

# Monthly Reference Price Calculations

## December 2008

### Natural Gas and In-stream Component Reference Prices

#### Gas Reference Price

\$6.36/GJ

Breakdown:

Weighted Average Price of Alberta Gas	\$6.715/GJ
Deductions:	
Intra-Alberta Transportation	\$0.266/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.437/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.371/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.371/GJ
Amendments:	
Brought forward (from previous RP month)	-\$0.003/GJ
Prior Period Amendment Adjustment (current RP month)	-\$0.012/GJ
Calculated RP After Amendments	\$6.356/GJ
Reference Price	\$6.36/GJ
Difference – Value is carried forward to next RP month	-\$0.004/GJ

#### Methane ISC Reference Price

\$6.32/GJ

Breakdown:

Weighted Average Price of Alberta Gas	\$6.699/GJ
Deductions:	
Intra-Alberta Transportation	\$0.283/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.404/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.338/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.338/GJ
Amendments:	
Brought forward (from previous RP month)	-\$0.001/GJ
Prior Period Amendment Adjustment (current RP month)	-\$0.017/GJ
Calculated RP After Amendments	\$6.320/GJ
Reference Price	\$6.32/GJ
Difference – Value is carried forward to next RP month	\$0.001/GJ
Methane ISC Adjusted Intra-Alberta Transportation Deduction	\$0.280/GJ

#### Methane ISC Par Price

\$6.32/GJ

#### Ethane ISC Reference Price

\$6.69/GJ

Breakdown:

Weighted Average Price of Alberta Gas	\$6.920/GJ
Deductions:	
Intra-Alberta Transportation	\$0.161/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.747/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.678/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.678/GJ
Amendments:	
Brought forward (from previous RP month)	\$0.002/GJ
Prior Period Amendment Adjustment (current RP month)	\$0.012/GJ
Calculated RP After Amendments	\$6.692/GJ
Reference Price	\$6.69/GJ
Difference – Value is carried forward to next RP month	\$0.002/GJ
Ethane ISC Adjusted Intra-Alberta Transportation Deduction	\$0.160/GJ

# Monthly Reference Price Calculations

## December 2008

**Propane ISC Reference Price** **\$6.82/GJ**

Breakdown:	
Weighted Average Price of Alberta Gas	\$6.989/GJ
Deductions:	
Intra-Alberta Transportation	\$0.114/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.863/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.793/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.793/GJ
Amendments:	
Brought forward (from previous RP month)	-\$0.002/GJ
Prior Period Amendment Adjustment (current RP month)	\$0.029/GJ
Calculated RP After Amendments	\$6.820/GJ
Reference Price	\$6.82/GJ
Difference – Value is carried forward to next RP month	\$0.000/GJ
Propane ISC Adjusted Intra-Alberta Transportation Deduction	\$0.112/GJ

**Butanes ISC Reference Price** **\$6.86/GJ**

Breakdown:	
Weighted Average Price of Alberta Gas	\$6.994/GJ
Deductions:	
Intra-Alberta Transportation	\$0.088/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.894/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.823/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.823/GJ
Amendments:	
Brought forward (from previous RP month)	\$0.001/GJ
Prior Period Amendment Adjustment (current RP month)	\$0.039/GJ
Calculated RP After Amendments	\$6.863/GJ
Reference Price	\$6.86/GJ
Difference – Value is carried forward to next RP month	\$0.003/GJ
Butanes ISC Adjusted Intra-Alberta Transportation Deduction	\$0.087/GJ

**Pentanes Plus ISC Reference Price** **\$6.89/GJ**

Breakdown:	
Weighted Average Price of Alberta Gas	\$6.993/GJ
Deductions:	
Intra-Alberta Transportation	\$0.066/GJ
Marketing Allowance	\$0.012/GJ
Price before Pipeline Factor	\$6.915/GJ
Pipeline Fuel/Loss Factor	0.990
Price Before Special Adjustment	\$6.844/GJ
Special Adjustment	\$0.000/GJ
Calculated RP (price before 2% amendment limitation or rounding)	\$6.844/GJ
Amendments:	
Brought forward (from previous RP month)	\$0.003/GJ
Prior Period Amendment Adjustment (current RP month)	\$0.046/GJ
Calculated RP After Amendments	\$6.893/GJ
Reference Price	\$6.89/GJ
Difference – Value is carried forward to next RP month	\$0.003/GJ
Pentanes ISC Adjusted Intra-Alberta Transportation Deduction	\$0.066/GJ

# Monthly Reference Price Calculations

December 2008

## Natural Gas Liquids Reference Prices and Par Prices

Ethane Reference Price	\$6.69/GJ
Ethane Par Price	\$6.69/GJ
Propane Reference Price	\$201.43/m <sup>3</sup>
Propane Par Price	\$6.82/GJ
Butanes Reference Price	\$262.88/m <sup>3</sup>
Butanes Par Price	\$6.86/GJ
Pentanes Plus Reference Price	\$327.85/m <sup>3</sup>
Pentanes Plus Par Price	\$317.71/m <sup>3</sup>
Propane Floor Price	\$184.67/m <sup>3</sup>
Butanes Floor Price	\$142.61/m <sup>3</sup>

## Natural Gas Liquids Transportation Allowances

### Pentanes Plus (Spec Pentanes):

Region 1	\$3.96/m <sup>3</sup>
Region 2	\$13.95/m <sup>3</sup>
Region 3	\$9.77/m <sup>3</sup>
Region 4	\$17.46/m <sup>3</sup>

### Propane & Butanes (Spec Product):

Region 1	\$23.92/m <sup>3</sup>
Region 2	\$28.95/m <sup>3</sup>
Region 3	\$25.46/m <sup>3</sup>
Region 4	-\$11.05/m <sup>3</sup>

### Pentanes Plus, Propane & Butanes (NGL Mix):

Region 1	\$60.19/m <sup>3</sup>
Region 2	\$54.08/m <sup>3</sup>
Region 3	\$52.65/m <sup>3</sup>
Region 4	\$35.97/m <sup>3</sup>

## Fractionation Allowance

16.50 \$/m<sup>3</sup>

# Monthly Reference Price Calculations

December 2008

## Natural Gas and Natural Gas Liquids Royalty Rates

New Methane	30.00000%
Old Methane	35.00000%
New Ethane	30.00000%
Old Ethane	35.00000%
Propane	30.00000%
Butanes	30.00000%
New Pentanes Plus	32.81131%
Old Pentanes Plus	45.28589%

## Select Prices 2008

New Methane	1.496	\$/GJ
Old Methane	0.441	\$/GJ
New Ethane	1.496	\$/GJ
Old Ethane	0.441	\$/GJ
Propane	1.496	\$/GJ
Butane	1.496	\$/GJ
Pentanes plus	53.49	\$/m <sup>3</sup>

## Royalty Factors for Pentanes Plus 2008

	Base	Marginal
New Pentanes	22	35
Old Pentanes	22	50

**Sulphur Default Price** 34.43