

Gas Quality Reports

LS260 - Grabham to Saginaw at Saginaw
5/13/2020 - 8/13/2020

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%)
05/13/2020	1,022.6	1,004.7	0.590	1,331.17	-151.26	2.222	0.405	93.144	3.961	0.226	0.010	0.019	0.004	0.004	0.005
05/14/2020	1,010.7	993.0	0.587	1,319.47	-159.64	2.622	0.400	93.705	3.070	0.166	0.009	0.016	0.004	0.004	0.005
05/15/2020	1,015.1	997.4	0.587	1,325.26	-157.33	2.366	0.394	93.762	3.258	0.178	0.010	0.018	0.004	0.004	0.005
05/16/2020	1,019.5	1,001.8	0.586	1,332.04	-155.69	2.028	0.387	93.995	3.362	0.183	0.010	0.020	0.005	0.005	0.006
05/17/2020	1,019.8	1,002.0	0.585	1,333.44	-156.27	1.924	0.386	94.205	3.262	0.178	0.010	0.020	0.005	0.005	0.005
05/18/2020	1,017.5	999.7	0.586	1,329.12	-156.40	2.154	0.397	93.978	3.220	0.202	0.011	0.021	0.005	0.005	0.006
05/19/2020	1,022.7	1,004.9	0.590	1,331.46	-150.60	2.262	0.366	93.217	3.814	0.282	0.014	0.027	0.006	0.006	0.006
05/20/2020	1,021.7	1,003.8	0.588	1,332.35	-152.39	2.153	0.356	93.597	3.584	0.257	0.013	0.025	0.005	0.005	0.006
05/21/2020	1,019.2	1,001.4	0.584	1,333.55	-156.62	1.957	0.342	94.339	3.106	0.209	0.011	0.021	0.005	0.005	0.006
05/22/2020	1,020.0	1,002.2	0.585	1,333.50	-155.61	1.989	0.347	94.175	3.220	0.220	0.012	0.022	0.005	0.005	0.006
05/23/2020	1,018.7	1,000.9	0.583	1,334.63	-157.99	1.842	0.342	94.651	2.929	0.190	0.010	0.020	0.005	0.005	0.006
05/24/2020	1,018.1	1,000.3	0.581	1,335.46	-159.34	1.744	0.343	94.936	2.760	0.173	0.010	0.019	0.004	0.005	0.006
05/25/2020	1,018.0	1,000.2	0.580	1,336.26	-160.05	1.667	0.347	95.108	2.670	0.165	0.009	0.018	0.004	0.005	0.006
05/26/2020	1,012.9	995.2	0.582	1,328.07	-162.14	1.913	0.467	94.938	2.462	0.176	0.010	0.019	0.004	0.005	0.006
05/27/2020	1,014.8	997.1	0.587	1,324.46	-157.36	2.226	0.520	93.885	3.100	0.227	0.010	0.017	0.004	0.005	0.006
05/28/2020	1,013.3	995.6	0.585	1,325.26	-160.09	2.150	0.477	94.295	2.863	0.183	0.007	0.013	0.003	0.003	0.005
05/29/2020	1,014.9	997.2	0.579	1,333.45	-162.68	1.677	0.395	95.370	2.351	0.170	0.008	0.016	0.003	0.004	0.006
05/30/2020	1,016.6	998.8	0.580	1,334.81	-160.96	1.653	0.389	95.265	2.453	0.192	0.010	0.021	0.004	0.005	0.007
05/31/2020	1,017.2	999.5	0.580	1,335.78	-160.84	1.591	0.398	95.283	2.509	0.175	0.009	0.018	0.004	0.005	0.007
06/01/2020	1,017.6	999.9	0.579	1,336.82	-161.15	1.516	0.404	95.372	2.504	0.164	0.008	0.016	0.004	0.005	0.007
06/02/2020	1,012.4	994.7	0.581	1,328.64	-163.25	1.905	0.426	95.079	2.404	0.146	0.009	0.017	0.004	0.004	0.006
06/03/2020	1,021.1	1,003.3	0.586	1,333.55	-154.59	1.940	0.413	93.951	3.455	0.199	0.009	0.018	0.004	0.004	0.007
06/04/2020	1,021.1	1,003.3	0.586	1,333.55	-154.59	1.940	0.413	93.951	3.455	0.199	0.009	0.018	0.004	0.004	0.007
06/05/2020	1,024.0	1,006.1	0.589	1,334.29	-61.11	1.981	0.435	93.572	3.707	0.228	0.012	0.028	0.007	0.009	0.021
06/06/2020	1,020.5	1,002.7	0.586	1,332.65	-155.04	1.888	0.477	94.023	3.343	0.229	0.009	0.017	0.004	0.004	0.006
06/07/2020	1,025.5	1,007.6	0.589	1,336.61	-150.03	1.882	0.422	93.679	3.632	0.308	0.020	0.036	0.009	0.007	0.006
06/08/2020	1,021.5	1,003.7	0.585	1,334.96	-154.72	1.828	0.421	94.203	3.264	0.229	0.014	0.024	0.006	0.006	0.007
06/09/2020	1,026.2	1,008.3	0.590	1,336.04	-149.27	1.950	0.430	93.353	3.918	0.289	0.015	0.026	0.006	0.006	0.007
06/10/2020	1,024.9	1,007.0	0.590	1,334.25	-150.12	2.031	0.434	93.269	3.949	0.270	0.011	0.020	0.004	0.004	0.006
06/11/2020	1,024.6	1,006.8	0.590	1,334.19	-150.53	2.064	0.408	93.248	3.996	0.244	0.010	0.017	0.004	0.004	0.005
06/12/2020	1,028.1	1,010.2	0.591	1,336.85	-148.15	1.964	0.440	92.971	4.314	0.275	0.009	0.016	0.003	0.003	0.005
06/13/2020	1,026.6	1,008.7	0.593	1,333.51	-147.96	2.162	0.445	92.727	4.334	0.291	0.010	0.020	0.003	0.004	0.004
06/14/2020	1,024.8	1,006.9	0.590	1,334.37	-150.20	1.982	0.458	93.332	3.935	0.242	0.012	0.021	0.006	0.005	0.009
06/15/2020	1,022.9	1,005.1	0.587	1,334.92	-153.13	1.895	0.425	93.776	3.675	0.194	0.008	0.014	0.004	0.003	0.007
06/16/2020	1,024.7	1,006.8	0.590	1,334.05	-150.24	2.056	0.424	93.239	3.987	0.245	0.011	0.021	0.005	0.005	0.006
06/17/2020	1,024.4	1,006.5	0.589	1,334.23	-150.33	2.045	0.410	93.384	3.841	0.258	0.015	0.028	0.006	0.006	0.007
06/18/2020	1,025.0	1,007.1	0.588	1,336.55	-150.89	2.003	0.329	93.562	3.810	0.241	0.012	0.026	0.005	0.006	0.006
06/19/2020	1,024.3	1,006.5	0.587	1,336.74	-151.85	1.971	0.321	93.709	3.728	0.221	0.011	0.024	0.005	0.005	0.006
06/20/2020	1,024.4	1,006.5	0.587	1,336.72	-151.80	1.972	0.322	93.699	3.735	0.221	0.011	0.024	0.005	0.006	0.006
06/21/2020	1,024.3	1,006.4	0.587	1,336.90	-152.03	1.942	0.330	93.757	3.703	0.219	0.011	0.023	0.005	0.005	0.006
06/22/2020	1,024.3	1,006.4	0.587	1,336.90	-152.03	1.942	0.330	93.757	3.703	0.219	0.011	0.023	0.005	0.005	0.006
06/23/2020	1,022.9	1,005.1	0.586	1,336.73	-154.14	1.872	0.341	94.027	3.529	0.187	0.009	0.020	0.004	0.005	0.006
06/24/2020	1,025.2	1,007.3	0.590	1,334.66	-149.67	2.237	0.286	93.081	4.098	0.253	0.009	0.022	0.004	0.005	0.005

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06/25/2020	1,022.0	1,004.2	0.588	1,332.89	-152.99	2.204	0.304	93.420	3.858	0.188	0.005	0.012	0.002	0.003	0.004
06/26/2020	1,020.1	1,002.3	0.585	1,333.77	-156.44	1.991	0.334	94.057	3.447	0.144	0.006	0.012	0.002	0.003	0.004
06/27/2020	1,020.6	1,002.8	0.585	1,334.47	-156.04	1.956	0.337	94.074	3.450	0.153	0.007	0.013	0.003	0.003	0.005
06/28/2020	1,020.7	1,002.9	0.585	1,334.49	-155.93	1.957	0.338	94.064	3.456	0.154	0.007	0.014	0.003	0.003	0.005
06/29/2020	1,020.8	1,003.0	0.584	1,335.25	-156.44	1.821	0.390	94.246	3.354	0.157	0.008	0.014	0.003	0.003	0.004
06/30/2020	1,021.4	1,003.6	0.584	1,335.97	-156.21	1.756	0.410	94.293	3.338	0.168	0.009	0.016	0.003	0.002	0.004
07/01/2020	1,018.3	1,000.6	0.586	1,330.23	-156.65	2.084	0.411	93.913	3.397	0.167	0.006	0.012	0.003	0.003	0.004
07/02/2020	1,018.0	1,000.2	0.586	1,329.45	-155.79	2.219	0.354	93.850	3.336	0.193	0.011	0.021	0.005	0.005	0.007
07/03/2020	1,016.2	998.4	0.586	1,327.68	-157.22	2.311	0.331	93.883	3.266	0.167	0.009	0.017	0.004	0.004	0.006
07/04/2020	1,013.9	996.2	0.584	1,326.88	-159.65	2.211	0.369	94.327	2.890	0.158	0.010	0.019	0.005	0.005	0.006
07/05/2020	1,016.6	998.9	0.583	1,331.90	-159.08	1.960	0.346	94.621	2.864	0.162	0.010	0.019	0.005	0.005	0.007
07/06/2020	1,017.4	999.7	0.584	1,331.53	-157.07	2.050	0.332	94.420	2.942	0.189	0.015	0.027	0.008	0.007	0.011
07/07/2020	1,018.0	1,000.3	0.584	1,332.04	-156.76	2.023	0.343	94.364	3.012	0.196	0.014	0.026	0.007	0.006	0.010
07/08/2020	1,009.5	991.9	0.587	1,317.26	-159.74	2.726	0.416	93.580	3.088	0.150	0.009	0.016	0.004	0.004	0.007
07/09/2020	1,018.2	1,000.4	0.582	1,334.20	-158.94	1.834	0.355	94.645	2.973	0.163	0.007	0.013	0.003	0.003	0.004
07/10/2020	1,019.4	1,001.6	0.585	1,333.26	-156.38	1.966	0.356	94.273	3.146	0.207	0.014	0.023	0.005	0.004	0.005
07/11/2020	1,017.2	999.4	0.585	1,330.09	-157.34	2.023	0.422	94.275	3.020	0.208	0.013	0.023	0.005	0.005	0.006
07/12/2020	1,013.8	996.2	0.585	1,326.07	-159.63	2.145	0.455	94.301	2.874	0.183	0.010	0.019	0.004	0.004	0.005
07/13/2020	1,015.2	997.5	0.585	1,326.79	-158.27	2.244	0.394	94.005	3.154	0.169	0.008	0.015	0.004	0.004	0.005
07/14/2020	1,020.5	1,002.7	0.588	1,331.21	-154.20	2.192	0.355	93.551	3.674	0.193	0.009	0.015	0.003	0.003	0.004
07/15/2020	1,019.6	1,001.8	0.585	1,333.36	-156.64	1.948	0.370	94.175	3.296	0.179	0.008	0.013	0.003	0.003	0.005
07/16/2020	1,020.1	1,002.3	0.582	1,336.98	-158.14	1.640	0.392	94.773	2.988	0.173	0.007	0.013	0.003	0.004	0.006
07/17/2020	1,022.3	1,004.5	0.583	1,338.54	-156.31	1.594	0.407	94.595	3.163	0.210	0.007	0.013	0.003	0.003	0.005
07/18/2020	1,014.7	997.0	0.587	1,323.97	-157.12	2.430	0.410	93.636	3.289	0.200	0.008	0.015	0.004	0.004	0.005
07/19/2020	1,014.8	997.1	0.588	1,323.71	-157.28	2.378	0.463	93.582	3.367	0.184	0.006	0.011	0.002	0.002	0.004
07/20/2020	1,012.0	994.3	0.586	1,322.51	-160.58	2.346	0.457	93.980	3.050	0.150	0.004	0.007	0.001	0.001	0.003
07/21/2020	1,012.3	994.7	0.588	1,320.48	-158.57	2.534	0.457	93.536	3.271	0.181	0.005	0.009	0.002	0.002	0.004
07/22/2020	1,014.1	996.4	0.587	1,323.59	-157.97	2.403	0.428	93.705	3.245	0.192	0.006	0.011	0.002	0.002	0.004
07/23/2020	1,016.0	998.2	0.585	1,328.00	-158.07	2.142	0.419	94.099	3.120	0.186	0.008	0.014	0.003	0.003	0.005
07/24/2020	1,014.2	996.5	0.588	1,323.09	-157.26	2.445	0.433	93.593	3.311	0.182	0.008	0.014	0.003	0.003	0.006
07/25/2020	1,006.8	989.3	0.593	1,307.15	-157.19	3.380	0.463	92.293	3.660	0.174	0.007	0.013	0.003	0.003	0.005
07/26/2020	1,013.2	995.5	0.589	1,320.19	-156.12	2.679	0.406	93.337	3.291	0.233	0.013	0.024	0.005	0.005	0.007
07/27/2020	1,015.8	998.1	0.589	1,323.50	-154.60	2.512	0.417	93.396	3.368	0.244	0.014	0.027	0.006	0.006	0.009
07/28/2020	1,014.5	996.8	0.589	1,322.26	-155.62	2.571	0.404	93.453	3.262	0.254	0.014	0.025	0.005	0.005	0.007
07/29/2020	1,017.5	999.8	0.588	1,327.18	-154.43	2.365	0.368	93.651	3.279	0.270	0.017	0.031	0.006	0.006	0.007
07/30/2020	1,011.4	993.7	0.588	1,319.02	-158.06	2.694	0.402	93.495	3.158	0.209	0.010	0.018	0.004	0.004	0.006
07/31/2020	1,019.5	1,001.7	0.587	1,330.20	-154.75	2.164	0.396	93.682	3.508	0.209	0.010	0.018	0.004	0.004	0.005
08/01/2020	1,018.2	1,000.5	0.585	1,331.77	-157.15	1.984	0.389	94.262	3.136	0.184	0.011	0.020	0.004	0.004	0.006
08/02/2020	1,013.3	995.6	0.587	1,322.22	-158.08	2.476	0.431	93.628	3.266	0.164	0.008	0.016	0.003	0.003	0.005
08/03/2020	1,013.7	996.1	0.586	1,323.96	-158.78	2.378	0.414	93.792	3.247	0.141	0.006	0.011	0.003	0.003	0.005
08/04/2020	1,014.5	996.8	0.585	1,326.54	-159.24	2.185	0.424	94.144	3.057	0.159	0.007	0.013	0.003	0.003	0.005
08/05/2020	1,020.4	1,002.6	0.584	1,335.63	-156.75	1.692	0.440	94.573	3.034	0.216	0.011	0.021	0.004	0.004	0.006
08/06/2020	1,018.8	1,001.0	0.588	1,328.74	-154.48	2.183	0.443	93.686	3.377	0.266	0.012	0.021	0.004	0.004	0.006

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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%)
08/07/2020	1,006.9	989.3	0.590	1,310.30	-159.51	3.104	0.469	92.867	3.390	0.149	0.005	0.009	0.002	0.002	0.004
08/08/2020	1,014.8	997.1	0.586	1,325.18	-157.30	2.407	0.363	93.790	3.209	0.184	0.011	0.020	0.005	0.005	0.006
08/09/2020	1,016.4	998.6	0.589	1,324.40	-155.21	2.587	0.338	93.184	3.690	0.167	0.008	0.014	0.004	0.004	0.005
08/10/2020	1,017.5	999.7	0.587	1,328.17	-156.02	2.343	0.327	93.623	3.514	0.157	0.008	0.014	0.004	0.004	0.005
08/11/2020	1,021.6	1,003.8	0.586	1,334.59	-154.11	1.962	0.358	94.024	3.353	0.253	0.013	0.023	0.005	0.005	0.006

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 = 53875