National Energy Board | Office national de l'énergie

Short-term Canadian Natural Gas Deliverability

2013-2015

Appendices

AN ENERGY MARKET ASSESSMENT • MAY 2013

Canada

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APPENDIX A

A1 Methodology (Detailed Description)

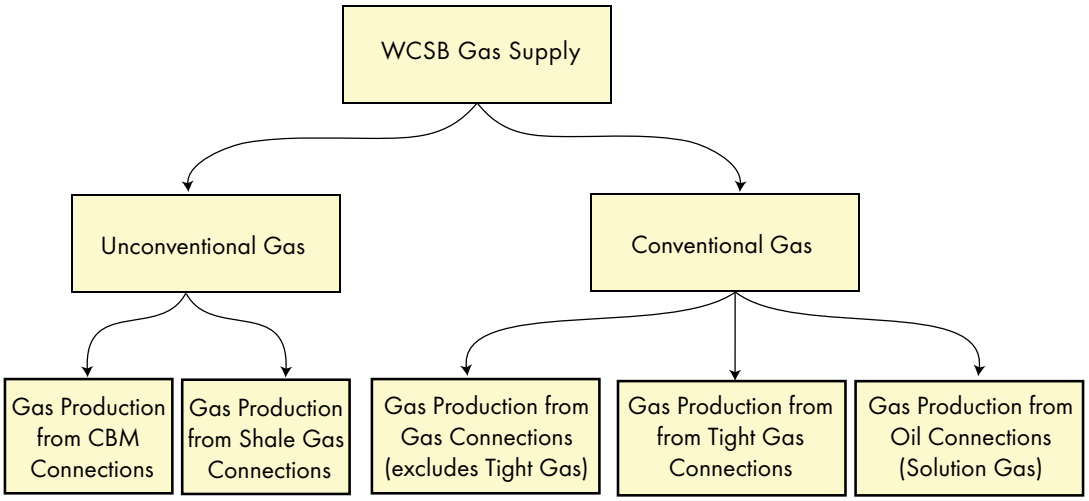
Canadian natural gas deliverability from 2013 to 2015 will consist of conventional gas supply from the WCSB with contributions from Atlantic Canada, Ontario, Northwest Territories, CBM production from Alberta, and shale gas production from Alberta and B.C. In this report, an analysis of trends in well production characteristics and resource development expectations was undertaken to develop parameters that define future natural gas deliverability from the WCSB. A different approach was undertaken for other regions of Canada where production is sourced from a smaller number of wells.

A1.1 WCSB Gas Supply

To assess gas deliverability for the WCSB, gas production was split into two major categories as shown in Figure A1.1.

FIGURE A1.1

WCSB Major Gas Supply Categories for Deliverability Assessment



The methodology to determine gas deliverability associated with conventional gas connections (including tight gas), CBM connections, and shale gas is described below. Tight gas is reported as conventional gas in this report, due to the lack of clear and widely recognized criteria that would enable the segregation of tight gas connections. The methodology to determine gas deliverability related to oil connections (solution gas) is described in section 1.2 of this appendix.

A1.1.1 Gas Connections from Gas Wells

The methodology used to assess deliverability is mostly the same for conventional gas connections (including tight gas) and CBM connections. Production decline analysis on historical production data was used to determine parameters that define future performance. In the case of CBM, shale gas, and Montney tight gas, historical data is more limited, so the views gathered in consultations with industry played a larger role in establishing the performance parameters.

A1.1.1.1 Groupings for Production Decline Analysis

Different groupings of conventional gas connections (including tight gas), shale gas, and CBM connections were made to assess well performance characteristics. Conventional gas connections were grouped geographically on the basis of the Petrocube areas in Alberta, B.C., and Saskatchewan, as shown in Figure A1.2. Conventional gas connections in each area were also grouped by zone. In this analysis, gas deliverability from the Montney formation is separate from the other tight gas sources.

Within each Petrocube area and zone, gas connections were grouped by connection year, with all connections made prior to 1999 forming a single grouping, and separate groupings for each year from 1999 through 2011.

CBM connections were grouped primarily by zone into three categories:

- Horseshoe Canyon Main Play

FIGURE A1.2

WCSB Area Map

- Mannville CBM, and
- Other CBM

For the projection period, CBM development is expected to occur only in Alberta.

Within each of the three categories of CBM resources, connections were also grouped by connection year. Due to the short period of commercial production, there are fewer connection year groupings. For the Horseshoe Canyon Main Play and Other CBM categories, there is a single grouping for all connections made prior to 2004, and separate groupings for each year from 2004 through 2011. For Mannville CBM, a single grouping was made for all connections made prior to 2006, and separate groupings for each following year.

Existing Connections vs. Future Connections

In this report, "existing connections" are connections brought on production prior to January 1, 2012, and "future connections" are connections brought on production from January 1, 2012 onwards. The methodology applied to make the gas deliverability projections for existing connections is substantially different from what is done to assess deliverability for future connections.

A1.1.1.2 Methodology for Existing Connections

For **existing connections**, production decline analysis on historical production data is done on each grouping (gas type/study area/zone/connection year) to develop two sets of parameters.

1. Group deliverability parameters-- describing deliverability expectations for the entire gas resource grouping.
2. Average connection deliverability parameters-- describing deliverability expectations for the average gas connection in the grouping (note—these only apply when the grouping represents a specific connection year).

The methodology for the production decline analysis on existing connections is described below. The group deliverability parameters and average connection deliverability parameters resulting from this analysis are contained in Appendices A.3 and A.4, respectively. In the deliverability model, the group deliverability parameters are used to make the deliverability projection for existing connections.

Production Decline Analysis Methodology

The production decline analysis procedure described below applies to conventional gas connections (including tight gas), and CBM in the WCSB.

Conventional gas connections are grouped by study area, zone, and connection year. CBM connections in Alberta are grouped by producing zone and connection year. For each of these groupings, a data set of group marketable production history is created and, where the grouping represents a specific connection year, a data set of average connection marketable production history is also generated.

The data sets for group marketable production are generated as follows:

- Raw well production for gas connections in each grouping is summed by calendar month getting total group raw production by calendar month.
- The total group raw production by calendar month is multiplied by an average shrinkage

factor that applies to the grouping and divided by the number of days in each month to get total monthly marketable gas production and marketable gas production rate (MMcf/d) for each calendar month.

- Using this data set, plots of total daily marketable production rate versus total cumulative marketable production are generated for each grouping.

The data sets for average connection production history are created as follows.

- The raw well production by month for each connection in the grouping is put in a data base.
- For each entry of production month for each connection, a value of normalized production month is calculated as the number of months between the month the connection began producing and the actual production month (this is the normalized production month).
- The raw production for connections in the grouping is summed by normalized production month and then multiplied by the average shrinkage factor that applies to the grouping, providing total marketable production by normalized production month.
- The total marketable production by normalized production month is then divided by the total number of connections in the grouping to get marketable production for the average connection by normalized production month.
- The marketable production for normalized production month is then divided by the average number of days in a month, or 30.4375, giving the production rate for the average connection in the grouping by normalized production month (Note: due to the different number of production months for connections in the grouping coming on stream at different times of the year, some production data could not be used in the calculation of the average connection production rate).
- Using this data set, plots of daily marketable production rate versus cumulative marketable production for the average connection were generated for each grouping.

For conventional gas connections, the following procedures are applied in performing production decline analysis using the group and average connection historical production data sets:

- **Production Decline Analysis for the Pre-1999 Connections**

  In each study area, the group rate versus cumulative production plot for the grouping of gas connections on production prior to 1999 is the first to be evaluated. In all study areas, a stable exponential decline for the past several years was exhibited. The group plot for all the connections prior to 1998 yields a current marketable production rate, a stable decline rate applicable to future production, and a terminal decline that may be applicable to later connection year groupings for the study area.

- **Evaluate Connection Year 1999 through 2011**

  After the initial aggregate connection year is evaluated for a study area, each connection year is evaluated in sequence, from 1999 through 2011.

  a. **Production Decline Analysis for the Average Connection:**

     For each connection year, the rate versus cumulative production plot for the average connection is evaluated first to establish the following parameters that describe the production profile of the average connection over the entire productive life:

     - Initial Production Rate

- First Decline Rate
- Second Decline Rate
- Months to Second Decline Rate- usually around 18 months
- Third Decline Rate
- Months to Third Decline Rate- usually around 45 months
- Fourth Decline Rate
- Months to Fourth Decline Rate- usually around 100 months.

Figure A1.3 shows an example of the plots used in evaluation of average connection performance, and the different decline rates that are applied to describe the production.

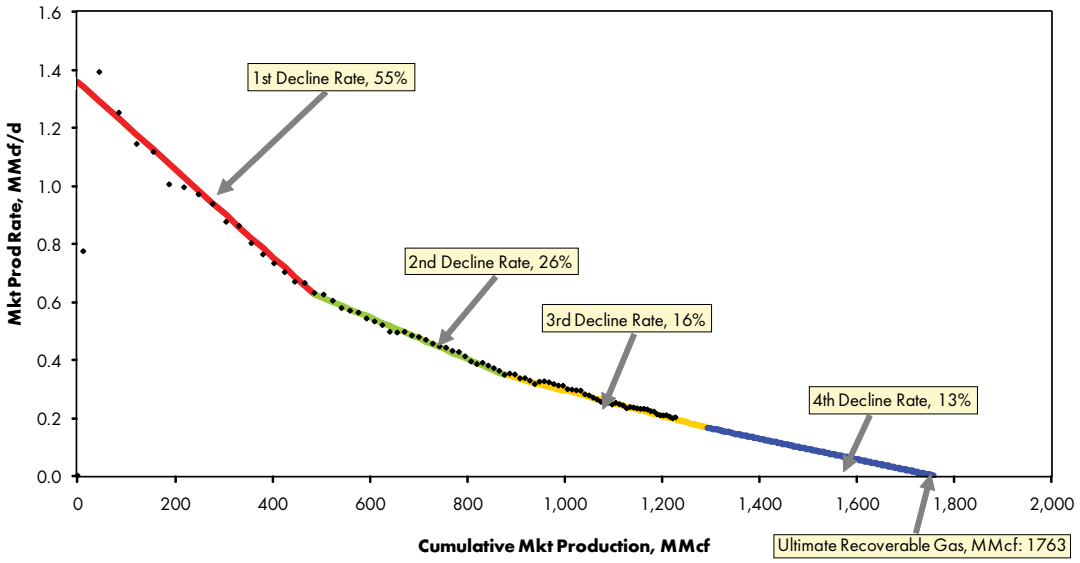
For the earlier connection years, the available data is usually sufficient to establish all of the above parameters. For more recent connection years, the duration of historical production data becomes shorter and the parameters describing the later life decline performance must be taken from that determined for earlier connection years. In the example shown in Figure A1.3, the available data is sufficient to determine parameters defining the first, second, and third decline periods for the connection, but the parameters defining the fourth decline period must be assumed based on the analysis of earlier connection years.

It is assumed that, unless the historical data for the connection year indicates otherwise, the fourth decline rate will equal the terminal decline rate for the grouping established through evaluation of all pre-1999 connections, and that period of the terminal decline rate will commence after 120 months of production.

The decline parameters determined in this manner for average connections are available in Appendix A4.

FIGURE A1.3

Example of Average Connection Production Decline Analysis Plot



Source: NEB analysis of Divestco Geovista well production data

b. **Production Decline Analysis for the Group Data:**

Once the performance parameters for the average connection are established, the procedure focuses on evaluation of group performance parameters.

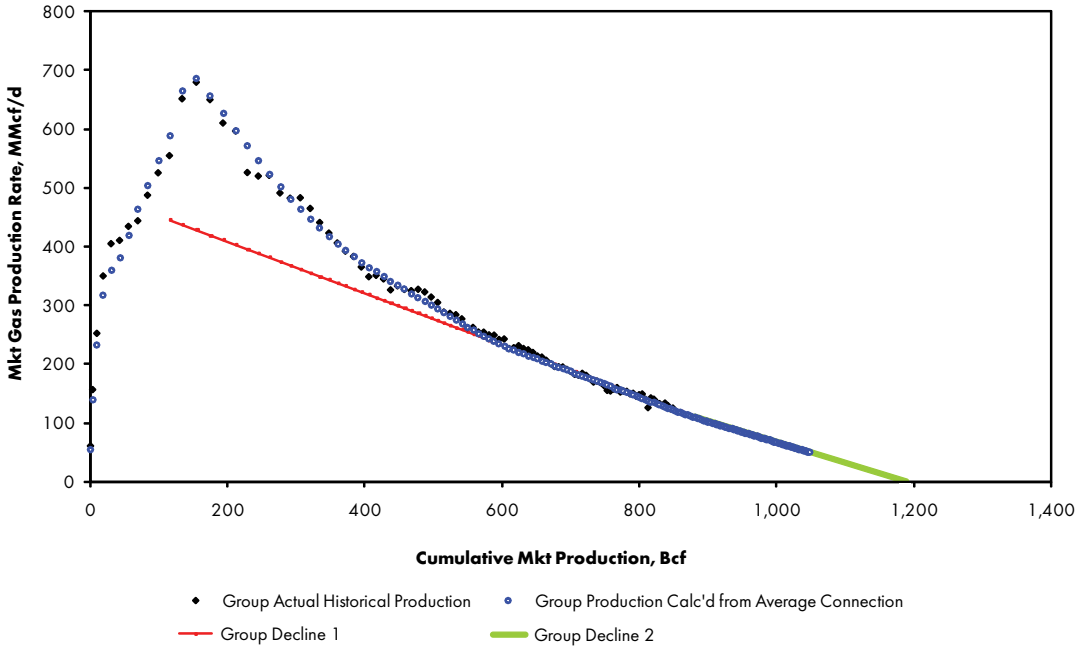
As a first step, the average connection performance parameters are combined with the known connection schedule to calculate the expected group performance. This is plotted with the actual group performance data. If the data calculated from average connection performance data does not provide a good match with the actual historical production data for the group, then the average connection parameters may be revised until a good match is obtained between calculated group production data (from average connection data) and actual group production data. An example of the group plots described here is shown in Figure A1.4.

The following group performance parameters are determined from the group plot:

- Production Rate as of December 2011
- First Decline Rate
- Second Decline Rate (if applicable)
- Months to Second Decline Rate (if applicable)
- Third Decline Rate (if applicable)
- Months to Third Decline Rate (if applicable)
- Fourth Decline Rate (if applicable)
- Months to Fourth Decline Rate (if applicable)

FIGURE A1.4

Example of Group Production Decline Analysis Plot



Source: NEB analysis of Divestco Geovista well production data

In the earlier connection year groupings (2001, 2002, etc.), the actual group data is usually stabilized by the current date at or near the terminal decline rate established via the pre-1999 aggregate grouping. In these cases a single decline rate sufficiently describes the entire remaining productive life of the grouping. In these cases the expected performance calculated from average connection data has little influence over determination of the group parameters.

In later connection years (2009, 2010, etc.) actual group production history data cannot provide a good basis upon which to project future deliverability. In these cases the expected performance calculated from average connection data is vital to establishing the current and future decline rates applicable for the connection year.

Group performance parameters determined in this manner are available in Appendix A3.

Production Decline Analysis of CBM

The production decline analysis procedure described above is also applied to the CBM groupings, subject to the following:

1. The short production history of CBM in Alberta makes it difficult to establish long term decline rates based on historical data, especially with regard to Mannville CBM. Nevertheless, decline rates that describe the full productive life of CBM connections are still estimated in this EMA, based on industry consultations, and on the NEB's view of ultimate gas recovery for the average connections for the different CBM groupings.
2. Mannville CBM connections have a different performance profile than the other gas resources in the WCSB. While gas connections for all other groupings can be described by an initial production rate that declines in a relatively predictable manner, Mannville CBM connections go through a dewatering phase with gas production increasing over a period of months to a peak rate. After the peak rate is reached decline will occur. Thus a slightly different set of parameters is used to describe performance of the average connection for Mannville CBM, with initial production rate being replaced by "Months to Peak Production" and "Peak Production Rate".

A1.1.1.3 Methodology for Future Connections

For future connections, deliverability is projected based on the number of future connections and the expected average performance characteristics of those connections. The drilling projection is used to estimate the number of future gas connections. Historical trends in average connection performance parameters, obtained from production decline analysis of existing gas connections, are used to estimate average connection performance parameters for future connection years.

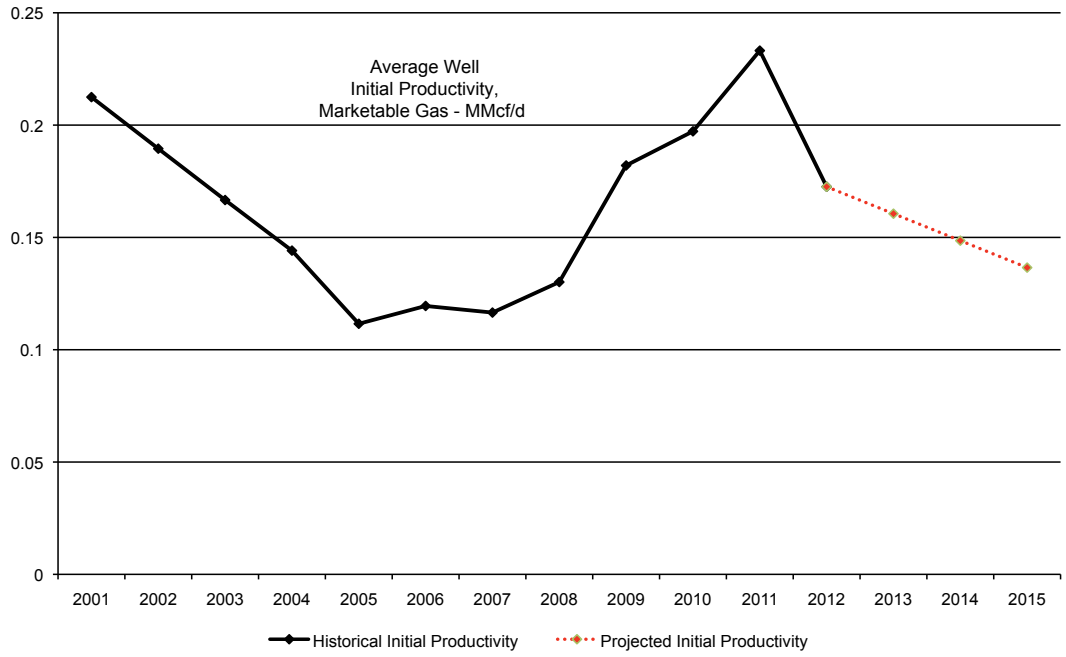
A1.1.1.3.1 Performance of Future Connections

The performance of future connections is obtained in each resource grouping by extrapolating the production performance trends for average connections in past connection years. The performance parameters estimated are initial productivity of the average connection and the associated decline rates.

In many groupings, each new connection year follows a trend of decreasing initial productivity for the average conventional gas connection. This trend is evident in Figure A1.5, which shows the initial production rate over time for conventional gas connections in the West Central Alberta Tertiary conventional grouping. Recently, however, there has been a trend in some tight and shale groupings where initial productivity for the average gas connection has been increasing. The Initial Production Rate for future gas connections is estimated by extrapolating the trend in each resource grouping. Historical and projected initial productivity values for the average connection for all gas resource groupings are contained in Appendices A3 and A4.

FIGURE A1.5

Example of Initial Productivity of Average Connections by Connection Year
West Central Alberta Tertiary Conventional Grouping



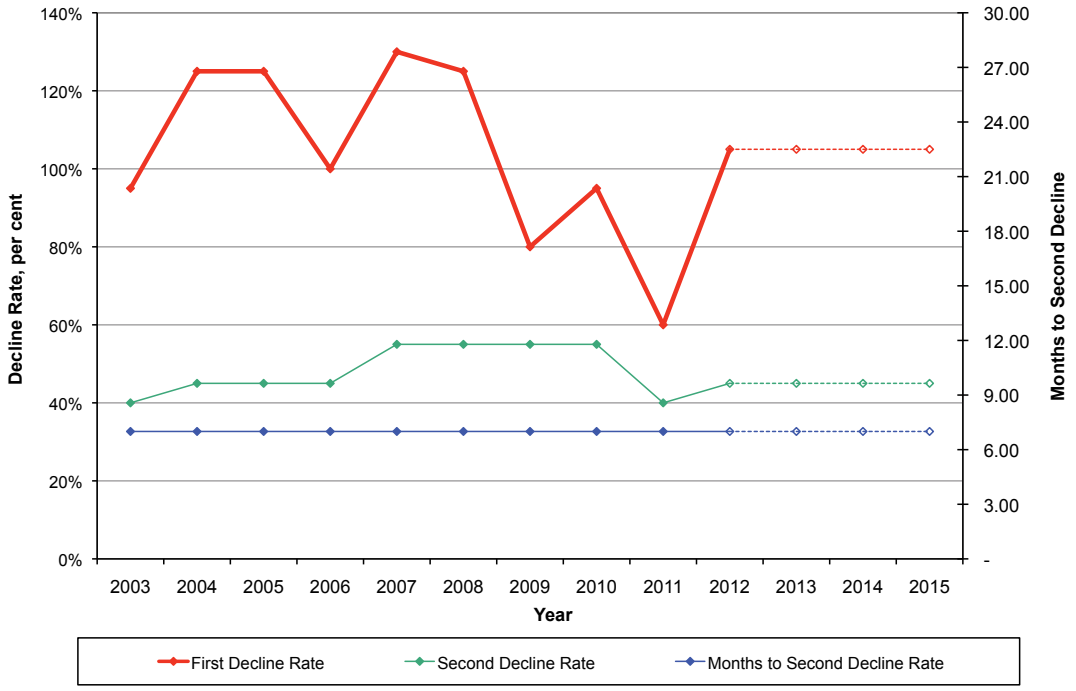
Source: NEB analysis of Divestco well production data

The key decline parameters impacting short-term deliverability are the first decline rate, second decline rate, and months to second decline rate. Figure A1.6 shows the historical and projected values of these key decline parameters for the average connections during the years 2001 through 2015 for conventional gas connections in the Southwest Alberta, Tertiary, Upper Cretaceous, Upper Colorado grouping. As shown in Figure A1.6, trends seen in the decline parameters in past connection years are used to establish these key parameters for future years.

FIGURE A1.6

Example of Key Decline Parameters for Average Connections over time

Southwest Alberta, Tertiary, Upper Cretaceous, Upper Colorado Conventional Grouping



A1.1.1.3.2 Number of Future Connections

Projecting the number of future connections requires an estimate of the annual number of gas-intent (including tight gas), shale-intent, and CBM-intent wells for each resource grouping and then multiplying by the ratio of annual connections to annual wells.

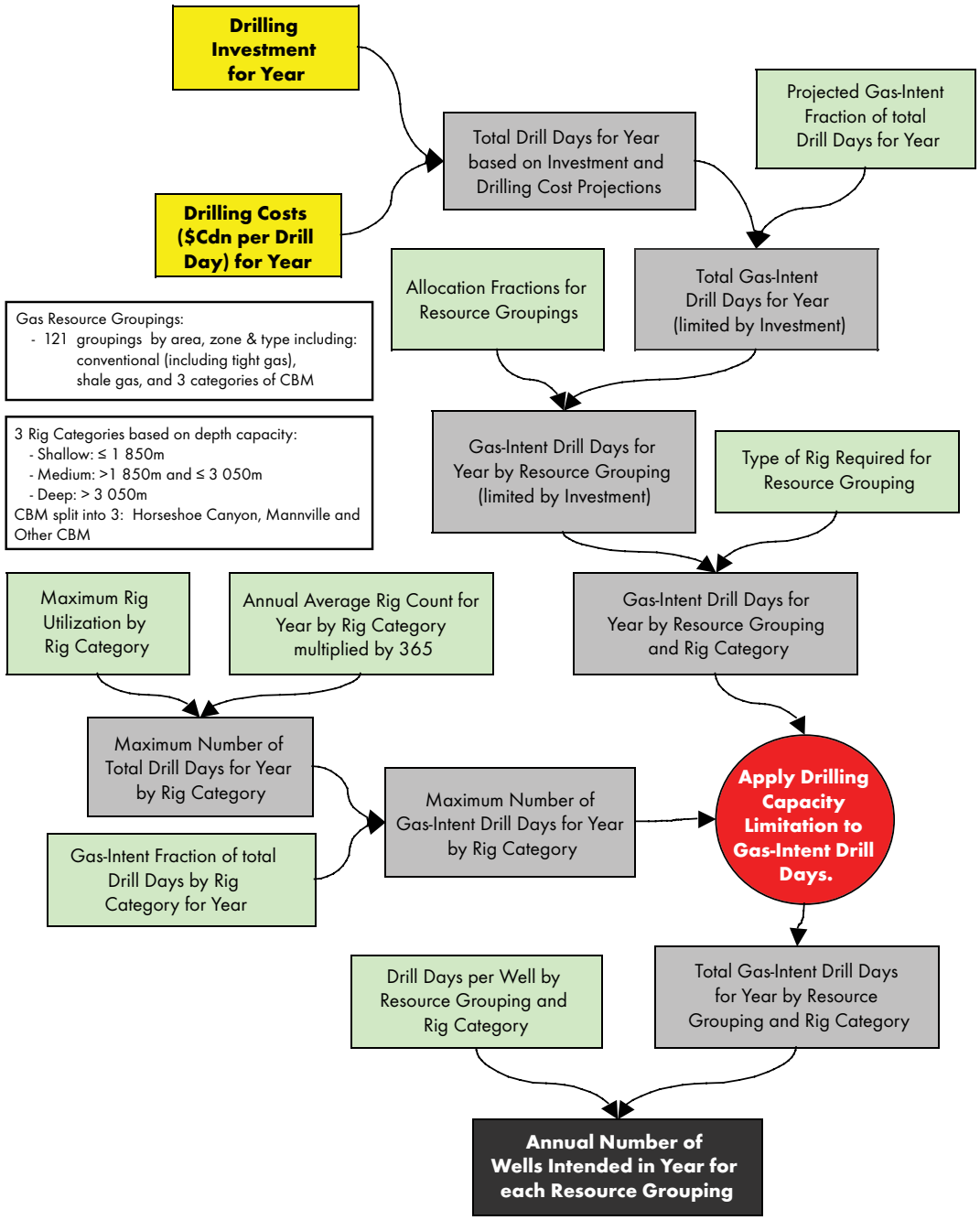
Shown in Figure A1.7 is the methodology for projecting the number of gas-intent and CBM-intent wells for each year over the projection period. The key inputs are **Annual Drilling Investment** and **Costs per Drill Day**. Adjustments to these two key inputs (shown as yellow boxes in Figure A1.7) produce different drilling activity situations in the WCSB. Other inputs required by the procedure in the green boxes in Figure A1.7. The values projected for these other inputs are estimated from an analysis of historical data.

The drilling projection provides the number of gas-intent drill days that target each resource grouping. The Board projects an allocation of gas-intent drill days for each of the resource groupings. The allocation fractions are determined from historical trends, recent estimates of supply costs, and the Board's view of development potential for the resource groupings. The allocation fractions reflect the historical trends of an increasing focus on the deeper formations located in the western side of the basin, increasing interest in tight gas and gas shales in B.C, and further development of liquids rich/ wet natural gas. Tables of the historical data (drill days and allocation fractions) and the projected allocation fractions are available in Table B1.

After allocating the gas-intent drill days to the resource groupings, a check is completed against drilling capacity to ensure that physical drilling limitations are not exceeded. The number of gas-intent wells drilled in each year is calculated by dividing the drill days targeting each resource grouping by the applicable average number of drill days per well.

FIGURE A1.7

Flowchart of NEB Drilling Projection Methodology



For each resource grouping, a connection ratio (the ratio of annual connections to annual wells drilled targeting a grouping) is estimated based on historical data. The annual number of wells drilled is multiplied by the connection ratio to obtain the number of annual connections for each resource grouping. The connection ratios for each resource grouping are provided in Table B.2. The annual number of connections for each resource grouping is allocated to each month of the year in accordance with the established historical connection schedule.

A1.1.2 Solution Gas

Solution gas is gas produced from oil wells in conjunction with the crude oil and accounts for about nine per cent of total marketable gas production in the WCSB. To estimate deliverability of solution gas, oil connections are grouped by study area and production decline analysis is performed on the entire grouping to obtain the current production rate and the decline rate. The deliverability resulting from these parameters is deemed to represent all solution gas deliverability (i.e. deliverability from both existing and future connections).

A1.1.3 Yukon and Northwest Territories

In the Yukon and Northwest Territories, conventional gas is produced to the pipeline grid from two pools close to the territorial border of 60 degrees north latitude. These two pools (or fields) are Kotaneelee and Cameron Hills. Much further to the north, the Ikhil and Norman Wells fields also produce small amounts of gas that serve local purposes and are not tied into the North American pipeline grid. With the limited number of producing wells and development activity in the Kotaneelee and Cameron Hills areas, production decline analysis for the existing gas connections provides a good estimate of future deliverability. No deliverability from the Mackenzie Delta and elsewhere along the Mackenzie Corridor is included during the three year projection period.

In this report, gas deliverability of the southerly fields tied in to the pipeline grid is represented as total deliverability from the Yukon and Northwest.

A1.2 Atlantic Canada

For producing wells from offshore Nova Scotia, production profiles are based on an average of the decline rates in the five producing fields. No additional infill wells are assumed for the producing fields over the projection period. Offshore compression was fully in service by May 2007. The parameters used in the compression analysis are based on discussions with industry representatives. Due to maintenance activities in the fourth quarter of 2012, Sable production was lower than expected. Production is anticipated to return to normal levels in April 2013. Deliverability from the Deep Panuke development is expected to start in June 2013.

Onshore production from the McCully Field in New Brunswick was connected into the regional pipeline system at the end of June 2007. Future development and performance of the field is based on corporate development plans and industry consultations, and takes into consideration the performance of existing wells.

Due to the early stage of assessment and lack of data, reasonable estimates of onshore CBM and shale gas deliverability in Nova Scotia and New Brunswick cannot be developed at this time.

A1.3 Other Canadian Production

The WCSB, Yukon and Northwest Territories, and Atlantic Canada discussed in the preceding sections of this chapter account for almost all of Canada's deliverability. This minor remaining amount of Canadian deliverability is from Ontario. Deliverability from Ontario is projected by extrapolation of historical production volumes. Quebec natural gas deliverability is not included in the projection due to insufficient data.

A1.4 Canadian Deliverability and Canadian Demand

Canadian natural gas demand is met within the integrated North American natural gas market by a combination of Canadian natural gas deliverability and imports of U.S. gas.

Natural gas deliverability is defined as the estimated amount of gas supply from a given area, after field processing, based on historical production and individual well declines, as well as projected activity. All estimated gas use prior to the outlet from field processing plants has already been deducted from the deliverability estimate, and likewise is not included in the demand estimate. Gas consumed at the Goldboro processing facility in Nova Scotia is in this category of field processing and has therefore already been deducted from Atlantic Canada deliverability.

Current and projected Canadian gas demand is divided geographically at the Saskatchewan-Manitoba border into Western and Eastern Canada demand. Western Canada demand includes gas volumes withdrawn during the recovery of natural gas liquids at straddle plants. Approximately 85 to 90 per cent of the gas volumes leaving Alberta are processed through the straddle plants, where much of the ethane in the gas stream is extracted along with traces of other NGLs and heavier components remaining after field processing. A table of the Average Annual Canadian Deliverability and Demand is available in Appendix E.

Canadian gas demand includes gas required for pipeline fuel in the respective areas. The Board's projection of Canadian gas demand is based on historical trends and expected major increments of gas-fired power generation and industrial projects (including oil sands developments). The demand projection is based on the assumption of average weather conditions. Considerable variability in actual gas demand is possible due to the impact of weather variation on Canada's space heating needs.

A2 Deliverability Parameters - Results

A2.1 WCSB

Using the Board's methodology, connections in the WCSB are categorized as either gas or oil. Gas connections are further categorized as conventional (including the tight gas sub-category), and unconventional (including shale gas and CBM). Connections are grouped based on geographical area, producing zone, and connection year, with different grouping criteria applied to different types of connections.

In the case of existing gas connections (those on production prior to 1 January 2012), and all oil connections (solution gas), production decline analysis is used to establish parameters that define future deliverability of each grouping. Section A2.1.1 below provides further discussion of the parameters resulting from the production decline analysis.

For future gas connections (those on production after 1 January 2012), the number of expected future connections and the expected production performance of those future connections is estimated to provide a basis for the deliverability projection. Section A2.1.2 below provides discussion of the parameters used to project deliverability for future gas connections.

A2.1.1 Production from Existing Gas Connections

The future deliverability of existing connections of the resource groupings comprising conventional (including tight gas), and unconventional (including shale gas and CBM), and all solution gas was

determined via the production decline analysis procedure described in Appendix A3. The decline parameters describing the expected future deliverability of each grouping are listed in Appendix A3.

The deliverability parameters for these groupings ***are not*** impacted by the different price cases considered in this report. The different price cases are included to reflect uncertainty in future gas drilling activity only.

The parameters describing future deliverability for all of these groupings are the production rate as of December 2011 and as many as four future decline rates that apply to specified time periods in the future. For the older groupings of wells where production appears to have stabilized at a final decline rate, only one future decline rate is needed to describe future group deliverability. For newer well groupings, the decline rate that applies over future months changes as the group performance progresses towards the final stable decline period. For these newer well groupings, three or possibly four different decline rates have been determined to describe future performance.

The future deliverability projected for these groupings represents the deliverability that would occur from the WCSB if there were no further gas connections made after the end of 2011. Deliverability projections made in previous reports for these categories of groupings have proved to be very close to actual performance.

The Board's projections show that aggregate production for these groupings will decline by 18 per cent over 2012, by a further 14 per cent in 2013, 14 per cent in 2014, and 14 per cent in 2015. Deliverability from future gas connections supplements the declining deliverability from existing connections.

A2.1.2 Future Gas Connections

Deliverability associated with future gas connections is calculated for each resource grouping using estimates for production performance of the average connection and the number of connections in future years. The parameters associated with both of these inputs are discussed in the sections below.

While past deliverability projections for existing gas connections have enjoyed a high degree of accuracy, the certainty associated with the projections for future gas connections is less. The key uncertainty is the level of gas drilling that will occur. Three price cases have been created to address the uncertainty inherent in the gas drilling projections.

A2.1.2.1 Performance Parameters for Future Average Gas Connections

The production decline analysis procedures described in Appendix A.1 provide the basis for establishing performance parameters for future gas connections. The trends seen in average connection performance for the various groupings of existing connections are used to make an estimate of performance parameters for future gas connections.

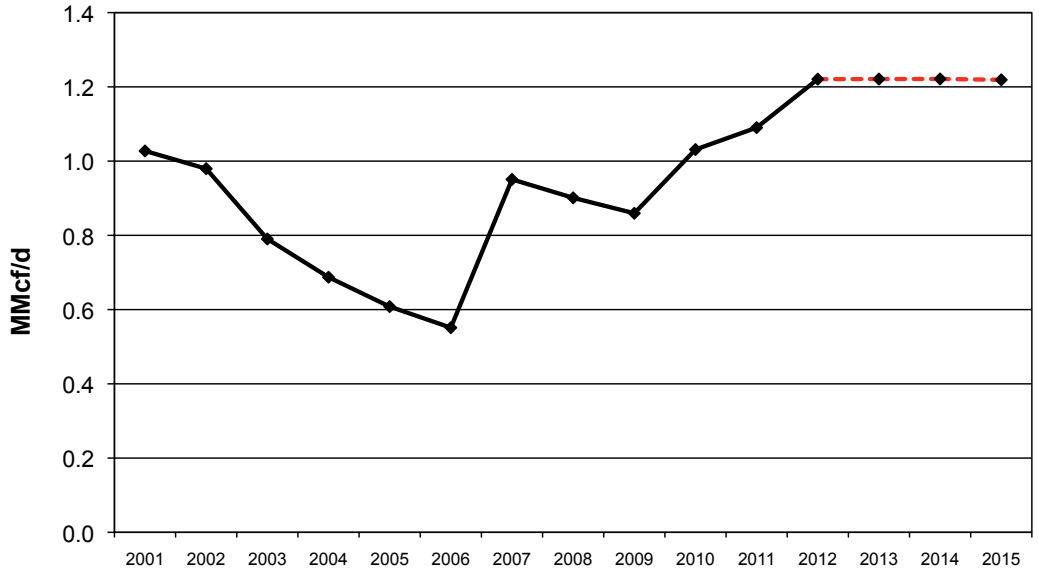
For conventional gas connections (including tight gas), the connections are grouped based on area, formation, and connection year from 1999 through 2011. These 13 connection year groupings are assessed for each grouping, providing an excellent historical data set to estimate performance of future wells.

Two trends are apparent in the performance parameters for the existing conventional gas connections.

- Decline rates applicable to the average connection are quite stable over the past several connection years.

FIGURE A2.1

WCSB Initial Productivity of Average Conventional Gas Connections by Connection Year



Source: NEB Analysis of Divestco Well Production Data

TABLE A2.1

WCSB Initial Productivity of Average Gas Connections by Connection Year by Area - MMcf/d

Area	2005	2006	2007	2008	2009	2010	2011
00 - Alberta CBM	0.074	0.102	0.104	0.101	0.066	0.047	0.045
01 - Southern Alberta	0.134	0.107	0.097	0.119	0.105	0.145	0.129
02 - Southwest Alberta	0.226	0.231	0.229	0.299	0.285	0.261	0.241
03 - Southern Foothills	1.252	1.181	0.342	0.151	0.683	0.008	
04 - Eastern Alberta	0.096	0.077	0.075	0.079	0.093	0.090	0.099
05 - Central Alberta	0.190	0.196	0.209	0.192	0.216	0.225	0.161
06 - West Central Alberta	0.397	0.351	0.407	0.507	0.450	0.493	0.556
07 - Central Foothills	3.279	1.236	3.512	2.607	1.599	1.628	3.222
08 - Kaybob	0.567	0.637	0.763	0.653	0.853	0.800	0.996
09 - Alberta Deep Basin	0.787	0.474	0.755	0.870	1.163	1.141	0.845
10 - Northeast Alberta	0.179	0.144	0.162	0.163	0.149	0.135	0.171
11 - Peace River	0.689	0.451	0.554	0.485	0.593	0.531	0.555
12 - Northwest Alberta	0.370	0.318	0.273	0.391	0.731	0.334	0.122
13 - BC Deep Basin	1.378	0.652	1.599	1.383	1.382	2.318	2.073
14 - Fort St. John	1.013	1.035	1.297	1.480	1.509	1.494	1.349
15 - Northeast BC	0.808	0.526	0.767	1.134	1.246	2.389	2.092
16 - BC Foothills	1.845	1.887	1.021	1.552	1.279	1.791	2.034
17 - Southwest Saskatchewan	0.056	0.082	0.053	0.056	0.034	0.015	0.035
18 - West Saskatchewan	0.120	0.114	0.106	0.089	0.089	0.066	0.116
Total WCSB	*0.608*	*0.551*	*0.951*	*0.901*	*0.859*	*1.031*	*1.090*

Source: NEB Analysis of Divestco Well Production Data

- Initial productivity of the average connection increases from connection year to connection year.

With respect to initial productivity of the average gas connection, the overall trend for the WCSB is shown in Figure A2.1. After decreases in initial productivity over 2001 to 2006, the trend reversed upward for 2007, remained fairly stable through 2009, and continued upward through to 2012 as higher initial productivity rates from tight gas and shale gas wells began to represent a growing share of the wells drilled in a year. Initial productivity over the projection is almost flat primarily due to holding the rates constant for most gas wells.

Table A2.1 shows the historical average initial production rates for the average gas connections for each area. Appendices A3 and A4 provide a complete listing of all performance parameters for average connections by grouping for both historical and future connection year groupings.

The average connection performance parameters projected for connection years 2012 through 2015 are the same in all three price cases assessed in this report. Variance between the cases is affected by applying different levels of gas drilling activity as discussed further in section 1.2.2 of this appendix.

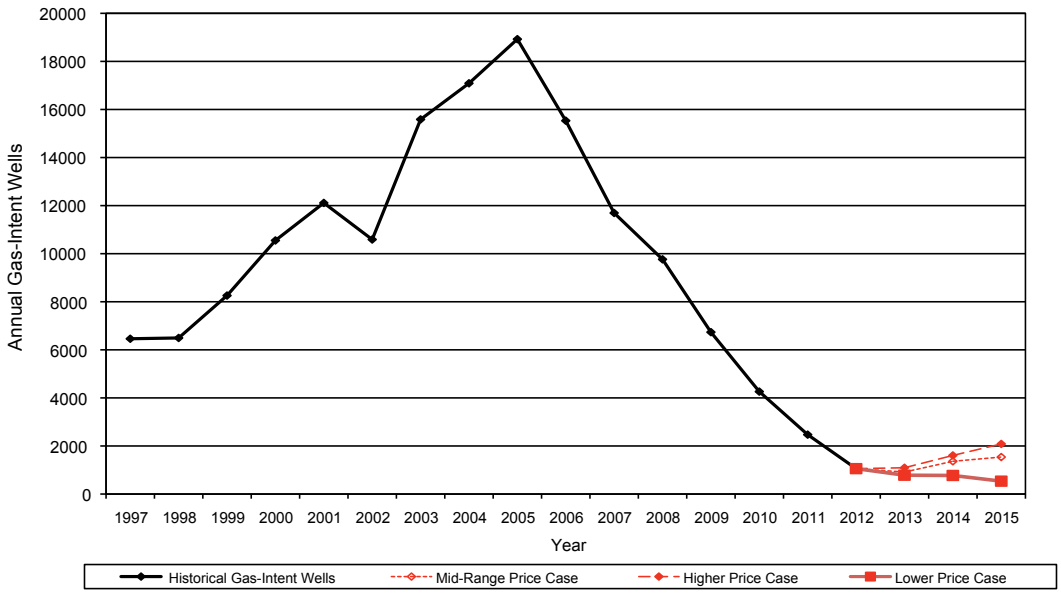
A2.1.2.2 Number of Future Gas Connections

The projected number of connections by year and the projected production performance of the average connections in those years are applied to provide deliverability associated with future gas connections. To determine the number of future gas connections, projections of gas-intent drilling are made for each of the resource groupings. The annual number of wells targeted to each grouping is applied to the ratio of annual connections to annual wells for that grouping to provide the annual number of connections.

Volatile and unpredictable market conditions are expected to be the primary influence on gas-intent drilling activity. As a result, there is a high degree of uncertainty in the gas drilling activity that might occur in the coming years. Three drilling activity cases (Mid-Range, Higher, and Lower) that are based on projections of gas price reflect a range of market conditions that may occur over the

FIGURE A2.2

WCSB Gas-Intent Drilling Cases



projection period. Figure A2.2 indicates the projected number of gas-intent wells for all resource grouping in each case.

Detailed tabulations of projected annual gas-intent-wells, connection ratios, and annual connections for each resource grouping for each case are provided in Table B2.

A2.2 Atlantic Canada, Ontario, and Quebec

As indicated in Appendix A1, deliverability from Atlantic Canada and Ontario is based on extrapolation of prior trends. No additional wells over the 2013 to 2015 period are assumed to be drilled that would contribute to deliverability at this time.

Marketable production from the Deep Panuke development is projected to start in June 2013. Sable production is expected to return in April 2013, similar to levels seen before the winter 2012 maintenance.

Future development and performance of the McCully field in New Brunswick is based on corporate development plans and consultations with industry. No additional drilling is expected over the projection period. Consequently, this report does not show any natural gas deliverability throughout the projection period.

Testing of onshore CBM and shale gas prospects is ongoing in Atlantic Canada. Due to the early stage of development, reasonable estimates of onshore CBM productivity cannot be developed due to a lack of data.

Deliverability from Ontario continues to decline with no additional drilling expected over the projection period.

Shale gas potential exists in Quebec; however, insufficient data is available. Consequently, this report does not show any natural gas deliverability throughout the projection period.

A3 Decline Parameters for Groupings of Existing Gas Connections

Table A3.1 - Formation Index

Formation	Abbreviation	Group Number
Tertiary	Tert	02
Upper Cretaceous	UprCret	03
Upper Colorado	UprCol	04
Colorado	Colr	05
Upper Mannville	UprMnvl	06
Middle Mannville	MdlMnvl	07
Lower Mannville	LwrMnvl	08
Mannville	Mnvl	06;07;08
Jurassic	Jur	09
Upper Triassic	UprTri	10
Lower Triassic	LwrTri	11
Triassic	Tri	10;11
Permian	Perm	12
Mississippian	Miss	13
Upper Devonian	UprDvn	14
Middle Devonian	MdlDvn	15
Lower Devonian	LwrDvn	16
Horseshoe Canyon	HSC	–
Mannville CBM	Mannville	–

Table A3.2 - Grouping Index

Area name	Area Number	Resource Type	Resource Group
CBM Area	00	CBM	Main HSC
CBM Area	00	CBM	Mannville
Southern Alberta	01	Conventional	Tert;UprCret;UprColr
Southern Alberta	01	Conventional	Colr
Southern Alberta	01	Conventional	Mnvl
Southern Alberta	01	Tight	UprColr
Southwest Alberta	02	Conventional	Tert;UprCret;UprColr
Southwest Alberta	02	Conventional	Colr
Southwest Alberta	02	Conventional	MdlMnvl;LwrMnvl
Southwest Alberta	02	Conventional	Jur;Miss
Southwest Alberta	02	Conventional	UprDvn
Southwest Alberta	02	Tight	UprColr
Southwest Alberta	02	Tight	Colr
Southwest Alberta	02	Tight	LwrMnvl
Southern Foothills	03	Conventional	Miss;UprDvn
Eastern Alberta	04	Conventional	UprCret;UprColr
Eastern Alberta	04	Conventional	Colr;Mnvl
Eastern Alberta	04	Tight	UprColr
Eastern Alberta	04	Shale	Duvernay
Central Alberta	05	Conventional	Tert;UprCret
Central Alberta	05	Conventional	Colr
Central Alberta	05	Conventional	Mnvl
Central Alberta	05	Conventional	Miss;UprDvn
Central Alberta	05	Tight	Colr
Central Alberta	05	Tight	Mvl
Central Alberta	05	Tight	Montney
Central Alberta	05	Shale	Duvernay
West Central Alberta	06	Conventional	Tert
West Central Alberta	06	Conventional	UprCret;UprColr
West Central Alberta	06	Conventional	Mnvl
West Central Alberta	06	Conventional	LwrMnvl; Jur
West Central Alberta	06	Conventional	Miss
West Central Alberta	06	Conventional	UprDvn
West Central Alberta	06	Tight	Colr
West Central Alberta	06	Tight	Mnvl
West Central Alberta	06	Tight	Montney
West Central Alberta	06	Shale	Duvernay
Central Foothills	07	Conventional	UprColr
Central Foothills	07	Conventional	Colr;Mnvl
Central Foothills	07	Conventional	Jur;Tri;Perm
Central Foothills	07	Conventional	Miss
Central Foothills	07	Conventional	UprDvn;MdlDvn
Central Foothills	07	Tight	UprColr;Colr
Central Foothills	07	Tight	Mnvl
Central Foothills	07	Tight	Jur
Central Foothills	07	Tight	Montney
Central Foothills	07	Shale	Duvernay
Kaybob	08	Conventional	UprColr;Colr
Kaybob	08	Conventional	Mnvl;Jur
Kaybob	08	Conventional	Tri
Kaybob	08	Conventional	UprDvn
Kaybob	08	Tight	Colr;Mnvl
Kaybob	08	Tight	Tri
Kaybob	08	Tight	Montney
Kaybob	08	Shale	Duvernay
Alberta Deep Basin	09	Conventional	UprCret
Alberta Deep Basin	09	Conventional	UprColr
Alberta Deep Basin	09	Conventional	Mnvl;Jur
Alberta Deep Basin	09	Conventional	Tri

Area name	Area Number	Resource Type	Resource Group
Alberta Deep Basin	09	Conventional	UprDvn
Alberta Deep Basin	09	Tight	UprColr
Alberta Deep Basin	09	Tight	Colr
Alberta Deep Basin	09	Tight	Mnvl;Jur
Alberta Deep Basin	09	Tight	Tri
Alberta Deep Basin	09	Tight	Montney
Alberta Deep Basin	09	Shale	Duvernay
Northeast Alberta	10	Conventional	Mnvl;UprDvn
Peace River	11	Conventional	UprColr
Peace River	11	Conventional	Colr;UprMnvl
Peace River	11	Conventional	MdlMnvl;LwrMnvl
Peace River	11	Conventional	UprTri
Peace River	11	Conventional	LwrTri
Peace River	11	Conventional	Miss
Peace River	11	Conventional	UprDvn;MdlDvn
Peace River	11	Tight	UprColr
Peace River	11	Tight	MdlMnvl;LwrMnvl
Peace River	11	Tight	UprTri
Peace River	11	Tight	LwrTri
Peace River	11	Tight	Tri
Peace River	11	Tight	Miss
Peace River	11	Tight	Montney
Peace River	11	Shale	Duvernay
Northwest Alberta	12	Conventional	Mnvl
Northwest Alberta	12	Conventional	Miss
Northwest Alberta	12	Conventional	UprDvn
Northwest Alberta	12	Conventional	MdlDvn
Northwest Alberta	12	Shale	Duvernay
BC Deep Basin	13	Conventional	Colr
BC Deep Basin	13	Conventional	LwrTri
BC Deep Basin	13	Tight	Colr
BC Deep Basin	13	Tight	Mnvl
BC Deep Basin	13	Tight	LwrTri
BC Deep Basin	13	Tight	Montney
Fort St. John	14	Conventional	Mnvl
Fort St. John	14	Conventional	Tri
Fort St. John	14	Conventional	Perm;Miss
Fort St. John	14	Conventional	UprDvn;MdlDvn
Fort St. John	14	Tight	Mnvl
Fort St. John	14	Tight	Tri
Fort St. John	14	Tight	Perm;Miss
Fort St. John	14	Tight	Dvn
Fort St. John	14	Tight	Montney
Northeast BC	15	Conventional	LwrMnvl
Northeast BC	15	Conventional	Perm;Miss
Northeast BC	15	Conventional	UprDvn;MdlDvn
Northeast BC	15	Tight	UprDvn
Northeast BC	15	Shale	Cordova
Northeast BC	15	Shale	Horn River
Northeast BC	15	Shale	Liard
BC Foothills	16	Conventional	Colr;Mnvl
BC Foothills	16	Conventional	Tri;Perm;Miss
BC Foothills	16	Tight	LwrTri
BC Foothills	16	Tight	Tri
BC Foothills	16	Tight	Montney
Southwest Saskatchewan	17	Tight	UprColr
West Saskatchewan	18	Conventional	Colr
West Saskatchewan	18	Conventional	MdlMnvl;LwrMnvl;Miss
East Saskatchewan	19	Conventional	Solution Gas

Table A3.3 - Decline Parameters for Groupings of Existing Gas Connections

Resource Grouping - Gas - Alberta Coalbed Methane - Horseshoe Canyon						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	211.85	0.14	0.12	25	0.10	60
2007	139.04	0.14	0.12	25	0.10	60
2008	106.88	0.14	0.12	25	0.10	60
2009	110.12	0.14	0.12	25	0.10	60
2010	67.84	0.14	0.12	25	0.10	60
2011	61.75	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Coalbed Methane - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	49.10	0.16	0.14	25	0.12	60
2007	34.18	0.16	0.14	25	0.12	60
2008	41.86	0.14	0.12	25	0.10	60
2009	9.05	0.14	0.12	25	0.10	60
2010	5.15	0.14	0.12	25	0.10	60

Resource Grouping - Gas - Alberta Coalbed Methane - Other						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	25.07	0.10	0.08	25	0.05	60
2007	35.50	0.10	0.08	25	0.05	60
2008	38.48	0.10	0.08	25	0.05	60
2009	13.83	0.10	0.08	25	0.05	60
2010	6.43	0.10	0.08	25	0.05	60
2011	3.81	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southern Alberta - Conventional - Tertiary, Upper Cretaceous, Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	18.02	0.16	0.14	25	0.12	60
2004	34.07	0.16	0.14	25	0.12	60
2005	24.60	0.16	0.14	25	0.12	60
2006	28.67	0.16	0.14	25	0.12	60
2007	34.21	0.16	0.14	25	0.12	60
2008	28.40	0.16	0.14	25	0.12	60
2009	12.86	0.16	0.14	25	0.12	60
2010	17.97	0.16	0.14	25	0.12	60
2011	8.23	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southern Alberta - Conventional - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	10.14	0.16	0.14	25	0.12	60
2004	14.11	0.16	0.14	25	0.12	60
2005	8.02	0.16	0.14	25	0.12	60
2006	6.33	0.16	0.14	25	0.12	60
2007	20.09	0.16	0.14	25	0.12	60
2008	24.06	0.16	0.14	25	0.12	60
2009	4.69	0.16	0.14	25	0.12	60
2010	5.72	0.16	0.14	25	0.12	60
2011	3.38	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southern Alberta - Conventional - Mannville						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	32.59	0.16	0.14	25	0.12	60
2004	33.89	0.16	0.14	25	0.12	60
2005	22.97	0.16	0.14	25	0.12	60
2006	30.56	0.16	0.14	25	0.12	60
2007	34.58	0.16	0.14	25	0.12	60
2008	42.44	0.16	0.14	25	0.12	60
2009	25.68	0.16	0.14	25	0.12	60
2010	25.86	0.16	0.14	25	0.12	60
2011	23.46	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southern Alberta - Tight - Upper Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	185.87	0.16	0.14	25	0.12	60
2004	263.40	0.16	0.14	25	0.12	60
2005	187.75	0.16	0.14	25	0.12	60
2006	190.88	0.16	0.14	25	0.12	60
2007	182.42	0.16	0.14	25	0.12	60
2008	165.92	0.16	0.14	25	0.12	60
2009	117.95	0.16	0.14	25	0.12	60
2010	82.09	0.16	0.14	25	0.12	60
2011	54.77	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Conventional - Tertiary, Upper Cretaceous, Upper Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	20.66	0.16	0.14	25	0.12	60
2004	14.78	0.16	0.14	25	0.12	60
2005	20.55	0.16	0.14	25	0.12	60
2006	15.89	0.16	0.14	25	0.12	60
2007	17.23	0.16	0.14	25	0.12	60
2008	15.01	0.16	0.14	25	0.12	60
2009	4.29	0.16	0.14	25	0.12	60
2010	6.45	0.16	0.14	25	0.12	60
2011	5.01	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Conventional - Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	3.98	0.16	0.14	25	0.12	60
2004	1.36	0.16	0.14	25	0.12	60
2005	3.31	0.16	0.14	25	0.12	60
2006	1.92	0.16	0.14	25	0.12	60
2007	1.15	0.16	0.14	25	0.12	60
2008	1.66	0.16	0.14	25	0.12	60
2009	0.19	0.16	0.14	25	0.12	60
2010	1.66	0.16	0.14	25	0.12	60
2011	0.75	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Conventional - Middle Mannville, Lower Mannville						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	4.81	0.16	0.14	25	0.12	60
2004	9.25	0.16	0.14	25	0.12	60
2005	8.86	0.16	0.14	25	0.12	60
2006	5.06	0.16	0.14	25	0.12	60
2007	5.89	0.16	0.14	25	0.12	60
2008	13.09	0.16	0.14	25	0.12	60
2009	8.25	0.16	0.14	25	0.12	60
2010	4.36	0.16	0.14	25	0.12	60
2011	9.40	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Conventional - Jurassic, Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	4.33	0.16	0.14	25	0.12	60
2004	3.91	0.16	0.14	25	0.12	60
2005	1.71	0.16	0.14	25	0.12	60
2006	0.39	0.16	0.14	25	0.12	60
2007	1.96	0.16	0.14	25	0.12	60
2008	1.44	0.16	0.14	25	0.12	60
2009	4.49	0.16	0.14	25	0.12	60
2010	1.08	0.16	0.14	25	0.12	60
2011	0.41	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Conventional - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	9.77	0.20	0.16	25	0.12	60
2004	3.73	0.20	0.16	25	0.12	60
2005	0.27	0.20	0.16	25	0.12	60
2006	4.43	0.16	0.14	25	0.12	60
2007	1.21	0.20	0.16	25	0.12	60
2008	0.32	0.25	0.16	25	0.12	60
2009	2.59	0.16	0.14	25	0.12	60
2010	1.06	0.20	0.16	25	0.12	60
2011	0.25	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Tight - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.66	0.20	0.16	25	0.12	60
2004	2.71	0.20	0.16	25	0.12	60
2005	3.56	0.20	0.16	25	0.12	60
2006	2.12	0.20	0.16	25	0.12	60
2007	1.65	0.20	0.16	25	0.12	60
2008	0.33	0.20	0.16	25	0.12	60
2009	0.14	0.20	0.16	25	0.12	60
2010	0.46	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Southwest Alberta - Tight - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.01	0.20	0.16	25	0.12	60
2004	1.36	0.20	0.16	25	0.12	60
2005	0.89	0.20	0.16	25	0.12	60
2006	0.26	0.20	0.16	25	0.12	60
2007	1.02	0.20	0.16	25	0.12	60
2008	1.69	0.20	0.16	25	0.12	60
2009	1.92	0.20	0.16	20	0.12	60
2010	0.20	0.16	0.14	25	0.12	60
2011	0.37	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Alberta - Tight - Lower Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	12.73	0.16	0.14	25	0.12	60
2004	18.20	0.16	0.14	25	0.12	60
2005	11.27	0.16	0.14	25	0.12	60
2006	18.01	0.16	0.14	25	0.12	60
2007	16.98	0.16	0.14	25	0.12	60
2008	10.81	0.16	0.14	25	0.12	60
2009	9.08	0.16	0.14	25	0.12	60
2010	4.26	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Southern Foothills - Conventional - Mississippian, Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	20.68	0.16	0.14	25	0.12	60
2004	53.42	0.16	0.14	25	0.12	60
2005	21.17	0.16	0.14	25	0.12	60
2006	109.75	0.16	0.14	25	0.12	60
2007	51.79	0.16	0.14	25	0.12	60
2008	20.59	0.16	0.14	25	0.12	60
2009	36.60	0.16	0.14	25	0.12	60
2010	0.06	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Eastern Alberta - Conventional - Upper Cretaceous, Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	5.32	0.16	0.14	25	0.12	60
2004	5.20	0.16	0.14	25	0.12	60
2005	10.87	0.16	0.14	25	0.12	60
2006	38.36	0.16	0.14	25	0.12	60
2007	24.29	0.16	0.14	25	0.12	60
2008	34.04	0.30	0.22	18	0.11	40
2009	6.83	0.16	0.14	25	0.12	60
2010	8.42	0.16	0.14	25	0.12	60
2011	6.17	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Eastern Alberta - Conventional - Colorado, Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	80.41	0.16	0.14	25	0.12	60
2004	108.11	0.16	0.14	25	0.12	60
2005	130.83	0.16	0.14	25	0.12	60
2006	81.92	0.16	0.14	25	0.12	60
2007	66.75	0.16	0.14	25	0.12	60
2008	65.74	0.16	0.14	25	0.12	60
2009	47.85	0.16	0.14	25	0.12	60
2010	23.53	0.16	0.14	25	0.12	60
2011	11.99	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Eastern Alberta - Tight - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	4.74	0.16	0.14	25	0.12	60
2004	0.00	0.00	0.00	0	0.00	0
2005	4.75	0.16	0.14	25	0.12	60
2006	2.89	0.16	0.14	25	0.12	60
2007	3.04	0.16	0.14	25	0.12	60
2008	0.21	0.16	0.14	25	0.12	60
2009	1.04	0.16	0.14	25	0.12	60
2010	1.43	0.16	0.14	25	0.12	60
2011	3.52	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Conventional - Tertiary, Upper Cretaceous						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	26.92	0.16	0.14	25	0.12	60
2004	42.66	0.16	0.14	25	0.12	60
2005	44.52	0.16	0.14	25	0.12	60
2006	40.20	0.16	0.14	25	0.12	60
2007	49.76	0.16	0.14	25	0.12	60
2008	39.24	0.16	0.14	25	0.12	60
2009	18.73	0.16	0.14	25	0.12	60
2010	17.27	0.16	0.14	25	0.12	60
2011	12.49	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Conventional - Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	9.06	0.16	0.14	25	0.12	60
2004	10.04	0.16	0.14	25	0.12	60
2005	12.15	0.16	0.14	25	0.12	60
2006	12.74	0.16	0.14	25	0.12	60
2007	11.68	0.16	0.14	25	0.12	60
2008	4.89	0.16	0.14	25	0.12	60
2009	2.41	0.16	0.14	25	0.12	60
2010	2.54	0.16	0.14	25	0.12	60
2011	0.97	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Conventional - Mannville						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	52.94	0.16	0.14	25	0.12	60
2004	54.73	0.16	0.14	25	0.12	60
2005	58.64	0.16	0.14	25	0.12	60
2006	68.75	0.16	0.14	25	0.12	60
2007	67.62	0.16	0.14	25	0.12	60
2008	56.08	0.16	0.14	25	0.12	60
2009	33.92	0.16	0.14	25	0.12	60
2010	19.55	0.16	0.14	25	0.12	60
2011	15.83	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Conventional - Mississippian, Upper Devonian						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	21.38	0.16	0.14	25	0.12	60
2004	7.65	0.16	0.14	25	0.12	60
2005	12.23	0.16	0.14	25	0.12	60
2006	9.20	0.16	0.14	25	0.12	60
2007	17.15	0.16	0.14	25	0.12	60
2008	13.02	0.16	0.14	25	0.12	60
2009	3.28	0.16	0.14	25	0.12	60
2010	0.70	0.16	0.14	25	0.12	60
2011	8.44	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Tight - Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	6.96	0.10	0.08	25	0.05	60
2004	6.01	0.10	0.08	25	0.05	60
2005	9.05	0.10	0.08	25	0.05	60
2006	4.19	0.10	0.08	25	0.05	60
2007	1.83	0.10	0.08	25	0.05	60
2008	2.30	0.10	0.08	25	0.05	60
2009	2.18	0.10	0.08	25	0.05	60
2010	4.67	0.10	0.08	25	0.05	60
2011	0.34	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Alberta - Tight - Mannville						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	4.71	0.16	0.14	25	0.12	60
2004	8.19	0.16	0.14	25	0.12	60
2005	6.59	0.16	0.14	25	0.12	60
2006	7.99	0.16	0.14	25	0.12	60
2007	5.73	0.16	0.14	25	0.12	60
2008	3.28	0.16	0.14	25	0.12	60
2009	5.63	0.16	0.14	25	0.12	60
2010	2.60	0.16	0.14	25	0.12	60
2011	2.44	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Tertiary						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	6.83	0.16	0.14	25	0.12	60
2004	13.20	0.16	0.14	25	0.12	60
2005	16.13	0.16	0.14	25	0.12	60
2006	14.45	0.16	0.14	25	0.12	60
2007	16.43	0.16	0.14	25	0.12	60
2008	16.49	0.16	0.14	25	0.12	60
2009	8.95	0.16	0.14	25	0.12	60
2010	11.35	0.16	0.14	25	0.12	60
2011	2.81	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Upper Cretaceous, Upper Colorado						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	10.06	0.16	0.14	25	0.12	60
2004	13.64	0.16	0.14	25	0.12	60
2005	17.69	0.16	0.14	25	0.12	60
2006	23.41	0.16	0.14	25	0.12	60
2007	23.64	0.16	0.14	25	0.12	60
2008	25.87	0.16	0.14	25	0.12	60
2009	16.73	0.16	0.14	25	0.12	60
2010	19.03	0.16	0.14	25	0.12	60
2011	44.15	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Mannville						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	1.98	0.10	0.08	25	0.05	60
2004	2.28	0.10	0.08	25	0.05	60
2005	6.00	0.10	0.08	25	0.05	60
2006	1.46	0.10	0.08	25	0.05	60
2007	2.71	0.10	0.08	25	0.05	60
2008	4.80	0.10	0.08	25	0.05	60
2009	0.14	0.10	0.08	25	0.05	60
2010	3.36	0.10	0.08	25	0.05	60
2011	0.52	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Lower Mannville, Jurassic						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	20.93	0.12	0.10	25	0.08	60
2004	26.29	0.12	0.10	25	0.08	60
2005	31.48	0.12	0.10	25	0.08	60
2006	33.29	0.12	0.10	25	0.08	60
2007	29.90	0.12	0.10	25	0.08	60
2008	29.91	0.12	0.10	25	0.08	60
2009	19.90	0.12	0.10	25	0.08	60
2010	19.50	0.12	0.10	25	0.08	60
2011	51.47	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Missisippian						
Connection Year	Group Production Rate as of Dec.31, Mkt MMcf/d	First Decline Rate	Second Decline Rate	Months to Second Decline Rate	Third Decline Rate	Months to Third Decline Rate
2003	34.40	0.16	0.14	25	0.12	60
2004	42.38	0.16	0.14	25	0.12	60
2005	38.86	0.16	0.14	25	0.12	60
2006	38.03	0.16	0.14	25	0.12	60
2007	48.15	0.16	0.14	25	0.12	60
2008	17.89	0.16	0.14	25	0.12	60
2009	33.09	0.16	0.14	25	0.12	60
2010	3.04	0.16	0.14	25	0.12	60
2011	10.00	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Conventional - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	30.17	0.16	0.14	25	0.12	60
2004	46.37	0.16	0.14	25	0.12	60
2005	34.74	0.16	0.14	25	0.12	60
2006	3.52	0.16	0.14	25	0.12	60
2007	64.25	0.16	0.14	25	0.12	60
2008	4.60	0.16	0.14	25	0.12	60
2009	3.57	0.16	0.14	25	0.12	60
2010	7.33	0.16	0.14	25	0.12	60
2011	2.94	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Tight - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.76	0.12	0.10	25	0.08	60
2004	9.69	0.12	0.10	25	0.08	60
2005	9.94	0.12	0.10	25	0.08	60
2006	14.92	0.12	0.10	25	0.08	60
2007	6.75	0.12	0.10	25	0.08	60
2008	6.50	0.12	0.10	25	0.08	60
2009	4.08	0.12	0.10	25	0.08	60
2010	8.56	0.12	0.10	25	0.08	60
2011	2.65	0.16	0.14	25	0.12	60

Resource Grouping - Gas - West Central Alberta - Tight - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	46.38	0.16	0.14	25	0.12	60
2004	61.61	0.16	0.14	25	0.12	60
2005	64.15	0.16	0.14	25	0.12	60
2006	83.66	0.16	0.14	25	0.12	60
2007	76.45	0.16	0.14	25	0.12	60
2008	82.80	0.16	0.14	25	0.12	60
2009	61.72	0.16	0.14	25	0.12	60
2010	132.07	0.16	0.14	25	0.12	60
2011	271.27	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Conventional - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	8.84	0.16	0.14	25	0.12	60
2004	22.13	0.16	0.14	25	0.12	60
2005	13.17	0.16	0.14	25	0.12	60
2006	12.79	0.16	0.14	25	0.12	60
2007	11.12	0.16	0.14	25	0.12	60
2008	21.31	0.16	0.14	25	0.12	60
2009	14.00	0.16	0.14	25	0.12	60
2010	7.99	0.16	0.14	25	0.12	60
2011	2.22	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Conventional - Colorado, Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	25.14	0.16	0.14	25	0.12	60
2004	28.63	0.16	0.14	25	0.12	60
2005	8.16	0.16	0.14	25	0.12	60
2006	14.81	0.16	0.14	25	0.12	60
2007	16.56	0.16	0.14	25	0.12	60
2008	27.64	0.16	0.14	25	0.12	60
2009	25.76	0.16	0.14	25	0.12	60
2010	21.51	0.16	0.14	25	0.12	60
2011	25.37	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Conventional - Jurassic, Triassic, Permian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	19.17	0.16	0.14	25	0.12	60
2004	15.44	0.16	0.14	25	0.12	60
2005	4.61	0.16	0.14	25	0.12	60
2006	22.44	0.16	0.14	25	0.12	60
2007	12.78	0.16	0.14	25	0.12	60
2008	12.91	0.16	0.14	24	0.12	60
2009	22.17	0.16	0.14	25	0.12	60
2010	13.64	0.16	0.14	25	0.12	60
2011	21.11	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Conventional - Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	116.28	0.14	0.12	25	0.10	60
2004	68.67	0.14	0.12	25	0.10	60
2005	36.59	0.14	0.12	25	0.10	60
2006	35.64	0.14	0.12	25	0.12	60
2007	46.04	0.14	0.12	25	0.10	60
2008	74.34	0.14	0.12	25	0.10	60
2009	53.91	0.14	0.12	25	0.10	60
2010	29.91	0.14	0.12	25	0.10	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Central Foothills - Conventional - Upper Devonian, Middle Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	58.47	0.16	0.14	25	0.12	60
2004	26.59	0.16	0.14	25	0.12	60
2005	96.49	0.16	0.14	25	0.12	60
2006	11.74	0.16	0.14	25	0.12	60
2007	19.81	0.16	0.14	25	0.12	60
2008	4.05	0.16	0.14	25	0.12	60
2009	3.52	0.16	0.14	25	0.12	60
2010	5.83	0.16	0.14	25	0.12	60
2011	9.69	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Tight - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	0.29	0.16	0.14	25	0.12	60
2004	2.15	0.16	0.14	25	0.12	60
2005	2.58	0.16	0.14	25	0.12	60
2006	1.49	0.16	0.14	25	0.12	60
2007	1.59	0.16	0.14	25	0.12	60
2008	0.43	0.16	0.14	25	0.12	60
2009	1.80	0.16	0.14	25	0.12	60
2010	0.00	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Central Foothills - Tight - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.81	0.16	0.14	25	0.12	60
2004	0.58	0.16	0.14	25	0.12	60
2005	0.50	0.16	0.14	25	0.12	60
2006	5.38	0.16	0.14	25	0.12	60
2007	4.42	0.16	0.14	25	0.12	60
2008	0.26	0.16	0.14	25	0.12	60
2009	5.12	0.16	0.14	25	0.12	60
2010	0.00	0.16	0.14	25	0.12	60
2011	10.15	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Central Foothills - Tight - Jurassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2007	10.84	0.16	0.14	25	0.12	60
2008	25.01	0.16	0.14	25	0.12	60
2009	6.70	0.16	0.14	25	0.12	60
2010	0.00	0.16	0.14	25	0.12	60
2011	7.02	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Conventional - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	30.78	0.16	0.14	25	0.12	60
2004	39.18	0.16	0.14	25	0.12	60
2005	75.98	0.16	0.14	25	0.12	60
2006	85.15	0.16	0.14	25	0.12	60
2007	46.89	0.16	0.14	25	0.12	60
2008	110.54	0.16	0.14	25	0.12	60
2009	22.63	0.16	0.14	25	0.12	60
2010	22.77	0.16	0.14	25	0.12	60
2011	2.09	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Conventional - Mannville, Jurassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	22.81	0.16	0.14	25	0.12	60
2004	16.20	0.16	0.14	25	0.12	60
2005	34.54	0.16	0.14	25	0.12	60
2006	32.20	0.16	0.14	25	0.12	60
2007	41.05	0.16	0.14	25	0.12	60
2008	43.58	0.16	0.14	25	0.12	60
2009	14.39	0.16	0.14	25	0.12	60
2010	5.23	0.16	0.14	25	0.12	60
2011	4.09	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Conventional - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	16.31	0.16	0.14	25	0.12	60
2004	7.89	0.16	0.14	25	0.12	60
2005	18.00	0.16	0.14	25	0.12	60
2006	7.37	0.16	0.14	25	0.12	60
2007	11.83	0.16	0.14	25	0.12	60
2008	17.06	0.16	0.14	25	0.12	60
2009	14.30	0.16	0.14	25	0.12	60
2010	2.51	0.16	0.14	25	0.12	60
2011	6.03	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Conventional - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	10.77	0.16	0.10	25	0.05	60
2004	0.03	0.16	0.14	25	0.12	60
2005	0.13	0.16	0.14	25	0.12	60
2006	3.58	0.16	0.14	25	0.12	60
2007	3.95	0.16	0.14	25	0.12	60
2008	4.08	0.16	0.14	25	0.12	60
2009	7.22	0.16	0.14	25	0.12	60
2010	17.98	0.16	0.14	25	0.12	60
2011	7.21	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Tight - Colorado, Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	29.65	0.16	0.14	25	0.12	60
2004	44.27	0.16	0.14	25	0.12	60
2005	34.32	0.16	0.14	25	0.12	60
2006	58.66	0.16	0.14	25	0.12	60
2007	43.57	0.16	0.14	25	0.12	60
2008	47.58	0.16	0.14	25	0.12	60
2009	42.20	0.16	0.14	25	0.12	60
2010	54.12	0.16	0.14	25	0.12	60
2011	51.78	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Tight - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	6.58	0.10	0.08	25	0.05	60
2004	6.94	0.10	0.08	25	0.05	60
2005	9.82	0.10	0.08	25	0.05	60
2006	15.79	0.10	0.08	25	0.05	60
2007	11.63	0.10	0.08	25	0.05	60
2008	2.39	0.10	0.08	25	0.05	60
2009	3.79	0.10	0.08	25	0.05	60
2010	3.68	0.10	0.08	25	0.05	60
2011	2.41	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Kaybob - Tight - Montney						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2007	1.32	0.10	0.08	25	0.06	60
2008	10.37	0.10	0.08	25	0.05	60
2009	17.87	0.10	0.08	25	0.05	60
2010	18.83	0.10	0.08	25	0.05	60
2011	25.97	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Cretaceous						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	8.89	0.12	0.10	25	0.08	60
2004	6.17	0.12	0.10	25	0.08	60
2005	6.84	0.12	0.10	25	0.08	60
2006	3.40	0.12	0.10	25	0.08	60
2007	2.82	0.12	0.10	25	0.08	60
2008	2.69	0.12	0.10	25	0.08	45
2009	5.07	0.12	0.10	25	0.08	45
2010	3.31	0.12	0.10	25	0.08	45
2011	7.56	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	13.73	0.12	0.10	25	0.08	60
2004	14.82	0.12	0.10	25	0.08	60
2005	14.62	0.12	0.10	25	0.08	60
2006	20.31	0.12	0.10	25	0.08	60
2007	8.79	0.12	0.10	25	0.08	60
2008	8.52	0.12	0.10	25	0.08	45
2009	5.34	0.12	0.10	25	0.08	45
2010	14.34	0.12	0.10	25	0.08	45
2011	15.64	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Mannville, Jurassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.63	0.10	0.08	25	0.05	60
2004	3.85	0.10	0.08	25	0.05	60
2005	3.10	0.10	0.08	25	0.05	60
2006	5.06	0.10	0.08	25	0.05	60
2007	4.72	0.10	0.08	25	0.05	60
2008	7.35	0.10	0.08	25	0.05	45
2009	1.54	0.10	0.08	25	0.05	45
2010	12.41	0.10	0.08	25	0.05	45
2011	7.62	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	9.09	0.10	0.08	25	0.05	60
2004	11.03	0.10	0.08	25	0.05	60
2005	9.94	0.10	0.08	25	0.05	60
2006	8.40	0.10	0.08	25	0.05	60
2007	5.06	0.10	0.08	25	0.05	60
2008	2.17	0.10	0.08	25	0.05	45
2009	1.98	0.10	0.08	20	0.05	40
2010	2.02	0.10	0.08	25	0.05	60
2011	4.35	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.87	0.16	0.14	25	0.12	60
2004	11.24	0.16	0.14	25	0.12	60
2005	4.25	0.16	0.14	25	0.12	60
2006	0.54	0.16	0.14	25	0.12	60
2007	32.19	0.16	0.14	25	0.12	60
2008	15.01	0.16	0.14	25	0.12	60
2009	1.84	0.16	0.14	25	0.12	60
2010	6.27	0.16	0.14	25	0.12	60
2011	0.02	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Tight - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	26.80	0.16	0.14	25	0.12	60
2004	59.88	0.16	0.14	25	0.12	60
2005	66.08	0.16	0.14	25	0.12	60
2006	62.79	0.16	0.14	25	0.12	60
2007	54.93	0.16	0.14	25	0.12	60
2008	37.76	0.16	0.14	25	0.12	60
2009	29.33	0.16	0.14	25	0.12	60
2010	43.88	0.16	0.14	25	0.12	60
2011	61.72	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Tight - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	12.63	0.14	0.12	25	0.10	60
2004	8.46	0.14	0.12	25	0.10	60
2005	7.19	0.14	0.12	25	0.10	60
2006	7.13	0.14	0.12	25	0.10	60
2007	23.24	0.14	0.12	25	0.10	60
2008	16.03	0.14	0.12	25	0.10	60
2009	7.58	0.14	0.12	25	0.10	60
2010	9.62	0.14	0.12	25	0.10	60
2011	2.42	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Tight - Mannville, Jurassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	99.71	0.14	0.12	25	0.10	60
2004	151.10	0.14	0.12	25	0.10	60
2005	188.64	0.14	0.12	25	0.10	60
2006	253.56	0.14	0.12	25	0.10	60
2007	234.18	0.14	0.12	25	0.10	60
2008	265.24	0.14	0.12	25	0.10	60
2009	203.93	0.14	0.12	25	0.10	60
2010	392.63	0.14	0.12	25	0.10	60
2011	463.40	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Tight - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	3.27	0.10	0.08	25	0.05	60
2004	4.89	0.10	0.08	25	0.05	60
2005	8.70	0.10	0.08	25	0.05	60
2006	3.34	0.10	0.08	25	0.05	60
2007	3.15	0.10	0.08	25	0.05	60
2008	8.04	0.10	0.08	25	0.05	60
2009	4.13	0.10	0.08	25	0.05	60
2010	11.02	0.10	0.08	25	0.05	60
2011	17.24	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Alberta Deep Basin - Tight - Montney						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2008	1.24	0.10	0.08	25	0.05	60
2009	11.18	0.10	0.08	25	0.05	60
2010	24.72	0.10	0.08	25	0.05	60
2011	73.02	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast Alberta - Conventional - Mannville, Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	100.07	0.20	0.18	25	0.16	60
2004	98.35	0.20	0.18	25	0.16	60
2005	75.37	0.20	0.18	25	0.16	60
2006	125.18	0.20	0.18	25	0.16	60
2007	111.49	0.20	0.18	25	0.16	60
2008	46.63	0.20	0.18	25	0.16	60
2009	43.12	0.20	0.18	25	0.16	60
2010	44.10	0.20	0.18	25	0.16	60
2011	8.39	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.14	0.24	0.22	25	0.20	60
2004	1.66	0.24	0.22	25	0.20	60
2005	2.92	0.24	0.22	25	0.20	60
2006	0.93	0.24	0.22	25	0.20	60
2007	1.47	0.16	0.14	25	0.12	60
2008	0.22	0.16	0.14	25	0.12	60
2009	0.41	0.16	0.14	25	0.12	60
2010	0.95	0.16	0.14	25	0.12	60
2011	6.52	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Colorado, Upper Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.59	0.22	0.20	25	0.18	60
2004	3.13	0.22	0.20	25	0.18	60
2005	7.00	0.22	0.20	25	0.18	60
2006	5.09	0.22	0.20	25	0.18	60
2007	6.91	0.22	0.20	25	0.18	60
2008	7.96	0.22	0.20	25	0.18	60
2009	4.70	0.22	0.20	25	0.18	60
2010	11.01	0.22	0.20	25	0.18	60
2011	4.33	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Middle Mannville, Lower Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	6.83	0.16	0.14	25	0.12	60
2004	7.57	0.16	0.14	25	0.12	60
2005	8.05	0.16	0.14	25	0.12	60
2006	18.39	0.16	0.14	25	0.12	60
2007	9.45	0.16	0.14	25	0.12	60
2008	20.26	0.16	0.14	25	0.12	60
2009	3.66	0.16	0.14	25	0.12	60
2010	8.37	0.16	0.14	25	0.12	60
2011	1.40	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Upper Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	6.38	0.16	0.14	25	0.12	60
2004	5.55	0.16	0.14	25	0.12	60
2005	2.88	0.20	0.18	25	0.16	60
2006	9.51	0.20	0.18	25	0.16	60
2007	13.63	0.20	0.18	25	0.16	60
2008	3.57	0.20	0.18	25	0.16	60
2009	5.43	0.20	0.18	25	0.16	60
2010	5.31	0.20	0.18	25	0.16	60
2011	1.30	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Lower Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	3.84	0.16	0.14	25	0.12	60
2004	5.97	0.16	0.14	25	0.12	60
2005	4.88	0.16	0.14	25	0.12	60
2006	15.68	0.16	0.14	25	0.12	60
2007	10.45	0.16	0.14	25	0.12	60
2008	19.72	0.16	0.14	25	0.12	60
2009	8.19	0.16	0.14	25	0.12	60
2010	9.95	0.16	0.14	25	0.12	60
2011	9.33	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	20.25	0.16	0.14	25	0.12	60
2004	36.70	0.16	0.14	25	0.12	60
2005	34.97	0.16	0.14	25	0.12	60
2006	21.66	0.16	0.14	25	0.12	60
2007	11.67	0.16	0.14	25	0.12	60
2008	23.74	0.16	0.14	25	0.12	60
2009	18.76	0.16	0.14	25	0.12	60
2010	13.90	0.16	0.14	25	0.12	60
2011	6.92	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Conventional - Upper Devonian, Middle Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.41	0.16	0.14	25	0.12	60
2004	3.54	0.16	0.14	25	0.12	60
2005	3.40	0.16	0.14	25	0.12	60
2006	1.97	0.16	0.14	25	0.12	60
2007	0.65	0.16	0.14	25	0.12	60
2008	1.16	0.16	0.14	25	0.12	60
2009	0.44	0.16	0.14	25	0.12	60
2010	0.93	0.16	0.14	25	0.12	60
2011	7.10	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Tight - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	0.45	0.16	0.14	25	0.12	60
2004	2.57	0.16	0.14	25	0.12	60
2005	3.20	0.16	0.14	25	0.12	60
2006	8.52	0.16	0.14	25	0.12	60
2007	11.43	0.16	0.14	25	0.12	60
2008	25.02	0.16	0.14	25	0.12	60
2009	1.60	0.16	0.14	25	0.12	60
2010	6.74	0.16	0.14	25	0.12	60
2011	1.69	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Peace River - Tight - Lower Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.16	0.16	0.14	25	0.12	60
2004	1.64	0.16	0.14	25	0.12	60
2005	2.66	0.16	0.14	25	0.12	60
2006	5.29	0.16	0.14	25	0.12	60
2007	4.96	0.16	0.14	25	0.12	60
2008	0.09	0.16	0.14	25	0.12	60
2009	0.82	0.16	0.14	25	0.12	60
2010	19.03	0.16	0.14	25	0.12	60
2011	6.34	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northwest Alberta - Conventional - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	27.24	0.16	0.14	25	0.12	60
2004	30.48	0.16	0.14	25	0.12	60
2005	25.29	0.16	0.14	25	0.12	60
2006	32.65	0.16	0.14	25	0.12	60
2007	14.34	0.16	0.14	25	0.12	60
2008	56.64	0.16	0.14	25	0.12	60
2009	11.00	0.16	0.14	25	0.12	60
2010	3.20	0.16	0.14	25	0.12	60
2011	0.00	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northwest Alberta - Conventional - Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	8.70	0.16	0.14	25	0.12	60
2004	8.41	0.16	0.14	25	0.12	60
2005	14.73	0.16	0.14	25	0.12	60
2006	12.37	0.16	0.14	25	0.12	60
2007	5.91	0.16	0.14	25	0.12	60
2008	20.82	0.16	0.14	25	0.12	60
2009	1.40	0.16	0.14	25	0.12	60
2010	0.96	0.16	0.14	25	0.12	60
2011	0.06	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northwest Alberta - Conventional - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	21.88	0.16	0.14	25	0.12	60
2004	19.83	0.16	0.14	25	0.12	60
2005	7.94	0.16	0.14	25	0.12	60
2006	12.90	0.16	0.14	25	0.12	60
2007	6.06	0.16	0.14	25	0.12	60
2008	6.81	0.16	0.14	25	0.12	60
2009	8.63	0.16	0.14	25	0.12	60
2010	2.92	0.16	0.14	25	0.12	60
2011	0.29	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northwest Alberta - Conventional - Middle Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	1.38	0.22	0.20	25	0.18	60
2004	1.98	0.22	0.20	25	0.18	60
2005	1.86	0.22	0.20	25	0.18	60
2006	1.45	0.22	0.20	25	0.18	60
2007	3.14	0.22	0.20	25	0.18	60
2008	2.19	0.22	0.20	25	0.18	60
2009	4.93	0.22	0.20	25	0.18	60
2010	3.03	0.22	0.20	25	0.18	60
2011	1.79	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Deep Basin - Conventional - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.50	0.16	0.14	25	0.12	60
2004	24.44	0.16	0.14	25	0.12	60
2005	10.50	0.16	0.14	25	0.12	60
2006	0.24	0.16	0.14	25	0.12	60
2007	0.08	0.16	0.14	25	0.12	60
2008	0.43	0.16	0.14	25	0.12	60
2009	0.05	0.16	0.14	25	0.12	60
2010	2.02	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - BC Deep Basin - Conventional - Lower Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2004	1.42	40513.00	0.16	0	25.00	0
2005	35.84	40513.00	0.16	0	25.00	0
2006	13.35	40513.00	0.16	0	25.00	0
2007	40.27	40513.00	0.16	0	25.00	0
2008	26.16	40513.00	0.16	0	25.00	0
2009	18.74	40513.00	0.16	0	25.00	0
2010	30.56	40513.00	0.16	0	25.00	0
2011	24.49	40513.00	0.16	0	25.00	0

Resource Grouping - Gas - BC Deep Basin - Tight - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	18.76	0.10	0.08	25	0.05	60
2004	7.04	0.10	0.08	25	0.05	60
2005	4.75	0.10	0.08	25	0.05	60
2006	24.70	0.10	0.08	25	0.05	60
2007	101.41	0.10	0.08	25	0.05	60
2008	34.24	0.10	0.08	25	0.05	60
2009	182.48	0.10	0.08	25	0.05	60
2010	0.03	0.10	0.08	25	0.05	60
2011	48.06	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Deep Basin - Tight - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	3.14	0.16	0.14	25	0.12	60
2004	3.58	0.16	0.14	25	0.12	60
2005	3.96	0.16	0.14	25	0.12	60
2006	50.76	0.16	0.14	25	0.12	60
2007	23.80	0.16	0.14	25	0.12	60
2008	33.23	0.16	0.14	25	0.12	60
2009	25.41	0.16	0.14	25	0.12	60
2010	54.22	0.16	0.14	25	0.12	60
2011	67.64	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Deep Basin - Tight - Montney						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	48.17	0.16	0.14	25	0.12	60
2007	0.71	0.16	0.14	25	0.12	60
2008	14.64	0.16	0.14	25	0.12	60
2009	40.53	0.16	0.14	25	0.12	60
2010	62.94	0.16	0.14	25	0.12	60
2011	240.43	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Fort St John - Conventional - Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	28.88	0.22	0.20	25	0.18	60
2004	90.02	0.22	0.20	25	0.18	60
2005	78.52	0.22	0.20	25	0.18	60
2006	218.88	0.22	0.20	25	0.18	60
2007	120.68	0.22	0.20	25	0.18	60
2008	133.85	0.22	0.20	25	0.18	60
2009	43.36	0.22	0.20	25	0.18	60
2010	68.45	0.22	0.20	25	0.18	60
2011	7.25	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Fort St John - Conventional - Triassic						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	10.64	0.16	0.14	25	0.12	60
2004	16.28	0.16	0.14	25	0.12	60
2005	13.66	0.16	0.14	25	0.12	60
2006	73.91	0.16	0.14	25	0.12	60
2007	64.94	0.16	0.14	25	0.12	60
2008	72.12	0.16	0.14	25	0.12	60
2009	40.25	0.16	0.14	25	0.12	60
2010	45.41	0.16	0.14	25	0.12	60
2011	28.52	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Fort St John - Conventional - Permian, Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	0.29	0.16	0.14	25	0.12	60
2004	0.19	0.16	0.14	25	0.12	60
2005	0.19	0.16	0.14	25	0.12	60
2006	12.31	0.16	0.14	25	0.12	60
2007	30.68	0.16	0.14	25	0.12	60
2008	19.30	0.16	0.14	25	0.12	60
2009	27.38	0.16	0.14	25	0.12	60
2010	8.81	0.16	0.14	25	0.12	60
2011	9.15	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Fort St John - Conventional - Upper Devonian, Middle Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	37.59	0.16	0.14	25	0.12	60
2004	8.07	0.14	0.12	25	0.10	60
2005	3.28	0.16	0.14	25	0.12	60
2006	5.35	0.16	0.14	25	0.12	60
2007	3.18	0.16	0.14	25	0.12	60
2008	0.00	0.00	0.00	0	0.00	0
2009	4.84	0.16	0.14	25	0.12	60
2010	11.15	0.16	0.14	25	0.12	60
2011	1.91	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Fort St. John - Tight - Montney						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	17.57	0.22	0.20	25	0.18	60
2007	61.65	0.22	0.20	25	0.18	60
2008	128.45	0.22	0.20	25	0.18	60
2009	304.89	0.22	0.20	25	0.18	60
2010	631.07	0.22	0.20	25	0.18	60
2011	258.23	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast BC - Conventional - Lower Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2005	3.15	0.16	0.14	25	0.12	60
2006	23.09	0.16	0.14	25	0.12	60
2007	0.00	0.00	0.00	0	0.00	0
2008	5.70	0.16	0.14	25	0.12	60
2009	0.00	0.00	0.00	0	0.00	0
2010	0.01	0.16	0.14	25	0.12	60
2011	0.00	0.00	0.00	0	0.00	0

Resource Grouping - Gas - Northeast BC - Conventional - Permian, Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	2.81	0.16	0.14	25	0.12	60
2004	7.35	0.16	0.14	25	0.12	60
2005	14.05	0.16	0.14	25	0.12	60
2006	5.25	0.16	0.14	25	0.12	60
2007	6.20	0.10	0.08	25	0.05	60
2008	1.82	0.16	0.14	25	0.12	60
2009	1.34	0.16	0.14	25	0.12	60
2010	0.96	0.16	0.14	25	0.12	60
2011	1.53	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast BC - Conventional - Upper Devonian, Middle Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	42.90	0.16	0.14	25	0.12	60
2004	14.26	0.16	0.14	25	0.12	60
2005	87.68	0.16	0.14	25	0.12	60
2006	36.96	0.10	0.08	25	0.05	60
2007	21.44	0.16	0.14	25	0.12	60
2008	10.73	0.16	0.14	25	0.12	60
2009	1.11	0.16	0.14	25	0.12	60
2010	21.41	0.16	0.14	25	0.12	60
2011	5.09	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast BC - Tight - Upper Devonian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	52.73	0.16	0.14	25	0.12	60
2004	67.85	0.16	0.14	25	0.12	60
2005	56.31	0.16	0.14	25	0.12	60
2006	77.43	0.16	0.14	25	0.12	60
2007	67.10	0.16	0.14	25	0.12	60
2008	81.37	0.16	0.14	25	0.12	60
2009	45.88	0.16	0.14	25	0.12	60
2010	41.81	0.16	0.14	25	0.12	60
2011	55.18	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast BC - Shale - Horn River						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2006	0.12	0.16	0.14	25	0.12	60
2007	0.25	0.16	0.14	25	0.12	60
2008	17.27	0.16	0.14	25	0.12	60
2009	55.98	0.16	0.14	25	0.12	60
2010	97.52	0.16	0.14	25	0.12	60
2011	168.59	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Northeast BC - Shale - Cordova						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2010	2.32	0.16	0.14	20	0.12	60
2011	14.21	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Foothills - Conventional - Colorado, Mannville						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2004	1.76	0.16	0.14	25	0.12	60
2005	6.25	0.16	0.14	25	0.12	60
2006	4.25	0.16	0.14	25	0.12	60
2007	8.42	0.16	0.14	25	0.12	60
2008	7.65	0.16	0.14	25	0.12	60
2009	11.97	0.16	0.14	25	0.12	60
2010	3.59	0.16	0.14	25	0.12	60
2011	3.61	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Foothills - Conventional - Triassic, Permian, Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	54.30	0.16	0.14	25	0.12	60
2004	56.10	0.16	0.14	25	0.12	60
2005	79.66	0.10	0.08	25	0.05	60
2006	166.81	0.14	0.12	25	0.10	60
2007	83.43	0.16	0.14	25	0.12	60
2008	163.77	0.16	0.14	25	0.12	60
2009	94.62	0.16	0.14	25	0.12	60
2010	12.91	0.16	0.14	25	0.12	60
2011	32.84	0.16	0.14	25	0.12	60

Resource Grouping - Gas - BC Foothills - Tight - Montney						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2004	2.52	0.10	0.08	25	0.05	60
2005	6.28	0.16	0.14	25	0.12	60
2006	0.00	0.00	0.00	0	0.00	0
2007	7.08	0.16	0.14	25	0.12	60
2008	0.00	0.00	0.00	0	0.00	0
2009	8.70	0.16	0.14	25	0.12	60
2010	53.95	0.16	0.14	25	0.12	60
2011	84.95	0.16	0.14	25	0.12	60

Resource Grouping - Gas - Southwest Saskatchewan - Tight - Upper Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	55.53	0.14	0.12	25	0.05	60
2004	51.18	0.14	0.12	25	0.05	60
2005	44.55	0.14	0.12	25	0.05	60
2006	31.51	0.14	0.12	25	0.05	60
2007	36.05	0.14	0.12	25	0.05	60
2008	39.66	0.14	0.12	25	0.05	60
2009	24.02	0.14	0.12	25	0.05	60
2010	72.25	0.14	0.12	25	0.05	60
2011	4.85	0.14	0.12	25	0.05	60

Resource Grouping - Gas - West Saskatchewan - Conventional - Colorado						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	3.89	0.14	0.12	25	0.05	60
2004	8.37	0.14	0.12	25	0.05	60
2005	9.63	0.14	0.12	25	0.05	60
2006	7.91	0.14	0.12	25	0.05	60
2007	5.91	0.14	0.12	25	0.05	60
2008	5.58	0.14	0.12	25	0.05	60
2009	3.39	0.14	0.12	25	0.05	60
2010	0.46	0.14	0.12	25	0.05	60
2011	0.53	0.14	0.12	25	0.05	60

Resource Grouping - Gas - West Saskatchewan - Conventional - Middle Mannville, Lower Mannville, Mississippian						
Connection Year	**Group Production Rate as of Dec.31, Mkt MMcf/d**	**First Decline Rate**	**Second Decline Rate**	**Months to Second Decline Rate**	**Third Decline Rate**	**Months to Third Decline Rate**
2003	7.55	0.14	0.12	25	0.05	60
2004	9.75	0.14	0.12	25	0.05	60
2005	8.40	0.14	0.12	25	0.05	60
2006	11.40	0.14	0.12	25	0.05	60
2007	12.54	0.14	0.12	25	0.05	60
2008	4.08	0.14	0.12	25	0.05	60
2009	5.01	0.14	0.12	25	0.05	60
2010	7.85	0.14	0.12	25	0.05	60
2011	3.46	0.14	0.12	25	0.05	60

A4 Decline Parameters for Groupings of Future Gas Connections

Resource Grouping - Gas - Alberta Coalbed Methane - Mannville

Connection Year	Peak Production MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2008	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2009	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2010	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2011	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2012	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2013	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2014	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100
2015	0.38	0.01	0.40	15	0.20	30	0.15	50	0.10	100

Resource Grouping - Gas - Alberta Coalbed Methane - Horseshoe Canyon

Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	0.07	0.25	0.18	7	0.16	20	0.12	45	0.10	90
2007	0.07	0.50	0.20	7	0.16	20	0.12	45	0.10	90
2008	0.06	0.40	0.20	7	0.16	20	0.14	45	0.10	90
2009	0.06	0.45	0.20	7	0.15	20	0.10	45	0.10	90
2010	0.05	0.30	0.20	7	0.15	20	0.10	45	0.10	90
2011	0.04	0.50	0.30	7	0.20	20	0.10	45	0.10	90
2012	0.04	0.50	0.30	7	0.20	20	0.10	45	0.10	90
2013	0.04	0.50	0.30	7	0.20	20	0.10	45	0.10	90
2014	0.04	0.50	0.30	7	0.20	20	0.10	45	0.10	90
2015	0.04	0.50	0.30	7	0.20	20	0.10	45	0.10	90

Resource Grouping - Gas - Alberta Coalbed Methane - Other

Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2004	0.06	0.60	0.30	7	0.20	20	0.10	45	0.05	90
2005	0.05	0.50	0.30	7	0.16	20	0.10	45	0.05	90
2006	0.06	0.80	0.30	7	0.14	20	0.05	45	0.05	90
2007	0.07	0.75	0.35	7	0.16	20	0.05	45	0.05	90
2008	0.05	0.50	0.22	7	0.11	20	0.05	45	0.05	90
2009	0.03	0.46	0.21	7	0.18	20	0.10	45	0.05	90
2010	0.03	0.35	0.20	7	0.16	20	0.10	45	0.05	90
2011	0.03	0.55	0.35	7	0.20	20	0.16	45	0.12	90
2012	0.03	0.55	0.35	7	0.20	20	0.16	45	0.12	90
2013	0.02	0.55	0.35	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Southern Alberta - Conventional - Tertiary, Upper Cretaceous, Upper Colorado

Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.06	0.40	0.20	15	0.18	30	0.16	55	0.12	90
2004	0.10	0.85	0.45	7	0.30	20	0.16	45	0.12	90
2005	0.05	0.70	0.45	7	0.22	20	0.18	45	0.12	90
2006	0.06	1.05	0.37	7	0.22	20	0.16	45	0.12	90
2007	0.06	0.60	0.42	7	0.18	20	0.16	45	0.12	90
2008	0.08	0.62	0.45	10	0.25	20	0.16	45	0.12	90
2009	0.06	0.80	0.45	8	0.25	20	0.18	45	0.12	90
2010	0.09	0.85	0.44	7	0.25	20	0.18	45	0.12	90
2011	0.07	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2012	0.08	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	0.08	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	0.08	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	0.08	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Southern Alberta - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.18	1.15	0.85	7	0.30	20	0.20	45	0.12	90
2004	0.19	1.15	0.60	7	0.30	20	0.20	45	0.12	90
2005	0.17	0.85	0.60	10	0.50	20	0.25	45	0.12	90
2006	0.12	1.45	0.65	7	0.30	30	0.20	50	0.12	90
2007	0.10	0.80	0.62	10	0.20	20	0.20	45	0.12	90
2008	0.09	0.95	0.50	7	0.15	20	0.12	45	0.12	90
2009	0.10	1.15	0.65	7	0.30	20	0.20	45	0.12	90
2010	0.18	0.95	0.45	7	0.30	20	0.20	45	0.12	90
2011	0.18	0.95	0.45	7	0.25	20	0.16	45	0.12	90
2012	0.18	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2013	0.18	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2014	0.18	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2015	0.18	0.95	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Southern Alberta - Conventional - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.25	0.50	0.45	7	0.42	20	0.20	45	0.12	90
2004	0.26	0.70	0.55	7	0.38	20	0.20	45	0.12	90
2005	0.22	0.55	0.65	7	0.45	20	0.20	45	0.12	90
2006	0.19	0.70	0.60	7	0.35	20	0.16	45	0.12	90
2007	0.18	0.70	0.45	7	0.35	20	0.20	45	0.12	90
2008	0.26	0.70	0.50	10	0.28	20	0.20	45	0.12	90
2009	0.21	0.85	0.35	7	0.25	20	0.16	45	0.12	90
2010	0.24	0.95	0.55	7	0.30	20	0.20	45	0.12	90
2011	0.25	1.30	0.60	7	0.25	20	0.16	45	0.12	90
2012	0.21	1.30	0.60	7	0.25	20	0.16	45	0.12	90
2013	0.21	1.30	0.60	7	0.25	20	0.16	45	0.12	90
2014	0.21	1.30	0.60	7	0.25	20	0.16	45	0.12	90
2015	0.21	1.30	0.60	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Southern Alberta - Tight - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.06	0.60	0.35	7	0.18	20	0.16	45	0.12	90
2004	0.07	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2005	0.06	0.80	0.35	7	0.22	20	0.12	45	0.12	90
2006	0.06	0.85	0.38	7	0.22	20	0.12	45	0.12	90
2007	0.07	0.80	0.40	7	0.20	20	0.16	45	0.12	90
2008	0.06	0.90	0.37	7	0.22	20	0.16	45	0.12	90
2009	0.06	0.75	0.43	7	0.20	20	0.16	45	0.12	90
2010	0.07	0.65	0.45	7	0.20	20	0.16	45	0.12	90
2011	0.06	0.60	0.40	7	0.25	20	0.12	45	0.12	90
2012	0.06	0.60	0.40	7	0.25	20	0.12	45	0.12	90
2013	0.06	0.60	0.40	7	0.25	20	0.12	45	0.12	90
2014	0.06	0.60	0.40	7	0.25	20	0.12	45	0.12	90
2015	0.06	0.60	0.40	7	0.25	20	0.12	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Conventional - Tertiary, Upper Cretaceous, Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.14	0.95	0.40	7	0.21	20	0.18	45	0.12	90
2004	0.15	1.25	0.45	7	0.33	20	0.20	45	0.12	90
2005	0.12	1.25	0.45	7	0.30	20	0.16	45	0.12	90
2006	0.10	1.00	0.45	7	0.30	20	0.20	45	0.12	90
2007	0.11	1.30	0.55	7	0.22	20	0.16	45	0.12	90
2008	0.10	1.25	0.55	7	0.27	20	0.18	45	0.12	90
2009	0.08	0.80	0.55	7	0.30	20	0.16	45	0.12	90
2010	0.06	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2011	0.05	0.60	0.40	7	0.25	20	0.16	45	0.12	90
2012	0.09	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2013	0.09	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2014	0.09	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2015	0.09	1.05	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.15	0.30	0.40	7	0.30	20	0.20	45	0.12	90
2004	0.15	0.65	0.70	7	0.50	20	0.25	45	0.12	90
2005	0.10	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2006	0.17	1.45	0.65	7	0.35	20	0.20	45	0.12	90
2007	0.20	1.05	0.65	7	0.35	20	0.20	45	0.12	90
2008	0.20	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2009	0.09	1.95	0.70	7	0.37	20	0.16	45	0.12	90
2010	0.25	1.65	0.60	7	0.30	20	0.16	45	0.12	90
2011	0.06	0.80	0.40	7	0.30	20	0.16	45	0.12	90
2012	0.06	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2013	0.06	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2014	0.06	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2015	0.06	0.95	0.40	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Conventional - Middle Mannville, Lower Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.47	0.20	0.25	7	0.65	20	0.33	45	0.12	90
2004	0.31	0.85	0.65	7	0.25	20	0.14	45	0.12	90
2005	0.44	1.15	0.75	7	0.40	20	0.20	45	0.12	90
2006	0.31	0.85	0.80	7	0.43	20	0.20	45	0.12	90
2007	0.34	0.75	0.58	7	0.45	20	0.35	45	0.12	90
2008	0.35	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2009	0.42	1.05	0.45	7	0.32	20	0.16	45	0.12	90
2010	0.36	1.45	0.70	7	0.30	20	0.16	45	0.12	90
2011	0.68	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2012	0.10	1.05	0.60	7	0.20	20	0.16	45	0.12	90
2013	0.10	1.05	0.60	7	0.20	20	0.16	45	0.12	90
2014	0.10	1.05	0.60	7	0.20	20	0.16	45	0.12	90
2015	0.10	1.05	0.60	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Conventional - Jurassic, Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.35	0.75	0.70	7	0.20	20	0.12	45	0.12	90
2004	0.26	0.65	0.60	7	0.22	20	0.14	45	0.12	90
2005	0.39	1.35	0.83	7	0.27	20	0.14	45	0.12	90
2006	0.17	1.45	1.25	7	0.75	20	0.25	45	0.12	90
2007	0.25	1.05	0.78	7	0.25	20	0.16	45	0.12	90
2008	0.54	1.05	0.95	7	0.65	20	0.25	45	0.12	90
2009	0.58	0.80	0.40	7	0.25	20	0.16	45	0.12	90
2010	0.28	0.60	0.40	7	0.25	20	0.16	45	0.12	90
2011	0.17	1.45	0.50	7	0.20	20	0.16	45	0.12	90
2012	0.34	1.45	0.50	7	0.20	20	0.16	45	0.12	90
2013	0.34	1.45	0.50	7	0.20	20	0.16	45	0.12	90
2014	0.34	1.45	0.50	7	0.20	20	0.16	45	0.12	90
2015	0.34	1.45	0.50	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Conventional - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.50	0.65	0.50	7	0.35	20	0.25	45	0.12	90
2004	0.87	0.65	0.20	7	0.16	20	0.14	45	0.12	90
2005	0.07	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2006	0.30	0.70	0.45	7	0.40	20	0.20	45	0.12	90
2007	0.39	0.85	0.55	7	0.25	20	0.12	45	0.12	90
2008	0.18	1.20	0.85	7	0.25	20	0.16	45	0.12	90
2009	0.23	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2010	0.14	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2011	0.02	0.95	0.55	7	0.25	20	0.16	45	0.12	90
2012	0.03	0.95	0.55	7	0.25	20	0.16	45	0.12	90
2013	0.03	0.95	0.55	7	0.25	20	0.16	45	0.12	90
2014	0.03	0.95	0.55	7	0.25	20	0.16	45	0.12	90
2015	0.03	0.95	0.55	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Tight - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.07	0.85	0.40	7	0.22	20	0.14	45	0.12	90
2004	0.13	0.85	0.55	7	0.50	20	0.16	45	0.12	90
2005	0.08	1.65	0.40	7	0.27	20	0.16	45	0.12	90
2006	0.04	1.25	0.35	7	0.28	20	0.12	45	0.12	90
2007	0.10	1.35	0.62	7	0.25	20	0.18	45	0.12	90
2008	0.06	1.05	0.75	7	0.35	20	0.16	45	0.12	90
2009	0.20	1.65	0.65	7	0.20	20	0.16	45	0.12	90
2010	0.13	0.60	0.40	7	0.20	20	0.16	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.05	1.25	0.60	7	0.25	20	0.16	45	0.12	90
2013	0.05	1.25	0.60	7	0.25	20	0.16	45	0.12	90
2014	0.05	1.25	0.60	7	0.25	20	0.16	45	0.12	90
2015	0.05	1.25	0.60	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.15	0.65	0.35	7	0.22	20	0.18	45	0.12	90
2004	0.25	1.10	0.50	7	0.45	20	0.16	45	0.12	90
2005	0.14	0.75	0.55	7	0.35	20	0.20	45	0.12	90
2006	0.09	1.45	0.60	7	0.25	20	0.12	45	0.12	90
2007	0.34	1.20	0.55	7	0.32	20	0.16	45	0.12	90
2008	0.68	1.95	0.80	7	0.40	20	0.16	45	0.12	90
2009	0.48	1.00	0.40	7	0.25	20	0.16	45	0.12	90
2010	0.19	1.20	0.60	7	0.30	20	0.16	45	0.12	90
2011	0.12	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2012	0.12	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2013	0.12	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2014	0.12	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2015	0.12	0.95	0.55	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Alberta - Tight - Lower Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.48	0.45	0.25	7	0.20	20	0.12	45	0.12	90
2004	0.43	0.35	0.20	7	0.18	20	0.16	45	0.12	90
2005	0.53	0.95	0.45	7	0.16	20	0.14	45	0.12	90
2006	0.73	0.75	0.45	7	0.35	20	0.16	45	0.12	90
2007	0.46	0.75	0.45	7	0.30	20	0.12	45	0.12	90
2008	0.30	0.60	0.42	7	0.25	20	0.16	45	0.12	90
2009	0.28	0.75	0.30	7	0.20	20	0.16	45	0.12	90
2010	0.44	0.95	0.45	7	0.30	20	0.16	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.16	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2013	0.16	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2014	0.16	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2015	0.16	0.75	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Southern Foothills - Conventional - Mississippian, Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.38	0.55	0.45	7	0.25	20	0.16	45	0.12	90
2004	2.56	0.25	0.20	7	0.18	20	0.16	45	0.12	90
2005	1.24	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2006	1.99	0.65	0.30	7	0.16	20	0.12	45	0.12	90
2007	1.60	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2008	1.64	0.25	0.20	7	0.18	20	0.16	45	0.12	90
2009	5.20	0.40	0.25	7	0.20	20	0.16	45	0.12	90
2010	0.01	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	1.60	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2013	1.60	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2014	1.60	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2015	1.60	0.40	0.30	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Eastern Alberta - Conventional - Upper Cretaceous, Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.09	0.75	0.45	7	0.32	20	0.20	45	0.12	90
2004	0.08	1.05	0.35	7	0.30	20	0.25	45	0.12	90
2005	0.07	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2006	0.04	0.90	0.45	7	0.21	20	0.16	45	0.12	90
2007	0.04	0.70	0.43	7	0.25	20	0.20	45	0.12	90
2008	0.05	0.66	0.40	7	0.30	20	0.16	45	0.12	90
2009	0.07	0.65	0.35	10	0.25	20	0.16	45	0.12	90
2010	0.11	0.95	0.45	7	0.25	20	0.16	45	0.12	90
2011	0.12	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.07	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.07	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.07	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.07	1.45	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Eastern Alberta - Conventional - Colorado, Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.17	0.85	0.48	7	0.32	20	0.20	45	0.12	90
2004	0.15	0.95	0.50	7	0.35	20	0.16	45	0.12	90
2005	0.14	0.90	0.50	7	0.32	20	0.16	45	0.12	90
2006	0.13	0.70	0.45	7	0.36	20	0.25	45	0.12	90
2007	0.14	0.90	0.55	7	0.35	20	0.25	45	0.12	90
2008	0.14	0.85	0.50	7	0.31	20	0.20	45	0.12	90
2009	0.16	1.05	0.41	7	0.30	20	0.20	45	0.12	90
2010	0.13	1.10	0.69	7	0.35	20	0.20	45	0.12	90
2011	0.12	1.25	0.65	7	0.35	20	0.20	45	0.12	90
2012	0.09	0.95	0.50	7	0.35	20	0.20	45	0.12	90
2013	0.09	0.95	0.50	7	0.35	20	0.20	45	0.12	90
2014	0.09	0.95	0.50	7	0.35	20	0.20	45	0.12	90
2015	0.09	0.95	0.50	7	0.35	20	0.20	45	0.12	90

Resource Grouping - Gas - Eastern Alberta - Tight - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.05	0.65	0.48	7	0.18	20	0.14	45	0.12	90
2004	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2005	0.05	0.80	0.50	7	0.20	20	0.16	45	0.12	90
2006	0.05	0.75	0.40	7	0.25	20	0.20	45	0.12	90
2007	0.03	1.20	0.35	7	0.20	20	0.12	45	0.12	90
2008	0.05	1.25	0.50	7	0.25	20	0.12	45	0.12	90
2009	0.04	1.75	0.45	7	0.25	20	0.16	45	0.12	90
2010	0.03	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2011	0.05	0.70	0.40	7	0.22	20	0.16	45	0.12	90
2012	0.03	0.70	0.40	7	0.22	20	0.16	45	0.12	90
2013	0.03	0.70	0.40	7	0.22	20	0.16	45	0.12	90
2014	0.03	0.70	0.40	7	0.22	20	0.16	45	0.12	90
2015	0.03	0.70	0.40	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Eastern Alberta - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Conventional - Tertiary, Upper Cretaceous										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.14	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2004	0.13	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2005	0.11	0.95	0.52	7	0.25	20	0.16	45	0.12	90
2006	0.08	0.75	0.46	7	0.25	20	0.16	45	0.12	90
2007	0.11	0.65	0.42	7	0.25	20	0.16	45	0.12	90
2008	0.10	0.72	0.47	7	0.25	20	0.16	45	0.12	90
2009	0.09	1.00	0.47	7	0.23	20	0.16	45	0.12	90
2010	0.09	1.25	0.45	7	0.25	20	0.16	45	0.12	90
2011	0.09	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2012	0.08	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2013	0.08	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2014	0.08	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2015	0.08	0.95	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.11	0.65	0.48	7	0.22	20	0.16	45	0.12	90
2004	0.20	1.15	0.55	7	0.27	20	0.16	45	0.12	90
2005	0.16	1.15	0.50	7	0.30	20	0.16	45	0.12	90
2006	0.09	0.75	0.43	7	0.25	20	0.12	45	0.12	90
2007	0.13	0.50	0.37	7	0.25	20	0.16	45	0.12	90
2008	0.11	0.70	0.50	7	0.30	20	0.16	45	0.12	90
2009	0.14	1.25	0.65	7	0.25	20	0.16	45	0.12	90
2010	0.14	1.25	0.70	7	0.30	20	0.16	45	0.12	90
2011	0.09	1.15	0.50	7	0.30	20	0.16	45	0.12	90
2012	0.11	1.15	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.11	1.15	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.11	1.15	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.11	1.15	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Conventional - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.31	0.85	0.60	7	0.40	20	0.20	45	0.12	90
2004	0.29	0.85	0.58	7	0.33	20	0.30	45	0.12	90
2005	0.24	0.85	0.53	7	0.35	20	0.25	45	0.12	90
2006	0.24	0.60	0.50	7	0.43	20	0.25	45	0.12	90
2007	0.24	0.80	0.55	7	0.38	20	0.20	45	0.12	90
2008	0.20	0.95	0.60	7	0.35	20	0.16	45	0.12	90
2009	0.20	0.75	0.52	7	0.40	20	0.16	45	0.12	90
2010	0.21	1.35	0.85	7	0.45	20	0.20	45	0.12	90
2011	0.21	1.15	0.65	7	0.30	20	0.16	45	0.12	90
2012	0.19	1.15	0.65	7	0.30	20	0.16	45	0.12	90
2013	0.18	1.15	0.65	7	0.30	20	0.16	45	0.12	90
2014	0.18	1.15	0.65	7	0.30	20	0.16	45	0.12	90
2015	0.18	1.15	0.65	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Conventional - Mississippian, Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.57	0.85	0.40	7	0.26	20	0.23	45	0.12	90
2004	0.41	0.40	0.30	7	0.50	20	0.40	45	0.12	90
2005	0.30	1.15	0.65	7	0.25	20	0.20	45	0.12	90
2006	0.20	1.20	0.60	7	0.33	20	0.20	45	0.12	90
2007	0.28	0.95	0.55	7	0.20	20	0.16	45	0.12	90
2008	0.21	0.80	0.60	7	0.20	25	0.16	50	0.12	90
2009	0.12	1.25	0.45	7	0.30	20	0.20	45	0.12	90
2010	0.04	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2011	0.22	0.70	0.45	7	0.30	20	0.20	45	0.12	90
2012	0.07	0.95	0.45	7	0.30	20	0.20	45	0.12	90
2013	0.07	0.95	0.45	7	0.30	20	0.20	45	0.12	90
2014	0.07	0.95	0.45	7	0.30	20	0.20	45	0.12	90
2015	0.07	0.95	0.45	7	0.30	20	0.20	45	0.12	90

Resource Grouping - Gas - Central Alberta - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.20	0.65	0.40	7	0.18	20	0.14	45	0.12	90
2004	0.24	1.15	0.60	7	0.22	20	0.14	45	0.12	90
2005	0.23	1.15	0.40	7	0.20	20	0.12	45	0.12	90
2006	0.13	0.65	0.35	7	0.12	20	0.12	45	0.12	90
2007	0.21	0.95	0.50	7	0.22	20	0.12	45	0.12	90
2008	0.15	0.95	0.35	7	0.20	20	0.12	45	0.12	90
2009	0.12	1.00	0.35	7	0.30	20	0.12	45	0.12	90
2010	0.85	0.80	0.40	7	0.25	20	0.12	45	0.12	90
2011	0.07	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.09	1.25	0.60	7	0.22	20	0.16	45	0.12	90
2013	0.09	1.25	0.60	7	0.22	20	0.16	45	0.12	90
2014	0.09	1.25	0.60	7	0.22	20	0.16	45	0.12	90
2015	0.09	1.25	0.60	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Tight - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.23	0.45	0.30	7	0.22	20	0.20	45	0.12	90
2004	0.47	1.20	0.55	7	0.25	20	0.16	45	0.12	90
2005	0.20	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2006	0.40	1.15	0.43	7	0.30	20	0.16	45	0.12	90
2007	0.26	0.65	0.35	7	0.28	20	0.20	45	0.12	90
2008	0.43	0.95	0.65	7	0.55	20	0.20	45	0.12	90
2009	0.56	1.25	0.45	7	0.30	20	0.16	45	0.12	90
2010	0.29	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2011	0.22	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.40	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.40	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.40	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.40	1.25	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Alberta - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2013	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2014	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2015	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100

Resource Grouping - Gas - Central Alberta - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Tertiary										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.17	0.65	0.40	7	0.27	20	0.20	45	0.12	90
2004	0.14	0.65	0.42	7	0.30	20	0.20	45	0.12	90
2005	0.11	0.65	0.47	7	0.25	20	0.16	45	0.12	90
2006	0.12	0.70	0.40	7	0.32	20	0.20	45	0.12	90
2007	0.12	0.60	0.40	7	0.28	20	0.16	45	0.12	90
2008	0.13	0.55	0.42	7	0.32	20	0.16	45	0.12	90
2009	0.18	0.72	0.45	7	0.25	20	0.16	45	0.12	90
2010	0.20	1.10	0.60	7	0.30	20	0.16	45	0.12	90
2011	0.23	0.75	0.50	7	0.25	20	0.16	45	0.12	90
2012	0.17	0.75	0.50	7	0.25	20	0.16	45	0.12	90
2013	0.16	0.75	0.50	7	0.25	20	0.16	45	0.12	90
2014	0.15	0.75	0.50	7	0.25	20	0.16	45	0.12	90
2015	0.14	0.75	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Upper Cretaceous, Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.34	0.75	0.40	7	0.22	20	0.16	45	0.12	90
2004	0.27	0.65	0.40	7	0.30	20	0.16	45	0.12	90
2005	0.22	0.95	0.45	7	0.25	20	0.16	45	0.12	90
2006	0.20	0.85	0.45	7	0.25	20	0.16	45	0.12	90
2007	0.26	0.45	0.30	7	0.26	20	0.16	45	0.12	90
2008	0.29	0.50	0.35	7	0.25	20	0.16	45	0.12	90
2009	0.30	0.60	0.30	7	0.25	20	0.16	45	0.12	90
2010	0.64	1.15	0.45	7	0.30	20	0.20	45	0.12	90
2011	0.86	1.25	0.50	7	0.25	20	0.16	45	0.12	90
2012	0.73	1.25	0.50	7	0.25	20	0.16	45	0.12	90
2013	0.73	1.25	0.50	7	0.25	20	0.16	45	0.12	90
2014	0.73	1.25	0.50	7	0.25	20	0.16	45	0.12	90
2015	0.73	1.25	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.43	0.95	0.40	7	0.30	20	0.16	45	0.12	90
2004	0.38	0.65	0.40	7	0.25	20	0.12	45	0.12	90
2005	0.40	0.95	0.45	7	0.37	20	0.12	45	0.12	90
2006	0.13	0.60	0.40	7	0.20	20	0.12	45	0.12	90
2007	0.34	1.25	0.60	7	0.30	20	0.12	45	0.12	90
2008	0.32	0.65	0.40	7	0.16	20	0.12	45	0.12	90
2009	0.06	0.60	0.45	7	0.25	20	0.12	45	0.12	90
2010	1.14	0.65	0.40	7	0.20	20	0.12	45	0.12	90
2011	0.11	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2012	0.20	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2013	0.20	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2014	0.20	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2015	0.20	0.75	0.45	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Lower Mannville, Jurassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.56	0.85	0.34	7	0.23	20	0.14	45	0.12	90
2004	0.33	0.50	0.35	7	0.20	20	0.16	45	0.12	90
2005	0.50	0.65	0.42	7	0.35	20	0.14	45	0.12	90
2006	0.43	1.10	0.50	7	0.22	20	0.16	45	0.12	90
2007	0.39	0.90	0.43	7	0.27	20	0.14	45	0.12	90
2008	0.40	0.60	0.42	7	0.28	20	0.14	45	0.12	90
2009	0.56	0.55	0.45	7	0.30	20	0.16	45	0.12	90
2010	0.82	0.85	0.55	7	0.30	20	0.14	45	0.12	90
2011	1.30	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2012	1.55	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2013	1.55	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2014	1.55	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2015	1.55	0.75	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.44	0.55	0.35	7	0.38	20	0.16	45	0.12	90
2004	0.44	0.88	0.42	7	0.23	20	0.12	45	0.12	90
2005	0.58	0.20	0.27	7	0.40	20	0.20	45	0.12	90
2006	0.64	0.85	0.45	7	0.33	20	0.20	45	0.12	90
2007	0.42	0.50	0.35	7	0.25	20	0.16	45	0.12	90
2008	0.23	1.15	0.35	7	0.20	20	0.16	45	0.12	90
2009	0.41	0.70	0.35	7	0.25	20	0.16	45	0.12	90
2010	0.22	1.25	0.45	7	0.25	20	0.16	45	0.12	90
2011	0.53	1.45	0.65	7	0.30	20	0.16	45	0.12	90
2012	0.24	1.25	0.45	7	0.30	20	0.16	45	0.12	90
2013	0.24	1.25	0.45	7	0.30	20	0.16	45	0.12	90
2014	0.24	1.25	0.45	7	0.30	20	0.16	45	0.12	90
2015	0.24	1.25	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Conventional - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.90	0.45	0.35	7	0.20	20	0.16	45	0.12	90
2004	1.00	0.10	0.12	7	0.20	20	0.14	45	0.12	90
2005	0.77	0.35	0.25	7	0.16	20	0.14	45	0.12	90
2006	0.36	1.25	0.60	7	0.40	20	0.16	45	0.12	90
2007	1.34	0.40	0.27	7	0.20	20	0.16	45	0.12	90
2008	0.72	1.25	0.65	7	0.25	20	0.16	45	0.12	90
2009	0.57	1.25	0.80	9	0.45	20	0.16	45	0.12	90
2010	0.66	1.25	0.65	7	0.30	20	0.16	45	0.12	90
2011	0.19	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.22	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.22	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.22	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.22	1.25	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.34	0.95	0.40	7	0.23	20	0.14	45	0.12	90
2004	0.28	0.20	0.16	7	0.10	20	0.08	45	0.12	90
2005	0.33	0.95	0.50	7	0.12	20	0.08	45	0.12	90
2006	0.56	0.75	0.35	7	0.22	20	0.20	45	0.12	90
2007	0.34	0.75	0.43	7	0.25	20	0.12	45	0.12	90
2008	0.72	0.75	0.60	7	0.28	25	0.16	45	0.12	90
2009	0.93	1.00	0.25	7	0.16	20	0.14	45	0.12	90
2010	0.34	0.65	0.40	7	0.25	20	0.14	45	0.12	90
2011	0.40	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.40	0.75	0.40	7	0.25	20	0.14	45	0.12	90
2013	0.40	0.75	0.40	7	0.25	20	0.14	45	0.12	90
2014	0.40	0.75	0.40	7	0.25	20	0.14	45	0.12	90
2015	0.40	0.75	0.40	7	0.25	20	0.14	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Tight - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.39	0.65	0.40	7	0.25	20	0.14	45	0.12	90
2004	0.41	0.85	0.35	7	0.22	20	0.14	45	0.12	90
2005	0.36	0.65	0.35	7	0.23	20	0.16	45	0.12	90
2006	0.44	1.00	0.45	7	0.21	20	0.16	45	0.12	90
2007	0.38	1.00	0.32	7	0.22	20	0.16	45	0.12	90
2008	0.44	0.85	0.55	7	0.22	20	0.16	45	0.12	90
2009	0.57	0.75	0.52	7	0.35	20	0.20	45	0.12	90
2010	0.89	1.15	0.60	7	0.30	20	0.16	45	0.12	90
2011	1.19	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2012	1.29	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2013	1.29	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2014	1.29	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2015	1.29	1.05	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - West Central Alberta - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2013	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2014	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100
2015	3.50	2.25	0.80	6	0.40	20	0.20	45	0.12	100

Resource Grouping - Gas - West Central Alberta - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Conventional - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.94	0.65	0.40	7	0.22	20	0.14	45	0.12	90
2004	1.00	0.50	0.35	7	0.20	20	0.16	45	0.12	90
2005	0.58	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2006	0.59	0.85	0.37	7	0.20	20	0.12	45	0.12	90
2007	0.48	1.25	0.35	7	0.18	20	0.12	45	0.12	90
2008	1.11	1.25	0.35	6	0.25	20	0.16	45	0.12	90
2009	1.30	0.90	0.55	7	0.28	20	0.16	45	0.12	90
2010	0.73	1.20	0.50	7	0.30	20	0.16	45	0.12	90
2011	0.88	1.05	0.50	7	0.22	20	0.16	45	0.12	90
2012	0.14	1.05	0.50	7	0.22	20	0.16	45	0.12	90
2013	0.14	1.05	0.50	7	0.22	20	0.16	45	0.12	90
2014	0.14	1.05	0.50	7	0.22	20	0.16	45	0.12	90
2015	0.14	1.05	0.50	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Conventional - Colorado, Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.28	0.60	0.30	7	0.27	20	0.20	45	0.12	90
2004	1.15	0.60	0.30	7	0.20	20	0.16	45	0.12	90
2005	0.54	0.70	0.45	7	0.25	20	0.16	45	0.12	90
2006	0.81	0.50	0.40	7	0.30	20	0.16	45	0.12	90
2007	1.12	1.25	0.65	7	0.20	20	0.16	45	0.12	90
2008	1.76	1.05	0.50	7	0.30	20	0.16	45	0.12	90
2009	0.95	0.85	0.35	7	0.18	20	0.16	45	0.12	90
2010	1.28	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2011	1.28	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2012	1.72	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2013	1.72	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2014	1.72	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2015	1.72	0.65	0.40	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Conventional - Jurassic, Triassic, Permian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	4.71	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2004	2.80	0.40	0.25	7	0.20	20	0.16	45	0.12	90
2005	2.28	0.65	0.50	7	0.30	20	0.20	45	0.12	90
2006	3.67	0.60	0.45	7	0.25	20	0.12	45	0.12	90
2007	3.02	1.10	0.60	7	0.32	20	0.12	45	0.12	90
2008	2.88	0.95	0.55	7	0.30	20	0.12	45	0.12	90
2009	2.13	0.40	0.35	7	0.23	20	0.16	45	0.12	90
2010	1.73	1.00	0.55	7	0.30	20	0.16	45	0.12	90
2011	2.40	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2012	1.67	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2013	1.67	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2014	1.67	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2015	1.67	0.95	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Conventional - Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	3.14	0.45	0.20	7	0.12	20	0.10	45	0.12	90
2004	2.33	0.65	0.40	7	0.20	20	0.12	45	0.12	90
2005	2.21	0.75	0.35	7	0.16	20	0.12	45	0.12	90
2006	1.72	0.35	0.25	7	0.22	20	0.16	45	0.12	90
2007	2.60	0.40	0.30	7	0.25	20	0.20	45	0.12	90
2008	3.59	0.75	0.35	7	0.18	25	0.16	45	0.12	90
2009	4.48	0.75	0.45	10	0.30	25	0.16	45	0.12	90
2010	3.60	0.85	0.16	7	0.14	20	0.12	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.12	0
2012	3.60	0.85	0.16	7	0.14	20	0.12	45	0.12	90
2013	3.60	0.85	0.16	7	0.14	20	0.12	45	0.12	90
2014	3.60	0.85	0.16	7	0.14	20	0.12	45	0.12	90
2015	3.60	0.85	0.16	7	0.14	20	0.12	45	0.12	90

Resource Grouping - Gas - Central Foothills - Conventional - Upper Devonian, Middle Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	2.16	0.10	0.30	7	0.12	20	0.10	45	0.12	90
2004	1.85	0.20	0.25	7	0.16	20	0.14	45	0.12	90
2005	10.08	0.15	0.18	7	0.20	20	0.16	45	0.12	90
2006	3.37	0.40	0.30	7	0.20	20	0.12	45	0.12	90
2007	1.59	1.00	0.50	7	0.30	20	0.12	45	0.12	90
2008	1.32	0.70	0.45	7	0.20	20	0.12	45	0.12	90
2009	1.05	0.75	0.40	7	0.25	20	0.12	45	0.12	90
2010	0.94	0.85	0.40	7	0.12	20	0.12	45	0.12	90
2011	2.34	0.85	0.50	7	0.30	20	0.12	45	0.12	90
2012	1.44	0.85	0.50	7	0.20	20	0.12	45	0.12	90
2013	1.44	0.85	0.50	7	0.20	20	0.12	45	0.12	90
2014	1.44	0.85	0.50	7	0.20	20	0.12	45	0.12	90
2015	1.44	0.85	0.50	7	0.20	20	0.12	45	0.12	90

Resource Grouping - Gas - Central Foothills - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2005	1.63	0.65	0.50	7	0.35	20	0.20	45	0.12	90
2006	0.19	0.55	0.12	7	0.12	20	0.12	45	0.12	90
2007	1.03	1.55	0.60	7	0.28	20	0.18	45	0.12	90
2008	0.60	0.48	0.38	7	0.30	20	0.16	45	0.12	90
2009	1.09	1.25	0.45	7	0.20	20	0.16	45	0.12	90
2010	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.90	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2013	0.90	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2014	0.90	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2015	0.90	0.65	0.40	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Tight - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.30	2.08	0.73	7	0.35	20	0.16	45	0.12	90
2004	1.09	2.95	0.65	7	0.22	20	0.16	45	0.12	90
2005	0.24	0.60	0.35	7	0.20	20	0.16	45	0.12	90
2006	4.50	1.65	0.75	7	0.45	20	0.12	45	0.12	90
2007	0.47	1.55	0.40	7	0.12	20	0.12	45	0.12	90
2008	0.25	1.45	0.60	7	0.23	20	0.16	45	0.12	90
2009	1.78	1.25	0.45	7	0.25	20	0.16	45	0.12	90
2010	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2011	7.68	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2012	2.17	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2013	2.17	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2014	2.17	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2015	2.17	1.45	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Tight - Jurassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	0.90	0.85	0.55	7	0.20	20	0.14	45	0.12	90
2007	1.06	0.85	0.50	7	0.18	20	0.16	45	0.12	90
2008	3.01	0.85	0.35	7	0.18	25	0.16	45	0.12	90
2009	1.86	1.15	0.40	7	0.20	20	0.16	45	0.12	90
2010	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2011	2.20	0.85	0.45	7	0.25	20	0.16	45	0.12	90
2012	2.97	0.85	0.45	7	0.20	20	0.16	45	0.12	90
2013	2.97	0.85	0.45	7	0.20	20	0.16	45	0.12	90
2014	2.97	0.85	0.45	7	0.20	20	0.16	45	0.12	90
2015	2.97	0.85	0.45	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2013	3.50	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2014	3.50	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2015	3.50	0.85	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Central Foothills - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.40	1.10	0.55	7	0.33	20	0.20	45	0.12	90
2004	0.44	1.40	0.60	7	0.20	20	0.16	45	0.12	90
2005	0.48	0.85	0.77	7	0.25	20	0.16	45	0.12	90
2006	0.39	1.25	0.30	7	0.20	20	0.16	45	0.12	90
2007	0.39	1.25	0.43	7	0.20	20	0.16	45	0.12	90
2008	0.46	1.15	0.30	7	0.12	20	0.12	45	0.12	90
2009	0.61	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2010	0.50	0.95	0.60	7	0.50	20	0.20	45	0.12	90
2011	0.16	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.22	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.22	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.22	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.22	0.85	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Conventional - Mannville, Jurassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.57	0.90	0.50	7	0.30	20	0.16	45	0.12	90
2004	0.47	0.50	0.55	7	0.43	20	0.20	45	0.12	90
2005	0.61	1.05	0.63	7	0.27	20	0.16	45	0.12	90
2006	0.56	1.15	0.50	7	0.32	20	0.20	45	0.12	90
2007	0.52	0.55	0.45	7	0.30	20	0.16	45	0.12	90
2008	0.65	1.30	0.35	7	0.25	20	0.16	45	0.12	90
2009	0.64	0.86	0.52	7	0.27	20	0.16	45	0.12	90
2010	0.38	0.99	0.65	7	0.30	20	0.16	45	0.12	90
2011	0.31	1.45	0.60	7	0.25	20	0.16	45	0.12	90
2012	0.35	0.95	0.60	7	0.25	20	0.16	45	0.12	90
2013	0.35	0.95	0.60	7	0.25	20	0.16	45	0.12	90
2014	0.35	0.95	0.60	7	0.25	20	0.16	45	0.12	90
2015	0.35	0.95	0.60	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Conventional - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.93	0.50	0.35	7	0.20	20	0.16	45	0.12	90
2004	1.09	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2005	0.92	0.70	0.45	7	0.28	20	0.20	45	0.12	90
2006	0.85	1.90	0.55	7	0.30	20	0.27	45	0.12	90
2007	0.82	0.85	0.50	7	0.35	20	0.20	45	0.12	90
2008	0.54	0.40	0.25	7	0.20	20	0.12	45	0.12	90
2009	0.73	0.30	0.25	7	0.20	20	0.16	45	0.12	90
2010	0.31	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2011	1.27	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2012	0.35	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2013	0.35	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2014	0.35	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2015	0.35	0.65	0.40	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Conventional - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.25	0.65	0.35	7	0.12	20	0.12	45	0.12	90
2004	0.03	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2005	0.05	0.65	0.45	7	0.25	20	0.16	45	0.12	90
2006	0.96	0.90	0.65	7	0.45	20	0.20	45	0.12	90
2007	0.66	0.75	0.40	7	0.30	20	0.20	45	0.12	90
2008	0.40	0.65	0.40	7	0.30	20	0.16	45	0.12	90
2009	0.97	1.15	0.75	7	0.30	20	0.16	45	0.12	90
2010	0.68	0.85	0.60	7	0.35	20	0.16	45	0.12	90
2011	0.24	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2012	0.24	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2013	0.24	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2014	0.24	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2015	0.24	0.65	0.40	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Tight - Colorado, Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.51	0.55	0.30	7	0.40	20	0.16	45	0.12	90
2004	0.50	0.85	0.40	7	0.18	20	0.16	45	0.12	90
2005	0.50	0.90	0.50	7	0.30	20	0.16	45	0.12	90
2006	0.56	0.95	0.45	7	0.28	20	0.18	45	0.12	90
2007	0.54	0.75	0.50	7	0.33	20	0.20	45	0.12	90
2008	0.50	1.10	0.50	7	0.25	20	0.16	45	0.12	90
2009	1.03	0.90	0.67	7	0.42	20	0.20	45	0.12	90
2010	1.17	1.35	0.62	7	0.40	20	0.16	45	0.12	90
2011	1.18	1.15	0.65	7	0.40	20	0.16	45	0.12	90
2012	1.19	1.15	0.65	7	0.40	20	0.16	45	0.12	90
2013	1.19	1.15	0.65	7	0.40	20	0.16	45	0.12	90
2014	1.19	1.15	0.65	7	0.40	20	0.16	45	0.12	90
2015	1.19	1.15	0.65	7	0.40	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob - Tight - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.80	0.75	0.60	7	0.25	20	0.16	45	0.12	90
2004	0.75	0.95	0.60	7	0.27	20	0.14	45	0.12	90
2005	0.74	1.05	0.47	7	0.25	20	0.14	45	0.12	90
2006	0.60	0.85	0.48	7	0.20	20	0.12	45	0.12	90
2007	0.52	0.75	0.50	7	0.30	20	0.18	45	0.12	90
2008	0.30	1.25	0.52	7	0.30	25	0.14	45	0.12	90
2009	0.32	0.60	0.40	7	0.30	20	0.14	45	0.12	90
2010	0.66	1.25	0.60	7	0.30	20	0.14	45	0.12	90
2011	0.93	1.25	0.65	7	0.30	20	0.16	45	0.12	90
2012	0.40	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.40	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.40	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.40	0.95	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Kaybob- Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2013	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2014	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2015	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Kaybob - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Cretaceous										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.52	1.15	0.48	7	0.23	20	0.14	45	0.12	90
2004	0.36	0.40	0.45	7	0.25	20	0.16	45	0.12	90
2005	0.35	0.65	0.40	7	0.20	20	0.14	45	0.12	90
2006	0.28	0.65	0.30	7	0.18	20	0.12	45	0.12	90
2007	0.34	1.35	0.35	7	0.20	20	0.12	45	0.12	90
2008	0.41	0.85	0.35	7	0.25	20	0.16	45	0.12	90
2009	0.42	0.75	0.25	7	0.20	20	0.14	45	0.12	90
2010	0.38	0.75	0.50	7	0.30	20	0.14	45	0.12	90
2011	0.48	0.75	0.40	7	0.30	20	0.16	45	0.12	90
2012	0.93	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2013	0.60	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2014	0.60	0.75	0.40	7	0.25	20	0.16	45	0.12	90
2015	0.60	0.75	0.40	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.41	1.20	0.30	7	0.18	20	0.12	45	0.08	90
2004	0.36	0.65	0.40	7	0.22	20	0.10	45	0.08	90
2005	0.37	1.15	0.40	7	0.28	20	0.12	45	0.08	90
2006	0.47	1.05	0.40	7	0.20	20	0.14	45	0.08	90
2007	0.93	0.80	0.65	7	0.45	20	0.20	45	0.12	90
2008	0.34	1.15	0.40	7	0.23	20	0.16	45	0.08	90
2009	0.38	1.25	0.60	7	0.30	20	0.14	45	0.08	90
2010	0.63	1.05	0.52	7	0.30	20	0.14	45	0.08	90
2011	0.52	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2012	0.36	0.95	0.50	7	0.30	20	0.14	45	0.08	90
2013	0.36	0.95	0.50	7	0.30	20	0.14	45	0.08	90
2014	0.36	0.95	0.50	7	0.30	20	0.14	45	0.08	90
2015	0.36	0.95	0.50	7	0.30	20	0.14	45	0.08	90

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Mannville, Jurassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.49	0.95	0.60	7	0.25	20	0.12	45	0.05	90
2004	0.81	1.65	0.55	7	0.25	20	0.14	45	0.05	90
2005	0.34	0.65	0.55	7	0.35	20	0.20	45	0.05	90
2006	0.40	0.85	0.45	7	0.30	20	0.20	45	0.05	90
2007	0.28	0.75	0.30	7	0.18	20	0.12	45	0.05	90
2008	0.72	0.95	0.35	7	0.25	20	0.12	45	0.05	90
2009	0.29	0.95	0.45	7	0.25	20	0.12	45	0.05	90
2010	1.05	0.95	0.65	7	0.30	20	0.16	45	0.05	90
2011	0.94	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2012	1.14	0.95	0.60	7	0.30	20	0.16	45	0.05	90
2013	1.14	0.95	0.60	7	0.30	20	0.16	45	0.05	90
2014	1.14	0.95	0.60	7	0.30	20	0.16	45	0.05	90
2015	1.14	0.95	0.60	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.54	0.95	0.40	7	0.25	20	0.15	45	0.05	90
2004	1.16	0.65	0.50	7	0.30	20	0.14	45	0.05	90
2005	0.88	0.65	0.42	7	0.33	20	0.14	45	0.05	90
2006	1.00	0.55	0.40	7	0.30	20	0.16	45	0.05	90
2007	0.57	0.85	0.50	7	0.25	20	0.10	45	0.05	90
2008	0.76	1.15	0.62	7	0.33	20	0.16	45	0.05	90
2009	1.10	1.35	0.58	7	0.30	20	0.12	45	0.05	90
2010	1.59	1.55	0.45	7	0.25	20	0.12	45	0.05	90
2011	1.06	1.45	0.60	7	0.30	20	0.16	45	0.05	90
2012	0.62	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2013	0.62	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2014	0.62	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2015	0.62	1.45	0.50	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Alberta Deep Basin - Conventional - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	2.11	0.85	0.70	7	0.25	20	0.18	45	0.12	90
2004	3.01	0.45	0.22	7	0.30	20	0.16	45	0.12	90
2005	3.32	1.65	0.85	7	0.35	20	0.20	45	0.12	90
2006	0.29	1.45	0.60	7	0.30	20	0.16	45	0.05	90
2007	4.88	0.20	0.16	7	0.14	20	0.12	45	0.05	90
2008	3.36	0.60	0.40	7	0.20	20	0.16	45	0.12	90
2009	3.22	0.95	0.65	7	0.40	20	0.16	45	0.12	90
2010	0.72	0.85	0.50	7	0.25	20	0.16	45	0.12	90
2011	0.02	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	1.28	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2013	1.28	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2014	1.28	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2015	1.28	1.25	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Alberta Deep Basin - Tight - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.49	0.65	0.40	7	0.25	20	0.14	45	0.12	90
2004	0.63	0.85	0.40	7	0.20	20	0.14	45	0.12	90
2005	0.46	0.90	0.40	7	0.22	20	0.16	45	0.12	90
2006	0.43	1.00	0.35	7	0.24	20	0.16	45	0.12	90
2007	0.44	1.05	0.45	7	0.20	20	0.12	45	0.12	90
2008	0.48	0.90	0.40	7	0.25	20	0.16	45	0.12	90
2009	0.62	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2010	0.76	0.90	0.50	7	0.30	20	0.16	45	0.12	90
2011	0.91	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.81	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.81	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.81	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.81	1.05	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Alberta Deep Basin - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.84	0.65	0.40	7	0.30	20	0.14	45	0.10	90
2004	0.72	0.65	0.40	7	0.35	20	0.16	45	0.10	90
2005	0.43	0.60	0.40	7	0.22	20	0.16	45	0.10	90
2006	0.39	0.47	0.45	7	0.30	20	0.20	45	0.10	90
2007	0.73	1.05	0.45	7	0.25	20	0.12	45	0.05	90
2008	0.49	0.35	0.25	7	0.22	20	0.16	35	0.05	90
2009	1.02	1.45	0.50	7	0.25	20	0.12	45	0.05	90
2010	0.79	0.85	0.50	7	0.30	20	0.12	45	0.05	90
2011	0.97	1.45	0.60	7	0.30	20	0.16	45	0.05	90
2012	0.66	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2013	0.66	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2014	0.66	1.45	0.50	7	0.30	20	0.16	45	0.05	90
2015	0.66	1.45	0.50	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Alberta Deep Basin - Tight - Mannville, Jurassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.80	0.65	0.50	7	0.32	20	0.14	45	0.10	90
2004	0.54	0.60	0.45	7	0.27	20	0.14	45	0.10	90
2005	0.43	0.60	0.45	7	0.28	20	0.14	45	0.10	90
2006	0.46	0.65	0.45	7	0.26	20	0.16	45	0.10	90
2007	0.57	0.75	0.41	7	0.28	20	0.16	45	0.10	90
2008	0.78	0.85	0.45	7	0.27	20	0.16	45	0.10	90
2009	0.78	0.70	0.50	7	0.26	20	0.16	45	0.10	90
2010	0.98	0.80	0.45	7	0.25	20	0.16	45	0.10	90
2011	1.48	0.85	0.50	7	0.25	20	0.16	45	0.10	90
2012	1.36	0.85	0.50	7	0.25	20	0.16	45	0.10	90
2013	1.36	0.85	0.50	7	0.25	20	0.16	45	0.10	90
2014	1.36	0.85	0.50	7	0.25	20	0.16	45	0.10	90
2015	1.36	0.85	0.50	7	0.25	20	0.16	45	0.10	90

Resource Grouping - Gas - Alberta Deep Basin - Tight - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.19	0.60	0.30	7	0.20	20	0.12	45	0.05	90
2004	2.44	1.25	0.40	7	0.25	20	0.16	45	0.05	90
2005	0.76	1.25	0.40	7	0.20	20	0.16	45	0.05	90
2006	0.57	0.95	0.45	7	0.25	20	0.18	45	0.10	90
2007	0.43	1.25	0.48	7	0.25	20	0.14	45	0.05	90
2008	0.96	1.45	0.55	7	0.27	20	0.16	45	0.05	90
2009	0.48	0.95	0.50	7	0.40	20	0.16	45	0.05	90
2010	1.10	1.25	0.55	7	0.25	20	0.14	45	0.05	90
2011	0.63	0.70	0.40	7	0.20	20	0.16	45	0.05	90
2012	0.62	0.70	0.40	7	0.20	20	0.16	45	0.05	90
2013	0.62	0.70	0.40	7	0.20	20	0.16	45	0.05	90
2014	0.62	0.70	0.40	7	0.20	20	0.16	45	0.05	90
2015	0.62	0.70	0.40	7	0.20	20	0.16	45	0.05	90

Resource Grouping - Gas - Alberta Deep Basin - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2013	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2014	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2015	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Alberta Deep Basin - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	3.00	3.00	3	3.00	3	3.00	3	3.00	3
2013	3.00	3.00	3.00	3	3.00	3	3.00	3	3.00	3
2014	3.00	3.00	3.00	3	3.00	3	3.00	3	3.00	3
2015	3.00	3.00	3.00	3	3.00	3	3.00	3	3.00	3

Resource Grouping - Gas - Northeast Alberta - Conventional - Mannville, Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.21	0.40	0.30	7	0.30	20	0.20	45	0.16	90
2004	0.17	0.18	0.32	7	0.27	20	0.20	45	0.16	90
2005	0.18	0.65	0.45	7	0.27	20	0.16	45	0.16	90
2006	0.14	0.70	0.35	7	0.28	20	0.16	45	0.10	90
2007	0.16	0.65	0.44	7	0.26	20	0.16	45	0.10	90
2008	0.16	0.65	0.47	7	0.40	20	0.20	45	0.16	90
2009	0.14	0.80	0.42	7	0.35	20	0.20	45	0.10	90
2010	0.14	0.40	0.28	7	0.20	20	0.16	45	0.10	90
2011	0.17	0.80	0.35	7	0.20	20	0.16	45	0.12	90
2012	0.12	0.80	0.35	7	0.20	20	0.16	45	0.12	90
2013	0.12	0.80	0.35	7	0.20	20	0.16	45	0.12	90
2014	0.12	0.80	0.35	7	0.20	20	0.16	45	0.12	90
2015	0.12	0.80	0.35	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.68	0.25	0.50	7	0.48	20	0.32	45	0.20	90
2004	0.32	0.65	0.40	7	0.30	20	0.33	45	0.20	90
2005	0.30	0.65	0.50	7	0.33	20	0.25	45	0.20	90
2006	0.20	1.00	0.40	7	0.39	20	0.35	45	0.12	90
2007	0.24	0.75	0.27	7	0.18	20	0.12	45	0.10	90
2008	0.19	0.90	0.55	7	0.30	20	0.16	45	0.10	90
2009	0.18	0.40	0.28	7	0.24	20	0.20	45	0.10	90
2010	0.65	0.85	0.45	7	0.25	20	0.16	45	0.12	90
2011	0.94	0.60	0.40	7	0.20	20	0.16	45	0.10	90
2012	0.47	0.60	0.40	7	0.20	20	0.16	45	0.10	90
2013	0.47	0.60	0.40	7	0.20	20	0.16	45	0.10	90
2014	0.47	0.60	0.40	7	0.20	20	0.16	45	0.10	90
2015	0.47	0.60	0.40	7	0.20	20	0.16	45	0.10	90

Resource Grouping - Gas - Peace River - Conventional - Colorado, Upper Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.34	0.30	0.40	7	0.50	20	0.30	45	0.18	90
2004	0.56	0.65	0.65	7	0.55	20	0.30	45	0.18	90
2005	0.47	0.65	0.47	7	0.42	20	0.30	45	0.18	90
2006	0.33	0.60	0.45	7	0.75	20	0.27	45	0.12	90
2007	0.48	0.65	0.45	7	0.85	20	0.25	45	0.10	90
2008	0.31	0.90	0.55	7	0.42	20	0.16	45	0.10	90
2009	0.31	0.80	0.40	7	0.30	20	0.20	45	0.10	90
2010	0.43	0.75	0.50	7	0.40	20	0.25	45	0.10	90
2011	0.46	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2012	0.50	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2013	0.50	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2014	0.50	0.75	0.45	7	0.30	20	0.16	45	0.12	90
2015	0.50	0.75	0.45	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Middle Mannville, Lower Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.60	0.65	0.75	7	0.45	20	0.25	45	0.12	90
2004	0.46	0.30	0.50	7	0.53	20	0.30	45	0.12	90
2005	0.53	0.95	0.95	7	0.38	20	0.30	45	0.12	90
2006	0.48	1.00	0.57	7	0.40	20	0.25	45	0.12	90
2007	0.49	1.05	0.60	7	0.55	20	0.25	45	0.12	90
2008	0.39	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2009	0.48	0.95	1.45	7	0.50	20	0.20	45	0.12	90
2010	0.33	1.45	0.50	7	0.35	20	0.20	45	0.12	90
2011	0.27	0.95	0.40	7	0.20	20	0.16	45	0.12	90
2012	0.24	0.95	0.40	7	0.20	20	0.16	45	0.12	90
2013	0.21	0.95	0.40	7	0.20	20	0.16	45	0.12	90
2014	0.19	0.95	0.40	7	0.20	20	0.16	45	0.12	90
2015	0.16	0.95	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Upper Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.98	0.65	0.65	7	0.40	20	0.20	45	0.12	90
2004	0.46	0.40	0.30	7	0.35	20	0.20	45	0.12	90
2005	0.35	1.25	0.50	7	0.30	20	0.22	45	0.16	90
2006	0.61	0.75	0.50	7	0.33	20	0.20	45	0.16	90
2007	0.61	1.65	0.85	7	0.12	20	0.10	45	0.05	90
2008	0.50	0.40	0.85	7	0.40	20	0.25	45	0.12	90
2009	0.68	1.55	0.47	7	0.25	20	0.20	45	0.12	90
2010	0.51	0.85	0.50	7	0.30	20	0.20	45	0.12	90
2011	1.03	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.41	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.41	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.41	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.41	1.05	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Lower Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.39	1.25	0.40	7	0.20	20	0.12	45	0.12	90
2004	0.79	0.95	0.60	7	0.32	20	0.16	45	0.12	90
2005	0.45	1.25	0.40	7	0.22	20	0.16	45	0.12	90
2006	0.53	0.75	0.40	7	0.25	20	0.20	45	0.10	90
2007	0.56	1.95	0.75	7	0.30	20	0.10	45	0.05	90
2008	0.79	0.95	0.35	7	0.22	20	0.12	45	0.05	90
2009	1.64	0.75	0.62	7	0.42	20	0.20	45	0.10	90
2010	0.86	0.80	0.60	7	0.30	20	0.16	45	0.10	90
2011	2.09	0.80	0.50	7	0.30	20	0.16	45	0.12	90
2012	0.55	0.80	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.55	0.80	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.55	0.80	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.55	0.80	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.97	0.55	0.50	7	0.40	20	0.16	45	0.12	90
2004	0.55	0.25	0.35	7	0.27	20	0.20	45	0.12	90
2005	0.56	0.20	0.65	7	0.28	20	0.20	45	0.12	90
2006	0.49	0.95	0.60	7	0.25	20	0.18	45	0.10	90
2007	0.46	1.45	0.55	7	0.25	20	0.18	45	0.10	90
2008	0.72	0.75	0.55	7	0.45	20	0.20	45	0.10	90
2009	0.94	0.95	0.60	7	0.30	20	0.18	45	0.10	90
2010	0.46	0.75	0.35	7	0.25	20	0.16	45	0.12	90
2011	0.37	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2012	0.55	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2013	0.55	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2014	0.55	0.65	0.40	7	0.25	20	0.16	45	0.12	90
2015	0.55	0.65	0.40	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Conventional - Upper Devonian, Middle Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	2.16	0.65	1.55	7	0.55	20	0.25	45	0.12	90
2004	1.17	0.65	0.55	7	0.40	20	0.20	45	0.12	90
2005	2.39	0.20	0.70	7	0.80	20	0.20	45	0.12	90
2006	0.48	1.55	0.45	7	0.30	20	0.20	45	0.12	90
2007	1.01	1.70	0.95	7	0.65	20	0.30	45	0.12	90
2008	0.58	1.45	0.60	7	0.35	20	0.20	45	0.12	90
2009	0.29	1.55	0.55	7	0.37	20	0.20	45	0.12	90
2010	0.88	1.65	0.55	7	0.30	20	0.20	45	0.12	90
2011	2.78	1.65	0.55	7	0.30	20	0.20	45	0.12	90
2012	0.88	1.65	0.55	7	0.30	20	0.20	45	0.12	90
2013	0.88	1.65	0.55	7	0.30	20	0.20	45	0.12	90
2014	0.88	1.65	0.55	7	0.30	20	0.20	45	0.12	90
2015	0.88	1.65	0.55	7	0.30	20	0.20	45	0.12	90

Resource Grouping - Gas - Peace River - Tight - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.27	1.05	0.40	7	0.28	20	0.20	45	0.12	90
2004	1.32	1.30	0.53	7	0.20	20	0.16	45	0.12	90
2005	0.70	1.50	0.50	7	0.25	20	0.16	45	0.12	90
2006	0.47	1.50	0.45	7	0.35	20	0.20	45	0.12	90
2007	0.42	0.95	0.60	7	0.25	20	0.14	45	0.12	90
2008	0.51	1.05	0.40	7	0.25	20	0.12	45	0.05	90
2009	0.32	1.65	0.60	7	0.30	20	0.16	45	0.12	90
2010	0.63	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.49	1.50	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.49	1.50	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.49	1.50	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.49	1.50	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Tight - Lower Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.59	0.98	0.52	7	0.25	20	0.14	45	0.12	90
2004	0.56	1.15	0.50	7	0.30	20	0.20	45	0.12	90
2005	0.47	0.95	0.75	7	0.30	20	0.16	45	0.12	90
2006	0.54	1.35	0.50	7	0.35	20	0.16	45	0.12	90
2007	0.42	0.65	0.50	7	0.35	20	0.16	45	0.12	90
2008	0.64	1.05	0.65	7	0.30	20	0.16	45	0.12	90
2009	1.01	0.55	0.30	7	0.05	20	0.05	45	0.05	90
2010	1.15	0.70	0.40	7	0.25	20	0.16	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.94	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.94	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.94	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.94	0.95	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Peace River - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2013	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2014	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90
2015	3.50	0.85	0.60	7	0.30	20	0.16	45	0.05	90

Resource Grouping - Gas - Peace River - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Northwest Alberta - Conventional - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.10	0.70	0.40	7	0.20	20	0.16	45	0.12	90
2004	0.08	0.30	0.25	7	0.22	20	0.16	45	0.12	90
2005	0.06	0.20	0.30	7	0.25	20	0.16	45	0.12	90
2006	0.09	0.35	0.20	7	0.18	20	0.16	45	0.12	90
2007	0.13	0.60	0.40	7	0.27	20	0.14	45	0.12	90
2008	0.18	0.30	0.14	7	0.12	20	0.10	45	0.05	90
2009	0.23	0.45	0.20	7	0.16	20	0.12	45	0.05	90
2010	0.23	0.85	0.60	7	0.30	20	0.16	45	0.12	90
2011	0.28	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2012	0.23	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2013	0.23	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2014	0.23	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2015	0.23	0.65	0.40	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - Northwest Alberta - Conventional - Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.18	0.65	0.25	7	0.16	20	0.16	45	0.12	90
2004	0.31	0.65	0.50	7	0.30	20	0.16	45	0.12	90
2005	0.16	0.55	0.30	7	0.27	20	0.18	45	0.12	90
2006	0.08	0.35	0.18	7	0.16	20	0.14	45	0.12	90
2007	0.20	0.80	0.50	7	0.30	20	0.18	45	0.10	90
2008	0.20	0.65	0.20	7	0.16	20	0.10	45	0.05	90
2009	0.12	0.50	0.30	7	0.20	20	0.16	45	0.10	90
2010	0.17	0.35	0.25	7	0.20	20	0.16	45	0.10	90
2011	0.03	1.95	0.65	7	0.30	20	0.16	45	0.12	90
2012	0.03	0.65	0.30	7	0.20	20	0.16	45	0.12	90
2013	0.03	0.65	0.30	7	0.20	20	0.16	45	0.12	90
2014	0.03	0.65	0.30	7	0.20	20	0.16	45	0.12	90
2015	0.03	0.65	0.30	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Northwest Alberta - Conventional - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.16	0.65	0.55	7	0.58	20	0.25	45	0.12	90
2004	0.67	1.05	0.40	7	0.35	20	0.20	45	0.12	90
2005	0.50	1.25	0.80	7	0.55	20	0.25	45	0.12	90
2006	0.62	2.00	0.50	7	0.28	20	0.27	45	0.12	90
2007	0.22	0.80	0.45	7	0.30	20	0.14	45	0.12	90
2008	0.53	1.90	0.60	7	0.25	20	0.18	45	0.12	90
2009	1.99	1.95	0.65	7	0.40	20	0.20	45	0.12	90
2010	0.56	1.25	0.60	7	0.30	20	0.20	45	0.12	90
2011	0.03	0.30	0.12	7	0.10	20	0.08	45	0.05	90
2012	0.10	1.25	0.60	7	0.30	20	0.20	45	0.12	90
2013	0.10	1.25	0.60	7	0.30	20	0.20	45	0.12	90
2014	0.10	1.25	0.60	7	0.30	20	0.20	45	0.12	90
2015	0.10	1.25	0.60	7	0.30	20	0.20	45	0.12	90

Resource Grouping - Gas - Northwest Alberta - Conventional - Middle Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.78	0.85	0.95	7	0.70	20	0.40	45	0.18	90
2004	0.63	0.95	0.80	7	0.60	20	0.45	45	0.18	90
2005	0.70	1.00	0.95	7	0.70	20	0.45	45	0.18	90
2006	0.55	2.25	1.25	7	0.35	20	0.25	45	0.18	90
2007	0.51	1.70	0.95	7	0.45	20	0.20	45	0.12	90
2008	0.74	1.45	1.15	7	0.60	20	0.42	45	0.18	90
2009	0.84	1.50	0.75	7	0.57	20	0.25	45	0.12	90
2010	0.65	1.25	0.60	7	0.40	20	0.20	45	0.18	90
2011	0.50	1.25	0.60	7	0.40	20	0.20	45	0.12	90
2012	0.47	1.25	0.60	7	0.40	20	0.20	45	0.12	90
2013	0.44	1.25	0.60	7	0.40	20	0.20	45	0.12	90
2014	0.41	1.25	0.60	7	0.40	20	0.20	45	0.12	90
2015	0.37	1.25	0.60	7	0.40	20	0.20	45	0.12	90

Resource Grouping - Gas - Peace River - Shale - Duvernay										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2012	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	3.00	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Deep Basin - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2004	4.40	1.95	1.45	10	0.60	25	0.25	45	0.12	90
2005	4.52	0.45	0.85	7	0.35	15	0.45	45	0.12	90
2006	3.40	0.80	0.65	7	0.20	18	0.25	35	0.12	500
2007	0.22	1.45	0.60	7	0.20	20	0.12	45	0.10	90
2008	0.12	0.50	0.25	7	0.20	20	0.16	45	0.12	90
2009	0.81	1.25	0.50	7	0.20	20	0.16	45	0.12	90
2010	0.05	1.25	0.45	7	0.20	20	0.16	45	0.12	90
2011	2.34	1.25	0.50	7	0.20	20	0.16	45	0.12	90
2012	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2013	0.71	1.25	0.50	7	0.20	20	0.16	45	0.12	90
2014	0.71	1.25	0.50	7	0.20	20	0.16	45	0.12	90
2015	0.71	1.25	0.50	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Deep Basin - Conventional - Lower Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	0.66	0.70	0.45	7	0.27	20	0.16	45	0.12	90
2007	0.96	0.45	0.20	7	0.16	20	0.12	45	0.10	90
2008	1.06	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2009	1.27	0.40	0.25	7	0.20	20	0.16	45	0.12	90
2010	3.27	0.85	0.50	7	0.20	20	0.16	45	0.12	90
2011	2.40	0.85	0.50	7	0.25	20	0.16	45	0.12	90
2012	1.53	0.85	0.50	7	0.25	20	0.16	45	0.12	90
2013	1.53	0.85	0.50	7	0.25	20	0.16	45	0.12	90
2014	1.53	0.85	0.50	7	0.25	20	0.16	45	0.12	90
2015	1.53	0.85	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Deep Basin - Tight - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.58	0.65	0.40	7	0.20	20	0.12	45	0.05	90
2004	0.41	1.35	0.40	7	0.20	20	0.12	45	0.05	90
2005	0.07	0.65	0.40	7	0.16	20	0.08	45	0.05	90
2006	0.76	1.05	0.45	7	0.20	20	0.12	45	0.05	90
2007	1.00	0.40	0.20	7	0.16	20	0.12	45	0.05	90
2008	1.14	1.95	0.55	7	0.30	20	0.12	45	0.05	90
2009	2.83	1.25	0.65	7	0.30	20	0.12	45	0.05	90
2010	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2011	2.23	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2012	2.23	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2013	2.23	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2014	2.23	0.95	0.50	7	0.25	20	0.16	45	0.12	90
2015	2.23	0.95	0.50	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Deep Basin - Tight - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	1.41	0.85	0.40	7	0.30	20	0.28	45	0.12	90
2004	1.86	0.99	0.60	7	0.25	20	0.16	45	0.12	90
2005	1.41	1.25	0.40	7	0.25	20	0.30	45	0.12	90
2006	1.38	2.20	0.65	7	0.30	20	0.16	45	0.12	90
2007	1.43	2.15	0.65	7	0.32	20	0.16	45	0.12	90
2008	2.38	1.55	0.70	7	0.40	20	0.16	45	0.12	90
2009	2.25	1.15	0.60	7	0.30	20	0.16	45	0.12	90
2010	3.08	1.05	0.60	7	0.30	20	0.16	45	0.12	90
2011	2.68	0.85	0.40	7	0.25	20	0.16	45	0.12	90
2012	2.12	0.85	0.40	7	0.25	20	0.16	45	0.12	90
2013	2.12	0.85	0.40	7	0.25	20	0.16	45	0.12	90
2014	2.12	0.85	0.40	7	0.25	20	0.16	45	0.12	90
2015	2.12	0.85	0.40	7	0.25	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Deep Basin - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	1.40	1.85	0.63	7	0.25	20	0.14	45	0.12	90
2007	4.15	1.65	0.55	7	0.30	20	0.16	45	0.12	90
2008	2.04	0.80	0.45	7	0.25	20	0.16	45	0.12	90
2009	1.86	0.65	0.40	7	0.30	20	0.16	45	0.12	90
2010	2.46	0.65	0.45	7	0.30	20	0.16	45	0.12	90
2011	2.69	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2012	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2013	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2014	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2015	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Fort St John - Conventional - Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.47	0.85	0.40	7	0.23	20	0.24	45	0.18	90
2004	0.35	0.60	0.40	7	0.24	20	0.23	45	0.18	90
2005	0.23	0.55	0.40	7	0.24	20	0.22	45	0.18	90
2006	0.31	1.00	0.40	7	0.25	20	0.18	45	0.16	90
2007	0.36	0.80	0.50	7	0.32	20	0.20	45	0.18	90
2008	0.30	0.88	0.45	7	0.22	20	0.20	45	0.18	90
2009	0.26	0.85	0.43	7	0.30	20	0.25	45	0.18	90
2010	0.96	1.20	0.55	7	0.30	20	0.25	45	0.18	90
2011	0.08	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2012	0.16	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2013	0.16	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2014	0.16	0.40	0.30	7	0.20	20	0.16	45	0.12	90
2015	0.16	0.40	0.30	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Fort St John - Conventional - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.59	1.15	0.40	7	0.28	20	0.18	45	0.12	90
2004	0.56	0.85	0.48	7	0.35	20	0.16	45	0.12	90
2005	0.48	0.95	0.50	7	0.31	20	0.18	45	0.12	90
2006	0.49	0.85	0.50	7	0.25	20	0.18	45	0.12	90
2007	0.48	1.05	0.40	7	0.28	20	0.20	45	0.12	90
2008	0.55	1.10	0.40	7	0.23	20	0.18	45	0.12	90
2009	0.59	1.15	0.53	7	0.25	20	0.18	45	0.12	90
2010	0.72	1.15	0.40	7	0.20	20	0.18	45	0.12	90
2011	0.84	0.95	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.84	0.83	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.84	0.83	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.84	0.83	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.84	0.83	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Fort St John - Conventional - Permian, Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.21	0.05	0.12	7	0.20	20	0.16	45	0.12	90
2004	1.20	0.10	0.32	12	0.40	50	0.20	70	0.12	500
2005	1.20	1.00	0.25	10	0.15	20	0.12	45	0.12	500
2006	0.74	0.75	0.50	7	0.12	20	0.10	45	0.05	90
2007	1.87	0.50	0.30	7	0.20	20	0.16	45	0.12	90
2008	2.15	0.95	0.50	7	0.30	20	0.16	45	0.12	90
2009	1.60	0.40	0.30	7	0.20	20	0.18	45	0.12	90
2010	1.89	1.45	0.60	7	0.30	20	0.18	45	0.12	90
2011	2.13	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2012	2.13	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2013	2.13	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2014	2.13	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2015	2.13	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Fort St John - Conventional - Upper Devonian, Middle Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	5.32	0.40	0.30	7	0.26	20	0.16	45	0.12	90
2004	0.91	0.75	0.35	7	0.20	20	0.12	45	0.10	90
2005	1.17	0.65	0.65	7	0.32	20	0.25	45	0.12	90
2006	0.65	0.95	0.40	7	0.25	20	0.14	45	0.12	90
2007	1.52	0.30	0.85	7	0.30	20	0.16	45	0.12	90
2008	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2009	3.55	0.85	0.52	7	0.20	20	0.16	45	0.12	90
2010	2.39	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2011	1.60	1.35	0.55	7	0.30	20	0.16	45	0.12	90
2012	1.56	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2013	1.52	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2014	1.48	0.95	0.55	7	0.30	20	0.16	45	0.12	90
2015	1.44	0.95	0.55	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Fort St John - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	2.98	0.65	0.40	7	0.28	20	0.16	45	0.12	90
2007	2.87	0.75	0.45	7	0.30	20	0.12	45	0.12	90
2008	2.92	0.65	0.40	7	0.16	20	0.14	45	0.12	90
2009	2.00	0.25	0.20	7	0.16	20	0.14	45	0.12	90
2010	2.50	0.25	0.20	7	0.16	20	0.14	45	0.12	90
2011	2.34	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2012	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2013	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2014	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2015	4.50	0.65	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Northeast BC - Conventional - Lower Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.45	1.35	0.40	7	0.22	20	0.12	40	0.05	500
2004	0.14	0.55	0.10	5	0.05	20	0.05	500	0.05	90
2005	0.80	0.35	0.25	7	0.20	20	0.16	45	0.12	90
2006	0.16	0.55	0.25	7	0.05	20	0.05	45	0.05	90
2007	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2008	0.33	0.65	0.40	7	0.18	20	0.16	45	0.12	90
2009	0.14	0.95	0.35	4	0.22	20	0.16	45	0.12	500
2010	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	0.74	0.95	0.35	4	0.22	20	0.16	45	0.12	500
2013	0.74	0.95	0.35	4	0.22	20	0.16	45	0.12	500
2014	0.74	0.95	0.35	4	0.22	20	0.16	45	0.12	500
2015	0.74	0.95	0.35	4	0.22	20	0.16	45	0.12	500

Resource Grouping - Gas - Northeast BC - Conventional - Permian, Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.94	0.40	0.45	7	0.38	20	0.18	45	0.12	90
2004	1.66	0.40	0.50	7	0.48	20	0.18	45	0.12	90
2005	0.79	0.45	0.30	7	0.25	20	0.16	45	0.12	90
2006	0.42	1.25	0.60	7	0.35	20	0.20	45	0.12	90
2007	0.18	0.35	0.12	7	0.10	20	0.08	45	0.05	90
2008	0.28	1.00	0.30	7	0.18	20	0.16	45	0.12	90
2009	0.65	0.30	0.18	7	0.16	20	0.14	45	0.12	90
2010	0.12	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2011	0.34	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2012	0.34	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2013	0.34	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2014	0.34	0.30	0.20	7	0.18	20	0.16	45	0.12	90
2015	0.34	0.30	0.20	7	0.18	20	0.16	45	0.12	90

Resource Grouping - Gas - Northeast BC - Conventional - Upper Devonian, Middle Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	2.29	0.95	0.40	7	0.25	20	0.18	45	0.12	90
2004	0.57	0.95	0.45	7	0.25	20	0.16	45	0.12	90
2005	1.69	0.30	0.20	7	0.12	20	0.25	45	0.12	90
2006	1.11	0.95	0.40	7	0.25	20	0.16	45	0.12	90
2007	0.73	0.85	0.40	7	0.30	20	0.16	45	0.12	90
2008	0.98	2.65	0.60	7	0.25	20	0.16	45	0.12	90
2009	0.08	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2010	2.39	2.05	0.55	7	0.30	20	0.16	45	0.12	90
2011	0.51	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2012	0.51	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2013	0.51	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2014	0.51	0.65	0.35	7	0.20	20	0.16	45	0.12	90
2015	0.51	0.65	0.35	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Northeast BC - Tight - Upper Devonian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.94	1.05	0.40	7	0.25	20	0.16	45	0.12	90
2004	0.89	1.15	0.45	7	0.25	20	0.16	45	0.12	90
2005	0.78	1.15	0.45	7	0.23	20	0.16	45	0.12	90
2006	0.87	1.65	0.53	7	0.23	20	0.16	45	0.12	90
2007	1.22	1.80	0.60	7	0.28	20	0.16	45	0.12	90
2008	1.10	1.55	0.60	7	0.30	20	0.16	45	0.12	90
2009	0.79	0.75	0.40	7	0.30	20	0.16	45	0.12	90
2010	1.12	1.45	0.65	7	0.35	20	0.16	45	0.12	90
2011	1.97	1.55	0.65	7	0.30	20	0.16	45	0.12	90
2012	2.05	1.55	0.65	7	0.30	20	0.16	45	0.12	90
2013	2.13	1.55	0.65	7	0.30	20	0.16	45	0.12	90
2014	2.21	1.55	0.65	7	0.30	20	0.16	45	0.12	90
2015	2.29	1.55	0.65	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - Northeast BC - Shale - Horn River										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	0.42	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2007	1.52	1.75	0.95	7	0.40	20	0.16	45	0.12	90
2008	2.86	1.05	0.45	7	0.30	20	0.16	45	0.12	90
2009	3.66	0.77	0.50	7	0.30	20	0.16	45	0.12	90
2010	4.86	0.55	0.40	7	0.25	20	0.16	45	0.12	90
2011	5.28	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2012	10.00	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2013	10.00	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2014	10.00	0.65	0.40	7	0.20	20	0.16	45	0.12	90
2015	10.00	0.65	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Northeast BC - Shale - Cordova										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2006	3.06	1.10	0.40	7	0.20	20	0.16	45	0.12	90
2007	2.51	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2008	2.50	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2009	2.50	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2010	2.50	0.85	0.40	7	0.20	20	0.16	45	0.12	90
2011	2.50	0.85	0.40	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Foothills - Conventional - Colorado, Mannville										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2004	1.83	0.65	0.60	7	0.40	20	0.20	45	0.12	90
2005	0.89	0.35	0.50	7	0.30	20	0.20	45	0.12	90
2006	0.54	0.55	0.30	7	0.25	20	0.16	45	0.12	90
2007	0.54	0.40	0.30	7	0.20	20	0.12	45	0.12	90
2008	0.71	0.75	0.45	7	0.25	20	0.16	45	0.12	90
2009	0.23	0.50	0.30	7	0.20	20	0.16	45	0.12	90
2010	1.20	0.25	0.20	7	0.16	20	0.14	45	0.12	90
2011	1.33	0.20	0.18	7	0.16	20	0.14	45	0.12	90
2012	1.41	0.45	0.18	7	0.16	20	0.14	45	0.12	90
2013	1.49	0.45	0.18	7	0.16	20	0.14	45	0.12	90
2014	1.57	0.45	0.18	7	0.16	20	0.14	45	0.12	90
2015	1.65	0.45	0.18	7	0.16	20	0.14	45	0.12	90

Resource Grouping - Gas - BC Foothills - Conventional - Triassic, Permian, Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	10.16	0.45	0.25	7	0.20	20	0.14	45	0.12	90
2004	6.89	0.40	0.23	7	0.20	20	0.16	45	0.12	90
2005	4.76	0.30	0.22	7	0.10	20	0.08	45	0.05	90
2006	3.44	0.35	0.18	7	0.14	20	0.12	45	0.10	90
2007	1.48	0.50	0.30	7	0.20	20	0.16	45	0.12	90
2008	2.44	0.45	0.30	7	0.20	20	0.16	45	0.12	90
2009	3.53	0.40	0.25	7	0.20	20	0.16	45	0.12	90
2010	0.97	1.45	0.60	7	0.30	20	0.16	45	0.12	90
2011	3.27	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	3.27	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2013	3.27	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2014	3.27	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2015	3.27	1.25	0.60	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - BC Foothills - Tight - Triassic										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	2.67	0.95	0.50	7	0.30	20	0.20	45	0.12	90
2004	1.83	0.20	0.42	7	0.65	20	0.25	45	0.12	90
2005	0.76	1.45	0.60	7	0.30	20	0.20	45	0.12	90
2006	0.46	0.37	0.30	7	0.35	20	0.20	45	0.12	90
2007	0.41	0.75	0.40	7	0.30	20	0.20	45	0.12	90
2008	1.18	0.75	0.40	7	0.25	20	0.20	45	0.12	90
2009	0.90	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2010	2.09	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2011	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2012	1.39	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2013	1.39	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2014	1.39	0.85	0.45	7	0.30	20	0.20	45	0.12	90
2015	1.39	0.85	0.45	7	0.30	20	0.20	45	0.12	90

Resource Grouping - Gas - BC Foothills - Tight - Montney										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2004	3.09	0.45	0.25	7	0.12	20	0.08	45	0.05	90
2005	1.70	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2006	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2007	8.48	0.65	0.40	7	0.22	20	0.16	45	0.12	90
2008	0.00	0.00	0.00	0	0.00	0	0.00	0	0.00	0
2009	2.24	1.40	0.55	7	0.25	20	0.16	45	0.12	90
2010	3.17	0.95	0.50	7	0.20	20	0.16	45	0.12	90
2011	2.23	0.95	0.50	7	0.20	20	0.16	45	0.12	90
2012	2.23	0.95	0.50	7	0.20	20	0.16	45	0.12	90
2013	2.23	0.95	0.50	7	0.20	20	0.16	45	0.12	90
2014	2.23	0.95	0.50	7	0.20	20	0.16	45	0.12	90
2015	2.23	0.95	0.50	7	0.20	20	0.16	45	0.12	90

Resource Grouping - Gas - Southwest Saskatchewan - Tight - Upper Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.08	0.55	0.30	7	0.22	20	0.22	45	0.12	90
2004	0.07	0.75	0.27	7	0.23	20	0.20	45	0.12	90
2005	0.09	0.75	0.42	7	0.28	20	0.24	45	0.12	90
2006	0.10	0.95	0.40	7	0.31	20	0.25	45	0.12	90
2007	0.07	0.95	0.40	7	0.24	20	0.22	45	0.12	90
2008	0.07	0.85	0.47	7	0.26	20	0.18	45	0.12	90
2009	0.04	0.85	0.40	7	0.25	20	0.18	45	0.12	90
2010	0.02	0.25	0.20	7	0.18	20	0.16	45	0.12	90
2011	0.04	0.85	0.40	7	0.22	20	0.16	45	0.12	90
2012	0.04	0.85	0.40	7	0.22	20	0.16	45	0.12	90
2013	0.04	0.85	0.40	7	0.22	20	0.16	45	0.12	90
2014	0.04	0.85	0.40	7	0.22	20	0.16	45	0.12	90
2015	0.04	0.85	0.40	7	0.22	20	0.16	45	0.12	90

Resource Grouping - Gas - West Saskatchewan - Conventional - Colorado										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.11	0.95	0.60	7	0.25	20	0.16	45	0.12	90
2004	0.12	1.35	0.50	7	0.23	20	0.14	45	0.12	90
2005	0.10	1.15	0.47	7	0.30	20	0.14	45	0.12	90
2006	0.11	1.10	0.50	7	0.30	20	0.16	45	0.12	90
2007	0.10	1.15	0.40	7	0.30	20	0.16	45	0.12	90
2008	0.08	1.25	0.50	7	0.26	20	0.20	45	0.12	90
2009	0.10	1.65	0.50	7	0.33	20	0.20	45	0.12	90
2010	0.06	1.65	0.50	7	0.33	20	0.20	45	0.12	90
2011	0.12	1.45	0.50	7	0.30	20	0.16	45	0.12	90
2012	0.05	1.45	0.50	7	0.30	20	0.16	45	0.12	90
2013	0.05	1.45	0.50	7	0.30	20	0.16	45	0.12	90
2014	0.05	1.45	0.50	7	0.30	20	0.16	45	0.12	90
2015	0.05	1.45	0.50	7	0.30	20	0.16	45	0.12	90

Resource Grouping - Gas - West SK - Conventional - Middle Mannville, Lower Mannville, Mississippian										
Connection Year	Initial Production per Connection MMcf/d	1st Decline Rate	2nd Decline Rate	Months to 2nd Decline Rate	3rd Decline Rate	Months to 3rd Decline Rate	4th Decline Rate	Months to 4th Decline Rate	5th Decline Rate	Months to 5th Decline Rate
2003	0.27	0.95	0.60	7	0.44	20	0.30	45	0.12	90
2004	0.28	0.65	0.70	7	0.55	20	0.30	45	0.12	90
2005	0.24	0.70	0.80	7	0.50	20	0.40	45	0.12	90
2006	0.19	1.00	0.60	7	0.32	20	0.29	45	0.12	90
2007	0.16	0.75	0.45	7	0.28	20	0.20	45	0.12	90
2008	0.16	1.05	0.60	7	0.43	20	0.20	45	0.12	90
2009	0.14	1.15	0.85	7	0.20	20	0.16	45	0.12	90
2010	0.10	0.70	0.52	7	0.30	20	0.20	45	0.12	90
2011	0.25	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2012	0.09	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2013	0.09	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2014	0.09	1.25	0.60	7	0.30	20	0.16	45	0.12	90
2015	0.09	1.25	0.60	7	0.30	20	0.16	45	0.12	90

APPENDIX B

B1 Factors for Allocation of Gas-Intent Drill Days by Area

Historical Gas-Intent Drill Days by Area

Year	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excl Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskatchewan	18 - West Saskatchewan	19 - East Saskatchewan
2003	3,807	15,601	2,570	323	5,379	5,182	7,023	4,487	2,751	14,924	1,794	2,171	2,462	2,010	3,433	6,423	0	950	10,129	1,727	0
2004	10,894	12,226	2,321	357	5,264	5,844	8,528	4,154	2,605	22,954	1,666	2,725	2,655	2,932	4,815	5,992	0	1,902	8,623	1,631	11
2005	19,520	11,129	2,776	359	6,869	7,868	10,025	3,352	3,011	27,729	1,702	3,714	2,292	5,710	5,662	5,426	0	1,826	6,043	1,358	11
2006	11,329	10,227	1,918	347	7,568	5,140	9,207	4,104	3,276	28,413	1,758	4,007	1,670	6,007	5,668	4,611	50	2,417	8,111	988	0
2007	11,378	8,891	1,716	445	4,500	3,263	5,819	3,033	2,699	15,870	1,293	2,140	606	2,978	3,964	2,147	154	2,350	5,721	501	18
2008	8,668	7,117	1,455	78	1,961	3,781	6,894	3,691	2,952	14,924	668	2,873	520	3,695	5,598	1,928	1,189	2,737	6,592	1,733	12
2009	3,524	2,296	314	20	481	737	3,250	2,018	2,202	9,836	244	1,610	179	2,605	4,141	610	3,992	1,179	848	125	0
2010	4,990	4,546	597	111	523	1,101	3,958	1,146	2,350	12,391	65	2,231	64	3,697	5,239	806	1,196	2,523	179	16	10
2011	1,865	908	211	0	223	302	4,666	856	1,700	10,995	29	1,482	45	2,186	4,753	603	4,136	2,443	74	41	9

Historical Fraction of Total Gas-Intent Drill Days by Area

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excl Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskatchewan	18 - West Saskatchewan	19 - East Saskatchewan
2003	0.0409	0.1675	0.0276	0.0035	0.0577	0.0556	0.0754	0.0482	0.0295	0.1602	0.0193	0.0233	0.0264	0.0216	0.0369	0.0690	0.0000	0.0102	0.1087	0.0185	0.0000
2004	0.1008	0.1131	0.0215	0.0033	0.0487	0.0541	0.0789	0.0384	0.0241	0.2123	0.0154	0.0252	0.0246	0.0271	0.0445	0.0554	0.0000	0.0176	0.0798	0.0151	0.0001
2005	0.1545	0.0881	0.0220	0.0028	0.0544	0.0623	0.0793	0.0265	0.0238	0.2194	0.0135	0.0294	0.0181	0.0452	0.0448	0.0429	0.0000	0.0144	0.0478	0.0107	0.0001
2006	0.0970	0.0875	0.0164	0.0030	0.0648	0.0440	0.0788	0.0351	0.0280	0.2432	0.0150	0.0343	0.0143	0.0514	0.0485	0.0395	0.0004	0.0207	0.0694	0.0085	0.0000
2007	0.1431	0.1119	0.0216	0.0056	0.0566	0.0411	0.0732	0.0382	0.0340	0.1997	0.0163	0.0269	0.0076	0.0375	0.0499	0.0270	0.0019	0.0296	0.0720	0.0063	0.0002
2008	0.1096	0.0900	0.0184	0.0010	0.0248	0.0478	0.0872	0.0467	0.0373	0.1888	0.0084	0.0363	0.0066	0.0467	0.0708	0.0244	0.0150	0.0346	0.0834	0.0219	0.0002
2009	0.0876	0.0571	0.0078	0.0005	0.0120	0.0183	0.0808	0.0502	0.0548	0.2446	0.0061	0.0400	0.0045	0.0648	0.1030	0.0152	0.0993	0.0293	0.0211	0.0031	0.0000
2010	0.1045	0.0952	0.0125	0.0023	0.0110	0.0231	0.0829	0.0240	0.0492	0.2596	0.0014	0.0467	0.0013	0.0774	0.1097	0.0169	0.0251	0.0528	0.0037	0.0003	0.0002
2011	0.0497	0.0242	0.0056	0.0000	0.0059	0.0080	0.1243	0.0228	0.0453	0.2930	0.0008	0.0395	0.0012	0.0583	0.1267	0.0161	0.1102	0.0651	0.0020	0.0011	0.0002

Projected Gas-Intent Drill Days by Area - Mid-Range Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excl Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskatchewan	18 - West Saskatchewan	19 - East Saskatchewan
2012	792	386	90	0	153	185	2,123	470	1,058	4,710	12	686	76	929	2,020	256	907	1,038	31	17	4
2013	685	334	78	0	132	160	1,836	407	915	4,074	11	594	66	803	1,747	222	785	898	27	15	3
2014	1,021	497	116	0	197	238	2,737	606	1,364	6,071	16	885	98	1,197	2,603	330	1,169	1,338	41	22	5
2015	1,154	562	131	0	223	269	3,092	685	1,541	6,859	18	1,000	110	1,353	2,941	373	1,321	1,512	46	25	6

Projected Fraction of Total Gas-Intent Drill Days by Area - Mid-Range Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excl Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskatchewan	18 - West Saskatchewan	19 - East Saskatchewan
2012	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2013	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2014	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2015	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002

Projected Gas-Intent Drill Days by Area - Higher Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excd Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskat-chewan	18 - West Saskat-chewan	19 - East Saskatchewan
2012	792	386	90	0	153	185	2,123	470	1,058	4,710	12	686	76	929	2,020	256	907	1,038	31	17	4
2013	820	399	93	0	158	191	2,197	487	1,095	4,874	13	710	78	961	2,090	265	939	1,074	33	18	4
2014	1,204	586	136	0	233	281	3,226	715	1,608	7,156	19	1,043	115	1,411	3,068	389	1,378	1,577	48	26	6
2015	1,563	761	177	0	302	365	4,188	928	2,087	9,290	24	1,354	149	1,832	3,983	505	1,789	2,047	62	34	8

Projected Fraction of Total Gas-Intent Drill Days by Area - Higher Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excd Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskat-chewan	18 - West Saskat-chewan	19 - East Saskatchewan
2012	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2013	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2014	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2015	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002

Projected Gas-Intent Drill Days by Area - Lower Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excd Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskat-chewan	18 - West Saskat-chewan	19 - East Saskatchewan
2012	792	386	90	0	153	185	2,123	470	1,058	4,710	12	686	76	929	2,020	256	907	1,038	31	17	4
2013	588	286	66	0	114	137	1,575	349	785	3,493	9	509	56	689	1,498	190	673	770	23	13	3
2014	580	282	66	0	112	135	1,554	344	774	3,446	9	502	55	680	1,478	187	664	760	23	13	3
2015	402	196	45	0	78	94	1,077	239	537	2,389	6	348	38	471	1,024	130	460	527	16	9	2

Projected Fraction of Total Gas-Intent Drill Days by Area - Lower Price Case

DrlYr	00 - Alberta CBM	01 - Southern Alberta	02 - Southwest Alberta	03 - Southern Foothills	04 - Eastern Alberta	05 - Central Alberta	06 - West Central Alberta	07 - Central Foothills	08 - Kaybob	09 - Alberta Deep Basin	10 - Northeast Alberta	11 - Peace River	12 - Northwest Alberta	13 - BC Deep Basin	14 - Fort St. John	15 - Northeast BC (excl Shale)	15 - Northeast BC (Shale)	16 - BC Foothills	17 - Southwest Saskat-chewan	18 - West Saskat-chewan	19 - East Saskatchewan
2012	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2013	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2014	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002
2015	0.0497	0.0242	0.0056	0.0000	0.0096	0.0116	0.1332	0.0295	0.0664	0.2954	0.0008	0.0430	0.0048	0.0583	0.1267	0.0161	0.0569	0.0651	0.0020	0.0011	0.0002

B2 Detailed Gas-Intent Drilling and Gas Connection Projections by Case

Mid-Range Price Case

Resource Grouping	Projected Annual Numberof Wells Targeted to Resource Grouping			Connection Ratio	Projected Annual Number of Connections for Resource Grouping		
	2013	2014	2015		2013	2014	2015
Gas Connections							
00 - Alberta CBM	216	321	363	1.277	275	411	464
01 - Southern Alberta	97	145	163	1.136	110	164	186
Tight Portion	67	99	112	1.059	70	105	119
02 - Southwest Alberta	19	29	33	1.143	22	33	37
Tight Portion	1	1	1	0.926	1	1	1
03 - Southern Foothills	0	0	0		0	0	0
04 - Eastern Alberta	19	29	33	1.052	20	30	34
Tight Portion	0	0	0		0	0	0
Duvernay Shale Portion	2	3	4	1.000	2	3	4
05 - Central Alberta	25	38	42	1.206	30	45	51
Tight Portion	1	2	2	1.217	1	2	2
Duvernay Shale Portion	1	1	2	1.000	1	1	2
06 - West Central Alberta	107	159	180	1.104	118	176	199
Tight Portion	72	108	122	1.116	81	120	136
Duvernay Shale Portion	2	3	4	1.000	2	3	4
07 - Central Foothills	13	19	21	1.230	16	23	26
Montney Tight Portion	2	3	3	1.000	2	3	3
Other Tight Portion	2	3	3	1.290	3	4	4
Duvernay Shale Portion	1	1	2	1.000	1	1	2
08 - Kaybob	38	57	65	1.005	39	57	65
Montney Tight Portion	9	13	15	1.000	9	13	15
Other Tight Portion	11	16	19	1.043	11	17	19
Duvernay Shale Portion	8	12	14	1.000	8	12	14
09 - Alberta Deep Basin	182	271	306	1.294	235	350	396
Montney Tight Portion	19	29	33	1.000	19	29	33
Other Tight Portion	130	194	219	1.340	175	260	294
Duvernay Shale Portion	2	3	4	1.000	2	3	4
10 - Northeast Alberta	3	4	5	0.905	3	4	4
11 - Peace River	33	49	55	1.035	34	51	57
Montney Tight Portion	25	37	42	1.000	25	37	42
Other Tight Portion	1	2	2	1.259	1	2	2
Duvernay Shale Portion	1	1	2	1.000	1	1	2
12 - Northwest Alberta	2	3	3	1.007	2	3	4
Duvernay Shale Portion	1	1	2	1.000	1	1	2
13 - BC Deep Basin	29	43	48	1.016	29	43	49
Montney Tight Portion	24	35	40	1.000	24	35	40
Other Tight Portion	4	5	6	1.091	4	6	7
14 - Fort St. John	71	106	120	0.999	71	106	120
Montney Tight Portion	68	101	114	1.000	68	101	114
15 - Northeast BC	23	34	39	0.986	23	34	38
Tight Portion	10	15	17	0.960	10	15	17
Cordova Shale Portion	4	7	7	1.000	4	7	7
Horn River Shale Portion	6	9	10	1.000	6	9	10
16 - BC Foothills	24	36	40	1.008	24	36	41
Montney Tight Portion	21	31	35	1.000	21	31	35
17 - Southwest Saskatchewan	10	14	16	0.985	9	14	16
Tight Portion	7	11	12	0.980	7	11	12
18 - West Saskatchewan	4	5	6	1.032	4	6	6
19 - East Saskatchewan	0	1	1	1.000	0	1	1
Subtotal: Gas - Conventional (non-tight)	197	294	332	1.168	230	343	388
Subtotal: Gas - Tight	474	706	798	1.122	532	793	895
Montney portion of Tight	167	250	282	1.000	167	250	282
Subtotal: Gas - CBM	216	321	363	1.277	275	411	464
Subtotal: Gas - Shale	28	42	47	1.000	28	42	47
Gas Connections - CBM Breakdown							
AB - Main HSC	211	314	355	1.282	270	402	455
AB - Mannville CBM	1	2	2	1.083	2	2	3
AB - Other CBM	4	5	6	1.070	4	6	7
Subtotal: Gas - CBM	216	321	363	1.277	275	411	464
Total: All Gas	**915**	**1,363**	**1,540**	**1.165**	**1,065**	**1,588**	**1,794**

Higher Price Case							
Resource Grouping	**Projected Annual Number of Wells Targeted to Resource Grouping**			**Connection Ratio**	**Projected Annual Number of Connections for Resource Grouping**		
	2013	**2014**	**2015**		**2013**	**2014**	**2015**
Gas Connections							
00 - Alberta CBM	258	379	492	1.277	330	484	628
01 - Southern Alberta	116	170	221	1.136	132	194	251
Tight Portion	80	117	152	1.059	84	124	161
02 - Southwest Alberta	23	34	44	1.143	27	39	51
Tight Portion	1	1	2	0.926	1	1	2
03 - Southern Foothills	0	0	0		0	0	0
04 - Eastern Alberta	23	34	44	1.052	24	36	46
Tight Portion	0	0	0		0	0	0
Duvernay Shale Portion	3	4	5	1.000	3	4	5
05 - Central Alberta	30	44	58	1.206	36	53	69
Tight Portion	1	2	3	1.217	2	2	3
Duvernay Shale Portion	1	2	2	1.000	1	2	2
06 - West Central Alberta	128	188	244	1.104	141	207	269
Tight Portion	87	127	165	1.116	97	142	184
Duvernay Shale Portion	3	4	5	1.000	3	4	5
07 - Central Foothills	15	22	29	1.230	19	28	36
Montney Tight Portion	2	3	4	1.000	2	3	4
Other Tight Portion	2	4	5	1.290	3	5	6
Duvernay Shale Portion	1	2	2	1.000	1	2	2
08 - Kaybob	46	67	87	1.005	46	68	88
Montney Tight Portion	11	15	20	1.000	11	15	20
Other Tight Portion	13	19	25	1.043	14	20	26
Duvernay Shale Portion	10	14	19	1.000	10	14	19
09 - Alberta Deep Basin	217	319	414	1.294	281	413	536
Montney Tight Portion	23	34	44	1.000	23	34	44
Other Tight Portion	156	229	297	1.340	209	307	398
Duvernay Shale Portion	3	4	5	1.000	3	4	5
10 - Northeast Alberta	4	5	7	0.905	3	5	6
11 - Peace River	39	58	75	1.035	41	60	78
Montney Tight Portion	30	44	57	1.000	30	44	57
Other Tight Portion	1	2	3	1.259	2	2	3
Duvernay Shale Portion	1	2	2	1.000	1	2	2
12 - Northwest Alberta	2	4	5	1.007	2	4	5
Duvernay Shale Portion	1	2	2	1.000	1	2	2
13 - BC Deep Basin	34	50	65	1.016	35	51	66
Montney Tight Portion	28	41	54	1.000	28	41	54
Other Tight Portion	4	6	8	1.091	5	7	9
14 - Fort St. John	85	125	163	0.999	85	125	162
Montney Tight Portion	81	119	155	1.000	81	119	155
15 - Northeast BC	27	40	52	0.986	27	40	52
Tight Portion	12	18	23	0.960	12	17	23
Cordova Shale Portion	5	8	10	1.000	5	8	10
Horn River Shale Portion	7	11	14	1.000	7	11	14
16 - BC Foothills	29	42	54	1.008	29	42	55
Montney Tight Portion	25	37	48	1.000	25	37	48
17 - Southwest Saskatchewan	11	17	22	0.985	11	17	21
Tight Portion	9	13	17	0.980	9	13	16
18 - West Saskatchewan	4	6	8	1.032	5	7	9
19 - East Saskatchewan	0	1	1	1.000	0	1	1
Subtotal: Gas - Conventional (non-tight)	236	346	449	1.168	275	404	525
Subtotal: Gas - Tight	567	833	1,081	1.122	636	934	1,213
Montney portion of Tight	200	294	382	1.000	200	294	382
Subtotal: Gas - CBM	258	379	492	1.277	330	484	628
Subtotal: Gas - Shale	33	49	64	1.000	33	49	64
Gas Connections - CBM Breakdown							
AB - Main HSC	252	370	480	1.282	323	474	616
AB - Mannville CBM	2	3	3	1.083	2	3	4
AB - Other CBM	4	6	8	1.070	5	7	9
Subtotal: Gas - CBM	258	379	492	1.277	330	484	628
Total: All Gas	**1,094**	**1,607**	**2,086**	**1.165**	**1,275**	**1,872**	**2,430**

Lower Price Case							
Resource Grouping	**Projected Annual Number of Wells Targeted to Resource Grouping**			**Connection Ratio**	**Projected Annual Number of Connections for Resource Grouping**		
	2013	**2014**	**2015**		**2013**	**2014**	**2015**
Gas Connections							
00 - Alberta CBM	185	182	127	1.277	236	233	162
01 - Southern Alberta	83	82	57	1.136	94	93	65
Tight Portion	57	56	39	1.059	60	60	41
02 - Southwest Alberta	17	16	11	1.143	19	19	13
Tight Portion	1	1	0	0.926	1	1	0
03 - Southern Foothills	0	0	0		0	0	0
04 - Eastern Alberta	17	16	11	1.052	17	17	12
Tight Portion	0	0	0		0	0	0
Duvernay Shale Portion	2	2	1	1.000	2	2	1
05 - Central Alberta	22	21	15	1.206	26	26	18
Tight Portion	1	1	1	1.217	1	1	1
Duvernay Shale Portion	1	1	1	1.000	1	1	1
06 - West Central Alberta	92	90	63	1.104	101	100	69
Tight Portion	62	61	42	1.116	69	68	47
Duvernay Shale Portion	2	2	1	1.000	2	2	1
07 - Central Foothills	11	11	7	1.230	13	13	9
Montney Tight Portion	1	1	1	1.000	1	1	1
Other Tight Portion	2	2	1	1.290	2	2	2
Duvernay Shale Portion	1	1	1	1.000	1	1	1
08 - Kaybob	33	32	22	1.005	33	33	23
Montney Tight Portion	8	7	5	1.000	8	7	5
Other Tight Portion	9	9	6	1.043	10	10	7
Duvernay Shale Portion	7	7	5	1.000	7	7	5
09 - Alberta Deep Basin	156	154	107	1.294	202	199	138
Montney Tight Portion	17	16	11	1.000	17	16	11
Other Tight Portion	112	110	76	1.340	150	148	102
Duvernay Shale Portion	2	2	1	1.000	2	2	1
10 - Northeast Alberta	3	2	2	0.905	2	2	2
11 - Peace River	28	28	19	1.035	29	29	20
Montney Tight Portion	21	21	15	1.000	21	21	15
Other Tight Portion	1	1	1	1.259	1	1	1
Duvernay Shale Portion	1	1	1	1.000	1	1	1
12 - Northwest Alberta	2	2	1	1.007	2	2	1
Duvernay Shale Portion	1	1	1	1.000	1	1	1
13 - BC Deep Basin	25	24	17	1.016	25	25	17
Montney Tight Portion	20	20	14	1.000	20	20	14
Other Tight Portion	3	3	2	1.091	3	3	2
14 - Fort St. John	61	60	42	0.999	61	60	42
Montney Tight Portion	58	58	40	1.000	58	58	40
15 - Northeast BC	20	19	13	0.986	19	19	13
Tight Portion	9	9	6	0.960	8	8	6
Cordova Shale Portion	4	4	3	1.000	4	4	3
Horn River Shale Portion	5	5	4	1.000	5	5	4
16 - BC Foothills	20	20	14	1.008	21	20	14
Montney Tight Portion	18	18	12	1.000	18	18	12
17 - Southwest Saskatchewan	8	8	6	0.985	8	8	6
Tight Portion	6	6	4	0.980	6	6	4
18 - West Saskatchewan	3	3	2	1.032	3	3	2
19 - East Saskatchewan	0	0	0	1.000	0	0	0
Subtotal: Gas - Conventional (non-tight)	169	167	116	1.168	197	195	135
Subtotal: Gas - Tight	406	401	278	1.122	456	450	312
Montney portion of Tight	144	142	98	1.000	144	142	98
Subtotal: Gas - CBM	185	182	127	1.277	236	233	162
Subtotal: Gas - Shale	24	24	16	1.000	24	24	16
Gas Connections - CBM Breakdown							
AB - Main HSC	181	178	123	1.282	231	228	158
AB - Mannville CBM	1	1	1	1.083	1	1	1
AB - Other CBM	3	3	2	1.070	3	3	2
Subtotal: Gas - CBM	185	182	127	1.277	236	233	162
Total: All Gas	**784**	**774**	**536**	**1.165**	**914**	**901**	**625**

APPENDIX C
Deliverability Details by Case

C.1 - Canadian Gas Deliverability by Area/Resource – Mid-Range Price Case

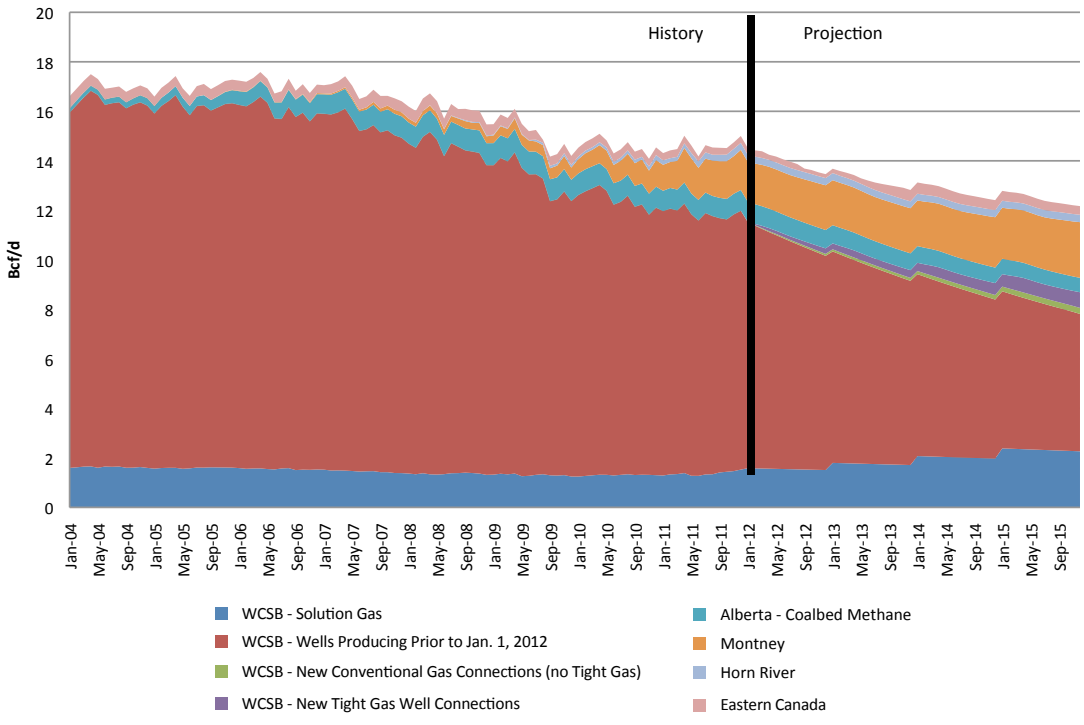
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
00 - Alberta CBM	23.49	829	21.83	771	20.02	707	18.42	650	17.03	601
HSC Portion	17.64	623	16.54	584	15.18	536	13.96	493	12.89	455
Mannville Portion	2.76	98	2.31	82	2.07	73	1.86	66	1.69	60
Other CBM Portion	3.09	109	2.98	105	2.77	98	2.60	92	2.45	86
01 - Southern Alberta	34.36	1,213	30.63	1,081	26.78	945	23.68	836	21.11	745
Solution Gas	2.00	70	2.14	76	2.34	83	2.68	95	3.00	106
Tight Portion	22.06	779	19.83	700	16.97	599	14.53	513	12.47	440
02 - Southwest Alberta	6.80	240	5.91	208	5.20	183	4.62	163	4.16	147
Solution Gas	0.64	23	0.68	24	0.72	25	0.78	28	0.85	30
Tight Portion	1.97	69	1.64	58	1.40	49	1.19	42	1.02	36
03 - Southern Foothills	4.70	166	4.06	143	3.48	123	2.98	105	2.57	91
Solution Gas	0.10	3	0.10	4	0.10	4	0.11	4	0.11	4
04 - Eastern Alberta	16.93	598	15.19	536	13.93	492	13.27	469	12.97	458
Solution Gas	4.26	150	4.51	159	4.69	166	5.25	185	5.95	210
Tight Portion	0.38	14	0.37	13	0.32	11	0.27	10	0.23	8
Duvernay Shale Portion	0.00	0	0.07	3	0.16	6	0.25	9	0.36	13
05 - Central Alberta	19.82	700	17.34	612	15.95	563	14.93	527	14.21	502
Solution Gas	3.53	125	3.94	139	4.40	155	4.96	175	5.58	197
Tight Portion	1.66	59	1.35	48	1.19	42	1.05	37	0.93	33
Duvernay Shale Portion	0.00	0	0.03	1	0.06	2	0.09	3	0.13	5
06 - West Central Alberta	46.61	1,645	46.74	1,650	45.59	1,610	45.32	1,600	45.99	1,623
Solution Gas	9.58	338	11.21	396	13.18	465	15.43	545	17.87	631
Tight Portion	17.30	611	17.52	619	16.20	572	15.19	536	14.60	515
Duvernay Shale Portion	0.00	0	0.05	2	0.09	3	0.13	5	0.17	6
07 - Central Foothills	23.05	814	20.54	725	18.14	640	16.15	570	14.55	513
Solution Gas	0.27	9	0.31	11	0.36	13	0.43	15	0.49	17
Montney Tight Portion	0.29	10	0.28	10	0.29	10	0.30	11	0.32	11
Other Tight Portion	1.32	47	1.59	56	1.45	51	1.35	47	1.28	45
Duvernay Shale Portion	0.00	0	0.03	1	0.05	2	0.07	2	0.09	3
08 - Kaybob	21.79	769	21.05	743	20.78	733	21.04	743	21.69	766
Solution Gas	3.75	132	4.75	168	5.87	207	7.30	258	8.78	310
Montney Tight Portion	1.93	68	2.00	71	2.18	77	2.33	82	2.54	90
Other Tight Portion	8.53	301	7.75	274	6.82	241	6.04	213	5.39	190
Duvernay Shale Portion	0.04	1	0.25	9	0.51	18	0.74	26	0.99	35
09 - Alberta Deep Basin	63.00	2,224	63.80	2,252	60.30	2,129	57.73	2,038	56.50	1,995
Solution Gas	1.76	62	2.02	71	2.36	83	2.78	98	3.34	118
Montney Tight Portion	2.25	80	3.44	122	4.03	142	4.56	161	5.23	184
Other Tight Portion	51.57	1,821	51.50	1,818	47.27	1,669	43.85	1,548	41.39	1,461
Duvernay Shale Portion	0.00	0	0.07	2	0.15	5	0.22	8	0.30	11
10 - Northeast Alberta	10.81	382	9.29	328	8.09	286	7.13	252	6.35	224
Solution Gas	1.91	67	2.03	72	2.14	76	2.25	79	2.35	83
11 - Peace River	13.90	491	13.68	483	14.13	499	15.06	532	16.54	584
Solution Gas	3.31	117	3.91	138	4.76	168	5.88	208	7.30	258
Montney Tight Portion	0.00	0	0.89	32	1.76	62	2.63	93	3.57	126
Other Tight Portion	2.12	75	1.70	60	1.46	52	1.26	45	1.10	39
Duvernay Shale Portion	0.00	0	0.03	1	0.06	2	0.09	3	0.12	4
12 - Northwest Alberta	8.81	311	8.21	290	7.72	273	7.36	260	7.12	251
Solution Gas	2.51	89	2.83	100	3.09	109	3.38	119	3.66	129
Duvernay Shale Portion	0.00	0	0.03	1	0.07	3	0.11	4	0.16	6
13 - BC Deep Basin	16.91	597	18.10	639	17.55	620	17.31	611	17.69	625
Montney Portion	6.81	240	9.92	350	10.44	369	11.08	391	12.18	430
Other Tight Portion	6.08	215	4.77	168	4.18	147	3.69	130	3.30	117
14 - Fort St. John	44.10	1,557	45.91	1,621	43.49	1,535	42.24	1,491	43.09	1,521
Solution Gas	0.83	29	0.82	29	0.82	29	0.82	29	0.82	29
Montney Portion	24.25	856	28.06	991	28.48	1,005	29.57	1,044	32.34	1,142

C.1 - Canadian Gas Deliverability by Area/Resource – Mid-Range Price Case (continued)										
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
15 - Northeast BC	20.75	732	20.53	725	19.26	680	18.43	651	18.21	643
Solution Gas	0.12	4	0.14	5	0.15	5	0.17	6	0.18	6
Tight Portion	9.20	325	7.88	278	7.02	248	6.38	225	5.93	209
Cordova Shale Portion	0.10	3	0.52	18	0.63	22	0.74	26	0.89	31
Horn River Shale Portion	6.47	228	8.10	286	7.96	281	7.95	281	8.23	291
16 - BC Foothills	15.64	552	14.81	523	13.42	474	12.28	434	11.57	408
Montney Tight Portion	2.98	105	3.94	139	4.02	142	4.11	145	4.39	155
17 - Southwest Saskatchewan	6.86	242	6.11	216	5.32	188	4.63	163	4.05	143
Solution Gas	0.29	10	0.22	8	0.20	7	0.17	6	0.17	6
Tight Portion	6.42	227	5.89	208	5.12	181	4.46	157	3.88	137
18 - West Saskatchewan	3.95	139	3.57	126	3.36	119	3.18	112	3.04	107
Solution Gas	1.69	60	1.71	60	1.74	61	1.77	62	1.81	64
19 - East Saskatchewan	2.20	78	2.47	87	2.75	97	3.11	110	3.57	126
Solution Gas	2.20	77	2.47	87	2.75	97	3.11	110	3.57	126
22 - Yukon and Northwest Territories	0.51	18	0.50	18	0.48	17	0.46	16	0.45	16
Total Conventional (no tight, no solution gas)	**169.01**	**5,966**	**145.14**	**5,124**	**125.71**	**4,438**	**109.43**	**3,863**	**96.08**	**3,392**
Total Tight	**167.14**	**5,900**	**170.34**	**6,013**	**160.61**	**5,670**	**153.86**	**5,431**	**152.09**	**5,369**
Montney Portion	**38.52**	**1359.89**	**48.55**	**1713.95**	**51.21**	**1807.62**	**54.59**	**1927.15**	**60.57**	**2138.31**
Total Solution Gas	**38.75**	**1367.82**	**43.79**	**1545.83**	**49.67**	**1753.46**	**57.27**	**2021.58**	**65.83**	**2323.79**
Total CBM	**23.49**	**829**	**21.83**	**771**	**20.02**	**707**	**18.42**	**650**	**17.03**	**601**
Total Shale	**6.61**	**233**	**9.18**	**324**	**9.74**	**344**	**10.39**	**367**	**11.43**	**404**
Total WCSB	**405.01**	**14,297**	**390.28**	**13,777**	**365.74**	**12,911**	**349.36**	**12,333**	**342.47**	**12,089**
Atlantic Canada	7.62	269	5.75	203	8.29	293	11.75	415	10.25	362
Other Canada	0.43	15	0.40	14	0.38	14	0.37	13	0.35	12
Total Canada	**413.06**	**14,581**	**396.43**	**13,994**	**374.41**	**13,217**	**361.47**	**12,760**	**353.07**	**12,464**

rates are annual averages
*matched to 2012 actual production for Jan-Oct

FIGURE C1

Outlook for Total Canadian Gas Deliverability - Mid-Range Price Case



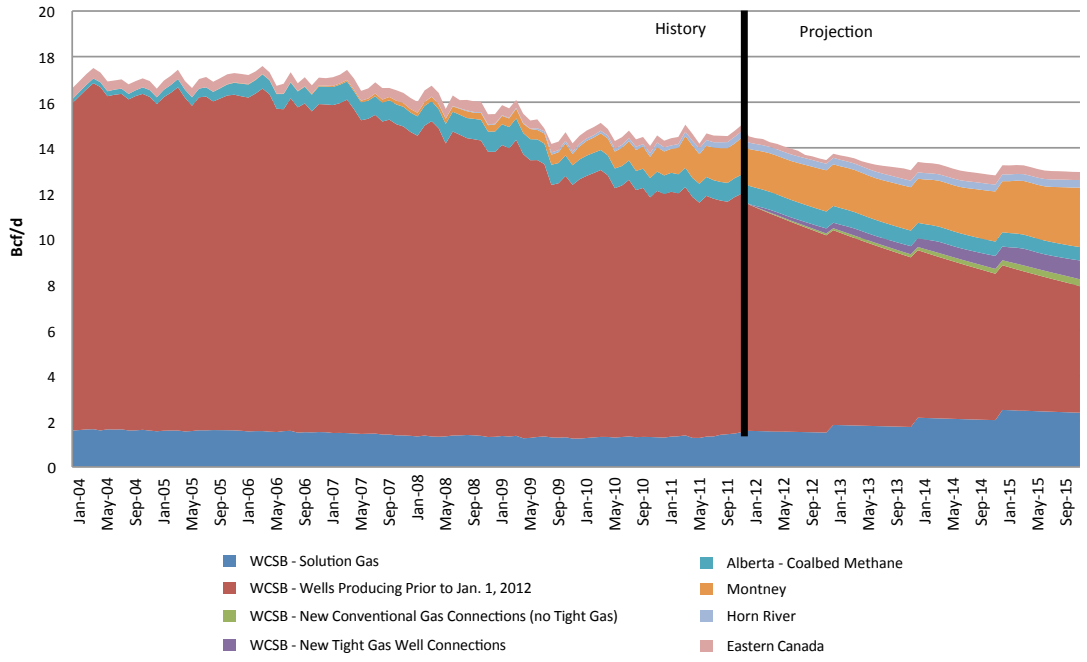
C.2 - Canadian Gas Deliverability by Area/Resource - Higher Price Case										
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
00 - Alberta CBM	23.49	829	21.83	771	20.05	708	18.49	653	17.19	607
HSC Portion	17.64	623	16.54	584	15.20	537	14.03	495	13.04	460
Mannville Portion	2.76	98	2.31	82	2.07	73	1.87	66	1.70	60
Other CBM Portion	3.09	109	2.98	105	2.77	98	2.60	92	2.45	87
01 - Southern Alberta	34.36	1,213	30.63	1,081	26.84	947	23.83	841	21.34	753
Solution Gas	2.00	70	2.14	76	2.38	84	2.78	98	3.12	110
Tight Portion	22.06	779	19.83	700	16.97	599	14.55	514	12.52	442
02 - Southwest Alberta	6.80	240	5.91	208	5.23	185	4.67	165	4.25	150
Solution Gas	0.64	23	0.68	24	0.75	26	0.81	29	0.92	32
Tight Portion	1.97	69	1.64	58	1.40	49	1.19	42	1.02	36
03 - Southern Foothills	4.70	166	4.06	143	3.48	123	2.99	105	2.57	91
Solution Gas	0.10	3	0.10	4	0.10	4	0.11	4	0.12	4
04 - Eastern Alberta	16.93	598	15.19	536	14.03	495	13.35	471	13.16	465
Solution Gas	4.26	150	4.51	159	4.77	169	5.29	187	6.05	214
Tight Portion	0.38	14	0.37	13	0.32	11	0.27	10	0.23	8
Duvernay Shale Portion	0.00	0	0.07	3	0.18	6	0.29	10	0.43	15
05 - Central Alberta	19.82	700	17.34	612	16.03	566	15.23	538	14.59	515
Solution Gas	3.53	125	3.94	139	4.47	158	5.24	185	5.89	208
Tight Portion	1.66	59	1.35	48	1.19	42	1.05	37	0.93	33
Duvernay Shale Portion	0.00	0	0.03	1	0.07	2	0.11	4	0.16	6
06 - West Central Alberta	46.61	1,645	46.74	1,650	46.19	1,631	46.85	1,654	48.54	1,713
Solution Gas	9.58	338	11.21	396	13.53	478	16.33	577	19.08	674
Tight Portion	17.30	611	17.52	619	16.37	578	15.63	552	15.52	548
Duvernay Shale Portion	0.00	0	0.05	2	0.10	4	0.15	5	0.21	7
07 - Central Foothills	23.05	814	20.54	725	18.22	643	16.32	576	14.89	526
Solution Gas	0.27	9	0.31	11	0.38	13	0.44	16	0.52	18
Montney Tight Portion	0.29	10	0.28	10	0.30	11	0.32	11	0.37	13
Other Tight Portion	1.32	47	1.59	56	1.47	52	1.38	49	1.35	48
Duvernay Shale Portion	0.00	0	0.03	1	0.05	2	0.08	3	0.11	4
08 - Kaybob	21.79	769	21.05	743	21.12	746	21.74	767	22.70	801
Solution Gas	3.75	132	4.75	168	6.09	215	7.69	271	9.14	322
Montney Tight Portion	1.93	68	2.00	71	2.23	79	2.47	87	2.83	100
Other Tight Portion	8.53	301	7.75	274	6.85	242	6.10	215	5.51	195
Duvernay Shale Portion	0.04	1	0.25	9	0.55	19	0.84	30	1.21	43
09 - Alberta Deep Basin	63.00	2,224	63.80	2,252	61.00	2,153	59.33	2,094	59.85	2,113
Solution Gas	1.76	62	2.02	71	2.45	87	2.87	101	3.48	123
Montney Tight Portion	2.25	80	3.44	122	4.16	147	4.89	173	5.92	209
Other Tight Portion	51.57	1,821	51.50	1,818	47.67	1,683	44.83	1,582	43.46	1,534
Duvernay Shale Portion	0.00	0	0.07	2	0.16	6	0.25	9	0.36	13
10 - Northeast Alberta	10.81	382	9.29	328	8.16	288	7.20	254	6.45	228
Solution Gas	1.91	67	2.03	72	2.21	78	2.32	82	2.44	86
11 - Peace River	13.90	491	13.68	483	14.42	509	15.71	555	17.91	632
Solution Gas	3.31	117	3.91	138	4.89	173	6.12	216	7.79	275
Montney Tight Portion	0.00	0	0.89	32	1.91	67	3.00	106	4.36	154
Other Tight Portion	2.12	75	1.70	60	1.47	52	1.27	45	1.11	39
Duvernay Shale Portion	0.00	0	0.03	1	0.06	2	0.10	3	0.14	5
12 - Northwest Alberta	8.81	311	8.21	290	7.83	276	7.53	266	7.39	261
Solution Gas	2.51	89	2.83	100	3.19	113	3.53	124	3.90	138
Duvernay Shale Portion	0.00	0	0.03	1	0.08	3	0.13	5	0.19	7
13 - BC Deep Basin	16.91	597	18.10	639	17.80	628	18.00	635	19.19	677
Montney Portion	6.81	240	9.92	350	10.67	377	11.72	414	13.56	479
Other Tight Portion	6.08	215	4.77	168	4.19	148	3.73	132	3.39	120
14 - Fort St. John	44.10	1,557	45.91	1,621	44.15	1,559	44.13	1,558	47.12	1,664
Solution Gas	0.83	29	0.82	29	0.84	30	0.85	30	0.85	30
Montney Portion	24.25	856	28.06	991	29.12	1,028	31.41	1,109	36.29	1,281

C.2 - Canadian Gas Deliverability by Area/Resource - Higher Price Case (continued)										
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
15 - Northeast BC	20.75	732	20.53	725	19.48	688	19.03	672	19.50	688
Solution Gas	0.12	4	0.14	5	0.16	5	0.17	6	0.18	7
Tight Portion	9.20	325	7.88	278	7.07	250	6.50	230	6.20	219
Cordova Shale Portion	0.10	3	0.52	18	0.65	23	0.80	28	1.02	36
Horn River Shale Portion	6.47	228	8.10	286	8.08	285	8.29	293	8.98	317
16 - BC Foothills	15.64	552	14.81	523	13.50	477	12.53	442	12.09	427
Montney Tight Portion	2.98	105	3.94	139	4.09	144	4.31	152	4.82	170
17 - Southwest Saskatchewan	6.86	242	6.11	216	5.32	188	4.63	164	4.06	143
Solution Gas	0.29	10	0.22	8	0.20	7	0.17	6	0.17	6
Tight Portion	6.42	227	5.89	208	5.12	181	4.46	157	3.89	137
18 - West Saskatchewan	3.95	139	3.57	126	3.37	119	3.20	113	3.06	108
Solution Gas	1.69	60	1.71	60	1.75	62	1.78	63	1.83	65
19 - East Saskatchewan	2.20	78	2.47	87	2.77	98	3.13	110	3.61	128
Solution Gas	2.20	77	2.47	87	2.77	98	3.13	110	3.61	128
22 - Yukon and Northwest Territories	0.51	18	0.50	18	0.48	17	0.46	16	0.45	16
Total Conventional (no tight, no solution gas)	**169.01**	**5,966**	**145.14**	**5,124**	**125.96**	**4,446**	**110.09**	**3,886**	**97.51**	**3,442**
Total Tight	**167.14**	**5,900**	**170.34**	**6,013**	**162.55**	**5,738**	**159.09**	**5,616**	**163.28**	**5,764**
Montney Portion	**38.52**	**1359.89**	**48.55**	**1713.95**	**52.47**	**1852.27**	**58.13**	**2051.99**	**68.16**	**2406.05**
Total Solution Gas	**38.75**	**1367.82**	**43.79**	**1545.83**	**50.94**	**1798.15**	**59.65**	**2105.61**	**69.11**	**2439.57**
Total CBM	**23.49**	**829**	**21.83**	**771**	**20.05**	**708**	**18.49**	**653**	**17.19**	**607**
Total Shale	**6.61**	**233**	**9.18**	**324**	**9.98**	**352**	**11.04**	**390**	**12.82**	**453**
Total WCSB	**405.01**	**14,297**	**390.28**	**13,777**	**369.47**	**13,043**	**358.36**	**12,650**	**359.91**	**12,705**
Atlantic Canada	7.62	269	5.75	203	8.29	293	11.75	415	10.25	362
Other Canada	0.43	15	0.40	14	0.38	14	0.37	13	0.35	12
Total Canada	**413.06**	**14,581**	**396.43**	**13,994**	**378.14**	**13,349**	**370.47**	**13,078**	**370.51**	**13,079**

rates are annual averages
*matched to 2012 actual production for Jan-Oct

FIGURE C2

Outlook for Canadian Gas Deliverability – Higher Price Case



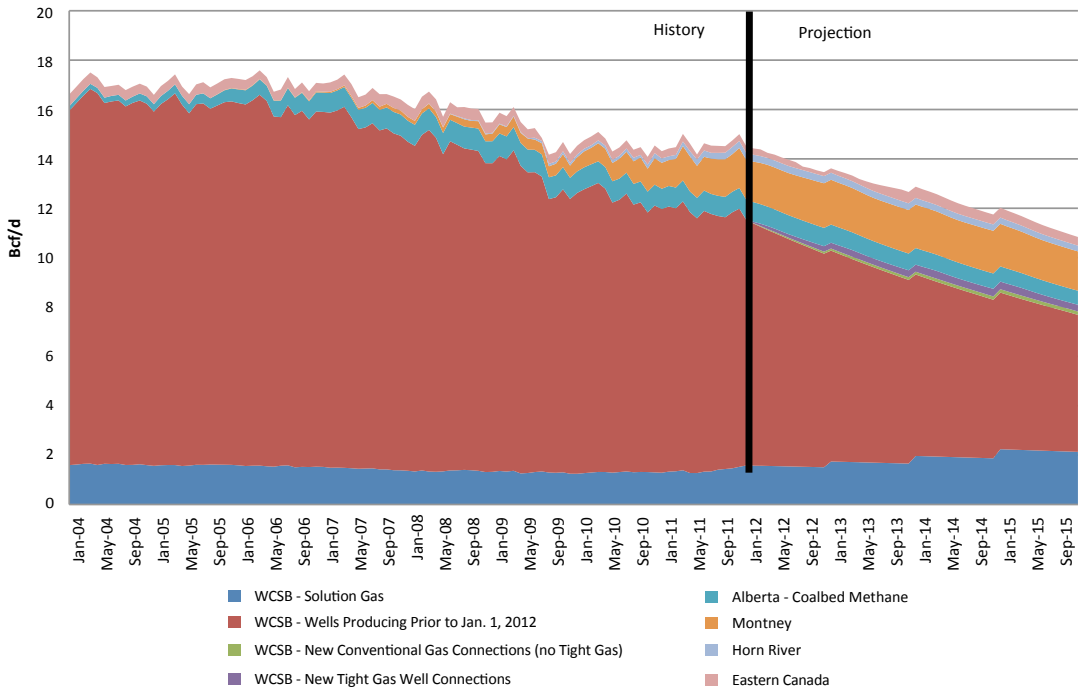
C.3 - Canadian Gas Deliverability by Area/Resource - Lower Price Case										
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
00 - Alberta CBM	23.49	829	21.83	771	20.00	706	18.31	646	16.76	591
HSC Portion	17.64	623	16.54	584	15.16	535	13.86	489	12.63	446
Mannville Portion	2.76	98	2.31	82	2.07	73	1.86	66	1.68	59
Other CBM Portion	3.09	109	2.98	105	2.77	98	2.60	92	2.45	86
01 - Southern Alberta	34.36	1,213	30.63	1,081	26.70	943	23.36	825	20.54	725
Solution Gas	2.00	70	2.14	76	2.27	80	2.45	86	2.64	93
Tight Portion	22.06	779	19.83	700	16.96	599	14.50	512	12.38	437
02 - Southwest Alberta	6.80	240	5.91	208	5.16	182	4.55	161	4.03	142
Solution Gas	0.64	23	0.68	24	0.69	24	0.72	25	0.76	27
Tight Portion	1.97	69	1.64	58	1.40	49	1.19	42	1.02	36
03 - Southern Foothills	4.70	166	4.06	143	3.48	123	2.98	105	2.56	90
Solution Gas	0.10	3	0.10	4	0.10	4	0.10	4	0.10	4
04 - Eastern Alberta	16.93	598	15.19	536	13.78	487	12.95	457	12.13	428
Solution Gas	4.26	150	4.51	159	4.56	161	5.00	176	5.29	187
Tight Portion	0.38	14	0.37	13	0.32	11	0.27	10	0.23	8
Duvernay Shale Portion	0.00	0	0.07	3	0.15	5	0.20	7	0.22	8
05 - Central Alberta	19.82	700	17.34	612	15.87	560	14.68	518	13.50	477
Solution Gas	3.53	125	3.94	139	4.33	153	4.76	168	4.98	176
Tight Portion	1.66	59	1.35	48	1.19	42	1.05	37	0.92	33
Duvernay Shale Portion	0.00	0	0.03	1	0.06	2	0.07	3	0.08	3
06 - West Central Alberta	46.61	1,645	46.74	1,650	45.06	1,591	43.49	1,535	40.52	1,430
Solution Gas	9.58	338	11.21	396	12.83	453	14.61	516	14.89	526
Tight Portion	17.30	611	17.52	619	16.08	568	14.50	512	12.89	455
Duvernay Shale Portion	0.00	0	0.05	2	0.08	3	0.09	3	0.09	3
07 - Central Foothills	23.05	814	20.54	725	18.09	638	15.88	561	13.92	492
Solution Gas	0.27	9	0.31	11	0.35	12	0.40	14	0.46	16
Montney Tight Portion	0.29	10	0.28	10	0.28	10	0.26	9	0.24	8
Other Tight Portion	1.32	47	1.59	56	1.44	51	1.29	46	1.15	40
Duvernay Shale Portion	0.00	0	0.03	1	0.04	2	0.05	2	0.05	2
08 - Kaybob	21.79	769	21.05	743	20.36	719	20.29	716	19.52	689
Solution Gas	3.75	132	4.75	168	5.54	195	7.05	249	7.83	276
Montney Tight Portion	1.93	68	2.00	71	2.14	76	2.11	75	2.00	71
Other Tight Portion	8.53	301	7.75	274	6.81	240	5.94	210	5.17	182
Duvernay Shale Portion	0.04	1	0.25	9	0.48	17	0.56	20	0.57	20
09 - Alberta Deep Basin	63.00	2,224	63.80	2,252	59.77	2,110	55.18	1,948	50.37	1,778
Solution Gas	1.76	62	2.02	71	2.26	80	2.71	96	3.15	111
Montney Tight Portion	2.25	80	3.44	122	3.94	139	4.04	142	3.93	139
Other Tight Portion	51.57	1,821	51.50	1,818	46.98	1,658	42.23	1,491	37.54	1,325
Duvernay Shale Portion	0.00	0	0.07	2	0.14	5	0.17	6	0.18	6
10 - Northeast Alberta	10.81	382	9.29	328	8.02	283	7.00	247	6.25	220
Solution Gas	1.91	67	2.03	72	2.07	73	2.13	75	2.25	79
11 - Peace River	13.90	491	13.68	483	13.90	491	13.89	490	17.35	613
Solution Gas	3.31	117	3.91	138	4.65	164	5.40	190	9.72	343
Montney Tight Portion	0.00	0	0.89	32	1.65	58	2.01	71	2.09	74
Other Tight Portion	2.12	75	1.70	60	1.46	52	1.26	44	1.08	38
Duvernay Shale Portion	0.00	0	0.03	1	0.05	2	0.07	2	0.07	2
12 - Northwest Alberta	8.81	311	8.21	290	7.62	269	7.14	252	6.87	243
Solution Gas	2.51	89	2.83	100	2.99	106	3.18	112	3.48	123
Duvernay Shale Portion	0.00	0	0.03	1	0.07	2	0.09	3	0.10	4
13 - BC Deep Basin	16.91	597	18.10	639	17.38	613	16.24	573	14.95	528
Montney Portion	6.81	240	9.92	350	10.28	363	10.10	357	9.65	341
Other Tight Portion	6.08	215	4.77	168	4.17	147	3.62	128	3.14	111
14 - Fort St. John	44.10	1,557	45.91	1,621	42.98	1,517	39.38	1,390	35.72	1,261
Solution Gas	0.83	29	0.82	29	0.78	28	0.78	27	0.77	27
Montney Portion	24.25	856	28.06	991	28.02	989	26.78	945	25.09	886

C.3 - Canadian Gas Deliverability by Area/Resource - Lower Price Case (continued)										
Area/Resource	Historical				Projected					
	2011		2012*		2013		2014		2015	
	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d	$10^6m^3/d$	MMcf/d
15 - Northeast BC	20.75	732	20.53	725	19.09	674	17.50	618	15.86	560
Solution Gas	0.12	4	0.14	5	0.14	5	0.16	6	0.17	6
Tight Portion	9.20	325	7.88	278	6.99	247	6.18	218	5.43	192
Cordova Shale Portion	0.10	3	0.52	18	0.61	22	0.65	23	0.65	23
Horn River Shale Portion	6.47	228	8.10	286	7.87	278	7.41	262	6.86	242
16 - BC Foothills	15.64	552	14.81	523	13.36	472	11.93	421	10.60	374
Montney Tight Portion	2.98	105	3.94	139	3.98	140	3.82	135	3.60	127
17 - Southwest Saskatchewan	6.86	242	6.11	216	5.31	187	4.62	163	4.04	143
Solution Gas	0.29	10	0.22	8	0.19	7	0.16	6	0.16	6
Tight Portion	6.42	227	5.89	208	5.12	181	4.46	157	3.88	137
18 - West Saskatchewan	3.95	139	3.57	126	3.34	118	3.14	111	2.98	105
Solution Gas	1.69	60	1.71	60	1.72	61	1.73	61	1.76	62
19 - East Saskatchewan	2.20	78	2.47	87	2.67	94	3.02	107	3.48	123
Solution Gas	2.20	77	2.47	87	2.67	94	3.02	107	3.48	123
22 - Yukon and North West Territories	0.51	18	0.50	18	0.48	17	0.46	16	0.45	16
Total Conventional (no tight, no solution gas)	**169.01**	**5,966**	**145.14**	**5,124**	**125.53**	**4,431**	**108.37**	**3,825**	**93.44**	**3,299**
Total Tight	**167.14**	**5,900**	**170.34**	**6,013**	**159.20**	**5,620**	**145.60**	**5,140**	**131.43**	**4,640**
Montney Portion	**38.52**	**1359.89**	**48.55**	**1713.95**	**50.29**	**1775.22**	**49.12**	**1733.99**	**46.60**	**1645.19**
Total Solution Gas	**38.75**	**1367.82**	**43.79**	**1545.83**	**48.14**	**1699.40**	**54.36**	**1918.79**	**61.90**	**2185.27**
Total CBM	**23.49**	**829**	**21.83**	**771**	**20.00**	**706**	**18.31**	**646**	**16.76**	**591**
Total Shale	**6.61**	**233**	**9.18**	**324**	**9.56**	**338**	**9.37**	**331**	**8.87**	**313**
Total WCSB	**405.01**	**14,297**	**390.28**	**13,777**	**362.43**	**12,794**	**336.00**	**11,861**	**312.40**	**11,028**
Atlantic Canada	7.62	269	5.75	203	8.29	293	11.75	415	10.25	362
Other Canada	0.43	15	0.40	14	0.38	14	0.37	13	0.35	12
Total Canada	**413.06**	**14,581**	**396.43**	**13,994**	**371.10**	**13,100**	**348.11**	**12,289**	**323.00**	**11,402**

rates are annual averages
*matched to 2012 actual production for Jan-Oct

FIGURE C3

Outlook for Canadian Gas Deliverability – Lower Price Case

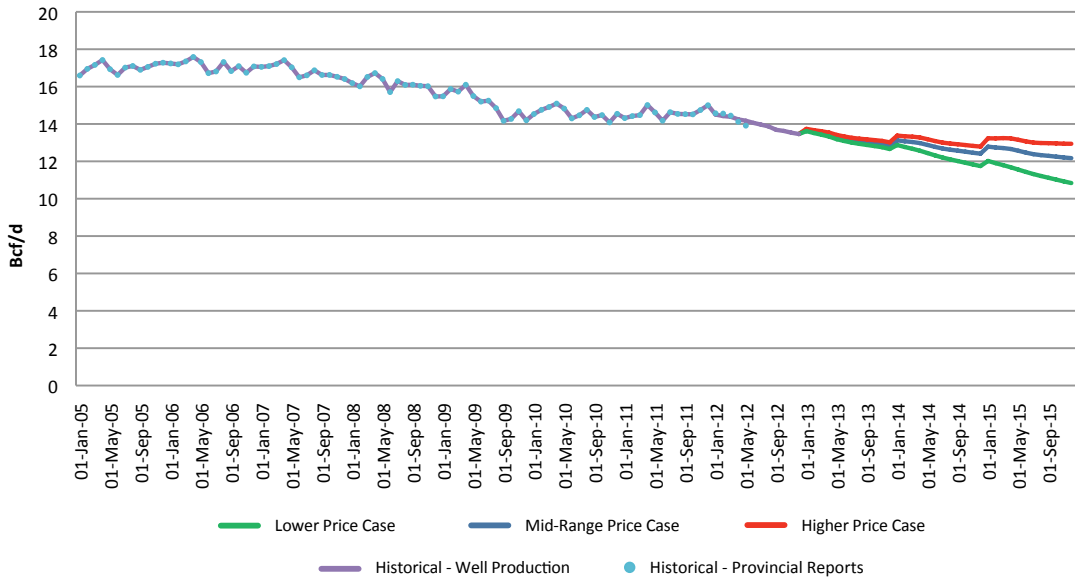


Appendix D

Total Canadian Deliverability Comparison by Case

FIGURE D1

Total Canadian Deliverability Comparison by Case



Appendix E

Average Annual Canadian Deliverability and Demand

E.1 – Average Annual Canadian Deliverability and Demand

	2012		2013		2014		2015	
	$10^6m^3/d$	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$	Bcf/d	$10^6m^3/d$	Bcf/d
Canadian Deliverability, Mid-Range Case	396	14.0	374	13.2	361	12.8	353	12.5
Total Canadian Demand	291	10.4	296	10.5	306	10.9	310	11.0
Western Canada Demand	190	6.7	192	6.8	200	7.1	203	7.2
Eastern Canada Demand	102	3.6	103	3.7	106	3.8	107	3.8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