



## Gas Quality Reports

LS423 - Jane 20"  
11/25/2019 - 2/25/2020

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%)
01/07/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/08/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/09/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/10/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/11/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/12/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/13/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/14/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/15/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/16/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/17/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/18/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/19/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/20/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/21/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/22/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/23/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/24/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/25/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/26/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/28/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/29/2020	1,026.7	1,008.9	0.607	1,317.39	-13.20	3.445	0.511	89.896	5.741	0.291	0.013	0.022	0.022	0.004	0.074
01/30/2020	1,028.6	1,010.6	0.584	1,345.95	-153.67	0.753	0.756	94.878	3.418	0.166	0.007	0.010	0.010	0.002	0.008
01/31/2020	1,028.8	1,010.9	0.584	1,346.59	-154.33	0.671	0.783	94.970	3.375	0.173	0.008	0.011	0.011	0.002	0.004
02/01/2020	1,029.4	1,011.5	0.584	1,346.61	-153.27	0.676	0.797	94.857	3.469	0.173	0.008	0.011	0.011	0.002	0.006
02/02/2020	1,029.1	1,011.1	0.587	1,343.47	-150.92	1.139	0.651	94.211	3.771	0.189	0.009	0.015	0.015	0.003	0.008
02/03/2020	1,026.5	1,008.6	0.587	1,339.43	-60.98	1.706	0.417	93.925	3.656	0.205	0.018	0.036	0.036	0.010	0.018
02/04/2020	1,032.1	1,014.1	0.592	1,341.87	-57.29	1.786	0.405	93.225	4.123	0.339	0.027	0.056	0.056	0.012	0.015
02/05/2020	1,029.8	1,011.8	0.589	1,341.82	-61.94	1.705	0.390	93.602	3.954	0.253	0.019	0.041	0.041	0.010	0.016
02/06/2020	1,025.8	1,007.9	0.586	1,340.26	-70.39	1.649	0.386	94.147	3.572	0.173	0.013	0.029	0.029	0.009	0.015
02/07/2020	1,026.5	1,008.6	0.589	1,337.02	-149.53	1.870	0.440	93.347	4.112	0.188	0.008	0.017	0.017	0.005	0.009
02/08/2020	1,027.7	1,009.8	0.591	1,337.14	-148.28	1.902	0.452	93.093	4.312	0.200	0.008	0.016	0.016	0.004	0.009
02/09/2020	1,028.1	1,010.2	0.590	1,338.15	-148.42	1.862	0.435	93.164	4.301	0.198	0.008	0.016	0.016	0.004	0.009
02/10/2020	1,030.9	1,013.0	0.592	1,339.35	-145.09	1.889	0.441	92.838	4.498	0.274	0.014	0.028	0.028	0.005	0.009
02/11/2020	1,027.6	1,009.7	0.590	1,337.28	-148.12	1.900	0.442	93.166	4.226	0.216	0.010	0.022	0.022	0.005	0.009
02/12/2020	1,027.7	1,009.8	0.590	1,337.71	-148.18	1.880	0.436	93.212	4.199	0.223	0.011	0.023	0.023	0.004	0.008
02/13/2020	1,028.7	1,010.7	0.584	1,346.00	-153.00	0.923	0.644	94.755	3.468	0.175	0.008	0.013	0.013	0.004	0.007
02/14/2020	1,031.2	1,013.2	0.585	1,348.44	-151.64	0.720	0.723	94.723	3.621	0.178	0.008	0.013	0.013	0.003	0.008
02/15/2020	1,029.5	1,011.6	0.586	1,344.59	-151.24	1.005	0.693	94.356	3.720	0.189	0.009	0.013	0.013	0.003	0.008
02/16/2020	1,029.8	1,011.8	0.592	1,338.69	-146.70	1.908	0.428	92.888	4.512	0.224	0.008	0.015	0.015	0.004	0.010
02/17/2020	1,028.7	1,010.8	0.590	1,338.95	-148.15	1.833	0.431	93.159	4.339	0.199	0.008	0.016	0.016	0.004	0.008
02/18/2020	1,027.7	1,009.8	0.589	1,338.68	-148.76	1.822	0.420	93.361	4.149	0.198	0.011	0.021	0.021	0.004	0.009
02/19/2020	1,027.6	1,009.7	0.590	1,338.12	-148.67	1.851	0.427	93.301	4.173	0.195	0.010	0.022	0.022	0.006	0.008

## Gas Quality Reports

LS423 - Jane 20"

11/25/2019 - 2/25/2020

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%)
02/20/2020	1,029.1	1,011.1	0.590	1,339.79	-147.89	1.788	0.425	93.274	4.248	0.214	0.012	0.024	0.024	0.005	0.006
02/21/2020	1,028.5	1,010.5	0.589	1,339.65	-148.49	1.691	0.477	93.459	4.118	0.202	0.011	0.021	0.021	0.006	0.010
02/22/2020	1,028.7	1,010.8	0.592	1,337.47	-146.76	1.943	0.439	92.936	4.426	0.200	0.010	0.022	0.022	0.006	0.013
02/23/2020	1,031.1	1,013.1	0.593	1,338.46	-145.35	1.971	0.443	92.517	4.817	0.213	0.008	0.015	0.015	0.004	0.009

**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