



A Subsidiary of MDU Resources Group, Inc.

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September 19, 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 – July 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 August 2024.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of July 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 July 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**  
**Aug-24**

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1211
MDU-308-ARNEGARD	025	1.1211
MDU-314-APPLE VALLEY	271	1.1598
MDU-318-BEACH	032	1.0489
MDU-319-BELFIELD	032	1.0566
MDU-323-BERTHOLD	262	1.1334
MDU-327-BISMARCK	028	1.1598
MDU-330-BOWMAN	034	0.9540
MDU-337-BURLINGTON	262	1.1578
MDU-343-CARRINGTON	273	1.1598
MDU-344-CLEVELAND	272	1.1507
MDU-364-CAVALIER	273	1.1843
MDU-365-DAWSON	271	1.1516
MDU-368-DES LACS	262	1.1415
MDU-369-DICKINSON	031	1.0390
MDU-374-FT TOTTEN	273	1.1679
MDU-375-DEVILS LAKE	273	1.1679
MDU-379-BARLOW	273	1.1598
MDU-384-EPPING	264	1.1070
MDU-387-ELDRIDGE	272	1.1588
MDU-407-GLADSTONE	031	1.0390
MDU-411-GLEN ULLIN	031	1.0465
MDU-413-GOLVA	032	1.0335
MDU-416-GARRISON	262	1.1415
MDU-417-GRAFTON	273	1.1924
MDU-403-GWINNER	601	1.1301
MDU-429-HEBRON	031	1.0465
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1670
MDU-459-KILLDEER	033	1.1051
MDU-463-LANGDON	273	1.1598
MDU-469-LEFOR	031	1.0390
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0575
MDU-478-LINCOLN	028	1.1598
MDU-488-MCKENZIE	271	1.1598
MDU-494-MEDINA	271	1.1516
MDU-498-MANDAN	028	1.1598
MDU-500-MARMARTH	034	0.9611
MDU-505-MINOT	262	1.1578
MDU-510-MOTT	031	1.0390
MDU-512-MAX	262	1.1578
MDU-513-MILNOR	601	1.1301
MDU-522-NEW ENGLAND	031	1.0315
MDU-524-NEW SALEM	028	1.1598
MDU-532-NEW ROCKFORD	273	1.1598
MDU-539-PARK RIVER	273	1.1843
MDU-540-PALERMO	262	1.1334
MDU-558-RAY	264	1.1070

MDU-561-REGENT	031	1.0315
MDU-563-RHAME	034	0.9470
MDU-564-RICHARDTON	031	1.0315
MDU-568-ROSS	261	1.1224
MDU-572-RUTHVILLE	262	1.1578
MDU-574-SANBORN	272	1.1670
MDU-583-SENTINEL BUTTE	032	1.0489
MDU-588-SOUTH HEART	031	1.0390
MDU-717-SPIRITWOOD	272	1.1670
MDU-590-SPRINGBROOK	264	1.1070
MDU-591-STANLEY	261	1.1306
MDU-593-STEELE	271	1.1516
MDU-594-STERLING	028	1.1598
MDU-598-SHEYENNE	273	1.1679
MDU-605-SURREY	262	1.1578
MDU-610-TAPPEN	271	1.1516
MDU-611-TAYLOR	031	1.0315
MDU-616-TIOGA	260	1.1168
MDU-619-TURTLE LAKE	262	1.1415
MDU-620-TRENTON	024	1.1282
MDU-624-UNDERWOOD	262	1.1415
MDU-625-VALLEY CITY	272	1.1751
MDU-629-WALHALLA	273	1.1843
MDU-632-WATFORD CITY	610	1.0493
MDU-636-WHEELOCK	264	1.0990
MDU-637-WHITE EARTH	261	1.1306
MDU-642-WILLISTON	024	1.1282
MDU-646-WASHBURN	262	1.1497
MDU-647-WILTON	262	1.1334
MDU-664-RIVERDALE	262	1.1415
MDU-691-FAIRVIEW	241	1.1235
MDU-712-MINOT AFB	262	1.1578
MDU-718-FAIRMOUNT	600	1.1278
MDU-732-NEKOMA	273	1.1598
MDU-732-MSR SITE	273	1.1598

# Source Daily Summary

July 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	0.7079	1164.2	1184.8	1183.9	0.905	2.821	72.912	20.044	2.879	0.121	0.268	0.020	0.021	0.009	0.000	0.000	0.000	0.000	1408.21	
2	0.7167	1167.7	1188.4	1187.5	1.105	3.127	71.575	20.593	3.133	0.140	0.283	0.018	0.017	0.009	0.000	0.000	0.000	0.000	1403.79	
3	0.7253	1174.4	1195.2	1194.2	1.268	3.285	69.929	21.962	3.067	0.147	0.297	0.019	0.016	0.010	0.000	0.000	0.000	0.000	1403.38	
4	0.7230	1169.5	1190.2	1189.3	1.268	3.367	70.471	21.252	3.157	0.144	0.291	0.020	0.018	0.010	0.000	0.000	0.000	0.000	1399.73	
5	0.7212	1171.6	1192.3	1191.4	1.199	3.173	70.774	21.220	3.170	0.136	0.278	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1404.02	
6	0.7214	1172.6	1193.4	1192.6	1.176	3.164	70.726	21.282	3.193	0.134	0.276	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1405.09	
7	0.7187	1170.4	1191.1	1190.2	1.159	3.075	71.170	21.046	3.091	0.133	0.275	0.020	0.020	0.010	0.000	0.000	0.000	0.000	1404.98	
8	0.7199	1170.4	1191.1	1190.1	1.174	3.163	71.056	20.939	3.198	0.137	0.284	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1403.83	
9	0.7272	1171.5	1192.3	1191.2	1.357	3.505	70.046	21.104	3.472	0.156	0.311	0.021	0.018	0.011	0.000	0.000	0.000	0.000	1398.09	
10	0.7211	1169.8	1190.5	1189.2	1.229	3.229	70.909	20.930	3.219	0.141	0.293	0.021	0.020	0.011	0.000	0.000	0.000	0.000	1401.95	
11	0.7198	1171.6	1192.3	1191.0	1.165	3.097	71.155	20.836	3.277	0.137	0.285	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1405.35	
12	0.7286	1172.1	1192.8	1191.3	1.347	3.515	69.913	21.098	3.594	0.163	0.320	0.020	0.018	0.011	0.000	0.000	0.000	0.000	1397.39	
13	0.7304	1178.1	1198.9	1197.7	1.344	3.424	69.589	21.485	3.614	0.166	0.328	0.020	0.017	0.011	0.000	0.000	0.000	0.000	1402.84	
14	0.7274	1173.7	1194.5	1193.1	1.337	3.419	69.917	21.441	3.361	0.156	0.317	0.021	0.019	0.011	0.000	0.000	0.000	0.000	1400.50	
15	0.7239	1172.6	1193.4	1192.2	1.225	3.323	70.421	21.233	3.303	0.145	0.299	0.021	0.019	0.010	0.000	0.000	0.000	0.000	1402.66	
16	0.7199	1169.7	1190.4	1189.3	1.180	3.195	71.081	20.871	3.183	0.141	0.296	0.021	0.021	0.010	0.000	0.000	0.000	0.000	1403.02	
17	0.7289	1176.8	1197.6	1196.3	1.313	3.403	69.694	21.615	3.451	0.155	0.316	0.022	0.020	0.012	0.000	0.000	0.000	0.000	1402.83	
18	0.7197	1170.8	1191.5	1190.3	1.078	3.270	70.898	21.150	3.150	0.132	0.274	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1404.47	
19	0.7163	1168.7	1189.4	1188.3	0.945	3.276	71.247	21.100	3.018	0.120	0.248	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1405.38	
20	0.7090	1160.2	1180.8	1179.6	0.814	3.309	72.270	20.441	2.812	0.105	0.212	0.014	0.014	0.008	0.000	0.000	0.000	0.000	1402.30	
21	0.7164	1168.9	1189.6	1188.4	0.944	3.280	71.135	21.265	2.990	0.116	0.232	0.015	0.014	0.009	0.000	0.000	0.000	0.000	1405.44	
22	0.7207	1172.3	1193.1	1191.7	0.996	3.390	70.564	21.463	3.155	0.127	0.261	0.018	0.017	0.009	0.000	0.000	0.000	0.000	1405.42	
23	0.7191	1170.9	1191.6	1190.1	0.982	3.356	70.871	21.196	3.169	0.125	0.256	0.018	0.018	0.010	0.000	0.000	0.000	0.000	1405.15	
24	0.7235	1173.5	1194.2	1192.5	1.179	3.301	70.755	20.720	3.517	0.154	0.318	0.023	0.022	0.012	0.000	0.000	0.000	0.000	1404.07	
25	0.7251	1175.0	1195.8	1194.1	1.206	3.316	70.549	20.797	3.585	0.161	0.328	0.023	0.022	0.012	0.000	0.000	0.000	0.000	1404.37	
26	0.7229	1174.4	1195.2	1194.1	1.133	3.262	70.769	20.846	3.457	0.156	0.322	0.022	0.022	0.011	0.000	0.000	0.000	0.000	1405.74	
27	0.7193	1172.1	1192.8	1191.6	1.092	3.126	70.988	21.259	3.062	0.137	0.286	0.021	0.020	0.010	0.000	0.000	0.000	0.000	1406.46	
28	0.7195	1172.6	1193.3	1192.3	1.071	3.149	70.995	21.172	3.135	0.137	0.288	0.021	0.021	0.010	0.000	0.000	0.000	0.000	1406.84	
29	0.7207	1174.0	1194.8	1193.6	1.147	3.060	70.901	21.226	3.173	0.141	0.298	0.022	0.022	0.011	0.000	0.000	0.000	0.000	1407.40	
30	0.7219	1172.6	1193.3	1192.0	1.177	3.209	70.792	21.044	3.282	0.143	0.299	0.022	0.021	0.011	0.000	0.000	0.000	0.000	1404.53	
31	0.7212	1169.1	1189.8	1188.4	1.178	3.362	70.765	21.034	3.181	0.142	0.290	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1400.97	
Avg	0.7212	1171.0	1192.1	1190.9	1.151	3.256	70.801	21.086	3.227	0.140	0.288	0.020	0.019	0.010	0.000	0.000	0.000	0.000	1403.75	

# Source Daily Summary

July 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	0.7058	1162.8	1183.4	1182.8	0.939	2.655	73.163	20.115	2.739	0.110	0.240	0.017	0.020	0.002	0.000	0.000	0.000	0.000	1408.61	
2	0.7094	1170.6	1191.4	1190.7	0.989	2.443	72.482	20.974	2.727	0.108	0.237	0.018	0.020	0.002	0.000	0.000	0.000	0.000	1414.49	
3	0.7108	1172.6	1193.3	1192.7	1.003	2.438	72.284	21.095	2.782	0.112	0.245	0.018	0.021	0.002	0.000	0.000	0.000	0.000	1415.40	
4	0.7106	1172.9	1193.6	1193.0	1.003	2.398	72.343	21.069	2.792	0.111	0.243	0.018	0.021	0.002	0.000	0.000	0.000	0.000	1415.98	
5	0.7107	1172.2	1192.9	1192.2	0.987	2.475	72.285	21.063	2.804	0.109	0.238	0.017	0.020	0.002	0.000	0.000	0.000	0.000	1415.05	
6	0.7096	1170.3	1191.1	1190.4	0.982	2.487	72.489	20.869	2.789	0.108	0.236	0.017	0.020	0.002	0.000	0.000	0.000	0.000	1413.95	
7	0.7076	1168.7	1189.4	1188.6	0.974	2.416	72.815	20.699	2.715	0.107	0.235	0.017	0.020	0.002	0.000	0.000	0.000	0.000	1413.92	
8	0.7097	1171.8	1192.5	1191.5	0.997	2.387	72.523	20.909	2.790	0.110	0.243	0.018	0.021	0.002	0.000	0.000	0.000	0.000	1415.57	
9	0.7078	1160.9	1181.5	1180.7	1.011	2.845	72.905	20.014	2.827	0.109	0.247	0.019	0.022	0.002	0.000	0.000	0.000	0.000	1404.38	
10	0.7071	1165.4	1186.1	1185.3	0.991	2.537	73.103	20.125	2.829	0.114	0.255	0.020	0.023	0.002	0.000	0.000	0.000	0.000	1410.50	
11	0.7096	1168.0	1188.7	1187.9	1.000	2.603	72.683	20.388	2.905	0.116	0.260	0.020	0.023	0.002	0.000	0.000	0.000	0.000	1411.10	
12	0.7134	1172.7	1193.5	1192.6	1.065	2.576	72.038	20.946	2.935	0.121	0.272	0.021	0.024	0.002	0.000	0.000	0.000	0.000	1413.01	
13	0.7104	1170.8	1191.5	1190.7	1.036	2.456	72.436	20.865	2.802	0.112	0.249	0.019	0.022	0.002	0.000	0.000	0.000	0.000	1413.66	
14	0.7135	1170.4	1191.1	1190.3	1.076	2.704	71.977	20.902	2.912	0.116	0.266	0.020	0.024	0.002	0.000	0.000	0.000	0.000	1410.19	
15	0.7122	1172.1	1192.9	1192.1	1.040	2.534	72.170	20.965	2.867	0.119	0.261	0.019	0.022	0.002	0.000	0.000	0.000	0.000	1413.51	
16	0.7057	1163.1	1183.7	1183.0	0.996	2.549	73.236	20.104	2.717	0.111	0.246	0.018	0.021	0.002	0.000	0.000	0.000	0.000	1408.95	
17	0.7155	1173.2	1194.0	1193.0	1.103	2.684	71.723	21.052	2.976	0.124	0.287	0.022	0.026	0.003	0.000	0.000	0.000	0.000	1411.53	
18	0.7098	1168.9	1189.6	1189.0	1.035	2.510	72.495	20.798	2.772	0.107	0.241	0.018	0.021	0.002	0.000	0.000	0.000	0.000	1412.07	
19	0.7114	1170.8	1191.5	1190.9	1.046	2.531	72.312	20.838	2.861	0.112	0.253	0.019	0.023	0.002	0.000	0.000	0.000	0.000	1412.68	
20	0.7113	1170.3	1191.0	1190.3	1.061	2.534	72.295	20.870	2.834	0.111	0.251	0.019	0.022	0.002	0.000	0.000	0.000	0.000	1412.17	
21	0.7122	1171.2	1191.9	1191.2	1.065	2.553	72.160	20.954	2.857	0.113	0.255	0.019	0.023	0.002	0.000	0.000	0.000	0.000	1412.40	
22	0.7149	1172.9	1193.6	1192.7	1.091	2.669	71.789	21.035	2.970	0.122	0.276	0.021	0.024	0.002	0.000	0.000	0.000	0.000	1411.69	
23	0.7145	1175.3	1196.1	1195.2	1.053	2.539	71.952	20.962	3.028	0.128	0.287	0.022	0.026	0.003	0.000	0.000	0.000	0.000	1415.04	
24	0.7123	1176.9	1197.8	1196.8	0.999	2.309	72.400	20.801	3.028	0.127	0.285	0.022	0.027	0.003	0.000	0.000	0.000	0.000	1419.26	
25	0.7110	1175.8	1196.7	1195.6	0.988	2.271	72.640	20.615	3.031	0.125	0.278	0.022	0.026	0.003	0.000	0.000	0.000	0.000	1419.21	
26	0.7107	1172.6	1193.3	1192.6	1.012	2.409	72.431	20.905	2.816	0.119	0.261	0.020	0.024	0.004	0.000	0.000	0.000	0.000	1415.54	
27	0.7101	1172.4	1193.2	1192.5	1.009	2.368	72.396	21.124	2.693	0.114	0.252	0.019	0.022	0.003	0.000	0.000	0.000	0.000	1415.94	
28	0.7097	1172.1	1192.9	1192.3	1.000	2.364	72.502	20.991	2.726	0.117	0.256	0.019	0.022	0.003	0.000	0.000	0.000	0.000	1415.98	
29	0.7100	1173.0	1193.8	1193.0	0.986	2.356	72.454	21.062	2.715	0.118	0.262	0.020	0.023	0.003	0.000	0.000	0.000	0.000	1416.78	
30	0.7119	1170.1	1190.9	1190.1	0.983	2.712	72.309	20.581	2.957	0.127	0.282	0.021	0.025	0.003	0.000	0.000	0.000	0.000	1411.42	
31	0.7086	1163.7	1184.3	1183.5	0.973	2.814	72.808	20.113	2.854	0.122	0.271	0.020	0.023	0.003	0.000	0.000	0.000	0.000	1406.89	
Avg	0.7106	1170.0	1191.2	1190.4	1.016	2.520	72.439	20.768	2.840	0.115	0.257	0.019	0.023	0.002	0.000	0.000	0.000	0.000	1413.12	

# Gas Composition and Properties

Effective July 1, 2024

Attachment B  
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Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.9014		1.9389
Nitrogen, N2	2.8801		3.9433
Methane, C1	72.6366		56.9525
Ethane, C2	20.3465	5.4450	29.9015
Propane, C3	2.8566	0.7875	6.1564
iso-Butane, iC4	0.1025	0.0336	0.2912
n-Butane, nC4	0.2325	0.0733	0.6605
iso-Pentane, iC5	0.0202	0.0074	0.0712
n-Pentane, nC5	0.0217	0.0079	0.0765
Neo-Pentane, neo			
Hexanes Plus, C6+	0.0019	0.0008	0.0080
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
<b>Totals</b>	<b>100.0000</b>	<b>6.3560</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure		
Cricondentherm	-4.426	
HV, Dry @ Base P, T	1184.79	
HV, Sat @ Base P, T	1164.17	
HV, Sat @ Sample P, T	1184.79	
Relative Density	0.7084	
C6+: 100		

**Sample**

Date: 07/01/2024                      Type:

Tech: Sampson, Wayne

Pressure:                                      Temp.:

Gauge:    H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date: 07/01/2024                      Instrument:

Tech: Sampson, Wayne                      Cylinder:

Remarks:



# Source Daily Summary

July 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	0.7542	1173.7	1194.5	1194.1	0.916	6.558	66.430	19.613	5.685	0.222	0.506	0.029	0.032	0.007	0.000	0.000	0.000	0.000	1375.43	19.73
2	0.7584	1181.3	1202.2	1201.8	0.916	6.490	66.061	19.657	6.003	0.237	0.554	0.034	0.039	0.009	0.000	0.000	0.000	0.000	1380.48	22.95
3	0.7334	1172.5	1193.3	1192.9	0.931	4.664	69.201	20.280	4.343	0.158	0.367	0.024	0.027	0.006	0.000	0.000	0.000	0.000	1393.90	7.94
4	0.7348	1171.2	1192.0	1191.6	0.925	4.883	69.168	19.890	4.475	0.178	0.414	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1390.96	9.94
5	0.7568	1180.0	1200.8	1200.5	0.919	6.416	66.113	19.854	5.930	0.219	0.479	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1380.39	20.94
6	0.7347	1168.1	1188.8	1188.4	0.948	5.033	68.915	20.210	4.264	0.170	0.393	0.027	0.032	0.008	0.000	0.000	0.000	0.000	1386.92	9.90
7	0.7463	1175.2	1196.0	1195.6	0.936	5.702	67.493	20.007	5.139	0.202	0.452	0.028	0.033	0.008	0.000	0.000	0.000	0.000	1384.50	16.12
8	0.7426	1165.5	1186.2	1185.7	0.880	6.029	68.165	19.014	5.209	0.201	0.440	0.026	0.029	0.006	0.000	0.000	0.000	0.000	1376.49	14.36
9	0.7445	1168.8	1189.5	1189.1	0.889	5.987	68.039	19.004	5.322	0.215	0.476	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1378.69	16.12
10	0.7530	1176.2	1197.1	1196.7	0.905	6.305	66.779	19.446	5.783	0.224	0.490	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1379.55	19.75
11	0.7554	1176.3	1197.2	1196.7	0.910	6.521	66.551	19.243	5.912	0.241	0.540	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1377.39	21.83
12	0.7541	1173.7	1194.5	1194.0	0.910	6.556	66.720	19.124	5.834	0.239	0.536	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1375.55	21.18
13	0.7541	1173.7	1194.5	1194.0	0.910	6.556	66.720	19.124	5.834	0.239	0.536	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1375.55	21.18
14	0.7541	1173.7	1194.5	1194.0	0.910	6.556	66.720	19.124	5.834	0.239	0.536	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1375.55	21.18
15	0.7142	1162.7	1183.3	1182.8	0.913	3.489	72.072	19.675	3.402	0.127	0.278	0.019	0.022	0.004	0.000	0.000	0.000	0.000	1400.42	-1.07
16	0.7046	1172.2	1193.0	1192.5	0.910	2.012	73.401	20.599	2.713	0.107	0.217	0.017	0.020	0.004	0.000	0.000	0.000	0.000	1421.24	-5.21
17	0.7141	1164.2	1184.9	1184.4	0.899	3.418	72.188	19.556	3.453	0.136	0.301	0.021	0.024	0.005	0.000	0.000	0.000	0.000	1402.46	-0.31
18	0.7368	1168.2	1188.9	1188.5	0.898	5.289	69.023	19.322	4.789	0.188	0.427	0.027	0.030	0.006	0.000	0.000	0.000	0.000	1385.30	11.75
19	0.7557	1178.7	1199.6	1199.1	0.917	6.388	66.579	19.278	5.980	0.239	0.542	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1379.96	21.96
20	0.7488	1171.7	1192.4	1192.0	0.907	6.190	67.591	18.876	5.583	0.233	0.543	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1377.98	19.15
21	0.7574	1181.7	1202.6	1202.0	0.913	6.373	66.500	19.188	6.097	0.252	0.593	0.036	0.040	0.009	0.000	0.000	0.000	0.000	1381.83	23.69
22	0.7153	1167.2	1187.8	1187.4	0.920	3.305	71.932	19.970	3.406	0.127	0.293	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1404.89	-0.55
23	0.6999	1155.4	1175.8	1175.4	0.970	2.509	73.739	20.175	2.362	0.066	0.152	0.012	0.014	0.002	0.000	0.000	0.000	0.000	1405.53	-11.50
24	0.7056	1161.5	1182.0	1181.5	0.960	2.693	72.896	20.568	2.557	0.087	0.201	0.016	0.019	0.003	0.000	0.000	0.000	0.000	1407.15	-7.11
25	0.7332	1172.4	1193.2	1192.6	0.926	4.654	69.270	20.223	4.330	0.166	0.373	0.025	0.029	0.006	0.000	0.000	0.000	0.000	1393.81	9.03
26	0.6904	1132.5	1152.6	1152.1	0.802	3.260	75.762	17.336	2.485	0.093	0.218	0.018	0.021	0.005	0.000	0.000	0.000	0.000	1386.98	-13.14
27	0.7406	1178.0	1198.9	1198.4	0.911	5.015	69.724	18.052	5.178	0.267	0.671	0.067	0.087	0.028	0.000	0.000	0.000	0.000	1393.32	23.53
28	0.6992	1155.4	1175.8	1175.4	0.959	2.469	73.077	21.661	1.612	0.062	0.136	0.009	0.012	0.003	0.000	0.000	0.000	0.000	1406.22	-14.62
29	0.7351	1170.0	1190.8	1190.3	0.925	4.985	68.704	20.507	4.334	0.158	0.339	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1389.24	7.43
30	0.7555	1177.9	1198.7	1198.2	0.919	6.426	66.230	19.821	5.873	0.213	0.455	0.026	0.029	0.006	0.000	0.000	0.000	0.000	1379.09	19.83
31	0.7548	1175.6	1196.5	1196.0	0.915	6.498	66.511	19.380	5.915	0.222	0.489	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1377.16	20.41
Avg	0.7367	1170.0	1190.9	1190.4	0.915	5.136	68.977	19.606	4.698	0.185	0.418	0.027	0.031	0.007	0.000	0.000	0.000	0.000	1387.87	11.17

# Source Daily Summary

July 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	0.7537	1175.3	1196.1	1195.6	0.919	6.412	66.424	19.883	5.580	0.219	0.496	0.029	0.032	0.007	0.000	0.000	0.000	0.000	1377.76	
2	0.7548	1177.0	1197.8	1197.3	0.916	6.416	66.491	19.569	5.782	0.226	0.525	0.032	0.035	0.008	0.000	0.000	0.000	0.000	1378.70	
3	0.7616	1189.2	1210.2	1209.7	0.916	6.311	65.674	20.024	6.166	0.243	0.577	0.037	0.042	0.010	0.000	0.000	0.000	0.000	1386.74	
4	0.7606	1187.8	1208.8	1208.3	0.921	6.292	65.784	19.991	6.142	0.240	0.546	0.035	0.040	0.010	0.000	0.000	0.000	0.000	1386.07	
5	0.7544	1175.9	1196.7	1196.1	0.920	6.435	66.583	19.450	5.796	0.226	0.512	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1377.84	
6	0.7541	1176.5	1197.4	1196.8	0.921	6.375	66.480	19.693	5.775	0.214	0.474	0.029	0.032	0.007	0.000	0.000	0.000	0.000	1378.79	
7	0.7538	1177.2	1198.0	1197.4	0.923	6.304	66.612	19.606	5.770	0.223	0.494	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1379.84	
8	0.7551	1178.8	1199.7	1199.0	0.920	6.332	66.275	19.933	5.793	0.218	0.465	0.027	0.030	0.007	0.000	0.000	0.000	0.000	1380.53	
9	0.7548	1177.2	1198.0	1197.2	0.919	6.397	66.517	19.523	5.837	0.231	0.506	0.030	0.033	0.007	0.000	0.000	0.000	0.000	1378.89	
10	0.7537	1175.2	1196.0	1195.2	0.915	6.422	66.791	19.207	5.817	0.237	0.534	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1377.63	
11	0.7533	1175.9	1196.8	1195.8	0.913	6.343	66.625	19.621	5.737	0.218	0.477	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1378.88	
12	0.7533	1175.9	1196.8	1195.8	0.913	6.343	66.625	19.621	5.737	0.218	0.477	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1378.88	
13	0.7533	1175.9	1196.8	1195.8	0.913	6.343	66.625	19.621	5.737	0.218	0.477	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1378.88	
14	0.7533	1175.9	1196.8	1195.8	0.913	6.343	66.625	19.621	5.737	0.218	0.477	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1378.88	
15	0.7563	1180.4	1201.3	1200.6	0.915	6.353	66.347	19.625	5.922	0.237	0.525	0.032	0.037	0.007	0.000	0.000	0.000	0.000	1381.30	
16	0.7472	1171.5	1192.3	1191.6	0.893	6.075	67.505	19.345	5.479	0.202	0.437	0.027	0.031	0.007	0.000	0.000	0.000	0.000	1379.27	
17	0.7538	1176.3	1197.1	1196.4	0.916	6.368	66.779	19.276	5.805	0.239	0.538	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1378.77	
18	0.7459	1171.4	1192.2	1191.4	0.906	5.936	67.743	19.361	5.300	0.208	0.477	0.029	0.033	0.008	0.000	0.000	0.000	0.000	1380.41	
19	0.7533	1176.2	1197.0	1196.3	0.911	6.324	67.151	18.785	5.898	0.251	0.591	0.037	0.042	0.010	0.000	0.000	0.000	0.000	1379.20	
20	0.7520	1173.3	1194.1	1193.2	0.919	6.366	67.209	18.845	5.766	0.242	0.572	0.034	0.038	0.008	0.000	0.000	0.000	0.000	1376.94	
21	0.7544	1177.4	1198.2	1197.5	0.917	6.338	66.859	19.111	5.876	0.243	0.575	0.034	0.038	0.008	0.000	0.000	0.000	0.000	1379.60	
22	0.7351	1169.3	1190.0	1189.1	0.913	5.047	69.224	19.584	4.525	0.187	0.446	0.030	0.035	0.008	0.000	0.000	0.000	0.000	1388.11	
23	0.7000	1147.5	1167.8	1167.1	0.909	3.089	73.915	19.248	2.498	0.089	0.212	0.016	0.020	0.005	0.000	0.000	0.000	0.000	1395.80	
24	0.7038	1157.9	1178.4	1177.5	0.983	2.704	73.062	20.532	2.449	0.073	0.167	0.013	0.015	0.002	0.000	0.000	0.000	0.000	1404.69	
25	0.7213	1165.7	1186.3	1185.2	0.937	3.933	70.915	20.118	3.576	0.141	0.325	0.023	0.027	0.006	0.000	0.000	0.000	0.000	1397.11	
26	0.7552	1179.2	1200.1	1199.5	0.905	6.338	66.472	19.613	5.846	0.229	0.518	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1380.91	
27	0.7403	1156.9	1177.4	1176.6	0.887	6.320	69.074	17.595	5.205	0.235	0.584	0.040	0.047	0.013	0.000	0.000	0.000	0.000	1368.45	
28	0.7533	1174.9	1195.7	1195.1	0.916	6.404	66.647	19.502	5.765	0.214	0.479	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1377.64	
29	0.7541	1176.4	1197.3	1196.5	0.921	6.374	66.406	19.841	5.717	0.212	0.462	0.027	0.031	0.008	0.000	0.000	0.000	0.000	1378.75	
30	0.7555	1178.8	1199.6	1198.8	0.920	6.359	66.220	19.934	5.849	0.211	0.446	0.026	0.029	0.007	0.000	0.000	0.000	0.000	1380.19	
31	0.7544	1176.7	1197.5	1196.6	0.918	6.396	66.464	19.638	5.832	0.216	0.469	0.028	0.031	0.007	0.000	0.000	0.000	0.000	1378.69	
Avg	0.7486	1174.0	1195.1	1194.3	0.917	5.993	67.359	19.526	5.442	0.212	0.479	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1381.42	

# Source Daily Summary

July 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	0.7551	1174.3	1195.1	1194.6	0.920	6.602	66.445	19.373	5.828	0.231	0.530	0.031	0.034	0.005	0.000	0.000	0.000	0.000	1375.31	
2	0.7615	1186.5	1207.5	1207.1	0.920	6.452	65.681	19.870	6.170	0.247	0.576	0.036	0.041	0.007	0.000	0.000	0.000	0.000	1383.79	
3	0.7624	1189.1	1210.2	1209.7	0.922	6.379	65.509	20.095	6.203	0.246	0.562	0.036	0.040	0.008	0.000	0.000	0.000	0.000	1385.95	
4	0.7576	1179.8	1200.7	1200.2	0.920	6.496	66.196	19.529	6.004	0.239	0.535	0.034	0.039	0.007	0.000	0.000	0.000	0.000	1379.51	
5	0.7558	1177.4	1198.3	1197.8	0.922	6.477	66.223	19.746	5.872	0.219	0.474	0.029	0.032	0.006	0.000	0.000	0.000	0.000	1378.30	
6	0.7565	1179.4	1200.3	1199.8	0.924	6.414	66.231	19.695	5.948	0.230	0.493	0.029	0.032	0.005	0.000	0.000	0.000	0.000	1380.03	
7	0.7575	1180.7	1201.6	1201.0	0.922	6.441	65.971	19.944	5.958	0.228	0.475	0.027	0.031	0.004	0.000	0.000	0.000	0.000	1380.52	
8	0.7551	1175.6	1196.4	1195.9	0.920	6.524	66.506	19.331	5.900	0.238	0.514	0.029	0.033	0.005	0.000	0.000	0.000	0.000	1376.78	
9	0.7578	1180.9	1201.8	1201.3	0.913	6.459	66.118	19.656	6.024	0.241	0.519	0.031	0.034	0.006	0.000	0.000	0.000	0.000	1380.58	
10	0.7588	1182.5	1203.4	1202.9	0.911	6.462	65.917	19.839	6.046	0.240	0.514	0.031	0.035	0.006	0.000	0.000	0.000	0.000	1381.53	
11	0.7595	1182.8	1203.8	1203.2	0.912	6.506	66.057	19.473	6.128	0.260	0.580	0.036	0.040	0.007	0.000	0.000	0.000	0.000	1381.25	
12	0.7587	1183.4	1204.4	1203.8	0.918	6.386	66.014	19.786	6.042	0.242	0.532	0.033	0.039	0.008	0.000	0.000	0.000	0.000	1382.69	
13	0.7531	1171.3	1192.0	1191.5	0.909	6.606	67.294	18.272	5.930	0.267	0.628	0.040	0.045	0.009	0.000	0.000	0.000	0.000	1373.63	
14	0.7533	1170.5	1191.3	1190.7	0.907	6.676	67.362	18.068	5.951	0.276	0.660	0.043	0.048	0.009	0.000	0.000	0.000	0.000	1372.53	
15	0.7579	1181.4	1202.4	1201.8	0.921	6.426	66.202	19.564	6.005	0.242	0.553	0.036	0.042	0.009	0.000	0.000	0.000	0.000	1381.09	
16	0.7579	1180.9	1201.9	1201.3	0.920	6.454	66.220	19.502	6.018	0.250	0.556	0.034	0.038	0.008	0.000	0.000	0.000	0.000	1380.56	
17	0.7558	1177.4	1198.2	1197.7	0.921	6.478	66.530	19.257	5.941	0.244	0.550	0.034	0.038	0.008	0.000	0.000	0.000	0.000	1378.25	
18	0.7573	1180.8	1201.8	1201.2	0.921	6.404	66.247	19.568	6.026	0.240	0.522	0.031	0.035	0.007	0.000	0.000	0.000	0.000	1380.98	
19	0.7562	1178.5	1199.3	1198.8	0.917	6.455	66.667	19.001	6.013	0.262	0.600	0.036	0.041	0.007	0.000	0.000	0.000	0.000	1379.14	
20	0.7587	1183.4	1204.4	1203.8	0.914	6.386	66.141	19.582	6.087	0.251	0.559	0.034	0.039	0.007	0.000	0.000	0.000	0.000	1382.74	
21	0.7575	1180.3	1201.2	1200.6	0.910	6.475	66.520	19.033	6.104	0.265	0.604	0.038	0.043	0.008	0.000	0.000	0.000	0.000	1380.10	
22	0.7568	1178.2	1199.0	1198.4	0.905	6.541	66.600	18.909	6.118	0.259	0.585	0.035	0.040	0.008	0.000	0.000	0.000	0.000	1378.32	
23	0.7480	1167.8	1188.5	1187.9	0.912	6.339	67.401	19.042	5.648	0.193	0.411	0.024	0.027	0.004	0.000	0.000	0.000	0.000	1374.23	
24	0.7572	1176.1	1196.9	1196.3	0.915	6.700	66.034	19.554	6.053	0.219	0.465	0.027	0.029	0.003	0.000	0.000	0.000	0.000	1375.46	
25	0.7548	1173.5	1194.3	1193.6	0.900	6.652	66.782	18.814	5.930	0.253	0.583	0.038	0.043	0.008	0.000	0.000	0.000	0.000	1374.62	
26	0.7523	1169.3	1190.0	1189.4	0.905	6.665	67.187	18.499	5.835	0.246	0.573	0.038	0.044	0.009	0.000	0.000	0.000	0.000	1371.93	
27	0.7563	1177.7	1198.6	1198.0	0.918	6.511	66.042	19.923	5.889	0.208	0.443	0.028	0.031	0.006	0.000	0.000	0.000	0.000	1378.21	
28	0.7552	1175.6	1196.4	1195.8	0.919	6.539	66.319	19.620	5.830	0.224	0.480	0.029	0.033	0.006	0.000	0.000	0.000	0.000	1376.66	
29	0.7581	1181.1	1202.0	1201.4	0.920	6.473	65.813	20.080	5.973	0.222	0.458	0.027	0.030	0.005	0.000	0.000	0.000	0.000	1380.47	
30	0.7562	1178.0	1198.8	1198.2	0.922	6.482	66.122	19.830	5.907	0.219	0.458	0.027	0.030	0.005	0.000	0.000	0.000	0.000	1378.58	
31	0.7552	1175.3	1196.1	1195.5	0.918	6.552	66.428	19.399	5.930	0.223	0.485	0.029	0.032	0.005	0.000	0.000	0.000	0.000	1376.37	
Avg	0.7566	1178.0	1199.2	1198.7	0.916	6.497	66.348	19.415	5.978	0.239	0.531	0.033	0.037	0.007	0.000	0.000	0.000	0.000	1378.71	

# Gas Composition and Properties

Effective October 1, 2021

Attachment B  
Page 8 of 24

Source #: 2501030  
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.2283		0.5237	Pressure Base	14.730	
Nitrogen, N2	2.9631		4.3268	Temperature Base	60.00	
Methane, C1	79.4957		66.4767	HCDP @ Sample Pressure		
Ethane, C2	15.2390	4.0765	23.8852	Cricondentherm	-32.804	
Propane, C3	2.0456	0.5637	4.7019	HV, Dry @ Base P, T	1130.73	
iso-Butane, iC4	0.0244	0.0080	0.0739	HV, Sat @ Base P, T	1111.05	
n-Butane, nC4	0.0039	0.0012	0.0118	HV, Sat @ Sample P, T	1130.73	
iso-Pentane, iC5				Relative Density	0.6640	
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						
				C6+: 100		
<b>Totals</b>	<b>100.0000</b>	<b>4.6490</b>	<b>100.0000</b>			

## Sample

Date: 10/01/2021                      Type:  
Tech: Wayne Sampson  
Pressure:                                      Temp.:  
Gauge:    H2O:  
Atm. Pressure:                                      H2S:

Remarks:

## Analysis

Date:    Instrument:  
Tech:    Cylinder:

Remarks:

# Gas Composition and Properties

Effective July 1, 2024

Attachment B  
Page 9 of 24

Source #: 3002013  
Name: EPPING BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.8525		1.8582	Pressure Base	14.730	
Nitrogen, N2	2.3986		3.3280	Temperature Base	60.00	
Methane, C1	74.1931		58.9517	HCDP @ Sample Pressure		
Ethane, C2	19.6662	5.2626	29.2887	Cricondentherm	-9.045	
Propane, C3	2.5467	0.7020	5.5620	HV, Dry @ Base P, T	1179.32	
iso-Butane, iC4	0.0956	0.0313	0.2752	HV, Sat @ Base P, T	1158.80	
n-Butane, nC4	0.2133	0.0673	0.6140	HV, Sat @ Sample P, T	1179.32	
iso-Pentane, iC5	0.0161	0.0059	0.0575	Relative Density	0.6990	
n-Pentane, nC5	0.0169	0.0061	0.0604			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0010	0.0004	0.0043			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
<b>Totals</b>	<b>100.0000</b>	<b>6.0750</b>	<b>100.0000</b>			

**Sample**

Date: 07/01/2024                      Type:

Tech: Sampson, Wayne

Pressure:                                      Temp.:

Gauge:    H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date: 07/01/2024                      Instrument:

Tech: Sampson, Wayne                      Cylinder:

Remarks:

\*\*\* End of Report \*\*\*

# Source Daily Summary

July 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	0.7075	1151.1	1171.5	1171.1	0.908	3.577	73.080	18.947	3.022	0.121	0.288	0.023	0.028	0.006	0.000	0.000	0.000	0.000	1392.74	
2	0.7081	1153.0	1173.4	1173.0	0.921	3.504	72.655	19.732	2.735	0.119	0.279	0.022	0.027	0.006	0.000	0.000	0.000	0.000	1394.48	
3	0.7123	1161.4	1182.0	1181.6	0.911	3.394	72.359	19.626	3.246	0.120	0.285	0.023	0.028	0.007	0.000	0.000	0.000	0.000	1400.45	
4	0.7178	1159.3	1179.8	1179.4	0.952	3.980	71.263	20.072	3.216	0.133	0.322	0.025	0.031	0.008	0.000	0.000	0.000	0.000	1392.53	
5	0.7179	1158.3	1178.8	1178.4	0.968	4.023	71.025	20.494	2.973	0.131	0.319	0.026	0.032	0.008	0.000	0.000	0.000	0.000	1391.27	
6	0.7172	1158.4	1178.9	1178.5	0.968	3.953	71.111	20.535	2.918	0.130	0.319	0.026	0.032	0.008	0.000	0.000	0.000	0.000	1392.07	
7	0.7160	1157.5	1178.0	1177.5	0.965	3.903	71.447	20.164	3.006	0.132	0.319	0.025	0.031	0.008	0.000	0.000	0.000	0.000	1392.08	
8	0.7177	1160.0	1180.6	1180.1	0.971	3.900	71.133	20.470	2.990	0.135	0.332	0.027	0.033	0.009	0.000	0.000	0.000	0.000	1393.49	
9	0.7162	1158.3	1178.8	1178.4	0.975	3.853	71.402	20.315	2.914	0.136	0.334	0.028	0.035	0.009	0.000	0.000	0.000	0.000	1392.94	
10	0.7165	1161.2	1181.7	1181.3	0.946	3.748	71.503	20.050	3.313	0.118	0.269	0.020	0.025	0.007	0.000	0.000	0.000	0.000	1396.10	
11	0.7205	1164.4	1185.1	1184.6	0.926	3.955	71.291	19.422	3.944	0.128	0.285	0.020	0.024	0.006	0.000	0.000	0.000	0.000	1396.09	
12	0.7205	1164.4	1185.1	1184.6	0.926	3.955	71.291	19.422	3.944	0.128	0.285	0.020	0.024	0.006	0.000	0.000	0.000	0.000	1396.09	
13	0.7205	1164.4	1185.1	1184.6	0.926	3.955	71.291	19.422	3.944	0.128	0.285	0.020	0.024	0.006	0.000	0.000	0.000	0.000	1396.09	
14	0.7205	1164.4	1185.1	1184.6	0.926	3.955	71.291	19.422	3.944	0.128	0.285	0.020	0.024	0.006	0.000	0.000	0.000	0.000	1396.09	
15	0.7211	1164.8	1185.4	1185.0	0.963	3.935	70.802	20.292	3.561	0.120	0.276	0.021	0.025	0.006	0.000	0.000	0.000	0.000	1395.96	
16	0.7137	1150.4	1170.7	1170.3	1.007	4.060	71.294	20.662	2.545	0.112	0.265	0.021	0.026	0.007	0.000	0.000	0.000	0.000	1385.77	
17	0.7160	1154.9	1175.4	1174.9	1.004	3.996	71.172	20.536	2.845	0.116	0.274	0.022	0.027	0.008	0.000	0.000	0.000	0.000	1389.08	
18	0.7211	1160.4	1180.9	1180.5	1.010	4.135	70.396	20.918	3.061	0.122	0.301	0.023	0.028	0.007	0.000	0.000	0.000	0.000	1390.68	
19	0.7243	1165.2	1185.8	1185.4	0.982	4.182	70.195	20.689	3.399	0.142	0.345	0.026	0.032	0.008	0.000	0.000	0.000	0.000	1393.36	
20	0.7267	1169.9	1190.6	1190.1	0.981	4.126	69.863	20.935	3.528	0.144	0.356	0.027	0.032	0.008	0.000	0.000	0.000	0.000	1396.61	
21	0.7239	1164.1	1184.7	1184.2	0.979	4.210	70.407	20.356	3.470	0.144	0.361	0.028	0.035	0.009	0.000	0.000	0.000	0.000	1392.46	
22	0.7225	1164.5	1185.1	1184.6	0.979	4.064	70.304	20.880	3.306	0.119	0.293	0.022	0.027	0.006	0.000	0.000	0.000	0.000	1394.22	
23	0.7173	1160.6	1181.2	1180.7	0.967	3.829	71.106	20.624	2.996	0.121	0.298	0.024	0.029	0.007	0.000	0.000	0.000	0.000	1394.63	
24	0.7190	1162.6	1183.2	1182.7	0.961	3.876	71.021	20.398	3.259	0.125	0.301	0.023	0.029	0.007	0.000	0.000	0.000	0.000	1395.35	
25	0.7247	1172.4	1193.2	1192.7	0.956	3.821	70.456	20.540	3.636	0.151	0.368	0.029	0.035	0.009	0.000	0.000	0.000	0.000	1401.54	
26	0.7232	1170.5	1191.3	1190.8	0.925	3.830	71.306	19.326	3.889	0.182	0.447	0.036	0.045	0.013	0.000	0.000	0.000	0.000	1400.72	
27	0.7215	1164.5	1185.2	1184.7	0.959	3.994	70.781	20.345	3.340	0.145	0.359	0.029	0.036	0.010	0.000	0.000	0.000	0.000	1395.25	
28	0.7232	1169.7	1190.5	1190.0	0.959	3.829	70.754	20.259	3.617	0.145	0.361	0.030	0.037	0.010	0.000	0.000	0.000	0.000	1399.91	
29	0.7157	1157.1	1177.5	1177.0	0.964	3.903	71.324	20.430	2.901	0.122	0.297	0.024	0.029	0.008	0.000	0.000	0.000	0.000	1391.89	
30	0.7247	1170.7	1191.4	1190.9	0.956	3.918	70.588	20.134	3.856	0.140	0.338	0.027	0.034	0.009	0.000	0.000	0.000	0.000	1399.56	
31	0.7242	1170.7	1191.5	1191.0	0.959	3.865	70.511	20.447	3.675	0.139	0.336	0.027	0.033	0.009	0.000	0.000	0.000	0.000	1400.11	
Avg	0.7191	1162.0	1182.8	1182.4	0.958	3.910	71.110	20.189	3.322	0.131	0.315	0.025	0.030	0.008	0.000	0.000	0.000	0.000	1394.83	

# Source Daily Summary

July 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	0.7542	1177.0	1197.8	1196.8	0.880	6.420	66.738	19.221	5.874	0.235	0.557	0.032	0.034	0.010	0.000	0.000	0.000	0.000	1379.20	
2	0.7607	1189.4	1210.5	1209.5	0.880	6.263	65.940	19.759	6.227	0.249	0.596	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1387.90	
3	0.7612	1191.0	1212.0	1211.1	0.884	6.216	65.911	19.764	6.288	0.253	0.596	0.036	0.040	0.012	0.000	0.000	0.000	0.000	1389.16	
4	0.7555	1180.3	1201.2	1200.3	0.883	6.327	66.527	19.459	5.974	0.231	0.526	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1382.01	
5	0.7537	1177.9	1198.7	1197.8	0.886	6.310	66.647	19.517	5.873	0.219	0.486	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.74	
6	0.7548	1180.4	1201.3	1200.5	0.885	6.254	66.604	19.503	5.942	0.232	0.513	0.028	0.030	0.008	0.000	0.000	0.000	0.000	1382.74	
7	0.7554	1180.9	1201.8	1201.0	0.881	6.293	66.410	19.680	5.952	0.228	0.493	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1382.70	
8	0.7536	1176.9	1197.7	1196.8	0.881	6.357	66.890	19.108	5.911	0.240	0.542	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1379.76	
9	0.7564	1182.5	1203.4	1202.4	0.877	6.295	66.483	19.418	6.066	0.243	0.545	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1383.64	
10	0.7564	1181.8	1202.7	1201.7	0.876	6.332	66.421	19.492	6.036	0.240	0.531	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1382.89	
11	0.7576	1183.2	1204.1	1203.1	0.876	6.360	66.567	19.073	6.147	0.265	0.621	0.038	0.042	0.013	0.000	0.000	0.000	0.000	1383.40	
12	0.7563	1183.0	1203.9	1202.9	0.882	6.242	66.531	19.414	6.070	0.241	0.545	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1384.36	
13	0.7520	1173.1	1193.9	1192.9	0.874	6.451	67.696	17.953	5.955	0.278	0.688	0.043	0.048	0.014	0.000	0.000	0.000	0.000	1376.70	
14	0.7512	1170.2	1190.9	1189.9	0.870	6.551	67.896	17.646	5.939	0.283	0.705	0.045	0.050	0.014	0.000	0.000	0.000	0.000	1374.10	
15	0.7557	1182.0	1202.9	1201.9	0.883	6.249	66.547	19.479	5.990	0.235	0.541	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1383.70	
16	0.7566	1182.7	1203.7	1202.8	0.881	6.284	66.560	19.311	6.046	0.253	0.584	0.034	0.037	0.011	0.000	0.000	0.000	0.000	1383.83	
17	0.7549	1180.1	1201.0	1200.1	0.881	6.290	66.769	19.186	5.991	0.244	0.562	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1382.24	
18	0.7566	1183.3	1204.3	1203.3	0.882	6.249	66.637	19.197	6.118	0.254	0.582	0.034	0.038	0.010	0.000	0.000	0.000	0.000	1384.47	
19	0.7547	1179.9	1200.8	1199.8	0.882	6.280	67.061	18.751	6.051	0.263	0.626	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1382.21	
20	0.7563	1182.8	1203.7	1202.7	0.875	6.267	66.718	19.083	6.124	0.256	0.593	0.035	0.038	0.010	0.000	0.000	0.000	0.000	1384.10	
21	0.7558	1181.6	1202.5	1201.6	0.873	6.296	66.882	18.863	6.122	0.261	0.616	0.037	0.040	0.011	0.000	0.000	0.000	0.000	1383.14	
22	0.7518	1171.5	1192.2	1191.3	0.864	6.546	67.353	18.399	5.922	0.250	0.586	0.034	0.037	0.010	0.000	0.000	0.000	0.000	1375.02	
23	0.7473	1170.3	1191.1	1190.2	0.878	6.177	67.616	18.925	5.741	0.192	0.420	0.022	0.022	0.005	0.000	0.000	0.000	0.000	1377.83	
24	0.7543	1175.1	1195.9	1195.0	0.879	6.536	66.634	19.173	6.006	0.220	0.489	0.027	0.028	0.007	0.000	0.000	0.000	0.000	1377.03	
25	0.7526	1173.1	1193.9	1193.0	0.864	6.523	67.384	18.300	5.927	0.263	0.639	0.041	0.046	0.014	0.000	0.000	0.000	0.000	1376.19	
26	0.7520	1173.1	1193.9	1192.9	0.871	6.455	67.381	18.442	5.910	0.250	0.598	0.038	0.042	0.012	0.000	0.000	0.000	0.000	1376.71	
27	0.7544	1178.3	1199.1	1198.2	0.881	6.361	66.463	19.651	5.910	0.210	0.459	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.53	
28	0.7531	1175.8	1196.7	1195.8	0.883	6.377	66.766	19.366	5.818	0.225	0.496	0.028	0.031	0.009	0.000	0.000	0.000	0.000	1378.94	
29	0.7565	1182.3	1203.2	1202.4	0.882	6.307	66.177	19.881	5.994	0.222	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1383.36	
30	0.7540	1178.3	1199.2	1198.3	0.884	6.316	66.583	19.561	5.902	0.218	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1380.96	
31	0.7535	1176.5	1197.3	1196.5	0.879	6.385	66.790	19.218	5.933	0.223	0.503	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1379.29	
Avg	0.7548	1179.0	1200.0	1199.1	0.879	6.341	66.761	19.155	5.992	0.241	0.554	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1381.25	

# Source Daily Summary

July 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	0.7556	1177.3	1198.1	1197.0	0.918	6.470	66.205	19.870	5.738	0.229	0.504	0.029	0.031	0.005	0.000	0.000	0.000	0.000	1378.37	
2	0.7607	1189.4	1210.5	1209.3	0.880	6.263	65.940	19.759	6.227	0.249	0.596	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1387.89	
3	0.7612	1190.9	1212.0	1210.8	0.884	6.216	65.912	19.763	6.287	0.253	0.596	0.036	0.040	0.012	0.000	0.000	0.000	0.000	1389.15	
4	0.7555	1180.3	1201.2	1200.1	0.883	6.327	66.527	19.459	5.974	0.231	0.526	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1382.01	
5	0.7537	1177.9	1198.7	1197.6	0.886	6.310	66.647	19.517	5.873	0.219	0.486	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.74	
6	0.7548	1180.4	1201.3	1200.2	0.885	6.254	66.603	19.503	5.943	0.232	0.513	0.028	0.030	0.008	0.000	0.000	0.000	0.000	1382.74	
7	0.7554	1180.9	1201.8	1200.7	0.881	6.293	66.410	19.680	5.952	0.228	0.493	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1382.70	
8	0.7536	1176.9	1197.7	1196.6	0.881	6.357	66.890	19.108	5.911	0.240	0.542	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1379.76	
9	0.7564	1182.5	1203.4	1203.0	0.877	6.295	66.483	19.417	6.066	0.243	0.545	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1383.64	
10	0.7564	1181.8	1202.7	1202.3	0.876	6.332	66.421	19.492	6.036	0.240	0.531	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1382.89	
11	0.7576	1183.2	1204.1	1203.7	0.876	6.360	66.567	19.073	6.147	0.265	0.621	0.038	0.042	0.013	0.000	0.000	0.000	0.000	1383.40	
12	0.7563	1183.0	1203.9	1202.6	0.882	6.242	66.531	19.414	6.070	0.241	0.545	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1384.36	
13	0.7520	1173.1	1193.9	1192.5	0.874	6.451	67.697	17.953	5.954	0.278	0.688	0.043	0.048	0.014	0.000	0.000	0.000	0.000	1376.70	
14	0.7512	1170.2	1190.9	1189.6	0.870	6.551	67.896	17.647	5.939	0.283	0.705	0.045	0.050	0.014	0.000	0.000	0.000	0.000	1374.10	
15	0.7557	1182.0	1202.9	1201.7	0.883	6.249	66.547	19.478	5.990	0.235	0.541	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1383.69	
16	0.7566	1182.7	1203.7	1202.5	0.881	6.284	66.560	19.311	6.046	0.253	0.584	0.034	0.037	0.011	0.000	0.000	0.000	0.000	1383.83	
17	0.7549	1180.0	1200.9	1199.7	0.881	6.291	66.773	19.184	5.988	0.243	0.562	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1382.17	
18	0.7566	1183.3	1204.2	1203.7	0.882	6.250	66.638	19.195	6.117	0.254	0.582	0.034	0.038	0.010	0.000	0.000	0.000	0.000	1384.46	
19	0.7548	1180.0	1200.9	1199.6	0.882	6.279	67.057	18.755	6.052	0.263	0.626	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1382.25	
20	0.7563	1182.8	1203.7	1202.3	0.875	6.267	66.718	19.083	6.124	0.256	0.593	0.035	0.038	0.010	0.000	0.000	0.000	0.000	1384.10	
21	0.7558	1181.6	1202.5	1201.2	0.873	6.296	66.882	18.863	6.122	0.261	0.616	0.037	0.040	0.011	0.000	0.000	0.000	0.000	1383.14	
22	0.7518	1171.4	1192.2	1191.1	0.864	6.547	67.355	18.397	5.922	0.250	0.587	0.034	0.037	0.010	0.000	0.000	0.000	0.000	1374.99	
23	0.7473	1170.3	1191.1	1189.9	0.878	6.177	67.616	18.925	5.741	0.192	0.420	0.022	0.022	0.005	0.000	0.000	0.000	0.000	1377.83	
24	0.7543	1175.1	1195.9	1194.7	0.879	6.536	66.634	19.173	6.006	0.220	0.489	0.027	0.028	0.007	0.000	0.000	0.000	0.000	1377.03	
25	0.7526	1173.1	1193.9	1192.5	0.864	6.523	67.384	18.300	5.926	0.263	0.639	0.041	0.046	0.014	0.000	0.000	0.000	0.000	1376.19	
26	0.7520	1173.1	1193.9	1192.5	0.871	6.455	67.382	18.442	5.910	0.250	0.598	0.038	0.042	0.012	0.000	0.000	0.000	0.000	1376.71	
27	0.7544	1178.3	1199.1	1197.8	0.881	6.361	66.463	19.651	5.910	0.210	0.459	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.53	
28	0.7531	1175.8	1196.6	1195.4	0.883	6.377	66.767	19.366	5.818	0.225	0.497	0.028	0.031	0.009	0.000	0.000	0.000	0.000	1378.93	
29	0.7565	1182.3	1203.2	1202.0	0.882	6.307	66.178	19.881	5.994	0.222	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1383.36	
30	0.7540	1178.3	1199.2	1197.8	0.884	6.316	66.583	19.561	5.902	0.218	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1380.96	
31	0.7535	1176.5	1197.3	1196.0	0.879	6.385	66.791	19.218	5.933	0.223	0.503	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1379.29	
Avg	0.7549	1179.0	1200.1	1198.9	0.880	6.343	66.744	19.175	5.988	0.241	0.553	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1381.22	

# Source Daily Summary

July 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	0.7552	1176.6	1197.4	1196.7	0.919	6.476	66.240	19.859	5.715	0.227	0.500	0.029	0.030	0.005	0.000	0.000	0.000	0.000	1377.91	
2	0.7607	1189.4	1210.5	1209.6	0.880	6.263	65.940	19.759	6.227	0.249	0.596	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1387.89	
3	0.7612	1190.9	1212.0	1210.9	0.884	6.217	65.917	19.754	6.288	0.253	0.597	0.037	0.040	0.012	0.000	0.000	0.000	0.000	1389.13	
4	0.7555	1180.3	1201.2	1200.4	0.883	6.327	66.527	19.459	5.974	0.231	0.526	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1382.01	
5	0.7537	1177.8	1198.6	1197.7	0.886	6.311	66.655	19.512	5.869	0.218	0.485	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.65	
6	0.7549	1180.6	1201.5	1200.6	0.885	6.253	66.594	19.508	5.948	0.232	0.514	0.028	0.030	0.008	0.000	0.000	0.000	0.000	1382.84	
7	0.7554	1180.9	1201.8	1201.1	0.881	6.293	66.410	19.680	5.952	0.228	0.493	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1382.70	
8	0.7536	1176.9	1197.7	1196.9	0.881	6.357	66.890	19.108	5.911	0.240	0.542	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1379.76	
9	0.7564	1182.5	1203.4	1202.5	0.877	6.295	66.482	19.418	6.066	0.243	0.545	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1383.65	
10	0.7564	1181.8	1202.7	1202.2	0.876	6.332	66.422	19.491	6.036	0.240	0.532	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1382.88	
11	0.7576	1183.2	1204.1	1203.4	0.876	6.360	66.570	19.069	6.147	0.265	0.622	0.038	0.042	0.013	0.000	0.000	0.000	0.000	1383.40	
12	0.7564	1183.1	1204.1	1203.0	0.882	6.240	66.523	19.417	6.075	0.242	0.546	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1384.47	
13	0.7520	1173.1	1193.9	1192.8	0.874	6.451	67.697	17.953	5.954	0.278	0.688	0.043	0.048	0.014	0.000	0.000	0.000	0.000	1376.70	
14	0.7512	1170.2	1190.9	1189.9	0.870	6.551	67.896	17.647	5.939	0.283	0.705	0.045	0.050	0.014	0.000	0.000	0.000	0.000	1374.10	
15	0.7557	1182.0	1202.9	1201.9	0.883	6.250	66.548	19.478	5.990	0.235	0.541	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1383.69	
16	0.7566	1182.8	1203.7	1202.8	0.881	6.284	66.557	19.313	6.047	0.253	0.583	0.034	0.037	0.011	0.000	0.000	0.000	0.000	1383.84	
17	0.7549	1180.0	1200.9	1200.0	0.881	6.291	66.773	19.184	5.988	0.243	0.562	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1382.17	
18	0.7567	1183.5	1204.4	1203.5	0.882	6.247	66.628	19.200	6.123	0.254	0.583	0.034	0.038	0.010	0.000	0.000	0.000	0.000	1384.58	
19	0.7548	1180.0	1200.9	1199.8	0.882	6.277	67.056	18.759	6.051	0.263	0.625	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1382.27	
20	0.7563	1182.8	1203.7	1202.6	0.875	6.266	66.716	19.086	6.124	0.256	0.593	0.035	0.038	0.010	0.000	0.000	0.000	0.000	1384.12	
21	0.7558	1181.6	1202.5	1201.5	0.873	6.296	66.882	18.863	6.122	0.261	0.616	0.037	0.040	0.011	0.000	0.000	0.000	0.000	1383.14	
22	0.7517	1171.4	1192.1	1191.0	0.864	6.547	67.361	18.390	5.921	0.250	0.586	0.034	0.037	0.010	0.000	0.000	0.000	0.000	1374.95	
23	0.7473	1170.4	1191.1	1190.2	0.878	6.177	67.616	18.925	5.742	0.192	0.420	0.022	0.022	0.005	0.000	0.000	0.000	0.000	1377.84	
24	0.7542	1175.1	1195.9	1195.0	0.879	6.538	66.634	19.177	6.002	0.220	0.488	0.027	0.028	0.007	0.000	0.000	0.000	0.000	1376.97	
25	0.7526	1173.2	1193.9	1192.9	0.864	6.523	67.384	18.300	5.927	0.263	0.639	0.041	0.046	0.014	0.000	0.000	0.000	0.000	1376.19	
26	0.7520	1173.1	1193.8	1192.6	0.871	6.454	67.384	18.441	5.909	0.250	0.598	0.038	0.042	0.012	0.000	0.000	0.000	0.000	1376.71	
27	0.7544	1178.2	1199.1	1198.0	0.881	6.361	66.463	19.651	5.910	0.210	0.459	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.53	
28	0.7531	1175.8	1196.6	1195.7	0.883	6.377	66.767	19.366	5.818	0.225	0.496	0.028	0.031	0.009	0.000	0.000	0.000	0.000	1378.93	
29	0.7565	1182.3	1203.2	1202.3	0.882	6.307	66.178	19.881	5.993	0.222	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1383.35	
30	0.7540	1178.3	1199.2	1198.2	0.884	6.316	66.583	19.561	5.902	0.218	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1380.96	
31	0.7535	1176.5	1197.3	1196.4	0.879	6.385	66.790	19.218	5.933	0.223	0.503	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1379.29	
Avg	0.7549	1179.0	1200.0	1199.1	0.880	6.343	66.745	19.175	5.987	0.241	0.553	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1381.21	

# Source Daily Summary

July 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	0.7541	1176.8	1197.6	1196.8	0.881	6.417	66.747	19.227	5.862	0.235	0.556	0.032	0.034	0.010	0.000	0.000	0.000	0.000	1379.12	
2	0.7607	1189.6	1210.6	1209.7	0.880	6.259	65.927	19.776	6.228	0.248	0.595	0.036	0.039	0.011	0.000	0.000	0.000	0.000	1388.01	
3	0.7618	1192.1	1213.2	1212.3	0.885	6.199	65.799	19.879	6.307	0.252	0.593	0.036	0.039	0.012	0.000	0.000	0.000	0.000	1389.99	
4	0.7555	1180.3	1201.2	1200.4	0.883	6.330	66.554	19.410	5.982	0.233	0.533	0.032	0.034	0.010	0.000	0.000	0.000	0.000	1381.97	
5	0.7542	1178.7	1199.6	1198.7	0.886	6.299	66.589	19.561	5.893	0.219	0.488	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1381.33	
6	0.7547	1180.2	1201.1	1200.2	0.885	6.259	66.635	19.460	5.945	0.233	0.517	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1382.57	
7	0.7555	1181.1	1202.1	1201.2	0.881	6.287	66.385	19.713	5.953	0.228	0.491	0.027	0.028	0.008	0.000	0.000	0.000	0.000	1382.91	
8	0.7535	1176.9	1197.8	1196.8	0.881	6.355	66.883	19.124	5.906	0.240	0.541	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1379.78	
9	0.7562	1182.1	1203.0	1202.1	0.877	6.298	66.507	19.403	6.055	0.243	0.544	0.031	0.033	0.009	0.000	0.000	0.000	0.000	1383.40	
10	0.7568	1182.7	1203.6	1202.6	0.876	6.316	66.362	19.544	6.057	0.240	0.532	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1383.55	
11	0.7576	1183.1	1204.1	1203.0	0.875	6.365	66.583	19.037	6.153	0.266	0.627	0.038	0.042	0.013	0.000	0.000	0.000	0.000	1383.32	
12	0.7567	1183.7	1204.7	1203.5	0.883	6.232	66.437	19.525	6.072	0.239	0.538	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1384.89	
13	0.7518	1172.6	1193.4	1192.3	0.874	6.456	67.754	17.888	5.950	0.279	0.692	0.044	0.048	0.014	0.000	0.000	0.000	0.000	1376.38	
14	0.7514	1170.6	1191.3	1190.1	0.870	6.547	67.861	17.678	5.950	0.282	0.703	0.045	0.049	0.014	0.000	0.000	0.000	0.000	1374.35	
15	0.7557	1181.8	1202.7	1201.6	0.883	6.255	66.582	19.427	5.992	0.237	0.548	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1383.52	
16	0.7568	1183.1	1204.1	1203.1	0.881	6.279	66.526	19.346	6.051	0.252	0.583	0.034	0.037	0.011	0.000	0.000	0.000	0.000	1384.09	
17	0.7546	1179.4	1200.3	1199.3	0.882	6.301	66.811	19.150	5.974	0.243	0.563	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1381.77	
18	0.7565	1183.1	1204.0	1202.9	0.883	6.250	66.607	19.260	6.099	0.250	0.571	0.033	0.036	0.010	0.000	0.000	0.000	0.000	1384.33	
19	0.7546	1179.6	1200.5	1199.4	0.882	6.287	67.099	18.703	6.045	0.265	0.631	0.037	0.040	0.011	0.000	0.000	0.000	0.000	1381.94	
20	0.7563	1182.8	1203.8	1202.6	0.875	6.263	66.708	19.103	6.123	0.255	0.590	0.035	0.038	0.010	0.000	0.000	0.000	0.000	1384.16	
21	0.7558	1181.5	1202.4	1201.3	0.873	6.297	66.894	18.847	6.117	0.262	0.620	0.037	0.041	0.011	0.000	0.000	0.000	0.000	1383.09	
22	0.7533	1174.3	1195.1	1194.0	0.866	6.514	67.165	18.510	6.014	0.254	0.595	0.035	0.037	0.010	0.000	0.000	0.000	0.000	1376.95	
23	0.7464	1169.5	1190.2	1189.0	0.877	6.148	67.723	18.918	5.677	0.191	0.417	0.022	0.023	0.005	0.000	0.000	0.000	0.000	1377.64	
24	0.7554	1177.0	1197.9	1196.5	0.879	6.531	66.468	19.274	6.076	0.221	0.489	0.027	0.029	0.007	0.000	0.000	0.000	0.000	1378.15	
25	0.7527	1173.2	1194.0	1192.5	0.864	6.521	67.373	18.311	5.928	0.263	0.639	0.041	0.046	0.013	0.000	0.000	0.000	0.000	1376.26	
26	0.7519	1172.9	1193.6	1192.5	0.871	6.465	67.409	18.397	5.907	0.252	0.606	0.039	0.042	0.012	0.000	0.000	0.000	0.000	1376.49	
27	0.7544	1178.3	1199.2	1198.0	0.881	6.354	66.459	19.665	5.910	0.209	0.457	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1380.64	
28	0.7528	1175.1	1195.9	1194.9	0.882	6.392	66.826	19.298	5.806	0.226	0.501	0.029	0.031	0.010	0.000	0.000	0.000	0.000	1378.38	
29	0.7563	1181.9	1202.9	1201.8	0.883	6.311	66.205	19.862	5.981	0.222	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1383.11	
30	0.7542	1178.5	1199.3	1198.2	0.884	6.320	66.555	19.581	5.907	0.218	0.474	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1381.01	
31	0.7534	1176.3	1197.2	1196.1	0.879	6.386	66.796	19.221	5.927	0.222	0.502	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1379.20	
Avg	0.7549	1179.0	1200.2	1199.1	0.879	6.338	66.749	19.164	5.995	0.241	0.555	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1381.37	

# Source Daily Summary

July 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	0.6788	1105.5	1125.0	1124.5	0.959	3.594	77.449	15.786	1.963	0.074	0.157	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1365.47	
2	0.6771	1103.0	1122.6	1122.0	0.967	3.570	77.694	15.666	1.862	0.071	0.154	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1364.19	
3	0.6705	1097.8	1117.3	1116.8	0.967	3.262	78.723	15.273	1.579	0.058	0.124	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1364.47	
4	0.6675	1094.4	1113.8	1113.4	0.987	3.154	79.060	15.228	1.391	0.048	0.103	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1363.28	
5	0.6690	1096.1	1115.5	1115.0	0.976	3.216	78.895	15.262	1.477	0.052	0.110	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1363.81	
6	0.6667	1094.4	1113.8	1113.3	0.980	3.093	79.191	15.259	1.331	0.045	0.091	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1364.10	
7	0.6650	1092.8	1112.1	1111.6	0.991	3.018	79.389	15.272	1.208	0.039	0.076	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1363.78	
8	0.6646	1092.6	1111.9	1111.4	0.991	2.993	79.434	15.292	1.166	0.039	0.078	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1363.97	
9	0.6909	1117.5	1137.3	1136.7	0.944	4.012	75.640	16.538	2.537	0.098	0.207	0.011	0.012	0.001	0.000	0.000	0.000	0.000	1368.34	
10	0.6989	1125.7	1145.6	1145.0	0.934	4.277	74.482	16.980	2.946	0.114	0.239	0.013	0.014	0.001	0.000	0.000	0.000	0.000	1370.37	
11	0.6909	1117.7	1137.4	1136.9	0.948	3.994	75.678	16.501	2.544	0.098	0.210	0.012	0.013	0.001	0.000	0.000	0.000	0.000	1368.46	
12	0.6866	1114.4	1134.1	1133.4	0.959	3.775	76.293	16.360	2.323	0.087	0.183	0.010	0.011	0.001	0.000	0.000	0.000	0.000	1368.72	
13	0.6726	1100.2	1119.7	1119.0	0.979	3.297	78.489	15.292	1.732	0.063	0.133	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1365.26	
14	0.6712	1102.7	1122.3	1121.7	0.953	3.049	78.483	15.844	1.492	0.053	0.114	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.87	
15	0.6686	1103.2	1122.8	1122.2	0.945	2.787	78.820	15.964	1.341	0.043	0.090	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.14	
16	0.6670	1097.9	1117.4	1116.8	0.950	2.956	79.203	15.330	1.409	0.045	0.096	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1368.13	
17	0.6596	1087.2	1106.5	1105.8	0.948	2.915	80.549	14.179	1.280	0.041	0.081	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.39	
18	0.6703	1097.2	1116.6	1115.8	0.939	3.318	79.068	14.601	1.847	0.067	0.143	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1363.96	
19	0.6754	1103.5	1123.0	1122.3	0.940	3.414	78.355	14.928	2.082	0.083	0.176	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1366.54	
20	0.6619	1088.6	1107.8	1107.1	0.941	3.056	80.297	14.102	1.432	0.052	0.110	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1361.73	
21	0.6583	1086.0	1105.3	1104.5	0.938	2.880	80.863	13.885	1.277	0.047	0.099	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1362.23	
22	0.6522	1079.7	1098.8	1098.0	0.936	2.698	81.792	13.425	1.052	0.031	0.062	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1360.57	
23	0.6508	1078.5	1097.6	1096.8	0.961	2.602	81.882	13.603	0.884	0.024	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.56	
24	0.6513	1080.2	1099.4	1098.4	0.959	2.545	81.777	13.792	0.848	0.026	0.050	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1362.23	
25	0.6532	1083.5	1102.7	1101.3	0.944	2.540	81.488	13.993	0.961	0.026	0.047	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1364.45	
26	0.6516	1081.4	1100.6	1099.7	0.942	2.527	81.726	13.849	0.887	0.024	0.044	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1363.41	
27	0.6538	1082.2	1101.3	1100.3	0.985	2.626	81.208	14.299	0.825	0.020	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.02	
28	0.6557	1084.9	1104.1	1103.5	1.005	2.607	80.846	14.654	0.831	0.020	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.51	
29	0.6568	1086.3	1105.6	1104.9	1.003	2.621	80.618	14.882	0.822	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.23	
30	0.6614	1093.9	1113.3	1112.4	1.000	2.601	79.811	15.575	0.951	0.021	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.87	
31	0.6621	1094.3	1113.7	1112.8	1.000	2.641	79.769	15.497	1.009	0.028	0.054	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1368.68	
Avg	0.6671	1096.0	1115.0	1114.3	0.964	3.085	79.257	15.068	1.461	0.050	0.104	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1365.19	

# Source Daily Summary

July 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	0.6563	1080.9	1100.0	1099.3	0.479	3.695	81.675	11.819	2.108	0.067	0.138	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1357.85	
2	0.6562	1078.9	1098.0	1097.4	0.508	3.758	81.790	11.541	2.179	0.070	0.137	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1355.52	
3	0.6538	1070.2	1089.2	1088.5	0.582	3.951	82.127	11.114	2.010	0.070	0.131	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1347.04	
4	0.6488	1061.9	1080.7	1080.1	0.513	4.093	83.011	10.188	2.005	0.062	0.115	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1341.70	
5	0.6502	1064.7	1083.6	1082.9	0.571	3.968	82.975	10.132	2.140	0.068	0.130	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1343.77	
6	0.6509	1065.7	1084.5	1083.8	0.617	3.903	83.031	9.977	2.236	0.074	0.144	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1344.26	
7	0.6482	1062.6	1081.4	1080.7	0.571	3.912	83.408	9.733	2.159	0.068	0.131	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1343.10	
8	0.6452	1055.5	1074.1	1073.5	0.636	3.962	84.122	8.887	2.163	0.072	0.141	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1337.23	
9	0.6458	1056.6	1075.3	1074.7	0.729	3.802	84.103	9.004	2.115	0.076	0.151	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1338.13	
10	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
11	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
12	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
13	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
14	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
15	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
16	0.6454	1056.1	1074.8	1074.1	0.731	3.792	84.168	8.972	2.092	0.075	0.149	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1337.88	
17	0.6600	1081.5	1100.7	1100.0	0.572	3.863	80.740	12.710	1.917	0.062	0.120	0.008	0.007	0.001	0.000	0.000	0.000	0.000	1354.79	
18	0.6838	1120.6	1140.4	1139.8	0.579	3.714	76.181	17.163	2.133	0.071	0.137	0.010	0.009	0.002	0.000	0.000	0.000	0.000	1379.11	
19	0.6800	1117.6	1137.4	1136.8	0.466	3.710	76.591	17.082	1.966	0.059	0.110	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1379.30	
20	0.6769	1114.0	1133.7	1133.1	0.406	3.728	77.050	16.766	1.879	0.054	0.102	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1378.04	
21	0.6807	1118.2	1138.0	1137.4	0.500	3.685	76.562	17.033	2.028	0.062	0.115	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1379.38	
22	0.6784	1113.7	1133.5	1132.8	0.487	3.768	76.957	16.603	1.990	0.062	0.116	0.007	0.007	0.001	0.000	0.000	0.000	0.000	1376.10	
23	0.6845	1124.1	1144.0	1143.3	0.490	3.697	75.915	17.552	2.140	0.065	0.123	0.008	0.008	0.002	0.000	0.000	0.000	0.000	1382.80	
24	0.6788	1117.5	1137.3	1136.6	0.724	3.213	77.036	17.016	1.810	0.060	0.121	0.009	0.008	0.002	0.000	0.000	0.000	0.000	1380.39	
25	0.6832	1119.2	1139.0	1138.2	0.631	3.664	76.589	16.573	2.270	0.083	0.166	0.011	0.009	0.003	0.000	0.000	0.000	0.000	1377.78	
26	0.6926	1136.6	1156.8	1155.9	0.584	3.558	74.747	18.437	2.418	0.082	0.157	0.010	0.006	0.002	0.000	0.000	0.000	0.000	1389.93	
27	0.6927	1137.3	1157.4	1156.4	0.624	3.469	74.718	18.585	2.336	0.087	0.164	0.011	0.004	0.003	0.000	0.000	0.000	0.000	1390.59	
28	0.6920	1136.0	1156.1	1155.4	0.631	3.463	74.826	18.513	2.313	0.084	0.158	0.011	0.000	0.003	0.000	0.000	0.000	0.000	1389.85	
29	0.6896	1132.1	1152.1	1151.4	0.638	3.472	75.269	18.096	2.264	0.085	0.162	0.011	0.000	0.003	0.000	0.000	0.000	0.000	1387.37	
30	0.6902	1133.0	1153.1	1152.4	0.644	3.464	75.104	18.297	2.244	0.081	0.152	0.010	0.000	0.003	0.000	0.000	0.000	0.000	1387.88	
31	0.6871	1127.5	1147.4	1146.7	0.602	3.572	75.604	17.789	2.206	0.076	0.139	0.009	0.000	0.002	0.000	0.000	0.000	0.000	1384.25	
Avg	0.6653	1091.0	1110.2	1109.5	0.610	3.730	79.978	13.336	2.119	0.072	0.139	0.009	0.007	0.001	0.000	0.000	0.000	0.000	1361.01	

# Source Daily Summary

July 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	0.6835	1147.6	1168.0	1166.2	0.000	2.939	73.669	22.909	0.469	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.67	-28.48
2	0.6840	1147.8	1168.2	1166.2	0.000	2.965	73.587	22.962	0.473	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.51	-28.32
3	0.6846	1149.1	1169.5	1167.8	0.000	2.947	73.468	23.083	0.487	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.44	-27.88
4	0.6839	1148.2	1168.5	1166.8	0.000	2.938	73.607	22.962	0.478	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.99	-28.27
5	0.6836	1147.8	1168.1	1166.7	0.000	2.929	73.675	22.907	0.475	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.89	-28.43
6	0.6840	1148.5	1168.9	1167.1	0.000	2.929	73.584	22.996	0.477	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.28	-28.19
7	0.6843	1149.1	1169.4	1167.7	0.000	2.925	73.527	23.046	0.487	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.65	-27.96
8	0.6850	1149.7	1170.0	1168.3	0.000	2.948	73.410	23.127	0.500	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.73	-27.64
9	0.6840	1148.3	1168.7	1166.8	0.000	2.942	73.607	22.935	0.502	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.03	-28.12
10	0.6846	1149.4	1169.7	1167.9	0.000	2.932	73.507	23.028	0.518	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.73	-27.73
11	0.6838	1147.9	1168.3	1166.5	0.000	2.946	73.660	22.866	0.514	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.77	-28.19
12	0.6867	1152.6	1173.0	1171.2	0.000	2.927	73.351	22.935	0.760	0.009	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1415.58	-25.59
13	0.6863	1152.1	1172.5	1171.1	0.000	2.926	73.361	22.988	0.699	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.30	-25.98
14	0.6870	1152.7	1173.1	1171.4	0.000	2.950	73.362	22.815	0.852	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.38	-25.28
15	0.6853	1149.7	1170.0	1168.6	0.000	2.976	73.481	22.900	0.621	0.007	0.013	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1413.39	-26.96
16	0.6860	1150.9	1171.3	1169.8	0.000	2.973	73.333	23.041	0.631	0.008	0.013	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1414.13	-26.53
17	0.6873	1153.1	1173.5	1172.0	0.000	2.960	73.136	23.199	0.679	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.48	-25.61
18	0.6888	1154.8	1175.3	1173.8	0.000	2.996	72.883	23.351	0.743	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.07	-24.69
19	0.6891	1155.3	1175.7	1174.1	0.000	2.996	72.780	23.484	0.720	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.33	-24.77
20	0.6894	1155.7	1176.1	1174.6	0.000	2.998	72.750	23.500	0.725	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.53	-24.44
21	0.6889	1155.0	1175.4	1173.8	0.000	2.995	72.841	23.416	0.720	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.16	-24.71
22	0.6889	1155.0	1175.5	1174.1	0.000	2.986	72.851	23.420	0.717	0.009	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1416.31	-24.74
23	0.6889	1155.3	1175.8	1174.3	0.000	2.976	72.855	23.412	0.730	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.56	-24.65
24	0.6906	1157.9	1178.4	1176.7	0.000	2.967	72.793	23.210	1.005	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.10	-22.96
25	0.7042	1180.1	1201.0	1199.1	0.000	2.893	71.301	23.848	1.628	0.073	0.209	0.020	0.022	0.006	0.000	0.000	0.000	0.000	1430.88	-12.54
26	0.6877	1153.3	1173.7	1172.4	0.000	2.984	73.005	23.354	0.631	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.33	-25.65
27	0.6877	1153.4	1173.8	1172.4	0.000	2.972	73.057	23.271	0.674	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.55	-25.45
28	0.6868	1151.8	1172.2	1170.8	0.000	2.988	73.185	23.167	0.635	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1414.50	-26.08
29	0.6865	1151.4	1171.8	1170.3	0.000	2.986	73.239	23.116	0.639	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.28	-26.37
30	0.6876	1153.0	1173.4	1171.8	0.000	2.996	73.080	23.199	0.698	0.009	0.016	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1415.06	-25.42
31	0.6867	1151.8	1172.2	1170.5	0.000	2.980	73.174	23.221	0.603	0.008	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1414.56	-26.29
Avg	0.6870	1153.0	1172.9	1171.3	0.000	2.960	73.197	23.151	0.661	0.010	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.17	-25.93

# Source Daily Summary

July 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	0.5721	963.1	980.2	979.4	0.109	3.523	96.040	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.88	
2	0.5722	963.0	980.0	979.2	0.109	3.538	96.026	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.62	
3	0.5722	963.0	980.0	979.2	0.108	3.538	96.027	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.61	
4	0.5722	962.9	980.0	979.2	0.108	3.542	96.023	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.55	
5	0.5722	962.8	979.9	979.0	0.108	3.552	96.015	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.37	
6	0.5722	963.0	980.0	979.2	0.109	3.537	96.027	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.63	
7	0.5858	979.0	996.3	995.5	0.255	3.619	93.543	2.399	0.166	0.010	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1301.83	
8	0.5877	980.7	998.1	997.0	0.279	3.662	93.175	2.686	0.179	0.010	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1301.93	
9	0.5722	963.0	980.1	978.9	0.109	3.535	96.027	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.66	
10	0.5722	962.9	980.0	978.7	0.108	3.543	96.022	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.54	
11	0.5722	962.9	979.9	978.6	0.108	3.549	96.017	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.41	
12	0.5722	962.9	980.0	978.5	0.109	3.541	96.023	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.56	
13	0.5722	962.9	979.9	978.7	0.109	3.546	96.019	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.47	
14	0.5722	962.9	980.0	978.7	0.108	3.543	96.022	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.53	
15	0.5722	963.0	980.1	978.9	0.109	3.533	96.030	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.68	
16	0.5721	963.1	980.1	979.0	0.109	3.528	96.034	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.77	
17	0.5722	963.0	980.0	978.9	0.109	3.535	96.030	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.66	
18	0.5722	962.9	980.0	978.7	0.108	3.543	96.023	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.53	
19	0.5722	962.9	979.9	978.8	0.108	3.547	96.018	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.46	
20	0.5722	963.0	980.1	978.9	0.109	3.533	96.030	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.69	
21	0.5721	963.0	980.1	978.9	0.109	3.531	96.033	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.74	
22	0.5722	963.0	980.1	978.8	0.109	3.533	96.030	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.69	
23	0.5722	963.0	980.0	978.7	0.109	3.535	96.029	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.64	
24	0.5722	962.9	979.9	978.3	0.108	3.549	96.018	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.42	
25	0.5722	962.9	979.9	978.2	0.108	3.548	96.017	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.43	
26	0.5722	963.0	980.0	979.0	0.109	3.536	96.027	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.64	
27	0.5722	963.0	980.0	978.8	0.109	3.539	96.025	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.59	
28	0.5722	962.9	979.9	978.9	0.108	3.548	96.017	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.43	
29	0.5722	962.9	980.0	978.7	0.109	3.542	96.023	0.303	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.53	
30	0.5722	963.0	980.0	978.6	0.109	3.536	96.028	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.64	
31	0.5722	962.9	980.0	978.8	0.108	3.542	96.022	0.304	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.54	
Avg	0.5731	964.0	981.1	980.0	0.119	3.546	95.853	0.448	0.025	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.99	

# Gas Composition and Properties

Effective July 1, 2024

Attachment B  
Page 19 of 24

Source #: 2702230  
Name: WATFORD CITY EAST BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	1.2126		2.8668	Pressure Base	14.730	
Nitrogen, N2	2.3533		3.5415	Temperature Base	60.00	
Methane, C1	83.5933		72.0415	HCDP @ Sample Pressure		
Ethane, C2	11.8889	3.1796	19.2043	Cricondentherm	-49.421	
Propane, C3	0.8395	0.2313	1.9886	HV, Dry @ Base P, T	1084.80	4755.9000
iso-Butane, iC4	0.0340	0.0111	0.1062	HV, Sat @ Base P, T	1065.92	
n-Butane, nC4	0.0700	0.0221	0.2186	HV, Sat @ Sample P, T	1084.80	
iso-Pentane, iC5	0.0047	0.0017	0.0182	Relative Density	0.6441	0.66406
n-Pentane, nC5	0.0037	0.0013	0.0143			
Neo-Pentane, neo						
Hexanes Plus, C6+						
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
<b>Totals</b>	<b>100.0000</b>	<b>3.4470</b>	<b>100.0000</b>			

**Sample**

Date: 07/01/2024                      Type:

Tech: Sampson, Wayne

Pressure:                                      Temp.:

Gauge:    H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date: 07/01/2024                      Instrument:

    Cylinder:

Tech: Sampson, Wayne

Remarks:

July-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	
7/1/2024	7/2/2024	0	0	0	877	1,050	1197.6	1197.600	7/1/2024
7/2/2024	7/3/2024	0	0	0	899	1,089	1210.6	1210.600	7/2/2024
7/3/2024	7/4/2024	0	0	0	830	1,007	1213.2	1213.200	7/3/2024
7/4/2024	7/5/2024	0	0	0	758	910	1201.2	1201.200	7/4/2024
7/5/2024	7/6/2024	0	0	0	816	979	1199.6	1199.600	7/5/2024
7/6/2024	7/7/2024	0	0	0	777	933	1201.1	1201.100	7/6/2024
7/7/2024	7/8/2024	0	0	0	823	988	1202.1	1202.100	7/7/2024
7/8/2024	7/9/2024	2,118	2,330	1,102	1,003	1,201	1197.8	1132.720	7/8/2024
7/9/2024	7/10/2024	3,047	3,353	1099.8	891	1,071	1203	1123.150	7/9/2024
7/10/2024	7/11/2024	3,485	3,827	1,099	818	984	1203.6	1119.208	7/10/2024
7/11/2024	7/12/2024	19,144	21,066	1100	887	1,069	1204.1	1104.610	7/11/2024
7/12/2024	7/13/2024	12,724	13,994	1,101	753	908	1204.7	1106.700	7/12/2024
7/13/2024	7/14/2024	6,940	7,611	1096.8	670	799	1193.4	1105.305	7/13/2024
7/14/2024	7/15/2024	16,260	18,068	1,113	678	807	1191.3	1115.846	7/14/2024
7/15/2024	7/16/2024	15,114	16,849	1115.2	806	969	1202.7	1119.630	7/15/2024
7/16/2024	7/17/2024	70	78	1,114	841	1,012	1204.1	1197.185	7/16/2024
7/17/2024	7/18/2024	0	0	0	836	1,003	1200.3	1200.300	7/17/2024
7/18/2024	7/19/2024	669	731	1,090	798	961	1204	1152.012	7/18/2024
7/19/2024	7/20/2024	0	0	0	758	909	1200.5	1200.500	7/19/2024
7/20/2024	7/21/2024	0	0	0	690	830	1203.8	1203.800	7/20/2024
7/21/2024	7/22/2024	0	0	0	711	855	1202.4	1202.400	7/21/2024
7/22/2024	7/23/2024	0	0	0	765	914	1195.1	1195.100	7/22/2024
7/23/2024	7/24/2024	0	0	0	926	1,102	1190.2	1190.200	7/23/2024
7/24/2024	7/25/2024	0	0	0	854	1,023	1197.9	1197.900	7/24/2024
7/25/2024	7/26/2024	0	0	0	781	931	1194	1194.000	7/25/2024
7/26/2024	7/27/2024	0	0	0	916	1,092	1193.6	1193.600	7/26/2024
7/27/2024	7/28/2024	0	0	0	709	850	1199.2	1199.200	7/27/2024
7/28/2024	7/29/2024	0	0	0	723	864	1195.9	1195.900	7/28/2024
7/29/2024	7/30/2024	18,313	20,163	1100.9	816	982	1202.9	1105.251	7/29/2024
7/30/2024	7/31/2024	13,686	15,087	1103.1	817	980	1199.3	1108.519	7/30/2024
7/31/2024	8/1/2024	15,162	16,816	1110.2	878	1,051	1197.2	1114.962	7/31/2024
		126,732	139,973	462,7419	25,105	30,123	1200.2065	1167.8515	



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND07MD1 --- Hankinson Sales  
 July 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	1,145.636	0.6547	85.0875	9.5119	3.0314	0.3486	0.5533	0.0678	0.0571	0.0282	0.9063	0.3981	0.0098
2	1,145.090	0.6546	85.1279	9.4206	3.0617	0.3499	0.5563	0.0669	0.0563	0.0249	0.9277	0.3983	0.0096
3	1,144.687	0.6544	85.1207	9.4314	3.0698	0.3448	0.5498	0.0646	0.0533	0.0221	0.9389	0.3953	0.0094
4	1,142.556	0.6533	85.2618	9.3177	3.0455	0.3295	0.5387	0.0635	0.0530	0.0222	0.9619	0.3961	0.0100
5	1,145.741	0.6549	85.0760	9.4290	3.1388	0.3342	0.5581	0.0634	0.0525	0.0211	0.9245	0.3927	0.0098
6	1,147.028	0.6551	85.0671	9.4599	3.1587	0.3378	0.5612	0.0642	0.0532	0.0218	0.8776	0.3884	0.0100
7	1,146.656	0.6551	84.9432	9.6383	3.1293	0.3261	0.5290	0.0624	0.0520	0.0221	0.8970	0.3905	0.0100
8	1,148.475	0.6564	84.7664	9.7167	3.1789	0.3394	0.5447	0.0622	0.0516	0.0227	0.9233	0.3843	0.0097
9	1,148.709	0.6565	84.8068	9.6927	3.1445	0.3552	0.5565	0.0654	0.0537	0.0228	0.9030	0.3904	0.0091
10	1,150.121	0.6576	84.6833	9.7230	3.1841	0.3597	0.5804	0.0673	0.0555	0.0235	0.9294	0.3844	0.0094
11	1,152.274	0.6594	84.5024	9.7291	3.2661	0.3710	0.6075	0.0735	0.0601	0.0256	0.9715	0.3841	0.0091
12	1,149.711	0.6599	84.2121	9.9341	3.2102	0.3468	0.5901	0.0681	0.0566	0.0231	1.1497	0.4002	0.0090
13	1,148.391	0.6566	84.7182	9.8083	3.1067	0.3365	0.5523	0.0672	0.0572	0.0232	0.9188	0.4021	0.0095
14	1,147.532	0.6553	84.9745	9.6302	3.0616	0.3501	0.5617	0.0677	0.0570	0.0251	0.8850	0.3778	0.0093
15	1,152.714	0.6590	84.5961	9.7313	3.1590	0.3989	0.6403	0.0771	0.0621	0.0245	0.9420	0.3602	0.0086
16	1,149.835	0.6574	84.6419	9.7886	3.1619	0.3527	0.5835	0.0647	0.0530	0.0207	0.9508	0.3721	0.0102
17	1,147.777	0.6570	84.5919	9.8522	3.1097	0.3476	0.5547	0.0620	0.0501	0.0204	1.0218	0.3802	0.0094
18	1,147.837	0.6573	84.4998	9.9343	3.1188	0.3428	0.5496	0.0579	0.0467	0.0188	1.0316	0.3901	0.0094
19	1,148.503	0.6580	84.5226	9.7603	3.2331	0.3394	0.5696	0.0598	0.0470	0.0188	1.0305	0.4089	0.0099
20	1,152.473	0.6607	84.2217	9.8886	3.3241	0.3593	0.6071	0.0641	0.0528	0.0215	1.0423	0.4089	0.0096
21	1,151.797	0.6602	84.2687	9.8790	3.2943	0.3578	0.5971	0.0661	0.0541	0.0220	1.0456	0.4058	0.0096
22	1,148.147	0.6551	84.9981	9.6839	3.0945	0.3410	0.5325	0.0655	0.0558	0.0246	0.7946	0.3991	0.0104
23	1,148.926	0.6557	84.9744	9.6364	3.1496	0.3397	0.5545	0.0636	0.0537	0.0235	0.7782	0.4160	0.0104
24	1,149.309	0.6564	84.8778	9.6165	3.1899	0.3444	0.5758	0.0635	0.0525	0.0213	0.8637	0.3848	0.0098
25	1,151.313	0.6581	84.6202	9.7384	3.2459	0.3514	0.5901	0.0661	0.0556	0.0233	0.9269	0.3723	0.0098
26	1,144.727	0.6536	85.1380	9.5826	3.0188	0.3323	0.5293	0.0584	0.0485	0.0218	0.8722	0.3886	0.0094
27	1,144.906	0.6537	85.1294	9.5469	3.0526	0.3295	0.5304	0.0586	0.0509	0.0218	0.9072	0.3631	0.0096
28	1,146.822	0.6549	84.9554	9.6368	3.1102	0.3302	0.5432	0.0600	0.0520	0.0233	0.9220	0.3577	0.0093
29	1,146.405	0.6550	84.9314	9.6599	3.0832	0.3329	0.5394	0.0622	0.0530	0.0234	0.9411	0.3637	0.0098
30	1,150.519	0.6580	84.5949	9.7754	3.2105	0.3453	0.5811	0.0657	0.0562	0.0272	0.9646	0.3696	0.0095
31	1,155.907	0.6605	84.4807	9.7025	3.3321	0.3845	0.6558	0.0777	0.0661	0.0297	0.9125	0.3490	0.0093
<b>Volume</b>	<b>1,148.317</b>	<b>0.6565</b>	<b>84.7906</b>	<b>9.6722</b>	<b>3.1486</b>	<b>0.3467</b>	<b>0.5659</b>	<b>0.0649</b>	<b>0.0540</b>	<b>0.0230</b>	<b>0.9377</b>	<b>0.3866</b>	<b>0.0096</b>
<b>Weight Avg Energy</b>	<b>1,148.325</b>	<b>0.6565</b>	<b>84.7900</b>	<b>9.6725</b>	<b>3.1488</b>	<b>0.3467</b>	<b>0.5660</b>	<b>0.0649</b>	<b>0.0540</b>	<b>0.0230</b>	<b>0.9378</b>	<b>0.3866</b>	<b>0.0096</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND14MD1 --- Milnor Sales  
 July 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	1,145.564	0.6547	85.1032	9.4911	3.0307	0.3500	0.5561	0.0681	0.0573	0.0283	0.9065	0.3989	0.0098
2	1,145.363	0.6547	85.1053	9.4329	3.0741	0.3499	0.5566	0.0668	0.0561	0.0243	0.9271	0.3975	0.0096
3	1,144.221	0.6542	85.1457	9.4142	3.0596	0.3435	0.5469	0.0643	0.0531	0.0221	0.9461	0.3950	0.0094
4	1,142.660	0.6534	85.2457	9.3202	3.0520	0.3289	0.5408	0.0636	0.0531	0.0222	0.9655	0.3980	0.0100
5	1,146.179	0.6549	85.0652	9.4463	3.1497	0.3339	0.5583	0.0629	0.0522	0.0211	0.9105	0.3903	0.0097
6	1,146.991	0.6551	85.0618	9.4642	3.1570	0.3372	0.5609	0.0644	0.0532	0.0220	0.8786	0.3907	0.0100
7	1,146.900	0.6553	84.9157	9.6597	3.1332	0.3269	0.5286	0.0627	0.0524	0.0222	0.8987	0.3899	0.0100
8	1,148.562	0.6565	84.7613	9.7189	3.1809	0.3403	0.5454	0.0621	0.0515	0.0229	0.9235	0.3837	0.0096
9	1,148.988	0.6567	84.7875	9.6992	3.1464	0.3580	0.5616	0.0663	0.0541	0.0227	0.9040	0.3910	0.0091
10	1,150.504	0.6578	84.6691	9.7208	3.1885	0.3624	0.5863	0.0689	0.0571	0.0244	0.9322	0.3810	0.0093
11	1,151.955	0.6596	84.4451	9.7590	3.2773	0.3655	0.6025	0.0713	0.0581	0.0247	0.9973	0.3900	0.0091
12	1,149.285	0.6596	84.2483	9.9326	3.1859	0.3458	0.5871	0.0680	0.0565	0.0229	1.1447	0.3993	0.0090
13	1,148.473	0.6560	84.8568	9.7432	3.0960	0.3377	0.5505	0.0683	0.0587	0.0236	0.8575	0.3980	0.0098
14	1,147.028	0.6557	84.9166	9.6192	3.0519	0.3591	0.5717	0.0673	0.0555	0.0247	0.9463	0.3786	0.0091
15	1,152.971	0.6592	84.5730	9.7394	3.1830	0.3935	0.6404	0.0759	0.0613	0.0243	0.9324	0.3680	0.0088
16	1,149.871	0.6574	84.6234	9.8280	3.1551	0.3532	0.5743	0.0645	0.0531	0.0204	0.9522	0.3658	0.0100
17	1,147.638	0.6569	84.5815	9.8733	3.0966	0.3475	0.5529	0.0617	0.0499	0.0205	1.0281	0.3787	0.0093
18	1,147.741	0.6575	84.4979	9.8873	3.1396	0.3428	0.5570	0.0583	0.0465	0.0185	1.0445	0.3981	0.0095
19	1,148.469	0.6578	84.5288	9.7874	3.2228	0.3376	0.5634	0.0591	0.0467	0.0186	1.0227	0.4030	0.0099
20	1,152.464	0.6609	84.2061	9.8756	3.3278	0.3598	0.6129	0.0649	0.0535	0.0219	1.0534	0.4145	0.0097
21	1,151.569	0.6598	84.3050	9.8951	3.2771	0.3547	0.5864	0.0657	0.0542	0.0224	1.0282	0.4015	0.0097
22	1,148.319	0.6551	85.0200	9.6642	3.0964	0.3432	0.5359	0.0664	0.0565	0.0247	0.7806	0.4018	0.0103
23	1,149.098	0.6559	84.9422	9.6408	3.1640	0.3389	0.5595	0.0629	0.0529	0.0230	0.7892	0.4161	0.0105
24	1,150.597	0.6574	84.7461	9.6634	3.2314	0.3493	0.5907	0.0646	0.0531	0.0216	0.8889	0.3812	0.0097
25	1,148.862	0.6563	84.8170	9.6877	3.1582	0.3433	0.5630	0.0638	0.0540	0.0232	0.9064	0.3735	0.0098
26	1,144.384	0.6532	85.1831	9.5669	3.0088	0.3303	0.5238	0.0583	0.0485	0.0216	0.8643	0.3851	0.0095
27	1,145.106	0.6538	85.1135	9.5647	3.0541	0.3289	0.5300	0.0588	0.0514	0.0220	0.9027	0.3643	0.0095
28	1,146.882	0.6551	84.9298	9.6512	3.1121	0.3303	0.5437	0.0602	0.0519	0.0231	0.9290	0.3593	0.0094
29	1,146.804	0.6553	84.9012	9.6625	3.0981	0.3343	0.5447	0.0626	0.0534	0.0240	0.9456	0.3638	0.0098
30	1,150.951	0.6582	84.5806	9.7772	3.2228	0.3474	0.5843	0.0663	0.0570	0.0273	0.9573	0.3704	0.0094
31	1,156.226	0.6609	84.4608	9.6855	3.3432	0.3879	0.6641	0.0793	0.0674	0.0307	0.9103	0.3616	0.0093
<b>Volume</b>	<b>1,148.794</b>	<b>0.6568</b>	<b>84.7517</b>	<b>9.6997</b>	<b>3.1575</b>	<b>0.3480</b>	<b>0.5695</b>	<b>0.0649</b>	<b>0.0540</b>	<b>0.0230</b>	<b>0.9373</b>	<b>0.3849</b>	<b>0.0096</b>
<b>Weight Avg Energy</b>	<b>1,148.799</b>	<b>0.6568</b>	<b>84.7513</b>	<b>9.6999</b>	<b>3.1576</b>	<b>0.3480</b>	<b>0.5695</b>	<b>0.0649</b>	<b>0.0540</b>	<b>0.0230</b>	<b>0.9373</b>	<b>0.3849</b>	<b>0.0096</b>

July-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		
7/1/2024	7/2/2024	30	36	1191.7	111	121	1084.8	1107.545	7/1/2024
7/2/2024	7/3/2024	21	25	1191.7	94	102	1084.8	1104.321	7/2/2024
7/3/2024	7/4/2024	30	35	1191.7	94	102	1084.8	1110.663	7/3/2024
7/4/2024	7/5/2024	5	6	1191.7	87	94	1084.8	1090.610	7/4/2024
7/5/2024	7/6/2024	26	31	1191.7	127	138	1084.8	1102.966	7/5/2024
7/6/2024	7/7/2024	3	3	1191.7	75	81	1084.8	1088.912	7/6/2024
7/7/2024	7/8/2024	3	4	1191.7	86	93	1084.8	1088.403	7/7/2024
7/8/2024	7/9/2024	12	14	1191.7	80	87	1084.8	1098.743	7/8/2024
7/9/2024	7/10/2024	22	26	1191.7	94	102	1084.8	1105.074	7/9/2024
7/10/2024	7/11/2024	32	38	1191.7	69	75	1084.8	1118.669	7/10/2024
7/11/2024	7/12/2024	35	42	1191.7	79	85	1084.8	1117.620	7/11/2024
7/12/2024	7/13/2024	36	42	1191.7	66	72	1084.8	1122.529	7/12/2024
7/13/2024	7/14/2024	17	21	1191.7	65	71	1084.8	1106.962	7/13/2024
7/14/2024	7/15/2024	16	19	1191.7	75	82	1084.8	1103.596	7/14/2024
7/15/2024	7/16/2024	54	64	1191.7	86	93	1084.8	1126.033	7/15/2024
7/16/2024	7/17/2024	10	12	1191.7	89	97	1084.8	1095.598	7/16/2024
7/17/2024	7/18/2024	41	49	1191.7	86	93	1084.8	1119.311	7/17/2024
7/18/2024	7/19/2024	10	12	1191.7	86	93	1084.8	1095.935	7/18/2024
7/19/2024	7/20/2024	2	2	1191.7	73	79	1084.8	1087.651	7/19/2024
7/20/2024	7/21/2024	4	5	1191.7	73	79	1084.8	1090.353	7/20/2024
7/21/2024	7/22/2024	4	5	1191.7	85	93	1084.8	1089.604	7/21/2024
7/22/2024	7/23/2024	41	49	1191.7	75	81	1084.8	1122.584	7/22/2024
7/23/2024	7/24/2024	42	50	1191.7	90	98	1084.8	1118.814	7/23/2024
7/24/2024	7/25/2024	36	42	1191.7	63	68	1084.8	1123.673	7/24/2024
7/25/2024	7/26/2024	34	41	1191.7	56	61	1084.8	1125.184	7/25/2024
7/26/2024	7/27/2024	40	48	1191.7	87	94	1084.8	1118.469	7/26/2024
7/27/2024	7/28/2024	17	20	1191.7	70	76	1084.8	1105.689	7/27/2024
7/28/2024	7/29/2024	3	3	1191.7	64	70	1084.8	1089.587	7/28/2024
7/29/2024	7/30/2024	32	38	1191.7	64	69	1084.8	1120.433	7/29/2024
7/30/2024	7/31/2024	52	62	1191.7	77	83	1084.8	1127.891	7/30/2024
7/31/2024	8/1/2024	50	59	1191.7	74	81	1084.8	1127.905	7/31/2024
		760	903	1191.7000	2,500	2,713	1084.8000	1108.1073	

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	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/1/2024	7/2/2024	1099	0.6535	-45.9	1359.486491	1.0108	2.6659	81.0863	14.4353	0.689	0.0212	0.0402	0.0025	0.0024	0	0	0.022	0.0247	0.3628	0.0638	0.0686	0.0008
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/2/2024	7/3/2024	1098	0.653	-46.5	1358.769374	1.0059	2.7189	80.9837	14.4677	0.6495	0.0189	0.0369	0.002	0.0017	0	0	0.0919	0.0229	0.3893	0.0632	0.0685	0.0008
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/3/2024	7/4/2024	1096	0.6519	-46.5	1357.438191	0.9922	2.7109	81.0497	14.2739	0.6954	0.0207	0.0399	0.002	0.0016	0	0	0.1897	0.0241	0.414	0.0669	0.0693	0.0013
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/4/2024	7/5/2024	1097	0.6525	-47.2	1358.051907	1.0053	2.7095	80.9026	14.5353	0.6174	0.015	0.0282	0.0013	0.0012	0	0	0.1603	0.0239	0.4006	0.0653	0.0688	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/5/2024	7/6/2024	1097	0.6525	-47	1358.051907	1.0053	2.6998	80.9153	14.5287	0.6338	0.0157	0.0393	0.0014	0.0011	0	0	0.1613	0.0234	0.4006	0.0655	0.071	0.0011
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/6/2024	7/7/2024	1099	0.6532	-46.2	1359.798646	0.9984	2.6758	80.7851	14.6369	0.66	0.0172	0.032	0.0014	0.0014	0	0	0.1673	0.0246	0.4038	0.067	0.07	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/7/2024	7/8/2024	1099	0.6539	-45.8	1359.070619	1.0052	2.7062	80.6589	14.7278	0.662	0.0178	0.0333	0.0016	0.0015	0	0	0.1616	0.0245	0.3914	0.0697	0.0701	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/7/2024	7/9/2024	1099	0.6539	-45.8	1359.070619	1.0052	2.7062	80.6589	14.7278	0.662	0.0178	0.0333	0.0016	0.0015	0	0	0.1616	0.0245	0.3914	0.0697	0.0701	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/9/2024	7/10/2024	1099	0.6542	-46.3	1358.758965	1.0099	2.7079	80.792	14.7489	0.621	0.0166	0.0314	0.0016	0.0015	0	0	0.0444	0.0251	0.3945	0.069	0.0709	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/10/2024	7/11/2024	1100	0.655	-45.4	1359.164539	1.0137	2.7495	80.5536	14.8195	0.6677	0.0178	0.0345	0.0018	0.0018	0	0	0.1135	0.0266	0.4172	0.0655	0.068	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/11/2024	7/12/2024	1100	0.6551	-45.2	1359.060798	1.0159	2.7505	80.5095	14.8139	0.6973	0.0173	0.0325	0.0014	0.0012	0	0	0.1356	0.025	0.412	0.0665	0.0706	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/12/2024	7/13/2024	1100	0.6548	-45.3	1359.372093	1.0122	2.7312	80.6024	14.7406	0.7119	0.0174	0.0327	0.0014	0.0012	0	0	0.1244	0.0248	0.4389	0.0654	0.0687	0.0015
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/13/2024	7/14/2024	1097	0.6523	-46.3	1358.260085	1.0066	2.667	81.1404	14.2157	0.7543	0.018	0.0335	0.0016	0.0015	0	0	0.1371	0.0245	0.4372	0.0683	0.0709	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/14/2024	7/15/2024	1112	0.6602	-40.9	1368.570036	0.9747	2.5495	79.6212	15.847	0.81	0.0189	0.0353	0.0017	0.0016	0	0	0.1162	0.024	0.4011	0.0738	0.0765	0.0013
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/15/2024	7/16/2024	1115	0.6602	-40.2	1372.262222	0.9547	2.4412	79.6748	15.8185	0.9103	0.0174	0.0316	0.0014	0.0013	0	0	0.1257	0.0231	0.3816	0.0687	0.0713	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/16/2024	7/17/2024	1103	0.6535	-44.4	1364.434577	0.949	2.5181	80.8572	14.5671	0.8607	0.0161	0.0366	0.0001	0.0024	0	0	0.1787	0.0221	0.422	0.0133	0.0094	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/17/2024	7/18/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0055	0.0012	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/18/2024	7/19/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0047	0.0012	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/19/2024	7/20/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0048	0.0012	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/20/2024	7/21/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0045	0.0015	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/21/2024	7/22/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0051	0.0014	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/22/2024	7/23/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0062	0.0014	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/23/2024	7/24/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0042	0.0013	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/24/2024	7/25/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0049	0.0013	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/25/2024	7/26/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0054	0.0014	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/26/2024	7/27/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0046	0.001	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/27/2024	7/28/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0049	0.002	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/28/2024	7/29/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0044	0.0015	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/29/2024	7/30/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0044	0.0015	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/30/2024	7/31/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0053	0.0021	0.0012
NBPL	6/29/2024 0:00	9/5/2024 0:00	GLNU1 - GLEN ULLIN	7/31/2024	8/1/2024	1104	0.6537	-44.4	1365.462668	0.9491	2.5125	80.8579	14.5931	0.8578	0.016	0.0284	0	0.0027	0	0	0.1606	0.0219	0.422	0.0774	0.0015	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	JUL24	JUN24	MAY24	APR24	MAR24	FEB24	JAN24	DEC23	NOV23	OCT23	SEP23	AUG23	Zone
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1190	1192	1190	1187	1184	1185	1187	1179	1192	1195	1194	1196	1198	211
ND	24	Williston Border - Charbonneau Station	1189	1191	1186	1184	1181	1181	1192	1197	1194	1194	1188	1188	1195	24
ND	25	Watford City West Border	1199	1192	1187	1201	1193	1194	1194	1198	1197	1198	1207	1212	1210	25
ND	28	Bismarck Station - Glen Ullin Station	1168	1200	1202	1200	1160	1147	1126	1131	1138	1161	1154	1202	1199	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1127	1115	1108	1106	1133	1147	1127	1127	1134	1147	1138	1121	1124	31
ND/MT	32	Cabin Creek Station - Belfield Transfer	1130	1110	1135	1144	1144	1116	1118	1122	1132	1138	1135	1135	1134	32
ND	33	Little Knife Plant	1173	1173	1170	1170	1173	1173	1171	1169	1168	1174	1173	1177	1181	33
ND	34	Badlands Plant/Bowman Border	1019	981	1040	1043	1005	1027	1000	1094	1079	1017	980	984	980	34
ND	43	Watford City East Border	1107	1085	1081	1075	1066	1085	1113	1127	1132	1154	1119	1124	1120	43
ND/MT	241	Fairview Border	1188	1185	1181	1172	1182	1186	1192	1185	1192	1198	1192	1195	1200	241
ND	267	North Tioga Transfer - Nesson Plant	1177	1191	1191	1193	1183	1187	1165	1166	1171	1169	1169	1166	1176	267
ND	261	Tioga Comp Station - Robinson Lake Plant	1194	1195	1197	1195	1196	1195	1192	1178	1201	1203	1203	1187	1191	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1199	1199	1200	1199	1195	1195	1196	1198	1202	1204	1206	1202	1197	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	263
ND	264	Epping Border	1187	1179	1172	1168	1176	1172	1193	1204	1206	1206	1191	1183	1195	264
ND	265	Tioga Comp Station - County Line Plant	1179	1183	1174	1188	1195	1192	1179	1169	1183	1175	1171	1174	1170	265
ND	266	County Line Plant	1181	1187	1174	1188	1195	1193	1181	1171	1184	1177	1172	1179	1171	266
ND	271	Bismarck Station - Cleveland Station	1198	1200	1202	1201	1198	1192	1183	1186	1201	1206	1204	1202	1199	271
ND	272	Cleveland Station - Mapleton	1197	1200	1201	1200	1197	1191	1183	1185	1200	1204	1205	1201	1199	272
ND	273	Cleveland Station - Grafton Border	1197	1200	1202	1199	1198	1191	1183	1186	1201	1205	1204	1202	1198	273
ND	550	Mandan Border / NBPL-St Anthony	1156	1168	1160	1192	1157	1146	1126	1124	1138	1161	1142	1188	1173	550
ND	610	MDU-Watford City BTU	1134	1108	1111	1121	1112	1118	1138	1150	1151	1167	1152	1150	1131	610
ND	802	NBPL - Linton	1107	1100	1100	1104	1109	1114	1114	1103	1114	1104	1106	1110	1105	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1148	1148	1147	1148	1148	1146	1144	1144	1147	1146	1153	1149	1159	600
ND	601	Alliance Pipeline - Milnor	1149	1149	1147	1149	1148	1146	1144	1144	1147	1147	1154	1149	1160	601

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>July 2024</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
32	-25	Operational/Blend
34	-59	Operational/Blend