

Gas Quality Reports

LS235 - On Sedalia 20" at Peculiar

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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	1,051.0	1,032.7	0.604	1,352.90	-72.18	1.819	0.380	90.893	6.232	0.586	0.029	0.043	0.007	0.005	0.006
05/14/2020	1,051.7	1,033.4	0.604	1,353.15	-72.97	1.992	0.275	90.625	6.434	0.593	0.025	0.039	0.006	0.005	0.006
05/15/2020	1,054.1	1,035.7	0.607	1,352.76	-69.42	1.874	0.448	90.345	6.518	0.721	0.030	0.047	0.006	0.005	0.005
05/16/2020	1,055.7	1,037.3	0.607	1,354.87	-71.09	1.734	0.476	90.337	6.678	0.692	0.028	0.041	0.006	0.004	0.004
05/17/2020	1,054.9	1,036.5	0.606	1,355.03	-73.31	1.741	0.435	90.507	6.557	0.683	0.026	0.039	0.005	0.004	0.004
05/18/2020	1,053.1	1,034.8	0.605	1,354.20	-130.41	1.706	0.450	90.717	6.431	0.619	0.026	0.039	0.006	0.004	0.004
05/19/2020	1,055.8	1,037.5	0.606	1,355.98	-129.06	1.713	0.432	90.360	6.798	0.641	0.020	0.026	0.004	0.002	0.003
05/20/2020	1,051.0	1,032.7	0.605	1,351.55	-131.58	1.978	0.349	90.489	6.564	0.574	0.017	0.022	0.003	0.002	0.003
05/21/2020	1,048.7	1,030.4	0.602	1,351.82	-133.65	1.935	0.289	90.999	6.190	0.539	0.017	0.022	0.003	0.002	0.003
05/22/2020	1,047.7	1,029.5	0.598	1,355.40	-135.99	1.686	0.227	91.820	5.712	0.503	0.018	0.023	0.004	0.003	0.004
05/23/2020	1,048.5	1,030.3	0.598	1,355.89	-135.36	1.692	0.221	91.746	5.767	0.519	0.019	0.025	0.005	0.003	0.005
05/24/2020	1,049.1	1,030.9	0.599	1,355.91	-135.08	1.649	0.267	91.604	5.953	0.473	0.018	0.023	0.005	0.003	0.005
05/25/2020	1,050.4	1,032.1	0.600	1,355.80	-133.59	1.665	0.301	91.405	6.030	0.533	0.023	0.028	0.005	0.004	0.005
05/26/2020	1,054.0	1,035.6	0.604	1,355.97	-71.92	1.776	0.333	90.684	6.557	0.572	0.023	0.037	0.007	0.006	0.006
05/27/2020	1,052.4	1,034.1	0.603	1,355.42	-131.76	1.788	0.305	90.850	6.449	0.552	0.019	0.026	0.004	0.003	0.004
05/28/2020	1,049.7	1,031.5	0.600	1,355.68	-134.33	1.666	0.288	91.485	5.996	0.505	0.020	0.027	0.005	0.004	0.005
05/29/2020	1,047.9	1,029.7	0.599	1,353.45	-135.15	1.850	0.231	91.376	6.015	0.479	0.016	0.021	0.004	0.003	0.005
05/30/2020	1,047.3	1,029.1	0.599	1,353.29	-135.66	1.868	0.209	91.445	5.963	0.470	0.015	0.019	0.004	0.002	0.004
05/31/2020	1,048.9	1,030.7	0.599	1,354.79	-134.58	1.828	0.204	91.397	6.009	0.506	0.018	0.025	0.005	0.003	0.005
06/01/2020	1,050.6	1,032.4	0.600	1,355.96	-133.13	1.817	0.201	91.292	6.054	0.573	0.021	0.029	0.005	0.003	0.005
06/02/2020	1,050.2	1,031.9	0.599	1,356.62	-133.36	1.807	0.156	91.541	5.827	0.582	0.027	0.041	0.007	0.005	0.007
06/03/2020	1,042.6	1,024.5	0.596	1,350.39	-137.98	1.949	0.168	92.036	5.299	0.475	0.021	0.033	0.006	0.005	0.008
06/04/2020	1,037.6	1,019.5	0.591	1,349.25	-141.99	1.906	0.099	92.952	4.516	0.436	0.028	0.039	0.009	0.006	0.008
06/05/2020	1,044.7	1,026.6	0.598	1,351.41	-69.23	1.996	0.146	91.803	5.435	0.528	0.027	0.040	0.008	0.006	0.011
06/06/2020	1,038.6	1,020.5	0.596	1,345.02	-139.52	2.082	0.246	92.058	5.093	0.438	0.025	0.035	0.008	0.006	0.009
06/07/2020	1,033.3	1,015.3	0.592	1,342.96	-144.13	2.022	0.231	92.881	4.385	0.403	0.026	0.032	0.007	0.005	0.008
06/08/2020	1,029.4	1,011.5	0.590	1,339.67	-147.09	2.099	0.237	93.095	4.155	0.358	0.018	0.022	0.005	0.003	0.006
06/09/2020	1,032.5	1,014.5	0.592	1,341.61	-144.79	2.078	0.244	92.747	4.486	0.392	0.018	0.023	0.005	0.003	0.005
06/10/2020	1,029.2	1,011.3	0.590	1,340.34	-147.76	2.072	0.214	93.191	4.143	0.329	0.017	0.021	0.005	0.003	0.005
06/11/2020	1,033.8	1,015.8	0.592	1,343.81	-143.62	2.039	0.190	92.891	4.377	0.424	0.028	0.033	0.007	0.005	0.008
06/12/2020	1,032.8	1,014.8	0.592	1,341.96	-144.28	2.039	0.259	92.839	4.358	0.438	0.022	0.029	0.006	0.004	0.006
06/13/2020	1,031.9	1,013.9	0.591	1,342.49	-145.42	1.996	0.231	93.105	4.186	0.416	0.022	0.028	0.006	0.004	0.007
06/14/2020	1,041.1	1,023.0	0.597	1,347.59	-138.55	1.891	0.311	92.045	5.179	0.510	0.022	0.028	0.005	0.003	0.006
06/15/2020	1,039.7	1,021.6	0.597	1,345.49	-139.22	1.920	0.364	91.989	5.195	0.469	0.020	0.029	0.005	0.004	0.005
06/16/2020	1,041.1	1,023.0	0.598	1,346.76	-138.40	1.891	0.357	91.906	5.302	0.479	0.021	0.030	0.005	0.004	0.005
06/17/2020	1,043.6	1,025.4	0.599	1,348.63	-136.64	1.774	0.410	91.803	5.425	0.505	0.025	0.039	0.007	0.006	0.007
06/18/2020	1,045.5	1,027.3	0.598	1,351.46	-69.09	1.646	0.397	91.990	5.313	0.541	0.031	0.054	0.010	0.008	0.009
06/19/2020	1,054.8	1,036.5	0.601	1,360.44	-60.54	1.481	0.306	91.509	5.932	0.643	0.036	0.061	0.012	0.010	0.011
06/20/2020	1,024.9	1,007.0	0.608	1,314.41	-27.63	4.189	0.126	90.051	4.582	0.773	0.060	0.125	0.028	0.030	0.036
06/21/2020	1,035.3	1,017.3	0.595	1,341.90	-49.22	2.278	0.183	92.487	4.334	0.565	0.038	0.065	0.014	0.013	0.022
06/22/2020	1,037.2	1,019.2	0.594	1,346.19	-69.18	2.014	0.183	92.725	4.417	0.545	0.032	0.055	0.011	0.009	0.011
06/23/2020	1,038.2	1,020.1	0.594	1,346.85	-80.75	1.956	0.215	92.640	4.514	0.578	0.029	0.046	0.008	0.006	0.008
06/24/2020	1,036.3	1,018.3	0.595	1,343.83	-140.70	2.138	0.204	92.405	4.639	0.528	0.026	0.041	0.007	0.005	0.007

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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%)
06/25/2020	1,025.3	1,007.4	0.588	1,336.50	-149.74	2.202	0.212	93.436	3.764	0.322	0.019	0.028	0.006	0.005	0.007
06/26/2020	1,032.1	1,014.1	0.592	1,340.93	-144.45	1.987	0.327	92.928	4.232	0.448	0.023	0.036	0.006	0.005	0.007
06/27/2020	1,039.2	1,021.1	0.595	1,346.94	-79.20	2.009	0.209	92.425	4.651	0.609	0.031	0.046	0.007	0.005	0.008
06/28/2020	1,031.8	1,013.9	0.590	1,343.86	-145.38	2.069	0.105	93.324	3.940	0.486	0.024	0.034	0.006	0.004	0.007
06/29/2020	1,027.5	1,009.6	0.592	1,335.42	-146.05	2.616	0.070	92.630	4.167	0.454	0.020	0.030	0.005	0.004	0.005
06/30/2020	1,028.4	1,010.5	0.590	1,339.21	-146.98	2.317	0.086	93.198	3.863	0.473	0.021	0.029	0.005	0.003	0.005
07/01/2020	1,030.8	1,012.9	0.592	1,340.04	-144.45	2.401	0.063	92.805	4.136	0.520	0.024	0.035	0.006	0.004	0.006
07/02/2020	1,031.3	1,013.4	0.590	1,342.59	-145.45	2.184	0.084	93.143	4.039	0.484	0.021	0.031	0.005	0.004	0.005
07/03/2020	1,036.8	1,018.8	0.593	1,346.22	-141.12	2.068	0.133	92.721	4.398	0.599	0.027	0.039	0.005	0.004	0.005
07/04/2020	1,043.7	1,025.5	0.599	1,348.04	-135.42	2.025	0.278	91.724	5.169	0.712	0.031	0.046	0.006	0.004	0.004
07/05/2020	1,033.1	1,015.1	0.594	1,340.15	-142.32	2.296	0.199	92.462	4.423	0.544	0.025	0.038	0.005	0.004	0.005
07/06/2020	1,034.6	1,016.6	0.594	1,342.45	-142.09	2.086	0.260	92.568	4.512	0.496	0.024	0.037	0.006	0.005	0.006
07/07/2020	1,038.3	1,020.3	0.594	1,347.20	-140.40	1.929	0.219	92.600	4.631	0.539	0.026	0.038	0.007	0.005	0.007
07/08/2020	1,033.4	1,015.4	0.593	1,342.10	-143.06	2.171	0.185	92.685	4.395	0.492	0.022	0.034	0.006	0.004	0.006
07/09/2020	1,027.6	1,009.7	0.591	1,337.03	-147.44	2.352	0.158	92.963	4.069	0.406	0.017	0.026	0.004	0.003	0.003
07/10/2020	1,030.8	1,012.9	0.592	1,339.53	-145.16	2.208	0.219	92.774	4.301	0.437	0.019	0.029	0.005	0.004	0.004
07/11/2020	1,034.4	1,016.4	0.594	1,342.12	-142.39	2.146	0.232	92.480	4.583	0.497	0.020	0.029	0.005	0.003	0.004
07/12/2020	1,028.2	1,010.3	0.591	1,337.71	-146.54	2.415	0.100	92.915	4.078	0.426	0.019	0.030	0.006	0.005	0.005
07/13/2020	1,030.0	1,012.1	0.592	1,338.75	-145.18	2.406	0.107	92.711	4.248	0.468	0.019	0.030	0.004	0.004	0.004
07/14/2020	1,032.2	1,014.2	0.591	1,342.15	-144.33	2.150	0.157	92.995	4.100	0.526	0.023	0.034	0.006	0.004	0.005
07/15/2020	1,032.2	1,014.2	0.593	1,340.69	-143.43	2.264	0.161	92.727	4.240	0.536	0.023	0.034	0.005	0.004	0.005
07/16/2020	1,031.4	1,013.4	0.594	1,338.72	-143.59	2.351	0.187	92.520	4.376	0.502	0.021	0.030	0.005	0.004	0.005
07/17/2020	1,042.3	1,024.2	0.599	1,347.19	-74.84	2.020	0.286	91.806	5.180	0.617	0.027	0.043	0.007	0.006	0.007
07/18/2020	1,041.3	1,023.1	0.600	1,343.77	-76.10	2.240	0.296	91.449	5.256	0.675	0.026	0.042	0.006	0.005	0.005
07/19/2020	1,035.0	1,017.0	0.598	1,338.56	-139.91	2.448	0.247	91.754	4.918	0.564	0.021	0.034	0.005	0.004	0.004
07/20/2020	1,038.5	1,020.4	0.598	1,343.38	-138.14	2.294	0.194	91.889	4.903	0.632	0.027	0.044	0.006	0.005	0.005
07/21/2020	1,035.0	1,017.0	0.593	1,343.46	-141.78	2.202	0.138	92.600	4.409	0.578	0.024	0.035	0.005	0.004	0.005
07/22/2020	1,032.2	1,014.3	0.597	1,336.23	-141.65	2.673	0.140	91.765	4.849	0.515	0.019	0.030	0.004	0.003	0.003
07/23/2020	1,036.3	1,018.2	0.595	1,343.17	-140.68	2.194	0.201	92.293	4.667	0.580	0.022	0.031	0.005	0.003	0.004
07/24/2020	1,035.5	1,017.5	0.594	1,343.68	-141.61	2.097	0.212	92.592	4.468	0.562	0.024	0.032	0.006	0.004	0.006
07/25/2020	1,039.4	1,021.3	0.596	1,345.99	-138.51	2.048	0.241	92.246	4.724	0.656	0.028	0.040	0.006	0.004	0.005
07/26/2020	1,041.0	1,022.9	0.597	1,347.51	-137.79	1.951	0.272	92.181	4.866	0.644	0.028	0.041	0.006	0.004	0.006
07/27/2020	1,040.0	1,021.9	0.599	1,343.71	-137.30	2.156	0.314	91.726	5.077	0.650	0.026	0.038	0.005	0.004	0.004
07/28/2020	1,040.5	1,022.3	0.601	1,342.44	-136.06	2.287	0.313	91.433	5.178	0.704	0.029	0.044	0.005	0.004	0.004
07/29/2020	1,041.6	1,023.5	0.601	1,343.41	-135.75	2.206	0.350	91.319	5.406	0.636	0.027	0.042	0.006	0.005	0.004
07/30/2020	1,034.1	1,016.1	0.597	1,338.44	-140.50	2.434	0.235	91.960	4.717	0.576	0.025	0.038	0.006	0.004	0.004
07/31/2020	1,032.3	1,014.3	0.599	1,333.62	-140.30	2.527	0.381	91.670	4.740	0.607	0.025	0.038	0.005	0.003	0.004
08/01/2020	1,031.6	1,013.7	0.600	1,331.25	-139.71	2.702	0.377	91.418	4.749	0.680	0.027	0.038	0.004	0.003	0.002
08/02/2020	1,029.1	1,011.2	0.595	1,334.15	-143.25	2.666	0.158	92.268	4.230	0.603	0.027	0.038	0.005	0.003	0.003
08/03/2020	1,029.1	1,011.1	0.592	1,336.94	-144.88	2.457	0.140	92.760	4.015	0.548	0.027	0.039	0.006	0.004	0.004
08/04/2020	1,045.3	1,027.1	0.606	1,342.45	-131.99	2.866	0.091	89.822	6.545	0.622	0.018	0.028	0.003	0.002	0.003
08/05/2020	1,035.9	1,017.9	0.598	1,339.05	-139.65	2.442	0.255	91.541	5.208	0.496	0.018	0.028	0.004	0.003	0.004
08/06/2020	1,053.4	1,035.1	0.610	1,348.73	-73.38	2.710	0.103	89.208	7.193	0.731	0.020	0.028	0.003	0.002	0.002

TSP Name: Southern Star Central Gas Pipeline, Inc.

CSI048

TSP: 007906233

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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	1,055.8	1,037.4	0.608	1,354.37	-68.44	2.333	0.112	89.947	6.667	0.856	0.032	0.042	0.005	0.004	0.004
08/08/2020	1,050.7	1,032.4	0.602	1,353.94	-62.49	2.064	0.150	91.126	5.776	0.781	0.036	0.044	0.008	0.005	0.010
08/09/2020	1,053.3	1,035.0	0.607	1,351.75	-72.32	2.511	0.061	89.778	6.886	0.702	0.023	0.030	0.004	0.003	0.004
08/10/2020	1,049.6	1,031.3	0.605	1,349.20	-131.20	2.552	0.058	90.050	6.683	0.604	0.018	0.026	0.003	0.002	0.002
08/11/2020	1,049.5	1,031.2	0.603	1,351.99	-72.12	2.274	0.082	90.832	6.027	0.694	0.031	0.044	0.007	0.004	0.005

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 = 68421