

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

May 18, 2022

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

Re: Case No. PU-22-002 (Therm Billing)  
Monthly Report – March 2022

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 April 2022.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of March 2022.
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 March 2022.

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**  
**Apr-22**

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1306
MDU-308-ARNEGARD	025	1.1306
MDU-314-APPLE VALLEY	271	1.1690
MDU-318-BEACH	032	1.0369
MDU-319-BELFIELD	032	1.0445
MDU-323-BERTHOLD	262	1.1211
MDU-324-BEULAH	032	1.0445
MDU-327-BISMARCK	028	1.0913
MDU-330-BOWMAN	034	1.0063
MDU-337-BURLINGTON	262	1.1453
MDU-343-CARRINGTON	273	1.1250
MDU-344-CLEVELAND	272	1.1181
MDU-364-CAVALIER	273	1.1488
MDU-365-DAWSON	271	1.1200
MDU-368-DES LACS	262	1.1292
MDU-369-DICKINSON	031	1.0615
MDU-374-FT TOTTEN	273	1.1330
MDU-375-DEVILS LAKE	273	1.1330
MDU-379-BARLOW	273	1.1250
MDU-384-EPPING	264	1.1079
MDU-387-ELDRIDGE	272	1.1260
MDU-407-GLADSTONE	031	1.0615
MDU-411-GLEN ULLIN	031	1.0692
MDU-413-GOLVA	032	1.0216
MDU-416-GARRISON	262	1.1292
MDU-417-GRAFTON	273	1.1567
MDU-403-GWINNER	601	1.1350
MDU-429-HEBRON	031	1.0692
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1339
MDU-459-KILLDEER	033	1.1107
MDU-463-LANGDON	273	1.1250
MDU-469-LEFOR	031	1.0615
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0498
MDU-478-LINCOLN	028	1.0913
MDU-488-MCKENZIE	271	1.1279
MDU-494-MEDINA	271	1.1200
MDU-498-MANDAN	028	1.0913
MDU-500-MARMARTH	034	1.0045
MDU-505-MINOT	262	1.1385
MDU-510-MOTT	031	1.0615
MDU-512-MAX	262	1.1453
MDU-513-MILNOR	601	1.1350
MDU-522-NEW ENGLAND	031	1.0538
MDU-524-NEW SALEM	028	1.0682
MDU-532-NEW ROCKFORD	273	1.1250
MDU-539-PARK RIVER	273	1.1488
MDU-540-PALERMO	262	1.1211

MDU-558-RAY	264	1.1079
MDU-561-REGENT	031	1.0538
MDU-563-RHAME	034	0.9898
MDU-564-RICHARDTON	031	1.0538
MDU-568-ROSS	261	1.0831
MDU-572-RUTHVILLE	262	1.1453
MDU-574-SANBORN	272	1.1339
MDU-583-SENTINEL BUTTE	032	1.0369
MDU-588-SOUTH HEART	031	1.0538
MDU-717-SPIRITWOOD	272	1.1339
MDU-590-SPRINGBROOK	264	1.1079
MDU-591-STANLEY	261	1.0909
MDU-593-STEELE	271	1.1200
MDU-594-STERLING	028	1.0913
MDU-598-SHEYENNE	273	1.1330
MDU-605-SURREY	262	1.1453
MDU-610-TAPPEN	271	1.1200
MDU-611-TAYLOR	031	1.0538
MDU-616-TIOGA	260	1.1006
MDU-619-TURTLE LAKE	262	1.1292
MDU-620-TRENTON	024	1.1225
MDU-624-UNDERWOOD	262	1.1292
MDU-625-VALLEY CITY	272	1.1418
MDU-629-WALHALLA	273	1.1488
MDU-632-WATFORD CITY	610	1.0748
MDU-636-WHEELOCK	264	1.0999
MDU-637-WHITE EARTH	261	1.0909
MDU-642-WILLISTON	024	1.1225
MDU-646-WASHBURN	262	1.1372
MDU-647-WILTON	262	1.1211
MDU-664-RIVERDALE	262	1.1292
MDU-691-FAIRVIEW	241	1.1387
MDU-712-MINOT AFB	262	1.1453
MDU-718-FAIRMOUNT	600	1.1326
MDU-732-NEKOMA	273	1.1250
MDU-732-MSR SITE	273	1.1250

# Source Daily Summary

March 2022

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	0.7404	1191.9	1213.0	1212.7	1.381	3.469	66.600	25.219	2.944	0.129	0.237	0.011	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1409.75
2	0.7392	1190.5	1211.6	1211.3	1.359	3.482	66.790	25.053	2.937	0.128	0.233	0.011	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1409.16
3	0.7013	1161.3	1181.8	1181.5	0.314	3.291	71.822	22.668	1.794	0.041	0.066	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1411.39
4	0.6932	1157.5	1178.0	1177.7	0.023	3.198	72.771	22.463	1.506	0.017	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.95
5	0.7056	1161.6	1182.1	1181.8	0.492	3.402	71.552	22.247	2.156	0.055	0.091	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1407.46
6	0.7170	1179.3	1200.2	1199.9	0.572	3.277	69.530	24.140	2.297	0.065	0.112	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1417.54
7	0.6951	1160.7	1181.2	1180.9	0.021	3.194	72.546	22.524	1.672	0.019	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.76
8	0.6986	1166.6	1187.3	1187.0	0.021	3.152	72.190	22.583	2.006	0.021	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.54
9	0.6993	1166.8	1187.5	1187.2	0.020	3.208	72.085	22.580	2.064	0.019	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.02
10	0.6978	1165.8	1186.5	1186.2	0.020	3.128	72.245	22.663	1.901	0.019	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.36
11	0.6978	1163.9	1184.5	1184.2	0.020	3.249	72.108	22.801	1.774	0.021	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.98
12	0.6965	1152.4	1172.8	1172.6	0.019	3.825	72.281	22.063	1.756	0.025	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1405.38
13	0.6984	1154.2	1174.6	1174.3	0.077	3.809	72.046	22.181	1.816	0.030	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1405.58
14	0.7405	1194.0	1215.1	1214.8	1.324	3.444	66.658	25.124	3.061	0.130	0.238	0.011	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1412.06
15	0.6970	1164.1	1184.7	1184.3	0.016	3.169	72.178	22.918	1.668	0.021	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.04
16	0.6946	1158.8	1179.3	1179.0	0.017	3.264	72.580	22.491	1.603	0.020	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.04
17	0.6938	1157.4	1177.9	1177.6	0.014	3.281	72.696	22.388	1.573	0.021	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.13
18	0.7140	1172.6	1193.4	1193.1	0.620	3.327	70.308	23.171	2.359	0.073	0.130	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1412.52
19	0.7329	1188.7	1209.7	1209.4	1.096	3.400	67.625	24.729	2.814	0.113	0.206	0.009	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1413.16
20	0.7410	1192.9	1214.0	1213.7	1.372	3.478	66.818	24.692	3.229	0.136	0.252	0.012	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1410.32
21	0.7423	1195.2	1216.4	1216.0	1.372	3.460	66.480	25.119	3.166	0.134	0.247	0.012	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1411.82
22	0.7406	1181.1	1202.1	1201.7	1.379	3.491	66.882	24.622	3.218	0.136	0.250	0.012	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1396.78
23	0.7357	1186.7	1207.7	1207.3	1.324	3.435	67.793	23.862	3.177	0.136	0.251	0.012	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1408.00
24	0.6964	1162.5	1183.1	1182.8	0.020	3.202	72.406	22.544	1.773	0.023	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.73
25	0.6957	1161.4	1182.0	1181.7	0.019	3.204	72.490	22.513	1.724	0.021	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.13
26	0.7124	1173.2	1193.9	1193.6	0.553	3.250	70.404	23.360	2.247	0.065	0.113	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1414.71
27	0.7244	1183.3	1204.3	1203.9	0.821	3.338	68.917	23.888	2.767	0.091	0.163	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1415.18
28	0.7243	1182.0	1202.9	1202.5	0.822	3.410	68.936	23.807	2.740	0.096	0.174	0.008	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1413.67
29	0.7487	1205.3	1226.6	1226.3	1.361	3.456	66.381	24.232	3.972	0.193	0.369	0.019	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1417.59
30	0.7443	1200.6	1221.9	1221.6	1.332	3.376	66.335	25.141	3.382	0.144	0.267	0.013	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1416.31
31	0.7439	1198.0	1219.2	1218.8	1.375	3.439	66.305	25.185	3.274	0.139	0.260	0.013	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1413.52
Avg	0.7162	1175.0	1196.0	1195.7	0.619	3.358	69.895	23.515	2.399	0.074	0.130	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1413.41

# Source Daily Summary

March 2022

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	0.7039	1162.3	1182.8	1182.6	1.031	2.379	72.984	21.125	2.139	0.097	0.210	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1409.80	
2	0.7014	1151.7	1172.1	1171.9	0.951	2.903	73.694	19.650	2.432	0.107	0.229	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1399.53	
3	0.7079	1164.7	1185.3	1185.0	1.023	2.614	72.524	21.006	2.457	0.108	0.231	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1408.79	
4	0.7041	1164.0	1184.6	1184.3	1.006	2.326	73.071	20.999	2.246	0.101	0.217	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1411.74	
5	0.7054	1165.7	1186.4	1186.1	0.984	2.374	72.690	21.417	2.196	0.098	0.209	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1412.58	
6	0.7099	1165.6	1186.2	1186.0	0.977	2.814	72.213	21.000	2.610	0.113	0.240	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1407.93	
7	0.7034	1158.8	1179.3	1179.1	0.934	2.688	73.197	20.451	2.386	0.100	0.213	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1406.11	
8	0.7058	1163.0	1183.6	1183.4	0.940	2.647	72.761	20.877	2.426	0.102	0.216	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1408.85	
9	0.7052	1168.4	1189.1	1188.8	0.950	2.250	72.784	21.407	2.270	0.099	0.208	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1415.92	
10	0.7034	1163.4	1184.0	1183.8	0.938	2.393	73.669	19.888	2.733	0.111	0.232	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1411.77	
11	0.7059	1168.7	1189.4	1189.2	0.932	2.311	73.388	20.071	2.894	0.118	0.248	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1415.70	
12	0.7043	1166.5	1187.1	1186.9	0.950	2.271	73.524	20.113	2.788	0.103	0.218	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1414.59	
13	0.7037	1163.9	1184.5	1184.3	0.957	2.365	73.686	19.802	2.827	0.106	0.222	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1412.03	
14	0.7094	1172.0	1192.8	1192.5	0.956	2.404	72.738	20.672	2.744	0.130	0.297	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1416.17	
15	0.7118	1177.0	1197.9	1197.6	0.952	2.337	72.113	21.490	2.624	0.129	0.294	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1419.78	
16	0.7086	1173.0	1193.8	1193.6	0.960	2.268	72.433	21.494	2.430	0.115	0.254	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1418.16	
17	0.7050	1166.8	1187.4	1187.2	0.967	2.298	73.027	20.943	2.403	0.103	0.222	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1414.22	
18	0.7069	1169.6	1190.3	1190.0	0.971	2.296	72.885	20.874	2.590	0.110	0.236	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1415.74	
19	0.7074	1170.5	1191.2	1191.0	0.969	2.293	72.550	21.423	2.394	0.106	0.228	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1416.35	
20	0.7059	1168.3	1189.0	1188.8	0.966	2.292	72.695	21.404	2.295	0.099	0.213	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1415.20	
21	0.7081	1172.2	1192.9	1192.7	0.958	2.273	72.380	21.658	2.351	0.109	0.233	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1417.68	
22	0.7069	1170.9	1191.6	1191.3	0.956	2.251	72.505	21.637	2.292	0.103	0.220	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1417.22	
23	0.7054	1168.0	1188.7	1188.4	0.956	2.281	72.782	21.345	2.290	0.099	0.212	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1415.27	
24	0.7062	1168.5	1189.2	1188.9	0.955	2.324	72.724	21.269	2.371	0.102	0.219	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1415.09	
25	0.7078	1170.9	1191.6	1191.4	0.966	2.311	72.380	21.650	2.333	0.103	0.221	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1416.44	
26	0.7083	1172.3	1193.1	1192.8	0.964	2.279	72.432	21.494	2.451	0.109	0.233	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1417.60	
27	0.7077	1171.3	1192.1	1191.8	0.966	2.279	72.418	21.628	2.347	0.103	0.222	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1417.02	
28	0.7080	1171.8	1192.6	1192.3	0.961	2.282	72.410	21.605	2.361	0.107	0.234	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1417.34	
29	0.7065	1169.8	1190.5	1190.3	0.956	2.276	72.590	21.527	2.294	0.102	0.219	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1416.34	
30	0.7075	1170.9	1191.6	1191.4	0.957	2.300	72.430	21.625	2.323	0.104	0.224	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1416.70	
31	0.7082	1171.8	1192.6	1192.3	0.963	2.299	72.559	21.285	2.475	0.116	0.258	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1417.13	
Avg	0.7064	1168.0	1188.5	1188.3	0.964	2.377	72.782	21.059	2.444	0.107	0.230	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1414.03	

# Gas Composition and Properties

Effective March 1, 2022 09:00 - January 18, 2038 21:14

Attachment B  
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Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.1579		2.4027
Nitrogen, N2	4.5593		6.0220
Methane, C1	67.1766		50.8119
Ethane, C2	23.9324	6.4056	33.9298
Propane, C3	2.8357	0.7819	5.8957
iso-Butane, iC4	0.1151	0.0377	0.3154
n-Butane, nC4	0.2059	0.0650	0.5643
iso-Pentane, iC5	0.0099	0.0036	0.0337
n-Pentane, nC5	0.0072	0.0026	0.0245
Neo-Pentane, neo			
Hexanes Plus, C6+			
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
<b>Totals</b>	<b>100.0000</b>	<b>7.2980</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-14.515	
Cricondentherm	0.569	
HV, Dry @ Base P, T	1191.26	
HV, Sat @ Base P, T	1170.53	
HV, Sat @ Sample P, T	1191.26	
Relative Density	0.7345	
C6+: 100		

**Sample**

Date: 03/01/2022                      Type:

Tech: Joshua Tipton

Pressure:                      460 psi      Temp.:                      °F

Gauge:                                      Gauge                      H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date:                                      Instrument:

Tech:                                      Cylinder:                      127

Remarks:



# Source Daily Summary

March 2022

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	0.6971	1151.2	1171.6	1171.3	0.989	2.476	73.473	21.287	1.558	0.064	0.135	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1403.33	
2	0.6824	1117.8	1137.6	1135.5	0.847	3.344	76.277	17.693	1.615	0.064	0.140	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1377.00	
3	0.6979	1116.4	1136.2	1136.0	0.779	4.978	74.623	16.140	3.084	0.116	0.249	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1360.30	
4	0.6944	1146.5	1166.8	1166.6	0.992	2.507	73.809	21.113	1.382	0.059	0.122	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1400.28	
5	0.6975	1148.9	1169.2	1169.1	0.976	2.678	73.351	21.214	1.560	0.065	0.137	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1400.09	
6	0.7230	1150.0	1170.4	1170.2	0.937	5.050	70.711	18.851	3.947	0.149	0.317	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1376.58	
7	0.7035	1118.6	1138.4	1138.2	0.739	5.436	74.019	15.724	3.624	0.137	0.288	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1357.21	
8	0.7336	1153.0	1173.4	1173.3	0.857	5.982	69.386	18.354	4.823	0.179	0.377	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1370.05	
9	0.7476	1167.2	1187.9	1187.7	0.925	6.326	67.103	19.700	5.316	0.191	0.397	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1373.88	
10	0.7463	1163.7	1184.3	1184.1	0.919	6.425	67.274	19.487	5.289	0.186	0.380	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1370.95	
11	0.7537	1174.4	1195.2	1195.0	0.918	6.468	66.336	19.885	5.707	0.210	0.433	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1376.74	
12	0.7233	1158.3	1178.8	1178.6	0.960	4.542	71.011	18.756	4.236	0.152	0.309	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1386.33	
13	0.7215	1156.2	1176.7	1176.5	0.962	4.493	71.066	19.006	4.037	0.134	0.272	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1385.61	
14	0.7475	1167.7	1188.4	1188.2	0.940	6.266	67.092	19.807	5.266	0.191	0.396	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1374.52	12.76
15	0.7111	1147.0	1167.4	1167.2	1.043	3.957	71.897	20.079	2.628	0.109	0.250	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1384.37	-6.83
16	0.7022	1159.4	1179.9	1179.7	0.919	2.554	73.649	20.238	2.108	0.129	0.324	0.035	0.044	0.000	0.000	0.000	0.000	0.000	1407.92	-6.44
17	0.7041	1164.4	1185.0	1184.9	0.975	2.347	72.750	21.762	1.737	0.105	0.263	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1412.28	-8.68
18	0.6920	1145.4	1165.7	1165.5	0.967	2.381	74.566	20.230	1.661	0.058	0.121	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1401.33	-18.31
19	0.6943	1147.9	1168.3	1168.1	0.982	2.426	74.469	19.903	2.004	0.064	0.134	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1402.02	-15.73
20	0.6940	1148.6	1168.9	1168.7	0.967	2.384	73.762	21.388	1.326	0.051	0.106	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1403.12	-19.11
21	0.6950	1150.5	1170.8	1170.6	0.967	2.366	73.404	21.903	1.202	0.047	0.098	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1404.42	-19.31
22	0.6974	1154.3	1174.7	1174.5	0.962	2.370	72.824	22.567	1.118	0.047	0.099	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1406.62	-18.48
23	0.6970	1154.5	1175.0	1174.8	0.961	2.313	72.808	22.743	1.031	0.043	0.090	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1407.41	-19.11
24	0.6937	1148.4	1168.7	1168.5	0.959	2.382	73.748	21.462	1.292	0.046	0.098	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1403.19	-19.53
25	0.6931	1147.7	1168.1	1167.9	0.958	2.362	73.913	21.279	1.336	0.045	0.094	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1403.03	-19.70
26	0.6967	1152.1	1172.5	1172.3	0.956	2.441	73.087	22.115	1.238	0.048	0.102	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1404.72	-18.47
27	0.6966	1153.6	1174.0	1173.8	0.964	2.328	73.151	22.148	1.238	0.050	0.106	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1406.61	-18.17
28	0.6987	1156.7	1177.2	1177.0	0.953	2.357	72.743	22.496	1.279	0.051	0.108	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1408.27	-17.04
29	0.7018	1160.1	1180.7	1180.5	0.959	2.435	72.621	22.116	1.599	0.075	0.167	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1409.31	-12.84
30	0.6966	1152.4	1172.8	1172.6	0.956	2.418	73.156	22.020	1.280	0.049	0.106	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1405.11	-18.20
31	0.6959	1151.6	1171.9	1171.7	0.948	2.424	73.122	22.176	1.175	0.046	0.097	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1404.86	-19.02
Avg	0.7074	1151.0	1171.5	1171.2	0.940	3.523	72.297	20.440	2.474	0.095	0.204	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1393.14	-14.57

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

# Source Daily Summary

March 2022

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	0.7590	1184.3	1205.2	1205.1	0.907	6.382	65.921	19.901	6.052	0.244	0.531	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1383.38	
2	0.7251	1144.8	1165.1	1164.9	0.805	5.764	70.892	17.381	4.540	0.176	0.387	0.025	0.028	0.000	0.000	0.000	0.000	0.000	1368.50	
3	0.6906	1106.4	1126.0	1125.8	0.706	5.016	75.929	14.963	3.004	0.113	0.241	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1355.34	
4	0.7419	1155.8	1176.3	1176.1	0.896	6.536	67.912	18.950	5.112	0.182	0.375	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1365.58	
5	0.7470	1162.8	1183.3	1183.2	0.913	6.561	67.190	19.363	5.348	0.192	0.393	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1369.14	
6	0.7521	1173.7	1194.5	1194.4	0.911	6.367	66.634	19.762	5.621	0.212	0.445	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1377.43	
7	0.7300	1145.2	1165.5	1165.3	0.815	6.181	70.008	17.612	4.795	0.177	0.369	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1364.17	
8	0.7287	1144.5	1164.7	1164.6	0.805	6.116	70.257	17.455	4.781	0.177	0.370	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1364.54	
9	0.7520	1170.7	1191.4	1191.3	0.912	6.546	66.568	19.669	5.629	0.205	0.428	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1373.90	
10	0.7500	1168.1	1188.8	1188.7	0.917	6.504	66.787	19.651	5.506	0.194	0.399	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1372.77	
11	0.7536	1173.4	1194.2	1194.0	0.916	6.518	66.350	19.829	5.703	0.209	0.431	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1375.68	
12	0.7537	1173.8	1194.6	1194.4	0.916	6.507	66.345	19.794	5.784	0.202	0.409	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1376.00	
13	0.7495	1165.0	1185.7	1185.5	0.912	6.658	66.815	19.456	5.564	0.185	0.369	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1369.53	
14	0.7524	1170.6	1191.4	1191.2	0.916	6.580	66.492	19.692	5.652	0.205	0.420	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1373.46	
15	0.7524	1171.7	1192.4	1192.2	0.912	6.518	66.492	19.781	5.621	0.205	0.425	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1374.65	
16	0.7487	1172.0	1192.7	1192.5	0.860	6.230	67.293	19.285	5.644	0.209	0.432	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1378.45	
17	0.7638	1192.5	1213.6	1213.4	0.902	6.329	65.205	20.434	6.296	0.246	0.525	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1388.72	
18	0.7611	1185.0	1206.0	1205.8	0.894	6.552	65.384	20.249	6.182	0.221	0.463	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1382.34	
19	0.7551	1173.7	1194.4	1194.2	0.895	6.680	66.058	19.860	5.870	0.195	0.398	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1374.55	
20	0.7532	1171.7	1192.5	1192.3	0.915	6.593	66.392	19.710	5.717	0.206	0.422	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1373.97	
21	0.7571	1179.0	1199.9	1199.7	0.919	6.501	65.995	19.917	5.920	0.225	0.470	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1378.99	
22	0.7628	1190.6	1211.7	1211.5	0.921	6.325	65.378	20.307	6.221	0.249	0.534	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1387.35	
23	0.7562	1180.5	1201.5	1201.2	0.927	6.315	66.174	19.975	5.833	0.230	0.492	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1381.58	
24	0.7578	1181.8	1202.7	1202.5	0.923	6.389	65.940	20.030	5.959	0.226	0.477	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1381.65	
25	0.7590	1183.7	1204.6	1204.5	0.919	6.401	65.715	20.199	6.018	0.223	0.470	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.69	
26	0.7570	1179.7	1200.5	1200.4	0.916	6.464	65.998	19.945	5.940	0.221	0.464	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.79	
27	0.7548	1176.0	1196.8	1196.6	0.919	6.479	66.210	19.925	5.754	0.216	0.451	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1377.49	
28	0.7514	1169.4	1190.1	1189.9	0.919	6.564	66.598	19.693	5.556	0.205	0.424	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1372.87	
29	0.7537	1173.9	1194.7	1194.6	0.921	6.489	66.348	19.859	5.681	0.213	0.442	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1376.19	
30	0.7584	1182.6	1203.5	1203.4	0.920	6.408	65.814	20.142	5.934	0.233	0.495	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1381.98	
31	0.7533	1173.3	1194.1	1193.9	0.919	6.492	66.394	19.839	5.660	0.211	0.439	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1375.86	
Avg	0.7497	1170.0	1190.9	1190.7	0.895	6.386	67.016	19.440	5.577	0.207	0.432	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1375.44	

# Source Daily Summary

March 2022

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	0.7560	1174.3	1195.0	1194.8	0.921	6.691	66.097	19.631	5.971	0.212	0.431	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1374.38	
2	0.7490	1161.4	1182.0	1181.8	0.923	6.808	66.939	19.212	5.473	0.198	0.404	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1365.81	
3	0.7480	1160.6	1181.2	1181.0	0.921	6.773	67.048	19.200	5.432	0.194	0.393	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1365.72	
4	0.7508	1166.4	1187.1	1186.9	0.924	6.677	66.706	19.453	5.581	0.203	0.414	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1369.97	
5	0.7559	1174.7	1195.5	1195.3	0.920	6.653	66.094	19.748	5.859	0.221	0.456	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1375.07	
6	0.7514	1166.8	1187.5	1187.3	0.919	6.711	66.646	19.434	5.627	0.205	0.415	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1369.94	
7	0.7537	1171.1	1191.9	1191.7	0.922	6.668	66.352	19.615	5.751	0.212	0.434	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1372.80	
8	0.7526	1168.0	1188.6	1188.4	0.919	6.759	66.478	19.465	5.712	0.205	0.417	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1370.14	
9	0.7537	1170.3	1191.1	1190.9	0.921	6.716	66.318	19.622	5.739	0.211	0.429	0.021	0.023	0.000	0.000	0.000	0.000	0.000	1371.91	
10	0.7553	1173.1	1193.8	1193.6	0.923	6.690	66.155	19.675	5.869	0.212	0.431	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1373.69	
11	0.7539	1170.3	1191.0	1190.8	0.921	6.738	66.291	19.553	5.865	0.197	0.392	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1371.65	
12	0.7540	1170.4	1191.1	1190.9	0.921	6.734	66.268	19.609	5.822	0.202	0.402	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1371.76	
13	0.7501	1163.8	1184.4	1184.2	0.924	6.772	66.772	19.343	5.543	0.200	0.404	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1367.53	
14	0.7544	1172.1	1192.9	1192.7	0.917	6.671	66.242	19.702	5.780	0.212	0.430	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1373.43	
15	0.7608	1184.7	1205.7	1205.5	0.911	6.516	65.486	20.160	6.173	0.232	0.472	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1382.25	
16	0.7641	1189.6	1210.7	1210.5	0.906	6.529	65.120	20.275	6.363	0.244	0.504	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1385.04	
17	0.7623	1183.8	1204.7	1204.5	0.899	6.733	65.245	20.078	6.301	0.226	0.463	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1379.82	
18	0.7532	1166.4	1187.0	1186.8	0.901	6.937	66.284	19.467	5.805	0.189	0.375	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1367.73	
19	0.7490	1161.2	1181.7	1181.5	0.923	6.831	66.886	19.236	5.512	0.192	0.381	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1365.41	
20	0.7527	1167.8	1188.4	1188.2	0.925	6.770	66.473	19.462	5.689	0.210	0.427	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1369.79	
21	0.7646	1191.0	1212.1	1211.9	0.927	6.464	65.167	20.204	6.374	0.257	0.543	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1386.16	
22	0.7564	1177.0	1197.9	1197.7	0.933	6.534	66.156	19.724	5.883	0.231	0.485	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1377.34	
23	0.7569	1177.1	1197.9	1197.7	0.928	6.593	66.023	19.771	5.945	0.223	0.463	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1376.86	
24	0.7596	1181.5	1202.4	1202.2	0.924	6.579	65.657	19.997	6.095	0.225	0.467	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1379.60	
25	0.7581	1178.3	1199.2	1199.0	0.925	6.633	65.859	19.817	6.019	0.225	0.468	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1377.25	
26	0.7542	1171.2	1191.9	1191.7	0.924	6.699	66.282	19.638	5.764	0.213	0.434	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1372.51	
27	0.7540	1171.4	1192.2	1192.0	0.926	6.663	66.303	19.681	5.728	0.214	0.439	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1372.97	
28	0.7554	1174.3	1195.1	1194.8	0.928	6.625	66.130	19.796	5.797	0.221	0.455	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1374.95	
29	0.7579	1178.7	1199.6	1199.4	0.926	6.592	65.865	19.913	5.935	0.231	0.485	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1377.87	
30	0.7530	1169.7	1190.4	1190.2	0.924	6.680	66.434	19.590	5.682	0.211	0.433	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1371.83	
31	0.7530	1169.8	1190.5	1190.2	0.926	6.673	66.410	19.639	5.669	0.210	0.430	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1371.90	
Avg	0.7550	1173.0	1193.6	1193.4	0.921	6.681	66.200	19.668	5.831	0.214	0.438	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1373.65	

# Gas Composition and Properties

Effective October 1, 2022

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:



# Source Daily Summary

March 2022

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	0.6907	1127.4	1147.4	1147.2	0.920	3.422	75.152	18.198	2.062	0.068	0.152	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1380.65	
2	0.6800	1111.0	1130.7	1126.8	0.818	3.576	76.985	16.514	1.878	0.065	0.144	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1371.08	
3	0.6697	1090.5	1109.8	1109.6	0.681	4.068	78.966	14.111	1.913	0.074	0.164	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1356.14	
4	0.7077	1148.2	1168.5	1168.3	1.075	3.524	72.192	20.628	2.234	0.095	0.220	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1389.02	
5	0.7112	1152.9	1173.3	1173.1	1.108	3.516	71.568	21.182	2.271	0.097	0.224	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1391.27	
6	0.7104	1150.4	1170.8	1170.6	1.106	3.598	71.789	20.804	2.340	0.100	0.230	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1389.06	
7	0.7088	1148.1	1168.5	1168.3	1.084	3.616	72.085	20.525	2.329	0.099	0.227	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1387.90	
8	0.7099	1149.6	1170.0	1169.8	1.099	3.611	71.855	20.757	2.318	0.098	0.228	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1388.57	
9	0.7088	1147.0	1167.3	1167.2	1.100	3.657	72.132	20.382	2.373	0.098	0.225	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1386.59	
10	0.7102	1149.8	1170.1	1169.9	1.103	3.624	71.846	20.693	2.373	0.099	0.227	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1388.45	
11	0.7092	1147.9	1168.2	1168.0	1.100	3.649	72.117	20.333	2.431	0.102	0.232	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1387.15	
12	0.7085	1147.6	1168.0	1167.8	1.112	3.581	72.163	20.452	2.337	0.098	0.224	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1387.54	
13	0.7095	1148.8	1169.1	1168.9	1.126	3.583	71.993	20.596	2.343	0.097	0.225	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1387.95	
14	0.7116	1152.3	1172.7	1172.5	1.123	3.566	71.622	20.945	2.380	0.100	0.230	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.18	
15	0.7112	1152.8	1173.2	1173.0	1.118	3.510	71.603	21.113	2.294	0.098	0.230	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.16	
16	0.7056	1144.9	1165.1	1165.0	1.068	3.542	72.668	20.103	2.254	0.097	0.229	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1387.04	
17	0.7108	1153.3	1173.7	1173.6	1.139	3.412	71.654	21.198	2.238	0.097	0.227	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1392.13	
18	0.7102	1152.0	1172.4	1172.2	1.137	3.435	71.777	21.052	2.243	0.096	0.225	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1391.18	
19	0.7104	1151.8	1172.2	1172.0	1.136	3.463	71.759	21.032	2.254	0.096	0.225	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1390.72	
20	0.7106	1152.2	1172.6	1172.4	1.130	3.473	71.678	21.123	2.239	0.097	0.225	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.01	
21	0.7103	1151.9	1172.3	1172.1	1.128	3.463	71.766	21.024	2.265	0.096	0.223	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.99	
22	0.7105	1152.1	1172.5	1172.3	1.127	3.475	71.739	21.020	2.284	0.097	0.224	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.95	
23	0.7103	1152.3	1172.7	1172.5	1.126	3.444	71.736	21.091	2.256	0.095	0.220	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1391.45	
24	0.7075	1146.7	1167.0	1166.8	1.122	3.524	72.358	20.344	2.297	0.096	0.223	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1387.43	
25	0.7096	1151.1	1171.5	1171.3	1.116	3.462	71.904	20.900	2.263	0.097	0.224	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1390.70	
26	0.7104	1152.0	1172.4	1172.2	1.124	3.463	71.765	21.018	2.279	0.095	0.221	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1391.04	
27	0.7096	1150.3	1170.7	1170.5	1.126	3.495	71.925	20.805	2.300	0.095	0.221	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1389.78	
28	0.7093	1149.9	1170.3	1170.1	1.126	3.488	71.985	20.760	2.292	0.095	0.220	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1389.60	
29	0.7095	1150.3	1170.7	1170.5	1.127	3.487	71.984	20.725	2.318	0.098	0.225	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1389.81	
30	0.7108	1153.5	1173.9	1173.8	1.154	3.368	71.684	21.188	2.261	0.095	0.218	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1392.47	
31	0.7117	1154.4	1174.9	1174.7	1.160	3.395	71.505	21.327	2.264	0.096	0.222	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1392.62	
Avg	0.7069	1147.0	1166.9	1166.6	1.088	3.532	72.386	20.385	2.264	0.094	0.218	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1387.79	

# Source Daily Summary

March 2022

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	0.7299	1153.5	1173.9	1173.1	0.776	5.731	69.748	18.604	4.614	0.164	0.329	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1374.06	
2	0.7280	1156.0	1176.5	1175.7	0.769	5.412	69.953	18.944	4.405	0.161	0.322	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1378.86	
3	0.7131	1139.9	1160.1	1159.3	0.708	5.088	71.966	18.221	3.609	0.129	0.253	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.79	
4	0.7112	1135.2	1155.3	1154.5	0.682	5.239	72.314	17.731	3.625	0.129	0.255	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1369.90	
5	0.7234	1149.3	1169.6	1168.8	0.750	5.417	70.797	18.196	4.316	0.162	0.327	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1375.17	
6	0.7303	1152.6	1173.0	1172.2	0.822	5.752	69.746	18.525	4.607	0.170	0.342	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1372.65	
7	0.7324	1156.0	1176.5	1175.6	0.870	5.667	69.451	18.797	4.661	0.173	0.345	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.73	
8	0.7262	1154.8	1175.2	1174.4	0.889	5.128	70.511	18.559	4.372	0.167	0.337	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1379.13	
9	0.7111	1134.9	1155.0	1154.2	0.753	5.142	72.561	17.377	3.746	0.132	0.261	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1369.58	
10	0.7106	1136.3	1156.4	1155.7	0.705	5.071	72.671	17.385	3.728	0.137	0.274	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.89	
11	0.7069	1133.4	1153.5	1152.7	0.700	4.910	73.228	17.172	3.589	0.127	0.247	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.94	
12	0.7228	1143.3	1163.5	1162.7	0.786	5.677	70.852	17.836	4.387	0.147	0.285	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1368.52	
13	0.7404	1160.0	1180.6	1179.7	0.852	6.196	68.321	18.871	5.150	0.189	0.380	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1372.05	
14	0.7509	1167.9	1188.5	1187.4	0.903	6.628	66.731	19.473	5.594	0.207	0.422	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1371.61	
15	0.7578	1182.0	1202.9	1201.8	0.893	6.432	65.905	20.006	6.027	0.226	0.461	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1381.81	
16	0.7639	1192.5	1213.6	1213.0	0.890	6.364	65.252	20.284	6.367	0.253	0.529	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1388.51	
17	0.7627	1187.5	1208.5	1207.9	0.881	6.569	65.253	20.208	6.320	0.234	0.481	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1383.80	
18	0.7550	1172.7	1193.4	1192.4	0.881	6.757	66.139	19.632	5.949	0.200	0.401	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1373.43	
19	0.7524	1169.8	1190.5	1189.4	0.903	6.651	66.577	19.453	5.743	0.209	0.421	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1372.46	
20	0.7534	1171.7	1192.5	1191.5	0.906	6.624	66.492	19.488	5.775	0.219	0.449	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1373.80	
21	0.7643	1193.4	1214.5	1213.5	0.907	6.319	65.274	20.254	6.365	0.262	0.554	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1389.23	
22	0.7564	1180.7	1201.6	1200.6	0.914	6.345	66.204	19.861	5.889	0.237	0.498	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.58	
23	0.7569	1180.1	1201.0	1200.0	0.909	6.434	66.093	19.854	5.946	0.231	0.480	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.45	
24	0.7607	1186.9	1207.9	1206.9	0.909	6.377	65.603	20.153	6.172	0.235	0.493	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1384.91	
25	0.7550	1178.2	1199.1	1198.2	0.903	6.377	66.342	19.779	5.872	0.221	0.456	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.04	
26	0.7507	1174.1	1194.9	1194.0	0.898	6.239	66.893	19.672	5.594	0.216	0.444	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1379.09	
27	0.7466	1165.5	1186.1	1185.2	0.888	6.398	67.363	19.316	5.383	0.202	0.410	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1372.69	
28	0.7448	1164.0	1184.6	1183.7	0.866	6.346	67.692	19.103	5.336	0.202	0.414	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1372.69	
29	0.7523	1177.6	1198.5	1197.6	0.867	6.218	66.793	19.634	5.725	0.230	0.482	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.77	
30	0.7459	1166.8	1187.5	1186.6	0.873	6.270	67.502	19.351	5.348	0.202	0.413	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1374.94	
31	0.7469	1165.1	1185.7	1184.8	0.892	6.441	67.299	19.338	5.376	0.202	0.411	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1372.00	
Avg	0.7407	1164.0	1184.5	1183.6	0.843	6.007	68.307	19.067	5.148	0.193	0.393	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1376.36	

# Source Daily Summary

March 2022

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	0.7444	1172.2	1192.9	1192.2	0.811	5.899	67.864	19.426	5.296	0.211	0.444	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1382.62	
2	0.7305	1154.3	1174.7	1174.1	0.782	5.736	69.633	18.712	4.612	0.164	0.326	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.37	
3	0.7281	1155.8	1176.2	1175.7	0.771	5.429	69.956	18.916	4.416	0.160	0.317	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.50	
4	0.7133	1139.8	1160.0	1159.4	0.714	5.106	71.949	18.203	3.624	0.129	0.250	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.44	
5	0.7112	1134.8	1154.9	1154.4	0.686	5.257	72.314	17.717	3.623	0.128	0.250	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1369.43	
6	0.7232	1148.4	1168.7	1168.2	0.754	5.449	70.814	18.166	4.302	0.160	0.320	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1374.28	
7	0.7301	1152.4	1172.8	1172.1	0.825	5.743	69.798	18.484	4.606	0.170	0.338	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1372.54	
8	0.7320	1155.4	1175.9	1175.3	0.876	5.656	69.498	18.799	4.629	0.170	0.336	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.39	
9	0.7265	1154.6	1175.1	1174.4	0.898	5.157	70.468	18.545	4.395	0.167	0.332	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1378.62	
10	0.7106	1134.4	1154.5	1153.9	0.757	5.116	72.668	17.308	3.734	0.132	0.258	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1369.53	
11	0.7107	1136.2	1156.3	1155.7	0.707	5.093	72.640	17.389	3.736	0.136	0.268	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.56	
12	0.7069	1133.1	1153.2	1152.4	0.701	4.931	73.201	17.197	3.574	0.125	0.243	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.55	
13	0.7231	1143.5	1163.8	1163.7	0.790	5.680	70.773	17.941	4.362	0.145	0.279	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1368.59	
14	0.7394	1159.1	1179.7	1179.6	0.852	6.162	68.420	18.905	5.071	0.185	0.368	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1371.88	
15	0.7496	1164.8	1185.4	1185.3	0.912	6.683	66.876	19.365	5.515	0.201	0.406	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1369.13	
16	0.7574	1180.3	1201.2	1201.1	0.900	6.487	65.901	20.024	5.970	0.222	0.448	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.23	
17	0.7634	1190.9	1212.0	1211.9	0.899	6.397	65.271	20.294	6.324	0.247	0.509	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1387.16	
18	0.7630	1187.3	1208.4	1208.3	0.889	6.594	65.203	20.227	6.320	0.234	0.478	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.39	
19	0.7554	1172.8	1193.6	1193.5	0.888	6.776	66.056	19.696	5.947	0.199	0.395	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1373.24	
20	0.7529	1170.0	1190.8	1190.6	0.907	6.684	66.462	19.527	5.756	0.207	0.413	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1372.23	
21	0.7529	1170.2	1190.9	1190.8	0.913	6.662	66.495	19.525	5.712	0.214	0.433	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1372.46	
22	0.7628	1189.7	1210.8	1210.7	0.916	6.392	65.420	20.139	6.287	0.254	0.529	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1386.30	
23	0.7553	1177.9	1198.8	1198.7	0.922	6.402	66.322	19.760	5.833	0.231	0.479	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.33	
24	0.7564	1178.6	1199.4	1199.3	0.919	6.465	66.160	19.789	5.913	0.229	0.473	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1379.13	
25	0.7599	1184.6	1205.5	1205.4	0.917	6.430	65.676	20.101	6.115	0.229	0.476	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1382.96	
26	0.7555	1178.1	1199.0	1198.9	0.911	6.423	66.263	19.780	5.901	0.221	0.451	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.41	
27	0.7505	1173.0	1193.8	1193.7	0.905	6.271	66.926	19.618	5.584	0.214	0.435	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1378.04	
28	0.7461	1164.2	1184.8	1184.7	0.894	6.418	67.416	19.285	5.350	0.198	0.398	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1371.69	
29	0.7448	1163.4	1184.0	1183.9	0.872	6.377	67.664	19.123	5.316	0.200	0.406	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1371.93	
30	0.7527	1177.3	1198.2	1198.1	0.876	6.259	66.697	19.702	5.712	0.228	0.473	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.06	
31	0.7459	1166.5	1187.1	1187.0	0.879	6.285	67.502	19.332	5.350	0.201	0.408	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1374.50	
Avg	0.7405	1163.0	1183.9	1183.6	0.847	6.014	68.332	19.064	5.125	0.191	0.385	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1375.92	

# Source Daily Summary

March 2022

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	0.7448	1172.5	1193.2	1192.7	0.814	5.912	67.814	19.438	5.314	0.212	0.445	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1382.59	
2	0.7316	1155.3	1175.8	1175.4	0.788	5.765	69.482	18.763	4.666	0.166	0.333	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.58	
3	0.7288	1156.5	1177.0	1176.8	0.774	5.447	69.852	18.957	4.450	0.162	0.321	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1378.71	
4	0.7133	1139.7	1159.8	1159.6	0.718	5.107	71.953	18.192	3.624	0.129	0.251	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.29	
5	0.7115	1135.5	1155.6	1155.3	0.687	5.240	72.260	17.784	3.623	0.128	0.251	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1370.00	
6	0.7226	1147.7	1168.0	1167.7	0.750	5.439	70.902	18.125	4.273	0.159	0.317	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1374.02	
7	0.7299	1152.2	1172.6	1172.1	0.819	5.745	69.828	18.464	4.599	0.170	0.338	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1372.51	
8	0.7327	1156.1	1176.5	1176.2	0.876	5.681	69.407	18.817	4.668	0.172	0.341	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1374.52	
9	0.7269	1154.9	1175.4	1175.1	0.900	5.172	70.412	18.566	4.410	0.168	0.334	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1378.60	
10	0.7110	1134.5	1154.5	1154.3	0.758	5.141	72.614	17.320	3.747	0.132	0.258	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1369.27	
11	0.7109	1136.2	1156.4	1156.2	0.709	5.102	72.613	17.398	3.742	0.136	0.269	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.48	
12	0.7069	1133.1	1153.1	1152.9	0.705	4.926	73.207	17.193	3.572	0.125	0.243	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.50	
13	0.7223	1142.8	1163.0	1163.0	0.786	5.653	70.897	17.887	4.326	0.144	0.277	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1368.48	
14	0.7390	1158.8	1179.3	1179.3	0.852	6.144	68.471	18.892	5.057	0.183	0.363	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1371.89	
15	0.7453	1157.2	1177.7	1177.6	0.914	6.739	67.333	19.167	5.277	0.182	0.357	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1364.16	
16	0.7489	1165.0	1185.6	1185.6	0.905	6.616	66.766	19.687	5.472	0.181	0.345	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1370.06	
17	0.7504	1167.8	1188.5	1188.4	0.908	6.577	66.582	19.807	5.567	0.184	0.348	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1372.03	
18	0.7506	1165.4	1186.0	1186.0	0.897	6.767	66.447	19.774	5.585	0.176	0.330	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1368.93	
19	0.7480	1159.4	1180.0	1179.9	0.893	6.891	66.812	19.401	5.504	0.165	0.309	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1364.31	
20	0.7488	1162.3	1182.9	1182.8	0.910	6.766	66.845	19.396	5.512	0.185	0.355	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1366.93	
21	0.7449	1155.7	1176.2	1176.1	0.918	6.790	67.314	19.189	5.248	0.176	0.337	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1362.76	
22	0.7476	1162.4	1183.0	1182.9	0.926	6.621	66.957	19.554	5.396	0.179	0.340	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1368.18	
23	0.7453	1160.0	1180.6	1180.5	0.928	6.543	67.341	19.369	5.259	0.181	0.352	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1367.55	
24	0.7456	1159.4	1179.9	1179.8	0.925	6.623	67.252	19.362	5.294	0.177	0.340	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1366.42	
25	0.7479	1163.2	1183.8	1183.7	0.925	6.602	66.895	19.631	5.414	0.173	0.332	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1368.85	
26	0.7412	1152.5	1172.9	1172.9	0.919	6.637	67.722	19.207	5.060	0.153	0.282	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1362.39	
27	0.7427	1159.1	1179.6	1179.6	0.911	6.385	67.685	19.351	5.141	0.173	0.329	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1368.79	
28	0.7408	1154.6	1175.1	1175.0	0.899	6.502	67.929	19.099	5.049	0.170	0.326	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1365.24	
29	0.7415	1157.5	1178.0	1178.0	0.874	6.425	67.990	18.998	5.136	0.183	0.362	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1368.03	
30	0.7480	1168.8	1189.5	1189.4	0.881	6.334	67.151	19.536	5.451	0.203	0.407	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1375.36	
31	0.7460	1166.1	1186.8	1186.7	0.882	6.306	67.467	19.356	5.345	0.200	0.404	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1374.06	
Avg	0.7360	1155.0	1175.7	1175.5	0.850	6.084	68.781	18.893	4.864	0.169	0.329	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1370.50	

# Source Daily Summary

March 2022

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	0.6725	1111.8	1131.4	1131.2	0.463	3.373	77.757	16.647	1.606	0.052	0.088	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1379.66	
2	0.6769	1120.1	1139.9	1139.7	0.486	3.236	76.946	17.548	1.627	0.053	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1385.56	
3	0.6743	1115.4	1135.1	1134.9	0.484	3.282	77.428	17.063	1.590	0.052	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1382.41	
4	0.6667	1102.3	1121.8	1121.5	0.404	3.489	78.666	15.880	1.427	0.045	0.078	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1373.90	
5	0.6659	1100.1	1119.6	1119.3	0.468	3.447	79.055	15.338	1.536	0.052	0.090	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1372.03	
6	0.6704	1106.2	1125.8	1125.6	0.588	3.321	78.516	15.664	1.723	0.062	0.108	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1374.95	
7	0.6802	1121.0	1140.9	1140.6	0.762	3.068	77.109	16.831	1.996	0.077	0.135	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1383.34	
8	0.6779	1118.4	1138.2	1138.0	0.880	2.836	77.605	16.555	1.900	0.074	0.129	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1382.37	
9	0.6621	1094.7	1114.1	1113.9	0.578	3.251	79.811	14.810	1.409	0.047	0.081	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.21	
10	0.6620	1094.2	1113.6	1113.4	0.489	3.404	79.751	14.781	1.432	0.048	0.082	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1368.76	
11	0.6626	1095.4	1114.8	1114.6	0.509	3.366	79.649	14.890	1.439	0.049	0.084	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1369.52	
12	0.6625	1094.8	1114.2	1113.9	0.530	3.360	79.765	14.705	1.487	0.051	0.087	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1368.86	
13	0.6625	1095.9	1115.3	1115.0	0.471	3.380	79.602	15.001	1.404	0.047	0.081	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1370.29	
14	0.6590	1090.1	1109.4	1109.1	0.550	3.289	80.273	14.456	1.303	0.044	0.075	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1366.57	
15	0.7129	1134.4	1154.5	1154.0	0.758	5.322	72.553	16.899	3.998	0.147	0.293	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1367.76	
16	0.6977	1136.0	1156.1	1155.7	0.677	3.929	74.304	17.957	2.800	0.103	0.204	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1384.34	
17	0.6987	1139.8	1160.0	1159.6	0.805	3.592	74.173	18.412	2.695	0.103	0.196	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1387.96	
18	0.7085	1140.6	1160.8	1160.1	0.740	4.573	72.452	18.686	3.223	0.105	0.200	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1379.49	
19	0.6885	1130.0	1150.0	1149.1	0.675	3.436	75.377	18.139	2.152	0.071	0.133	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1386.24	
20	0.6786	1122.3	1142.2	1141.1	0.850	2.711	77.192	17.332	1.723	0.062	0.113	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1386.56	
21	0.6793	1128.0	1148.0	1147.6	0.823	2.466	76.838	18.173	1.527	0.057	0.101	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1392.91	
22	0.6796	1127.3	1147.2	1146.9	0.880	2.454	76.953	17.913	1.614	0.061	0.108	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1391.65	
23	0.6799	1126.5	1146.5	1146.1	0.934	2.453	77.036	17.686	1.694	0.065	0.115	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1390.34	
24	0.6780	1123.4	1143.3	1142.8	0.951	2.429	77.448	17.288	1.689	0.064	0.113	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1388.55	
25	0.6742	1119.1	1138.9	1138.6	0.873	2.455	77.892	17.119	1.493	0.055	0.098	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1387.10	
26	0.6656	1103.7	1123.3	1123.0	0.836	2.643	79.371	15.668	1.335	0.049	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1376.81	
27	0.6545	1084.2	1103.4	1103.0	0.530	3.260	80.905	14.104	1.098	0.035	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1363.78	
28	0.6509	1076.4	1095.5	1095.1	0.344	3.672	81.358	13.466	1.066	0.032	0.054	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1357.81	
29	0.6581	1088.7	1107.9	1107.6	0.373	3.557	80.038	14.775	1.156	0.034	0.059	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1365.78	
30	0.6645	1100.0	1119.4	1119.1	0.511	3.264	79.066	15.757	1.285	0.040	0.069	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.26	
31	0.6673	1101.9	1121.4	1121.1	0.525	3.383	78.659	15.891	1.398	0.049	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.86	
Avg	0.6739	1111.0	1130.7	1130.4	0.637	3.281	77.856	16.304	1.736	0.061	0.109	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1377.44	

# Source Daily Summary

March 2022

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	0.6729	1115.8	1135.5	1135.4	0.410	3.242	77.491	17.219	1.503	0.047	0.079	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1384.29	
2	0.6767	1120.6	1140.4	1140.3	0.553	3.090	77.137	17.357	1.690	0.059	0.100	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1386.32	
3	0.6698	1109.4	1129.0	1128.9	0.422	3.324	78.094	16.551	1.469	0.048	0.081	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.53	
4	0.6638	1099.2	1118.7	1118.5	0.380	3.443	79.168	15.489	1.389	0.044	0.076	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1373.03	
5	0.6682	1104.5	1124.1	1123.9	0.533	3.300	78.767	15.594	1.633	0.057	0.100	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.11	
6	0.6776	1118.6	1138.4	1138.3	0.714	3.048	77.441	16.665	1.911	0.073	0.128	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1382.97	
7	0.6861	1131.5	1151.6	1151.4	0.925	2.736	76.333	17.558	2.179	0.088	0.155	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1390.25	
8	0.6631	1098.0	1117.4	1117.2	0.690	2.976	79.723	15.076	1.394	0.047	0.081	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1372.26	
9	0.6620	1095.9	1115.3	1115.1	0.513	3.276	79.735	14.919	1.417	0.047	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1370.71	
10	0.6621	1096.1	1115.6	1115.4	0.478	3.319	79.660	15.006	1.397	0.047	0.080	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1370.97	
11	0.6631	1097.5	1116.9	1116.7	0.525	3.262	79.593	15.006	1.465	0.050	0.086	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.61	
12	0.6625	1098.0	1117.4	1117.2	0.462	3.272	79.541	15.213	1.376	0.046	0.079	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1372.83	
13	0.6550	1085.2	1104.5	1104.3	0.533	3.231	80.915	14.021	1.183	0.040	0.068	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.67	
14	0.6743	1120.1	1139.9	1139.8	0.535	2.918	77.297	17.692	1.428	0.045	0.076	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1388.25	
15	0.6826	1128.4	1148.3	1148.0	0.728	2.904	76.259	18.151	1.759	0.067	0.117	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1389.90	
16	0.6786	1127.2	1147.2	1147.0	0.625	2.756	76.588	18.454	1.431	0.049	0.082	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1392.60	
17	0.6745	1123.8	1143.7	1143.5	0.669	2.512	77.363	17.978	1.344	0.046	0.079	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1392.59	
18	0.6731	1120.0	1139.9	1139.6	0.819	2.377	77.940	17.302	1.407	0.052	0.091	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1389.39	
19	0.6801	1130.9	1150.9	1150.6	0.803	2.403	76.637	18.452	1.532	0.058	0.101	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1395.55	
20	0.6788	1128.1	1148.1	1147.8	0.845	2.388	76.986	18.036	1.568	0.059	0.104	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1393.44	
21	0.6793	1127.1	1147.1	1146.9	0.931	2.366	77.106	17.738	1.663	0.065	0.114	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1391.68	
22	0.6792	1125.6	1145.5	1145.3	0.972	2.380	77.192	17.582	1.678	0.063	0.115	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1389.96	
23	0.6780	1124.6	1144.5	1144.3	0.950	2.365	77.358	17.499	1.639	0.061	0.112	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1389.94	
24	0.6721	1116.7	1136.5	1136.2	0.872	2.403	78.164	17.018	1.393	0.049	0.088	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1386.32	
25	0.6666	1107.2	1126.8	1126.6	0.819	2.557	79.096	16.080	1.305	0.047	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1380.03	
26	0.6567	1089.5	1108.8	1108.6	0.547	3.111	80.491	14.649	1.099	0.035	0.061	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1368.27	
27	0.6506	1077.7	1096.8	1096.6	0.330	3.588	81.362	13.594	1.035	0.032	0.053	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1359.73	
28	0.6590	1091.7	1111.1	1110.8	0.355	3.485	79.830	15.067	1.160	0.036	0.060	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1368.65	
29	0.6640	1101.4	1120.9	1120.8	0.475	3.185	79.060	15.927	1.244	0.039	0.064	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1375.59	
30	0.6708	1108.6	1128.2	1128.0	0.445	3.426	77.888	16.653	1.442	0.050	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1377.57	
31	0.6744	1113.7	1133.4	1133.2	0.392	3.541	77.096	17.351	1.480	0.049	0.084	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1380.16	
Avg	0.6702	1111.0	1130.4	1130.2	0.621	2.974	78.300	16.481	1.471	0.052	0.089	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1380.78	

# Source Daily Summary

March 2022

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	0.6614	1090.3	1109.6	1109.3	0.439	3.666	79.921	14.266	1.548	0.052	0.091	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1364.31	
2	0.6650	1097.0	1116.5	1115.9	0.458	3.568	79.294	14.887	1.639	0.051	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.09	
3	0.6635	1094.1	1113.5	1112.8	0.444	3.628	79.549	14.609	1.616	0.051	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1366.96	
4	0.6637	1094.1	1113.5	1112.8	0.435	3.655	79.516	14.620	1.620	0.051	0.089	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1366.79	
5	0.6633	1093.5	1112.9	1112.2	0.444	3.647	79.596	14.539	1.620	0.051	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1366.40	
6	0.6639	1094.7	1114.1	1113.6	0.453	3.615	79.513	14.624	1.639	0.052	0.091	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1367.31	
7	0.6624	1092.4	1111.7	1111.2	0.462	3.597	79.803	14.377	1.606	0.051	0.090	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.99	
8	0.6621	1091.8	1111.2	1110.7	0.461	3.605	79.831	14.363	1.588	0.050	0.088	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1365.60	
9	0.6617	1091.0	1110.3	1109.7	0.435	3.656	79.879	14.294	1.585	0.050	0.087	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1364.99	
10	0.6609	1089.9	1109.2	1108.6	0.444	3.633	80.046	14.155	1.572	0.050	0.087	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1364.47	
11	0.6607	1089.7	1109.0	1108.4	0.431	3.652	80.059	14.136	1.571	0.050	0.086	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1364.34	
12	0.6464	1061.2	1079.9	1079.4	0.396	4.102	82.776	11.162	1.382	0.055	0.105	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1343.11	
13	0.6415	1051.6	1070.2	1069.7	0.374	4.252	83.648	10.262	1.284	0.053	0.105	0.010	0.013	0.000	0.000	0.000	0.000	0.000	1336.19	
14	0.6393	1045.6	1064.1	1063.8	0.368	4.422	84.179	9.495	1.323	0.061	0.124	0.012	0.016	0.000	0.000	0.000	0.000	0.000	1330.84	
15	0.6440	1057.2	1075.9	1075.5	0.321	4.231	83.092	10.874	1.302	0.053	0.104	0.010	0.013	0.000	0.000	0.000	0.000	0.000	1340.56	
16	0.6557	1082.7	1101.9	1101.8	0.241	3.893	80.498	13.979	1.275	0.036	0.066	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1360.68	
17	0.6608	1093.7	1113.1	1113.0	0.405	3.457	79.803	14.811	1.410	0.040	0.066	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.29	
18	0.6479	1057.2	1075.9	1075.9	0.411	4.452	82.593	10.890	1.427	0.063	0.136	0.012	0.018	0.000	0.000	0.000	0.000	0.000	1336.70	
19	0.6476	1057.5	1076.2	1076.1	0.415	4.402	82.615	10.948	1.403	0.060	0.129	0.011	0.017	0.000	0.000	0.000	0.000	0.000	1337.32	
20	0.6478	1060.9	1079.7	1079.6	0.451	4.165	82.568	11.233	1.383	0.058	0.118	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1341.36	
21	0.6603	1084.4	1103.6	1103.6	0.476	3.868	80.167	13.778	1.539	0.054	0.101	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1358.13	
22	0.6628	1090.1	1109.4	1109.3	0.489	3.740	79.608	14.493	1.520	0.050	0.088	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1362.67	
23	0.6569	1071.3	1090.3	1090.2	0.547	4.238	80.910	12.605	1.491	0.063	0.124	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1345.06	
24	0.6389	1042.4	1060.9	1060.8	0.417	4.502	84.166	9.477	1.240	0.056	0.117	0.010	0.015	0.000	0.000	0.000	0.000	0.000	1327.15	
25	0.6393	1039.3	1057.7	1057.4	0.445	4.686	84.265	9.043	1.322	0.065	0.142	0.013	0.019	0.000	0.000	0.000	0.000	0.000	1322.87	
26	0.6379	1047.9	1066.4	1065.7	0.352	4.171	84.194	9.953	1.182	0.046	0.086	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1335.19	
27	0.6468	1066.3	1085.1	1084.5	0.378	3.849	82.524	11.817	1.300	0.044	0.075	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1349.31	
28	0.6503	1071.1	1090.1	1089.5	0.393	3.859	81.744	12.621	1.268	0.039	0.067	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1351.82	
29	0.6545	1074.6	1093.6	1093.1	0.397	4.043	80.987	13.066	1.372	0.045	0.079	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1351.76	
30	0.6586	1085.8	1105.0	1104.1	0.425	3.701	80.396	13.832	1.502	0.048	0.084	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1361.60	
31	0.6609	1090.8	1110.1	1109.3	0.422	3.613	79.989	14.281	1.550	0.048	0.084	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1365.57	
Avg	0.6544	1076.0	1094.9	1094.4	0.420	3.921	81.217	12.822	1.454	0.052	0.096	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1353.34	

# Source Daily Summary

March 2022

Source #: 111  
Name: LITTLE KNIFE PLANT

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6866	1156.2	1176.7	1175.0	0.000	2.698	73.300	23.324	0.650	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.14	-25.49
2	0.6849	1153.9	1174.4	1173.1	0.000	2.684	73.568	23.136	0.587	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.00	-26.57
3	0.6836	1150.6	1170.9	1169.1	0.000	2.765	73.802	22.843	0.574	0.006	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.22	-27.68
4	0.6888	1159.7	1180.3	1178.7	0.000	2.690	72.871	23.743	0.667	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.17	-24.31
5	0.6860	1154.9	1175.4	1174.1	0.000	2.726	73.346	23.318	0.582	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.08	-26.12
6	0.6876	1157.4	1177.9	1176.5	0.000	2.722	73.097	23.506	0.645	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.49	-25.06
7	0.6883	1158.5	1179.0	1177.6	0.000	2.719	72.988	23.583	0.680	0.011	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.18	-24.57
8	0.6874	1157.0	1177.5	1176.2	0.000	2.733	73.087	23.532	0.627	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.16	-25.37
9	0.6839	1152.1	1172.5	1170.7	0.000	2.702	73.625	23.211	0.445	0.006	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.75	-27.84
10	0.6841	1152.4	1172.8	1170.9	0.000	2.704	73.511	23.367	0.404	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.92	-27.85
11	0.6871	1156.8	1177.2	1175.5	0.000	2.714	73.164	23.477	0.618	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.24	-25.42
12	0.6865	1155.9	1176.4	1174.8	0.000	2.712	73.299	23.325	0.637	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.80	-25.63
13	0.6876	1157.1	1177.6	1176.1	0.000	2.741	73.090	23.486	0.662	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.14	-25.20
14	0.6882	1158.0	1178.5	1176.8	0.000	2.741	73.028	23.499	0.702	0.010	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.62	-24.59
15	0.6891	1160.0	1180.5	1179.0	0.000	2.713	72.878	23.629	0.749	0.011	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.02	-23.86
16	0.6885	1158.5	1179.0	1177.5	0.000	2.738	72.972	23.548	0.711	0.011	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.96	-24.37
17	0.6882	1158.2	1178.7	1177.2	0.000	2.727	73.039	23.494	0.709	0.011	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.91	-24.51
18	0.6877	1157.6	1178.1	1176.5	0.000	2.718	73.016	23.634	0.612	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.68	-25.27
19	0.6877	1157.6	1178.1	1176.5	0.000	2.719	73.130	23.422	0.698	0.010	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.63	-24.80
20	0.6877	1157.5	1178.0	1176.6	0.000	2.730	73.122	23.415	0.702	0.011	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.47	-24.77
21	0.6889	1159.3	1179.8	1178.6	0.000	2.729	72.922	23.570	0.745	0.011	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.50	-24.00
22	0.6879	1157.6	1178.1	1176.7	0.000	2.744	73.063	23.457	0.714	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.36	-24.81
23	0.6880	1157.9	1178.4	1176.8	0.000	2.731	73.078	23.443	0.716	0.011	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.67	-24.57
24	0.6884	1158.5	1179.0	1177.7	0.000	2.732	72.997	23.521	0.716	0.011	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.05	-24.34
25	0.6884	1158.2	1178.7	1177.3	0.000	2.750	72.980	23.533	0.706	0.011	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.66	-24.44
26	0.6880	1158.0	1178.5	1177.2	0.000	2.729	73.062	23.474	0.703	0.011	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.74	-24.60
27	0.6874	1156.9	1177.4	1176.2	0.000	2.736	73.163	23.383	0.688	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.09	-24.99
28	0.6878	1157.9	1178.4	1176.8	0.000	2.716	73.072	23.498	0.692	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.84	-24.88
29	0.6881	1158.2	1178.7	1177.5	0.000	2.723	73.045	23.505	0.685	0.013	0.026	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.95	-24.46
30	0.6874	1157.1	1177.6	1175.9	0.000	2.723	73.134	23.456	0.666	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.33	-25.23
31	0.6877	1158.0	1178.5	1176.9	0.000	2.698	73.115	23.464	0.690	0.011	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.13	-24.70
Avg	0.6873	1157.0	1177.5	1176.0	0.000	2.723	73.147	23.445	0.658	0.010	0.017	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1420.29	-25.17

# Source Daily Summary

March 2022

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	0.6490	1071.5	1090.5	1090.2	0.361	3.762	82.177	12.174	1.377	0.049	0.086	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1353.67	
2	0.6512	1072.5	1091.5	1091.2	0.334	3.960	81.733	12.385	1.429	0.050	0.093	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1352.50	
3	0.6497	1071.3	1090.3	1090.0	0.298	3.944	81.984	12.210	1.406	0.050	0.092	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1352.59	
4	0.6495	1072.9	1091.9	1091.7	0.267	3.872	81.999	12.301	1.407	0.050	0.090	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1354.88	
5	0.6480	1069.7	1088.6	1088.4	0.391	3.994	81.901	12.162	1.398	0.049	0.089	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1352.32	
6	0.6465	1066.4	1085.3	1085.1	0.391	3.994	81.901	12.162	1.398	0.049	0.089	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1349.79	
7	0.6449	1063.3	1082.1	1081.9	0.391	3.994	81.901	12.162	1.398	0.049	0.089	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1347.48	
8	0.6434	1060.0	1078.8	1078.6	0.391	3.994	81.901	12.162	1.398	0.049	0.089	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1344.93	
9	0.6419	1056.8	1075.5	1075.3	0.393	3.949	83.475	10.806	1.236	0.046	0.081	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1342.38	
10	0.6422	1056.9	1075.6	1075.4	0.394	3.966	83.433	10.821	1.242	0.047	0.082	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1342.22	
11	0.6412	1055.9	1074.6	1074.4	0.393	3.940	83.599	10.708	1.220	0.046	0.079	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1341.94	
12	0.6434	1056.7	1075.4	1075.1	0.387	4.110	83.202	10.867	1.281	0.048	0.088	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1340.61	
13	0.6505	1069.3	1088.2	1087.9	0.391	3.994	81.902	12.162	1.398	0.049	0.089	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1349.29	
14	0.6569	1080.3	1099.4	1099.1	0.493	3.774	80.959	13.008	1.580	0.059	0.108	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1356.44	
15	0.6582	1083.1	1102.3	1101.9	0.482	3.740	80.552	13.575	1.490	0.052	0.094	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1358.69	
16	0.6615	1092.9	1112.2	1111.9	0.368	3.638	79.579	14.897	1.401	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1367.43	
17	0.6613	1090.9	1110.2	1109.9	0.189	4.004	79.206	15.242	1.273	0.029	0.050	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1365.29	
18	0.6576	1082.3	1101.4	1101.1	0.329	3.970	80.327	13.845	1.397	0.043	0.077	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1358.24	
19	0.6559	1077.3	1096.4	1096.0	0.453	3.929	80.926	13.063	1.471	0.050	0.094	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1353.70	
20	0.6537	1071.8	1090.8	1090.5	0.450	4.056	81.308	12.606	1.424	0.050	0.093	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1349.15	
21	0.6570	1078.3	1097.4	1097.1	0.436	3.989	80.688	13.257	1.473	0.050	0.093	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1353.92	
22	0.6568	1079.0	1098.1	1097.8	0.415	3.958	80.765	13.189	1.509	0.051	0.097	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1355.03	
23	0.6641	1087.8	1107.0	1106.7	0.458	4.049	79.385	14.345	1.593	0.054	0.101	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1358.44	
24	0.6270	1034.0	1052.3	1051.9	0.348	4.007	86.155	8.394	0.979	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1328.80	
25	0.5780	969.4	986.6	986.3	0.138	3.643	94.973	1.116	0.111	0.011	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1297.78	
26	0.5724	962.2	979.2	978.9	0.110	3.607	95.963	0.297	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.29	
27	0.5723	962.4	979.5	979.1	0.108	3.588	95.984	0.297	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.69	
28	0.5722	962.7	979.8	979.4	0.108	3.556	96.016	0.297	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.26	
29	0.5722	962.6	979.7	979.4	0.107	3.566	96.007	0.297	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.10	
30	0.6263	1024.6	1042.8	1042.5	0.268	4.631	86.270	7.628	1.051	0.044	0.092	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1317.97	
31	0.6425	1053.7	1072.3	1072.0	0.361	4.238	83.340	10.639	1.270	0.048	0.088	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1337.85	
Avg	0.6370	1052.0	1070.2	1069.9	0.336	3.917	84.178	10.293	1.151	0.041	0.073	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1340.73	

# Gas Composition and Properties

Effective March 1, 2022

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	1.2509		3.0344	Pressure Base	14.730	
Nitrogen, N2	3.3392		5.1559	Temperature Base	60.00	
Methane, C1	86.3160		76.3242	HCDP @ Sample Pressure	-73.627	
Ethane, C2	8.6063	2.3012	14.2638	Cricondentherm	-68.584	
Propane, C3	0.4437	0.1222	1.0784	HV, Dry @ Base P, T	1041.53	4755.9000
iso-Butane, iC4	0.0133	0.0044	0.0426	HV, Sat @ Base P, T	1023.40	
n-Butane, nC4	0.0272	0.0086	0.0871	HV, Sat @ Sample P, T	1041.53	
iso-Pentane, iC5	0.0017	0.0006	0.0068	Relative Density	0.6276	0.66406
n-Pentane, nC5	0.0017	0.0006	0.0068			
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>2.4380</b>	<b>100.0000</b>			

**Sample**

Date: 03/01/2022                      Type:

Tech: Joshua Tipton

Pressure:                      520.000 psi      Temp.:                      °F

Gauge:                              Gauge                      H2O:

Atm. Pressure:                      H2S:

Remarks:

**Analysis**

Date:                                      Instrument:

    Cylinder:

Tech:

Remarks:

March-22

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	
3/1/2022	3/2/2022	1,881	2,037	1083.10	2,931	3,314	1131.4	1112.520	3/1/2022
3/2/2022	3/3/2022	1,884	2,036	1080.30	4,388	5,003	1139.9	1121.997	3/2/2022
3/3/2022	3/4/2022	1,868	2,011	1076.90	4,766	5,410	1135.1	1118.712	3/3/2022
3/4/2022	3/5/2022	1,872	2,018	1078.10	3,872	4,344	1121.8	1107.558	3/4/2022
3/5/2022	3/6/2022	1,903	2,051	1078.00	4,913	5,502	1119.6	1107.985	3/5/2022
3/6/2022	3/7/2022	1,871	2,015	1077.10	4,429	4,989	1125.8	1111.337	3/6/2022
3/7/2022	3/8/2022	1,867	2,009	1076.00	2,914	3,331	1140.9	1115.556	3/7/2022
3/8/2022	3/9/2022	1,892	2,036	1076.20	5,222	5,926	1138.2	1121.711	3/8/2022
3/9/2022	3/10/2022	2,775	2,981	1074.10	5,897	6,570	1114.1	1101.300	3/9/2022
3/10/2022	3/11/2022	1,895	2,033	1072.90	6,303	7,020	1113.6	1104.192	3/10/2022
3/11/2022	3/12/2022	1,845	1,978	1071.70	5,921	6,601	1114.8	1104.561	3/11/2022
3/12/2022	3/13/2022	1,780	1,907	1071.40	2,628	2,927	1114.2	1096.917	3/12/2022
3/13/2022	3/14/2022	1,877	2,010	1071.30	2,500	2,790	1115.3	1096.431	3/13/2022
3/14/2022	3/15/2022	1,850	1,980	1070.30	2,183	2,417	1109.4	1091.464	3/14/2022
3/15/2022	3/16/2022	1,526	1,637	1072.30	915	1,039	1154.5	1103.112	3/15/2022
3/16/2022	3/17/2022	1,759	1,888	1073.10	1,341	1,537	1156.1	1109.004	3/16/2022
3/17/2022	3/18/2022	1,788	1,919	1073.80	1,502	1,729	1160	1113.153	3/17/2022
3/18/2022	3/19/2022	1,769	1,898	1072.50	953	1,098	1156.2	1101.804	3/18/2022
3/19/2022	3/20/2022	1,774	1,903	1072.70	836	955	1142.5	1095.057	3/19/2022
3/20/2022	3/21/2022	1,824	1,958	1073.60	636	724	1137.7	1090.172	3/20/2022
3/21/2022	3/22/2022	1,885	2,021	1072.40	1,718	1,976	1148.3	1108.591	3/21/2022
3/22/2022	3/23/2022	1,918	2,051	1069.40	1,771	2,031	1147.2	1106.750	3/22/2022
3/23/2022	3/24/2022	1,873	1,995	1064.70	1,596	1,828	1146.4	1102.288	3/23/2022
3/24/2022	3/25/2022	1,893	2,023	1068.60	1,545	1,766	1143.4	1102.214	3/24/2022
3/25/2022	3/26/2022	1,908	2,035	1067.00	2,401	2,731	1138.9	1107.063	3/25/2022
3/26/2022	3/27/2022	1,916	2,047	1068.70	2,723	3,054	1123.3	1100.749	3/26/2022
3/27/2022	3/28/2022	1,911	2,043	1069.00	2,590	2,851	1103.4	1088.795	3/27/2022
3/28/2022	3/29/2022	1,879	2,007	1068.00	1,735	1,902	1095.5	1081.202	3/28/2022
3/29/2022	3/30/2022	1,931	2,065	1069.30	2,529	2,802	1107.9	1091.188	3/29/2022
3/30/2022	3/31/2022	1,881	2,010	1068.60	3,432	3,839	1119.4	1101.415	3/30/2022
3/31/2022	4/1/2022	1,896	2,026	1068.60	1,669	1,875	1121.5	1093.366	3/31/2022
		58,391	62,628	1072.5710	88,759	99,881	1130.2032	1103.4892	



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND07MD1 --- Hankinson Sales  
 March 2022

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	1,147.715	0.6538	85.0643	9.6927	3.1349	0.3206	0.5186	0.0550	0.0414	0.0208	0.8083	0.3335	0.0099
2	1,148.717	0.6544	84.9786	9.7554	3.1569	0.3217	0.5224	0.0551	0.0417	0.0211	0.8044	0.3326	0.0100
3	1,148.686	0.6557	84.8348	9.6714	3.2433	0.3262	0.5424	0.0549	0.0411	0.0205	0.9175	0.3382	0.0098
4	1,147.790	0.6539	85.1048	9.5906	3.1865	0.3211	0.5235	0.0548	0.0411	0.0212	0.8208	0.3258	0.0098
5	1,149.087	0.6547	85.0282	9.6181	3.2128	0.3283	0.5386	0.0568	0.0431	0.0217	0.8192	0.3238	0.0094
6	1,157.408	0.6605	84.4594	9.6107	3.6150	0.3584	0.6295	0.0569	0.0428	0.0224	0.8822	0.3134	0.0093
7	1,158.220	0.6612	84.3894	9.6071	3.6661	0.3605	0.6356	0.0570	0.0431	0.0225	0.8987	0.3106	0.0094
8	1,157.648	0.6605	84.5059	9.5432	3.6543	0.3569	0.6280	0.0573	0.0433	0.0232	0.8614	0.3175	0.0091
9	1,157.763	0.6603	84.5522	9.5402	3.6384	0.3603	0.6287	0.0573	0.0426	0.0230	0.8323	0.3161	0.0089
10	1,158.797	0.6617	84.3331	9.6105	3.7131	0.3614	0.6316	0.0569	0.0426	0.0229	0.9004	0.3186	0.0089
11	1,158.974	0.6617	84.4073	9.5232	3.7148	0.3674	0.6467	0.0608	0.0452	0.0224	0.8813	0.3219	0.0090
12	1,158.452	0.6606	84.5112	9.5428	3.6921	0.3591	0.6142	0.0599	0.0447	0.0234	0.8315	0.3122	0.0088
13	1,160.496	0.6626	84.2566	9.5727	3.8666	0.3589	0.5966	0.0628	0.0472	0.0241	0.8861	0.3198	0.0086
14	1,159.517	0.6617	84.3242	9.6140	3.8081	0.3536	0.5812	0.0597	0.0453	0.0235	0.8647	0.3168	0.0089
15	1,159.103	0.6612	84.4504	9.5066	3.8178	0.3530	0.5789	0.0599	0.0460	0.0242	0.8380	0.3163	0.0089
16	1,159.453	0.6612	84.4769	9.5130	3.7783	0.3562	0.5951	0.0628	0.0483	0.0266	0.8216	0.3120	0.0091
17	1,158.930	0.6609	84.4839	9.5053	3.7831	0.3552	0.5932	0.0578	0.0447	0.0238	0.8329	0.3110	0.0090
18	1,158.739	0.6610	84.4731	9.4735	3.8083	0.3538	0.5892	0.0592	0.0451	0.0229	0.8603	0.3057	0.0090
19	1,159.834	0.6619	84.3301	9.5584	3.8478	0.3536	0.5905	0.0600	0.0453	0.0219	0.8709	0.3124	0.0091
20	1,160.294	0.6622	84.3046	9.5632	3.8468	0.3603	0.6011	0.0601	0.0468	0.0223	0.8770	0.3092	0.0085
21	1,160.241	0.6630	84.1755	9.5807	3.8874	0.3586	0.6063	0.0575	0.0453	0.0216	0.9415	0.3168	0.0088
22	1,159.899	0.6625	84.2443	9.5744	3.8553	0.3579	0.6011	0.0582	0.0452	0.0228	0.9175	0.3143	0.0089
23	1,158.756	0.6615	84.3468	9.5615	3.8106	0.3513	0.5853	0.0561	0.0449	0.0233	0.9007	0.3110	0.0087
24	1,159.458	0.6622	84.2666	9.5888	3.8398	0.3539	0.5914	0.0565	0.0446	0.0231	0.8990	0.3274	0.0089
25	1,159.122	0.6620	84.2733	9.6210	3.7973	0.3537	0.5909	0.0580	0.0455	0.0236	0.9027	0.3249	0.0090
26	1,158.109	0.6611	84.3707	9.6069	3.7549	0.3488	0.5786	0.0572	0.0446	0.0229	0.8870	0.3193	0.0091
27	1,157.883	0.6611	84.3969	9.5606	3.7555	0.3502	0.5780	0.0587	0.0457	0.0268	0.8945	0.3243	0.0089
28	1,158.276	0.6617	84.2850	9.6098	3.8123	0.3436	0.5700	0.0572	0.0444	0.0227	0.9176	0.3285	0.0089
29	1,158.041	0.6614	84.3292	9.5768	3.8225	0.3414	0.5646	0.0559	0.0435	0.0223	0.9162	0.3184	0.0091
30	1,158.173	0.6616	84.3308	9.5501	3.8041	0.3472	0.5834	0.0586	0.0454	0.0238	0.9320	0.3155	0.0092
31	1,158.120	0.6620	84.2423	9.5850	3.8293	0.3472	0.5775	0.0565	0.0441	0.0218	0.9618	0.3253	0.0090
<b>Volume</b>	<b>1,157.143</b>	<b>0.6604</b>	<b>84.4694</b>	<b>9.5817</b>	<b>3.6815</b>	<b>0.3497</b>	<b>0.5876</b>	<b>0.0579</b>	<b>0.0443</b>	<b>0.0229</b>	<b>0.8767</b>	<b>0.3191</b>	<b>0.0091</b>
<b>Weight Avg Energy</b>	<b>1,157.157</b>	<b>0.6604</b>	<b>84.4686</b>	<b>9.5815</b>	<b>3.6823</b>	<b>0.3498</b>	<b>0.5877</b>	<b>0.0579</b>	<b>0.0443</b>	<b>0.0229</b>	<b>0.8768</b>	<b>0.3191</b>	<b>0.0091</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND14MD1 --- Milnor Sales  
 March 2022

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	1,147.523	0.6537	85.0842	9.6897	3.1265	0.3198	0.5162	0.0548	0.0413	0.0208	0.8051	0.3319	0.0099
2	1,149.301	0.6550	84.9134	9.7744	3.1792	0.3250	0.5294	0.0554	0.0419	0.0210	0.8165	0.3341	0.0100
3	1,148.962	0.6561	84.7914	9.6812	3.2592	0.3269	0.5455	0.0551	0.0411	0.0205	0.9299	0.3393	0.0098
4	1,147.415	0.6537	85.1469	9.5549	3.1808	0.3208	0.5231	0.0548	0.0411	0.0213	0.8208	0.3255	0.0099
5	1,149.285	0.6548	85.0331	9.6097	3.2191	0.3294	0.5414	0.0568	0.0433	0.0217	0.8154	0.3206	0.0096
6	1,159.136	0.6621	84.2888	9.6328	3.7036	0.3640	0.6503	0.0568	0.0423	0.0218	0.9128	0.3177	0.0092
7	1,157.916	0.6609	84.4257	9.5966	3.6532	0.3596	0.6319	0.0569	0.0430	0.0225	0.8924	0.3087	0.0094
8	1,157.524	0.6604	84.5312	9.5318	3.6474	0.3570	0.6274	0.0573	0.0432	0.0235	0.8565	0.3157	0.0090
9	1,157.478	0.6602	84.5574	9.5378	3.6303	0.3590	0.6275	0.0572	0.0425	0.0230	0.8410	0.3153	0.0089
10	1,158.627	0.6616	84.3478	9.6085	3.7085	0.3606	0.6265	0.0573	0.0430	0.0228	0.8971	0.3190	0.0089
11	1,158.826	0.6615	84.4240	9.5251	3.7057	0.3665	0.6439	0.0607	0.0451	0.0226	0.8770	0.3204	0.0090
12	1,158.484	0.6607	84.5093	9.5440	3.6909	0.3597	0.6145	0.0601	0.0450	0.0237	0.8314	0.3125	0.0089
13	1,159.961	0.6622	84.3089	9.5610	3.8441	0.3568	0.5907	0.0623	0.0471	0.0242	0.8807	0.3156	0.0085
14	1,159.666	0.6618	84.3251	9.6173	3.8098	0.3544	0.5812	0.0598	0.0455	0.0236	0.8583	0.3161	0.0090
15	1,158.597	0.6608	84.5136	9.4718	3.7978	0.3524	0.5784	0.0601	0.0460	0.0244	0.8311	0.3155	0.0089
16	1,159.408	0.6612	84.4806	9.5151	3.7793	0.3560	0.5936	0.0620	0.0478	0.0259	0.8186	0.3120	0.0091
17	1,158.587	0.6608	84.5016	9.4994	3.7731	0.3539	0.5894	0.0579	0.0448	0.0238	0.8366	0.3105	0.0090
18	1,158.724	0.6610	84.4932	9.4500	3.8146	0.3539	0.5905	0.0594	0.0450	0.0227	0.8561	0.3056	0.0090
19	1,159.907	0.6620	84.3318	9.5511	3.8465	0.3552	0.5949	0.0603	0.0455	0.0219	0.8710	0.3127	0.0090
20	1,160.728	0.6628	84.2452	9.5687	3.8686	0.3628	0.6096	0.0602	0.0474	0.0223	0.8948	0.3119	0.0085
21	1,160.419	0.6633	84.1321	9.5997	3.9012	0.3577	0.6058	0.0573	0.0449	0.0217	0.9536	0.3171	0.0088
22	1,159.719	0.6623	84.2778	9.5714	3.8360	0.3580	0.6010	0.0584	0.0454	0.0230	0.9058	0.3143	0.0089
23	1,158.796	0.6616	84.3372	9.5652	3.8163	0.3506	0.5843	0.0558	0.0447	0.0233	0.9020	0.3119	0.0087
24	1,159.767	0.6625	84.2417	9.6033	3.8447	0.3553	0.5936	0.0571	0.0451	0.0235	0.8985	0.3283	0.0089
25	1,158.566	0.6617	84.3141	9.6054	3.7814	0.3515	0.5865	0.0574	0.0450	0.0232	0.9035	0.3231	0.0090
26	1,157.991	0.6610	84.3969	9.5906	3.7498	0.3495	0.5784	0.0573	0.0448	0.0231	0.8831	0.3175	0.0091
27	1,157.584	0.6611	84.3967	9.5562	3.7606	0.3463	0.5727	0.0577	0.0449	0.0274	0.9040	0.3246	0.0089
28	1,158.146	0.6617	84.2986	9.6008	3.8088	0.3429	0.5693	0.0573	0.0447	0.0230	0.9178	0.3280	0.0089
29	1,157.969	0.6614	84.3411	9.5665	3.8221	0.3419	0.5652	0.0558	0.0432	0.0220	0.9155	0.3176	0.0091
30	1,158.254	0.6618	84.3130	9.5579	3.8041	0.3484	0.5853	0.0588	0.0457	0.0238	0.9381	0.3158	0.0092
31	1,158.121	0.6620	84.2505	9.5905	3.8266	0.3466	0.5750	0.0563	0.0441	0.0219	0.9552	0.3242	0.0090
<b>Volume</b>	<b>1,156.574</b>	<b>0.6601</b>	<b>84.5020</b>	<b>9.5861</b>	<b>3.6453</b>	<b>0.3488</b>	<b>0.5878</b>	<b>0.0576</b>	<b>0.0440</b>	<b>0.0228</b>	<b>0.8766</b>	<b>0.3199</b>	<b>0.0092</b>
<b>Weight Avg Energy</b>	<b>1,156.596</b>	<b>0.6601</b>	<b>84.5005</b>	<b>9.5860</b>	<b>3.6464</b>	<b>0.3489</b>	<b>0.5880</b>	<b>0.0576</b>	<b>0.0440</b>	<b>0.0228</b>	<b>0.8767</b>	<b>0.3199</b>	<b>0.0092</b>

March-22

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		
3/1/2022	3/2/2022	309	370	1196.6	733	763	1041.5	1087.494	3/1/2022
3/2/2022	3/3/2022	430	514	1196.6	1,087	1,132	1041.5	1085.464	3/2/2022
3/3/2022	3/4/2022	459	549	1196.6	1,338	1,394	1041.5	1081.117	3/3/2022
3/4/2022	3/5/2022	403	483	1196.6	1,032	1,075	1041.5	1085.058	3/4/2022
3/5/2022	3/6/2022	483	578	1196.6	1,034	1,077	1041.5	1090.883	3/5/2022
3/6/2022	3/7/2022	435	520	1196.6	885	922	1041.5	1092.613	3/6/2022
3/7/2022	3/8/2022	384	459	1196.6	832	867	1041.5	1090.479	3/7/2022
3/8/2022	3/9/2022	550	659	1196.6	1,134	1,181	1041.5	1092.156	3/8/2022
3/9/2022	3/10/2022	565	676	1196.6	1,216	1,267	1041.5	1090.704	3/9/2022
3/10/2022	3/11/2022	632	756	1196.6	1,341	1,397	1041.5	1091.182	3/10/2022
3/11/2022	3/12/2022	515	616	1196.6	1,064	1,109	1041.5	1092.087	3/11/2022
3/12/2022	3/13/2022	293	350	1196.6	710	739	1041.5	1086.808	3/12/2022
3/13/2022	3/14/2022	309	369	1196.6	778	810	1041.5	1085.590	3/13/2022
3/14/2022	3/15/2022	245	294	1196.6	602	627	1041.5	1086.364	3/14/2022
3/15/2022	3/16/2022	163	195	1196.6	508	529	1041.5	1079.177	3/15/2022
3/16/2022	3/17/2022	227	271	1196.6	596	621	1041.5	1084.280	3/16/2022
3/17/2022	3/18/2022	207	248	1196.6	540	562	1041.5	1084.480	3/17/2022
3/18/2022	3/19/2022	208	249	1196.6	476	496	1041.5	1088.665	3/18/2022
3/19/2022	3/20/2022	167	200	1196.6	435	453	1041.5	1084.526	3/19/2022
3/20/2022	3/21/2022	176	210	1196.6	451	470	1041.5	1085.037	3/20/2022
3/21/2022	3/22/2022	259	310	1196.6	624	650	1041.5	1086.994	3/21/2022
3/22/2022	3/23/2022	273	327	1196.6	654	681	1041.5	1087.177	3/22/2022
3/23/2022	3/24/2022	194	232	1196.6	422	440	1041.5	1090.346	3/23/2022
3/24/2022	3/25/2022	265	317	1196.6	634	660	1041.5	1087.219	3/24/2022
3/25/2022	3/26/2022	318	381	1196.6	1,052	1,096	1041.5	1077.501	3/25/2022
3/26/2022	3/27/2022	360	430	1196.6	774	807	1041.5	1090.738	3/26/2022
3/27/2022	3/28/2022	322	385	1196.6	740	771	1041.5	1088.527	3/27/2022
3/28/2022	3/29/2022	208	249	1196.6	508	529	1041.5	1086.557	3/28/2022
3/29/2022	3/30/2022	368	441	1196.6	756	788	1041.5	1092.280	3/29/2022
3/30/2022	3/31/2022	321	384	1196.6	704	733	1041.5	1090.073	3/30/2022
3/31/2022	4/1/2022	231	277	1196.6	587	611	1041.5	1085.300	3/31/2022
		10,279	12,299	1196.6000	24,247	25,257	1041.5000	1087.3185	

Tsp	EffDate	EndDate	Device	GasDay	EndDt	BTU	SpecGrav	CriconTherm	WobbeIndex	CO2	N2	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	NeoPentane	C6Plus	Hydrogen	Helium	WaterVapor	TotalSulfur	HydrogenSulfur	Oxygen
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	2/28/2022	3/1/2022	1082	0.6378	-55.3	1354.83062	0.9783	2.2723	84.0706	11.8146	0.6815	0.0138	0.0234	0	0	N/A	0	0.1221	0.0235	0.442	0.0955	0.0541	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/1/2022	3/2/2022	1083	0.6394	-54.2	1354.385017	0.9933	2.3451	83.7245	12.0225	0.7113	0.014	0.0239	0	0	N/A	0	0.1419	0.0237	0.4326	0.0894	0.0507	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/2/2022	3/3/2022	1079	0.6371	-55.8	1351.816186	0.9974	2.3439	84.2008	11.5498	0.7003	0.0144	0.0248	0.0002	0.0001	N/A	0	0.1447	0.0239	0.4211	0.0733	0.0385	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/3/2022	3/4/2022	1077	0.636	-56.6	1350.476855	0.9926	2.3833	84.373	11.3396	0.6926	0.0143	0.0246	0.0001	0	N/A	0	0.1556	0.0244	0.4053	0.0676	0.0349	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/4/2022	3/5/2022	1078	0.637	-55.4	1350.66935	0.9853	2.4132	84.2657	11.341	0.7731	0.0164	0.0278	0.0002	0	N/A	0	0.1533	0.0242	0.4419	0.0795	0.0423	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/5/2022	3/6/2022	1077	0.6366	-55.7	1349.840288	0.9942	2.4009	84.3899	11.2358	0.7772	0.0165	0.0281	0.0003	0.0002	N/A	0	0.1328	0.0243	0.4307	0.0902	0.0474	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/6/2022	3/7/2022	1077	0.6365	-55.4	1349.94632	0.997	2.4174	84.4209	11.139	0.805	0.0177	0.0306	0.0008	0.0003	N/A	0	0.1471	0.0243	0.4383	0.0928	0.0476	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/7/2022	3/8/2022	1076	0.6359	-55.9	1349.329014	1.0015	2.3898	84.5598	11.0365	0.799	0.0177	0.0303	0.0006	0.0002	N/A	0	0.1407	0.0241	0.4451	0.0912	0.0468	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/8/2022	3/9/2022	1076	0.635	-56.7	1350.284893	0.9905	2.3425	84.724	10.9633	0.7784	0.0156	0.0263	0.0002	0.0001	N/A	0	0.1355	0.0236	0.4412	0.074	0.0387	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/9/2022	3/10/2022	1073	0.6336	-57.8	1348.00697	0.9914	2.3588	84.967	10.7263	0.7467	0.0157	0.0268	0.0002	0	N/A	0	0.1435	0.0238	0.4318	0.0659	0.0339	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/10/2022	3/11/2022	1073	0.6325	-58.4	1349.17864	0.9833	2.3143	85.1881	10.5719	0.7345	0.0163	0.0281	0.0005	0.0002	N/A	0	0.1397	0.0233	0.4312	0.1005	0.0571	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/11/2022	3/12/2022	1071	0.631	-59.5	1348.263542	0.9997	2.3136	85.4156	10.3899	0.7077	0.0155	0.0269	0.0003	0.0001	N/A	0	0.1473	0.0234	0.4413	0.0977	0.0535	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/12/2022	3/13/2022	1071	0.6319	-58.8	1347.303051	0.9742	2.3398	85.2931	10.4617	0.7257	0.0162	0.0286	0.0008	0.0006	N/A	0	0.1353	0.0241	0.4569	0.0953	0.0525	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/13/2022	3/14/2022	1070	0.6308	-59.6	1347.218182	0.968	2.3072	85.4332	10.3442	0.7101	0.0153	0.0265	0.0003	0.0002	N/A	0	0.1717	0.0235	0.4656	0.0897	0.0506	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/14/2022	3/15/2022	1070	0.6306	-59.5	1347.431806	0.9706	2.3071	85.4394	10.3056	0.7183	0.0158	0.0278	0.0007	0.0004	N/A	0	0.1911	0.0234	0.4765	0.0908	0.051	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/15/2022	3/16/2022	1072	0.6324	-58.2	1348.027819	0.979	2.3708	85.1351	10.5301	0.7371	0.0175	0.0316	0.0014	0.001	N/A	0	0.1724	0.0239	0.4808	0.091	0.0484	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/16/2022	3/17/2022	1073	0.6338	-57.2	1347.794266	0.9776	2.4175	84.9131	10.7068	0.7565	0.0185	0.0338	0.0015	0.0012	N/A	0	0.149	0.0246	0.4706	0.0845	0.0463	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/17/2022	3/18/2022	1073	0.6343	-57	1347.262948	0.9822	2.4326	84.7974	10.806	0.7474	0.0183	0.0331	0.0015	0.0012	N/A	0	0.156	0.0245	0.4717	0.087	0.0442	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/18/2022	3/19/2022	1072	0.6335	-58	1346.856963	0.9727	2.4561	84.958	10.6691	0.7331	0.0169	0.03	0.0008	0.0004	N/A	0	0.1381	0.0248	0.4829	0.0957	0.0515	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/19/2022	3/20/2022	1073	0.633	-58.1	1348.645684	0.9602	2.3886	85.0716	10.6316	0.7405	0.017	0.0301	0.0009	0.0002	N/A	0	0.1347	0.0247	0.4912	0.1042	0.0591	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/20/2022	3/21/2022	1073	0.6333	-57.8	1348.326214	0.9486	2.4039	84.9984	10.7059	0.7378	0.0172	0.0307	0.001	0.0004	N/A	0	0.1321	0.0242	0.4762	0.1075	0.0627	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/21/2022	3/22/2022	1072	0.632	-58.8	1348.454343	0.946	2.3808	85.1985	10.5532	0.7045	0.0163	0.0294	0.001	0.0006	N/A	0	0.1458	0.024	0.4697	0.1021	0.0572	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/22/2022	3/23/2022	1068	0.6312	-60	1344.273872	0.9392	2.5044	85.3107	10.3722	0.6593	0.0164	0.0301	0.0011	0.0007	N/A	0	0.1411	0.0249	0.4725	0.0971	0.0524	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/23/2022	3/24/2022	1066	0.6286	-62	1344.528512	0.9291	2.4383	85.7844	10.0211	0.6216	0.0147	0.0268	0.0006	0.0002	N/A	0	0.1387	0.0247	0.4786	0.0951	0.0511	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/24/2022	3/25/2022	1068	0.6297	-60.8	1345.874008	0.9341	2.3894	85.6341	10.1705	0.6672	0.0155	0.0276	0.0005	0.0002	N/A	0	0.1369	0.0241	0.4698	0.0907	0.0492	0.0011
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/25/2022	3/26/2022	1067	0.6293	-61.3	1345.041095	0.9452	2.4409	85.6982	10.0513	0.6571	0.0159	0.0288	0.0007	0.0003	N/A	0	0.1373	0.0246	0.4583	0.0909	0.0475	0.0011
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/26/2022	3/27/2022	1067	0.6303	-60.6	1343.973687	0.9586	2.4563	85.4989	10.2156	0.6517	0.0166	0.0299	0.0008	0.0005	N/A	0	0.1469	0.0244	0.452	0.0894	0.045	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/27/2022	3/28/2022	1068	0.6305	-60.2	1345.019892	0.952	2.4634	85.4959	10.1827	0.6851	0.0175	0.0317	0.001	0.0007	N/A	0	0.1457	0.0246	0.465	0.0938	0.0494	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/29/2022	3/30/2022	1069	0.6311	-59.8	1345.639153	0.9606	2.4537	85.3699	10.3192	0.682	0.017	0.0307	0.0008	0.0005	N/A	0	0.1412	0.0246	0.4532	0.0889	0.0491	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/30/2022	3/31/2022	1068	0.6307	-60.3	1344.806617	0.9446	2.4785	85.469	10.2406	0.6754	0.0167	0.0303	0.0009	0.0003	N/A	0	0.119	0.0249	0.4559	0.0898	0.0477	0.0012
NBPL	2/28/2022 0:00	4/1/2022 0:00	GLNU11 - GLEN ULLIN	3/31/2022	4/1/2022	1068	0.6308	-60.3	1344.700017	0.9468	2.4845	85.3453	10.3333	0.6572	0.0161	0.0294	0.0005	0.0003	N/A	0	0.1621	0.0246	0.4557	0.0836	0.0407	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	MAR22	FEB22	JAN22	DEC21	NOV21	OCT21	SEP21	AUG21	JUL21	JUN 21	MAY 21	APR 21	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1198	1196	1196	1171	1215	1208	1201	1213	1216	1210	1152	1204	1198	211
ND	24	Williston Border - Charbonneau Station	1167	1189	1180	1155	1152	1161	1159	1167	1173	1172	1164	1168	1167	24
ND	25	Watford City West Border	1203	1197	1200	1198	1202	1208	1206	1205	1211	1203	1199	1202	1199	25
ND	28	Bismarck Station - Glen Ullin Station	1161	1131	1131	1126	1142	1135	1185	1196	1202	1200	1202	1161	1117	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1142	1130	1132	1132	1143	1141	1141	1130	1191	1123	1129	1160	1154	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1129	1095	1122	1127	1131	1129	1132	1136	1162	1135	1127	1122	1124	32
ND	33	Little Knife Plant	1178	1178	1176	1173	1176	1182	1177	1179	1182	1184	1179	1175	1173	33
ND	34	Badlands Plant/Bowman Border	1030	1070	1087	1097	1093	981	1022	1059	1025	980	980	989	981	34
ND	43	Watford City East Border	1084	1042	1108	1094	1042	1047	1060	1062	1088	1109	1119	1123	1119	43
ND/MT	241	Fairview Border	1192	1191	1197	1200	1208	1197	1162	1193	1201	1213	1185	1173	1185	241
ND	267	North Tioga Transfer - Nesson Plant	1148	1172	1157	1122	1122	1137	1135	1145	1159	1167	1153	1159	1148	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1184	1191	1155	1175	1161	1176	1197	1192	1194	1196	1195	1193	1180	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1197	1194	1187	1180	1199	1198	1211	1203	1202	1200	1203	1195	1189	262
ND	263	Lignite Plant	1135	1131	1131	1131	1131	1131	1131	1134	1129	1143	1147	1137	1147	263
ND	264	Epping Border	1162	1185	1173	1145	1147	1152	1145	1164	1167	1172	1165	1163	1165	264
ND	265	Tioga Comp Station - County Line Plant	1163	1167	1150	1157	1152	1159	1166	1165	1163	1166	1165	1172	1170	265
ND	266	County Line Plant	1174	1172	1166	1175	1178	1183	1174	1185	1175	1174	1169	1171	1169	266
ND	271	Bismarck Station - Cleveland Station	1191	1185	1169	1162	1188	1198	1208	1197	1202	1200	1202	1196	1186	271
ND	272	Cleveland Station - Mapleton	1191	1184	1167	1161	1189	1198	1211	1196	1202	1199	1200	1196	1185	272
ND	273	Cleveland Station - Grafton Border	1190	1176	1166	1161	1188	1198	1210	1195	1202	1200	1200	1195	1184	273
ND	550	Mandan Border / NBPL-St Anthony	1152	1103	1119	1116	1136	1135	1173	1196	1196	1190	1182	1161	1120	550
ND	610	MDU-Watford City BTU	1122	1087	1138	1129	1095	1110	1130	1098	1106	1121	1132	1162	1158	610
ND	802	NBPL - Linton	1089	1073	1088	1091	1085	1086	1089	1094	1090	1089	1090	1094	1093	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1155	1157	1152	1149	1155	1158	1158	1158	1153	1156	1157	1158	1154	600
ND	601	Alliance Pipeline - Milnor	1155	1157	1152	1149	1154	1157	1158	1158	1153	1156	1157	1158	1154	602

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>March 2022</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
32	-27	Operational
43	-66	Operational
261	36	Receipt Issues
610	-51	Operational