

Gas Quality Reports

LS496 - Welda 26" at Ottawa

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	1,045.6	1,027.4	0.599	1,350.77	-71.71	1.690	0.409	91.976	5.121	0.692	0.034	0.057	0.008	0.006	0.006
05/18/2019	1,052.0	1,033.7	0.603	1,355.36	-65.14	1.654	0.383	91.441	5.578	0.811	0.041	0.068	0.009	0.007	0.007
05/19/2019	1,077.8	1,059.0	0.618	1,371.16	-40.12	1.258	0.577	89.339	7.240	1.330	0.075	0.137	0.018	0.016	0.010
05/20/2019	1,080.9	1,062.1	0.629	1,362.63	-30.60	1.896	0.738	87.477	7.994	1.562	0.094	0.180	0.024	0.022	0.012
05/21/2019	1,064.3	1,045.7	0.639	1,331.32	-13.56	3.981	0.630	85.466	7.826	1.623	0.118	0.243	0.041	0.041	0.032
05/22/2019	1,070.4	1,051.8	0.625	1,354.41	-33.62	2.339	0.575	87.729	7.890	1.188	0.074	0.143	0.023	0.022	0.017
05/23/2019	1,063.4	1,044.9	0.617	1,353.65	-45.73	2.267	0.440	88.743	7.354	0.994	0.056	0.104	0.016	0.015	0.011
05/24/2019	1,054.4	1,036.1	0.611	1,349.04	-61.61	2.698	0.125	89.292	6.940	0.829	0.035	0.060	0.009	0.007	0.006
05/25/2019	1,054.4	1,036.0	0.611	1,349.40	-62.61	2.707	0.098	89.323	6.935	0.823	0.035	0.059	0.008	0.007	0.005
05/26/2019	1,054.5	1,036.1	0.611	1,349.47	-61.41	2.678	0.115	89.360	6.899	0.828	0.036	0.062	0.009	0.007	0.006
05/27/2019	1,061.6	1,043.1	0.614	1,354.34	-48.71	2.381	0.266	89.096	7.075	0.997	0.053	0.096	0.015	0.013	0.010
05/28/2019	1,067.3	1,048.8	0.618	1,357.91	-44.02	2.147	0.404	88.745	7.378	1.108	0.062	0.114	0.017	0.015	0.011
05/29/2019	1,067.2	1,048.6	0.618	1,357.49	-45.42	2.103	0.451	88.726	7.412	1.097	0.060	0.112	0.016	0.014	0.010
05/30/2019	1,067.1	1,048.5	0.618	1,357.26	-47.01	2.148	0.431	88.662	7.456	1.100	0.058	0.109	0.014	0.013	0.008
05/31/2019	1,067.8	1,049.2	0.619	1,356.70	-46.29	2.179	0.466	88.465	7.544	1.134	0.062	0.114	0.015	0.013	0.008
06/01/2019	1,069.9	1,051.3	0.621	1,357.14	-45.12	2.182	0.507	88.183	7.697	1.210	0.066	0.120	0.015	0.013	0.007
06/02/2019	1,068.5	1,049.9	0.621	1,355.88	-47.85	2.223	0.506	88.218	7.651	1.200	0.062	0.111	0.013	0.011	0.005
06/03/2019	1,060.1	1,041.6	0.617	1,349.80	-55.92	2.403	0.459	88.743	7.200	1.044	0.048	0.082	0.010	0.008	0.004
06/04/2019	1,060.9	1,042.5	0.617	1,350.60	-55.51	2.390	0.450	88.676	7.298	1.034	0.048	0.082	0.010	0.008	0.005
06/05/2019	1,059.8	1,041.3	0.616	1,350.17	-55.64	2.375	0.446	88.876	7.114	1.034	0.049	0.082	0.010	0.008	0.005
06/06/2019	1,060.7	1,042.2	0.616	1,351.19	-54.52	2.348	0.435	88.881	7.119	1.058	0.050	0.084	0.011	0.008	0.005
06/07/2019	1,071.4	1,052.7	0.617	1,363.99	-44.18	2.004	0.284	89.047	7.095	1.365	0.068	0.104	0.015	0.010	0.009
06/08/2019	1,079.3	1,060.5	0.619	1,372.10	-39.02	1.772	0.234	88.925	7.262	1.580	0.076	0.114	0.016	0.011	0.011
06/09/2019	1,082.7	1,063.9	0.619	1,375.88	-37.04	1.649	0.211	88.939	7.276	1.695	0.076	0.116	0.016	0.011	0.012
06/10/2019	1,067.5	1,048.9	0.613	1,363.71	-45.21	1.986	0.189	89.667	6.716	1.267	0.055	0.088	0.012	0.008	0.013
06/11/2019	1,056.8	1,038.4	0.611	1,352.33	-48.42	2.415	0.202	89.633	6.687	0.919	0.041	0.066	0.012	0.009	0.015
06/12/2019	1,058.2	1,039.8	0.611	1,353.51	-48.36	2.377	0.208	89.544	6.782	0.941	0.042	0.069	0.013	0.009	0.015
06/13/2019	1,059.5	1,041.0	0.611	1,355.11	-46.41	2.274	0.225	89.650	6.708	0.985	0.045	0.074	0.013	0.010	0.016
06/14/2019	1,061.5	1,043.1	0.612	1,357.00	-45.52	2.192	0.239	89.587	6.801	1.015	0.048	0.078	0.014	0.010	0.016
06/15/2019	1,063.0	1,044.6	0.612	1,358.59	-44.16	2.113	0.251	89.594	6.824	1.045	0.050	0.081	0.015	0.011	0.016
06/16/2019	1,069.7	1,051.1	0.617	1,362.24	-42.28	2.023	0.317	88.955	7.322	1.196	0.055	0.092	0.015	0.011	0.014
06/17/2019	1,081.3	1,062.5	0.624	1,368.44	-41.05	1.839	0.461	87.788	8.279	1.426	0.064	0.110	0.014	0.012	0.008
06/18/2019	1,079.9	1,061.1	0.624	1,367.59	-41.69	1.836	0.466	87.916	8.198	1.379	0.063	0.108	0.014	0.012	0.008
06/19/2019	1,079.0	1,060.2	0.623	1,367.10	-42.04	1.837	0.464	88.005	8.138	1.351	0.062	0.108	0.014	0.012	0.008
06/20/2019	1,078.6	1,059.9	0.623	1,366.66	-42.11	1.854	0.466	87.990	8.155	1.332	0.062	0.107	0.014	0.011	0.009
06/21/2019	1,072.5	1,053.8	0.621	1,361.28	-48.84	2.159	0.373	88.119	7.943	1.237	0.054	0.090	0.011	0.009	0.005
06/22/2019	1,069.7	1,051.1	0.620	1,358.77	-52.08	2.313	0.323	88.125	7.930	1.158	0.049	0.080	0.009	0.008	0.004
06/23/2019	1,069.8	1,051.2	0.620	1,359.06	-51.96	2.316	0.310	88.139	7.915	1.171	0.049	0.080	0.009	0.008	0.004
06/24/2019	1,069.5	1,050.9	0.619	1,359.01	-51.83	2.306	0.308	88.224	7.827	1.185	0.049	0.080	0.009	0.008	0.004
06/25/2019	1,070.6	1,052.0	0.620	1,360.02	-50.84	2.280	0.303	88.196	7.851	1.217	0.049	0.082	0.010	0.008	0.005
06/26/2019	1,062.0	1,043.5	0.612	1,357.31	-56.74	2.005	0.360	89.618	6.834	1.043	0.045	0.072	0.009	0.007	0.006
06/27/2019	1,068.6	1,050.0	0.615	1,362.80	-54.42	1.850	0.367	89.178	7.352	1.112	0.048	0.074	0.009	0.006	0.005
06/28/2019	1,068.6	1,050.0	0.615	1,362.61	-54.35	1.862	0.368	89.152	7.364	1.111	0.048	0.074	0.009	0.006	0.005

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06/29/2019	1,068.5	1,049.9	0.615	1,362.47	-54.41	1.876	0.365	89.130	7.380	1.106	0.048	0.074	0.009	0.006	0.005
06/30/2019	1,066.5	1,047.9	0.614	1,360.80	-55.52	1.947	0.346	89.239	7.257	1.073	0.046	0.072	0.009	0.006	0.005
07/01/2019	1,064.4	1,045.9	0.614	1,358.60	-56.14	2.072	0.321	89.259	7.150	1.063	0.045	0.069	0.009	0.006	0.005
07/02/2019	1,065.8	1,047.2	0.615	1,359.41	-55.26	2.072	0.319	89.115	7.265	1.092	0.046	0.071	0.009	0.006	0.005
07/03/2019	1,065.6	1,047.1	0.615	1,359.04	-54.78	2.344	0.157	88.889	7.386	1.074	0.049	0.080	0.010	0.007	0.005
07/04/2019	1,067.6	1,049.1	0.616	1,360.81	-52.39	2.407	0.080	88.717	7.533	1.091	0.055	0.093	0.011	0.008	0.005
07/05/2019	1,068.9	1,050.3	0.616	1,361.83	-51.86	2.383	0.078	88.637	7.622	1.106	0.056	0.094	0.011	0.008	0.005
07/06/2019	1,069.0	1,050.4	0.616	1,362.14	-51.50	2.348	0.087	88.700	7.573	1.118	0.056	0.095	0.011	0.008	0.005
07/07/2019	1,070.1	1,051.5	0.616	1,363.39	-51.17	2.279	0.099	88.691	7.622	1.138	0.055	0.091	0.011	0.008	0.006
07/08/2019	1,068.9	1,050.3	0.615	1,363.42	-55.79	2.091	0.183	88.909	7.653	1.033	0.047	0.065	0.009	0.006	0.005
07/09/2019	1,073.3	1,054.7	0.615	1,368.93	-52.77	1.837	0.184	88.961	7.830	1.045	0.050	0.069	0.010	0.007	0.006
07/10/2019	1,073.1	1,054.4	0.615	1,368.66	-53.02	1.838	0.190	88.964	7.825	1.039	0.050	0.069	0.010	0.007	0.006
07/11/2019	1,070.6	1,052.0	0.614	1,366.68	-54.38	1.838	0.222	89.183	7.605	1.010	0.049	0.069	0.010	0.007	0.006
07/12/2019	1,067.5	1,049.0	0.612	1,364.28	-55.62	1.824	0.267	89.466	7.338	0.965	0.047	0.069	0.010	0.007	0.007
07/13/2019	1,066.5	1,047.9	0.612	1,363.20	-56.11	1.909	0.237	89.448	7.329	0.942	0.045	0.066	0.010	0.007	0.007
07/14/2019	1,066.3	1,047.8	0.613	1,362.48	-56.12	1.974	0.231	89.329	7.389	0.941	0.045	0.066	0.010	0.007	0.007
07/15/2019	1,067.0	1,048.5	0.616	1,360.02	-53.23	2.089	0.315	88.902	7.508	1.028	0.051	0.081	0.011	0.009	0.006
07/16/2019	1,066.0	1,047.5	0.615	1,359.40	-53.39	2.071	0.329	89.021	7.414	1.008	0.051	0.080	0.011	0.009	0.006
07/17/2019	1,064.9	1,046.4	0.614	1,358.56	-54.45	2.078	0.336	89.118	7.321	0.993	0.050	0.079	0.011	0.008	0.006
07/18/2019	1,042.9	1,024.7	0.602	1,343.93	-73.40	1.988	0.505	91.312	5.488	0.608	0.030	0.050	0.007	0.006	0.006
07/19/2019	1,022.5	1,004.7	0.591	1,330.20	-151.48	1.901	0.668	93.319	3.822	0.242	0.012	0.021	0.004	0.004	0.006
07/20/2019	1,023.1	1,005.3	0.591	1,330.66	-150.96	1.896	0.665	93.282	3.851	0.256	0.013	0.022	0.004	0.004	0.006
07/21/2019	1,021.9	1,004.1	0.591	1,329.69	-151.99	1.903	0.674	93.373	3.767	0.236	0.012	0.021	0.004	0.004	0.006
07/22/2019	1,021.7	1,003.9	0.590	1,329.64	-152.26	1.894	0.677	93.405	3.751	0.228	0.011	0.020	0.004	0.004	0.006
07/23/2019	1,022.2	1,004.4	0.591	1,330.01	-151.78	1.900	0.667	93.368	3.777	0.241	0.012	0.021	0.004	0.004	0.006
07/24/2019	1,026.8	1,008.9	0.593	1,333.43	-147.80	1.922	0.614	92.928	4.164	0.316	0.015	0.026	0.005	0.004	0.006
07/25/2019	1,040.7	1,022.6	0.600	1,344.09	-137.21	1.895	0.489	91.762	5.220	0.548	0.025	0.042	0.007	0.006	0.007
07/26/2019	1,080.1	1,061.3	0.619	1,372.92	-40.90	1.687	0.270	88.607	7.937	1.305	0.062	0.094	0.015	0.011	0.012
07/27/2019	1,079.7	1,060.9	0.619	1,372.55	-40.85	1.699	0.272	88.616	7.921	1.298	0.062	0.094	0.015	0.011	0.013
07/28/2019	1,079.2	1,060.4	0.619	1,372.11	-41.28	1.706	0.274	88.660	7.877	1.291	0.061	0.093	0.015	0.011	0.012
07/29/2019	1,074.7	1,056.0	0.617	1,368.54	-43.60	1.752	0.301	88.981	7.565	1.218	0.058	0.089	0.014	0.010	0.012
07/30/2019	1,044.4	1,026.2	0.601	1,347.01	-65.45	1.881	0.453	91.596	5.263	0.695	0.033	0.052	0.009	0.007	0.010
07/31/2019	1,041.0	1,022.9	0.599	1,344.75	-69.12	1.872	0.475	91.925	5.003	0.624	0.030	0.047	0.008	0.006	0.010
08/01/2019	1,035.4	1,017.4	0.596	1,341.20	-141.05	1.852	0.506	92.472	4.579	0.508	0.024	0.038	0.007	0.005	0.009
08/02/2019	1,043.6	1,025.4	0.601	1,346.11	-70.47	1.892	0.471	91.579	5.289	0.669	0.030	0.049	0.007	0.006	0.008
08/03/2019	1,040.8	1,022.6	0.600	1,344.03	-137.41	1.857	0.518	91.745	5.266	0.537	0.023	0.038	0.006	0.005	0.006
08/04/2019	1,032.0	1,014.0	0.594	1,339.40	-146.11	1.733	0.576	92.640	4.787	0.234	0.008	0.013	0.002	0.002	0.004
08/05/2019	1,032.1	1,014.2	0.594	1,339.38	-145.82	1.757	0.567	92.600	4.798	0.247	0.009	0.014	0.002	0.002	0.004
08/06/2019	1,033.3	1,015.3	0.595	1,340.03	-144.75	1.781	0.553	92.447	4.916	0.268	0.010	0.016	0.003	0.002	0.004
08/07/2019	1,033.6	1,015.6	0.595	1,340.05	-144.36	1.807	0.544	92.387	4.944	0.281	0.010	0.017	0.003	0.003	0.004
08/08/2019	1,035.8	1,017.7	0.597	1,340.17	-141.99	1.907	0.541	91.896	5.325	0.295	0.010	0.017	0.003	0.003	0.004
08/09/2019	1,034.3	1,016.3	0.597	1,338.59	-143.10	1.908	0.582	91.913	5.330	0.241	0.007	0.011	0.002	0.002	0.003
08/10/2019	1,034.2	1,016.2	0.597	1,338.42	-143.15	1.914	0.582	91.921	5.312	0.244	0.007	0.012	0.002	0.002	0.003

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08/11/2019	1,033.9	1,015.9	0.597	1,338.17	-143.32	1.920	0.582	91.949	5.275	0.246	0.008	0.012	0.002	0.002	0.003
08/14/2019	1,033.9	1,015.9	0.597	1,338.17	-143.32	1.920	0.582	91.949	5.275	0.246	0.008	0.012	0.002	0.002	0.003
08/15/2019	1,033.9	1,015.9	0.597	1,338.17	-143.32	1.920	0.582	91.949	5.275	0.246	0.008	0.012	0.002	0.002	0.003

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 = 52761