



A Subsidiary of MDU Resources Group, Inc.

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March 21, 2024

Mr. Steven Kahl  
Executive Secretary  
North Dakota Public Service Commission  
State Capitol Building  
Bismarck, ND 58505-0480

Re: Case No. PU-24-002 (Therm Billing)  
Monthly Report – January 2024

Mr. Kahl,

Montana-Dakota Utilities Co. herewith electronically submits the following information, pursuant to the Ordering paragraphs one and two of the Order issued in Case No. 11,006, dated October 20, 1987 and pursuant to the North Dakota Administrative Code 69-09-01-02, part 2.

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in February 2024.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of January 2024.
3. Attachment C is a listing which states the type of measuring device in place at each zone.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month period and an average thereof. It is being provided pursuant to a Staff request.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of January 2024.

Montana-Dakota respectfully requests this electronic filing, in lieu of an original and one copy, be accepted as being in full compliance with the filing requirements of this Commission.

Sincerely,

*/s/ Travis R. Jacobson*

Travis R. Jacobson  
Director of Regulatory Affairs

**Montana-Dakota Utilities Co.**  
**Therm Billing Factors - North Dakota**  
**Feb-24**

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1306
MDU-308-ARNEGARD	025	1.1306
MDU-314-APPLE VALLEY	271	1.1588
MDU-318-BEACH	032	1.0461
MDU-319-BELFIELD	032	1.0538
MDU-323-BERTHOLD	262	1.1353
MDU-327-BISMARCK	028	1.0980
MDU-330-BOWMAN	034	0.9898
MDU-337-BURLINGTON	262	1.1598
MDU-343-CARRINGTON	273	1.1588
MDU-344-CLEVELAND	272	1.1497
MDU-364-CAVALIER	273	1.1833
MDU-365-DAWSON	271	1.1507
MDU-368-DES LACS	262	1.1435
MDU-369-DICKINSON	031	1.0634
MDU-374-FT TOTTEN	273	1.0634
MDU-375-DEVILS LAKE	273	1.1670
MDU-379-BARLOW	273	1.1588
MDU-384-EPPING	264	1.1391
MDU-387-ELDRIDGE	272	1.1578
MDU-407-GLADSTONE	031	1.0634
MDU-411-GLEN ULLIN	031	1.0711
MDU-413-GOLVA	032	1.0308
MDU-416-GARRISON	262	1.1435
MDU-417-GRAFTON	273	1.1914
MDU-403-GWINNER	601	1.1301
MDU-429-HEBRON	031	1.0711
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1660
MDU-459-KILLDEER	033	1.1032
MDU-463-LANGDON	273	1.1588
MDU-469-LEFOR	031	1.0634
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0833
MDU-478-LINCOLN	028	1.0980
MDU-488-MCKENZIE	271	1.1588
MDU-494-MEDINA	271	1.1507
MDU-498-MANDAN	028	1.0980
MDU-500-MARMARTH	034	0.9971
MDU-505-MINOT	262	1.1598
MDU-510-MOTT	031	1.0634
MDU-512-MAX	262	1.1598
MDU-513-MILNOR	601	1.1301
MDU-522-NEW ENGLAND	031	1.0557
MDU-524-NEW SALEM	028	1.0748
MDU-532-NEW ROCKFORD	273	1.1588
MDU-539-PARK RIVER	273	1.1833
MDU-540-PALERMO	262	1.1353
MDU-558-RAY	264	1.1391

MDU-561-REGENT	031	1.0557
MDU-563-RHAME	034	0.9825
MDU-564-RICHARDTON	031	1.0308
MDU-568-ROSS	261	1.1262
MDU-572-RUTHVILLE	262	1.1598
MDU-574-SANBORN	272	1.1660
MDU-583-SENTINEL BUTTE	032	1.0461
MDU-588-SOUTH HEART	031	1.0634
MDU-717-SPIRITWOOD	272	1.1660
MDU-590-SPRINGBROOK	264	1.1391
MDU-591-STANLEY	261	1.1343
MDU-593-STEELE	271	1.1507
MDU-594-STERLING	028	1.0980
MDU-598-SHEYENNE	273	1.1670
MDU-605-SURREY	262	1.1598
MDU-610-TAPPEN	271	1.1507
MDU-611-TAYLOR	031	1.0557
MDU-616-TIOGA	260	1.0981
MDU-619-TURTLE LAKE	262	1.1435
MDU-620-TRENTON	024	1.1358
MDU-624-UNDERWOOD	262	1.1435
MDU-625-VALLEY CITY	272	1.1741
MDU-629-WALHALLA	273	1.1833
MDU-632-WATFORD CITY	610	1.0871
MDU-636-WHEELOCK	264	1.1309
MDU-637-WHITE EARTH	261	1.1343
MDU-642-WILLISTON	024	1.1358
MDU-646-WASHBURN	262	1.1516
MDU-647-WILTON	262	1.1353
MDU-664-RIVERDALE	262	1.1435
MDU-691-FAIRVIEW	241	1.1339
MDU-712-MINOT AFB	262	1.1598
MDU-718-FAIRMOUNT	600	1.1278
MDU-732-NEKOMA	273	1.1588
MDU-732-MSR SITE	273	1.1588

# Source Daily Summary

January 2024

Source #: 251  
Name: SDNY BDR-MNDK JNCTN-SDNY PLT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7063	1171.4	1192.2	1191.8	0.207	3.298	71.365	22.563	2.461	0.040	0.061	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1418.62	
2	0.7140	1173.6	1194.4	1194.1	0.559	3.349	70.643	22.477	2.769	0.071	0.123	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1413.72	
3	0.7295	1173.9	1194.6	1194.3	1.361	3.577	69.117	22.320	3.204	0.138	0.262	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1398.66	
4	0.7292	1173.2	1193.9	1193.6	1.364	3.584	69.207	22.204	3.217	0.139	0.263	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1398.16	
5	0.7281	1171.6	1192.4	1192.0	1.356	3.582	69.369	22.105	3.170	0.137	0.258	0.013	0.009	0.000	0.000	0.000	0.000	0.000	1397.41	
6	0.7276	1170.7	1191.4	1191.1	1.358	3.597	69.407	22.091	3.134	0.135	0.254	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1396.70	
7	0.7285	1172.2	1192.9	1192.6	1.359	3.588	69.213	22.311	3.119	0.134	0.255	0.013	0.009	0.000	0.000	0.000	0.000	0.000	1397.64	
8	0.7043	1170.2	1190.9	1190.5	0.153	3.276	71.593	22.505	2.388	0.034	0.049	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.04	
9	0.7019	1169.8	1190.5	1190.2	0.051	3.230	71.843	22.513	2.306	0.026	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.94	
10	0.7045	1170.9	1191.6	1191.3	0.150	3.253	71.444	22.787	2.289	0.032	0.043	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.72	
11	0.6959	1157.8	1178.3	1178.0	0.075	3.355	72.821	21.648	2.046	0.024	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.42	
12	0.6782	1119.9	1139.7	1139.5	0.370	3.556	76.320	18.062	1.605	0.032	0.051	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1383.89	
13	0.6785	1169.3	1190.0	1189.7	0.422	3.534	76.286	18.108	1.564	0.032	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1444.65	
14	0.6785	1169.3	1190.0	1189.7	0.422	3.534	76.286	18.108	1.564	0.032	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1444.65	
15	0.6805	1169.3	1190.0	1189.8	0.393	3.508	75.917	18.468	1.629	0.032	0.049	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1442.62	
16	0.6903	1146.3	1166.6	1166.3	0.206	3.328	74.103	20.295	1.991	0.031	0.043	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1404.12	
17	0.6957	1158.9	1179.4	1179.1	0.151	3.150	73.362	20.918	2.291	0.046	0.076	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1414.00	
18	0.7137	1172.4	1193.2	1192.9	0.576	3.370	70.957	21.940	2.890	0.093	0.163	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1412.51	
19	0.7276	1175.9	1196.7	1196.5	1.170	3.561	69.243	22.449	3.184	0.134	0.242	0.011	0.007	0.000	0.000	0.000	0.000	0.000	1402.98	
20	0.7292	1177.4	1198.3	1198.0	1.276	3.452	69.309	22.201	3.303	0.149	0.285	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1403.27	
21	0.7298	1176.0	1196.8	1196.5	1.322	3.527	69.324	21.965	3.395	0.151	0.288	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1400.97	
22	0.7286	1172.6	1193.3	1193.0	1.333	3.609	69.532	21.670	3.404	0.150	0.279	0.013	0.009	0.000	0.000	0.000	0.000	0.000	1398.02	
23	0.6995	1157.9	1178.5	1178.2	0.278	3.381	72.411	21.745	2.073	0.042	0.067	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1409.00	
24	0.6783	1124.7	1144.6	1144.3	0.173	3.575	76.077	18.468	1.650	0.024	0.033	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1389.70	
25	0.6773	1122.6	1142.4	1142.2	0.223	3.530	76.443	18.015	1.721	0.026	0.039	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1388.14	
26	0.6899	1147.1	1167.4	1167.1	0.108	3.394	74.062	20.344	2.035	0.024	0.032	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1405.39	
27	0.6971	1160.0	1180.5	1180.2	0.100	3.300	72.822	21.467	2.247	0.027	0.036	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1413.87	
28	0.6880	1143.0	1163.3	1162.9	0.140	3.411	74.462	19.922	2.005	0.024	0.034	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1402.43	
29	0.6695	1110.2	1129.9	1129.5	0.070	3.778	77.662	16.867	1.586	0.017	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1380.90	
30	0.6730	1116.6	1136.3	1136.0	0.067	3.729	77.082	17.356	1.723	0.019	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.11	
31	0.6924	1152.7	1173.2	1172.8	0.050	3.368	73.547	20.898	2.086	0.022	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1409.85	
Avg	0.7021	1159.0	1179.1	1178.8	0.543	3.461	72.620	20.800	2.389	0.065	0.113	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1407.39	

# Source Daily Summary

January 2024

Source #: 571  
Name: WILLISTON BDR-CHARBN STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7200	1177.7	1198.5	1198.2	1.109	2.822	70.929	21.609	3.056	0.131	0.296	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.52	
2	0.7197	1171.7	1192.4	1192.1	1.170	3.071	70.663	21.830	2.856	0.112	0.256	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1405.60	
3	0.7136	1175.6	1196.4	1196.1	1.028	2.472	71.880	21.358	2.834	0.121	0.264	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1416.31	
4	0.7084	1170.1	1190.8	1190.5	1.006	2.361	72.663	20.927	2.649	0.113	0.244	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1414.77	
5	0.7054	1165.4	1186.1	1185.8	1.009	2.351	73.107	20.653	2.509	0.106	0.229	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1412.22	
6	0.7063	1166.2	1186.8	1186.6	1.011	2.387	72.954	20.732	2.542	0.106	0.231	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1412.22	
7	0.7082	1168.5	1189.2	1188.9	1.016	2.415	72.645	20.942	2.601	0.109	0.235	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1413.14	
8	0.7158	1173.4	1194.2	1193.9	1.088	2.725	71.339	21.661	2.785	0.113	0.250	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.51	
9	0.7162	1177.2	1198.0	1197.7	1.058	2.579	71.343	21.757	2.841	0.118	0.261	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1415.63	
10	0.7187	1176.4	1197.2	1196.9	1.114	2.775	70.831	22.043	2.827	0.114	0.255	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1412.24	
11	0.7183	1180.3	1201.2	1200.9	1.066	2.578	71.074	21.895	2.943	0.126	0.276	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1417.24	
12	0.7156	1181.5	1202.4	1202.1	1.001	2.342	71.640	21.608	2.947	0.132	0.285	0.021	0.023	0.000	0.000	0.000	0.000	0.000	1421.43	
13	0.7142	1178.5	1199.3	1199.1	1.004	2.394	71.845	21.427	2.867	0.132	0.286	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1419.14	
14	0.7161	1177.8	1198.7	1198.4	1.053	2.532	71.505	21.571	2.879	0.130	0.285	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1416.54	
15	0.7159	1182.0	1202.9	1202.7	0.997	2.342	71.604	21.648	2.936	0.135	0.292	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1421.79	
16	0.7123	1172.0	1192.8	1192.5	0.870	2.813	71.937	21.082	2.887	0.122	0.252	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1413.28	
17	0.7206	1172.0	1192.7	1192.4	1.122	3.214	70.424	21.984	2.826	0.118	0.267	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1405.05	
18	0.7198	1173.3	1194.1	1193.8	0.968	3.285	70.413	22.045	2.897	0.115	0.241	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1407.52	
19	0.7163	1179.3	1200.1	1199.9	1.010	2.530	71.579	21.379	3.038	0.133	0.286	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1418.04	
20	0.7138	1177.6	1198.4	1198.2	0.996	2.416	71.839	21.471	2.846	0.123	0.266	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1418.54	
21	0.7106	1173.2	1194.0	1193.8	0.999	2.383	72.348	21.128	2.719	0.120	0.261	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1416.39	
22	0.7164	1183.1	1204.0	1203.8	0.975	2.360	71.585	21.560	3.039	0.137	0.296	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1422.54	
23	0.7183	1180.0	1200.9	1200.6	1.056	2.604	71.249	21.568	3.040	0.135	0.300	0.023	0.026	0.000	0.000	0.000	0.000	0.000	1416.94	
24	0.7122	1175.8	1196.6	1196.4	0.999	2.371	72.178	21.165	2.856	0.123	0.265	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1417.98	
25	0.7154	1178.5	1199.4	1199.1	1.021	2.472	71.644	21.481	2.937	0.126	0.275	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1418.06	
26	0.7178	1180.4	1201.3	1201.0	1.041	2.562	71.314	21.556	3.060	0.132	0.289	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1417.83	
27	0.7175	1180.5	1201.4	1201.1	1.036	2.530	71.439	21.425	3.091	0.135	0.297	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1418.32	
28	0.7176	1180.7	1201.6	1201.2	1.037	2.529	71.439	21.408	3.104	0.136	0.300	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1418.39	
29	0.7171	1180.6	1201.5	1201.2	1.033	2.487	71.544	21.352	3.102	0.136	0.299	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1418.87	
30	0.7158	1178.3	1199.1	1198.8	1.036	2.506	71.743	21.195	3.040	0.135	0.297	0.023	0.026	0.000	0.000	0.000	0.000	0.000	1417.31	
31	0.7130	1176.9	1197.7	1197.4	1.001	2.383	72.126	21.108	2.925	0.129	0.281	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1418.41	
Avg	0.7151	1176.0	1197.1	1196.8	1.030	2.567	71.639	21.438	2.886	0.124	0.272	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1415.67	

# Gas Composition and Properties

Effective January 1, 2024

Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.9134		1.9477
Nitrogen, N2	3.4254		4.6493
Methane, C1	71.2398		55.3732
Ethane, C2	21.1593	5.6627	30.8267
Propane, C3	2.9351	0.8092	6.2708
iso-Butane, iC4	0.1138	0.0373	0.3205
n-Butane, nC4	0.1965	0.0620	0.5534
iso-Pentane, iC5	0.0092	0.0034	0.0322
n-Pentane, nC5	0.0075	0.0027	0.0262
Neo-Pentane, neo			
Hexanes Plus, C6+			
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
<b>Totals</b>	<b>100.0000</b>	<b>6.5770</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-18.186	
Cricodentherm	-4.395	
HV, Dry @ Base P, T	1185.18	
HV, Sat @ Base P, T	1164.55	
HV, Sat @ Sample P, T	1185.18	
Relative Density	0.7147	
C6+: 100		

**Sample**

Date: 01/01/2024                      Type:

Tech: Tipton, Joshua

Pressure:                      455 psi      Temp.:                      °F

Gauge:                              Gauge                      H2O:

Atm. Pressure:                      H2S:

Remarks:

**Analysis**

Date: 01/01/2024                      Instrument:

Tech: Tipton, Joshua                      Cylinder:                      383

Remarks:



# Source Daily Summary

January 2024

Source #: 602  
Name: TIOGA STN-N TIOGA TRANSFER

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6975	1160.7	1181.3	1181.1	0.913	2.045	74.495	19.813	2.380	0.104	0.217	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1414.41	-9.89
2	0.6993	1161.8	1182.4	1182.1	0.935	2.114	74.259	19.862	2.461	0.107	0.226	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1413.89	-8.81
3	0.6846	1138.6	1158.7	1158.5	0.950	2.130	76.365	18.499	1.806	0.073	0.153	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1400.41	-19.47
4	0.6829	1135.5	1155.6	1155.4	0.944	2.168	76.612	18.284	1.748	0.072	0.149	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1398.45	-20.58
5	0.6790	1123.6	1143.5	1143.3	0.863	2.643	77.372	17.058	1.799	0.076	0.164	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1387.66	-22.34
6	0.6843	1137.4	1157.5	1157.3	0.940	2.187	76.356	18.507	1.765	0.071	0.149	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1399.28	-19.96
7	0.6842	1137.4	1157.6	1157.4	0.938	2.180	76.360	18.520	1.758	0.071	0.149	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1399.43	-20.01
8	0.6874	1143.8	1164.0	1163.8	0.932	2.101	75.877	18.953	1.873	0.077	0.161	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1403.96	-17.66
9	0.6870	1143.0	1163.3	1163.1	0.931	2.110	75.912	18.950	1.837	0.076	0.159	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1403.47	-18.08
10	0.6949	1156.6	1177.1	1176.9	0.913	2.050	74.821	19.660	2.231	0.095	0.199	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1412.05	-12.02
11	0.6907	1148.1	1168.5	1168.3	0.929	2.153	75.342	19.296	2.001	0.082	0.170	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1405.91	-15.64
12	0.6871	1143.0	1163.3	1163.1	0.900	2.164	75.739	19.195	1.761	0.072	0.147	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1403.40	-18.73
13	0.6815	1128.1	1148.1	1147.9	0.878	2.580	77.245	16.932	2.057	0.088	0.187	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1390.76	-19.35
14	0.6852	1139.4	1159.6	1159.4	0.902	2.199	76.989	17.107	2.494	0.094	0.188	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1400.86	-15.46
15	0.6845	1139.8	1159.9	1159.8	0.889	2.134	77.013	17.244	2.440	0.084	0.170	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1401.99	-16.31
16	0.6926	1154.9	1175.3	1175.1	0.880	1.986	75.682	18.504	2.604	0.101	0.210	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1412.21	-11.22
17	0.6998	1166.5	1187.2	1187.0	0.892	1.938	74.034	20.406	2.371	0.104	0.219	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1419.12	-8.70
18	0.7000	1166.7	1187.3	1187.2	0.898	1.938	74.088	20.271	2.429	0.110	0.230	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1419.12	-8.29
19	0.6887	1146.7	1167.0	1166.8	0.946	2.026	75.510	19.476	1.796	0.072	0.151	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1406.24	-17.61
20	0.6862	1142.4	1162.7	1162.5	0.989	1.986	76.221	18.624	1.925	0.075	0.156	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1403.51	-18.04
21	0.6800	1130.7	1150.7	1150.5	0.974	2.135	77.167	17.802	1.702	0.064	0.134	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1395.50	-22.54
22	0.6831	1137.9	1158.0	1157.9	0.951	2.028	76.650	18.337	1.798	0.070	0.144	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1401.11	-20.19
23	0.6863	1142.5	1162.8	1162.6	0.893	2.133	75.949	18.983	1.788	0.074	0.154	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1403.55	-18.64
24	0.6892	1147.9	1168.2	1168.0	0.923	2.036	75.507	19.385	1.894	0.075	0.155	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1407.14	-16.79
25	0.6885	1146.2	1166.5	1166.3	0.933	2.061	75.521	19.443	1.809	0.069	0.142	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1405.78	-17.83
26	0.6917	1150.6	1171.0	1170.8	0.925	2.098	75.064	19.702	1.950	0.077	0.159	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1407.97	-15.56
27	0.6934	1152.1	1172.5	1172.3	0.936	2.149	74.919	19.603	2.113	0.083	0.172	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1408.11	-14.00
28	0.6937	1152.6	1173.0	1172.8	0.934	2.153	74.825	19.720	2.093	0.081	0.167	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1408.34	-14.06
29	0.6941	1153.5	1173.9	1173.7	0.917	2.163	74.831	19.615	2.191	0.083	0.174	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1409.02	-13.33
30	0.6935	1151.8	1172.2	1172.0	0.928	2.188	74.970	19.439	2.196	0.082	0.171	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1407.62	-13.73
31	0.6925	1150.0	1170.4	1170.2	0.903	2.253	75.336	18.892	2.284	0.093	0.201	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1406.39	-12.70
<b>Avg</b>	<b>0.6891</b>	<b>1146.0</b>	<b>1166.4</b>	<b>1166.2</b>	<b>0.922</b>	<b>2.137</b>	<b>75.711</b>	<b>18.906</b>	<b>2.044</b>	<b>0.082</b>	<b>0.172</b>	<b>0.013</b>	<b>0.014</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1405.05</b>	<b>-16.05</b>

# Source Daily Summary

January 2024

Source #: 601  
Name: TIOGA STN-ROBINSON LAKE PLNT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7569	1178.9	1199.7	1199.5	0.893	6.529	66.373	19.241	6.157	0.232	0.517	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1379.03	
2	0.7579	1181.6	1202.5	1202.3	0.892	6.462	66.135	19.618	6.061	0.241	0.533	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1381.26	
3	0.7577	1181.3	1202.2	1202.0	0.889	6.465	66.130	19.638	6.072	0.237	0.514	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1381.11	
4	0.7557	1177.2	1198.1	1197.9	0.886	6.536	66.448	19.281	6.071	0.226	0.497	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1378.13	
5	0.7479	1172.1	1192.9	1192.7	0.884	6.115	67.416	19.377	5.485	0.209	0.461	0.025	0.028	0.000	0.000	0.000	0.000	0.000	1379.40	
6	0.7579	1180.8	1201.7	1201.5	0.882	6.516	66.238	19.371	6.158	0.242	0.537	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1380.35	
7	0.7555	1177.0	1197.8	1197.6	0.887	6.528	66.464	19.335	5.973	0.236	0.524	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1378.04	
8	0.7551	1175.5	1196.4	1196.2	0.886	6.576	66.524	19.249	5.949	0.236	0.526	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1376.77	
9	0.7530	1172.8	1193.6	1193.4	0.890	6.538	66.854	19.044	5.874	0.232	0.515	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1375.49	
10	0.7566	1178.5	1199.4	1199.2	0.890	6.522	66.828	18.586	6.215	0.266	0.619	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1378.85	
11	0.7381	1146.8	1167.1	1166.9	0.892	6.733	68.385	18.489	4.969	0.164	0.339	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1358.44	
12	0.7293	1131.2	1151.2	1151.1	0.894	6.861	69.402	17.966	4.461	0.134	0.263	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1348.00	
13	0.7147	1126.4	1146.3	1146.2	0.904	5.766	71.327	18.354	3.269	0.114	0.239	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1356.04	
14	0.6985	1143.5	1163.8	1163.7	0.863	3.255	74.567	18.082	2.864	0.112	0.229	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1392.66	
15	0.6857	1140.1	1160.2	1160.1	0.902	2.210	76.779	17.392	2.430	0.085	0.175	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1401.13	
16	0.6834	1138.5	1158.7	1158.5	0.881	2.115	77.259	17.026	2.430	0.085	0.176	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1401.62	
17	0.7048	1174.7	1195.5	1195.3	0.877	1.933	73.366	20.779	2.637	0.118	0.249	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1423.97	
18	0.6989	1164.0	1184.6	1184.5	0.899	1.995	74.143	20.297	2.313	0.103	0.215	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1417.01	
19	0.6930	1152.5	1172.9	1172.7	0.925	2.112	75.042	19.516	2.091	0.091	0.193	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1408.84	
20	0.6872	1143.4	1163.6	1163.5	0.962	2.061	76.024	18.737	1.955	0.076	0.159	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1403.68	
21	0.6852	1127.6	1147.6	1147.4	0.910	2.918	76.172	17.897	1.813	0.080	0.179	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1386.26	
22	0.6687	1108.6	1128.2	1128.1	0.812	2.670	79.465	14.943	1.850	0.074	0.159	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1379.47	
23	0.6765	1122.9	1142.8	1142.6	0.850	2.471	77.634	17.221	1.588	0.068	0.144	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1389.35	
24	0.6754	1116.4	1136.2	1136.0	0.852	2.757	78.091	16.226	1.810	0.075	0.162	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1382.44	
25	0.6869	1141.2	1161.5	1161.3	1.005	2.102	75.910	18.951	1.795	0.070	0.145	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1401.36	
26	0.7328	1165.5	1186.1	1186.0	0.911	5.065	69.447	19.366	4.697	0.157	0.320	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1385.97	
27	0.7512	1174.6	1195.4	1195.2	0.896	6.260	66.669	19.910	5.634	0.192	0.397	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1379.18	
28	0.7525	1174.9	1195.7	1195.5	0.895	6.361	66.577	19.765	5.723	0.204	0.428	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1378.37	
29	0.7521	1175.4	1196.2	1196.0	0.899	6.282	66.640	19.830	5.666	0.203	0.430	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1379.40	
30	0.7503	1171.8	1192.5	1192.3	0.900	6.336	66.818	19.714	5.604	0.189	0.397	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1376.76	
31	0.7358	1154.7	1175.1	1174.9	0.864	6.074	68.995	18.574	4.910	0.176	0.367	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1370.00	
Avg	0.7244	1157.0	1177.6	1177.4	0.893	4.810	70.778	18.767	4.211	0.159	0.342	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1384.14	

# Source Daily Summary

January 2024

Source #: 091  
Name: MNT BRD-PLRMO BRD-BIS STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7608	1184.4	1205.3	1205.1	0.897	6.559	65.733	19.717	6.242	0.251	0.544	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1381.86	
2	0.7585	1179.8	1200.7	1200.5	0.895	6.618	66.083	19.395	6.193	0.241	0.519	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1378.69	
3	0.7588	1180.1	1201.0	1200.7	0.894	6.634	66.069	19.339	6.244	0.241	0.522	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1378.69	
4	0.7598	1182.1	1203.0	1202.8	0.891	6.607	66.013	19.341	6.271	0.256	0.562	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1380.13	
5	0.7572	1177.4	1198.2	1198.0	0.893	6.650	66.258	19.282	6.083	0.244	0.536	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1376.98	
6	0.7580	1178.4	1199.3	1199.0	0.900	6.648	66.418	18.892	6.234	0.261	0.585	0.031	0.032	0.000	0.000	0.000	0.000	0.000	1377.49	
7	0.7602	1183.3	1204.2	1204.0	0.894	6.567	66.001	19.356	6.287	0.258	0.573	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.18	
8	0.7586	1180.2	1201.1	1200.9	0.901	6.596	66.081	19.400	6.196	0.245	0.528	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.04	
9	0.7593	1180.8	1201.7	1201.5	0.898	6.631	65.999	19.390	6.249	0.247	0.533	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1379.07	
10	0.7583	1179.5	1200.4	1200.2	0.897	6.614	66.091	19.400	6.200	0.238	0.508	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1378.51	
11	0.7590	1181.3	1202.2	1201.9	0.900	6.571	65.956	19.505	6.327	0.227	0.466	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.91	
12	0.7568	1177.2	1198.0	1197.8	0.904	6.605	66.179	19.448	6.146	0.220	0.452	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1377.16	
13	0.7542	1175.0	1195.8	1195.5	0.921	6.479	66.327	19.673	6.021	0.169	0.368	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1376.88	
14	0.7536	1176.5	1197.3	1197.1	0.920	6.329	66.394	19.818	5.979	0.160	0.360	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1379.25	
15	0.7452	1170.8	1191.5	1191.2	0.922	5.884	67.626	19.501	5.584	0.140	0.308	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1380.28	
16	0.7522	1179.8	1200.6	1200.4	0.915	6.006	66.720	19.809	6.003	0.155	0.351	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1384.35	
17	0.7571	1181.4	1202.3	1202.1	0.919	6.364	65.954	20.005	6.128	0.185	0.401	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1381.73	
18	0.7485	1170.3	1191.0	1190.8	0.919	6.228	67.077	19.656	5.514	0.186	0.380	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1376.70	
19	0.7496	1175.2	1196.0	1195.8	0.915	6.034	67.151	19.637	5.548	0.213	0.452	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1381.47	
20	0.7424	1162.3	1182.9	1182.7	0.913	6.154	68.246	18.751	5.237	0.203	0.445	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1372.85	
21	0.7526	1175.8	1196.7	1196.4	0.916	6.276	66.795	19.485	5.793	0.211	0.470	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1379.43	
22	0.7553	1176.8	1197.7	1197.4	0.919	6.469	66.098	20.016	5.836	0.201	0.414	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1378.09	
23	0.7567	1179.2	1200.0	1199.8	0.912	6.472	65.891	20.081	6.020	0.190	0.391	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1379.51	
24	0.7546	1175.8	1196.7	1196.4	0.913	6.479	66.162	19.988	5.807	0.200	0.407	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1377.52	
25	0.7537	1175.3	1196.1	1195.9	0.907	6.431	66.317	19.922	5.776	0.198	0.406	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1377.75	
26	0.7539	1175.1	1195.9	1195.7	0.911	6.456	66.285	19.923	5.770	0.202	0.411	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1377.35	
27	0.7544	1174.7	1195.5	1195.3	0.906	6.534	66.329	19.692	5.833	0.213	0.446	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1376.44	
28	0.7545	1176.3	1197.1	1196.9	0.911	6.437	66.324	19.821	5.795	0.213	0.449	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1378.21	
29	0.7528	1173.1	1193.8	1193.6	0.913	6.472	66.511	19.695	5.746	0.200	0.418	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1375.99	
30	0.7510	1169.5	1190.2	1189.9	0.913	6.526	66.750	19.486	5.685	0.199	0.401	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1373.36	
31	0.7510	1168.3	1189.0	1188.8	0.908	6.603	66.759	19.415	5.640	0.206	0.425	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1372.03	
Avg	0.7548	1177.0	1197.5	1197.2	0.908	6.449	66.406	19.575	5.948	0.212	0.453	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1378.32	

# Gas Composition and Properties

Effective October 1, 2021

Attachment B  
Page 8 of 24

Source #: 2501030  
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.2283		0.5237
Nitrogen, N2	2.9631		4.3268
Methane, C1	79.4957		66.4767
Ethane, C2	15.2390	4.0765	23.8852
Propane, C3	2.0456	0.5637	4.7019
iso-Butane, iC4	0.0244	0.0080	0.0739
n-Butane, nC4	0.0039	0.0012	0.0118
iso-Pentane, iC5			
n-Pentane, nC5			
Neo-Pentane, neo			
Hexanes Plus, C6+			
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
<b>Totals</b>	<b>100.0000</b>	<b>4.6490</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure		
Cricondentherm	-32.804	
HV, Dry @ Base P, T	1130.73	
HV, Sat @ Base P, T	1111.05	
HV, Sat @ Sample P, T	1130.73	
Relative Density	0.6640	
C6+: 100		

**Sample**

Date: 10/01/2021                      Type:

Tech: Wayne Sampson

Pressure:                                      Temp.:

Gauge:    H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date:    Instrument:

Tech:    Cylinder:

Remarks:



# Source Daily Summary

January 2024

Source #: 603  
Name: TIOGA STN-COUNTY LINE PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7131	1159.1	1179.6	1179.4	0.966	3.532	71.263	21.438	2.398	0.109	0.252	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1396.91	
2	0.7133	1157.8	1178.3	1178.0	0.971	3.622	71.300	21.249	2.433	0.112	0.266	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1395.14	
3	0.7113	1155.8	1176.2	1176.0	0.976	3.556	71.615	21.074	2.370	0.109	0.257	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.63	
4	0.7106	1155.9	1176.3	1176.1	0.958	3.508	71.732	21.053	2.342	0.109	0.256	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1395.44	
5	0.7117	1155.6	1176.0	1175.8	0.970	3.606	71.540	21.111	2.359	0.110	0.260	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1394.05	
6	0.7109	1155.5	1176.0	1175.7	0.967	3.540	71.708	21.011	2.364	0.109	0.257	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.75	
7	0.7113	1156.3	1176.8	1176.5	0.965	3.537	71.627	21.083	2.378	0.110	0.258	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1395.27	
8	0.7096	1154.0	1174.5	1174.2	0.954	3.527	71.975	20.753	2.382	0.109	0.256	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.27	
9	0.7095	1154.3	1174.8	1174.5	0.952	3.507	71.983	20.772	2.377	0.109	0.257	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.67	
10	0.7097	1154.4	1174.8	1174.6	0.949	3.529	71.978	20.714	2.418	0.110	0.259	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.50	
11	0.7089	1152.9	1173.3	1173.1	0.941	3.555	72.148	20.511	2.434	0.112	0.258	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1393.51	
12	0.7068	1148.5	1168.8	1168.6	0.950	3.610	72.607	19.962	2.456	0.112	0.260	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1390.23	
13	0.7070	1146.3	1166.6	1166.4	0.937	3.784	72.518	19.896	2.450	0.113	0.260	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1387.40	
14	0.7091	1137.6	1157.7	1157.6	0.886	4.584	72.000	19.617	2.473	0.119	0.276	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1374.93	
15	0.7035	1152.4	1172.8	1172.7	0.900	3.135	73.366	19.726	2.419	0.120	0.282	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1398.34	
16	0.6988	1155.2	1175.6	1175.4	0.837	2.620	74.252	19.517	2.327	0.118	0.275	0.024	0.031	0.000	0.000	0.000	0.000	0.000	1406.36	
17	0.7060	1158.5	1179.0	1178.8	0.894	3.006	72.881	20.332	2.451	0.117	0.268	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1403.20	
18	0.7048	1147.3	1167.6	1167.4	0.911	3.548	73.108	19.487	2.508	0.118	0.273	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1390.84	
19	0.7074	1137.1	1157.3	1157.1	0.947	4.359	72.623	19.008	2.608	0.120	0.285	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1375.96	
20	0.7072	1144.9	1165.2	1165.0	0.961	3.845	72.514	19.801	2.468	0.112	0.258	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1385.59	
21	0.7053	1142.9	1163.2	1163.0	0.953	3.803	72.689	19.886	2.266	0.106	0.252	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1385.04	
22	0.7034	1141.0	1161.2	1161.0	0.933	3.777	73.079	19.514	2.294	0.106	0.251	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1384.49	
23	0.7047	1142.8	1163.1	1162.9	0.925	3.796	72.822	19.745	2.314	0.106	0.248	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1385.49	
24	0.7046	1144.5	1164.7	1164.5	0.923	3.685	72.889	19.766	2.337	0.107	0.249	0.019	0.024	0.000	0.000	0.000	0.000	0.000	1387.61	
25	0.7046	1144.3	1164.5	1164.3	0.929	3.689	72.901	19.735	2.344	0.108	0.251	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1387.37	
26	0.7054	1143.7	1163.9	1163.7	0.939	3.785	72.736	19.793	2.343	0.108	0.252	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1385.88	
27	0.7052	1141.6	1161.8	1161.6	0.947	3.882	72.800	19.600	2.360	0.109	0.256	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1383.53	
28	0.7043	1140.3	1160.5	1160.3	0.942	3.886	72.952	19.466	2.352	0.108	0.251	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1382.82	
29	0.7047	1141.4	1161.6	1161.4	0.944	3.857	72.893	19.527	2.376	0.109	0.252	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1383.72	
30	0.7054	1143.7	1164.0	1163.8	0.970	3.736	72.806	19.706	2.378	0.109	0.252	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1385.86	
31	0.7094	1150.2	1170.5	1170.3	0.974	3.721	72.006	20.506	2.378	0.110	0.260	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1389.71	
Avg	0.7073	1149.0	1169.2	1169.0	0.941	3.649	72.429	20.173	2.392	0.111	0.260	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1390.24	

# Source Daily Summary

January 2024

Source #: 043  
Name: BISMARCK STN-CLEVELAND STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7496	1176.9	1197.7	1197.0	0.826	6.074	67.342	19.271	5.706	0.227	0.504	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1383.35	
2	0.7541	1180.5	1201.4	1200.7	0.838	6.258	66.759	19.320	6.025	0.234	0.515	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1383.48	
3	0.7493	1174.4	1195.1	1194.5	0.844	6.171	67.442	18.988	5.802	0.218	0.484	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.67	
4	0.7518	1177.6	1198.4	1197.8	0.840	6.211	67.196	18.992	5.947	0.234	0.527	0.026	0.026	0.000	0.000	0.000	0.000	0.000	1382.19	
5	0.7564	1180.8	1201.7	1201.0	0.845	6.438	66.523	19.168	6.178	0.246	0.550	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.75	
6	0.7559	1179.3	1200.1	1199.4	0.853	6.469	66.716	18.909	6.164	0.254	0.577	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1380.43	
7	0.7583	1185.5	1206.5	1205.7	0.843	6.336	66.533	19.000	6.338	0.267	0.616	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1385.43	
8	0.7546	1181.2	1202.2	1201.5	0.835	6.256	66.737	19.284	6.081	0.236	0.521	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1383.94	
9	0.7570	1181.2	1202.1	1201.3	0.851	6.462	66.423	19.205	6.231	0.242	0.535	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.63	
10	0.7535	1180.3	1201.2	1200.5	0.833	6.214	66.903	19.230	6.003	0.237	0.528	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1383.86	
11	0.7355	1163.0	1183.6	1182.9	0.771	5.683	69.173	18.723	5.060	0.178	0.376	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1380.08	
12	0.7297	1157.5	1178.0	1177.4	0.768	5.478	70.000	18.452	4.752	0.167	0.351	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1379.05	
13	0.7116	1138.8	1158.9	1158.3	0.756	4.939	72.589	17.450	3.860	0.126	0.256	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.95	
14	0.7060	1134.9	1155.0	1154.4	0.774	4.628	73.473	17.117	3.661	0.101	0.222	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.57	
15	0.7077	1138.7	1158.9	1158.3	0.759	4.579	73.178	17.408	3.733	0.100	0.218	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1377.51	
16	0.7111	1141.7	1161.9	1161.2	0.797	4.648	72.818	17.383	4.001	0.102	0.225	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1377.95	
17	0.7336	1164.9	1185.5	1184.8	0.826	5.305	69.614	18.570	5.192	0.139	0.319	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1384.15	
18	0.7332	1160.6	1181.2	1180.5	0.832	5.516	69.480	18.715	4.932	0.159	0.333	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1379.49	
19	0.7306	1159.9	1180.4	1179.7	0.837	5.313	69.879	18.719	4.695	0.168	0.353	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1381.01	
20	0.7248	1152.6	1173.0	1172.4	0.778	5.301	70.795	18.120	4.415	0.171	0.378	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1377.84	
21	0.7353	1163.5	1184.1	1183.4	0.803	5.586	69.254	18.772	4.949	0.181	0.411	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1380.86	
22	0.7372	1166.8	1187.5	1186.8	0.779	5.601	68.729	19.365	4.938	0.174	0.372	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1382.99	
23	0.7332	1162.0	1182.6	1181.9	0.755	5.552	69.220	19.161	4.812	0.153	0.315	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1381.10	
24	0.7299	1158.7	1179.2	1178.5	0.756	5.450	69.715	18.944	4.645	0.148	0.311	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1380.19	
25	0.7271	1156.3	1176.8	1176.1	0.750	5.341	70.089	18.900	4.428	0.150	0.311	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1380.01	
26	0.7276	1155.8	1176.3	1175.6	0.764	5.391	70.038	18.847	4.463	0.151	0.315	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1379.02	
27	0.7326	1159.0	1179.6	1178.9	0.793	5.618	69.382	18.941	4.716	0.165	0.351	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1378.16	
28	0.7505	1176.6	1197.4	1196.6	0.851	6.135	67.039	19.555	5.711	0.208	0.452	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1382.25	
29	0.7510	1174.6	1195.4	1194.5	0.864	6.289	66.849	19.584	5.746	0.200	0.427	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1379.41	
30	0.7502	1172.9	1193.6	1192.7	0.863	6.324	66.957	19.464	5.749	0.195	0.410	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.06	
31	0.7492	1169.6	1190.3	1189.4	0.858	6.434	67.217	19.102	5.679	0.211	0.454	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1375.13	
Avg	0.7383	1165.0	1186.0	1185.3	0.811	5.742	68.841	18.796	5.181	0.185	0.404	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1380.31	

# Source Daily Summary

January 2024

Source #: 063  
Name: CLEVELAND STN-MAPLETON

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7485	1172.3	1193.1	1192.1	0.874	6.179	67.506	19.022	5.671	0.220	0.475	0.026	0.026	0.000	0.000	0.000	0.000	0.000	1378.96	
2	0.7503	1175.6	1196.5	1195.6	0.862	6.160	67.172	19.376	5.664	0.228	0.488	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.27	
3	0.7551	1180.1	1201.0	1200.1	0.872	6.322	66.538	19.503	5.978	0.236	0.499	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.10	
4	0.7512	1174.2	1195.0	1194.2	0.880	6.306	67.106	19.120	5.844	0.222	0.470	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.75	
5	0.7511	1174.6	1195.4	1194.7	0.875	6.273	67.171	19.087	5.819	0.229	0.493	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.37	
6	0.7580	1180.9	1201.8	1201.0	0.880	6.527	66.272	19.266	6.208	0.251	0.540	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1380.44	
7	0.7569	1178.4	1199.3	1198.5	0.888	6.571	66.382	19.209	6.105	0.249	0.541	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1378.44	
8	0.7596	1183.8	1204.8	1204.0	0.887	6.489	66.363	18.940	6.363	0.274	0.614	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1382.34	
9	0.7533	1177.7	1198.6	1197.7	0.863	6.317	66.803	19.308	5.941	0.231	0.489	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1380.91	
10	0.7587	1181.6	1202.5	1201.7	0.889	6.544	66.108	19.393	6.247	0.245	0.521	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.51	
11	0.7572	1182.0	1202.9	1202.3	0.879	6.390	66.370	19.381	6.149	0.247	0.530	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.41	
12	0.7382	1163.1	1183.7	1183.1	0.812	5.867	68.774	18.793	5.153	0.186	0.378	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1377.69	
13	0.7320	1158.8	1179.3	1178.8	0.799	5.563	69.648	18.613	4.821	0.172	0.349	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1378.44	
14	0.7170	1142.0	1162.3	1161.7	0.794	5.193	71.742	17.772	4.068	0.135	0.268	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1372.64	
15	0.7060	1133.3	1153.4	1152.9	0.807	4.672	73.438	17.137	3.606	0.100	0.213	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1372.69	
16	0.7092	1138.6	1158.7	1158.1	0.789	4.677	72.907	17.557	3.729	0.102	0.215	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1375.97	
17	0.7108	1140.5	1160.7	1159.9	0.824	4.664	72.762	17.523	3.886	0.102	0.214	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1376.63	
18	0.7292	1159.3	1179.8	1179.1	0.853	5.194	70.172	18.459	4.872	0.130	0.286	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.63	
19	0.7348	1161.4	1182.0	1181.3	0.865	5.568	69.269	18.766	5.014	0.157	0.326	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.92	
20	0.7342	1160.4	1181.0	1180.3	0.880	5.553	69.283	18.906	4.831	0.169	0.341	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.26	
21	0.7266	1153.8	1174.3	1173.5	0.812	5.342	70.491	18.333	4.441	0.173	0.366	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1377.59	
22	0.7337	1160.3	1180.9	1180.2	0.838	5.570	69.391	18.835	4.769	0.176	0.380	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1378.67	
23	0.7381	1165.5	1186.1	1185.4	0.815	5.709	68.627	19.300	4.952	0.178	0.376	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1380.63	
24	0.7346	1161.4	1182.0	1181.2	0.793	5.664	68.957	19.288	4.797	0.156	0.311	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1379.06	
25	0.7323	1160.2	1180.7	1179.9	0.781	5.539	69.328	19.159	4.707	0.150	0.303	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1379.78	
26	0.7280	1154.8	1175.3	1174.5	0.792	5.446	69.922	18.950	4.409	0.151	0.299	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.46	
27	0.7284	1155.2	1175.7	1174.9	0.789	5.466	69.863	18.954	4.442	0.151	0.303	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.54	
28	0.7309	1156.2	1176.7	1175.7	0.820	5.600	69.508	19.019	4.545	0.158	0.319	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1376.28	
29	0.7496	1173.8	1194.6	1194.4	0.879	6.178	67.088	19.577	5.593	0.206	0.432	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.82	
30	0.7532	1175.7	1196.5	1196.4	0.902	6.372	66.490	19.790	5.766	0.208	0.427	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1378.66	
31	0.7515	1172.4	1193.1	1193.0	0.901	6.417	66.697	19.624	5.723	0.196	0.401	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1376.31	
Avg	0.7393	1165.0	1185.4	1184.7	0.845	5.817	68.650	18.902	5.165	0.187	0.392	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1378.72	

# Source Daily Summary

January 2024

Source #: 061  
Name: CLEVELAND STN-GRAFTON BDR

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7485	1172.2	1193.0	1192.5	0.876	6.178	67.503	19.033	5.663	0.219	0.474	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1378.91	
2	0.7503	1175.6	1196.5	1195.9	0.863	6.157	67.181	19.366	5.663	0.228	0.490	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1381.29	
3	0.7554	1180.4	1201.4	1200.8	0.874	6.325	66.501	19.516	5.992	0.237	0.502	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.24	
4	0.7513	1174.3	1195.1	1194.5	0.881	6.309	67.101	19.116	5.846	0.223	0.473	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.72	
5	0.7517	1175.9	1196.8	1196.2	0.876	6.253	67.098	19.137	5.855	0.231	0.498	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.31	
6	0.7586	1181.9	1202.9	1202.2	0.882	6.523	66.196	19.303	6.242	0.253	0.545	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1381.03	
7	0.7572	1178.9	1199.8	1199.2	0.889	6.566	66.342	19.236	6.119	0.250	0.543	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1378.79	
8	0.7599	1184.1	1205.1	1204.5	0.889	6.496	66.345	18.916	6.384	0.277	0.622	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1382.44	
9	0.7543	1179.3	1200.1	1199.4	0.864	6.312	66.691	19.353	5.996	0.235	0.499	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1381.82	
10	0.7593	1182.5	1203.5	1202.9	0.890	6.536	66.046	19.422	6.279	0.248	0.527	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.14	
11	0.7577	1182.6	1203.6	1203.1	0.881	6.397	66.307	19.399	6.177	0.249	0.535	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.68	
12	0.7387	1163.6	1184.2	1183.8	0.814	5.878	68.710	18.813	5.178	0.187	0.382	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1377.83	
13	0.7322	1159.2	1179.7	1179.4	0.800	5.559	69.626	18.620	4.835	0.173	0.352	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.71	
14	0.7178	1142.9	1163.2	1162.8	0.794	5.213	71.629	17.823	4.105	0.137	0.272	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.96	
15	0.7052	1132.4	1152.5	1152.1	0.807	4.649	73.559	17.087	3.563	0.099	0.210	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1372.40	
16	0.7099	1139.2	1159.4	1158.9	0.791	4.705	72.806	17.582	3.767	0.104	0.219	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1376.02	
17	0.7107	1140.4	1160.6	1160.0	0.824	4.656	72.781	17.524	3.874	0.102	0.214	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1376.67	
18	0.7285	1158.6	1179.2	1178.7	0.853	5.169	70.271	18.423	4.838	0.129	0.284	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.53	
19	0.7357	1162.7	1183.3	1182.8	0.867	5.578	69.138	18.825	5.070	0.157	0.329	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1379.51	
20	0.7347	1160.8	1181.4	1180.9	0.881	5.575	69.197	18.941	4.857	0.170	0.342	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.27	
21	0.7269	1154.5	1174.9	1174.3	0.813	5.333	70.460	18.348	4.461	0.174	0.369	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1378.04	
22	0.7332	1160.1	1180.6	1180.1	0.840	5.540	69.442	18.852	4.733	0.175	0.377	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1378.79	
23	0.7391	1166.5	1187.1	1186.6	0.818	5.740	68.511	19.305	5.015	0.181	0.385	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1380.82	
24	0.7347	1161.3	1181.9	1181.5	0.796	5.673	68.944	19.288	4.798	0.156	0.311	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1378.88	
25	0.7327	1160.5	1181.1	1180.6	0.782	5.552	69.272	19.175	4.731	0.150	0.305	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1379.85	
26	0.7283	1155.3	1175.8	1175.4	0.793	5.446	69.875	18.978	4.424	0.151	0.301	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.75	
27	0.7284	1155.1	1175.6	1175.1	0.789	5.471	69.865	18.947	4.440	0.151	0.304	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.44	
28	0.7311	1156.5	1177.0	1176.2	0.821	5.592	69.486	19.039	4.552	0.158	0.319	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1376.52	
29	0.7490	1173.5	1194.3	1194.1	0.876	6.147	67.178	19.551	5.565	0.205	0.431	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.96	
30	0.7535	1176.0	1196.8	1196.6	0.904	6.376	66.463	19.795	5.775	0.210	0.432	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1378.77	
31	0.7526	1174.4	1195.2	1195.1	0.903	6.389	66.557	19.737	5.760	0.201	0.412	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1377.76	
Avg	0.7396	1165.0	1185.8	1185.4	0.846	5.816	68.615	18.918	5.179	0.188	0.395	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1378.96	

# Source Daily Summary

January 2024

Source #: 041  
Name: BISMARCK STN-GLEN ULLIN STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6744	1111.0	1130.6	1130.3	0.610	3.377	77.066	17.567	1.283	0.033	0.058	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1376.76	
2	0.6758	1111.1	1130.8	1130.4	0.626	3.477	76.922	17.467	1.389	0.038	0.072	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1375.55	
3	0.6809	1107.5	1127.2	1126.8	0.790	3.918	76.528	16.786	1.795	0.056	0.115	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1366.14	
4	0.6724	1101.1	1120.6	1120.2	0.783	3.531	77.580	16.760	1.248	0.033	0.059	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1366.55	
5	0.6742	1111.8	1131.5	1131.1	0.500	3.475	77.196	17.247	1.468	0.038	0.069	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1378.00	
6	0.6761	1116.9	1136.6	1136.3	0.432	3.445	76.893	17.518	1.590	0.041	0.074	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1382.35	
7	0.6767	1119.7	1139.5	1139.1	0.398	3.378	76.717	17.828	1.561	0.040	0.071	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1385.25	
8	0.6728	1110.6	1130.3	1129.9	0.510	3.398	77.426	17.165	1.388	0.037	0.068	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1377.99	
9	0.6697	1106.6	1126.2	1125.8	0.496	3.376	78.022	16.638	1.350	0.038	0.071	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1376.12	
10	0.6703	1107.9	1127.5	1127.2	0.476	3.387	77.887	16.769	1.364	0.038	0.070	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1377.07	
11	0.6729	1107.0	1126.6	1126.3	0.551	3.565	77.586	16.664	1.503	0.043	0.078	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.39	
12	0.6819	1113.9	1133.6	1133.3	0.620	3.882	76.450	16.813	2.026	0.065	0.130	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1372.92	
13	0.6649	1096.2	1115.6	1115.3	0.630	3.355	79.073	15.541	1.286	0.038	0.069	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1368.09	
14	0.6951	1125.3	1145.2	1144.9	0.757	4.215	75.122	16.489	3.117	0.088	0.191	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1373.73	
15	0.6921	1124.6	1144.5	1144.2	0.717	4.035	75.511	16.516	2.941	0.082	0.176	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1375.83	
16	0.6628	1097.0	1116.4	1116.1	0.686	3.014	79.956	14.679	1.509	0.050	0.090	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1371.36	
17	0.6577	1091.1	1110.4	1110.2	0.689	2.887	80.801	14.168	1.316	0.046	0.079	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1369.29	
18	0.6618	1096.0	1115.4	1115.1	0.705	2.957	80.156	14.550	1.474	0.051	0.092	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1371.10	
19	0.6584	1092.9	1112.3	1112.0	0.716	2.810	80.653	14.400	1.281	0.046	0.080	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1370.72	
20	0.6692	1108.1	1127.7	1127.4	0.541	3.160	78.437	16.213	1.511	0.046	0.080	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1378.59	
21	0.6755	1116.9	1136.6	1136.3	0.471	3.324	77.146	17.311	1.611	0.046	0.081	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1383.01	
22	0.6777	1119.0	1138.9	1138.6	0.459	3.418	76.719	17.604	1.657	0.048	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1383.44	
23	0.6727	1112.1	1131.8	1131.5	0.437	3.410	77.545	16.960	1.518	0.043	0.077	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1379.88	
24	0.6740	1110.4	1130.1	1129.8	0.501	3.536	77.418	16.810	1.593	0.046	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1376.59	
25	0.6957	1129.0	1149.0	1148.7	0.624	4.250	74.433	17.687	2.717	0.089	0.180	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1377.75	
26	0.6704	1105.8	1125.4	1125.1	0.546	3.406	77.955	16.613	1.359	0.039	0.073	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1374.57	
27	0.6685	1103.4	1123.0	1122.7	0.587	3.317	78.112	16.749	1.141	0.031	0.056	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1373.45	
28	0.6709	1105.9	1125.5	1125.2	0.618	3.346	77.668	17.112	1.160	0.032	0.058	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1374.06	
29	0.7088	1136.9	1157.1	1156.8	0.761	4.786	72.602	18.133	3.344	0.113	0.237	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.57	
30	0.6945	1121.8	1141.7	1141.4	0.747	4.387	74.540	17.522	2.541	0.080	0.165	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1370.18	
31	0.6924	1121.5	1141.3	1141.0	0.703	4.280	74.706	17.750	2.295	0.080	0.168	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1371.80	
Avg	0.6762	1111.0	1130.6	1130.3	0.603	3.552	77.252	16.711	1.721	0.051	0.099	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1375.04	

# Source Daily Summary

January 2024

Source #: 271  
Name: DCKSN BRD-BLFD TSF-G.U. STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6763	1114.5	1134.2	1133.9	0.574	3.396	76.588	18.094	1.256	0.033	0.057	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1379.20
2	0.6729	1103.3	1122.8	1122.5	0.731	3.519	77.303	17.215	1.145	0.031	0.054	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1368.81
3	0.6729	1102.1	1121.6	1121.3	0.761	3.554	77.331	17.102	1.168	0.031	0.052	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1367.23
4	0.6750	1111.6	1131.2	1131.0	0.557	3.475	76.926	17.607	1.336	0.036	0.060	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1376.93
5	0.6761	1117.1	1136.8	1136.6	0.430	3.442	76.702	17.859	1.463	0.037	0.062	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1382.55
6	0.6782	1122.2	1142.1	1141.8	0.380	3.396	76.322	18.265	1.529	0.039	0.066	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1386.81
7	0.6755	1117.2	1137.0	1136.8	0.419	3.388	76.785	17.891	1.414	0.037	0.063	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1383.41
8	0.6719	1109.3	1128.9	1128.7	0.501	3.407	77.492	17.190	1.303	0.037	0.064	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1377.28
9	0.6710	1109.7	1129.4	1129.2	0.441	3.385	77.664	17.066	1.332	0.038	0.067	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1378.77
10	0.6716	1107.7	1127.3	1127.2	0.503	3.470	77.567	17.035	1.318	0.037	0.064	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1375.64
11	0.6704	1104.6	1124.2	1124.0	0.533	3.507	77.801	16.755	1.296	0.037	0.064	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1372.95
12	0.6700	1102.1	1121.7	1121.5	0.589	3.534	77.885	16.641	1.248	0.036	0.062	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1370.32
13	0.6671	1099.2	1118.7	1118.5	0.631	3.368	78.656	15.912	1.314	0.041	0.070	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1369.72
14	0.6632	1098.0	1117.4	1117.2	0.613	3.101	79.485	15.376	1.297	0.044	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1372.19
15	0.6619	1097.2	1116.6	1116.4	0.656	2.971	79.803	15.148	1.290	0.046	0.075	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1372.43
16	0.6600	1094.9	1114.3	1114.1	0.660	2.919	80.202	14.807	1.280	0.045	0.074	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1371.63
17	0.6587	1093.5	1112.9	1112.7	0.680	2.857	80.465	14.613	1.253	0.045	0.074	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1371.15
18	0.6604	1096.0	1115.4	1115.2	0.697	2.836	80.153	14.920	1.261	0.046	0.076	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1372.57
19	0.6653	1103.1	1122.6	1122.4	0.581	3.041	79.102	15.775	1.372	0.045	0.074	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1376.34
20	0.6747	1116.4	1136.1	1135.9	0.489	3.260	77.204	17.382	1.534	0.046	0.076	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1383.12
21	0.6793	1121.6	1141.5	1141.3	0.435	3.453	76.286	18.064	1.627	0.047	0.080	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1384.96
22	0.6751	1115.9	1135.7	1135.4	0.429	3.415	77.006	17.520	1.503	0.044	0.075	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1382.17
23	0.6720	1111.1	1130.8	1130.6	0.431	3.409	77.459	17.242	1.352	0.037	0.064	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1379.48
24	0.6712	1107.0	1126.6	1126.4	0.520	3.454	77.665	16.936	1.314	0.038	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1375.15
25	0.6694	1107.0	1126.6	1126.4	0.483	3.337	77.868	17.028	1.187	0.034	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1377.04
26	0.6704	1106.6	1126.2	1126.1	0.567	3.332	77.647	17.248	1.119	0.031	0.053	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1375.49
27	0.6709	1106.1	1125.6	1125.4	0.607	3.348	77.527	17.373	1.063	0.030	0.050	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1374.32
28	0.6698	1101.8	1121.4	1121.2	0.656	3.437	77.649	17.221	0.964	0.027	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.11
29	0.6723	1106.3	1125.9	1125.7	0.636	3.427	77.077	17.869	0.924	0.025	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1373.15
30	0.6738	1112.4	1132.1	1131.9	0.525	3.368	76.565	18.641	0.842	0.022	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1379.15
31	0.6675	1102.6	1122.1	1121.9	0.519	3.378	78.045	16.990	0.992	0.028	0.047	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1373.44
Avg	0.6705	1107.0	1126.6	1126.4	0.556	3.328	77.814	16.929	1.268	0.037	0.063	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1375.92

# Source Daily Summary

January 2024

Source #: 051  
Name: CABIN CRK STN-BELFIELD TRSFR

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6740	1111.0	1130.6	1130.0	0.399	3.653	77.455	16.609	1.734	0.049	0.090	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1377.21	
2	0.6738	1110.7	1130.4	1130.1	0.400	3.652	77.479	16.590	1.729	0.049	0.089	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1377.07	
3	0.6735	1110.3	1129.9	1129.6	0.400	3.649	77.535	16.550	1.719	0.049	0.088	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1376.83	
4	0.6734	1110.1	1129.8	1128.7	0.402	3.647	77.549	16.540	1.714	0.049	0.088	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1376.76	
5	0.6733	1109.9	1129.6	1128.3	0.402	3.647	77.567	16.525	1.711	0.049	0.088	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1376.65	
6	0.6731	1109.7	1129.3	1128.0	0.402	3.645	77.603	16.498	1.705	0.049	0.088	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1376.51	
7	0.6725	1109.0	1128.7	1127.6	0.402	3.629	77.693	16.452	1.679	0.048	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1376.30	
8	0.6732	1110.4	1130.0	1128.9	0.407	3.609	77.666	16.436	1.684	0.085	0.103	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1377.19	
9	0.6720	1108.4	1128.0	1126.9	0.410	3.605	77.783	16.412	1.649	0.047	0.084	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1376.07	
10	0.6718	1108.1	1127.7	1126.7	0.406	3.614	77.810	16.379	1.650	0.047	0.084	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.85	
11	0.6715	1107.7	1127.3	1126.5	0.407	3.610	77.856	16.348	1.639	0.046	0.083	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.65	
12	0.6713	1107.4	1127.0	1126.1	0.408	3.607	77.886	16.331	1.630	0.046	0.082	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.52	
13	0.6711	1107.1	1126.7	1125.8	0.410	3.600	77.928	16.304	1.621	0.046	0.082	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.39	
14	0.6440	1075.6	1094.7	1093.7	1.078	1.950	83.964	11.792	1.057	0.053	0.083	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1364.11	
15	0.6399	1070.5	1089.4	1088.4	1.187	1.718	84.867	11.095	0.973	0.054	0.082	0.014	0.010	0.000	0.000	0.000	0.000	0.000	1361.85	
16	0.6394	1069.3	1088.3	1087.1	1.201	1.716	84.973	10.989	0.964	0.053	0.081	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1360.97	
17	0.6658	1100.8	1120.3	1119.2	0.529	3.311	79.062	15.460	1.501	0.046	0.080	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1372.90	
18	0.6702	1105.9	1125.5	1124.4	0.409	3.594	78.068	16.209	1.587	0.045	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.76	
19	0.6697	1105.1	1124.7	1123.6	0.414	3.582	78.166	16.137	1.569	0.044	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.37	
20	0.6692	1104.5	1124.1	1122.9	0.416	3.574	78.241	16.082	1.557	0.044	0.078	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.09	
21	0.6688	1104.0	1123.6	1122.3	0.454	3.506	78.324	16.085	1.505	0.042	0.076	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1373.90	
22	0.6686	1103.9	1123.5	1122.1	0.430	3.530	78.345	16.052	1.515	0.042	0.076	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1373.96	
23	0.6680	1103.5	1123.0	1121.9	0.452	3.471	78.441	16.041	1.473	0.041	0.074	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.02	
24	0.6680	1103.3	1122.9	1121.7	0.443	3.491	78.445	16.016	1.481	0.041	0.074	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1373.85	
25	0.6639	1095.8	1115.2	1114.3	0.369	3.680	79.229	15.082	1.502	0.045	0.081	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1368.60	
26	0.6699	1105.5	1125.1	1123.9	0.401	3.599	78.123	16.159	1.585	0.044	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.61	
27	0.6698	1105.3	1124.9	1124.5	0.400	3.599	78.141	16.145	1.582	0.044	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.54	
28	0.6701	1105.6	1125.2	1124.9	0.400	3.611	78.100	16.154	1.599	0.045	0.081	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1374.57	
29	0.6683	1103.3	1122.8	1122.3	0.403	3.586	78.390	15.955	1.538	0.043	0.077	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1373.44	
30	0.6674	1101.9	1121.5	1120.0	0.402	3.578	78.557	15.824	1.512	0.042	0.075	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.78	
31	0.6689	1104.2	1123.7	1123.1	0.409	3.577	78.295	16.035	1.553	0.044	0.078	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1373.96	
Avg	0.6676	1103.0	1122.4	1121.4	0.486	3.414	78.695	15.719	1.546	0.047	0.082	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1373.69	

# Source Daily Summary

January 2024

Source #: 111  
Name: LITTLE KNIFE PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6827	1146.4	1166.7	1164.9	0.000	2.932	73.787	22.857	0.411	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.08	-29.15
2	0.6825	1145.9	1166.2	1164.2	0.000	2.943	73.822	22.813	0.408	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.68	-29.29
3	0.6818	1144.9	1165.2	1163.5	0.000	2.943	73.944	22.708	0.392	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.10	-29.72
4	0.6823	1146.0	1166.3	1164.0	0.000	2.920	73.863	22.807	0.397	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.95	-29.41
5	0.6821	1145.6	1165.8	1163.8	0.000	2.927	73.894	22.772	0.394	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.65	-29.53
6	0.6822	1145.6	1165.9	1164.1	0.000	2.931	73.876	22.788	0.393	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.65	-29.50
7	0.6824	1146.3	1166.6	1164.6	0.000	2.917	73.824	22.852	0.396	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.18	-29.31
8	0.6821	1145.6	1165.9	1164.0	0.000	2.922	73.896	22.781	0.388	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.74	-29.56
9	0.6825	1146.4	1166.7	1164.8	0.000	2.917	73.831	22.824	0.415	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.23	-29.20
10	0.6828	1147.1	1167.4	1165.8	0.000	2.899	73.739	22.966	0.384	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.83	-29.11
11	0.6821	1145.6	1165.9	1163.8	0.000	2.931	73.864	22.816	0.376	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.61	-29.56
12	0.6825	1146.2	1166.5	1165.2	0.000	2.927	73.805	22.871	0.384	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.03	-29.34
13	0.6869	1154.0	1174.4	1174.1	0.000	2.866	72.994	23.673	0.448	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.05	-26.60
14	0.6870	1152.0	1172.4	1172.1	0.000	2.996	72.951	23.590	0.443	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.51	-26.87
15	0.6875	1152.7	1173.1	1172.7	0.000	3.000	72.990	23.414	0.572	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.84	-26.12
16	0.6867	1151.4	1171.8	1171.3	0.000	3.006	73.094	23.344	0.533	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.02	-26.67
17	0.6865	1152.5	1172.9	1172.0	0.002	2.917	73.286	23.146	0.610	0.012	0.023	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1415.60	-25.89
18	0.6881	1156.0	1176.4	1175.5	0.000	2.858	72.890	23.634	0.596	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.23	-25.38
19	0.6873	1154.5	1175.0	1173.8	0.000	2.874	73.073	23.422	0.609	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.23	-25.80
20	0.6874	1155.0	1175.4	1174.1	0.000	2.858	73.035	23.492	0.594	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.68	-25.77
21	0.6871	1154.5	1174.9	1173.2	0.000	2.856	73.117	23.375	0.631	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.40	-25.75
22	0.6875	1154.9	1175.4	1174.4	0.000	2.862	72.974	23.586	0.557	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.60	-25.85
23	0.6866	1152.7	1173.1	1171.0	0.000	2.910	73.295	23.082	0.693	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.82	-25.97
24	0.6835	1147.4	1167.7	1165.5	0.000	2.952	73.638	22.957	0.439	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.41	-28.62
25	0.6832	1147.4	1167.7	1165.4	0.000	2.924	73.699	22.933	0.429	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.69	-28.78
26	0.6834	1147.5	1167.8	1165.5	0.000	2.939	73.690	22.887	0.469	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.60	-28.53
27	0.6827	1146.5	1166.8	1164.8	0.000	2.934	73.808	22.803	0.441	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.07	-29.01
28	0.6830	1147.0	1167.3	1165.6	0.000	2.928	73.746	22.872	0.440	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.46	-28.84
29	0.6826	1146.1	1166.4	1164.5	0.000	2.946	73.820	22.787	0.432	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.74	-29.12
30	0.6822	1145.6	1165.9	1164.3	0.000	2.941	73.910	22.695	0.439	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.49	-29.30
31	0.6831	1147.3	1167.6	1165.8	0.000	2.914	73.736	22.905	0.432	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.77	-28.83
Avg	0.6842	1149.0	1169.3	1167.7	0.000	2.922	73.545	23.047	0.469	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.58	-28.08

# Source Daily Summary

January 2024

Source #: 351  
Name: BADLANDS PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6599	1088.1	1107.4	1107.1	0.548	3.499	79.929	14.679	1.232	0.036	0.067	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1363.21	
2	0.6567	1082.3	1101.4	1101.1	0.530	3.585	80.521	14.052	1.200	0.037	0.067	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1359.14	
3	0.6575	1085.4	1104.6	1104.3	0.554	3.434	80.372	14.353	1.178	0.035	0.065	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.23	
4	0.6576	1085.7	1104.9	1104.6	0.560	3.415	80.362	14.378	1.176	0.035	0.064	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.49	
5	0.6570	1084.6	1103.8	1103.6	0.560	3.420	80.477	14.266	1.168	0.035	0.064	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.84	
6	0.6569	1084.5	1103.8	1103.5	0.563	3.407	80.506	14.255	1.162	0.035	0.064	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.88	
7	0.6565	1083.9	1103.1	1102.8	0.563	3.412	80.574	14.192	1.153	0.035	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.43	
8	0.6561	1083.4	1102.6	1102.4	0.565	3.403	80.641	14.142	1.144	0.034	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.22	
9	0.6567	1084.8	1104.0	1103.7	0.572	3.360	80.537	14.284	1.142	0.034	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.39	
10	0.6568	1085.3	1104.5	1104.3	0.573	3.346	80.496	14.343	1.138	0.034	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.81	
11	0.6584	1088.4	1107.7	1107.5	0.584	3.291	80.203	14.667	1.152	0.034	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.06	
12	0.6593	1090.3	1109.6	1109.5	0.589	3.247	80.039	14.866	1.155	0.034	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1366.57	
13	0.6592	1090.4	1109.7	1109.6	0.592	3.231	80.056	14.865	1.152	0.034	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1366.75	
14	0.6586	1089.5	1108.8	1108.6	0.588	3.232	80.170	14.764	1.142	0.034	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1366.27	
15	0.6583	1088.9	1108.2	1108.1	0.590	3.234	80.227	14.710	1.135	0.034	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.90	
16	0.6572	1087.2	1106.5	1106.2	0.586	3.242	80.433	14.516	1.120	0.033	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.86	
17	0.6571	1087.3	1106.6	1106.3	0.579	3.235	80.449	14.515	1.121	0.033	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.12	
18	0.6568	1086.8	1106.1	1105.9	0.582	3.235	80.498	14.470	1.114	0.033	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.80	
19	0.6572	1087.7	1107.0	1106.8	0.588	3.209	80.430	14.562	1.110	0.033	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.49	
20	0.6568	1087.2	1106.4	1106.2	0.588	3.204	80.501	14.504	1.102	0.033	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.25	
21	0.6550	1084.1	1103.3	1103.0	0.581	3.233	80.834	14.169	1.082	0.033	0.059	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1363.26	
22	0.6534	1081.1	1100.2	1100.0	0.570	3.279	81.131	13.858	1.062	0.033	0.058	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.15	
23	0.6522	1079.1	1098.2	1098.0	0.561	3.305	81.335	13.655	1.045	0.032	0.058	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1359.86	
24	0.6507	1076.2	1095.3	1095.0	0.554	3.345	81.623	13.350	1.030	0.032	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.86	
25	0.6507	1076.4	1095.5	1095.2	0.547	3.352	81.612	13.353	1.038	0.032	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.99	
26	0.6508	1076.5	1095.5	1095.3	0.544	3.355	81.604	13.358	1.040	0.033	0.058	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1358.06	
27	0.6506	1076.2	1095.3	1095.0	0.543	3.353	81.639	13.331	1.036	0.033	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.96	
28	0.6503	1075.8	1094.8	1094.5	0.542	3.352	81.696	13.282	1.031	0.032	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.71	
29	0.6262	1041.3	1059.7	1059.4	0.409	3.391	86.119	9.294	0.717	0.025	0.040	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1338.95	
30	0.5721	963.2	980.3	979.9	0.110	3.518	96.040	0.308	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.96	
31	0.5721	963.1	980.2	979.9	0.110	3.524	96.036	0.306	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.84	
Avg	0.6495	1075.0	1094.0	1093.8	0.533	3.343	81.842	13.150	1.036	0.032	0.056	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.40	



January-24

ZONE 550

MANDAN BORDER

NBPL - St Anthony

WBI - Mandan Border

Weighted

Start Date	End Date	MCF	DK	BTU	MCF	DK	BTU Zone 28	AVG BTU	
1/1/2024	1/2/2024	0	0	0	4,471	5,055	1130.6	1130.600	1/1/2024
1/2/2024	1/3/2024	0	0	0	5,106	5,775	1130.8	1130.800	1/2/2024
1/3/2024	1/4/2024	0	0	0	6,147	6,931	1127.2	1127.200	1/3/2024
1/4/2024	1/5/2024	0	0	0	5,798	6,496	1120.6	1120.600	1/4/2024
1/5/2024	1/6/2024	0	0	0	5,371	6,078	1131.5	1131.500	1/5/2024
1/6/2024	1/7/2024	1,620	1,791	1,106	5,573	6,334	1136.6	1129.618	1/6/2024
1/7/2024	1/8/2024	6,805	7,544	1,108	6,521	7,431	1139.5	1123.568	1/7/2024
1/8/2024	1/9/2024	0	0	0	6,891	7,788	1130.3	1130.300	1/8/2024
1/9/2024	1/10/2024	0	0	0	6,232	7,018	1126.2	1126.200	1/9/2024
1/10/2024	1/11/2024	0	0	0	8,197	9,242	1127.5	1127.500	1/10/2024
1/11/2024	1/12/2024	3,724	4,106	1,103	9,617	10,833	1126.6	1120.012	1/11/2024
1/12/2024	1/13/2024	3,841	4,235	1,103	7,008	7,941	1133.6	1122.625	1/12/2024
1/13/2024	1/14/2024	3,931	4,298	1,093	7,980	8,902	1115.6	1108.174	1/13/2024
1/14/2024	1/15/2024	5,111	5,615	1,095	6,911	7,923	1145.2	1123.986	1/14/2024
1/15/2024	1/16/2024	4,459	4,917	1,102	7,047	8,070	1144.5	1128.185	1/15/2024
1/16/2024	1/17/2024	3,242	3,584	1,106	5,286	5,906	1116.4	1112.332	1/16/2024
1/17/2024	1/18/2024	2,527	2,785	1,102	5,932	6,586	1110.4	1107.861	1/17/2024
1/18/2024	1/19/2024	2,351	2,573	1,094	7,308	8,151	1115.4	1110.240	1/18/2024
1/19/2024	1/20/2024	2,349	2,561	1,090	6,308	7,016	1112.3	1106.276	1/19/2024
1/20/2024	1/21/2024	149	162	1089.6	7,847	8,850	1127.7	1126.990	1/20/2024
1/21/2024	1/22/2024	0	0	0	5,941	6,752	1136.6	1136.600	1/21/2024
1/22/2024	1/23/2024	8,724	9,587	1,099	6,332	7,211	1138.9	1115.723	1/22/2024
1/23/2024	1/24/2024	4,567	5,019	1,099	6,115	6,920	1131.8	1117.948	1/23/2024
1/24/2024	1/25/2024	14,870	16,361	1,101	5,236	5,923	1130.1	1108.208	1/24/2024
1/25/2024	1/26/2024	17,763	19,570	1,102	5,911	6,808	1149	1113.885	1/25/2024
1/26/2024	1/27/2024	7,390	8,167	1,107	4,877	5,493	1125.4	1114.014	1/26/2024
1/27/2024	1/28/2024	0	0	0	4,172	4,684	1123	1123.000	1/27/2024
1/28/2024	1/29/2024	0	0	0	3,599	4,050	1125.5	1125.500	1/28/2024
1/29/2024	1/30/2024	0	0	0	3,980	4,603	1157.1	1157.100	1/29/2024
1/30/2024	1/31/2024	0	0	0	3,759	4,277	1141.7	1141.700	1/30/2024
1/31/2024	2/1/2024	0	0	0	3,610	4,109	1141.3	1141.300	1/31/2024
		93,423	102,875	603.2032	185,083	209,156	1130.6097	1123.8563	



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND07MD1 --- Hankinson Sales  
 January 2024

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,144.999	0.6539	85.0456	9.6386	3.0878	0.3228	0.5134	0.0552	0.0418	0.0156	0.8742	0.3949	0.0103
2	1,146.701	0.6551	84.9218	9.6571	3.1492	0.3292	0.5360	0.0573	0.0428	0.0153	0.8874	0.3936	0.0103
3	1,146.114	0.6545	84.9821	9.6606	3.1291	0.3244	0.5203	0.0559	0.0421	0.0155	0.8656	0.3941	0.0103
4	1,145.800	0.6544	84.9880	9.6389	3.1223	0.3284	0.5216	0.0561	0.0421	0.0155	0.8844	0.3923	0.0103
5	1,145.140	0.6541	85.0334	9.5989	3.1178	0.3222	0.5183	0.0563	0.0426	0.0154	0.8869	0.3976	0.0107
6	1,145.344	0.6542	85.0051	9.6399	3.1094	0.3242	0.5138	0.0566	0.0434	0.0156	0.8859	0.3954	0.0106
7	1,144.439	0.6536	85.1157	9.5585	3.0859	0.3243	0.5163	0.0563	0.0423	0.0155	0.8831	0.3917	0.0105
8	1,143.982	0.6532	85.1277	9.5946	3.0495	0.3224	0.5097	0.0561	0.0419	0.0156	0.8799	0.3921	0.0106
9	1,144.433	0.6530	85.1790	9.5899	3.0550	0.3233	0.5068	0.0553	0.0416	0.0153	0.8396	0.3837	0.0107
10	1,144.505	0.6530	85.1823	9.5871	3.0574	0.3235	0.5055	0.0558	0.0421	0.0156	0.8354	0.3843	0.0108
11	1,142.015	0.6511	85.4259	9.5001	2.9663	0.3126	0.4871	0.0539	0.0410	0.0155	0.7943	0.3924	0.0110
12	1,142.536	0.6510	85.4291	9.5340	2.9523	0.3172	0.4893	0.0543	0.0411	0.0153	0.7793	0.3772	0.0108
13	1,142.808	0.6509	85.5148	9.4412	2.9887	0.3190	0.4918	0.0547	0.0407	0.0152	0.7392	0.3839	0.0110
14	1,143.306	0.6486	85.8633	9.4223	2.9040	0.3197	0.4672	0.0560	0.0420	0.0178	0.5468	0.3495	0.0114
15	1,141.523	0.6473	86.0637	9.2933	2.8548	0.3169	0.4601	0.0560	0.0427	0.0184	0.5378	0.3449	0.0114
16	1,142.883	0.6482	85.9972	9.2724	2.9203	0.3224	0.4728	0.0570	0.0456	0.0182	0.5359	0.3471	0.0112
17	1,143.197	0.6487	85.7609	9.5447	2.8601	0.3178	0.4627	0.0558	0.0432	0.0185	0.5868	0.3385	0.0111
18	1,146.744	0.6513	85.4805	9.6296	2.9941	0.3273	0.4954	0.0574	0.0436	0.0185	0.5874	0.3550	0.0111
19	1,146.130	0.6517	85.2243	9.9414	2.8930	0.3167	0.4825	0.0559	0.0415	0.0167	0.6536	0.3634	0.0110
20	1,141.191	0.6489	85.7380	9.4313	2.8744	0.3137	0.4704	0.0552	0.0410	0.0161	0.6801	0.3691	0.0108
21	1,140.935	0.6498	85.8525	9.0468	2.9682	0.3566	0.5246	0.0533	0.0408	0.0151	0.7480	0.3841	0.0100
22	1,144.464	0.6519	85.4190	9.4255	3.0634	0.3256	0.5088	0.0563	0.0435	0.0163	0.7587	0.3720	0.0107
23	1,143.876	0.6513	85.4798	9.4267	3.0378	0.3223	0.4974	0.0549	0.0417	0.0171	0.7420	0.3696	0.0107
24	1,142.497	0.6510	85.4697	9.4492	2.9931	0.3176	0.4902	0.0540	0.0404	0.0158	0.7899	0.3696	0.0104
25	1,144.456	0.6529	85.1894	9.5558	3.0762	0.3223	0.5053	0.0560	0.0419	0.0159	0.8554	0.3713	0.0105
26	1,144.829	0.6534	85.1599	9.5227	3.1057	0.3227	0.5201	0.0570	0.0413	0.0158	0.8692	0.3750	0.0106
27	1,145.212	0.6539	85.0897	9.5403	3.1400	0.3223	0.5171	0.0566	0.0421	0.0160	0.8908	0.3748	0.0103
28	1,143.820	0.6528	85.1832	9.5708	3.0589	0.3169	0.4986	0.0556	0.0416	0.0164	0.8709	0.3765	0.0105
29	1,145.550	0.6540	85.0918	9.5341	3.1461	0.3253	0.5168	0.0582	0.0438	0.0170	0.8778	0.3788	0.0104
30	1,144.390	0.6529	85.2087	9.5427	3.0748	0.3183	0.5038	0.0567	0.0440	0.0174	0.8413	0.3818	0.0106
31	1,144.154	0.6527	85.2459	9.5200	3.0590	0.3195	0.5079	0.0570	0.0439	0.0176	0.8375	0.3810	0.0107
<b>Volume</b>	<b>1,144.118</b>	<b>0.6520</b>	<b>85.3423</b>	<b>9.5251</b>	<b>3.0276</b>	<b>0.3225</b>	<b>0.5008</b>	<b>0.0559</b>	<b>0.0423</b>	<b>0.0163</b>	<b>0.7802</b>	<b>0.3764</b>	<b>0.0107</b>
<b>Weight Avg Energy</b>	<b>1,144.120</b>	<b>0.6520</b>	<b>85.3420</b>	<b>9.5253</b>	<b>3.0277</b>	<b>0.3225</b>	<b>0.5008</b>	<b>0.0559</b>	<b>0.0423</b>	<b>0.0163</b>	<b>0.7802</b>	<b>0.3764</b>	<b>0.0107</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND14MD1 --- Milnor Sales  
 January 2024

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,144.998	0.6539	85.0490	9.6269	3.0895	0.3239	0.5157	0.0555	0.0420	0.0155	0.8765	0.3952	0.0103
2	1,146.785	0.6551	84.9168	9.6621	3.1518	0.3290	0.5356	0.0572	0.0427	0.0154	0.8870	0.3921	0.0103
3	1,146.212	0.6544	84.9933	9.6581	3.1289	0.3253	0.5202	0.0560	0.0422	0.0155	0.8569	0.3934	0.0103
4	1,145.830	0.6544	84.9897	9.6379	3.1263	0.3278	0.5207	0.0559	0.0419	0.0154	0.8828	0.3914	0.0102
5	1,144.988	0.6541	85.0380	9.5967	3.1159	0.3211	0.5166	0.0561	0.0425	0.0152	0.8879	0.3993	0.0107
6	1,145.552	0.6543	85.0025	9.6319	3.1158	0.3259	0.5177	0.0570	0.0436	0.0157	0.8852	0.3942	0.0105
7	1,143.940	0.6533	85.1441	9.5482	3.0698	0.3230	0.5125	0.0560	0.0420	0.0154	0.8870	0.3915	0.0105
8	1,144.308	0.6534	85.1018	9.6160	3.0569	0.3230	0.5103	0.0560	0.0419	0.0152	0.8768	0.3915	0.0106
9	1,144.582	0.6530	85.1724	9.5929	3.0586	0.3240	0.5083	0.0555	0.0416	0.0151	0.8377	0.3833	0.0107
10	1,144.374	0.6528	85.2069	9.5777	3.0506	0.3231	0.5048	0.0558	0.0421	0.0156	0.8299	0.3828	0.0107
11	1,141.847	0.6510	85.4359	9.4999	2.9597	0.3116	0.4854	0.0537	0.0408	0.0156	0.7930	0.3933	0.0111
12	1,142.665	0.6512	85.4170	9.5240	2.9619	0.3183	0.4935	0.0545	0.0411	0.0153	0.7838	0.3797	0.0107
13	1,142.295	0.6501	85.6133	9.4181	2.9593	0.3175	0.4827	0.0545	0.0406	0.0153	0.7074	0.3802	0.0111
14	1,143.637	0.6488	85.8453	9.4219	2.9165	0.3217	0.4703	0.0564	0.0423	0.0180	0.5497	0.3466	0.0113
15	1,141.693	0.6473	86.0611	9.2966	2.8585	0.3173	0.4600	0.0559	0.0433	0.0187	0.5323	0.3450	0.0113
16	1,142.488	0.6480	86.0261	9.2471	2.9114	0.3222	0.4733	0.0571	0.0453	0.0180	0.5407	0.3477	0.0111
17	1,143.751	0.6491	85.6962	9.5915	2.8734	0.3180	0.4640	0.0557	0.0431	0.0184	0.5895	0.3391	0.0112
18	1,146.670	0.6513	85.4669	9.6539	2.9835	0.3260	0.4946	0.0572	0.0433	0.0183	0.5907	0.3546	0.0110
19	1,145.695	0.6516	85.2544	9.9058	2.8906	0.3164	0.4820	0.0557	0.0414	0.0166	0.6606	0.3655	0.0110
20	1,141.130	0.6490	85.7503	9.4033	2.8795	0.3168	0.4736	0.0549	0.0409	0.0158	0.6837	0.3704	0.0107
21	1,140.888	0.6498	85.8405	9.0517	2.9756	0.3521	0.5218	0.0536	0.0410	0.0155	0.7566	0.3816	0.0100
22	1,144.568	0.6520	85.4002	9.4471	3.0596	0.3257	0.5089	0.0564	0.0435	0.0162	0.7587	0.3728	0.0109
23	1,143.884	0.6513	85.4702	9.4408	3.0370	0.3215	0.4952	0.0547	0.0415	0.0169	0.7433	0.3682	0.0106
24	1,142.678	0.6512	85.4388	9.4648	3.0000	0.3181	0.4913	0.0540	0.0403	0.0157	0.7963	0.3703	0.0104
25	1,144.531	0.6531	85.1733	9.5561	3.0819	0.3227	0.5073	0.0560	0.0421	0.0159	0.8607	0.3735	0.0105
26	1,144.889	0.6534	85.1626	9.5123	3.1122	0.3229	0.5217	0.0570	0.0412	0.0157	0.8690	0.3747	0.0106
27	1,145.006	0.6538	85.0893	9.5498	3.1319	0.3215	0.5131	0.0561	0.0421	0.0162	0.8941	0.3755	0.0104
28	1,143.591	0.6526	85.2091	9.5504	3.0521	0.3168	0.5000	0.0557	0.0416	0.0164	0.8693	0.3781	0.0105
29	1,145.329	0.6539	85.1086	9.5279	3.1416	0.3237	0.5143	0.0579	0.0435	0.0169	0.8728	0.3825	0.0104
30	1,144.578	0.6530	85.2005	9.5519	3.0759	0.3194	0.5049	0.0568	0.0441	0.0174	0.8392	0.3793	0.0106
31	1,143.866	0.6525	85.2729	9.4995	3.0512	0.3197	0.5075	0.0571	0.0439	0.0177	0.8404	0.3795	0.0107
<b>Volume</b>	<b>1,144.040</b>	<b>0.6518</b>	<b>85.3631</b>	<b>9.5235</b>	<b>3.0201</b>	<b>0.3221</b>	<b>0.4991</b>	<b>0.0558</b>	<b>0.0422</b>	<b>0.0163</b>	<b>0.7718</b>	<b>0.3751</b>	<b>0.0107</b>
<b>Weight Avg Energy</b>	<b>1,144.042</b>	<b>0.6518</b>	<b>85.3627</b>	<b>9.5238</b>	<b>3.0201</b>	<b>0.3221</b>	<b>0.4991</b>	<b>0.0558</b>	<b>0.0422</b>	<b>0.0163</b>	<b>0.7719</b>	<b>0.3751</b>	<b>0.0107</b>

January-24

ZONE 610

Watford City

Watford City West Border

Watford City East Border

Weighted

Start Date	End Date	BTU			BTU			AVG BTU	
		MCF	DK	Zone 25	MCF	DK	Zone 43		
1/1/2024	1/2/2024	334	400	1198.3	754	850	1127	1148.888	1/1/2024
1/2/2024	1/3/2024	373	447	1198.3	839	946	1127	1148.943	1/2/2024
1/3/2024	1/4/2024	445	533	1198.3	1,010	1,138	1127	1148.807	1/3/2024
1/4/2024	1/5/2024	400	480	1198.3	894	1,007	1127	1149.040	1/4/2024
1/5/2024	1/6/2024	399	478	1198.3	1,010	1,138	1127	1147.191	1/5/2024
1/6/2024	1/7/2024	402	481	1198.3	897	1,011	1127	1149.065	1/6/2024
1/7/2024	1/8/2024	450	539	1198.3	962	1,085	1127	1149.723	1/7/2024
1/8/2024	1/9/2024	531	636	1198.3	1,140	1,285	1127	1149.657	1/8/2024
1/9/2024	1/10/2024	461	552	1198.3	958	1,080	1127	1150.164	1/9/2024
1/10/2024	1/11/2024	664	796	1198.3	1,468	1,654	1127	1149.206	1/10/2024
1/11/2024	1/12/2024	703	842	1198.3	1,501	1,692	1127	1149.742	1/11/2024
1/12/2024	1/13/2024	849	1,018	1198.3	1,748	1,970	1127	1150.309	1/12/2024
1/13/2024	1/14/2024	874	1,047	1198.3	1,813	2,044	1127	1150.192	1/13/2024
1/14/2024	1/15/2024	820	983	1198.3	1,656	1,866	1127	1150.613	1/14/2024
1/15/2024	1/16/2024	804	963	1198.3	1,676	1,889	1127	1150.115	1/15/2024
1/16/2024	1/17/2024	630	755	1198.3	1,399	1,576	1127	1149.138	1/16/2024
1/17/2024	1/18/2024	632	757	1198.3	1,405	1,584	1127	1149.122	1/17/2024
1/18/2024	1/19/2024	718	860	1198.3	1,526	1,720	1127	1149.813	1/18/2024
1/19/2024	1/20/2024	664	796	1198.3	1,444	1,627	1127	1149.459	1/19/2024
1/20/2024	1/21/2024	525	629	1198.3	1,043	1,175	1127	1150.873	1/20/2024
1/21/2024	1/22/2024	422	505	1198.3	841	948	1127	1150.823	1/21/2024
1/22/2024	1/23/2024	469	562	1198.3	965	1,088	1127	1150.319	1/22/2024
1/23/2024	1/24/2024	413	495	1198.3	858	967	1127	1150.168	1/23/2024
1/24/2024	1/25/2024	407	487	1198.3	911	1,026	1127	1149.018	1/24/2024
1/25/2024	1/26/2024	402	481	1198.3	817	921	1127	1150.513	1/25/2024
1/26/2024	1/27/2024	350	420	1198.3	723	815	1127	1150.257	1/26/2024
1/27/2024	1/28/2024	324	388	1198.3	664	748	1127	1150.382	1/27/2024
1/28/2024	1/29/2024	268	321	1198.3	586	661	1127	1149.375	1/28/2024
1/29/2024	1/30/2024	264	316	1198.3	567	639	1127	1149.651	1/29/2024
1/30/2024	1/31/2024	250	299	1198.3	526	593	1127	1149.970	1/30/2024
1/31/2024	2/1/2024	257	308	1198.3	546	615	1127	1149.820	1/31/2024
		15,504	18,574	1198.3000	33,147	37,358	1127.0000	1149.6889	

Tsp	EffDate	EndDate	Device	GasDay	EndDt	BTU	SpecGrav	CriconTherm	WobbeIndex	CO2	N2	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	NeoPentane	C6Plus	Hydrogen	Helium	WaterVapor	TotalSulfur	HydrogenSulfur	Oxygen
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/1/2024	1/2/2024	1105	0.6588	-42.7	1361.399174	1.0003	2.8072	79.8523	15.3989	0.7482	0.0188	0.037	0.0022	0.0023	0	0	0.1071	0.0258	0.3119	0.0527	0.0336	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/2/2024	1/3/2024	1107	0.6608	-41.4	1361.797723	1.013	2.8604	79.4485	15.6881	0.7765	0.0203	0.0405	0.0024	0.0026	0	0	0.1217	0.0262	0.2966	0.1297	0.0947	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/3/2024	1/4/2024	1108	0.6607	-41.7	1363.131039	1.0128	2.8301	79.5114	15.7207	0.7515	0.0192	0.038	0.0022	0.0023	0	0	0.0857	0.0263	0.2796	0.1255	0.0885	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/4/2024	1/5/2024	1105	0.6575	-43.3	1362.744379	0.9883	2.7456	80.083	15.2439	0.7386	0.0185	0.0362	0.0021	0.0021	0	0	0.1165	0.0253	0.3011	0.1281	0.09	0.0014
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/5/2024	1/6/2024	1108	0.6601	-41.4	1363.75041	0.9891	2.7966	79.6053	15.5729	0.8208	0.0197	0.0378	0.0021	0.0021	0	0	0.1283	0.0254	0.3094	0.1014	0.0771	0.0015
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/6/2024	1/7/2024	1108	0.6597	-41.6	1364.163793	0.9777	2.7543	79.6994	15.5378	0.8226	0.0192	0.0372	0.0021	0.0021	0	0	0.1226	0.0251	0.2899	0.1264	0.0865	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/7/2024	1/8/2024	1108	0.66	-40.7	1363.85372	0.9775	2.7786	79.5271	15.6489	0.7861	0.0239	0.0493	0.0036	0.004	0	0.0005	0.1756	0.025	0.2908	0.1298	0.0847	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/8/2024	1/9/2024	1104	0.6568	-44.1	1362.236464	0.9891	2.7435	80.0915	15.2944	0.6599	0.0178	0.0347	0.0019	0.0019	0	0	0.1404	0.025	0.2923	0.1271	0.0848	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/9/2024	1/10/2024	1104	0.6571	-43.9	1361.925463	0.9901	2.7405	80.0943	15.2845	0.6859	0.0179	0.0344	0.0018	0.0017	0	0	0.1237	0.0255	0.3013	0.1303	0.0885	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/10/2024	1/11/2024	1104	0.6566	-44.4	1363.066843	0.9719	2.6595	80.4045	15.1312	0.6742	0.0181	0.0351	0.002	0.002	0	0	0.076	0.0256	0.3046	0.1239	0.0864	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/11/2024	1/12/2024	1103	0.6541	-45.6	1363.808641	0.961	2.5721	80.8098	14.8832	0.6514	0.0172	0.0322	0.0014	0.0013	0	0	0.0453	0.0253	0.2953	0.1337	0.0858	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/12/2024	1/13/2024	1102	0.6539	-46.1	1362.780548	0.9574	2.6121	80.8735	14.7993	0.648	0.0174	0.0316	0.0008	0.0005	0	0	0.034	0.0256	0.2723	0.1153	0.0709	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/13/2024	1/14/2024	1092	0.6392	-50.3	1365.853926	0.8263	2.0389	84.198	11.9534	0.8355	0.035	0.0724	0.0036	0.0029	0	0	0.0118	0.0225	0.3307	0.102	0.0574	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/14/2024	1/15/2024	1095	0.6369	-45.9	1372.077033	0.786	1.6784	84.9303	11.4575	0.9616	0.0541	0.0841	0.0086	0.0068	0	0.003	0.0101	0.0197	0.3525	0.1522	0.081	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/15/2024	1/16/2024	1102	0.6412	-40.8	1376.210407	0.7831	1.6499	84.1256	12.2464	0.9878	0.0669	0.0864	0.012	0.0084	0	0.005	0.0105	0.0183	0.3346	0.1633	0.0648	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/16/2024	1/17/2024	1105	0.6438	-41.1	1377.167595	0.7766	1.7146	83.5398	12.8105	0.9588	0.0613	0.0857	0.011	0.0081	0	0.0041	0.0109	0.0186	0.3402	0.1577	0.0696	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/17/2024	1/18/2024	1102	0.6428	-46.7	1374.49657	0.7985	1.8215	83.3353	13.0042	0.8332	0.0384	0.0559	0.0061	0.0044	0	0.0014	0.0822	0.0192	0.3435	0.1303	0.0701	0.0008
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/18/2024	1/19/2024	1094	0.6399	-52.7	1367.606848	0.8254	1.9776	83.5197	12.945	0.5735	0.0179	0.0302	0.0018	0.0012	0	0	0.0874	0.0205	0.3517	0.1093	0.0697	0.001
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/19/2024	1/20/2024	1090	0.639	-54.3	1363.565702	0.8542	2.0851	83.496	12.875	0.4842	0.0134	0.0247	0.0012	0.0009	0	0	0.1438	0.0217	0.3434	0.1113	0.0777	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/20/2024	1/21/2024	1096	0.6451	-51.1	1364.573815	0.8848	2.2767	82.316	13.8397	0.5006	0.0135	0.0254	0.0008	0.0003	0	0	0.1193	0.023	0.3054	0.1102	0.0729	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/21/2024	1/22/2024	1096	0.6453	-51.1	1364.362335	0.8838	2.2612	82.4543	13.7937	0.5041	0.0139	0.0265	0.0011	0.0007	0	0	0.0378	0.023	0.318	0.1205	0.0878	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/22/2024	1/23/2024	1098	0.6472	-49.6	1364.844223	0.8931	2.3111	82.0646	14.0513	0.555	0.0146	0.0273	0.0012	0.0008	0	0	0.0577	0.0236	0.3052	0.1097	0.079	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/23/2024	1/24/2024	1100	0.6494	-48.7	1365.012232	0.9126	2.3916	81.709	14.3321	0.5666	0.0142	0.0262	0.0008	0.0005	0	0	0.0221	0.0244	0.3212	0.1237	0.0871	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/24/2024	1/25/2024	1101	0.65	-47.8	1365.622428	0.91	2.4029	81.3655	14.5261	0.5842	0.0149	0.0277	0.0012	0.001	0	0	0.1429	0.0237	0.3096	0.1554	0.0895	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/25/2024	1/26/2024	1102	0.6514	-47.3	1365.393143	0.9204	2.407	81.2045	14.7405	0.5824	0.0144	0.0263	0.0008	0.0003	0	0	0.08	0.0236	0.309	0.154	0.0876	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/26/2024	1/27/2024	1106	0.6553	-45.2	1366.265314	0.9456	2.5187	80.5696	15.2831	0.6161	0.0153	0.0284	0.0011	0.0006	0	0	0.0169	0.0248	0.29	0.1656	0.0941	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/27/2024	1/28/2024	1108	0.658	-43.3	1365.924873	0.9672	2.5942	79.9326	15.6723	0.6686	0.0159	0.0292	0.0011	0.0006	0	0	0.0936	0.0247	0.2701	0.1639	0.0957	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/28/2024	1/29/2024	1108	0.6583	-43.2	1365.613599	0.9749	2.6341	79.9067	15.6494	0.6755	0.0165	0.0307	0.0014	0.001	0	0	0.0848	0.0251	0.2749	0.1688	0.0976	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/29/2024	1/30/2024	1107	0.6577	-43.6	1365.003296	0.9643	2.6397	79.9715	15.6089	0.6483	0.0163	0.0305	0.0013	0.0011	0	0	0.0843	0.025	0.283	0.1576	0.0928	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/30/2024	1/31/2024	1098	0.6523	-47.3	1359.498244	0.9748	2.6782	81.0487	14.5301	0.6092	0.016	0.0297	0.0013	0.0007	0	0	0.0864	0.0252	0.2995	0.1581	0.0891	0.0012
NBPL	12/30/2023 0:00	2/2/2024 0:00	GLNU1 - GLEN ULLIN	1/31/2024	2/1/2024	1098	0.6527	-46.8	1359.081603	0.9773	2.6995	80.9783	14.5151	0.6516	0.0168	0.0309	0.0014	0.001	0	0	0.1031	0.0251	0.3025	0.1421	0.0797	0.0012

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
211	Chromatograph	Sidney Border
24	Chromatograph	Williston Border
241	Accumulated Sample	Fairview Border
25	Accumulated Sample	Watford City West Border
260	Chromatograph	North Tioga Transfer
261	Chromatograph	Tioga Comp Station – Robinson Lake Plant
262	Chromatograph	Minot Border
263	Accumulated Sample	Lignite Plant
264	Accumulated Sample	Epping Border
265	Chromatograph	Tioga Comp Station – County Line Plant
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck Station
31	Chromatograph	Dickinson Border
32	Chromatograph	Cabin Creek Station
33	Chromatograph	Little Knife Plant
34	Chromatograph	Bowman Border
43	Accumulated Sample	Watford City East Border
550	Accumulated Sample & Chromatograph	Mandan Border
600	Chromatograph	Hankinson Area
601	Chromatograph	Milnor Area
610	Accumulated Sample & Chromatograph	Watford City
802	Chromatograph	Linton

MONTANA DAKOTA UTILITIES CO  
NORTH DAKOTA  
HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	JAN24	DEC23	NOV23	OCT23	SEP23	AUG23	JUL23	JUN23	MAY23	APR23	MAR23	FEB23	Zone
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1196	1179	1192	1195	1194	1196	1198	1199	1195	1200	1204	1208	1191	211
ND	24	Williston Border - Charbonneau Station	1194	1197	1194	1194	1188	1188	1195	1195	1196	1198	1194	1195	1198	24
ND	25	Watford City West Border	1198	1198	1197	1198	1207	1212	1210	1210	1190	1189	1180	1183	1200	25
ND	28	Bismarck Station - Glen Ullin Station	1161	1131	1138	1161	1154	1202	1199	1194	1195	1192	1118	1127	1115	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1122	1127	1134	1147	1138	1121	1124	1118	1107	1086	1100	1132	1126	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1127	1122	1132	1138	1135	1135	1134	1124	1124	1111	1119	1137	1116	32
ND	33	Little Knife Plant	1176	1169	1168	1174	1173	1177	1181	1174	1180	1182	1179	1177	1175	33
ND	34	Badlands Plant/Bowman Border	1028	1094	1079	1017	980	984	980	980	1040	1021	1005	1071	1086	34
ND	43	Watford City East Border	1112	1127	1132	1154	1119	1124	1120	1118	1081	1042	1083	1116	1128	43
ND/MT	241	Fairview Border	1196	1185	1192	1198	1192	1195	1200	1193	1189	1200	1196	1201	1212	241
ND	267	North Tioga Transfer - Nesson Plant	1178	1166	1171	1169	1169	1166	1176	1181	1185	1188	1187	1189	1188	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1190	1178	1201	1203	1203	1187	1191	1186	1189	1188	1184	1185	1184	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1196	1198	1202	1204	1206	1202	1197	1192	1193	1190	1189	1187	1187	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	263
ND	264	Epping Border	1197	1204	1206	1206	1191	1183	1195	1190	1181	1195	1202	1200	1208	264
ND	265	Tioga Comp Station - County Line Plant	1175	1169	1183	1175	1171	1174	1170	1165	1168	1176	1182	1183	1181	265
ND	266	County Line Plant	1176	1171	1184	1177	1172	1179	1171	1166	1168	1178	1182	1183	1180	266
ND	271	Bismarck Station - Cleveland Station	1193	1186	1201	1206	1204	1202	1199	1194	1195	1192	1189	1181	1168	271
ND	272	Cleveland Station - Mapleton	1193	1185	1200	1204	1205	1201	1199	1194	1194	1191	1188	1181	1168	272
ND	273	Cleveland Station - Grafton Border	1193	1186	1201	1205	1204	1202	1198	1194	1194	1192	1187	1180	1168	273
ND	550	Mandan Border / NBPL-St Anthony	1139	1124	1138	1161	1142	1188	1173	1172	1160	1085	1101	1118	1109	550
ND	610	MDU-Watford City BTU	1131	1150	1151	1167	1152	1150	1131	1123	1091	1065	1111	1137	1149	610
ND	802	NBPL - Linton	1100	1103	1114	1104	1106	1110	1105	1104	1102	1080	1085	1097	1095	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1152	1144	1147	1146	1153	1149	1159	1155	1157	1154	1153	1149	1152	600
ND	601	Alliance Pipeline - Milnor	1152	1144	1147	1147	1154	1149	1160	1155	1157	1155	1154	1149	1152	601

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>January 2024</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
261	-23	Operational