BLACK HILLS COST OF SERVICE GAS COMPANY ("COSGCO") FINANCIAL MODEL

EXAMPLE MODEL -- FOR DISCUSSION PURPOSES ONLY

Jun-15

Please direct questions to:

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Key	Blue Font =	Input Values
	Green Font =	Linked to other cells within workbook
	Black Font =	Result of an equation
	Red Font =	**References & Formulas**
	Yellow Box=	**Input Variable**

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Line N	*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab:	**DRIVERS & ASSUMPTIONS**	FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
4	**Drilling Capital & Production Assumptions**														
5	Proven Developed Producing Reserves Acquired (MMcfe)				20,000										
6	Acquisition Price Assumption per mcfe Reserves				$ 1.00										
7	Acquisition Capital Investment			=F5*F6	$ 20,000										
8	Buy-In Wells				11	7	5	4	6	5	6	7	6	6	6
9	Cumulative Participating Wells			=E9+F8	11	18	23	27	33	38	44	51	57	63	69
10	Average Well Cost			=F17	$ 11,000	$ 11,204	$ 11,151	$ 11,094	$ 10,761	$ 10,412	$ 10,046	$ 10,232	$ 10,422	$ 10,614	$ 10,811
11	Drilling Capital			=F8*F10	$ 121,000	$ 78,425	$ 55,757	$ 44,374	$ 64,565	$ 52,059	$ 60,278	$ 71,626	$ 62,529	$ 63,686	$ 52,349
12	Total Capital Expenditures-Depletable			=F7+F11	$ 141,000	$ 78,425	$ 55,757	$ 44,374	$ 64,565	$ 52,059	$ 60,278	$ 71,626	$ 62,529	$ 63,686	$ 52,349
13	Capital Expenditures-Depreciable		(a1)		$ 7,500	$ 12,500	$ 9,000	$ 7,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	Grand Total Capital Expenditures			=F12+F13	148,500	90,925	64,757	51,374	64,565	52,059	60,278	71,626	62,529	63,686	52,349
15				INPUT											
16				OPTION											
17	Capital Expenditures-Avg Well Cost			2	11,000	11,204	11,151	11,094	10,761	10,412	10,046	10,232	10,422	10,614	10,811
18	1	High	+5%	FLEX %	11,550	11,764	11,709	11,648	11,299	10,932	10,549	10,744	10,943	11,145	11,351
19	2	Base		5.00%	11,000	11,204	11,151	11,094	10,761	10,412	10,046	10,232	10,422	10,614	10,811
20	3	Low	-5%		10,450	10,643	10,594	10,539	10,223	9,891	9,544	9,721	9,900	10,084	10,270
21				OPTION											
22	Gas Production (Mcf)			2		12,000,000	14,000,000	15,000,000	15,500,000	17,500,000	17,000,000	20,000,000	21,000,000	22,500,000	23,000,000
23	1	High	+5%	FLEX %		12,600,000	14,700,000	15,750,000	16,275,000	18,375,000	17,850,000	21,000,000	22,050,000	23,625,000	24,150,000
24	2	Base		5.00%		12,000,000	14,000,000	15,000,000	15,500,000	17,500,000	17,000,000	20,000,000	21,000,000	22,500,000	23,000,000
25	3	Low	-5%			11,400,000	13,300,000	14,250,000	14,725,000	16,625,000	16,150,000	19,000,000	19,950,000	21,375,000	21,850,000
26	Gas Production (MMBTU)					12,600,000	14,700,000	15,750,000	16,275,000	18,375,000	17,850,000	21,000,000	22,050,000	23,625,000	24,150,000
27	**Regulatory Assumptions**			INPUT											
28	Equity %			60%		60%	60%	60%	60%	60%	60%	60%	60%	60%	60%
29	Equity Return Authorized			9.86%		9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%
30	Debt %			40%		40%	40%	40%	40%	40%	40%	40%	40%	40%	40%
31	Interest Rate			4.50%		4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
32	Return on Investment Base			=(G28*G29)+(G30*G31)		7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%
33	Escalation Rate (Inflation)			1.85%		1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%	1.85%
34	Cumulative Escalation					101.85%	103.73%	105.65%	107.61%	109.60%	111.63%	113.69%	115.79%	117.94%	120.12%
35	Depreciable Life (Years)			20.00		20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
36	Straight Line Depreciation Rate			=1/G35		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
37															

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Line N	*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab:	**DRIVERS & ASSUMPTIONS**	FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
38	**Commodity Market Price Assumptions**														
39	**Natural Gas**														
40	Nymex Futures Contracts *[FOR REFERENCE ONLY]*					*$ 3.35*	*$ 3.51*	*$ 3.69*	*$ 3.90*	*$ 4.15*	*$ 4.40*	*$ 4.65*	*$ 4.89*	*$ 5.11*	*$ 5.34*
41	Ventyx Long Term Fcst					$ 2.86	$ 3.18	$ 3.49	$ 4.37	$ 5.49	$ 5.89	$ 6.34	$ 6.48	$ 6.59	$ 6.71
42	EIA Long Term Fcst					$ 3.82	$ 3.90	$ 4.09	$ 4.61	$ 5.07	$ 5.54	$ 5.79	$ 5.97	$ 6.25	$ 6.48
43	Average Forecasted Price			=AVERAGE(41:42)		$ 3.34	$ 3.54	$ 3.79	$ 4.49	$ 5.28	$ 5.72	$ 6.07	$ 6.22	$ 6.42	$ 6.59
44				INPUT											
45	Heat (BTU) Content Factor			105%		105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
46				OPTION											
47	Gas Price			2		$ 3.34	$ 3.54	$ 3.79	$ 4.49	$ 5.28	$ 5.72	$ 6.07	$ 6.22	$ 6.42	$ 6.59
48	1	High	+5%	FLEX %		$ 3.51	$ 3.72	$ 3.98	$ 4.71	$ 5.54	$ 6.00	$ 6.37	$ 6.53	$ 6.74	$ 6.92
49	2	Base		5.00%		$ 3.34	$ 3.54	$ 3.79	$ 4.49	$ 5.28	$ 5.72	$ 6.07	$ 6.22	$ 6.42	$ 6.59
50	3	Low	-5%			$ 3.17	$ 3.36	$ 3.60	$ 4.27	$ 5.02	$ 5.43	$ 5.76	$ 5.91	$ 6.10	$ 6.26
51	**Tax Assumptions**														
52	Federal Tax Rate (Statutory)					35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
53	State Tax Rate (Statutory)					4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%	4.6%
54	Combined Tax Rate			=G52+(G53*(1-G52))		38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
55	Tax Gross Up Rate			=1/(1-G54)		1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
56	Amount of Capital to Intangible Drilling Cost Deduction					85%	85%	85%	85%	85%	85%	85%	85%	85%	85%
57	Amount of Capital to Depletable Leaseholds					5%	5%	5%	5%	5%	5%	5%	5%	5%	5%
58	Amount of Capital to Tangibles					10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
59															
60	**Footnotes**														
61	(a1)	Depreciable capex includes water lines for drilling operations, roads and other facilities													

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
2	Line No.	*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
3	Tab:	**OUTPUTS**	FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
4	**Price per Mcf Comparison**														
5	COSGCO Price Calculation per MMBTU			='Financial Model'!H66		$ 5.26	$ 4.91	$ 4.73	$ 4.75	$ 4.78	$ 4.74	$ 4.69	$ 4.64	$ 4.61	$ 4.52
6	'16-'20 Simple Avg			=AVERAGE(G5:K5)	4.88										
7	'16-'25 Simple Avg			=AVERAGE(G5:Q5)	4.76										
8	Nat Gas Market Price Forecast per MMBTU			='Financial Model'!H67		$ 3.34	$ 3.54	$ 3.79	$ 4.49	$ 5.28	$ 5.72	$ 6.07	$ 6.22	$ 6.42	$ 6.59
9	'16-'20 Simple Avg			=AVERAGE(G8:K8)	4.09										
10	'16-'25 Simple Avg			=AVERAGE(G8:Q8)	5.15										
11															
12	Gas Volumes MMBTU			='Drivers&Assumptions'!G26		12,600,000	14,700,000	15,750,000	16,275,000	18,375,000	17,850,000	21,000,000	22,050,000	23,625,000	24,150,000
13															
14	**Net Present Value (NPV) Analysis-Base Case**		(a2)												
15	Cost of market purchases			=(G8*G12)/1000		42,104	52,041	59,638	73,069	97,006	102,014	127,397	137,231	151,737	159,192
16	Discount Rate			='Drivers&Assumptions'!G32	Mid-Year?	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%
17	Discount Period			=IF($F$17="Y",G2-$F$2-0.5,G2-$F$2)	Y	0.50	1.50	2.50	3.50	4.50	5.50	6.50	7.50	8.50	9.50
18	Discount Factor			=1/((1+$G$16)^(G17))		0.96	0.89	0.83	0.77	0.72	0.66	0.62	0.57	0.53	0.49
19	Present Values of Market Purchase Costs			=G15*G18		40,568	46,550	49,525	56,332	69,428	67,782	78,584	78,587	80,670	78,570
20	Sum of Present Values			=SUM(G19:Q19)	646,597										
21	Cost of COSGCO pricing			=(G5*G12)/1000		66,239	72,127	74,459	77,280	87,859	84,538	98,445	102,289	108,844	109,172
22	Discount Factor			=G18		0.96	0.89	0.83	0.77	0.72	0.66	0.62	0.57	0.53	0.49
23	Present Values of COSGCO pricing			=G21*G22		63,822	64,517	61,833	59,578	62,882	56,171	60,726	58,577	57,866	53,883
24	Sum of Present Values			=SUM(G23:Q23)	599,855										
25	Delta Mkt v COSGCO = Hedge Cost/(Credit)			=G21-G15		24,134	20,086	14,821	4,211	(9,146)	(17,475)	(28,951)	(34,942)	(42,893)	(50,020)
26	Discount Factor			=G18		0.96	0.89	0.83	0.77	0.72	0.66	0.62	0.57	0.53	0.49
27	Present Values of Hedge Cost/(Credit)			=G25*G26		23,254	17,967	12,308	3,247	(6,546)	(11,611)	(17,859)	(20,010)	(22,804)	(24,688)
28	Sum of Present Values			=SUM(G27:Q27)	(46,742)										
29															
30	**NPV Sensitivities:**				10YEAR	NPV Customer (Savings)/Cost		Commodity Price							
31								Low - 5%	Base	High + 5%					
32							Low - 5%	15,681	(25,061)	(66,160)					
33						Commodity Production	Base	(3,629)	(46,742)	(89,265)					
34							High + 5%	(23,486)	(68,613)	(111,683)					
35															
36								Commodity Price							
37								Low - 5%	Base	High + 5%					
38							High + 5%	16,817	(25,858)	(68,971)					
39						Capital Spend	Base	(3,629)	(46,742)	(89,265)					
40							Low - 5%	(24,514)	(67,627)	(108,422)					
41															
42															
43															
44															
45															
46	**Footnotes**														
47	(a2)	NPV analysis is focused on model years presented (i.e. '16-'25 or 10 year NPV) for purposes of the immediate analysis; COSGCO program contemplates longer term, life of well, NPV analysis													

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
4	**COSGCO Gas Production**															
5		Production MMBTU		(a3)	='Drivers&Assumptions'!G26	Allocation %	12,600,000	14,700,000	15,750,000	16,275,000	18,375,000	17,850,000	21,000,000	22,050,000	23,625,000	24,150,000
6			Iowa Participation	(a4)	=H5*$G$6	24%	3,002,479	3,502,893	3,753,099	3,878,202	4,378,616	4,253,512	5,004,132	5,254,339	5,629,649	5,754,752
7			Kansas Participation		=H5*$G$7	18%	2,256,198	2,632,231	2,820,248	2,914,256	3,290,289	3,196,281	3,760,331	3,948,347	4,230,372	4,324,380
8			Nebraska Participation		=H5*$G$8	22%	2,811,570	3,280,165	3,514,463	3,631,612	4,100,207	3,983,058	4,685,950	4,920,248	5,271,694	5,388,843
9			Colorado Participation		=H5*$G$9	26%	3,297,521	3,847,107	4,121,901	4,259,298	4,808,884	4,671,488	5,495,868	5,770,661	6,182,851	6,320,248
10			Wyoming Participation		=H5*$G$10	9%	1,128,099	1,316,116	1,410,124	1,457,128	1,645,145	1,598,140	1,880,165	1,974,174	2,115,186	2,162,190
11			South Dakota Participation		=H5*$G$11	1%	104,132	121,488	130,165	134,504	151,860	147,521	173,554	182,231	195,248	199,587
12			% of Paticipating State's Firm Demand		=H5/$F$170	100%	17%	20%	22%	22%	25%	25%	29%	30%	33%	33%
13																
14	**COSGCO Stand-Alone Income Statement**															
15			Revenues		=(H5*H68)/1000+H160		$ 55,968	$ 76,720	$ 90,092	$ 110,305	$ 141,419	$ 149,763	$ 178,102	$ 190,839	$ 210,200	$ 221,233
16			Expenses		=H86+H89+((H15-H86-H89)*H102)		61,460	77,410	86,504	99,323	118,418	121,232	141,584	149,850	163,929	170,636
17			Net Income/(Loss)		=H15-H16		(5,492)	(690)	3,588	10,981	23,001	28,531	36,518	40,989	46,271	50,598
18																
19	**ROE Sharing Band Determination**															
20			Equity Deployed		=H36*H40		106,895	132,766	144,210	153,412	159,578	162,949	170,979	177,950	181,193	180,342
21			ROE Actual		=H17/H20		-5.14%	-0.52%	2.49%	7.16%	14.41%	17.51%	21.36%	23.03%	25.54%	28.06%
22			ROE Authorized BEFORE Sharing		9.86%		9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%
23			ROE Authorized AFTER Sharing		=IF(H21>H22,MIN(H22+0.01,H21),MAX(H22-0.01,H21))		8.86%	8.86%	8.86%	8.86%	10.86%	10.86%	10.86%	10.86%	10.86%	10.86%
24			Net Income Shortfall/(Excess)		=(H20*H23)-H17		14,963	12,453	9,189	2,611	(5,671)	(10,835)	(17,950)	(21,664)	(26,594)	(31,012)
25			Times: Tax Gross Up		='Drivers&Assumptions'!G55		1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
26			Hedge Cost/(Credit)		=H24*H25		$ 24,134	$ 20,086	$ 14,821	$ 4,211	$ (9,146)	$ (17,475)	$ (28,951)	$ (34,942)	$ (42,893)	$ (50,020)
27																

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
28	**Investment Base**															
29		Investment Base Rollforward														
30			Beginning Balance		=G34	$ -	$ 148,500	$ 207,816	$ 234,736	$ 245,963	$ 265,411	$ 266,515	$ 276,647	$ 293,282	$ 299,884	$ 304,094
31			Plus: Capital Expenditures		='Drivers&Assumptions'!G14	148,500	90,925	64,757	51,374	64,565	52,059	60,278	71,626	62,529	63,686	52,349
32			Less: Depr, Depl & Amort ("DD&A")		=-H134	-	(25,804)	(30,627)	(32,317)	(36,785)	(40,334)	(39,299)	(43,610)	(44,082)	(47,416)	(47,393)
33			+/- Change in Accum Def Inc Tax ("ADIT")		=-H104	-	(5,805)	(7,210)	(7,831)	(8,331)	(10,622)	(10,846)	(11,381)	(11,845)	(12,060)	(12,004)
34			Ending Balance		=H30+SUM(H31:H33)	148,500	207,816	234,736	245,963	265,411	266,515	276,647	293,282	299,884	304,094	297,046
35																
36			Average Balance		=(G34+H34)/2		$ 178,158	$ 221,276	$ 240,349	$ 255,687	$ 265,963	$ 271,581	$ 284,965	$ 296,583	$ 301,989	$ 300,570
37																
38	**Revenue Requirement**															
39		Return On Investment														
40			Equity %		='Drivers&Assumptions'!G28		60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%	60.00%
41			Equity Return Authorized	(b)	='Drivers&Assumptions'!G29		9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%	9.86%
42			Debt %		='Drivers&Assumptions'!G30		40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%	40.00%
43			Interest Rate		='Drivers&Assumptions'!G31		4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%
44			Return on Investment Base ("ROIB")		=(H40*H41)+(H42*H43)		7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%	7.72%
45																
46			Authorized Return		=H36*H44		$ 13,747	$ 17,074	$ 18,545	$ 19,729	$ 20,522	$ 20,955	$ 21,988	$ 22,884	$ 23,301	$ 23,192
47																
48		Expense Recovery														
49			Depreciation, Depletion & Amort ("DD&A")		=-H32		$ 25,804	$ 30,627	$ 32,317	$ 36,785	$ 40,334	$ 39,299	$ 43,610	$ 44,082	$ 47,416	$ 47,393
50			Lease Operating Expenses	(c)			3,056	3,423	3,804	4,197	4,384	4,465	4,661	4,863	5,543	6,126
51			Production Taxes	(d)			3,363	4,696	5,616	7,003	9,145	9,863	11,947	13,038	14,626	15,679
52			Program Administrative Fees	(e)			255	259	264	269	274	279	284	289	295	300
53			Gathering & Processing Expenses	(f)			25,200	30,498	33,281	35,026	40,278	39,851	47,750	51,065	55,725	58,017
54			Marketing/Scheduling/Takeaway Pipeline Capacity Fees	(g)			1,906	2,272	2,584	2,558	2,927	2,867	3,546	3,734	4,169	4,296
55			General & Administrative ("G&A")	(h)			2,037	2,075	2,113	2,152	2,192	2,233	2,274	2,316	2,359	2,402
56																
57			Total Operating Expenses		=SUM(H49:H56)		61,620	73,850	79,979	87,991	99,534	98,857	114,073	119,389	130,133	134,214
58			Income Taxes		=H36*H40*H41*H102*H25		6,460	8,023	8,715	9,271	9,644	9,847	10,333	10,754	10,950	10,898
59			Total Recoverable Expenses		=H57+H58		68,080	81,874	88,694	97,262	109,177	108,704	124,405	130,143	141,083	145,112
60																
61		Gross Revenue Requirement (Before Sharing)			=H46+H59		$ 81,826	$ 98,947	$ 107,239	$ 116,990	$ 129,699	$ 129,659	$ 146,393	$ 153,027	$ 164,385	$ 168,304
62		Revenue Credit-Oil and Nat Gas Liquid Sales Proceeds			=-H160		(13,864)	(24,679)	(30,454)	(37,236)	(44,413)	(47,749)	(50,706)	(53,608)	(58,463)	(62,042)
63		ROE Adjustment (+/-1% Max/Min)			=H36*H40*(H23-H41)*H25		(1,724)	(2,141)	(2,326)	(2,474)	2,574	2,628	2,758	2,870	2,922	2,909
64		Net Revenue Requirement			=SUM(H61:H63)		66,239	72,127	74,459	77,280	87,859	84,538	98,445	102,289	108,844	109,172
65																
66	**Gas Price Per Mcf**															
67		COSGCO Price Calculation per MMBTU			=H64/(H5/1000)		$ 5.26	$ 4.91	$ 4.73	$ 4.75	$ 4.78	$ 4.74	$ 4.69	$ 4.64	$ 4.61	$ 4.52
68		Nat Gas Market Price Forecast per MMBTU		(i)	='Drivers&Assumptions'!G47		$ 3.34	$ 3.54	$ 3.79	$ 4.49	$ 5.28	$ 5.72	$ 6.07	$ 6.22	$ 6.42	$ 6.59

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
69																
70	**Income Statement (COSGCO + BHUH HEDGE)**															
71		Revenues														
72			Gas Market Sales Revenue		=(H5*H68)/1000		$ 42,104	$ 52,041	$ 59,638	$ 73,069	$ 97,006	$ 102,014	$ 127,397	$ 137,231	$ 151,737	$ 159,192
73			Oil & NGL Market Sales Revenue		=-H62		13,864	24,679	30,454	37,236	44,413	47,749	50,706	53,608	58,463	62,042
74			Hedge Cost/(Credit)		=H26		24,134	20,086	14,821	4,211	(9,146)	(17,475)	(28,951)	(34,942)	(42,893)	(50,020)
75			Total Revenues		=SUM(H72:H74)		80,102	96,806	104,913	114,516	132,273	132,288	149,151	155,897	167,307	171,213
76																
77		Expenses														
78			DD&A		=H49		$ 25,804	$ 30,627	$ 32,317	$ 36,785	$ 40,334	$ 39,299	$ 43,610	$ 44,082	$ 47,416	$ 47,393
79			Lease Operating Expenses		=H50		3,056	3,423	3,804	4,197	4,384	4,465	4,661	4,863	5,543	6,126
80			Production Taxes		=H51		3,363	4,696	5,616	7,003	9,145	9,863	11,947	13,038	14,626	15,679
81			Program Administrative Fees		=H52		255	259	264	269	274	279	284	289	295	300
82			Gathering & Processing Expenses		=H53		25,200	30,498	33,281	35,026	40,278	39,851	47,750	51,065	55,725	58,017
83			Marketing/Scheduling/Takeaway Pipeline Capacity Fees		=H54		1,906	2,272	2,584	2,558	2,927	2,867	3,546	3,734	4,169	4,296
84			G&A		=H55		2,037	2,075	2,113	2,152	2,192	2,233	2,274	2,316	2,359	2,402
85																
86			Total Operating Expenses		=SUM(H78:H84)		61,620	73,850	79,979	87,991	99,534	98,857	114,073	119,389	130,133	134,214
87																
88			Earnings Before Interest & Taxes		=H75-H86		18,482	22,956	24,934	26,525	32,739	33,431	35,078	36,508	37,174	36,999
89			Interest		=H36*H42*H43		3,207	3,983	4,326	4,602	4,787	4,888	5,129	5,338	5,436	5,410
90			Earnings Before Tax		=H88-H89		15,276	18,973	20,608	21,923	27,952	28,542	29,949	31,170	31,738	31,589
91			Taxes		=H90*H102		5,805	7,210	7,831	8,331	10,622	10,846	11,381	11,845	12,060	12,004
92			Net Income		=H90-H91		9,471	11,763	12,777	13,592	17,330	17,696	18,568	19,325	19,678	19,585
93			ACTUAL ROE		=H92/(H36*H40)		8.86%	8.86%	8.86%	8.86%	10.86%	10.86%	10.86%	10.86%	10.86%	10.86%
94	**Tax Reconciliation**															
95		Earnings Before Tax			=H90		$ 15,276	$ 18,973	$ 20,608	$ 21,923	$ 27,952	$ 28,542	$ 29,949	$ 31,170	$ 31,738	$ 31,589
96		Plus: Book Depreciation/Depletion			=H78		25,804	30,627	32,317	36,785	40,334	39,299	43,610	44,082	47,416	47,393
97		Less: Tax DD&A			=-H142		(198,436)	(61,620)	(53,017)	(70,258)	(59,060)	(65,414)	(75,281)	(66,603)	(67,050)	(56,881)
98		Taxable Income/(Loss) BF NOL			=SUM(H95:H97)		(157,356)	(12,020)	(92)	(11,550)	9,226	2,427	(1,721)	8,649	12,104	22,101
99		NOL Generated/(Used)			=-H98		157,356	12,020	92	11,550	(9,226)	(2,427)	1,721	(8,649)	(12,104)	(22,101)
100		NOL Carryforward Balance			=G100+H99		157,356	169,376	169,468	181,018	171,793	169,365	171,087	162,437	150,333	128,232
101		Taxable Income After NOL			=H98+H99		-	-	-	-	-	-	-	-	-	-
102		Fed & State Combined Tax Rate			='Drivers&Assumptions'!G54		38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
103		Current Tax			=H101*H102		-	-	-	-	-	-	-	-	-	-
104		Deferred Tax			=H91-H103		5,805	7,210	7,831	8,331	10,622	10,846	11,381	11,845	12,060	12,004
105																

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
106	**Depreciation, Depletion & Amortization (DD&A) Calculations**															
107		Capital Costs for Depletion														
108		Depletion Pool														
109			Beginning of Year Reserves		='Drivers&Assumptions'!G87		125,000,000	150,000,000	165,000,000	170,000,000	185,000,000	200,000,000	225,000,000	245,000,000	255,000,000	265,000,000
110			Plus: Reserve Additions		=H112-H111-H109		39,130,000	32,480,000	23,960,000	34,850,000	37,510,000	47,160,000	45,250,000	36,340,000	38,050,000	38,670,000
111			Less: Annual Production (Mcfe)		='Drivers&Assumptions'!G80		(14,130,000)	(17,480,000)	(18,960,000)	(19,850,000)	(22,510,000)	(22,160,000)	(25,250,000)	(26,340,000)	(28,050,000)	(28,670,000)
112			Total End of Yr Reserves (Mcfe)		=I109		150,000,000	165,000,000	170,000,000	185,000,000	200,000,000	225,000,000	245,000,000	255,000,000	265,000,000	275,000,000
113			Depletion Factor		=-H111/H109		11.30%	11.65%	11.49%	11.68%	12.17%	11.08%	11.22%	10.75%	11.00%	10.82%
114			Depletable Pool		=H118+H119		$ 219,425	$ 250,378	$ 265,575	$ 299,623	$ 316,697	$ 338,441	$ 372,567	$ 393,286	$ 414,689	$ 421,422
115			Depletion Expense		=H114*H113		24,804	29,177	30,517	34,985	38,534	37,499	41,810	42,282	45,616	45,593
116																
117		Depletion Pool Rollforward														
118			Beg Balance Depletable Pool		=G121	-	$ 141,000	$ 194,621	$ 221,201	$ 235,058	$ 264,637	$ 278,162	$ 300,941	$ 330,757	$ 351,003	$ 369,073
119			Add: Capex to Depletion Pool		='Drivers&Assumptions'!G12	141,000	78,425	55,757	44,374	64,565	52,059	60,278	71,626	62,529	63,686	52,349
120			Less: Depletion		=-H115	-	(24,804)	(29,177)	(30,517)	(34,985)	(38,534)	(37,499)	(41,810)	(42,282)	(45,616)	(45,593)
121			End Balance Depletable Pool		=SUM(H118:H120)	141,000	194,621	221,201	235,058	264,637	278,162	300,941	330,757	351,003	369,073	375,829
122																
123		Capital Costs for Depreciation														
124			Depreciable Basis		=G130+H130		$ 20,000	$ 29,000	$ 36,000	$ 36,000	$ 36,000	$ 36,000	$ 36,000	$ 36,000	$ 36,000	$ 36,000
125			Depreciation Rate		='Drivers&Assumptions'!G58		5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
126			Depreciation Expense		=H124*H125		1,000	1,450	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
127																
128		Depreciable Basis Rollforward														
129			Beg Balance Depreciable Basis		=G132		$ 7,500	$ 19,000	$ 26,550	$ 31,750	$ 29,950	$ 28,150	$ 26,350	$ 24,550	$ 22,750	$ 20,950
130			Add: Capex		='Drivers&Assumptions'!G13	7,500	12,500	9,000	7,000	-	-	-	-	-	-	-
131			Less: Depreciation		=-H126	-	(1,000)	(1,450)	(1,800)	(1,800)	(1,800)	(1,800)	(1,800)	(1,800)	(1,800)	(1,800)
132			End Balance Depreciable Basis		=SUM(H129:H131)	7,500	19,000	26,550	31,750	29,950	28,150	26,350	24,550	22,750	20,950	19,150
133																
134			Total DD&A		=H115+H126		$ 25,804	$ 30,627	$ 32,317	$ 36,785	$ 40,334	$ 39,299	$ 43,610	$ 44,082	$ 47,416	$ 47,393
135																
136		Tax DD&A														
137			Depletable Pool (Tax)		=G137+G147+H147		$ 23,921	$ 26,709	$ 28,928	$ 32,156	$ 34,759	$ 37,773	$ 41,354	$ 44,481	$ 47,665	$ 50,282
138			Depletion Factor		=H113		11.30%	11.65%	11.49%	11.68%	12.17%	11.08%	11.22%	10.75%	11.00%	10.82%
139			Tax Depletion Deduction		=H137*H138		2,704	3,112	3,324	3,755	4,229	4,185	4,641	4,782	5,243	5,440
140			Intangible Drilling Cost Deduction		=H146+G146		187,661	47,394	37,718	54,880	44,250	51,236	60,882	53,150	54,133	44,497
141			Tax Depreciation				8,071	11,114	11,975	11,624	10,580	9,992	9,758	8,671	7,674	6,945
142			Total Tax DD&A		=SUM(H139:H141)		198,436	61,620	53,017	70,258	59,060	65,414	75,281	66,603	67,050	56,881
143																
144		Tax Basis Rollforward														
145			Beg Balance Tax Basis		=G150		$ 148,500	$ 40,989	$ 44,126	$ 42,483	$ 36,790	$ 29,789	$ 24,653	$ 20,998	$ 16,924	$ 13,560
146			Add: Drilling Capex		=H119*'Drivers&Assumptions'!G56	121,000	66,661	47,394	37,718	54,880	44,250	51,236	60,882	53,150	54,133	44,497
147			Add: Depletable Capex		=H119*'Drivers&Assumptions'!G57	20,000	3,921	2,788	2,219	3,228	2,603	3,014	3,581	3,126	3,184	2,617
148			Add: Depreciable Capex		=(H119*'Drivers&Assumptions'!G58)+H130	7,500	20,342	14,576	11,437	6,456	5,206	6,028	7,163	6,253	6,369	5,235
149			Less: Tax DD&A		=-H142	-	(198,436)	(61,620)	(53,017)	(70,258)	(59,060)	(65,414)	(75,281)	(66,603)	(67,050)	(56,881)

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
150			End Balance Tax Basis		=SUM(H145:H149)	148,500	40,989	44,126	42,483	36,790	29,789	24,653	20,998	16,924	13,560	9,028

A1	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	Line No.		*Dollar Amounts in $Thousands*		Years:	0	1	2	3	4	5	6	7	8	9	10
	Tab: FINANCIAL MODEL			FN	REF & FORMULAS		12/31/2016	12/31/2017	12/31/2018	12/31/2019	12/31/2020	12/31/2021	12/31/2022	12/31/2023	12/31/2024	12/31/2025
151																
152	**Liquids Credit Determination**															
153		Production														
154			Net bbl Oil				25,000	45,000	60,000	110,000	120,000	125,000	130,000	130,000	145,000	145,000
155			Oil Price Forecast				$ 67.14	$ 72.75	$ 78.09	$ 83.07	$ 86.53	$ 90.22	$ 93.94	$ 97.83	$ 101.85	$ 106.05
156			Oil Revenue		=(H154*H155)/1000		$ 1,678	$ 3,274	$ 4,685	$ 9,138	$ 10,384	$ 11,278	$ 12,213	$ 12,717	$ 14,768	$ 15,378
157			Net NGL Bbl				330,000	535,000	600,000	615,000	715,000	735,000	745,000	760,000	780,000	800,000
158			NGL Price Forecast				$ 36.92	$ 40.01	$ 42.95	$ 45.69	$ 47.59	$ 49.62	$ 51.67	$ 53.80	$ 56.02	$ 58.33
159			NGL Revenue		=(H157*H158)/1000		$ 12,185	$ 21,406	$ 25,769	$ 28,098	$ 34,029	$ 36,472	$ 38,493	$ 40,891	$ 43,694	$ 46,664
160		Total Liquids Revenue ($ Thousands)			=(H156+H159)		$ 13,864	$ 24,679	$ 30,454	$ 37,236	$ 44,413	$ 47,749	$ 50,706	$ 53,608	$ 58,463	$ 62,042
161																
162	**Footnotes**															
163		(a3)	Hydrocarbon production and reserves based on assumed proven developed producing (PDP) wells and supplemental future horizontal wells drilled in established basin; gas content varies but includes both dry gas and liquid-rich production areas													
164		(a4)	State		Annual Demand	Allocation%										
165			Iowa		17,300,000	24%										
166			Kansas		13,000,000	18%										
167			Nebraska		16,200,000	22%										
168			Colorado		19,000,000	26%										
169			Wyoming		6,500,000	9%										
170			South Dakota		600,000	1%										
171			Total		72,600,000	100%										
172		(b)	Per 2014 Regulatory Research Associates "Major Rate Case Decisions--Calendar 2014" Report dated 1/15/15													
173		(c)	Based on dollar per well month assumption for representative field													
174		(d)	5.75% production tax rate assumed													
175		(e)	Costs incurred for Hydrocarbon & Accounting Monitor included in this category													
176		(f)	Fees to gas processing plant to extract natural gas liquids ("NGLs") and refine/treat gas to pipeline quality specifications													
177		(g)	Fees to gas marketer to facilitate market sales and fees to interstate or intrastate pipelines for takeaway capacity to move processed gas to market													
178		(h)	Program administration fee to gas field operator													
179		(i)	Long term forecast for gas price = average EIA & Ventyx Spring 2015 Reference Case in nominal dollars (i.e. escalated for inflation)													
180		(j)	Long term forecast for oil price = average of base case for WTI Oil from EIA & Ventyx Spring 2015 Reference Case in nominal dollars (i.e. escalated for inflation)													
181		(k)	Forecast for NGL price = 58% of Oil based upon historical correlation to WTI in nominal dollars (i.e. escalated for inflation)													
182		(l)	Capital outlay for drilling and completion of horizontal wells necessary to ramp up production to target volumes with additional wells drilled thereafter to maintain target production levels													
183		(m)	Capital outlay for infrastructure associated with drilling field locations; tangible equipment that is depreciated (e.g. water lines, access roads, compressor stations, etc.)													
184		(n)	Assumes tax rules allowing for "percentage depletion" which is based on a percentage of sales regardless of tax basis do not provide incremental benefit; thus, tax depletion rate held equal to book depletion rate													
185		(o)	Assumed to qualify for 7 year MACRS tax depreciation schedules													