

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

April 19, 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 – February 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 March 2022.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of February 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 February 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
Mar-22

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1334
MDU-308-ARNEGARD	025	1.1334
MDU-314-APPLE VALLEY	271	1.1212
MDU-318-BEACH	032	1.0415
MDU-319-BELFIELD	032	1.0492
MDU-323-BERTHOLD	262	1.1145
MDU-324-BEULAH	032	1.0492
MDU-327-BISMARCK	028	1.0864
MDU-330-BOWMAN	034	1.0063
MDU-337-BURLINGTON	262	1.1385
MDU-343-CARRINGTON	273	1.1202
MDU-344-CLEVELAND	272	1.1123
MDU-364-CAVALIER	273	1.1439
MDU-365-DAWSON	271	1.1133
MDU-368-DES LACS	262	1.1225
MDU-369-DICKINSON	031	1.0615
MDU-374-FT TOTTEN	273	1.1281
MDU-375-DEVILS LAKE	273	1.1281
MDU-379-BARLOW	273	1.1202
MDU-384-EPPING	264	1.1079
MDU-387-ELDRIDGE	272	1.1202
MDU-407-GLADSTONE	031	1.0615
MDU-411-GLEN ULLIN	031	1.0692
MDU-413-GOLVA	032	1.0262
MDU-416-GARRISON	262	1.1292
MDU-417-GRAFTON	273	1.1517
MDU-403-GWINNER	601	1.1320
MDU-429-HEBRON	031	1.0692
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1281
MDU-459-KILLDEER	033	1.1079
MDU-463-LANGDON	273	1.1202
MDU-469-LEFOR	031	1.0615
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0527
MDU-478-LINCOLN	028	1.0864
MDU-488-MCKENZIE	271	1.1212
MDU-494-MEDINA	271	1.1133
MDU-498-MANDAN	028	1.0864
MDU-500-MARMARTH	034	1.0138
MDU-505-MINOT	262	1.1385
MDU-510-MOTT	031	1.0615
MDU-512-MAX	262	1.1145
MDU-513-MILNOR	601	1.1320
MDU-522-NEW ENGLAND	031	1.0538
MDU-524-NEW SALEM	028	1.0635
MDU-532-NEW ROCKFORD	273	1.1202

MDU-539-PARK RIVER	273	1.1439
MDU-540-PALERMO	262	1.1145
MDU-558-RAY	264	1.0815
MDU-561-REGENT	031	1.0615
MDU-563-RHAME	034	0.9989
MDU-564-RICHARDTON	031	1.0538
MDU-568-ROSS	261	1.1018
MDU-572-RUTHVILLE	262	1.1453
MDU-574-SANBORN	272	1.1281
MDU-583-SENTINEL BUTTE	032	1.0415
MDU-588-SOUTH HEART	031	1.0538
MDU-717-SPIRITWOOD	272	1.1281
MDU-590-SPRINGBROOK	264	1.1079
MDU-591-STANLEY	261	1.1098
MDU-593-STEELE	271	1.1133
MDU-594-STERLING	028	1.0864
MDU-598-SHEYENNE	273	1.1281
MDU-605-SURREY	262	1.1385
MDU-610-TAPPEN	271	1.1133
MDU-611-TAYLOR	031	1.0538
MDU-616-TIOGA	260	1.0521
MDU-619-TURTLE LAKE	262	1.1225
MDU-620-TRENTON	024	1.0987
MDU-624-UNDERWOOD	262	1.1225
MDU-625-VALLEY CITY	272	1.1360
MDU-629-WALHALLA	273	1.1439
MDU-632-WATFORD CITY	610	1.0663
MDU-636-WHEELOCK	264	1.0737
MDU-637-WHITE EARTH	261	1.1098
MDU-642-WILLISTON	024	1.0987
MDU-646-WASHBURN	262	1.1305
MDU-647-WILTON	262	1.1145
MDU-664-RIVERDALE	262	1.1292
MDU-691-FAIRVIEW	241	1.1415
MDU-712-MINOT AFB	262	1.1385
MDU-718-FAIRMOUNT	600	1.1297
MDU-732-NEKOMA	273	1.1202
MDU-732-MSR SITE	273	1.1202

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7132	1176.1	1196.9	1196.6	0.460	3.287	70.070	23.781	2.257	0.053	0.087	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1417.40
2	0.7286	1186.0	1207.0	1206.7	0.966	3.357	68.075	24.670	2.669	0.091	0.161	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1414.18
3	0.7410	1193.8	1214.9	1214.7	1.356	3.455	66.301	25.663	2.868	0.121	0.219	0.010	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1411.36
4	0.7275	1188.0	1209.0	1208.7	0.851	3.306	68.271	24.604	2.673	0.099	0.180	0.009	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1417.66
5	0.7409	1192.4	1213.5	1213.2	1.382	3.486	66.718	24.854	3.171	0.129	0.240	0.012	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1409.82
6	0.7228	1175.1	1195.9	1195.6	1.184	3.136	69.945	22.529	2.814	0.121	0.242	0.015	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1406.69
7	0.7182	1168.3	1189.0	1188.7	1.124	3.210	70.660	21.923	2.716	0.112	0.228	0.014	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1403.01
8	0.7233	1175.9	1196.8	1196.4	1.179	3.145	69.824	22.637	2.828	0.119	0.240	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1407.15
9	0.7316	1183.5	1204.4	1204.1	1.304	3.278	68.323	23.773	2.939	0.124	0.236	0.012	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1408.12
10	0.7345	1185.7	1206.7	1206.4	1.334	3.363	67.978	23.799	3.128	0.129	0.245	0.013	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1408.04
11	0.7188	1176.1	1196.9	1196.6	0.790	3.304	69.420	24.008	2.252	0.077	0.138	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1412.04
12	0.7386	1192.1	1213.2	1212.9	1.291	3.424	66.838	25.125	2.964	0.120	0.220	0.010	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1411.75
13	0.7262	1185.5	1206.5	1206.1	0.871	3.309	68.333	24.705	2.511	0.090	0.166	0.008	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1415.93
14	0.7065	1171.2	1191.9	1191.6	0.288	3.214	71.071	23.254	2.019	0.052	0.095	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1418.19
15	0.6918	1155.8	1176.3	1176.0	0.024	3.180	72.977	22.353	1.419	0.019	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.15
16	0.6944	1159.6	1180.2	1179.9	0.012	3.196	73.013	21.792	1.891	0.038	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.28
17	0.6923	1156.7	1177.2	1176.9	0.011	3.186	73.206	21.820	1.700	0.031	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.78
18	0.6939	1157.1	1177.6	1177.3	0.019	3.299	72.716	22.323	1.597	0.020	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.65
19	0.6976	1163.4	1184.0	1183.7	0.018	3.263	72.091	22.850	1.729	0.021	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.61
20	0.7037	1163.8	1184.4	1184.1	0.345	3.321	71.352	23.068	1.808	0.039	0.062	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1412.00
21	0.7356	1190.0	1211.1	1210.9	1.218	3.387	66.971	25.440	2.684	0.104	0.184	0.007	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1412.15
22	0.6946	1158.6	1179.1	1178.9	0.073	3.190	72.686	22.361	1.640	0.022	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.84
23	0.7170	1178.0	1198.8	1198.6	0.644	3.241	69.646	23.976	2.291	0.072	0.122	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1416.07
24	0.7130	1172.5	1193.3	1193.0	0.582	3.289	70.446	23.123	2.367	0.070	0.116	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1413.48
25	0.7268	1184.1	1205.1	1204.8	0.917	3.373	68.424	24.339	2.671	0.095	0.168	0.007	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1413.72
26	0.7269	1182.7	1203.6	1203.4	0.975	3.380	68.450	24.269	2.643	0.096	0.172	0.008	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1411.97
27	0.6942	1159.9	1180.5	1180.2	0.016	3.162	72.616	22.600	1.570	0.016	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.79
28	0.7092	1167.7	1188.4	1188.1	0.530	3.314	70.778	23.168	2.040	0.059	0.103	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1411.36
Avg	0.7165	1175.0	1195.8	1195.5	0.706	3.288	69.900	23.529	2.352	0.076	0.138	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1412.86

Source Daily Summary

February 2022

Source #: 571
Name: WILLISTON BDR-CHARBN STN

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6954	1144.2	1164.4	1164.2	0.935	2.823	74.572	19.168	2.175	0.094	0.203	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1396.36	
2	0.7031	1160.0	1180.5	1180.2	1.045	2.421	73.071	21.061	2.069	0.095	0.204	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1407.84	
3	0.7038	1159.5	1180.0	1179.8	1.031	2.529	73.159	20.653	2.274	0.101	0.217	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1406.65	
4	0.6984	1152.4	1172.8	1172.5	0.976	2.545	73.956	20.116	2.074	0.095	0.205	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1403.31	
5	0.7024	1158.8	1179.3	1179.1	1.014	2.464	73.521	20.320	2.305	0.106	0.232	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1407.20	
6	0.6945	1144.4	1164.6	1164.4	0.944	2.718	74.742	19.120	2.151	0.093	0.201	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1397.45	
7	0.7027	1151.4	1171.8	1171.5	0.981	3.001	73.361	19.909	2.399	0.099	0.215	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1397.84	
8	0.7028	1158.3	1178.8	1178.6	1.006	2.553	73.352	20.432	2.297	0.101	0.222	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1406.11	
9	0.7028	1157.0	1177.5	1177.3	0.992	2.648	73.406	20.231	2.357	0.103	0.225	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1404.59	
10	0.6961	1147.3	1167.6	1167.4	0.960	2.658	74.391	19.590	2.069	0.093	0.204	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1399.47	
11	0.7070	1163.5	1184.1	1183.8	1.015	2.612	72.755	20.753	2.475	0.109	0.240	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1408.27	
12	0.7119	1171.7	1192.4	1192.2	1.021	2.561	72.267	20.872	2.822	0.127	0.281	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1413.30	
13	0.7112	1170.7	1191.4	1191.2	1.026	2.549	72.355	20.843	2.772	0.126	0.279	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.79	
14	0.7121	1169.2	1189.9	1189.6	1.040	2.708	71.937	21.264	2.638	0.114	0.255	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1410.06	
15	0.7154	1170.7	1191.5	1191.2	1.050	2.911	71.276	21.663	2.699	0.110	0.248	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1408.66	
16	0.7142	1167.7	1188.4	1188.0	1.060	2.969	71.196	21.939	2.491	0.095	0.213	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1406.19	
17	0.7071	1163.9	1184.6	1184.2	1.043	2.552	72.811	20.694	2.503	0.112	0.244	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1408.70	
18	0.7064	1164.1	1184.7	1184.4	1.038	2.483	72.810	20.898	2.397	0.107	0.229	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1409.62	
19	0.7041	1161.2	1181.8	1181.5	1.041	2.438	73.109	20.802	2.254	0.101	0.218	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1408.43	
20	0.7009	1156.2	1176.7	1176.5	1.042	2.448	73.466	20.664	2.065	0.090	0.193	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1405.50	
21	0.6965	1146.3	1166.6	1166.4	0.989	2.722	74.086	19.966	1.957	0.081	0.173	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1397.80	
22	0.7039	1158.9	1179.5	1179.2	1.029	2.580	73.025	20.807	2.228	0.095	0.204	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1405.82	
23	0.6985	1148.7	1169.0	1168.8	0.963	2.795	73.934	19.838	2.150	0.092	0.198	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1398.79	
24	0.7082	1164.2	1184.8	1184.6	1.049	2.628	72.324	21.315	2.331	0.099	0.217	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1407.98	
25	0.7090	1165.2	1185.8	1185.6	1.034	2.671	72.254	21.253	2.419	0.103	0.228	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1408.32	
26	0.7039	1162.1	1182.7	1182.5	1.027	2.396	72.894	21.269	2.086	0.093	0.201	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1409.62	
27	0.7059	1164.6	1185.2	1184.9	1.029	2.421	72.796	21.087	2.302	0.103	0.223	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1410.68	
28	0.7063	1164.8	1185.4	1185.2	1.034	2.441	72.804	20.974	2.371	0.106	0.231	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1410.52	
Avg	0.7044	1160.0	1180.1	1179.8	1.015	2.616	73.058	20.625	2.326	0.101	0.222	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1406.00	

Gas Composition and Properties

Effective February 1, 2022

Attachment B
Page 3 of 24

Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	1.0537		2.2198	Pressure Base	14.730	
Nitrogen, N2	3.3540		4.4977	Temperature Base	60.00	
Methane, C1	69.1060		53.0698	HCDP @ Sample Pressure		
Ethane, C2	23.6884	6.3402	34.0968	Cricondentherm	-2.956	
Propane, C3	2.5034	0.6902	5.2843	HV, Dry @ Base P, T	1196.65	
iso-Butane, iC4	0.0974	0.0319	0.2710	HV, Sat @ Base P, T	1175.82	
n-Butane, nC4	0.1795	0.0566	0.4994	HV, Sat @ Sample P, T	1196.65	
iso-Pentane, iC5	0.0091	0.0033	0.0314	Relative Density	0.7234	
n-Pentane, nC5	0.0078	0.0028	0.0269			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0007	0.0003	0.0029			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
Totals	100.0000	7.1250	100.0000			

Sample

Date: 02/01/2022 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

Gas Composition and Properties

Effective February 1, 2022

Attachment B
Page 4 of 24

Source #: 0602225
Name: WATFORD CITY WEST BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.2409		2.5651
Nitrogen, N2	4.1401		5.4475
Methane, C1	69.6065		52.4492
Ethane, C2	19.7839	5.2955	27.9414
Propane, C3	4.2116	1.1613	8.7229
iso-Butane, iC4	0.2744	0.0899	0.7491
n-Butane, nC4	0.6101	0.1925	1.6656
iso-Pentane, iC5	0.0574	0.0210	0.1945
n-Pentane, nC5	0.0596	0.0216	0.2020
Neo-Pentane, neo			
Hexanes Plus, C6+	0.0155	0.0064	0.0627
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
Totals	100.0000	6.7880	100.0000

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure		
Cricondentherm	17.654	
HV, Dry @ Base P, T	1200.19	
HV, Sat @ Base P, T	1179.30	
HV, Sat @ Sample P, T	1200.19	
Relative Density	0.7373	
C6+:		

Sample

Date: 02/01/2022 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

Source Daily Summary

February 2022

Source #: 164
Name: N TIOGA TRANSFER-NESSON PLT

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6926	1117.2	1136.9		0.729	4.519	75.465	15.959	2.995	0.101	0.208	0.011	0.012	0.001					1366.12	
2	0.7003	1138.5	1158.7		1.010	3.515	74.203	18.169	2.697	0.108	0.252	0.019	0.022	0.004					1384.55	
3	0.6935	1128.5	1148.5		0.979	3.531	74.710	18.341	2.201	0.070	0.147	0.009	0.010	0.000					1379.19	
4	0.6786	1121.1	1141.0		0.819	2.837	76.608	18.317	1.243	0.051	0.109	0.007	0.008	0.000					1385.02	
5	0.6847	1127.8	1147.8		0.898	2.875	75.802	18.674	1.552	0.057	0.124	0.009	0.010	0.000					1387.16	
6	0.6811	1113.2	1133.0		0.756	3.643	76.670	16.795	1.918	0.063	0.137	0.009	0.010	0.000					1372.77	
7	0.7102	1141.8	1162.1		0.896	4.417	72.409	18.647	3.248	0.111	0.237	0.015	0.017	0.002					1378.89	
8	0.7065	1137.6	1157.8		0.809	4.456	73.110	17.967	3.268	0.115	0.244	0.014	0.015	0.001					1377.41	
9	0.6918	1131.4	1151.4		0.825	3.432	75.133	18.034	2.273	0.085	0.186	0.014	0.016	0.003					1384.37	
10	0.6922	1130.3	1150.3		0.898	3.430	75.073	18.013	2.323	0.076	0.165	0.011	0.012	0.000					1382.57	
11	0.6874	1138.4	1158.6		0.995	2.341	75.185	19.971	1.306	0.058	0.124	0.009	0.010	0.000					1397.38	
12	0.6880	1143.4	1163.6		1.019	2.061	75.013	20.520	1.181	0.059	0.126	0.010	0.011	0.001					1402.84	
13	0.6914	1144.3	1164.6		1.004	2.338	74.710	20.159	1.546	0.069	0.149	0.012	0.013	0.001					1400.59	
14	0.6935	1151.0	1171.4		1.010	2.118	74.548	20.365	1.666	0.083	0.178	0.014	0.016	0.002					1406.64	
15	0.6904	1146.8	1167.1		1.021	2.070	74.680	20.719	1.281	0.065	0.140	0.011	0.012	0.001					1404.63	
16	0.6884	1142.3	1162.5		1.030	2.149	74.766	20.796	1.078	0.052	0.111	0.008	0.009	0.000					1401.13	
17	0.6877	1141.8	1162.1		1.036	2.094	74.983	20.593	1.105	0.054	0.115	0.009	0.010	0.000					1401.35	
18	0.6871	1140.6	1160.8		1.028	2.133	75.003	20.618	1.034	0.053	0.113	0.009	0.009	0.000					1400.36	
19	0.6918	1148.6	1169.0		1.053	2.051	74.145	21.453	1.119	0.052	0.110	0.009	0.009	0.000					1405.40	
20	0.6916	1133.7	1153.8		0.949	3.088	74.781	19.091	1.862	0.066	0.141	0.010	0.011	0.001					1387.39	
21	0.6879	1122.6	1142.5		0.849	3.569	75.522	17.784	2.060	0.063	0.135	0.008	0.009	0.000					1377.46	
22	0.6865	1135.6	1155.8		0.988	2.428	75.318	19.773	1.305	0.054	0.114	0.009	0.009	0.000					1394.95	
23	0.6843	1121.7	1141.5		0.731	3.471	76.132	17.467	1.946	0.074	0.160	0.011	0.011	0.001					1379.93	
24	0.6923	1149.6	1170.0		0.999	2.114	74.422	20.790	1.441	0.067	0.143	0.011	0.012	0.001					1406.10	
25	0.6938	1144.9	1165.2		0.909	2.671	74.432	19.862	1.861	0.077	0.162	0.012	0.013	0.001					1398.88	
26	0.6907	1137.7	1157.9		0.876	2.872	74.623	19.811	1.615	0.059	0.127	0.009	0.009	0.000					1393.21	
27	0.6935	1151.3	1171.7		0.986	2.147	73.722	21.831	1.147	0.049	0.104	0.007	0.008	0.000					1406.97	
28	0.6941	1152.4	1172.8		0.973	2.152	73.783	21.608	1.300	0.055	0.115	0.007	0.008	0.000					1407.73	
Avg	0.6911	1137.0	1157.1		0.931	2.876	74.820	19.362	1.770	0.069	0.149	0.010	0.011	0.001					1391.82	

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7416	1151.1	1171.5	1171.3	0.928	6.743	67.793	18.944	5.065	0.167	0.330	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1360.32	
2	0.7037	1127.3	1147.2	1147.1	0.837	4.782	73.563	17.224	3.250	0.105	0.216	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1367.82	
3	0.6896	1120.5	1140.4	1140.2	0.941	3.701	75.529	17.309	2.308	0.064	0.132	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1373.31	
4	0.7153	1133.9	1154.0	1153.9	0.898	5.368	71.674	18.005	3.665	0.115	0.246	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1364.65	
5	0.7170	1133.7	1153.8	1153.7	0.835	5.639	71.474	17.752	3.893	0.127	0.254	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1362.96	
6	0.7139	1135.6	1155.7	1155.5	0.865	5.187	71.839	18.165	3.562	0.118	0.239	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1368.13	
7	0.6893	1118.2	1138.0	1137.8	0.805	4.032	75.476	17.119	2.309	0.076	0.162	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1370.80	
8	0.7348	1155.8	1176.2	1176.0	0.898	5.863	68.885	19.192	4.622	0.164	0.339	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1372.31	
9	0.7238	1148.0	1168.3	1168.1	0.834	5.406	70.615	18.455	4.196	0.149	0.310	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1373.43	
10	0.7213	1142.0	1162.2	1162.0	0.792	5.600	71.037	17.884	4.204	0.148	0.301	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1368.66	
11	0.7108	1133.3	1153.4	1153.2	0.702	5.278	72.654	17.139	3.779	0.136	0.281	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1368.34	
12	0.7141	1133.6	1153.7	1153.5	0.708	5.562	72.257	16.950	4.049	0.144	0.297	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1365.50	
13	0.7393	1146.6	1166.9	1166.7	0.912	6.818	68.056	18.779	4.950	0.154	0.303	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1357.12	
14	0.7156	1126.3	1146.2	1146.1	0.779	6.041	71.617	17.328	3.803	0.131	0.275	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1355.22	
15	0.7112	1123.1	1143.0	1142.8	0.719	5.912	72.395	16.823	3.719	0.133	0.274	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1355.60	
16	0.7226	1136.7	1156.9	1156.7	0.771	6.074	70.897	17.402	4.321	0.161	0.340	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1361.07	
17	0.7213	1140.0	1160.2	1160.0	0.884	5.582	70.768	18.432	3.866	0.141	0.296	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1366.29	
18	0.7016	1119.4	1139.2	1139.1	0.720	5.230	74.269	15.843	3.504	0.129	0.276	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1360.46	
19	0.7297	1147.9	1168.2	1168.1	0.794	6.008	69.953	18.040	4.605	0.176	0.383	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1367.71	
20	0.7507	1169.3	1190.0	1189.9	0.908	6.517	66.762	19.572	5.566	0.203	0.428	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1373.43	
21	0.7205	1137.9	1158.1	1158.0	0.731	5.859	71.405	17.114	4.324	0.169	0.358	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1364.45	
22	0.6688	1086.3	1105.6	1105.5	0.439	4.601	78.947	13.716	2.036	0.078	0.165	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1352.24	
23	0.6553	1073.7	1092.7	1092.6	0.422	4.129	80.787	13.265	1.222	0.050	0.111	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1349.93	
24	0.7080	1139.4	1159.5	1159.4	0.976	4.240	72.403	19.276	2.779	0.095	0.206	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1378.20	
25	0.7321	1149.6	1169.9	1169.8	0.801	6.139	69.419	18.394	4.660	0.175	0.375	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1367.40	
26	0.7072	1123.3	1143.2	1143.1	0.659	5.617	73.050	16.667	3.568	0.132	0.278	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1359.55	
27	0.7376	1158.5	1179.0	1178.8	0.823	6.072	68.704	18.817	4.969	0.186	0.390	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1372.90	
28	0.7501	1174.4	1195.2	1195.1	0.858	6.218	67.123	19.415	5.633	0.223	0.477	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1380.07	
Avg	0.7160	1135.0	1155.3	1155.1	0.794	5.508	71.762	17.608	3.872	0.137	0.287	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1365.64	

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7395	1146.0	1166.3	1166.1	0.936	6.847	68.020	18.682	5.081	0.137	0.273	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1356.26	
2	0.7469	1159.0	1179.5	1179.3	0.942	6.743	67.069	19.322	5.375	0.176	0.341	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1364.74	
3	0.7502	1164.1	1184.7	1184.5	0.936	6.744	66.702	19.449	5.567	0.190	0.373	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1367.77	
4	0.7464	1156.4	1176.9	1176.7	0.933	6.864	67.131	19.191	5.307	0.181	0.357	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1362.20	
5	0.7554	1173.3	1194.0	1193.8	0.934	6.676	66.051	19.853	5.810	0.212	0.423	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1373.80	
6	0.7463	1156.2	1176.7	1176.5	0.933	6.867	67.169	19.150	5.295	0.185	0.365	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1362.04	
7	0.7564	1174.4	1195.2	1195.0	0.934	6.691	65.974	19.811	5.899	0.212	0.432	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1374.32	
8	0.7589	1179.7	1200.6	1200.4	0.934	6.606	65.688	19.981	6.085	0.219	0.438	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1378.20	
9	0.7526	1168.6	1189.3	1189.1	0.932	6.696	66.461	19.558	5.711	0.200	0.399	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1370.92	
10	0.7592	1180.9	1201.8	1201.6	0.930	6.569	65.631	20.078	6.084	0.218	0.442	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.30	
11	0.7407	1145.9	1166.2	1166.0	0.920	6.983	67.833	18.746	5.019	0.158	0.311	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1355.07	
12	0.7406	1146.0	1166.3	1166.1	0.926	6.965	67.900	18.685	4.979	0.168	0.345	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1355.23	
13	0.7457	1155.9	1176.4	1176.2	0.927	6.839	67.236	19.178	5.217	0.187	0.380	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1362.22	
14	0.7439	1152.8	1173.3	1173.0	0.927	6.854	67.549	18.912	5.154	0.185	0.382	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1360.27	
15	0.7456	1156.0	1176.5	1176.3	0.924	6.826	67.436	18.871	5.292	0.198	0.413	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1362.43	
16	0.7499	1163.5	1184.1	1183.9	0.924	6.763	66.825	19.322	5.499	0.204	0.421	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1367.43	
17	0.7527	1169.1	1189.8	1189.5	0.924	6.693	66.504	19.500	5.686	0.209	0.438	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1371.35	
18	0.7514	1166.7	1187.4	1187.2	0.925	6.710	66.678	19.408	5.584	0.211	0.438	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1369.79	
19	0.7552	1174.1	1194.9	1194.6	0.927	6.613	66.195	19.732	5.810	0.220	0.455	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1374.95	
20	0.7510	1165.4	1186.0	1185.8	0.917	6.766	66.692	19.372	5.580	0.206	0.424	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1368.60	
21	0.7498	1163.3	1183.9	1183.7	0.917	6.781	66.813	19.292	5.574	0.195	0.388	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1367.28	
22	0.7515	1167.4	1188.1	1187.8	0.917	6.693	66.629	19.450	5.656	0.201	0.411	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1370.47	
23	0.7508	1166.3	1186.9	1186.7	0.923	6.686	66.813	19.283	5.596	0.207	0.445	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1369.82	
24	0.7537	1171.3	1192.0	1191.8	0.924	6.652	66.463	19.471	5.748	0.222	0.470	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1373.03	
25	0.7574	1178.7	1199.6	1199.4	0.926	6.542	65.959	19.872	5.945	0.229	0.477	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.38	
26	0.7579	1179.1	1200.0	1199.8	0.924	6.563	65.909	19.868	5.974	0.231	0.480	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1378.39	
27	0.7609	1184.1	1205.1	1204.9	0.922	6.545	65.622	19.922	6.151	0.249	0.531	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1381.47	
28	0.7579	1178.6	1199.5	1199.3	0.923	6.599	65.919	19.795	5.999	0.230	0.481	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1377.76	
Avg	0.7510	1166.0	1186.5	1186.2	0.927	6.728	66.674	19.420	5.596	0.201	0.412	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1369.05	

Gas Composition and Properties

Effective October 1, 2021

Attachment B
Page 8 of 24

Source #: 2501030
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.2283		0.5237	Pressure Base	14.730	
Nitrogen, N2	2.9631		4.3268	Temperature Base	60.00	
Methane, C1	79.4957		66.4767	HCDP @ Sample Pressure		
Ethane, C2	15.2390	4.0765	23.8852	Cricondentherm	-32.804	
Propane, C3	2.0456	0.5637	4.7019	HV, Dry @ Base P, T	1130.73	
iso-Butane, iC4	0.0244	0.0080	0.0739	HV, Sat @ Base P, T	1111.05	
n-Butane, nC4	0.0039	0.0012	0.0118	HV, Sat @ Sample P, T	1130.73	
iso-Pentane, iC5				Relative Density	0.6640	
n-Pentane, nC5						
Neo-Pentane, neo						
Hexanes Plus, C6+						
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
Totals	100.0000	4.6490	100.0000			

Sample

Date: 10/01/2021 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

Gas Composition and Properties

Effective February 1, 2022

Attachment B
Page 9 of 24

Source #: 3002013
Name: EPPING BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.9900		2.1686	Pressure Base	14.730	
Nitrogen, N2	2.2369		3.1190	Temperature Base	60.00	
Methane, C1	74.3091		59.3360	HCDP @ Sample Pressure		
Ethane, C2	20.2926	5.4301	30.3711	Cricondentherm	-13.466	
Propane, C3	1.8602	0.5128	4.0828	HV, Dry @ Base P, T	1173.18	
iso-Butane, iC4	0.0886	0.0290	0.2563	HV, Sat @ Base P, T	1152.76	
n-Butane, nC4	0.1932	0.0609	0.5589	HV, Sat @ Sample P, T	1173.18	
iso-Pentane, iC5	0.0132	0.0048	0.0474	Relative Density	0.6956	
n-Pentane, nC5	0.0137	0.0050	0.0492			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0025	0.0010	0.0107			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
Totals	100.0000	6.0440	100.0000			

Sample

Date: 02/01/2022 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

*** End of Report ***

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6953	1133.0	1153.1	1152.8	0.977	3.429	74.622	18.330	2.379	0.075	0.159	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1382.86	
2	0.6818	1115.5	1135.3	1135.1	0.796	3.507	76.652	16.816	2.049	0.054	0.110	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1374.90	
3	0.6940	1129.6	1149.6	1149.4	1.038	3.423	75.136	17.667	2.404	0.088	0.206	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1379.95	
4	0.6892	1121.2	1141.1	1140.8	1.045	3.477	75.391	17.919	1.959	0.059	0.129	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1374.46	
5	0.6885	1121.2	1141.1	1140.9	1.014	3.458	75.482	17.862	1.984	0.059	0.124	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1375.18	
6	0.6963	1134.4	1154.5	1154.3	1.028	3.369	74.232	18.943	2.189	0.066	0.147	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1383.47	
7	0.6957	1133.1	1153.2	1153.0	1.015	3.402	74.257	18.954	2.146	0.065	0.141	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1382.64	
8	0.6979	1136.4	1156.5	1156.3	1.012	3.419	73.999	19.036	2.277	0.072	0.158	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1384.41	
9	0.6969	1134.7	1154.8	1154.6	0.986	3.449	74.486	18.517	2.301	0.075	0.163	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1383.33	
10	0.6963	1134.9	1155.0	1154.7	1.005	3.373	74.410	18.611	2.324	0.077	0.171	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1384.06	
11	0.6899	1126.6	1146.6	1146.4	0.881	3.460	75.463	17.687	2.246	0.076	0.164	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1380.39	
12	0.6940	1131.4	1151.4	1151.2	1.001	3.370	74.715	18.452	2.216	0.071	0.152	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1382.15	
13	0.6946	1133.3	1153.4	1153.1	0.985	3.341	74.496	18.758	2.189	0.068	0.143	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1383.85	
14	0.6948	1132.4	1152.5	1152.3	1.002	3.379	74.554	18.591	2.233	0.070	0.150	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1382.67	
15	0.6957	1135.4	1155.5	1155.3	0.987	3.314	74.308	18.956	2.191	0.070	0.150	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1385.29	
16	0.6946	1132.8	1152.8	1152.6	0.997	3.354	74.565	18.616	2.230	0.070	0.147	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1383.22	
17	0.6948	1132.2	1152.3	1152.1	1.023	3.358	74.563	18.613	2.193	0.071	0.154	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1382.40	
18	0.6954	1133.4	1153.5	1153.3	1.007	3.370	74.294	18.971	2.134	0.064	0.140	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1383.27	
19	0.6931	1130.4	1150.4	1150.2	0.975	3.384	74.728	18.573	2.116	0.064	0.138	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1381.89	
20	0.6970	1136.6	1156.7	1156.5	0.986	3.365	74.169	18.914	2.320	0.071	0.154	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1385.45	
21	0.6950	1132.9	1152.9	1152.7	0.981	3.405	74.545	18.543	2.281	0.070	0.150	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1382.98	
22	0.6927	1129.2	1149.2	1149.0	0.970	3.433	74.731	18.547	2.108	0.063	0.131	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1380.79	
23	0.6967	1132.5	1152.6	1149.5	1.010	3.543	73.975	19.144	2.108	0.065	0.138	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1380.88	
24	0.6973	1135.0	1155.1	1154.9	0.997	3.473	73.924	19.228	2.133	0.070	0.155	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1383.23	
25	0.6933	1129.4	1149.4	1149.2	0.947	3.505	74.667	18.532	2.106	0.068	0.151	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1380.51	
26	0.6855	1119.4	1139.2	1139.0	0.827	3.567	75.878	17.592	1.920	0.062	0.135	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1375.98	
27	0.6870	1121.8	1141.7	1141.5	0.838	3.549	75.691	17.704	1.980	0.066	0.147	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1377.41	
28	0.6940	1132.4	1152.4	1152.2	0.933	3.414	74.538	18.735	2.141	0.068	0.149	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1383.37	
Avg	0.6935	1130.0	1150.4	1150.1	0.974	3.425	74.731	18.458	2.173	0.068	0.149	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1381.46	

Source Daily Summary

February 2022

Source #: 043
Name: BISMARCK STN-CLEVELAND STN

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7022	1135.0	1155.1	1154.4	0.649	4.457	73.328	18.335	2.925	0.098	0.188	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1378.48	
2	0.7080	1133.2	1153.3	1152.6	0.692	5.041	72.589	17.963	3.406	0.100	0.191	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1370.64	
3	0.7095	1137.4	1157.5	1156.8	0.662	4.973	72.392	18.173	3.455	0.111	0.212	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1374.24	
4	0.7232	1147.6	1167.9	1167.2	0.751	5.506	70.489	18.666	4.140	0.143	0.279	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.38	
5	0.7396	1159.2	1179.7	1179.0	0.841	6.195	68.216	19.182	5.001	0.178	0.352	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1371.77	
6	0.7424	1158.4	1178.9	1178.2	0.872	6.461	67.797	19.160	5.125	0.184	0.366	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1368.20	
7	0.7497	1168.1	1188.8	1188.0	0.895	6.512	66.878	19.536	5.523	0.202	0.413	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1373.02	
8	0.7581	1180.6	1201.5	1200.5	0.916	6.508	65.842	19.960	6.061	0.221	0.445	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.93	
9	0.7529	1172.6	1193.3	1192.4	0.909	6.519	66.479	19.682	5.758	0.205	0.407	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1375.31	
10	0.7465	1169.3	1190.0	1189.1	0.858	6.193	67.382	19.524	5.417	0.194	0.393	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1377.38	
11	0.7186	1139.6	1159.8	1159.0	0.713	5.619	71.192	18.033	4.021	0.134	0.263	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1368.08	
12	0.7141	1132.3	1152.4	1151.6	0.724	5.619	71.730	17.839	3.705	0.122	0.239	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1363.72	
13	0.7163	1137.0	1157.1	1156.3	0.749	5.504	71.429	18.162	3.743	0.130	0.258	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1367.19	
14	0.7140	1138.2	1158.4	1157.7	0.724	5.248	71.891	18.021	3.690	0.133	0.267	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1370.90	
15	0.7069	1132.8	1152.9	1152.2	0.740	4.888	72.976	17.680	3.327	0.122	0.242	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1371.23	
16	0.7137	1138.6	1158.8	1158.0	0.756	5.148	72.090	17.828	3.728	0.139	0.281	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.66	
17	0.7086	1136.8	1157.0	1156.2	0.739	4.803	72.977	17.472	3.584	0.131	0.264	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.45	
18	0.7073	1134.3	1154.3	1153.7	0.648	4.980	73.009	17.458	3.481	0.130	0.265	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1372.54	
19	0.7099	1133.8	1153.8	1153.1	0.700	5.169	72.662	17.409	3.639	0.132	0.261	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1369.50	
20	0.7163	1142.6	1162.9	1162.1	0.705	5.226	71.841	17.758	3.971	0.153	0.313	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1373.96	
21	0.7198	1142.2	1162.4	1161.7	0.746	5.520	71.144	18.034	4.096	0.144	0.285	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1370.10	
22	0.7167	1145.2	1165.5	1164.8	0.747	5.039	71.555	18.388	3.845	0.135	0.263	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1376.76	
23	0.7169	1145.0	1165.2	1164.5	0.795	5.001	71.668	18.194	3.890	0.139	0.282	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1376.24	
24	0.7110	1140.5	1160.7	1160.0	0.665	4.922	72.399	18.005	3.571	0.133	0.275	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1376.49	
25	0.7242	1150.7	1171.1	1170.3	0.718	5.450	70.597	18.401	4.308	0.162	0.330	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1376.18	
26	0.7342	1160.9	1181.4	1180.6	0.767	5.693	69.192	18.967	4.784	0.182	0.374	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1378.83	
27	0.7384	1166.7	1187.4	1186.5	0.759	5.741	68.613	19.265	4.978	0.195	0.405	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1381.84	
28	0.7442	1171.7	1192.5	1191.6	0.808	5.908	67.920	19.342	5.309	0.214	0.451	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1382.31	
Avg	0.7237	1148.0	1168.6	1167.8	0.759	5.494	70.581	18.444	4.231	0.152	0.306	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1373.73	

Source Daily Summary

February 2022

Source #: 063
Name: CLEVELAND STN-MAPLETON

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7224	1145.9	1166.2	1165.7	0.796	5.459	70.399	19.030	3.907	0.132	0.252	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1372.18	
2	0.7021	1134.4	1154.5	1154.1	0.648	4.483	73.323	18.347	2.904	0.096	0.181	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1377.89	
3	0.7076	1132.4	1152.5	1152.0	0.696	5.051	72.649	17.907	3.391	0.100	0.188	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1370.04	
4	0.7100	1137.8	1158.0	1157.8	0.666	4.992	72.297	18.235	3.468	0.111	0.209	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1374.23	
5	0.7207	1146.1	1166.4	1166.3	0.740	5.380	70.845	18.602	4.004	0.137	0.265	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.96	
6	0.7389	1157.4	1177.9	1177.8	0.848	6.231	68.275	19.160	4.939	0.173	0.340	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1370.26	
7	0.7425	1158.7	1179.2	1179.1	0.874	6.449	67.783	19.190	5.123	0.183	0.362	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1368.47	
8	0.7481	1164.9	1185.5	1185.4	0.901	6.551	67.052	19.454	5.415	0.195	0.392	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1370.66	
9	0.7499	1167.1	1187.8	1187.7	0.922	6.620	65.580	20.101	6.020	0.227	0.478	0.026	0.026	0.000	0.000	0.000	0.000	0.000	1371.64	
10	0.7517	1169.4	1190.1	1190.0	0.920	6.581	66.604	19.585	5.680	0.198	0.391	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1372.72	
11	0.7460	1168.0	1188.7	1188.2	0.858	6.231	67.419	19.499	5.378	0.191	0.385	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1376.24	
12	0.7198	1140.6	1160.8	1160.2	0.717	5.661	71.053	18.046	4.095	0.136	0.267	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1368.20	
13	0.7144	1132.4	1152.4	1151.8	0.724	5.642	71.693	17.846	3.714	0.121	0.237	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1363.49	
14	0.7144	1135.4	1155.5	1154.9	0.752	5.511	71.467	18.073	3.788	0.128	0.257	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1367.10	
15	0.7143	1138.4	1158.6	1157.8	0.727	5.261	71.843	18.052	3.694	0.132	0.263	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1370.82	
16	0.7071	1132.7	1152.8	1152.2	0.752	4.897	72.945	17.698	3.323	0.121	0.239	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1370.88	
17	0.7128	1137.7	1157.9	1157.2	0.761	5.115	72.229	17.763	3.691	0.137	0.275	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.43	
18	0.7092	1137.2	1157.4	1156.9	0.743	4.832	72.873	17.526	3.603	0.131	0.262	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.31	
19	0.7068	1132.9	1152.9	1152.4	0.652	5.014	73.097	17.347	3.475	0.128	0.258	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.32	
20	0.7103	1134.0	1154.1	1153.6	0.705	5.187	72.594	17.447	3.651	0.131	0.258	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1369.37	
21	0.7160	1141.6	1161.8	1161.4	0.707	5.258	71.892	17.683	3.969	0.151	0.306	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1372.98	
22	0.7210	1143.0	1163.2	1163.1	0.756	5.566	70.971	18.109	4.141	0.145	0.282	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1369.93	
23	0.7164	1144.3	1164.6	1164.5	0.754	5.056	71.609	18.329	3.832	0.134	0.258	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.94	
24	0.7161	1143.9	1164.2	1163.7	0.793	4.997	71.762	18.163	3.845	0.136	0.273	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.73	
25	0.7110	1140.2	1160.4	1159.8	0.669	4.936	72.388	18.012	3.564	0.132	0.269	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1376.11	
26	0.7242	1150.7	1171.0	1170.4	0.726	5.443	70.597	18.417	4.298	0.160	0.324	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1376.08	
27	0.7342	1160.8	1181.4	1180.7	0.769	5.697	69.180	18.989	4.775	0.181	0.369	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.73	
28	0.7382	1166.4	1187.0	1186.3	0.762	5.745	68.627	19.273	4.959	0.193	0.398	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1381.56	
Avg	0.7224	1146.0	1166.5	1166.1	0.762	5.495	70.680	18.424	4.166	0.148	0.294	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.58	

Source Daily Summary

February 2022

Source #: 061
Name: CLEVELAND STN-GRAFTON BDR

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7229	1146.1	1166.4	1166.1	0.800	5.491	70.336	19.027	3.936	0.133	0.254	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1371.87	
2	0.7021	1135.0	1155.1	1154.9	0.653	4.447	73.332	18.369	2.897	0.097	0.184	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1378.48	
3	0.7078	1132.4	1152.4	1152.2	0.698	5.067	72.628	17.903	3.400	0.099	0.187	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1369.80	
4	0.7098	1137.5	1157.7	1157.6	0.669	4.986	72.331	18.219	3.454	0.111	0.209	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1374.09	
5	0.7193	1146.2	1166.5	1166.4	0.728	5.255	71.074	18.579	3.940	0.135	0.261	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.45	
6	0.7388	1156.7	1177.2	1177.2	0.853	6.255	68.282	19.136	4.929	0.173	0.338	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1369.56	
7	0.7427	1159.3	1179.8	1179.7	0.874	6.435	67.742	19.238	5.134	0.182	0.359	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1368.94	
8	0.7467	1162.6	1183.2	1183.1	0.902	6.566	67.200	19.384	5.342	0.190	0.379	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1369.17	
9	0.7492	1165.8	1186.4	1186.3	0.923	6.681	66.218	19.732	5.781	0.208	0.420	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1370.67	
10	0.7516	1168.9	1189.6	1189.6	0.923	6.602	66.538	19.676	5.652	0.194	0.379	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1372.20	
11	0.7440	1163.8	1184.4	1184.2	0.864	6.295	67.594	19.416	5.263	0.181	0.355	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1373.11	
12	0.7211	1142.2	1162.4	1162.1	0.722	5.681	70.874	18.123	4.160	0.139	0.273	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1368.80	
13	0.7144	1132.2	1152.3	1152.0	0.723	5.653	71.691	17.836	3.717	0.121	0.237	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1363.31	
14	0.7144	1135.2	1155.3	1155.1	0.751	5.542	71.429	18.070	3.802	0.127	0.255	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1366.86	
15	0.7143	1138.2	1158.3	1158.1	0.729	5.272	71.849	18.030	3.697	0.132	0.264	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1370.54	
16	0.7073	1132.8	1152.9	1152.7	0.751	4.905	72.918	17.709	3.330	0.121	0.239	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1370.88	
17	0.7129	1137.6	1157.8	1157.6	0.759	5.125	72.232	17.745	3.696	0.138	0.276	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.29	
18	0.7091	1137.1	1157.2	1157.0	0.744	4.833	72.890	17.511	3.599	0.131	0.262	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.19	
19	0.7074	1133.8	1153.9	1153.7	0.655	5.007	73.022	17.391	3.504	0.129	0.261	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.89	
20	0.7095	1133.0	1153.0	1152.8	0.700	5.186	72.698	17.389	3.614	0.130	0.255	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1368.88	
21	0.7164	1142.2	1162.5	1162.3	0.710	5.253	71.840	17.709	3.990	0.153	0.310	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1373.36	
22	0.7199	1141.5	1161.7	1161.6	0.752	5.559	71.148	17.986	4.100	0.144	0.281	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1369.19	
23	0.7177	1145.4	1165.7	1165.6	0.754	5.119	71.401	18.400	3.897	0.136	0.263	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.91	
24	0.7164	1144.1	1164.4	1164.2	0.795	5.009	71.724	18.167	3.862	0.137	0.274	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.68	
25	0.7109	1140.0	1160.2	1160.0	0.667	4.934	72.406	18.009	3.554	0.131	0.268	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1376.09	
26	0.7238	1150.0	1170.4	1170.0	0.729	5.445	70.652	18.374	4.282	0.160	0.323	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1375.65	
27	0.7344	1161.1	1181.6	1181.2	0.770	5.696	69.154	19.008	4.780	0.181	0.370	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.89	
28	0.7384	1166.5	1187.1	1186.6	0.764	5.749	68.612	19.268	4.970	0.193	0.400	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1381.56	
Avg	0.7223	1146.0	1166.3	1166.1	0.763	5.502	70.708	18.407	4.153	0.147	0.291	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.37	

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6802	1122.5	1142.4	1142.2	0.516	3.361	76.414	17.790	1.746	0.057	0.102	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1385.10	
2	0.6751	1114.2	1133.9	1133.7	0.466	3.458	77.355	16.843	1.714	0.054	0.096	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1380.07	
3	0.6771	1118.0	1137.8	1137.6	0.435	3.466	76.931	17.250	1.762	0.052	0.092	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1382.74	
4	0.6762	1117.3	1137.1	1136.8	0.439	3.415	77.049	17.267	1.675	0.051	0.091	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1382.79	
5	0.6759	1117.1	1136.9	1136.6	0.398	3.467	77.107	17.158	1.703	0.054	0.099	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1382.76	
6	0.6712	1109.6	1129.3	1128.9	0.333	3.575	77.757	16.674	1.521	0.046	0.083	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1378.40	
7	0.6747	1114.2	1133.9	1133.5	0.365	3.578	76.996	17.456	1.483	0.042	0.072	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1380.46	
8	0.6727	1111.3	1131.0	1130.6	0.416	3.486	77.543	16.903	1.503	0.048	0.089	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1378.96	
9	0.6788	1121.2	1141.1	1140.7	0.406	3.471	76.332	18.094	1.551	0.048	0.087	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1385.02	
10	0.6736	1113.1	1132.8	1132.5	0.394	3.498	77.367	17.052	1.537	0.050	0.091	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1380.25	
11	0.6638	1097.7	1117.2	1116.9	0.347	3.579	79.074	15.535	1.342	0.041	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1371.25	
12	0.6698	1106.4	1126.0	1125.7	0.405	3.532	78.144	16.232	1.542	0.048	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1375.80	
13	0.6756	1116.2	1135.9	1135.6	0.481	3.367	77.256	17.037	1.693	0.055	0.097	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1381.97	
14	0.6726	1110.7	1130.3	1130.1	0.493	3.399	77.829	16.471	1.645	0.055	0.095	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1378.27	
15	0.6778	1119.1	1138.9	1138.7	0.600	3.208	77.170	16.991	1.832	0.066	0.116	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1383.41	
16	0.6724	1110.0	1129.6	1129.3	0.558	3.327	78.076	16.124	1.726	0.061	0.110	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1377.53	
17	0.6690	1104.3	1123.9	1123.7	0.592	3.291	78.717	15.580	1.645	0.057	0.103	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1374.12	
18	0.6669	1100.6	1120.1	1119.8	0.427	3.577	78.764	15.557	1.526	0.049	0.088	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.57	
19	0.6660	1098.7	1118.1	1117.8	0.472	3.540	79.062	15.194	1.570	0.053	0.094	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1370.10	
20	0.6643	1096.2	1115.6	1115.4	0.447	3.566	79.297	15.037	1.501	0.050	0.088	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.79	
21	0.6688	1104.3	1123.9	1123.7	0.475	3.456	78.525	15.783	1.602	0.053	0.092	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1374.27	
22	0.6787	1120.5	1140.4	1140.1	0.571	3.252	76.931	17.213	1.846	0.062	0.107	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1384.22	
23	0.6785	1118.4	1138.2	1138.0	0.675	3.204	77.233	16.730	1.947	0.070	0.122	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1381.81	
24	0.6739	1113.8	1133.5	1133.3	0.442	3.404	77.501	16.850	1.650	0.051	0.088	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1380.86	
25	0.6692	1106.4	1126.0	1125.7	0.379	3.514	78.263	16.142	1.563	0.046	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1376.41	
26	0.6710	1109.6	1129.3	1129.0	0.362	3.515	77.852	16.577	1.561	0.045	0.077	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1378.56	
27	0.6721	1112.7	1132.4	1132.2	0.306	3.514	77.502	17.039	1.519	0.041	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1381.30	
28	0.6727	1112.2	1131.9	1131.6	0.361	3.517	77.474	16.981	1.538	0.044	0.075	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1380.08	
Avg	0.6728	1111.0	1131.0	1130.7	0.449	3.448	77.697	16.627	1.623	0.052	0.091	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1378.82	

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6746	1114.7	1134.5	1134.3	0.467	3.383	77.384	16.935	1.672	0.053	0.094	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1381.19	
2	0.6772	1119.6	1139.4	1139.3	0.452	3.354	76.925	17.358	1.750	0.054	0.096	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1384.58	
3	0.6767	1119.5	1139.4	1139.2	0.433	3.332	76.975	17.393	1.711	0.052	0.092	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1385.09	
4	0.6768	1119.6	1139.4	1139.3	0.416	3.363	76.928	17.445	1.686	0.054	0.097	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1385.08	
5	0.6717	1112.9	1132.6	1132.5	0.307	3.458	77.641	16.923	1.529	0.048	0.084	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1382.00	
6	0.6730	1113.0	1132.7	1132.6	0.360	3.495	77.306	17.263	1.455	0.043	0.072	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1380.79	
7	0.6730	1114.0	1133.7	1133.5	0.398	3.382	77.408	17.202	1.468	0.047	0.085	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1381.93	
8	0.6788	1122.7	1142.6	1142.4	0.396	3.400	76.296	18.224	1.539	0.049	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1386.78	
9	0.6751	1117.0	1136.8	1136.6	0.385	3.412	77.075	17.420	1.554	0.051	0.092	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1383.56	
10	0.6659	1103.1	1122.6	1122.5	0.340	3.468	78.601	16.142	1.331	0.042	0.071	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1375.69	
11	0.6677	1105.7	1125.3	1125.2	0.383	3.496	79.420	15.215	1.357	0.046	0.074	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1377.14	
12	0.6696	1108.3	1127.9	1127.7	0.383	3.496	79.420	15.215	1.357	0.046	0.074	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1378.36	
13	0.6714	1110.9	1130.6	1130.4	0.383	3.496	79.417	15.218	1.358	0.046	0.074	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1379.81	
14	0.6732	1113.5	1133.2	1133.0	0.484	3.293	77.724	16.676	1.656	0.056	0.099	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1381.17	
15	0.6758	1117.2	1137.0	1136.9	0.574	3.173	77.453	16.841	1.765	0.064	0.113	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1383.13	
16	0.6702	1107.9	1127.6	1127.4	0.532	3.279	78.419	15.917	1.672	0.059	0.106	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1377.33	
17	0.6698	1106.5	1126.1	1125.9	0.495	3.386	78.391	15.918	1.640	0.056	0.100	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1375.96	
18	0.6648	1099.1	1118.5	1118.4	0.400	3.516	79.074	15.393	1.475	0.047	0.083	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1371.83	
19	0.6664	1101.2	1120.7	1120.6	0.487	3.398	79.008	15.362	1.582	0.054	0.095	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1372.89	
20	0.6617	1094.0	1113.4	1113.2	0.415	3.511	79.676	14.831	1.426	0.048	0.083	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1368.67	
21	0.6745	1115.1	1134.8	1134.6	0.499	3.298	77.518	16.809	1.708	0.056	0.098	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1381.79	
22	0.6782	1120.0	1139.9	1139.7	0.623	3.159	77.122	17.024	1.875	0.066	0.115	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1384.09	
23	0.6764	1118.3	1138.1	1138.0	0.541	3.217	77.255	17.038	1.772	0.059	0.102	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1383.85	
24	0.6705	1109.7	1129.3	1129.1	0.426	3.370	78.092	16.363	1.600	0.051	0.087	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1379.10	
25	0.6699	1109.7	1129.4	1129.2	0.337	3.442	78.019	16.530	1.543	0.045	0.075	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1379.85	
26	0.6711	1112.7	1132.4	1132.3	0.294	3.434	77.661	17.008	1.486	0.041	0.069	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1382.36	
27	0.6719	1113.2	1132.9	1132.7	0.339	3.419	77.564	17.054	1.500	0.044	0.073	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1382.05	
28	0.6726	1114.1	1133.8	1133.7	0.448	3.260	77.700	16.852	1.588	0.052	0.088	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1382.51	
Avg	0.6721	1112.0	1131.6	1131.4	0.428	3.382	77.910	16.556	1.573	0.051	0.088	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1380.31	

Source Daily Summary

February 2022

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	1108.3	1127.9	1127.3	0.482	3.548	77.956	16.067	1.779	0.054	0.100	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1375.44	
2	0.6721	1107.7	1127.3	1126.7	0.477	3.557	78.010	16.018	1.772	0.054	0.099	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1375.07	
3	0.6717	1107.0	1126.6	1126.0	0.475	3.562	78.080	15.958	1.760	0.053	0.098	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.67	
4	0.6714	1106.4	1126.0	1125.3	0.474	3.569	78.147	15.887	1.757	0.054	0.099	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.24	
5	0.6709	1105.8	1125.3	1124.7	0.466	3.580	78.213	15.831	1.746	0.053	0.098	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.87	
6	0.6717	1107.2	1126.8	1126.4	0.467	3.566	78.056	15.991	1.755	0.053	0.098	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.86	
7	0.6715	1106.8	1126.4	1125.8	0.467	3.569	78.104	15.941	1.754	0.053	0.098	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.59	
8	0.6713	1106.5	1126.1	1125.5	0.466	3.576	78.136	15.903	1.754	0.053	0.099	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.34	
9	0.6710	1106.1	1125.7	1125.3	0.464	3.574	78.189	15.861	1.747	0.053	0.098	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.17	
10	0.6707	1105.6	1125.2	1124.9	0.461	3.577	78.242	15.819	1.739	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.91	
11	0.6705	1105.4	1125.0	1124.5	0.460	3.571	78.281	15.794	1.733	0.052	0.096	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.87	
12	0.6708	1105.8	1125.4	1124.9	0.464	3.568	78.237	15.827	1.742	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1374.07	
13	0.6707	1105.5	1125.1	1124.6	0.466	3.577	78.253	15.798	1.744	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.77	
14	0.6705	1105.3	1124.9	1124.5	0.471	3.556	78.310	15.757	1.742	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.81	
15	0.6700	1104.3	1123.8	1123.3	0.469	3.576	78.403	15.654	1.735	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1373.01	
16	0.6698	1103.9	1123.4	1123.0	0.467	3.587	78.428	15.622	1.732	0.053	0.097	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1372.69	
17	0.6689	1102.3	1121.9	1121.2	0.462	3.603	78.586	15.473	1.714	0.053	0.096	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1371.72	
18	0.6681	1101.0	1120.5	1119.9	0.457	3.615	78.723	15.348	1.697	0.052	0.094	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1370.91	
19	0.6676	1100.3	1119.8	1119.2	0.458	3.610	78.823	15.258	1.690	0.052	0.094	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1370.52	
20	0.6663	1098.3	1117.8	1117.2	0.458	3.612	79.058	15.043	1.670	0.052	0.094	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.36	
21	0.6678	1100.7	1120.2	1119.5	0.459	3.607	78.785	15.295	1.694	0.053	0.094	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1370.75	
22	0.6678	1100.6	1120.1	1119.4	0.473	3.595	78.809	15.253	1.706	0.053	0.096	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1370.59	
23	0.6669	1099.3	1118.7	1118.1	0.451	3.621	78.931	15.164	1.675	0.052	0.092	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.92	
24	0.6662	1098.1	1117.6	1116.8	0.446	3.634	79.054	15.046	1.664	0.051	0.092	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.19	
25	0.6649	1096.1	1115.5	1114.7	0.439	3.640	79.292	14.838	1.636	0.051	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1368.06	
26	0.6647	1095.8	1115.2	1114.4	0.437	3.647	79.321	14.808	1.634	0.051	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1367.85	
27	0.6638	1094.5	1113.9	1113.2	0.448	3.625	79.503	14.645	1.623	0.051	0.090	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1367.17	
28	0.6646	1095.8	1115.2	1114.5	0.447	3.615	79.369	14.776	1.637	0.051	0.091	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1368.05	
Avg	0.6691	1103.0	1122.4	1121.8	0.462	3.591	78.546	15.524	1.715	0.053	0.096	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1372.16	

Source Daily Summary

February 2022

Source #: 111
Name: LITTLE KNIFE PLANT

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6886	1156.9	1177.4	1176.0	0.000	2.846	72.880	23.590	0.655	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.86	-24.80
2	0.6880	1155.9	1176.4	1174.8	0.000	2.849	72.993	23.478	0.652	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.29	-25.14
3	0.6877	1155.5	1176.0	1174.4	0.000	2.850	73.017	23.479	0.628	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.06	-25.38
4	0.6873	1155.5	1175.9	1174.2	0.000	2.812	73.093	23.451	0.625	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.45	-25.65
5	0.6871	1154.3	1174.8	1173.2	0.000	2.861	73.139	23.358	0.615	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.27	-25.78
6	0.6876	1154.9	1175.4	1173.6	0.000	2.873	73.049	23.418	0.632	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.49	-25.46
7	0.6878	1155.9	1176.4	1174.8	0.000	2.838	73.024	23.456	0.655	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.41	-25.17
8	0.6869	1153.9	1174.3	1173.0	0.000	2.877	73.159	23.323	0.615	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.84	-25.90
9	0.6877	1154.9	1175.4	1173.9	0.000	2.886	72.997	23.468	0.630	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.35	-25.57
10	0.6878	1155.9	1176.4	1175.1	0.000	2.835	73.012	23.484	0.640	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.46	-25.21
11	0.6872	1154.4	1174.9	1173.5	0.000	2.865	73.125	23.361	0.621	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.27	-25.69
12	0.6866	1153.0	1173.4	1171.8	0.000	2.897	73.218	23.252	0.606	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.15	-26.11
13	0.6867	1153.4	1173.9	1172.4	0.000	2.883	73.196	23.285	0.609	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.53	-26.02
14	0.6872	1154.4	1174.9	1173.4	0.000	2.869	73.099	23.391	0.622	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.24	-25.83
15	0.6863	1153.0	1173.4	1171.7	0.000	2.867	73.276	23.242	0.588	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.45	-26.30
16	0.6863	1153.5	1173.9	1172.4	0.000	2.843	73.276	23.258	0.597	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.00	-26.16
17	0.6866	1154.3	1174.7	1173.2	0.000	2.825	73.244	23.277	0.625	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.65	-25.82
18	0.6858	1153.3	1173.8	1172.4	0.000	2.807	73.367	23.213	0.587	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1417.32	-26.37
19	0.6857	1152.5	1173.0	1171.3	0.000	2.845	73.397	23.129	0.603	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.45	-26.46
20	0.6860	1153.0	1173.4	1172.2	0.000	2.840	73.329	23.206	0.607	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.78	-26.45
21	0.6892	1158.8	1179.3	1177.7	0.000	2.788	73.076	23.145	0.955	0.013	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.53	-23.22
22	0.6891	1158.6	1179.1	1177.4	0.000	2.790	73.086	23.140	0.949	0.012	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.40	-23.29
23	0.6882	1157.4	1177.9	1176.3	0.000	2.780	73.235	23.035	0.916	0.012	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.84	-23.85
24	0.6889	1158.5	1179.0	1177.3	0.000	2.772	73.107	23.166	0.921	0.012	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.56	-23.48
25	0.6893	1159.1	1179.6	1178.1	0.000	2.776	73.067	23.153	0.971	0.012	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.86	-23.11
26	0.6892	1158.7	1179.2	1177.6	0.000	2.800	73.113	23.035	1.024	0.011	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.34	-23.10
27	0.6894	1158.5	1179.0	1177.2	0.000	2.821	73.071	23.077	0.995	0.013	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.03	-23.05
28	0.6874	1155.4	1175.9	1174.1	0.000	2.824	73.174	23.268	0.705	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.28	-25.18
Avg	0.6876	1155.0	1175.9	1174.4	0.000	2.836	73.137	23.291	0.709	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.18	-25.13

Source Daily Summary

February 2022

Source #: 351
Name: BADLANDS PLANT

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6519	1074.3	1093.3	1093.1	0.431	3.765	81.687	12.546	1.423	0.048	0.087	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1354.11	
2	0.6506	1072.3	1091.3	1091.1	0.429	3.765	81.932	12.323	1.402	0.048	0.087	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1352.98	
3	0.6501	1071.3	1090.2	1090.0	0.426	3.790	82.015	12.225	1.395	0.048	0.087	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1352.14	
4	0.6500	1070.4	1089.4	1089.1	0.422	3.835	82.042	12.148	1.400	0.049	0.089	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1351.20	
5	0.6517	1073.9	1092.9	1092.6	0.422	3.783	81.730	12.488	1.424	0.049	0.090	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1353.80	
6	0.6537	1077.0	1096.1	1095.8	0.426	3.773	81.369	12.819	1.458	0.050	0.091	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1355.70	
7	0.6531	1076.2	1095.2	1094.9	0.420	3.776	81.472	12.729	1.450	0.049	0.090	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1355.27	
8	0.6544	1077.8	1096.9	1096.6	0.422	3.803	81.238	12.898	1.481	0.050	0.093	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1355.88	
9	0.6544	1078.4	1097.5	1097.2	0.424	3.757	81.239	12.953	1.473	0.049	0.091	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1356.73	
10	0.6531	1076.5	1095.5	1095.2	0.420	3.755	81.472	12.757	1.444	0.049	0.088	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1355.67	
11	0.6509	1071.7	1090.7	1090.5	0.414	3.851	81.852	12.326	1.407	0.048	0.088	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1351.93	
12	0.6504	1071.1	1090.1	1089.8	0.415	3.844	81.939	12.254	1.398	0.048	0.087	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1351.61	
13	0.6496	1070.8	1089.7	1089.4	0.414	3.786	82.103	12.168	1.381	0.048	0.086	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1352.09	
14	0.6534	1075.3	1094.3	1094.1	0.418	3.860	81.408	12.707	1.453	0.049	0.091	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1353.85	
15	0.6505	1070.5	1089.4	1089.2	0.412	3.897	81.913	12.232	1.396	0.048	0.089	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1350.72	
16	0.6438	1061.0	1079.7	1079.5	0.403	3.858	83.126	11.208	1.266	0.045	0.080	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1345.68	
17	0.6405	1056.9	1075.6	1075.3	0.377	3.828	83.731	10.717	1.212	0.044	0.077	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1344.05	
18	0.6395	1056.2	1074.9	1074.7	0.343	3.834	83.878	10.613	1.199	0.044	0.076	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1344.15	
19	0.6402	1057.4	1076.1	1075.7	0.350	3.820	83.757	10.724	1.214	0.045	0.077	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1344.86	
20	0.6428	1062.3	1081.1	1080.9	0.334	3.785	83.268	11.215	1.260	0.045	0.078	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1348.46	
21	0.6419	1061.2	1080.0	1079.9	0.291	3.830	83.399	11.093	1.250	0.045	0.078	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1348.06	
22	0.6449	1067.6	1086.5	1086.3	0.273	3.753	82.829	11.700	1.305	0.046	0.080	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1352.98	
23	0.6458	1069.3	1088.2	1088.0	0.263	3.749	82.672	11.849	1.325	0.047	0.082	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1354.17	
24	0.6451	1067.0	1085.9	1085.7	0.277	3.801	82.817	11.644	1.316	0.047	0.084	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1352.02	
25	0.6442	1064.0	1082.8	1082.6	0.300	3.864	83.007	11.383	1.300	0.047	0.085	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1349.15	
26	0.6441	1061.3	1080.0	1079.8	0.404	3.863	83.099	11.216	1.274	0.047	0.083	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1345.79	
27	0.6441	1061.3	1080.0	1079.8	0.404	3.863	83.099	11.216	1.274	0.047	0.083	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1345.79	
28	0.6443	1061.8	1080.6	1080.3	0.403	3.857	83.049	11.267	1.279	0.047	0.083	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1346.17	
Avg	0.6478	1068.0	1087.3	1087.0	0.383	3.812	82.398	11.908	1.352	0.047	0.085	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1350.89	

Gas Composition and Properties

Effective February 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	1.1746		2.6997	Pressure Base	14.730	
Nitrogen, N2	2.7693		4.0515	Temperature Base	60.00	
Methane, C1	79.1098		66.2799	HCDP @ Sample Pressure		
Ethane, C2	16.4862	4.4098	25.8892	Cricondentherm	-43.530	
Propane, C3	0.4325	0.1192	0.9960	HV, Dry @ Base P, T	1108.11	4755.9000
iso-Butane, iC4	0.0097	0.0032	0.0294	HV, Sat @ Base P, T	1088.82	
n-Butane, nC4	0.0179	0.0056	0.0543	HV, Sat @ Sample P, T	1108.11	
iso-Pentane, iC5				Relative Density	0.6627	0.66406
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		
Totals	100.0000	4.5380	100.0000			

Sample

Date: 02/01/2022 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

February-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	
2/1/2022	2/2/2022	1,854	2,026	1092.70	7,296	8,328	1142.4	1132.330	2/1/2022
2/2/2022	2/3/2022	1,848	2,026	1096.10	7,668	8,698	1133.9	1126.559	2/2/2022
2/3/2022	2/4/2022	1,886	2,063	1093.60	6,689	7,609	1137.8	1128.079	2/3/2022
2/4/2022	2/5/2022	1,808	1,973	1091.10	5,987	6,809	1137.1	1126.431	2/4/2022
2/5/2022	2/6/2022	1,856	2,034	1096.00	3,311	3,763	1136.9	1122.209	2/5/2022
2/6/2022	2/7/2022	1,844	2,020	1095.50	4,228	4,774	1129.3	1119.035	2/6/2022
2/7/2022	2/8/2022	1,834	2,009	1095.60	2,027	2,297	1133.9	1115.707	2/7/2022
2/8/2022	2/9/2022	1,882	2,059	1094.00	2,458	2,782	1131	1114.955	2/8/2022
2/9/2022	2/10/2022	1,855	2,018	1087.80	2,831	3,232	1141.1	1120.001	2/9/2022
2/10/2022	2/11/2022	1,886	2,048	1085.90	2,956	3,340	1132.8	1114.532	2/10/2022
2/11/2022	2/12/2022	1,818	1,971	1084.50	5,787	6,463	1117.2	1109.383	2/11/2022
2/12/2022	2/13/2022	1,867	2,024	1083.90	5,907	6,652	1126	1115.889	2/12/2022
2/13/2022	2/14/2022	1,855	2,010	1083.40	4,355	4,951	1135.9	1120.218	2/13/2022
2/14/2022	2/15/2022	1,880	2,047	1088.50	5,334	6,029	1130.3	1119.407	2/14/2022
2/15/2022	2/16/2022	1,885	2,056	1090.90	4,205	4,787	1138.9	1124.043	2/15/2022
2/16/2022	2/17/2022	1,886	2,057	1090.50	5,845	6,597	1129.6	1120.061	2/16/2022
2/17/2022	2/18/2022	1,867	2,032	1088.40	4,299	4,828	1123.9	1113.151	2/17/2022
2/18/2022	2/19/2022	1,882	2,047	1087.40	6,091	6,820	1120.1	1112.381	2/18/2022
2/19/2022	2/20/2022	1,805	1,963	1088.00	2,497	2,790	1118.1	1105.471	2/19/2022
2/20/2022	2/21/2022	1,889	2,054	1087.20	6,387	7,112	1115.6	1109.118	2/20/2022
2/21/2022	2/22/2022	1,863	2,024	1086.20	8,747	9,832	1123.9	1117.280	2/21/2022
2/22/2022	2/23/2022	1,782	1,928	1082.10	8,377	9,551	1140.4	1130.174	2/22/2022
2/23/2022	2/24/2022	1,810	1,960	1083.00	7,361	8,377	1138.2	1127.306	2/23/2022
2/24/2022	2/25/2022	1,822	1,974	1083.70	6,748	7,647	1133.5	1122.912	2/24/2022
2/25/2022	2/26/2022	1,849	2,001	1082.20	5,487	6,181	1126	1114.960	2/25/2022
2/26/2022	2/27/2022	1,745	1,887	1081.40	3,969	4,482	1129.3	1114.672	2/26/2022
2/27/2022	2/28/2022	1,737	1,879	1081.80	2,598	2,945	1132.4	1112.125	2/27/2022
2/28/2022	3/1/2022	1,770	1,915	1082.20	2,220	2,512	1131.9	1109.853	2/28/2022
		51,565	56,105	1087.9857	141,665	160,188	1130.9786	1118.5086	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 February 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	1,145.226	0.6516	85.4061	9.5372	3.0172	0.3188	0.5056	0.0574	0.0437	0.0229	0.7442	0.3371	0.0097
2	1,146.404	0.6527	85.3106	9.5247	3.0794	0.3247	0.5207	0.0567	0.0448	0.0246	0.7588	0.3453	0.0097
3	1,149.898	0.6550	85.0433	9.5704	3.3011	0.3249	0.5225	0.0534	0.0421	0.0234	0.7627	0.3465	0.0098
4	1,150.837	0.6557	85.0132	9.5220	3.3284	0.3338	0.5490	0.0568	0.0441	0.0240	0.7736	0.3455	0.0095
5	1,152.115	0.6566	84.8791	9.5465	3.4345	0.3314	0.5437	0.0556	0.0428	0.0211	0.7948	0.3407	0.0097
6	1,152.598	0.6572	84.7643	9.6513	3.4326	0.3321	0.5420	0.0563	0.0418	0.0185	0.8014	0.3500	0.0096
7	1,151.386	0.6564	84.9021	9.5218	3.4189	0.3331	0.5406	0.0554	0.0414	0.0209	0.8069	0.3490	0.0098
8	1,152.501	0.6568	84.8250	9.6169	3.4182	0.3335	0.5479	0.0541	0.0407	0.0218	0.7916	0.3408	0.0095
9	1,152.696	0.6572	84.8143	9.5788	3.4337	0.3353	0.5609	0.0552	0.0408	0.0230	0.8054	0.3431	0.0096
10	1,152.583	0.6571	84.7968	9.6116	3.4268	0.3331	0.5502	0.0562	0.0418	0.0229	0.8080	0.3429	0.0097
11	1,152.718	0.6572	84.7860	9.6106	3.4410	0.3337	0.5488	0.0553	0.0411	0.0227	0.8075	0.3437	0.0095
12	1,152.962	0.6572	84.7552	9.6602	3.4460	0.3289	0.5404	0.0547	0.0412	0.0227	0.7997	0.3414	0.0096
13	1,154.149	0.6581	84.6575	9.6750	3.4966	0.3338	0.5532	0.0559	0.0419	0.0222	0.8160	0.3387	0.0095
14	1,154.848	0.6586	84.6154	9.6743	3.5269	0.3367	0.5589	0.0567	0.0424	0.0228	0.8218	0.3344	0.0096
15	1,153.978	0.6579	84.6722	9.6874	3.4765	0.3323	0.5523	0.0559	0.0419	0.0232	0.8120	0.3367	0.0097
16	1,154.211	0.6582	84.6565	9.6677	3.5057	0.3340	0.5525	0.0555	0.0411	0.0229	0.8176	0.3369	0.0096
17	1,153.929	0.6579	84.6746	9.6742	3.4923	0.3328	0.5478	0.0543	0.0413	0.0227	0.8127	0.3376	0.0096
18	1,153.413	0.6578	84.7119	9.5913	3.5104	0.3332	0.5481	0.0558	0.0427	0.0225	0.8402	0.3343	0.0097
19	1,155.004	0.6587	84.6435	9.5993	3.5585	0.3426	0.5651	0.0577	0.0436	0.0211	0.8307	0.3284	0.0095
20	1,155.626	0.6594	84.5211	9.7076	3.5332	0.3435	0.5742	0.0594	0.0460	0.0228	0.8458	0.3366	0.0097
21	1,152.434	0.6565	84.8725	9.6181	3.3624	0.3373	0.5663	0.0564	0.0428	0.0206	0.7918	0.3219	0.0100
22	1,152.995	0.6568	84.8314	9.6483	3.3847	0.3365	0.5625	0.0564	0.0422	0.0214	0.7805	0.3261	0.0098
23	1,153.095	0.6567	84.8364	9.6587	3.3804	0.3368	0.5616	0.0567	0.0418	0.0215	0.7761	0.3205	0.0096
24	1,152.631	0.6568	84.7986	9.6711	3.3861	0.3337	0.5606	0.0545	0.0395	0.0188	0.8069	0.3205	0.0097
25	1,152.083	0.6564	84.7953	9.7345	3.3378	0.3306	0.5510	0.0542	0.0393	0.0192	0.8080	0.3204	0.0097
26	1,150.625	0.6556	84.8793	9.7259	3.2729	0.3274	0.5390	0.0537	0.0396	0.0192	0.7996	0.3335	0.0099
27	1,147.480	0.6542	84.9863	9.7346	3.1315	0.3194	0.5164	0.0555	0.0414	0.0206	0.8441	0.3404	0.0098
28	1,146.470	0.6534	85.1062	9.6679	3.1017	0.3171	0.5112	0.0543	0.0408	0.0215	0.8296	0.3400	0.0098
Volume	1,151.995	0.6566	84.8377	9.6336	3.3810	0.3318	0.5463	0.0558	0.0420	0.0218	0.8037	0.3366	0.0097
Weight Avg Energy	1,152.001	0.6566	84.8373	9.6336	3.3813	0.3319	0.5464	0.0558	0.0420	0.0218	0.8037	0.3366	0.0097



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 February 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	1,145.191	0.6516	85.4125	9.5368	3.0142	0.3189	0.5050	0.0574	0.0438	0.0229	0.7424	0.3364	0.0098
2	1,147.081	0.6531	85.2666	9.5306	3.1205	0.3250	0.5207	0.0561	0.0446	0.0245	0.7556	0.3460	0.0097
3	1,150.068	0.6551	85.0406	9.5601	3.3027	0.3271	0.5288	0.0539	0.0425	0.0239	0.7651	0.3455	0.0098
4	1,150.957	0.6558	85.0051	9.5283	3.3302	0.3342	0.5493	0.0571	0.0443	0.0240	0.7735	0.3444	0.0095
5	1,152.373	0.6569	84.8470	9.5572	3.4470	0.3323	0.5454	0.0558	0.0429	0.0208	0.7997	0.3422	0.0097
6	1,152.149	0.6569	84.8053	9.6314	3.4103	0.3327	0.5418	0.0567	0.0421	0.0189	0.8009	0.3504	0.0096
7	1,151.437	0.6565	84.8928	9.5415	3.4176	0.3320	0.5372	0.0550	0.0411	0.0210	0.8037	0.3484	0.0098
8	1,152.935	0.6572	84.7929	9.6251	3.4322	0.3348	0.5543	0.0544	0.0406	0.0218	0.7939	0.3406	0.0095
9	1,153.311	0.6575	84.7901	9.5814	3.4533	0.3381	0.5658	0.0564	0.0413	0.0228	0.7998	0.3415	0.0095
10	1,152.669	0.6572	84.7926	9.6078	3.4335	0.3332	0.5513	0.0561	0.0417	0.0228	0.8101	0.3412	0.0096
11	1,152.378	0.6570	84.8209	9.5998	3.4277	0.3326	0.5449	0.0553	0.0412	0.0227	0.8012	0.3442	0.0096
12	1,153.004	0.6573	84.7497	9.6602	3.4476	0.3295	0.5414	0.0547	0.0413	0.0228	0.8022	0.3411	0.0096
13	1,154.497	0.6584	84.6303	9.6840	3.5092	0.3344	0.5563	0.0563	0.0421	0.0222	0.8186	0.3373	0.0095
14	1,154.756	0.6586	84.6236	9.6735	3.5215	0.3366	0.5580	0.0568	0.0425	0.0229	0.8206	0.3344	0.0096
15	1,154.044	0.6580	84.6651	9.6905	3.4795	0.3325	0.5527	0.0557	0.0418	0.0230	0.8123	0.3370	0.0097
16	1,154.230	0.6583	84.6559	9.6581	3.5133	0.3343	0.5523	0.0554	0.0411	0.0230	0.8199	0.3372	0.0096
17	1,153.770	0.6579	84.6896	9.6672	3.4879	0.3322	0.5464	0.0541	0.0412	0.0227	0.8123	0.3365	0.0096
18	1,153.429	0.6579	84.7188	9.5840	3.5150	0.3333	0.5474	0.0556	0.0426	0.0222	0.8392	0.3321	0.0097
19	1,155.288	0.6588	84.6176	9.6275	3.5652	0.3417	0.5627	0.0576	0.0435	0.0210	0.8262	0.3275	0.0095
20	1,154.584	0.6587	84.6070	9.6754	3.4889	0.3417	0.5721	0.0586	0.0453	0.0222	0.8467	0.3323	0.0097
21	1,152.346	0.6565	84.8845	9.6119	3.3610	0.3369	0.5649	0.0564	0.0427	0.0205	0.7885	0.3226	0.0099
22	1,153.320	0.6570	84.8121	9.6730	3.3843	0.3370	0.5627	0.0571	0.0426	0.0221	0.7745	0.3250	0.0097
23	1,153.025	0.6568	84.8309	9.6566	3.3851	0.3365	0.5617	0.0561	0.0412	0.0207	0.7811	0.3206	0.0096
24	1,152.430	0.6567	84.8127	9.6721	3.3748	0.3329	0.5589	0.0546	0.0395	0.0189	0.8064	0.3196	0.0096
25	1,152.187	0.6566	84.7878	9.7354	3.3427	0.3312	0.5518	0.0542	0.0394	0.0191	0.8062	0.3225	0.0098
26	1,150.526	0.6556	84.8829	9.7314	3.2657	0.3269	0.5377	0.0537	0.0396	0.0194	0.7993	0.3335	0.0099
27	1,147.581	0.6543	84.9697	9.7489	3.1316	0.3190	0.5167	0.0556	0.0416	0.0207	0.8468	0.3398	0.0097
28	1,146.331	0.6532	85.1324	9.6594	3.0947	0.3165	0.5091	0.0542	0.0408	0.0217	0.8225	0.3388	0.0098
Volume	1,151.910	0.6565	84.8513	9.6295	3.3751	0.3318	0.5461	0.0558	0.0420	0.0220	0.8008	0.3360	0.0097
Weight Avg Energy	1,151.915	0.6565	84.8509	9.6296	3.3753	0.3318	0.5461	0.0558	0.0420	0.0220	0.8009	0.3360	0.0097

February-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		
2/1/2022	2/2/2022	657	788	1200.2	1,245	1,380	1108.1	1139.914	2/1/2022
2/2/2022	2/3/2022	653	784	1200.2	1,260	1,396	1108.1	1139.538	2/2/2022
2/3/2022	2/4/2022	606	727	1200.2	1,192	1,321	1108.1	1139.141	2/3/2022
2/4/2022	2/5/2022	480	575	1200.2	1,039	1,152	1108.1	1137.203	2/4/2022
2/5/2022	2/6/2022	338	406	1200.2	772	855	1108.1	1136.145	2/5/2022
2/6/2022	2/7/2022	306	368	1200.2	666	738	1108.1	1137.094	2/6/2022
2/7/2022	2/8/2022	265	319	1200.2	592	656	1108.1	1136.579	2/7/2022
2/8/2022	2/9/2022	310	372	1200.2	705	781	1108.1	1136.229	2/8/2022
2/9/2022	2/10/2022	308	370	1200.2	635	703	1108.1	1138.181	2/9/2022
2/10/2022	2/11/2022	353	423	1200.2	749	830	1108.1	1137.602	2/10/2022
2/11/2022	2/12/2022	485	583	1200.2	943	1,045	1108.1	1139.380	2/11/2022
2/12/2022	2/13/2022	474	569	1200.2	922	1,022	1108.1	1139.372	2/12/2022
2/13/2022	2/14/2022	373	448	1200.2	736	816	1108.1	1139.077	2/13/2022
2/14/2022	2/15/2022	498	598	1200.2	972	1,077	1108.1	1139.301	2/14/2022
2/15/2022	2/16/2022	449	539	1200.2	869	963	1108.1	1139.475	2/15/2022
2/16/2022	2/17/2022	520	624	1200.2	1,037	1,150	1108.1	1138.859	2/16/2022
2/17/2022	2/18/2022	387	464	1200.2	873	967	1108.1	1136.388	2/17/2022
2/18/2022	2/19/2022	526	631	1200.2	1,053	1,167	1108.1	1138.781	2/18/2022
2/19/2022	2/20/2022	278	333	1200.2	625	692	1108.1	1136.454	2/19/2022
2/20/2022	2/21/2022	600	720	1200.2	1,282	1,421	1108.1	1137.462	2/20/2022
2/21/2022	2/22/2022	695	834	1200.2	1,425	1,580	1108.1	1138.293	2/21/2022
2/22/2022	2/23/2022	696	835	1200.2	1,442	1,598	1108.1	1138.082	2/22/2022
2/23/2022	2/24/2022	643	771	1200.2	1,395	1,546	1108.1	1137.158	2/23/2022
2/24/2022	2/25/2022	595	714	1200.2	1,444	1,600	1108.1	1134.976	2/24/2022
2/25/2022	2/26/2022	508	610	1200.2	1,036	1,148	1108.1	1138.402	2/25/2022
2/26/2022	2/27/2022	378	454	1200.2	829	918	1108.1	1136.943	2/26/2022
2/27/2022	2/28/2022	289	347	1200.2	697	773	1108.1	1135.095	2/27/2022
2/28/2022	3/1/2022	250	301	1200.2	628	696	1108.1	1134.324	2/28/2022
		12,920	15,507	1200.2000	27,063	29,991	1108.1000	1137.6947	

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	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/1/2022	2/2/2022	1093	0.6445	-49.8	1361.471959	0.9954	2.201	82.9408	12.8482	0.8409	0.0173	0.0282	0	0	N/A	0	0.1056	0.0228	0.3659	0.0724	0.0342	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/2/2022	2/3/2022	1096	0.6461	-48.3	1363.517398	0.9859	2.2197	82.5821	13.1114	0.893	0.0182	0.0304	0.0002	0.0002	N/A	0	0.1364	0.0228	0.3499	0.0674	0.0313	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/3/2022	2/4/2022	1092	0.644	-49.2	1360.754267	0.9741	2.2393	82.9115	12.7495	0.8656	0.0192	0.0339	0.0012	0.0012	N/A	0.0003	0.1818	0.0225	0.3782	0.0732	0.0353	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/4/2022	2/5/2022	1091	0.6422	-51.4	1361.412108	0.96	2.1827	83.2852	12.6123	0.7786	0.0162	0.028	0.0003	0.0002	N/A	0	0.1139	0.0228	0.3951	0.0912	0.047	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/5/2022	2/6/2022	1095	0.646	-49.4	1362.278747	0.9612	2.2582	82.721	13.1802	0.7974	0.0164	0.0382	0.0005	0.0003	N/A	0	0.0127	0.0241	0.4135	0.1156	0.0622	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/6/2022	2/7/2022	1095	0.6458	-49.7	1362.589691	0.9835	2.2208	82.769	13.1747	0.7742	0.0156	0.0258	0.0002	0.0001	N/A	0	0.0126	0.0236	0.3993	0.1171	0.0647	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/7/2022	2/8/2022	1094	0.6454	-49.5	1361.767112	0.9805	2.2236	82.7417	13.0935	0.8071	0.0167	0.0278	0.0004	0.0001	N/A	0	0.0854	0.0233	0.414	0.1178	0.0614	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/8/2022	2/9/2022	1093	0.6448	-49	1361.155203	0.9675	2.268	82.9155	12.779	0.8868	0.0214	0.0334	0.0013	0.0008	N/A	0.0002	0.1026	0.0236	0.4294	0.1048	0.0513	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/9/2022	2/10/2022	1086	0.6408	-52.7	1356.652357	0.9572	2.3072	83.6481	12.1552	0.7916	0.0164	0.0274	0.0001	0	N/A	0	0.0727	0.0242	0.4481	0.098	0.0481	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/10/2022	2/11/2022	1085	0.6403	-53	1355.932241	0.9725	2.3296	83.7179	12.0246	0.791	0.0163	0.028	0.0003	0.0001	N/A	0	0.0957	0.0243	0.4414	0.1461	0.0465	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/11/2022	2/12/2022	1084	0.6395	-53.3	1355.529607	0.9607	2.3133	83.7743	11.9567	0.786	0.017	0.0283	0.0004	0.0003	N/A	0.0001	0.1395	0.0237	0.4024	0.0826	0.0362	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/12/2022	2/13/2022	1084	0.6391	-53.8	1355.95374	0.9522	2.3199	83.8314	11.9312	0.7632	0.0157	0.0264	0.0001	0	N/A	0	0.1362	0.0239	0.4154	0.0834	0.0376	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/13/2022	2/14/2022	1083	0.6389	-53.8	1354.914881	0.9502	2.329	83.8583	11.8628	0.7822	0.0159	0.027	0.0002	0	N/A	0	0.151	0.0236	0.4212	0.101	0.0488	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/14/2022	2/15/2022	1088	0.642	-51.8	1357.879968	0.9839	2.2714	83.2789	12.479	0.7811	0.0159	0.0266	0.0001	0.0001	N/A	0	0.1399	0.0232	0.3679	0.1088	0.0495	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/15/2022	2/16/2022	1090	0.6434	-51	1358.895216	0.9764	2.2982	82.9752	12.7718	0.77	0.0155	0.0262	0.0001	0	N/A	0	0.1434	0.0235	0.4075	0.1164	0.054	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/16/2022	2/17/2022	1090	0.6439	-50.7	1358.36751	0.9868	2.3136	82.9313	12.7556	0.7948	0.0166	0.0281	0.0001	0.0001	N/A	0	0.1395	0.0236	0.3824	0.0975	0.0441	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/17/2022	2/18/2022	1088	0.6421	-52.1	1357.774226	0.9971	2.2961	83.2337	12.5293	0.744	0.0153	0.0259	0	0	N/A	0	0.1355	0.0232	0.4055	0.0967	0.0437	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/18/2022	2/19/2022	1087	0.6425	-52.3	1356.103941	0.9947	2.374	83.1038	12.617	0.7124	0.0142	0.0241	0.0001	0	N/A	0	0.1357	0.024	0.371	0.0945	0.0434	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/19/2022	2/20/2022	1087	0.6423	-51.9	1356.310505	0.9841	2.3567	83.2248	12.4474	0.7851	0.0157	0.0263	0.0001	0	N/A	0	0.136	0.024	0.4085	0.1112	0.0548	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/20/2022	2/21/2022	1087	0.6414	-52.5	1357.266301	0.9883	2.3075	83.3819	12.3764	0.7427	0.015	0.0263	0.0004	0.0003	N/A	0	0.1378	0.0236	0.38	0.0912	0.0438	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/21/2022	2/22/2022	1085	0.6408	-53.2	1355.403138	0.9874	2.3199	83.521	12.2599	0.735	0.0137	0.0233	0	0	N/A	0	0.116	0.0238	0.3803	0.0881	0.0414	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/22/2022	2/23/2022	1082	0.6371	-55.5	1355.574711	0.98	2.1889	84.2336	11.7298	0.687	0.0133	0.0228	0.0001	0.0001	N/A	0	0.1215	0.023	0.3973	0.0976	0.0461	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/23/2022	2/24/2022	1083	0.6379	-54.8	1355.976477	0.9706	2.2061	84.0457	11.8976	0.691	0.0138	0.0247	0.0007	0.0006	N/A	0	0.1266	0.0228	0.3937	0.1041	0.0485	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/24/2022	2/25/2022	1083	0.638	-54.9	1355.870205	0.9727	2.2153	84.0076	11.9188	0.6932	0.013	0.0217	0	0	N/A	0	0.1344	0.0232	0.393	0.1043	0.0519	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/25/2022	2/26/2022	1082	0.637	-55.6	1355.68111	0.969	2.2174	84.1997	11.7502	0.6711	0.0137	0.0234	0.0001	0	N/A	0	0.1325	0.0231	0.4143	0.132	0.0644	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/26/2022	2/27/2022	1081	0.637	-56.1	1354.42817	0.9742	2.2153	84.2055	11.7435	0.6462	0.013	0.0219	0	0	N/A	0	0.1191	0.0236	0.4299	0.132	0.0657	0.0008
NBPL	1/31/2022 0:00	3/1/2022 0:00	GLNU11 - GLEN ULLIN	2/27/2022	2/28/2022	1082	0.6375	-55.5	1355.149366	0.9683	2.2705	84.1301	11.7918	0.6718	0.0136	0.0228	0	0	N/A	0	0.1078	0.0234	0.4389	0.1026	0.0586	0.0013
NBPL	1/31/2022 0:00	3/1/2022 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

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	MEASURING DEVICE	LOCATION
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	FEB22	JAN22	DEC21	NOV21	OCT21	SEP21	AUG21	JUL21	JUN 21	MAY 21	APR 21	MAR 21	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1199	1196	1171	1215	1208	1201	1213	1216	1210	1152	1204	1198	1208	211
ND	24	Williston Border - Charbonneau Station	1166	1180	1155	1152	1161	1159	1167	1173	1172	1164	1168	1167	1176	24
ND	25	Watford City West Border	1202	1200	1198	1202	1208	1206	1205	1211	1203	1199	1202	1199	1194	25
ND	28	Bismarck Station - Glen Ullin Station	1162	1131	1126	1142	1135	1185	1196	1202	1200	1202	1161	1117	1148	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1142	1132	1132	1143	1141	1141	1130	1191	1123	1129	1160	1154	1127	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1131	1122	1127	1131	1129	1132	1136	1162	1135	1127	1122	1124	1121	32
ND	33	Little Knife Plant	1177	1176	1173	1176	1182	1177	1179	1182	1184	1179	1175	1173	1172	33
ND	34	Badlands Plant/Bowman Border	1028	1087	1097	1093	981	1022	1059	1025	980	980	989	981	1040	34
ND	43	Watford City East Border	1091	1108	1094	1042	1047	1060	1062	1088	1109	1119	1123	1119	1126	43
ND/MT	241	Fairview Border	1193	1197	1200	1208	1197	1162	1193	1201	1213	1185	1173	1185	1198	241
ND	267	North Tioga Transfer - Nesson Plant	1147	1157	1122	1122	1137	1135	1145	1159	1167	1153	1159	1148	1160	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1182	1155	1175	1161	1176	1197	1192	1194	1196	1195	1193	1180	1173	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1197	1187	1180	1199	1198	1211	1203	1202	1200	1203	1195	1189	1191	262
ND	263	Lignite Plant	1137	1131	1131	1131	1131	1131	1134	1129	1143	1147	1137	1147	1148	263
ND	264	Epping Border	1161	1173	1145	1147	1152	1145	1164	1167	1172	1165	1163	1165	1168	264
ND	265	Tioga Comp Station - County Line Plant	1163	1150	1157	1152	1159	1166	1165	1163	1166	1165	1172	1170	1172	265
ND	266	County Line Plant	1174	1166	1175	1178	1183	1174	1185	1175	1174	1169	1171	1169	1174	266
ND	271	Bismarck Station - Cleveland Station	1192	1169	1162	1188	1198	1208	1197	1202	1200	1202	1196	1186	1191	271
ND	272	Cleveland Station - Mapleton	1191	1167	1161	1189	1198	1211	1196	1202	1199	1200	1196	1185	1190	272
ND	273	Cleveland Station - Grafton Border	1191	1166	1161	1188	1198	1210	1195	1202	1200	1200	1195	1184	1189	273
ND	550	Mandan Border / NBPL-St Anthony	1156	1119	1116	1136	1135	1173	1196	1196	1190	1182	1161	1120	1148	550
ND	610	MDU-Watford City BTU	1128	1138	1129	1095	1110	1130	1098	1106	1121	1132	1162	1158	1158	610
ND	802	NBPL - Linton	1091	1088	1091	1085	1086	1089	1094	1090	1089	1090	1094	1093	1099	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	1152	1149	1155	1158	1158	1158	1153	1156	1157	1158	1154	1150	600
ND	601	Alliance Pipeline - Milnor	1155	1152	1149	1154	1157	1158	1158	1153	1156	1157	1158	1154	1150	602

THERMAL ZONE VARIANCE DOCUMENTATION		
February 2022		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
211	25	Operational Blend
24	25	Operational Blend
264	28	Operational Blend