HLS Comparison
v. RIV Regulations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology	Market Condition	
Mar-87		0.020	0.437	0.278	-	Backwardated	Rising
Apr-87		(0.563)	0.165	(0.050)	-	Backwardated	Rising
May-87		(0.670)	0.442	0.014	-	Backwardated	Rising
Jun-87		(0.460)	0.674	0.232	-	Backwardated	Rising
Jul-87		(1.088)	0.757	0.340	-	Backwardated	Rising
Aug-87		0.562	0.024	(0.449)	-	Backwardated	Falling
Sep-87		1.019	0.202	(0.124)	-	Backwardated	Falling
Oct-87		(0.335)	0.234	0.003	-	Backwardated	Rising
Nov-87		0.370	(0.434)	(0.556)	-	Backwardated	Falling
Dec-87		1.829	0.014	(0.125)	-	Backwardated	Falling
Jan-88		0.213	0.228	(0.020)	-	Backwardated	Falling
Feb-88		0.359	0.188	0.009	-	Backwardated	Falling
Mar-88		1.214	0.634	0.533	-	Backwardated	Falling
Apr-88		(1.477)	0.508	0.406	-	Backwardated	Rising
May-88		0.127	0.055	(0.053)	-	Contango	Falling
Jun-88		0.526	(0.559)	(0.470)	-	Contango	Falling
Jul-88		1.253	(0.243)	(0.058)	-	Contango	Falling
Aug-88		(0.377)	(0.516)	(0.245)	-	Contango	Rising
Sep-88		0.889	(0.493)	(0.319)	-	Backwardated	Falling
Oct-88		1.385	0.424	0.334	-	Backwardated	Falling
Nov-88		(0.124)	0.370	0.009	-	Backwardated	Rising
Dec-88		(2.769)	(0.244)	(0.349)	-	Backwardated	Rising
Jan-89		(1.723)	0.570	0.151	-	Backwardated	Rising
Feb-89		0.255	0.875	0.156	-	Backwardated	Falling
Mar-89		(1.180)	1.092	0.443	-	Backwardated	Rising
Apr-89		(2.331)	0.124	(0.504)	-	Backwardated	Rising
May-89		0.859	0.868	(0.257)	-	Backwardated	Falling
Jun-89		1.323	2.346	0.811	-	Backwardated	Falling
Jul-89		(0.045)	0.851	(0.351)	-	Backwardated	Falling
Aug-89		1.363	0.631	(0.278)	-	Backwardated	Falling
Sep-89		(1.232)	0.164	(0.140)	-	Backwardated	Rising
Oct-89		(0.987)	0.051	(0.251)	-	Backwardated	Rising
Nov-89		(0.144)	(0.167)	(0.416)	-	Backwardated	Falling
Dec-89		(0.671)	0.736	0.500	-	Backwardated	Rising
Jan-90		(2.058)	0.300	(0.062)	-	Backwardated	Rising
Feb-90		1.443	1.762	0.836	-	Backwardated	Falling
Mar-90		1.637	0.419	(0.227)	-	Contango	Falling
Apr-90		1.664	(0.522)	(0.355)	-	Contango	Falling
May-90		0.526	(0.525)	0.059	-	Contango	Falling
Jun-90		1.454	(0.703)	(0.004)	-	Contango	Falling
Jul-90		(1.308)	(0.396)	0.520	-	Contango	Rising
Aug-90		(8.788)	(0.416)	0.488	-	Backwardated	Rising
Sep-90		(6.164)	1.518	1.422	-	Backwardated	Rising
Oct-90		(4.724)	0.630	(0.273)	-	Backwardated	Rising
Nov-90		3.552	0.933	(0.606)	-	Backwardated	Falling
Dec-90		4.040	(0.277)	(1.689)	-	Backwardated	Falling
Jan-91		2.895	0.101	(0.955)	-	Backwardated	Falling
Feb-91		6.251	1.818	0.579	-	Backwardated	Falling
Mar-91		0.610	1.023	(0.457)	-	Backwardated	Falling

HLS Comparison
v. RIV Regulations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology	Market Condition	
Apr-91		(0.218)	1.355	0.826	-	Backwardated	Rising
May-91		(0.462)	0.558	0.176	-	Contango	Rising
Jun-91		0.769	(0.097)	(0.261)	-	Contango	Falling
Jul-91		(0.859)	0.092	0.191	-	Backwardated	Rising
Aug-91		(0.516)	0.001	(0.093)	-	Backwardated	Rising
Sep-91		(0.860)	(0.514)	(0.596)	-	Backwardated	Rising
Oct-91		(1.312)	0.185	0.072	-	Backwardated	Rising
Nov-91		0.511	0.057	(0.158)	-	Backwardated	Falling
Dec-91		3.310	0.273	0.023	-	Backwardated	Falling
Jan-92		1.466	0.568	0.466	-	Contango	Falling
Feb-92		(0.531)	(0.348)	(0.259)	-	Contango	Rising
Mar-92		0.142	(0.135)	0.038	-	Contango	Falling
Apr-92		(1.150)	0.109	0.306	-	Contango	Rising
May-92		(0.733)	0.183	0.279	-	Contango	Rising
Jun-92		(1.741)	(0.457)	(0.363)	-	Backwardated	Rising
Jul-92		0.725	0.127	0.119	-	Backwardated	Falling
Aug-92		0.380	0.037	(0.083)	-	Backwardated	Falling
Sep-92		(0.362)	0.207	0.077	-	Backwardated	Rising
Oct-92		(0.092)	0.000	(0.181)	-	Backwardated	Falling
Nov-92		1.229	(0.191)	(0.283)	-	Contango	Falling
Dec-92		1.262	0.171	0.194	-	Contango	Falling
Jan-93		0.418	0.028	0.127	-	Contango	Falling
Feb-93		(1.248)	(0.297)	(0.137)	-	Contango	Rising
Mar-93		(0.123)	0.131	0.196	-	Contango	Rising
Apr-93		0.049	(0.058)	0.048	-	Contango	Falling
May-93		(0.039)	(0.527)	(0.313)	-	Contango	Falling
Jun-93		0.914	(0.250)	0.011	-	Contango	Falling
Jul-93		1.271	(0.351)	(0.041)	-	Contango	Falling
Aug-93		(0.098)	(0.420)	(0.038)	-	Contango	Rising
Sep-93		0.385	(0.454)	(0.054)	-	Contango	Falling
Oct-93		(0.732)	(0.479)	(0.111)	-	Contango	Rising
Nov-93		1.367	(0.434)	(0.215)	-	Contango	Falling
Dec-93		2.143	(0.548)	(0.226)	-	Contango	Falling
Jan-94		(0.117)	(0.156)	0.249	-	Contango	Rising
Feb-94		(0.169)	(0.493)	(0.183)	-	Contango	Falling
Mar-94		0.169	(0.209)	(0.107)	-	Contango	Falling
Apr-94		(1.348)	0.143	0.263	-	Backwardated	Rising
May-94		(1.599)	0.278	0.248	-	Backwardated	Rising
Jun-94		(0.302)	1.484	1.080	-	Backwardated	Rising
Jul-94		(0.551)	0.811	0.196	-	Backwardated	Rising
Aug-94		0.026	(1.013)	(1.621)	-	Backwardated	Falling
Sep-94		1.702	0.654	0.384	-	Contango	Falling
Oct-94		(0.602)	(0.377)	(0.233)	-	Contango	Rising
Nov-94		(0.846)	(0.558)	(0.421)	-	Backwardated	Rising
Dec-94		1.045	0.199	0.081	-	Contango	Falling
Jan-95		(0.623)	0.145	0.179	-	Backwardated	Rising
Feb-95		(0.347)	0.349	0.265	-	Backwardated	Rising
Mar-95		0.242	0.565	0.342	-	Backwardated	Rising
Apr-95		(1.622)	0.000	(0.137)	-	Backwardated	Rising
May-95		(0.286)	0.067	(0.185)	-	Backwardated	Falling

HLS Comparison
v. RIV Regulations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology	Market Condition	
Jun-95		1.187	(0.031)	(0.359)	-	Backwardated	Falling
Jul-95		1.310	0.100	(0.096)	-	Backwardated	Falling
Aug-95		(0.570)	0.112	(0.110)	-	Backwardated	Rising
Sep-95		(0.060)	0.461	0.177	-	Backwardated	Rising
Oct-95		0.662	0.254	(0.208)	-	Backwardated	Falling
Nov-95		(0.402)	0.449	0.168	-	Backwardated	Rising
Dec-95		(1.120)	0.381	0.062	-	Backwardated	Rising
Jan-96		(0.539)	(0.230)	(0.632)	-	Backwardated	Falling
Feb-96		0.541	0.769	0.171	-	Backwardated	Rising
Mar-96		(2.034)	1.028	0.440	-	Backwardated	Rising
Apr-96		(1.869)	1.916	0.519	-	Backwardated	Rising
May-96		1.719	1.875	(0.593)	-	Backwardated	Falling
Jun-96		1.393	1.781	0.322	-	Backwardated	Falling
Jul-96		(1.243)	0.674	(0.378)	-	Backwardated	Rising
Aug-96	0.574	(0.671)	0.682	(0.223)	-	Backwardated	Rising
Sep-96	0.863	(1.931)	1.101	0.380	-	Backwardated	Rising
Oct-96	0.189	(1.921)	0.244	(0.494)	-	Backwardated	Rising
Nov-96	0.191	1.041	0.296	(0.366)	-	Backwardated	Falling
Dec-96	0.445	(1.173)	0.526	0.141	-	Backwardated	Rising
Jan-97	1.083	0.320	0.981	0.238	-	Backwardated	Rising
Feb-97	0.004	2.528	0.206	(0.663)	-	Backwardated	Falling
Mar-97	0.601	2.245	0.854	0.334	-	Backwardated	Falling
Apr-97	0.565	1.581	0.540	0.333	-	Contango	Falling
May-97	(0.455)	(1.382)	(0.302)	(0.311)	-	Contango	Rising
Jun-97	(0.479)	1.261	(0.330)	(0.310)	-	Contango	Falling
Jul-97	(0.419)	(0.201)	(0.307)	(0.108)	-	Contango	Rising
Aug-97	(0.462)	(0.559)	(0.279)	(0.142)	-	Contango	Rising
Sep-97	(0.095)	0.393	0.004	0.147	-	Contango	Falling
Oct-97	(0.031)	(1.615)	(0.051)	0.106	-	Contango	Rising
Nov-97	(0.337)	0.900	(0.224)	(0.215)	-	Contango	Falling
Dec-97	(0.334)	1.918	(0.318)	(0.149)	-	Contango	Falling
Jan-98	(0.082)	1.917	(0.080)	0.191	-	Contango	Falling
Feb-98	(0.313)	0.676	(0.272)	(0.019)	-	Contango	Falling
Mar-98	0.139	1.825	0.206	0.481	-	Contango	Falling
Apr-98	(0.385)	(0.612)	(0.488)	(0.014)	-	Contango	Rising
May-98	(1.573)	(0.405)	(1.390)	(0.955)	-	Contango	Falling
Jun-98	(0.894)	1.458	(0.773)	0.089	-	Contango	Falling
Jul-98	(0.959)	(0.164)	(0.952)	0.060	-	Contango	Rising
Aug-98	(0.594)	0.477	(0.744)	(0.231)	-	Contango	Falling
Sep-98	(0.326)	(1.333)	(0.359)	0.057	-	Contango	Rising
Oct-98	(0.090)	0.257	(0.146)	0.115	-	Contango	Falling
Nov-98	(0.766)	1.175	(0.655)	(0.467)	-	Contango	Falling
Dec-98	(0.461)	2.030	(0.315)	0.029	-	Contango	Falling
Jan-99	(0.213)	(1.030)	(0.238)	0.266	-	Contango	Rising
Feb-99	0.217	0.759	0.254	0.429	-	Contango	Falling
Mar-99	0.706	(1.766)	0.725	0.851	-	Contango	Rising
Apr-99	(0.070)	(3.024)	0.019	0.118	-	Backwardated	Rising
May-99	(0.004)	(0.867)	(0.017)	(0.054)	-	Backwardated	Rising
Jun-99	0.449	0.337	0.581	0.320	-	Contango	Rising
Jul-99	(0.411)	(2.576)	(0.233)	(0.166)	-	Contango	Rising

HLS Comparison
v. RIV Regulations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology	Market Condition	
Aug-99	(0.501)	(1.862)	(0.417)	(0.319)	-	Contango	Rising
Sep-99	0.645	(1.888)	0.766	0.847	-	Backwardated	Rising
Oct-99	0.046	0.411	(0.055)	(0.249)	-	Backwardated	Falling
Nov-99	0.115	(1.984)	(0.044)	(0.299)	-	Backwardated	Rising
Dec-99	0.049	(1.913)	0.030	(0.226)	-	Backwardated	Rising
Jan-00	1.299	(0.321)	1.645	0.705	-	Backwardated	Rising
Feb-00	1.064	(2.373)	1.008	(0.074)	-	Backwardated	Rising
Mar-00	1.457	(0.761)	1.416	0.175	-	Backwardated	Rising
Apr-00	1.298	4.513	1.488	(0.589)	-	Backwardated	Falling
May-00	1.014	(2.902)	0.640	(0.231)	-	Backwardated	Rising
Jun-00	0.754	(2.836)	0.901	0.510	-	Backwardated	Rising
Jul-00	0.601	0.590	0.236	(1.188)	-	Backwardated	Falling
Aug-00	1.272	(0.206)	1.631	0.249	-	Backwardated	Rising
Sep-00	0.579	(3.352)	0.588	0.083	-	Backwardated	Rising
Oct-00	1.436	1.763	1.623	0.416	-	Backwardated	Falling
Nov-00	(0.379)	(2.619)	(0.572)	(1.024)	-	Backwardated	Rising
Dec-00	0.445	4.976	0.490	(0.735)	-	Backwardated	Falling
Jan-01	1.406	1.174	1.541	0.477	-	Backwardated	Rising
Feb-01	2.464	0.411	2.248	1.028	-	Backwardated	Rising
Mar-01	0.102	2.044	0.273	(0.414)	-	Contango	Falling
Apr-01	(0.441)	(0.459)	(0.255)	(0.219)	-	Contango	Rising
May-01	(1.341)	(2.354)	(1.077)	(0.802)	-	Contango	Rising
Jun-01	(0.992)	0.564	(0.940)	(0.440)	-	Contango	Falling
Jul-01	0.656	2.330	0.615	0.807	-	Backwardated	Falling
Aug-01	0.882	(0.232)	0.897	0.714	-	Backwardated	Rising
Sep-01	(0.645)	(0.566)	(1.548)	(2.244)	-	Contango	Falling
Oct-01	0.359	5.222	0.499	0.649	-	Contango	Falling
Nov-01	(1.274)	1.716	(1.272)	(0.872)	-	Contango	Falling
Dec-01	0.091	1.126	0.078	0.359	-	Contango	Falling
Jan-02	(0.715)	(1.057)	(0.667)	(0.295)	-	Contango	Rising
Feb-02	(0.012)	(0.487)	(0.076)	0.393	-	Contango	Rising
Mar-02	0.489	(3.365)	0.392	0.749	-	Contango	Rising
Apr-02	(0.510)	(2.667)	(0.384)	(0.095)	-	Contango	Rising
May-02	0.843	0.016	0.796	0.906	-	Backwardated	Rising
Jun-02							
Jul-02							
Aug-02							
Sep-02							
Oct-02							
Nov-02							
Dec-02							

HLS Comparison
v. RIV Regulations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology	Market Condition
Average: 3/87 - present	0.126	(0.044)	0.207	(0.018)		
Percentage	53%	48%	62%	49%		
Average: 1/99 - present	0.323	(0.378)	0.331	0.013		
Percentage	66%	39%	63%	51%		
Average: 6/00 - present	0.253	0.072	0.251	(0.041)		
Percentage	63%	50%	63%	54%		

Positive numbers = Methodology exceeds MMS RIV methodology
(Negative numbers) = MMS RIV methodology exceeds compared methodology
Percentage = Number of months compared methodology exceeded RIV Methodology

HLS Comparison
of Valuations

Production Month	Koch Netback	Platts Index (Trade month)	NYMEX Plus Roll	NYMEX (No roll)	RIV Methodology
Mar-87		18.3648	18.7819	18.6230	18.3450
Apr-87		18.3450	19.0732	18.8580	18.9083
May-87		18.9083	20.0212	19.5923	19.5788
Jun-87		19.5788	20.7130	20.2708	20.0391
Jul-87		20.0391	21.8845	21.4672	21.1275
Aug-87		21.1275	20.5898	20.1170	20.5659
Sep-87		20.5659	19.7488	19.4229	19.5466
Oct-87		19.5466	20.1157	19.8843	19.8816
Nov-87		19.8816	19.0780	18.9555	19.5120
Dec-87		19.5120	17.6972	17.5579	17.6829
Jan-88		17.6829	17.6976	17.4499	17.4700
Feb-88		17.4700	17.2990	17.1205	17.1114
Mar-88		17.1114	16.5317	16.4304	15.8976
Apr-88		15.8976	17.8827	17.7815	17.3750
May-88		17.3750	17.3023	17.1951	17.2477
Jun-88		17.2477	16.1627	16.2514	16.7214
Jul-88		16.7214	15.2254	15.4103	15.4688
Aug-88		15.4688	15.3294	15.6003	15.8457
Sep-88		15.8457	14.4631	14.6371	14.9563
Oct-88		14.9563	13.9952	13.9054	13.5714
Nov-88		13.5714	14.0650	13.7045	13.6952
Dec-88		13.6952	16.2199	16.1150	16.4638
Jan-89		16.4638	18.7565	18.3377	18.1869
Feb-89		18.1869	18.8068	18.0882	17.9321
Mar-89		17.9321	20.2037	19.5546	19.1118
Apr-89		19.1118	21.5668	20.9387	21.4432
May-89		21.4432	21.4524	20.3273	20.5841
Jun-89		20.5841	21.6071	20.0727	19.2613
Jul-89		19.2613	20.1575	18.9550	19.3060
Aug-89		19.3060	18.5750	17.6656	17.9435
Sep-89		17.9435	19.3393	19.0347	19.1750
Oct-89		19.1750	20.2133	19.9106	20.1619
Nov-89		20.1619	20.1389	19.8898	20.3063
Dec-89		20.3063	21.7138	21.4775	20.9775
Jan-90		20.9775	23.3356	22.9733	23.0352
Feb-90		23.0352	23.3535	22.4276	21.5920
Mar-90		21.5920	20.3743	19.7283	19.9555
Apr-90		19.9555	17.7697	17.9360	18.2912
May-90		18.2912	17.2399	17.8240	17.7650
Jun-90		17.7650	15.6082	16.3064	16.3108
Jul-90		16.3108	17.2230	18.1385	17.6188
Aug-90		17.6188	25.9912	26.8953	26.4073
Sep-90		26.4073	34.0889	33.9925	32.5710
Oct-90		32.5710	37.9249	37.0221	37.2950
Nov-90		37.2950	34.6765	33.1369	33.7432

HLS Comparison
of Valuations

Dec-90	33.7432	29.4262	28.0147	29.7033
Jan-91	29.7033	26.9091	25.8530	26.8084
Feb-91	26.8084	22.3758	21.1365	20.5578
Mar-91	20.5578	20.9707	19.4915	19.9480
Apr-91	19.9480	21.5205	20.9917	20.1657
May-91	20.1657	21.1857	20.8034	20.6279
Jun-91	20.6279	19.7614	19.5977	19.8586
Jul-91	19.8586	20.8097	20.9089	20.7180
Aug-91	20.7180	21.2353	21.1415	21.2340
Sep-91	21.2340	21.5799	21.4982	22.0943
Oct-91	22.0943	23.5918	23.4789	23.4064
Nov-91	23.4064	22.9528	22.7375	22.8957
Dec-91	22.8957	19.8593	19.6088	19.5858
Jan-92	19.5858	18.6881	18.5861	18.1202
Feb-92	18.1202	18.3037	18.3929	18.6517
Mar-92	18.6517	18.3746	18.5475	18.5093
Apr-92	18.5093	19.7674	19.9650	19.6588
May-92	19.6588	20.5748	20.6715	20.3923
Jun-92	20.3923	21.6763	21.7708	22.1333
Jul-92	22.1333	21.5359	21.5274	21.4085
Aug-92	21.4085	21.0657	20.9462	21.0289
Sep-92	21.0289	21.5971	21.4673	21.3905
Oct-92	21.3905	21.4820	21.3011	21.4820
Nov-92	21.4820	20.0626	19.9702	20.2533
Dec-92	20.2533	19.1617	19.1848	18.9911
Jan-93	18.9911	18.6017	18.7006	18.5733
Feb-93	18.5733	19.5243	19.6843	19.8216
Mar-93	19.8216	20.0760	20.1411	19.9448
Apr-93	19.9448	19.8373	19.9440	19.8955
May-93	19.8955	19.4080	19.6220	19.9350
Jun-93	19.9350	18.7709	19.0323	19.0214
Jul-93	19.0214	17.3992	17.7094	17.7503
Aug-93	17.7503	17.4286	17.8111	17.8487
Sep-93	17.8487	17.0096	17.4100	17.4638
Oct-93	17.4638	17.7167	18.0845	18.1955
Nov-93	18.1955	16.3944	16.6134	16.8284
Dec-93	16.8284	14.1375	14.4599	14.6855
Jan-94	14.6855	14.6463	15.0507	14.8021
Feb-94	14.8021	14.4780	14.7880	14.9707
Mar-94	14.9707	14.5929	14.6946	14.8018
Apr-94	14.8018	16.2926	16.4133	16.1500
May-94	16.1500	18.0264	17.9967	17.7486
Jun-94	17.7486	19.5349	19.1305	18.0507
Jul-94	18.0507	19.4126	18.7968	18.6013
Aug-94	18.6013	17.5618	16.9536	18.5748
Sep-94	18.5748	17.5268	17.2565	16.8725
Oct-94	16.8725	17.0978	17.2419	17.4745
Nov-94	17.4745	17.7627	17.9001	18.3210
Dec-94	18.3210	17.4752	17.3564	17.2758

HLS Comparison
of Valuations

Jan-95		17.2758	18.0437	18.0773	17.8988
Feb-95		17.8988	18.5945	18.5112	18.2457
Mar-95		18.2457	18.5688	18.3463	18.0040
Apr-95		18.0040	19.6267	19.4894	19.6264
May-95		19.6264	19.9785	19.7266	19.9120
Jun-95		19.9120	18.6948	18.3661	18.7255
Jul-95		18.7255	17.5158	17.3198	17.4160
Aug-95		17.4160	18.0985	17.8764	17.9861
Sep-95		17.9861	18.5072	18.2234	18.0460
Oct-95		18.0460	17.6375	17.1755	17.3839
Nov-95		17.3839	18.2350	17.9537	17.7860
Dec-95		17.7860	19.2868	18.9678	18.9055
Jan-96		18.9055	19.2144	18.8127	19.4448
Feb-96		19.4448	19.6731	19.0754	18.9040
Mar-96		18.9040	21.9660	21.3787	20.9383
Apr-96		20.9383	24.7235	23.3267	22.8075
May-96		22.8075	22.9638	20.4950	21.0883
Jun-96		21.0883	21.4761	20.0169	19.6950
Jul-96		19.6950	21.6116	20.5600	20.9378
Aug-96	22.1830	20.9378	22.2909	21.3856	21.6086
Sep-96	24.4024	21.6086	24.6405	23.9189	23.5393
Oct-96	25.6486	23.5393	25.7042	24.9658	25.4600
Nov-96	24.6103	25.4600	24.7151	24.0536	24.4193
Dec-96	26.0373	24.4193	26.1190	25.7336	25.5926
Jan-97	26.3557	25.5926	26.2543	25.5115	25.2731
Feb-97	22.7492	25.2731	22.9512	22.0826	22.7452
Mar-97	21.1013	22.7452	21.3545	20.8345	20.5003
Apr-97	19.4848	20.5003	19.4591	19.2526	18.9195
May-97	19.8465	18.9195	20.0002	19.9912	20.3018
Jun-97	18.5620	20.3018	18.7111	18.7311	19.0407
Jul-97	18.8222	19.0407	18.9341	19.1336	19.2412
Aug-97	19.3381	19.2412	19.5217	19.6586	19.8005
Sep-97	19.3126	19.8005	19.4113	19.5548	19.4073
Oct-97	20.9912	19.4073	20.9705	21.1278	21.0219
Nov-97	19.7850	21.0219	19.8983	19.9067	20.1220
Dec-97	17.8701	20.1220	17.8861	18.0545	18.2039
Jan-98	16.2044	18.2039	16.2068	16.4775	16.2868
Feb-98	15.2979	16.2868	15.3385	15.5924	15.6109
Mar-98	13.9254	15.6109	13.9921	14.2668	13.7860
Apr-98	14.0125	13.7860	13.9098	14.3838	14.3979
May-98	13.2299	14.3979	13.4135	13.8478	14.8033
Jun-98	12.4513	14.8033	12.5723	13.4343	13.3457
Jul-98	12.5507	13.3457	12.5578	13.5702	13.5100
Aug-98	12.4388	13.5100	12.2891	12.8014	13.0327
Sep-98	14.0399	13.0327	14.0072	14.4226	14.3660
Oct-98	14.0190	14.3660	13.9630	14.2245	14.1093
Nov-98	12.1675	14.1093	12.2789	12.4667	12.9339
Dec-98	10.4429	12.9339	10.5880	10.9322	10.9034
Jan-99	11.7205	10.9034	11.6947	12.1995	11.9332

HLS Comparison
of Valuations

Feb-99	11.3904	11.9332	11.4282	11.6026	11.1739
Mar-99	13.6455	11.1739	13.6646	13.7913	12.9400
Apr-99	15.8933	12.9400	15.9828	16.0816	15.9638
May-99	16.8276	15.9638	16.8141	16.7768	16.8311
Jun-99	16.9431	16.8311	17.0750	16.8141	16.4943
Jul-99	18.6597	16.4943	18.8377	18.9053	19.0708
Aug-99	20.4319	19.0708	20.5158	20.6141	20.9328
Sep-99	23.4656	20.9328	23.5861	23.6673	22.8205
Oct-99	22.4556	22.8205	22.3542	22.1607	22.4095
Nov-99	24.5081	22.4095	24.3495	24.0941	24.3932
Dec-99	26.3559	24.3932	26.3364	26.0806	26.3066
Jan-00	27.9268	26.3066	28.2728	27.3326	26.6274
Feb-00	30.0642	26.6274	30.0078	28.9262	29.0002
Mar-00	31.2183	29.0002	31.1770	29.9364	29.7613
Apr-00	26.5457	29.7613	26.7358	24.6593	25.2479
May-00	29.1636	25.2479	28.7900	27.9190	28.1495
Jun-00	31.7394	28.1495	31.8861	31.4955	30.9855
Jul-00	30.9964	30.9855	30.6310	29.2068	30.3950
Aug-00	31.8729	30.3950	32.2317	30.8498	30.6009
Sep-00	34.5322	30.6009	34.5415	34.0357	33.9530
Oct-00	33.6267	33.9530	33.8128	32.6058	32.1902
Nov-00	34.4305	32.1902	34.2372	33.7857	34.8095
Dec-00	30.2785	34.8095	30.3238	29.0985	29.8338
Jan-01	30.0660	29.8338	30.2010	29.1365	28.6598
Feb-01	30.7133	28.6598	30.4974	29.2766	28.2490
Mar-01	26.3072	28.2490	26.4779	25.7909	26.2050
Apr-01	26.2232	26.2050	26.4093	26.4448	26.6639
May-01	27.6775	26.6639	27.9414	28.2159	29.0182
Jun-01	27.4625	29.0182	27.5150	28.0145	28.4545
Jul-01	26.7809	28.4545	26.7394	26.9319	26.1248
Aug-01	27.2388	26.1248	27.2533	27.0708	26.3568
Sep-01	26.2783	26.3568	25.3745	24.6787	26.9229
Oct-01	22.0608	26.9229	22.2000	22.3506	21.7014
Nov-01	18.7112	21.7014	18.7126	19.1129	19.9850
Dec-01	18.9494	19.9850	18.9366	19.2179	18.8588
Jan-02	19.2006	18.8588	19.2491	19.6204	19.9157
Feb-02	20.3909	19.9157	20.3267	20.7960	20.4028
Mar-02	24.2569	20.4028	24.1593	24.5168	23.7675
Apr-02	25.9250	23.7675	26.0509	26.3394	26.4348
May-02	27.2621	26.4348	27.2147	27.3245	26.4188
Jun-02	2.8917	26.4188	(0.3242)	(1.0174)	0.0000
Jul-02	0.0000	0.0000	0.0000	0.0000	0.0000
Aug-02	0.0000	0.0000	0.0000	0.0000	0.0000
Sep-02	0.0000	0.0000	0.0000	0.0000	0.0000
Oct-02	0.0000	0.0000	0.0000	0.0000	0.0000
Nov-02	0.0000	0.0000	0.0000	0.0000	0.0000
Dec-02	0.0000	0.0000	0.0000	0.0000	0.0000

HLS Calculations
Koch + P Plus Methodology

Production Month	Trading Period		Koch Posting WT/NM Intermediate	Platts P-Plus WTI	Total Koch + P plus	Platts HLS v. Cushing Differential	Koch Netback
Aug-96	26-Jun	25-Jul	20.3710	2.3328	22.7038	(0.5208)	22.1830
Sep-96	26-Jul	25-Aug	22.2500	2.1655	24.4155	(0.0131)	24.4024
Oct-96	26-Aug	25-Sep	23.3468	2.2225	25.5693	0.0793	25.6486
Nov-96	26-Sep	25-Oct	21.9917	2.1166	24.1083	0.5020	24.6103
Dec-96	26-Oct	25-Nov	23.3871	2.0405	25.4276	0.6098	26.0373
Jan-97	26-Nov	25-Dec	23.4839	2.5408	26.0247	0.3311	26.3557
Feb-97	26-Dec	25-Jan	20.4732	2.3655	22.8387	(0.0895)	22.7492
Mar-97	26-Jan	25-Feb	19.0806	2.1602	21.2408	(0.1395)	21.1013
Apr-97	26-Feb	25-Mar	18.1083	1.8508	19.9591	(0.4742)	19.4848
May-97	26-Mar	25-Apr	18.9758	1.7514	20.7272	(0.8807)	19.8465
Jun-97	26-Apr	25-May	17.1750	1.8735	19.0485	(0.4865)	18.5620
Jul-97	26-May	25-Jun	17.5242	1.8234	19.3476	(0.5255)	18.8222
Aug-97	26-Jun	25-Jul	17.7581	1.8671	19.6252	(0.2871)	19.3381
Sep-97	26-Jul	25-Aug	17.6250	1.9105	19.5355	(0.2229)	19.3126
Oct-97	26-Aug	25-Sep	19.1694	1.9727	21.1421	(0.1509)	20.9912
Nov-97	26-Sep	25-Oct	17.9917	2.1067	20.0984	(0.3133)	19.7850
Dec-97	26-Oct	25-Nov	16.1774	1.9582	18.1356	(0.2655)	17.8701
Jan-98	26-Nov	25-Dec	14.5565	1.8979	16.4544	(0.2500)	16.2044
Feb-98	26-Dec	25-Jan	13.8750	1.9111	15.7861	(0.4882)	15.2979
Mar-98	26-Jan	25-Feb	12.7581	1.9450	14.7031	(0.7777)	13.9254
Apr-98	26-Feb	25-Mar	13.1250	1.9685	15.0935	(1.0810)	14.0125
May-98	26-Mar	25-Apr	12.5242	1.7919	14.3161	(1.0862)	13.2299
Jun-98	26-Apr	25-May	11.0583	1.6283	12.6866	(0.2352)	12.4513
Jul-98	26-May	25-Jun	11.5081	1.5578	13.0659	(0.5152)	12.5507
Aug-98	26-Jun	25-Jul	10.8790	2.1403	13.0193	(0.5805)	12.4388
Sep-98	26-Jul	25-Aug	12.3917	2.1975	14.5892	(0.5493)	14.0399
Oct-98	26-Aug	25-Sep	11.8710	2.3384	14.2094	(0.1905)	14.0190
Nov-98	26-Sep	25-Oct	10.3417	2.3985	12.7402	(0.5727)	12.1675
Dec-98	26-Oct	25-Nov	8.5968	2.2248	10.8216	(0.3787)	10.4429
Jan-99	26-Nov	25-Dec	9.8387	2.1692	12.0079	(0.2874)	11.7205
Feb-99	26-Dec	25-Jan	9.2857	2.5232	11.8089	(0.4184)	11.3904
Mar-99	26-Jan	25-Feb	12.0403	2.4961	14.5364	(0.8909)	13.6455
Apr-99	26-Feb	25-Mar	14.6583	2.4558	17.1141	(1.2208)	15.8933
May-99	26-Mar	25-Apr	15.2581	2.5638	17.8219	(0.9942)	16.8276
Jun-99	26-Apr	25-May	15.3833	2.6657	18.0490	(1.1059)	16.9431
Jul-99	26-May	25-Jun	17.3790	2.4711	19.8501	(1.1905)	18.6597
Aug-99	26-Jun	25-Jul	18.5161	2.5808	21.0969	(0.6650)	20.4319
Sep-99	26-Jul	25-Aug	20.9417	2.6457	23.5874	(0.1217)	23.4656
Oct-99	26-Aug	25-Sep	19.9113	3.0583	22.9696	(0.5140)	22.4556
Nov-99	26-Sep	25-Oct	22.2417	2.9388	25.1805	(0.6724)	24.5081
Dec-99	26-Oct	25-Nov	23.2177	3.1461	26.3638	(0.0080)	26.3559
Jan-00	26-Nov	25-Dec	24.0484	3.5600	27.6084	0.3184	27.9268
Feb-00	26-Dec	25-Jan	26.5345	3.9011	30.4356	(0.3713)	30.0642
Mar-00	26-Jan	25-Feb	27.1935	3.9827	31.1762	0.0420	31.2183
Apr-00	26-Feb	25-Mar	22.7667	4.6565	27.4232	(0.8775)	26.5457
May-00	26-Mar	25-Apr	26.2984	3.7521	30.0505	(0.8869)	29.1636
Jun-00	26-Apr	25-May	28.7917	2.9823	31.7740	(0.0345)	31.7394

HLS Calculations
Koch + P Plus Methodology

Jul-00	26-May	25-Jun	27.1774	4.3285	31.5059	(0.5095)	30.9964
Aug-00	26-Jun	25-Jul	28.2419	3.9190	32.1609	(0.2880)	31.8729
Sep-00	26-Jul	25-Aug	30.8583	3.5052	34.3635	0.1687	34.5322
Oct-00	26-Aug	25-Sep	29.9597	3.9935	33.9532	(0.3265)	33.6267
Nov-00	26-Sep	25-Oct	31.4500	3.4577	34.9077	(0.4773)	34.4305
Dec-00	26-Oct	25-Nov	25.3790	4.1995	29.5785	0.7000	30.2785
Jan-01	26-Nov	25-Dec	26.4032	3.7858	30.1890	(0.1230)	30.0660
Feb-01	26-Dec	25-Jan	26.7054	4.3760	31.0814	(0.3681)	30.7133
Mar-01	26-Jan	25-Feb	24.2339	3.5538	27.7877	(1.4805)	26.3072
Apr-01	26-Feb	25-Mar	24.4917	2.9078	27.3995	(1.1763)	26.2232
May-01	26-Mar	25-Apr	25.5323	2.6134	28.1457	(0.4682)	27.6775
Jun-01	26-Apr	25-May	24.4250	2.6077	27.0327	0.4298	27.4625
Jul-01	26-May	25-Jun	23.3629	2.9528	26.3157	0.4652	26.7809
Aug-01	26-Jun	25-Jul	24.1048	3.3724	27.4772	(0.2383)	27.2388
Sep-01	26-Jul	25-Aug	23.3583	3.9266	27.2849	(1.0066)	26.2783
Oct-01	26-Aug	25-Sep	19.0242	2.9008	21.9250	0.1358	22.0608
Nov-01	26-Sep	25-Oct	16.4667	2.8011	19.2678	(0.5566)	18.7112
Dec-01	26-Oct	25-Nov	16.2823	2.8529	19.1352	(0.1858)	18.9494
Jan-02	26-Nov	25-Dec	16.5161	2.7898	19.3059	(0.1053)	19.2006
Feb-02	26-Dec	25-Jan	17.6071	2.7436	20.3507	0.0402	20.3909
Mar-02	26-Jan	25-Feb	21.3306	2.8515	24.1821	0.0748	24.2569
Apr-02	26-Feb	25-Mar	22.9500	2.8938	25.8438	0.0813	25.9250
May-02	26-Mar	25-Apr	23.7903	3.1005	26.8908	0.3714	27.2621
Jun-02	26-Apr	25-May	0.0000	3.9090	3.9090	(1.0174)	2.8917
Jul-02	26-May	25-Jun	0.0000	0.0000	0.0000	0.0000	0.0000
Aug-02	26-Jun	25-Jul	0.0000	0.0000	0.0000	0.0000	0.0000
Sep-02	26-Jul	25-Aug	0.0000	0.0000	0.0000	0.0000	0.0000
Oct-02	26-Aug	25-Sep	0.0000	0.0000	0.0000	0.0000	0.0000
Nov-02	26-Sep	25-Oct	0.0000	0.0000	0.0000	0.0000	0.0000
Dec-02	26-Oct	25-Nov	0.0000	0.0000	0.0000	0.0000	0.0000

HLS Calculations
HLS Index (Trade Month) Methodology

Production Month	Period		Platts HLS (Trade Month)
Jan-87	26-Nov	25-Dec	
Feb-87	26-Dec	25-Jan	
Mar-87	26-Jan	25-Feb	18.3648
Apr-87	26-Feb	25-Mar	18.3450
May-87	26-Mar	25-Apr	18.9083
Jun-87	26-Apr	25-May	19.5788
Jul-87	26-May	25-Jun	20.0391
Aug-87	26-Jun	25-Jul	21.1275
Sep-87	26-Jul	25-Aug	20.5659
Oct-87	26-Aug	25-Sep	19.5466
Nov-87	26-Sep	25-Oct	19.8816
Dec-87	26-Oct	25-Nov	19.5120
Jan-88	26-Nov	25-Dec	17.6829
Feb-88	26-Dec	25-Jan	17.4700
Mar-88	26-Jan	25-Feb	17.1114
Apr-88	26-Feb	25-Mar	15.8976
May-88	26-Mar	25-Apr	17.3750
Jun-88	26-Apr	25-May	17.2477
Jul-88	26-May	25-Jun	16.7214
Aug-88	26-Jun	25-Jul	15.4688
Sep-88	26-Jul	25-Aug	15.8457
Oct-88	26-Aug	25-Sep	14.9563
Nov-88	26-Sep	25-Oct	13.5714
Dec-88	26-Oct	25-Nov	13.6952
Jan-89	26-Nov	25-Dec	16.4638
Feb-89	26-Dec	25-Jan	18.1869
Mar-89	26-Jan	25-Feb	17.9321
Apr-89	26-Feb	25-Mar	19.1118
May-89	26-Mar	25-Apr	21.4432
Jun-89	26-Apr	25-May	20.5841
Jul-89	26-May	25-Jun	19.2613
Aug-89	26-Jun	25-Jul	19.3060
Sep-89	26-Jul	25-Aug	17.9435
Oct-89	26-Aug	25-Sep	19.1750
Nov-89	26-Sep	25-Oct	20.1619
Dec-89	26-Oct	25-Nov	20.3063
Jan-90	26-Nov	25-Dec	20.9775
Feb-90	26-Dec	25-Jan	23.0352
Mar-90	26-Jan	25-Feb	21.5920
Apr-90	26-Feb	25-Mar	19.9555
May-90	26-Mar	25-Apr	18.2912
Jun-90	26-Apr	25-May	17.7650
Jul-90	26-May	25-Jun	16.3108
Aug-90	26-Jun	25-Jul	17.6188
Sep-90	26-Jul	25-Aug	26.4073

HLS Calculations
HLS Index (Trade Month) Methodology

Oct-90	26-Aug	25-Sep	32.5710
Nov-90	26-Sep	25-Oct	37.2950
Dec-90	26-Oct	25-Nov	33.7432
Jan-91	26-Nov	25-Dec	29.7033
Feb-91	26-Dec	25-Jan	26.8084
Mar-91	26-Jan	25 Feb	20.5578
Apr-91	26-Feb	25-Mar	19.9480
May-91	26-Mar	25-Apr	20.1657
Jun-91	26-Apr	25-May	20.6279
Jul-91	26-May	25-Jun	19.8586
Aug-91	26-Jun	25-Jul	20.7180
Sep-91	26-Jul	25-Aug	21.2340
Oct-91	26-Aug	25-Sep	22.0943
Nov-91	26-Sep	25-Oct	23.4064
Dec-91	26-Oct	25-Nov	22.8957
Jan-92	26-Nov	25-Dec	19.5858
Feb-92	26-Dec	25-Jan	18.1202
Mar-92	26-Jan	25-Feb	18.6517
Apr-92	26-Feb	25-Mar	18.5093
May-92	26-Mar	25-Apr	19.6588
Jun-92	26-Apr	25-May	20.3923
Jul-92	26-May	25-Jun	22.1333
Aug-92	26-Jun	25-Jul	21.4085
Sep-92	26-Jul	25-Aug	21.0289
Oct-92	26-Aug	25-Sep	21.3905
Nov-92	26-Sep	25-Oct	21.4820
Dec-92	26-Oct	25-Nov	20.2533
Jan-93	26-Nov	25-Dec	18.9911
Feb-93	26-Dec	25-Jan	18.5733
Mar-93	26-Jan	25-Feb	19.8216
Apr-93	26-Feb	25-Mar	19.9448
May-93	26-Mar	25-Apr	19.8955
Jun-93	26-Apr	25-May	19.9350
Jul-93	26-May	25-Jun	19.0214
Aug-93	26-Jun	25-Jul	17.7503
Sep-93	26-Jul	25-Aug	17.8487
Oct-93	26-Aug	25-Sep	17.4638
Nov-93	26-Sep	25-Oct	18.1955
Dec-93	26-Oct	25-Nov	16.8284
Jan-94	26-Nov	25-Dec	14.6855
Feb-94	26-Dec	25-Jan	14.8021
Mar-94	26-Jan	25-Feb	14.9707
Apr-94	26-Feb	25-Mar	14.8018
May-94	26-Mar	25-Apr	16.1500
Jun-94	26-Apr	25-May	17.7486
Jul-94	26-May	25-Jun	18.0507
Aug-94	26-Jun	25-Jul	18.6013
Sep-94	26-Jul	25-Aug	18.5748
Oct-94	26-Aug	25-Sep	16.8725

HLS Calculations
HLS Index (Trade Month) Methodology

Nov-94	26-Sep	25-Oct	17.4745
Dec-94	26-Oct	25-Nov	18.3210
Jan-95	26-Nov	25-Dec	17.2758
Feb-95	26-Dec	25-Jan	17.8988
Mar-95	26-Jan	25-Feb	18.2457
Apr-95	26-Feb	25-Mar	18.0040
May-95	26-Mar	25-Apr	19.6264
Jun-95	26-Apr	25-May	19.9120
Jul-95	26-May	25-Jun	18.7255
Aug-95	26-Jun	25-Jul	17.4160
Sep-95	26-Jul	25-Aug	17.9861
Oct-95	26-Aug	25-Sep	18.0460
Nov-95	26-Sep	25-Oct	17.3839
Dec-95	26-Oct	25-Nov	17.7860
Jan-96	26-Nov	25-Dec	18.9055
Feb-96	26-Dec	25-Jan	19.4448
Mar-96	26-Jan	25-Feb	18.9040
Apr-96	26-Feb	25-Mar	20.9383
May-96	26-Mar	25-Apr	22.8075
Jun-96	26-Apr	25-May	21.0883
Jul-96	26-May	25-Jun	19.6950
Aug-96	26-Jun	25-Jul	20.9378
Sep-96	26-Jul	25-Aug	21.6086
Oct-96	26-Aug	25-Sep	23.5393
Nov-96	26-Sep	25-Oct	25.4600
Dec-96	26-Oct	25-Nov	24.4193
Jan-97	26-Nov	25-Dec	25.5926
Feb-97	26-Dec	25-Jan	25.2731
Mar-97	26-Jan	25-Feb	22.7452
Apr-97	26-Feb	25-Mar	20.5003
May-97	26-Mar	25-Apr	18.9195
Jun-97	26-Apr	25-May	20.3018
Jul-97	26-May	25-Jun	19.0407
Aug-97	26-Jun	25-Jul	19.2412
Sep-97	26-Jul	25-Aug	19.8005
Oct-97	26-Aug	25-Sep	19.4073
Nov-97	26-Sep	25-Oct	21.0219
Dec-97	26-Oct	25-Nov	20.1220
Jan-98	26-Nov	25-Dec	18.2039
Feb-98	26-Dec	25-Jan	16.2868
Mar-98	26-Jan	25-Feb	15.6109
Apr-98	26-Feb	25-Mar	13.7860
May-98	26-Mar	25-Apr	14.3979
Jun-98	26-Apr	25-May	14.8033
Jul-98	26-May	25-Jun	13.3457
Aug-98	26-Jun	25-Jul	13.5100
Sep-98	26-Jul	25-Aug	13.0327
Oct-98	26-Aug	25-Sep	14.3660
Nov-98	26-Sep	25-Oct	14.1093

HLS Calculations
HLS Index (Trade Month) Methodology

Dec-98	26-Oct	25-Nov	12.9339
Jan-99	26-Nov	25-Dec	10.9034
Feb-99	26-Dec	25-Jan	11.9332
Mar-99	26-Jan	25-Feb	11.1739
Apr-99	26-Feb	25-Mar	12.9400
May-99	26-Mar	25-Apr	15.9638
Jun-99	26-Apr	25-May	16.8311
Jul-99	26-May	25-Jun	16.4943
Aug-99	26-Jun	25-Jul	19.0708
Sep-99	26-Jul	25-Aug	20.9328
Oct-99	26-Aug	25-Sep	22.8205
Nov-99	26-Sep	25-Oct	22.4095
Dec-99	26-Oct	25-Nov	24.3932
Jan-00	26-Nov	25-Dec	26.3066
Feb-00	26-Dec	25-Jan	26.6274
Mar-00	26-Jan	25-Feb	29.0002
Apr-00	26-Feb	25-Mar	29.7613
May-00	26-Mar	25-Apr	25.2479
Jun-00	26-Apr	25-May	28.1495
Jul-00	26-May	25-Jun	30.9855
Aug-00	26-Jun	25-Jul	30.3950
Sep-00	26-Jul	25-Aug	30.6009
Oct-00	26-Aug	25-Sep	33.9530
Nov-00	26-Sep	25-Oct	32.1902
Dec-00	26-Oct	25-Nov	34.8095
Jan-01	26-Nov	25-Dec	29.8338
Feb-01	26-Dec	25-Jan	28.6598
Mar-01	26-Jan	25-Feb	28.2490
Apr-01	26-Feb	25-Mar	26.2050
May-01	26-Mar	25-Apr	26.6639
Jun-01	26-Apr	25-May	29.0182
Jul-01	26-May	25-Jun	28.4545
Aug-01	26-Jun	25-Jul	26.1248
Sep-01	26-Jul	25-Aug	26.3568
Oct-01	26-Aug	25-Sep	26.9229
Nov-01	26-Sep	25-Oct	21.7014
Dec-01	26-Oct	25-Nov	19.9850
Jan-02	26-Nov	25-Dec	18.8588
Feb-02	26-Dec	25-Jan	19.9157
Mar-02	26-Jan	25-Feb	20.4028
Apr-02	26-Feb	25-Mar	23.7675
May-02	26-Mar	25-Apr	26.4348
Jun-02	26-Apr	25-May	26.4188
Jul-02	26-May	25-Jun	0.0000
Aug-02	26-Jun	25-Jul	0.0000
Sep-02	26-Jul	25-Aug	0.0000
Oct-02	26-Aug	25-Sep	0.0000
Nov-02	26-Sep	25-Oct	0.0000
Dec-02	26-Oct	25-Nov	0.0000

HLS Calculations
HLS Index (Trade Month) Methodology

HLS Calculations
NYMEX Plus Daily Roll Methodology

Production Month	Trading Period		NYMEX (1st month)	Trading Period		"Forward Roll"	Trading Period		HLS v. Cushing Difference	Total NYMEX Plus Roll
Jan-87	1-Jan	31-Jan	18.6667	21-Nov	19-Dec	(0.1698)	26-Nov	25-Dec		
Feb-87	1-Feb	28-Feb	17.7289	20-Dec	20-Jan	0.0765	26-Dec	25-Jan		
Mar-87	1-Mar	31-Mar	18.2764	21-Jan	20-Feb	0.1589	26-Jan	25-Feb	0.3466	18.7819
Apr-87	1-Apr	30-Apr	18.6043	21-Feb	20-Mar	0.2152	26-Feb	25-Mar	0.2537	19.0732
May-87	1-May	31-May	19.3340	21-Mar	21-Apr	0.4289	26-Mar	25-Apr	0.2583	20.0212
Jun-87	1-Jun	30-Jun	19.9945	22-Apr	19-May	0.4422	26-Apr	25-May	0.2762	20.7130
Jul-87	1-Jul	31-Jul	21.3314	20-May	22-Jun	0.4172	26-May	25-Jun	0.1359	21.8845
Aug-87	1-Aug	31-Aug	20.2257	23-Jun	21-Jul	0.4728	26-Jun	25-Jul	(0.1088)	20.5898
Sep-87	1-Sep	30-Sep	19.5229	22-Jul	20-Aug	0.3259	26-Jul	25-Aug	(0.1000)	19.7488
Oct-87	1-Oct	31-Oct	19.8627	21-Aug	22-Sep	0.2314	26-Aug	25-Sep	0.0216	20.1157
Nov-87	1-Nov	30-Nov	18.8463	23-Sep	20-Oct	0.1225	26-Sep	25-Oct	0.1092	19.0780
Dec-87	1-Dec	31-Dec	17.2568	21-Oct	20-Nov	0.1393	26-Oct	25-Nov	0.3011	17.6972
Jan-88	1-Jan	31-Jan	17.1525	21-Nov	21-Dec	0.2477	26-Nov	25-Dec	0.2974	17.6976
Feb-88	1-Feb	29-Feb	16.7605	22-Dec	20-Jan	0.1785	26-Dec	25-Jan	0.3600	17.2990
Mar-88	1-Mar	31-Mar	16.2122	21-Jan	22-Feb	0.1014	26-Jan	25-Feb	0.2182	16.5317
Apr-88	1-Apr	30-Apr	17.8755	23-Feb	22-Mar	0.1013	26-Feb	25-Mar	(0.0940)	17.8827
May-88	1-May	31-May	17.4376	23-Mar	20-Apr	0.1072	26-Mar	25-Apr	(0.2425)	17.3023
Jun-88	1-Jun	30-Jun	16.5355	21-Apr	20-May	(0.0886)	26-Apr	25-May	(0.2841)	16.1627
Jul-88	1-Jul	31-Jul	15.5115	21-May	21-Jun	(0.1849)	26-May	25-Jun	(0.1012)	15.2254
Aug-88	1-Aug	31-Aug	15.5265	22-Jun	20-Jul	(0.2708)	26-Jun	25-Jul	0.0738	15.3294
Sep-88	1-Sep	30-Sep	14.4643	21-Jul	22-Aug	(0.1741)	26-Jul	25-Aug	0.1728	14.4631
Oct-88	1-Oct	31-Oct	13.8029	23-Aug	20-Sep	0.0898	26-Aug	25-Sep	0.1025	13.9952
Nov-88	1-Nov	30-Nov	13.9795	21-Sep	20-Oct	0.3605	26-Sep	25-Oct	(0.2750)	14.0650
Dec-88	1-Dec	31-Dec	16.2829	21-Oct	18-Nov	0.1049	26-Oct	25-Nov	(0.1679)	16.2199
Jan-89	1-Jan	31-Jan	17.9814	19-Nov	20-Dec	0.4188	26-Nov	25-Dec	0.3562	18.7565
Feb-89	1-Feb	28-Feb	17.8216	21-Dec	20-Jan	0.7186	26-Dec	25-Jan	0.2667	18.8068
Mar-89	1-Mar	31-Mar	19.4427	21-Jan	21-Feb	0.6490	26-Jan	25-Feb	0.1119	20.2037
Apr-89	1-Apr	30-Apr	20.9440	22-Feb	20-Mar	0.6281	26-Feb	25-Mar	(0.0053)	21.5668
May-89	1-May	31-May	20.0295	21-Mar	20-Apr	1.1252	26-Mar	25-Apr	0.2977	21.4524
Jun-89	1-Jun	30-Jun	20.0023	21-Apr	22-May	1.5344	26-Apr	25-May	0.0705	21.6071
Jul-89	1-Jul	31-Jul	19.6600	23-May	20-Jun	1.2025	26-May	25-Jun	(0.7050)	20.1575
Aug-89	1-Aug	31-Aug	18.5474	21-Jun	20-Jul	0.9093	26-Jun	25-Jul	(0.8817)	18.5750
Sep-89	1-Sep	30-Sep	19.5945	21-Jul	21-Aug	0.3045	26-Jul	25-Aug	(0.5598)	19.3393
Oct-89	1-Oct	31-Oct	20.1068	22-Aug	20-Sep	0.3027	26-Aug	25-Sep	(0.1962)	20.2133
Nov-89	1-Nov	30-Nov	19.8290	21-Sep	20-Oct	0.2491	26-Sep	25-Oct	0.0607	20.1389
Dec-89	1-Dec	31-Dec	21.0900	21-Oct	20-Nov	0.2363	26-Oct	25-Nov	0.3875	21.7138

HLS Calculations
NYMEX Plus Daily Roll Methodology

Jan-90	1-Jan	31-Jan	22.6395	21-Nov	19-Dec	0.3623	26-Nov	25-Dec	0.3338	23.3356
Feb-90	1-Feb	28-Feb	22.1074	20-Dec	22-Jan	0.9259	26-Dec	25-Jan	0.3202	23.3535
Mar-90	1-Mar	31-Mar	20.4118	23-Jan	16-Feb	0.6460	26-Jan	25-Feb	(0.6835)	20.3743
Apr-90	1-Apr	30-Apr	18.5820	17-Feb	20-Mar	(0.1663)	26-Feb	25-Mar	(0.6460)	17.7697
May-90	1-May	31-May	18.4368	21-Mar	20-Apr	(0.5841)	26-Mar	25-Apr	(0.6129)	17.2399
Jun-90	1-Jun	30-Jun	16.8600	21-Apr	22-May	(0.6982)	26-Apr	25-May	(0.5536)	15.6082
Jul-90	1-Jul	31-Jul	18.6405	23-May	20-Jun	(0.9155)	26-May	25-Jun	(0.5020)	17.2230
Aug-90	1-Aug	31-Aug	27.1665	21-Jun	23-Jul	(0.9041)	26-Jun	25-Jul	(0.2712)	25.9912
Sep-90	1-Sep	30-Sep	33.6884	24-Jul	21-Aug	0.0963	26-Jul	25-Aug	0.3041	34.0889
Oct-90	1-Oct	31-Oct	35.9183	22-Aug	20-Sep	0.9029	26-Aug	25-Sep	1.1038	37.9249
Nov-90	1-Nov	30-Nov	32.4248	21-Sep	22-Oct	1.5395	26-Sep	25-Oct	0.7121	34.6765
Dec-90	1-Dec	31-Dec	27.1632	23-Oct	19-Nov	1.4115	26-Oct	25-Nov	0.8516	29.4262
Jan-91	1-Jan	31-Jan	24.6777	20-Nov	18-Dec	1.0562	26-Nov	25-Dec	1.1753	26.9091
Feb-91	1-Feb	28-Feb	20.5379	19-Dec	22-Jan	1.2392	26-Dec	25-Jan	0.5986	22.3758
Mar-91	1-Mar	31-Mar	19.8840	23-Jan	20-Feb	1.4792	26-Jan	25-Feb	(0.3925)	20.9707
Apr-91	1-Apr	30-Apr	20.8159	21-Feb	20-Mar	0.5288	26-Feb	25-Mar	0.1758	21.5205
May-91	1-May	31-May	21.2464	21-Mar	22-Apr	0.3823	26-Mar	25-Apr	(0.4430)	21.1857
Jun-91	1-Jun	30-Jun	20.2025	23-Apr	21-May	0.1637	26-Apr	25-May	(0.6048)	19.7614
Jul-91	1-Jul	31-Jul	21.4282	22-May	20-Jun	(0.0992)	26-May	25-Jun	(0.5193)	20.8097
Aug-91	1-Aug	31-Aug	21.6823	21-Jun	22-Jul	0.0938	26-Jun	25-Jul	(0.5407)	21.2353
Sep-91	1-Sep	30-Sep	21.8570	23-Jul	20-Aug	0.0817	26-Jul	25-Aug	(0.3588)	21.5799
Oct-91	1-Oct	31-Oct	23.2296	21-Aug	20-Sep	0.1129	26-Aug	25-Sep	0.2493	23.5918
Nov-91	1-Nov	30-Nov	22.4315	21-Sep	22-Oct	0.2153	26-Sep	25-Oct	0.3060	22.9528
Dec-91	1-Dec	31-Dec	19.5314	23-Oct	20-Nov	0.2505	26-Oct	25-Nov	0.0774	19.8593
Jan-92	1-Jan	31-Jan	18.8200	21-Nov	19-Dec	0.1020	26-Nov	25-Dec	(0.2339)	18.6881
Feb-92	1-Feb	29-Feb	19.0053	20-Dec	21-Jan	(0.0892)	26-Dec	25-Jan	(0.6124)	18.3037
Mar-92	1-Mar	31-Mar	18.9482	22-Jan	20-Feb	(0.1729)	26-Jan	25-Feb	(0.4007)	18.3746
Apr-92	1-Apr	30-Apr	20.2567	21-Feb	20-Mar	(0.1976)	26-Feb	25-Mar	(0.2917)	19.7674
May-92	1-May	31-May	20.9965	21-Mar	21-Apr	(0.0967)	26-Mar	25-Apr	(0.3250)	20.5748
Jun-92	1-Jun	30-Jun	22.0700	22-Apr	19-May	(0.0945)	26-Apr	25-May	(0.2993)	21.6763
Jul-92	1-Jul	31-Jul	21.7300	20-May	22-Jun	0.0086	26-May	25-Jun	(0.2026)	21.5359
Aug-92	1-Aug	31-Aug	21.2867	23-Jun	21-Jul	0.1195	26-Jun	25-Jul	(0.3405)	21.0657
Sep-92	1-Sep	30-Sep	21.9157	22-Jul	20-Aug	0.1298	26-Jul	25-Aug	(0.4484)	21.5971
Oct-92	1-Oct	31-Oct	21.7068	21-Aug	22-Sep	0.1809	26-Aug	25-Sep	(0.4057)	21.4820
Nov-92	1-Nov	30-Nov	20.3647	23-Sep	20-Oct	0.0923	26-Sep	25-Oct	(0.3945)	20.0626
Dec-92	1-Dec	31-Dec	19.4300	21-Oct	20-Nov	(0.0230)	26-Oct	25-Nov	(0.2452)	19.1617
Jan-93	1-Jan	31-Jan	19.0725	21-Nov	18-Dec	(0.0989)	26-Nov	25-Dec	(0.3719)	18.6017
Feb-93	1-Feb	28-Feb	20.0758	19-Dec	20-Jan	(0.1600)	26-Dec	25-Jan	(0.3915)	19.5243
Mar-93	1-Mar	31-Mar	20.3455	21-Jan	22-Feb	(0.0652)	26-Jan	25-Feb	(0.2043)	20.0760
Apr-93	1-Apr	30-Apr	20.3252	23-Feb	22-Mar	(0.1067)	26-Feb	25-Mar	(0.3812)	19.8373

HLS Calculations
NYMEX Plus Daily Roll Methodology

May-93	1-May	31-May	19.9790	23-Mar	20-Apr	(0.2140)	26-Mar	25-Apr	(0.3570)	19.4080
Jun-93	1-Jun	30-Jun	19.1336	21-Apr	20-May	(0.2614)	26-Apr	25-May	(0.1014)	18.7709
Jul-93	1-Jul	31-Jul	17.8957	21-May	22-Jun	(0.3102)	26-May	25-Jun	(0.1864)	17.3992
Aug-93	1-Aug	31-Aug	18.0132	23-Jun	20-Jul	(0.3825)	26-Jun	25-Jul	(0.2021)	17.4286
Sep-93	1-Sep	30-Sep	17.5205	21-Jul	20-Aug	(0.4004)	26-Jul	25-Aug	(0.1104)	17.0096
Oct-93	1-Oct	31-Oct	18.1729	21-Aug	21-Sep	(0.3678)	26-Aug	25-Sep	(0.0883)	17.7167
Nov-93	1-Nov	30-Nov	16.7370	22-Sep	20-Oct	(0.2190)	26-Sep	25-Oct	(0.1236)	16.3944
Dec-93	1-Dec	31-Dec	14.5329	21-Oct	19-Nov	(0.3224)	26-Oct	25-Nov	(0.0730)	14.1375
Jan-94	1-Jan	31-Jan	15.0210	20-Nov	20-Dec	(0.4044)	26-Nov	25-Dec	0.0297	14.6463
Feb-94	1-Feb	28-Feb	14.7816	21-Dec	20-Jan	(0.3100)	26-Dec	25-Jan	0.0064	14.4780
Mar-94	1-Mar	31-Mar	14.6539	21-Jan	22-Feb	(0.1017)	26-Jan	25-Feb	0.0407	14.5929
Apr-94	1-Apr	30-Apr	16.3263	23-Feb	22-Mar	(0.1207)	26-Feb	25-Mar	0.0870	16.2926
May-94	1-May	31-May	17.8262	23-Mar	20-Apr	0.0297	26-Mar	25-Apr	0.1705	18.0264
Jun-94	1-Jun	30-Jun	19.0686	21-Apr	20-May	0.4044	26-Apr	25-May	0.0618	19.5349
Jul-94	1-Jul	31-Jul	19.6570	21-May	21-Jun	0.6159	26-May	25-Jun	(0.8602)	19.4126
Aug-94	1-Aug	31-Aug	17.8846	22-Jun	20-Jul	0.6082	26-Jun	25-Jul	(0.9310)	17.5618
Sep-94	1-Sep	30-Sep	17.4671	21-Jul	22-Aug	0.2703	26-Jul	25-Aug	(0.2107)	17.5268
Oct-94	1-Oct	31-Oct	17.7114	23-Aug	20-Sep	(0.1442)	26-Aug	25-Sep	(0.4695)	17.0978
Nov-94	1-Nov	30-Nov	18.0960	21-Sep	20-Oct	(0.1374)	26-Sep	25-Oct	(0.1959)	17.7627
Dec-94	1-Dec	31-Dec	17.1562	21-Oct	18-Nov	0.1187	26-Oct	25-Nov	0.2002	17.4752
Jan-95	1-Jan	31-Jan	17.9933	19-Nov	20-Dec	(0.0337)	26-Nov	25-Dec	0.0840	18.0437
Feb-95	1-Feb	28-Feb	18.5347	21-Dec	20-Jan	0.0833	26-Dec	25-Jan	(0.0236)	18.5945
Mar-95	1-Mar	31-Mar	18.5543	21-Jan	21-Feb	0.2225	26-Jan	25-Feb	(0.2081)	18.5688
Apr-95	1-Apr	30-Apr	19.8879	22-Feb	21-Mar	0.1373	26-Feb	25-Mar	(0.3985)	19.6267
May-95	1-May	31-May	19.7405	22-Mar	20-Apr	0.2519	26-Mar	25-Apr	(0.0138)	19.9785
Jun-95	1-Jun	30-Jun	18.4005	21-Apr	22-May	0.3286	26-Apr	25-May	(0.0343)	18.6948
Jul-95	1-Jul	31-Jul	17.2568	23-May	20-Jun	0.1960	26-May	25-Jun	0.0630	17.5158
Aug-95	1-Aug	31-Aug	17.8126	21-Jun	20-Jul	0.2222	26-Jun	25-Jul	0.0638	18.0985
Sep-95	1-Sep	30-Sep	18.2080	21-Jul	22-Aug	0.2838	26-Jul	25-Aug	0.0154	18.5072
Oct-95	1-Oct	31-Oct	17.3977	23-Aug	20-Sep	0.4620	26-Aug	25-Sep	(0.2223)	17.6375
Nov-95	1-Nov	30-Nov	17.9980	21-Sep	20-Oct	0.2814	26-Sep	25-Oct	(0.0443)	18.2350
Dec-95	1-Dec	31-Dec	19.0375	21-Oct	17-Nov	0.3190	26-Oct	25-Nov	(0.0697)	19.2868
Jan-96	1-Jan	31-Jan	18.7005	18-Nov	19-Dec	0.4017	26-Nov	25-Dec	0.1122	19.2144
Feb-96	1-Feb	29-Feb	18.7825	20-Dec	22-Jan	0.5978	26-Dec	25-Jan	0.2929	19.6731
Mar-96	1-Mar	31-Mar	21.1819	23-Jan	20-Feb	0.5873	26-Jan	25-Feb	0.1968	21.9660
Apr-96	1-Apr	30-Apr	23.2943	21-Feb	20-Mar	1.3968	26-Feb	25-Mar	0.0324	24.7235
May-96	1-May	31-May	21.0918	21-Mar	22-Apr	2.4688	26-Mar	25-Apr	(0.5968)	22.9638
Jun-96	1-Jun	30-Jun	20.4295	23-Apr	21-May	1.4592	26-Apr	25-May	(0.4126)	21.4761
Jul-96	1-Jul	31-Jul	21.2505	22-May	20-Jun	1.0516	26-May	25-Jun	(0.6905)	21.6116
Aug-96	1-Aug	31-Aug	21.9064	21-Jun	22-Jul	0.9053	26-Jun	25-Jul	(0.5208)	22.2909

HLS Calculations
NYMEX Plus Daily Roll Methodology

Sep-96	1-Sep	30-Sep	23.9320	23-Jul	20-Aug	0.7216	26-Jul	25-Aug	(0.0131)	24.6405
Oct-96	1-Oct	31-Oct	24.8865	21-Aug	20-Sep	0.7383	26-Aug	25-Sep	0.0793	25.7042
Nov-96	1-Nov	30-Nov	23.5516	21-Sep	22-Oct	0.6615	26-Sep	25-Oct	0.5020	24.7151
Dec-96	1-Dec	31-Dec	25.1238	23-Oct	20-Nov	0.3854	26-Oct	25-Nov	0.6098	26.1190
Jan-97	1-Jan	31-Jan	25.1805	21-Nov	19-Dec	0.7428	26-Nov	25-Dec	0.3311	26.2543
Feb-97	1-Feb	28-Feb	22.1721	20-Dec	21-Jan	0.8686	26-Dec	25-Jan	(0.0895)	22.9512
Mar-97	1-Mar	31-Mar	20.9740	22-Jan	20-Feb	0.5200	26-Jan	25-Feb	(0.1395)	21.3545
Apr-97	1-Apr	30-Apr	19.7268	21-Feb	20-Mar	0.2065	26-Feb	25-Mar	(0.4742)	19.4591
May-97	1-May	31-May	20.8719	21-Mar	22-Apr	0.0089	26-Mar	25-Apr	(0.8807)	20.0002
Jun-97	1-Jun	30-Jun	19.2176	23-Apr	20-May	(0.0200)	26-Apr	25-May	(0.4865)	18.7111
Jul-97	1-Jul	31-Jul	19.6591	21-May	20-Jun	(0.1995)	26-May	25-Jun	(0.5255)	18.9341
Aug-97	1-Aug	31-Aug	19.9457	21-Jun	22-Jul	(0.1368)	26-Jun	25-Jul	(0.2871)	19.5217
Sep-97	1-Sep	30-Sep	19.7776	23-Jul	20-Aug	(0.1435)	26-Jul	25-Aug	(0.2229)	19.4113
Oct-97	1-Oct	31-Oct	21.2787	21-Aug	22-Sep	(0.1573)	26-Aug	25-Sep	(0.1509)	20.9705
Nov-97	1-Nov	30-Nov	20.2200	23-Sep	21-Oct	(0.0084)	26-Sep	25-Oct	(0.3133)	19.8983
Dec-97	1-Dec	31-Dec	18.3200	22-Oct	20-Nov	(0.1685)	26-Oct	25-Nov	(0.2655)	17.8861
Jan-98	1-Jan	31-Jan	16.7275	21-Nov	19-Dec	(0.2707)	26-Nov	25-Dec	(0.2500)	16.2068
Feb-98	1-Feb	28-Feb	16.0805	20-Dec	20-Jan	(0.2539)	26-Dec	25-Jan	(0.4882)	15.3385
Mar-98	1-Mar	31-Mar	15.0445	21-Jan	20-Feb	(0.2747)	26-Jan	25-Feb	(0.7777)	13.9921
Apr-98	1-Apr	30-Apr	15.4648	21-Feb	20-Mar	(0.4740)	26-Feb	25-Mar	(1.0810)	13.9098
May-98	1-May	31-May	14.9340	21-Mar	21-Apr	(0.4343)	26-Mar	25-Apr	(1.0862)	13.4135
Jun-98	1-Jun	30-Jun	13.6695	22-Apr	19-May	(0.8620)	26-Apr	25-May	(0.2352)	12.5723
Jul-98	1-Jul	31-Jul	14.0855	20-May	22-Jun	(1.0125)	26-May	25-Jun	(0.5152)	12.5578
Aug-98	1-Aug	31-Aug	13.3819	23-Jun	21-Jul	(0.5123)	26-Jun	25-Jul	(0.5805)	12.2891
Sep-98	1-Sep	30-Sep	14.9719	22-Jul	21-Aug	(0.4154)	26-Jul	25-Aug	(0.5493)	14.0072
Oct-98	1-Oct	31-Oct	14.4150	22-Aug	25-Sep	(0.2615)	26-Aug	25-Sep	(0.1905)	13.9630
Nov-98	1-Nov	30-Nov	13.0395	26-Sep	20-Oct	(0.1878)	26-Sep	25-Oct	(0.5727)	12.2789
Dec-98	1-Dec	31-Dec	11.3109	21-Oct	20-Nov	(0.3442)	26-Oct	25-Nov	(0.3787)	10.5880
Jan-99	1-Jan	31-Jan	12.4868	21-Nov	21-Dec	(0.5047)	26-Nov	25-Dec	(0.2874)	11.6947
Feb-99	1-Feb	28-Feb	12.0211	22-Dec	20-Jan	(0.1744)	26-Dec	25-Jan	(0.4184)	11.4282
Mar-99	1-Mar	31-Mar	14.6822	21-Jan	22-Feb	(0.1267)	26-Jan	25-Feb	(0.8909)	13.6646
Apr-99	1-Apr	30-Apr	17.3024	23-Feb	22-Mar	(0.0988)	26-Feb	25-Mar	(1.2208)	15.9828
May-99	1-May	31-May	17.7710	23-Mar	20-Apr	0.0373	26-Mar	25-Apr	(0.9942)	16.8141
Jun-99	1-Jun	30-Jun	17.9200	21-Apr	20-May	0.2609	26-Apr	25-May	(1.1059)	17.0750
Jul-99	1-Jul	31-Jul	20.0957	21-May	22-Jun	(0.0676)	26-May	25-Jun	(1.1905)	18.8377
Aug-99	1-Aug	31-Aug	21.2791	23-Jun	20-Jul	(0.0982)	26-Jun	25-Jul	(0.6650)	20.5158
Sep-99	1-Sep	30-Sep	23.7890	21-Jul	20-Aug	(0.0812)	26-Jul	25-Aug	(0.1217)	23.5861
Oct-99	1-Oct	31-Oct	22.6748	21-Aug	21-Sep	0.1935	26-Aug	25-Sep	(0.5140)	22.3542
Nov-99	1-Nov	30-Nov	24.7665	22-Sep	20-Oct	0.2554	26-Sep	25-Oct	(0.6724)	24.3495
Dec-99	1-Dec	31-Dec	26.0886	21-Oct	19-Nov	0.2558	26-Oct	25-Nov	(0.0080)	26.3364

HLS Calculations
NYMEX Plus Daily Roll Methodology

Jan-00	1-Jan	31-Jan	27.0142	20-Nov	20-Dec	0.9402	26-Nov	25-Dec	0.3184	28.2728
Feb-00	1-Feb	29-Feb	29.2975	21-Dec	20-Jan	1.0816	26-Dec	25-Jan	(0.3713)	30.0078
Mar-00	1-Mar	31-Mar	29.8943	21-Jan	22-Feb	1.2406	26-Jan	25-Feb	0.0420	31.1770
Apr-00	1-Apr	30-Apr	25.5368	23-Feb	21-Mar	2.0765	26-Feb	25-Mar	(0.8775)	26.7358
May-00	1-May	31-May	28.8059	22-Mar	19-Apr	0.8710	26-Mar	25-Apr	(0.8869)	28.7900
Jun-00	1-Jun	30-Jun	31.5300	20-Apr	22-May	0.3906	26-Apr	25-May	(0.0345)	31.8861
Jul-00	1-Jul	31-Jul	29.7163	23-May	20-Jun	1.4242	26-May	25-Jun	(0.5095)	30.6310
Aug-00	1-Aug	31-Aug	31.1378	21-Jun	20-Jul	1.3818	26-Jun	25-Jul	(0.2880)	32.2317
Sep-00	1-Sep	30-Sep	33.8670	21-Jul	22-Aug	0.5058	26-Jul	25-Aug	0.1687	34.5415
Oct-00	1-Oct	31-Oct	32.9323	23-Aug	20-Sep	1.2070	26-Aug	25-Sep	(0.3265)	33.8128
Nov-00	1-Nov	30-Nov	34.2630	21-Sep	20-Oct	0.4515	26-Sep	25-Oct	(0.4773)	34.2372
Dec-00	1-Dec	31-Dec	28.3985	21-Oct	17-Nov	1.2253	26-Oct	25-Nov	0.7000	30.3238
Jan-01	1-Jan	31-Jan	29.2595	18-Nov	19-Dec	1.0645	26-Nov	25-Dec	(0.1230)	30.2010
Feb-01	1-Feb	28-Feb	29.6447	20-Dec	22-Jan	1.2208	26-Dec	25-Jan	(0.3681)	30.4974
Mar-01	1-Mar	31-Mar	27.2714	23-Jan	20-Feb	0.6870	26-Jan	25-Feb	(1.4805)	26.4779
Apr-01	1-Apr	30-Apr	27.6210	21-Feb	20-Mar	(0.0355)	26-Feb	25-Mar	(1.1763)	26.4093
May-01	1-May	31-May	28.6841	21-Mar	20-Apr	(0.2745)	26-Mar	25-Apr	(0.4682)	27.9414
Jun-01	1-Jun	30-Jun	27.5848	21-Apr	22-May	(0.4995)	26-Apr	25-May	0.4298	27.5150
Jul-01	1-Jul	31-Jul	26.4667	23-May	20-Jun	(0.1925)	26-May	25-Jun	0.4652	26.7394
Aug-01	1-Aug	31-Aug	27.3091	21-Jun	20-Jul	0.1825	26-Jun	25-Jul	(0.2383)	27.2533
Sep-01	1-Sep	30-Sep	25.6853	21-Jul	21-Aug	0.6958	26-Jul	25-Aug	(1.0066)	25.3745
Oct-01	1-Oct	31-Oct	22.2148	22-Aug	20-Sep	(0.1506)	26-Aug	25-Sep	0.1358	22.2000
Nov-01	1-Nov	30-Nov	19.6695	21-Sep	22-Oct	(0.4003)	26-Sep	25-Oct	(0.5566)	18.7126
Dec-01	1-Dec	31-Dec	19.4037	23-Oct	19-Nov	(0.2813)	26-Oct	25-Nov	(0.1858)	18.9366
Jan-02	1-Jan	31-Jan	19.7256	20-Nov	18-Dec	(0.3712)	26-Nov	25-Dec	(0.1053)	19.2491
Feb-02	1-Feb	28-Feb	20.7558	19-Dec	22-Jan	(0.4694)	26-Dec	25-Jan	0.0402	20.3267
Mar-02	1-Mar	31-Mar	24.4420	23-Jan	20-Feb	(0.3574)	26-Jan	25-Feb	0.0748	24.1593
Apr-02	1-Apr	30-Apr	26.2582	21-Feb	20-Mar	(0.2885)	26-Feb	25-Mar	0.0813	26.0509
May-02	1-May	31-May	26.9532	21-Mar	22-Apr	(0.1098)	26-Mar	25-Apr	0.3714	27.2147
Jun-02	1-Jun	30-Jun	0.0000	23-Apr	21-May	0.6932	26-Apr	25-May	(1.0174)	-0.3242
Jul-02	1-Jul	31-Jul	0.0000	0-Jan	0-Jan	0.0000	26-May	25-Jun	0.0000	0.0000
Aug-02	1-Aug	31-Aug	0.0000	0-Jan	0-Jan	0.0000	26-Jun	25-Jul	0.0000	0.0000
Sep-02	1-Sep	30-Sep	0.0000	0-Jan	0-Jan	0.0000	26-Jul	25-Aug	0.0000	0.0000
Oct-02	1-Oct	31-Oct	0.0000	0-Jan	0-Jan	0.0000	26-Aug	25-Sep	0.0000	0.0000
Nov-02	1-Nov	30-Nov	0.0000	0-Jan	0-Jan	0.0000	26-Sep	25-Oct	0.0000	0.0000
Dec-02	1-Dec	31-Dec	0.0000	0-Jan	0-Jan	0.0000	26-Oct	25-Nov	0.0000	0.0000

"Forward Roll" = NYMEX Calendar Month Average forward pricing; 2/3, 1/3 method.

HLS Calculations
NYMEX (No Roll) Methodology

Production Month	Trading Period		NYMEX (1st month)	Trading Period		HLS v. Cushing Difference	Total NYMEX (No Roll)
Jan-87	1-Jan	31-Jan	18.6667	26-Nov	25-Dec		
Feb-87	1-Feb	28-Feb	17.7289	26-Dec	25-Jan		
Mar-87	1-Mar	31-Mar	18.2764	26-Jan	25-Feb	0.3466	18.6230
Apr-87	1-Apr	30-Apr	18.6043	26-Feb	25-Mar	0.2537	18.8580
May-87	1-May	31-May	19.3340	26-Mar	25-Apr	0.2583	19.5923
Jun-87	1-Jun	30-Jun	19.9945	26-Apr	25-May	0.2762	20.2708
Jul-87	1-Jul	31-Jul	21.3314	26-May	25-Jun	0.1359	21.4672
Aug-87	1-Aug	31-Aug	20.2257	26-Jun	25-Jul	(0.1088)	20.1170
Sep-87	1-Sep	30-Sep	19.5229	26-Jul	25-Aug	(0.1000)	19.4229
Oct-87	1-Oct	31-Oct	19.8627	26-Aug	25-Sep	0.0216	19.8843
Nov-87	1-Nov	30-Nov	18.8463	26-Sep	25-Oct	0.1092	18.9555
Dec-87	1-Dec	31-Dec	17.2568	26-Oct	25-Nov	0.3011	17.5579
Jan-88	1-Jan	31-Jan	17.1525	26-Nov	25-Dec	0.2974	17.4499
Feb-88	1-Feb	29-Feb	16.7605	26-Dec	25-Jan	0.3600	17.1205
Mar-88	1-Mar	31-Mar	16.2122	26-Jan	25-Feb	0.2182	16.4304
Apr-88	1-Apr	30-Apr	17.8755	26-Feb	25-Mar	(0.0940)	17.7815
May-88	1-May	31-May	17.4376	26-Mar	25-Apr	(0.2425)	17.1951
Jun-88	1-Jun	30-Jun	16.5355	26-Apr	25-May	(0.2841)	16.2514
Jul-88	1-Jul	31-Jul	15.5115	26-May	25-Jun	(0.1012)	15.4103
Aug-88	1-Aug	31-Aug	15.5265	26-Jun	25-Jul	0.0738	15.6003
Sep-88	1-Sep	30-Sep	14.4643	26-Jul	25-Aug	0.1728	14.6371
Oct-88	1-Oct	31-Oct	13.8029	26-Aug	25-Sep	0.1025	13.9054
Nov-88	1-Nov	30-Nov	13.9795	26-Sep	25-Oct	(0.2750)	13.7045
Dec-88	1-Dec	31-Dec	16.2829	26-Oct	25-Nov	(0.1679)	16.1150
Jan-89	1-Jan	31-Jan	17.9814	26-Nov	25-Dec	0.3562	18.3377
Feb-89	1-Feb	28-Feb	17.8216	26-Dec	25-Jan	0.2667	18.0882
Mar-89	1-Mar	31-Mar	19.4427	26-Jan	25-Feb	0.1119	19.5546
Apr-89	1-Apr	30-Apr	20.9440	26-Feb	25-Mar	(0.0053)	20.9387
May-89	1-May	31-May	20.0295	26-Mar	25-Apr	0.2977	20.3273
Jun-89	1-Jun	30-Jun	20.0023	26-Apr	25-May	0.0705	20.0727
Jul-89	1-Jul	31-Jul	19.6600	26-May	25-Jun	(0.7050)	18.9550
Aug-89	1-Aug	31-Aug	18.5474	26-Jun	25-Jul	(0.8817)	17.6656
Sep-89	1-Sep	30-Sep	19.5945	26-Jul	25-Aug	(0.5598)	19.0347
Oct-89	1-Oct	31-Oct	20.1068	26-Aug	25-Sep	(0.1962)	19.9106
Nov-89	1-Nov	30-Nov	19.8290	26-Sep	25-Oct	0.0607	19.8898
Dec-89	1-Dec	31-Dec	21.0900	26-Oct	25-Nov	0.3875	21.4775
Jan-90	1-Jan	31-Jan	22.6395	26-Nov	25-Dec	0.3338	22.9733
Feb-90	1-Feb	28-Feb	22.1074	26-Dec	25-Jan	0.3202	22.4276
Mar-90	1-Mar	31-Mar	20.4118	26-Jan	25-Feb	(0.6835)	19.7283
Apr-90	1-Apr	30-Apr	18.5820	26-Feb	25-Mar	(0.6460)	17.9360
May-90	1-May	31-May	18.4368	26-Mar	25-Apr	(0.6129)	17.8240
Jun-90	1-Jun	30-Jun	16.8600	26-Apr	25-May	(0.5536)	16.3064
Jul-90	1-Jul	31-Jul	18.6405	26-May	25-Jun	(0.5020)	18.1385
Aug-90	1-Aug	31-Aug	27.1665	26-Jun	25-Jul	(0.2712)	26.8953
Sep-90	1-Sep	30-Sep	33.6884	26-Jul	25-Aug	0.3041	33.9925
Oct-90	1-Oct	31-Oct	35.9183	26-Aug	25-Sep	1.1038	37.0221
Nov-90	1-Nov	30-Nov	32.4248	26-Sep	25-Oct	0.7121	33.1369
Dec-90	1-Dec	31-Dec	27.1632	26-Oct	25-Nov	0.8516	28.0147

HLS Calculations
NYMEX (No Roll) Methodology

Jan-91	1-Jan	31-Jan	24.6777	26-Nov	25-Dec	1.1753	25.8530
Feb-91	1-Feb	28-Feb	20.5379	26-Dec	25-Jan	0.5986	21.1365
Mar-91	1-Mar	31-Mar	19.8840	26-Jan	25-Feb	(0.3925)	19.4915
Apr-91	1-Apr	30-Apr	20.8159	26-Feb	25-Mar	0.1758	20.9917
May-91	1-May	31-May	21.2464	26-Mar	25-Apr	(0.4430)	20.8034
Jun-91	1-Jun	30-Jun	20.2025	26-Apr	25-May	(0.6048)	19.5977
Jul-91	1-Jul	31-Jul	21.4282	26-May	25-Jun	(0.5193)	20.9089
Aug-91	1-Aug	31-Aug	21.6823	26-Jun	25-Jul	(0.5407)	21.1415
Sep-91	1-Sep	30-Sep	21.8570	26-Jul	25-Aug	(0.3588)	21.4982
Oct-91	1-Oct	31-Oct	23.2296	26-Aug	25-Sep	0.2493	23.4789
Nov-91	1-Nov	30-Nov	22.4315	26-Sep	25-Oct	0.3060	22.7375
Dec-91	1-Dec	31-Dec	19.5314	26-Oct	25-Nov	0.0774	19.6088
Jan-92	1-Jan	31-Jan	18.8200	26-Nov	25-Dec	(0.2339)	18.5861
Feb-92	1-Feb	29-Feb	19.0053	26-Dec	25-Jan	(0.6124)	18.3929
Mar-92	1-Mar	31-Mar	18.9482	26-Jan	25-Feb	(0.4007)	18.5475
Apr-92	1-Apr	30-Apr	20.2567	26-Feb	25-Mar	(0.2917)	19.9650
May-92	1-May	31-May	20.9965	26-Mar	25-Apr	(0.3250)	20.6715
Jun-92	1-Jun	30-Jun	22.0700	26-Apr	25-May	(0.2993)	21.7708
Jul-92	1-Jul	31-Jul	21.7300	26-May	25-Jun	(0.2026)	21.5274
Aug-92	1-Aug	31-Aug	21.2867	26-Jun	25-Jul	(0.3405)	20.9462
Sep-92	1-Sep	30-Sep	21.9157	26-Jul	25-Aug	(0.4484)	21.4673
Oct-92	1-Oct	31-Oct	21.7068	26-Aug	25-Sep	(0.4057)	21.3011
Nov-92	1-Nov	30-Nov	20.3647	26-Sep	25-Oct	(0.3945)	19.9702
Dec-92	1-Dec	31-Dec	19.4300	26-Oct	25-Nov	(0.2452)	19.1848
Jan-93	1-Jan	31-Jan	19.0725	26-Nov	25-Dec	(0.3719)	18.7006
Feb-93	1-Feb	28-Feb	20.0758	26-Dec	25-Jan	(0.3915)	19.6843
Mar-93	1-Mar	31-Mar	20.3455	26-Jan	25-Feb	(0.2043)	20.1411
Apr-93	1-Apr	30-Apr	20.3252	26-Feb	25-Mar	(0.3812)	19.9440
May-93	1-May	31-May	19.9790	26-Mar	25-Apr	(0.3570)	19.6220
Jun-93	1-Jun	30-Jun	19.1336	26-Apr	25-May	(0.1014)	19.0323
Jul-93	1-Jul	31-Jul	17.8957	26-May	25-Jun	(0.1864)	17.7094
Aug-93	1-Aug	31-Aug	18.0132	26-Jun	25-Jul	(0.2021)	17.8111
Sep-93	1-Sep	30-Sep	17.5205	26-Jul	25-Aug	(0.1104)	17.4100
Oct-93	1-Oct	31-Oct	18.1729	26-Aug	25-Sep	(0.0883)	18.0845
Nov-93	1-Nov	30-Nov	16.7370	26-Sep	25-Oct	(0.1236)	16.6134
Dec-93	1-Dec	31-Dec	14.5329	26-Oct	25-Nov	(0.0730)	14.4599
Jan-94	1-Jan	31-Jan	15.0210	26-Nov	25-Dec	0.0297	15.0507
Feb-94	1-Feb	28-Feb	14.7816	26-Dec	25-Jan	0.0064	14.7880
Mar-94	1-Mar	31-Mar	14.6539	26-Jan	25-Feb	0.0407	14.6946
Apr-94	1-Apr	30-Apr	16.3263	26-Feb	25-Mar	0.0870	16.4133
May-94	1-May	31-May	17.8262	26-Mar	25-Apr	0.1705	17.9967
Jun-94	1-Jun	30-Jun	19.0686	26-Apr	25-May	0.0618	19.1305
Jul-94	1-Jul	31-Jul	19.6570	26-May	25-Jun	(0.8602)	18.7968
Aug-94	1-Aug	31-Aug	17.8846	26-Jun	25-Jul	(0.9310)	16.9536
Sep-94	1-Sep	30-Sep	17.4671	26-Jul	25-Aug	(0.2107)	17.2565
Oct-94	1-Oct	31-Oct	17.7114	26-Aug	25-Sep	(0.4695)	17.2419
Nov-94	1-Nov	30-Nov	18.0960	26-Sep	25-Oct	(0.1959)	17.9001
Dec-94	1-Dec	31-Dec	17.1562	26-Oct	25-Nov	0.2002	17.3564
Jan-95	1-Jan	31-Jan	17.9933	26-Nov	25-Dec	0.0840	18.0773
Feb-95	1-Feb	28-Feb	18.5347	26-Dec	25-Jan	(0.0236)	18.5112
Mar-95	1-Mar	31-Mar	18.5543	26-Jan	25-Feb	(0.2081)	18.3463
Apr-95	1-Apr	30-Apr	19.8879	26-Feb	25-Mar	(0.3985)	19.4894

HLS Calculations
NYMEX (No Roll) Methodology

May-95	1-May	31-May	19.7405	26-Mar	25-Apr	(0.0138)	19.7266
Jun-95	1-Jun	30-Jun	18.4005	26-Apr	25-May	(0.0343)	18.3661
Jul-95	1-Jul	31-Jul	17.2568	26-May	25-Jun	0.0630	17.3198
Aug-95	1-Aug	31-Aug	17.8126	26-Jun	25-Jul	0.0638	17.8764
Sep-95	1-Sep	30-Sep	18.2080	26-Jul	25-Aug	0.0154	18.2234
Oct-95	1-Oct	31-Oct	17.3977	26-Aug	25-Sep	(0.2223)	17.1755
Nov-95	1-Nov	30-Nov	17.9980	26-Sep	25-Oct	(0.0443)	17.9537
Dec-95	1-Dec	31-Dec	19.0375	26-Oct	25-Nov	(0.0697)	18.9678
Jan-96	1-Jan	31-Jan	18.7005	26-Nov	25-Dec	0.1122	18.8127
Feb-96	1-Feb	29-Feb	18.7825	26-Dec	25-Jan	0.2929	19.0754
Mar-96	1-Mar	31-Mar	21.1819	26-Jan	25-Feb	0.1968	21.3787
Apr-96	1-Apr	30-Apr	23.2943	26-Feb	25-Mar	0.0324	23.3267
May-96	1-May	31-May	21.0918	26-Mar	25-Apr	(0.5968)	20.4950
Jun-96	1-Jun	30-Jun	20.4295	26-Apr	25-May	(0.4126)	20.0169
Jul-96	1-Jul	31-Jul	21.2505	26-May	25-Jun	(0.6905)	20.5600
Aug-96	1-Aug	31-Aug	21.9064	26-Jun	25-Jul	(0.5208)	21.3856
Sep-96	1-Sep	30-Sep	23.9320	26-Jul	25-Aug	(0.0131)	23.9189
Oct-96	1-Oct	31-Oct	24.8865	26-Aug	25-Sep	0.0793	24.9658
Nov-96	1-Nov	30-Nov	23.5516	26-Sep	25-Oct	0.5020	24.0536
Dec-96	1-Dec	31-Dec	25.1238	26-Oct	25-Nov	0.6098	25.7336
Jan-97	1-Jan	31-Jan	25.1805	26-Nov	25-Dec	0.3311	25.5115
Feb-97	1-Feb	28-Feb	22.1721	26-Dec	25-Jan	(0.0895)	22.0826
Mar-97	1-Mar	31-Mar	20.9740	26-Jan	25-Feb	(0.1395)	20.8345
Apr-97	1-Apr	30-Apr	19.7268	26-Feb	25-Mar	(0.4742)	19.2526
May-97	1-May	31-May	20.8719	26-Mar	25-Apr	(0.8807)	19.9912
Jun-97	1-Jun	30-Jun	19.2176	26-Apr	25-May	(0.4865)	18.7311
Jul-97	1-Jul	31-Jul	19.6591	26-May	25-Jun	(0.5255)	19.1336
Aug-97	1-Aug	31-Aug	19.9457	26-Jun	25-Jul	(0.2871)	19.6586
Sep-97	1-Sep	30-Sep	19.7776	26-Jul	25-Aug	(0.2229)	19.5548
Oct-97	1-Oct	31-Oct	21.2787	26-Aug	25-Sep	(0.1509)	21.1278
Nov-97	1-Nov	30-Nov	20.2200	26-Sep	25-Oct	(0.3133)	19.9067
Dec-97	1-Dec	31-Dec	18.3200	26-Oct	25-Nov	(0.2655)	18.0545
Jan-98	1-Jan	31-Jan	16.7275	26-Nov	25-Dec	(0.2500)	16.4775
Feb-98	1-Feb	28-Feb	16.0805	26-Dec	25-Jan	(0.4882)	15.5924
Mar-98	1-Mar	31-Mar	15.0445	26-Jan	25-Feb	(0.7777)	14.2668
Apr-98	1-Apr	30-Apr	15.4648	26-Feb	25-Mar	(1.0810)	14.3838
May-98	1-May	31-May	14.9340	26-Mar	25-Apr	(1.0862)	13.8478
Jun-98	1-Jun	30-Jun	13.6695	26-Apr	25-May	(0.2352)	13.4343
Jul-98	1-Jul	31-Jul	14.0855	26-May	25-Jun	(0.5152)	13.5702
Aug-98	1-Aug	31-Aug	13.3819	26-Jun	25-Jul	(0.5805)	12.8014
Sep-98	1-Sep	30-Sep	14.9719	26-Jul	25-Aug	(0.5493)	14.4226
Oct-98	1-Oct	31-Oct	14.4150	26-Aug	25-Sep	(0.1905)	14.2245
Nov-98	1-Nov	30-Nov	13.0395	26-Sep	25-Oct	(0.5727)	12.4667
Dec-98	1-Dec	31-Dec	11.3109	26-Oct	25-Nov	(0.3787)	10.9322
Jan-99	1-Jan	31-Jan	12.4868	26-Nov	25-Dec	(0.2874)	12.1995
Feb-99	1-Feb	28-Feb	12.0211	26-Dec	25-Jan	(0.4184)	11.6026
Mar-99	1-Mar	31-Mar	14.6822	26-Jan	25-Feb	(0.8909)	13.7913
Apr-99	1-Apr	30-Apr	17.3024	26-Feb	25-Mar	(1.2208)	16.0816
May-99	1-May	31-May	17.7710	26-Mar	25-Apr	(0.9942)	16.7768
Jun-99	1-Jun	30-Jun	17.9200	26-Apr	25-May	(1.1059)	16.8141
Jul-99	1-Jul	31-Jul	20.0957	26-May	25-Jun	(1.1905)	18.9053
Aug-99	1-Aug	31-Aug	21.2791	26-Jun	25-Jul	(0.6650)	20.6141

HLS Calculations
NYMEX (No Roll) Methodology

Sep-99	1-Sep	30-Sep	23.7890	26-Jul	25-Aug	(0.1217)	23.6673
Oct-99	1-Oct	31-Oct	22.6748	26-Aug	25-Sep	(0.5140)	22.1607
Nov-99	1-Nov	30-Nov	24.7665	26-Sep	25-Oct	(0.6724)	24.0941
Dec-99	1-Dec	31-Dec	26.0886	26-Oct	25-Nov	(0.0080)	26.0806
Jan-00	1-Jan	31-Jan	27.0142	26-Nov	25-Dec	0.3184	27.3326
Feb-00	1-Feb	29-Feb	29.2975	26-Dec	25-Jan	(0.3713)	28.9262
Mar-00	1-Mar	31-Mar	29.8943	26-Jan	25-Feb	0.0420	29.9364
Apr-00	1-Apr	30-Apr	25.5368	26-Feb	25-Mar	(0.8775)	24.6593
May-00	1-May	31-May	28.8059	26-Mar	25-Apr	(0.8869)	27.9190
Jun-00	1-Jun	30-Jun	31.5300	26-Apr	25-May	(0.0345)	31.4955
Jul-00	1-Jul	31-Jul	29.7163	26-May	25-Jun	(0.5095)	29.2068
Aug-00	1-Aug	31-Aug	31.1378	26-Jun	25-Jul	(0.2880)	30.8498
Sep-00	1-Sep	30-Sep	33.8670	26-Jul	25-Aug	0.1687	34.0357
Oct-00	1-Oct	31-Oct	32.9323	26-Aug	25-Sep	(0.3265)	32.6058
Nov-00	1-Nov	30-Nov	34.2630	26-Sep	25-Oct	(0.4773)	33.7857
Dec-00	1-Dec	31-Dec	28.3985	26-Oct	25-Nov	0.7000	29.0985
Jan-01	1-Jan	31-Jan	29.2595	26-Nov	25-Dec	(0.1230)	29.1365
Feb-01	1-Feb	28-Feb	29.6447	26-Dec	25-Jan	(0.3681)	29.2766
Mar-01	1-Mar	31-Mar	27.2714	26-Jan	25-Feb	(1.4805)	25.7909
Apr-01	1-Apr	30-Apr	27.6210	26-Feb	25-Mar	(1.1763)	26.4448
May-01	1-May	31-May	28.6841	26-Mar	25-Apr	(0.4682)	28.2159
Jun-01	1-Jun	30-Jun	27.5848	26-Apr	25-May	0.4298	28.0145
Jul-01	1-Jul	31-Jul	26.4667	26-May	25-Jun	0.4652	26.9319
Aug-01	1-Aug	31-Aug	27.3091	26-Jun	25-Jul	(0.2383)	27.0708
Sep-01	1-Sep	30-Sep	25.6853	26-Jul	25-Aug	(1.0066)	24.6787
Oct-01	1-Oct	31-Oct	22.2148	26-Aug	25-Sep	0.1358	22.3506
Nov-01	1-Nov	30-Nov	19.6695	26-Sep	25-Oct	(0.5566)	19.1129
Dec-01	1-Dec	31-Dec	19.4037	26-Oct	25-Nov	(0.1858)	19.2179
Jan-02	1-Jan	31-Jan	19.7256	26-Nov	25-Dec	(0.1053)	19.6204
Feb-02	1-Feb	28-Feb	20.7558	26-Dec	25-Jan	0.0402	20.7960
Mar-02	1-Mar	31-Mar	24.4420	26-Jan	25-Feb	0.0748	24.5168
Apr-02	1-Apr	30-Apr	26.2582	26-Feb	25-Mar	0.0813	26.3394
May-02	1-May	31-May	26.9532	26-Mar	25-Apr	0.3714	27.3245
Jun-02	1-Jun	30-Jun	0.0000	26-Apr	25-May	(1.0174)	-1.0174
Jul-02	1-Jul	31-Jul	0.0000	26-May	25-Jun	0.0000	0.0000
Aug-02	1-Aug	31-Aug	0.0000	26-Jun	25-Jul	0.0000	0.0000
Sep-02	1-Sep	30-Sep	0.0000	26-Jul	25-Aug	0.0000	0.0000
Oct-02	1-Oct	31-Oct	0.0000	26-Aug	25-Sep	0.0000	0.0000
Nov-02	1-Nov	30-Nov	0.0000	26-Sep	25-Oct	0.0000	0.0000
Dec-02	1-Dec	31-Dec	0.0000	26-Oct	25-Nov	0.0000	0.0000

HLS Calculations
MMS RIV Methodology

Production Month	Period		Platts HLS (Concurrent)
Jan-87	26-Dec	25-Jan	
Feb-87	26-Jan	25-Feb	18.3648
Mar-87	26-Feb	25-Mar	18.3450
Apr-87	26-Mar	25-Apr	18.9083
May-87	26-Apr	25-May	19.5788
Jun-87	26-May	25-Jun	20.0391
Jul-87	26-Jun	25-Jul	21.1275
Aug-87	26-Jul	25-Aug	20.5659
Sep-87	26-Aug	25-Sep	19.5466
Oct-87	26-Sep	25-Oct	19.8816
Nov-87	26-Oct	25-Nov	19.5120
Dec-87	26-Nov	25-Dec	17.6829
Jan-88	26-Dec	25-Jan	17.4700
Feb-88	26-Jan	25-Feb	17.1114
Mar-88	26-Feb	25-Mar	15.8976
Apr-88	26-Mar	25-Apr	17.3750
May-88	26-Apr	25-May	17.2477
Jun-88	26-May	25-Jun	16.7214
Jul-88	26-Jun	25-Jul	15.4688
Aug-88	26-Jul	25-Aug	15.8457
Sep-88	26-Aug	25-Sep	14.9563
Oct-88	26-Sep	25-Oct	13.5714
Nov-88	26-Oct	25-Nov	13.6952
Dec-88	26-Nov	25-Dec	16.4638
Jan-89	26-Dec	25-Jan	18.1869
Feb-89	26-Jan	25-Feb	17.9321
Mar-89	26-Feb	25-Mar	19.1118
Apr-89	26-Mar	25-Apr	21.4432
May-89	26-Apr	25-May	20.5841
Jun-89	26-May	25-Jun	19.2613
Jul-89	26-Jun	25-Jul	19.3060
Aug-89	26-Jul	25-Aug	17.9435
Sep-89	26-Aug	25-Sep	19.1750
Oct-89	26-Sep	25-Oct	20.1619
Nov-89	26-Oct	25-Nov	20.3063
Dec-89	26-Nov	25-Dec	20.9775
Jan-90	26-Dec	25-Jan	23.0352
Feb-90	26-Jan	25-Feb	21.5920
Mar-90	26-Feb	25-Mar	19.9555
Apr-90	26-Mar	25-Apr	18.2912
May-90	26-Apr	25-May	17.7650
Jun-90	26-May	25-Jun	16.3108
Jul-90	26-Jun	25-Jul	17.6188
Aug-90	26-Jul	25-Aug	26.4073
Sep-90	26-Aug	25-Sep	32.5710

HLS Calculations
MMS RIV Methodology

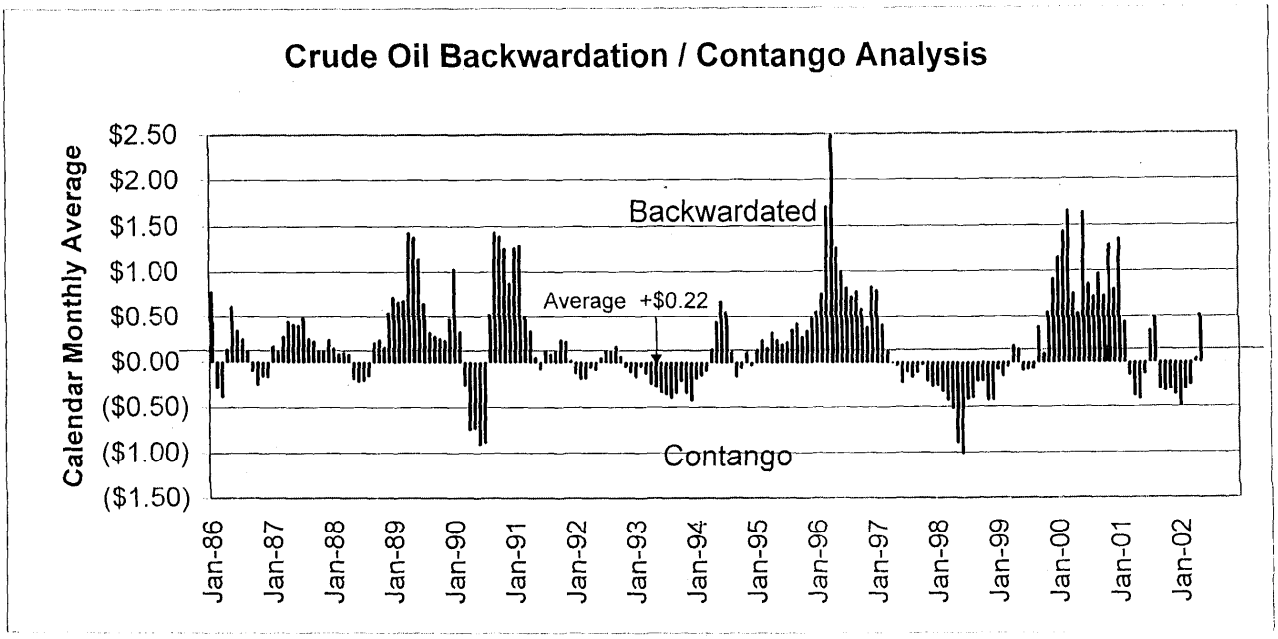
Oct-90	26-Sep	25-Oct	37.2950
Nov-90	26-Oct	25-Nov	33.7432
Dec-90	26-Nov	25-Dec	29.7033
Jan-91	26-Dec	25-Jan	26.8084
Feb-91	26-Jan	25-Feb	20.5578
Mar-91	26-Feb	25-Mar	19.9480
Apr-91	26-Mar	25-Apr	20.1657
May-91	26-Apr	25-May	20.6279
Jun-91	26-May	25-Jun	19.8586
Jul-91	26-Jun	25-Jul	20.7180
Aug-91	26-Jul	25-Aug	21.2340
Sep-91	26-Aug	25-Sep	22.0943
Oct-91	26-Sep	25-Oct	23.4064
Nov-91	26-Oct	25-Nov	22.8957
Dec-91	26-Nov	25-Dec	19.5858
Jan-92	26-Dec	25-Jan	18.1202
Feb-92	26-Jan	25-Feb	18.6517
Mar-92	26-Feb	25-Mar	18.5093
Apr-92	26-Mar	25-Apr	19.6588
May-92	26-Apr	25-May	20.3923
Jun-92	26-May	25-Jun	22.1333
Jul-92	26-Jun	25-Jul	21.4085
Aug-92	26-Jul	25-Aug	21.0289
Sep-92	26-Aug	25-Sep	21.3905
Oct-92	26-Sep	25-Oct	21.4820
Nov-92	26-Oct	25-Nov	20.2533
Dec-92	26-Nov	25-Dec	18.9911
Jan-93	26-Dec	25-Jan	18.5733
Feb-93	26-Jan	25-Feb	19.8216
Mar-93	26-Feb	25-Mar	19.9448
Apr-93	26-Mar	25-Apr	19.8955
May-93	26-Apr	25-May	19.9350
Jun-93	26-May	25-Jun	19.0214
Jul-93	26-Jun	25-Jul	17.7503
Aug-93	26-Jul	25-Aug	17.8487
Sep-93	26-Aug	25-Sep	17.4638
Oct-93	26-Sep	25-Oct	18.1955
Nov-93	26-Oct	25-Nov	16.8284
Dec-93	26-Nov	25-Dec	14.6855
Jan-94	26-Dec	25-Jan	14.8021
Feb-94	26-Jan	25-Feb	14.9707
Mar-94	26-Feb	25-Mar	14.8018
Apr-94	26-Mar	25-Apr	16.1500
May-94	26-Apr	25-May	17.7486
Jun-94	26-May	25-Jun	18.0507
Jul-94	26-Jun	25-Jul	18.6013
Aug-94	26-Jul	25-Aug	18.5748
Sep-94	26-Aug	25-Sep	16.8725
Oct-94	26-Sep	25-Oct	17.4745

Nov-94	26-Oct	25-Nov	18.3210
Dec-94	26-Nov	25-Dec	17.2758
Jan-95	26-Dec	25-Jan	17.8988
Feb-95	26-Jan	25-Feb	18.2457
Mar-95	26-Feb	25-Mar	18.0040
Apr-95	26-Mar	25-Apr	19.6264
May-95	26-Apr	25-May	19.9120
Jun-95	26-May	25-Jun	18.7255
Jul-95	26-Jun	25-Jul	17.4160
Aug-95	26-Jul	25-Aug	17.9861
Sep-95	26-Aug	25-Sep	18.0460
Oct-95	26-Sep	25-Oct	17.3839
Nov-95	26-Oct	25-Nov	17.7860
Dec-95	26-Nov	25-Dec	18.9055
Jan-96	26-Dec	25-Jan	19.4448
Feb-96	26-Jan	25-Feb	18.9040
Mar-96	26-Feb	25-Mar	20.9383
Apr-96	26-Mar	25-Apr	22.8075
May-96	26-Apr	25-May	21.0883
Jun-96	26-May	25-Jun	19.6950
Jul-96	26-Jun	25-Jul	20.9378
Aug-96	26-Jul	25-Aug	21.6086
Sep-96	26-Aug	25-Sep	23.5393
Oct-96	26-Sep	25-Oct	25.4600
Nov-96	26-Oct	25-Nov	24.4193
Dec-96	26-Nov	25-Dec	25.5926
Jan-97	26-Dec	25-Jan	25.2731
Feb-97	26-Jan	25-Feb	22.7452
Mar-97	26-Feb	25-Mar	20.5003
Apr-97	26-Mar	25-Apr	18.9195
May-97	26-Apr	25-May	20.3018
Jun-97	26-May	25-Jun	19.0407
Jul-97	26-Jun	25-Jul	19.2412
Aug-97	26-Jul	25-Aug	19.8005
Sep-97	26-Aug	25-Sep	19.4073
Oct-97	26-Sep	25-Oct	21.0219
Nov-97	26-Oct	25-Nov	20.1220
Dec-97	26-Nov	25-Dec	18.2039
Jan-98	26-Dec	25-Jan	16.2868
Feb-98	26-Jan	25-Feb	15.6109
Mar-98	26-Feb	25-Mar	13.7860
Apr-98	26-Mar	25-Apr	14.3979
May-98	26-Apr	25-May	14.8033
Jun-98	26-May	25-Jun	13.3457
Jul-98	26-Jun	25-Jul	13.5100
Aug-98	26-Jul	25-Aug	13.0327
Sep-98	26-Aug	25-Sep	14.3660
Oct-98	26-Sep	25-Oct	14.1093
Nov-98	26-Oct	25-Nov	12.9339

HLS Calculations
MMS RIV Methodology

Dec-98	26-Nov	25-Dec	10.9034
Jan-99	26-Dec	25-Jan	11.9332
Feb-99	26-Jan	25-Feb	11.1739
Mar-99	26-Feb	25-Mar	12.9400
Apr-99	26-Mar	25-Apr	15.9638
May-99	26-Apr	25-May	16.8311
Jun-99	26-May	25-Jun	16.4943
Jul-99	26-Jun	25-Jul	19.0708
Aug-99	26-Jul	25-Aug	20.9328
Sep-99	26-Aug	25-Sep	22.8205
Oct-99	26-Sep	25-Oct	22.4095
Nov-99	26-Oct	25-Nov	24.3932
Dec-99	26-Nov	25-Dec	26.3066
Jan-00	26-Dec	25-Jan	26.6274
Feb-00	26-Jan	25-Feb	29.0002
Mar-00	26-Feb	25-Mar	29.7613
Apr-00	26-Mar	25-Apr	25.2479
May-00	26-Apr	25-May	28.1495
Jun-00	26-May	25-Jun	30.9855
Jul-00	26-Jun	25-Jul	30.3950
Aug-00	26-Jul	25-Aug	30.6009
Sep-00	26-Aug	25-Sep	33.9530
Oct-00	26-Sep	25-Oct	32.1902
Nov-00	26-Oct	25-Nov	34.8095
Dec-00	26-Nov	25-Dec	29.8338
Jan-01	26-Dec	25-Jan	28.6598
Feb-01	26-Jan	25-Feb	28.2490
Mar-01	26-Feb	25-Mar	26.2050
Apr-01	26-Mar	25-Apr	26.6639
May-01	26-Apr	25-May	29.0182
Jun-01	26-May	25-Jun	28.4545
Jul-01	26-Jun	25-Jul	26.1248
Aug-01	26-Jul	25-Aug	26.3568
Sep-01	26-Aug	25-Sep	26.9229
Oct-01	26-Sep	25-Oct	21.7014
Nov-01	26-Oct	25-Nov	19.9850
Dec-01	26-Nov	25-Dec	18.8588
Jan-02	26-Dec	25-Jan	19.9157
Feb-02	26-Jan	25-Feb	20.4028
Mar-02	26-Feb	25-Mar	23.7675
Apr-02	26-Mar	25-Apr	26.4348
May-02	26-Apr	25-May	26.4188
Jun-02	26-May	25-Jun	0.0000
Jul-02	26-Jun	25-Jul	0.0000
Aug-02	26-Jul	25-Aug	0.0000
Sep-02	26-Aug	25-Sep	0.0000
Oct-02	26-Sep	25-Oct	0.0000
Nov-02	26-Oct	25-Nov	0.0000
Dec-02	26-Nov	25-Dec	0.0000

HLS Calculations
MMS RIV Methodology


Crude Oil Backwardation / Contango Analysis
Calendar Monthly Average
$2.50
$2.00
$1.50
$1.00
$0.50
$0.00
($0.50)
($1.00)
($1.50)
Backwardated
Average +$0.22
Contango
Jan-86
Jan-87
Jan-88
Jan-89
Jan-90
Jan-91
Jan-92
Jan-93
Jan-94
Jan-95
Jan-96
Jan-97
Jan-98
Jan-99
Jan-00
Jan-01
Jan-02

Koch Postings

Calendar Month	Koch Posting WT/NM Intermediate
Aug-96	20.3710
Sep-96	22.2500
Oct-96	23.3468
Nov-96	21.9917
Dec-96	23.3871
Jan-97	23.4839
Feb-97	20.4732
Mar-97	19.0806
Apr-97	18.1083
May-97	18.9758
Jun-97	17.1750
Jul-97	17.5242
Aug-97	17.7581
Sep-97	17.6250
Oct-97	19.1694
Nov-97	17.9917
Dec-97	16.1774
Jan-98	14.5565
Feb-98	13.8750
Mar-98	12.7581
Apr-98	13.1250
May-98	12.5242
Jun-98	11.0583
Jul-98	11.5081
Aug-98	10.8790
Sep-98	12.3917
Oct-98	11.8710
Nov-98	10.3417
Dec-98	8.5968
Jan-99	9.8387
Feb-99	9.2857
Mar-99	12.0403
Apr-99	14.6583
May-99	15.2581
Jun-99	15.3833
Jul-99	17.3790
Aug-99	18.5161
Sep-99	20.9417
Oct-99	19.9113
Nov-99	22.2417
Dec-99	23.2177
Jan-00	24.0484
Feb-00	26.5345
Mar-00	27.1935
Apr-00	22.7667
May-00	26.2984

Koch Postings

Jun-00	28.7917
Jul-00	27.1774
Aug-00	28.2419
Sep-00	30.8583
Oct-00	29.9597
Nov-00	31.4500
Dec-00	25.3790
Jan-01	26.4032
Feb-01	26.7054
Mar-01	24.2339
Apr-01	24.4917
May-01	25.5323
Jun-01	24.4250
Jul-01	23.3629
Aug-01	24.1048
Sep-01	23.3583
Oct-01	19.0242
Nov-01	16.4667
Dec-01	16.2823
Jan-02	16.5161
Feb-02	17.6071
Mar-02	21.3306
Apr-02	22.9500
May-02	23.7903
Jun-02	
Jul-02	
Aug-02	
Sep-02	
Oct-02	
Nov-02	
Dec-02	