

A Comparison of Natural Gas Spot Price Linear Regression Forecasting Models
 Table 4 Best Five In-Sample Equations vs EIA Core Model

Equation	Added Variables (#) indicates that this variable is significant to the #% critical value (-) indicates that this variables coefficient was negative	RANK of Equation from Methods A and B based on "In Sample" Regression Statistics	Multi-collinearity		R-squared	Adj R-squared
			w/o constant	including Constant		
1 with OLS	SP [-4] (5) STORDEV TDEVAL4 (5) (-)	23	3.32	11.56	0.157	0.127
28 with OLS	SP [-4] (-) F2LAG4 (5) SPOILL4 (5) TDVSUSWA(5)(-)	1	11.78	15.63	0.605	0.586
29 with OLS	SP [-4] (-) F2LAG4 (5) SPOILL4 (5) GASCOIL4 (5)(-) TDVSUSWA(5)(-)	2	14.81	52.23	0.652	0.631
19 with OLS	SP [-4] STORDEV (5) F2LAG4 (5) SPOILL4 (5) TDEVAL4 GASCOIL4 (5)(-) M2NTAJL6 (-)	3	73.97	91.39	0.624	0.590
16 with OLS	SP [-4] STORDEV (5) F2LAG4 (5) SPOILL4 (5) TDEVAL4 GASCOIL4 (5)(-)	4	18.46	69.14	0.617	0.588
22 OLS Stepwise Regress	F2LAG4 (5) GASCOIL4 (5)(-) SPOILL4 (5) STORDEV (5)	5	13.92	51.81	0.605	0.584

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Equation	Akaike Information	Ameyama Prediction	Statistic	Sum of Square of Difference	Root Mean Squared Error	Sum Absolute Value of Differences	Out of Sample Forecast Value 11/20/00 - 02/16/01			Durbin Watson
							Sum of Square of Difference	Root Mean Squared Error	Sum Absolute Value of Differences	
1 with OLS	-1.14	0.32	10.8	23.53	0.523	35.52	271.41	4.119	59.68	0.444
28 with OLS	-1.87	0.15	7.3	11.81	0.370	22.69	114.16	2.671	33.93	0.688
29 with OLS	-1.98	0.14	6.7	10.28	0.346	22.37	159.72	3.160	40.52	0.767
19 with OLS	-1.85	0.16	6.7	11.93	0.372	24.75	255.09	3.993	57.65	0.811
16 with OLS	-1.86	0.16	6.9	12.12	0.375	25.05	237.29	3.851	54.91	0.78
22 OLS Stepwise Regress	-1.88	0.15	No Lagged Depen. Variable	12.22	0.377	25.12	263.82	4.061	58.76	0.766