

Gas Quality Reports

LS423 - Jane 20"
5/17/2019 - 8/17/2019

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%)
05/17/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/18/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/19/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/20/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/21/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/22/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/23/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/24/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/25/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/26/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/27/2019	1,024.9	1,007.1	0.590	1,334.78	-151.36	1.939	0.469	93.222	4.207	0.144	0.005	0.008	0.008	0.002	0.004
05/28/2019	1,029.1	1,011.2	0.591	1,339.18	-147.65	1.790	0.461	93.167	4.336	0.196	0.011	0.020	0.020	0.005	0.010
05/29/2019	1,027.3	1,009.4	0.589	1,338.63	-149.87	1.805	0.423	93.393	4.182	0.159	0.008	0.015	0.015	0.004	0.007
05/30/2019	1,024.8	1,007.0	0.587	1,337.13	-152.12	1.866	0.385	93.617	3.965	0.136	0.006	0.012	0.012	0.003	0.006
05/31/2019	1,022.3	1,004.5	0.587	1,334.46	-153.14	1.929	0.411	93.788	3.671	0.161	0.010	0.017	0.017	0.004	0.007
06/01/2019	1,022.2	1,004.4	0.586	1,334.88	-153.61	1.925	0.387	93.854	3.629	0.170	0.009	0.014	0.014	0.003	0.006
06/02/2019	1,020.8	1,003.0	0.585	1,334.35	-155.57	1.900	0.387	94.077	3.446	0.159	0.008	0.013	0.013	0.002	0.005
06/03/2019	1,019.3	1,001.5	0.585	1,333.12	-156.76	1.947	0.376	94.180	3.314	0.155	0.007	0.012	0.012	0.002	0.004
06/04/2019	1,019.3	1,001.5	0.585	1,333.12	-156.76	1.947	0.376	94.180	3.314	0.155	0.007	0.012	0.012	0.002	0.004
06/05/2019	1,019.3	1,001.5	0.585	1,333.12	-156.76	1.947	0.376	94.180	3.314	0.155	0.007	0.012	0.012	0.002	0.004
06/06/2019	1,018.1	1,000.4	0.584	1,332.07	-157.95	1.884	0.436	94.332	3.180	0.143	0.006	0.011	0.011	0.002	0.005
06/07/2019	1,018.9	1,001.1	0.582	1,336.04	-159.63	1.600	0.432	94.857	2.979	0.110	0.005	0.009	0.009	0.002	0.005
06/08/2019	1,016.7	999.0	0.583	1,331.36	-159.85	1.868	0.442	94.464	3.103	0.107	0.003	0.006	0.006	0.001	0.004
06/09/2019	1,016.5	998.8	0.584	1,330.44	-159.97	1.877	0.479	94.370	3.162	0.102	0.003	0.004	0.004	0	0.003
06/10/2019	1,016.8	999.2	0.583	1,331.93	-159.54	1.794	0.464	94.634	2.942	0.136	0.008	0.014	0.014	0.003	0.003
06/11/2019	1,017.5	999.8	0.585	1,330.89	-156.49	1.908	0.466	94.404	2.979	0.181	0.014	0.025	0.025	0.007	0.011
06/12/2019	1,021.8	1,004.0	0.586	1,334.66	-153.28	1.877	0.417	94.046	3.376	0.238	0.011	0.018	0.018	0.004	0.008
06/13/2019	1,022.6	1,004.8	0.587	1,334.55	-152.99	1.893	0.438	93.774	3.685	0.173	0.008	0.015	0.015	0.003	0.007
06/14/2019	1,020.1	1,002.4	0.586	1,332.11	-155.38	1.962	0.448	93.851	3.580	0.130	0.006	0.010	0.010	0.003	0.007
06/15/2019	1,020.5	1,002.8	0.587	1,332.43	-155.68	1.949	0.451	93.783	3.675	0.126	0.004	0.005	0.005	0.001	0.004
06/16/2019	1,019.1	1,001.4	0.586	1,331.03	-156.79	1.953	0.480	93.872	3.559	0.123	0.003	0.006	0.006	0	0.003
06/17/2019	1,019.0	1,001.3	0.584	1,333.34	-157.71	1.815	0.443	94.329	3.258	0.132	0.006	0.010	0.010	0.002	0.004
06/18/2019	1,020.2	1,002.4	0.585	1,334.24	-155.95	1.816	0.428	94.287	3.274	0.154	0.009	0.016	0.016	0.004	0.008
06/19/2019	1,020.9	1,003.1	0.584	1,335.50	-156.58	1.739	0.434	94.286	3.387	0.130	0.005	0.009	0.009	0.002	0.006
06/20/2019	1,022.9	1,005.1	0.584	1,338.26	-155.74	1.593	0.443	94.341	3.474	0.124	0.005	0.010	0.010	0.002	0.006
06/21/2019	1,022.8	1,005.0	0.584	1,338.91	-155.64	1.593	0.405	94.488	3.325	0.155	0.008	0.015	0.015	0.002	0.006
06/22/2019	1,023.4	1,005.6	0.583	1,340.29	-156.27	1.496	0.413	94.576	3.361	0.130	0.006	0.010	0.010	0.002	0.004
06/23/2019	1,021.7	1,003.9	0.583	1,338.19	-157.77	1.539	0.444	94.576	3.317	0.111	0.003	0.006	0.006	0.001	0.002
06/24/2019	1,019.0	1,001.3	0.583	1,334.87	-158.56	1.730	0.415	94.583	3.132	0.114	0.006	0.011	0.011	0.003	0.004
06/25/2019	1,018.7	1,000.9	0.584	1,332.89	-157.39	1.889	0.406	94.315	3.228	0.130	0.007	0.013	0.013	0.003	0.006
06/26/2019	1,019.5	1,001.8	0.584	1,334.30	-157.80	1.815	0.407	94.316	3.330	0.116	0.004	0.007	0.007	0.001	0.004
06/27/2019	1,024.8	1,006.9	0.589	1,335.52	-149.77	1.935	0.426	93.544	3.800	0.227	0.015	0.033	0.033	0.007	0.007
06/28/2019	1,022.8	1,005.0	0.586	1,335.88	-152.26	1.822	0.417	94.052	3.460	0.183	0.013	0.028	0.028	0.007	0.012

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06/29/2019	1,024.1	1,006.3	0.586	1,337.60	-151.67	1.755	0.411	94.048	3.534	0.186	0.013	0.029	0.029	0.008	0.010
06/30/2019	1,023.5	1,005.7	0.585	1,337.96	-152.50	1.680	0.421	94.277	3.374	0.178	0.014	0.031	0.031	0.008	0.011
07/01/2019	1,024.5	1,006.7	0.586	1,338.88	-62.90	1.687	0.397	94.321	3.268	0.221	0.020	0.046	0.046	0.013	0.015
07/02/2019	1,026.7	1,008.8	0.588	1,338.63	-56.77	1.765	0.428	93.832	3.616	0.242	0.024	0.050	0.050	0.013	0.018
07/03/2019	1,027.7	1,009.8	0.589	1,338.86	-148.42	1.720	0.479	93.506	4.046	0.181	0.013	0.028	0.028	0.008	0.012
07/04/2019	1,025.5	1,007.7	0.586	1,339.44	-153.62	1.535	0.500	93.961	3.886	0.106	0.003	0.004	0.004	0	0.005
07/05/2019	1,027.6	1,009.7	0.588	1,340.25	-151.87	1.564	0.501	93.623	4.185	0.116	0.003	0.004	0.004	0	0.003
07/06/2019	1,026.9	1,009.0	0.587	1,340.51	-152.02	1.547	0.477	93.860	3.957	0.131	0.006	0.012	0.012	0.003	0.004
07/07/2019	1,026.9	1,009.0	0.587	1,340.74	-151.51	1.499	0.495	93.991	3.827	0.143	0.009	0.019	0.019	0.005	0.008
07/08/2019	1,026.5	1,008.6	0.588	1,338.43	-150.98	1.707	0.471	93.590	4.061	0.136	0.008	0.014	0.014	0.003	0.008
07/09/2019	1,027.1	1,009.2	0.589	1,338.89	-150.44	1.691	0.478	93.537	4.110	0.147	0.008	0.015	0.015	0.004	0.007
07/10/2019	1,028.0	1,010.1	0.589	1,339.12	-149.15	1.788	0.429	93.361	4.193	0.185	0.011	0.020	0.020	0.004	0.006
07/11/2019	1,041.5	1,023.4	0.598	1,347.06	-52.18	1.680	0.492	92.157	5.119	0.411	0.030	0.069	0.069	0.016	0.014
07/12/2019	1,044.8	1,026.7	0.600	1,349.11	-32.96	1.681	0.482	91.985	5.181	0.455	0.041	0.101	0.101	0.026	0.026
07/13/2019	1,039.8	1,021.7	0.596	1,347.11	-45.05	1.653	0.451	92.519	4.865	0.374	0.026	0.061	0.061	0.017	0.022
07/14/2019	1,038.5	1,020.4	0.596	1,345.13	-69.82	1.666	0.512	92.271	5.183	0.300	0.015	0.031	0.031	0.007	0.012
07/15/2019	1,036.0	1,018.0	0.595	1,343.59	-143.14	1.703	0.496	92.367	5.172	0.235	0.007	0.012	0.012	0.002	0.005
07/16/2019	1,037.3	1,019.2	0.595	1,344.74	-142.46	1.665	0.497	92.301	5.261	0.249	0.008	0.012	0.012	0.001	0.005
07/17/2019	1,037.9	1,019.8	0.597	1,343.51	-141.27	1.772	0.513	91.947	5.486	0.251	0.009	0.014	0.014	0.002	0.004
07/18/2019	1,038.9	1,020.8	0.595	1,346.60	-141.68	1.558	0.516	92.312	5.323	0.261	0.009	0.013	0.013	0.002	0.004
07/19/2019	1,035.8	1,017.8	0.594	1,343.99	-144.16	1.662	0.492	92.472	5.129	0.224	0.006	0.009	0.009	0.001	0.003
07/20/2019	1,036.0	1,018.0	0.593	1,344.90	-144.47	1.600	0.490	92.592	5.069	0.233	0.006	0.008	0.008	0	0.003
07/21/2019	1,036.1	1,018.1	0.593	1,346.02	-144.85	1.541	0.470	92.759	4.984	0.228	0.006	0.009	0.009	0.001	0.002
07/22/2019	1,035.7	1,017.6	0.593	1,344.58	-144.48	1.635	0.474	92.597	5.046	0.228	0.006	0.010	0.010	0.001	0.003
07/23/2019	1,034.5	1,016.5	0.594	1,342.69	-144.72	1.735	0.476	92.496	5.055	0.215	0.006	0.010	0.010	0.001	0.003
07/24/2019	1,033.9	1,015.9	0.594	1,341.17	-144.59	1.778	0.512	92.403	5.072	0.209	0.007	0.011	0.011	0.002	0.004
07/25/2019	1,035.0	1,017.0	0.593	1,343.65	-144.77	1.678	0.477	92.566	5.030	0.233	0.005	0.007	0.007	0	0.003
07/26/2019	1,035.0	1,017.0	0.592	1,345.06	-145.32	1.564	0.473	92.876	4.816	0.251	0.006	0.009	0.009	0.001	0.003
07/27/2019	1,034.7	1,016.7	0.592	1,344.80	-145.68	1.567	0.476	92.882	4.818	0.242	0.006	0.008	0.008	0	0.003
07/28/2019	1,035.7	1,017.7	0.592	1,345.83	-144.74	1.523	0.479	92.903	4.792	0.274	0.010	0.013	0.013	0.001	0.003
07/29/2019	1,036.5	1,018.4	0.594	1,344.95	-143.31	1.615	0.492	92.551	5.053	0.261	0.008	0.013	0.013	0.002	0.004
07/30/2019	1,037.0	1,019.0	0.595	1,343.98	-141.81	1.696	0.510	92.292	5.182	0.279	0.010	0.019	0.019	0.003	0.006
07/31/2019	1,040.7	1,022.6	0.596	1,347.75	-140.38	1.557	0.510	92.121	5.486	0.300	0.008	0.011	0.011	0.001	0.005
08/01/2019	1,039.9	1,021.8	0.594	1,349.54	-141.40	1.421	0.476	92.682	5.054	0.326	0.012	0.019	0.019	0.003	0.005
08/02/2019	1,040.9	1,022.7	0.598	1,346.28	-138.97	1.705	0.499	91.824	5.636	0.290	0.011	0.021	0.021	0.004	0.007
08/03/2019	1,045.5	1,027.3	0.602	1,347.99	-134.99	1.717	0.544	91.180	6.140	0.358	0.018	0.027	0.027	0.004	0.006
08/04/2019	1,044.1	1,025.9	0.600	1,348.33	-137.22	1.656	0.522	91.444	6.042	0.302	0.010	0.015	0.015	0.002	0.006
08/05/2019	1,047.8	1,029.6	0.603	1,349.43	-134.27	1.744	0.521	90.772	6.611	0.315	0.011	0.016	0.016	0.002	0.005
08/06/2019	1,048.4	1,030.2	0.602	1,350.85	-134.70	1.669	0.512	90.839	6.664	0.290	0.008	0.011	0.011	0.002	0.004
08/07/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/08/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/09/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/10/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003

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LS423 - Jane 20"

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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%)
08/11/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/12/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/13/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/14/2019	1,048.3	1,030.1	0.604	1,349.30	-134.11	1.799	0.509	90.570	6.787	0.312	0.007	0.010	0.010	0.001	0.003
08/15/2019	1,046.3	1,028.1	0.602	1,349.06	-134.95	1.729	0.504	91.089	6.297	0.334	0.012	0.021	0.021	0.004	0.007

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 = 53873