

National Energy  
Board



Office national  
de l'énergie

Short-term Canadian  
**Natural Gas** Deliverability

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*2004 - 2006*  
*Appendices*

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An **ENERGY MARKET ASSESSMENT** • November 2004

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Canada 

# **APPENDICES**

**Appendix 1**

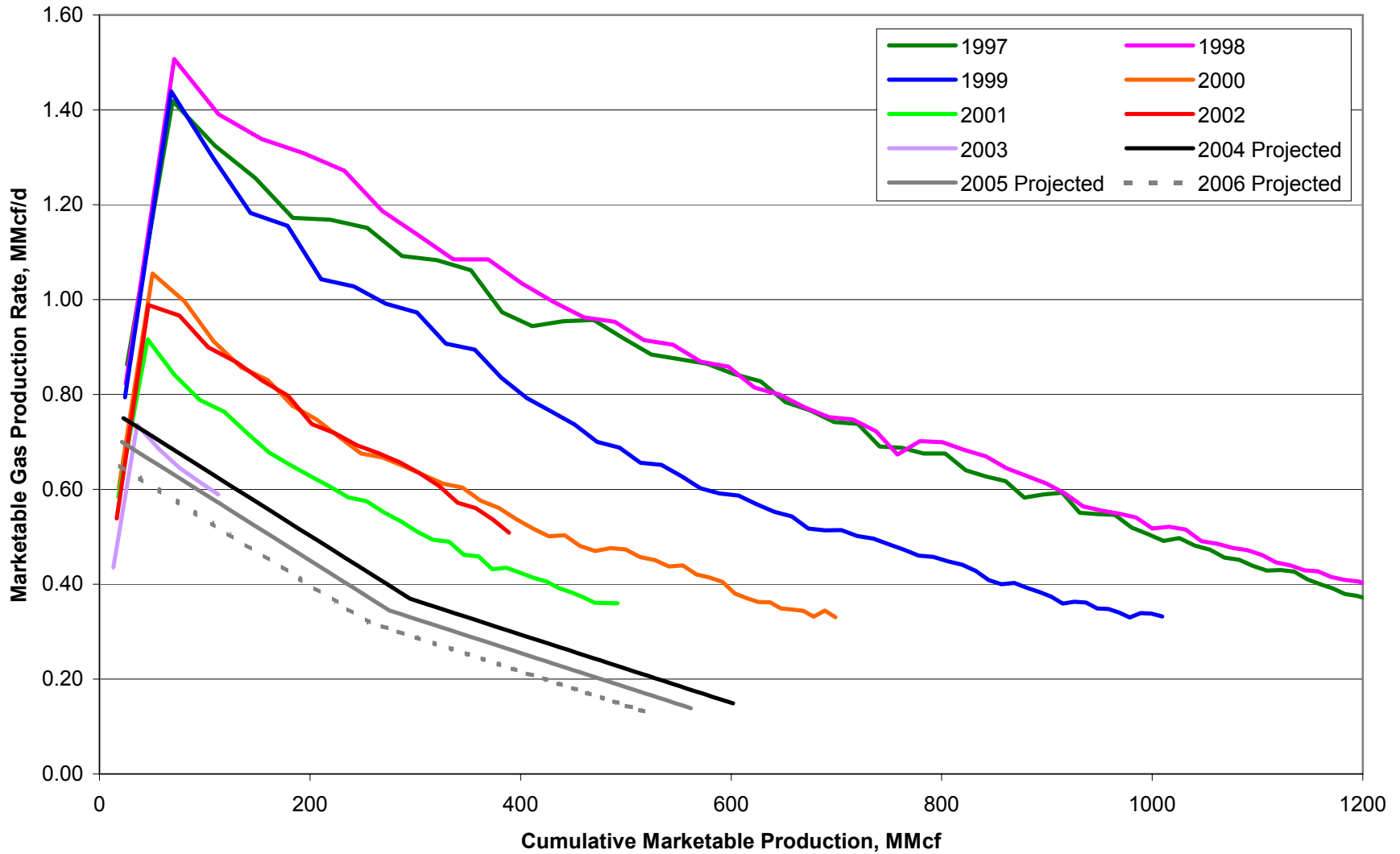
**Charts of Historic and Projected Average Well  
Performance by Geographic Area.**

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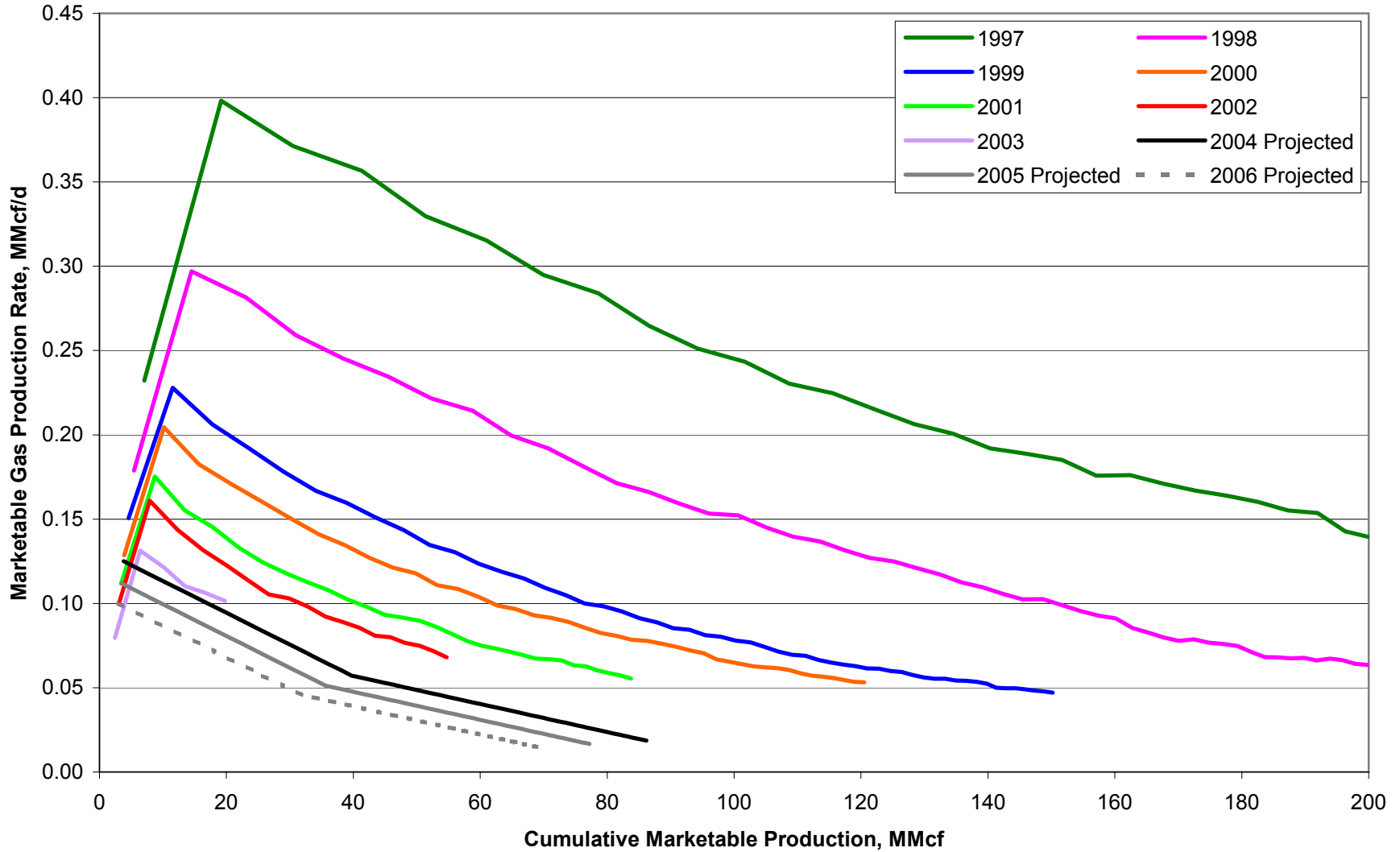
# A1-2: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

## Area: Alberta - Foothills Front



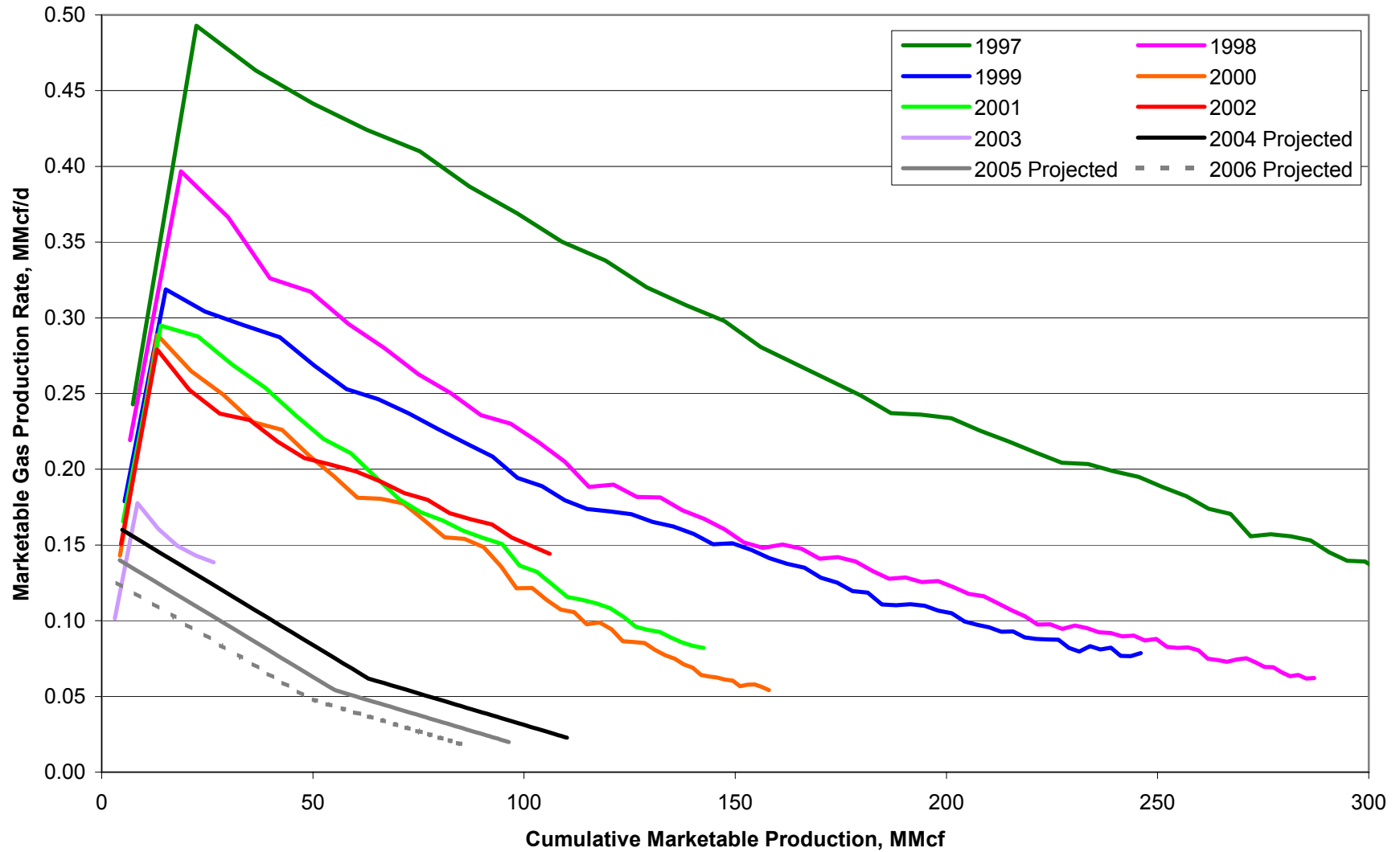
### A1-3: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

Area: Alberta - Southeast



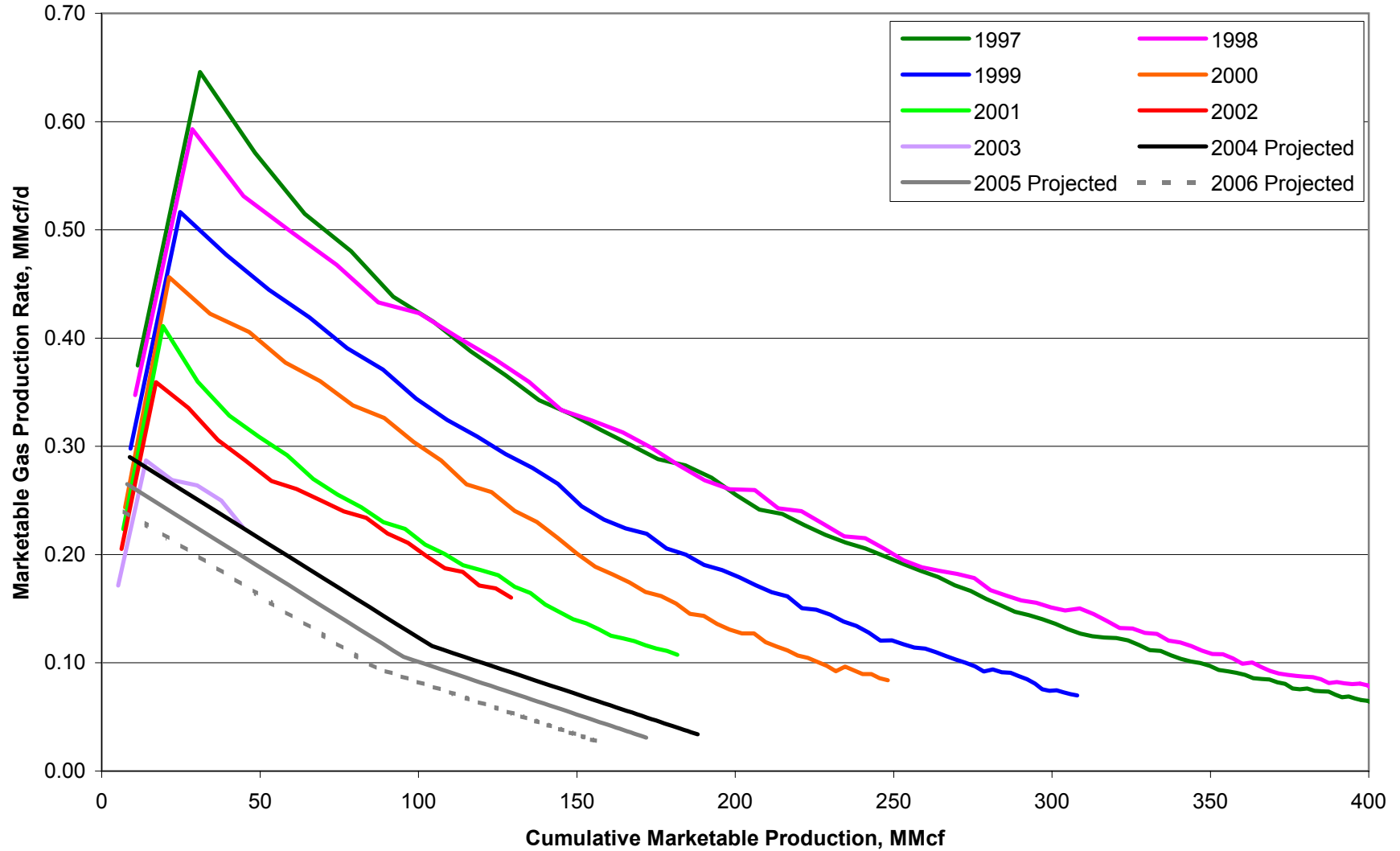
# A1-4: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

Area: Alberta - East Central



# A1-5: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

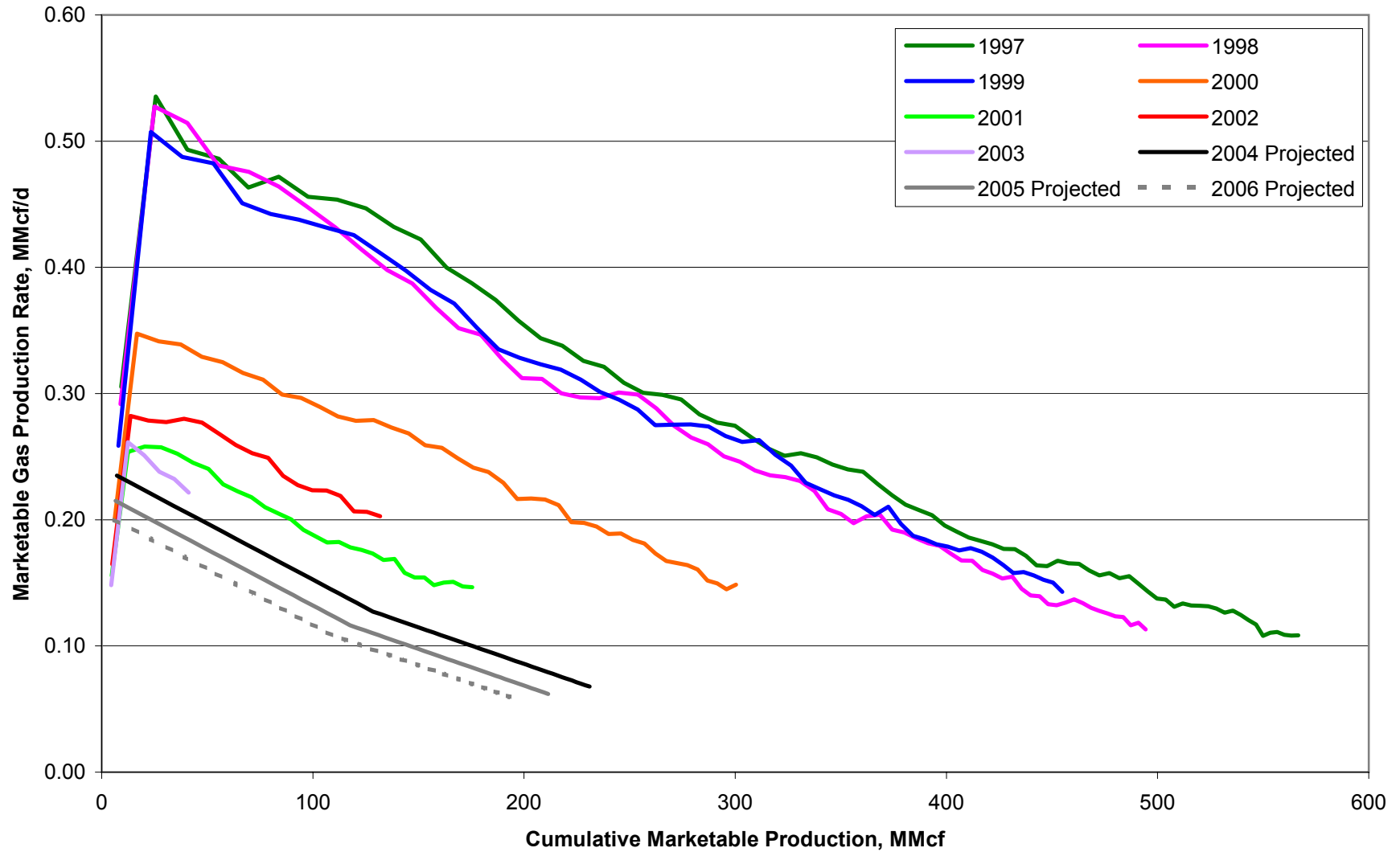
Area: Alberta - Central





# A1-6: 2004 ST Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

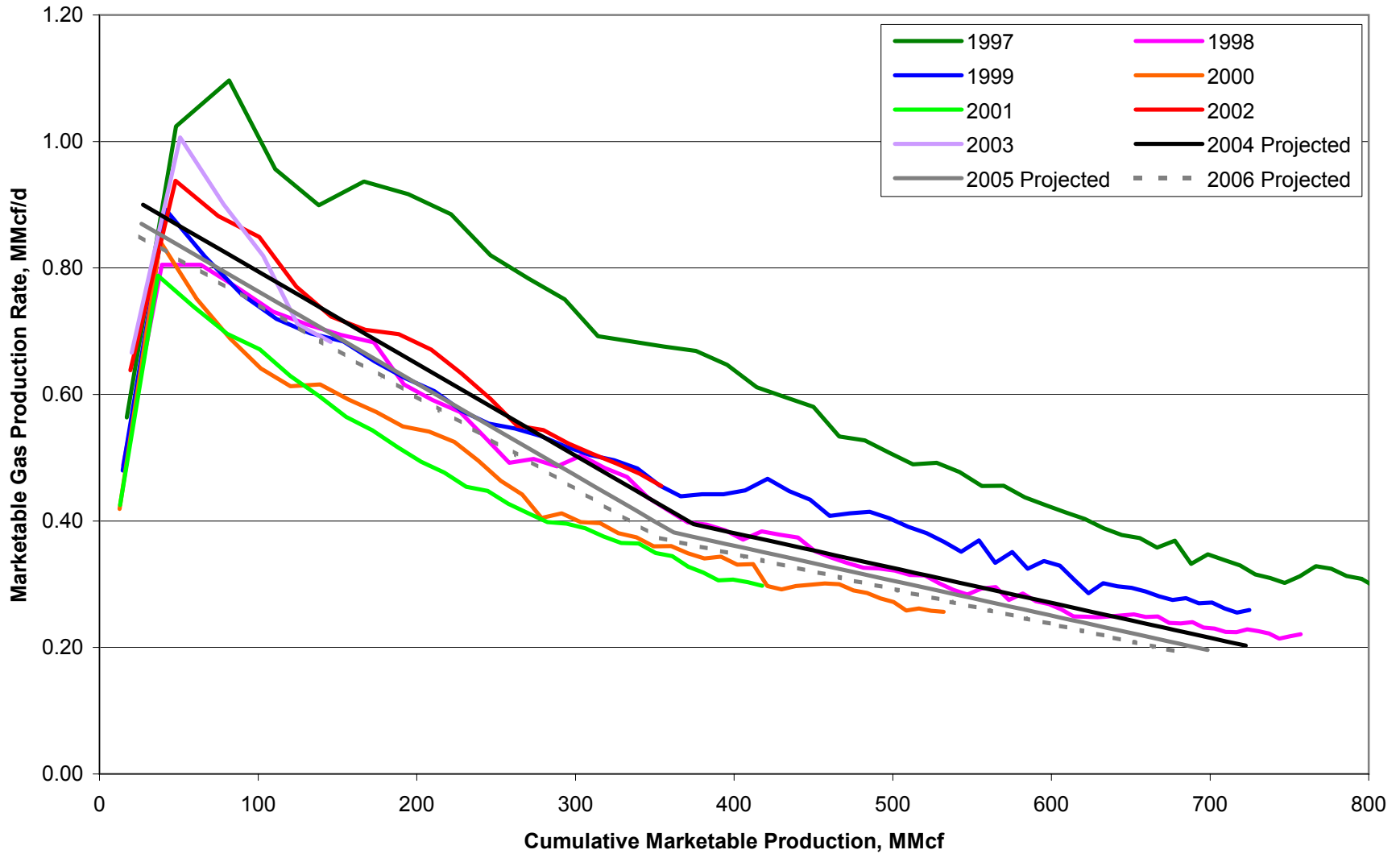
Area: AB - Northeast





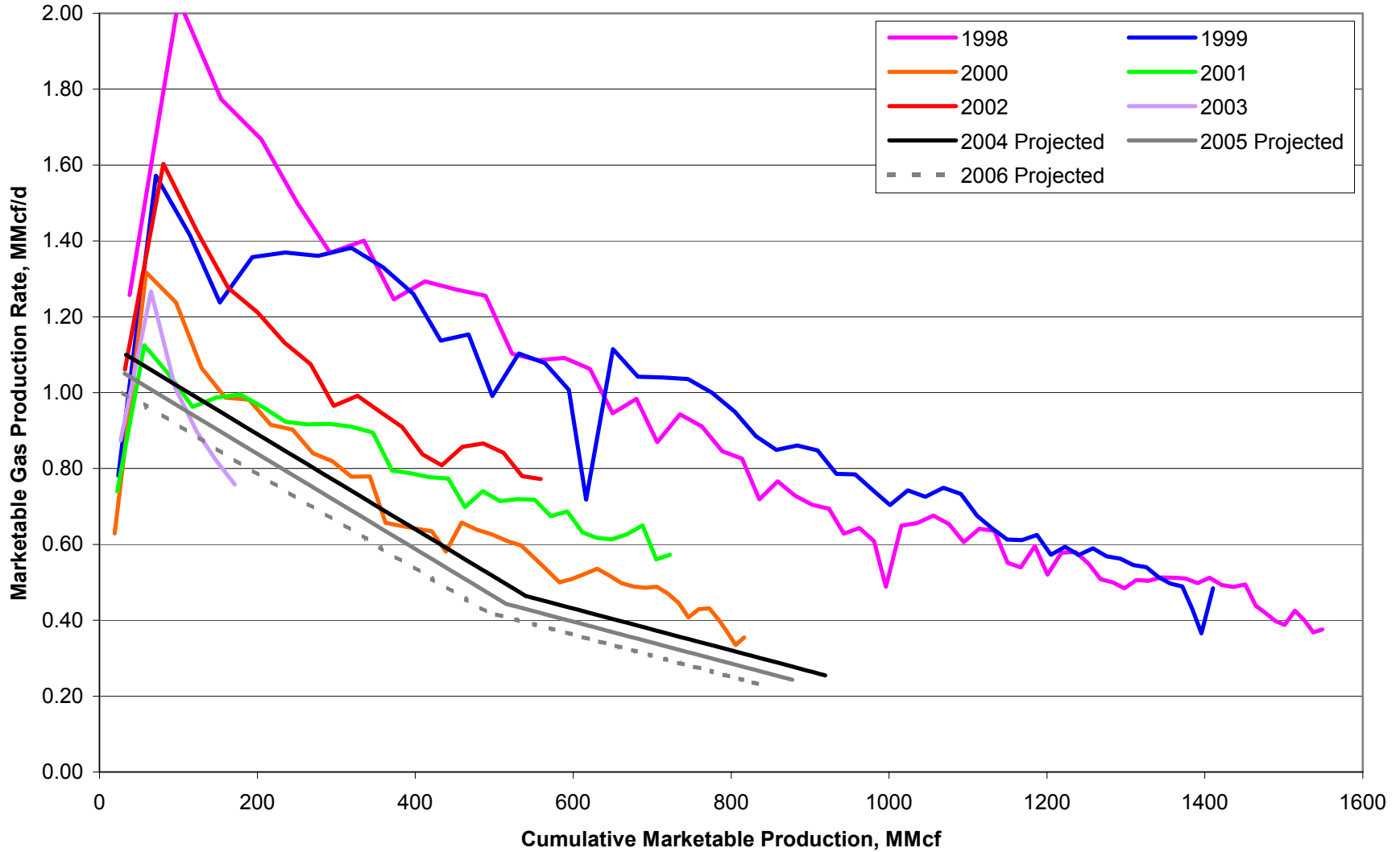
# A1-8: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

Area: B.C. - Fort St John



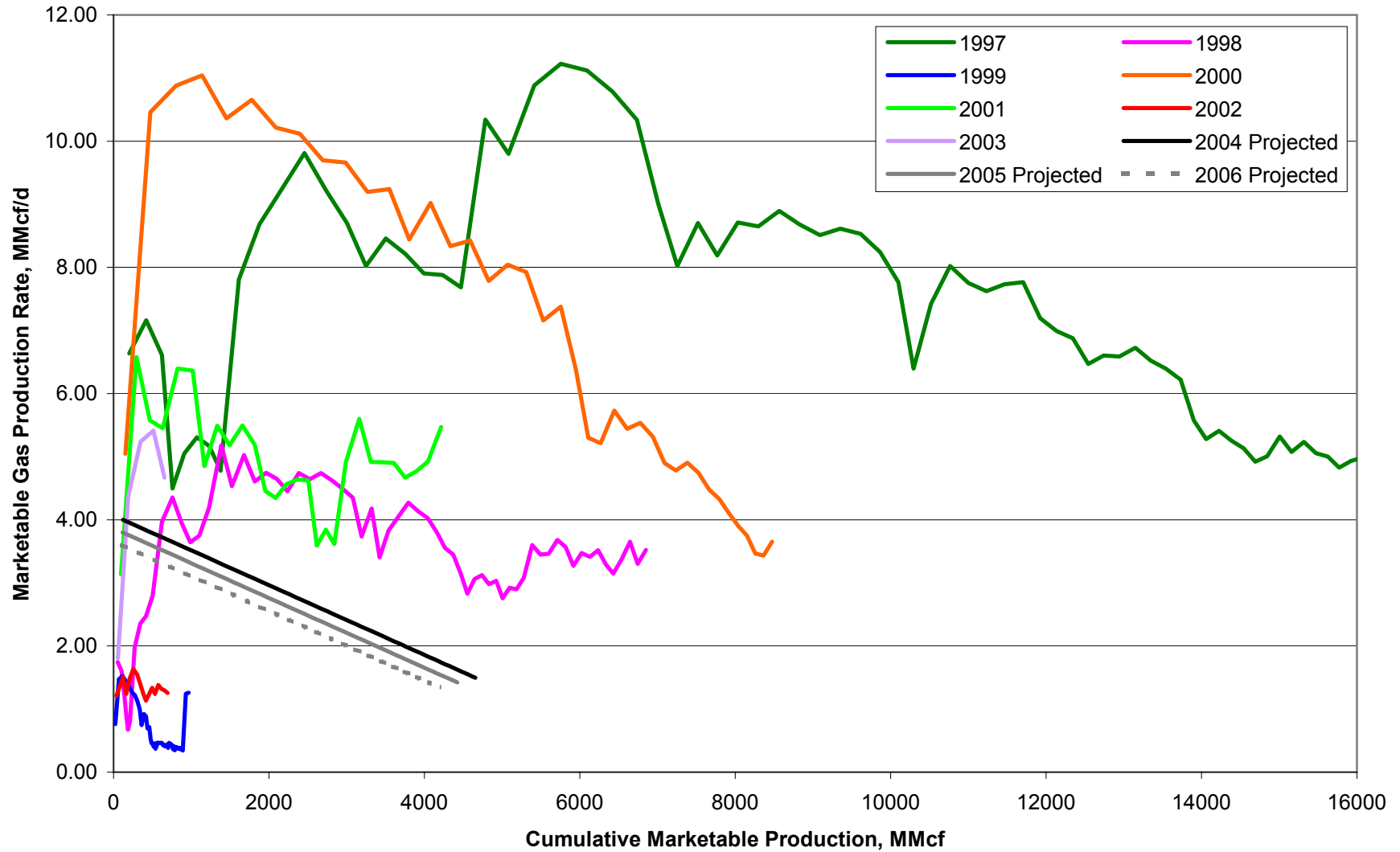
# A1-9: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

Area: B.C.- Fort Nelson



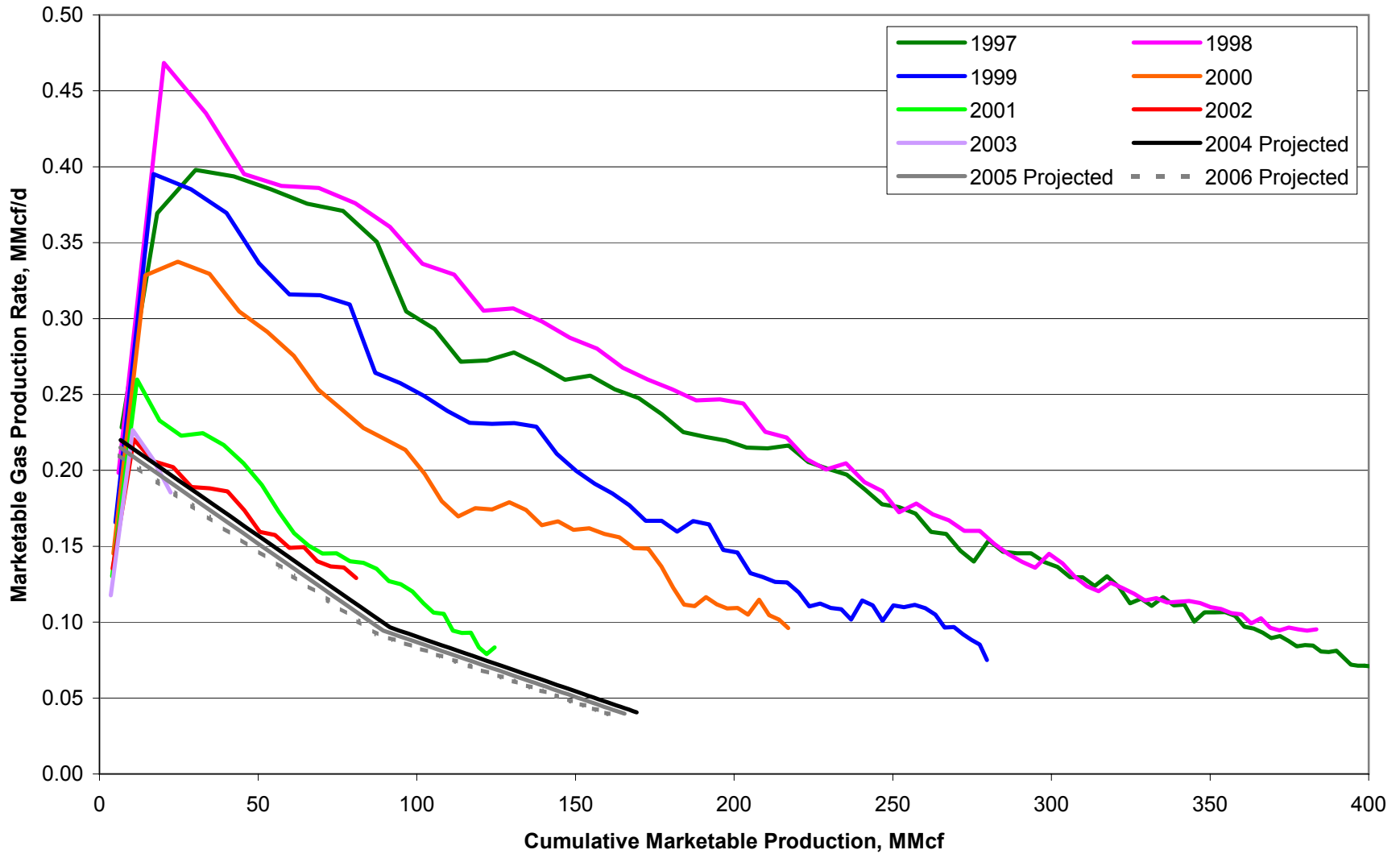
# A1-10: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

## Area: B.C. - Foothills



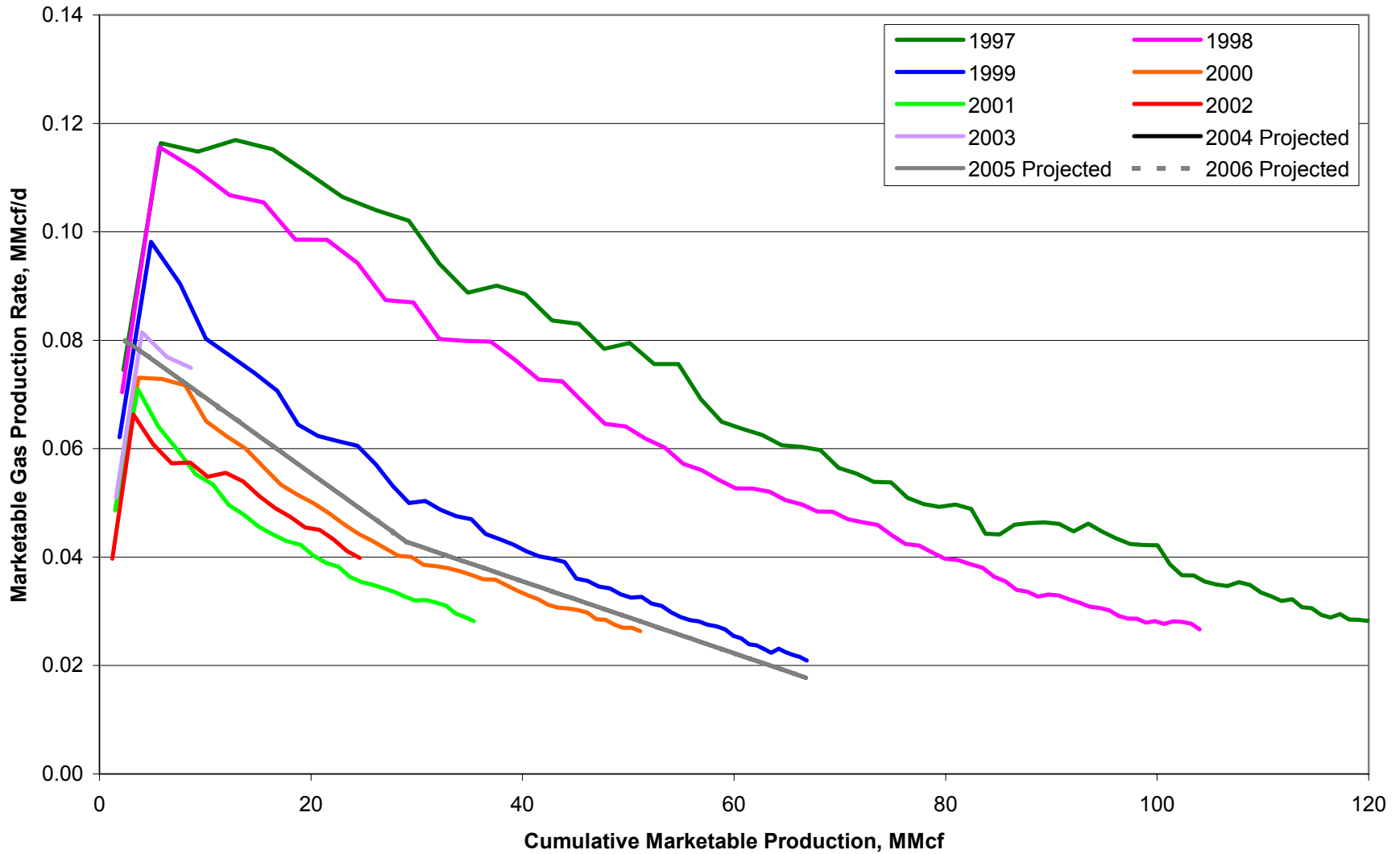
# A1-11: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

## Area: Saskatchewan - Central



# A1-12: 2004 St Deliv EMA - Average Connection Performance Trends - Rate vs Cum Prod

## Area: Saskatchewan - Southwest



## Appendix 2

# **WCSB Drilling Rigs and Utilization Rates**

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**Appendix 2 - WCSB Drilling Rigs and Utilization Rates**

Year	Total Drill Days (All Wells) *	Actual Rigs at Yr End	Projected Rigs at Year End	Average No. of Rigs Available in Year	Drill Days at 100% utilization	Actual Historical Utilization	Projected Utilization	Gas/Oil Drl Day Ratio	Drill Days Available in Year at Projected Utilization	Gas/Oil Split **	Drill Days available for Gas Directed Drilling	Number of Gas Intent Wells	Number of Successful Gas Wells
1998	84941	547						63.17%		0.632			
1999	76925	578		562.5	205,313	0.375		68.21%		0.682			
2000	113781	610		594	217,404	0.523		63.39%		0.634			
2001	117653	646		628	229,220	0.513		69.82%		0.698			
2002	95741	664		655	239,075	0.400		68.99%		0.690			
2003	123268	684	684	674	246,010	0.501		72.56%		0.726			
2004			720	702	256,932		0.490		125,897	0.720	90,646	17,159	15,589
2005			750	735	268,275		0.500		134,138	0.720	96,579	18,599	16,945
2006			780	765	279,225		0.500		139,613	0.720	100,521	19,631	17,911

Source- CAODC Website data for 2002 and 2003, and data from Precision Drilling for 1998 - 2001.

Use 49% Utilization in 2004 (slightly lower than 2003 due to weather) and apply 2003 utilization levels to available rigs in 2005 and 2006.

\* Total Drill days are determined from GeoScout Data. Drill days for each Well ID are available in GeoScout. NEB takes the Drill days for each unique well License. Usually the Drill days obtained in this manner are fine, but sometimes there are an unreasonable number of drill days for a license. To rectify the anomalies, the Drill Days from GeoScout are sometimes adjusted by analyzing the Drilling Rig information and the Spud date and Drilling Completion date. GeoScout provides the Drilling Rig used to drill each well in almost all instances. A program is run which recalculates drilling days if there is overlap in allocation of any particular rig on any day. The rule applied is that each particular drill rig can only work 1 day on any given day-- cannot have a drill day for Rig X assigned to all of Wells A, B, and C on the same day-- cannot have 3 drill days here--only one well gets the drill day.

\*\*Historical values Gas/Oil Split were calculated by getting drill days for gas wells in each year (based on Completed Drilling Date) and drill days for oil wells in each year.

Number of Gas Intent Wells and Number of Successful Gas Wells were calculated by allocation of drill days to geographic areas in accordance with historical trends, application of expected drill days per well in each area, and then application of expected success rate in each area.

## Appendix 3

# Group Performance Parameters Applicable to Existing Production

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**Appendix 3**  
**Group Performance Parameters Applicable to Existing Production**

Table includes parameters for all production groupings on stream prior to start of 2004, except East Coast Offshore

Group Description			Group Production Performance Parameters				
Gas Type	Area Name	Connection Year Grouping	Marketable Gas Production @ 2003-12-31, E3m3/d	Marketable Gas Production @ 2003-12-31, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to 2nd decline
Non-Solution	Alberta - Foothills	All pre-1995	7,025	248.0	0.090	N/A	N/A
Non-Solution	Alberta - Foothills	1995	142	5.0	0.150	N/A	N/A
Non-Solution	Alberta - Foothills	1996	348	12.3	0.160	N/A	N/A
Non-Solution	Alberta - Foothills	1997	518	18.3	0.070	N/A	N/A
Non-Solution	Alberta - Foothills	1998	249	8.8	0.180	N/A	N/A
Non-Solution	Alberta - Foothills	1999	822	29.0	0.170	N/A	N/A
Non-Solution	Alberta - Foothills	2000	935	33.0	0.160	N/A	N/A
Non-Solution	Alberta - Foothills	2001	1,105	39.0	0.170	N/A	N/A
Non-Solution	Alberta - Foothills	2002	2,776	98.0	0.210	N/A	N/A
Non-Solution	Alberta - Foothills	2003	2,975	105.0	0.300	0.200	12
Non-Solution	Alberta - Foothills Front	All pre-1995	34,278	1210.0	0.130	N/A	N/A
Non-Solution	Alberta - Foothills Front	1995	2,550	90.0	0.130	N/A	N/A
Non-Solution	Alberta - Foothills Front	1996	2,606	92.0	0.200	N/A	N/A
Non-Solution	Alberta - Foothills Front	1997	4,561	161.0	0.130	N/A	N/A
Non-Solution	Alberta - Foothills Front	1998	6,091	215.0	0.170	N/A	N/A
Non-Solution	Alberta - Foothills Front	1999	6,232	220.0	0.180	N/A	N/A
Non-Solution	Alberta - Foothills Front	2000	9,008	318.0	0.170	N/A	N/A
Non-Solution	Alberta - Foothills Front	2001	12,040	425.0	0.300	N/A	N/A
Non-Solution	Alberta - Foothills Front	2002	14,873	525.0	0.350	0.230	12
Non-Solution	Alberta - Foothills Front	2003	24,363	860.0	0.500	0.250	13
Non-Solution	Alberta - Southeast	All pre-1995	19,547	690.0	0.100	N/A	N/A
Non-Solution	Alberta - Southeast	1995	1,416	50.0	0.150	N/A	N/A
Non-Solution	Alberta - Southeast	1996	1,615	57.0	0.120	N/A	N/A
Non-Solution	Alberta - Southeast	1997	2,323	82.0	0.140	N/A	N/A
Non-Solution	Alberta - Southeast	1998	3,258	115.0	0.140	N/A	N/A
Non-Solution	Alberta - Southeast	1999	4,618	163.0	0.150	N/A	N/A
Non-Solution	Alberta - Southeast	2000	7,025	248.0	0.160	N/A	N/A
Non-Solution	Alberta - Southeast	2001	8,215	290.0	0.300	N/A	N/A
Non-Solution	Alberta - Southeast	2002	8,300	293.0	0.300	N/A	N/A
Non-Solution	Alberta - Southeast	2003	17,847	630.0	0.620	0.280	12
Non-Solution	Alberta - East Central	All pre-1995	5,326	188.0	0.060	N/A	N/A
Non-Solution	Alberta - East Central	1995	510	18.0	0.120	N/A	N/A
Non-Solution	Alberta - East Central	1996	482	17.0	0.160	N/A	N/A
Non-Solution	Alberta - East Central	1997	453	16.0	0.180	N/A	N/A
Non-Solution	Alberta - East Central	1998	567	20.0	0.200	N/A	N/A
Non-Solution	Alberta - East Central	1999	878	31.0	0.170	N/A	N/A
Non-Solution	Alberta - East Central	2000	708	25.0	0.160	N/A	N/A
Non-Solution	Alberta - East Central	2001	1,218	43.0	0.280	N/A	N/A
Non-Solution	Alberta - East Central	2002	2,606	92.0	0.330	0.270	20
Non-Solution	Alberta - East Central	2003	2,975	105.0	0.500	0.280	15
Non-Solution	Alberta - Central	All pre-1995	9,915	350.0	0.170	N/A	N/A
Non-Solution	Alberta - Central	1995	992	35.0	0.120	N/A	N/A
Non-Solution	Alberta - Central	1996	1,445	51.0	0.140	N/A	N/A
Non-Solution	Alberta - Central	1997	1,586	56.0	0.130	N/A	N/A
Non-Solution	Alberta - Central	1998	1,785	63.0	0.190	N/A	N/A
Non-Solution	Alberta - Central	1999	1,841	65.0	0.200	N/A	N/A
Non-Solution	Alberta - Central	2000	2,465	87.0	0.220	N/A	N/A
Non-Solution	Alberta - Central	2001	3,371	119.0	0.320	N/A	N/A
Non-Solution	Alberta - Central	2002	3,966	140.0	0.420	0.300	15
Non-Solution	Alberta - Central	2003	8,499	300.0	0.630	0.300	16
Non-Solution	Alberta - Northeast	All pre-1995	6,374	225.0	0.160	N/A	N/A
Non-Solution	Alberta - Northeast	1995	1,020	36.0	0.160	N/A	N/A
Non-Solution	Alberta - Northeast	1996	1,048	37.0	0.210	N/A	N/A
Non-Solution	Alberta - Northeast	1997	1,870	66.0	0.180	N/A	N/A
Non-Solution	Alberta - Northeast	1998	2,096	74.0	0.180	N/A	N/A

**Appendix 3**  
**Group Performance Parameters Applicable to Existing Production**

Table includes parameters for all production groupings on stream prior to start of 2004, except East Coast Offshore

Group Description			Group Production Performance Parameters				
Gas Type	Area Name	Connection Year Grouping	Marketable Gas Production @ 2003-12-31, E3m3/d	Marketable Gas Production @ 2003-12-31, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to 2nd decline
Non-Solution	Alberta - Northeast	1999	1,926	68.0	0.210	N/A	N/A
Non-Solution	Alberta - Northeast	2000	2,691	95.0	0.220	N/A	N/A
Non-Solution	Alberta - Northeast	2001	2,975	105.0	0.190	N/A	N/A
Non-Solution	Alberta - Northeast	2002	2,295	81.0	0.220	N/A	N/A
Non-Solution	Alberta - Northeast	2003	3,116	110.0	0.300	0.210	16
Non-Solution	Alberta - Northwest	All pre-1995	9,547	337.0	0.150	N/A	N/A
Non-Solution	Alberta - Northwest	1995	1,841	65.0	0.170	N/A	N/A
Non-Solution	Alberta - Northwest	1996	1,870	66.0	0.210	N/A	N/A
Non-Solution	Alberta - Northwest	1997	2,266	80.0	0.210	N/A	N/A
Non-Solution	Alberta - Northwest	1998	2,946	104.0	0.210	N/A	N/A
Non-Solution	Alberta - Northwest	1999	2,861	101.0	0.230	N/A	N/A
Non-Solution	Alberta - Northwest	2000	3,683	130.0	0.240	N/A	N/A
Non-Solution	Alberta - Northwest	2001	5,807	205.0	0.300	N/A	N/A
Non-Solution	Alberta - Northwest	2002	6,232	220.0	0.380	0.270	24
Non-Solution	Alberta - Northwest	2003	9,207	325.0	0.460	0.280	18
Non-Solution	B.C. - Fort St. John	All pre-1995	8,385	296.0	0.120	N/A	N/A
Non-Solution	B.C. - Fort St. John	1995	850	30.0	0.120	N/A	N/A
Non-Solution	B.C. - Fort St. John	1996	652	23.0	0.160	N/A	N/A
Non-Solution	B.C. - Fort St. John	1997	1,218	43.0	0.170	N/A	N/A
Non-Solution	B.C. - Fort St. John	1998	1,473	52.0	0.130	N/A	N/A
Non-Solution	B.C. - Fort St. John	1999	1,870	66.0	0.200	N/A	N/A
Non-Solution	B.C. - Fort St. John	2000	2,181	77.0	0.230	N/A	N/A
Non-Solution	B.C. - Fort St. John	2001	5,184	183.0	0.440	0.200	25
Non-Solution	B.C. - Fort St. John	2002	4,108	145.0	0.450	0.200	10
Non-Solution	B.C. - Fort St. John	2003	8,017	283.0	0.550	0.200	13
Non-Solution	BC - Fort Nelson	All pre-1995	4,589	162.0	0.130	N/A	N/A
Non-Solution	BC - Fort Nelson	1995	793	28.0	0.130	N/A	N/A
Non-Solution	BC - Fort Nelson	1996	623	22.0	0.130	N/A	N/A
Non-Solution	BC - Fort Nelson	1997	1,048	37.0	0.120	N/A	N/A
Non-Solution	BC - Fort Nelson	1998	538	19.0	0.140	N/A	N/A
Non-Solution	BC - Fort Nelson	1999	1,530	54.0	0.250	N/A	N/A
Non-Solution	BC - Fort Nelson	2000	1,388	49.0	0.250	N/A	N/A
Non-Solution	BC - Fort Nelson	2001	2,946	104.0	0.260	0.200	18
Non-Solution	BC - Fort Nelson	2002	2,833	100.0	0.450	0.200	10
Non-Solution	BC - Fort Nelson	2003	6,232	220.0	0.500	0.200	15
Non-Solution	B.C. - Foothills	All pre-1995	2,550	90.0	0.150	N/A	N/A
Non-Solution	B.C. - Foothills	1995	340	12.0	0.180	N/A	N/A
Non-Solution	B.C. - Foothills	1996	595	21.0	0.150	N/A	N/A
Non-Solution	B.C. - Foothills	1997	1,105	39.0	0.160	N/A	N/A
Non-Solution	B.C. - Foothills	1998	1,048	37.0	0.120	N/A	N/A
Non-Solution	B.C. - Foothills	1999	142	5.0	0.060	N/A	N/A
Non-Solution	B.C. - Foothills	2000	510	18.0	0.300	N/A	N/A
Non-Solution	B.C. - Foothills	2001	1,360	48.0	0.180	N/A	N/A
Non-Solution	B.C. - Foothills	2002	453	16.0	0.200	N/A	N/A
Non-Solution	B.C. - Foothills	2003	2,663	94.0	0.200	N/A	N/A
Non-Solution	Saskatchewan - Central	All pre-1995	1,218	43.0	0.110	N/A	N/A
Non-Solution	Saskatchewan - Central	1995	198	7.0	0.180	N/A	N/A
Non-Solution	Saskatchewan - Central	1996	170	6.0	0.150	N/A	N/A
Non-Solution	Saskatchewan - Central	1997	127	4.5	0.210	N/A	N/A
Non-Solution	Saskatchewan - Central	1998	269	9.5	0.200	N/A	N/A
Non-Solution	Saskatchewan - Central	1999	198	7.0	0.250	N/A	N/A
Non-Solution	Saskatchewan - Central	2000	241	8.5	0.240	N/A	N/A
Non-Solution	Saskatchewan - Central	2001	397	14.0	0.260	N/A	N/A
Non-Solution	Saskatchewan - Central	2002	482	17.0	0.280	N/A	N/A
Non-Solution	Saskatchewan - Central	2003	935	33.0	0.450	0.250	15

**Appendix 3**  
**Group Performance Parameters Applicable to Existing Production**

Table includes parameters for all production groupings on stream prior to start of 2004, except East Coast Offshore

Group Description			Group Production Performance Parameters				
Gas Type	Area Name	Connection Year Grouping	Marketable Gas Production @ 2003-12-31, E3m3/d	Marketable Gas Production @ 2003-12-31, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to 2nd decline
Non-Solution	Saskatchewan - Southwest	All pre-1995	3,059	108.0	0.130	N/A	N/A
Non-Solution	Saskatchewan - Southwest	1995	153	5.4	0.130	N/A	N/A
Non-Solution	Saskatchewan - Southwest	1996	340	12.0	0.140	N/A	N/A
Non-Solution	Saskatchewan - Southwest	1997	235	8.3	0.190	N/A	N/A
Non-Solution	Saskatchewan - Southwest	1998	439	15.5	0.130	N/A	N/A
Non-Solution	Saskatchewan - Southwest	1999	680	24.0	0.170	N/A	N/A
Non-Solution	Saskatchewan - Southwest	2000	963	34.0	0.190	N/A	N/A
Non-Solution	Saskatchewan - Southwest	2001	1,303	46.0	0.230	N/A	N/A
Non-Solution	Saskatchewan - Southwest	2002	2,125	75.0	0.280	0.210	10
Non-Solution	Saskatchewan - Southwest	2003	3,598	127.0	0.440	0.220	15
Non-Solution	Yukon and Northwest Territories	All pre-2004	2,068	73.0	0.200	N/A	N/A
CBM	Alberta - Coal Bed Methane	All pre-2004	2,125	75.0	0.000	0.100	12
Solution	Alberta - Foothills	All	42	1.5	0.050	N/A	N/A
Solution	Alberta - Foothills Front	All	9,858	348.0	0.050	N/A	N/A
Solution	Alberta - Southeast	All	4,334	153.0	0.030	N/A	N/A
Solution	Alberta - East Central	All	2,266	80.0	0.010	N/A	N/A
Solution	Alberta - Central	All	9,915	350.0	0.030	N/A	N/A
Solution	Alberta - Northeast	All	1,586	56.0	0.080	N/A	N/A
Solution	Alberta - Northwest	All	7,790	275.0	0.020	N/A	N/A
Solution	B.C. - Fort St. John	All	1,643	58.0	0.180	N/A	N/A
Solution	BC - Fort Nelson	All	142	5.0	0.010	N/A	N/A
Solution	Saskatchewan - Central	All	652	23.0	0.010	N/A	N/A
Solution	Saskatchewan - Southwest	All	850	30.0	0.010	N/A	N/A
Solution	Saskatchewan - Southeast	All	836	29.5	0.010	N/A	N/A

**Appendix 4**

**Historic and Projected Performance Parameters  
Applicable to Average Gas Well Connections by  
Connection Year and Geographic Area**

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**Appendix 4-**

**Historic and Projected Performance Parameters Applicable to Average Gas Well Connection Perform:**

Projected Performance Parameters are hi-lited yellow

Historic Parameters which are estimated based on average Area performance are shaded grey

Area Name	Connection Year	Initial Productivity, Marketable Gas, E3m3/d	Initial Productivity, Marketable Gas, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to Second Decline Rate
Alberta - Foothills	1995	70.82	2.500	0.540	0.109	18
Alberta - Foothills	1996	127.48	4.500	0.245	0.129	30
Alberta - Foothills	1997	87.82	3.100	0.155	0.040	46
Alberta - Foothills	1998	87.82	3.100	0.030	0.590	22
Alberta - Foothills	1999	56.66	2.000	0.450	0.150	13
Alberta - Foothills	2000	46.74	1.650	0.500	0.200	12
Alberta - Foothills	2001	35.98	1.270	0.270	0.200	30
Alberta - Foothills	2002	60.91	2.150	0.350	0.200	12
Alberta - Foothills	2003	52.41	1.850	0.450	0.200	12
Alberta - Foothills	2004	49.58	1.750	0.500	0.200	12
Alberta - Foothills	2005	49.58	1.750	0.500	0.200	12
Alberta - Foothills	2006	49.58	1.750	0.500	0.200	12
Alberta - Foothills Front	1995	39.66	1.400	0.255	0.160	50
Alberta - Foothills Front	1996	47.88	1.690	0.450	0.240	20
Alberta - Foothills Front	1997	39.38	1.390	0.330	0.270	24
Alberta - Foothills Front	1998	43.06	1.520	0.430	0.280	16
Alberta - Foothills Front	1999	40.51	1.430	0.560	0.260	17
Alberta - Foothills Front	2000	29.75	1.050	0.490	0.240	17
Alberta - Foothills Front	2001	26.06	0.920	0.500	0.280	16
Alberta - Foothills Front	2002	29.18	1.030	0.480	0.260	18
Alberta - Foothills Front	2003	21.25	0.750	0.500	0.260	18
Alberta - Foothills Front	2004	21.25	0.750	0.500	0.260	18
Alberta - Foothills Front	2005	19.83	0.700	0.500	0.260	18
Alberta - Foothills Front	2006	18.41	0.650	0.500	0.260	18
Alberta - Southeast	1995	10.03	0.354	0.310	0.170	49
Alberta - Southeast	1996	11.47	0.405	0.650	0.270	17
Alberta - Southeast	1997	11.90	0.420	0.620	0.310	15
Alberta - Southeast	1998	8.78	0.310	0.620	0.330	14
Alberta - Southeast	1999	6.66	0.235	0.670	0.280	16
Alberta - Southeast	2000	5.95	0.210	0.670	0.290	14
Alberta - Southeast	2001	4.96	0.175	0.650	0.300	14
Alberta - Southeast	2002	4.59	0.162	0.660	0.300	15
Alberta - Southeast	2003	3.91	0.138	0.670	0.300	15
Alberta - Southeast	2004	3.54	0.125	0.670	0.300	15
Alberta - Southeast	2005	3.17	0.112	0.670	0.300	15
Alberta - Southeast	2006	2.83	0.100	0.670	0.300	15
Alberta - East Central	1995	15.30	0.540	0.480	0.300	12
Alberta - East Central	1996	15.86	0.560	0.510	0.280	19
Alberta - East Central	1997	14.73	0.520	0.550	0.330	17
Alberta - East Central	1998	11.76	0.415	0.700	0.280	15
Alberta - East Central	1999	9.63	0.340	0.520	0.300	16
Alberta - East Central	2000	8.50	0.300	0.640	0.300	25
Alberta - East Central	2001	9.21	0.325	0.690	0.300	21
Alberta - East Central	2002	7.79	0.275	0.450	0.300	20
Alberta - East Central	2003	5.10	0.180	0.550	0.300	20
Alberta - East Central	2004	4.53	0.160	0.600	0.300	20
Alberta - East Central	2005	3.97	0.140	0.600	0.300	20
Alberta - East Central	2006	3.54	0.125	0.600	0.300	20

**Appendix 4-**

**Historic and Projected Performance Parameters Applicable to Average Gas Well Connection Perform:**

Projected Performance Parameters are hi-lited yellow

Historic Parameters which are estimated based on average Area performance are shaded grey

Area Name	Connection Year	Initial Productivity, Marketable Gas, E3m3/d	Initial Productivity, Marketable Gas, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to Second Decline Rate
Alberta - Central	1995	21.81	0.770	0.610	0.310	18
Alberta - Central	1996	20.40	0.720	0.660	0.360	19
Alberta - Central	1997	19.55	0.690	0.950	0.430	10
Alberta - Central	1998	17.00	0.600	0.640	0.350	17
Alberta - Central	1999	15.58	0.550	0.720	0.380	18
Alberta - Central	2000	13.74	0.485	0.670	0.330	24
Alberta - Central	2001	11.33	0.400	0.670	0.350	17
Alberta - Central	2002	10.48	0.370	0.600	0.350	18
Alberta - Central	2003	8.78	0.310	0.650	0.350	18
Alberta - Central	2004	8.22	0.290	0.650	0.350	18
Alberta - Central	2005	7.51	0.265	0.650	0.350	18
Alberta - Central	2006	6.80	0.240	0.650	0.350	18
Alberta - Northeast	1995	19.41	0.685	0.370	0.220	24
Alberta - Northeast	1996	17.85	0.630	0.350	0.200	34
Alberta - Northeast	1997	15.30	0.540	0.325	0.210	33
Alberta - Northeast	1998	15.44	0.545	0.400	0.250	18
Alberta - Northeast	1999	14.87	0.525	0.340	0.260	23
Alberta - Northeast	2000	10.31	0.364	0.260	0.200	40
Alberta - Northeast	2001	7.93	0.280	0.320	0.210	19
Alberta - Northeast	2002	8.64	0.305	0.290	0.210	24
Alberta - Northeast	2003	7.37	0.260	0.320	0.210	24
Alberta - Northeast	2004	6.66	0.235	0.320	0.210	24
Alberta - Northeast	2005	6.09	0.215	0.320	0.210	24
Alberta - Northeast	2006	5.67	0.200	0.320	0.210	24
Alberta - Northwest	1995	32.29	1.140	0.170	0.300	21
Alberta - Northwest	1996	39.94	1.410	0.355	0.240	48
Alberta - Northwest	1997	30.45	1.075	0.430	0.310	28
Alberta - Northwest	1998	29.18	1.030	0.490	0.350	17
Alberta - Northwest	1999	24.36	0.860	0.500	0.300	25
Alberta - Northwest	2000	19.26	0.680	0.670	0.370	16
Alberta - Northwest	2001	17.28	0.610	0.590	0.300	20
Alberta - Northwest	2002	20.40	0.720	0.700	0.320	17
Alberta - Northwest	2003	15.01	0.530	0.550	0.320	20
Alberta - Northwest	2004	12.75	0.450	0.550	0.320	20
Alberta - Northwest	2005	11.90	0.420	0.550	0.320	20
Alberta - Northwest	2006	11.05	0.390	0.550	0.320	20
B.C. - Fort St John	1995	18.13	0.640	0.020	0.200	29
B.C. - Fort St John	1996	28.90	1.020	0.400	0.200	30
B.C. - Fort St John	1997	31.16	1.100	0.420	0.180	31
B.C. - Fort St John	1998	24.65	0.870	0.460	0.200	22
B.C. - Fort St John	1999	24.79	0.875	0.440	0.200	17
B.C. - Fort St John	2000	23.23	0.820	0.520	0.200	18
B.C. - Fort St John	2001	22.80	0.805	0.520	0.200	20
B.C. - Fort St John	2002	27.20	0.960	0.520	0.200	20
B.C. - Fort St John	2003	26.91	0.950	0.520	0.200	20
B.C. - Fort St John	2004	25.50	0.900	0.520	0.200	20
B.C. - Fort St John	2005	24.65	0.870	0.520	0.200	20
B.C. - Fort St John	2006	24.08	0.850	0.520	0.200	20



**Appendix 4-**

**Historic and Projected Performance Parameters Applicable to Average Gas Well Connection Perform:**

Projected Performance Parameters are hi-lited yellow

Historic Parameters which are estimated based on average Area performance are shaded grey

Area Name	Connection Year	Initial Productivity, Marketable Gas, E3m3/d	Initial Productivity, Marketable Gas, MMcf/d	1st Decline Rate, fraction	2nd Decline Rate, fraction	Months to Second Decline Rate
B.C. - Fort Nelson	1995	19.83	0.700	0.010	0.050	30
B.C. - Fort Nelson	1996	75.07	2.650	0.330	0.200	44
B.C. - Fort Nelson	1997	99.15	3.500	0.350	0.120	22
B.C. - Fort Nelson	1998	53.26	1.880	0.490	0.150	25
B.C. - Fort Nelson	1999	43.91	1.550	0.290	0.200	40
B.C. - Fort Nelson	2000	34.56	1.220	0.450	0.200	24
B.C. - Fort Nelson	2001	31.16	1.100	0.260	0.200	30
B.C. - Fort Nelson	2002	41.08	1.450	0.450	0.200	24
B.C. - Fort Nelson	2003	28.33	1.000	0.450	0.200	24
B.C. - Fort Nelson	2004	31.16	1.100	0.450	0.200	24
B.C. - Fort Nelson	2005	29.75	1.050	0.450	0.200	24
B.C. - Fort Nelson	2006	28.33	1.000	0.450	0.200	24
B.C. - Foothills	1995	70.82	2.500	0.100	0.260	24
B.C. - Foothills	1996	181.30	6.400	0.260	0.140	24
B.C. - Foothills	1997	311.61	11.000	0.010	0.220	24
B.C. - Foothills	1998	141.64	5.000	0.060	0.150	26
B.C. - Foothills	1999	52.41	1.850	0.950	0.120	19
B.C. - Foothills	2000	362.61	12.800	0.400	0.300	40
B.C. - Foothills	2001	169.97	6.000	0.100	0.200	36
B.C. - Foothills	2002	43.91	1.550	0.150	0.200	24
B.C. - Foothills	2003	147.31	5.200	0.200	0.200	24
B.C. - Foothills	2004	113.31	4.000	0.200	N/A	N/A
B.C. - Foothills	2005	107.65	3.800	0.200	N/A	N/A
B.C. - Foothills	2006	101.98	3.600	0.200	N/A	N/A
Saskatchewan - Central	1995	13.88	0.490	0.440	0.210	22
Saskatchewan - Central	1996	11.61	0.410	0.570	0.170	23
Saskatchewan - Central	1997	12.75	0.450	0.510	0.280	12
Saskatchewan - Central	1998	13.03	0.460	0.410	0.200	34
Saskatchewan - Central	1999	11.61	0.410	0.520	0.260	23
Saskatchewan - Central	2000	10.34	0.365	0.580	0.260	16
Saskatchewan - Central	2001	7.51	0.265	0.570	0.260	21
Saskatchewan - Central	2002	6.52	0.230	0.460	0.260	20
Saskatchewan - Central	2003	6.37	0.225	0.520	0.260	20
Saskatchewan - Central	2004	6.23	0.220	0.520	0.260	20
Saskatchewan - Central	2005	6.09	0.215	0.520	0.260	20
Saskatchewan - Central	2006	5.95	0.210	0.520	0.260	20
Saskatchewan - Southwest	1995	3.26	0.115	0.670	0.180	19
Saskatchewan - Southwest	1996	3.31	0.117	0.540	0.175	11
Saskatchewan - Southwest	1997	3.63	0.128	0.380	0.200	26
Saskatchewan - Southwest	1998	3.46	0.122	0.430	0.240	22
Saskatchewan - Southwest	1999	2.83	0.100	0.620	0.290	14
Saskatchewan - Southwest	2000	2.24	0.079	0.510	0.220	16
Saskatchewan - Southwest	2001	1.98	0.070	0.550	0.240	14
Saskatchewan - Southwest	2002	1.90	0.067	0.400	0.220	20
Saskatchewan - Southwest	2003	2.41	0.085	0.500	0.240	16
Saskatchewan - Southwest	2004	2.27	0.080	0.500	0.240	16
Saskatchewan - Southwest	2005	2.27	0.080	0.500	0.240	16
Saskatchewan - Southwest	2006	2.27	0.080	0.500	0.240	16

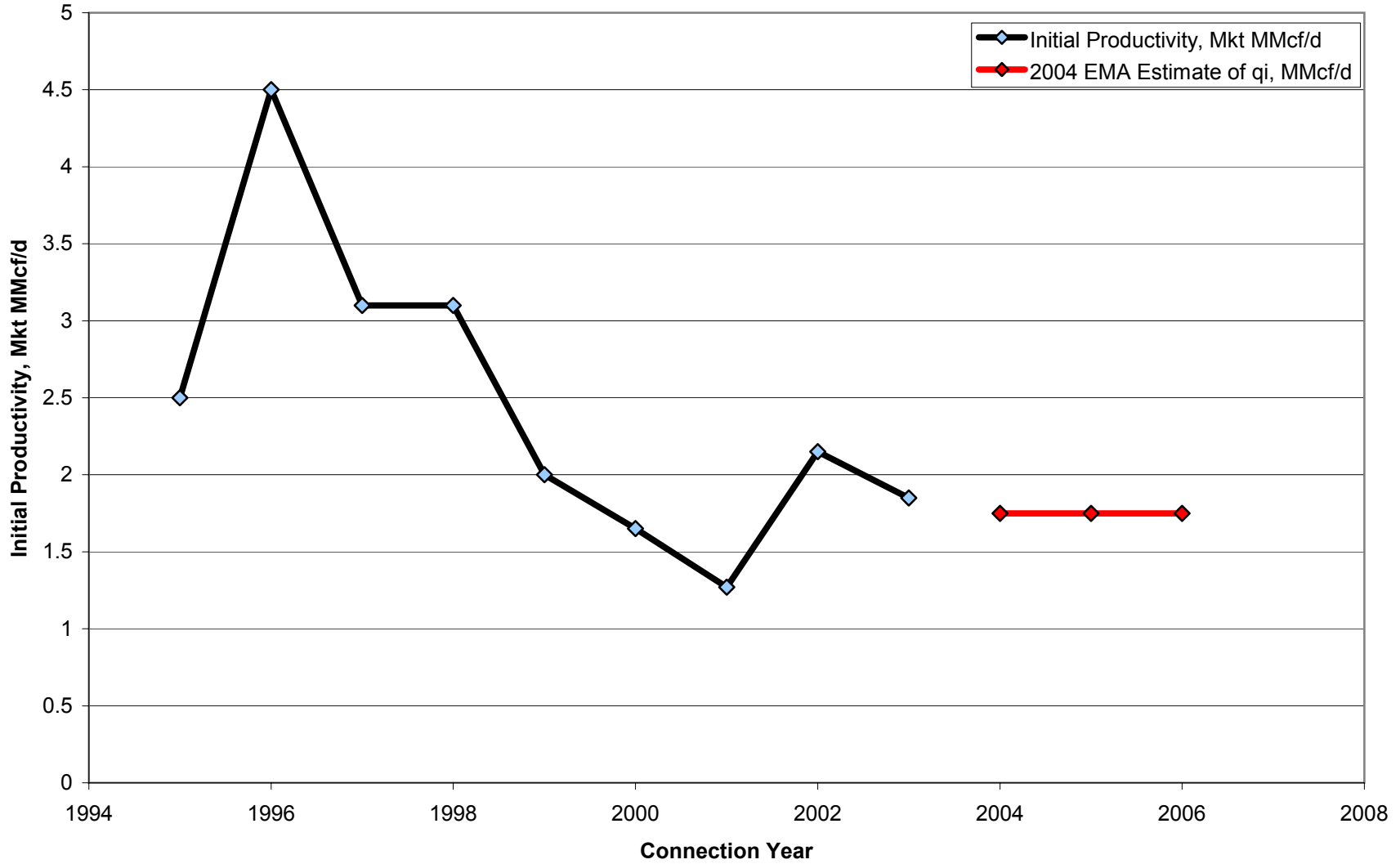
## Appendix 5

# Charts Showing Trends in Average Well Initial Productivity by Area.

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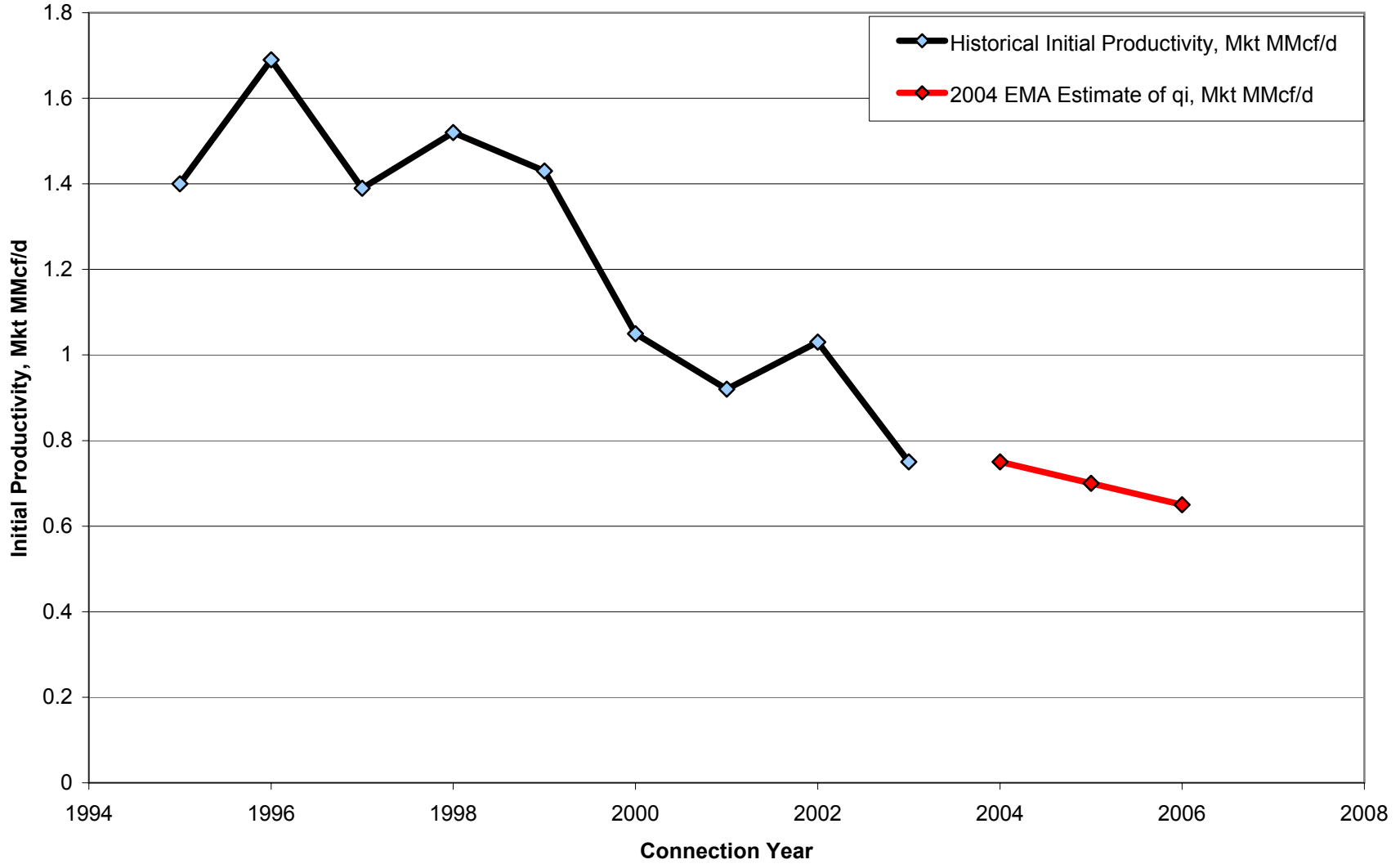
# A5-1: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Foothills



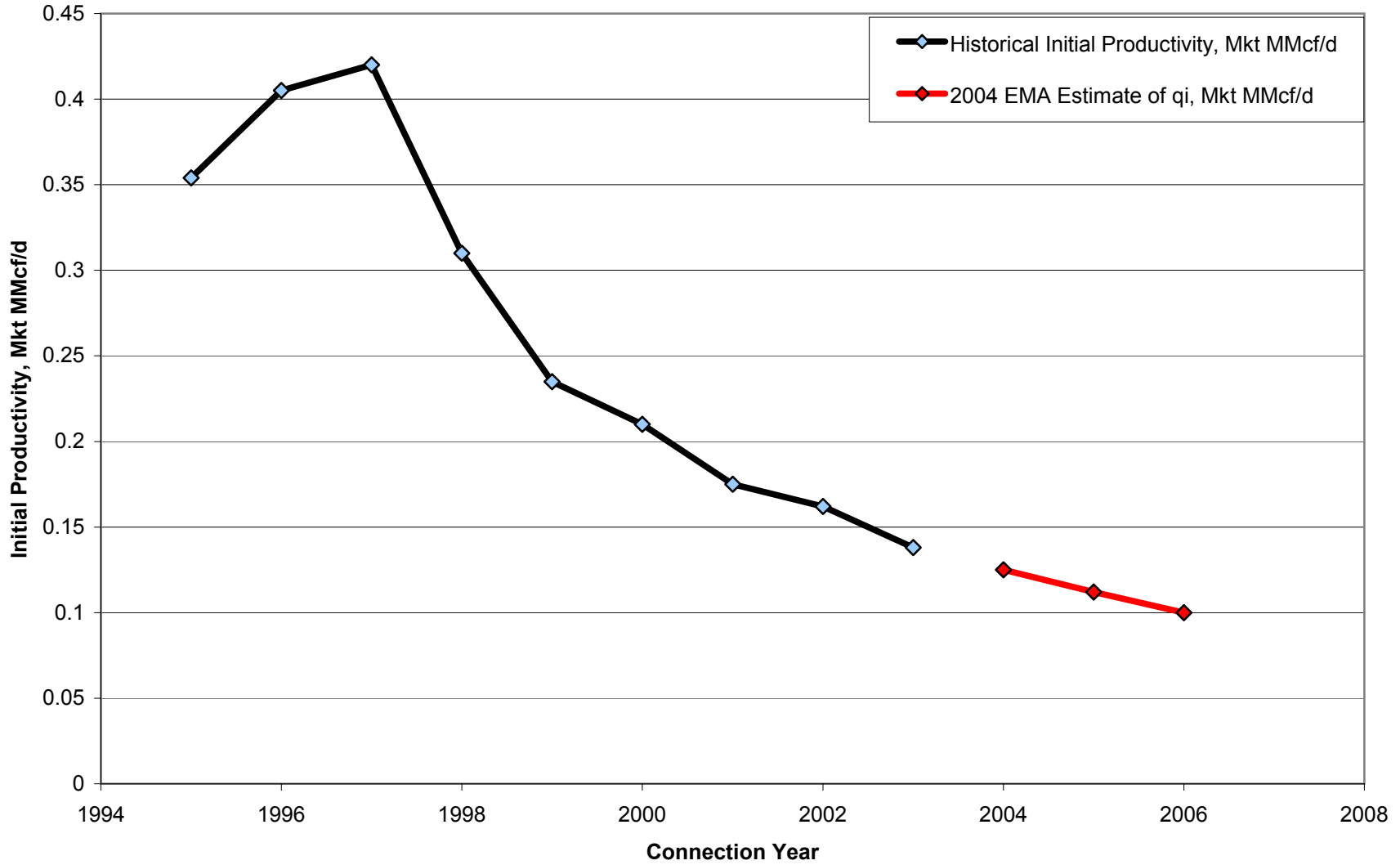
# A5-2: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Foothills Front



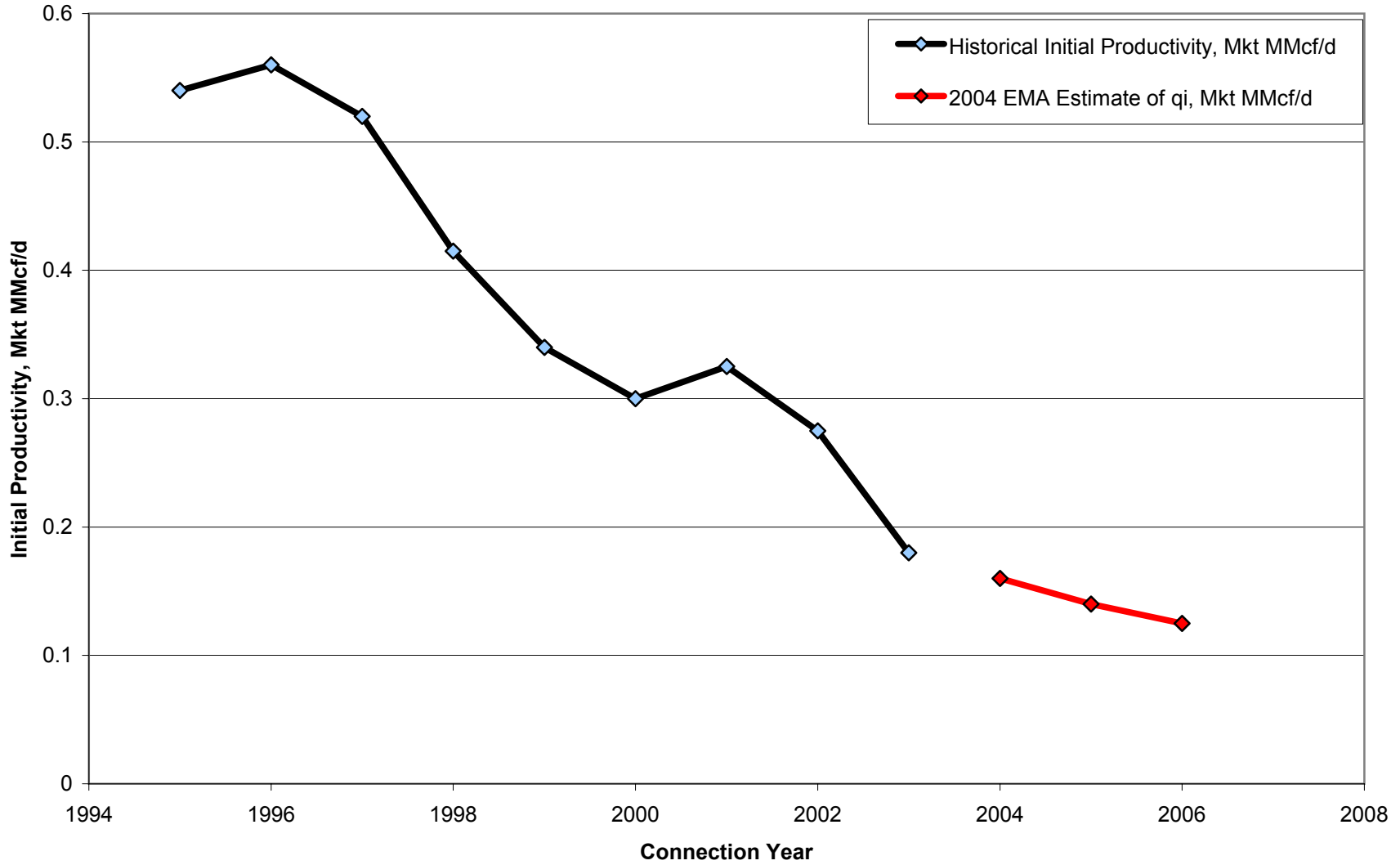
### A5-3: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Southeast



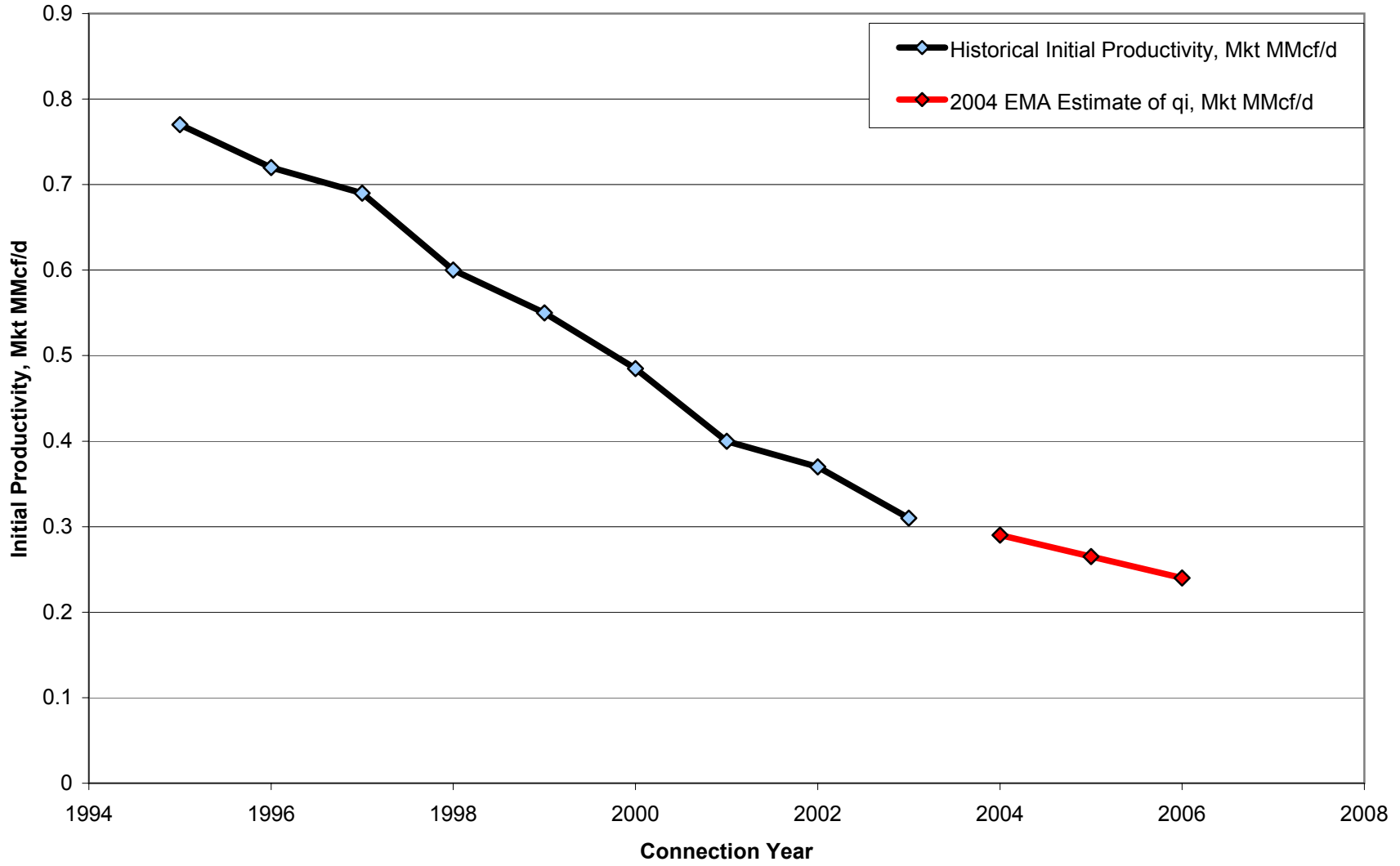
### A5-4: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-East Central



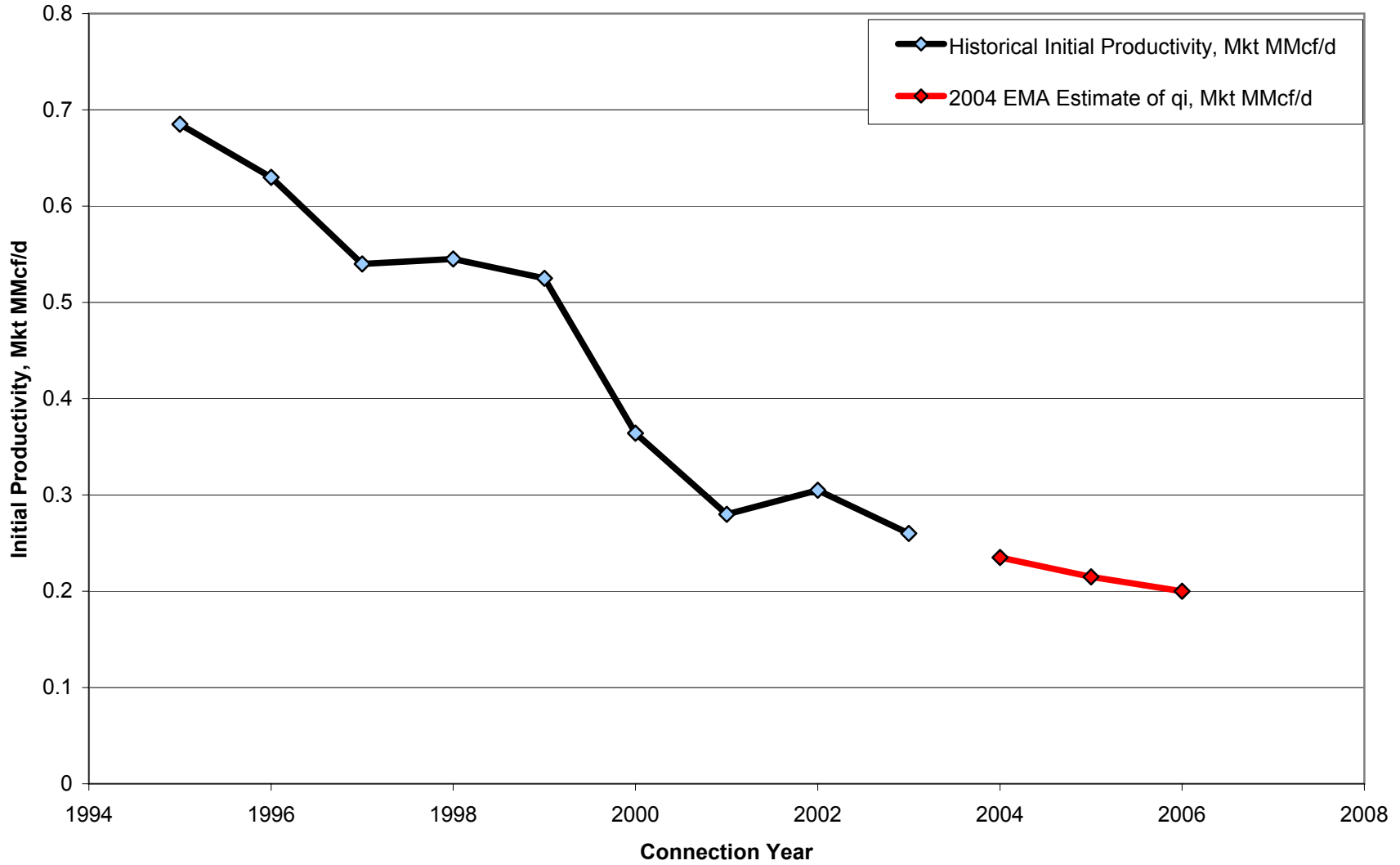
# A5-5: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Central



# A5-6: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Northeast





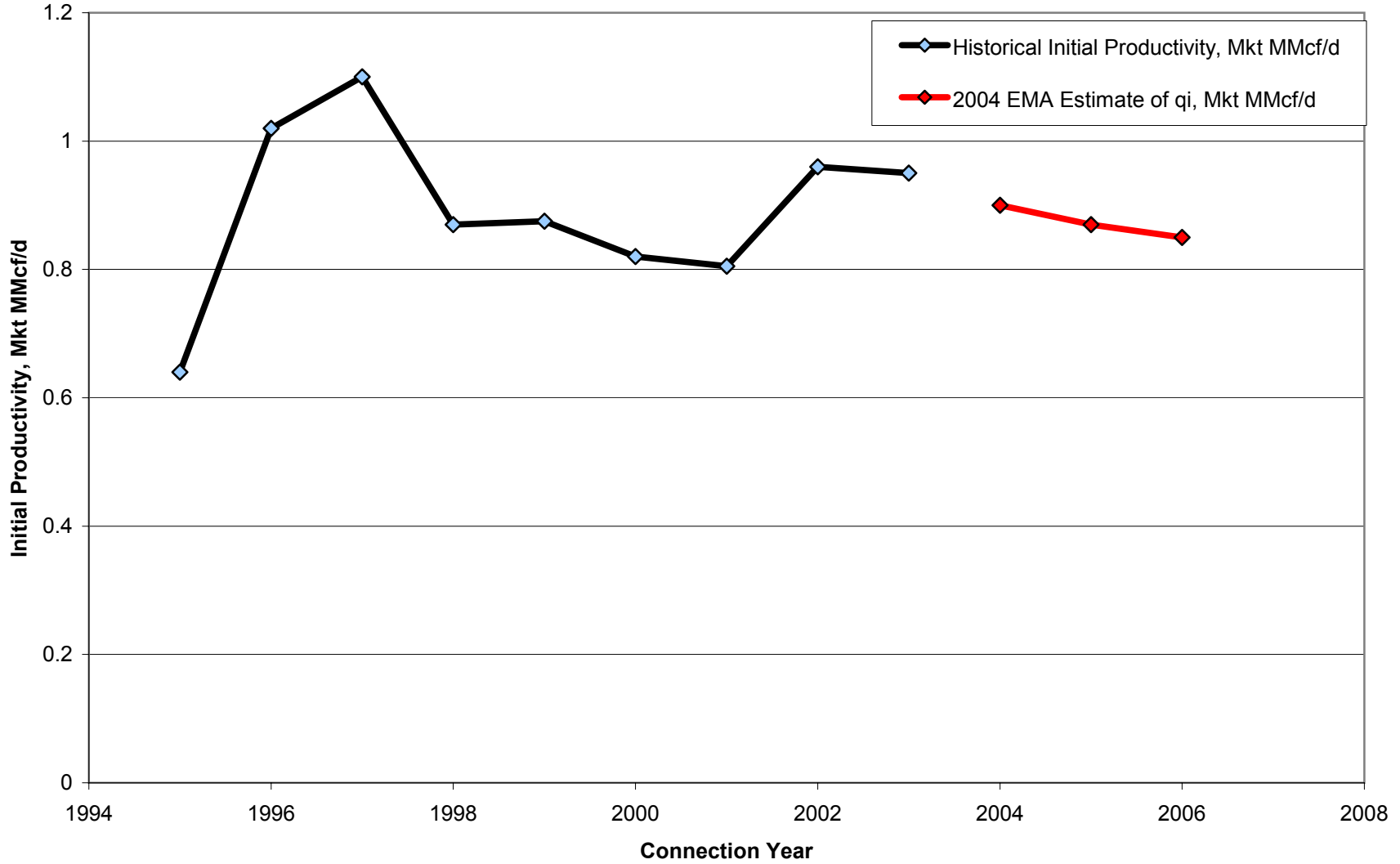
# A5-7: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: AB-Northwest



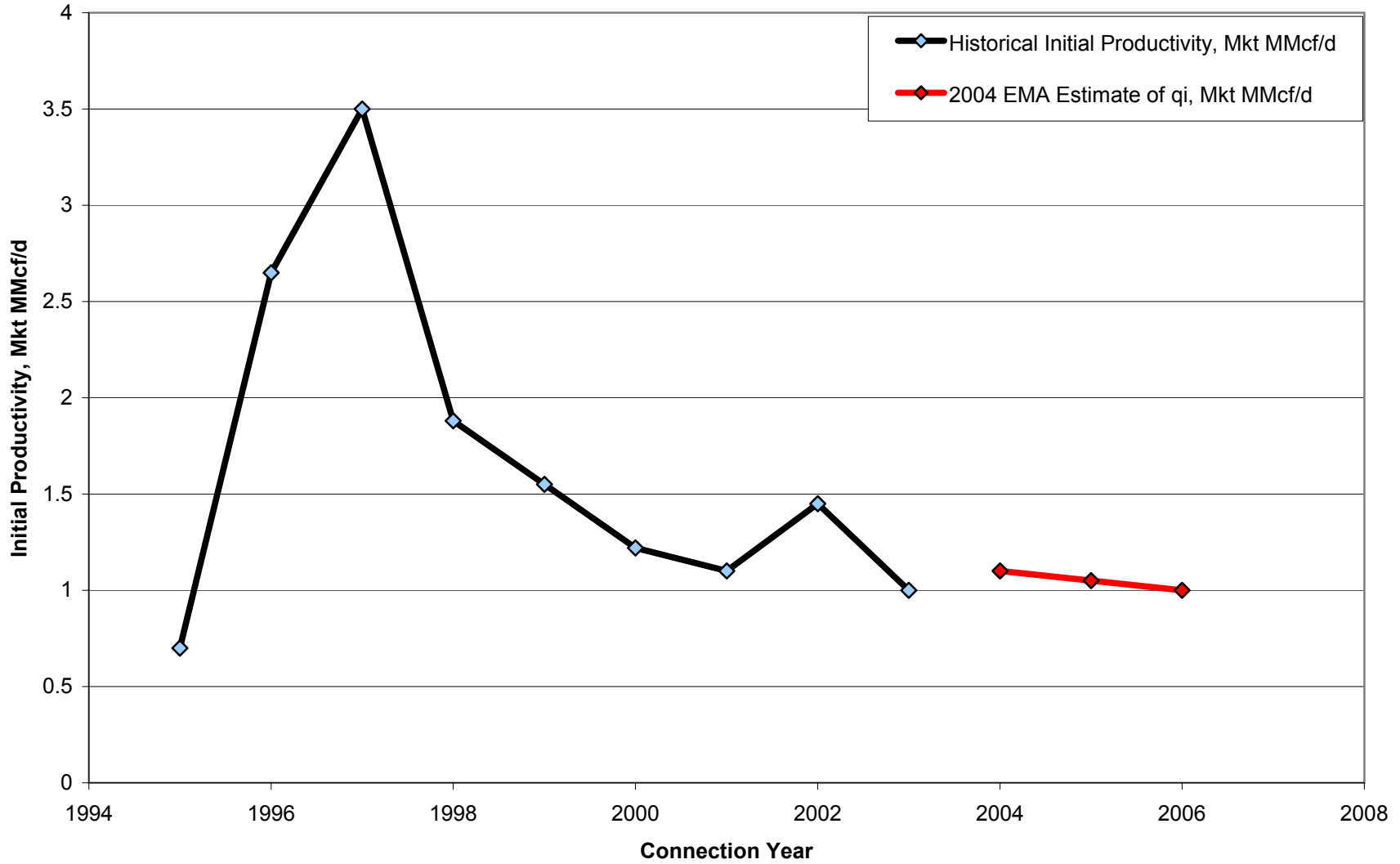
# A5-8: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: BC-Fort St John



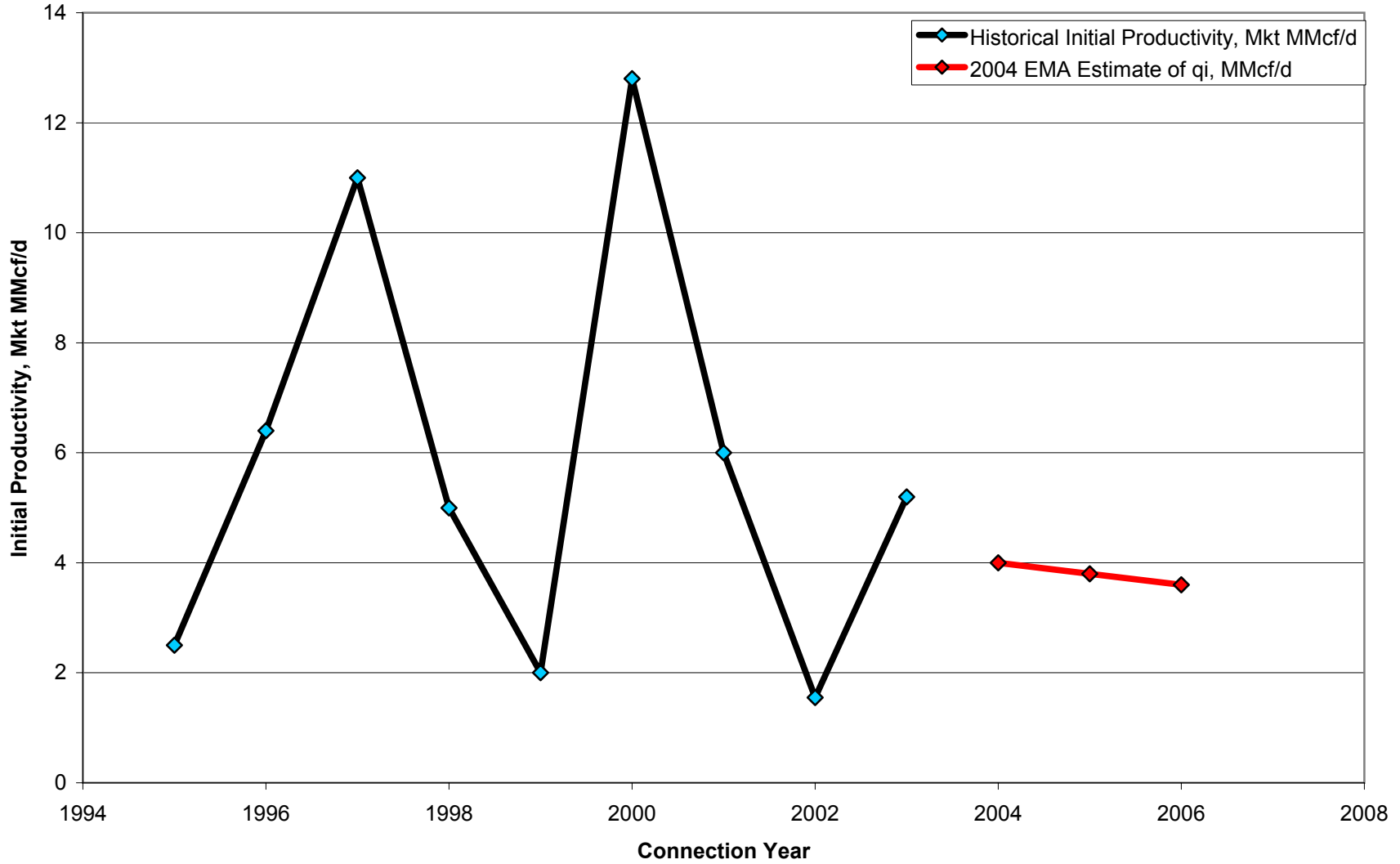
# A5-9: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: BC-Fort Nelson



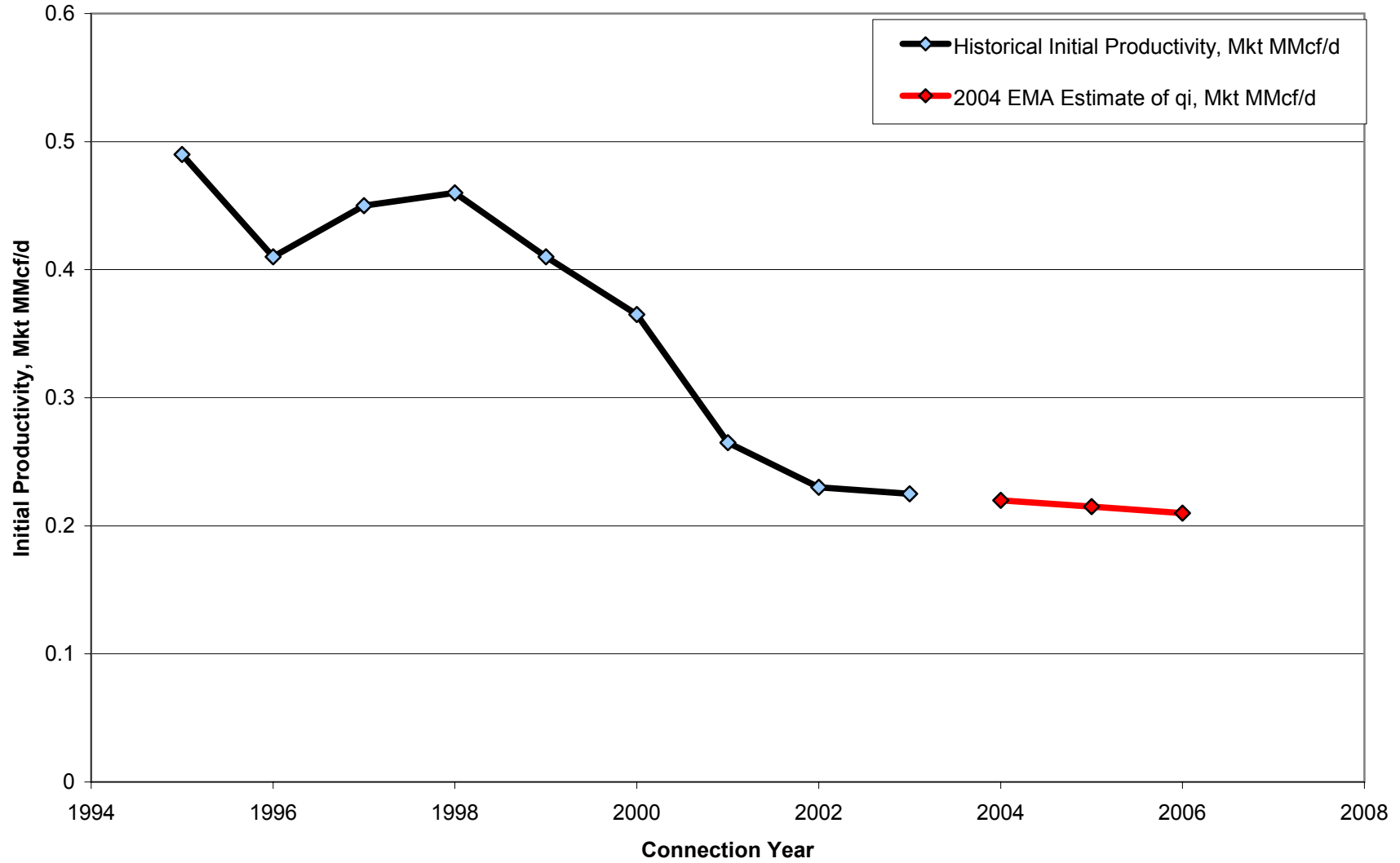
# A5-10: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: BC-Foothills

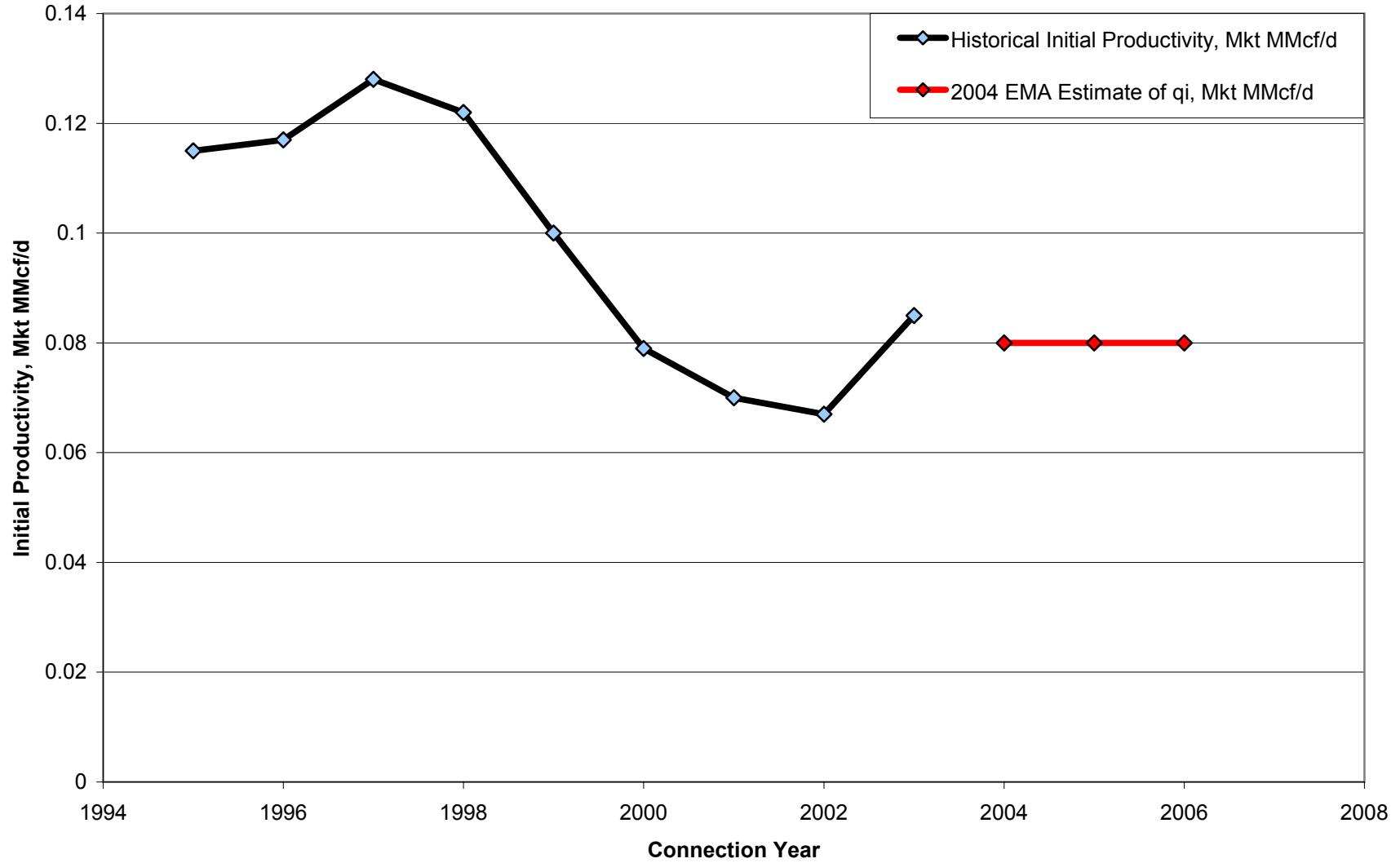


# A5-11: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time

Area: SK-Central



**A5-12: 2004 ST Deliv EMA - Initial Productivity of Gas Connections over Time**  
**Area: SK-Southwest**



**Appendix 6**

**Historic and Projected Ratio of Annual Gas Well  
Connections to Annual Gas Wells**

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**Appendix 6 -**

**Historic and Projected Ratio of Annual Gas Well Connections to Annual Gas Wells**

**Area: Alberta - Foothills**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
1	1995	8	10	1.250	
	1996	9	9	1.000	
	1997	16	12	0.750	
	1998	27	17	0.630	
	1999	33	40	1.212	
	2000	45	51	1.133	
	2001	60	63	1.050	
	2002	56	68	1.214	
	2003	82	74	0.902	
	2004	36	42	1.167	1.07
	2005				1.07
	2006				1.07
All Years		372	386	1.038	

Alberta - Foothills Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 5 years in total ( 1999 to 2003).

1.072 <= Ratio over last 5 years

**Area: Alberta - Foothills Front**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
2	1995	305	346	1.134	
	1996	406	411	1.012	
	1997	737	581	0.788	
	1998	713	657	0.921	
	1999	692	679	0.981	
	2000	968	961	0.993	
	2001	1020	1234	1.210	
	2002	917	1012	1.104	
	2003	1492	1491	0.999	
	2004	549	710	1.293	1.02
	2005				1.02
	2006				1.02
All Years		7799	8082	1.036	

Alberta - Foothills Front Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 9 years in total ( 1995 to 2003).

1.017 <= Avg of last 9 years

**Area: Alberta - Southeast**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
3	1995	769	1044	1.358	
	1996	998	1119	1.121	
	1997	1653	1478	0.894	
	1998	1814	2265	1.249	
	1999	3473	3424	0.986	
	2000	4609	4650	1.009	
	2001	5441	5108	0.939	
	2002	4602	4583	0.996	
	2003	7257	6345	0.874	
	2004	1366	2700	1.977	0.98
	2005				0.98
	2006				0.98
All Years		31982	32716	1.023	

Alberta - Southeast Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 9 years in total ( 1995 to 2003).

0.980 <= Avg of last 9 years

**Area: Alberta - East Central**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
4	1995	187	307	1.642	
	1996	127	256	2.016	
	1997	161	258	1.602	
	1998	168	330	1.964	
	1999	215	397	1.847	
	2000	266	459	1.726	
	2001	313	534	1.706	
	2002	406	632	1.557	
	2003	664	792	1.193	
	2004	78	314	4.026	1.55
	2005				1.55
	2006				1.55
All Years		2585	4279	1.655	

Alberta - East Central Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 9 years in total ( 1995 to 2003).

1.582 <= Avg of last 9 years



**Appendix 6 -**

**Historic and Projected Ratio of Annual Gas Well Connections to Annual Gas Wells**

**Area: Alberta - Central**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
5	1995	473	571	1.207	
	1996	611	883	1.445	
	1997	709	938	1.323	
	1998	586	872	1.488	
	1999	607	934	1.539	
	2000	736	1052	1.429	
	2001	722	1146	1.587	
	2002	672	887	1.320	
	2003	1314	1428	1.087	
	2004	410	621	1.515	1.35
	2005				1.35
	2006				1.35
All Years		6840	9332	1.364	

Alberta - Central Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2008, use the ratio seen over the last 9 years in total ( 1995 to 2003).

1.355 <= Avg of last 9 years

**Area: Alberta - Northeast**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
6	1995	441	537	1.218	
	1996	423	485	1.147	
	1997	628	696	1.108	
	1998	480	732	1.525	
	1999	331	528	1.595	
	2000	507	732	1.444	
	2001	492	776	1.577	
	2002	287	449	1.564	
	2003	345	542	1.571	
	2004	224	415	1.853	1.55
	2005				1.55
	2006				1.55
All Years		4158	5892	1.417	

Alberta - Northeast Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 6 years in total ( 1998 to 2003).

1.539 <= Avg of last 6 years

**Area: Alberta - Northwest**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
7	1995	377	407	1.080	
	1996	411	443	1.078	
	1997	696	662	0.951	
	1998	673	694	1.031	
	1999	507	684	1.349	
	2000	883	966	1.094	
	2001	1039	1158	1.115	
	2002	700	772	1.103	
	2003	880	917	1.042	
	2004	665	617	0.928	1.09
	2005				1.09
	2006				1.09
All Years		6831	7320	1.072	

Alberta - Northwest Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 9 years in total ( 1995 to 2003).

1.087 <= Avg of last 9 years

**Area: BC - Fort St John**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
8	1995	112	143	1.277	
	1996	155	149	0.961	
	1997	262	228	0.870	
	1998	237	248	1.046	
	1999	270	267	0.989	
	2000	331	302	0.912	
	2001	369	372	1.008	
	2002	276	295	1.069	
	2003	453	392	0.865	
	2004	434	306	0.705	0.96
	2005				0.96
	2006				0.96
All Years		2899	2702	0.932	

BC- Fort St John Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 8 years in total ( 1996 to 2003).

0.958 <= Avg of last 8 years

**Appendix 6 -**

**Historic and Projected Ratio of Annual Gas Well Connections to Annual Gas Wells**

**Area: BC - Fort Nelson**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
9	1995	72	67	0.931	
	1996	55	52	0.945	
	1997	56	33	0.589	
	1998	118	47	0.398	
	1999	123	122	0.992	
	2000	150	139	0.927	
	2001	213	170	0.798	
	2002	152	132	0.868	
	2003	345	281	0.814	
	2004	311	222	0.714	0.82
	2005				0.82
	2006				0.82
All Years		1595	1265	0.793	

BC- Fort Nelson Area:  
Reviewed Gas Conn/Well ratio over time. For Conn to Well ratio in 2004 to 2006, use the ratio seen over the last 3 years in total ( 2001 to 2003).

0.821 <= Avg of last 3 years

**Area: BC - Foothills**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
10	1995	20	24	1.200	
	1996	10	12	1.200	
	1997	15	9	0.600	
	1998	9	12	1.333	
	1999	13	13	1.000	
	2000	18	6	0.333	
	2001	28	12	0.429	
	2002	19	15	0.789	
	2003	20	20	1.000	
	2004	16	12	0.750	0.8
	2005				0.8
	2006				0.8
All Years		168	135	0.804	

BC- Foothills Area:  
Reviewed Gas Conn/Well ratio over time. The Data is very erratic-- very volatile and no trend . Best estimate of the ratio for 2004 to 2006 appears to be is an average of the last 9 years (1995 to 2003).

0.809 <= Avg of last 9 years

**Area: Saskatchewan - Central**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
11	1995	74	119	1.608	
	1996	54	101	1.870	
	1997	36	64	1.778	
	1998	77	113	1.468	
	1999	53	92	1.736	
	2000	60	97	1.617	
	2001	118	187	1.585	
	2002	99	142	1.434	
	2003	246	204	0.829	
	2004	71	58	0.817	1.4
	2005				1.4
	2006				1.4
All Years		888	1177	1.325	

Saskatchewan - Central Area:  
Reviewed Gas Conn/Well ratio over time. Big decrease in 2003-- appeared to be somewhat of a downward trend in 1996 to 2002. Use flat 1.4 GasCn to GAS Well ratio for 2004 to 2006.

1.205 <= Avg of last 4 years

**Area: Saskatchewan - Southwest**

Area No	Year	GAS	GASCn	GASCn to GAS Well Ratio	Projected GASCn to GAS Well Ratio
12	1995	143	357	2.497	
	1996	296	484	1.635	
	1997	257	333	1.296	
	1998	510	565	1.108	
	1999	933	1124	1.205	
	2000	1118	1355	1.212	
	2001	1265	1689	1.335	
	2002	1761	1925	1.093	
	2003	2056	1839	0.894	
	2004	384	223	0.581	0.95
	2005				0.95
	2006				0.95
All Years		8723	9894	1.134	

Saskatchewan - SouthWest Area:  
Reviewed Gas Conn/Well ratio over time. Somewhat of a downward Trend here. 2003 might be anomalous and 2004 is not a valid reflection at present (partial year). Use Flat .95 ratio for this area for the 2004 to 2006 period.

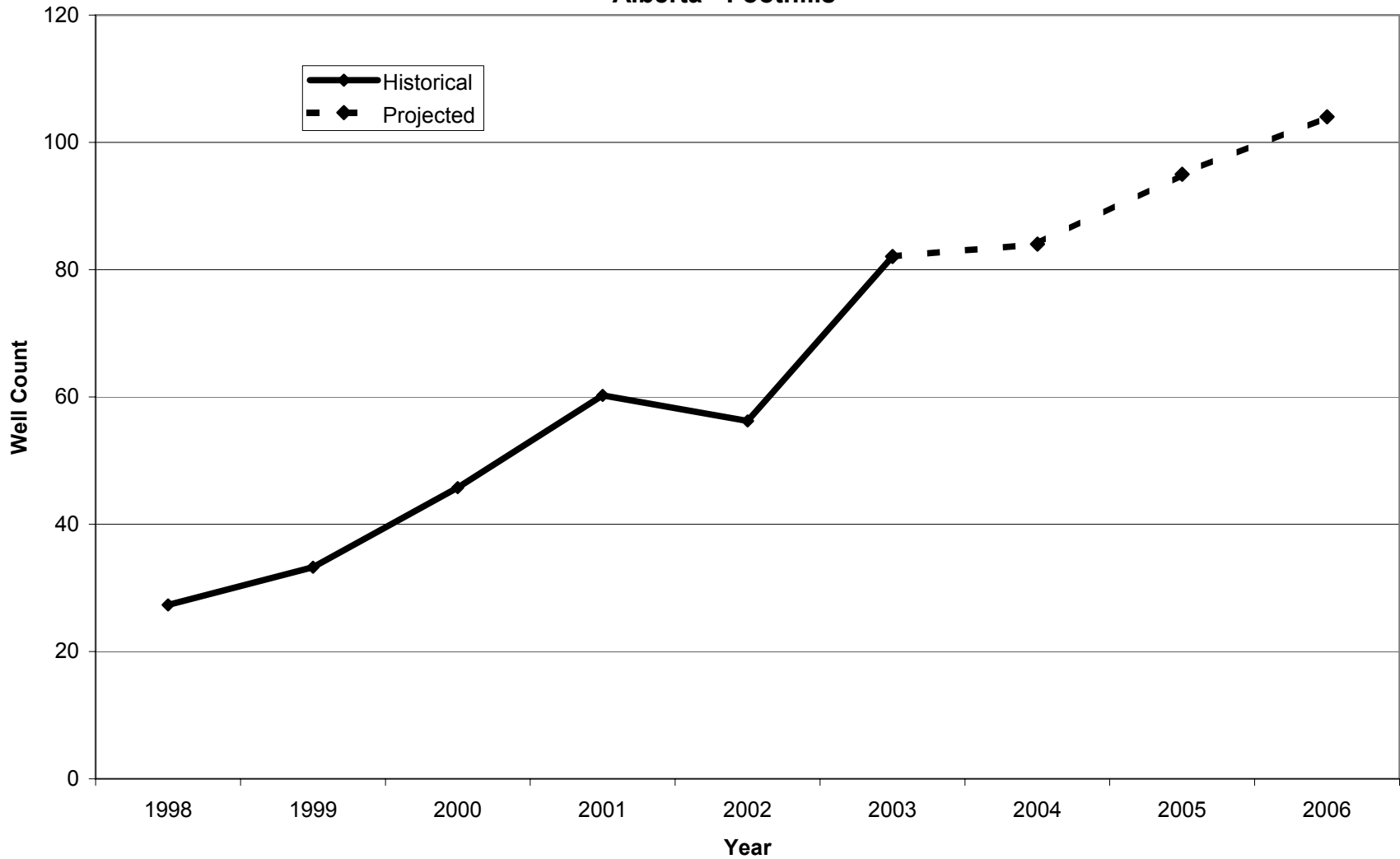
1.098 <= Avg of last 4 years

**Appendix 7**

**Charts of Historical and Projected Drilling by Area**

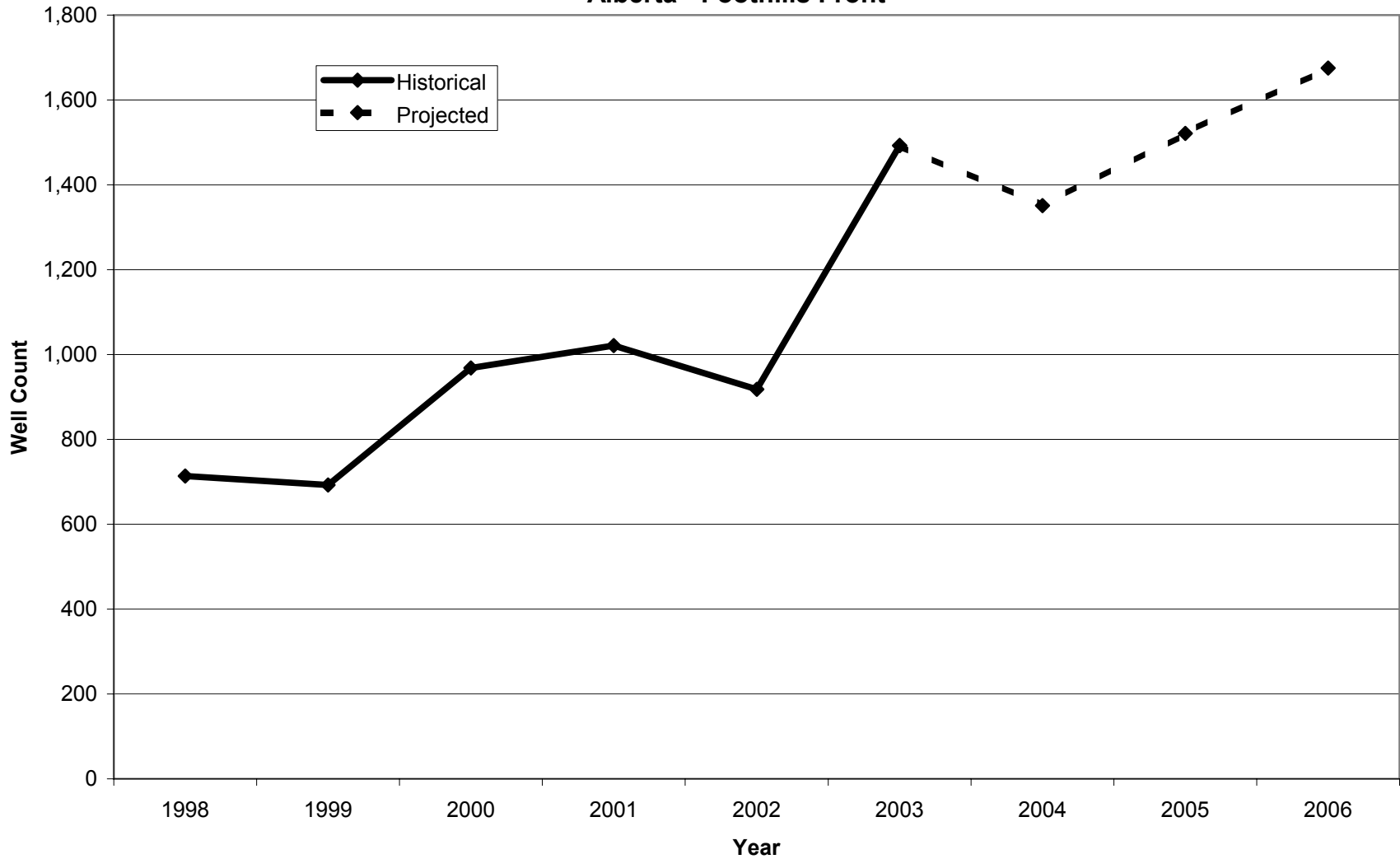
# A7-1: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

Alberta - Foothills

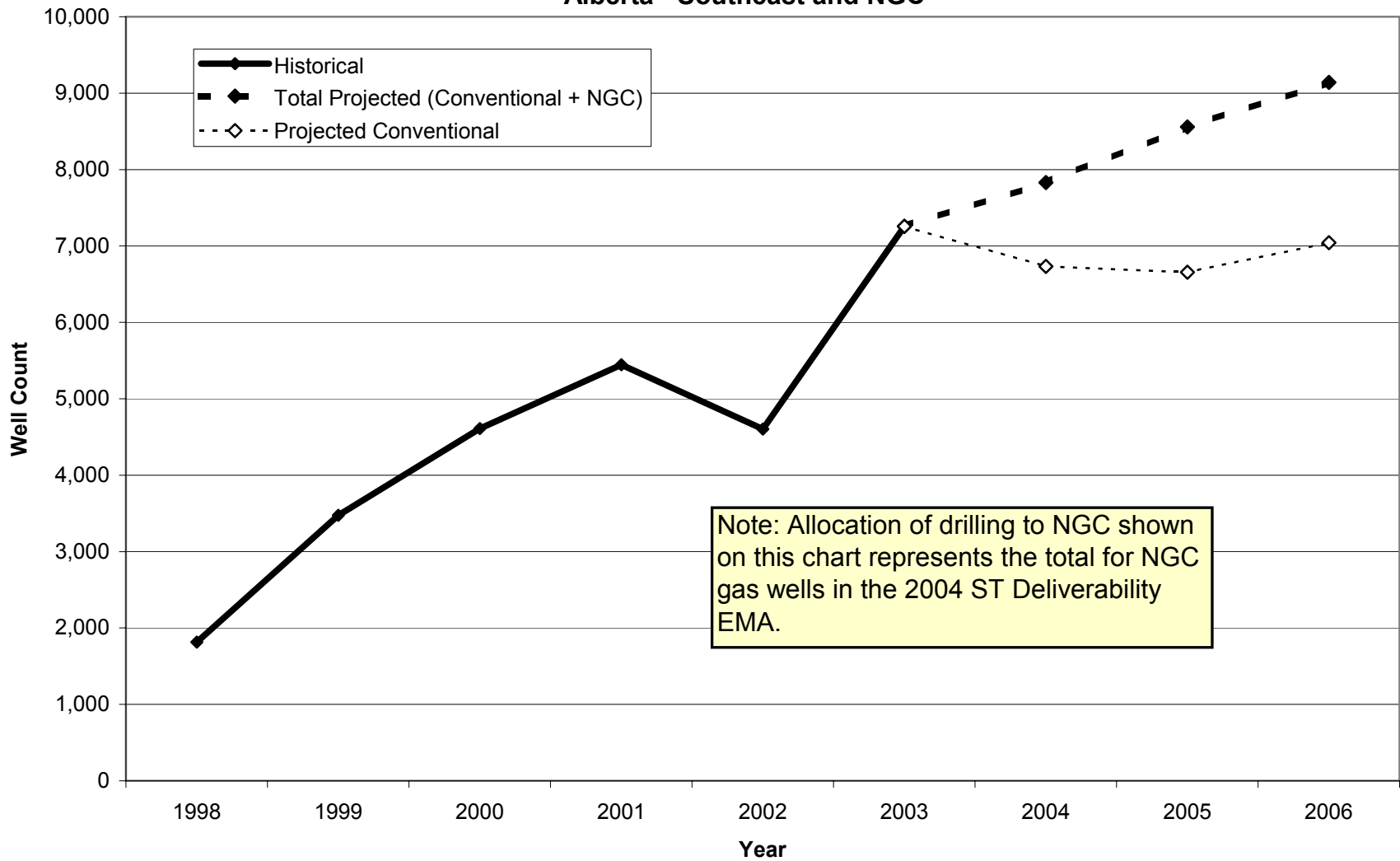


# A7-2: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

Alberta - Foothills Front

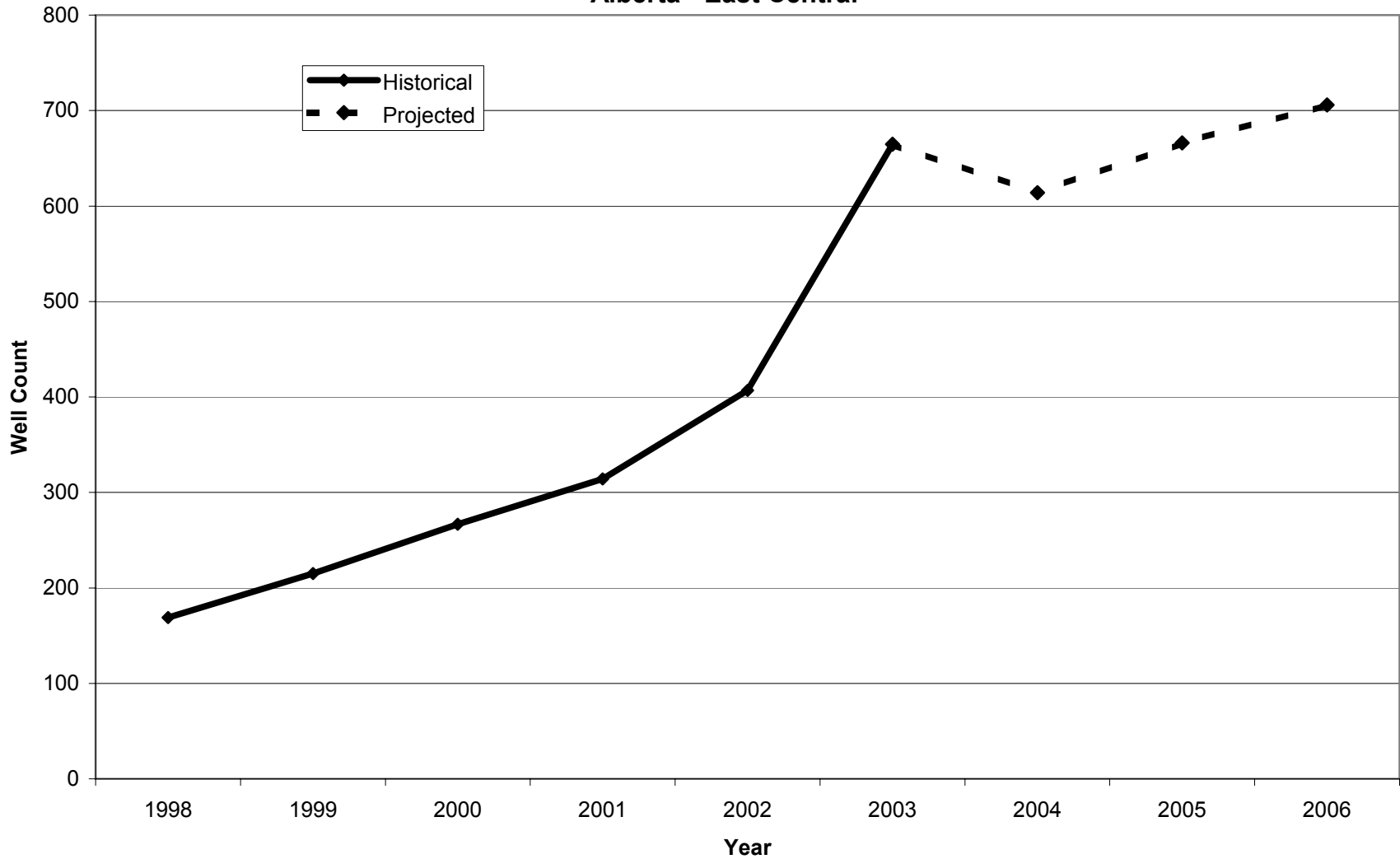


# A7-3: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection Alberta - Southeast and NGC



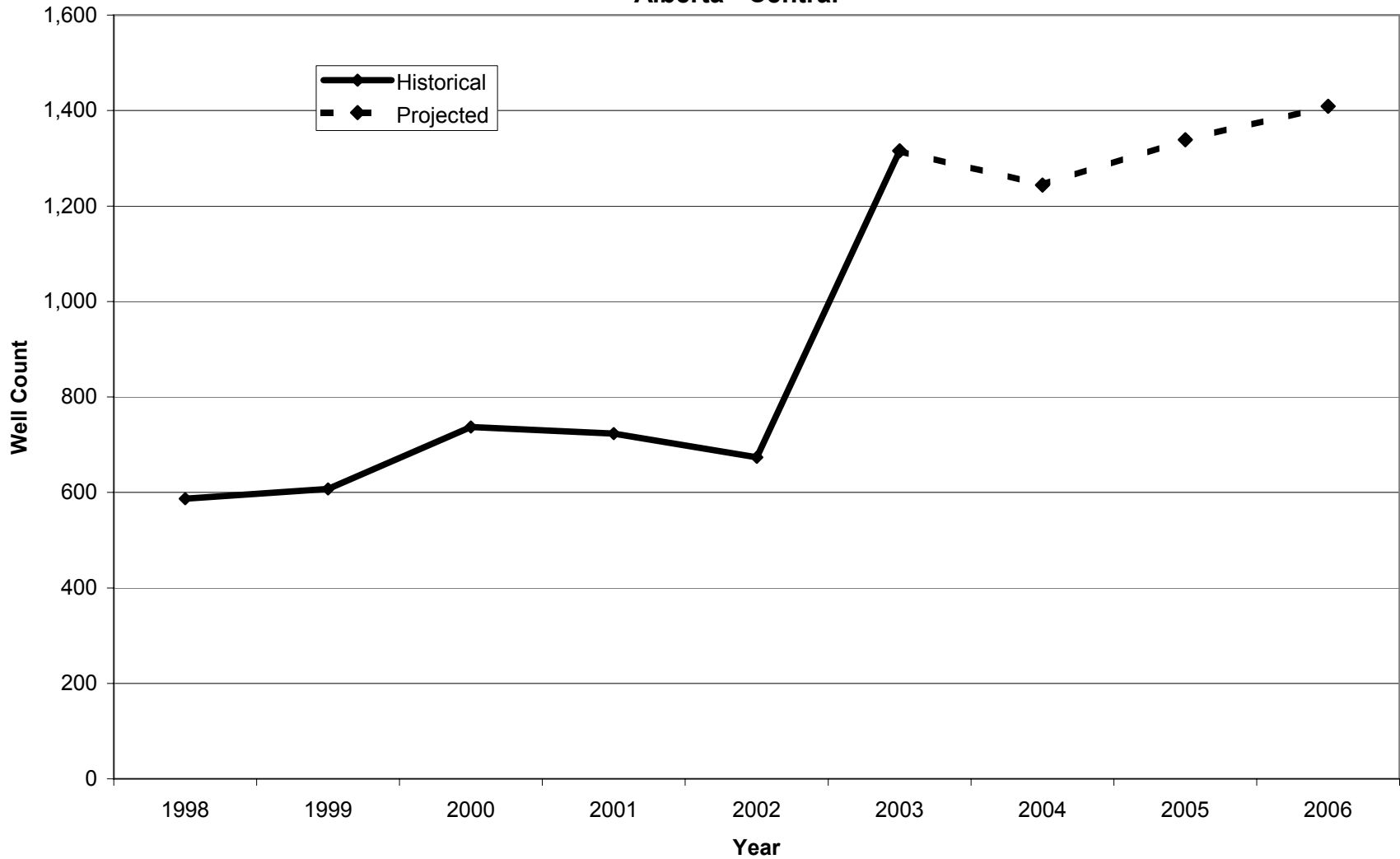
# A7-4: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

Alberta - East Central



# A7-5: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

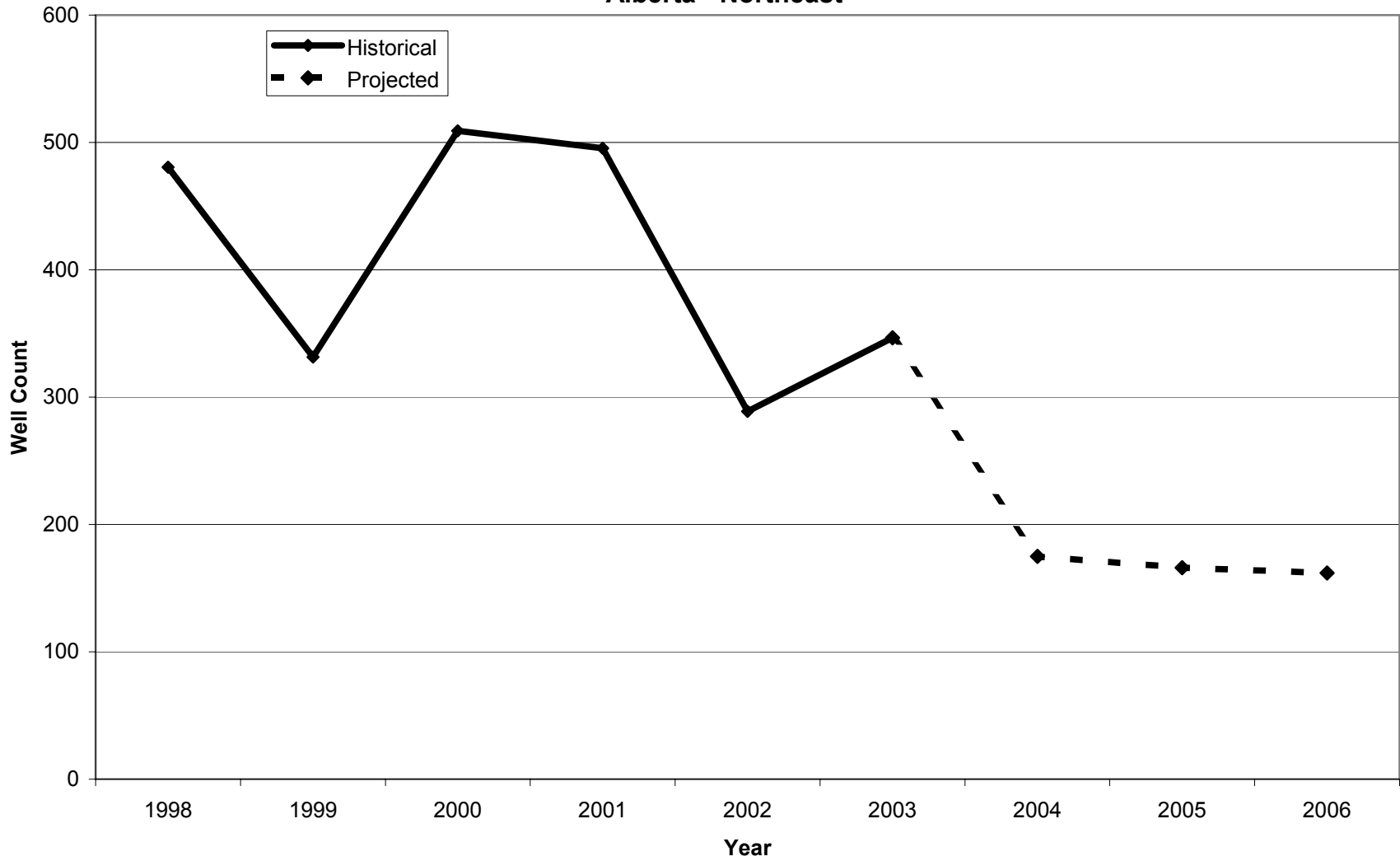
Alberta - Central





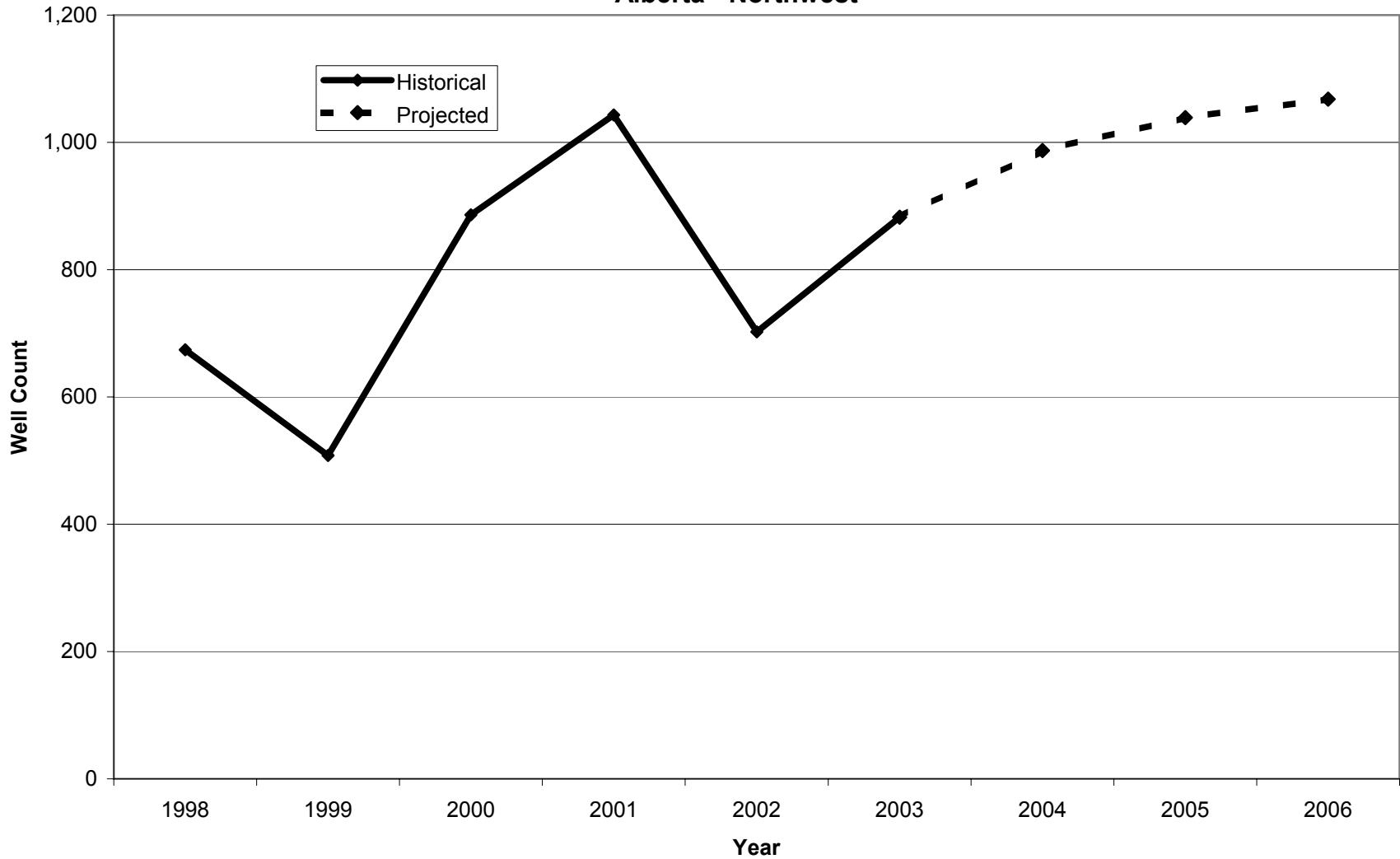
# A7-6: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

Alberta - Northeast

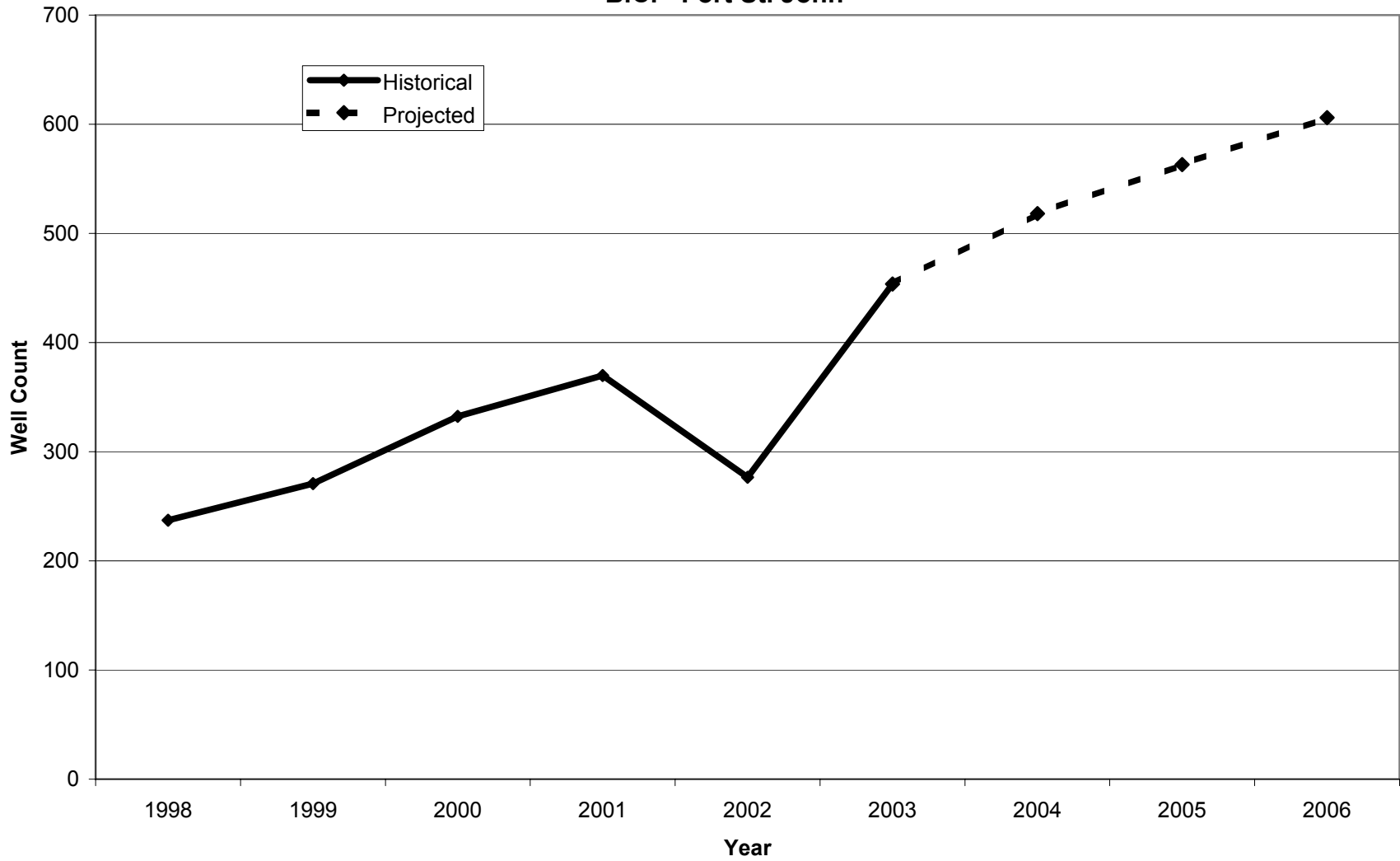


# A7-7: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

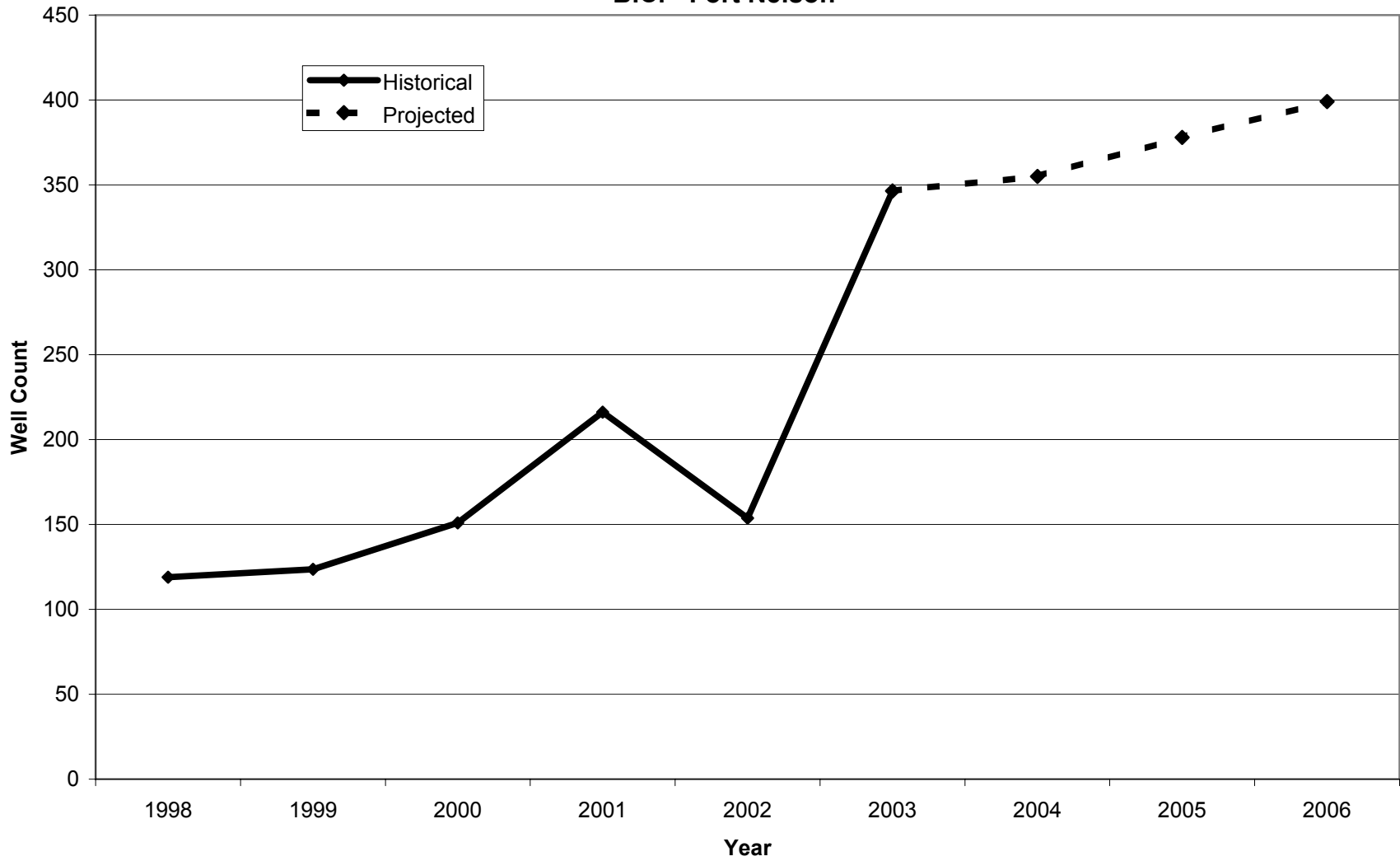
Alberta - Northwest



**A7-8: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area**  
**History and Projection**  
B.C. - Fort St. John

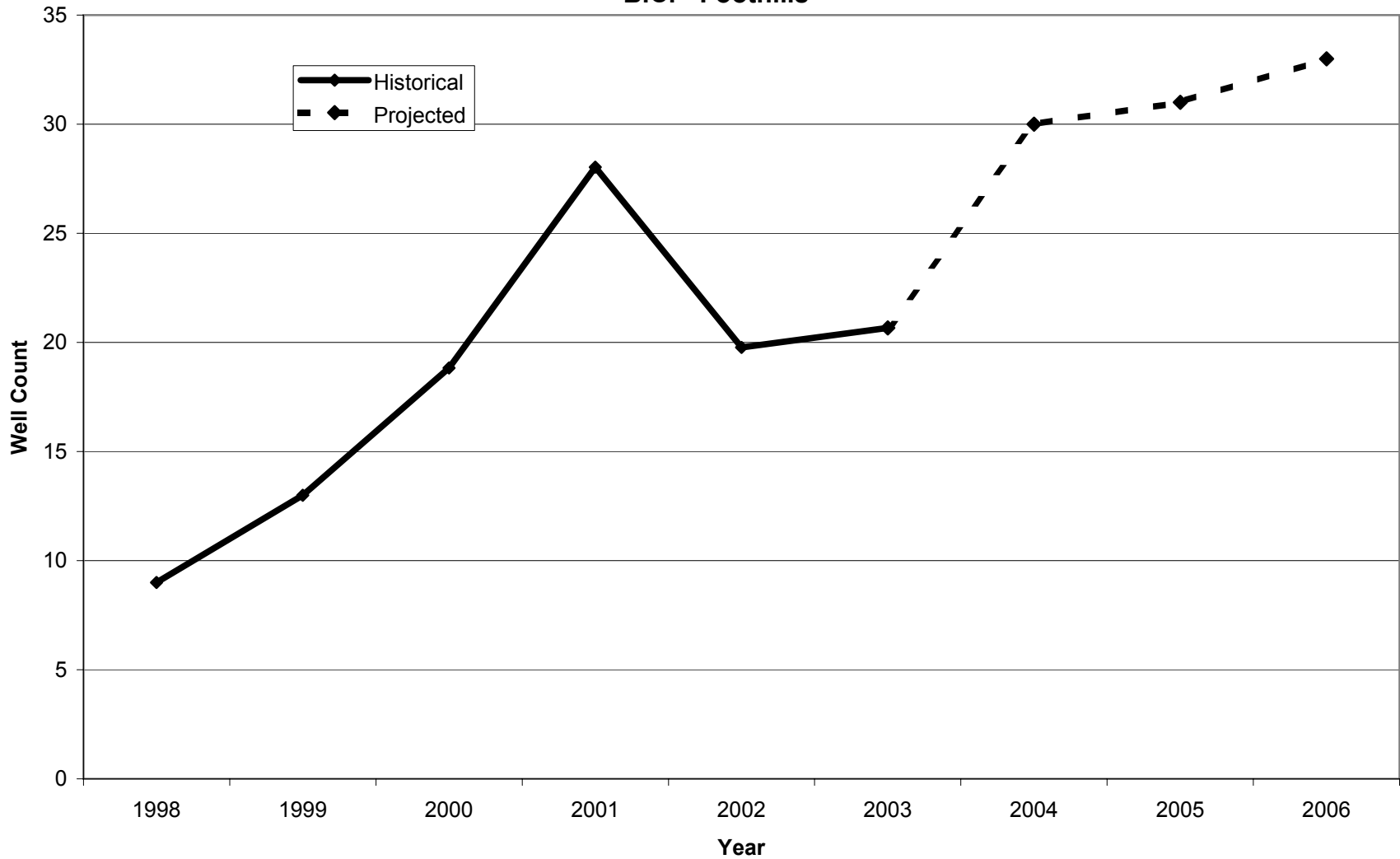


**A7-9: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area  
History and Projection  
B.C. - Fort Nelson**



# A7-10: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area History and Projection

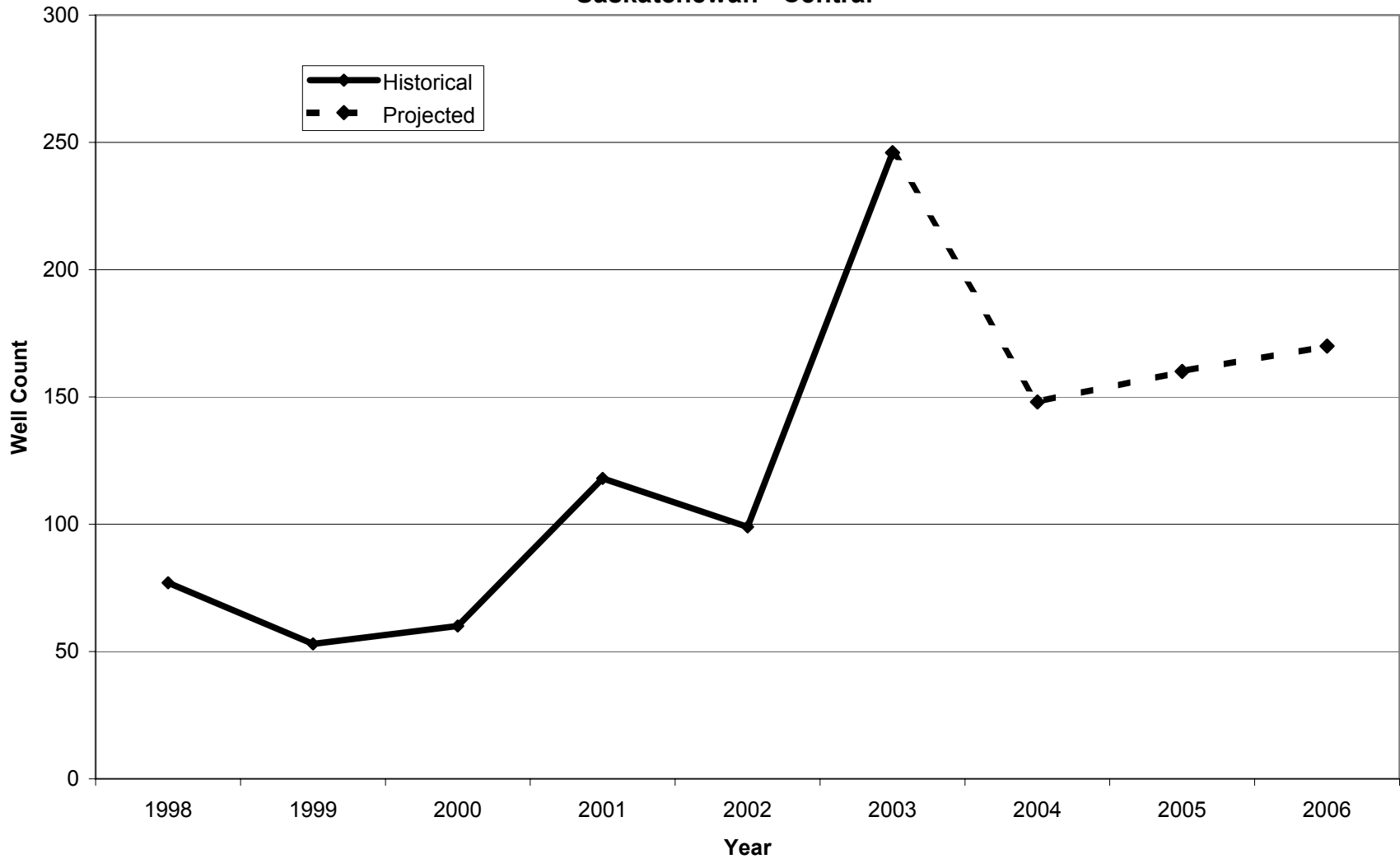
B.C. - Foothills



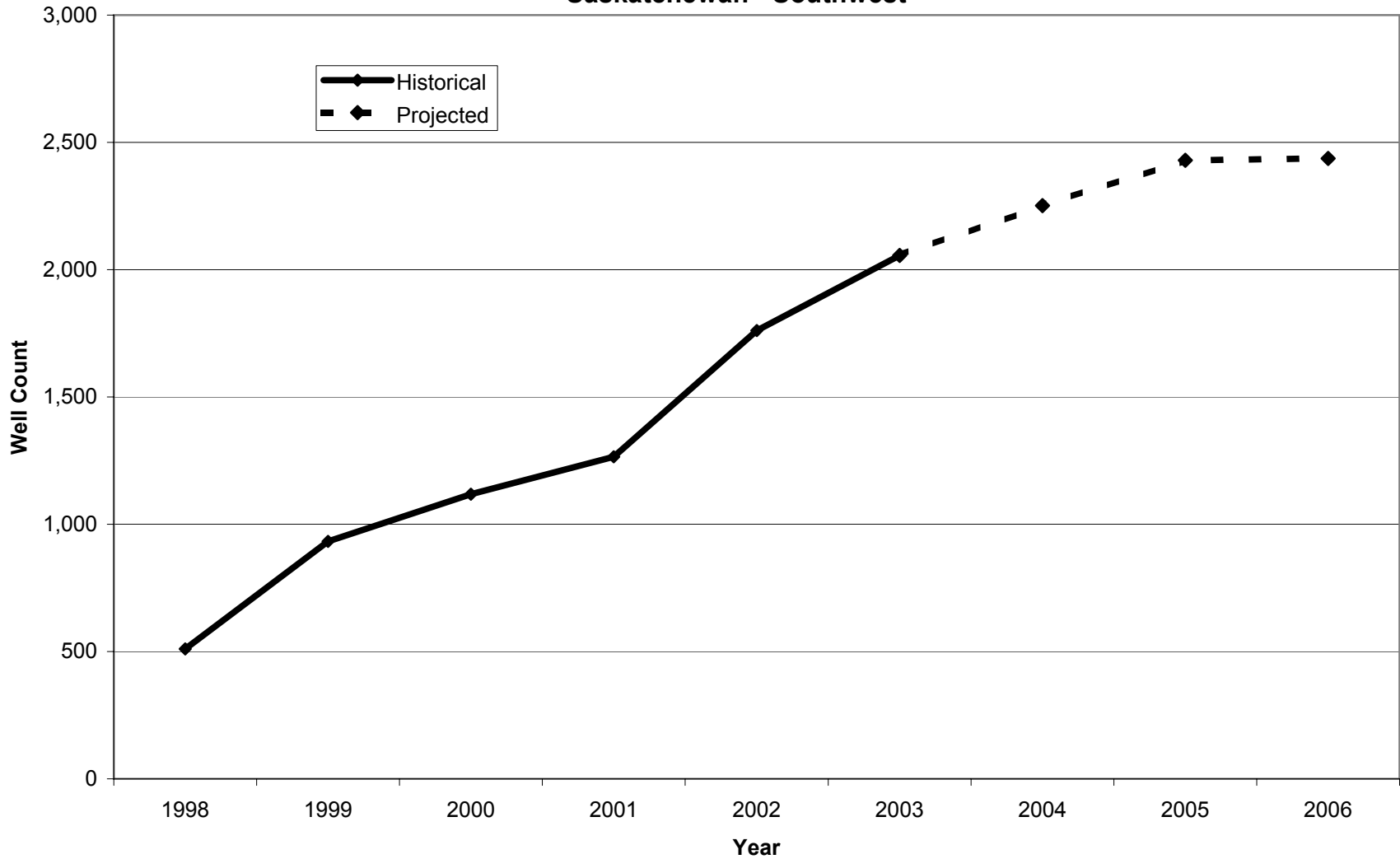
# A7-11: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area

## History and Projection

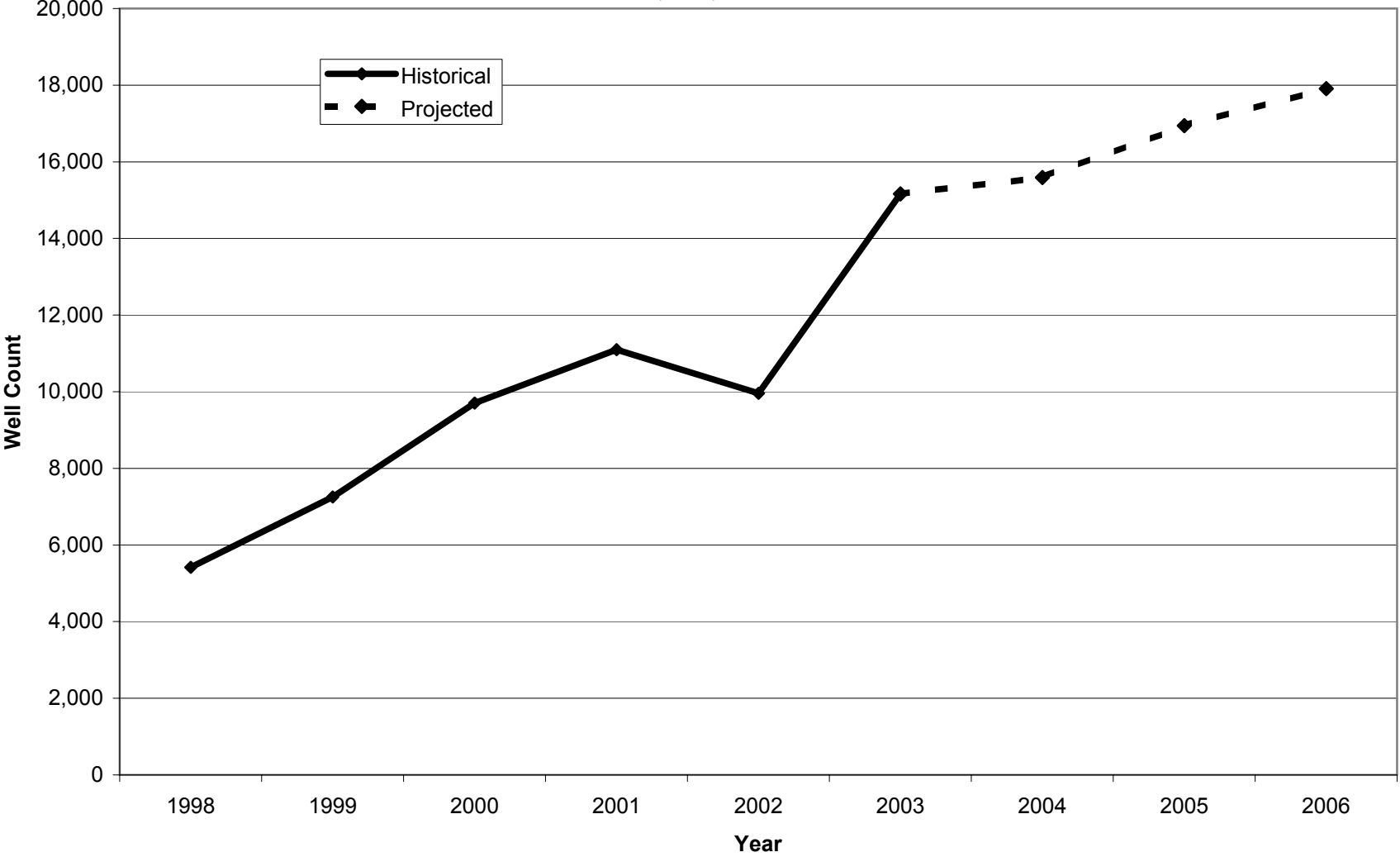
### Saskatchewan - Central



**A7-12: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area**  
**History and Projection**  
**Saskatchewan - Southwest**



**A7-13: 2004 ST Deliv EMA - Annual Gas Well Drilling by Area  
History and Projection  
AB, BC, & SK Total**





**Appendix 8**

**Gas Well Drilling Allocations by Geographic Area**

**Appendix 8 -**  
**Gas Well Drilling Allocations by Geographic Area**

**Sum of Drill Days for all deemed GAS Intent Wells**

DrIYr	Study Area												WCSB
	AB - Foothills	AB - Foothills Front	AB - Southeast	AB - East Central	AB - Central	AB - Northeast	AB - Northwest	BC - Fort St. John	BC - Fort Nelson	BC - Foothills	SK - Central	SK - Southwest	
1995	1,086	8,311	4,164	782	4,318	1,852	4,471	2,474	1,886	2,225	272	525	32,366
1996	712	11,348	4,244	499	5,026	1,792	4,178	2,912	1,891	1,159	173	908	34,842
1997	1,024	18,284	6,367	612	5,348	2,415	7,428	5,005	1,770	1,184	122	728	50,286
1998	2,509	19,605	5,818	704	4,824	1,872	7,510	5,037	2,743	892	273	1,159	52,947
1999	1,957	17,955	9,994	888	4,821	1,196	5,069	4,568	2,665	860	220	2,014	52,205
2000	3,137	25,394	13,781	915	5,208	1,999	7,012	6,236	4,668	1,325	187	2,168	72,031
2001	4,293	25,652	14,507	1,208	5,452	2,466	7,456	7,195	7,030	2,808	389	2,213	80,669
2002	4,131	20,434	11,241	1,172	4,740	1,721	6,383	5,870	4,064	2,080	293	3,375	65,504
2003	4,821	27,977	16,115	2,053	7,941	1,251	6,776	9,318	6,715	1,626	743	3,808	89,143

**Allocation of Drill Days for all deemed GAS Intent Wells**

DrIYr	Study Area												WCSB
	AB - Foothills	AB - Foothills Front	AB - Southeast	AB - East Central	AB - Central	AB - Northeast	AB - Northwest	BC - Fort St. John	BC - Fort Nelson	BC - Foothills	SK - Central	SK - Southwest	
1999	3.75%	34.39%	19.14%	1.70%	9.23%	2.29%	9.71%	8.75%	5.11%	1.65%	0.42%	3.86%	100.00%
2000	4.35%	35.25%	19.13%	1.27%	7.23%	2.78%	9.74%	8.66%	6.48%	1.84%	0.26%	3.01%	100.00%
2001	5.32%	31.80%	17.98%	1.50%	6.76%	3.06%	9.24%	8.92%	8.72%	3.48%	0.48%	2.74%	100.00%
2002	6.31%	31.19%	17.16%	1.79%	7.24%	2.63%	9.74%	8.96%	6.20%	3.18%	0.45%	5.15%	100.00%
2003	5.41%	31.38%	18.08%	2.30%	8.91%	1.40%	7.60%	10.45%	7.53%	1.82%	0.83%	4.27%	100.00%
2004	5.50%	31.50%	18.00%	2.00%	8.00%	1.80%	8.50%	10.50%	7.60%	2.00%	0.50%	4.10%	100.00%
2005	5.60%	31.50%	18.00%	2.00%	8.00%	1.60%	8.40%	10.70%	7.60%	2.00%	0.50%	4.10%	100.00%
2006	5.70%	31.50%	18.00%	2.00%	8.00%	1.50%	8.30%	10.90%	7.70%	2.00%	0.50%	3.90%	100.00%

**Source of Data**

Gas Directed Drill days were obtained by NEB analysis of data available in GeoScout. Drill days per well license is available from GeoScout. In cases where data showed a particular drill rig to be associated with drilling more than one well on any particular day the number of drill days for the license was revised following the rule-- a drill rig can be allocated to only one well license on any one particular day (ie, a drill rig cannot have two drill days on the same day).

Well licenses are interpreted to be either gas directed or oil directed based on NEB analysis of GeoScout Data.

