	\$47.23	\$944.63	\$2,030.95	\$1,086.32
1990	\$6,814.91	\$425.25	\$7,240.16	\$944.63	\$47.23	\$991.86	\$2,030.95	\$1,039.09
1991	\$7,240.16	\$451.79	\$7,691.94	\$991.86	\$47.23	\$1,039.09	\$2,030.95	\$991.86
1992	\$7,691.94	\$479.98	\$8,171.92	\$1,039.09	\$47.23	\$1,086.32	\$2,030.95	\$944.63
1993	\$8,171.92	\$509.93	\$8,681.85	\$1,086.32	\$47.23	\$1,133.55	\$2,030.95	\$897.40
1994	\$8,681.85	\$541.75	\$9,223.60	\$1,133.55	\$47.23	\$1,180.78	\$2,030.95	\$850.16
1995	\$9,223.60	\$575.55	\$9,799.15	\$1,180.78	\$47.23	\$1,228.02	\$2,030.95	\$802.93
1996	\$9,799.15	\$611.47	\$10,410.62	\$1,228.02	\$47.23	\$1,275.25	\$2,030.95	\$755.70
1997	\$10,410.62	\$649.62	\$11,060.24	\$1,275.25	\$47.23	\$1,322.48	\$2,030.95	\$708.47
1998	\$11,060.24	\$690.16	\$11,750.40	\$1,322.48	\$47.23	\$1,369.71	\$2,030.95	\$661.24
1999	\$11,750.40	\$733.22	\$12,483.62	\$1,369.71	\$47.23	\$1,416.94	\$2,030.95	\$614.01
2000	\$12,483.62	\$778.98	\$13,262.60	\$1,416.94	\$47.23	\$1,464.17	\$2,030.95	\$566.78
2001	\$13,262.60	\$827.59	\$14,090.19	\$1,464.17	\$47.23	\$1,511.40	\$2,030.95	\$519.54
2002	\$14,090.19	\$879.23	\$14,969.42	\$1,511.40	\$47.23	\$1,558.63	\$2,030.95	\$472.31
2003	\$14,969.42	\$934.09	\$15,903.51	\$1,558.63	\$47.23	\$1,605.87	\$2,030.95	\$425.08
2004	\$15,903.51	\$992.38	\$16,895.89	\$1,605.87	\$47.23	\$1,653.10	\$2,030.95	\$377.85
2005	\$16,895.89	\$1,054.30	\$17,950.19	\$1,653.10	\$47.23	\$1,700.33	\$2,030.95	\$330.62
2006	\$17,950.19	\$1,120.09	\$19,070.28	\$1,700.33	\$47.23	\$1,747.56	\$2,030.95	\$283.39
2007	\$19,070.28	\$1,189.99	\$20,260.27	\$1,747.56	\$47.23	\$1,794.79	\$2,030.95	\$236.16

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
2008	\$20,260.27	\$1,264.24	\$21,524.51	\$1,794.79	\$47.23	\$1,842.02	\$2,030.95	\$188.93
2009	\$21,524.51	\$2,643.04	\$24,167.54	\$1,842.02	\$47.23	\$1,889.25	\$2,030.95	\$141.69
2010	\$22,867.64	\$2,339.11	\$25,206.75	\$1,889.25	\$47.23	\$1,936.49	\$2,030.95	\$94.46
2011	\$24,294.58	\$1,996.06	\$26,290.64	\$1,936.49	\$47.23	\$1,983.72	\$2,030.95	\$47.23
2012	\$25,810.56	\$1,610.58	\$27,421.14	\$1,983.72	\$47.23	\$2,030.95	\$2,030.95	(\$0.00)
				Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$2,003.22	\$125.00	\$2,128.22	\$0.00	\$45.53	\$45.53	\$2,003.22	\$1,957.69
1971	\$2,128.22	\$132.80	\$2,261.02	\$45.53	\$45.53	\$91.06	\$2,003.22	\$1,912.17
1972	\$2,261.02	\$141.09	\$2,402.11	\$91.06	\$45.53	\$136.58	\$2,003.22	\$1,866.64
1973	\$2,402.11	\$149.89	\$2,552.00	\$136.58	\$45.53	\$182.11	\$2,003.22	\$1,821.11
1974	\$2,552.00	\$159.25	\$2,711.25	\$182.11	\$45.53	\$227.64	\$2,003.22	\$1,775.58
1975	\$2,711.25	\$169.18	\$2,880.43	\$227.64	\$45.53	\$273.17	\$2,003.22	\$1,730.06
1976	\$2,880.43	\$179.74	\$3,060.17	\$273.17	\$45.53	\$318.69	\$2,003.22	\$1,684.53
1977	\$3,060.17	\$190.95	\$3,251.13	\$318.69	\$45.53	\$364.22	\$2,003.22	\$1,639.00
1978	\$3,251.13	\$202.87	\$3,454.00	\$364.22	\$45.53	\$409.75	\$2,003.22	\$1,593.47
1979	\$3,454.00	\$215.53	\$3,669.52	\$409.75	\$45.53	\$455.28	\$2,003.22	\$1,547.94
1980	\$3,669.52	\$228.98	\$3,898.50	\$455.28	\$45.53	\$500.81	\$2,003.22	\$1,502.42
1981	\$3,898.50	\$243.27	\$4,141.77	\$500.81	\$45.53	\$546.33	\$2,003.22	\$1,456.89
1982	\$4,141.77	\$258.45	\$4,400.22	\$546.33	\$45.53	\$591.86	\$2,003.22	\$1,411.36
1983	\$4,400.22	\$274.57	\$4,674.79	\$591.86	\$45.53	\$637.39	\$2,003.22	\$1,365.83
1984	\$4,674.79	\$291.71	\$4,966.50	\$637.39	\$45.53	\$682.92	\$2,003.22	\$1,320.31
1985	\$4,966.50	\$309.91	\$5,276.41	\$682.92	\$45.53	\$728.44	\$2,003.22	\$1,274.78
1986	\$5,276.41	\$329.25	\$5,605.65	\$728.44	\$45.53	\$773.97	\$2,003.22	\$1,229.25
1987	\$5,605.65	\$349.79	\$5,955.45	\$773.97	\$45.53	\$819.50	\$2,003.22	\$1,183.72
1988	\$5,955.45	\$371.62	\$6,327.07	\$819.50	\$45.53	\$865.03	\$2,003.22	\$1,138.19
1989	\$6,327.07	\$394.81	\$6,721.88	\$865.03	\$45.53	\$910.56	\$2,003.22	\$1,092.67
1990	\$6,721.88	\$419.45	\$7,141.32	\$910.56	\$45.53	\$956.08	\$2,003.22	\$1,047.14
1991	\$7,141.32	\$445.62	\$7,586.94	\$956.08	\$45.53	\$1,001.61	\$2,003.22	\$1,001.61
1992	\$7,586.94	\$473.42	\$8,060.36	\$1,001.61	\$45.53	\$1,047.14	\$2,003.22	\$956.08
1993	\$8,060.36	\$502.97	\$8,563.33	\$1,047.14	\$45.53	\$1,092.67	\$2,003.22	\$910.56
1994	\$8,563.33	\$534.35	\$9,097.68	\$1,092.67	\$45.53	\$1,138.19	\$2,003.22	\$865.03
1995	\$9,097.68	\$567.70	\$9,665.38	\$1,138.19	\$45.53	\$1,183.72	\$2,003.22	\$819.50
1996	\$9,665.38	\$603.12	\$10,268.50	\$1,183.72	\$45.53	\$1,229.25	\$2,003.22	\$773.97
1997	\$10,268.50	\$640.75	\$10,909.25	\$1,229.25	\$45.53	\$1,274.78	\$2,003.22	\$728.44
1998	\$10,909.25	\$680.74	\$11,589.99	\$1,274.78	\$45.53	\$1,320.31	\$2,003.22	\$682.92
1999	\$11,589.99	\$723.22	\$12,313.20	\$1,320.31	\$45.53	\$1,365.83	\$2,003.22	\$637.39

2000	\$12,313.20	\$768.34	\$13,081.55	\$1,365.83	\$45.53	\$1,411.36	\$2,003.22	\$591.86
2001	\$13,081.55	\$816.29	\$13,897.84	\$1,411.36	\$45.53	\$1,456.89	\$2,003.22	\$546.33
2002	\$13,897.84	\$867.22	\$14,765.06	\$1,456.89	\$45.53	\$1,502.42	\$2,003.22	\$500.81
2003	\$14,765.06	\$921.34	\$15,686.40	\$1,502.42	\$45.53	\$1,547.94	\$2,003.22	\$455.28
2004	\$15,686.40	\$978.83	\$16,665.23	\$1,547.94	\$45.53	\$1,593.47	\$2,003.22	\$409.75
2005	\$16,665.23	\$1,039.91	\$17,705.14	\$1,593.47	\$45.53	\$1,639.00	\$2,003.22	\$364.22
2006	\$17,705.14	\$1,104.80	\$18,809.94	\$1,639.00	\$45.53	\$1,684.53	\$2,003.22	\$318.69
2007	\$18,809.94	\$1,173.74	\$19,983.68	\$1,684.53	\$45.53	\$1,730.06	\$2,003.22	\$273.17
2008	\$19,983.68	\$1,246.98	\$21,230.67	\$1,730.06	\$45.53	\$1,775.58	\$2,003.22	\$227.64
2009	\$21,230.67	\$1,324.79	\$22,555.46	\$1,775.58	\$45.53	\$1,821.11	\$2,003.22	\$182.11
2010	\$22,555.46	\$1,407.46	\$23,962.92	\$1,821.11	\$45.53	\$1,866.64	\$2,003.22	\$136.58
2011	\$23,962.92	\$1,495.29	\$25,458.21	\$1,866.64	\$45.53	\$1,912.17	\$2,003.22	\$91.06
2012	\$25,458.21	\$1,588.59	\$27,046.80	\$1,912.17	\$45.53	\$1,957.69	\$2,003.22	\$45.53
2013	\$27,046.80	\$1,687.72	\$28,734.52	\$1,957.69	\$45.53	\$2,003.22	\$2,003.22	\$0.00

Cascade Natural Gas Corp
Retirement of Kennewick in 8 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points
 (CNGC credit adjustment)

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
\$ 21,300.00	\$ 21,300.00	\$ 21,400.00

Discounted Present value based on above CPI & CARFR	
2007	22,215.90
2008	23,171.18
2009	24,167.54
2010	25,206.75
2011	26,290.64
2012	27,421.14
2013	28,600.25
2014	29,830.06
2015	31,112.75
2016	32,602.95

\$18,380.17	\$18,044.54	\$17,798.21
\$1,957.45	\$1,921.71	\$1,895.47

PV (2006)
 PV (1970)

Year 1

Year	PV	Year 1		E = G/(1st year of retirement - 1970)	F	G = PV in 1970	H = G - F
		A	B				
		Accretion	Balance	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,957.45	\$122.15	\$2,079.60	\$43.50	\$43.50	\$1,957.45	\$1,913.95
1971	\$2,079.60	\$129.77	\$2,209.36	\$43.50	\$87.00	\$1,957.45	\$1,870.45
1972	\$2,209.36	\$137.86	\$2,347.23	\$43.50	\$130.50	\$1,957.45	\$1,826.96

1973	\$2,347.23	\$146.47	\$2,493.70	\$130.50	\$43.50	\$174.00	\$1,957.45	\$1,783.46
1974	\$2,493.70	\$155.61	\$2,649.30	\$174.00	\$43.50	\$217.49	\$1,957.45	\$1,739.96
1975	\$2,649.30	\$165.32	\$2,814.62	\$217.49	\$43.50	\$260.99	\$1,957.45	\$1,696.46
1976	\$2,814.62	\$175.63	\$2,990.25	\$260.99	\$43.50	\$304.49	\$1,957.45	\$1,652.96
1977	\$2,990.25	\$186.59	\$3,176.84	\$304.49	\$43.50	\$347.99	\$1,957.45	\$1,609.46
1978	\$3,176.84	\$198.24	\$3,375.08	\$347.99	\$43.50	\$391.49	\$1,957.45	\$1,565.96
1979	\$3,375.08	\$210.60	\$3,585.68	\$391.49	\$43.50	\$434.99	\$1,957.45	\$1,522.46
1980	\$3,585.68	\$223.75	\$3,809.43	\$434.99	\$43.50	\$478.49	\$1,957.45	\$1,478.96
1981	\$3,809.43	\$237.71	\$4,047.14	\$478.49	\$43.50	\$521.99	\$1,957.45	\$1,435.47
1982	\$4,047.14	\$252.54	\$4,299.68	\$521.99	\$43.50	\$565.49	\$1,957.45	\$1,391.97
1983	\$4,299.68	\$268.30	\$4,567.98	\$565.49	\$43.50	\$608.99	\$1,957.45	\$1,348.47
1984	\$4,567.98	\$285.04	\$4,853.02	\$608.99	\$43.50	\$652.48	\$1,957.45	\$1,304.97
1985	\$4,853.02	\$302.83	\$5,155.85	\$652.48	\$43.50	\$695.98	\$1,957.45	\$1,261.47
1986	\$5,155.85	\$321.73	\$5,477.58	\$695.98	\$43.50	\$739.48	\$1,957.45	\$1,217.97
1987	\$5,477.58	\$341.80	\$5,819.38	\$739.48	\$43.50	\$782.98	\$1,957.45	\$1,174.47
1988	\$5,819.38	\$363.13	\$6,182.50	\$782.98	\$43.50	\$826.48	\$1,957.45	\$1,130.97
1989	\$6,182.50	\$385.79	\$6,568.29	\$826.48	\$43.50	\$869.98	\$1,957.45	\$1,087.47
1990	\$6,568.29	\$409.86	\$6,978.15	\$869.98	\$43.50	\$913.48	\$1,957.45	\$1,043.97
1991	\$6,978.15	\$435.44	\$7,413.59	\$913.48	\$43.50	\$956.98	\$1,957.45	\$1,000.48
1992	\$7,413.59	\$462.61	\$7,876.20	\$956.98	\$43.50	\$1,000.48	\$1,957.45	\$956.98
1993	\$7,876.20	\$491.47	\$8,367.67	\$1,000.48	\$43.50	\$1,043.97	\$1,957.45	\$913.48
1994	\$8,367.67	\$522.14	\$8,889.82	\$1,043.97	\$43.50	\$1,087.47	\$1,957.45	\$869.98
1995	\$8,889.82	\$554.72	\$9,444.54	\$1,087.47	\$43.50	\$1,130.97	\$1,957.45	\$826.48
1996	\$9,444.54	\$589.34	\$10,033.88	\$1,130.97	\$43.50	\$1,174.47	\$1,957.45	\$782.98
1997	\$10,033.88	\$626.11	\$10,660.00	\$1,174.47	\$43.50	\$1,217.97	\$1,957.45	\$739.48
1998	\$10,660.00	\$665.18	\$11,325.18	\$1,217.97	\$43.50	\$1,261.47	\$1,957.45	\$695.98
1999	\$11,325.18	\$706.69	\$12,031.87	\$1,261.47	\$43.50	\$1,304.97	\$1,957.45	\$652.48
2000	\$12,031.87	\$750.79	\$12,782.66	\$1,304.97	\$43.50	\$1,348.47	\$1,957.45	\$608.99
2001	\$12,782.66	\$797.64	\$13,580.30	\$1,348.47	\$43.50	\$1,391.97	\$1,957.45	\$565.49
2002	\$13,580.30	\$847.41	\$14,427.71	\$1,391.97	\$43.50	\$1,435.47	\$1,957.45	\$521.99
2003	\$14,427.71	\$900.29	\$15,328.00	\$1,435.47	\$43.50	\$1,478.96	\$1,957.45	\$478.49
2004	\$15,328.00	\$956.47	\$16,284.46	\$1,478.96	\$43.50	\$1,522.46	\$1,957.45	\$434.99
2005	\$16,284.46	\$1,016.15	\$17,300.61	\$1,522.46	\$43.50	\$1,565.96	\$1,957.45	\$391.49
2006	\$17,300.61	\$1,079.56	\$18,380.17	\$1,565.96	\$43.50	\$1,609.46	\$1,957.45	\$347.99
2007	\$18,380.17	\$1,146.92	\$19,527.09	\$1,609.46	\$43.50	\$1,652.96	\$1,957.45	\$304.49
2008	\$19,527.09	\$3,644.09	\$23,171.18	\$1,652.96	\$43.50	\$1,696.46	\$1,957.45	\$260.99
2009	\$20,745.59	\$3,421.96	\$24,167.54	\$1,696.46	\$43.50	\$1,739.96	\$1,957.45	\$217.49
2010	\$22,040.11	\$3,166.64	\$25,206.75	\$1,739.96	\$43.50	\$1,783.46	\$1,957.45	\$174.00
2011	\$23,415.41	\$2,875.23	\$26,290.64	\$1,783.46	\$43.50	\$1,826.96	\$1,957.45	\$130.50
2012	\$24,876.53	\$2,544.60	\$27,421.14	\$1,826.96	\$43.50	\$1,870.45	\$1,957.45	\$87.00
2013	\$26,428.83	\$2,171.42	\$28,600.25	\$1,870.45	\$43.50	\$1,913.95	\$1,957.45	\$43.50
2014	\$28,077.99	\$1,752.07	\$29,830.06	\$1,913.95	\$43.50	\$1,957.45	\$1,957.45	\$0.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,921.71	\$119.91	\$2,041.62	\$0.00	\$41.78	\$41.78	\$1,921.71	\$1,879.93
1971	\$2,041.62	\$127.40	\$2,169.02	\$41.78	\$41.78	\$83.55	\$1,921.71	\$1,838.16
1972	\$2,169.02	\$135.35	\$2,304.37	\$83.55	\$41.78	\$125.33	\$1,921.71	\$1,796.38
1973	\$2,304.37	\$143.79	\$2,448.16	\$125.33	\$41.78	\$167.11	\$1,921.71	\$1,754.60
1974	\$2,448.16	\$152.77	\$2,600.93	\$167.11	\$41.78	\$208.88	\$1,921.71	\$1,712.83
1975	\$2,600.93	\$162.30	\$2,763.22	\$208.88	\$41.78	\$250.66	\$1,921.71	\$1,671.05
1976	\$2,763.22	\$172.43	\$2,935.65	\$250.66	\$41.78	\$292.43	\$1,921.71	\$1,629.27
1977	\$2,935.65	\$183.18	\$3,118.83	\$292.43	\$41.78	\$334.21	\$1,921.71	\$1,587.50
1978	\$3,118.83	\$194.62	\$3,313.45	\$334.21	\$41.78	\$375.99	\$1,921.71	\$1,545.72
1979	\$3,313.45	\$206.76	\$3,520.21	\$375.99	\$41.78	\$417.76	\$1,921.71	\$1,503.95
1980	\$3,520.21	\$219.66	\$3,739.87	\$417.76	\$41.78	\$459.54	\$1,921.71	\$1,462.17
1981	\$3,739.87	\$233.37	\$3,973.24	\$459.54	\$41.78	\$501.32	\$1,921.71	\$1,420.39
1982	\$3,973.24	\$247.93	\$4,221.17	\$501.32	\$41.78	\$543.09	\$1,921.71	\$1,378.62
1983	\$4,221.17	\$263.40	\$4,484.57	\$543.09	\$41.78	\$584.87	\$1,921.71	\$1,336.84
1984	\$4,484.57	\$279.84	\$4,764.40	\$584.87	\$41.78	\$626.64	\$1,921.71	\$1,295.06
1985	\$4,764.40	\$297.30	\$5,061.70	\$626.64	\$41.78	\$668.42	\$1,921.71	\$1,253.29
1986	\$5,061.70	\$315.85	\$5,377.55	\$668.42	\$41.78	\$710.20	\$1,921.71	\$1,211.51
1987	\$5,377.55	\$335.56	\$5,713.11	\$710.20	\$41.78	\$751.97	\$1,921.71	\$1,169.74
1988	\$5,713.11	\$356.50	\$6,069.61	\$751.97	\$41.78	\$793.75	\$1,921.71	\$1,127.96
1989	\$6,069.61	\$378.74	\$6,448.35	\$793.75	\$41.78	\$835.53	\$1,921.71	\$1,086.18
1990	\$6,448.35	\$402.38	\$6,850.73	\$835.53	\$41.78	\$877.30	\$1,921.71	\$1,044.41
1991	\$6,850.73	\$427.49	\$7,278.22	\$877.30	\$41.78	\$919.08	\$1,921.71	\$1,002.63
1992	\$7,278.22	\$454.16	\$7,732.38	\$919.08	\$41.78	\$960.85	\$1,921.71	\$960.85
1993	\$7,732.38	\$482.50	\$8,214.88	\$960.85	\$41.78	\$1,002.63	\$1,921.71	\$919.08
1994	\$8,214.88	\$512.61	\$8,727.48	\$1,002.63	\$41.78	\$1,044.41	\$1,921.71	\$877.30
1995	\$8,727.48	\$544.60	\$9,272.08	\$1,044.41	\$41.78	\$1,086.18	\$1,921.71	\$835.53
1996	\$9,272.08	\$578.58	\$9,850.66	\$1,086.18	\$41.78	\$1,127.96	\$1,921.71	\$793.75
1997	\$9,850.66	\$614.68	\$10,465.34	\$1,127.96	\$41.78	\$1,169.74	\$1,921.71	\$751.97
1998	\$10,465.34	\$653.04	\$11,118.38	\$1,169.74	\$41.78	\$1,211.51	\$1,921.71	\$710.20
1999	\$11,118.38	\$693.79	\$11,812.16	\$1,211.51	\$41.78	\$1,253.29	\$1,921.71	\$668.42
2000	\$11,812.16	\$737.08	\$12,549.24	\$1,253.29	\$41.78	\$1,295.06	\$1,921.71	\$626.64
2001	\$12,549.24	\$783.07	\$13,332.31	\$1,295.06	\$41.78	\$1,336.84	\$1,921.71	\$584.87
2002	\$13,332.31	\$831.94	\$14,164.25	\$1,336.84	\$41.78	\$1,378.62	\$1,921.71	\$543.09
2003	\$14,164.25	\$883.85	\$15,048.10	\$1,378.62	\$41.78	\$1,420.39	\$1,921.71	\$501.32
2004	\$15,048.10	\$939.00	\$15,987.10	\$1,420.39	\$41.78	\$1,462.17	\$1,921.71	\$459.54
2005	\$15,987.10	\$997.60	\$16,984.70	\$1,462.17	\$41.78	\$1,503.95	\$1,921.71	\$417.76
2006	\$16,984.70	\$1,059.84	\$18,044.54	\$1,503.95	\$41.78	\$1,545.72	\$1,921.71	\$375.99
2007	\$18,044.54	\$1,125.98	\$19,170.52	\$1,545.72	\$41.78	\$1,587.50	\$1,921.71	\$334.21
2008	\$19,170.52	\$1,196.24	\$20,366.76	\$1,587.50	\$41.78	\$1,629.27	\$1,921.71	\$292.43

2009	\$20,366.76	\$3,800.78	\$24,167.54	\$1,629.27	\$41.78	\$1,671.05	\$1,921.71	\$250.66
2010	\$21,637.65	\$3,569.10	\$25,206.75	\$1,671.05	\$41.78	\$1,712.83	\$1,921.71	\$208.88
2011	\$22,987.83	\$3,302.80	\$26,290.64	\$1,712.83	\$41.78	\$1,754.60	\$1,921.71	\$167.11
2012	\$24,422.28	\$2,998.86	\$27,421.14	\$1,754.60	\$41.78	\$1,796.38	\$1,921.71	\$125.33
2013	\$25,946.23	\$2,654.02	\$28,600.25	\$1,796.38	\$41.78	\$1,838.16	\$1,921.71	\$83.55
2014	\$27,565.27	\$2,264.79	\$29,830.06	\$1,838.16	\$41.78	\$1,879.93	\$1,921.71	\$41.78
2015	\$29,285.34	\$1,827.41	\$31,112.75	\$1,879.93	\$41.78	\$1,921.71	\$1,921.71	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,895.47	\$118.28	\$2,013.75	\$0.00	\$40.33	\$40.33	\$1,895.47	\$1,855.15
1971	\$2,013.75	\$125.66	\$2,139.41	\$40.33	\$40.33	\$80.66	\$1,895.47	\$1,814.82
1972	\$2,139.41	\$133.50	\$2,272.91	\$80.66	\$40.33	\$120.99	\$1,895.47	\$1,774.49
1973	\$2,272.91	\$141.83	\$2,414.74	\$120.99	\$40.33	\$161.32	\$1,895.47	\$1,734.16
1974	\$2,414.74	\$150.68	\$2,565.42	\$161.32	\$40.33	\$201.65	\$1,895.47	\$1,693.83
1975	\$2,565.42	\$160.08	\$2,725.50	\$201.65	\$40.33	\$241.98	\$1,895.47	\$1,653.50
1976	\$2,725.50	\$170.07	\$2,895.57	\$241.98	\$40.33	\$282.30	\$1,895.47	\$1,613.17
1977	\$2,895.57	\$180.68	\$3,076.26	\$282.30	\$40.33	\$322.63	\$1,895.47	\$1,572.84
1978	\$3,076.26	\$191.96	\$3,268.21	\$322.63	\$40.33	\$362.96	\$1,895.47	\$1,532.51
1979	\$3,268.21	\$203.94	\$3,472.15	\$362.96	\$40.33	\$403.29	\$1,895.47	\$1,492.18
1980	\$3,472.15	\$216.66	\$3,688.81	\$403.29	\$40.33	\$443.62	\$1,895.47	\$1,451.85
1981	\$3,688.81	\$230.18	\$3,918.99	\$443.62	\$40.33	\$483.95	\$1,895.47	\$1,411.52
1982	\$3,918.99	\$244.55	\$4,163.54	\$483.95	\$40.33	\$524.28	\$1,895.47	\$1,371.19
1983	\$4,163.54	\$259.80	\$4,423.34	\$524.28	\$40.33	\$564.61	\$1,895.47	\$1,330.87
1984	\$4,423.34	\$276.02	\$4,699.36	\$564.61	\$40.33	\$604.94	\$1,895.47	\$1,290.54
1985	\$4,699.36	\$293.24	\$4,992.60	\$604.94	\$40.33	\$645.27	\$1,895.47	\$1,250.21
1986	\$4,992.60	\$311.54	\$5,304.14	\$645.27	\$40.33	\$685.60	\$1,895.47	\$1,209.88
1987	\$5,304.14	\$330.98	\$5,635.12	\$685.60	\$40.33	\$725.93	\$1,895.47	\$1,169.55
1988	\$5,635.12	\$351.63	\$5,986.75	\$725.93	\$40.33	\$766.26	\$1,895.47	\$1,129.22
1989	\$5,986.75	\$373.57	\$6,360.32	\$766.26	\$40.33	\$806.58	\$1,895.47	\$1,088.89
1990	\$6,360.32	\$396.88	\$6,757.21	\$806.58	\$40.33	\$846.91	\$1,895.47	\$1,048.56
1991	\$6,757.21	\$421.65	\$7,178.86	\$846.91	\$40.33	\$887.24	\$1,895.47	\$1,008.23
1992	\$7,178.86	\$447.96	\$7,626.82	\$887.24	\$40.33	\$927.57	\$1,895.47	\$967.90
1993	\$7,626.82	\$475.91	\$8,102.73	\$927.57	\$40.33	\$967.90	\$1,895.47	\$927.57
1994	\$8,102.73	\$505.61	\$8,608.34	\$967.90	\$40.33	\$1,008.23	\$1,895.47	\$887.24
1995	\$8,608.34	\$537.16	\$9,145.50	\$1,008.23	\$40.33	\$1,048.56	\$1,895.47	\$846.91
1996	\$9,145.50	\$570.68	\$9,716.18	\$1,048.56	\$40.33	\$1,088.89	\$1,895.47	\$806.58
1997	\$9,716.18	\$606.29	\$10,322.47	\$1,088.89	\$40.33	\$1,129.22	\$1,895.47	\$766.26
1998	\$10,322.47	\$644.12	\$10,966.59	\$1,129.22	\$40.33	\$1,169.55	\$1,895.47	\$725.93
1999	\$10,966.59	\$684.32	\$11,650.91	\$1,169.55	\$40.33	\$1,209.88	\$1,895.47	\$685.60
2000	\$11,650.91	\$727.02	\$12,377.93	\$1,209.88	\$40.33	\$1,250.21	\$1,895.47	\$645.27

2001	\$12,377.93	\$772.38	\$13,150.31	\$1,250.21	\$40.33	\$1,290.54	\$1,895.47	\$604.94
2002	\$13,150.31	\$820.58	\$13,970.89	\$1,290.54	\$40.33	\$1,330.87	\$1,895.47	\$564.61
2003	\$13,970.89	\$871.78	\$14,842.67	\$1,330.87	\$40.33	\$1,371.19	\$1,895.47	\$524.28
2004	\$14,842.67	\$926.18	\$15,768.85	\$1,371.19	\$40.33	\$1,411.52	\$1,895.47	\$483.95
2005	\$15,768.85	\$983.98	\$16,752.83	\$1,411.52	\$40.33	\$1,451.85	\$1,895.47	\$443.62
2006	\$16,752.83	\$1,045.38	\$17,798.21	\$1,451.85	\$40.33	\$1,492.18	\$1,895.47	\$403.29
2007	\$17,798.21	\$1,110.61	\$18,908.81	\$1,492.18	\$40.33	\$1,532.51	\$1,895.47	\$362.96
2008	\$18,908.81	\$1,179.91	\$20,088.72	\$1,532.51	\$40.33	\$1,572.84	\$1,895.47	\$322.63
2009	\$20,088.72	\$1,253.54	\$21,342.26	\$1,572.84	\$40.33	\$1,613.17	\$1,895.47	\$282.30
2010	\$21,342.26	\$1,331.76	\$22,674.02	\$1,613.17	\$40.33	\$1,653.50	\$1,895.47	\$241.98
2011	\$22,674.02	\$1,414.86	\$24,088.88	\$1,653.50	\$40.33	\$1,693.83	\$1,895.47	\$201.65
2012	\$24,088.88	\$1,503.15	\$25,592.02	\$1,693.83	\$40.33	\$1,734.16	\$1,895.47	\$161.32
2013	\$25,592.02	\$3,142.50	\$28,734.52	\$1,734.16	\$40.33	\$1,774.49	\$1,895.47	\$120.99
2014	\$27,188.96	\$2,781.14	\$29,970.10	\$1,774.49	\$40.33	\$1,814.82	\$1,895.47	\$80.66
2015	\$28,885.56	\$2,373.26	\$31,258.82	\$1,814.82	\$40.33	\$1,855.15	\$1,895.47	\$40.33
2016	\$30,688.01	\$1,914.93	\$32,602.95	\$1,855.15	\$40.33	\$1,895.47	\$1,895.47	\$0.00

Cascade Natural Gas Corp
Retirement of Kennewick in 10 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) - Source: 30 Year Treasury + 120 basis points (CNGC credit adjustment)

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

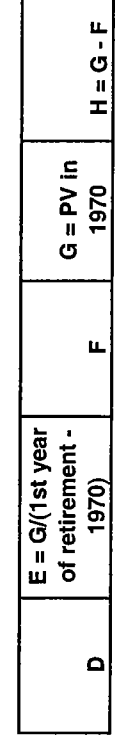
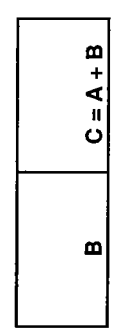
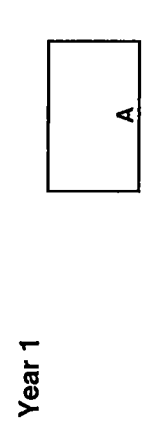
Phases of Retirement

Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
\$ 21,300.00	\$ 21,300.00	\$ 21,400.00

Cost - valued at 2006 prices	
2007	22,215.90
2008	23,171.18
2009	24,167.54
2010	25,206.75
2011	26,290.64
2012	27,421.14
2013	28,600.25
2014	29,830.06
2015	31,112.75
2016	32,450.60
2017	33,845.97
2018	35,467.08

Discounted Present value based on above CPI & CARFR

	\$17,715.04	\$17,391.55	\$17,154.13
	\$1,886.62	\$1,852.17	\$1,826.88



Beginning AD CY Depr Exp Ending AD Asset NBV

PV Accretion Balance

1970	\$1,886.62	\$117.72	\$2,004.34	\$0.00	\$40.14	\$40.14	\$1,886.62	\$1,846.48
1971	\$2,004.34	\$125.07	\$2,129.41	\$40.14	\$40.14	\$40.14	\$1,886.62	\$1,806.34
1972	\$2,129.41	\$132.88	\$2,262.29	\$80.28	\$40.14	\$40.14	\$1,886.62	\$1,766.19
1973	\$2,262.29	\$141.17	\$2,403.46	\$120.42	\$40.14	\$40.14	\$1,886.62	\$1,726.05
1974	\$2,403.46	\$149.98	\$2,553.43	\$160.56	\$40.14	\$40.14	\$1,886.62	\$1,685.91
1975	\$2,553.43	\$159.33	\$2,712.76	\$200.70	\$40.14	\$40.14	\$1,886.62	\$1,645.77
1976	\$2,712.76	\$169.28	\$2,882.04	\$240.84	\$40.14	\$40.14	\$1,886.62	\$1,605.63
1977	\$2,882.04	\$179.84	\$3,061.88	\$280.99	\$40.14	\$40.14	\$1,886.62	\$1,565.49
1978	\$3,061.88	\$191.06	\$3,252.94	\$321.13	\$40.14	\$40.14	\$1,886.62	\$1,525.35
1979	\$3,252.94	\$202.98	\$3,455.93	\$361.27	\$40.14	\$40.14	\$1,886.62	\$1,485.21
1980	\$3,455.93	\$215.65	\$3,671.58	\$401.41	\$40.14	\$40.14	\$1,886.62	\$1,445.07
1981	\$3,671.58	\$229.11	\$3,900.68	\$441.55	\$40.14	\$40.14	\$1,886.62	\$1,404.93
1982	\$3,900.68	\$243.40	\$4,144.08	\$481.69	\$40.14	\$40.14	\$1,886.62	\$1,364.79
1983	\$4,144.08	\$258.59	\$4,402.68	\$521.83	\$40.14	\$40.14	\$1,886.62	\$1,324.65
1984	\$4,402.68	\$274.73	\$4,677.40	\$561.97	\$40.14	\$40.14	\$1,886.62	\$1,284.51
1985	\$4,677.40	\$291.87	\$4,969.27	\$602.11	\$40.14	\$40.14	\$1,886.62	\$1,244.36
1986	\$4,969.27	\$310.08	\$5,279.35	\$642.25	\$40.14	\$40.14	\$1,886.62	\$1,204.22
1987	\$5,279.35	\$329.43	\$5,608.79	\$682.39	\$40.14	\$40.14	\$1,886.62	\$1,164.08
1988	\$5,608.79	\$349.99	\$5,958.77	\$722.53	\$40.14	\$40.14	\$1,886.62	\$1,123.94
1989	\$5,958.77	\$371.83	\$6,330.60	\$762.68	\$40.14	\$40.14	\$1,886.62	\$1,083.80
1990	\$6,330.60	\$395.03	\$6,725.63	\$802.82	\$40.14	\$40.14	\$1,886.62	\$1,043.66
1991	\$6,725.63	\$419.68	\$7,145.31	\$842.96	\$40.14	\$40.14	\$1,886.62	\$1,003.52
1992	\$7,145.31	\$445.87	\$7,591.18	\$883.10	\$40.14	\$40.14	\$1,886.62	\$963.38
1993	\$7,591.18	\$473.69	\$8,064.87	\$923.24	\$40.14	\$40.14	\$1,886.62	\$923.24
1994	\$8,064.87	\$503.25	\$8,568.12	\$963.38	\$40.14	\$40.14	\$1,886.62	\$883.10
1995	\$8,568.12	\$534.65	\$9,102.77	\$1,003.52	\$40.14	\$40.14	\$1,886.62	\$842.96
1996	\$9,102.77	\$568.01	\$9,670.78	\$1,043.66	\$40.14	\$40.14	\$1,886.62	\$802.82
1997	\$9,670.78	\$603.46	\$10,274.24	\$1,083.80	\$40.14	\$40.14	\$1,886.62	\$762.68
1998	\$10,274.24	\$641.11	\$10,915.35	\$1,123.94	\$40.14	\$40.14	\$1,886.62	\$722.53
1999	\$10,915.35	\$681.12	\$11,596.47	\$1,164.08	\$40.14	\$40.14	\$1,886.62	\$682.39
2000	\$11,596.47	\$723.62	\$12,320.08	\$1,204.22	\$40.14	\$40.14	\$1,886.62	\$642.25
2001	\$12,320.08	\$768.77	\$13,088.86	\$1,244.36	\$40.14	\$40.14	\$1,886.62	\$602.11
2002	\$13,088.86	\$816.74	\$13,905.60	\$1,284.51	\$40.14	\$40.14	\$1,886.62	\$561.97
2003	\$13,905.60	\$867.71	\$14,773.31	\$1,324.65	\$40.14	\$40.14	\$1,886.62	\$521.83
2004	\$14,773.31	\$921.85	\$15,695.17	\$1,364.79	\$40.14	\$40.14	\$1,886.62	\$481.69
2005	\$15,695.17	\$979.38	\$16,674.55	\$1,404.93	\$40.14	\$40.14	\$1,886.62	\$441.55
2006	\$16,674.55	\$1,040.49	\$17,715.04	\$1,445.07	\$40.14	\$40.14	\$1,886.62	\$401.41
2007	\$17,715.04	\$1,105.42	\$18,820.46	\$1,485.21	\$40.14	\$40.14	\$1,886.62	\$361.27
2008	\$18,820.46	\$4,350.73	\$23,171.18	\$1,525.35	\$40.14	\$40.14	\$1,886.62	\$321.13
2009	\$19,994.85	\$4,172.69	\$24,167.54	\$1,565.49	\$40.14	\$40.14	\$1,886.62	\$280.99
2010	\$21,242.53	\$3,964.22	\$25,206.75	\$1,605.63	\$40.14	\$40.14	\$1,886.62	\$240.84
2011	\$22,568.06	\$3,722.57	\$26,290.64	\$1,645.77	\$40.14	\$40.14	\$1,886.62	\$200.70
2012	\$23,976.31	\$3,444.82	\$27,421.14	\$1,685.91	\$40.14	\$40.14	\$1,886.62	\$160.56

Year 3

2003	\$13,651.68	\$851.86	\$14,503.54	\$1,273.36	\$38.59	\$1,311.95	\$1,852.17	\$540.22
2004	\$14,503.54	\$905.02	\$15,408.56	\$1,311.95	\$38.59	\$1,350.54	\$1,852.17	\$501.63
2005	\$15,408.56	\$961.49	\$16,370.06	\$1,350.54	\$38.59	\$1,389.12	\$1,852.17	\$463.04
2006	\$16,370.06	\$1,021.49	\$17,391.55	\$1,389.12	\$38.59	\$1,427.71	\$1,852.17	\$424.45
2007	\$17,391.55	\$1,085.23	\$18,476.78	\$1,427.71	\$38.59	\$1,466.30	\$1,852.17	\$385.87
2008	\$18,476.78	\$1,152.95	\$19,629.74	\$1,466.30	\$38.59	\$1,504.89	\$1,852.17	\$347.28
2009	\$19,629.74	\$4,537.81	\$24,167.54	\$1,504.89	\$38.59	\$1,543.47	\$1,852.17	\$308.69
2010	\$20,854.63	\$4,352.12	\$25,206.75	\$1,543.47	\$38.59	\$1,582.06	\$1,852.17	\$270.11
2011	\$22,155.96	\$4,134.68	\$26,290.64	\$1,582.06	\$38.59	\$1,620.65	\$1,852.17	\$231.52
2012	\$23,538.49	\$3,882.65	\$27,421.14	\$1,620.65	\$38.59	\$1,659.23	\$1,852.17	\$192.93
2013	\$25,007.29	\$3,592.95	\$28,600.25	\$1,659.23	\$38.59	\$1,697.82	\$1,852.17	\$154.35
2014	\$26,567.75	\$3,262.31	\$29,830.06	\$1,697.82	\$38.59	\$1,736.41	\$1,852.17	\$115.76
2015	\$28,225.58	\$2,887.17	\$31,112.75	\$1,736.41	\$38.59	\$1,774.99	\$1,852.17	\$77.17
2016	\$29,986.85	\$2,463.75	\$32,450.60	\$1,774.99	\$38.59	\$1,813.58	\$1,852.17	\$38.59
2017	\$31,858.03	\$1,987.94	\$33,845.97	\$1,813.58	\$38.59	\$1,852.17	\$1,852.17	\$0.00

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,826.88	\$114.00	\$1,940.88	\$0.00	\$37.28	\$37.28	\$1,826.88	\$1,789.60
1971	\$1,940.88	\$121.11	\$2,061.99	\$37.28	\$37.28	\$74.57	\$1,826.88	\$1,752.32
1972	\$2,061.99	\$128.67	\$2,190.66	\$74.57	\$37.28	\$111.85	\$1,826.88	\$1,715.03
1973	\$2,190.66	\$136.70	\$2,327.36	\$111.85	\$37.28	\$149.13	\$1,826.88	\$1,677.75
1974	\$2,327.36	\$145.23	\$2,472.58	\$149.13	\$37.28	\$186.42	\$1,826.88	\$1,640.47
1975	\$2,472.58	\$154.29	\$2,626.87	\$186.42	\$37.28	\$223.70	\$1,826.88	\$1,603.18
1976	\$2,626.87	\$163.92	\$2,790.79	\$223.70	\$37.28	\$260.98	\$1,826.88	\$1,565.90
1977	\$2,790.79	\$174.15	\$2,964.93	\$260.98	\$37.28	\$298.27	\$1,826.88	\$1,528.62
1978	\$2,964.93	\$185.01	\$3,149.95	\$298.27	\$37.28	\$335.55	\$1,826.88	\$1,491.33
1979	\$3,149.95	\$196.56	\$3,346.50	\$335.55	\$37.28	\$372.83	\$1,826.88	\$1,454.05
1980	\$3,346.50	\$208.82	\$3,555.32	\$372.83	\$37.28	\$410.12	\$1,826.88	\$1,416.77
1981	\$3,555.32	\$221.85	\$3,777.18	\$410.12	\$37.28	\$447.40	\$1,826.88	\$1,379.48
1982	\$3,777.18	\$235.70	\$4,012.87	\$447.40	\$37.28	\$484.68	\$1,826.88	\$1,342.20
1983	\$4,012.87	\$250.40	\$4,263.27	\$484.68	\$37.28	\$521.97	\$1,826.88	\$1,304.92
1984	\$4,263.27	\$266.03	\$4,529.30	\$521.97	\$37.28	\$559.25	\$1,826.88	\$1,267.63
1985	\$4,529.30	\$282.63	\$4,811.93	\$559.25	\$37.28	\$596.53	\$1,826.88	\$1,230.35
1986	\$4,811.93	\$300.26	\$5,112.20	\$596.53	\$37.28	\$633.82	\$1,826.88	\$1,193.07
1987	\$5,112.20	\$319.00	\$5,431.20	\$633.82	\$37.28	\$671.10	\$1,826.88	\$1,155.78
1988	\$5,431.20	\$338.91	\$5,770.10	\$671.10	\$37.28	\$708.38	\$1,826.88	\$1,118.50
1989	\$5,770.10	\$360.05	\$6,130.16	\$708.38	\$37.28	\$745.67	\$1,826.88	\$1,081.22
1990	\$6,130.16	\$382.52	\$6,512.68	\$745.67	\$37.28	\$782.95	\$1,826.88	\$1,043.93
1991	\$6,512.68	\$406.39	\$6,919.07	\$782.95	\$37.28	\$820.23	\$1,826.88	\$1,006.65
1992	\$6,919.07	\$431.75	\$7,350.82	\$820.23	\$37.28	\$857.52	\$1,826.88	\$969.37

1993	\$7,350.82	\$458.69	\$7,809.51	\$857.52	\$37.28	\$894.80	\$1,826.88	\$932.08
1994	\$7,809.51	\$487.31	\$8,296.83	\$894.80	\$37.28	\$932.08	\$1,826.88	\$894.80
1995	\$8,296.83	\$517.72	\$8,814.55	\$969.37	\$37.28	\$969.37	\$1,826.88	\$857.52
1996	\$8,814.55	\$550.03	\$9,364.58	\$969.37	\$37.28	\$1,006.65	\$1,826.88	\$820.23
1997	\$9,364.58	\$584.35	\$9,948.93	\$1,006.65	\$37.28	\$1,043.93	\$1,826.88	\$782.95
1998	\$9,948.93	\$620.81	\$10,569.74	\$1,043.93	\$37.28	\$1,081.22	\$1,826.88	\$745.67
1999	\$10,569.74	\$659.55	\$11,229.29	\$1,081.22	\$37.28	\$1,118.50	\$1,826.88	\$708.38
2000	\$11,229.29	\$700.71	\$11,930.00	\$1,118.50	\$37.28	\$1,155.78	\$1,826.88	\$671.10
2001	\$11,930.00	\$744.43	\$12,674.43	\$1,155.78	\$37.28	\$1,193.07	\$1,826.88	\$633.82
2002	\$12,674.43	\$790.88	\$13,465.31	\$1,193.07	\$37.28	\$1,230.35	\$1,826.88	\$596.53
2003	\$13,465.31	\$840.24	\$14,305.55	\$1,230.35	\$37.28	\$1,267.63	\$1,826.88	\$559.25
2004	\$14,305.55	\$892.67	\$15,198.22	\$1,267.63	\$37.28	\$1,304.92	\$1,826.88	\$521.97
2005	\$15,198.22	\$948.37	\$16,146.58	\$1,304.92	\$37.28	\$1,342.20	\$1,826.88	\$484.68
2006	\$16,146.58	\$1,007.55	\$17,154.13	\$1,342.20	\$37.28	\$1,379.48	\$1,826.88	\$447.40
2007	\$17,154.13	\$1,070.42	\$18,224.55	\$1,379.48	\$37.28	\$1,416.77	\$1,826.88	\$410.12
2008	\$18,224.55	\$1,137.21	\$19,361.76	\$1,416.77	\$37.28	\$1,454.05	\$1,826.88	\$372.83
2009	\$19,361.76	\$1,208.17	\$20,569.93	\$1,454.05	\$37.28	\$1,491.33	\$1,826.88	\$335.55
2010	\$20,569.93	\$1,283.56	\$21,853.50	\$1,491.33	\$37.28	\$1,528.62	\$1,826.88	\$298.27
2011	\$21,853.50	\$1,363.66	\$23,217.16	\$1,528.62	\$37.28	\$1,565.90	\$1,826.88	\$260.98
2012	\$23,217.16	\$1,448.75	\$24,665.91	\$1,565.90	\$37.28	\$1,603.18	\$1,826.88	\$223.70
2013	\$24,665.91	\$4,068.61	\$28,734.52	\$1,603.18	\$37.28	\$1,640.47	\$1,826.88	\$186.42
2014	\$26,205.06	\$3,765.04	\$29,970.10	\$1,640.47	\$37.28	\$1,677.75	\$1,826.88	\$149.13
2015	\$27,840.26	\$3,418.56	\$31,258.82	\$1,677.75	\$37.28	\$1,715.03	\$1,826.88	\$111.85
2016	\$29,577.49	\$3,025.46	\$31,660.65	\$1,715.03	\$37.28	\$1,752.32	\$1,826.88	\$74.57
2017	\$31,423.12	\$2,581.75	\$34,004.87	\$1,752.32	\$37.28	\$1,789.60	\$1,826.88	\$37.28
2018	\$33,383.93	\$2,083.16	\$35,467.08	\$1,789.60	\$37.28	\$1,826.88	\$1,826.88	\$0.00



Cascade Natural Gas Corporation

FAS143/FIN47 Asset Retirement Obligations

Work Papers

Longview

Cascade Natural Gas Corporation
Retirement of Longview
Summary

Background: CNGC estimates that the asset retirements associated with legal obligations will be settled between 5 and 10 years (i.e. between 2011 & 2016). It is also estimated that the actual retirement period will be over 3 years

Asset Retirement Cost - Discounted 1970 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$5,050.41	\$4,778.76	\$4,605.83	
Year 2 cost	\$1,525.59	\$1,443.54	\$1,391.30	
Year 3 cost	\$1,385.41	\$1,310.89	\$1,263.45	
	<u>\$7,961.41</u>	<u>\$7,533.18</u>	<u>\$7,260.58</u>	
Probability	34%	33%	33%	
	<u>\$2,706.88</u>	<u>\$2,485.95</u>	<u>\$2,395.99</u>	<u>\$7,589</u>

Asset Retirement Obligation - Discounted 2006 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$47,422.51	\$44,871.78	\$43,247.98	
Year 2 cost	\$14,325.09	\$13,554.58	\$13,064.08	
Year 3 cost	\$13,008.75	\$12,309.04	\$11,863.60	
	<u>74,756.35</u>	<u>70,735.41</u>	<u>68,175.66</u>	
Probability	34%	33%	33%	
	<u>\$25,417.16</u>	<u>\$23,342.68</u>	<u>\$22,497.97</u>	<u>\$71,258</u>

Accumulated Depreciation - from 1970 thru 2006

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$4,449.17	\$3,929.20	\$3,625.86	
Year 2 cost	\$1,312.72	\$1,161.11	\$1,072.46	
Year 3 cost	\$1,165.00	\$1,031.98	\$954.03	
	<u>6,926.89</u>	<u>6,122.28</u>	<u>5,652.36</u>	
Probability	34%	33%	33%	
	<u>\$2,355.14</u>	<u>\$2,020.35</u>	<u>\$1,865.28</u>	<u>\$6,241</u>

Cascade Natural Gas Corporation
Longview

Accretion of Interest

	5 Years	8 Years	10 Years	Weighted Average Total
1970	\$496.79	\$470.07	\$453.06	\$473.54
1971	\$527.79	\$499.40	\$481.33	\$503.09
1972	\$560.73	\$530.57	\$511.37	\$534.48
1973	\$595.72	\$563.67	\$543.28	\$567.84
1974	\$632.89	\$598.85	\$577.18	\$603.27
1975	\$672.38	\$636.21	\$613.19	\$640.91
1976	\$714.34	\$675.91	\$651.45	\$680.91
1977	\$758.91	\$718.09	\$692.11	\$723.39
1978	\$806.27	\$762.90	\$735.29	\$768.53
1979	\$856.58	\$810.51	\$781.17	\$816.49
1980	\$910.03	\$861.08	\$829.92	\$867.44
1981	\$966.81	\$914.81	\$881.71	\$921.57
1982	\$1,027.14	\$971.90	\$936.73	\$979.07
1983	\$1,091.24	\$1,032.54	\$995.18	\$1,040.17
1984	\$1,159.33	\$1,096.97	\$1,057.28	\$1,105.07
1985	\$1,231.67	\$1,165.42	\$1,123.25	\$1,174.03
1986	\$1,308.53	\$1,238.15	\$1,193.34	\$1,247.29
1987	\$1,390.18	\$1,315.41	\$1,267.81	\$1,325.12
1988	\$1,476.93	\$1,397.49	\$1,346.92	\$1,407.81
1989	\$1,569.09	\$1,484.69	\$1,430.96	\$1,495.66
1990	\$1,667.00	\$1,577.34	\$1,520.26	\$1,588.99
1991	\$1,771.02	\$1,675.76	\$1,615.12	\$1,688.14
1992	\$1,881.53	\$1,780.33	\$1,715.90	\$1,793.48
1993	\$1,998.94	\$1,891.42	\$1,822.98	\$1,905.39
1994	\$2,123.67	\$2,009.45	\$1,936.73	\$2,024.29
1995	\$2,256.19	\$2,134.84	\$2,057.58	\$2,150.60
1996	\$2,396.98	\$2,268.05	\$2,185.98	\$2,284.80
1997	\$2,546.55	\$2,409.58	\$2,322.38	\$2,427.37
1998	\$2,705.45	\$2,559.93	\$2,467.30	\$2,578.84
1999	\$2,874.27	\$2,719.67	\$2,621.26	\$2,739.76
2000	\$3,053.63	\$2,889.38	\$2,784.82	\$2,910.72
2001	\$3,244.18	\$3,069.68	\$2,958.60	\$3,092.35
2002	\$3,446.61	\$3,261.23	\$3,143.21	\$3,285.31
2003	\$3,661.68	\$3,464.73	\$3,339.35	\$3,490.32
2004	\$3,890.17	\$3,680.93	\$3,547.72	\$3,708.11
2005	\$4,132.92	\$3,910.62	\$3,769.10	\$3,939.50
2006	\$4,390.81	\$4,154.64	\$4,004.29	\$4,185.32
	<u>\$66,794.95</u>	<u>\$63,202.22</u>	<u>\$60,915.08</u>	
	34%	33%	33%	
	<u>\$22,710</u>	<u>\$20,857</u>	<u>\$20,102</u>	<u>\$63,669</u>

Cascade Natural Gas Corp
Retirement of Longview in 5 years (34% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points
 (CNGC credit adjustment)

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

	Year 1 (2011)	Year 2 (2012)	Year 3 (2013)
Cost - valued at 2006 prices	\$ 52,000.00	\$ 16,000.00	\$ 14,800.00

	Discounted Present value based on above CPI & CARFR	
2007	54,236.00	16,688.00
2008	56,568.15	17,405.58
2009	59,000.58	18,154.02
2010	61,537.60	18,934.65
2011	64,183.72	19,748.84
2012		20,598.04
2013		19,872.47

PV (2006) \$47,422.51
 PV (1970) \$5,050.41

Year 1	A		B		C = A + B	
	PV	Accretion	Balance	Balance	Balance	Balance
1970	\$5,050.41	\$315.15	\$5,365.55	\$5,365.55	\$5,365.55	\$5,365.55
1971	\$5,365.55	\$334.81	\$5,700.36	\$6,035.17	\$6,035.17	\$6,035.17
1972	\$5,700.36	\$355.70	\$6,056.06	\$6,410.88	\$6,410.88	\$6,410.88
1973	\$6,056.06	\$377.90	\$6,433.96	\$6,788.84	\$6,788.84	\$6,788.84
1974	\$6,433.96	\$401.48	\$6,835.44	\$7,190.32	\$7,190.32	\$7,190.32
1975	\$6,835.44	\$426.53	\$7,261.97	\$7,617.94	\$7,617.94	\$7,617.94
1976	\$7,261.97	\$453.15	\$7,715.12	\$8,071.06	\$8,071.06	\$8,071.06

D	E = G/(1st year of retirement - 1970)	F	G = PV in 1970	H = G - F
Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
\$0.00	\$120.25	\$120.25	\$5,050.41	\$4,930.16
\$120.25	\$120.25	\$240.50	\$5,050.41	\$4,809.91
\$240.50	\$120.25	\$360.74	\$5,050.41	\$4,689.66
\$360.74	\$120.25	\$480.99	\$5,050.41	\$4,569.41
\$480.99	\$120.25	\$601.24	\$5,050.41	\$4,449.17
\$601.24	\$120.25	\$721.49	\$5,050.41	\$4,328.92
\$721.49	\$120.25	\$841.73	\$5,050.41	\$4,208.67

1977	\$7,715.12	\$481.42	\$8,196.54	\$841.73	\$120.25	\$961.98	\$5,050.41	\$4,088.42
1978	\$8,196.54	\$511.46	\$8,708.01	\$961.98	\$120.25	\$1,082.23	\$5,050.41	\$3,968.18
1979	\$8,708.01	\$543.38	\$9,251.39	\$1,082.23	\$120.25	\$1,202.48	\$5,050.41	\$3,847.93
1980	\$9,251.39	\$577.29	\$9,828.67	\$1,202.48	\$120.25	\$1,322.73	\$5,050.41	\$3,727.68
1981	\$9,828.67	\$613.31	\$10,441.98	\$1,322.73	\$120.25	\$1,442.97	\$5,050.41	\$3,607.43
1982	\$10,441.98	\$651.58	\$11,093.56	\$1,442.97	\$120.25	\$1,563.22	\$5,050.41	\$3,487.19
1983	\$11,093.56	\$692.24	\$11,785.80	\$1,563.22	\$120.25	\$1,683.47	\$5,050.41	\$3,366.94
1984	\$11,785.80	\$735.43	\$12,521.24	\$1,683.47	\$120.25	\$1,803.72	\$5,050.41	\$3,246.69
1985	\$12,521.24	\$781.33	\$13,302.56	\$1,803.72	\$120.25	\$1,923.96	\$5,050.41	\$3,126.44
1986	\$13,302.56	\$830.08	\$14,132.64	\$1,923.96	\$120.25	\$2,044.21	\$5,050.41	\$3,006.19
1987	\$14,132.64	\$881.88	\$15,014.52	\$2,044.21	\$120.25	\$2,164.46	\$5,050.41	\$2,885.95
1988	\$15,014.52	\$936.91	\$15,951.42	\$2,164.46	\$120.25	\$2,284.71	\$5,050.41	\$2,765.70
1989	\$15,951.42	\$995.37	\$16,946.79	\$2,284.71	\$120.25	\$2,404.96	\$5,050.41	\$2,645.45
1990	\$16,946.79	\$1,057.48	\$18,004.27	\$2,404.96	\$120.25	\$2,525.20	\$5,050.41	\$2,525.20
1991	\$18,004.27	\$1,123.47	\$19,127.74	\$2,525.20	\$120.25	\$2,645.45	\$5,050.41	\$2,404.96
1992	\$19,127.74	\$1,193.57	\$20,321.31	\$2,645.45	\$120.25	\$2,765.70	\$5,050.41	\$2,284.71
1993	\$20,321.31	\$1,268.05	\$21,589.36	\$2,765.70	\$120.25	\$2,885.95	\$5,050.41	\$2,164.46
1994	\$21,589.36	\$1,347.18	\$22,936.54	\$2,885.95	\$120.25	\$3,006.19	\$5,050.41	\$2,044.21
1995	\$22,936.54	\$1,431.24	\$24,367.78	\$3,006.19	\$120.25	\$3,126.44	\$5,050.41	\$1,923.96
1996	\$24,367.78	\$1,520.55	\$25,888.33	\$3,126.44	\$120.25	\$3,246.69	\$5,050.41	\$1,803.72
1997	\$25,888.33	\$1,615.43	\$27,503.76	\$3,246.69	\$120.25	\$3,366.94	\$5,050.41	\$1,683.47
1998	\$27,503.76	\$1,716.23	\$29,219.99	\$3,366.94	\$120.25	\$3,487.19	\$5,050.41	\$1,563.22
1999	\$29,219.99	\$1,823.33	\$31,043.32	\$3,487.19	\$120.25	\$3,607.43	\$5,050.41	\$1,442.97
2000	\$31,043.32	\$1,937.10	\$32,980.42	\$3,607.43	\$120.25	\$3,727.68	\$5,050.41	\$1,322.73
2001	\$32,980.42	\$2,057.98	\$35,038.40	\$3,727.68	\$120.25	\$3,847.93	\$5,050.41	\$1,202.48
2002	\$35,038.40	\$2,186.40	\$37,224.80	\$3,847.93	\$120.25	\$3,968.18	\$5,050.41	\$1,082.23
2003	\$37,224.80	\$2,322.83	\$39,547.62	\$3,968.18	\$120.25	\$4,088.42	\$5,050.41	\$961.98
2004	\$39,547.62	\$2,467.77	\$42,015.40	\$4,088.42	\$120.25	\$4,208.67	\$5,050.41	\$841.73
2005	\$42,015.40	\$2,621.76	\$44,637.16	\$4,208.67	\$120.25	\$4,328.92	\$5,050.41	\$721.49
2006	\$44,637.16	\$2,785.36	\$47,422.51	\$4,328.92	\$120.25	\$4,449.17	\$5,050.41	\$601.24
2007	\$47,422.51	\$2,959.16	\$50,381.68	\$4,449.17	\$120.25	\$4,569.41	\$5,050.41	\$480.99
2008	\$50,381.68	\$6,186.47	\$56,568.15	\$4,569.41	\$120.25	\$4,689.66	\$5,050.41	\$360.74
2009	\$53,525.50	\$5,475.08	\$59,000.58	\$4,689.66	\$120.25	\$4,809.91	\$5,050.41	\$240.50
2010	\$56,865.49	\$4,672.12	\$61,537.60	\$4,809.91	\$120.25	\$4,930.16	\$5,050.41	\$120.25
2011	\$60,413.89	\$3,769.83	\$64,183.72	\$4,930.16	\$120.25	\$5,050.41	\$5,050.41	\$0.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,525.59	\$95.20	\$1,620.79	\$0.00	\$35.48	\$35.48	\$1,525.59	\$1,490.12
1971	\$1,620.79	\$101.14	\$1,721.93	\$35.48	\$35.48	\$70.96	\$1,525.59	\$1,454.64
1972	\$1,721.93	\$107.45	\$1,829.38	\$70.96	\$35.48	\$106.44	\$1,525.59	\$1,419.16
1973	\$1,829.38	\$114.15	\$1,943.53	\$106.44	\$35.48	\$141.92	\$1,525.59	\$1,383.68
1974	\$1,943.53	\$121.28	\$2,064.81	\$141.92	\$35.48	\$177.39	\$1,525.59	\$1,348.20
1975	\$2,064.81	\$128.84	\$2,193.65	\$177.39	\$35.48	\$212.87	\$1,525.59	\$1,312.72
1976	\$2,193.65	\$136.88	\$2,330.53	\$212.87	\$35.48	\$248.35	\$1,525.59	\$1,277.24
1977	\$2,330.53	\$145.43	\$2,475.96	\$248.35	\$35.48	\$283.83	\$1,525.59	\$1,241.76
1978	\$2,475.96	\$154.50	\$2,630.46	\$283.83	\$35.48	\$319.31	\$1,525.59	\$1,206.28
1979	\$2,630.46	\$164.14	\$2,794.60	\$319.31	\$35.48	\$354.79	\$1,525.59	\$1,170.81
1980	\$2,794.60	\$174.38	\$2,968.98	\$354.79	\$35.48	\$390.27	\$1,525.59	\$1,135.33
1981	\$2,968.98	\$185.26	\$3,154.25	\$390.27	\$35.48	\$425.75	\$1,525.59	\$1,099.85
1982	\$3,154.25	\$196.83	\$3,351.07	\$425.75	\$35.48	\$461.23	\$1,525.59	\$1,064.37
1983	\$3,351.07	\$209.11	\$3,560.18	\$461.23	\$35.48	\$496.71	\$1,525.59	\$1,028.89
1984	\$3,560.18	\$222.16	\$3,782.34	\$496.71	\$35.48	\$532.18	\$1,525.59	\$993.41
1985	\$3,782.34	\$236.02	\$4,018.35	\$532.18	\$35.48	\$567.66	\$1,525.59	\$957.93
1986	\$4,018.35	\$250.75	\$4,269.10	\$567.66	\$35.48	\$603.14	\$1,525.59	\$922.45
1987	\$4,269.10	\$266.39	\$4,535.49	\$603.14	\$35.48	\$638.62	\$1,525.59	\$886.97
1988	\$4,535.49	\$283.01	\$4,818.51	\$638.62	\$35.48	\$674.10	\$1,525.59	\$851.49
1989	\$4,818.51	\$300.67	\$5,119.18	\$674.10	\$35.48	\$709.58	\$1,525.59	\$816.02
1990	\$5,119.18	\$319.44	\$5,438.62	\$709.58	\$35.48	\$745.06	\$1,525.59	\$780.54
1991	\$5,438.62	\$339.37	\$5,777.99	\$745.06	\$35.48	\$780.54	\$1,525.59	\$745.06
1992	\$5,777.99	\$360.55	\$6,138.53	\$780.54	\$35.48	\$816.02	\$1,525.59	\$709.58
1993	\$6,138.53	\$383.04	\$6,521.58	\$816.02	\$35.48	\$851.49	\$1,525.59	\$674.10
1994	\$6,521.58	\$406.95	\$6,928.52	\$851.49	\$35.48	\$886.97	\$1,525.59	\$638.62
1995	\$6,928.52	\$432.34	\$7,360.86	\$886.97	\$35.48	\$922.45	\$1,525.59	\$603.14
1996	\$7,360.86	\$459.32	\$7,820.18	\$922.45	\$35.48	\$957.93	\$1,525.59	\$567.66
1997	\$7,820.18	\$487.98	\$8,308.16	\$957.93	\$35.48	\$993.41	\$1,525.59	\$532.18
1998	\$8,308.16	\$518.43	\$8,826.59	\$993.41	\$35.48	\$1,028.89	\$1,525.59	\$496.71
1999	\$8,826.59	\$550.78	\$9,377.37	\$1,028.89	\$35.48	\$1,064.37	\$1,525.59	\$461.23
2000	\$9,377.37	\$585.15	\$9,962.52	\$1,064.37	\$35.48	\$1,099.85	\$1,525.59	\$425.75
2001	\$9,962.52	\$621.66	\$10,584.18	\$1,099.85	\$35.48	\$1,135.33	\$1,525.59	\$390.27
2002	\$10,584.18	\$660.45	\$11,244.63	\$1,135.33	\$35.48	\$1,170.81	\$1,525.59	\$354.79
2003	\$11,244.63	\$701.66	\$11,946.30	\$1,170.81	\$35.48	\$1,206.28	\$1,525.59	\$319.31
2004	\$11,946.30	\$745.45	\$12,691.74	\$1,206.28	\$35.48	\$1,241.76	\$1,525.59	\$283.83
2005	\$12,691.74	\$791.96	\$13,483.71	\$1,241.76	\$35.48	\$1,277.24	\$1,525.59	\$248.35
2006	\$13,483.71	\$841.38	\$14,325.09	\$1,277.24	\$35.48	\$1,312.72	\$1,525.59	\$212.87
2007	\$14,325.09	\$893.89	\$15,218.98	\$1,312.72	\$35.48	\$1,348.20	\$1,525.59	\$177.39
2008	\$15,218.98	\$949.66	\$16,168.64	\$1,348.20	\$35.48	\$1,383.68	\$1,525.59	\$141.92
2009	\$16,168.64	\$1,985.38	\$18,154.02	\$1,383.68	\$35.48	\$1,419.16	\$1,525.59	\$106.44
2010	\$17,177.57	\$1,757.08	\$18,934.65	\$1,419.16	\$35.48	\$1,454.64	\$1,525.59	\$70.96

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
2011	\$18,249.45	\$1,499.39	\$19,748.84	\$1,454.64	\$35.48	\$1,490.12	\$1,525.59	\$35.48
2012	\$19,388.21	\$1,209.82	\$20,598.04	\$1,490.12	\$35.48	\$1,525.59	\$1,525.59	\$0.00
1970	\$1,385.41	\$86.45	\$1,471.86	\$0.00	\$31.49	\$31.49	\$1,385.41	\$1,353.92
1971	\$1,471.86	\$91.84	\$1,563.70	\$31.49	\$31.49	\$62.97	\$1,385.41	\$1,322.43
1972	\$1,563.70	\$97.57	\$1,661.27	\$62.97	\$31.49	\$94.46	\$1,385.41	\$1,290.95
1973	\$1,661.27	\$103.66	\$1,764.94	\$94.46	\$31.49	\$125.95	\$1,385.41	\$1,259.46
1974	\$1,764.94	\$110.13	\$1,875.07	\$125.95	\$31.49	\$157.43	\$1,385.41	\$1,227.97
1975	\$1,875.07	\$117.00	\$1,992.07	\$157.43	\$31.49	\$188.92	\$1,385.41	\$1,196.49
1976	\$1,992.07	\$124.31	\$2,116.38	\$188.92	\$31.49	\$220.41	\$1,385.41	\$1,165.00
1977	\$2,116.38	\$132.06	\$2,248.44	\$220.41	\$31.49	\$251.89	\$1,385.41	\$1,133.51
1978	\$2,248.44	\$140.30	\$2,388.74	\$251.89	\$31.49	\$283.38	\$1,385.41	\$1,102.03
1979	\$2,388.74	\$149.06	\$2,537.80	\$283.38	\$31.49	\$314.87	\$1,385.41	\$1,070.54
1980	\$2,537.80	\$158.36	\$2,696.16	\$314.87	\$31.49	\$346.35	\$1,385.41	\$1,039.05
1981	\$2,696.16	\$168.24	\$2,864.40	\$346.35	\$31.49	\$377.84	\$1,385.41	\$1,007.57
1982	\$2,864.40	\$178.74	\$3,043.14	\$377.84	\$31.49	\$409.32	\$1,385.41	\$976.08
1983	\$3,043.14	\$189.89	\$3,233.03	\$409.32	\$31.49	\$440.81	\$1,385.41	\$944.60
1984	\$3,233.03	\$201.74	\$3,434.77	\$440.81	\$31.49	\$472.30	\$1,385.41	\$913.11
1985	\$3,434.77	\$214.33	\$3,649.10	\$472.30	\$31.49	\$503.78	\$1,385.41	\$881.62
1986	\$3,649.10	\$227.70	\$3,876.81	\$503.78	\$31.49	\$535.27	\$1,385.41	\$850.14
1987	\$3,876.81	\$241.91	\$4,118.72	\$535.27	\$31.49	\$566.76	\$1,385.41	\$818.65
1988	\$4,118.72	\$257.01	\$4,375.73	\$566.76	\$31.49	\$598.24	\$1,385.41	\$787.16
1989	\$4,375.73	\$273.05	\$4,648.77	\$598.24	\$31.49	\$629.73	\$1,385.41	\$755.68
1990	\$4,648.77	\$290.08	\$4,938.86	\$629.73	\$31.49	\$661.22	\$1,385.41	\$724.19
1991	\$4,938.86	\$308.18	\$5,247.04	\$661.22	\$31.49	\$692.70	\$1,385.41	\$692.70
1992	\$5,247.04	\$327.42	\$5,574.46	\$692.70	\$31.49	\$724.19	\$1,385.41	\$661.22
1993	\$5,574.46	\$347.85	\$5,922.30	\$724.19	\$31.49	\$755.68	\$1,385.41	\$629.73
1994	\$5,922.30	\$369.55	\$6,291.85	\$755.68	\$31.49	\$787.16	\$1,385.41	\$598.24
1995	\$6,291.85	\$392.61	\$6,684.47	\$787.16	\$31.49	\$818.65	\$1,385.41	\$566.76
1996	\$6,684.47	\$417.11	\$7,101.58	\$818.65	\$31.49	\$850.14	\$1,385.41	\$535.27
1997	\$7,101.58	\$443.14	\$7,544.72	\$850.14	\$31.49	\$881.62	\$1,385.41	\$503.78
1998	\$7,544.72	\$470.79	\$8,015.51	\$881.62	\$31.49	\$913.11	\$1,385.41	\$472.30
1999	\$8,015.51	\$500.17	\$8,515.67	\$913.11	\$31.49	\$944.60	\$1,385.41	\$440.81
2000	\$8,515.67	\$531.38	\$9,047.05	\$944.60	\$31.49	\$976.08	\$1,385.41	\$409.32
2001	\$9,047.05	\$564.54	\$9,611.59	\$976.08	\$31.49	\$1,007.57	\$1,385.41	\$377.84
2002	\$9,611.59	\$599.76	\$10,211.35	\$1,007.57	\$31.49	\$1,039.05	\$1,385.41	\$346.35
2003	\$10,211.35	\$637.19	\$10,848.54	\$1,039.05	\$31.49	\$1,070.54	\$1,385.41	\$314.87
2004	\$10,848.54	\$676.95	\$11,525.49	\$1,070.54	\$31.49	\$1,102.03	\$1,385.41	\$283.38
2005	\$11,525.49	\$719.19	\$12,244.68	\$1,102.03	\$31.49	\$1,133.51	\$1,385.41	\$251.89

2006	\$12,244.68	\$764.07	\$13,008.75	\$1,133.51	\$31.49	\$1,165.00	\$1,385.41	\$220.41
2007	\$13,008.75	\$811.75	\$13,820.49	\$1,165.00	\$31.49	\$1,196.49	\$1,385.41	\$188.92
2008	\$13,820.49	\$862.40	\$14,682.89	\$1,196.49	\$31.49	\$1,227.97	\$1,385.41	\$157.43
2009	\$14,682.89	\$916.21	\$15,599.10	\$1,227.97	\$31.49	\$1,259.46	\$1,385.41	\$125.95
2010	\$15,599.10	\$973.38	\$16,572.49	\$1,259.46	\$31.49	\$1,290.95	\$1,385.41	\$94.46
2011	\$16,572.49	\$1,034.12	\$17,606.61	\$1,290.95	\$31.49	\$1,322.43	\$1,385.41	\$62.97
2012	\$17,606.61	\$1,098.65	\$18,705.26	\$1,322.43	\$31.49	\$1,353.92	\$1,385.41	\$31.49
2013	\$18,705.26	\$1,167.21	\$19,872.47	\$1,353.92	\$31.49	\$1,385.41	\$1,385.41	\$0.00

Cascade Natural Gas Corp
Retirement of Longview in 8 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
\$ 52,000.00	\$ 16,000.00	\$ 14,800.00

Cost - valued at 2006 prices

Discounted Present value based on above CPI & CARFR	
2007	54,236.00
2008	16,688.00
2009	17,405.58
2010	18,154.02
2011	18,934.65
2012	19,748.84
2013	20,598.04
2014	21,483.75
2015	22,407.55
2016	23,371.08
	72,824.55
	22,547.83

PV (2006) \$44,871.78
 PV (1970) \$4,778.76

\$13,554.58
 \$1,443.54

\$12,309.04
 \$1,310.89

Year 1

PV	A		B		C = A + B		E = G/(1st year of retirement - 1970)		F		G = PV in 1970		H = G - F	
	1970	1971	1972	1973	1974	1975	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV			
\$4,778.76	\$298.19	\$5,076.95	\$106.19	\$106.19	\$106.19	\$106.19	\$0.00	\$106.19	\$106.19	\$4,778.76	\$4,672.56			
\$5,076.95	\$316.80	\$5,393.75	\$212.39	\$212.39	\$212.39	\$212.39	\$106.19	\$212.39	\$212.39	\$4,778.76	\$4,566.37			
\$5,393.75	\$336.57	\$5,730.32	\$318.58	\$318.58	\$318.58	\$318.58	\$212.39	\$318.58	\$318.58	\$4,778.76	\$4,460.17			
\$5,730.32	\$357.57	\$6,087.90	\$424.78	\$424.78	\$424.78	\$424.78	\$318.58	\$424.78	\$424.78	\$4,778.76	\$4,353.98			
\$6,087.90	\$379.88	\$6,467.78	\$530.97	\$530.97	\$530.97	\$530.97	\$424.78	\$530.97	\$530.97	\$4,778.76	\$4,247.78			
\$6,467.78	\$403.59	\$6,871.37	\$637.17	\$637.17	\$637.17	\$637.17	\$530.97	\$637.17	\$637.17	\$4,778.76	\$4,141.59			

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1976	\$6,871.37	\$428.77	\$7,300.14	\$637.17	\$106.19	\$743.36	\$4,778.76	\$4,035.40
1977	\$7,300.14	\$455.53	\$7,755.67	\$743.36	\$106.19	\$849.56	\$4,778.76	\$3,929.20
1978	\$7,755.67	\$483.95	\$8,239.63	\$849.56	\$106.19	\$955.75	\$4,778.76	\$3,823.01
1979	\$8,239.63	\$514.15	\$8,753.78	\$955.75	\$106.19	\$1,061.95	\$4,778.76	\$3,716.81
1980	\$8,753.78	\$546.24	\$9,300.02	\$1,061.95	\$106.19	\$1,168.14	\$4,778.76	\$3,610.62
1981	\$9,300.02	\$580.32	\$9,880.34	\$1,168.14	\$106.19	\$1,274.34	\$4,778.76	\$3,504.42
1982	\$9,880.34	\$616.53	\$10,496.87	\$1,274.34	\$106.19	\$1,380.53	\$4,778.76	\$3,398.23
1983	\$10,496.87	\$655.00	\$11,151.87	\$1,380.53	\$106.19	\$1,486.72	\$4,778.76	\$3,292.03
1984	\$11,151.87	\$695.88	\$11,847.75	\$1,486.72	\$106.19	\$1,592.92	\$4,778.76	\$3,185.84
1985	\$11,847.75	\$739.30	\$12,587.05	\$1,592.92	\$106.19	\$1,699.11	\$4,778.76	\$3,079.64
1986	\$12,587.05	\$785.43	\$13,372.48	\$1,699.11	\$106.19	\$1,805.31	\$4,778.76	\$2,973.45
1987	\$13,372.48	\$834.44	\$14,206.93	\$1,805.31	\$106.19	\$1,911.50	\$4,778.76	\$2,867.25
1988	\$14,206.93	\$886.51	\$15,093.44	\$1,911.50	\$106.19	\$2,017.70	\$4,778.76	\$2,761.06
1989	\$15,093.44	\$941.83	\$16,035.27	\$2,017.70	\$106.19	\$2,123.89	\$4,778.76	\$2,654.87
1990	\$16,035.27	\$1,000.60	\$17,035.87	\$2,123.89	\$106.19	\$2,230.09	\$4,778.76	\$2,548.67
1991	\$17,035.87	\$1,063.04	\$18,098.91	\$2,230.09	\$106.19	\$2,336.28	\$4,778.76	\$2,442.48
1992	\$18,098.91	\$1,129.37	\$19,228.28	\$2,336.28	\$106.19	\$2,442.48	\$4,778.76	\$2,336.28
1993	\$19,228.28	\$1,199.84	\$20,428.13	\$2,442.48	\$106.19	\$2,548.67	\$4,778.76	\$2,230.09
1994	\$20,428.13	\$1,274.72	\$21,702.84	\$2,548.67	\$106.19	\$2,654.87	\$4,778.76	\$2,123.89
1995	\$21,702.84	\$1,354.26	\$23,057.10	\$2,654.87	\$106.19	\$2,761.06	\$4,778.76	\$2,017.70
1996	\$23,057.10	\$1,438.76	\$24,495.86	\$2,761.06	\$106.19	\$2,867.25	\$4,778.76	\$1,911.50
1997	\$24,495.86	\$1,528.54	\$26,024.40	\$2,867.25	\$106.19	\$2,973.45	\$4,778.76	\$1,805.31
1998	\$26,024.40	\$1,623.92	\$27,648.32	\$2,973.45	\$106.19	\$3,079.64	\$4,778.76	\$1,699.11
1999	\$27,648.32	\$1,725.26	\$29,373.58	\$3,079.64	\$106.19	\$3,185.84	\$4,778.76	\$1,592.92
2000	\$29,373.58	\$1,832.91	\$31,206.49	\$3,185.84	\$106.19	\$3,292.03	\$4,778.76	\$1,486.72
2001	\$31,206.49	\$1,947.29	\$33,153.78	\$3,292.03	\$106.19	\$3,398.23	\$4,778.76	\$1,380.53
2002	\$33,153.78	\$2,068.80	\$35,222.57	\$3,398.23	\$106.19	\$3,504.42	\$4,778.76	\$1,274.34
2003	\$35,222.57	\$2,197.89	\$37,420.46	\$3,504.42	\$106.19	\$3,610.62	\$4,778.76	\$1,168.14
2004	\$37,420.46	\$2,335.04	\$39,755.50	\$3,610.62	\$106.19	\$3,716.81	\$4,778.76	\$1,061.95
2005	\$39,755.50	\$2,480.74	\$42,236.24	\$3,716.81	\$106.19	\$3,823.01	\$4,778.76	\$955.75
2006	\$42,236.24	\$2,635.54	\$44,871.78	\$3,823.01	\$106.19	\$3,929.20	\$4,778.76	\$849.56
2007	\$44,871.78	\$2,800.00	\$47,671.78	\$3,929.20	\$106.19	\$4,035.40	\$4,778.76	\$743.36
2008	\$47,671.78	\$8,896.37	\$56,568.15	\$4,035.40	\$106.19	\$4,141.59	\$4,778.76	\$637.17
2009	\$50,646.50	\$8,354.08	\$59,000.58	\$4,141.59	\$106.19	\$4,247.78	\$4,778.76	\$530.97
2010	\$53,806.84	\$7,730.76	\$61,537.60	\$4,247.78	\$106.19	\$4,353.98	\$4,778.76	\$424.78
2011	\$57,164.39	\$7,019.33	\$64,183.72	\$4,353.98	\$106.19	\$4,460.17	\$4,778.76	\$318.58
2012	\$60,731.45	\$6,212.17	\$66,943.62	\$4,460.17	\$106.19	\$4,566.37	\$4,778.76	\$212.39
2013	\$64,521.09	\$5,301.11	\$69,822.20	\$4,566.37	\$106.19	\$4,672.56	\$4,778.76	\$106.19
2014	\$68,547.20	\$4,277.35	\$72,824.55	\$4,672.56	\$106.19	\$4,778.76	\$4,778.76	\$0.00
1970	\$1,443.54	\$90.08	\$1,533.61	\$0.00	\$31.38	\$31.38	\$1,443.54	\$1,412.16

Year 2

1971	\$1,533.61	\$95.70	\$1,629.31	\$31.38	\$62.76	\$1,443.54	\$1,380.77
1972	\$1,629.31	\$101.67	\$1,730.98	\$62.76	\$94.14	\$1,443.54	\$1,349.39
1973	\$1,730.98	\$108.01	\$1,838.99	\$94.14	\$125.52	\$1,443.54	\$1,318.01
1974	\$1,838.99	\$114.75	\$1,953.75	\$125.52	\$156.91	\$1,443.54	\$1,286.63
1975	\$1,953.75	\$121.91	\$2,075.66	\$156.91	\$188.29	\$1,443.54	\$1,255.25
1976	\$2,075.66	\$129.52	\$2,205.18	\$188.29	\$219.67	\$1,443.54	\$1,223.87
1977	\$2,205.18	\$137.60	\$2,342.78	\$219.67	\$251.05	\$1,443.54	\$1,192.49
1978	\$2,342.78	\$146.19	\$2,488.97	\$251.05	\$282.43	\$1,443.54	\$1,161.11
1979	\$2,488.97	\$155.31	\$2,644.29	\$282.43	\$313.81	\$1,443.54	\$1,129.72
1980	\$2,644.29	\$165.00	\$2,809.29	\$313.81	\$345.19	\$1,443.54	\$1,098.34
1981	\$2,809.29	\$175.30	\$2,984.59	\$345.19	\$376.57	\$1,443.54	\$1,066.96
1982	\$2,984.59	\$186.24	\$3,170.83	\$376.57	\$407.96	\$1,443.54	\$1,035.58
1983	\$3,170.83	\$197.86	\$3,368.69	\$407.96	\$439.34	\$1,443.54	\$1,004.20
1984	\$3,368.69	\$210.21	\$3,578.89	\$439.34	\$470.72	\$1,443.54	\$972.82
1985	\$3,578.89	\$223.32	\$3,802.22	\$470.72	\$502.10	\$1,443.54	\$941.44
1986	\$3,802.22	\$237.26	\$4,039.48	\$502.10	\$533.48	\$1,443.54	\$910.06
1987	\$4,039.48	\$252.06	\$4,291.54	\$533.48	\$564.86	\$1,443.54	\$878.67
1988	\$4,291.54	\$267.79	\$4,559.33	\$564.86	\$596.24	\$1,443.54	\$847.29
1989	\$4,559.33	\$284.50	\$4,843.83	\$596.24	\$627.62	\$1,443.54	\$815.91
1990	\$4,843.83	\$302.26	\$5,146.09	\$627.62	\$659.01	\$1,443.54	\$784.53
1991	\$5,146.09	\$321.12	\$5,467.20	\$659.01	\$690.39	\$1,443.54	\$753.15
1992	\$5,467.20	\$341.15	\$5,808.36	\$690.39	\$721.77	\$1,443.54	\$721.77
1993	\$5,808.36	\$362.44	\$6,170.80	\$721.77	\$753.15	\$1,443.54	\$690.39
1994	\$6,170.80	\$385.06	\$6,555.86	\$753.15	\$784.53	\$1,443.54	\$659.01
1995	\$6,555.86	\$409.09	\$6,964.94	\$784.53	\$815.91	\$1,443.54	\$627.62
1996	\$6,964.94	\$434.61	\$7,399.55	\$815.91	\$847.29	\$1,443.54	\$596.24
1997	\$7,399.55	\$461.73	\$7,861.29	\$847.29	\$878.67	\$1,443.54	\$564.86
1998	\$7,861.29	\$490.54	\$8,351.83	\$878.67	\$910.06	\$1,443.54	\$533.48
1999	\$8,351.83	\$521.15	\$8,872.99	\$910.06	\$941.44	\$1,443.54	\$502.10
2000	\$8,872.99	\$553.67	\$9,426.66	\$941.44	\$972.82	\$1,443.54	\$470.72
2001	\$9,426.66	\$588.22	\$10,014.88	\$972.82	\$1,004.20	\$1,443.54	\$439.34
2002	\$10,014.88	\$624.93	\$10,639.81	\$1,004.20	\$1,035.58	\$1,443.54	\$407.96
2003	\$10,639.81	\$663.92	\$11,303.74	\$1,035.58	\$1,066.96	\$1,443.54	\$376.57
2004	\$11,303.74	\$705.35	\$12,009.09	\$1,066.96	\$1,098.34	\$1,443.54	\$345.19
2005	\$12,009.09	\$749.37	\$12,758.46	\$1,098.34	\$1,129.72	\$1,443.54	\$313.81
2006	\$12,758.46	\$796.13	\$13,554.58	\$1,129.72	\$1,161.11	\$1,443.54	\$282.43
2007	\$13,554.58	\$845.81	\$14,400.39	\$1,161.11	\$1,192.49	\$1,443.54	\$251.05
2008	\$14,400.39	\$898.58	\$15,298.97	\$1,192.49	\$1,223.87	\$1,443.54	\$219.67
2009	\$15,298.97	\$2,855.05	\$18,154.02	\$1,223.87	\$1,255.25	\$1,443.54	\$188.29
2010	\$16,253.63	\$2,681.02	\$18,934.65	\$1,255.25	\$1,286.63	\$1,443.54	\$156.91
2011	\$17,267.86	\$2,480.98	\$19,748.84	\$1,286.63	\$1,318.01	\$1,443.54	\$125.52
2012	\$18,345.37	\$2,252.67	\$20,598.04	\$1,318.01	\$1,349.39	\$1,443.54	\$94.14
2013	\$19,490.12	\$1,993.63	\$21,483.75	\$1,349.39	\$1,380.77	\$1,443.54	\$62.76
2014	\$20,706.31	\$1,701.25	\$22,407.55	\$1,380.77	\$1,412.16	\$1,443.54	\$31.38
2015	\$21,998.38	\$1,372.70	\$23,371.08	\$1,412.16	\$1,443.54	\$1,443.54	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,310.89	\$81.80	\$1,392.69	\$0.00	\$27.89	\$27.89	\$1,310.89	\$1,283.00
1971	\$1,392.69	\$86.90	\$1,479.59	\$27.89	\$27.89	\$55.78	\$1,310.89	\$1,255.11
1972	\$1,479.59	\$92.33	\$1,571.92	\$55.78	\$27.89	\$83.67	\$1,310.89	\$1,227.22
1973	\$1,571.92	\$98.09	\$1,670.01	\$83.67	\$27.89	\$111.57	\$1,310.89	\$1,199.32
1974	\$1,670.01	\$104.21	\$1,774.21	\$111.57	\$27.89	\$139.46	\$1,310.89	\$1,171.43
1975	\$1,774.21	\$110.71	\$1,884.93	\$139.46	\$27.89	\$167.35	\$1,310.89	\$1,143.54
1976	\$1,884.93	\$117.62	\$2,002.55	\$167.35	\$27.89	\$195.24	\$1,310.89	\$1,115.65
1977	\$2,002.55	\$124.96	\$2,127.50	\$195.24	\$27.89	\$223.13	\$1,310.89	\$1,087.76
1978	\$2,127.50	\$132.76	\$2,260.26	\$223.13	\$27.89	\$251.02	\$1,310.89	\$1,059.87
1979	\$2,260.26	\$141.04	\$2,401.30	\$251.02	\$27.89	\$278.91	\$1,310.89	\$1,031.98
1980	\$2,401.30	\$149.84	\$2,551.14	\$278.91	\$27.89	\$306.80	\$1,310.89	\$1,004.09
1981	\$2,551.14	\$159.19	\$2,710.33	\$306.80	\$27.89	\$334.70	\$1,310.89	\$976.19
1982	\$2,710.33	\$169.12	\$2,879.46	\$334.70	\$27.89	\$362.59	\$1,310.89	\$948.30
1983	\$2,879.46	\$179.68	\$3,059.14	\$362.59	\$27.89	\$390.48	\$1,310.89	\$920.41
1984	\$3,059.14	\$190.89	\$3,250.03	\$390.48	\$27.89	\$418.37	\$1,310.89	\$892.52
1985	\$3,250.03	\$202.80	\$3,452.83	\$418.37	\$27.89	\$446.26	\$1,310.89	\$864.63
1986	\$3,452.83	\$215.46	\$3,668.28	\$446.26	\$27.89	\$474.15	\$1,310.89	\$836.74
1987	\$3,668.28	\$228.90	\$3,897.18	\$474.15	\$27.89	\$502.04	\$1,310.89	\$808.85
1988	\$3,897.18	\$243.18	\$4,140.37	\$502.04	\$27.89	\$529.93	\$1,310.89	\$780.96
1989	\$4,140.37	\$258.36	\$4,398.73	\$529.93	\$27.89	\$557.83	\$1,310.89	\$753.06
1990	\$4,398.73	\$274.48	\$4,673.21	\$557.83	\$27.89	\$585.72	\$1,310.89	\$725.17
1991	\$4,673.21	\$291.61	\$4,964.82	\$585.72	\$27.89	\$613.61	\$1,310.89	\$697.28
1992	\$4,964.82	\$309.80	\$5,274.62	\$613.61	\$27.89	\$641.50	\$1,310.89	\$669.39
1993	\$5,274.62	\$329.14	\$5,603.76	\$641.50	\$27.89	\$669.39	\$1,310.89	\$641.50
1994	\$5,603.76	\$349.67	\$5,953.43	\$669.39	\$27.89	\$697.28	\$1,310.89	\$613.61
1995	\$5,953.43	\$371.49	\$6,324.93	\$697.28	\$27.89	\$725.17	\$1,310.89	\$585.72
1996	\$6,324.93	\$394.68	\$6,719.60	\$725.17	\$27.89	\$753.06	\$1,310.89	\$557.83
1997	\$6,719.60	\$419.30	\$7,138.91	\$753.06	\$27.89	\$780.96	\$1,310.89	\$529.93
1998	\$7,138.91	\$445.47	\$7,584.37	\$780.96	\$27.89	\$808.85	\$1,310.89	\$502.04
1999	\$7,584.37	\$473.26	\$8,057.64	\$808.85	\$27.89	\$836.74	\$1,310.89	\$474.15
2000	\$8,057.64	\$502.80	\$8,560.43	\$836.74	\$27.89	\$864.63	\$1,310.89	\$446.26
2001	\$8,560.43	\$534.17	\$9,094.61	\$864.63	\$27.89	\$892.52	\$1,310.89	\$418.37
2002	\$9,094.61	\$567.50	\$9,662.11	\$892.52	\$27.89	\$920.41	\$1,310.89	\$390.48
2003	\$9,662.11	\$602.92	\$10,265.02	\$920.41	\$27.89	\$948.30	\$1,310.89	\$362.59
2004	\$10,265.02	\$640.54	\$10,905.56	\$948.30	\$27.89	\$976.19	\$1,310.89	\$334.70
2005	\$10,905.56	\$680.51	\$11,586.07	\$976.19	\$27.89	\$1,004.09	\$1,310.89	\$306.80
2006	\$11,586.07	\$722.97	\$12,309.04	\$1,004.09	\$27.89	\$1,031.98	\$1,310.89	\$278.91
2007	\$12,309.04	\$768.08	\$13,077.12	\$1,031.98	\$27.89	\$1,059.87	\$1,310.89	\$251.02
2008	\$13,077.12	\$816.01	\$13,893.14	\$1,059.87	\$27.89	\$1,087.76	\$1,310.89	\$223.13
2009	\$13,893.14	\$866.93	\$14,760.07	\$1,087.76	\$27.89	\$1,115.65	\$1,310.89	\$195.24

2010	\$14,760.07	\$921.03	\$15,681.10	\$1,115.65	\$27.89	\$1,143.54	\$1,310.89	\$167.35
2011	\$15,681.10	\$978.50	\$16,659.60	\$1,143.54	\$27.89	\$1,171.43	\$1,310.89	\$139.46
2012	\$16,659.60	\$1,039.56	\$17,699.16	\$1,171.43	\$27.89	\$1,199.32	\$1,310.89	\$111.57
2013	\$17,699.16	\$2,173.32	\$19,872.47	\$1,199.32	\$27.89	\$1,227.22	\$1,310.89	\$83.67
2014	\$18,803.58	\$1,923.40	\$20,726.99	\$1,227.22	\$27.89	\$1,255.11	\$1,310.89	\$55.78
2015	\$19,976.93	\$1,641.32	\$21,618.25	\$1,255.11	\$27.89	\$1,283.00	\$1,310.89	\$27.89
2016	\$21,223.49	\$1,324.35	\$22,547.83	\$1,283.00	\$27.89	\$1,310.89	\$1,310.89	\$0.00

Cascade Natural Gas Corp
Retirement of Longview in 10 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
\$ 52,000.00	\$ 16,000.00	\$ 14,800.00

Cost - valued at 2006 prices			
	Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
2007	54,236.00	16,688.00	15,436.40
2008	56,568.15	17,405.58	16,100.17
2009	59,000.58	18,154.02	16,792.47
2010	61,537.60	18,934.65	17,514.55
2011	64,183.72	19,748.84	18,267.67
2012	66,943.62	20,598.04	19,053.18
2013	69,822.20	21,483.75	19,872.47
2014	72,824.55	22,407.55	20,726.99
2015	75,956.01	23,371.08	21,618.25
2016	79,222.11	24,376.04	22,547.83
2017		25,424.20	23,517.39
2018			24,528.64
PV (2006)	\$43,247.98	\$13,064.08	\$11,863.60
PV (1970)	\$4,605.83	\$1,391.30	\$1,263.45

Year 1

PV	A	B	C = A + B	D	E = G/(1st year of retirement - 1970)	F	G = PV in 1970	H = G - F
1970	\$4,605.83	\$287.40	\$4,893.23	\$0.00	\$98.00	\$98.00	\$4,605.83	\$4,507.83
1971	\$4,893.23	\$305.34	\$5,198.57	\$98.00	\$98.00	\$195.99	\$4,605.83	\$4,409.83
1972	\$5,198.57	\$324.39	\$5,522.96	\$195.99	\$98.00	\$293.99	\$4,605.83	\$4,311.84

1973	\$5,522.96	\$344.63	\$5,867.59	\$293.99	\$98.00	\$391.99	\$4,605.83	\$4,213.84
1974	\$5,867.59	\$366.14	\$6,233.73	\$391.99	\$98.00	\$489.98	\$4,605.83	\$4,115.84
1975	\$6,233.73	\$388.98	\$6,622.71	\$489.98	\$98.00	\$587.98	\$4,605.83	\$4,017.85
1976	\$6,622.71	\$413.26	\$7,035.97	\$587.98	\$98.00	\$685.97	\$4,605.83	\$3,919.85
1977	\$7,035.97	\$439.04	\$7,475.01	\$685.97	\$98.00	\$783.97	\$4,605.83	\$3,821.86
1978	\$7,475.01	\$466.44	\$7,941.45	\$783.97	\$98.00	\$881.97	\$4,605.83	\$3,723.86
1979	\$7,941.45	\$495.55	\$8,437.00	\$881.97	\$98.00	\$979.96	\$4,605.83	\$3,625.86
1980	\$8,437.00	\$526.47	\$8,963.47	\$979.96	\$98.00	\$1,077.96	\$4,605.83	\$3,527.87
1981	\$8,963.47	\$559.32	\$9,522.79	\$1,077.96	\$98.00	\$1,175.96	\$4,605.83	\$3,429.87
1982	\$9,522.79	\$594.22	\$10,117.01	\$1,175.96	\$98.00	\$1,273.95	\$4,605.83	\$3,331.87
1983	\$10,117.01	\$631.30	\$10,748.31	\$1,273.95	\$98.00	\$1,371.95	\$4,605.83	\$3,233.88
1984	\$10,748.31	\$670.69	\$11,419.01	\$1,371.95	\$98.00	\$1,469.94	\$4,605.83	\$3,135.88
1985	\$11,419.01	\$712.55	\$12,131.56	\$1,469.94	\$98.00	\$1,567.94	\$4,605.83	\$3,037.89
1986	\$12,131.56	\$757.01	\$12,888.57	\$1,567.94	\$98.00	\$1,665.94	\$4,605.83	\$2,939.89
1987	\$12,888.57	\$804.25	\$13,692.81	\$1,665.94	\$98.00	\$1,763.93	\$4,605.83	\$2,841.89
1988	\$13,692.81	\$854.43	\$14,547.24	\$1,763.93	\$98.00	\$1,861.93	\$4,605.83	\$2,743.90
1989	\$14,547.24	\$907.75	\$15,454.99	\$1,861.93	\$98.00	\$1,959.93	\$4,605.83	\$2,645.90
1990	\$15,454.99	\$964.39	\$16,419.38	\$1,959.93	\$98.00	\$2,057.92	\$4,605.83	\$2,547.90
1991	\$16,419.38	\$1,024.57	\$17,443.95	\$2,057.92	\$98.00	\$2,155.92	\$4,605.83	\$2,449.91
1992	\$17,443.95	\$1,088.50	\$18,532.45	\$2,155.92	\$98.00	\$2,253.91	\$4,605.83	\$2,351.91
1993	\$18,532.45	\$1,156.43	\$19,688.88	\$2,253.91	\$98.00	\$2,351.91	\$4,605.83	\$2,253.91
1994	\$19,688.88	\$1,228.59	\$20,917.47	\$2,351.91	\$98.00	\$2,449.91	\$4,605.83	\$2,155.92
1995	\$20,917.47	\$1,305.25	\$22,222.72	\$2,449.91	\$98.00	\$2,547.90	\$4,605.83	\$2,057.92
1996	\$22,222.72	\$1,386.70	\$23,609.41	\$2,547.90	\$98.00	\$2,645.90	\$4,605.83	\$1,959.93
1997	\$23,609.41	\$1,473.23	\$25,082.64	\$2,645.90	\$98.00	\$2,743.90	\$4,605.83	\$1,861.93
1998	\$25,082.64	\$1,565.16	\$26,647.80	\$2,743.90	\$98.00	\$2,841.89	\$4,605.83	\$1,763.93
1999	\$26,647.80	\$1,662.82	\$28,310.62	\$2,841.89	\$98.00	\$2,939.89	\$4,605.83	\$1,665.94
2000	\$28,310.62	\$1,766.58	\$30,077.20	\$2,939.89	\$98.00	\$3,037.89	\$4,605.83	\$1,567.94
2001	\$30,077.20	\$1,876.82	\$31,954.02	\$3,037.89	\$98.00	\$3,135.88	\$4,605.83	\$1,469.94
2002	\$31,954.02	\$1,993.93	\$33,947.95	\$3,135.88	\$98.00	\$3,233.88	\$4,605.83	\$1,371.95
2003	\$33,947.95	\$2,118.35	\$36,066.30	\$3,233.88	\$98.00	\$3,331.87	\$4,605.83	\$1,273.95
2004	\$36,066.30	\$2,250.54	\$38,316.84	\$3,331.87	\$98.00	\$3,429.87	\$4,605.83	\$1,175.96
2005	\$38,316.84	\$2,390.97	\$40,707.81	\$3,429.87	\$98.00	\$3,527.87	\$4,605.83	\$1,077.96
2006	\$40,707.81	\$2,540.17	\$43,247.98	\$3,527.87	\$98.00	\$3,625.86	\$4,605.83	\$979.96
2007	\$43,247.98	\$2,698.67	\$45,946.65	\$3,625.86	\$98.00	\$3,723.86	\$4,605.83	\$881.97
2008	\$45,946.65	\$10,621.50	\$56,568.15	\$3,723.86	\$98.00	\$3,821.86	\$4,605.83	\$783.97
2009	\$48,813.72	\$10,186.86	\$59,000.58	\$3,821.86	\$98.00	\$3,919.85	\$4,605.83	\$685.97
2010	\$51,859.70	\$9,677.90	\$61,537.60	\$3,919.85	\$98.00	\$4,017.85	\$4,605.83	\$587.98
2011	\$55,095.74	\$9,087.98	\$64,183.72	\$4,017.85	\$98.00	\$4,115.84	\$4,605.83	\$489.98
2012	\$58,533.72	\$8,409.90	\$66,943.62	\$4,115.84	\$98.00	\$4,213.84	\$4,605.83	\$391.99
2013	\$62,166.22	\$7,635.97	\$69,822.20	\$4,213.84	\$98.00	\$4,311.84	\$4,605.83	\$293.99
2014	\$66,066.64	\$6,757.91	\$72,824.55	\$4,311.84	\$98.00	\$4,409.83	\$4,605.83	\$195.99
2015	\$70,189.20	\$5,766.80	\$75,956.01	\$4,409.83	\$98.00	\$4,507.83	\$4,605.83	\$98.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NEV
2016	\$74,569.01	\$4,653.11	\$79,222.11	\$4,507.83	\$98.00	\$4,605.83	\$4,605.83	\$0.00
1970	\$1,391.30	\$86.82	\$1,478.12	\$0.00	\$28.99	\$28.99	\$1,391.30	\$1,362.31
1971	\$1,478.12	\$92.23	\$1,570.35	\$28.99	\$28.99	\$57.97	\$1,391.30	\$1,333.33
1972	\$1,570.35	\$97.99	\$1,668.34	\$57.97	\$28.99	\$86.96	\$1,391.30	\$1,304.34
1973	\$1,668.34	\$104.10	\$1,772.44	\$86.96	\$28.99	\$115.94	\$1,391.30	\$1,275.36
1974	\$1,772.44	\$110.60	\$1,883.05	\$115.94	\$28.99	\$144.93	\$1,391.30	\$1,246.37
1975	\$1,883.05	\$117.50	\$2,000.55	\$144.93	\$28.99	\$173.91	\$1,391.30	\$1,217.39
1976	\$2,000.55	\$124.83	\$2,125.38	\$173.91	\$28.99	\$202.90	\$1,391.30	\$1,188.40
1977	\$2,125.38	\$132.62	\$2,258.00	\$202.90	\$28.99	\$231.88	\$1,391.30	\$1,159.42
1978	\$2,258.00	\$140.90	\$2,398.90	\$231.88	\$28.99	\$260.87	\$1,391.30	\$1,130.43
1979	\$2,398.90	\$149.69	\$2,548.60	\$260.87	\$28.99	\$289.85	\$1,391.30	\$1,101.44
1980	\$2,548.60	\$159.03	\$2,707.63	\$289.85	\$28.99	\$318.84	\$1,391.30	\$1,072.46
1981	\$2,707.63	\$168.96	\$2,876.58	\$318.84	\$28.99	\$347.82	\$1,391.30	\$1,043.47
1982	\$2,876.58	\$179.50	\$3,056.08	\$347.82	\$28.99	\$376.81	\$1,391.30	\$1,014.49
1983	\$3,056.08	\$190.70	\$3,246.78	\$376.81	\$28.99	\$405.80	\$1,391.30	\$985.50
1984	\$3,246.78	\$202.60	\$3,449.38	\$405.80	\$28.99	\$434.78	\$1,391.30	\$956.52
1985	\$3,449.38	\$215.24	\$3,664.62	\$434.78	\$28.99	\$463.77	\$1,391.30	\$927.53
1986	\$3,664.62	\$228.67	\$3,893.30	\$463.77	\$28.99	\$492.75	\$1,391.30	\$898.55
1987	\$3,893.30	\$242.94	\$4,136.24	\$492.75	\$28.99	\$521.74	\$1,391.30	\$869.56
1988	\$4,136.24	\$258.10	\$4,394.34	\$521.74	\$28.99	\$550.72	\$1,391.30	\$840.58
1989	\$4,394.34	\$274.21	\$4,668.55	\$550.72	\$28.99	\$579.71	\$1,391.30	\$811.59
1990	\$4,668.55	\$291.32	\$4,959.86	\$579.71	\$28.99	\$608.69	\$1,391.30	\$782.61
1991	\$4,959.86	\$309.50	\$5,269.36	\$608.69	\$28.99	\$637.68	\$1,391.30	\$753.62
1992	\$5,269.36	\$328.81	\$5,598.17	\$637.68	\$28.99	\$666.66	\$1,391.30	\$724.63
1993	\$5,598.17	\$349.33	\$5,947.49	\$666.66	\$28.99	\$695.65	\$1,391.30	\$695.65
1994	\$5,947.49	\$371.12	\$6,318.62	\$695.65	\$28.99	\$724.63	\$1,391.30	\$666.66
1995	\$6,318.62	\$394.28	\$6,712.90	\$724.63	\$28.99	\$753.62	\$1,391.30	\$637.68
1996	\$6,712.90	\$418.88	\$7,131.78	\$753.62	\$28.99	\$782.61	\$1,391.30	\$608.69
1997	\$7,131.78	\$445.02	\$7,576.81	\$782.61	\$28.99	\$811.59	\$1,391.30	\$579.71
1998	\$7,576.81	\$472.79	\$8,049.60	\$811.59	\$28.99	\$840.58	\$1,391.30	\$550.72
1999	\$8,049.60	\$502.29	\$8,551.89	\$840.58	\$28.99	\$869.56	\$1,391.30	\$521.74
2000	\$8,551.89	\$533.64	\$9,085.53	\$869.56	\$28.99	\$898.55	\$1,391.30	\$492.75
2001	\$9,085.53	\$566.94	\$9,652.47	\$898.55	\$28.99	\$927.53	\$1,391.30	\$463.77
2002	\$9,652.47	\$602.31	\$10,254.78	\$927.53	\$28.99	\$956.52	\$1,391.30	\$434.78
2003	\$10,254.78	\$639.90	\$10,894.68	\$956.52	\$28.99	\$985.50	\$1,391.30	\$405.80
2004	\$10,894.68	\$679.83	\$11,574.51	\$985.50	\$28.99	\$1,014.49	\$1,391.30	\$376.81
2005	\$11,574.51	\$722.25	\$12,296.76	\$1,014.49	\$28.99	\$1,043.47	\$1,391.30	\$347.82

Year	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
2006	\$12,296.76	\$767.32	\$13,064.08	\$1,043.47	\$28.99	\$1,072.46	\$1,391.30	\$318.84
2007	\$13,879.27	\$815.20	\$13,879.27	\$1,072.46	\$28.99	\$1,101.44	\$1,391.30	\$289.85
2008	\$14,745.34	\$866.07	\$14,745.34	\$1,101.44	\$28.99	\$1,130.43	\$1,391.30	\$260.87
2009	\$14,745.34	\$3,408.68	\$18,154.02	\$1,130.43	\$28.99	\$1,159.42	\$1,391.30	\$231.88
2010	\$15,665.45	\$3,269.20	\$18,934.65	\$1,159.42	\$28.99	\$1,188.40	\$1,391.30	\$202.90
2011	\$16,642.97	\$3,105.86	\$19,748.84	\$1,188.40	\$28.99	\$1,217.39	\$1,391.30	\$173.91
2012	\$17,681.50	\$2,916.54	\$20,598.04	\$1,217.39	\$28.99	\$1,246.37	\$1,391.30	\$144.93
2013	\$18,784.82	\$2,698.93	\$21,483.75	\$1,246.37	\$28.99	\$1,275.36	\$1,391.30	\$115.94
2014	\$19,956.99	\$2,450.56	\$22,407.55	\$1,275.36	\$28.99	\$1,304.34	\$1,391.30	\$86.96
2015	\$21,202.31	\$2,168.77	\$23,371.08	\$1,304.34	\$28.99	\$1,333.33	\$1,391.30	\$57.97
2016	\$22,525.33	\$1,850.70	\$24,376.04	\$1,333.33	\$28.99	\$1,362.31	\$1,391.30	\$28.99
2017	\$23,930.92	\$1,493.29	\$25,424.20	\$1,362.31	\$28.99	\$1,391.30	\$1,391.30	\$0.00

Year 3

Year	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,263.45	\$78.84	\$1,342.29	\$0.00	\$25.78	\$25.78	\$1,263.45	\$1,237.67
1971	\$1,342.29	\$83.76	\$1,426.05	\$25.78	\$25.78	\$51.57	\$1,263.45	\$1,211.88
1972	\$1,426.05	\$88.99	\$1,515.03	\$51.57	\$25.78	\$77.35	\$1,263.45	\$1,186.10
1973	\$1,515.03	\$94.54	\$1,609.57	\$77.35	\$25.78	\$103.14	\$1,263.45	\$1,160.31
1974	\$1,609.57	\$100.44	\$1,710.01	\$103.14	\$25.78	\$128.92	\$1,263.45	\$1,134.53
1975	\$1,710.01	\$106.70	\$1,816.71	\$128.92	\$25.78	\$154.71	\$1,263.45	\$1,108.74
1976	\$1,816.71	\$113.36	\$1,930.08	\$154.71	\$25.78	\$180.49	\$1,263.45	\$1,082.96
1977	\$1,930.08	\$120.44	\$2,050.51	\$180.49	\$25.78	\$206.28	\$1,263.45	\$1,057.17
1978	\$2,050.51	\$127.95	\$2,178.47	\$206.28	\$25.78	\$232.06	\$1,263.45	\$1,031.39
1979	\$2,178.47	\$135.94	\$2,314.40	\$232.06	\$25.78	\$257.85	\$1,263.45	\$1,005.60
1980	\$2,314.40	\$144.42	\$2,458.82	\$257.85	\$25.78	\$283.63	\$1,263.45	\$979.82
1981	\$2,458.82	\$153.43	\$2,612.25	\$283.63	\$25.78	\$309.42	\$1,263.45	\$954.03
1982	\$2,612.25	\$163.00	\$2,775.26	\$309.42	\$25.78	\$335.20	\$1,263.45	\$928.25
1983	\$2,775.26	\$173.18	\$2,948.43	\$335.20	\$25.78	\$360.99	\$1,263.45	\$902.46
1984	\$2,948.43	\$183.98	\$3,132.42	\$360.99	\$25.78	\$386.77	\$1,263.45	\$876.68
1985	\$3,132.42	\$195.46	\$3,327.88	\$386.77	\$25.78	\$412.56	\$1,263.45	\$850.90
1986	\$3,327.88	\$207.66	\$3,535.54	\$412.56	\$25.78	\$438.34	\$1,263.45	\$825.11
1987	\$3,535.54	\$220.62	\$3,756.15	\$438.34	\$25.78	\$464.12	\$1,263.45	\$799.33
1988	\$3,756.15	\$234.38	\$3,990.54	\$464.12	\$25.78	\$489.91	\$1,263.45	\$773.54
1989	\$3,990.54	\$249.01	\$4,239.55	\$489.91	\$25.78	\$515.69	\$1,263.45	\$747.76
1990	\$4,239.55	\$264.55	\$4,504.10	\$515.69	\$25.78	\$541.48	\$1,263.45	\$721.97
1991	\$4,504.10	\$281.06	\$4,785.15	\$541.48	\$25.78	\$567.26	\$1,263.45	\$696.19
1992	\$4,785.15	\$298.59	\$5,083.75	\$567.26	\$25.78	\$593.05	\$1,263.45	\$670.40
1993	\$5,083.75	\$317.23	\$5,400.97	\$593.05	\$25.78	\$618.83	\$1,263.45	\$644.62
1994	\$5,400.97	\$337.02	\$5,737.99	\$618.83	\$25.78	\$644.62	\$1,263.45	\$618.83
1995	\$5,737.99	\$358.05	\$6,096.04	\$644.62	\$25.78	\$670.40	\$1,263.45	\$593.05

1996	\$6,096.04	\$380.39	\$6,476.44	\$670.40	\$25.78	\$696.19	\$1,263.45	\$567.26
1997	\$6,476.44	\$404.13	\$6,880.57	\$696.19	\$25.78	\$721.97	\$1,263.45	\$541.48
1998	\$6,880.57	\$429.35	\$7,309.91	\$721.97	\$25.78	\$747.76	\$1,263.45	\$515.69
1999	\$7,309.91	\$456.14	\$7,766.05	\$747.76	\$25.78	\$773.54	\$1,263.45	\$489.91
2000	\$7,766.05	\$484.60	\$8,250.65	\$773.54	\$25.78	\$799.33	\$1,263.45	\$464.12
2001	\$8,250.65	\$514.84	\$8,765.49	\$799.33	\$25.78	\$825.11	\$1,263.45	\$438.34
2002	\$8,765.49	\$546.97	\$9,312.46	\$825.11	\$25.78	\$850.90	\$1,263.45	\$412.56
2003	\$9,312.46	\$581.10	\$9,893.56	\$850.90	\$25.78	\$876.68	\$1,263.45	\$386.77
2004	\$9,893.56	\$617.36	\$10,510.92	\$876.68	\$25.78	\$902.46	\$1,263.45	\$360.99
2005	\$10,510.92	\$655.88	\$11,166.80	\$902.46	\$25.78	\$928.25	\$1,263.45	\$335.20
2006	\$11,166.80	\$696.81	\$11,863.60	\$928.25	\$25.78	\$954.03	\$1,263.45	\$309.42
2007	\$11,863.60	\$740.29	\$12,603.89	\$954.03	\$25.78	\$979.82	\$1,263.45	\$283.63
2008	\$12,603.89	\$786.48	\$13,390.38	\$979.82	\$25.78	\$1,005.60	\$1,263.45	\$257.85
2009	\$13,390.38	\$835.56	\$14,225.94	\$1,005.60	\$25.78	\$1,031.39	\$1,263.45	\$232.06
2010	\$14,225.94	\$887.70	\$15,113.63	\$1,031.39	\$25.78	\$1,057.17	\$1,263.45	\$206.28
2011	\$15,113.63	\$943.09	\$16,056.73	\$1,057.17	\$25.78	\$1,082.96	\$1,263.45	\$180.49
2012	\$16,056.73	\$1,001.94	\$17,058.67	\$1,082.96	\$25.78	\$1,108.74	\$1,263.45	\$154.71
2013	\$17,058.67	\$2,813.81	\$19,872.47	\$1,108.74	\$25.78	\$1,134.53	\$1,263.45	\$128.92
2014	\$18,123.13	\$2,603.86	\$20,726.99	\$1,134.53	\$25.78	\$1,160.31	\$1,263.45	\$103.14
2015	\$19,254.01	\$2,364.24	\$21,618.25	\$1,160.31	\$25.78	\$1,186.10	\$1,263.45	\$77.35
2016	\$20,455.46	\$2,092.37	\$21,896.15	\$1,186.10	\$25.78	\$1,211.88	\$1,263.45	\$51.57
2017	\$21,731.88	\$1,785.51	\$23,517.39	\$1,211.88	\$25.78	\$1,237.67	\$1,263.45	\$25.78
2018	\$23,087.95	\$1,440.69	\$24,528.64	\$1,237.67	\$25.78	\$1,263.45	\$1,263.45	\$0.00



Cascade Natural Gas Corporation

FAS143/FIN47 Asset Retirement Obligations

Work Papers

Moses Lake

**Cascade Natural Gas Corporation
Retirement of Moses Lake
Summary**

Background: CNGC estimates that the asset retirements associated with legal obligations will be settled between 5 and 10 years (i.e. between 2011 & 2016). It is also estimated that the actual retirement period will be over 3 years

Asset Retirement Cost - Discounted 1970 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$1,282.03	\$1,213.07	\$1,169.17	
Year 2 cost	\$1,258.62	\$1,190.92	\$1,147.82	
Year 3 cost	\$1,235.63	\$1,169.17	\$1,126.86	
	<u>\$3,776.27</u>	<u>\$3,573.16</u>	<u>\$3,443.85</u>	
Probability	34%	33%	33%	
	<u>\$1,283.93</u>	<u>\$1,179.14</u>	<u>\$1,136.47</u>	<u>\$3,600</u>

Asset Retirement Obligation - Discounted 2006 present value

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$12,038.02	\$11,390.53	\$10,978.33	
Year 2 cost	\$11,818.20	\$11,182.53	\$10,777.86	
Year 3 cost	\$11,602.40	\$10,978.33	\$10,581.05	
	<u>\$35,458.62</u>	<u>\$33,551.39</u>	<u>\$32,337.25</u>	
Probability	34%	33%	33%	
	<u>\$12,055.93</u>	<u>\$11,071.96</u>	<u>\$10,671.29</u>	<u>\$33,799</u>

Accumulated Depreciation - from 1970 thru 2006

Retirement in	5 years	8 years	10 years	Total
Year 1 cost	\$1,129.40	\$997.41	\$920.41	
Year 2 cost	\$1,082.99	\$957.91	\$884.78	
Year 3 cost	\$1,039.05	\$920.41	\$850.90	
	<u>\$3,251.45</u>	<u>\$2,875.74</u>	<u>\$2,656.09</u>	
Probability	34%	33%	33%	
	<u>\$1,105.49</u>	<u>\$948.99</u>	<u>\$876.51</u>	<u>\$2,931</u>

Cascade Natural Gas Corporation
Moses Lake

Accretion of Interest

	5 Years	8 Years	10 Years	Weighted Average Total
1970	\$235.64	\$222.97	\$214.90	\$224.61
1971	\$250.34	\$236.88	\$228.31	\$238.63
1972	\$265.96	\$251.66	\$242.55	\$253.52
1973	\$282.56	\$267.36	\$257.69	\$269.34
1974	\$300.19	\$284.05	\$273.77	\$286.14
1975	\$318.92	\$301.77	\$290.85	\$304.00
1976	\$338.83	\$320.60	\$309.00	\$322.97
1977	\$359.97	\$340.61	\$328.28	\$343.12
1978	\$382.43	\$361.86	\$348.77	\$364.53
1979	\$406.29	\$384.44	\$370.53	\$387.28
1980	\$431.65	\$408.43	\$393.65	\$411.45
1981	\$458.58	\$433.92	\$418.21	\$437.12
1982	\$487.20	\$460.99	\$444.31	\$464.40
1983	\$517.60	\$489.76	\$472.03	\$493.38
1984	\$549.90	\$520.32	\$501.49	\$524.16
1985	\$584.21	\$552.79	\$532.78	\$556.87
1986	\$620.66	\$587.28	\$566.03	\$591.62
1987	\$659.39	\$623.93	\$601.35	\$628.54
1988	\$700.54	\$662.86	\$638.87	\$667.76
1989	\$744.25	\$704.22	\$678.74	\$709.42
1990	\$790.70	\$748.17	\$721.09	\$753.69
1991	\$840.04	\$794.85	\$766.09	\$800.72
1992	\$892.45	\$844.45	\$813.89	\$850.69
1993	\$948.14	\$897.14	\$864.68	\$903.77
1994	\$1,007.31	\$953.13	\$918.63	\$960.17
1995	\$1,070.16	\$1,012.60	\$975.96	\$1,020.08
1996	\$1,136.94	\$1,075.79	\$1,036.86	\$1,083.73
1997	\$1,207.89	\$1,142.92	\$1,101.56	\$1,151.36
1998	\$1,283.26	\$1,214.23	\$1,170.29	\$1,223.20
1999	\$1,363.33	\$1,290.00	\$1,243.32	\$1,299.53
2000	\$1,448.40	\$1,370.50	\$1,320.90	\$1,380.62
2001	\$1,538.79	\$1,456.02	\$1,403.33	\$1,466.77
2002	\$1,634.81	\$1,546.87	\$1,490.90	\$1,558.30
2003	\$1,736.82	\$1,643.40	\$1,583.93	\$1,655.54
2004	\$1,845.19	\$1,745.95	\$1,682.76	\$1,758.84
2005	\$1,960.34	\$1,854.89	\$1,787.77	\$1,868.59
2006	\$2,082.66	\$1,970.64	\$1,899.33	\$1,985.19
	<u>\$31,682.35</u>	<u>\$29,978.24</u>	<u>\$28,893.39</u>	
	34%	33%	33%	
	<u>\$10,772</u>	<u>\$9,893</u>	<u>\$9,535</u>	<u>\$30,200</u>

Cascade Natural Gas Corp
Retirement of Moses Lake in 5 years (34% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points
 (CNGC credit adjustment)

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2011)	Year 2 (2012)	Year 3 (2013)
\$ 13,200.00	\$ 13,200.00	\$ 13,200.00

	Discounted Present value based on above CPI & CARFR	
2007	13,767.60	13,767.60
2008	14,359.61	14,359.61
2009	14,977.07	14,977.07
2010	15,621.08	15,621.08
2011	16,292.79	16,292.79
2012	16,993.38	16,993.38
2013	17,724.10	17,724.10

PV (2006)	\$12,038.02	\$11,818.20	\$11,602.40
PV (1970)	\$1,282.03	\$1,258.62	\$1,235.63

Year 1

A	B	C = A + B	D	E = G/(1st year of retirement - 1970)	F	G = PV in 1970	H = G - F
PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$80.00	\$1,362.02	\$0.00	\$30.52	\$30.52	\$1,282.03	\$1,251.50
1971	\$84.99	\$1,447.01	\$30.52	\$30.52	\$61.05	\$1,282.03	\$1,220.98
1972	\$90.29	\$1,537.31	\$61.05	\$30.52	\$91.57	\$1,282.03	\$1,190.45
1973	\$95.93	\$1,633.24	\$91.57	\$30.52	\$122.10	\$1,282.03	\$1,159.93
1974	\$101.91	\$1,735.15	\$122.10	\$30.52	\$152.62	\$1,282.03	\$1,129.40

1975	\$1,735.15	\$108.27	\$1,843.42	\$152.62	\$30.52	\$183.15	\$1,282.03	\$1,098.88
1976	\$1,843.42	\$115.03	\$1,958.45	\$183.15	\$30.52	\$213.67	\$1,282.03	\$1,068.36
1977	\$1,958.45	\$122.21	\$2,080.66	\$213.67	\$30.52	\$244.20	\$1,282.03	\$1,037.83
1978	\$2,080.66	\$129.83	\$2,210.49	\$244.20	\$30.52	\$274.72	\$1,282.03	\$1,007.31
1979	\$2,210.49	\$137.93	\$2,348.43	\$274.72	\$30.52	\$305.24	\$1,282.03	\$976.78
1980	\$2,348.43	\$146.54	\$2,494.97	\$305.24	\$30.52	\$335.77	\$1,282.03	\$946.26
1981	\$2,494.97	\$155.69	\$2,650.66	\$335.77	\$30.52	\$366.29	\$1,282.03	\$915.73
1982	\$2,650.66	\$165.40	\$2,816.06	\$366.29	\$30.52	\$396.82	\$1,282.03	\$885.21
1983	\$2,816.06	\$175.72	\$2,991.78	\$396.82	\$30.52	\$427.34	\$1,282.03	\$854.68
1984	\$2,991.78	\$186.69	\$3,178.47	\$427.34	\$30.52	\$457.87	\$1,282.03	\$824.16
1985	\$3,178.47	\$198.34	\$3,376.80	\$457.87	\$30.52	\$488.39	\$1,282.03	\$793.64
1986	\$3,376.80	\$210.71	\$3,587.52	\$488.39	\$30.52	\$518.92	\$1,282.03	\$763.11
1987	\$3,587.52	\$223.86	\$3,811.38	\$518.92	\$30.52	\$549.44	\$1,282.03	\$732.59
1988	\$3,811.38	\$237.83	\$4,049.21	\$549.44	\$30.52	\$579.96	\$1,282.03	\$702.06
1989	\$4,049.21	\$252.67	\$4,301.88	\$579.96	\$30.52	\$610.49	\$1,282.03	\$671.54
1990	\$4,301.88	\$268.44	\$4,570.32	\$610.49	\$30.52	\$641.01	\$1,282.03	\$641.01
1991	\$4,570.32	\$285.19	\$4,855.50	\$641.01	\$30.52	\$671.54	\$1,282.03	\$610.49
1992	\$4,855.50	\$302.98	\$5,158.49	\$671.54	\$30.52	\$702.06	\$1,282.03	\$579.96
1993	\$5,158.49	\$321.89	\$5,480.38	\$702.06	\$30.52	\$732.59	\$1,282.03	\$549.44
1994	\$5,480.38	\$341.98	\$5,822.35	\$732.59	\$30.52	\$763.11	\$1,282.03	\$518.92
1995	\$5,822.35	\$363.31	\$6,185.67	\$763.11	\$30.52	\$793.64	\$1,282.03	\$488.39
1996	\$6,185.67	\$385.99	\$6,571.65	\$793.64	\$30.52	\$824.16	\$1,282.03	\$457.87
1997	\$6,571.65	\$410.07	\$6,981.72	\$824.16	\$30.52	\$854.68	\$1,282.03	\$427.34
1998	\$6,981.72	\$435.66	\$7,417.38	\$854.68	\$30.52	\$885.21	\$1,282.03	\$396.82
1999	\$7,417.38	\$462.84	\$7,880.23	\$885.21	\$30.52	\$915.73	\$1,282.03	\$366.29
2000	\$7,880.23	\$491.73	\$8,371.95	\$915.73	\$30.52	\$946.26	\$1,282.03	\$335.77
2001	\$8,371.95	\$522.41	\$8,894.36	\$946.26	\$30.52	\$976.78	\$1,282.03	\$305.24
2002	\$8,894.36	\$555.01	\$9,449.37	\$976.78	\$30.52	\$1,007.31	\$1,282.03	\$274.72
2003	\$9,449.37	\$589.64	\$10,039.01	\$1,007.31	\$30.52	\$1,037.83	\$1,282.03	\$244.20
2004	\$10,039.01	\$626.43	\$10,665.45	\$1,037.83	\$30.52	\$1,068.36	\$1,282.03	\$213.67
2005	\$10,665.45	\$665.52	\$11,330.97	\$1,068.36	\$30.52	\$1,098.88	\$1,282.03	\$183.15
2006	\$11,330.97	\$707.05	\$12,038.02	\$1,098.88	\$30.52	\$1,129.40	\$1,282.03	\$152.62
2007	\$12,038.02	\$751.17	\$12,789.20	\$1,129.40	\$30.52	\$1,159.93	\$1,282.03	\$122.10
2008	\$12,789.20	\$1,570.41	\$14,359.61	\$1,159.93	\$30.52	\$1,190.45	\$1,282.03	\$91.57
2009	\$13,587.24	\$1,389.83	\$14,977.07	\$1,190.45	\$30.52	\$1,220.98	\$1,282.03	\$61.05
2010	\$14,435.09	\$1,186.00	\$15,621.08	\$1,220.98	\$30.52	\$1,251.50	\$1,282.03	\$30.52
2011	\$15,335.83	\$956.96	\$16,292.79	\$1,251.50	\$30.52	\$1,282.03	\$1,282.03	\$0.00

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,258.62	\$78.54	\$1,337.15	\$0.00	\$29.27	\$29.27	\$1,258.62	\$1,229.35
1971	\$1,337.15	\$83.44	\$1,420.59	\$29.27	\$29.27	\$58.54	\$1,258.62	\$1,200.08
1972	\$1,420.59	\$88.64	\$1,509.24	\$58.54	\$29.27	\$87.81	\$1,258.62	\$1,170.81
1973	\$1,509.24	\$94.18	\$1,603.41	\$87.81	\$29.27	\$117.08	\$1,258.62	\$1,141.54
1974	\$1,603.41	\$100.05	\$1,703.47	\$117.08	\$29.27	\$146.35	\$1,258.62	\$1,112.26
1975	\$1,703.47	\$106.30	\$1,809.76	\$146.35	\$29.27	\$175.62	\$1,258.62	\$1,082.99
1976	\$1,809.76	\$112.93	\$1,922.69	\$175.62	\$29.27	\$204.89	\$1,258.62	\$1,053.72
1977	\$1,922.69	\$119.98	\$2,042.67	\$204.89	\$29.27	\$234.16	\$1,258.62	\$1,024.45
1978	\$2,042.67	\$127.46	\$2,170.13	\$234.16	\$29.27	\$263.43	\$1,258.62	\$995.18
1979	\$2,170.13	\$135.42	\$2,305.55	\$263.43	\$29.27	\$292.70	\$1,258.62	\$965.91
1980	\$2,305.55	\$143.87	\$2,449.41	\$292.70	\$29.27	\$321.97	\$1,258.62	\$936.64
1981	\$2,449.41	\$152.84	\$2,602.26	\$321.97	\$29.27	\$351.24	\$1,258.62	\$907.37
1982	\$2,602.26	\$162.38	\$2,764.64	\$351.24	\$29.27	\$380.51	\$1,258.62	\$878.10
1983	\$2,764.64	\$172.51	\$2,937.15	\$380.51	\$29.27	\$409.78	\$1,258.62	\$848.83
1984	\$2,937.15	\$183.28	\$3,120.43	\$409.78	\$29.27	\$439.05	\$1,258.62	\$819.56
1985	\$3,120.43	\$194.71	\$3,315.14	\$439.05	\$29.27	\$468.32	\$1,258.62	\$790.29
1986	\$3,315.14	\$206.86	\$3,522.01	\$468.32	\$29.27	\$497.59	\$1,258.62	\$761.02
1987	\$3,522.01	\$219.77	\$3,741.78	\$497.59	\$29.27	\$526.86	\$1,258.62	\$731.75
1988	\$3,741.78	\$233.49	\$3,975.27	\$526.86	\$29.27	\$556.13	\$1,258.62	\$702.48
1989	\$3,975.27	\$248.06	\$4,223.32	\$556.13	\$29.27	\$585.40	\$1,258.62	\$673.21
1990	\$4,223.32	\$263.54	\$4,486.86	\$585.40	\$29.27	\$614.67	\$1,258.62	\$643.94
1991	\$4,486.86	\$279.98	\$4,766.84	\$614.67	\$29.27	\$643.94	\$1,258.62	\$614.67
1992	\$4,766.84	\$297.45	\$5,064.29	\$643.94	\$29.27	\$673.21	\$1,258.62	\$585.40
1993	\$5,064.29	\$316.01	\$5,380.30	\$673.21	\$29.27	\$702.48	\$1,258.62	\$556.13
1994	\$5,380.30	\$335.73	\$5,716.03	\$702.48	\$29.27	\$731.75	\$1,258.62	\$526.86
1995	\$5,716.03	\$356.68	\$6,072.71	\$731.75	\$29.27	\$761.02	\$1,258.62	\$497.59
1996	\$6,072.71	\$378.94	\$6,451.65	\$761.02	\$29.27	\$790.29	\$1,258.62	\$468.32
1997	\$6,451.65	\$402.58	\$6,854.23	\$790.29	\$29.27	\$819.56	\$1,258.62	\$439.05
1998	\$6,854.23	\$427.70	\$7,281.94	\$819.56	\$29.27	\$848.83	\$1,258.62	\$409.78
1999	\$7,281.94	\$454.39	\$7,736.33	\$848.83	\$29.27	\$878.10	\$1,258.62	\$380.51
2000	\$7,736.33	\$482.75	\$8,219.08	\$878.10	\$29.27	\$907.37	\$1,258.62	\$351.24
2001	\$8,219.08	\$512.87	\$8,731.95	\$907.37	\$29.27	\$936.64	\$1,258.62	\$321.97
2002	\$8,731.95	\$544.87	\$9,276.82	\$936.64	\$29.27	\$965.91	\$1,258.62	\$292.70
2003	\$9,276.82	\$578.87	\$9,855.69	\$965.91	\$29.27	\$995.18	\$1,258.62	\$263.43
2004	\$9,855.69	\$615.00	\$10,470.69	\$995.18	\$29.27	\$1,024.45	\$1,258.62	\$234.16
2005	\$10,470.69	\$653.37	\$11,124.06	\$1,024.45	\$29.27	\$1,053.72	\$1,258.62	\$204.89
2006	\$11,124.06	\$694.14	\$11,818.20	\$1,053.72	\$29.27	\$1,082.99	\$1,258.62	\$175.62
2007	\$11,818.20	\$737.46	\$12,555.66	\$1,082.99	\$29.27	\$1,112.26	\$1,258.62	\$146.35
2008	\$12,555.66	\$783.47	\$13,339.13	\$1,112.26	\$29.27	\$1,141.54	\$1,258.62	\$117.08

2009	\$13,339.13	\$1,637.94	\$14,977.07	\$1,141.54	\$29.27	\$1,170.81	\$1,258.62	\$87.81
2010	\$14,171.49	\$1,449.59	\$15,621.08	\$1,170.81	\$29.27	\$1,200.08	\$1,258.62	\$58.54
2011	\$15,055.79	\$1,237.00	\$16,292.79	\$1,200.08	\$29.27	\$1,229.35	\$1,258.62	\$29.27
2012	\$15,995.28	\$998.11	\$16,993.38	\$1,229.35	\$29.27	\$1,258.62	\$1,258.62	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,235.63	\$77.10	\$1,312.74	\$0.00	\$28.08	\$28.08	\$1,235.63	\$1,207.55
1971	\$1,312.74	\$81.91	\$1,394.65	\$28.08	\$28.08	\$56.17	\$1,235.63	\$1,179.47
1972	\$1,394.65	\$87.03	\$1,481.68	\$56.17	\$28.08	\$84.25	\$1,235.63	\$1,151.38
1973	\$1,481.68	\$92.46	\$1,574.13	\$84.25	\$28.08	\$112.33	\$1,235.63	\$1,123.30
1974	\$1,574.13	\$98.23	\$1,672.36	\$112.33	\$28.08	\$140.41	\$1,235.63	\$1,095.22
1975	\$1,672.36	\$104.36	\$1,776.71	\$140.41	\$28.08	\$168.50	\$1,235.63	\$1,067.14
1976	\$1,776.71	\$110.87	\$1,887.58	\$168.50	\$28.08	\$196.58	\$1,235.63	\$1,039.05
1977	\$1,887.58	\$117.79	\$2,005.37	\$196.58	\$28.08	\$224.66	\$1,235.63	\$1,010.97
1978	\$2,005.37	\$125.13	\$2,130.50	\$224.66	\$28.08	\$252.74	\$1,235.63	\$982.89
1979	\$2,130.50	\$132.94	\$2,263.45	\$252.74	\$28.08	\$280.83	\$1,235.63	\$954.81
1980	\$2,263.45	\$141.24	\$2,404.68	\$280.83	\$28.08	\$308.91	\$1,235.63	\$926.72
1981	\$2,404.68	\$150.05	\$2,554.74	\$308.91	\$28.08	\$336.99	\$1,235.63	\$898.64
1982	\$2,554.74	\$159.42	\$2,714.15	\$336.99	\$28.08	\$365.07	\$1,235.63	\$870.56
1983	\$2,714.15	\$169.36	\$2,883.52	\$365.07	\$28.08	\$393.16	\$1,235.63	\$842.48
1984	\$2,883.52	\$179.93	\$3,063.45	\$393.16	\$28.08	\$421.24	\$1,235.63	\$814.39
1985	\$3,063.45	\$191.16	\$3,254.61	\$421.24	\$28.08	\$449.32	\$1,235.63	\$786.31
1986	\$3,254.61	\$203.09	\$3,457.69	\$449.32	\$28.08	\$477.40	\$1,235.63	\$758.23
1987	\$3,457.69	\$215.76	\$3,673.45	\$477.40	\$28.08	\$505.49	\$1,235.63	\$730.15
1988	\$3,673.45	\$229.22	\$3,902.68	\$505.49	\$28.08	\$533.57	\$1,235.63	\$702.06
1989	\$3,902.68	\$243.53	\$4,146.20	\$533.57	\$28.08	\$561.65	\$1,235.63	\$673.98
1990	\$4,146.20	\$258.72	\$4,404.93	\$561.65	\$28.08	\$589.73	\$1,235.63	\$645.90
1991	\$4,404.93	\$274.87	\$4,679.79	\$589.73	\$28.08	\$617.82	\$1,235.63	\$617.82
1992	\$4,679.79	\$292.02	\$4,971.81	\$617.82	\$28.08	\$645.90	\$1,235.63	\$589.73
1993	\$4,971.81	\$310.24	\$5,282.05	\$645.90	\$28.08	\$673.98	\$1,235.63	\$561.65
1994	\$5,282.05	\$329.60	\$5,611.65	\$673.98	\$28.08	\$702.06	\$1,235.63	\$533.57
1995	\$5,611.65	\$350.17	\$5,961.82	\$702.06	\$28.08	\$730.15	\$1,235.63	\$505.49
1996	\$5,961.82	\$372.02	\$6,333.84	\$730.15	\$28.08	\$758.23	\$1,235.63	\$477.40
1997	\$6,333.84	\$395.23	\$6,729.07	\$758.23	\$28.08	\$786.31	\$1,235.63	\$449.32
1998	\$6,729.07	\$419.89	\$7,148.96	\$786.31	\$28.08	\$814.39	\$1,235.63	\$421.24
1999	\$7,148.96	\$446.10	\$7,595.06	\$814.39	\$28.08	\$842.48	\$1,235.63	\$393.16
2000	\$7,595.06	\$473.93	\$8,068.99	\$842.48	\$28.08	\$870.56	\$1,235.63	\$365.07
2001	\$8,068.99	\$503.51	\$8,572.50	\$870.56	\$28.08	\$898.64	\$1,235.63	\$336.99
2002	\$8,572.50	\$534.92	\$9,107.42	\$898.64	\$28.08	\$926.72	\$1,235.63	\$308.91
2003	\$9,107.42	\$568.30	\$9,675.72	\$926.72	\$28.08	\$954.81	\$1,235.63	\$280.83
2004	\$9,675.72	\$603.77	\$10,279.49	\$954.81	\$28.08	\$982.89	\$1,235.63	\$252.74

2005	\$10,279.49	\$641.44	\$10,920.93	\$982.89	\$28.08	\$1,010.97	\$1,235.63	\$224.66
2006	\$10,920.93	\$681.47	\$11,602.40	\$1,010.97	\$28.08	\$1,039.05	\$1,235.63	\$196.58
2007	\$11,602.40	\$723.99	\$12,326.38	\$1,039.05	\$28.08	\$1,067.14	\$1,235.63	\$168.50
2008	\$12,326.38	\$769.17	\$13,095.55	\$1,067.14	\$28.08	\$1,095.22	\$1,235.63	\$140.41
2009	\$13,095.55	\$817.16	\$13,912.71	\$1,095.22	\$28.08	\$1,123.30	\$1,235.63	\$112.33
2010	\$13,912.71	\$868.15	\$14,780.87	\$1,123.30	\$28.08	\$1,151.38	\$1,235.63	\$84.25
2011	\$14,780.87	\$922.33	\$15,703.19	\$1,151.38	\$28.08	\$1,179.47	\$1,235.63	\$56.17
2012	\$15,703.19	\$979.88	\$16,683.07	\$1,179.47	\$28.08	\$1,207.55	\$1,235.63	\$28.08
2013	\$16,683.07	\$1,041.02	\$17,724.10	\$1,207.55	\$28.08	\$1,235.63	\$1,235.63	\$0.00

Cascade Natural Gas Corp
Retirement of Moses Lake in 8 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2014)	Year 2 (2015)	Year 3 (2016)
\$ 13,200.00	\$ 13,200.00	\$ 13,200.00

	Discounted Present value based on above CPI & CARFR	
2007	13,767.60	13,767.60
2008	14,359.61	14,359.61
2009	14,977.07	14,977.07
2010	15,621.08	15,621.08
2011	16,292.79	16,292.79
2012	16,993.38	16,993.38
2013	17,724.10	17,724.10
2014	18,486.23	18,486.23
2015	19,281.14	19,281.14
2016	20,110.23	20,110.23

PV (2006) \$11,390.53 \$11,182.53 \$10,978.33
 PV (1970) \$1,213.07 \$1,190.92 \$1,169.17

Year 1

Year	PV	A	B	C = A + B	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	F	G = PV in 1970	H = G - F	NBV
1970	\$1,213.07				\$75.70	\$1,288.76	\$0.00	\$26.96	\$26.96	\$26.96	\$1,213.07	\$1,186.11	\$1,186.11
1971	\$1,288.76				\$80.42	\$1,369.18	\$26.96	\$26.96	\$53.91	\$53.91	\$1,213.07	\$1,159.16	\$1,159.16
1972	\$1,369.18				\$85.44	\$1,454.62	\$53.91	\$26.96	\$80.87	\$80.87	\$1,213.07	\$1,132.20	\$1,132.20
1973	\$1,454.62				\$90.77	\$1,545.39	\$80.87	\$26.96	\$107.83	\$107.83	\$1,213.07	\$1,105.24	\$1,105.24
1974	\$1,545.39				\$96.43	\$1,641.82	\$107.83	\$26.96	\$134.79	\$134.79	\$1,213.07	\$1,078.28	\$1,078.28
1975	\$1,641.82				\$102.45	\$1,744.27	\$134.79	\$26.96	\$161.74	\$161.74	\$1,213.07	\$1,051.33	\$1,051.33

1971	\$1,265.23	\$78.95	\$1,344.18	\$25.89	\$51.78	\$25.89	\$1,190.92	\$1,139.14
1972	\$1,344.18	\$83.88	\$1,428.06	\$51.78	\$77.67	\$25.89	\$1,190.92	\$1,113.25
1973	\$1,428.06	\$89.11	\$1,517.17	\$77.67	\$103.56	\$25.89	\$1,190.92	\$1,087.36
1974	\$1,517.17	\$94.67	\$1,611.84	\$103.56	\$129.45	\$25.89	\$1,190.92	\$1,061.47
1975	\$1,611.84	\$100.58	\$1,712.42	\$129.45	\$155.34	\$25.89	\$1,190.92	\$1,035.58
1976	\$1,712.42	\$106.85	\$1,819.27	\$155.34	\$181.23	\$25.89	\$1,190.92	\$1,009.69
1977	\$1,819.27	\$113.52	\$1,932.80	\$181.23	\$207.12	\$25.89	\$1,190.92	\$983.80
1978	\$1,932.80	\$120.61	\$2,053.40	\$207.12	\$233.01	\$25.89	\$1,190.92	\$957.91
1979	\$2,053.40	\$128.13	\$2,181.54	\$233.01	\$258.90	\$25.89	\$1,190.92	\$932.02
1980	\$2,181.54	\$136.13	\$2,317.66	\$258.90	\$284.78	\$25.89	\$1,190.92	\$906.13
1981	\$2,317.66	\$144.62	\$2,462.29	\$284.78	\$310.67	\$25.89	\$1,190.92	\$880.24
1982	\$2,462.29	\$153.65	\$2,615.93	\$310.67	\$336.56	\$25.89	\$1,190.92	\$854.35
1983	\$2,615.93	\$163.23	\$2,779.17	\$336.56	\$362.45	\$25.89	\$1,190.92	\$828.46
1984	\$2,779.17	\$173.42	\$2,952.59	\$362.45	\$388.34	\$25.89	\$1,190.92	\$802.58
1985	\$2,952.59	\$184.24	\$3,136.83	\$388.34	\$414.23	\$25.89	\$1,190.92	\$776.69
1986	\$3,136.83	\$195.74	\$3,332.57	\$414.23	\$440.12	\$25.89	\$1,190.92	\$750.80
1987	\$3,332.57	\$207.95	\$3,540.52	\$440.12	\$466.01	\$25.89	\$1,190.92	\$724.91
1988	\$3,540.52	\$220.93	\$3,761.45	\$466.01	\$491.90	\$25.89	\$1,190.92	\$699.02
1989	\$3,761.45	\$234.71	\$3,996.16	\$491.90	\$517.79	\$25.89	\$1,190.92	\$673.13
1990	\$3,996.16	\$249.36	\$4,245.52	\$517.79	\$543.68	\$25.89	\$1,190.92	\$647.24
1991	\$4,245.52	\$264.92	\$4,510.44	\$543.68	\$569.57	\$25.89	\$1,190.92	\$621.35
1992	\$4,510.44	\$281.45	\$4,791.89	\$569.57	\$595.46	\$25.89	\$1,190.92	\$595.46
1993	\$4,791.89	\$299.01	\$5,090.91	\$595.46	\$621.35	\$25.89	\$1,190.92	\$569.57
1994	\$5,090.91	\$317.67	\$5,408.58	\$621.35	\$647.24	\$25.89	\$1,190.92	\$543.68
1995	\$5,408.58	\$337.50	\$5,746.08	\$647.24	\$673.13	\$25.89	\$1,190.92	\$517.79
1996	\$5,746.08	\$358.56	\$6,104.63	\$673.13	\$699.02	\$25.89	\$1,190.92	\$491.90
1997	\$6,104.63	\$380.93	\$6,485.56	\$699.02	\$724.91	\$25.89	\$1,190.92	\$466.01
1998	\$6,485.56	\$404.70	\$6,890.26	\$724.91	\$750.80	\$25.89	\$1,190.92	\$440.12
1999	\$6,890.26	\$429.95	\$7,320.21	\$750.80	\$776.69	\$25.89	\$1,190.92	\$414.23
2000	\$7,320.21	\$456.78	\$7,776.99	\$776.69	\$802.58	\$25.89	\$1,190.92	\$388.34
2001	\$7,776.99	\$485.28	\$8,262.28	\$802.58	\$828.46	\$25.89	\$1,190.92	\$362.45
2002	\$8,262.28	\$515.57	\$8,777.84	\$828.46	\$854.35	\$25.89	\$1,190.92	\$336.56
2003	\$8,777.84	\$547.74	\$9,325.58	\$854.35	\$880.24	\$25.89	\$1,190.92	\$310.67
2004	\$9,325.58	\$581.92	\$9,907.50	\$880.24	\$906.13	\$25.89	\$1,190.92	\$284.78
2005	\$9,907.50	\$618.23	\$10,525.73	\$906.13	\$932.02	\$25.89	\$1,190.92	\$258.90
2006	\$10,525.73	\$656.81	\$11,182.53	\$932.02	\$957.91	\$25.89	\$1,190.92	\$233.01
2007	\$11,182.53	\$697.79	\$11,880.32	\$957.91	\$983.80	\$25.89	\$1,190.92	\$207.12
2008	\$11,880.32	\$741.33	\$12,621.65	\$983.80	\$1,009.69	\$25.89	\$1,190.92	\$181.23
2009	\$12,621.65	\$2,355.42	\$14,977.07	\$1,009.69	\$1,035.58	\$25.89	\$1,190.92	\$155.34
2010	\$13,409.25	\$2,211.84	\$15,621.08	\$1,035.58	\$1,061.47	\$25.89	\$1,190.92	\$129.45
2011	\$14,245.98	\$2,046.81	\$16,292.79	\$1,061.47	\$1,087.36	\$25.89	\$1,190.92	\$103.56
2012	\$15,134.93	\$1,858.45	\$16,993.38	\$1,087.36	\$1,113.25	\$25.89	\$1,190.92	\$77.67
2013	\$16,079.35	\$1,644.74	\$17,724.10	\$1,113.25	\$1,139.14	\$25.89	\$1,190.92	\$51.78
2014	\$17,082.70	\$1,403.53	\$18,486.23	\$1,139.14	\$1,165.03	\$25.89	\$1,190.92	\$25.89
2015	\$18,148.66	\$1,132.48	\$19,281.14	\$1,165.03	\$1,190.92	\$25.89	\$1,190.92	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,169.17	\$72.96	\$1,242.13	\$0.00	\$24.88	\$24.88	\$1,169.17	\$1,144.30
1971	\$1,242.13	\$77.51	\$1,319.64	\$24.88	\$24.88	\$49.75	\$1,169.17	\$1,119.42
1972	\$1,319.64	\$82.35	\$1,401.98	\$49.75	\$24.88	\$74.63	\$1,169.17	\$1,094.54
1973	\$1,401.98	\$87.48	\$1,489.47	\$74.63	\$24.88	\$99.50	\$1,169.17	\$1,069.67
1974	\$1,489.47	\$92.94	\$1,582.41	\$99.50	\$24.88	\$124.38	\$1,169.17	\$1,044.79
1975	\$1,582.41	\$98.74	\$1,681.15	\$124.38	\$24.88	\$149.26	\$1,169.17	\$1,019.92
1976	\$1,681.15	\$104.90	\$1,786.05	\$149.26	\$24.88	\$174.13	\$1,169.17	\$995.04
1977	\$1,786.05	\$111.45	\$1,897.50	\$174.13	\$24.88	\$199.01	\$1,169.17	\$970.16
1978	\$1,897.50	\$118.40	\$2,015.91	\$199.01	\$24.88	\$223.88	\$1,169.17	\$945.29
1979	\$2,015.91	\$125.79	\$2,141.70	\$223.88	\$24.88	\$248.76	\$1,169.17	\$920.41
1980	\$2,141.70	\$133.64	\$2,275.34	\$248.76	\$24.88	\$273.64	\$1,169.17	\$895.54
1981	\$2,275.34	\$141.98	\$2,417.32	\$273.64	\$24.88	\$298.51	\$1,169.17	\$870.66
1982	\$2,417.32	\$150.84	\$2,568.16	\$298.51	\$24.88	\$323.39	\$1,169.17	\$845.78
1983	\$2,568.16	\$160.25	\$2,728.42	\$323.39	\$24.88	\$348.26	\$1,169.17	\$820.91
1984	\$2,728.42	\$170.25	\$2,898.67	\$348.26	\$24.88	\$373.14	\$1,169.17	\$796.03
1985	\$2,898.67	\$180.88	\$3,079.55	\$373.14	\$24.88	\$398.02	\$1,169.17	\$771.16
1986	\$3,079.55	\$192.16	\$3,271.71	\$398.02	\$24.88	\$422.89	\$1,169.17	\$746.28
1987	\$3,271.71	\$204.15	\$3,475.87	\$422.89	\$24.88	\$447.77	\$1,169.17	\$721.40
1988	\$3,475.87	\$216.89	\$3,692.76	\$447.77	\$24.88	\$472.64	\$1,169.17	\$696.53
1989	\$3,692.76	\$230.43	\$3,923.19	\$472.64	\$24.88	\$497.52	\$1,169.17	\$671.65
1990	\$3,923.19	\$244.81	\$4,168.00	\$497.52	\$24.88	\$522.40	\$1,169.17	\$646.78
1991	\$4,168.00	\$260.08	\$4,428.08	\$522.40	\$24.88	\$547.27	\$1,169.17	\$621.90
1992	\$4,428.08	\$276.31	\$4,704.39	\$547.27	\$24.88	\$572.15	\$1,169.17	\$597.02
1993	\$4,704.39	\$293.55	\$4,997.95	\$572.15	\$24.88	\$597.02	\$1,169.17	\$572.15
1994	\$4,997.95	\$311.87	\$5,309.82	\$597.02	\$24.88	\$621.90	\$1,169.17	\$547.27
1995	\$5,309.82	\$331.33	\$5,641.15	\$621.90	\$24.88	\$646.78	\$1,169.17	\$522.40
1996	\$5,641.15	\$352.01	\$5,993.16	\$646.78	\$24.88	\$671.65	\$1,169.17	\$497.52
1997	\$5,993.16	\$373.97	\$6,367.13	\$671.65	\$24.88	\$696.53	\$1,169.17	\$472.64
1998	\$6,367.13	\$397.31	\$6,764.44	\$696.53	\$24.88	\$721.40	\$1,169.17	\$447.77
1999	\$6,764.44	\$422.10	\$7,186.54	\$721.40	\$24.88	\$746.28	\$1,169.17	\$422.89
2000	\$7,186.54	\$448.44	\$7,634.98	\$746.28	\$24.88	\$771.16	\$1,169.17	\$398.02
2001	\$7,634.98	\$476.42	\$8,111.40	\$771.16	\$24.88	\$796.03	\$1,169.17	\$373.14
2002	\$8,111.40	\$506.15	\$8,617.56	\$796.03	\$24.88	\$820.91	\$1,169.17	\$348.26
2003	\$8,617.56	\$537.74	\$9,155.29	\$820.91	\$24.88	\$845.78	\$1,169.17	\$323.39
2004	\$9,155.29	\$571.29	\$9,726.58	\$845.78	\$24.88	\$870.66	\$1,169.17	\$298.51
2005	\$9,726.58	\$606.94	\$10,333.52	\$870.66	\$24.88	\$895.54	\$1,169.17	\$273.64
2006	\$10,333.52	\$644.81	\$10,978.33	\$895.54	\$24.88	\$920.41	\$1,169.17	\$248.76
2007	\$10,978.33	\$685.05	\$11,663.38	\$920.41	\$24.88	\$945.29	\$1,169.17	\$223.88
2008	\$11,663.38	\$727.79	\$12,391.18	\$945.29	\$24.88	\$970.16	\$1,169.17	\$199.01
2009	\$12,391.18	\$773.21	\$13,164.39	\$970.16	\$24.88	\$995.04	\$1,169.17	\$174.13

2010	\$13,164.39	\$821.46	\$13,985.84	\$995.04	\$24.88	\$1,019.92	\$1,169.17	\$149.26
2011	\$13,985.84	\$872.72	\$14,858.56	\$1,019.92	\$24.88	\$1,044.79	\$1,169.17	\$124.38
2012	\$14,858.56	\$927.17	\$15,785.73	\$1,044.79	\$24.88	\$1,069.67	\$1,169.17	\$99.50
2013	\$15,785.73	\$1,938.36	\$17,724.10	\$1,069.67	\$24.88	\$1,094.54	\$1,169.17	\$74.63
2014	\$16,770.76	\$1,715.47	\$18,486.23	\$1,094.54	\$24.88	\$1,119.42	\$1,169.17	\$49.75
2015	\$17,817.26	\$1,463.88	\$19,281.14	\$1,119.42	\$24.88	\$1,144.30	\$1,169.17	\$24.88
2016	\$18,929.06	\$1,181.17	\$20,110.23	\$1,144.30	\$24.88	\$1,169.17	\$1,169.17	\$0.00

Cascade Natural Gas Corp
Retirement of Moses Lake in 10 years (33% chance)

CPI - Source: Bureau of Labor & Statistics
Credit adjusted Risk Free Rate (CARFR) -
Source: 30 Year Treasury + 120 basis points

4.30%	4.30%	4.30%
6.24%	6.24%	6.24%

Phases of Retirement

Year 1 (2016)	Year 2 (2017)	Year 3 (2018)
\$ 13,200.00	\$ 13,200.00	\$ 13,200.00

	Discounted Present value based on above CPI & CARFR	
2007	13,767.60	13,767.60
2008	14,359.61	14,359.61
2009	14,977.07	14,977.07
2010	15,621.08	15,621.08
2011	16,292.79	16,292.79
2012	16,993.38	16,993.38
2013	17,724.10	17,724.10
2014	18,486.23	18,486.23
2015	19,281.14	19,281.14
2016	20,110.23	20,110.23
2017	20,974.97	20,974.97
2018	21,876.89	21,876.89
PV (2006)	\$10,978.33	\$10,777.86
PV (1970)	\$1,169.17	\$1,147.82
		\$10,581.05
		\$1,126.86

Year 1

	A	B	C = A + B	D	E = G/(1st year of retirement - 1970)	F	G = PV in 1970	H = G - F
	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,169.17	\$72.96	\$1,242.13	\$0.00	\$24.88	\$24.88	\$1,169.17	\$1,144.30
1971	\$1,242.13	\$77.51	\$1,319.64	\$24.88	\$24.88	\$49.75	\$1,169.17	\$1,119.42

1972	\$1,319.64	\$82.35	\$1,401.98	\$49.75	\$24.88	\$74.63	\$1,169.17	\$1,094.54
1973	\$1,401.98	\$87.48	\$1,489.47	\$74.63	\$24.88	\$99.50	\$1,169.17	\$1,069.67
1974	\$1,489.47	\$92.94	\$1,582.41	\$99.50	\$24.88	\$124.38	\$1,169.17	\$1,044.79
1975	\$1,582.41	\$98.74	\$1,681.15	\$124.38	\$24.88	\$149.26	\$1,169.17	\$1,019.92
1976	\$1,681.15	\$104.90	\$1,786.05	\$149.26	\$24.88	\$174.13	\$1,169.17	\$995.04
1977	\$1,786.05	\$111.45	\$1,897.50	\$174.13	\$24.88	\$199.01	\$1,169.17	\$970.16
1978	\$1,897.50	\$118.40	\$2,015.91	\$199.01	\$24.88	\$223.88	\$1,169.17	\$945.29
1979	\$2,015.91	\$125.79	\$2,141.70	\$223.88	\$24.88	\$248.76	\$1,169.17	\$920.41
1980	\$2,141.70	\$133.64	\$2,275.34	\$248.76	\$24.88	\$273.64	\$1,169.17	\$895.54
1981	\$2,275.34	\$141.98	\$2,417.32	\$273.64	\$24.88	\$298.51	\$1,169.17	\$870.66
1982	\$2,417.32	\$150.84	\$2,568.16	\$298.51	\$24.88	\$323.39	\$1,169.17	\$845.78
1983	\$2,568.16	\$160.25	\$2,728.42	\$323.39	\$24.88	\$348.26	\$1,169.17	\$820.91
1984	\$2,728.42	\$170.25	\$2,898.67	\$348.26	\$24.88	\$373.14	\$1,169.17	\$796.03
1985	\$2,898.67	\$180.88	\$3,079.55	\$373.14	\$24.88	\$398.02	\$1,169.17	\$771.16
1986	\$3,079.55	\$192.16	\$3,271.71	\$398.02	\$24.88	\$422.89	\$1,169.17	\$746.28
1987	\$3,271.71	\$204.15	\$3,475.87	\$422.89	\$24.88	\$447.77	\$1,169.17	\$721.40
1988	\$3,475.87	\$216.89	\$3,692.76	\$447.77	\$24.88	\$472.64	\$1,169.17	\$696.53
1989	\$3,692.76	\$230.43	\$3,923.19	\$472.64	\$24.88	\$497.52	\$1,169.17	\$671.65
1990	\$3,923.19	\$244.81	\$4,168.00	\$497.52	\$24.88	\$522.40	\$1,169.17	\$646.78
1991	\$4,168.00	\$260.08	\$4,428.08	\$522.40	\$24.88	\$547.27	\$1,169.17	\$621.90
1992	\$4,428.08	\$276.31	\$4,704.39	\$547.27	\$24.88	\$572.15	\$1,169.17	\$597.02
1993	\$4,704.39	\$293.55	\$4,997.95	\$572.15	\$24.88	\$597.02	\$1,169.17	\$572.15
1994	\$4,997.95	\$311.87	\$5,309.82	\$597.02	\$24.88	\$621.90	\$1,169.17	\$547.27
1995	\$5,309.82	\$331.33	\$5,641.15	\$621.90	\$24.88	\$646.78	\$1,169.17	\$522.40
1996	\$5,641.15	\$352.01	\$5,993.16	\$646.78	\$24.88	\$671.65	\$1,169.17	\$497.52
1997	\$5,993.16	\$373.97	\$6,367.13	\$671.65	\$24.88	\$696.53	\$1,169.17	\$472.64
1998	\$6,367.13	\$397.31	\$6,764.44	\$696.53	\$24.88	\$721.40	\$1,169.17	\$447.77
1999	\$6,764.44	\$422.10	\$7,186.54	\$721.40	\$24.88	\$746.28	\$1,169.17	\$422.89
2000	\$7,186.54	\$448.44	\$7,634.98	\$746.28	\$24.88	\$771.16	\$1,169.17	\$398.02
2001	\$7,634.98	\$476.42	\$8,111.40	\$771.16	\$24.88	\$796.03	\$1,169.17	\$373.14
2002	\$8,111.40	\$506.15	\$8,617.56	\$796.03	\$24.88	\$820.91	\$1,169.17	\$348.26
2003	\$8,617.56	\$537.74	\$9,155.29	\$820.91	\$24.88	\$845.78	\$1,169.17	\$323.39
2004	\$9,155.29	\$571.29	\$9,726.58	\$845.78	\$24.88	\$870.66	\$1,169.17	\$298.51
2005	\$9,726.58	\$606.94	\$10,333.52	\$870.66	\$24.88	\$895.54	\$1,169.17	\$273.64
2006	\$10,333.52	\$644.81	\$10,978.33	\$895.54	\$24.88	\$920.41	\$1,169.17	\$248.76
2007	\$10,978.33	\$685.05	\$11,663.38	\$920.41	\$24.88	\$945.29	\$1,169.17	\$223.88
2008	\$11,663.38	\$2,696.23	\$14,359.61	\$945.29	\$24.88	\$970.16	\$1,169.17	\$199.01
2009	\$12,391.18	\$2,585.89	\$14,977.07	\$970.16	\$24.88	\$995.04	\$1,169.17	\$174.13
2010	\$13,164.39	\$2,456.70	\$15,621.08	\$995.04	\$24.88	\$1,019.92	\$1,169.17	\$149.26
2011	\$13,985.84	\$2,306.95	\$16,292.79	\$1,019.92	\$24.88	\$1,044.79	\$1,169.17	\$124.38
2012	\$14,858.56	\$2,134.82	\$16,993.38	\$1,044.79	\$24.88	\$1,069.67	\$1,169.17	\$99.50
2013	\$15,785.73	\$1,938.36	\$17,724.10	\$1,069.67	\$24.88	\$1,094.54	\$1,169.17	\$74.63
2014	\$16,770.76	\$1,715.47	\$18,486.23	\$1,094.54	\$24.88	\$1,119.42	\$1,169.17	\$49.75

Year 2

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
2015	\$17,817.26	\$1,463.88	\$19,281.14	\$1,119.42	\$24.88	\$1,144.30	\$1,169.17	\$24.88
2016	\$18,929.06	\$1,181.17	\$20,110.23	\$1,144.30	\$24.88	\$1,169.17	\$1,169.17	\$0.00
				Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,147.82	\$71.62	\$1,219.45	\$0.00	\$23.91	\$23.91	\$1,147.82	\$1,123.91
1971	\$1,219.45	\$76.09	\$1,295.54	\$23.91	\$23.91	\$47.83	\$1,147.82	\$1,100.00
1972	\$1,295.54	\$80.84	\$1,376.38	\$47.83	\$23.91	\$71.74	\$1,147.82	\$1,076.08
1973	\$1,376.38	\$85.89	\$1,462.27	\$71.74	\$23.91	\$95.65	\$1,147.82	\$1,052.17
1974	\$1,462.27	\$91.25	\$1,553.51	\$95.65	\$23.91	\$119.56	\$1,147.82	\$1,028.26
1975	\$1,553.51	\$96.94	\$1,650.45	\$119.56	\$23.91	\$143.48	\$1,147.82	\$1,004.34
1976	\$1,650.45	\$102.99	\$1,753.44	\$143.48	\$23.91	\$167.39	\$1,147.82	\$980.43
1977	\$1,753.44	\$109.41	\$1,862.85	\$167.39	\$23.91	\$191.30	\$1,147.82	\$956.52
1978	\$1,862.85	\$116.24	\$1,979.10	\$191.30	\$23.91	\$215.22	\$1,147.82	\$932.60
1979	\$1,979.10	\$123.50	\$2,102.59	\$215.22	\$23.91	\$239.13	\$1,147.82	\$908.69
1980	\$2,102.59	\$131.20	\$2,233.79	\$239.13	\$23.91	\$263.04	\$1,147.82	\$884.78
1981	\$2,233.79	\$139.39	\$2,373.18	\$263.04	\$23.91	\$286.96	\$1,147.82	\$860.87
1982	\$2,373.18	\$148.09	\$2,521.27	\$286.96	\$23.91	\$310.87	\$1,147.82	\$836.95
1983	\$2,521.27	\$157.33	\$2,678.60	\$310.87	\$23.91	\$334.78	\$1,147.82	\$813.04
1984	\$2,678.60	\$167.14	\$2,845.74	\$334.78	\$23.91	\$358.69	\$1,147.82	\$789.13
1985	\$2,845.74	\$177.57	\$3,023.31	\$358.69	\$23.91	\$382.61	\$1,147.82	\$765.21
1986	\$3,023.31	\$188.65	\$3,211.97	\$382.61	\$23.91	\$406.52	\$1,147.82	\$741.30
1987	\$3,211.97	\$200.43	\$3,412.40	\$406.52	\$23.91	\$430.43	\$1,147.82	\$717.39
1988	\$3,412.40	\$212.93	\$3,625.33	\$430.43	\$23.91	\$454.35	\$1,147.82	\$693.48
1989	\$3,625.33	\$226.22	\$3,851.55	\$454.35	\$23.91	\$478.26	\$1,147.82	\$669.56
1990	\$3,851.55	\$240.34	\$4,091.89	\$478.26	\$23.91	\$502.17	\$1,147.82	\$645.65
1991	\$4,091.89	\$255.33	\$4,347.22	\$502.17	\$23.91	\$526.08	\$1,147.82	\$621.74
1992	\$4,347.22	\$271.27	\$4,618.49	\$526.08	\$23.91	\$550.00	\$1,147.82	\$597.82
1993	\$4,618.49	\$288.19	\$4,906.68	\$550.00	\$23.91	\$573.91	\$1,147.82	\$573.91
1994	\$4,906.68	\$306.18	\$5,212.86	\$573.91	\$23.91	\$597.82	\$1,147.82	\$550.00
1995	\$5,212.86	\$325.28	\$5,538.14	\$597.82	\$23.91	\$621.74	\$1,147.82	\$526.08
1996	\$5,538.14	\$345.58	\$5,883.72	\$621.74	\$23.91	\$645.65	\$1,147.82	\$502.17
1997	\$5,883.72	\$367.14	\$6,250.86	\$645.65	\$23.91	\$669.56	\$1,147.82	\$478.26
1998	\$6,250.86	\$390.05	\$6,640.92	\$669.56	\$23.91	\$693.48	\$1,147.82	\$454.35
1999	\$6,640.92	\$414.39	\$7,055.31	\$693.48	\$23.91	\$717.39	\$1,147.82	\$430.43
2000	\$7,055.31	\$440.25	\$7,495.56	\$717.39	\$23.91	\$741.30	\$1,147.82	\$406.52
2001	\$7,495.56	\$467.72	\$7,963.29	\$741.30	\$23.91	\$765.21	\$1,147.82	\$382.61
2002	\$7,963.29	\$496.91	\$8,460.20	\$765.21	\$23.91	\$789.13	\$1,147.82	\$358.69
2003	\$8,460.20	\$527.92	\$8,988.11	\$789.13	\$23.91	\$813.04	\$1,147.82	\$334.78
2004	\$8,988.11	\$560.86	\$9,548.97	\$813.04	\$23.91	\$836.95	\$1,147.82	\$310.87

2005	\$9,548.97	\$595.86	\$10,144.83	\$836.95	\$23.91	\$860.87	\$1,147.82	\$286.96
2006	\$10,144.83	\$633.04	\$10,777.86	\$860.87	\$23.91	\$884.78	\$1,147.82	\$263.04
2007	\$10,777.86	\$672.54	\$11,450.40	\$884.78	\$23.91	\$908.69	\$1,147.82	\$239.13
2008	\$11,450.40	\$714.51	\$12,164.91	\$908.69	\$23.91	\$932.60	\$1,147.82	\$215.22
2009	\$12,164.91	\$2,812.16	\$14,977.07	\$932.60	\$23.91	\$956.52	\$1,147.82	\$191.30
2010	\$12,924.00	\$2,697.09	\$15,621.08	\$956.52	\$23.91	\$980.43	\$1,147.82	\$167.39
2011	\$13,730.45	\$2,562.34	\$16,292.79	\$980.43	\$23.91	\$1,004.34	\$1,147.82	\$143.48
2012	\$14,587.23	\$2,406.15	\$16,993.38	\$1,004.34	\$23.91	\$1,028.26	\$1,147.82	\$119.56
2013	\$15,497.48	\$2,226.62	\$17,724.10	\$1,028.26	\$23.91	\$1,052.17	\$1,147.82	\$95.65
2014	\$16,464.52	\$2,021.71	\$18,486.23	\$1,052.17	\$23.91	\$1,076.08	\$1,147.82	\$71.74
2015	\$17,491.91	\$1,789.23	\$19,281.14	\$1,076.08	\$23.91	\$1,100.00	\$1,147.82	\$47.83
2016	\$18,583.40	\$1,526.83	\$20,110.23	\$1,100.00	\$23.91	\$1,123.91	\$1,147.82	\$23.91
2017	\$19,743.01	\$1,231.96	\$20,974.97	\$1,123.91	\$23.91	\$1,147.82	\$1,147.82	\$0.00

Year 3

	PV	Accretion	Balance	Beginning AD	CY Depr Exp	Ending AD	Asset	NBV
1970	\$1,126.86	\$70.32	\$1,197.18	\$0.00	\$23.00	\$23.00	\$1,126.86	\$1,103.86
1971	\$1,197.18	\$74.70	\$1,271.88	\$23.00	\$23.00	\$45.99	\$1,126.86	\$1,080.87
1972	\$1,271.88	\$79.37	\$1,351.25	\$45.99	\$23.00	\$68.99	\$1,126.86	\$1,057.87
1973	\$1,351.25	\$84.32	\$1,435.56	\$68.99	\$23.00	\$91.99	\$1,126.86	\$1,034.87
1974	\$1,435.56	\$89.58	\$1,525.14	\$91.99	\$23.00	\$114.99	\$1,126.86	\$1,011.88
1975	\$1,525.14	\$95.17	\$1,620.31	\$114.99	\$23.00	\$137.98	\$1,126.86	\$988.88
1976	\$1,620.31	\$101.11	\$1,721.42	\$137.98	\$23.00	\$160.98	\$1,126.86	\$965.88
1977	\$1,721.42	\$107.42	\$1,828.84	\$160.98	\$23.00	\$183.98	\$1,126.86	\$942.88
1978	\$1,828.84	\$114.12	\$1,942.96	\$183.98	\$23.00	\$206.97	\$1,126.86	\$919.89
1979	\$1,942.96	\$121.24	\$2,064.20	\$206.97	\$23.00	\$229.97	\$1,126.86	\$896.89
1980	\$2,064.20	\$128.81	\$2,193.00	\$229.97	\$23.00	\$252.97	\$1,126.86	\$873.89
1981	\$2,193.00	\$136.84	\$2,329.85	\$252.97	\$23.00	\$275.97	\$1,126.86	\$850.90
1982	\$2,329.85	\$145.38	\$2,475.23	\$275.97	\$23.00	\$298.96	\$1,126.86	\$827.90
1983	\$2,475.23	\$154.45	\$2,629.68	\$298.96	\$23.00	\$321.96	\$1,126.86	\$804.90
1984	\$2,629.68	\$164.09	\$2,793.78	\$321.96	\$23.00	\$344.96	\$1,126.86	\$781.90
1985	\$2,793.78	\$174.33	\$2,968.11	\$344.96	\$23.00	\$367.95	\$1,126.86	\$758.91
1986	\$2,968.11	\$185.21	\$3,153.32	\$367.95	\$23.00	\$390.95	\$1,126.86	\$735.91
1987	\$3,153.32	\$196.77	\$3,350.08	\$390.95	\$23.00	\$413.95	\$1,126.86	\$712.91
1988	\$3,350.08	\$209.05	\$3,559.13	\$413.95	\$23.00	\$436.95	\$1,126.86	\$689.92
1989	\$3,559.13	\$222.09	\$3,781.22	\$436.95	\$23.00	\$459.94	\$1,126.86	\$666.92
1990	\$3,781.22	\$235.95	\$4,017.17	\$459.94	\$23.00	\$482.94	\$1,126.86	\$643.92
1991	\$4,017.17	\$250.67	\$4,267.84	\$482.94	\$23.00	\$505.94	\$1,126.86	\$620.92
1992	\$4,267.84	\$266.31	\$4,534.15	\$505.94	\$23.00	\$528.94	\$1,126.86	\$597.93
1993	\$4,534.15	\$282.93	\$4,817.08	\$528.94	\$23.00	\$551.93	\$1,126.86	\$574.93
1994	\$4,817.08	\$300.59	\$5,117.67	\$551.93	\$23.00	\$574.93	\$1,126.86	\$551.93

1995	\$5,117.67	\$319.34	\$5,437.01	\$574.93	\$23.00	\$597.93	\$1,126.86	\$528.94
1996	\$5,437.01	\$339.27	\$5,776.28	\$597.93	\$23.00	\$620.92	\$1,126.86	\$505.94
1997	\$5,776.28	\$360.44	\$6,136.72	\$620.92	\$23.00	\$643.92	\$1,126.86	\$482.94
1998	\$6,136.72	\$382.93	\$6,519.65	\$643.92	\$23.00	\$666.92	\$1,126.86	\$459.94
1999	\$6,519.65	\$406.83	\$6,926.48	\$666.92	\$23.00	\$689.92	\$1,126.86	\$436.95
2000	\$6,926.48	\$432.21	\$7,358.69	\$689.92	\$23.00	\$712.91	\$1,126.86	\$413.95
2001	\$7,358.69	\$459.18	\$7,817.87	\$712.91	\$23.00	\$735.91	\$1,126.86	\$390.95
2002	\$7,817.87	\$487.84	\$8,305.71	\$735.91	\$23.00	\$758.91	\$1,126.86	\$367.95
2003	\$8,305.71	\$518.28	\$8,823.98	\$758.91	\$23.00	\$781.90	\$1,126.86	\$344.96
2004	\$8,823.98	\$550.62	\$9,374.60	\$781.90	\$23.00	\$804.90	\$1,126.86	\$321.96
2005	\$9,374.60	\$584.98	\$9,959.58	\$804.90	\$23.00	\$827.90	\$1,126.86	\$298.96
2006	\$9,959.58	\$621.48	\$10,581.05	\$827.90	\$23.00	\$850.90	\$1,126.86	\$275.97
2007	\$10,581.05	\$660.26	\$11,241.31	\$850.90	\$23.00	\$873.89	\$1,126.86	\$252.97
2008	\$11,241.31	\$701.46	\$11,942.77	\$873.89	\$23.00	\$896.89	\$1,126.86	\$229.97
2009	\$11,942.77	\$745.23	\$12,688.00	\$896.89	\$23.00	\$919.89	\$1,126.86	\$206.97
2010	\$12,688.00	\$791.73	\$13,479.73	\$919.89	\$23.00	\$942.88	\$1,126.86	\$183.98
2011	\$13,479.73	\$841.14	\$14,320.86	\$942.88	\$23.00	\$965.88	\$1,126.86	\$160.98
2012	\$14,320.86	\$893.62	\$15,214.49	\$965.88	\$23.00	\$988.88	\$1,126.86	\$137.98
2013	\$15,214.49	\$2,509.61	\$17,724.10	\$988.88	\$23.00	\$1,011.88	\$1,126.86	\$114.99
2014	\$16,163.87	\$2,322.36	\$18,486.23	\$1,011.88	\$23.00	\$1,034.87	\$1,126.86	\$91.99
2015	\$17,172.49	\$2,108.65	\$19,281.14	\$1,034.87	\$23.00	\$1,057.87	\$1,126.86	\$68.99
2016	\$18,244.06	\$1,866.17	\$19,529.00	\$1,057.87	\$23.00	\$1,080.87	\$1,126.86	\$45.99
2017	\$19,382.49	\$1,592.48	\$20,974.97	\$1,080.87	\$23.00	\$1,103.86	\$1,126.86	\$23.00
2018	\$20,591.95	\$1,284.94	\$21,876.89	\$1,103.86	\$23.00	\$1,126.86	\$1,126.86	\$0.00