DEVELOPMENT OF 2010 OIL AND GAS EMISSIONS PROJECTIONS FOR THE DENVER-JULESBURG BASIN

Prepared for
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TABLE OF CONTENTS

Page

INTRODUCTION **1**

GEOGRAPHIC GROUPING **1**

PARAMETERS PROJECTED **2**

PROJECTION METHODOLOGIES FOR GEOGRAPHIC GROUPINGS **4**

Weld County 4
Yuma County 8
All Other Counties 12

SCALING FACTOR DEVELOPMENT AND UNCONTROLLED 2010 EMISSIONS **15**

Weld and Yuma County 15
All Other Counties in the D-J Basin 16

CONTROLLED 2010 EMISSIONS **17**

SUMMARY RESULTS **18**

TABLES

Table 1 Scaling parameter for each oil and gas source category considered in this inventory 2
Table 2 Scaling factors for the four parameters used in the projection analysis for the three geographic groupings 17
Table 3 Summary of federal and state “on-the-books” regulations affecting the oil and gas source categories considered in this inventory 17
Table 4 2010 emissions of all criteria pollutants by county for the D-J Basin 21
Table 5 2010 NOx emissions [ton/yr] by county and by source category for the D-J Basin 22
Table 6 2010 VOC emissions [ton/yr] by county and by source category for the D-J Basin. 23

FIGURES

Figure 1 Gas production historical data for Weld County (from the IHS database) 4
Figure 2 Oil production historical data for Weld County (from the IHS database) 5
Figure 3 Well count historical data for Weld County (from the IHS database) 6
Figure 4 Spud count historical data for Weld County (from the IHS database) 7

Figure 5 Gas production historical data for Yuma County (from the IHS database).....8
Figure 6 Oil production historical data for Yuma County (from the IHS database).....9
Figure 7 Well count historical data for Yuma County (from the IHS database).....10
Figure 8 Spud count historical data for Yuma County (from the IHS database).....11
Figure 9 Gas production historical data for all other counties in the D-J Basin combined (from the IHS database).....12
Figure 10 Oil production historical data for all other counties in the D-J Basin combined (from the IHS database).....13
Figure 11 Well count historical data for all other counties in the D-J Basin combined (from the IHS database).....14
Figure 12 Spud count historical data for all other counties in the D-J Basin combined (from the IHS database).....15
Figure 13 2010 NOx emissions by source category and by county in the D-J Basin 19
Figure 14 2010 VOC emissions by source category and by county in the D-J Basin.....19
Figure 15 2010 NOx emissions proportional contributions by source category in the DJ Basin 20
Figure 16 2010 VOC emissions proportional contributions by source category in the DJ Basin 20

INTRODUCTION

This document outlines the projection methodologies used in generating the 2010 model-ready emissions from oil and gas sources in the Denver-Julesburg (D-J) Basin to be used in the upcoming Denver metropolitan-area ozone SIP modeling. These methodologies will use as a starting point the 2006 baseline D-J Basin oil and gas emissions inventory as approved by CDPHE.

This methodology description is broken down into subsections which describe:

- Geographic grouping of data – regional differences in production or activity are factored into the projection methodology by geographic region
- Projected parameters – four basic parameters are projected forward to 2010 for purposes of developing scaling factors: well counts, spud counts, gas production and oil production
- Scaling factors and developing uncontrolled emissions projections – the projected parameters are used to develop scaling factors (incorporating geographic groupings), and these scaling factors are applied to the 2006 baseline emissions
- Application of "on-the-books" regulations and control measures – existing regulations are summarized for their impacts on the future year emissions and applied to adjust the 2010 inventory.

Projections for years beyond 2010 (not addressed in this methodology) will likely include additional parameters and will be based on these 2010 projections as the start year.

Following the discussion of the methodology, the results of the 2010 emissions projections for the D-J Basin are presented in graphical and tabular formats.

GEOGRAPHIC GROUPING

The projections for 2010 have been conducted separately for 3 geographic groupings in the D-J Basin:

1. Weld County
2. Yuma County
3. All other counties in the D-J Basin combined

The reason for conducting this grouping is that the majority of 2006 production, well counts and spud (drilling event) counts occur in Weld and Yuma County. Weld and Yuma Counties combined represent 94% and 87% of all gas and oil production respectively in the D-J Basin in 2006. Weld and Yuma Counties combined represent 87% and 95% of all wells and spuds respectively in the D-J Basin in 2006. Because oil and gas exploration and production activities differ significantly in Weld and Yuma Counties, these two counties are each treated separately.

PARAMETERS PROJECTED

The 2010 projections for oil and gas emissions in the D-J Basin rely on scaling 4 parameters:

- Well counts
- Spud counts
- Gas production
- Oil production

These four parameters are considered because each parameter applies to the emissions projections of one or more source categories. The mapping of source category to projection parameter is shown below in Table 1.

Table 1. Scaling parameter for each oil and gas source category considered in this inventory.

Source	SCC	Description	Projection Parameter
Unpermitted	2310000100	Heaters	well count
Unpermitted	2310000220	Drill rigs	spud count
Unpermitted	2310000230	Workover rigs	well count
Unpermitted	2310000300	Pneumatic devices	well count
Unpermitted	2310000700	Fugitives	well count
Unpermitted	2310000800	Truck loading of condensate liquid	oil production
Unpermitted	2310001610	Venting - initial completions	spud count
Unpermitted	2310001620	Venting - recompletions	spud count
Unpermitted	2310001630	Venting - blowdowns	gas production
Unpermitted	2310002210	Small condensate tanks	oil production
Regulation 7	2310002220	Large condensate tanks	oil production
Unpermitted	2310002250	Condensate tank flaring	oil production
Unpermitted	2310003100	Exempt engines	well count
Unpermitted	2310003200	Pneumatic pumps	well count
Unpermitted	2310003300	Spills	oil production
Unpermitted	2310003400	Water tank losses	oil production
APENS	20200201	Compressor Engines	gas production
APENS	20200202	Compressor Engines	gas production
APENS	20200203	Compressor Engines	gas production
APENS	20200209	Compressor Engines	gas production
APENS	20200252	Compressor Engines	gas production
APENS	20200253	Compressor Engines	gas production
APENS	20200254	Compressor Engines	gas production
APENS	31000101	Permitted Fugitives	oil production
APENS	31000102	Oil Production, Miscellaneous Well: General	oil production
APENS	31000123	Oil Production, Well Casing Vents	oil production
APENS	31000129	Oil Production, Gas/Liquid Separation	oil production
APENS	31000130	Oil Production, Fugitives: Compressor Seals	oil production
APENS	31000132	Oil Production, Atmospheric Wash Tank: Flashing Loss	oil production
APENS	31000199	Oil Production, Processing Operations: Not Classified	oil production
APENS	31000201	Natural Gas Production, Gas Sweetening: Amine Process	gas production
APENS	31000202	Natural Gas Production, Gas Stripping Operations	gas production

Source	SCC	Description	Projection Parameter
APENS	31000203	Compressor Engines	gas production
APENS	31000205	Natural Gas Production, Flares	gas production
APENS	31000207	Permitted Fugitives	gas production
APENS	31000209	Natural Gas Production, Incinerators Burning Waste Gas or Augmented Waste Gas	gas production
APENS	31000215	Natural Gas Production, Flares Combusting Gases >1000 BTU/scf	gas production
APENS	31000216	Natural Gas Production, Flares Combusting Gases <1000 BTU/scf	gas production
APENS	31000220	Natural Gas Production, All Equipt Leak Fugitives	gas production
APENS	31000225	Natural Gas Production, Compressor Seals	gas production
APENS	31000226	Natural Gas Production, Flanges and Connections	gas production
APENS	31000227	Glycol Dehydrator	oil production
APENS	31000228	Glycol Dehydrator	oil production
APENS	31000229	Natural Gas Production, Gathering Lines	gas production
APENS	31000230	Natural Gas Production, Hydrocarbon Skimmer	gas production
APENS	31000299	Natural Gas Production, Other Not Classified	gas production
APENS	31000301	Glycol Dehydrator	gas production
APENS	31000302	Glycol Dehydrator	gas production
APENS	31000303	Glycol Dehydrator	gas production
APENS	31000304	Glycol Dehydrator	gas production
APENS	31000305	Natural Gas Processing Facilities, Gas Sweeting: Amine Process	gas production
APENS	31000306	Natural Gas Processing Facilities, Process Valves	gas production
APENS	31000307	Natural Gas Processing Facilities, Relief Valves	gas production
APENS	31000309	Natural Gas Processing Facilities, Compressor Seals	gas production
APENS	31000310	Natural Gas Processing Facilities, Pump Seals	gas production
APENS	31000311	Natural Gas Processing Facilities, Flanges and Connections	gas production
APENS	31000404	Process Heaters	well count
APENS	31000405	Process Heaters	well count
APENS	31000406	Process Heaters	well count
APENS	31000502	Liquid Separator	well count
APENS	31088801	Permitted Fugitives	gas production
APENS	31088802	Permitted Fugitives	gas production
APENS	31088803	Permitted Fugitives	gas production
APENS	31088804	Permitted Fugitives	gas production
APENS	31088805	Permitted Fugitives	gas production
APENS	31088811	Permitted Fugitives	gas production
APENS	40400301	Tank Losses	oil production
APENS	40400302	Tank Losses	oil production
APENS	40400304	Tank Losses	oil production
APENS	40400305	Tank Losses	oil production
APENS	40400311	Tank Losses	oil production
APENS	40400312	Tank Losses	oil production
APENS	40400315	Tank Losses	oil production
APENS	40400322	Tank Losses	oil production
APENS	40400332	Tank Losses	oil production

PROJECTION METHODOLOGIES FOR GEOGRAPHIC GROUPINGS

For each geographic grouping, the methodology for obtaining the 2010 value of each projection parameter (well count, spud count, oil production and gas production) is described below. In general, the methodologies were developed by obtaining the historical data for the parameter in the geographic grouping using the IHS database, and projecting a trend line forward from 2006 to 2010. The IHS database is a tool to query COGCC data, and previous work has confirmed that IHS data is consistent with COGCC's data. In some cases, a different methodology was applied as noted below.

Weld County

Gas Production - Gas production in Weld County has been plotted for the years 1970 – 2006 below in Figure 1.

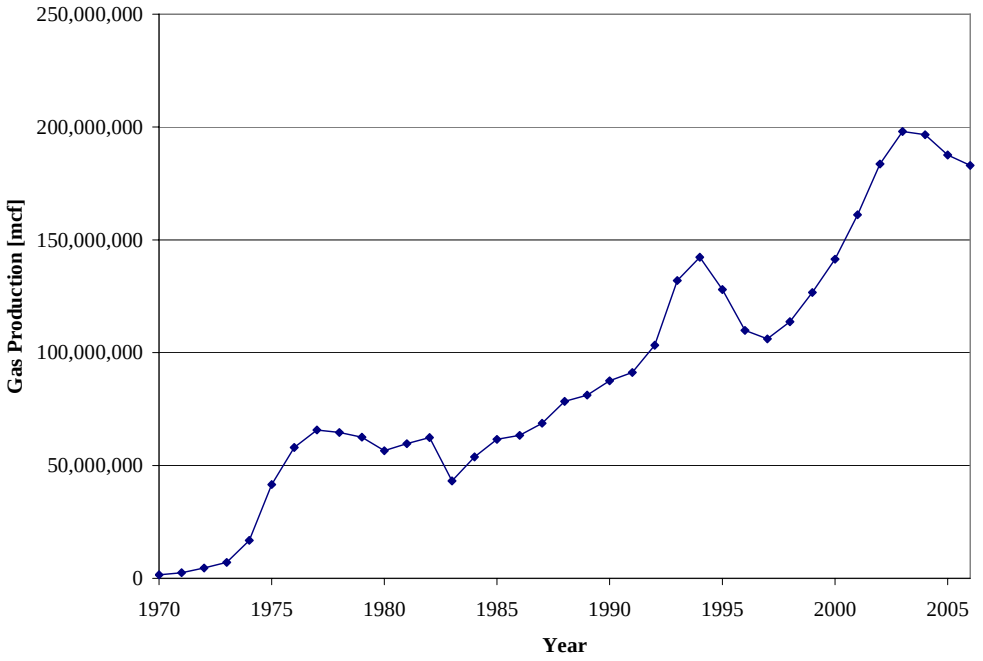

Figure 1. Gas production historical data for Weld County (from the IHS database).

Because production activity differed greatly in Weld County in the years prior to 1997 from what has occurred from 1997 – 2006, only the period 1997 – 2006 is considered in this analysis. During this period, gas production peaked in 2004 and has been declining from 2004 – 2006. This decline is the result of the depletion of the J Sands formation. New drilling in the Codell formation is producing significantly higher oil production. However, the major companies in the D-J Basin have indicated that they intend to continue drilling activities in Weld County and expect gas production from their operations to continue to grow at 5% per year[1].

[1] Data provided by Anadarko Petroleum Corp. and Noble Energy Inc.

Based on this information, the methodology used to estimate 2010 gas production in Weld County was to grow 2006 gas production in the county by 5% per year for the years 2006 – 2010.

Oil Production – Oil production in Weld County has been plotted for the years 1970 – 2006 below in Figure 2.

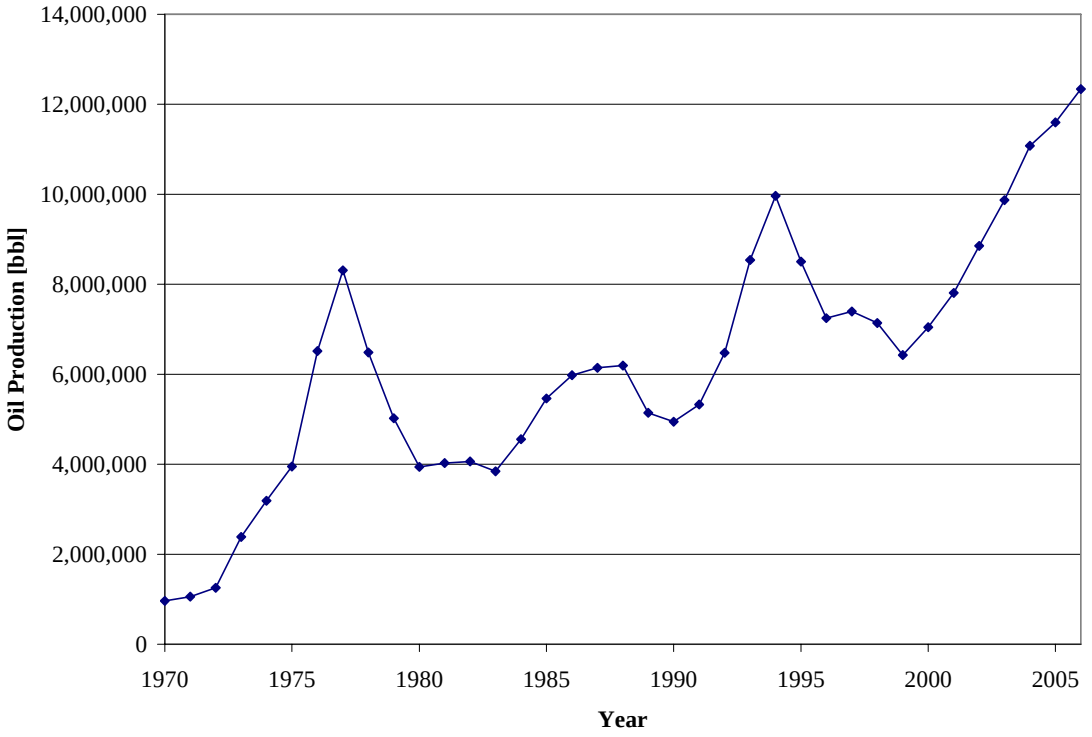

Figure 2. Oil production historical data for Weld County (from the IHS database).

Similarly to gas production, oil activity has differed greatly from 1999 – 2006 than from past activity before 1999. Data from 1999 – 2006 is considered in this projection methodology.

Based on information from the major production companies in Weld County[2], it was assumed conservatively that growth in oil production would continue following the trend observed from 1999 – 2006. A linear curve was best fit to the 1999 – 2006 oil production data, and this curve was extrapolated to 2010.

[2] Data provided by Anadarko Petroleum Corp. and Noble Energy Inc.

Well Count – Well counts in Weld County have been plotted for the years 1970 – 2006 below in Figure 3.

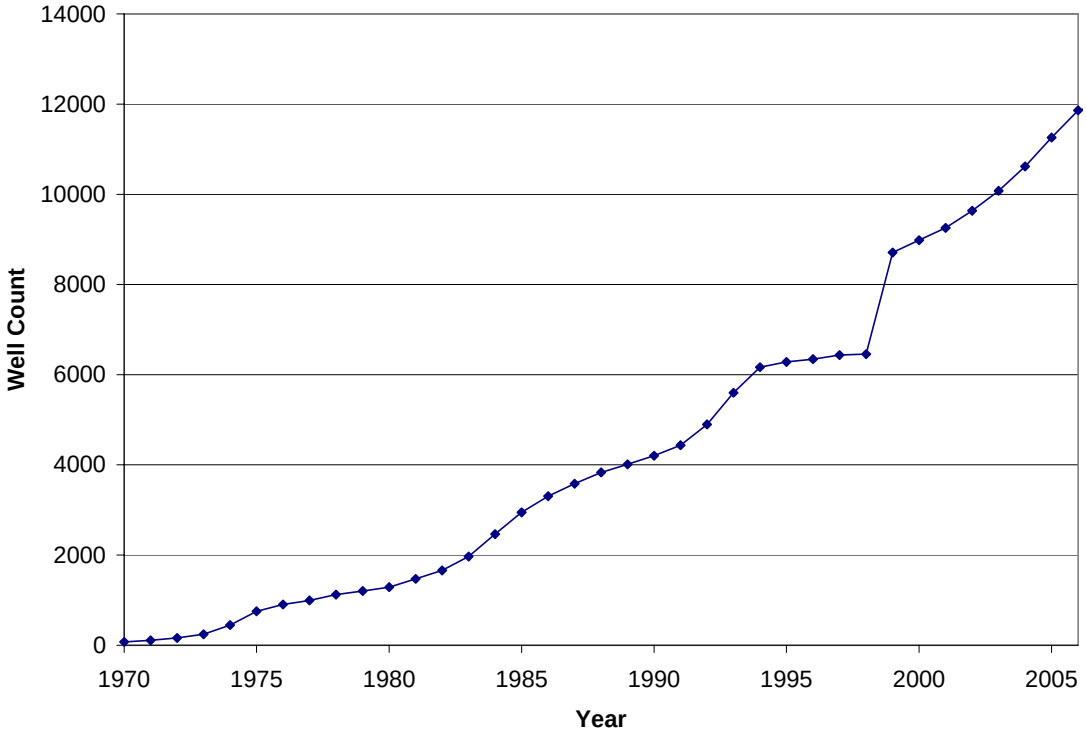

Figure 3. Well count historical data for Weld County (from the IHS database).

Based on the historical data shown in Figure 3, a second order curve was best fit to the 1999 – 2006 well count data for Weld County and extrapolated to 2010.

Spud Count – Spud counts in Weld County have been plotted for the years 1970 – 2006 below in Figure 4.

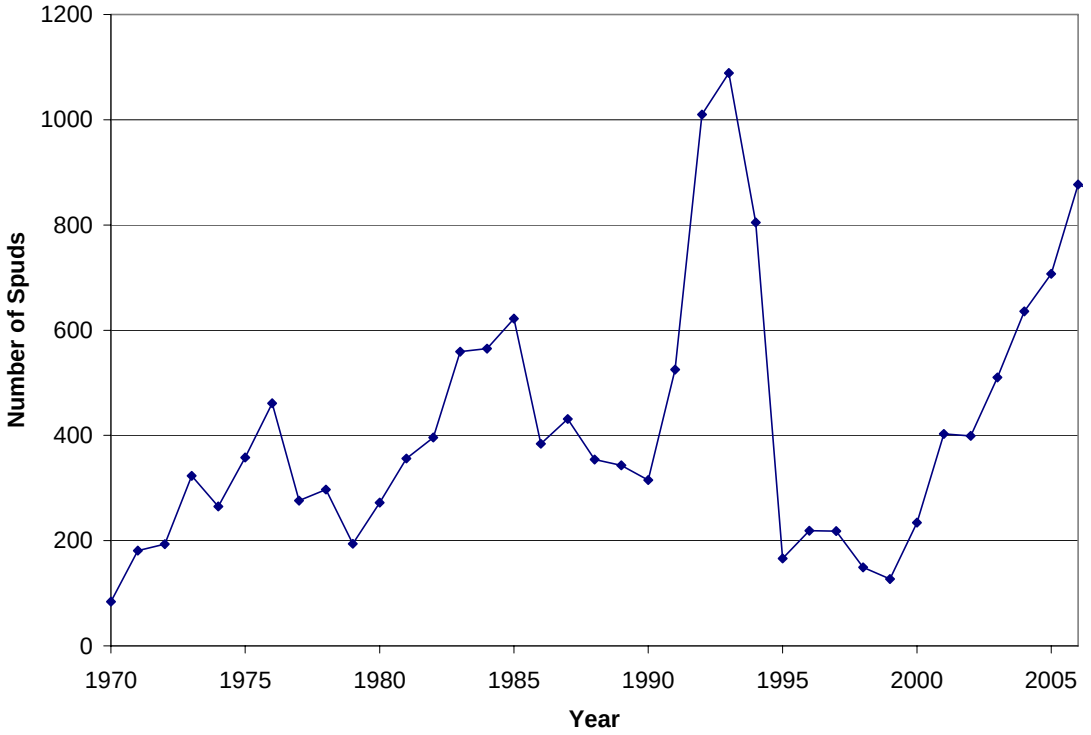

Figure 4. Spud count historical data for Weld County (from the IHS database).

Based on the increased activity from 1999 – 2006 as described above, only this data was considered for purposes of projecting Weld County spud counts. A linear curve was best fit to the spud count data from 1999 – 2006 and extrapolated to 2010. For each year between 2006 – 2010, the spud count was evaluated and totaled and this total was compared to the 2010 well count projection to assess whether the total drilling activity added to the 2006 existing well count matched reasonably well with the prediction for 2010 well count. It was found that spud count projections matched reasonably well with well count projections.

Yuma County

Gas Production - Gas production in Yuma County has been plotted for the years 1970 – 2006 below in Figure 5.

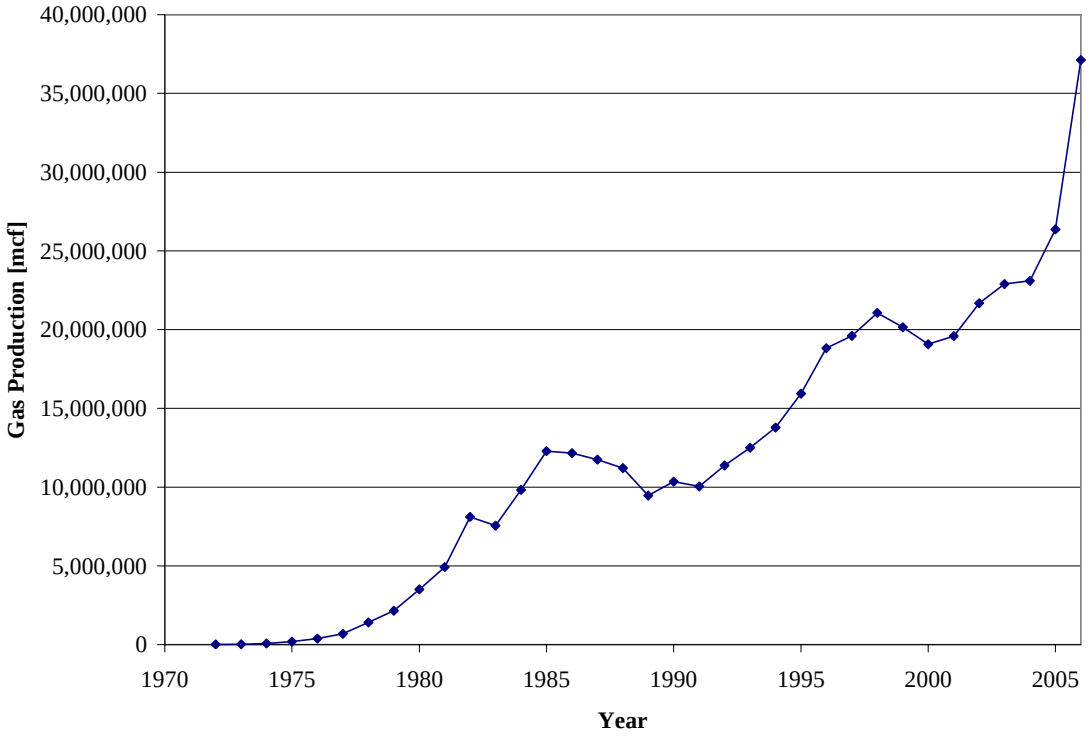

Figure 5. Gas production historical data for Yuma County (from the IHS database).

Production of gas in Yuma County has accelerated recently, from 2004 – 2006 due to increased activity in this area. Therefore gas production data from 2004 – 2006 was used for purposes of projecting gas production to 2010. A linear curve was best fit to the gas production data from 2004 – 2006 and extrapolated to 2010. This is likely to conservatively overestimate the gas production in this county for 2010.

Oil Production - Oil production in Yuma County has been plotted for the years 1970 – 2006 below in Figure 6.

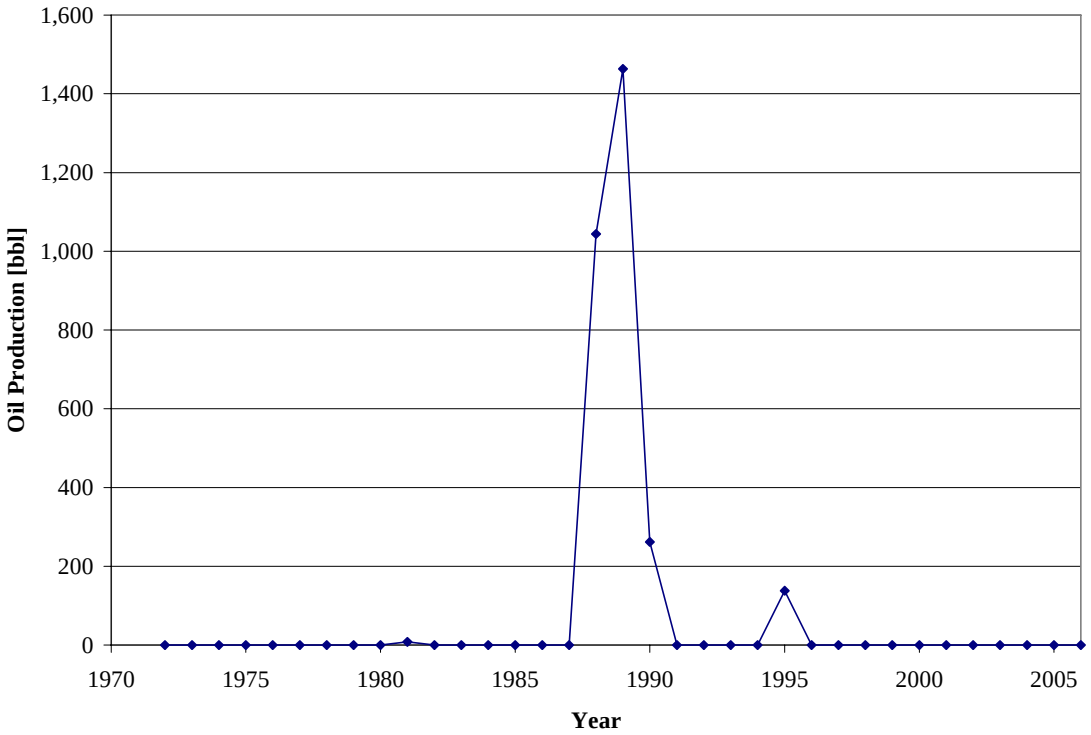

Figure 6. Oil production historical data for Yuma County (from the IHS database).

Yuma County has had little or no oil production during the period 1970 – 2006, and no oil production from 1996 – 2006. It was assumed that there is no oil production in Yuma County in 2010.

Well Count – Well counts in Yuma County have been plotted for the years 1970 – 2006 below in Figure 7.

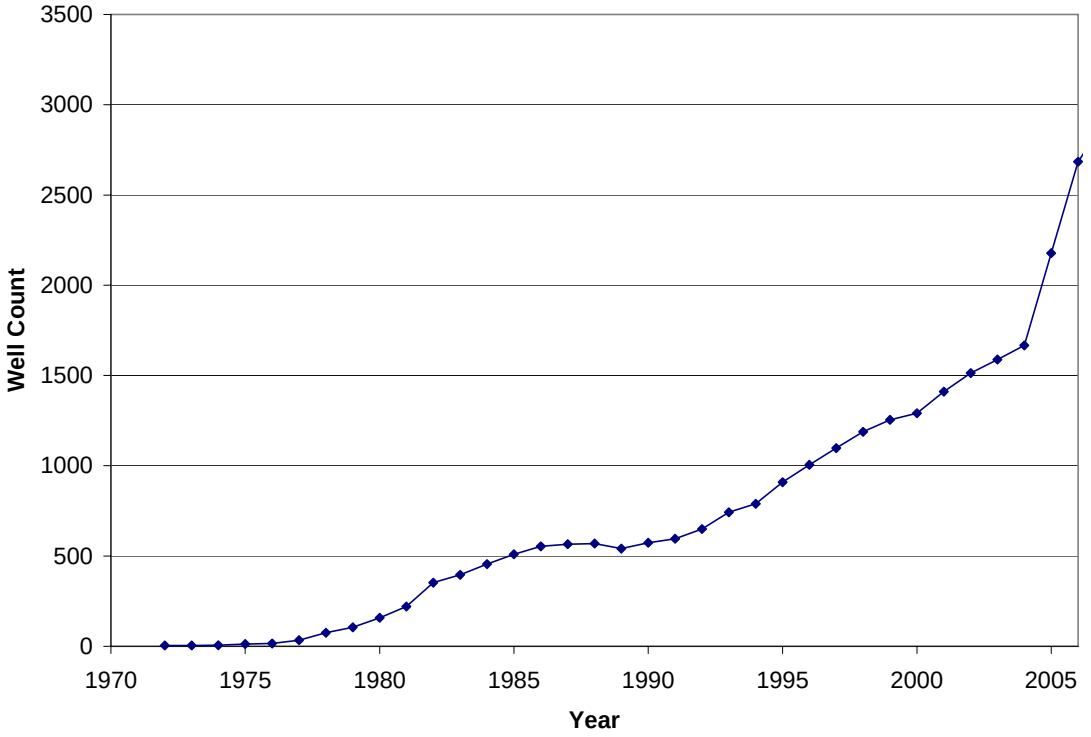

Figure 7. Well count historical data for Yuma County (from the IHS database).

Due to the increased recent activity in Yuma County as described above, well count data from 2004 – 2006 was used to project 2010 well counts. A linear curve was best fit to the 2004 – 2006 well count data and projected to 2010.

Spud Count – Spud counts in Yuma County have been plotted for the years 1970 – 2006 below in Figure 8.

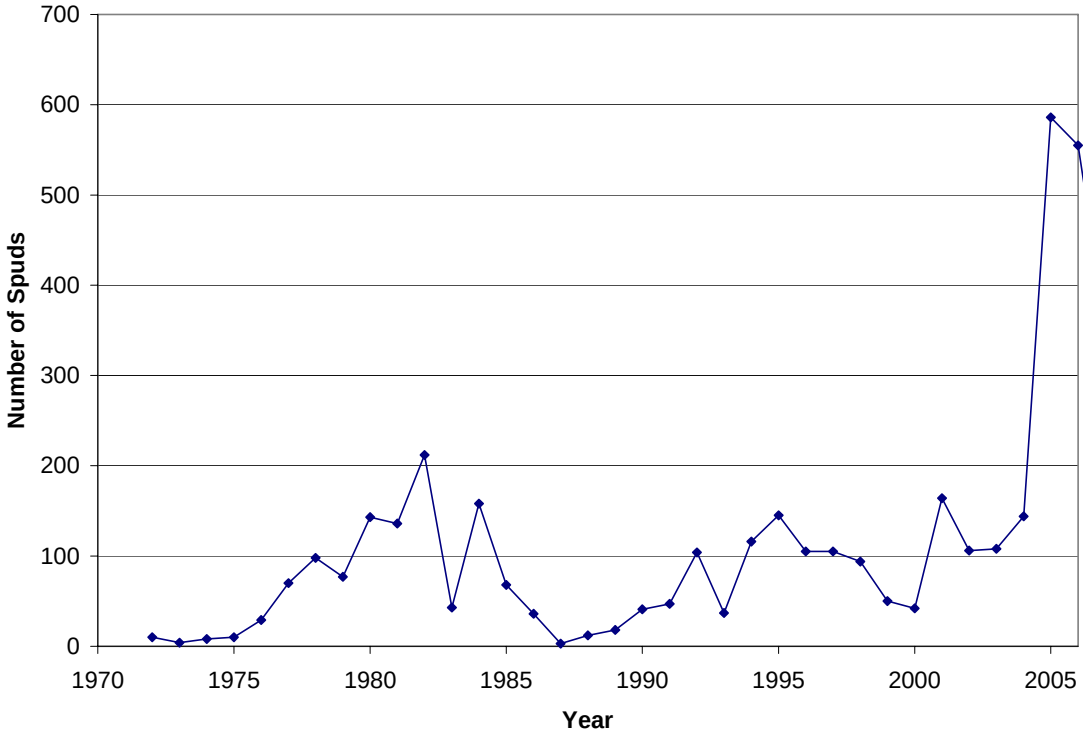

Figure 8. Spud count historical data for Yuma County (from the IHS database).

There has been a substantial increase in the number of annual spuds in Yuma County from 2004 – 2005, however there were fewer spuds recorded in 2006. Based on information from the major producing companies[3] this is likely due to the lack of availability of drilling equipment in Yuma County as activity in other major basins in Colorado and other states is utilizing much of the available drilling capacity. Therefore the number of spuds was projected to remain constant from 2006 – 2010.

[3] Data provided by Anadarko Petroleum Corp. and Noble Energy Inc.

All Other Counties

Gas Production - Gas production in all other D-J Basin counties combined has been plotted for the years 1970 – 2006 below in Figure 9.

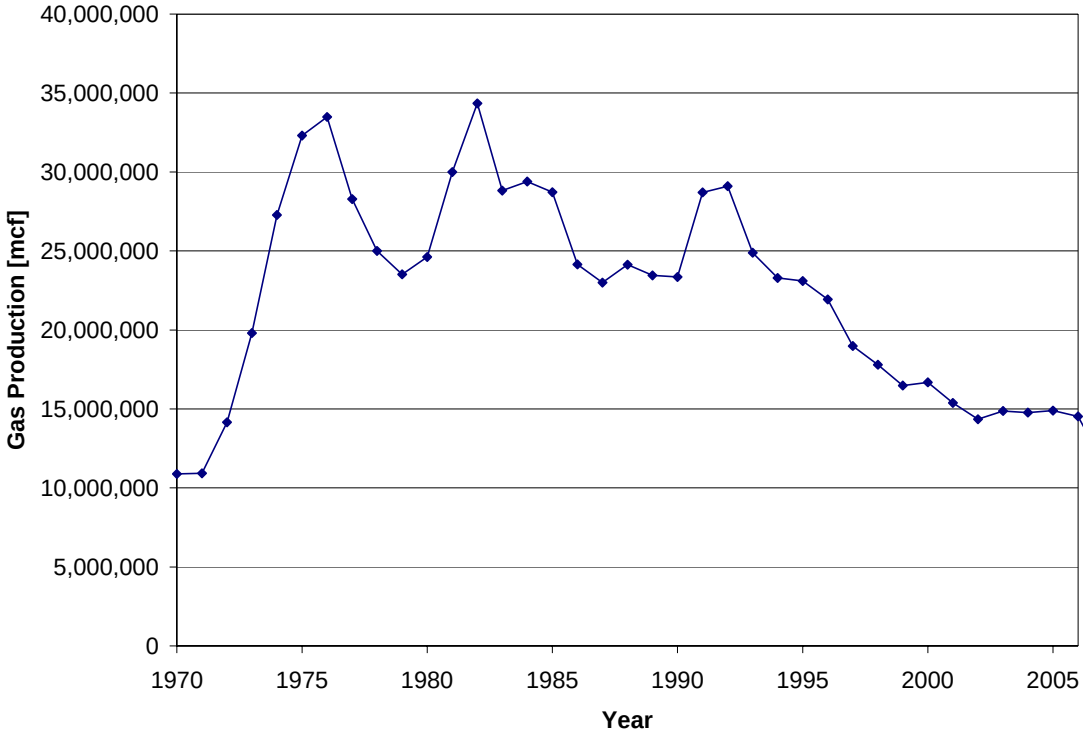

Figure 9. Gas production historical data for all other counties in the D-J Basin combined (from the IHS database).

Figure 9 shows that from 1992 – 2006 gas production has declined in this geographic grouping. An exponential curve was best fit to the gas production data in all other counties combined in the years 1992 – 2006, and extrapolated to 2010.

Oil Production – Oil production in all other D-J Basin counties combined has been plotted for the years 1970 – 2006 below in Figure 10.

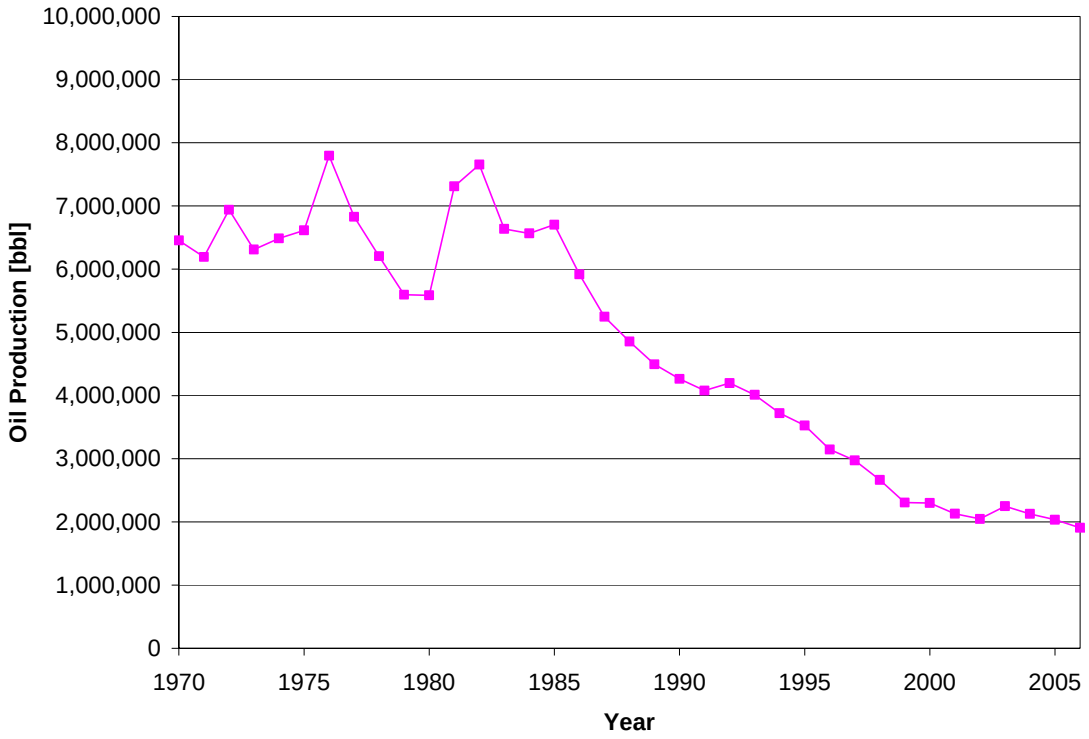

Figure 10. Oil production historical data for all other counties in the D-J Basin combined (from the IHS database).

Figure 10 shows that from 1985 – 2006 oil production has declined in this geographic grouping. An exponential curve was best fit to the oil production data in all other counties combined in the years 1985 – 2006, and extrapolated to 2010.

Well Count – Well counts in all other D-J Basin counties combined have been plotted for the years 1970 – 2006 below in Figure 11.

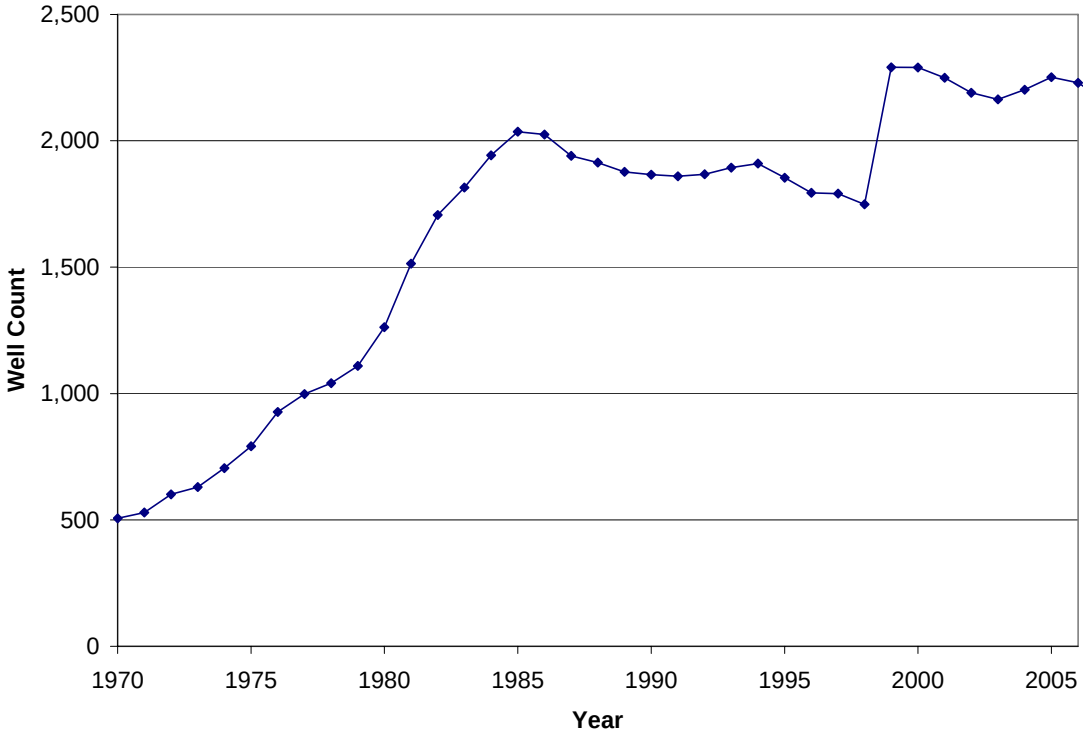

Figure 11. Well count historical data for all other counties in the D-J Basin combined (from the IHS database).

Well counts in the combined other counties in D-J Basin is primarily driven by activity in Adams county, which borders the large oil and gas development area in Weld County. As described above, a significant increase in activity in this area has been observed since 1999. Based on this information, a linear curve was best fit to the well count data for all other counties in the D-J Basin combined for the years 1999 – 2006, and extrapolated to 2010.

Spud Count – Spud counts in all other D-J Basin counties combined have been plotted for the years 1970 – 2006 below in Figure 12.

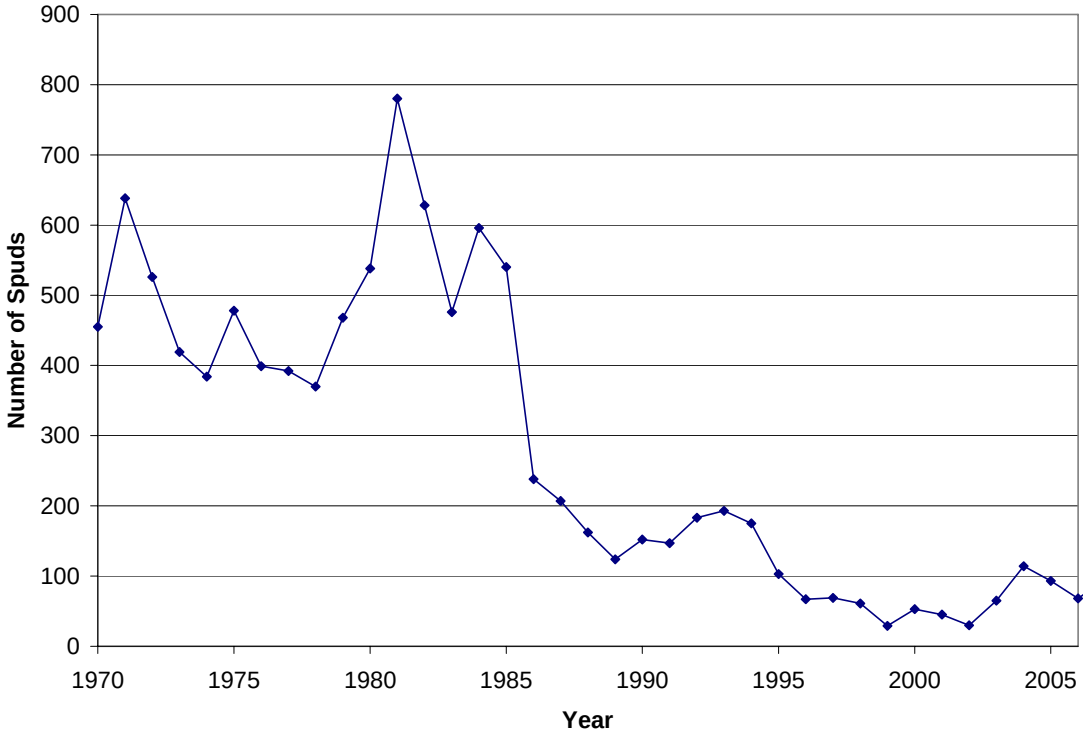

Figure 12. Spud count historical data for all other counties in the D-J Basin combined (from the IHS database).

Figure 12 shows that from 1985 – 2006 spud counts have declined in this geographic grouping. An exponential curve was best fit to the spud count data in all other counties combined in the years 1985 – 2006, and extrapolated to 2010.

SCALING FACTOR DEVELOPMENT AND UNCONTROLLED 2010 EMISSIONS

Scaling factors were generated for each geographic grouping for each parameter considered here: gas production, oil production, well count and spud count. The ratio of the value of each of these parameters in each geographic grouping in 2010 to their values in 2006 is the scaling factor for that parameter for purposes of this projection. A more detailed description is given below for each geographic grouping.

Weld County and Yuma County

The projected 2010 values of each of the four parameters for each of these two counties were ratioed to the value of the respective parameter in 2006, following Equation (1):

Equation (1) $$f_i = W_{2010} / W_{2006}$$

where:

f_i is the scaling factor for either Weld or Yuma County for parameter *i* (gas production, oil production, well count or spud count)
W_{2006} is the value of parameter *i* in 2006
W_{2010} is the projected value of parameter *i* in 2010

All Other Counties in the D-J Basin

Because all other counties were combined for purposes of projecting gas production, oil production, well count, and spud count, the projected parameters were apportioned to each county in this grouping based on the 2006 fractions of that county's gas production, oil production, well count or spud count. The scaling factors for each county in this grouping are estimated according to Equation (2):

Equation (2) $$f_i = c_{i,county} \times \left(Q_{2010} \Big/ Q_{2006} \right)$$

where:

f_i is the scaling factor for each county in the "other counties" grouping for parameter *i* (gas production, oil production, well count or spud count)
$c_{i,county}$ is the fraction of parameter *i* for all combined counties that is assigned to each specific county based on 2006 data
Q_{2006} is the value of parameter *i* in 2006 for all other combined counties
Q_{2010} is the projected value of parameter *i* in 2010 for all other combined counties

Emissions were therefore projected to 2010 for each county in the D-J Basin using the scaling factors derived above for each county. Uncontrolled 2010 emissions were estimated according to Equation (3):

Equation (2) $$E_{j,county,2010} = f_{i,county} \times E_{j,county,2006}$$

where:

$E_{j,county,2010}$ are the projected emissions in a specific county in 2010 for source category *j*
$E_{j,county,2006}$ are the 2006 baseline emissions in a specific county for source category *j*
f_i is the scaling factor for each county for parameter *i* (gas production, oil production, well count or spud count)

The scaling factor based on the appropriate parameter (gas production, oil production, well count or spud count) is selected for each source category as described in Table 1. The scaling factors for the four parameters used in this analysis for each of the three geographic groupings is presented in Table 2 below.

Table 2. Scaling factors for the four parameters used in the projection analysis for the three geographic groupings.

Metric	Gas Production	Oil Production	Well Count	Spud Count
Weld	1.216	1.302	1.288	1.413
Yuma	1.721	0.000	1.758	1.000
All other DJ counties	0.732	0.730	0.970	0.452

CONTROLLED 2010 EMISSIONS

This methodology considered any "on-the-books" federal or state regulations that would affect the uncontrolled 2010 emissions projections described above.

Table 3 below lists the "on-the-books" federal and state regulations that affect emissions source categories in the oil and gas industry, and the action taken to adjust the 2010 emissions inventory appropriately.

Table 3. Summary of federal and state "on-the-books" regulations affecting the oil and gas source categories considered in this inventory.

Source Category	Regulation	Enforcing Agency	Effective Date	Implementation in the 2010 D-J Basin Emissions Projections
Federal				
Drill Rigs	Nonroad engine Tier standards (1-4)	US EPA	Phase in from 1996 - 2014	None – turnover of drill rig engines is considered too slow to be affected by Tier standards.
Drill Rigs, Workover Rigs	Nonroad diesel fuel sulfur standards	US EPA	Phase in beginning in 2010	Assume 50 ppm sulfur in nonroad diesel fuel throughout D-J Basin.
All New Nonroad Engines	New Source Performance Stds. (NSPS)	US EPA	Phase in beginning 2006	None – although some new compressors will be put into the field in the D-J Basin, this methodology conservatively estimates no application of this rule to these engines.
State				
Natural Gas Engines	Regulation 7*	CDPHE	Phase in from 2007 - 2011	None – see above on compressor engines.
Glycol Dehydrators	Regulation 7*	CDPHE	May 2008	Apply a rule-effectiveness of 83% to the 90% control required for any glycol dehydrator emitting more than 15 tpy VOC.
Condensate Tanks	Regulation 7*	CDPHE	May 2008	Apply 95% control to any tank emitting more than 20 tpy VOC.
Condensate Tanks with APENs in the EAC	Regulation 7*	CDPHE	May 2007	Apply a rule-effectiveness of 83% to the 75% control required of total VOC emissions in the front range early action compact area (EAC) from these tanks.

* Information about the State of Colorado's Regulation 7 concerning oil and gas emissions sources can be found at (http://www.cdphe.state.co.us/ap/oilgas.html)

The uncontrolled 2010 emissions were adjusted based on the proposed action described in Table 3 to account for each regulation that may affect any oil and gas source category considered in this inventory.

The methodology recognizes that there are a number of voluntary and/or required control measures that have been partially implemented since 2006, and/or will be implemented completely by the calendar year 2010. However, these controls were not incorporated into this base case 2010 projection, but rather could form part of the controls to be included in a control scenario.

The resulting controlled 2010 emissions are considered the final 2010 oil and gas emissions inventory projection for purposes of the Denver metropolitan area ozone SIP modeling.

SUMMARY RESULTS

The scaling factors were applied to the baseline 2006 inventory, and "on-the-books" regulations were applied to the uncontrolled 2010 emissions projections to generate the final 2010 emissions projections and results are presented below.

Figure 15 shows that compressor engines and drilling rigs combined account for almost 80% of NOx emissions in 2010. Similarly, Figure 16 shows that permitted and unpermitted condensate tanks and pneumatic devices account for approximately 77% of VOC emissions in 2010.

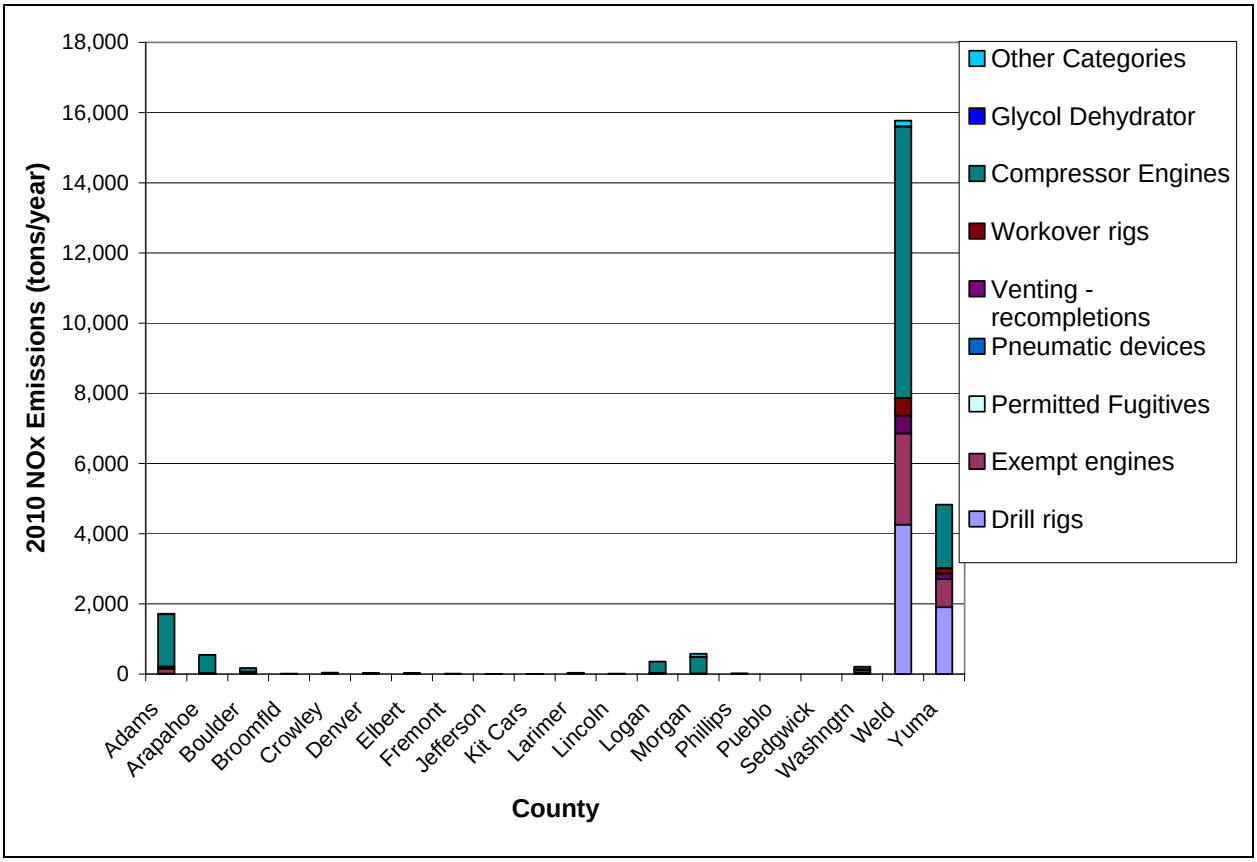

Figure 13. 2010 NOx emissions by source category and by county in the D-J Basin.

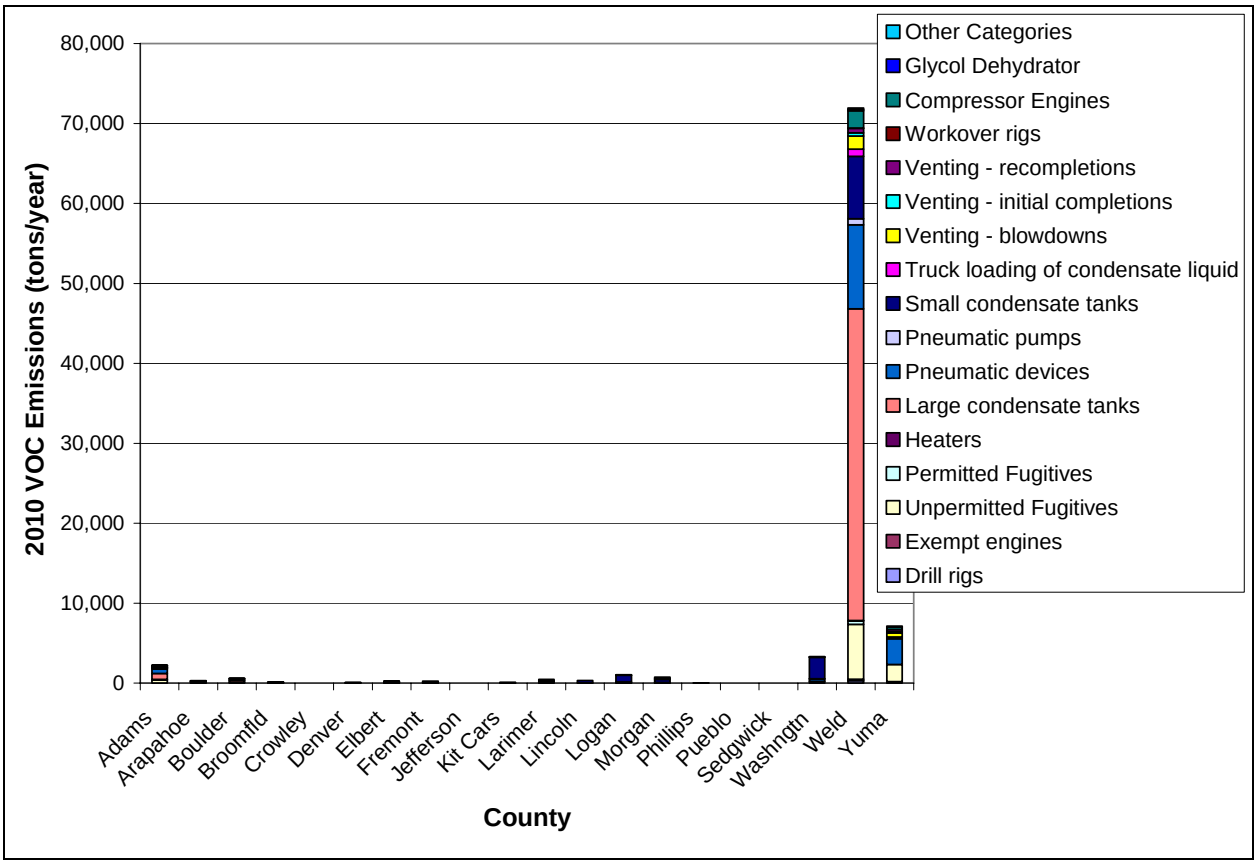

Figure 14. 2010 VOC emissions by source category and by county in the D-J Basin.

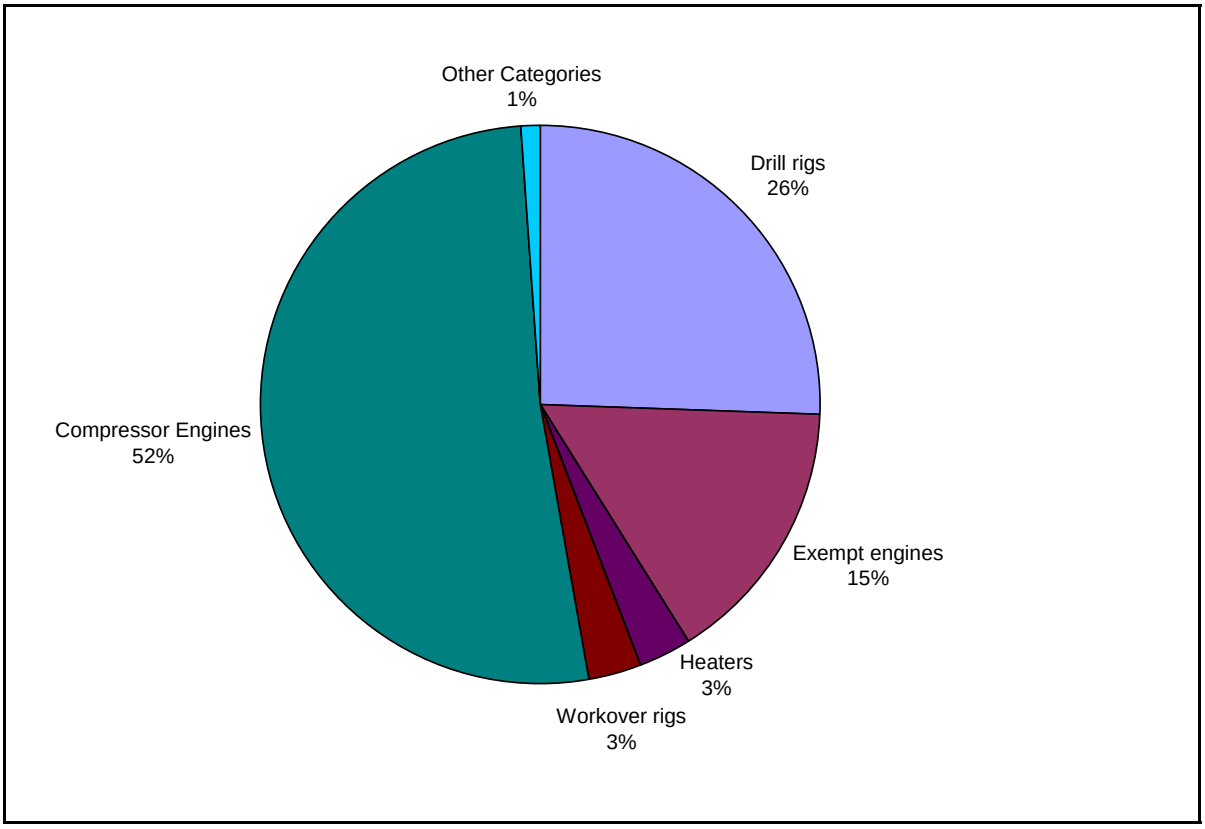

Figure 15. 2010 NOx emissions proportional contributions by source category in the DJ Basin.

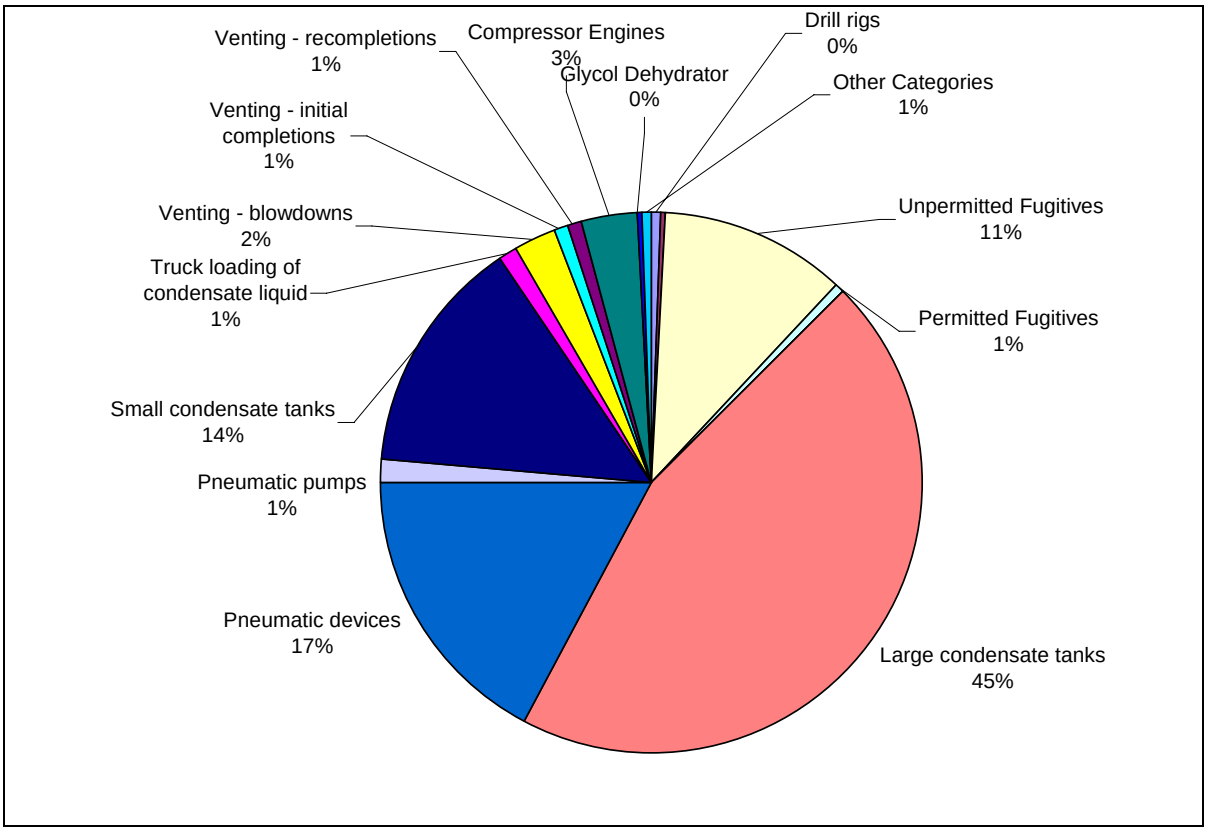

Figure 16. 2010 VOC emissions proportional contributions by source category in the DJ Basin.

Table 4. 2010 emissions of all criteria pollutants by county for the D-J Basin.

County	NOx [tons/yr]	VOC [tons/yr]	CO [tons/yr]	SOx [tons/yr]	PM [tons/yr]
Adams	1,718	2,246	716	9	15
Arapahoe	546	299	187	0	3
Boulder	174	594	135	0	3
Broomfield	13	143	9	0	0
Crowley	46	1	62	0	0
Denver	29	76	13	0	1
Douglas	0	0	0	0	0
Elbert	34	282	22	0	1
El Paso	0	0	0	0	0
Fremont	12	250	7	0	0
Jefferson	4	0	7	0	0
Kit Carson	6	104	3	0	0
Larimer	35	471	22	0	1
Lincoln	10	341	8	0	0
Logan	357	104	133	1	6
Morgan	583	728	541	97	3
Phillips	28	39	18	0	1
Pueblo	0	0	0	0	0
Sedgwick	1	9	0	0	0
Teller	0	0	0	0	0
Washington	212	3,309	156	0	6
Weld	15,768	71,930	10,688	19	555
Yuma	4,832	7,127	2,684	4	176
Totals	**24,408**	**88,989**	**15,412**	**131**	**771**

Table 5. 2010 NOx emissions [ton/yr] by county and by source category for the D-J Basin**.**

County	Drill rigs	Exempt engines	Heaters	Workover Rigs	Compressor Engines	Glycol Dehydrator	Other Categories	Totals
Adams	11	147	29	29	1,494	0	8	**1,718**
Arapahoe	5	17	3	3	518	0	0	**546**
Boulder	14	38	8	7	107	0	0	**174**
Broomfield	0	10	2	2	0	0	0	**13**
Crowley	0	0	0	0	46	0	0	**46**
Denver	11	6	1	1	11	0	0	**29**
Douglas	0	0	0	0	0	0	0	**0**
Elbert	2	10	2	2	19	0	0	**34**
El Paso	0	0	0	0	0	0	0	**0**
Fremont	3	6	1	1	0	0	0	**12**
Jefferson	0	0	0	0	4	0	0	**4**
Kit Carson	3	2	0	0	0	0	0	**6**
Larimer	0	22	4	4	4	0	0	**35**
Lincoln	2	2	0	0	6	0	0	**10**
Logan	14	19	4	4	317	0	0	**357**
Morgan	2	11	2	2	468	6	93	**583**
Phillips	5	3	1	1	19	0	0	**28**
Pueblo	0	0	0	0	0	0	0	**0**
Sedgwick	0	1	0	0	0	0	0	**1**
Teller	0	0	0	0	0	0	0	**0**
Washington	36	75	15	15	71	0	0	**212**
Weld	4,255	2,598	514	504	7,734	6	157	**15,768**
Yuma	1,906	803	159	156	1,808	0	0	**4,832**
Totals	**6,267**	**3,769**	**746**	**731**	**12,625**	**12**	**259**	**24,408**

Table 6. 2010 VOC emissions [ton/yr] by county and by source category for the D-J Basin.

County	Drill rigs	Fugitives	Large condensate tanks	Pneumatic devices	Pneumatic pumps	Small condensate tanks	Truck loading of condensate liquid	Venting - blowdowns	Venting - initial completions	Venting - recompletions	Compressor Engines	Glycol Dehydrator	Other Categories	Totals
Adams	1	450	729	595	43	127	17	37	1	1	155	32	58	**2,246**
Arapahoe	0	59	100	68	5	18	2	2	1	1	13	16	14	**299**
Boulder	1	102	238	167	11	41	5	13	1	2	9	0	4	**594**
Broomfield	0	25	57	42	3	10	1	4	0	0	0	0	1	**143**
Crowley	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
Denver	1	15	26	23	2	5	1	1	1	1	0	0	1	**76**
Douglas	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Elbert	0	26	0	40	3	156	2	1	0	0	1	0	53	**282**
El Paso	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Fremont	0	16	0	25	2	204	2	0	0	0	0	0	1	**250**
Jefferson	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Kit Carson	0	5	0	8	1	87	1	2	0	0	0	0	0	**104**
Larimer	0	59	153	90	7	154	5	1	0	0	0	0	2	**471**
Lincoln	0	5	0	8	1	318	3	0	0	0	0	0	5	**341**
Logan	1	49	0	74	5	847	9	1	1	2	33	7	10	**104**
Morgan	0	32	0	44	3	376	4	2	0	0	108	17	143	**728**
Phillips	0	8	0	13	1	0	0	3	1	1	6	6	0	**39**
Pueblo	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Sedgwick	0	1	0	2	0	5	0	0	0	0	0	0	0	**9**
Teller	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Washington	3	200	0	303	22	2,690	27	12	4	5	9	6	29	**3,309**
Weld	295	7,317	38,985	10,513	761	7,784	902	1,654	413	556	2,155	127	469	**71,930**
Yuma	132	2,128	0	3,225	235	0	0	475	185	249	296	121	82	**7,127**
Totals	**434**	**10,498**	**40,288**	**15,238**	**1,104**	**12,821**	**980**	**2,208**	**608**	**819**	**2,786**	**332**	872	**88,989**