

Gas Quality Reports

Coffeyville Area
9/6/2019 - 12/6/2019

Page 1 of 3

Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
09/06/2019	1,043.2	1,025.1	0.593	1,354.39	-136.57	1.336	0.408	92.000	5.806	0.404	0.010	0.022	0.004	0.008	0.003
09/07/2019	1,052.0	1,033.7	0.600	1,358.56	-139.04	1.309	0.413	92.261	5.663	0.332	0.004	0.010	0.002	0.003	0.002
09/08/2019	1,052.1	1,033.9	0.599	1,358.93	-138.42	1.363	0.395	92.049	5.839	0.343	0.003	0.007	0	0	0.002
09/09/2019	1,048.4	1,030.2	0.597	1,357.11	-50.23	1.314	0.390	91.304	6.055	0.710	0.052	0.113	0.021	0.032	0.010
09/10/2019	1,046.3	1,028.2	0.595	1,356.10	-135.89	1.312	0.412	91.828	6.005	0.406	0.009	0.020	0.003	0.003	0.002
09/11/2019	1,044.0	1,025.9	0.596	1,352.53	-138.42	1.328	0.394	92.102	5.821	0.341	0.002	0.007	0	0.001	0.002
09/12/2019	1,049.3	1,031.1	0.598	1,357.33	-136.20	1.368	0.411	91.801	5.991	0.391	0.010	0.021	0.002	0.002	0.003
09/13/2019	1,049.8	1,031.6	0.599	1,356.04	-137.96	1.392	0.415	91.666	6.309	0.208	0.002	0.006	0	0.001	0.002
09/14/2019	1,046.9	1,028.7	0.598	1,354.04	-135.22	1.421	0.409	91.132	6.812	0.211	0.003	0.008	0.001	0.001	0.002
09/15/2019	1,046.2	1,028.1	0.598	1,353.03	-137.49	1.457	0.406	91.460	6.482	0.186	0.001	0.005	0	0.001	0.002
09/16/2019	1,044.4	1,026.3	0.595	1,354.06	-137.38	1.461	0.404	91.407	6.544	0.177	0.001	0.004	0	0	0.002
09/17/2019	1,049.3	1,031.1	0.599	1,355.59	-138.45	1.463	0.413	91.587	6.362	0.168	0.001	0.004	0	0	0.002
09/18/2019	1,043.7	1,025.6	0.595	1,353.39	-139.79	1.384	0.414	91.935	6.103	0.156	0.001	0.004	0.001	0.001	0.002
09/19/2019	1,051.1	1,032.9	0.600	1,357.21	-137.92	1.464	0.414	91.469	6.488	0.159	0.001	0.004	0	0	0.002
09/20/2019	1,047.1	1,028.9	0.598	1,354.19	-137.51	1.402	0.442	91.696	6.218	0.205	0.006	0.018	0.003	0.004	0.005
09/21/2019	1,046.1	1,027.9	0.598	1,353.21	-138.12	1.363	0.465	91.709	6.261	0.182	0.003	0.010	0.001	0.002	0.004
09/22/2019	1,046.4	1,028.2	0.596	1,355.20	-139.31	1.493	0.400	91.681	6.283	0.137	0.001	0.004	0	0	0.002
09/23/2019	1,047.6	1,029.4	0.598	1,354.67	-138.29	1.470	0.410	91.513	6.453	0.148	0.001	0.004	0	0	0.002
09/24/2019	1,044.3	1,026.2	0.594	1,354.68	-138.96	1.395	0.427	91.717	6.310	0.144	0	0.004	0	0	0.002
09/25/2019	1,047.8	1,029.6	0.597	1,356.30	-140.63	1.302	0.430	92.133	5.995	0.135	0	0.003	0	0	0.002
09/26/2019	1,046.3	1,028.2	0.595	1,356.32	-140.78	1.293	0.446	92.168	5.949	0.137	0.001	0.004	0	0	0.002
09/27/2019	1,047.8	1,029.6	0.597	1,356.19	-138.48	1.282	0.436	91.801	6.317	0.156	0.001	0.005	0	0	0.002
09/28/2019	1,046.5	1,028.3	0.597	1,354.53	-138.07	1.250	0.450	91.793	6.314	0.184	0.001	0.005	0.001	0	0.002
09/29/2019	1,046.0	1,027.9	0.596	1,354.70	-138.35	1.291	0.469	91.794	6.252	0.181	0.002	0.007	0.001	0.001	0.003
09/30/2019	1,045.7	1,027.5	0.597	1,353.93	-138.96	1.422	0.423	91.731	6.260	0.154	0.001	0.006	0.001	0.001	0.002
10/01/2019	1,033.5	1,015.5	0.589	1,346.33	-138.99	1.374	0.431	91.859	6.159	0.157	0.002	0.009	0.002	0.004	0.003
10/02/2019	1,031.3	1,013.4	0.587	1,346.26	-140.24	1.430	0.420	91.973	6.009	0.157	0.001	0.006	0	0.001	0.002
10/03/2019	1,029.0	1,011.1	0.586	1,344.02	-151.13	1.448	0.400	93.764	4.259	0.119	0.001	0.005	0	0.001	0.002
10/04/2019	1,032.1	1,014.1	0.588	1,345.89	-150.92	1.382	0.416	93.767	4.323	0.102	0.001	0.005	0	0	0.002
10/05/2019	1,036.0	1,018.0	0.591	1,347.46	-151.19	1.444	0.407	93.742	4.295	0.102	0.001	0.005	0.001	0.001	0.002
10/06/2019	1,031.4	1,013.5	0.587	1,346.27	-148.78	1.513	0.401	93.479	4.400	0.183	0.005	0.011	0.002	0.002	0.004
10/07/2019	1,034.8	1,016.8	0.589	1,347.92	-150.45	1.470	0.396	93.690	4.286	0.147	0.001	0.006	0.001	0.001	0.003
10/08/2019	1,035.1	1,017.1	0.590	1,347.91	-149.80	1.425	0.407	93.637	4.374	0.142	0.002	0.007	0.002	0.002	0.003
10/09/2019	1,033.3	1,015.4	0.589	1,346.32	-149.85	1.426	0.409	93.624	4.392	0.135	0.002	0.007	0.001	0.001	0.003
10/10/2019	1,032.3	1,014.4	0.588	1,346.69	-149.18	1.580	0.403	93.383	4.464	0.151	0.003	0.009	0.002	0.002	0.003
10/11/2019	1,029.6	1,011.7	0.587	1,343.77	-148.17	1.442	0.407	93.334	4.661	0.142	0.002	0.007	0.001	0.001	0.002
10/12/2019	1,030.1	1,012.2	0.586	1,345.34	-151.35	1.489	0.405	93.684	4.319	0.095	0.001	0.005	0	0	0.002
10/13/2019	1,030.8	1,012.9	0.588	1,344.34	-151.40	1.482	0.414	93.674	4.329	0.094	0	0.004	0	0	0.002
10/14/2019	1,030.1	1,012.2	0.588	1,343.67	-150.29	1.515	0.407	93.528	4.426	0.112	0.001	0.006	0.001	0.001	0.002
10/15/2019	1,031.2	1,013.3	0.587	1,345.95	-150.79	1.500	0.408	93.609	4.366	0.107	0.001	0.005	0	0	0.002
10/16/2019	1,064.6	1,046.2	0.609	1,364.70	-150.73	1.440	0.404	93.712	4.313	0.122	0.001	0.005	0.001	0.001	0.002
10/17/2019	1,032.4	1,014.5	0.587	1,347.66	-61.77	1.407	0.402	92.971	4.657	0.411	0.030	0.075	0.015	0.019	0.013
10/18/2019	1,032.8	1,014.9	0.588	1,347.36	-144.22	1.420	0.400	93.241	4.581	0.293	0.015	0.033	0.006	0.006	0.007

Gas Quality Reports

Coffeyville Area

Page 2 of 3

9/6/2019 - 12/6/2019

Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
10/19/2019	1,030.9	1,012.9	0.587	1,345.92	-148.87	1.387	0.404	93.618	4.403	0.163	0.005	0.012	0.002	0.002	0.003
10/20/2019	1,031.0	1,013.1	0.587	1,345.98	-150.53	1.367	0.418	93.778	4.299	0.125	0.002	0.007	0.001	0.001	0.003
10/21/2019	1,057.0	1,038.7	0.603	1,361.30	-151.12	1.417	0.409	93.779	4.271	0.114	0.001	0.005	0	0	0.003
10/22/2019	1,051.8	1,033.6	0.599	1,358.95	-48.59	1.354	0.420	92.895	4.656	0.483	0.038	0.090	0.020	0.025	0.019
10/23/2019	1,050.0	1,031.8	0.597	1,358.47	-23.96	1.311	0.423	92.387	4.814	0.702	0.070	0.171	0.038	0.047	0.036
10/24/2019	1,035.5	1,017.5	0.590	1,348.57	-28.64	1.260	0.422	92.494	4.850	0.645	0.063	0.155	0.035	0.044	0.032
10/25/2019	1,033.7	1,015.7	0.588	1,348.05	-50.27	1.263	0.421	92.919	4.679	0.522	0.040	0.095	0.020	0.024	0.018
10/26/2019	1,035.4	1,017.4	0.590	1,348.51	-146.43	1.384	0.423	93.185	4.809	0.182	0.002	0.008	0.001	0.002	0.003
10/27/2019	1,035.8	1,017.8	0.589	1,349.21	-148.16	1.383	0.406	93.413	4.640	0.145	0.002	0.007	0.001	0.001	0.002
10/28/2019	1,040.9	1,022.8	0.594	1,350.64	-146.95	1.378	0.405	93.325	4.682	0.190	0.004	0.010	0.002	0.001	0.003
10/29/2019	1,076.5	1,057.8	0.616	1,371.49	-146.54	1.397	0.417	93.204	4.780	0.183	0.004	0.010	0.002	0.001	0.003
10/30/2019	1,031.0	1,013.0	0.585	1,347.35	-140.49	1.424	0.413	92.745	5.009	0.319	0.019	0.044	0.009	0.010	0.007
10/31/2019	1,030.4	1,012.5	0.587	1,345.11	-72.35	1.500	0.369	92.924	4.683	0.416	0.024	0.053	0.009	0.011	0.010
11/01/2019	1,036.1	1,018.1	0.590	1,349.35	-143.41	1.415	0.404	93.312	4.480	0.292	0.019	0.048	0.010	0.012	0.008
11/02/2019	1,050.9	1,032.6	0.598	1,358.95	-149.76	1.470	0.385	93.516	4.509	0.109	0.001	0.006	0.001	0.001	0.002
11/03/2019	1,049.4	1,031.2	0.597	1,357.69	-138.91	1.348	0.389	91.914	6.141	0.200	0.001	0.005	0	0	0.002
11/04/2019	1,053.1	1,034.8	0.599	1,360.48	-137.09	1.371	0.388	91.473	6.589	0.174	0	0.003	0	0	0.002
11/05/2019	1,057.9	1,039.5	0.602	1,362.97	-138.82	1.319	0.384	91.917	6.215	0.147	0.002	0.009	0.002	0.002	0.003
11/06/2019	1,055.7	1,037.3	0.601	1,361.37	-136.69	1.303	0.387	91.769	6.305	0.188	0.008	0.023	0.005	0.006	0.006
11/07/2019	1,052.4	1,034.1	0.600	1,359.07	-131.78	1.363	0.388	91.113	6.737	0.322	0.014	0.037	0.008	0.010	0.008
11/08/2019	1,051.7	1,033.4	0.599	1,359.07	-133.05	1.296	0.389	91.249	6.741	0.266	0.010	0.028	0.007	0.008	0.006
11/09/2019	1,048.1	1,029.8	0.597	1,356.51	-134.92	1.323	0.396	91.551	6.401	0.273	0.010	0.027	0.006	0.007	0.005
11/10/2019	1,047.7	1,029.5	0.596	1,356.71	-135.93	1.324	0.396	91.653	6.341	0.238	0.008	0.024	0.005	0.006	0.005
11/11/2019	1,046.0	1,027.9	0.596	1,355.14	-138.06	1.423	0.408	91.702	6.224	0.230	0.002	0.008	0	0	0.002
11/12/2019	1,044.7	1,026.6	0.596	1,353.76	-138.27	1.354	0.391	91.757	6.304	0.184	0.001	0.005	0.001	0.001	0.002
11/13/2019	1,052.6	1,034.3	0.600	1,359.40	-138.72	1.363	0.395	92.027	5.964	0.219	0.005	0.016	0.003	0.004	0.004
11/14/2019	1,057.4	1,039.1	0.602	1,362.34	-138.78	1.425	0.389	91.949	5.999	0.208	0.004	0.015	0.003	0.004	0.004
11/15/2019	1,043.2	1,025.1	0.596	1,351.45	-136.80	1.371	0.388	91.765	6.177	0.258	0.008	0.021	0.004	0.005	0.004
11/16/2019	1,042.6	1,024.5	0.595	1,351.59	-138.07	1.404	0.410	91.822	6.115	0.219	0.005	0.015	0.003	0.003	0.004
11/17/2019	1,045.0	1,026.9	0.596	1,353.33	-140.25	1.456	0.402	92.021	5.932	0.174	0.002	0.008	0.002	0.001	0.003
11/18/2019	1,044.5	1,026.3	0.596	1,353.28	-138.51	1.500	0.400	91.809	6.010	0.255	0.005	0.014	0.002	0.002	0.003
11/27/2019	1,059.0	1,040.6	0.603	1,363.58	-139.10	1.363	0.396	91.862	6.205	0.167	0.001	0.004	0	0	0.002
11/28/2019	1,047.6	1,029.4	0.597	1,355.37	-138.91	1.381	0.406	91.880	6.126	0.193	0.002	0.007	0.001	0.001	0.003
11/29/2019	1,049.9	1,031.6	0.598	1,357.50	-138.19	1.371	0.388	91.767	6.261	0.203	0.002	0.006	0	0	0.002
11/30/2019	1,047.9	1,029.7	0.597	1,355.73	-138.80	1.393	0.394	91.795	6.229	0.182	0.001	0.004	0	0	0.002
12/01/2019	1,045.4	1,027.2	0.596	1,353.86	-138.04	1.385	0.393	91.601	6.459	0.157	0	0.003	0	0	0.001
12/02/2019	1,043.4	1,025.3	0.595	1,352.47	-138.54	1.383	0.402	91.723	6.321	0.163	0.001	0.005	0	0	0.002
12/03/2019	1,038.2	1,020.2	0.591	1,350.25	-139.10	1.429	0.397	91.807	6.184	0.172	0.001	0.005	0.001	0	0.002
12/04/2019	1,038.9	1,020.9	0.591	1,351.72	-138.91	1.461	0.393	91.779	6.163	0.190	0.002	0.008	0	0.001	0.002

Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
---------	-------------------------------------	-----------------------------------	------------------	-------------	-------------------------------------	-----------	------------	----------------	---------------	----------------	------------------	-----------------	-------------------	------------------	----------------

NOTES:
Wobbe Index: Interchangeability constant calculated using the Gross (or Higher) Heating Value (HHV) divided by the square root of the Specific Gravity
Hydrocarbon Dewpoint (HCDP): Theoretically determined value using the Redlich-Kwong equation of state (EOS)

Selection: Business Unit ID = 70; Analysis_Key = 69032