

400 North Fourth Street  
Bismarck, ND 58501  
701-222-7900

April 18, 2023

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

Re: Case No. PU-23-002 (Therm Billing)  
Monthly Report – February 2023

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 March 2023.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of February 2023.
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 February 2023.

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**  
**Mar-23**

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1287
MDU-308-ARNEGARD	025	1.1287
MDU-314-APPLE VALLEY	271	1.1270
MDU-318-BEACH	032	1.0397
MDU-319-BELFIELD	032	1.0473
MDU-323-BERTHOLD	262	1.1221
MDU-327-BISMARCK	028	1.0787
MDU-330-BOWMAN	034	0.9898
MDU-337-BURLINGTON	262	1.1463
MDU-343-CARRINGTON	273	1.1270
MDU-344-CLEVELAND	272	1.1190
MDU-364-CAVALIER	273	1.1508
MDU-365-DAWSON	271	1.1190
MDU-368-DES LACS	262	1.1301
MDU-369-DICKINSON	031	1.0615
MDU-374-FT TOTTEN	273	1.1349
MDU-375-DEVILS LAKE	273	1.1349
MDU-379-BARLOW	273	1.1270
MDU-384-EPPING	264	1.1353
MDU-387-ELDRIDGE	272	1.1270
MDU-407-GLADSTONE	031	1.0615
MDU-411-GLEN ULLIN	031	1.0692
MDU-413-GOLVA	032	1.0244
MDU-416-GARRISON	262	1.1292
MDU-417-GRAFTON	273	1.1587
MDU-403-GWINNER	601	1.1310
MDU-429-HEBRON	031	1.0692
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1349
MDU-459-KILLDEER	033	1.1107
MDU-463-LANGDON	273	1.1270
MDU-469-LEFOR	031	1.0615
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0546
MDU-478-LINCOLN	028	1.0787
MDU-488-MCKENZIE	271	1.1270
MDU-494-MEDINA	271	1.1190
MDU-498-MANDAN	028	1.0787
MDU-500-MARMARTH	034	0.9971
MDU-505-MINOT	262	1.1463
MDU-510-MOTT	031	1.0615
MDU-512-MAX	262	1.1230
MDU-513-MILNOR	601	1.1310
MDU-522-NEW ENGLAND	031	1.0538
MDU-524-NEW SALEM	028	1.0560
MDU-532-NEW ROCKFORD	273	1.1270
MDU-539-PARK RIVER	273	1.1508
MDU-540-PALERMO	262	1.1221
MDU-558-RAY	264	1.1353

MDU-561-REGENT	031	1.0538
MDU-563-RHAME	034	0.9825
MDU-564-RICHARDTON	031	1.0538
MDU-568-ROSS	261	1.1027
MDU-572-RUTHVILLE	262	1.1472
MDU-574-SANBORN	272	1.1349
MDU-583-SENTINEL BUTTE	032	1.0397
MDU-588-SOUTH HEART	031	1.0538
MDU-717-SPIRITWOOD	272	1.1349
MDU-590-SPRINGBROOK	264	1.1353
MDU-591-STANLEY	261	1.1107
MDU-593-STEELE	271	1.1190
MDU-594-STERLING	028	1.0787
MDU-598-SHEYENNE	273	1.1349
MDU-605-SURREY	262	1.1463
MDU-610-TAPPEN	271	1.1190
MDU-611-TAYLOR	031	1.0538
MDU-616-TIOGA	260	1.1074
MDU-619-TURTLE LAKE	262	1.1311
MDU-620-TRENTON	024	1.1387
MDU-624-UNDERWOOD	262	1.1301
MDU-625-VALLEY CITY	272	1.1428
MDU-629-WALHALLA	273	1.1508
MDU-632-WATFORD CITY	610	1.0947
MDU-636-WHEELOCK	264	1.1234
MDU-637-WHITE EARTH	261	1.1107
MDU-642-WILLISTON	024	1.1387
MDU-646-WASHBURN	262	1.1382
MDU-647-WILTON	262	1.1221
MDU-664-RIVERDALE	262	1.1311
MDU-691-FAIRVIEW	241	1.1587
MDU-712-MINOT AFB	262	1.1463
MDU-718-FAIRMOUNT	600	1.1287
MDU-732-NEKOMA	273	1.1270
MDU-732-MSR SITE	273	1.1270

# Source Daily Summary

February 2023

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	0.7228	1175.5	1196.4	1196.1	1.022	3.353	70.176	21.814	3.243	0.129	0.240	0.012	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1407.36
2	0.6978	1167.7	1188.4	1188.1	0.038	2.992	71.866	23.553	1.528	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.62
3	0.6959	1164.3	1184.9	1184.6	0.048	3.005	72.213	23.236	1.471	0.012	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.39
4	0.6954	1164.3	1185.0	1184.7	0.041	2.968	72.251	23.297	1.418	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.97
5	0.7260	1188.1	1209.1	1208.8	0.852	3.153	68.565	24.525	2.602	0.100	0.186	0.009	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1419.28
6	0.7034	1168.2	1188.9	1188.6	0.301	3.083	71.409	23.310	1.787	0.039	0.066	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1417.74
7	0.6965	1165.1	1185.7	1185.3	0.057	3.001	72.149	23.248	1.516	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.74
8	0.6933	1160.4	1180.9	1180.6	0.043	3.013	72.597	22.973	1.352	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.25
9	0.6953	1163.9	1184.5	1184.2	0.041	2.985	72.284	23.234	1.434	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.54
10	0.6955	1164.0	1184.6	1184.3	0.047	2.989	72.257	23.239	1.444	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.46
11	0.6943	1161.7	1182.3	1182.0	0.044	3.018	72.389	23.190	1.338	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.92
12	0.6966	1165.7	1186.3	1186.0	0.046	2.989	72.087	23.363	1.492	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.40
13	0.7023	1170.6	1191.3	1191.0	0.183	3.022	71.421	23.528	1.775	0.026	0.041	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.59
14	0.6978	1167.6	1188.2	1187.9	0.045	2.996	71.898	23.472	1.565	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.39
15	0.6969	1166.4	1187.1	1186.8	0.043	2.974	72.024	23.446	1.489	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.03
16	0.6957	1164.1	1184.7	1184.4	0.044	3.002	72.180	23.345	1.406	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.43
17	0.7056	1170.7	1191.4	1191.1	0.344	3.072	71.075	23.555	1.835	0.041	0.072	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1418.55
18	0.7175	1183.1	1204.1	1203.7	0.579	3.081	69.389	24.573	2.181	0.067	0.120	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1421.66
19	0.7337	1195.1	1216.3	1215.9	1.032	3.184	67.490	25.087	2.872	0.113	0.206	0.009	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1420.00
20	0.7428	1200.4	1221.7	1221.4	1.342	3.239	66.670	24.895	3.436	0.143	0.256	0.011	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1417.43
21	0.7218	1184.9	1205.8	1205.6	0.747	3.120	68.959	24.550	2.387	0.082	0.144	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1419.50
22	0.7048	1174.4	1195.2	1194.9	0.183	3.018	71.045	23.778	1.910	0.025	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1423.73
23	0.6992	1171.7	1192.4	1192.1	0.043	2.870	71.872	23.403	1.785	0.013	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.06
24	0.6941	1162.5	1183.1	1182.8	0.038	2.961	72.583	22.910	1.478	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.08
25	0.6953	1162.8	1183.4	1183.1	0.044	3.046	72.331	23.073	1.482	0.012	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.21
26	0.6987	1168.2	1188.9	1188.6	0.049	3.027	71.811	23.449	1.637	0.013	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.34
27	0.6967	1165.0	1185.6	1185.3	0.043	3.048	72.032	23.380	1.474	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.42
28	0.6935	1158.7	1179.3	1178.9	0.042	3.125	72.685	22.647	1.476	0.012	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.08
Avg	0.7039	1171.0	1191.3	1191.0	0.264	3.048	71.275	23.503	1.815	0.035	0.057	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1420.01

# Source Daily Summary

February 2023

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	0.7208	1177.8	1198.6	1198.3	0.788	3.383	70.123	22.385	2.873	0.126	0.273	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1411.87	
2	0.7062	1170.4	1191.1	1190.8	0.296	3.225	71.285	22.938	2.046	0.064	0.124	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1417.31	
3	0.7055	1170.4	1191.1	1190.8	0.259	3.209	71.255	23.127	1.976	0.054	0.102	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1418.12	
4	0.7181	1175.4	1196.2	1195.9	0.772	3.298	70.485	22.285	2.743	0.114	0.257	0.022	0.025	0.000	0.000	0.000	0.000	0.000	1411.70	
5	0.7300	1187.9	1209.0	1208.7	1.104	3.143	69.357	22.454	3.386	0.146	0.347	0.028	0.034	0.000	0.000	0.000	0.000	0.000	1415.03	
6	0.7283	1187.9	1209.0	1208.7	1.089	3.012	69.641	22.345	3.374	0.143	0.336	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1416.64	
7	0.7302	1190.3	1211.3	1211.0	1.089	3.048	69.512	22.258	3.504	0.153	0.365	0.031	0.039	0.000	0.000	0.000	0.000	0.000	1417.52	
8	0.7258	1183.3	1204.3	1203.9	0.950	3.268	69.982	21.928	3.302	0.155	0.349	0.030	0.035	0.000	0.000	0.000	0.000	0.000	1413.55	
9	0.7173	1174.9	1195.7	1195.3	0.675	3.412	70.290	22.641	2.596	0.116	0.231	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1411.72	
10	0.7207	1177.7	1198.6	1198.2	0.740	3.457	69.897	22.728	2.753	0.128	0.255	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1411.81	
11	0.7208	1173.7	1194.5	1194.2	0.748	3.691	70.185	21.953	2.927	0.147	0.298	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1407.00	
12	0.7268	1178.2	1199.1	1198.7	0.927	3.714	69.482	22.156	3.164	0.165	0.336	0.028	0.028	0.000	0.000	0.000	0.000	0.000	1406.44	
13	0.7265	1177.3	1198.2	1197.8	0.899	3.775	69.478	22.149	3.156	0.162	0.326	0.027	0.027	0.000	0.000	0.000	0.000	0.000	1405.78	
14	0.7133	1169.0	1189.7	1189.4	0.536	3.600	70.869	22.093	2.522	0.112	0.226	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1408.74	
15	0.7130	1174.7	1195.5	1195.2	0.429	3.389	70.598	22.834	2.464	0.086	0.170	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1415.84	
16	0.7167	1169.9	1190.7	1190.3	0.597	3.767	70.468	22.077	2.657	0.126	0.259	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1406.48	
17	0.7201	1173.7	1194.4	1194.1	0.760	3.615	70.205	22.110	2.851	0.130	0.280	0.024	0.027	0.000	0.000	0.000	0.000	0.000	1407.55	
18	0.7246	1182.1	1203.0	1202.7	0.985	3.184	69.787	22.540	3.029	0.126	0.296	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1413.23	
19	0.7292	1187.0	1208.0	1207.7	1.103	3.132	69.368	22.583	3.277	0.141	0.335	0.027	0.033	0.000	0.000	0.000	0.000	0.000	1414.61	
20	0.7291	1186.8	1207.9	1207.6	1.104	3.127	69.351	22.636	3.255	0.139	0.329	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1414.59	
21	0.7265	1181.4	1202.3	1202.1	0.982	3.402	69.607	22.323	3.161	0.142	0.323	0.027	0.031	0.000	0.000	0.000	0.000	0.000	1410.61	
22	0.7092	1173.2	1193.9	1193.7	0.315	3.299	70.872	23.071	2.238	0.065	0.121	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1417.78	
23	0.7106	1172.0	1192.8	1192.4	0.342	3.463	70.862	22.645	2.445	0.077	0.144	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1414.94	
24	0.7030	1167.2	1187.8	1187.5	0.253	3.181	71.629	22.883	1.907	0.050	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1416.74	
25	0.7170	1170.1	1190.8	1190.5	0.702	3.630	70.126	22.717	2.491	0.106	0.201	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1406.37	
26	0.7212	1171.5	1192.3	1191.9	0.833	3.733	70.002	22.125	2.862	0.133	0.270	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1403.99	
27	0.7205	1170.8	1191.6	1191.2	0.835	3.710	70.008	22.247	2.776	0.128	0.253	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1403.79	
28	0.7183	1173.5	1194.3	1193.9	0.719	3.520	69.937	22.943	2.553	0.103	0.196	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1409.16	
Avg	0.7196	1177.0	1197.6	1197.2	0.744	3.407	70.166	22.471	2.796	0.119	0.253	0.021	0.023	0.000	0.000	0.000	0.000	0.000	1411.75	

# Gas Composition and Properties

Effective February 1, 2023

Attachment B  
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Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.1179		2.3291
Nitrogen, N2	3.1010		4.1125
Methane, C1	68.4224		51.9647
Ethane, C2	23.8084	6.3729	33.8912
Propane, C3	3.1328	0.8639	6.5398
iso-Butane, iC4	0.1463	0.0479	0.4026
n-Butane, nC4	0.2502	0.0789	0.6884
iso-Pentane, iC5	0.0113	0.0041	0.0386
n-Pentane, nC5	0.0097	0.0035	0.0331
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>7.3720</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-14.815	
Cricondentherm	3.688	
HV, Dry @ Base P, T	1211.94	
HV, Sat @ Base P, T	1190.85	
HV, Sat @ Sample P, T	1211.94	
Relative Density	0.7316	
C6+: 100		

**Sample**

Date: 02/01/2023                      Type:

Tech: Tipton, Joshua

Pressure:                      410 psi      Temp.:                      °F

Gauge:                      Gauge                      H2O:

Atm. Pressure:                      H2S:

Remarks:

**Analysis**

Date: 02/01/2023                      Instrument:

Tech: Tipton, Joshua                      Cylinder:                      321

Remarks:



# Source Daily Summary

February 2023

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	0.7011	1159.7	1180.2	1180.0	0.997	2.326	73.275	21.113	2.007	0.081	0.171	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1409.49	-11.55
2	0.7011	1159.6	1180.1	1179.9	0.999	2.327	73.390	20.900	2.092	0.085	0.178	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1409.36	-11.14
3	0.7058	1166.4	1187.1	1186.9	1.005	2.339	72.909	20.970	2.411	0.103	0.225	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1412.97	-6.88
4	0.7042	1163.6	1184.2	1184.0	1.009	2.355	72.981	21.098	2.231	0.092	0.201	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1411.18	-8.83
5	0.7006	1158.2	1178.7	1178.5	0.998	2.365	73.289	21.117	1.972	0.075	0.158	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1408.22	-12.39
6	0.6948	1147.6	1167.9	1167.7	0.924	2.572	74.573	19.538	2.106	0.082	0.176	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1401.02	-14.49
7	0.7006	1158.8	1179.3	1179.1	0.975	2.361	73.671	20.438	2.252	0.087	0.186	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1408.98	-10.63
8	0.7088	1169.4	1190.1	1189.9	1.012	2.422	72.459	21.177	2.563	0.104	0.225	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1413.66	-5.39
9	0.7117	1171.7	1192.5	1192.2	1.024	2.539	71.955	21.470	2.628	0.107	0.237	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1413.51	-4.01
10	0.7121	1171.4	1192.1	1191.9	1.028	2.601	71.826	21.555	2.612	0.106	0.234	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1412.71	-4.05
11	0.7126	1172.4	1193.1	1192.9	1.027	2.593	71.744	21.628	2.625	0.107	0.236	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1413.35	-3.74
12	0.7133	1172.7	1193.4	1193.2	1.026	2.627	71.699	21.566	2.690	0.110	0.241	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1413.10	-3.22
13	0.7123	1171.6	1192.3	1192.1	1.023	2.609	71.821	21.529	2.634	0.108	0.236	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1412.73	-3.82
14	0.7124	1170.6	1191.3	1191.1	1.023	2.678	71.835	21.401	2.680	0.107	0.235	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1411.45	-3.76
15	0.7077	1167.1	1187.7	1187.5	1.023	2.447	72.584	21.118	2.468	0.101	0.223	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1411.91	-6.30
16	0.7110	1170.7	1191.4	1191.2	1.030	2.526	72.171	21.223	2.644	0.112	0.251	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1412.99	-3.81
17	0.7101	1170.2	1190.9	1190.7	1.023	2.491	72.195	21.362	2.549	0.105	0.235	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1413.19	-4.78
18	0.7090	1169.2	1189.9	1189.7	1.019	2.453	72.378	21.262	2.516	0.105	0.230	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1413.09	-5.40
19	0.7074	1167.7	1188.3	1188.1	1.010	2.408	72.489	21.381	2.369	0.097	0.211	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1412.87	-6.91
20	0.7083	1168.8	1189.5	1189.3	1.010	2.420	72.499	21.198	2.502	0.104	0.228	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1413.39	-5.73
21	0.7085	1168.7	1189.4	1189.2	1.014	2.441	72.406	21.315	2.457	0.103	0.226	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1413.00	-5.87
22	0.7123	1173.1	1193.9	1193.7	1.023	2.515	71.981	21.360	2.705	0.116	0.257	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1414.58	-2.91
23	0.7117	1172.3	1193.0	1192.8	1.023	2.507	72.037	21.376	2.652	0.113	0.251	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1414.17	-3.49
24	0.7099	1169.7	1190.4	1190.2	1.024	2.494	72.167	21.455	2.488	0.104	0.230	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1412.89	-5.23
25	0.7099	1170.0	1190.8	1190.6	1.018	2.484	72.189	21.422	2.510	0.105	0.232	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1413.28	-5.08
26	0.7101	1169.6	1190.4	1190.1	1.032	2.503	72.184	21.386	2.515	0.106	0.235	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1412.63	-4.95
27	0.7129	1172.2	1193.0	1192.8	1.032	2.605	71.941	21.243	2.745	0.119	0.268	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1412.97	-2.47
28	0.7133	1172.4	1193.1	1192.9	1.030	2.644	71.956	21.088	2.838	0.122	0.274	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.66	-1.88
Avg	0.7083	1168.0	1188.4	1188.2	1.014	2.488	72.450	21.203	2.481	0.102	0.225	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1411.98	-6.03

# Source Daily Summary

February 2023

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	0.7079	1159.1	1179.6	1179.4	1.022	2.961	71.900	21.765	2.055	0.084	0.183	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1402.02	
2	0.7071	1157.5	1178.0	1177.9	1.033	2.965	72.038	21.635	2.042	0.081	0.178	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1400.93	
3	0.7095	1163.6	1184.2	1184.0	1.015	2.843	72.031	21.397	2.351	0.102	0.226	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1405.90	
4	0.7105	1164.4	1185.0	1184.8	1.020	2.889	71.811	21.557	2.362	0.100	0.224	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1405.77	
5	0.7130	1161.8	1182.4	1182.2	1.004	3.297	71.454	21.299	2.588	0.102	0.223	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1400.39	
6	0.7189	1161.7	1182.3	1182.1	0.975	3.906	70.764	20.782	3.182	0.114	0.247	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1394.58	
7	0.6806	1116.5	1136.3	1136.1	0.806	3.311	76.947	16.816	1.858	0.073	0.163	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1377.25	
8	0.7039	1157.8	1178.3	1178.1	0.990	2.710	72.974	20.750	2.253	0.091	0.200	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1404.45	
9	0.7118	1160.5	1181.0	1180.9	1.004	3.270	71.658	21.145	2.566	0.101	0.223	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1399.90	
10	0.7295	1161.1	1181.7	1181.5	0.981	4.918	69.591	19.955	4.015	0.153	0.345	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1383.74	
11	0.7264	1163.7	1184.3	1184.2	1.002	4.438	69.772	20.728	3.584	0.135	0.302	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1389.75	
12	0.7325	1165.9	1186.5	1186.4	0.984	4.904	69.112	20.334	4.120	0.155	0.347	0.021	0.023	0.000	0.000	0.000	0.000	0.000	1386.47	
13	0.7333	1171.5	1192.3	1192.1	0.971	4.654	68.747	21.119	4.035	0.138	0.297	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1392.48	
14	0.7452	1168.0	1188.7	1188.6	0.907	6.075	67.212	20.144	5.151	0.155	0.321	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1377.06	
15	0.7100	1160.9	1181.5	1181.3	1.016	3.053	71.977	21.146	2.452	0.099	0.222	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1402.15	
16	0.7131	1166.7	1187.4	1187.2	1.043	2.951	71.571	21.481	2.560	0.108	0.246	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1406.07	
17	0.7137	1167.3	1188.0	1187.8	1.046	2.963	71.445	21.606	2.550	0.107	0.244	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1406.26	
18	0.7111	1168.5	1189.2	1189.1	1.030	2.666	71.889	21.573	2.471	0.103	0.229	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1410.31	
19	0.7111	1166.3	1187.0	1186.8	1.032	2.805	71.746	21.672	2.386	0.100	0.222	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1407.58	
20	0.7111	1167.5	1188.2	1188.1	1.029	2.730	71.873	21.522	2.476	0.103	0.229	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1409.09	
21	0.7103	1163.8	1184.4	1184.2	1.036	2.882	71.802	21.615	2.315	0.097	0.217	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1405.25	
22	0.7132	1167.2	1187.9	1187.8	1.048	2.924	71.505	21.615	2.519	0.107	0.242	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1406.57	
23	0.7140	1168.4	1189.0	1188.9	1.047	2.923	71.407	21.672	2.555	0.109	0.246	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1407.22	
24	0.7126	1166.2	1186.8	1186.7	1.054	2.919	71.596	21.565	2.482	0.106	0.239	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1405.92	
25	0.7112	1164.6	1185.2	1185.1	1.043	2.900	71.658	21.710	2.339	0.097	0.218	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1405.45	
26	0.7123	1166.4	1187.1	1186.9	1.045	2.894	71.534	21.746	2.416	0.102	0.227	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1406.49	
27	0.7263	1166.3	1186.9	1186.8	0.997	4.286	69.698	21.014	3.573	0.125	0.272	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1392.91	
28	0.7493	1168.1	1188.8	1188.6	0.886	6.488	66.637	19.993	5.461	0.163	0.342	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.39	
Avg	0.7160	1163.0	1183.5	1183.3	1.002	3.519	71.155	21.048	2.883	0.111	0.246	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1398.76	

# Source Daily Summary

February 2023

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	0.7483	1171.2	1191.9	1191.7	0.914	6.168	66.778	20.244	5.393	0.156	0.316	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.88	
2	0.7451	1165.0	1185.7	1185.4	0.913	6.246	67.105	20.087	5.210	0.137	0.277	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.58	
3	0.7473	1167.5	1188.2	1187.9	0.904	6.316	66.847	20.111	5.347	0.149	0.298	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1374.45	
4	0.7517	1169.5	1190.2	1190.0	0.900	6.613	66.407	19.827	5.697	0.173	0.351	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.73	
5	0.7476	1160.5	1181.0	1180.8	0.922	6.741	67.518	18.446	5.675	0.205	0.449	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1365.89	
6	0.7503	1167.7	1188.4	1188.2	0.910	6.575	66.760	19.518	5.620	0.187	0.391	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1371.93	
7	0.7526	1172.0	1192.7	1192.5	0.905	6.538	66.377	19.834	5.752	0.182	0.376	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.82	
8	0.7527	1172.3	1193.1	1192.9	0.904	6.527	66.339	19.885	5.761	0.179	0.370	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1375.17	
9	0.7500	1167.5	1188.2	1188.0	0.891	6.587	66.622	19.747	5.617	0.166	0.339	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.99	
10	0.7504	1168.5	1189.2	1189.0	0.888	6.565	66.620	19.723	5.655	0.170	0.348	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.80	
11	0.7488	1164.7	1185.3	1185.1	0.888	6.651	66.841	19.496	5.581	0.168	0.344	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1369.76	
12	0.7483	1164.2	1184.8	1184.6	0.894	6.625	66.884	19.536	5.521	0.167	0.342	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1369.66	
13	0.7489	1165.5	1186.1	1185.9	0.894	6.601	66.823	19.572	5.569	0.167	0.343	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1370.61	
14	0.7486	1164.7	1185.3	1185.1	0.903	6.611	66.766	19.708	5.489	0.162	0.332	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1369.95	
15	0.7491	1165.4	1186.0	1185.8	0.896	6.624	66.709	19.704	5.547	0.164	0.330	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1370.30	
16	0.7494	1165.8	1186.5	1186.2	0.898	6.623	66.693	19.692	5.557	0.166	0.342	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1370.55	
17	0.7516	1171.3	1192.0	1191.8	0.898	6.498	66.406	19.959	5.700	0.167	0.342	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.95	
18	0.7508	1168.8	1189.5	1189.3	0.889	6.584	66.466	19.896	5.641	0.163	0.332	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1372.79	
19	0.7487	1166.2	1186.9	1186.7	0.891	6.548	66.711	19.841	5.507	0.157	0.318	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.63	
20	0.7461	1165.0	1185.6	1185.4	0.902	6.360	67.064	19.873	5.312	0.152	0.308	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.61	
21	0.7437	1163.3	1183.9	1183.7	0.914	6.213	67.418	19.841	5.120	0.153	0.311	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.90	
22	0.7429	1161.2	1181.7	1181.5	0.921	6.267	67.548	19.683	5.077	0.157	0.319	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.00	
23	0.7440	1165.6	1186.3	1186.0	0.922	6.090	67.386	19.981	5.134	0.152	0.307	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.30	
24	0.7443	1163.7	1184.3	1184.0	0.911	6.262	67.333	19.823	5.176	0.154	0.315	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.64	
25	0.7466	1162.4	1183.0	1182.8	0.899	6.562	67.027	19.644	5.362	0.158	0.321	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1369.14	
26	0.7485	1163.7	1184.3	1184.1	0.890	6.676	66.757	19.667	5.495	0.161	0.327	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1368.94	
27	0.7494	1165.1	1185.7	1185.5	0.890	6.682	66.615	19.777	5.501	0.165	0.341	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1369.66	
28	0.7480	1163.3	1183.9	1183.7	0.896	6.646	66.835	19.652	5.450	0.162	0.333	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1368.92	
Avg	0.7484	1166.0	1186.8	1186.6	0.902	6.500	66.845	19.742	5.481	0.164	0.336	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.88	

# 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

February 2023

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	0.7199	1160.4	1180.9	1180.7	1.064	3.947	69.662	22.713	2.259	0.096	0.223	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1391.84	
2	0.7194	1160.6	1181.2	1181.0	1.078	3.864	69.807	22.618	2.278	0.097	0.223	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1392.62	
3	0.7202	1160.7	1181.2	1181.0	1.057	3.964	69.639	22.692	2.284	0.098	0.231	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.92	
4	0.7208	1162.3	1182.9	1182.7	1.055	3.929	69.492	22.902	2.260	0.097	0.230	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1393.29	
5	0.7193	1160.0	1180.6	1180.3	1.073	3.902	69.792	22.633	2.238	0.096	0.229	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.95	
6	0.7211	1162.6	1183.2	1183.0	1.064	3.924	69.449	22.940	2.262	0.097	0.229	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1393.34	
7	0.7205	1161.4	1181.9	1181.7	1.074	3.928	69.593	22.762	2.280	0.098	0.230	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1392.44	
8	0.7205	1160.3	1180.8	1180.6	1.097	3.955	69.599	22.733	2.245	0.098	0.235	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1391.15	
9	0.7223	1162.7	1183.3	1183.1	1.099	3.975	69.270	23.001	2.285	0.099	0.236	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1392.35	
10	0.7226	1163.0	1183.6	1183.4	1.095	3.991	69.214	23.029	2.296	0.100	0.238	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1392.43	
11	0.7223	1161.8	1182.3	1182.1	1.101	4.037	69.268	22.920	2.300	0.100	0.237	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1391.15	
12	0.7232	1162.9	1183.5	1183.3	1.097	4.053	69.085	23.097	2.291	0.100	0.239	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1391.70	
13	0.7226	1163.9	1184.5	1184.3	1.082	3.960	69.222	23.045	2.320	0.100	0.235	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1393.41	
14	0.7213	1161.5	1182.0	1181.8	1.076	3.991	69.493	22.736	2.334	0.100	0.234	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.82	
15	0.7202	1159.8	1180.4	1180.2	1.077	3.993	69.739	22.450	2.373	0.100	0.235	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1390.85	
16	0.7212	1161.4	1182.0	1181.8	1.084	3.977	69.538	22.677	2.348	0.101	0.240	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1391.82	
17	0.7211	1161.3	1181.8	1181.6	1.089	3.973	69.544	22.685	2.334	0.100	0.238	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1391.68	
18	0.7218	1163.1	1183.7	1183.5	1.102	3.898	69.327	23.078	2.227	0.098	0.232	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1393.25	
19	0.7215	1162.4	1183.0	1182.8	1.103	3.914	69.380	23.007	2.231	0.097	0.231	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1392.72	
20	0.7215	1162.0	1182.5	1182.3	1.097	3.950	69.371	22.976	2.242	0.097	0.231	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1392.17	
21	0.7199	1159.4	1180.0	1179.8	1.105	3.945	69.719	22.608	2.259	0.098	0.231	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.68	
22	0.7187	1157.2	1177.7	1177.5	1.114	3.946	70.040	22.229	2.300	0.100	0.236	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1389.26	
23	0.7202	1159.7	1180.3	1180.1	1.111	3.948	69.711	22.557	2.304	0.099	0.234	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.72	
24	0.7180	1156.4	1176.9	1176.7	1.119	3.925	70.183	22.105	2.293	0.100	0.238	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1388.85	
25	0.7193	1157.8	1178.3	1178.0	1.117	3.974	69.935	22.269	2.335	0.100	0.234	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1389.22	
26	0.7205	1159.9	1180.4	1180.2	1.118	3.954	69.733	22.462	2.353	0.103	0.242	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.63	
27	0.7195	1156.3	1176.8	1176.6	1.112	4.087	69.942	22.103	2.367	0.103	0.248	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1387.32	
28	0.7179	1154.3	1174.8	1174.6	1.089	4.089	70.266	21.781	2.391	0.103	0.244	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1386.52	
<b>Avg</b>	<b>0.7206</b>	<b>1161.0</b>	<b>1181.1</b>	<b>1180.9</b>	<b>1.091</b>	<b>3.964</b>	<b>69.608</b>	<b>22.672</b>	<b>2.296</b>	<b>0.099</b>	<b>0.234</b>	<b>0.017</b>	<b>0.019</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1391.33</b>	

# Source Daily Summary

February 2023

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	0.7145	1143.6	1163.9	1163.1	0.738	4.951	71.755	18.434	3.774	0.109	0.218	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1376.88	
2	0.7121	1141.9	1162.1	1161.4	0.674	4.921	71.980	18.496	3.606	0.101	0.201	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1377.21	
3	0.7104	1137.7	1157.9	1157.1	0.718	4.956	72.299	18.139	3.574	0.098	0.196	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1373.73	
4	0.7294	1153.5	1174.0	1173.1	0.789	5.667	69.691	18.781	4.637	0.136	0.275	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1374.55	
5	0.7406	1158.5	1179.0	1178.1	0.866	6.296	68.328	18.647	5.280	0.176	0.372	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1369.96	
6	0.7445	1164.1	1184.7	1183.8	0.879	6.302	67.826	18.907	5.450	0.189	0.407	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1372.94	
7	0.7498	1170.7	1191.4	1190.5	0.878	6.395	66.803	19.709	5.636	0.179	0.368	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1375.90	
8	0.7417	1164.6	1185.3	1184.3	0.873	6.010	68.047	19.267	5.274	0.163	0.336	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1376.28	
9	0.7276	1150.8	1171.2	1170.3	0.846	5.573	70.005	18.631	4.511	0.135	0.275	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.03	
10	0.7274	1150.8	1171.2	1170.3	0.822	5.590	69.986	18.681	4.497	0.132	0.269	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1373.24	
11	0.7308	1152.2	1172.6	1171.7	0.832	5.812	69.554	18.630	4.713	0.142	0.291	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1371.63	
12	0.7357	1156.4	1176.9	1176.0	0.843	5.990	68.830	18.906	4.948	0.150	0.307	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1372.18	
13	0.7405	1159.5	1180.0	1179.0	0.856	6.243	68.107	19.079	5.210	0.157	0.320	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.24	
14	0.7274	1150.9	1171.3	1170.4	0.870	5.515	70.113	18.523	4.535	0.137	0.282	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.29	
15	0.7156	1138.5	1158.7	1157.9	0.823	5.239	71.688	18.001	3.895	0.112	0.223	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1369.64	
16	0.7205	1143.2	1163.4	1162.7	0.835	5.391	71.063	18.130	4.178	0.126	0.255	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1370.62	
17	0.7251	1149.2	1169.6	1168.8	0.781	5.530	70.348	18.498	4.420	0.131	0.268	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1373.54	
18	0.7323	1156.0	1176.4	1175.6	0.797	5.770	69.225	19.016	4.751	0.137	0.279	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.80	
19	0.7285	1152.4	1172.8	1172.0	0.798	5.632	69.749	18.869	4.537	0.130	0.262	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1374.12	
20	0.7242	1148.7	1169.1	1168.3	0.795	5.460	70.316	18.785	4.257	0.122	0.245	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1373.76	
21	0.7121	1140.2	1160.4	1159.7	0.763	4.893	72.009	18.459	3.550	0.103	0.205	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1375.14	
22	0.6983	1126.8	1146.8	1146.2	0.760	4.416	74.166	17.475	2.903	0.088	0.175	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1372.38	
23	0.6993	1129.0	1149.0	1148.3	0.686	4.496	73.925	17.659	2.950	0.090	0.177	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.97	
24	0.6997	1129.2	1149.2	1148.5	0.681	4.521	73.941	17.536	3.031	0.092	0.181	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.92	
25	0.7080	1134.4	1154.5	1153.7	0.710	4.943	72.767	17.739	3.504	0.106	0.212	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1372.06	
26	0.7183	1139.8	1160.0	1159.1	0.749	5.517	71.282	17.993	4.074	0.121	0.243	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1368.73	
27	0.7334	1154.0	1174.5	1173.4	0.812	5.977	69.106	18.804	4.832	0.146	0.299	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1371.40	
28	0.7235	1145.4	1165.7	1164.7	0.791	5.599	70.523	18.391	4.282	0.129	0.262	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1370.46	
Avg	0.7240	1148.0	1168.3	1167.4	0.795	5.486	70.480	18.507	4.315	0.130	0.264	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.09	

# Source Daily Summary

February 2023

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	0.7102	1137.8	1157.9	1157.8	0.776	4.841	72.449	18.043	3.573	0.101	0.197	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1374.03	
2	0.7152	1144.3	1164.6	1164.5	0.714	5.007	71.574	18.600	3.759	0.109	0.214	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1377.11	
3	0.7115	1140.0	1160.1	1160.0	0.700	4.952	72.104	18.323	3.607	0.100	0.196	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1375.35	
4	0.7131	1139.8	1160.0	1159.9	0.729	5.064	71.887	18.314	3.684	0.102	0.200	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1373.68	
5	0.7338	1156.5	1177.0	1176.9	0.813	5.852	69.063	18.979	4.834	0.143	0.289	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1374.06	
6	0.7426	1159.6	1180.1	1180.0	0.886	6.378	68.136	18.601	5.378	0.185	0.397	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1369.49	
7	0.7458	1164.8	1185.4	1185.3	0.885	6.362	67.548	19.132	5.465	0.184	0.386	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1372.71	
8	0.7517	1172.4	1193.2	1193.1	0.889	6.451	66.556	19.767	5.753	0.180	0.370	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1376.20	
9	0.7366	1159.3	1179.8	1179.7	0.874	5.856	68.774	19.005	4.999	0.152	0.310	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1374.71	
10	0.7259	1149.0	1169.3	1169.2	0.840	5.537	70.237	18.553	4.419	0.130	0.262	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1372.43	
11	0.7298	1152.6	1173.1	1172.9	0.831	5.695	69.633	18.794	4.611	0.136	0.275	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.10	
12	0.7325	1153.4	1173.9	1173.7	0.851	5.869	69.305	18.730	4.782	0.145	0.291	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1371.50	
13	0.7360	1155.9	1176.4	1176.2	0.844	6.057	68.750	18.928	4.944	0.149	0.302	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1371.18	
14	0.7402	1159.4	1180.0	1179.8	0.880	6.178	68.206	19.040	5.190	0.156	0.319	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1371.49	
15	0.7220	1145.0	1165.3	1165.2	0.869	5.369	70.855	18.286	4.219	0.126	0.255	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1371.39	
16	0.7180	1140.4	1160.6	1160.5	0.830	5.332	71.411	18.003	4.054	0.118	0.233	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1369.68	
17	0.7205	1142.6	1162.8	1162.7	0.826	5.445	71.053	18.106	4.170	0.126	0.253	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1369.84	
18	0.7284	1152.6	1173.0	1172.9	0.779	5.642	69.811	18.787	4.556	0.133	0.268	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.39	
19	0.7329	1156.1	1176.6	1176.5	0.811	5.797	69.136	19.058	4.759	0.138	0.278	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.40	
20	0.7277	1151.0	1171.4	1171.2	0.801	5.646	69.818	18.867	4.469	0.126	0.253	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1373.10	
21	0.7219	1146.5	1166.8	1166.2	0.798	5.378	70.646	18.678	4.127	0.118	0.235	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1373.27	
22	0.7054	1134.2	1154.3	1153.8	0.772	4.612	73.060	18.048	3.207	0.095	0.188	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1374.43	
23	0.6966	1124.7	1144.6	1144.1	0.737	4.424	74.430	17.286	2.848	0.087	0.172	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1371.43	
24	0.7005	1130.8	1150.8	1150.3	0.657	4.537	73.722	17.791	3.013	0.089	0.174	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1375.06	
25	0.7006	1128.2	1148.1	1148.0	0.713	4.623	73.892	17.353	3.118	0.095	0.189	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1371.72	
26	0.7135	1137.5	1157.6	1157.5	0.723	5.247	71.943	17.955	3.774	0.113	0.223	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1370.51	
27	0.7237	1144.6	1164.9	1164.8	0.781	5.689	70.485	18.311	4.327	0.129	0.257	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1369.25	
28	0.7337	1153.9	1174.4	1174.3	0.817	6.001	69.014	18.910	4.793	0.145	0.294	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1371.02	
Avg	0.7239	1148.0	1167.9	1167.8	0.801	5.494	70.482	18.509	4.301	0.129	0.260	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1372.73	

# Source Daily Summary

February 2023

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	0.7101	1137.8	1157.9	1157.9	0.777	4.832	72.462	18.042	3.569	0.101	0.197	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1374.13	
2	0.7155	1144.5	1164.8	1164.7	0.722	5.009	71.549	18.598	3.774	0.110	0.216	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1377.05	
3	0.7120	1140.7	1160.9	1160.8	0.700	4.957	72.025	18.375	3.625	0.101	0.198	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1375.71	
4	0.7126	1139.4	1159.6	1159.5	0.728	5.046	71.961	18.287	3.658	0.101	0.199	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1373.62	
5	0.7335	1156.5	1177.0	1176.9	0.812	5.834	69.098	18.978	4.821	0.143	0.288	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1374.26	
6	0.7428	1159.9	1180.4	1180.3	0.886	6.383	68.088	18.640	5.385	0.185	0.395	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1369.60	
7	0.7459	1164.9	1185.6	1185.5	0.887	6.361	67.552	19.109	5.477	0.185	0.390	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1372.77	
8	0.7516	1172.2	1193.0	1192.9	0.889	6.453	66.570	19.761	5.742	0.180	0.370	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1376.04	
9	0.7379	1160.5	1181.0	1181.0	0.876	5.906	68.579	19.075	5.066	0.154	0.315	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1374.86	
10	0.7261	1149.0	1169.4	1169.3	0.842	5.552	70.202	18.556	4.432	0.131	0.263	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1372.30	
11	0.7300	1152.8	1173.2	1173.1	0.832	5.698	69.615	18.803	4.617	0.137	0.275	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1373.13	
12	0.7326	1153.4	1173.9	1173.8	0.852	5.870	69.301	18.730	4.784	0.145	0.292	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1371.49	
13	0.7361	1156.0	1176.4	1176.3	0.845	6.060	68.737	18.932	4.947	0.149	0.302	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.16	
14	0.7406	1159.7	1180.3	1180.2	0.878	6.201	68.144	19.058	5.211	0.157	0.320	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1371.48	
15	0.7230	1146.0	1166.3	1166.3	0.871	5.399	70.716	18.331	4.273	0.128	0.260	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1371.66	
16	0.7178	1140.2	1160.4	1160.3	0.831	5.319	71.443	18.000	4.038	0.118	0.232	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1369.68	
17	0.7206	1142.6	1162.9	1162.8	0.829	5.440	71.047	18.112	4.171	0.126	0.253	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1369.88	
18	0.7282	1152.3	1172.7	1172.7	0.780	5.636	69.852	18.757	4.551	0.133	0.268	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.29	
19	0.7332	1156.5	1177.0	1176.9	0.812	5.805	69.083	19.086	4.773	0.139	0.279	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1374.53	
20	0.7280	1151.3	1171.7	1171.6	0.802	5.652	69.781	18.878	4.484	0.127	0.254	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1373.19	
21	0.7221	1146.7	1167.0	1166.8	0.798	5.384	70.627	18.679	4.137	0.118	0.237	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1373.30	
22	0.7052	1133.9	1154.0	1153.8	0.770	4.618	73.084	18.029	3.199	0.095	0.188	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1374.20	
23	0.6965	1124.5	1144.4	1144.2	0.738	4.428	74.448	17.265	2.846	0.087	0.172	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1371.22	
24	0.7003	1130.5	1150.5	1150.3	0.656	4.543	73.743	17.773	3.004	0.089	0.174	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1374.81	
25	0.7006	1128.4	1148.4	1148.3	0.711	4.609	73.895	17.366	3.117	0.096	0.189	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1372.04	
26	0.7134	1137.5	1157.7	1157.6	0.723	5.238	71.953	17.962	3.769	0.113	0.223	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1370.64	
27	0.7236	1144.4	1164.7	1164.6	0.782	5.690	70.495	18.309	4.319	0.128	0.256	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1369.13	
28	0.7341	1154.4	1174.8	1174.7	0.818	6.007	68.971	18.924	4.813	0.146	0.296	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1371.19	
Avg	0.7241	1148.0	1168.1	1168.0	0.802	5.497	70.465	18.515	4.307	0.129	0.261	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1372.76	

# Source Daily Summary

February 2023

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	0.6666	1102.2	1121.7	1121.5	0.498	3.345	78.789	15.808	1.415	0.047	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1373.86	
2	0.6682	1106.0	1125.6	1125.4	0.409	3.396	78.243	16.497	1.331	0.040	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1377.04	
3	0.6640	1097.9	1117.4	1117.1	0.472	3.395	79.203	15.461	1.333	0.044	0.081	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1371.29	
4	0.6639	1097.9	1117.4	1117.1	0.491	3.365	79.230	15.448	1.330	0.044	0.081	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1371.30	
5	0.6643	1100.5	1119.9	1119.6	0.525	3.197	79.124	15.757	1.271	0.041	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1374.05	
6	0.6643	1100.4	1119.9	1119.6	0.493	3.242	79.032	15.893	1.221	0.039	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1374.07	
7	0.6576	1090.6	1110.0	1109.6	0.669	2.949	80.241	15.119	0.945	0.026	0.046	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1368.71	
8	0.6530	1084.6	1103.8	1103.5	0.801	2.682	81.168	14.498	0.796	0.019	0.034	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1365.93	
9	0.6557	1088.9	1108.2	1107.9	0.741	2.767	80.637	14.914	0.873	0.023	0.040	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1368.48	
10	0.6598	1093.1	1112.5	1112.2	0.669	3.004	79.764	15.555	0.934	0.024	0.043	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1369.52	
11	0.6599	1092.8	1112.1	1111.8	0.649	3.057	79.920	15.204	1.074	0.032	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1369.09	
12	0.6634	1098.0	1117.5	1117.2	0.632	3.093	79.401	15.511	1.242	0.040	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.01	
13	0.6579	1090.1	1109.4	1109.1	0.634	3.064	80.318	14.798	1.088	0.032	0.058	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1367.67	
14	0.6538	1084.4	1103.6	1103.4	0.841	2.707	81.243	14.168	0.964	0.026	0.045	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1364.85	
15	0.6594	1092.0	1111.3	1111.1	0.715	2.962	80.104	15.039	1.079	0.033	0.059	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1368.55	
16	0.6619	1093.7	1113.0	1112.8	0.730	3.047	79.862	14.925	1.288	0.042	0.077	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1368.09	
17	0.6615	1094.5	1113.9	1113.6	0.529	3.287	79.619	15.238	1.206	0.039	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.53	
18	0.6659	1102.8	1122.3	1122.0	0.504	3.232	78.784	16.080	1.281	0.039	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1375.34	
19	0.6621	1097.7	1117.1	1116.8	0.559	3.102	79.381	15.783	1.081	0.031	0.056	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1372.94	
20	0.6607	1096.1	1115.5	1115.3	0.556	3.074	79.554	15.731	1.004	0.027	0.048	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1372.40	
21	0.6639	1101.2	1120.7	1120.5	0.575	3.037	78.999	16.233	1.068	0.030	0.053	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1375.47	
22	0.6624	1097.8	1117.3	1117.0	0.645	2.997	79.453	15.689	1.112	0.034	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1372.72	
23	0.6640	1100.0	1119.5	1119.3	0.505	3.217	79.094	15.862	1.204	0.038	0.069	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.92	
24	0.6629	1098.2	1117.7	1117.5	0.501	3.234	79.351	15.552	1.240	0.040	0.072	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.76	
25	0.6623	1096.4	1115.8	1115.6	0.485	3.312	79.513	15.278	1.279	0.043	0.078	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1371.10	
26	0.6613	1094.1	1113.5	1113.3	0.467	3.384	79.729	14.974	1.305	0.046	0.083	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1369.29	
27	0.6616	1094.9	1114.3	1114.1	0.528	3.272	79.801	14.902	1.351	0.048	0.086	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.96	
28	0.6655	1100.3	1119.8	1119.6	0.582	3.230	79.226	15.320	1.476	0.054	0.097	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1372.62	
Avg	0.6617	1096.0	1115.4	1115.1	0.586	3.130	79.599	15.401	1.171	0.037	0.066	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1371.16	

# Source Daily Summary

February 2023

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	0.6697	1110.8	1130.4	1130.3	0.335	3.362	77.887	16.928	1.366	0.041	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1381.38	
2	0.6651	1101.9	1121.4	1121.2	0.400	3.376	78.912	15.808	1.365	0.046	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1375.00	
3	0.6649	1101.9	1121.4	1121.2	0.413	3.334	78.955	15.815	1.346	0.045	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1375.24	
4	0.6672	1107.0	1126.6	1126.5	0.435	3.203	78.533	16.345	1.345	0.046	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.27	
5	0.6640	1101.9	1121.4	1121.2	0.327	3.381	78.881	16.075	1.223	0.039	0.068	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1376.19	
6	0.6694	1113.5	1133.3	1133.1	0.265	3.273	77.636	17.564	1.166	0.033	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1385.11	
7	0.6709	1114.7	1134.4	1134.2	0.313	3.248	77.606	17.522	1.202	0.037	0.066	0.004	0.002	0.000	0.000	0.000	0.000	0.000	1385.00	
8	0.6682	1111.7	1131.4	1131.2	0.272	3.267	77.830	17.419	1.116	0.033	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1384.01	
9	0.6675	1109.4	1129.1	1128.9	0.300	3.289	78.094	17.033	1.176	0.036	0.064	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1382.01	
10	0.6715	1112.8	1132.5	1132.3	0.518	3.129	78.044	16.563	1.582	0.055	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1381.98	
11	0.6628	1100.1	1119.5	1119.4	0.367	3.314	79.155	15.859	1.187	0.039	0.070	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.19	
12	0.6660	1105.1	1124.6	1124.4	0.461	3.184	78.621	16.309	1.292	0.044	0.077	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1378.09	
13	0.6742	1118.8	1138.6	1138.4	0.606	2.883	77.420	17.518	1.427	0.049	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1386.70	
14	0.6677	1107.3	1126.9	1126.7	0.500	3.140	78.491	16.389	1.342	0.047	0.081	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.02	
15	0.6664	1103.0	1122.6	1122.4	0.558	3.186	78.991	15.627	1.476	0.054	0.095	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1375.08	
16	0.6641	1100.9	1120.4	1120.3	0.420	3.307	79.071	15.773	1.293	0.045	0.080	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1374.87	
17	0.6666	1106.6	1126.2	1126.0	0.385	3.250	78.503	16.455	1.287	0.041	0.072	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1379.36	
18	0.6678	1110.1	1129.7	1129.6	0.357	3.197	78.116	17.029	1.194	0.037	0.064	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1382.42	
19	0.6677	1110.3	1130.0	1129.8	0.283	3.282	78.001	17.169	1.167	0.034	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1382.88	
20	0.6696	1113.6	1133.3	1133.2	0.301	3.237	77.660	17.515	1.189	0.035	0.059	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1384.95	
21	0.6721	1115.1	1134.9	1134.7	0.458	3.140	77.616	17.240	1.408	0.047	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1384.24	
22	0.6665	1105.8	1125.4	1125.3	0.392	3.277	78.572	16.312	1.316	0.044	0.077	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1378.50	
23	0.6666	1106.4	1126.0	1125.9	0.359	3.301	78.490	16.423	1.301	0.042	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.13	
24	0.6635	1100.1	1119.6	1119.4	0.423	3.292	79.252	15.572	1.322	0.046	0.082	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1374.50	
25	0.6616	1097.2	1116.6	1116.5	0.430	3.281	79.598	15.269	1.286	0.045	0.080	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1372.84	
26	0.6608	1096.0	1115.4	1115.2	0.476	3.213	79.841	15.026	1.303	0.047	0.082	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1372.09	
27	0.6633	1099.8	1119.3	1119.1	0.517	3.155	79.493	15.285	1.397	0.051	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.23	
28	0.6658	1103.0	1122.5	1122.3	0.570	3.111	79.180	15.478	1.492	0.056	0.097	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1375.66	
Avg	0.6668	1107.0	1126.2	1126.0	0.409	3.236	78.516	16.404	1.306	0.043	0.076	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1379.10	

# Source Daily Summary

February 2023

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	0.6666	1101.7	1121.2	1120.2	0.422	3.491	78.726	15.769	1.449	0.046	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1373.22	
2	0.6650	1098.7	1118.2	1117.2	0.446	3.488	79.075	15.397	1.447	0.047	0.087	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1371.15	
3	0.6647	1098.7	1118.2	1117.2	0.506	3.359	79.252	15.276	1.455	0.049	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.59	
4	0.6619	1093.5	1112.8	1111.8	0.443	3.517	79.685	14.782	1.428	0.047	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1367.82	
5	0.6654	1100.8	1120.3	1119.2	0.391	3.478	78.871	15.725	1.408	0.042	0.075	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.39	
6	0.6659	1100.5	1120.0	1119.0	0.443	3.462	78.899	15.601	1.454	0.046	0.084	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1372.53	
7	0.6634	1096.7	1116.1	1115.1	0.418	3.502	79.309	15.226	1.410	0.044	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1370.31	
8	0.6630	1095.4	1114.8	1113.8	0.448	3.495	79.505	14.946	1.462	0.047	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1369.11	
9	0.6636	1095.6	1115.0	1114.0	0.539	3.398	79.616	14.738	1.548	0.053	0.095	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.75	
10	0.6576	1085.8	1105.0	1104.1	0.470	3.539	80.523	13.960	1.364	0.046	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1362.66	
11	0.6591	1088.6	1107.8	1107.0	0.474	3.505	80.250	14.239	1.387	0.047	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1364.59	
12	0.6600	1089.5	1108.8	1108.4	0.507	3.478	80.151	14.297	1.418	0.048	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1364.90	
13	0.6572	1085.5	1104.7	1104.0	0.472	3.520	80.555	13.985	1.334	0.044	0.079	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1362.67	
14	0.6612	1091.5	1110.9	1110.1	0.522	3.451	79.968	14.444	1.457	0.051	0.094	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1366.12	
15	0.6600	1089.7	1109.0	1108.3	0.469	3.524	80.102	14.343	1.412	0.048	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1365.14	
16	0.6624	1094.2	1113.6	1112.8	0.487	3.456	79.652	14.813	1.444	0.048	0.087	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1368.18	
17	0.6626	1095.5	1114.9	1114.0	0.476	3.409	79.543	15.042	1.393	0.044	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1369.62	
18	0.6642	1099.2	1118.7	1117.7	0.395	3.460	79.062	15.588	1.372	0.040	0.072	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.61	
19	0.6647	1100.1	1119.6	1118.6	0.392	3.460	78.965	15.680	1.381	0.040	0.072	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.16	
20	0.6707	1108.2	1127.8	1127.1	0.571	3.257	78.203	16.244	1.569	0.051	0.092	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1377.07	
21	0.6658	1099.8	1119.3	1118.4	0.498	3.412	79.066	15.363	1.505	0.051	0.092	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.73	
22	0.6642	1097.9	1117.4	1116.5	0.469	3.421	79.291	15.218	1.451	0.048	0.088	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.04	
23	0.6646	1098.6	1118.1	1117.1	0.473	3.417	79.245	15.224	1.489	0.049	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.41	
24	0.6605	1091.5	1110.8	1109.8	0.502	3.412	80.071	14.439	1.422	0.049	0.091	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1366.83	
25	0.6742	1111.6	1131.3	1130.4	0.999	2.718	78.377	15.868	1.827	0.068	0.124	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1377.80	
26	0.6609	1092.1	1111.4	1110.5	0.667	3.163	80.302	14.195	1.505	0.055	0.099	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1367.15	
27	0.6640	1096.1	1115.5	1114.6	0.711	3.139	79.909	14.401	1.650	0.062	0.112	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1369.03	
28	0.6677	1101.5	1121.0	1120.0	0.739	3.124	79.292	14.896	1.745	0.066	0.120	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1371.83	
<b>Avg</b>	<b>0.6636</b>	<b>1096.0</b>	<b>1115.8</b>	<b>1114.9</b>	<b>0.512</b>	<b>3.395</b>	<b>79.481</b>	<b>14.989</b>	<b>1.471</b>	<b>0.049</b>	<b>0.090</b>	<b>0.007</b>	<b>0.006</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>1369.69</b>	

# Source Daily Summary

February 2023

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	0.6866	1154.8	1175.2	1173.9	0.000	2.791	73.225	23.351	0.612	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.29	-25.97
2	0.6849	1152.2	1172.6	1170.9	0.000	2.790	73.376	23.390	0.428	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.89	-27.54
3	0.6856	1153.1	1173.5	1171.7	0.000	2.797	73.290	23.423	0.474	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.28	-27.05
4	0.6853	1152.8	1173.3	1171.8	0.000	2.789	73.329	23.401	0.464	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.25	-27.19
5	0.6857	1153.4	1173.8	1172.0	0.000	2.790	73.286	23.413	0.494	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.55	-26.89
6	0.6852	1152.3	1172.7	1171.3	0.000	2.815	73.328	23.391	0.450	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.66	-27.35
7	0.6854	1152.3	1172.7	1171.1	0.000	2.832	73.320	23.357	0.474	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.46	-27.22
8	0.6848	1151.6	1172.0	1170.6	0.000	2.816	73.423	23.279	0.466	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.27	-27.49
9	0.6851	1151.8	1172.2	1170.5	0.000	2.831	73.379	23.301	0.472	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.20	-27.37
10	0.6863	1153.7	1174.1	1172.5	0.000	2.828	73.185	23.447	0.522	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.30	-26.56
11	0.6859	1152.8	1173.2	1171.6	0.000	2.847	73.258	23.357	0.520	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.58	-26.81
12	0.6867	1154.2	1174.6	1173.1	0.000	2.837	73.105	23.512	0.527	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.46	-26.35
13	0.6865	1153.8	1174.2	1172.6	0.000	2.839	73.141	23.489	0.513	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.24	-26.53
14	0.6857	1152.9	1173.4	1172.4	0.000	2.820	73.216	23.515	0.433	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.96	-27.17
15	0.6870	1155.0	1175.5	1174.0	0.000	2.818	72.976	23.727	0.462	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.14	-26.38
16	0.6887	1158.4	1178.9	1177.3	0.000	2.765	72.841	23.724	0.649	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.61	-24.74
17	0.6877	1157.4	1177.9	1176.1	0.000	2.730	72.895	23.859	0.500	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.47	-25.73
18	0.6874	1157.0	1177.4	1175.7	0.000	2.738	72.893	23.900	0.455	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.11	-26.04
19	0.6863	1155.1	1175.5	1173.8	0.000	2.746	73.106	23.698	0.435	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.96	-26.72
20	0.6866	1156.1	1176.5	1174.9	0.000	2.715	73.038	23.803	0.429	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.87	-26.51
21	0.6865	1156.0	1176.5	1174.8	0.000	2.708	73.056	23.795	0.427	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.92	-26.55
22	0.6864	1155.7	1176.1	1174.0	0.000	2.720	73.073	23.769	0.424	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.59	-26.64
23	0.6873	1156.9	1177.4	1174.6	0.000	2.730	72.904	23.915	0.436	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.18	-26.16
24	0.6868	1156.0	1176.5	1174.6	0.000	2.737	72.992	23.836	0.420	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.63	-26.50
25	0.6866	1155.8	1176.2	1174.3	0.000	2.734	73.034	23.789	0.429	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.49	-26.54
26	0.6870	1156.4	1176.9	1175.0	0.000	2.733	72.953	23.867	0.433	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.85	-26.32
27	0.6871	1156.9	1177.4	1175.7	0.000	2.709	72.942	23.901	0.433	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.41	-26.22
28	0.6867	1156.0	1176.4	1174.9	0.000	2.726	73.021	23.820	0.420	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.70	-26.54
Avg	0.6864	1155.0	1175.1	1173.4	0.000	2.776	73.128	23.608	0.471	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.40	-26.61

# Source Daily Summary

February 2023

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	0.6464	1068.2	1087.1	1086.8	0.566	3.413	82.645	12.138	1.113	0.039	0.075	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1352.14	
2	0.6447	1066.8	1085.7	1085.4	0.591	3.301	82.987	11.926	1.075	0.038	0.071	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1352.13	
3	0.6444	1066.5	1085.4	1085.1	0.589	3.296	83.028	11.898	1.069	0.038	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1352.09	
4	0.6448	1067.1	1086.0	1085.6	0.584	3.304	82.954	11.962	1.076	0.038	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1352.40	
5	0.6480	1072.5	1091.5	1091.1	0.524	3.369	82.257	12.619	1.115	0.037	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.87	
6	0.6464	1069.7	1088.6	1088.3	0.524	3.385	82.556	12.337	1.086	0.036	0.066	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1354.06	
7	0.6467	1071.0	1090.0	1089.7	0.595	3.226	82.601	12.365	1.094	0.038	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.41	
8	0.6451	1067.9	1086.8	1086.4	0.585	3.281	82.895	12.047	1.074	0.037	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1353.11	
9	0.6457	1068.7	1087.7	1087.4	0.597	3.274	82.783	12.144	1.083	0.038	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1353.50	
10	0.6467	1070.2	1089.2	1088.9	0.600	3.265	82.612	12.307	1.095	0.038	0.072	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1354.45	
11	0.6470	1070.1	1089.1	1088.8	0.599	3.302	82.553	12.318	1.104	0.038	0.074	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1353.97	
12	0.6478	1070.9	1089.9	1089.5	0.607	3.316	82.448	12.363	1.138	0.040	0.076	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1354.14	
13	0.6523	1076.8	1095.9	1095.5	0.634	3.344	81.681	12.946	1.254	0.044	0.084	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1356.81	
14	0.6511	1077.6	1096.7	1096.5	0.621	3.198	81.868	12.980	1.203	0.041	0.077	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1359.13	
15	0.6484	1074.6	1093.6	1093.4	0.601	3.162	82.297	12.700	1.119	0.038	0.072	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1358.10	
16	0.6481	1074.1	1093.1	1092.9	0.600	3.160	82.361	12.644	1.114	0.038	0.072	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1357.87	
17	0.6471	1072.7	1091.7	1091.4	0.595	3.162	82.529	12.500	1.095	0.038	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1357.10	
18	0.6456	1069.8	1088.7	1088.4	0.591	3.202	82.808	12.211	1.071	0.037	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.02	
19	0.6451	1068.7	1087.6	1087.3	0.589	3.231	82.886	12.111	1.066	0.037	0.069	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1354.09	
20	0.6520	1079.3	1098.4	1098.2	0.565	3.262	81.610	13.235	1.203	0.040	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1360.32	
21	0.6425	1063.6	1082.5	1082.3	0.565	3.325	83.362	11.593	1.040	0.037	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1350.48	
22	0.6429	1064.1	1083.0	1082.8	0.567	3.336	83.297	11.620	1.060	0.038	0.071	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1350.60	
23	0.6439	1066.1	1085.0	1084.8	0.571	3.295	83.126	11.820	1.068	0.038	0.071	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1352.19	
24	0.6421	1062.8	1081.6	1081.4	0.562	3.344	83.452	11.478	1.045	0.038	0.070	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1349.80	
25	0.6386	1056.5	1075.2	1075.0	0.547	3.421	84.082	10.838	0.996	0.037	0.067	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1345.51	
26	0.6357	1051.1	1069.7	1069.4	0.539	3.485	84.625	10.282	0.955	0.037	0.066	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1341.71	
27	0.6357	1051.3	1069.9	1069.6	0.544	3.467	84.630	10.293	0.952	0.036	0.066	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1341.95	
28	0.6355	1051.2	1069.8	1069.5	0.541	3.467	84.643	10.288	0.949	0.036	0.065	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1341.93	
Avg	0.6450	1067.0	1086.4	1086.1	0.578	3.307	82.913	11.999	1.083	0.038	0.071	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1352.71	



February-23

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	
2/1/2023	2/2/2023	1,655	1,816	1097.10	5,026	5,651	1121.7	1115.606	2/1/2023
2/2/2023	2/3/2023	1,615	1,766	1093.10	6,741	7,587	1125.6	1119.319	2/2/2023
2/3/2023	2/4/2023	1,599	1,750	1094.40	5,295	5,915	1117.4	1112.065	2/3/2023
2/4/2023	2/5/2023	1,623	1,780	1096.80	2,540	2,839	1117.4	1109.369	2/4/2023
2/5/2023	2/6/2023	1,626	1,783	1096.80	2,489	2,788	1119.9	1110.772	2/5/2023
2/6/2023	2/7/2023	1,637	1,803	1101.10	3,032	3,393	1119.9	1113.309	2/6/2023
2/7/2023	2/8/2023	1,618	1,771	1094.50	2,511	2,784	1110	1103.926	2/7/2023
2/8/2023	2/9/2023	2,520	2,756	1093.20	2,450	2,704	1103.8	1098.425	2/8/2023
2/9/2023	2/10/2023	1,608	1,762	1095.70	3,719	4,123	1108.2	1104.427	2/9/2023
2/10/2023	2/11/2023	1,617	1,770	1094.80	2,811	3,126	1112.5	1106.036	2/10/2023
2/11/2023	2/12/2023	1,640	1,796	1095.40	2,434	2,708	1112.1	1105.377	2/11/2023
2/12/2023	2/13/2023	1,621	1,770	1091.70	2,652	2,958	1117.5	1107.713	2/12/2023
2/13/2023	2/14/2023	1,616	1,762	1090.20	2,002	2,216	1109.4	1100.824	2/13/2023
2/14/2023	2/15/2023	1,639	1,790	1091.70	4,706	5,207	1103.6	1100.526	2/14/2023
2/15/2023	2/16/2023	1,606	1,753	1092.00	4,648	5,164	1111.3	1106.344	2/15/2023
2/16/2023	2/17/2023	1,634	1,782	1090.60	4,575	5,091	1113	1107.105	2/16/2023
2/17/2023	2/18/2023	1,623	1,769	1090.60	2,805	3,126	1113.9	1105.360	2/17/2023
2/18/2023	2/19/2023	1,639	1,790	1092.00	2,475	2,769	1122.3	1110.229	2/18/2023
2/19/2023	2/20/2023	1,639	1,787	1090.70	3,430	3,832	1117.1	1108.564	2/19/2023
2/20/2023	2/21/2023	1,637	1,788	1091.80	5,308	5,920	1115.5	1109.914	2/20/2023
2/21/2023	2/22/2023	1,620	1,772	1094.20	6,637	7,441	1120.8	1115.581	2/21/2023
2/22/2023	2/23/2023	1,631	1,784	1093.60	8,348	9,325	1117.3	1113.426	2/22/2023
2/23/2023	2/24/2023	1,609	1,757	1091.90	8,327	9,324	1119.5	1115.031	2/23/2023
2/24/2023	2/25/2023	1,595	1,739	1090.40	7,558	8,446	1117.7	1112.943	2/24/2023
2/25/2023	2/26/2023	1,598	1,749	1094.00	4,729	5,278	1115.8	1110.294	2/25/2023
2/26/2023	2/27/2023	1,629	1,790	1098.70	3,583	3,990	1113.5	1108.874	2/26/2023
2/27/2023	2/28/2023	1,650	1,814	1099.40	3,235	3,609	1114.3	1109.267	2/27/2023
2/28/2023	3/1/2023	1,649	1,816	1101.30	4,654	5,213	1119.8	1114.960	2/28/2023
		46,393	50,765	1094.2036	118,720	132,527	1115.3857	1109.1281	



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND07MD1 --- Hankinson Sales  
 February 2023

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	1,150.006	0.6557	85.3342	8.9525	3.5312	0.3517	0.5359	0.0663	0.0527	0.0254	0.7485	0.3913	0.0104
2	1,150.815	0.6557	85.3390	9.0300	3.4640	0.3602	0.5553	0.0676	0.0550	0.0258	0.7107	0.3822	0.0102
3	1,151.164	0.6559	85.2972	9.0251	3.5066	0.3590	0.5558	0.0650	0.0529	0.0256	0.7315	0.3708	0.0105
4	1,152.719	0.6574	85.1338	9.0042	3.6272	0.3612	0.5650	0.0672	0.0536	0.0264	0.7988	0.3524	0.0103
5	1,149.680	0.6564	85.1084	9.0913	3.5281	0.3434	0.5499	0.0611	0.0465	0.0222	0.8758	0.3623	0.0110
6	1,149.970	0.6564	85.1016	9.1120	3.5130	0.3453	0.5534	0.0625	0.0483	0.0235	0.8744	0.3549	0.0110
7	1,151.334	0.6572	85.1091	9.0561	3.5282	0.3605	0.5780	0.0680	0.0548	0.0257	0.8418	0.3667	0.0112
8	1,151.015	0.6568	85.1333	9.0555	3.5462	0.3519	0.5580	0.0657	0.0547	0.0262	0.8370	0.3603	0.0111
9	1,152.170	0.6577	85.0357	9.0851	3.5823	0.3569	0.5742	0.0671	0.0534	0.0262	0.8402	0.3678	0.0111
10	1,151.498	0.6572	85.1089	9.0481	3.5594	0.3570	0.5721	0.0658	0.0524	0.0259	0.8353	0.3638	0.0113
11	1,152.069	0.6576	85.0487	9.0898	3.5825	0.3559	0.5693	0.0662	0.0520	0.0256	0.8266	0.3725	0.0111
12	1,153.142	0.6582	85.0051	9.0985	3.5963	0.3646	0.5831	0.0702	0.0550	0.0252	0.8157	0.3754	0.0110
13	1,152.560	0.6576	85.0106	9.1658	3.5684	0.3559	0.5678	0.0659	0.0515	0.0247	0.8113	0.3672	0.0109
14	1,152.632	0.6574	85.0713	9.1273	3.5668	0.3587	0.5730	0.0660	0.0509	0.0234	0.7910	0.3609	0.0107
15	1,151.146	0.6565	85.1545	9.1072	3.5202	0.3515	0.5625	0.0638	0.0488	0.0228	0.7930	0.3650	0.0107
16	1,151.060	0.6562	85.1542	9.1411	3.5181	0.3464	0.5503	0.0629	0.0479	0.0229	0.7899	0.3556	0.0106
17	1,154.094	0.6585	84.9091	9.1953	3.6493	0.3569	0.5700	0.0652	0.0503	0.0237	0.8110	0.3586	0.0106
18	1,152.333	0.6576	85.0019	9.1541	3.5820	0.3534	0.5624	0.0649	0.0533	0.0237	0.8260	0.3679	0.0104
19	1,152.522	0.6578	85.0116	9.1287	3.5833	0.3572	0.5666	0.0670	0.0551	0.0255	0.8230	0.3709	0.0110
20	1,152.281	0.6576	85.0127	9.1453	3.5753	0.3553	0.5661	0.0651	0.0514	0.0247	0.8243	0.3696	0.0103
21	1,153.887	0.6590	84.8266	9.2108	3.6499	0.3570	0.5769	0.0648	0.0521	0.0248	0.8634	0.3636	0.0100
22	1,151.843	0.6572	85.0511	9.1288	3.5755	0.3509	0.5564	0.0637	0.0522	0.0236	0.8269	0.3609	0.0099
23	1,154.261	0.6585	84.9585	9.1269	3.6545	0.3618	0.5763	0.0678	0.0553	0.0253	0.8006	0.3624	0.0105
24	1,156.607	0.6600	84.7765	9.1750	3.8080	0.3592	0.5677	0.0664	0.0532	0.0242	0.8014	0.3581	0.0103
25	1,154.358	0.6588	84.8802	9.1294	3.7670	0.3487	0.5473	0.0623	0.0492	0.0221	0.8269	0.3562	0.0105
26	1,154.940	0.6589	84.8527	9.2092	3.7135	0.3539	0.5597	0.0642	0.0503	0.0241	0.8113	0.3504	0.0106
27	1,154.318	0.6582	84.9464	9.1631	3.7109	0.3487	0.5500	0.0626	0.0480	0.0234	0.7803	0.3559	0.0107
28	1,154.382	0.6584	84.9013	9.1583	3.7657	0.3422	0.5418	0.0594	0.0449	0.0224	0.8043	0.3491	0.0105
<b>Volume</b>	<b>1,152.456</b>	<b>0.6575</b>	<b>85.0462</b>	<b>9.1110</b>	<b>3.5988</b>	<b>0.3545</b>	<b>0.5623</b>	<b>0.0652</b>	<b>0.0517</b>	<b>0.0245</b>	<b>0.8112</b>	<b>0.3641</b>	<b>0.0107</b>
<b>Weight Avg Energy</b>	<b>1,152.458</b>	<b>0.6575</b>	<b>85.0460</b>	<b>9.1110</b>	<b>3.5989</b>	<b>0.3545</b>	<b>0.5623</b>	<b>0.0652</b>	<b>0.0517</b>	<b>0.0245</b>	<b>0.8112</b>	<b>0.3641</b>	<b>0.0107</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND14MD1 --- Milnor Sales  
 February 2023

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	1,150.054	0.6557	85.3333	8.9548	3.5292	0.3518	0.5370	0.0664	0.0533	0.0253	0.7492	0.3893	0.0103
2	1,150.435	0.6554	85.3708	9.0236	3.4469	0.3594	0.5530	0.0670	0.0543	0.0257	0.7050	0.3840	0.0103
3	1,151.810	0.6564	85.2438	9.0440	3.5346	0.3602	0.5587	0.0650	0.0530	0.0256	0.7386	0.3659	0.0105
4	1,152.477	0.6573	85.1429	8.9884	3.6232	0.3613	0.5671	0.0671	0.0533	0.0262	0.8050	0.3551	0.0104
5	1,149.575	0.6565	85.0684	9.1298	3.5273	0.3400	0.5456	0.0600	0.0457	0.0214	0.8881	0.3627	0.0110
6	1,149.771	0.6563	85.1439	9.0794	3.4990	0.3478	0.5571	0.0635	0.0494	0.0239	0.8681	0.3568	0.0111
7	1,151.228	0.6571	85.1310	9.0382	3.5268	0.3609	0.5775	0.0681	0.0553	0.0259	0.8389	0.3664	0.0112
8	1,151.219	0.6570	85.1177	9.0516	3.5546	0.3536	0.5630	0.0659	0.0545	0.0262	0.8401	0.3618	0.0111
9	1,151.901	0.6575	85.0657	9.0718	3.5753	0.3558	0.5705	0.0671	0.0534	0.0262	0.8366	0.3665	0.0111
10	1,151.544	0.6572	85.1143	9.0320	3.5649	0.3583	0.5750	0.0661	0.0525	0.0256	0.8354	0.3646	0.0113
11	1,152.032	0.6576	85.0524	9.0837	3.5824	0.3562	0.5692	0.0665	0.0522	0.0258	0.8255	0.3752	0.0111
12	1,153.202	0.6581	85.0087	9.1109	3.5908	0.3644	0.5823	0.0700	0.0548	0.0250	0.8113	0.3709	0.0110
13	1,152.304	0.6574	85.0386	9.1508	3.5576	0.3557	0.5682	0.0658	0.0515	0.0247	0.8076	0.3686	0.0109
14	1,152.479	0.6573	85.0866	9.1173	3.5629	0.3582	0.5725	0.0660	0.0509	0.0235	0.7911	0.3604	0.0106
15	1,151.220	0.6565	85.1424	9.1286	3.5139	0.3513	0.5626	0.0636	0.0486	0.0227	0.7920	0.3637	0.0107
16	1,151.448	0.6565	85.1368	9.1379	3.5387	0.3476	0.5511	0.0630	0.0481	0.0233	0.7866	0.3561	0.0106
17	1,153.913	0.6585	84.9079	9.1809	3.6503	0.3569	0.5710	0.0655	0.0510	0.0235	0.8195	0.3630	0.0105
18	1,152.272	0.6576	85.0051	9.1472	3.5853	0.3529	0.5612	0.0649	0.0531	0.0238	0.8282	0.3678	0.0104
19	1,152.688	0.6579	84.9952	9.1395	3.5834	0.3585	0.5692	0.0670	0.0551	0.0258	0.8235	0.3719	0.0110
20	1,152.471	0.6577	85.0079	9.1500	3.5791	0.3555	0.5674	0.0652	0.0516	0.0246	0.8236	0.3647	0.0102
21	1,153.638	0.6588	84.8599	9.1883	3.6475	0.3563	0.5737	0.0647	0.0523	0.0249	0.8598	0.3628	0.0100
22	1,152.012	0.6572	85.0526	9.1370	3.5736	0.3513	0.5578	0.0636	0.0522	0.0236	0.8185	0.3599	0.0098
23	1,155.184	0.6592	84.9003	9.1188	3.7076	0.3647	0.5813	0.0686	0.0556	0.0254	0.8030	0.3641	0.0105
24	1,156.519	0.6599	84.7682	9.1950	3.8043	0.3573	0.5630	0.0659	0.0528	0.0239	0.8022	0.3570	0.0103
25	1,154.419	0.6588	84.8749	9.1267	3.7705	0.3493	0.5487	0.0623	0.0495	0.0222	0.8292	0.3564	0.0105
26	1,154.478	0.6585	84.8847	9.2238	3.6805	0.3519	0.5565	0.0639	0.0496	0.0242	0.8028	0.3515	0.0106
27	1,154.749	0.6585	84.9192	9.1533	3.7462	0.3489	0.5506	0.0621	0.0477	0.0231	0.7829	0.3553	0.0106
28	1,154.294	0.6583	84.9009	9.1758	3.7539	0.3414	0.5405	0.0591	0.0445	0.0224	0.8018	0.3491	0.0105
<b>Volume</b>	<b>1,152.493</b>	<b>0.6575</b>	<b>85.0488</b>	<b>9.1097</b>	<b>3.5997</b>	<b>0.3547</b>	<b>0.5624</b>	<b>0.0652</b>	<b>0.0517</b>	<b>0.0245</b>	<b>0.8086</b>	<b>0.3642</b>	<b>0.0106</b>
<b>Weight Avg Energy</b>	<b>1,152.494</b>	<b>0.6575</b>	<b>85.0488</b>	<b>9.1098</b>	<b>3.5998</b>	<b>0.3547</b>	<b>0.5624</b>	<b>0.0651</b>	<b>0.0517</b>	<b>0.0245</b>	<b>0.8085</b>	<b>0.3642</b>	<b>0.0106</b>

February-23

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		
2/1/2023	2/2/2023	486	584	1200.3	1,071	1,207	1127.6	1150.292	2/1/2023
2/2/2023	2/3/2023	562	674	1200.3	1,193	1,345	1127.6	1150.881	2/2/2023
2/3/2023	2/4/2023	342	411	1200.3	860	969	1127.6	1148.285	2/3/2023
2/4/2023	2/5/2023	282	338	1200.3	693	781	1127.6	1148.627	2/4/2023
2/5/2023	2/6/2023	238	286	1200.3	665	750	1127.6	1146.761	2/5/2023
2/6/2023	2/7/2023	316	380	1200.3	787	887	1127.6	1148.428	2/6/2023
2/7/2023	2/8/2023	260	312	1200.3	633	713	1127.6	1148.767	2/7/2023
2/8/2023	2/9/2023	282	338	1200.3	671	757	1127.6	1149.112	2/8/2023
2/9/2023	2/10/2023	340	408	1200.3	744	839	1127.6	1150.403	2/9/2023
2/10/2023	2/11/2023	275	330	1200.3	631	712	1127.6	1149.667	2/10/2023
2/11/2023	2/12/2023	255	306	1200.3	633	713	1127.6	1148.477	2/11/2023
2/12/2023	2/13/2023	267	321	1200.3	675	761	1127.6	1148.206	2/12/2023
2/13/2023	2/14/2023	227	273	1200.3	798	899	1127.6	1143.700	2/13/2023
2/14/2023	2/15/2023	505	606	1200.3	1,137	1,282	1127.6	1149.959	2/14/2023
2/15/2023	2/16/2023	407	488	1200.3	885	998	1127.6	1150.502	2/15/2023
2/16/2023	2/17/2023	383	459	1200.3	826	931	1127.6	1150.631	2/16/2023
2/17/2023	2/18/2023	308	370	1200.3	706	796	1127.6	1149.682	2/17/2023
2/18/2023	2/19/2023	309	371	1200.3	672	757	1127.6	1150.499	2/18/2023
2/19/2023	2/20/2023	301	361	1200.3	665	750	1127.6	1150.253	2/19/2023
2/20/2023	2/21/2023	468	562	1200.3	1,001	1,129	1127.6	1150.761	2/20/2023
2/21/2023	2/22/2023	568	682	1200.3	1,218	1,374	1127.6	1150.721	2/21/2023
2/22/2023	2/23/2023	637	765	1200.3	1,354	1,527	1127.6	1150.860	2/22/2023
2/23/2023	2/24/2023	646	775	1200.3	1,340	1,511	1127.6	1151.248	2/23/2023
2/24/2023	2/25/2023	595	714	1200.3	1,355	1,528	1127.6	1149.783	2/24/2023
2/25/2023	2/26/2023	438	526	1200.3	1,082	1,220	1127.6	1148.549	2/25/2023
2/26/2023	2/27/2023	291	349	1200.3	723	816	1127.6	1148.464	2/26/2023
2/27/2023	2/28/2023	365	438	1200.3	914	1,031	1127.6	1148.347	2/27/2023
2/28/2023	3/1/2023	449	539	1200.3	967	1,090	1127.6	1150.652	2/28/2023
		10,802	12,966	1200.3000	24,899	28,073	1127.6000	1149.3756	

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	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/1/2023	3/2/2023	1100	0.6517	-46.6	1362.601381	0.9441	2.5405	81.4542	14.2104	0.7646	0.0166	0.0292	0.0009	0.0006	N/A	0	0.0146	0.0245	6.9618	0.0024	0.0008	0.478
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/2/2023	3/3/2023	1099	0.651	-47.4	1362.094371	0.9478	2.507	81.5657	14.1845	0.7125	0.0159	0.0278	0.0006	0.0003	N/A	0	0.0146	0.0235	6.9618	0.0033	0.0009	0.4107
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/3/2023	3/4/2023	1099	0.6507	-47.4	1362.408326	0.941	2.4988	81.6148	14.1481	0.7107	0.0167	0.0301	0.0011	0.0006	N/A	0	0.0145	0.0237	6.9618	0.0031	0.0009	0.4278
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/4/2023	3/5/2023	1102	0.6541	-45.4	1362.572187	0.9604	2.6112	80.9689	14.6271	0.7403	0.0178	0.0323	0.0015	0.0012	N/A	0	0.015	0.0246	6.9618	0.0032	0.0009	0.4554
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/5/2023	3/6/2023	1107	0.6604	-41.7	1362.210077	1.0062	2.8164	79.7846	15.4603	0.8296	0.0205	0.0378	0.0017	0.0015	N/A	0	0.0157	0.0259	6.9618	0.0028	0.0008	0.485
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/6/2023	3/7/2023	1107	0.6606	-41.8	1362.003853	1.0186	2.9417	79.7303	15.5017	0.8045	0.0204	0.0374	0.0018	0.0016	N/A	0	0.0161	0.026	6.9618	0.0028	0.0008	0.4461
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/7/2023	3/8/2023	1105	0.6592	-42.9	1360.986065	1.0163	2.8404	79.9693	15.3144	0.7581	0.0193	0.0367	0.0018	0.0015	N/A	0	0.016	0.0264	6.9618	0.0028	0.0007	0.4223
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/8/2023	3/9/2023	1097	0.6525	-47.1	1358.051907	0.9973	2.6989	81.2532	14.259	0.7056	0.0157	0.0279	0.0011	0.0008	N/A	0	0.0154	0.0253	6.9618	0.0028	0.0007	0.4261
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/9/2023	3/10/2023	1099	0.6527	-46.3	1360.319382	0.9824	2.6475	81.2917	14.2341	0.7473	0.0192	0.0353	0.0016	0.0013	N/A	0	0.015	0.0245	6.9618	0.0025	0.0007	0.4478
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/10/2023	3/11/2023	1096	0.6512	-47.6	1358.167576	0.9886	2.6411	81.5515	14.023	0.7033	0.0178	0.0327	0.0013	0.001	N/A	0	0.0151	0.0248	6.9618	0.0027	0.0008	0.4384
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/11/2023	3/12/2023	1095	0.6487	-48.9	1359.840565	0.9709	2.5248	82.0375	13.6936	0.6836	0.0174	0.0314	0.0011	0.0007	N/A	0	0.0146	0.0244	6.9618	0.0028	0.0008	0.4682
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/12/2023	3/13/2023	1090	0.6444	-51.3	1357.840418	0.9626	2.4084	82.8945	12.991	0.6534	0.0181	0.0328	0.0013	0.0009	N/A	0	0.0141	0.0231	6.9618	0.0028	0.0007	0.4924
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/13/2023	3/14/2023	1089	0.6438	-52.2	1357.226696	0.9457	2.4475	82.9531	12.9397	0.6327	0.0155	0.0274	0.0005	0.0003	N/A	0.0001	0.0143	0.0233	6.9618	0.0026	0.0007	0.4779
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/14/2023	3/15/2023	1091	0.6471	-49.8	1356.247812	0.9743	2.5759	82.3206	13.3038	0.6964	0.019	0.0351	0.0013	0.0008	N/A	0	0.0487	0.0243	6.9618	0.0032	0.001	0.487
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/15/2023	3/16/2023	1093	0.6469	-49.7	1358.944081	0.962	2.5052	82.3862	13.3464	0.6899	0.0194	0.0331	0.0019	0.0015	N/A	0	0.0308	0.024	6.9618	0.0028	0.0008	0.4959
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/16/2023	3/17/2023	1094	0.6498	-48.5	1357.148805	0.9883	2.6398	81.6882	13.8028	0.6792	0.0167	0.0296	0.0012	0.0006	N/A	0	0.0693	0.0246	6.9618	0.0031	0.0009	0.4959
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/17/2023	3/18/2023	1092	0.6474	-49.3	1357.176374	0.9906	2.5663	82.2091	13.3837	0.6953	0.0187	0.0341	0.0015	0.0014	N/A	0.0003	0.0748	0.0243	6.9618	0.0028	0.0008	0.4959
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/18/2023	3/19/2023	1089	0.644	-51.6	1357.015931	0.9474	2.4658	82.7982	12.9641	0.6574	0.0171	0.0285	0.0013	0.0008	N/A	0	0.0965	0.023	6.9618	0.0028	0.0008	0.4959
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/19/2023	3/20/2023	1089	0.644	-51.9	1357.015931	0.952	2.4891	82.7597	12.9949	0.643	0.0153	0.0271	0.0004	0.0002	N/A	0	0.0949	0.0236	6.9618	0.003	0.0009	0.4959
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/20/2023	3/21/2023	1085	0.6417	-53.7	1354.452311	0.9496	2.4649	83.2683	12.5922	0.606	0.0142	0.0253	0.0004	0.0005	N/A	0	0.0552	0.0235	6.9618	0.0024	0.0007	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/21/2023	3/22/2023	1094	0.6484	-48.9	1358.613166	0.9686	2.5333	82.1141	13.5486	0.7345	0.0171	0.0296	0.0007	0.0003	N/A	0	0.0292	0.0242	6.9618	0.0025	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/22/2023	3/23/2023	1097	0.6534	-46.5	1357.116287	1.0152	2.7523	81.1162	14.2704	0.746	0.017	0.0302	0.0008	0.0004	N/A	0	0.0261	0.0256	6.9618	0.0029	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/23/2023	3/24/2023	1095	0.6519	-47.3	1356.199652	1.0119	2.7273	81.3521	14.0425	0.7337	0.0171	0.0305	0.001	0.0009	N/A	0	0.0579	0.0251	6.9618	0.0032	0.0009	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/24/2023	3/25/2023	1093	0.6484	-49	1357.371289	0.9807	2.5967	82.0524	13.5337	0.7147	0.0177	0.0321	0.0012	0.0001	N/A	0	0.0458	0.0242	6.9618	0.0034	0.0009	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/25/2023	3/26/2023	1099	0.6535	-45.9	1359.486491	1.0018	2.7048	81.0679	14.3355	0.756	0.0195	0.0356	0.0015	0.0014	N/A	0	0.0511	0.0251	6.9618	0.0032	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/26/2023	3/27/2023	1099	0.6542	-45.5	1358.758965	1.0124	2.7471	80.851	14.455	0.7671	0.0186	0.0335	0.0011	0.001	N/A	0	0.0882	0.0252	6.9618	0.0032	0.0009	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/27/2023	3/28/2023	1098	0.6535	-45.6	1358.24947	0.9995	2.719	81.0233	14.3157	0.7727	0.0203	0.0374	0.0017	0.0014	N/A	0	0.0842	0.025	6.9618	0.0032	0.0009	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/28/2023	3/29/2023	1095	0.6488	-48.9	1359.435787	0.9775	2.5388	81.8204	13.8399	0.6594	0.0163	0.0286	0.0011	0.0007	N/A	0	0.0938	0.0236	N/A	0.003	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/29/2023	3/30/2023	1096	0.6498	-47.9	1359.629881	0.9681	2.5741	81.7079	13.8667	0.7334	0.0162	0.0293	0.0011	0.0007	N/A	0	0.0787	0.0239	N/A	0.0028	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/30/2023	3/31/2023	1094	0.6497	-48.2	1357.253245	0.9864	2.6579	81.8255	13.6505	0.7601	0.0171	0.0308	0.0011	0.0008	N/A	0	0.0451	0.0248	N/A	0.0028	0.0008	0.4936
NBPL	2/27/2023 0:00	4/3/2023 0:00	GLNU1 - GLEN ULLIN	3/31/2023	4/1/2023	1097	0.6556	-45.3	1354.837333	1.0558	2.9091	80.7187	14.4251	0.7791	0.0185	0.0338	0.0014	0.0013	N/A	0	0.0308	0.0265	N/A	0.0031	0.0009	0.4936

<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	FEB23	JAN23	DEC22	NOV22	OCT22	SEP22	AUG22	JUL22	JUN22	MAY22	APR22	MAR22	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1198	1191	1203	1206	1202	1201	1198	1205	1200	1198	1185	1191	1196	211
ND	24	Williston Border - Charbonneau Station	1192	1198	1197	1193	1198	1194	1188	1192	1195	1187	1185	1188	1189	24
ND	25	Watford City West Border	1202	1200	1195	1202	1207	1210	1209	1210	1201	1199	1195	1200	1197	25
ND	28	Bismarck Station - Glen Ullin Station	1156	1115	1118	1133	1126	1175	1191	1198	1202	1204	1196	1087	1131	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1112	1126	1132	1140	1131	1097	1099	1087	1094	1105	1100	1108	1130	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1124	1116	1125	1139	1132	1122	1128	1129	1115	1124	1138	1126	1095	32
ND	33	Little Knife Plant	1176	1175	1176	1176	1176	1179	1173	1174	1177	1175	1175	1176	1178	33
ND	34	Badlands Plant/Bowman Border	1047	1086	1079	1086	1077	989	1056	1031	1033	1014	1019	1021	1070	34
ND	43	Watford City East Border	1070	1128	1143	1133	1054	1050	1051	1057	1062	1044	1036	1042	1042	43
ND/MT	241	Fairview Border	1198	1212	1218	1201	1210	1205	1193	1197	1199	1186	1178	1191	1191	241
ND	267	North Tioga Transfer - Nesson Plant	1178	1188	1181	1176	1176	1178	1174	1184	1173	1172	1176	1172	1172	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1191	1184	1176	1176	1182	1194	1196	1196	1201	1200	1200	1191	1191	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1195	1187	1188	1189	1186	1195	1198	1196	1203	1205	1202	1202	1194	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1130	1131	1131	1131	1131	263
ND	264	Epping Border	1193	1208	1202	1198	1194	1198	1196	1192	1188	1182	1188	1188	1185	264
ND	265	Tioga Comp Station - County Line Plant	1176	1181	1182	1169	1182	1180	1178	1178	1180	1176	1163	1170	1167	265
ND	266	County Line Plant	1177	1180	1183	1168	1181	1180	1180	1182	1179	1179	1167	1173	1172	266
ND	271	Bismarck Station - Cleveland Station	1187	1168	1168	1176	1181	1197	1191	1198	1202	1205	1205	1164	1185	271
ND	272	Cleveland Station - Mapleton	1187	1168	1168	1176	1181	1197	1191	1198	1202	1205	1204	1175	1184	272
ND	273	Cleveland Station - Grafton Border	1186	1168	1168	1176	1181	1198	1194	1198	1200	1205	1202	1168	1176	273
ND	550	Mandan Border / NBPL-St Anthony	1148	1109	1109	1127	1107	1173	1189	1194	1182	1201	1189	1087	1103	550
ND	610	MDU-Watford City BTU	1101	1149	1159	1155	1102	1113	1072	1068	1065	1063	1086	1093	1087	610
ND	802	NBPL - Linton	1083	1095	1093	1090	1087	1084	1081	1083	1086	1084	1074	1067	1073	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1154	1152	1148	1143	1149	1159	1159	1157	1160	1153	1151	1155	1157	600
ND	601	Alliance Pipeline - Milnor	1154	1152	1148	1143	1149	1159	1160	1157	1160	1153	1151	1154	1157	602

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>February 2023</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
		No variance